



ST. TAMMANY PARISH SCHOOL BOARD

ST. TAMMANY JR HIGH, REROOFING OF WALKWAY COVER PROJECT NO. 1501 701 CLEVELAND AVENUE SLIDELL, LOUISIANA



DAMMON ENGINEERING, INC.
554 OLD SPANISH TRAIL
SLIDELL, LOUISIANA 70458

JANUARY 2015

SET No. _____

ST. TAMMANY PARISH SCHOOL BOARD
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SECTION IA - ADVERTISEMENT FOR BIDS

Separate sealed bids will be received by the St. Tammany Parish School Board at the St. Tammany Parish School Board C.J. Schoen Administrative Complex, Reception Desk, 321 N. Theard St., Covington, LA 70433 for **Slidell Jr. High, Reroofing of Old Sixth Grade Wing, STPSB Project No. 1321** on the **2nd** day of **April, 2014** at **2:00 p.m.** (Time shall be established by the PBX clock at the above referenced address), at which time and place bids will be publicly opened and read aloud.

Complete Bidding Documents may be obtained from the Architect, Dammon Engineering, Inc., 554 Old Spanish Trail, Slidell, LA 70458, (985) 649-5832, upon payment of a deposit of \$100.00 for each printed set of documents.

All bids must be accompanied by bid security equal to five percent (5%) of the sum of the base bid and all alternates, and must be in the form of a certified check, cashier's check or bid bond, as outlined in the Instructions to Bidders.

The Successful Bidder will be required to furnish a performance and payment bond, each in an amount equal to 100% of the contract amount.

No bid may be withdrawn except as provided for by law.

Bidders must meet the requirements of the State of Louisiana Contractor's Licensing Law, La. R.S. 37:2150.1 through 2164, as amended.

Preference may be given to materials, supplies and provisions produced, manufactured or grown in Louisiana in accordance with law.

The Owner reserves the right, in accordance with law, to reject any and all bids.

A pre-bid conference will be held on **the 20th day of March, 2014 at 12:30 p.m.** at the project site, Slidell Jr. High School, 333 Pennsylvania Ave., Slidell, LA. Bidders are strongly urged to attend and participate in the conference.

Bidders have the option to submit bids electronically in accordance with Louisiana Revised Statute 38:2212 A(1)(f)(i). Please find bid related materials and place electronic bids at www.centralbidding.com.

END OF SECTION IA

SECTION IB - INSTRUCTIONS TO BIDDERS

COMPLETION TIME:

The Bidder shall agree to fully complete the contract within sixty (60) consecutive calendar days, subject to such extensions as may be granted in accordance with the Contract Documents, and acknowledges that this construction time will start on or before the date specified in the written “Notice to Proceed” from the Owner.

LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of seven hundred and fifty Dollars (\$ 750) for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the completion date stated on the “Notice to Proceed”. Said sum shall in no event be construed to be a penalty; but only as damages fixed and agreed upon in advance.

ST. TAMMANY PARISH SCHOOL BOARD

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SECTION 1

DEFINITIONS

- 1.1 “Alternate Bid” (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in project scope or materials or methods of construction described in the Bidding Documents is accepted by the Owner.
- 1.2 “Base Bid” is the sum stated in the Bid for which the Bidder offers to perform the Work described as the base, to which work may be added or deducted for sums stated in any Alternate Bid.
- 1.3 “Bid” is a complete and properly signed Uniform Public Work Bid Form to do the Work or designated portion thereof for the sums stipulated therein supported by data called for by the Bidding Documents and subject to the requirements of the Contract Documents.
- 1.4 “Bidder” is one who submits a Bid for a prime contract with the Owner for the Work described in the proposed Contract Documents.
- 1.5 “Bidding Documents” include but are not limited to:
 - 1.5.1 All definitions set forth in the General Conditions of the Contract.
 - 1.5.2 “Addendum” or “Addenda” are written or graphic instruments issued by the Architect prior to the opening of bids which modify or interpret the Bidding Documents by additions, deletions, approvals, clarifications or corrections.
 - 1.5.3 “Contract Documents” include all documents identified in the Agreement between the Successful Bidder and the Owner.
- 1.6 “Owner” is the St. Tammany Parish School Board.
- 1.7 “Sub-bidder” is one who submits a bid to a Bidder for a portion of the Work.
- 1.8 “Successful Bidder” means the lowest qualified responsible and responsive Bidder submitting a Bid and to whom the Owner makes an award.

SECTION IB - INSTRUCTIONS TO BIDDERS

- 1.9 “Unit Price” is an amount stated in the Bid as a price per unit of measurement for materials or services as described in the Contract Documents.
- 1.10 “Work” consists of the duties and obligations undertaken by the Bidder in accordance with the Contract Documents to complete the Project identified in the Contract Documents.

SECTION 2

BIDDER'S REPRESENTATION

- 2.1 Each Bidder by submitting a completed and signed Bid represents that:
 - 2.1.1 He has read and understands the Bidding Documents and his Bid is made in accordance therewith.
 - 2.1.2 He has examined and personally visited the site and the location of the proposed Work and has familiarized himself with the local conditions under which the Work is to be performed to include correlation of his personal observations with the requirements of the Contract Documents.
 - 2.1.3 His Bid is based upon the materials, systems, equipment or other items and conditions described in the Bidding Documents without exception.
 - 2.1.4 He is satisfied as to (1) the conditions to be encountered, (2) the character, quality, and scope of the proposed Work, (3) the quality and quantity of the materials to be furnished, and (4) the requirements of the Bid, the plans and specifications, and other Contract Documents.
 - 2.1.5 He is fully qualified and licensed in accordance with La. R.S. 37:2150.1 through 37:2164 as amended, and under applicable state and local licensing requirements and he shall be responsible for determining that he and all Sub-bidders or prospective subcontractors are duly licensed in accordance with state and local authorities.

SECTION 3

BIDDING DOCUMENTS

- 3.1 COPIES
 - 3.1.1 Prime bidders who are properly licensed by the Louisiana State Licensing Board for Contractors may obtain from the Architect (unless another issuing office is designated in the Advertisement for Bid) at least one set of complete Bidding Documents for the deposit, if any, stated in the Advertisement for Bid. Deposits for documents will be returned in accordance with law.
 - 3.1.2 Bidding Documents will be issued in accordance with law.
 - 3.1.3 Complete sets of Bidding Documents should be used in preparing bids; neither the Owner nor the Architect assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
 - 3.1.4 The Owner or the Architect, in making copies of the Bidding Documents available on the above terms, do so only for the purpose of obtaining bids on the Work and do not confer a license for any other use.
- 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS
 - 3.2.1 Bidders shall promptly notify the Architect of any ambiguity, inconsistency or error which they may discover upon examination of the Bidding Documents or of the site and local conditions.
 - 3.2.2 Any interpretation, correction or change of the Bidding Documents will be made by Addendum. Interpretations, corrections or changes of the Bidding Documents made in any other manner will not be binding upon the Owner and Bidders shall not rely upon such interpretations, corrections and changes.
- 3.3 SUBSTITUTIONS/PRIOR APPROVALS
 - 3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any substitution proposed by the Bidder.

SECTION IB - INSTRUCTIONS TO BIDDERS

- 3.3.2 No substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by the Architect and Owner at least ten (10) calendar days prior to the date for receipt of bids. Each such request shall include the name of the manufacturer and distributor of the materials or equipment of the substitute and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the Bidder. The decision of the Owner concerning any substitute shall be final.
 - 3.3.3 If the Owner approves any proposed substitution, such approval will be set forth in an Addendum. Bidder shall not rely upon approvals made in any other manner, whether oral or in writing.
- 3.4 ADDENDA
- 3.4.1 Addenda will be transmitted or delivered to all Bidders who have requested Bidding Documents in accordance with law.
 - 3.4.2 Each Bidder should ascertain from the Architect prior to submitting a Bid that he has received all Addenda issued. All bids will be considered by the Owner as if the Bidder had received and considered all Addenda.

SECTION 4

BIDDING PROCEDURE

4.1 FORM AND STYLE

- 4.1.1 Bids should be submitted on the Uniform Public Work Bid Form provided by the Owner. The form can be removed from the project manual or specifications. A duplicate copy is also acceptable.
- 4.1.2 Information requested on the Uniform Public Work Bid Form should be filled in by typewriter or legible hand printing or writing in ink.
- 4.1.3 Where so indicated by the makeup of the Uniform Public Work Bid Form, prices should be expressed in both words and figures, and in case of discrepancy between the two, the amount expressed in words shall govern.
- 4.1.4 All requested alternates shall be Bid.
- 4.1.5 Bidder shall not qualify his Bid in any manner.
- 4.1.6 Each Bid shall state the name of the Bidder. Written evidence of the authority of the person signing the Bid, if required by law, should be attached to the bid. Bidders are instructed to carefully review the law and the Uniform Public Work Bid Form for requirements in submission of a bid.
- 4.1.7 Bidder shall certify that he is properly licensed and should show his license number on the Uniform Public Work Bid Form in the designated space and shall show his license number on the bid envelope. Failure of the Bidder to certify that he is licensed or to include the contractor's license number on the bid envelope may result in the Bid being automatically rejected, so marked, returned to the Bidder, and not read aloud in accordance with Louisiana Revised Statute 37:2163.
- 4.1.8 Bidders should attach or enclose with the signed Uniform Public Work Bid Form all other necessary documents, including but not limited to written proof as set forth in Section 4.1.6 and the Bid Security.

4.2 BID SECURITY

- 4.2.1 Bids may not be considered or accepted if the Bid is not accompanied by bid security in an amount of five percent (5%) of the Base Bid. The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a bid bond written by a surety company licensed to do business in the state of Louisiana and qualified as required by the provisions of Louisiana Revised Statute 38:2218 and 38:2219. Any bond should be accompanied by the appropriate power of attorney with a valid effective date.
- 4.2.2 Bid security furnished by the Bidder should guarantee that the Bidder will, if awarded the Contract, perform according to the terms of his Bid and the Bidding Documents and will enter into the Contract with the Owner.

SECTION IB - INSTRUCTIONS TO BIDDERS

- 4.2.3 Should the Bidder fail to perform according to his Bid and the Bidding Documents, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty.
 - 4.2.4 The Owner will have the right to retain the bid security of bidders until either (a) the Contract has been executed and Bonds have been furnished by the Bidder awarded the Contract, or (b) the time for the rejection of all Bids by the Owner has expired.
- 4.3 SUBMISSION OF BIDS
- 4.3.1 The signed Uniform Public Work Bid Form, the bid security, and any other documents to be submitted with the Uniform Public Work Bid Form should be enclosed in a sealed, opaque envelope. The envelope should be addressed to St. Tammany Parish School Board, 321 N. Theard, Covington, Louisiana 70433 and be plainly marked "BIDS ON CONSTRUCTION OF (Name of Project) TO BE OPENED (Date)" and include the Bidder's name, address, and **shall** include the Louisiana contractor's license number. If the Bid is sent by mail, the sealed envelope should be enclosed in a separate mailing envelope with the notation "BID ENCLOSED" on the face thereof.
 - 4.3.2 Bids shall be deposited at the designated location prior to the time and date for receipt of bids indicated in the Advertisement for Bid, or any extension thereof made by Addendum. Bidders are responsible for timely delivery at the location designated for receipt of Bids. Delays in the U.S. Mail or any other agent or delivery service remain the responsibility of the Bidder. Bids received after the time and date for receipt of bids will be returned unopened.
- 4.4 MODIFICATION OR WITHDRAWAL OF BID
- 4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder except in accordance with law.
 - 4.4.2 Prior to the time and date designated for receipt of Bids, Bids submitted early may be modified or withdrawn only by written notice to the party receiving Bids at the place and prior to the time designated for opening of Bids
 - 4.4.3 Withdrawn Bids may be resubmitted up to the time designated for the opening of Bids.
 - 4.4.4 Bid security should be in an amount sufficient for the Bid as modified or resubmitted.

SECTION 5

CONSIDERATION OF BIDS

- 5.1 OPENING OF BIDS
- 5.1.1 Unless stated otherwise in the Advertisement for Bids, the properly identified Bids received on time will be opened publicly, will be read aloud, and an abstract of the amounts of the Base Bids and Alternates, if any, will be made available to Bidders.
- 5.2 REJECTION OF BIDS
- 5.2.1 The Owner shall have the right to reject any or all Bids in accordance with law.
- 5.3 ACCEPTANCE OF BID (AWARD)
- 5.3.1 The Owner shall award a contract to the lowest responsive and responsible Bidder provided the Bid has been submitted in accordance with law, and the Owner does not reject any or all Bids in accordance with law.

SECTION 6

SUBMISSIONS

- 6.1 If required by the Owner, the apparent low Bidder shall submit to the Architect and the Owner prior to award of the Contract, written documentation from any manufacturer that the manufacturer will issue the guarantee, such as a roof system guarantee, based on the specified system or equipment and include the name of the applicator acceptable to the manufacturer

SECTION IB - INSTRUCTIONS TO BIDDERS

for installing the specified system and all requirements of the manufacturer which must be met in order for the guarantee to issue. The manufacturer shall be one that has received prior approval or is named in the specifications.

SECTION 7

PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

- 7.1 The successful Bidder shall furnish and pay for a performance bond and a statutory payment bond for public works, in accordance with the Contract Documents and Louisiana Revised Statute 38:2219 as amended.
- 7.2 The Bonds shall be issued in accordance with the provisions of Louisiana Revised Statute 38:2216 and 2219 as amended, except that they will be in the amount of one hundred percent of the Contract amount.
- 7.3 The Owner may record the executed Agreement and Bonds with the Clerk of Court for the Parish of St. Tammany.

SECTION 8

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

- 8.1 Unless otherwise provided in the Bidding Documents, the Agreement and bond forms for the Work will be written on the forms as attached in the Contract Documents. Within five (5) days after the proposed agreement is presented to the Successful Bidder for execution, the Successful Bidder and his surety must execute the Agreement.

SECTION 9

AFFIDAVIT OF COMPLIANCE WITH LOUISIANA REVISED STATUTES 38:2212.9, 2224 AND 2227

- 9.1 Each person submitting a Bid, prior to an award of the Contract to them, will be required to sign and execute an affidavit before a Notary Public in the form provided to the effect that Bidder is qualified in accordance with law to Bid on the Work and to undertake the Work, and Bidder has not colluded with any person, firm, or corporation in regard to any Bid submitted, all in accordance with law. The form of the affidavit is in the Bidding Documents.

SECTION 10

UNIT PRICES

- 10.1 Unit prices other than those requested in the Uniform Public Work Bid Form should not be submitted with any Bid.
- 10.2 Unit prices furnished by the Contractor in the form of a proposal shall not be construed as an authorization to perform work or expend monies. Any change in the Work must be authorized by a written change order and signed in accordance with the Contract Documents.

SECTION 11

RELIEF FROM BID MISTAKE

- 11.1 Bidders are advised to review the provisions of law, particularly Louisiana Revised Statute 38:2214 C and D, as amended from time to time, to support an application to withdraw a Bid.
- 11.2 In the event a Bidder, after opening of the bids, attempts to utilize the provisions of Louisiana Revised Statute 38:2214 C to attempt to withdraw its bid, the Owner will be the sole party to determine whether the alleged bid mistake is substantial.

SECTION 12

PRE-BID CONFERENCE

- 12.1 A pre-bid conference will be held at the time and place designated in the Advertisement for Bids. Bidders are strongly urged to attend and participate in the conference.

SECTION IB - INSTRUCTIONS TO BIDDERS

SECTION 13

COMPLETION TIME AND LIQUIDATED DAMAGES

- 13.1 The completion of the Work must be within the time stated in these Instructions to Bidders, subject to any extensions as may be granted in accordance with Contract Documents or the contractor shall pay the Liquidated Damages in the amount as stated in these Instructions to Bidders.

END OF SECTION IB
7.23.10

SECTION IC -PAYMENT OF TAXES

The Bidder is responsible for the payment of all applicable sales, use or other taxes relating to any materials or services to which such taxes are imposed arising from its Bid or the Contract.

END OF SECTION IC

SECTION ID – LOUISIANA UNIFORM PUBLIC WORK BID FORM

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: St. Tammany Parish School Board **BID FOR:** St. Tammany Jr. High
C.J. Schoen Administrative Complex Reroofing of Walkway Cover
321 N. Theard St., Covington, LA 70433 STPSB Project #1501

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Dammon Engineering, Inc., 554 Old Spanish Trail, Slidell, La. 70458 and dated: March 3, 2014

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) _____.

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated “Base Bid” * but not alternates) the sum of: _____ Dollars (\$ _____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of: _____ Dollars (\$ _____)

Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of: _____ Dollars (\$ _____)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of: _____ Dollars (\$ _____)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR’S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(A)(1)(c) or RS 38:2212(O).

BID SECURITY in the form of a bid bond, certified check or cashier’s check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

SECTION IIA - AGREEMENT

SAMPLE

**AGREEMENT BETWEEN
ST. TAMMANY PARISH SCHOOL BOARD
AND**

**STATE OF LOUISIANA
PARISH OF ST. TAMMANY
CITY OF COVINGTON**

AN AGREEMENT made and entered into this ____ day of _____, 2____, by and between:

ST. TAMMANY PARISH SCHOOL BOARD, located at 321 N. Theard, Covington, LA 70433 herein represented by _____, its Superintendent, duly authorized, hereinafter called "Owner", and

_____, located at _____, a corporation organized and created under the laws of the State of _____, herein represented by _____, its _____, duly authorized by a resolution of the Board of Directors of said corporation, adopted at a meeting held on _____, a certified copy of which is annexed hereto for reference, hereinafter called "Contractor."

The said Contractor, has agreed, and does by these presents agree, for the consideration mentioned and contained herein, to furnish all labor and materials, tools, equipment, supplies, utilities, charged fees, permits and all other construction accessories and services required to build, construct and complete in a thorough and workmanlike manner: _____, in strict accordance with the Contract Documents prepared by _____ for St. Tammany Parish School Board.

The Owner will pay and the Contractor will accept in full consideration for the performance of the contract, the sum of _____ DOLLARS (\$ _____), which sum includes all taxes and represents the Base Bid plus Alternates ____ and subject to additions and deductions as provided in the Contract Documents.

The said Contract Documents, including by way of example and not of limitation, the Drawings, dated _____, Addenda number __, dated _____, the Specifications, dated _____, the Advertisement for Bids, Instructions to Bidders, Contractor's Bid Proposal Form, General Conditions, Supplementary Conditions, Special Conditions, and any Addenda thereto, which impose duties and obligations upon appearers herein. For these purposes, all of the provisions contained in the aforementioned Contract Documents are contained herein by reference with the same force and effect as though said Contract Documents were herein set out in full. An enumeration of the Contract Documents is as follows:

Contractor agrees to complete fully all work included in this Agreement within _____(____) consecutive calendar days from the date of Notice to Proceed as issued by the Architect, subject to adjustments of the Contract Time as provided in the Contract Documents. Contractor shall be assessed Liquidated Damages, in the sum of _____ Dollars (\$ _____) for each consecutive calendar day which the Work is not complete beginning with the first day beyond the completion time stated above. Said sum shall in no event be construed to be a penalty; but only as damages fixed and agreed upon in advance.

Contractor agrees to do and perform each and every one of the obligations contained in and, in conformity with, the said Contract Documents.

In accordance with Louisiana Revised Statute 23:1061(A), the parties hereby agree that Owner is entitled to and does hereby adopt a statutory employment relationship with any person(s) employed by or under Contractor, including but not limited to all subcontractor or materialmen or supplier employees. Contractor and Owner do hereby acknowledge that the work performed by Contractor is an integral part of or essential to the ability of Owner to carry out

SECTION IIA - AGREEMENT

its constitutional and statutory duties to provide educational services. Contractor agrees to provide workers= compensation insurance coverage as provided for in the Contract Documents and Supplementary Conditions and holds Owner harmless and indemnifies Owner in the event of any workers= compensation claim is asserted against Owner for any persons defined herein.

In consideration of the faithful and complete performance by the Contractor of all and singular the obligations by Contractor herein assumed, the ST. TAMMANY PARISH SCHOOL BOARD hereby agrees to pay unto the said Contractor, its successors, legal representatives and assigns, at the times and in the manner set forth in the specifications above referred to, the price for the work to be done under this contract, in accordance with the proposal of said Contractor, duly accepted by Owner.

Contractor by signing this contract consents and yields to the jurisdiction of the Twenty-Second District Court for the Parish of St. Tammany, Louisiana, and does formally waive any plea of lack of jurisdiction, on account of its residence elsewhere, in the event of a law suit filed under this contract or the bonds furnished for and on behalf of the Contractor at the time of the execution of this Agreement.

Contractor has separately furnished a performance bond and a labor and materials payment bond issued by _____, this date to the Owner which bonds are furnished in accordance with the requirements of the Contract Documents and for recording in the Office of the Recorder of Mortgages in the Parish of St. Tammany.

THIS AGREEMENT is entered into as of the date first written above and is executed in at least four originals.

