

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	308
STA. 9+35.22		TO STA. 142+08.53		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES

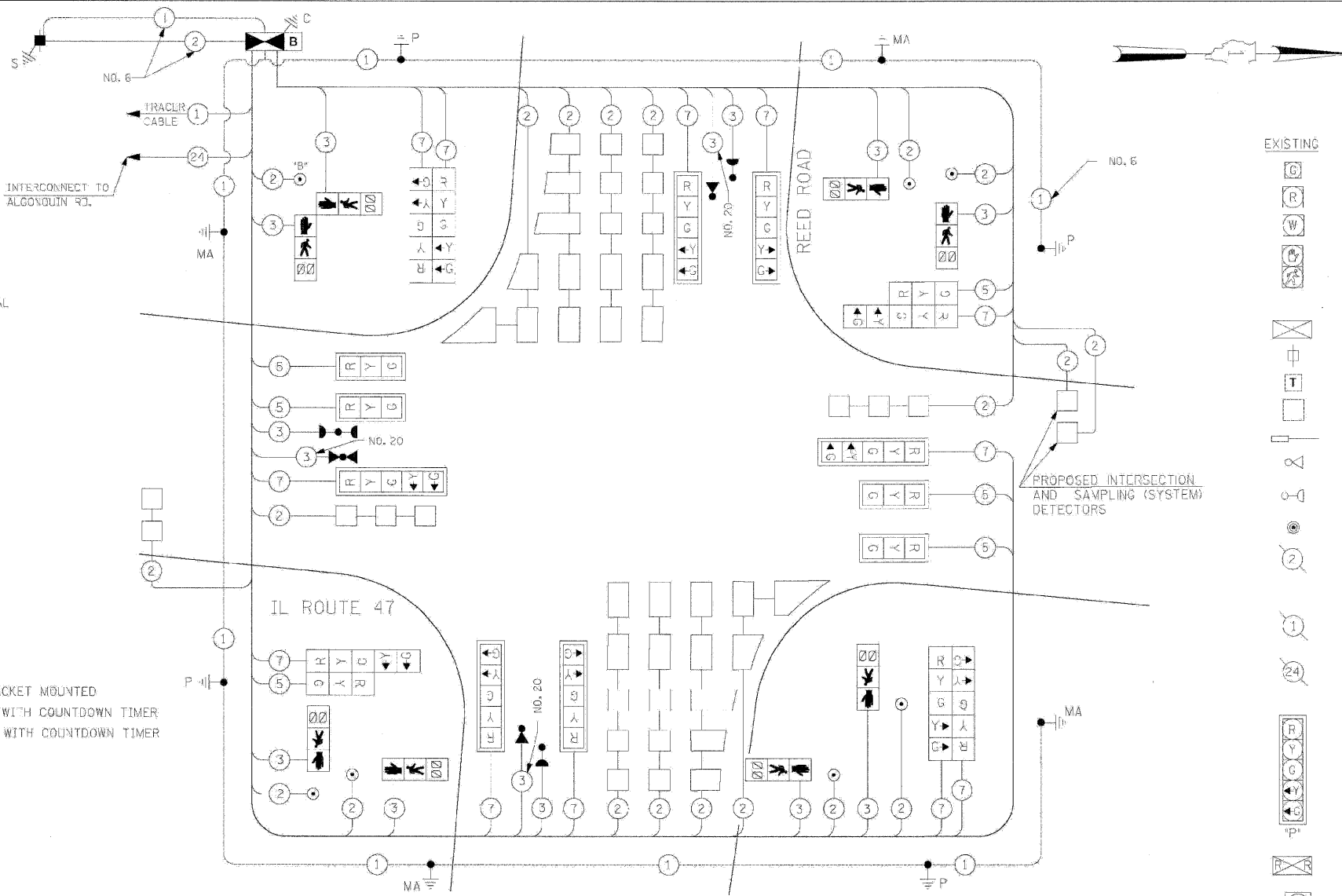
QUANTITY	UNIT	ITEM
27	SQ. FT.	SIGN PANEL - TYPE 1
653	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
118	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
148	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
491	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
4	EACH	HANDHOLE
5	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
752	FOOT	TRENCH AND BACK-FILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
1433	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
2142	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1324	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
2624	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2854	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
340	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 64 FT.
16	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
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
6	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
10	EACH	TRAFFIC SIGNAL BACKPLATE
13	EACH	INDUCTIVE LOOP DETECTOR
*3	EACH	LIGHT DETECTOR
*1	EACH	LIGHT DETECTOR AMPLIFIER
7	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
11	EACH	REMOVE EXISTING HANDHOLE
6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1585	FOOT	PREFORMED DETECTOR LOOP
4	EACH	PAINT NEW TRAFFIC SIGNAL POST
2	EACH	PAINT NEW MAST ARM POLE, UNDER 40 FEET
2	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 (UPS)
950	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
*591	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/4 TWISTED, SHIELDED

