

PLOTTED: Monday, May 09, 2016 @ 10:00AM
 J:\CIVIL\05745\DWG\SIGNALS\05745-SG1.DWG

BILL OF MATERIALS (For Information Only)		
ITEM	UNIT	QUANT.
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD (SEE CHART A) W/MOUNTING HARDWARE	EACH	24
TRAFFIC SIGNAL POLE (SEE CHART B) STEEL	EACH	4
CONCRETE CONTROLLER PAD	EACH	1
CONCRETE FOOTING - POLE	EACH	4
CONDUIT ELBOW 90 2"	EACH	AS NEEDED
CONDUIT ELBOW 90 3"	EACH	AS NEEDED
SERVICE BOX	EACH	5
GROUND ROD & CLAMP	EACH	5
TRAFFIC SIGNAL LAMP RED LED KIT	EACH	16
TRAFFIC SIGNAL LAMP YELLOW LED KIT	EACH	16
TRAFFIC SIGNAL LAMP GREEN LED KIT	EACH	16
TRAFFIC SIGNAL LAMP GREEN ARROW LED KIT	EACH	4
TRAFFIC SIGNAL LAMP YELLOW ARROW LED KIT	EACH	4
TRAFFIC SIGNAL LAMP LED (12" COMBINATION)	EACH	8
ENTRANCE HEAD	EACH	1
CIRCUIT BREAKER & BOX 70 AMP	EACH	1
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
LEAD-IN-WIRE NO. 6 A.W.G. 1/c	LIN. FT.	65
STRANDED NO. 8 A.W.G. 1/C (GROUND)	LIN. FT.	725
MULTI-CONDUCTOR CABLE NO. 16 A.W.G. 3/C (V3)	LIN. FT.	860
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 2/C	LIN. FT.	30
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 5/C	LIN. FT.	545
MULTI-CONDUCTOR CABLE NO. 14 A.W.G. 7/C	LIN. FT.	1500
#19 IMSA 20-2, 600V SHIELDED COMMUNICATION CABLE	LIN. FT.	175
CAT6 SHIELDED ETHERNET CABLE	LIN. FT.	175
VIDEO CABLE 75 OHM COAXIAL (BELDON 8281)(CX)	EACH	860
CONDUIT 1" RGC	LIN. FT.	35
CONDUIT 2" RGC	LIN. FT.	245
CONDUIT 3" RGC	LIN. FT.	460
CAMERA HOUSING	EACH	4
VIDEO DETECTION CAMERA & MOUNTING HARDWARE (RISER BRACKET)	EACH	4
VIDEO DETECTION PROCESSOR UNIT	EACH	1
VIDEO MONITOR	EACH	1
TETHER WIRE 1/4" ASTM A475 SIEMENS-MARTIN GRADE MIN.	LIN. FT.	
STREET NAME SIGNS W/ MOUNTING HARDWARE (D-3)	EACH	8
LEFT TURN YIELD ON GREEN W/ MOUNTING HARDWARE (R10-12)	EACH	4
REMOVAL OF EXISTING TRAFFIC CONTROL EQUIPMENT**	EACH	1
SPLICE DIT (INTERCONNECT)		

TRAFFIC SIGNAL POLE SUMMARY (CHART B)										
POLE NO.	STATION	TYPE	ARM LENGTH	SIGNALS ON ARM	X1	X2	X3	OTHER EQUIPMENT ON ARM	SIGNALS ON POLE	SIGNALS ON POLE
1	9+62.97, 53.1' LI.	B	47'	3-E	11.5'	11'		1-D, 1-G, 1-H, 1-I	1-E, 2-F	-
2	9+56.45, 53.3' RT.	B	46'	3-E	11.5'	11'		1-D, 1-G, 1-H, 1-I	1-E, 2-F	2-J
3	10+49.93, 51.8' LI.	B	48'	3-E	11.5'	11'		1-D, 1-G, 1-H, 1-I	1-E, 2-F	-
4	10+59.22, 49.7' RT.	B	47'	3-E	11.5'	11'		1-D, 1-G, 1-H, 1-I	1-E, 2-F	2-J

