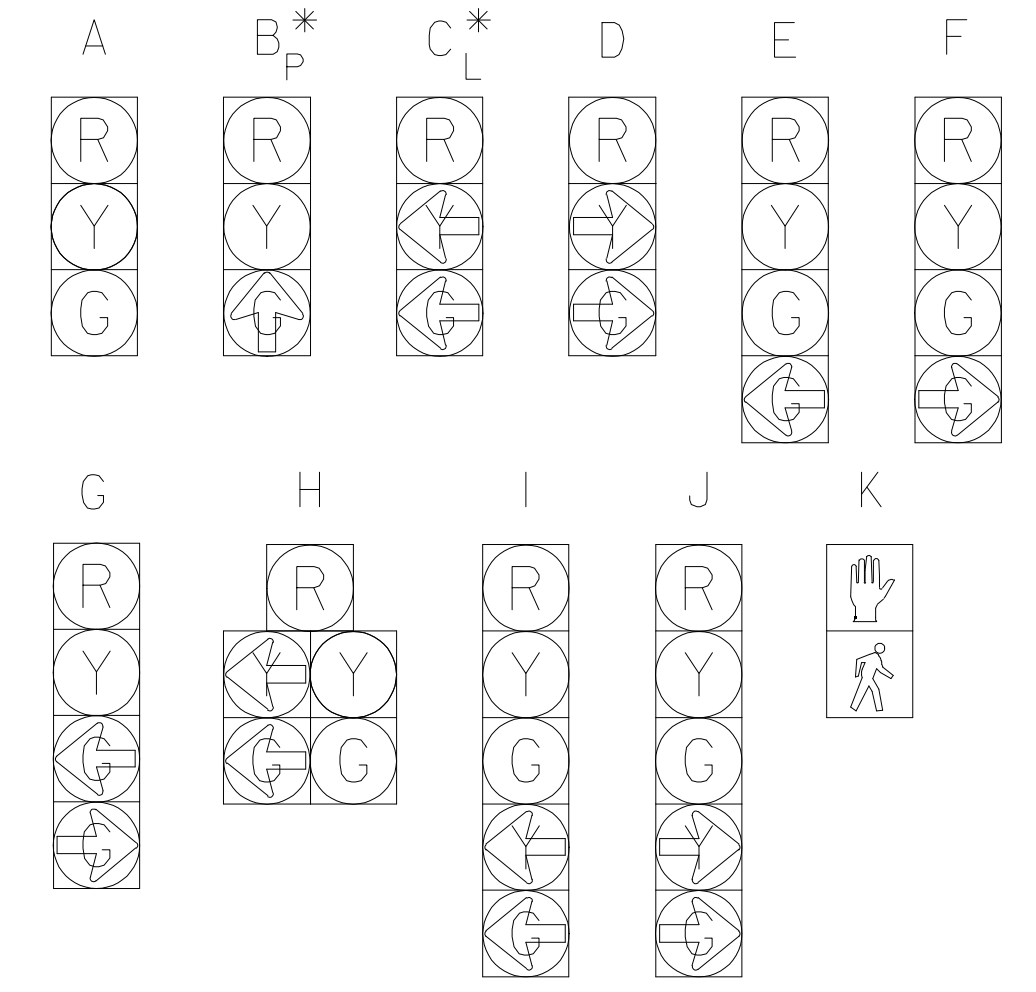


PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
472-84004	2005	137	215

BILL OF MATERIALS

ITEM	QUANT.	UNIT
PAD MOUNTED CONTROLLER & CABINET	-	EACH
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	26	EACH
TRAFFIC SIGNAL POLE STEEL (20')	(2)	EACH
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	(2)	EACH
TRAFFIC SIGNAL PEDESTAL (15' ALUM.)	2	EACH
CONCRETE CONTROLLER PAD	-	EACH
CONCRETE FOOTING - PEDESTAL	2	EACH
CONCRETE FOOTING - POLE	4	EACH
CONDUIT ELBOW 90°2"	AS REQ'D	EACH
CONDUIT ELBOW 90°3"	AS REQ'D	EACH
BACK PLATE 5" 3 SECTION	8	EACH
BACK PLATE 5" 5 SECTION	-	EACH
TERMINAL BLOCK	-	EACH
SERVICE BOX	4	EACH
JUNCTION BOX (PRE-FAB)	-	EACH
GROUND ROD & CLAMP	6	EACH
TRAFFIC SIGNAL LAMP 135 WATT	-	EACH
LED TRAFFIC SIGNAL LENS	70	EACH
ENTRANCE HEAD	-	EACH
CIRCUIT BREAKER & BOX 50 AMP.	-	EACH
SURGE ARRESTOR - A.C.SERVICE	-	EACH
SURGE ARRESTOR - DETECTOR	-	EACH
PEDESTRIAN PUSHBUTTON W/SIGN	8	EACH
6 PR. COMMUNICATION CABLE	-	LIN. FT.
DETECTOR LOOP WIRE NO.14 AWG 1/c	-	LIN. FT.
