F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0085	00-00246-01-FP	MCHENRY	236	146
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 63266

CABLE PLAN LEGEND

PROPOSED

- R — 12" TRAFFIC SIGNAL SECTION
- 00 — 16" X 18" PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
- CONTROLLER CABINET
- SERVICE INSTALLATION
- T — TELEPHONE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- EMERGENCY VEHICLE LIGHT 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 MM12F & SM12F
- R, Y, G, ←Y, ←G — SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.

"P"

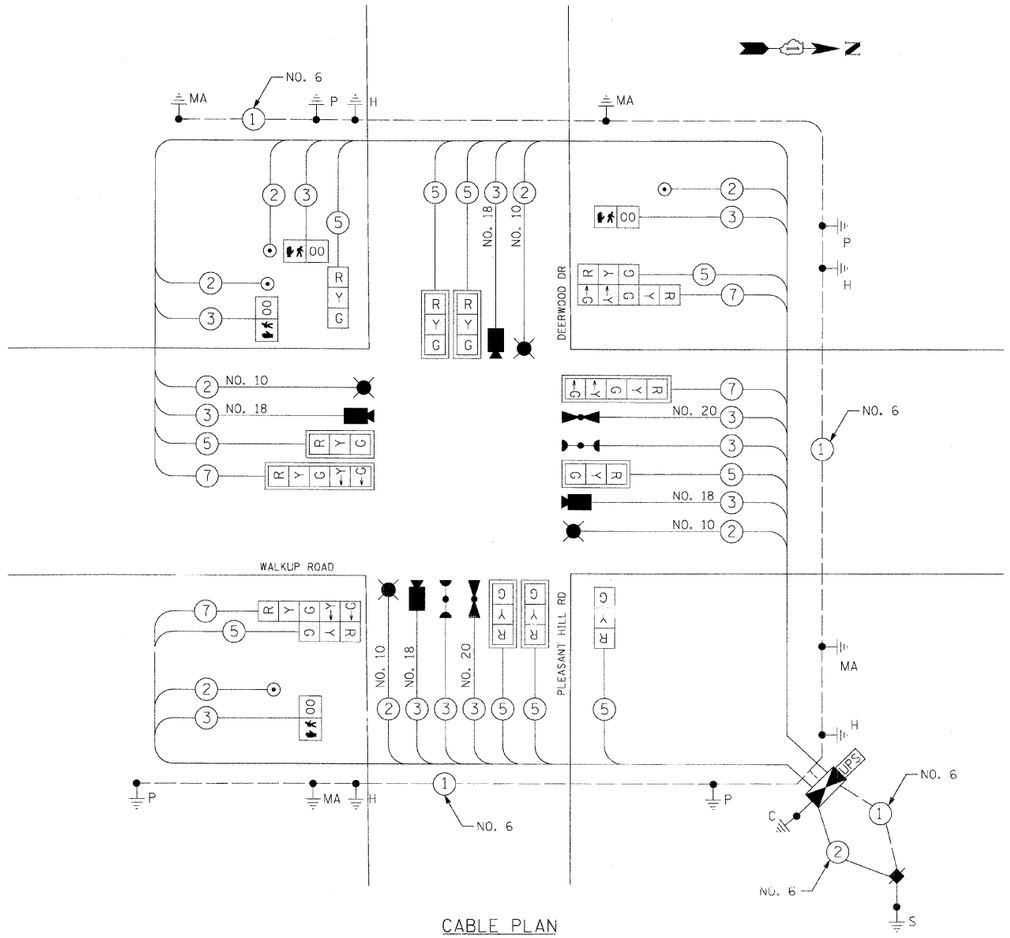
- RR — RAILROAD CONTROL CABINET
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- HANDHOLE
- C — GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
- P — GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
- S — GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- B — BATTERY BACKUP SYSTEM
- VIDEO DETECTION CAMERA
- LUMINAIRE, 250W HPS

