

BID ADDENDUM		
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State Project No: H27-Z232	PROJECT NAME: Coliseum Roof Repair	ADDENDUM NO.: One ADDENDUM ISSUE DATE: September 21, 2015
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TO ALL BIDDERS: This addendum is issued for the purposes of modifying or interpreting the project manual, including any specifications or drawings, through addition, deletion, clarification or correction as outlined herein. The information provided in this addendum supersedes any information previously provided in the referenced documents and sections of the project manual or in any separate specifications or drawings incorporated into the project manual. This addendum and the information contained herein shall be used in the preparation of any bid submitted by the Bidder and shall become an integral part of the contract documents for any contract awarded for the project specified.

CHANGES TO PRIOR ADDENDA: NA

CHANGES TO BIDDING REQUIREMENTS: NA

CHANGES TO CONDITIONS OF THE CONTRACT: NA

CHANGES TO SPECIFICATIONS:

DELETE "Section 07 56 00-Fluid Applied Coating" and **ADD** "Section 07 56 00-Fluid Applied Coating rev. 9-21-15."

CHANGES TO DRAWINGS: NA

ATTACHMENTS:

Pre Bid Sign-in-Sheet

Pre Bid Meeting REI Engineers Minutes

ALL OTHER REQUIREMENTS AND PROVISIONS OF THE BIDDING DOCUMENTS REMAIN UNCHANGED. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM. FAILURE TO DO SO MAY BE CAUSE FOR REJECTION OF THE BID.

END OF ADDENDUM

SECTION 07 56 00

FLUID-APPLIED COATING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Application of fluid applied waterproof membrane coating consisting of prep work, primer coat, flashings, and finish coat on existing roof system.
- B. Manufacturer required testing at the time of the Punch List Inspection.

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Specification Sections, apply to this Section, including but not limited to:
 - 1. Preparation for Roof Repairs and Coating Section 07 01 50
 - 2. Modified Bitumen Roofing Section 07 52 16

1.03 SUBMITTALS

- A. Refer to Section 01 33 00.
- B. Latest edition of the Manufacturer's current material specifications and installation instructions.
- C. Manufacturer's Product Data Sheets for all materials specified certifying material complies with all specified requirements.
- D. Original color samples of final Fluid Applied Waterproof coating.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide primary products, including primer coat, fluid applied membrane, flashing membrane, etc., by a single manufacturer, which has produced this type of product successfully for not less than five (5) years. Provide secondary products only as approved by manufacturer for use with the specified fluid applied roofing system.
- B. Installer Qualifications: A single Installer or Firm ("Roofer") shall perform all work addressed in this section, and shall be certified by manufacturer, for installation of the fluid applied roofing system.
- C. Installer Authorization: Installer shall possess written authorization from manufacturer, which certifies they are approved for installation of the fluid applied roofing system.

1.05 REGULATORY REQUIREMENTS

- A. FM Listing: Provide fluid applied membrane system and component materials which have been evaluated by Factory Mutual System for flame-spread and are listed in "Factory Mutual Approval Guide" for Class I construction over existing modified bitumen and metal roofing (Flame spread must be in accordance with ASTM #E-108). Provide roof covering materials, bearing FM approval marking on package or container, which indicates that

material has been subjected to FM's examination, test procedures, follow-up inspection services and approval.

- B. UL Listing: Provide fluid applied membrane system and component materials which have been evaluated by Underwriters Laboratories for flame-spread, and are listed in "Underwriters Laboratory Roofing Materials and Systems Directory" for Class A construction over existing metal or other non-combustible roofing (Flame-spread must pass ASTM #E-108 with unlimited slope). Provide roof covering materials, bearing UL approval marking on container, which indicates that material has been subjected to UL's examination, test procedures and follow-up inspection service.