WITNESSES

ST. TAMMANY PARISH SCHOOL BOARD

By: _____
(Name)
Superintendent

WITNESSES

(CONTRACTOR)

By: _____
(NAME)
(Title)

SECTION IIB - PERFORMANCE BOND

**SAMPLE
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS that (insert full name and address or legal title of Contractor) ; as Principal, hereinafter called Contractor, and (insert full name and address or legal title of Surety), a corporation duly organized under the laws of the State of _____, and authorized to do business in the state of Louisiana, as Surety, hereinafter called Surety, are held and firmly bound unto **ST. TAMMANY PARISH SCHOOL BOARD, 321 N. Theard, Covington, Louisiana 70433**, as Obligee, hereinafter called Owner, in the amount of _____ Dollars (\$ _____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written Agreement dated _____, entered into a Contract with Owner for (insert full name, address and description of project), in accordance with the Drawings and Specifications prepared by (insert full name and address or legal title of Architect), which Contract and Contract Documents referred to therein are and by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION of this obligation is such that, if the said Contractor shall promptly and faithfully perform all and singular the obligations assumed by said Contractor in the aforesaid Contract during the term of said Contract and any extension thereof that may be granted by the ST. TAMMANY PARISH SCHOOL BOARD, with or without notice to the Surety, and during the life of any term or condition, including but not limited to any guaranty required under the Contract, or by law, and shall also perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of modifications to the Surety being hereby waived; and shall fully secure and protect the said ST. TAMMANY PARISH SCHOOL BOARD, its legal successor and representative, from all liability in the premises, and from all loss or expense of any kind, including all costs of court and all attorney's fees made necessary or arising from the failure, refusal or neglect of the Contractor, to comply with the obligations assumed by Contractor, then this bond shall be null and void; otherwise, it shall remain in full force and effect.

Contractor and Surety, by act of signing this Bond, consent and yield to the jurisdiction of the Twenty-Second District Court for the Parish of St. Tammany, Louisiana and do formally waive fully any lack of jurisdiction on account of their residence elsewhere, in the event of a law suit under the Contract or this Bond.

This Bond is furnished pursuant to the provisions of Louisiana Revised Statute 38:2216 and the only right of action which shall accrue on this Bond is solely to the benefit of the Obligee named herein and its successors or assigns, and no other person shall have any right of action based thereon.

Signed and Sealed this ____ day of _____, _____.

(SEAL)
PRINCIPAL (CONTRACTOR)

(SEAL)
SURETY

SAMPLE

AFFIDAVIT OF COMPLIANCE WITH LOUISIANA REVISED STATUTES 38:2212.9, 38:2224 AND 38:2227

STATE OF _____

PARISH/COUNTY OF _____

PROJECT NO. _____

NAME _____

LOCATION _____

AFFIDAVIT

BEFORE ME, the undersigned authority, duly commissioned and qualified within and for the state and parish aforesaid, personally came and appeared ___(name)___ representing ___(company)___ who, being by me first duly sworn deposed and said that he/she has read and signed this affidavit and he/she does hereby attest, under oath, as follows:

(1) That affiant and his/her firm employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract for the above-referenced project with the St. Tammany Parish School Board under which he will, if awarded the contract, receive or have received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant;

(2) That no part of the contract price to be received or received by affiant or his/her firm was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction of the public building or project were in the regular course of their duties for affiant;

(3) That neither affiant, nor any partner, incorporator, director, manager, officer, organizer, or member who has a minimum of ten percent ownership in the bidding entity, has been convicted of, or has entered a plea of guilty or nolo contendere to any crimes enumerated in Louisiana Revised Statute 38:2227, or equivalent federal crimes; and

(4) That neither affiant, nor any individual with an ownership interest of five percent or more in his/her firm has been convicted of, or has entered a plea of guilty or nolo contendere to any state felony crime or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts as described in Louisiana Revised Statute 38:2212.8.

Bidder or representative to sign and type name below signature.

Affiant

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ day of _____, 2____.

NOTARY PUBLIC

SECTION IIIB - SUPPLEMENTARY CONDITIONS

SUPPLEMENTARY CONDITIONS OF THE CONTRACT FOR CONSTRUCTION
ST. TAMMANY PARISH SCHOOL BOARD

The General Conditions of the Contract for Construction, AIA Document A201, 1997 Edition, Articles 1 through 14 inclusive, is a part of this Contract, and is incorporated as fully as if herein set forth. For brevity, AIA Document A201 is also referred to in the Contract Documents as the "General Conditions".

Printed copies of AIA Document A201 can be purchased from the local chapters of the American Institute of Architects, or from the American Institute of Architects, 1735 Massachusetts Avenue, N.W., Washington D.C. 2006.

The following supplements modify, change, delete from or add to the "General Conditions of the Contract for Construction", AIA Document A201, Fifteenth Edition, 1997. Where any portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1 - GENERAL PROVISIONS

1.1 BASIC DEFINITIONS

- 1.1.1 Delete the last sentence of Subparagraph 1.1.1. Add the following sentence: "The Contract Documents shall include the Bidding Documents as listed in the Instructions to Bidders and any modifications made thereto by addenda. The Contract Documents shall also include the required Completion Time set out in the Instructions to Bidders, and the Contractor agrees to the Liquidated Damages set out in the Instructions to Bidders for failure to complete the work timely in accordance with the Contract Documents."
- 1.1.2 In the fourth sentence, after the word "Sub-subcontractor" add the word "or" then delete the words "between the Owner and Architect or (4)". Also, at the end of this Subparagraph, Add the following sentence: "Notwithstanding the foregoing, the Owner shall be considered a third party beneficiary of any contract or agreement between the Contractor and a Subcontractor."
- 1.1.5 After the word "Documents" and before the word "showing", add the words "wherever located and whenever issued".

Add the following Subparagraphs 1.1.8 through 1.1.12:

1.1.8 CORRECTION PERIOD

The period of time in which the contractor shall, in accordance with Article 12, correct work failing to conform to the Contract Documents or if it is rejected, remove it and replace it with Work conforming to the Contract Documents.

1.1.9 APPROVED

When the words "approved", "satisfactory", "proper", or "as directed" are used, approval by the Architect shall be understood.

1.1.10 ADDENDA

Addenda are written or graphic instruments issued prior to the date of the opening of the bids and which modify or interpret the Bidding Documents, including the Drawings and Specifications, by additions, deletions, clarifications or corrections.

1.1.11 KNOWLEDGE

The terms "knowledge", "recognize" and "discover", their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows or should know, recognizes or should recognize and discovers or should discover in exercising the care, skill and diligence required by the Contract Documents.

1.1.12 PERSISTENTLY

The phrase "persistently fails" and other similar expressions, as used in reference to the Contractor shall be interpreted to mean any combination of acts or omissions which cause the Owner or the Architect to reasonably conclude that the Contractor will not complete the Work within the Contract Time, for the Contract Sum, or in substantial compliance with the requirements of the Contract Documents.

1.2 EXECUTION OF CONTRACT DOCUMENTS

1.2.1 Add the following to Subparagraph 1.2.1:

The Owner may record a duplicate original of the Agreement and Bonds with the Clerk of Court for the Parish of St. Tammany.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

1.2.2 Add the following to Subparagraph 1.2.2:

The Contractor and each subcontractor shall evaluate and satisfy themselves as to the conditions and limitations under which the Work is to be performed, including, without limitation (1) the location, condition, layout and nature of the Project site and surrounding areas, (2) generally prevailing climatic conditions, (3) anticipated labor supply and costs, (4) availability and cost of materials, tools and equipment, (5) Owner's continued occupation and use of existing buildings throughout the school year, and (6) other similar issues. The Owner assumes no responsibility or liability for the physical condition or safety of the project site or any improvements located on the project site. The Contractor shall be solely responsible for providing a safe place for the performance of the Work. The Owner shall not be required to make any adjustment in either the Contract Sum or Contract Time in connection with any failure by the Contractor or any subcontractor to comply with the requirements of this Subparagraph 1.2.2.

Add the following Subparagraphs to 1.2:

1.2.4 Any reference to standards (such as ASTM - American Society for Testing and Materials), shall mean the latest edition of such standards published prior to the date of the Specifications, in accordance with the abbreviation referred to in the Technical Provisions. Where such a reference is made, the applicable standard is hereby made a part of the Specification which refers to it to the same extent as if written out in that specification in full

1.2.5 In the event of a conflict or discrepancy between scaled dimensions and given dimensions, given dimensions shall take precedence over scaled dimensions. Although the Drawings are drawn to scale, as indicated, and dimensions are given, in the case of remodeling or reconstruction work, or in fitting work to existing conditions, the Contractor shall work to measurements of existing construction.

1.2.6 In the event the Contractor, who has declared to the Owner that he has read, reviewed and familiarized himself with the Contract Documents and work site, has any question or believes a discrepancy exists between the Contract Documents and the Drawings, or has any question concerning any provision in the Contract Documents or Drawings, the Contractor is obligated to bring the question or discrepancy to the attention of the Owner and Architect prior to commencement of any work.

1.2.7 Should the Contractor fail to request interpretations of questionable items in the Contract Documents prior to executing the Work, neither the Owner nor the Architect will thereafter entertain any claim for additional costs or time.

1.2.8 Where a discrepancy or inconsistency appears to exist between any of the Contract Documents regarding quantity or quality, or both, of labor and materials to be furnished for the Work, the greater quantity or higher quality shall govern and will be presumed to be included in the Contract Sum. When a general term conflicts with a more specific term, the more specific term governs.

1.2.9 Where a given material is indicated on any of the Drawings, it is intended that such material be used throughout the length and height of walls, partitions, spandrels, panels, windows, lights, or in the assembly detail in which it occurs, for other similar locations throughout the building or Project, unless another material is indicated.

1.2.10 All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions unless otherwise indicated in the Contract Documents.

1.2.11 Test boring or soils test information, if made accessible to the Contractor, is not warranted by the Owner as an accurate or approximate indication of sub-surface conditions, and no claims for extra cost or extension of time resulting from reliance by the Contractor on such information shall be allowed.

1.6 OWNERSHIP AND USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

1.6.1 Add to Subparagraph 1.6.1 the following:

The Drawings, Specifications and other documents prepared by the architect and copies thereof furnished to the Contractor, are for use solely with respect to this Project.

In the fifth sentence, between the words "use" and "solely", add the words "of the Contractor".

Add the following sentence: "The limitation provided for herein shall in no way affect the Owner's right to use the Drawings, Specifications and other documents as provided for by law or as specified by Owner."

SECTION IIIB - SUPPLEMENTARY CONDITIONS

ARTICLE 2 - OWNER

2.1 DEFINITION

Delete Subparagraph 2.1.1.
Delete Subparagraph 2.1.2.

2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete Subparagraph 2.2.1.

2.2.3 Delete the word “shall” and substitute the word “may”, and delete the last sentence and substitute the following:

The Contractor shall exercise proper precautions relating to the safe performance of the work.

2.2.5 Delete Subparagraph 2.2.5 and substitute the following:

The Contractor will be furnished, free of charge, up to ten (10) copies of the Drawings and Project Manual. Any additional copies will be furnished at the cost of reproduction, postage and handling.

2.4.1 Delete the entire section and add the following:

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven (7) day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of additional services made necessary by such default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

ARTICLE 3 - CONTRACTOR

3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

3.2.1 In the last sentence, change the word “promptly” to the words “immediately”.

3.2.3 Delete the last sentence of Subparagraph 3.2.3.

Add the following subparagraphs to Article 3.2:

3.2.4 The exactness of grades, elevations, dimensions, or locations given on any drawings issued by the Architect, or the work installed by other contractors, is not guaranteed by the Architect or the Owner.

3.2.5 The Contractor shall satisfy itself as to the accuracy of all grades, elevations, dimensions and locations. In all cases of interconnection of its Work with existing or other work, the Contractor shall verify at the site all dimensions relating to such existing or other work. Any errors due to the Contractor’s failure to so verify all such grades, elevations, dimensions or locations shall be promptly corrected by the Contractor without any additional cost to the Owner.

3.2.6 The mechanical and electrical drawings are diagrammatic only, and are not intended to show the exact physical locations or configurations of work. Such work shall be installed to clear all obstructions, permit proper clearances for the work of other trades, and present an orderly appearance where exposed. Exact locations of fixtures and outlets, and of all other devices visible in finished spaces, shall be obtained from the Architect before the work is roughed in; work installed without such information from the Architect shall be relocated at the Contractor’s expense.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

3.3.1 After the second sentence, Delete all words to the end of subparagraph 3.3.1.

3.3.2 Delete subparagraph 3.3.2 and the new subparagraph 3.3.2 shall read:

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

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Add the following Subparagraphs 3.3.4, 3.3.5, 3.3.6 and 3.3.7 to 3.3:

- 3.3.4 The Contractor is the coordinator and expediter of the total construction process and all of its parts, in accordance with the Contract Documents. The Contractor shall provide sufficient supervisory staff in the field to enable efficient and expeditious handling of all matters. There shall be a Project Manager assigned by the Contractor in its home office, as well as in the field.
- 3.3.5 The Contractor shall take all precautions necessary to prevent loss or damage caused by vandalism, theft, burglary, pilferage, or unexplained disappearance of property of the Owner, whether or not forming part of the Work, located within those areas of the Project to which the Contractor has access. The Contractor shall have full responsibility for the security of such property of the Owner for any such loss, damage, or injury, except such as may be directly caused by agents or employees of the Owner.
- 3.3.6 The Contractor shall retain a competent registered professional engineer or registered land surveyor, acceptable to the Owner and Architect, who shall establish the exterior lines and required elevations of all buildings and structures to be erected on the site and shall establish sufficient lines and grades for the construction of associated work including, but not limited to, roads, utilities, and site grading. The engineer or land surveyor shall certify the actual location of the constructed facilities in relation to property lines, building lines, easements, and other restrictive boundaries.
- 3.3.7 The Contractor shall establish the building grades, lines, levels, column, wall and partition lines required by the various subcontractors in laying out their work.

3.4 LABOR AND MATERIALS

Add the following sentence to the end of Subparagraph 3.4.1:

- 3.4.1 The word “provide” including derivatives shall mean to properly fabricate, complete, transport, deliver, install, erect, construct, test and furnish all labor, materials, equipment, apparatus, appurtenance, and all items and expenses necessary to properly complete the work in accordance with the terms of the Contract Documents and specifications, and ready for operation or use under the terms of the Specifications.
- 3.4.2 Delete the words “with a change order” and substitute “with the procedures outlined herein.”

Add the following Subparagraphs 3.4.2.1 through 3.4.2.7 after Subparagraph 3.4.2:

- 3.4.2.1 The Contractor may furnish equal brand products or equipment other than those specified in the Contract Documents, provided the Contractor submits for prior approval a particular product other than a product specified in the Contract Documents no later than ten (10) calendar days prior to the date for the opening of the bids and the Architect issues an addendum providing approval of the product or equipment submitted. The name of a certain brand, make, manufacturer or definite specification is to denote the quality standard of the article desired; sets forth the general style, type, character; and is regarded merely as a standard. However, a Contractor must furnish the certain brand or particular brand set forth in the Contract Documents or a product approved prior to the bid opening.
- 3.4.2.2 The term “or approved equal” is not necessarily limited to the physical or technical properties of the product or material but encompasses the finish, color, texture and other pertinent qualities in like regard. Failure to satisfy in any one respect may result in rejection of substitute products.
- 3.4.2.3 If, after execution of the Contract and prior to submittal of applicable shop drawings, the Contractor desires to submit an alternate product in lieu of what has been specified or shown in the Contract Documents, the Contractor may do so in writing and set forth the following:
 - 3.4.2.3.1 Reasons the substitution is necessary to include a full explanation of the proposed substitution and submittal of all supporting data including technical information, catalogue cuts, warranties, test results, installation, instructions, operating procedures, and other like information necessary for complete evaluation of the substitution.
 - 3.4.2.3.2 The adjustment, if any, in the time of completion of the Contract and the construction schedule in the event a substitution is acceptable.
 - 3.4.2.3.3 An affidavit stating that the Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified by the Architect.
- 3.4.2.4 Proposals for substitutions shall be submitted in triplicate to the Architect in sufficient time to allow the Architect no less than ten (10) working days for review. No substitutions will be considered or allowed without the Contractor’s submittal of complete substantiating data and information as stated herein.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

- 3.4.2.5 Substitutions or alternates submitted in accordance with Subparagraph above may be rejected without explanation and will be considered only under one or more of the following conditions:
- 3.4.2.5.1 Required for compliance with interpretation of code requirements or insurance regulations then existing;
 - 3.4.2.5.2 Unavailability of specified products, through no fault of the Contractor;
 - 3.4.2.5.3 Subsequent information discloses inability of specified products to perform properly or to fit in designated space; or
 - 3.4.2.5.4 Manufacturers/fabricator refuses to certify or guarantee performance of specified product as required.
- 3.4.2.6 Any additional cost, or any loss or damage arising from the substitution of any product, material or equipment for those originally specified, including costs of changes of all other work affected by the substitution, shall be borne by the Contractor, notwithstanding approval or acceptance of such substitution by the Owner or the Architect, unless such substitution was made at the written request or direction of the Owner or the Architect.
- 3.4.2.7 The Contractor shall only employ labor on the Project or in connection with the Work capable of working harmoniously with all trades, crafts and any other individuals associated with the Project. The Contractor shall also use its best efforts to minimize the likelihood of any strike, work stoppage or any other labor disturbance.

3.5 WARRANTY

- 3.5.1 After the word “quality”, add “free of lead, asbestos, and other toxic material.”

Add the following Subparagraphs 3.5.2 through 3.5.3 to 3.5:

- 3.5.2 Any warranty provided in paragraph 3.5.1 shall be in addition to and not in limitation of any other warranty required by the Contract Documents or otherwise prescribed by law.
- 3.5.3 The Contractor shall secure any and all written warranties or guarantees referred to in respective Specifications Sections. As a condition precedent to its right of final payment, Contractor shall deliver to the Architect for review and transmittal to Owner two copies of all manufacturer’s warranties or guarantees, operational manuals and instructions, service contracts and other warranties or guarantees as required. The Contractor shall require each Subcontractor to execute a satisfactory written warranty or guarantee in which the Contractor and the Owner are named as beneficiaries.

3.7 PERMITS, FEES AND NOTICES

Delete Subparagraph 3.7.1 and add in its place the following:

- 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work. In addition, the Contractor shall secure certificates of inspection, use, occupancy, permits and licenses with all such certifications to be delivered when the Contractor considers the Work substantially complete under paragraph 9.8 hereof in order to allow the Owner to accept the Project upon substantial completion as provided for in Louisiana Revised Statute 38:2241.1.
- 3.7.3 Change the word “promptly” to read “at once”.

Add the following phrase to the end of the first sentence in Subparagraph 3.7.3:

“unless such laws, statutes, ordinances, building codes, rules and regulations bear upon the performance of the Work”

- 3.7.4 Change the word “appropriate” to “full”. Add the following phrase at the end of the last sentence in Subparagraph 3.7.4 after the word correction and any damages sustained by the Owner”.

- 3.9 Add the following sentence at the end of Paragraph 3.9.1.

“Any personnel change to the Superintendent or Project Manager must be reviewed and approved by the Owner. Resume’s and references of the proposed new Superintendent or Project Manager must be submitted to the Owner. If the Superintendent or Project Manager is not performing his or her responsibilities properly, then, at the request of the Owner, the Contractor shall replace the Superintendent or Project Manager.”

3.10 CONTRACTOR’S CONSTRUCTION SCHEDULES

Delete Subparagraph 3.10.1 and in its place substitute the following:

SECTION IIIB - SUPPLEMENTARY CONDITIONS

3.10.1 The Contractor shall prepare and submit within ten (10) working days of the date of the Notice to Proceed, for the Owner's and Architect's information, a Construction Schedule. Unless otherwise specified, the Construction Schedule shall be a detailed precedence-style critical path method (CPM) or other format satisfactory to the Owner and Architect which shall also:

- (1) Provide a graphic representation of all activities and events that will occur during the performance of the Work; and
- (2) Identify each phase of construction and occupancy; and
- (3) Set forth dates that are critical in ensuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents. If not accepted, the Construction Schedule shall be promptly revised by the Contractor in accordance with the recommendation of the Owner or Architect and resubmitted for acceptance. The Contractor shall monitor the progress of the Work for conformance with the requirements of the Construction Schedule and shall promptly advise the Owner and Architect of any delays or potential delays. In addition, the Contractor shall provide an updated Construction Schedule to reflect actual conditions with each Application for Payment or if requested by either the Owner or the Architect. In the event the progress report indicates any delays, the Contractor shall take corrective measures necessary to expedite the progress of the construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment and facilities, and (3) other similar measures. Any such measures are solely for the purpose of ensuring the Contractor's compliance with the Contract Time allowed by the Contract Documents. The Contractor shall not be entitled to any adjustment in the Contract Sum in connection with such measures. In no event shall any progress report constitute an adjustment in the Contract Time or the Contract Sum unless such an adjustment is agreed to by the Owner and authorized pursuant to a written Change Order.
- (4) The schedule shall be cost loaded to coordinate with the Schedule of Values if requested by the Owner.
- (5) For projects with a contract sum greater than \$3,000,000.00, the Contractor shall include with the schedule, for the Owner's and Architect's information, a network analysis to identify those tasks which are on the critical path, i.e. where any delay in the completion of these tasks will lengthen the project timescale, unless action is taken.
- (6) Any revision or update to the schedule will be subject to the written approval of the Owner.

3.10.3 Change the words, "perform the Work in general accordance with" to read "conform to".

Add Subparagraph 3.10.4:

3.10.4 The Owner shall have the right to direct a postponement or rescheduling of any date or time for the performance of any part of the Work that may interfere with the operation of the Owner's premises. The Contractor shall, upon the Owner's request, reschedule any portion of the Work affecting the Owner's operation of the premises during the hours when the premises are not in operation.

