

14 December, 2023

Carteret County Courthouse Repairs

### **Addendum 3**

The following addendum shall supersede previous information and does hereby become part of the contract documents.

- Details 1/R-5, 7/R-5: See attached BD-1 for flashing revision to allow existing brick wythe of brick to remain at parapet.
- Any existing signage (or anything) on existing brick to be removed, shall be removed and reinstalled/replaced with the new brick installation.
- Clarification: Contractor to replace any insulation or blocking that is damaged during installation of new lintels.
- Add Alt No. 1 Clarification: In lieu of ice and water shield in the brick cavity the Contractor at their option can use a fluid applied air and water barrier membrane. See attached Spec 072726. All new flashing shown in the current details shall remain.
- Addendum 2 Clarification: Disregard "20 gauge" for sister stud unit price. Sister stud shall be 16 gauge as called for on Form of Proposal.
- Clarification: Grind existing shelf angles off and grind smooth and prime smooth to allow new angle to be welded to existing vertical supports to remain. Existing vertical supports and new shelf angles to be painted with rust inhibiting paint. Provide fire safety devices for installation of new lintels.
- Clarification: The existing masonry enclosure around the transformers can remain.
- Clarification: Any soffits or trim that is required to be removed for new brick and lintel work shall be replaced and painted to match existing.
- Clarification All new flashing requires end dams.
- Clarification: There are 2 existing parking spaces at the Southeast end of building 2 that can be blocked off during construction. Please also note that the jail sally port must remain free and clear at all times.
- Clarification: Access to the loading dock shall be maintained at all times.
- Existing plans for the existing building is here by posted for Contractors reference and convenience. The Owner does not warranty that the existing plans represent actual as built conditions.
- Clarification: All exit doors from the building must be maintained accessible at all times. Provide overhead protection when work is being performed in these areas.
- Alt. 2 Clarification: See attached unit masonry staining Spec Section 042510. Staining will include brick, mortar, and split face CMU.
- Any damage to interior finishes shall be replaced by the contractor.
- Clarification: Existing split face CMU at base of wall to remain as per keynote 2.
- Clarification: Unit prices are for additional sheathing or stud replacement discovered during construction in addition to what is currently called for on plans.
- Detail 4/R-5: The small soffit in this area is to be replaced. For the purpose of bidding, the new soffit will be 0.40 prefinished alum. w/ blocking as required.
- Contractor is responsible for temporary protection of all windows etc.

**End of Addendum 3**

**CARTERET COUNTY  
COURTHOUSE REPAIRS  
BEAUFORT, NORTH CAROLINA**



**23025**

ISSUED: 12/14/23

DWG BY: MSG/SKC

CKD BY: LDD

REVISIONS

NO.	DESCRIPTION

SHEET NO.

**BD-1**

OF 1

EXIST. COPING - REMOVE TO REANCHOR NEW MASONRY REPLACE TO MATCH EXISTING. (PROVIDE TRTD. WOOD BLOCKING AS REQUIRED)

REMOVE EXIST. MORTAR FILL OVER HARDWARE CHOTH

EXIST. 8" HI SPLIT FACE CMU (SEE KEY NOTES 3 AND 4 FOR REPLACEMENT INFO.)

EXIST. RELIEF SCUPPER BEYOND (SHOWN DASHED) PTD. TO MATCH CMU

EXIST. 4" HI SPLIT FACE CMU (SEE KEY NOTES 3 AND 4 FOR REPLACEMENT INFO.)

NEW THRU WALL FLASHING W/ WEEPS @ 16" O.C.

