READY TO INSPECT — INSPECTION & TEST PLAN

# Structural steel erection ITP

A worked example: a structural steel erection ITP. Each row is one discrete activity with its reference, acceptance criterion, verification method, point type, responsibility and the record the row produces.

Who runs it: Erector's quality lead with the GC superintendent; special inspector present for bolting and welding verification where required.  When: Issued before steel delivery; each row is signed as the corresponding activity is released, before decking, fireproofing or finishes advance.

| Activity | Reference | Acceptance | Method | Point | Responsible | Record |
|---|---|---|---|---|---|---|
| Mill certificates and delivery inspection | Project specification / manufacturer data sheets | Piece marks match the approved shop drawings; members arrive undamaged and coated per the specification | Certified | Review | Erector QC / materials receiver | Mill certificates and delivery photos tied to piece marks |
| Anchor bolt layout and projection verification | Structural drawings | Bolt group location and projection within the drawing tolerance; threads protected and usable | Measured | Hold | Surveyor / GC superintendent | Survey note and dimensioned photo set before the pour |
| Column base plate and grout bearing | Structural drawings | Base plate level and grouted with full bearing; leveling nuts backed off where required | Visual | Witness | Erector foreman / GC superintendent | Photo set of base plate, grout and shims |
| Erection plumbness and alignment tolerance | Structural drawings / project specification | Columns plumb and frame within specified erection tolerance; temporary bracing in place until permanent stability is achieved | Measured | Witness | Erector foreman / surveyor | Plumb and alignment survey per column line |
| High-strength bolt installation and pretensioning | Project specification / manufacturer installation requirements | Bolt grade, length and washer arrangement correct; pretensioning verified by the specified method with match marks intact | Tested | Hold | Erector bolting crew / special inspector | Bolt tensioning log and marked-connection photos |
| Welding procedure and welder qualification | Project specification | WPS and welder qualifications current for the process, position and thickness being welded | Certified | Review | Welding inspector / QC manager | WPS/PQR and qualification records on file |

| Activity | Reference | Acceptance | Method | Point | Responsible | Record |
|---|---|---|---|---|---|---|
| **Visual weld inspection** | **Project specification** | **Weld size, length and profile meet the drawing; no undercut, porosity or missed returns on critical connections** | **Visual** | **Witness** | **Welding inspector / GC superintendent** | **Weld inspection report with gauge photos** |
| Deck installation and fastening | Structural drawings / manufacturer installation requirements | Deck profile, span and side-lap fastening match the approved details; openings reinforced as shown | Visual | Surveillance | Decking foreman / GC superintendent | Photo set of deck laps, fasteners and openings |
| Pre-cover connection release | Structural drawings / project specification | All bolted and welded connections on the tier signed off and photographed before decking or fireproofing advances | Visual | Hold | GC superintendent / engineer of record | Tier release with dated signature and connection photos |
| Touch-up and protective coating application | Project specification / manufacturer data sheets | Damaged coating repaired; dry film thickness and coverage meet the specification before fireproofing | Measured | Surveillance | Coating applicator / GC superintendent | Coating log with dry film thickness readings |
| Fireproofing thickness and density verification | Project specification | Applied thickness and density meet the specified hourly rating; no areas coated before connection signoff | Tested | Witness | Fireproofing contractor / special inspector | Thickness/density test report and area photos |