REGALA GYM CLERESTORY WINDOW REPLACEMENT 194 REGALA PARK ROAD, LAPLACE, LA 70084

PROJECT NO. 2025.18



ST. JOHN THE BAPTIST PARISH GOVERNMENT 1811 W. Airline Hwy. | LaPlace, Louisiana 70068



MEYER ENGINEERS, LTD. 4937 Hearst Street, Suite 1B | Metairie, Louisiana 70001

AUGUST 8, 2025

SECTION 00007: PROFESSIONAL SEALS

PROJECT NAME: REGALA GYM CLERESTORY WINDOW REPLACEMENT

DATE: AUGUST 8, 2025

ARCHITECTURE Kevin Kinchen

Meyer Engineers, Ltd.

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ST. JOHN THE BAPTIST PARISH PURCHASING & PROCUREMENT DEPARTMENT 1811 W. Airline Highway

LaPlace, LA 70068

REQUEST FOR QUOTES

Quotes will be received until 9:45 AM local time on September 5, 2025, at p.montz@stjohn-la.gov or at www.centralbidding.com for furnishing all supervision, labor, materials, equipment, etc., and performing all work necessary for:

REGALA GYM CLERESTORY WINDOW REPLACEMENT

To be a valid delivery, Electronic Quotes must be delivered via emailed to <u>p.montz@stjohn-la.gov</u> or at <u>www.centralbidding.com</u> before 9:45 AM local time on September 5, 2025.

Electronic Quotes submitted any other way to St. John the Baptist Parish will not be considered.

This project consists of furnishing all supervision, labor, equipment, materials, and other resources necessary to replace existing clerestory windows at Regala Park Gymnasium.

Contractors should hold a Louisiana Contractors License in **BUILDING CONSTRUCTION**.

Mandatory Pre-Quote Conference site visit will occur at Regala Park Gymnasium located at 200 Regala Park Road, Reserve, LA 70084 at 10:00 AM local time on August 28, 2025.

Equal Opportunity in Employment: All qualified applicants will receive consideration for employment without regard for race, color, religion, sex, or national origin. Quoters on this work will be required to comply with the President's Executive Order No. 11246, as amended. The requirements for quoters and contractors under this order are explained in the specifications.

Publish:

St. John the Baptist Parish Web Page Central Bidding:

Additional Contract Terms for FEMA Public Assistance Grant Funded or Assisted Projects for a Non-Federal Entity (State agency or Agency of a Political Subdivision of a State) (Updated 6/7/2022)

Termination for Cause

Should the Parish determine that the Contractor has failed to comply with the Agreement's terms, the Parish may terminate the Agreement for cause by giving the Contractor written notice specifying the Contractor's failure. If the Parish determines that the failure is not correctable, then the Agreement shall terminate on the date specified in such notice. If the Parish determines that the failure may be corrected, the Parish shall give a deadline for the Contractor to make the correction. If the Parish determines that the failure is not corrected by the deadline, then the Parish may give additional time for the Contractor to make the corrections or the Parish may notify the Contractor of the Agreement termination date.

Termination for Convenience

Either Party may terminate the Agreement at any time without penalty by giving thirty (30) days written notice to the other Party of such termination or negotiating with the Parties regarding a termination date. Contractor shall be entitled to payment for deliverables in progress, to the extent that the work is acceptable.

Contract Provisions Applicable to Projects Fully or Partially Funded by the FEMA Public Assistance Program (Note: All such terms are also applicable to all appropriate subcontractors):

a. Equal Employment Opportunity — Except as otherwise provided under 41 CFR Part 60, the Contractor and Subcontractors must comply with 41 CFR 60–1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 CFR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

- (3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- (4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

b. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708) Where applicable, all contracts and subcontracts in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 C.F.R. Part 5).

Compliance with the Contract Work Hours and Safety Standards Act:

- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$26 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. FEMA or the State shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.
- c. Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended

If the Contract and Subcontracts are in excess of \$150,000, the Contractor and Subcontractors shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42U.S.C. 7401-7671) and the Federal Water Pollution Control Act as amended (33U.S.C. 1251-1387). Violations shall be reported to Owner and the Federal awarding agency and the Regional Office of the Environmental Protection Agency ("EPA").

Clean Air Act

- 1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- 2. The contractor agrees to report each violation to the Parish and understands and agrees that the Parish will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- 3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

Federal Water Pollution Control Act

- 1. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- 2. The Contractor agrees to report each violation to the Parish and understands and agrees that the Parish will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- 3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

d. Debarment and Suspension (Executive Orders 12549 and 12689)

A contract award (see 2 C.F.R. § 180.220) shall not be made to parties listed on the government-wide exclusions in the System for Award Management ("SAM"), in accordance with the OMB guidelines at 2 C.F.R Part 180 that implement Executive Orders 12549 (3 C.F.R. part 1986 Comp., p. 189) and 12689 (3 C.F.R. part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

- (1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.935).
- (2) The Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower-tier transaction it enters into.
- (3) This certification is a material representation of fact relied upon by the Parish. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the Parish, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

e. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

Contractor must complete attached Certification.

f. Procurement of Recovered Materials

- i. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired
 - a) Competitively within a timeframe providing for compliance with the contract performance schedule;
 - b) Meeting contract performance requirements; or
 - c) At a reasonable price.
- ii. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.
- iii. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act."

g. Access to Records

The following access to records requirements apply to this contract:

- (1) The Contractor agrees to provide the State, Parish, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.
- (2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- (3) The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

(4) In compliance with the Disaster Recovery Act of 2018, the Parish and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

h. DHS Seal, Logo, and Flags

The contractor or its subcontractors shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

i. Compliance with Federal Law, Regulations, and Executive Orders

This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

j. No Obligation by Federal Government

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

k. Program Fraud and False or Fraudulent Statements or Related Acts

The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.

l. §200.322 Domestic preferences for procurements.

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

- (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
- (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

m. Affirmative Socioeconomic Steps.

If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

n. License and Delivery of Works Subject to Copyright and Data Rights.

The Contractor grants to the Parish, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify 75 See 17 U.S.C. § 102. Contract Provisions Guide 35 such data and grant to the Parish or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the Parish data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the Parish.

o. 200.216 Prohibition on certain telecommunications and video surveillance services or equipment.

- (a) Recipients and sub recipients are prohibited from obligating or expending loan or grant funds to:
 - 1) Procure or obtain;
 - 2) Extend or renew a contract to procure or obtain; or
 - 3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - i. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - ii. Telecommunications or video surveillance services provided by such entities or using such equipment.
 - iii. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- (b) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
- (c) See Public Law 115-232, section 889 for additional information.
- (d) See also § 200.471.

p. Copyright and Data Rights

The Contractor grants to the Parish, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify such data and grant to the Parish or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the Parish data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the Parish.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- 1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor,	, certifies or affirms the truthfulness and
accuracy of each statement of its certification and disclosur	are, if any. In addition, the Contractor understands
and agrees that the provisions of 31 U.S.C. Chap. 38, Adr.	ninistrative Remedies for False Claims and
Statements, apply to this certification and disclosure, if an	y.
• • •	•
Signature of Contractor's Authorized Official	
1771 00 11 1000 11	
Name and Title of Contractor's Authorized Official	
D-4-	
Date	



INFORMATION FOR QUOTERS

- 1. Receipt and Opening of Quotes: The Parish of St. John the Baptist (herein called the "Owner"), invites quotes on the form attached hereto. All blanks must be appropriately filled in. Electronic Quotes will be received until 9:45AM local time on September 5, 2025, at p.montz@stjohn-la.gov or at www.centralbidding.com and clearly marked "REGALA GYM CLERESTORY WINDOW REPLACEMENT"
- 2. <u>Preparation of Quotes</u>: Each quote must be submitted on the prescribed form. All blank spaces for prices must be filled in, in ink or typewritten, in both words and figures.
- 3. <u>Subcontractors</u>: The quoter is specifically advised that any person for or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.
- 4. <u>Prices</u>: In the event of a discrepancy between the prices quoted in words and those quoted in figures in the quote, the words shall control. The prices are to include the furnishing of all materials, plant, equipment, tools, and all other facilities, and the performance of all labor and services necessary for proper completion of the work except as may be otherwise expressly provided in the contract documents.
- 5. <u>Time of Completion and Liquidated Damages</u>: Quoter must agree to provide the specified services for the project within <u>90</u> consecutive calendar days after receipt of the Notice to Proceed. Thereafter Quoter must agree to pay as liquidated damages the sum of \$250 for each consecutive calendar day thereafter until acceptance is hereinafter provided.
- 6. <u>Conditions of Work</u>: Each quoter must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful quoter of his obligation to carry out the provisions of his contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.
- 7. <u>Laws and Regulations</u>: The quoter's attention is directed to the fact that all applicable State laws, municipal ordinances and rules and regulations of authorities having jurisdiction over construction of the project shall apply to the contract throughout and will be deemed to be included in the contract the same as written herein in full.
- 8. Method of Award: The contract, if awarded, will be awarded to the lowest responsible quoter.
- 9. Obligation of Quoter: With the submitting of quotes, each quoter will be presumed is attesting to that they have inspected the site and have read and to be thoroughly familiar with the contract documents (including all addenda). The failure or omission of any quoter to examine any form, instrument or document shall in no way relieve any quoter from any obligation with respect to his quote.
- 10. Purchase Order: A Purchase Order will not be issued.
- 11. <u>Agreement</u>: Upon identification of the lowest responsible quoter an Agreement will be executed by all parties.

- 12. <u>Notice to Proceed</u>: A written notice to proceed will be issued by the Owner to the Contractor with the Contractor's obligation under the Contract Documents. Once mobilized, work shall continue until complete without interruption. Coordination with the Parish is required before beginning work. (Note: The Contractor shall be prepared and have the resources and capability to be able to start the project upon issuance of NTP which is anticipated to promptly follow the award of the project.)
- 13. <u>Corporate Resolution</u>: All quotes received shall be accompanied by a corporate resolution identifying the signatory as an authorized signatory agent. An example corporate resolution follows the Instructions to Quoter.

14. Insurance

Quoter shall obtain, pay for and keep in force, at its own expense, minimum insurance effective in all localities where Consultant/Company may perform the work hereunder, with such carriers as shall be acceptable to Council:

A. <u>Commercial General Liability</u>, including:

- 1. Contractual liability assumed by this agreement
- 2. Owner's and Contractor's Protective Liability (if Contractor is a General Contractor) may be required.
- 3. Personal and advertising liability
- 4. Completed operations
- 5. Medical payments

The limits for "A" above shall not be less than:

- 1. \$2,000,000 each occurrence limit
- 2. \$2,000,000 products/completed operations limit
- 3. \$4,000,000 general aggregate limit
- 4. \$1,000,000 personal and advertising injury limit
- 5. \$50,000 fire damage limit
- 6. \$5,000 medical expense limit (desirable but not mandatory)

St. John the Baptist Parish Council will be NAMED as additional insured and WAIVER OF SUBROGATION in favor of St. John the Baptist Parish Council should be indicated on certificate.

Some contracts may require Protection and Indemnity coverage. This should be verified with Insurance Department/Legal Dept.

15. Security for Faithful Performance: Simultaneously with his delivery of the executed contract, the successful quoter shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner. Only those surety companies currently on the U. S. Department of Treasury Financial Management Services list (Circular 570) of approved bonding companies will be accepted.

The agent selling the bond must be currently licensed to do business in Louisiana. This will be verified by the Owner.

The successful quoter will be required to file a performance bond in the full amount (100-percent) of the contract price for the full period of the contract and a payment bond in the full amount (100-percent) of the contract price for the full period of the contract.

- 16. Obligation of Quoter: At the time of the opening of quotes, each quoter will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any quoter to examine any form, instrument or document shall in no way relieve any quoter from any obligation with respect to his quote.
- 17. <u>Hold Harmless</u>: To the fullest extent permitted by law, Company/Consultant shall indemnify, hold harmless, and defend the Parish Council and all of its Agents and Employees, from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property(other than the work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of Company.
- 18. <u>Non-assignability</u>: No Company/Consultant shall assign any interest in this contract by assignment, transfer, or novation, without prior written consent of the Owner. This provision shall not be construed to prohibit the contractor from assigning his bank, trust company, or other financial institution any money due or to become due from approved contracts without such prior written consent. Notice of any such assignment or transfer shall be furnished promptly to the Parish.
- 19. <u>Exclusions</u>: Pursuant to Louisiana Revised Statute 38:2227, Company must certify that he has not been convicted of or has not entered into a plea of guilty or nolo contendere to public bribery, corrupt influencing, extortion, money laundering or their equivalent Federal crimes. Consultant must further certify that he has not been convicted of or has not entered into a plea of guilty or nolo contendere to theft, identify theft, theft of a business record, false accounting, issuing worthless checks, bank fraud, forgery, contractors' misapplication of payments, malfeasance in office, or their equivalent Federal crimes within the five (5) years prior to submitting the proposal.
- 20. <u>Disclosure</u>: Company/Consultant must disclose whether it provides services or pays commissions to any employee or elected official of St. John the Baptist Parish. If so, company must disclose to whom services are provided and/or commissions are paid. Both positive and negative responses must be submitted.
- 21. E-Verify Program: NOT APPLICABLE
- 22. Invoices / Applications for Payments:

Applications for Payment will be processed by St. John the Baptist Parish.

Itemized invoices for payment of these services shall be submitted to the Purchasing and Procurement Director for approval prior to routing to Accounts Payable. Construction invoices shall be submitted using the AIA Application and Certification for Payment AIA G702 and G703 forms unless otherwise determined.

St. John the Baptist Parish shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, as provided below. All such payments will be measured by the schedule of values established.

St. John the Baptist Parish shall retain the following percentages of each progress payment until payment is due under the terms and conditions governing retainage payment:

CONTRACT AMOUNT \$0 - \$499,999.99 \$500,000.00 – Over RETAINAGE 10% 5% 23. <u>Substantial Completion:</u> Substantial Completion shall be granted once the Parish, or its designated design consultant, identifies the project to be at the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. It is the responsibility of the Contractor to notify the Parish, and its designated design consultant, when the Contractor is of the opinion the project is substantially complete. Once determined the Work is identified as substantially complete a Certificate of Substantial Completion AIA G704 will be issued.

24. Changes:

No additional changes, enhancements, or modifications to any contract resulting from this BID shall be made without the prior approval of PARISH. Any modifications to the provisions of this contract shall be in writing, signed by all parties and approved the required authorities.

Changes to the contract include any change in compensation; beginning/ ending date of the contract; scope of work; and/or Contractor change through the Assignment of Contract process. Any such changes, once approved, will result in the issuance of an amendment to the contract.

Change Orders shall be submitted using the Change Order AIA G701 form unless otherwise determined.

25. <u>Site Visit</u>: Will occur at the Mandatory Pre-Quote Conference at Regala Park Gymnasium located at 200 Regala Park Road, Reserve, LA 70084 at 10:00 AM local time on August 28, 2025.

