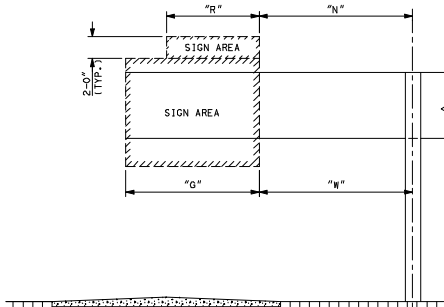


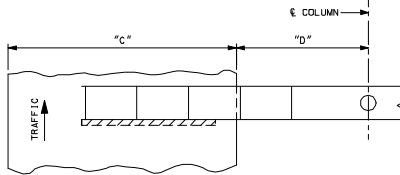
Example D-32

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

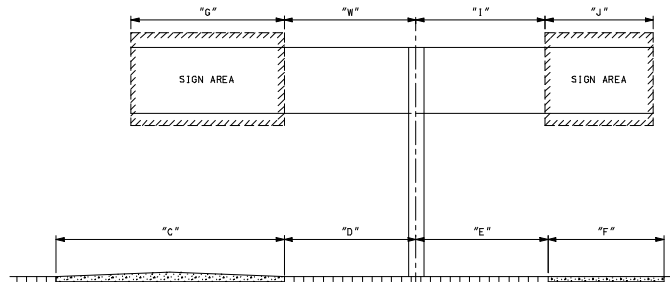
EFFECTIVE 04-01-1999	ROUTE	STATE MO	DISTRICT	SHEET NO.
JOB NO.				
PROJECT NO.				
COUNTY				DATE



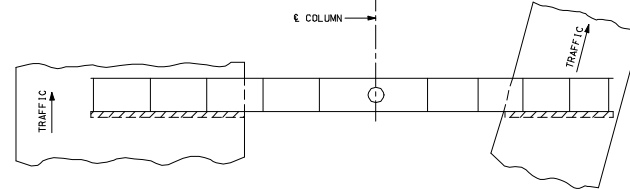
ELEVATION



PLAN
CANTILEVER OVERHEAD SIGN TRUSS



ELEVATION



PLAN
BUTTERFLY OVERHEAD SIGN TRUSS

GENERAL NOTES

- DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS - 1985 AND LATEST INTERIM.
- BASIC ASSUMPTIONS: WIND VELOCITY = 70 mph, WIND PRESSURE ON SIGN AREA = 27 psf, ICE LOAD = 3 psf.
- STRUCTURAL ALUMINUM STRESS = 10,000 psf.
- STRUCTURAL CARBON STEEL (ASTM A709 GRADE 36) $f_s = 20,000$ psf.
- REINFORCING STEEL (GRADE 40) $f_s = 20,000$ psf.
- CLASS B CONCRETE $f_c = 1,200$ psf.
- ALLOWABLE SOIL PRESSURE = 2,750 psf.
- ALLOWABLE UNIT STRESSES DUE TO WIND LOAD OR WIND LOAD IN COMBINATION WITH OTHER FORCES ARE INCREASED 40%.
- MINIMUM CLEARANCE: VERTICAL ROADWAY CLEARANCE = 17'-6".
- MINIMUM CLEARANCE TO REINFORCING SHALL BE 2", UNLESS OTHERWISE SHOWN.
- TRUSS SHALL BE ALL WELDED CONSTRUCTION. ALL WELDING TO BE CONTINUOUS UNLESS OTHERWISE SHOWN.
- QUALIFICATION OF WELDING OPERATORS WILL BE REQUIRED.
- STRUCTURAL STEEL WELDING AND WELDER QUALIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE A.W.S. D1.5 BRIDGE WELDING CODE AS AMENDED BY THE MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS ON STRUCTURAL STEEL CONSTRUCTION.
- ALUMINUM WELDING AND WELDER QUALIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF A.W.S. D1.2 STRUCTURAL WELDING CODE - ALUMINUM, EXCEPT AS AMENDED BY SECTION 903 OF THE MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- ALL ALUMINUM FILLET WELDS SHALL BE $\frac{3}{8}$ " UNLESS OTHERWISE SHOWN.
- COATING: ALL COLUMNS SHALL BE GALVANIZED AS PER AASHTO M 111. ALL STRUCTURAL STEEL (EXCEPT THE COLUMNS) SHALL BE CLEANED AND COATED WITH SYSTEM G IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 712.12 AND 903.3.4 COLOR OF THE FINISHED COAT SHALL BE GRAY.
- PAYMENT FOR GALVANIZING, CLEANING AND COATING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SIGN TRUSS. ALL THE STRUCTURAL STEEL MAY BE GALVANIZED IN LIEU OF COATING. PORTIONS OF THE STEEL MAY BE GALVANIZED WITH THE APPROVAL OF THE ENGINEER.
- PERMITS MUST BE OBTAINED FOR ALL TRUCK LOADS OVER LEGAL LENGTH.

OVERHEAD SIGN DIMENSIONS

SIGN NO.	STATION NUMBER	TYPE SIGN	COL. H	COL. TYPE	ROADWAY DESCRIPTION												CONCRETE FOOTINGS (CU. YD.)
					"C"	"D"	"E"	"F"	"G"	Ht.	"W"	"I"	"J"	Ht.	"R"	"N"	
14	188+00	30'-0"	22'-0"	V	12'-0"	19'-6"			15'-0"	12'-0"	15'-0"				8'-0"	18'-6"	17.10
16	200+00	30'-0"	19'-7"	IV	13'-0"	15'-6"			17'-0"	6'-0"	13'-0"				8'-0"	17'-6"	16.60
18	234+50		20'-6"	6'-11"	V BC	3'-0"	12'-0"	12'-0"	3'-0"	20'-6"	8'-0"	CENTER ON POST	21'-6"	8'-0"			16.75
TOTAL																50.45	

BUTTERFLY AND CANTILEVER
OVERHEAD SIGN TRUSSES
STRUCTURAL STEEL

DATA SHEET
(SEE STANDARD 903.12)

Figure 903.18.5.1