

GENERAL NOTES - OVERHEAD TRAFFIC SIGNS

CONSTRUCTION SPECIFICATIONS: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, 2001 AND INTERM SPECIFICATIONS UP TO 2006.

STEEL: MISCELLANEOUS STEEL SHALL CONFORM TO A.S.T.M. A-709, GRADE 36. STEEL TUBING FOR TRUSS AND POST MEMBERS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF COLD-FORMED TUBING (A-500) GRADE "B" OR "C" (FY=42 KSI MIN.) UNLESS OTHERWISE NOTED.

ALUMINUM: ALL ALUMINUM EXCEPT SIGN PANELS SHALL CONFORM TO ASTM B-221, B-308, OR B-429 ALLOY 6061-T6 UNLESS OTHERWISE NOTED. SIGN PANELS SHALL BE .080" THICK ALUMINUM CONFORMING TO ASTM B-209 ALLOY 5052-H38 OR 6061-T6.

CONCRETE AND REINFORCING STEEL: CONCRETE USED IN FOOTINGS FOR OVERHEAD SIGN TRUSSES AND OVERHEAD CANTILEVER TRUSSES SHALL BE CLASS A1. CONCRETE FOR DRILLED SHAFTS SHALL BE CLASS "S". ALL OTHER CONCRETE MAY BE CLASS "M". DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR OR FACE OF CONCRETE TO CENTERLINE OF BAR. REINFORCING STEEL SHALL HAVE A MINIMUM COVERING OF 2" EXCEPT WHEN CONCRETE IS CAST AGAINST THE EARTH THEN THE COVERING WILL BE 3". ALL REINFORCING STEEL SHALL BE GRADE 60. THE FIRST DIGIT OF REINFORCING BAR NUMBER INDICATES THE BAR SIZE. THE TOP EDGES OF THE FOOTING SHALL BE CHAMFERED 3/4".

CONCRETE FINISH: ALL PORTIONS OF THE FOOTINGS FOR CANTILEVERS AND TRUSSES ABOVE GROUNDLINE SHALL HAVE A FINISH IN ACCORDANCE WITH LOUISIANA SPECIFICATION. 805.08.3.

WELDING: ALL WELDING SHALL CONFORM TO THE LA. STANDARD SPECIFICATIONS-SECTION 809 AND SUPPLEMENTAL SPECIFICATIONS. WELDING OF GALVANIZED MEMBERS SHALL NOT BE ALLOWED WITHOUT THE PRIOR, WRITTEN APPROVAL OF THE FABRICATION ENGINEER.

NON-DESTRUCTIVE TESTING: ALL WELDS SHALL BE VISUALLY INSPECTED. MAGNETIC PARTICLE TESTING IS REQUIRED ON NOT LESS THAN 10% OF THE WELDS ON THE TRUSSES AND THEIR SUPPORT STRUCTURES.

SHOP DRAWINGS: SHOP DRAWINGS ARE REQUIRED FOR ALL OVERHEAD TRUSS, OVERHEAD CANTILEVER, FASCIA, AND ANY STRUCTURE MOUNTED SIGNS. SHOP DRAWINGS ARE NOT REQUIRED FOR EXTRUDED SIGN PANELS, UNLESS FABRICATOR INTENDS TO DEVIATE FROM THE DETAILS HEREIN. CONTRACTOR SHALL NOT INITIATE FABRICATION OF SIGNS OR SUPPORT STRUCTURES UNTIL ALL SHOP DRAWINGS ARE APPROVED BY THE ENGINEER.

GALVANIZING: ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-123. THICKNESS OF GALVANIZING SHALL PROVIDE A MINIMUM 20 YEAR PROTECTION. PROPER VENTING PRACTICES SHALL BE USED AND DETAILED ON THE SHOP DRAWINGS. DAMAGE TO GALVANIZED SURFACES THAT ARE NOT TO BE ENCASED IN CONCRETE SHALL BE REPAIRED IN ACCORDANCE WITH LA. STANDARD SPECIFICATIONS SUBSECTION 811.08. ALL BOLTS, NUTS, WASHERS, AND MISC. HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-153. ALL FIELD HOLES IN GALVANIZED MATERIAL SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND FROM THE A.M.L.

