1909.6.2 Other walls. Except as provided for in Section 1909.6.1, the thickness of bearing walls shall be not less than $^1/_{24}$ the unsupported height or length, whichever is shorter, but not less than $5^1/_2$ inches (140 mm).

1909.6.3 Openings in walls. Not less than one No. 16 bar shall be provided around window, door and similar sized openings. The bar shall be anchored to develop f_y in tension at the corners of openings.

SECTION 1910 MINIMUM SLAB PROVISIONS

1910.1 General. The thickness of concrete floor slabs supported directly on the ground shall not be less than $3^1/_2$ inches (89 mm). A 6-mil (0.006 inch; 0.15 mm) polyethylene vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the base course or subgrade and the concrete floor slab, or other *approved* equivalent methods or materials shall be used to retard vapor transmission through the floor slab.

Exception: A vapor retarder is not required:

1. For detached structures accessory to occupancies in Group R-3, such as garages, utility buildings or other unheated facilities.
2. For unheated storage rooms having an area of less than 70 square feet (6.5 m^2) and carports attached to occupancies in Group R-3.
3. For buildings of other occupancies where migration of moisture through the slab from below will not be detrimental to the intended occupancy of the building.
4. For driveways, walks, patios and other flatwork which will not be enclosed at a later date.
5. Where *approved* based on local site conditions.

SECTION 1911 ANCHORAGE TO CONCRETE- ALLOWABLE STRESS DESIGN

1911.1 Scope. The provisions of this section shall govern the *allowable stress design* of headed bolts and headed stud anchors cast in normal-weight concrete for purposes of transmitting structural loads from one connected element to the other. These provisions do not apply to anchors installed in hardened concrete or where load combinations include earthquake loads or effects. The bearing area of headed anchors shall be not less than one and one-half times the shank area. Where strength design is used, or where load combinations include earthquake loads or effects, the design strength of anchors shall be determined in accordance with Section 1912. Bolts shall conform to ASTM A 307 or an *approved* equivalent.

1911.2 Allowable service load. The allowable service load for headed anchors in shear or tension shall be as indicated in Table 1911.2. Where anchors are subject to combined shear and tension, the following relationship shall be satisfied:

$$(P_s / P_t)^{5/3} + (V_s / V_t)^{5/3} \leq 1 \qquad \textbf{(Equation 19-1)}$$

where:

P_s = Applied tension service load, pounds (N).