



07 00 00

GENERAL THERMAL AND MOISTURE PROTECTION REQUIREMENTS – ROOF DRAINS & ROOFS

1. GENERAL

A. Related sections:

- i. 07 00 00 – General Thermal Moisture Protection Requirements – Roof Drains and Roofs
- ii. 07 31 13 – Asphalt Shingles
- iii. 07 41 10 – Copper & Zinc Sheet Metal Roofing
- iv. 07 41 20 – Steel Standing Seam Metal Roofing
- v. 07 52 13.11 – Cold Adhesive Applied Atactic-Polypropylene (APP) Modified Bituminous Membrane Roofing
- vi. 07 54 23 – Thermoplastic Polyolefin Roofing
- vii. 07 62 00 – Sheet Metal Flashing
- viii. 07 71 23.13 – Gutter Debris Guards
- ix. 07 84 00 – Fire Stopping

B. Roofing

i. Design Approach

- a. For new construction, flat and low slope roofs are not allowed to be the primary roof form for both aesthetic and performance reasons.
- b. For new construction the roof slope is 9 in 12 slope for buildings with the Georgian aesthetic.
- c. For new construction, the design shall minimize the placement of equipment on the roof.
- d. A variance may be requested to allow some low slope roof areas to accommodate mechanical systems. It is not unusual to notch some areas of the sloped roof to provide visual recesses for equipment.
- e. An addition to a building with an existing flat or low slope roof may dictate a design solution with a low slope roof. A variance should be requested for such situations.
- f. For a low slope roof approved through the variance process, a ¼-inch per foot is the minimum allowed. In some cases, intensive or extensive green roof may be allowed per separate approval by the Project Manager and UGA Grounds Department.
- g. The preferred roof material for most new construction is slate or synthetic slate (non-rusticated thin profile). Due to budget constraints asphalt shingles or metal roofs with at 12-inch panel width may be considered. In some cases, intensive or extensive green roof may be appropriate per approval by the Project Manager and UGA Grounds Department.
- h. For some historic buildings a standing seam roof may be appropriate. Often these roofs are zinc coated copper or zinc.
- i. Interior drainage is prohibited. In instances where existing conditions necessitate such construction, the Design Professional shall submit a variance request to the Project Manager.



ii. General

- a. Many existing roofs on campus contain asbestos and the Design Professional and Contractor shall be responsible for removal and disposal per applicable codes and regulations.
- b. Contractor shall protect all roof drainage systems during all roof repairs and all roof work. If these roof drainage systems are not protected, maintained or remain open, the Contractor shall be held liable for all damages in the building and on the roof resulting from this failure to protect. Interior drainage is discouraged, unless existing conditions necessitate such construction. Access panels shall be provided to all interior drain pipes and cleanouts to allow for inspection and maintenance of interior chases.
- c. Roof-mounted equipment such as fume hoods fans, motor starters, etc. shall be installed on fully flashed curbs. When set on stands, allow 24 inches minimum clearance to facilitate repairs to equipment and allow for roof repair and reroofing. Equipment is not allowed to be mounted on pressure-treated wood, plastic pads or panels set directly on roof surface. Curb caps shall not be penetrated by attachment of motors or equipment. Install raised brackets that attach thru the side of curbs and allow equipment attachment without penetrating curb cap.
- d. For steep roofs, greater than 5 in 12 slope, include OSHA compliant fall arrest and roof anchor systems.
- e. Roofs with parapet walls less than 42 inches in height may require fall arrest anchors. For low slope roofs greater than 3 stories in height, fall restraint anchors shall be installed.
- f. Stone precast concrete or metal coping systems require a complete thru wall flashing system. Flash the roof side of parapet walls the full height.

iii. Reroofing

- a. Scaled roof plans should indicate, as accurately as possible the locations of existing drains, equipment, vents, hatches, parapets, gutters, scuppers, and other items in fixed locations.
- b. The Design Professional shall determine when new emergency drainage is required and shall add overflow scuppers to the design as required.
- c. Determine the extent of materials to be removed. If the scope cannot be predetermined, the Design Professional should include provision in contract that will allow on-site evaluation for the extent of work.
- d. Complete removal of the existing roofing system to the surface of the roof deck is required by the Contractor. The Contractor shall take all necessary steps to insure that while removing the existing roof system, that the Contractor does not damage the existing roof deck. The Design Professional shall inspect the roof deck for damage and document the repairs / replacement that will be required for the Contractor to perform.
- e. Only when project conditions warrant, identify components (e.g. mechanical equipment) that are required to be removed to facilitate roof repairs and upgrading.



- f. Provide a schedule when differing locations require definition as to extent of removal work and identify the subsequent roofing system to be installed.
- g. Ascertain that roof repairs and especially those involving new roof penetrations do not void existing roof warranties. The Project Manager will assist the Design Professional in determining who holds the current warranties.
- h. Provide the Project Manager with details of boots, sleeves, flashing, counter-flashing, curbs, crickets, etc. compatible with the roofing systems.
- i. The preferred method of flashing penetrations through flat roofs involves the construction of a curb around the opening. Small penetrations do not require curbs.

C. Flashing

- i. Thru-Wall Flashing: Contractor shall inspect and certify proper installation of all thru-wall flashing. Prior to installation of first piece of thru-wall flashing related to the wall system and prior to the first piece of thru-wall flashing related to the roof system, the Contractor shall coordinate an on-site meeting so that the Project Manager (or another person requested by the Project Manager, for example, the Design Professional) can be on site and witness the installation prior to it being covered up. It is the responsibility of the Contractor to allow time in the schedule for each of these initial inspections. The Contractor shall create and maintain a Thru-Wall Flashing Log listing the date, time, and area inspected and provide copies of the log at each job site meeting. The Contractor shall photo document inspections and each photo shall have a date and time stamp. The Contractor shall provide digital copies of the photos within 24 hours upon the Project Manager's request. The log and photos shall be part of the close-out documentation.
- ii. The reuse of existing counter flashing materials is discouraged. The Design Professional shall specify the installation of new counter flashing in materials matching the existing materials.

2. PRODUCTS

- A. All thru-wall flashing shall be stainless steel backplate with 40 mil rubberized asphalt peel and stick over the top for a seamless system.