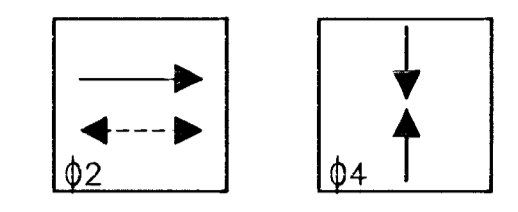


FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87-N-0200-01	2001	47	78

BY	DATE
REFERENCES NOTED	
REFERENCES CHECKED	

BILL OF MATERIALS (FOR INFORMATION ONLY)		
ITEM	UNIT	QUANTITY
CROSSWALK SIGNAL:		
TRAFFIC SIGNAL POLE STEEL W/ MAST ARM	EACH	2
TRAFFIC SIGNAL PEDESTAL	EACH	-
CONCRETE BASE - POLE	EACH	2
CONCRETE BASE - PEDESTAL	EACH	-
BACK PLATE 130mm - 3 SECTION	EACH	4
SERVICE BOX - 1m DIA.	EACH	2
GROUND ROD & CLAMP	EACH	3
TRAFFIC SIGNAL LAMP 135 WATT	EACH	18
TRAFFIC SIGNAL LAMP 60 WATT	EACH	4
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX	EACH	1
TRAFFIC SIGNAL HEAD - 300mm (TYPE A) W/MOUNTING BRACKET	EACH	6
PEDESTRIAN SIGNAL HEAD - 300mm (TYPE L) W/MOUNTING BRACKET	EACH	2
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	2
POLE MOUNTED CABINET & CONTROLLER SYSTEM-TYPE 170(SEE NOTE)	EACH	1
LEAD-IN WIRE NO. 6 AWG 1/c (TYPE THHN)	m	18
MULTI-CONDUCTOR CABLE NO. 14 AWG 5/c	m	114
CONDUIT 50mm	m	48
CONDUIT 25mm	m	33
STANDARD TC #8 (GROUND)	m	34
PEDESTRIAN CROSSING SIGN (W11-2) W/MOUNTING HARDWARE	EACH	2



SIGNAL PHASING

CROSSWALK SIGNAL POLE SUMMARY					
STATION	TYPE	ARM LENGTH	SIGNALS ON ARM	SIGNALS/EQUIP. ON POLE	SIGNS ON POLE
0+924.67 L	A	8.1m	2-C	1-C, 1-D, 1-B	1-E
0+927.70 R	A	8.1m	2-C	1-C, 1-D, 1-B	1-E

- A. STANDARD STEEL POLE WITH MAST ARM
- B. CONTROLLER WITH CABINET
- C. TRAFFIC SIGNAL
- D. PEDESTRIAN SIGNAL WITH PUSH BUTTON
- E. PEDESTRIAN CROSSING (W11A-2)

SCALE: 1:200

GENERAL NOTES

- Conduit shall be jacked or bored if not installed before placing of new pavement.
- Placement of Service/Junction Boxes, Conduit Runs and Controller are typical and may be adjusted as directed by the Engineer to facilitate installation.
- The Contractor shall contact utility companies which may be affected by the installation of Traffic Signalization prior to any construction.
- KGE Power Pole Baseline Sta. 0+895.8, 12.1 m Rt. Install Meter and Power Disconnect. See Power Pole Details. 3831 E. 21st.
- See Signal Pole Details for additional Traffic Signal Structures requirements.

