

ADDENDUM NO.: ONE

DATE: 4 February 2015

PROJECT TITLE: **819 Barnwell Exterior Painting and Repairs**

University of South Carolina
State Project No. H27-6100
WTS Project No. 1426

WRITTEN BY: J. Sanders Tate, AIA LEED AP

TO: Prospective Bidders / Plan Holders

This addendum is issued pursuant to Article 1.1.1 of the AIA General Conditions of the Contract (A201) in connection with the revision of Bidding Documents which have been previously issued.

Addenda are issued prior to execution of Contract. All instructions contained herein shall be reflected in the Contract Sum and this Addendum will be made a part of the Contract Documents, if, as, and when a Construction Contract is awarded.

This Addendum forms a part of the Contract Documents and modifies the original documents dated January 6, 2015 and January 30, 2015 as noted below. Acknowledge receipt of this Addendum in this space provided on the Bid Form. Failure to do so will subject the Bidder to disqualification.

This Addendum consists of 01 pages plus the following attachment:

1. Project Manual 140 pages

GENERAL INFORMATION

1. Revise the Project Number in all locations from H27-D182 to be H27-6100

REVISIONS TO THE PROJECT MANUAL:

1. The Project Manual originally posted on the USC purchasing website (www.purchasing.sc.edu) has been replaced with the Project Manual attached to this addendum.

END OF ADDENDUM

PROJECT MANUAL

FOR

**819 BARNWELL STREET
EXTERIOR PAINTING AND REPAIRS**

STATE PROJECT NUMBER H27-6100

**UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA**

**Watson Tate Savory Architects
1316 Washington Street, Suite 100
Columbia South Carolina 29201
803.799.5181**

January 6, 2015

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SE-310

INVITATION FOR CONSTRUCTION SERVICES

PROJECT NAME: 819 Barnwell Exterior Painting and RepairsPROJECT NUMBER: H27-D182PROJECT LOCATION: 819 Barnwell Street Columbia SCBID SECURITY REQUIRED? Yes No PERFORMANCE BOND REQUIRED? Yes No PAYMENT BOND REQUIRED? Yes No

NOTE: Contractor may be subject to a performance appraisal at the close of the project.

CONSTRUCTION COST RANGE: \$ \$50,000- \$100,000DESCRIPTION OF PROJECT: Removal of lead based paint, exterior wood repairs, and exterior paintingBIDDING DOCUMENTS/PLANS MAY BE OBTAINED FROM: www.purchasing.sc.edu-PLAN DEPOSIT AMOUNT: \$ _____ IS DEPOSIT REFUNDABLE Yes No N/A

Bidders must obtain Bidding Documents/Plans from the above listed source(s) to be listed as an official plan holder. Only those Bidding Documents/Plans obtained from the above listed source(s) are official. Bidders that rely on copies of Bidding Documents/Plans obtained from any other source do so at their own risk. All written communications with official plan holders & bidders WILL WILL NOT be via email or website posting.

IN ADDITION TO THE ABOVE OFFICIAL SOURCE(S), BIDDING DOCUMENTS/PLANS ARE ALSO AVAILABLE AT:

All questions & correspondence concerning this Invitation shall be addressed to the A-E.

A-E NAME: Watson Tate SavoryA-E CONTACT: Sanders TateA-E ADDRESS: Street/PO Box: 1316 Washington Street, Suite 100City: ColumbiaState: SCZIP: 29201-EMAIL: state@watsonatesavory.comTELEPHONE: 803-799-5181FAX: 803-799-5757AGENCY: University of South CarolinaAGENCY PROJECT COORDINATOR: Lind JacksonADDRESS: Street/PO Box: USC Facilities Planning and Construction, 743 Greene StreetCity: ColumbiaState: SCZIP: 29208-EMAIL: LJACKSON@fmc.sc.eduTELEPHONE: 803-777-3489FAX: 803-777-8739PRE-BID CONFERENCE: Yes No MANDATORY ATTENDANCE: Yes No PRE-BID DATE: 2/10/2014 TIME: 1:00 PMPLACE: Conference Room 53, 743 Greene Street, ColumbiaBID CLOSING DATE: 2/25/2014 TIME: 2:00 PMPLACE: Conference Room 53, 743 Greene Street, Columbia

BID DELIVERY ADDRESSES:

HAND-DELIVERY:

Attn: Lind Jackson743 Greene StreetColumbia, SC 29208

MAIL SERVICE:

Attn: Lind Jackson743 Greene StreetColumbia, SC 29208

IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFICATION? (Agency MUST check one)

Yes No

APPROVED BY: _____

(OSE Project Manager)

DATE: _____

OSE FORM 00201

STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

AGENCY: University of South Carolina

PROJECT NAME: 819 Barnwell Exterior Painting and Repairs

PROJECT NUMBER: H27-D182

PROJECT LOCATION: 819 Barnwell Street Columbia SC

PROCUREMENT OFFICER: Lind Jackson

1. STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

- 1.1 These Standard Supplemental Instructions to Bidders amend or supplement Instructions to Bidders (AIA Document A701-1997) and other provisions of Bidding and Contract Documents as indicated below.
- 1.2 Compliance with these Standard Supplemental Instructions is required by the Office of State Engineer (OSE) for all State projects when competitive sealed bidding is used as the method of procurement.
- 1.3 All provisions of the A701-1997, which are not so amended or supplemented, remain in full force and effect.
- 1.4 Bidders are cautioned to carefully examine the Bidding and Contract Documents for additional instructions or requirements.

2. MODIFICATIONS TO A701-1997

2.1 *Delete Section 1.1 and insert the following:*

1.1 Bidding Documents, collectively referred to as the **Invitation for Bids**, include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement, Instructions to Bidders (A-701), Supplementary Instructions to Bidders, the bid form (SE-330), the Notice of Intent to Award (SE-370), and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda issued prior to execution of the Contract, and other documents set forth in the Bidding Documents. Any reference in this document to the Agreement between the Owner and Contractor, AIA Document A101, or some abbreviated reference thereof, shall mean the AIA A101, 2007 Edition as modified by OSE Form 00501 – Standard Modification to Agreement between Owner and Contractor. Any reference in this document to the General Conditions of the Contract for Construction, AIA Document A201, or some abbreviated reference thereof, shall mean the AIA A201, 2007 Edition as modified by OSE Form 00811 – Standard Supplementary Conditions.

2.2 *In Section 1.8, delete the words “and who meets the requirements set forth in the Bidding Documents”.*

2.3 *In Section 2.1, delete the word “making” and substitute the word “submitting.”*

2.4 *In Section 2.1.1:*

After the words “Bidding Documents,” delete the word “or” and substitute the word “and.”

Insert the following at the end of this section:

Bidders are expected to examine the Bidding Documents and Contract Documents thoroughly and should request an explanation of any ambiguities, discrepancies, errors, omissions, or conflicting statements. Failure to do so will be at the Bidder's risk. Bidder assumes responsibility for any patent ambiguity that Bidder does not bring to the Owner's attention prior to bid opening.

2.5 *In Section 2.1.3, insert the following after the term “Contract Documents” and before the period:*

and accepts full responsibility for any pre-bid existing conditions that would affect the Bid that could have been ascertained by a site visit. As provided in Regulation 19-445.2042(B), a bidder's failure to attend an advertised pre-bid conference will not excuse its responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the State.

2.6 *Insert the following Sections 2.2 through 2.6:*

2.2 CERTIFICATION OF INDEPENDENT PRICE DETERMINATION

GIVING FALSE, MISLEADING, OR INCOMPLETE INFORMATION ON THIS CERTIFICATION MAY RENDER YOU SUBJECT TO PROSECUTION UNDER SECTION 16-9-10 OF THE SOUTH CAROLINA CODE OF LAWS AND OTHER APPLICABLE LAWS.

OSE FORM 00201**STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS**

- A. By submitting an bid, the bidder certifies that—
1. The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to—
 - a. Those prices;
 - b. The intention to submit an bid; or
 - c. The methods or factors used to calculate the prices offered.
 2. The prices in this bid have not been and will not be knowingly disclosed by the bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and
 3. No attempt has been made or will be made by the bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.
- B. Each signature on the bid is considered to be a certification by the signatory that the signatory—
1. Is the person in the bidder's organization responsible for determining the prices being offered in this bid, and that the signatory has not participated and will not participate in any action contrary to paragraphs A.1 through A.3 of this certification; or
 2.
 - a. Has been authorized, in writing, to act as agent for the bidder's principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs A.1 through A.3 of this certification [As used in this subdivision B.2.a, the term "principals" means the person(s) in the bidder's organization responsible for determining the prices offered in this bid];
 - b. As an authorized agent, does certify that the principals referenced in subdivision B.2.a of this certification have not participated, and will not participate, in any action contrary to paragraphs A.1 through A.3 of this certification; and
 - c. As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs A.1 through A.3 of this certification.
- C. If the bidder deletes or modifies paragraph (a)(2) of this certification, the bidder must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

2.3 DRUG FREE WORKPLACE

By submitting a bid, the Bidder certifies that Bidder will maintain a drug free workplace in accordance with the requirements of Title 44, Chapter 107 of South Carolina Code of Laws, as amended.

2.4 CERTIFICATION REGARDING DEBARMENT AND OTHER RESPONSIBILITY MATTERS

- A. 1. By submitting an Bid, Bidder certifies, to the best of its knowledge and belief, that-
- a. Bidder and/or any of its Principals-
 - (i) Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any state or federal agency;
 - (ii) Have not, within a three-year period preceding this bid, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of bids; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
 - (iii) Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph A.1.a.(ii) of this provision.
 - b. Bidder has not, within a three-year period preceding this bid, had one or more contracts terminated for default by any public (Federal, state, or local) entity.
2. "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).
- B. Bidder shall provide immediate written notice to the Procurement Officer if, at any time prior to contract award, Bidder learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- C. If Bidder is unable to certify the representations stated in paragraphs A.1, Bidder must submit a written explanation regarding its inability to make the certification. The certification will be considered in connection with a review of the Bidder's responsibility. Failure of the Bidder to furnish additional information as requested by the Procurement Officer may render the Bidder nonresponsible.

OSE FORM 00201**STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS**

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph A. of this provision. The knowledge and information of a Bidder is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

- D. The certification in paragraph A. of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Bidder knowingly or in bad faith rendered an erroneous certification, in addition to other remedies available to the State, the Procurement Officer may terminate the contract resulting from this solicitation for default.

2.5 ETHICS CERTIFICATE

By submitting a bid, the bidder certifies that the bidder has and will comply with, and has not, and will not, induce a person to violate Title 8, Chapter 13 of the South Carolina Code of Laws, as amended (ethics act). The following statutes require special attention: Section 8-13-700, regarding use of official position for financial gain; Section 8-13-705, regarding gifts to influence action of public official; Section 8-13-720, regarding offering money for advice or assistance of public official; Sections 8-13-755 and 8-13-760, regarding restrictions on employment by former public official; Section 8-13-775, prohibiting public official with economic interests from acting on contracts; Section 8-13-790, regarding recovery of kickbacks; Section 8-13-1150, regarding statements to be filed by consultants; and Section 8-13-1342, regarding restrictions on contributions by contractor to candidate who participated in awarding of contract. The state may rescind any contract and recover all amounts expended as a result of any action taken in violation of this provision. If contractor participates, directly or indirectly, in the evaluation or award of public contracts, including without limitation, change orders or task orders regarding a public contract, contractor shall, if required by law to file such a statement, provide the statement required by Section 8-13-1150 to the procurement officer at the same time the law requires the statement to be filed.

2.6 RESTRICTIONS APPLICABLE TO BIDDERS & GIFTS

Violation of these restrictions may result in disqualification of your bid, suspension or debarment, and may constitute a violation of the state Ethics Act. (a) After issuance of the solicitation, ***bidder agrees not to discuss this procurement activity in any way with the Owner or its employees, agents or officials.*** All communications must be solely with the Procurement Officer. This restriction may be lifted by express written permission from the Procurement Officer. This restriction expires once a contract has been formed. (b) Unless otherwise approved in writing by the Procurement Officer, ***bidder agrees not to give anything to the Owner, any affiliated organizations, or the employees, agents or officials of either, prior to award.*** (c) Bidder acknowledges that the policy of the State is that a governmental body should not accept or solicit a gift, directly or indirectly, from a donor if the governmental body has reason to believe the donor has or is seeking to obtain contractual or other business or financial relationships with the governmental body. Regulation 19-445.2165(C) broadly defines the term donor.

2.7 IRAN DIVESTMENT ACT CERTIFICATION

(a) The Iran Divestment Act List is a list published by the Board pursuant to Section 11-57-310 that identifies persons engaged in investment activities in Iran. Currently, the list is available at the following URL: <http://procurement.sc.gov/PS/PS-iran-divestment.phtm>(.) Section 11-57-310 requires the government to provide a person ninety days written notice before he is included on the list. The following representation, which is required by Section 11-57-330(A), is a material inducement for the State to award a contract to you. (b) By signing your Offer, you certify that, as of the date you sign, you are not on the then-current version of the Iran Divestment Act List. (c) You must notify the Procurement Officer immediately if, at any time before posting of a final statement of award, you are added to the Iran Divestment Act List.

2.7 Delete Section 3.1.1 and substitute the following:

3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement in the number and for the deposit sum, if any, stated therein. If so provided in the Advertisement, the deposit will be refunded to all plan holders who return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing or damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.

2.8 Delete the language of Section 3.1.2 and insert the word "Reserved."**2.9 In Section 3.1.4, delete the words "and Architect may make" and substitute the words "has made."****2.10 Insert the following Section 3.1.5**

3.1.5 All persons obtaining Bidding Documents from the issuing office designated in the Advertisement shall provide that office with Bidder's contact information to include the Bidder's name, telephone number, mailing address, and email address.

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STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

- 2.11** *In Section 3.2.2:*
Delete the words "and Sub-bidders"
Delete the word "seven" and substitute the word "ten"
- 2.12** *In Section 3.2.3:*
In the first Sentence, insert the word "written" before the word "Addendum."
Insert the following at the end of the section:
As provided in Regulation 19-445.2042(B), nothing stated at the pre-bid conference shall change the Bidding Documents unless a change is made by written Addendum.
- 2.13** *Insert the following at the end of Section 3.3.1:*
Reference in the Bidding Documents to a designated material, product, thing, or service by specific brand or trade name followed by the words "or equal" and "or approved equal" shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition.
- 2.14** *Delete Section 3.3.2 and substitute the following:*
3.3.2 No request to substitute materials, products, or equipment for materials, products, or equipment described in the Bidding Documents and no request for addition of a manufacturer or supplier to a list of approved manufacturers or suppliers in the Bidding Documents will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids established in the Invitation for Bids. Any subsequent extension of the date for receipt of Bids by addendum shall not extend the date for receipt of such requests unless the addendum so specifies. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.
- 2.15** *Delete Section 3.4.3 and substitute the following:*
3.4.3 Addenda will be issued no later than 120 hours prior to the time for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.
- 2.16** *Insert the following Sections 3.4.5 and 3.4.6:*
3.4.5 When the date for receipt of Bids is to be postponed and there is insufficient time to issue a written Addendum prior to the original Bid Date, Owner will notify prospective Bidders by telephone or other appropriate means with immediate follow up with a written Addendum. This Addendum will verify the postponement of the original Bid Date and establish a new Bid Date. The new Bid Date will be no earlier than the fifth (5th) calendar day after the date of issuance of the Addendum postponing the original Bid Date.
3.4.6 If an emergency or unanticipated event interrupts normal government processes so that bids cannot be received at the government office designated for receipt of bids by the exact time specified in the solicitation, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal government processes resume. In lieu of an automatic extension, an Addendum may be issued to reschedule bid opening. If state offices are closed at the time a pre-bid or pre-proposal conference is scheduled, an Addendum will be issued to reschedule the conference.
- 2.17** *In Section 4.1.1, delete the word "forms" and substitute the words "SE-330 Bid Form."*
- 2.18** *Delete Section 4.1.2 and substitute the following:*
4.1.2 Any blanks on the bid form to be filled in by the Bidder shall be legibly executed in a non-erasable medium. Bids shall be signed in ink or other indelible media.
- 2.19** *Delete Section 4.1.3 and substitute the following:*
4.1.3 Sums shall be expressed in figures.
- 2.20** *Insert the following at the end of Section 4.1.4:*
Bidder shall not make stipulations or qualify his bid in any manner not permitted on the bid form. An incomplete Bid or information not requested that is written on or attached to the Bid Form that could be considered a qualification of the Bid, may be cause for rejection of the Bid.

OSE FORM 00201**STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS****2.21** *Delete Section 4.1.5 and substitute the following:*

4.1.5 All requested Alternates shall be bid. The failure of the bidder to indicate a price for an Alternate shall render the Bid non-responsive. Indicate the change to the Base Bid by entering the dollar amount and marking, as appropriate, the box for "ADD TO" or "DEDUCT FROM". If no change in the Base Bid is required, enter "ZERO" or "No Change." For add alternates to the base bid, Subcontractor(s) listed on page BF-2 of the Bid Form to perform Alternate Work shall be used for both Alternates and Base Bid Work if Alternates are accepted.

2.22 *Delete Section 4.1.6 and substitute the following:*

4.1.6 Pursuant to Title 11, Chapter 35, Section 3020(b)(i) of the South Carolina Code of Laws, as amended, Section 7 of the Bid Form sets forth a list of subcontractor specialties for which Bidder is required to identify only those subcontractors Bidder will use to perform the work of each listed specialty. Bidder must follow the Instructions in the Bid Form for filling out this section of the Bid Form. Failure to properly fill out Section 7 may result in rejection of Bidder's bid as non-responsive.

2.23 *Delete Section 4.1.7 and substitute the following:*

4.1.7 Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

2.24 *Delete Section 4.2.1 and substitute the following:*

4.2.1 If required by the Invitation for Bids, each Bid shall be accompanied by a bid security in an amount of not less than five percent of the Base Bid. The bid security shall be a bid bond or a certified cashier's check. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty.

2.25 *Delete Section 4.2.2 and substitute the following:*

4.2.2 If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney. The bid bond shall:

- .1 Be issued by a surety company licensed to do business in South Carolina;
- .2 Be issued by a surety company having, at a minimum, a "Best Rating" of "A" as stated in the most current publication of "Best's Key Rating Guide, Property-Casualty", which company shows a financial strength rating of at least five (5) times the contract price.
- .3 Be enclosed in the bid envelope at the time of Bid Opening, either in paper copy or as an electronic bid bond authorization number provided on the Bid Form and issued by a firm or organization authorized by the surety to receive, authenticate and issue binding electronic bid bonds on behalf the surety.

2.26 *Delete Section 4.2.3 and substitute the following:*

4.2.3 By submitting a bid bond via an electronic bid bond authorization number on the Bid Form and signing the Bid Form, the Bidder certifies that an electronic bid bond has been executed by a Surety meeting the standards required by the Bidding Documents and the Bidder and Surety are firmly bound unto the State of South Carolina under the conditions provided in this Section 4.2.

2.27 *Insert the following Section 4.2.4:*

4.2.4 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and performance and payment bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn or (c) all Bids have been rejected.

2.28 *Delete Section 4.3.1 and substitute the following:*

4.3.1 All copies of the Bid, the bid security, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall, unless hand delivered by the Bidder, be addressed to the Owner's designated purchasing office as shown in the Invitation for Bids. The envelope shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail or special delivery service (UPS, Federal Express, etc.), the envelope should be labeled "BID ENCLOSED" on the face thereof. Bidders hand delivering their Bids shall deliver Bids to the place of the Bid Opening as shown in the Invitation for Bids. Whether or not Bidders attend the Bid Opening, they

OSE FORM 00201**STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS**

shall give their Bids to the Owner's procurement officer or his/her designee as shown in the Invitation for Bids prior to the time of the Bid Opening.

2.29 *Insert the following Section 4.3.6 and substitute the following:*

4.3.5 The official time for receipt of Bids will be determined by reference to the clock designated by the Owner's procurement officer or his/her designee. The procurement officer conducting the Bid Opening will determine and announce that the deadline has arrived and no further Bids or bid modifications will be accepted. All Bids and bid modifications in the possession of the procurement officer at the time the announcement is completed will be timely, whether or not the bid envelope has been date/time stamped or otherwise marked by the procurement officer.

2.30 *Delete Section 4.4.2 and substitute the following:*

4.4.2 Prior to the time and date designated for receipt of Bids, a Bid submitted may be withdrawn in person or by written notice to the party receiving Bids at the place designated for receipt of Bids. Withdrawal by written notice shall be in writing over the signature of the Bidder.

2.31 *In Section 5.1, delete everything following the caption "OPENING OF BIDS" and substitute the following:*

5.1.1 Bids received on time will be publicly opened and will be read aloud. Owner will not read aloud Bids that Owner determines, at the time of opening, to be non-responsive. .

5.1.2 At bid opening, Owner will announce the date and location of the posting of the Notice of Intended Award.

5.1.3 Owner will send a copy of the final Bid Tabulation to all Bidders within ten (10) working days of the Bid Opening.

5.1.4 If Owner determines to award the Project, Owner will, after posting a Notice of Intended Award, send a copy of the Notice to all Bidders.

5.1.5 If only one Bid is received, Owner will open and consider the Bid.

2.32 *In Section 5.2, insert the section number "5.2.1" before the words of the "The Owner" at the beginning of the sentence.*

2.33 *Insert the following Sections 5.2.2 and 5.2.3:*

5.2.2 The reasons for which the Owner will reject Bids include, but are not limited to:

- .1 Failure by a Bidder to be represented at a Mandatory Pre-Bid Conference or site visit;
- .2 Failure to deliver the Bid on time;
- .3 Failure to comply with Bid Security requirements, except as expressly allowed by law;
- .4 Listing an invalid electronic Bid Bond authorization number on the bid form;
- .5 Failure to Bid an Alternate, except as expressly allowed by law;
- .6 Failure to list qualified Subcontractors as required by law;
- .7 Showing any material modification(s) or exception(s) qualifying the Bid;
- .8 Faxing a Bid directly to the Owner or their representative; or
- .9 Failure to include a properly executed Power-of-Attorney with the bid bond.

5.2.3 The Owner may reject a Bid as nonresponsive if the prices bid are materially unbalanced between line items or sub-line items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the Owner even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.

2.34 *Delete Section 6.1 and substitute the following:*

6.1 CONTRACTOR'S RESPONSIBILITY

Owner will make a determination of Bidder's responsibility before awarding a contract. Bidder shall provide all information and documentation requested by the Owner to support the Owner's evaluation of responsibility. Failure of Bidder to provide requested information is cause for the Owner, at its option, to determine the Bidder to be non-responsible

2.35 *Delete the language of Section 6.2 and insert the word "Reserved."*

2.36 *Delete the language of Sections 6.3.2, 6.3.3, and 6.3.4 and insert the word "Reserved" after each Section Number.*

OSE FORM 00201

STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

2.37 *Insert the following Section 6.4*

6.4 CLARIFICATION

Pursuant to Section 11-35-1520(8), the Procurement Officer may elect to communicate with a Bidder after opening for the purpose of clarifying either the Bid or the requirements of the Invitation for Bids. Such communications may be conducted only with Bidders who have submitted a Bid which obviously conforms in all material aspects to the Invitation for Bids and only in accordance with Appendix D (Paragraph A(6)) to the Manual for Planning and Execution of State Permanent Improvement, Part II. Clarification of a Bid must be documented in writing and included with the Bid. Clarifications may not be used to revise a Bid or the Invitation for Bids. [Section 11-35-1520(8); R.19-445.2080]

2.38 *Delete Section 7.1.2 and substitute the following:*

7.1.2 The performance and payment bonds shall conform to the requirements of Section 11.4 of the General Conditions of the Contract. If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid.

2.39 *Delete the language of Section 7.1.3 and insert the word "Reserved."*

2.40 *In Section 7.2, insert the words "CONTRACT, CERTIFICATES OF INSURANCE" into the caption after the word "Delivery."*

2.41 *Delete Section 7.2.1 and substitute the following:*

7.2.1 After expiration of the protest period, the Owner will tender a signed Contract for Construction to the Bidder and the Bidder shall return the fully executed Contract for Construction to the Owner within seven days thereafter. The Bidder shall deliver the required bonds and certificate of insurance to the Owner not later than three days following the date of execution of the Contract. Failure to deliver these documents as required shall entitle the Owner to consider the Bidder's failure as a refusal to enter into a contract in accordance with the terms and conditions of the Bidder's Bid and to make claim on the Bid Security for re-procurement cost.

2.42 *Delete the language of Section 7.2.2 and insert the word "Reserved."*

2.43 *Delete the language of Article 8 and insert the following:*

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on South Carolina Modified AIA Document A101, 2007, Standard Form of Agreement Between Owner and Contractor as modified by OSE Form 00501 – Standard Modification to Agreement Between Owner and Contractor.

2.44 *Insert the following Article 9:*

ARTICLE 9 MISCELLANEOUS

9.1 NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING IMPORTANT TAX NOTICE - NONRESIDENTS ONLY

Withholding Requirements for Payments to Nonresidents: Section 12-8-550 of the South Carolina Code of Laws requires persons hiring or contracting with a nonresident conducting a business or performing personal services of a temporary nature within South Carolina to withhold 2% of each payment made to the nonresident. The withholding requirement does not apply to (1) payments on purchase orders for tangible personal property when the payments are not accompanied by services to be performed in South Carolina, (2) nonresidents who are not conducting business in South Carolina, (3) nonresidents for contracts that do not exceed \$10,000 in a calendar year, or (4) payments to a nonresident who (a) registers with either the S.C. Department of Revenue or the S.C. Secretary of State and (b) submits a Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to the person letting the contract.

For information about other withholding requirements (e.g., employee withholding), contact the Withholding Section at the South Carolina Department of Revenue at 803-898-5383 or visit the Department's website at: www.sctax.org

This notice is for informational purposes only. This Owner does not administer and has no authority over tax issues. All registration questions should be directed to the License and Registration Section at 803-898-5872 or to the South Carolina Department of Revenue, Registration Unit, Columbia, S.C. 29214-0140. All withholding questions should be directed to the Withholding Section at 803-898- 5383.

PLEASE SEE THE "NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING" FORM (Available through SC Department of Revenue).

OSE FORM 00201**STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS****9.2 CONTRACTOR LICENSING**

Contractors and Subcontractors listed in Section 7 of the Bid Form who are required by the South Carolina Code of Laws to be licensed, must be licensed at the time of bidding.

9.3 SUBMITTING CONFIDENTIAL INFORMATION

For every document Bidder submits in response to or with regard to this solicitation or request, Bidder must separately mark with the word "CONFIDENTIAL" every page, or portion thereof, that Bidder contends contains information that is exempt from public disclosure because it is either (a) a trade secret as defined in Section 30-4-40(a)(1), or (b) privileged & confidential, as that phrase is used in Section 11-35-410. For every document Bidder submits in response to or with regard to this solicitation or request, Bidder must separately mark with the words "TRADE SECRET" every page, or portion thereof, that Bidder contends contains a trade secret as that term is defined by Section 39-8-20 of the Trade Secrets Act. For every document Bidder submits in response to or with regard to this solicitation or request, Bidder must separately mark with the word "PROTECTED" every page, or portion thereof, that Bidder contends is protected by Section 11-35-1810. All markings must be conspicuous; use color, bold, underlining, or some other method in order to conspicuously distinguish the mark from the other text. Do not mark your entire bid as confidential, trade secret, or protected! If your bid, or any part thereof, is improperly marked as confidential or trade secret or protected, the State may, in its sole discretion, determine it nonresponsive. If only portions of a page are subject to some protection, do not mark the entire page. By submitting a response to this solicitation, Bidder (1) agrees to the public disclosure of every page of every document regarding this solicitation or request that was submitted at any time prior to entering into a contract (including, but not limited to, documents contained in a response, documents submitted to clarify a response, & documents submitted during negotiations), unless the page is conspicuously marked "TRADE SECRET" or "CONFIDENTIAL" or "PROTECTED", (2) agrees that any information not marked, as required by these bidding instructions, as a "Trade Secret" is not a trade secret as defined by the Trade Secrets Act, & (3) agrees that, notwithstanding any claims or markings otherwise, any prices, commissions, discounts, or other financial figures used to determine the award, as well as the final contract amount, are subject to public disclosure. In determining whether to release documents, the State will detrimentally rely on Bidders's marking of documents, as required by these bidding instructions, as being either "Confidential" or "Trade Secret" or "PROTECTED". By submitting a response, Bidder agrees to defend, indemnify & hold harmless the State of South Carolina, its officers & employees, from every claim, demand, loss, expense, cost, damage or injury, including attorney's fees, arising out of or resulting from the State withholding information that Bidder marked as "confidential" or "trade secret" or "PROTECTED".

