CODE

COMMENTARY

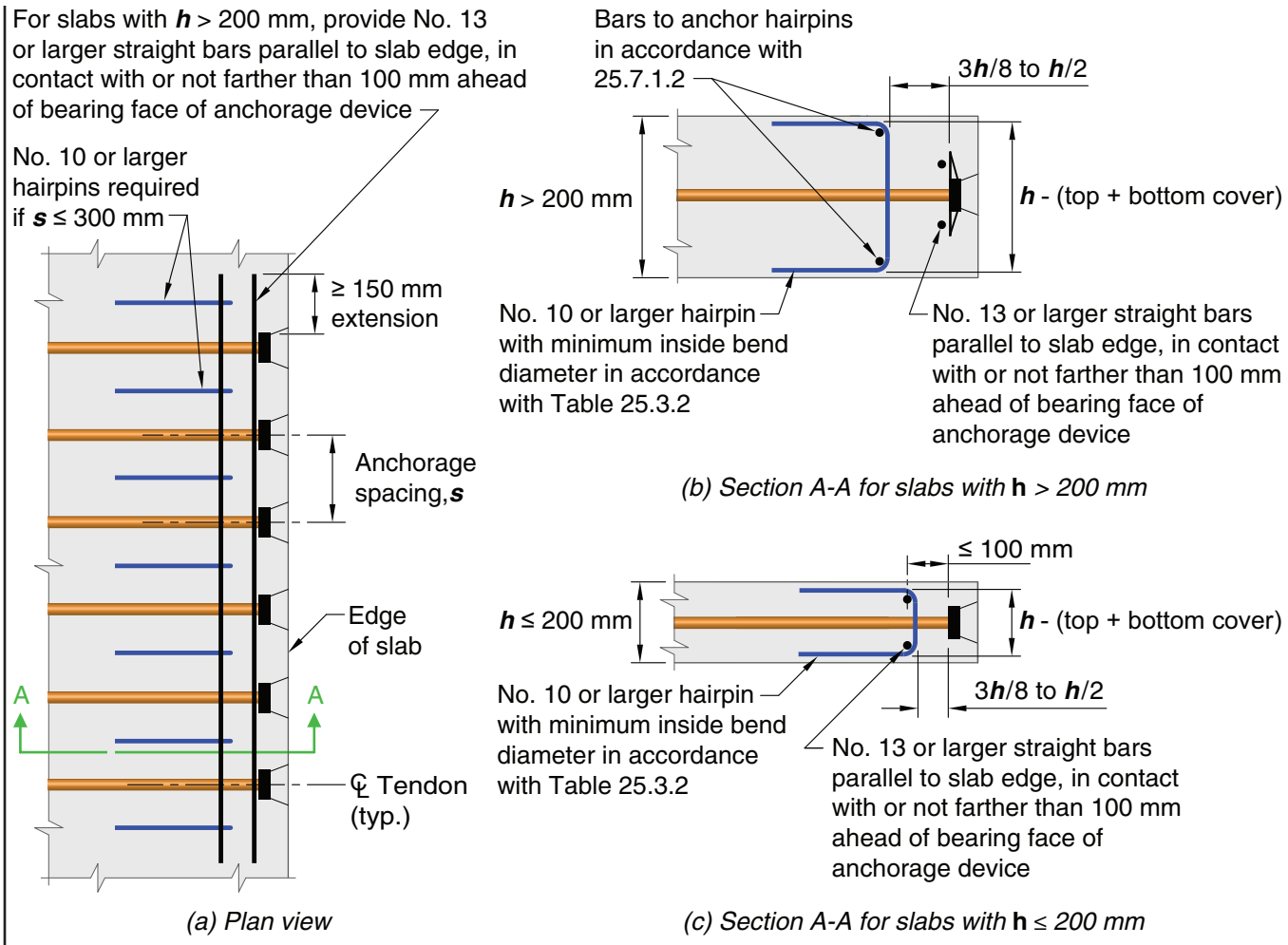

***Fig. R25.9.4.4.6**—Anchorage zone reinforcement for groups of 12.7 mm or smaller diameter tendons in slabs (other reinforcement not shown).*

25.9.4.5 *Limiting stresses in general zones*

25.9.4.5.1 Maximum design tensile stress in reinforcement at nominal strength shall not exceed the limits in Table 25.9.4.5.1.

Table 25.9.4.5.1—Maximum design tensile stress in reinforcement

Type of reinforcement	Maximum design tensile stress
Nonprestressed reinforcement	f_y
Bonded, prestressed reinforcement	f_{py}
Unbonded, prestressed reinforcement	$f_{se} + 70$

25.9.4.5.2 Compressive stress in concrete at nominal strength shall not exceed $0.7\lambda f_{ci}'$, where λ is defined in 19.2.4.

R25.9.4.5 *Limiting stresses in general zones*

R25.9.4.5.1 The value for maximum design tensile stress of bonded prestressed reinforcement is limited to the yield strength of the prestressing reinforcement because Eq. (20.3.2.3.1) may not apply to these nonflexural applications. The value for unbonded prestressed reinforcement is based on 20.3.2.4.1, but limited for these short-length, nonflexural applications.

R25.9.4.5.2 Some inelastic deformation of concrete within general zones is expected because anchorage zone design is based on a strength approach. Unless shown by tests, the λ factor for lightweight concrete should be applied to reflect a lower tensile strength, which is an indirect factor in limiting compressive stresses, as well as the wide scatter and brittleness exhibited in some lightweight concrete anchorage zone tests.