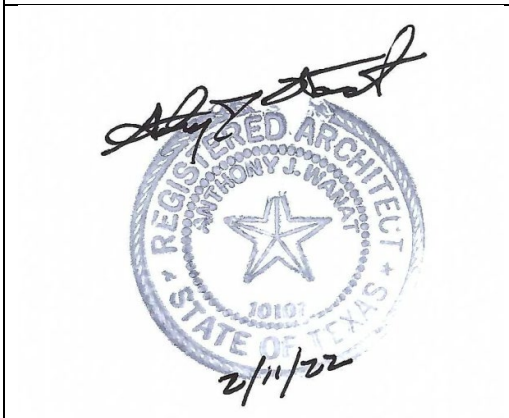
00 91 02 ADDENDUM NUMBER 02

Owner:	City of Arlington, Texas
Project:	John F. Kubala WTP: Main Laboratory / Maintenance Building and Mini Laboratory / Admin Building Renovation
Project No.:	WUTR18004
Addendum No.	02
Addendum Date:	February 12, 2022

The following additions, deletions, modifications, or clarifications shall be made to the appropriate portions of the Contract Documents. Bidders must acknowledge receipt of this Addendum in the space provided on the Bid Form.

Approved by:	**Jacobs**
Name:	**Anthony J. Wanat**
Date:	**2-11-2022**



JACOBS – STATE OF TEXAS REGISTERED ARCHITECT LICENSE NO. 10107

Addendum Items: 02

ARTICLE 1 – ADDENDUM

1.01 Amend the Contract Documents

A. Make the additions, modifications, or deletions to the Contract Documents described in this Addendum.

1.02 Acknowledge Addenda

A. Acknowledge receipt of this Addendum in the Bid Form submitted for this Project. Failure to acknowledge receipt of this addendum in the Bid Form may render the Bid as non-responsive and serve as the basis for rejecting the Bid.

ARTICLE 2 – BID REQUIREMENTS

2.01 Section 00 21 13 "Instructions to Bidders"

A. Add new Paragraph 4.03 immediately following Paragraph 4.02.

"4.03 The following Prospective Bidders have been prequalified to submit a Bid for this Project:

A. The Christman Company

B. HJ Russel & Company

C. O'Haver Contractors

D. Source Building Group

E. Tegrity Contractors

2.02 Section 00 21 26 "Instructions to Offerors"

A. Add new Paragraph 5.02 immediately following Paragraph 5.01.

"5.02 Owner maintains a log of questions submitted by Offerors. Pertinent questions and their responses are summarized in a table made available on the Procurement Website. This table, which is provided for information only, summarizes the salient points of the questions and their responses and does not necessarily reflect the actual questions submitted by Offerors. The information contained in the table is not part of the Contract Documents, nor does it modify the Contract Documents. Any question that, in the opinion of the OPT, requires a modification of the Contract Documents will be covered in the referenced Addendum. Contract Documents can only be modified during the Bid Phase by an Addendum. Unless modified by Addendum, Offeror is to bid based on the Contract Documents as presented.

ARTICLE 3 – SPECIFICATIONS

3.01 **General**

A. Several technical specification sections are intended to be performance based and define the basis of design for materials, systems or products. It is not the intent to limit sourcing from one vendor, as such, a substitution request is not required provided that the materials, systems or products meet the criteria defined on the contract documents. If in

question, submit as an alternate proposal per Instruction to Bidders, section 00 21 26, Article 15-Alternate Proposals.

B. Section 07 21 13 Board Insulation

1. Part 2.2, Components, modify 5 to read Thermal Resistance: 2 layers to Total R-25

C. Section 10 50 20 Canopies

1. Add Oklahoma Canopies and Awnings, Tulsa, Oklahoma as an approved equal.

D. Section 22 67 13 Processed Water Piping for Laboratory & Healthcare Facilities

1. Delete reference to PVDF and provide CPVC piping materials.

E. Section 23 09 23 Direct Digital Control

1. The control contractor will need to provide controls for lab exhaust fans. Occupancy is intended to be monitored by the Building Automation System with connections to the lighting contactors.