BOLTS: UNLESS NOTED, ALL THREADED CONNECTIONS SHALL INCORPORATE A LOCKING DEVICE AND HAVE A MINIMUM OF 3 THREADS BEYOND THE NUTS. ALL BOLTS SHALL BE HIGH STRENGTH BOLTS, A.S.T.M. A-325, UNLESS OTHERWISE NOTED. STAINLESS STEEL FOR BOLTS SHALL CONFORM TO A.S.T.M. DESIGNATION A-320 B8, CLASS 2 TYPE 304, OR A-193 B8, CLASS 2 TYPE 304, UNLESS OTHERWISE NOTED. STAINLESS STEEL NUTS SHALL CONFORM TO A.S.T.M. DESIGNATION A-194, GRADE 8, TYPE 304. ALUMINUM BOLTS SHALL CONFORM TO A.S.T.M. F-468 ALLOY 2024-T4 AND NUTS ARE A.S.T.M. F-467 ALLOY 6061-T6 OR 6262-T9. WHERE BOLTS ARE USED ON BEVELED SURFACES, BEVELED WASHERS SHALL BE PROVIDED TO GIVE FULL BEARING TO THE HEAD AND/OR THE NUT.

D.T.I. WASHERS: DIRECT TENSION INDICATING (D.T.I.) WASHERS SHALL BE USED ON ALL BOLTS WHERE TENSION VERIFICATION IS REQUIRED.

ANCHOR BOLTS: ANCHOR BOLTS SHALL CONFORM TO AASHTO M314, GRADE 55 (OR APPROVED EQUAL) AND BE HOT DIP GALVANIZED TO A.S.T.M. A-123. ANCHOR BOLT NUTS TO BE TIGHTENED A MINIMUM ROTATION OF 240° (2/3 TURNS) FROM THE SNUG TIGHT CONDITION. UNLESS OTHERWISE NOTED, ALL THREADED CONNECTIONS SHALL INCORPORATE A LOCKING DEVICE AND HAVE A MINIMUM OF 3 THREADS BEYOND THE NUTS.

RIVETS: ALL RIVETS SHALL BE 1/4" DIAMETER BLIND RIVETS WITH POSITIVE MANDREL RETENTION. THE RIVET BODY AND MANDREL SHALL BE ALUMINUM WITH A 1/2" MAXIMUM DIAMETER DOME HEAD. THE RIVETS SHALL HAVE A MINIMUM ULTIMATE TENSILE STRENGTH = 875 LBS., AND CONFORM TO ASTM B-316 5056-H32.

SIGN SHEETING: UNLESS OTHERWISE NOTED, ALL SIGN MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 1015 IN THE STANDARD SPECIFICATIONS. IN ORDER TO OBTAIN AN ACCEPTABLE COLOR MATCH BETWEEN MULTIPLE PANELS ON A GUIDE SIGN, ALL OF THE BACKGROUND SHEETING FOR ANY GUIDE SIGN SHALL BE THE MINIMUM WIDTH OF THE LARGEST PANEL AND SHALL COME FROM THE SAME LOT OR RUN NUMBER FROM THE SHEETING MANUFACTURER UNLESS OTHERWISE APPROVED IN WRITING. RETRO-REFLECTIVE SHEETING SHALL BE APPLIED TO PANELS IN SUCH A MANNER THAT THERE ARE NO HORIZONTAL SPLICES.

MISCELLANEOUS: THE CONTRACTOR SHALL MARK THE DATE OF FABRICATION, SHEETING MANUFACTURER CODE, AND SIZE OF SIGN ON THE BACK OF EACH SIGN WITH AN APPROVED WEATHER RESISTANT PAINT STICK. SEE DETAIL "A", SHEET NO. 3 OF 16.

ALL DIMENSIONS REQUIRED FOR SATISFACTORY INSTALLATION SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE FABRICATION. ADJUSTMENTS SHALL BE MADE AS DIRECTED BY THE ENGINEER.

ALL ALUMINUM SURFACES PLACED IN CONTACT WITH, OR FASTENED TO UNGALVANIZED STEEL MEMBERS SHALL BE THOROUGHLY COATED WITH AN APPROVED ALUMINUM IMPREGNATED CAULKING COMPOUND.