9.4 POSTING OF INTENT TO AWARD

Notice of Intent to Award, SE-370, will be posted at the following location:

Room or Area of Posting: Reception Area

Building Where Posted: Facilities Planning and Construction Building

Address of Building: 743 Greene Street Columbia SC 29208

WEB site address (if applicable): www.purchasing.sc.edu

Posting date will be announced at bid opening. In addition to posting the notice, the Owner will promptly send all responsive bidders a copy of the notice of intent to award and the final bid tabulation

9.5 PROTEST OF SOLICITATION OR AWARD

Any prospective bidder, offeror, contractor, or subcontractor who is aggrieved in connection with the solicitation of a contract shall protest within fifteen days of the date of issuance of the applicable solicitation document at issue. Any actual bidder, offeror, contractor, or subcontractor who is aggrieved in connection with the intended award or award of a contract shall protest within ten days of the date notification of intent to award is posted in accordance with Title 11, Chapter 35, Section 4210 of the South Carolina Code of Laws, as amended. A protest shall be in writing, shall set forth the grounds of the protest and the relief requested with enough particularity to give notice of the issues to be decided, and must be received by the State Engineer within the time provided.

Any protest must be addressed to the CPO, Office of State Engineer, and submitted in writing:

- A. by email to protest-ose@mmo.sc.gov,
- B. by facsimile at 803-737-0639, or
- C. by post or delivery to 1201 Main Street, Suite 600, Columbia, SC 29201.

By submitting a protest to the foregoing email address, you (and any person acting on your behalf) consent to receive communications regarding your protest (and any related protests) at the e-mail address from which you sent your protest.

OSE FORM 00201**STANDARD SUPPLEMENTAL INSTRUCTIONS TO BIDDERS****9.6 SOLICITATION INFORMATION FROM SOURCES OTHER THAN OFFICIAL SOURCE**

South Carolina Business Opportunities (SCBO) is the official state government publication for State of South Carolina solicitations. Any information on State agency solicitations obtained from any other source is unofficial and any reliance placed on such information is at the bidder's sole risk and is without recourse under the South Carolina Consolidated Procurement Code.

9.7 BUILDER'S RISK INSURANCE

Bidders are directed to Article 11.3 of the South Carolina Modified AIA Document A201, 2007 Edition, which, unless provided otherwise in the bid documents, requires the contractor to provide builder's risk insurance on the project.

9.8 TAX CREDIT FOR SUBCONTRACTING WITH MINORITY FIRMS

Pursuant to Section 12-6-3350, taxpayers, who utilize certified minority subcontractors, may take a tax credit equal to 4% of the payments they make to said subcontractors. The payments claimed must be based on work performed directly for a South Carolina state contract. The credit is limited to a maximum of fifty thousand dollars annually. The taxpayer is eligible to claim the credit for 10 consecutive taxable years beginning with the taxable year in which the first payment is made to the subcontractor that qualifies for the credit. After the above ten consecutive taxable years, the taxpayer is no longer eligible for the credit. The credit may be claimed on Form TC-2, "Minority Business Credit." A copy of the subcontractor's certificate from the Governor's Office of Small and Minority Business (OSMBA) is to be attached to the contractor's income tax return. Taxpayers must maintain evidence of work performed for a State contract by the minority subcontractor. Questions regarding the tax credit and how to file are to be referred to: SC Department of Revenue, Research and Review, Phone: (803) 898-5786, Fax: (803) 898-5888. The subcontractor must be certified as to the criteria of a "Minority Firm" by the Governor's Office of Small and Minority Business Assistance (OSMBA). Certificates are issued to subcontractors upon successful completion of the certification process. Questions regarding subcontractor certification are to be referred to: Governor's Office of Small and Minority Business Assistance, Phone: (803) 734-0657, Fax: (803) 734-2498. Reference: SC §11-35-5010 – Definition for Minority Subcontractor & SC §11-35-5230 (B) – Regulations for Negotiating with State Minority Firms.

9.9 OTHER SPECIAL CONDITIONS OF THE WORK

See Article 3.104 and #.105 of 0811-OSE Supplementary Conditions modifying Article 11.4 of AIA Documents a201, 2007 Edition, requiring the Contractor to provide builder's risk insurance on the project.

END OF DOCUMENT

OSE FORM 00501**STANDARD MODIFICATIONS TO AGREEMENT BETWEEN OWNER AND CONTRACTOR****AGENCY:** University of South Carolina**PROJECT NAME:** 819 Barnwell Exterior Painting and Repairs**PROJECT NUMBER:** H27-D182**1. STANDARD MODIFICATIONS TO AIA A101-2007**

- 1.1** These Standard Modifications amend or supplement the *Standard Form of Agreement Between Owner and Contractor* (AIA Document A101-2007) and other provisions of Bidding and Contract Documents as indicated below.
- 1.2** All provisions of A101-2007, which are not so amended or supplemented, remain in full force and effect.

2. MODIFICATIONS TO A101

- 2.1** *Insert the following at the end of Article 1:*
Any reference in this document to the Agreement between the Owner and Contractor, AIA Document A101, or some abbreviated reference thereof, shall mean the AIA A101, 2007 Edition as modified by OSE Form 00501 – Standard Modification to Agreement Between Owner and Contractor. Any reference in this document to the General Conditions of the Contract for Construction, AIA Document A201, or some abbreviated reference thereof, shall mean the AIA A201, 2007 Edition as modified by OSE Form 00811 – Standard Supplementary Conditions.
- 2.2** *Delete Section 3.1 and substitute the following:*
3.1 The Date of Commencement of the Work shall be the date fixed in a Notice to Proceed issued by the Owner. The Owner shall issue the Notice to Proceed to the Contractor in writing, no less than seven days prior to the Date of Commencement. Unless otherwise provided elsewhere in the contract documents, and provided the contractor has secured all required insurance and surety bonds, the contractor may commence work immediately after receipt of the Notice to Proceed.
- 2.3** *Delete Section 3.3 and substitute the following:*
3.3 The Contract Time as provided in Section 9(a) of the Bid Form (SE-330) for this Project shall be measured from the Date of Commencement. Contractor agrees that if the Contractor fails to achieve Substantial Completion of the Work within the Contract Time, the Owner shall be entitled to withhold or recover from the Contractor Liquidated Damages in the amounts set forth in Section 9(b) of the Bid Form (SE-330), subject to adjustments of this Contract Time as provided in the Contract Documents.
- 2.4** *In Section 5.1.1, insert the words “and Owner” after the phrase “Payment submitted to the Architect.”*
- 2.5** *Delete Section 5.1.3 and substitute the following:*
5.1.3 The Owner shall make payment of the certified amount to the Contractor not later than 21 days after receipt of the Application for Payment.
- 2.6** *In Section 5.1.6, insert the following after the phrase “Subject to other provisions of the Contract Documents”:*
and subject to Title 12, Chapter 8, Section 550 of the South Carolina Code of Laws, as amended (Withholding Requirements for Payments to Non-Residents).
In the spaces provided in Sub-Sections 1 and 2 for inserting the retainage amount, insert “three and one-half percent (3.5%).”
- 2.7** *In Section 5.1.8, delete the word “follows” and the colon and substitute the following:*
set forth in S.C. Code Ann. § 11-35-3030(4).
- 2.8** *In Section 5.1.9, delete the words “Except with the Owner’s prior approval, the” before the word “ Contractor.”*
- 2.9** *In Section 5.2.2, delete the number 30 and substitute the number 21, delete everything following the words “Certificate for Payment” and place a period at the end of the resulting sentence.*
- 2.10** *Delete the language of Sections 6.1 and 6.2 and substitute the word “Reserved” for the deleted language of each Section.*
- 2.11** *Delete the language of Section 8.2 and substitute the word “Reserved.”*

SE-330 LUMP SUM BID FORM

Bidders shall submit bids on only Bid Form SE-330.

BID SUBMITTED BY: _____
(Bidder's Name)

BID SUBMITTED TO: University of South Carolina
(Owner's Name)

FOR: PROJECT NAME: 819 Barnwell Exterior Painting and Repairs

PROJECT NUMBER: H27-D182

OFFER

§ 1. In response to the Invitation for Construction Services and in compliance with the Instructions to Bidders for the above-named Project, the undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with the Owner on the terms included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

§ 2. Pursuant to Section 11-35-3030(1) of the SC Code of Laws, as amended, Bidder has submitted Bid Security as follows in the amount and form required by the Bidding Documents:

Bid Bond with Power of Attorney Electronic Bid Bond Cashier's Check

(Bidder check one)

§ 3. Bidder acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into this Bid:

(Bidder, check all that apply. Note, there may be more boxes than actual addenda. Do not check boxes that do not apply)

ADDENDA: #1 #2 #3 #4 #5

§ 4. Bidder accepts all terms and conditions of the Invitation for Bids, including, without limitation, those dealing with the disposition of Bid Security. Bidder agrees that this Bid, including all Bid Alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of **60** Days following the Bid Date, or for such longer period of time that Bidder may agree to in writing upon request of the Owner.

§ 5. Bidder herewith offers to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the following items of construction work:

§ 6.1 **BASE BID WORK** (as indicated in the Bidding Documents and generally described as follows): Exterior painting and repair. Work includes removal of lead-based paint, minor wood repairs, exterior trim, metal handrail, and painting.

\$ _____, which sum is hereafter called the Base Bid.

(Bidder - insert Base Bid Amount on line above)

**SE-330
LUMP SUM BID FORM**

§ 6.2 **BID ALTERNATES** as indicated in the Bidding Documents and generally described as follows:

ALTERNATE # 1 (Brief Description): NO ALTERNATE

ADD TO or **DEDUCT FROM BASE BID:** \$ _____

(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)

ALTERNATE # 2 (Brief Description): _____

ADD TO or **DEDUCT FROM BASE BID:** \$ _____

(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)

ALTERNATE # 3 (Brief Description): _____

ADD TO or **DEDUCT FROM BASE BID:** \$ _____

(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)

§ 6.3 **UNIT PRICES:**

BIDDER offers for the Agency's consideration and use, the following **UNIT PRICES**. The **UNIT PRICES** offered by **BIDDER** indicate the amount to be added to or deducted from the **CONTRACT SUM** for each item-unit combination. **UNIT PRICES** include all costs to the Agency, including those for materials, labor, equipment, tools of trades and labor, fees, taxes, insurance, bonding, overhead, profit, etc. The Agency reserves the right to include or not to include any of the following **UNIT PRICES** in the Contract and to negotiate the **UNIT PRICES** with **BIDDER**.

No.	ITEM	Unit of Measure	ADD	DEDUCT
1.	_____	_____	\$ _____	\$ _____
2.	_____	_____	\$ _____	\$ _____
3.	_____	_____	\$ _____	\$ _____
4.	_____	_____	\$ _____	\$ _____
5.	_____	_____	\$ _____	\$ _____
6.	_____	_____	\$ _____	\$ _____

SE-330
LUMP SUM BID FORM

§ 7. LISTING OF PROPOSED SUBCONTRACTORS PURSUANT TO SECTION 3020(b)(i), CHAPTER 35, TITLE 11 OF THE SOUTH CAROLINA CODE OF LAWS, AS AMENDED
(See Instructions on the following page BF-2A)

Bidder shall use the below-listed Subcontractors in the performance of the Subcontractor Classification work listed:

SUBCONTRACTOR CLASSIFICATION By License Classification and/or Subclassification <i>(Completed by Owner)</i>	SUBCONTRACTOR'S PRIME CONTRACTOR'S NAME <i>(Must be completed by Bidder)</i>	SUBCONTRACTOR'S PRIME CONTRACTOR'S SC LICENSE NUMBER <i>(Requested, but not Required)</i>
BASE BID		
ALTERNATE #1		
ALTERNATE #2		
ALTERNATE #3		

If a Bid Alternate is accepted, Subcontractors listed for the Bid Alternate shall be used for the work of both the Alternate and the Base Bid work.

SE-330
LUMP SUM BID FORM

**INSTRUCTIONS FOR
SUBCONTRACTOR LISTING**

1. Section 7 of the Bid Form sets forth a list of subcontractor classifications for which Bidder is required to identify by name the subcontractor(s) Bidder will use to perform the work of each listed classification. Bidder must identify only the subcontractor(s) who will perform the work and no others.
2. For purposes of subcontractor listing, a Subcontractor is an entity who will perform work or render service to the prime contractor to or about the construction site. Material suppliers, manufacturers, and fabricators that will not perform physical work at the site of the project but will only supply materials or equipment to the bidder or proposed subcontractor(s) are not subcontractors and Bidder should not insert their names in the spaces provided on the Bid Form. Likewise, Bidder should not insert the names of sub-subcontractors in the spaces provided on the Bid Form but only the names of those entities with which Bidder will contract directly.
3. Bidder must only insert the names of subcontractors who are qualified to perform the work of the listed classifications as specified in the Bidding Documents and South Carolina Licensing Laws.
4. If under the terms of the Bidding Documents, Bidder is qualified to perform the work of a classification listed and Bidder does not intend to subcontract such work, but to use Bidder's own employees to perform such work, the Bidder must insert its own name in the space provided for that classification.
5. If Bidder intends to use multiple subcontractors to perform the work of a single classification listing, Bidder must insert the name of each subcontractor Bidder will use, preferably separating the name of each by the word **"and"**. If Bidder intends to use both his own employees to perform a part of the work of a single classification listing and to use one or more subcontractors to perform the remaining work for that classification listing, Bidder must insert his own name and the name of each subcontractor, preferably separating the name of each with the word **"and"**.
6. Bidder may not list subcontractors in the alternative nor in a form that may be reasonably construed at the time of bid opening as a listing in the alternative. A listing that requires subsequent explanation to determine whether or not it is a listing in the alternative is non-responsive. If Bidder intends to use multiple entities to perform the work for a single classification listing, Bidder must clearly set forth on the Bid Form such intent. Bidder may accomplish this by simply inserting the word **"and"** between the names of each entity listed for that classification. Owner will reject as non-responsive a listing that contains the names of multiple subcontractors separated by a blank space, the word **"or"**, a virgule (that is a /), or any separator that the Owner may reasonably interpret as a listing in the alternative.
7. If Bidder is awarded the contract, Bidder must, except with the approval of the owner for good cause shown, use the listed entities to perform the work for which they are listed.
8. If Bidder is awarded the contract, Bidder will not be allowed to substitute another entity as subcontractor in place of a subcontractor listed in Section 7 of the Bid Form except for one or more of the reasons allowed by the SC Code of Laws.
9. Bidder's failure to insert a name for each listed classification will render the Bid non-responsive.

SE-330
LUMP SUM BID FORM

§ 8. LIST OF MANUFACTURERS, MATERIAL SUPPLIERS, AND SUBCONTRACTORS OTHER THAN SUBCONTRACTORS LISTED IN SECTION 7 ABOVE (FOR INFORMATION ONLY):

Pursuant to instructions in the Invitation for Construction Services, if any, Bidder will provide to Owner upon the Owner's request and within 24 hours of such request, a listing of manufacturers, material suppliers, and subcontractors, other than those listed in Section 7 above, that Bidder intends to use on the project. Bidder acknowledges and agrees that this list is provided for purposes of determining responsibility and not pursuant to the subcontractor listing requirements of SC Code Ann § 11-35-3020(b)(i).

§ 9. TIME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES

a) CONTRACT TIME

Bidder agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued by the Owner. Bidder agrees to substantially complete the Work within 90 Calendar Days from the Date of Commencement, subject to adjustments as provided in the Contract Documents.

b) LIQUIDATED DAMAGES

Bidder further agrees that from the compensation to be paid, the Owner shall retain as Liquidated Damages the amount of \$ 100.00 for each Calendar Day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the Contract Documents. This amount is intended by the parties as the predetermined measure of compensation for actual damages, not as a penalty for nonperformance.

§ 10. AGREEMENTS

- a) Bidder agrees that this bid is subject to the requirements of the laws of the State of South Carolina.
- b) Bidder agrees that at any time prior to the issuance of the Notice to Proceed for this Project, this Project may be canceled for the convenience of, and without cost to, the State.
- c) Bidder agrees that neither the State of South Carolina nor any of its agencies, employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project canceled for any reason prior to the issuance of the Notice to Proceed.

§ 11. ELECTRONIC BID BOND

By signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the Principal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the AIA Document A310, Bid Bond, included in the Bidding Documents.

ELECTRONIC BID BOND NUMBER: _____

SIGNATURE AND TITLE: _____

**SE-330
LUMP SUM BID FORM**

CONTRACTOR'S CLASSIFICATIONS AND SUBCLASSIFICATIONS WITH LIMITATION

SC Contractor's License Number(s): _____

Classification(s) & Limits: _____

Subclassification(s) & Limits: _____

By signing this Bid, the person signing reaffirms all representation and certification made by both the person signing and the Bidder, including without limitation, those appearing in Article 2 of the Instructions to Bidders, is expressly incorporated by reference.

BIDDER'S LEGAL NAME: _____

ADDRESS: _____

TELEPHONE: _____

EMAIL: _____

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____

TITLE: _____

AIA DOCUMENT A101 - 2007 EDITION

STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

LOCATED IN COMPANION ENVELOPE OR INCLUDED BY REFERENCE IF
COMPANION ENVELOPE IS NOT PROVIDED

DOCUMENT PLACE HOLDER
UNIVERSITY OF SOUTH CAROLINA

AIA DOCUMENT A201 - 2007 EDITION
GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

LOCATED IN COMPANION ENVELOPE OR INCLUDED BY REFERENCE IF
COMPANION ENVELOPE IS NOT PROVIDED

DOCUMENT PLACE HOLDER
UNIVERSITY OF SOUTH CAROLINA

OSE FORM 00501**STANDARD MODIFICATIONS TO AGREEMENT BETWEEN OWNER AND CONTRACTOR**

2.12 *In Section 8.3, make the word "Representative" in the title plural, delete everything following the title, and substitute the following:*

8.3.1 Owner designates the individual listed below as its Senior Representative ("Owner's Senior Representative"), which individual has the responsibility for and, subject to Section 7.2.1 of the General Conditions, the authority to resolve disputes under Section 15.6 of the General Conditions:

Name: _____

Title: _____

Address: _____

Telephone: _____ FAX: _____

Email: _____

8.3.2 Owner designates the individual listed below as its Owner's Representative, which individual has the authority and responsibility set forth in Section 2.1.1 of the General Conditions:

Name: Jeff Abrams

Title: Project Manager

Address: 743 Greene Street Columbia SC 29208

Telephone: 803-239-8074 FAX: 803-777-8739

Email: JABRAMS@fmc.sc.edu

2.13 *In Section 8.4, make the word "Representative" in the title plural, delete everything following the title, and substitute the following:*

8.4.1 Contractor designates the individual listed below as its Senior Representative ("Contractor's Senior Representative"), which individual has the responsibility for and authority to resolve disputes under Section 15.6 of the General Conditions:

Name: Lind Jackson

Title: Project Coordinator

Address: 743 Greene Street Columbia SC 29208

Telephone: 803-777-3489 FAX: 803-777-8739

Email: LJACKSON@fmc.sc.edu

8.4.2 Contractor designates the individual listed below as its Contractor's Representative, which individual has the authority and responsibility set forth in Section 3.1.1 of the General Conditions:

Name: _____

Title: _____

Address: _____

Telephone: _____ FAX: _____

Email: _____

2.14 *Add the following Section 8.6.1:*

8.6.1 The Architect's representative:

Name: J. Sanders Tate

Title: principal

Address: 1316 Washington Street Columbia SC 29201

Telephone: 803-799-5181 FAX: 803-799-5757

Email: state@watsontatesavory.com

OSE FORM 00501
STANDARD MODIFICATIONS TO AGREEMENT BETWEEN OWNER AND
CONTRACTOR

2.15 *In Section 9.1.7, Sub-Section 2, list the following documents in the space provided for listing documents:*

Invitation for Construction Services (SE-310)

Instructions to Bidders (AIA Document A701-1997)

Standard Supplemental Instructions to Bidders (OSE Form 00201)

Contractor's Bid (Completed SE-330)

Notice of Intent to Award (Completed SE-370)

2.16 *In Article 10, delete everything after the first sentence.*

END OF DOCUMENT

OSE FORM 00811

STANDARD SUPPLEMENTARY CONDITIONS

AGENCY: University of South Carolina

PROJECT NAME: 819 Barnwell Exterior Painting and Repairs

PROJECT NUMBER: H27-D182

1. GENERAL CONDITIONS

The *General Conditions of the Contract for Construction*, AIA Document A201, 2007 Edition, Articles 1 through 15 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 collectively as the "General Conditions."

2. STANDARD SUPPLEMENTARY CONDITIONS

2.1 The following supplements modify, delete and/or add to the General Conditions. Where any portion of the General Conditions is modified or any paragraph, Section or clause thereof is modified or deleted by these Supplementary Conditions, the unaltered provisions of the General Conditions shall remain in effect.

2.2 Unless otherwise stated, the terms used in these Standard Supplementary Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

3. MODIFICATIONS TO A201-2007

3.1 *Insert the following at the end of Section 1.1.1:*

Any reference in this document to the Agreement between the Owner and Contractor, AIA Document A101, or some abbreviated reference thereof, shall mean the AIA A101, 2007 Edition as modified by OSE Form 00501 – Standard Modification to Agreement between Owner and Contractor. Any reference in this document to the General Conditions of the Contract for Construction, AIA Document A201, or some abbreviated reference thereof, shall mean the AIA A201, 2007 Edition as modified by OSE Form 00811 – Standard Supplementary Conditions.

3.2 *Delete the language of Section 1.1.8 and substitute the word "Reserved."*

3.3 *Add the following Section 1.1.9:*

1.1.9 NOTICE TO PROCEED

Notice to Proceed is a document issued by the Owner to the Contractor, with a copy to the Architect, directing the Contractor to begin prosecution of the Work in accordance with the requirements of the Contract Documents. The Notice to Proceed shall fix the date on which the Contract Time will commence.

3.4 *Insert the following at the end of Section 1.2.1:*

In the event of patent ambiguities within or between parts of the Contract Documents, the contractor shall 1) provide the better quality or greater quantity of Work, or 2) comply with the more stringent requirement, either or both in accordance with the Architect's interpretation.

3.5 *Delete Section 1.5.1 and substitute the following:*

1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service and will retain all common law, statutory and other reserved rights, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as a violation of the Architect's or Architect's consultants' reserved rights.

3.6 *Delete Section 2.1.1 and substitute the following:*

2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization, except as provided in Section 7.1.2. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's Representative. [Reference § 8.2 of the Agreement.]

3.7 *Delete Section 2.1.2 and substitute the following:*

2.1.2 The Owner shall furnish to the Contractor within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to post Notice of Project Commencement pursuant to Title 29, Chapter 5, Section 23 of the South Carolina Code of Laws, as amended.

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3.8 *Delete Section 2.2.3 and substitute the following:*

2.2.3 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. Subject to the Contractor's obligations, including those in Section 3.2, the Contractor shall be entitled to rely on the accuracy of information furnished by the Owner pursuant to this Section but shall exercise proper precautions relating to the safe performance of the Work.

3.9 *Replace the period at the end of the last sentence of Section 2.2.4 with a semicolon and insert the following after the inserted semicolon:*

"however, the Owner does not warrant the accuracy of any such information requested by the Contractor that is not otherwise required of the Owner by the Contract Documents. Neither the Owner nor the Architect shall be required to conduct investigations or to furnish the Contractor with any information concerning subsurface characteristics or other conditions of the area where the Work is to be performed beyond that which is provide in the Contract Documents."

3.10 *Delete Section 2.2.5 and substitute the following:*

2.2.5 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor with ten copies of the Contract Documents. The Contractor may make reproductions of the Contract Documents pursuant to Section 1.5.2. All copies of the drawings and specifications, except the Contractor's record set, shall be returned or suitably accounted for to the Owner, on request, upon completion of the Work.

3.11 *Add the following Sections 2.2.6 and 2.2.7:*

2.2.6 The Owner assumes no responsibility for any conclusions or interpretation made by the Contractor based on information made available by the Owner.

2.2.7 The Owner shall obtain, at its own cost, general building and specialty inspection services as required by the Contract Documents. The Contractor shall be responsible for payment of any charges imposed for reinspections.

3.12 *Delete Section 2.4 and substitute the following:*

2.4 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect, including but not limited to providing necessary resources, 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 Directive shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's 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.

3.13 *Insert the following at the end of Section 3.2.1:*

The Contractor acknowledges that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Owner, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Owner.

3.14 *In the third sentence of Section 3.2.4, insert the word "latent" before the word "errors."*

3.15 *In the last sentence of Section 3.3.1, insert the words "by the Owner in writing" after the word "instructed."*

3.16 *Delete the third sentence of Section 3.5 and substitute the following sentences:*

Work, materials, or equipment not conforming to these requirements shall be considered defective. Unless caused by the Contractor or a subcontractor at any tier, the Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.

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- 3.17** *Insert the following at the end of Section 3.6:*
The Contractor shall comply with the requirements of Title 12, Chapter 9 of the South Carolina Code of Laws, as amended, regarding withholding tax for nonresidents, employees, contractors and subcontractors.
- 3.18** *In Section 3.7.1, delete the words "the building permit as well as for other" and insert the following sentence at the end of this section:*
Pursuant to Title 10, Chapter 1, Section 180 of the South Carolina Code of Laws, as amended, no local general or specialty building permits are required for state buildings.
- 3.19** *Delete the last sentence of Section 3.7.5 and substitute the following:*
Adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 7.3.3.
- 3.20** *Delete the last sentence of Section 3.8.2.3 and substitute the following:*
The amount of the Change Order shall reflect the difference between actual costs, as documented by invoices, and the allowances under Section 3.8.2.1.
- 3.21** *In Section 3.9.1, insert a comma after the word "superintendent" in the first sentence and insert the following after the inserted comma:*
acceptable to the Owner,
- 3.22** *Delete Section 3.9.2 and substitute the following:*
3.9.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner the name and qualifications of a proposed superintendent. The Owner may reply within 14 days to the Contractor in writing stating (1) whether the Owner has reasonable objection to the proposed superintendent or (2) that the Owner requires additional time to review. Failure of the Owner to reply within the 14-day period shall constitute notice of no reasonable objection.
- 3.23** *After the first sentence in Section 3.9.3, insert the following sentence:*
The Contractor shall notify the Owner, in writing, of any proposed change in the superintendent, including the reason therefore, prior to making such change.
- 3.24** *Delete Section 3.10.3 and substitute the following:*
3.10.3 Additional requirements, if any, for the constructions schedule are as follows:
(Check box if applicable to this Contract)
 The construction schedule shall be in a detailed precedence-style critical path management (CPM) or primavera-type format satisfactory to the Owner and the Architect that shall also (1) provide a graphic representation of all activities and events that will occur during performance of the work; (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 (hereinafter referred to as "Milestone Dates"). Upon review and acceptance by the Owner and the Architect of the Milestone Dates, the construction schedule shall be deemed part of the Contract Documents and attached to the Agreement as Exhibit "A." If not accepted, the construction schedule shall be promptly revised by the Contractor in accordance with the recommendations of the Owner and the 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 of any delays or potential delays. Whenever the approved construction schedule no longer reflects actual conditions and progress of the work or the Contract Time is modified in accordance with the terms of the Contract Documents, the Contractor shall update the accepted construction schedule to reflect such conditions. In the event any progress report indicates any delays, the Contractor shall propose an affirmative plan to correct the delay, including overtime and/or additional labor, if necessary. In no event shall any progress report constitute an adjustment in the Contract Time, any Milestone Date, or the Contract Sum unless any such adjustment is agreed to by the Owner and authorized pursuant to Change Order.
- 3.25** *Add the following Section 3.10.4:*
3.10.4 Owner's review and acceptance of Contractor's schedule is not conducted for the purpose of either determining its accuracy and completeness or approving the construction means, methods, techniques, sequences or procedures. The Owner's approval shall not relieve the Contractor of any obligations. Unless expressly addressed in a Modification, the Owner's approval of a schedule shall not change the Contract Time.

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3.26 *Add the following Section 3.12.5.1:*

3.12.5.1 The fire sprinkler shop drawings shall be prepared by a licensed fire sprinkler contractor and shall accurately reflect actual conditions affecting the required layout of the fire sprinkler system. The fire sprinkler contractor shall certify the accuracy of his shop drawings prior to submitting them for review and approval. The fire sprinkler shop drawings shall be reviewed and approved by the Architect's engineer of record who, upon approving the sprinkler shop drawings will submit them to the State Fire Marshal or other authorities having jurisdiction for review and approval. The Architect's engineer of record will submit a copy of the State Fire Marshal's approval letter to the Contractor, Architect, and OSE. Unless authorized in writing by OSE, neither the Contractor nor subcontractor at any tier shall submit the fire sprinkler shop drawings directly to the State Fire Marshal or other authorities having jurisdiction for approval.

