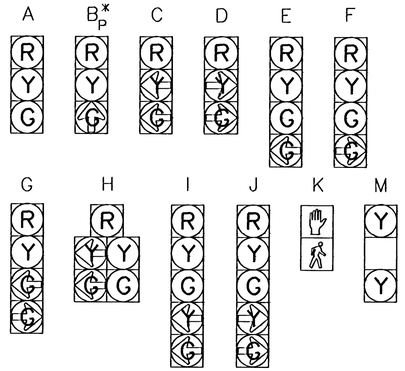
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0192-01	2003	61	85

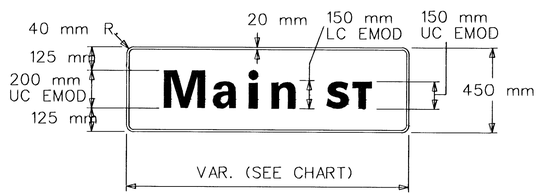
CHART A SIGNAL SUMMARY			
SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	4
		MAST ARM W/BACKPLATE	
		MAST ARM W/BACKPLATE	
A	3	SIDE-OF-POLE	2
K	1	SIDE-OF-POLE	2
M	3	SIDE-OF-POLE	2



* SUBSCRIPT "P" INDICATES PROGRAMMED SIGNALS.
NOTE: ALL LENSES ARE L.E.D. UNLESS OTHERWISE NOTED.

CHART B TRAFFIC SIGNAL POLES					
POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	QUANT.
6.0 m	7 m	6.0 m	2	7 m - 3.6 m	1
6.0 m	8 m	6.0 m	2	8 m - 4.6 m	1

CHART C OVERHEAD STREET NAME SIGNS			
SIGN	LEGEND	LENGTH	QUANTITY



NOTE :

THE TRAFFIC SIGNAL SYSTEM SHALL BE COMPLETE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS NECESSARY FOR THE SATISFACTORY OPERATION OF ELECTRICAL APPARATUS AND FOR COMPLETE OPERATION OF THE TRAFFIC SIGNAL SYSTEM WHETHER SPECIFICALLY MENTIONED OR NOT.