LEAD-IN WIRE NO.6 AWG 1/c	-	LIN. FT.
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	950	LIN. FT.
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	2600	LIN. FT.
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	150	LIN. FT.
SHEILDDED DETECTOR LEAD-IN NO.14 AWG 2/c	-	LIN. FT.
CONDUIT 1"(PVC)	-	LIN. FT.
CONDUIT 1 1/2"(RGC)	-	LIN. FT.
CONDUIT 2"(PVC)	-	LIN. FT.
CONDUIT 2"(RGC)	100	LIN. FT.
CONDUIT 3"(RGC)	610	LIN. FT.
#8 AWG GROUND (GREEN)	750	LIN. FT.
STREET NAME SIGN	4	EACH
LEFT-TURN YIELD ON GREEN (RIO-12) SIGNS	2	EACH
VIDEO DETECTION CAMERA (VANTAGE OZ2), MOUNTING HARDWARE	4	EACH
VIDEO DETECTION UNIT (VANTAGE EDGE MODULE)	1#	EACH
VIDEO POWER CABLE #16 A.W.G. 3/C	1300	LIN. FT.
VIDEO CABLE 75 OHM COAXIAL (BELDON #8281 OR APPROVED EQUAL)	1300	LIN. FT.
TV MONITOR	1	EACH

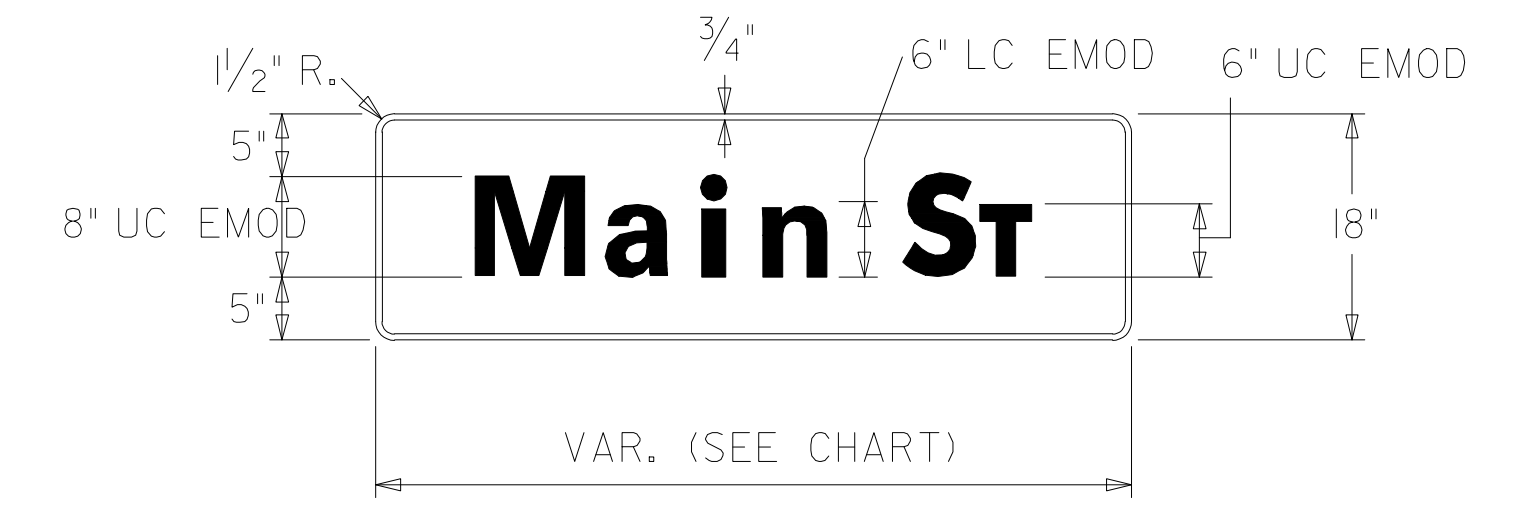
CHART A SIGNAL SUMMARY			
SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
A	3	MAST ARM W/BACKPLATE	8
C	3	MAST ARM W/BACKPLATE	6
I	2	MAST ARM W/BACKPLATE	2
A	3	SIDE-OF-POLE	4
K	2	SIDE-OF-POLE	8



