

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PROPOSED  
HIGHWAY PLANS

FAP RTE 372: IL RTE 171 (1ST AVE)  
AND FAP RTE 311: US RTE 34 (OGDEN AVE)  
AT VARIOUS INTERSECTIONS  
SECTION 2012-0471  
PROJECT: ACHSIP-000S(955)  
TRAFFIC SIGNAL MODERNIZATION  
AND CHANNELIZATION  
COOK COUNTY

C-91-543-12

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	1
ILLINOIS			CONTRACT NO. 60V34	

D-91-543-12

FOR INDEX OF SHEETS, SEE SHEET NO. 2

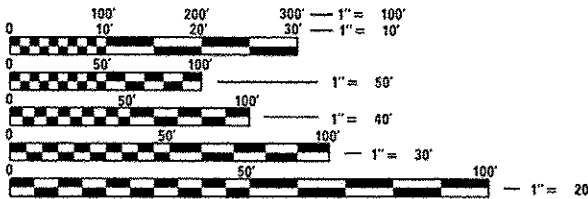
THIS PROJECT IS LOCATED IN  
THE VILLAGE OF LYONS

TRAFFIC DATA:

IL 171 (1ST AVE)  
2012 ADT = 37,000  
SPEED LIMIT = 40 MPH

US 34 (OGDEN AVE)  
2011 ADT = 23,700  
SPEED LIMIT = 30 MPH

PLAINFIELD RD  
2010 ADT = 6,300  
SPEED LIMIT = 35 MPH



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

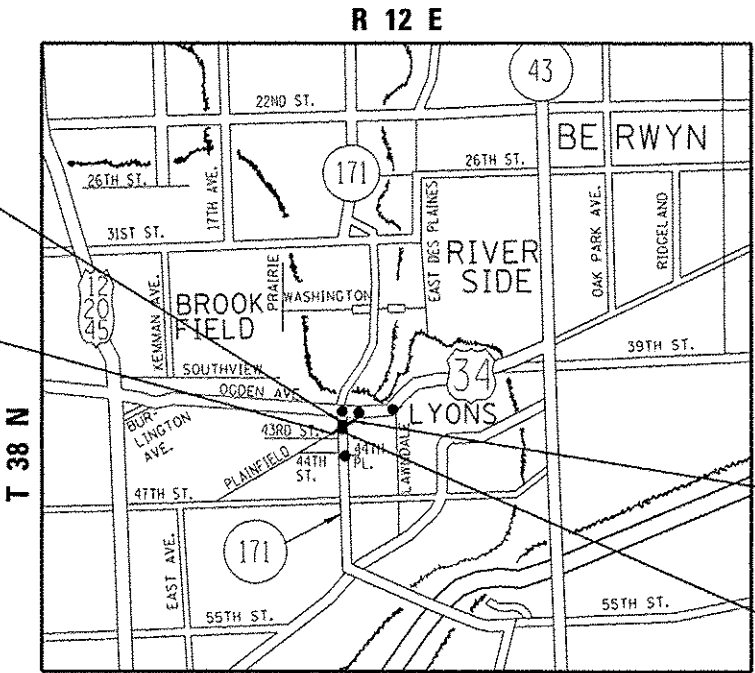
PROJECT ENGINEER: DAN WILGREEN (847) 705-4240  
PROJECT MANAGER: KEN ENG (847) 705-4247

CONTRACT NO. 60V34



PROJECT LIMIT  
STA 97+90

PROJECT LIMIT  
STA 06+09.96



LYONS TOWNSHIP  
(FOR DETAILED LOCATION MAP, SEE SHEET NO. 3)

GROSS AND NET LENGTH = 1423.34 FT. = 0.270 MILE

PROJECT LIMIT  
STA 14+07.80

PROJECT LIMIT  
STA 91+64.50

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
SUBMITTED October 16 20 13  
John D. Baranelli, P.E.  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
John D. Baranelli, P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT  
Dec 6 20 13  
Omer Osman, P.E.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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- 424001-07 PERPENDICULAR CURB RAMPS FOR SIDEWALKS
- 424006-01 DIAGONAL CURB RAMPS FOR SIDEWALKS
- 424011-01 CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
- 424021-02 DEPRESSED CORNER FOR SIDEWALKS
- 442201-03 CLASS C AND D PATCHES
- 606001-05 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5mm) AWAY
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701011-04 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701101-04 OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5mm) AWAY
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
- 701427-02 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701606-09 URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
- 701701-09 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-05 SIDEWALK, CORNER OR CROSSWALK CLOSURE
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- 720001-01 SIGN PANEL MOUNTING DETAILS
- 805001-01 ELECTRIC SERVICE INSTALLATION DETAILS
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- 862001-01 UNINTERRUPTABLE POWER SUPPLY
- 873001-02 TRAFFIC SIGNAL GROUNDING AND BONDING
- 877001-05 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-09 CONCRETE FOUNDATION DETAILS
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
- 886001-01 DETECTOR LOOP INSTALLATION

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
2. TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF LYONS.
4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT.
5. WHEN CONSTRUCTING SIDEWALK RAMPS FOR THE HANDICAPPED (STATE STANDARD 424001), USE TYPE B RAMPS UNLESS OTHERWISE SPECIFIED.
6. ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.
7. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
8. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
9. ALL PAVEMENT PATCHING AND CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
10. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
12. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
13. SIDEWALK REMOVAL AND P.C.C. SIDEWALK 5" LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
14. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
15. THE RESIDENT ENGINEER SHALL CONTACT JERNARD PERKINS, AREA TRAFFIC FIELD ENGINEER, AT (708) 524-2145 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
16. THE THICKNESS OF THE HMA MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
17. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
18. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
19. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
20. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.
21. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.
22. WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 mm) WHERE THE SPEED LIMIT IS 40 MPH (80 km/h) OR LESS AND 1 INCH (25 mm) WHERE THE SPEED LIMIT IS GREATER THAN 40 MPH (80 km/h). WITH WRITTEN APPROVAL OF THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 mm) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H) OR A NOTCHED LONGITUDINAL WEDGE IS USED.
23. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
24. UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURE AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS, OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING.

FILE NAME :	USER NAME : pascenciar	DESIGNED :	REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\pascenciar\d8316539\F	20212-shr-gennote.dgn	DRAWN :	REVISED :									372	2012-0471	COOK	63	2
Default	PLOT SCALE : 1/8"=0'0" / 1"	CHECKED :	REVISED :									CONTRACT NO. 60V34				
	PLOT DATE : 10/18/2013	DATE :	REVISED :									ILLINOIS FED. AID PROJECT				



SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE																														
CODE NO	ITEM	UNIT		TOTAL QUANTITIES	LOC. 1 90% FED. 10% STATE 0004 ROADWAY	LOC. 1 90% FED. 7.5% STATE 2.5% LYONS 0021 TRF. SIG.	LOC. 2 90% FED. 5% STATE 5% LYONS 0021 TRF. SIG.	LOC. 3 90% FED. 10% STATE 0021 TRF. SIG.	LOC. 4 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	LOC. 5 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	90% FED. 10% STATE 0021 INTER- CONNECT	100% LYONS 0021 EVP																						
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	9	5			1	3																										
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	37	37																														
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	1	1																														
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	1	1																														
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	1	1																														
25200110	SODDING, SALT TOLERANT	SO YD	37	37																														
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SO YD	51	51																														
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SO YD	51	51																														
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	4	4																														
40600300	AGGREGATE (PRIME COAT)	TON	16	16																														
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	12	12																														
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4, 75, N50	TON	310	310																														
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	87	87																														
	* SPECIALTY ITEM																																	
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PLOT DATE = 10/19/2013			CHECKED -		REVISOR -																													
			DATE -		REVISOR -																													
									SCALE: SHEET NO. OF SHEETS STA. TO STA.												FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60V34													



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40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	28	28																												
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE	TON	736	736																												
	COURSE. MIX "F", N90																															
42001300	PROTECTIVE COAT	SO YD	308	205			25	56	22																							
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	1775	1180			102	371	122																							
42400800	DETECTABLE WARNINGS	SO FT	246	106			52	37	51																							
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SO YD	7501	7501																												
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	11	11																												
44000600	SIDEWALK REMOVAL	SO FT	1484	925			66	371	122																							
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SO YD	125	125																												
44003100	MEDIAN REMOVAL	SO FT	455	455																												
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SO YD	27	27																												
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SO YD	7	7																												
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	74	74																												
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SO YD	11	11																												
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	4	4																												
	• SPECIALTY ITEM																															
FILE NAME =			USER NAME = pascencal		DESIGNED -		REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES				F.A.P. RTE.		SECTION		COUNTY		TOTAL SHEETS	SHEET NO.								
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PLOT SCALE = 1/8"=1'-0"			DATE -														CONTRACT NO. 60V34															
PLOT DATE = 10/18/2013																	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT															
									SCALE:				SHEET NO. OF SHEETS STA. TO STA.																			



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70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	135	135																		
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	160	160																		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	2610	2610																		
72000100	SIGN PANEL - TYPE 1	SO FT	69		18	15		18	18													
72000200	SIGN PANEL - TYPE 2	SO FT	117.5		22.5	22.5	47.5	12.5	12.5													
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	1	1																		
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	155	155																		
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3065	3065																		
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	3067	1970			610	130	357													
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	396	135			261															
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	494	160		34	148	75	77													
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	56	56																		
78300100	PAVEMENT MARKING REMOVAL	SO FT	1495			68	862	232	333													
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	55	55																		
	* SPECIALTY ITEM																					

FILE NAME : c:\pwr\work\pwr\plascen\040316559\F08212-SUM-S-72pgs	USER NAME : plascencl	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -									372	2012-0471	COOK	63	7
		CHECKED -	REVISED -									CONTRACT NO. 60V34				
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87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	4730		1675		1776	598	169		512										
	14 3C																				
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	7083		1822	2020	1548	1693													
	14 5C																				
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.	FOOT	4077		1512	681	1570	314													
	14 7C																				
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.	FOOT	8332		2143	1535	3647	1007													
	14 1 PAIR																				
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO.	FOOT	350		62	32	70	186													
	6 2 C																				
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT	FOOT	2359		603	500	638	618													
	GROUNDING CONDUCTOR, NO. 6 1C																				
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	3			2			1												
	14 FT.																				
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	12		4	1	4	1	2												
	16 FT.																				
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL	EACH	1					1													
	18 FT.																				
87700120	STEEL MAST ARM ASSEMBLY AND POLE, 16 FT.	EACH	1					1													
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1					1													
	* SPECIALTY ITEM																				

FILE NAME : C:\w\work\pascencal\0316539\108212-011-02.dgn	USER NAME : pascencal	DESIGNED : DRAWN : CHECKED : DATE :	REVISED : REVISED : REVISED : REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	SCALE: SHEET NO. OF SHEETS STA. TO STA.	F.A.P. RTE. 372	SECTION 2012-0471	COUNTY COOK	TOTAL SHEETS 63	SHEET NO. 9	CONTRACT NO. 60V34
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87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	2		2																			
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	3			2	1																	
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1					1																
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1			1																		
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	3		2		1																	
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1				1																	
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	2			1	1																	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	52		16	12	16	8																
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	16		4	4	4	4																
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH	FOOT	161.5		47	40.5	40.5	33.5																
	DIAMETER																							
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH	FOOT	26			13	13																	
	DIAMETER																							
87900200	DRILL EXISTING HANDHOLE	EACH	2						2															
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION,	EACH	31		6	8	8	5	4															
	MAST-ARM MOUNTED																							
	* SPECIALTY ITEM																							

FILE NAME =		USER NAME = piassenet	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES				F.A.P. RTE.		SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
C:\pwworking\piassenet\ad216539\PI0212-trf-51.dgn		DRAWN -	REVISED -	372									2012-0471		COOK	63	10		
PLOT SCALE = 100,0000' / 1"		CHECKED -	REVISED -																
PLOT DATE = 10/18/2013		DATE -	REVISED -																
			SCALE:		SHEET NO. OF SHEETS		STA. TO STA.				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		CONTRACT NO. 60V34						



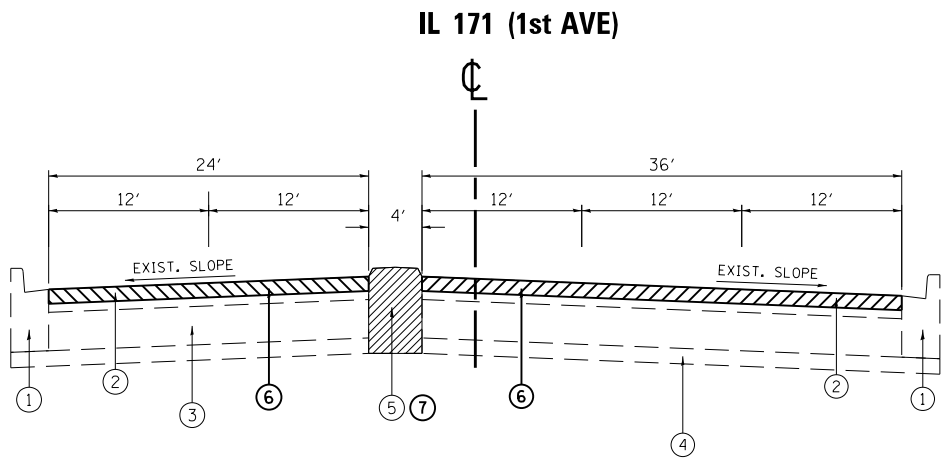
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE																									
CODE NO	ITEM	UNIT		LOC. 1 90% FED. 10% STATE 0004 ROADWAY	LOC. 1 90% FED. 7.5% STATE 2.5% LYONS 0021 TRF. SIG.	LOC. 2 90% FED. 5% STATE 5% LYONS 0021 TRF. SIG.	LOC. 3 90% FED. 10% STATE 0021 TRF. SIG.	LOC. 4 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	LOC. 5 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	90% FED. 10% STATE 0021 INTER- CONNECT	100% LYONS 0021 EVP																		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION,	EACH	3					1	2																				
	BRACKET MOUNTED																												
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION,	EACH	8			2	4		2																				
	BRACKET MOUNTED																												
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION,	EACH	13		4	2	4	1	2																				
	MAST-ARM MOUNTED																												
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION,	EACH	3			2		1																					
	BRACKET MOUNTED																												
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION,	EACH	5		4			1																					
	1-5 SECTION, BRACKET MOUNTED																												
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE,	EACH	18		6		4	2	6																				
	BRACKET MOUNTED WITH COUNTDOWN TIMER																												
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE,	EACH	3		1		2																						
	BRACKET MOUNTED WITH COUNTDOWN TIMER																												
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED,	EACH	44		10	10	12	6	6																				
	ALUMINUM																												
88500100	INDUCTIVE LOOP DETECTOR	EACH	39		9	7	12	5	6																				
88600100	DETECTOR LOOP, TYPE 1	FOOT	2349		791	541	680	337																					
88700200	LIGHT DETECTOR	EACH	11								11																		
	* SPECIALTY ITEM																												
FILE NAME =		USER NAME = pascencal		DESIGNED -		REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES								F.A.P. RTE.		SECTION		COUNTY		TOTAL SHEETS		SHEET NO.	
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PLOT DATE = 10/18/2015																													
SCALE:		SHEET NO.		OF		SHEETS		STA.		TO STA.										FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT									

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE															
CODE NO	ITEM	UNIT		LOC. 1 90% FED. 10% STATE 0004 ROADWAY	LOC. 1 90% FED. 7.5% STATE 0021 TRF. SIG.	LOC. 2 90% FED. 5% STATE 0021 TRF. SIG.	LOC. 3 90% FED. 10% STATE 0021 TRF. SIG.	LOC. 4 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	LOC. 5 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	90% FED. 10% STATE 0021 INTER- CONNECT	100% LYONS 0021 EVP								
88700300	LIGHT DETECTOR AMPLIFIER	EACH	5								5								
88800100	PEDESTRIAN PUSH-BUTTON	EACH	24		8		8	2	6										
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	4		1	1	1	1											
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5		1	1	1	1	1										
89502380	REMOVE EXISTING HANDHOLE	EACH	37		7	8	12	6		4									
89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	4		1	1	1	1											
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	34		10	8	10	6											
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE	FOOT	1493								1493								
	SENSOR CABLE, NO. 20 3/C																		
<input type="checkbox"/> X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	200	200															
* X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	12	12															
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	4		1	1		1	1										
X8570231	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1				1												
X8600105	MASTER CONTROLLER (SPECIAL)	EACH	1				1												
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	5		1	1	1	1	1										
	* SPECIALTY ITEM																		
FILE NAME : USER NAME : DESIGNER : DESIGNED : DRAWN : CHECKED : DATE :				PLOT SCALE : 100,000' = 1" PLOT DATE : 10/18/2013				REVISOR : REVISOR : REVISOR : REVISOR :				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES			
SCALE: SHEET NO. OF SHEETS STA. TO STA.				F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. 372 2012-0471 COOK 63 12 CONTRACT NO. 60V34				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT											

14

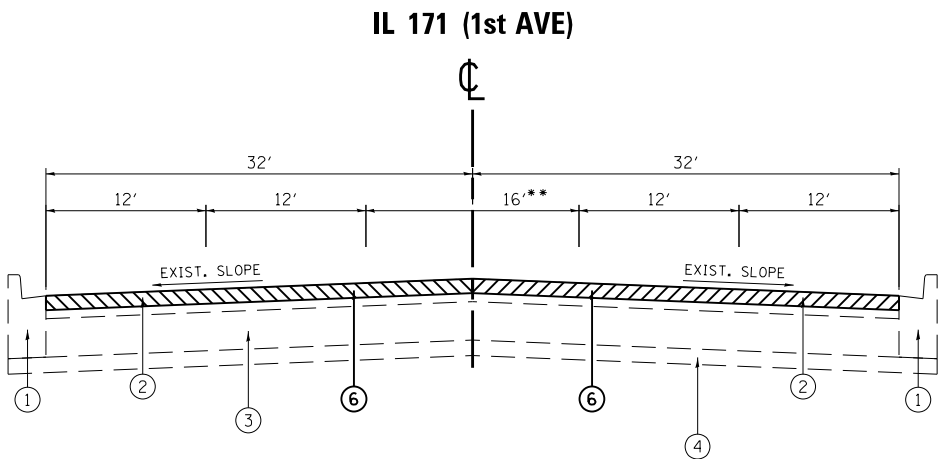
☐ NP - 100% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE															
CODE NO	ITEM	UNIT		LOC. 1 90% FED. 10% STATE 0004 ROADWAY	LOC. 1 90% FED. 7.5% STATE 2.5% LYONS 0021 TRF. SIG.	LOC. 2 90% FED. 5% STATE 5% LYONS 0021 TRF. SIG.	LOC. 3 90% FED. 10% STATE 0021 TRF. SIG.	LOC. 4 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	LOC. 5 90% FED. 6.7% STATE 3.3% LYONS 0021 TRF. SIG.	90% FED. 10% STATE 0021 INTER- CONNECT	100% LYONS 0021 EVP								
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F 5M24F	FOOT	4723							4723									
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	368	260			41	43	24										
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	7	7															
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	102.8	102.8															
Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	5							5									
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	4		1	1	1	1											
Z0076600	TRAINEES	HOUR	1000	1000															
Z0076604	TRAINEES-TRAINING PROGRAM GRADUATE	HOUR	1000	1000															
NP-100% STATE																			
SPECIALTY ITEM																			



**EXISTING TYPICAL SECTION**

STA. 93+81 TO 94+93



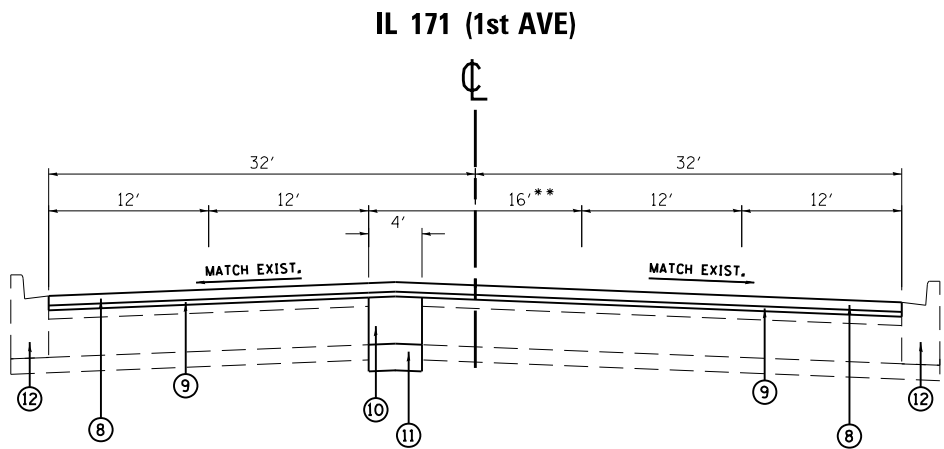
**EXISTING TYPICAL SECTION**

STA. 91+64.5 TO 93+81  
STA. 94+93 TO 97+90

\*\*VARIES BETWEEN PAINTED MEDIAN AND LEFT TURN LANE.  
SEE PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS.

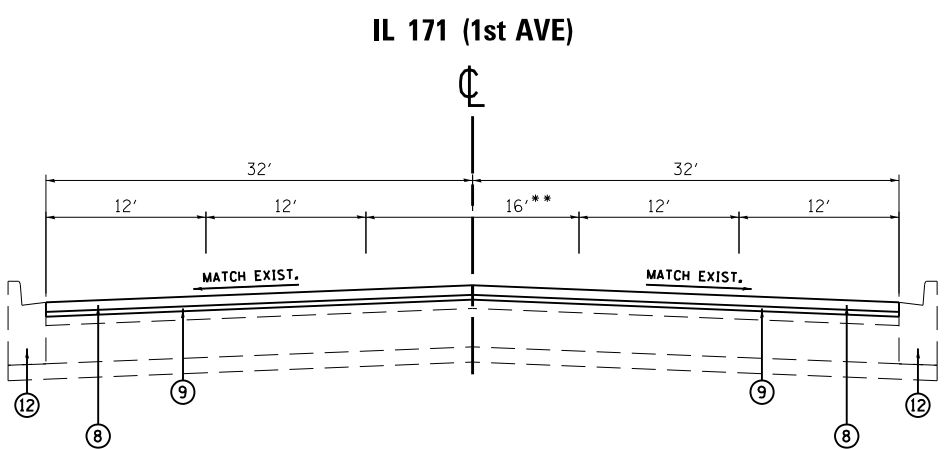
**LEGEND**

- ① EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ② EXISTING HMA SURFACE COURSE, VARIES 4"±
- ③ EXISTING PCC BASE COURSE, VARIES 10"±
- ④ EXISTING SUBBASE GRANULAR MATERIAL, 6"
- ⑤ EXISTING CONCRETE MEDIAN
- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL - 2½"
- ⑦ PROPOSED MEDIAN REMOVAL
- ⑧ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1¾"
- ⑨ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, ¾"
- ⑩ PROPOSED HOT-MIX ASPHALT BASE COURSE, 9"
- ⑪ PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ⑫ PROPOSED COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)



**PROPOSED TYPICAL SECTION**

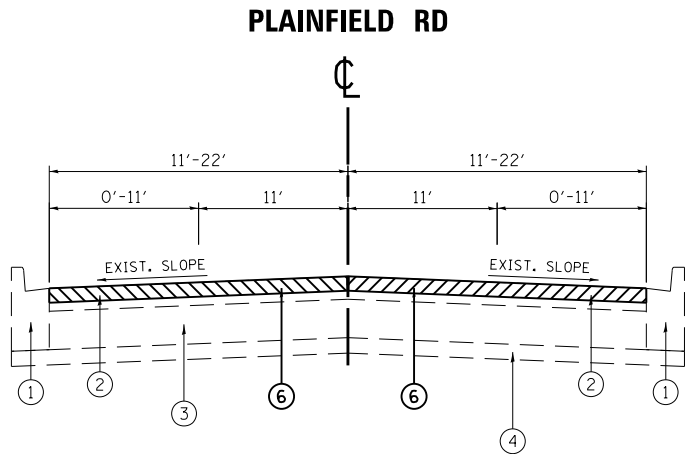
STA. 93+81 TO 94+93



**PROPOSED TYPICAL SECTION**

STA. 91+64.5 TO 93+81  
STA. 94+93 TO 97+90

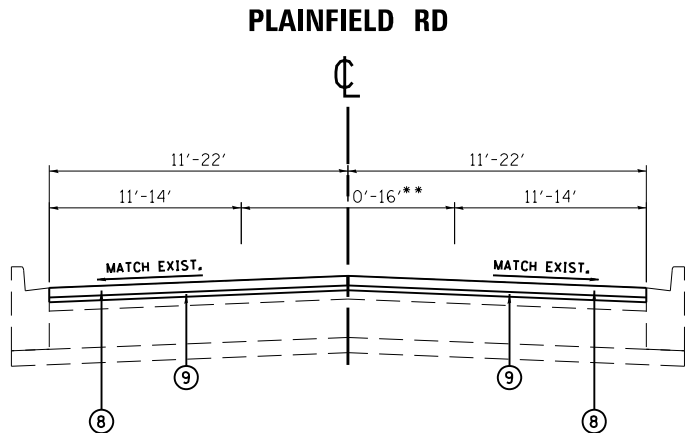
FILE NAME =	USER NAME = plascencia	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND PROPOSED TYPICAL SECTIONS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\plascencia\0316539\	08212-sht-typical.dgn	DRAWN -	REVISED -		IL RTE 171 (1ST AVE) & PLAINFIELD RD				372	2012-0471	COOK	63	14
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -						CONTRACT NO. 60V34				
Default	PLOT DATE = 10/18/2013	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION

STA. 6+9.96 TO 14+7.80

\*\*VARIES BETWEEN PAINTED MEDIAN AND LEFT TURN LANE.  
SEE PAVEMENT MARKING PLAN SHEETS FOR LOCATIONS.



PROPOSED TYPICAL SECTION

STA. 6+9.96 TO 14+7.80

LEGEND

- 1 EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- 2 EXISTING HMA SURFACE COURSE, VARIES 4"±
- 3 EXISTING PCC BASE COURSE, VARIES 10"±
- 4 EXISTING SUBBASE GRANULAR MATERIAL, 6"
- 5 EXISTING CONCRETE MEDIAN
- 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL - 2 1/2"
- 7 PROPOSED MEDIAN REMOVAL
- 8 PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- 9 PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 3/4"
- 10 PROPOSED HOT-MIX ASPHALT BASE COURSE, 9"
- 11 PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12"
- 12 PROPOSED COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LOCATIONS TO BE DETERMINED BY THE RESIDENT ENGINEER)

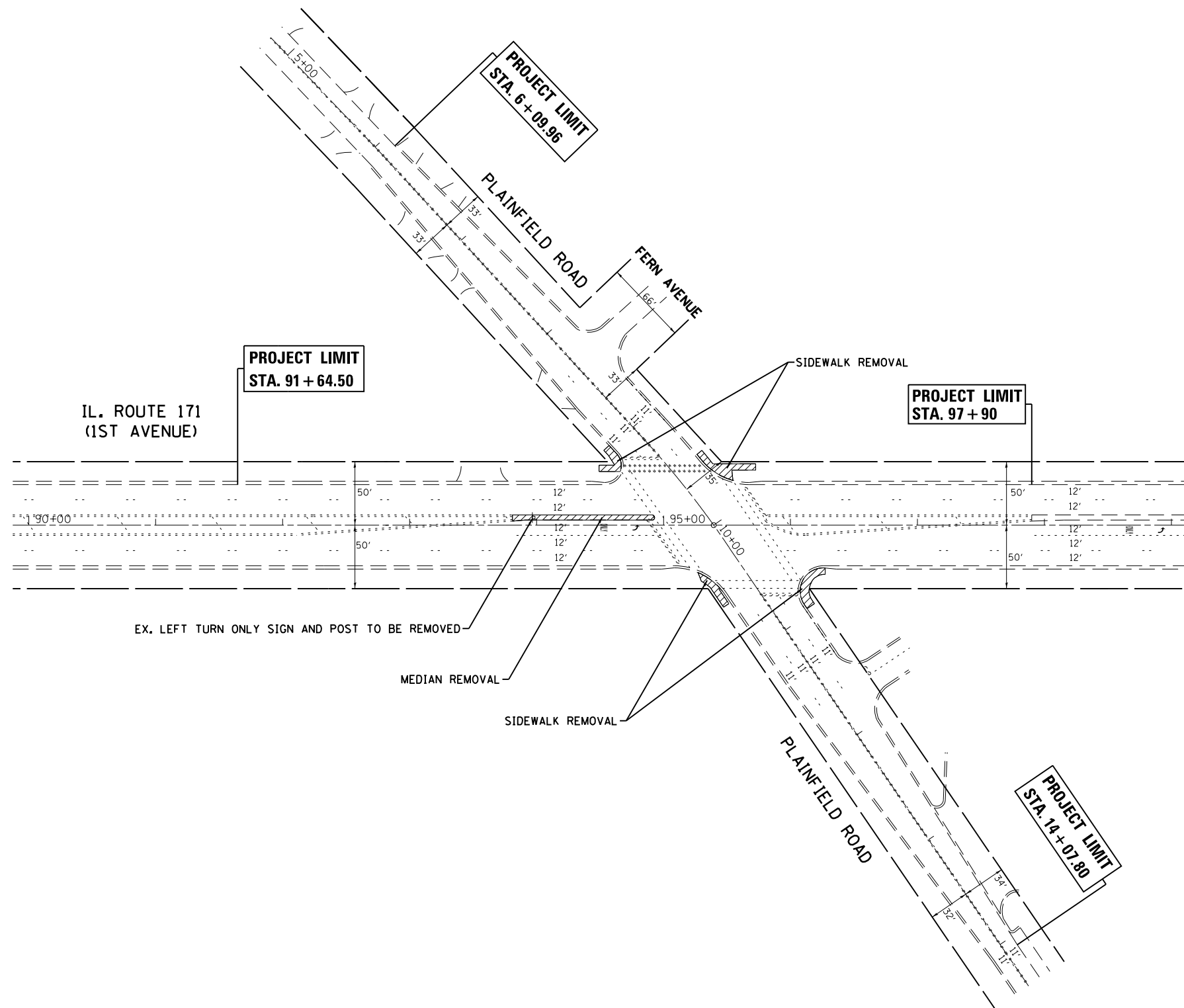
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	MIXTURE TYPE	AIR VOIDS @ NDES
ROADWAY	POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (IL-9.5 mm)	4% @ 90 GYR
	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 GYR
BASE COURSE	HMA BASE COURSE (HMA BINDER IL-19 mm)	4% @ 90 GYR
PATCHING	CLASS D PATCHES, (HMA BINDER IL-19 mm)	4% @ 70 GYR
	HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURES IS 112 LBS/SQ YD/IN.

