

## SUMMARY OF QUANTITIES

US RTE. 52  
LARAWAY ROAD

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL	URBAN 90% FED. 10% STATE Y031-IF
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	343.5	343.5
88700200	LIGHT DETECTOR	EACH	4	4
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	343.5	343.5
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6.0	6.00
67100100	MOBILIZATION	L SUM	1.0	1.00
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0	1.00
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.0	1.00
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2.0	2.00
* 72000100	SIGN PANEL - TYPE I	SQ FT	34.5	34.5
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2400.0	2400.0
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	260.0	260.0
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	150.0	150.0
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	100.0	100.0
* 78300400	THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	1724.0	1724.0
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	856.0	856.0
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	138.0	138.0
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	86.0	86
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	364.0	364
81400100	HANDHOLE	EACH	7.0	7
81400200	HEAVY-DUTY HANDHOLE	EACH	4.0	4
81400300	DOUBLE HANDHOLE	EACH	1.0	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	994.0	994.0
85700200	FULL - ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1.0	1
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	972.5	972.5
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1831.0	1831
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3080.5	3080.5
87301805	ELECTRIC CABLE IN CONDUIT, NO. 6 2C (SERVICE)	FOOT	59.5	59.5
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2.0	2
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1.0	1
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1.0	1
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1.0	1
X8770216	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 14 FT. AND 55 FT.	EACH	1.0	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8.0	8
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4.0	4
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30.0	30.0
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	32.0	32.0
88030020	SIGNAL HEAD, L E D, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4.0	4
88030100	SIGNAL HEAD, L E D, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3.0	3
88030110	SIGNAL HEAD, L E D, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5.0	5
88500100	INDUCTIVE LOOP DETECTOR	EACH	10.0	10
88600100	DETECTOR LOOP, TYPE I	FOOT	837.0	837
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	9.0	9
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1.0	1
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102.8	102.8
X8050015	SERVICE INSTALLATION-POLE MOUNTED	EACH	1.0	1
X8620020	UNINTERRUPTABLE POWER SUPPLY	EACH	1.0	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6 1C	FOOT	700.0	700
85000300	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	L SUM	1.0	1

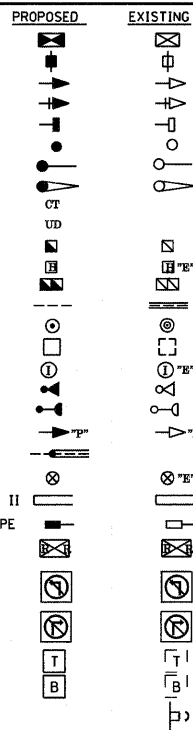
REGINA WEBSTER  
AND ASSOC. INC.  
CIVIL ENGINEERING CONSULTANTS  
650 North Dearborn, Suite 500  
Chicago, Illinois 60623-1369**RWA**  
Regina Webster & Associates, Inc.• 100% CITY OF JOLIET  
\* Specialty Items