F. Section 23 74 13 Packaged Dedicated Outdoor Air Units

1. Provide epoxy coatings on the evaporator coil, hot gas reheat coil and condenser coils to match AHU-03

G. Geotechnical Report: See section 3.3 Site Preparation and Fill and sheet S-101 Foundation Notes for building pad requirements.

3.02 Add the following Specification Sections:

Section	Section Title
07 27 13	Modified Bituminous Sheet Air Barriers
07 53 03	Thermoplastic Membrane Roofing

3.03 Delete the following Specification Sections:

Section	Section Title
07 52 16	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing

ARTICLE 4 – DRAWINGS

4.01 The following are revisions to the Main Lab and Maintenance Building project Drawings

A. Sheet C-118: Delete Detail of Retaining Wall

B. Sheet L-102: Modify detail B-4 to read ¾" mulch

C. Sheet A-103: Modify note 126 to reference A1 and B1/A-511. Canopy size is 13'-6" x 20'-0". All other canopies are 4'-0" wide, lengths as shown on the drawings.

D. Sheet A-411: Modify detail 2 trench drain to read model TST8-250

E. Sheet A-701: Angles at decking on partition types M, MFA and MF are 3" x 3" x ¼" with ¼" self-tapping screws at 48" OC.

F. Sheet P-500: Modify reference to Acid Neutralization Tank to model ANT150

G. Sheet E-601: Change circuit breaker trip setting for AHU-01 and AHU-02 from 250AT/400AF to 300AT/400AF

4.02 The following are revisions to the Mini Lab and Admin Building Renovation Project Drawings

A. Sheet A-101: Add carpet to rooms E-1 and E-9

B. Sheet A-102: Corridor E-21 delete reference to bid alternate and include replacement of existing flooring and base under the base bid.

C. Sheet A-601: Add rooms E-1 and E-9 to the Room Finish Schedule with floor, base and wall finishes to match Room E-9.1

D. Sheet AD-101: Remove existing flooring and base in rooms E-1, E-2, E-9

E. Sheet AD-102: Remove existing flooring in rooms E-23, E-24, E-21, and existing office.

END OF ADDENDUM NO. 02

SECTION 07 27 13

MODIFIED BITUMINOUS SHEET AIR BARRIERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Surface preparation.

B. Application of rolled, self-adhering air/vapor barrier system.

C. Application of materials to provide bridge and seal air leakage pathways in:
1. Wall and roof connections and penetrations
2. Connections to foundation walls
3. Walls, windows, curtain walls, storefronts, louvers, or doors
4. Expansion and control joints
5. Masonry ties
6. All other penetrations through the wall assembly

1.2 REFERENCES

A. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.

B. ASTM D570 - Standard Test Method for Water Absorption of Plastics.

C. ASTM D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting.

D. ASTM D903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.

E. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Materials Used as Steep Roofing Underlayment for Ice Dam Protection.

F. ASTM E96 (Method B) - Standard Test Methods for Water Vapor Transmission of Materials.

G. ASTM E154 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.

H. ASTM E283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

I. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors.

J. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Air Pressure Difference.

K. ASTM E2178 - Standard Test Method for Air Permeance of Building Materials.

L. ASTM E2357 - Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.

1.3 SUBMITTALS

A. Comply with Section 01 33 00 - Submittal Procedures.

B. Submit manufacturer's product data and application instructions.

1.4 QUALITY ASSURANCE

A. Installer Qualifications:
   1. Use an experienced installer and adequate number of skilled personnel who are thoroughly trained and experienced in the application of the air barrier.
      a. Air-barrier Installer performing Work shall be approved by air barrier membrane manufacturer.

