ranges of drift increase from 4% to 7%, depending on the amount of flange reduction and other factors. The default factor to increase drift is expected to be slightly conservative for most cases.

3.1.5.1 Design Procedure

Step 1: Determine the length and location of the beam flange reduction, based on the following:

$$a \cong (0.5 \text{ to } 0.75) b_f \tag{3-15}$$

$$b \cong (0.65 \text{ to } 0.85) d_b \tag{3-16}$$

where a and b are as shown in Figure 3-12, and b_f and d_b are the beam flange width and depth respectively.

Step 2: Determine the depth of the flange reduction, c, according to the following:

a) Assume $c = 0.20 b_f$.

b) Calculate Z_{RBS}.

c) Calculate M_f according to the method of Section 3.2.6 and Figure 3-4 using $C_{pr} = 1.15$.

d) If $M_f < R_y Z_b F_y$ the design is acceptable. If M_f is greater than the limit, increase c. The value of c should not exceed 0.25 b_f.

Step 3: Calculate M_f and M_c based on the final RBS dimensions according to the methods of Section 3.2.7.

Step 4: Calculate the shear at the column face according to the equation:

$$V_f = 2\frac{M_f}{L - d_c} + V_g \tag{3-17}$$

Where: V_g = shear due to factored gravity load.

Step 5: Design the shear connection of the beam to the column. If a CJP welded web is used, no further calculations are required. If a bolted shear tab is to be used, the tab and bolts should be designed for the shear calculated in Step 4. Bolts should be designed for bearing, using a resistance factor f of unity.

Step 6: Design the panel zone according to the methods of Section 3.3.3.2.

Step 7: Check continuity plate requirements according to the methods of Section 3.3.3.1.

Step 8: Detail the connection as shown in Figure 3-12.