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
, INCORPORATED.
AT THE MEETING OF DIRECTORS OF, INCORPORATED, DULY NOTICED AND HELD ON, 20, A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT WAS:
RESOLVED. THAT
I HEREBY CERTIFY THE FOREGOING TO BE A TRUE AND CORRECT COPY OF AN EXCERPT OF THE MINUTES OF THE ABOVE DATES MEETING OF THE BOARD OF DIRECTORS OF SAID CORPORATION, AND THE SAME HAS NOT BE REVOKED OR RESCINDED.
SECRETARY- TREASURER
DATE

AGREEMENT

THIS AGREEMENT, made thisday of 2025, by and between St. John the Baptist Parish, LA herein called "Owner," acting herein through its Parish President, Jaclyn Hotard, and Parish of, and State of, herein after called "Contractor."
WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction described as follows:
REGALA GYM CLERESTORY WINDOW REPLACEMENT
Hereinafter called the project, for the sum of Dollars (\$) and all extra work in connection therewith, under the terms as stated in the specifications and at his/her (its/their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the specifications and contract documents.
Contractor hereby agrees to commence work under this contract on the date on the Purchase Order and to fully complete the project within NINETY (90) consecutive calendar days thereafter. The Contractor further agrees to pay, as Liquidated Damages, the sum of TWO HUNDRED FIFTY dollars (\$250.00) for each consecutive calendar day thereafter as hereinafter provided for herein.
The Contractor hereby agrees to perform work under this contract in accordance with the contract terms for FEMA Public Assistance Grant Funded or Assisted Projects for a non-federal entity (State agency or agency of a political subdivision of the State), which is attached as part of this agreement.
The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions.
St. John the Baptist Parish shall retain the following percentages of each progress payment until payment is due under the terms and conditions governing retainage payment:
<u>CONTRACT AMOUNT</u> <u>RETAINAGE</u> \$0 - \$499,999.99 10% \$500,000.00 - Over 5%

Contractor's performance of its obligations hereunder shall be excused in the event and during the period that such performance is prevented or rendered unsafe by the following: acts of God; acts of war, riot, accident, flood or sabotage; pandemic, unavailability of fuel or power or materials; judicial or governmental laws, regulations, requirements, orders or actions; injunctions or restraining orders which are ultimately determined to have been wrongfully granted; the failure of any governmental body to issue or grant, or the suspension or revocation of, licenses, permits or other approvals or authorizations necessary for the performance of the services contemplated by this agreement; or national defense requirements.

IN WITNESS WHEREOF, the parties to these presents have executed this contract in two (2)
counterparts, each of which shall be deemed an original, in the year and day first above mentioned

7	
	(Owner)
Ву	
(2)	
	(Title)
By	(Contractor)
	•
10	(Title)
	(Address and Zip Code)

NOTE: Secretary of the Owner should attest. If Contractor is a corporation, Secretary should attest.

QUOTE SHEET

REGALA GYM CLERESTORY WINDOW REPLACEMENT

FOR: St. John the Baptist Parish 1811 W. Airline Highway LaPlace, LA 70068

We (I) certify that we (I) understand and agree to provide all labor, materials, tools, appliances, and facilities as required to perform all work and services for the execution and completion of the referenced project, all in strict accordance with the quote documents with the submittal of this QUOTE.

Quoters must acknowledge all addenda. The Quoter acknowledges receipt of the following number of **ADDENDA** #_____.

Item No.	Description	Unit of Measure Quantity		Unit Price	Extension		
1	Clerestory Window Replacement	LS	1	\$	\$		
TOTA	TOTAL QUOTE						

NAME OF QUOTER:
CONTRACTOR LICENSE NUMBER (IF REQUIRED):
FEDERAL TAX IDENTIFICATION NUMBER:
ADDRESS OF QUOTER:
PHONE NO.: E-MAIL:
NAME OF AUTHORIZED SIGNATORY OF QUOTER:
TITLE OF AUTHORIZED SIGNATORY OF QUOTER:
SIGNATURE OF AUTHORIZED SIGNATORY OF QUOTER**

SECTION 01011: INSURANCE

- 1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract, (General, Special and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.
- 1.2 Provisions: A/E shall be named as an additional insured on all policies except as applied to Worker's Compensation Coverage. Contractor shall provide A/E with a Certificate of Insurance. A/E shall be listed as Certificate Holder.
- 1.3 Submittals: A sample Certificate of Insurance is attached.

4	CERTIFIC	CATE OF INS	URANCE	an a c	K6 1	DATE (MM/DD/YY)			
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SECTION 01100: SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

- A. Section includes:
 - 1. Project information.
 - Work covered by Contract Documents.
 - 3. Access to site.
 - 4. Coordination with occupants.
 - 5. Work restrictions.
 - 6. Specification and drawing conventions.

1.3 PROJECT INFORMATION:

- A. Project Identification: Regala Gym Clerestory Window Replacement.
 - Project Location: 194 Regala Park Rd., Reserve, LA 70084.
- B. Owner: St. John the Baptist Parish, 1811 W. Airline Hwy., LaPlace, LA 70068.
 - 1. Owner's Representative: Peter Montz, Purchasing Director
 - a. Email: p.montz@stjohn-la-gov
- C. A/E: Meyer Engineers, Ltd., 4937 Hearst St, Suite 1B, Metairie, LA 70001.
 - 1. A/E's Representative: Kevin J. Kinchen, RA.
 - a. Email: kkinchen@meyer-e-l.com

1.4 WORK COVERED BY CONTRACT DOCUMENTS:

- A. The Work of the Project is defined by the Contract Documents and consists of the following:
 - 1. Remove and replace existing clerestory windows in gymnasium with new aluminum framed windows.
- B. Type of Contract
 - 1. Project will be constructed under a single prime contract.

1.5 ACCESS TO SITE:

- A. Use of Site: Limit use of Project site to areas within the Contract limits as required to complete the scope of the work. Do not disturb portions of the Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to the areas of the gymnasium perimeter as required to perform the work.
 - Driveways, Walkways and Entrances: Keep driveways parking lots and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

- a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
- b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment onsite.
- B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations as stated in the General and Supplementary Conditions of this Contract.

1.6 COORDINATION WITH OCCUPANTS:

- A. Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 - 2. Notify the Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS:

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 8 a.m. to 5 p.m., Monday through Friday, except as otherwise indicated.
 - Weekend Hours: No weekend hours without prior approval of the owner
 - 2. Early Morning Hours: Coordinate with the owner for early morning work.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify A/E not less than two (2) days in advance of proposed disruptive operations.
 - 2. Obtain A/E's written permission before proceeding with disruptive operations.
- D. Nonsmoking Building: Smoking and vaping is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor air intakes.
- E. Controlled Substances: Use of tobacco products and other controlled substances within the existing building is not permitted.
- F. Employee Identification: Provide identification tags for Contractor personnel working on the Project site. Require personnel to utilize identification tags at all times.

1.8 SPECIFICATION AND DRAWING CONVENTIONS:

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by the Contractor unless specifically stated otherwise.
- B. Division 1 General Requirements: Requirements of Sections in Division 1 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on the Drawings are described in detail in the Specifications. One or more of the following are used on the Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes.

1.9 MISCELLANEOUS PROVISIONS:

- A. Onsite parking for Contractor's personnel shall not be limited to the construction site. Parking on any other of parts of the project site will not be permitted.
- B. Confine work to the area of the project site. Other portions of the building and project site beyond areas in which the Contractor's operations are indicated are not to be used or disturbed.
- C. Waste Material: Dispose of regulated waste materials in accordance with Federal and State regulations. All other waste materials shall be disposed of in a trash dumpster that is provided by and paid for by the General Contractor. Locate trash dumpster as directed by Owner.
- D. Use of the toilet rooms in the building is strictly prohibited. Contractor shall provide self-contained portable toilet units for use by the work force.
- E. Permits: The A/E shall apply for the building permit and shall apply to the State Fire Marshal. The Contractor shall pick up and pay for the building permit and any other required permits.
- F. Prior Approvals: Bidders wishing to have their product approved as a substitute shall submit their product to the A/E not less than fourteen (14) working days prior to the bid opening. Any proposed substitutes received within fourteen (14) working days of the bid opening shall not be considered for approval and shall be returned to the bidder without action. The burden of proof is upon the bidder to show that the product he is proposing as a substitute is equal to the product specified. Bidder shall use the form attached at the end of this section when submitting his request for prior approval of his product.
- G. CAD Drawings: All bidders are advised that the A/E's CAD drawings will not be available for use during construction. The A/E's insurance carrier

does not allow his office to share electronic media. This includes all drawings and any variation thereof for piling and foundation location, sprinkler heads, etc. In his bid the cost of drafting from scratch of any drawing shall be included in the cost of his bid.

H. Schedule

- 1. Contractor shall submit a detailed construction schedule to the A/E ten (10) days after receipt of Notice of Award.
- 2. Contractor shall submit a revised construction schedule at the preconstruction conference.
- 3. Contractor shall submit revised construction schedules to the A/E monthly thereafter.
- 4. All construction schedules shall be prepared using the latest version of Oracle Primavera Project Management Software or Microsoft Project. Schedules shall clearly show the critical path of the construction project. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules.
- I. Successful contractor is advised that the A/E will not make any color selections until samples of all items requiring color selection are submitted. Contractors are encouraged to submit all colors samples as early as possible after contract award so as not to cause a delay in the color selection process and ultimately a delay in the overall project. It is the contractor's responsibility to submit all colors samples in a timely manner. A/E shall consult with the owner regarding color selection to make a final decision. After a final decision has been made the A/E shall notify the contractor of color selections. A/E shall not take more than thirty consecutive calendar days after receipt of last color sample to submit final color selections to contractor.
- J. The contractor is required to clean up the project site on a daily basis.
- K. The contractor shall develop and maintain an accident prevention program and log.
- L. Contractor's personnel are required to wear appropriate clothing at all times. Workers are required to wear shirts and closed toe shoes at all times. Tank tops and sandals are not permitted.
- M. Contractor shall conduct a toolbox meeting weekly. Contractor shall record minutes of the toolbox meeting and distribute to the School Board Project Manager.
- N. Use of radios and headphones on the project site is prohibited.

END OF SECTION 01100

SECTION 01200: MOBILIZATION

PART 1: GENERAL

1.1 Description:

A. Description of Work: The work to be performed in accordance with this section includes the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of offices, buildings and other facilities necessary for work on the project; for premiums on bonds and insurance for the project and for all other work and operations which must be performed or costs incurred before beginning work on the various contract items.

PART 2: MATERIALS

2.1 General: Materials shall consist of equipment, buildings, and tools necessary to move to the project site to perform work. Material for bid items shall not be included in mobilization.

2.2 Mobilization must be listed as a line item in the schedule of values which must be approved by A/E and cannot exceed the percentage based on the following table.

Construction	Mobilization
0 - 250,000	10%
250,000 - 500,000	8%
500,000 - 1,000,000	5%
1,000,000 - 2,000,000	3%
Over 2,000,000	2%

PART 3: EXECUTION

3.1 General:

A. Setting up offices and the use of private property for storage or work area shall be executed in a legal manner in accordance with local and state codes and ordinances.

Use of private property will require a signed agreement with the property owner and shall be submitted to A/E for approval prior to use. Sign off from property owner regarding restored property conditions will be required prior to closeout.

PART 4: MEASUREMENT AND PAYMENT

4.1 Measurement: No measurement will be made.

4.2 Payment:

Payment for mobilization will made as follows:

- A. When 5 % of the total original contract amount is earned from other Bid Items, 50% of the amount bid for Mobilization, will be paid.
- B. When 10% of the total original contract amount is earned from other Bid Items, 100% of the amount bid for Mobilization, will be paid.

Refer to Section 00310 Bid Schedule for Bid Items.

* * *

SECTION 01252: WEATHER DELAYS

PART 1: GENERAL

1.1 Related Documents: The general conditions of the Contract, including (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the work specified in this Section.

1.2 Extensions of Contract Time:

A. If the basis exists for an extension of time in accordance with the General Conditions, an extension of time on the basis of weather may be granted only for the number of weather delay days in excess of the number of days listed as the standard baseline for that month.

1.3 Standard Baseline for Average Climatic Range:

- A. The Louisiana Department of Transportation Department has reviewed weather data available from the U.S. National Weather Service (NWS) and defined a Standard Baseline average climatic range for the State of Louisiana.
- B. The standard baseline is defined as the normal number of anticipated calendar days for each month during which construction activity exposed to weather conditions is expected to be prevented and suspended by cause of adverse weather. Suspension of construction activity for the number days each month as listed in the standard baseline is included in the contract time allotted and is not eligible for extension of Contract Time.
- C. Standard baseline is as follows:

Ī	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
ı	11	10	8	7	5	6	6	5	4	3	5	8

D. The contractor's request shall be considered only for days over the allowable number of days stated above.

1.4 Adverse Weather and Weather Delays Days:

- A. Adverse weather is defined as the occurrence of one or more of the following conditions within a twenty-four (24) hour day that prevents construction activity exposed to weather conditions or access to the site:
 - 1. Precipitation (rain, snow, or ice) in excess of 1/2 inch (0.5") liquid measure.
 - Sustained wind in excess of thirty-five (35) m.p.h.
- B. Adverse weather may include, if appropriate, "dry-out" or "mud" days:
 - Resulting from precipitation days that occur beyond the standard baseline:
 - Only if there is a hindrance to site access or sitework and Contractor has taken all reasonable accommodations to avoid such hindrance; and.
 - 3. At a rate no greater than 1 make-up day for each day or consecutive days of precipitation beyond the standard baseline that total 1/2

inch or more, liquid measure, unless specifically recommended otherwise by the Designer.

- C. A weather delay day may be counted if adverse weather prevents work on the project for fifty percent (50%) or more of the contractor's scheduled work day and critical path construction activities were included in the day's schedule.
- D. Contractor shall take into account that certain construction activities are more affected by adverse weather and seasonal conditions than other activities, and that "dry-out" or "mud" days are not eligible to be counted as a weather delay day until the standard baseline is exceeded. Hence, Contractor should allow for an appropriate number of additional days associated with the standard baseline days in which such applicable construction activities are expected to be prevented and suspended.
- E. If adverse weather conditions are the basis for a claim for additional time, the Contractor shall document that weather conditions had an adverse effect on the scheduled construction. An increase in the contract time due to weather shall not be cause for an increase in the contract sum. At the end of each month, the Contractor shall make one Claim for any adverse weather days occurring within the month. The Claim must be accompanied by sufficient documentation evidencing the adverse days and the impact on construction. Failure to make such Claim within twenty-one (21) days from the last day of the month shall prohibit any future claims for adverse days for that month. No additional adverse weather days shall be granted after the original or extended contract completion date, except those adverse weather days associated with a NWS named storm or federally declared weather related disaster directly affecting the project site.

1.5 Documentation and Submittals:

- A. Submit daily jobsite work logs showing which and to what extent critical path construction activities have been affected by weather on a monthly basis.
- B. Submit actual weather data to support claim for time extension obtained from nearest NWS station.
- C. Use standard baseline data provided in this section when documenting actual delays due to weather in excess of the average climatic range.
- D. Organize claim and documentation to facilitate evaluation on a basis of calendar month periods and submit to the A/E.
- E. If an extension of the Contract Time is appropriate, such extension shall be made by Change Order.

* * :

SECTION 01260: CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 MINOR CHANGES IN THE WORK:

A. A/E will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, in writing (i.e. formal letter, email).

1.4 PROPOSAL REQUESTS:

- A. Owner-Initiated Proposal Requests: A/E will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by A/E are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 10 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 applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use forms acceptable to A/E.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to A/E.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

- 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
- 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
- 4. Include costs of labor and supervision directly attributable to the change.
- Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- 6. Comply with requirements in Division 01 Section "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
- 7. Proposal Request Form: Use form acceptable to A/E.

