

Structural steel rough-in inspection checklist

Structural steel rough-in is the last time the work is fully visible. Once the cover inspection passes and the walls, ceilings and slabs close, every defect left behind becomes a demolition bill. This checklist walks the rough-in in the order the work goes in, with the photo each item needs before it gets buried. Work is commonly verified against AISC, AWS D1.1, the applicable building code. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The GC's superintendent walking the erection with the steel foreman, often alongside the special inspector on bolting and welding. When: As each tier or bay is erected and while the crane is still on the connections, before metal deck is laid and long before fireproofing goes on.

Anchorage and base plates

- ☐ **Anchor bolts, base plates and leveling set correctly**
Anchor bolt pattern and projection match the drawings, base plates bearing on the leveling nuts or shims as detailed, no bent or field-cut anchors. 2 photos required
- ☐ **Grout placed solid under base plates**
Non-shrink grout packed full under the plate with no edge-only dams or voids, plates set to the correct elevation. 2 photos required

Plumb and alignment

- ☐ **Columns plumb and frame aligned before lockup**
Columns checked for plumb and the frame surveyed for line and elevation, guys and temporary bracing holding it in position before connections are finalized. 2 photos required

Bolted connections

- ☐ **Bolted joints installed and tightened per the joint type**
Correct bolt, washer and nut assemblies in place, snug-tight joints drawn tight and pretensioned joints tensioned by the specified method, match-marked so completion is visible. 2 photos required
- ☐ **Faying surfaces and connection material correct**
Slip-critical faying surfaces prepared as specified, plies drawn into firm contact, no missing bolts or open holes at the connection. 1 photo required

Welded connections

- ☐ **Field welds visually inspected before they are covered**
Complete welds at the size and length shown, no undercut, porosity or cracks visible, arc strikes ground out, before deck or fireproofing hides the joint. 2 photos required