FOR INDEX OF SHEETS SEE SHEET 2

04-27-12 LETTING ITEM 012

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE/KENDALL	43 *43+2=45	1
		CONTRACT #:	60R81	

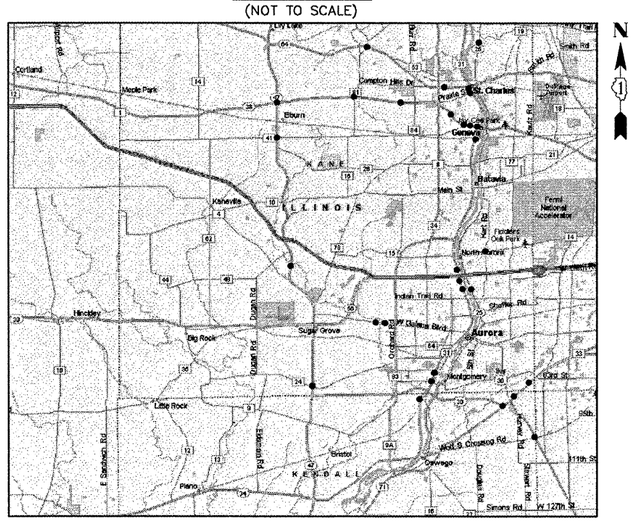
D-91-222-12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS
VARIOUS LOCATIONS IN SOUTH KANE COUNTY / KENDALL COUNTY
SECTION: 2011-221-I

LIGHT EMITTING DIODE (LED) INSTALLATION
KANE / KENDALL
C-91-222-12

LOCATION OF SECTION INDICATED THUS: ▬

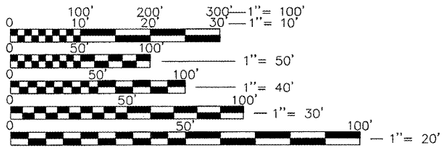
LOCATION MAP
(NOT TO SCALE)



SOUTH KANE COUNTY / KENDALL COUNTY LOCATION MAP
(SEE SHEET NO. 3)

STATE STANDARDS

701006 – 03	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701701 – 08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901 – 02	TRAFFIC CONTROL DEVICES
857001 – 01	PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001 – 01	UNINTERRUPTABLE POWER SUPPLY (UPS)
880006 – 01	TRAFFIC SIGNAL MOUNTING DETAILS



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. TOLL FREE CALL 1-800-892-0123

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS

Call 48 hours before you dig
(Excluding Sat., Sun., & Holidays)
1-800-892-0123

CONTRACT NO: 60R81

KEVIN L. BELGRAVE
062-051750
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

SIGNED: Kevin L. Belgrave
Kevin L. Belgrave
DATE: 2/9/12

EXPIRES: 11/30/2013

GHA GEWALT HAMILTON ASSOCIATES, INC.
850 Forest Edge Drive ▪ Vernon Hills, IL 60061
Consulting Engineers & Surveyors
847-478-9700
FAX: 847-478-9701

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: Feb 10 20 12
Darin M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 23 20 12
John D. Baranzelli, P.E. for acting
ENGINEER OF DESIGN AND ENVIRONMENT

March 23 20 12
William R. Frey for acting
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DISTRICT 1 - TRAFFIC OPERATIONS - SUDUD MAHMOUD (847) 705-4420

INDEX OF SHEETS

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2. INDEX OF SHEETS AND GENERAL NOTES
3. LOCATION MAP
4. SUMMARY OF QUANTITIES
5.-10. DISTRICT ONE TRAFFIC SIGNAL STANDARD DETAIL SHEETS

TRAFFIC SIGNAL PLANS

11. W. GALENA BOULEVARD AT BARNES ROAD
12. W. GALENA BOULEVARD AT HANKES ROAD
13.-15. ILL RTE 25 AT SULLIVAN ROAD
16. ILL RTE 31 (LINCOLNWAY HWY) AT SULLIVAN ROAD
17. U.S. RTE 34 (OGDEN AVENUE) AT RIDGE AVENUE / WATERFORD DRIVE
18. IL RTE 38 (LINCOLNWAY HWY) AT ILL RTE 47 (MAIN STREET)
19. ILL RTE 47 (MAIN STREET) AT KESLINGER ROAD
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27. ILL RTE 31 (S. LAKE STREET) AT KNELL ROAD
28.-29. ILL RTE 31 AT AUCUTT ROAD / WEBSTER STREET
30. ILL RTE 31 AT AIRPORT ROAD
31. ILL RTE 31 AT LOVEDALE LANE
32. ILL RTE 56 (BUTTERFIELD ROAD) AT HART ROAD / MITCHELL ROAD
33. ILL RTE 25 AT COUNTRY CLUB ROAD / BILL BARTH DRIVE
34. ILL RTE 31 (SECOND STREET) AT ILLINOIS STREET
35. ILL RTE 31 (SECOND STREET) AT PRAIRIE STREET
36. ILL RTE 38 AT LA FOX ROAD
37. ILL RTE 38 AT PECK ROAD
38. ILL RTE 64 (W. MAIN STREET) AT 15TH STREET
39. ILL RTE 47 AT WAUBONSEE DRIVE / HEARTLAND DRIVE
40. ILL RTE 31 AT CATERPILLAR DRIVE / FRONTAGE ROAD
41. U.S. RTE 30 AT WOLF'S CROSSING ROAD
42. U.S. RTE 30 / 34 AT U.S. RTE 30 / OGDEN FALLS BOULEVARD
43. U.S. RTE 34 (OGDEN AVENUE) AT FARNSWORTH AV / HAFFENRICHTER RD

GENERAL NOTES

THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JANUARY 1, 2012: MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION; PROJECT SPECIFICATIONS; ALL APPLICABLE REQUIREMENTS OF THE DUPAGE COUNTY DIVISION OF TRANSPORTATION; THE VILLAGE OF GLEN ELLYN; THE CITY OF WHEATON; THE VILLAGE OF CAROL STREAM; THE VILLAGE OF GLENDALE HEIGHTS; THE VILLAGE OF BLOOMINGDALE; ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION; AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.

THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.

WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OF UNSTABLE MATERIALS CREATED AS A RESULT THEREOF.

THE CONTRACTOR SHALL SOLEY BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.

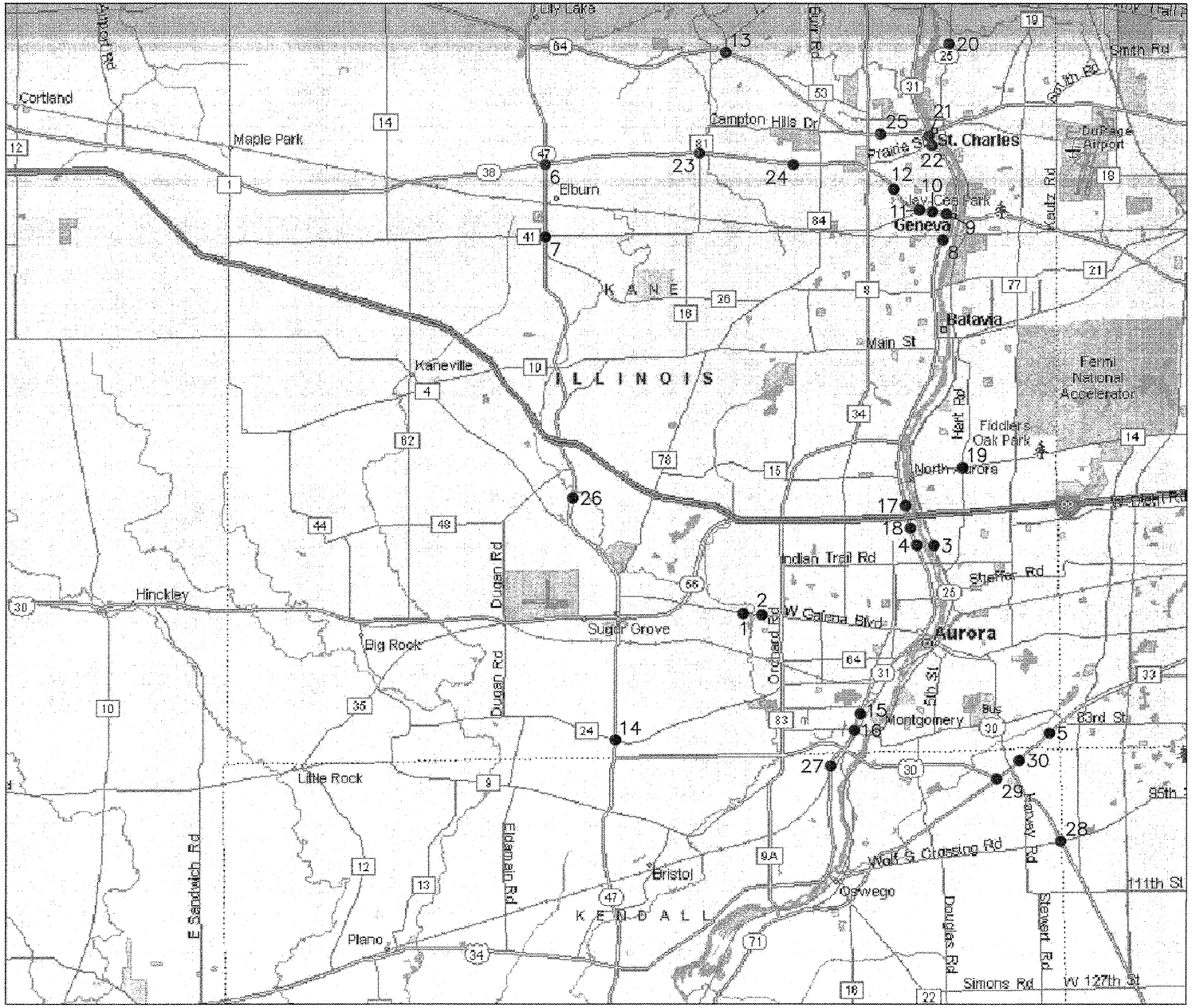
EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT J.U.L.I.E. TO OBTAIN LOCATES OF THE RESPECTIVE UTILITY COMPANIES UNDERGROUND FACILITIES.

CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.I.E. AT 1-800-892-0123 AND MUST ACQUIRE A DIG NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING DONE

RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD IN ACCORDANCE TO STANDARD SPECIFICATIONS ARTICLE 252 WHICH SHALL INCLUDE THE REQUIRED WATERING PER ARTICLE 252.08. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 250 AND 251, RESPECTIVELY.

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**INDEX OF SHEETS AND GENERAL NOTES**			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -					VARIES	2011-221-I	KANE/KENDALL	43	2
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -								CONTRACT #:	60R81
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE N.A.	SHEET NO. OF SHEETS	STA. TO STA.			ILLINOIS	FED. AID PROJECT	



INTERSECTIONS

1. W. GALENA BOULEVARD AT BARNES ROAD
2. W. GALENA BOULEVARD AT HANKES ROAD
3. ILL RTE 25 AT SULLIVAN ROAD
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FILE NAME = 4085.881 - TR1.dwg	USER NAME = ZACH WALSTEN	DESIGNED - JRD	REVISED -
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	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

CHA 64085.881

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE/KENDALL	43	3
		CONTRACT #:	60R81	

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

			LOCATION		6	20, 21, 22, 24, 25	7, 13, 14, 23	1, 2, 3, 4, 5, 30	8, 9	10, 11, 12	15, 16	17	18, 19	26	28	29	27
			FUNDING BREAK-DOWNS		100% STATE	95% STATE, 5% CITY OF ST. CHARLES	95% STATE, 5% KANE COUNTY	95% STATE, 5% CITY OF AURORA	95% STATE, 5% CITY OF GENEVA	96.7% STATE, 3.3% CITY OF GENEVA	95% STATE, 5% VILLAGE OF MONTGOMERY	96.7% STATE, 3.3% VILLAGE OF NORTH AURORA	95% STATE, 5% VILLAGE OF NORTH AURORA	95% STATE, 5% VILLAGE OF SUGAR GROVE	95% STATE, 5% TOWNSHIP OF OSWEGO	97.5% STATE, 2.5% VILLAGE OF OSWEGO	95% STATE, 5% VILLAGE OF OSWEGO
			TYPE														
NO.	CODE NO.	ITEM	UNIT	TOTAL	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
1.	67100100	MOBILIZATION	L SUM	1	1												
2.	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1												
3.	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	30	1	5	4	6	2	3	2	1	2	1	1	1	1
4.	86400100	TRANSCEIVER - FIBER OPTIC	EACH	1													1
5.	87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1			1										
6.	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1			1										
7.	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	20					6	9	3						2
8.	88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	11					2	7	1						1
9.	88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4							1						3
10.	88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1							1						
11.	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	8					2	6							
12.	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	9					2	3	2						2
13.	88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2						1	1						
14.	88030260	SIGNAL HEAD, LED, 3-FACE, 1-4 SECTION, 2-5 SECTION, BRACKET MOUNTED	EACH	1													1
15.	88030330	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION BRACKET MOUNTED	EACH	1							1						
16.	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	42		18	2	6	10	4		2					
17.	88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	12		4	1	1	3	3							
18.	88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	24					8	12							4
19.	88500100	INDUCTIVE LOOP DETECTOR	EACH	8													8
20.	88800100	PEDESTRIAN PUSH-BUTTON	EACH	24		18		4				2					
21.	89100400	ILLUMINATED SIGN, LED	EACH	2					2								
22.	89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	4			4										
23.	89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	29	1	5	4	6	2	3	2	1	2	1	1	1	
24.	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	18	1	5	2	2	2	3	1	1					1
25.	X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1													1
26.	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	29	1	5	3	6	2	3	2	1	2	1	1	1	1
27.	X8803038	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1												1	
28.	X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	8		2	1		1				4				
29.	X8803050	SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1					1								
30.	X8803080	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1												1	
31.	X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	6		4									2		
32.	X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	59	4	16	8	4	5				4		6	12	
33.	X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	33	4	8	8	4	3				4		2		
34.	X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4					1							3	
35.	X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	23	4	6	7	4							2		
36.	X8803910	SIGNAL HEAD, LED, 2 FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1					1								
37.	X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	33	3	4	3	3	13	7							

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GHA #4085.881

FILE NAME = 4085.881-TR1.dwg

USER NAME = ZACH WALLSTEN | PLOT SCALE = 1" = .0833' | PLOT DATE = 2/3/2012

DESIGNED - JRD | DRAWN - ZCW | CHECKED - KLB | DATE - 2/3/2012

REVISED - | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE/KENDALL	43	4
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

				1	2	3	4	5	6	7	8	9	10	11	12	13	14
				KANE COUNTY										KENDALL COUNTY			
		LOCATION		6	20, 21, 22, 24, 25	7, 13, 14, 23	1, 2, 3, 4, 5	8, 9	10, 11, 12	15, 16	17	18, 19	26	28	29	27	30
		FUNDING BREAKDOWNS		100% STATE	95% STATE, 5% CITY OF ST. CHARLES	95% STATE, 5% KANE COUNTY	95% STATE, 5% CITY OF AURORA	95% STATE, 5% CITY OF GENEVA	96.7% STATE, 3.3% CITY OF GENEVA	95% STATE, 5% VILLAGE OF MONTGOMERY	96.7% STATE, 3.3% VILLAGE OF NORTH AURORA	95% STATE, 5% VILLAGE OF NORTH AURORA	95% STATE, 5% VILLAGE OF SUGAR GROVE	95% STATE, 5% TOWNSHIP OF OSWEGO	97.5% STATE, 2.5% VILLAGE OF OSWEGO	95% STATE, 5% CATERPILLAR INC.	95% STATE, 5% CITY OF AURORA
		TYPE		07A0 01	07C0 01	07B0 01	07C0 02	07C0 03	07C0 04	07C0 05	07C0 06	07C0 07	07C0 08	07C0 01	07C0 02	07P0 01	07C0 03
CODE NO.	ITEM	UNIT	TOTAL	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
67100100	MOBILIZATION	L SUM	1	1													
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4													
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1													
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	30	1	5	4	5	2	3	2	1	2	1	1	1	1	1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1													1	
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1			1											
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1			1											
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	20					6	9	3						2	
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	11					2	7	1						1	
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4							1						3	
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1							1							
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	8					2	6								
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	9					2	3	2						2	
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2						1	1							
88030260	SIGNAL HEAD, LED, 3-FACE, 1-4 SECTION, 2-5 SECTION, BRACKET MOUNTED	EACH	1													1	
88030330	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION BRACKET MOUNTED	EACH	1							1							
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	42		18	2	6	10	4		2						
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	12		4	1	1	3	3								
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	30					8	12	6						4	

1. W. GALENA BOULEVARD AT BARNES ROAD
2. W. GALENA BOULEVARD AT HANKES ROAD
3. ILL RTE 25 AT SULLIVAN ROAD
4. ILL RTE 31 (LINCOLNWAY HWY) AT SULLIVAN ROAD
5. U.S. RTE 34 (OGDEN AVENUE) AT RIDGE AVENUE / WATERFORD DRIVE
6. IL RTE 38 (LINCOLNWAY HWY) AT ILL RTE 47 (MAIN STREET)
7. ILL RTE 47 (MAIN STREET) AT KESLINGER ROAD
8. ILL RTE 31 AT THIRD STREET/ GOVERNMENT CENTER ENTRANCE
9. ILL RTE 38 (STATE STREET) AT 3RD STREET
10. ILL RTE 38 (STATE STREET) AT 7TH STREET
11. ILL RTE 38 (STATE STREET) AT ANDERSON BOULEVARD
12. ILL RTE 38 (STATE STREET) AT WILLIAMSBURG AVENUE
13. ILL RTE 64 AT BURLINGTON ROAD / LA FOX ROAD
14. U.S. RTE 30 / ILL RTE 47 AT JERICHO ROAD
15. ILL RTE 31 (S. LAKE STREET) AT KNELL ROAD
16. ILL RTE 31 AT AUCUTT ROAD / WEBSTER STREET
17. ILL RTE 31 AT AIRPORT ROAD
18. ILL RTE 31 AT LOVEDALE LANE
19. ILL RTE 56 (BUTTERFIELD ROAD) AT HART ROAD / MITCHELL ROAD
20. ILL RTE 25 AT COUNTRY CLUB ROAD / BILL BARTH DRIVE
21. ILL RTE 31 (SECOND STREET) AT ILLINOIS STREET
22. ILL RTE 31 (SECOND STREET) AT PRAIRIE STREET
23. ILL RTE 38 AT LA FOX ROAD
24. ILL RTE 38 AT PECK ROAD
25. ILL RTE 64 (W. MAIN STREET) AT 15TH STREET
26. ILL RTE 47 AT WAUBONSEE DRIVE / HEARTLAND DRIVE
27. ILL RTE 31 AT CATERPILLAR DRIVE / FRONTAGE ROAD
28. U.S. RTE 30 AT WOLF'S CROSSING ROAD
29. U.S. RTE 30 / 34 AT U.S. RTE 30 / OGDEN FALLS BOULEVARD
30. U.S. RTE 34 (OGDEN AVENUE) AT FARNSWORTH AV / HAFFENRICHTER RD

Rev.

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			VARIES	2011-221-1	KANE/KENDALL	43	4A
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -					CONTRACT #: 60R81		
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

1 2 3 4 5 6 7 8 9 10 11 12 13 14

SUMMARY OF QUANTITIES

				KANE COUNTY										KENDALL COUNTY			
		LOCATION		6	20, 21, 22, 24, 25	7, 13, 14, 23	1, 2, 3, 4, 5	8, 9	10, 11, 12	15, 16	17	18, 19	26	28	29	27	30
		FUNDING BREAKDOWNS		100% STATE	95% STATE, 5% CITY OF ST. CHARLES	95% STATE, 5% KANE COUNTY	95% STATE, 5% CITY OF AURORA	95% STATE, 5% CITY OF GENEVA	96.7% STATE, 3.3% CITY OF GENEVA	95% STATE, 5% VILLAGE OF MONTGOMERY	96.7% STATE, 3.3% VILLAGE OF NORTH AURORA	95% STATE, 5% VILLAGE OF NORTH AURORA	95% STATE, 5% VILLAGE OF SUGAR GROVE	95% STATE, 5% TOWNSHIP OF OSWEGO	97.5% STATE, 2.5% VILLAGE OF OSWEGO	95% STATE, 5% CATERPILLAR INC.	95% STATE, 5% CITY OF AURORA
		TYPE															
CODE NO.	ITEM	UNIT	TOTAL	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
88500100	INDUCTIVE LOOP DETECTOR	EACH	8													8	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	24		18		4				2						
89100400	ILLUMINATED SIGN, LED	EACH	2					2									
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	4			4											
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	29	1	5	4	5	2	3	2	1	2	1	1	1		1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	18	1	5	2	2	2	3	1	1					1	
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1													1	
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	29	1	5	3	5	2	3	2	1	2	1	1	1	1	1
X8803038	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1												1		
X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	8		2	1		1				4					
X8803050	SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1					1									
X8803080	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1												1		
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	6		4									2			
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	59	4	16	8		5				4		6	12		4
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	33	4	8	8		3				4		2			4
X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4					1							3		
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	23	4	6	7								2			4
X8803910	SIGNAL HEAD, LED, 2 FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1					1									
X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	33	3	4	3	3	13	7								

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GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			VARIES	2011-221-I	KANE/KENDALL	43	15
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -					CONTRACT #:	60R81	
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE N.A. SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

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.