* SUBSCRIPT "P" INDICATES PROGRAMMED SIGNALS;
SUBSCRIPT "L" INDICATES L.E.D. LENSES.

CHART B TRAFFIC SIGNAL POLES								
POLE NO.	POLE HEIGHT	SIGNAL ARM LENGTH	SIGNAL ARM MOUNTING HEIGHT	NO. OF SIGNALS ON ARM	SIGNAL SPACING	LUMINAIRE ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	QUANT.
1	35	60'	19'	4	22, 36, 50, 54	-		1
3	35	56'	19'	3	30, 41, 55	-		1
4	20	60'	19'	4	22, 29, 50, 59			1
6	20	54'	19'	3	28, 39, 53			1
2	15	-	-	-	Pedestal	-	-	1
5	15	-	-	-	Pedestal	-	-	1

CHART C OVERHEAD STREET NAME SIGNS			
SIGN	LEGEND	LENGTH	QUANTITY
A	21st Street	4'-0"	2
B	Greenwich	7'-6"	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.

Top Coat Finish for Traffic Signal Poles & Controller Cabinet
All visually exposed exterior surfaces shall be coated with a urethane or triglycidylisocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 2.0 mils. Prior to application of the top coat, the surface shall be mechanically etched and pre-heated to 450 degrees F for a minimum of one hour. The coating shall be electro-statically applied and cured at a minimum temperature of 400 degrees F. The finished color for the poles shall be black and approved by the Engineer prior to application on the basis of color chip submittals.

Special Finish for Traffic Signal Equipment
The traffic signal, mounting brackets, signal head backs, sign backs, meter box, disconnect box, and miscellaneous hardware shall be shop painted with an aerosol lacquer cellulose ester to match the traffic signal pole color. The Contractor shall submit two copies of the proposed coating system to the Engineer for approval prior to application. In addition to the requirements stipulated in the Standard Specifications, banding material shall be coated with ethylene-vinyl-alcohol (EVA) copolymer. The color shall be black.

ONE MODULE FOR EACH CAMERA.

BID ITEM		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL MODIFICATION	L.S.	L.S.

-QUANTITIES FOR INFORMATION ONLY-

3				
2				
1				
NO.	DATE	REVISION	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TYPE 170E SYSTEM
TRAFFIC SIGNAL QUANTITIES SHEET

DESIGNED: J.F.F./DETAILED: J.F.F./QUANTITIES: TRACED
DESIGN CK: G.J.O./DETAIL CK: G.J.O./QUAN. CK: TRACE CK.

03/26/03

Dsmr: BER Oper: SVB Scale: 1:1
i:/2004/04219/traffic signal/1e130b.dgn Last Rev: 9-28-2005 By: svb