BEFORE SHIPPING A TRUSS, IT SHALL BE ASSEMBLED IN THE SHOP WITH ALL BOLTS IN PLACE. THE DISTANCE BETWEEN CENTER LINES OF BASE PLATES SHALL BE MEASURED AND CHECKED AGAINST FIELD MEASUREMENTS OF THE COLUMN SUPPORT SYSTEM PRIOR TO SHIPMENT.

IN GENERAL, A STRUCTURE MOUNTED OVERHEAD SIGN SUPPORT SHOULD BE PLACED IN A LOW MOMENT AREA OF THE STRUCTURAL SPAN. THE IDEAL LOCATION IS WITHIN THE END 1/3 OF THE SPAN LENGTH FOR A SIMPLE SPAN STRUCTURE AND NEAR THE POINT OF CONTRAFLEXURE FOR A CONTINUOUS SPAN STRUCTURE. FOR OVERHEAD MOUNTED TYPE SIGNS, THE VERTICAL SUPPORT MEMBERS SHALL BE REPLACED WITH ONE PIECE FULL HEIGHT VERTICAL SUPPORT MEMBERS.

USE OF SECTIONS PROVIDING EQUAL OR GREATER STRENGTH THAN THE MEMBERS DESIGNATED BY THE PLANS SHALL BE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.

TREE TRIMMING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MISCELLANEOUS BRUSH AND TREE TRIMMING TO ALLOW FOR FULL SIGN PRESENTATION AS DIRECTED BY THE PROJECT ENGINEER.

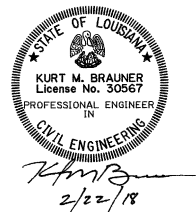
GUARD RAIL REQUIREMENTS: A SITE SPECIFIC GUARD RAIL LAYOUT DETAIL SHALL BE PROVIDED FOR EACH GROUND MOUNTED SIGN TRUSS AND CANTILEVER. SEE GUARD RAIL STANDARD PLANS FOR ALL DESIGN CRITERIA AND DETAILS.



WIND LOAD MAP

SYMBOL	ZONE	DESIGN WIND VELOCITY (MPH)
	1	90
	2	110
	3	130

SHEET	BRIDGE STANDARD INDEX NO.	DESCRIPTION
1 OF 16	BD.2.7.1.0.1	INDEX, WIND LOAD MAP AND GENERAL NOTES
2 OF 16	BD.2.7.1.0.2	SIGN PANEL DETAILS
3 OF 16	BD.2.7.1.0.3	EXTRUDED ALUMINUM PANELS
4 OF 16	BD.2.7.1.0.4	EXTRUDED ALUMINUM PANELS
5 OF 16	BD.2.7.1.0.5	OVERHEAD SIGN TRUSS
6 OF 16	BD.2.7.1.0.6	MISCELLANEOUS DETAILS
7 OF 16	BD.2.7.1.0.7	OVERHEAD TRUSS DESIGN TABLES
8 OF 16	BD.2.7.1.0.8	PILE FOOTING DETAILS
9 OF 16	BD.2.7.1.0.9	GROUND MOUNTED CANTILEVER
10 OF 16	BD.2.7.1.0.10	STRUCTURE MOUNTED CANTILEVER
11 OF 16	BD.2.7.1.0.11	CANTILEVER DESIGN TABLES
12 OF 16	BD.2.7.1.0.12	OVERHEAD SIGN DATA TABLES
13 OF 16	BD.2.7.1.0.13	DRILL SHAFT FOOTING ALT.
14 OF 16	BD.2.7.1.0.14	DRILL SHAFT FOOTING ALT.
15 OF 16	BD.2.7.1.0.15	FASCIA MOUNTED BRACKETS
16 OF 16	BD.2.7.1.0.16	FASCIA MOUNTED BRACKETS



SHEET NUMBER	
DESIGNED	K. BRAUNER
CHECKED	P. FOSSIER
DATE	FEB. 2018
PROJECT	STATE PROJECT
SHEET	1 OF 16
REVISION DESCRIPTION	
BY	
NO.	
DATE	
WIND LOAD MAP & GENERAL NOTES	
BD.2.7.1.0.1 - OVERHEAD TRAFFIC SIGNS	
BRIDGE AND STRUCTURAL DESIGN	