

SECTION 00 91 12

ADDENDUM NUMBER 2

PARTICULARS

- 1.1 DATE: MARCH 5, 2010
 - 1.2 PROJECT: STERILE STORAGE ADDITION
 - 1.3 PROJECT NUMBER: 1978.09
 - 1.4 OWNER: SENTARA HEALTHCARE
 - 1.5 ARCHITECT: PF&A DESIGN
- TO: PROSPECTIVE BIDDERS
- 2.1 This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated December 21, 2009, with amendments and additions noted below.
 - 2.2 Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.
 - 2.3 This Addendum consists of 2 Pages, 2 Specification Sections, and 4 Drawing Sheets:

NOTIFICATIONS

- 3.1 All work in Bid Alternate #1 is in a sterile area (clean processing room). Contractor shall coordinate with Owner to perform work. Contractor shall Gown-up for and work inside sterile area.
- 3.2 The existing corridor adjacent to door 1000 is a sterile corridor. Contractor shall perform all work, including temporary partition installation, after hours or weekends when the OR is not in operation. Personnel shall Gown-up for surgical environment.

CHANGES TO THE PROJECT MANUAL

- 4.1 SECTION 00 41 00 - BID FORM
 - A. See Revised Section 00 41 00 - Bid Form, attached.
- 4.2 SECTION 07 52 00 - MODIFIED BITUMINOUS MEMBRANE ROOFING
 - A. See Revised Section 07 52 00 - Modified Bituminous Membrane Roofing, attached.

ADDITIONAL DRAWINGS FOR BID ALTERNATE #1

- 5.1 Drawing A110-Existing SPD Demolition, New Work, and Reflected Ceiling Plans
 - A. See New Sheet A110- Attached
- 5.2 Drawing PM101-Plumbing & Mechanical Demolition and New Work Plans
 - A. See New Sheet PM110- Attached
- 5.3 Drawing E101-Electrical Lighting First Floor Plans

A. See New Sheet E101- Attached

5.4 Drawing E201-Electrical Power and Special Systems First Floor Plans

A. See New Sheet E201- Attached

END OF ADDENDUM 2

SECTION 00 41 00

REVISED BID FORM

THE PROJECT AND THE PARTIES

1.1 TO:

- A. Owner
 - 1. Mr. Carl W. Gaborik
 - 2. Sentara Healthcare
 - 3. Port Warwick Medical Arts Building
 - 4. 11803 Jefferson Avenue, Suite 200
 - 5. Newport News, Virginia 23606

1.2 FOR:

- A. Sterile Storage Addition
- B. Sentara Virginia Beach General Hospital
- C. 1060 First Colonial Road
- D. Virginia Beach, Virginia 23454

1.3 DATE: _____ (Bidder to enter date)

1.4 SUBMITTED BY: (Bidder to enter name and address)

- A. Bidder's Full Name _____
 - 1. Address _____
 - 2. City, State, Zip _____

1.5 BASE BID

- A. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Contract Documents prepared by PF&A DESIGN for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work exclusive of Bid Alternate #1 for the Sum of:
- B. _____ dollars
 (\$ _____), in lawful money of the United States of America.
- C. All applicable federal taxes are included and State of Virginia taxes are included in the Bid Sum.

1.6 BID ALTERNATE #1

- A. Lump sum labor and material cost to provide all work as defined in drawing sheets A110, PM101, E101, E201.
- B. _____ dollars
 (\$ _____), in lawful money of the United States of America.
- C. All applicable federal taxes are included and State of Virginia taxes are included in the Bid Sum.

1.7 BIDDER'S CERTIFICATION

- A. The Bidder certifies the following:
1. That the Contractor has inspected the site and existing conditions and examined all Drawings, Specifications and documents related thereto.
 2. That the Bid is genuine and not collusive or sham; that said Bidder has not collude, conspired, connived or agreed, directly or indirectly, with any bidder or person to put in a sham Bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference with any person, to fix the bid price of any other Bidder, or to secure any advantage against the Owner or any person interested in the proposed contract; and all statements contained in this proposal are true.
 3. That he is registered as a Contractor under Chapter 11, Title 54.1 of the Code of Virginia of 1950, as amended.