3.27 *In the fourth sentence of Section 3.12.10, after the comma following the words "licensed design professional," insert the following:*

who shall comply with reasonable requirements of the Owner regarding qualifications and insurance and

3.28 *In Section 3.13, insert the section number "3.13.1" before the before the opening words "The Contractors shall."*

3.29 *Add the following Sections 3.13.2 and 3.13.3:*

3.13.2 Protection of construction materials and equipment stored at the Project site from weather, theft, vandalism, damage, and all other adversity is solely the responsibility of the Contractor. The Contractor shall perform the work in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. The Work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the Work shall be free from all debris, building materials, and equipment likely to cause hazardous conditions.

3.13.3 The Contractor and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner.

3.30 *In the first sentence of Section 3.18.1, after the parenthetical "... (other than the Work itself), ..." and before the word "...but...", insert the following:*

including loss of use resulting therefrom,

3.31 *Delete Section 4.1.1 and substitute the following:*

4.1.1 The Architect is that person or entity identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

3.32 *Insert the following at the end of Section 4.2.1:*

Any reference in the Contract Documents to the Architect taking action or rendering a decision with a "reasonable time" is understood to mean no more than fourteen days, unless otherwise specified in the Contract Documents or otherwise agreed to by the parties.

3.33 *Delete the first sentence of Section 4.2.2 and substitute the following:*

The Architect will visit the site as necessary to fulfill its obligation to the Owner for inspection services, if any, and, at a minimum, to assure conformance with the Architect's design as shown in the Contract Documents and to observe the progress and quality of the various components of the Contractor's Work, and to determine if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents.

3.34 *Delete the first sentence of Section 4.2.3 and substitute the following:*

On the basis of the site visits, the Architect will keep the Owner informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work.

3.35 *In Section 4.2.5, after the words "evaluations of the" and before the word "Contractor's," insert the following:*

Work completed and correlated with the

3.36 *Delete the first sentence of Section 4.2.11 and substitute the following:*

4.2.11 The Architect will, in the first instance, interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. Upon receipt of such request, the Architect will promptly provide the non-requesting party with a copy of the request.

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3.37 *Insert the following at the end of Section 4.2.12:*

If either party disputes the Architects interpretation or decision, that party may proceed as provided in Article 15. The Architect's interpretations and decisions may be, but need not be, accorded any deference in any review conducted pursuant to law or the Contract Documents.

3.38 *Delete Section 4.2.14 and substitute the following:*

The Architect will review and respond to requests for information about the Contract Documents so as to avoid delay to the construction of the Project. The Architect's response to such requests will be made in writing with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information. Any response to a request for information must be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. Unless issued pursuant to a Modification, supplemental Drawings or Specifications will not involve an adjustment to the Contract Sum or Contract Time.

3.39 *Delete Section 5.2.1 and substitute the following:*

5.2.1 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, within fourteen days after posting of the Notice of Intent to Award the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (excluding Listed Subcontractors but including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Owner may reply within 14 days to the Contractor in writing stating (1) whether the Owner has reasonable objection to any such proposed person or entity. Failure of the Owner to reply within the 14 day period shall constitute notice of no reasonable objection.

3.40 *Delete Section 5.2.2 and substitute the following:*

5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection. The Owner shall not direct the Contractor to contract with any specific individual or entity for supplies or services unless such supplies and services are necessary for completion of the Work and the specified individual or entity is the only source of such supply or services.

3.41 *In the first sentence of Section 5.2.3, delete the words "...or Architect..." in the two places they appear.*

3.42 *Delete the words "...or Architect..." in the in the first sentence of Section 5.2.4 and insert the following sentence at the end of Section 5.2.4:*

The Contractor's request for substitution must be made to the Owner in writing accompanied by supporting information.

3.43 *Add the following Section 5.2.5:*

5.2.5 A Subcontractor identified in the Contractor's Bid in response the specialty subcontractor listing requirements of Section 7 of the Bid Form (SE-330) may only be substituted in accordance with and as permitted by the provisions of Title 11, Chapter 35, Section 3021 of the South Carolina Code of Laws, as amended. A proposed substitute for a Listed Subcontractor shall be subject to the Owner's approval as set forth is Section 5.2.3.

3.44 *Add the following Section 5.2.6:*

5.2.6 The Iran Divestment Act List is a list published by the Board pursuant to Section 11-57-310 that identifies persons engaged in investment activities in Iran. Currently, the list is available at the following URL: <http://procurement.sc.gov/PS/PS-iran-divestment.phtm>(.) Consistent with Section 11-57-330(B), the Contractor shall not contract with any person to perform a part of the Work, if, at the time you enter into the subcontract, that person is on the then-current version of the Iran Divestment Act List.

3.45 *In Section 5.3, delete everything following the heading "SUBCONTRACTUAL RELATIONS" and insert the following Sections 5.3.1, 5.3.2, 5.3.3, and 5.3.4:*

5.3.1 By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise herein or in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract

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Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

5.3.2 Without limitation on the generality of Section 5.3.1, each Subcontract agreement and each Sub-subcontract agreement shall include, and shall be deemed to include, the following Sections of these General Conditions: 3.2, 3.5, 3.18, 5.3, 5.4, 6.2.2, 7.3.3, 7.5, 7.6, 13.1, 13.12, 14.3, 14.4, and 15.1.6.

5.3.3 Each Subcontract Agreement and each Sub-subcontract agreement shall exclude, and shall be deemed to exclude, Sections 13.2.1 and 13.6 and all of Article 15, except Section 15.1.6, of these General Conditions. In the place of these excluded sections of the General Conditions, each Subcontract Agreement and each Sub-subcontract may include Sections 13.2.1 and 13.6 and all of Article 15, except Section 15.1.6, of AIA Document A201-2007, Conditions of the Contract, as originally issued by the American Institute of Architects.

5.3.4 The Contractor shall assure the Owner that all agreements between the Contractor and its Subcontractor incorporate the provisions of Subparagraph 5.3.1 as necessary to preserve and protect the rights of the Owner and the Architect under the Contract Documents with respect to the work to be performed by Subcontractors so that the subcontracting thereof will not prejudice such rights. The Contractor's assurance shall be in the form of an affidavit or in such other form as the Owner may approve. Upon request, the Contractor shall provide the Owner or Architect with copies of any or all subcontracts or purchase orders.

3.46 *Delete the last sentence of Section 5.4.1.*

3.47 *Add the following Sections 5.4.4, 5.4.5 and 5.4.6:*

5.4.4 Each subcontract shall specifically provide that the Owner shall only be responsible to the subcontractor for those obligations of the Contractor that accrue subsequent to the Owner's exercise of any rights under this conditional assignment.

5.4.5 Each subcontract shall specifically provide that the Subcontractor agrees to perform portions of the Work assigned to the Owner in accordance with the Contract Documents.

5.4.6 Nothing in this Section 5.4 shall act to reduce or discharge the Contractor's payment bond surety's obligations to claimants for claims arising prior to the Owner's exercise of any rights under this conditional assignment.

3.48 *Delete the language of Section 6.1.4 and substitute the word "Reserved."*

3.49 *Insert the following at the end of Section 7.1.2:*

If the amount of a Modification exceeds the limits of the Owner's Construction Change Order Certification (reference Section 9.1.7.2 of the Agreement), then the Owner's agreement is not effective, and Work may not proceed, until approved in writing by the Office of State Engineer.

3.50 *Delete Section 7.2.1 and substitute the following:*

7.2.1 A Change Order is a written instrument prepared by the Architect (using State Form SE-480 "Construction Change Order") and signed by the Owner, Contractor and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

3.51 *Add the following Sections 7.2.2, 7.2.3, 7.2.4, and 7.2.5:*

7.2.2 If a Change Order provides for an adjustment to the Contract Sum, the adjustment must be calculated in accordance with Section 7.3.3.

7.2.3 At the Owner's request, the Contractor shall prepare a proposal to perform the work of a proposed Change Order setting forth the amount of the proposed adjustment, if any, in the Contract Sum; and the extent of the proposed adjustment, if any, in the Contract Time. Any proposed adjustment in the Contract sum shall be prepared in accordance with Section 7.2.2. The Owner's request shall include any revisions to the Drawings or Specifications necessary to define any changes in the Work. Within fifteen days of receiving the request, the Contractor shall submit the proposal to the Owner and Architect along with all documentation required by Section 7.6.

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7.2.4 If the Contractor requests a Change Order, the request shall set forth the proposed change in the Work and shall be prepared in accordance with Section 7.2.3. If the Contractor requests a change to the Work that involves a revision to either the Drawings or Specifications, the Contractor shall reimburse the Owner for any expenditure associated with the Architects' review of the proposed revisions, except to the extent the revisions are accepted by execution of a Change Order.

7.2.5 Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, any adjustments to the Contract Sum or the Contract Time.

3.52 *Delete 7.3.3 and substitute the following:*

7.3.3 PRICE ADJUSTMENTS

7.3.3.1 If any Modification, including a Construction Change Directive, provides for an adjustment to the Contract Sum, the adjustment shall be based on whichever of the following methods is the most valid approximation of the actual cost to the contractor, with overhead and profit as allowed by Section 7.5:

- .1 Mutual acceptance of a lump sum;
- .2 Unit prices stated in the Contract Documents, except as provided in Section 7.3.4, or subsequently agreed upon;
- .3 Cost attributable to the events or situations under applicable clauses with adjustment of profits or fee, all as specified in the contract, or subsequently agreed upon by the parties, or by some other method as the parties may agree; or
- .4 As provided in Section 7.3.7.

7.3.3.2 Consistent with Section 7.6, costs must be properly itemized and supported by substantiating data sufficient to permit evaluation before commencement of the pertinent performance or as soon after that as practicable. All costs incurred by the Contractor must be justifiably compared with prevailing industry standards. Except as provided in Section 7.5, all adjustments to the Contract Price shall be limited to job specific costs and shall not include indirect costs, overhead, home office overhead, or profit.

3.53 *Delete Section 7.3.7 and substitute the following:*

7.3.7 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall make an initial determination, consistent with Section 7.3.3, of the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in Section 7.5. In such case, and also under Section 7.3.3.1.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.7 shall be limited to the following:

- .1 Costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .2 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others; and
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work.

3.54 *Delete Section 7.3.8 and substitute the following:*

7.3.8 Using the percentages stated in Section 7.5, any adjustment to the Contract Sum for deleted work shall include any overhead and profit attributable to the cost for the deleted Work.

3.55 *Add the following Sections 7.5 and 7.6:*

7.5 AGREED OVERHEAD AND PROFIT RATES

7.5.1 For any adjustment to the Contract Sum for which overhead and profit may be recovered, other than those made pursuant to Unit Prices stated in the Contract Documents, the Contractor agrees to charge and accept, as full payment for overhead and profit, the following percentages of costs attributable to the change in the Work. The percentages cited below shall be considered to include all indirect costs including, but not limited to: field and office managers, supervisors and assistants, incidental job burdens, small tools, and general overhead allocations. The allowable percentages for overhead and profit are as follows:

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- .1 To the Contractor for work performed by the Contractor's own forces, 17% of the Contractor's actual costs.
- .2 To each Subcontractor for work performed by the Subcontractor's own forces, 17% of the subcontractor's actual costs.
- .3 To the Contractor for work performed by a subcontractor, 10% of the subcontractor's actual costs (not including the subcontractor's overhead and profit).

7.6 PRICING DATA AND AUDIT

7.6.1 Cost or Pricing Data.

Upon request of the Owner or Architect, Contractor shall submit cost or pricing data prior to execution of a Modification which exceeds \$500,000. Contractor shall certify that, to the best of its knowledge and belief, the cost or pricing data submitted is accurate, complete, and current as of a mutually determined specified date prior to the date of pricing the Modification. Contractor's price, including profit, shall be adjusted to exclude any significant sums by which such price was increased because Contractor furnished cost or pricing data that was inaccurate, incomplete, or not current as of the date specified by the parties. Notwithstanding Subparagraph 9.10.4, such adjustments may be made after final payment to the Contractor.

7.6.2 Cost or pricing data means all facts that, as of the date specified by the parties, prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental; and are verifiable. While they do not indicate the accuracy of the prospective contractor's judgment about estimated future costs or projections, they do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all the facts that can be reasonably expected to contribute to the soundness of estimates of future costs and to the validity of determinations of costs already incurred.

7.6.3 Records Retention.

As used in Section 7.6, the term "records" means any books or records that relate to cost or pricing data that Contractor is required to submit pursuant to Section 7.6.1. Contractor shall maintain records for three years from the date of final payment, or longer if requested by the chief procurement officer. The Owner may audit Contractor's records at reasonable times and places.

3.56 Delete Section 8.2.2 and substitute the following:

8.2.2 The Contractor shall not knowingly commence operations on the site or elsewhere prior to the effective date of surety bonds and insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such surety bonds or insurance.

3.57 Delete Section 8.3.1 and substitute the following:

8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner; or by changes ordered in the Work; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the control of the Contractor and any subcontractor at any tier; or by delay authorized by the Owner pending dispute resolution; or by other causes that the Architect determines may justify delay, then to the extent such delay will prevent the Contractor from achieving Substantial Completion within the Contract Time and provided the delay (1) is not caused by the fault or negligence of the Contractor or a subcontractor at any tier and (2) is not due to unusual delay in the delivery of supplies, machinery, equipment, or services when such supplies, machinery, equipment, or services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery, the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

3.58 Insert the following at the end of Section 9.1:

All changes to the Contract Sum shall be adjusted in accordance with Section 7.3.3.

3.59 Delete Section 9.2 and substitute the following:

9.2 SCHEDULE OF VALUES

9.2.1 The Contractor shall submit to the Architect, within ten days of full execution of the Agreement, a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. As requested by the Architect, the Contractor and each Subcontractor shall prepare a trade payment breakdown for the Work for which each is responsible, such breakdown being submitted on a uniform standardized format approved by the Architect and Owner. The breakdown shall be divided in detail, using convenient units, sufficient to accurately determine the value

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of completed Work during the course of the Project. The Contractor shall update the schedule of values as required by either the Architect or Owner as necessary to reflect:

- .1 the description of Work (listing labor and material separately);
- .2 the total value;
- .3 the percent and value of the Work completed to date;
- .4 the percent and value of previous amounts billed; and
- .5 the current percent completed and amount billed.

9.2.2 Any schedule of values or trade breakdown that fails to include sufficient detail, is unbalanced, or exhibits "front-loading" of the value of the Work shall be rejected. If a schedule of values or trade breakdown is used as the basis for payment and later determined to be inaccurate, sufficient funds shall be withheld from future Applications for Payment to ensure an adequate reserve (exclusive of normal retainage) to complete the Work.

3.60 *Delete Section 9.3.1 and substitute the following:*

Monthly, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2., for completed portions of the Work. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require (such as copies of requisitions from Subcontractors and material suppliers) and shall reflect retainage and any other adjustments provided in Section 5 of the Agreement. If required by the Owner or Architect, the Application for Payment shall be accompanied by a current construction schedule.

3.61 *In Section 9.3.2, add the following words to the end of the second sentence:*

provided such materials or equipment will be subsequently incorporated in the Work

Insert the following at the end of Section 9.3.2:

The Contractor shall 1) protect such materials from diversion, vandalism, theft, destruction, and damage, 2) mark such materials specifically for use on the Project, and 3) segregate such materials from other materials at the storage facility. The Architect and the Owner shall have the right to make inspections of the storage areas at any time.

3.62 *In Section 9.4.2, in the first sentence, after the words "Work has progressed to the point indicated," insert the following:*

in both the Application for Payment and, if required to be submitted by the Contractor, the accompanying current construction schedule

In the last sentence, delete the third item starting with "(3) reviewed copies" and ending with "Contractor's right to payment,"

3.63 *In Section 9.5.1, in the first sentence, delete the word "may" after the opening words "The Architect" and substitute the word "shall."*

In Section 9.5.1, insert the following sentence after the first sentence:

The Architect shall withhold a Certificate of Payment if the Application for Payment is not accompanied by the current construction schedule required by Section 3.10.1.

3.64 *In Section 9.6.2, delete the word "The..." at the beginning of the first sentence and substitute the following:*

Pursuant to Chapter 6 of Title 29 of the South Carolina Code of Laws, as amended, the

3.65 *Delete Section 9.7 and substitute following:*

9.7 FAILURE OF PAYMENT

If the Architect does not issue a Certificate for Payment to the Owner, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the time established in the Contract Documents the amount certified by the Architect or awarded by a final dispute resolution order, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased, in accordance with the provisions of Section 7.3.3, by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

3.66 *Insert the following words at the end of the sentence in Section 9.8.1:*

and when all required occupancy permits, if any, have been issued and copies have been delivered to the Owner.

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3.67 *In Section 9.8.2, insert the word “written” after the word “comprehensive” and before the word “list.”*

3.68 *Delete Section 9.8.3 and substitute the following:*

9.8.3.1 Upon receipt of the Contractor’s list, the Architect, with the Owner and any other person the Architect or the Owner choose, will make an inspection on a date and at a time mutually agreeable to the Architect, Owner, and Contractor, to determine whether the Work or designated portion thereof is substantially complete. The Contractor shall furnish access for the inspection and testing as provided in this Contract. The inspection shall include a demonstration by the Contractor that all equipment, systems and operable components of the Work function properly and in accordance with the Contract Documents. 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 or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, 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. If more than one Substantial Completion inspection is required, the Contractor shall reimburse the Owner for all costs of reinspections or, at the Owner’s option, the costs may be deducted from payments due to the Contractor.

9.8.3.2 If the Architect and Owner concur in the Contractor’s assessment that the Work or a portion of the Work is safe to occupy, the Owner and Contractor may arrange for a Certificate of Occupancy Inspection by OSE. The Owner, Architect, and Contractor shall be present at OSE’s inspection. Upon verifying that the Work or a portion of the Work is substantially complete and safe to occupy, OSE will issue, as appropriate, a Full or Partial Certificate of Occupancy.

3.69 *In the second sentence of Section 9.8.5, delete the words “and consent of surety, if any.”*

3.70 *In the first sentence of Section 9.9.1, delete the words “Section 11.3.1.5” and substitute the words “Section 11.3.1.3.”*

3.71 *Delete Section 9.10.1 and substitute the following:*

9.10.1 Unless the parties agree otherwise in the Certificate of Substantial Completion, the Contractor shall achieve Final Completion no later than thirty days after Substantial Completion. Upon receipt of the Contractor’s written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect, with the Owner and any other person the Architect or the Owner choose, will make an inspection on a date and at a time mutually agreeable to the Architect, Owner, and Contractor, and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect’s knowledge, information and belief, and on the basis of the Architect’s on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect’s final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor’s being entitled to final payment have been fulfilled. If more than one Final Completion inspection is required, the Contractor shall reimburse the Owner for all costs of reinspections or, at the Owner’s option, the costs may be deducted from payments due to the Contractor. If the Contractor does not achieve final completion within thirty days after Substantial Completion or the timeframe agreed to by the parties in the Certificate of Substantial Completion, whichever is greater, the Contractor shall be responsible for any additional Architectural fees resulting from the delay.

3.72 *Delete the first sentence of Section 9.10.2 and substitute the following:*

Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner’s property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days’ prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner, (6) required Training Manuals, (7) equipment Operations and Maintenance Manuals, (8) any certificates of testing, inspection or approval required by the Contract Documents and not previously provided (9) all warranties and guarantees required under or pursuant to the Contract Documents, and (10) one copy of the Documents required by Section 3.11.

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- 3.73** Delete the first sentence of Section 9.10.3 and substitute the following:
 If, after Substantial Completion of the Work, final completion thereof is delayed 60 days through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted.
- 3.74** *Delete Section 9.10.5 and substitute the following:*
9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those specific claims in stated amounts that have been previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.
- 3.75** *Add the following Section 9.10.6:*
9.10.6 If OSE has not previously issued a Certificate of Occupancy for the entire Project, the Parties shall arrange for a representative of OSE to participate in the Final Completion Inspection. Representatives of the State Fire Marshal's Office and other authorities having jurisdiction may be present at the Final Completion Inspection or otherwise inspect the completed Work and advise the Owner whether the Work meets their respective requirements for the Project.
- 3.76** *Delete Section 10.3.1 and substitute the following:*
10.3.1 If the Contractor encounters a hazardous material or substance which was not discoverable as provided in Section 3.2.1 and not required by the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons or serious loss to real or personal property resulting from such material or substance encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing. Hazardous materials or substances are those hazardous, toxic, or radioactive materials or substances subject to regulations by applicable governmental authorities having jurisdiction, such as, but not limited to, the S.C. Department of Health and Environmental Control, the U.S. Environmental Protection Agency, and the U.S. Nuclear Regulatory Commission.
- 3.77** *Insert the following at the end of Section 10.3.2:*
 In the absence of agreement, the Architect will make an interim determination regarding any delay or impact on the Contractor's additional costs. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15. Any adjustment in the Contract Sum shall be determined in accordance with Section 7.3.3.
- 3.78** *Delete Section 10.3.3 and substitute the following:*
10.3.3 The Work in the affected area shall be resumed immediately following the occurrence of any one of the following events: (a) the Owner causes remedial work to be performed that results in the absence of hazardous materials or substances; (b) the Owner and the Contractor, by written agreement, decide to resume performance of the Work; or (c) 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 the Contractor, which is prepared by an environmental engineer reasonably satisfactory to both the Owner and the Contractor.
- 3.79** *In Section 10.3.5, delete the word "The" at the beginning of the sentence and substitute the following:*
 In addition to its obligations under Section 3.18, the
- 3.80** *Delete the language of Section 10.3.6 and substitute the word "Reserved."*
- 3.81** *Insert the following at the end of Section 10.4:*
 The Contractor shall immediately give the Architect notice of the emergency. This initial notice may be oral followed within five days by a written notice setting forth the nature and scope of the emergency. Within fourteen days of the start of the emergency, the Contractor shall give the Architect a written estimate of the cost and probable effect of delay on the progress of the Work.
- 3.82** *Delete 11.1.2 and substitute the following:*
11.1.2 The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified below or required by law, whichever coverage is greater. Coverages shall be written on an occurrence basis and shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents.

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STANDARD SUPPLEMENTARY CONDITIONS

- (1) COMMERCIAL GENERAL LIABILITY:
- | | |
|--|-------------|
| (a) General Aggregate (per project) | \$1,000,000 |
| (b) Products/Completed Operations | \$1,000,000 |
| (c) Personal and Advertising Injury | \$1,000,000 |
| (d) Each Occurrence | \$1,000,000 |
| (e) Fire Damage (Any one fire) | \$50,000 |
| (f) Medical Expense (Any one person) | \$5,000 |
- (2) BUSINESS AUTO LIABILITY (including All Owned, Non-owned, and Hired Vehicles):
- | | |
|---------------------------------|-------------|
| (a) Combined Single Limit | \$1,000,000 |
|---------------------------------|-------------|
- (3) WORKER'S COMPENSATION:
- | | |
|-------------------------------|----------------------------------|
| (a) State Statutory | |
| (b) Employers Liability | \$100,000 Per Acc. |
| | \$500,000 Disease, Policy Limit |
| | \$100,000 Disease, Each Employee |

In lieu of separate insurance policies for Commercial General Liability, Business Auto Liability, and Employers Liability, the Contractor may provide an umbrella policy meeting or exceeding all coverage requirements set forth in this Section 11.1.2. The umbrella policy limits shall not be less than \$3,000,000.

3.83 *Delete Section 11.1.3 and substitute the following:*

11.1.3 Prior to commencement of the Work, and thereafter upon replacement of each required policy of insurance, Contractor shall provide to the Owner a written endorsement to the Contractor's general liability insurance policy that:

- (i) names the Owner as an additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations;
- (ii) provides that no material alteration, cancellation, non-renewal, or expiration of the coverage contained in such policy shall have effect unless all additional insureds have been given at least ten (10) days prior written notice of cancellation for non-payment of premiums and thirty (30) days prior written notice of cancellation for any other reason; and
- (iii) provides that the Contractor's liability insurance policy shall be primary, with any liability insurance of the Owner as secondary and noncontributory.

Prior to commencement of the Work, and thereafter upon renewal or replacement of each required policy of insurance, Contractor shall provide to the Owner a signed, original certificate of liability insurance (ACORD 25). Consistent with this Section 11.1, the certificate shall identify the types of insurance, state the limits of liability for each type of coverage, name the Owner a Consultants as Certificate Holder, provide that the general aggregate limit applies per project, and provide that coverage is written on an occurrence basis. Both the certificates and the endorsements must be received directly from either the Contractor's insurance agent or the insurance company. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, naming the Owner as an additional insured for claims made under the Contractor's completed operations, and otherwise meeting the above requirements, shall be submitted with the final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until the expiration of the time required by Section 11.1.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

3.84 *Delete Section 11.1.4 and substitute the following:*

11.1.4 A failure by the Owner either (i) to demand a certificate of insurance or written endorsement required by Section 11.1, or (ii) to reject a certificate or endorsement on the grounds that it fails to comply with Section 11.1 shall not be considered a waiver of Contractor's obligations to obtain the required insurance.

3.85 *In Section 11.3.1, delete the first sentence and substitute the following:*

Unless otherwise provided in the Contract Documents, the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis.

3.86 *Delete the language of Section 11.3.1.2 and substitute the word "Reserved."*

3.87 *Delete the language of Section 11.3.1.3 and substitute the word "Reserved."*

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3.88 *Delete Section 11.3.2 and substitute the following:*

11.3.2 BOILER AND MACHINERY INSURANCE

The Contractor shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall both be named insureds.

3.89 *Delete Section 11.3.3 and substitute the following:*

11.3.3 LOSS OF USE INSURANCE

The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. To the extent any losses are covered and paid for by such insurance, the Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

3.90 *Delete Section 11.3.4 and substitute the following:*

11.3.4 If the Owner requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Contractor shall, if possible, include such insurance, and the cost thereof shall be charged to the Owner by appropriate Change Order.

3.91 *Delete the language of Section 11.3.5 and substitute the word "Reserved."*

3.92 *Delete Section 11.3.6 and substitute the following:*

11.3.6 Before an exposure to loss may occur, the Contractor shall file with the Owner a copy of each policy that includes insurance coverages required by this Section 11.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Owner.

3.93 *Delete the first sentence of Section 11.3.7 and substitute the following:*

The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent the property insurance provided by the Contractor pursuant to this Section 11.3 covers and pays for the damage, except such rights as they have to proceeds of such insurance held by the Contractor as fiduciary.

3.94 *Delete the first sentence of Section 11.3.8 and substitute the following:*

A loss insured under the Contractor's property insurance shall be adjusted by the Contractor as fiduciary and made payable to the Contractor as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.3.10.

3.95 *Delete Section 11.3.9 and substitute the following:*

11.3.9 If required in writing by a party in interest, the Contractor as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Contractor's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Contractor shall deposit in a separate account proceeds so received, which the Contractor shall distribute in accordance with such agreement as the parties in interest may reach. If after such loss no other special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor.

3.96 *Delete Section 11.3.10 and substitute the following:*

11.3.10 The Contractor as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Contractor's exercise of this power; if such objection is made, the dispute shall be resolved in the manner provided in the contract between the parties in dispute as the method of binding dispute resolution. The Contractor as fiduciary shall make settlement with insurers or, in the case of a dispute over distribution of insurance proceeds, in accordance with a final order or determination issued by the appropriate authority having jurisdiction over the dispute.

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3.97 *Delete Section 11.4.1 and substitute the following:*

11.4.1 Before commencing any services hereunder, the Contractor shall provide the Owner with Performance and Payment Bonds, each in an amount not less than the Contract Price set forth in Article 4 of the Agreement. The Surety shall have, at a minimum, a "Best Rating" of "A" as stated in the most current publication of "Best's Key Rating Guide, Property-Casualty". In addition, the Surety shall have a minimum "Best Financial Strength Category" of "Class V", and in no case less than five (5) times the contract amount. The Performance Bond shall be written on Form SE-355, "Performance Bond" and the Payment Bond shall be written on Form SE-357, "Labor and Material Payment Bond", and both shall be made payable to the Owner.

3.98 *Delete Section 11.4.2 and substitute the following:*

11.4.2 The Performance and Labor and Material Payment Bonds shall:

- .1 be issued by a surety company licensed to do business in South Carolina;
- .2 be accompanied by a current power of attorney and certified by the attorney-in-fact who executes the bond on the behalf of the surety company; and
- .3 remain in effect for a period not less than one (1) year following the date of Substantial Completion or the time required to resolve any items of incomplete Work and the payment of any disputed amounts, whichever time period is longer.

3.99 *Add the following Sections 11.4.3 and 11.4.4:*

11.4.3 Any bonds required by this Contract shall meet the requirements of the South Carolina Code of Laws and Regulations, as amended.

