

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2009-094 TS	COOK	14	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60151		

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

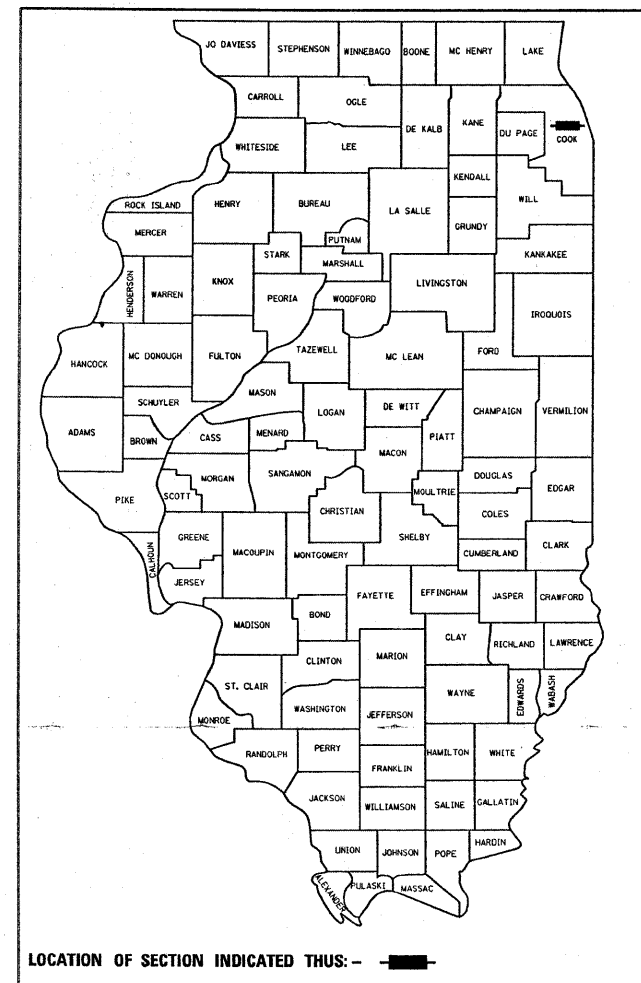
**DISTRICT 1
TRAFFIC SIGNAL MODERNIZATION:
ACCESSIBLE PEDESTRIAN SIGNALS INSTALLATION**

FAP 347/L. ROUTE 38 (ROOSEVELT RD.)
AT 5TH AVE. AND AT 17TH AVE.

**SECTION: 2009-094 TS
PROJECT NO. C-91-054-10
COOK COUNTY**

INDEX OF SHEETS

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13-14	ROOSEVELT RD. AT 17TH AV. TRAFFIC SIGNAL MODERNIZATION AND PROPOSED PLANS

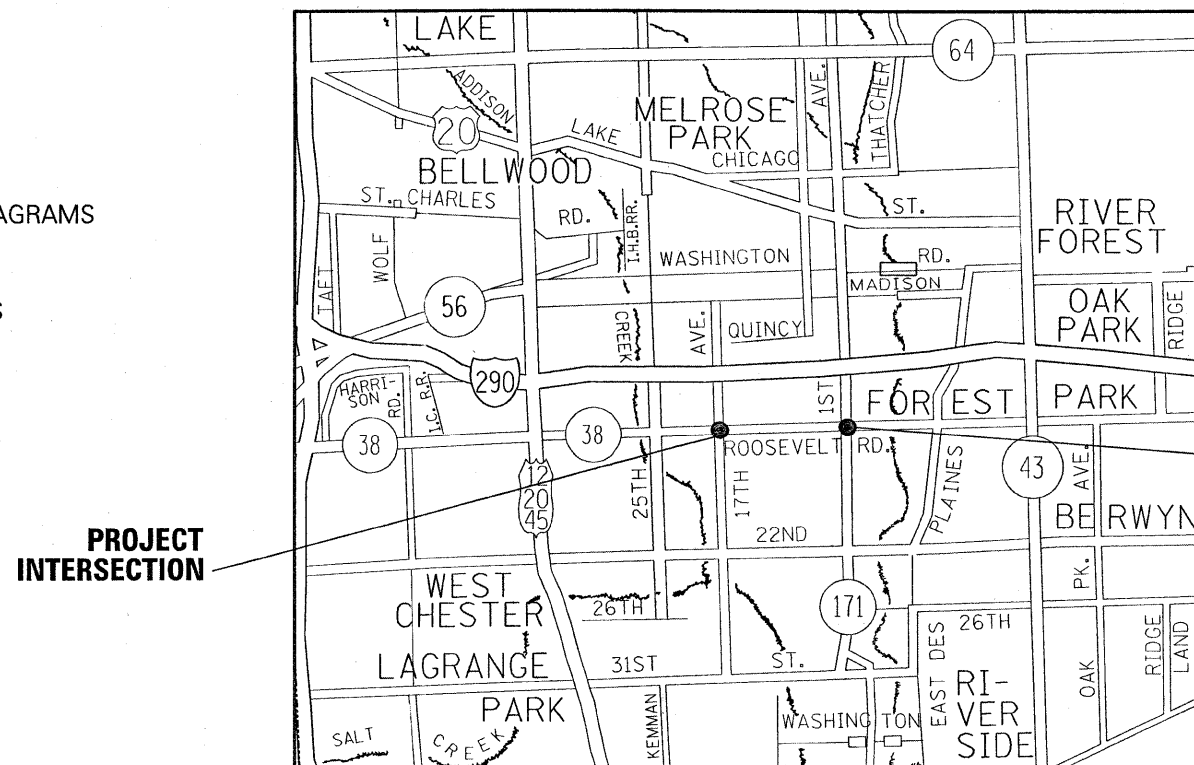


PROJECT LOCATED IN THE CITY OF BROADVIEW
AND MAYWOOD

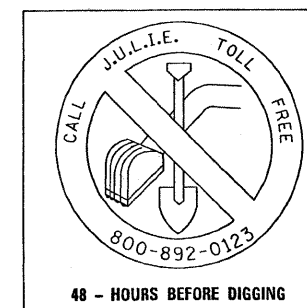
IDOT STANDARDS

STD. No.	DESCRIPTION
424001-05	CURB RAMPS FOR SIDEWALKS
780001-02	TYPICAL PAVEMENT MARKINGS
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
878001-08	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

PROVISO TOWNSHIP



**PROJECT
INTERSECTION**



PREPARED BY: *Steve Turner*
TRAFFIC ENGINEER DATE: *10/16/09*

CONTRACT NO. 60151

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Oct. 16* 20 *09*

Devin M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 4, 20 09
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

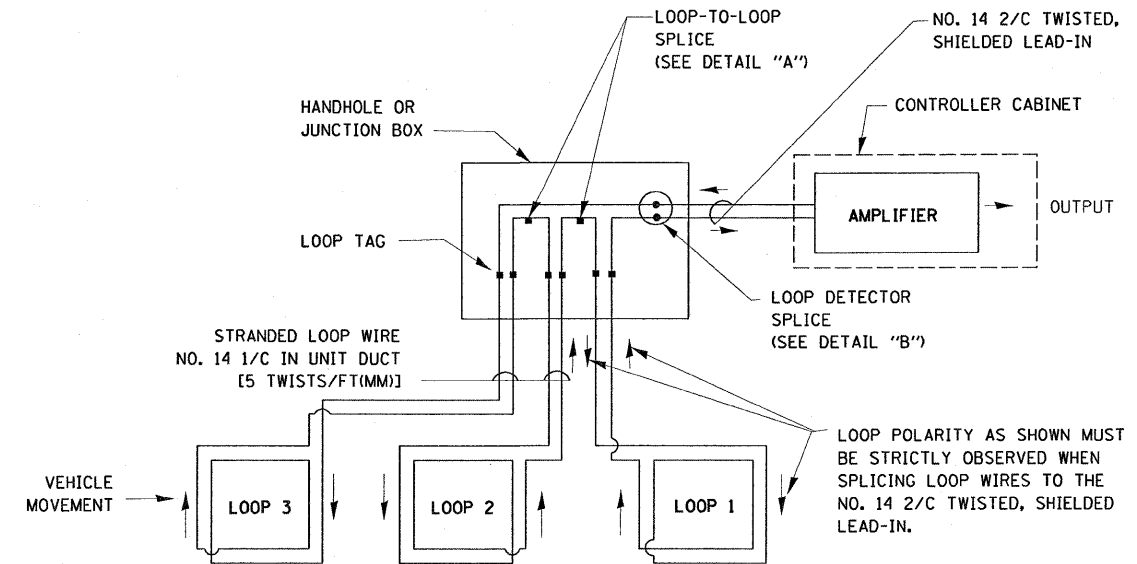
December 4, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		IL.38 (ROOSEVELT RD.) @ 5TH AVE.	IL.38 (ROOSEVELT RD.) @ 17TH AVE.
				Y031-IF	Y031-IF
				100% STATE	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	736	322	414
42400800	DETECTABLE WARNINGS	SO FT	295	104	191
44000600	SIDEWALK REMOVAL	SO FT	736	322	414
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	685	300	385
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	147	32	115
* 78300400	THERMOPLASTIC PAVEMENT MARKING REMOVAL	SO FT	685	295	390
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	25	25	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	1	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	170	170	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	185	185	
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2	2	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8	8	
88102717	PEDESTRIAN SIGNAL HEAD, L E D, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	14	6	8
89502200	MODIFY EXISTING CONTROLLER	EACH	2	1	1
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	14	6	8
67100100	MOBILIZATION	L SUM	1	1	
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.5	0.5
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.5	0.5
	*Specialty Items				

LOOP DETECTOR NOTES

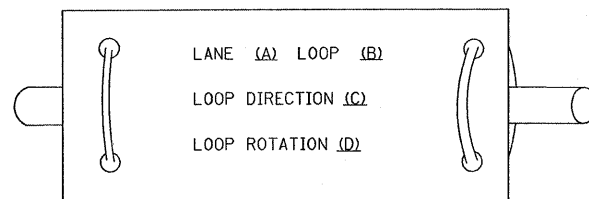
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



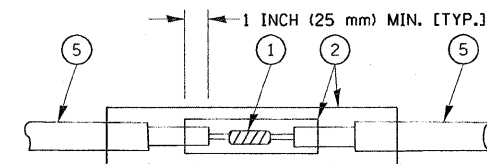
DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

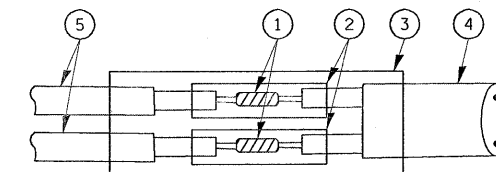
LOOP LEAD-IN CABLE TAG



- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



**DETAIL "A"
LOOP-TO-LOOP SPLICE**



**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

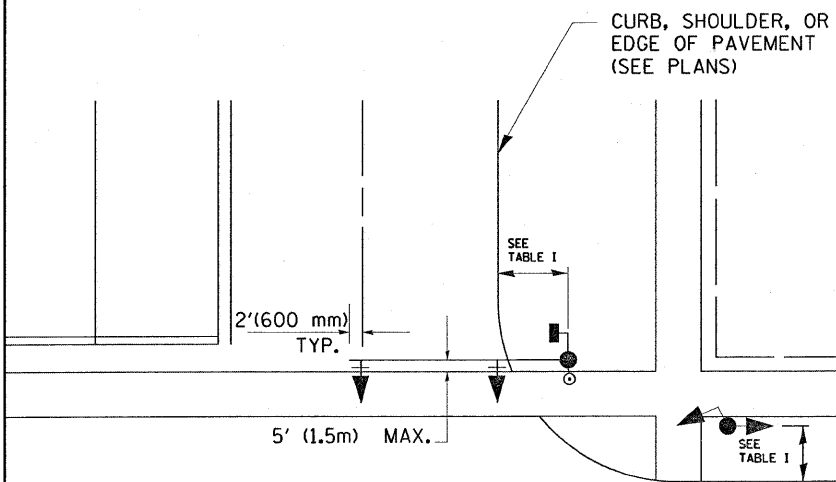
LOOP DETECTOR SPLICE

- ① WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- ② WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- ③ WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- ④ NO. 14 2/C TWISTED, SHIELDED CABLE.
- ⑤ LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

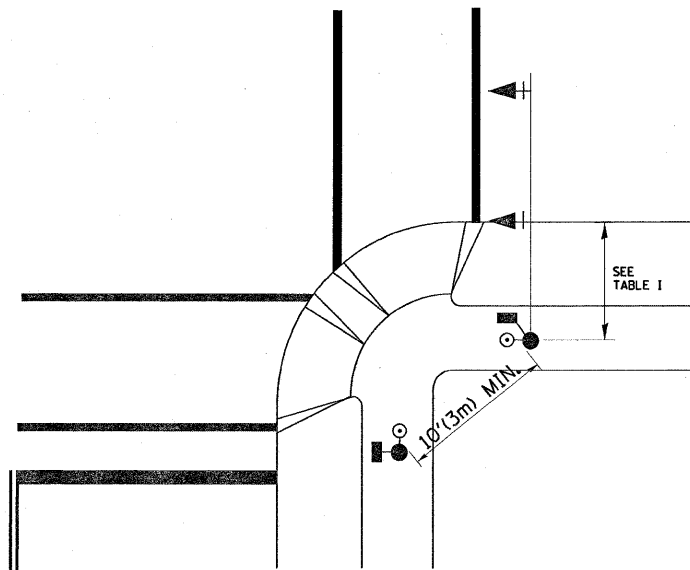
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CONTRACT NO. 60151	PLOT SCALE = 20,000/1' IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT				
	PLOT DATE = 10/16/2009	DATE -	REVISED -										

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 - A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 - B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 - C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 - D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 - E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

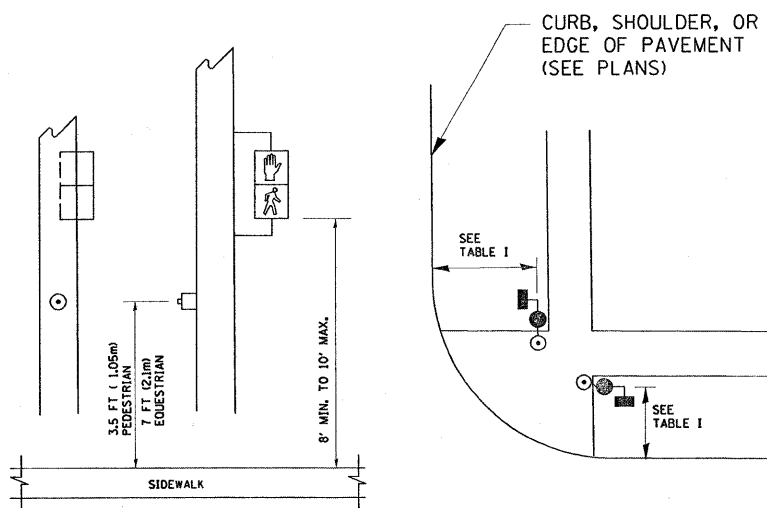
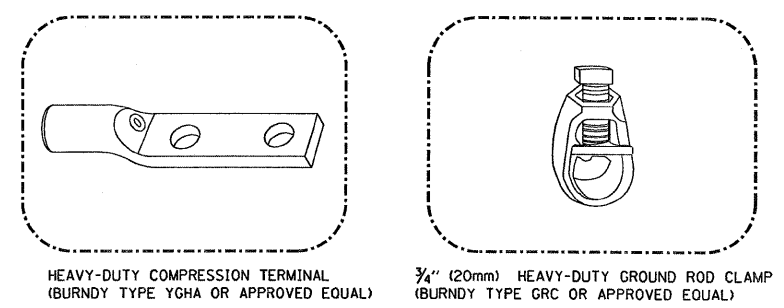
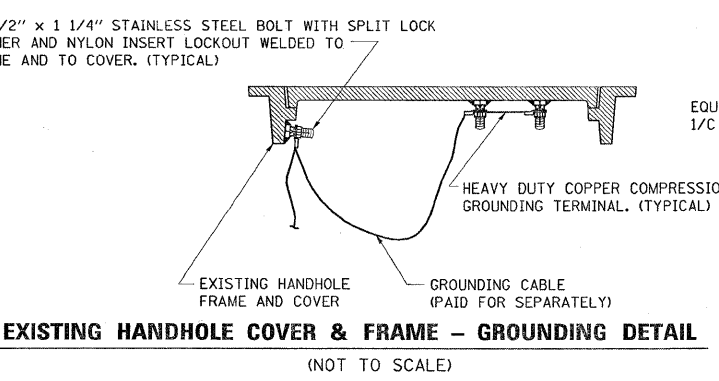
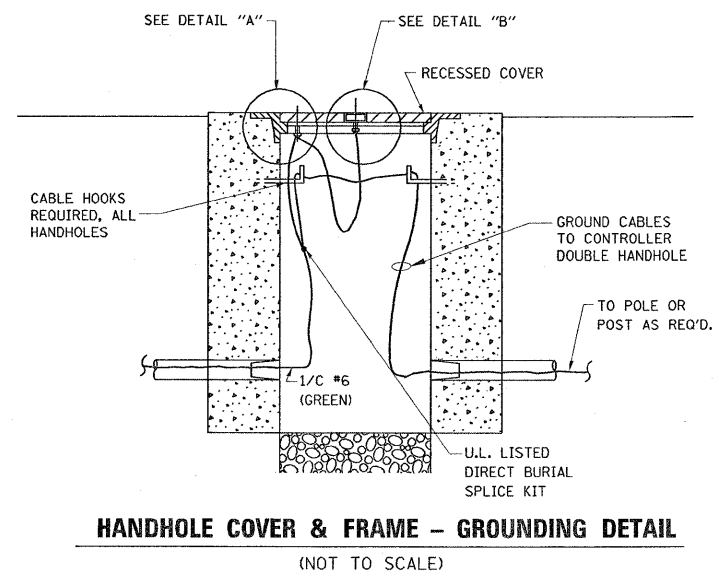
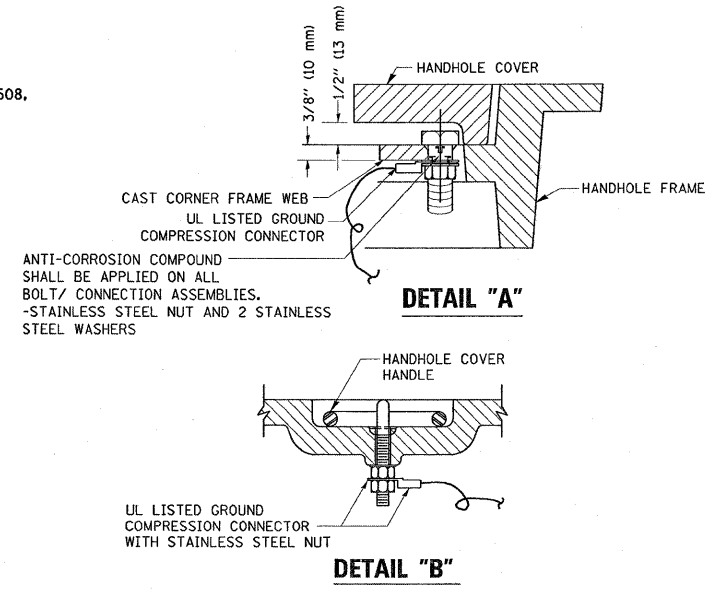
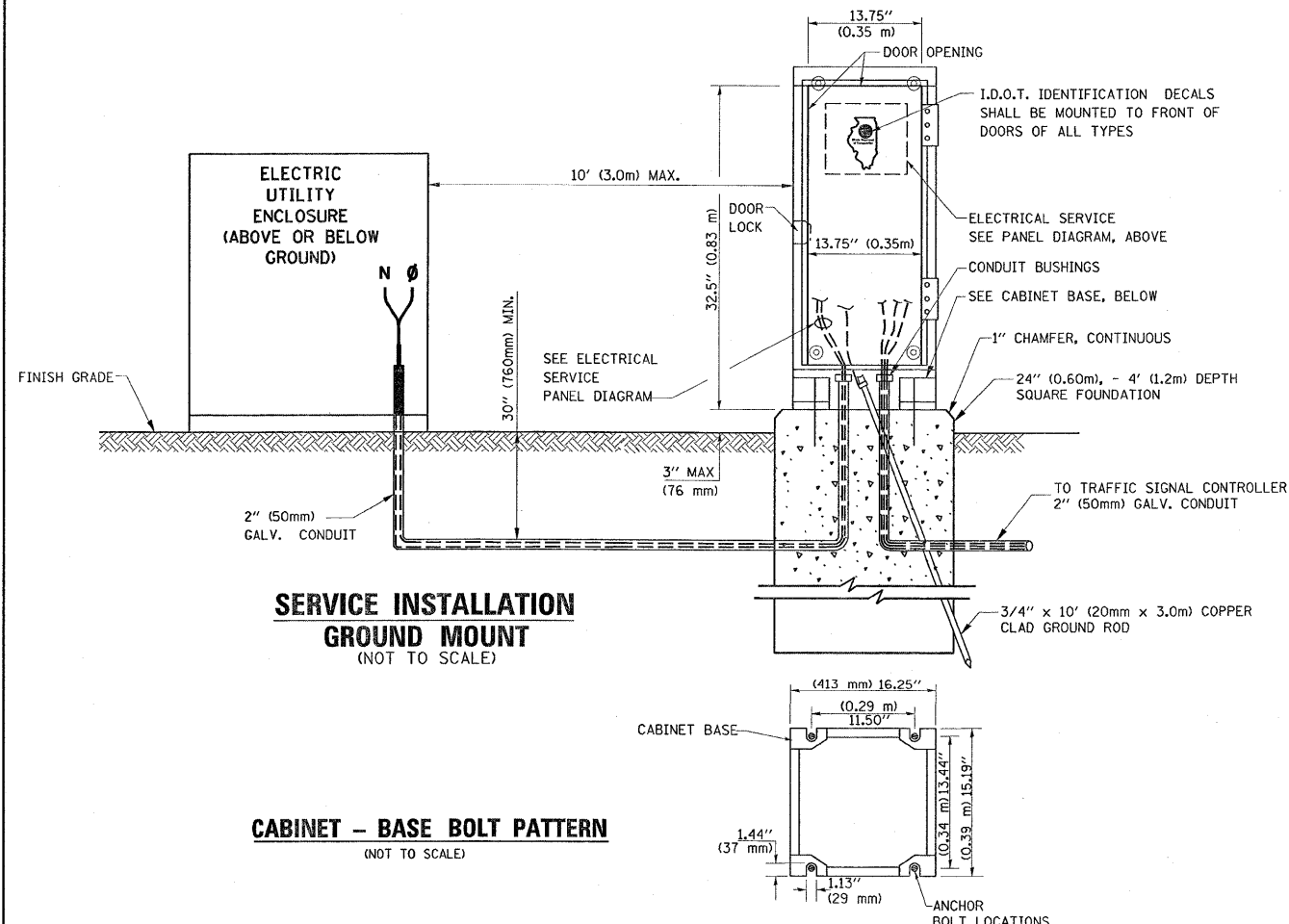
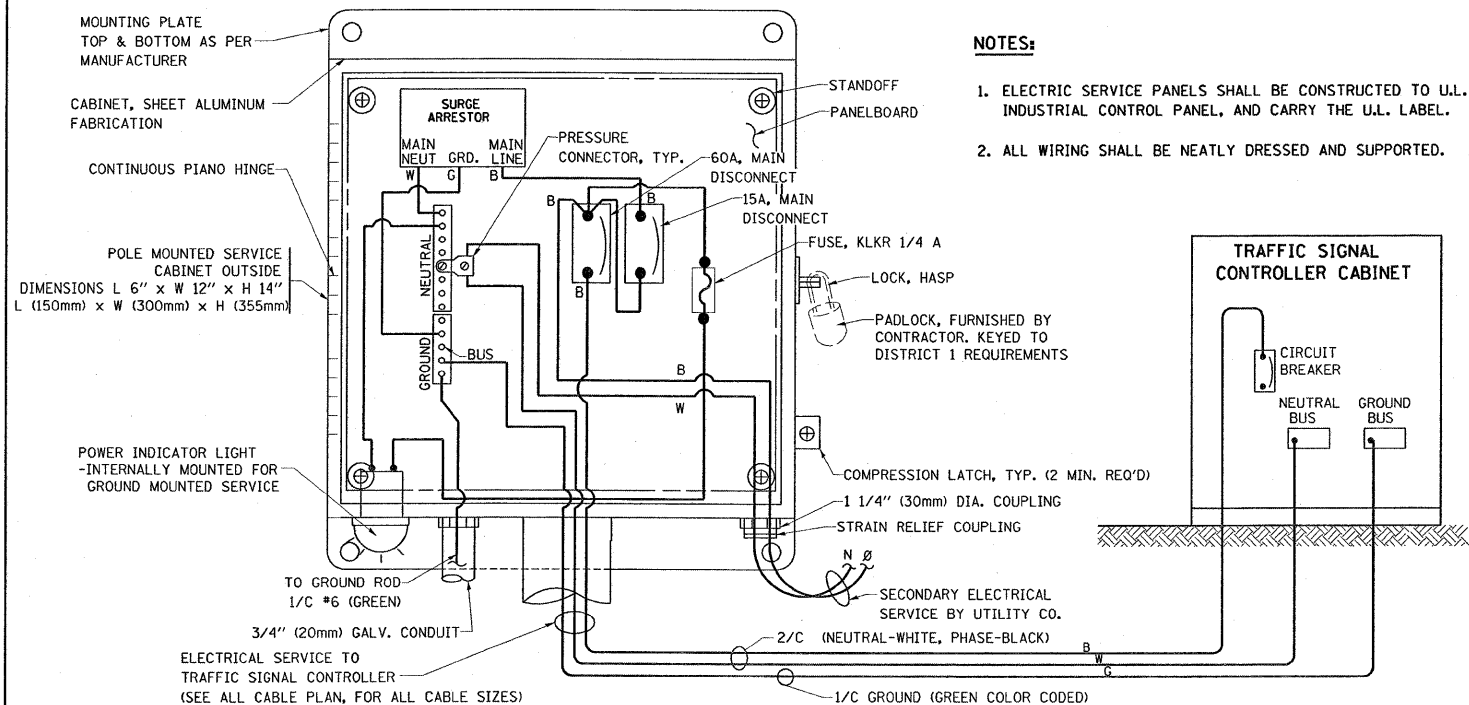


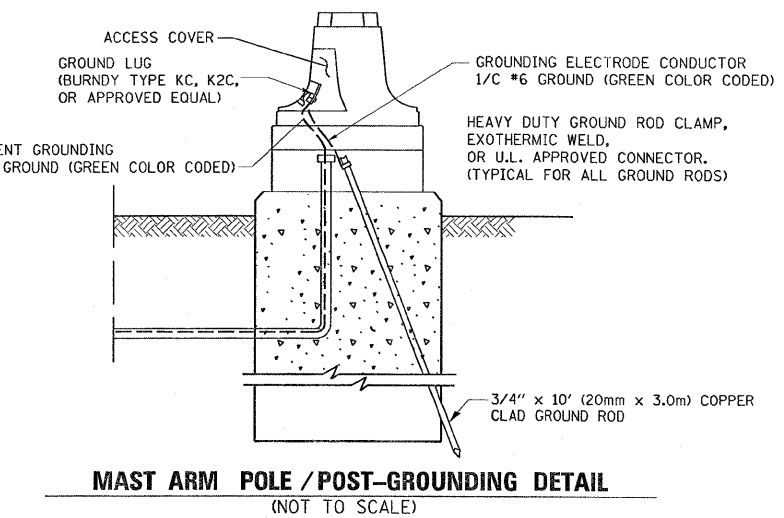
TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1



NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
- 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
- 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
- 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

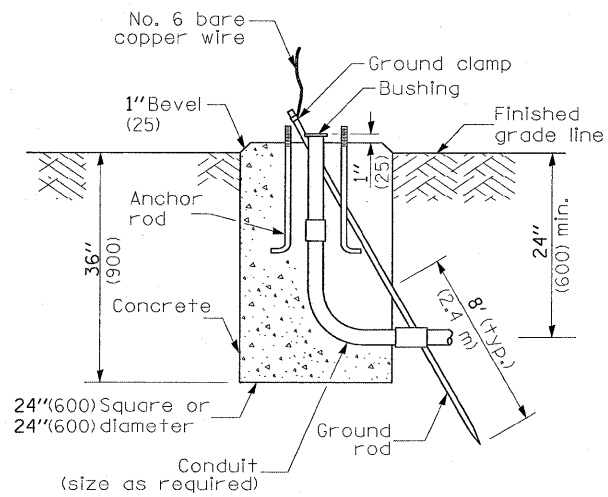


NOTES:

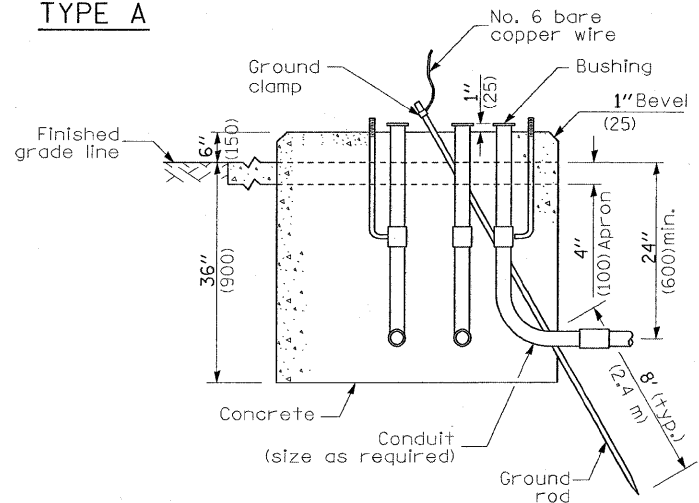
GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

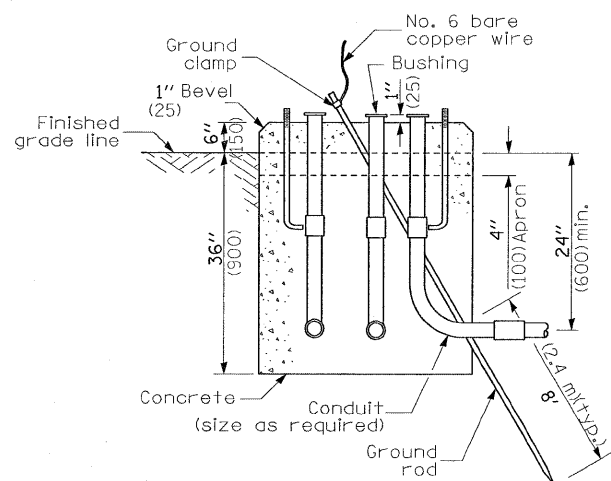
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PLOT SCALE = 20,0000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 60151				
PLOT DATE = 10/16/2009		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



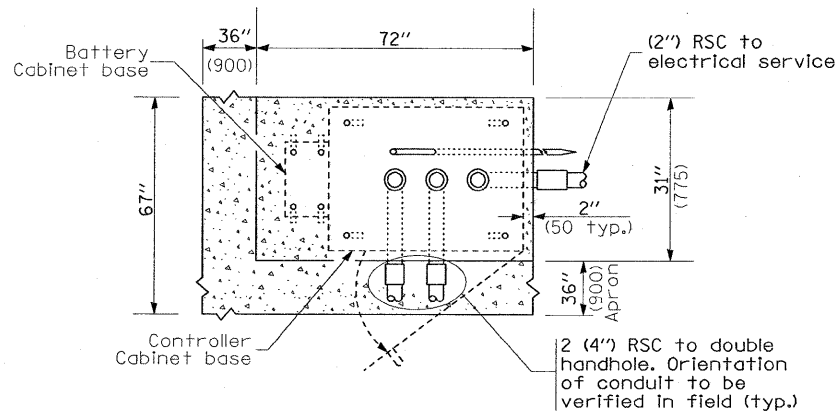
TYPE A



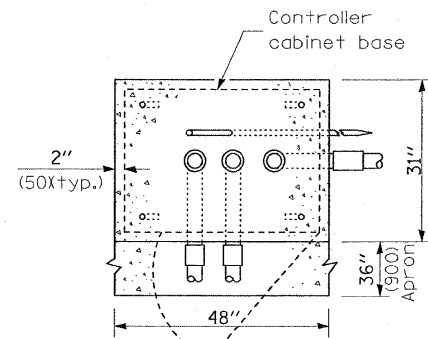
**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET**

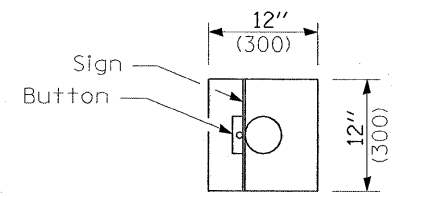


TOP VIEW

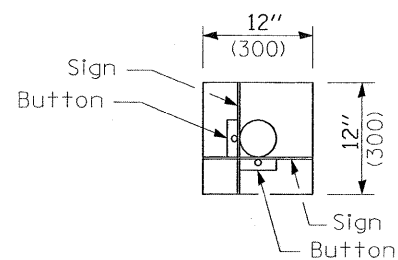


TOP VIEW

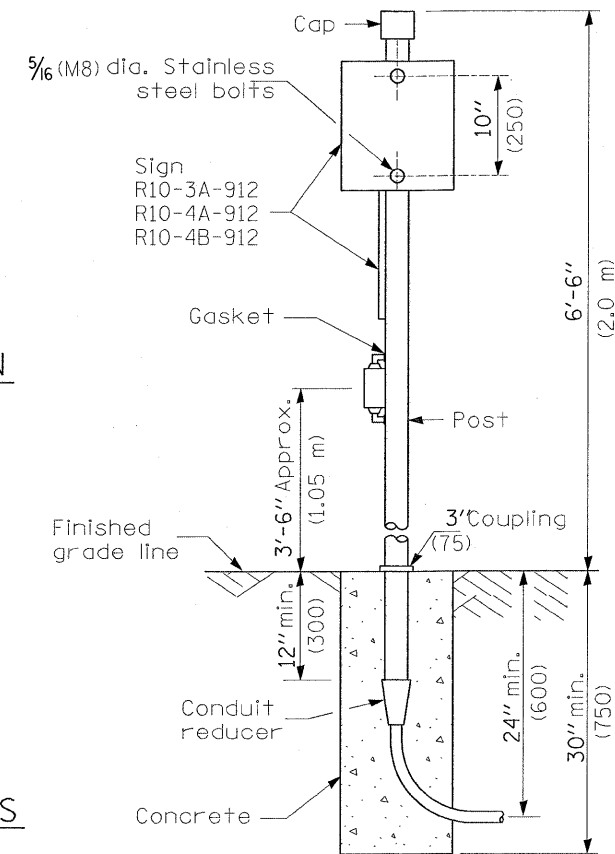
All dimensions are in millimeters (inches) unless otherwise shown.



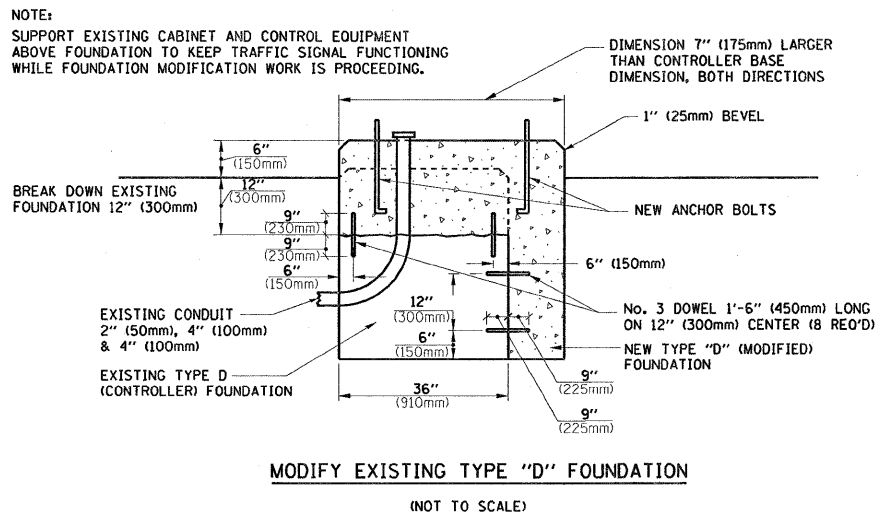
**TOP VIEW
TYPICAL ONE BUTTON**



**TOP VIEW
TYPICAL TWO BUTTONS**

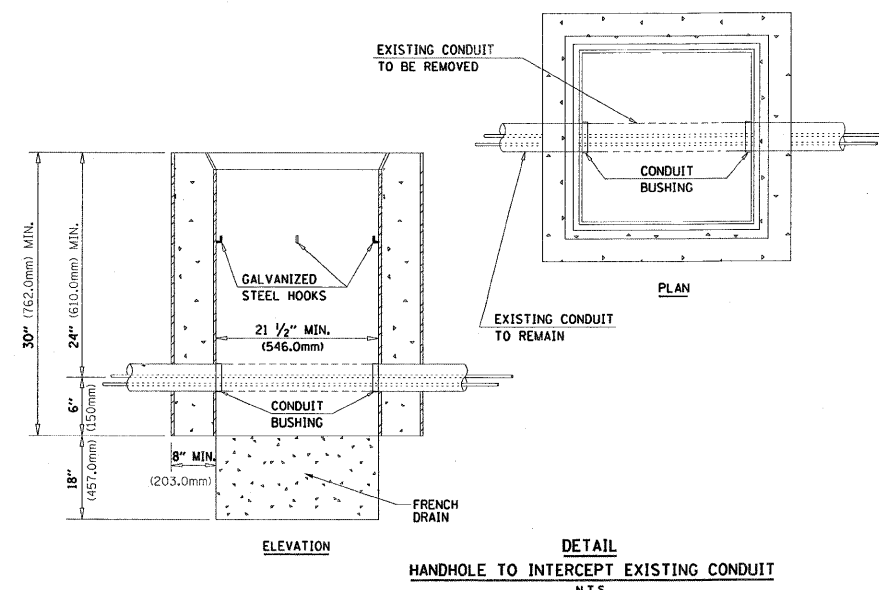


PEDESTRIAN PUSH BUTTON POST



**MODIFY EXISTING TYPE "D" FOUNDATION
(NOT TO SCALE)**

NOTES:
1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



**DETAIL
HANDHOLE TO INTERCEPT EXISTING CONDUIT
N.T.S.**

FILE NAME =	USER NAME = nguyenam	DESIGNED -	REVISED -
c:\pwwork\pwwork\nguyenam\d8117895\TS.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

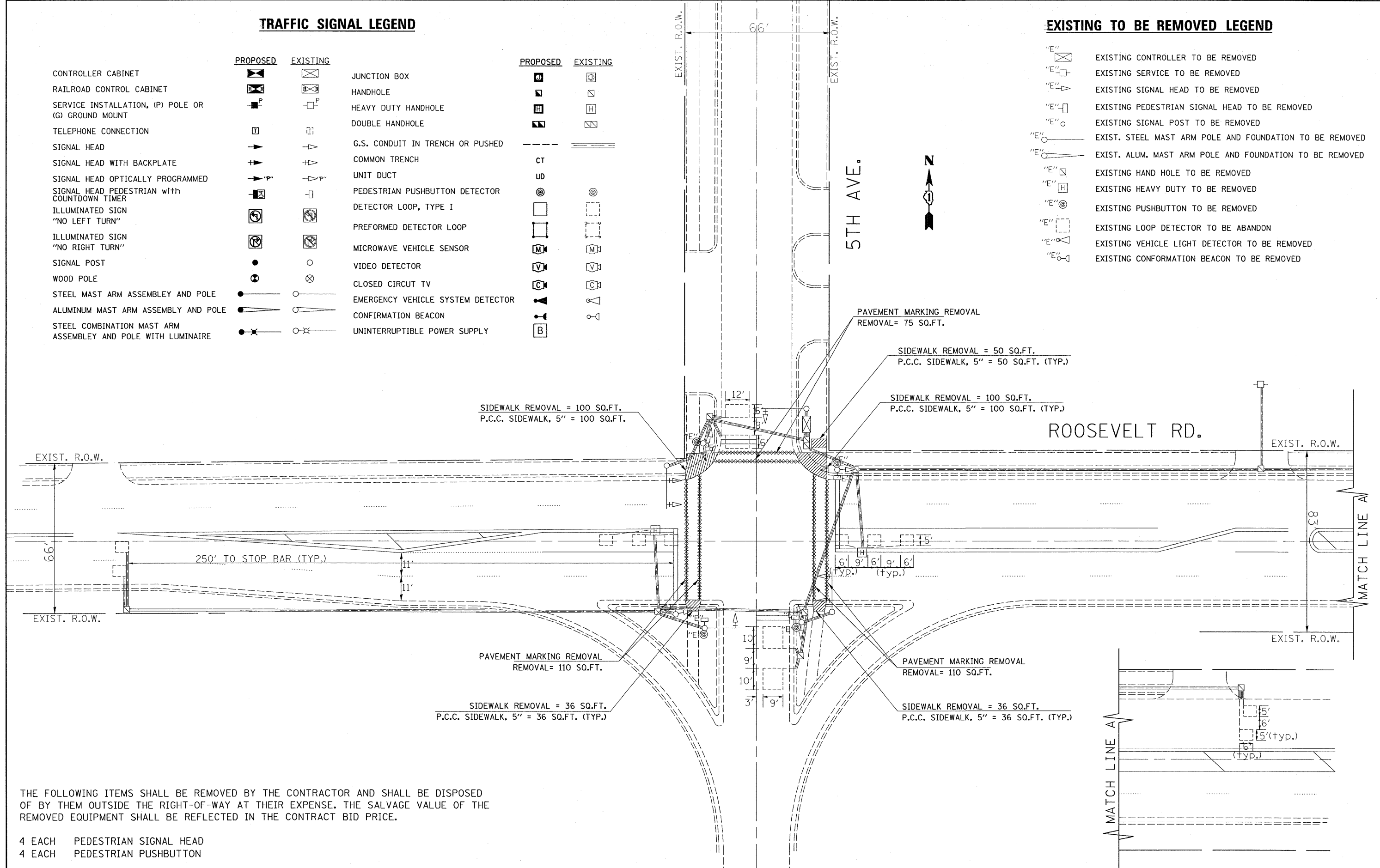
F.A.P. RTE. 347	SECTION 2009-094 TS	COUNTY COOK	TOTAL SHEETS 14	SHEET NO. 6
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60151	

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	UD	
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		

EXISTING TO BE REMOVED LEGEND

"E"	EXISTING CONTROLLER TO BE REMOVED
"E"	EXISTING SERVICE TO BE REMOVED
"E"	EXISTING SIGNAL HEAD TO BE REMOVED
"E"	EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
"E"	EXISTING SIGNAL POST TO BE REMOVED
"E"	EXIST. STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
"E"	EXIST. ALUM. MAST ARM POLE AND FOUNDATION TO BE REMOVED
"E"	EXISTING HAND HOLE TO BE REMOVED
"E"	EXISTING HEAVY DUTY TO BE REMOVED
"E"	EXISTING PUSHBUTTON TO BE REMOVED
"E"	EXISTING LOOP DETECTOR TO BE ABANDON
"E"	EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
"E"	EXISTING CONFIRMATION BEACON TO BE REMOVED



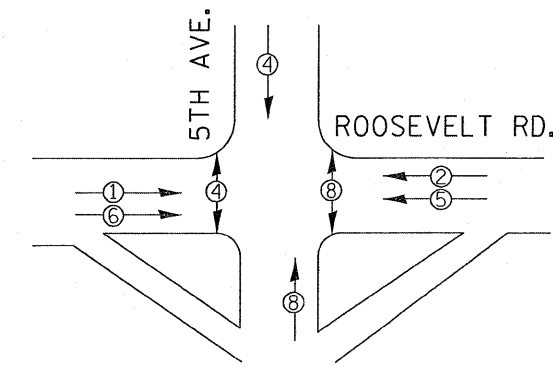
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSHBUTTON

FILE NAME =	USER NAME = kantarphixaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION AND REMOVE EXISTING TRAFFICAL SIGNAL EQUIPMENT PLAN ROOSEVELT RD. AT 5TH AVE.	F.A.P. RTE. 347	SECTION 2009-094 TS	COUNTY COOK	TOTAL SHEETS 14	SHEET NO. 7		
ci:\pw\work\p\WIDOT\KANTARPHIXAYBC\d01178	5\TS.dgn	DRAWN -	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60151		
	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -									
	PLOT DATE = 11/6/2009	DATE -	REVISED -									

05:12:21 11/06/2009

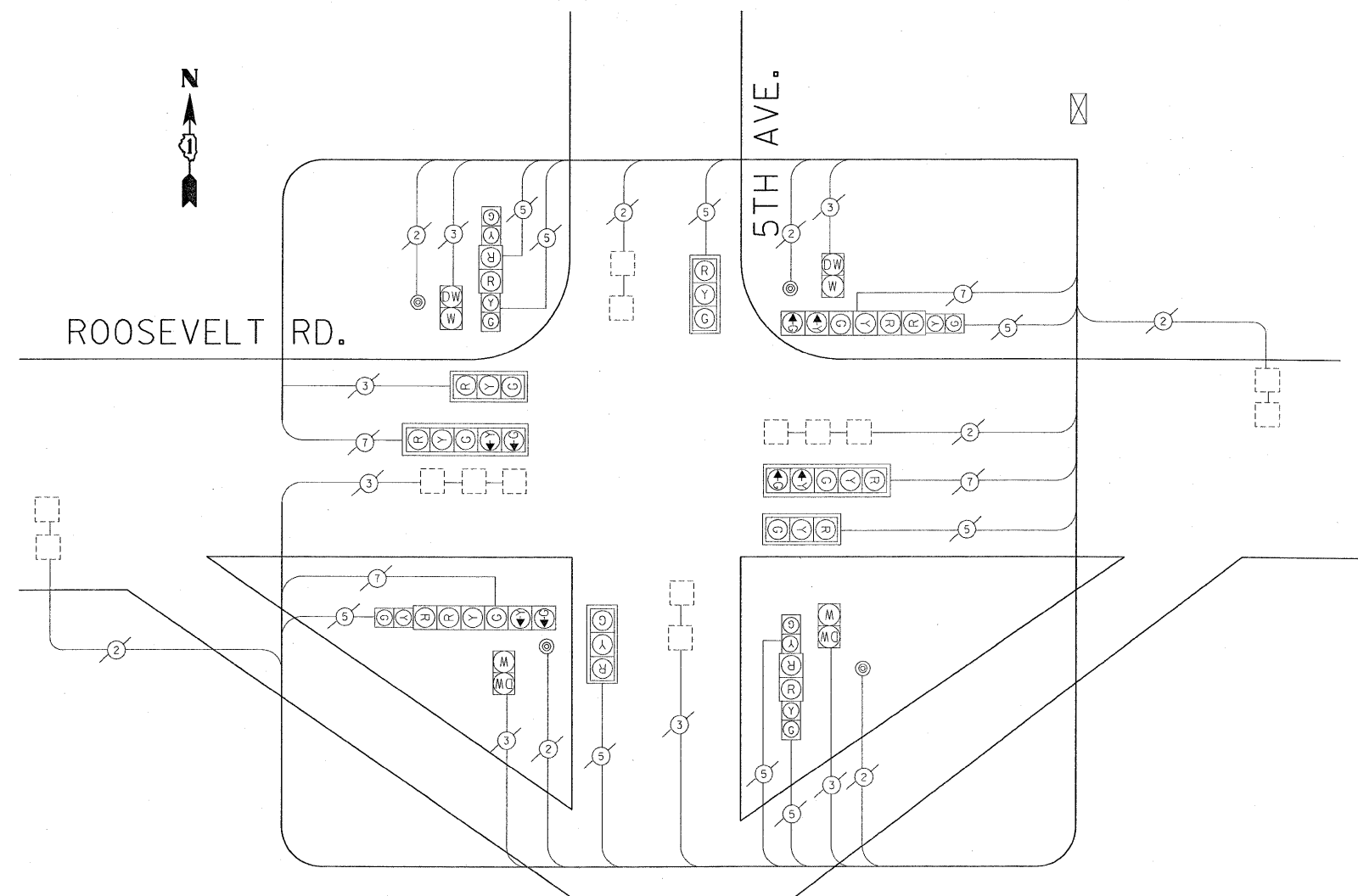
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



- LEGEND**
- DUAL ENTRY PHASE
 - SINGLE ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



CABLE PLAN LEGEND

- | | | | | | |
|--|-----------------|-----------------|--|--|--|
| | PROPOSED | EXISTING | 12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE | | |
| CONTROLLER CABINET | | | | | |
| RAILROAD CONTROL CABINET | | | | | |
| SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | | | 12" (300mm) TRAFFIC SIGNAL SECTION | | |
| TELEPHONE CONNECTION | | | 12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER | | |
| GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | | | PUSHBUTTON DETECTOR | | |
| GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN) | | | DETECTOR LOOP | | |
| SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD | | | PREFORMED DETECTOR LOOP | | |
| | | | MICROWAVE VEHICLE SENSOR | | |
| | | | VIDEO DETECTOR | | |
| | | | CLOSED CIRCUIT TV | | |
| | | | EMERGENCY VEHICLE SYSTEM DETECTOR | | |
| | | | CONFIRMATION BEACON | | |
| | | | UNINTERRUPTIBLE POWER SUPPLY | | |

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	OPERATION	
SIGNAL (RED)	14	135		0.50	945.00
(YELLOW)	14	135		0.25	472.50
(GREEN)	14	135		0.25	472.50
ARROW	8	135		0.10	108.00
PED. SIGNAL	4	90		1.00	360.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN		84		0.05	
TOTAL =					2458

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)
36" (900mm)	15 (4.6)	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 TO: TOTAL = 2458

ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: 708-410-5069
COMPANY: COM. EDISON

FILE NAME =
USER NAME = ngujensm
DESIGNED -
DRAWN -
CHECKED -
PLOT SCALE = 20,0000 ' / IN.
PLOT DATE = 10/16/2009

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

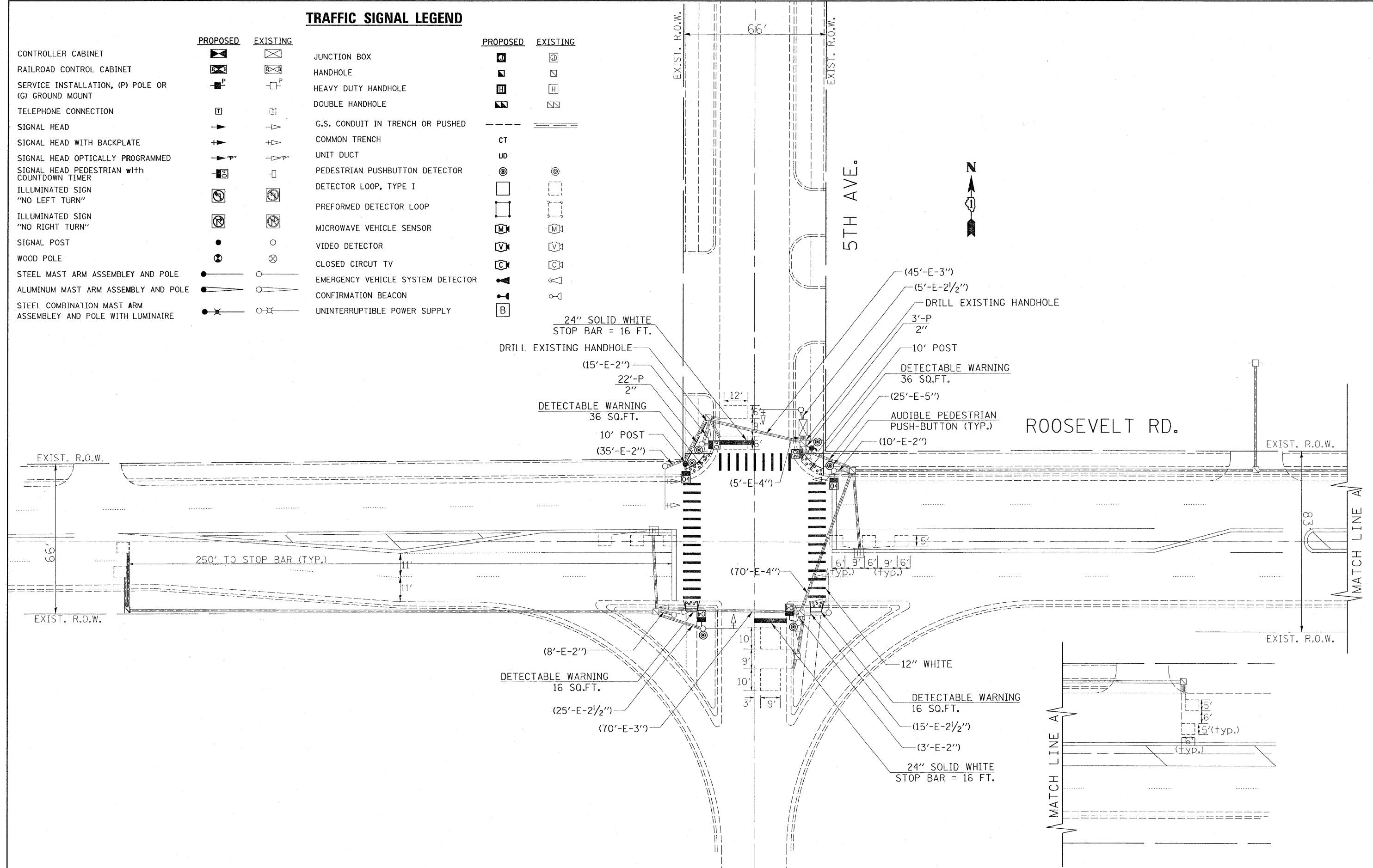
**SCHEDULE OF QUANTITIES, CABLE PLAN AND
PHASE DESIGNATION DIAGRAM
ROOSEVELT RD. AT 5TH AVE.**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2009-094 TS	COOK	14	8
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60151	

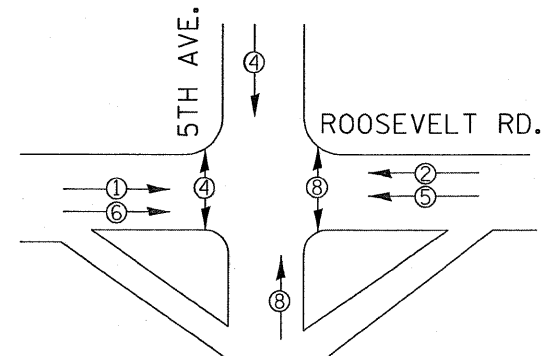
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	UD	
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		

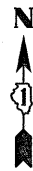


FILE NAME =	USER NAME = nguyensm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN ROOSEVELT RD. AT 5TH AVE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			347	2009-094 TS	COOK	14	9	
		CHECKED -	REVISED -			CONTRACT NO. 60151					
		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			
PLOT SCALE = 20,000' / IN. PLOT DATE = 10/16/2009				SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

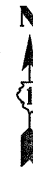
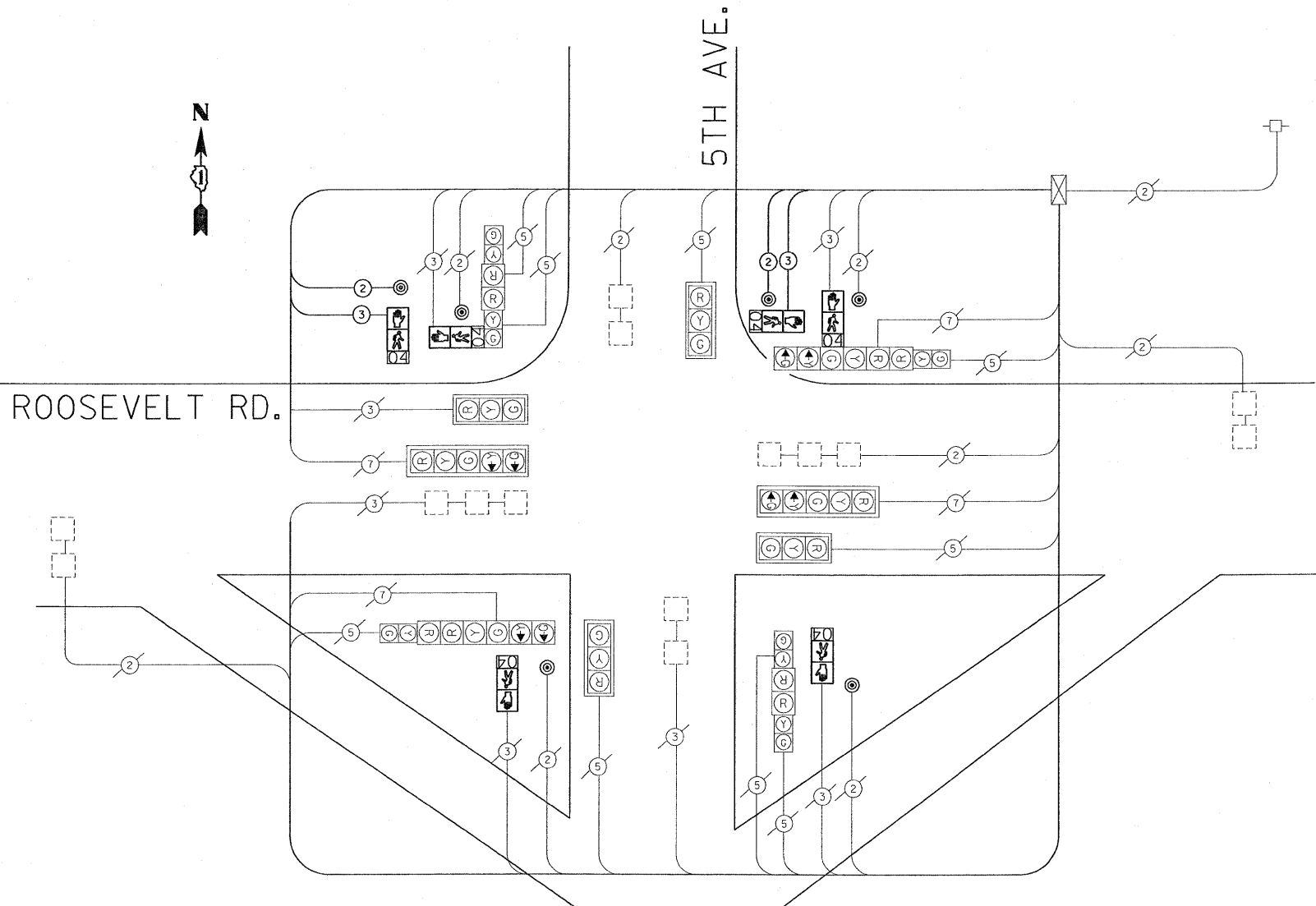


LEGEND

- ⊕ DUAL ENTRY PHASE
- * SINGLE ENTRY PHASE
- OL OVERLAP
- ⊕ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	300
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	32
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	295
SIDEWALK REMOVAL	FOOT	322
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	FOOT	322
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	25
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 14 2C	FOOT	160
ELECTRIC CABLE IN CONDUIT NO. 14 3C	FOOT	185
CONCRETE FOUNDATION, TYPE A	FOOT	8
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	6
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	6
DETECTABLE WARNING	FOOT	104



CABLE PLAN LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		
RAILROAD CONTROL CABINET			12" (300mm) TRAFFIC SIGNAL SECTION		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER		
TELEPHONE CONNECTION			ILLUMINATED SIGN "NO LEFT TURN"		
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			ILLUMINATED SIGN "NO RIGHT TURN"		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED			PUSHBUTTON DETECTOR		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED			DETECTOR LOOP		
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)			PERFORMED DETECTOR LOOP		
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD			MICROWAVE VEHICLE SENSOR		
			VIDEO DETECTOR		
			CLOSED CIRCUIT TV		
			EMERGENCY VEHICLE SYSTEM DETECTOR		
			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	135		0.50	945.00
(YELLOW)	14	135		0.25	472.50
(GREEN)	14	135		0.25	472.50
ARROW	8	135		0.10	108.00
PED. SIGNAL	4	90		1.00	360.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN		84		0.05	
TOTAL =					2458

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)
36" (900mm)	15 (4.6)	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 TO: TOTAL = 2458

ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: 708-410-5069
COMPANY: COM. EDISON

FILE NAME = USER NAME =
DESIGNED -
DRAWN -
CHECKED -
DATE -

DESIGNED -
DRAWN -
CHECKED -
DATE -

DESIGNED -
REVISED -
DRAWN -
CHECKED -
DATE -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED SCHEDULE OF QUANTITIES, CABLE PLAN
AND PHASE DESIGNATION DIAGRAM
ROOSEVELT RD. AT 5TH AVE.

SCALE: SHEET NO. OF SHEETS STA. TO STA.

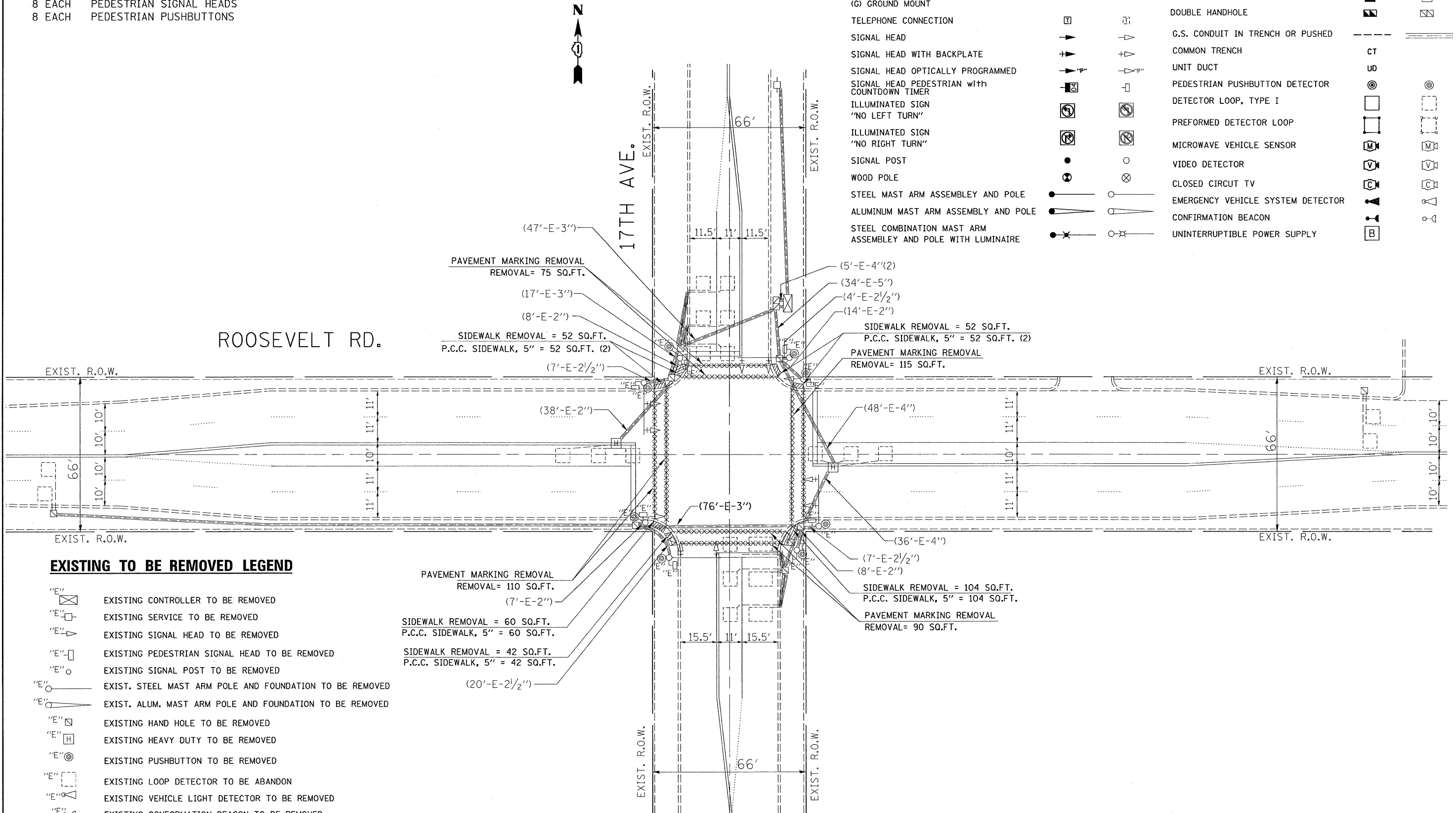
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2009-094 TS	COOK	14	10
CONTRACT NO. 60151				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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.

- 8 EACH PEDESTRIAN SIGNAL HEADS
- 8 EACH PEDESTRIAN PUSHBUTTONS

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING	PROPOSED	EXISTING



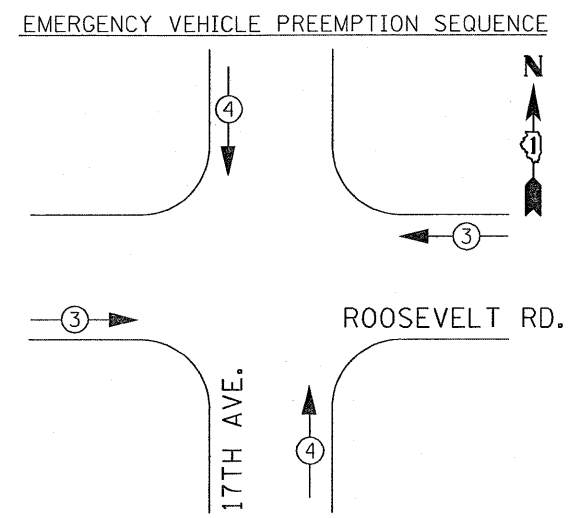
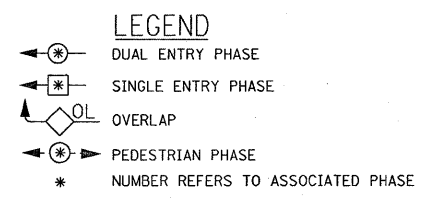
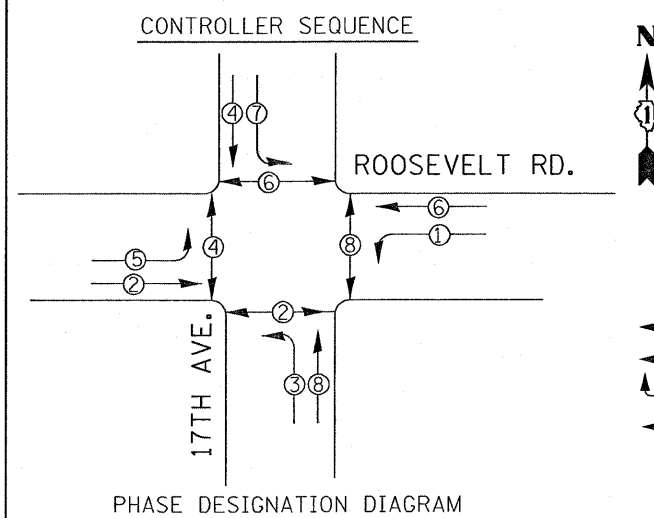
EXISTING TO BE REMOVED LEGEND

- "E" EXISTING CONTROLLER TO BE REMOVED
- "E" EXISTING SERVICE TO BE REMOVED
- "E" EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SIGNAL POST TO BE REMOVED
- "E" EXIST. STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXIST. ALUM. MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING HAND HOLE TO BE REMOVED
- "E" EXISTING HEAVY DUTY TO BE REMOVED
- "E" EXISTING PUSHBUTTON TO BE REMOVED
- "E" EXISTING LOOP DETECTOR TO BE ABANDON
- "E" EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING CONFIRMATION BEACON TO BE REMOVED

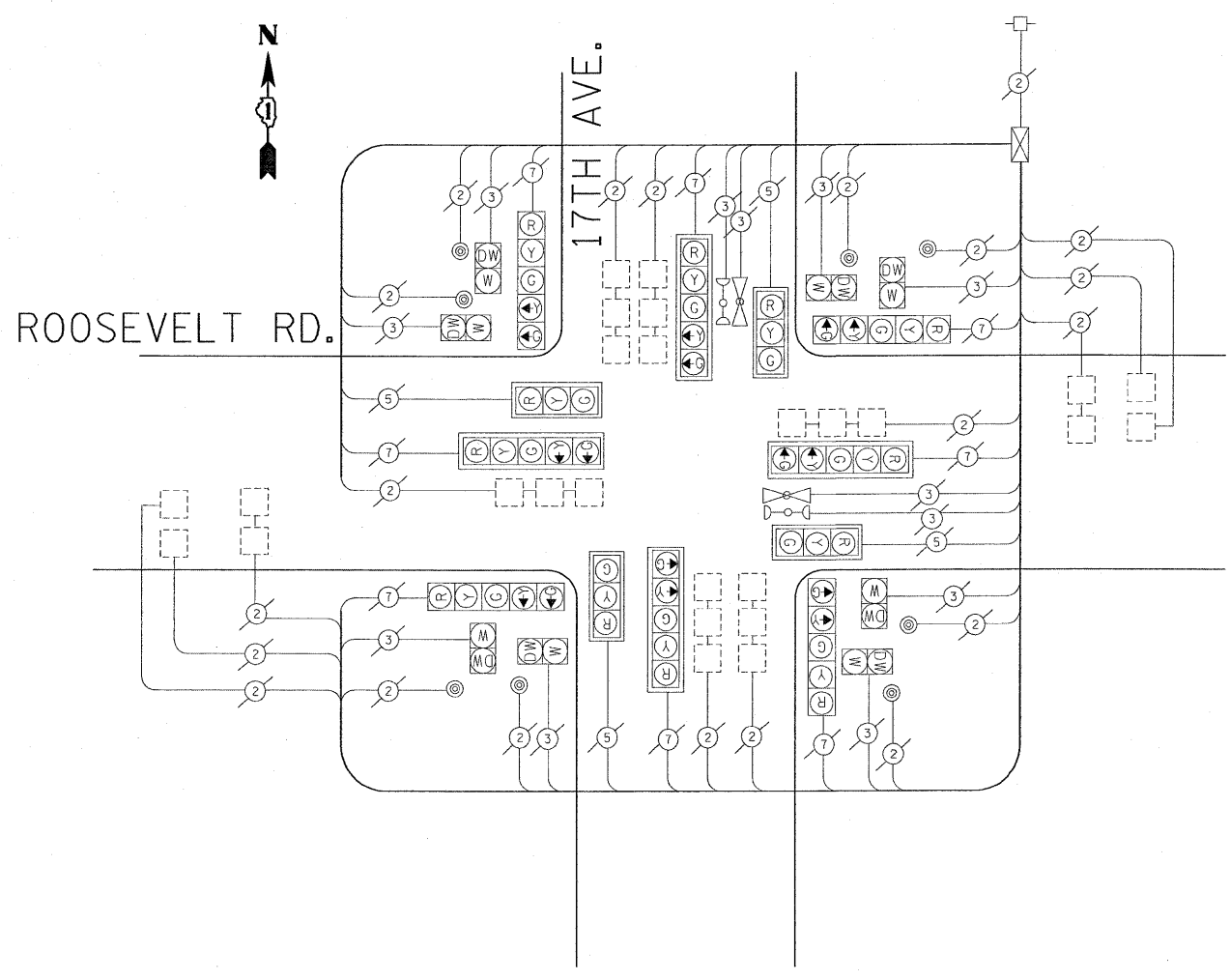
- PAVEMENT MARKING REMOVAL = 110 SQ.FT. (7'-E-2'')
- SIDEWALK REMOVAL = 60 SQ.FT. P.C.C. SIDEWALK, 5" = 60 SQ.FT.
- SIDEWALK REMOVAL = 42 SQ.FT. P.C.C. SIDEWALK, 5" = 42 SQ.FT.
- (20'-E-2 1/2'')
- PAVEMENT MARKING REMOVAL = 90 SQ.FT.
- SIDEWALK REMOVAL = 104 SQ.FT. P.C.C. SIDEWALK, 5" = 104 SQ.FT.
- (36'-E-4')
- (7'-E-2 1/2'')
- (8'-E-2'')

FILE NAME =	USER NAME = kanthaphixayba	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION AND REMOVE EXISTING TRAFFICAL SIGNAL EQUIPMENT PLAN ROOSEVELT RD. AT 17TH AVE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\pwwork\pwidot\KANTHAPHIXAYBA\d01178\5\T5.dgn		DRAWN -	REVISED -			347	2009-094 TS	COOK	14	11	
PLOT SCALE = 20,0000 ' / IN.		CHECKED -	REVISED -			CONTRACT NO. 60151					
PLOT DATE = 11/6/2009		DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO

05:12:06 11/06/2009



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



CABLE PLAN LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		
RAILROAD CONTROL CABINET			12" (300mm) TRAFFIC SIGNAL SECTION		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER		
TELEPHONE CONNECTION			ILLUMINATED SIGN "NO LEFT TURN"		
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			ILLUMINATED SIGN "NO RIGHT TURN"		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED			PUSHBUTTON DETECTOR		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED			DETECTOR LOOP		
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)			PREFORMED DETECTOR LOOP		
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD			MICROWAVE VEHICLE SENSOR		
			VIDEO DETECTOR		
			CLOSED CIRCUIT TV		
			EMERGENCY VEHICLE SYSTEM DETECTOR		
			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN				0.95	

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)
36" (900mm)	15 (4.6)	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 TO: TOTAL = 541.20

ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: 708-410-5069
 PHONE: 708-410-5069
 COMPANY: COM. EDISON

FILE NAME = USER NAME = nguyenism
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PLOT SCALE = 20,000 / IN.
 PLOT DATE = 10/16/2009

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND
 PHASE DESIGNATION DIAGRAM
 ROOSEVELT RD. AT 17TH AVE.

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							347	2009-094 TS	COOK	14	12

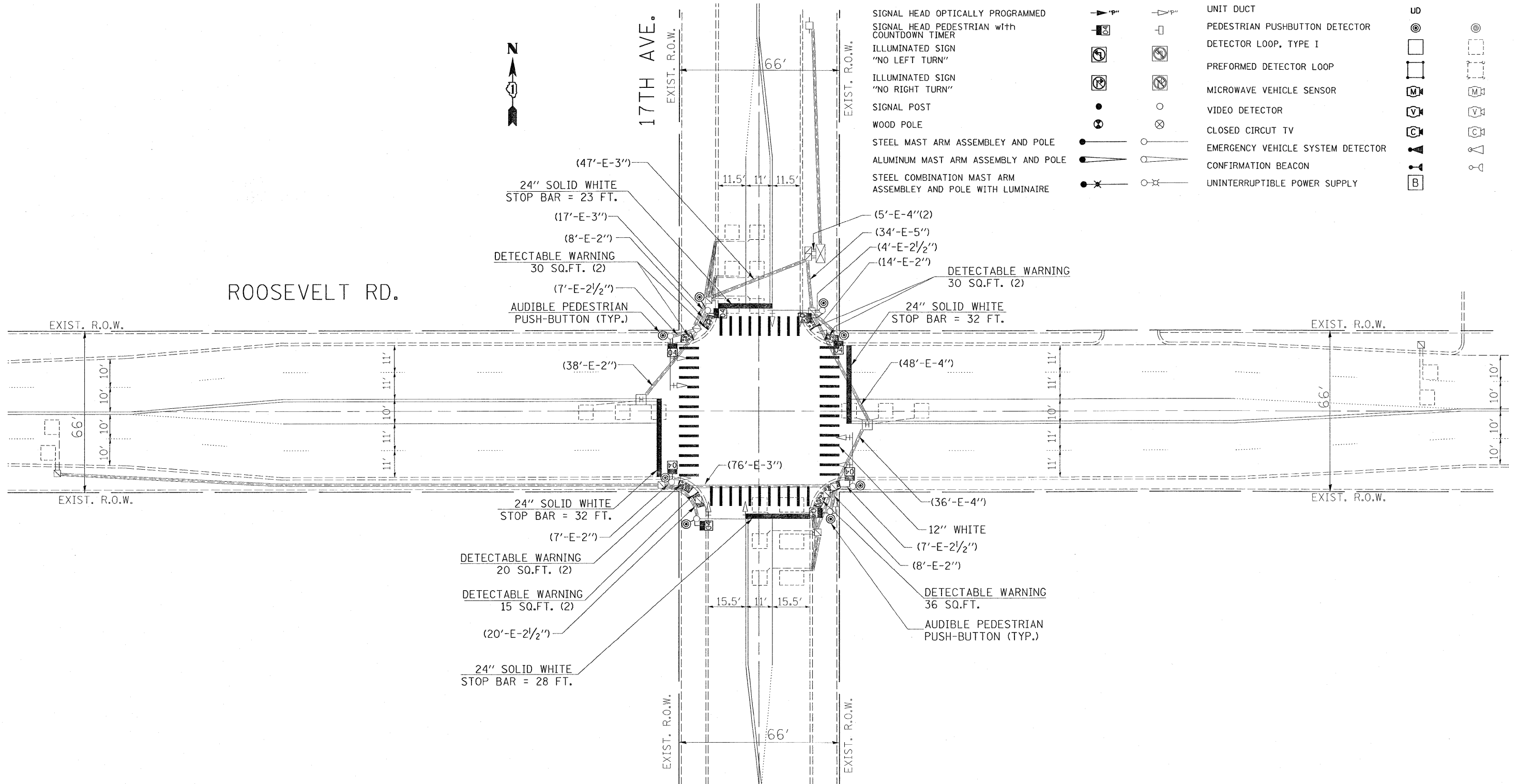
CONTRACT NO. 60151
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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.

- 8 EACH PEDESTRIAN SIGNAL HEADS
- 8 EACH PEDESTRIAN PUSHBUTTONS

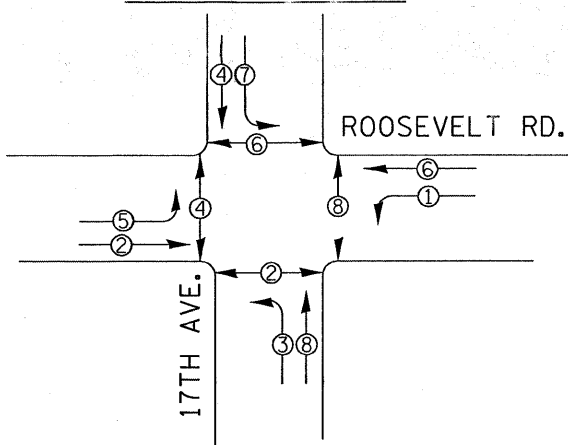
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	UD	
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		



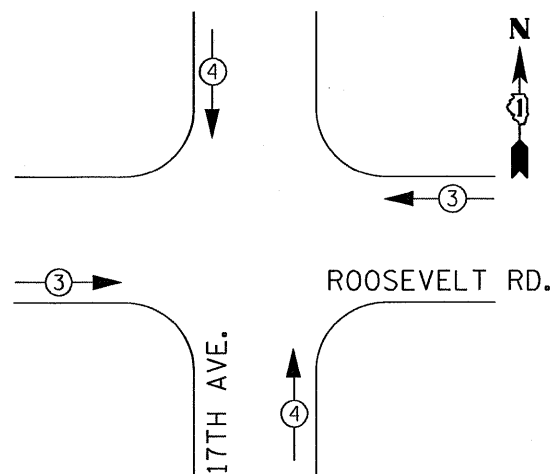
FILE NAME =	USER NAME = nguyensm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION AND REMOVE EXISTING TRAFFICAL SIGNAL EQUIPMENT PLAN ROOSEVELT RD. AT 17TH AVE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
es:\pwwork\pwwork\nguyensm\0117805\15.dgn	PLOT SCALE = 20,0000' / IN.	DRAWN -	REVISED -			347	2009-094 TS	COOK	14	13	
PLOT DATE = 10/16/2009	DATE -	CHECKED -	REVISED -			CONTRACT NO. 60151					
						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

CONTROLLER SEQUENCE

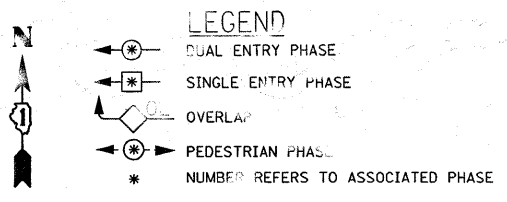


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE

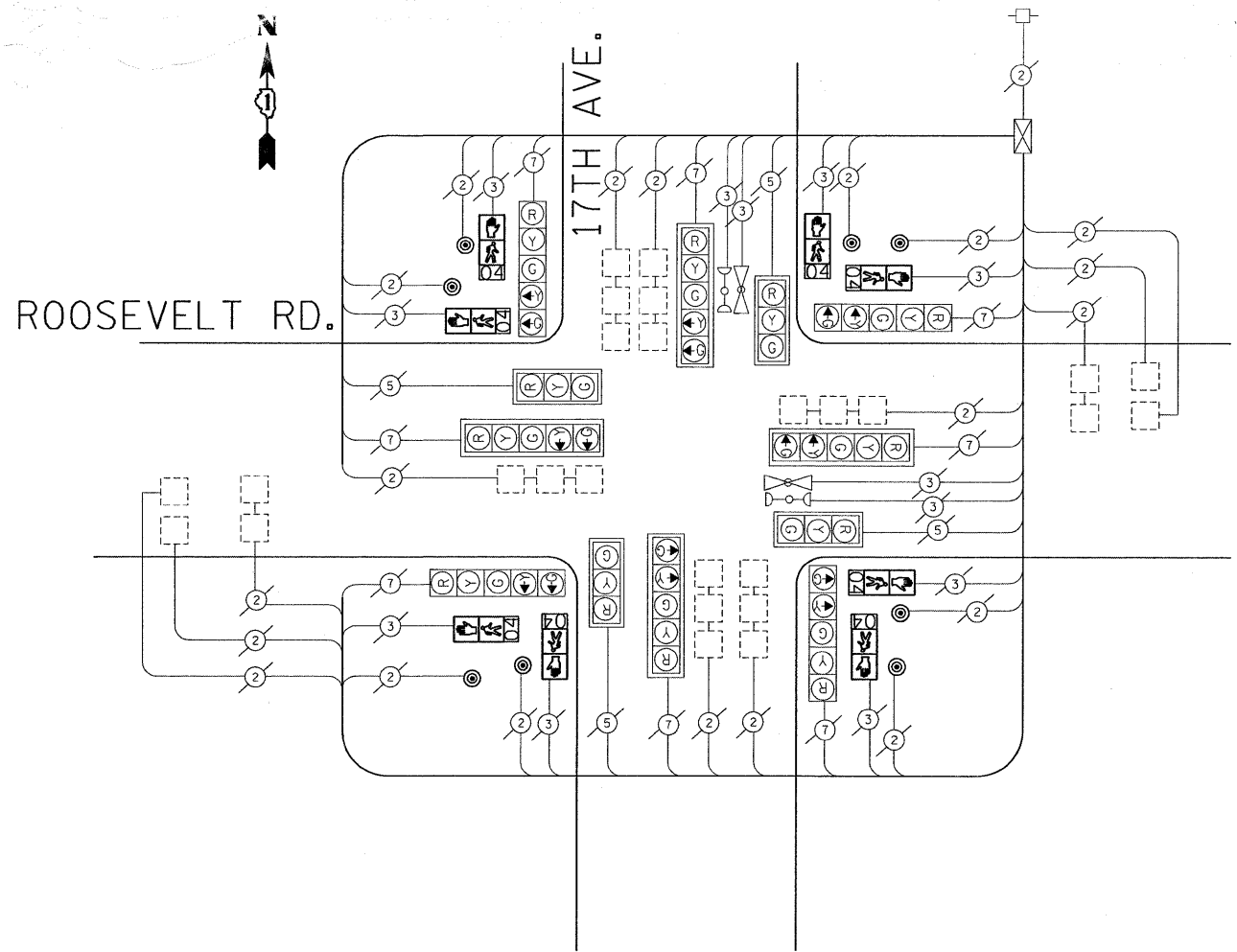


PROPOSED EMERGENCY VEHICLE PREEMPTOR			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	→ ←	↑ ↓	



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	FOOT	414
DETECTABLE WARNING	FOOT	191
SIDEWALK REMOVAL	FOOT	414
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	385
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	115
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	390
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	8
MODIFY EXISTING CONTROLLER	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8



CABLE PLAN LEGEND

	PROPOSED	EXISTING	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	PROPOSED	EXISTING
CONTROLLER CABINET					
RAILROAD CONTROL CABINET					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			12" (300mm) TRAFFIC SIGNAL SECTION		
TELEPHONE CONNECTION			12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER		
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			ILLUMINATED SIGN "NO LEFT TURN"		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED			ILLUMINATED SIGN "NO RIGHT TURN"		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED			PUSHBUTTON DETECTOR		
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)			DETECTOR LOOP		
SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD			PERFORMED DETECTOR LOOP		
			MICROWAVE VEHICLE SENSOR		
			VIDEO DETECTOR		
			CLOSED CIRCUIT TV		
			EMERGENCY VEHICLE SYSTEM DETECTOR		
			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL =					541.20

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 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 541.20

ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: 708-410-5069
 PHONE: COM. EDISON
 COMPANY:

FILE NAME = USER NAME = konthphixaybc
 c:\pwwork\pwwork\KANTHAPHIXAYBC\d01178\TS.dgn
 PLOT SCALE = 20.0000 "/ IN.
 PLOT DATE = 11/6/2009

DESIGNED - REVISED -
 DRAWN - REVISED -
 CHECKED - REVISED -
 DATE - REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM ROOSEVELT RD. AT 17TH AVE.

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2009-094 TS	COOK	14	14
CONTRACT NO. 60151				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				