Rev. 12-29-09

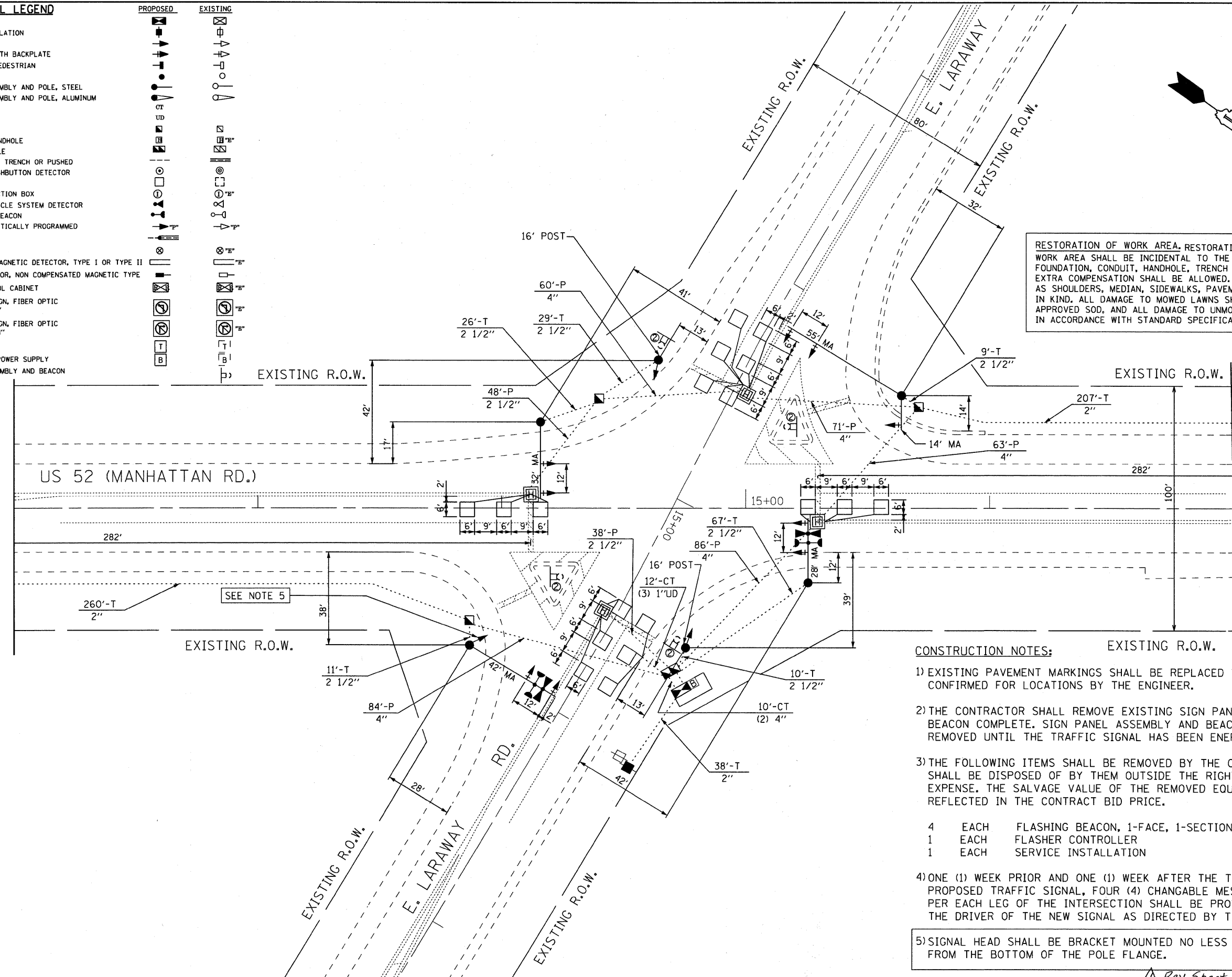
FILE NAME *	USER NAME * #USER#	DESIGNED - DW	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - DW	REVISED - ---			VAR.	2009-098 TS	WILL	12	2
	PLOT SCALE * #SCALE#	CHECKED - JS	REVISED - ---							
	PLOT DATE * #DATE#	DATE - 09/01/09	REVISED - ---							
				SCALE: NONE	SHEET NO. 2 OF 12 SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT			

# TRAFFIC SIGNAL LEGEND

CONTROLLER  
SERVICE INSTALLATION  
SIGNAL HEAD  
SIGNAL HEAD WITH BACKPLATE  
SIGNAL HEAD, PEDESTRIAN  
SIGNAL POST  
MAST ARM ASSEMBLY AND POLE, STEEL  
MAST ARM ASSEMBLY AND POLE, ALUMINUM  
COMMON TRENCH  
UNIT DUCT  
HANDHOLE  
HEAVY DUTY HANDHOLE  
DOUBLE HANDHOLE  
G.S. CONDUIT IN TRENCH OR PUSHED  
PEDESTRIAN PUSHBUTTON DETECTOR  
DETECTOR LOOP  
CAST IRON JUNCTION BOX  
EMERGENCY VEHICLE SYSTEM DETECTOR  
CONFIRMATION BEACON  
SIGNAL HEAD OPTICALLY PROGRAMMED  
CONDUIT SPLICE  
WOOD POLE  
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II  
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE  
RAILROAD CONTROL CABINET  
ILLUMINATED SIGN, FIBER OPTIC  
"NO LEFT TURN"  
ILLUMINATED SIGN, FIBER OPTIC  
"NO RIGHT TURN"  
TELEPHONE  
UNINTERRUPTED POWER SUPPLY  
SIGN PANEL ASSEMBLY AND BEACON



MATCHLINE A'-A'  
STA 12+00  
SEE SHT. 8



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

## CONSTRUCTION NOTES:

- EXISTING PAVEMENT MARKINGS SHALL BE REPLACED WHERE CONFIRMED FOR LOCATIONS BY THE ENGINEER.
- THE CONTRACTOR SHALL REMOVE EXISTING SIGN PANEL ASSEMBLY AND BEACON COMPLETE. SIGN PANEL ASSEMBLY AND BEACON SHALL NOT BE REMOVED UNTIL THE TRAFFIC SIGNAL HAS BEEN ENERGIZED.
- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.  

