

TRAFFIC SIGNAL HEADS		SUMMARY OF TRAFFIC SIGNAL HEADS						
A	C	H	K	SIGNAL FACE NUMBER	SIGNAL FACE ARRANGEMENT	NO. SECTIONS (PER FACE)	SIGNAL MOUNTING TYPE	QUANTITY
				1,5	C	3	MAST ARM W/BACKPLATE	3
				3,7	H	5	MAST ARM W/BACKPLATE	2
				2,6	A	3	SIDE-OF-POLE	2
				2,4	K	1	SIDE-OF-POLE	4
				TOTAL				17

NOTE: ALL LENSES ARE 12" L.E.D. UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL POLE SUMMARY													
POLE NO.	POLE HEIGHT	ARM HEIGHT	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	LUMINAIRE MOUNTING HEIGHT
1	35'	19'	38'	2	I	36'	18'	---	---	1	III	---	40'
2	Future	---	---	---	---	---	---	---	---	---	---	---	---
3	20'	19'	46'	3	I	45'	28'	15'	---	---	---	---	---
4	15'	---	---	---	---	---	---	---	---	1	III	1	---
5	20'	19'	40'	2	I	39'	21'	---	---	1	III	---	---
6	15'	---	---	---	---	---	---	---	---	2	III	2	---
7	35'	19'	50'	4	I	49'	39'	29'	17.5'	---	---	---	40'
8	15'	---	---	---	---	---	---	---	---	1	III	1	---
9													
10													
11													
12													

MAST ARM LENGTHS FOR FUTURE OPERATION WITH PROTECTED LEFT-TURNS.

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.

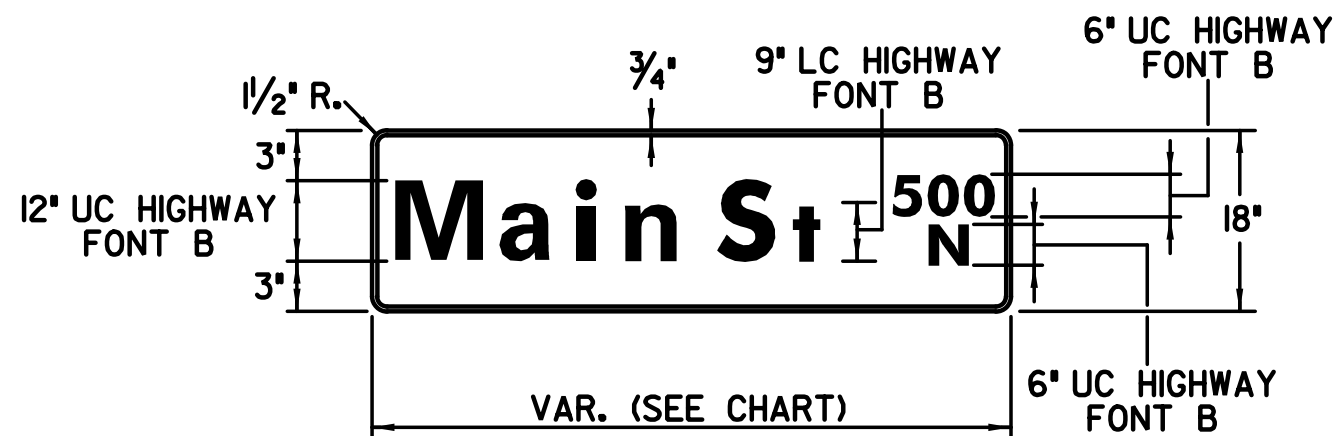
FUNCTION	PHASE TIMING							
	1	2	3	4	5	6	7	8
MINIMUM GREEN	8.0	10.0	8.0	10.0	8.0	10.0	8.0	10.0
MAXIMUM GREEN	25.0	25.0	35.0	45.0	20.0	30.0	20.0	30.0
YELLOW CHANGE	3.6	3.6	3.9	3.9	3.6	3.6	3.9	3.9
RED CLEAR	2.1	2.1	1.6	1.6	2.1	2.1	1.6	1.6
ADDED INITIAL	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0
MAXIMUM INITIAL	10.0	15.0	10.0	15.0	10.0	15.0	10.0	15.0

Phase Timing reflects initial operation. Phases 4 & 8 to Soft Recall.

