



City of Monterey Park

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PRESCRIPTIVE DESIGN STANDARDS for SLAB & FOOTINGS ON EXPANSIVE SOILS

(PB1806.2, updated 11-1-2014)

The characteristics of soils in the City of Monterey Park are predominately expansive. Empirical evidences indicate that special provisions are necessary in the construction of footings and slabs resting on expansive soils to minimize damages due to the expansiveness. Absent of a geotechnical investigation, the following design guidelines may be used for buildings not more than two stories and supported primarily by stud-framed bearing walls. These guidelines address only the effect of moderately expansive soils (expansive index 51-90). Owners should be aware that soils in some areas of the City may have higher expansive index.

Slab Thickness: Slabs shall have minimum 4 inches actual thickness. Typical residential concrete slabs are 4-inch thick nominal, which measures about 3-1/2 inches in actual thickness.

Slab Base: Concrete slab shall be placed on a layer of sand not less than 2 inches. The sand shall be placed on top of the moisture barrier. Where the slab is lower than nearby grades (for example, near an ascending slope), an additional 4-inch base material per is required below the moisture barrier.

Slab Reinforcement: Slabs shall be reinforced at mid-point with minimum No. 4 re-bars at no more than 18 inches and no less than 15 inches on center each way.

Footing Size: Footings supporting bearing walls, shear walls or any exterior walls shall be minimum 15-inch wide and 24-inch deep.

Footing Reinforcement: Minimum reinforcement shall be two No. 5 re-bars at top and two No. 5 re-bars at bottom, secured with No.3 stirrups at 24 inches maximum on center. The top re-bars shall be placed above the slab reinforcement.