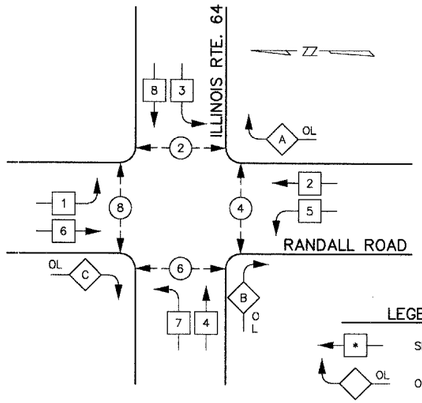
F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHTS.	NO.
336	99-00243-00-PV CONTRACT NO. 83782	KANE	268	1
CABLE PLAN				
F.H.W.A. REG.5	ILLINOIS	PROJECT F-0336(0		

CONTROLLER SEQUENCE

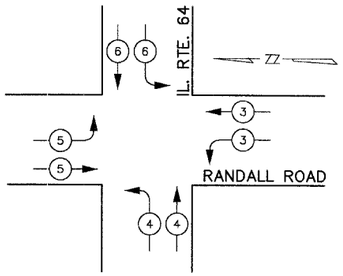


PHASE DESIGNATION DIAGRAM

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

* NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

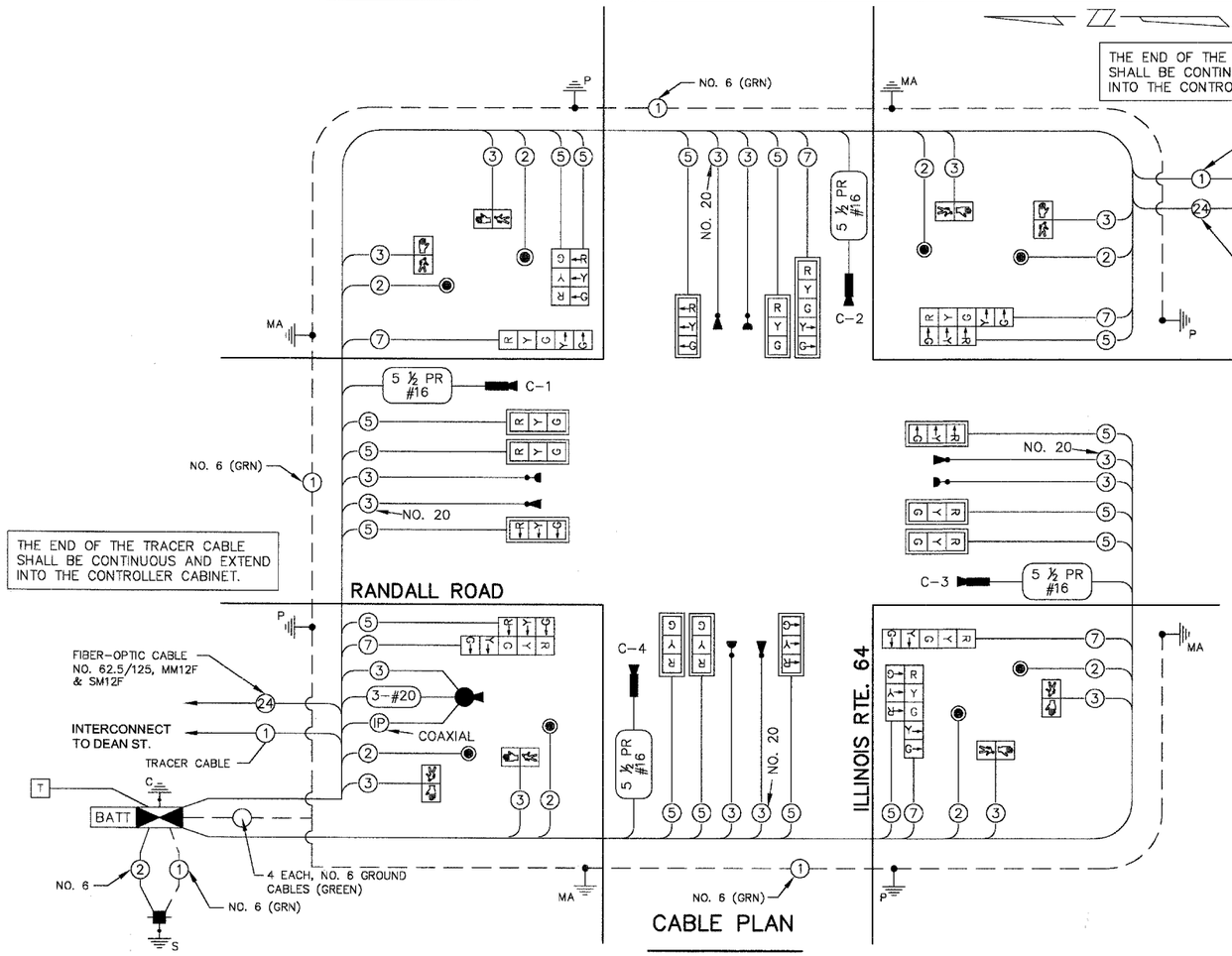


PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

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	~~99~~	25	1.00	200.0
CONTROLLER	1	~~100~~	100	1.00	100.0
ILLUM. SIGN		~~84~~		0.05	
VIDEO DETECT	5	~~25~~	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) 377-4405
COMPANY: St. Charles Electric Department



CABLE PLAN

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. 6 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)
R Y G ←Y ←G	R Y G ←Y ←G	SIGNAL FACE WITH BACK PLATE, "P" INDICATES PROGRAMMED HEAD.
"P"	"P"	
		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
P	P	GROUND ROD AT POST (P) OR MAST ARM PCLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM
55	SQ FT	SIGN PANEL - TYPE 1
25	SQ FT	SIGN PANEL - TYPE 2
115	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
200	FOOT	CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL
180	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
800	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	DOUBLE HANDHOLE
465	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1	EACH	VIDEO DETECTION SYSTEM (FULL INTERSECTION)
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM
1	EACH	VIDEO TRANSMISSION SYSTEM
1	EACH	TRANSCEIVER - FIBER OPTIC
1933	FOOT	ELECTRICAL CABLE IN CONDUIT, SIGNAL NO. 14 2C
3215	FOOT	ELECTRICAL CABLE IN CONDUIT, SIGNAL NO. 14 3C
4215	FOOT	ELECTRICAL CABLE IN CONDUIT, SIGNAL NO. 14 5C