EXIST. CONT. ANGLE

WEEP HOLES

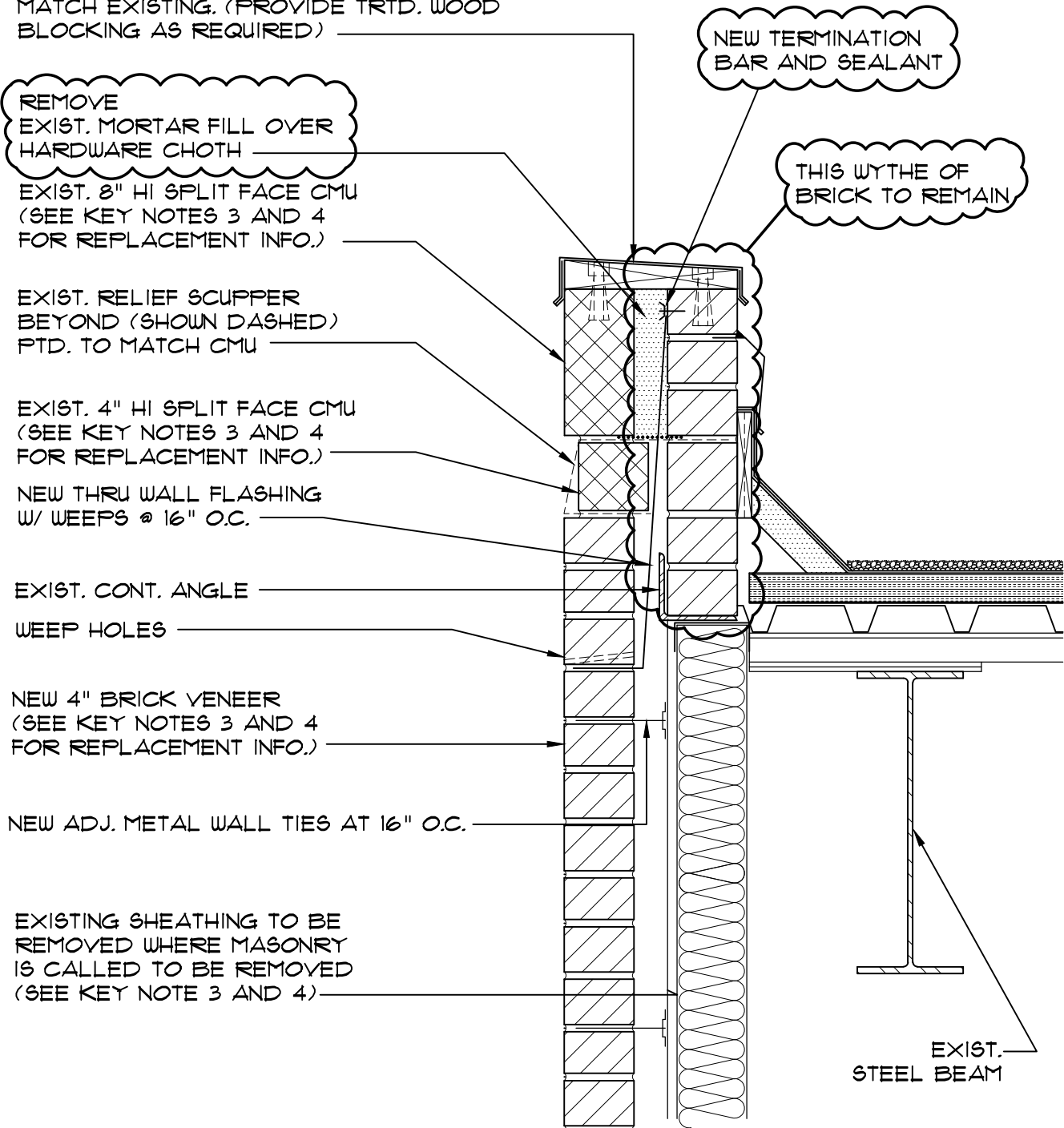
NEW 4" BRICK VENEER (SEE KEY NOTES 3 AND 4 FOR REPLACEMENT INFO.)

NEW ADJ. METAL WALL TIES AT 16" O.C.

EXISTING SHEATHING TO BE REMOVED WHERE MASONRY IS CALLED TO BE REMOVED (SEE KEY NOTE 3 AND 4)

NEW TERMINATION BAR AND SEALANT

THIS WYTHE OF BRICK TO REMAIN



1  
BD-1

**TYP SECT. THRU PARAPET**

SCALE: 1/4" = 1'-0"

**SECTION 07 27 26**  
**Fluid-Applied Membrane Air Barriers**

**PART 1: GENERAL**

1.1. GENERAL REQUIREMENTS

- A. The General Conditions, Supplementary Conditions, Instructions to Bidders, and Division 01-General Requirements shall be read in conjunction with and govern this section.
- B. The Specification shall be read as a whole by all parties concerned. Each Section may contain more or less than the complete Work of any trade. The Contractor is solely responsible to make clear to the Subcontractor the extent of their Work.

1.2. SUMMARY

- A. This section includes requirements for supplying labor, materials, tools, and equipment to complete the Work as shown on the Drawings Architectural Division as specified herein including, but not limited to, the following:
  - 1. Adhesives/Primers
  - 2. Fluid Applied, Vapor Permeable Air & Water Barrier Membrane
  - 3. Transition Membranes
  - 4. Sealant
  - 5. Thru-wall flashing
  - 6. Insulation Adhesive (Optional)

1.3. RELATED REQUIREMENTS

- A. DIVISION 04 – Masonry Section 04 20 00 – Unit Masonry
- B. DIVISION - LEED Requirements Section .

