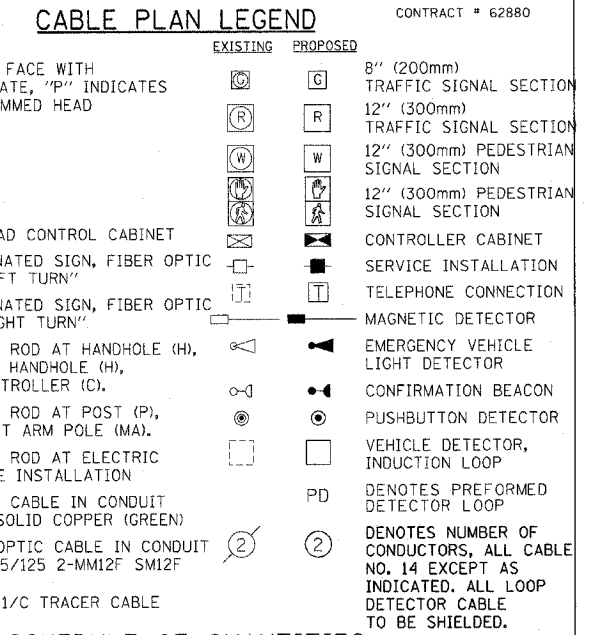
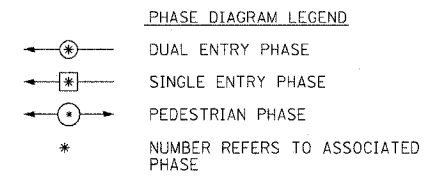


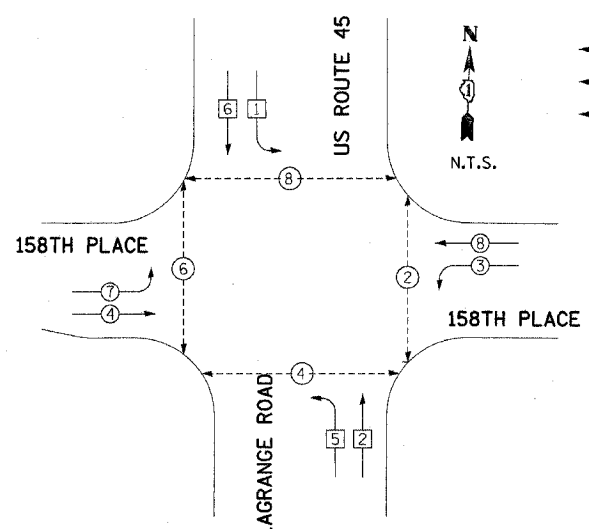
F.A.P. RITE-1	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 R-1	COOK	245	146
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ (ILLINOIS) FED. AID PROJECT		

