

**PROJECT MANUAL**

**BUILDING ENVELOPE WATERPROOFING RENOVATION  
FOR  
DEPARTMENT OF ECONOMIC OPPORTUNITY**

**500 East Lake Howard Drive  
Winter Haven, Florida 33881  
CMC Project No.: 17-08064**

**FOR:**

**STATE OF FLORIDA  
Department of Economic Opportunity  
Office of General Services  
9215 North Florida Avenue  
Tampa, Florida 33612**

**PREPARED BY:  
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**FEBRUARY 12, 2019**

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SECTION 00300 - BID FORM

PROJECT: DEPARTMENT OF ECONOMIC OPPORTUNITY  
500 East Lake Howard Drive  
Winter Haven, Florida 33881

BUILDING ENVELOPE WATERPROOFING RENOVATION

BID TO: State of Florida  
Department of Economic Opportunity  
Office of General Services  
9215 North Florida Avenue  
Tampa, Florida 33612

Attention: Mr. Charles Coe  
Tampa Facilities Building Manager

To whom it may concern:

Having carefully examined the Specifications for the project referenced above, including Addenda Bulletins numbered \_\_\_\_\_ through \_\_\_\_\_, and having visited the site and examined all conditions affecting the Work, the undersigned proposes to furnish all materials, labor and equipment as required to complete the renovation work as follows:

1.0 BASE BID

A. General Description of Work

1. The specified Work is limited to the 4-story tower and does not include the connecting 1 story building on the north elevation. The Owner is responsible for trimming shrubbery, palm fronds, etc., as required to provide ample access to the specified Work areas.
2. Furnish labor equipment and materials to perform the Work in accordance with Project Documents. Base Bid work includes removal and replacement of all existing elastomeric sealants along all aluminum/glass curtain wall assembly perimeter framing junctures with adjacent construction including exterior brick masonry walls, sheet metal flashings and parapet wall coping caps. Work also includes complete "wet sealing" of curtain wall assemblies by applying specified silicone elastomeric sealant along all glass-to-metal and metal-to-metal joints, including sheet metal flashings/closures along curtain wall sill and jamb conditions. Work further includes removing and replacing (or otherwise applying) specified silicone sealant along all exterior door perimeters and all penetrations/mounted equipment associated with exterior walls.
3. Work includes selective repair of deficient brick masonry wall

construction including reinstalling isolated locations of loose brick and repointing of mortar joints adjacent to curtain wall perimeter framing. An allocation quantity of 1,000 LF of brick mortar joint tuckpointing and removal/reinstallation of 100 loose brick for this Work shall be included in Base Bid Price which shall be used to add or deduct from the Base Bid Price per the Unit Pricing provided by the Contractor.

4. A Limited Visual Survey Summary Report with photographs depicting items related to the Scope of Work has been included in Appendix A.
5. Select Owner provided Record Drawings have been provided in Appendix B which is intended for the convenience of the Bidders. Note, it is the responsibility for each Bidder to become fully acquainted with actual site conditions rather than relying on the accuracy of the limited drawings provided.

B. Itemized Summary of Base Bid Work

1. Remove and replace (or otherwise apply) elastomeric sealant materials along all metal/glass curtain wall assembly perimeter framing and flashing junctures and along all adjacent exterior wall construction. This work shall include sheet metal flashing along curtain wall sill conditions and all curtain wall head and brick at parapet wall coping cap junctures. New sealant shall be silicone elastomeric sealant as specified.
2. Completely "wet seal" all metal/glass curtain wall assemblies. This work shall include application of silicone sealant (e.g., Dow Corning® 795) along all exterior metal-to-metal and metal-to-glass joint conditions to establish 100% watertight integrity along exterior surfaces of glazing assemblies and associated sheet metal sill flashings, jamb closure metal and parapet cap coping junctures. This work shall include temporary removal of sheet metal covers over curtain wall expansion/splice joints, sealing splice joints with specified sealant followed by reinstallation of cover plates. This work includes applying a continuous 1-3/4" wide custom fabricated preformed silicone sealant (e.g., Dow Corning® 123) along certain vertical metal-to-metal joints along curtain wall jamb conditions where sheet metal closure flashing has been installed.
3. Remove and replace (or otherwise apply) specified sealant along all exterior doors, wall mounted equipment and all penetrations through exterior walls.
4. Apply 1" wide preformed silicone sealant (e.g., Dow Corning® 123) over metal-to-metal parapet coping joints above and immediately adjacent to metal/glass curtain wall assemblies.

5. Apply continuous backer rod and sealant along the bottom/outer leg of all parapet wall sheet metal coping.
6. Repair isolated locations where loose brick masonry wall construction exists at the southwest corner of the building adjacent to the 1st floor curtain wall sill condition or at other location as needed. Work shall include selective repointing of deteriorated brick masonry mortar joints adjacent to curtain wall assembly perimeter framing as required to provide sound substrates for new elastomeric sealant application. An allocation quantity of 1,000 LF of brick mortar tuckpointing and removal/reinstallation of 100 loose brick shall be included within the Base Bid Price which shall be used to add or deduct from the Base Bid Price per the Unit Pricing provided by the Contractor.
7. BASE BID PRICE \_\_\_\_\_ DOLLARS \$(\_\_\_\_\_)

2.0 UNIT PRICES

Note: All claims for Unit Price Work are subject to verification and approval by the Owner and/or Owner's Representative. Unit Prices shall include Contractor's overhead and profit. Unit Prices shall be used to either increase or decrease project scope.

A. Unit Price No. One - Repair of Deteriorated Brick Masonry Mortar Joints

1. Furnish labor, equipment and materials to remove and replace deteriorated mortar joints. Contractor shall include 1,000 LF of mortar joint tuckpointing repair allocation in Base Bid Price.
2. Price per Linear Foot: \_\_\_\_\_ DOLLARS \$(\_\_\_\_\_)/LF

B. Unit Price No. Two - Brick Repair, Remove and Reinstall Loose Brick

1. Furnish labor, equipment and materials to remove loose brick, remove existing mortar from loose brick and adjacent brick, and reinstall brick with tooled (concave) mortar joints. Contractor shall include removal/reinstallation of 100 loose brick in Base Bid Price.
2. Price per Brick: \_\_\_\_\_ DOLLARS \$(\_\_\_\_\_)/Brick

C. Unit Price No. Three - Additional Work

1. Provide cost associated with labor and material (equipment) markup to perform any additional/unforeseen work which may be required. Authorization for any Additional Work must be preapproved by the Owner's Representative.
2. Labor Cost per Hour: \_\_\_\_\_ DOLLARS \$(\_\_\_\_\_)/Hour

3. Material/Equipment Markup (%): \_\_\_\_\_%

3.0 PERFORMANCE BOND

The Contractor agrees to furnish a performance bond covering the full contract price in the amount of \_\_\_\_\_

A. Percentage of Contract Sum: \_\_\_\_\_%

4.0 ACCEPTANCE

Contractor agrees to hold prices firm for 60 days. Owner reserves the right to accept or reject this Bid for a period of 60 days from the Bid Due Date.