1.5 CHANGE ORDER PROCEDURES:

- A. On Owner's approval of a Proposal Request, A/E will issue a Change Order for signatures of Owner and Contractor on form included in Project Manual.
 - 1. Contractor shall be cognizant of all the project funding sources and procedures associated with such funding sources.
- B. Reasonable negotiation of Change Proposal Requests shall be expected by all parties prior to agreement to proceed.
- C. Claims of delay of non-critical path items outlined in proposals and Change Orders due to the funding review process shall not be considered valid.
- D. The A/E reserves the right to accumulate several Change Proposals Requests before the preparation and issuance of a Change Order.
 - If A/E recommended Change Proposal Requests are outstanding for one hundred twenty (120) days or a prorated portion of the contract time, the contractor shall notify the A/E in writing immediately.
 - 2. Claims for delay of non-critical path items outlined in Change Proposal Request shall not be considered valid without proper documentation approved by A/E for such claims of delay.

1.6 CONSTRUCTION CHANGE DIRECTIVE:

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

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01260

SECTION 01290: PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 DEFINITIONS:

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

1.4 SCHEDULE OF VALUES:

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
 - 1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to A/E at earliest possible date but no later than 10 days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of A/E.
 - c. A/E's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - Arrange schedule of values consistent with format of AIA Document G703.
 - 3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.

- 4. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
- 5. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
- 6. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT:

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by A/E 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. All Applications for Payment shall include a current and updated project construction schedule. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules. All construction schedules shall be prepared by the contractor using the latest version of Oracle Primavera Project Management Software, or appropriate software that the schedules shall clearly show the critical path of the construction project and shall indicate original task duration, revised task duration and final task duration.
- B. 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.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. A/E will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

- 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
 - 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 - Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - 3. Provide summary documentation for stored materials indicating the following:
 - a. Materials previously stored and included in previous Applications for Payment.
 - b. Work completed for this Application utilizing previously stored materials.
 - c. Additional materials stored with this Application.
 - d. Total materials remaining stored, including materials with this Application.
- F. Transmittal: Submit electronic signed and notarized copies of each Application for Payment to A/E by a method ensuring receipt. One copy shall include waivers of lien and similar attachments if required.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
 - 1. List of subcontractors.
 - Schedule of values.
 - Contractor's construction schedule (preliminary if not final).
 - 4. Products list (preliminary if not final).
 - 5. Submittal schedule (preliminary if not final).
 - 6. List of Contractor's staff assignments.
 - 7. List of Contractor's principal consultants.
 - 8. Copies of building permits.
 - 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 10. Initial progress report.
 - 11. Report of preconstruction conference.
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
 - 1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

- Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 - 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 - 6. AIA Document G707, "Consent of Surety to Final Payment."
 - 7. Evidence that claims have been settled.
 - 8. 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.
 - 9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

FND OF SECTION 01290

SECTION 01310: PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 DEFINITIONS:

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

1.4 COORDINATION:

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
 - Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.

- 4. Delivery and processing of submittals.
- 5. Progress meetings.
- 6. Preinstallation conferences.
- 7. Project closeout activities.
- 8. Startup and adjustment of systems.
- 9. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 KEY PERSONNEL:

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

1.6 REQUESTS FOR INFORMATION (RFIs):

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. A/E will return RFIs submitted to A/E by other entities controlled by Contractor with no response.
 - 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 - 1. Project name.
 - 2. Project number.
 - 3. Date.
 - 4. Name of Contractor.
 - Name of A/E.
 - 6. RFI number, numbered sequentially.
 - RFI subject.
 - 8. Specification Section number and title and related paragraphs, as appropriate.
 - 9. Drawing number and detail references, as appropriate.
 - 10. Field dimensions and conditions, as appropriate.

- 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
- 12. Contractor's signature.
- 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Form bound in the Project Manual.
- D. A/E's Action: A/E will review each RFI, determine action required, and respond. Allow seven (7) working days for A/E's response for each RFI. RFIs received by A/E after 1:00 p.m. will be considered as received the following working day.
 - 1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of A/E's actions on submittals.
 - Incomplete RFIs or inaccurately prepared RFIs.
 - A/E's action may include a request for additional information, in which case A/E's time for response will date from time of receipt of additional information.
 - A/E's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify A/E in writing within ten (10) days of receipt of the RFI response.
- E. On receipt of A/E's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify A/E within seven (7) days if Contractor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log bi-weekly. Use CSI Log Form 13.2B.
 - 1. Project name.
 - Name and address of Contractor.
 - Name and address of A/E.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - Date the RFI was submitted.
 - 7. Date A/E's response was received.

1.7 PROJECT MEETINGS:

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and A/E of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, and A/E, within three (3) days of the meeting.
- B. Preconstruction Conference: Construction Manager will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and A/E, but no later than seven (7) days after execution of the Agreement.
 - 1. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
 - 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 A/E of scheduled meeting dates.
 - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Submittals.
 - f. Review of mockups.
 - g. Possible conflicts.
 - h. Compatibility problems.
 - i. Time schedules.
 - j. Weather limitations.
 - k. Manufacturer's written recommendations.
 - I. Warranty requirements.
 - m. Compatibility of materials.
 - n. Acceptability of substrates.
 - o. Space and access limitations.
 - p. Regulations of authorities having jurisdiction.
 - q. Testing and inspecting requirements.
 - r. Installation procedures.
 - s. Coordination with other work.
 - t. Required performance results.
 - u. Protection of adjacent work.

- v. Protection of construction and personnel.
- 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
- 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
- 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Project Closeout Conference: Schedule and conduct a Project closeout conference, at a time convenient to Owner and A/E, but no later than fifteen (15) days prior to the scheduled date of Substantial Completion.
 - Conduct the conference to review requirements and responsibilities related to Project closeout.
 - 2. Attendees: Authorized representatives of Owner, A/E, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work
 - 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for preparing operations and maintenance data.
 - e. Requirements for demonstration and training.
 - f. Preparation of Contractor's punch list.
 - g. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - h. Submittal procedures.
 - i. Owner's partial occupancy requirements.
 - j. Installation of Owner's furniture, fixtures, and equipment.
 - k. Responsibility for removing temporary facilities and controls.
 - 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at biweekly intervals.
 - 1. Coordinate dates of meetings with preparation of payment requests.
 - 2. Attendees: In addition to representatives of Owner and A/E, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

- 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Progress cleaning.
 - 10) Quality and work standards.
 - 11) Status of correction of deficient items.
 - 12) Field observations.
 - 13) Status of RFIs.
 - 14) Status of proposal requests.
 - 15) Pending changes.
 - 16) Status of Change Orders.
 - 17) Pending claims and disputes.
 - 18) Documentation of information for payment requests.
- 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01310



REQUEST FOR INFORMATION

Project:				:		
т						
То:				ımber:		
Re:						
Specification Section:	Paragrap	oh:	Drawing Refer	rence:	Detail:	
Request:						
Signed by:					Date:	
Response:						
Attachments						
Response From:	То:		Date Rec'd:		Date Ret'd:	
Signed by:					Date:	
Copies: Owner	☐ Consultants			_ П	. D	. ☐ File

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SECTION 01320 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

1.2 SUMMARY:

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Start-up construction schedule.
 - 2. Contractor's construction schedule.
 - 3. Daily construction reports.
 - 4. Material location reports.
 - 5. Field condition reports.
 - 6. Special reports.
- B. Related Sections:
 - Division 01 Section "Multiple Contract Summary" for preparing a combined Contractor's Construction Schedule.
 - 2. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
 - 3. Division 01 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS:

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by A/E.
- C. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of the Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.

- 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
- 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
- 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS:

- A. Format for Submittals: Submit required submittals in the following format:1. PDF electronic file.
- B. Start-up construction schedule.
 - 1. Approval of cost-loaded start-up construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Start-up Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- E. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
 - 1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
 - 2. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by activity number and then early start date, or actual start date if known.
 - 3. Total Float Report: List of all activities sorted in ascending order of total float.
- F. Daily Construction Reports: Submit at monthly intervals.
- G. Material Location Reports: Submit at monthly intervals.
- H. Field Condition Reports: Submit at time of discovery of differing conditions.
- I. Special Reports: Submit at time of unusual event.
- J. Qualification Data: For scheduling consultant.

1.5 QUALITY ASSURANCE:

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of A/E's request.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to the preliminary

construction schedule and Contractor's construction schedule, including, but not limited to, the following:

- 1. Review software limitations and content and format for reports.
- 2. Verify availability of qualified personnel needed to develop and update schedule.
- 3. Discuss constraints, including interim milestones.
- 4. Review delivery dates for Owner-furnished products.
- 5. Review schedule for work of Owner's separate contracts.
- 6. Review time required for review of submittals and resubmittals.
- 7. Review requirements for tests and inspections by independent testing and inspecting agencies.
- 8. Review time required for completion and startup procedures.
- 9. Review and finalize list of construction activities to be included in schedule.
- 10. Review submittal requirements and procedures.
- 11. Review procedures for updating schedule.

1.6 COORDINATION:

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

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL:

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion and final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by A/E.
 - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - a. Major items or pieces of equipment.
 - b. Building structure and metal siding.
 - c. Flooring

- 3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
- 4. Startup and Testing Time: Include not less than fifteen (15) days for startup and testing.
- 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for A/E's administrative procedures necessary for certification of Substantial Completion.
- 6. Punch List and Final Completion: Include not more than thirty (30) days for punch list and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
 - 1. Phasing: Arrange list of activities on schedule by phase.
 - 2. Work under More Than One Contract: Include a separate activity for each contract.
 - 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 - 4. Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 6. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Partial occupancy before Substantial Completion.
 - e. Use of premises restrictions.
 - f. Provisions for future construction.
 - g. Seasonal variations.
 - h. Environmental control.
 - 7. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Mockups.
 - e. Fabrication.
 - f. Sample testing.
 - g. Deliveries.
 - h. Installation.
 - i. Tests and inspections.
 - j. Adjusting.
 - k. Curing.

- Startup and placement into final use and operation.
- Other Constraints: As Needed.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.
 - 1. Refer to Division 01 Section "Payment Procedures" for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
 - 1. Unresolved issues.
 - 2. Unanswered RFIs.
 - Rejected or unreturned submittals.
 - 4. Notations on returned submittals.
- G. Recovery Schedule: When periodic update indicates the Work is one (1) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
 - 1. Utilize Microsoft Project or Oracle Primavera Software as specified in Division 01 Section "Summary of Work, for Windows XP, Windows Vista and Macintosh OS X operating system.

2.2 START-UP CONSTRUCTION SCHEDULE:

- A. Bar-Chart Schedule: Submit start-up horizontal bar-chart-type construction schedule within ten (10) days of date established for the Notice of Award.
- B. All construction schedules shall be prepared using the latest version of Oracle Primavera Project Management Software or Microsoft Project. Schedules shall clearly show the critical path of the construction project. Contractor is advised that the A/E will not approve Applications for Payment that do not include updated project schedules.
- C. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first thirty (30) days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE):

A. General: Prepare network diagrams using AON (activity-on-node) format.

- B. Start-up Network Diagram: Submit diagram within ten (10) days of date established for the Notice of Award. Outline significant construction activities for the first 30 days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a timescaled CPM network analysis diagram for the Work.
 - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than ten (10) days after date established for the Notice of Award.
 - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of A/E's approval of the schedule.
 - 2. Conduct educational workshops to train and inform key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 - 3. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
 - 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to correlate with Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the start-up network diagram, prepare a skeleton network to identify probable critical paths.
 - Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by Contractor's activities.
 - Testing and commissioning.
 - j. Punch list and final completion.
 - k. Activities occurring following final completion.
 - 2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
 - 3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
 - 4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.

- a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
 - 1. Contractor or subcontractor and the Work or activity.
 - 2. Description of activity.
 - 3. Principal events of activity.
 - 4. Immediate preceding and succeeding activities.
 - 5. Early and late start dates.
 - 6. Early and late finish dates.
 - 7. Activity duration in workdays.
 - 8. Total float or slack time.
 - 9. Average size of workforce.
 - 10. Dollar value of activity (coordinated with the schedule of values).
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
 - 1. Identification of activities that have changed.
 - 2. Changes in early and late start dates.
 - 3. Changes in early and late finish dates.
 - 4. Changes in activity durations in workdays.
 - Changes in the critical path.
 - 6. Changes in total float or slack time.
 - 7. Changes in the Contract Time.

2.4 REPORTS:

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
 - 1. List of subcontractors at Project site.
 - 2. List of separate contractors at Project site.
 - 3. Approximate count of personnel at Project site.
 - Equipment at Project site.
 - Material deliveries.
 - 6. High and low temperatures and general weather conditions, including presence of rain or snow.
 - 7. Accidents.
 - 8. Meetings and significant decisions.
 - Unusual events (refer to special reports).
 - 10. Stoppages, delays, shortages, and losses.
 - 11. Meter readings and similar recordings.
 - 12. Emergency procedures.
 - 13. Orders and requests of authorities having jurisdiction.
 - 14. Change Orders received and implemented.
 - 15. Construction Change Directives received and implemented.
 - 16. Services connected and disconnected.
 - 17. Equipment or system tests and startups.
 - 18. Partial completions and occupancies.

- 19. Substantial Completions authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.5 SPECIAL REPORTS:

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

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE:

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
 - 1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
 - 2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
- B. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one day before each regularly scheduled progress meeting.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.
- C. Distribution: Distribute copies of approved schedule to A/E, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

- 1.
- Post copies in Project meeting rooms and temporary field offices. When revisions are made, distribute updated schedules to the 2 same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01320

SECTION 01322 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

1.2 SUMMARY:

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - Periodic construction photographs.
 - 3. Final completion construction photographs.
 - 4. Preconstruction video recordings.
 - 5. Periodic construction video recordings.
 - 6. Web-based construction photographic documentation.
- B. Related Sections:
 - Division 01 Section "Submittal Procedures" for submitting photographic documentation.
 - 2. Division 01 Section "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.
 - Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.
 - 4. Section 02070 "Minor Demolition".

1.3 INFORMATIONAL SUBMITTALS:

- A. Digital Photographs: Submit image files within seven (7) days of taking photographs.
 - 1. Digital Camera: Minimum sensor resolution of 40 megapixels.
 - 2. Format: Unaltered original files, with same aspect ratio as the sensor, uncropped, date- and time- stamped, in folder named by date of photograph.
 - 3. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name of Contractor.
 - c. Date photograph was taken.
 - d. Unique sequential identifier.

1.4 USAGE RIGHTS:

A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA:

A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 40 megapixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS:

- A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 1. Date and Time: Include date and time in file name for each image.
 - 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to A/E.
- C. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by A/E.
 - 1. Flag construction limits before taking construction photographs.
 - 2. Take twenty (20) photographs to show existing conditions adjacent to property before starting the Work.
 - Take minimum 2 photographs of each window in the scope of work
 - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- D. Periodic Construction Photographs: Take twenty (20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- E. A/E-Directed Construction Photographs: From time to time, A/E will instruct photographer about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.

