

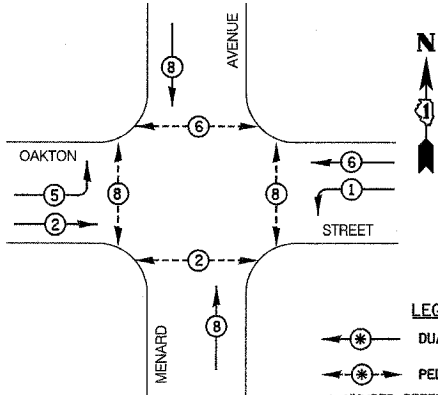
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1332	2004-022TS	COOK	20	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62741				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
* LIGHT DETECTOR	EACH	2
* LIGHT DETECTOR AMPLIFIER	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
TRANSCEIVER-FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2C	FOOT	167
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	873
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	713
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	25
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
DRILL EXISTING HANDHOLE	EACH	4
* TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	7
DETECTOR LOOP, TYPE 1	FOOT	122
PEDESTRIAN PUSH-BUTTON	EACH	6
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
* ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	353

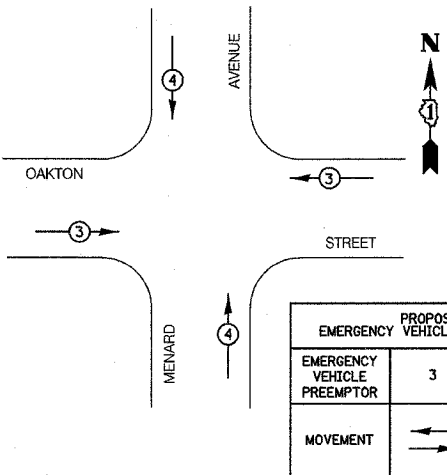
* 100% COST TO VILLAGE OF MORTON GROVE

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

NOTE: THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET

PUSH-BUTTON NOTES:
 PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

CONSTRUCTION NOTES:

- REMOVE EXISTING 8" SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED, INSTALL NEW 12" SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED.
- REMOVE EXISTING SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5, SECTION, BRACKET MOUNTED, INSTALL NEW SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5, SECTION, BRACKET MOUNTED.
- REMOVE EXISTING SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, INSTALL NEW SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED.
- REMOVE EXISTING 8" SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED, INSTALL NEW 12" SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED.
- REMOVE EXISTING SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED, INSTALL NEW SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED.
- REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, INSTALL NEW PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED.
- REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, INSTALL NEW PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED.
- REMOVE EXISTING PEDESTRIAN PUSH-BUTTON. INSTALL NEW PEDESTRIAN PUSH-BUTTON.
- REMOVE EXISTING TRAFFIC SIGNAL POST, 16 FT. INSTALL NEW TRAFFIC SIGNAL POST, 18 FT.
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET, RE-USE EXISTING FOUNDATION.
- THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN THE OPERATION OF THE TRAFFIC SIGNALS DURING THE ENTIRE PROJECT.

NOTE: THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET

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
Ⓢ	Ⓢ	CONTROLLER CABINET
Ⓢ	Ⓢ	SERVICE INSTALLATION
Ⓢ	Ⓢ	TELEPHONE CONNECTION
Ⓢ	Ⓢ	VEHICLE DETECTOR, INDUCTION LOOP
Ⓢ	Ⓢ	MAGNETIC DETECTOR
Ⓢ	Ⓢ	EMERGENCY VEHICLE LIGHT DETECTOR
Ⓢ	Ⓢ	CONFIRMATION BEACON
Ⓢ	Ⓢ	PUSHBUTTON DETECTOR
Ⓢ	Ⓢ	Ⓢ DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
Ⓢ	Ⓢ	Ⓢ GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
Ⓢ	Ⓢ	Ⓢ FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
Ⓢ	Ⓢ	Ⓢ SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
Ⓢ	Ⓢ	Ⓢ RAILROAD CONTROL CABINET
Ⓢ	Ⓢ	Ⓢ ILLUMINATED SIGN "NO LEFT TURN"
Ⓢ	Ⓢ	Ⓢ ILLUMINATED SIGN "NO RIGHT TURN"
Ⓢ	Ⓢ	Ⓢ GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
Ⓢ	Ⓢ	Ⓢ GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
Ⓢ	Ⓢ	Ⓢ GROUND ROD AT ELECTRIC SERVICE INSTALLATION
Ⓢ	Ⓢ	Ⓢ MICROWAVE VEHICLE SENSOR

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	X % OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	100	100	1.00	100.0
TOTAL =					568.6

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 - FOUNDATION	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' + L - 2' = (6m+L-0.6m)=
C - M. ARM POLE		SIGNAL POST	2 (1.0)		
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)

ENERGY COSTS - BILLED TO: VILLAGE OF MORTON GROVE, 6101 CAPULINA AVENUE, MORTON GROVE, IL 60053
 ENERGY SUPPLY - CONTACT: MR. MIKE LYNCH, (847) 816-5331, COMPANY: COMED

SETON ENGINEERING
 SERVICE CORPORATION
 CIVIL ENGINEERS
 19 S. BOTHWELL STREET
 PALATINE, ILLINOIS 60067
 VOICE 847-776-7200 FAX 847-776-7239

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
 OAKTON STREET AT MENARD AVENUE
 MORTON GROVE, ILLINOIS
 SCALE: N.T.S.
 DATE: 09-20-2004
 DRAWN BY: BR
 DESIGNED BY: VJ
 CHECKED BY: TJM