B. Obtain air/vapor barrier materials from a single manufacturer regularly engaged in manufacturing the product.

C. Provide products which comply with all state and local regulations controlling use of volatile organic compounds (VOCs).

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Store materials in a clean, dry area in accordance with manufacturer's instructions.

C. Store adhesives and primers at temperatures of 40° F (5° C) and above to facilitate handling.

D. Store membrane cartons on pallets.

E. Do not store at temperatures above 90° F (32° C) for extended periods.

F. Keep away from sparks and flames.

G. Completely cover when stored outside. Protect from rain.

H. Protect materials during handling and application to prevent damage or contamination.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Product not intended for uses subject to abuse or permanent exposure to the elements.

B. Protect rolls from direct sunlight until ready for use

C. Do not apply membrane when air or surface temperatures are below 40° F (4° C).

D. Do not apply to frozen surfaces.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. W. R. MEADOWS, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Website: www.wrmeadows.com.
Basis of Design, alternate suppliers meeting these specifications are allowed.

2.2 MATERIALS

A. Rolled, Self-Adhering Air/Vapor Barrier Membrane: Polymeric air/vapor barrier membrane protected by release paper on cross-laminated polyethylene carrier film with exposed polymeric membrane strips on both sides protected by pull-off release strips.
   1. Performance Based Specification: Air/Vapor barrier membrane shall have the following characteristics:
      a. Air Leakage, ASTM E2357: ≤0.04 cfm / ft.^{2} @ 75 Pa (1.57 lb./ft.^{2}).
      b. Air Permeability, ASTM E2178: ≤0.004 cfm / ft.^{2} @ 75 Pa (1.57 lb./ft.^{2}).
      c. Water Vapor Permeance, ASTM E96 (Method B): ≤0.035 perms.
      d. Elongation, ASTM D412: 400 %.
      e. Tensile Strength, ASTM D412: 4000 psi (27.6 MPa).
      j. Lap Peel Strength @ 39° F (3.9° C), ASTM D903, 180 Bend: 10 lbf/in. (1.75 N/mm).
   2. Proprietary Based Specification:
      a. AIR-SHIELD by W. R. MEADOWS.

2.3 ACCESSORIES

A. Flashing and Transition Membrane: Self-adhesive polymeric sheet membrane having a thickness of 40 mils (1 mm).
   1. AIR-SHIELD THRU-WALL FLASHING by W. R. MEADOWS.

B. Liquid Flashing: Fluid applied, single component, flashing membrane for rough openings and detailing.
   1. AIR SHIELD LIQUID FLASHING by W. R. MEADOWS.

C. Joint Tape: Self-adhesive polymeric membrane for joints of plywood and oriented strand board (OSB).
   1. AIR-SHIELD by W. R. MEADOWS.

D. Membrane Adhesive:
   1. Temperatures above 40° F (4° C): Water-Based Adhesive
      a. MEL-PRIME™ W/B Water-Based Adhesive by W. R. MEADOWS.
   2. Temperatures below 30° F (-1° C): Solvent-Based Primer.
      a. MEL-PRIME VOC Compliant Solvent-Based Adhesive or Standard Solvent-Base Adhesive by W. R. MEADOWS.

E. Pointing Mastic: mastic for sealing penetrations and terminations of membrane.
   1. POINTING MASTIC by W. R. MEADOWS.

F. Detailing Membrane: non-slump waterproofing material for joint detailing.
   1. BEM by W. R. MEADOWS.

G. Concrete Repair Materials: general purpose patching materials.
   1. MEADOW-PATCH™ 5 and MEADOW-PATCH 20 Concrete Repair Mortars by W. R. MEADOWS.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive membrane. Notify Architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.2 SURFACE PREPARATION