11.4.4 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

3.100 *Delete Section 12.1.1 and substitute the following:*

12.1.1 If a portion of the Work is covered contrary to the requirements specifically expressed in the Contract Documents, including inspections of work-in-progress required by all authorities having jurisdiction over the Project, it must, upon demand of the Architect or authority having jurisdiction, be uncovered for observation and be replaced at the Contractor's expense without change in the Contract Time.

3.101 *In Section 12.2.2.1, delete the words "and to make a claim for breach of warranty" at the end of the third sentence.*

3.102 *In Section 12.2.2.3, add the following to the end of the sentence:*

unless otherwise provided in the Contract Documents.

3.103 *Insert the following at the end of Section 12.2.4:*

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.

3.104 *Delete Section 13.1 and substitute the following:*

13.1 GOVERNING LAW

The Contract, any dispute, claim, or controversy relating to the Contract, and all the rights and obligations of the parties shall, in all respects, be interpreted, construed, enforced and governed by and under the laws of the State of South Carolina, except its choice of law rules.

3.105 *Delete Section 13.2, including its Sub-Sections 13.2.1 and 13.2.2, and substitute the following:*

13.2 SUCCESSORS AND ASSIGNS

The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole, or in part, without written consent of the other and then only in accordance with and as permitted by Regulation 19-445.2180 of the South Carolina Code of Regulations, as amended. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

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3.106 *Delete Section 13.3 and substitute the following:*

13.3 WRITTEN NOTICE

Unless otherwise permitted herein, all notices contemplated by the Contract Documents shall be in writing and shall be deemed given:

- .1 upon actual delivery, if delivery is by hand;
- .2 upon receipt by the transmitting party of confirmation or reply, if delivery is by electronic mail, facsimile, telex or telegram;
- .3 upon receipt, if delivery is by the United States mail.

Notice to Contractor shall be to the address provided in Section 8.3.2 of the Agreement. Notice to Owner shall be to the address provided in Section 8.2.2 of the Agreement. Either party may designate a different address for notice by giving notice in accordance with this paragraph.

3.107 *In Section 13.4.1, insert the following at the beginning of the sentence:*

Unless expressly provided otherwise,

3.108 *Add the following Section 13.4.3:*

13.4.3 Notwithstanding Section 9.10.4, the rights and obligations which, by their nature, would continue beyond the termination, cancellation, rejection, or expiration of this contract shall survive such termination, cancellation, rejection, or expiration, including, but not limited to, the rights and obligations created by the following clauses:

- 1.5 Ownership and Use of Drawings, Specifications and Other Instruments of Service;
- 3.5 Warranty
- 3.17 Royalties, Patents and Copyrights
- 3.18 Indemnification
- 7.6 Cost or Pricing Data
- 11.1 Contractor's Liability Insurance
- 11.4 Performance and Payment Bond
- 15.1.6 Claims for Listed Damages
- 15.1.7 Waiver of Claims Against the Architect
- 15.6 Dispute Resolution
- 15.6.5 Service of Process

3.109 *Delete Section 13.6 and substitute the following:*

13.6 INTEREST

Payments due to the Contractor and unpaid under the Contract Documents shall bear interest only if and to the extent allowed by Title 29, Chapter 6, Article 1 of the South Carolina Code of Laws. Amounts due to the Owner shall bear interest at the rate of one percent a month or a pro rata fraction thereof on the unpaid balance as may be due.

3.110 *Delete the language of Section 13.7 and substitute the word "Reserved."*

3.111 *Add the following Sections 13.8 through 13.16:*

13.8 PROCUREMENT OF MATERIALS BY OWNER

The Contractor accepts assignment of all purchase orders and other agreements for procurement of materials and equipment by the Owner that are identified as part of the Contract Documents. The Contractor shall, upon delivery, be responsible for the storage, protection, proper installation, and preservation of such Owner purchased items, if any, as if the Contractor were the original purchaser. The Contract Sum includes, without limitation, all costs and expenses in connection with delivery, storage, insurance, installation, and testing of items covered in any assigned purchase orders or agreements. Unless the Contract Documents specifically provide otherwise, all Contractor warranty of workmanship and correction of the Work obligations under the Contract Documents shall apply to the Contractor's installation of and modifications to any Owner purchased items,.

13.9 INTERPRETATION OF BUILDING CODES

As required by Title 10, Chapter 1, Section 180 of the South Carolina Code of Laws, as amended, OSE shall determine the enforcement and interpretation of all building codes and referenced standards on state buildings. The Contractor shall refer any questions, comments, or directives from local officials to the Owner and OSE for resolution.

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13.10 MINORITY BUSINESS ENTERPRISES

Contractor shall notify Owner of each Minority Business Enterprise (MBE) providing labor, materials, equipment, or supplies to the Project under a contract with the Contractor. Contractor's notification shall be via the first monthly status report submitted to the Owner after execution of the contract with the MBE. For each such MBE, the Contractor shall provide the MBE's name, address, and telephone number, the nature of the work to be performed or materials or equipment to be supplied by the MBE, whether the MBE is certified by the South Carolina Office of Small and Minority Business Assistance, and the value of the contract.

13.11 SEVERABILITY

If any provision or any part of a provision of the Contract Documents shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

13.12 ILLEGAL IMMIGRATION

Contractor certifies and agrees that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)

13.13 SETOFF

The Owner shall have all of its common law, equitable, and statutory rights of set-off.

13.14 DRUG-FREE WORKPLACE

The Contractor certifies to the Owner that Contractor will provide a Drug-Free Workplace, as required by Title 44, Chapter 107 of the South Carolina Code of Laws, as amended.

13.15 FALSE CLAIMS

According to the S.C. Code of Laws § 16-13-240, "a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money, valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty" of a crime.

13.16 NON-INDEMNIFICATION:

Any term or condition is void to the extent it requires the State to indemnify anyone. It is unlawful for a person charged with disbursements of state funds appropriated by the General Assembly to exceed the amounts and purposes stated in the appropriations. (§ 11-9-20) It is unlawful for an authorized public officer to enter into a contract for a purpose in which the sum is in excess of the amount appropriated for that purpose. It is unlawful for an authorized public officer to divert or appropriate the funds arising from any tax levied and collected for any one fiscal year to the payment of an indebtedness contracted or incurred for a previous year. (§ 11-1-40)

3.112 Delete Section 14.1.1 and substitute the following:

14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 45 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires substantially all Work to be stopped; or
- .2 An act of government, such as a declaration of national emergency that requires substantially all Work to be stopped.
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents and the Contractor has stopped work in accordance with Section 9.7

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3.113 *Insert the following at the end of Section 14.1.3:*

Any adjustment to the Contract Sum pursuant to this Section shall be made in accordance with the requirements of Article 7.

3.114 *In Section 14.1.4, replace the word "repeatedly" with the word "persistently."*

3.115 *Delete Section 14.2.1 and substitute the following:*

14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials, or otherwise fails to prosecute the Work, or any separable part of the Work, with the diligence, resources and skill that will ensure its completion within the time specified in the Contract Documents, including any authorized adjustments;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the Contract Documents and the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

3.116 *In Section 14.2.2, delete the parenthetical statement " , upon certification by the Initial Decision Maker that sufficient cause exists to justify such action," immediately following the word "Owner" in the first line.*

3.117 *In Section 14.2.4, replace the words "Initial Decision Maker" with the word "Architect"*

3.118 *Add the following Section 14.2.5:*

14.2.5 If, after termination for cause, it is determined that the Owner lacked justification to terminate under Section 14.2.1, or that the Contractor's default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Owner under Section 14.4.

3.119 *Delete the second sentence of Section 14.3.2 and substitute the following:*

Any adjustment to the Contract Sum made pursuant to this section shall be made in accordance with the requirements of Article 7.3.3.

3.120 *Delete Section 14.4.1 and substitute the following:*

14.4.1 The Owner may, at any time, terminate the Contract, in whole or in part for the Owner's convenience and without cause. The Owner shall give written notice of the termination to the Contractor specifying the part of the Contract terminated and when termination becomes effective.

3.121 *Delete Section 14.4.2 and substitute the following:*

14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work;
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders; and
- .4 complete the performance of the Work not terminated, if any.

3.122 *Delete Section 14.4.3 and substitute the following:*

14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, costs incurred by reason of such termination, and any other adjustments otherwise allowed by the Contract. Any adjustment to the Contract Sum made pursuant to this Section 14.4 shall be made in accordance with the requirements of Article 7.3.3.

3.123 *Add the following Sections 14.4.4, 14.4.5, and 14.5:*

14.4.4 Contractor's failure to include an appropriate termination for convenience clause in any subcontract shall not (i) affect the Owner's right to require the termination of a subcontract, or (ii) increase the obligation of the Owner beyond what it would have been if the subcontract had contained an appropriate clause.

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14.4.5 Upon written consent of the Contractor, the Owner may reinstate the terminated portion of this Contract in whole or in part by amending the notice of termination if it has been determined that:

- .1 the termination was due to withdrawal of funding by the General Assembly, Governor, or Budget and Control Board or the need to divert project funds to respond to an emergency as defined by Regulation 19-445.2110(B) of the South Carolina Code of Regulations, as amended;
- .2 funding for the reinstated portion of the work has been restored;
- .3 circumstances clearly indicate a requirement for the terminated work; and
- .4 reinstatement of the terminated work is advantageous to the Owner.

14.5 CANCELLATION AFTER AWARD BUT PRIOR TO PERFORMANCE

Pursuant to Title 11, Chapter 35 and Regulation 19-445.2085 of the South Carolina Code of Laws and Regulations, as amended, this contract may be canceled after award but prior to performance.

3.124 *Insert the following sentence after the second sentence of Section 15.1.1:*

A voucher, invoice, payment application or other routine request for payment that is not in dispute when submitted is not a Claim under this definition.

3.125 *Delete Section 15.1.2 and substitute the following:*

15.1.2 NOTICE OF CLAIMS

Claims by either the Owner or Contractor must be initiated by written notice to the other party and to the Architect. Such notice shall include sufficient information to advise the Architect and other party of the circumstances giving rise to the claim, the specific contractual adjustment or relief requested and the basis of such request. Claims by either party arising prior to the date final payment is due must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later except as stated for adverse weather days in Section 15.1.5.2. By failing to give written notice of a Claim within the time required by this Section, a party expressly waives its claim.

3.126 *Delete Section 15.1.3 and substitute the following:*

15.1.3 CONTINUING CONTRACT PERFORMANCE

Pending final resolution of a Claim, including any administrative review allowed under Section 15.6, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents. The Architect will issue Certificates for Payment in accordance with the initial decisions and determinations of the Architect.

3.127 *Insert the following at the end of Section 15.1.5.1:*

Claims for an increase in the Contract Time shall be based on one additional calendar day for each full calendar day that the Contractor is prevented from working.

3.128 *Insert the following Sub-Sections at the end of Section 15.1.5.2:*

- .1 Claims for adverse weather shall be based on actual weather conditions at the job site or other place of performance of the Work, as documented in the Contractor's job site log.
- .2 For the purpose of this Contract, a total of five (5) days per calendar month (non-cumulative) shall be anticipated as "adverse weather" at the job site, and such time will not be considered justification for an extension of time. If, in any month, adverse weather develops beyond the five (5) days, the Contractor shall be allowed to claim additional days to compensate for the excess weather delays only to the extent of the impact on the approved construction schedule and days the contractor was already scheduled to work. The remedy for this condition is for an extension of time only and is exclusive of all other rights and remedies available under the Contract Documents or imposed or available by law.
- .3 The Contractor shall submit monthly with their pay application all claims for adverse weather conditions that occurred during the previous month. The Architect shall review each monthly submittal in accordance with Section 15.5 and inform the Contractor and the Owner promptly of its evaluation. Approved days shall be included in the next Change Order issued by the Architect. Adverse weather conditions not claimed within the time limits of this Subparagraph shall be considered to be waived by the Contractor. Claims will not be allowed for adverse weather days that occur after the scheduled (original or adjusted) date of Substantial Completion.

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3.129 *Delete Section 15.1.6 and substitute the following:*

15.1.6 CLAIMS FOR LISTED DAMAGES

Notwithstanding any other provision of the Contract Documents, including Section 1.2.1, but subject to a duty of good faith and fair dealing, the Contractor and Owner waive Claims against each other for listed damages arising out of or relating to this Contract.

15.1.6.1 For the Owner, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) costs suffered by a third party unable to commence work, (vi) attorney's fees, (vii) any interest, except to the extent allowed by Section 13.6 (Interest), (viii) lost revenue and profit for lost use of the property, (ix) costs resulting from lost productivity or efficiency.

15.1.6.2 For the Contractor, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) attorney's fees, (vi) any interest, except to the extent allowed by Section 13.6 (Interest); (vii) unamortized equipment costs; and, (viii) losses incurred by subcontractors for the types of damages the Contractor has waive as against the Owner. Without limitation, this mutual waiver is applicable to all damages due to either party's termination in accordance with Article 14.

15.1.6.3 Nothing contained in this Section shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. This mutual waiver is not applicable to amounts due or obligations under Section 3.18 (Indemnification).

3.130 *Add the following Section 15.1.7:*

15.1.7 WAIVER OF CLAIMS AGAINST THE ARCHITECT

Notwithstanding any other provision of the Contract Documents, including Section 1.2.1, but subject to a duty of good faith and fair dealing, the Contractor waives all claims against the Architect and any other design professionals who provide design and/or project management services to the Owner, either directly or as independent contractors or subcontractors to the Architect, for listed damages arising out of or relating to this Contract. The listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) attorney's fees, (vi) any interest; (vii) unamortized equipment costs; and, (viii) losses incurred by subcontractors for the types of damages the Contractor has waive as against the Owner. This mutual waiver is not applicable to amounts due or obligations under Section 3.18 (Indemnification).

3.131 *Delete the language of Sections 15.2, 15.3, and 15.4, including all Sub-Sections, and substitute the word "Reserved" for the deleted language of each Section and Sub-Section.*

3.132 *Add the following Sections 15.5 and 15.6 with their sub-sections:*

15.5 CLAIM AND DISPUTES - DUTY OF COOPERATION, NOTICE, AND ARCHITECTS INITIAL DECISION

15.5.1 Contractor and Owner are fully committed to working with each other throughout the Project to avoid or minimize claims. To further this goal, Contractor and Owner agree to communicate regularly with each other and the Architect at all times notifying one another as soon as reasonably possible of any issue that if not addressed may cause loss, delay, and/or disruption of the Work. If claims do arise, Contractor and Owner each commit to resolving such claims in an amicable, professional, and expeditious manner to avoid unnecessary losses, delays, and disruptions to the Work.

15.5.2 Claims shall first be referred to the Architect for initial decision. An initial decision shall be required as a condition precedent to resolution pursuant to Section 15.6 of any Claim arising prior to the date of final payment, unless 30 days have passed after the Claim has been referred to the Architect with no decision having been rendered, or after all the Architect's requests for additional supporting data have been answered, whichever is later. The Architect will not address claims between the Contractor and persons or entities other than the Owner.

15.5.3 The Architect will review Claims and within ten days of the receipt of a Claim (1) request additional supporting data from the claimant or a response with supporting data from the other party or (2) render an initial decision in accordance with Section 15.5.5.

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- 15.5.4** If the Architect requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Architect when the response or supporting data will be furnished or (3) advise the Architect that all supporting data has already been provided. Upon receipt of the response or supporting data, the Architect will render an initial decision in accordance with Section 15.5.5.
- 15.5.5** The Architect will render an initial decision in writing; (1) stating the reasons therefor; and (2) notifying the parties of any change in the Contract Sum or Contract Time or both. The Architect will deliver the initial decision to the parties within two weeks of receipt of any response or supporting data requested pursuant to Section 16.4 or within such longer period as may be mutually agreeable to the parties. If the parties accept the initial decision, the Architect shall prepare a Change Order with appropriate supporting documentation for the review and approval of the parties and the Office of State Engineer. If either the Contractor, Owner, or both, disagree with the initial decision, the Contractor and Owner shall proceed with dispute resolution in accordance with the provisions of Section 15.6.
- 15.5.6** In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

15.6 DISPUTE RESOLUTION

- 15.6.1** If a claim is not resolved pursuant to Section 15.5 to the satisfaction of either party, both parties shall attempt to resolve the dispute at the field level through discussions between Contractor's Representative and Owner's Representative. If a dispute cannot be resolved through Contractor's Representative and Owner's Representative, then the Contractor's Senior Representative and the Owner's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than twenty-one days after such a request is made, to attempt to resolve such dispute. Prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving their dispute. The meetings required by this Section are a condition precedent to resolution pursuant to Section 15.6.2.
- 15.6.2** If after meeting in accordance with the provisions of Section 15.6.1, the Senior Representatives determine that the dispute cannot be resolved on terms satisfactory to both the Contractor and the Owner, then either party may submit the dispute by written request to South Carolina's Chief Procurement Officer for Construction (CPOC). Except as otherwise provided in Article 15, all claims, claims, or controversies relating to the Contract shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or in the absence of jurisdiction a federal court located in, Richland County, State of South Carolina. Contractor agrees that any act by the State regarding the Contract is not a waiver of either the State's sovereign immunity or the State's immunity under the Eleventh Amendment of the United State's Constitution.
- 15.6.3** If any party seeks resolution to a dispute pursuant to Section 15.6.2, the parties shall participate in non-binding mediation to resolve the claim. If the claim is governed by Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws as amended and the amount in controversy is \$100,000.00 or less, the CPOC shall appoint a mediator, otherwise, the mediation shall be conducted by an impartial mediator selected by mutual agreement of the parties, or if the parties cannot so agree, a mediator designated by the American Arbitration Association ("AAA") pursuant to its Construction Industry Mediation Rules. The mediation will be governed by and conducted pursuant to a mediation agreement negotiated by the parties or, if the parties cannot so agree, by procedures established by the mediator.
- 15.6.4** Without relieving any party from the other requirements of Sections 15.5 and 15.6, either party may initiate proceedings in the appropriate forum prior to initiating or completing the procedures required by Sections 15.5 and 15.6 if such action is necessary to preserve a claim by avoiding the application of any applicable statutory period of limitation or repose.

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15.6.5 SERVICE OF PROCESS

Contractor consents that any papers, notices, or process necessary or proper for the initiation or continuation of any claims, claims, or controversies relating to the Contract; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on Contractor by certified mail (return receipt requested) addressed to Contractor at the address provided for the Contractor's Senior Representative or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed duly given upon deposit in the United States mail.

3.133 Add the following Article 16:

ARTICLE 16 PROJECT-SPECIFIC REQUIREMENTS AND INFORMATION

16.1. Inspection Requirements: *(Indicate the inspection services required by the Contract)*

- Special Inspections are required and are not part of the Contract Sum. *(see section 01400)*
- Building Inspections are required and are not part of the Contract Sum. *(see section 01400)*

The inspections required for this Work are:

(Indicate which services are required and the provider)

- Civil: _____
- Structural: _____
- Mechanical: _____
- Plumbing: _____
- Electrical: _____
- Gas: _____
- Other *(list)*: _____

Remarks: _____

16.1.1 Contractor shall schedule and request inspections in an orderly and efficient manner and shall notify the Owner whenever the Contractor schedules an inspection in accordance with the requirements of Section 16.1. Contractor shall be responsible for the cost of inspections scheduled and conducted without the Owner's knowledge and for any increase in the cost of inspections resulting from the inefficient scheduling of inspections.

16.2 List Cash Allowances, if any. *(Refer to attachments as needed. If none, enter NONE)*

none

16.3. Requirements for Record Drawings, if any. *(Refer to attachments as needed. If none, enter NONE)*

none

16.4. Requirements for Shop Drawings and other submittals, if any, including number, procedure for submission, list of materials to be submitted, etc. *(Refer to attachments as needed. If none, enter NONE)*

as specified in each specification section

16.5. Requirements for signage, on-site office or trailer, utilities, restrooms, etc., in addition to the Contract, if any. *(Refer to attachments as needed. If none, enter NONE)*

none

16.6. Requirements for Project Cleanup in addition to the Contract, if any. *(Refer to attachments as needed. If none, enter NONE)*

none

16.7. List all attachments that modify these General Conditions. *(If none, enter NONE)*

00811 - OSE - Special Notes on Continuation Sheet 1 of 1
 See attached USC Supplementary General Conditions for Construction Projects - Pages 1-3

USC SUPPLEMENTARY CONDITIONS
819 Barnwell Exterior Painting and Repairs
STANDARD SUPPLEMENTARY CONDITIONS - SPECIAL NOTES
Continuation Sheet
Page 1 of 1

Special Note 1: Schedule of the work. All submittal work and delivery of material to stored material location to be complete during month prior to start of work on the building.

Special Note 2: Allotted time of total project

90 Calendar Days.

Special Note 3: Liquidated Damages

Step One - Liquidated Damages will be assessed for \$100.00 per day for each calendar day required to achieve Substantial Completion after 90 calendar days.

USC SUPPLEMENTAL GENERAL CONDITIONS
FOR CONSTRUCTION PROJECTS

1. Contractor's employees shall take all reasonable means not to interrupt the flow of student traffic in building corridors, lobbies and stairs. All necessary and reasonable safety precautions shall be taken to prevent injury to building occupants while transporting materials and equipment through the building to the work area. Providing safe, accessible, plywood pedestrian ways around construction may be required if a suitable alternative route is not available.
2. Fraternalization between Contractor's employees and USC students, faculty or staff is strictly prohibited-zero tolerance!
3. USC will not tolerate rude, abusive or degrading behavior on the job site. Heckling and cat-calling directed toward students, faculty or staff or any other person on USC property is strictly prohibited. Any contractor whose employees violate this requirement will be assessed a fine of up to \$500 per violation.
4. Contractor's employees must adhere to the University's policy of maintaining a drug-free and smoke-free/tobacco free workplace.
5. Contractor must sign a Contractor Key Receipt/Return form before any keys are issued. Keys must be returned immediately upon the completion of the work. The Contractor will bear the cost of any re-keying necessary due to the loss of or failure to return keys.
6. A welding permit must be issued by the University Fire Marshall before any welding can begin inside a building. Project Manager will coordinate.
7. Contractor must notify the University immediately upon the discovery of suspect material such as those potentially containing asbestos or other such hazardous materials. These materials **must not** be disturbed until approved by the USC Project Manager.
8. At the beginning of the project, the USC Project Manager will establish the Contractor's lay-down area. This area will also be used for the Contractor's work vehicles. No personal vehicles will be allowed in this area, or in any areas surrounding the construction site that are not regular or authorized parking lots. Personal vehicles must be parked in the perimeter parking lots. Parking permits can be obtained at the USC Parking Office located in the Pendleton Street parking garage. The lay down area will be clearly identified to the contractor by the PM, with a sketch or drawing provided to Parking. In turn, the contractor will mark off this area with a sign containing the project name, PM name, Contractor name and contact number, and end date. Where this area is subject to foot traffic, protective barriers will be provided as specified by the PM. The area will be maintained in a neat and orderly fashion. Vehicles parked in the lay down area (or designated parking areas) will be clearly marked or display a CPC furnished placard for identification.

9. Contractor will be responsible for providing its own temporary toilet facilities, unless prior arrangements are made with the USC Project Manager.
10. Use of USC communications facilities (telephones, computers, etc.) by the Contractor is prohibited, unless prior arrangements are made with the USC Project Manager.
11. For all projects over \$100,000, including IDC's, an SE-395, Contractor Performance Evaluation, will be completed by the USC Project Manager and reviewed with the GC at the beginning of the project and a copy given to the GC. At the end of the project the form will be completed and a Construction Performance rating will be established.
12. Contractor is responsible for removal of all debris from the site, and is required to provide the necessary dumpsters which will be emptied at least one times per week. Construction waste must not be placed in University dumpsters. THE CONSTRUCTION SITE MUST BE THOROUGHLY CLEANED WITH ALL TRASH PICKED UP AND PROPERLY DISPOSED OF ON A DAILY BASIS AND THE SITE MUST BE LEFT IN A SAFE AND SANITARY CONDITION EACH DAY. THE UNIVERSITY WILL INSPECT JOB SITES REGULARLY AND WILL FINE ANY CONTRACTOR FOUND TO BE IN VIOLATION OF THIS REQUIREMENT AN AMOUNT OF UP TO \$1,000 PER VIOLATION.
13. **Contractor must provide all O&M manuals, as-built drawings, and training of USC personnel on new equipment, controls, etc. prior to Substantial Completion. Final payment will not be made until this is completed.**
14. The contractor will comply with all regulations set forth by OSHA and SCDHEC. Contractor must also adhere to USC's internal policies and procedures (available by request). As requested, the contractor will submit all Safety Programs and Certificates of Insurance to the University for review.
15. Tree protection fencing is required to protect existing trees and other landscape features to be preserved within a construction area. The limits of this fence will be evaluated for each situation with the consultant, USC Arborist and USC Project Manager. The tree protection fence shall be 5' high chain link fence unless otherwise approved by USC Project Manager. No entry or materials storage will be allowed inside the tree protection zone. A 4" layer of mulch shall be placed over the tree protection area to maintain moisture in the root zone.
16. Where it is necessary to cross walks, tree root zones (i.e., under canopy) or lawns the following measures shall be taken: For single loads up to 9,000 lbs., a 3/4" minimum plywood base shall be placed over areas impacted. For single loads over 9,000 lbs., two layers of 3/4" plywood is required.
17. For projects requiring heavy loads to cross walks tree root zones or lawns. A construction entry road consisting of 10' X 16' oak logging mates on 12" coarse, chipped, hardwood base. Mulch and logging mats shall be supplemented throughout the project to keep

matting structurally functional.

18. Any damage to existing landscaping (including lawn areas) will be remediated before final payment is made.
19. Orange safety fence to be provided by the contractor. (USC Arborist, Kevin Curtis may be contacted at 777-0033 or 315-0319)

Campus Vehicle Expectations

1. All motorized vehicles on the University campus are expected to travel and park on roadways and/or in parking stalls.
2. All motorized vehicle traffic on USC walkways must first receive the Landscape Manager's authorization. Violators may be subject to fines and penalties.
3. All motorized vehicles that leak or drip liquids are prohibited from traveling or parking on walks or landscaped areas.
4. Contractors, vendors, and delivery personnel are required to obtain prior parking authorization before parking in a designated space. Violators may be subject to fines and/or penalties. See Item 10 below.
5. Drivers of equipment or motor vehicles that damage university hardscape or landscape will be held personally responsible for damages and restoration expense.
6. Vehicle drivers who park on landscape or drives must be able to produce written evidence of need or emergency requiring parking on same.
7. All vehicles parked on landscape, hardscape, or in the process of service delivery, must display adequate safety devices, i.e. flashing lights, cones, signage, etc.
8. All drivers of equipment and vehicles will be respectful of University landscape, equipment, structures, fixtures and signage.
9. All incidents of property damage will be reported to Parking Services or the Work Management Center.
10. Parking on campus is restricted to spaces designated by Parking Services at the beginning of the project. Once the project manager and contractor agree on how many spaces are needed, the project manager will obtain a placard for each vehicle. This placard must be hung from the mirror of the vehicle, otherwise a ticket will be issued and these tickets cannot be "fixed". Parking spaces are restricted to work vehicles only; no personal vehicles.