1.06 PRE-INSTALLATION MEETING

- A. Prior to scheduled commencement of roofing installation and associated work, conduct meeting at the project site with Installer, Engineer, Owner, manufacturer's representative and any other persons directly concerned with the performance of the work. The Installer shall record conference discussions to include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review foreseeable methods and procedures related to roofing work, including but not necessarily limited to the following:
 - B. Tour representative areas of roofing substrates to inspect and discuss conditions of substrate, penetrations and other preparatory work to be performed.
 - C. Review fluid applied membrane system requirements (Specifications, Detail Drawings and other contract documents).
 - D. Review required submittals, both completed and yet to be completed.
 - E. Review and finalize construction schedule related to roofing work, and verify availability of materials, Installer's personnel, equipment and facilities needed to consistently make progress and avoid delays.
 - F. Review required inspection(s), testing, certifying and material usage accounting procedures.
 - G. Review weather and forecasted weather conditions, as well as, procedures for coping with unfavorable conditions including possibility of temporary roofing work.

1.07 DELIVERY, STORAGE AND PROTECTION

- A. Store and handle materials in a manner which shall ensure there is no possibility of contamination. Store in a dry, well-ventilated, weather-tight place at temperatures between 50 degrees Fahrenheit and 80 degrees Fahrenheit until product is ready to be applied (keep from freezing). Do not stack material pallets more than two (2) high. Do not subject existing roof to unnecessary loading of stockpiled materials.
- B. Store and protect materials from harmful weather conditions and at temperatures conditions recommended by manufacturer. Do not allow freezing to occur in storage or shipping. Protect from damage during construction and while stored onsite.
- C. Mask adjacent areas of work not to receive fluid applied coating where required to prevent surfaces of unrelated materials from receiving coating. Erect temporary wind screen or other means of protection as required prior to application of spray coating.

1.08 ENVIRONMENTAL CONDITIONS

- A. Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations and guarantee requirements as follows:
- B. Do not begin work if rain is expected within twenty-four hours of application, or if temperatures are expected to fall below 45 degrees Fahrenheit during the duration of the job.
- C. Application shall occur when temperature is minimum 5 degrees Fahrenheit above the dew point temperature and rising.
- D. Ambient temperature restriction (air) for application of products is 100 degrees Fahrenheit.
- E. Upper temperature restriction (substrate) for application of products is 120 degrees Fahrenheit. If substrate temperatures exceed 120 degrees Fahrenheit, products should be applied during cooler periods of the day. If this is not practical, the substrate can be cooled with water, and then products applied just after the water has flashed-off. No moisture can be present when applying products.
- F. Taking into consideration the UV curing properties of the fluid applied roofing membrane system, allow for sufficient daylight hours necessary for curing of materials.
- G. Other weather and environmental conditions to consider are mist, dew, condensation and relative humidity. These factors can lengthen drying times. If certain products are exposed to rain before they are completely dry, product may "wash-off" the roof.
- H. Application of coatings with spray equipment may require some masking and possible erection of wind screens to prevent over-spray and drift damage. Protect surfaces of unrelated areas from coatings and over-spray possibility.

1.09 SUBSTRATE CONDITIONS

- A. Installer shall prepare test patches to check adhesion (addressed in Part 3 of this specification). Always contact manufacturer's Technical Department concerning questionable substrates, required additional information and recommended test patch materials.

1.10 WARRANTY

- A. Provide Manufacturer's standard form, non-prorated, without monetary limitation or deductibles, in which manufacturer agrees to repair or replace coating that fails.
- B. Manufacturer's Guarantee: Failure includes roof leaks or breaches in the coating, causing moisture to enter the substrate below (even if visible leaks are not observed inside the facility). Warranties requiring the Owner's signature will not be acceptable.
 - 1. Warranty to include but not be limited to coating, flashings, etc.
 - 2. Warranty Period: Five (5) years from date of Substantial Completion.
- C. Roof System Installer's Five Year Warranty: Contractor's five year warranty on their company letterhead. Failure includes roof leaks or breaches in the coating, causing moisture to enter the substrate below (even if visible leaks are not observed inside the

facility).

