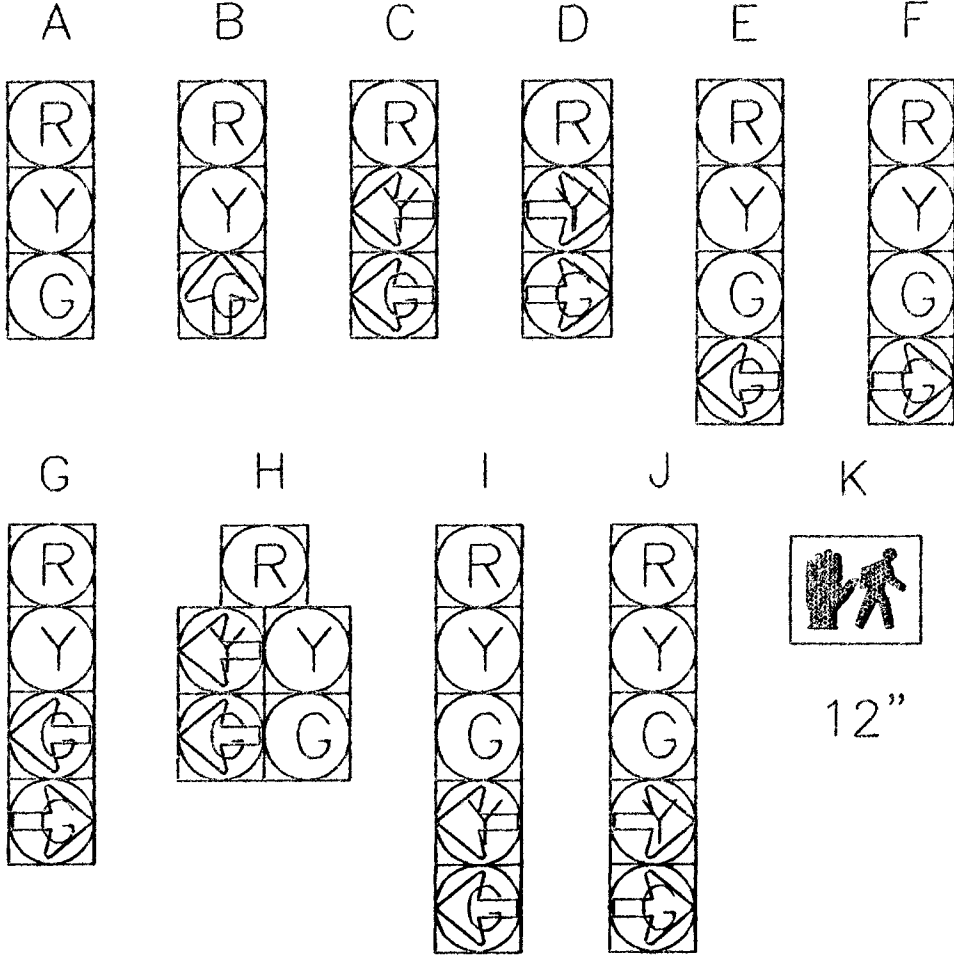


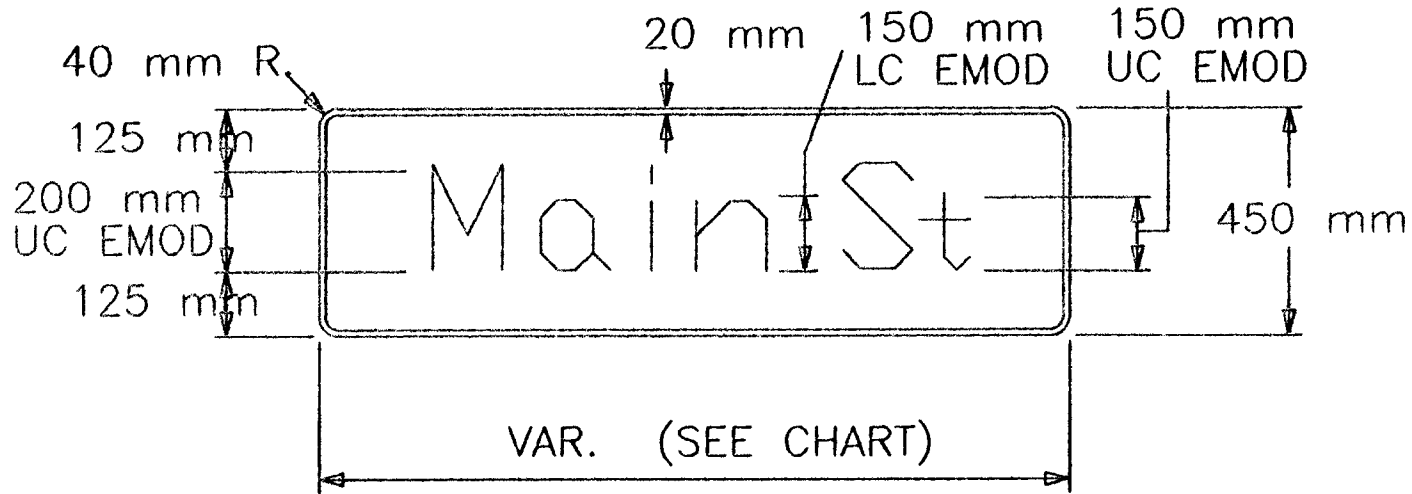
CHART A SIGNAL SUMMARY			
SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	11
I	5	MAST ARM W/BACKPLATE	2
C	3	MAST ARM W/BACKPLATE	4
A	5	SIDE-OF-POLE	3
K	2	SIDE-OF-POLE	8



ALL SIGNAL INDICATIONS (INCLUDING PED.) ARE TO BE L.E.D.

CHART B TRAFFIC SIGNAL POLES								
POLE NO.	POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
1	6.0m	19.8m	5.8m	4	7.5-3.4-3.4-4	-	-	-
2	6.0m	18.3m	5.8m	4	7.3-3.4-3.4-3.4	-	-	-
3	6.0m	21.3m	5.8m	5	5.6-3.4-3.4-3.4-3.4	-	-	-
4	6.0m	18.3m	5.8m	4	18-14.1-10.5-6.7	-	-	-

CHART C OVERHEAD STREET NAME SIGNS			
SIGN	LEGEND	LENGTH	QUANTITY
A	Rock Rd	1.76m	2
B	21st St	2.15m	2



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. THE CONTRACTOR IS TO INSTALL THE LUMINAIRES AND VIDEO DETECTION ON ALL TRAFFIC SIGNAL POLES. ALL COMPONENTS TO THE LIGHTING SYSTEM AT THE TRAFFIC SIGNALS WILL BE FURNISHED BY OTHERS DURING CONSTRUCTION. THIS WORK SHALL BE SUBSIDIARY TO TRAFFIC SIGNAL INSTALLATION.