3.11 DOCUMENTS AND SAMPLES AT THE SITE

3.11.1 In the last sentence, after the word "Work", add the words "and prior to final payment. These as-built documents shall also be provided in AutoCAD readable format"

3.12 SHOP DRAWINGS PRODUCT DATA AND SAMPLES

3.12.7 Delete Subparagraph 3.12.7.

3.12.9 Delete the last sentence.

3.12.10 Delete Subparagraph 3.12.10 and in its place substitute the following:

3.12.10 When professional certification of performance criteria of materials, systems, or equipment is required by the Contract Documents, the Contractor shall provide the person or party providing the certification with full information on the relevant performance requirements and on the materials, systems, or equipment that are expected to operate or be utilized at the Project site. The certification shall be based upon performance under the operating conditions generally prevailing or expected at the Project site. The Architect shall be entitled to rely upon the accuracy and completeness of such certificates.

Add the following Subparagraphs to 3.12:

3.12.11 All shop drawings for any architectural, structural, mechanical or electrical work must be submitted to and approved by the Architect. The Contractor represents and warrants that all shop drawings shall be prepared by persons and entities possessing the expertise and experience in the trade for which the shop drawing is prepared and, if required by the Architect or applicable law,

SECTION IIIB - SUPPLEMENTARY CONDITIONS

by a licensed engineer. Any shop drawing that indicates insufficient study of drawings and specifications, illegible portions, or gross errors, will be rejected outright and Owner will require that the Contractor resubmit such drawing in a manner consistent with the information contained in the Contract Documents. Such rejections, if any, shall not constitute a reason for granting Contractor additional time to perform the work involved.

3.12.12 Faxed copies of shop drawings will not be accepted.

3.13 USE OF SITE

Delete Subparagraph 3.13.1 and substitute the following:

3.13.1 The right of possession of the premises and the improvements made thereon by the Contractor shall remain at all times the property of the Owner. The Contractor's right to entry and use thereof arises solely from the permission granted by the Owner under the Contract Documents. The Contractor shall confine its apparatus, the storage of materials and the operations of its workmen to limits indicated by law, ordinances, the work limit line and staging area as shown on Site Plan, and areas made available by the Owner, and shall not unreasonably encumber the premises with its materials or equipment. Only materials and equipment which are to be used directly in the Work shall be brought and stored on the Project site by the Contractor. Protection of construction materials and equipment stored at the Project site from weather, theft, damage and all other causes is solely the responsibility of the Contractor.

Add the following Subparagraphs 3.13.2 through 3.13.5 to 3.13:

3.13.2 The Contractor and any entity for whom the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner, which consent may be withheld in the sole discretion of the Owner.

3.13.3 Contractor shall ensure that the Work, at all times, is performed in the manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. All public areas adjacent to the site of the Work shall be free from all debris, building materials, and equipment likely to cause hazardous conditions. Contractor shall use its best efforts to not interfere with the occupancy of (1) any area and buildings adjacent to the site of the Work or (2) the building in the event of partial occupancy.

3.13.4 Without the prior written approval of the Owner, the Contractor shall not permit any workers to use any existing facilities at the Project site, including, without limitation, lavatories, toilets, entrances and parking areas other than those designated by the Owner.

3.13.5 The Contractor shall repair at its own expense any damage from operations under its supervision or direction caused to Owner's property and facilities on the site and access routes thereto.

3.15 CLEANING UP

3.15.2 Delete Subparagraph 3.15.2 and substitute the following:

The Contractor shall clean up the project site and work performed as provided in the Contract Documents.

3.17 ROYALTIES AND PATENTS

Delete Subparagraph 3.17.1 and in its place add the following:

The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation of the Work of any invention, design, process, product or device which is the subject of patent rights, trademarks, copy rights, trade secrets or proprietary information held by others. Contractor shall indemnify and hold harmless Owner and Architect and anyone directly or indirectly employed or contracted by either of them from and against all claims, damages, losses and expenses, including attorneys' fees and court and arbitration costs, arising out of any infringement of patent rights, trademarks, copy rights, trade secrets or proprietary information incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device and shall defend all such claims in connection with any alleged infringement of such rights. This indemnification obligation is not limited to but in addition to the insurance obligations of the performance bond required in connection with this Agreement. For an asbestos or lead abatement project, the provisions of this Subparagraph will apply concerning any process for the removal of asbestos or lead containing materials.

3.18 INDEMNIFICATION

Add Subparagraph 3.18.3 to 3.18.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

- 3.18.3 The obligations of the Contractor under this Paragraph 3.18 shall not extend to the liability of the Architect, the Architect's consultants, and agents and employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Architect, the Architect's consultants, and agents and employees of any of them provided such giving or failure to give is the primary cause of the injury or damage.

ARTICLE 4 - ADMINISTRATION OF THE CONTRACT

4.1 ARCHITECT

Delete Subparagraph 4.1.1 and substitute the following:

- 4.1.1 "The term Architect, when used in the Contract Documents, shall mean the prime Designer (Architect, Engineer, or Landscape Architect), or his authorized representative, lawfully licensed to practice architecture, engineering or landscape architecture in the State of Louisiana, identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number."

Delete Subparagraphs 4.1.2 and 4.1.3.

4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

- 4.2.2 In the last sentence, delete the words "except as provided in Section 3.3.1".

- 4.2.5 Between the words "Architect's" and "evaluations", add the words "observations of the progress of the work and".

- 4.2.10 Add the following sentence to the end of Subsection 4.2.10:
"There will be no restriction of the Owner having a Representative."

- 4.2.11 In the last sentence, after the number "15", add the word "calendar".

4.3 CLAIMS AND DISPUTES

- 4.3.2 Delete Subparagraph 4.3.2 and substitute the following:

Time Limits on Claims. Claims by the Contractor must be made within twenty-one (21) calendar days after occurrence of the event giving rise to such Claim; provided, however, that Contractor shall use its best efforts to furnish the Architect and the Owner, as expeditiously as possible, with notice of any Claim including, and without limitation, those in connection with concealed or unknown conditions, once such Claim is recognized and shall cooperate with the Architect and the Owner and shall make every effort to mitigate the alleged or potential damages, delay or other adverse consequences arising out of the condition which is the cause of such Claim. Claims must be made by written notice. An additional Claim made after the initial Claim has been implemented by Change Order will not be considered unless submitted in a timely manner. Any notice of claim must clearly identify the alleged cause and the nature of the claim to include data and information then available to the claimant which will facilitate proper verification and evaluation of the claim.

- 4.3.3 In Subparagraph 4.3.3, delete the words "or as provided in Section 9.7.1 and Article 14".

- 4.3.4 In the first sentence, change the word "promptly" to "immediately". And add the word "working" between the number "21" and the word "days".

In the fourth sentence, change the number "21" to "10".

In the last sentence, delete the words "If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but".

Add the following language to Subparagraph 4.3.4:

No adjustment in the Contract Time or Contract Sum shall be permitted, however, in connection with a concealed or unknown condition which does not differ materially from those conditions disclosed or which reasonably should have been disclosed by the Contractor's (1) prior inspections, tests, reviews and preconstruction services for the Project, or (2) inspections, tests, reviews and preconstruction services which the Contractor had the opportunity to make or should have performed in connection with the Project.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Add the following language to Subparagraph 4.3.6:

No change in the Work, whether by way of alteration or addition to the Work, shall be the basis of an addition to the Contract Sum or a change in the Contract Time unless and until such alteration or addition has been authorized by a Change Order executed and issued in accordance with and in strict compliance with the requirements of the Contract Documents.

Any claim by the Contractor for increased cost for delay shall be asserted in accordance with the delays provided in Subparagraph 4.3.2 unless the time is extended in writing by the Owner. No course of conduct or dealings between the parties, nor express or implied acceptance of alterations or additions to the Work, and no claim that the Owner has been unjustly enriched by any alteration or addition to the Work, shall be the basis for any claim to an increase in the Contract Sum or change in the Contract Time. No claim for additional cost shall be allowed due to a problem with the performance or non-performance of a subcontractor.

No claim shall be valid unless so made.

Delete Subparagraph 4.3.7.2 and substitute the following:

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.

Add the following Subparagraphs 4.3.7.3 through 4.3.7.5:

The following are considered reasonably anticipated days of adverse weather on a monthly basis:

January	11 days	May	5 days	September	4 days
February	10 days	June	6 days	October	3 days
March	8 days	July	6 days	November	5 days
April	7 days	August	5 days	December	8 days

The Contractor shall ask for total adverse weather days. The Contractor’s request shall be considered only for days over the allowable number of days stated above. Note: Contract is on a calendar day basis.

4.3.7.4 If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given to the Architect and Owner. No claim for additional time shall be allowed due to a problem with the performance or non-performance of a subcontractor.

4.3.7.5 No Claim for additional time made for whatever cause will be approved unless and until the Contractor demonstrates to the satisfaction of the Owner that the Completion Time for the Work has itself been adversely affected by the actions, events, or circumstances cited in the claim. The mere fact that some portion of the Work may be affected is not sufficient to establish an entitlement to an extension to the Contract Time. The baseline against which any such Claim for additional time will be judged will be the Approved Project Schedule, updated and revised as required by the Contract Documents.

4.3.8 Change the words “within a reasonable time not exceeding 21 days” to “at once, but not more than 3 working days”.

4.4 RESOLUTION OF CLAIMS AND DISPUTES

Delete Subparagraph 4.4.1 and substitute the following:

4.4.1 Decision of Architect. Claims, including those alleging an error or omission by the Architect, shall be referred initially to the Architect for action as provided in Paragraph 4.4 if the Claimant recognizes the Claim prior to the date of final payment. A decision by the Architect, as provided in Subparagraph 4.4.4, shall be required as a condition precedent to litigation of a Claim between the Contractor and Owner as to all such matters arising prior to the date final payment is due, regardless of (1) whether such matters relate to execution and progress of the Work or (2) the extent to which the Work has been completed. The decision by the Architect in response to a Claim shall not be a condition precedent to arbitration or litigation in the event (1) the position of Architect is vacant, (2) the Architect has not received evidence or has failed to render a decision within agreed time limits, (3) the Architect has failed to take action required under Subparagraph 4.4.4 within 30 days after the Claim is made, (4) 45 days have passed after the Claim has been referred to the Architect or (5) the Claim relates to a mechanic’s lien.

Delete Subparagraph 4.4.2 and substitute the following:

4.4.2 The Architect will review Claims and take one or more of the following preliminary actions within ten days of receipt of a Claim: (1) request additional supporting data from the Claimant, (2) submit a schedule to the parties indicating when the Architect

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expects to take action, (3) reject the Claim in whole or in part, stating reasons for rejection, or (5) suggest a compromise. An Architect's failure to take any such action shall not be used as a basis for liability on the part of the Owner, and shall not be considered as a basis for approval of any such Claim.

Delete Subparagraph 4.4.3 and substitute the following:

4.4.3 If a Claim has been resolved, the Architect will prepare or obtain appropriate documentation.

Delete Subparagraph 4.4.4 and substitute the following:

4.4.4 If a Claim has not been resolved, the party making the Claim shall, within ten days after the Architect's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested by the architect, (2) modify the initial Claim or (3) notify the Architect that the initial Claim stands.

Delete Subparagraph 4.4.5 and substitute the following:

4.4.5 If a Claim has not been resolved after consideration of the foregoing and if further evidence presented by the parties or requested by the Architect, the Architect will notify the parties in writing that the Architect's decision will be made within seven days, which decision shall be final and binding on the parties, but subject to litigation. Upon expiration of such time period, the Architect will render to the parties the Architect's written decision relative to the Claim, including any change in the Contract Sum or Contract Time of both. If there is a surety and there appears to be a possibility of a Contractor's default, the Architect may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

Delete Subparagraph 4.4.6 through 4.4.8.

4.5 MEDIATION

Delete Article 4.5

4.6 ARBITRATION

Delete Article 4.6

ARTICLE 5 - SUBCONTRACTORS

Delete Subparagraph 5.2.1 and substitute the following:

5.2.1 Unless otherwise required by the Contract Documents, the Contractor shall furnish at the Pre-Construction Conference, to the Owner and Architect, in writing, the names of the persons or entities, including those who furnish materials or equipment, proposed for each of the portions of the Work. No Contractor payments shall be made until the information is received.

Delete Subparagraph 5.2.2 and substitute the following:

5.2.2 The Contractor shall be solely responsible for selection and performance of all subcontractors. The Contractor shall not be entitled to claims for additional time and/or increase in the Contract Sum due to a problem with performance or non-performance of a subcontractor.

Delete Subparagraphs 5.2.3 and substitute the following:

5.2.3 The Contractor shall notify the Owner when a subcontractor is to be changed and substituted with another subcontractor.

Delete Subparagraph 5.2.4.

Delete Subparagraph 5.3.1 and in its place substitute the following:

5.3.1 All Work performed for Contractor by a Subcontractor or a sub-subcontractor will be pursuant to an appropriate agreement between Contractor and Subcontractor or Subcontractor and sub-subcontractor which specifically binds the Subcontractor or sub-subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Owner and Architect and contains applicable waiver of subrogation provisions, and which makes the Owner a third party beneficiary of any such agreement. Nothing in these Contract Documents shall provide, in favor of any person or organization other than the Contractor, a right of action against the Owner.

Delete Subparagraph 5.4.1 and substitute in its place the following:

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- 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner provided that:
- 1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Paragraph 14.2 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor in writing; and
 - 2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

Delete Subparagraph 5.4.2 and substitute in its place the following:

- 5.4.2 If the Work in connection with a subcontract has been suspended for more than thirty (30) days after termination for the Contract by the Owner pursuant to paragraph 14.2 and the Owner accepts assignment of such Contract, the Subcontractor's compensation may be adjusted for any increase in direct costs incurred by such subcontractor as a result of the suspension.

Add the new Subparagraph 5.4.3 as follows:

- 5.4.3 Each subcontract shall specifically provide that the Owner shall only be responsible to the Subcontractor in the event of the exercise of an assignment for those obligations of the Contractor that accrue subsequent to the Owner's exercise of any rights under this conditional assignment.

ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

- 6.1.1 In the last line, change the words "in Section 4.3" to read "elsewhere in the Contract Documents."

- 6.1.3 In the last line, change the word "Other" to read "Owner".

Delete Subparagraph 6.1.4.

- 6.2.3 Delete the second sentence.

- 6.2.4 In the last line, change the words "in Section 10.2.5" to read "elsewhere in the Contract Documents."

Delete Subparagraph 6.2.5.

ARTICLE 7 - CHANGES IN THE WORK

Delete Subparagraph 7.1.1 and substitute the following:

- 7.1.1 Changes in the Work may be accomplished after execution of the Agreement and Bonds and without invalidating the Contract and Bonds, by Change Order, Constructive Change Directive or order for a minor change in the Work provided such changes are within the scope of the Contract Documents and subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents. Any change outside the scope of the Contract Documents in excess of \$150,000.00 shall be let out for public bid as provided by Louisiana Revised Statute 38:2212.

Add the following Subparagraph 7.1.5:

- 7.1.5 Any change pertaining to the Work which is not required to be put out for public bid, shall be negotiated in the best interest of the Owner or let out for public bid. When the change is negotiated, the change order in accordance with Louisiana Revised Statutes 38:2212 A. (7), shall be fully documented and itemized as to the Contractor's cost, including material quantities, material costs, taxes, insurance, wages, employee benefits, other related costs, profit and overhead. When unit prices are contained in the initial Contract, no deviations shall be allowed in computing negotiated changes. The Contractor shall provide and deliver to the Architect the above information including any application for extension in the Contract Time, within ten (10) days after being notified to prepare a Change Order.

Add the following Subparagraph 7.2.3:

- 7.2.3 Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work which is the subject of the Change Order, including, but not limited to all direct and indirect costs associated with such change and any and all adjustments to the Contract Sum and the Contract Time. In the event a Change Order increases the Contract Sum, Contractor shall include the Work covered by such Change Orders in Applications for Payment.

7.3 CONSTRUCTION CHANGE DIRECTIVES

Change Subparagraph 7.3.6 as follows:

In the first sentence, delete the words, "a reasonable allowance for overhead and profit" and substitute "an allowance for overhead and profit in accordance with clauses 7.3.10.1 through 7.3.10.6 below."

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Add the following to the end of Subparagraph 7.3.7:

Any credit to the Owner shall be the sum of the materials and labor costs and sub-contract costs. The Owner shall not be due any credit for overhead and profit.

Delete Subparagraph 7.3.8.

Add the following Subparagraphs 7.3.10, 7.3.11 and 7.3.12 to 7.3.

7.3.10 In Subparagraph 7.3.6, the allowance for the combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

- 1 For the Contractor, for Work performed by the Contractor's own forces, up to fifteen (15%) percent of the cost.
- 2 For the Contractor, for Work performed by the Contractor's Subcontractor, up to ten (10%) percent of the amount due the Subcontractor.
- 3 For each Subcontractor or Sub-subcontractor involved, for Work performed by the Subcontractor's or Sub-subcontractor's own forces, up to fifteen (15%) percent of the cost.
- 4 For each Subcontractor, for Work performed by the Subcontractor's Sub-subcontractor's, up to ten (10%) percent of the amount due the Sub-subcontractor.
- 5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.6.
- 6 In order to facilitate checking of quotations for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accomplished by a complete itemization of costs including labor, materials and Subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a change be approved without such itemization if itemization is required by law.

7.3.11 Any credit to the Owner resulting from a change in the Work shall be the sum of:

- 1 Contractor's material, equipment costs not incurred, labor cost and other sums not actually expended.
- 2 Subcontractor's and/or Sub-subcontractor's material, equipment costs not incurred, labor cost and other sums not actually expended.

The only credit that will not be required is for overhead and profit.

7.3.12 In any Change Order, no allowance or itemization of costs shall be allowed for salaries or other compensation of the Contractor's personnel at the Contractor's principal office and branch offices; any part of the Contractor's capital expenses, including interest; overhead and general expenses of any kind not included above in cost of the work; cost of supervision not specifically required by the Change Order; and costs due to negligence, including but not limited to correction of defective or nonconforming work.

ARTICLE 8 - TIME

Delete Subparagraph 8.1.2 and substitute the following:

8.1.2 A Notice to Proceed shall designate a date for commencement of the Contract Time established in the Contract Documents. The date shall not be postponed by the failure of the Contractor or of persons or entities for whom the Contractor is responsible to act. A written Notice to Proceed shall be issued by the Architect when directed by the Owner.

Add the following Subparagraph 8.1.5:

8.1.5 The Contract Time shall not be changed by the submission of a schedule that shows an early completion date unless specifically authorized by Change Order.

Delete the last sentence of Subparagraph 8.2.2.

8.3 DELAYS AND EXTENSION OF TIME

8.3.1 In Subparagraph 8.3.1 in the first sentence after the words "owner pending" delete the words "mediation and arbitration" and add the word "litigation" and delete the last word "determine" and add the following:

"recommend, subject to Owner's approval of Change Order. If the claim is not made within the limits of paragraph 4.3, all right

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for future claims for that month are waived.”

Add the following Subparagraph 8.3.1.2:

- 8.3.1.1 The Contractor acknowledges and agrees that adjustments in the Contract Time will be permitted for a delay only to the extent such delay (1) is not caused or could not have been anticipated by the Contractor, (2) could not be limited or avoided by the Contractor’s timely notice to the Owner of the delay, (3) is of a duration not less than one (1) day, and (4) affects the critical path of the progress of the Work.

Add the following Subparagraph 8.3.1.2:

- 8.3.1.2 An extension of Contract Time, to the extent allowed under Paragraph 8.3, shall be the sole remedy of the Contractor for any (1) delay in the commencement of the Work, (2) hindrance or obstruction in the performance of the Work, (3) loss of productivity, unless a delay is caused by acts of the Owner which interfere with the Contractor’s performance of the Work and only to the extent that such acts continue after the Contractor furnishes the Owner and Architect with written notice of such interference. In no event shall the Contractor be entitled any indirect cost, consequential damages, lost opportunity cost, impact damages or other similar claims. The Owner’s exercise of any of its rights or remedies under the Contract Documents such as ordering changes in the Work, suspension, or correction of the Work, shall not be construed as an act of interference with the Contractor’s performance of the Work.

Add the following Subparagraph 8.3.4 to 8.3:

- 8.3.4 If the Contractor submits a progress report indicating, or otherwise expresses an intention to achieve, completion of the Work prior to any completion date required by the Contract Documents or expiration of the Contract Time, no liability of the Owner to the Contractor for any failure of the Contractor to so complete the Work shall be created or implied.

Add the following paragraph 8.4 to Article 8:

8.4 LIQUIDATED DAMAGES

- 8.4.1 Time is of the essence in completing the Work, and, in the event of delay on the part of the Contractor in completing the Work as specified beyond the date set forth in the Contract Documents as adjusted by Change Orders, it is distinctly understood and agreed that a deduction shall be made from the Contract Sum at a rate as stated in the Bid Proposal form plus any compensation for the Architect’s services and expenses made necessary for each and every day of delay until the Work is complete. This is not a penalty but agreed upon liquidated damages for delay. The calculations shall be for each and every calendar day exclusive of the day within which completion was required and up to and including the date of completion of the Work as determined by the Architect and Owner. The expiration of the time stipulated without the work having been completed shall in itself constitute a default without the necessity of any notice being given to the Contractor or its Surety. The Contractor and its Surety agree that the above mentioned sum shall be deducted at any time in the sole discretion of the Owner from the Contract Sum by means of a written adjustment executed by the Owner without the Contractor’s signature, it specifically having been agreed upon in advance as a measure of damage to the Owner on account of the Contractor’s delay.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.2 SCHEDULE

Add the following Subparagraph 9.2.2 to Paragraph 9.2:

- 9.2.2 The Contractor and each Subcontractor shall prepare a trade payment breakdown for the Work for which each is responsible, such breakdown being submitted on the AIA Application for Payment Form or other form approved by the Architect and Owner. The form shall be divided in detail sufficient to exhibit all areas and/or sections of the Work, and/or by convenient units and shall be updated as required by either the Owner or Architect as necessary to reflect (1) description of the Work listing labor and materials separately, (2) total value, (3) percent of the Work completed to date, (4) value of Work completed to date, (5) percent of the previous amount billed, (6) previous amount billed, (7) current percent completed, and (8) value of Work completed to date. Any breakdown which fails to provide sufficient detail shall be rejected. If a trade breakdown is initially approved and subsequently used but is found later to be improper for any reason, sufficient funds shall be withheld from future Applications for Payment to ensure an adequate reserve, exclusive of the normal retainage to complete the Work. The schedule shall be coordinated with Subparagraph 3.10.