- F. Time-Lapse Sequence Construction Photographs: Take twenty (20) photographs as indicated, to show status of construction and progress since last photographs were taken.
 - 1. Frequency: Take photographs weekly, with timing each month adjusted to coincide or as the work progresses with the cutoff date associated with each Application for Payment.
 - 2. Vantage Points: Following suggestions by A/E and Contractor, photographer to select vantage points. During each of the following construction phases, take not less than two (2) of the required shots from same vantage point each time to create a time-lapse sequence as follows:
 - a. Commencement of the Work, through completion of subgrade construction.
 - b. Above-grade structural framing.
 - c. Exterior building enclosure.
 - d. Interior Work, through date of Substantial Completion.
- G. Final Completion Construction Photographs: Take twenty (20) color photographs after date of Substantial Completion for submission as project record documents. A/E will inform photographer of desired vantage points.
 - 1. Do not include date stamp.
- H. Additional Photographs: A/E may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
 - 1. Three days' notice will be given, where feasible.
 - 2. In emergency situations, take additional photographs within 24 hours of request.
 - 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.
 - f. Owner's request for special publicity photographs.

END OF SECTION 01322

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 DEFINITIONS:

- A. Action Submittals: Written and graphic information and physical samples that require A/E's responsive action. Action submittals, as they are implied are those submittals indicated in individual Specification Sections.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals, as they are implied are those submittals indicated in individual Specification Sections.
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS:

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the A/E and additional time for handling and reviewing submittals required by those corrections.
 - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2. Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work those required early because of long lead time for manufacture or fabrication, and all submittals that require color/material selections.
 - 3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
 - Submit revised submittal schedule to reflect changes in current status and timing for submittals.
 - 4. Format: Arrange the following information in a tabular format:
 - a) Scheduled date for first submittal.
 - b) Specification Section number and title.

- c) Submittal category: Action, informational.
- d) Name of subcontractor.
- e) Description of the Work covered.
- f) Scheduled date for A/E's final release or approval.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS:

- A. A/E's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by A/E for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 - 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
- C. A/E reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- D. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on A/E receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. A/E will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.
- E. Identification and Information: Place a permanent label or title block on each electronic submittal item for identification.
 - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 - 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by A/E.
 - 3. Include the following information for processing and recording action taken:
 - a) Project name.
 - b) Date.
 - c) Name of Construction Manager.
 - d) Name of Contractor.

- e) Name of subcontractor.
- f) Name of supplier.
- g) Name of manufacturer.
- h) Revise first subparagraph below to suit Project and office practice.
- i) Number and title of appropriate Specification Section.
- j) Drawing number and detail references, as appropriate.
- k) Location(s) where product is to be installed, as appropriate.
- Other necessary identification.
- F. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. A/E will return submittals, without review, received from sources other than Contractor.
 - 1. Transmittal Form: Use Submittal Transmittal form included in Project Manual.
 - a) Project name.
 - b) Date.
 - c) Destination (To:).
 - d) Source (From:).
 - e) Names of subcontractor, manufacturer, and supplier.
 - f) Category and type of submittal.
 - g) Submittal purpose and description.
 - h) Specification Section number and title.
 - i) Indication of full or partial submittal.
 - j) Drawing number and detail references, as appropriate.
 - k) Transmittal number.
 - Remarks.
 - m) Signature of transmitter.
 - 2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by A/E on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- G. Resubmittals:
 - Make resubmittals in same form and number of copies as initial submittal.
 - a) Note date and content of previous submittal.
 - b) Note date and content of revision in label or title block and clearly indicate extent of revision.
 - c) Resubmit submittals until they are marked with approval notation from A/E's action stamp.
- I. Shop Drawings: Revise initial drawings as required and resubmit as specified for initial submittal. Indicate on drawings any changes which have been made other than those requested by A/E.
- J. Project Data and Samples: Submit new data and samples as required for initial submittal.
- K. Contractor shall accept full responsibility for the completeness of each submission, and, in the case of a resubmission, shall verify that all exceptions previously noted by A/E have been taken into account. In the event that more than one (1) resubmission is required because of failure

- of Contractor to account for exceptions previously noted, Contractor shall reimburse the Owner for the charges of the A/E for review of the additional resubmissions.
- L. Any need for more than one (1) resubmission, or any other delay in obtaining A/E's review of submittals, will not entitle Contractor an extension of the Contract Time unless delay of the Work is directly caused by a change in the Work authorized by a Change Order or by failure of A/E to return any submittal within a reasonable time after its receipt in A/E's office.
- M. When the drawings and data are returned marked SUBMIT SPECIFIED ITEM the Contractor shall do so. When the drawings and data are returned marked REVISE AND RESUBMIT, the corrections shall be made as noted thereon and as instructed by the A/E and the required number of corrected copies (or one corrected reproducible copy) resubmitted.
- N. 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.
- O. Use for Construction: Use only final submittals that are marked with approval notation from A/E's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES:

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - Action Submittals: Submit five (1) electronic copy of each submittal, unless otherwise indicated. A/E will return electronic copy.
 - 2. Informational Submittals: Submit one (1) electronic copy of each submittal, unless otherwise indicated. A/E will not return copies.
 - 3. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 1 Section "Closeout Procedures."
 - 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - Provide a notarized statement on electronic copy certificates and certifications where indicated.
 - 5. Test and Inspection Reports Submittals: Comply with requirements specified in Division 1 Section "Quality Requirements."
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.

- 2. Mark each copy of each submittal to show which products and options are applicable.
- 3. Include the following information, as applicable:
 - a) Manufacturer's catalog cuts.
 - b) Manufacturer's product specifications.
 - c) Standard color charts, unless otherwise specified. (printed copies are not acceptable)
 - d) Statement of compliance with specified referenced standards.
 - e) Testing by recognized testing agency.
 - f) Application of testing agency labels and seals.
 - g) Notation of coordination requirements.
 - h) Availability and delivery time information.
- 4. For equipment, include the following in addition to the above, as applicable:
 - a) Wiring diagrams showing factory-installed wiring.
 - b) Printed performance curves.
 - c) Operational range diagrams.
 - d) Clearances required to other construction, if not indicated on accompanying Shop Drawings.
- 5. Submit Product Data before or concurrent with Samples.
- 6. Submit Product Data in the following format:
 - a) PDF electronic file.
- C. Shop Drawings (Action Submittal): Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a) Identification of products.
 - b) Schedules.
 - c) Compliance with specified standards.
 - d) Notation of coordination requirements.
 - e) Notation of dimensions established by field measurement.
 - f) Relationship and attachment to adjoining construction clearly indicated.
 - g) Seal and signature of professional engineer if specified.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 42 inches (750 by 1067 mm).
 - 3. Submit Shop Drawings in the following format:
 - a) Five (5) opaque copies of each submittal. A/E will retain two (2) copies; remainder will be returned.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a) Generic description of Sample.

- b) Product name and name of manufacturer.
- c) Sample source.
- d) Number and title of applicable Specification Section.
- 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.
- 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a) Number of Samples: Submit one (1) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. A/E will return submittal without options selected. Once all submittals requiring color/material selections are submitted, the A/E will make selections per Owners approval. Upon Owners approval A/E will provide a finish selection schedule to Contractor indicating selected finishes.
- 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a) Number of Samples: Submit one (1) set of Samples. A/E will retain one (1) Sample set when deemed necessary, until the completion of construction. Contractor must indicate if sample needs to be returned prior to construction completion.
 - Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.
- E. Contractor's Construction Schedule: Comply with requirements specified.
- F. Application for Payment: Comply with requirements specified in General Conditions and Division 1 Section "Payment Procedures."
- G. Schedule of Values: Comply with requirements specified in General Conditions and Division 1 Section "Payment Procedures."
- H. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

- Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- J. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- K. Research Reports: Submit written evidence that product complies with the current version of International Building Code. Include the following information:
 - Name of evaluation organization.
 - 2. Date of evaluation.
 - 3. Time period when report is in effect.
 - 4. Product and manufacturers' names.
 - 5. Description of product.
 - 6. Test procedures and results.
 - Limitations of use.
- L. Schedule of Tests and Inspections: Comply with requirements specified in Division 1 Section "Quality Requirements."
- M. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- N. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- O. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- P. Maintenance Data: Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."
- Q. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES:

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 - If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to A/E.

- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit electronic copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.
- C. Design professional must be licensed in the State of Louisiana.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW:

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to A/E.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 1 Section "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 A/E'S ACTION:

- A. General: A/E will not review submittals that do not bear Contractor's approval stamp and will return them without action. Additionally, if during review the A/E determines that the Contractor has not sufficiently reviewed the submittal the A/E shall return the submittal to the Contractor without any action for a more complete and adequate review by the Contractor.
- B. Shop Drawings (Action Submittals): A/E will review each submittal for general compliance, and return it. A/E will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
 - Review submittals with reasonable promptness.
 - 2. Review for a design concept of project and information given in Contract Documents.
 - 3. Review of a separate item does not constitute review of an assembly in which the item functions.
 - 4. Affix stamp and initials or signature certifying to review of submittal.
 - 5. Return reproducible Shop Drawings and other submittals to Contractor for distribution, or for resubmission. Contractor is responsible for obtaining the number of opaque prints from the reproducible shop drawing as necessary for distribution.
 - 6. The Design Professional shall review Contractor submittals, such as shop drawings, product data, samples and other data, as required by the Design Professional, but only for the limited purpose of checking for conformance with the design conception

and the information expressed in the contract documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods. coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. The Design Professional's review shall be conducted with reasonable promptness while allowing sufficient time in the Design Professional's judgement to permit an adequate review. Review of a specific item shall not indicate that the Design Professional has reviewed the entire assembly of which the item is a component. The Design Professional shall not be responsible for any deviations of the contract documents not brought to the attention of the Design Professional in writing by the Contractor. The Design Professional shall not be required to review partial submissions or those for which submissions or correlated items have not been received.

- C. Informational Submittals: A/E will review each submittal and will not return it or will return it if it does not comply with requirements. A/E will forward each submittal to appropriate party.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from A/E.
- E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

* * *



SUBMITTAL TRANSMITTAL

Project:			Date: A/E Project Number:			
TRANSMITTAL To (Contractor): A From (Subcontractor):				<u> </u>		
£ . 0 .	Reference / Number	Title / Description / Manufacturer		Spec. Section Title and Paragraph Drawing Detail Reference		
□ Submitted for review and approval □ Resubmitted for review and approval □ Complies with contract requirements □ Will be available to meet construction schedule □ A/E review time included in construction schedule Other remarks on above submission:			☐ If substitu comparati☐ Items incl	 ☐ Substitution involved - Substitution request attached ☐ If substitution involved, submission includes point-by-point comparative data or preliminary details ☐ Items included in submission will be ordered immediately upon receipt of approval ☐ One copy retained by sender 		
TRANSMI	TTAL To (A/E):		Attn:	Date Rec'd by Contractor:		
В		tractor):				
☐ Approve			Revise / I			
Other remar	rks on above submis	sion:		One copy retained by sender		
TRANSMI'		ctor):		Date Rec'd by A/E: Date Trnsmt'd by A/E:		
☐ Approved ☐ Approved as noted ☐ Not subject to review ☐ No action required ☐ Revise / Resubmit ☐ Rejected / Resubmit		☐ Provide file copy with corrections identified ☐ Sepia copies only returned ☐ Point-by-point comparative data required to complete approval process				
Approved as noted / Resubmit			☐ Submissi	☐ Submission Incomplete / Resubmit		
Other remar	rks on above submis	sion:		One copy retained by sender		
TRANSMI	TTAL To (Subco	ntractor):	Attn:			
D	From (Cor	tractor):	_ Ву:	Date Trnsmt'd by Contractor:		
Copies:	Owner	Consultants		One copy retained by send		
	996, Construction Speci Street, Alexandria, VA		Page of	September 19 CSI Form 12.		

SECTION 01400: QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 DEFINITIONS:

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by A/E.
- C. Mockups: Full size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
 - 1. Integrated Exterior Mockups: Mockups of the exterior envelope erected as part of the building consisting of multiple products, assemblies and subassemblies.

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

1.4 CONFLICTING REQUIREMENTS:

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

1.5 ACTION SUBMITTALS:

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

1.6 INFORMATIONAL SUBMITTALS:

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Contractor's Quality-Control Manager Qualifications: For supervisory personnel.
- C. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- D. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.
 - 6. Number of tests and inspections required.
 - 7. Time schedule or time span for tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.

1.7 REPORTS AND DOCUMENTS:

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.
 - 8. Complete test or inspection data.
 - 9. Test and inspection results and an interpretation of test results.
 - 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 - 12. Name and signature of laboratory inspector.
 - 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
 - 1. Name, address, and telephone number of technical representative making report.
 - 2. Statement on condition of substrates and their acceptability for installation of product.
 - Statement that products at Project site comply with requirements.
 - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.

- 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
- 6. Statement whether conditions, products, and installation will affect warranty.
- 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
 - 1. Name, address, and telephone number of factory-authorized service representative making report.
 - 2. Statement that equipment complies with requirements.
 - 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 4. Statement whether conditions, products, and installation will affect warranty.
 - 5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.8 QUALITY ASSURANCE:

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

- 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329 and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Contractor responsibilities include the following:
 - a. Provide test specimens representative of proposed products and construction.
 - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - f. When testing is complete, remove test specimens, assemblies, mockups, do not reuse products on Project.
 - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to A/E, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by A/E.

- 2. Notify A/E seven (7) days in advance of dates and times when mockups will be constructed.
- 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at the Project.
- 4. Demonstrate the proposed range of aesthetic effects and workmanship.
- 5. Obtain A/E's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven (7) days for initial review and each re-review of each mockup.
- 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
- 7. Demolish and remove mockups when directed, unless otherwise indicated.
- L. Integrated Exterior Mockups: Construct integrated exterior mockup in accordance with approved Shop Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual specification sections, along with supporting materials.

1.9 QUALITY CONTROL:

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
 - 3. 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.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
 - 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - 2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.

- 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
- 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. On-Site Project Representative (OSPR) Responsibilities: When these services are contracted for the construction phase of the project by the A/E, Owner or other third party, the following duties shall be performed by the On-Site Project Representative.
 - Obtain all project Contract Documents required for the construction and inspection available from the A/E and Contractor. Thoroughly review this information, make a list of all documents required for the project, and obtain the latest edition of each at the time of the Pre-Construction Meeting. Become completely familiar with all the documents necessary for observation of the construction of the project prior to the commencement of construction. Generate a list of all testing that is required for the project per the Contract Documents.
 - 2. Keep a contact list containing the name, company name, address, telephone number, and e-mail address of all contact persons involved in the project provided by the Contractor.
 - After the Contract Documents have been reviewed, and in advance of construction, visit the project site and become familiar with the existing site conditions. Perform an on-site field check of the project with the project Construction Documents and note locations of key elements including designated site access and staging areas for the contractor's use.
 - 4. During construction, the OSPR shall be on site at times as designated in their contract to review the work in progress.
 - 5. Attend all scheduled construction meetings with the A/E, Owner, Contractor, etc. and any additional meetings at the project site as necessary to perform the on-site representation services as described herein.
 - 6. Periodically review the Contractor's construction schedule, in particular, the milestone dates and critical path, and alert the A/E to conditions and on-site events that may affect the Contractor's ability to complete the work in accordance with the schedule.
 - 7. Obtain a list of all submittals and shop drawings required for the project. This list should be all-inclusive and note the approving authority for each submittal. During construction, refer to this list to make certain proper submittals have been made and approved prior to installation. Receive copies (digital access is acceptable) of all approved submittals and shop drawings and confirm that the materials and equipment on-site match the approved submittals.
 - 8. At the Owner's request, observe materials and equipment located off site, but only for the limited purpose of checking for conformance with the design concept and approved submittals and/or evaluating such materials and equipment for a Certificate of Payment.
 - 9. Observe all tests and inspections (as required in the Contract Documents) and report observations to the A/E and Owner.