BILL OF MATERIALS				
ITEM	QUANT.		UNIT	SPEC. NO.
	NEW	REUSED		
CONTROLLER UNIT 170E w/HC II CPU & W4 SOFTWARE	1		EACH	3.2.2.2
MALFUNCTION MANAGEMENT UNIT 210 ECL	1		EACH	3.2.2.3
SURGE PROTECTOR	1		EACH	3.2.2.4.3
LOAD SWITCH	16		EACH	3.2.2.5.1
FLASHER	4		EACH	3.2.2.5.2
FLASH TRANSFER RELAY	6		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	-		EACH	3.2.2.6
PAD MOUNTED CABINET & BASE BLACK	1		EACH	3.2.2.6
BUS INTERFACE LIST	-		EACH	3.2.2.7
DETECTOR POWER SUPPLY			EACH	
TRAFFIC SIGNAL HEAD BLACK	CHART A		EACH	3.2.4
SIGNAL HEAD MOUNTING BRACKET BLACK	CHART A		EACH	3.2.6
BACK PLATE	CHART A		EACH	3.2.7
VEHICLE TRAFFIC SIGNAL LAMP	-		EACH	3.2.5
LED. PEDESTRIAN TRAFFIC SIGNAL LAMP	16		EACH	3.2.5
LED TRAFFIC SIGNAL LAMP	78		EACH	3.2.4.4
PEDESTRIAN PUSHBUTTON & SIGN BLACK HANDICAP ACCESSIBLE	8		EACH	3.2.8, 3.2.9
TRAFFIC SIGNAL POLE & BASE BLACK	CHART B		EACH	3.2.10
TRAFFIC SIGNAL PEDESTAL ALUMINUM 15' BLACK	4		EACH	3.2.11
TERMINAL BLOCK	-		EACH	3.2.12
INTERCONNECT JUNCTION BOX	17		EACH	3.2.13, 3.2.14
SERVICE BOX	6		EACH	3.2.15
LUMINAIRE	-		EACH	3.2.16
LUMINAIRE LAMP 250 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)	5		EACH	3.2.22
R10-10R SIGN (600 mm X 750 mm)	1		EACH	3.2.22
BLANK OUT SIGN	-		EACH	3.2.23
ENTRANCE HEAD	1		EACH	3.2.24
SERVICE ENCLOSURE, 125 AMP.	1		EACH	3.2.25
CIRCUIT BREAKER, TRAFFIC SIGNAL, 40 AMP.	1		EACH	3.2.26
CIRCUIT BREAKER, LUMINAIRE, 20 AMP.	-		EACH	3.2.26
GROUND ROD & CLAMP	6		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	154.9		METER	3.2.32
PULL WIRE	100.6			
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/C	627.7		METER	3.2.33
MULTI-CONDUCTOR CABLE NO. 14 AWG 7/C	315.4		METER	3.2.33
INTERCONNECT CABLE	835		METER	3.2.34
INTERCONNECT CABLE 6PR #19C	835		METER	3.2.35
INTERCONNECT CONDUIT, 50 mm & FITTINGS	835			3.2.36
CONDUIT, 50 mm & FITTINGS (RGC)	6.5		METER	3.2.38
CONDUIT, 75 mm & FITTINGS (RGC)	145.8		METER	3.2.38
CONDUIT, 100 mm & FITTINGS (RGC)	2.6		METER	3.2.38
VIDEO DETECTION SYSTEM	1		EACH	*
8 CAMERAS) & MOUNTING HARDWARE				
COAX CABLE-75 OHM (BELDEN 8281)	443.8		METER	*
VIDEO POWER CABLE *16 AWG 3/C	443.8		METER	*
VIDEO DETECTION PROCESSOR UNIT	2		EACH	*
CAMERA HOUSING	8		EACH	*
CAMERA CHARGED COUPLING DEVICE	8		EACH	*

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0199-01	2002	117	158

FED. AID NO. - CMQ-N019 (901)

BID ITEM TABLE		
ITEM	UNIT	QUANT.
TRAFFIC SIGNAL	LS	LS

NOTE:
POLE/MAST ARM CONNECTION SHALL BE ATTACHED WITH ALTERNATIVE FLANGE PLATE.

VIDEO DETECTION SYSTEM WILL BE IN ACCORDANCE WITH KANSAS DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION TO THE STANDARD SPECIFICATIONS, 1990 EDITION. (90M-6793)

**INTERCONNECT QUANTITIES

*COMPONENTS ARE PART OF THE VIDEO DETECTION SYSTEM.

NORTH 21st STREET & ROCK ROAD
-QUANTITIES FOR INFORMATION ONLY-

3				
2				
1				
NO.	DATE		BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

170 SYSTEM
TRAFFIC SIGNAL QUANTITIES SHEET

TE130AS+ 04/28/98

FLWA APPROVAL	05/19/98	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.