1.4. REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. AMMA 2400-02, Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction
- B. American Society for Testing and Materials (ASTM):
  - 1. ASTM D412, Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers - Tension
  - 2. ASTM D1970, Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
  - 3. ASTM D2243, Standard Test Method for Freeze-Thaw Resistance of Water-Borne Coatings
  - 4. ASTM D471, Standard Test Method for Rubber Property—Effect of Liquids
  - 5. ASTM E96, Standard Test Methods for Water Vapor Transmission of Materials
  - 6. ASTM E2357, Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
  - 7. ASTM E2178, Standard Test Method for Air Permeance of Building Materials
  - 8. ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials
  - 9. ASTM D5590, Standard Test Method for Determining the Resistance of Paint Films and Related Coatings to Fungal Defacement by Accelerated Four-Week Agar Plate Assay
  - 10. 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

11. ASTM E331, Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
12. ASTM E2112, Standard Practice for Installation of Exterior Windows, Doors and Skylights

1.5. PROJECT CONDITIONS

- A. Environmental Requirements:
  1. No Work shall be performed during rain or inclement weather.
  2. No Work shall be performed on frost or wet covered surfaces.
- B. Protection:
  1. Cap and protect exposed back-up walls against wet weather conditions during and after application of membrane.
- C. Coordination:
  1. Coordinate the Work of this Section with the installation of exterior substrate. Sequence Work so that installation of fluid-applied air barrier coincides with installation of substrate preparation without causing delay to the Work.
- D. Ensure all preparation Work is completed prior to installing fluid-applied membrane air barrier.

1.6. PRECONSTRUCTION CONFERENCE

- A. When required, and with prior notice, a manufacturer representative will meet with the necessary parties at the jobsite to review and discuss project conditions as it relates to the integrity of the assembly.

1.7. SUBMITTALS

- A. Provide the following requested information in accordance with Section Submittal Procedures:
  1. Qualification Data:
    - a. Statement that installing contractor is authorized by manufacturer to complete Work as specified.
  2. Certifications:
    - a. Product certification that the assembly components are supplied and warranted by single source manufacturer.
  3. Product Data:
    - a. Manufacturer's guide specification.
    - b. Manufacturer's complete set of technical data sheets for assembly.
    - c. Manufacturer's complete set of standard detail drawings.
  4. Warranty:
    - a. Sample warranty as specified.

1.8. MANUFACTURER QUALIFICATIONS

- A. Manufacturer shall demonstrate qualifications to supply materials of this section by certifying the following:
  1. Manufacturer must not issue warranties for terms longer than they have been manufacturing and supplying specified products for similar scope of Work.

1.9. QUALITY ASSURANCE

- A. Single Source Responsibility:
  1. Obtain fluid-applied membrane air barrier and auxiliary materials from a single manufacturer regularly engaged in the manufacturing and supply of the specified products.

2. Contactor to verify product compliance with federal, state, and local regulations controlling use of Volatile Organic Compounds (VOC).

**B. Installer:**

1. Perform Work in accordance with manufacturer published literature and as specified in this section.
2. Maintain one (1) copy of manufacturer's instructions on site.
3. At all times during the execution of the Work allow access to site by the manufacturer representative.
4. If meeting with manufacturer during project construction, contact manufacturer a minimum of two weeks prior to schedule meeting.

- C.** All components used in this section shall be furnished by a single manufacturer including fluid-applied membrane air barrier, transition membranes, air barrier sealants, primers, mastics, and adhesives.

**1.10. MOCK-UPS**

**A. Mock-ups:**

1. Where directed by Architect construct mock-ups to verify selections made under submittals and to set quality standards for materials and execution.

**1.11. DELIVERY, STORAGE, AND HANDLING**

**A. Delivery of Materials:**

1. Materials shall be delivered to the jobsite in undamaged and clearly marked containers indicating the name of the manufacturer and product.

**B. Storage of Materials:**

1. Store materials as recommended by the manufacturer and conforming to applicable safety regulatory agencies. Refer to all applicable data including but not limited to MSDS sheets, Product Data sheets, product labels, and specific instructions for personal protection.
2. Keep solvents away from open flame or excessive heat.
3. Products should be stored in closed containers.
4. Store roll materials on end in original packaging.
5. Protect rolls from direct sunlight until ready for use.
6. Refer to manufacturer published literature.

**C. Handling:**

Refer to manufacturer published literature.