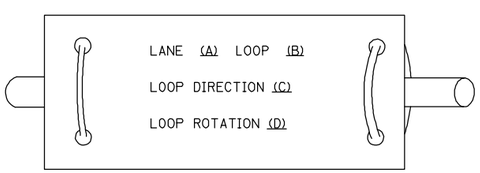
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

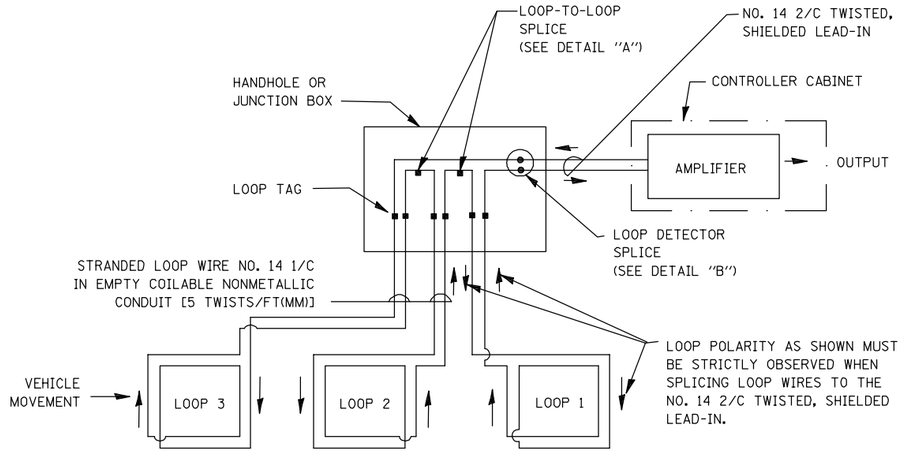


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

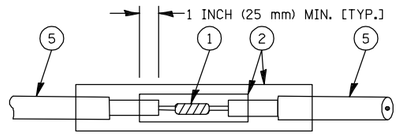
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

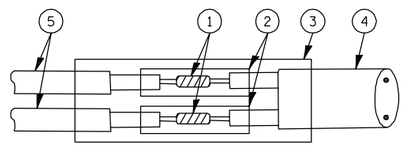


DETECTOR LOOP WIRING SCHEMATIC

- 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.

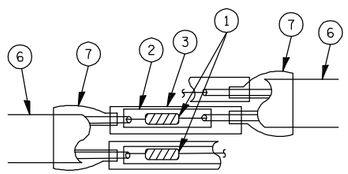


DETAIL "A"
LOOP-TO-LOOP SPLICE



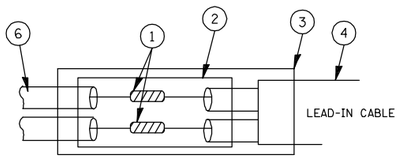
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED 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 LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

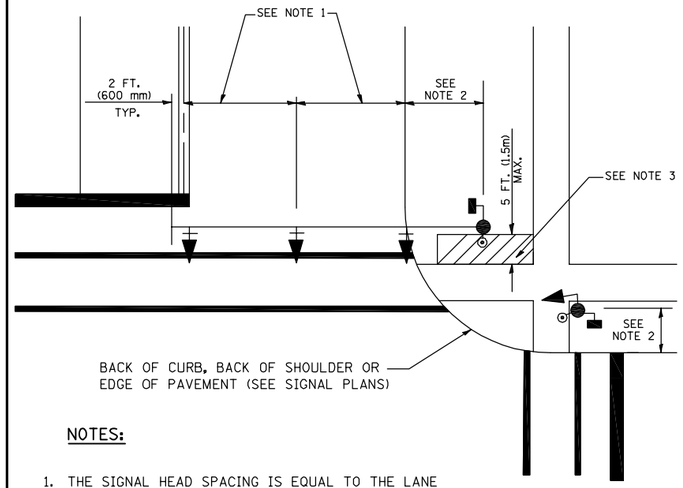
GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - DAD	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS**		
		DRAWN - BCK	REVISED -				
	PLOT SCALE = 1" = .0833'	CHECKED - DAD	REVISED -		SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 10-28-09	REVISED -				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE/KENDALL	43	5
	TS-05	CONTRACT #: 60R81		
	ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

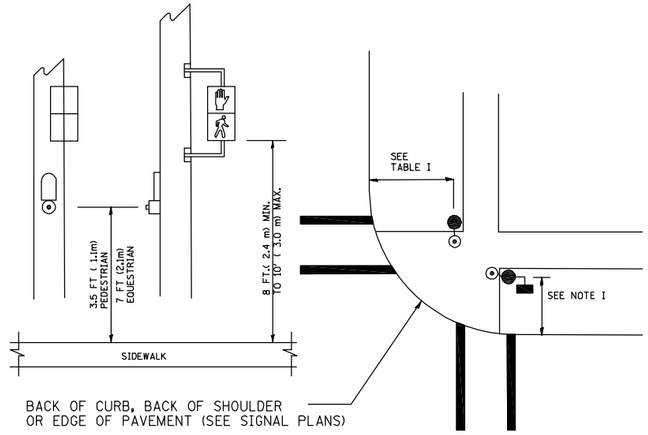
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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 MAST 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."

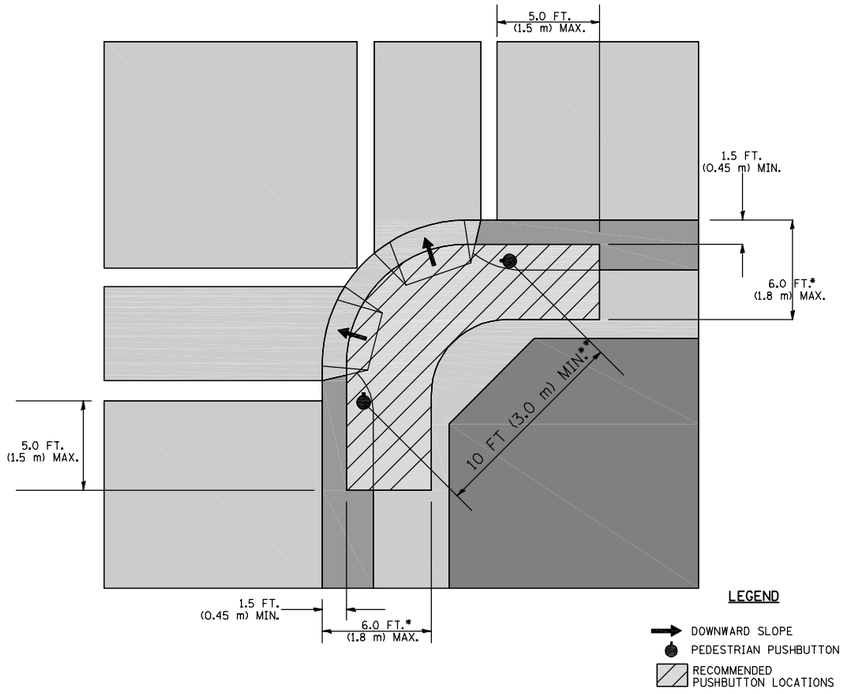
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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."

RECOMMENDED PUSHBUTTON LOCATIONS



* 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) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

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.

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.

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.

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.

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 OFFSET

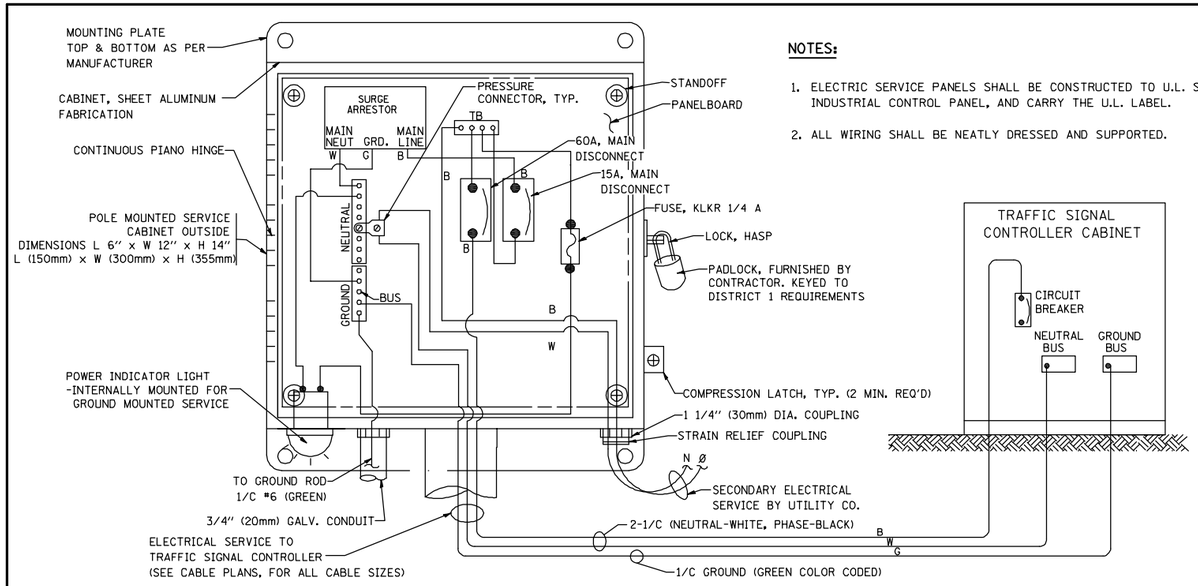
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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.

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BCK	REVISED -					VARIES	2011-221-I	KANE/KENDALL	43	6
	PLOT SCALE = 1" = .0833'	CHECKED - DAD	REVISED -						TS-05		CONTRACT #:	60R81
	PLOT DATE = 2/3/2012	DATE - 10-28-09	REVISED -		SCALE: NONE	SHEET NO. 2 OF 6 SHEETS	STA. TO STA.			ILLINOIS	FED. AID PROJECT	



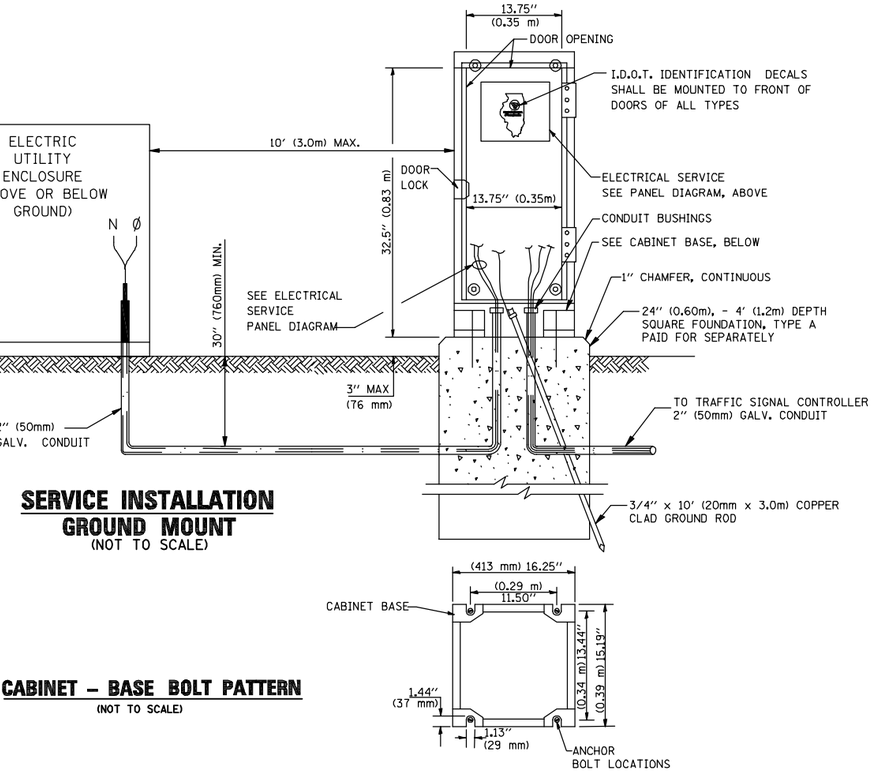
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

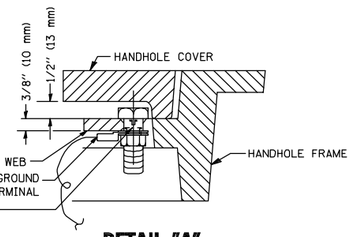


SERVICE INSTALLATION GROUND MOUNT

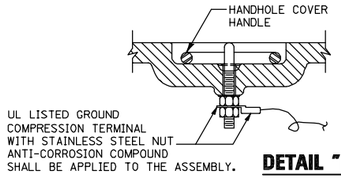
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

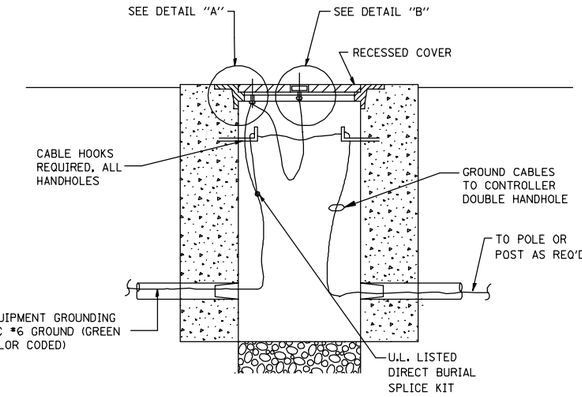
(NOT TO SCALE)



DETAIL "A"

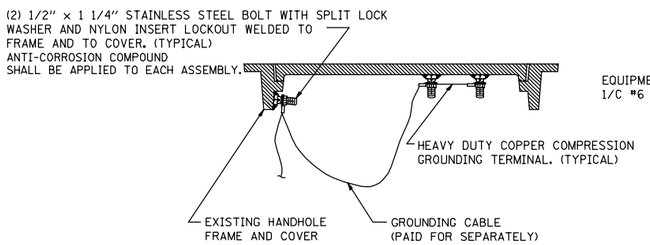


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



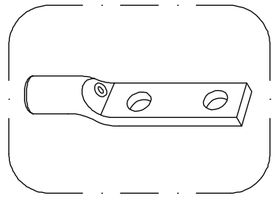
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

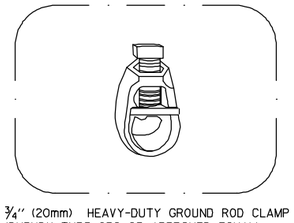
NOTES:

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.



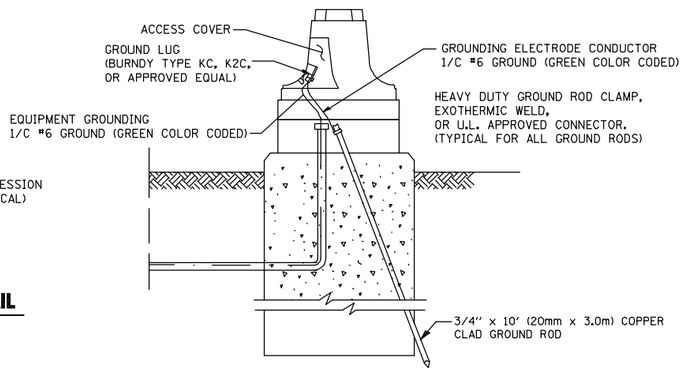
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

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



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

GHA #4085.881

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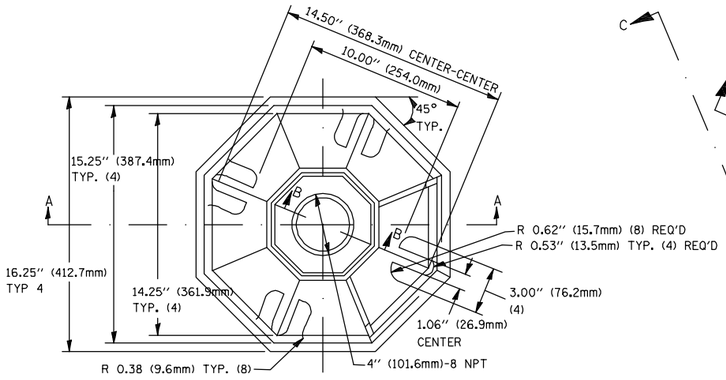
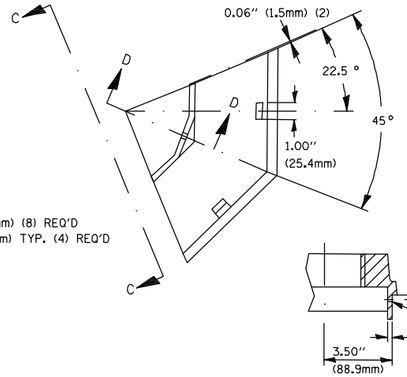
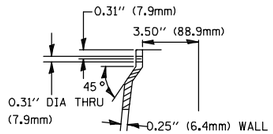
		DRAWN - BCK	REVISED -					VARIES	2011-221-I	KANE/KENDALL	43 / 7
	PLOT SCALE = 1" = .0833'	CHECKED - DAD	REVISED -		SCALE: NONE	SHEET NO. 3 OF 6 SHEETS	STA. TO STA.		TS-05	CONTRACT #: 60R81	
	PLOT DATE = 2/3/2012	DATE - 10-28-09	REVISED -							ILLINOIS FED. AID PROJECT	



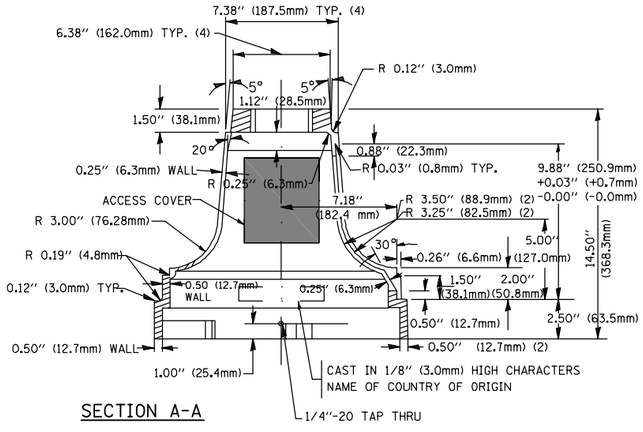
TOP VIEW



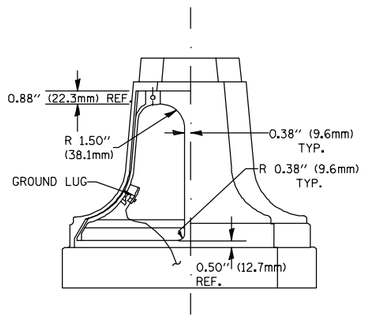
SECTION B-B



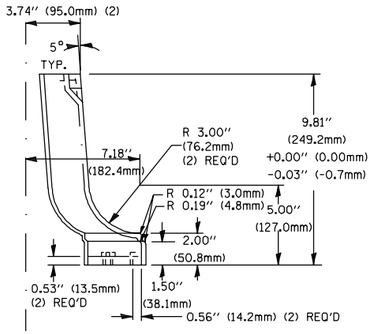
SECTION D-D



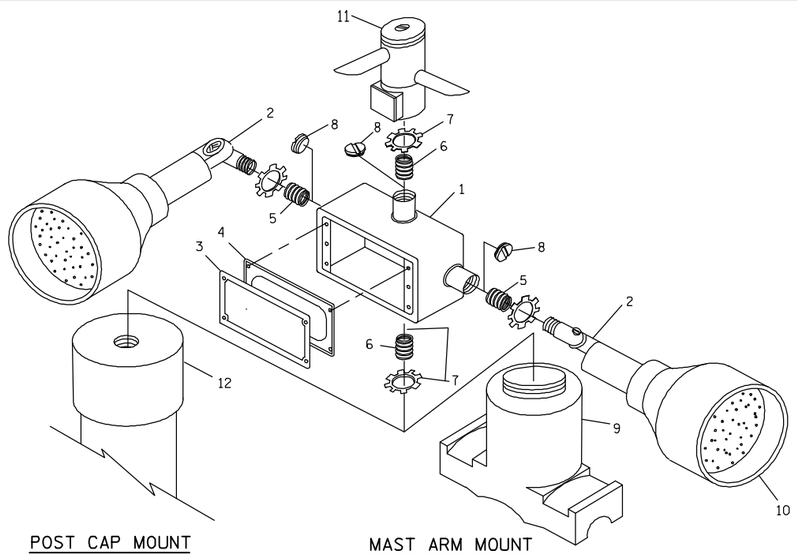
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

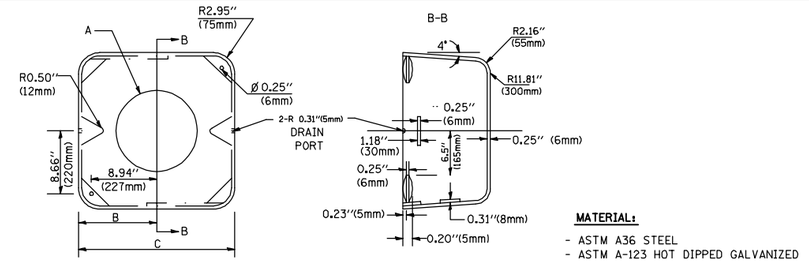
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(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:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. 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
3. 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 ¾"(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.



MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

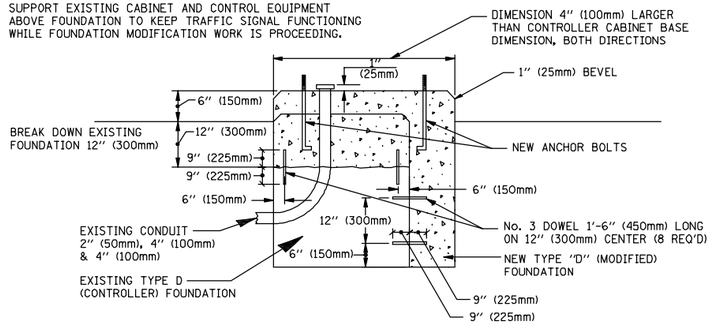
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

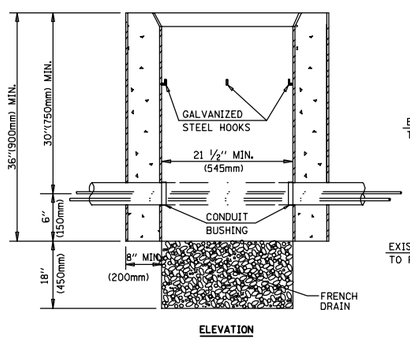
NOTES:

1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

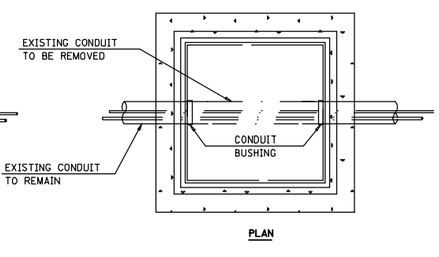
NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



ELEVATION



PLAN

NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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		DRAWN - BCK	REVISED -		
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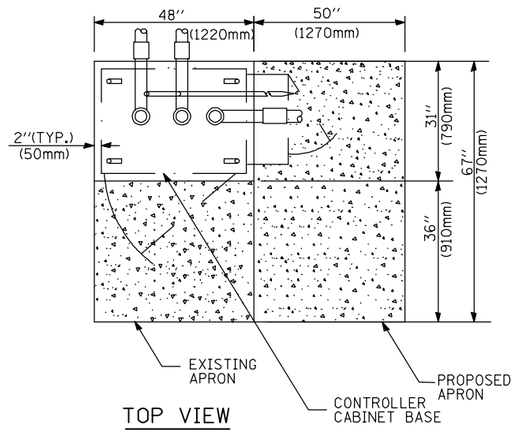
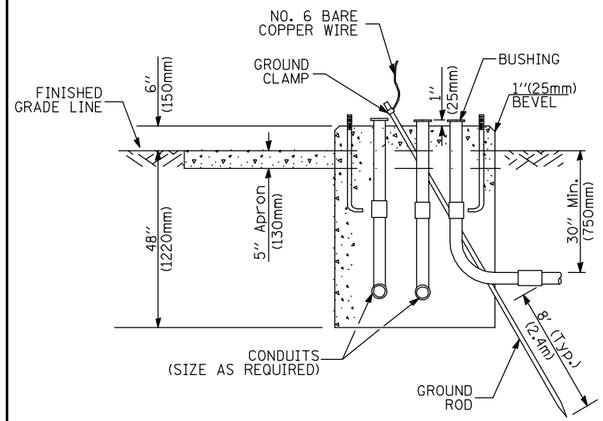
	PLOT DATE = 2/3/2012	DATE - 10-28-09	REVISED -		

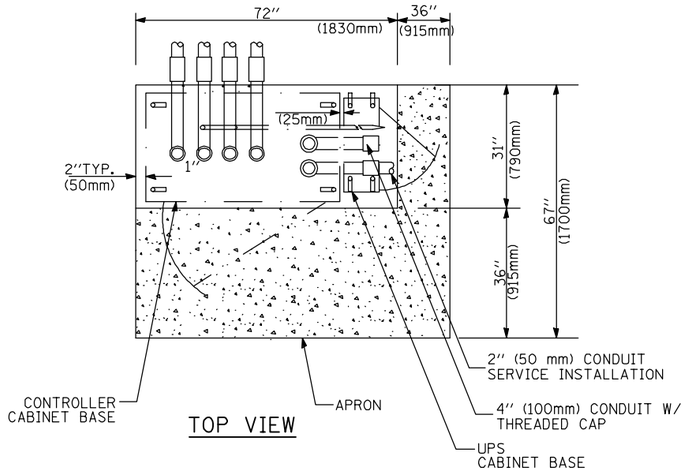
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE/KENDALL	43	8
	TS-05	CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			



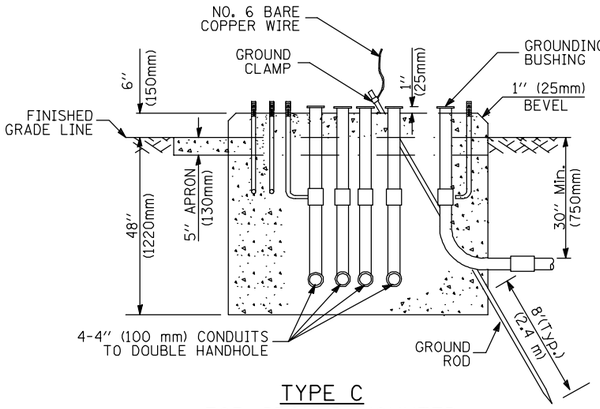
TOP VIEW



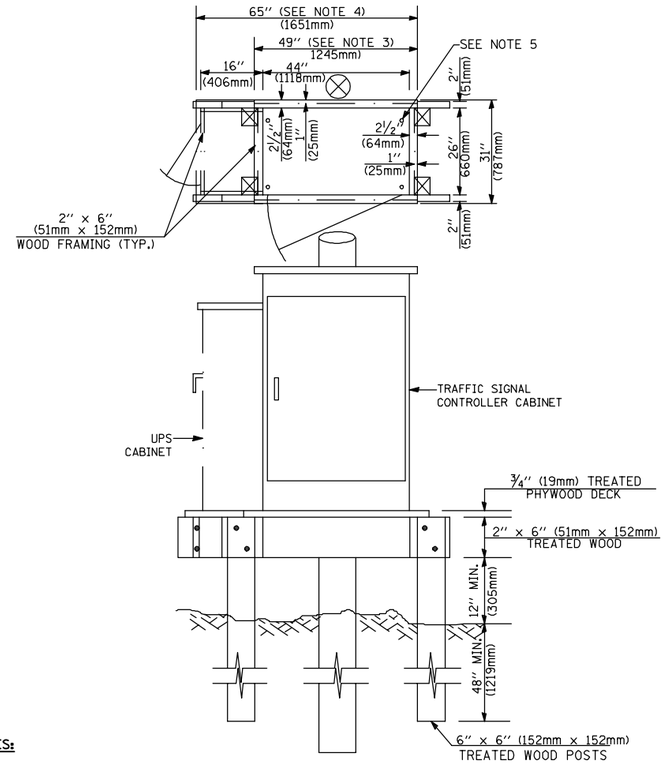
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TOP VIEW



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

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

VERTICAL CABLE LENGTH

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)

DEPTH OF FOUNDATION

Mast 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 (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET			
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTIBLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G	R Y G Y G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		R Y G Y G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		I	I
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

GHA #4085.881

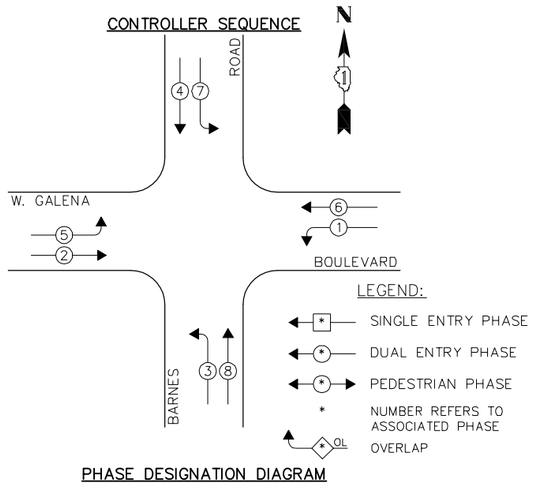
FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - DAD/BCK	REVISED -	
		DRAWN - BCK	REVISED -	
	PLOT SCALE = 1" = .0833'	CHECKED - DAD	REVISED -	
	PLOT DATE = 2/3/2012	DATE - 10-28-09	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

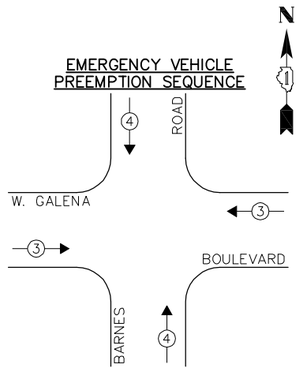
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 6 OF 6 SHEETS | STA. | TO STA.

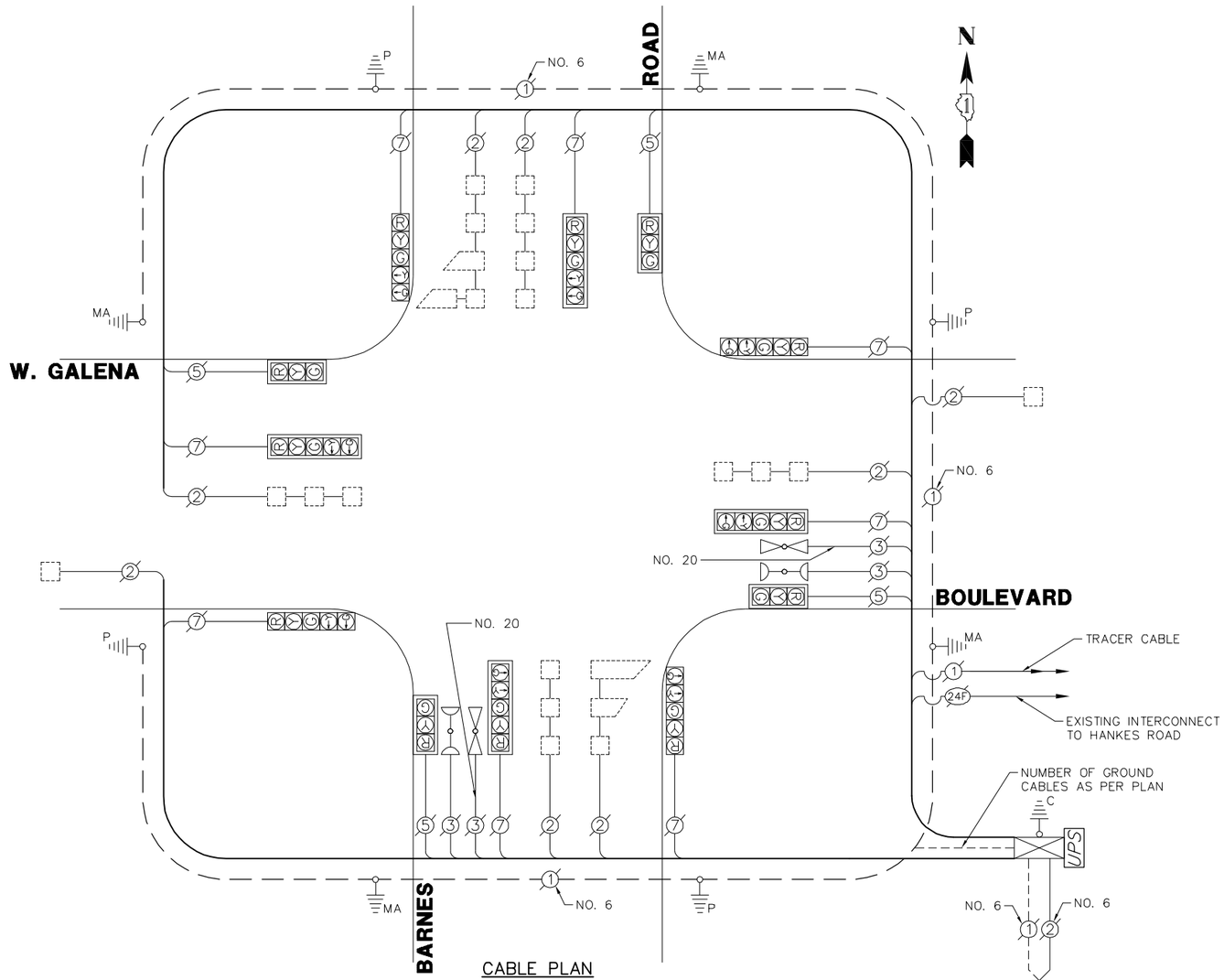
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE/KENDALL	43	10
	TS-05	CONTRACT #: 60R81		
	ILLINOIS FED. AID PROJECT			



PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	107.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	366.2

ENERGY COSTS – BILLED TO: CITY OF AURORA
(ADDRESS) 44 E. DOWNER PLACE
(ADDRESS) AURORA, IL 60507
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

W. GALENA BOULEVARD AT BARNES ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

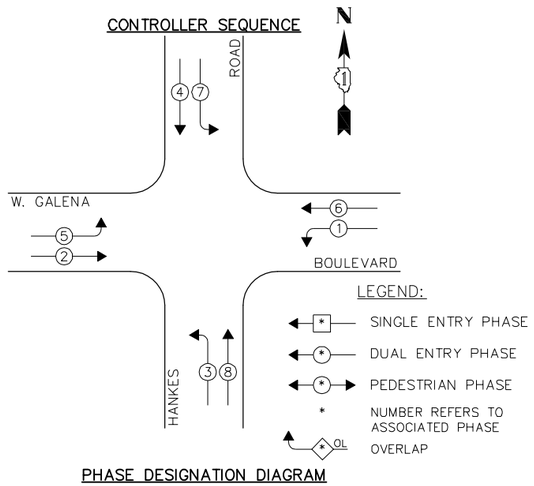
FILE NAME =	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
4085.881-TR1.dwg		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

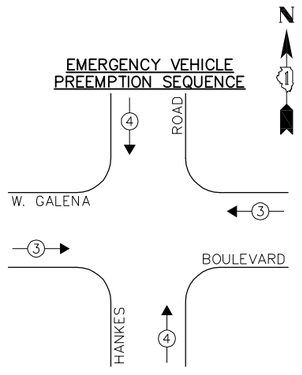
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
W. GALENA BOULEVARD AT BARNES ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

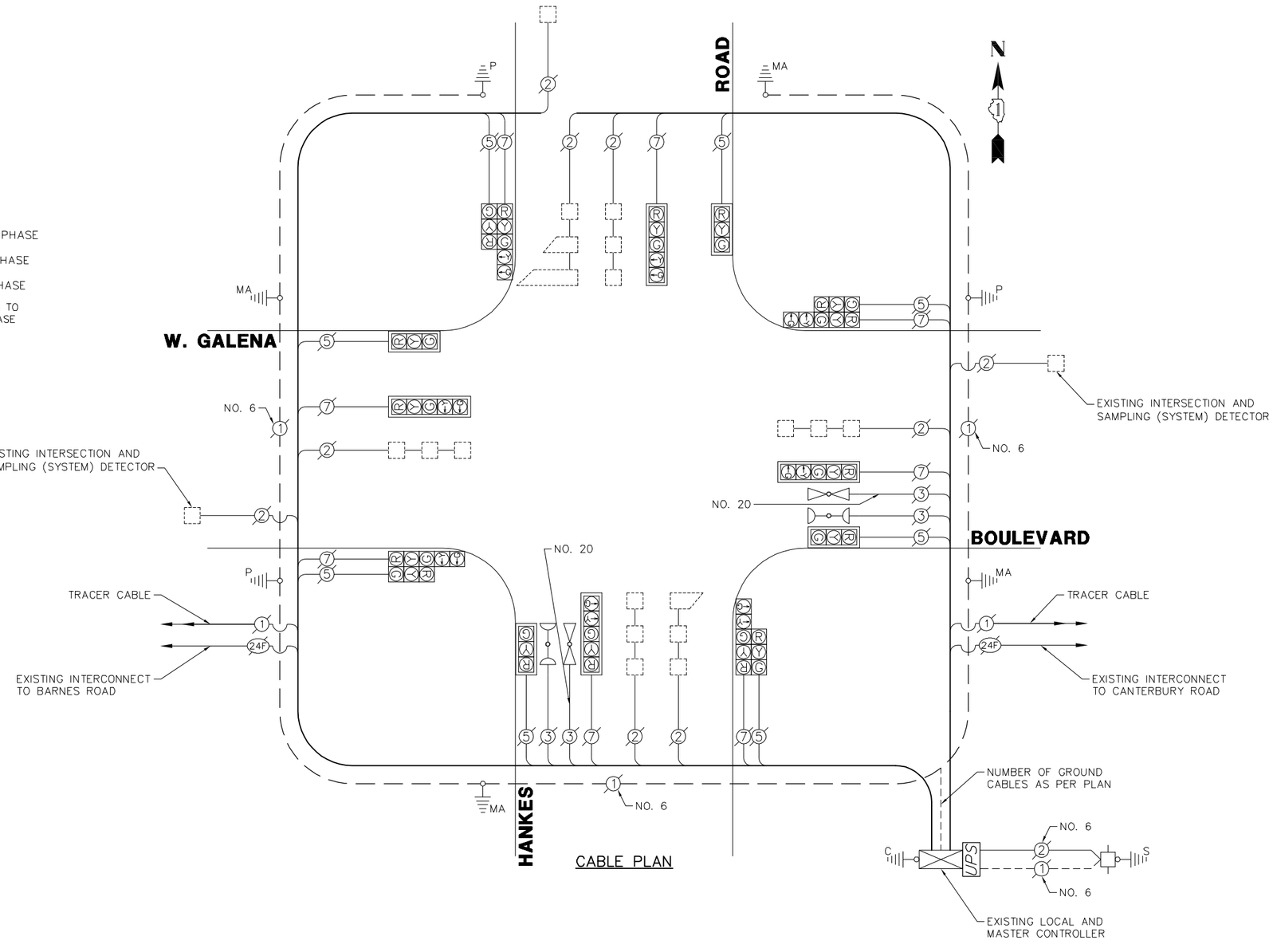
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	11
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			



PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	440.2

ENERGY COSTS – BILLED TO: CITY OF AURORA
(ADDRESS) 44 E. DOWNER PLACE
(ADDRESS) AURORA, IL 60507
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

W. GALENA BOULEVARD AT HANKES ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

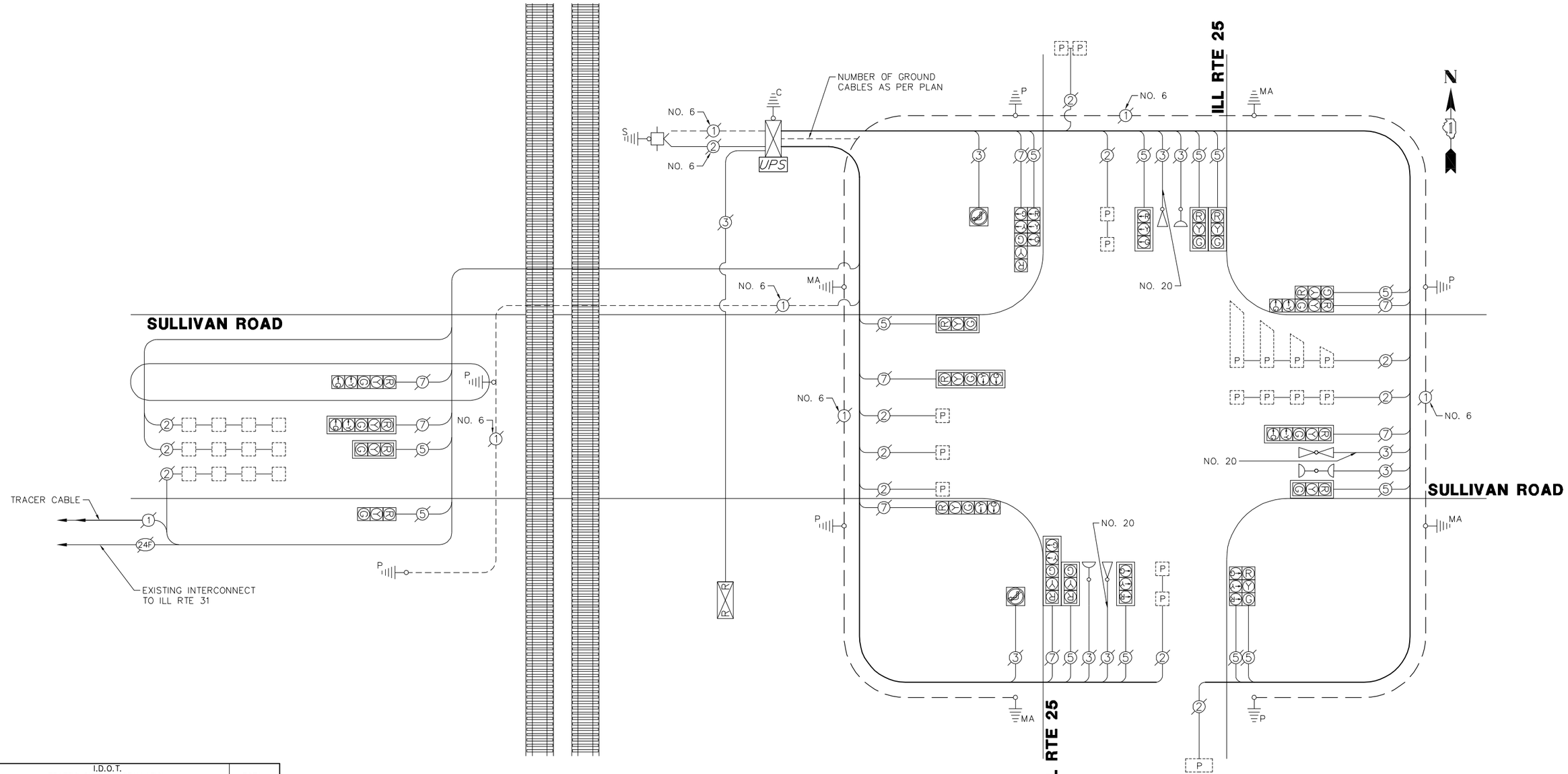
FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
W. GALENA BOULEVARD AT HANKES ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	12
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	22	135	17	0.50	187.0
SIGNAL (YELLOW)	22	135	25	0.25	137.5
SIGNAL (GREEN)	22	135	15	0.25	82.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	2	–	25	0.05	2.5
				TOTAL =	553.7

ENERGY COSTS – BILLED TO: CITY OF AURORA
(ADDRESS) 44 E. DOWNERS PLACE
(ADDRESS) AURORA, IL 60507
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 25 AT SULLIVAN ROAD

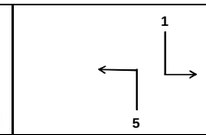
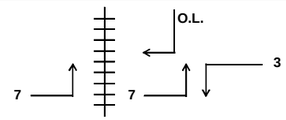
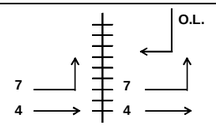
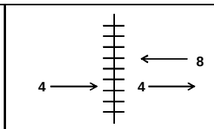
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME = 4085.881–TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED – JRD	REVISED –	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES AND CABLE PLAN ILL RTE 25 AT SULLIVAN ROAD
		DRAWN – ZCW	REVISED –		
	PLOT SCALE = 1" = .0833'	CHECKED – KLB	REVISED –		
	PLOT DATE = 2/3/2012	DATE – 2/3/2012	REVISED –		SCALE N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011–221–I	KANE	43	13
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

