

## SECTION 033000 - CAST-IN-PLACE CONCRETE

## 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 QUALITY ASSURANCE

- A. Provide Vapor Retarder per ASTM E 1643 - 10 Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
- B. Provide Vapor Retarder per E1745-09 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs
- C. Where an under slab vapor retarder is specified no concrete is to be placed without the installed vapor retarder system is reviewed.

PART 2- PRODUCTS

2.1 VAPOR RETARDERS

- A. Sheet Vapor Retarder: ASTM E 1745, Class A, a minimum 15 mil. Vapor retarder system, Stego Wrap 15-mil Vapor Barrier System, or equal

PART 3 - EXECUTION

3.1 VAPOR RETARDERS

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's most current installation instructions.
- B. All laps, penetrations, and terminations through vapor retarder system are to be detailed and sealed per manufacturers' most current installation instructions

END OF SECTION