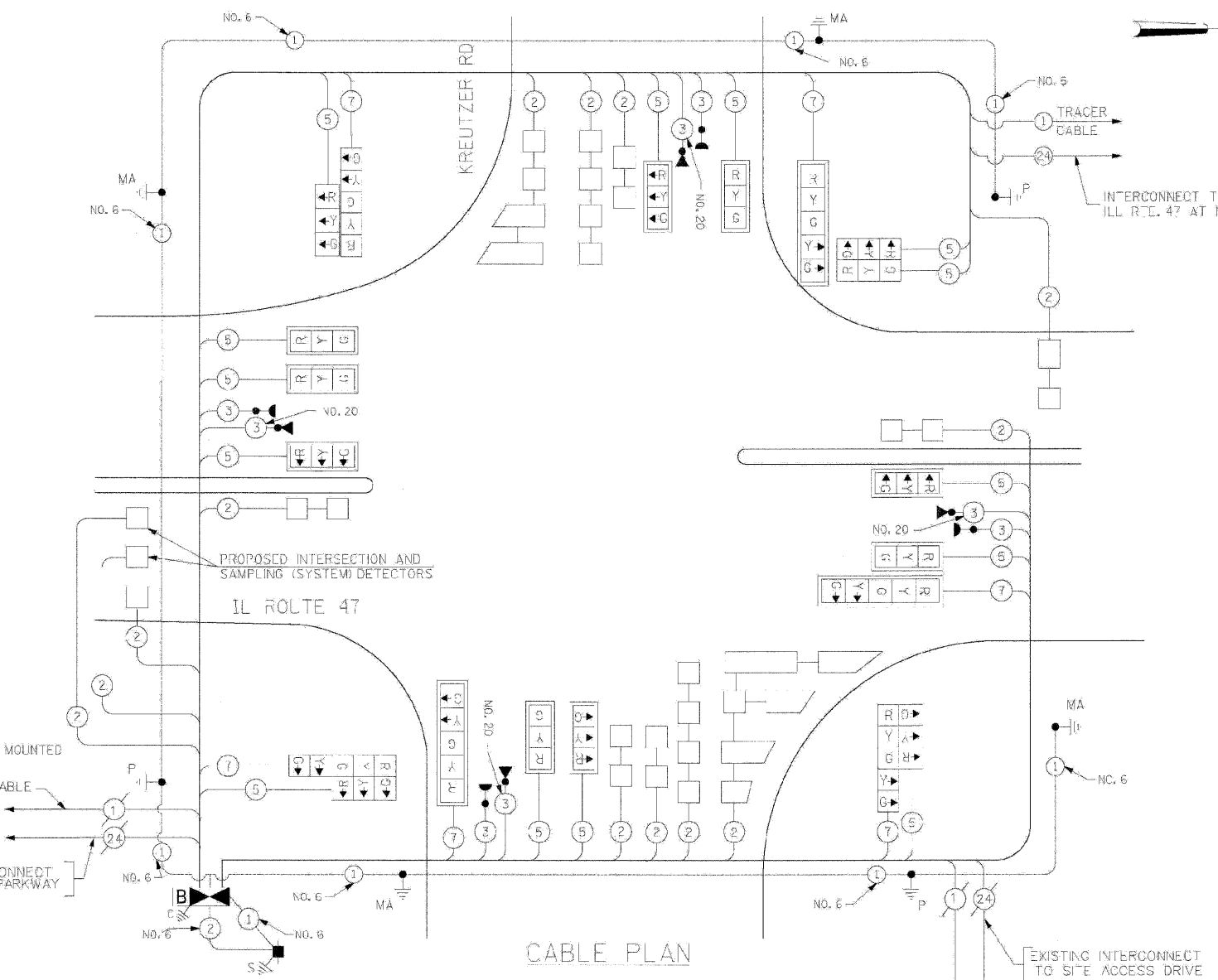


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	281
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
73	SQ FT	SIGN PANEL - TYPE 1
524	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
98	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
55	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
116	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
212	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
327	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
5	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
744	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIEVER - FIBER OPTIC
994	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3539	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1185	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3210	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
30	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
50	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
9	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
12	EACH	TRAFFIC SIGNAL BACKPLATE
13	EACH	INDUCTIVE LOOP DETECTOR
4	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	REMOVE TEMPORARY TRAFFIC SIGNAL INSTALLATION
1547	FOOT	PREFORMED DETECTOR LOOP
3	EACH	PAINT NEW TRAFFIC SIGNAL POST
1	EACH	PAINT NEW MAST ARM POLE, UNDER 40 FEET
3	EACH	PAINT NEW MAST ARM POLE, 40 FEET AND OVER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
932	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
994	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	MODIFY TEMPORARY TRAFFIC SIGNAL INSTALLATION

* 100% COST TO VILLAGE OF HUNTLEY



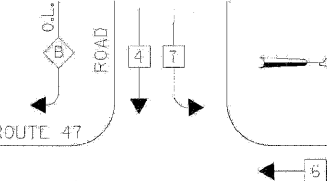
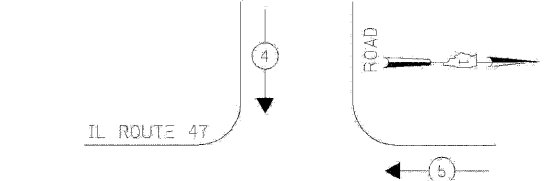
CABLE PLAN LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LOOP DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSH-BUTTON DETECTOR |
| | | 2 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-MM2F & SM2F |
| | | 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/C GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | P GROUND ROD AT POST OR MAST ARM POLE |
| | | S GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | LOCAL AND MASTER CONTROLLER |
| | | MICROWAVE VEHICLE SENSOR |
| | | B UPS BATTERY BACK UP |

CABLE PLAN

EMERGENCY VEHICLE PREEMPTION SEQUENCE

CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- O.L. OVERLAP
- PEDESTRIAN PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 8	+ 1

90 GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6335 N. WORTHWAY HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631-1731 (773) 774-5900

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
ILLINOIS ROUTE 47 AT KREUTZER ROAD

REVISIONS

NAME	DATE

SCALE: N.T.S. DRAWN BY: ME,MA,YB
DATE: APRIL 17, 2009 DESIGNED BY: PKG/RRM
CHECKED BY: PKG/RRM

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE	
SIGNAL (RED)	20	225	17	0.50	170
(YELLOW)	20	225	25	0.25	125
(GREEN)	20	225	15	0.25	75
ARROW	12	225	12	0.10	14.4
PED. SIGNAL	90	90	25	1.00	90
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL #				484.4	

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAMBURG, ILLINOIS 60196-1026
ENERGY SUPPLY CONTACT: KATIE OLIVA
PHONE: (847) 608-2338
COMPANY: COMMONWEALTH EDISON

PROPOSED EMERGENCY VEHICLE PREEMPTORS

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)
C-CONTROLLER W/UPS	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-25'
D-CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6mH-0.6mE)
E-MAST ARM POLE		CONTROLLER CAB.	4 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSH-BUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
42" (1050mm)	25 (7.6)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)