SERVICE/JUNCTION BOX SUMMARY		
STATION	DIST.-SIDE	BASELINE
49+46.8	54.9' L+	HILLSIDE
50+59.7	50.0' L+	HILLSIDE

DETECTOR SUMMARY							
DETECTOR NO.	DETECTION ZONE	MODE	SIZE (LxW)	PHASE CALLED	PHASE EXTENDED	DELAY/STRETCH TIMER	INITIAL SETTING (SEC)
1	1-01	Presence	60x6	1	1	---	---
1	6-01	Presence	60x6	6	6	---	---
1	6-02	Presence	60x6	6	6	D	5.0
1	6-03	Pulse	6x6	6	6	S	1.0
1	6-04	Pulse	6x6	6	6	S	1.0
1	6-05	Pulse	6x6	6	6	S	1.0
1	6-06	Pulse	6x6	6	6	S	1.0
2	7-01	Presence	60x6	7	7	---	---
2	4-01	Presence	60x6	4	4	---	---
2	4-02	Presence	60x6	4	4	D	5.0
2	4-03	Pulse	6x6	4	4	S	1.0
2	4-04	Pulse	6x6	4	4	S	1.0
2	4-05	Pulse	6x6	4	4	S	1.0
2	4-06	Pulse	6x6	4	4	S	1.0
3	5-01	Presence	60x6	5	5	---	---
3	2-01	Presence	60x6	2	2	---	---
3	2-02	Presence	60x6	2	2	D	5.0
3	2-03	Pulse	6x6	2	2	S	1.0
3	2-04	Pulse	6x6	2	2	S	1.0
3	2-05	Pulse	6x12	2	2	S	1.0
4	3-01	Presence	60x6	3	3	---	---
4	3-02	Presence	60x6	3	3	---	---
4	8-01	Presence	60x6	8	8	---	---
4	8-02	Presence	60x6	8	8	D	5.0
4	8-03	Pulse	6x6	8	8	S	1.0
4	8-04	Pulse	6x6	8	8	S	1.0
4	8-05	Pulse	6x12	8	8	S	1.0

OVERHEAD STREET NAME SIGNS			
LEGEND	LENGTH	QUANTITY	
Hillside	3700' N	7'-0"	1
Hillside	3800' N	7'-0"	1
37th St	3100' E	5'-0"	1
37th St	3200' E	5'-0"	1