5.0 DISCLOSURES

In preparing the Bid Form, Bidders are required to list below major subcontractors whose prices are incorporated in the Bid. Generally, trades listed should be those involving major money amounts or special technical items.

Trade

Subcontractor

**ATTACHEMENT B**

**SOLICITATION COST SHEET**

6.0 COMPLETION OF WORK

Should the undersigned be notified of the acceptance of this Bid, undersigned agrees to execute a contract for the above-mentioned Work in compliance with the Bid Documents and this Bid Form. Undersigned further agrees to guarantee completion of this Work within 90 days after commencement of Work. Should satisfactory completion of the Work not be complete within this time, liquidated damages in the amount of Two Hundred & 00/100 DOLLARS (\$200.00) per workday will be assessed and applied against the payment of invoices. Reasonable extensions of time may be granted when requested in writing in a timely manner.

Included in the DEO Solicitation No.: 19-ITB-005-SS



Company Name:

Authorized Signature:

**DO NOT USE**

Printed Name:

**Section 00300-BID FORM**

Title:

Dated:

Telephone and Email:

Mailing Address:

Witness Signature and Printed Name:

**SEE**

**ATTACHMENT B**  
END OF SECTION 00300

**SOLICITATION COST SHEET**

**Included in the DEO Solicitation No.: 19-ITB-005-SS**

## SECTION 07920 – ELASTOMERIC SEALANTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. General provisions of the Owner's Contract, including Contractual Conditions, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes:

1. Labor, materials and equipment as required to remove existing building sealants and backer rods; prepare substrates; apply new primer as required, backer rod, bond breaker tape and sealant as indicated in this Specification and as required by the specified manufacturer(s) and job conditions to provide complete watertight construction on all building elevations including curtain wall assemblies and associated metal flashings, brick cladding, exterior doors, wall mounted equipment, wall penetrations etc., throughout the Project. Work of this Section includes, but is not limited to, the following:
  - a. Providing required submittals.
  - b. Testing of joint substrates for new sealant adhesion and priming requirements and sealant backing.
  - c. Cleaning and priming of all sealant substrates for new sealant installation as required and recommended by the sealant manufacturer.
  - d. Appropriate sizing and placement of new backer rod and bond breaker tape (where required) in all locations where new sealants are to be installed to ensure 2-sided sealant joint adhesion as recommended by the sealant manufacturer.
  - e. Sealing all joints and penetrations throughout the Project including joints not specifically indicated in this document, but necessary to completely weatherproof all conditions.
  - f. Cleaning and protection of all walls, curtain wall, etc., as well as the protection of all building surfaces.



- g. Contractor shall provide "wet sealing" applications on all aluminum framed curtain wall assemblies throughout the project including all metal-to-glass and metal-to-metal conditions to provide complete watertight construction.
- h. Contractor shall provide preformed silicone seal applications at select metal-to-metal joints along curtain wall jamb condition where sheet metal closure flashing has been installed.
- i. Contractor shall provide preformed silicone seals along parapet wall metal coping joints above, and immediately adjacent to, curtain wall head conditions.
- j. Contractor shall provide continuous backer rod and sealant along the bottom/outer leg of all parapet wall sheet metal coping.
- k. Contractor shall include removal and replacement of all sealants along all curtain wall assemblies, exterior doors, sheet metal flashings, etc. as required to complete the specified work. New sealant materials shall be elastomeric silicone sealant materials as specified.
- l. Contractor shall include removal and replacement of all sealants which shall include all penetrations, wall mounted equipment and any other miscellaneous construction joints, brick control joints, etc., as required to provide complete watertight integrity within building envelope construction. New sealants shall be silicone, as specified.

B. Related Sections - Section 00300 "Bid Form".

### 1.3 SYSTEM DESCRIPTION

- A. Design Requirements - Provide watertight joints at all locations indicated including curtain wall assemblies, construction transitions, wall penetrations, sheet metal flashings, exterior doors, brick control joints, etc., in all building elevations. All sealant work shall be performed in strict accordance with the sealant manufacturer's published surface preparation and application recommendations.

### 1.4 SUBMITTALS

- A. Product Data

- 1. Product manufacturer's specifications, recommendations and installation instructions for sealant, backing and associated materials.

2. Sealant manufacturer's published data, letter of certification or certified test laboratory report that each material complies with requirements and is intended for application shown.
3. Complete instructions for handling, storage and protection of each product.
4. Submit sealant manufacturer's descriptive literature indicating material and installation instructions.
5. Provide shop drawing details of joints, joint sizes and joint sealing methods as necessary for typical and special conditions encountered on this project.
6. Submit brick mortar in accordance with the Brick Industry Association (BIA) recommendations. Provide supporting backup data for BIA recommendations. Recommendations from the Masonry Institute of America (MIA) and International Masonry Institute (IMI) will also be accepted.
7. Provide proposed project schedule indicating specific work locations, location for material storage, location for proposed temporary toilets, etc.

**B. Samples**

1. Submit samples, in triplicate, of cured sealant color samples and of manufacturer's published data.
2. Submit samples, in triplicate, of each type of joint backup 6" long, of each size required.

**C. Certification** - Submit published recommendations by the manufacturer to support the selection of, and compatibility of, the various related materials with respect to the type of joint for which each material is intended.

**D. Sealant Adhesion and Staining Tests** - Submit sealant manufacturer's job mockup reports for exterior sealant adhesion to all relevant substrates and stain test results. Test reports must show that exterior sealant has excellent adhesion to substrates, and that neither sealant nor primer will cause staining when applied in the appropriate sequence.

**E.** Provide project specific written sample warranty with sealant manufacturer's acknowledgement the sealant installer is qualified to perform the specified work whereby the specified sealant warranty will be provided upon completion of the project.

**F.** Provide project-specific sample of Contractor's warranty.

- G. Provide Contractor Qualifications (project listing) as outlined in Article 1.5, paragraph B. of this Section.
- H. Provide stipulated requirements within Part 1 of this Section.

## 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications/Requirements - Arrange for sealant manufacturer's technical representative to be onsite to advise installer of proper procedures and precautions for the use of the materials. Arrange for sealant manufacturer to provide periodic site visits during construction to perform specified sealant field adhesion testing. Sealant manufacturer shall be required to provide written field adhesion test reports on corporate stationary within 5 working days of each site visit.
- B. Contractor Qualifications
  - 1. Work performed under this Section shall be by a single installer regularly engaged in elastomeric sealants and waterproofing with minimum 5 years successful experience in installation of similar sealant application and restoration for commercial and industrial projects. The installer shall also have a minimum 5 years' experience in brick masonry restoration and tuckpointing. Provide proof the above via project listings and contacts within Submittals.
  - 2. Installer shall be approved by the manufacturer in writing for installation of their products as well as the specified warranty.
  - 3. Contractor shall provide full-time non-working superintendent with minimum 5 years of documented experience.
- C. Job Mockup
  - 1. Prepare sample application in locations as directed by the Owner's Authorized Representative (OAR). Mockup shall include at least 2 glass lites wide and 2 glass lites high and shall capture a jamb condition with sheet metal closure flashing and the sill condition. Additional mockups shall be required at the curtain wall head condition (minimum 10' long) at the sheet metal coping and also at the brick interface as well as at 2 curtain wall trim metal cover plates.
  - 2. Mockup to constitute standard of acceptance for remaining work.
  - 3. No further work shall proceed until each mockup has been approved by the manufacturer and OAR.
- D. Preconstruction Conference - Prior to beginning construction meet with the OAR to discuss new sealant sequencing and installation procedures.