- 10. Periodically review documents (i.e. as-builts) and samples the Contractor is required to maintain at the site and report observations to the A/E and Owner.
- 11. Keep a written log of activities that occur at the project site for each day that the OSPR is present at the site. The daily logs will capture the information necessary to create monthly reports (i.e. weather conditions, tests or inspections performed, personnel and visitors on site, photographs, etc.). On a monthly basis, or as otherwise agreed to by the A/E and/or Owner, submit a written progress report to the A/E and/or Owner.
- 12. The OSPR shall not:
 - Authorize any deviation from the Contract Documents or substitution of materials or equipment.
 - b. Exceed limitations of OSPR authority as set forth in their agreement with the Owner or A/E as outlined in the Construction Documents.
 - c. Undertake any of the responsibilities of the Contractor, sub-contractors, suppliers, etc.
 - d. Advise on, issue direction relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of the project.
 - e. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of the Owner or Contractor.
 - f. Participate in specialized field or laboratory tests or inspections conducted off-site by others unless as specifically authorized by the A/E or Owner.
 - g. Accept shop drawings or sample submittals for review or approval.
 - h. Authorize the Owner to occupy the project in whole or in part.
- D. Manufacturer's Field Services: Where indicated, engage a factoryauthorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- E. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- F. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- G. Testing Agency Responsibilities: Cooperate with A/E, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify A/E and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

- 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
- Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
- 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
- 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
- 6. Do not perform any duties of Contractor.
- H. 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:
 - 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.
 - 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.
- I. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION:

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

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

END OF SECTION 01400

SECTION 01500: TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 USE CHARGES:

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS:

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage, including delivery, handling, and storage provisions for materials subject to water absorption or water damage, discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water damaged Work.
 - Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- C. Dust-Control Plan: Submit coordination drawing and narrative that indicates the dust-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:

- Locations of required dust-control partitions at each phase of the work.
- 2. Location of proposed air filtration system discharge.
- 3. Other dust-control measures.
- 4. Waste management plan.

1.5 QUALITY ASSURANCE:

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS:

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

PART 2 - PRODUCTS

2.1 MATERIALS: Portable Chain-Link Fencing: Minimum 2-inch (50 mm), 01.48-inch- (3.8-mm-) thick, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized steel bases for supporting posts as required to provide security for materials stored on site.

2.2 TEMPORARY FACILITIES:

- A. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, A/E, and construction personnel office activities and to accommodate project meetings specified in other Division 1 Sections. Keep office clean and orderly. Furnish and equip offices as follows:
 - 1. Furniture required for Project-site documents including file cabinets, plan tables, plan racks, and bookcases.
 - 2. Coffee machine and supplies.

2.3 EQUIPMENT:

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL:

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

3.2 TEMPORARY UTILITY INSTALLATION:

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
- C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- E. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
 - 1. Connect temporary service to Owner's existing power source, as directed by Owner.
- F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - Install lighting for Project identification sign.
- G. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel, at Contractor's own expense.
 - 1. Provide superintendent with cellular telephone or portable twoway radio for use when away from field office.

3.3 SUPPORT FACILITIES INSTALLATION:

- A. General: Comply with the following:
 - Maintain support facilities until A/E schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- C. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- D. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 1 Section "Execution" for progress cleaning requirements.
- E. Existing Elevator Use: Use of Owner's existing elevators will be permitted, provided elevators are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore elevators to condition existing before initial use, including replacing worn cables, guide shoes, and similar items of limited life.
 - 1. Do not load elevators beyond their rated weight capacity.
 - 2. Provide protective coverings, barriers, devices, signs, or other procedures to protect elevator car and entrance doors and frame. If, despite such protection, elevators become damaged, engage elevator Installer to restore damaged work so no evidence remains of correction work. Return items that cannot be refinished in field to the shop, make required repairs and refinish entire unit, or provide new units as required.
- F. Existing Stair Usage: Use of Owner's existing stairs will be permitted, provided stairs are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore stairs to condition existing before initial use.
 - Provide protective coverings, barriers, devices, signs, or other procedures to protect stairs and to maintain means of egress. If stairs become damaged, restore damaged areas so no evidence remains of correction work.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION:

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- C. Covered Walkway: Erect protective, covered walkway as required for safe passage of individuals through or adjacent to Project site.

Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction.

- 1. Construct covered walkways using scaffold or shoring framing.
- 2. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
- 3. Paint and maintain appearance of walkway for duration of the Work.
- D. Temporary Enclosures: Provide temporary enclosures as required for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.

3.5 MOISTURE AND MOLD CONTROL:

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
 - 1. Protect porous materials from water damage.
 - Protect stored and installed material from flowing or standing water.
 - 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 - 4. Remove standing water from decks.
 - 5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
 - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
 - 2. Keep interior spaces reasonably clean and protected from water damage.
 - 3. Periodically collect and remove waste containing cellulose or other organic matter.
 - 4. Discard or replace water-damaged material.
 - 5. Do not install material that is wet.
 - 6. Discard, replace or clean stored or installed material that begins to grow mold.
 - 7. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.

3.6 OPERATION, TERMINATION, AND REMOVAL:

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 - 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION 01500

SECTION 01600: PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 DEFINITIONS:

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

1.4 ACTION SUBMITTALS:

- A. Comparable Product Requests: Shall be submitted in accordance with the General and Supplementary Conditions and Division 1.
 - 1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 - A/E's Action: If necessary, A/E will request additional information or documentation for evaluation within one week of receipt of a comparable product request. A/E will notify Contractor of approval or rejection of proposed comparable product request within fifteen

- (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Form of Approval: As specified in Division 1 Section "Submittal Procedures."
- b. Use product specified if A/E does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE:

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING:

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

C. Storage:

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

1.7 PRODUCT WARRANTIES:

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.
 - 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 3. Refer to Divisions 2 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES:

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 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," A/E will make selection.
 - 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

- 6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
 - 1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements.
 - Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
 - Products:
 - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered in accordance with General and Supplementary Conditions and Division 1.
 - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
 - 4. Manufacturers:
 - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered in accordance with General and Supplementary Conditions and Division 1.
 - b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with the requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
 - 5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
- C. Visual Matching Specification: Where Specifications require "match A/E's sample", provide a product that complies with requirements and matches A/E's sample. A/E's decision will be final on whether a proposed product matches.

- If no product available within the specified category matches and complies with other specified requirements, comply with requirements in Division 1 Section "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by A/E from manufacturer's full range" or similar phrase, select a product that complies with requirements. A/E will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS:

- A. Conditions for Consideration: A/E will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, A/E may return requests without action, except to record noncompliance with these requirements:
 - 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 3. Evidence that proposed product provides specified warranty.
 - 4. List of similar installations for completed projects with project names and addresses and names and addresses of A/E's and owners, if requested.
 - 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01600

SECTION 01635 - SUBSTITUTION PROCEDURES

PART 1: GENERAL

1.1 Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 Summary:

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
 - 1. Division 1 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
 - 2. Division 2 through 16 sections for specific requirements and limitations for substitutions.

1.3 Definitions:

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

1.4 Submittals:

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use copy of form provided in the Project Manual.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable. The burden of proof of the merit of the proposed substitute is upon the proposers.
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - Detailed comparison (point by point) of significant qualities of proposed substitution with those of the Work specified.
 Include annotated copy of applicable specification section.
 Significant qualities may include attributes such as

performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- Detailed comparison (point by point) <u>must</u> be included in all substitution request documentation submitted for review by the A/E.
- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
- e. Samples, where applicable or requested.
- f. Certificates and qualification data, where applicable or requested.
- g. List of similar installations for completed projects with project names and addresses and names and addresses of A/Es and owners.
- h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- Research reports evidencing compliance with building code in effect and indicated UL or documented testing methods.
- j. Construction Schedule (After Contract Execution): Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
- k. Construction Schedule (After Contract Execution): Cost information, including a proposal of change, if any, in the Contract Sum.
- Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
- m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. A/E's Action:

a. Prior to the Bid Date: If necessary, A/E will request additional information or documentation for evaluation within ten (10) working days of receipt of a request for substitution. The A/E will notify the contractor/supplier of acceptance or rejection of proposed substitution within ten (10) working days after receipt. All submittal requests that have been submitted properly and accepted will be included in an addendum.

- 1) Forms of Acceptance: Signed "Contractor/Supplier Substitution Required Form, Addendum, Change Order, Construction Change Directive, or A/E's supplementary instructions for minor changes in the work
- 2) The A/E's decision of approval or disapproval will be final.
- After Contract Execution: A/E will notify Contractor of acceptance or rejection of proposed substitution <u>during</u> <u>construction</u> within fifteen (15) working days of receipt of request, or seven (7) working days of receipt of additional information or documentation, whichever is later.
 - Forms of Acceptance: Signed "Contractor/Supplier Substitution Required Form, Addendum, Change Order, Construction Change Directive, or A/E's supplementary instructions for minor changes in the work.
 - 2) Use product specified if A/E does not issue a decision on use of a proposed substitution within time allocated.
 - The A/E's decision of approval or disapproval will be final.

1.5 Quality Assurance:

- A. The contractor represents that he has personally investigated the proposed substitution and determined that it is equal or superior in all respects to that specified.
- B. The contractor represents that he will provide the same warranty for the substitution that he would for that specified.
- C. The contractor certifies that the cost data presented is complete and includes all related costs under this Contract but excludes costs under separate contracts, and any additional A/E redesign costs, as well as waives all claims for additional costs related to the substitution which subsequently become apparent.
- D. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.
- E. Bidders/Contractor is advised that any acceptable substitution that requires a change or modifications to other parts of the project shall be his responsibility including any additional cost required thereof. Any cost associated for other parts of the projects due to a substitution shall be the responsibility of the Contractor.
- 1.6 Procedures: Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2: PRODUCTS

2.1 Substitutions – Pre-Bid:

- A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fourteen (14) working days prior to the date for receipt of bids.
 - Conditions: A/E will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without action, except to record noncompliance with these requirements:
 - a. Request submitted through a general contractor that has picked up a complete set of bidding documents for the project. Substitutions by a sub-contractor, material supplier, manufacturer's representative, etc. not submitted through a general contractor will be returned without action.
 - b. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - c. Substitution request is fully documented as outlined under submittals and properly submitted on required form.
 - d. Requested substitution is compatible with other portions of the Work.
 - e. Requested substitution provides specified warranty.
- B. Substitutions for Convenience: A/E will consider requests for substitution if received within fourteen (14) working days prior to the date for receipt of bids. Requests received after that time will be rejected.
 - 1. Conditions: A/E will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without action, except to record noncompliance with these requirements:
 - a. Request submitted through a general contractor that has picked up a complete set of bidding documents for the project. Substitutions by a sub-contractor, material supplier, manufacturer's representative, etc. not submitted through a general contractor will be returned without action.
 - 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 as outlined under submittals and properly submitted on required form.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution provides specified warranty.
- 2.2 Substitutions After Contract Execution
 - A. In the interest of keeping the project on schedule, the A/E will not continuously and exhaustively review proposed substitutes for each specification section. The A/E will review only one (1) proposed substitution per product per specification section. If that proposed substitution is rejected for any reason, the contractor shall use the product specified.
 - B. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.

- 1. A/E will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without any action, except to record noncompliance with these requirements.
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented as outlined under submittals herein and properly submitted on required form.
 - Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approval of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- C. Substitutions for Convenience: A/E will consider requests for substitution.
 - Conditions: A/E will consider the Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, A/E 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 A/E for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented as outlined under submittals and properly submitted on the required form.
 - e. Requested substitution will not adversely affect Contractor's construction schedule.
 - f. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - g. Requested substitution is compatible with other portions of the Work.
 - h. Requested substitution has been coordinated with other portions of the Work.
 - i. Requested substitution provides specified warranty.

j. If the requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

* * *

CONTRACTOR / SUPPLIER SUBSTITUTION REQUEST FORM

(Section to be completed by Contractor / Supplier)	
Project:	Substitution Request Number:
	From:
То:	Date:
Re:	A/E Project Number: Contract For:
Section: Page:	Article/Paragraph:
Proposed Substitution:	
Manufacturer: Address:	Phone:
Trade Name:	Model No.:
Installer: Address:	Phone:
History: ☐ New product ☐ 2-5 years old ☐ 5-10	yrs old More than 10 years old
Differences between proposed substitution and specified p	
Differences between proposed substitution and specified p	roduct.
Point-by-point comparative data attached - REQUIRE	D BY A/E FOR REVIEW OF THE REQUEST.
Reason for substitution request:	
Similar Installation:	
Project:	Architect:
Address:	Owner:
	Date Installed:
Proposed substitution affects other parts of Work: No	Yes; explain
Goods Day Amelol. CD . See CD 1	unt Data
Supporting Data Attached: Drawings Produ	uct Data Samples Tests Reports

CONTRACTOR / SUPPLIER SUBSTITUTION REQUEST FORM

(Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to the specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.

Proposed substitution will have no adverse effect on other tra-	des and will not affect or delay progress schedule.
 Proposed substitution does not affect dimensions and function Coordination, installation, and changes in the Work as necess 	
Submitted by:	
Signed by:	
Firm:	
Address:	
Telephone:	
Fax:	
Email:	
Attachments:	
Y	
3	
SECTION TO BE COMPLETED BY A/E:	
A/E's REVIEW AND ACTION	
□ Substitution approved - Provided all Contract Documents requi □ Substitution approved as noted. □ Substitution rejected - Does not meet Contract Documents - Us □ Substitution Request received too late - Not Approved. Receitime in accordance with R.S. 38:2295. □ Substitution rejected - Insufficient information submitted to material Submitted accordance with R.S. 38:2295. □ Submitted to material Submitted to material Submitted accordance of the Receition Submitted to material Submitted Subm	se specified materials. ived less than fourteen (14) working days prior to Bid Date. Insufficientake determination.
Signed by:	Date:
Additional Comments:	

SECTION 01730: EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

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

1.3 DEFINITIONS:

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

1.4 QUALITY ASSURANCE:

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: When cutting and patching structural elements, notify A/E of locations and details of cutting and await directions from the A/E before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
 - 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

- 4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in A/E's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.5 WARRANTY:

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
 - In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.

PART 2 - PRODUCTS

2.1 MATERIALS:

- A. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match inplace adjacent surfaces to the fullest extent possible.
 - If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the A/E for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION:

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION:

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

3.3 INSTALLATION:

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

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

3.4 CUTTING AND PATCHING:

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - Cut in-place construction to provide for installation of other components or performance of other construction and subsequently patch as required to restore surfaces to their original condition.
- B. Temporary Support: Provide temporary support of work to be cut.
- C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

- D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements of Division 1 Section "Summary."
- E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
- F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 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.
 - 4. Proceed with patching after construction operations requiring cutting are complete.
- G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING:

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Utilize containers intended for holding waste materials of type to be stored.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broomclean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in accordance with the law and authorities having jurisdiction.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 PROTECTION OF INSTALLED CONSTRUCTION:

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.7 CORRECTION OF THE WORK:

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01730

SECTION 01741: CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging nonhazardous demolition and construction waste.

1.3 DEFINITIONS:

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- D. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SALVAGING DEMOLITION WASTE:

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - Store items in a secure area until installation.
 - Protect items from damage during transport and storage.
 - Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave door hardware attached to doors.
- D. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs. Protect equipment from exposure to weather.
- E. Plumbing Fixtures: Separate by type and size.
- F. Lighting Fixtures: Separate lamps by type and protect from breakage.
- G. Electrical Devices: Separate switches, receptacles, switchgear, transformers, meters, panelboards, circuit breakers, and other devices by type.

