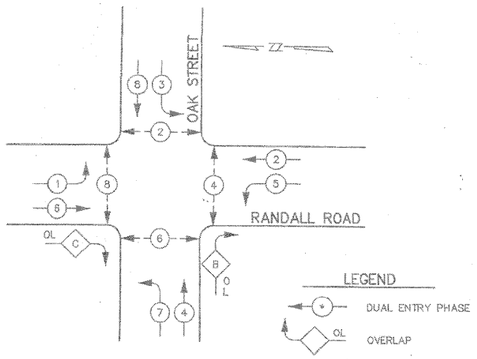
D:\LD 2004\04050067\DWG\TS-CABLEPLAN-OAK.DWG
October 27, 2006 8:23:40 a.m.

F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHTS.	SHEET NO.
336	99-00243-00-PV CONTRACT NO. 63782	KANE		136B
CABLE PLAN				
F.H.W.A. REG.5	ILLINOIS	PROJECT F-0336(008)		

CONTROLLER SEQUENCE

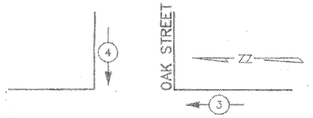


PHASE DESIGNATION DIAGRAM

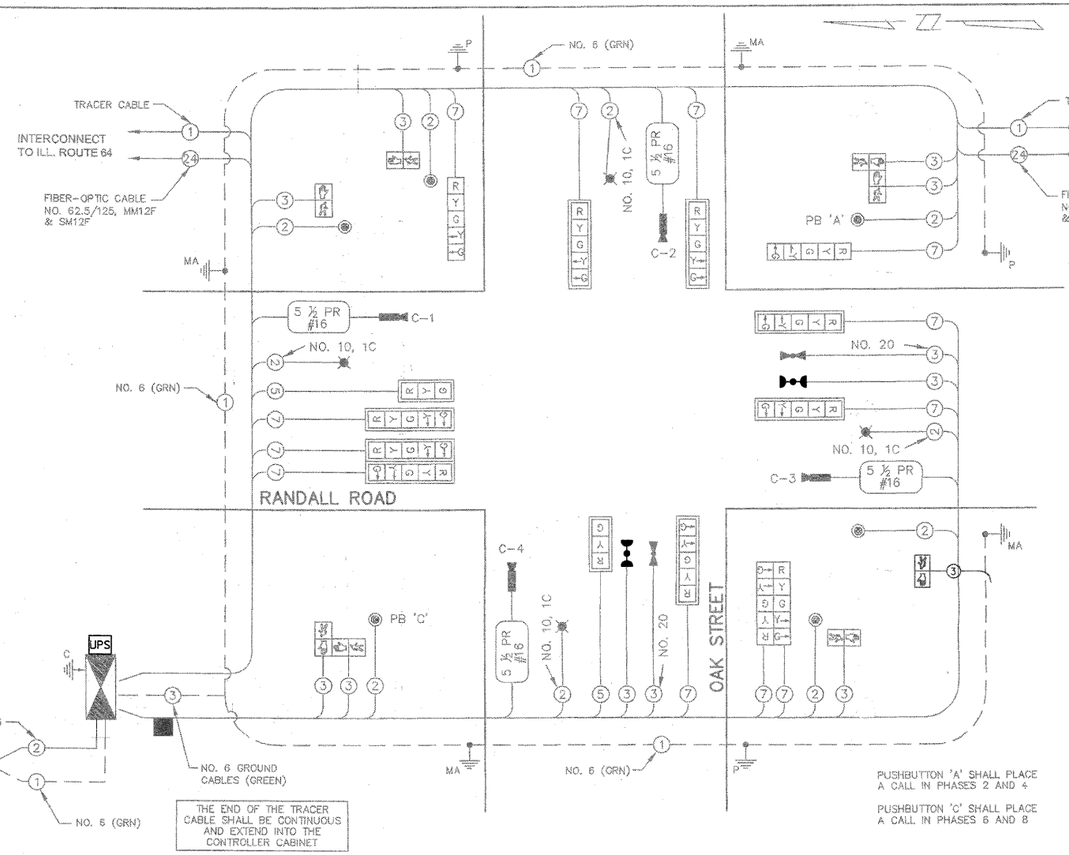
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5
C	=	6	+	7

* NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓ ↑



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

PUSHBUTTON 'A' SHALL PLACE A CALL IN PHASES 2 AND 4

PUSHBUTTON 'C' SHALL PLACE A CALL IN PHASES 6 AND 8

CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDISTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
BATT "E"	BATT	UNINTERRUPTIBLE POWER SUPPLY
		SERVICE INSTALLATION
T	T	TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
"E"		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
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. 8 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F
IP	IP	SINGLE PAIR IN COAXIAL CABLE
		MACHINE VISION PROCESSOR (MVP)
		DOME CAMERA (PTZ)
		SIGNAL FACE WITH BACK PLATE, "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		LUMINAIRE, S.V., 400W

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.

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	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	~~135~~	17	0.50	119.0
(YELLOW)	14	~~135~~	25	0.25	87.5
(GREEN)	14	~~135~~	15	0.25	52.5
ARROW	24	~~135~~	12	0.10	28.8
PED. SIGNAL	8	~~98~~	25	1.00	200.0
CONTROLLER	1	~~160~~	100	1.00	100.0
		~~84~~			
VIDEO DETECTOR	4	~~23~~	23	1.00	92.0
LUMINAIRE	4	400		0.50	800.0
FLASHER				0.50	

ENERGY COSTS TO: (NEW SERVICE) TOTAL = 1479.8

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=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
< 30' MA 30" DIA	10' (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
< 40' MA 30" DIA	13.5' (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
< 40' MA 36" DIA	11' (3.4)	ELECTIRC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
< 50' MA 36" DIA	13' (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
≥ 50' MA 36" DIA	15' (4.6)			POST MOUNTED	6(1.8)

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: UNINTERRUPTIBLE POWER SUPPLY.
3. REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
4. REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE. RELOCATE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO NEW CABINET ENCLOSURE.
5. UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
6. INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.

NAME	DATE
REVISIONS	

DIVISION OF TRANSPORTATION
CABLE PLAN
PHASE DESIGNATION DIAGRAM
SCHEDULE OF QUANTITIES

RANDALL RD. & OAK STREET

SCALE: NONE
DATE: OCTOBER 25, 2005
DRAWN BY: JMH
DESIGNED BY: DMH
CHECKED BY: JRL

ZYLSTRA ADDENDUM

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

PLAN / PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, BASE MAP, STRUCTURE NO(TA'N)S CK'D — NOTE BOOK — NO. — BY — DATE — ALIGNMENT CHECKED, TIES / ROW CHECKED, CADD FILE NAME

FILE NAME = N:\kanecounty\060673\Traffic\012_CAB_Randall-Oak.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
		DRAWN - FCP	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -
	PLOT DATE = 11/3/2010	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 OAK STREET

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	12
		CONTRACT NO. 63525		
	ILLINOIS	FED. AID PROJECT		