CONTRACT # 62880



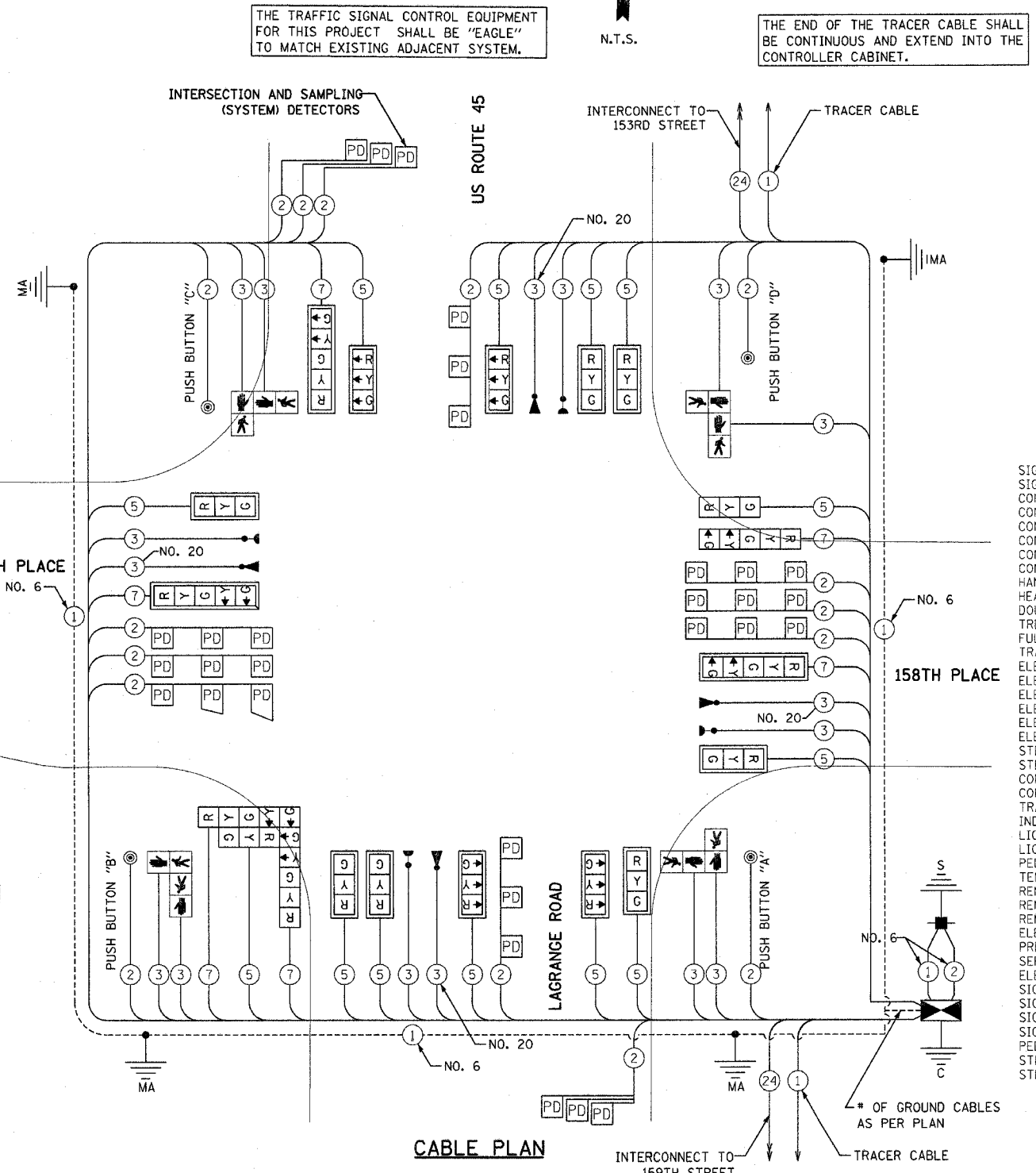
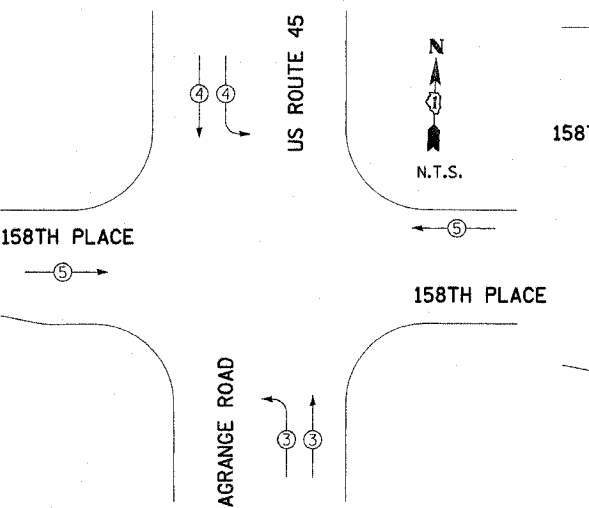
**SCHEDULE OF QUANTITIES**

SIGN PANEL - TYPE 1	30 FT	38
SIGN PANEL - TYPE 2	30 FT	0
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	562
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	20
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	13
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	137
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	491
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	587
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	704
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2415
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2822
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1382
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4702
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	51
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 55 FT.	EACH	1
CONCRETE FOUNDATION, TYPE D	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	52
TRAFFIC SIGNAL BACKPLATE	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	12
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C (GREEN)	FOOT	515
PREFORMED DETECTOR LOOP	FOOT	1450
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	948
SIGNAL HEAD ,LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
SIGNAL HEAD ,LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD ,LED, 2-FACE, 1-3 SECTION, 1-5, SECTION BRACKET MOUNTED	EACH	1
SIGNAL HEAD ,LED, 3-FACE, 1-3 SECTION, 1-5, SECTION BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 32 FT. AND 36 FT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 36 FT. AND 38 FT	EACH	1



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	(Symbol)	(Symbol)	(Symbol)



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH EXISTING ADJACENT SYSTEM.

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

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

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2

**I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	19	135	0.50	161.5
(YELLOW)	19	135	0.25	118.75
(GREEN)	19	135	0.25	118.75
ARROW	12	135	0.10	14.4
PED. SIGNAL	8	90	1.00	200.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN	0	84	0.05	0.0
FLASHER	0	25	0.50	0.0
ENERGY COST TO:	TOTAL =			665.9

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)
TYPE D-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+H=(6m+L)=
30", TYPE E	15 (4.6)	SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
36", TYPE E	15 (4.6)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
		FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

**REVISIONS**

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 US RTE 6 (159TH ST) AT US RTE 45 (LAGRANGE RD)  
 US 45 (LAGRANGE ROAD)  
 AND 158TH PLACE  
 CABLE PLAN

SCALE: N.T.S.  
 DATE: 7-07-06

DRAWN BY: MJT  
 DESIGNED BY: MJT  
 CHECKED BY: NKU

**McDonough Associates Inc.**  
 Engineers / Architects