END OF SECTION 01741

SECTION 01770: CLOSEOUT PROCEDURES

PART 1 - GENERAL

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

1.2 SUMMARY:

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

1.3 DEFINITIONS:

A. Substantial Completion: When the valuated punch list equals less than one percent (1%) of the contract value, including all additive change orders.

1.4 SUBSTANTIAL COMPLETION:

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
 - Contractor and Architect / Engineer shall prepare a list of items to be completed and corrected (punch list). The A/E punch list shall include the value of items on the list, and reasons why the Work is not complete.
 - a. All public works contracts shall contain a clause stating that any punch list generated during a construction project shall include the cost estimates for the particular items of work the design professional has developed based on the mobilization labor material and equipment costs of correcting each punch list item. The design professional shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The contracting agency shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five-day (45) lien period. The provisions of this section shall not be subject to waiver, nor shall these provisions apply to the Department of Transportation and Development.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

- 5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
- 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
- 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
- 8. Complete startup testing of systems.
- 9. Submit test/adjust/balance records.
- 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
- 11. Advise Owner of changeover in heat and other utilities.
- 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- 13. Complete final cleaning requirements, including touchup painting.
- 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, A/E will either proceed with inspection or notify Contractor of unfulfilled requirements. A/E 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 A/E on the valued punch list, that must be completed or corrected before final payment will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for final completion.

1.5 FINAL COMPLETION:

- A. Preliminary Procedures: Before requesting final inspection to determine final completion, complete the following:
 - Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
 - Submit certified copy of A/E's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by A/E. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Submit pest-control final inspection report and warranty.
 - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, A/E will either proceed with inspection or notify Contractor of unfulfilled requirements. A/E will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST):

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order.
 - Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of A/E.
 - d. Name of Contractor.
 - e. Page number.
 - 4. Submit list of incomplete items in the following format:
 - PDF electronic file.

1.7 WARRANTIES:

- A. Submittal Time: Submit written warranties on request of A/E for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
 - 1. In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
 - Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.

- 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- 4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.3 MATERIALS:

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

PART 3 - EXECUTION

3.3 FINAL CLEANING:

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.

- h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
- Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- 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 or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
- Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- m. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
- n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- p. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter upon inspection.
- q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
- r. Leave Project clean and ready for occupancy.
- Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- The A/E shall be responsible for calling for the final Louisiana State Fire Marshal Inspection, NOT THE CONTRACTOR. Additionally, the Louisiana State Fire Marshal Inspection shall not take place until the project has been declared substantially complete. If the contractor calls for the Louisiana State Fire Marshal inspection, the Contractor is advised that the A/E will not attend the inspection and will not prepare or sign the Louisiana State Fire Marshal's Certificate of Completion.

END OF SECTION 01770

SECTION 01782: OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Operation manuals for systems, subsystems, and equipment.
 - 4. Product maintenance manuals.
 - 5. Systems and equipment maintenance manuals.

1.3 DEFINITIONS:

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

1.4 CLOSEOUT SUBMITTALS:

- A. Manual Content: Operations and maintenance manual content is specified in individual specification sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Where applicable, clarify and update reviewed manual content to correspond to modifications and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically-indexed file. Submit on digital media acceptable to A/E.
 - Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically-linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.

2. Binders:

- a. Size: 8 1/2 inches x 11 inches.
- b. Paper: White, for typed pages.
- c. Text: Manufacturer's printed data, or neatly typewritten.
- d. Drawings: Provide reinforced punched binder tab, bind in with text. Fold larger drawings to the size of the text pages.

- e. Provide fly-leaf for each separate product, or each piece of operating equipment. Provide typed description of product; and major component parts of equipment. Provide indexed tabs.
- f. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS".
 List title of Project, identity of separate structure as applicable, identity of general subject matter covered in the manual.
- C. Initial Manual Submittal: Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. A/E will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least fifteen (15) days before commencing demonstration and training. A/E will return copy with comments.
 - Correct or modify each manual to comply with A/E's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of A/E's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

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

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS:

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
 - 1. Title page.
 - Table of contents.
 - Manual contents.
- B. Title Page: Include the following information:
 - 1. Subject matter included in manual.
 - 2. Name and address of Project.
 - 3. Name and address of Owner.
 - Date of submittal.
 - Name and contact information for Contractor.
 - 6. Name and contact information for Construction Manager.
 - Name and contact information for A/E.
 - 8. Names and contact information for major consultants to the A/E that designed the systems contained in the manuals.
 - 9. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
 - If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel upon opening file.
- F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
 - Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.

- a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
- 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
- 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
- 4. Supplementary Text: Prepared on 8-1/2-by-11-inch (215-by-280-mm) white bond paper.
- 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS:

- Content: Organize manual into a separate section for each of the following:
 - 1. Type of emergency.
 - 2. Emergency instructions.
 - 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 - 1. Fire.
 - 2. Flood.
 - 3. Gas leak.
 - 4. Water leak.
 - 5. Power failure.
 - 6. Water outage.
 - 7. System, subsystem, or equipment failure.
 - Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
 - 1. Instructions on stopping.
 - 2. Shutdown instructions for each type of emergency.

- Operating instructions for conditions outside normal operating limits.
- 4. Required sequences for electric or electronic systems.
- 5. Special operating instructions and procedures.

2.4 OPERATION MANUALS:

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

2.5 PRODUCT MAINTENANCE MANUALS:

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
 - Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.
 - 2. In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS:

A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
 - 1. Include procedures to follow and required notifications for warranty claims.
 - In accordance with Louisiana State Law (LSA-R.S. 9:2774) the commencement date for ALL warranties or guarantees of every nature or kind shall be the date of Substantial Completion as certified by the A/E. It shall be the Contractor's sole responsibility to ensure that all written warranties include this commencement time. Also, in accordance with LSA-R.S. 9:2774 the provision of this Section shall not be subject to waiver by contract.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION:

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals with A/E prior directory preparations.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
 - Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
 - 1. Do not use original project record documents as part of operation and maintenance manuals.
 - 2. Comply with requirements of newly prepared record Drawings in Division 1 Section "Project Record Documents."
- G. Comply with Division 1 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01782

SECTION 01783: PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY:

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - Record Product Data.
 - Miscellaneous record submittals.

1.3 CLOSEOUT SUBMITTALS:

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set of marked-up record prints.
 - 2. Number of Copies: Submit copies of record Drawings as follows:
 - a. Final Submittal: Submit PDF electronic files of marked-up record prints. Print each Drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit 1 annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit 1 annotated PDF electronic files and directories of each submittal.
 - Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit annotated PDF electronic files and directories of each submittal.
- E. Reports: Submit written report weekly indicating items incorporated in Project record documents concurrent with progress of the Work, including modifications, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS:

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings.
 - Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

- Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
- b. Accurately record information in an acceptable drawing technique.
- c. Record data as soon as possible after obtaining it.
- d. Record and check the markup before enclosing concealed installations.
- 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - Changes made by Change Order or Construction Change Directive.
 - k. Changes made following A/E's written orders.
 - I. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
- 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
- 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
- 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
- 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Format: Annotated PDF electronic file.
 - Identification: As follows:
 - a. Project name.
 - b. Date
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of A/E.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS:

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

2.3 RECORD PRODUCT DATA:

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file.
 - Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for A/E's reference during normal working hours.

END OF SECTION 01783

SECTION 02070: MINOR DEMOLITION

PART 1: GENERAL

1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.

1.2 Scope of Work:

- A. Furnish all labor, materials, equipment, and incidentals required for demolition and disposal of existing obstructions to the new work.
- B. This section also includes complete or partial removal and disposal of specified existing structures, foundations, slabs, mechanical, electrical, and miscellaneous appurtenances encountered during construction operations.
- C. These specifications shall call attention to certain activities necessary to maintain and facilitate operation during and immediately following construction and do not purport to cover all the activities necessary.
- D. Demolition includes: Visit the site and examine all existing conditions as to character and extent of work involved.

1.3 Rules and Regulations:

- A. The Building Code of the appropriate governing body shall control the demolition, or alteration of the exiting buildings, or appurtenances.
- B. No building, structure, or appurtenance, or any part thereof, shall be demolished until an application has been filed by the Contractor with the Building Inspector, and a permit issued. The fee for this permit shall be the Contractor's responsibility.

1.4 Traffic and Access:

- A. Conduct demolition and removal operations to ensure minimum interference with roads, streets, walks, both on-site and off-site, and to ensure minimum interference with occupied or used facilities.
- B. Do not close or obstruct streets, walks, or other coupled or used facilities without permission from the A/E. Provide alternate routes around closed or obstructed traffic access ways.
- 1.5 Protection: Conduct operations to minimize damage by falling debris or other causes to adjacent buildings, structures, roadways, and other facilities, including persons. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structures to be demolished and adjacent facilities to remain.
- 1.6 Damage: Promptly repair damage caused to adjacent facilities by demolition operations as directed by the A/E at no cost to the Owner.

1.7 Utilities:

A. Maintain existing utilities as directed by the A/E to remain in service and protect against damage during demolition operations.

- B. Do not interrupt existing utilities serving occupied or used facilities, except when authorized by the A/E. Provide temporary services during interruptions to existing utilities as acceptable to the A/E.
- C. The Contractor shall cooperate with the Owner to shut off utilities serving structures of the existing facilities as required by demolition operations.
- D. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance, re-routing, and/or interruption of all public and private utilities or services under the jurisdiction of the utility companies.
- E. All utilities being abandoned shall be disconnected and terminated at the service mains in conformance with the requirement of the utility companies or the governing body owning or controlling them.

1.9 Pollution Control:

- A. For pollution control, use water sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the condition of work. Comply with the governing regulations.
- B. Clean adjacent structures and improvements of all dust, dirt, and debris caused by demolition operations as directed by the A/E. Return areas to conditions existing prior to the start of work.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION

3.1 Exterior Demolition, General:

- A. Keep all through lanes and drives clean and clear at all times.
- B. Conduct operations so as not to interfere with adjacent roads, streets, drives, walks, service lines, lawns, planting, and the like.
- C. Backfill any trenches caused by demolition work.
- D. Contractor shall take all necessary steps to keep the building and site clean and watertight.

3.2 Interior Demolition, General:

- A. Do not permit masonry walls or other sections of masonry or other heavy materials to fall on floors of building in masses to exceed safe carrying capacity of floors. Properly protect floors with plywood both sides of a partition to be demolished.
- B. Wherever necessary, shore or brace walls, partitions, or floors of structure being demolished.
- C. Do not cut or remove structural or load-supporting members until all loads carried by members have been removed.

3.3 Disposition of Material and Equipment:

Any equipment and material selected to remain the property of the Owner shall be removed and delivered to a location as designated by the Owner. Material not retained by the Owner shall become the property of the Contractor and shall be removed from the site by him.

- B. Remove demolition debris as soon as practicable. Do not store or burn materials on site.
- 3.4 Salvage Schedule: None.

* * *

SECTION 07620: SHEET METAL FLASHING & TRIM

PART 1: GENERAL

- 1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to Work specified in this Section.
- 1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of flashing, trim, closures, fasteners, and other accessories, as shown on the drawings and specified herein. Flashing and sheet metal exposed to view shall have color finish. Provide all necessary supplementary items for a complete installation intended by documents.
- 1.3 Standards: Conform to requirements of Architectural Sheet Metal Manual, Sheet Metal and Air Conditioning Contractors' National Association Inc. (SMACNA) and National Roofing Contractors Association Roofing Manual (NRCA).

1.4 Submittals:

- A. Submit shop drawings for all roof flashing showing joints, fasteners, metal gages, roof installation details.
- B. Submit manufacturers recommended installation instructions.
- C. Samples: Submit color chips on metal for selection and approval of A/E. Provide additional samples, full size accessories, fasteners if requested by A/E.
- D. Coordinate all existing roof and wall conditions, structural steel, wood framing, wood blocking, other like items and indicate on shop drawings.
- E. Submit in accordance with the requirements of Division 1.
- 1.5 Product Handling: Carefully handle materials to prevent damage and store at the site above ground in a covered, dry location. Remove and replace damaged items that cannot be restored to like-new condition.

1.6 Guarantee:

- A. Prior to acceptance of Work, furnish written guarantee, co-executed by Contractor and subcontractor, for 2 years, which covers repairs required to maintain flashing in watertight condition. Limit to ordinary wear and tear by the elements or defects due to faulty materials and workmanship. Make repairs, within 24 hours of notification, at no expense to Owner.
- B. Provide manufacturer's 5-year guarantee of pre-painted color finish against fade, chalking, and film integrity.
- C. Submit in accordance with the requirements of Division 1.

PART 2: PRODUCTS

- 2.1 Color Finish: Color coat all flashing, trim, fasteners, and other exposed surfaces in colors as selected by A/E from manufacturer's full range of colors. Dry film thickness of factory finished items to be one mil minimum. Provide twenty (20) year warranty against chipping, cracking, blistering, peeling, fading, chalking in excess of No. 8 rating (ASTM D659).2.2
- 2.2 Aluminum: .032 thick alloy 3003 clear anodized aluminum, ASTM B-209.

- 2.3 Fasteners: Size and type suitable for intended use; galvanized steel or cadmium plated at galvanized steel. Use touch-up paint at exposed fasteners of pre-painted metal.
- 2.4 Solder: ASTM B 32, alloy grade 58, 50% tin, 50% lead.
- 2.5 Flux: Phosphoric acid type, manufacturer's standard.
- 2.6 Sealant: One part polysulfide, silicone, or polyurethane type, manufacturer's standard.
- 2.7 Bituminous Plastic Cement: Manufacturer's standard.
- 2.8 Lead: Antimony 4 to 6% remainder lead. Weight, 3 pounds per square foot.
- 2.9 Fabrication, General:
 - A. Fabricate in accordance with SMACNA and NRCA Manuals.
 - B. Exercise care during fabrication and erection of pre-painted metal to avoid damage to surface. Keep tools clean and properly dressed. Avoid dragging sheets over surfaces, which may damage the finish.
 - C. Fabricate to shapes and sizes detailed, allowing sufficient material for up-standing leg. Make surfaces free of waves and buckles, with lines, arises, and angles sharp and true. Form in strict accordance with detailed Drawings. No raw, exposed edges permitted.
 - D. Cleats: Minimum 2-inch width, 24 gage minimum galvanized steel.

PART 3: EXECUTION

- 3.1 Inspection: Verify that substrates are smooth and clean to extent needed for sheet metal work. Verify that nail, cants, and blocking to receive sheet metal are installed and free of concrete and soil. Do not start sheet metal work until conditions are satisfactory.
- 3.2 Preparation: Before installation verify shapes and dimensions of surfaces to be covered.
- 3.3 Installation (General):
 - A. Install work watertight, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction. Hem exposed edges. Angle bottom edges of exposed vertical surfaces to form roofing manufacturer's recommendations.
 - B. Seams: In accordance with SMACNA Manual, cover plates at gravel stops.
 - C. Cleats: Secure to substrate with fasteners spaced 2 on center.
 - D. Soldering: Clean and flux metals prior to soldering. Sweat solder completely through seam width. Comply with manufacturer's instructions when soldering pre-painted metal.
 - E. Bituminous Plastic Cement: Trowel 1/8 inch thick.
 - F. Sealant: Apply 1/4 inch diameter bead, centered on full length of joint.
 - H. Painting: Apply 7 1/2 mil dry film thickness asphalt coating compound to each metal face of dissimilar metals.