- A - Joint Use Steel Pole with Mast Arm
- B - Standard Steel Pole with Mast Arm
- C - Pedestal Pole (10' Aluminum)
- D - Left Turn Sign (R10-12)
- E - Traffic Signal
- F - Pedestrian Signal with Push Button
- G - Street Name Sign
- H - Video Detection Camera
- I - Wind Damper
- J - Street Name Sign (9" Metro)(See Sh. No. 124 for details)

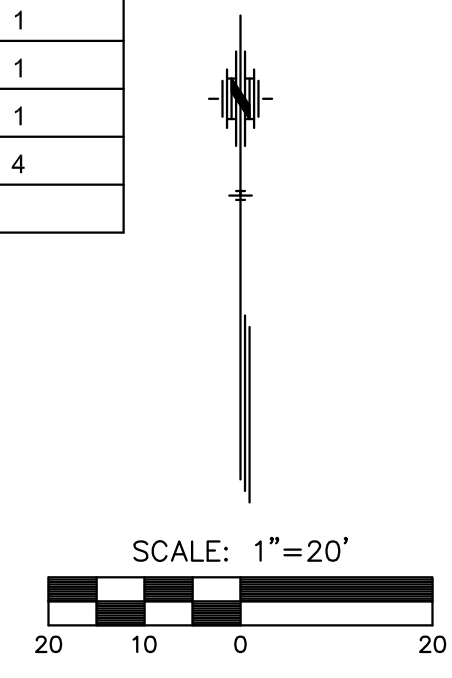
STREET NAME SIGN SUMMARY		
LEGEND	60" x 18"	9" METRO
Pawnee	2	
Hydraulic	2	
Pawnee 2300 S		1
Pawnee 2400 S		1
Hydraulic 1700 E		1
Hydraulic 1600 E		1
TOTAL	4	4