- E. General Performance - Joint sealers are required to establish and maintain waterproof continuous seals on a permanent basis, within recognized limitations of wear and aging as indicated for each application. Failure of installed sealers to comply with this requirement will be recognized as failure of materials and workmanship.

## 1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

### A. General

1. Provide primary materials from the products of 1 manufacturer.
2. Provide secondary materials as required or recommended by primary materials manufacturer.
3. Deliver materials to jobsite with packages intact and with labels identifying manufacturer, product name and lot numbers when appropriate.
4. Store materials in accordance with manufacturer's recommendations, copies of which will be furnished to the OAR.

## 1.6 SITE CONDITIONS

- A. Comply with manufacturer's recommended minimum and maximum installation temperatures.
- B. Do not proceed with installation of new sealants during unfavorable weather conditions.
- C. Keep buildings watertight during all phases of renovation, especially when weather is unfavorable or threatening in order to ensure interior finishes are not damaged.

## 1.7 SEQUENCING AND SCHEDULING

- A. Coordinate each portion of this work with related Sections of this Specification.
- B. Coordinate with manufacturer's requirements for correct sizing, selection and installation of building sealants with respect to joint movements and construction material temperatures for this project.
- C. Contractor shall conduct sealant renovation operations in such a manner so as not to interfere with, or disturb the building occupants, and so as to provide minimum disturbance to normal facility activities.
- D. Access to the jobsite shall be as directed by the OAR.
- E. Placement of materials, scaffolding and other equipment must be

coordinated and approved by the OAR prior to commencement of any work and also during the various phases of construction.

## 1.8 WARRANTY

### A. Manufacturer's Warranty

1. Provide a written warranty from the manufacturer against defective materials for a minimum of 20 years for silicone sealant (wet cartridge grade) after completion and final acceptance of the Work.
2. Provide a written warranty from the manufacturer against defective materials for a minimum of 10 years for preformed silicone seals after completion and final acceptance of the Work.

B. Contractor Warranty - Provide a written warranty against leaks agreeing to repair defects in material and workmanship for a minimum period of 5 years after completion and final acceptance of the Work. Defects shall be corrected at no expense to the Owner during the warranty period.

C. Failures of installed sealants include the following:

1. Adhesive or cohesive failure of sealant.
2. Surface crazing greater than 3 MILS in depth.
3. Staining of adjacent surfaces from sealers.
4. Puncture or adhesion failure of sealant.
5. Chalking or color changes on surface.
6. Change in "Shore A" Durometer hardness (5 second reading) of sealant of more than 15% of 7-day value.
7. Displacement of joint fillers.
8. Water leakage.

## PART 2 – PRODUCTS

### 2.1 ACCEPTABLE MANUFACTURERS

A. Materials manufactured by the following manufacturers are acceptable provided it complies with all aspects of the Contract Documents including the specified warranty.

1. Silicone Sealant - Dow Corning Corporation – Midland, Michigan, or approved substitution.

- B. Comparable materials by other manufacturers may be considered when requested in writing prior to bidding. No substitute will be considered approved unless confirmed in writing by the OAR.

## 2.2 MATERIALS

### A. Silicone Sealant

1. Type - Building sealant shall be 1 component silicone rubber formulation with low modulus, high elongation characteristics, and capable of obtaining strong, durable bond strength to building substrates.
2. Use - For sealing specified joints at subject project. Reference Article 1.2 of this Specification for locations.
3. Color - Owner's choice from manufacturer's standard color line.
4. Approvals - Must meet adhesion and stain testing requirements, as well as compatibility to applied surfaces.
5. Acceptable Products
  - a. "Dow Corning® 795 Silicone Sealant", as manufactured by Dow Corning Corporation, Midland, Michigan for use on metal and glass substrates such as "wet seals" and "bridge seals" at skylights, sheet metal lap joints and other conditions where sealant will be exposed.
  - b. "Dow Corning® 123 Preformed" 1-3/4" wide custom factory-fabricated Roll Silicone Sealant, as manufactured by Dow Corning Corporation, Midland, Michigan for use over sheet metal joints along curtain wall jambs with sheet metal closure flashing or at other locations as required. Dow Corning® 123 Preformed 1" wide silicone sealant over all sheet metal coping joints.

- B. Primer - As recommended or required by sealant manufacturer for substrates specified.

### C. Backer Rod

1. Type - Closed cell polyethylene faced "soft rod" (non-gassing), or as otherwise recommended or required by the sealant manufacturer for specified substrates.
2. Installation - Sized and shaped to control depth of sealant and to provide 20% to 50% compression upon insertion.

D. Bond Breaker Tape

1. Type - Pressure sensitive adhesive polyethylene tape as recommended by sealant manufacturer.
2. Use - At all locations where sufficient joint cavities do not exist for proper installation of backer rod.
3. Thickness - 0.006" (6 MIL).
4. Width - As required for application (typical 1/4" minimum).
5. Elongation - 400%.
6. Acceptable Product – "#40 Bond Breaker Tape", as manufactured by Valley Industrial Products, Halesite, New York, (516) 385-9300.

E. Miscellaneous Materials

1. Joint Cleaner - Clear, clean solvent-type cleaners, as recommended or required by the sealant manufacturer. Cleaning solvents may include denatured alcohol, xylene, toluene or MEK.
2. Shop Cloths - Use shop cloths (white without dye) for joint cleaning operations.
3. Masking Tape - Pressure sensitive adhesive paper tape.

F. Brick Mortar

1. As recommended by the BIA, the MIA or IMI.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine all surfaces to ensure that they have been properly prepared and report all conditions not acceptable to the OAR.
- B. Examine joints and surfaces to receive sealant for defects which would adversely affect execution of work and report such defects to the OAR.
- C. Do not start work until conditions are satisfactory.
- D. Adhesion and stain tests will be conducted by sealant manufacturer's representative(s) prior to commencement of work to verify the sealant will perform satisfactorily.