A. Protect adjacent surfaces not designated to receive air/vapor barrier system.

B. Clean and prepare surfaces to receive air barrier in accordance with manufacturer's instructions.

C. Do not apply air/vapor barrier to surfaces unacceptable to manufacturer.

D. All surfaces must be clean, smooth, and dry and must be clean of oil, dust, and excess mortar.

E. Strike masonry joints flush.

F. Patch all holes and voids and smooth out any surface misalignments.

G. Concrete surfaces must be cured for a minimum of 14 days.

H. If curing compounds are used, they must be clear, resin based, without oil, wax, or pigments.

3.3 APPLICATION OF AIR BARRIER SYSTEM

A. TRANSITION MEMBRANE
1. Prime the area to be detailed using adhesive recommended by the membrane manufacturer according to the substrate.
2. Apply transition membrane with a minimum overlap of 3” (75 mm) onto primed surface at all joints, columns, and beams as indicated in drawings.
3. Tie in to window and door openings, roofing systems, floor intersections, and dissimilar materials.
4. Roll membrane firmly into place.
5. Ensure membrane is fully adhered and remove all wrinkles and fish mouths.
6. Overlap subsequent courses of membrane a minimum of 2” (50 mm) and ensure joints are fully adhered.
7. Seal top edge of transition membrane with pointing mastic.

B. THROUGH WALL FLASHING
1. Prime the area to be detailed using adhesive recommended by the membrane manufacturer according to the substrate.
2. Remove release paper prior to application.
3. Apply though wall flashing at based of masonry walls as indicated on drawings.
4. Recess through wall flashing 1/2” (13 mm) from the face of the masonry.
5. Apply a bead of pointing mastic if through wall flashing is not embedded into masonry.

C. AIR BARRIER MEMBRANE
1. Apply air barrier membrane system in accordance with manufacturer's instructions.

2. Ensure accessory materials are compatible with membrane and approved by membrane manufacturer.
3. Prime the area to be detailed using adhesive recommended by the membrane manufacturer according to the substrate. Re-apply adhesive to uncovered surfaces next day.
4. Apply membrane to primed surface by removing release paper and rolling membrane firmly into place.
5. Ensure membrane is fully adhered and remove all wrinkles and/or fish mouths.
6. Cut air barrier membrane to detail around protrusions and masonry reinforcing.
7. Overlap subsequent courses of membrane a minimum of 2” (50 mm) in a shingle fashion.
8. Inspect membrane before covering and repair as necessary. Cover tears and inadequate overlaps with membrane. Seal edges of patches with pointing mastic.
9. Seal all end laps and protrusions with pointing mastic.
10. Avoid use of products which contain tars, solvents, pitches, polysulfide polymers, or PVC materials that may come into contact with waterproofing membrane system.

3.4 PROTECTION

A. Cover air barrier membrane as soon as possible since it is not designed for permanent exposure.

END OF SECTION

SECTION 07 53 03

THERMOPLASTIC MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Mechanically fastened single-ply roofing system.
   2. Associated roofing-system components.

1.2 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

B. Roof system consists, in general, of the following:
   1. 0.060-inch-thick TPO single-ply membrane placed over cover board and mechanically fastened to steel roof deck.
   2. Board insulation

1.3 PERFORMANCE REQUIREMENTS

A. General: Provide roofing system that remains watertight; does not permit the passage of water; provides specified fire, windstorm, and hail resistance ratings; and resists thermally induced movement.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.

C. FMG Listing: Provide roofing membrane and component materials that comply with requirements in FMG 4450 and FMG 4470 as part of a membrane roofing system and that are listed in FMG's "Approval Guide" for Class 1 construction.
   1. Fire/Windstorm Classification: Class 1A-90.
   2. Hail Resistance: SH.

1.4 SUBMITTALS

A. Product Data: For each type of product proposed for inclusion in roof system.

B. Shop Drawings:
   1. Details of roof system, showing outline of roof with roof size and elevations.
   2. Profile details of flashing methods for penetrations
   3. Fastening patterns for insulation board.
   4. Limits and patterns of singly ply roof system.