**1.12. SUBSTITUTIONS**

- A.** Primary membranes defined as Water Resistive Coatings are only considered acceptable substitutions when installed in conjunction with EIFS in accordance with ICC-ES AC 212 and are not considered acceptable substitutions for wall assemblies with alternate claddings.

- B.** Submit requests for alternates in accordance with Section

**C.** Substitution submission format to include:

1. Evidence that alternate materials meet or exceed performance characteristics of product requirements and documentation from an approved independent testing laboratory certifying that the performance of the system including auxiliary components exceed the requirements of the local building code.
2. References clearly indicate that the manufacturer has successfully completed projects of similar scope and nature on an annual basis for a minimum of ten (10) years.
3. Manufacturer's guide specification.

4. Manufacturer's complete set of technical data sheets for assembly.
  5. Manufacturer's complete set of details for assembly.
  6. Product certification that the assembly components are supplied and warranted by single source manufacturer.
  7. Sample warranty as specified.
- D. Submit requests for alternates to this specification a minimum of ten (10) working days prior to bid date. Include a list of twenty-five (25) projects executed over the past five (5) years.

1.13. WARRANTY

- A. Manufacturer Material Warranty:
1. Provide manufacturer's standard 10-year material warranty.

**PART 2: PRODUCTS**

1.1. MATERIALS MANUFACTURER

- A. Components and auxiliary materials must be obtained as a single-source from the assembly manufacturer to ensure total system compatibility and integrity.
- B. Acceptable Manufacturer:
1. Henry Company  
999 N. Sepulveda Blvd. Suite 800  
El Segundo, CA 90245  
(800) 598-7663  
[www.Henry.com](http://www.Henry.com)

1.2. MATERIALS

- A. Primary Fluid-Applied Membrane Air Barrier (Basis of Design):
1. One-component, water-based, elastomeric emulsion membrane, designed to provide a vapor permeable air and water barrier when applied above-grade wall assemblies, having the following properties:
    - a. Basis of design: Air-Bloc 17MR
    - b. Color: Graphite
    - c. Solids Content:
      1. By Weight: 63%
      2. By Volume: 53%
    - d. Service Temperature:
      1. Low Temperature: -40 degrees F (-40 degrees C)
      2. High Temperature: +180 degrees F (+70 degrees C)
    - e. Application Temperature:
      1. Low Temperature: +20 degrees F (-6 degrees C)
      2. High Temperature: +122 degrees F (+50 degrees C)
    - f. Tensile Strength (ASTM D412): 104 psi (717 kPa)
    - g. Elongation (ASTM D412): 420%
    - h. Low Temperature Flexibility @ -22 degrees F (-30 degrees C) (ASTM D1970): Pass
    - i. Freeze-Thaw Resistance (ASTM D2243): Pass; 10 cycles
    - j. Nail Sealability (ASTM D1970): Pass
    - k. VOC Content: 100 grams/liter max.
    - l. Water Absorption (ASTM D471, modified): 5.6%
    - m. Water Vapor Permeance (ASTM E96 B @ 40 mils nominal dry film: 14 perms
    - n. Air Permeability:
      1. Assembly Air Leakage (ASTM E2357): Pass
      2. Building Material (ASTM E2178): 0.0001 cfm/ft2 (0.0005 L/s.m2)

- o. Chemical Resistance: Resists salt solutions, mild acids and alkalis. Non-resistant to oils, grease or solvents
- p. Fire Testing (NFPA 285): Complies in various assemblies
- q. Flame Spread/Smoke Development (ASTM E84): 10/15
- r. Resistance to Mold, Mildew, and Fungal Growth (ASTM D5590): No growth