1. Warranty to include but not be limited to coating, flashings, etc.
2. Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 GENERAL

- A. Elastomeric Roof Coating Membrane System: A multi component, roof coating system suitable for adhesion to Built up Roof.
- B. Roof system shall be one of the following:
 1. Instacoat Premium Performance Grade – Rubberized Roof Coating
 2. Gaco Western – S-20 Silicone Coating
 3. Engineer approved equivalent

2.02 MISCELLANEOUS COMPONENTS

- A. Flashing Compound: Flashing grade, single component moisture-cure polyurethane as recommended by the fluid applied coating manufacturer.
- B. Gap/Joint Sealant: Recommended and approved by fluid applied coating manufacturer.
- C. Reinforcing Fabric: Recommended and approved by the fluid applied coating manufacturer.
- D. Primer: Recommended and approved by the fluid applied coating manufacturer.
- E. Sealant Tape: Minimum 1/2-inch wide non-skinning butyl sealant tape.

PART 3 EXECUTION

3.01 PREPARATION OF SUBSTRATE

- A. Examine surfaces to receive Fluid Applied Waterproof Coating. Do not proceed with installation of the fluid applied membrane system until unsatisfactory conditions have been corrected in a manner acceptable to the manufacturer.
- B. Preparation of the roof substrates is the responsibility of the Installer. Installer shall address and correct all of the following:
 1. Remove loose dirt or debris by vacuum or hand.
- C. Provide additional substrate preparation as required by the fluid applied coating manufacturer.
- D. As a minimum, clean and prepare surfaces to receive waterproofing by removing all loose and flaking particles, grease and laitance with the use of a stiff bristle push broom. Alternate methods shall be used other than pressure-washing substrate with water.
- E. All existing silicone-based sealants must be completely removed from roof substrate prior to application of fluid applied membrane products.

- F. Ensure all surface moisture is removed prior to installation.

3.02 APPLICATION

A. Test Patches

1. Installer shall prepare test patches on each roof substrate to determine the required application rate that is necessary to obtain the coverage required by the coating manufacturer to obtain the specified warranty.
2. All penetrations, flashings and vertical surfaces to receive coating shall be primed and coated prior to coating the field of the roof.

B. Preliminary Work/Flashing Details

1. Any flashing or field membrane that has stress cracks will be reinforced with a layer of Polyester Tape embedded in two coats of Fluid Applied Waterproof Coating before the other coats are applied.

C. Primer Application

1. Apply two coats of primer by spray or roller at the rate required by the coating manufacturer to obtain the specified warranty.
2. Allow the primer to dry a minimum of 12 hours before the Fluid Applied Waterproof Coating is applied. The cure time will vary depending upon UV and humidity conditions. Stop the application two hours before any rain or dew point is reached.

D. Coating Application

1. Apply two finish coats at an average rate as required by the coating manufacturer to obtain the specified warranty. Allow the first coat to dry a minimum of four hours prior to second coat installation. Recoat within four to forty-eight hours. It should not be applied unless the base coat is clean and will provide proper adhesion. Allow a minimum of 24 hours drying time prior to allowing foot traffic or inspection of roof surface.
2. Seams: After the specified top coat has been applied the contractor must walk the roof and make sure all seams are fully encapsulated. If any open seams are discovered additional coating must be brushed on the seam until it becomes encapsulated.

3.03 OTHER ITEMS

- A. Installer shall take photographs of representative roof areas, including detail work, at the following intervals (minimum):

1. Before work commences
2. After roof has been thoroughly cleaned and prepared
3. After all flashing and detail work has been performed
4. After spray application of roofing membrane

- B. Installer shall provide the following support for on-site inspections by a representative from the manufacturer's Technical Department (list is not comprehensive):

1. Representative from Installer's company who has authority to make binding decisions
 2. Required means to access all areas of the treated roof (e.g., various ladders)
 3. Previous photographs of the roof including test patch results, as applicable
 4. Products and application equipment required to repair roof areas where destructive tests are to be performed.
- C. Special care must be taken to avoid shading when spraying dark colors. When applying a dark color, Installer must be very careful to always spray wet material onto wet material so that spray lines do not appear. Installer should use the roof ribs or standing seams to terminate each spray pass.
- D. Installer shall take special care when moving spray hoses and other equipment on the roof so that flashing work and encapsulated fastener heads are not damaged. Spray equipment shall remain on the ground for the duration of the job.
- E. No traffic shall be permitted on the coating surface for a minimum of three (3) days. Damage to the surface shall be repaired immediately.