3.2 PREPARATION



- A. Access to the jobsite shall be as directed by the OAR.
- B. Coordinate with Owner locations where trimming shrubbery, palm fronds, etc., are required for accessing work locations.
- C. Contractor shall protect all building and ground level surfaces from falling debris, splatter, etc., due to the work being conducted. Trash shall not be stockpiled at the jobsite and shall be promptly removed from project each day.
- C. Existing Sealants
  - 1. Cut out and remove all existing sealants and all related film and residue.
  - 2. Remove and discard existing backer rods, bond breaker tapes, etc., at all renovated sealant areas.
  - 3. The contractor shall coordinate demolition and reconstruction efforts so that in regard to ongoing renovation, only as much sealant is removed each day so exposed joint shoulders can be properly cleaned and prepared to receive specified sealant by the end of the same working period.
  - 4. Do not stockpile debris at the project site. Promptly remove all such materials from the jobsite.
- D. Joint Surfaces
  - 1. Thoroughly clean joint surfaces which are to receive new sealant, removing all foreign matter, dust, oil, grease, water, surface dirt, old sealant and existing paint or primer. Examine all surfaces to ensure they have been properly prepared and report all conditions not acceptable to the OAR.
  - 2. Clean joint shoulders where necessary by disk sanding or mechanical abrading as required to provide a clean, sound base surface for sealant adhesion. Each surface should be ground to adequately remove all traces of original sealant application. Do not use such cleaning procedures on glass or any exposed finished surfaces.
  - 3. Remove all loose particles, residual dust or other foreign substances by blowing out joints with oil free compressed air prior to application of primer and/or sealant.
  - 4. Likewise, all glass and metallic surfaces must be cleaned using a solvent that leaves no residue, such as denatured alcohol, toluene or xylene. Use clean, lint-free white cloths for cleaning with solvent

and drying. Do not allow solvent to air dry without wiping.

5. Mask all areas adjacent to joints as required to protect adjacent surfaces and ensure neat straight lines. Clean areas protected with masking tape with solvent after removal of tape and do not allow solvent to air dry without wiping. Masking of all glass and metal surfaces is a project requirement without exception.

E. Primer

1. Prime surface, where required, with primer as recommended by sealant manufacturer. Prime metals where joint movement occurs.
2. Apply primer with a clean, dry, lint-free cloth. Do not dilute materials. Flooding of the substrate surface with primer shall be avoided. Confine primer to areas of sealant bond only, using masking tape if necessary.

F. Backer Rod

1. Sealant backer rod shall be of minimum diameter 25% greater than the joint width. Backer rod shall be installed with a blunt instrument and any punctured rod shall be removed and replaced with a new backer rod. Do not twist rod while installing.
2. Backer rod shall be properly sized to control depth of sealant which shall be not less than 1/4" nor greater than 5/8", measured to the extreme exterior face of the backer rod. Do not twist or use double widths of backer rod to ensure proper sealant hourglass profiles are achieved.
3. Backer rod shall be installed so sealant depth is half the joint width, unless unusual field conditions are encountered.
4. Do not leave gaps between ends of backer rods.
5. Where backer rods must terminate for any reason, use bond breaker tape to achieve continuous sealant joint 2-sided adhesion.

### 3.3 APPLICATION

A. General

1. Comply with sealant manufacturer's requirements for correct sizing, selection and installation of their respective products with respect to joint movements and construction material temperatures for this project.
2. Under no conditions are new sealant applications to be made onto

defective or non-conforming substrates.

**B. Joint Sealant Installation**

1. Apply sealants using cartridge-type guns or bulk-loading guns.
2. Apply sealants in a continuous operation in such a manner as to eliminate air voids throughout the entire joint cross-section.
3. Sealant shall not be used beyond the recommended shelf life.
4. Tool or strike the sealant joint to match adjacent raised sealant profiles, using a light pressure to spread sealant material against backup material, as well as the joint surface.
5. Complete tooling within 10 minutes of sealant application and before skin forms. Do not use soaps, oils and/or alcohols, or any tooling agent or tooling aids.
6. When using masking materials, remove immediately after tooling the sealant.

**C. Wet Seals**

1. Carefully trim existing gasket material only if required. Remove all existing sealant materials back to metal, glass or other substrates including all residue. Do not remove existing glazing gaskets which could result in loose (rattling) glass lites.
2. Clean surfaces as required to provide an acceptable substrate for sealant materials.
3. Apply masking tape to the perimeter of all glass lites, metal surfaces and other substrates to which sealant is applied prior to applying silicone sealant to ensure a minimum sealant 3/8" contact or "sealant bite" onto each substrate resulting in a nominal 1" to 1-1/4" wide joint face.

**D. Bridge Seals**

1. Clean surfaces as required to provide an acceptable substrate for sealant materials.
2. Apply masking tape to both sides of all areas where bridge seals will be installed.
3. Install continuous bond breaker tape over joints prior to applying sealant.
4. Provide a minimum 1/4" sealant bite on either side of bond breaker

tape. Bridge seals shall have a minimum consistent depth of 1/8".

E. Preformed Silicone Sealant

1. Clean surfaces as required to provide an acceptable substrate for sealants.
2. Apply masking tape to both outer edges to which preformed silicone sealant will be applied.
3. Apply wet silicone sealant bedding on substrates and place preformed silicone sealant as recommended by sealant manufacturer. Remove masking tape immediately and tool sealant "squeeze" along preformed silicone sealant as required.
4. Clean surfaces as required and install 1-3/4" wide preformed silicone sealant over curtain wall jambs and adjacent sheet metal closure flashing after temporarily applying continuous masking tape to both sides of the preformed silicone sealant.
5. Clean surfaces as required and install 1" wide preformed silicone sealant over all sheet metal coping and sheet metal flashing joints after temporarily applying continuous masking tape to both sides of the preformed silicone sealant.
6. Clean surfaces as required and install 1" round (shop- or factory-punched) preformed silicone sealant over all exposed fasteners in curtain wall, sheet metal flashing, etc.

F. Miscellaneous Sealant Application

1. Apply sealants using cartridge-type guns or bulk-loading guns.
2. Provide sealant joint width as indicated on the drawings.

G. Tuckpointing and Loose Brick Repair

1. Remove loose brick and related mortar. Reinstall loose brick to achieve permanent attachment.
2. Provide tuckpointing on defective brick mortar via saw cutting or grinding out mortar a minimum 5/8" deep. Repoint joints with new mortar and tool to achieve concave mortar joint.

3.4 FIELD QUALITY CONTROL

A. General

1. Contractor shall maintain or exceed levels of workmanship and

material acceptability in regard to surface preparation, cleaning and sealant application as established by the field mockup.

2. Contractor shall employ trained, skilled and experienced craftsmen for all phases of the Work, throughout the duration of sealant renovation work.
3. Contractor shall make provision to assist and coordinate inspections of the work by the OAR.

B. Field Adhesion Tests of Sealants

1. After work commences, sealant contractor shall periodically check sealants in place for adhesion, using methods recommended by sealant manufacturer. In addition, the sealant manufacturer's authorized representative shall be required to conduct a minimum of 5 sealant field adhesion tests on each building elevation and for each substrate type with test reports on corporate stationary provided to the OAR within 5 working days.
2. Record all field test results and job conditions and submit to the OAR within 5 working days. Records should state name of person administering test, climatic conditions, test procedures, date of test, exact test location and test results.

