
Roles & Responsibilities

Fabrication Quality Assurance Program

Bureau of Structures
Wisconsin Department of Transportation



Table of Contents

Section 1 Definitions..... 2

Section 2 Roles and Responsibilities 3

Section 3 Summary Tables 6

High Strength Structural Steel Members (Highway Bridge)..... 7

Prestressed Concrete Members (Highway Bridge)..... 8

Prefabricated Steel Truss Pedestrian Bridges 8

Retaining Walls 9

Sign Structures..... 9

Fabricated Bridge Components 10

Section 1 Definitions

⤴ **Quality Control (QC)**

Product oriented procedures that identify and correct flaws in fabrication technique, documentation handling, and final product quality; accomplished through thorough review of specifications, initial inspection, in-process inspection, final inspection and testing of the finished product.

⤴ **Quality Assurance (QA)**

Process oriented measures that assure there is a quality control plan in place that will result in an acceptable quality product; accomplished through quality audits, certification reviews, written specifications and documentation.

⤴ **High Strength Structural Steel Members (Highway Bridge)**

Refers to primary and secondary members of a steel girder highway bridge superstructure including high strength steel stringers, purlins, floor beams, girders, cross-frames and diaphragms, high tension cables, and all superstructure elements of a moveable bridge.

⤴ **Prestressed Concrete Members (Highway Bridge)**

Refers to precast prestressed concrete girders used in highway bridges.

⤴ **Pedestrian Bridges**

Refers to prefabricated steel truss bridges used primarily for pedestrian traffic.

⤴ **Sign Structures**

Refers to wind loaded structures that support highway signs, traffic signals and luminaries.

- Overhead Sign Supports
- Sign Bridges
- High Mast Lighting Towers (HMLT)

⤴ **Fabricated Bridge Components**

- Railing Assemblies
- Expansion Devices
- Bearing Assemblies
- Structural Steel Diaphragms (for prestressed concrete bridges)

Section 2 Roles and Responsibilities

^ **Structural Metals and Fabrication QA Inspection Unit (SFU)**

Oversees the structures fabrication quality assurance program including management of in-plant inspection of structural steel members, sign structures, retaining walls, noise walls and prestressed concrete members.

SFU Supervisor:	Kristin Revello, PE	608-266-5090	kristin.revello@dot.wi.gov
Fabrication Engineers:	Brandan Burger, PE	608-267-4019	brandan.burger@dot.wi.gov <i>Prestressed Girders/Retaining Walls/Noise Walls</i>
	Carla Principe	608-261-6110	carla.principe@dot.wi.gov <i>Steel Girders/Fabricated Bridge Components/Sign Structures</i>
Quality Assurance Inspectors:	Bruce Wulff	LTE	bruce.wulff@dot.wi.gov
	Ryan Janssen		ryan.janssen@dot.wi.gov

- Manages WisDOT Fabrication & Field Welding Library access
- Manages quality assurance fabrication inspection contracts and schedules.
- Reviews all weld procedure specifications
- Reviews a percentage of submitted shop drawings. The number of shop drawings selected for review, and the level of review received, is at the discretion of the SFU.

^ **Construction Project Engineer**

Refers to the WisDOT Construction Project Leader. This individual may be a WisDOT engineer or specialist, a consultant engineer or specialist acting as a representative for WisDOT, and is the primary project contact for the Fabricator, Contractor and Bureau of Structures.

- Enforces WisDOT policy and specifications.
- Verifies that Fabrication Status/Progress Reports have been uploaded to the Fabrication Library on a weekly basis by the Fabricator.
- Verifies that shop drawings and revisions have been uploaded to the Fabrication Library following the Fabrication Library Submission Standards. Ensures that revisions are uploaded as part of a complete set of shop drawings and include all required forms.
- If reviewing a shop drawing, follow the process detailed in Fabrication Library Submission Standards.
- Verifies that all documentation, required for acceptance and start of fabrication, is complete and has been submitted to the Fabrication Library (See Section 3 for a list of requirements per structure type)
- Notifies BOS/SFU if any of the requirements listed above are missing or incomplete as fabrication progresses.

⤴ **Fabricator**

Refers to the facility or facilities performing such shop activities as cutting, welding, drilling, punching, cleaning, and painting of structural steel; to the producer of precast prestressed concrete girders and to the producer of earth retaining walls or noise barriers.

- Maintains the most current Quality Control Plan (QCP) on file with Bureau of Structures (BOS). Submits the QCP directly to the SFU Supervisor.
- Sends notice of anticipated fabrication start date and schedule to SFU and Construction Project Engineer
- Completes quality control check of shop drawings
- All NDT testing, structural bolt testing, material certifications, weld procedures, repair procedures not included in the QCP, paint film thickness tests, shop drawings, revised shop drawings and progress reports must be uploaded to the [Fabrication Library](#) by the Fabricator or Contractor (as agreed upon by both parties).