B. Auxiliary Materials

1. Transition Membranes:

- a. Liquid applied flashings:
  - 1. Moisture-curing one component elastomeric liquid applied flashing membrane using a highly advanced STPe (Silyl-Terminated Polyether) polymer, having the following properties:
    - a. Basis of design: Air-Bloc LF
    - b. Color: Blue
    - c. Air leakage (ASTM E2178): <0.004 L/s/m<sup>2</sup> @ 75Pa
    - d. Water Vapor Permeance (ASTM E96, Method B): 21.8 perms @25 mils
    - e. Air Leakage of Air Barrier Assemblies (ASTM E2357): Pass
    - f. Water Resistance (AC212/ASTM D2247): Pass
    - g. Nail Sealability (AMMA 711): Pass
    - h. Surface Burning Characteristics (ASTM E84):
      - 1. Class A
      - 2. Flame Spread/Smoke Development (ASTM E84): 20/5
    - i. Tensile Strength (ASTM D412-modified): 132 psi
    - j. Elongation (D412): 264%
- b. Self-Adhering flashings:
  - 1. Non-vapor permeable, self-adhered water resistive air and vapor barrier membrane consisting of an SBS rubberized asphalt compound, which is integrally laminated to a blue engineered thermoplastic film, having the following properties:
    - a. Basis of design: Blueskin SA
    - b. Color: Blue
    - c. Water Vapor Permeance (ASTM E96, Method A): .86 perms
    - d. Air Leakage of Air Barrier Assemblies (ASTM E2357): Pass
    - e. Air leakage (ASTM E2178): <0.0005 L/s/m<sup>2</sup> @ 75Pa
    - f. Water Tightness (CAN/CGSB-37.58-M86): Pass.
    - g. Nail Sealability (ASTM D1970): Pass.
    - h. Tensile Strength:
      - 1. Membrane (ASTM D412-modified): 500 psi minimum
      - 2. Film (ASTM D828): 5000 psi minimum
    - i. Elongation (ASTM D412-modified): 200% minimum
- c. Self-Adhering Sheathing Joint Membrane:
  - 1. Vapor permeable, self-adhered water resistive air barrier membrane consisting of an engineered film and patented, permeable adhesive technology with split-back poly-release film, having the following properties:
    - a. Basis of design: Blueskin VP160
    - b. Color: Blue
    - c. Air leakage (ASTM E2178): <0.02 L/s/m<sup>2</sup> @ 75Pa
    - d. Water Vapor Permeance (ASTM E96, Method A): 29 perms
    - e. Air Leakage of Air Barrier Assemblies (ASTM E2357): Pass
    - f. Resistance to Water Penetration (ICC-ES AC 38): Pass.
    - g. Nail Sealability (ASTM D1970): Pass
    - h. Surface Burning Characteristics (ASTM E84):
      - 1. Class A
      - 2. Flame Spread/Smoke Development (ASTM E84): 0/105
    - i. Tensile Strength (ASTM D828): 182N MD/129N CD
    - j. Cycling and Elongation (ICC-ES AC48): Pass
- d. Contact manufacturer for a complete list of authorized transition membranes.

2. Adhesives and Primers:
    - a. Spray adhesive, and having the following properties:
      1. Basis of Design Product: Blueskin Spray Prep
      2. Color: Clear amber
      3. Solids Content (By Weight): 35%
      4. Aerosol
    - b. Synthetic rubber based adhesive type, quick setting, having the following physical properties:
      1. Basis of Design Product: Blueskin Adhesive
      2. Color: Blue.
      3. Solids Content (By Weight): 35%.
      4. Solvent based
    - c. Polymer emulsion based adhesive type, quick setting, low VOC content, having the following physical properties:
      1. Basis of Design Product: Blueskin LVC Adhesive
      2. Color: Aqua.
      3. Solids Content (By Weight): 53%.
      4. Water based: no solvent odors.
    - d. Polymer emulsion based primer for self-adhered membranes, and having the following properties:
      1. Basis of Design Product: Aquatac Primer
      2. Color: Aqua.
      3. Solids Content (By Weight): 58%. (approx.)
      4. Water based: Maximum VOC: 50 g/l
  3. Sealants:
    - a. Building Envelope Sealant:
      1. Moisture cure, medium modulus polymer modified sealing compound, having the following physical properties:
        - a. Basis of Design Product: HE925 BES Sealant
        - b. Complies with Fed. Spec. TT-S-00230C, Type II, Class A.
        - c. Complies with ASTM C920, Type S, Grade NS, Class 35.
        - d. Elongation: 450 – 550%.
        - e. Remains flexible with aging.
    - b. Sheathing Joint Sealants:
      1. As recommended by manufacturer
    - c. Contact manufacturer for a complete list of authorized sealants.
  4. Self-Adhesive Thru-Wall Flashing Membrane:
    - a. Non-vapor permeable, self-adhered water resistive air and vapor barrier membrane consisting of an SBS rubberized asphalt compound, which is integrally laminated to a blue engineered thermoplastic film, having the following properties:
      1. Basis of Design Product: Blueskin TWF
      2. Color: Yellow
      3. High Temperature Stability - Flow Resistance (ASTM D5147): Pass
      4. Air leakage (ASTM E283): 0.005 L/s.m<sup>2</sup> @ 75 Pa
      5. Water vapor permeance (ASTM E96, Method B): 0.03 perms
      6. Low temperature flexibility (CGSB 37-GP-56M): Pass
- C. Insulation Adhesive: (optional)
1. Synthetic rubber base compound having the following characteristics:
    - a. Basis of Design Products: Air-Bloc 21
    - b. Color: Cream.
    - c. Compatible with air barrier membrane, substrate and insulation materials.
    - d. Long term flexibility: Pass CGSB 71-GP-24M.
    - e. Chemical resistance: Alkalis, mild acid and salt solutions.