3.04 MANUFACTURER TESTING AT PUNCH LIST

- A. At a minimum, the Manufacturer shall provide testing at the Punch List Inspection by taking a small slice of the dry fluid applied coating and using a digital caliper or Engineer and or Owner approved device determine the thickness of the installed material. The tested areas shall be immediately repaired by the Installer. A total of 10 areas randomly selected by the Engineer and or Owner will be tested.

END OF SECTION 07 56 00

**University of South Carolina
Non Mandatory Pre Bid Sign In Sheet
Columbia, South Carolina**

Project Name: Coliseum Roof Repair
Project Number: H27-2232
Pre Bid Date & Time: September 15, 2015 @ 10:00 AM

SWMBE Contractor Indicate Below	Name	Company Name	Address	Phone #	Email
S W M B E	Ed Banks	CCR		843-454-0584	EBanks@coastalcommercialroofing.com
S W M B E	Brian Farris	Teamcraft		704-213-6339	Brian.farris@TRFB.com
S W M B E	Logan Parsons	Baker Coatings		919-605-9169	lparsons@bakerroofing.com
S W M B E	Steve Grissom	CMS Roofing		803-732-5558	Steve@cmsofsc.com
S W M B E	Dana Neville	NOVA SEAL	PO Box 2238 W. GA St 29171	803-936-0420	dana@novaseal.com
S W M B E	Ty Russell	USC		7-1208	tyrus@usc.edu
S W M B E	Tony Evans	A to Z	2251 Sealew Rd. Scribner	893 389-0851	tevans@azcoatings.com
S W M B E	Robert Nunnery	Robert Nunnery Tool	1161 Dalgard Rd Spartanburg, SC	803 478-2950	Robert Nunnery 44 a YAHOO.COM
S W M B E	Katherine Barnett	USC	743 Greene St	7-5817	klb@mailbox.sc.edu

***By signing this sheet you agree to receive information electronically.

**University of South Carolina
Non Mandatory Pre Bid Sign In Sheet
Columbia, South Carolina**

Project Name: Coliseum Roof Repair
Project Number: H27-Z232
Pre Bid Date & Time: September 15, 2015 @ 10:00 AM

SWMBE Contractor Indicate Below	Name	Company Name	Address	Phone #	Email
S W M B E	Steve Martin Jr	Whitst Assoc Building	7416 FORT RD CORA SC 29203	803-786-9410	Stevjr@whitstacbyg.com
S W M B E	Carter Wallace	Southway Crane	1784 Two North Rd Lexington, SC 29073	803 305-8219	carter@southwaycrane.com
S W M B E	John A. Gamm	CCR	4355 Adison Hwy Conway SC 29526	843-361-4101	jgamm@scuost.net
S W M B E	Al Hooper	Keating Roofing	654 Riverland Dr Charleston, SC 29412	843-762-1104	alhooper@live.com
S W M B E	Chris Knox	Gaco Western	1245 Chygwin DR Waukesha, WI	843-340-9440	CKnox@gaco.com
S W M B E	DAVE BRADMAN	USC	▲	803 771-1288	BRADMAN@FMC.SC.SDU
S W M B E	Brian Ward	USC	743 Breene St CORA SC	803 4225441	woodbt@mailbox.sc.edu
S W M B E	Juanquana Brooks	USC		11/1, 3596	jbrookin@fmc.sc.edu
S W M B E	Keith Parker	REI Engineers	2090 Executive Hall Rd. Clemiston, SC 29414	843-225-6272	kparker@reiengineers.com

***By signing this sheet you agree to receive information electronically.

Pre-Bid Meeting Minutes from September 15, 2015
Coliseum Roof Repair
University of South Carolina
State Project No. H27-Z232

It was stated that this Pre-Bid Meeting is non mandatory.

Sign-in sheet is included with these minutes.

Bid Documents and any addendum may be obtained from <http://purchasing.sc.edu> (See Facilities Construction Solicitations & Awards).

