To: ALL BIDDERS

Ref: Pierpont ATC Deferred Maintenance

Subj.: **ADDENDUM BULLETIN NO. 2**

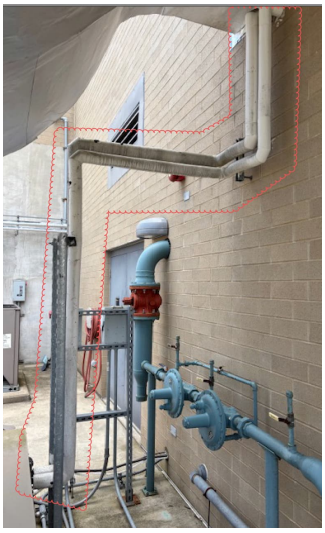
This Addendum Bulletin shall be incorporated in the Construction Documents including the Drawings and Specifications for the Project referenced above. All work amended as listed herein shall be included in your Bid Proposal and the bidder shall acknowledge this addendum bulletin on the Bid Form.

The work shall be amended as follows:

1. **SPECIFICATIONS (see enclosures):**
    a. **Division 230719 HVAC Piping Insulation:** ADD specification section in its entirety.
2. **DRAWINGS:**
    a. **Drawing H-2.1:** ADD the following direction to Enlarged First Floor HVAC plan:
        i. Insulate refrigerant piping serving xACCU-1
            1. Remove existing insulation on piping serving existing ACCU-1 from unit connection to exterior wall penetration. Furnish and install new piping insulation between unit connection and exterior wall penetration in accordance with Section 230719 “HVAC Piping Insulation.” See photo below indicating piping.

ii. Insulate refrigerant piping serving xSSAC-3

1. Remove existing insulation on piping serving existing SSAC-3 from unit connection to exterior wall penetration. Furnish and install new piping insulation between unit connection and exterior wall penetration in accordance with Section 230719 “HVAC Piping Insulation.” See photo below indicating piping.



iii. Paint exterior natural gas piping serving xRTU-1

1. Remove paint on existing natural gas piping serving existing RTU-1 from unit connection to concrete slab penetration. Apply new paint between unit connection and concrete slab penetration. Color selection by Architect, to match existing unit.

b. **Drawing A-7.0:** REVISE the sheet in accord with the following direction. Finish material LVT01 is no longer available from the manufacturer. The new product selection for LVT01 is **MANF:** MOHAWK GROUP **TYPE:** HOT AND HEAVY II SECOYA 2.5 C2103, **COLOR:** 821 CHAI OAK, INSTALL **PATTERN:** RANDOM

3. **FOR CLARIFICATION:**

a. If bidders need access to the building during the bid period, they are to contact Chip Hawkins at (304) 502-2979.

b. The design intent is for the 3rd floor walls which have an existing gypsum board finish to match new walls in final appearance and finish level. This may involve various degrees of joint compound application, sanding, and number of coats of paint depending on the condition of existing walls. This does not apply to walls obscured from view by new construction.

c. The 3rd floor door allowing access from Corridor 300 onto the roof is to be modified thus:

i. Provide a finished corner all around the door opening using corner bead, joint compound, and paint.

ii. Install an aluminum threshold extension the full width and depth of the exposed sill. Trim roof membrane so that it is under the threshold and not exposed to view. Threshold extension is not to exceed the height of the existing threshold and is to match it in finish.

iii. Paint the interior side of the door to match the interior wall color.

d. Existing 3rd floor conduits or pipes stubbed up in the existing space which are not called out for reuse in the contract documents are to be capped off below the finish floor level or behind walls at the discretion of the Architect. Notify Architect during demolition so that these can be examined on a case-by-case basis prior to modifying.