SE – 350 Questionnaire for Contractors

Pursuant to Section 11-35-1810 of the SC Code of Laws, as amended

Bidder Notification

This document is included as reference only. The college may elect as an option, with this project, to have the contractor that is the lowest responsive bidder complete and submit this form and its related documents in order to evaluate the contents as part of the determination phase of responsible bidder prior to issuing the notice of intent to award. An original copy of this document is available for complete content review by the bidder at the following location:

**University of South Carolina
Planning & Construction
743 Greene Street
Columbia, SC 29208**

During the following hours:

Monday thru Thursday - 8:00 AM to 4:00 PM

Friday – 8:00 AM to noon

Phone – (864) 250-8174

SE-355
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that *(Insert full name or legal title and address of Contractor)*

Name: _____

Address: _____

hereinafter referred to as "Contractor", and *(Insert full name and address of principal place of business of Surety)*

Name: _____

Address: _____

hereinafter called the "surety", are jointly and severally held and firmly bound unto *(Insert full name and address of Agency)*

Name: UNIVERSITY OF SOUTH CAROLINA

Address: 743 Greene Street
Columbia, SC 29208

hereinafter referred to as "Agency", or its successors or assigns, the sum of _____ (\$ _____), being the sum of the Bond to which payment to be well and truly made, the 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 Agency to construct

State Project Name: 819 Barnwell Exterior Painting and Repai

State Project Number: H27-D182

Brief Description of Awarded Work, as found on the SE-330 or SE-332, Bid Form: Exterior painting and repairs. Work includes lead-based paint removal, minor wood repair, exterior trim, metal handrail, and painting

in accordance with Drawings and Specifications prepared by *(Insert full name and address of A-E)*

Name: Watson Tate Savory

Address: 1316 Washington Street
Columbia, SC 29201

which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms stated herein, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this _____ **day of** _____, **2** _____
(shall be no earlier than Date of Contract)

BOND NUMBER _____

CONTRACTOR

By: _____
(Seal)

Print Name: _____

Print Title: _____

Witness: _____

SURETY

By: _____
(Seal)

Print Name: _____

Print Title: _____
(Attach Power of Attorney)

Witness: _____

(Additional Signatures, if any, appear on attached page)

SE-355

PERFORMANCE BOND**NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency for the full and faithful performance of the contract, which is incorporated herein by reference.
2. If the Contractor performs the contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.
3. The Surety's obligation under this Bond shall arise after:
 - 3.1 The Agency has notified the Contractor and the Surety at the address described in paragraph 10 below, that the Agency is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If the Agency, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Agency's right, if any, subsequently to declare a Contractor Default; or
 - 3.2 The Agency has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract.
4. The Surety shall, within 15 days after receipt of notice of the Agency's declaration of a Contractor Default, and at the Surety's sole expense, take one of the following actions:
 - 4.1 Arrange for the Contractor, with consent of the Agency, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Agency for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Agency and the contractor selected with the Agency's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the Agency the amount of damages as described in paragraph 7 in excess of the Balance of the Contract Sum incurred by the Agency resulting from the Contractor Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and:
 - 4.4.1 After investigation, determine the amount for which it may be liable to the Agency and, within 60 days of waiving its rights under this paragraph, tender payment thereof to the Agency; or
 - 4.4.2 Deny liability in whole or in part and notify the Agency, citing the reasons therefore.
5. Provided Surety has proceeded under paragraphs 4.1, 4.2, or 4.3, the Agency shall pay the Balance of the Contract Sum to either:
 - 5.1 Surety in accordance with the terms of the Contract; or
 - 5.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.
 - 5.3 The balance of the Contract Sum due either the Surety or another contractor shall be reduced by the amount of damages as described in paragraph 7.
6. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond 15 days after receipt of written notice from the Agency to the Surety demanding that the Surety perform its obligations under this Bond, and the Agency shall be entitled to enforce any remedy available to the Agency.
 - 6.1 If the Surety proceeds as provided in paragraph 4.4 and the Agency refuses the payment tendered or the Surety has denied liability, in whole or in part, then without further notice the Agency shall be entitled to enforce any remedy available to the Agency.
 - 6.2 Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the Dispute Resolution process defined in the Contract Documents and the laws of the State of South Carolina.
7. After the Agency has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Agency shall be those of the Contractor under the Contract, and the responsibilities of the Agency to the Surety shall those of the Agency under the Contract. To a limit of the amount of this Bond, but subject to commitment by the Agency of the Balance of the Contract Sum to mitigation of costs and damages on the Contract, the Surety is obligated to the Agency without duplication for:
 - 7.1 The responsibilities of the Contractor for correction of defective Work and completion of the Contract; and
 - 7.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
 - 7.3 Damages awarded pursuant to the Dispute Resolution Provisions of the Contract. Surety may join in any Dispute Resolution proceeding brought under the Contract and shall be bound by the results thereof; and
 - 7.4 Liquidated Damages, or if no Liquidated Damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. The Surety shall not be liable to the Agency or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Sum shall not be reduced or set-off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Agency or its heirs, executors, administrators, or successors.
9. The Surety hereby waives notice of any change, including changes of time, to the contract or to related subcontracts, purchase orders and other obligations.
10. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the address shown on the signature page.
11. Definitions
 - 11.1 Balance of the Contract Sum: The total amount payable by the Agency to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts to be received by the Agency in settlement of insurance or other Claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
 - 11.2 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform the Contract or otherwise to comply with the terms of the Contract.

SE-357

LABOR & MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that *(Insert full name or legal title and address of Contractor)*

Name: _____

Address: _____

hereinafter referred to as "Contractor", and *(Insert full name and address of principal place of business of Surety)*

Name: _____

Address: _____

hereinafter called the "surety", are jointly and severally held and firmly bound unto *(Insert full name and address of Agency)*

Name: UNIVERSITY OF SOUTH CAROLINA

Address: 743 Greene Street

Columbia, SC 29208

hereinafter referred to as "Agency", or its successors or assigns, the sum of _____ (\$ _____), being the sum of the Bond to which payment to be well and truly made, the 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 Agency to construct

State Project Name: 819 Barnwell Exterior Painting & Repairs

State Project Number: H27-D182

Brief Description of Awarded Work, as found on the SE-330 or SE-332, Bid Form: Exterior painting and repair. Work includes lead-based paint removal, minor wood repairs, exterior trim, metal handrail, and painting.

in accordance with Drawings and Specifications prepared by *(Insert full name and address of A-E)*

Name: Watson Tate Savory

Address: 1316 Washington Street

Columbia, SC 29201

which agreement is by reference made a part hereof, and is hereinafter referred to as the Contract.

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms stated herein, do each cause this Labor and Material Payment Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this _____ day of _____, 20____
(shall be no earlier than Date of Contract)

BOND NUMBER _____

CONTRACTOR

By: _____
(Seal)

Print Name: _____

Print Title: _____

Witness: _____

SURETY

By: _____
(Seal)

Print Name: _____

Print Title: _____
(Attach Power of Attorney)

Witness: _____

(Additional Signatures, if any, appear on attached page)

LABOR AND MATERIAL PAYMENT BOND**NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency to pay for all labor, materials and equipment required for use in the performance of the Contract, which is incorporated herein by reference.
 2. With respect to the Agency, this obligation shall be null and void if the Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants; and
 - 2.2 Defends, indemnifies and holds harmless the Agency from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract.
 3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
 4. With respect to Claimants, and subject to the provisions of Title 29, Chapter 5 and the provisions of §11-35-3030(2)(c) of the SC Code of Laws, as amended, the Surety's obligation under this Bond shall arise as follows:
 - 4.1 Every person who has furnished labor, material or rental equipment to the Contractor or its subcontractors for the work specified in the Contract, and who has not been paid in full therefore before the expiration of a period of ninety (90) days after the date on which the last of the labor was done or performed by him or material or rental equipment was furnished or supplied by him for which such claim is made, shall have the right to sue on the payment bond for the amount, or the balance thereof, unpaid at the time of institution of such suit and to prosecute such action for the sum or sums justly due him.
 - 4.2 A remote claimant shall have a right of action on the payment bond upon giving written notice by certified or registered mail to the Contractor within ninety (90) days from the date on which such person did or performed the last of the labor or furnished or supplied the last of the material or rental equipment upon which such claim is made.
 - 4.3 Every suit instituted upon a payment bond shall be brought in a court of competent jurisdiction for the county or circuit in which the construction contract was to be performed, but no such suit shall be commenced after the expiration of one year after the day on which the last of the labor was performed or material or rental equipment was supplied by the person bringing suit.
 5. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 5.1 Send an answer to the Claimant, with a copy to the Agency, within sixty (60) days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 5.2 Pay or arrange for payment of any undisputed amounts.
 - 5.3 The Surety's failure to discharge its obligations under this paragraph 5 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a claim. However, if the Surety fails to discharge its obligations under this paragraph 5, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs to recover any sums found to be due and owing to the Claimant.
 6. Amounts owed by the Agency to the Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the Contractor furnishing and the Agency accepting this Bond, they agree that all funds earned by the contractor in the performance of the Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Agency's prior right to use the funds for the completion of the Work.
 7. The Surety shall not be liable to the Agency, Claimants or others for obligations of the Contractor that are unrelated to the Contract. The Agency shall not be liable for payment of any costs or expenses of any claimant under this bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
 8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
 9. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the Agency or the contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
 10. By the Contractor furnishing and the Agency accepting this Bond, they agree that this Bond has been furnished to comply with the statutory requirements of the South Carolina Code of Laws, as amended, and further, that any provision in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
 11. Upon request of any person or entity appearing to be a potential beneficiary of this bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
 12. Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the laws of the State of South Carolina.
- 13. DEFINITIONS**
- 13.1 Claimant: An individual or entity having a direct contract with the Contractor or with a Subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the Contractor and the Contractor's Subcontractors, and all other items for which a mechanic's lien might otherwise be asserted.
 - 13.2 Remote Claimant: A person having a direct contractual relationship with a subcontractor of the Contractor or subcontractor, but no contractual relationship expressed or implied with the Contractor.
 - 13.3 Contract: The agreement between the Agency and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

SE-380

CHANGE ORDER NO.: _____

CHANGE ORDER TO CONSTRUCTION CONTRACT

AGENCY: University of South Carolina

PROJECT NAME: 819 Barnwell Exterior Painting and Repairs

PROJECT NUMBER: H27-D182

CONTRACTOR: _____ CONTRACT DATE: _____

This Contract is changed as follows: *(Insert description of change in space provided below)*

ADJUSTMENTS IN THE CONTRACT SUM:

1. Original Contract Sum:		\$
2. Change in Contract Sum by previously approved Change Orders:	\$	
3. Contract Sum prior to this Change Order		\$ 0.00
4. Amount of this Change Order:	\$	
5. New Contract Sum, including this Change Order:		\$ 0.00

ADJUSTMENTS IN THE CONTRACT TIME:

1. Original Substantial Completion Date:	
2. Sum of previously approved increases and decreases in Days:	Days
3. Change in Days for this Change Order	Days
4. New Substantial Completion Date:	

CONTRACTOR ACCEPTANCE:

BY: _____ Date: _____
(Signature of Representative)

Print Name: _____

ARCHITECT RECOMMENDATION FOR ACCEPTANCE:

BY: _____ Date: _____
(Signature of Representative)

Print Name: _____

AGENCY ACCEPTANCE AND CERTIFICATION:

BY: _____ Date: _____
(Signature of Representative)

Print Name: _____

- Change is within Agency Construction Procurement Certification of: \$ _____
- Change is not within Agency Construction Procurement Certification of: \$ _____

Office of the State Engineer Authorization for change exceeding Agency Construction Procurement Certification:

AUTHORIZED BY: _____ DATE: _____
(OSE Project Manager)

AIA DOCUMENT A701 - 2007 EDITION

STANDARD FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

LOCATED IN COMPANION ENVELOPE OR INCLUDED BY REFERENCE IF
COMPANION ENVELOPE IS NOT PROVIDED

DOCUMENT PLACE HOLDER

UNIVERSITY OF SOUTH CAROLINA

Project Name: 819 Barnwell Street Exterior Repairs and Painting

Project Number: H27-D182

University of South Carolina

CONTRACTOR'S ONE YEAR GUARANTEE

STATE OF _____

COUNTY OF _____

WE _____
as General Contractor on the above-named project, do hereby guarantee that all work executed under the requirements of the Contract Documents shall be free from defects due to faulty materials and /or workmanship for a period of one (1) year from date of acceptance of the work by the Owner and/or Architect/Engineer; and hereby agree to remedy defects due to faulty materials and/or workmanship, and pay for any damage resulting wherefrom, at no cost to the Owner, provided; however, that the following are excluded from this guarantee;

Defects or failures resulting from abuse by Owner.

Damage caused by fire, tornado, hail, hurricane, acts of God, wars, riots, or civil commotion.

[Name of Contracting Firm]

*By _____

Title _____

*Must be executed by an office of the Contracting Firm.

SWORN TO before me this _____ day of _____, 2____ (seal)

_____ State

My commission expires _____

SE-380

CHANGE ORDER NO.: _____

CHANGE ORDER TO CONSTRUCTION CONTRACT

AGENCY: University of South Carolina

PROJECT NAME: 819 Barnwell Exterior Painting and Repairs

PROJECT NUMBER: H27-D182

CONTRACTOR: _____ CONTRACT DATE: _____

This Contract is changed as follows: *(Insert description of change in space provided below)*

ADJUSTMENTS IN THE CONTRACT SUM:

1. Original Contract Sum:		\$
2. Change in Contract Sum by previously approved Change Orders:	\$	
3. Contract Sum prior to this Change Order		\$ 0.00
4. Amount of this Change Order:	\$	
5. New Contract Sum, including this Change Order:		\$ 0.00

ADJUSTMENTS IN THE CONTRACT TIME:

1. Original Substantial Completion Date:	
2. Sum of previously approved increases and decreases in Days:	Days
3. Change in Days for this Change Order	Days
4. New Substantial Completion Date:	

CONTRACTOR ACCEPTANCE:

BY: _____ Date: _____
(Signature of Representative)

Print Name: _____

ARCHITECT RECOMMENDATION FOR ACCEPTANCE:

BY: _____ Date: _____
(Signature of Representative)

Print Name: _____

AGENCY ACCEPTANCE AND CERTIFICATION:

BY: _____ Date: _____
(Signature of Representative)

Print Name: _____

- Change is within Agency Construction Procurement Certification of: \$ _____
- Change is not within Agency Construction Procurement Certification of: \$ _____

Office of the State Engineer Authorization for change exceeding Agency Construction Procurement Certification:

AUTHORIZED BY: _____ DATE: _____
(OSE Project Manager)

819 Barnwell Exterior Painting and Repairs
University of South Carolina
Columbia, South Carolina
Project No. H29-D182

ASBESTOS FREE CERTIFICATION
819 Barnwell Exterior Painting and Repairs
University of South Carolina
Columbia, South Carolina

This is to certify that the material furnished and/or installed by the undersigned subcontractor/vendor during the project, further described by Watson Tate Savory Architects Drawings and Specifications, contain no asbestos fibers.

Subcontractor/Vendor _____

Trade/Material Supplied: _____

Date: _____

Certified by: _____

Title: _____

SECTION 01100 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. Use of premises.
 - 3. Specification formats and conventions.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: 819 Barnwell Street Exterior Painting and Repairs – University of South Carolina.
 - 1. Project Location: 819 Barnwell Street, Columbia, SC 29205.
- B. Owner: University of South Carolina.
 - 1. Owner's Representative: Jeff Abrams, AIA - USC Project Manager.
- C. Architect: J. Sanders Tate, Watson Tate Savory Architects, Inc.
- D. The Work consists of the following:
 - 1. Project will include: general exterior lead based paint abatement, wood repair, and exterior painting.

1.3 BASE BID PACKAGES

- A. Bids will be taken on Base Bid 1, as shown in the construction document drawings and described below:

- 1. **Base Bid:**

1.4 WORK UNDER OTHER CONTRACTS

- A. Owner procured Testing and Monitoring Agent :
 - 1. Hazardous material removal monitoring, identified in Section 01400 and 002028 has been procured by the Owner.

1.5 USE OF PREMISES

- A. General: Contractor shall limit use of premises to areas defined by the Construction Documents.

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. 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.

1.7 CONTRACT DOCUMENTS INCONSISTENCIES:

A. In the event of inconsistencies within or between part of the Contract Documents or between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall:

1. Provide the better quality work or greater quantity of Work; or,
2. Comply with the more stringent requirement; either or both in accordance with the Architect's interpretation.

1.8 BUILDERS RISK INSURANCE:

A. Builders Risk Insurance to be provided for the amount of the Construction Contract only. The insurance does not have to cover the cost of the existing facility.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01100

SECTION 01290 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

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

1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule. Cost-loaded CPM Schedule may serve to satisfy requirements for the Schedule of Values.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including Application for Payment forms with Continuation Sheets, Submittals, Schedule and Contractor's Construction Schedule.
 - 2. Submit the Schedule of Values to the Architect at earliest possible date but no later than 7 days before the date scheduled for submittal of initial Applications for Payment.
 - 3. Sub schedules: Where the Work is separated into phases requiring separately phased payments, provide sub schedules showing values correlated with each phase of payment.

- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 - 2. Submit draft of AIA Document G703, Continuation Sheets, EJCDC Document 1910-8-E.
 - 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate. Include separate line items under required principal subcontracts for operation and maintenance manuals, punch list activities, Project Record Documents, and demonstration and training in the amount of 5 percent of the Contract Sum.
 - 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 - 5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - 6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

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

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Times: Progress payments shall be submitted to the Construction Manager by the 25TH of the month. The period covered by each Application for Payment is one month, ending on the 30th day of the month.
- D. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets, or forms provided by Owner, Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to the Construction Manager by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
 1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.

2. When an application shows completion of an item, submit final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's Construction Schedule (preliminary if not final).
 4. Schedule of unit prices.
 5. Submittals Schedule (preliminary if not final).
 6. List of Contractor's staff assignments.
 7. List of Contractor's principal consultants.
 8. Copies of building permits.
 9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 10. Initial progress report.
 11. Report of preconstruction conference.
 12. Certificates of insurance and insurance policies.
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 9. Final, liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01290

SECTION 01400 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and monitoring services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 2. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. See Divisions 2 through 16 Sections for specific test and inspection requirements.
- D. Testing and Monitoring Services required by this Section, identified as "Agent " in Section 002080 LEAD-BASED PAINT AND ASBESTOS REMOVAL AND RELATED TASKS shall be provided by the Owner.
 - 1. Schedule of Special Agents:
Agent shall be: F&ME Consultants, Inc.

1.2 DEFINITIONS

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

having jurisdiction, to establish product performance and compliance with industry standards.

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

1.3 CONFLICTING REQUIREMENTS

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

1.4 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Reports: Prepare and submit certified type-written reports that include the following:
 - 1. Date of issue.
 - 2. Project title and Architect's project number.
 - 3. Name, address, and telephone number of testing agency.

4. Dates and locations of samples and tests or inspections.
 5. Names of individuals making tests and inspections.
 6. Description of the Work and test and inspection method.
 7. Identification of product and Specification Section.
 8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.
 13. Recommendations on retesting and reinspecting.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.5 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.

- G. **Factory-Authorized Service Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.6 QUALITY CONTROL

- A. **Owner Responsibilities:** Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Contractor shall coordinate with and notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. **Tests and inspections not explicitly assigned to Owner are Contractor's responsibility.** Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. **Manufacturer's Field Services:** Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section "Submittal Procedures."
- D. **Testing and Monitoring (Agent) Responsibilities:** Cooperate with Architect, Construction Manager and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect, Construction Manager and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.

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

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

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

END OF SECTION 01400

SECTION 02080 - ASBESTOS & LEAD-BASED PAINT REMOVAL AND RELATED TASKS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Documents affecting work of this Section include, but are not necessarily limited to USC's HAZMAT survey for asbestos-containing materials (ACM) and lead-based paint (LBP) dated September 23, 2014, performed by USC HAZMAT personnel and drawing AB-1. The survey results identify exterior components of USC's Psychology Annex that are coated with lead-based paint, as well as asbestos-containing caulking associated with exterior doors and window systems. See the appendix for copies of the survey and analytical results.
- B. Other documents affecting work of this Section include, but are not necessarily limited to, Section 06910, Wood Repairs and Section 08590, Window Restoration and Replacement.

1.2 LEAD-BASED PAINT ABATEMENT CONTRACTOR QUALIFICATIONS - SPECIAL STANDARDS OF RESPONSIBILITY

A. Lead-Based Paint Abatement Contractor's Qualifications:

1. A qualified firm that has not less than five (5) years of experience in the removal and proper disposal of lead-based paint (LBP) and building components painted and/ or coated with lead-based paint, as well as five (5) years' experience in the removal and proper disposal of asbestos-containing materials (ACM).
2. A qualified firm that has successfully completed the lead-based paint abatement as well as asbestos abatement on a minimum of five (5) projects over a period of three (3) years and where the scope of lead-based paint and asbestos abatement work was over \$100,000.00.
3. Contractor must agree to exercise special care during all phases of the Work to ensure that the existing building, its details, materials, and finishes that are to remain are not damaged by the work being performed.
4. Restorations Specialist: Work must be performed by a firm having not less than eight (8) years successful experience in comparable wood restoration work including work on at least five (5) projects or properties listed on the National Register of Historic Places, or deemed eligible for listing on the National Register of Historic Places by the State Historic Preservation Office and employing personnel skilled in the restoration process and operations indicated.
5. Restoration Specialist firm must be acceptable to, or certified by, manufacturer of primary restoration materials.
6. Only skilled workers who are thoroughly trained and experienced in wood repairs and restoration work, have the skills required for the work of this section, and are completely familiar with the materials and methods specified shall be used for wood restoration work. At least one skilled worker shall be present at all times during the execution of the work and shall personally direct the wood repairs and restoration work. In acceptance or rejection of the wood restoration work, no allowance will be made for lack of skill on the part of the workers.

1.3 SCOPE OF WORK - SUMMARY

- A. The University of South Carolina (Owner) is planning to renovate the exterior of the Psychology Annex building located at 819 Barnwell Street in Columbia, South Carolina. Both asbestos-containing materials (ACM) and lead-based paint (LBP) will be impacted by the proposed renovations and must be removed prior to the start of renovation activities. For this reason, the scope of work for this abatement generally includes the removal and proper disposal of the ACM and LBP from the exterior components of the subject structure (Work) as indicated on the provided drawing and referenced in these specifications.
- B. Prior to commencement of removal activities, Contractor shall submit required documents as outlined in Section 1.15 herein.
- C. Contractor shall clean exterior perimeter surfaces of the building prior to commencing LBP abatement work. See Sections 3.3 and 3.5 herein for more detail.
- D. Contractor shall remove LBP utilizing work practices as outlined by OSHA's and the SCDHEC's regulations. Exterior lead removal includes the removal of loose, chipped, cracking, flaking, blistering, or chalking paint down to bare wood in preparation for repainting as identified in other specification sections. The purpose of this removal is to prepare existing exterior surfaces for new layers of primer and non-lead paint.
- E. Contractor shall be required to complete some work within the interior of the building. This work will involve activities necessary to dislodge and free windows for opening and closing. All of the interior window components within the interior of the building are coated with LBP. Contractor shall be required to utilize methods that will minimize the impact and damage to these painted surfaces associated with the interior of the windows. Contractor shall be required to utilize appropriate methods (i.e. HEPA vacuum, poly on the floor etc.) to contain and collect all paint chips and debris generated and dispose of properly. All interior surfaces of the windows, floors and areas directly adjacent to the windows shall be HEPA vacuumed after this work is completed and all poly is removed. Contractor and GC will be required to coordinate these activities with the building occupants to minimize disturbances to ongoing activities in the building and displacement of USC staff.
- F. The Contractor shall refer to provided elevations for locations and limits of removal activities.
- G. Contractor shall be responsible and arrange for either a lift and/or scaffolding to be employed during the pre-cleaning and LBP removal in order to access all exterior windows and lead-containing wood components. All exterior surfaces (i.e. sidewalks and driveways) shall be protected from damage.
- H. Contractor shall ensure that soils and vegetation surrounding the subject building are not contaminated by debris from the removal work activities.
- I. Abatement activities are focused on exterior materials associated with the subject structure, and will address the following materials:
 - 1. Wood Exterior Components: Lead-based paint is to be removed from wood exterior components, to include doors and door frames, window frames, columns, as well

as fascia, soffits, and eaves (all exterior painted wooden components). Materials are located throughout the exterior of the subject multi-story structure. However, where the wood components are too damaged, warped, etc., Contractor shall remove them as and dispose of as lead-contaminated waste along with other LBP debris.

2. Window & Door Caulking: ACM window and door caulking is to be removed from all of the exterior windows and doors. The asbestos containing caulking removal, handling, and disposal must follow applicable local, state, and federal regulations. See Section 3.6 herein for more information related to this asbestos containing material.
- J. All materials and procedures described herein shall be implemented by the Contractor unless specifically noted otherwise.
- K. Contractor shall be responsible for verification of all site conditions and quantities associated with the abatement and removal tasks prior to the bid. Actual quantities shall be documented and confirmed during the abatement operations by the Contractor and Owner's Representative.
- L. Contractor may base bid for ACM and LBP abatement on the quantities listed below. Bid shall include all materials and labor necessary to remove, handle, transport and dispose of ACM and LBP from the exterior of the structure and complete the abatement operations. ACM and LBP to be removed and/or impacted from the subject building structure during the abatement operations shall include the following:
 1. Non-friable ACM abatement of exterior ACM caulking at all levels (Est. 39 window units, 4 door units)
 2. LBP removal from wood exterior components to include windows, window frames, doors, door frames, columns, fascia, soffits, and eaves.

Note: Excludes windows located on rear of structure on basement level and plywood walls associated with closed-in back porch.

1.4 CONTRACTOR'S DUTIES - SUMMARY

- A. The Contractor is to provide and pay for the following, except as specifically noted:
 1. Labor, material, tools, required equipment (i.e. scaffolding, etc.) and machinery.
 2. All other facilities and services necessary for proper execution and completion of Work.
 3. Pay legally-required sales, consumer and use taxes.
- B. Contractor will absorb costs for the following:
 1. Permits
 2. Government fees
 3. Licenses

- C. Contractor shall provide notifications to appropriate entities based on applicable regulations.
- D. Contractor shall comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities which bear on performance of Work.
- E. Contractor shall provide personal protective equipment to workers
- F. Contractor shall enforce strict discipline and good order among employees. Do not employ on Work, on Project or Work Site:
 - 1. Unfit persons.
 - 2. Persons not skilled in assigned task.

1.5 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (DHEC)

- R 61-86.1 Standards of Performance for Asbestos Projects
- R 61-107.19 SWM: Solid Waste Landfills and Structural Fill

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

- 29 CFR 1910 General Industry Standards
- 29 CFR 1910.1025 Lead Standard for General Industry
- 29 CFR 1910.134 Respiratory Protection
- 29 CFR 1910.1200 Hazard Communication
- 29 CFR 1910.245 Specifications for Accident Prevention (Sign and Tags)
- 29 CFR 1926 Construction Industry Standards
- 29 CFR 1926.62 Construction Industry Lead Standard

ENVIRONMENTAL PROTECTION AGENCY (USEPA)

- 40 CFR Part 61 United States Environmental Protection Agency Regulations

UNIVERSITY OF SOUTH CAROLINA

Facility Services Lead Management Program

1.6 DEFINITIONS

A. Abatement/Removal

- 1. Any measure designed to permanently eliminate lead- based paint hazards in accordance with standards established by the EPA Administrator pursuant to Title IV of the Toxic Substances Control Act (TSCA). Abatement strategies include: removal of lead- based paint; enclosure of lead- based paint; encapsulation of lead- based paint (with a product that has been shown to meet standards established or recognized pursuant to Title IV of TSCA); replacement of building

components coated by lead- based paint; removal of lead- contaminated dust; removal or covering of lead- contaminated soil with a durable covering (not grass or sod, which are considered interim control measures); as well as all preparation, cleanup, disposal, post- abatement clearance testing, record- keeping, and monitoring (if applicable).

B. Abatement Area

1. The exterior of the building or an area isolated from the building interior by containment.

C. Action Level

1. An indoor air concentration which should prompt consideration of the need to implement a recommended response. The Action Level for lead is 30 ug/m^3 (0.3 mg/m^3) calculated as an 8-hour time-weighted average.

D. Asbestos

1. Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.

E. Contractor Employer Program

1. In accordance with the Hazard Communication Standard, each outside contractor working on a USC owned property (on-site) is responsible for developing, implementing, and informing other on-site employers of all hazard communication related information. Under the Program, each outside employer must provide USC, and other employer(s) working on-site, with unrestricted, on-site access to material safety data sheets (MSDSs) for all hazardous materials used, handled or stored on-site to which an employee may potentially be exposed to during their normal course of work.

F. Disturbance

1. A contact which releases fibers from ACM or debris containing ACM. This term includes activities that disrupt the matrix of ACM, render ACM friable, or generate visible debris. Disturbance includes cutting away small amounts of ACM no greater than the amount that can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.

G. Enclosure

1. Covering surfaces and sealing or caulking with durable materials so as to prevent or control chalking, peeling, or flaking substances containing toxic levels of lead from becoming part of house dust or accessible to children.

H. Hazardous Waste

1. Generation and disposal of hazardous waste is regulated under the Resource Conservation and Recovery Act (RCRA). If a waste exhibits toxicity, corrosivity, ignitability, or reactivity characteristics it is considered hazardous.
- I. High Efficiency Particulate Air (HEPA) Filter
 1. A filter that is capable of filtering at least 99.97% of all airborne particles down to 0.3 micrometers (μm) in diameter.
 - J. HEPA Vacuum Cleaner
 1. An electrical device that cleans surfaces by suction and discharges exhaust air through a HEPA filter.
 - K. Lead-Contaminated Material
 1. Any paint, material or coating containing any detectable quantity of lead.
 - L. Lead-Based Paint/ Material
 1. Any paint, material or coating containing $>0.06\%$ by weight (600 ppm) total lead OR containing $\geq 0.7 \text{ mg/cm}^2$ as measured with an XRF (X-ray diffraction) analyzer.
 - M. Permissible Exposure Limit (PEL)
 1. Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 50 micrograms per cubic meter of air ($50 \mu\text{g/m}^3$) calculated as an 8-hour time-weighted average.
 - N. Intact
 1. ACM which has not crumbled, been pulverized, or otherwise deteriorated so that it is no longer likely to be bound with its matrix.
 - O. Substrate
 1. The underlying material a building component is made from, over which is often applied a surface finish such as paint. Common substrates include, plaster, concrete, wood, metal, and gypsum.
 - P. Time-Weighted Average (TWA)
 1. The TWA for lead is an airborne concentration of lead of 30 micrograms per cubic meter of air (30 ug/m^3) representing a lead worker's 8-hour workday as defined in CFR 29 Part 1926, Section 1926.62. The TWA for asbestos is an 8-hour time weighted average of airborne concentration of fibers (longer than 5 micrometers) per cubic centimeter of air which represents the employee's 8-hour workday as determined by Appendix A of CFR 29 Part 1926, Section 1926.58.