C. Applicator Certificates: Signed by membrane manufacturer certifying that Contractor is approved, authorized, or licensed by manufacturer to install roofing system.

D. Manufacturer Certificates: Signed by membrane manufacturer certifying that roof system complies with requirements specified in "Performance Requirements" Article.

E. Warranties: Warranties specified in this Section, including copy of Roofing Manufacturer's warranty, and copy of Applicator's warranty – all furnishing min. 15 year full-system warranty.

F. Inspection Report: Copy of membrane manufacturer's inspection report of completed roofing installation.

G. (2) Samples of each primary component to be used in the roof system and the manufacturer's current literature for each component – one sample for the Owner, and one sample to be retained by the A/E. Include samples of primary roofing membrane, and wall flashing membrane.

H. Material Safety Data Sheets.

I. Samples of Roofing Manufacturer's color choices.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A roofing installer that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.

B. Source Limitations: Obtain components for roofing system from membrane manufacturer or from sources approved by membrane manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect cover board materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Comply with manufacturer's written instructions for handling, storing, and protecting during installation. Note: Factory installed plastic wraps will not be acceptable protection against rain and other forms of moisture.

D. Set-up ground-to-roof staging in area designated by Owner.

E. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.7 PROJECT CONDITIONS

A. Proceed with installation only when current and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.8 MANUFACTURER WARRANTY

A. Manufacturer's total-system warranty, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
   1. Warranty is to include roofing membrane, membrane flashings, cover boards, fasteners, membrane accessories, and other components of roofing system.
   2. Warranty Period: 10 years from date of Substantial Completion.

1.9 CONTRACTOR WARRANTY

A. Installer warrants to Owner that roofing system will remain watertight and free of other defects for a period of two years following date of Substantial Completion.

B. Defects include, but are not limited to, the following:
   1. Leaks in membrane flashing systems.
   2. Moisture damaged insulation.
   3. Fastener back-out or adhesive failures.
   4. Voids, slippage, blisters, fishmouths, splits, ridges, wrinkles, creases, and curled edges in membrane flashings.
   5. Open seams in roof membrane and flashings.
   6. Improperly installed materials.
   7. Defects in materials.
   8. Other similar conditions.

C. Under terms of guarantee, make temporary and permanent repairs at no expense to Owner.

D. Upon receipt of Owner’s notification of need for repairs, complete repairs within 24 hours. If conditions beyond control of Contractor prevent completion of permanent repairs within 24 hours, make temporary repairs within such time limit, and then proceed with activities needed to complete permanent repairs. If such delay is required, notify Contractor of schedule for completion of permanent repairs.

PART 2 - PRODUCTS

2.1 SINGLE PLY ROOFING MEMBRANE

A. General:
   1. Type: Polyester reinforced thermoplastic polyolefin (TPO) sheet.

2. Thickness: 0.060-inch-thick minimum.
3. Full-Width Sheets: Maximum 10’-0”.
4. Half-Sheets: Provide half-sheets in roof corners and along perimeter edges to comply with specified FMG windstorm ratings and membrane manufacturer’s recommendations.
5. Color: Grey, or other color as selected by Owner

B. Acceptable Manufacturers:

1. Carlisle
   a. Membrane: Carlisle “Sure-Weld” 60 mil (minimum) Mechanically-fastened Thermoplastic Polyolefin membrane with polyester reinforcement, and 10’ wide sheets.
   b. Flashing: Carlisle TPO flashing membrane, color to match roofing.
   c. Clad Metal Flashing: Sure-Weld TPO coated, heat-weldable sheet metal, color to match roofing.
   d. Roof Walkway Protection: Sure-Weld Heat Weldable Walkway Pads, with surface embossment, continuously welded to roof all sides.
2. Approved equals
   a. GAF Everguard
   b. Johns Manville

2.2 AUXILIARY MEMBRANE MATERIALS

A. General: Auxiliary materials recommended by membrane manufacturer for intended use and compatible with membrane roofing.