END OF ADDENDUM

Submitted by:
THE OMNI ASSOCIATES – ARCHITECTS

Richard T. Forren, AIA
Principal

Enclosures:
A Bid Phase RFI Log
B Specification 230719 HVAC Piping Insulation

Pierpont ATC DM Bid Phase PBI Report

Question Number	Question	Response	In Addendum
001	On proposed list of sub-contractors, there is steel fabricator, roof membrane manufacture and roof installer.	Contractors only need fill in the subcontractors they will be using.	1
002	a. On C1.1 for alternate #6 the stairway concrete repairs, are we to figure removing and modifying all existing railings to surface mount per stair repair detail and base plate detail? b. Under alternate #6 the stairway with the tread plates, are we installing new tread plates and patch or just patching with Sika 223?	a. Removing and modifying or removing and replacing the existing railings with surface mount and base plates will be acceptable. b. No new tread plates are intended to be installed; removal of existing tread plates and patching with the Sika 223 product is the intent.	1
003	a.On A-1.3 doors 306A & 306B are labeled with B03 but on door schedule they are labeled B02. Please clarify. b.On door schedule doors there are numerous wood doors on AL frames (B01-B04) is this correct? c.Is the borrowed lite B05 to be aluminum or HM?	a. Frame type is B03 for both doors. b. Yes c. See details referenced in the frame type elevation. Frame is aluminum.	1
004	Is the PT2 on A-4.1 NIC- by owner?	This label should read "PT3", see Addendum No. 1 for revised sheet. This item is by owner.	1
005	Finish schedule on A-7.0 calls for WC01 in corridor 300 but there is no indicator on the finish plan. Please clarify	Labels and materials have been clarified. See revised sheet in Addendum No. 1.	1
006	Is there a signage specification or BOD of the existing? Is there a detail for R04B changing message?	If bidders would like more information on existing signage, they may contact the sign manufacturer: Graphics 22 Signs, Inc. 5212 Lytle Street Pittsburgh, PA 15207 t: 412.422.1125 f: 412.422.1226 web: www.graphics22signs.com	2

SECTION 230719 - HVAC PIPING INSULATION

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.

B. All Division 23 Specification Sections also apply to this Section.

1.2 SUMMARY

A. Section Includes

1. Insulation Materials:

    a. Flexible elastomeric.

2. Adhesives.
3. Mastics.
4. Lagging adhesives.
5. Sealants.
6. Factory applied jackets.
7. Field applied fabric reinforcing mesh.
8. Field applied cloths.
9. Field applied jackets.
10. Tapes.
11. Securements.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include thermal conductivity, thickness, and jackets (both factory and field applied, if any).

1.4 QUALITY ASSURANCE

A. Fire Test Response Characteristics: Insulation and related materials shall have fire-test-response characteristics indicated below as tested in accordance with ASTM E 84.

1. Insulation Installed Outdoors: Flame spread index of 75 or less, and smoke developed index of 150 or less.

1.5 COORDINATION

A. Coordinate size and location of supports, hangers, and insulation shields specified in Division 23 Section 230529 "Hangers and Supports for HVAC Piping and Equipment."

B. Coordinate clearance requirements with piping installer for piping insulation application. Before preparing piping Shop Drawings, establish and maintain clearance requirements for installation of insulation and field applied jackets and finishes and for space required for maintenance.

PART 2 - PRODUCTS

2.1 INSULATION MATERIALS

A. Comply with requirements in Part 3 schedule articles for where insulating materials shall be applied.

B. Products shall not contain asbestos, lead, mercury, or mercury compounds.

C. Flexible Elastomeric: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials and Type II for sheet materials.

1. Products - subject to compliance with requirements, provide the following:

a. Aeroflex USA Inc.; Aerocel.
b. Armacell LLC; AP Armaflex.
c. RBX Corporation; Insul-Sheet 1800 and Insul-Tube 180.

2.2 ADHESIVES

A. Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated, unless otherwise indicated.

B. Flexible Elastomeric Adhesive: Comply with MIL-A-24179A, Type II, Class I.

1. Products - subject to compliance with requirements, provide the following:

a. Aeroflex USA Inc.; Aeroseal.
b. Armacell LCC; 520 Adhesive.
c. Foster Products Corporation, H. B. Fuller Company; 85-75.
d. RBX Corporation; Rubatex Contact Adhesive.

C. ASJ Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

1. Products - subject to compliance with requirements, provide the following:

a. Childers Products, Division of ITW; CP-82.
b. Foster Products Corporation, H. B. Fuller Company; 85-20.

c. ITW TACC, Division of Illinois Tool Works; S-90/80.
d. Marathon Industries, Inc.; 225.
e. Mon-Eco Industries, Inc.; 22-25.

D. PVC Jacket Adhesive: Compatible with PVC jacket.

1. Products - subject to compliance with requirements, provide the following:

a. Dow Chemical Company (The); 739, Dow Silicone.
b. Johns-Manville; Zeston Perma-Weld, CEEL-TITE Solvent Welding Adhesive.
c. P.I.C. Plastics, Inc.; Welding Adhesive.
d. Speedline Corporation; Speedline Vinyl Adhesive.

2.3 MASTICS

A. Materials shall be compatible with insulation materials, jackets, and substrates; comply with MIL-C-19565C, Type II.

B. Vapor Barrier Mastic: Water based; suitable for indoor and outdoor use on below ambient services.

1. Products - subject to compliance with requirements, provide the following:

a. Childers Products, Division of ITW; CP-35.
b. Foster Products Corporation, H. B. Fuller Company; 30-90.
c. ITW TACC, Division of Illinois Tool Works; CB-50.
d. Marathon Industries, Inc.; 590.
e. Mon-Eco Industries, Inc.; 55-40.
f. Vimasco Corporation; 749.