1.8 ACCEPTANCE

- A. The Bidder also agrees:
1. This offer shall be open to acceptance and is irrevocable for ninety days from the bid closing date.
 2. This offer accepts the stipulation of the Instructions to Bidders and General Conditions regarding disposition of Bid Bond, time for completion, liquidated damages and other provisions.
 3. To enter into and execute a Contract on AIA Document A101, Standard Form of Agreement between Owner and Contractor, 2007 Edition, if awarded on the basis of the basis of the proposal and to furnish Guaranty Bonds in accordance with Article 11 of the General Conditions of the Contract.
 4. This offer accepts to accomplish the work in accordance with the Contract Documents.
 5. To accept the provision of the Agreement as to Liquidated Damages in the event of failure to complete the Work on time.
 6. This offer shall provide Performance and Payment Bond in the amount equal to one hundred percent (100%) of the contract price. Subcontractor "total contract" shall be the total of all contracts on the project.
 7. If this bid is accepted by Owner within the time period stated above, we will:
 - a. Execute the Agreement within ten days of receipt of Notice of Award.
 - b. Furnish the required bonds within ten days of receipt of Notice of Award.
 - c. Commence work within ten days after written Notice to Proceed of this bid.
 8. If this bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bond(s), the security deposit shall be forfeited as damages to Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.
 9. In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

1.9 CONTRACT TIME

- A. If this Bid is accepted, we will:
- B. Complete the Work in _____ calendar weeks from Notice to Proceed.
(Bidder to enter number of weeks.)

1.10 UNIT PRICES

A. The following are Unit Prices for specific portions of the Work as listed. The following is the list of Unit Prices:

B. ITEM DESCRIPTION - UNIT QUANTITY - UNIT PRICE - ITEM VALUE

1. Unit Price One: Add the cost of removal and off-site disposal of unsuitable soil from footing excavations and backfill with #57 stone or lean concrete as authorized per the direction of the Geotechnical Engineer. Base Bid shall include 50 cubic yards of unsuitable soils beyond that excavated to required elevations.
 - a. Add or Credit Unit Cost Dollar - per cubic yard (\$.....)
2. Unit Price Two: Excavation of unsatisfactory or unsuitable soil materials and replacement with compacted suitable soil materials for trenching as per specifications. Base Bid shall include 25 cubic yards beyond that excavated to required elevations.
 - a. Add or Credit Unit Cost Dollar - per cubic yard (\$.....)
3. Unit Price Three: Excavation of unsatisfactory or unsuitable soil materials and replacement with compacted suitable soil materials for building pad as per specifications. Base Bid shall include 200 cubic yards beyond that excavated to required elevations.
 - a. Add or Credit Unit Cost Dollar - per cubic yard (\$.....)
4. Unit Price Four: Excavation of unsatisfactory or unsuitable soil materials and replacement with compacted suitable soil materials for parking and roadways as per specifications. Base Bid shall include 25 cubic yards beyond that excavated to required elevations.
 - a. Add or Credit Unit Cost Dollar - per cubic yard (\$.....)

1.11 CHANGES TO THE WORK

- A. Changes to the Work shall be as indicated in Section 01 20 00 - Price and Payment Procedures and as indicated below.
- B. When Architect establishes that the method of valuation for Changes in the Work will be net cost plus a percentage fee in accordance with General Conditions, our percentage fee will be:
 1. 15 percent overhead and profit on the net cost of our own Work;
 2. 5 percent on the cost of work done by any Subcontractor.
- C. On work deleted from the Contract, our credit to Owner shall be Architect-approved net cost plus 50% of the overhead and profit percentage noted above.
- D. Mark-up shall include the following: bond premiums, supervision, superintendence, wages of timekeepers, watchmen, and clerks, small tools, incidentals, general office expense, and all other expenses not included in "Cost".
- E. If the net value of change results in a credit from the Contractor or Subcontractor, the credit given shall be the contract time. The credit given shall include a mark-up. The "Cost" as used herein shall include all items of labor, material, and equipment.