**PART 3: EXECUTION**



3.1. EXAMINATION

- A. Substrate Conditions:
  - 1. Verify substrates to receive work and surrounding adjacent surfaces are in accordance with manufacturer published literature prior to installation of fluid applied membrane air barrier assembly.
  - 2. Sheathing panels must be securely fastened and installed flushly to ensure a continuous substrate in accordance with manufacturer published literature.
  - 3. Fastener penetrations must be set flush with sheathing and fastened into solid backing.
  - 4. Mortar joints in concrete block and form tie holes/voids in poured concrete shall be filled flush, smooth and allowed to be cured for a minimum of twenty-four (24) hours.
  - 5. New concrete should be cured for a minimum of sixteen (16) hours after forms are removed.
  - 6. Cap and protect exposed back-up walls against wet weather conditions prior to application of fluid applied membrane air barrier assembly.
- B. Notify Contractor in writing of any conditions that are not acceptable.
- C. The installing contractor shall examine and determine that surfaces and conditions are ready to accept the Work of this section in accordance with published literature. Commencement of Work or any parts thereof shall mean installer acceptance of the substrate.

3.2. PREPARATION

- A. All surfaces must be sound, dry, clean, and free of oil, grease, dirt, excess mortar, frost, laitance, loose and flaking particles, or other contaminants.
- B. Protect adjacent surfaces not included in scope of Work to prevent spillage and overspray.
- C. Hot weather or direct-sun applications over porous substrates, such as concrete, promote rapid surface drying and can form blisters in the fluid applied membrane air barrier during curing. To aid in blister prevention prepare substrate in accordance with one of the following optional procedures:
  - 1. Apply a thin prime coat of fluid applied membrane air barrier to substrate and allow membrane to fully cure prior to installation of primary fluid applied membrane air barrier. Install overall fluid applied membrane air barrier to manufacturer minimum recommended mil thickness.
  - 2. Apply fluid applied membrane air barrier in two coat application to achieve manufacturer minimum recommended mil thickness. Allow fluid applied membrane air barrier to fully cure prior to subsequent application.

3.3. INSTALLATION

- A. Ensure substrate is ready to receive fluid applied membrane air barrier in accordance with published literature.
- B. If fluid applied membrane air barrier should freeze while in storage, move containers to a controlled environment above 32 degrees F (0 degrees C) until thawed and re-mix using a hand operated power mixer prior to use.
- C. Fluid applied membrane air barrier shall not be applied when ambient (air) and substrate temperatures are below 20 degrees F (-6 degrees C).
- D. Do not proceed with application of air barrier membrane when rain is expected within 16 hours.

- E. Apply sealant at sharp corners, changes in substrate plane, penetrations, and edges to form a smooth transition from one plane to another.
  
- F. Non-Moving Substrate Joint and Crack Treatment:
  - 1. Gaps less than 1/8 inch (3 mm) wide:
    - a. Apply a thin coat of fluid applied membrane air barrier over substrate gap to ensure a continuous substrate prior to application of primary fluid applied membrane air barrier.
  - 2. Gaps equal to or less than 3/8 inch (10 mm) wide:
    - a. Sheathing Joint Sealant:
      - 1. Apply sealant at rate recommended by manufacturer.
      - 2. Spread sealant at joint extending a minimum one (1) inch beyond gap to ensure a continuous air and watertight assembly.
  - 3. Gaps equal to or less than 1/2 inch (12 mm) wide:
    - a. Building Envelope Sealant:
      - 1. Apply sealant at rate recommended by manufacturer.
      - 2. Spread sealant at joint extending a minimum one (1) inch beyond gap to ensure a continuous air and watertight assembly.
    - b. Liquid applied flashings:
      - 1. Apply liquid applied flashing at rate recommended by manufacturer.
      - 2. Apply liquid applied flashing in accordance with manufacturer published literature extending a minimum of two (2) inches (50 mm) on each side of substrate gap.
    - c. Self-adhering flashings:
      - 1. Apply primer to substrate and allow curing in accordance with published literature prior to installation of self-adhered flashing.
      - 2. Apply self-adhering flashing in accordance with manufacturer published literature extending a minimum of three (3) inch (75 mm) on each side of substrate gap.
      - 3. Roll membrane with countertop roller to eliminate air pockets between self-adhered flashing and substrate ensuring full adhesion of membrane onto substrate.
      - 4. Seal exposed leading edges of self-adhered membrane with sealant.
  - 4. Gaps greater than 1/2 inch (12 mm) wide:
    - a. Contact manufacturer.
  
