

## 1905 - STRUCTURAL PLATE FOR PIPE, PIPE ARCHES, AND ARCHES

### SECTION 1905

#### STRUCTURAL PLATE FOR PIPE, PIPE ARCHES, AND ARCHES

##### 1905.1 DESCRIPTION

This specification governs the steel and aluminum alloy structural plate and accessory items utilized in the construction of pipe, pipe arches, and arches.

##### 1905.2 REQUIREMENTS

**a. General.** Provide pipe, pipe arches, arches, and accessory items that comply with the design, dimensions, alloy designation and thermal treatment, requirement for supplemental corrosion protection, and specific fabrication requirements as specified in the Contract Documents. Comply with AASHTO LRFD Bridge Design Specifications and AASHTO LRFD Bridge Construction Specifications.

Properly form the components required to construct these units to facilitate and expedite their assembly. When the end of an assembly is required by the Contract Documents to comply with the finished fill slope angle; precut the end components so the end of the assembled unit complies with this indicated angle.

**b. Material Specifications.**

(1) Provide compliant components and accessory items produced from steel metal for pipe, pipe arches, and arches with AASHTO M 167.

(2) Provide compliant components and accessory items produced from aluminum alloy metal for pipe, pipe arches, and arches with AASHTO M 219.

(3) Do not interconnect steel metal components and accessory items with aluminum alloy metal components and accessory items except as permitted through the specifications previously referenced.

##### 1905.3 TEST METHODS

Conduct all tests required by the applicable AASHTO, ASTM or other specification of **subsection 1905.2b** according to the procedures specified in that standard.

##### 1905.4 PREQUALIFICATION

Not applicable.

##### 1905.5 BASIS OF ACCEPTANCE

**a.** Receipt and approval of a Type A certification as specified in **DIVISION 2600** for all steel and aluminum alloy components and accessory items utilized in the construction of pipe, pipe arches, and arches.

**b.** Inspection, and testing when applicable, by field personnel of the components and accessory items for compliance with corrosion protection coating thickness requirements when applicable, placement of fastener holes, uniformity of corrugations, dimensional requirements, and any other specification requirements considered pertinent to the construction of the final product.

**c.** The final disposition of all steel and aluminum alloy components and accessory items utilized in the construction of pipe, pipe arches, and arches will be completed at the final destination as the result of inspection for the quality of workmanship, the delivery condition, and receipt and approval of the associated required documentation. Inspection during the production process of components and accessory items at the manufacturing or fabrication facility may also be required.