- 3.5 Accessories: Install all accessories, for weather-tight condition. Install in strict accordance with roofing manufacturer's recommendations and NRCA.
- 3.6 Touch-up and Cleaning: Touch-up mars, scratches, and cut edges of all items to match original factory finish. Remove all excess materials and debris from site.

 * * *

SECTION 07920A: SEALANTS AND CAULKING

PART 1: GENERAL

- 1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions) and Division 1 as appropriate, apply to the Work specified in this Section.
- 1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of sealants and caulking, as shown on the drawings and specified herein. Provide all necessary supplementary items as required for a complete installation.

1.3 Guarantee:

- A. Guarantee work for a period of two (2) years against defective materials and workmanship, warranting the air tightness and water tightness of the exterior sealant installation. Make repairs or replace material after proper notice at no additional cost to Owner.
- B. Submit written guarantee co-executed by Contractor and subcontractor in accordance with Warranties and Bonds Section.
- 1.4 Product Handling: Handle to prevent inclusion of foreign matter or damage of materials by water or breakage. Procure and store in original containers until ready for use.

PART 2: PRODUCTS

- 2.1 General Purpose Interior Caulking: Siliconized acrylic-latex gun grade caulk for use in general purpose interior applications. Characteristics shall exceed those of oil based and butyl caulks. Color shall be as selected by A/E. Approved products: Sika Corporation, MasterSeal NP 520 and Pecora Corporation, AC-20. All others require prior approval.
- 2.2 Interior Silicone Caulking: For all toilet rooms, bathrooms, shower rooms, locker rooms, concession stand, kitchens and any other wet areas with sink toilets, lavatories, mop sinks, etc. Caulk around all plumbing fixtures, against walls, floors, and joints between laminate plastic counter tops and walls. Color shall be as selected by A/E. Approved products: GE Sanitary SCS 1700 Silicone Sealant. All others require prior approval.

2.3 Exterior Sealant Materials:

A. Approved Manufacturers: For the purposes of designating type and quality for the work under this section, drawings, and specifications are based on products manufactured or furnished by Sika Corporation, 201 Polito Avenue, Lyndhurst, New Jersey, 07071, Website: www.usa.sika.com. All others require approval.

- B. Sealant: A premium, high-performance, very low-modulus, high-movement, non-sag, fast-curing, designed to adhere to low energy surfaces, one-component silyl-terminated polyether hybrid sealant. Tint base is a multi-component formulation that can be tinted to multiple colors to meet aesthetic needs.
 - 1. Product: Sikaflex HY 150 Sealant or HY 150 Tinit Base Sealant
 - Compliance:
 - a. ASTM C920, Type S, Grade NS, Class 50, Use NT, M, A, and O, capable of +100/-50 in normal field conditions.
 - b. ASTM C 1382 for use with EIFS wall systems at 100% extension
 - c. Federal Specification TT-S-001543A, Type II, Class A, Type Non-sag.
 - d. Federal Specification TT-S-00230C, Type II, Class A.
 - e. Corps of Engineers CRD-C-541, Type II, Class A.
 - f. CFI accepted.
 - g. USDA complaint for use in areas that handle meat and poultry.
 - h. SWR Institute validated.
 - 3. Service Temperature Range: Minus 40 to 180 degrees F (minus 40 to 82 degrees C)
 - 4. Shrinkage: None.
 - 5. Movement Capability, ASTM C719: Plus or minus 50 percent
 - 6. Extension, ASTM C 1382: 100%
 - 7. 100% Modulus, ASTM C 412: 35 psi.
 - 8. Tensile Strength, ASTM D412: 140-180 psi.
 - 9. Tear Strength, ASTM D1004: 40 pli.
 - 10. Ultimate Elongation at Break, ASTM D412: 800-1000 percent.
 - 11. Rheological, ASTM C639, sag in vertical displacement, 120 degrees F (49 degrees C): No sag.
 - 12. Extrudability, ASTM C 1183: 2-3 sec.
 - 13. Hardness, ASTM C661, Shore A: 17
 - 14. Weight Loss, ASTM C 1246, after heat aging: less than 10 percent
 - 15. Tack-Free Time, ASTM C 1246: 90 minutes.
 - 16. Stain and Color Change, ASTM C 510: Passes, no visible stain.
 - 17. Bond Durability, ASTM C719, on aluminum and concrete: Passes, plus or minus 50 percent movement.
 - 18. Adhesion in Peel, ASTM C794:
 - a. Aluminum: 35 pli
 - b. Concrete: 36 pli
 - 19. Artificial Weathering, ASTM G155, Xenon arc, 2,000 hours: No Cracking.
 - 20. VOC Content:
 - a. Sikaflex HY 150: 13.6 g/L, less water and exempt solvents.
- C. Design Requirements:
 - Design number of joints and joint widths for maximum of plus of minus 50 percent movement.

- 2. Design depth of sealant to be 1/2 width of joint.
 - a. Maximum Depth: 1/2 inch (13 mm).
 - b. Minimum Depth: 1/4 inch (6 mm).
 - c. Maximum Recommended Width" 1-1/2 inches (38 mm).

D. Accessories:

- Sika, MasterSeal 921 soft backer-rod.
- 2. Sika, MasterSeal 920 low moisture absorption below grade.
- 3. Porous Substrate Primer: Sikaflex Primer 179
- 4. Cleaner: Sika, MasterSeal 990 or Xylene.
- 2.4 Color as selected by A/E from manufacturer's full standard range of colors.
- Joint Backing: Round, flexible, closed cell polyurethane material, non-reactive with caulking materials and non-oily, approved by sealant manufacturer. Minimum density 3.24 lbs./cu.ft. Use no asphalt or bitumen-impregnated material with sealants.

PART 3: EXECUTION

3.1 Examination: Examine subsurface to receive work and report any conditions detrimental. Failure to observe this injunction constitutes a waiver to any subsequent claims to the contrary and will make this Contractor responsible for any corrections A/E may require. Commencement of work will be construed as acceptance of all subsurfaces.

3.2 Preparation:

- A. Thoroughly clean all joints; blow out or vacuum loose particles from joints. Joint sides to be dry, fully cured, free of laitance, loose aggregate, form release agents, curing compounds, water repellents, and other surface treatments. Surface cleaning must be done in accordance with manufacturers recommendations. Comply with sealant manufacturer's recommendations.
- B. Install joint backing or bond breaker in all joints to receive sealant. Size backing to require 30-50% insertion compression and depress 1/2 joint width. Do not insert backing material with a sharp implement that can puncture the surface.
- C. Mask or otherwise protect adjacent surfaces. Apply tape in continuous strips in alignment with joint edge and remove immediately after joints have been sealed and tooled.
- D. Prime as specified by manufacturer of sealant. Where primer is required, it shall be done by brush, uniformly on contact surfaces of the joint. Allow sufficient drying time before caulking.

3.3 Sealant:

- A. Application: In strict accordance with manufacturer's instructions.
- B. Tooling: Immediately after application, tool beads of sealant. Tooling can be done with a spatula of wood or metal, or finger, either dry or with water. Avoid solvents.
- C. Apply sealant and caulking material under pressure to fill joints completely, preventing air pockets or voids.

3.4 Locations:

- A. Single-Component Sealant: Apply single-component sealant in joints in vertical surfaces, exterior walls, around exterior perimeter of door and window frames, louvers and vents, in control joints and expansion joints at interior or exterior vertical surfaces, and at other similar exterior locations noted on the Drawings. Set exterior door frames and thresholds in full bed of sealant.
- B. Caulking Compound: Apply caulking compound at interior locations, around penetrations of piping, conduits, duct work and similar items through walls and partitions, around interior perimeter of door frames, louvers, vents, in interior control joints at floors, walls, ceilings, and at other interior locations as noted on the Drawings.
- 3.5 Curing: Allow sealant to cure in accordance with manufacturer's instructions.
- 3.6 Inspection:
 - A. During work of the section, inspect work to ensure compliance with manufacturer's instructions, specifications, and drawings.
 - 1. Evaluate adhesion of sealant in accordance with ASTM c1521.
 - 2. Allow inspections of work and assist in testing requested by manufacturer's representative and A/E.
 - B. Non-Compliant Work: If inspections reveal non-compliant work or work that was not installed in accordance with Specifications, and/or manufacturer requirements, remove adjacent Work until a location is reached where installation was performed properly. Assist in spotchecking of remainder of Work.
- 3.7 Cleaning: Clean adjacent surfaces of sealant as work progresses in accordance with manufacturer's recommendations, using solvent or cleaning agent recommended by the manufacturer. Leave all finished work in a neat, clean condition. Clean discolored sealant with solvents approved by manufacturer and a clean rag. Avoid staining the surrounding surfaces.
- 3.8 Protection: Protect sealant from damage during construction.

END OF SECTION 07920A

SECTION 08413: ALUMINUM STOREFRONT WINDOWS

PART 1: GENERAL

- 1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the work specified in this Section.
- 1.2 Description of Work: Furnish all necessary materials, labor and equipment for the complete installation of aluminum storefront window units, as shown on the drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 System Description:

- A. Thermal Movement: Fabricate exterior components from manufacturer's stock systems which have been designed to provide for expansion and contraction resulting from ambient temperature range of 120 degrees F (49 degrees C).
- B. Wind Loading: Fabricate exterior components from manufacturer's stock systems which have been tested in accordance with ASTM E 330 to withstand at least the following loadings: Uniform pressure inward (psf) and outward (psf) shall meet the most stringent local. State and Federal codes.
- C. Weather Resistance: Fabricate exterior storefront components from manufacturer's stock systems which have been tested to demonstrate permanent resistance to leakages as follows with test pressure differential of 10% of design loading (excluding operable door edges):
 - 1. Air infiltration: Not more than 0.06 cfm per square foot, tested in accordance with ASTM E 283.
 - 2. Water infiltration: No uncontrolled water penetration, tested in accordance with ASTM E 331, at a pressure differential of 6.24 psf (excluding operable door edges).

1.4 Quality Assurance:

- A. Drawing: Plans, elevations and details show spacings of members as well as profile and similar dimensional requirements of aluminum storefront windows work. Minor deviations will be accepted in order to utilize manufacturer's standard products when, in A/E's sole judgement, such deviations do not materially detract from design concept or intended performances.
- B. Drawings are based on one manufacturer's standard aluminum storefront window system. Another standard system of a similar and equivalent nature will be acceptable when differences to not materially detract from design concept or intended performances, and judged solely by A/E.
- C. Field Measurement: Wherever possible, take field measurements prior to preparation of shop drawings and fabrication, to ensure proper fitting of work. However, proceed with fabrication and coordinate installation tolerances as necessary when field measurements might delay work.

- D. Delegated Design:
 - Design aluminum storefront systems, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- E. Wind Loads:
 - 1. Refer to Drawings for Wind Load Table for design wind load design pressures.
- 1.5 References: Standards: Comply with applicable provisions of "Metal Curtain Wall, Window, Storefront, and Entrance Guide Specifications Manual" by AAWA.

1.6 Submittals:

- A. Product Data: Submit manufacturer's specifications, standard details, and installation recommendations for components of aluminum storefront windows required for project, including data that products have been tested and comply with performance requirements.
- B. Shop Drawings: Submit shop drawings for fabrication and installation of aluminum storefront windows, including elevations, detail sections of typical composite members, composite members, anchorages, reinforcement, expansion provisions, and glazing.
- C. Samples: Submit samples of each type and color of aluminum finish, on 12" long sections of extrusions or formed shapes and on 6" square sheets.
- 1.7 Special Project Warranty: Provide written warranty signed by Manufacturer, Installer, and Contractor, agreeing to replace aluminum storefront windows, which fail in materials or workmanship within 3 years of acceptance. Failure of materials or workmanship includes excessive leakage or air infiltration, excessive deflections, faulty operation of entrances, deterioration of finish or construction in excess of normal weathering, and defects in hardware, weather-stripping, and other components of the work.

PART 2: PRODUCTS

- 2.1 Acceptable Manufacturers:
 - A. Drawings and specifications are based on framing systems as manufactured by the Kawneer Company, Inc.
 - B. Subject to compliance with requirements, manufacturers offering products, which may be incorporated in the work, include the following: VISTAWALL Architectural Products, YKK, US Aluminum.

2.2 Materials and Accessories:

- Aluminum Members: Alloy and temper recommended by manufacturer for strength, corrosion resistance, and application of required finish; ASTM B 221 for extrusions, ASTM B 209 for sheet/plate.
- B. Fasteners: Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be noncorrosive and compatible with aluminum components.
 - Do not use exposed fasteners except where unavoidable for application of hardware. Match finish of adjoining metal.

- C. Concealed Flashing: Dead-soft stainless steel, 26 gage minimum, type selected by manufacturer for compatibility.
- D. Brackets and Reinforcements: Manufacturer's high-strength aluminum units where feasible; otherwise, nonmagnetic stainless steel or hot-dip galvanized steel complying with ASTM A 386.
- E. Concrete/Masonry Inserts: Cast iron, malleable iron, or hot-dip galvanized steel complying with ASTM A 386.
- F. Bituminous Coatings: Cold-applied asphalt mastic complying with SSPC-PS 12, compounded for 30-mil thickness per coat.
- G. Clear Protective Coatings: AAMA 602.2, compounded specifically for protection of aluminum finish during construction.
- H. Compression Weatherstripping: Manufacturer's standard replaceable stripping of either molded neoprene gaskets complying with ASTM D 200 or molded PVC gaskets complying with ASTM D 2287.
- I. Sliding Weatherstripping: Manufacturer's standard replaceable stripping of wool, polypropylene, or nylon woven pile, with nylon fabric and aluminum strip backing, complying with AAMA 701.2.
- J. Glass and Glazing Materials: Provide glass and glazing materials which comply with the requirements of "Glass and Glazing" section of these specifications.

2.3 Fabrication:

- A. Sizes and Profiles: Required sizes for door and frame units, including profile requirements, are shown in drawings. Any variable dimensions are indicated, together with maximum and minimum dimensions required to achieve design requirements and coordination with other work.
- B. Fabrication: To greatest extent possible, complete fabrication, assembly, finishing, hardware application, and other work before shipment to the project site. Disassemble components only as necessary for shipment and installation. Do not drill and tap for surface-mounted hardware items until the time of installation at the project site.
- C. Sequence: Complete cutting, fitting, forming, drilling, and grinding of metal work prior to cleaning, finishing, surface treatment, and application of finishes. Remove arrises from cut edges and eased edges and corners to radius of approximately 1/64".
- D. Welding: Comply with AWS recommendations to avoid discoloration; grind exposed welds smooth and restore mechanical finish.
- E. Reinforcing: Install reinforcing as necessary for performance requirements; separate dissimilar metals with bituminous paint or other separators, which will prevent corrosion.
- F. Continuity: Maintain accurate relation of planes and angles, with hairline fit of contacting members.
- G. Fasteners: Conceal fasteners wherever possible.

2.4 Aluminum Storefront Window System - Type I:

- A. Basis of Design: Kawneer, IR521T Framing System Impact Resistant.
 - 1. 2 3/4"x5" nominal dimension
 - 2. Thermal
 - Center glazed.
 - 4. Punched opening.

