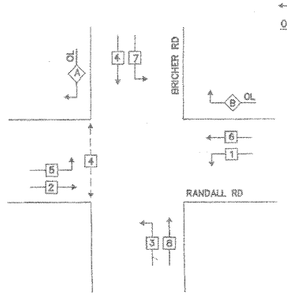
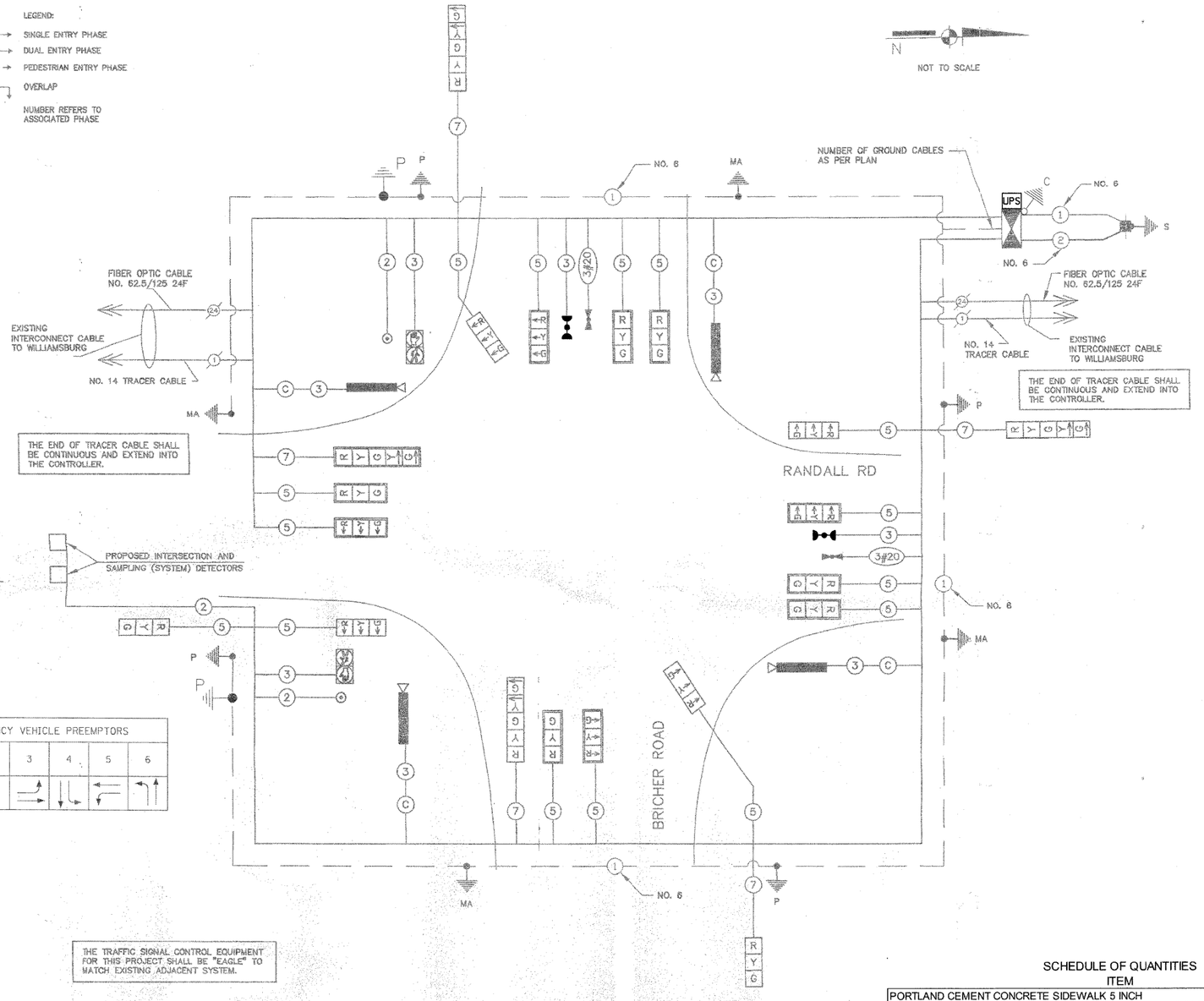
CONTROLLER SEQUENCE

LEGEND:
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN ENTRY PHASE
- OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

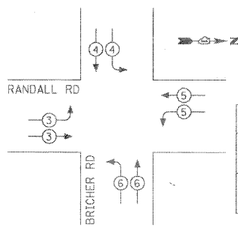


PHASE DESIGNATION DIAGRAM

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



EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

CABLE PLAN LEGEND

EXISTING	PROPOSED	
		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
		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.
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/G	C	GROUND ROD AT HANDHOLE (G), DOUBLE HANDHOLE (GG), OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER GROUND
1	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 E-M62F & SM62F
M	M	VIDEO DETECTOR W/COAXIAL & POWER CABLES

NOTE:
EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPLICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDHOLES OR DOUBLE HANDHOLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	X OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	19	0.50	192.00
(YELLOW)	12	135	23	0.25	73.00
(GREEN)	12	135	13	0.25	45.00
ARROW	32	135	12	0.10	38.40
PED. SIGNAL	2	90	69	1.00	69
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN	–	84		0.65	0
FLASHER				0.50	--
ENERGY COSTS TO CITY OF ST. CHARLES				TOTAL =	410.40

ENERGY SUPPLY CONTACT: TOM BRUHL
PHONE: (630) 377-4407
COMPANY: CITY OF ST. CHARLES

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)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2' (6m+L-0.6m)
S - M. ARM POLE		SIGNAL POST	2 (0.5)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

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

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 AND 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
UNINTERRUPTIBLE POWER SUPPLY	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
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

SCHEDULE OF QUANTITIES
PHASE DESIGNATION DIAGRAM
CABLE PLAN

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTOR SEQUENCE
RANDALL ROAD AND BRICHER
GENEVA, ILLINOIS

REV.: 5/28/03 REV.: 1/20/03
DATE: 7/29/02 REV.: 10/07/02
DRAWN: MJD DESIGN: MJD

MJD ENGINEERING
3709 NORTH OKETO
CHICAGO, ILLINOIS 60634 (773) 625-6565

7 OF 10

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

PROFILE PLAN | SURVEYED | PLOTTED | GRADES CHECKED | NOTE BOOK | STRUCTURE NO'S ATTN'S CK'D | NO. | BY | DATE

FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
N:\kanecounty\082673\Traffic\819_CAB_Randall-Bricher.dgn		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 BRICHER ROAD

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	19
		CONTRACT NO. 63525		
	ILLINOIS FED. AID PROJECT			