1.12 LABOR RATES FOR CHANGE IN WORK

- A. Labor rates shall be actual cost of persons performing the work. Awarded Contractors are subject to providing detailed backup of actual cost including pay verification, benefits, etc.

1.13 ADDENDA

- A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.
 1. Addendum # _____ Dated _____.

- 2. Addendum # _____ Dated _____.
- 3. Addendum # _____ Dated _____.
- 4. Addendum # _____ Dated _____.

1.14 BID BOND

A. The Bid Bond requirement has been waived for this project.

1.15 BID FORM SUPPLEMENTS

- A. The following Supplements are attached to this Bid Form and are considered an integral part of this Bid Form:
- B. We agree to submit the following Supplements to Bid Forms within 72 hours after submission of this bid for additional bid information:
 - 1. Document 00 43 36 - Subcontractors: Include the names of all Subcontractors and the portions of the Work they will perform. Once list is approved by the Architect and the Owner, no changes shall be made without written approval of the Architect.

1.16 BID FORM SIGNATURE(S)

- A. _____
(Bidder - print the full name of your firm)
- B. _____
(Bidder - print the full address of your firm)
- C. _____
(State Registration Number)
- D. was hereunto affixed in the presence of:
- E. _____
(Authorized signing officer, Title)
- F. _____
(Date)
- G. _____
(Telephone Number)

END OF BID FORM

SECTION 07 52 00

MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Modified bituminous roofing membrane, conventional application.
- B. Insulation, flat.
- C. Deck sheathing.
- D. Base flashings.
- E. Roofing cant strips, accessories, roofing expansion joints, and walkway pads.

1.2 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Wood nailers and curbs.
- B. Section 07 62 00 - Sheet Metal Flashing and Trim: Counterflashings.
- C. Section 07 72 00 - Roof Accessories: Roof-mounted units.
- D. Section 22 10 06 - Plumbing Piping Specialties: Roof drains.

1.3 REFERENCE STANDARDS

- A. ASTM C 208 - Standard Specification for Cellulosic Fiber Insulating Board; 1995 (Reapproved 2001).
- B. ASTM C 1177/C 1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2006.
- C. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2007.
- D. ASTM C 1396/C 1396M - Standard Specification for Gypsum Board; 2006a.
- E. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing; 2005.
- F. ASTM D 2822 - Standard Specification for Asphalt Roof Cement, Asbestos-Containing; 2005.
- G. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free; 2007.
- H. ASTM D 6162 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements; 2000a.
- I. ASTM D 6163 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements; 2000.
- J. FM P7825 - Approval Guide; Factory Mutual Research Corporation; current edition.
- K. FM DS 1-28 - Wind Design; Factory Mutual Research Corporation; 2007.
- L. NRCA ML104 - The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.

- M. UL (RMSD) - Roofing Materials and Systems Directory; Underwriters Laboratories Inc.; current edition.
- N. UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with installation of associated flashings and counterflashings installed by other sections.
- B. Preinstallation Meeting: Convene one week before starting work of this section.
 - 1. Review preparation and installation procedures and coordinating and scheduling required with related work.

1.5 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's catalog data for membrane and bitumen materials, base flashing materials, insulation, and surfacing.
- C. Shop Drawings: Indicate joint or termination detail conditions, conditions of interface with other materials, and mechanical fastener layout.
- D. Manufacturer's qualification data.
- E. Installer's qualification data.
- F. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- G. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- H. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.
- I. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.6 QUALITY ASSURANCE

- A. Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.
 - 1. Maintain one copy on site.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- C. Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years experience and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Store products in weather protected environment, clear of ground and moisture; ballast materials may be stored outdoors.
- C. Protect foam insulation from direct exposure to sunlight.

