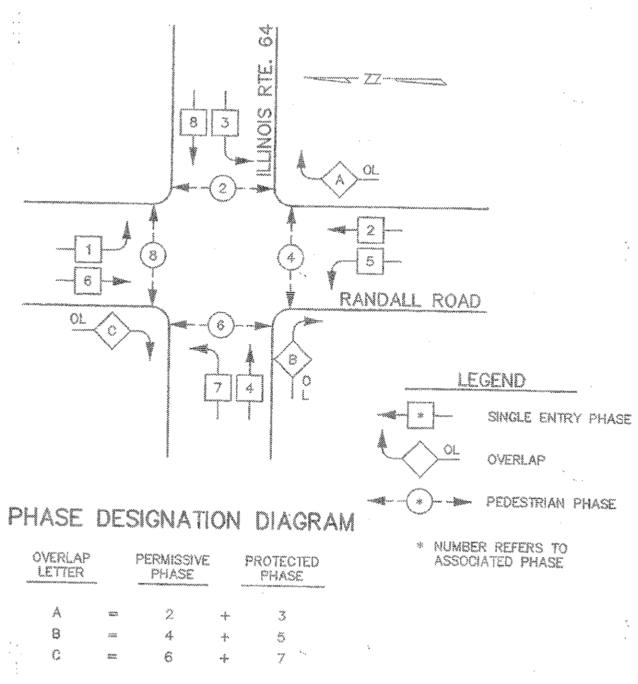
F.A.P. RTE.	COUNTY SECTION	COUNTY	TOTAL SHTS.	SHEET NO.
336	99-00243-00-PV / CONTRACT NO. 83782	KANE	268	136

CABLE PLAN
F.H.W.A. REG.5 | ILLINOIS | PROJECT F-0336(008)

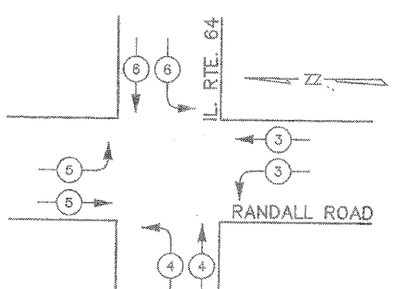
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
B	=	4	+	5
C	=	6	+	7

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

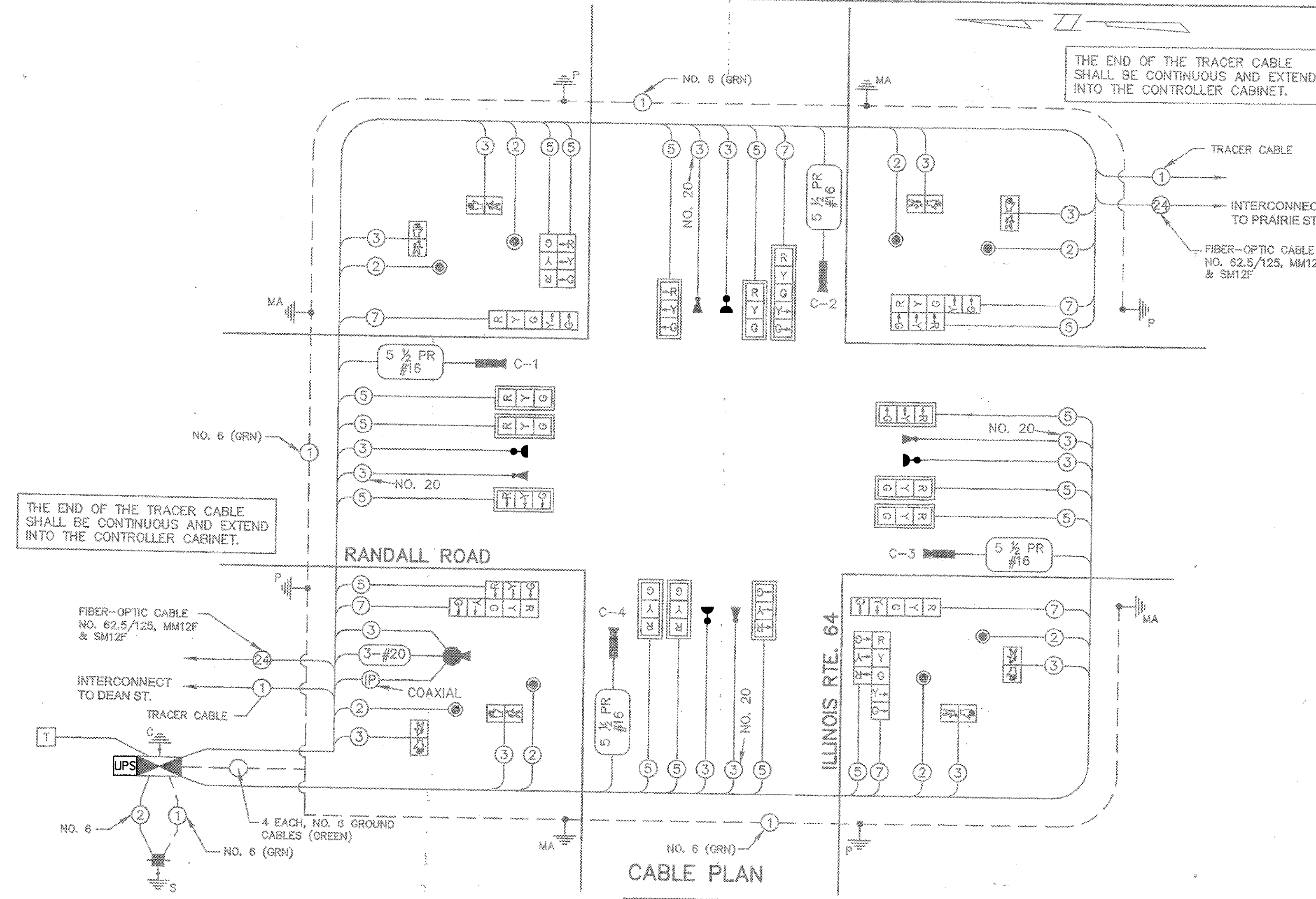
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	22	135	17	0.50	187.0
(YELLOW	22	135	25	0.25	137.5
(GREEN)	22	135	15	0.25	82.5
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
VIDEO DETECT	5	23	23	1.00	115.0
-					
-					
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	836.4

CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

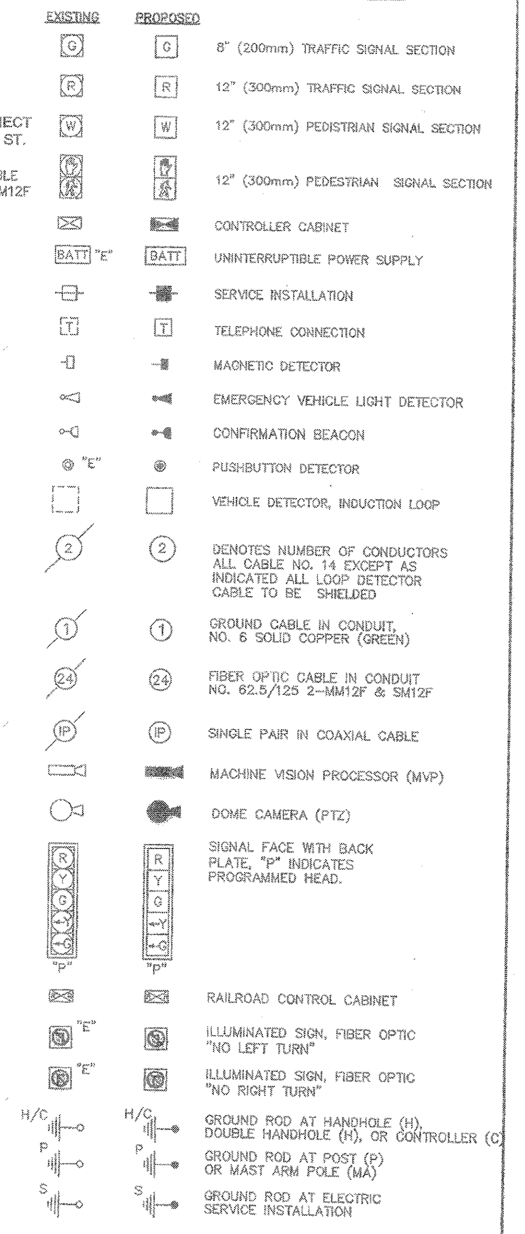
ENERGY SUPPLY CONTACT: Tom Lesiewicz
PHONE: (630) 377-4486
COMPANY: St. Charles Electric Department

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

CABLE PLAN



CABLE PLAN LEGEND



CONSTRUCTION NOTES:

1. REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
2. ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY BATTERY BACK-UP SYSTEM.
3. REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
4. UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
5. UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
6. INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	12
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, PTZ VIDEO TRAFFIC MONITORING SYSTEM	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 2	EACH	1

PROPOSED TRAFFIC SIGNAL EQUIPMENT SHALL BE ONLY EAGLE BRAND OF CONTROLLERS & AUTO-SCOPE BRAND OF VIDEO VEHICLE DETECTION EQUIPMENT SO AS TO MATCH EXISTING SYSTEMS OR LOCAL STANDARDS.

DIVISION OF TRANSPORTATION
CABLE PLAN
PHASE DESIGNATION DIAGRAM
SCHEDULE OF QUANTITIES

RANDALL RD. & ILLINOIS RTE. 64

NAME | DATE
REVISIONS

SCALE: NONE
DATE: SEPTEMBER 23, 2004
DRAWN BY: JMH
DESIGNED BY: DMH
CHECKED BY: JRL

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.T. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO.
PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO.

FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
N:\kanecounty\080673\Traffic\010_CAB_Randall-IL64.dgn	PLOT SCALE = NOT TO SCALE	DRAWN - FCP	REVISED -
	PLOT DATE = 11/3/2010	CHECKED - MJT	REVISED -
		DATE - AUGUST 31, 2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE RANDALL ROAD AND IL ROUTE 64

SCALE: | SHEET NO. OF SHEETS | STA. -- TO STA. --

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	10

CONTRACT NO. 63525
ILLINOIS | FED. AID PROJECT