9.3 APPLICATIONS FOR PAYMENT

Delete Subparagraph 9.3.1 and clause 9.3.1.1 and 9.3.1.2 and substitute the following:

- 9.3.1 Monthly, the Contractor shall submit to the Architect an Application for Payment Form, supported by any additional data substantiating the Contractor’s right to payment as the Owner or the Architect may require. Application for Payment shall be

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submitted on or about the first of each month which application shall represent a consistent billing cycle of not less than 30 days for the value of labor and materials incorporated into the work and of materials, suitably stored, at the site, less normal retainage, all in accordance with LA R.S. 38:2248. The normal retainage shall not be due the Contractor until after substantial completion and expiration of the forty-five day lien period and submission to the Architect of a clear lien certificate and invoice for retainage. Contractor waives any claim for payment not submitted within one (1) year from the date of the filing of the Notice of Substantial Completion of the Work.

Delete Subparagraph 9.3.2 and substitute the following:

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

Add new Subparagraph 9.3.4 as follows:

9.3.4 Contractor further expressly undertakes to defend the Owner and indemnify and hold it harmless, at the Contractor's sole expense including attorney's fees, against any actions, lawsuits, or proceedings brought against the Owner as a result of any claim or lien filed against the Contract funds, the Work, the site of any of the Work, the Project site and any improvements thereon, or payments due the Contractor. The Contractor hereby agrees to indemnify and hold Owner harmless against any claim or lien and agrees to pay any judgment or claim or lien resulting from any such actions, lawsuits or proceedings, including attorney's fees and interest.

At the end of paragraph 9.3.3 add the following sentence:

The Contractor further warrants that upon submittal of an application for payment, all work that entitles the Contractor to payment has been completed in accordance with the Contract Documents and specifications, and Contractor acknowledges that, in no event, shall payment be due for work that has not been performed.

Add the following Subparagraph 9.3.5 as follows:

9.3.5 The Owner may release any funds withheld due to a lien or affidavit of a claim if the Contractor obtains security acceptable to the Owner or a lien bond which is (1) issued by a surety acceptable to the Owner, (2) in form and substance satisfactory to the Owner and the Clerk of Court and (3) an amount of not less than 125% of such lien claim or affidavit of claim or as provided by law. By posting a lien bond or other acceptable security, however, the Contractor shall not be relieved of any responsibilities or other obligations under Paragraph 9.3, including, without limitation, the duty to defend and indemnify the Owner. The cost of any premiums incurred in connection with any such bonds and securities shall be the responsibility of the Contractor and shall not be part of, or cause any adjustment to, the Contract Sum.

9.5 DECISIONS TO WITHHOLD CERTIFICATION

Add the following Supplementary Subparagraphs 9.5.1.8, .9, and .10 to 9.5.1:

9.5.1.8 Completed Work has been damaged which requires correction or replacement;

9.5.1.9 Correction of defective Work by Owner or completion of the Work by the Owner; or

9.5.1.10 Belief or knowledge by the Architect of an occurrence of an event justifying termination for cause.

9.5.1.11 Failure to complete the punch list within the 45 day lien period.

9.6 PROGRESS PAYMENTS

In Subparagraph 9.6.1, after the word "Documents" delete the words "and shall so notify the Architect" and add the following:

Provided, however, Owner may refuse to make payment of the amount recommended by the Architect and the Owner may withhold from any payment an amount based on:

- 1 The Owner's estimate of the value of any claims made against the Owner on account of the Contractor's Work;
- 2 The Owner's estimate of the value of any claim it has asserted against the Contractor;

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- 3 125% of the amount of any lien or affidavit of claim that have been filed in the Mortgage Records for the Parish in which the Project is located in connection with the Work; or
- 4 Other items such as liquidated damages which allow the Owner to withhold or set-off against any amount recommended by the Architect.

Delete Subparagraph 9.6.3, 9.6.4 and 9.6.5 from 9.6.

Delete Subparagraph 9.6.7 from 9.6.

9.7 FAILURE OF PAYMENT

Delete Subparagraph 9.7.1 from 9.7.

9.8 SUBSTANTIAL COMPLETION

Delete Subparagraph 9.8.1 and substitute the following:

- 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. Upon the recommendation of the Architect to the Owner that the Project is complete or substantially complete, the Owner at a public meeting may approve the Certificate of Substantial Completion and direct its recordation in the mortgage records of the Clerk of Court of St. Tammany Parish. The Contractor shall at his expense record the certificate of Substantial Completion and provide the recordation information to the Architect and Owner. The time for the Correction Period shall begin on the date the acceptance is filed and recorded in the Mortgage Records.

Delete Subparagraph 9.8.3 and substitute the following:

- 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. A prerequisite to the Work being accepted as substantially complete, is the Owner's receipt of the executed Roofing Contractor's and Roofing Manufacturer's guarantees, where roofing work is part of the Contract. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use, the Contractor shall, before acceptance of the Work as substantially complete, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion. In no event shall acceptance of the work, or a part thereof, as substantially complete, constitute a right of Contractor to payment under the Contract for work not yet performed by the Contractor and Contractor agrees that no such sum shall be due until completion of that work.

Delete Subparagraph 9.8.4 and substitute the following:

- 9.8.4 The Certificate of Substantial Completion from the Architect shall include as an attachment the list of minor corrective items (punch list) to be completed by the Contractor, together with the estimated cost of completing such minor corrective items. In addition, the Certificate of Substantial Completion shall designate that the Contractor shall complete the list of minor corrective items within forty-five (45) days of the date of the Owner's acceptance of the Certificate. At the end of the forty-five (45) day period, without further notice to Contractor, the Owner shall have the option of either completing the items identified on the list of minor corrective items (punch list) and retaining the cost of the work done, including any additional architect fees from the Contract Sum, or calling on the Surety to complete the minor corrective items under the performance bond and/or labor and material payment bond.

Delete Subparagraph 9.8.5 and substitute the following:

- 9.8.5 Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work unless otherwise agreed to in writing by the Owner and Contractor. Unless otherwise agreed to in writing by the Owner and Contractor, security, maintenance, heat, utilities, damage to the Work not covered by the punch list, and insurance shall become the Owner's responsibility on the Date of Substantial Completion.

Add to Subparagraph 9.10.1, after the first sentence, the following:

If the Architect does not find the Work acceptable under the Contract Documents, the Architect shall make one additional inspection; if the Work is still not acceptable, the Architect, and each of the Architect's principal consultants, shall be paid \$100.00/hour for their time at the project site, for each additional inspection, to be withheld from the unpaid funds remaining in the Contract Sum. The payment shall be made by the Owner and deducted from the construction contract funds.

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Add to Subparagraph 9.10.2 the following at the end of the first sentence:

(6)A Certificate from the Clerk of Court for the Parish of St. Tammany which shall be dated at least forty-six (46) days subsequent to the date of recordation in the same office of the acceptance of substantial completion for the Owner and to the effect that no liens or claims for labor or materials have been recorded against the Project, (7) all warranties and guarantees required under or pursuant to the Contract Documents, which shall be submitted by the Architect to the Owner for acceptance as part of the final Application for Payment, (8) all operation manuals and training of Owner's staff in the operation of mechanical, electrical, heating and air conditioning systems, and (9) reproducible drawings (as-builts) accepted by the Architect.

Delete Subparagraph 9.10.4.

Add the following Paragraph 9.11 to Article 9:

9.11 Liquidated Damages

9.11.1 The Contractor and the Contractor's Surety, if any, shall be liable for and shall pay the Owner the sums stipulated in Subparagraph 8.4.1 as liquidated damages for each calendar day of delay until the Work is determined to be complete by the Architect and Owner.

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

10.2 SAFETY OF PERSONS AND PROPERTY

Add to Subparagraph 10.2.2, in the first sentence, between the words "bearing on" and "safety", add the words, "the health and".

Delete, in Subparagraph 10.2.5, the words, "directly or indirectly"

Add Subparagraph 10.2.8:

10.2.8 Any fines levied against the Owner due to the Contractor's (or its subcontractor's) failure to comply with OSHA standards or other Federal, State, and local regulations shall be paid by the Contractor. If any such fines are not promptly paid, then the amount of the fine may be withheld by the Owner from payment to the Contractor.

10.3 HAZARDOUS MATERIALS

Add to Subparagraph 10.3.1, in the first sentence, after "(PCB)" add "or lead".

Delete Subparagraph 10.3.2 and substitute the following:

10.3.2 In the event the Contractor encounters on the site material reasonably believed to be asbestos, lead, or polychlorinated biphenyl (PCB) which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner and Architect in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor if in fact the material is asbestos, lead, or polychlorinated biphenyl (PCB) and has not been rendered harmless. The Work in the affected area shall be resumed immediately following the occurrence of any one of the following events (1) the Owner causes remedial Work to be performed which results in the absence of asbestos, lead or polychlorinated biphenyl (PCB), or (2) the Owner and the Contractor by written agreement, decide to resume performance of the Work, or (3) the Work may safely and lawfully proceed as determined by an appropriate governmental authority or as evidenced by a written report to both the Owner and Contractor which is prepared by an environmental engineer. In no event, however, shall the Owner have any responsibility for any substance or material that is brought to the project site by the Contractor or any subcontractor, any materialmen, or supplier, or any entity for whom any of them is responsible. The Contractor agrees not to use any fill or other materials to be incorporated into the Work which are hazardous, toxic or comprised of any items that are hazardous or toxic.

Delete Subparagraph 10.3.3.

Delete from Subparagraph 10.4 all words following the word "Contractor".

Delete Subparagraph 10.5.

10.6 EMERGENCIES

Delete Subparagraph 10.6.1 and substitute the following:

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10.6.1 In an emergency affecting the safety of persons or property, the Contractor shall notify the Owner and Architect immediately of the emergency, simultaneously acting at his discretion to prevent damage, injury, or loss.

ARTICLE 11 – INSURANCE AND BONDS

Delete from Subparagraph 11.1.2 “, whether written on an occurrence or claims-made basis;” from the second sentence

Add the following subparagraph 11.1.4:

The following general requirements to apply to all insurance required under ARTICLE 11:

11.1.4.1 General Conditions

- a. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, his agents, representatives, employees and subcontractors. The cost of such insurance shall be included in the Contractor’s bid.
- b. Insurance provided by the Contractor shall be with a reliable company with an A.M. Best’s rating of no less than A-, acceptable to and approved by the Owner, and authorized to do business in Louisiana. This requirement will be waived for workers’ compensation coverage only for those companies who participate in the State of Louisiana Workers’ Compensation Assigned Risk Pool.
- c. The Owner and Architect must be included as additional insured on the general liability policy.
- d. All Workers Compensation policies must be endorsed with a waiver of subrogation.
- e. Each policy shall contain a provision signed by the agent of the company stipulating that the policy will not be canceled without thirty (30) days prior written notice to the Owner.
- f. Any and all policy deductibles shall be paid by the Contractor.
- g. All certificates of insurance shall be delivered to the Owner within ten days of the award of the Contract by the Owner. Bidders in submitting a proposal agree to submit certified copies of their insurance policies to the Owner for review.
- h. Claims made policies are not acceptable to the Owner and cannot be used to comply with insurance requirements of this Contract.

11.1.4.2 All policies and certificates of insurance of the Contractor/Subcontractor shall contain the following clauses:

11.1.4.2.1 The Contractor/Subcontractor’s insurers will have no right of recovery or subrogation against the Owner, it being the intention of the parties that the insurance policies shall protect both parties, and Owner’s insurance, if any, will not be utilized to cover any loss.

11.1.4.2.2 The Owner shall be named as an additional insured by the Contractor (ISO Forms CG 20 10, Current form approved for use in Louisiana).

11.1.4.2.3 The insurance companies issuing the policy or policies shall have no recourse against the Owner for payment of any premiums or for assessments under any form of policy.

11.1.4.2.4 Any and all deductibles in the insurance policies shall be assumed by and be at the sole risk of the Contractor whether a claim is made against the Owner or its agents or employees.

11.1.4.2.5 Any deductibles or self-insured retentions must be declared to and approved by the Owner. At the option of the Owner, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Owner, its officers, officials, employees and volunteers; or the Contractor’s bond shall guarantee payment of losses and related investigations, claim administration and defense expenses.

11.1.5 INSURANCE

The Contractor/Subcontractor, prior to commencing work, shall provide at his own expense, proof of the following insurance coverages required by the contract to the Owner by insurance companies authorized in the State of Louisiana. Insurance is to be placed with insurers with an A. M. Best’s rating of no less than A-. This rating requirement will be waived for the workers’ compensation coverage and policies written through Lloyds of London or Institute of London Underwriter (ILU) companies.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Thirty days prior notice of cancellation shall be given to the Owner by registered mail, return receipt requested, on all of the required coverage provided to the Owner. All notices will name the Contractor/ Subcontractor and identify the contract number.

Insurance coverage specified in the GENERAL CONDITIONS (AIA Document A 201, 1997 Edition) to be provided by the Contractor, and any other insurance described below shall be furnished with the following minimum limits:

11.1.5.1 Workers’ Compensation - Statutory - in compliance with the Compensation Law of the State. Exception: Employers liability to be \$1,000,000 when work is to be over water and involves maritime exposures.

11.1.5.2 Commercial General Liability Insurance with a combined single limit per occurrence for bodily injury and property damage. Insurance Services Office Commercial General Liability coverage (“occurrence”) form CG 0001. (Current form approved for use in Louisiana.) “Claims Made” form is unacceptable. The “occurrence form” shall not have a “sunset clause”. This insurance shall include coverage for bodily injury and property damage, and indicate on the Certificate of Insurance which of the seven (7) coverages required below are not included in the policy, if any:

1. Premises B Operations;
2. Broad Form Contractual Liability;
3. Products and Completed Operations
4. Use of Contractors and Subcontractors;
5. Personal Injury;
6. Broad Form Property Damage
7. Explosion, Collapse and underground (XCU) Coverage

NOTE: On the certification of insurance, under the description of operations, the following wording is required: THE AGGREGATE LOSS LIMIT APPLIES TO EACH PROJECT, or a copy of ISO form CG2503 (Current form approved for use in Louisiana) shall be submitted.

COMBINED SINGLE LIMIT (CSL) - AMOUNT OF INSURANCE REQUIRED

Type of	Projects Under	Projects \$100,001 -	Projects Over
<u>Construction</u>	<u>\$100,000</u>	<u>\$1,000,000</u>	<u>\$1,000,000</u>
New Buildings:			
-Each Occurrence/ Minimum Limit	\$500,000	\$1,000,000	\$3,000,000
-Aggregate (Applicable to this Contract ONLY)	\$500,000	\$1,000,000	\$3,000,000
Renovations:	<i>The building(s) value for this Project is: \$ _____</i>		
-Each Occurrence/ Minimum Limit	\$500,000*** (Depends On Building Value)	\$1,000,000*** (Depends On Building Value)	\$3,000,000*** (Depends On Building Value)
-Aggregate (Applicable to this Contract ONLY)	\$500,000*** (Depends On Building Value)	\$1,000,000*** (Depends On Building Value)	\$3,000,000*** (Depends On Building Value)

****While the minimum combined single limit of \$500,000 is required for all renovations, the value of a building shall be multiplied by 10% and insurance requirements will be increased at \$1,000,000 intervals and rounded to the nearest \$1,000,000. Example: Renovation on \$33,000,000 building would require \$3,000,000 minimum combined single limit of coverage. Maximum limit required is \$5,000,000.00 regardless of building value.*

11.1.5.3 Business Automobile Liability Insurance with a combined single limit of \$1,000,000 per occurrence for bodily injury and property damage, unless otherwise indicated. Insurance Services Office form number CA 0001 covering Automobile Liability (Current form approved for use in Louisiana.) The policy shall provide coverage for owned, hired, and non-owned coverage. If an automobile is to be utilized in the execution of this Contract and the vendor/contractor does not own a vehicle, then proof of hired and non-owned coverage is sufficient. This insurance shall include for bodily injury and property damage the following coverages:

1. Owned automobiles;
2. Hired automobiles;

SECTION IIIB - SUPPLEMENTARY CONDITIONS

- 3. Non-owned automobiles.
- 4. Medical Payments: \$5,000.00 minimum

11.1.5.4 An Umbrella Policy may be used to meet minimum requirements.

11.1.6 All property losses shall be made payable to and adjusted with the Owner.

11.1.7 All policies of insurance or declarations of coverage amounts and types shall be approved by the Owner prior to the inception of any work.

11.1.8 Other insurance required is as follows:

11.1.8.1 Owner’s Protective Liability Insurance shall be furnished by the Contractor and naming the St. Tammany Parish School Board as the Insured.

	<u>Projects Under \$100,000</u>	<u>Projects \$100,001- \$1,000,000</u>	<u>Projects Over \$1,000,000</u>
CSL - Each Occurrence	\$500,000	\$1,000,000	\$3,000,000

11.1.8.2 Asbestos Abatement Liability
(required when asbestos abatement is included in the work)

The contractor or subcontractor who will be doing the asbestos abatement as outlined in this contract shall obtain and maintain such liability coverage for the asbestos abatement hazard and exposure with minimum limits of \$1,000,000 per occurrence for the duration of the project. The policy shall name the St. Tammany Parish School Board as an additional insured for the project. The policy shall be written on an “occurrence” form without a sunset clause. Claims-made coverage is unacceptable. The insurance company shall have an A.M. Best rating of at least A-:VI or better or written through Lloyds of London or Institute of London Underwriter (ILU) companies.

11.1.9 If, at any time, any of the said policies shall be or become unsatisfactory to the Owner, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the Owner, the Contractor/Subcontractor shall promptly obtain a new policy, submit the same to the Owner for approval and submit a certificate thereof as hereinabove provided.

Upon failure of the Contractor/Subcontractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be forthwith declared suspended, discontinued or terminated. Failure of the Contractor/Subcontractor to take out and/or to maintain or the taking out and/or maintenance of any required insurance, shall not relieve the Contractor/Subcontractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor/Subcontractor concerning indemnification. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time. Should Contractor fail to obtain any insurance required under this Contract then the Owner is entitled to a reduction in the Contract sum for what insurance would reasonably have cost the Contractor.

11.1.10 RISKS AND INDEMNIFICATIONS ASSUMED BY THE CONTRACTOR. Neither the acceptance of the Completed Work nor payment therefore shall release the Contractor/Subcontractor from his obligations from the insurance requirements or indemnification agreement.

11.1.10.1 Additional insurance may be required on an individual basis for extra hazardous contracts and specific service agreements.

If such additional insurance is required for a specific contract, that requirement will be described in the “Special Conditions” of the contract specifications.

11.1.10.2 If any of the Property and Casualty insurance requirements are not complied with at their renewal dates, payments to the Contractor/Subcontractor will be withheld until those requirements have been met, or at the option of the Owner, the Owner may pay the Renewal Premium and withhold such payments from any monies due the Contractor/Subcontractor.

11.1.10.3 All property losses shall be made payable to and adjusted with the Owner.

11.1.10.4 All policies and certificates of insurance shall be approved by the Owner prior to the inception of any work.

11.1.10.5 If at any time any of the foregoing policies shall be or become unsatisfactory to the Owner, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the Owner, the Contractor/Subcontractor shall, upon notice to that effect from the Owner, promptly obtain a new policy, submit the same to the Owner for approval and submit a certificate thereof as hereinabove provided. Upon failure of the Contractor/Subcontractor to furnish, deliver and maintain such insurance as above provided, this Contract, at the election of the Owner, may be forthwith declared suspended, discontinued or terminated.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Failure of the Contractor/Subcontractor to take out and/or maintain or the taking out and/or maintenance of any required insurance, shall not relieve the Contractor/Subcontractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations of the Contractor/Subcontractor concerning indemnification. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time.

11.1.11 SUBCONTRACTORS

Contractor shall be responsible for insuring that subcontractors have adequate insurance to protect the Owner and Contractor from liability.

11.1.12 CERTIFICATE OF INSURANCE

Contractor shall furnish the Owner with certificates of insurance affecting coverage required by this clause. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates of insurance must also contain the following in the "Description of Operations" section:

If the Contractor is a General Contractor, then so state.

If the Contractor is a specialty contractor, then so state and provide the list of specialties for which the contractor is insured.

The certificates are to be received and approved by the Owner before work commences. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time.

Delete paragraph 11.2 and its subparagraph.

11.3 PROJECT MANAGEMENT PROTECTIVE LIABILITY INSURANCE

Delete Subparagraphs 11.3.1, 11.3.2, & 11.3.3

11.4 PROPERTY INSURANCE

Delete all Subparagraphs 11.4.1 through 11.4.10 and substitute the following:

11.4.1 The contractor shall provide builder's risk insurance to protect the Owner, the Contractor and subcontractors for loss with coverage in an amount equal to the sum of the Contract award. The policy shall insure against all risk of loss or damage. The Contractor shall be responsible for any deductible on any policy of insurance if a claim is made under the policy. Builder's risk insurance shall name the Owner as an additional insured..

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.2 CORRECTION OF WORK

Add the following to the end of Subparagraph 12.2.1:

If prior to the date of Substantial Completion, the Contractor, a Subcontractor or anyone for whom either is responsible uses or damages any portion of the Work, including, without limitation, mechanical, electrical, plumbing and other building systems, machinery, equipment or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner.

