

### 5.13.3.6.1—Critical Sections for Shear

In determining the shear resistance of slabs and footings in the vicinity of concentrated loads or reaction forces, the more critical of the following conditions shall govern:

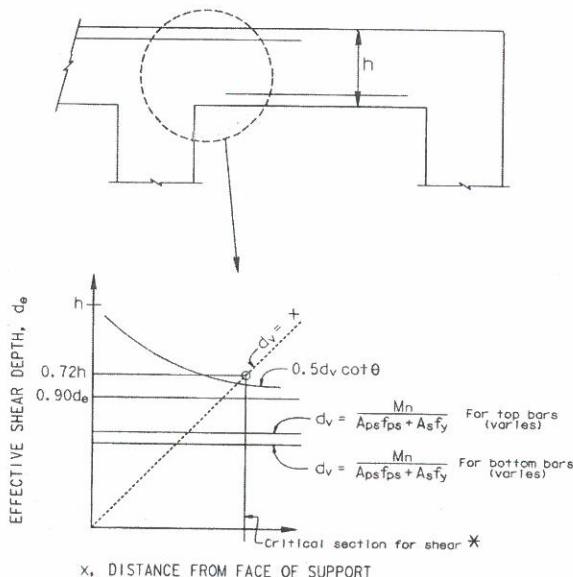
- One-way action, with a critical section extending in a plane across the entire width and located at a distance taken as specified in Article 5.8.3.2. *If no haunch, this provision controls*

If a haunch has a rise-to-span ratio of 1:1 or more where the rise is in the direction of the shear force under investigation, it may be considered an abrupt change in section, and the design section may be taken as  $d_v$  into the span with  $d_v$  taken as the effective depth for shear past the haunch.

### 5.8.3.2—Sections Near Supports

The provisions of Article 5.8.1.2 shall be considered.

Where the reaction force in the direction of the applied shear introduces compression into the end region of a member, the location of the critical section for shear shall be taken as  $d_v$  from the internal face of the support as illustrated in Figure 5.8.3.2-1.



\* The area between the face of support and the critical section for shear is designed for the critical section for shear.

Figure 5.8.3.2-1—Critical Section for Shear

### C5.13.3.6.1

In the general case of a cantilever retaining wall, where the downward load on the heel is larger than the upward reaction of the soil under the heel, the critical section for shear is taken at the back face of the stem, as illustrated in Figure C5.13.3.6.1-1, in which  $d_v$  is the effective depth for shear.