2. Water Vapor Permeance: ASTM E 96, Procedure B, 0.013 perm at 43-mil dry film thickness.
3. Service Temperature Range: Minus 20° to plus 180°F.
4. Solids Content: ASTM D 1644, 59 percent by volume and 71 percent by weight.
5. Color: White.

2.4 SEALANTS

A. ASJ Flashing Sealants and PVC Jacket Flashing Sealants

1. Products - subject to compliance with requirements, provide the following:

a. Childers Products, Division of ITW; CP-76.

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40° to plus 250°F.
5. Color: White.

2.5 FACTORY APPLIED JACKETS

A. Insulation system schedules indicate factory applied jackets on various applications. When factory applied jackets are indicated, comply with the following:

1. ASJ: White, Kraft paper, fiberglass reinforced scrim with aluminum foil backing; complying with ASTM C 1136, Type I.
2. ASJ-SSL: ASJ with self-sealing, pressure-sensitive, acrylic-based adhesive covered by a removable protective strip; complying with ASTM C 1136, Type I.

2.6 FIELD APPLIED JACKETS

A. Field applied jackets shall comply with ASTM C 921, Type I, for pipes operating at below ambient temperatures and Type II, for pipes operating at above ambient temperatures.

B. PVC Jacket: High-impact-resistant, UV-resistant PVC complying with ASTM D 1784, Class 16354-C; 30 mils thickness; roll stock ready for shop or field cutting and forming. Thickness is indicated in field applied jacket schedules.

1. Products - subject to compliance with requirements, provide the following:

   a. Johns Manville; Zeston.
   b. P.I.C. Plastics, Inc.; FG Series.
   c. Proto PVC Corporation; LoSmoke.
   d. Speedline Corporation; SmokeSafe.

2. Adhesive: As recommended by jacket material manufacturer.
3. Color: White.
4. Factory fabricated fitting covers to match jacket if available; otherwise, field fabricate.

   a. Shapes: 45- and 90-degree, short- and long-radius elbows, tees, valves, flanges, unions, reducers, end caps, soil-pipe hubs, traps, mechanical joints, and P-trap and supply covers for lavatories.

5. Factory fabricated tank heads and tank side panels.

C. Metal Jacket:

1. Products - subject to compliance with requirements, provide the following:

   a. Childers Products, Division of ITW; Metal Jacketing Systems.
   b. PABCO Metals Corporation; Surefit.
   c. RPR Products, Inc.; Insul-Mate.

2. Aluminum Jacket: Comply with ASTM B 209 (ASTM B 209M), Alloy 3003, 3005, 3105 or 5005, Temper H-14.

   a. Factory cut and rolled to size; or, sheet and roll stock ready for shop or field sizing.

b. Finish and thickness are indicated in field applied jacket schedules.
c. Moisture Barrier for Outdoor Applications: 2.5-mil thick Polysurlyn.

d. Factory Fabricated Fitting Covers:

1) Same material, finish, and thickness as jacket.
2) Preformed 2-piece or gore, 45- and 90-degree, short and long-radius elbows.
3) Tee covers.
4) Flange and union covers.
5) End caps.
6) Beveled collars.
7) Valve covers.
8) Field fabricate fitting covers only if factory fabricated fitting covers are not available.

2.7 TAPES

A. ASJ Tape: White vapor-retarder tape matching factory applied jacket with acrylic adhesive, complying with ASTM C 1136.

1. Products - subject to compliance with requirements, provide the following:

a. Avery Dennison Corporation, Specialty Tapes Division; Fasson 0835.
b. Compac Corp.; 104 and 105.
c. Ideal Tape Co., Inc., an American Biltrite Company; 428 AWF ASJ.
d. Venture Tape; 1540 CW Plus, 1542 CW Plus, and 1542 CW Plus/SQ.

2. Width: 3 inches.
3. Thickness: 11.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: 2 percent.
6. Tensile Strength: 40 lbf/inch in width.
7. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.

B. PVC Tape: White vapor-retarder tape matching field applied PVC jacket with acrylic adhesive. Suitable for indoor and outdoor applications.

1. Products - subject to compliance with requirements, provide the following:

a. Avery Dennison Corporation, Specialty Tapes Division; Fasson 0555.
b. Compac Corp.; 130.
c. Ideal Tape Co., Inc., an American Biltrite Company; 370 White PVC tape.
d. Venture Tape; 1506 CW NS.