\* 100% COST TO VILLAGE OF HUNTLEY

I.D.D.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.80	153
(YELLOW)	16	135	25	0.25	112.5
(GREEN)	16	135	15	0.25	67.5
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	8	96	25	1.00	200
CONTROLLER	100	100	100	1.00	100
ILLUM. SIGN				0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	86.8

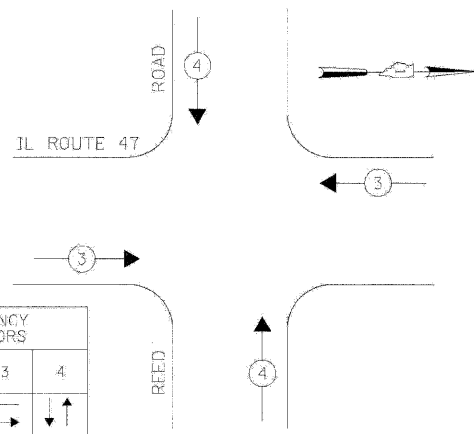
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 20 WEST CENTER COURT  
 SCHUMBERG, ILLINOIS 60196-1098  
 ENERGY SUPPLY CONTACT: KATIE OLIVA  
 PHONE: (817) 608-2338  
 COMPANY: COMMONWEALTH EDISON

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 & UPS	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM ILL. POLE	20'-4" - 2'
D-CONTROLLER	4 (1.2)	SIGNAL POST	2 (0.6)	(6m+ - 0.6m) =	
E-MAST ARM POLE		CONTROL CAB.	1 (0.3)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.3)	ELECTRIC SERVICE	13.5 (4.1)
42" (1050mm)	25 (7.6)	GROUND CABLE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

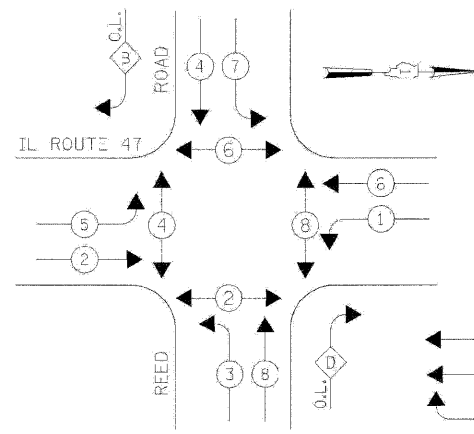


CABLE PLAN

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CONTROLLER SEQUENCE



PUSH-BUTTON NO. 1  
 PUSH-BUTTON '3' SHALL PLACE A CALL IN PHASES 4 AND 6

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

OVERLAP LEFT/RT	PERMISSIVE PHASE	PROTECTED PHASE
B =	4	+ 5
D =	8	+ 1

GANDHI AND ASSOCIATES, INC.  
 ENGINEERS AND PLANNERS  
 6035 N. NORTHWEST HIGHWAY  
 SUITE 308  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5910

CABLE PLAN LEGEND

- EXISTING: [Symbol] 8" (200mm) FIBER OPTIC SIGNAL SECTION
- PROPOSED: [Symbol] 12" (300mm) TRAFFIC SIGNAL SECTION
- [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
- [Symbol] CONTROLLER CABINET
- [Symbol] SERVICE INSTALLATION
- [Symbol] TELEPHONE INSTALLATION
- [Symbol] VEHICLE DETECTOR, INDUCTION LOOP
- [Symbol] MAGNETIC DETECTOR
- [Symbol] EMERGENCY VEHICLE LIGHT DETECTOR
- [Symbol] CONFIRMATION BEACON
- [Symbol] PUSH-BUTTON DETECTOR
- [Symbol] DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED, ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- [Symbol] GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- [Symbol] FIBER OPTIC CABLE IN CONDUIT NO. 62.5/25 2-MM12F & SMI2F
- [Symbol] SIGNAL FACE WITH BACKPLATE, \*P\* INDICATES PROGRAMMED HEAD.
- [Symbol] RAILROAD CONTROL CABINET
- [Symbol] ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
- [Symbol] ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
- [Symbol] GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
- [Symbol] GROUND ROD AT POST OR MAST ARM POLE
- [Symbol] GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- [Symbol] LOCAL AND MASTER CONTROLLER
- [Symbol] MICROWAVE VEHICLE SENSOR
- [Symbol] UPS BATTERY BACK-UP

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

REVISIONS	
NAME	DATE

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