SEQUENCE OF OPERATIONS

MOVEMENT																																												
PHASE	1+5							1+6			2+5			2+6						3+7									3+8				4+7							4+8					
INTERVAL	1	2A	2B	3A	3B	4A	4B	5	6A	6B	7	8A	8B	9	10A	10B	11A	11B	12A	12B	13	14A	14B	14C	15	16A	16B	16C	17A	17B	17C	18	19	20A	20B	21	22A	22B	22C	23A	23B	23C	23D	24	25A	25B	25C	25D
CHANGE TO		1+6		2+5		2+6			2+6			2+6			2+5		1+6		1+5 3+8 4+8	3+7 4+7		3+8			4+7			1+5 1+6	2+5 2+6			4+8	1+5 2+5	1+6 2+6		4+8			1+5 2+5		1+6 2+6			1+5 2+5		1+6 2+6		
IL RTE 25 FAR LEFT AND END OF MAST ARM SIGNALS N/B	←G	←Y	←R	←G	←G	←Y	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R
IL RTE 25 MIDDLE OF MAST ARM, FAR RIGHT & NEAR RIGHT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL RTE 25 FAR LEFT & END OF MAST ARM SIGNALS S/B	←G	←G	←G	←Y	←R	←Y	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R
IL RTE 25 MIDDLE OF MAST ARM SIGNAL S/B	R	R	R	R	R	R	R	G	G	G	R	R	R	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL RTE 25 FAR RIGHT & NEAR RIGHT SIGNALS S/B	R	R	R	R	R	R	R	G	G	G	R	R	R	G	Y	R	G	G	Y	R	R→G	R→Y	R	R	R→G	R→Y	R	R	R→Y	R	R	R	R	R	R	R→G	R→Y	R	R	R→Y	R	R	R	R	R	R	R	R	R
SULLIVAN ROAD FAR LEFT & END OF MAST ARM SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R←G	R←G	R←G	R←G	R←Y	R←G	R←G	R←Y	R←G	R←G	R←Y	G←G	G←Y	Y	R	R	R	R	R	R	R	R	G	G	G	Y	R	R
SULLIVAN ROAD. FAR RIGHT & NEAR RIGHT SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	G	G	G	Y	R	R
SULLIVAN ROAD FAR LEFT & END OF MAST ARM SIGNALS. E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R←G	R←G	R←G	R←Y	R←G	R←G	R←G	G←Y	R←G	R←G	R←Y	R	R	R	R	G←G	G←G	G←G	G←Y	G←G	G←G	Y	R	G	G	G	Y	R	R
SULLIVAN ROAD FAR RIGHT SIGNAL E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	G	G	G	Y	R	R
SULLIVAN ROAD (PRE -SIGNALS) END OF OF RR CANTILEVER ARM & NEAR LEFT SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R←G	R←Y	R	R	R←G	R←Y	G	R	R←Y	R	R	R	R	R	R	G←G	G←Y	G	G	Y	R	R	R	G	Y	R	R	R	R
SULLIVAN ROAD (PRE -SIGNALS) NEAR RIGHT SIGNAL ON RR CANTILEVER ARM & NEAR RIGHT AIGNAL ON POLE E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	R	R	R	R	G	G	G	G	Y	R	R	R	G	Y	R	R	R	R

NOTE: PHASES 2+6 SHALL BE PLACED ON RECALL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN - ZCW	REVISED -	
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -	

SEQUENCE OF OPERATIONS
ILL RTE 25 AT SULLIVAN ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	14
		CONTRACT #:	60R81	
		ILLINOIS	FED. AID PROJECT	

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

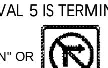
																																						PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER		1		1		1		5	5		7	7		9		9		9		13			18		18	21				21			24				24				CLEAR TO NORMAL SEQUENCE
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF	1GG	1HH	1JJ	1KK	1LL	1MM	2	3	4	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1B	2	1D	3	1F	4	3	1J	2 OR 4	2	1M	3 OR 4	1P	2	1R	3	1T	4	1V	1W	2, 3 OR 4	1Y	2 OR 3	4	1BB	1CC	1DD	2 OR 3	1FF	1GG	4	1JJ	1KK	1LL	2 OR 3	4				△
ILL RTE 25 FAR LEFT & END OF MAST ARM SIGNALS.	N/B	←G	←G	←Y	←R	←Y	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←R	←R	△
ILL RTE 25 MIDDLE OF MAST ARM, FAR RIGHT & NEAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	R	△
ILL RTE 25 FAR LEFT & END OF MAST ARM SIGNALS	S/B	←Y	←R	←G	←G	←Y	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←R	△
ILL RTE 25 MIDDLE OF MAST ARM SIGNAL	S/B	R	R	R	R	R	R	G	Y	R	R	R	R	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	△
ILL RTE 25 FAR RIGHT AND NEAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	G	Y	R	R	R	R	Y	R	G	G	Y	R	R Y→	R	R	R	R	R	R Y→	R	R	R	R Y→	R	R	R	R	R	R	R	R	G	R	△
SULLIVAN ROAD FAR LEFT & END OF MAST ARM SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R ←G	R ←G	R ←Y	Y	R	G ←Y	R	R	R	R	R	R	R	G	G	Y	R	G	R	R	G	△
SULLIVAN ROAD FAR RIGHT & NEAR RIGHT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	R	R	R	R	R	R	R	G	G	Y	R	G	R	R	G	△
SULLIVAN ROAD FAR LEFT & END OF MAST ARM SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R ←G	R ←G	R ←Y	R	R	R	G ←G	G ←G	Y	R	G ←G	G ←G	G ←Y	G	G	Y	R	G	R	R	G	△
SULLIVAN ROAD FAR RIGHT SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	G	G	G	G	G	Y	R	G	R	R	G	△
SULLIVAN ROAD (PRE-SIGNALS) END OF R.R CANTILEVER ARM & NEAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R ←Y	R	R	R	R	R	Y	R	R	R	G ←Y	G	G	Y	R	R	R	G	R	R	G	△
SULLIVAN ROAD (PRE-SIGNALS) NEAR RIGHT SIGNAL ON R.R CANTILEVER ARM & NEAR RIGHT SIGNAL ON POLE	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	G	G	G	Y	R	R	R	G	R	R	G	△

△ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 , 3, OR 4 IS TERMINATED.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

																		PREEMPTOR NUMBER 3		PREEMPTOR NUMBER 4		PREEMPTOR NUMBER 5		PREEMPTOR NUMBER 2				
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER		1		5		7		9		13		18		21		24												
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																		2		3		4						
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	2	3	4	5	CLEAR TO NORMAL SEQUENCE
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1B	2	1D	2	1F	1G	1H	2	1K	2	1M	2	1P	2	1R	2	1T	2	1V	2	1X	2	3	4	5		
ILL RTE 25 FAR LEFT & END OF MAST ARM SIGNALS.	N/B	←Y	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	△
ILL RTE 25 MIDDLE OF MAST ARM, FAR RIGHT & NEAR RIGHT SIGNALS	N/B	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	G	△
ILL RTE 25 FAR LEFT & END OF MAST ARM SIGNALS	S/B	←Y	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	△
ILL RTE 25 MIDDLE OF MAST ARM SIGNAL	S/B	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	G	△
ILL RTE 25 FAR RIGHT & NEAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	Y	R	R Y→	R	R	R	R Y→	R	R	R	R	R	Y	R	R	R	R	R	R	G	△
SULLIVAN ROAD FAR LEFT & END OF MAST ARM SIGNALS	W/B	R	R	R	R	R	R	R	R	R Y→	R	Y	R	R	R	Y	R	R	R	R	R	Y	R	R	R	R	R	△
SULLIVAN ROAD FAR RIGHT & NEAR RIGHT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	Y	R	R	R	R	R	△
SULLIVAN ROAD FAR LEFT & END OF MAST ARM SIGNALS	E/B	R	R	R	R	R	R	R	R	R ←G	R ←G	R	R	G ←G	G ←G	G	G	R	R	R	R	G	G	G ←G	Y	R	R	△
SULLIVAN ROAD FAR RIGHT SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	R	R	R	R	G	G	G	Y	R	R	△
SULLIVAN ROAD (PRE-SIGNALS) END OF R.R CANTILEVER ARM & NEAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	R	R ←Y	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	△
SULLIVAN ROAD (PRE-SIGNALS) NEAR RIGHT SIGNAL ON R.R. CANTILEVER ARM AND NEAR RIGHT SIGNAL ON POLE	E/B	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	△
INTERNALLY ILLUMINATED NO RIGHT TURN SIGNS	S/B	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	△
																										HOLD	

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

NRT= "NO RIGHT TURN" OR 

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

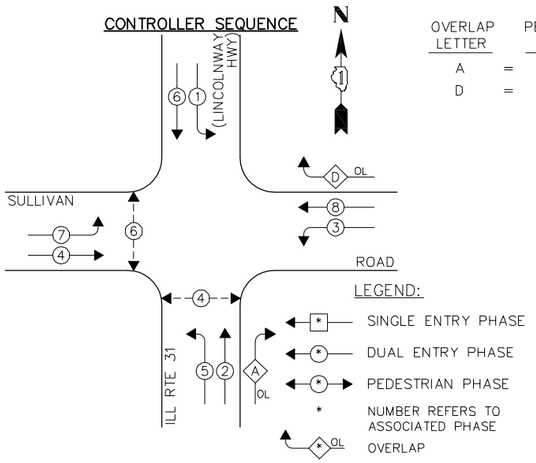
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION & RAILROAD PREEMPTION SEQUENCE OF OPERATION ILL RTE 25 AT SULLIVAN ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	15
		CONTRACT #: 60R81		

ILLINOIS FED. AID PROJECT

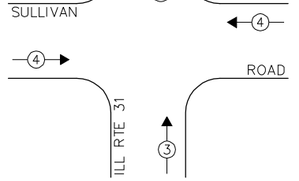
CONTROLLER SEQUENCE



OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
D	=	8	+	1

PHASE DESIGNATION DIAGRAM

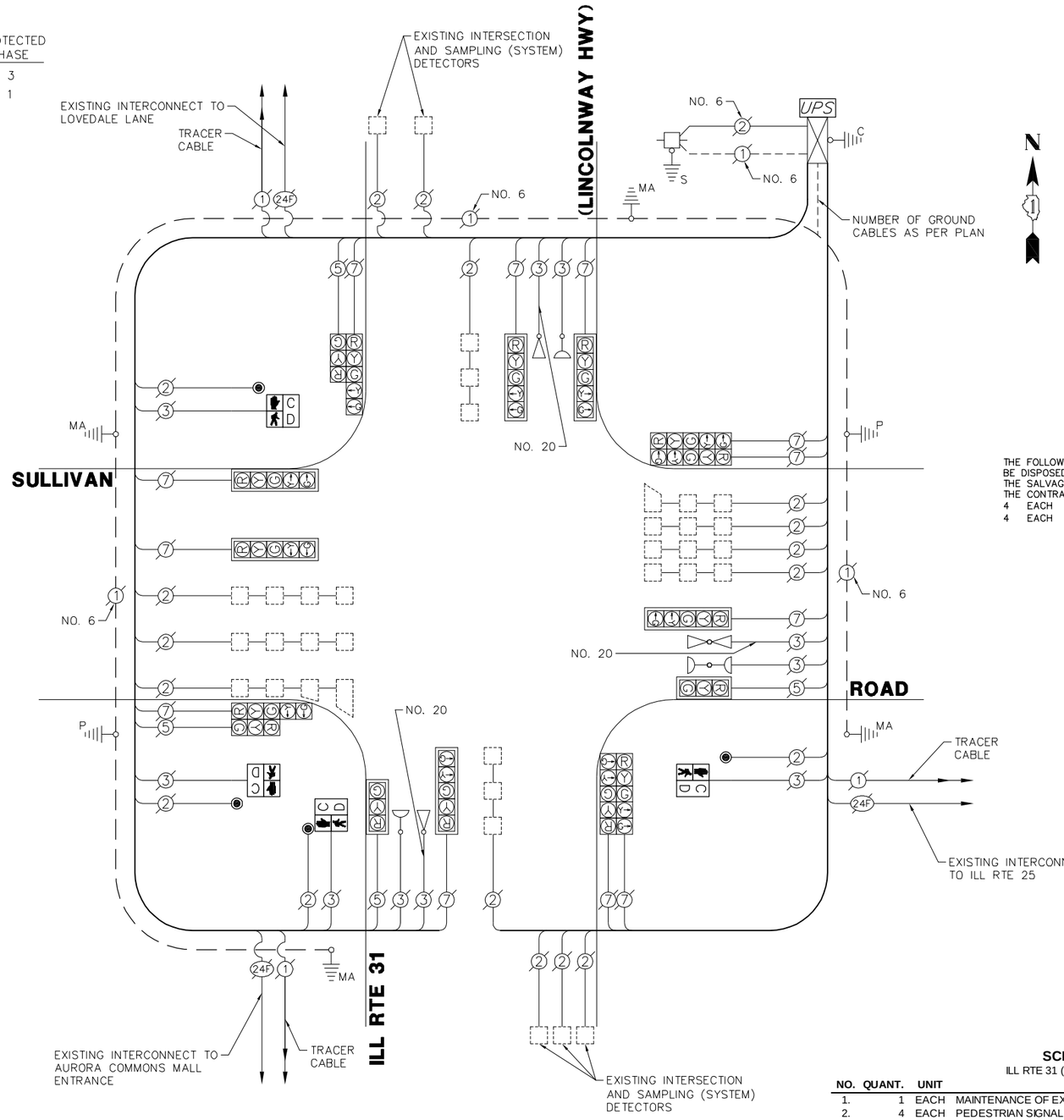
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	14	135	12	0.10	28.8
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	549.8

ENERGY COSTS – BILLED TO: CITY OF AURORA
(ADDRESS) 44 E. DOWNER PLACE
(ADDRESS) AURORA, IL 60507
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

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

4 EACH PEDESTRIAN SIGNAL HEAD
4 EACH PEDESTRIAN PUSH BUTTON

SCHEDULE OF QUANTITIES

ILL RTE 31 (LINCOLNWAY HWY) AT SULLIVAN ROAD

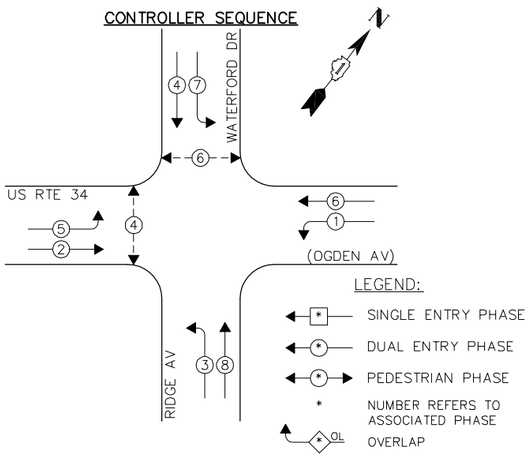
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	4	EACH	PEDESTRIAN PUSH-BUTTON
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILL RTE 31 (LINCOLNWAY HWY)AT SULLIVAN ROAD
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011–221–I	KANE	43	16
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE

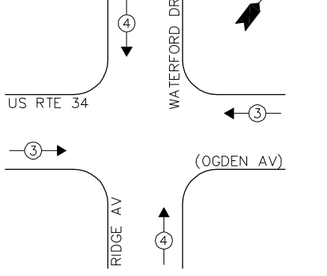


LEGEND:

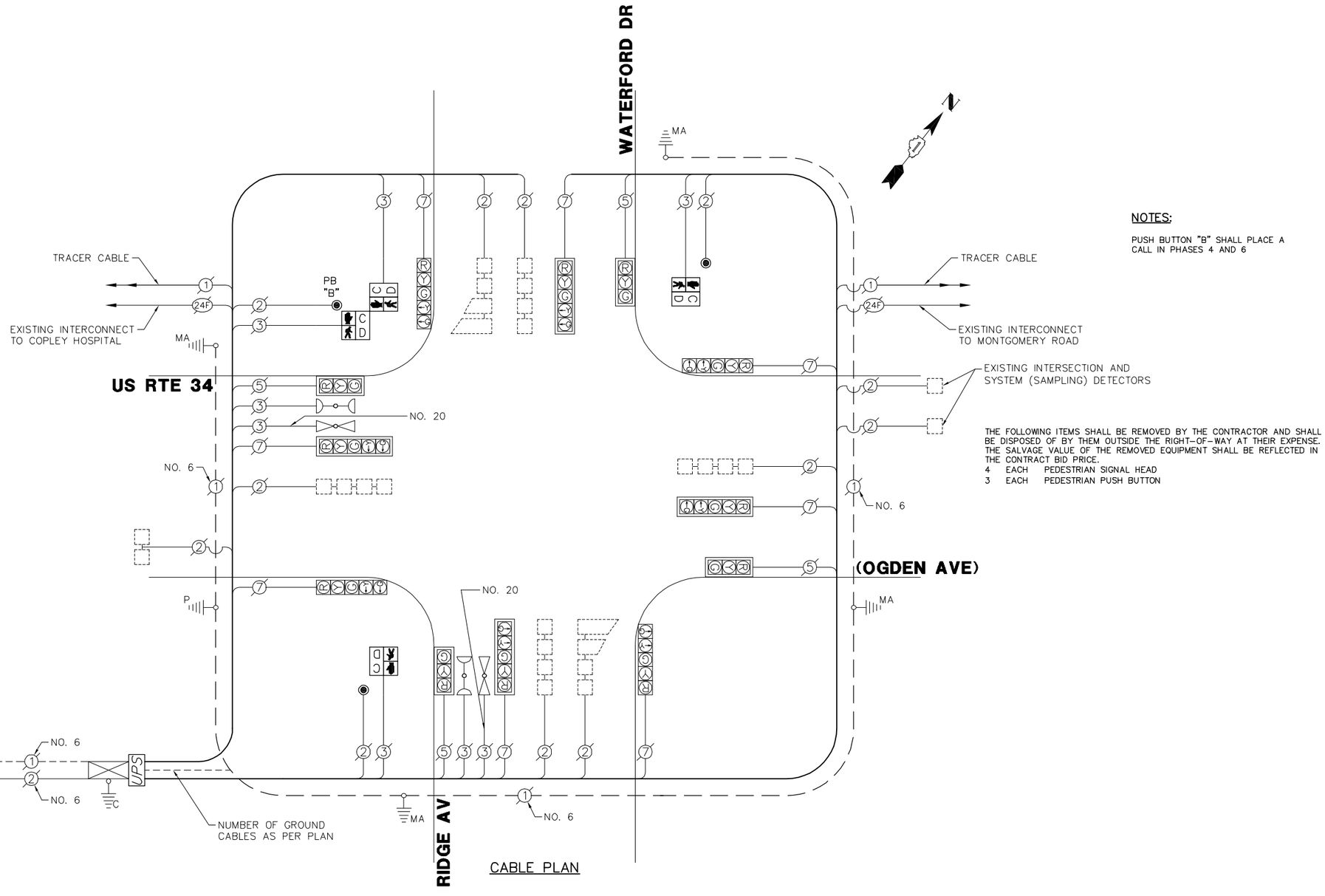
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- OVERLAP

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



CABLE PLAN

NOTES:

PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

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

4	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	PEDESTRIAN PUSH BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION		
SIGNAL (RED)	12	135	17	0.50		102.0
SIGNAL (YELLOW)	12	135	25	0.25		75.0
SIGNAL (GREEN)	12	135	15	0.25		45.0
ARROW	16	135	12	0.10		19.2
PED. SIGNAL	4	90	25	1.00		100.0
CONTROLLER	1	–	100	1.00		100.0
LUMINAIRE	–	–	250	0.50		–
L.E.D. ST. NAME SIGN	–	–	64	0.50		–
VIDEO SYSTEM	–	–	150	1.00		–
BATTERY BACKUP	1	–	25	1.00		25.0
ILLUMINATED SIGN	–	–	25	0.05		–
					TOTAL =	466.2

ENERGY COSTS – BILLED TO: CITY OF AURORA
(ADDRESS) 44 E. DOWNER PLACE
(ADDRESS) AURORA, IL 60507
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

U.S. RTE 34 (OGDEN AVENUE) AT RIDGE AVENUE / WATERFORD DRIVE

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

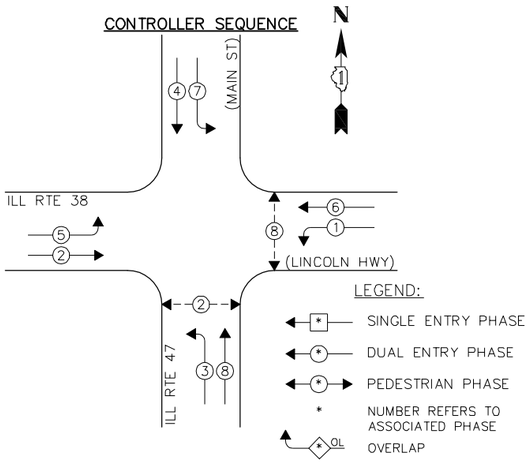
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 34 (OGDEN AV) AT RIDGE AVENUE / WATERFORD DRIVE

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

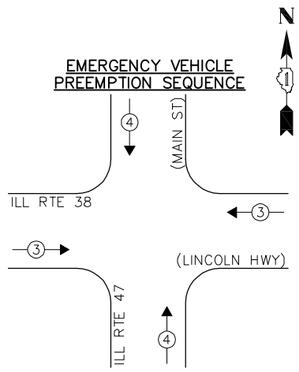
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	17
		CONTRACT #:	60R81	
		ILLINOIS	FED. AID PROJECT	

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

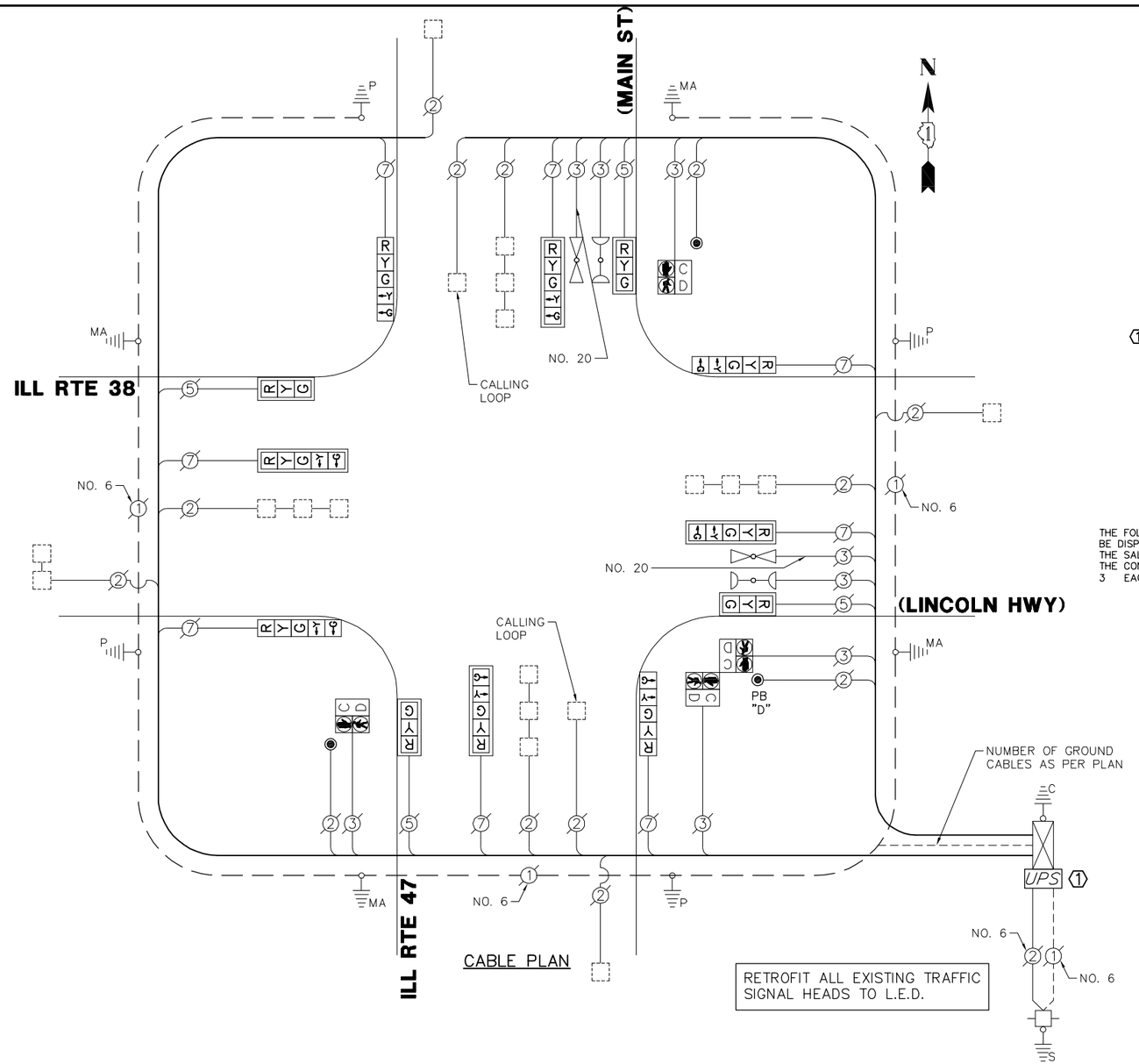
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	466.2

ENERGY COSTS – BILLED TO: VILLAGE OF ELBURN
(ADDRESS) 301 E. NORTH STREET
(ADDRESS) ELBURN, IL 60119
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

NOTES:

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

CONSTRUCTION NOTES:

(1) THE UNINTERRUPTIBLE POWER SUPPLY UNIT SHALL BE INSTALLED ON THE LEFT SIDE OF THE EXISTING CONTROLLER CABINET.