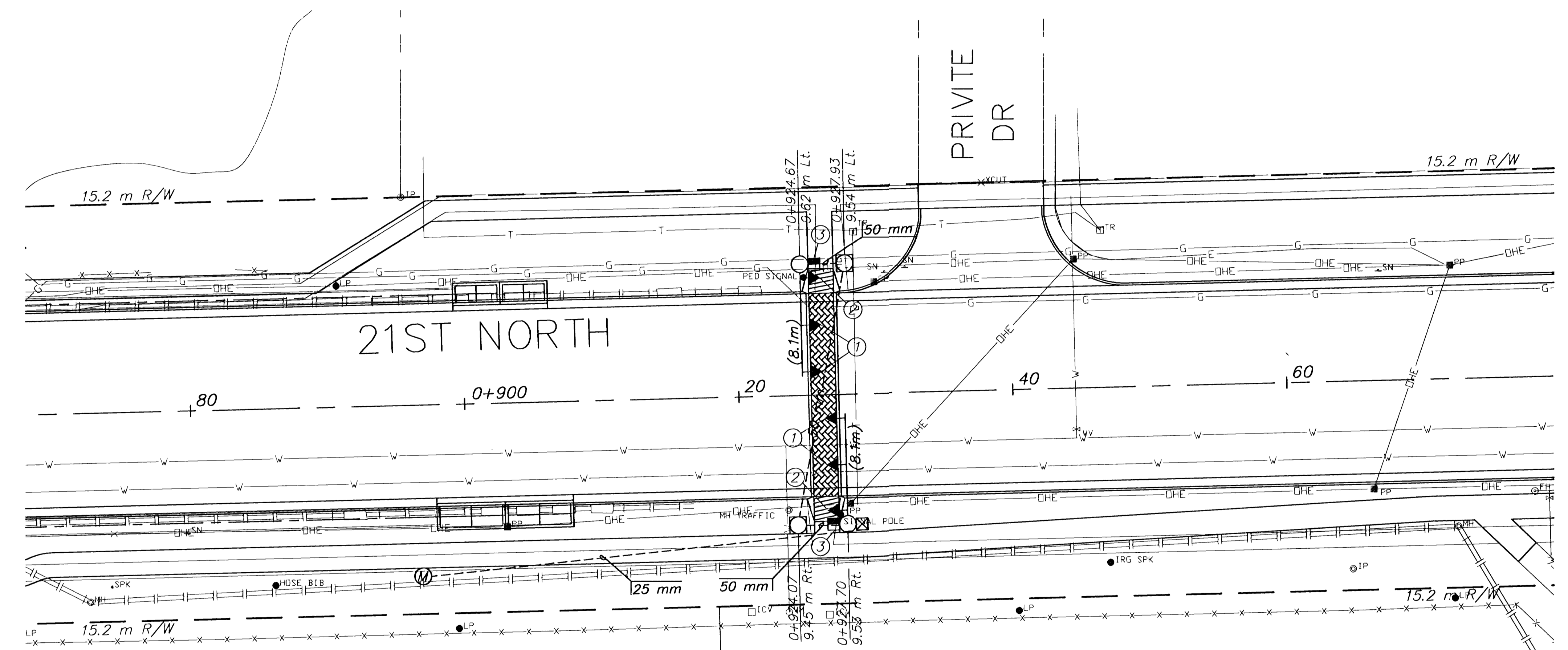
TYPE 170 TRAFFIC CONTROLLER SYSTEM TO INCLUDE:
 ONE (1) MODEL 170 CONTROLLER UNIT & 400 MODEM COMPLETE WITH 412B2 SYSTEM MEMORY MODULE CAPABLE OF SUPPORTING WAPITI MICRO SYSTEM W4IKS (LATEST REVISION) TRAFFIC PROGRAM ON 27256 EPROM.

ONE (1) MODEL 336 CABINET COMPLETE WITH ALL ACCESSORIES INCLUDING FOUR (4) MODEL 430 TRANSFER RELAYS, TWO (2) MODEL 204 FLASHER UNITS AND ONE (1) MODEL 210PC CONFLICT MONITOR.