Delete Subparagraph 12.2.2 and substitute the following:

12.2.2 If, within one year after the date of the recordation of the certificate of Substantial Completion or Acceptance in the mortgage records for the Parish of St. Tammany, the Work or any portion thereof is found by the Architect or Owner not to be in accordance with the requirements of the Contract Documents, the Contractor shall correct such Work or if it is rejected by the Owner or Architect, remove such Work from the site and replace it with Work in accordance with the Contract Documents. If circumstances exist, including, but not limited to an emergency, the Owner may have any such Work corrected or removed and replaced. In such event, the Contractor shall reimburse the Owner for all costs and damages, including compensation for the Architect's services and expenses made necessary thereby. This period of correction of one year shall be extended as to respective portions of the Work performed after the date of the filing of the Certificate of Substantial Completion. This obligation under this subparagraph 12.2.2 shall survive acceptance of the Work under the Contract Documents and termination of the Agreement. The Architect shall give written notice promptly after the discovery of any condition of nonconforming work. Further, this obligation is in addition to and does not limit any general warranty provided by law or specified in the Contract Documents.

Delete the last three sentences of Subparagraph 12.2.2.1.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

Delete Subparagraph 12.2.2.3.

Add to Subparagraph 12.2.5 the following:

Further, nothing contained in this Paragraph 12.2 shall limit in any manner the provisions of law.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

Delete from Subparagraph 13.1.1 “place where the Project is located” and insert the words “State of Louisiana”.

Add the following Subparagraph 13.1.2 to 13.1:

- ii. The Contractor and his Surety consent and yield to the jurisdiction of the 22nd Judicial District Court for the Parish of St. Tammany or such other court located in the Parish of St. Tammany, Louisiana.

Delete from Subparagraph 13.2.1, in the second sentence, the words, “Except as provided in Section 13.2.2” and the words, “as a whole”.

Delete Subparagraph 13.2.2.

Delete from Subparagraph 13.3.1, the words, “if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or”.

Delete the existing Subparagraph 13.4.3 and substitute the following Subparagraph 13.4.3:

- 13.4.3 Nothing contained in the Contract Documents shall create a contractual relationship or any cause of action in favor of a third party against either the Owner, Contractor or Surety.

Delete Paragraph 13.6 INTEREST and Subparagraph 13.6.1 thereunder in their entirety. No interest is due by the Owner for any late payment.

Delete paragraph 13.7 COMMENCEMENT OF STATUTORY OF LIMITATION PERIOD and subparagraph 13.7.1 and its subparts thereunder in their entirety and in its place substitute the following:

13.7 PRESCRIPTION

- 13.7.1 Any action against the Contractor on the Contract or on any Bond or against the Contractor or Surety or both on the Bonds furnished by the Contractor, all in connection with the construction, alteration or repair of any public works shall prescribe only as provided by law.

Add the following paragraphs 13.8 through 13.12.1

13.8 WORK CONTINUATION AND PAYMENT

- 13.8.1 Unless otherwise agreed in writing, the Contractor shall carry on the Work, maintain the Schedule of the Work pending any claim or lawsuit, and, if so, the Owner shall continue to make payments in accordance with the provisions of the Contract Documents except as to any item in dispute.

13.9 ARBITRATION

- 13.9.1 All references within the Contract Documents referring to or including provisions for arbitration are stricken, deleted and deemed void. No provision shall be construed as authorizing or including provisions for arbitration. However, the parties may, subsequent to any dispute, agree to arbitration to settle a dispute.

13.10 ATTORNEY’S FEES

- 13.10.1 If as a result of any action or lawsuit filed by the Contractor it is necessary for the Owner to retain an attorney, the Contractor shall pay all legal fees and costs incurred by the Owner, if the Owner is the prevailing party for all or a portion of any claim.

- 13.10.2 In the event it is necessary for Owner to retain an attorney and/or file suit as a result of a breach by the Contractor of any of the Contractor’s obligations in the Contract Documents, including, but not limited, failing to comply with the provisions of the plans and specifications or failing to perform in a good and workmanlike manner, or failing to perform its work timely, or any other breaches of the Contractor’s obligations, the Contractor will be deemed liable for any and all attorney’s fees and court costs incurred by Owner.

SECTION IIIB - SUPPLEMENTARY CONDITIONS

13.11 PRECONSTRUCTION CONFERENCE

13.11.1 No later than fifteen (15) days after the date of the Notice to Proceed, a conference will be held to review the Contractor's schedule and Schedule of Values submitted to the Architect together with a review of the Contractor's plans for proceeding with the Work and such other items as may be designated by the Architect. The meeting will be convened by the Architect with a representative of the Owner and the Project representatives of the Contractor.

13.12 PROJECT MEETINGS

13.12.1 Monthly Project Meetings will be held at which the Architect, Owner's representative, and Project Representative, if any, shall be present. The Contractor and the primary subcontractors shall also be represented. The Contractor is responsible to prepare the minutes of the meeting and to distribute them to all parties within five (5) days of the date of the monthly Project Meeting.

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT

Delete Paragraphs 14.1 and 14.1.1

Add the following Subparagraphs to 14.2.1:

- .5 becomes insolvent, seeking relief in bankruptcy, is placed in bankruptcy involuntarily, or makes a general assignment for the benefit of the creditors and fails to provide adequate assurances, the adequacy of which the Owner will be the sole judge, of the Contractor's future performance in accordance with the requirements of the Contract Documents;
- .6 disregards the authority of the Architect;
- .7 loses charge of the property of the Contractor resulting in a trustee, receiver, custodian or agent appointed under applicable law or under contract;
- .8 breaches any warranty made by the Contractor under or required pursuant to the Contract Documents; or
- .9 fails after commencement of the Work to proceed continuously with the construction and completion of the Work for more than ten (10) working days, except as permitted under the Contract Documents.
- .10 Failure to complete the punch list within the lien period as provided in 9.8.2.

Delete from Subparagraph 14.2.2, the words, "upon certification by the Architect that sufficient cause exists to justify such action" and Delete from Subparagraph 14.2.2.3 the last sentence commencing with the word "Upon" and ending with "Work".

Add the following sentence to Subparagraph 14.2.3:

Termination by the Owner shall not suspend assessment of liquidated damages against the surety.

Add the following Subparagraph 14.2.5:

14.2.5 If an agreed sum of liquidated damages has been established, termination by the Owner under this Article will not relieve the Contractor and surety of their obligations under the liquidated damages provisions and the Contractor and/or surety shall be liable to the Owner for per diem liquidated damages.

Add the following Subparagraph 14.2.6:

14.2.6 In the event that the Owner terminates the Contract for one of the reasons stated in Subparagraph 14.2.1 and it is later determined that said termination for cause was improper, unwarranted, or otherwise invalid, then the provisions of Subparagraph 14.4, TERMINATION BY THE OWNER FOR CONVENIENCE, shall apply. The Contract shall be deemed TERMINATED BY THE OWNER FOR CONVENIENCE from the day of the original Notice of Termination by the Owner for Cause.

Delete Subparagraph 14.3.2.

Delete from Subparagraph 14.4.3, the words "and costs incurred by reason of such termination along with reasonable overhead and profit on the Work not executed."

SECTION IIIB - SUPPLEMENTARY CONDITIONS

ARTICLE 15 - EQUAL OPPORTUNITY EMPLOYMENT

Add the following Subparagraphs 15.1 and 15.2 as Article 15:

- 15.1 The Contractor and all subcontractors shall not discriminate against any employee or applicant for employment in accordance with LA R.S. 23:301, *et seq.* or any other applicable law, including but not limited to LA R.S. 23:332 and LA R.S. 23:334.
- 15.2 The Contractor and all subcontractors shall, in all solicitations or advertisement for employment placed by them or on their behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or age.

END OF SECTION IIIB

Revised 9.18.09

SECTION IIIC - CHANGE ORDER

PROJECT: St. Tammany Jr. High
Reroof of Walkway Cover

PROJECT NO: STPSB 1501

JOB NO: _____

TO: CONTRACTOR: _____
(Name and Address)

CHANGE ORDER NO: _____

DATE: _____

CONTRACT DATE: _____

You are directed to make the following change in this contract: (attach itemized breakdown to show cost including materials quantities, material costs, taxes, insurance, employee benefits, other related costs, profit and overhead):

NOT VALID UNTIL SIGNED BY OWNER AND CONTRACTOR

The Original Contract Sum	\$ _____
Net Change by previous Change Orders	\$ _____
Contract Sum Prior to this Change	\$ _____
Contract Sum will be (increased) (decreased) (unchanged) by this Change	\$ _____
New Contract Sum including this Change	\$ _____
Contract Time will be (increased) (decreased) (unchanged) by	_____ days
Revised Contract Completion Date as of the date of this Change Order is	_____

Change Order is:

RECOMMENDED:

(Architect)

By: _____

Date: _____

ACCEPTED:

(Contractor)

By: _____

Date: _____

APPROVED:

St. Tammany Parish School Board
(Owner)

By: _____

Date: _____

DOCUMENT 00020

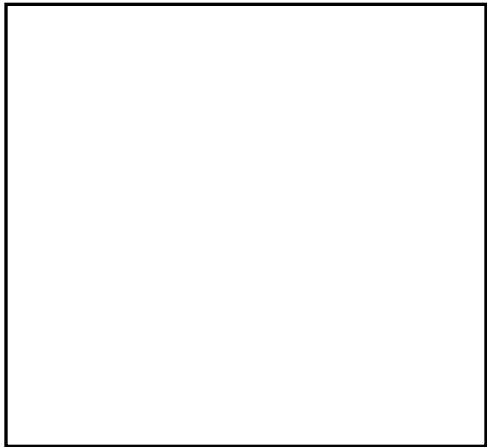
PROFESSIONAL SEALS

PROJECT NAME: ST. TAMMANY PARISH SCHOOL BOARD
SLIDELL JR. HIGH
REROOFING - OLD 6TH GRADE WING

DATE: JANUARY ____, 2015

ARCHITECTURAL SPECIFICATIONS:

The following Specification Sections were prepared by me or under my direct personal supervision:



Dammon Engineering, Inc.

INTRODUCTORY INFORMATION

00010 - TABLE OF CONTENTS

DIVISION 1 - GENERAL REQUIREMENTS

01100 - SUMMARY
01330 - SUBMITTALS
01500 - TEMPORARY FACILITIES AND CONTROLS
01582 - PROJECT IDENTIFICATION SIGN
01700 - EXECUTION REQUIREMENTS
01731 - CUTTING AND PATCHING
01732 - SELECTIVE DEMOLITION
01770 - CLOSEOUT PROCEDURES
01781 - PROJECT RECORD DOCUMENTS

DIVISION 2 -(NOT USED)

DIVISION 3 - (NOT USED)

DIVISION 4 - (NOT USED)

DIVISION 5 - (NOT USED)

DIVISION 6 - (NOT USED)

06164 - GYPSUM SHEATHING

DIVISION 7 - THERMAL & MOISTURE PROTECTION

07250 - WEATHER BARRIERS
07410 - METAL ROOF & WALL PANELS
07550 - MODIFIED BITUMEN MEMBRANE ROOFING
07710 - PREFAB FASCIAS COPINGS AND EXPANSION JOINTS
07620 - SHEET METAL FLASHING AND TRIM

END OF DOCUMENT

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. This Section includes the following:
 - 1. Work covered by the Contract Document
 - 2. Type of the Contract
 - 3. Work phases
 - 4. Work under other contracts
 - 5. Products ordered in advance
 - 6. Owner-furnished products
 - 7. Use of premises
 - 8. Owner's occupancy requirements
 - 9. Work restrictions
 - 10. Specification formats and conventions

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: St. Tammany Jr. High, Reroofing of Walkway Cover; STPSB Project No. 1501
 - 1. Project Location: 701 Cleveland Ave., Slidell, Louisiana 70458
- B. Owner: St. Tammany Parish School Board

1. Owner's Representative: Ms. Cameron Tipton

C. Architect: Dammon Engineering, Inc.

D. The Work consists of the following:

1. The Work includes the removal of two (2) existing modified bitumen roof membrane systems, including adjacent metal gutters, downspouts and fascias and all associated existing deck vents to existing structural deck, extents of which are identified in drawings that complete this package. An adjacent connecting walkway canopy is to receive repairs via an applied compatible coating with existing gutters and downspouts to remain.

1.4 TYPE OF CONTRACT

A. Project will be constructed under a single prime contract.

1.5 USE OF PREMISES

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

1. Owner Occupancy: Allow for Owner occupancy of Project site and use by the public.
2. Driveways and Entrances: Keep driveways loading areas, 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.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

B. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1.6 OWNER'S OCCUPANCY REQUIREMENTS

A. Full Owner Occupancy: Owner will occupy site and existing buildings 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 authorities having jurisdiction.
2. Provide not less than **72** hours' notice to Owner of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS

- A. On-Site Work Hours: Work shall be generally performed inside the existing building during normal business working hours, early morning hours, and weekend hours, all by pre-arrangement only.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
- C. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes.

1.8 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.
 1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- B. 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. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall

be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. 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.

1.9 MISCELLANEOUS PROVISIONS

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF DOCUMENT

SECTION 01330

SUBMITTALS

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 includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings may be provided by Architect 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. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. 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. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 calendar days for initial review of each submittal.
 2. Allowing procedure in subparagraph below may cause tracking problems for Architect and Construction Manager, if any. Delete if not allowed. See Evaluations.
 3. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 business days for review of each submittal. Submittal will be returned to Architect before being returned to Contractor.
- E. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name
 - b. Date
 - c. Name and address of Architect
 - d. Name and address of Contractor
 - e. Name and address of subcontractor
 - f. Name and address of supplier
 - g. Name of manufacturer
 - h. Submittal number or other unique identifier, including revision identifier
 - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include a numeric suffix after another decimal point (e.g., 06100.01.01).
 - 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
 - l. Other necessary identification
- F. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.

2. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor and/or without Contractor's shop drawing review stamp.
1. Transmittal Form: Use AIA Document G810.
 2. Transmittal Form: Provide locations on form for the following information:
 - a. Project name
 - b. Date
 - c. Destination (To:)
 - d. Source (From:)
 - e. Names of subcontractor, manufacturer, and supplier
 - f. Category and type of submittal
 - g. Submittal purpose and description
 - h. Specification Section number and title
 - i. Drawing number and detail references, as appropriate
 - j. Transmittal number
 - k. Submittal and transmittal distribution record
 - l. Remarks
 - m. Signature of transmitter
 3. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.
- I. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
- J. 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.
- 1.5 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES
- A. General: At Contractor's written request, copies of Architect's CAD files may be provided to Contractor for Contractor's use in connection with Project.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
1. Submit electronic submittals directly to extranet specifically established for Project.
- 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 printed 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 written recommendations
 - b. Manufacturer's product specifications
 - c. Manufacturer's installation instructions
 - d. Standard color charts
 - e. Manufacturer's catalog cuts
 - f. Wiring diagrams showing factory-installed wiring
 - g. Printed performance curves
 - h. Operational range diagrams
 - i. Mill reports
 - j. Standard product operation and maintenance manuals
 - k. Compliance with specified referenced standards
 - l. Testing by recognized testing agency
 - m. Application of testing agency labels and seals
 - n. Notation of coordination requirements
 4. Submit Product Data before or concurrent with Samples.
 5. Number of Copies: Submit five copies of Product Data, unless otherwise indicated. Architect will return three copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Dimensions
 - b. Identification of products
 - c. Fabrication and installation drawings

- d. Roughing-in and setting diagrams
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring
 - f. Shopwork manufacturing instructions
 - g. Templates and patterns
 - h. Schedules
 - i. Design calculations
 - j. Compliance with specified standards
 - k. Notation of coordination requirements
 - l. Notation of dimensions established by field measurement
 - m. Relationship to adjoining construction clearly indicated.
 - n. Seal and signature of professional engineer if specified
 - o. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring
2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
 3. Electronic Submittals: All submittals (shop drawings, product data, etc.) are to be submitted in electronic format (pdf) only.
 - a. Exception: samples are not required to be submitted electronically.
- 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 appropriate Specification Section
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit two full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit three sets of Samples. Architect will retain two] Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 1. Type of product. Include unique identifier for each product.
 2. Number and name of room or space.
 3. Location within room or space.
 4. Number of Copies: Submit three copies of product schedule or list, unless otherwise indicated. Architect will return two copies.
 - a. Mark up and retain one returned copy as a Project Record Document.
- F. Contractor's Construction Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation" for Construction Manager's action.
- G. Submittals Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation."
- H. Application for Payment: Comply with requirements specified in Division 1 Section "Payment Procedures."

- I. Schedule of Values: Comply with requirements specified in Division 1 Section "Payment Procedures."
- J. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
 - 4. Number of Copies: Submit three copies of subcontractor list, unless otherwise indicated. Architect will return two copies.
 - a. Mark up and retain one returned copy as a Project Record Document.

2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - 3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section "Quality Requirements."
- B. Coordination Drawings: Comply with requirements specified in Division 1 Section "Project Management and Coordination."
- C. Contractor's Construction Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation."
- D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

- G. **Manufacturer Certificates:** Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. **Product Certificates:** Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. **Material Certificates:** Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. **Material Test Reports:** Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. **Product Test Reports:** Prepare 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.
- L. **Research/Evaluation Reports:** Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - 1. Name of evaluation organization
 - 2. Date of evaluation
 - 3. Time period when report is in effect
 - 4. Product and manufacturers' names
 - 5. Description of product
 - 6. Test procedures and results
 - 7. Limitations of use
- M. **Schedule of Tests and Inspections:** Comply with requirements specified in Division 1 Section "Quality Requirements."
- N. **Preconstruction Test Reports:** Prepare 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.
- O. **Compatibility Test Reports:** Prepare 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.
- P. **Field Test Reports:** Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- Q. **Maintenance Data:** Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."

- R. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- S. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
 - 1. Preparation of substrates
 - 2. Required substrate tolerances
 - 3. Sequence of installation or erection
 - 4. Required installation tolerances
 - 5. Required adjustments
 - 6. Recommendations for cleaning and protection
- T. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
 - 1. Name, address, and telephone number of factory-authorized service representative making report.
 - 2. Statement on condition of substrates and their acceptability for installation of product.
 - 3. Statement that products at Project site comply with requirements.
 - 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 - 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 6. Statement whether conditions, products, and installation will affect warranty.
 - 7. Other required items indicated in individual Specification Sections.
- U. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- V. Construction Photographs or Videotapes: Comply with requirements specified in Division 1 Section "Photographic Documentation."
- W. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.
 - 1. Architect will not review submittals that include MSDSs and will return the entire submittal for resubmittal.

2.3 DELEGATED DESIGN

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

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S/ ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF DOCUMENT

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. This Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Sections include the following:
 - 1. Not Used.

1.3 DEFINITIONS

- A. Permanent Enclosure: As determined by Architect, permanent or temporary roofing is complete, insulated, and weathertight; exterior walls are insulated and weathertight; and all openings are closed with permanent construction or substantial temporary closures.

1.4 USE CHARGES

- A. General: Cost or use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer service use charges for sewer usage by all entities for construction operations.
- C. Water Service: 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.
- D. Electric Power Service: 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.

1.5 SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

1.6 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.

1.7 PROJECT CONDITIONS

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

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch , 9-gage, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch-OD top and bottom rails. Provide concrete or galvanized steel bases for supporting posts.

2.2 TEMPORARY FACILITIES

- A. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
 - 1. Store combustible materials apart from building.
- B. Contractor shall furnish, install, maintain and remove temporary portable toilet facilities ("porta-potty") and hand wash station(s).

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.
 - 1. Locate facilities to limit site disturbance as specified in Division 1 Section "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
- G. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.

1. Install electric power service overhead or underground, unless otherwise indicated.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 2. Install lighting for Project identification sign.
- I. Electronic Communication Service: Provide temporary electronic communication service, including electronic mail, in common-use facilities.
- 3.3 SUPPORT FACILITIES INSTALLATION
- A. 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.
- B. Parking: Provide temporary parking areas for construction personnel.
- C. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
 2. Remove snow and ice as required to minimize accumulations.
- D. Project Identification and Temporary Signs: Provide Project identification and other signs. Install signs where indicated to inform public and individuals seeking entrance to Project. Unauthorized signs are not permitted.
1. Provide temporary, directional signs for construction personnel and visitors.
 2. Maintain and touchup signs so they are legible at all times.
- E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.
- F. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION
- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental

regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

1. Comply with work restrictions specified in Division 1 Section "Summary."
 - B. Tree and Plant Protection: Comply with requirements specified in Division 2 Section "Tree Protection and Trimming."
 - C. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
 - D. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Obtain extended warranty for Owner. Perform control operations lawfully, using environmentally safe materials.
 - E. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
 1. 6' high chain-link fence panels are acceptable.
 - F. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
 - G. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 1. Prohibit smoking on St. Tammany Parish School Board Property.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.
- 3.5 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.

1. 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 paving not intended for or acceptable for integration into permanent paving. 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, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF DOCUMENT

SECTION 01700

EXECUTION 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. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. General installation of products.
 - 4. Coordination of Owner-installed products.
 - 5. Progress cleaning.
 - 6. Starting and adjusting.
 - 7. Protection of installed construction.
 - 8. Correction of the Work.
- B. Related Sections include the following:
 - 1. Not Used.

1.3 SUBMITTALS

- A. Qualification Data: For land surveyor.
- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- D. Certified Surveys: Submit two copies signed by land surveyor.

1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
 - 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: 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 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; and underground electrical services.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. 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 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, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents. Submit requests on AIA Form G716, "Request for Information."