3.5 ADJUSTING AND CLEANING

- A. The surface of materials adjacent to the joints where sealant was applied shall be cleaned free of excess sealant or other residue due to sealing operations. The surfaces shall be cleaned as work progresses.
- B. On non-porous surfaces, excess sealant should be scraped from the surface, and the remainder should be cleaned with xylene or mineral spirits before the sealant cures.
- C. On porous surfaces, excess sealant should be allowed to cure and then be removed by abrasion or other mechanical means without marring or otherwise defacing finished surfaces.
- D. Leave finished work in neat, clean condition with no evidence of spillovers onto adjacent surfaces. All existing glazing shall be professionally cleaned at project conclusion.
- E. All exterior curtain wall aluminum and glass surfaces shall be thoroughly cleaned as part of the Project's Final Completion.

3.6 PROTECTION

- A. Completed Work

1. The sealed joint should not be disturbed for at least 48 hours.

B. Adjacent Surfaces

1. Protect adjacent surfaces from damage. Soiled or ruined adjacent surfaces (including automobiles) shall be repaired to the satisfaction of the Owner at no additional expense.

END OF SECTION 07920

# **APPENDIX A**

## **LIMITED VISUAL SURVEY SUMMARY REPORT FOR EXTERIOR WALL CONSTRUCTION**





**CMC**  
Construction Moisture  
Consulting, Inc.  
*Roofing/Waterproofing/Exterior Walls/Glazing  
Complete Building Envelope Specialists*

**CMC LIMITED VISUAL SURVEY SUMMARY REPORT  
FOR EXTERIOR WALL CONSTRUCTION**

**PREPARED FOR:**

**STATE OF FLORIDA  
DEPARTMENT OF ECONOMIC OPPORTUNITY  
OFFICE OF GENERAL SERVICES**

**Department of Economic Opportunity  
500 East Lake Howard Drive  
Winter Haven, Florida 33881  
CMC Project No.: 17-08064**

Prepared by:  
Construction Moisture Consulting, Inc.  
William P. Cowart, Vice President  
April 4, 2018



**CMC**  
**Construction Moisture**  
**Consulting, Inc.**  
Roofing/Waterproofing/Exterior Walls/Glazing  
Complete Building Envelope Specialists

April 4, 2018

State of Florida  
Department of Economic Opportunity  
Office of General Services  
9215 North Florida Avenue  
Tampa, Florida 33612

Attn: Mr. Charles Coe  
Tampa Facilities Building Manager

Project: Department of Economic Opportunity  
500 East Lake Howard Drive  
Winter Haven, Florida 33881  
CMC Project No.: 17-08064

Re: CMC Limited Visual Survey Summary Report  
for Exterior Wall Construction

Dear Mr. Coe:

Construction Moisture Consulting, Inc. (CMC) recently conducted a limited visual survey of exterior wall assemblies at subject project to evaluate existing construction and identify items in need of remedial work to restore weatherproofing integrity. Our study was limited to conducting a survey from ground and roof levels on the main building. Photographs were taken to provide visual documentation for purposes of this report. We herein offer the following information for your review and use.

## 1.0 OBSERVATIONS

- 1.1 CMC noted the exterior glazing gaskets along glass-to-metal joints were in an advanced stage of age-related deterioration as evidenced by embrittlement and shrinkage. These conditions have resulted in large gaps for unrestricted water migration within curtain wall assemblies which likely overloads the original internal seals/weep system. Reference Photographic Exhibit Nos. E-01, E-02 and E-03.



Exhibit No. E-01



Exhibit No. E-02



Exhibit No. E-03

- 1.2 CMC observed splice/expansion joints within vertical framing members of the curtain wall assembly exhibited age-related deterioration as evidenced by displaced metal covers and open gaps in glazing gaskets (reference Photographic Exhibit Nos. E-04, E-05 and E-06).



**Exhibit No. E-04**



**Exhibit No. E-05**



**Exhibit No. E-06**

- 1.3 CMC observed sealant applications along junctures between curtain wall assembly perimeter framing and exterior wall construction were in an advanced stage of age-related deterioration. Similar sealant failures were also observed along exterior door framing perimeters. These failed sealant applications represented avenues for moisture intrusion within the building interior. Reference Photographic Exhibit Nos. E-07 and E-08.



**Exhibit No. E-07**



**Exhibit No. E-08**

- 1.4 CMC noted sealant applications over fasteners (screws, rivets, etc.) associated with curtain wall closure metal along certain jamb conditions exhibited significant age-related deterioration (reference Photographic Exhibit Nos. E-09, E-10 and E-11).



**Exhibit No. E-09**



**Exhibit No. E-10**



**Exhibit No. E-11**

- 1.5 CMC noted exterior brick masonry wall construction exhibited localized areas of significant deterioration adjacent to curtain wall assemblies especially along the first floor sill condition at the southwest corner of the building. These conditions have compromised the weatherproofing integrity along curtain wall junctures with exterior

wall construction and require corrective action prior to resealing the curtain wall assembly. Reference Photographic Exhibit Nos. E-12, E-13 and E-14.



**Exhibit No. E-12**



**Exhibit No. E-13**



**Exhibit No. E-14**

- 1.6 CMC noted a number of locations in which inadequately sealed penetrations existed within exterior brick masonry walls. These undesirable conditions represented avenues for moisture intrusion within the building interior. Reference Photographic Exhibit Nos. E-15 and E-16.



**Exhibit No. E-15**



**Exhibit No. E-16**

- 1.7 At the main roof level, CMC observed sheet metal coping on the top of the roof perimeter parapet walls intersects with the head condition of the curtain wall assembly. This existing condition has resulted in concealing the sealant joint along the head of the curtain wall assembly. As a result, the weatherproofing integrity along this construction joint transition could not be visually assessed. Reference Photographic Exhibit Nos. E-17 and E-18.



**Exhibit No. E-17**



**Exhibit No. E-18**

## **2.0 RECOMMENDATIONS**

- 2.1 CMC recommends existing glazed aluminum curtain wall assemblies undergo a comprehensive waterproofing renovation by completely “wet sealing” the entire curtain wall assembly. This work should include application of an appropriate

silicone-based (non-clear) elastomeric sealant (e.g., Dow Corning® 795) along all glass-to-metal and metal-to-metal joint conditions to establish 100% weatherproofing integrity on exterior surfaces of the curtain wall assembly.

- 2.1.1 This recommended scope of work should include addressing the splice/expansion joints in the vertical framing members of the curtain wall assembly utilizing a preformed silicone seal (e.g., Dow Corning® 123).
- 2.2 CMC recommends all existing sealant applications along junctures between curtain wall assembly perimeter framing and adjacent exterior wall construction be completely removed and replaced with new silicone-based elastomeric sealant (e.g., Dow Corning® 790, 791 or 795) to provide optimum long-term service life as well as chemical compatibility with sealants associated with recommended “wet sealing” of curtain wall assemblies. CMC further recommends this work include removal and replacement of existing sealant along exterior door frame perimeters.
- 2.3 CMC recommends all inadequately sealed penetrations within exterior wall construction receive application of silicone-based elastomeric sealant to provide long-term weatherproofing integrity.
- 2.4 Prior to sealant renovation of the curtain wall assembly, CMC recommends all deficient conditions within adjacent brick masonry walls be addressed to provide sound substrates for new sealant application. This work should include correcting localized brick failures along curtain wall sill conditions as well as repointing deteriorated brick masonry mortar joints adjacent to curtain wall assemblies as required to provide sound substrates for new sealant application.
- 2.5 CMC recommends sheet metal coping joints along roof perimeter parapet walls over curtain wall assemblies receive application of a preformed silicone seal (e.g., Dow Corning® 123) to ensure weatherproofing integrity along coping-to-curtain wall head conditions.