WATTAGE CALCULATION TABLE

MCDOT
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

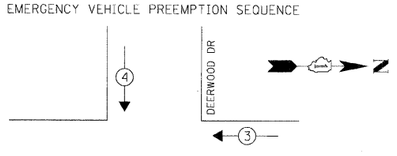
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	WATTAGE LED	X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	X	10	0.50	70.0
(YELLOW)	14	X	19	0.10	26.6
(GREEN)	14	X	11	0.40	61.6
ARROW	8	X	9	0.10	7.2
PED. SIGNAL	4	X	9	1.00	36.0
CONTROLLER	1	X	300	1.00	300.0
LUMINAIRE HPS	4	250		0.50	500.0
				TOTAL =	1001.4

ENERGY COSTS TO:
MCHENRY COUNTY DIVISION OF TRANSPORTATION
16111 NELSON ROAD
WOODSTOCK, IL 60098
ENERGY SUPPLY: CONTACT: MS ELLIE SARALLO
PHONE: (847) 608 2400
COMPANY: COM. ED.



CABLE PLAN

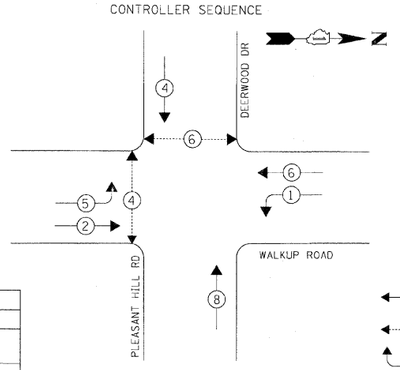
EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

FOUNDATION (DEPTH)	FT.	CABLE SLACK	FT.	VERTICAL	FT.
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2
E - M. ARM POLE	15	SIGNAL POST	2		
		CONTROLLER CAB.	1	BRACKET MOUNTED	13
		FIBER OPTIC	13	PED. PUSHBUTTON	4
		ELECTRIC SERVICE	1	ELECTRIC SERVICE	13.5
		GROUND CABLE	1	SERVICE TO GROUND	13.5
				POST MOUNTED	6

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

LEGEND
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP
- * — NUMBER REFERS TO ASSOCIATED PHASE

SCHEDULE OF QUANTITIES

PAY CODE	DESCRIPTION	UNIT	QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ. FT.	18
72000200	SIGN PANEL - TYPE 2	SQ. FT.	52.5
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	40
81000700	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL	FOOT	62
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	55
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	280
81400100	HANDHOLE	EACH	3
81400300	DOUBLE HANDHOLE	EACH	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	165
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1C NO. 10	FOOT	753
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL 250 WATT	EACH	4
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	771
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1102.5
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1788
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	707.5
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	58
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	2
87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED, WITH COUNTDOWN TIMER	EACH	4
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	4
X8050015	SERVICE INSTALLATION-POLE MOUNTED	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	514
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	292.5
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
XX005723	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 18 3C	FOOT	733
X8620020	UNINTERRUPTIBLE POWER SUPPLY (UPS)	EACH	1

NOTES:
1. ALL TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE ECONOLITE TRAFFIC CONTROL EQUIPMENT.
2. VIDEO DETECTION CAMERA SHALL BE AUTOSCOPE TERRA.
3. VIDEO DETECTION CABLE SHALL BE NO. 18, 3C.
4. CONTROLLER SHALL BE ECONOLITE ASC3.
5. TYPE IV CABINET.
6. EVP CABLE SHALL BE 3C #20, TWISTED, SHIELDED.
7. CONFIRMATION BEACON CABLE SHALL BE 3C #14.
8. ALL PEDESTRIAN HEADS SHALL BE COUNTDOWN HEAD. SIDE BY SIDE 16" X 18".
9. GROUNDING OF SIGNAL EQUIPMENT INCIDENTAL TO FOUNDATION PAY ITEM.
10. CONFIRMATION BEACON SHALL BE LED.

REVISIONS	
NAME	DATE

MCHENRY COUNTY DIVISION OF TRANSPORTATION
WALKUP ROAD F.A.U. 0085

SOQ, CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE SEQUENCE

WALKUP RD AND PLEASANT HILL RD/DEERWOOD DR

SCALE: N.T.S. DRAWN BY: MZD
DATE: 08/17/09 CHECKED BY: RRM

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
205 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE: 312/616-0000

STANDARD
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