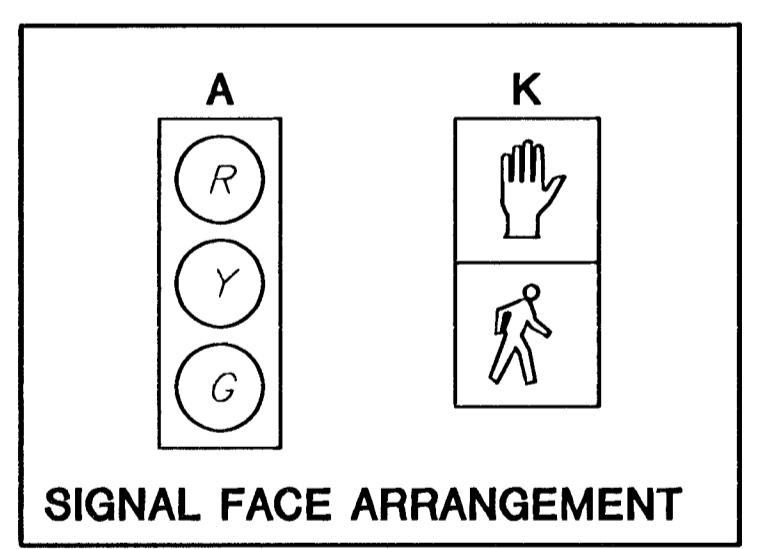
TWO (2) MODEL 242 TWO CHANNEL ISOLATORS.

TWO (2) MODEL 200 SWITCH PACKS.

NOTE: THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY MATERIAL AND EQUIPMENT FOR THE COMPLETE INSTALLATION AND OPERATION OF THE TRAFFIC SIGNAL WHETHER SPECIFICALLY MENTIONED OR NOT.



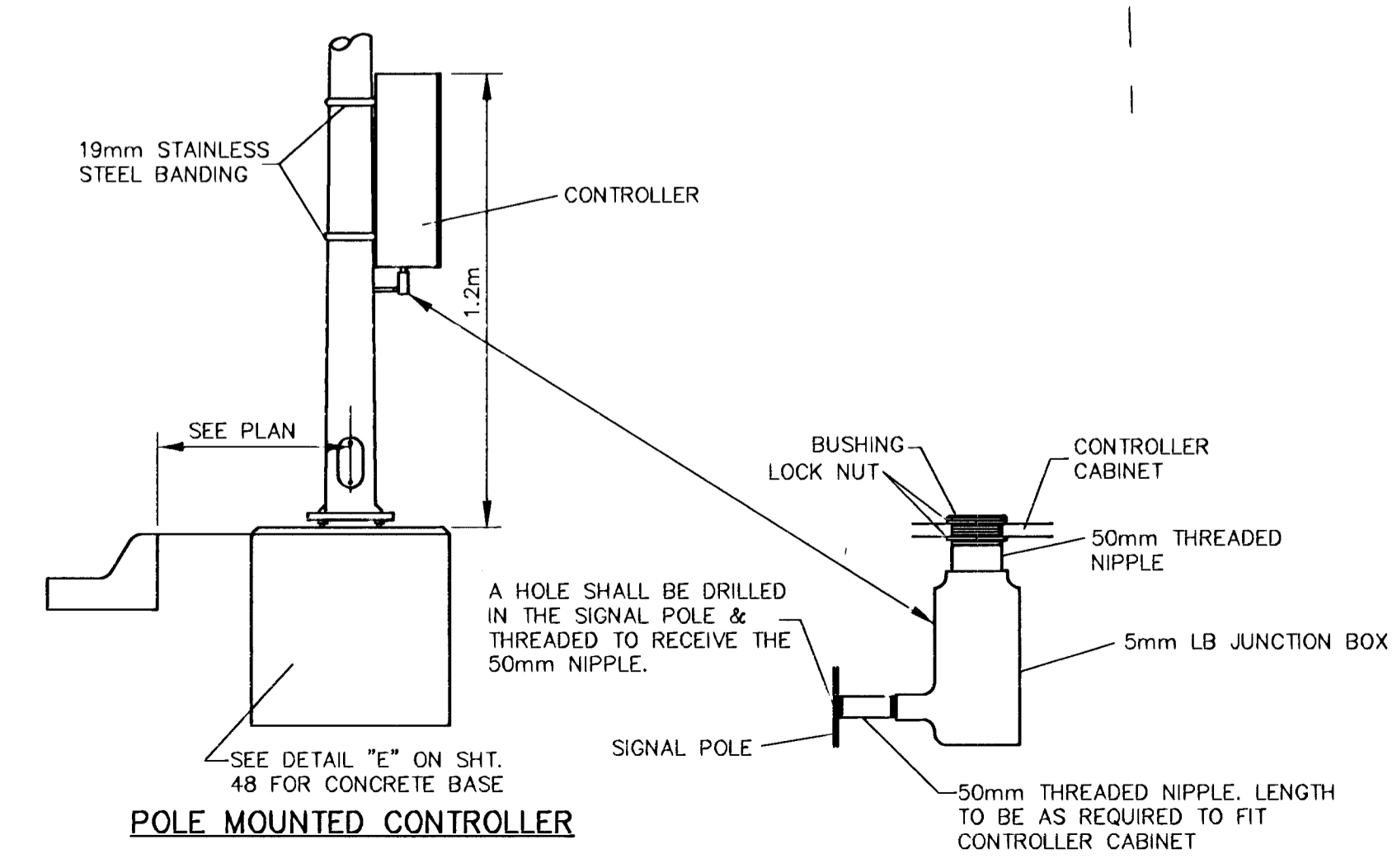
CROSSWALK SIGNAL HEAD SUMMARY				
SIGNAL NO.	TYPE	SIZE	MOUNTING BRACKET	QUANTITY
1	A	3-.3m	TYPE I	4
2	A	3-.3m	TYPE IV *	2
3	K	2-.3m	TYPE IV *	2