1.7 DESCRIPTION OF WORK

- A. The work covered by this section includes the requirements for the removal, transportation, disposal, storage, containment of, and housekeeping activities

involving ACM and LBP contaminated materials associated with the Psychology Annex building located at 819 Barnwell Street.

1.8 SECURITY

- A. Contractor shall be required to maintain the security of the building. All windows and doors shall be maintained secure during all phases of the abatement.

1.9 MEDICAL REQUIREMENTS

- A. Contractor shall comply with appropriate medical requirements as outlined in 29 CFR 1926.62 and 29 CFR 1926.1101(m).

1.10 TRAINING

- A. All Contractor personnel involved with lead removal work must be trained and tested prior to any work, and shall be thoroughly familiar with the Contractor's standard operating procedure for the lead abatement work. All personnel shall undergo the specific medical examinations required by OSHA. The superintendent and the foreman shall be thoroughly familiar with all applicable regulations and practices for lead removal work and shall have participated in at least two abatement projects of similar size and scope within the past two years. All personnel shall be in possession of valid respirator fit test paperwork.

1.12 HAZARD COMMUNICATION PROGRAM

- A. A hazard communication program shall be established and implemented in accordance with CFR 29 Part 1926, Section 1926.59.

1.13 SAFETY AND HEALTH COMPLIANCE

- A. In addition to detailed requirements of this specification, the work shall comply with applicable laws, ordinances, criteria, rules, and regulations of Federal, state, regional, and local authorities regarding handling, storing, transporting, and disposing of asbestos waste materials and with the applicable requirements of CFR 29 Part 1910, CFR 29 Part 1926, CFR 40 Part 61, Subpart A, and CFR 40 Part 61, Subpart M, NFPA 10, NFPA 70, NFPA 90A, NFPA 101. Matters of interpretation of standards shall be submitted to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, rules, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirement as defined by the Owner shall apply.
- B. Personnel shall wear and utilize protective clothing and equipment and employ safe work practices for the duration of the project. Personnel shall restrict activities within work area to work-related tasks. Personnel of other trades not engaged in lead-based paint abatement activities shall not be exposed at any time to airborne concentrations of lead unless all the administrative and personal protective provisions as required by the Contractor's Lead-Based Paint Abatement Plan are complied with.

1.14 PERMITS, LICENSES AND NOTIFICATIONS

- A. The Contractor shall obtain all necessary permits and licenses in conjunction with the project asbestos abatement, transportation and disposal actions and timely

notification furnished of such actions required by Federal, state, regional, and local authorities and as otherwise specified herein. The Contractor shall notify the SCDHEC and the Owner in writing at least 10 days prior to the commencement of work in accordance with CFR 40 Part 61, Subpart M, state and local requirements to include the mandatory "Notification of Demolition and Renovation Record" form and other required notification documents. Notification shall be by Certified Mail - Return Receipt Requested. The Contractor shall furnish copies of the receipts to the Owner prior to the commencement of work.

B. The Contractor shall notify the Owner if any of the following occur:

1. If the Contractor or any of its subcontractors are served with notice of violation of any law, regulation, permit or license which relates to this Contract.
2. Proceedings are commenced which could lead to revocation of related permits or licenses.
3. Permits, licenses or other Owner authorizations relating to this Contract are revoked.
4. Litigation is commenced which would affect this Contract.
5. If the Contractor or any of its Subcontractors become aware that its equipment or facilities are not in compliance or may fail to comply in the future with applicable laws or regulations.

1.15 SUBMITTALS

The following shall be submitted to the Owner and/or the Owner's Representative prior to the start of abatement operations:

- A. Manufacturer's catalog data for all materials and equipment to be used in the work, including brand name, model, capacity, performance characteristics and any other pertinent information.
- B. Lead-Based Paint Abatement Work Plan
 1. A written work plan outlining the project sequencing, methods, etc. must be accepted in writing by the Owners' Representative prior to start of any site work.
- C. Safety Plan
 1. A written safety plan and comprehensive site-specific accident prevention plan at least 30 days prior to start of work. This plan must be accepted in writing by the Owners' Representative prior to start of any site work.
- D. Employee Training and Certification of Worker Acknowledgement

The following training documentation for each employee to be engaged in the abatement work:

1. Copy of training certification for completion of lead abatement worker training.
2. Copy of certification of accreditation for completion of "workers" course (for workers) or "Contractor/Supervisor" Course (for Contractors and onsite supervisory staff) meeting the requirements of EPA's CFR 40 Part 763 or more stringent state

criteria, and all subsequent annual refresher training certificates meeting same requirements.

3. A copy of a Contractor generated form entitled Certificate of Workers Acknowledgment shall be completed for each employee.

E. Negative Exposure Assessment

1. The Contractor may demonstrate that employee exposures will be below the PELs by data in compliance with CFR 29 Part 1926.1101 and CFR 29 Part 1926.62.

F. Notifications

1. The Owner shall be notified in writing 4 days prior to the start of asbestos work.

G. Records

1. Respirator Program

- a. If respirators are deemed necessary by Contractor based on initial data, records of the Contractor's respirator program as required by ANSI Z88.2, CFR 29 Part 1910, Section 1910.134, CFR 29 Part 1926, Section 1926.58.

2. Asbestos Containing Materials Waste Shipment Record

- a. Final completed copies of the Waste Shipment Record for all shipments of waste material as specified in CFR 40 Part 61, Subpart M and other required state waste manifest shipment records as specified herein. Detailed information of all asbestos waste disposals on the "MANDATORY WASTE SHIPMENT RECORD" form in accordance with revised CFR 40 Part 61, Subpart M. Such completed forms signed and dated by the agent of the landfill shall be submitted within 3 days after date of delivery of ACM to the landfill.

1.16 PERSONAL PROTECTIVE EQUIPMENT

A. Respirators

1. Respiratory protection shall be worn by workers while working in areas where airborne lead contaminated dust occurs in TWA concentration of $30 \mu\text{g}/\text{m}^3$ or greater. Where respirators are used by workers, the Contractor shall ensure that all elements of a respiratory protection program and suitable fit testing methods are utilized.

B. Body Protection

1. Personnel performing the lead-based paint removal will be provided safety equipment suitable for working on a construction site, including, but not limited to, hard hats, gloves, eye protection, steel-lined boots, and fall protection (where applicable). Eye protection provided shall be in accordance with ANSI Z87.1. All other items for personal safety shall be provided as required and approved by the Contractor.

1.17 WARNING SIGNS AND TAPE

- A. Contractor shall ensure that the outdoor lead work areas are properly demarcated, and that all personnel understand warning signs.

1.18 TOOLS

- A. Hand scraping techniques using flat blade “puddy knives” shall be employed. No sanding, grinding or any other method that will produce large quantities of dust are allowed; furthermore, power tools shall not be used to remove LBP.
- B. All residual lead-based paint shall be removed from reusable tools prior to storage and reuse. Reusable tools shall be thoroughly decontaminated prior to being removed from the work areas.

1.19 EXPENDABLE SUPPLIES

A. Duct Tape

- 1. Industrial grade duct tape shall be provided in 2 inch and 3 inch widths and shall be suitable for bonding sheet plastic and disposal containers specified herein.

B. Disposal Containers

- 1. Leak-tight disposal containers shall be provided for LBP debris generated as specified herein. Leak-tight means neither solids, liquids or dust can escape or spill out. All disposal containers shall be labeled according as required.

C. Disposal Bags

- 1. 6-mil thick leak-tight pre-labeled (OSHA warning label) bags shall be provided for placement of asbestos generated waste.

D. Sheet Plastic

- 1. Sheet plastic shall be provided as specified herein and in the largest sheet size necessary to minimize seams, as indicated on the project drawings.

E. Polyethylene Sheet – General

- 1. 6-mil (minimum) thick polyethylene sheeting shall be clear, frosted and/or black and conform to ASTM D 4397.

F. Polyethylene Sheet - Flame Resistant

- 1. Where a potential for fire exists, 6-mil (minimum) thick flame-resistant polyethylene sheet shall be provided. Flame-resistant polyethylene film shall be frosted and/or black and shall conform to the requirements of NFPA 701.

1.20 MATERIAL SAFETY DATA SHEETS

- A. Material safety data sheets (MSDS) shall be provided for all hazardous materials brought onto the work-site. One copy shall be provided to the Owner's Representative and one copy shall be included in the Contractor's Hazard Communication Program.

1.21 OTHER ITEMS

- A. A sufficient quantity of other items shall be provided that may include, but not be limited to: scrapers, brushes, brooms, staple guns, tarpaulins, shovels, rubber

squeegees, dust pans, other tools, scaffolding, staging, enclosed chutes, wooden ladders, material and chords, first aid kits, portable toilets, spray paint in bright color to mark areas, project boundary fencing, etc.

1.22 PRECONSTRUCTION CONFERENCE

- A. The Contractor, and the Contractor's designated onsite "competent person," shall participate in a preconstruction conference with the Owner's Representative and Owner prior to beginning work to discuss the details of the Contractor's Lead-Based Paint Abatement Plan, including work procedures and safety precautions. Once accepted by the Owners Representative and Owner, the Asbestos Hazard Abatement Plan, will be enforced as if an addition to the specification.

PART 2 - PRODUCTS

2.1 WINDOW CAULKING

- A. Window caulking replacement shall meet the criteria as specified in SECTION 06910 - WOOD REPAIR.

2.2 WINDOW GLASS

- A. Wherever indicated on the elevation drawings, detailed herein, or required due to breakage, replacement window glass shall meet the criteria as specified in SECTION 06910 - WOOD REPAIR.

2.3 EXTERIOR PRIMER AND PAINT

- A. Exterior surfaces will be primed and Window glazing replacement shall meet the criteria as specified in Section 090190, Maintenance of Painting and Coating.

PART 3 - EXECUTION

3.1 GENERAL

- A. Lead-based paint abatement work shall be performed as specified herein. Also see attached elevation drawings.
- B. Contractor shall evaluate each work activity to determine if employee exposure to lead may occur.

3.2 PRE-CLEANING AND DAILY CLEAN-UP

- A. Contractor shall clean the exterior perimeter surfaces of the subject facility prior to the start lead-based paint removal activities.
- B. The Contractor shall maintain a clean work area on a daily basis by performing housekeeping functions at the end of each shift. All waste from the lead-removal activities will be handled as a hazardous material and stored appropriately.

3.3 PREPARATION AND PROTECTION OF ADJACENT WORK OR AREAS TO REMAIN

- A. Prior to lead removal activities, preparation of the subject property shall include protection of all vegetation, shrubs, etc.

- B. Lead-based paint abatement work shall be performed without damage or contamination of adjacent work or areas. This requirement includes the protection of surrounding soils, vegetation, and the collection of run-off from any activities involving water to include the initial pre-cleaning phase.
- C. Contractor shall insure that equipment utilized to access building components at elevated levels will not damage existing sidewalks and driveways. Damage and the associated repairs to these exterior surfaces shall be at the Contractors expense.
- D. Where such work or area is damaged or contaminated as verified by the Owner's Representative using visual inspection and/or sample analysis, it shall be restored to its original condition or decontaminated by the Contractor at no expense to the Owner as deemed appropriate by the Owners Representative. This includes damage or contamination due to inadvertent spill of dirt, dust or debris in which it is reasonable to conclude that lead-based paint may exist. When these spills occur, work shall stop in all affected areas immediately, the Owner's Representative and Owner shall be notified. The condition shall be corrected to the satisfaction of the Owners' Representative and Owner. When satisfactory visual inspection and/or sampling analysis results are obtained and have been evaluated by the Contractor and the Owners Representative, work may proceed.

3.4 AIR MONITORING

- A. The Contractor shall determine worker's exposure to airborne lead for each phase of work, i.e., removal of paint from brick walls, removal of building components, preparation of surfaces for repainting, cleaning of work areas, etc. Personal air sampling shall be conducted at the start of each phase of work. Initial personal exposure monitoring shall be performed on employees who are anticipated to have the highest exposures for each activity.
- B. Where a determination conducted in accordance with 29 CFR 1926.62, paragraphs (d)(1), (2), and (3) is made that no employee is exposed to airborne concentrations of lead at or above the action level, the Contractor shall make a written record of such determination. The record shall include at least the information specified in 29 CFR 1926.62, paragraph (d)(3)(i) and shall also include the date of determination, location within the worksite, and the name and social security number of each employee monitored.
- C. If the initial determination reveals employee exposure to be below the action level further exposure determination need not be repeated except as otherwise provided in 29 CFR 1926.62, paragraph (d)(7).

3.5 LEAD-BASED PAINT REMOVAL

- A. All paint on the exterior surfaces is to be assumed positive for lead content and shall be handled appropriately. Scraping and other accepted lead-based paint removal methods shall be applied in a manner that protects the integrity of the exterior materials.
- B. Where it is determined that the wood window frame and column components are rotted or deteriorated beyond repair, those wood building components shall be removed and discarded as LBP-containing waste. See Section 013591, Historic

Treatment Procedures for criteria to be utilized when determining which boards are to stay and which are to be removed for disposal as LBP-containing waste.

- C. Material resulting from abatement work, except as specified otherwise, shall become the property of the Contractor and shall be disposed of as specified in applicable local, state, and federal regulations and herein.

3.6 ASBESTOS CONTAINING MATERIALS HANDLING PROCEDURES

- A. Asbestos will be encountered in the form of window and door caulking. All caulking is to be removed from around each individual windows and doors and disposed of as an asbestos containing material. Contractor will replace discarded caulking with a new caulking as specified in Section 080152, Historic Treatment of Wood Windows.
- B. Where the wood in window sashes is found to be too damaged for effective caulking, the damaged sections are to be replaced. The decision to replace the damaged sections and what the limits of the wood removal will be shall be made and coordinated between the Owners Representative and the GC for the project.
- C. The Contractor shall employ proper handling procedures in accordance with CFR 29 Part 1926 and CFR 40 Part 61, Subpart M and the specification requirements herein. Contractor shall also ensure proper notification; fees, etc. are provided to SCDHEC as required in R61.86.1.

3.7 FINAL CLEANING AND VISUAL INSPECTION

- A. Final cleaning and visual inspections shall occur prior to the application of any exterior primer paint.
- B. The abatement work area to include the exterior surfaces and adjacent ground shall be cleaned at the completion of the abatement by collecting, packing, and storing all gross contamination. A final cleaning shall include HEPA vacuum and wet cleaning of all exposed surfaces and equipment in the work area.
- C. Upon completion of the final cleaning, the Contractor's competent person shall conduct a pre-visual inspection of the cleaned area in preparation for the final inspection to be conducted with the Owner's Representative. The Contractor shall re-clean, as necessary.
- D. Once the results of the final cleaning are accepted by the Owner's Representative, the Contractor and the Owner's Representative shall conduct a final visual inspection of the cleaned work area. If the Owner's Representative rejects the abatement area as not being satisfactory, the Contractor shall re-clean as necessary and have a follow-up inspection with the Owner's Representative. Re-cleaning and follow-up re-inspections by the Owner's Representative shall be at the Contractor's expense.

3.8 SITE INSPECTION

- A. While performing abatement work, the Contractor shall be subject to onsite inspection by the Owner's Representative who may be assisted by or represented by quality assurance, safety and/ or industrial hygiene personnel. If the work is found to be in violation of this specification or regulations referenced herein, the Owner or his representative will issue a "Stop Work Order" to be in effect immediately and until the

violation is resolved. Standby time required to resolve the violation shall be at the Contractor's expense.

3.9 CLEAN-UP AND DISPOSAL

A. Housekeeping

1. Surfaces of the abatement work area shall be kept free of accumulation of lead-based paint debris. Meticulous attention shall be given to restricting the spread of dust and debris during the abatement activities. HEPA filtered vacuum cleaners shall be used. The space shall not be blown down with compressed air.

B. Title to Materials

1. Material resulting from abatement work, except as specified otherwise, shall become the property of the Contractor and shall be disposed of as specified in applicable local, state, and Federal regulations and herein.

3.10 COLLECTION AND DISPOSAL OF LEAD-BASED PAINT AND ASBESTOS

- #### A. Lead-based paint waste and lead-contaminated debris must be deposited in a Class Three Landfill as defined in R61 107.19.

- #### B. Asbestos waste, scrap, debris, bags, containers, equipment, and contaminated clothing, shall be collected and placed in sealed leak-tight, containers (e.g. double 6-mil plastic bags), sealed 6-mil double wrapped polyethylene sheet, sealed fiberboard boxes or other approved containers. Waste within the containers must be wetted in case the container is breached. A warning and Department of Transportation (DOT) label shall be affixed or preprinted on each bag. Waste asbestos material shall be disposed of at an EPA, state and local approved asbestos landfill. For temporary storage, sealed impermeable containers shall be stored in asbestos waste load-out unit or in a storage/transportation conveyance (i.e.; dumpster, roll-off waste boxes, etc.) in a manner as accepted by and in an area as assigned by the Owner. Procedure for hauling and disposal shall comply with CFR 40 Part 61, Subpart M, and state, regional, and local standards.

ATTACHMENTS

Asbestos and LBP Investigation Reports

(Prepared by USC HAZMAT Personnel)

Description HAZMAT SURVEY DM12 819 BARNWELL EXTERIOR REPAIRS

Site	COLUMBIA	Assigned To	JPROVENCE
Building	034 819 BARNWELL STREET	Crew	HAZMAT
Floor	Room:	Start Date	Priority 3
Equipment		Due date	25-SEP-14
		Request Date	29-NOV-12 by CHAPMAS

Request #	FM00413486	Description	HAZMAT SURVEY DM12 819 BARNWELL EXTERIOR REPAIRS
Parent WO #			

CP Number	CP00366438	DM12 819 BARNWELL EXTERIOR REPAIRS
------------------	------------	---

State/Internal Project Number	H27-6100
--------------------------------------	----------

Requestor	ABRAMS,JEFF	Project Manager	ABRAMS, JEFFREY R
Telephone	239-8074	Telephone	777-3594
Alternate		Estimated Cost	\$ 0.00
Telephone		Billing	FIXED PRICE
Non-Available Time		53100-W797-57120 (DEFERRED MAINTENANCE 2012)	

Task List

ERIC, THIS IS FOR HAZMAT SURVEY OF EXTERIOR, TO INCLUDE ALL PAINTED WOOD, WINDOW GLAZING MATERIAL, AND ANY EXTERIOR CAULKING. PLEASE CONTACT ME FOR A TIME TO GO OVER AND LOOK AT THE BUILDING PRIOR TO THE SURVEY. THANKS, JEFF ABRAMS, SEPT 11, 2014.

(CHECK ALL THAT APPLY AND PROVIDE ADDITIONAL INFORMATION AS NEEDED)

HAZMAT SURVEY(S) REQUESTED FOR THE FOLLOWING

- FLOOR TILE
- JOINT COMPOUND
- WALLS
- MASTIC
- CEILING TILE
- PIPE INSULATION
- VINYL SHEET FLOORING
- FIREPROOFING
- FUME HOODS/TABLE TOPS
- ROOFING MATERIALS
- FIRE DOORS
- GASKETS/VALVES
- BOILER INSULATION
- ACOUSTICAL POPCORN CEILING
- DUCT WORK
- OTHER (PLEASE DESCRIBE BELOW)

DATE WORK STARTED	CAUSE
DATE WORK COMPLETED	CONDITION
EQUIPMENT	
CLOSING REMARKS	
BENCHSTOCK MATERIALS	
Qty	Description
	Price Per Unit

Supervisor's Approval _____

Note Date	Title
23-SEP-14	HAZMAT SURVEY RESULTS
SURVEY DATES: 9/19/14	
INSPECTOR #: DARRYL WASHINGTON (BI-00568)	
STATUS: THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR ASBESTOS AND RESULTS FOLLOW:	
ASBESTOS SECTION:	
WINDOW CAULKING- POSITIVE FOR ASBESTOS	
WINDOW GLAZING- NEGATIVE FOR ASBESTOS	
LEAD SECTION: LEAD RESULTS PREVIOUS TESTING WAS PERFORMED ON ANOTHER PROJECT ON 9/1/11	
DOOR FRAME PAINT (WHITE)- POSITIVE FOR LEAD	
WINDOW FRAME PAINT (WHITE)- POSITIVE FOR LEAD	
COLUMN PAINT (WHITE)- POSITIVE FOR LEAD	
IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT. PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.	
REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.	
02-APR-04	ASBESTOS MAY BE PRESENT IN THIS BUILDING
WARNING - ASBESTOS EXPOSURE ALERT - EXPOSURE TO ASBESTOS MAY BE HARMFUL TO YOUR HEALTH	
AS OF 02/04/2004 THE FOLLOWING AREAS WITHIN THE BUILDING HAVE BEEN IDENTIFIED BY SURVEY TO CONTAIN ASBESTOS:	
BLDG 034 GIBBS HOUSE 819 BARNWELL	
BASEMENT --> FLUE OVER HOT WATER TANK [26 SQ. FT.]	
THE FOLLOWING COMMON TYPES OF BUILDING COMPONENTS COULD CONTAIN MATERIALS THAT, WHEN DISTURBED, MIGHT EXPOSE YOU TO ASBESTOS:	
1. FLOOR TILE	
2. PIPE INSULATION	
3. BLACK MASTIC	

- 4. HVAC DUCT MASTIC
- 5. SPRAYED-ON FIREPROOFING
- 6. SPRAYED-ON CEILINGS
- 7. SHEETROCK JOINT COMPOUND

BEFORE DISTURBING THESE TYPES OF COMPONENTS, CONFIRM THAT THEY DO NOT CONTAIN ASBESTOS AND TAKE PROPER PRECAUTIONS AT ALL TIMES

**EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284
 Phone/Fax: (336) 992-1025 / (336) 992-4175
<http://www.EMSL.com> greensborolab@emsl.com

EMSL Order: 021405303
 CustomerID: UNSC62
 CustomerPO:
 ProjectID:

Attn: **USC Hazmat**
University of South Carolina
743 Greene Street
Columbia, SC 29208

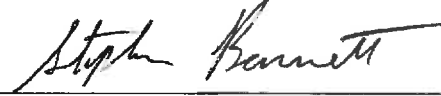
Phone: (803) 777-7000
 Fax: (803) 777-3990
 Received: 09/18/14 10:15 AM
 Analysis Date: 9/18/2014
 Collected:

Project: 819 Barnell St.

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 021405303-0001	Window Caulking	Brown/Gray/White Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
2 021405303-0002	Window Caulking	Gray/Tan/White Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
3 021405303-0003	Window Caulking	Tan Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
4 021405303-0004	Window Glazing	Gray/White/Beige Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
5 021405303-0005	Window Glazing	Gray/Tan/White Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)	100% Non-fibrous (other)	None Detected
6 021405303-0006	Window Glazing	Gray/Tan/White Non-Fibrous Homogeneous	<1% Fibrous (other)	100% Non-fibrous (other)	None Detected

Analyst(s)
 Kristie Elliott (2)
 Scott Combs (4)


 Stephen Bennett, Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
 Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321

Initial report from 09/19/2014 10:09:58

**EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284
 Phone/Fax: (336) 992-1025 / (336) 992-4175
<http://www.EMSL.com> greensborolab@emsl.com


EMSL Order:	021405303
CustomerID:	UNSC62
CustomerPO:	
ProjectID:	

Attn: USC Hazmat University of South Carolina 743 Greene Street Columbia, SC 29208	Phone: (803) 777-7000 Fax: (803) 777-3990 Received: 09/18/14 10:15 AM Analysis Date: 9/19/2014 Collected:
Project: 819 Barnell St.	

**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM
 via EPA/600/R-93/116 Section 2.5.5.1**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
6 021405303-0006	Window Glazing	Gray/White Non-Fibrous Heterogeneous	100	<0.25 Fibrous (other)	No Asbestos Detected

Analyst(s) _____
 Stephen Bennett (1)


 Stephen Bennett, Laboratory Manager
 or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
 Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from 09/19/2014 16:46:49



EMSL ANALYTICAL INC.
LABORATORY PRODUCTS TEAMING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

021405303

EMSL ANALYTICAL INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 270-3677
FAX: (856) 788-3674

Company: University of South Carolina		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>if Bill to is Different note instructions in Comments**</small>	
Street: 743 Greene Street		<i>Third Party Billing requires written authorization from third party</i>	
City: Columbia	State/Province: SC	Zip/Postal Code: 29208	Country: US
Report To (Name): USC Hazmat		Telephone #: 803-509-3376	
Email Address: asbestos@mailbox.sc.edu		Fax #:	Purchase Order:
Project Name/Number: <u>CLP General St</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

3 Hour
 6 Hour
 24 Hour
 48 Hour
 72 Hour
 96 Hour
 1 Week
 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<p>PLM - Bulk (reporting limit)</p> <p><input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)</p> <p><input type="checkbox"/> PLM EPA NOB (<1%)</p> <p>Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p>Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p><input type="checkbox"/> NIOSH 9002 (<1%)</p> <p><input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)</p> <p><input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)</p> <p><input type="checkbox"/> OSHA ID-191 Modified</p> <p><input type="checkbox"/> Standard Addition Method</p>	<p>TEM - Bulk</p> <p><input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1</p> <p><input type="checkbox"/> NY ELAP Method 198.4 (TEM)</p> <p><input type="checkbox"/> Chatfield Protocol (semi-quantitative)</p> <p><input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2</p> <p><input type="checkbox"/> TEM Qualitative via Filtration Prep Technique</p> <p><input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique</p> <p style="text-align: center;"><u>Other</u></p> <p><input type="checkbox"/></p>
---	---

Check For Positive Stop - Clearly Identify Homogenous Group Date Sampled:

Samplers Name: _____ Samplers Signature: _____

Sample #	HA #	Sample Location	Material Description

Client Sample # (s): _____ Total # of Samples: 6

Relinquished (Client): _____ Date: 01/18/14 Time: _____

Received (Lab): NS Date: 01/18/14 Time: 10:15

Comments/Special Instructions: FL 7900 5551 7820

021405303



Building # 034 819 BARNWELL ST

Sample Analysis Type of Analysis: Lead / Asbestos

Date: 9/11/11

Turn Around Time 24 HRS

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
A	1	WINDOW CAULKING	1ST LOWER WINDOW EAST SIDE	NF	FAIR	<400 SQ FT	LOW
A	2	WINDOW CAULKING	1ST LOWER WINDOW SOUTH SIDE	NF	FAIR	<400 SQ FT	LOW
A	3	WINDOW CAULKING (top of)	MIDDLE LOWER WINDOW NORTH SIDE	NF	FAIR	<400 SQ FT	LOW
B	4	WINDOW GLAZING	1ST LOWER WINDOW SOUTH SIDE	NF	FAIR	<500 SQ FT	LOW
B	5	WINDOW GLAZING	1ST LOWER WINDOW EAST SIDE	NF	FAIR	<500 SQ FT	LOW
B	6	WINDOW GLAZING (top of)	MIDDLE LOWER WINDOW NORTH SIDE	NF	FAIR	<500 SQ FT	LOW

License # BI-00568 FM# FM00413486 Signature *[Signature]* Requestor JEFF ABRAMS

Description HAZMAT SURVEY DM12 819 BARNWELL EXTERIOR REPAIRS

Site	COLUMBIA	Assigned To	JPROVENCE
Building	034 819 BARNWELL STREET	Crew	HAZMAT
Floor	Room:	Start Date	Priority 3
Equipment		Due date	25-SEP-14
		Request Date	29-NOV-12 by CHAPMAS

Request #	FM00413486	Description	HAZMAT SURVEY DM12 819 BARNWELL EXTERIOR REPAIRS
Parent WO #			

CP Number	CP00366438	DM12 819 BARNWELL EXTERIOR REPAIRS
------------------	------------	---

State/Internal Project Number	H27-6100
--------------------------------------	----------

Requestor	ABRAMS,JEFF	Project Manager	ABRAMS, JEFFREY R
Telephone	239-8074	Telephone	777-3594
Alternate		Estimated Cost	\$ 0.00
Telephone		Billing	FIXED PRICE
Non-Available Time		53100-W797-57120 (DEFERRED MAINTENANCE 2012)	

Task List

ERIC, THIS IS FOR HAZMAT SURVEY OF EXTERIOR, TO INCLUDE ALL PAINTED WOOD, WINDOW GLAZING MATERIAL, AND ANY EXTERIOR CAULKING. PLEASE CONTACT ME FOR A TIME TO GO OVER AND LOOK AT THE BUILDING PRIOR TO THE SURVEY. THANKS, JEFF ABRAMS, SEPT 11, 2014.

