DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07130 - WATERPROOFING
A. Provide sealant between edges of slab and footings or walls.
B. Install clay barrier sheet system such as bentonite or drainage fabric/membrane barrier system similar to Miradrain 6000 to exterior of basement walls.
C. Provide waterproof membrane below showers and other unusually wet areas.

07190 - VAPOR AND AIR RETARDERS
A. All cold rooms should have a vapor barrier applied to the warm side of the cold room walls, ceiling and floor.
B. A vapor barrier shall be installed between the roof deck and the roofing system only when the expected winter interior relative humidity is 45% or greater at 68°F.

07200 - INSULATION
A. Thickness shall be appropriate for design conditions of wall and installation shall follow instructions of manufacturer.
B. Roof insulation shall be a rigid board type - of thickness necessary to obtain conditions established by the particular usage and roof design.
C. Roof insulation decisions shall be incorporated in the life cycle cost analysis required for new buildings and major additions and meet energy code requirements.

07270 – FIRESTOPPING
A. Firesafing and Firestopping shall be included under a separate section on all applicable projects.
B. Fire-resistive Sealant installation may be installed by separate subcontractors, but shall be inspected by a qualified Manufacturer’s Representative and is the responsibility of the General Contractor.
C. Product data submittals are required.
D. During construction, special attention shall be given to verification that approved materials are being used with the proper installation.
E. Fire-resistive sealants shall be specified to be installed by a single qualified Sealant Contractor, not by the individual Trades.
07300 - SHINGLE, TILE & SLATE ROOFING

A. On historic buildings, careful consideration and selection shall be given to matching and maintaining the appearance of roofing materials. In some cases, the College may have a stock or know sources of roof materials. Discuss and review with the Owner’s Representative.

07500 - MEMBRANE ROOFING

A. Preferable roof system is EPDM ballasted with roof insulation below the membrane for new construction. Mechanically attached membrane roofing is not desirable. Investigate and review roofing installation options with the Owner’s Representative during the design process.

B. When re-roofing existing buildings, ballasted EPDM systems are preferred but careful consideration must be given to the existing structural capacity, construction, and other factors. Review the alternative roofing systems including built-up roofing, with the Owner’s Representative during the design process.

C. Due to past performance record, Gates Engineering Company, Inc. is not an approved manufacturer.

D. A positive roof slope shall be maintained over the entire roof. Flat areas are not acceptable. A minimum slope of 1/4" per foot is preferred.

E. A minimum distance of eight inches should be maintained between the membrane and the top of any counterflashing.

F. Roof drain elevations, roof slope and the elevation of the roof edges shall be shown on the Construction Drawings.

G. Scuppers or overflow drains shall be provided and shown on the Construction Drawings.

H. Specifications should call for a 10-year manufacturer's roof system warranty and a 5-year contractor's warranty covering the roof system for all newly installed roofs.
I. Roof drains should be located at the point in the roof area where the most deflection can be expected.

J. Roof valley lines should commence at the corners of the roof section and terminate at the roof drains.

K. Details shall be provided for roof penetrations and flashing conditions.

L. Exposed piping and electrical conduits shall be avoided, but, if required, without compromising the roofing integrity.

07600 - FLASHING AND SHEETMETAL

A. Sheet metal Parapet caps shall provide for expansion every 10-15 feet of run. Cover joints with cap of same material and interlock with parapet cap. Factory applied paint warrantee finish is preferred. Field painted sheet metal must be approved by the Owner’s Representative.

B. Parapet caps, counterflashings, valley flashings, etc. shall be galvanized steel, stainless steel, aluminum or copper. The tops of all walls exposed to the water shall have through-wall flashing.

C. Drip flashings shall be provided above all windows, doors, soffits and areas exposed to the weather.

07800 - SKYLIGHTS

A. Skylights should be limited and shall be approved by the Owner's Representative.

07900 - JOINT SEALANTS

A. One part polyurethane should be considered in most cases when exposed to weather. It has proven to be durable and relatively easy to install.

B. All sealants shall be specified based on the Manufacturer’s recommendations and compatibility to the specific installation.
C. Specification should include a 5-year sealant installation warranty to be signed by the Sealant Contractor.

D. Specify low VOC products when available and applicable.

E. Sealant shall be used in the following exterior joints:

1. Joints between masonry and concrete.

2. Joints between precast concrete units and between precast concrete units and dissimilar materials.


4. Joints around metal frames.

5. Intersection of paving materials and building exterior wall.


7. Intersecting masonry partitions particularly at exterior walls.

8. Parapet coping joints.

9. Counterflashing regrets.

10. To seal holes and cracks in copings and other masonry materials at perimeter of roof.