FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	(BC)96-87-K044-1(28)	1978	139	143

QUANTITIES FOR OVERHEAD SIGN STRUCTURES

STATION	FIXTURES	1" CONDUIT LIN. FT.	CONDUCTOR NO. 6 A.W.G. LIN. FT.	CONDUCTOR NO. 10 A.W.G. LIN. FT.	TWO NO. 6 A.W.G. SINGLE CONDUCTOR IN ARMOR DUCT LIN. FT.	TRENCHING LIN. FT.	GROUND RODS	GROUND WIRE	SAFETY SWITCH
471+00 S.B. I 235	3	40	50	80	130	130	1	10	1
BR. NO. 235-87 21.89 NB I 235		*40					1	**40	

* Conduit to be 1/2" metallic

** Ground wire to be insulated

CONSTRUCTION & MATERIALS REQUIREMENTS

SECONDARY CABLE (IN DUCT): SECONDARY CABLE SHALL BE #6 A.W.G. COPPER SINGLE CONDUCTOR CABLE FOR OPERATION AT 600 VOLTS MAXIMUM, MATERIAL SHALL MEET THE APPLICABLE REQUIREMENTS OF I.P.C.E.A. THE DUCT FOR PRIMARY AND SECONDARY CABLE UNDERGROUND SHALL BE GALVANIZED STEEL INTERLOCK ARMOR, WITH POLYVINYL CHLORIDE JACKET MEETING THE REQUIREMENTS OF I.P.C.E.A. S-19-81. ARMOR DUCT SHALL PROVIDE FOR A 40 PERCENT MAXIMUM FILL.

250 WATT SIGN LUMINAIRE: 250 WATT SIGN LUMINAIRE SHALL HAVE A CAST ALUMINUM HOUSING WITH REMOTE 480 VOLT REGULATOR BALLAST. THE LUMINAIRE SHALL HAVE A HYDROFORMED SPECULAR REFLECTOR AND GLASS REFRACTOR. LAMP SHALL OPERATE IN A HORIZONTAL BURNING POSITION WITH THE LAMP AXIS PARALLEL TO THE SIGN. THE MERCURY VAPOR LUMINAIRE AND LAMP SHALL PRODUCE A LEVEL OF UNIFORMITY THAT IS ACCEPTABLE TO THE ENGINEER. THE 250 WATT LAMPS SHALL BE 11,200 LUMEN, CLEAR MERCURY VAPOR.

METALLIC CONDUIT: METALLIC CONDUIT SHALL BE RIGID STEEL CONDUIT MEETING THE REQUIREMENTS OF AMERICAN STANDARD SPECIFICATIONS C-80-1. METALLIC CONDUIT FITTINGS SHALL BE ZINC COATED AND SHALL MEET THE REQUIREMENTS OF AMERICAN STANDARD SPECIFICATIONS C-80-1.

SAFETY SWITCH: SAFETY SWITCH SHALL BE 480 VOLT, 30 AMP, SINGLE THROW, DOUBLE POLE, FRONT OPERATED, NON-FUSIBLE, HEAVY DUTY, IN A N.E.M.A TYPE 3R ENCLOSURE.

ELECTRICAL SPECIFICATIONS

ALL WIRING FROM POWER SOURCE TO SAFETY SWITCH ON OVERHEAD SIGN BRIDGE SHALL BE NO. 6 A.W.G. I/C CABLE.

ALL WIRING FROM SAFETY SWITCH ON OVERHEAD SIGN BRIDGE TO LIGHT FIXTURES SHALL BE NO. 10 A.W.G. I/C CABLE.

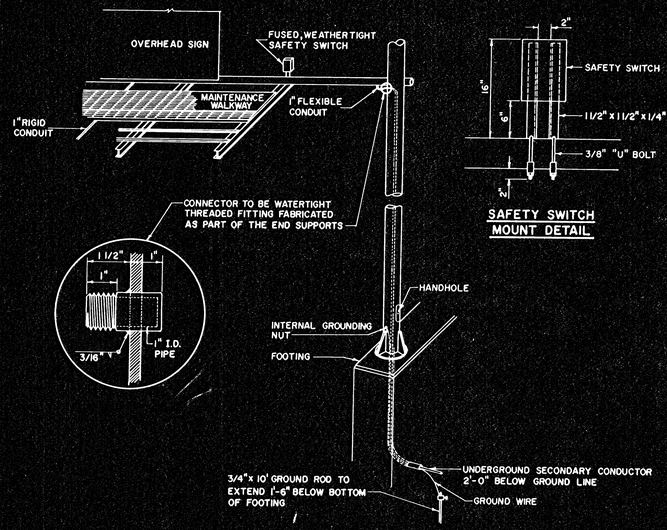
ALL WIRING SHALL BE ENCLOSED IN CONDUIT, A STRUCTURAL MEMBER, OR CABLE DUCT.

CONDUIT BETWEEN STRUCTURE END MEMBER AND TRUSS MEMBER SHALL BE 1" FLEXIBLE CONDUIT; OTHER CONDUIT SHALL BE RIGID CONDUIT.

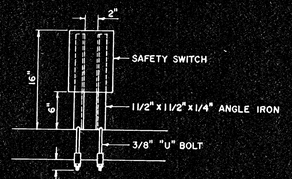
SAFETY SWITCH ON OVERHEAD SIGN BRIDGE SHALL BE MOUNTED AS SHOWN AT END OF MAINTENANCE WALKWAY.

LEAD IN CABLE FROM HANDHOLE IN THE END SUPPORT TO SAFETY SWITCH ON OVERHEAD SIGN BRIDGE SHALL NOT BE IN DUCT.

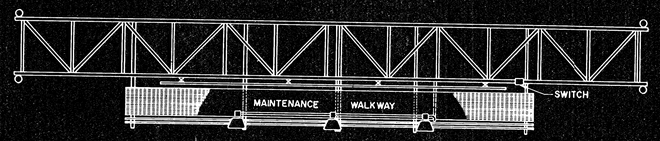
SIGN LIGHTING FIXTURES SHALL BE MOUNTED IN A MANNER APPROVED BY THE ENGINEER.



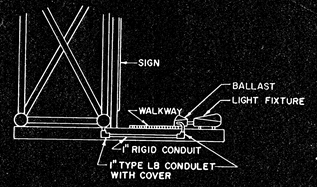
TYPICAL SIGN WIRING INSTALLATION



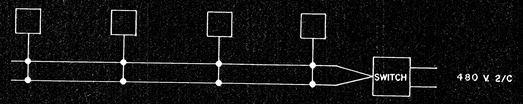
SAFETY SWITCH MOUNT DETAIL



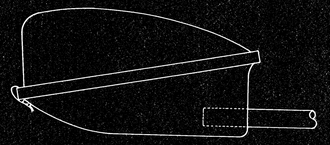
TYPICAL INSTALLATION FOR SIGN LIGHTING



CONDUIT DETAIL



TYPICAL WIRING LAYOUT



SIGN LUMINAIRE

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

SIGN LIGHTING FIXTURES AND ELECTRICAL DETAILS

PROJ. NO. (BC)96-87-K044-1(28) SEDGWICK CO.

SHEET NO. 139 OF 143	SCALE	APP'D	
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

ORIGINAL