(CHECK ALL THAT APPLY AND PROVIDE ADDITIONAL INFORMATION AS NEEDED)

HAZMAT SURVEY(S) REQUESTED FOR THE FOLLOWING

- FLOOR TILE
- JOINT COMPOUND
- WALLS
- MASTIC
- CEILING TILE
- PIPE INSULATION
- VINYL SHEET FLOORING
- FIREPROOFING
- FUME HOODS/TABLE TOPS
- ROOFING MATERIALS
- FIRE DOORS
- GASKETS/VALVES
- BOILER INSULATION
- ACOUSTICAL POPCORN CEILING
- DUCT WORK
- OTHER (PLEASE DESCRIBE BELOW)

DATE WORK STARTED	CAUSE
DATE WORK COMPLETED	CONDITION
EQUIPMENT	
CLOSING REMARKS	
BENCHSTOCK MATERIALS	
Qty	Description
	Price Per Unit

Supervisor's Approval _____

Note	Date	Title
	23-SEP-14	HAZMAT SURVEY RESULTS
SURVEY DATES: 9/19/14		
INSPECTOR #: DARRYL WASHINGTON (BI-00568)		
STATUS: THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR ASBESTOS AND RESULTS FOLLOW:		
ASBESTOS SECTION:		
WINDOW CAULKING- POSITIVE FOR ASBESTOS		
WINDOW GLAZING- NEGATIVE FOR ASBESTOS		
LEAD SECTION: LEAD RESULTS PREVIOUS TESTING WAS PERFORMED ON ANOTHER PROJECT ON 9/1/11		
DOOR FRAME PAINT (WHITE)- POSITIVE FOR LEAD		
WINDOW FRAME PAINT (WHITE)- POSITIVE FOR LEAD		
COLUMN PAINT (WHITE)- POSITIVE FOR LEAD		
IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT. PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.		
REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.		
	11-DEC-14	HAZMAT SURVEY - 12/10/14
SURVEY DATE: 12/10/14		
INSPECTOR #: DARRYL WASHINGTON II (BI-00568)		
STATUS: THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR LEAD AND THE RESULTS FOLLOW:		
INTERIOR WINDOW PAINT (WHITE)- (BOTH FLOORS)- POSITIVE FOR LEAD		
IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT.		
REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.		

02-JAN-15 HAZMAT SURVEY RESULTS - 1/2/15

SURVEY DATE: 1/2/15

INSPECTOR #: ERIC MELARO (BI-01296)

STATUS: THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR LEAD AND THE RESULTS FOLLOW:

WHITE PAINT ON PLYWOOD SURROUNDING BACK PORCH – NEGATIVE FOR LEAD

WHITE PAINT ON BOARDS COVERING 3 WINDOWS NEAR BACK PORCH – NEGATIVE FOR LEAD

WHITE PAINT ON 2 DOORS AND DOOR FRAMES ON BACK PORCH – NEGATIVE FOR LEAD

IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT.

PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.

REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.

02-APR-04 ASBESTOS MAY BE PRESENT IN THIS BUILDING

WARNING - ASBESTOS EXPOSURE ALERT - EXPOSURE TO ASBESTOS MAY BE HARMFUL TO YOUR HEALTH

AS OF 02/04/2004 THE FOLLOWING AREAS WITHIN THE BUILDING HAVE BEEN IDENTIFIED BY SURVEY TO CONTAIN ASBESTOS:

BLDG 034 GIBBS HOUSE 819 BARNWELL
BASEMENT --> FLUE OVER HOT WATER TANK [26 SQ. FT.]

THE FOLLOWING COMMON TYPES OF BUILDING COMPONENTS COULD CONTAIN MATERIALS THAT, WHEN DISTURBED, MIGHT EXPOSE YOU TO ASBESTOS:

1. FLOOR TILE
2. PIPE INSULATION
3. BLACK MASTIC
4. HVAC DUCT MASTIC
5. SPRAYED-ON FIREPROOFING
6. SPRAYED-ON CEILINGS
7. SHEETROCK JOINT COMPOUND

BEFORE DISTURBING THESE TYPES OF COMPONENTS, CONFIRM THAT THEY DO NOT CONTAIN ASBESTOS AND TAKE PROPER PRECAUTIONS AT ALL TIMES

Time	Component	Substrate	Side	Condition	Color	Site	Inspector	Floor	Room	Results	Action Level	Pbc
12/10/2014 10:07	WINDOW	WOOD		INTACT	WHITE	819 barnwell	wash	FIRST	100	Positive	0.7	< LOD
12/10/2014 10:07	WINDOW	WOOD		INTACT	WHITE	819 barnwell	wash	FIRST	100	Positive	0.7	< LOD
12/10/2014 10:08	WINDOW	WOOD		INTACT	WHITE	819 barnwell	wash	FIRST	100	Positive	0.7	10.6
12/10/2014 10:09	WINDOW	WOOD		INTACT	WHITE	819 barnwell	wash	SECOND	200	Positive	0.7	20.8
1/2/2015 10:21	calibrate				green	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:23	wall	wood	around back porch	flaking	white	819 barnwell	melaro			Negative	0.7	0.27
1/2/2015 10:23	wall	wood	around back porch	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:23	wall	wood	around back porch	flaking	white	819 barnwell	melaro			Null	0.7	< LOD
1/2/2015 10:24	wall	wood	around back porch	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:25	boarded window	wood	west, back	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:25	boarded window	wood	west, back	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:25	boarded window	wood	west, back	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:26	door	wood	back porch, lower	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:26	door	wood	back porch, lower	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:27	door	metal	back porch, upper	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:27	door	metal	back porch, upper	flaking	white	819 barnwell	melaro			Negative	0.7	< LOD
1/2/2015 10:28	calibrate				green	819 barnwell	melaro			Negative	0.7	< LOD

USC LEAD MANAGEMENT PLAN



U N I V E R S I T Y O F
SOUTH CAROLINA

**University of South Carolina
Facility Services
Lead Management Program**

**Requirements for
Managing Projects That Involve
Lead-Containing Materials**

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Section	Title
1.0	Introduction
2.0	Purpose
3.0	Definitions
4.0	Duties and Responsibilities
5.0	Lead Identification
6.0	Lead Exposure
7.0	Work Categories
8.0	Project Notification
9.0	Notification to Building Occupants
10.0	Training
11.0	Performance Criteria for Contractors
12.0	Contractors Lead Compliance Plan
13.0	Signage
14.0	Recommended Minimum Work Practice Controls
15.0	Sampling
15.1	Bulk Sampling for Lead Identification
15.2	Area Air Sampling
15.3	Final Clearance Sampling
16.0	Lead Waste
APPENDIX A	Initial Lead Work Notification Form
APPENDIX B	Lead Work Area Warning Sign

1.0 INTRODUCTION

This document is the official Facility Services position on procedures and operations involving the disturbance of lead-containing materials by employees or outside contractors.

This document was developed from a template developed by USC Environmental Health and Safety to ensure University compliance with Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) and the office of Housing and Urban Development (HUD) Standards.

The entity that is responsible for management of work affected by this program is also responsible for following the requirements herein.

2.0 PURPOSE

The purpose of this Lead Management Program is to prevent lead exposure of all employees, regardless of job title, as well as students, and to help prevent the potential for building contamination from lead during demolition, maintenance, and renovation activities in University of South Carolina owned structures.

The requirements in this Program set standards for work that disturbs lead-containing materials. Contractors engaged in such projects are expected to possess the managerial expertise, experience and to employ workers with skill, training, and experience so that the work is carried out in compliance with these requirements.

3.0 DEFINITIONS

Action Level (AL) – Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30ug/m³) calculated as an 8-hour time-weighted average.

Child Occupied Facility – a building or portion of a building constructed before 1978 that is visited regularly by a child who is 6 years of age or less, on at least 2 different days within a given week, if each day's visit is at least 3 hours and the combined weekly visit is at least 6 hours in length, and the combined annual visits are at least 60 hours in length. Child occupied facility includes but is not limited to a day-care center, a preschool, and a kindergarten classroom.

Contractor Employer Program - In accordance with the Hazard Communication Standard, each outside contractor working on a USC owned property (on-site) is responsible for developing, implementing, and informing other on-site employers of all hazard communication related information. Under the Program, each outside employer must provide USC, and other employer(s) working on-site, with unrestricted, on-site access to material safety data sheets (MSDSs) for all hazardous materials used, handled or stored on-site to which an employee may potentially be exposed to during their normal course of work.

Hazardous Waste – Generation and disposal of hazardous waste is regulated under the Resource Conservation and Recovery Act (RCRA). If a waste exhibits toxicity, corrosivity, ignitability, or reactivity characteristics it is considered hazardous.

HEPA – A HEPA filter is one that is capable of filtering 99.97% of all airborne particles at 0.3 micrometers (μm) in diameter.

HEPA Vacuum Cleaner - An electrical device that cleans surfaces by suction and discharges exhaust air through a HEPA filter.

Lead-Containing Material – Any paint, material or coating containing any detectable quantity of lead.

Lead-Based Material – Any paint, material or coating containing $>0.06\%$ by weight (600 ppm) total lead OR containing $\geq 0.7 \text{ mg/cm}^2$ as measured with an XRF (X-ray diffraction) analyzer.

Permissible Exposure Limit (PEL) - Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 50 micrograms per cubic meter of air (50ug/m^3) calculated as an 8-hour time-weighted average.

Presumed Lead Containing Material (PLCM) – Any material that is presumed to contain any quantity of lead.

Representative Sample – Sample that accurately captures a particular material or area based on the typical characteristic of that material or area.

Substrate – The underlying material a building component is made from, over which is often applied a surface finish such as paint. Common substrates include, plaster, concrete, wood, metal, and gypsum.

Target Housing – Any housing constructed before 1978, except any of the following:

- (a) Housing for the elderly or persons with disabilities, unless any 1 or more children age 6 years or less resides or is expected to reside in that housing.
- (b) A 0-bedroom dwelling.
- (c) An unoccupied dwelling unit pending demolition, provided the dwelling unit remains unoccupied until demolition.

Toxicity Characteristic Leachate Procedure (TCLP) - Test conducted to determine if a substance is a hazardous waste. The hazardous waste limit for lead is 5 parts per million (ppm).

4.0 DUTIES AND RESPONSIBILITIES

The Office of Environmental Health and Safety (EHS) shall:

- 1) Provide technical guidance to University personnel concerning lead hazard evaluation and control.

- 2) Review results of area air monitoring and clearance dust wipe sampling and provide interpretation for departments managing work.
- 3) Direct the University Departments conducting the work to modify or stop lead related work practices if employees, students, or the public are being exposed to lead hazards.
- 4) Maintain records of all sampling data submitted to EHS.
- 5) Communicate requirements of Lead Management Program.
- 6) Periodically review the Lead Management Program and revise as necessary.
- 7) Provide Lead Training in accordance with 29 CFR 1926.62 (L)(2) for University employees anticipated to have occupational lead exposure.

Facility Services shall:

- 1) Disclose known information regarding the presence of lead in building and construction materials to any contractor retained to conduct demolition or renovation work at Facility Services
- 2) Contact EHS a minimum of 5 working days in advance of upcoming projects that may impact coated surfaces that may contain lead.
- 3) Ensure that the Contractor has read, understands, and will abide by the minimum performance standards required in this Program for controlling lead hazards.
- 4) Report any problems associated with implementation of the Lead Management Program to EHS.
- 5) Stop or modify lead related work practices if employees, students, or the public are being exposed to lead hazards.
- 6) Conduct area air monitoring and clearance sampling by qualified consultant as required by this program and provide EHS with all sample results.
- 7) Ensure all lead related work-sites and all areas that have been contaminated resulting from the work conducted are properly cleaned and meet the clearance criteria required by this Program.
- 8) Ensure all hazardous waste is properly identified, labeled, segregated and stored at the job-site until removed by approved hazardous waste contractor.
- 9) Provide specific contractor language regarding projects that may contain lead to outside contractors bidding on projects.

5.0 LEAD IDENTIFICATION

Because of its physical properties, lead has been widely used as an additive to many building materials. Although lead has been banned from use on potable water supplies and residential paint, it may still be present in older buildings. Some lead containing building materials continue to be used to this day. The following materials should be presumed to contain lead unless manufacturer information, MSDS, or testing proves otherwise.

Presumed Lead Containing Materials (PLCM):

- Interior and exterior paint
- Steel and iron primer
- Industrial paint
- Industrial electrical jacketing
- Roof flashing
- Tank linings
- Soft solder
- Glazed Ceramics
- Sheeting, blocks, and bricks in floors and walls for x-ray penetration protection

The OSHA Lead Standard applies to any detectable concentration of lead in a material. The presence of any lead in a material triggers the worker protection and work practice requirements of this program.

Facility Services may decide to conduct lead identification sampling to determine if a presumed lead containing material contains lead and requires lead management.

Sampling may only be conducted by a qualified USC employee or a qualified consulting firm. USC Facility Services has qualified personnel that are available conduct sampling for the identification of lead.

6.0 LEAD EXPOSURE

According to the Occupational Safety and Health Association (OSHA), any lead containing material has the potential to create an airborne exposure to lead. Contractors that disturb lead-containing material or presumed lead containing material must protect their employees from airborne lead exposure in compliance with the OSHA Lead Standard 29 CFR 1926.62. In accordance with OSHA, Contractors must protect their own employees with personal protective equipment, training, and medical surveillance.

Contractors conducting lead work on multi-contractor sites must also inform all site workers of potential exposure to lead.

USC employees must also be protected, regardless of job title, from lead exposures according to the OSHA General Industry Standard 29 CFR 1910.1025. Protecting these individuals from lead exposure will be accomplished by making sure the Contractor contains all airborne lead to the work site by using appropriate work practice controls and meeting the minimum performance criteria listed below.

7.0 WORK CATEGORIES

Projects involving lead are categorized according to the tasks performed, depending on the risk level. In order to ensure the appropriate measure will be taken to protect all individuals at USC, all projects will be categorized by Facility Services prior to initiation. Use the following tasks described below to categorize the work being conducted. Recommended minimum work practice controls can be found in Section 14.0.

Level 0

Level 0 tasks have been documented through personal air monitoring not to result in exposures above the OSHA Action Limit, and do not generate dust/debris or other waste requiring special waste management practices.

- Tasks conducted with lead-containing or lead-based materials that are not anticipated to create dust or debris and are not listed as Level 1, 2 or 3 Tasks. (example: use of manual (i.e. hammer, screwdriver) or power (i.e. pneumatic nail gun/electric drill) tools to insert nails or screws into surfaces through intact paint or coating which remains intact during work)
- Power drilling holes into materials or coatings $\leq 0.06\%$ by weight, or $< 0.7 \text{ mg/cm}^2$ as measured with XRF)
- Manual demolition of materials or coatings containing $\leq 0.06\%$ by weight, or $< 0.7 \text{ mg/cm}^2$ as measured with XRF)
- Manual scraping or sanding of materials or coatings containing $\leq 0.06\%$ by weight, or $< 0.7 \text{ mg/cm}^2$ as measured with XRF) using wet methods
- Chemical stripping of materials or coatings containing $\leq 0.06\%$ by weight, or $< 0.7 \text{ mg/cm}^2$ as measured with XRF)

Level 1

Level 1 tasks have been documented via personal air monitoring to result in exposures consistently below the OSHA Action Limit, but require more extensive work practices to minimize dust generation, contain lead contamination, and properly manage waste material resulting from work.

Example tasks may include, but are not limited to:

- Manual demolition of lead-based materials or coatings (contains $> 0.06\%$ by weight, or $\geq 0.7 \text{ mg/cm}^2$ as measured with XRF)
- Manual scraping or sanding of lead-based materials or coatings (contains $> 0.06\%$ by weight, or $\geq 0.7 \text{ mg/cm}^2$ as measured with XRF) using wet methods
- Power tool disturbance of lead based materials or coatings (contains $\geq 0.06\%$ by weight, or $> 0.7 \text{ mg/cm}^2$ as measured with XRF) with a dust collection system
- Power tool disturbance of materials or coatings containing $< 0.06\%$ by weight, or $\leq 0.7 \text{ mg/cm}^2$ as measured with XRF) with a dust collection system
- Chemical stripping of lead-based materials or coatings (contains $> 0.06\%$ by weight, or $\geq 0.7 \text{ mg/cm}^2$ as measured with XRF)

Level 2

Level 2 tasks either have been documented via personal air monitoring to result in exposures above the OSHA Action Limit, or may result in an unknown exposure due to lack of personal air monitoring data. Example tasks may include, but are not limited to:

- Using lead-containing mortar
- Lead burning
- Rivet busting on lead containing materials or coatings
- Power tool disturbance of lead containing materials or coatings without a dust collection system
- Clean-up of dry expendable abrasives used to remove a lead containing coating
- Spray painting with lead-based paint
- Use of a heat gun on lead containing materials or coatings

Level 3

Level 3 tasks are anticipated to generate high levels of airborne dust and pose a high risk of exposure above the OSHA PEL. Example tasks may include, but are not limited to:

- Abrasive blasting on lead containing materials or coatings
- Welding on lead containing materials or coatings
- Cutting on lead containing materials or coatings
- Torch burning on lead containing materials or coatings

8.0 PROJECT NOTIFICATION

Prior to the initiation of any interior or exterior work involving lead containing or presumed lead containing material by an outside contractor, Facility Services must provide EHS with an Initial Lead Project Notification. The initial notification must contain the general scope of work to be done, dates for the start and proposed completion of the work, and the precautions which will be employed to protect building occupants.

Facility Services must complete and submit the form 15 days prior to the start of the project. This form can be found in Appendix 1.

9.0 NOTIFICATION TO BUILDING OCCUPANTS

Prior to the initiation of any interior or exterior work involving lead containing or presumed lead containing material, Facility Services will forward an informational memo to all appropriate persons on the building contact directory list located in the building that lead work is conducted. This memo will contain the general scope of work to be done, dates for the start and proposed completion of the work, and the precautions which will be employed to protect building occupants.

10.0 TRAINING

All maintenance and custodial staff must attend Lead Awareness training annually. This training requirement is satisfied through the comprehensive safety training program conducted by EHS.

All USC employees conduct, or that are anticipated to enter a lead work site other than Level 0 must receive Occupational Exposure to Lead Training in accordance with 29 CFR 1926.62(L)(2). Lead training shall be conducted annually by EHS and will consist of the following:

- The specific nature of the operations which could result in exposure to lead above the action level
- Procedures and work practices required to minimize lead exposure and properly manage resulting waste material
- The purpose, proper selection, fitting, use and limitations of respirators
- The purpose and description of the medical surveillance and medical removal programs, including health effects of lead exposure and potential reproductive consequences
- The contents of this compliance plan.
- Instruction that chelating agents should not be used unless under the direction of a licensed physician.
- Explanation of engineering controls and work practices for lead-related work
- The employee's right of access to records

11.0 PERFORMANCE CRITERIA FOR CONTRACTORS

Minimum Performance Criteria have been established for outside contractors conducting lead related work to ensure that no University employee or student is exposed above the OSHA Action Level of 30 ug/m³ of airborne lead or has the potential to come into contact with lead dust as a result of contractor's activities. At a minimum, a Contractor disturbing lead related materials must meet the following requirements.

- Possess, at a minimum, 2 years of experience with lead related work.
- Limit access to worksites in which Level 1, 2 and 3 tasks are taking place to trained and authorized personnel only.
- Adequately limit all migration of lead containing dust and debris to any areas outside the worksite.
- Ensure that USC employees and students not associated with the worksite are not exposed to lead levels above the OSHA Action Level.
- Prevent the contamination of USC property (i.e., computers, chairs, desks, carpet, floors, walls, etc.) from lead dust and debris.
- Collect and manage hazardous wastes produced in accordance with RCRA hazardous waste requirements.
- Ensure that workers contaminated with lead containing dust and debris do not transfer that material outside the worksite

Facility Services will ensure airborne lead and dust is contained to the worksite by conducting or contracting for approved third party Area Air Monitoring and Clearance Dust

Wipe Sampling (information on Area Air Monitoring and Clearance Dust Wipe Sampling can be found in Sections 15 and 16) when required by this program.

Note: USC employees designated to conduct lead related work will be protected in accordance with the OSHA Lead in Construction Standard 29 CFR 1926.62.

12.0 LEAD COMPLIANCE PLAN

OSHA requires contractors that employ workers occupationally exposed to lead establish and implement a Lead Compliance Plan. The Lead Compliance Plan shall be prepared by the Contractor, as required by the OSHA Standard (29 CFR 1926.62) and submitted to Facility Services and EHS. When Facility Services conducts any Level 1 tasks or above, a Lead Compliance Plan will also be developed. The document must include the following:

- Description of each activity in which lead containing, or presumed lead containing material is disturbed (i.e., equipment used, material involved and % Pb, controls in place, operating procedures, crew size and corresponding employee job responsibilities).
- Work Practice Controls to be used to prevent lead contamination from occurring outside the work-site.
- Regular inspections of the work-site and equipment by a competent person named by the Contractor.
- A description of arrangements made among Contractors on multi-contractor sites to inform workers of potential exposure to lead and their responsibility to comply with the OSHA Lead in Construction Standard 29 CFR 1926.62.
- Proof of appropriate Lead Training for each employee on-site.
- Proof of appropriate written respirator program and compliance under 29 CFR 1910.134.
- Certification that the Contractor has read understands and will abide by the minimum performance standards required in this Program for controlling lead hazards.

13.0 SIGNAGE

The Contractor conducting lead work shall post warning signs outside any entrance to the worksite in accordance with the OSHA standard below:

1926.62(m)(2)(i) The employer shall post the following warning signs in each work area where employee exposure to lead is above the PEL.

**WARNING:
LEAD WORK AREA
POISON
NO SMOKING OR EATING**

1926.62(m)(2)(ii) The employer shall assure that signs required by this paragraph are illuminated and cleaned as necessary so that the legend is readily visible.

Additionally all work areas (other than Category 0), regardless of airborne lead concentrations, shall be posted with the following sign. An example of this sign can be found in Appendix 2.

WARNING
LEAD WORK AREA
NO EMPLOYEE PERMITTED ENTRANCE
WITHOUT PROOF OF LEAD TRAINING
for further information, please contact:
(Project Manger) at (Phone #)

Facility Services will ensure that signs are posted and maintained appropriately.

14.0 RECOMMENDED MINIMUM WORK PRACTICE CONTROLS

Recommended work practices have been developed for lead related work conducted at USC. Work involving lead-containing material must be well planned out to avoid worker and occupant exposure. The following work practices are recommended for meeting the performance criteria listed in the Requirements of Contractors Section of this Program.

Level 0 Tasks

Training - Employees engaged in Level 0 tasks must have received Lead Awareness training within the past year.

PPE - No PPE Required

Required Work Practices

- Establish "safe zone" around work using barrier tape. Do not allow public access to work area.
- Use care to minimize the production of dust and debris.
- Visually inspect area for any debris/dust resulting from work conducted.

Level 1 Tasks

Training - Employees engaged in Level 1 tasks must have received Occupational Exposure to Lead training within the past year.

PPE - Tyvek suit or coveralls to prevent contamination of street clothing. A half-face , air purifying respirator with HEPA cartridges is optional. Note that any employee wearing a respirator must be enrolled in the Respiratory Protection Program and be qualified to wear a respirator.

Required Work Practices

- Barrier tape will be used to isolate the work area in such a way that staff, students, and the public cannot get within 10 ft of the work area.
- A warning sign should be posted outside any unsecured entry to the work site. Refer to the Signage Section of this Program (Section 13).
- Daily clean-up of the worksite will include removal of debris (with the exception of contaminated plastic sheeting) and disposal of protective clothing.
- Complete Lead Compliance Plan prior to beginning work.
- Identify and require the use of hand/face washing facility and change area.
- Personal air monitoring should be conducted periodically to confirm exposures remain below the OSHA Action Limit.
- For work occurring in occupied areas (i.e., office, cafeteria, gym, dormitory, apartments, study room, labs) the work area should be enclosed with, minimally, 6 mil plastic in a manner that prevents transfer of dust outside the work area.
- Remove all movable objects (desk, chairs, and books) within the enclosed work area. Non-movable objects should be securely covered with 6-mil plastic sheeting, as to prevent lead dust contamination. Facility Services employee entry to the work area will be limited to those individuals with documented Lead Awareness Training.
- For work occurring in unoccupied areas (i.e., hallway, stairwell, foyers, mechanical spaces, etc) prepare work area by placing 6mil plastic sheeting a minimum of six (6) feet horizontally out in all directions from the work area. Adequately secure plastic to ensure all debris and dust is collected on plastic.
- Cover all air vents within the work area.
- For exterior projects, capture all lead containing material and presumed lead containing material to prevent contamination of the surrounding environment (i.e. secure one layer of 6-mil plastic on the ground extending 10 feet beyond the perimeter of the worksite).
- Use care to minimize the production of dust from scraping or sanding. Use either wet sanding/scraping or HEPA filtration fitted equipment.
- After disturbance work is completed a HEPA vacuum should be used to remove any small debris and visible dust from interior/exterior surfaces and plastic sheeting.
- Visually inspect area for any debris resulting from work conducted. Remove any debris from area.
- Decontaminate Tyvek or coveralls with HEPA vacuum before leaving the regulated area.
- After work is completed, a HEPA vacuum should be used to remove any small debris and visible dust from all surfaces. After visible debris is removed from the plastic sheeting, it should be rolled inward and placed in a "hazardous" waste container, along with all disposable clothing. All "hazardous" waste shall be adequately labeled and stored in accordance with all Local, State, and Federal rules and in accordance with University Procedures.

Level 2 and 3 Tasks

Training - Employees engaged in Level 2 and 3 tasks must have received Occupational Exposure to Lead training within the past year.

PPE - Tyvek suit or coveralls to prevent contamination of street clothing. Depending upon the operation and expected exposure levels, all employees must wear, at a minimum, a powered air purifying respirator with tight-fitting face piece. Note that any employee wearing a respirator must be enrolled in the Respiratory Protection Program and be qualified to wear a respirator.

Required Work Practices

- Complete Lead Compliance Plan prior to beginning work.
- Lead dust/debris shall be contained to the work area by sealing all doors, windows, and air vents with 6-mil plastic sheeting. This may require turning off localized HVAC systems.
- The entrance to the work area should be equipped with an adequate air lock constructed of 6 mil plastic sheeting at a minimum. The air lock must control any dust migration or transfer out of the controlled work area.
- A three-stage decontamination unit, including equipment room, shower and clean room must be established at the entrance to the work area.
- Disposable coveralls must be donned prior to entering the work-site and contaminated coveralls must be doffed prior to exiting the work-site.
- Entry to the work area will be limited to workers with documented Occupational Exposure to Lead training.
- All furniture that cannot be removed from the work area should be covered in 6-mil plastic sheeting in a manner which provides protection from lead dust contamination.
- Place a minimum of 6-mil plastic sheeting on all finished floors in the work area, and tape all seams as necessary. The contractor must notify Facility Service if plastic sheeting is not appropriate for floor application and provide an alternative floor protection control method.
- Mechanical ventilation may not be used, unless resulting exhaust outside the work area is equipped with HEPA filtration and the termination of the exhaust is monitored in accordance with Section 15 of this Program.
- Barrier tape will be used to isolate the work area in such a way that staff, students, and the public cannot get within 10 ft of the work area.
- A warning sign should be posted outside any unsecured entry to the work site. Refer to the Signage Section of this Program (Section 13).
- Daily clean-up of the worksite will include removal of debris (with the exception of contaminated plastic sheeting) and disposal of protective clothing.
- After lead project work is completed, a HEPA vacuum should be used to remove any small debris and visible dust from all surfaces. After visible debris is removed from the plastic sheeting, it should be rolled inward and placed in a

“hazardous” waste container, along with all disposable clothing. All “hazardous” waste shall be adequately labeled and stored in accordance with all Local, State, and Federal rules and in accordance with University Procedures.

- In situations where work is complete, but plastic sheeting was not used on the floor, a HEPA vacuum should be used to remove any small debris and visible dust, followed by a wet mopping with lead specific detergent of the entire floor. All liquid waste must be treated as “hazardous” until otherwise determined by analysis and characterization.
- The work area may not be released for general use or occupancy until clearance wipe samples are collected and results reviewed and approved by EHS. Information on Clearance Criteria and associated sampling can be found in Section 16 of this Program.