2.5 Glazing: Refer to "Glass and Glazing" section for glazing requirements for aluminum storefront windows.

2.6 Finishes:

- A. Anodized Aluminum Finishes:
 - Aluminum moldings shall be given a caustic etch followed by an anodic oxide treatment to obtain Class I Color Anodic Coating: AA-M12C22A41/44 (non-specular as fabricated mechanical finish; chemical etch, medium matte; 0.7 mil minimum thick integrally colored anodic coating).
 - 2. Color: As selected by Architect from manufacturer's full range of colors.
 - 3. Protect anodized finishes promptly after drying by applying clear protective coating not less than 0.5 mils dry film thickness.
- B. All exposed framing surfaces shall be free of scratches and other serious blemishes.

PART 3: EXECUTION

3.1 Installation:

- A. Comply with the manufacturer's instructions and recommendations for the installation of aluminum storefront windows.
- B. All glass framing shall be set in the correct locations as shown in the details and shall be level, square, plumb and in alignment with other work in accordance with the manufacturer's installation instructions and approved shop drawings. All joints between framing and the building structure shall be sealed in order to secure a watertight installation.
 - Ensure that all weeps are free and clear of any obstructions to allow for proper drainage of moisture from the system.
- C. Metal surfaces:
 - 1. Metal surfaces must be dry and clean (free of grease, oil, dirt, rust, corrosion, and welding slag)
 - 2. Ensure that metal surfaces are without sharp edges or offsets at joints.
- D. Proceed with installation only after correcting unsatisfactory conditions.
- E. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing aluminum-framed storefront system, accessories, and other components.
- F. Install aluminum-framed storefront system so that components:
 - 1. Are level, plumb, square, and true to line
 - 2. Are without distortion and do not impede thermal movement
 - 3. Are anchored securely in place to structural support
 - 4. Are in proper relation to wall flashing and other adjacent construction
- G. Set sill in bed of sealant or with gaskets, as indicated, for weather-tight construction.
- H. Install aluminum-framed storefront system and components to drain condensation, water penetrating joints, and moisture migrating within aluminum-framed storefront system to the exterior.

- Separate aluminum and other corrodible surfaces from surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- J. Refer to "Glass and Glazing" section for installation of glass and other panels shown to be glazed.

3.3 Field Quality Control:

A. Field Tests:

- Architect will select storefront units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured.
- 2. Water Infiltration Tests:
 - a. Conduct tests in accordance with ASTM 1105.
 - b. No uncontrolled water leakage is permitted when tested at a static test pressure of two-thirds the specified water penetration pressure but not less than 6.2 psf.

3.4 Adjust and Clean:

A. Protection:

- 1. Protect installed product's finish surfaces from damage during construction.
- Institute adequate protective measures and other precautions required to assure that aluminum storefronts will be without damage or deterioration, other than normal weathering, at time of acceptance.

B. Cleaning:

- Clean completed system, inside and out, promptly after erection and installation of glass and sealants. Remove excess glazing and sealant compounds, dirt, and other substances from aluminum surfaces.
- 2. Remove non-permanent labels and clean surfaces. Avoid damaging protective coatings and finishes.
- 3. Remove excess sealants, glazing materials, dirt, and other substances.
- 4. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during the construction period.

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SECTION 08800: GLAZING

PART 1: GENERAL

- 1.1 Related Documents: The general provisions of the Contract, including the Conditions of the Contract (General, Supplementary, and other Conditions, Division 0) and Division 1 as appropriate, apply to the Work specified in this Section.
- 1.2 Scope of Work: Furnish all necessary materials, labor and equipment for the complete installation of glazing, as shown on the Drawings and specified herein. Provide all necessary supplementary items for a complete installation intended by documents.

1.3 Quality Assurance:

- A. All glazing shall comply with the Safety Standard for Architectural Glazing Materials (16CFR Part 1201) issued by the U.S. Consumer Product Safety Commission.
- B. Reference to "Safety Glass" in Drawings shall indicate Laminated Safety Glass. Install Safety Glass in all windows within four (4') feet of an exterior door.
- C. Prime Glass Standard: FS DD-G-451.
- D. Safety Glass Standard: CPSC 16 CFR 1201.

1.4 References:

- A. ASTM C1036 Standard Specification for Flat Glass.
- B. ASTM C1048 Standard Specification for Heat-Treated Flat Glass Kind HS, Kind FT Coated and Uncoated Glass.
- C. ASTM C1172 Standard Specification for Laminated Architectural Flat Glass.
- D. ASTM C1376 Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Glass.
- E. ASTM E2188 Standard Test Method for Insulating Glass Unit Performance.
- F. ASTM E2190 Standard Specification for Insulating Glass Performance and Evaluation.
- G. CPSC 16CFR 1201 Safety Standard for Architectural Glazing Materials.
- H. ASTM E1886 Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials.
- ASTM E1996 Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes.
- J. GANA Glazing Manual.
- K. GANA Laminated Glazing Reference Manual.
- L. ASCE/SEI 7.
- M. International Building Code 2021

1.5 Definitions:

- A. Seated Insulating Glass Unit with Laminated Inboard Lite Surfaces Glazing Type 1:
 - 1. Surface No. 1: Exterior surface of outer lite.
 - 2. Surface No. 2: Interior surface of outer lite.

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- 3. Surface No. 3: Exterior surface of inner lite.
- 4. Surface No. 4: Interior surface of inner lite.
- 5. Surface No. 5: Exterior surface of inboard lite.
- Surface No. 6: Interior surface of inboard lite.
- B. Airspace: Space between lites of an insulating glass unit that contains dehydrated air or other inert specified gass.

1.4 Submittals:

- A. Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements
- B. Provide data on glazing sealant. Identify colors available.
- C. Provide two (2) samples, 12-inch square, of each glass product, except for clear single pane units.
- D. Shop Drawings: Submit manufacturer's or fabricator's shop drawings, including plans, elevations, sections, and details, indicating glass dimensions, tolerances, types, thickness, and coatings. Submit in accordance with requirements of Section 01330 Submittal Procedures.
- E. Fabricator's Certification: Submit fabricator's certification by manufacturer.
- F. Cleaning Instructions: Submit manufacturer's cleaning instructions.
- G. Warranty: Submit manufacturer's standard warranty for sealed insulating glass units and laminated glass units, that begins at the date of substantial completion.

1.5 Quality Assurance:

- A. Manufacturer's Qualifications: Minimum of 5 years of experience manufacturing solar control coated glass.
- B. Fabricator's Qualifications:
 - 1. Minimum of 5 years of experience manufacturing sealed insulating glass units meeting ASTM E2190.
 - 2. Minimum of 5 years of experience manufacturing laminated glass units meeting ASTM C1172 and CPSC 16CFR-1201.
 - Certified Manufacturer.
- C. Windborne-Debris-Impact Resistance: Provide exterior glazing that passes basic protection testing requirements in ASTM E1996 for Wind Zone 3 when tested according to ASTM E1886 reference wind load data Sheet G002 for components and cladding pressures (PSF) per ICB 2021. Test specimens shall have no small in width and length than glazing indicated for use on the project and shall be installed in same manner as glazing indicated for use on the project.
 - Large-Missile Test: For glazing located within 30 feet of grade.

1.6 Delivery, Storage, and Handling:

- A. Delivery:
 - 1. Deliver glass to site in accordance with manufacturer's instructions.
 - 2. Deliver glass in manufacturer's or fabricator's original containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage:

- 1. Store glass in accordance with manufacturer's instructions.
- 2. Store glass in clean, dry area indoors.
- 3. Protect from exposure to direct sunlight and freezing temperatures.
- 4. Apply temporary coverings loosely to allow adequate ventilation.

- 5. Protect from contact with corrosive chemicals.
- 6. Avoid placement of glass edge on concrete, metal, and other hard objects.
- 7. Rest glass on clean, cushioned pads at ¼-points.
- C. Handling:
 - 1. Handle glass in accordance with manufacturer's instructions.
 - 2. Protect glass from damage during handling and installation.
 - 3. Do not slide 1 lite of glass against another.
 - 4. Do not use sharp objects near unprotected glass.

1.7 Warranty:

- A. Manufacturer's Special Warranty on Laminated Glass: Manufacturer's standard form in which laminated-glass manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated-glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated-glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.
 - 1. Warranty Period: 5 years from date of substantial completion.
- Job Conditions: Pre-Installation: Meet with Glazer and other trades affected by glass installation, prior to beginning of installation. Do not perform work under adverse weather or job conditions. Install liquid sealants when temperatures are within lower or middle third of temperature range recommended by manufacturer.

PART 2: PRODUCTS

- 2.1 Acceptable Manufacturers: Regularly engaged in the manufacture of glass and glass products.
- 2.2 Glass Products, General:
 - A. Provide primary glass, which complies with FS DD-G-451 requirements, including those indicated by reference to type, class, quality, and form.
 - B. Fabricate glass to size required for glazing openings indicated, with edge clearances and tolerances complying with recommendations of glass manufacturer. Provide thicknesses as indicated on the Drawings, or, if not otherwise indicated, as recommended by glass manufacturer for application indicated.
- 2.3 Solar Control Insulating Laminated Coated Glass-Laminated Inboard Glazing:
 - A. Double-Glazed Tinted Solar Control Insulating Glass Units with Laminated Inboard Lite:
 - 1. Conformance: ASTM E2190.
 - Conformance: ASTM C1172 and complying with testing requirements in CPSC 16CFR-1201 for Category II materials and with "Windborne-Debris-Impact Resistance" paragraph in "Quality Assurance" article.
 - Outboard Lite: Sputter-Coated Tinted Float Glass.
 - a. Annealed Tinted Float Glass: ASTM C1036, Type 1, Class 2, Quality q3. Vitro Solarblue.

- b. Vacuum Deposition Sputtered Coating: ASTM C1376.
- c. Coating on Surface No. 2: Vitro Solarban 70.
- d. Glass Thickness: 1/4"-inch.
- e. Heat Treatment: Heat-strengthened, ASTM C1048, Kind HS.
- 4. Air Space: 1/2-inch wide, hermetically sealed, dehydrated air space.
- Inboard Laminated Glass Unit:
 - a. Conformance: ASTM C1172, CPSC 16CFR-1201
 - b. Inner Lite:
 - Annealed Clear Float Glass: ASTM C1036, Type 1, Class 1, Quality q3.
 - 2) Coating on No. 3 Surface: None.
 - 3) Glass Thickness: 1/4-inch.
 - 4) Heat Treatment: Heat-Strengthened.
 - c. Interlayer: Polyvinyl butyral (PVB) plastic interlayer, clear, 0.090-inch thick.
 - d. Inboard Lite:
 - Annealed Tinted Float Glass: ASTM C1036, Type 1, Class 1, Quality q3 – Vitro Solarblue
 - 2) Coating on No. 6 Surface: None
 - 3) Glass Thickness: 1/4-inch.
 - 4) Heat Treatment: Heat-Strengthened.
- 6. Glass Unit Performance Characteristics:
 - a. Visible Light Transmittance: 21%
 - b. Visible Light Reflectance Outdoors: 9%
 - c. Direct Solar Energy Reflectance Outdoors: 34%
 - d. Winter U-Value Nighttime: .45
 - e. Summer U-Value Daytime: .47
 - f. Shading Coefficient: .29
 - g. Solar Heat Gain Coefficient: .25
- 7. Sealing System: Dual seal, approved by glass manufacturer, with polyisobutylene and silicone primary and secondary.
 - a. VOC Content: For sealants used inside of the weatherproofing system, not more that 250 g/L when calculated according to 40 CFR 59, Subpart D.
- 8. Spacer: Aluminum with clear anodic finish.
- 9. Desiccant: Molecular sieve or silica gel, or blend of both.
- 10. Corner Construction: Manufacturers' standard, soldered, welded, or bent; keyed joints and corners are not permitted.
- 11. Overall Thickness: 1-5/16-inch.
- 2.4 Fabrication of Glazing Units:
 - A. Fabricate glazing units in sizes required to fit openings indicated for project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.
- 2.5 Sealants: 1-Part Silicone Rubber Glazing Sealant. Elastomeric silicone sealant complying with FS TT-S-001543, Class A, non-sag. Provide acid type recommended by manufacturer where only non-porous bond surfaces are contacted; provide non-acid type recommended by manufacturer where one or more porous bond surfaces are contacted. G.E. Silicone or approved equal.

2.6 Full Tempered Glass: Meet all safety glazing standards including Federal Safety Glazing Standard, CPSC 16 CFR 1201.

2.7 Miscellaneous Glazing Materials:

- A. Cleaners, Primers and Sealers: Type recommended by sealant or gasket manufacturer.
- B. Setting Blocks: Neoprene or EPDM, 70-90 durometer hardness, with proven compatibility with sealants used.

PART 3: EXECUTION

3.1 Standards and Performance:

- A. Watertight and airtight installation of each glass product is required, except as otherwise shown. Each installation must withstand normal temperature changes, wind loading, impact loading (for operating sash and doors), without failure including loss or breakage of glass, failure of sealants or gaskets to remain watertight and airtight, deterioration of glazing materials and other defects in the work.
- B. Protect glass from edge damage during handling and installation, and subsequent operation of glazed components of the work. During installation, discard units with significant edge damage or other imperfections.
- C. Glazing channel dimensions as shown are intended to provide for necessary bite on glass, minimum edge clearance, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by job conditions at time of installation.
- D. Comply with combined recommendations and technical reports by manufacturers of glass and glazing products as used in each glazing channel, and with recommendations of Flat Glass Marketing Association "Glazing Manual," except where more stringent requirements are indicated.

3.2 Preparation for Glazing:

- A. Clean glazing channel and other framing members to receive glass, immediately before glazing. Remove coatings, which are not firmly bonded to substrate. Remove lacquer from metal surfaces where elastomeric sealants are used.
- B. Apply primer or sealant to joint surfaces where recommended by sealant manufacturers.
- C. Verify glazing openings are correct size and within tolerance.
- D. Verify glazing channels, recesses, and weeps are clean and free of obstructions.

3.3 Glazing:

- A. Install setting blocks of proper size in sill rabbet, located 1/4 of glass width from each corner. Set blocks in thin course of heel-bead compound, if any.
- B. Set units of glass in each series with uniformity of pattern, draw, bow and similar characteristics.
- C. Force sealants into channel to eliminate voids and to ensure complete "wetting" or bond of sealant to glass and channel surfaces.
- D. Tool exposed surfaces of glazing liquids and compounds to provide a substantial "wash" away from glass.
- E. Clean and trim excess glazing materials from glass and stops or frames promptly after installation and eliminate stains and discolorations.

F. Install glass in accordance with manufacturer's instructions, except where local codes or GANA Glazing Manual indicate more stringent requirements.

3.4 Field Quality Control:

- A. Coated glass, when viewed from a minimum of 10 feet, exhibiting slightly different hue or color not apparent in hand samples, will not be cause of rejection of glass units, as determined by Architect.
- B. Verify glass is free of chips, cracks, and other inclusions that could inhibit structural or aesthetic integrity.

3.4 Cure, Protection and Cleaning:

- A. Protect exterior glass from breakage immediately upon installation, by use of crossed streamers attached to framing and held away from glass. Do not apply markers to surfaces of glass. Remove non-permanent labels and clean surfaces. Cure sealants for high early strength and durability.
- B. Remove and replace glass which is broken, chipped, cracked, abraded or damaged in other ways during construction period, including natural causes, accidents and vandalism.
- C. Wash and polish glass on both faces not more than four (4) days prior to date scheduled for inspections intended to establish date of substantial completion in each area of project. Comply with glass product manufacturer's recommendations for final cleaning.

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