BILL OF MATERIALS		
ITEM	UNIT	QUANTITY
PAD MOUNTED CABINET	EACH	2 ++
SIGNAL CONTROLLER (2070)	EACH	CITY
CONFLICT MONITOR (MODEL 2010 ECLIP)	EACH	2 ++
BATTERY BACKUP SYSTEM	EACH	1
TRAFFIC SIGNAL HEAD W/MOUNTING HARDWARE	EACH	21
TRAFFIC SIGNAL POLE, STEEL (SEE POLE SUMMARY)	EACH	4
TRAFFIC SIGNAL PEDESTAL ALUM. (15')	EACH	3
TRAFFIC SIGNAL PEDESTAL (JOINT USE) ALUM. (35')	EACH	---
LUMINAIRE POLE W/15' ARM (SEE POLE SUMMARY)	EACH	---
CONCRETE CONTROLLER PAD	EACH	EXISTING
CONCRETE FOOTING - PEDESTAL (15')	EACH	1
CONCRETE FOOTING - PEDESTAL (35')	EACH	---
CONCRETE FOOTING - POLE	EACH	3
CONDUIT ELBOW 90° 2"	EACH	AS REQ'D
CONDUIT ELBOW 90° 3"	EACH	AS REQ'D
BACK PLATE 5" 3 SECTION (2" RETROREFLECTIVE)	EACH	11
BACK PLATE 5" 5 SECTION (2" RETROREFLECTIVE)	EACH	2
TERMINAL BLOCK	EACH	7
SERVICE BOX	EACH	2
JUNCTION BOX (PRE-FAB)	EACH	---
GROUND ROD & CLAMP	EACH	4
PEDESTRIAN PUSHBUTTON W/SIGN	EACH	4
PEDESTRIAN INDICATIONS LED (16"x18" COMBINATION) (COUNTDOWN)	EACH	4
LED TRAFFIC SIGNAL LENS (12")	EACH	43
ENTRANCE HEAD	EACH	EXISTING
CIRCUIT BREAKER & BOX 50 AMP.	EACH	EXISTING
SURGE ARRESTOR - A.C.SERVICE	EACH	---
SURGE ARRESTOR - DETECTOR	EACH	---
6 PR. COMMUNICATION CABLE	LIN.FT.	---
DETECTOR LOOP WIRE NO.14 AWG 1/c	LIN.FT.	---
SHEILDDED DETECTOR LEAD-IN NO.14 AWG 2/c	LIN.FT.	---
MULTI-CONDUCTOR CABLE NO.14 AWG 15/c	LIN.FT.	---
MULTI-CONDUCTOR CABLE NO.14 AWG 7/c	LIN.FT.	1,370
MULTI-CONDUCTOR CABLE NO.14 AWG 5/c	LIN.FT.	1,755
MULTI-CONDUCTOR CABLE NO.14 AWG 3/c	LIN.FT.	20
*#8 AWG GROUND (GREEN)	LIN.FT.	645
CONDUIT 1"(RGC)	LIN.FT.	AS REQ'D
CONDUIT 1 1/2"(RGC)	LIN.FT.	---
CONDUIT 2"(PVC)	LIN.FT.	---
CONDUIT 2"(RGC)	LIN.FT.	15
CONDUIT 3"(RGC)	LIN.FT.	127
STREET NAME SIGN	EACH	4
LEFT TURN SIGNAL (R10-I0) SIGN	EACH	3
LEFT TURN SIGNAL (R10-I2) SIGN	EACH	2
VIDEO DETECTION CAMERA, MOUNTING HARDWARE AND SUNSHIELD	EACH	8 ++
MAST ARM CAMERA RISER BRACKETS	EACH	4
VIDEO DETECTION UNIT (4 MODULES)	EACH	2 ++
VIDEO POWER CABLE *16 AWG 3/C	LIN. FT.	885
VIDEO CABLE 75 OHM COAXIAL (BELDON *8281 OR APPROVED EQUAL)	LIN. FT.	885
TV MONITOR	EACH	1

-QUANTITIES FOR INFORMATION ONLY-

NOTES: ● The traffic signal pushbuttons shall be Accessible Pedestrian Signals (APS) units per City Standard Specifications.

++ The four spare video detection cameras, spare video detection unit, spare conflict monitor and spare cabinets (full and complete) shall be delivered to the City of Wichita's Traffic Signal Supervisor at the Central Maintenance Facility, 1801 S. McLean Blvd.

RECAPITULATION OF TRAFFIC SIGNAL QUANTITIES		
ITEM	UNIT	QUANTITY
TRAFFIC SIGNALIZATION (HILLSIDE & 37TH ST N)	LUMP SUM	1

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
HILLSIDE			
GEN. NOTES AND QUANTITIES			
HILLSIDE ST. & 37TH ST. N.			
GARY JANZEN, P.E.-CITY ENGINEER CITY OF WICHITA PROJECT NO. 472-85161			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	SAC	Job No.	14136
Drawn by	DRP	Date	Feb., 2015
			Sh. 34 of 62