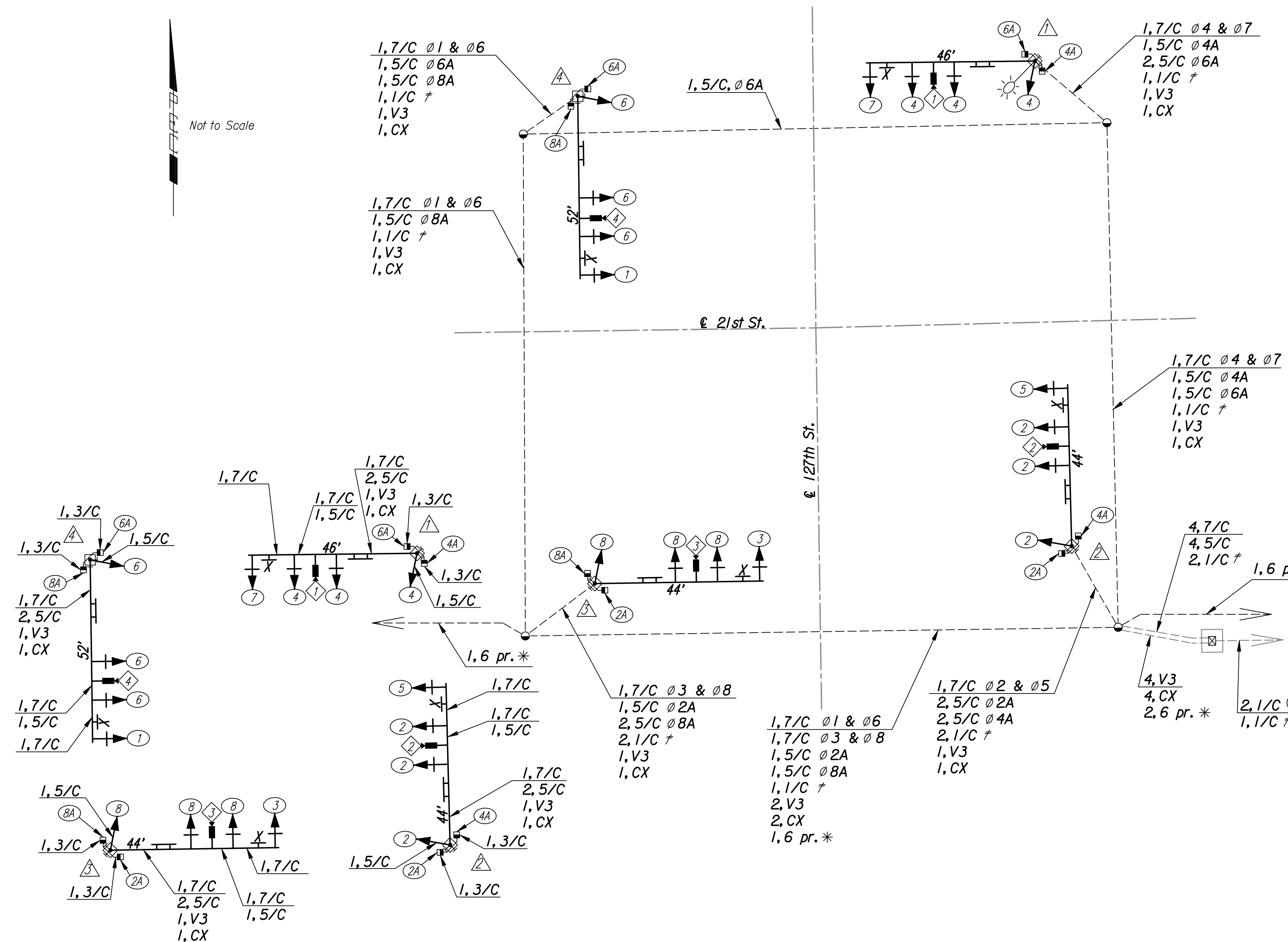


DSNR: WDH OPER: SVB SCALE: I:/2001/01616/Signals/01616-Signal Qty 127th St. v8.DGN 11-13-2007 16:00:00 LAST REV: 5-22-2008 BY: svb

Not to Scale



POLE WIRING DIAGRAMS

Note: Pushbutton to be wired with 2,1/C to pole base connection

TRAFFIC SIGNAL POLE SUMMARY												
POLE NO.	TYPE	ARM LENGTH	NO. OF SIGNALS ON ARM	BRACKET TYPE	X1	X2	X3	X4	NO. OF SIGNALS ON POLE	BRACKET TYPE	NO. OF PUSH BUTTONS ON POLE	REMARKS
1	C	46'	3	I	45'	34'	23'	-	3	II/III	2	
2	B	44'	3	I	43'	32'	21'	-	3	II/III	2	
3	B	44'	3	I	43'	32'	21'	-	3	II/III	2	
4	C	52'	3	I	51'	40'	29'	-	3	II/III	2	

- ① A-10' Pedestal (Alum.)
- B-20' Steel with Mast Arm(s)
- C-35' Steel (Joint Use) with Mast Arm(s)
- D-40' Steel with Mast Arm

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNAL INSTALLATION (127th St.)	LUMP SUM	LUMP SUM
TEMPORARY TRAFFIC SIGNAL INSTALLATION (127th St.)		

