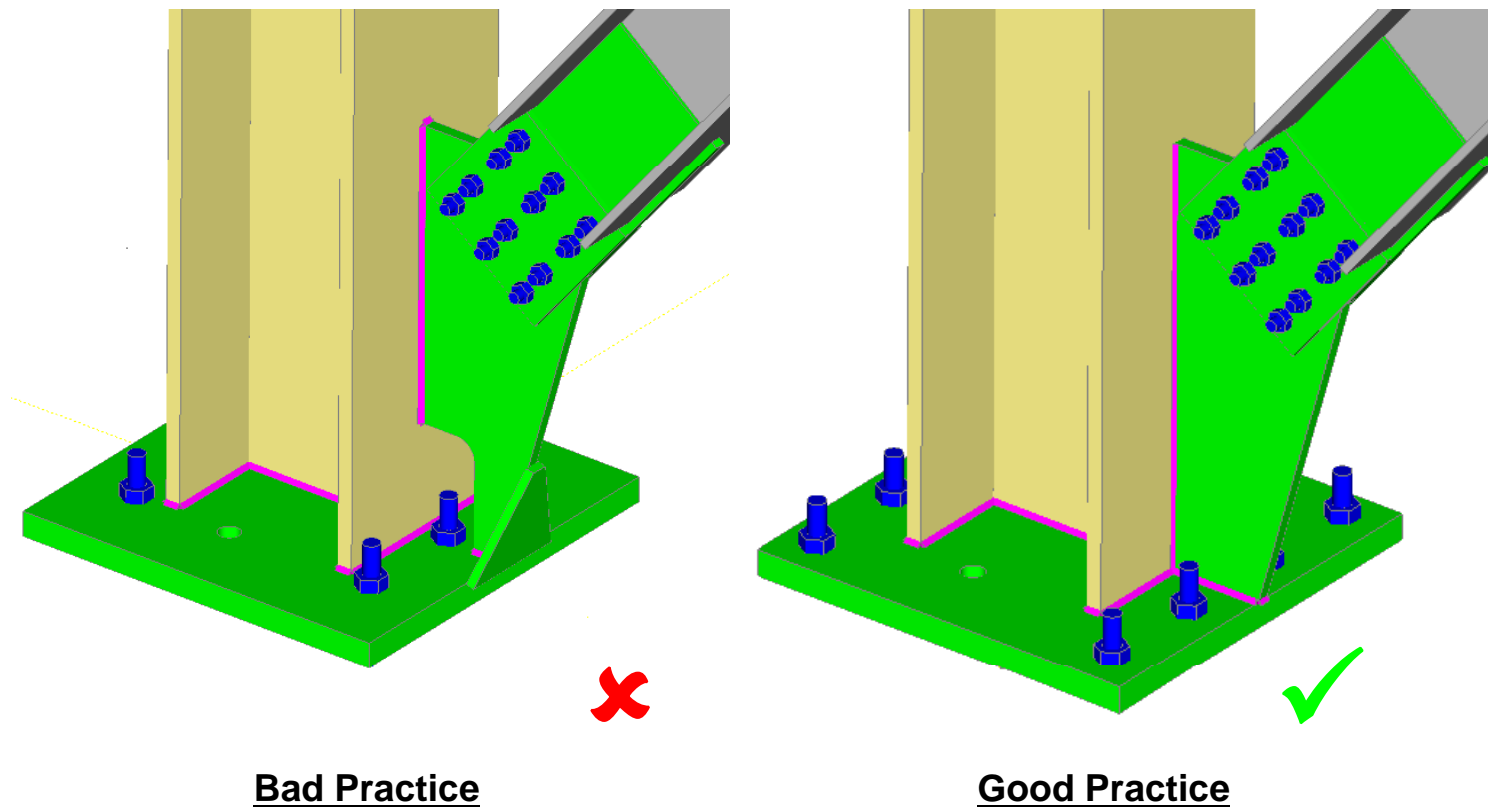




## **Bolt Positions on Base Plates**

*This problem occurs on many different types of projects and is a frustration to detailers and fabricators alike. The positioning of bolts on the centreline of base plates which clash with the bracings. It is caused by 2 dimensional thinking and not considering the bracing connections.*



### **Key Points – Bad Practice**

- The gusset plate requires notching around the holding down bolt meaning more fabrication and less effective weld area.
- Stiffening may be required at additional cost and looks unsightly.
- In some cases bolts are positioned too close to the column flanges can clash with the welds and restricts possible site modifications.

### **Key Points – Good Practice**

- Use 4 bolt base or 8 if necessary. Do not position bolts on the centreline of bases where a bracing is present.
- Take into account the distance from the flange to the centre of bolts allowing for the washers to fit without clashing with the welds. A good rule of thumb is 2 x bolt  $\varnothing$  minimum.
- Extra weld means a reduced weld stress and in turn a smaller weld size.

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