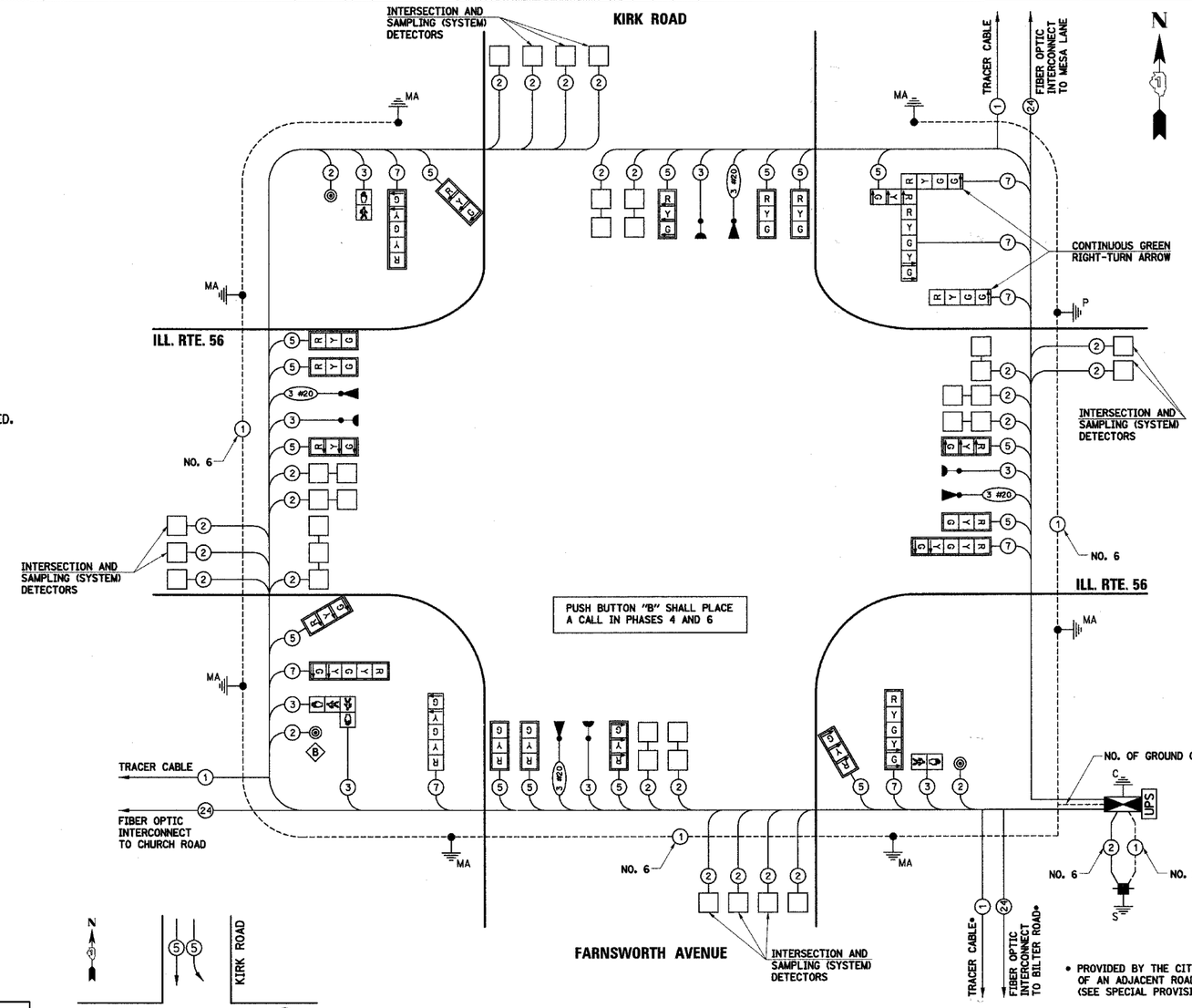
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
365	01-00273-00-CH	KANE	172	102
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83906

CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
R Y G L G "P"	R Y G L G "P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E" R	R	RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
"E"		ILLUMINATED SIGN "NO RIGHT TURN"
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
	UPS	UNINTERRUPTABLE POWER SUPPLY



THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

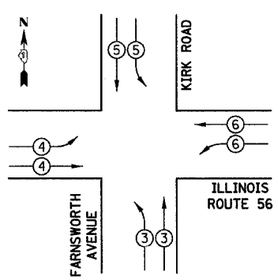
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL, TYPE 1	SQ FT	70
SIGN PANEL, TYPE 2	SQ FT	30
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	975
CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL	FOOT	118
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	63
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	177
CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	20
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	427
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	756
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1266
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	698
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2307
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4878
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2087
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	8521
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	33
TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 55 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 55 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	19
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	14
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	18
INDUCTIVE LOOP DETECTOR	EACH	23
DETECTOR LOOP, TYPE I	FOOT	1551
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	3
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1434
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELD	FOOT	1327
UNINTERRUPTABLE POWER SUPPLY	EACH	1
SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION, 1-4 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	23		17	0.50	195.5
(YELLOW)	23		25	0.25	143.8
(GREEN)	23		15	0.25	86.3
ARROW (NORMAL)	12		12	0.10	14.4
ARROW (WB RIGHT)	2		15	1.00	30.0
PED. SIGNAL	4		25	1.00	100.0
CONTROLLER	1		100	1.00	100.0
BATTERY BACKUP	1		25	1.00	25.0
ILLUM. SIGN				0.05	
FLASHER				0.50	
				TOTAL =	695.0

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: DAVE HUBERTY
PHONE: (847) 608-2342
COMPANY: COMMONWEALTH EDISON

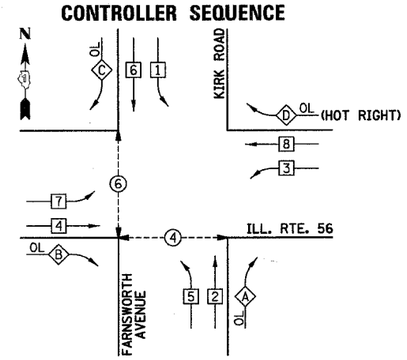


EMERGENCY VEHICLE PREEMPTION SEQUENCE

PROPOSED EMERGENCY VEHICLE PREEMPTORS				
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4	5	6
MOVEMENT				

FOUNDATION (DEPTH)		FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST		4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER		4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER		4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH			CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50'	36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50'	36" (900mm)	15 (4.6)				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

- SINGLE ENTRY PHASE
- OVERLAP
- * NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE

OVERLAP PHASE		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
B	=	4	+	5
C	=	6	+	7
D	=	(HOT) CONTINUOUS GREEN RIGHT ARROW		

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 56 AT KIRK / FARNSWORTH

CABLE PLAN AND PHASE DESIGNATION DIAGRAM

SCALE: VERT. N/A
HORIZ. N.T.S.
DATE APR 06 2007

DRAWN BY BAH
CHECKED BY APS

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / FIELD TRAV CHECKED / FIELD FILE NAME / NOTE BOOK NO. / BY / DATE

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTAT'NS CHK'ED / NOTE BOOK NO. / BY / DATE

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