2. Width: 2 inches.
3. Thickness: 6 mils.
4. Adhesion: 64 ounces force/inch in width.
5. Elongation: 500 percent.
6. Tensile Strength: 18 lbf/inch in width.

C. Aluminum Foil Tape: Vapor retarder tape with acrylic adhesive.

1. Products - subject to compliance with requirements, provide the following:

a. Avery Dennison Corporation, Specialty Tapes Division; Fasson 0800.
b. Compac Corp.; 120.
c. Ideal Tape Co., Inc., an American Biltrite Company; 488 AWF.
d. Venture Tape; 3520 CW.

2. Width: 2 inches.
3. Thickness: 3.7 mils.
4. Adhesion: 100 ounces force/inch in width.
5. Elongation: 5 percent.
6. Tensile Strength: 34 lbf/inch in width.

2.8 SECUREMENTS

A. Bands

1. Products - subject to compliance with requirements, provide the following:

a. Childers Products; Bands.
b. PABCO Metals Corporation; Bands.
c. RPR Products, Inc.; Bands.

2. Aluminum: ASTM B 209 (ASTM B 209M), Alloy 3003, 3005, 3105, or 5005; Temper H-14, 0.020 inch thick, 1/2 inch wide with wing seal.

B. Staples: Outward-clinching insulation staples, nominal 3/4-inch wide, stainless steel or Monel.

C. Wire: 0.062-inch soft-annealed, stainless steel.

1. Manufacturers - subject to compliance with requirements, provide the following:

a. C & F Wire
b. Childers Products
c. PABCO Metals Corporation
d. RPR Products, Inc.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with requirements for installation and other conditions affecting performance of insulation application.

1. Verify that systems and equipment to be insulated have been tested and are free of defects.

2. Verify that surfaces to be insulated are clean and dry.
3. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.

B. Mix insulating cements with clean potable water; if insulating cements are to be in contact with stainless-steel surfaces, use demineralized water.

3.3 GENERAL INSTALLATION REQUIREMENTS

A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of piping including fittings, valves, and specialties.

B. Install insulation materials, forms, vapor barriers or retarders, jackets, and thicknesses required for each pipe system as specified in insulation system schedules.

C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, soften, or otherwise attack insulation or jacket in either wet or dry state.

D. Insulation installed on piping systems shall pass through pipe hangers and pipe clamps uninterrupted.

E. Install insulation with longitudinal seams at top and bottom of horizontal runs.

F. Install multiple layers of insulation with longitudinal and end seams staggered.

G. Do not weld brackets, clips, or other attachment devices to piping, fittings, and specialties.

H. Keep insulation materials dry during application and finishing.

I. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.

J. Install insulation with least number of joints practical.

K. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.

1. Install insulation continuously through hangers and around anchor attachments.
2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.

3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.
4. Cover inserts with jacket material matching adjacent pipe insulation. Install shields over jacket, arranged to protect jacket from tear or puncture by hanger, support, and shield.

L. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.

M. Install insulation with factory applied jackets as follows:

1. Draw jacket tight and smooth.
2. Cover circumferential joints with 3-inch-wide strips, of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches o.c.
3. Overlap jacket longitudinal seams at least 1-1/2 inches. Install insulation with longitudinal seams at bottom of pipe. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 2 inches o.c.

    a. For below ambient services, apply vapor-barrier mastic over staples.

4. Cover joints and seams with tape as recommended by insulation material manufacturer to maintain vapor seal.
5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to pipe flanges and fittings.

N. Cut insulation in a manner to avoid compressing insulation more than 75 percent of its nominal thickness.

O. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.

P. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.

Q. For above ambient services, do not install insulation to the following:

1. Vibration control devices.
2. Cleanouts.

3.4 PENETRATIONS

A. Insulation Installation at Aboveground Exterior Wall Penetrations: Install insulation continuously through wall penetrations.

1. Seal penetrations with flashing sealant.

2. For applications requiring only indoor insulation, terminate insulation inside wall surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside wall flashing and overlap wall flashing at least 2 inches.
4. Seal jacket to wall flashing with flashing sealant.

3.5 GENERAL PIPE INSULATION INSTALLATION

A. Requirements in this article generally apply to all insulation materials except where more specific requirements are specified in various pipe insulation material installation articles.

