CODE

A.12.3.2 If boundary elements are required, splices of shear reinforcement shall be made with mechanical or welded splices, or lap splices enclosed in transverse reinforcement spaced at the smaller of $6d_b$ of the spliced bars or 150 mm.

A.12.3.3 If the floor or roof slab is shown by analysis to undergo inelastic response at a slab-wall connection, the slab flexural reinforcement shall be extended through the slab-wall joint and anchored for structural integrity.

A.12.3.4 If shear force exceeds $0.33A_{cv}\lambda\sqrt{f'_c}$, enhanced construction joint detailing shall be provided with thorough roughening of concrete, intermittent shear keys in the concrete, or both, to reduce the possibility of slip along the construction joint.

A.13—Independent structural design review

A.13.1 The analysis and design shall be reviewed by an independent structural design reviewer. The independent structural design reviewer shall act under the direction of the building official.

A.13.2 The independent structural design review shall be performed by one or more individuals acceptable to the building official and possessing knowledge of (a) through (d):

(a) Selection and scaling of ground motions for use in nonlinear response history analysis.
(b) Behavior of structural systems of the type under consideration when subjected to earthquake loading.
(c) Analytical structural modeling for use in nonlinear response history analysis, including use of physical tests in the creation and calibration of the structural analysis models, and knowledge of soil-structure interaction if used in the analysis or in the development of ground motions.
(d) The requirements of Appendix A as they pertain to design of the type of structure under consideration.

A.13.3 The scope of the independent structural design review shall be approved by the building official and shall include a minimum of (a) through (h):

COMMENTARY

RA.12.3.3 Analysis of tall buildings with structural core wall systems have shown inelastic response in slabs at their connection to core walls. Integrity of this connection is critical to the overall performance of the structure. Enhanced details, which include properly anchored or continuous reinforcement and post-tensioning tendons, providing additional integrity are required.

RA.12.3.4 Sliding at horizontal construction joints of walls has been observed in earthquakes and in laboratory testing of structural walls. Enhanced detailing is required in regions of high shear to minimize slip or sliding at construction joints.

RA.13—Independent structural design review

RA.13.1 The independent structural design reviewer provides an independent, objective, technical review of those aspects of the structural design of the building that relate to earthquake-performance and advises the building official whether the design meets the acceptance criteria and the expected building performance.

Review by the independent structural design reviewer is not intended to replace quality assurance measures ordinarily exercised by the licensed design professional. Responsibility for the structural design remains solely with the licensed design professional in responsible charge of the structural design.

RA.13.2 On many projects, independent structural design review may be provided by a review team approved by the building official. Each member of the review team may possess specialized knowledge and expertise, and jointly meet the requirements of A.13.2.

An independent structural design reviewer should not have conflicts of interest with respect to the project and should not be part of the design team for the project.

RA.13.3 The scope of the independent structural design review should be clearly defined and acceptable to the building official.