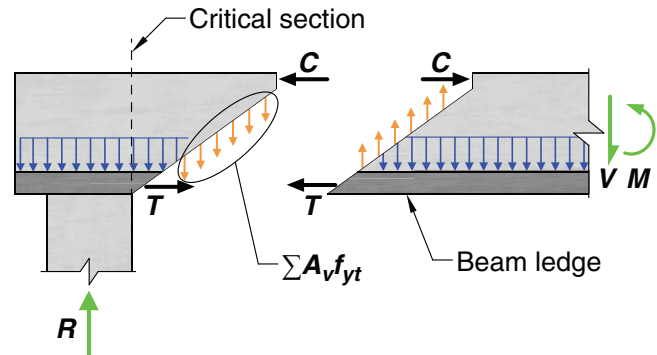
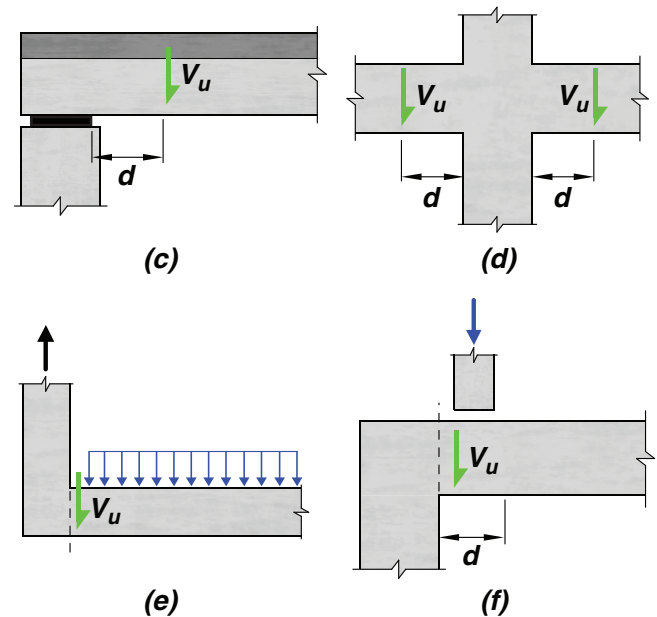


## CODE

## COMMENTARY



**Fig. R9.4.3.2b**—Location of critical section for shear in a beam loaded near bottom.



**Fig. R9.4.3.2(c), (d), (e), (f)**—Typical support conditions for locating factored shear force  $V_u$ .

#### 9.4.4 Factored torsion

**9.4.4.1** Unless determined by a more detailed analysis, it shall be permitted to take the torsional loading from a slab as uniformly distributed along the beam.

**9.4.4.2** For beams built integrally with supports,  $T_u$  at the support shall be permitted to be calculated at the face of support.

**9.4.4.3** Sections between the face of support and a critical section located  $d$  from the face of support for nonprestressed beams or  $h/2$  from the face of support for prestressed beams shall be permitted to be designed for  $T_u$  at that critical section unless a concentrated torsional moment occurs within this distance. In that case, the critical section shall be taken at the face of the support.

#### R9.4.4 Factored torsion

**R9.4.4.3** It is not uncommon for a beam to frame into one side of a girder near the support of the girder. In such a case, a concentrated shear and torsional moment are applied to the girder.