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 PEDESTRIAN PUSH BUTTON

SCHEDULE OF QUANTITIES

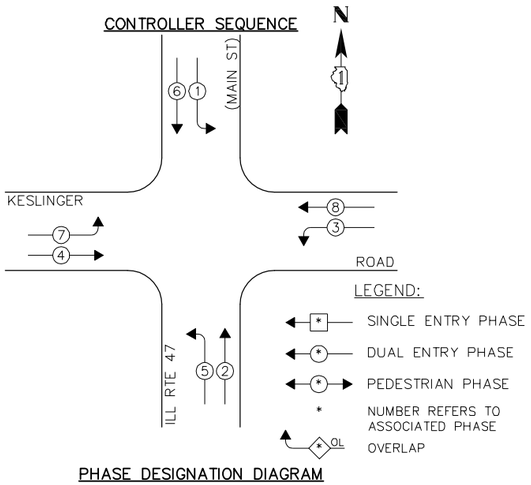
IL RTE 38 (LINCOLNWAY HWY) AT ILL RTE 47 (MAIN STREET)

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
5.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
7.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
8.	3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

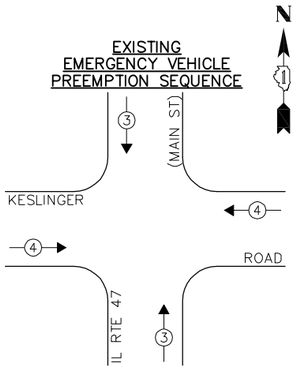
GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILL ROUTE 38 (LINCOLN HWY) AT ILL RTE 47 (MAIN ST)
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	18
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		



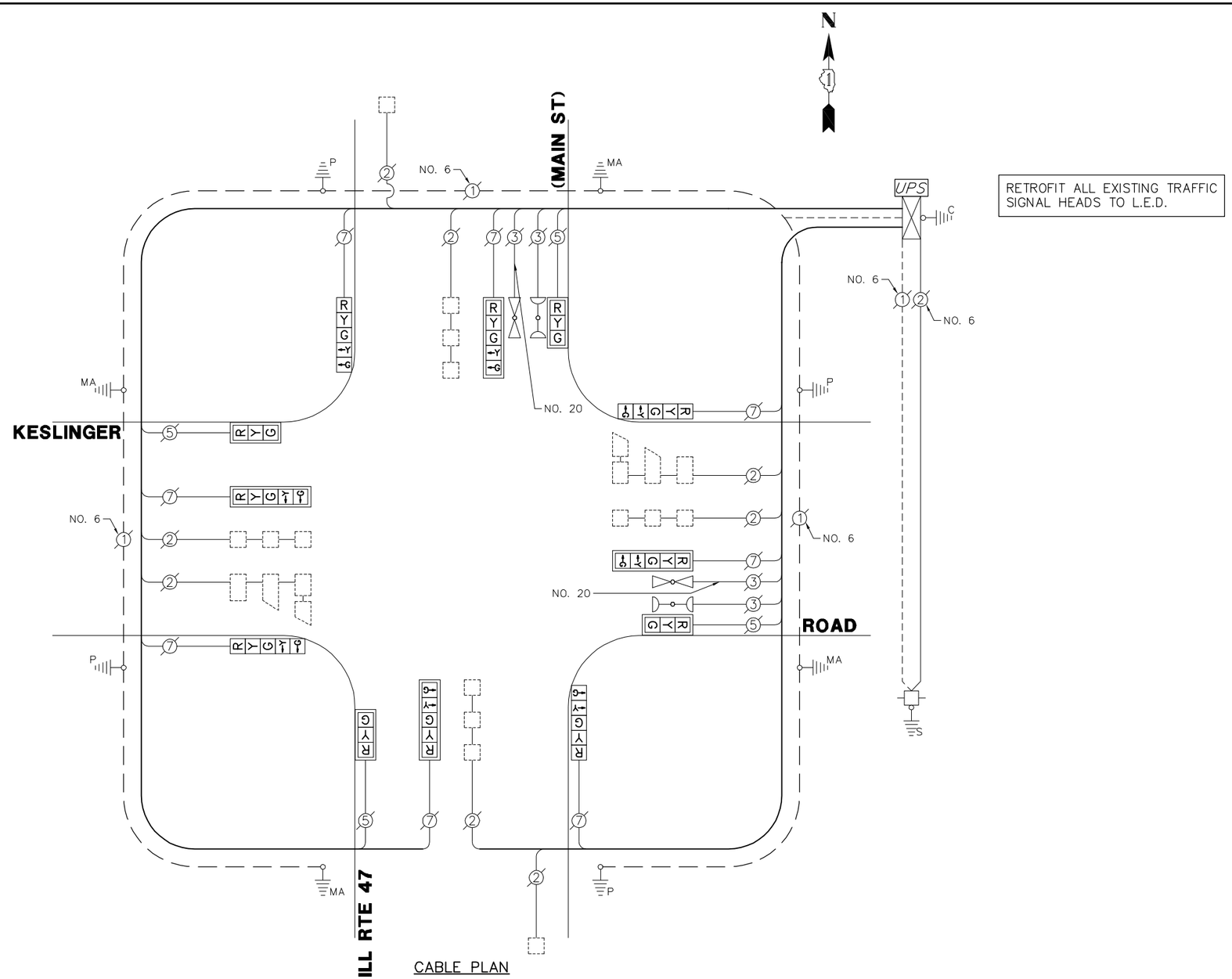
PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	366.2

ENERGY COSTS – BILLED TO: VILLAGE OF ELBURN
(ADDRESS) 301 E. NORTH STREET
(ADDRESS) ELBURN, IL 60119
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

ILL RTE 47 (MAIN STREET) AT KESLINGER ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
5.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

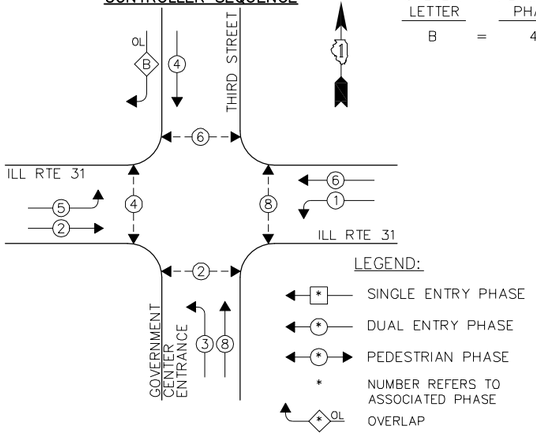
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 47 (MAIN ST) AT KESLINGER ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	19
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

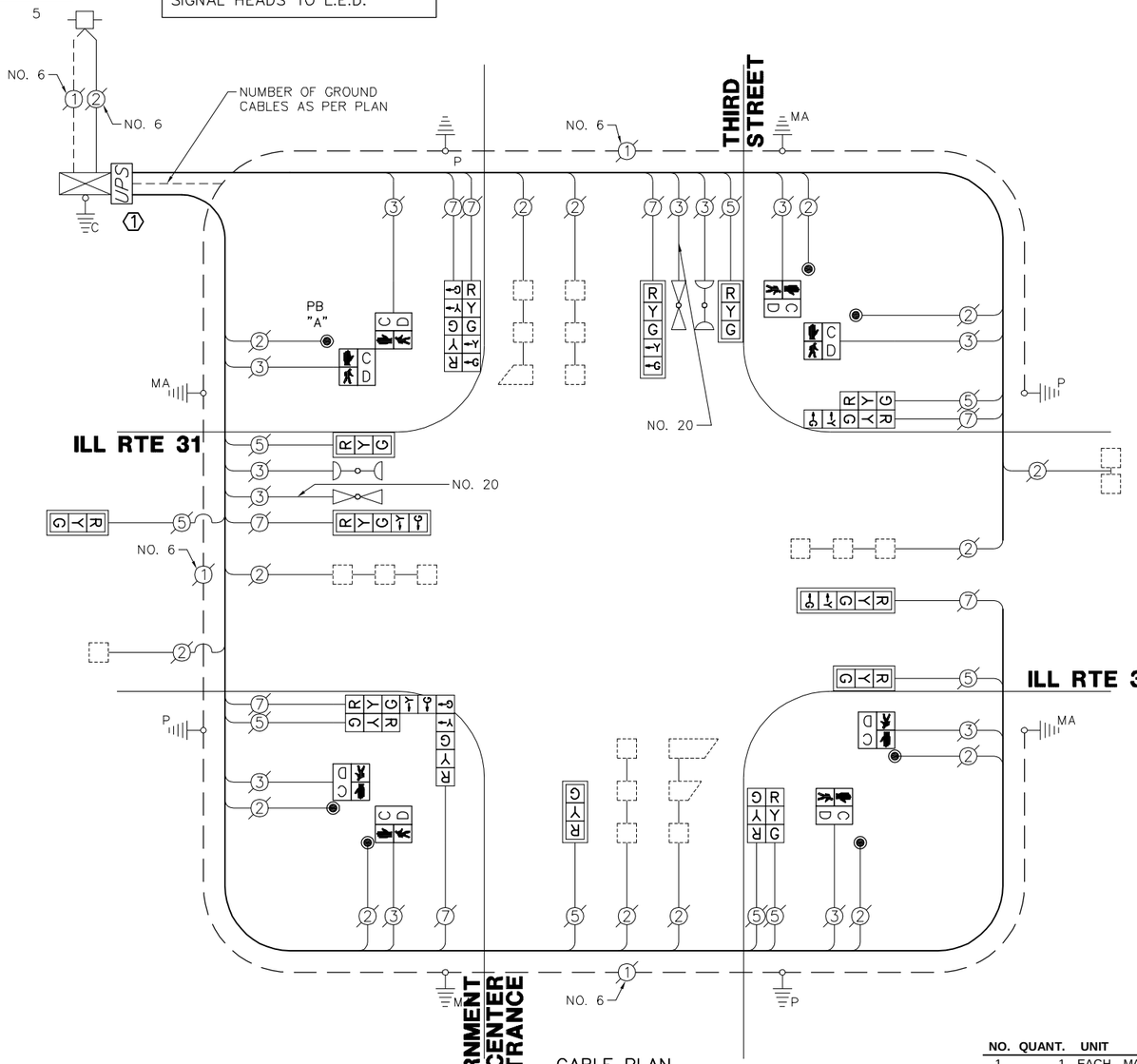
CONTROLLER SEQUENCE



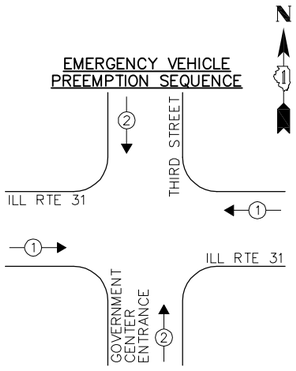
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.



CABLE PLAN



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	17	135	17	0.50	144.5
SIGNAL (YELLOW)	17	135	25	0.25	106.25
SIGNAL (GREEN)	17	135	15	0.25	63.75
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	658.7

ENERGY COSTS – BILLED TO: CITY OF GENEVA
(ADDRESS) 22 SOUTH FIRST ST
(ADDRESS) GENEVA, IL 60134
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

N

NOTES:

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 4 AN 6

CONSTRUCTION NOTES:

(1) THE UNINTERRUPTIBLE POWER SUPPLY UNIT SHALL BE INSTALLED ON THE LEFT SIDE OF THE EXISTING CONTROLLER CABINET.

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

8 EACH PEDESTRIAN SIGNAL HEAD
7 EACH PEDESTRIAN PUSH BUTTON

SCHEDULE OF QUANTITIES

ILL RTE 31 AT THIRD STREET/ GOVERNMENT CENTER ENTRANCE

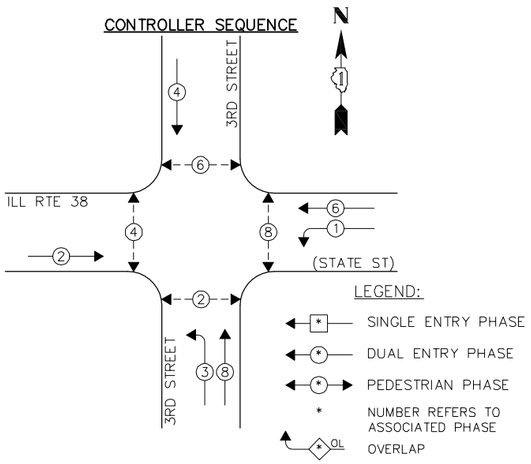
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8.	1	EACH	SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED, RETROFIT
9.	5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
10.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
11.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
12.	1	EACH	SIGNAL HEAD, LED, 2 FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
13.	7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILL RTE 31 AT THIRD STREET/GOVT CENTER ENT
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

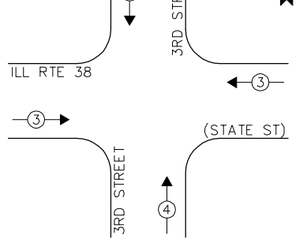
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	20
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE

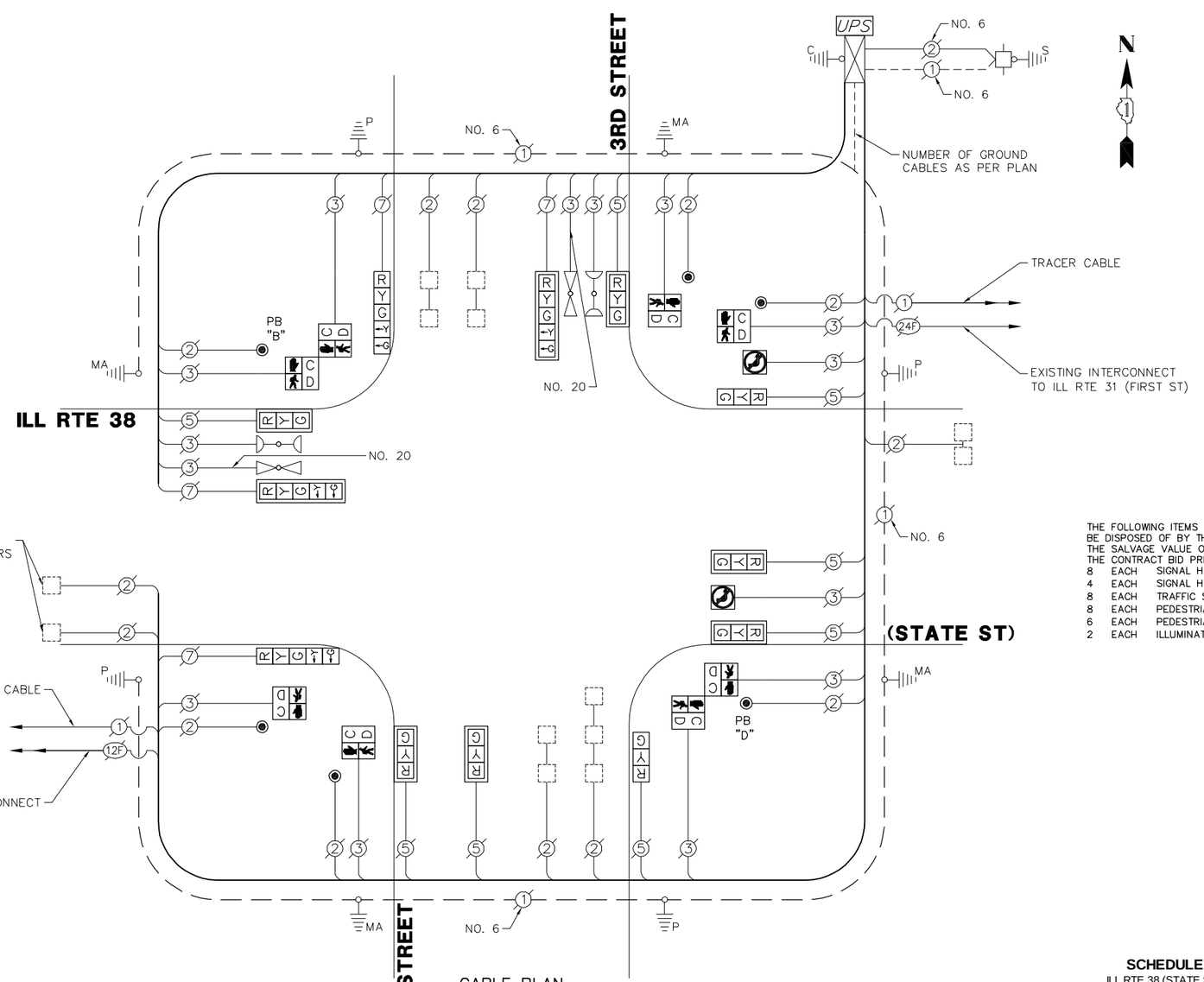


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	—	↓



CABLE PLAN

NOTES:

PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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

8	EACH	SIGNAL HEAD, 3-SECTION
4	EACH	SIGNAL HEAD, 5-SECTION
8	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN SIGNAL HEAD
6	EACH	PEDESTRIAN PUSH BUTTON
2	EACH	ILLUMINATED SIGN

SCHEDULE OF QUANTITIES

ILL RTE 38 (STATE STREET) AT 3RD STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
6.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
7.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8.	8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9.	2	EACH	ILLUMINATED SIGN, LED
10.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
11.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
12.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
13.	6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	2	–	25	0.05	2.5
				TOTAL =	559.1

ENERGY COSTS – BILLED TO: VILLAGE OF GENEVA
(ADDRESS) 22 SOUTH FIRST ST
(ADDRESS) GENEVA, IL 60134
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

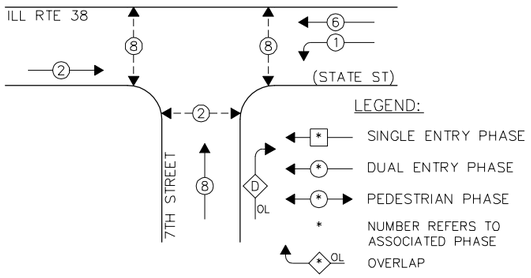
GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILL RTE 38 (STATE ST) AT 3RD STREET
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	21
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

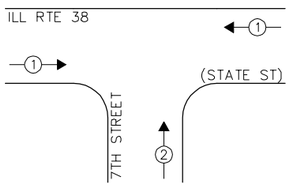
CONTROLLER SEQUENCE

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
D	=	8	+	1

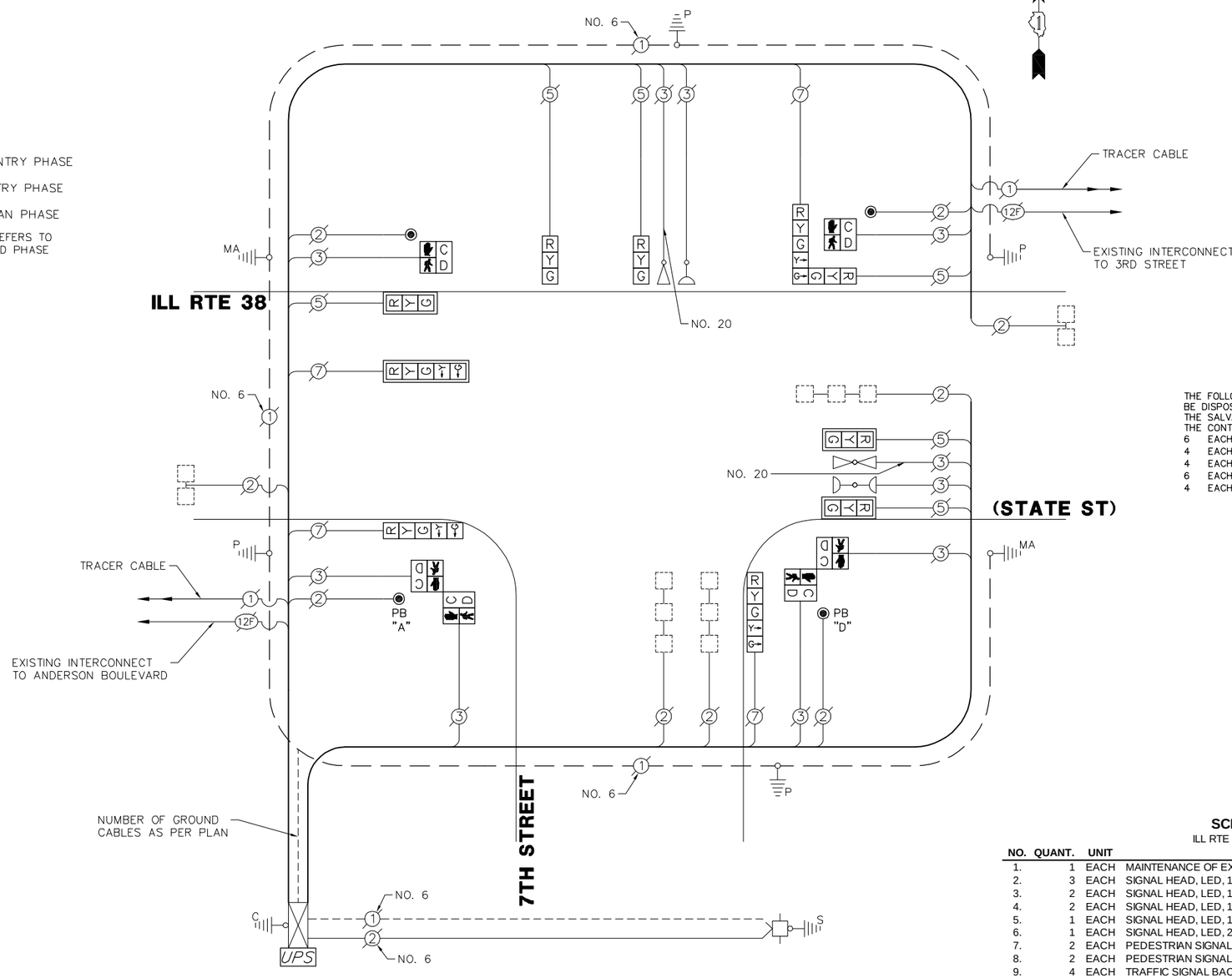


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT		



CABLE PLAN

NOTES:

PUSH BUTTON "A" AND "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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.