B. Insulation Installation on Fittings, Valves, Strainers, Flanges, and Unions:

1. Install insulation over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor-retarder integrity, unless otherwise indicated.
2. Insulate pipe elbows using preformed fitting insulation or mitered fittings made from same material and density as adjacent pipe insulation. Each piece shall be butted tightly against adjoining piece and bonded with adhesive. Fill joints, seams, voids, and irregular surfaces with insulating cement finished to a smooth, hard, and uniform contour that is uniform with adjoining pipe insulation.
3. Insulate valves using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker. For valves, insulate up to and including the bonnets, valve stuffing-box studs, bolts, and nuts. Fill joints, seams, and irregular surfaces with insulating cement.
4. Insulate strainers using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker. Fill joints, seams, and irregular surfaces with insulating cement. Insulate strainers so strainer basket flange or plug can be easily removed and replaced without damaging the insulation and jacket. Provide a removable reusable insulation cover. For below ambient services, provide a design that maintains vapor barrier.
5. Insulate unions using a section of oversized preformed pipe insulation. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker.
6. Cover segmented insulated surfaces with a layer of finishing cement and coat with a mastic. Install vapor-barrier mastic for below ambient services and a breather mastic for above ambient services. Reinforce the mastic with fabric-reinforcing mesh. Trowel the mastic to a smooth and well-shaped contour.
7. For services not specified to receive a field applied jacket except for flexible elastomeric, install fitted PVC cover over elbows, tees, strainers, valves, flanges, and unions. Terminate ends with PVC end caps. Tape PVC covers to adjoining insulation facing using PVC tape.

8. Label the outside insulation jacket of each union with the word "UNION." Match size and color of pipe labels.

C. Install removable insulation covers at locations indicated. Installation shall conform to the following:

1. Make removable union insulation from sectional pipe insulation of same thickness as that on adjoining pipe. Install same insulation jacket as adjoining pipe insulation.
2. When flange and union covers are made from sectional pipe insulation, extend insulation from flanges or union long at least two times the insulation thickness over adjacent pipe insulation on each side of flange or union. Secure flange cover in place with stainless-steel or aluminum bands. Select band material compatible with insulation and jacket.
3. Construct removable valve insulation covers in same manner as for flanges except divide the two-part section on the vertical center line of valve body.
4. When covers are made from block insulation, make two halves, each consisting of mitered blocks wired to stainless-steel fabric. Secure this wire frame, with its attached insulation, to flanges with tie wire. Extend insulation at least 2 inches over adjacent pipe insulation on each side of valve. Fill space between flange or union cover and pipe insulation with insulating cement. Finish cover assembly with insulating cement applied in two coats. After first coat is dry, apply and trowel second coat to a smooth finish.
5. Unless a PVC jacket is indicated in field applied jacket schedules, finish exposed surfaces with a metal jacket.

3.6 FLEXIBLE ELASTOMERIC INSULATION INSTALLATION

A. Seal longitudinal seams and end joints with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

B. Insulation Installation on Pipe Fittings and Elbows:

1. Install mitered sections of pipe insulation.
2. Secure insulation materials and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

C. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed valve covers manufactured of same material as pipe insulation when available.
2. When preformed valve covers are not available, install cut sections of pipe and sheet insulation to valve body. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
3. Install insulation to flanges as specified for flange insulation application.
4. Secure insulation to valves and specialties and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

3.7 FIELD APPLIED JACKET INSTALLATION

A. Where PVC jackets are indicated, install with 1-inch overlap at longitudinal seams and end joints; for horizontal applications, install with longitudinal seams along top and bottom of tanks and vessels. Seal with manufacturer's recommended adhesive.

1. Apply two continuous beads of adhesive to seams and joints, one bead under lap and the finish bead along seam and joint edge.

3.8 FINISHES

A. Flexible Elastomeric Thermal Insulation: After adhesive has fully cured, apply two coats of insulation manufacturer's recommended protective coating.

B. Color: Final color as selected by Architect. Vary first and second coats to allow visual inspection of the completed Work.

C. Do not field paint aluminum or stainless-steel jackets.

3.9 INSULATION SCHEDULE FOR PIPING INSTALLED OUTDOORS, ABOVE GROUND

A. Refrigerant Suction, Liquid and Hot Gas Piping:

1. Pipe Sizes smaller than 2”: Flexible Elastomeric, 1-inch thick.
2. Pipe Sizes 2” and larger: Flexible Elastomeric, 1½-inches thick.

3.10 FIELD APPLIED JACKET SCHEDULE FOR PIPES INSTALLED OUTDOORS

A. Install jacket over insulation material. For insulation with factory applied jacket, install the field applied jacket over the factory applied jacket.

B. Piping:

1. Aluminum, Smooth: 0.016 inch thick.
2. PVC, minimum 30 mils thick.

C. Provide waterproof sealant over jacketing.

END OF SECTION 230719