Letters shall be series "E" Modified

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0597-01	2016	116	191

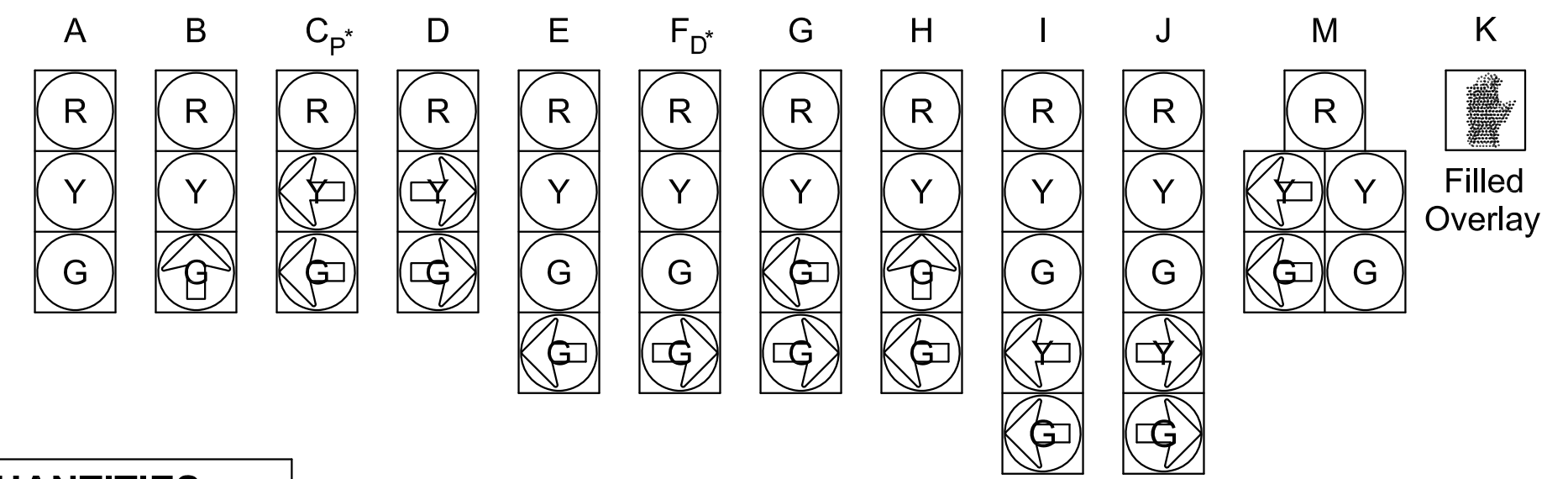


- ### LEGEND
- Steel Traffic Signal Pole (Joint use)
 - Steel Traffic Signal Pole (Std. Pole)
 - ⊕ Steel Traffic Signal Pole (Pedestal)
 - Traffic Signal Indication (Type A) w/Backplate
 - ↘ Traffic Signal Indication (Type I) w/Backplate
 - ⬇ Mast Arm Suspended Traffic Signal
 - Video Detection Camera
 - Service Box
 - ⊞ Pedestrian Indication
 - Rigid Galvanized Conduit (RGC)
 - ⊞ Overhead Street Name Sign
 - ⊞ Overhead Sign R10-12 (Lt. Turn Yield on Green)
 - ⊞ Wind Damper
 - PP Power Pole
 - ⊕ Meter Box and Power Disconnect
 - ⊞ Controller and Pad
 - CX Video Coax Cable
 - V3 Video Power Cable (#16 A.W.G. 3/C)



TRAFFIC SIGNAL HEAD SUMMARY (CHART A)				
SIGNAL NO.	TYPE	SIZE	MOUNTING BRACKET	QUANTITY
1-1	I	5-12"	TYPE I	1
1-2	A	3-12"	TYPE I	2
1-3	A	3-12"	TYPE III	1
1-4a, 1-4b	K	1-12"	TYPE II	2
1-5	I	5-12"	TYPE I	1
1-6	A	3-12"	TYPE I	2
1-7	A	3-12"	TYPE III	1
1-8a, 1-8b	K	1-12"	TYPE II	2
1-9	I	5-12"	TYPE I	1
1-10	A	3-12"	TYPE I	2
1-11	A	3-12"	TYPE III	1
1-12a, 1-12b	K	1-12"	TYPE II	2
1-13	I	5-12"	TYPE I	1
1-14	A	3-12"	TYPE I	2
1-15	A	3-12"	TYPE III	1
1-16a, 1-16b	K	1-12"	TYPE II	2