6	EACH	SIGNAL HEAD, 3-SECTION
4	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
6	EACH	PEDESTRIAN SIGNAL HEAD
4	EACH	PEDESTRIAN PUSH BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	6	90	25	1.00	150.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	469.6

ENERGY COSTS – BILLED TO: CITY OF GENEVA
(ADDRESS) 22 SOUTH FIRST ST
(ADDRESS) GENEVA, IL 60134
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 38 (STATE STREET) AT 7TH STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
6.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
7.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
9.	4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
11.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
12.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
13.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

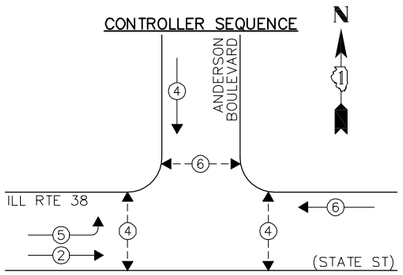
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 38 (STATE ST) AT 7TH STREET

SCALE: N.A. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	22
		CONTRACT #: 60R81		
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE

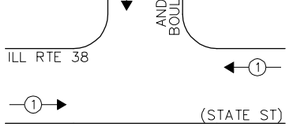


LEGEND:

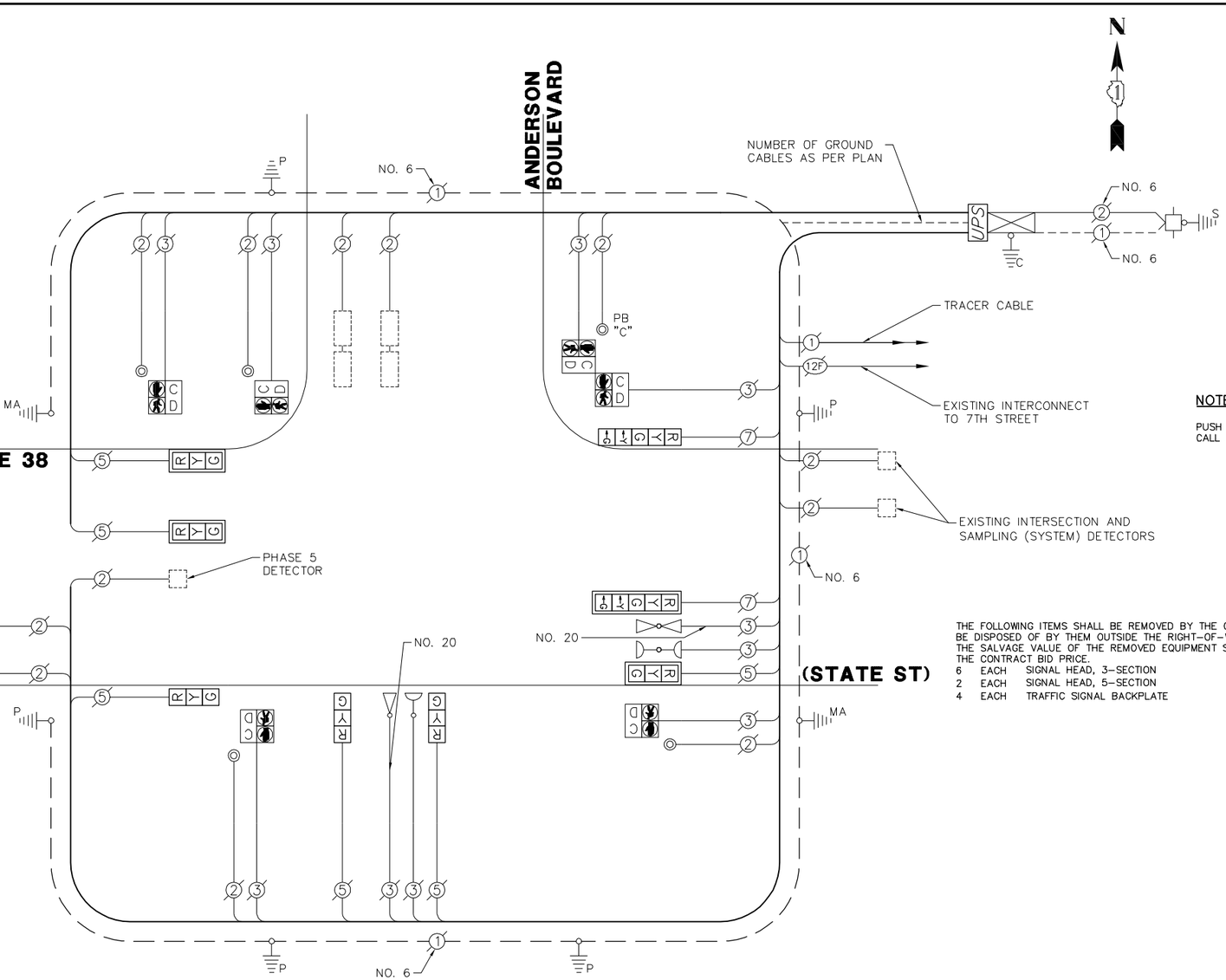
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE
- OVERLAP

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	— —	↓



CABLE PLAN

NOTES:

PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6

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.

6	EACH	SIGNAL HEAD, 3-SECTION
2	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	8	135	17	0.50	68.0
SIGNAL (YELLOW)	8	135	25	0.25	50.0
SIGNAL (GREEN)	8	135	15	0.25	30.0
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	6	90	25	1.00	150.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	427.8

ENERGY COSTS – BILLED TO: CITY OF GENEVA
(ADDRESS) 22 S. FIRST STREET
(ADDRESS) GENEVA, IL 60134
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 38 (STATE STREET) AT ANDERSON BOULEVARD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
6.	4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
7.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
8.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
9.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

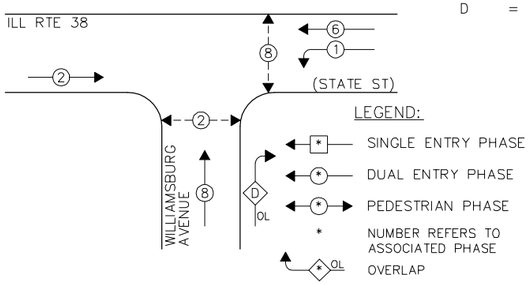
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 38 (STATE ST) AT ANDERSON BOULEVARD

SCALE N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	23
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

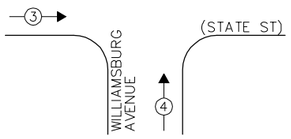
CONTROLLER SEQUENCE

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
D	=	8	+	1

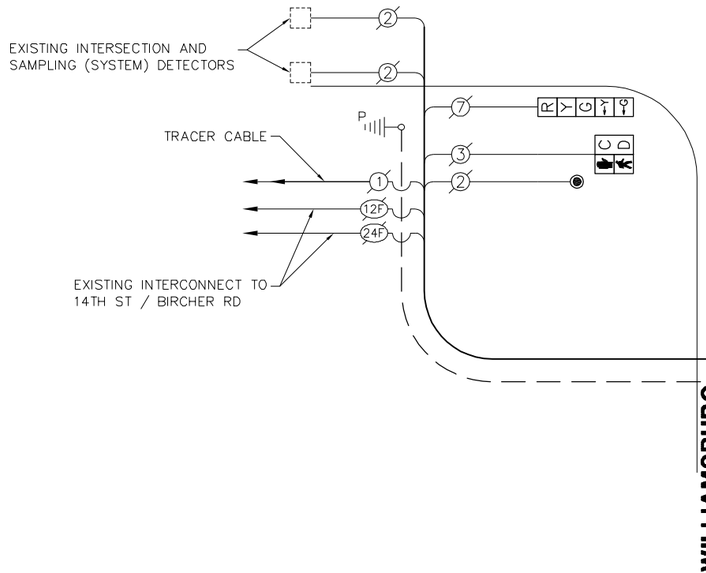


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	——	—— |



CABLE PLAN

NOTES:

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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.

5	EACH	SIGNAL HEAD, 3-SECTION
4	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	PEDESTRIAN SIGNAL HEAD
3	EACH	PEDESTRIAN PUSH BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
SIGNAL (YELLOW)	9	135	25	0.25	56.25
SIGNAL (GREEN)	9	135	15	0.25	33.75
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	401.1

ENERGY COSTS – BILLED TO: CITY OF GENEVA
(ADDRESS) 22 S. FIRST STREET
(ADDRESS) GENEVA, IL 60134
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 38 (STATE STREET) AT WILLIAMSBURG AVENUE

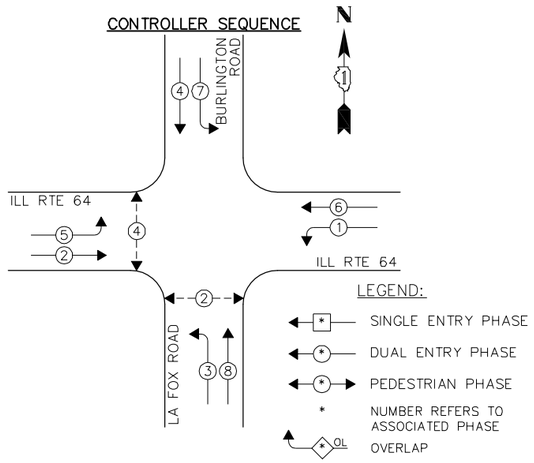
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
6.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
7.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8.	4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
10.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
11.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
12.	3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

GHA #4085.881

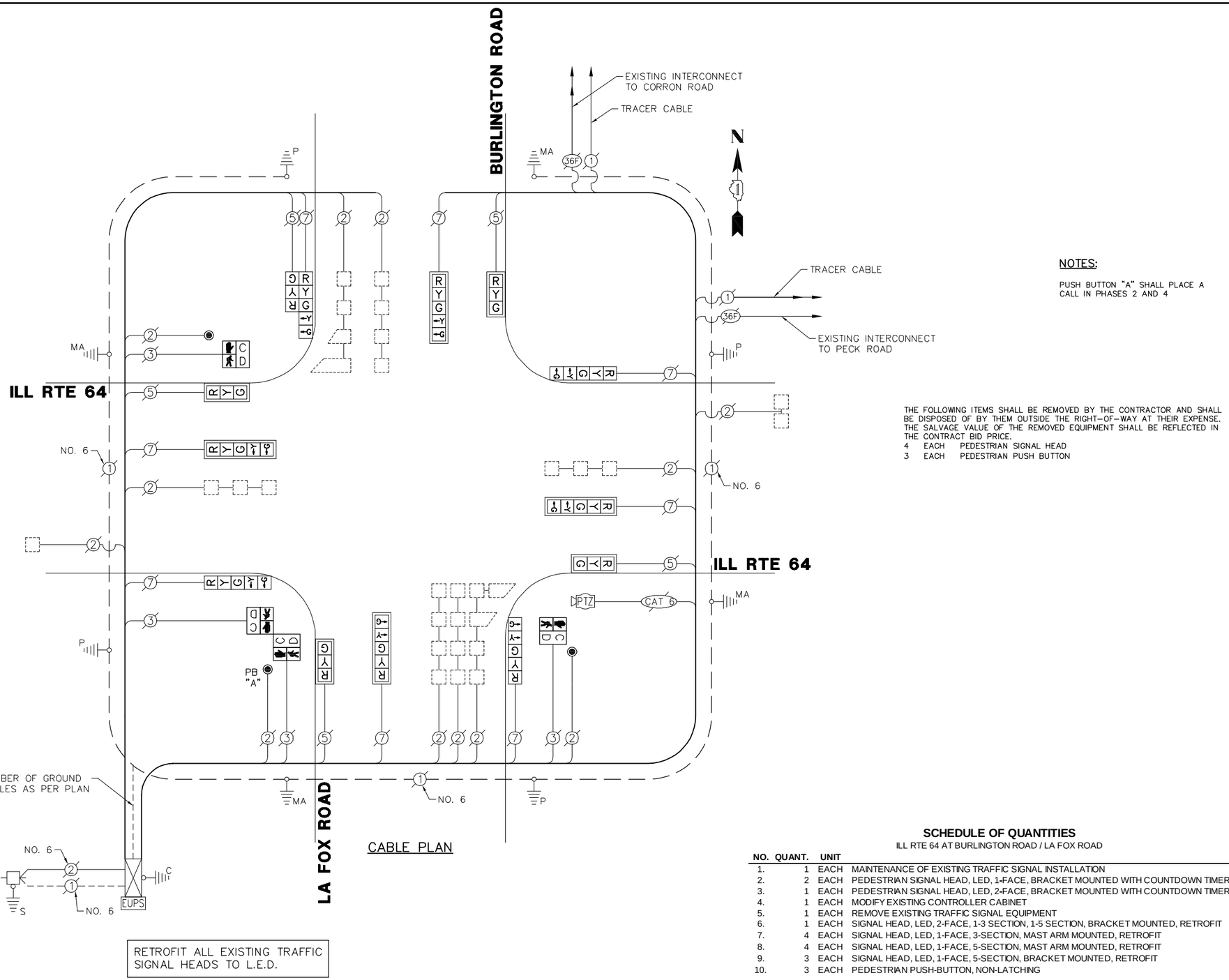
FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILL RTE 38 (STATE ST) AT WILLIAMSBURG AVENUE
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	24
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

NOTES:

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

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

4 EACH PEDESTRIAN SIGNAL HEAD
3 EACH PEDESTRIAN PUSH BUTTON

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	484.7

ENERGY COSTS – BILLED TO: ILLINOIS DEPT. OF TRANS.
(ADDRESS) 201 W. CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 64 AT BURLINGTON ROAD / LA FOX ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
7.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
9.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
10.	3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

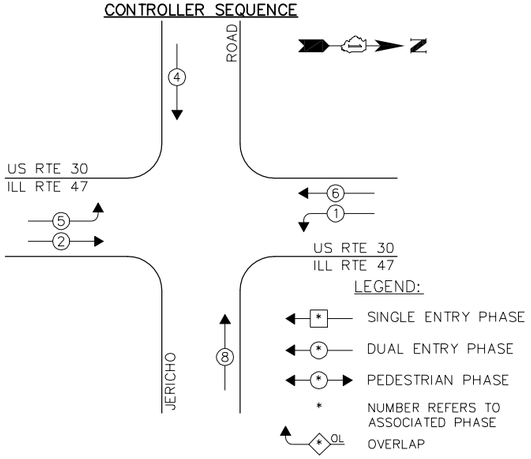
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM
ILL RTE 64 AT BURLINGTON ROAD / LA FOX ROAD

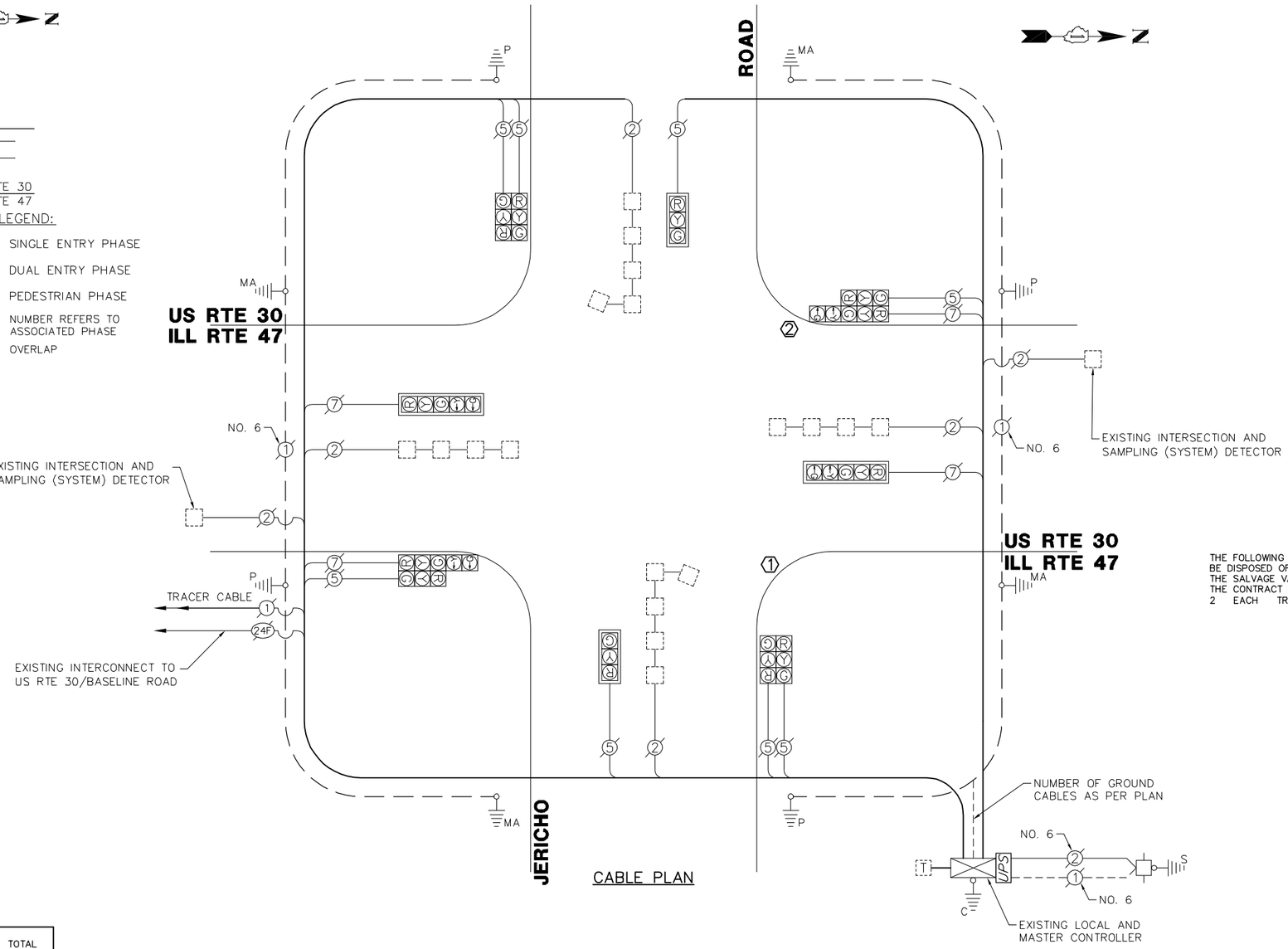
SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	25
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



CABLE PLAN

CONSTRUCTION NOTES:

1. REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 14 FOOT PAINTED POST. RELOCATE EXISTING SIGNAL HEADS ON NEW POST. REUSE EXISTING TYPE A CONCRETE FOUNDATION AND EXISTING CABLES.
2. REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 16 FOOT PAINTED POST. RELOCATE EXISTING SIGNAL HEADS ON NEW POST. REUSE EXISTING TYPE A CONCRETE FOUNDATION AND EXISTING CABLES.