- G. Moving Joints:
  - 1. Contact manufacturer.
  
- H. Refer to manufacturer detail drawings for installation procedures including, but not limited to, the following:
  - 1. Inside corners
  - 2. Outside corners
  - 3. Crack treatment
  - 4. Penetrations
  - 5. Rough openings
  - 6. Control joints
  - 7. Expansion joints
  - 8. Changes in substrate
  
- I. Contact manufacturer to coordinate transition of fluid applied membrane air barrier to adjacent areas including, but not limited to, the following:
  - 1. Roof to air barrier
  - 2. Air barrier to waterproofing
  - 3. Fastener penetrations

- J. Thru-Wall Flashing:
  - 1. Co-ordinate with Section.
  
- K. Primary Liquid Air Barrier Membrane
  - 1. Install fluid applied membrane air barrier in accordance with manufacturer published literature to ensure an air and watertight fluid applied membrane air barrier assembly.
  - 2. Fluid applied membrane air barrier assembly must be installed in a monolithic application without sags, runs or voids, and transitioning with auxiliary components to create a uniform drainage plane and air barrier.
  - 3. Install fluid applied membrane air barrier and transition membranes so that subsequent membrane installation laps one (1) inch onto existing membrane ensuring an air and watertight fluid applied membrane air barrier assembly.
  - 4. Fluid applied membrane air barrier total dry thickness shall be in accordance with manufacturer published literature.

3.4. FIELD QUALITY CONTROL

- A. Final Observation and Verification:
  - 1. Final inspection of fluid applied membrane air barrier assembly shall be carried out by the Owner's representative, the contractor, or manufacturer as required by warranty.
  - 2. Contact Manufacturer for warranty issuance requirements.
  
- B. Fluid applied membrane air barrier assembly is not designed for permanent UV exposure. Refer to manufacturer published literature for product limitations.

3.5. CLEAN UP

- A. Promptly as the work proceeds, and upon completion, clean up and remove from the premises all rubbish and surplus materials resulting from the foregoing work.
  
- B. Clean soiled surfaces, spatters, and damage caused by work of this Section.
  
- C. Check area to ensure cleanliness and remove debris, equipment, and excess material from the site.

END THIS SECTION

## Section 042510 – UNIT “Masonry Staining”

### Part 1 – General

#### 1.1 Section Includes

A. This section includes brush-applied Proven Masonry Stain applied to porous surfaces including the following:

1. Clay Masonry Units *± Split Face CMU*
- ~~2. Block~~
- ~~3. Manufactured Stone~~
- ~~4. Natural Stone~~
5. Mortar
- ~~6. Pre-cast Concrete~~

#### 1.2 Related Sections

A. Related Sections include the following:

1. Division 4 Section “Masonry Restoration and Cleaning”
  - a. Unit Masonry Section 04-20-00

#### 1.3 Submittals

A. Product Data: For each type of stain indicated:

1. Manufacturer’s Information: Manufacturer’s technical information, and if needed, instructions for handling and storing masonry stain.

B. Qualification Data: For Applicator

C. Benchmark Samples (mockups): Provide up to five (5) color enhanced loose units that represent the over-all color range to determine closest approved sample matching to existing masonry. A field sample can be created on a 10 sq. ft. area to be determined by the owner or the architect on the actual surface of the building to be stained.

D. Submit 10 jobs over 15 years

- a. The date on which the work was completed
- b. The precise location of the job including description of the structure or portion of the structure stained, street address, city, state and zip code
- c. Name of Product used
- d. Before and After Pictures

#### 1.4 Quality Assurance

A. Manufacturer’s Qualifications: Minimum 20 years’ experience and successful in-service performance in applying a Ceramic Based Proven Masonry Stain.

B. Applicator Qualifications: A firm experienced in applying a Ceramic Based Proven Masonry Stain, design and extent to those indicated for this project. Whose company has resulted in applications with a record of successful in-service performance that exceeds 20 years.

#### 1.5 Project Conditions

A. Temperature Limitations: Apply Stains only when temperatures of surfaces to be stained and the surrounding air are between 45 degrees F (7 degrees C) and 100 degrees F (32 degrees C).