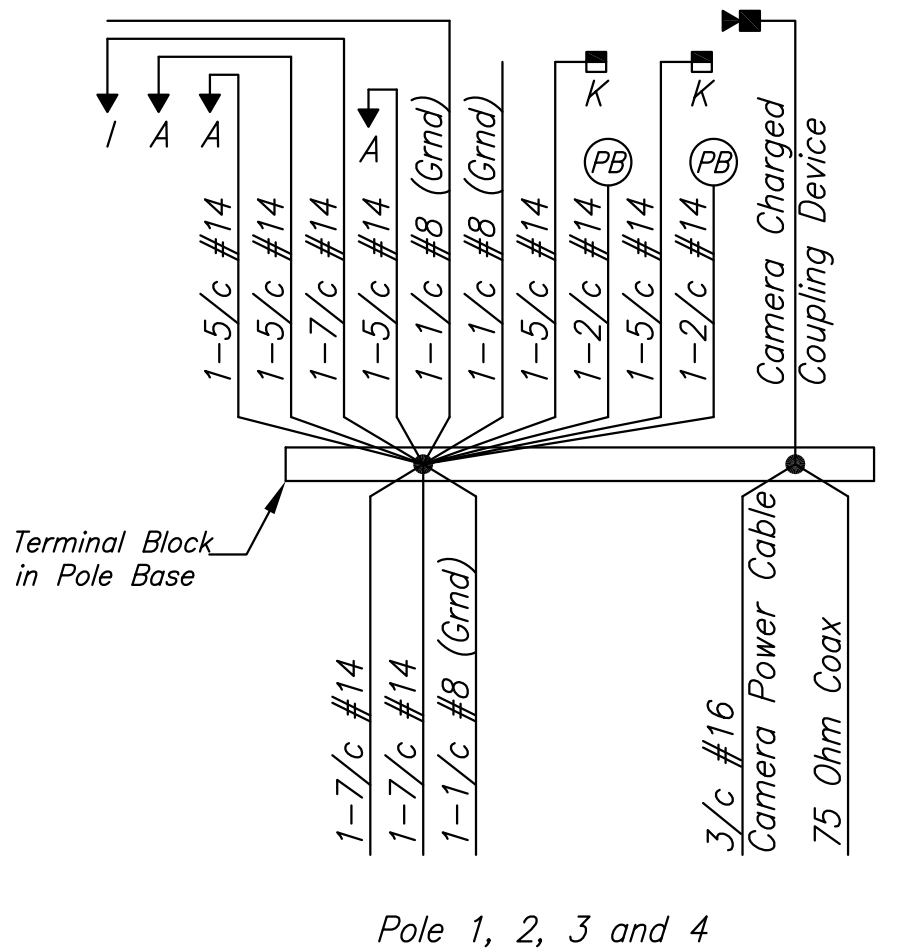
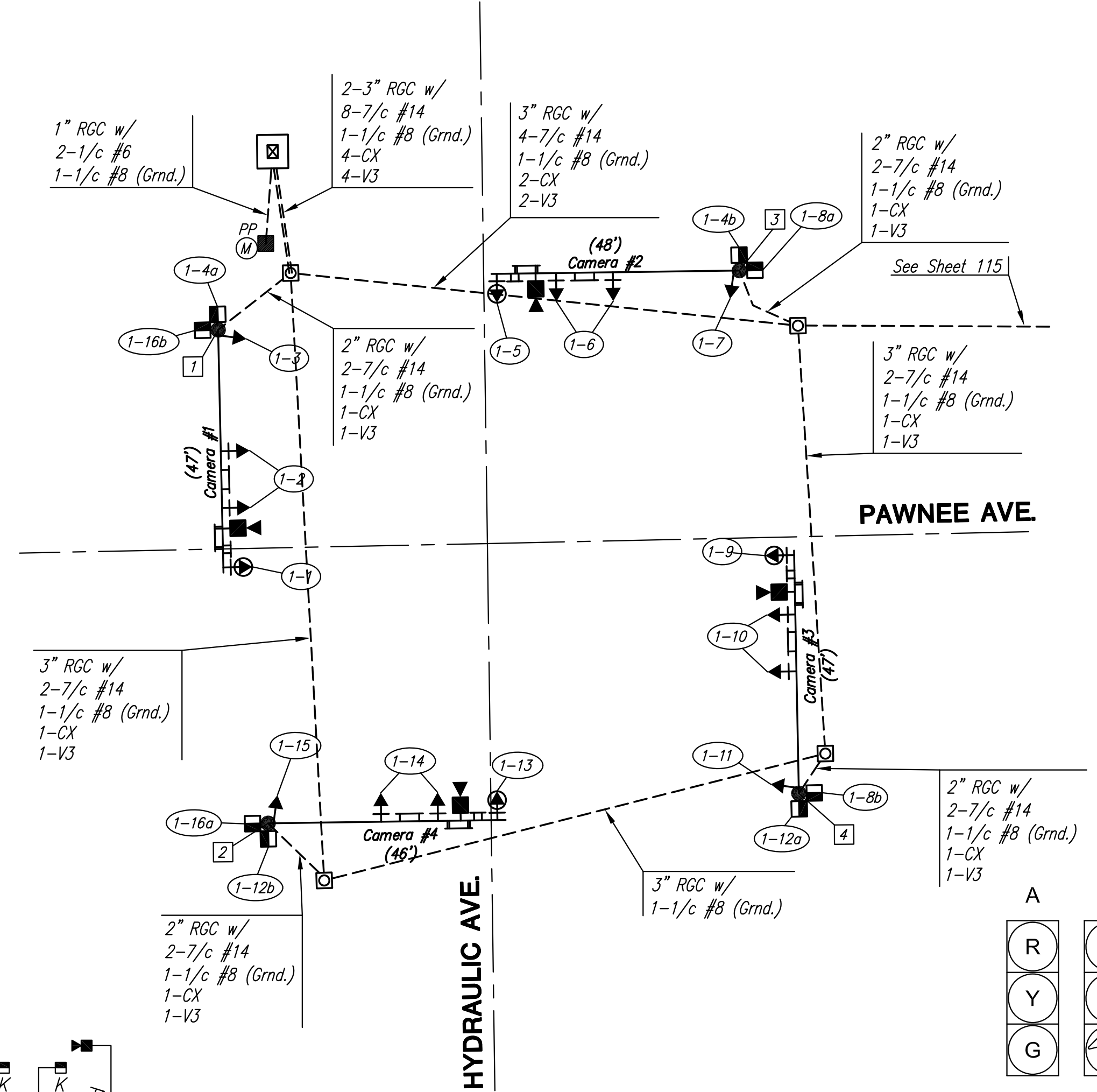
SIGNAL HEAD ARRANGEMENT



