

field connections, and other information necessary for the complete fabrication and erection of the metal work. These drawings shall also show a diagram identifying, by some unique mark, each area of a welded splice to be covered by a single radiograph.

The shop drawings for all multiple span beam and girder bridges shall include an overall layout with dimensions showing the relative unloaded vertical and horizontal position of beam or girder segments with respect to a full length base or work line; camber and horizontal curvature of the beams or girders and the effect of deck surface profile shall be accounted for in this relationship. Required offsets for vertical and horizontal curvature shall be shown at approximately each 1/4 of span length, at field splices and bearing points. Each horizontally curved member shall have offsets shown for each 3.0 m (10 feet) of length to a baseline strung from end to end of the member.

Shop drawings shall specifically identify each piece of steel as to grade (ASTM designation), CVN, Fracture Critical or any special testing requirements. Pieces made of different grades of steel shall not be given the same assembling or erecting mark, even though they may be of identical dimensions and detail.

The shop drawings shall indicate the welding procedure (WPS number) to be used for each joint. Locations and identification numbers of all radiographs taken shall be detailed on the shop drawings.

After all fabrication is completed, the Contractor shall have the Fabricator furnish a 35-millimeter microfilm copy of each shop drawing mounted on an aperture card in accordance with Supplement 1002 on file in the Department. If the details shown on a drawing apply to more than one bridge, an aperture card for that drawing shall be furnished for each bridge to which it applies, each card bearing the applicable bridge number. For structures carrying railroad traffic, an additional set of aperture card-mounted films or, at the option of the railroad, a set of full-size drawings on mylar shall be furnished for each railway company involved.

**863.081 Pre-Fabrication Meeting.** A pre-fabrication meeting (levels 1 thru 6) shall be held at the fabricator's facilities, or another location agreeable to all parties, for review of any fabrication issues, including information on shop drawings, inspection, hold or witness points, unique fabrication items, special processes, scheduling, etc. for the project. Attendance at the meeting shall include the fabricator, the QCFS, the QCPS, OSE's QA inspector and may include the Contractor, or designated representative. The meeting will be conducted by the QCFS, who will also be responsible for distribution of minutes of the meeting documenting all issues discussed.

The time of the meeting shall be agreeable to all parties but no earlier than 7 days after receipt of Contractor accepted shop drawings, 863.08. Fabrication can begin after the prefabrication meeting is complete (levels 1 thru 6). Prefabrication meetings are not required for the Miscellaneous level

**863.09 Material.** Structural steel and other structure metals shall conform to 711, except steel bar stock utilized for end dams and scuppers may be any weldable grade of low or mild carbon steel commercially available. Welded shear studs shall conform to the AASHTO/AWS Bridge Welding Code, as amended by Supplement 1011. Steel plates for main and secondary members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile or compressive stresses.

For these materials the Contractor shall submit certified test data to the OSE showing compliance with the requirement of 711. All certified test data shall be accompanied by copies of mill shipping notices or invoices showing the quantity and size of material being accepted.

The Contractor shall check this material data, provide a letter of written acceptance then forward the submission to OSE seven days prior to member shipment (level 1 thru 6) or prior to final OSE inspection (miscellaneous level).

A single copy of this material data is required for each structure, except where the structure carries railway traffic. Then one additional copy shall be submitted for each railway company involved.

Additionally for Level one through six structural steel members, one copy of main material, certified test data with a letter documenting the QCFS acceptance shall be given to the QA shop inspector before the material passes check point one.

Materials will not be accepted for shipment from the fabrication shop until the Contractor accepted material data is received by the OSE.

When electrodes to be used are not included in the Laboratory's list of approved electrodes and combinations of shielding, certified test data showing compliance with CMS section 711.08 shall be submitted to the Office of Materials Management.

**863.10 Material Control.** Each piece of steel to be fabricated shall be properly identified for the Engineer or QA Inspector.

The issuance of cutting instructions by the Fabricator to the shop shall be by cross-referencing of the assembly marks shown on the shop drawings with the corresponding item covered on the mill purchase order. The Fabricator's system of assembly-marking individual pieces of steel and the aforementioned issuance of cutting instructions shall be such as to provide a direct reference to the appropriate mill test report.

The Fabricator may furnish from stock, material that he can identify by heat number and mill test report. Any excess material placed in stock for later use shall be marked with the