B. Sheet Flashing: Membrane manufacturer's standard sheet flashing of same color as roofing membrane. Match thickness of roofing membrane.

C. Bonding Adhesive: Bonding adhesive recommended by membrane manufacturer.

D. Seam Fasteners: Screw and plate system complying with the following:
1. Approved by membrane manufacturer as component of manufacturer’s total-system.
2. Approved by FMG as component of roof assembly meeting specified windstorm rating.

E. Miscellaneous Accessories: Provide pourable sealers, preformed cone flashings, preformed inside and outside corner flashings, T-joint covers, cover strips, and other accessories.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with roof-system installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
1. Verify that roof openings and penetrations are in place and set and braced.
2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations.
3. Verify that steel roof deck is properly fastened.
4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrate of debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.

C. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or prior to onset of rain. Remove and discard temporary seals before beginning work on adjoining roofing.

3.3 COVER BOARD INSTALLATION

A. Coordinate installing membrane roofing system components so cover board is not exposed to precipitation or left exposed at end of workday.

B. Comply with membrane roofing system manufacturer's written instructions for installing roof insulation board.

C. Fasten cover board to metal deck, all according to requirements in FMG for specified Windstorm Resistance Classification.

3.4 MECHANICALLY FASTENED ROOFING MEMBRANE INSTALLATION

A. Install roofing membrane according to roofing system manufacturer's written instructions and to provide specified FMG Windstorm Classification. Unroll roofing membrane and allow it to relax before installing.

B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.

C. Accurately align roofing membranes and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

D. Fasten roofing membrane securely at terminations, penetrations, and perimeter of roofing.

E. Apply roofing membrane with side laps shingled with slope of roof.

F. Seams: Clean seam areas, overlap roofing membrane, and hot-air weld side and end laps of roofing membrane according to manufacturer's written instructions to ensure a watertight seam installation.
   1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roofing membrane.
   2. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
   3. Repair tears, voids, and lapped seams in roofing membrane that does not meet requirements. Inspect installed roofing on daily basis; make repairs same day defects are found; do now allow defects to remain unrepaired overnight or during inclement weather.

3.5 FLASHING INSTALLATION

A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system manufacturer's written instructions.

B. Clean seam areas and overlap and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.

C. Terminate and seal top of sheet flashings and mechanically anchor to substrate. Extend flashing sheets over tops of parapets, curbs, and other similar places.

3.6 FIELD QUALITY CONTROL

A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Owner.

B. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with specified requirements.

3.7 PROTECTING AND CLEANING

A. Protect membrane roofing system from damage and wear during remainder of construction period.

B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates, and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

3.8 MATERIALS

A. Provide roof walkway protection per section 2.1.B.1.d.

END OF SECTION

JK WTP Lab/Maintenance Building and Mini Lab/Admin Remodel
WUTR18004
Bid Phase Questions and Responses