12" LED lenses - vehicular and pedestrian

NOTE: The contractor shall supply and install all necessary materials and equipment for the complete installation and operation of the traffic signal system whether specifically mentioned or not.

- * Subscript "P" indicates programmed signals.
- * Subscript "D" indicates dual-mode green/yellow arrow section.
- ** Removal of existing traffic signal equipment shall include removal of foundations, service boxes, and junction boxes. See construction traffic control regarding removal of existing signals.



RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
BID ITEM	QUANTITY	UNIT
Traffic Signalization, Pawnee and Hydraulic	1	L.S.
Traffic Signalization, Pawnee and Southeast	1	L.S.
Traffic Signalization, Pawnee and NB I-135 Ramps	1	L.S.
Traffic Signalization, Pawnee and SB I-135 Ramps	1	L.S.
Traffic Signalization, Pedestrian	1	L.S.
Traffic Signalization, Pawnee and Hydraulic, Temporary	1	L.S.
Traffic Signalization, Pawnee and Southeast, Temporary	1	L.S.
Traffic Signalization, Pawnee and NB I-135 Ramps, Temporary	1	L.S.
Traffic Signalization, Pawnee and SB I-135 Ramps, Temporary	1	L.S.
Traffic Signalization, Pedestrian, Temporary	1	L.S.

- ### EQUIPMENT SPECIFICATIONS 2070 CONTROLLER
- A. Controller Units: The 2070L controllers supplied shall meet the requirements:
 1. The 2070L controllers shall have a 19" EIA rack mountable chassis(mated to the 170 cabinet). Controllers shall be EAGLE or ECONOLITE.
 2. 2070-1B CPU module with RJ-45 Ethernet port.
 3. 2070-2A C1 field I/O module for compatability with CalTrans style C1 connector.
 4. 2070-3B 8x40 front panel whit LCD display.
 5. 2070-4A 10 amp power supply.
 6. 2070-7A asynchronous serial communications module (RS-232)
 7. Any unused slot position shall have a cover plate.
 - B. Conflict Monitors:

The Conflict Monitors supplied shall be 2010 ECL conflict Monitors.
 - C. 1-Loop-back cable for 2070-2A Field I/O (Type 170, 104 pin and 37 pin connector).
 - D. 1-Loop-back cable for 2070-7a port

STREET IMPROVEMENTS FOR:
PAWNEE AVENUE
FROM HYDRAULIC TO POPLAR
 WICHITA, KANSAS

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PAWNEE AVE. AND HYDRAULIC AVE. WIRING PLAN

PROJECT NO.	87 N-0597-01	
DATE	DATE	
SCALE	NONE	
DESIGNED	DRAWN	CHECKED
JRA	JSB	JRA
NO.	REVISION	DATE