PEDESTRIAN SIGNAL BILL OF MATERIALS

ITEM	QUANT.	UNIT	SPEC. NO.	NOTE
CONTROLLER UNIT(170E) W/400 MODEM	1	EACH	3.2.2.2	
MALFUNCTION MANAGEMENT UNIT(210 ECL OR 210MS)	1	EACH	3.2.2.3	
SURGE PROTECTOR	7	EACH	3.2.2.4.3	
LOAD SWITCH	3	EACH	3.2.2.5.1	
FLASHER	2	EACH	3.2.2.5.2	
FLASH TRANSFER RELAY	4	EACH	3.2.2.5.3	
DETECTOR, 2-CHANNEL		EACH	3.2.2.5.4	
DETECTOR, 4-CHANNEL		EACH	3.2.2.5.4	
POLE MOUNTED CABINET 336A	1	EACH	3.2.2.6	
PAD MOUNTED CABINET		EACH	3.2.2.6	
BUS INTERFACE LIST		EACH	3.2.2.7	
242 DC ISOLATION	2			
TRAFFIC SIGNAL HEAD	CHART A	EACH	3.2.4	
SIGNAL HEAD MOUNTING BRACKET	CHART A	EACH	3.2.6	
BACK PLATE	CHART A	EACH	3.2.7	
VEHICLE TRAFFIC SIGNAL LAMP		EACH	3.2.5	
PEDESTRIAN TRAFFIC SIGNAL LAMP		EACH	3.2.5	
L.E.D. LENS	22	EACH	3.2.4.4	
PEDESTRIAN PUSHBUTTON & SIGN	2	EACH	3.2.8, 3.2.9	
TRAFFIC SIGNAL POLE	CHART B	EACH	3.2.10	
TRAFFIC SIGNAL PEDESTAL ALUMINUM	2	EACH	3.2.11	
TERMINAL BLOCK	2	EACH	3.2.12	
JUNCTION BOX	20	EACH	3.2.13, 3.2.14	
SERVICE BOX	2	EACH	3.2.15	
LUMINAIRE		EACH	3.2.16	
LUMINAIRE LAMP WATT		EACH	3.2.17	
PHOTOCELL		EACH	3.2.18	
UNFUSED STREET LIGHT CONNECTOR KIT		EACH	3.2.19	
FUSED STREET LIGHT CONNECTOR KIT		EACH	3.2.20	
OVERHEAD STREET NAME SIGN	CHART C	EACH	3.2.21	
R10-10 SIGN (600 mm X 750 mm)		EACH	3.2.22	
R10-12 SIGN (600 mm X 750 mm)		EACH	3.2.22	
BLANK OUT SIGN		EACH	3.2.23	
ENTRANCE HEAD	1	EACH	3.2.24	
SERVICE ENCLOSURE, AMP.	1	EACH	3.2.25	
CIRCUIT BREAKER, TRAFFIC SIGNAL, AMP.	1	EACH	3.2.26	
CIRCUIT BREAKER, LUMINAIRE, AMP.		EACH	3.2.26	
GROUND ROD & CLAMP	3	EACH	3.2.27, 3.2.28	
SERVICE WIRE NO. 6 AWG 1/C		METER	3.2.29	
LIGHTING DISTRIBUTION WIRE NO. 8 AWG 1/C		METER	3.2.30	
POLE & BRACKET WIRE NO. 10 AWG 1/C		METER	3.2.31	
GROUND WIRE NO. 6 AWG 1/C		METER	3.2.32	
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	103.8	METER	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 3/C *	98.1	METER	3.2.33	
MULTI-CONDUCTOR CABLE NO. 8 AWG 1/C	129.7	METER	3.2.33	
MULTI-CONDUCTOR CABLE NO. 14 AWG 2/C	4.5			
SHIELDED DETECTOR LEAD-IN CABLE NO. 14 AWG 2/C		METER	3.2.34	
DETECTOR LOOP WIRE NO. 14 AWG 1/C		METER	3.2.35	
LOOP SEALANT	AS REQ'D		3.2.36	
PRE-FORMED LOOP		EACH	3.2.37	
CONDUIT, 25 mm & FITTINGS	12.9	METER	3.2.38	
CONDUIT, 40 mm & FITTINGS		METER	3.2.38	
CONDUIT, 50 mm & FITTINGS	960.0	METER	3.2.38	
CONDUIT, 75 mm & FITTINGS	24.0	METER	3.2.38	
CONDUIT, 100 mm & FITTINGS		METER	3.2.38	

* 3.0 m used at Central and Tyler

BID ITEM		
ITEM	UNIT	QUANTITY
PEDESTRIAN SIGNAL	L.S.	1
TRAFFIC SIGNAL MODIFICATION		
AT CENTRAL AND TYLER	L.S.	1

-QUANTITIES FOR INFORMATION ONLY-

NO.	DATE	REVISION	BY	APP'D
3				
2	07/18/02	ADD BID ITEM BLOCK	J.F.F.	L.G.V.
1	11/05/01	REVISED L.E.D. LENSES INFORMATION	C.L.E.	D.A.C.

KANSAS DEPARTMENT OF TRANSPORTATION

NEMA 170 SYSTEM
TRAFFIC SIGNAL QUANTITIES SHEET

TE130ASI 04/28/98

FHWA APPROVAL	05/18/98	APP'D	Linda G. Voss, P.E.		
DESIGNED	J.F.F.	DETAILED	J.F.F.	QUANTITIES	TRACED
DESIGN CK.	D.A.C.	DETAIL CK.	D.A.C.	QUAN. CK.	TRACE CK.

Plotted By : @@USERNAME@@ Thacker Bldg. 4th Floor
Plot File : @@@@@@@@@@@@DGNSPEC@@@@@@@@@@@@
Plot Date : @@@@@@STIME@@@@@@