Reference No.	Date Posted	Addendum No.	Question	Response
1	2/3/2022	N/A	Request to accept bids for Carrier RTU's, Strobic Lab exhaust fans and Phoenix lab control valves.	These specification sections are performance based and define the basis of design. As such, a substitution request is not required. The only requirement is that your equipment meets the criteria defined on the contract documents. As such you are allowed to provide bids for this project.
2	2/8/2022	N/A	Do you know how many indoor and outdoor signs you need?	See architectural plans and specification section 10 14 00 Signage for requirements.
3	2/8/2022	2	Please provide size and method of attachment for the steel framing at top of the CMU Walls. Reference sheet A-701	A-701: Provide 3" x 3" x ¼" angles with 1/4" self tapping screws at 48" OC
4	2/8/2022	2	Please provide specifications for wall vapor barrier. Vapor barrier is on the plans but missing in the spec book.	Adding specification section 07 27 13 Modified Bituminous Sheet Air Barriers
5	2/8/2022	2	Please provide specifications for the wire mesh partitions	Per note 136 wire mesh partitions are owner furnished owner installed.
6	2/8/2022	N/A	Please provide an Interior Material Index for the Main Lab similar to the one provided for the Mini lab on sheet A-601 of the Mini Lab plans.	Interior Material Index from the mini-lab will be the same for the main lab, additional materials will be selected from suppliers standard colors unless otherwise specified
7	2/8/2022	N/A	Are address letters required on the monument sign or building?	Provide signage as shown on the drawings
8	2/8/2022	N/A	Are there any toilet accessories required in the Mini Lab/Admin Building restrooms?	No new accessories are required, existing to remain
9	2/8/2022	N/A	Is there any fire sprinkler work required in the Mini Lab/Admin Building?	Existing building does not have a fire protection system
10	2/8/2022	2	The Acid Neutralization Tank on sheet P-601 is model-ANT150 and on sheet P-500 is it model-ANT50, which is one is correct?	Model ANT150 is correct
11	2/8/2022	2	Geo-tech report is missing building pad and site preparation instructions, please provide.	See section 3.3 of the Geotech report for pad and site preparation and Sheet S-101 Foundation Notes
12	2/8/2022	2	There is a retaining wall detail on sheet C-118, but the plans don't specify any retaining wall. The plans show an existing wall but not a new one to be installed. Could you please clarify.	The retaining wall detail on sheet C-118 is no longer required.
13	2/8/2022	N/A	Request to approve Accutrol as an acceptable equal to the Venturi valves.	The City of Arlington specifications require all questions to be routed through Emily Hannon at the City and the deadline for pre-approvals has passed. Their specifications allow for alternates to be submitted by GC's and include a form to define the advantages to the owner, so you might be able to bid under that format. If your products meet the basis of design specifications they could be allowed but it would be best to follow the prescribed method included in the specifications.
14	2/8/2022	2	Reference Sheet M-804 - Lab EF; Will lab manufacture or controls contractor provide controls for lab exhaust fans?	The control contractor will need to provide controls for lab exhaust fans-see addenda 1 specification section 23 09 23
15	2/8/2022	2	Reference Sheet M-805; Currently control drawings show 2 separte occupancy control types for FPB and VAV. Will occupancy be monitored based on BAS or based on Lighting Control Panel. If lighting control, will BAS need to interface to LCP?	Occupancy is intended to be monitored by BAS with connections to lighting contactors-see addenda 1 specification section 23 09 23
16	2/8/2022	N/A	The plans indicate card readers on door schedule. Please provide Access Control & Structured Cabling specs.	The card readers and cabling are Owner Furnished and Installed.
17	2/8/2022	2	Rock mulch on plant schedule (sheet L-100) specifies it be ¾" mulch size, but on sheet L-102/detail B-4 specifies 1-1/2" mulch. Which one is correct?	Rock mulch shall be ¾"
18	2/8/2022	N/A	Please provide specs for gates, fence, and operators.	See Division 2 specification sections