B. Weather Limitations: Do not apply stain in snow, rain, dense fog or mist; when the relative humidity exceeds 95%, also do not apply to damp or wet surfaces.

1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing with application.

## Part 2 – Products

### 2.1 Manufacturer

A. Masonry Cosmetics, Inc. 3210 Sugar Maple Business Ct, South Bend, IN 46613. Toll free: 888-698-8705, Tel: 574-234-1812, [info@masonrycosmetics.com](mailto:info@masonrycosmetics.com), [masonrycosmetics.com](http://masonrycosmetics.com), [architecturalmasonrystaining.com](http://architecturalmasonrystaining.com)

B. Substitutions: Not permitted. *Submit EQUAL products for approval*

### 2.2 Installer

A. Installer's Name

1. Masonry Cosmetics, Inc. 3210 Sugar Maple Business Ct., South Bend, IN 46613. Tel: 574-234-1812 [masonrycosmetics.com](http://masonrycosmetics.com)
2. Other approved masonry staining contractor that uses a Ceramic Based Proven Masonry Stain.

### 2.3 Unit Masonry Stain Materials, General

- A. Materials: (basis of design): Ceramic based stain shall contain a colored “talcum powder” consistency (80-100 mesh) pigment, identical to natural pigments used in brick manufacturing, a proprietary bonding chemical and water. The water shall act as a carrying agent to feed the pigment and bonding chemical into the pore structure of the masonry units. The bonding chemical changes from a liquid to a solid state during and after the drying process.
- B. Materials once applied should not leave a visible gloss, sheen or film on masonry unit.
- C. VOC Content is to be very low and have an estimated maximum value of 0.01 g/g.

### 2.4 Products Not Permitted for Use:

- A. Water repellent masonry stains
- B. Acrylic paint or stains with Acrylic in it
- C. Hydrous, multiple polymer formulations of resin solids
- D. Semi-transparent stains
- E. Opaque Stains
- F. Sealers

## Part 3 – Execution

### 3.1 Preparation

- A. General: Remove hardware, machined surfaces, lighting fixtures and similar items already installed that are not being stained. If removal is impractical or impossible because of size and weight of the item, provide surface- applied protection before surface preparation and staining.
1. After completing staining operations, reinstall items removed using workers skilled in trades involved.
- B. Surface Preparation: Clean and prepare surfaces to be stained according to manufacturer's written instructions for each particular substrate condition and as specified.

1. Remove surface dirt, oil or grease by washing with a detergent solution recommended by masonry manufacturer; rinse thoroughly with clean water and allow to dry.
2. Walls will need to be free of any acid or cleaning solution residue prior to any staining. Keeping the PH level on the wall as close to neutral as possible.
3. Ensure structurally sound surfaces that are dry, clean and free of the following: dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing, curing and parting compounds and other foreign matter.

### **3.2 Application**

- A. Mixing: Mix and prepare stains according to the manufacturer's written instructions. Stir stain thoroughly before applying and frequently during application to maintain color consistency.
1. Maintain containers used in mixing and application in a clean condition, free of foreign materials and residue.
  2. Stir mixture before application to insure all materials stay suspended. Stir as required during application.
- C. Minimum Application Rate: Apply stain to manufacturer's recommended required rate, measured by bricks stained per brush, to ensure proper penetration. Apply aqueous slurry (Proven Masonry Stain) with brush individually to each masonry unit, maintaining the integrity of the mortar (by artistic means).
1. Do not apply stain on surfaces that are not sufficiently dry.  
If succeeding application is needed, ensure that the surface is dry before re-applying.
  2. Apply all stain with a 100% polyester brush by hand to provide a uniform blending of color to the masonry wall.
  3. No spraying or rolling of materials allowed.

### **3.3 Field Quality Control**

- A. Architect/Owner shall review and approve "artistic" application of stain by Contractor in a test area, mock-up panel or loose samples, and as accepted for approved benchmark samples.

### **3.4 Cleaning**

- A. Cleanup: At the end of each work day, remove empty cans, rags, rubbish and other discarded materials from the project site.
1. After completing staining, clean window glass and other surfaces. Remove splattered stain by proper methods without scratching or damaging adjacent finished surfaces.
  2. Dispose of excess materials according to state, federal and local governmental regulations.

### **3.5 Protection**

- A. Protect work of other trades as necessary, whether being stained or not, against damage from staining. Correct damage by cleaning, repairing and re-staining as approved by architect.

**End of Section 042510**