CODE

COMMENTARY

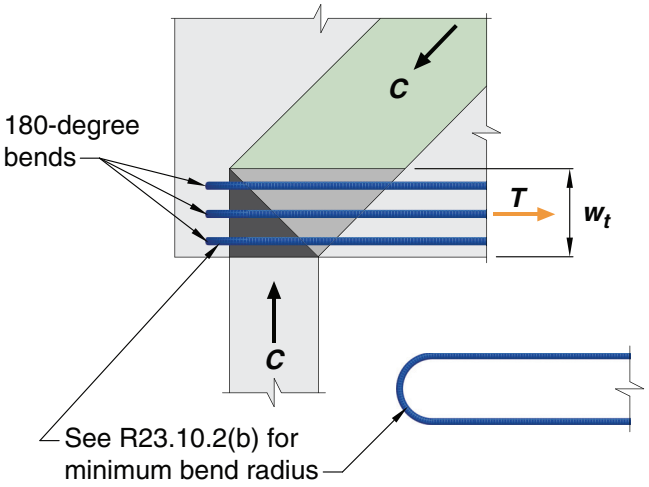

Fig. R23.10.2—*C-C-T node using ties anchored by 180-degree bends.*

23.10.3 If specified clear cover normal to plane of bend is less than $2d_b$, r_b required by 23.10.2 shall be multiplied by the ratio $2d_b/c_c$, where c_c is the specified clear cover to the side face.

R23.10.3 Larger bar bend radii at curved-bar nodes are required to reduce the likelihood of side splitting where concrete cover perpendicular to the plane of the bend is limited.

23.10.4 If curved-bar nodes are formed by more than one layer of reinforcement, A_{ts} shall be taken as the total area of tie reinforcement, and r_b shall be taken as the bend radius of the innermost layer.

R23.10.4 Figure R23.10.4 illustrates the use of a curved-bar node with two layers of reinforcing bars. In such cases, the total area of tie reinforcement contributes to the compressive stress on the face of the nodal zone (Face ab in Fig. R23.10.4).

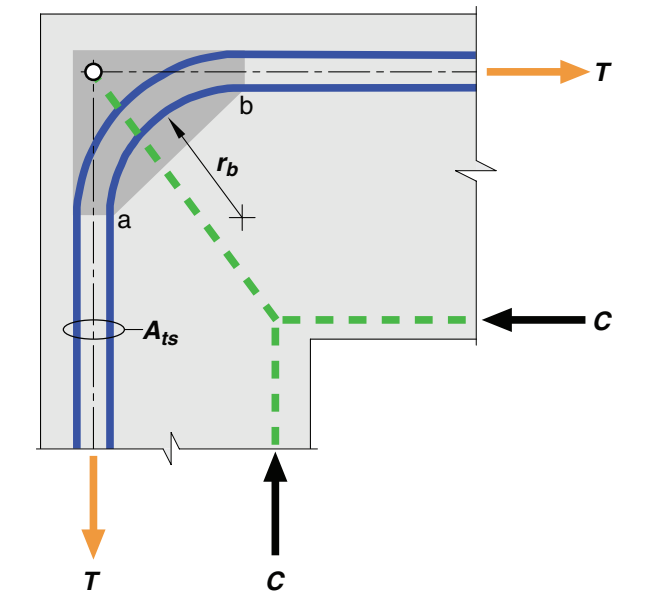

Fig. R23.10.4—*Curved-bar node with two layers of reinforcement (nodal zone is shaded).*

23.10.5 At frame corners, the joint and reinforcement shall be proportioned such that the center of bar curvature is located within the joint.

R23.10.5 The radius of the bend should be consistent with the geometry of the truss used for the strut-and-tie model. Figure R23.10.5 illustrates the region in which the center of curvature must be located for a typical frame corner.