3.3 CONSTRUCTION LAYOUT

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

- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

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

3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
 - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
 - 4. Maintain minimum headroom clearance of 8 feet in spaces without a suspended ceiling.
- 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. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 OWNER-INSTALLED PRODUCTS

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

3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F .
 - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

- 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.

3.8 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.9 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.

3.10 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- 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 DOCUMENT

SECTION 01731

CUTTING AND PATCHING

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 includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Not Used.

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 surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least **10** days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.

6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. 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. Operating elements include the following:
 1. Primary operational systems and equipment
 2. Air or smoke barriers
 3. Fire-suppression systems
 4. Mechanical systems piping and ducts
 5. Control systems
 6. Communication systems
 7. Conveying systems
 8. Electrical wiring systems
 9. Operating systems of special construction in Division 13 Sections
 10. Security systems
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related 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. Miscellaneous elements include the following:
 1. Water, moisture, or vapor barriers
 2. Membranes and flashings
 3. Exterior curtain-wall construction
 4. Equipment supports
 5. Piping, ductwork, vessels, and equipment
 6. Noise- and vibration-control elements and systems
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- E. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

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

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.
 - a. Coordinate with roof membrane system manufacturer for compatible patching material where patch comes into contact with any element of the roofing system.

PART 3 - EXECUTION

3.1 EXAMINATION

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

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. 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.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. 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 or prevent interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and

appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

- a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF DOCUMENT

SECTION 01732

SELECTIVE DEMOLITION

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 includes the following:
 - 1. Demolition and removal of selected portions of existing root membrane system.
- B. Related Sections include the following:
 - 1. Not Used.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's and clients on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Locations of proposed dust- and noise-control temporary partitions and means of egress.
 - 6. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

7. Means of protection for items to remain and items in path of waste removal from building.

B. Predemolition Photographs or Videotapes: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Comply with Division 1 Section "Photographic Documentation." Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1. Comply with submittal requirements in Division 1 Section "Construction Waste Management."

1.5 QUALITY ASSURANCE

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

1.6 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

1. Comply with requirements specified in Division 1 Section "Summary."

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.7 WARRANTY

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

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.
- F. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or preconstruction videotapes.
 - 1. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.
- G. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
 - 1. Comply with requirements for existing services/systems interruptions specified in Division 1 Section "Summary."

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 1 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 1 Section "Temporary Facilities and Controls."

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 1. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain **fire watch** and portable fire-suppression devices during flame-cutting operations.
 2. Maintain adequate ventilation when using cutting torches.
 3. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 4. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 5. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 6. Dispose of demolished items and materials promptly.
- B. Removed and Reinstalled Items:
 1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
 2. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Air-Conditioning and Refrigeration Equipment: Disconnect equipment without releasing refrigerants. Downtime for equipment shall be minimized. Coordinate disconnect time and duration with St. Tammany Parish School Board.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF DOCUMENT

SECTION 01770

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures
 - 2. Warranties
 - 3. Final cleaning
- B. Related Sections include the following:
 - 1. Not Used

1.3 SUBSTANTIAL COMPLETION

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

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

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report and warranty.
 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, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after

inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 1. Organize list of spaces in sequential order, starting with exterior areas first.
 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name
 - b. Date
 - c. Name of Architect
 - d. Name of Contractor
 - e. Page number

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. 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, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

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

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide 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.

- i. 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 similar labels, including mechanical and electrical nameplates.
 - l. 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 unusual operating conditions.
 - n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - o. 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.
 - 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.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF DOCUMENT

SECTION 01781

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. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings
 - 2. Record Specifications
 - 3. Record Product Data
- B. Related Sections include the following:
 - 1. Not Used.

1.3 SUBMITTALS

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

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

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

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

6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Transparencies: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect. When authorized, prepare a full set of corrected transparencies of the Contract Drawings and Shop Drawings.
1. Incorporate changes and additional information previously marked on Record Prints. Erase, redraw, and add details and notations where applicable.
 2. Refer instances of uncertainty to Architect for resolution.
 3. Owner will furnish Contractor one set of transparencies of the Contract Drawings for use in recording information.
 4. Print the Contract Drawings and Shop Drawings for use as Record Transparencies. Architect will make the Contract Drawings available to Contractor's print shop.
- C. Record CAD Drawings: Immediately before inspection for Certificate of Substantial Completion, review marked-up Record Prints with Architect. When authorized, prepare a full set of corrected CAD Drawings of the Contract Drawings, as follows:
1. Format: Same CAD program, version, and operating system as the original Contract Drawings.
 2. Format: DWG, AutoCAD Version 2004, operating in Microsoft Windows operating system.
 3. Incorporate changes and additional information previously marked on Record Prints. Delete, redraw, and add details and notations where applicable.
 4. Refer instances of uncertainty to Architect for resolution.
 5. Architect will furnish Contractor one set of CAD Drawings of the Contract Drawings for use in recording information.
 - a. Architect makes no representations as to the accuracy or completeness of CAD Drawings as they relate to the Contract Drawings.
 - b. CAD Software Program: The Contract Drawings are available in AutoCAD Version 2004.
- D. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- E. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Record Transparencies: Organize into unbound sets matching Record Prints. Place transparencies in durable tube-type drawing containers with end caps. Mark end cap of each container with identification. If container does not include a complete set, identify Drawings included.
3. Record CAD Drawings: Organize CAD information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each CAD file.
4. Identification: As follows:
 - a. Project name
 - b. Date
 - c. Designation "PROJECT RECORD DRAWINGS"
 - d. Name of Architect
 - e. Name of Contractor

2.2 RECORD SPECIFICATIONS

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

2.3 RECORD PRODUCT DATA

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

3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

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

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

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

END OF DOCUMENT

SECTION 06164

GYP SUM SHEATHING

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fiberglass-mat faced, moisture and mold resistant gypsum sheathing.
- B. Related Sections:
 - 1. Section 05 41 00 Structural Metal Stud Framing.
 - 2. Section 07250 Weather Barriers.

1.02 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel Products.
 - 2. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 - 3. ASTM C1002 Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
 - 4. ASTM C1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
 - 5. ASTM C1280 Standard Specification for Application of Gypsum Sheathing.
 - 6. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
 - 7. ASTM D6329 Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers.
 - 8. ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
 - 9. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
 - 10. ASTM C1396 Standard Specification for Gypsum Board
 - 11. ASTM E 136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
 - 12. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- B. Gypsum Association (GA): GA-253 Application of Gypsum Sheathing.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's specifications and installation instructions for each product specified.

1.04 WARRANTY

ST. TAMMANY PARISH SCHOOL BOARD
ST. TAMMANY JR. HIGH
RE-ROOFING OF WALKWAY COVER

- A. Provide products that offer twelve months of coverage against in-place exposure damage (delamination, deterioration and decay) commencing with the date of substantial completion.
- B. Manufacturer's Warranty:
 - 1. Five years against manufacturing defects from the date of purchase of the product for installation

PART 2 PRODUCTS

2.02 MATERIALS

- A. Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177:
 - 1. Thickness: 1/2 inch.
 - 2. Width: 4 feet.
 - 3. Weight: 1.9 lb/sq. ft.
 - 4. Edges: Square.
 - 5. Surfacing: Fiberglass mat on face, back, and long edges.
 - 6. Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 540 pounds per square foot, dry.
 - 7. Flexural Strength, Parallel (ASTM C473): 80 lbf, parallel.
 - 8. Humidified Deflection (ASTM C1177): Not more than 2/8 inch.
 - 9. Permeance (ASTM E96): Not less than 23 perms.
 - 10. R-Value (ASTM C518): 0.56.
 - 11. Mold Resistance (ASTM D3273): 10, in a test as manufactured.
 - 12. Microbial Resistance (ASTM D6329, UL Environmental GREENGUARD 3-week protocol): Will not support microbial growth.
 - 13. Acceptable Products:
 - a. 1/2 inch DensGlass Sheathing, Georgia-Pacific Gypsum LLC.
 - b. 1/2 inch USG Securock Glass-Max Sheathing Panels
 - c. 1/2 inch National Gypsum Gold Bond Gypsum Sheathing.

2.03 ACCESSORIES

- A. Screws: ASTM C1002, corrosion resistant treated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions:
 - 1. Inspection: Verify that project conditions and substrates are acceptable, to the installer, to begin installation of work of this section.

3.02 INSTALLATION

- A. General: In accordance with GA-253, ASTM C1280 and the manufacturer's recommendations.

3.03 PROTECTION

- A. Protect gypsum board installations from damage and deterioration until date of Substantial Completion.

END OF SECTION 06164

SECTION 07250
WEATHER BARRIERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Weather barrier membrane
- B. Seam Tape
- C. Flashing
- D. Fasteners

1.2 REFERENCES

- A. ASTM International
 - 1. ASTM C920; Standard Specification for Elastomeric Joint Sealants
 - 2. ASTM C1193; Standard Guide for Use of Joint Sealants
 - 3. ASTM D882; Test Method for Tensile Properties of Thin Plastic Sheeting
 - 4. ASTM D1117; Standard Guide for Evaluating Non-woven Fabrics
 - 5. ASTM E84; Test Method for Surface Burning Characteristics of Building Materials
 - 6. ASTM E96; Test Method for Water Vapor Transmission of Materials
 - 7. ASTM E1677; Specification for Air Retarder Material or System for Framed Building Walls
 - 8. ASTM E2178; Test Method for Air Permeance of Building Materials
 - 9. ASTM E2357; Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- B. AATCC - American Association of Textile Chemists and Colorists
 - 1. Test Method 127 Water Resistance: Hydrostatic Pressure Test
- C. TAPPI
 - 1. Test Method T-410; Grams of Paper and Paperboard (Weight per Unit Area)
 - 2. Test Method T-460; Air Resistance (Gurley Hill Method)

1.3 SUBMITTALS

- A. Refer to Section 01330 Submittal Procedures.
- B. Product Data: Submit manufacturer current technical literature for each component.
- C. Samples: Weather Barrier Membrane, minimum 8-1/2 inches by 11 inch.
- D. Quality Assurance Submittals
 - 1. Design Data, Test Reports: Provide manufacturer test reports indicating product compliance with indicated requirements.

2. Manufacturer Instructions: Provide manufacturer's written installation instructions.

E. Closeout Submittals

1. Refer to Section 01770 Closeout Submittals.
2. Weather Barrier Warranty: Manufacturer's executed warranty form with authorized signatures and endorsements indicating date of Substantial Completion.

1.4 QUALITY ASSURANCE

A. Qualifications

1. Installer shall have experience with installation of weather barrier assemblies under similar conditions.
2. Installation shall be in accordance with weather barrier manufacturer's installation guidelines and recommendations.
3. Source Limitations: Provide weather barrier and accessory materials produced by single manufacturer.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver weather barrier materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Store weather barrier materials as recommended by weather barrier manufacturer.

1.7 WARRANTY

A. Special Warranty

1. Special weather-barrier manufacturer's warranty for weather barrier for a period of ten (10) years from date of final weather barrier installation.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Performance Characteristics:

1. Air Penetration: 0.001 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677. ≤0.04 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2357.
2. Water Vapor Transmission: 28 perms, when tested in accordance with ASTM E96, Method B.

3. Water Penetration Resistance: Minimum 280 cm when tested in accordance with AATCC Test Method 127.
4. Basis Weight: Minimum 2.7 oz/yd², when tested in accordance with TAPPI Test Method T-410.
5. Air Resistance: Air infiltration at >1500 seconds, when tested in accordance with TAPPI Test Method T-460.
6. Tensile Strength: Minimum 38/35 lbs/in., when tested in accordance with ASTM D882, Method A.
7. Tear Resistance: 12/10 lbs., when tested in accordance with ASTM D1117.
8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E84. Flame Spread: 10, Smoke Developed: 10.

2.2 ACCESSORIES

- A. Seam Tape: As recommended by the weather barrier manufacturer.
- B. Fasteners:
 1. 1-5/8 inch rust resistant screw with 2-inch diameter plastic cap or manufacturer approved 1-1/4" or 2" metal gasketed washer
- C. Sealants
 1. Refer to Section [07 92 00 Joint Sealants] [insert section number and title].
OR
 2. Provide sealants that comply with ASTM C920, elastomeric polymer sealant to maintain watertight conditions.
 3. Products: Sealants recommended by the weather barrier manufacturer.
- D. Adhesives:
 1. Provide adhesive recommended by weather barrier manufacturer.
 2. Products: Adhesives recommend by the weather barrier manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 INSTALLATION - WEATHER BARRIER

- A. Install weather barrier over exterior face of exterior wall substrate in accordance with manufacturer recommendations.
- B. Install weather barrier prior to installation of windows and doors.

- C. Start weather barrier installation at a building corner, leaving 6-12 inches of weather barrier extended beyond corner to overlap.
- D. Install weather barrier in a horizontal manner starting at the lower portion of the wall surface with subsequent layers installed in a shingling manner to overlap lower layers. Maintain weather barrier plumb and level.
- E. Sill Plate Interface: Extend lower edge of weather barrier over sill plate interface 3-6 inches. Secure to foundation with elastomeric sealant as recommended by weather barrier manufacturer.
- G. Overlap weather barrier
 - 1. Exterior corners: minimum 12 inches.
 - 2. Seams: minimum 6 inches.
- H. Weather Barrier Attachment:
 - 1. Attach weather barrier to studs through exterior sheathing. Secure using weather barrier manufacturer recommend fasteners, space 12-18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.

3.3 SEAMING

- A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams.
- B. Seal any tears or cuts as recommended by weather barrier manufacturer.

3.8 FIELD QUALITY CONTROL

- A. Notify manufacturer's designated representative to obtain periodic observations of weather barrier assembly installation.

3.9 PROTECTION

- A. Protect installed weather barrier from damage.

END OF SECTION

SECTION 07410
METAL ROOF & WALL PANELS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preformed, prefinished metal roofing and flashings.
- B. Miscellaneous trim, flashing, closures, drip flashing, and accessories.
- C. Fastening devices.

1.2 REFERENCES

- A. American Iron & Steel Institute (AISI) Specification for the Design of Cold formed Steel Structural Members.
- B. ASTM 792-86 AZ-50 Aluminum Zinc Alloy Coated Steel (Galvalume Sheet Metal)
- C. ASTM E-283-84
- D. ASTM E-331-86
- E. Spec Data Sheet - Aluminum Zinc Alloy Coated Steel (Galvalume) Sheet Metal by Bethlehem Corp.
- F. SMACNA - Architectural Sheet Metal Manual.
- G. Building Materials Directory - Underwriter's Laboratories, Test Procedure 580 - UL-90.

1.3 ASSEMBLY DESCRIPTION

- A. The roofing assembly includes preformed sheet metal panels, related accessories, valleys, hips, ridges, eaves, corners, rakes, miscellaneous flashing and attaching devices.

1.4 SUBMITTALS

- A. Submit detailed shop drawings showing layout of panels, anchoring details, joint details, trim, flashing, and accessories.
- B. Submit a sample of each type of panel, complete with factory finish.
- C. Submit calculations with registered engineer seal, verifying roof panel and attachment method resist wind pressures imposed on it pursuant to applicable building codes.

1.5 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in Architectural Sheet Metal Products with ten (10) years minimum experience.
- B. No product substitutions shall be permitted without meeting specifications.

- C. Substitutions shall be submitted 5 days prior to bid date and acceptance put forth in an addendum.
- D. No substitutions shall be made after the bid date.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Upon receipt of panels and other materials, installer shall examine the shipment for damage and completeness.
- B. Panels should be stored in a clean, dry place. One end should be elevated allowing moisture to run off.
- C. Panels with strippable film must not be stored in the open, exposed to the sun.
- D. Stack all materials to prevent damage and to allow adequate ventilation.

1.7 WARRANTY

- A. Paint finish shall have a twenty-year warranty against cracking, peeling and fading (not to exceed 5 N.B.S. units).
- B. Galvalume material shall have a twenty-year warranty against failure due to corrosion, rupture or perforation.

PART 2 PRODUCT

2.1 ACCEPTABLE MANUFACTURERS

- A. Basis of Design: Berridge Manufacturing Company, San Antonio, Texas.
- B. Substitutions shall fully comply with specified requirements. Pending approval of the architect.

2.2 SHEET MATERIALS

- A. Prefinished metal shall be Aluminum-Zinc Alloy Coated (AZ-50 Galvalume®) Steel Sheet, 24-Gauge or 22-Gauge*, ASTM 792-08, Grade 40, yield strength 40 ksi min.
- B. Finish shall be full strength Kynar 500® or Hylar 5000™ fluoropolymer coating applied by the manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75 ± 0.05 mil over 0.20 ± 0.05 mil prime coat, to provide a total top side dry film thickness of 0.95 ± 0.10 mil. Bottom side shall be coated with a primer (non-metallics only) and beige urethane coating with a total dry film thickness of 0.35 ± 0.05 mil. Finish shall conform to all tests for adhesion, flexibility, and longevity as specified by the Kynar 500® or Hylar 5000™ finish supplier.
- C. Strippable film shall be applied to the top side of all prefinished metal to protect the finish during fabrication, shipping and field handling. This strippable film MUST be removed immediately before installation.

- D. Unpainted metal shall be Aluminum-Zinc Alloy Coated (AZ-55 Acrylic Coated Galvalume®) Steel Sheet, 24-Gauge or 22-Gauge*, ASTM 792-08, Grade 40, yield strength 40 ksi min., with clear acrylic coating on both sides of material.
- E. Field protection must be provided by the contractor at the job site so stacked or coiled material is not exposed to weather and moisture.
- F. Flashing maybe factory fabricated or field fabricated. Unless otherwise specified all exposed adjacent flashing shall be of the same material and finish as panel system.

2.3 ACCESSORY MATERIALS

- A. Fasteners: washers at exposed fasteners where approved by architect.
- B. Sealant: Sealant shall be an ultra low modulus, high performance, one-part, moisture curing silicone joint sealant. (Do not use a clear sealant or sealants which release a solvent or acid during curing).
- C. Sealant must be resistant to environmental conditions such as wind loading, wind driven rain, snow, sleet, acid rain, ozone, ultraviolet light and extreme temperature variations.
- D. Features must include joint movement capabilities of +100% & -50% ASTM C-719, capable of taking expansion, compression, transverse and longitudinal movement, service temperature range -65°F to 300°F (-54°C to 149°C), Flow, sag or slump: ASTM C-639; Nil, Hardness (Shore A): ASTM C-661; 15, Tensile strength at maximum elongation: ASTM D-412; 200 psi, Tensile strength at 100% elongation: ASTM D-412; 35 psi, Tear strength, (die "C"); ASTM D-624; 40 pli, Peel strength (Aluminum, Glass, Concrete): ASTM C-794; 30 pli
- E. Vinyl Weatherseal Insert.

2.4 FABRICATION

- A. All exposed adjacent flashing shall be of the same material and finish as the roof panels.
- B. Hem all exposed edges of flashing on underside, ½ inch.

2.5 BERRIDGE VEE-PANEL

- A. Panels shall have 12 ¾" exposure with 3/8" deep vee-grooves 4 ¼" o.c. with concealed fasteners and interlocking sidelap.
- B. Panels shall be formed in continuous lengths for [wall] or [fascia] or [soffit] to 40' max length and shall have no exposed fasteners.
- C. Attachment to metal supports [with #8 x 12" TEK screws at maximum spacing of 2'-0" on center] or [per local code], whichever is greater.
- D. Optional Vented Vee-Panel shall have a Net Free Vent Area (NFVA) of 6.46 square inches per lineal foot of panel.

PART 3 EXECUTION

3.1 INSPECTION

I. Substrate

- A. Examine plywood or metal deck to ensure proper attachment to framing.
- B. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves or projections, level to ¼" in 20' and properly sloped to [valleys] (or) [eaves].
- C. Verify roof openings, curbs, pipes, sleeves, ducts or vents through roof are solidly set, cant strips and reglets in place, and nailing strips located.
- D. Verify deck is dry and free of snow or ice. [Flutes in steel deck to be clean and dry] or [joints in wood deck to be solidly supported and nailed].

II. Underlayment:

- A. Verify [#30 unperforated asphalt saturated roofing felt underlayment has been installed over solid plywood or OSB sheathing and fastened in place] or [ice & water shield membrane on metal deck].
- B. Ensure felt installed horizontally, starting at eave to ridge with a 6" minimum overlap and 18" endlaps.
- C. Ensure that all nail heads and felt caps are totally flush with the substrate. Fasteners shall be galvanized roofing nails or zinc-coated fasteners with Berridge Coated Felt Caps.

3.2 INSTALLATION

- A. Comply with manufacturers standard instructions and conform to standards set forth in the Architectural Sheet Metal Manual published by SMACNA, in order to achieve a watertight installation.
- B. Install panels in such a manner that horizontal lines are true and level and vertical lines are plumb.
- C. Install starter and edge trim before installing roof panels.
- D. Remove protective strippable film prior to installation of roof panels.
- E. Attach panels using manufacturer's standard clips and fasteners, spaced in accordance with approved shop drawings.
- F. Install sealants for preformed roofing panels as approved on shop drawings.
- G. Do not allow panels or trim to come into contact with dissimilar materials.
- H. Do not allow traffic on completed roof. If required, provide cushioned walk boards.
- I. Protect installed roof panels and trim from damage caused by adjacent construction until completion of installation.
- J. Remove and replace any panels or components which are damaged beyond successful repair.

3.3 CLEANING

- A. Clean any grease, finger marks or stains from the panels per manufacturer's recommendations.
- B. Remove all scrap and construction debris from the site.

3.4 FINAL INSPECTION

- A. Final inspection will be performed by a firm appointed and paid for by the owner in accordance with section 01410.