SUMMARY OF TRAFFIC SIGNAL HEADS			
NUMBER	TYPE	SIZE	QUANTITY
2, 4, 6, 8	A	12"	12
1, 3, 5, 7	I	12"	4
2A, 4A, 6A, 8A	K	16"	8
TOTAL			24

SERVICE BOX SUMMARY	
STATION	DIST.-SIDE
149+37	65' Rt.
149+38	44' Lt.
150+63	44' Lt.
150+63	65.5' Rt.

21st St Pole 1 & 3
 127th St Pole 2 & 4
 Street Name Sign Legends use 6" series EM lettering

- * #8AWG Equipment Ground (Green)
- ⊛ Power Supply
- V3 Video Power Cable
- CX Video Coax Cable
- △ Signal Pole Reference Number
- All splices to be in pole base, no splices permitted within service box.
- * Communication Cable

POLE AND EQUIPMENT FINISH:

Surface preparation
 The exterior steel surface shall be blasted clean in accordance with the requirements outlined in the Steel Structures Painting Council Surface Preparation Specification No. 6, (SSPCSP60) utilizing a dry abrasive, closed cycle, recirculating system with centrifugal wheels and abrasive. The abrasive used shall be steel shot conforming to the Society of Automotive Engineers (SAE) Recommended Practice No. J827 with particle size meeting SAE Shot No. S280.

Zinc Coating
 The pole assembly shall be hot-dip galvanized to the requirements of either ASTM A123 (Fabricated items) or ASTM A153 (Hardware items) by immersion in a molten bath of prime western grade zinc maintained between 810°F and 850°F. Maximum aluminum content of the bath shall not exceed 0.01%.

Top Coat
 All visually exposed exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a minimum dry film thickness (DFT) of 0.05mm (2.0 mils). Prior to application of the topcoat, the surface shall be mechanically etched and pre-heated to 450°F for a minimum of one hour. The coating shall be electrostatically applied and cured at a minimum temperature of 400°F and the color shall be black.

BILL OF MATERIALS		
ITEM	UNIT	QUANTITY
PAD MOUNTED CONTROLLER & CABINET	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	24
TRAFFIC SIGNAL POLE STEEL (20')	EACH	2
TRAFFIC SIGNAL POLE (JOINT USE) STEEL (35')	EACH	2
CONCRETE CONTROLLER PAD	EACH	-
CONCRETE FOOTING - PEDESTAL	EACH	-
CONCRETE FOOTING - POLE	EACH	4
CONDUIT ELBOW 90° 2"	EACH	AS REQ'D
CONDUIT ELBOW 90° 3"	EACH	AS REQ'D
BACK PLATE 3 SECTION	EACH	8
BACK PLATE 5 SECTION	EACH	4
SERVICE BOX	EACH	4
JUNCTION BOX (PRE-FAB)	EACH	①
GROUND ROD & CLAMP	EACH	5
PEDESTRIAN INDICATIONS LED (16' COMBINATION) (COUNT DOWN)	EACH	8
LED TRAFFIC SIGNAL LENS	EACH	56
SURGE ARRESTOR - A.C.SERVICE	EACH	1
SURGE ARRESTOR - DETECTOR	EACH	-
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	8
6 PR. COMMUNICATION CABLE	LIN.FT.	①
DETECTOR LOOP WIRE NO.14 AWG 1/c	LIN.FT.	-
LEAD-IN WIRE NO.6 AWG 1/c	LIN.FT.	50
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	1100
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	1900
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	150
SHIELDED 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)	LIN.FT.	100
CONDUIT 3"(RGC)	LIN.FT.	550
*#8 AWG GROUND (GREEN)	LIN.FT.	650
STREET NAME SIGN	EACH	4
LEFT-TURN YIELD ON GREEN (R10-I2) SIGN	EACH	4
VIDEO DETECTION CAMERA, MOUNTING HARDWARE & SUNSHIELD	EACH	4
VIDEO DETECTION UNIT	EACH	1
VIDEO POWER CABLE #16 A.W.G. 3/C	LIN.FT.	1100
VIDEO CABLE 75 OHM COAXIAL (BELDON #82810R APPROVED EQUAL)	LIN.FT.	1100
TV MONITOR	EACH	1
ITERIS LENS ADJUSTMENT UNIT	EACH	-
VIDEO SYSTEM PROGRAMMING UNIT	EACH	-

⊘ 4 Modules required

① See Summary of Quantities Sh. No. 115 for "Traffic Signal Interconnect"

-QUANTITIES FOR INFORMATION ONLY-
 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 the complete operation of the traffic signal system whether specifically mentioned or not.

No.	Revision	By	Date
21ST ST. & 127TH ST.			
TRAFFIC SIGNAL WIRING & QUANTITIES			
JAMES L. ARMOUR, P.E.-CITY ENGINEER CITY OF WICHITA PROJECT NO. 472-84636			
Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	WDH	Job No.	01616
Drawn by	SVB	Date	August, 2008

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