SIGNAL FACE ARRANGEMENT

* ONE TYPE IV BRACKET WILL SUPPORT 1 TYPE A AND 1 TYPE L HEADS.

TYPE 170 CONTROLLER SETTINGS										
INTERVAL	"WAPITI PROGRAM" PHASE								NORMAL DISPLAY FEATURES	
	1	2	3	4	5	6	7	8	TIME CLOCK	FEATURES
MAX	0	40	30						0 YEAR	VEH RECALL
MAX 2	1	40	30						1 MONTH	PED RECALL
WALK	2		8						2 DAY/MONTH	RED LOCK
FL. DW.	3		15						3 DAY/WEEK	YEL LOCK
MAX INIT.	4	30	10						4 HOUR	PERMIT
MIN GREEN	5	30	8						5 MINUTE	PED PHASES
TBR	6	1.0							6 SECOND	LEAD PHASES
TTR	7	1.0							7	DBL ENTRY
PASSAGE	8								8	SEQUENTIAL
MIN GAP	9	1.0							9	START UP YEL
ADD ACT	a	1.0							0	OVERLAP A
YELLOW	b	4.0	3.0						c	OVERLAP B
RED CLR.	c	2.0	1.0						d	OVERLAP C
RED REV.	d								e	OVERLAP D
WALK II	e								f	EXCLUSIVE
	f									SIM GAP



- LEGEND
- Steel Traffic Signal Pole (Joint use)
 - Steel Traffic Signal Pole (Std. Pole)
 - Traffic Signal Indication (Type A)
 - ⬇ Mast Arm Suspended Traffic Signal
 - Service Box
 - ⊠ Controller
 - ⊞ Pedestrian Indication
 - △ Junction Box
 - ⊞ Vehicle Detector Loop
 - ① Detector Number
 - Rigid Galvanized Conduit (RGC)
 - ⊞ Meter Box and Power Disconnect
 - TT Overhead Street Name Sign
 - TT Overhead Sign R10-10L (L.T. Signal)

RECAPITULATION OF CROSSWALK SIGNAL QUANTITIES		
BID ITEM	QUANTITY	UNIT
TRAFFIC SIGNAL INSTALLATION (PEDESTRIAN CROSSING)	LUMP SUM	LUMP SUM

2					
1					
NO.	DATE	REVISIONS	BY	APP'D	
KANSAS DEPARTMENT OF TRANSPORTATION 21ST STREET NORTH CROSS WALK PLAN & SUMMARY PROJ. NO. 87-N-0200-01 SEDGWICK CO.					
MKEC ENGINEERING CONSULTANTS, INC. WICHITA, KANSAS					
DESIGNED BY: DFL	CHECKED BY: GJA				
DRAWN BY: DAG	DATE: JUNE 2001	SHEET 47 OF 78			