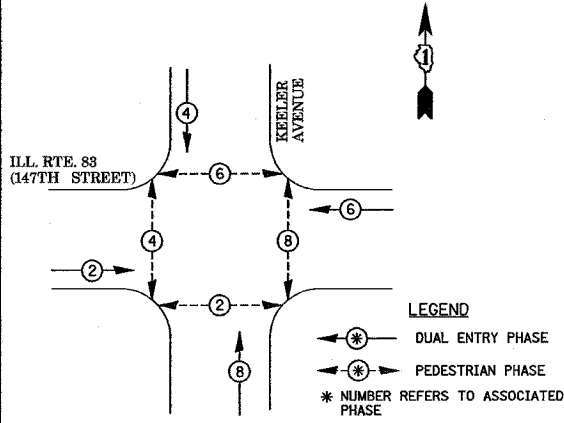


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2004-021TS	COOK	25	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62740				

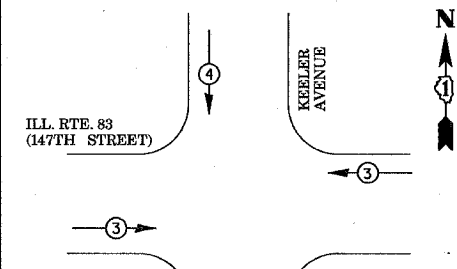
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PERMITTED LEFT TURN PHASING

EMERGENCY VEHICLE PREEMPTION SEQUENCE
FOR DUAL ENTRY OPERATION - ALL LEGS



PROPOSED PRIORITY LANES		
PRIORITY LANE INTERVAL	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	X% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
(YELLOW)	12	135	25	0.25	75.0
(GREEN)	12	135	15	0.25	45.0
ARROW	-	135	12	0.10	-
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN	-	84	-	0.05	-
TOTAL =					522.0

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

PUSH-BUTTON NOTES:
PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

CONSTRUCTION NOTES:
1. REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET, SPECIAL. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT SHALL BE INCLUDED IN THE NEW CONTROLLER UNIT PRICE.

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE ADJACENT SYSTEM.

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	1.5
SIGN PANEL - TYPE 1	SQ FT	30
CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	540
CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	88
CONDUIT PUSHED, 2" DIA, GALVANIZED STEEL	FOOT	85
CONDUIT PUSHED, 4" DIA, GALVANIZED STEEL	FOOT	177
HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	628
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	512
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2C	FOOT	725
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	977
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5C	FOOT	1690
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	726
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	89
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	15
CONCRETE FOUNDATION, TYPE D	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	4
DETECTOR LOOP, TYPE 1	FOOT	316
PEDESTRIAN PUSH-BUTTON	EACH	7
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	4
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED	FOOT	385

CABLE PLAN LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED	DESCRIPTION
⊗	⊗	①	①	8" (200mm) TRAFFIC SIGNAL SECTION
⊗	⊗	②	②	12" (300mm) TRAFFIC SIGNAL SECTION
⊗	⊗	③	③	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊗	⊗	④	④	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊗	⊗	⊗	⊗	CONTROLLER CABINET
⊗	⊗	⊗	⊗	SERVICE INSTALLATION
⊗	⊗	⊗	⊗	TELEPHONE CONNECTION
⊗	⊗	⊗	⊗	VEHICLE DETECTOR, INDUCTION LOOP
⊗	⊗	⊗	⊗	MAGNETIC DETECTOR
⊗	⊗	⊗	⊗	CONFIRMATION BEACON
⊗	⊗	⊗	⊗	PUSHBUTTON DETECTOR
⊗	⊗	⊗	⊗	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊗	⊗	⊗	⊗	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
⊗	⊗	⊗	⊗	SIGNAL FACE WITH BACKPLATE, "F" 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 (MAL).
⊗	⊗	⊗	⊗	GROUND ROD AT ELECTRIC SERVICE INSTALLATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE
AND SCHEDULE OF QUANTITIES
ILL. ROUTE 83 (147TH STREET) AT
KEELER AVENUE
MIDLOTHIAN, ILLINOIS
SCALE: N.T.S.
DATE 09-20-2004
DRAWN BY CWC
DESIGNED BY VO
CHECKED BY TJM