Contact Juaquana Brookins with USC Procurement for instructions if not hand delivering your Bid.

Subcontractor shall be listed on the Bid Form and licensed to perform Work in the State of South Carolina at the time of the Bid Opening.

Questions – All questions must be submitted in writing to kparker@reengineers.com, attention Keith Parker. No oral interpretation or clarification will be made. Last day for interpretation or clarification is September 22, 2015 at 5:00pm. The last addendum will be issued by September 24, 2015 at 2:00pm.

Failure to submit a Proposal for the Alternate will deem a Bidder nonresponsive.

There are 45 calendar days allotted for this Project.

Staging/laydown areas were discussed and limitation of access. Roof hatch access will be limited to Worker access to roof area, only. Crane shall be utilized for material, equipment, etc. mobilization/demobilization.

Mobilization must occur on weekends as stated in Section 01 14 00, 1.04. The Owner will occupy the premise during the performance or Work.

Refer to USC Supplementary Conditions for Materials Storage and Fencing requirements.

Ty Russel with University of South Carolina discussed the following:

Review the Executive Summary found in Section 00 31 23 for Asbestos Containing Material.

Contractor is required to have DHEC certified Asbestos Workers or Supervisors for removal of silver paint/coating under supervision of a DHEC certified Asbestos Supervisor. Workers will be required to wear protective suits with respirators during required Preparation of the existing silver paint/coating as it is considered friable asbestos containing material. Project falls under NESHAP abatement.

Once the existing silver paint/coating is encapsulated with the primer and/or base coat, the silver paint/coating will be considered encapsulated and performance of Work after this point will not require DHEC certification.

Removal of existing asbestos containing material which has been stored in bags on the roof area by University of South Carolina is included in the scope of Work for this Project.

A site specific and company safety plan will be required of the Contractor.

Keith Parker with REI Engineers discussed the following.

Section 00 62 33: Must be executed by a representative from the coating manufacturer and returned by Apparent Low Bidder within 24 hours of Bid Opening.
Independent sales representatives will not suffice for this requirement.

Section 00 65 36: Contractor Five Year Warranty

Section 01 11 00: Summary of Work

BASE BID Sector A (Approximately 89,100 square feet): Provide new modified bituminous wall and drain flashings; prepare existing roof substrate; provide new roof coating, and accessories to provide a complete, watertight, 5-year warrantable roof assembly.

ALTERNATE ONE Sector A (Approximately 22,600 square feet): Provide new modified bituminous wall and drain flashings; prepare existing roof substrate; provide new roof coating at outer 20 foot perimeter of Sector, and accessories to provide a

Pre-Bid Meeting Minutes from September 15, 2015

Coliseum Roof Repair
University of South Carolina
State Project No. H27-Z232

complete, watertight, 5-year warrantable roof assembly.

- Section 01 14 00: Work Restrictions – Owner will occupy premises during duration of Project. Sequencing and Restrictions contained this Section.
- Section 01 21 00: Allowances – Include Contingency Allowance in Base Bid.
- Section 01 22 00: Unit Prices – Provide proposed Quote on Bid Form.
- Section 01 31 00: Project Management and Coordination
- Section 01 33 00: Submittal Procedures – Use of AIA G702 and G703 for Applications for Payment.
- Section 01 40 00: Quality Requirements
- Section 01 42 00: References
- Section 01 50 00: Temporary Facilities and Controls – 3.02 states Contractor shall provide own sanitary toilets and electrical power. Refer to USC Supplementary Conditions for additional Material Storage requirements.
- Section 01 73 29: Cutting and Patching
- Section 01 74 00: Cleaning and Waste Management
- Section 01 77 00: Closeout Procedures
- Section 07 01 50: Preparation Roof Repairs and Coating – New roof drain components.
- Section 07 52 16: Modified Bitumen Roofing – Includes modified bitumen, tapered insulation at drains and metal slip flashing.
- Section 07 56 00: Fluid Applied Coating – Manufacturer’s Five Year Warranty.
- Drawings: R-101 Review for areas of Work in Contract.

REI Engineers

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