Required exterior work practices for Level 2 and 3 Tasks include:

- Building occupants shall be notified to close windows and doors within 20 feet of work area until work is complete.
- Controls shall be in place to eliminate contaminating HVAC systems and air intakes that have the potential to draw in air from the work-site. Control methods must be submitted to EHS for review and approval.
- Capture all lead containing material and presumed lead containing material to prevent contamination of the surrounding environment (i.e. secure one layer of 6-mil plastic on the ground extending 10 feet beyond the perimeter of the worksite).
- Erect temporary fencing or barrier tape at a 20 foot perimeter around work-site.
- Daily clean-up of the worksite will include removal of debris, plastic sheeting, and disposal of coveralls. All “hazardous” waste shall be adequately labeled and stored in accordance with all Local, State, and Federal rules and in accordance with University Procedures.
- Keep all hazardous waste in a secure indoor area until disposal.

15.0 SAMPLING

USC requires all lead sampling to be conducted by qualified individuals, consultants, and labs. Additionally, all laboratory analysis of bulk, air, and wipe samples must be conducted by an AIHA approved lead laboratory.

15.1 BULK SAMPLING FOR LEAD IDENTIFICATION

The department managing the work may decide to conduct lead identification sampling to determine if a presumed lead containing material contains lead and requires lead management. The only method currently recognized is bulk sampling for laboratory analysis. Sampling may only be conducted by a qualified USC employee or an approved consulting firm.

At a minimum, a qualified person conducting lead identification sampling will:

- Have previous bulk sampling for lab analysis experience.
- Have a working understanding of the National Institutes for Occupational Safety and Health (NIOSH) sampling methodologies.
- Capable of determining appropriate sampling methodologies documenting and submitting a “representative” sampling plan.

At a minimum, Lead Identification Sampling must provide the following:

- Sampling must be representative of the material selected. One sample is needed for each homogenous (same color and substrate) component and each individual component must be sampled separately. For example, if a door is painted 2 different colors, a sample is needed for each color, or if a wall is half plaster and half drywall, a sample is need for each substrate.
- A collection of all paint layers from the substrate, and minimize the collection of actual substrate.
- A record of the component, substrate, color, and location for each sample taken.
- Sampling results must be provided to the Department Managing the work and EHS.

15.2 AREA AIR SAMPLING

Facility Services must provide area air sampling for all Level 2 and 3 tasks, or when HEPA equipped ventilation is exhausted outside the work-site. Sampling may only be conducted by a qualified individual(s).

At a minimum, a qualified person conducting air sampling will:

- Have previous air sampling experience and work under the supervision of an Industrial Hygiene Professional.
- Possess the ability to calibrate and maintain all air sampling equipment.
- Have an understanding of the National Institutes for Occupational Safety and Health (NIOSH) sampling methodologies.
- Have the ability to answer questions on sampling procedures, laboratory results, and or, instrument readings.

At a minimum, Area Air Sampling must provide the following:

- One air sample which represents an area outside the worksite, no more than 3 feet from the entrance.
- One air sample at the termination of any mechanical ventilation device used in the work-site which is exhausted outside of the worksite.
- One sample that represents the closest occupied area, or adjacent public space.

- Area air sampling must be conducted for every shift where HEPA equipped ventilation is used or abrasive blasting is conducted.
- Analytical results of air samples must be provided by an American Industrial Hygiene Association accredited lab within 24 hours of sample collection.
- Area air sample results must be provided to EHS daily. EHS will review all air sample results and contact the department managing the work the next business day if results are at or above 30ug/m³. The results must contain the date, time, duration, associated room number, and a floor plan drawing that identifies sample location. An area air sample result at, or above 30ug/m³, for any shift, will be considered a breach in dust containment. All surfaces represented in the area sample are considered to be contaminated with lead dust and represent an exposure potential for future or existing building occupants.

Work must be stopped immediately and the following must occur:

- The affected area must be HEPA vacuumed, removing all visible dust from all affected surfaces.
- Clearance Dust Sampling must be conducted to ensure lead dust was removed. A re-clean of the area will be required until the University Clearance Criteria is met.

Information on Clearance Dust Sampling is provided below.

15.3 CLEARANCE DUST WIPE SAMPLING

Facility Services must provide Clearance Dust Wipe Sampling at the completion of the Level 2 and 3 tasks in which more than 2 square feet of a lead containing material is impacted. Results of the sampling will determine if the worksite is free of lead dust contamination and if the worksite can be opened for unrestricted access. Sampling will also provide confirmation that an area that was accidentally contaminated was sufficiently cleaned. Sampling may only be conducted by a qualified individual(s).

At a minimum, a qualified person conducting clearance sampling will:

- Have previous sampling experience and work under the supervision of an Industrial Hygiene Professional.
- Have the ability to answer questions on sampling procedures and laboratory results.
- Be completely independent of the contractor conducting the lead work. In target housing (University Apartments) and child occupied facilities, the person conducting clearance sampling must possess EPA Lead Inspector or Risk Assessor certification.

At a minimum, Clearance Dust Wipe Sampling must provide the following:

- One representative floor dust wipe sample per room, or per every 1000 square foot of floor space for rooms over 1000 square foot in size. Sample locations will represent the areas that have the highest potential for contamination within the work-site, or areas that have been identified as contaminated.
- One dust wipe sample for every hand contact surface located in the work site, or hand contact surfaces that have been identified as contaminated.
- Clearance dust wipe samples shall be collected no sooner than one hour from the completion of work. Samples collected within an hour of the completion of work will not be considered accurate representations of actual conditions in the work area.
- Clearance dust wipe sampling shall be conducted after the worksite is HEPA vacuumed by the Contractor and all visible dust is removed and prior to use or occupancy.
- Analytical results of dust wipe samples must be provided by an American Industrial Hygiene Association accredited lab.
- Clearance dust wipe sample results must be provided to EHS for review. EHS will notify The University department managing the work the next business day if area testing results meets the Clearance Criteria, and or, the space can be released for unrestricted access. University Clearance Criteria is listed below.

Dust Wipe Clearance Criteria

Area	Clearance Criteria
All interior surfaces (eg., floors, stair treads, window sills)	100 ug/ft ²
All exterior horizontal surfaces extending 20-feet from work-site up to a height of 6-feet (eg., stairs, pavement, concrete, window sills)	400 ug/ft ²

The University department or contractor conducting lead work on campus shall be responsible for returning the work area to below the appropriate clearance level. In settings where baseline samples show existing lead concentrations above the clearance level, the contractor must clean the work area to the baseline level or below. If baseline data is used as clearance criteria, the department or contractor must contact EHS BEFORE work is conducted to request baseline wipe sampling. Failure to contact EHS before work is started will require use of the listed clearance limits.

Clearance dust wipe sample results above the Clearance Criteria represent surface lead contamination. Any areas that contain surface contamination must remain a restricted lead worksite, until a re-clean is completed and clearance dust wipes are collected by a third-party Sampling Technician and results reviewed for approval by EHS.

Note: Clearance Criteria for lead contamination in “Target Housing” or Child-Occupied Facilities must meet requirements listed in the US Department of Housing and Urban Development (HUD), “Guidelines for the Control of Lead-Based Paint Hazards in Housing.”

15.0 LEAD WASTE

There are comprehensive federal, state and local regulations for the management of hazardous waste. These rules apply to all University personnel; from those who initially generate the hazardous waste to those who arrange for waste disposal. The University is regulated as a hazardous waste generator. Strict regulatory requirements apply to labeling, handling, storing and disposing of hazardous wastes. In order to remain compliant with the Resource Conservation and Recovery Act (RCRA) solid waste must be reviewed to determine if it is a regulated waste. In the case of construction debris, there is a potential for lead contamination from lead based paint. Any waste which leaches lead at a rate of 5 parts per million or greater is considered to be a hazardous waste.

The University has determined that there are four types of lead contaminated waste which may be created as a result of maintenance and construction operations. These four types are:

- Dust – Any material with a surface area of less than 2 square inches, to include, but not limited to, paint scrapings, small bits of construction debris, and dust from drilling, sanding, cutting, etc.
- Debris – Any material with a surface area greater than or equal to 2 square inches in size, to include, but not limited to, Personal Protective Equipment (PPE), rags, wood, construction debris, paper, plastic, Scrap Metal which is not sent for recycling, etc.
- Water – Waste water from processes involving the removal of lead based paint or lead contaminated debris, to include, but not limited to, mop water, rinse water, etc.
- Scrap Metal – Any painted metal which is being discarded as a waste, and can be sent to a metal recycling facility, to include, but not limited to, railings, stairs, shutters, doors, etc.

Waste Sampling

Many wastes which are or have the potential to be contaminated with lead must be sampled by an approved Third Party Sampling Technician or by a qualified University employee and be submitted for testing to an EPA accredited lab for Toxicity Characteristic Leaching Procedure (TCLP) analysis.

For the purposes of this program, the University will require testing and analytical for all Water, and Debris, and for *large volumes of Dust on a case by case basis. Scrap Metal sent for recycling is not required to be tested.

**Note: Due to the cost of analytical it does not make sense to analyze insignificant amounts of material. Any small (less than 5 pounds) quantities of dust should be automatically managed as a hazardous waste and disposed of accordingly.*

EHS requires Facility Services use a qualified laboratory for sampling and analytical of the waste material. The lab provides a sampling service for a fee and all associated cost will be the responsibility of the department managing the work.

A proper sample must be representative of the waste. Proper sampling protocol will be ensured if employing the approved laboratory to sample and analyze the material. If the department managing the work chooses not to employ an approved laboratory, a sampling protocol must be submitted to the EHS for approval, five business days in advance of sampling.

EHS recommends that a representative waste sample be taken and results submitted to EHS prior to waste generation. By making a waste determination before work starts, the Contractor and the department managing the work can make the appropriate arrangements for storage and disposal of the waste in advance.

Waste Determination

Once the analytical results are received, a hazardous waste determination must be made by the contractor. Facility Services must submit a copy of sample results for review by EHS. Waste may only be removed from the worksite after EHS has made a waste determination, based on the analytical results.

Once materials are deemed to be a hazardous waste they must be managed as such. If the material is determined by EHS to be non-hazardous it may be treated as a Municipal Solid Waste, Construction Debris, or Scrap Metal and can be managed and removed by the contractor. The material cannot be determined to be non-hazardous until the EHS receives and reviews a copy of the analytical for review and notification of determination is given to the Hazardous Waste Manager (see description below). Only then can the material sampled be treated as non-hazardous.

APPENDIX 1

University of South Carolina
Office of Environmental Health and Safety
Initial Lead Project Notification

USC Building _____ / # _____ Floor _____ Room _____

Building Contact _____ PH # _____

Project Representative _____ PH # _____

General

Contractor _____ No. _____

Scope of Work (Including Engineering Controls):

Start Date ___/___/___ End Date ___/___/___ Hours ___:___ to ___:___

Baseline Wipe Samples Requested yes ___ no ___

Presumed Lead Containing Material Tested? yes ___ no ___

If yes, who tested the material and what were the results:

Fax Completed Form to EHS at (803) 777/5275 at least 15 days before start

APPENDIX 2

LEAD WORK WARNING SIGN

SECTION 05 7300 - DECORATIVE METAL RAILINGS

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. Steel and iron decorative railings.

1.3 DEFINITIONS

- A. Railings: Guards, handrails, and similar devices used for protection of occupants at open-sided floor areas, pedestrian guidance and support, visual separation, or wall protection.

1.4 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design railings, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. General: In engineering railings to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:
 - 1. Steel: 72 percent of minimum yield strength.

1.5 ACTION SUBMITTALS

- A. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- B. Samples for Initial Selection: For products involving selection of color, texture, or design.
- C. Samples for Verification: For each type of exposed finish required.
 - 1. Welded connections.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified professional engineer .
- B. Welding certificates.

1.7 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of railing from single source from single manufacturer.
- B. Product Options: Information on Drawings and in Specifications establishes requirements for system's aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including structural analysis, preconstruction testing, field testing, and in-service performance.
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of railings and are based on the specific system indicated. Refer to Section 01 6000 "Product Requirements."
 - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- D. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."

1.8 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with railings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.9 COORDINATION AND SCHEDULING

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorages for railings. 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.

- C. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by any means that do not suit structural performance requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Available manufacturers offering products subject to compliance with requirements listed.

2.2 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Same metal and finish as supported rails unless otherwise indicated.
 - 1. Provide formed metal brackets ready for field welding or predrilled hole for exposed bolt anchorage.

2.3 STEEL AND IRON

- A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- B. Tubing: ASTM A 513.
- C. Bars: Hot-rolled, carbon steel complying with ASTM A 29/A 29M, Grade 1010.

2.4 FASTENERS

- A. Fastener Materials: Unless otherwise indicated, provide the following:
 - 1. Uncoated Steel Components: Plated-steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating where concealed; Type 304 stainless-steel fasteners where exposed.
 - 2. Galvanized-Steel Components: Plated-steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating.
 - 3. Dissimilar Metals: Type 304 stainless-steel fasteners.
- B. Fasteners for Anchoring to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated.

- C. Provide concealed fasteners for interconnecting railing components and for attaching railings to other work unless exposed fasteners are unavoidable.
 - 1. Provide tamper-resistant flat-head machine screws for exposed fasteners unless otherwise indicated.
- D. Anchors, General: Anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.
- E. Post-Installed Anchors: Torque-controlled expansion anchors.
 - 1. Material for Exterior Locations and Where Stainless Steel Is Indicated: Alloy Group 2 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Brazing Rods: For copper-alloy railings, provide type and alloy as recommended by producer of metal to be brazed and as required for color match, strength, and compatibility in fabricated items.

2.6 FABRICATION

- A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage.
- B. Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form work true to line and level with accurate angles and surfaces.
- E. Fabricate connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate. Locate weep holes in inconspicuous locations.
- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- G. Connections: Fabricate railings with welded connections unless otherwise indicated.

- H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove flux immediately.
 - 4. At exposed connections, finish exposed welds to comply with NOMMA's "Voluntary Joint Finish Standards" for Type 1 welds: no evidence of a welded joint.
- I. Welded Connections for Aluminum Pipe: Fabricate railings to interconnect members with concealed internal welds that eliminate surface grinding, using manufacturer's standard system of sleeve and socket fittings.
- J. Bend members in jigs to produce uniform curvature for each configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- K. Close exposed ends of hollow railing members with prefabricated end fittings.
- L. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns, unless clearance between end of rail and wall is 1/4 inch or less.
- M. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.
 - 1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers, or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.
- N. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.

2.7 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

2.8 STEEL AND IRON FINISHES

- A. Preparing Nongalvanized Items for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below:

1. Railings Indicated to Receive Primers Specified in Section 09 9600
"High-Performance Coatings": SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
 2. Other Railings: SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
- B. Primer Application: Apply shop primer to prepared surfaces of railings unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Primer need not be applied to surfaces to be embedded in concrete or masonry.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine plaster and gypsum board assemblies, where reinforced to receive anchors, to verify that locations of concealed reinforcements have been clearly marked for Installer. Locate reinforcements and mark locations if not already done.

3.2 INSTALLATION, GENERAL

- A. Fit exposed connections together to form tight, hairline joints.
- B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
- C. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- D. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.3 RAILING CONNECTIONS

- A. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.

3.4 ANCHORING POSTS

- A. Cover anchorage joint with flange of same metal as post, welded to post after placing anchoring material .

3.5 ATTACHING RAILINGS

- A. Attach handrails to walls with wall brackets except where end flanges are used. Provide brackets with 1-1/2-inch clearance from inside face of handrail and finished wall surface. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.
 - 1. Use type of bracket with predrilled hole for exposed bolt anchorage.
 - 2. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.
- B. Secure wall brackets and railing end flanges to building construction as follows:
 - 1. For wood stud partitions, use hanger or lag bolts set into wood backing between studs. Coordinate with carpentry work to locate backing members.

3.6 CLEANING

- A. Clean wood rails by wiping with a damp cloth and then wiping dry.
- B. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.
- C. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Section 09 9113 "Exterior Painting" and Section 09 9123 "Interior Painting." and Section 09 9600 "High-Performance Coatings."

3.7 PROTECTION

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.
- B. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit, or provide new units.

END OF SECTION 05 7300

SECTION 06910 - WOOD REPAIR

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Preservation and sealing of seams and joints.
2. Removal of decayed and contaminated wood.
3. Installation of borate wood preservatives.
4. Installation of flexible epoxy wood repair compound materials for non-structural repairs.

1.2 SUBMITTALS

- A. Product Data: Provide Product Data, installation instructions and general recommendations from manufacturer for types of repair required including technical data sheets defining performance properties.
- B. Qualification data for firms and persons specified in the "Quality Assurance" article to demonstrate their capabilities and experience. Include a list of completed projects with project name, address, names of architects and owners, and information specified.

1.3 QUALITY ASSURANCE

- A. Only skilled workers who are thoroughly trained and experienced in wood repairs and restoration work, have the skills required for the work of this section, and are completely familiar with the materials and methods specified shall be used for wood restoration work. At least one skilled worker shall be present at all times during the execution of the work and shall personally direct the wood repairs and restoration work. In acceptance or rejection of the wood restoration work, no allowance will be made for lack of skill on the part of the workers.

1.4 MOCK-UP

- A. Wood restoration: Following the requirements of the Section, perform a mock-up of each type of wood repair system specified to demonstrate materials and methods intended to be used in the finished work.
- B. Locate where directed.
- C. Approved mock-up shall represent the minimum acceptable standard for each type and detail of the restoration work.
- D. Mock-up, where acceptable, may remain as part of the Work.

1.5 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver all materials in original unopened containers labeled with the manufacturer's name, brand name, item name and installation instructions.
- B. Store materials in compliance with the manufacturer's requirements for temperature, maximum and minimum, and other conditions. Keep all materials under cover and dry. Protect against exposure to the weather.
- C. Discard and remove from the job site any materials damaged in handling or storage and any materials that have been subjected to conditions contrary to the manufacturer's recommendations or whose maximum shelf life has expired.

1.6 PROJECT CONDITIONS

- A. Coordinate wood repair with paint stripping so that the effected surfaces are exposed for a minimal time to avoid further damage to bare wood. Coordinate with painting so that all restored surfaces are primed as soon as possible after repair.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. proceed with the Work of this section only when existing and foreseen weather conditions permit the work to be performed in accordance with the manufacturer's recommendations for temperature and humidity range, minimum and maximum.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Base Manufacturer: Abatron, Inc, Kenosha, WI; (800) 445-1754; www.abatron.com
- B. Other Acceptable Manufacturers:
 - 1. Wood Care Systems, Kirkland, WA; (800) 827-3480; www.ewoodcare.com
 - 2. Conservepoxy; Newton, NJ; (973) 579-1112; www.conservepoxy.com
 - 3. Preservation Resource Group; Rockville, MD; (301) 309-2222; www.prginc.com
 - 4. Advanced Repair Technology; Cherry Valley, NY; (607) 264-9040; www.advancedrepair.com

2.2 MATERIALS

- A. Obtain primary repair materials from a single manufacturer. Provide secondary materials as recommended by the manufacturer of the primary materials.
- B. Compatibility: Provide products recommended by the manufacturers to be fully compatible with indicated substrate.

- C. Epoxy Repair Products: Epoxy repair materials shall consist of 2 separate systems, a 2 part low viscosity epoxy primer/coupling agent and a 2 part thixotropic paste.
- D. Other Repair Products: Injectable Borate gel and Borate rods.
- E. Primers: 100 percent acrylic primer formulated to adhere to epoxy filler per Section 09900.
- F. Paint Strippers: For use in limited areas.
 - 1. Chemical Stripping Agent: Methylene chloride based, Thixotropic stripper; as manufactured by ProSoCo, or equal.
 - 2. Palm sanders, no belt sanders are allowed for use on job.
 - 3. Low temperature heat gun or heat plate, no open flame.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Locate isolated areas with decay, termite damage or other damage to wood substrate, where damage is confined to 12 inches or less in length and 3/8 inch or less in depth of the affected board.
- B. In wood surfaces where decay is present, determine the methods and treatment of repair.
- C. Areas that do not match existing profiles, determine the level of restoration and replication to be achieved.
- D. Joints, Joinery and Edges: Check wood members at joints, seams and edges for:
 - 1. Open seams or failed conditions;
 - 2. Wood moisture content;
 - 3. The presence of wood decay, by probing surfaces.
- E. Sills and Trim: Inspect wood surfaces for natural defects (knots) cracks and checks; determine wood moisture content; probe for the presence for wood decay.
- F. Where damage or decay is in excess of that specified, install new material at affected are per Section 06200. Verify replacement option prior to execution.
- G. Review with Architect areas determined by field inspection to require wood repairs.
- H. Substrate Conditions: Do not proceed with product applications until substrates have been inspected and are determined to be in satisfactory conditions. Substrate moisture content shall not be in excess of 18 percent during preparation and application.

3.2 PREPARATION

- A. Remove all decayed wood to a clean, sound, bright unaffected substrate.
- B. Remove all built up paints, and other debris to a clean sound substrate. See requirements for lead-based paint removal.

- C. No soft wood, existing brittle compound, or other previous repair materials should remain.
- D. Check moisture content and hardness of the wood in and around the repair area: Moisture content of wood to be 18 percent or less.
- E. Sand bare wood to remove all loose fibers, paint, compounds. Remove all sawdust and dirt. See lead-based paint removal requirements.
- F. Protect all adjacent building surfaces from damage, staining or deterioration resulting from wood restoration work.
- G. Protect the restoration Work in progress to prevent further deterioration of exposed wood surfaces. Protect the completed Work until the time of acceptance by the Architect.

3.3 INSTALLATION

- A. Install all products in accordance with manufacturer's instructions.
- B. Install borate gel and rods in strict accordance with manufacturer's requirements. Gel should not come in contact with exposed wood surface.
- C. Pre-treat bare and sanded wood thoroughly with low viscosity epoxy coupling/bonding agent. Apply in strict accordance with manufacturer's recommendations. Allow agent to penetrate wood surface for time as directed by manufacturer. Avoid application in direct sunlight. Remove excess bonding agent.
- D. Apply epoxy repair compound over the uncured epoxy coupling agent; epoxy fill shall have optimal contact with wood; avoid inclusion of air pockets during applications; fill joints fill, even and smooth in one application.
- E. Allow full cure time as specified by manufacturer before preparing for finishes.
- F. After curing, sand surface even and smooth. Transitions and irregularities between wood and epoxy shall not be visible after sanding. In required, smooth any remaining irregularities with an additional application of epoxy repair compound. Always sand between coats.

END OF SECTION 06910

SECTION 07920 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes joint sealants for the following applications, including those specified by reference to this Section:
 - 1. Exterior joints in vertical surfaces and horizontal nontraffic surfaces.

1.2 PERFORMANCE REQUIREMENTS

- A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.
- B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.3 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples: For each type and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- (13-mm-) wide joints formed between two 6-inch- (150-mm-) long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

1.4 QUALITY ASSURANCE

- A. Mockups: Build mockups incorporating sealant joints, as follows, to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1.5 WARRANTY

- A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one of the products listed :
819 Barnwell Exterior Painting and Repairs
STATE PROJECT NO.: H27-1600 WTS Project No. 1426

Pecora Corporation

Sonneborn, Division of Chem-Rex

Tremco

2.2 MATERIALS, GENERAL

- A. **Compatibility:** Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- B. **Colors of Exposed Joint Sealants:** At building exterior: color as selected by Architect from manufacturer's full range.

2.3 ELASTOMERIC JOINT SEALANTS

- A. **Elastomeric Sealants:** Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- B. **Stain-Test-Response Characteristics:** Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- C. **General:** Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- D. **Cylindrical Sealant Backings:** ASTM C 1330, Type C (closed-cell material with a surface skin) as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

2.4 MISCELLANEOUS MATERIALS

- A. **Primer:** Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. **Cleaners for Nonporous Surfaces:** Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. **Masking Tape:** Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. **Surface Cleaning of Joints:** Clean out joints immediately before installing joint sealants:
1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.
 - a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
 2. Remove laitance and form-release agents from concrete.
 - a. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. **Joint Priming:** Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. **Masking Tape:** Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION

- A. **Sealant Installation Standard:** Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
1. Do not leave gaps between ends of sealant backings.
 2. Do not stretch, twist, puncture, or tear sealant backings.
 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- C. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- D. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
1. Remove excess sealant from surfaces adjacent to joints.
 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.
- E. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.3 SCHEDULE

	LOCATION	TYPE	COLOR
A.	Exterior Door and Window Perimeter Wood to Masonry Joints	Polyurethane Multi-component, Non-sag	As selected by Architect

SECTION 07920

SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates
 - 1. Galvanized metal.
 - 2. Aluminum (not anodized or otherwise coated).
 - 3. Wood.
 - 4. Ferrous metal

1.3 DEFINITIONS

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

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.

1. Submit Samples on rigid backing, 8 inches square.
2. Step coats on Samples to show each coat required for system.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

1.5 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft..
 - b. Other Items: Architect will designate items or areas required.
 2. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
1. Maintain containers in clean condition, free of foreign materials and residue.
 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

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

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Benjamin Moore & Co.
 2. Duron, Inc.
 3. ICI Paints.
 4. PPG Architectural Finishes, Inc.
 5. Sherwin-Williams Company (The).
 6. **Rose Talbert Paints**

2.2 PAINT, GENERAL

- A. **MPI Standards:** Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. **Material Compatibility:**
1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. **VOC Content:** Provide materials that comply with VOC limits of authorities having jurisdiction.
- D. **Colors:** As selected by Architect from manufacturer's full range.

2.3 PRIMERS/SEALERS

- A. Primer, Alkali Resistant, Water Based:[MPI #3.]
- B. Primer, Bonding, Solvent Based:[MPI #69.]
- C. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for exterior use in paint system indicated.

2.4 METAL PRIMERS

- A. Primer, Galvanized, Water Based:[MPI #134.]

2.5 WOOD PRIMERS

- A. Primer, Latex for Exterior Wood:[MPI #6.]

2.6 WATER-BASED PAINTS

- A. Latex, Exterior Flat (Gloss Level 1):[MPI #10.]
- B. Latex, Exterior Semi-Gloss (Gloss Level 5):[MPI #11.]
- C. Light Industrial Coating, Exterior, Water Based (Gloss Level 3):[MPI #161.]

2.7 ALUMINUM PAINT

- A. Aluminum Paint:[MPI #1.]

2.8 SOURCE QUALITY CONTROL

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

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Wood: 15 percent.

- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer[.] [but not less than the following:]
 - 1. SSPC-SP 2, "Hand Tool Cleaning."
 - 2. SSPC-SP 3, "Power Tool Cleaning."
- E. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- F. Aluminum Substrates: Remove loose surface oxidation.
- G. Wood Substrates:
 - 1. Scrape and clean knots. Before applying primer, apply coat of knot sealer recommended in writing by topcoat manufacturer for exterior use in paint system indicated.
 - 2. Sand surfaces that will be exposed to view, and dust off.
 - 3. Prime edges, ends, faces, undersides, and backsides of wood.
 - 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
 - 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
 - 4. Paint entire exposed surface of window frames and sashes.
 - 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
 - 1. Paint the following work where exposed to view:
 - a. Equipment, including panelboards and switch gear.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Tanks that do not have factory-applied final finishes.

3.4 FIELD QUALITY CONTROL

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

and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

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

3.6 EXTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Nontraffic Surfaces:
 - 1. Latex System:
 - a. Prime Coat: Latex, exterior, matching topcoat.
 - b. Intermediate Coat: Latex, exterior, matching topcoat.
 - c. Topcoat: Latex, exterior, low sheen (Gloss Level 3-4)[, MPI #15].
- B. Steel Substrates:
 - 1. Water-Based Light Industrial Coating System:
 - a. Prime Coat: Primer, alkyd, anti-corrosive for metal[, MPI #79].
 - b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
 - c. Topcoat: Light industrial coating, exterior, water based (Gloss Level 3)[, MPI #161].
- C. Galvanized-Metal Substrates:
 - 1. Water-Based Light Industrial Coating System:
 - a. Prime Coat: Primer, galvanized metal, as recommended in writing by topcoat manufacturer for exterior use on galvanized-metal substrates with topcoat indicated.
 - b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.

- c. Topcoat: Light industrial coating, exterior, water based (Gloss Level 3)[, MPI #161].
- D. Aluminum Substrates:
 - 1. Latex System:
 - a. Prime Coat: Primer, quick dry, for aluminum[, MPI #95].
 - b. Intermediate Coat: Latex, exterior, matching topcoat.
 - c. Topcoat: Latex, exterior, low sheen (Gloss Level 3-4)[, MPI #15].
- E. Wood Substrates: Including wood trim, architectural woodwork, doors, windows, wood-based panel products, exposed joists, exposed beams, wood shingles and shakes.
 - 1. Latex System:
 - a. Prime Coat: Primer, latex for exterior wood[, MPI #6].
 - b. Intermediate Coat: Latex, exterior, matching topcoat.
 - c. Topcoat: Latex, exterior semi-gloss (Gloss Level 5)[, MPI #11].

END OF SECTION 099113