CODE

COMMENTARY

13.2—General

13.2.1 *Materials*

13.2.1.1 Design properties for concrete shall be selected to be in accordance with Chapter 19.

13.2.1.2 Design properties for steel reinforcement shall be selected to be in accordance with Chapter 20.

13.2.1.3 Materials, design, and detailing requirements for embedments in concrete shall be in accordance with 20.6.

13.2.2 *Connection to other members*

13.2.2.1 Design and detailing of cast-in-place and precast column, pedestal, and wall connections to foundations shall be in accordance with 16.3.

13.2.3 *Earthquake effects*

13.2.3.1 Structural members extending below the base of the structure that are required to transmit forces resulting from earthquake effects to the foundation shall be designed in accordance with 18.2.2.3.

13.2.3.2 For structures assigned to Seismic Design Category (SDC) C, D, E, or F, foundations resisting earthquake-induced forces or transferring earthquake-induced forces between structure and ground shall be designed in accordance with 18.13.

13.2.4 *Slabs-on-ground*

13.2.4.1 Slabs-on-ground that transmit vertical loads or lateral forces from other parts of the structure to the ground shall be designed and detailed in accordance with applicable provisions of this Code.

13.2.4.2 Slabs-on-ground that transmit lateral forces as part of the seismic-force-resisting system shall be designed in accordance with 18.13.

13.2.5 *Plain concrete*

13.2.5.1 Plain concrete foundations shall be designed in accordance with Chapter 14.

13.2.6 *Design criteria*

R13.2—General

R13.2.3 *Earthquake effects*

R13.2.3.1 The base of a structure, as defined in analysis, does not necessarily correspond to the foundation or ground level, or to the base of a building as defined in the general building code for planning (for example, for height limits or fire protection requirements). Details of columns and walls extending below the base of a structure to the foundation are required to be consistent with those above the base of the structure. For additional discussion of the design of foundations for earthquake effects, see R18.13.1.

R13.2.4 *Slabs-on-ground*

Slabs-on-ground often act as a diaphragm to hold the building together at the ground level and minimize the effects of out-of-phase ground motion that may occur over the footprint of the building. In these cases, the slab-on-ground should be adequately reinforced and detailed. As required in Chapter 26, construction documents should clearly state that these slabs-on-ground are structural members so as to prohibit sawcutting of such slabs.

R13.2.6 *Design criteria*