Reference No.	Date Posted	Addendum No.	Question	Response
19	2/9/2022	2	Ground Floor Demo Plans do not say to demo any flooring. The new work plan says to install Carpet Tile in several rooms. Is the Carpet Tile to be installed over the existing flooring?	Existing flooring material shall be removed in rooms E-1, E-2, and E-9, install new carpet tile and base in rooms E-1, E-2, E-2.1, E-9 and E-9.1.
20	2/9/2022	2	There is an Alternate on A-102 for RF-2. There is no place on Proposal Form Exhibit A to propose this alternate, there is also no Alternate Section in the Specs.	Mini Lab sheet A-102, corridor E-21: Delete reference to bid alternate and include replacement of existing flooring under the base bid.
21	2/9/2022	2	Mini Lab Room E1 & E9 are not on the Finish Schedule, are we to assume all finishes in these rooms are to remain?	Add rooms E1 and E9 to the Room Finish Schedule with floor, base and wall finishes to match Room E-9.1
22	2/9/2022	2	In spec section 22 67 13 there is CVPC and PVDF listed as products for this system. Is this to be considered our choice on which to use, or are there specific areas that require PVDF in lieu of the CPVC?	A. Section 22 67 13 Processed Water Piping For Laboratory & Healthcare Facilities 1. Delete reference to PVDF and provide CPVC piping materials.
23	2/9/2022	2	Note 126 on A-103 says "Canopy Above, Refer to A1/A-115." I believe the reference should be A1 & B1/A-511. Please provide dimensions for the canopy.	Sheet A-103: Modify note 126 to reference A1 and B1/A-511. Canopy size is 13'-6" x 20'-0".
24	2/9/2022	N/A	We are also missing a Fire Alarm spec	See section 28 46 21.11 Addressable Fire Alarm Systems
25	2/9/2022	2	None of the canopies are dimensioned	All canopies are 4'-0" wide as shown on sheet A-116. Adequate dimensions are provided to determine lengths.
26	2/9/2022	2	The Trench Drain shown on D2/A-411 is labeled Balco ACT-12-250L. The ACT 12-250L is 1'-2" wide. Please confirm that the Basis of Design is the ACT-8-250L.	The correct trench drain is the TST-8-250.
27	2/9/2022	2	The Product name of the trench drain has changed. The Trench Drain is now called TST 8-250.	The correct trench drain is the TST-8-250.
28	2/9/2022	N/A	Please confirm Aqua Solutions (DI Water System Provider) is a subcontractor of the Owner	The DI water System will be provided and installed by the contractor.
29	2/10/2022	2	Substitution request for OKCA to become an approved manufacturer for canopies.	Specification Section 10 50 20-Canopies: Approved equal is Oklahoma Canopies and Awnings, Tulsa, OK
30	2/10/2022	2	Section 07 21 13 Board Insulation calls for 2 layers of 2" ISO w/2nd layer foil faced and taped, and w/25 psi ISO	Modify thermal resistance to two layers totaling R-25
31	2/10/2022	2	Section 07 52 16 SBS Modified also calls out board insulation for the roof being 2 layers totaling 4.2" ISO and w/20 psi ISO. Also, they continually call out R-25 which is 2 layers of 2.2" ISO for a total of 4.4" ISO	Section 07 52 16 will be deleted.
32	2/10/2022	2	Section 07 52 16 SBS Modified with a specific Roof Nav assembly 445524-48573-0 However, all details in the plans including roof types are single ply—Reference Details on sheets A-312, A-510, A-511, A-700 Note the detailed drawings are clearly single ply including TPO clad metal scupper inserts with scores of references to single ply in the plans. WE NEED TO KNOW WHAT SYSTEM—SINGLE PLY OR MODIFIED.	Section 07 53 03 Thermoplastic Membrane Roofing will be added.
33	2/10/2022	2	We would like to utilize Firestone opposed to JM—Please get this approved if possible.	See specification section 07 53 03 Thermoplastic Membrane Roofing for approved suppliers.

Reference No.	Date Posted	Addendum No.	Question	Response
34	2/10/2022	N/A	There are a lot of items/equipment (about 90 percent) on the schedule that are not specified on the plans. The plans also show equipment schedules on multiple sheets, and there is some equipment that is listed on the plans but not on the schedule from the specs. Are we to assume that everything from division 11 schedule is going to be moved from the Pierce-Birch Water Plant to the JFK Water Plant even though its not on the plans? And also install the equipment on the plans that is not listed the division 11 schedule?	Spec section 11 01 53.33 Relocation of Laboratory Equipment is the schedule of existing equipment coming over from PB. The listed equipment is to be delivered to the lab rooms (no connection or installation) Division 11 also includes 11 53 13 Laboratory Fume Hoods and Related products. All of this is contractor provide/contractor installed.
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