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 TRAFFIC SIGNAL POST

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	356.6

ENERGY COSTS – BILLED TO: ILLINOIS DEPT OF TRANS.
(ADDRESS) 201 W. CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

U.S. RTE 30 / ILL RTE 47 AT JERICHO ROAD

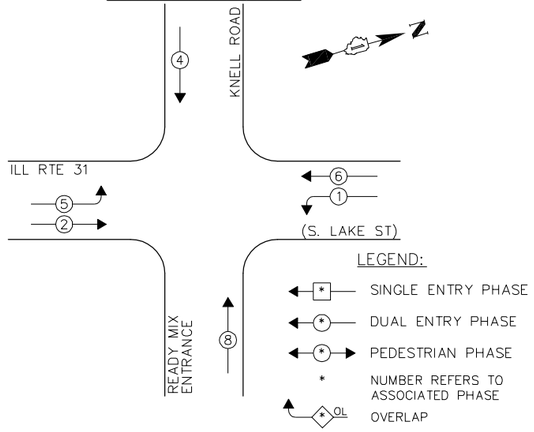
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4.	4	EACH	RELOCATE EXISTING SIGNAL HEAD
5.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
6.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM US RTE 30/ILL RTE 47 AT JERICHO ROAD
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

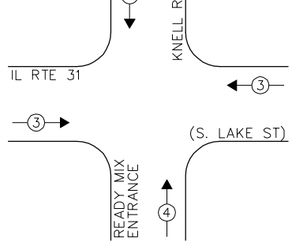
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	26
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE

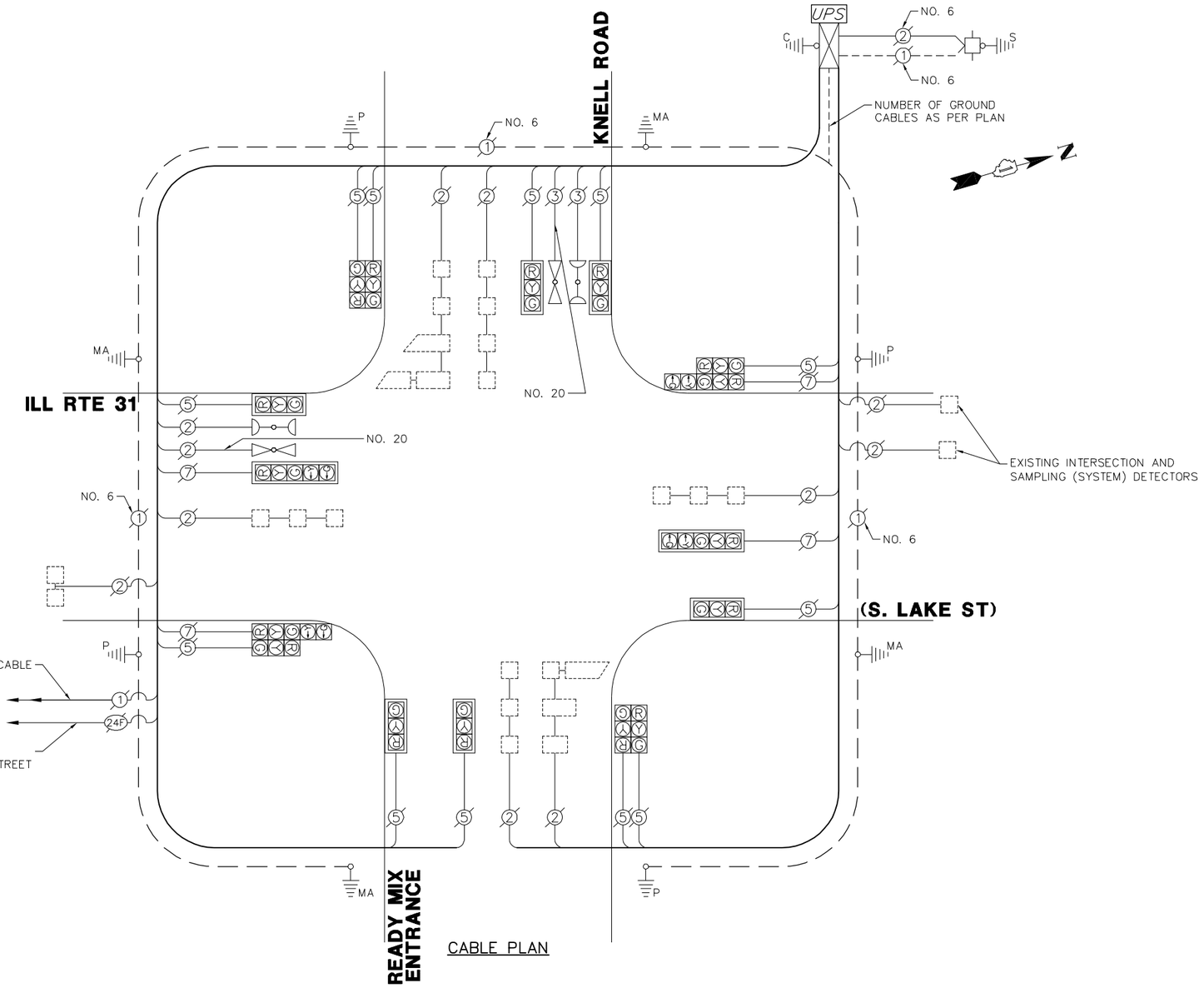


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	430.6

ENERGY COSTS – BILLED TO: VILLAGE OF MONTGOMERY
(ADDRESS) 200 N. RIVER STREET
(ADDRESS) MONTGOMERY, IL 60538
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 31 (S. LAKE STREET) AT KNELL ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

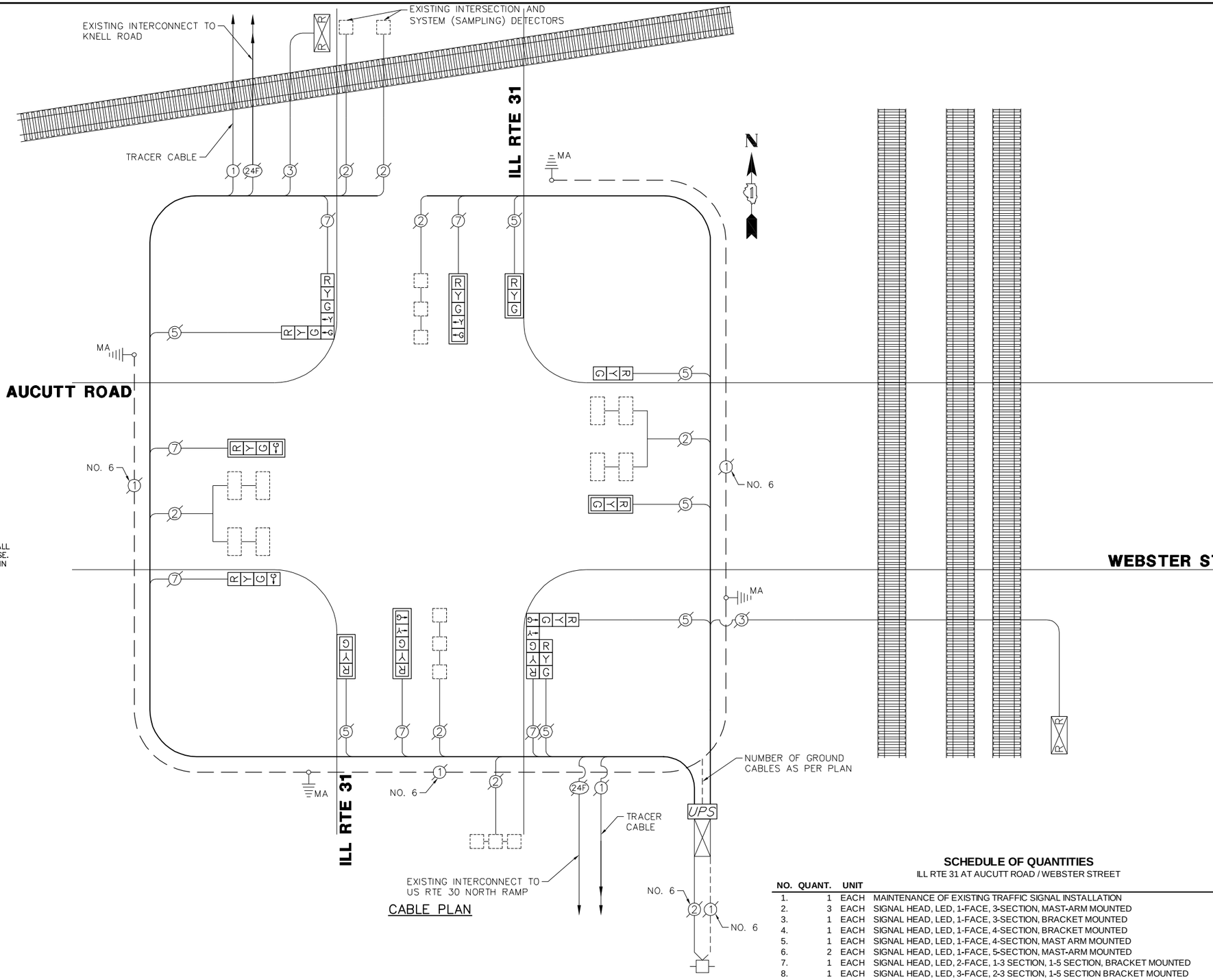
FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 31 (S. LAKE ST) AT KNELL ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	27
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		



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

7	EACH	SIGNAL HEAD, 3-SECTION
2	EACH	SIGNAL HEAD, 4-SECTION
4	EACH	SIGNAL HEAD, 5-SECTION
6	EACH	TRAFFIC SIGNAL BACKPLATE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION		
SIGNAL (RED)	13	135	17	0.50		110.5
SIGNAL (YELLOW)	13	135	25	0.25		81.25
SIGNAL (GREEN)	15	135	15	0.25		56.25
ARROW	8	135	12	0.10		9.6
PED. SIGNAL	–	90	25	1.00		–
CONTROLLER	1	–	100	1.00		100.0
LUMINAIRE	–	–	250	0.50		–
L.E.D. ST. NAME SIGN	–	–	64	0.50		–
VIDEO SYSTEM	–	–	150	1.00		–
BATTERY BACKUP	1	–	25	1.00		25.0
ILLUMINATED SIGN	–	–	25	0.05		–
				TOTAL =		382.6

ENERGY COSTS – BILLED TO: VILLAGE OF MONTGOMERY
(ADDRESS) 200 N. RIVER STREET
(ADDRESS) MONTGOMERY, IL 60538
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 31 AT AUCUTT ROAD / WEBSTER STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED
6.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
8.	1	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION BRACKET MOUNTED
9.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
10.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
11.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES AND CABLE PLAN
ILL RTE 31 AT AUCUTT ROAD / WEBSTER STREET

SCALE N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	28
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

RAILROAD PREEMPTION SEQUENCE OF OPERATIONS

FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER		1	5		7		9		11					
RAILROAD PREEMPTION INTERVAL		1A	1B	1C	1D	1E	1F	1G	1H	1J	2	3	4	5
CHANGE TO		2	1C	2	1E	2	1G	2	1J	2	3	4	5	
ILL RTE 31 NEAR RIGHT AND MID MAST ARM SIGNALS	S/B	R	Y	R	R	R	Y	R	R	R	R	R	R	G
ILL. RTE 31 END MAST ARM AND FAR LEFT SIGNALS	S/B	R ← Y	Y	R	R	R	Y	R	R	R	R	R	R	G
ILL. RTE 31 NEAR RIGHT AND MID MAST ARM SIGNALS	N/B	R	R	R	Y	R	Y	R	R	R	R	R	R	G
ILL. RTE 31 END MAST ARM AND FAR LEFT SIGNALS	N/B	R ← Y	R	R	Y	R	Y	R	R	R	R	R	R	G
WEBSTER STREET ALL SIGNALS	W/B	R	R	R	R	R	R	R	G	G	G ← G	Y	R	R
AUCUTT ROAD FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	Y	R	R	R	R	R
														HOLD

SEQUENCE OF OPERATION

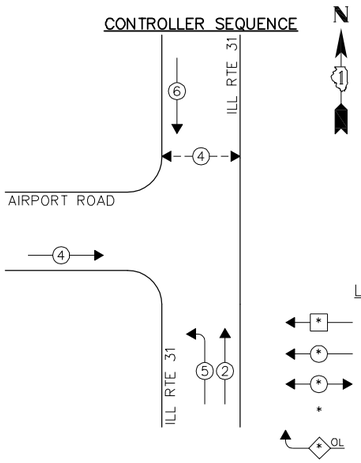
MOVEMENT	N →	5 → 1		← 6, ← 1		5 → , 2 →		← 6, 2 →		4 ↓, ↑ 8			FLASH
PHASE		1+5				1+6		2+5		2+6			4+8			
INTERVAL		1	2	3	4	5	6	7	8	9	10A	10B	11	12A	12B	
CHANGE TO			1+6	2+5	2+6		2+6		2+6		4+8			1+5 1+6 2+5 2+6		
ILL RTE 31 NEAR RIGHT AND MID MAST ARM SIGNALS	S/B	R	R	R	R	G	G	R	R	G	Y	R	R	R	R	R
ILL RTE 31 END MAST ARM AND FAR LEFT SIGNALS	S/B	R ← G	R ← G	R ← Y	R ← Y	G ← G	G ← Y	R	R	G	Y	R	R	R	R	R
ILL RTE 31 NEAR RIGHT AND MID MAST ARM SIGNALS	N/B	R	R	R	R	R	R	G	G	G	Y	R	R	R	R	R
ILL RTE 31 END MAST ARM AND FAR LEFT SIGNALS	N/B	R ← G	R ← Y	R ← G	R ← Y	R	R	G ← G	G ← Y	G	Y	R	R	R	R	R
WEBSTER STEET ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R
AUCUTT ROAD ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R

NOTE: PHASES 2+6 SHALL BE PLACED ON RECALL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SEQUENCE OF OPERATIONS & RAILROAD PREEMPTION SEQUENCE OF OPERATIONS ILL RTE 31 AT AUCUTT ROAD / WEBSTER STREET	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - ZCW	REVISED -			VARIES	2011-221-I	KANE	43	29
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -					CONTRACT #: 60R81		
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE

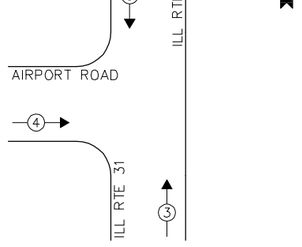


LEGEND:

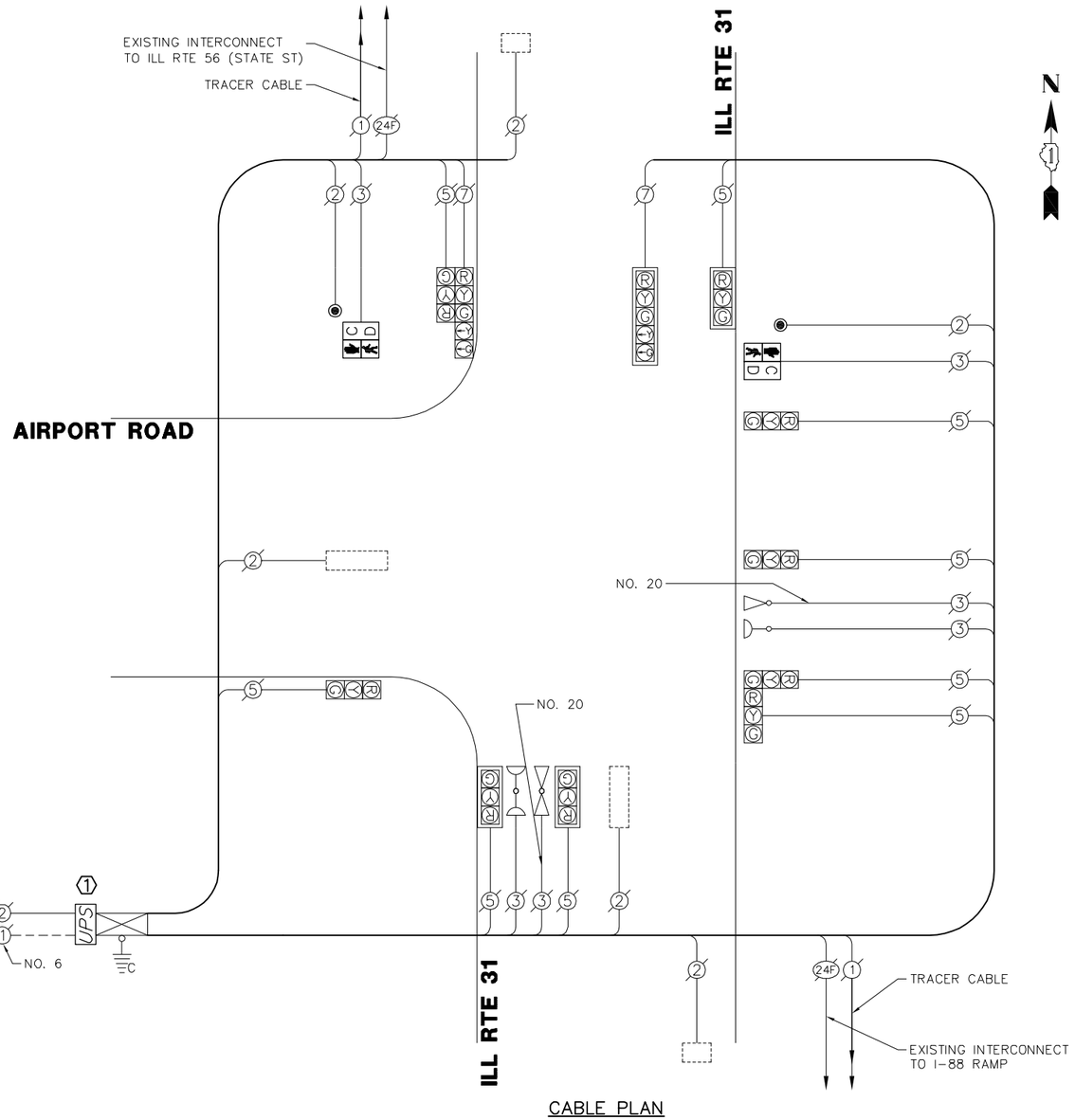
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE
- OL OVERLAP

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	—



CABLE PLAN

CONSTRUCTION NOTES:

1. THE UNINTERRUPTIBLE POWER SUPPLY UNIT SHALL BE INSTALLED ON THE LEFT SIDE OF THE EXISTING CONTROLLER CABINET

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 PEDESTRIAN SIGNAL HEAD
2 EACH PEDESTRIAN PUSH-BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	383.3

ENERGY COSTS – BILLED TO: VILLAGE OF NORTH AURORA
(ADDRESS) 25 E. STATE STREET
(ADDRESS) NORTH AURORA, IL 60542
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 31 AT AIRPORT ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	2	EACH	PEDESTRIAN PUSH-BUTTON
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME =	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
4085.881-TR1.dwg		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

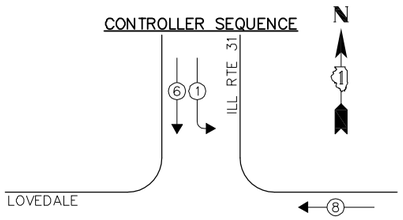
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

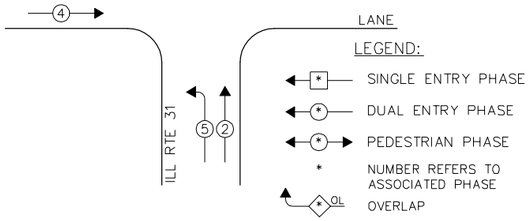
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 31 AT AIRPORT ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	30
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

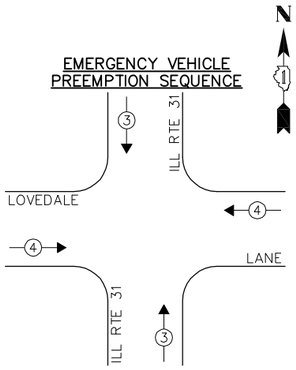
CONTROLLER SEQUENCE





PHASE DESIGNATION DIAGRAM

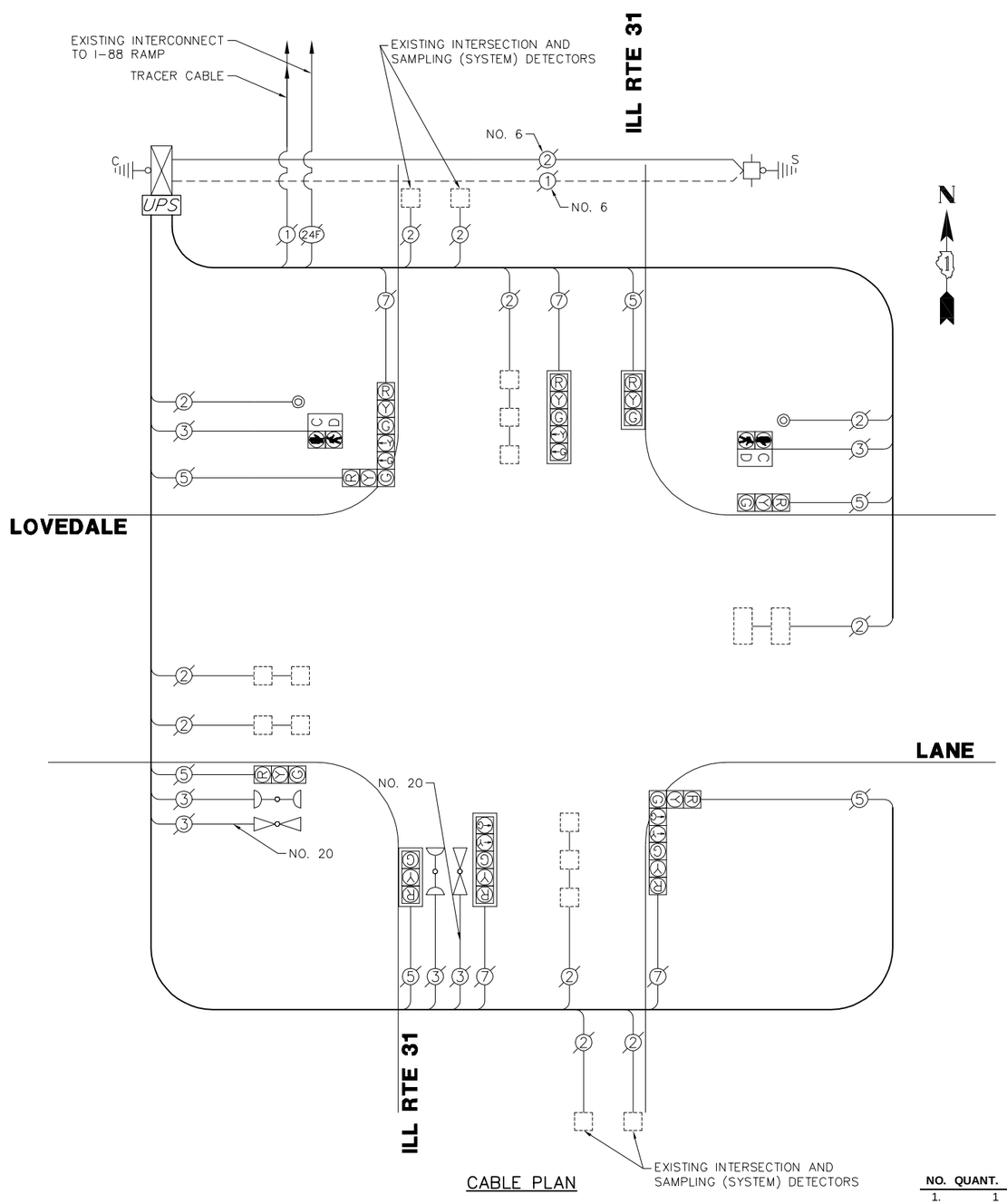
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	319.6

ENERGY COSTS – BILLED TO: VILLAGE OF NORTH AURORA
(ADDRESS) 25 E. STATE STREET
(ADDRESS) NORTH AURORA, IL 60542
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