END OF SECTION

SECTION 07550

MODIFIED BITUMEN MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Preparation of Substrate to Receive Roofing Materials
- B. Base Sheet or Roof Insulation Application to Prepared Substrate
- C. Roof Membrane Application
- D. Roof Flashing Application
- E. Incorporation of Sheet Metal Flashing Components and Roofing Accessories into the Roof System

1.02 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Sheet Metal Flashing and Trim
- B. Sheet Metal Roofing Specialties

1.03 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry
- B. Section 07710 - Roof Specialties

1.04 REFERENCE STANDARDS

- A. References in these specifications to standards, test methods and codes, are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of associations, institutions, and societies which may be used as references throughout these specifications.
 - 1. ASTM American Society for Testing and Materials, Philadelphia, PA
 - 2. FM Factory Mutual Engineering and Research, Norwood, MA
 - 3. NRCA National Roofing Contractors Association, Rosemont, IL
 - 4. OSHA Occupational Safety and Health Administration, Washington, DC

5. SMACNASheet Metal and Air Conditioning Contractors National Association, Chantilly, VA
6. UL Underwriters Laboratories, Northbrook, IL

1.05 DESCRIPTION OF WORK

A. The basic work descriptions required in this specification are referenced below.

1. Roof Assembly #1

Project Type: Tear-off Specification #: 2030 IT
Deck: gypsum
Slope: 1 inch per foot

Base Sheet: Parabase FS, mechanically attached.
Insulation - bottom layer: Paratherm by Siplast, having a thickness of 1-1/2 inches, applied in Parafast Adhesive Fastener.

Insulation: top layer: DensDeck Prime by Georgia-Pacific, having a thickness of 1/2 inch, applied in Parafast Adhesive Fastener.

Roof System: Paradiene 20 TG, torch applied; Paradiene 30 FR TG, torch applied.

Flashing System: Paradiene 20 SA, self adhered;

Veral Aluminum, torch applied.

2. Roof Assembly #2

Project Type: Tear-off Specification #: 2030 IT
Deck: gypsum Slope: Less than 1/8 inch

Base Sheet: Parabase FS, mechanically attached.

Insulation - tapered: Tapered Paratherm by Siplast, providing for a slope of 1/4 inch per foot with a minimum starting thickness of 1-1/2 inches, applied in Parafast Adhesive Fastener.

Insulation - top layer: DensDeck Prime by Georgia-Pacific, having a thickness of 1/2 inch, applied in Parafast Adhesive Fastener.

Roof System: Paradiene 20 TG, torch applied; Paradiene 30 FR TG, torch applied.

Flashing System: Paradiene 20 SA, self adhered;
Veral Aluminum, torch applied.

1.06 SUBMITTALS

A. Submittals During Construction

1. All submittals which do not conform to the following requirements will be rejected.

2. Submittal of Equals: Submit primary roof systems to be considered as equals to the specified roof system no less than 7 days prior to bid date. Primary roof systems which have been reviewed and accepted as equals to the specified roof system will be listed in an addendum prior to bid date; only then will equals be accepted at bidding. Submittals shall include the following:
 - a. Two 3 inch x 5 inch samples of the primary roofing and flashing sheets.
 - b. Latest edition of the roofing system manufacturer's specifications and installation instructions.
 - c. Evidence that the manufacturer of the proposed roofing system utilizes a quality management system that is ISO 9001:2000 certified. Documentation of ISO 9001:2000 certification of foreign subsidiaries without domestic certification will not be accepted.
 - d. Evidence and description of manufacturer's quality control/quality assurance program for the primary roofing products supplied. The quality assurance program description shall include all methods of testing for physical and mechanical property values. Provide confirmation of manufacturer's certificate of analysis for reporting the tested values of the actual material being supplied for the project prior to issuance of the specified guarantee.
 - e. Descriptive list of the materials proposed for use.
 - f. Evidence of Underwriters' Laboratories Class A acceptance of the proposed roofing system (including mopping asphalt or cold adhesive) without additional requirements for gravel or coatings. No other testing agency approvals will be accepted.
3. Evidence of Factory Mutual Approval Standard 4470 for the proposed membrane system.
 - a. The installation of the new roof assembly (including fastening of base sheet or insulation) shall follow a tested application method by FM Global for minimum 1-90 windstorm construction.
 - b. The roof membrane configuration shall be approved by FM for Class 1-SH (severe hail) exposure.
4. Letter from the proposed primary roofing manufacturer confirming that a phased roof application, with only the modified bitumen base ply in place for a period of up to 10 weeks, is acceptable and approved for this project.
5. List of 3 of the proposed primary roofing manufacturer's projects, located in the United States, of equal size and degree of difficulty which have been performing successfully for a period of at least 10 years.
6. Request for substitution constitutes a representation that the Contractor:
 - a. Has personally investigated the proposed substitute product and determined that it is equal to or superior in all respect to that specified.

- b. Will provide the same or better warranties, bonds and guarantees for the substitution as for the specified product.
 - c. Will coordinate the installation of an accepted substitution into the Work and making such changes as may be required to make the Work complete in all respects.
 - d. Waives all claims for additional costs, related to the substitution which may subsequently become apparent.
 - e. Certifies that the cost data presented is complete and includes all related costs under this Contract except the Architect's redesigns costs, and waives all claims for additional costs related to the substitution which subsequently become apparent.
7. Should the Contractor propose a substitute material or method assembly that is of questionable quality or suitability to the Architect, suitable tests may be required to establish a basis for acceptance or rejection. Such tests will be paid for by the Contractor and conducted in accordance with industry accepted standards and as accepted to the Architect.
 8. Substitutions will not be considered when they are indicated or implied in shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
 9. The Architect shall be the judge of the acceptability of proposed substitutions.
 10. The Owner reserves the right to disapprove and reject any request for substitution.
 11. Letter from the proposed primary roofing manufacturer confirming that the filler content in the elastomeric blend of the proposed roof membrane and flashing components does not exceed 35% in weight.
 12. Complete list of material physical and mechanical properties for each sheet including: weights and thicknesses; low temperature flexibility; peak load; ultimate elongation; dimensional stability; compound stability; high temperature stability; granule embedment and resistance to thermal shock for foil faced products.
 13. Sample copy of the proposed guarantee.
 14. Completed Product Substitution Request Form included with this specification section.
- B. Submittals Prior to Contract Award:
1. Letter from the proposed primary roofing manufacturer confirming that the bidder is an acceptable Contractor authorized to install the proposed system.

2. Letter from the primary roofing manufacturer stating that the proposed application will comply with the manufacturer's requirements in order to qualify the project for the specified guarantee.

C. Submittals Prior to Project Close-out:

1. Certificate Of Analysis from the testing laboratory of the primary roofing materials manufacturer, confirming the physical and mechanical properties of the roofing membrane components. Testing shall be in accordance with the parameters published in ASTM D 5147 and ASTM D 6298 and indicate Quality Assurance/Quality Control data as required to meet the specified properties. A separate Certificate Of Analysis for each production run of material shall indicate the following information:
 - a. Material type
 - b. Lot number
 - c. Production date
 - d. Dimensions and Mass (indicate the lowest values recorded during the production run);
 - i. Roll length
 - ii. Roll width
 - iii. Selvage width
 - iv. Total thickness
 - v. Thickness at selvage (coating thickness)
 - vi. Weight
 - e. Physical and Mechanical Properties;
 - i. Low temperature flexibility
 - ii. Peak load
 - iii. Ultimate Elongation @ 5% Maximum Load
 - iv. Dimensional stability
 - v. Compound Stability
 - vi. Granule embedment
 - vii. Resistance to thermal shock (foil faced products)
2. Manufacturer's printed recommendations for proper maintenance of the specified roof system including inspection frequencies, penetration addition policies, temporary repairs, and leak call procedures.

1.07 QUALITY ASSURANCE

- D. Acceptable Products: Primary roofing products, including each type of sheet, all manufactured in the United States, shall be supplied by a single manufacturer which has been successfully producing the specified types of primary products for not less than 10 years. The primary roofing products shall have maintained a consistent composition for a minimum of five years.
- E. Product Quality Assurance Program: Primary roofing materials shall be manufactured under a quality management system that is monitored regularly by a third party auditor under the ISO 9001:2000 audit process. A certificate of analysis for

reporting/confirming the tested values of the actual material being supplied for the project will be required prior to project close-out.

- F. Agency Approvals: The proposed roof system shall conform to the following requirements. No other testing agency approvals will be accepted.
1. Underwriters Laboratories Class A acceptance of the proposed roofing system (including mopping asphalt or cold adhesive) without additional requirements for gravel or coatings.
 2. Factory Mutual Approval Standard 4470 listing for the proposed membrane system. The roof membrane configuration shall be approved by FM for Class 1-SH (severe hail) exposure.
 - a. The installation of the new roof assembly (including fastening of base sheet or insulation) shall follow a tested application method by FM Global for minimum 1-90 windstorm construction.
- G. Accessory Products: Accessory products shall be supplied by the primary roof system manufacturer for coverage under the terms of the guarantee. The primary membrane manufacture shall have private labeling agreements with secondary and accessory product suppliers for the listed products; thermal insulation, cover panel, insulation fasteners, fastener plates, cements, primers, sealants, membrane and insulation adhesives, perimeter metal systems, etc. Manufacturer shall provide evidence that it complies with these requirements by providing
1. Primary manufacturer's commercial product data sheets.
 2. If a primary roof system manufacturer has an expressed endorsement for primary and secondary roof system products. A letter will be required from the primary roofing system manufacturer detailing any expressed endorsements with accessory product suppliers and evidence of how the product is to be covered under the guarantee
- H. At Owner's option the Contractor shall have the roofing materials for the project delivered to the area of the project (i.e. distribution warehouse, job site, or other location where materials can be stored properly and securely) (within 75 mile radius) and be identified and held specifically for this project. Roofing contractor at owner request and direction shall provide samples from the pallets of roofing materials indicated to be designated for this project as needed for independent lab testing for quality of roofing per ASTM standards as requested by the owner. Cost of testing shall be paid by the owner. If any materials tested are found to not meet ASTM standards indicated by the project specifications and data sheets of the material, the materials will not be accepted for the project and will be replaced by the contractor. Any replacement materials shall be paid by the Contractor. Contractor should allow a minimum of 10-12 weeks for testing of roofing products prior to the need to place roofing on structure. While testing is being done, the owner will not pay for any roofing materials stored on/off site

- I. **Acceptable Contractor:** Contractor shall have a minimum of 2 years experience in successfully installing the same or similar roofing materials and be certified in writing by the roofing materials manufacturer to install the primary roofing products.
- J. **Scope of Work:** The work to be performed under this specification shall include but is not limited to the following: Attend necessary job meetings and furnish competent and full time supervision, experienced roof mechanics, all materials, tools, and equipment necessary to complete, in an acceptable manner, the roof installation in accordance with this specification. Comply with the latest written application instructions of the manufacturer of the primary roofing products. In addition, application practice shall comply with requirements and recommendations contained in the latest edition of the Handbook of Accepted Roofing Knowledge (HARK) as published by the National Roofing Contractor's Association, amended to include the acceptance of a phased roof system installation.
- K. **Local Regulations:** Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.
- L. **Manufacturer Requirements:** Ensure that the primary roofing materials manufacturer provides direct trained company personnel to attend necessary job meetings, perform periodic inspections as necessary, and conducts a final inspection upon successful completion of the project.

1.08 PRODUCT DELIVERY STORAGE AND HANDLING

- A. **Delivery:** Deliver materials in the manufacturer's original sealed and labeled containers and in quantities required to allow continuity of application.
- B. **Storage:** Store materials out of direct exposure to the elements. Store roll goods on a clean, flat and dry surface. All material stored on the roof overnight shall be stored on pallets. Rolls of roofing must be stored on ends. Store materials on the roof in a manner so as to preclude overloading of deck and building structure. Store materials such as solvents, adhesives and asphalt cutback products away from open flames, sparks or excessive heat. Cover all material using a breathable cover such as a canvas. Polyethylene or other non-breathable plastic coverings are not acceptable.
- C. **Handling:** Handle all materials in such a manner as to preclude damage and contamination with moisture or foreign matter. Handle rolled goods to prevent damage to edges or ends.
- D. **Damaged Material:** Any materials that are found to be damaged or stored in any manner other than stated above will be automatically rejected, removed and replaced at the Contractor's expense.

1.09 PROJECT/SITE CONDITIONS

- A. **Requirements Prior to Job Start**

1. Notification: Give a minimum of 5 days notice to the Owner and manufacturer prior to commencing any work and notify both parties on a daily basis of any change in work schedule.
2. Permits: Obtain all permits required by local agencies and pay all fees which may be required for the performance of the work.
3. Safety: Familiarize every member of the application crew with all fire and safety regulations recommended by OSHA, NRCA and other industry or local governmental groups.

B. Environmental Requirements

1. Precipitation: Do not apply roofing materials during precipitation or in the event there is a probability of precipitation during application. Take adequate precautions to ensure that materials, applied roofing, and building interiors are protected from possible moisture damage or contamination.

C. Protection Requirements

1. Membrane Protection: Provide protection against staining and mechanical damage for newly applied roofing and adjacent surfaces throughout this project.
2. Torch Safety: Crew members handling torches shall be trained by an Authorized Certified Roofing Torch Applicator (CERTA) Trainer, be certified according to CERTA torch safety guidelines as published by the National Roofing Contractor's Association (NRCA), and follow torch safety practices as required by the contractor's insurance carrier. Designate one person on each crew to perform a daily fire watch. The designated crew member shall watch for fires or smoldering materials on all areas during roof construction activity, and for the minimum period required by CERTA guidelines after roofing material application has been suspended for the day.
3. Limited Access: Prevent access by the public to materials, tools and equipment during the course of the project.
4. Debris Removal: Remove all debris daily from the project site and take to a legal dumping area authorized to receive such materials.
5. Site Condition: Complete, to the owner's satisfaction, all job site clean-up including building interior, exterior and landscaping where affected by the construction.

1.10 GUARANTEE/WARRANTY

- A. Roof Membrane/System Guarantee: Upon successful completion of the project, and after all post installation procedures have been completed, furnish the Owner with the manufacturer's 20 year labor and materials guarantee covering the rigid insulation, insulation fasteners/plates, roof membrane/flashing system and the perimeter sheet

metal system, as specified in Section 07710 Roof Specialties, by Inclusion Addendum. The guarantee shall be a term type, without deductibles or limitations on coverage amount, and shall be issued at no additional cost to the Owner.

1. Siplast 20 year Roof Membrane/System Guarantee
2. Stipulations inconsistent with the warranty requirements, or change of venue, will not be accepted.
3. Owner will not co-sign the warranty.
4. Contractor shall provide 2 year weathertight warranty for all materials/installations.
5. Complete system warranty for all roof penetrations shall be provided

PART 2 PRODUCTS

2.01 ROOFING SYSTEM ASSEMBLY/PRODUCTS

A. Base Sheet

1. Base Sheet: A fiberglass reinforced, asphalt coated sheet with a polyolefin film backing, having a minimum weight of 20 lb/sq. The sheet shall conform to ASTM D 4601, Type II requirements.

Siplast Parabase FS

- #### B. Rigid Roof Insulation: Roof insulation shall be UL and FM approved. Insulation shall be approved in writing by the insulation manufacturer for intended use and for use with the specified roof assembly. Maintain a maximum panel size of 4 feet by 4 feet where insulation is specified to be installed in hot asphalt or insulation adhesive.

1. Polyisocyanurate: A closed cell, rigid polyisocyanurate foam core material, integrally laminated between glass fiber facers, in full compliance with ASTM C 1289, Type II, Class 1, Grade 2. Panels shall have a nominal thickness of 1-1/2 inches. Acceptable types are as follows:

Paratherm by Siplast; Irving, TX

2. Polyisocyanurate Tapered Roof Insulation: Tapered panels and standard fill panels composed of a closed cell, rigid polyisocyanurate foam core material, integrally laminated between glass fiber facers, in full compliance with ASTM C 1289, Type II, Class 1, Grade 2. The tapered system shall provide for a roof slope of 1/4 inch per foot and have a minimum thickness of 1-1/2-inches. Acceptable types are as follows:

Tapered Paratherm by Siplast; Irving, TX

3. Gypsum Sheathing Panel: A panel composed of a gypsum based, non-structural water resistant core material integrally bonded with fiberglass mats on both sides having a nominal thickness of 1/2 inch. The panel surface shall be factory primed with a non-asphaltic primer. Acceptable types are as follows:

DensDeck Prime Gypsum Roof Board, by Georgia Pacific Corporation; Atlanta, GA

4. Perlite Tapered Edge Panels: A tapered panel composed of expanded volcanic minerals combined with waterproofing binders. The top surface shall be pre-treated with an asphalt based coating. The panels shall have a dimension sufficient to provide for a smooth transition and provide proper support for the membrane layer or subsequent layer of insulation when there are transitions of 1/4 inch or greater.

2.02 DESCRIPTION OF SYSTEMS

- A. Roofing Membrane Assembly: A roof membrane assembly consisting of two plies of a prefabricated, reinforced, homogeneous Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane, applied over a prepared substrate. Both reinforcement mats shall be impregnated/saturated and coated each side with an SBS modified bitumen blend. The cross sectional area of the sheet material shall contain no oxidized or non-SBS modified bitumen. The roof system shall pass 500 cycles of ASTM D 5849 Resistance to Cyclic Joint Displacement (fatigue) at 14°F (-10°C). Passing results shall show no signs of membrane cracking or interply delamination after 500 cycles. The roof system shall pass 200 cycles of ASTM D 5849 after heat conditioning performed in accordance with ASTM D 5147. The assembly shall possess waterproofing capability, such that a phased roof application, with only the modified bitumen base ply in place, can be achieved for prolonged periods of time without detriment to the watertight integrity of the entire roof system.

Siplast Paradiene 20 TG/30 FR TG torchable roof system

1. Modified Bitumen Base and Stripping Ply

- a. Thickness (avg): 114 mils (2.9 mm) (ASTM D 5147)
- b. Thickness (min): 110 mils (2.8 mm) (ASTM D 5147)
- c. Weight (min per 100 ft² of coverage): 76 lb (3.7 kg/m²)
- d. Maximum filler content in elastomeric blend: 35% by weight
- e. Low temperature flexibility @ -15°F (-26°C): PASS (ASTM D 5147)
- f. Peak Load (avg) @ 73°F (23°C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
- g. Peak Load (avg) @ 0°F (-18°C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
- h. Ultimate Elongation (avg.) @ 73°F (23°C): 50% (ASTM D 5147)
- i. Dimensional Stability (max): 0.1% (ASTM D 5147)
- j. Compound Stability (min): 250°F (121°C) (ASTM D 5147)
- k. Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
- l. Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
Siplast Paradiene 20 - torchable grade

2. Modified Bitumen Stripping Ply at Gravel Stop

- a. Thickness (avg): 138 mils (3.5 mm) (ASTM D 5147)
 - b. Thickness (min): 134 mils (3.4 mm) (ASTM D 5147)
 - c. Weight (min per 100 ft² of coverage): 96 lb (4.7 kg/m²)
 - d. Peak filler content in elastomeric blend - 35% by weight
 - e. Low temperature flexibility @ -13°F (-25°C): PASS (ASTM D 5147)
 - f. Peak Load (avg) @ 73°F (23°C): 80 lbf/inch (14.1 kN/m) (ASTM D 5147)
 - g. Peak Load (avg) @ 0°F (-18°C): 150 lbf/inch (26.5 kN/m) (ASTM D 5147)
 - h. Ultimate Elongation (avg.) @ 73°F (23°C): 100% (ASTM D 5147)
 - i. Compound Stability (max): 0.1% (ASTM D 5147)
 - j. High Temperature Stability (min): 250°F (121°C) (ASTM D 5147)
 - k. Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
 - l. Reinforcement: fiberglass mat or other meeting the performance and Compound stability criteria
Siplast Paradiene 20EG TG, torch grade
3. Modified Bitumen Finish Ply
- a. Thickness (avg): 138 mils (3.5 mm) (ASTM D 5147)
 - b. Thickness at selvage (coating thickness) (avg): 118 mils (3.0 mm) (ASTM D 5147)
 - c. Thickness at selvage (coating thickness) (min): 114 mils (2.9 mm) (ASTM D 5147)
 - d. Weight (min per 100 ft² of coverage): 112 lb (5.4 kg/m²)
 - e. Maximum filler content in elastomeric blend: 35% by weight
 - f. Low temperature flexibility @ -15°F (-26°C): PASS (ASTM D 5147)
 - g. Peak Load (avg) @ 73°F (23°C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
 - h. Peak Load (avg) @ 0°F (-18°C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
 - i. Ultimate Elongation (avg.) @ 73°F (23°C): 55% (ASTM D 5147)
 - j. Dimensional Stability (max): 0.1% (ASTM D 5147)
 - k. Compound Stability (min): 250°F (121° C) (ASTM D 5147)
 - l. Granule Embedment (max loss): 2.0 grams per sample (ASTM D 5147)
 - m. Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
 - n. Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
 - o. Surfacing: ceramic granules
Siplast Paradiene 30 FR - torchable grade
- B. Flashing Membrane Assembly: A flashing membrane assembly consisting of a prefabricated, reinforced, Styrene-Butadiene-Styrene (SBS) block copolymer modified asphalt membrane with a continuous, channel-embossed metal-foil surfacing. The finish ply shall conform to ASTM D 6298 and the following physical and mechanical property requirements.
- Siplast Veral flashing system, aluminum finish
1. Cant Backing Sheet and Flashing Reinforcing Ply
 - a. Thickness (avg): 102 mils (2.6 mm) (ASTM D 5147)
 - b. Thickness (min): 98 mils (2.5 mm) (ASTM D 5147)
 - c. Weight (min per 100 ft² of coverage): 72 lb (3.5 kg/m²)
 - d. Maximum filler content in elastomeric blend: 35% by weight