Should you have any questions or wish to further discuss any aspect of this project, please feel free to contact our office at your convenience.

Respectfully,

CONSTRUCTION MOISTURE CONSULTING, INC.

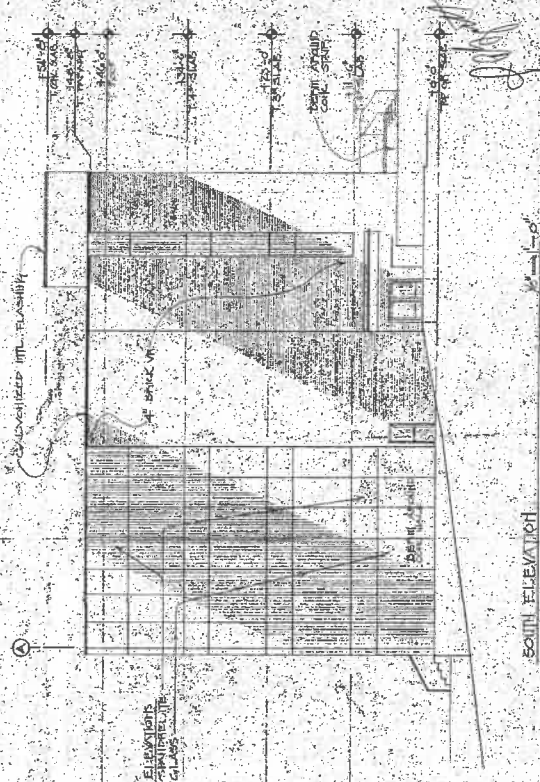
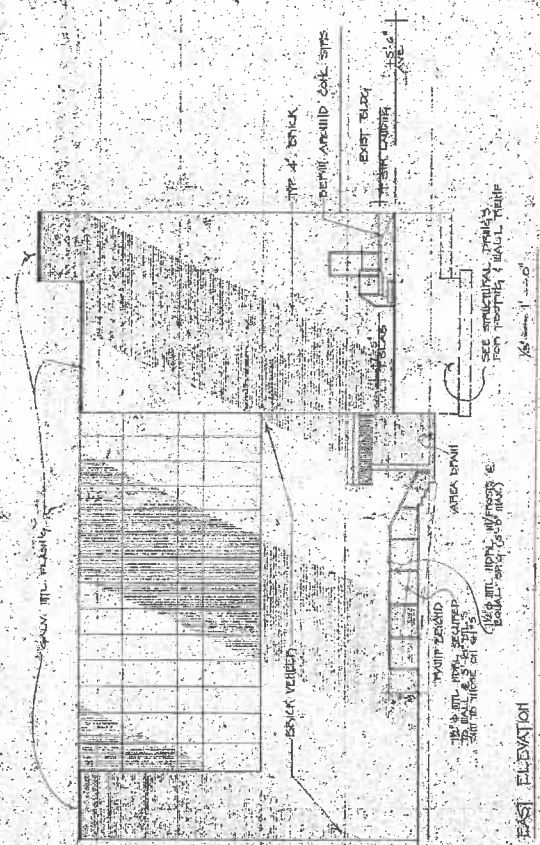
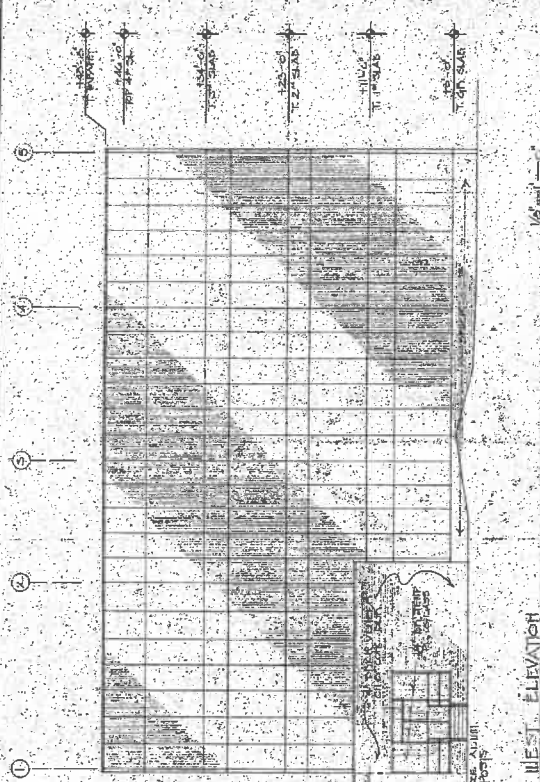
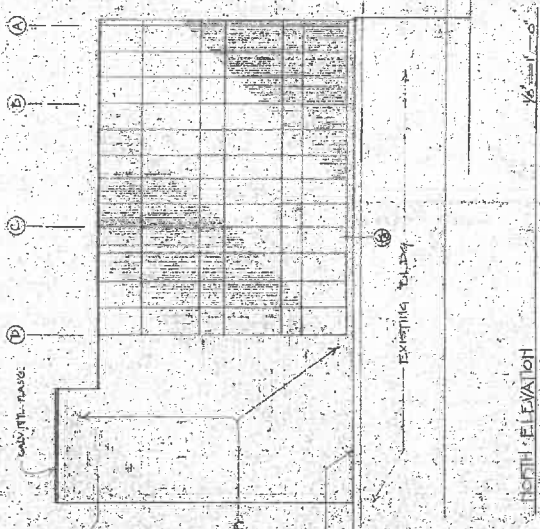