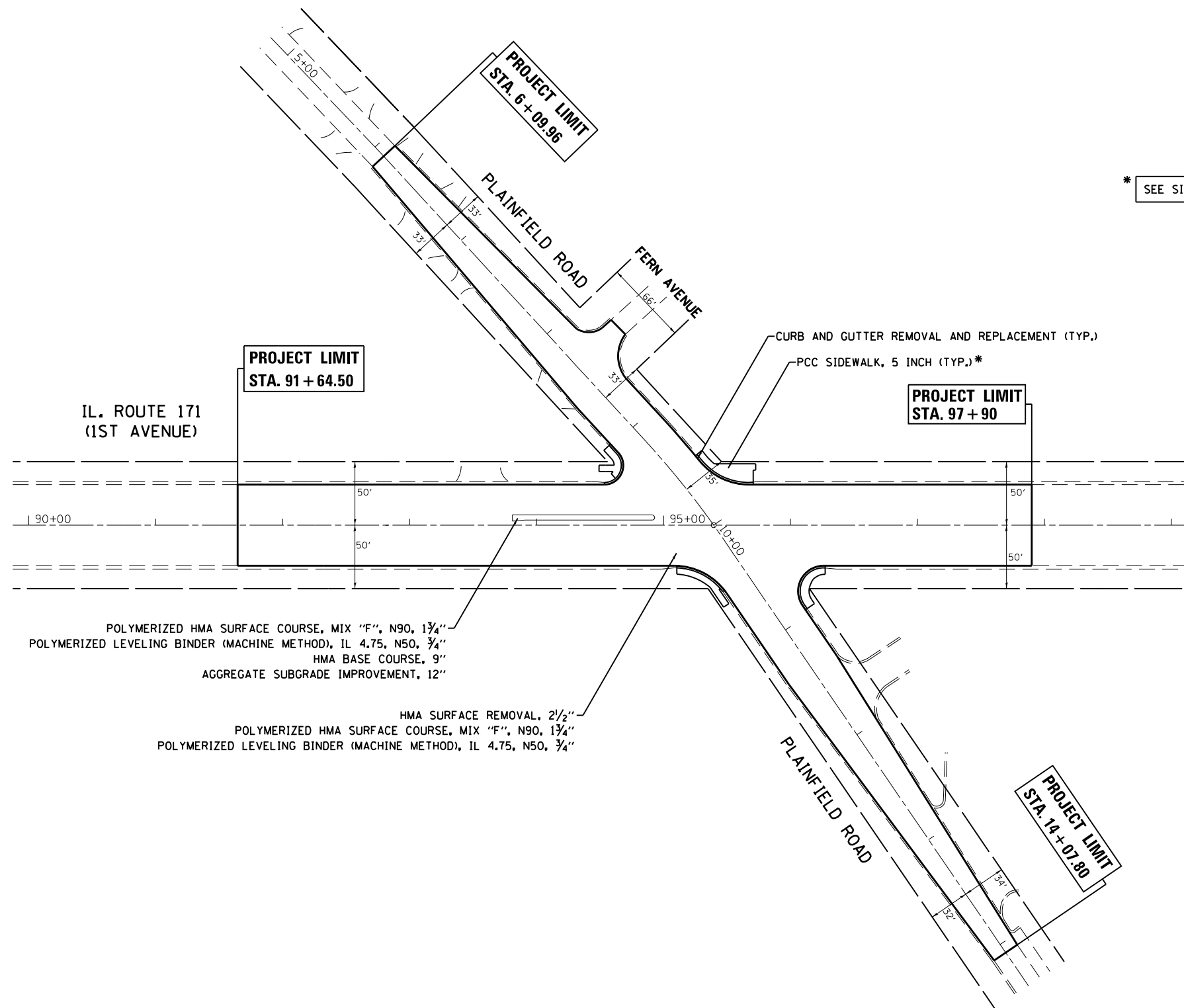
NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

NOTE 3: THE CONTRACTOR SHALL PATCH BEFORE MILLING.



FILE NAME = c:\pw_work\p\idot\plascencia\id0316539\p	USER NAME = plascencia	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING ROADWAY AND REMOVAL PLAN IL RTE 171 (1ST AVE) & PLAINFIELD RD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -				372	2012-0471	COOK	63	16
		PLOT SCALE = 100.0000' / in.	CHECKED -				CONTRACT NO. 60V34				
		PLOT DATE = 10/18/2013	DATE -				ILLINOIS FED. AID PROJECT				
Default					SCALE: 1"=50'		SHEET 1	OF 1	SHEETS	STA.	TO STA.





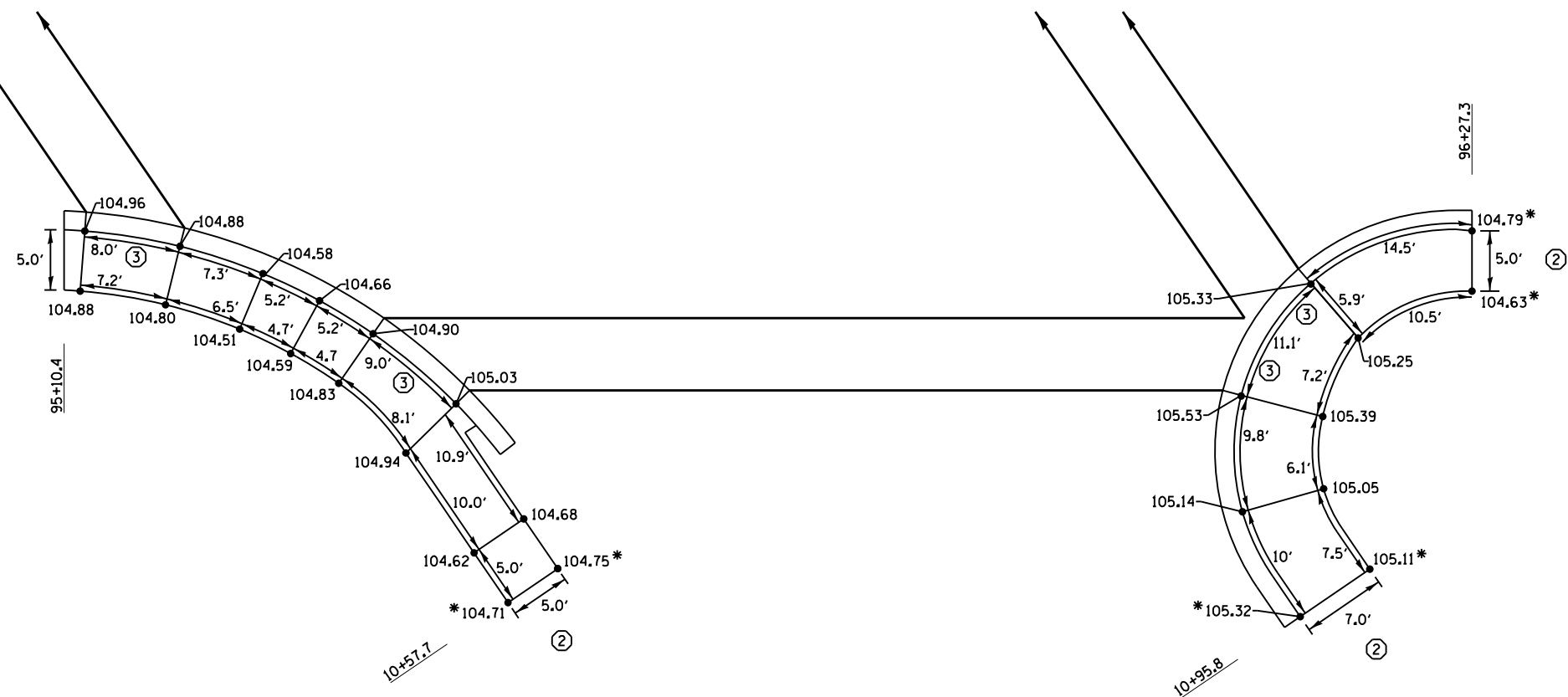
\* SEE SIDEWALK DETAIL SHEET FOR MORE INFORMATION

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		DRAWN -	REVISED -					372	2012-0471	COOK	63	17
		PLOT SCALE = 100.0000' / in.	CHECKED -		SCALE: 1"=50'			CONTRACT NO. 60V34				
		PLOT DATE = 10/18/2013	DATE -		SHEET 1	OF 1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		



- (A) THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE) (10' DASH, 30' SKIP) (TYP.)
- (B) THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW) (TYP.)
- (C) THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE) (TYP.)
- (D) THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE) (2' DASH, 6' SKIP) (TYP.)
- (E) THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE) (TYP.)
- (F) THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW) (TYP.)
- (G) THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE) (TYP.)
- (H) THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (TYP.)

FILE NAME =	USER NAME = plascenciai	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING PLAN IL RTE 171 (1ST AVE) & PLAINFIELD RD				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cs\pw_work\pwwdot\plascenciai\d0316539\	08212-sht-plan.dgn	DRAWN -	REVISED -		372	2012-0471	COOK	63	18				
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -				CONTRACT NO. 60V34						
Default	PLOT DATE = 10/18/2013	DATE -	REVISED -		SCALE: 1"=50'	SHEET 1	OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			



- ① BENCHMARK ELEVATION 103.71 LOCATED AT THE TOP OF THE NORTHEAST BOLT ON THE 7-ELEVEN SIGN IN THE SOUTHWEST CORNER OF IL RTE 171 AND PLAINFIELD RD
- ② ENDS OF PROPOSED SIDEWALK MATCH EXISTING SIDEWALK JOINTS. ELEVATIONS SHOWN WITH "\*" ARE TO MATCH EXISTING SIDEWALK.
- ③ INSTALL DETECTABLE WARNINGS PER STATE STANDARDS

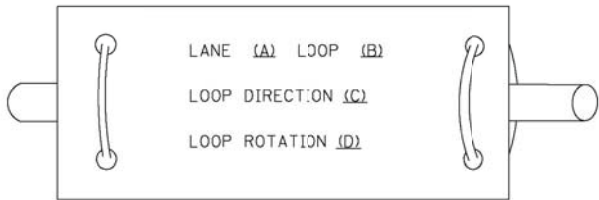
NOT TO SCALE

FILE NAME =	USER NAME = plascencia1	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIDEWALK DETAIL IL RTE 171 (1ST AVE) & PLAINFIELD RD				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cs:\pw\work\p\p\dot\plascencia1\d0316539\p	08212-sht-plan.dgn	DRAWN -	REVISED -						372	2012-0471	COOK	63	19
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Default	PLOT DATE = 10/18/2013	DATE -	REVISED -							SCALE: 1"=50'	SHEET 1	OF 1	SHEETS

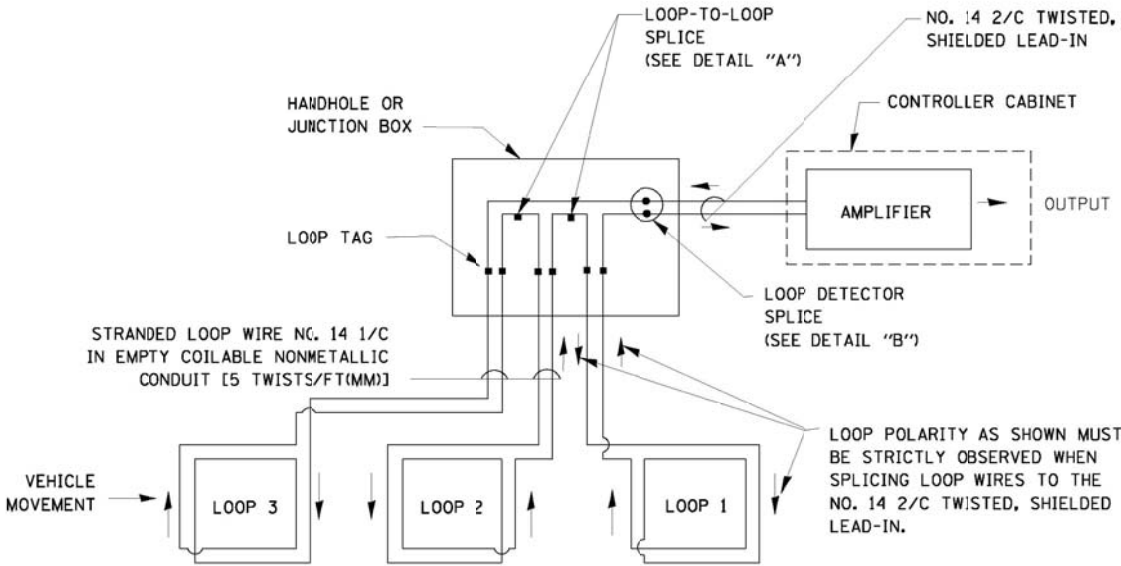
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT 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.

LOOP LEAD-IN CABLE TAG

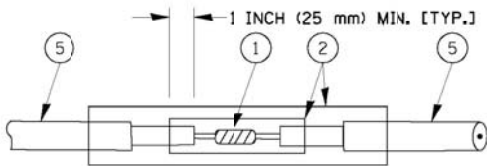


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

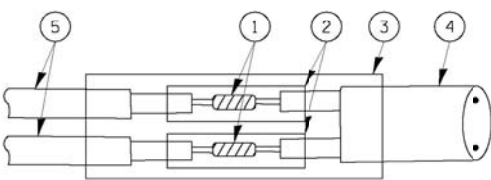


DETECTOR LOOP WIRING SCHEMATIC

- 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.

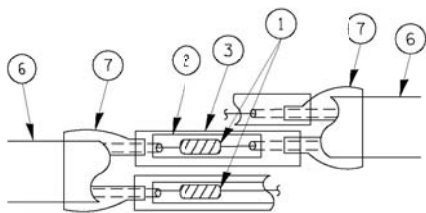


DETAIL "A"  
LOOP-TO-LOOP SPLICE

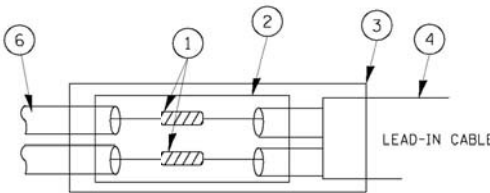


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



PREFORMED LOOP

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.
- ⑥ PREFORMED LOOP
- ⑦ XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE – STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: N.T.S. SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	20
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				

TS-1



MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE VAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

Diagram illustrating the dimensions for a pedestrian and equestrian crossing at a street intersection. The diagram shows a sidewalk, a curb, and a shoulder. The dimensions are as follows:

- Distance from the back of the curb to the back of the shoulder or edge of the pavement: 5.0 ft (1.5 m) for pedestrian crossing and 7 ft (2.1 m) for equestrian crossing.
- Distance from the back of the curb to the back of the shoulder or edge of the pavement: 8 ft, 2.4 m MIN. TO 10' (3.0 m) MAX.
- Distance from the back of the curb to the back of the shoulder or edge of the pavement: SEE TABLE 1.
- Distance from the back of the curb to the back of the shoulder or edge of the pavement: SEE NOTE 1.

BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

The diagram illustrates the recommended location for a corner pedestrian pushbutton. Key dimensions and features include:

- 5.0 FT. (1.5 m) MAX.** dimensions for the top and left clearances from the building facade.
- 1.5 FT. (0.45 m) MIN.** clearance from the curb to the pushbutton.
- 6.0 FT.\* (1.8 m) MAX.** dimensions for the pushbutton area and the adjacent sidewalk.
- 10 FT (3.0 m) MIN.\*** diagonal clearance from the curb to the pushbutton.
- 5.0 FT. (1.5 m) MAX.** dimension for the vertical clearance from the ground level.
- LEGEND:**
  - Downward Slope (indicated by an arrow pointing down)
  - Pedestrian Pushbutton (indicated by a black dot)
  - Recommended Pushbutton Locations (indicated by a hatched area)

- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPARATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSE TOGETHER OR ON THE SAME POLE.

NOTES:

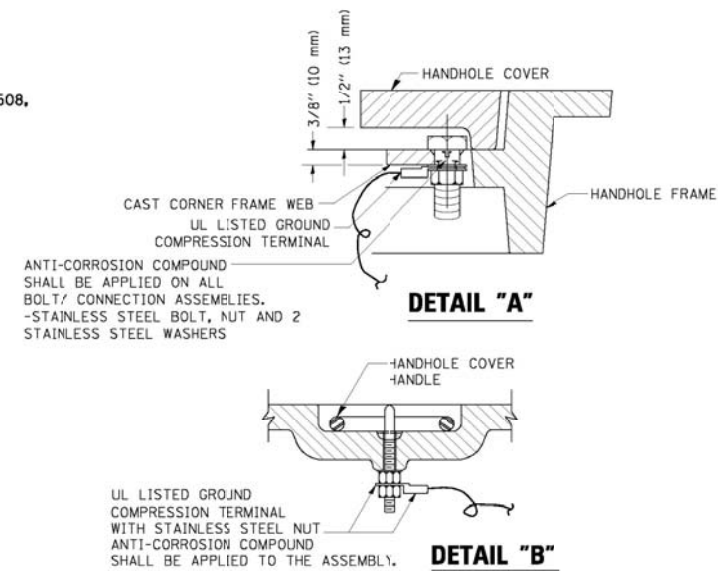
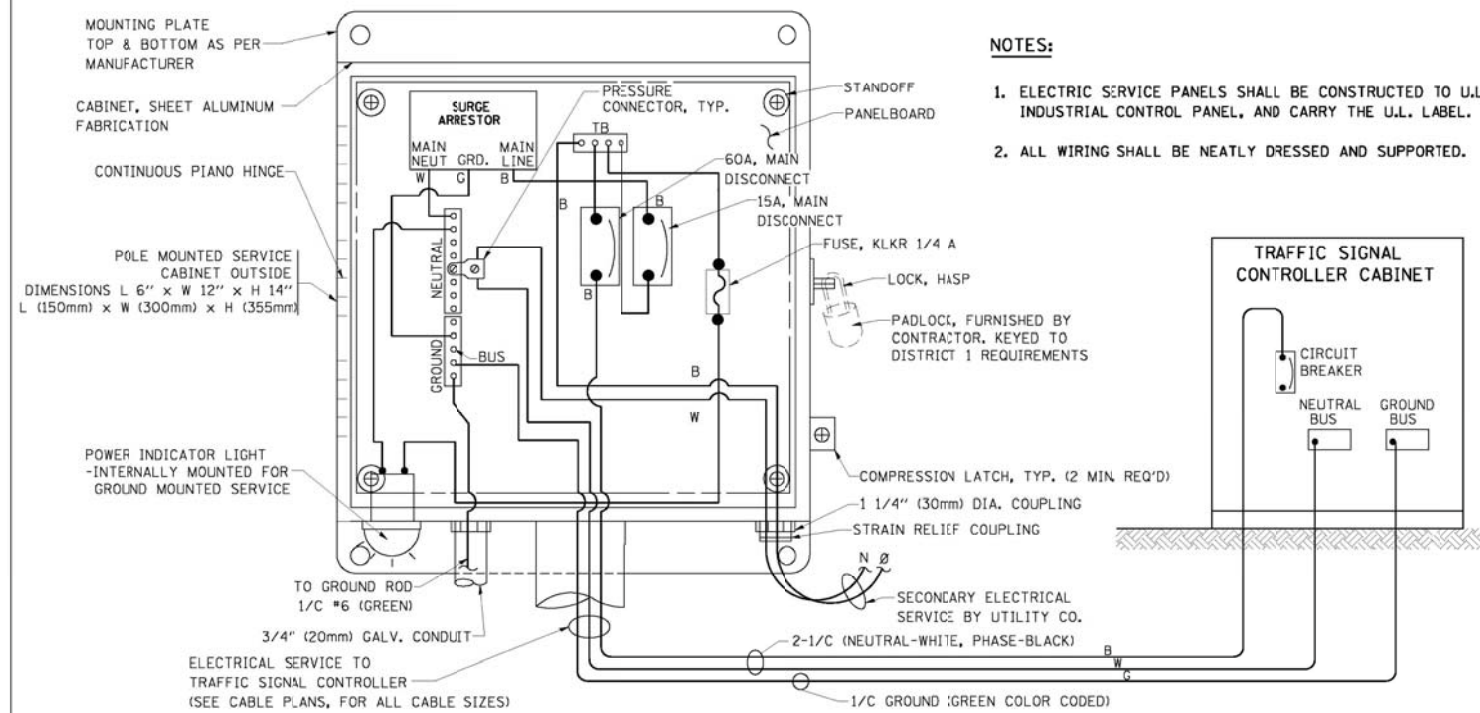
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

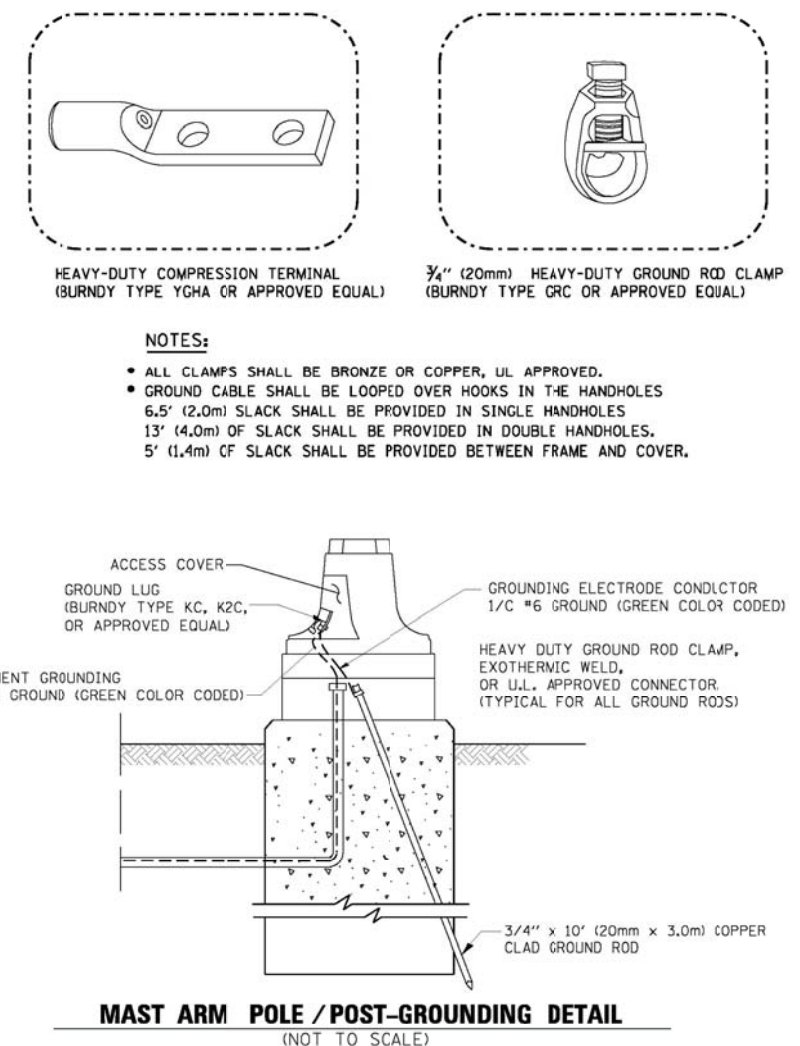
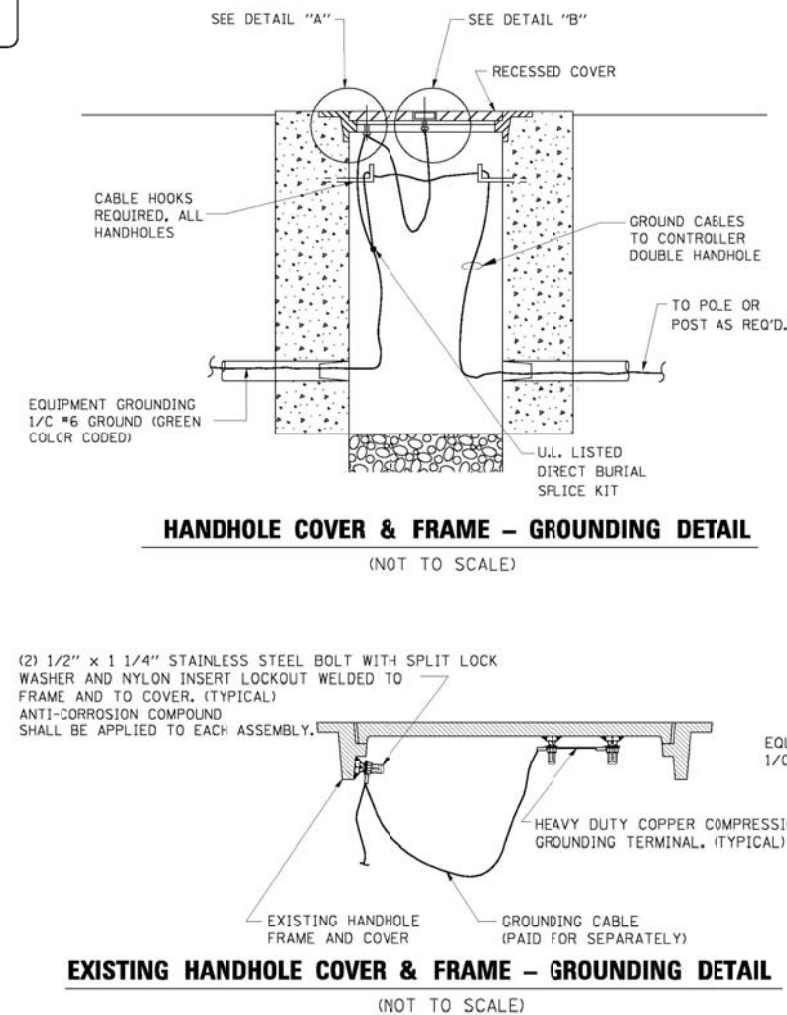
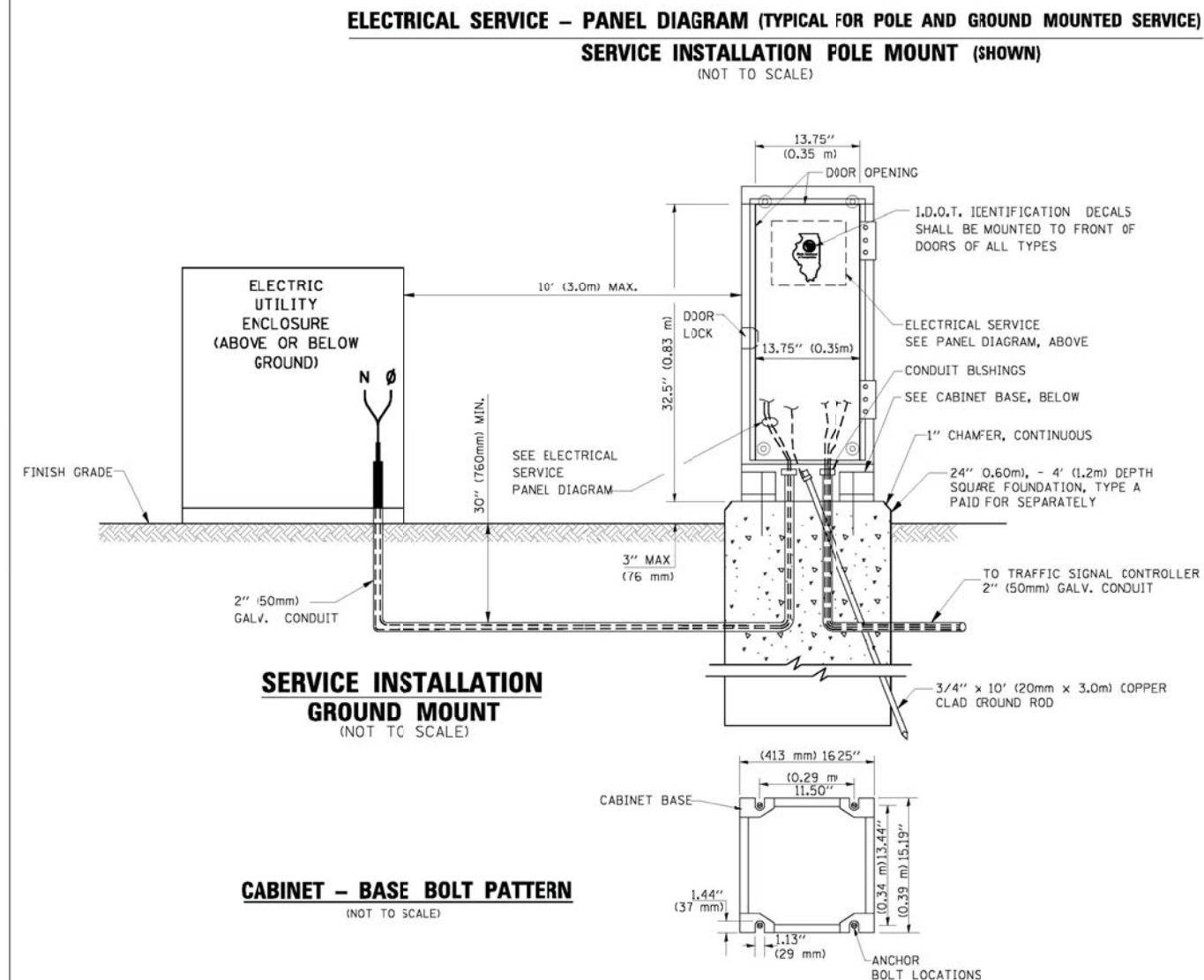
NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



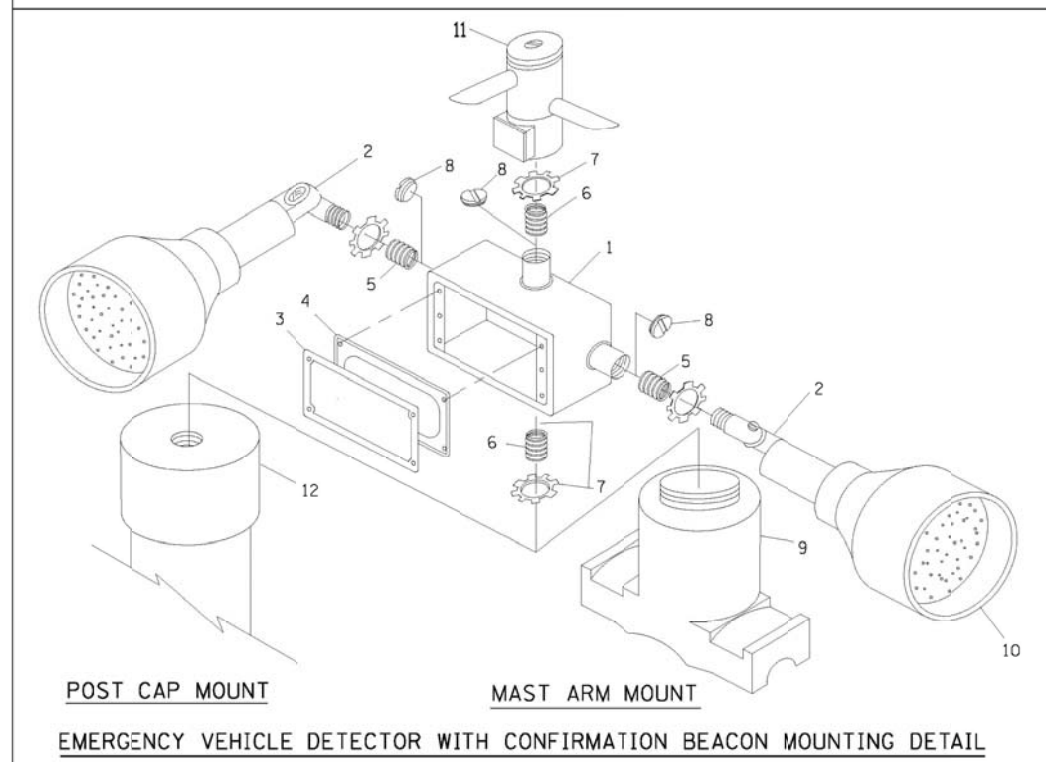
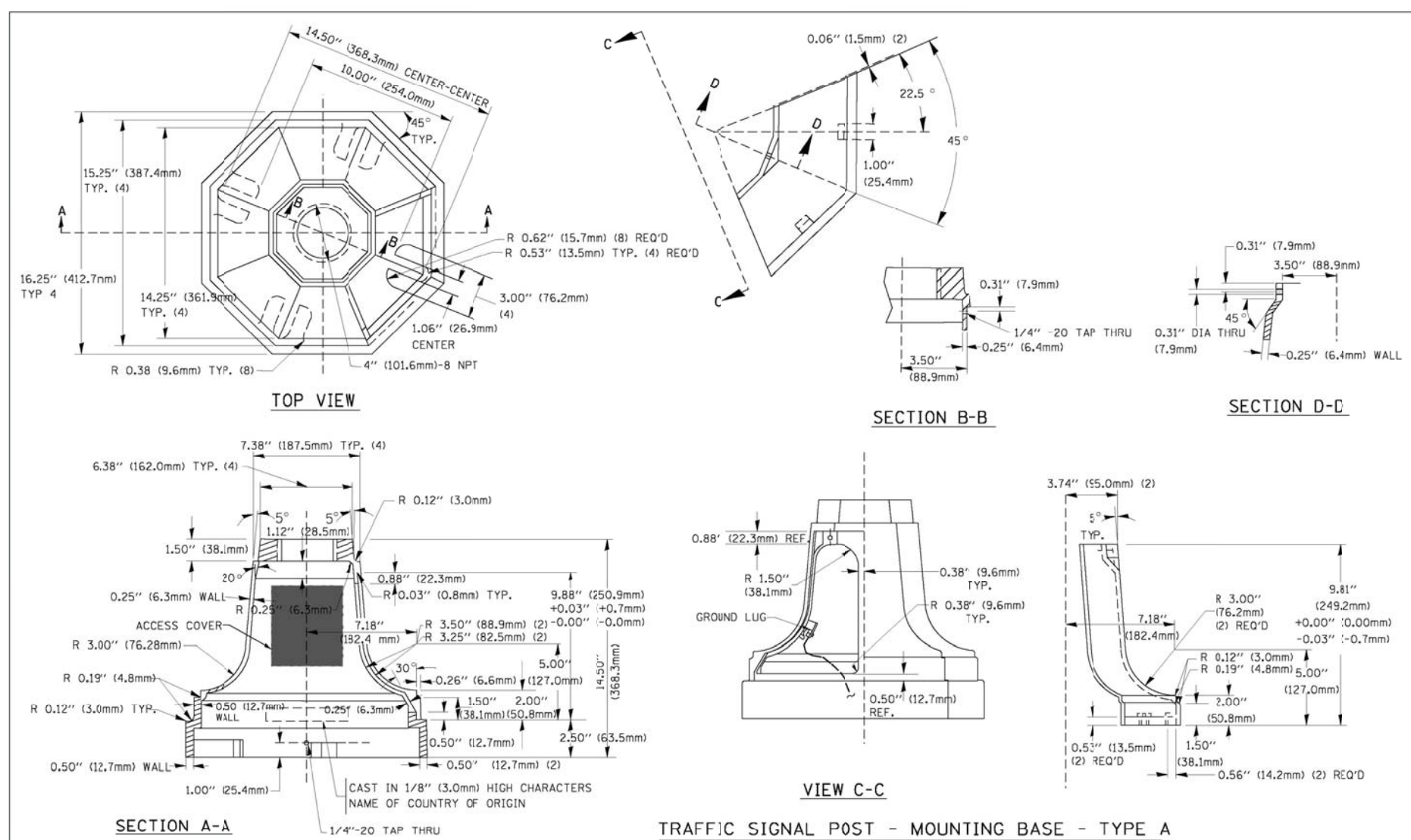


- NOTES:
- GROUNDING SYSTEM
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED 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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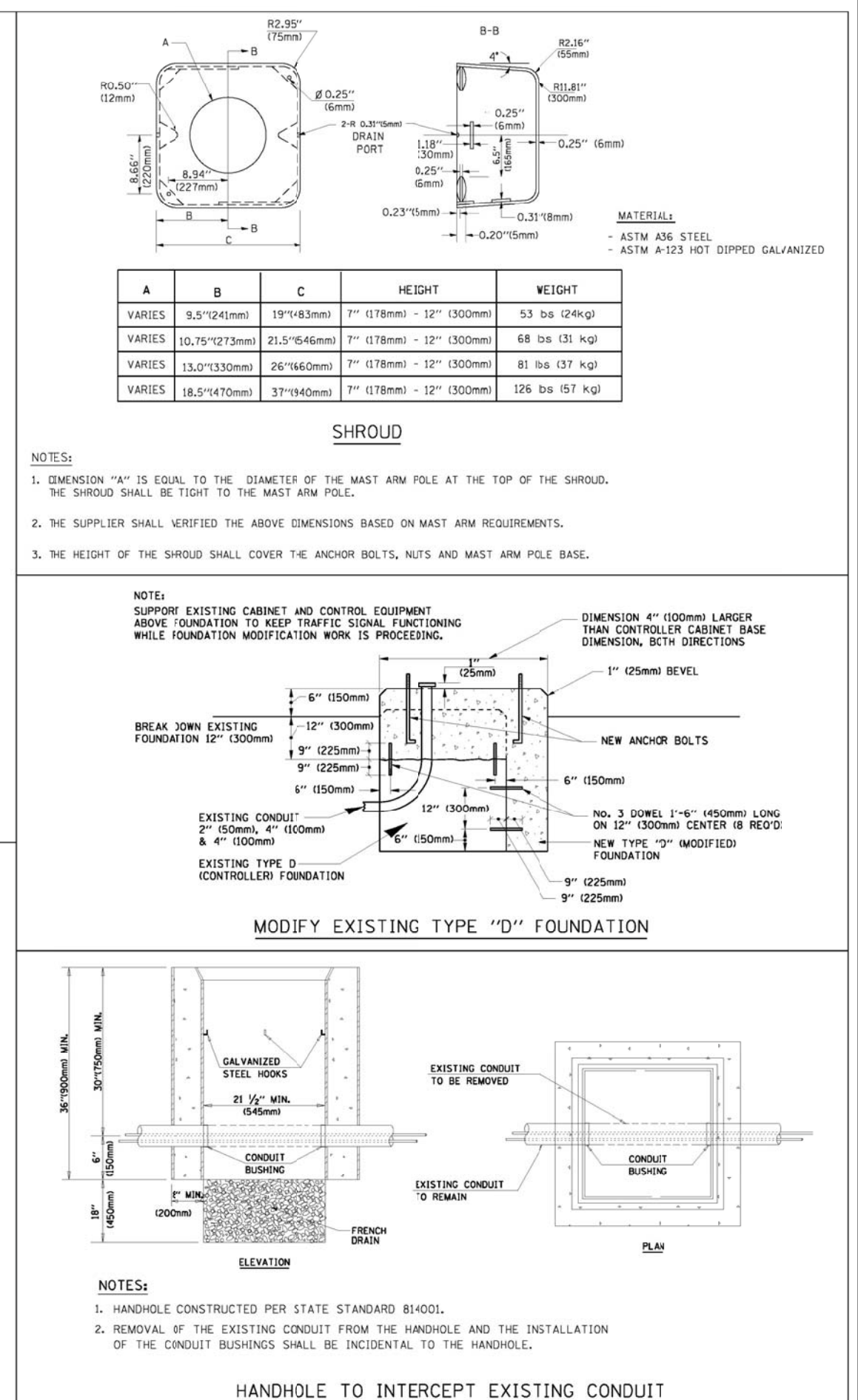




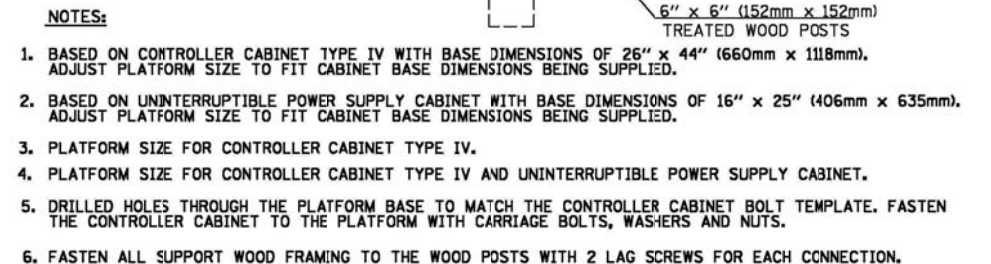
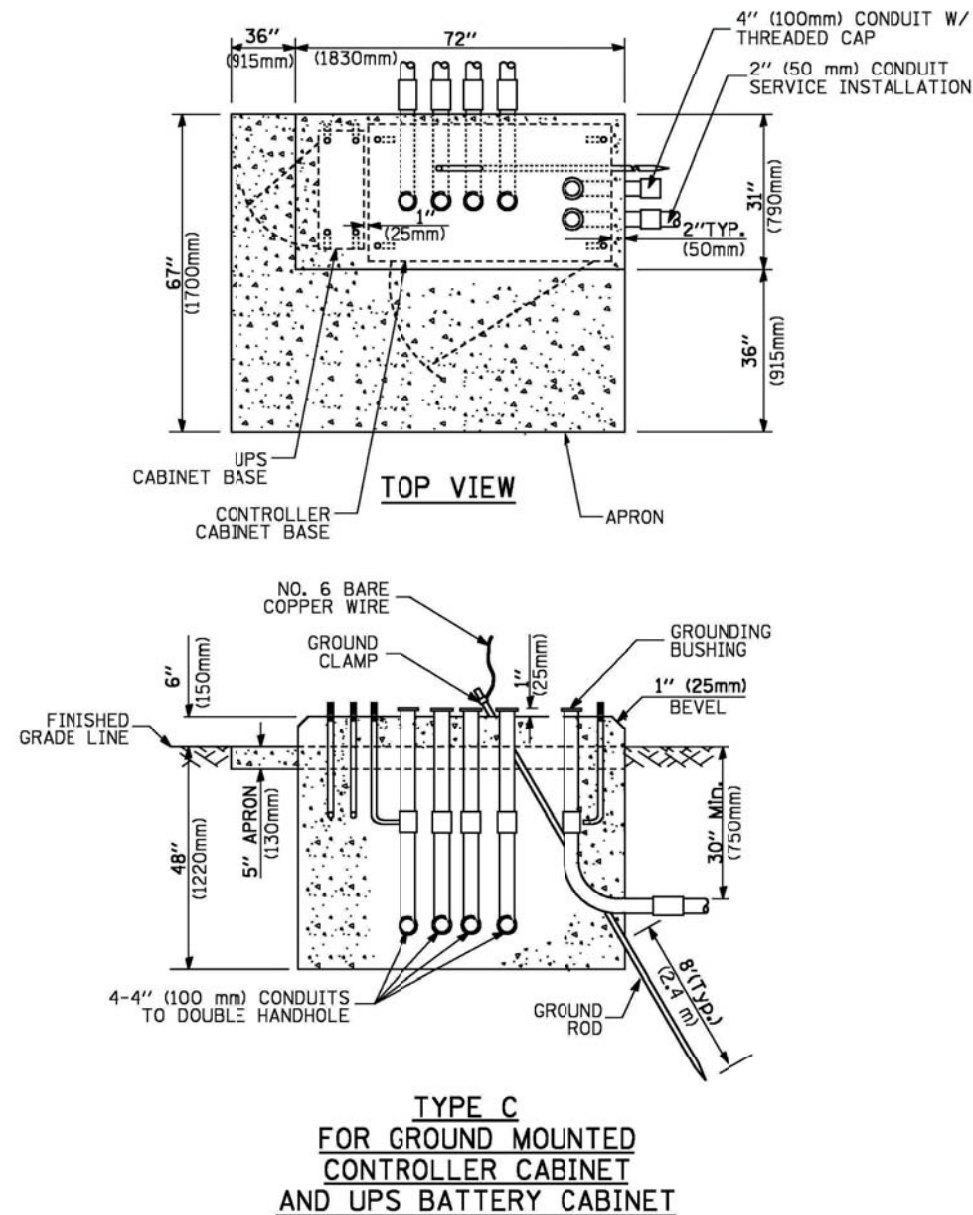
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.







VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0








































































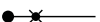


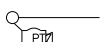





























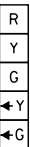





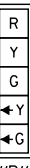






































































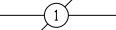


















FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

Nast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (QU) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.5 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

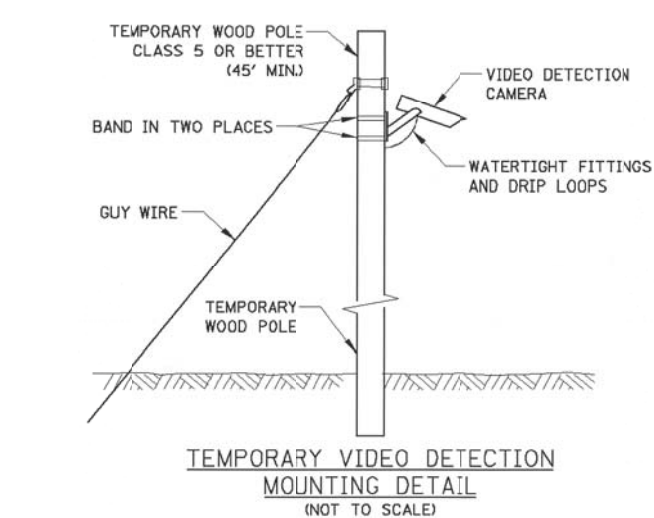
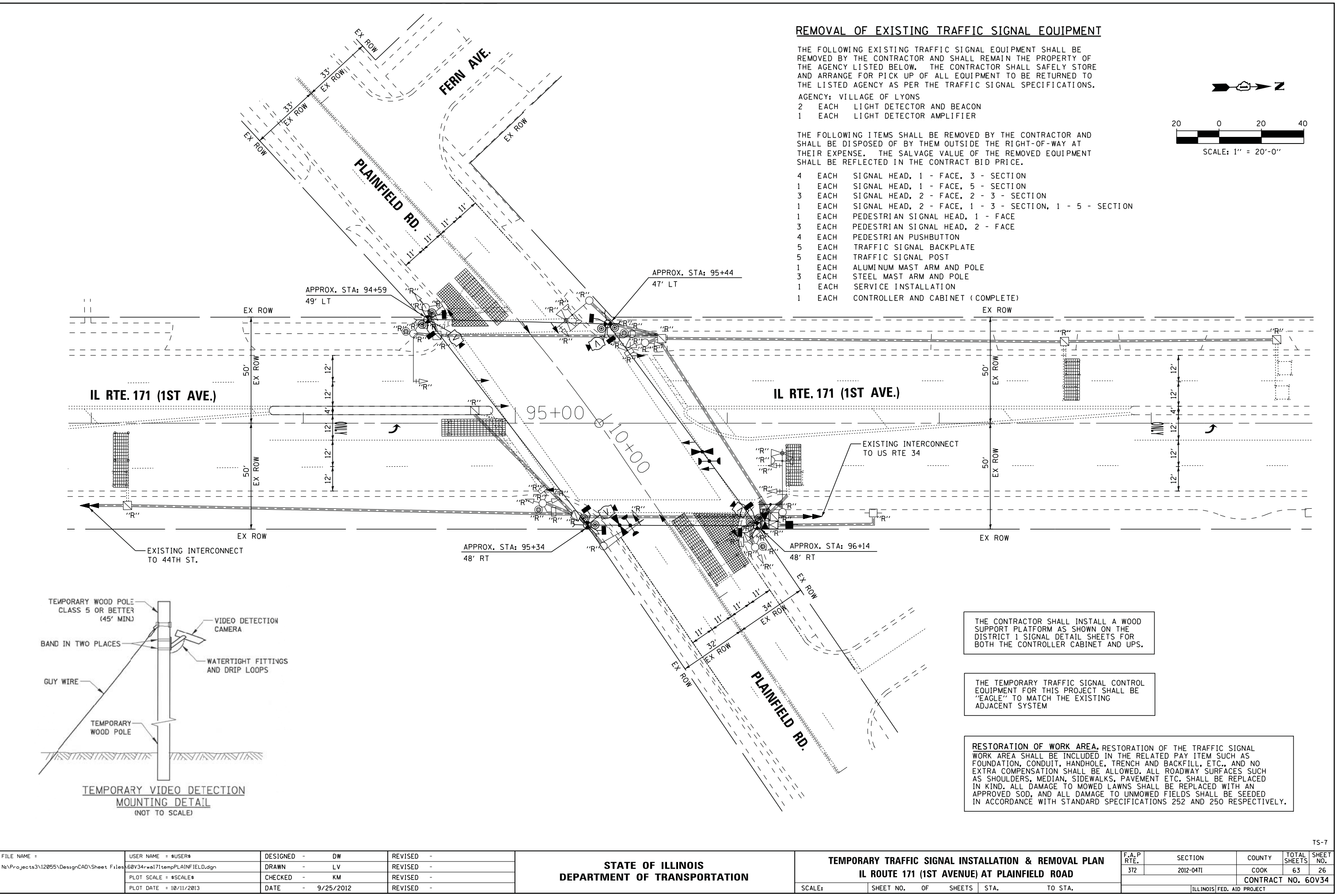
TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH			CT	GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED																					
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR																					
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				<div>RAILROAD SYMBOLS</div> <table><tr><th></th><th>EXISTING</th><th>PROPOSED</th></tr><tr><td>RAILROAD CONTROL CABINET</td><td></td><td></td></tr><tr><td>RAILROAD CANTILEVER MAST ARM</td><td></td><td></td></tr><tr><td>FLASHING SIGNAL</td><td></td><td></td></tr><tr><td>CROSSING GATE</td><td></td><td></td></tr><tr><td>CROSSBUCK</td><td></td><td></td></tr></table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																											
RAILROAD CONTROL CABINET																													
RAILROAD CANTILEVER MAST ARM																													
FLASHING SIGNAL																													
CROSSING GATE																													
CROSSBUCK																													
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																									
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																									
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT																									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																									
MICROWAVE VEHICLE SENSOR																													
VIDEO DETECTION CAMERA																													
VIDEO DETECTION ZONE																													
PAN, TILT, ZOOM CAMERA																													
WIRELESS DETECTOR SENSOR																													
WIRELESS ACCESS POINT																													

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE – STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\3\12055\DesignCAD\Sheet Files\60V34IDOT DETAIL_6.dgn	DRAWN - LV	REVISED -	372			2012-047I	COOK	63	25	
PLOT SCALE = \$SCALE\$	CHECKED - KM	REVISED -	CONTRACT NO. 60V34							
PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -	ILLINOIS FED. AID PROJECT							
SCALE: N.T.S.		SHEET NO. 6 OF 6 SHEETS		STA. TO STA.						

TS-6





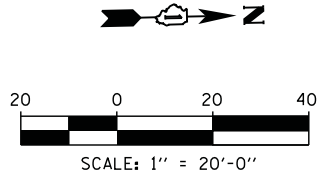
**REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- AGENCY: VILLAGE OF LYONS  
2 EACH LIGHT DETECTOR AND BEACON  
1 EACH LIGHT DETECTOR AMPLIFIER

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 SIGNAL HEAD, 1 - FACE, 3 - SECTION  
1 EACH SIGNAL HEAD, 1 - FACE, 5 - SECTION  
3 EACH SIGNAL HEAD, 2 - FACE, 2 - 3 - SECTION  
1 EACH SIGNAL HEAD, 2 - FACE, 1 - 3 - SECTION, 1 - 5 - SECTION  
1 EACH PEDESTRIAN SIGNAL HEAD, 1 - FACE  
3 EACH PEDESTRIAN SIGNAL HEAD, 2 - FACE  
4 EACH PEDESTRIAN PUSHBUTTON  
5 EACH TRAFFIC SIGNAL BACKPLATE  
5 EACH TRAFFIC SIGNAL POST  
1 EACH ALUMINUM MAST ARM AND POLE  
3 EACH STEEL MAST ARM AND POLE  
1 EACH SERVICE INSTALLATION  
1 EACH CONTROLLER AND CABINET (COMPLETE)



THE CONTRACTOR SHALL INSTALL A WOOD SUPPORT PLATFORM AS SHOWN ON THE DISTRICT 1 SIGNAL DETAIL SHEETS FOR BOTH THE CONTROLLER CABINET AND UPS.

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

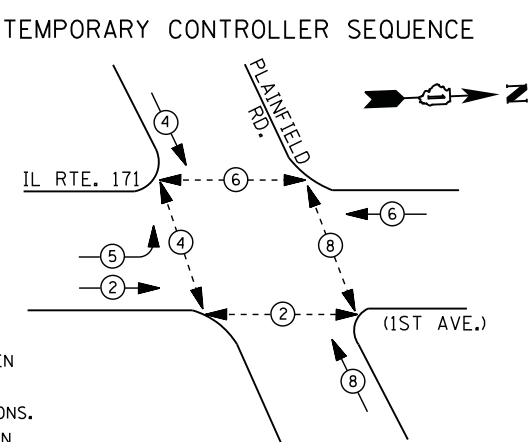
**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL 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.

FILE NAME =		USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVAL PLAN IL ROUTE 171 (1ST AVENUE) AT PLAINFIELD ROAD				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\3\12055\DesignCAD\Sheet Files\60V34rwl71tempPLAINFIELD.dgn			DRAWN - LV	REVISED -						372	2012-0471	COOK	63	26
PLOT SCALE = \$SCALE\$			CHECKED - KM	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 60V34				
PLOT DATE = 10/11/2013			DATE - 9/25/2012	REVISED -						ILLINOIS FED. AID PROJECT				

NOTES FOR TEMPORARY TRAFFIC SIGNALS

- 1) ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2) ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3) ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT RAILROAD INTERSECTIONS. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4) ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES . RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5) ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- 6) THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- 7) UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- 8) TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- 9) DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- 10) WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

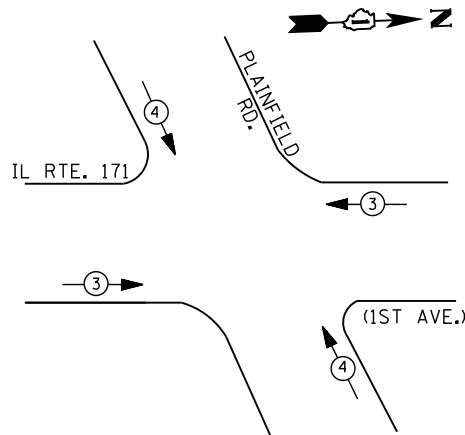
TEMPORARY CONTROLLER SEQUENCE



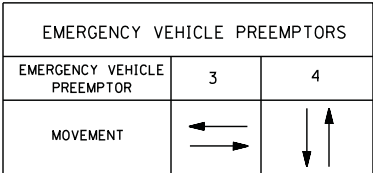
LEGEND

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

TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

ALL PEDESTRIAN HEADS SHALL BE BAGGED AND DISCONNECTED AT LOCATIONS WHERE EXISTING PAVEMENT IS REMOVED. ALL PEDESTRIAN SIGNAL HEADS SHALL REMAIN BAGGED UNTILL THE PAVEMENT IS RESTORED TO PROVIDE A SAFE CROSSING AREA. USAGE OF PEDESTRIAN SIGNALS IS BASED ON CONSTRUCTION STAGING AND SHALL BE DETERMINED BY THE RESIDENT ENGINEER. IF SIDEWALKS AND PEDESTRIAN CROSSINGS ARE NOT PROVIDED, THE PEDESTRIAN SIGNAL EQUIPMENT SHALL REMAIN DISCONNECTED UNTIL WARRANTED PRIOR TO THE PERMANENT SIGNAL TURN-ON.

PROPOSED TEMPORARY WIRELESS INTERCONNECT TO US RTE. 34 AT IL RTE. 171 AND IL RTE. 171 AT 44TH ST. (SEE TEMPORARY INTERCONNECT PLAN FOR DETAIL)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

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	4	135	12	0.10	5
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
VIDEO SYSTEM	1	150	-	1.00	150
TOTAL =					677
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1					
201 W. CENTER CT.					
SCHAUMBURG, IL 60196					
ENERGY SUPPLY - CONTACT JOE STACHO					
PHONE 630-424-5704					
COMED					
FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -		
N:\Projects\3\12055\Design\CAD\Sheet Files\60V34rwl71tempobPLAINFIELD.dgn		DRAWN - LV	REVISED -		
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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -		

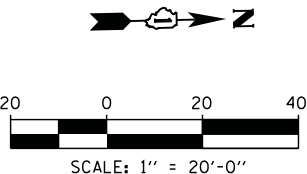
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM  
& TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 171 (1ST AVE.) AT PLAINFIELD ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372		2012-047I	COOK	63	27
CONTRACT NO. 60V34					
ILLINOIS FED. AID PROJECT					

TS-8



- ## **GENERAL NOTES**
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
  2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
  3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
  4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

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

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	<div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div>	TRAFFIC SIGNAL MODERNIZATION PLAN IL ROUTE 171 (1ST AVENUE) AT PLAINFIELD ROAD					F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.				

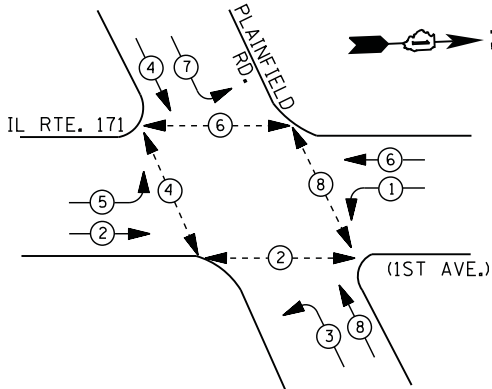


### SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
18	SO FT	SIGN PANEL - TYPE 1
22.5	SO FT	SIGN PANEL - TYPE 2
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
836	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
58	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
48	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
454	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
3	EACH	HANDHOLE
5	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
1	EACH	TRANSCEIVER - FIBER OPTIC
1323	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1675	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1822	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1512	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2143	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
62	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
603	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
47	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9	EACH	INDUCTIVE LOOP DETECTOR
791	FOOT	DETECTOR LOOP, TYPE I
* 2	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7	EACH	REMOVE EXISTING HANDHOLE
1	EACH	REMOVE EXISTING DOUBLE HANDHOLE
10	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
* 298	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

\* 100% VILLAGE OF LYONS COST

### CONTROLLER SEQUENCE



### LEGEND

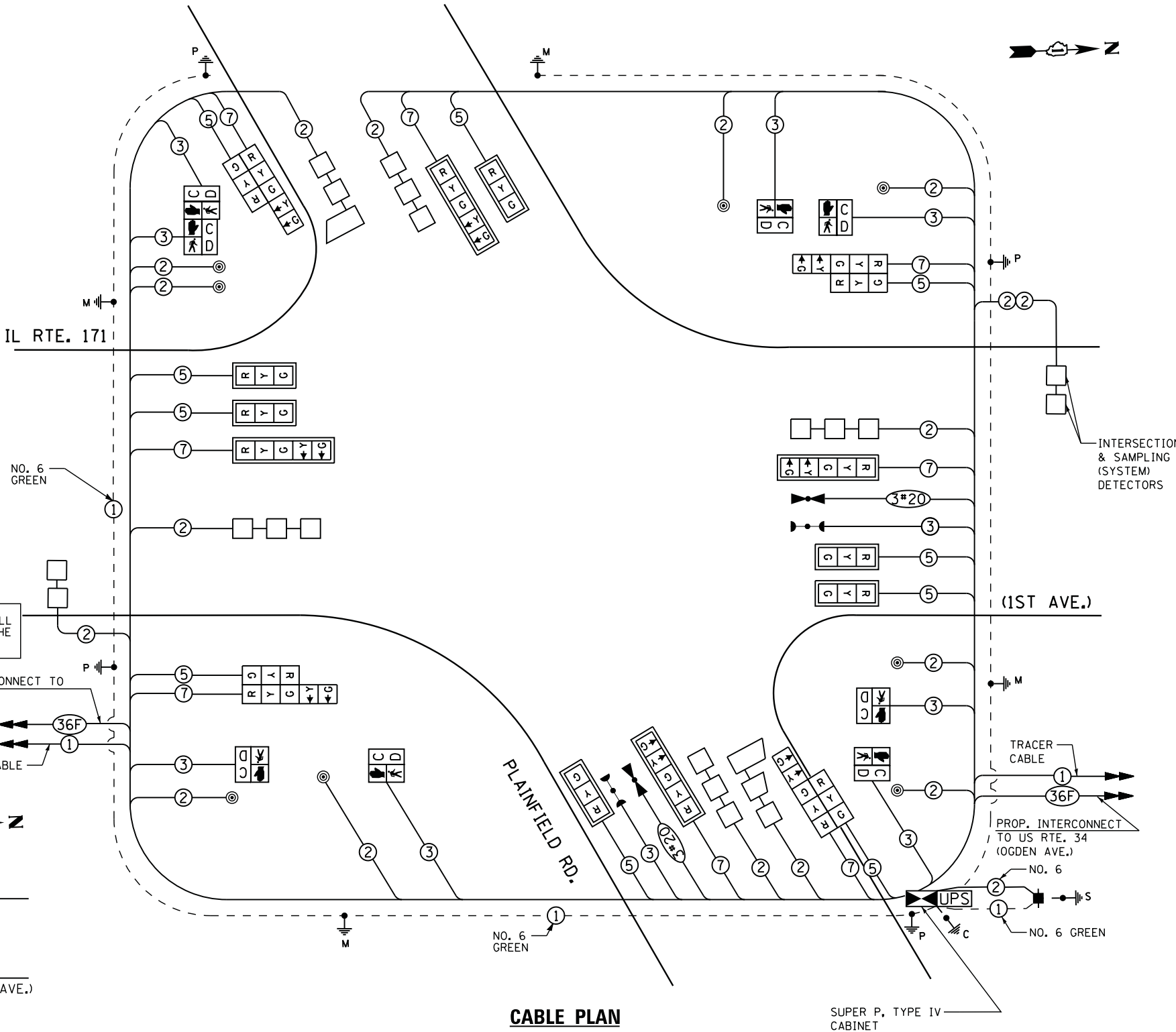
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

### PHASE DESIGNATION DIAGRAM

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	16	135	12	0.10	20
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		100	90	1.00	
TOTAL =					654
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1					
201 W. CENTER CT.					
SCHAUMBURG, IL 60196					
ENERGY SUPPLY - CONTACT COMED					
PHONE 630-723-2128					

### EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



### CABLE PLAN

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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 SEEDD IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

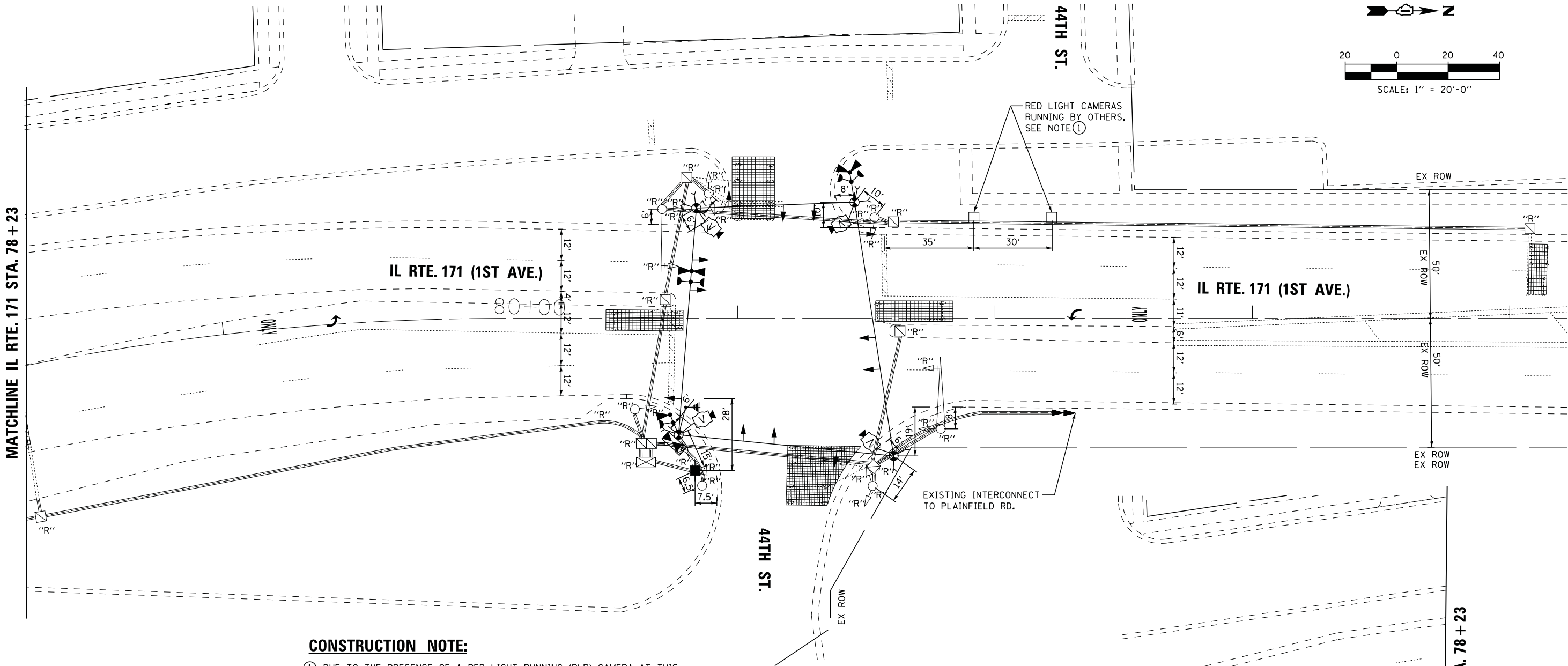
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, SCHEDULE OF QUANTITIES,  
PHASE DESIGNATION DIAGRAM & EVP SEQUENCE  
IL ROUTE 171 (1ST AVE.) AT PLAINFIELD ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	29
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				

TS-10



#### CONSTRUCTION NOTE:

- ① DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA AT THIS LOCATION, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.

#### REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

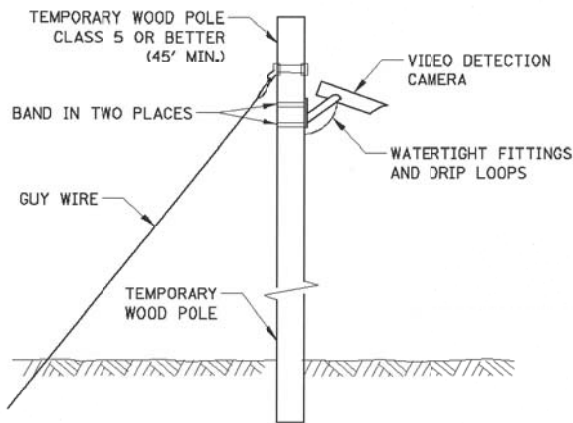
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- |   |      |  |
|---|------|--|
| 2 | EACH | SIGNAL HEAD, 1 - FACE, 3 - SECTION                     |
| 3 | EACH | SIGNAL HEAD, 1 - FACE, 5 - SECTION                     |
| 2 | EACH | SIGNAL HEAD, 2 - FACE, 3 - SECTION                     |
| 1 | EACH | SIGNAL HEAD, 2 - FACE, 1 - 3 - SECTION, 1- 5 - SECTION |
| 2 | EACH | TRAFFIC SIGNAL BACKPLATE                               |
| 5 | EACH | TRAFFIC SIGNAL POST                                    |
| 1 | EACH | ALUMINUM MAST ARM AND POLE                             |
| 1 | EACH | STEEL MAST ARM AND POLE                                |
| 1 | EACH | SERVICE INSTALLATION                                   |
| 1 | EACH | CONTROLLER AND CABINET (COMPLETE)                      |

THE CONTRACTOR SHALL INSTALL A WOOD SUPPORT PLATFORM AS SHOWN ON THE DISTRICT 1 SIGNAL DETAIL SHEETS FOR BOTH THE CONTROLLER CABINET AND UPS.

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

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.



TEMPORARY VIDEO DETECTION  
MOUNTING DETAIL  
(NOT TO SCALE)

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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

#### TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVAL PLAN IL ROUTE 171 (1ST AVENUE) AT 44TH STREET

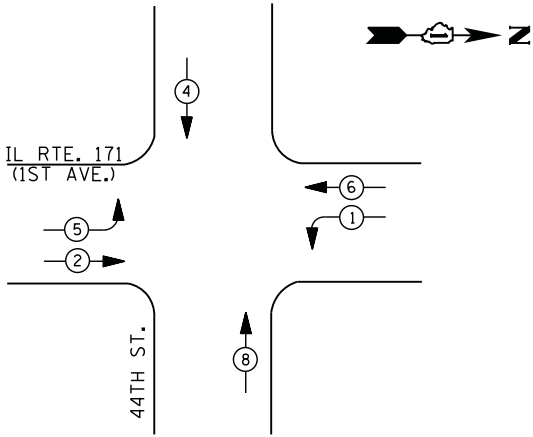
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	30
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				

NOTES FOR TEMPORARY TRAFFIC SIGNALS

- 1) ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2) ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3) ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT RAILROAD INTERSECTIONS. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4) ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES . RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5) ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- 6) THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- 7) UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- 8) TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- 9) DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- 10) WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

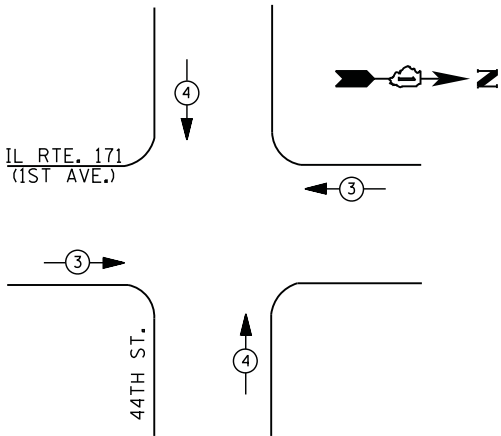
TEMPORARY CONTROLLER SEQUENCE



LEGEND

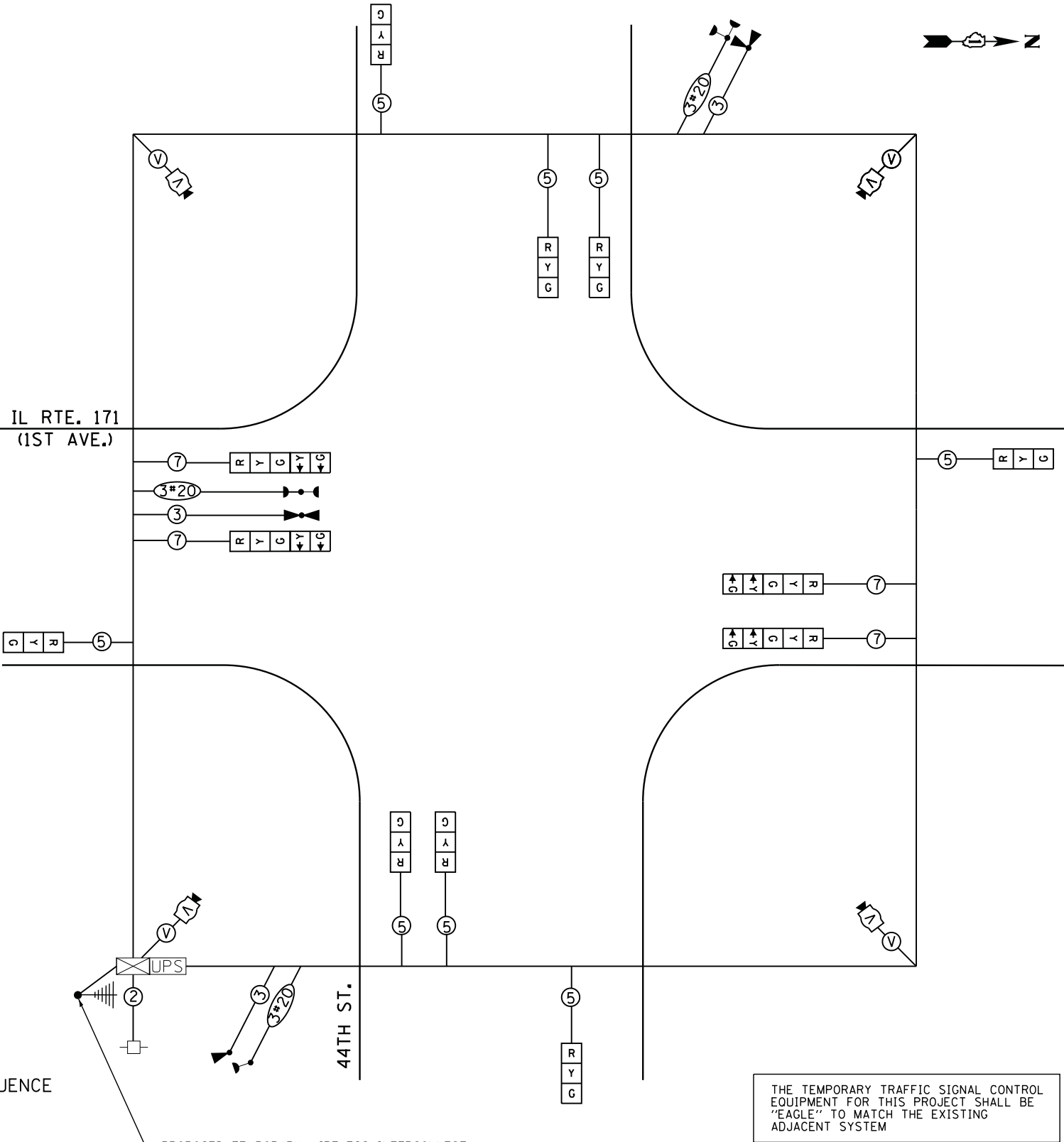
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

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



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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

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	8	135	12	0.10	10
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
VIDEO SYSTEM	1	150	-	1.00	150
					482
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1					
201 W. CENTER CT.					
SCHAUMBURG, IL 60196					
ENERGY SUPPLY - CONTACT JOE STACHO					
PHONE 630-424-5704					
COMED					

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
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	PLOT SCALE = \$SCALE\$	CHECKED - KM	REVISED -
	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

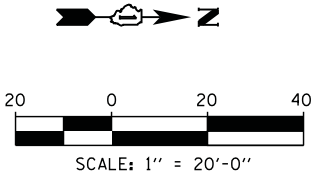
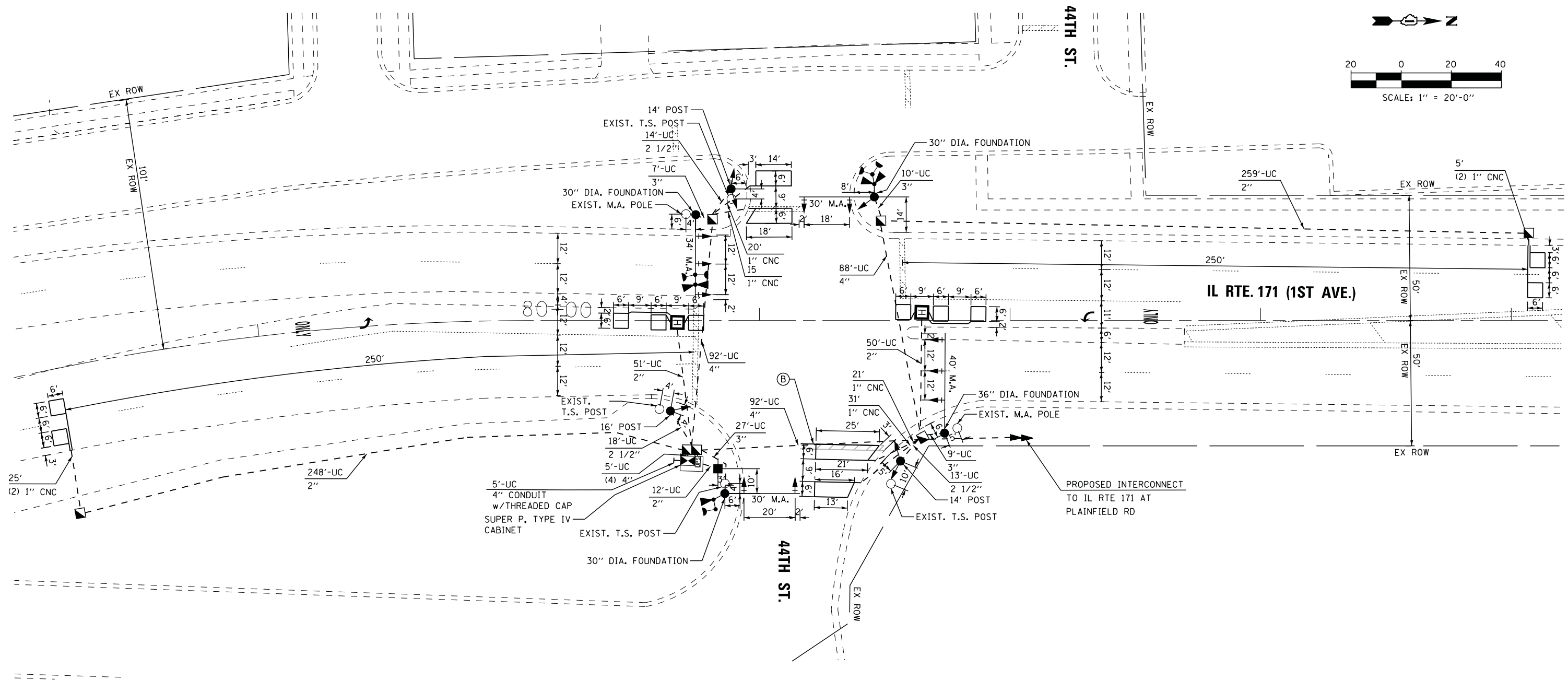
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM  
& TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 171 (1ST AVENUE) AT 44TH STREET

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	31
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				

TS-12





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

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

### GENERAL NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

### PAVEMENT MARKING KEY

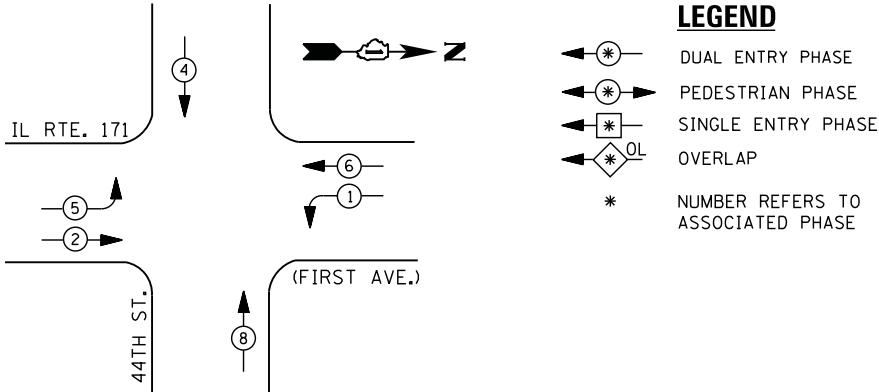
- (A) REMOVE AND RESTRIPE EXISTING CROSSWALK. THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE)
- (B) REMOVE AND RESTRIPE EXISTING CROSSWALK. THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE)
- (C) REMOVE AND RESTRIPE EXISTING STOP BAR. THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE)

FILE NAME =		USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL ROUTE 171 (1ST AVENUE) AT 44TH STREET	F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\3\12055\DesignCAD\Sheet Files\60V34rwl71pro44thST.dgn			DRAWN - LV	REVISED -					372	2012-0471	COOK	63 32
PLOT SCALE = \$SCALE\$			CHECKED - KM	REVISED -			SCALE:		SHEET NO.	OF	SHEETS	STA. TO STA.
PLOT DATE = 10/11/2013			DATE - 9/25/2012	REVISED -					ILLINOIS FED. AID PROJECT			

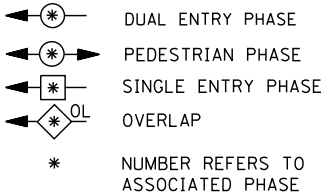
## SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
15	SO FT	SIGN PANEL - TYPE 1
22.5	SO FT	SIGN PANEL - TYPE 2
34	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
68	SO FT	PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
620	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
45	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
53	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
297	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
5	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
1	EACH	TRANSCEIVER - FIBER OPTIC
* 512	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2020	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
681	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1535	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
32	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
500	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
40.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
13	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
7	EACH	INDUCTIVE LOOP DETECTOR
541	FOOT	DETECTOR LOOP, TYPE I
* 3	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
8	EACH	REMOVE EXISTING HANDHOLE
1	EACH	REMOVE EXISTING DOUBLE HANDHOLE
8	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
* 512	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
* 100% VILLAGE OF LYONS COST		

## CONTROLLER SEQUENCE



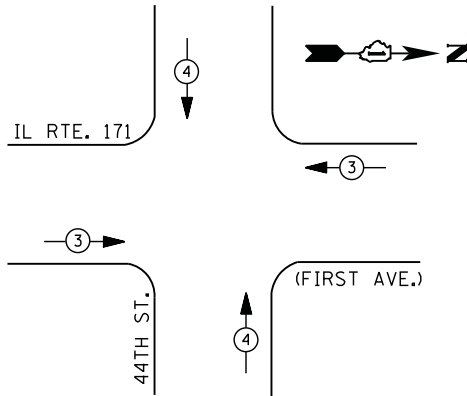
## LEGEND



## PHASE DESIGNATION DIAGRAM

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND.	LED	
SIGNAL (RED)	16	135	17	136
(YELLOW)	16	135	25	100
(GREEN)	16	135	15	60
ARROW	8	135	12	10
PED. SIGNAL	--	90	25	--
CONTROLLER	1	100	100	100
ILLUM. SIGN		100	90	1.00
406				406
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1				
201 W. CENTER CT.				
SCHAUMBURG, IL 60196				
ENERGY SUPPLY - CONTACT JOE STACHO				
PHONE 630-424-5704				
COMED				

## EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

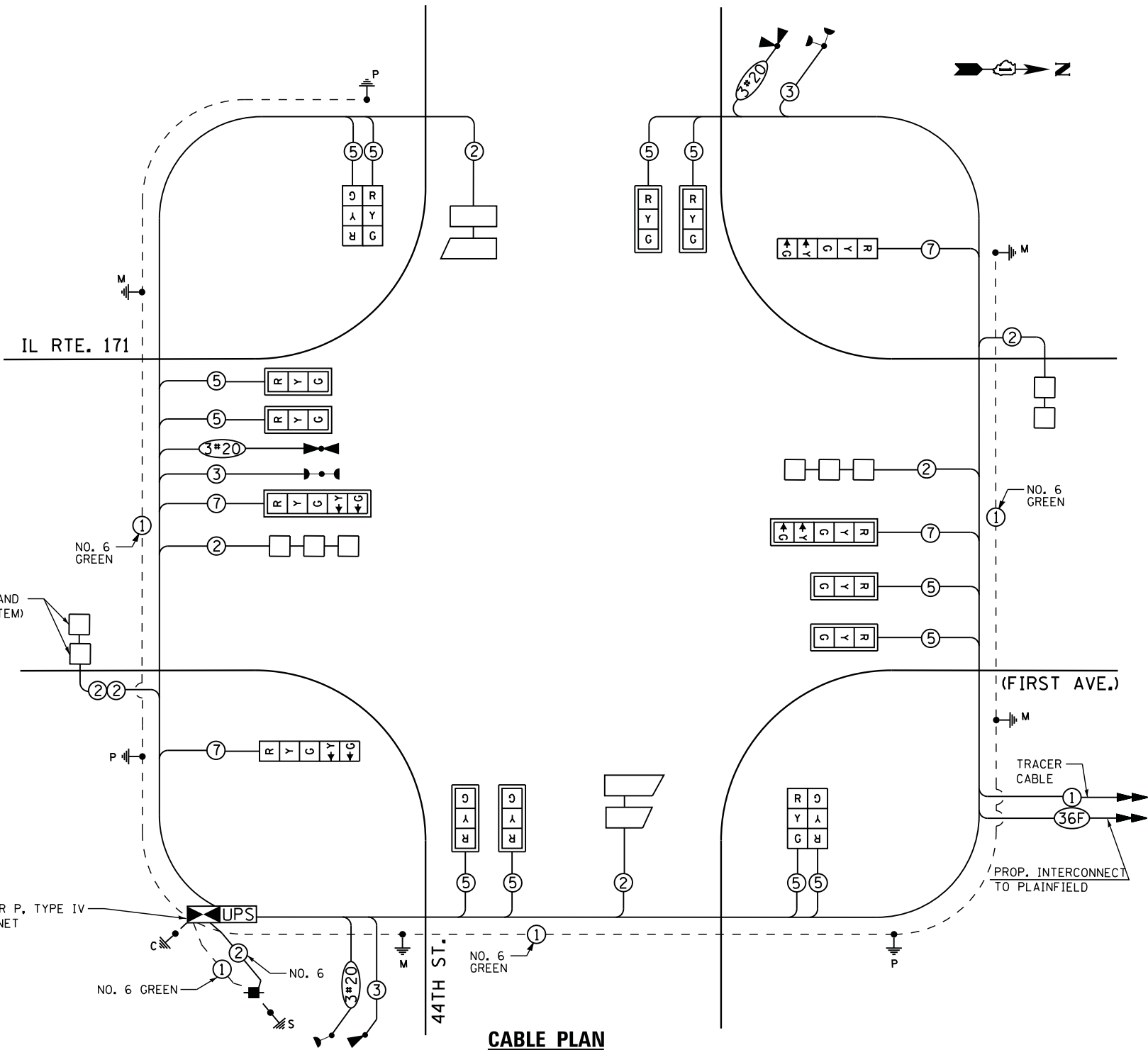
IL RTE. 171

INTERSECTION AND  
SAMPLING (SYSTEM)  
DETECTORS

SUPER P, TYPE IV  
CABINET

NO. 6 GREEN

## CABLE PLAN

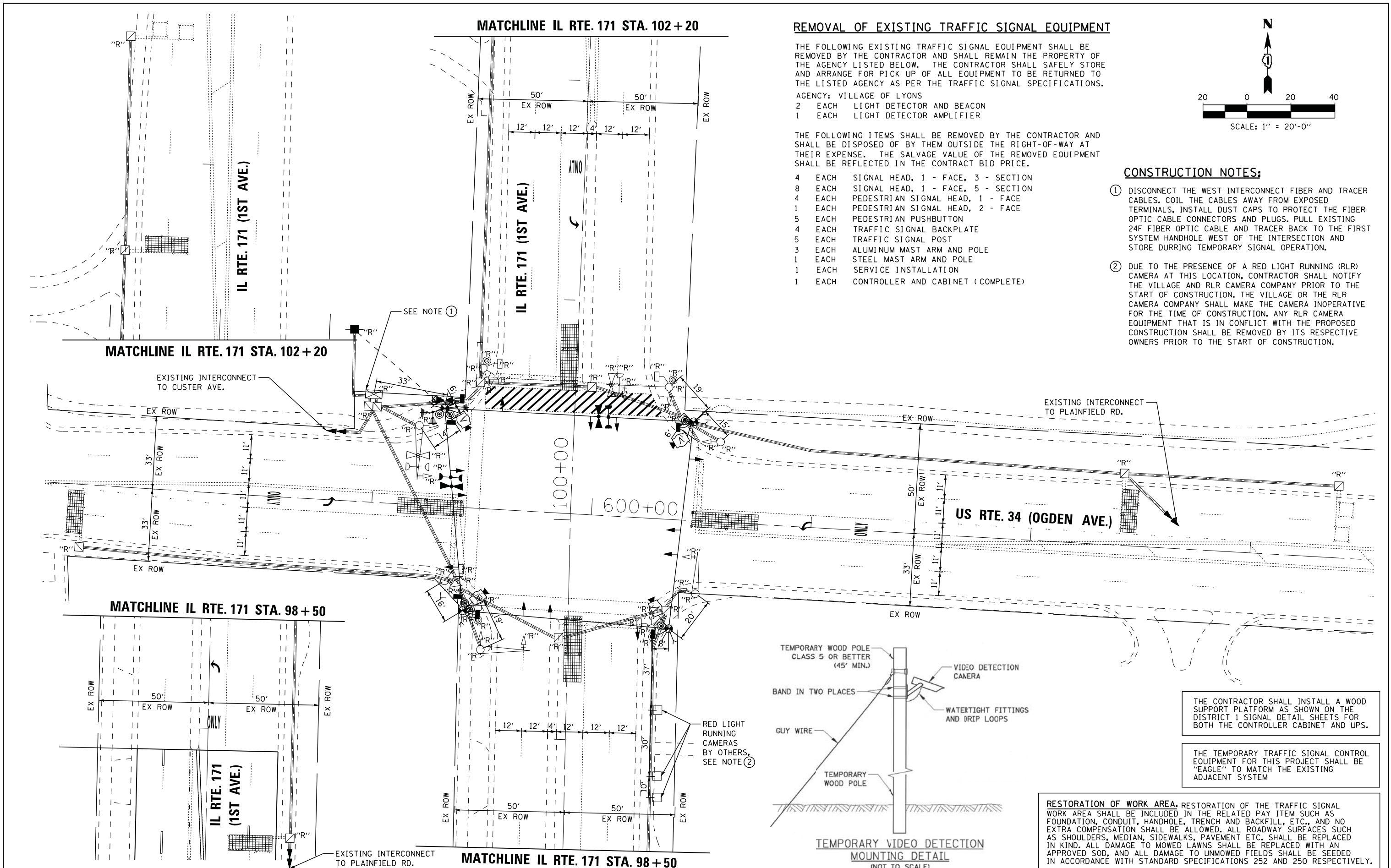


THE TRAFFIC SIGNAL CONTROL EQUIPMENT  
FOR THIS PROJECT SHALL BE "EAGLE"  
TO MATCH THE EXISTING ADJACENT SYSTEM.

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL  
WORK AREA SHALL BE INCLUDED IN 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.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				CABLE PLAN, SCHEDULE OF QUANTITIES, PHASE DESIGNATION DIAGRAM & EVP SEQUENCE IL ROUTE 171 (1ST AVENUE) AT 44TH STREET				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME =				USER NAME = *USER*				372	2012-0471	COOK	63	33
DESIGNED - DW				REVISED -				CONTRACT NO. 60V34				
DRAWN - LV				REVISED -				ILLINOIS FED. AID PROJECT				
CHECKED - KM				REVISED -								
DATE - 9/25/2012				REVISED -								
PLOT SCALE = *SCALE*				PLOT DATE = 10/11/2013				SCALE: N.T.S.				
PLOT DATE = 10/11/2013				DATE - 9/25/2012				SHEET NO. OF SHEETS STA. TO STA.				





### REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: VILLAGE OF LYONS

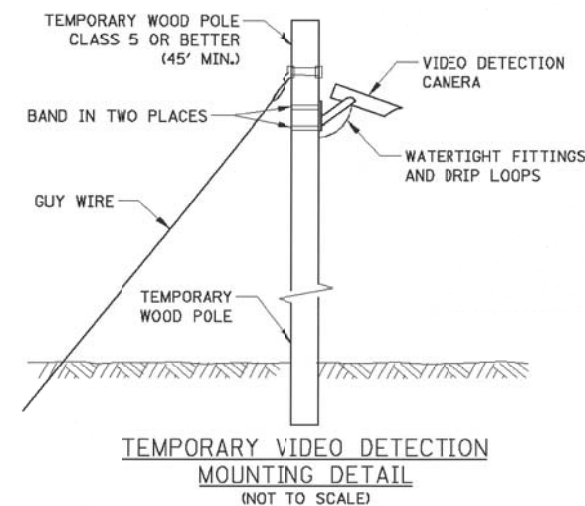
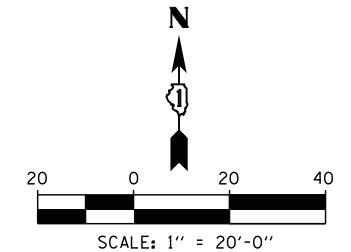
- 2 EACH LIGHT DETECTOR AND BEACON
- 1 EACH LIGHT DETECTOR AMPLIFIER

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 SIGNAL HEAD, 1 - FACE, 3 - SECTION
- 8 EACH SIGNAL HEAD, 1 - FACE, 5 - SECTION
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1 - FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2 - FACE
- 5 EACH PEDESTRIAN PUSHBUTTON
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 5 EACH TRAFFIC SIGNAL POST
- 3 EACH ALUMINUM MAST ARM AND POLE
- 1 EACH STEEL MAST ARM AND POLE
- 1 EACH SERVICE INSTALLATION
- 1 EACH CONTROLLER AND CABINET (COMPLETE)

### CONSTRUCTION NOTES:

- DISCONNECT THE WEST INTERCONNECT FIBER AND TRACER CABLES. COIL THE CABLES AWAY FROM EXPOSED TERMINALS. INSTALL DUST CAPS TO PROTECT THE FIBER OPTIC CABLE CONNECTORS AND PLUGS. PULL EXISTING 24F FIBER OPTIC CABLE AND TRACER BACK TO THE FIRST SYSTEM HANDHOLE WEST OF THE INTERSECTION AND STORE DURING TEMPORARY SIGNAL OPERATION.
- DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA AT THIS LOCATION, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.



THE CONTRACTOR SHALL INSTALL A WOOD SUPPORT PLATFORM AS SHOWN ON THE DISTRICT 1 SIGNAL DETAIL SHEETS FOR BOTH THE CONTROLLER CABINET AND UPS.

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

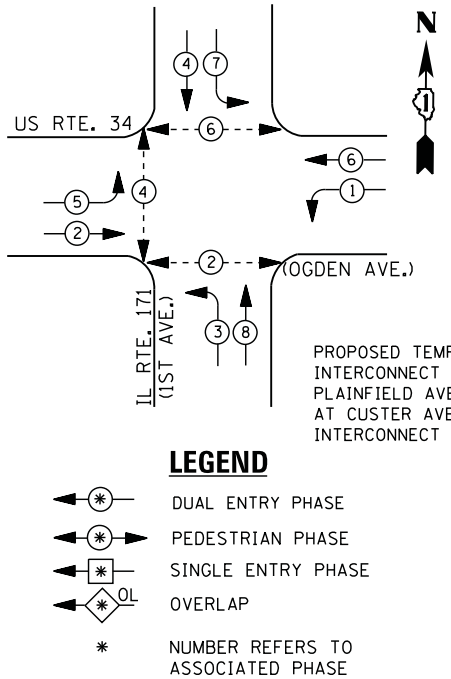
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL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

FILE NAME =		USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVAL PLAN US ROUTE 34 (OGDEN AVE.) AT IL ROUTE 171 (1ST AVE.)		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\3\12055\DesignCAD\Sheet Files\60V34rwa34templ71.dgn			DRAWN - LV	REVISED -					372	2012-0471	COOK	63	34
PLOT SCALE = \$SCALE\$			CHECKED - KM	REVISED -					CONTRACT NO. 60V34				
PLOT DATE = 10/15/2013			DATE - 9/25/2012	REVISED -					ILLINOIS FED. AID PROJECT				
SCALE:		SHEET NO.		OF SHEETS	STA.		TO STA.						

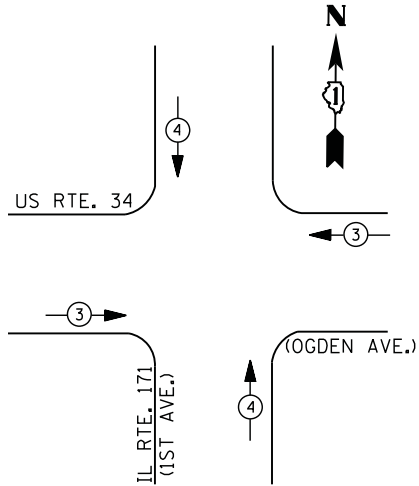
## NOTES FOR TEMPORARY TRAFFIC SIGNALS

- 1) ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2) ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3) ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT RAILROAD INTERSECTIONS. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4) ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES . RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5) ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- 6) THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- 7) UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- 8) TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- 9) DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- 10) WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

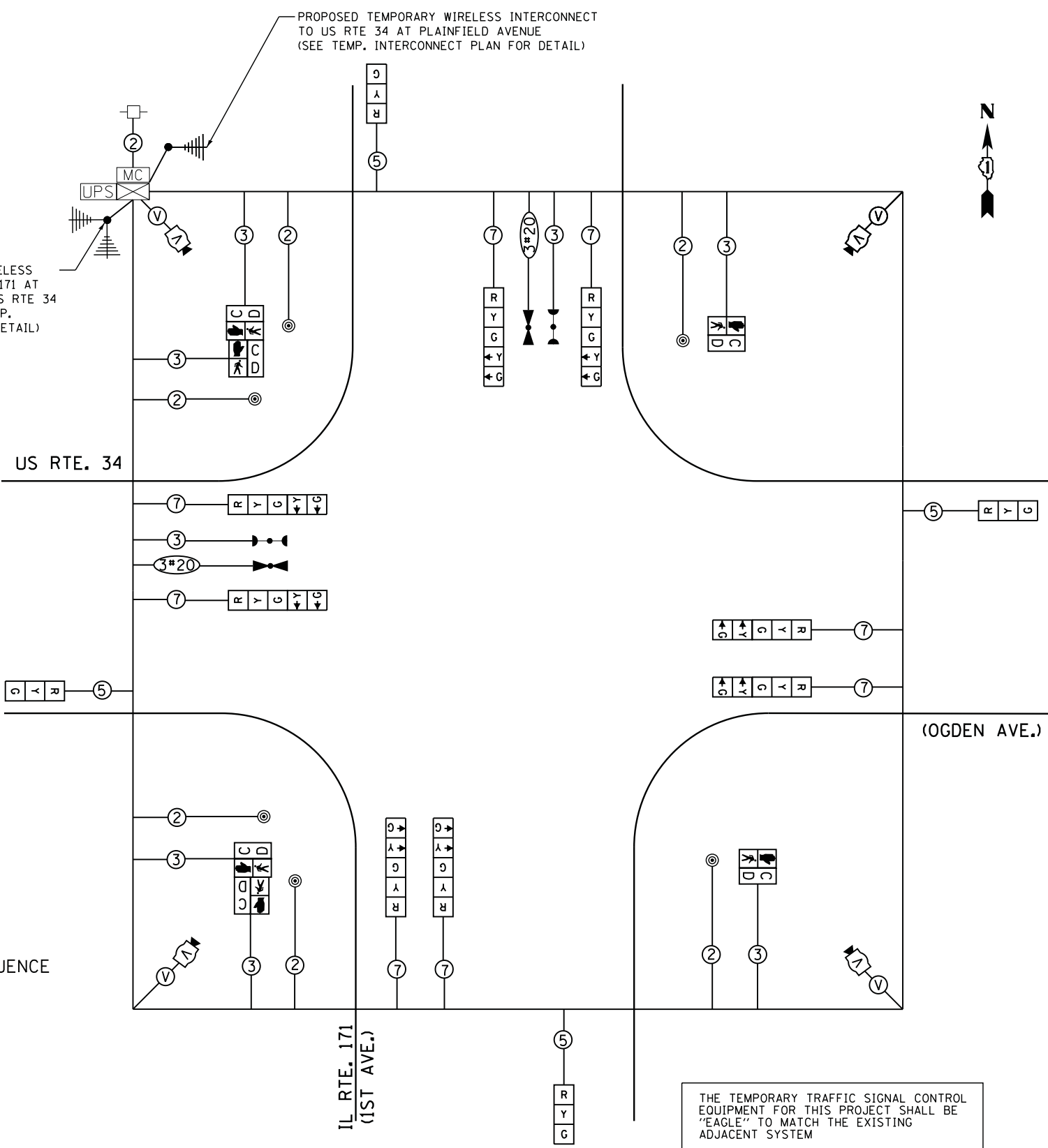
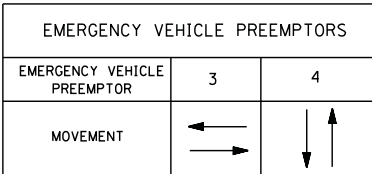
## TEMPORARY CONTROLLER SEQUENCE



## TEMPORARY PHASE DESIGNATION DIAGRAM



## TEMPORARY 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	20
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
VIDEO SYSTEM	1	150	-	1.00	150
642					
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1					
201 W. CENTER CT.					
SCHAUMBURG, IL 60196					
ENERGY SUPPLY - CONTACT JOE STACHO					
PHONE 630-424-5704					
COMED					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM  
& TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 171 (1ST AVENUE)

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372		2012-0471	COOK	63	35
CONTRACT NO. 60V34					
ILLINOIS FED. AID PROJECT					

TS-16

ALL PEDESTRIAN HEADS SHALL BE BAGGED AND DISCONNECTED AT LOCATIONS WHERE EXISTING PAVEMENT IS REMOVED. ALL PEDESTRIAN SIGNAL HEADS SHALL REMAIN BAGGED UNTIL THE PAVEMENT IS RESTORED TO PROVIDE A SAFE CROSSING AREA. USAGE OF PEDESTRIAN SIGNALS IS BASED ON CONSTRUCTION STAGING AND SHALL BE DETERMINED BY THE RESIDENT ENGINEER. IF SIDEWALKS AND PEDESTRIAN CROSSINGS ARE NOT PROVIDED, THE PEDESTRIAN SIGNAL EQUIPMENT SHALL REMAIN DISCONNECTED UNTIL WARRANTED PRIOR TO THE PERMANENT SIGNAL TURN-ON.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

**RWA**  
Regina Webster & Associates, Inc.



1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

TS-1

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN US ROUTE 34 (OGDEN AVE.) AT IL ROUTE 171 (1ST AVE.)				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEET	SHEET NO.
N:\Projects\3\12055\Design\CAD\Sheet Files	60V34-wo34pro171.dgn	DRAWN - LV	REVISED -		372	2012-0471	COOK	63	36				
	PLOT SCALE = \$SCALE\$	CHECKED - KM	REVISED -		CONTRACT NO. 60V34								
	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.		

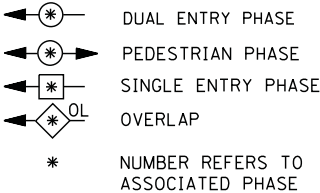


## SCHEDULE OF QUANTITIES

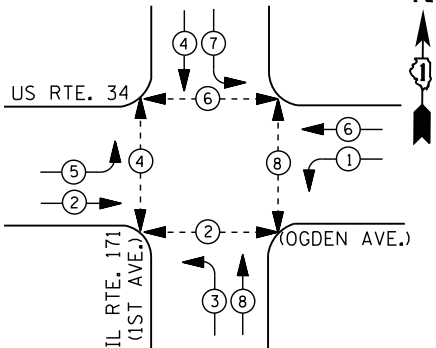
QUANTITY	UNIT	ITEM
1	CU YD	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL
25	SO YD	PROTECTIVE COAT
102	SO FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
52	SO FT	DETECTABLE WARNINGS
66	SO FT	SIDEWALK REMOVAL
47.5	SO FT	SIGN PANEL - TYPE 2
610	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
261	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
148	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
862	SO FT	PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1296	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
88	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
40	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
462	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
6	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
1	EACH	TRANSCEIVER - FIBER OPTIC
1392	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1776	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1548	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1570	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3647	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
70	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
638	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
40.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
13	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
12	EACH	INDUCTIVE LOOP DETECTOR
680	FOOT	DETECTOR LOOP, TYPE I
* 2	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
12	EACH	REMOVE EXISTING HANDHOLE
1	EACH	REMOVE EXISTING DOUBLE HANDHOLE
10	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
* 328	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
1	EACH	MASTER CONTROLLER (SPECIAL)
41	FOOT	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT

\* 100% VILLAGE OF LYONS COST

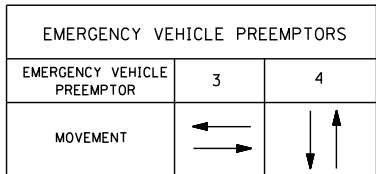
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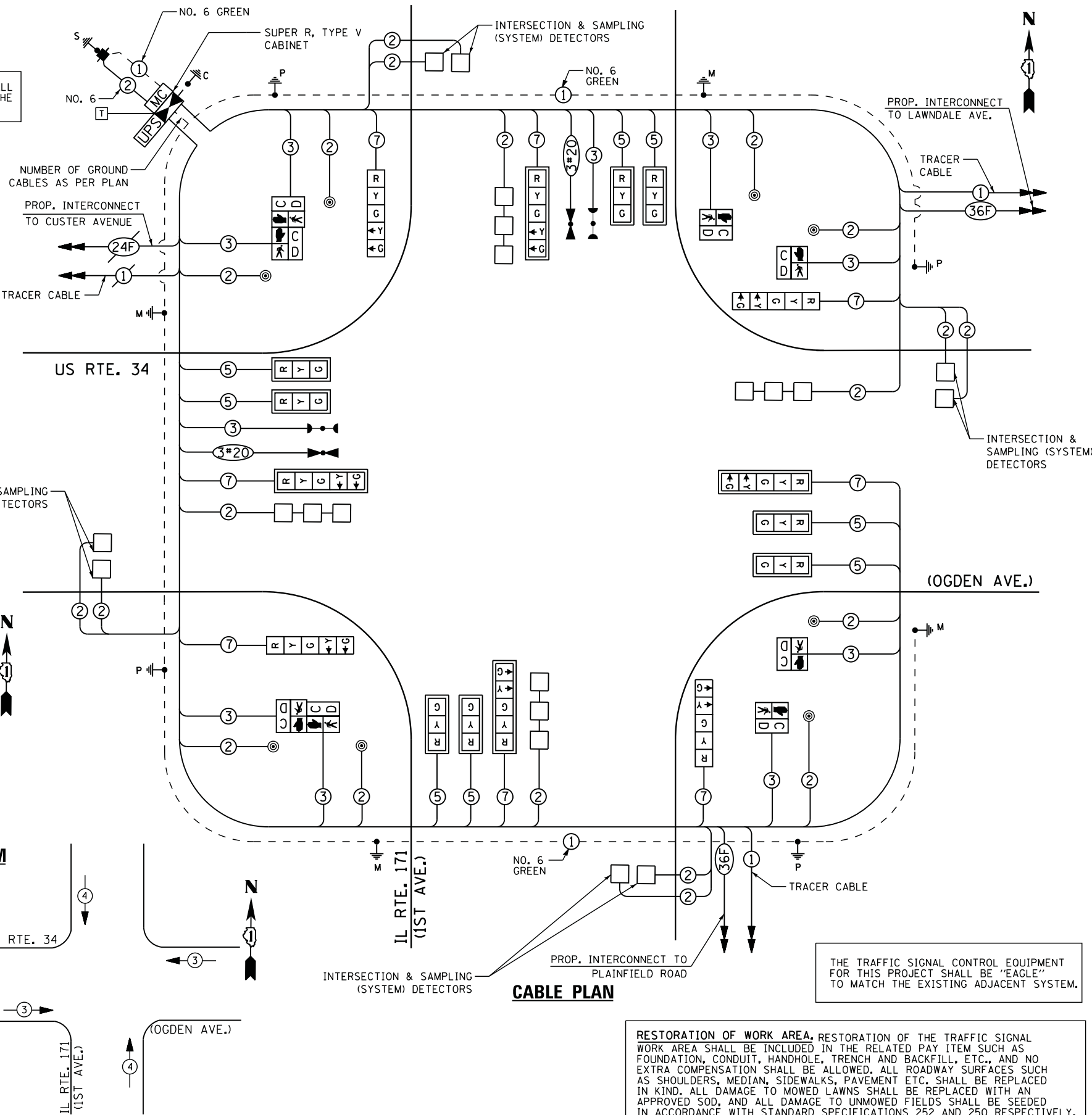
## CONTROLLER SEQUENCE



## PHASE DESIGNATION DIAGRAM



## EMERGENCY VEHICLE PREEMPTION SEQUENCE



I. D. O. T.				
TRAFFIC SIGNAL INSTALLATION				
ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE		TOTAL WATTAGE
		INCAND.	LED	
SIGNAL (RED)	16	135	17	136
(YELLOW)	16	135	25	100
(GREEN)	16	135	15	60
ARROW	16	135	12	20
PED. SIGNAL	8	90	25	200
CONTROLLER	1	100	100	100
ILLUM. SIGN		100	90	1.00
TOTAL =				616
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1				
201 W. CENTER CT.				
SCHAUMBURG, IL 60196				
ENERGY SUPPLY - CONTACT JOE STACHO				
PHONE 630-424-5704				
COMED				

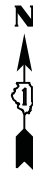
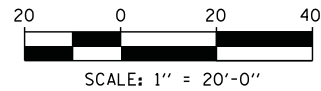
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	PLOT DATE = 10/11/2013	DATE = 9/25/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, SCHEDULE OF QUANTITIES, PHASE DESIGNATION DIAGRAM & EVP SEQUENCE US ROUTE 34 (OGDEN AVE.) AT IL ROUTE 171 (1ST AVE.)			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	37
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				

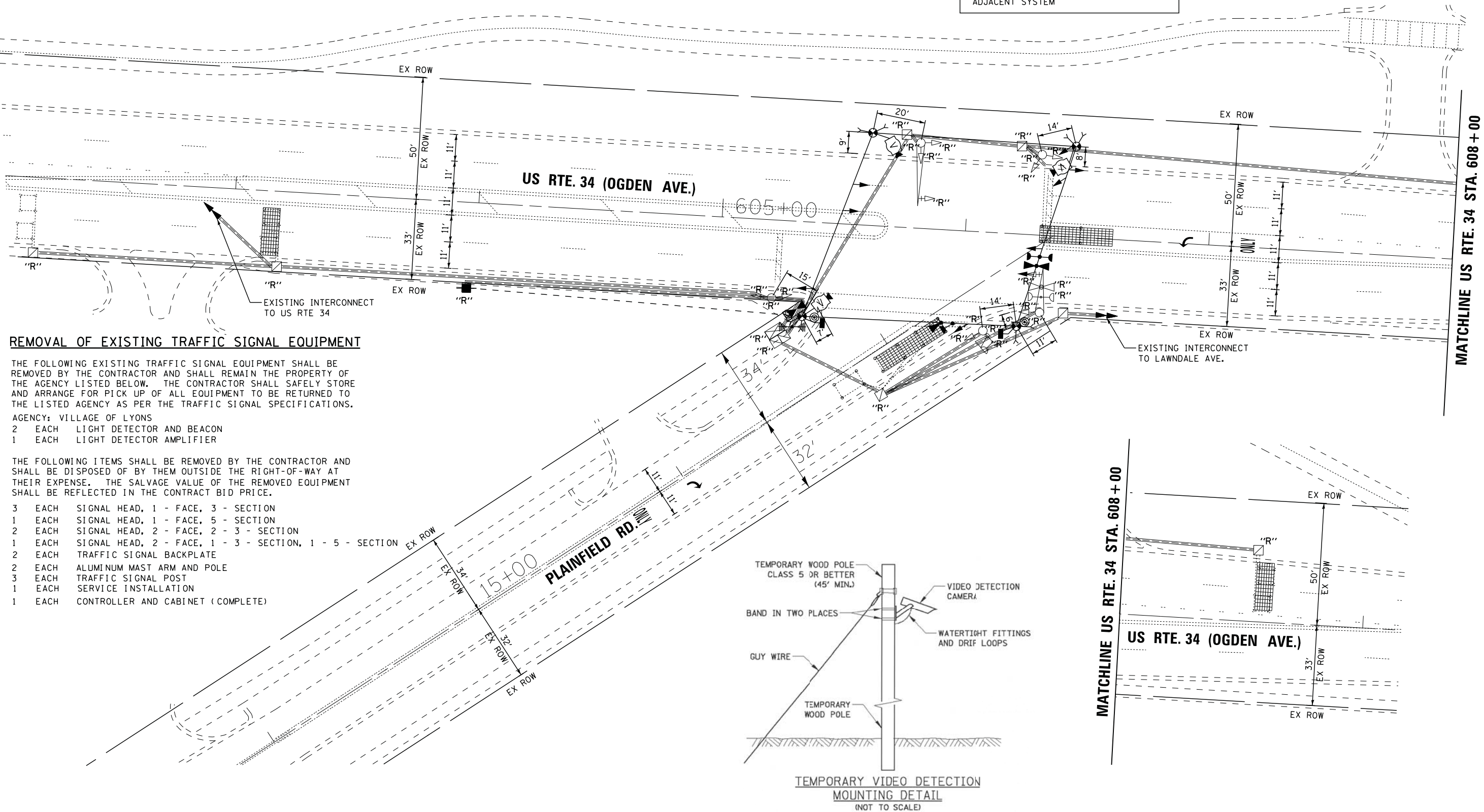
TS-18



**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

THE CONTRACTOR SHALL INSTALL A WOOD SUPPORT PLATFORM AS SHOWN ON THE DISTRICT 1 SIGNAL DETAIL SHEETS FOR BOTH THE CONTROLLER CABINET AND UPS.

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



#### REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: VILLAGE OF LYONS

- 2 EACH LIGHT DETECTOR AND BEACON
- 1 EACH LIGHT DETECTOR AMPLIFIER

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.

- 3 EACH SIGNAL HEAD, 1 - FACE, 3 - SECTION
- 1 EACH SIGNAL HEAD, 1 - FACE, 5 - SECTION
- 2 EACH SIGNAL HEAD, 2 - FACE, 2 - 3 - SECTION
- 1 EACH SIGNAL HEAD, 2 - FACE, 1 - 3 - SECTION, 1 - 5 - SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH ALUMINUM MAST ARM AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 1 EACH SERVICE INSTALLATION
- 1 EACH CONTROLLER AND CABINET (COMPLETE)

**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

#### TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVAL PLAN US ROUTE 34 (OGDEN AVE.) AT PLAINFIELD ROAD

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

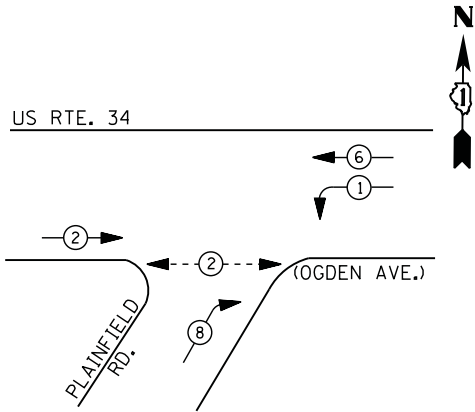
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-047I	COOK	63	38
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				



### NOTES FOR TEMPORARY TRAFFIC SIGNALS

- 1) ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2) ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3) ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT RAILROAD INTERSECTIONS. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4) ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES . RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5) ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- 6) THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- 7) UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- 8) TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- 9) DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- 10) WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

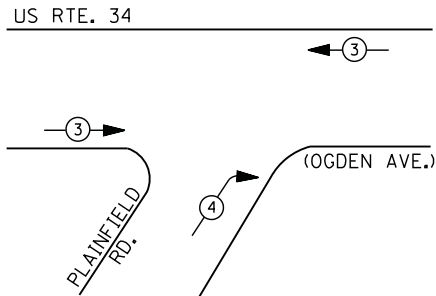
### TEMPORARY CONTROLLER SEQUENCE



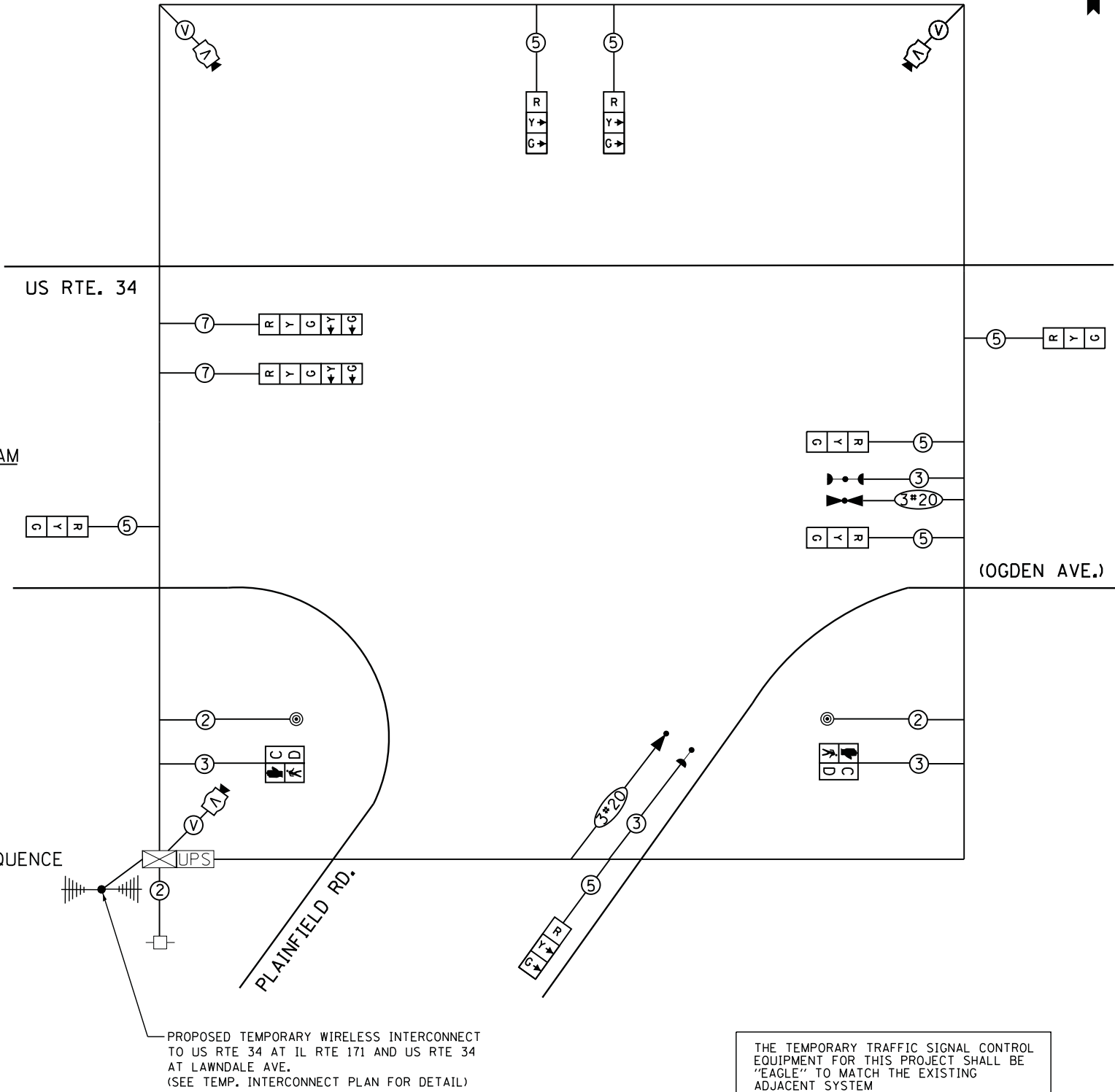
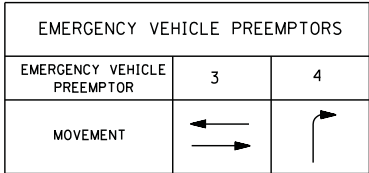
#### LEGEND

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

### TEMPORARY PHASE DESIGNATION DIAGRAM



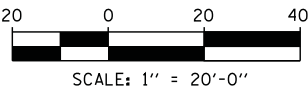
### TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



ALL PEDESTRIAN HEADS SHALL BE BAGGED AND DISCONNECTED AT LOCATIONS WHERE EXISTING PAVEMENT IS REMOVED. ALL PEDESTRIAN SIGNAL HEADS SHALL REMAIN BAGGED UNTILL THE PAVEMENT IS RESTORED TO PROVIDE A SAFE CROSSING AREA. USAGE OF PEDESTRIAN SIGNALS IS BASED ON CONSTRUCTION STAGING AND SHALL BE DETERMINED BY THE RESIDENT ENGINEER. IF SIDEWALKS AND PEDESTRIAN CROSSINGS ARE NOT PROVIDED, THE PEDESTRIAN SIGNAL EQUIPMENT SHALL REMAIN DISCONNECTED UNTIL WARRANTED PRIOR TO THE PERMANENT SIGNAL TURN-ON.

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL ( RED )	9	135	17	0.50	77
( YELLOW )	9	135	25	0.25	57
( GREEN )	9	135	15	0.25	34
ARROW	4	135	12	0.10	5
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
VIDEO SYSTEM	1	150	-	1.00	150
TOTAL =					473
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1 201 W. CENTER CT. SCHAUMBURG, IL 60196					
ENERGY SUPPLY - CONTACT JOE STACHO PHONE 630-424-5704 COMED					
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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -		
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM & TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE US ROUTE 34 (OGDEN AVE.) AT PLAINFIELD ROAD				SCALE: N.T.S.	TS-20
				SHEET NO. OF SHEETS STA. TO STA.	F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
					372 2012-0471 COOK 63 39
					ILLINOIS FED. AID PROJECT CONTRACT NO. 60V34



**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PA ITEM SUCH AS FOUNDATION, FILL, HANDLE, 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.

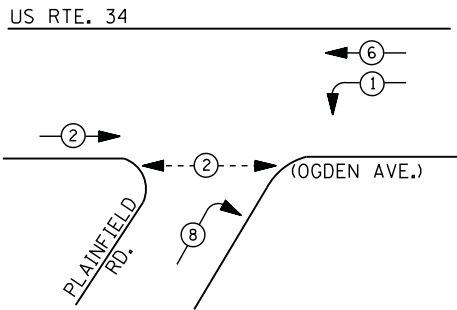
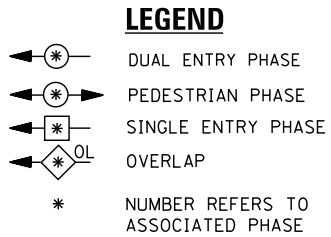
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PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			

## SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
3	CU YD	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL
56	SO YD	PROTECTIVE COAT
371	SO FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
37	SO FT	DETECTABLE WARNINGS
371	SO FT	SIDEWALK REMOVAL
18	SO FT	SIGN PANEL - TYPE 1
12.5	SO FT	SIGN PANEL - TYPE 2
130	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
75	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
232	SO FT	PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
816	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
51	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
88	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
252	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
4	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
1	EACH	TRANSCIEIVER - FIBER OPTIC
228	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
598	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1693	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
314	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1007	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
186	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
618	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
8	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
33.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
5	EACH	INDUCTIVE LOOP DETECTOR
337	FOOT	DETECTOR LOOP, TYPE I
* 2	EACH	LIGHT DETECTOR
* 1	EACH	LIGHT DETECTOR AMPLIFIER
2	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING HANDHOLE
1	EACH	REMOVE EXISTING DOUBLE HANDHOLE
6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
* 355	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
43	FOOT	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT

\* 100% VILLAGE OF LYONS COST

## CONTROLLER SEQUENCE



## PHASE DESIGNATION DIAGRAM

## EMERGENCY VEHICLE PREEMPTION SEQUENCE

## CABLE PLAN

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

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

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	11	135	17	0.50	94
(YELLOW)	11	135	25	0.25	69
(GREEN)	11	135	15	0.25	41
ARROW	4	135	12	0.10	5
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		100	90	1.00	
TOTAL =					359
ENERGY COSTS-		BILLED TO: IDOT - DISTRICT 1			
		201 W. CENTER CT.			
		SCHAUMBURG, IL 60196			
ENERGY SUPPLY -		CONTACT JOE STACHO			
		PHONE 630-424-5704			
		COMED			

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, SCHEDULE OF QUANTITIES,  
PHASE DESIGNATION DIAGRAM & EVP SEQUENCE  
US ROUTE 34 (OGDEN AVENUE) AT PLAINFIELD ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-047I	COOK	63	41
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				



## REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: VILLAGE OF LYONS

2 EACH LIGHT DETECTOR AND BEACON  
1 EACH LIGHT DETECTOR AMPLIFIER

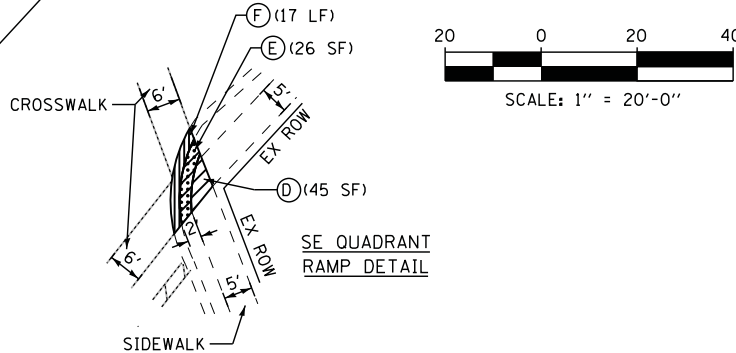
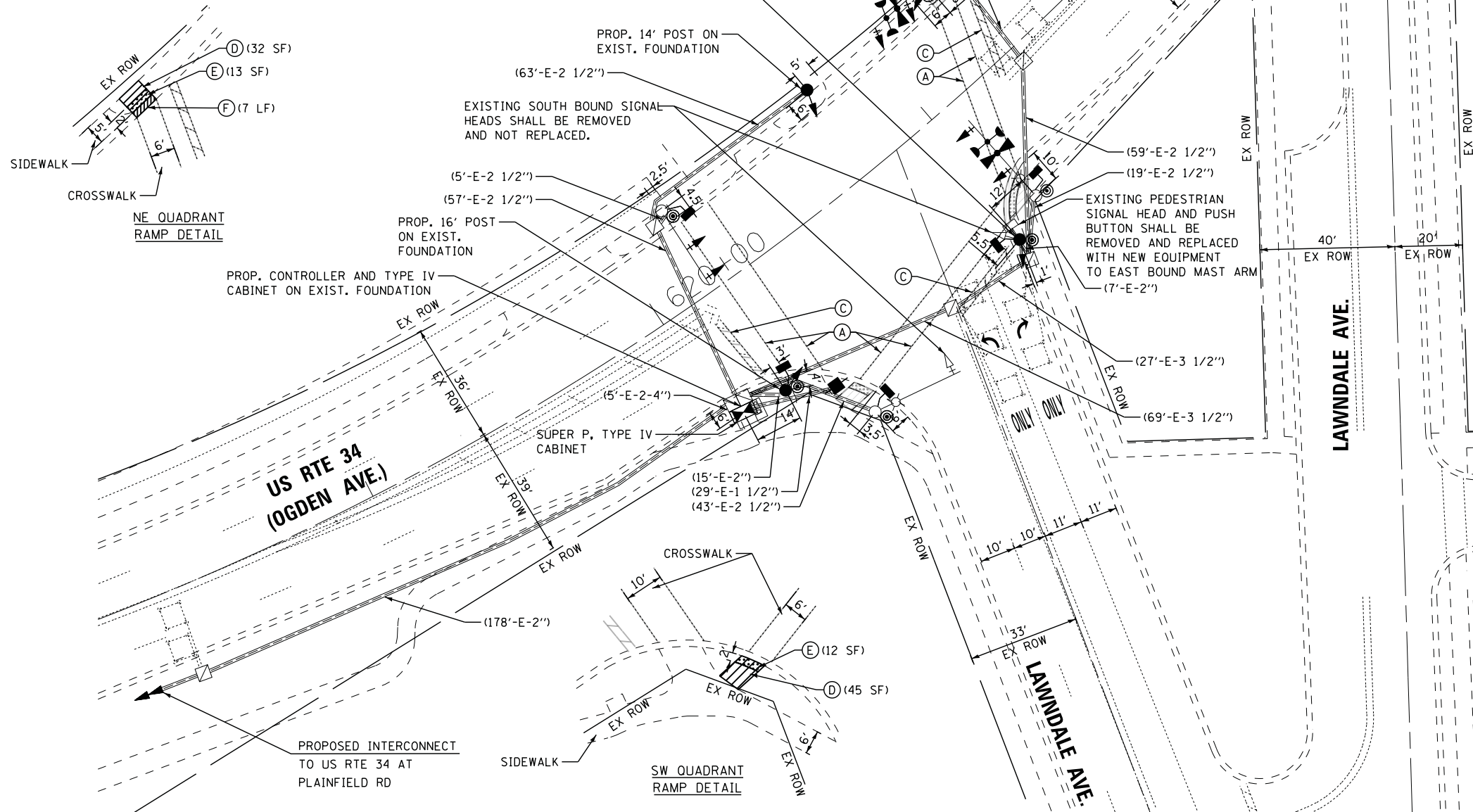
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

7 EACH SIGNAL HEAD, 1 - FACE, 3 - SECTION  
3 EACH SIGNAL HEAD, 1 - FACE, 5 - SECTION  
1 EACH SIGNAL HEAD, 2 - FACE, 1 - 3 - SECTION, 1 - 5 - SECTION  
4 EACH PEDESTRIAN SIGNAL HEAD, 1 - FACE  
1 EACH PEDESTRIAN SIGNAL HEAD, 2 - FACE  
5 EACH PEDESTRIAN PUSHBUTTON  
7 EACH TRAFFIC SIGNAL BACKPLATE  
3 EACH TRAFFIC SIGNAL POST  
1 EACH SERVICE INSTALLATION  
1 EACH CONTROLLER AND CABINET (COMPLETE)

## PAVEMENT MARKING AND RAMP REPLACEMENT KEY

- (A) REMOVE AND RESTRIPE EXISTING CROSSWALK.  
THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE)
- (B) REMOVE AND RESTRIPE EXISTING CROSSWALK.  
THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE)
- (C) REMOVE AND RESTRIPE EXISTING STOP BAR.  
THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE)
- (D) REMOVE EXISTING SIDEWALK AND REPLACE WITH  
NEW PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- (E) DETECTABLE WARNINGS
- (F) REMOVE EXISTING B-6.24 CURB & GUTTER AND REPLACE  
WITH NEW STANDARD AND/OR DEPRESSED B-6.24 CURB AND GUTTER

SIDEWALK RAMP REPLACEMENT AREAS ARE APPROXIMATE. REMOVAL AND REPLACEMENT OF ANY SIDEWALK AND/OR CURB SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER, AND SHALL MEET THE REQUIREMENTS OF ADAAG.



## GENERAL NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.
- CONTRACTOR SHALL RELOCATE EXISTING SIGN PANELS FROM PAINTED POSTS THAT ARE INDICATED FOR REPLACEMENT TO NEW POSTS AS SHOWN ON THE PLANS OR AS INDICATED BY THE ENGINEER. THE COST OF REMOVAL, RELOCATION AND ANY NEW MOUNTING HARDWARE NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE TRAFFIC SIGNAL POST, GALVANIZED STEEL PAY ITEM OF THE LENGTH AS SPECIFIED IN THE PLANS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING BOLT PATTERN ON EXISTING FOUNDATIONS THAT ARE SPECIFIED TO BE RE-USED.

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

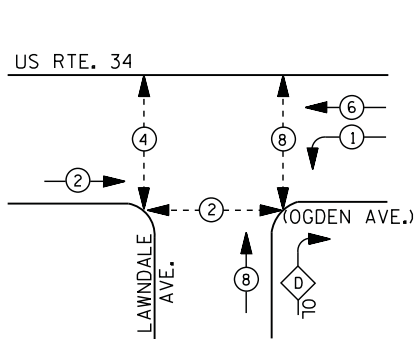
FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN				F.A.P	SECTION	COUNTY	TOTAL	SHEET
N:\Projects\312055\Design\CAD\Sheet Files\60V34-rwa34proLAWDALE.dgn		DRAWN - LV	REVISED -		US ROUTE 34 (OGDEN AVENUE) AT LAWDALE AVENUE				RTE.			SHEETS	NO.
									372	2012-0471	COOK	63	42
PLOT SCALE = \$SCALE\$		CHECKED - KM	REVISED -						CONTRACT NO. 60V34				
PLOT DATE = 10/11/2013		DATE - 9/25/2012	REVISED -										
		SCALE:		SHEET NO.		OF SHEETS		STA.		TO STA.			
												ILLINOIS FED. AID PROJECT	

## SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
22	SQ YD	PROTECTIVE COAT
122	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
51	SQ FT	DETECTABLE WARNINGS
122	SQ FT	SIDEWALK REMOVAL
18	SQ FT	SIGN PANEL - TYPE 1
12.5	SQ FT	SIGN PANEL - TYPE 2
357	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
77	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
333	SQ FT	PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
162	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
169	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
* 2	EACH	INDUCTIVE LOOP DETECTOR
* 1	EACH	LIGHT DETECTOR
6	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
24	FOOT	COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT

\* 100% VILLAGE OF LYONS COST

## CONTROLLER SEQUENCE



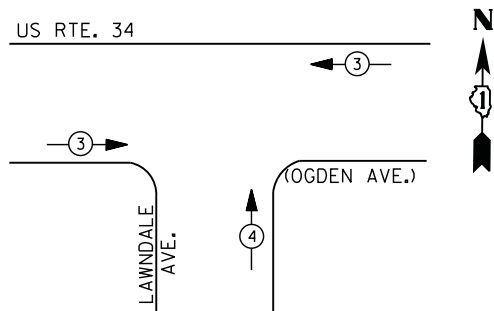
### RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	=	8 + 1

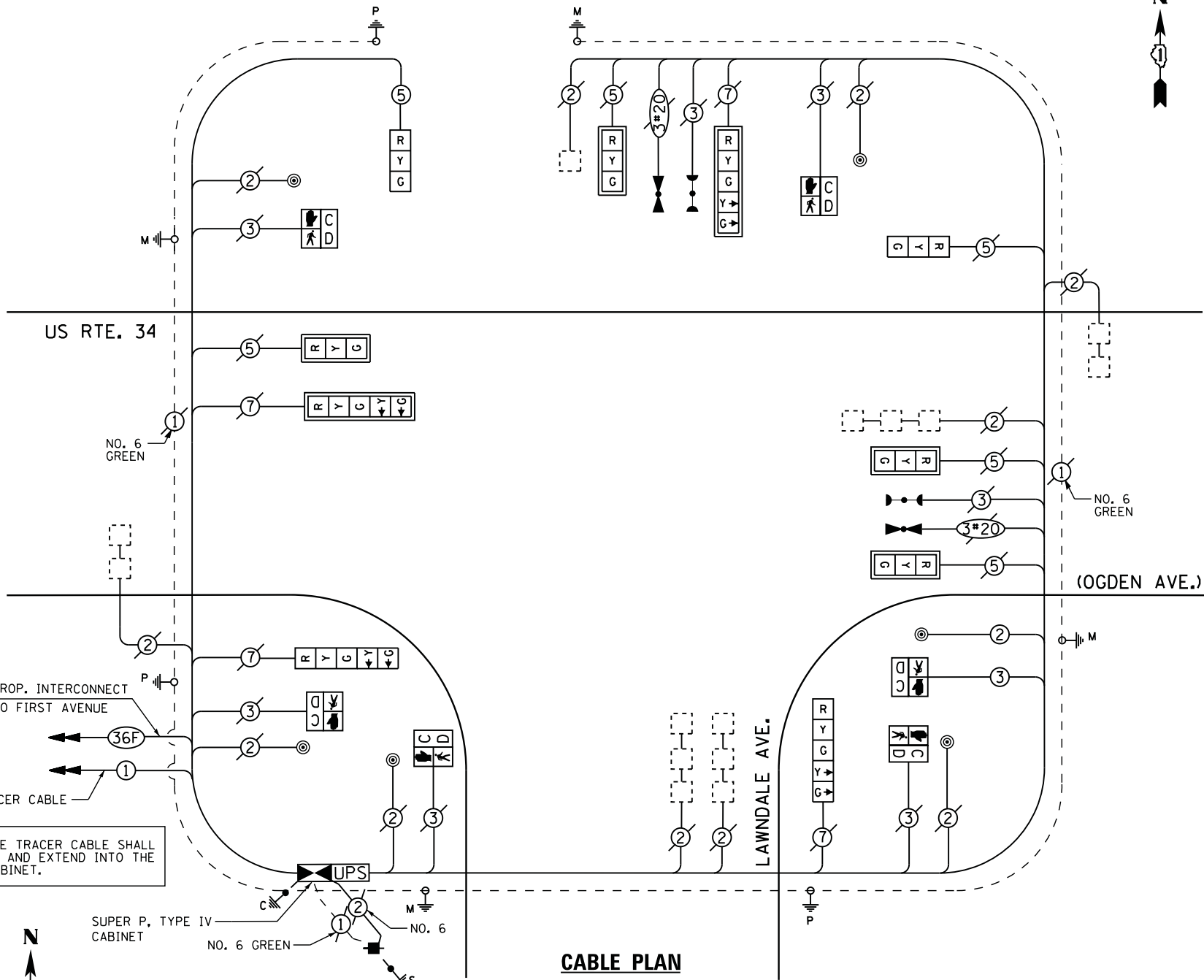
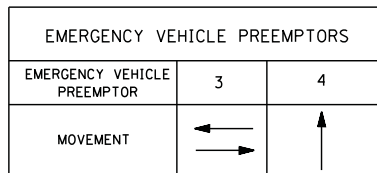
## LEGEND

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

## PHASE DESIGNATION DIAGRAM



## EMERGENCY VEHICLE PREEMPTION SEQUENCE



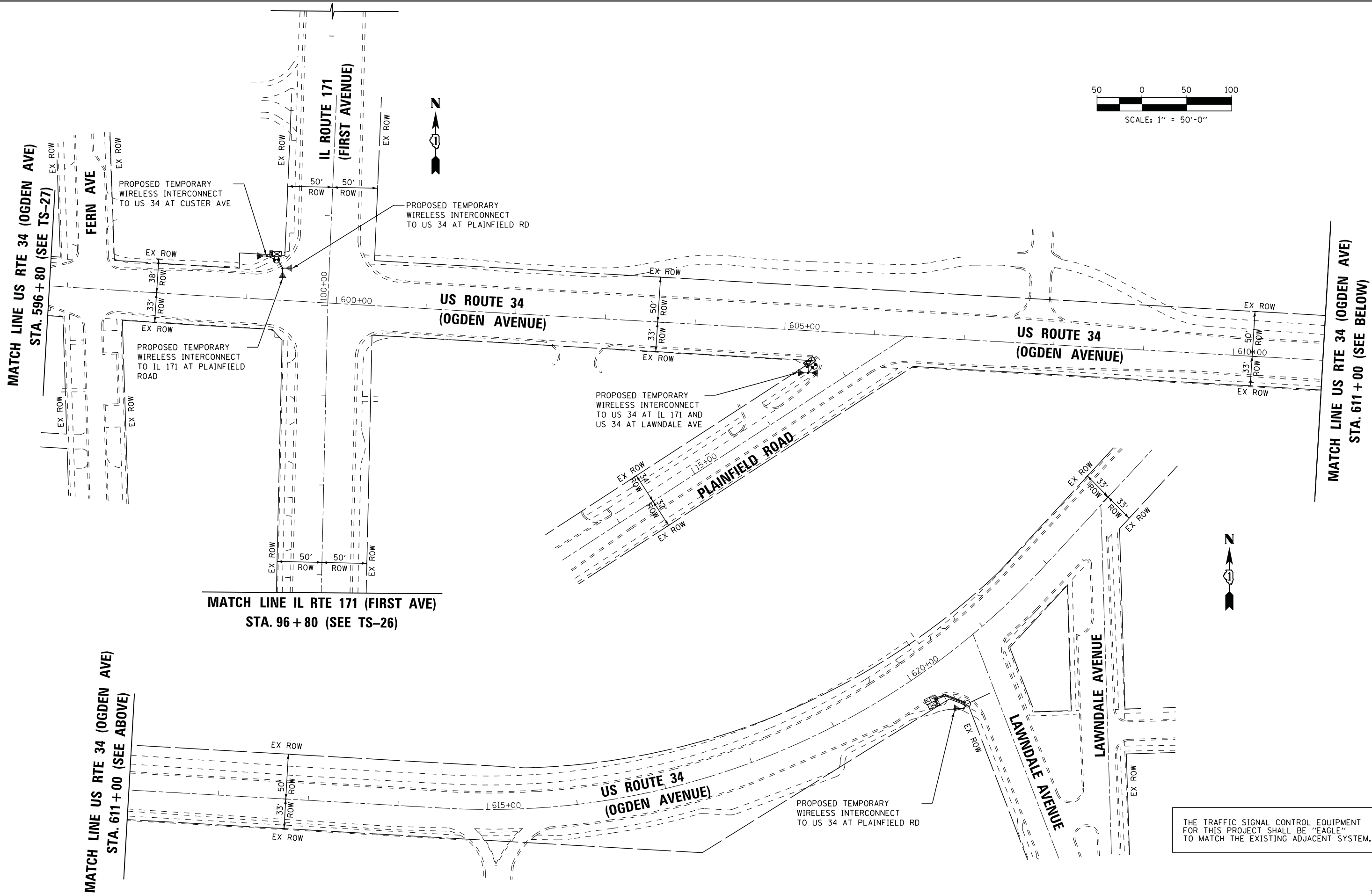
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**RESTORATION OF WORK AREA.** RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN 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.

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	8	135	12	0.10	10
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		100	90	1.00	
TOTAL =					446
ENERGY COSTS- BILLED TO: IDOT - DISTRICT 1					
201 W. CENTER CT.					
SCHAUMBURG, IL 60196					
ENERGY SUPPLY - CONTACT JOE STACHO					
PHONE 630-424-5704					
COMED					

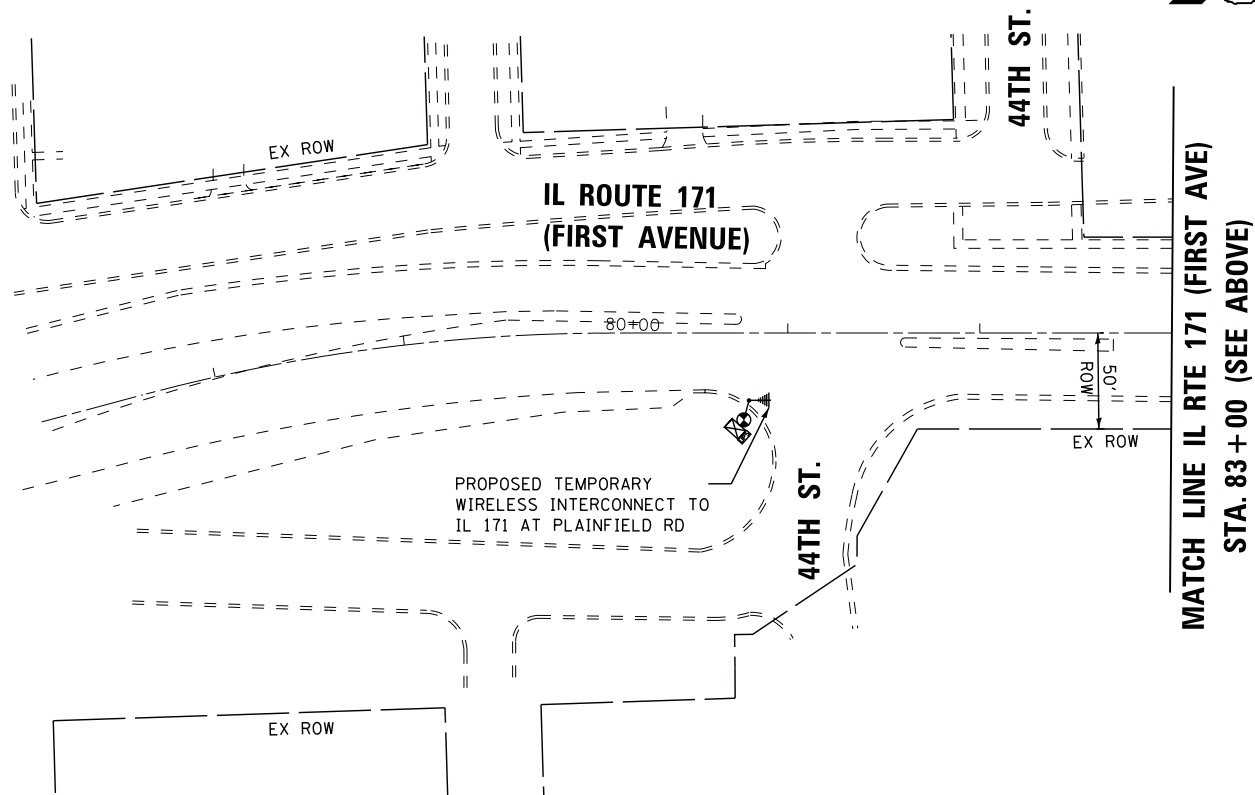
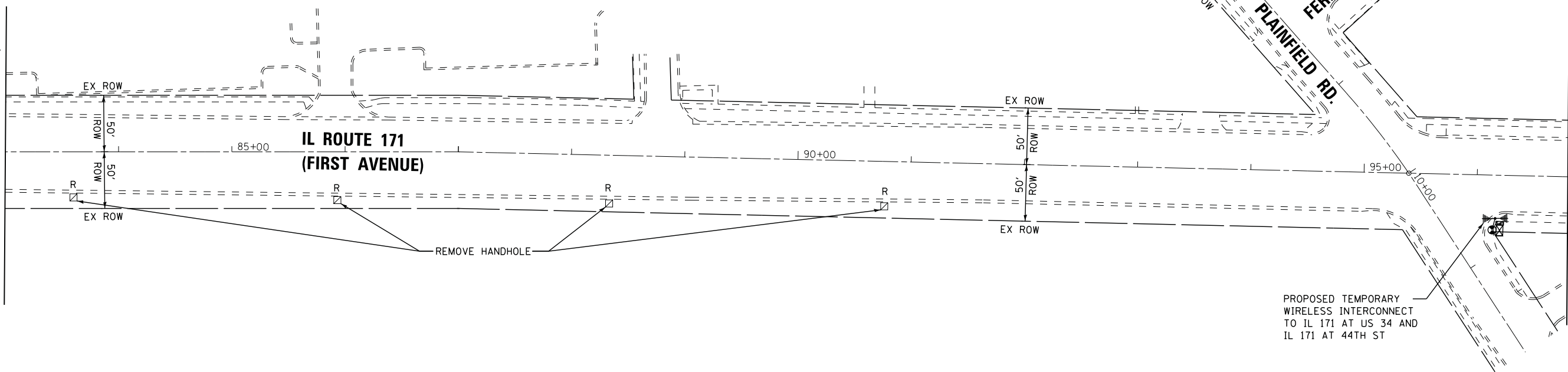
FILE NAME =	USER NAME = %USER%	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABLE PLAN, SCHEDULE OF QUANTITIES, PHASE DESIGNATION DIAGRAM & EVP SEQUENCE US ROUTE 34 (OGDEN AVENUE) AT LAWDALE AVENUE	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\Projects\3\12055\Design\CAD\Sheet Files\60V34rwa34cabLAWDALE.dgn		DRAWN - LV	REVISED -			372	2012-0471	COOK	63	43	
	PLOT SCALE = %SCALE%	CHECKED - KM	REVISED -			CONTRACT NO. 60V34					
	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -			ILLINOIS FED. AID PROJECT					
SCALE: N.T.S.		SHEET NO. OF SHEETS		STA. TO STA.							



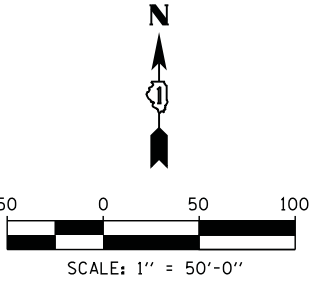


FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY WIRELESS INTERCONNECT PLAN			F.A.P	SECTION	COUNTY	TOTAL	SHEET	
N:\Projects\3\12055\Design\CAD\Sheet Files	60V34RWAttemp1-1.dgn	DRAWN - LV	REVISED -		US ROUTE 34 (FROM IL ROUTE 171 TO LAWNDALE AVENUE)			372	2012-0471	COOK	63	44	
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	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -		SCALE: 1"=50'			SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.			
								ILLINOIS FED. AID PROJECT					

MATCH LINE IL RTE 171 (FIRST AVE)  
STA. 83 + 00 (SEE BELOW)

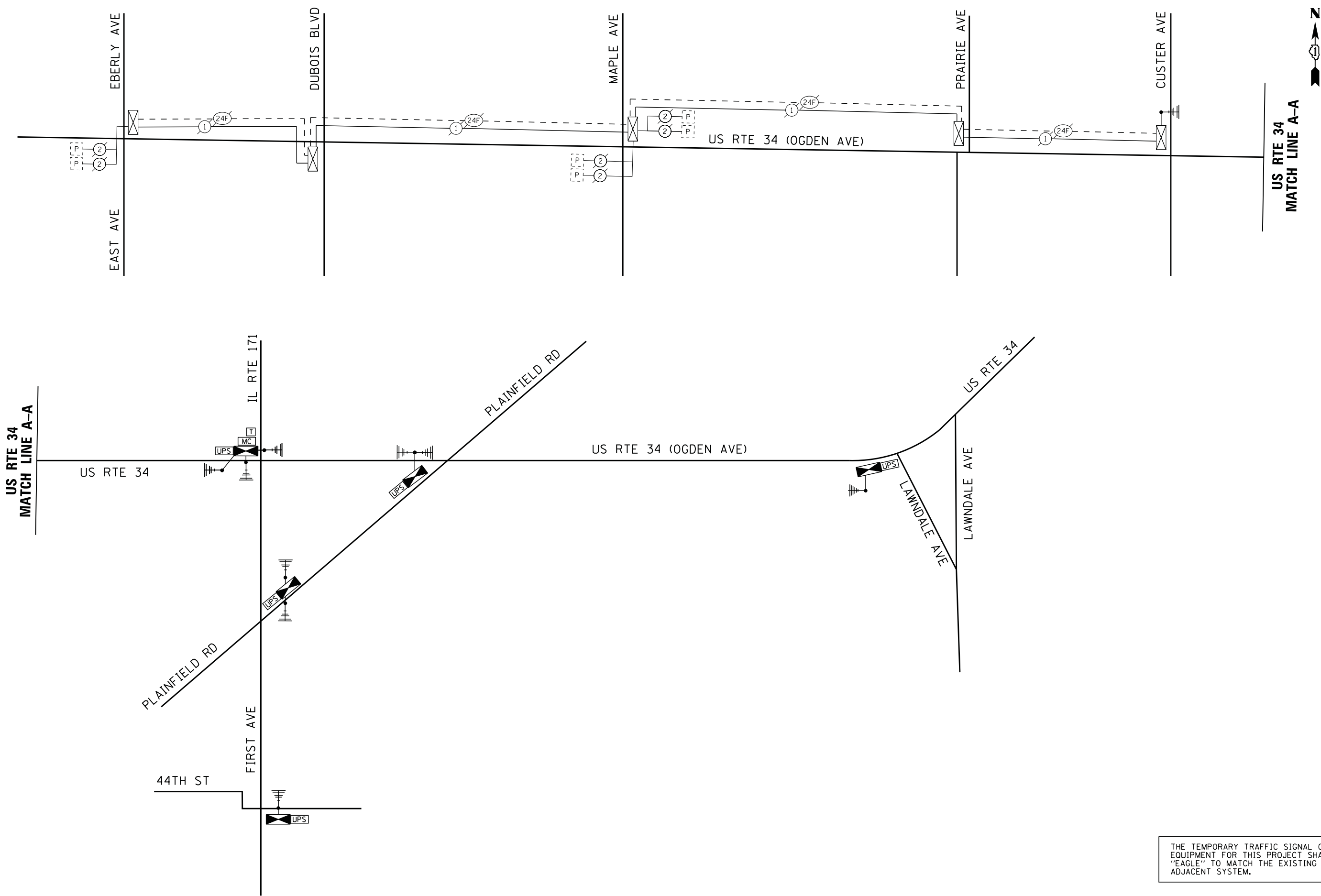


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	PLOT SCALE = *SCALE*	DRAWN - LV	REVISED -					372	2012-0471	COOK	63	45
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		DATE - 9/25/2012	REVISED -		SHEET NO. 2 OF 4 SHEETS			ILLINOIS FED. AID PROJECT				
					STA. TO STA.			TS-26				



TS-27

FILE NAME =	USER NAME = *USER*	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY WIRELESS INTERCONNECT PLAN US ROUTE 34 (FROM CUSTER TO IL ROUTE 171)				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\312055\Design\CAD\Sheet Files\60V34RWAtempt-3.dgn	60V34RWAtempt-3.dgn	DRAWN - LV	REVISED -		372	2012-0471	COOK	63	46				
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PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -			SCALE: 1"=50'	SHEET NO. 3 OF 4 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT					



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

FILE NAME = N:\Projects\3\12055\DesignCAD\Sheet Files\60V34\raw\IL171-US34tempINT\tschem.dgn	USER NAME = \$USER\$	DESIGNED - DW	REVISED -
		DRAWN - LV	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

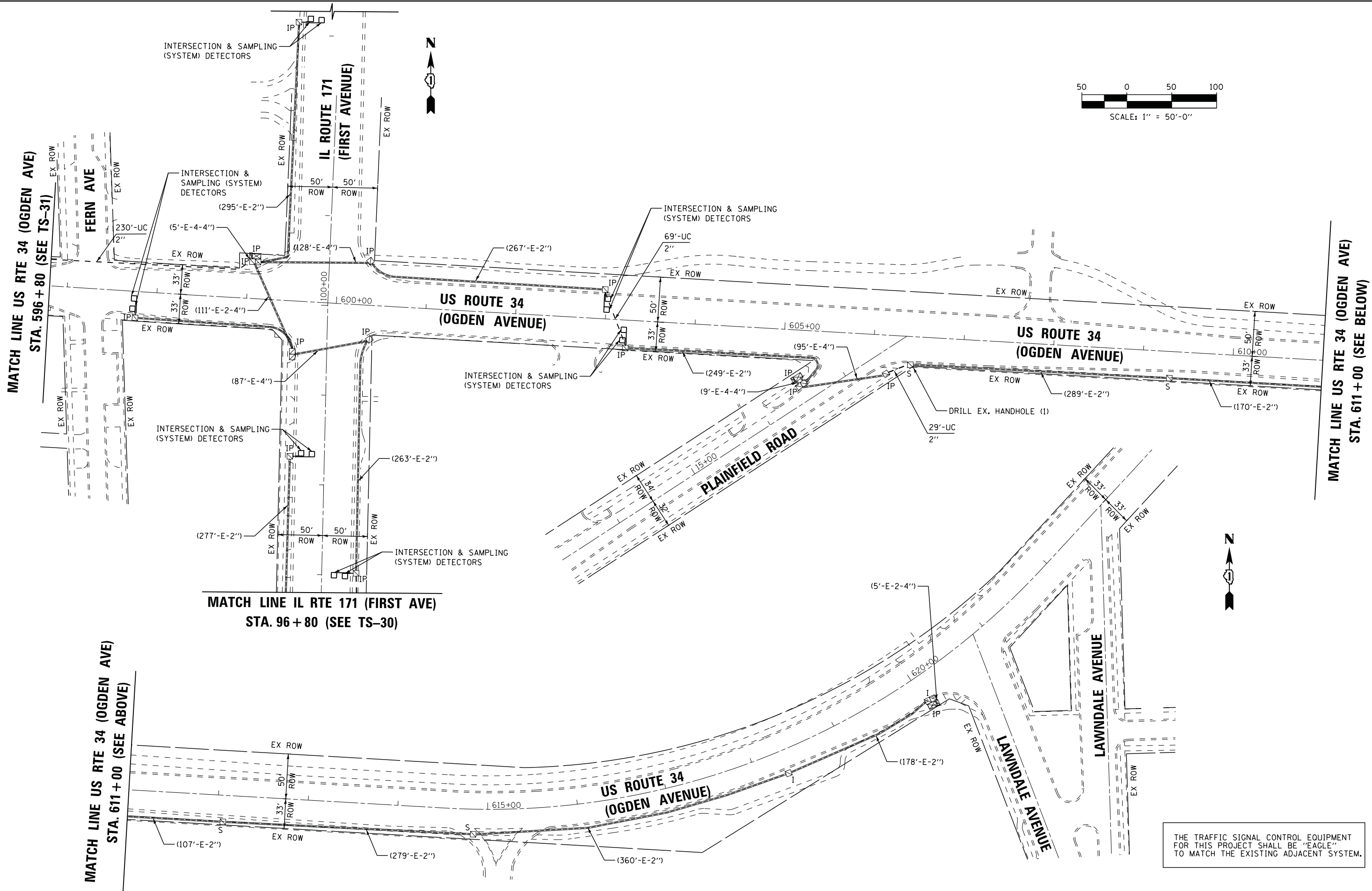
EXISTING AND TEMPORARY WIRELESS INTERCONNECT SCHEMATIC  
IL RTE 171 (FROM 44TH ST. TO US RTE 34) AND  
US RTE 34 (FROM IL RTE 171 TO LAWDALE AVE)

SCALE: NONE    SHEET NO. 4 OF 4    SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-047I	COOK	63	47
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				

TS-28





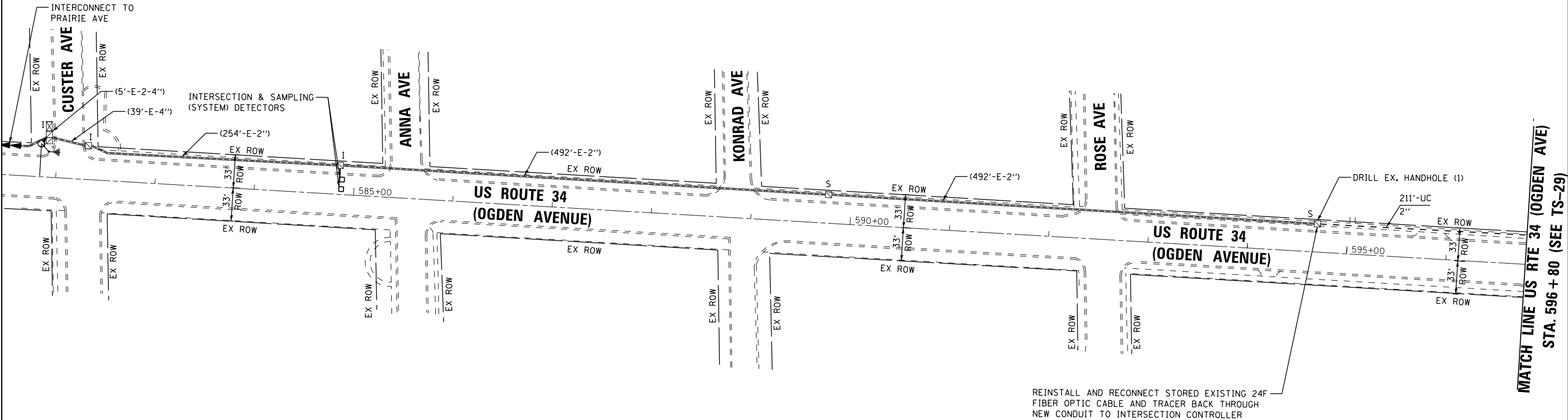
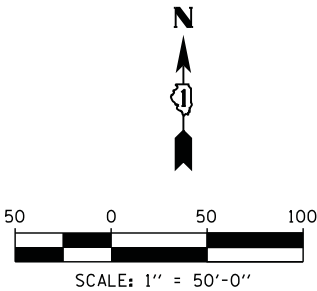
THE TRAFFIC SIGNAL CONTROL EQUIPMENT  
FOR THIS PROJECT SHALL BE "EAGLE"  
TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =		USER NAME = *USER*	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN US ROUTE 34 (FROM IL ROUTE 171 TO LAWDALE AVENUE)	F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\3\12055\DesignCAD\Sheet Files\60V34RWaint-1.dgn			DRAWN - LV	REVISED -			372		2012-0471	COOK	63	48
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PLOT DATE = 10/11/2013			DATE - 9/25/2012	REVISED -			SCALE: 1"=50'		SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT



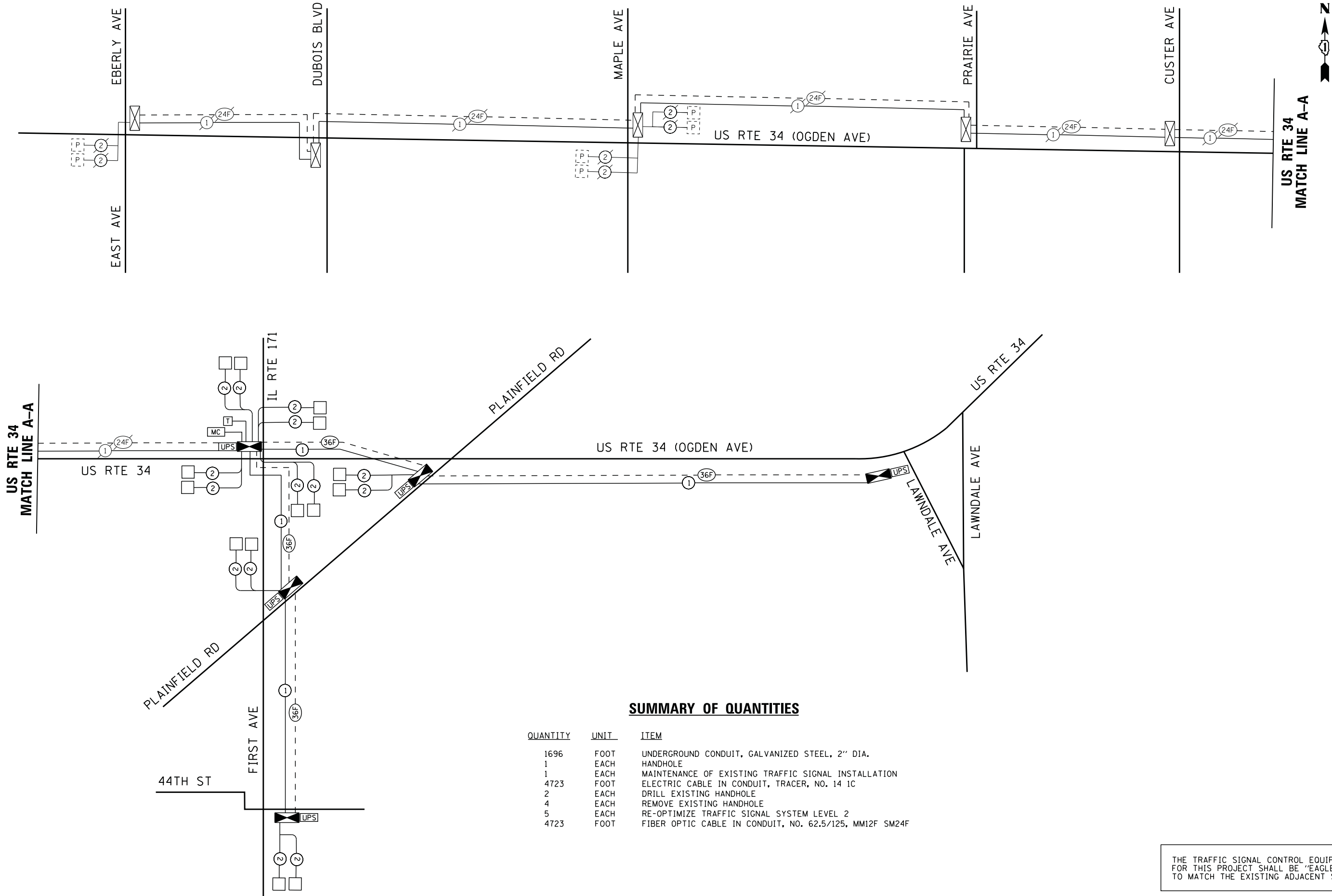
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	<div>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</div>	<div>INTERCONNECT PLAN IL ROUTE 171 (FROM PLAINFIELD ROAD TO 44TH STREET)</div>				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Projects\312055\Design\CAD\Sheet Files\60V34RW\Int-2.dgn	60V34RW\Int-2.dgn	DRAWN - LV	REVISED -						372	2012-0471	COOK	63	49
PLOT SCALE = \$SCALE\$	CHECKED - KM	REVISED -			CONTRACT NO. 60V34								
PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -			SCALE: 1"=50'	SHEET NO. 2	OF 3 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				



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

FILE NAME = N:\Projects\3\12055\DesignCAD\Sheet Files\60V34RWAint-3.dgn	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN US ROUTE 34 (FROM CUSTER AVE TO IL ROUTE 171)				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SUMMARY OF QUANTITIES

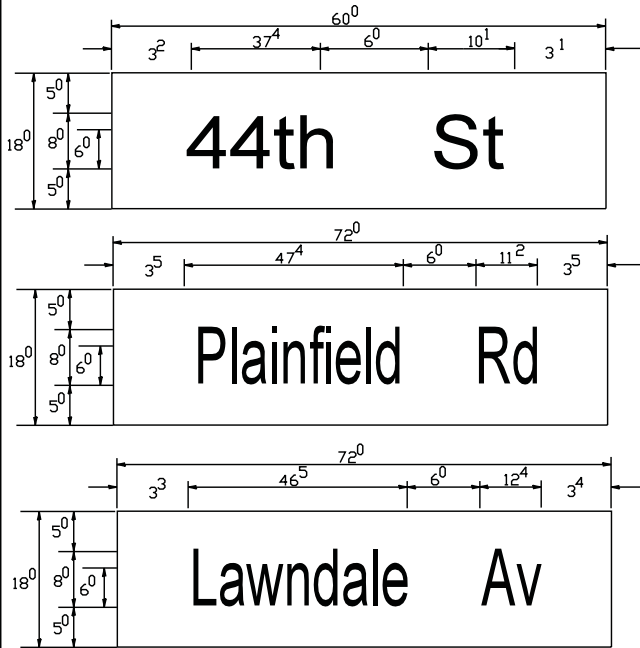
QUANTITY	UNIT	ITEM
1696	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
1	EACH	HANDHOLE
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4723	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
2	EACH	DRILL EXISTING HANDHOLE
4	EACH	REMOVE EXISTING HANDHOLE
5	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2
4723	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F

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

FILE NAME = N:\Projects\3\12055\DesignCAD\Sheet Files\60V34rwl\IL171-US34INT.schem.dgn	USER NAME = \$USER\$	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED INTERCONNECT SCHEMATIC IL RTE 171 (FROM 44TH ST. TO US RTE 34) AND US RTE 34 (FROM IL RTE 171 TO LAWDALE AVE)			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = \$SCALE\$	CHECKED - KM	REVISED -					372	2012-0471	COOK	63	51
	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -					CONTRACT NO. 60V34				
	SCALE: NONE					SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			



PANEL SIGN DESIGN TYPE 1

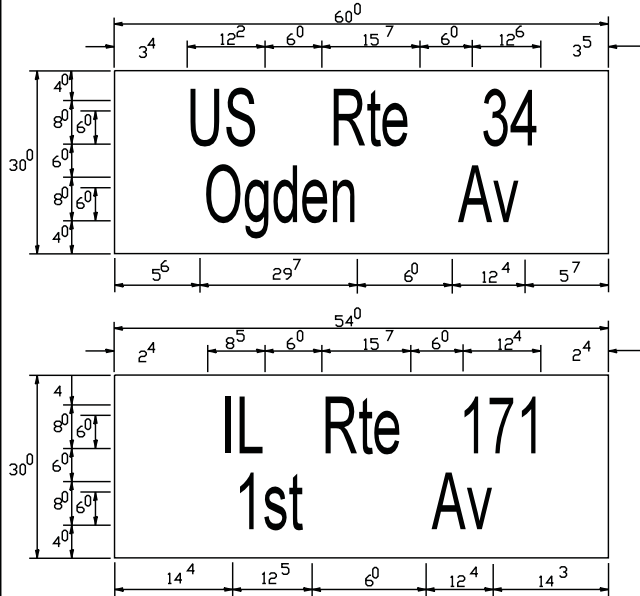


\_\_\_ Sq. M. each  
7.5 Sq. Ft. each  
2 Required  
Design Series D

\_\_\_ Sq. M. each  
9 Sq. Ft. each  
4 Required  
Design Series D

\_\_\_ Sq. M. each  
9 Sq. Ft. each  
2 Required  
Design Series D

PANEL SIGN DESIGN TYPE 2



\_\_\_ Sq. M. each  
12.5 Sq. Ft. each  
4 Required  
Design Series D

\_\_\_ Sq. M. each  
11.25 Sq. Ft. each  
6 Required  
Design Series D

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

\* J.O. HERBERT CO.  
MIDLOTHIAN, VA.

\* WESTERN REMAC INC.  
WOODRIDGE, IL.

PARTS LISTING:  
SIGN CHANNEL  
SIGN SCREWS

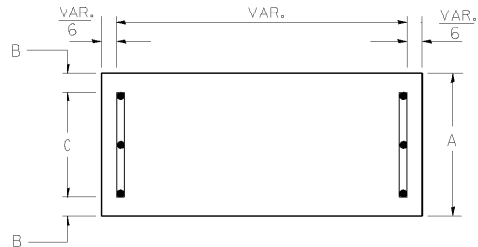
PART \*HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER

BRACKETS

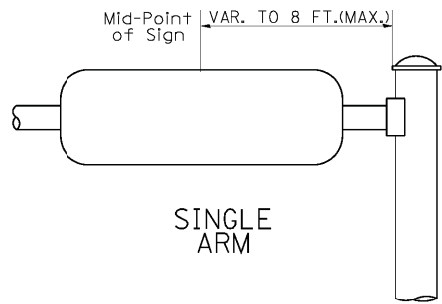
PART \*HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

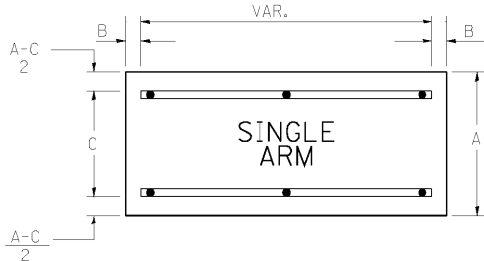
SUPPORTING CHANNELS



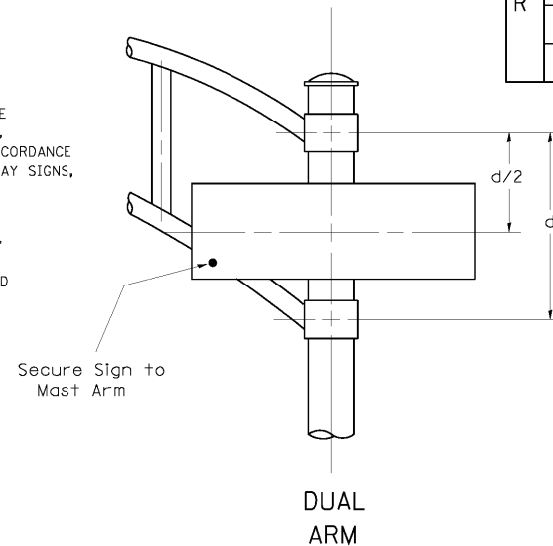
A	B	C
18"	2"	14"



SUPPORTING CHANNELS



A	B	C
18"	2"	12"
30"	2"	22"



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5.

Upper Case To Lower Case

Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	g o q	m n p r u														
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
B	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>
C E G	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
D O Q R	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
F	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>
H I M N	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>2</sup>	2 <sup>4</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
J U	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>
K L	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
P	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
S	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
T	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
V	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
Y	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>7</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>
Z	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>

Lower Case To Lower Case

Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	g o q	m n p r u														
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
ad h g i j	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
l m n q u																
b f k o p s	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
c e	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
r	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>3</sup>	0 <sup>3</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>
t z	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
v y	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>
w	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
x	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>

Number To Number

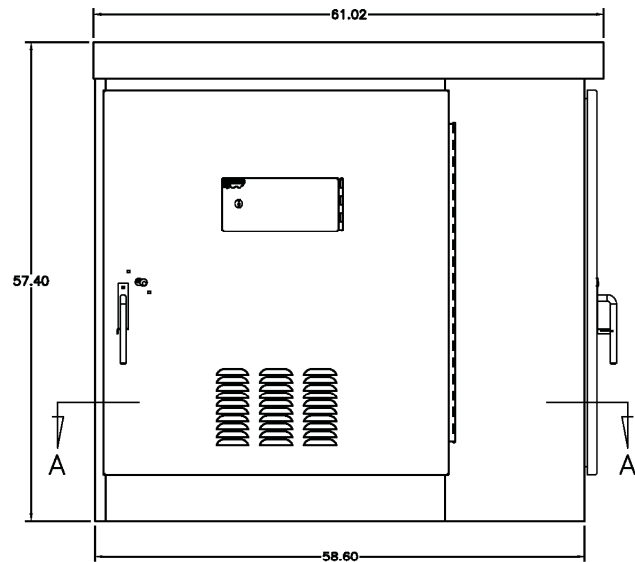
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER															
	0		1		2		3		4		5		6		7	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>
1	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>
2 3 4	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>
5	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>
6	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>
7	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>
8	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>

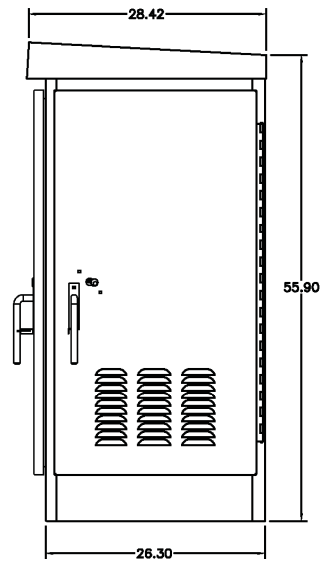
EXAMPLE, 2<sup>3</sup> DENOTES 3"

UPPER AND LOWER CASE LETTER WIDTHS

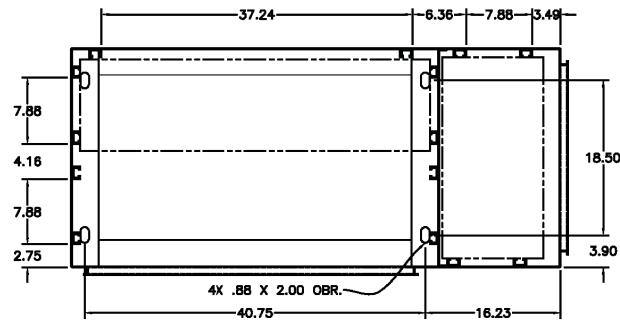
L E T T E R S	6 INCH UPPER CASE LETTERS		8 INCH UPPER CASE LETTERS		L E T T E R S	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES			SERIES	
	C	D	C	D		C	D
A	3 <sup>6</sup>	5 <sup>0</sup>	5 <sup>0</sup>	6 <sup>5</sup>	a	3 <sup>5</sup>	4 <sup>2</sup>
B	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	b	3 <sup>5</sup>	4 <sup>2</sup>
C	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	c	3 <sup>5</sup>	4 <sup>1</sup>
D	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	d	3 <sup>5</sup>	4 <sup>2</sup>
E	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	e	3 <sup>5</sup>	4 <sup>2</sup>
F	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	f	2 <sup>3</sup>	2 <sup>6</sup>
G	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	g	3 <sup>5</sup>	4 <sup>2</sup>
H	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	h	3 <sup>5</sup>	4 <sup>2</sup>
I	0 <sup>7</sup>	0 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	i	1 <sup>1</sup>	1 <sup>1</sup>
J	3 <sup>0</sup>	3 <sup>6</sup>	4 <sup>0</sup>	5 <sup>0</sup>	j	2 <sup>0</sup>	2 <sup>2</sup>
K	3 <sup>2</sup>	4 <sup>1</sup>	4 <sup>3</sup>	5 <sup>4</sup>	k	3 <sup>5</sup>	4 <sup>2</sup>
L	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	l	1 <sup>1</sup>	1 <sup>1</sup>
M	3 <sup>7</sup>	4 <sup>5</sup>	5 <sup>1</sup>	6 <sup>1</sup>	m	6 <sup>0</sup>	7 <sup>0</sup>
N	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	n	3 <sup>5</sup>	4 <sup>2</sup>
O	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>	o	3 <sup>6</sup>	4 <sup>3</sup>
P	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	p	3 <sup>5</sup>	4 <sup>2</sup>
Q	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>	q	3 <sup>5</sup>	4 <sup>2</sup>
R	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	r	2 <sup>6</sup>	3 <sup>2</sup>
S	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	s	3 <sup>6</sup>	4 <sup>2</sup>
T	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	t	2 <sup>7</sup>	3 <sup>2</sup>
U	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	u	3 <sup>5</sup>	4 <sup>2</sup>
V	3 <sup>5</sup>	4 <sup>4</sup>	4 <sup>7</sup>	6 <sup>0</sup>	v	4 <sup>2</sup>	4 <sup>7</sup>
W	4 <sup>4</sup>	5 <sup>2</sup>	6 <sup>0</sup>	7 <sup>0</sup>	w	5 <sup>5</sup>	6 <sup>4</sup>
X	3 <sup>4</sup>	4 <sup>0</sup>	4 <sup>5</sup>	5 <sup>3</sup>	x	4 <sup>4</sup>	5 <sup>1</sup>
Y	3 <sup>6</sup>	5 <sup>0</sup>	5 <sup>0</sup>	6 <sup>6</sup>	y	4 <sup>6</sup>	5 <sup>3</sup>
Z	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	z	3 <sup>6</sup>	4 <sup>3</sup>



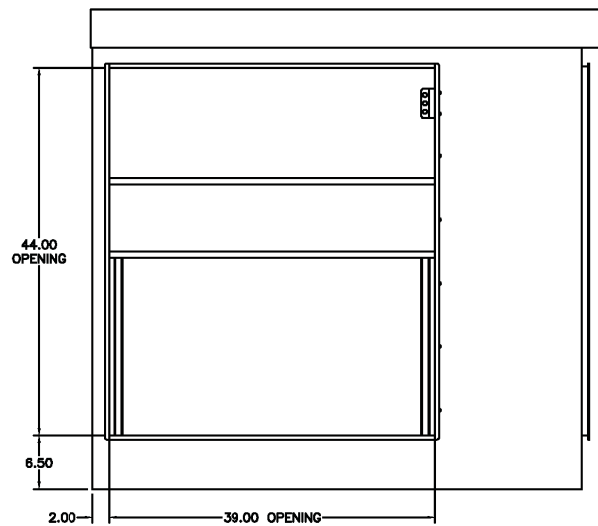
FRONT VIEW



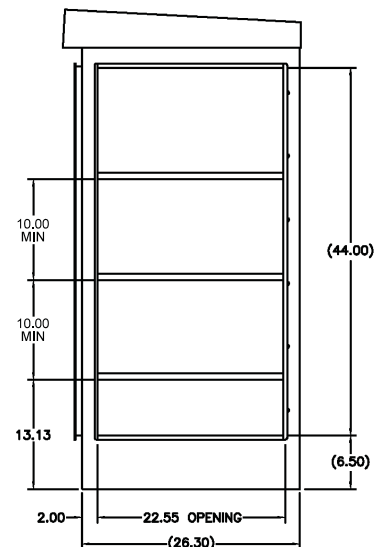
SIDE VIEW



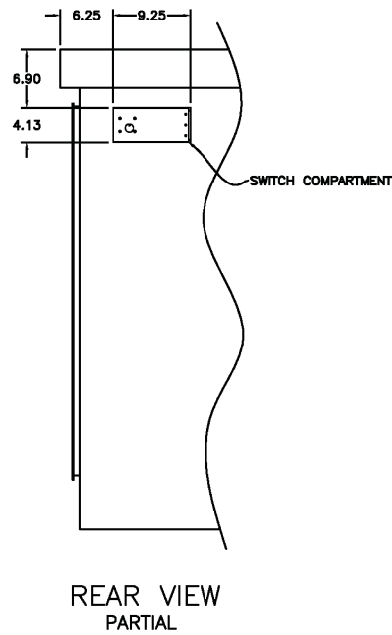
SECTION A-A  
DOORS REMOVED FOR CLARITY



FRONT VIEW  
LESS DOOR



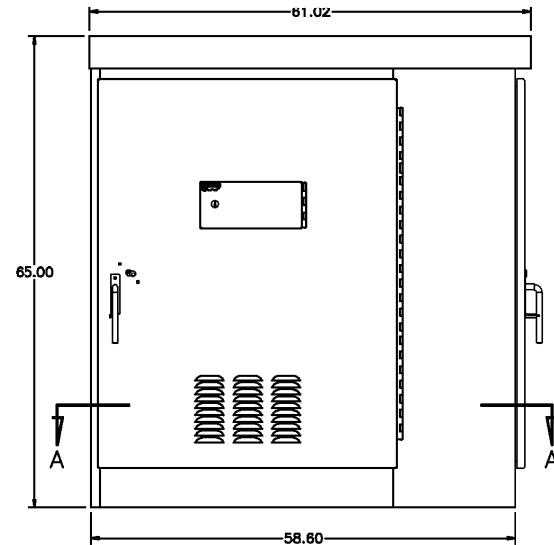
SIDE VIEW  
LESS DOOR



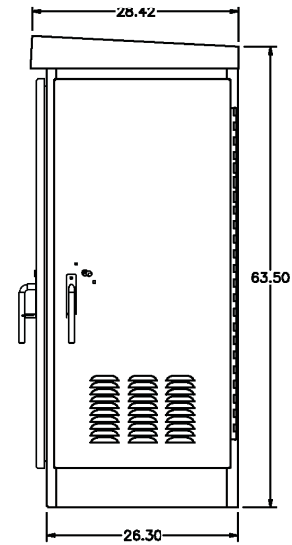
REAR VIEW  
PARTIAL

SUPER P TRAFFIC SIGNAL CABINET, TYPE IV, SPECIAL

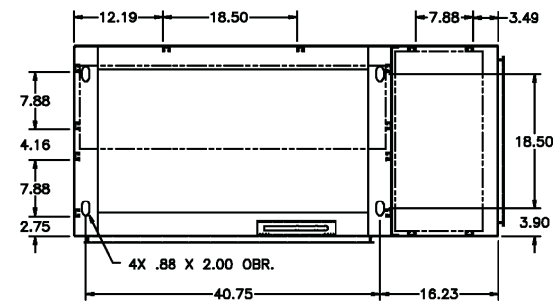
58.6" W x 57.4" H x 26.3" D  
(DIMENSIONS SHOWN IN INCHES)



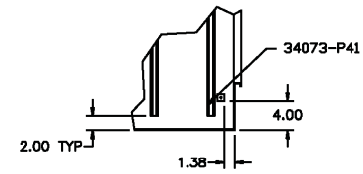
FRONT VIEW



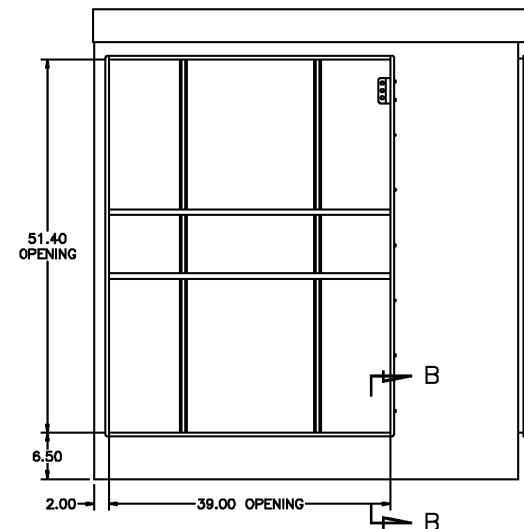
SIDE VIEW



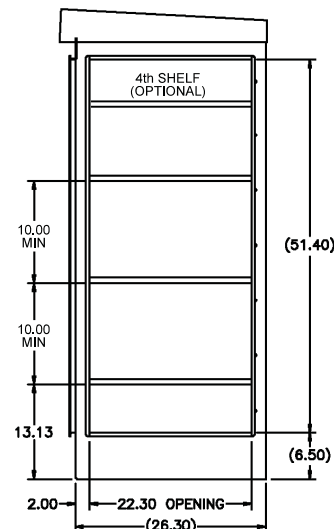
DOORS REMOVED FOR CLARITY  
SECTION A-A



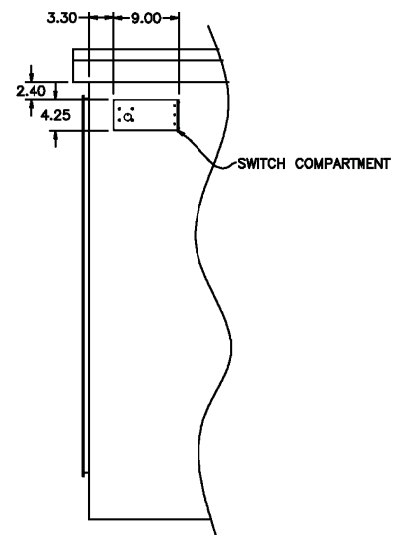
SECTION B-B



FRONT VIEW  
LESS DOOR



SIDE VIEW  
LESS DOOR



REAR VIEW  
PARTIAL

SUPER R TRAFFIC SIGNAL CABINET, TYPE V, SPECIAL

58.6" W x 65.0" H x 26.3" D  
(DIMENSIONS SHOWN IN INCHES)

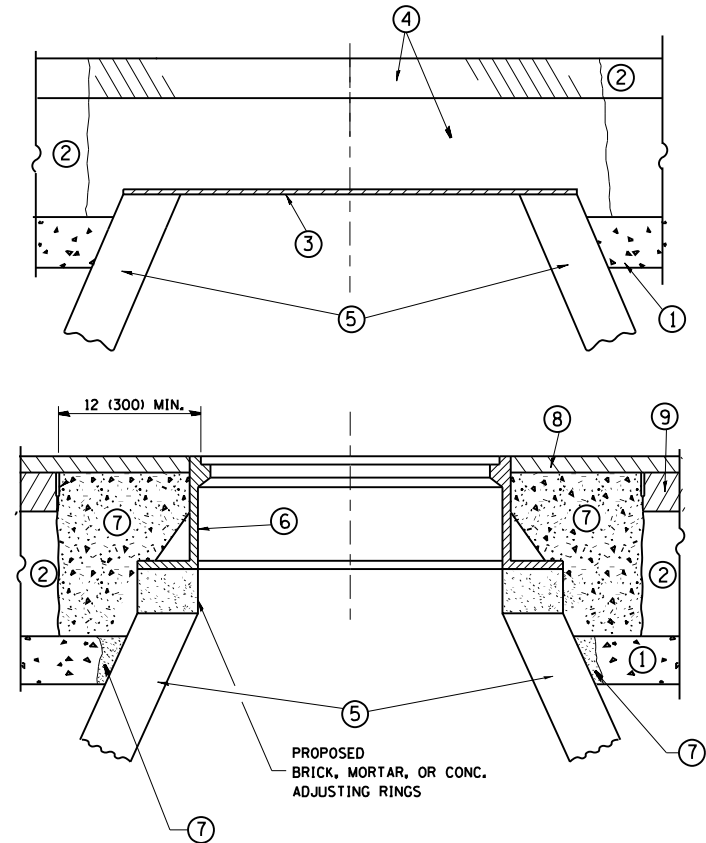
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N:\Projects\3\12055\DesignCAD\Sheet Files\60V34 SUPER P & R DETAIL.dgn		DRAWN - LV	REVISED -
	PLOT SCALE = *SCALE*	CHECKED - KM	REVISED -
	PLOT DATE = 10/11/2013	DATE - 9/25/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**SUPER P AND SUPER R  
TRAFFIC SIGNAL CABINET DETAIL**

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-047I	COOK	63	53
CONTRACT NO. 60V34				
ILLINOIS FED. AID PROJECT				



**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1# CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1# CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

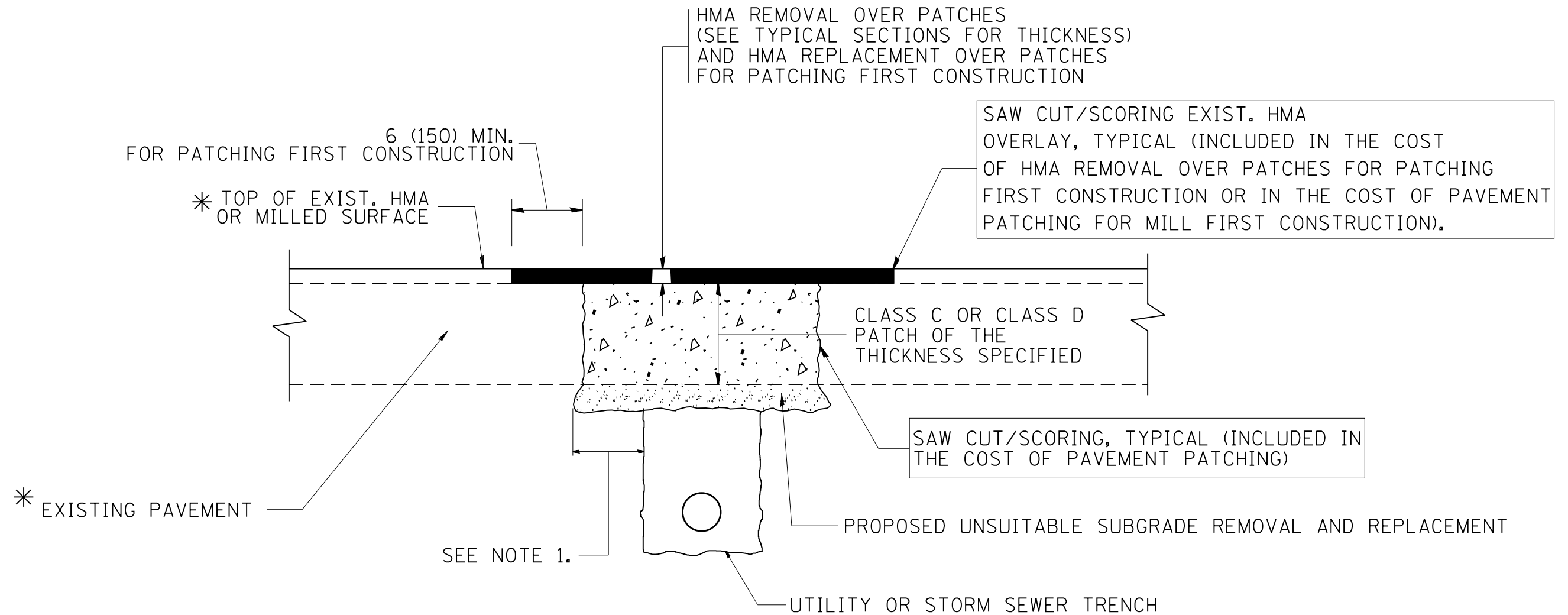
THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = c:\pwwork\pwwork\plascencia\d0316539\DrawStd.dgn	USER NAME = plascencia	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. BORO 01-01-07						372	2012-0471	COOK	63	54
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - R. BORO 03-09-11						BD600-03 (BD-8) CONTRACT NO. 60V34				
	PLOT DATE = 10/18/2013	DATE - 10-25-94	REVISED - R. BORO 12-06-11						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

#### NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

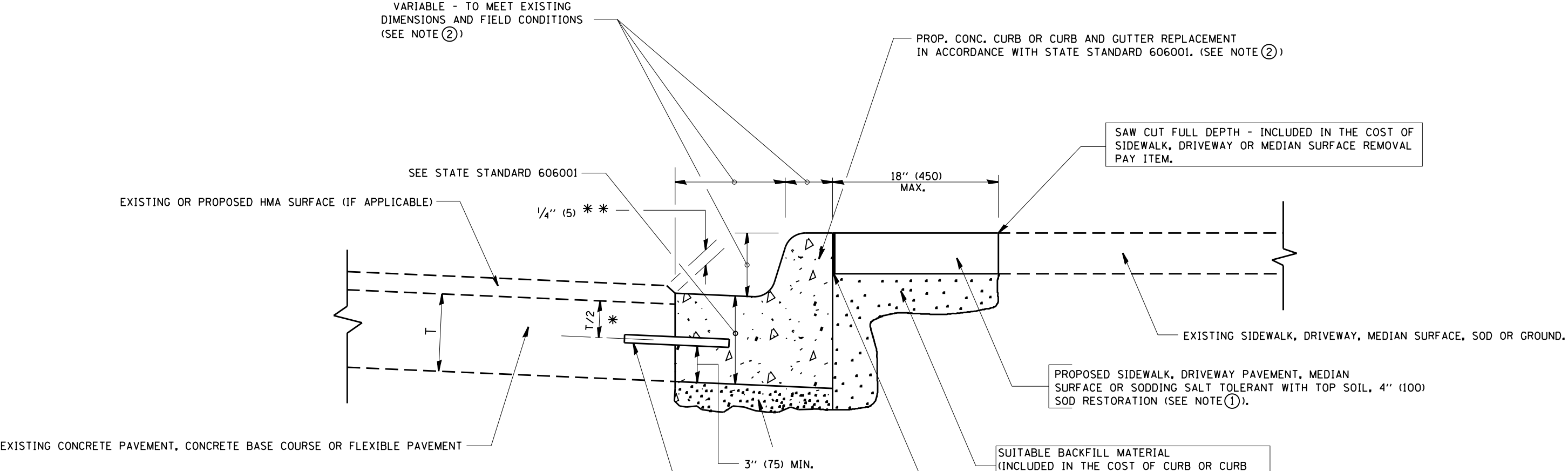
#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = plascencia	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et\pwork\pwork\plascencia\0316539\0316539.dgn		DRAWN -	REVISED - R. BORO 01-01-07					372	2012-0471	COOK	63	55
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - R. BORO 09-04-07					BD400-04 (BD-22) CONTRACT NO. 60V34				
	PLOT DATE = 10/18/2013	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \* \* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.
- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
- SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

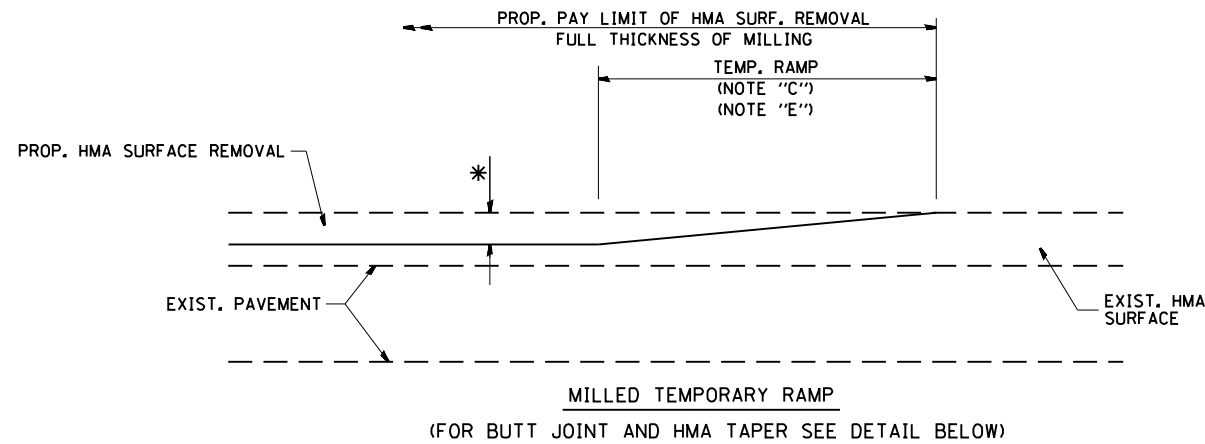
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

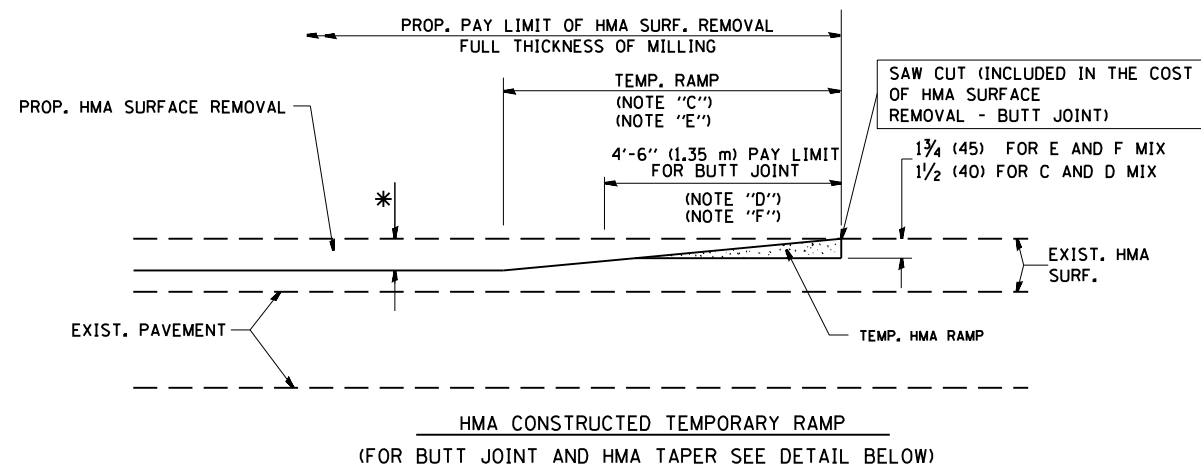
# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = plascencia	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et\pwork\pwork\plascencia\0318539\0318539.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97					372	2012-0471	COOK	63	56
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED - M. GOMEZ 01-22-01					BD600-06 (BD-24)		CONTRACT NO. 60V34		
	PLOT DATE = 10/18/2013	DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

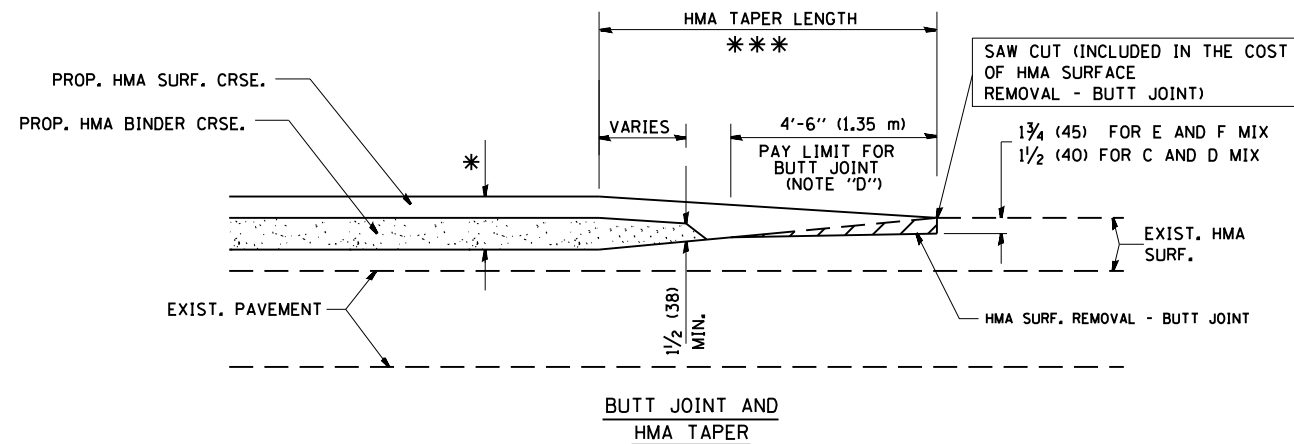


### OPTION 1

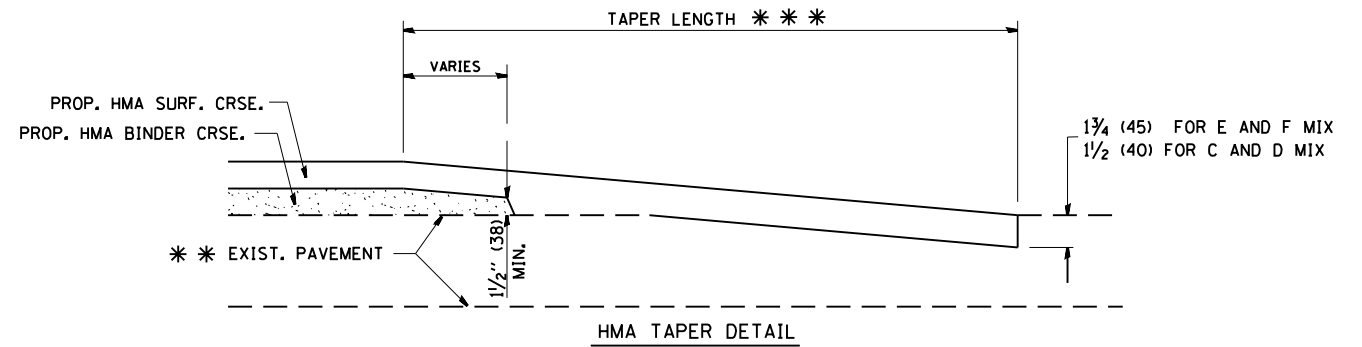
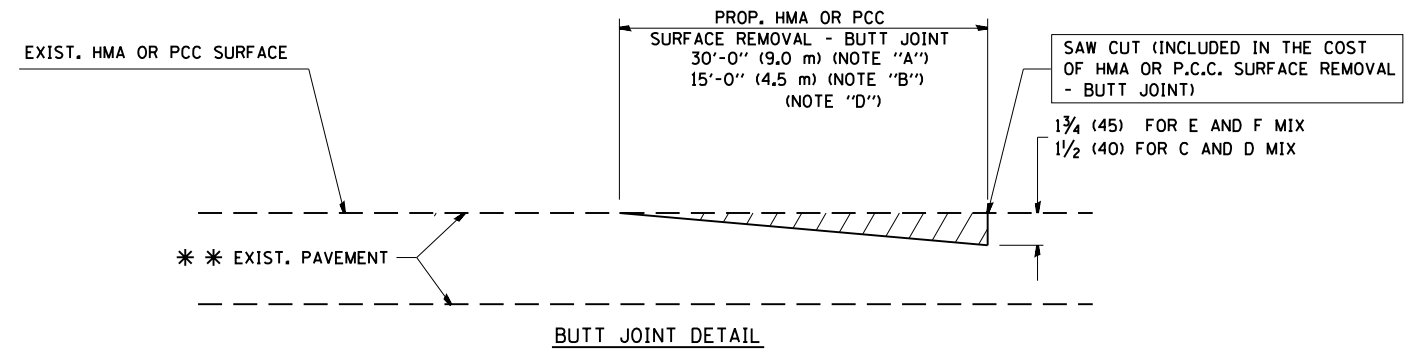


### OPTION 2

### TYPICAL TEMPORARY RAMP



### TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



### TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

### NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \*\*\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

### BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

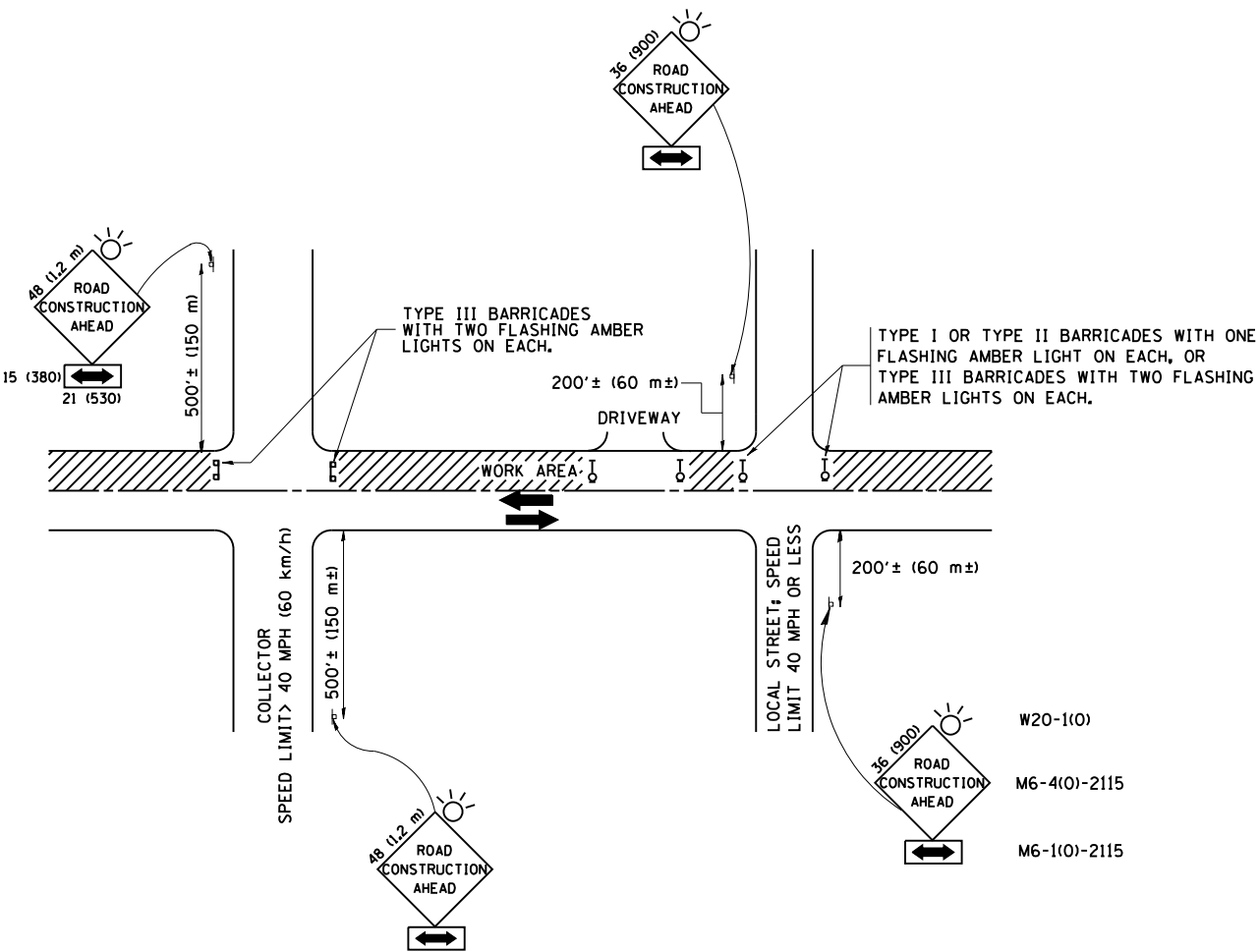
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = plascencia	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
et\pwork\pwork\plascencia\0318539\0318539.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 10/18/2013	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	57
BD400-05 BD32		CONTRACT NO. 60V34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

  - SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

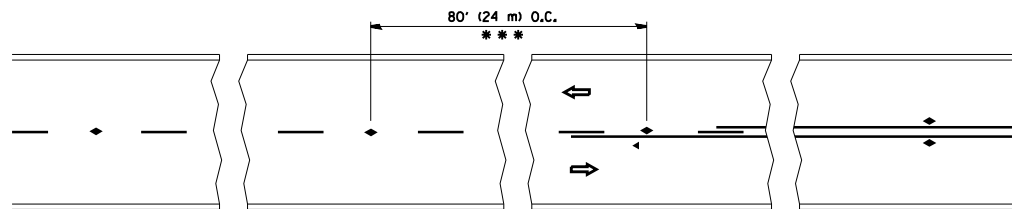
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME =	USER NAME = plascencia	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pwork\pwork\plascencia\0316539\0316539.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 10/18/2013	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

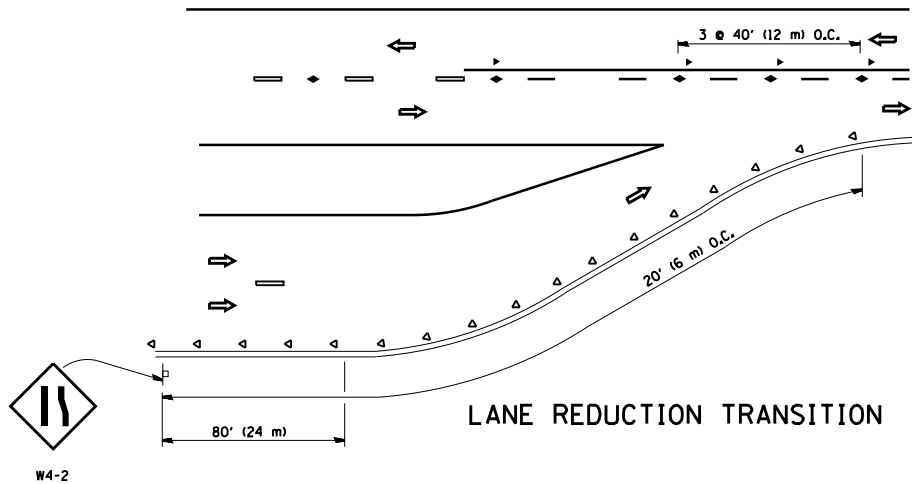
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	58
TC-10		CONTRACT NO. 60V34		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

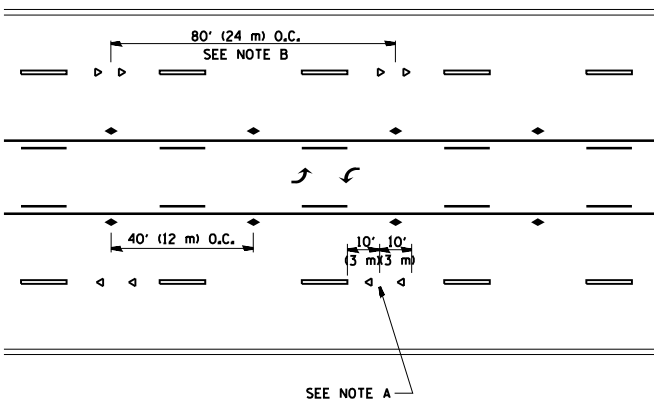


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

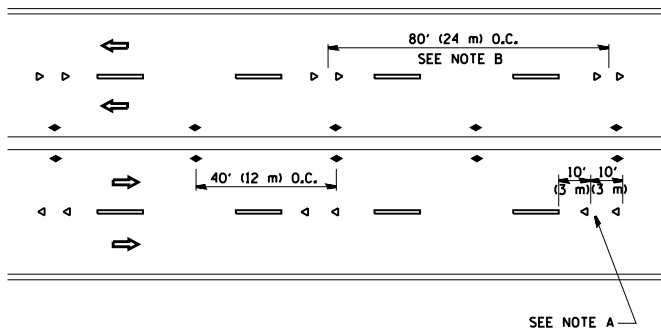
TWO-LANE/TWO-WAY



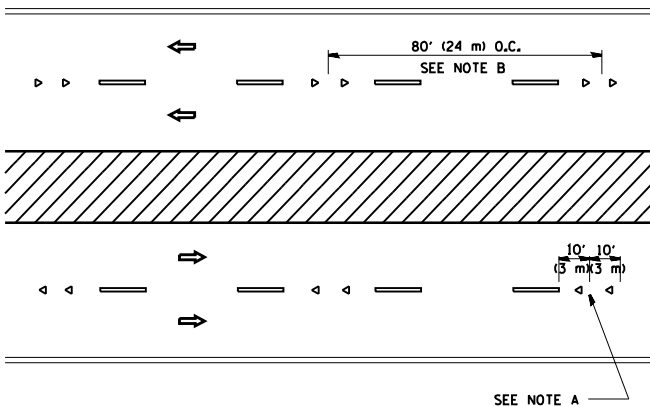
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

LANE MARKER NOTES

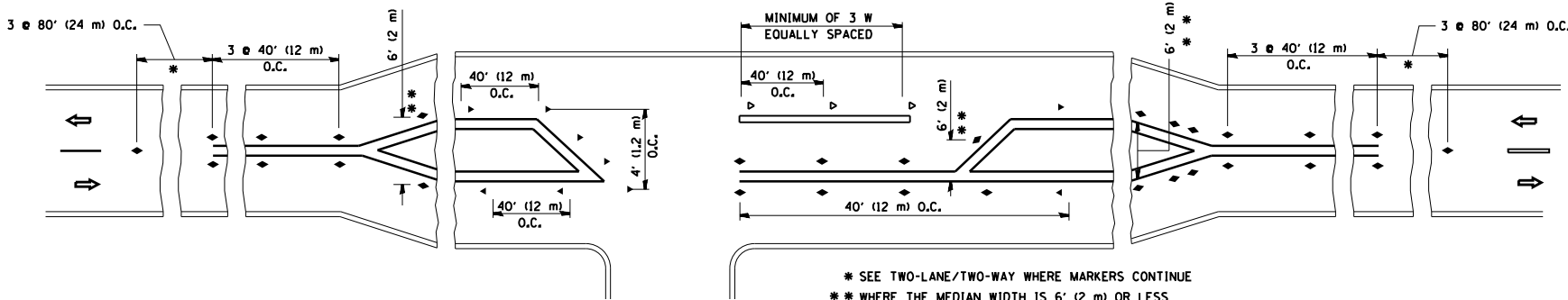
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

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

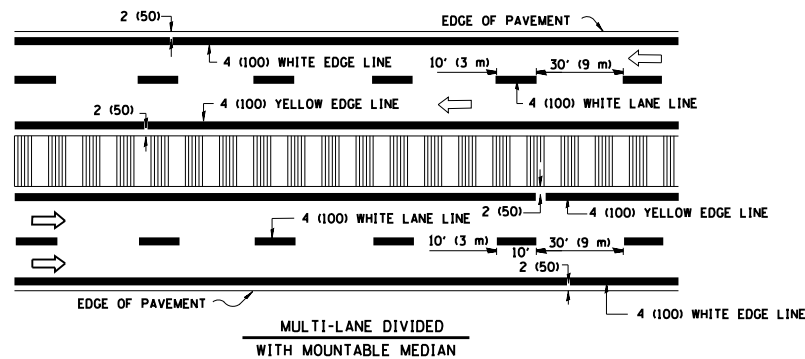
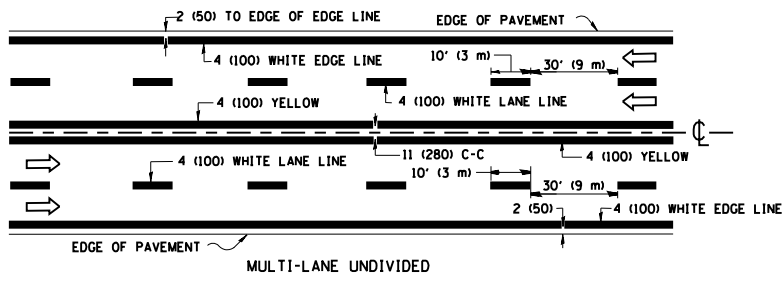
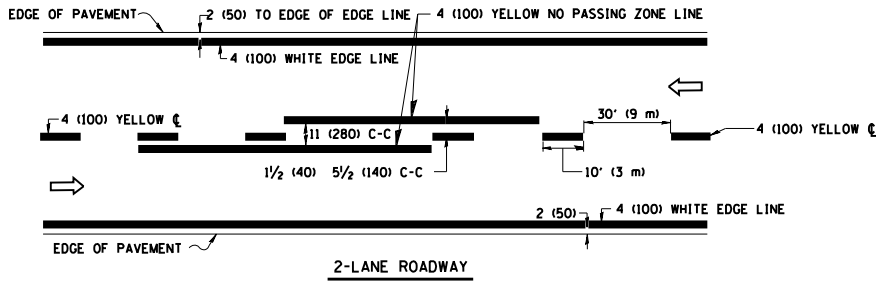
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et\pwork\pwork\plascencia\0316539\0316539.dgn		DRAWN -	REVISED - T. RAMMACH 03-12-99
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - T. RAMMACH 01-06-00
	PLOT DATE = 10/18/2013	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA. TO STA.

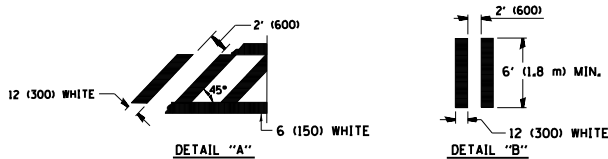
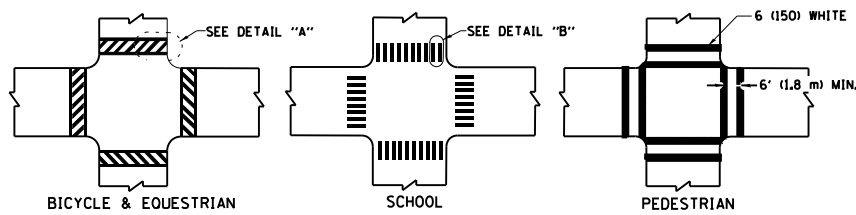
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	59
TC-11		CONTRACT NO. 60V34		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



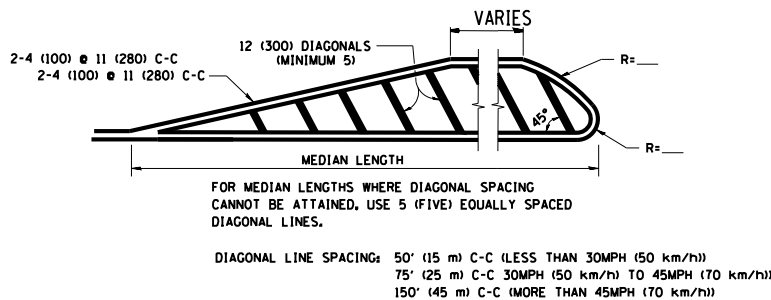
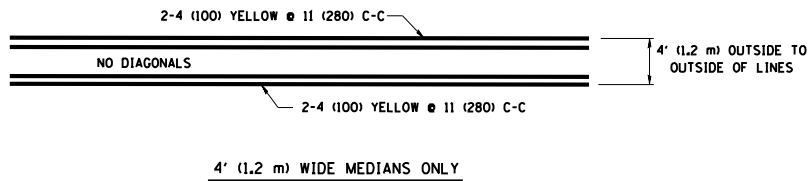


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

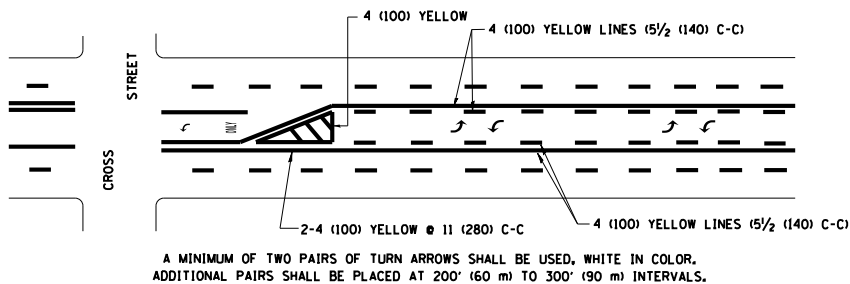
### TYPICAL LANE AND EDGE LINE MARKING



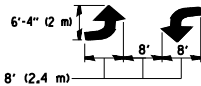
### TYPICAL CROSSWALK MARKING



### MEDIANS OVER 4' (1.2 m) WIDE

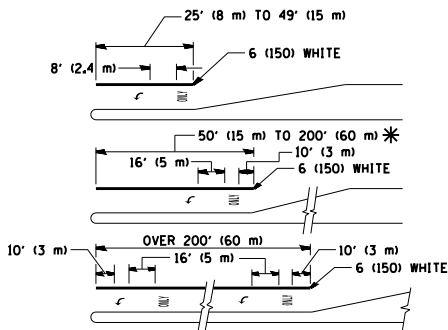


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



### MEDIAN WITH TWO-WAY LEFT TURN LANE

### TYPICAL PAINTED MEDIAN MARKING

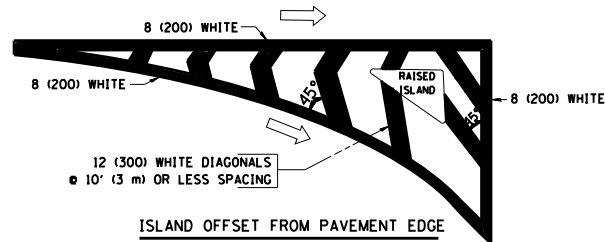


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

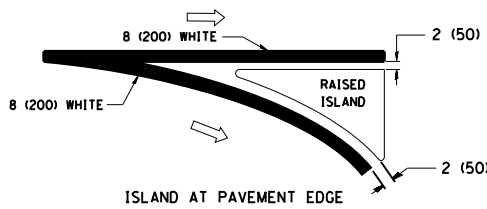
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

### TYPICAL LEFT (OR RIGHT) TURN LANE

### TYPICAL TURN LANE MARKING



### ISLAND OFFSET FROM PAVEMENT EDGE



### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) MIN. LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = plascencia	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
et\pwork\pwork\plascencia\0318539\01std.dgn		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/18/2013	DATE - 03-19-90	REVISED -

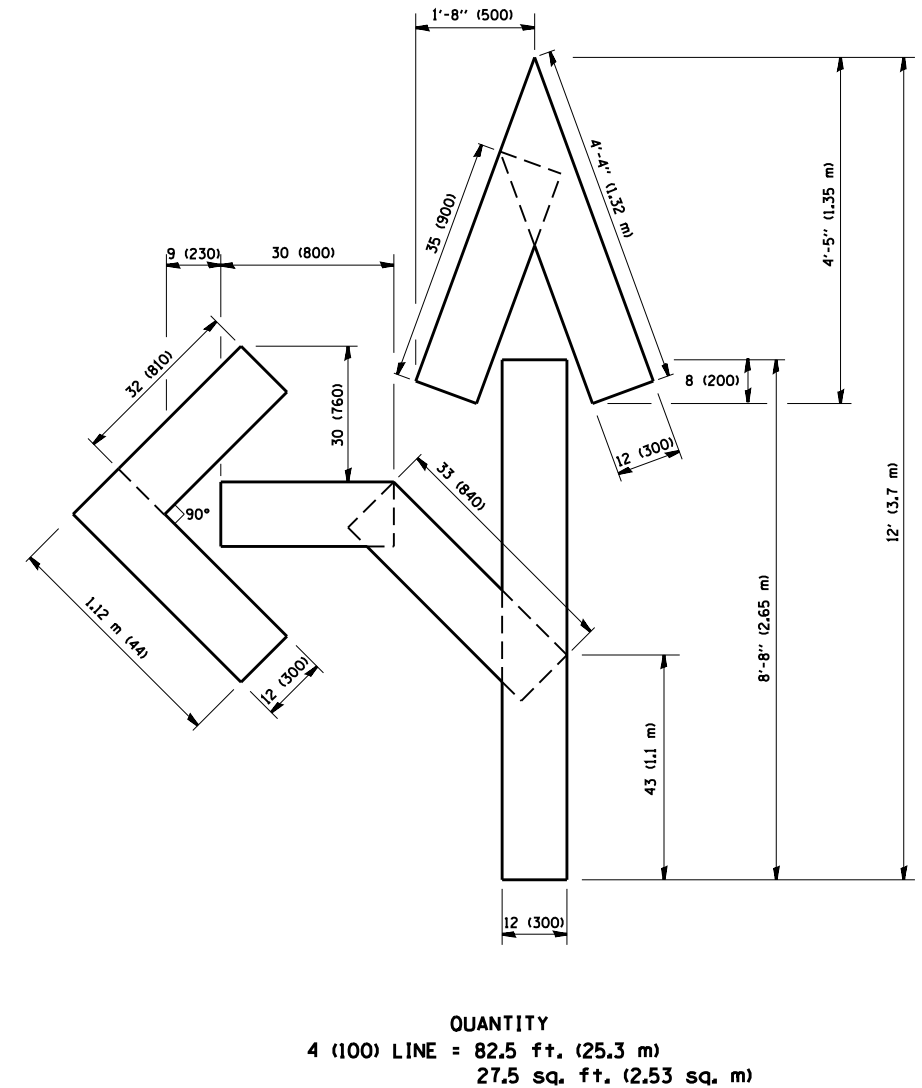
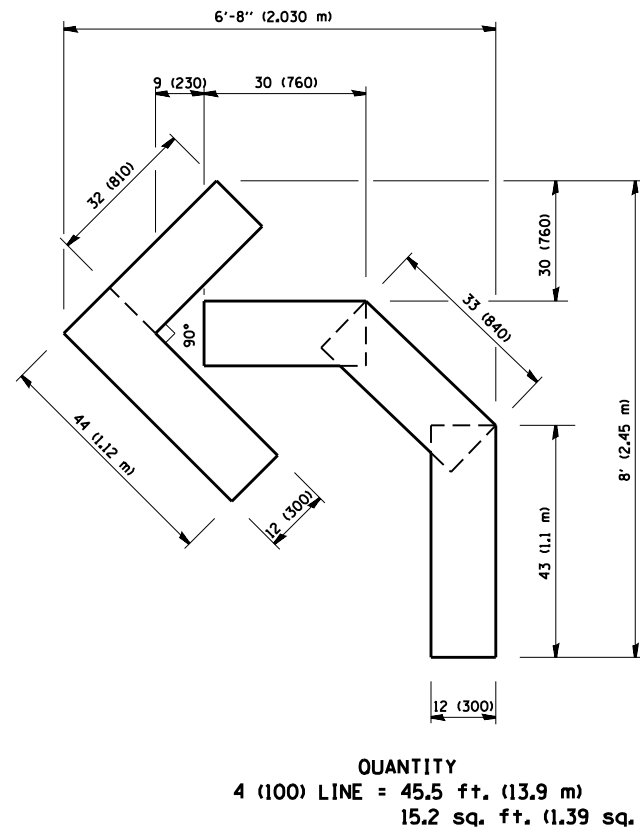
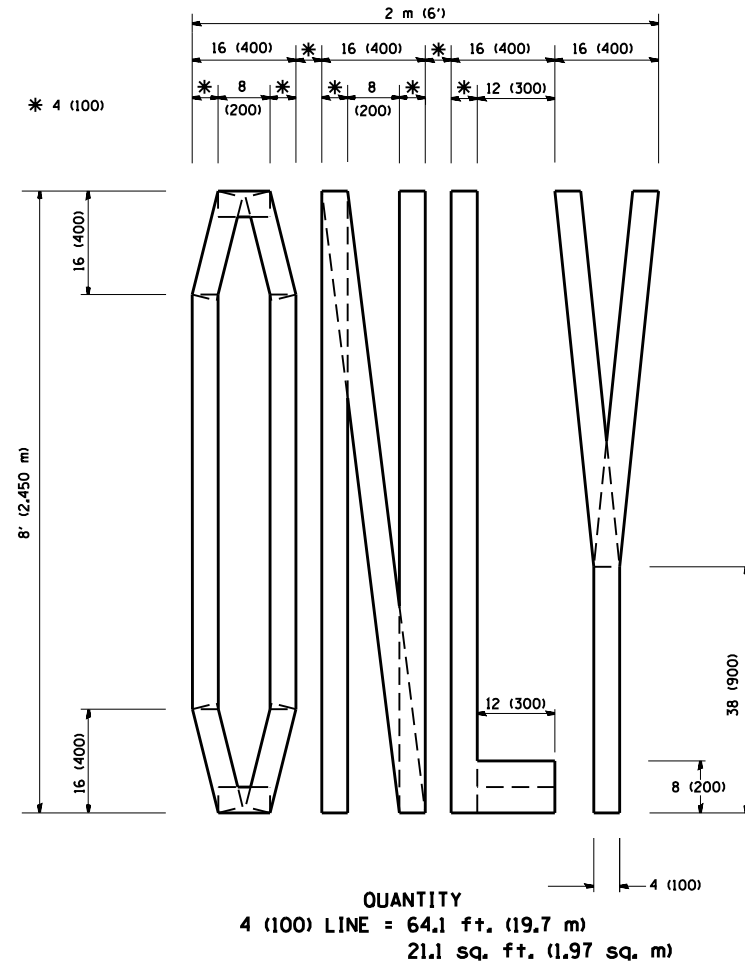
### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

### DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	2012-0471	COOK	63	60
TC-13		CONTRACT NO. 60V34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





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

FILE NAME =	USER NAME = plascencia	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\p\id\plascencia\id0316539\0	stStd.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97					372	2012-0471	COOK	63	62
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 03-02-98					TC-16		CONTRACT NO. 60V34		
	PLOT DATE = 10/18/2013	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

