

**DIVISION 7 - THERMAL AND MOISTURE PROTECTION****7.1 Vapor Barrier at Slabs**

A vapor barrier is required under all floor slabs that receive a floor covering or an impermeable floor coating. These areas shall include, but may not necessarily be limited to, the following: Offices, Maintenance Garage (when required), Van Parking Areas at Automated Satellites, and Maintenance Shops at Automated Satellites. The vapor barrier shall be new 6-mil polyethylene film, conforming to and installed according to ACI 302.1 latest revision, "Guide for Concrete Floor and Slab Construction."

The vapor barrier shall be placed at the bottom of the slab and have lap joints a minimum of 6" and turned up 3" around perimeter. All lap joints shall be taped. Seal all penetrations and repair all damaged areas with tape.

**7.2 Foundation Insulation**

Rigid board foundation insulation shall be closed cell rigid polystyrene equal to "Styrofoam - Square Edge", 25 PSI compressive strength, minimum, as manufactured by the Dow Chemical Company. Minimum 5-year aged "R" value shall be 8.0 measured at 40 degrees F mean temperature. Install at exterior walls of the heated building. Extend to 4'-0" below bottom of floor slab.

**7.3 Batt Insulation**

Office Exterior Walls and Above Ceilings: Batt insulation shall be a fiberglass insulation with an aluminum foil vapor barrier. "R" values shall be as follows: R-11 (minimum) at walls, R-19 (minimum) at ceiling. Batt insulation (where required) shall be provided with flanges at the edges for stapling:

- Insulation shall provide full coverage in all suspended ceilings.
- Vapor barriers shall face the interior of the building.

**7.4 Sound Insulation**

Sound insulation shall be 3-1/2" un-faced fiberglass batt insulation, friction-fit type. Install full height in all interior partitions, floor to ceiling. Install the sound insulation with no gaps.

**7.5 Rigid Board Insulation**

Rigid board insulation for use on masonry wall construction shall be 3/4" "Thermax" foil-faced insulation board as manufactured by Celotex Corporation, with a minimum R-value of 5.4.

**7.6 Caulking and Sealing Joints and Cracks**

All joints and cracks shall be constructed weather-tight by caulking and sealing. Use Dow Corning "790 Silicone Building Sealant" or General Electric "SILPRUF LM". Sealant colors shall match the color of the adjacent materials.

END OF SECTION