William P. Cowart  
Vice President

# **APPENDIX B**

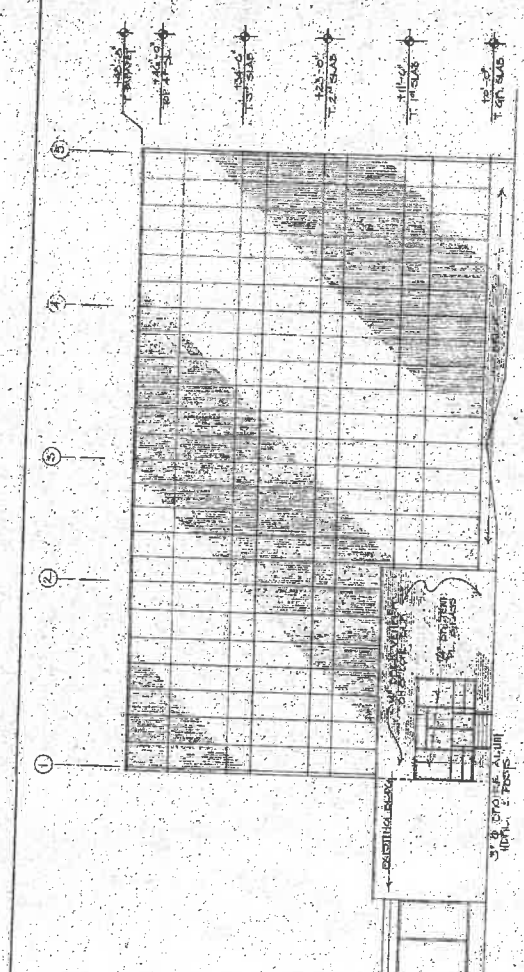
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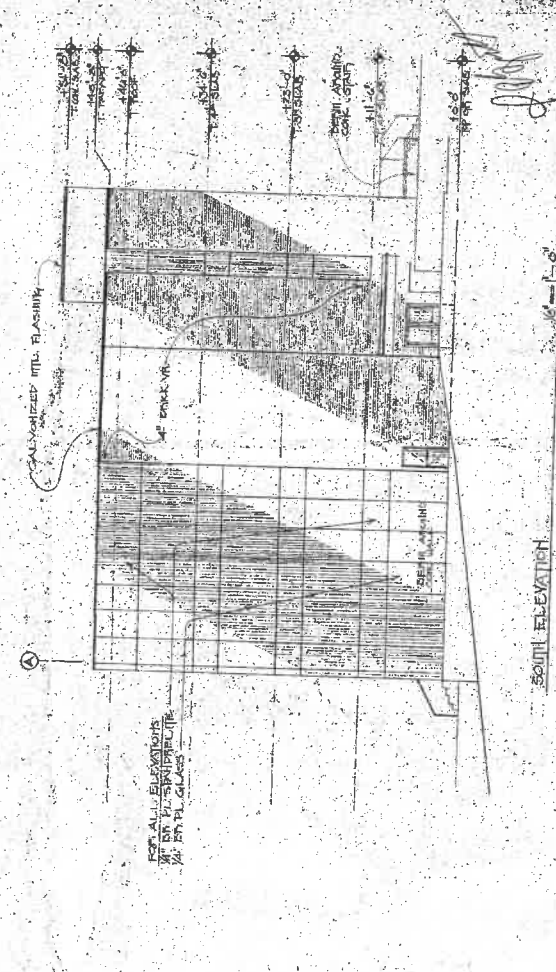


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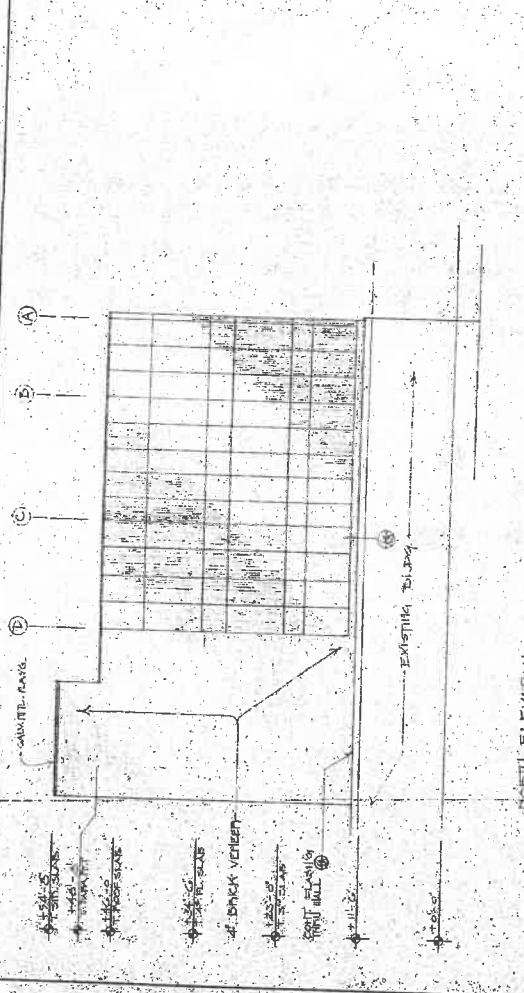




