SP-151179
(New)

SPECIAL PROVISIONS
FOR
PLAZA SIGNS

Polk County
EDP-8260(653)--7Y-77

Effective Date
February 21, 2023

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

151179.01 DESCRIPTION.

A. Scope.
This work consists of furnishing and erecting weathering steel signs with stainless steel lettering and donor recognition plaques in the north and south plaza areas of the pedestrian bridge across the Raccoon River. See R series drawings for sign details and V series drawings for anchors and concrete details.

B. References.
The publications listed below form a part of this specification to the extent referenced. The publications are referred to by basic designation only.

1. ASTM F 3125 Standard Specification for Structural Steel Bolts and Assemblies.
2. ASTM A 709 Standard Specification for Structural Steel for Bridges.
3. ASTM A 563 Standard Specification for Carbon and Alloy Steel Nuts.
4. ASTM F 436 Standard Specification for Hardened Steel Washers.
5. ASTM A 6 Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling.
6. ASTM B 695-04 Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
7. ASTM A 385-11e1 Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip).
8. ASTM A 780 Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
9. ASTM A 240 standard specification for chromium and chromium-nickel stainless steel plate, sheet, and strip for pressure vessels and for general applications.
10. ASTM A 269 Standard Specification for Seamless and Welded Austenitic Stainless Steel

Tubing for General Service.

11. ASTM A 484 Standard Specification for General Requirements for Stainless Steel Bars, Billets, and Forgings.
12. ASTM F 593 Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
13. ASTM F 594 Standard Specification for Stainless Steel Nuts.
14. ASTM F 1554 Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
15. SSPC-SP1 – Solvent Cleaning.
16. SSPC-SP2 – Hand Tool Cleaning.
17. SSPC-SP3 – Power Tool Cleaning.
18. SSPC-SP6 – Commercial Blast Cleaning.
19. SSPC-SP7 – Brush-Off Blast Cleaning.
20. AWS D1.1 Structural Welding Code
21. AWS D.1.5 Bridge Welding Code
22. National Ornamental and Miscellaneous Metals Association (NOMMA), Guideline 1: Joint Finishes.
23. National Association of Architectural Metal Manufacturers (NAAMM), Metal Finishes Manual for Architectural and Metal Products.

151179.02 MATERIALS.

A. Structural Steel.
Structural steel and weathering steel shall be in accordance with Section 2408 of the Standard Specifications.

B. Stainless Steel.
Stainless steel shall be American Iron and Steel Institute (AISI) Type 316. Plates shall conform to ASTM A 240. Bars and rods shall conform to ASTM A 484. Tubes shall conform to ASTM A 269. Bolts and screws shall conform to ASTM F 593. Nuts shall conform to ASTM F 594.

C. Fasteners.

High strength bolts shall be in accordance with ASTM F 3125 Grade A 325 with ASTM A 563 Grade DH3 nuts and ASTM F 436 Type 1 washers and shall be in accordance with Article 4153.06 of the Standard Specifications. Anchor rods shall be ASTM F 1554 Grade 36. Conventional bolts shall be in accordance with ASTM F3125.

D. Hot Dip Galvanized Coating.

Galvanized coating properties shall be in accordance with Section 2408 of the Standard Specifications.

151179.03 CONSTRUCTION.

A. Fabrication Requirements

1. Computer Aided Design (CAD) files depicting sign geometry will be provided by the Engineer to the Contractor after award to aid development of shop drawings and fabrication. CAD file format will be AutoCAD .dwg or MicroStation .dgn format latest version.

2. After fabrication (cutting, welding, drilling, etc.) is complete, all holes shall be deburred and all fins, scabs or other surface/edge anomalies shall be ground or repaired per ASTM A6. The items shall then be cleaned per SSPC-SP1 and SSPC-SP6. All surfaces shall be inspected to verify no fins, scabs or other similar defects are present.
3. All bolt holes for field splices shall be drilled full size or sub-drilled and reamed to size. Bolt holes punched full size are not allowed.
4. Welding shall be in accordance AWS D1.1 or AWS D1.5.
5. Welds shall be finished in accordance with NOMMA Joint Finish #2.
6. Fasteners shall be vandalism resistant when possible.
7. Fabrications shall not include manufacturer marks on components visible under normal viewing conditions in the installed position.

B. Installation.

1. Fit exposed connections together to form tight, hairline joints.
2. Do not weld, cut, or abrade surfaces of sign components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
3. Set posts plumb within a tolerance of 1/16 inch in 3 feet.

C. Submittals

1. Provide shop drawings for structural steel for approval prior to fabrication. Shop drawings shall describe which components are shop assembled and which components are field assembled.
2. Shop drawings required for fabrication and erection of sign panels including elevations, details, anchors, and accessories.
3. Provide full scale mockups of the following components:
    a. Plaques with lettering.
    b. Representative sign components.
4. Fabricator to provide photos of mockup to the Engineer or to permit site visits to shop when fabrication has advanced to the point of demonstrating finish of representative components prior.
5. Do not proceed with full production fabrication of components without shop drawing and mockup approval.
6. Design intent is to permit the Contractor to use mockup as a part of the permanent construction after approval.
7. Provide written instructions for maintenance including cleaning products and methods suitable for signs.

151179.04 METHOD OF MEASUREMENT

The method of measurement for North and South Plaza Signs will be lump sum.

151179.05 BASIS OF PAYMENT

Payment shall be in accordance with Article 2408.05 of the Standard Specifications. Payment is full compensation for furnishing, fabricating galvanizing, transporting, and erecting the North and South Plaza Signs. Includes to repairs required after erection. Concrete foundations shall be paid for as Structural Concrete (Miscellaneous.)