

# Structural metals inspection

## Minimum requirements

Must be qualified under MnDOT Pre-Qualification Program Work Type 4.1 Structural Metals Inspection.

## Description

Fabrication inspection of minor and major structural metal components (as defined below) and verification that materials and fabrication methods conform to the standards and specifications listed below.

- Minor structural components are defined as:
  - Bridges: Bearing assemblies, sole plates, expansion joint devices, shear connectors, ballast plates, diaphragms for bridges (except curved steel bridges), pile and appurtenances, drainage systems, guardrail connections, railings, fencing, conduit systems, and protection angles.
  - Electric lighting, traffic signs, and signal systems.
  - Pedestrian bridges.
  - Any other system or component that is designated by the engineer as a minor structural component.

Major structural components will mean all components other than minor structural components.

## Standards and specifications

May include the following:

- MnDOT Standard Specifications for Construction
- Design Plan, Special Provisions and Approved Shop Drawings
- American Welding Society (AWS) D1.5 Bridge Welding Code (Major Structural Components)
- AWS D1.1 Structural Welding Code-Steel (Minor Structural Components)
- Supplier's (Fabricator, Galvanizer, Paint shop, Blaster) Quality Control Plan
- Bridge Details Manual Parts I and II

- AASHTO Manual for Bridge Evaluation
- AREMA Manual for Railway Engineering.

## Provided by Hennepin County

Information to be supplied by Hennepin County for a structural metals inspection project may include the following:

- Design plan;
- Special provisions;
- Approved shop drawings.

## Typical services

Project deliverables may include the following:

- Daily progress reports emailed to contact person.
- Nonconformance reports (NCR's)
- Mill Test Reports and Purchase Orders demonstrating material traceability (domestic origin).
- Supplier QC reports
- Checklists verifying Clean Environment Development Facility (CEDF) requirements have been met.
- Shipping invoices; copy of signed inspection tags; copies of correspondence. G. Heat Numbers per MnDOT 2471.3C2.
- Dry Film Thicknesses (DFT's)/Environmentals from painter and/or galvanizer.
- All Non-Destructive Testing (NDT) Reports; other miscellaneous related documents; E.G. Radiographic films, etc.
- Copies of signed inspection tags
- Copies of correspondence
- Certificates of compliance
- Final inspection report package, including all required elements listed above.