

OVERHEAD SIGN TRUSS CONSTRUCTION CHECKLIST

The following checklist has been developed to help identify important elements of overhead sign truss construction that need to be reviewed at time of staking, during installation, and verified at the time of final review and acceptance of the installation. This list is not all-inclusive and does not negate the Specifications or Project Plan Note requirements; it simply places emphasis on key areas where problems have been experienced in the past.

FOUNDATION STAKING:

The precise orientation and construction of the overhead sign truss foundations is critical to the accurate installation of all components of the overhead sign truss and its supports. Accurate staking of the truss foundations prior to any construction is essential.

YES NO

Are each of the truss foundations staked with the location of the centerline of the truss and the longitudinal centerline of the foundation?

Has the distance between the foundation longitudinal centerlines been checked to ensure the centerlines are parallel and at the plan distance for the truss dimension (centerline to centerline of the truss supports)?

Has elevation control been established at each foundation location?

Have all of the survey staking control been independently checked for accuracy?

FOUNDATIONS AND ANCHOR RODS:

Prior to foundation concrete placement the following should be checked. After concrete placement these checks should be verified in the final foundation as constructed.

Is the center-to-center distance between the two anchor rod groups in the foundation within 1 inch (25 mm) of the plan location in the direction parallel with and perpendicular to the overhead truss?

YES NO

Are the distances, along the length of the overhead truss, between the centers of the front and rear anchor rod groups of the two foundations within 1 inch (25 mm) of each other?

Is the elevation of the top of the foundation within 1 inch (25 mm) of the plan elevation?

Is the foundation concrete free of spalls, severe cracks (wider than hairline), and damage near the anchor rod groups?

Are the anchor rod groups located accurately by template or other positive means with the centers of adjacent anchor rod groups within 3/16 inch (5 mm) of the correct plan distance apart?

Are the anchor rods plumb within 1/4 inch per foot (6 mm per 300 mm) from vertical?

Are the anchor rods set to project above the plan top of foundation elevation within 1/4 inch (6 mm) of plan specified projection?

ALUMINUM AND STEEL COMPONENTS:

Are truss components stored on level cribbing at the project site?

Are all welds free of cracks after installation?

Are all plates at splice connections for the overhead truss sections in contact over at least three-quarters of the contact area?

Were nuts for bolted splices tightened to 200 ft-lb (270 N-m) torque with jam nuts locked to snug tight?

Is the damper in place and secured with U-bolts and are the nuts and jam nuts snug tight?

Are the signs mounted with the correct number and orientation of angle supports?

Are all sign clips and U-bolt nuts snug tight with jam nuts locked to snug tight?

COMPLETED ALUMINUM AND STEEL STRUCTURE:

YES NO

Are all leveling nuts within one anchor rod diameter of the top of foundation and tight against the bottom of the base plate?

Were all anchor rods tightened according to turn-of-nut procedure and the jam nuts locked to snug tight?

Is the rodent screen in place and secured?

Is the galvanizing of all steel parts free of gouges or holidays or any damage repaired as directed by the Engineer?

Are all truss columns plumb to within 1/16 inch per foot (1 mm per 200 mm) of vertical in two perpendicular directions?

Are all saddle shims and fabric or neoprene pads accurately placed within 1/8 inch (3 mm) of plan location?

Were the truss lower chord U-bolt nuts tightened to snug tight and the jam nuts locked to snug tight?

Is the stickout of each truss lower chord within 2 ¾ to 5 ½ inches (70 mm to 140 mm) measured from the outer U-bolt to inside of chord end plate?

Were truss upper chord tightened to remove slack and jam nuts locked to snug tight?

Is the truss square within the supports such that the horizontal line between chords is level within 1/16 inch per foot (1 mm per 200 mm) of horizontal and the vertical line between chords plumb within 1/16 inch per foot (1 mm per 200 mm) of vertical?