- e. Low temperature flexibility @ -13° F (-25° C) - PASS (ASTM D 5147)
 - f. Peak Load (avg) @ 73°F (23°C): 30 lbf/inch (5.3 kN/m) (ASTM D 5147)
 - g. Peak Load (avg) @ 0°F (-18°C): 75 lbf/inch (13.2 kN/m) (ASTM D 5147)
 - h. Ultimate Elongation (avg.) @ 73°F (23°C): 50% (ASTM D 5147)
 - i. Dimensional Stability (max): 0.1% (ASTM D 5147)
 - j. Compound Stability (min - sheet): 250°F (121°C) (ASTM D 5147)
 - k. Compound Stability (min - adhesive coating): 212°F (100°C) (ASTM D 5147)
 - l. Approvals: UL Class listed, FM Approved (products shall bear seals of approval)
 - m. Reinforcement: fiberglass mat or other meeting the performance and dimensional stability criteria
 - n. Back Surfacing: polyolefin film
Siplast Paradiene 20 SA
2. Metal-Clad Modified Bitumen Flashing Sheet
- a. Thickness (avg): 142 mils (3.6 mm) (ASTM D 5147)
 - b. Thickness (min): 138 mils (3.5 mm) (ASTM D 5147)
 - c. Weight (min per 100 ft² of coverage): 92 lb (4.5 kg/m²)
 - d. Coating Thickness - back surface (min): 40 mils (1 mm) (ASTM D 5147)
 - e. Maximum filler content in elastomeric blend: 35% by weight
 - f. Low temperature flexibility @ 0° F (-18° C): PASS (ASTM D 5147)
 - g. Peak Load (avg) @ 73°F (23°C): 85 lbf/inch (15 kN/m) (ASTM D 5147)
 - h. Peak Load (avg) @ 0°F (-18°C): 180 lbf/inch (31.7 kN/m) (ASTM D 5147)
 - i. Ultimate Elongation (avg) @ 73°F (23°C): 45% (ASTM D 5147)
 - j. Tear-Strength (avg): 120 lbf (0.54 kN) (ASTM D 5147)
 - k. Dimensional Stability (max): 0.2% (ASTM D 5147)
 - l. Compound Stability (min): 225°F (107°C) (ASTM D 5147)
 - m. Cyclic Thermal Shock Stability (maximum): 0.2% (ASTM D 6298)
 - n. Approvals: UL Approved, FM Approved (products shall bear seals of approval)
 - o. Reinforcement: fiberglass scrim mat or other meeting the performance and dimensional stability criteria
 - p. Surfacing: aluminum metal foil
Siplast Veral Aluminum
- C. Catalyzed Acrylic Resin Flashing System: A specialty flashing system consisting of a liquid-applied, fully reinforced, multi-component acrylic membrane installed over a prepared or primed substrate. The flashing system consists of a catalyzed acrylic resin primer, basecoat and topcoat, combined with a non-woven polyester fleece. The resin and catalyst are pre-mixed immediately prior to installation. Install where indicated by the project designer. The use of the specialty flashing system shall be specifically approved in advance by the membrane manufacturer for each application.

Parapro 123 Flashing System by Siplast; Irving, TX

2.03 ROOFING ACCESSORIES

A. Roofing Adhesives

1. Insulation Adhesive: A dual component, polyurethane foam adhesive used to adhere insulation panels to the substrate as well to other insulation panels.

Parafast Adhesive Fastener by Siplast

B. Bituminous Cutback Materials

1. Primer: An asphalt, solvent blend conforming to ASTM D 41 requirements.

Siplast PA-1125 Asphalt Primer by Siplast; Irving, TX

2. Primer: A single component, water based primer, to promote adhesion of self-adhesive membranes to masonry, wood, plywood, concrete and gypsum surfaces.

Siplast TA-119 Primer by Siplast; Irving, TX

3. Mastics: An asphalt cutback mastic, reinforced with non-asbestos fibers, used as a base for setting metal flanges conforming to ASTM D 4586 Type II requirements.

Siplast PA-1021 Plastic Cement by Siplast; Irving, TX

- C. Sealant: A moisture-curing, non-slump elastomeric sealant designed for roofing applications. The sealant shall be approved by the roof membrane manufacturer for use in conjunction with the roof membrane materials. Acceptable types are as follows:

Siplast PS-304 Elastomeric Sealant by Siplast; Irving, TX

- D. Ceramic Granules: No. 11 grade specification ceramic granules of color scheme matching the granule surfacing of the finish ply.

- E. Perlite Cant Strips: A cant strip composed of expanded volcanic minerals combined with waterproofing binders. The top surface shall be pre-treated with an asphalt based coating. The face of the cant shall have a nominal 4 inch dimension.

F. Fasteners

1. Base Sheet Fasteners: Base sheet fasteners shall be approved by the manufacturer of the primary roofing products. Acceptable base sheet fasteners for specific substrate types are listed below.

a. Wood Cement Fiber Decks

A single unit, precision formed, Galvalume (AZ-55) coated steel fastener having a 2.7 inch cap and a 1.4 inch long shank. The fastener shall incorporate twin high tensile steel wires that facilitate a diverging reverse hook action when driven into the structural substrate.

Para-Lok Fastener by Siplast; Irving, TX

2. Flashing Reinforcing Sheet Fasteners for Wood/Plywood Substrates to Receive Flashing Coverage: Fasteners shall be approved by the manufacturer of the primary roofing products. Acceptable fasteners for specific substrate types are listed below.

- a. Wood/Plywood Substrates

A 12 gauge, spiral or annular threaded shank, zinc coated steel roofing fastener having a minimum 1 inch head.

Square Cap by W.H. Maze Co.; Peru, IL

12 Gauge Simplex Nail by the Simplex Nail and Manufacturing Co., Americus, GA

- G. Walktread: A prefabricated, puncture resistant polyester core reinforced, polymer modified bitumen sheet material topped with a ceramic-coated granule wearing surface.

1. Thickness: 0.217 in (5.5 mm)
2. Weight: 1.8 lb/ft² (8.8 kg/m²)
3. Width: 30 in (76.2 cm)

Paratread Roof Protection Material by Siplast; Irving, TX

PART 3 EXECUTION

3.01 PREPARATION

- A. General: Sweep or vacuum all surfaces, removing all loose aggregate and foreign substances prior to commencement of roofing.
- B. Remove All Existing:
 1. Surface gravel
 2. Roof membrane
 3. Insulation
 4. Base flashings
 5. Edge metal
 6. Flanged metal flashings
 7. Cants
 8. Walkways
 9. Non functional penetrations/curbs
 10. Vapor retarder
 11. Metal trim, counterflashing
- C. Damaged And/Or Deteriorated Deck: Inspect decking; make necessary repairs or replace sections of deck that cannot be repaired. Submit a unit price for replacement of sections of roof deck.

3.02 SUBSTRATE PREPARATION

- A. Base Sheet Securement to Prepared Substrate: Lay the base sheet over the entire area to be roofed, lapping sides 3 inches and ends 6 inches. Using the specified fasteners, fasten each sheet every 7 1/2 inches through laps and stagger fasten the remainder of the sheet in 2 rows on nominal 12 inch centers with fasteners in each row on 10 inch centers. Increase the fastening pattern by 70% at the perimeter and by 160% in the corners.
- B. Insulation: Install insulation panels with end joints offset; edges of the panels shall be in moderate contact without forcing applied in strict accordance with the insulation manufacturer's requirements and the following instructions. Where insulation is installed in two or more layers, stagger joints between layers. Maintain a maximum panel size of 4 feet by 4 feet for insulation applied in hot asphalt or insulation adhesive.
 - 1. Insulation - double layer: Install both layers in an application of the specified insulation adhesive in strict accordance with the requirements of the insulation adhesive manufacturer. Stagger the panel joints between insulation layers.
 - 2. Tapered Edge at Transitions: Field-cut, shape and install tapered edge strip at transitions of 1/4 inch or greater between substrate components to provide a smooth transition and proper support for the subsequent insulation layer or membrane/flashing system components.

3.03 ROOF MEMBRANE INSTALLATION

- A. Membrane Application: Apply roofing in accordance with roofing system manufacturer's instructions and the following requirements. Application of roofing membrane components shall immediately follow application of base sheet and/or insulation as a continuous operation.
- B. Aesthetic Considerations: An aesthetically pleasing overall appearance of the finished roof application is a standard requirement for this project. Make necessary preparations, utilize recommended application techniques, apply the specified materials including granules, and exercise care in ensuring that the finished application is acceptable to the Owner.
- C. Priming: Prime metal and concrete and masonry surfaces with a uniform coating of the specified asphalt primer.
- D. Bitumen Consistency: Cutting or alterations of bitumen, primer, and sealants will not be permitted.
- E. Roofing Application: Apply all layers of roofing free of wrinkles, creases or fishmouths. Exert sufficient pressure on the roll during application to ensure prevention of air pockets.
 - 1. Apply all layers of roofing perpendicular to the slope of the deck.

2. Fully bond the base ply to the prepared substrate, utilizing minimum 3 inch side and end laps. Apply each sheet directly behind the torch applicator. Cut a dog ear angle at the end laps on overlapping selvage edges. Using a clean trowel, apply top pressure to top seal T-laps immediately following sheet application. Stagger end laps a minimum of 3 feet.
 3. Fully bond the finish ply to the base ply, utilizing minimum 3 inch side and end laps. Apply each sheet directly behind the torch applicator. Stagger end laps of the finish ply a minimum 3 feet. Cut a dog ear angle at the end laps on overlapping selvage edges. Using a clean trowel, apply top pressure to top seal T-laps immediately following sheet application. Stagger side laps of the finish ply a minimum 12 inches from side laps in the underlying base ply. Stagger end laps of the finish ply a minimum 3 feet from end laps in the underlying base ply.
 4. Maximum sheet lengths and special fastening of the specified roof membrane system may be required at various slope increments where the roof deck slope exceeds 1/2 inch per foot. The manufacturer shall provide acceptable sheet lengths and the required fastening schedule for all roofing sheet applications to applicable roof slopes.
- F. Granule Embedment: Broadcast mineral granules over all bitumen overruns on the finish ply surface, while the bitumen is still hot to ensure a monolithic surface color.
- G. Flashing Application: Cut the cant backing sheet into 12 inch widths and peel the release film from the back of the sheet. Set the sheet into place over the primed substrate extending 6 inches onto the field of the roof area and 6 inches up the vertical surface utilizing minimum 3 inch laps. Set the non-combustible cant into place dry prior to installation of the roof membrane base ply. Flash walls and curbs using the reinforcing sheet and the metal foil flashing membrane. After the base ply has been applied to the top of the cant, prime the base ply surfaces to receive the reinforcing sheet. Fully adhere the reinforcing sheet, utilizing minimum 3 inch side laps onto the primed base ply surface and up the primed wall or curb to the desired flashing height. After the final roofing ply has been applied to the top of the cant, prepare the surface area that is to receive flashing coverage by torch heating granular surfaces or by application of asphalt primer; allowing primer to dry thoroughly. Torch apply the metal foil-faced flashing into place using three foot widths (cut off the end of roll) always lapping the factory selvage edge. Stagger the laps of the metal foil flashing layer from lap seams in the reinforcing layer. Extend the flashing sheet a minimum of 4 inches beyond the toe of the cant onto the prepared surface of the finished roof and up the wall or curb to the desired flashing height. Exert pressure on the flashing sheet during application to ensure complete contact with the vertical/horizontal surfaces, preventing air pockets; this can be accomplished by using a damp sponge or shop rag. Check and seal all loose laps and edges. Nail the top edge of the flashing on 9 inch centers. (See manufacturer's schematic for visual interpretation).
- H. Catalyzed Acrylic Resin Flashing System: Install the liquid-applied primer and flashing system in accordance with the membrane system manufacturer's printed installer's

guidelines and other applicable written recommendations as provided by the manufacturer.

- I. Water Cut-Off: At end of day's work, or when precipitation is imminent, construct a water cut-off at all open edges. Cut-offs can be built using asphalt or plastic cement and roofing felts, constructed to withstand protracted periods of service. Cut-offs must be completely removed prior to the resumption of roofing.

3.04 ROOF SYSTEM INTERFACE WITH RELATED COMPONENTS

- A. Edge Metal: Completely prime metal flanges and allow to dry prior to installation. Turn the base ply down 2 inches past the roof edge and over the nailer. After the base ply and continuous cleat (if applicable) have been installed, set the flange in mastic and stagger nail every 3 inches on center. Strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of the flange. Terminate the finish ply at the gravel-stop rise of the edge metal. SEE ITEM: SEALANT, for finish of this detail.
- B. Lead Pipe Flashings: Completely prime the lead flanges and allow to dry prior to installation. After the base ply has been applied, set the flange in mastic and strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of the flange. Terminate the finish ply at the flange-sleeve juncture of the pipe flashing. SEE ITEM: SEALANT for finish of this detail.
- C. Lead Drain Flashings: Completely prime the lead drain flashing and allow to dry prior to installation. After the base ply has been applied, set the lead flashing sheet in mastic and form to turn down inside of the drain bowl. Ply-in the perimeter of the lead flashing using an additional layer of the base ply material, overlapping the perimeter of the lead a minimum of 4 inches. Terminate the finish ply to extend beneath the clamping ring seal. Install the clamping ring with all bolts in place.
- D. Light Air Unit Supports: Separate light air handling units that are supported by wood sleepers (not supported by a roof curb) from the new roof assembly using the manufacturer's walktread-roof protection material. Cut each walktread pad to a size which extends a minimum of 2 inches beyond the perimeter of each sleeper block. Set the walktread pad dry over the new assembly. Set each sleeper block dry over the walktread pad.
- E. Small Pipe Supports: Support all gas lines and conduits which are a maximum of 1 inch diameter and run horizontally over the roof membrane surface using wood blocking and the manufacturer's walktread - roof protection material. The blocking shall be 4 inches by 4 inches by 12 inches in size. Cut each walktread pad to a size which extends a minimum of 2 inches beyond the perimeter of the blocking. Loosely secure the pipe to allow movement over the 6 inch center of each block; the spacing for the blocks shall be of adequate distance to prevent sagging of the pipe and to prevent the pipe from coming into contact with the new roof assembly. Set the walktread dry over the new roof assembly. Set each pipe support block dry over the walktread pad.

- F. Metal Pipe Flashings: Completely prime the metal pipe flanges and allow to dry prior to installation. After the base ply has been applied, set the flanges in mastic and strip-in the flange using the stripping-ply material, extending a minimum of 4 inches beyond the edge of the flange. Terminate the finish ply at the flange-sleeve juncture of the pipe flashing. Install a watertight umbrella to the penetration, completely covering the opening of the pipe flashing. SEE ITEM: SEALANT for finish of this detail.
- G. Walktread: Cut the walktread into maximum 5 foot lengths and allow to relax until flat. Adhere the sheet using the specified plastic cement. Apply the specified cement in a 3/8 inch thickness to the back of the product in 5 inch by 5 inch spots in accordance with the pattern as supplied by the walktread manufacturer. Walk-in each sheet after application to ensure proper adhesion. Use a minimum spacing of 2 inches between sheets to allow for proper drainage.
- H. Sealant: Apply a smooth continuous bead of the specified sealant at the exposed finish ply edge transition to metal flashings incorporated into the roof system.

3.05 FIELD QUALITY CONTROL AND INSPECTIONS

- A. Site Condition: Leave all areas around job site free of debris, roofing materials, equipment and related items after completion of job.
- B. Notification Of Completion: Notify the manufacturer by means of manufacturer's printed Notification of Completion form of job completion in order to schedule a final inspection date.
- C. Final Inspection
 - 1. Post-Installation Meeting: Hold a meeting at the completion of the project, attended by all parties that were present at the pre-job conference. A punch list of items required for completion shall be compiled by the Contractor and the manufacturer's representative. Complete, sign, and mail the punch list form to the manufacturer's headquarters.
- D. Issuance Of The Guarantee: Complete all post installation procedures and meet the manufacturer's final endorsement for issuance of the specified guarantee.

END OF SECTION

SECTION 07620

SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Formed Products:
 - a. Formed roof drainage sheet metal fabrications
 - b. Formed low-slope roof sheet metal fabrications
 - c. Formed equipment support flashing
- B. Related Sections:
 - 1. Section 07550: Modified Bitumen Membrane Roofing.
 - 2. Section 07110: Prefabricated Fascias Copings and Expansion Joints

1.3 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Thermal Movements: Provide sheet metal flashing and trim that allows for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change Range: 120 deg F, ambient; 180 deg F, material surfaces.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:
 - 1. Identification of material, thickness, weight, and finish for each item and location in Project.
 - 2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
 - 3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
 - 4. Details of termination points and assemblies, including fixed points.
 - 5. Details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction.
 - 6. Details of special conditions.
 - 7. Details of connections to adjoining work.
- C. Samples for Initial Selection: For each type of sheet metal flashing, trim, and accessory indicated with factory-applied color finishes involving color selection.
- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:
 - 1. Accessories and Miscellaneous Materials: Full-size Sample.
- E. Qualification Data: For qualified fabricator.
- F. Maintenance Data: For sheet metal flashing, trim, and accessories to include in maintenance manuals.
- G. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
- C. Preinstallation Conference: Conduct conference at Project site.
 - 1. Meet with Owner, Architect, Owner's insurer if applicable, Installer, and installers whose work interfaces with or affects sheet metal flashing and trim including installers of roofing materials, roof accessories, unit skylights, and roof-mounted equipment.
 - 2. Review methods and procedures related to sheet metal flashing and trim.
 - 3. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
 - 4. Review special roof details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect sheet metal flashing.
 - 5. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

1.7 WARRANTY

- A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Finish Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required.
 - 1. Color Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
 - a. Color: Color to be selected by Architect from manufacturer's range of standard colors.
 - b. Color Range: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
 - 2. Exposed Coil-Coated Finishes:
 - a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 3. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.
- C. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal unless otherwise indicated.
- D. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.

- b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
- 2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless steel.
- E. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- F. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- G. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- H. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- I. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- J. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.2 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
 - 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 2. Obtain field measurements for accurate fit before shop fabrication.
 - 3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - 4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines as

indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- D. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.
- E. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- G. Fabricate cleats and attachment devices of sizes as recommended by SMACNA's "Architectural Sheet Metal Manual" for application, but not less than thickness of metal being secured.
- H. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- I. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.
- J. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints where necessary for strength.
- K. Do not use graphite pencils to mark metal surfaces.

2.3 ROOF DRAINAGE SHEET METAL FABRICATIONS

- A. Hanging Gutters: Fabricate to cross section indicated, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-inch- long sections. Furnish flat-stock gutter spacers and gutter brackets fabricated from same metal as gutters, of size recommended by SMACNA but not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers, gutter bead reinforcing bars, and gutter accessories from same metal as gutters.
 - 1. Gutter Style: SMACNA designation as indicated on drawings.
 - 2. Expansion Joints: Lap type.
 - 3. Gutters: Fabricate from the following materials:

- a. As described in 2.1.
- 4. Downspouts: Fabricate rectangular downspouts complete with mitered elbows. Furnish with metal hangers, from same material as downspouts, and anchors.
 - a. Materials: Fabricate downspouts from same material as gutters.
- 5. Fabricated Hanger Style: SMACNA figure as required.
- 6. Manufactured Hanger Style: SMACNA figure as required.

2.4 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Retain formed items required in paragraphs in this article. Although the most common fabrications have been included, insert descriptions of other items if required.
- B. In addition to FMG and SMACNA, NRCA in "The NRCA Roofing and Waterproofing Manual" offers recommendations for profiles, thicknesses, fastenings, and installation of low-slope roof sheet metal fabrications. Base metal thicknesses cited for zinc-tin alloy-coated stainless steel and copper and for zinc sheet, which is a European product, are from manufacturer's literature.
- C. Roof-Penetration Flashing: Fabricate from the following materials:
 - 1. Aluminum-Zinc Alloy-Coated Steel: 0.028 inch thick.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- B. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 3. Space cleats not more than 12 inches apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
 5. Install sealant tape where indicated.
 6. Torch cutting of sheet metal flashing and trim is not permitted.
 7. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
- D. Fastener Sizes: Use fasteners of sizes that will penetrate metal decking not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- E. Seal joints as shown and as required for watertight construction.
1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.

- F. Rivets: Rivet joints in where indicated and where necessary for strength.

3.3 ROOF DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.
- B. Hanging Gutters: Join sections with riveted and soldered joints or with lapped joints sealed with sealant. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchored gutter brackets spaced not more than 36 inches apart. Provide end closures and seal watertight with sealant. Slope to downspouts.
 - 1. Fasten gutter spacers to front and back of gutter.
 - 2. Loosely lock straps to front gutter bead and anchor to roof deck.
 - 3. Anchor and loosely lock back edge of gutter to continuous eave or apron flashing.
 - 4. Anchor back of gutter that extends onto roof deck with cleats spaced not more than 24 inches apart.
 - 5. Install gutter with expansion joints at locations indicated, but not exceeding, 50 feet apart. Install expansion-joint caps.
- C. Downspouts: Join sections with 1-1/2-inch telescoping joints.
 - 1. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at top and bottom and at approximately 60 inches o.c. in between.
 - 2. Provide elbows at base of downspout to direct water away from building.
 - 3. Connect downspouts to underground drainage system indicated.
- D. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints a minimum of 4 inches in direction of water flow.

3.4 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.5 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces. Maintain in a clean condition during construction.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