⤴ **Contractor**

Refers to the Prime or General Contractor, and is responsible for proper completion of all tasks required by the contract documents. Subcontractors, including fabricators, erectors, and field painters, may be subcontracted by the Contractor, but the Contractor retains responsibility for materials, operations, and the final product. The Contractor is ultimately responsible for the Quality Control of the product by ensuring the Fabricator and all sub-contractors follow the approved Quality Control Plan and Owner (WisDOT) specifications and contract plan requirements.

- All NDT testing, structural bolt testing, material certifications, weld procedures, repair procedures not included in QCP, paint film thickness tests, shop drawings, revised shop drawings and progress reports shall be uploaded to the Fabrication Library by the Fabricator or Contractor (as agreed upon by both parties). If the Fabricator will be uploading the documents listed above, the contractor shall ensure that documents are complete, and uploaded per WisDOT requirements.
- Verifies that QC has been completed for all shop drawings and revisions to shop drawings.
 - Ensures the fabricator completes a thorough quality control check of shop drawings, and signs and dates all applicable Contractor's Certificate of Quality Control forms (DT2326, DT2327, DT2328, and DT2329)
 - Signs and dates all Contractor's Certificate of Quality Control forms (DT2326, DT2327, DT2328, DT2329 and DT2333), indicating that a QC check of the shop drawings for accuracy and conformance to the contract plans specifications was completed by the Fabricator.
 - For steel bridge primary members, ensures form DT2333 has been completed and stamped by a Professional Engineer. Review of the items on this form is limited to conformance to the contract plans.

⤴ **Quality Assurance (QA) or Quality Verification (QV) Inspector**

Owner (WisDOT) representative executing quality audits at the Fabricator facility. This individual may be a consultant or WisDOT employed inspector.

- Uploads weekly inspection reports to the [Fabrication Library](#). For prestressed girders, submit weekly inspection reports to the region materials engineer for distribution to Project Construction Engineer.
- Maintains open line of communication with Fabricator QC and is aware of the most current fabrication schedule.
- Notifies SFU of any deviation from contract plans by the Fabricator and of any breach of AWS, PCI and AISC codes or WisDOT procedures and requirements.
- Reviews contract plans, shop drawings, mill certs and weld procedures. Ensures only accepted weld procedures are used in steel fabrication.

Section 3 Summary Tables

For records requiring submittal per **Standard Specification 105.2.2**, you will need to register with WisDOT Structures Construction Records SharePoint site to access the WisDOT Fabrication & Field Welding Libraries. Visit the following website to request access:

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/strct/fab-sharepoint.aspx>

The tables in this section list all required documentation per structure type, parties responsible for submitting documents and governing WisDOT Specifications.

Summary tables:

[High Strength Structural Steel Members \(Highway Bridge\)](#)

[Prestressed Concrete Members \(Highway Bridge\)](#)

[Prefabricated Steel Truss Pedestrian Bridges](#)

[Retaining Walls](#)

[Sign Structures](#)

[Fabricated Bridge Components](#)

For trouble uploading documents, comments or questions, please contact:

Carla Principe @ (608) 261-6110

carla.principe@dot.wi.gov

Kristin Revello @ (608) 266-5090

kristin.revello@dot.wi.gov

High Strength Structural Steel Members (Highway Bridge)

Upload documents to Fabrication Library unless noted otherwise

Document	Submitted by	WisDOT Specification	Note
DT2330 – Fabrication Storage & Shipping Plan	Fabricator or Contractor	506.3.1.1	<ul style="list-style-type: none"> Required before Start of Fabrication
Certified Mill Test Results (CMTR)	Fabricator or Contractor	506.3.21	<ul style="list-style-type: none"> Required before Start of Fabrication
DT2333 – Contractor’s Certificate of Quality Control	Fabricator or Contractor	506.3.2	<ul style="list-style-type: none"> For Highway Structural Steel Member fabrication only Submit one DT2333 form for each shop drawing revision Required before Start of Fabrication Attach to shop drawing pdf file
Shop Drawings	Fabricator or Contractor	506.3.2	<ul style="list-style-type: none"> Required before Start of Fabrication Must include DT2333 Submit as a single pdf file
Welding Procedure Specifications (WPS)	Fabricator or Contractor	506.3.19.2 506.3.19.3	<ul style="list-style-type: none"> Required before Start of Fabrication
DT2172 – Weekly Fabrication Project Status Record	Fabricator	506.3.1.1	<ul style="list-style-type: none"> For Highway Bridge Structural Steel Member fabrication only
Non-Destructive Testing (NDT) Reports	Fabricator or Contractor	506.3.19.4	
High Strength Structural Bolt Test Results	Fabricator or Contractor	506.3.12	
Paint System Thickness Readings	Fabricator or Contractor	506.3.31 506.3.32 STSP	
Weekly Quality Assurance Inspection Reports	QA Inspector		
RFI/NCR/DIN	Fabricator or Contractor		<ul style="list-style-type: none"> Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov
RFI/NCR/DIN Response	Project Construction Engineer		<ul style="list-style-type: none"> Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov

Prestressed Concrete Members (Highway Bridge)

