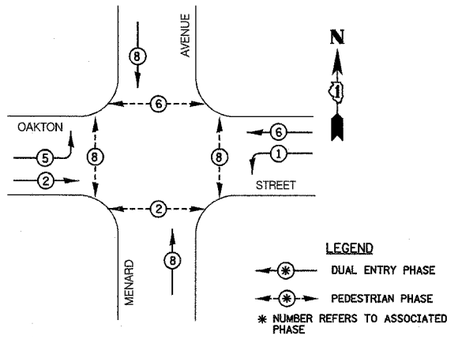
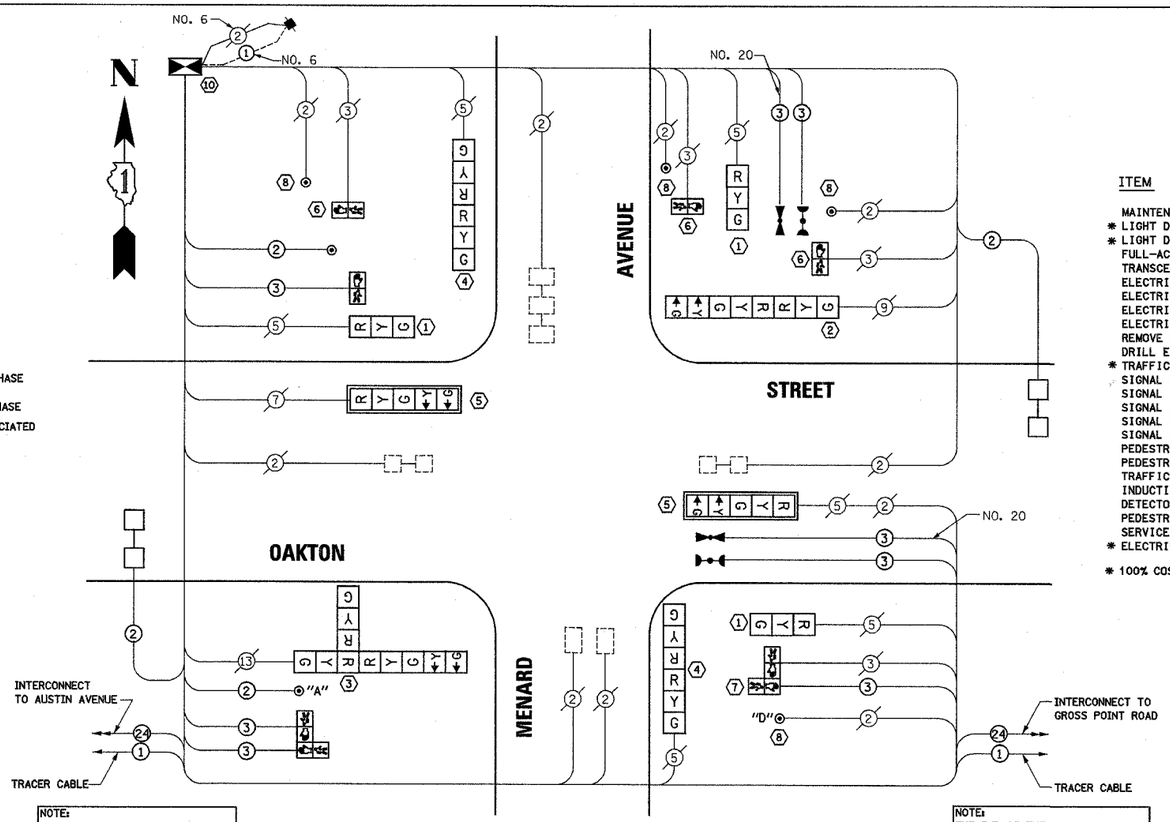
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1332	2004-022TS	COOK	20	15
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62741

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



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

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

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:

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

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

CABLE PLAN LEGEND

EXISTING	PROPOSED		EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION	1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
R	R	12" (300mm) TRAFFIC SIGNAL SECTION	24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION	R Y G ←Y ←G	R Y G ←Y ←G	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
		12" (300mm) PEDESTRIAN SIGNAL SECTION			
		CONTROLLER CABINET			
		SERVICE INSTALLATION			
		TELEPHONE CONNECTION	"E"		RAILROAD CONTROL CABINET
		VEHICLE DETECTOR, INDUCTION LOOP	"E"		ILLUMINATED SIGN "NO LEFT TURN"
		MAGNETIC DETECTOR	"E"		ILLUMINATED SIGN "NO RIGHT TURN"
		EMERGENCY VEHICLE LIGHT DETECTOR	H/C	C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
		CONFIRMATION BEACON	P	P	GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
		PUSHBUTTON DETECTOR	S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
2	2	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.			MICROWAVE VEHICLE SENSOR

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS X	WATTAGE INCAND.	WATTAGE LED	X 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

ENERGY COSTS - BILLED TO: VILLAGE OF MORTON GROVE
(ADDRESS) 6101 CAPULINA AVENUE
MORTON GROVE, IL 60053

ENERGY SUPPLY - CONTACT: MR. MIKE LYNCH
PHONE: (847) 816-5331
COMPANY: COMED

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)

SETON ENGINEERING
SERVICE CORPORATION
CIVIL ENGINEERS
19 S. BOTHWELL STREET
PALATINE, ILLINOIS 60067
VOICE: 847-776-7200 FAX: 847-776-7239
SETON PROJECT # 2002C01-201-206

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 VO
CHECKED BY TJM