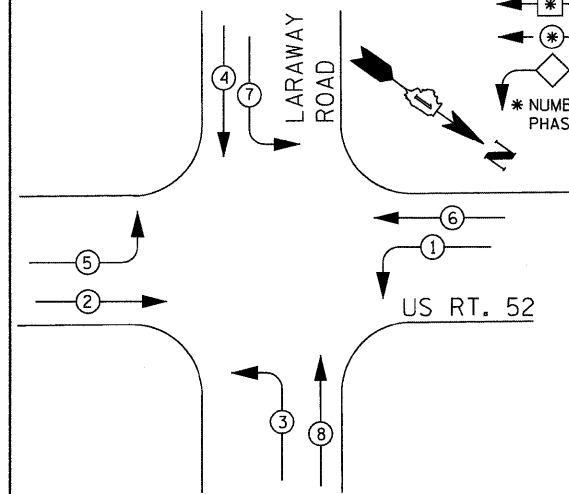
4	EACH	FLASHING BEACON, 1-FACE, 1-SECTION
1	EACH	FLASHER CONTROLLER
1	EACH	SERVICE INSTALLATION
- ONE (1) WEEK PRIOR AND ONE (1) WEEK AFTER THE TURN ON OF THE PROPOSED TRAFFIC SIGNAL, FOUR (4) CHANGABLE MESSAGE SIGNS, ONE (1) PER EACH LEG OF THE INTERSECTION SHALL BE PROVIDED, NOTIFYING THE DRIVER OF THE NEW SIGNAL AS DIRECTED BY THE ENGINEER.

5) SIGNAL HEAD SHALL BE BRACKET MOUNTED NO LESS THAN 18 FOOT FROM THE BOTTOM OF THE POLE FLANGE.

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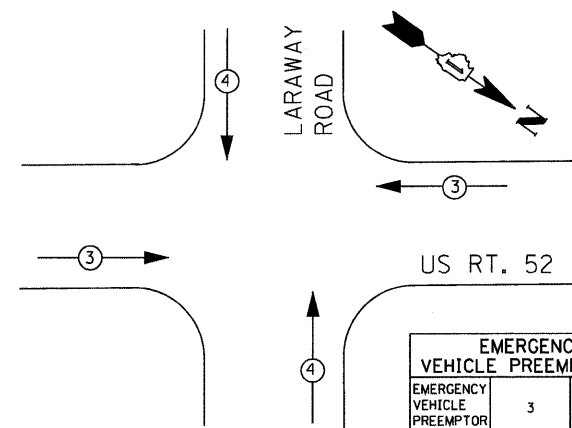
FILE NAME =  #FILE#	USER NAME = #USER#	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US ROUTE 52 (MANHATTAN ROAD) AND LARAWAY ROAD TRAFFIC SIGNAL INSTALLATION PLAN	SCALE: 1"=20'	SHEET NO. 7 OF 12 SHEETS	STA.	TO STA.	F.A.P. RTE. VAR.	SECTION  2009-098 TS	COUNTY  WILL	TOTAL SHEETS 12	SHEET NO. 7
		DRAWN - DW	REVISED -											
	PLOT SCALE = #SCALE#	CHECKED - JS	REVISED -											
	PLOT DATE = #DATE#	DATE - 09/01/09	REVISED -											
	CONTRACT NO. 60154													
FED. ROAD DIST. NO.										ILLINOIS FED. AID PROJECT				

### CONTROLLER SEQUENCE

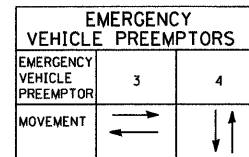


### PHASE DESIGNATION DIAGRAM

NOT TO SCALE



### EMERGENCY VEHICLE PREEMPTION SEQUENCE



### I. D. O. T.

### TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	0	252	25	0.05	0
VIDEO SYSTEM	0	150	-	1.00	0
FLASHER LED					

TOTAL = 341.2

ENERGY COSTS-

BILLED TO: IDOT DISTRICT 1

201 WEST CENTER COURT  
SCHAMBURG, IL 60196-1096

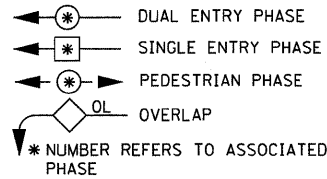
ENERGY SUPPLY -

CONTACT MARK ANDERSON

PHONE 1-815-724-5988

COMPANY COMED

### LEGEND



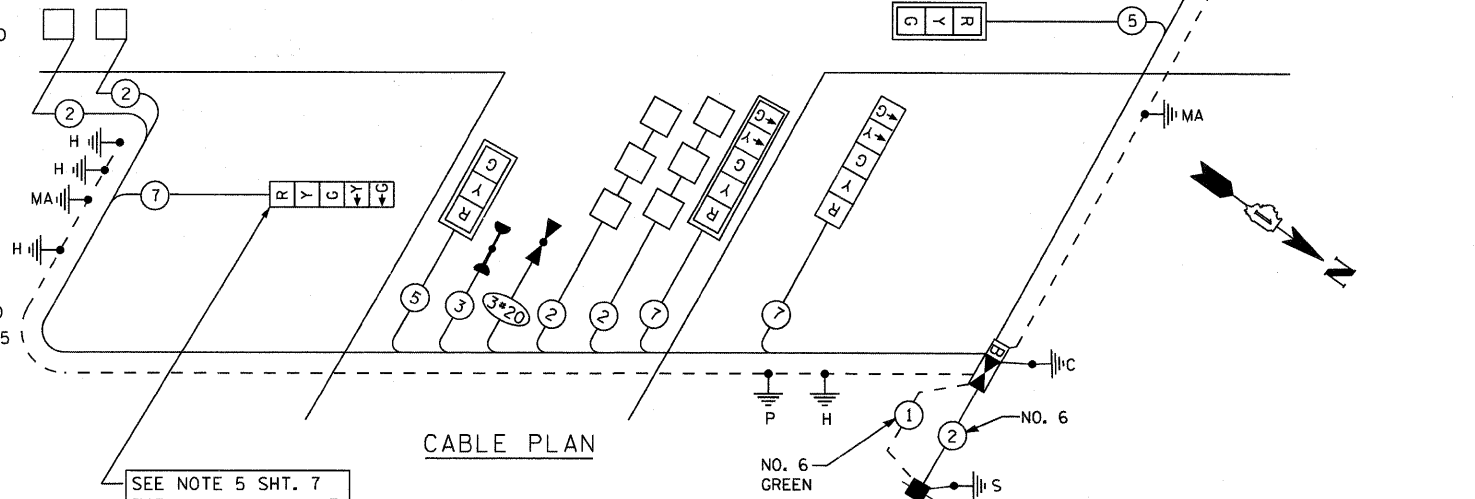
### SCHEDULE OF QUANTITIES

ITEM	UNIT
ENGINEER'S FIELD OFFICE, TYPE A	CAL MO 6.0
MOBILIZATION	L SUM 1.0
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM 1.0
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM 1.0
CHANGEABLE MESSAGE SIGN	CAL MO 2.0
SIGN PANEL - TYPE I	SQ FT 34.5
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT 2400.0
THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT 260.0
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT 150.0
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT 100.0
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT 1724.0
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT 856.0
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT 138.0
CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT 86.0
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT 364.0
HANDHOLE	EACH 7.0
HEAVY-DUTY HANDHOLE	EACH 4.0
DOUBLE HANDHOLE	EACH 1.0
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT 994.0
FULLY ACTUATED CONTROLLER AND TYPE IV CABINET	EACH 1.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT 972.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT 1831.0
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT 3080.5
ELECTRIC CABLE IN CONDUIT, NO. 6 2C	FOOT 59.5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH 2.0
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH 1.0
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH 1.0
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH 1.0
STEEL MAST ARM ASSEMBLY AND POLE WITH	EACH 1.0
DUAL MAST ARMS, 14 FT. AND 55 FT.	

CONCRETE FOUNDATION, TYPE A	FOOT 8.0
CONCRETE FOUNDATION, TYPE C	FOOT 4.0
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT 30.0
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT 32.0
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH 4.0
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH 3.0
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH 5.0
INDUCTIVE LOOP DETECTOR	EACH 10.0
DETECTOR LOOP, TYPE I	FOOT 837.0
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH 9.0
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH 1.0
TEMPORARY INFORMATION SIGNING	SQ FT 102.8
SERVICE INSTALLATION, POLE MOUNT	EACH 1.0
UNINTERRUPTABLE POWER SUPPLY (UPS)	EACH 1.0
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6 1C	FOOT 700.0
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	L SUM 1.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT 343.5 *
LIGHT DETECTOR	EACH 4 *
LIGHT DETECTOR AMPLIFIER	EACH 1 *
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT 343.5 *

FOUNDATION	DEPTH	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 - MAST ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13	
30"	15	CONTROLLER CAB.	1	PED. PUSHBUTTON	4	
36"	15	FIBER OPTIC	13	ELECTRICAL SERVICE	13.5	
42"	25	ELECTRICAL SERVICE	1	SERVICE TO GROUND	13.5	
		GROUND CABLE	1	POSTMOUNTED	6	

US RTE. 52  
(MANHATTAN RD.)



### CABLE PLAN

SEE NOTE 5 SHT. 7  
FOR HEAD PLACEMENT

### CABLE PLAN LEGEND

#### EXISTING PROPOSED

		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION W/ COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.

#### EXISTING PROPOSED

		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 2-MM12F & SM12F
		UNINTERRUPTED POWER SUPPLY

Rev. Sheet 12-29-09

US ROUTE 52 (MANHATTAN RD.) AND LARAWAY RD. - SCHEDULE OF  
QUANTITIES, CABLE PLAN & PHASE DESIGNATION DIAGRAM

SCALE: NONE SHEET NO. 9 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2009-098 TS	WILL	12	9
CONTRACT NO. 60154				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				