1.8 FIELD CONDITIONS

- A. Do not apply roofing membrane when environmental conditions are outside the ranges recommended by manufacturer.
- B. Do not apply roofing membrane during unsuitable weather.
- C. Do not apply roofing membrane when ambient temperature is below 40 degrees F.
- D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.9 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a two year period after Date of Substantial Completion.
- C. Provide 15 year manufacturer's material and labor warranty to cover failure to prevent penetration of water.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Membrane Materials:
 - 1. Tremco, Inc; local contact: Shelton Clough, P.E., 757-617-7663.
 - 2. Manufacturer's with equal product specifications shall be considered.
 - 3. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Insulation:
 - 1. Atlas Roofing Corporation: www.atlasroofing.com.
 - 2. Dow Chemical Co: www.dow.com.
 - 3. Owens Corning Corp: www.owenscorning.com.
 - 4. Substitutions: See Section 01 60 00 - Product Requirements.

2.2 ROOFING - CONVENTIONAL APPLICATION

- A. Modified Bituminous Roofing: Two-ply membrane, with insulation.
- B. Roofing Assembly Requirements:
 - 1. Shall be Energy Star Certified.
 - a. Field applied coating may be used to achieve specified Energy Star Rating.
 - 2. Roof-Ceiling Fire Resistance Rating: Conform to UL Assembly Design No. P719.
 - 3. External Fire Exposure Classification: ASTM E 108 Class A.
 - 4. Internal Fire Spread Classification: Factory Mutual Class I; Noncombustible, FM-approved.
 - 5. Wind Resistance Classification: Factory Mutual I-90, in accordance with FM DS 1-28.
 - 6. Surfacing: Factory applied White Mineral granules.
- C. Acceptable Insulation Types - Constant Thickness Application: Any of the types specified.
 - 1. Bottom layer of polyisocyanurate board covered with single layer of Dens Deck board or equal.

2.3 MEMBRANE AND SHEET MATERIALS

- A. Membrane: Polymer modified asphalt, reinforced with non-woven fabric; granule surfaced; with the following characteristics:
 - 1. Minimum Quality: ASTM D 6163 Type I; styrene-butadiene-styrene (SBS) modified, glass fiber reinforced.
 - 2. Color: White Granule.
 - 3. "PowerPly Standard Plus FR" by Tremco, Inc. or equal.
- B. Base Sheet: ASTM D 5147; asphalt-coated glass fiber; second polyester reinforced sheet: "Burmastic Composite Ply HT" by Tremco, Inc. or equal.
- C. Flexible Flashing Material: Hypalon Flashing Sheet by Tremco, Inc..

2.4 BITUMINOUS MATERIALS

- A. Bitumen: Asphalt, Cold applied as recommended by manufacturer
- B. Primer: ASTM D 41, asphalt type.
- C. Roof Cement: ASTM D 4586, Type II.

2.5 DECK SHEATHING

- A. Deck Sheathing: Glass mat faced gypsum panels, ASTM C 1177/C 1177M, fire resistant type, 1/2 inch thick.
 - 1. Products:
 - a. Georgia-Pacific DensDeck: www.gp.com/buil or equal.
 - b. Substitutions: See Section 01 60 00 - Product Requirements.

2.6 INSULATION

- A. Cellulose Fiber Board Insulation: ASTM C 208, Type II; one face finished with mineral fiber, asphalt, with the following characteristics:
 - 1. Board Size: 48 x 48 inch.
 - 2. Board Thickness: 1/2 inch.
 - 3. Board Edges: Square.
- B. Polyisocyanurate Board Insulation: Rigid cellular foam, complying with ASTM C 1289, Type I, aluminum foil both faces; Class 1, non-reinforced foam core, and with the following characteristics:
 - 1. Compressive Strength: 20 psi
 - 2. Board Size: 48 x 96 inch.
 - 3. Board Thickness: 3 inches.
 - 4. Board Edges: Square.
 - 5. Manufacturers:
 - a. Atlas Roofing Corporation: www.atlasroofing.com.
 - b. Dow Chemical Co: www.dow.com.
 - c. GAF Materials Corporation: www.gaf.com.
 - 6. Substitutions: See Section 01 60 00 - Product Requirements.

