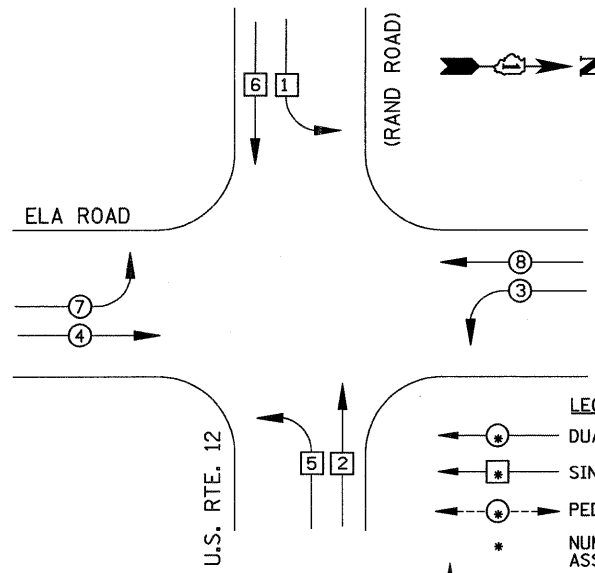
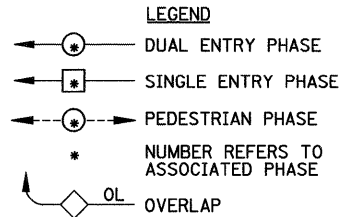


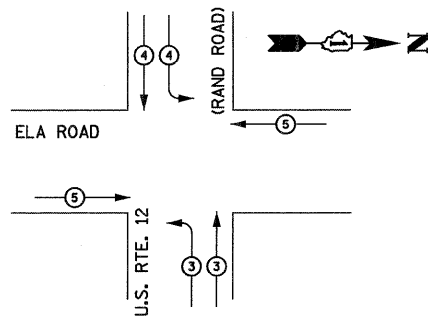
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	7	1	2

