Division 05 Metals pre-submittal checklist

PROJECT	SPEC SECTION	SUBMITTAL NO.

CHECKED BY	DATE

1. Before you start

These apply to every submittal, whatever the trade.

- [ ] Pull the exact spec section this package answers to, including addenda that changed it.
- [ ] Read the submittal articles in Part 1 and list every item they ask for.
- [ ] Confirm the transmittal names the right section number, and that each product is tagged to the paragraph it answers.
- [ ] Mark any deviation from the spec yourself on the transmittal. A declared deviation gets reviewed; a hidden one gets the package rejected.
- [ ] Keep a copy of exactly what you sent, with the date, for your submittal log.

2. Named manufacturers and products match the spec **Blocker**

Compare every product in the package to the manufacturer and model the spec names. If anything differs, attach the approved substitution or or-equal letter, or swap back before you send. Tick each item once you have checked it and nothing below applies without written approval.

- [ ] Steel joist manufacturer substitutions (Vulcraft/Nucor, New Millennium, Canam)
- [ ] Metal deck manufacturer substitutions (Verco, Vulcraft, ASC Steel Deck, Consolidated Deck)
- [ ] Steel fabricator changes (must hold AISC certification for the work category)
- [ ] Shear stud manufacturer substitutions (Nelson, TRW)
- [ ] Expansion anchor and cast-in-place anchor manufacturer changes (Hilti, Simpson Strong-Tie, Powers)
- [ ] Ornamental metals fabricator changes

3. Performance values meet the spec numbers **Blocker**

Put the data sheet next to the spec and compare the actual values, not just the test method. A sheet that says "tested per ASTM" without the number is not proof. Tick each value once it meets or beats the spec.

- [ ] **Steel grade** (ASTM A992 Grade 50 for W-shapes, A36 for plates/angles, A500 Grade B/C for HSS, A53 for pipe)
- [ ] **Bolt grade** (ASTM F3125 Grade A325 vs A490, or metric equivalents)
- [ ] **Weld electrode classification** (E70XX for structural, E80XX for high-strength)
- [ ] **Steel joist load capacity** (total load TL and live load LL at specified span and spacing)

- [ ] **Metal deck gauge** (22ga, 20ga, 18ga, 16ga) and profile depth (1.5", 2", 3")
- [ ] **Composite deck capacity** (superimposed load at specified span, unshored vs shored)
- [ ] **Deflection limits** (L/240 total, L/360 live load, or as specified)
- [ ] **Fire rating** of steel assembly (spray fireproofing thickness, intumescent coating DFT)
- [ ] **Galvanizing thickness** (ASTM A123 for hot-dip, A153 for hardware, A653 for sheet)
- [ ] **Paint system DFT** (dry film thickness in mils per coat)
- [ ] **Moment connection capacity** (kip-ft at specified rotation)
- [ ] **Base plate thickness** and anchor rod diameter/embedment

4. Certifications and test reports are attached

Fix and Resubmit

Reviewers want the report itself, not a line on the data sheet saying one exists. Tick each document that the spec requires and the package actually contains. Skip lines that do not apply to your section.

- [ ] **AISC certification** (fabricator category: STD, CPT, S, A, or erector categories)
- [ ] **AWS D1.1** structural welding code compliance (the governing welding standard)
- [ ] **AWS D1.8** seismic welding supplement (for Seismic Force Resisting Systems)
- [ ] **Mill test reports (MTR)** per ASTM A6 for structural shapes, plates, bars
- [ ] **Bolt test reports** per ASTM F3125
- [ ] **Weld Procedure Specifications (WPS)** and Procedure Qualification Records (PQR)
- [ ] **Welder qualification records** (WQR) per AWS D1.1
- [ ] **ICC-ES evaluation reports** (ESR) for proprietary connections and post-installed anchors
- [ ] **IBC/ASCE 7 seismic compliance** for connections in seismic force resisting systems
- [ ] **Special inspection documentation** per IBC Chapter 17
- [ ] **SJI (Steel Joist Institute)** load tables and design compliance
- [ ] **SDI (Steel Deck Institute)** compliance for metal decking
- [ ] **Galvanizing certificates** per ASTM A123 (thickness measurements)
- [ ] **Paint/coating inspection records** (DFT measurements, surface prep verification)
- [ ] **Fireproofing test reports** per ASTM E119 (UL assembly listing)

5. Colors, finishes, and profiles match the selection

Fix and Resubmit

Match each visible attribute to the spec text and the architect's approved sample or color schedule. Tick each one you have confirmed.

- [ ] Exposed structural steel finish (painted color, clear-coat, weathering steel patina)
- [ ] Ornamental metal finish (anodized color, powder coat RAL color, patina treatment)
- [ ] Railing style, picket spacing, top rail profile

- [ ] Metal panel finish and color for decorative applications
- [ ] Exposed fastener type and finish (stainless vs galvanized, hex vs flat head)

6. Details and installation match the spec and drawings Fix and Resubmit

These are the mismatches reviewers catch most in this division. Check your shop drawings and installation data against the spec and the contract drawings, and tick each line once you have confirmed it does not apply to your package.

- [ ] **Connection type** mismatch (bolted vs welded, shear tab vs single plate vs moment)
- [ ] **Bolt hole type** (standard round vs oversized vs short-slotted vs long-slotted)
- [ ] **Weld size or type** differs (fillet vs CJP vs PJP, weld size in 16ths)
- [ ] **Base plate thickness** or anchor rod size differs from structural drawings
- [ ] **Stiffener plate** configuration or thickness differs
- [ ] **Shear stud spacing** on composite deck differs from structural design
- [ ] **Column splice** location or detail differs
- [ ] **Brace connection** gusset plate geometry differs
- [ ] **Deck attachment** pattern (puddle weld vs screw, spacing)
- [ ] **Edge angle or pour stop** size or location differs
- [ ] **Railing post spacing** or anchorage method differs
- [ ] **Stair stringer** profile or tread/riser dimensions differ

7. Every required item is in the package Fix and Resubmit

Open the submittal articles in Part 1 of your spec section (often split into action and informational submittals) and confirm each required item is present. The list below is what this division's specs most often require.

- [ ] Structural steel shop drawings (connection details, member sizes, piece marks)
- [ ] Erection drawings and sequence
- [ ] Mill test reports (MTR) for all structural steel
- [ ] Weld Procedure Specifications (WPS)
- [ ] Bolt installation procedures (snug-tight, pre-tensioned, slip-critical)
- [ ] Torque verification records or Direct Tension Indicator (DTI) procedures
- [ ] Galvanizing certificates with thickness measurements
- [ ] Fireproofing compatibility letter from steel fabricator
- [ ] Joist and joist girder shop drawings with design loads
- [ ] Metal deck layout drawings with attachment pattern
- [ ] Miscellaneous metals shop drawings
- [ ] Railing shop drawings with anchorage details

- [ ] Coating/paint system product data with surface prep requirements

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Free checklist from deviationcheck.com/checklists/05-metals/. Want the package checked against your spec? Deviation Check reviews it for $35 at deviationcheck.com.