2.7 SURFACING MATERIALS - CONVENTIONAL APPLICATION

- A. Protective Coating: Energy Star Certified Coating.
- B. Walkway Pads: Bitumen-impregnated mineral fiber boards with granular surfaces, compatible with roofing materials.
 - 1. Size: 36"x36" inch.
 - 2. Product: Trem Tred manufactured by Tremco, Inc. or equal.

2.8 ACCESSORIES

- A. Roofing Expansion Joint Flashing: Hypalon.
- B. Cant: Asphalt impregnated wood fiberboard, compatible with roofing materials.
- C. Insulation Fasteners: Appropriate for purpose intended and approved by Factory Mutual and roofing manufacturer.
 - 1. Length as required for thickness of insulation material and penetration of deck substrate, with metal washers.
- D. Roofing Nails: Galvanized, hot dipped type, size and configuration as required to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.2 METAL DECK PREPARATION

- A. Install deck sheathing on metal deck:
 - 1. Lay with long side at right angle to flutes; stagger end joints; provide support at ends.
 - 2. Cut sheathing cleanly and accurately at roof breaks and protrusions to provide smooth surface.
 - 3. Mechanically fasten to roof deck, in accordance with Factory Mutual recommendations.

3.3 INSULATION INSTALLATION - CONVENTIONAL APPLICATION

- A. Ensure substrate is clean and dry, continuous, and ready for application of roofing system.
- B. Attachment of Insulation:
 - 1. Mechanically fasten first layer of insulation and sheathing to deck in accordance with roofing manufacturer's instructions.
 - 2. Embed second layer of insulation into Cold applied insulation adhesive, "FastNFree", or equal, in accordance with roofing and insulation manufacturers' instructions.
- C. Lay subsequent layers of insulation with joints staggered minimum 12 inches in each direction from joints of preceding layer.
- D. On metal deck, place boards perpendicular to flutes with insulation board ends bearing on deck flutes.
- E. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- F. Do not apply more insulation than can be covered with membrane in same day.

3.4 MEMBRANE APPLICATION

- A. Apply membrane in accordance with manufacturer's instructions.
- B. Apply membrane; lap and seal edges and ends permanently waterproof.
- C. Apply smooth, free from air pockets, wrinkles, fish-mouths, or tears. Ensure full bond of membrane to substrate.
- D. At end of day's operation, install waterproof cut-off. Remove cut-off before resuming roofing.
- E. At intersections with vertical surfaces:
 - 1. Extend membrane over cant strips and up a minimum of 2 inches onto vertical surfaces.
 - 2. Apply flexible flashing over membrane.
 - 3. Secure flashing to termination bar.
- F. Around roof penetrations, mop in and seal flanges and flashings with flexible flashing.
- G. Install roofing expansion joints where indicated. Make joints watertight.
 - 1. Install flashing sheet in accordance with manufacturer's instructions.
- H. Coordinate installation of roof drains, mechanical vents, mechanical curbs and related flashings.

3.5 SURFACING - CONVENTIONAL APPLICATION

- A. Apply roof coatings in accordance with roofing and coating manufacturers' instructions.
- B. Install walkway pads by setting in hot bitumen. Set joints 6 inches apart.

3.6 FIELD QUALITY CONTROL

- A. See Section 01 40 00 - Quality Requirements, for general requirements for field quality control and inspection.
- B. Require site attendance of roofing material manufacturers during installation of the Work.

3.7 CLEANING

- A. Remove bituminous markings from finished surfaces.
- B. In areas where finished surfaces are soiled by bitumen or other source of soiling caused by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
- C. Repair or replace defaced or damaged finishes caused by work of this section.

3.8 PROTECTION

- A. **Protect installed roofing and flashings from construction operations.**
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION