

Diary Number: \_\_\_\_\_

Inspector Name: \_\_\_\_\_

TRACS Number: \_\_\_\_\_

Date: \_\_\_\_\_

**Division VI: Structures**  
**Title: Overhead Sign Structures**

Plan Sheet Number
Plans Reference Number
Route
Sign Structure Type
Station
Offset

Attribute Numbers	Compliance	Narratives	References
0.		All stakeholders have participated in the pre-activity meeting (can be combined with other pre-activity).	Recommended
1.		The contractor shall furnish shop drawings for approval by the Engineer prior to fabrication of the sign structure material. Drawings furnished are in accordance with Subsection 105.03.	Standard Specifications 105.03 Standard Specifications 606-3.01
2.		Approved certificate of analysis with all required information are submitted for all structural steel, along with mill test reports including "Charpy V-notch" impact test values.	Standard Specifications 606-2.01
3.		High Strength Bolts, Nuts, Washers, or Anchor Bolts. Certificate of Analysis required and three samples per lot, or 0.1% of lots in excess of 3000, for each bolt diameter, including nuts and washers.	Construction and Materials, Materials Quality Assurance. Appendix C
4.		The Certificates of Compliance to which state that steel or iron products incorporated into the project meet the Buy America Act requirements', certifying that all manufacturing processes producing a steel or iron product, including any application of a coating to iron or steel, occurred in the United States.	23 CFR Part 635.410 Special Provisions 106.05 Special Provisions 106.15
5.		No structure is placed within the clear zone (typically 30') unless protected by crash cushions, guardrail, or concrete barrier.	Roadside Design Guide Chapter 9

6.		The survey reference points have been placed in accordance with the project plans or approved survey outline.	Standard Specifications 925-3
7.		Blue stake (AZ811) is done prior to any excavation (locating utility lines, pipes, box culverts sleeves etc.).	Standard Specifications 107.15
8.		The overhead sign structures bridge truss, cantilever truss, tubular overhead, tubular cantilever, bridge tapered tube single beam, cantilever tapered tube double arm, are placed in accordance with the details shown on the plans.	Special Provisions 606-1 Standard Specifications 606-1
9.		The foundation dimensions are in accordance with the specified requirements.	Plans Sign Detail
10.		Reinforcing steel size, spacing, and placement conforms to ASTM A-615, Grade 60.	Signing and Marking Standard Drawings S-11 (1 of 4 and 3 of 4) Notes
11.		The drilled shaft is adjusted for ground slope. The top portion of the drilled shaft foundation is formed a minimum of 6" to a maximum 12" above finished grade.	Signing and Marking Standard Drawings S-11 (1 of 4)
12.		High-strength steel bolts, nuts and washers shall conform to the requirements of ASTM A 325. All foundation bolts shall conform to the requirements of ASTM A 307, and shall be furnished with commercial quality washers.	Standard Specifications 606-2.05
13.		Anchor bolts for the sign foundations shall conform to the requirements ASTM A 36. All bolts, nuts, and washers, except high-strength bolts and anchor bolts, shall be cadmium plated in accordance with the requirements of ASTM B766 or zinc plated B633.	Standard Specifications 606-2.05
14.		The anchor bolts are threaded and galvanized per the requirements.	Signing and Marking Standard Drawings S-11 Structure Detail Drawings SD 9
15.		The anchor bolts are secured in place before placement of the concrete.	Signing and Marking Standard Drawings S-11 Structure Detail Drawings SD 9
16.		The sonotube, plywood or other forming material is removed from the concrete foundation one foot below finished grade.	Signing and Marking Standard Drawings S-11 Structure Detail Drawings SD 9
17.		Concrete for all sign structure foundations shall be Class S 3,000 psi conforming to the requirements of Section 1006	Standard Specifications 606-2.06
18.		Concrete is placed and finished in accordance with the drilled shaft requirements.	Standard Specifications 1006 Standard Specifications 606-3.05 Standard Specifications 609-2
19.		An approved curing method is applied to the top of the concrete drilled shaft.	Standard Specifications 1006-2.05
20.		All steel surfaces, faces of sign structures, shall be galvanized after fabrication. Galvanizing shall conform to the requirements of ASTM A 123 and A 153 (Inspect coating for flaking or cracking and document the finding).	Construction Manual 105.11 Standard Specifications 606-3.04

21.		Deficient areas have been re-coated with an approved galvanizing spray and document the work was satisfactorily completed.	Construction Manual 105.11 Standard Specifications 606-3.04
22.		Before final frame assembly the contractor has demonstrated that the span length of the frame in the no load condition is equal to (+/- 1/2") of the measured span length between foundations (by pre-assembly or survey and calculations).	Structure Detail Drawings SD 9.20 Structure Detail Drawings SD 9.50 Structure Detail Drawings SD 9.52 Structure Detail Drawings SD 9.53
23.		When bolting the frame splice together the 3/4" grade A 325 bolts are torqued to 28k.	Structure Detail Drawings SD 9.10 Structure Detail Drawings SD 9.20 Structure Detail Drawings SD 9.50
24.		The pipe assembly is adequately supported to avoid distortions (on tubular cantilever structures erected as one unit).	Structure Detail Drawings SD 9.20 Structure Detail Drawings SD 9.50 Structure Detail Drawings SD 9.52 Structure Detail Drawings SD 9.53
25.		Tubular frame single unit erections are adequately supported to avoid distortions or changes in span length between base plates.	Structure Detail Drawings SD 9.20 Structure Detail Drawings SD 9.50 Structure Detail Drawings SD 9.52 Structure Detail Drawings SD 9.53

26.		The structure is plumbed after it has been erected using 2 hex nuts, 1 leveling nut, and 2 hardened steel washers for each bolt.	<p>Structure Detail Drawings SD 9.01</p> <p>Structure Detail Drawings SD 9.10</p> <p>Structure Detail Drawings SD 9.20</p> <p>Structure Detail Drawings SD 9.50</p> <p>Structure Detail Drawings SD 9.52</p> <p>Structure Detail Drawings SD 9.53</p>
27.		Non-shrink grout is placed between the base plate elevation and the top of the foundation.	<p>Standard Specifications 1006-2.08</p> <p>Structure Detail Drawings SD 9.01</p> <p>Structure Detail Drawings SD 9.10</p> <p>Structure Detail Drawings SD 9.20</p> <p>Structure Detail Drawings SD 9.50</p> <p>Structure Detail Drawings SD 9.52</p> <p>Structure Detail Drawings SD 9.53</p>
28.		Non shrink grout is mixed, handled, and placed in accordance with the manufacturer's recommendations and conforms to the requirements of the Corps of Engineers CDR-C 621.	<p>Standard Specifications 606-2.08</p>
29.		The maximum difference between post heights for an individual frame is not more than 5 feet.	<p>Structure Detail Drawings SD 9.20</p> <p>Structure Detail Drawings SD 9.50</p> <p>Structure Detail Drawings SD 9.52</p> <p>Structure Detail Drawings SD 9.53</p>
30.		The post hand hole is faced away from traffic with a height of two feet from the top of the base plate to the top of the hand hole.	<p>Structure Detail Drawings SD 9.10</p> <p>Structure Detail Drawings SD 9.20</p>

31.		The mast arm hand hole is facing down and is 1' from the pipe flange to the edge of the hand hole.	Structure Detail Drawings SD 9.10 Structure Detail Drawings SD 9.20
32.		Vertical clearance is a minimum of 18' 6" from the high point of the pavement to the bottom of the vertical sign supports.	Structure Detail Drawings SD 9.10 Structure Detail Drawings SD 9.20 Structure Detail Drawings SD 9.51 Structure Detail Drawings SD 9.52 Structure Detail Drawings SD 9.53
33.		The maximum sign panel overlap onto the elbow does not exceed 7' from the field splice.	Structure Detail Drawings SD 9.10 Structure Detail Drawings SD 9.20
34.		For cantilever structures the end of the sign panel does not extend 1' beyond the mast arm end.	Structure Detail Drawings SD 9.10
35.		Quantlist Minimum Frequency is being followed, one per unit.	Construction Bulletin 07-01