Upload documents to Fabrication Library unless noted otherwise

Document	Submitted by	WisDOT Specification	Note
DT2328 – Contractor’s Certificate of Quality Control	Contractor or Fabricator	503.3.1	<ul style="list-style-type: none"> Required before Start of Fabrication Attach to shop drawing pdf file
Welded Wire Fabric Alternate Details	Fabricator	Standard Details	<ul style="list-style-type: none"> Required before submittal of Shop Drawings and Start of Fabrication
Shop Drawings	Fabricator or Contractor	503.3.1	<ul style="list-style-type: none"> Required before Start of Fabrication Submit as a single pdf file, including form DT2328
DT2336 – Fabrication Status Report for Prestressed Girders	Fabricator	506.3.1	<ul style="list-style-type: none"> Submit Weekly
Weekly Quality Assurance Inspection Reports	QA Inspector		<ul style="list-style-type: none"> Submit to: Region Materials Engineer cc: James.Parry@dot.wi.gov, Kristin.Revello@dot.wi.gov, William.Dreher@dot.wi.gov Travis.McDaniel@dot.wi.gov
RFI/NCR/DIN	Fabricator or Contractor		<ul style="list-style-type: none"> Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov
RFI/NCR/DIN Response	Project Construction Engineer		<ul style="list-style-type: none"> Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov

Prefabricated Steel Truss Pedestrian Bridges

Submit documents to contacts listed below

Document	Submitted by	WisDOT Specification	Note
Shop Drawings	Fabricator or Contractor	Special Provision	<ul style="list-style-type: none"> Follow Special Provision
DT2335 – Fabrication Status Report	Fabrication	Special Provision	<ul style="list-style-type: none"> Submit to Fabrication Library Submit Weekly
Welding Procedure Specifications (WPS)	Fabricator or Contractor	506.3.19.2 506.3.19.3	<ul style="list-style-type: none"> Follow Special Provision Required before Start of Fabrication
RFI/NCR/DIN	Fabricator or Contractor		<ul style="list-style-type: none"> Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov
RFI/NCR/DIN Response	Project Construction Engineer		<ul style="list-style-type: none"> Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov

Retaining Walls

Upload documents to Fabrication Library unless noted otherwise

Document	Submitted by	WisDOT Specification	Note
DT2329 – Contractor’s Certificate of Quality Control	Fabricator or Contractor	Standard Special Provision	<ul style="list-style-type: none"> • Required before Start of Fabrication • Attach to shop drawing pdf file
Shop Drawings	Fabricator or Contractor	Standard Special Provision	<ul style="list-style-type: none"> • Submit Shop Drawings at least 30 days before start of fabrication • Submit as a single pdf file per Structure ID, including form DT2329
RFI/NCR/DIN	Fabricator or Contractor		<ul style="list-style-type: none"> • Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov
RFI/NCR/DIN Response	Project Construction Engineer		<ul style="list-style-type: none"> • Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov

Sign Structures

Upload documents to Fabrication Library unless noted otherwise

Document	Submitted by	WisDOT Specification	Note
Certified Mill Test Results (CMTR)	Fabricator or Contractor	506.3.21	
DT2326 – Contractor’s Certificate of Quality Control	Fabricator or Contractor	641.2.8 641.2.9	<ul style="list-style-type: none"> • Required before Start of Fabrication • Attach to shop drawing pdf file
Shop Drawings	Fabricator or Contractor	641.2.8 641.2.9	<ul style="list-style-type: none"> • Submit Shop Drawings 14 days before start of fabrication • Submit as a single pdf file, per Structure ID, including form DT2326
DT2334 – Fabrication Status Report	Fabricator	641.2.8 641.2.9	<ul style="list-style-type: none"> • Submit Weekly
Welding Procedure Specifications (WPS)	Fabricator or Contractor	506.3.19.2 506.3.19.3	<ul style="list-style-type: none"> • Required before Start of Fabrication
Weekly Quality Assurance Inspection Reports	QA Inspector		
RFI/NCR/DIN	Fabricator or Contractor		<ul style="list-style-type: none"> • Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov
RFI/NCR/DIN Response	Project Construction Engineer		<ul style="list-style-type: none"> • Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov

Fabricated Bridge Components

Upload documents to Fabrication Library unless noted otherwise

Document	Submitted by	WisDOT Specification	Note
DT2327 – Contractor’s Certificate of Quality Control	Fabricator or Contractor	506.3.1.2	<ul style="list-style-type: none"> • Required before Start of Fabrication • Attach to shop drawing pdf file
Shop Drawings	Fabricator or Contractor	506.3.2	<ul style="list-style-type: none"> • Submit Shop Drawings 14 days before start of fabrication
DT2334 – Fabrication Status Report	Fabricator or Contractor	506.3.1.2	<ul style="list-style-type: none"> • Submit Weekly
Certified Mill Test Results (CMTR)	Fabricator or Contractor	506.3.21	<ul style="list-style-type: none"> • Upload to Fabrication Library
RFI/NCR/DIN	Fabricator or Contractor		<ul style="list-style-type: none"> • Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov
RFI/NCR/DIN Response	Project Construction Engineer		<ul style="list-style-type: none"> • Submit to: Project Construction Engineer (email) cc:dotdlstructuresfabrication@dot.wi.gov