1860	FOOT	ELECTRICAL CABLE IN CONDUIT, SIGNAL NO. 14 7C
1140	FOOT	ELECTRICAL CABLE IN CONDUIT, COMMUNICATION NO. 16, 5 PAIR
126	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
986	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1280	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
85	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL

QTY	UNIT	ITEM
4	EACH	TRAFFIC SIGNAL POST, PAINTED STEEL 18 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT. WITH DUAL 15 FT. LIGHTING ARMS AT 45° M.H.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT. WITH DUAL 15 FT. LIGHTING ARMS AT 45° M.H.
2	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT. WITH DUAL 15 FT. LIGHTING ARMS AT 45° M.H.
19	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
60	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED ALUMINUM
* 4	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
13	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
11	EACH	SIGNAL HEAD, POLY, L.E.D., 1-FACE, 3-SECTION, MAST ARM MTD
2	EACH	SIGNAL HEAD, POLY, L.E.D., 1-FACE, 5-SECTION, BRACKET MTD
1	EACH	SIGNAL HEAD, POLY, L.E.D., 1-FACE, 5-SECTION, MAST ARM MTD
1	EACH	SIGNAL HEAD, POLY, L.E.D., 2-FACE, 3 SEC., BRACKET MTD
3	EACH	SIGNAL HEAD, POLY, L.E.D., 2-FACE, 1-3 SEC., 1-5 SEC., BRACKET MTD
8	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED
1	EACH	SERVICE INSTALLATION, GROUND MOUNTED

* 100% TO BE PAID BY CITY OF ST. CHARLES

Revised 6-8-05

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" (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)

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.

NAME	DATE
REVISIONS	

DIVISION OF TRANSPORTATION
CABLE PLAN
PHASE DESIGNATION DIAGRAM
SCHEDULE OF QUANTITIES

RANDALL RD. & ILLINOIS RTE. 64

SCALE: NONE
DATE: SEPTEMBER 23, 2004
DRAWN BY: JMH
DESIGNED BY: DM
CHECKED BY: JRI

ADDENDUM TS-1