DIVISION 7 – THERMAL & MOISTURE PROTECTION

07 00 00 THERMAL & MOISTURE PROTECTION

07 13 00 – SHEET WATERPROOFING

A. For Interior concrete slabs on grade with wood floor finish install reinforced puncture and abrasion resistant membrane similar to Moistop by Fortifiber below slab. All other building, slabs on grade, shall have minimum 6 mil vapor barrier. Extend edges to surface of slab. Seal all joints and around all penetrations.

B. Provide water stop as needed.

C. Provide waterstop equivalent to Grace 3000 or 3500 waterstop or equal for foundation walls.

D. Provide waterproof membrane below showers and other unusually wet areas.

07 21 00 – THERMAL INSULATION

A. Provide insulation as required to meet current energy codes.

07 26 00 – VAPOR AND AIR RETARDERS

A. General exterior walls should have a 6 mil vapor barrier applied to warm side of wall.

07 50 00 – MEMBRANE ROOFING (for low slope roofs)

A. Preferable roof system is 60 MIL EPDM adhered or ballasted systems using seam tape joints with roof insulation being rigid ISO board type and mechanically fastened dens-deck below the membrane. Consideration will also be given to approved PVC systems. TPO and TPA roofs are also acceptable.

1. For ballasted roofs, specify reinforced EPDM membrane.

B. A positive tapered roof slope shall be maintained over the entire roof. Flat areas are not acceptable. A minimum slope of ¼” per foot is preferred. Sump areas to be used at all roof drains.

C. A minimum distance of eight inches should be maintained between the horizontal membrane surface and the top of any counterflashing. A minimum overlap of 3” for counter flashing over base flashing.

D. Roof drain elevations, roof slope and the elevation of the roof edges shall be shown on the contract drawings.

E. Overflow scuppers shall be provided through the parapet at regular intervals. Usage of a secondary roof drain and line also acceptable.

F. Specifications should call for a 10-year manufacturer’s roof system warranty and a 2-year contractor’s warranty covering the roof system on all newly installed roofs and replacement
roofs. An alternate for a 20-year manufacturer’s roof system warranty may be included on the Form of Bid for special projects.

G. All roof drains shall have either cast iron or aluminum grates (no plastic grates).

**07 60 00 – FLASHING AND SHEETMETAL**

A. Follow SMACNA and NRCA guidelines for details.

B. Parapet caps and counter flashing should be pre-finished sheet metal, Kynar or approved equal. Provide for expansion every 10 feet of run. Cover joints with cap of same material and interlock with parapet cap. Substitutions will only be permitted under special conditions approved in advance by the Owner’s Representative.

C. Valley flashings shall be aluminum or copper.

D. The tops of all walls exposed to the weather shall have through-wall flashing under the cap.

E. Drip flashings shall be provided above all windows to prevent water sheeting on windows.

**07 72 00 – HATCHES**

A. Bilco hatches are recommended. Type “S”- for standard size (2’-6” x 3’-0”). Preference is for aluminum, model S-50.

B. Provide hatches on all roof levels.

C. Provide ladder safety posts, similar to Bilco “LadderUP”, at all roof hatches. Provide a handrail mounted to the hatch.

**07 80 00 – FIRESTOPPING AND SMOKESTOPPING**

A. Provide schedule of firestopping assemblies, which lists each type of penetration. All assemblies shall be detailed.

**07 90 00 – JOINT PROTECTION**

A. One or two part polyurethane should be specified according to usage.

B. Specification should require a 5-year sealant warranty to be signed by the Sealant Contractor and manufacturer.

C. Sealant should be specified in the following exterior joints:
   1. Joints between dissimilar materials.
   2. Construction or control joints in concrete slabs.
   3. Intersecting masonry partitions
   4. Parapet coping stone joints.
5. Counterflashing reglets.

6. To seal holes and cracks in copings and other stone materials at perimeter of roofs.