

SECTION 042113_ BRICK MASONRY

STRUCTURAL GUIDELINES

1.1 Introduction

- a. The requirements and guidelines outlined herein are intended to provide an outline of best practices to enhance the performance of the exterior building enclosure systems and to reduce future maintenance when possible.
- b. The Architects and Engineers for all construction projects are responsible for identifying and preparing the full documentation necessary for all permits and reviews by governmental authorities having jurisdiction over the projects at University of Delaware.
- c. The information outlined herein are preferences or specific requirements of the University of Delaware under this Section.

1.2 Codes and Standards

- a. FM Global – All roofing projects shall be submitted to FM Global Plan Review concurrent with the design development phase submission. The design professional shall incorporate FM review comments within the project documents prior to bid
- b. National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual
- c. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
- d. American Air Barrier Association (AABA)
- e. Sealant Waterproofing and Restoration Institute (SWRI)
- f. Occupational Safety and Health Administration (OSHA)
- g. American National Standards Institute/American Society of Safety Engineers (ANSI/ASSE) Z359.2-2007 – Fall Protection

1.3 Environmental Testing

- a. The University may perform environmental testing of existing materials to be impacted by the work for hazardous materials (i.e. lead, asbestos, mold, etc.) during the design phases, including but not limited to, the following:
 - i. Roofing materials
 - ii. Flashing materials
 - iii. Paints
 - iv. Sealants

1.4 Quality Assurance Guidelines

- a. Manufacturer's Inspections
 - i. The University prefers to have the manufacturer's field technical representative perform interim inspections during the execution of the work.
- b. Pre-Installation Conferences
 - i. Conduct Pre-Installation Conferences where works involve multiple trades before starting substantial work.
- c. Mock-ups and Samples
 - i. On large projects the University requires full size exterior wall mock-ups to demonstrate expected performance and quality of embedded components and aesthetics of visible cladding and fenestration components.
 - ii. Construct mock-ups and obtain samples for review before starting substantial work.

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PART 1 - GENERAL

1.1 SUMMARY

- A. The Architects and Engineers for all construction projects are responsible for identifying and preparing the full documentation necessary for all permits and reviews by governmental authorities having jurisdiction over the projects at University of Delaware.
- B. The information outlined herein are preferences or specific requirements of the University of Delaware under this Section.

1.2 PRE-INSTALLATION MEETINGS

- A. The University requires Pre-installation Conferences for all Building Enclosure components
- B. All related trades should be present at Pre-installation Conference

1.3 MOCK-UPS

- A. The university requires full size exterior wall mock-ups to demonstrate expected performance and quality of embedded components and aesthetics of visible cladding and fenestration components.
- B. Mock-ups for remedial work or additions to existing buildings should be constructed directly adjacent to in-place materials. In-place materials should be cleaned prior to erection of the mock-up. New materials should match cleaned in--place materials.

PART 2- PRODUCTS

2.1 BRICK (on the Green)

- A. Glen-Gery 51DDX with “Old Liberty” headers in Flemish or Monk bond. Brick shall conform to ASTM C216, Grade SW, FBS.

2.2 BRICK (off-the-Green)

- A. New brick to be similar to existing adjacent brick or adjacent building as determined by the University.
 - 1. Grade: SW
 - 2. Type FBX
 - 3. Initial Rate of Absorption: Less than 30 g/30 sq. in. per minute when tested per ASTM C 67
 - 4. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated “not effloresced”

2.3 GLAZED BRICK

- A. Trenwyth Industries Inc. “Astra-Glaze” or Burns 7 Russel Co. “Spectra-Glaze II”
- B. Burns & Russell Co.: “Spectra-Glaze II” pre-glazed masonry units

A.

2.4 MORTAR MATERIALS

- A. Brick on the Green: Mortar Proportions should be 1 part/bag Lehigh Portland Cement, 1 part/bag lime, and 8 buckets (unit – 5 gal. buckets) of yellow sand.