34-1 OVERHEAD SIGN STRUCTURES

Overhead sign structures shall conform to Section 56 "Overhead Sign Structures, Standards, and Poles," of the State Specifications, and these Specifications.

Welding of overhead sign structures must conform to Section 11-3 "Welding for Overhead Sign Structures, Standards, and Poles,", of the State Specifications. The Contractor is responsible for welder certifications, and must provide proof of certifications to the Engineer prior to starting the work.

34-2 SIGNS

Sign panels and signs shall conform to Section 82, "Signs and Markers," of the State Specifications, and these Specifications unless otherwise shown or specified in the Special provisions.

Signs include, but not limited to, roadway signs, street signs, and park signs.

Roadway signs include, but not limited to, directional signs, regulatory signs, street name signs, and advisory signs.

Signs shall conform to the latest California Manual of Uniform Traffic Control Devices version.

The bottom of the lowest sign panel shall be no less than seven (7) feet above the ground in accordance with Standard Drawing T-6B unless specified otherwise.

For sign panels requiring back bracing refer to Standard Drawing T-6C unless specified otherwise.

The exposed portion of fastening hardware on the face of signs shall be painted using touch-up enamel that matches the background color exactly.

34-2.01 Sign Panel Fastening Hardware

Sign panel fastening hardware shall conform to Section 82-3.02 "MATERIALS," of the State Specifications, and these Specifications. Lag screws, bolts, metal washers, and nuts may be cadmium-plated steel instead of commercial quality galvanized steel.

34-2.02 Park Sians

When park signs are specified, they shall conform to Section 82, "Signs and Markers" of the State Specifications and these Specifications unless otherwise shown or specified in the Special Provisions.

For signs with "Park Rules and Regulations" and/or "Park Hours" the City will provide this information unless otherwise shown or specified in the Special Provisions.

Unless otherwise specified in the Special Provisions or approved by the Engineer, posts for park signs shall be furnished by the Contractor and shall be two and three-eighths (2-3/8) inches outside diameter galvanized steel pipe, fourteen (14) feet in length, with a minimum wall thickness of one hundred sixteen thousandths (0.116") of an inch. Posts for park signs shall be placed in a three (3) foot six (6) inch deep by ten (10) inch diameter portland cement concrete footing, leaving a ten (10) foot six (6) inch height from top of grade.

The Contractor shall provide a Certificate of Compliance for post supplied for use on the project before installation.

For park signs, footing concrete shall be Class "C" in accordance with Section 50-5, "Portland Cement Concrete," of these Specifications.

Park rules sign panels shall be mounted flush with top of the post, with park hours sign panels mounted directly under. The bottom of the lowest sign panel shall be no less than seven (7) feet above the ground unless specified otherwise.

The exposed portion of fastening hardware on the face of signs shall be painted using touch-up enamel that matches the background color exactly.

34-2.03 Sign Panel Installation

Sign panels, blind rivets, and closure inserts shall be furnished by the Contractor and shall be fabricated of materials as specified in this Section.

The exposed portion of fastening hardware on the face of signs shall be painted using touch-up enamel that matches the background color exactly.

34-2.04 Sign Post

Sign posts shall be Perforated Square Steel Tube (PSST) and installed per Standard Drawings T-6B and T-6C, unless otherwise specified or approved by the Engineer.

For single post signs, the sign post shall be centered on the sign panel and the sign panel shall not exceed the total square foot area of twelve and an half $(12 \ 1/2)$ square feet.

For two post signs, the sign posts shall be installed per Standard Drawings T-6B. Sign panels supported by two sign posts shall not exceed forty eight (48) inches in height nor shall they exceed the total square foot area of twenty four (24) square feet.

For sign panels that exceed forty-eight (48) inches in height or twenty four (24) square feet in area, the Contractor shall submit shop drawing sealed by a registered civil engineer in the State of California for review and approval by the Engineer prior to installation.

Wood posts are not allowed, unless otherwise specified or approved by the Engineer.

The sign post, anchor post, and sleeve must:

- 1. Be fabricated from galvanized hot rolled steel complying with ASTM 1011 Grade 50 and galvanized under ASTM 653 G-90.
- 2. Have a minimum 60 ksi yield strength after cold forming.
- 3. Have zinc coated corner welds. Corner welds must be scarfed and then a conversion coasting and clear organic polymer topcoat must be applied.

The sign post, anchor post and sleeve must have 7/16-inch diameter holes or punchouts spaced at one-inch (1") on center on all four (4) sides for the full length of the post. The sign post, anchor and sleeve shall be made of the same gage material. Mixing gage sizes will not be allowed.

Prior to installation of the sign post, anchor post and sleeve, the Contractor shall provide a Certificate of Compliance for each component of the sign panel support system.

The anchor post and sleeve shall be installed as one unit. The perforated holes must be aligned. The anchor post and sleeve are to be installed into undisturbed soil by means that

do not damage the anchor post or sleeve. Pre-digging or digging of a hole for the placement of the anchor post and sleeve are not allowed. If any portion of the sleeve is to be encased in concrete, the sleeve shall not have perforated holes except for the holes necessary to connect the anchor post to the sleeve near the top of both components.

Per Standard Drawing T-6B, the sign post shall slide into the anchor post and shall be one size smaller, typically one quarter inch (1/4"), than the anchor post. The anchor post shall be one size smaller, typically one quarter inch (1/4"), than the sleeve. The anchor post is to slide inside the sleeve. If this cannot be met, the Contractor is to provide a solution to the Engineer for approval.

34-3 MEASUREMENT AND PAYMENT

Signs will be measured by the unit from actual count, complete in place, of the type or types of signs designated in the Contract.

The unit price paid for each sign of the type or types designated in the Contract includes full compensation for furnishing all labor, materials (except City-furnished materials), tools, equipment, and incidentals, doing all the work involved in furnishing and installing Overhead Sign Structures, Sign Panel, Sign Support System, and Park Signs, including rules and regulations, complete in place, shown or specified in the Contract, specified in these Specifications, and directed by the Engineer.