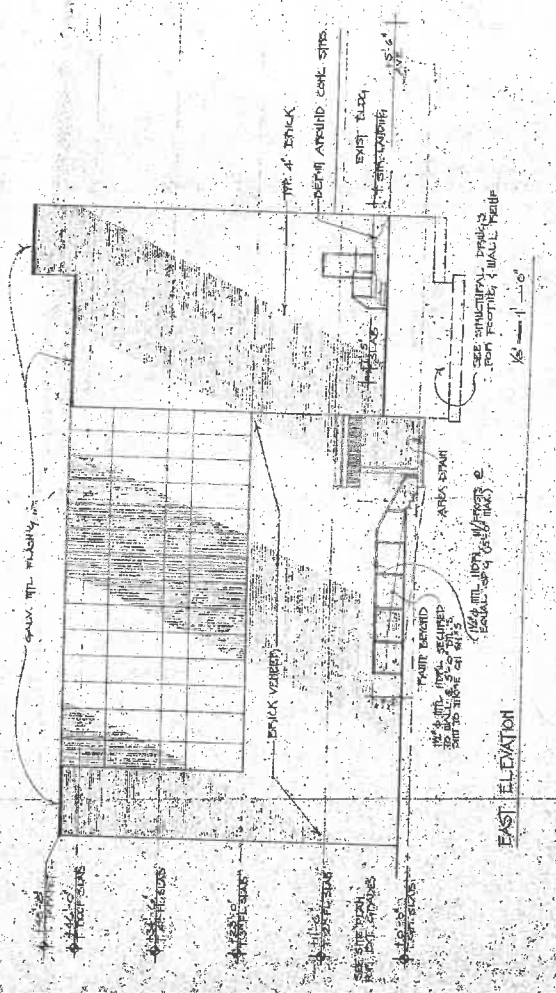
WEST ELEVATION



SOUTH ELEVATION

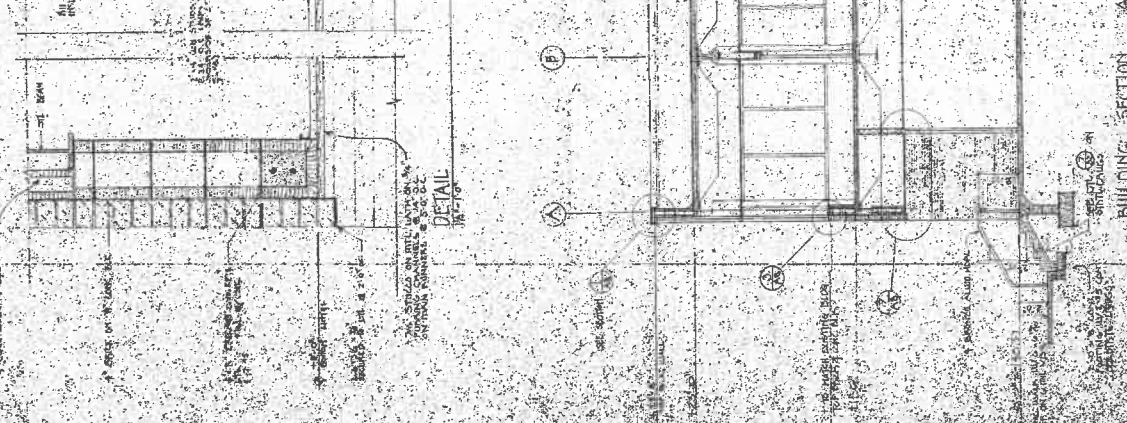
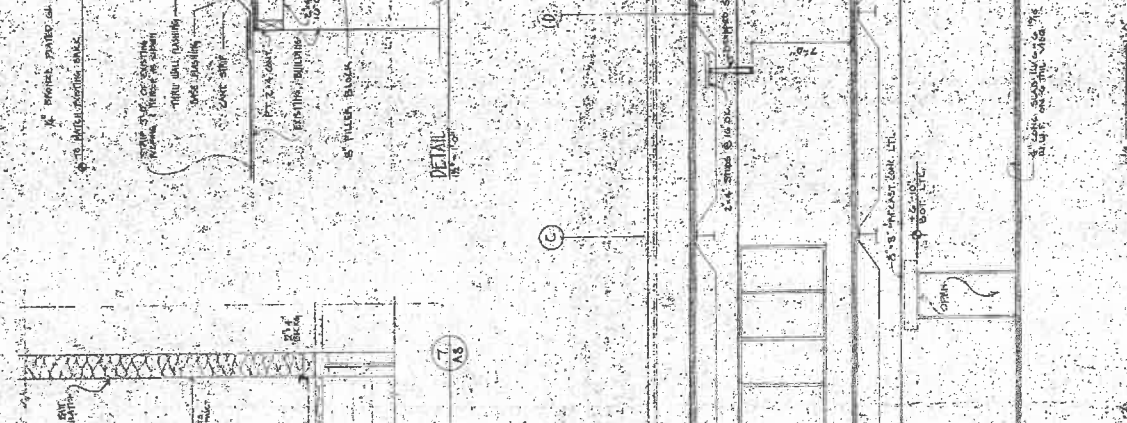
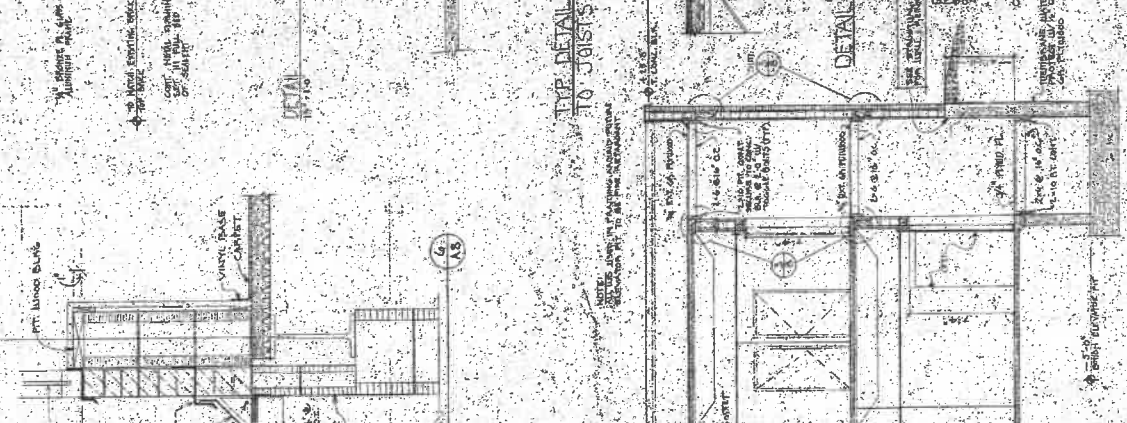
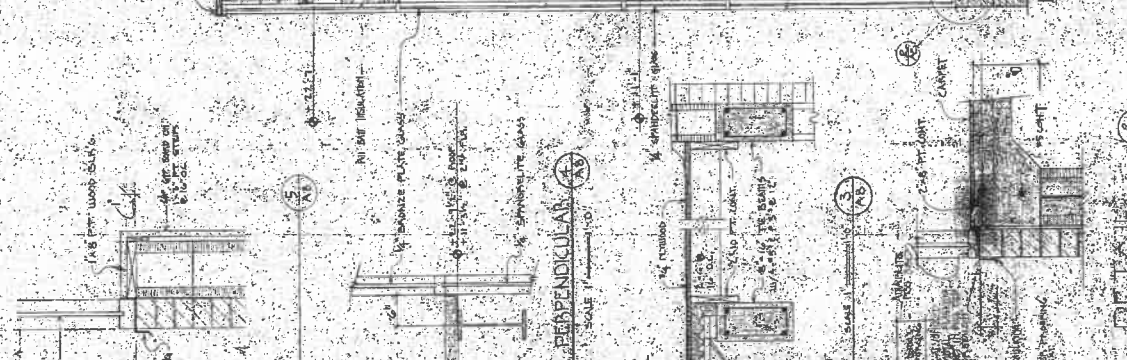
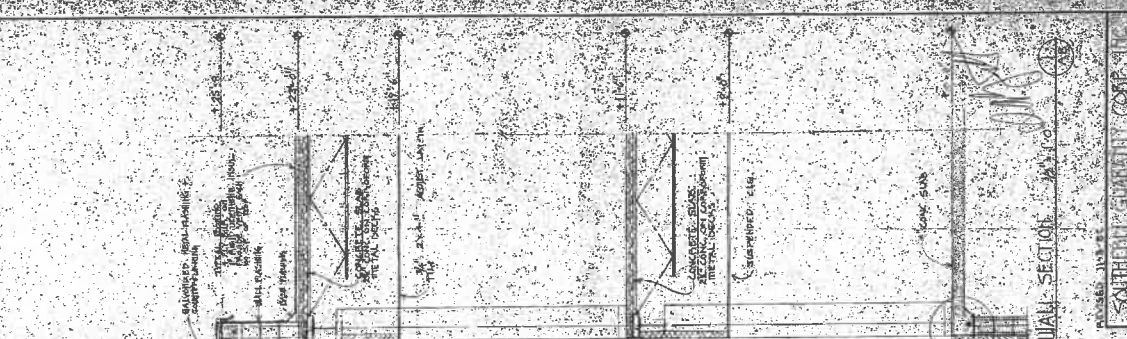


NORTH ELEVATION



EAST ELEVATION

SOUTHERN QUANTITY CORP.	
MEMPHIS, TENN.	
DATE	PROJECT
BY	NO.
SOUTHERN QUANTITY CORP.	



PROJECT NO. 100-100	DATE 10/10/10
DESIGNED BY [Name]	CHECKED BY [Name]
DRAWN BY [Name]	SCALE 1/4" = 1'-0"

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