CABLE PLAN LEGEND

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

SCHEDULE OF QUANTITIES

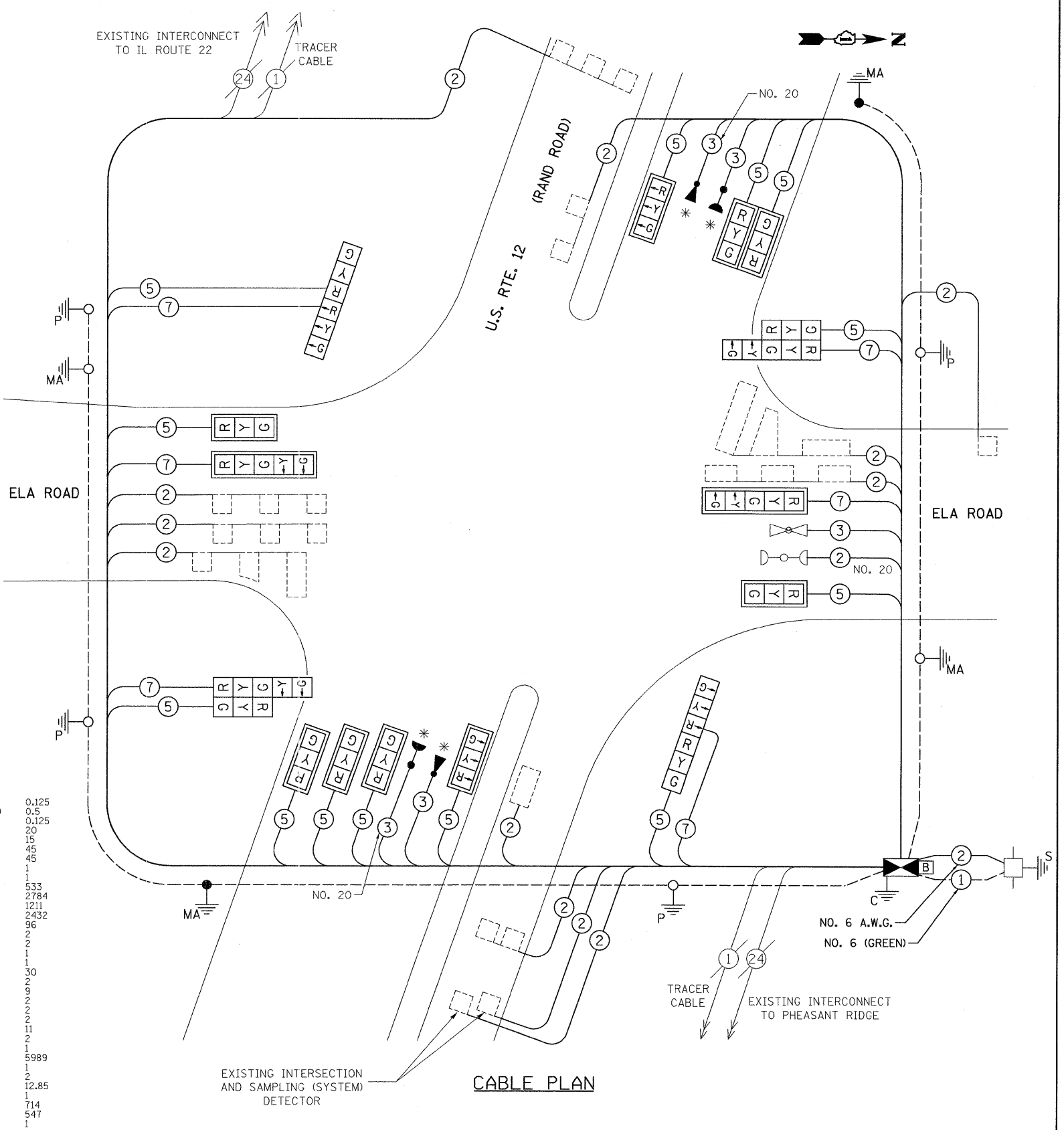
Mobilization	0.125
ENGINEERS FIELD OFFICE, TYPE A	CAL MO 0.5
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM 0.125
SIGN PANEL, TYPE 1	SO FT 20
RELOCATE SIGN PANEL, TYPE 1	SO FT 15
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT 45
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT 45
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH 1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH 1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT 533
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT 2784
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT 1211
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14 1 PAIR	FOOT 2432
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT 96
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH 2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH 2
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH 1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH 1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT 30
DRILL EXISTING HANDHOLE	EACH 9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH 2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH 2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH 2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH 2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH 11
* LIGHT DETECTOR	EACH 2
* LIGHT DETECTOR AMPLIFIER	EACH 2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT 5989
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH 1
REMOVE EXISTING CONCRETE FOUNDATION	EACH 1
TEMPORARY INFORMATION SIGNING	SO FT 12.85
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II	EACH 1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT 714
* ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	FOOT 547
UNINTERRUPTIBLE POWER SUPPLY	EACH 1

* 100% COST TO THE VILLAGE OF LAKE ZURICH

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.0 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20.0 (6.0)
E - M. ARM POLE	0 (0.0)	SIGNAL POST	0 (0.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	0 (0.0)	PED. PUSH-BUTTON	6 (2.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	13 (4.0)

L SUM	0.125
CAL MO	0.5
L SUM	0.125
SO FT	20
SO FT	15
FOOT	45
FOOT	45
EACH	1
EACH	1
FOOT	533
FOOT	2784
FOOT	1211
FOOT	2432
FOOT	96
EACH	2
EACH	2
EACH	1
EACH	1
EACH	1
FOOT	30
EACH	9
EACH	2
EACH	2
EACH	2
EACH	2
EACH	11
EACH	2
EACH	2
FOOT	5989
EACH	1
EACH	1
SO FT	12.85
EACH	1
FOOT	714
FOOT	547
EACH	1

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	%OPERATION		
SIGNAL (RED)	19	135	17	0.50	161.5
(YELLOW)	19	135	25	0.25	118.75
(GREEN)	19	135	15	0.25	71.25
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 W. CENTER COURT SCHAUMBURG, IL 60196				TOTAL =	461.1
ENERGY SUPPLY CONTACT: DOTTIE PROSEN (847) 816-5323 PHONE: COMED COMPANY:					

FILE NAME = J:\MICROST\352856\16-ELA CAB.DGN	USER NAME = JLA	DESIGNED - KK	REVISED -
		DRAWN - JLA	REVISED -
		CHECKED - BPT	REVISED -
		DATE - 12-10-08	REVISED -

SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM U.S. ROUTE 12 (RAND ROAD) AT ELA ROAD

F.A.P. RTE. 334	SECTION 2008-069 TS	COUNTY LAKE	TOTAL SHEETS 26	SHEET NO. 17
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60F62	

PREPARED BY:
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E-Mail: cadd@cemcon.com Website: www.cemcon.com