

SECTION 06176 - METAL-PLATE-CONNECTED WOOD TRUSSES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. **Structural Performance:** Provide metal-plate-connected wood trusses capable of withstanding design loads indicated without exceeding TPI 1 deflection limits.
- B. **Submittals:** Product Data, Shop Drawings, and structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. **Fabricator Qualifications:** Shop that participates in a recognized quality-assurance program that involves inspection by SPIB, Timber Products Inspection, TPI, or other independent testing and inspecting agency acceptable to Architect and authorities having jurisdiction.
- D. **Comply with TPI 1, "National Design Standard for Metal Plate Connected Wood Truss Construction"; TPI H1B, "Commentary and Recommendations for Handling, Installing & Bracing Metal Plate Connected Wood Trusses"; and applicable requirements in AFPA's "National Design Specifications for Wood Construction" and its "Supplement."**

PART 2 - PRODUCTS

2.1 MATERIALS

- A. **Lumber:** DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review, any species, graded visually or mechanically.
- B. **Connector Plates:** TPI 1, fabricated from hot-dip galvanized steel sheet complying with ASTM A 653/A 653M, G60 (Z180) coating designation; Designation SS, Grade 33, and not less than 0.036 inch (0.9 mm) thick.
- C. **Fasteners:** Where trusses are exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- D. **Metal Framing Anchors:** Provide framing anchors made from hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G60 (Z180) coating designation.

2.2 FABRICATION

- A. **Assemble trusses using jigs or other means to ensure uniformity and accuracy of assembly with joints closely fitted to comply with tolerances in TPI 1. Position members to produce design camber indicated.**

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install and brace trusses according to TPI recommendations and as indicated. Install trusses plumb, square, and true to line and securely fasten to supporting construction.
- B. Anchor trusses securely at bearing points; use metal framing anchors. Install fasteners through each fastener hole in metal framing anchor.
- C. Securely connect each truss ply required for forming built-up girder trusses. Anchor trusses to girder trusses.
- D. Install and fasten permanent bracing during truss erection and before construction loads are applied. Anchor ends of permanent bracing where terminating at walls or beams.
- E. Install wood trusses within installation tolerances of ANSI/TPI 1.
- F. Do not cut or remove truss members.
- G. Remove wood trusses that are damaged or do not meet requirements and replace with trusses that do meet requirements.

END OF SECTION 06176