SCHEDULE OF QUANTITIES

ILL RTE 31 AT LOVEDALE LANE

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

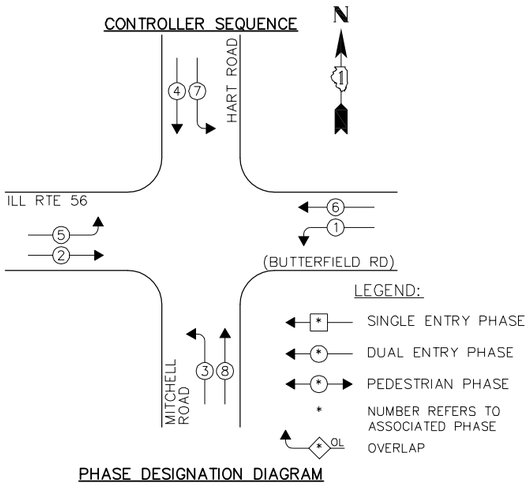
GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - ZCW	REVISED -	
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -	

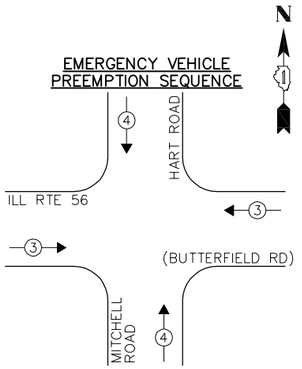
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 31 AT LOVEDALE LANE

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	31
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		



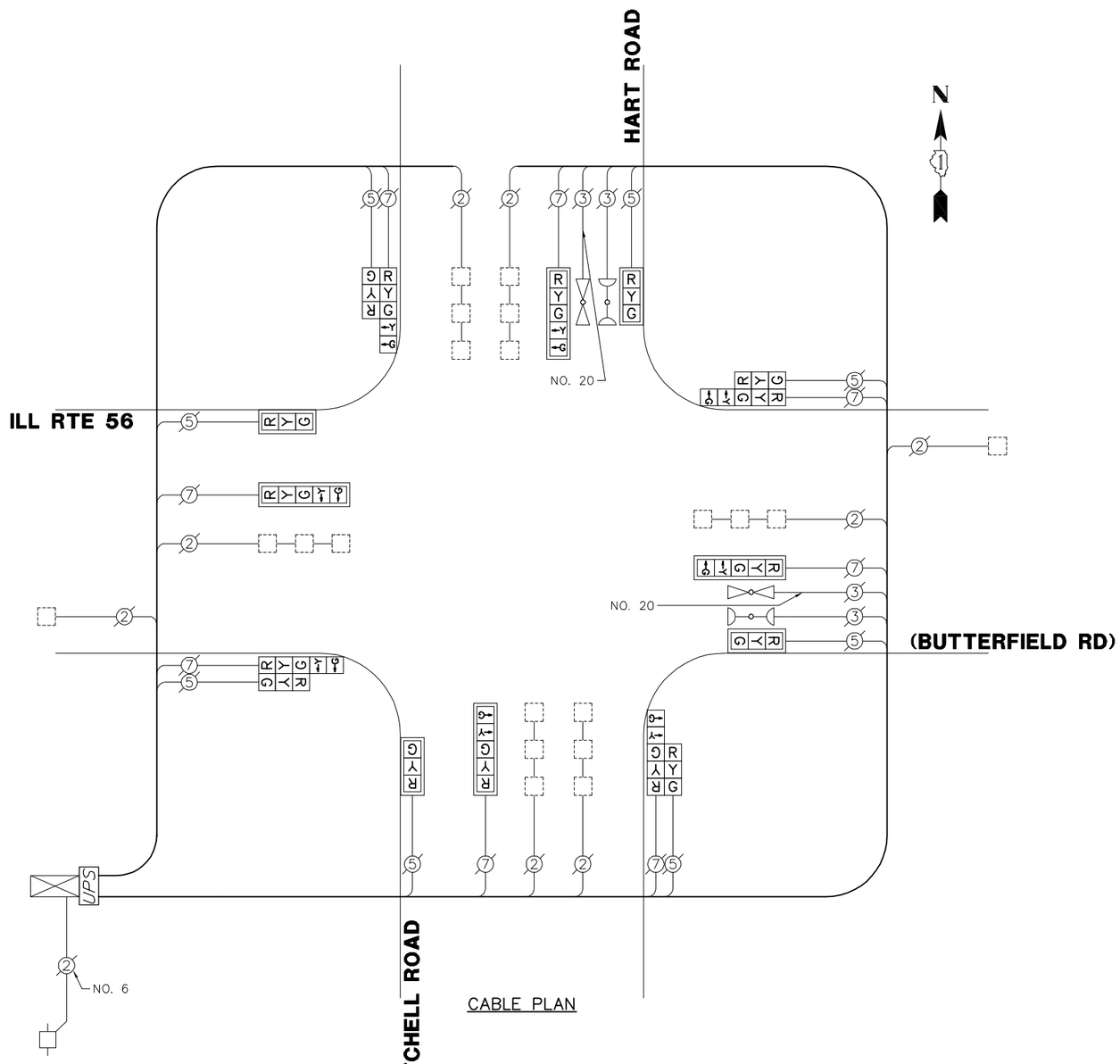
PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	440.2

ENERGY COSTS – BILLED TO: VILLAGE OF NORTH AURORA
(ADDRESS) 25 E. STATE STREET
(ADDRESS) NORTH AURORA, IL 60542
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

ILL RTE 56 (BUTTERFIELD ROAD) AT HART ROAD / MITCHELL ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
5.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

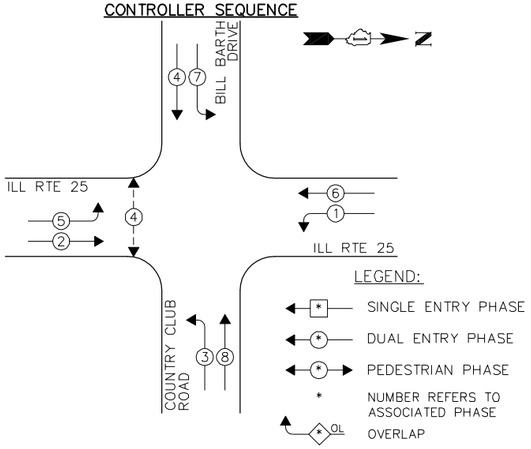
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 56 (BUTTERFIELD RD) AT HART ROAD / MITCHELL ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. | TO STA.

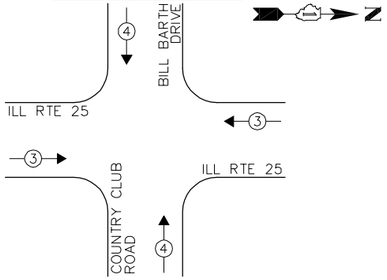
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	32
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE

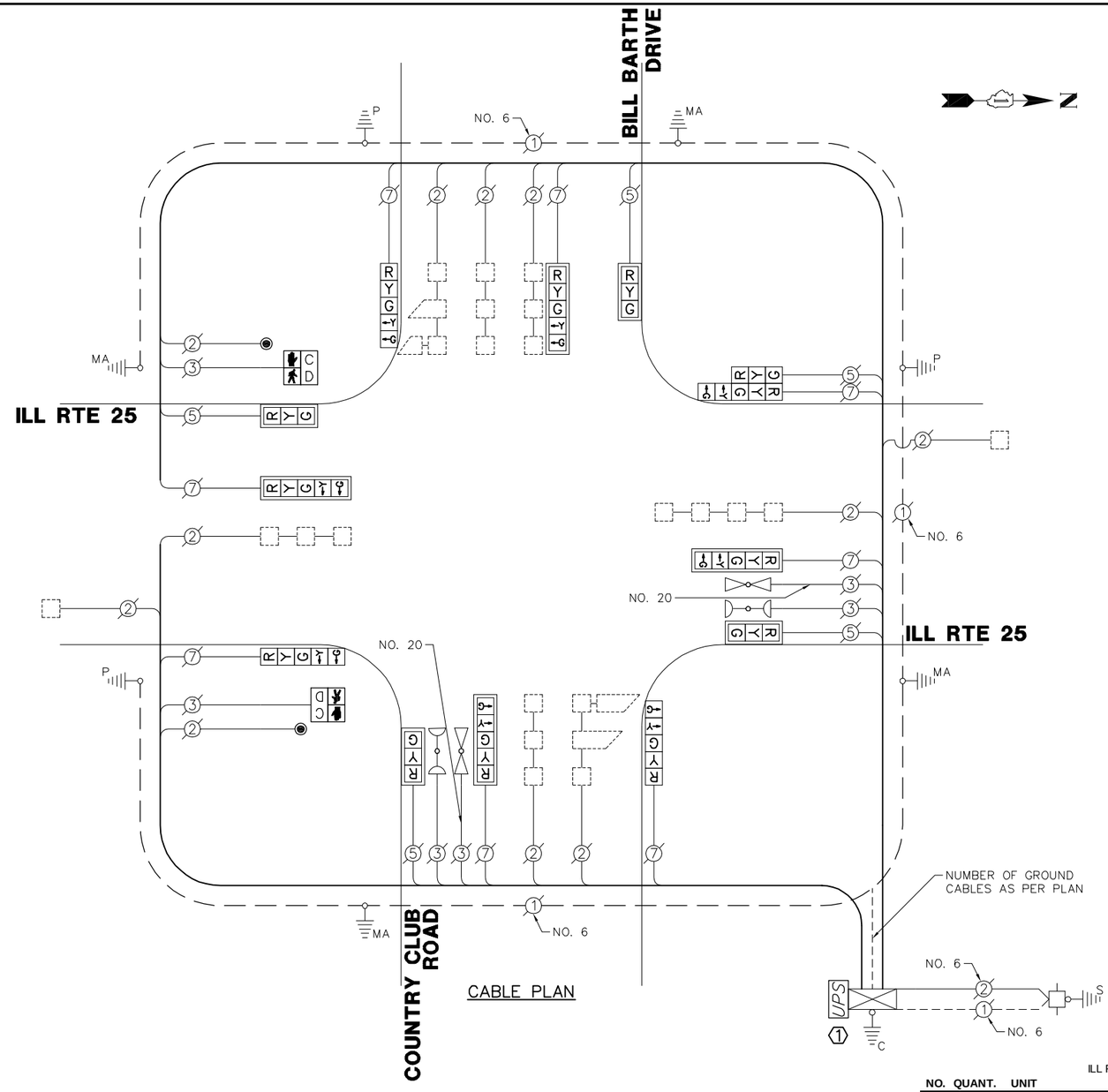


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

CONSTRUCTION NOTES:

(1) THE UNINTERRUPTIBLE POWER SUPPLY UNIT SHALL BE INSTALLED ON THE LEFT SIDE OF THE EXISTING CONTROLLER CABINET

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 PEDESTRIAN SIGNAL HEAD
2 EACH PEDESTRIAN PUSH BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	2	90	25	1.00	50.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	434.7

ENERGY COSTS – BILLED TO: CITY OF ST. CHARLES
(ADDRESS) 2 E. MAIN STREET
(ADDRESS) ST. CHARLES, IL 60174
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 25 AT COUNTRY CLUB ROAD / BILL BARTH DRIVE

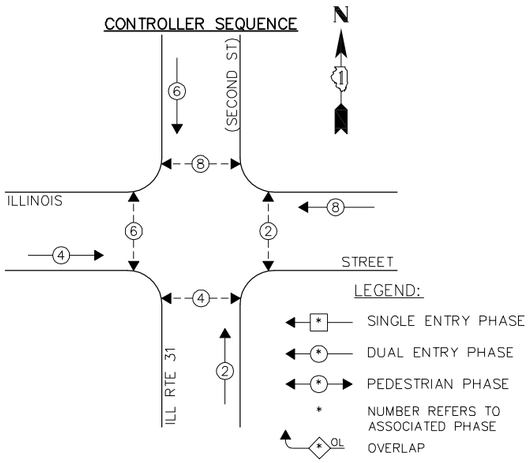
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	2	EACH	PEDESTRIAN PUSH-BUTTON
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
10.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE ILL RTE 25 AT COUNTRY CLUB ROAD/BILL BARTH DRIVE
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

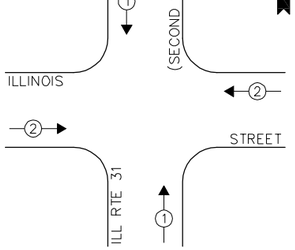
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	33
		CONTRACT #: 60R81		
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE

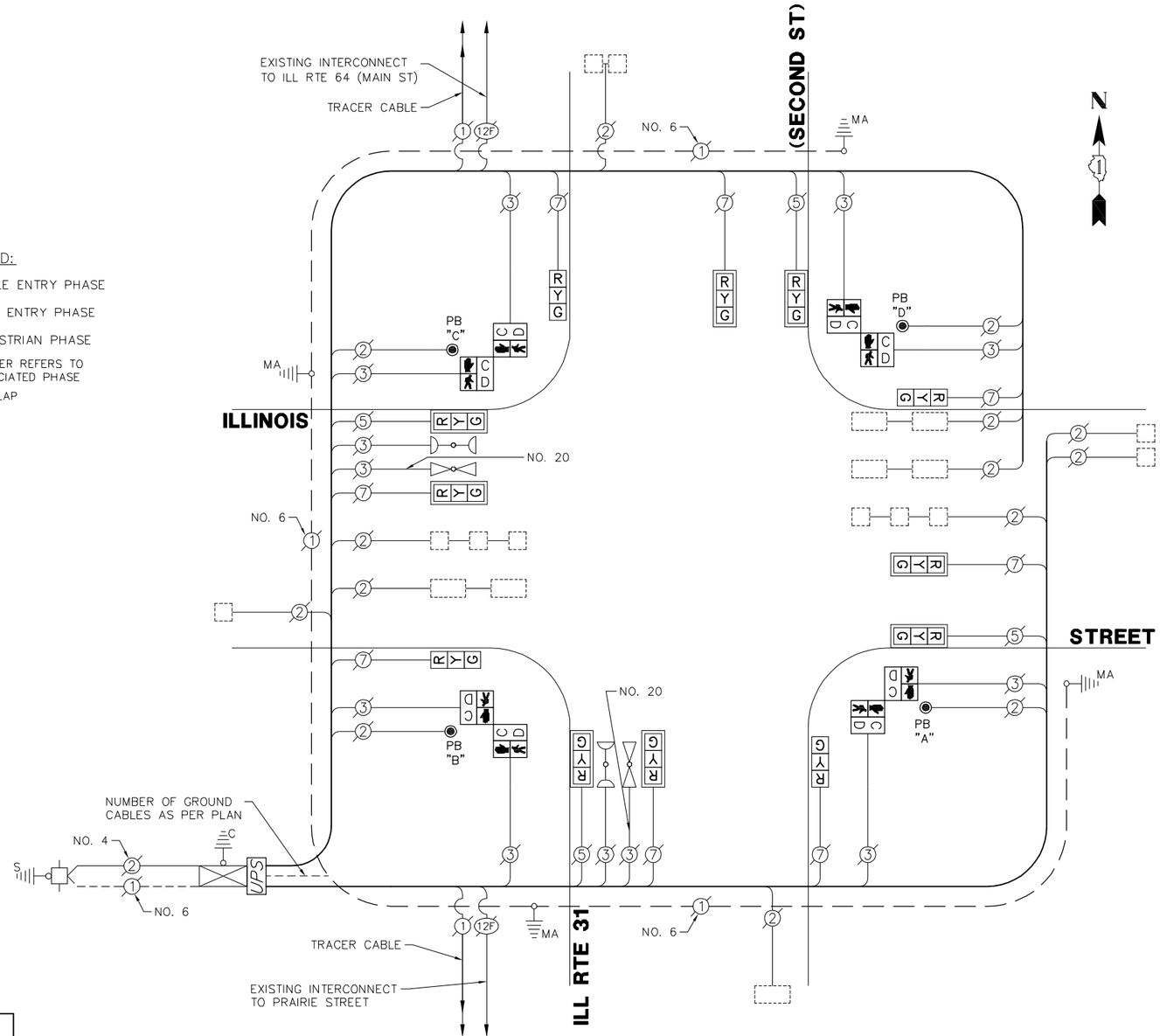


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT		



CABLE PLAN

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

NOTES:

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

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

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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

8 EACH PEDESTRIAN SIGNAL HEAD
4 EACH PEDESTRIAN PUSH BUTTON

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	–	135	12	0.10	–
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	547.0

ENERGY COSTS – BILLED TO: CITY OF ST. CHARLES
(ADDRESS) 2 E. MAIN STREET
(ADDRESS) ST. CHARLES, IL 60174
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 31 (SECOND STREET) AT ILLINOIS STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
7.	8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
8.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

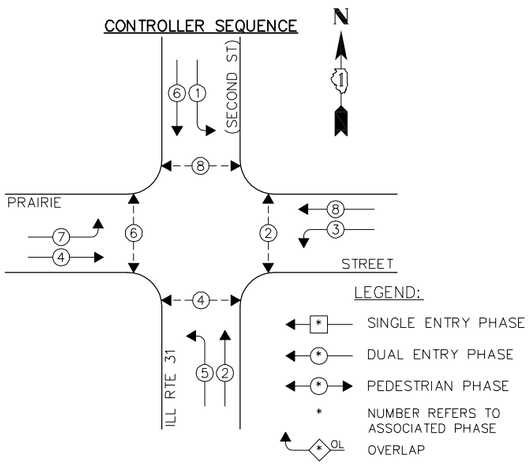
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 31 (SECOND ST) AT ILLINOIS STREET

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

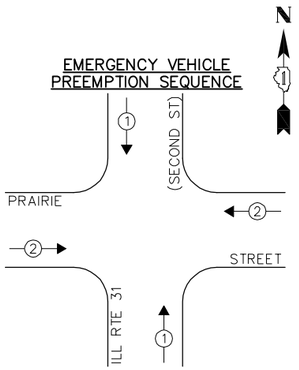
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	34
		CONTRACT #: 60R81		
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

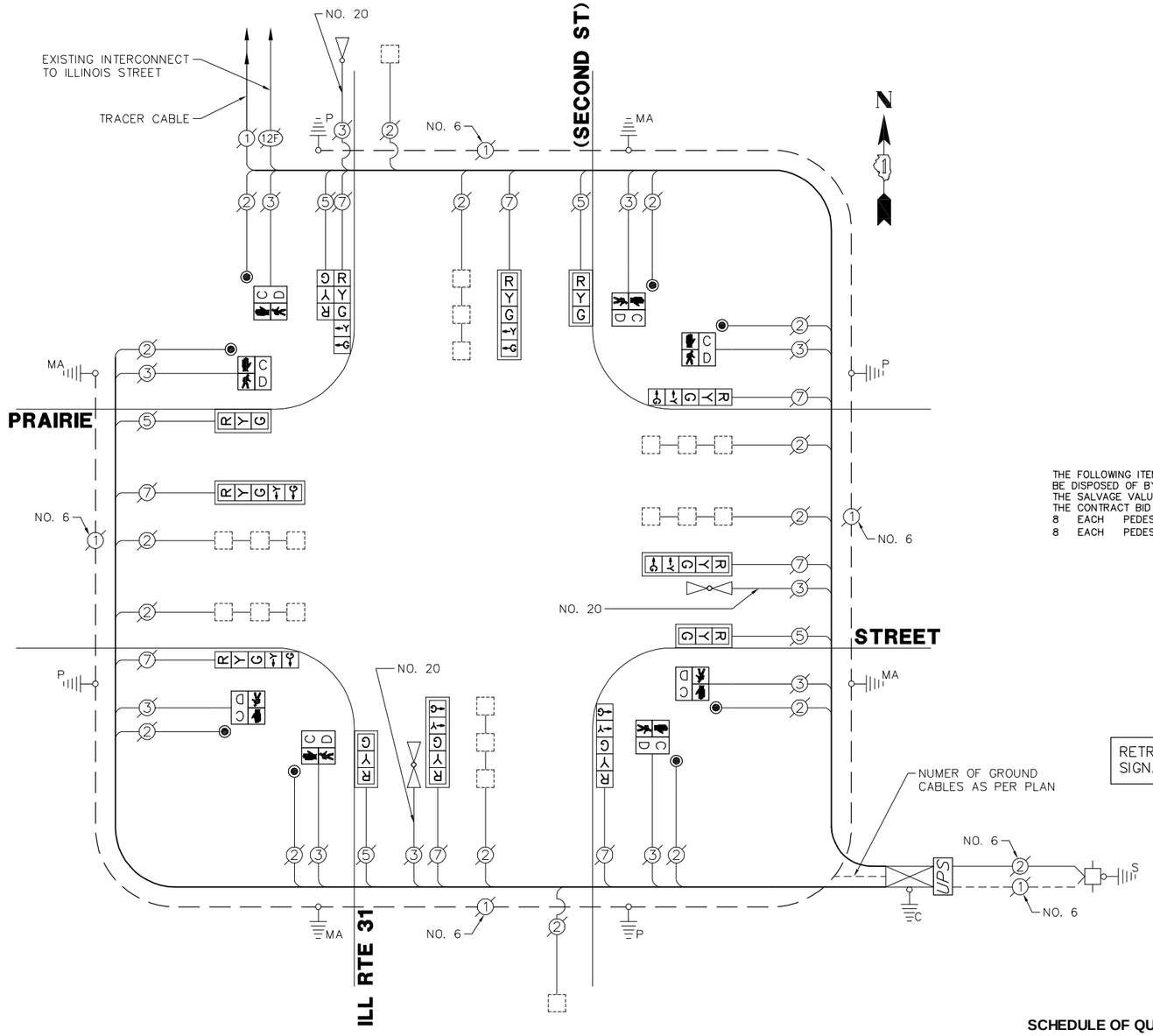
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↓ ↑	— —

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.0
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	584.7

ENERGY COSTS – BILLED TO: CITY OF ST. CHARLES
(ADDRESS) 2 E. MAIN STREET
(ADDRESS) ST. CHARLES, IL 60174
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

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

8 EACH PEDESTRIAN SIGNAL HEAD
8 EACH PEDESTRIAN PUSH BUTTON

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

ILL RTE 31 (SECOND STREET) AT PRAIRIE STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	8	EACH	PEDESTRIAN PUSH-BUTTON
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
10.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881–TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED – JRD	REVISED –
		DRAWN – ZCW	REVISED –
	PLOT SCALE = 1" = .0833'	CHECKED – KLB	REVISED –
	PLOT DATE = 2/3/2012	DATE – 2/3/2012	REVISED –

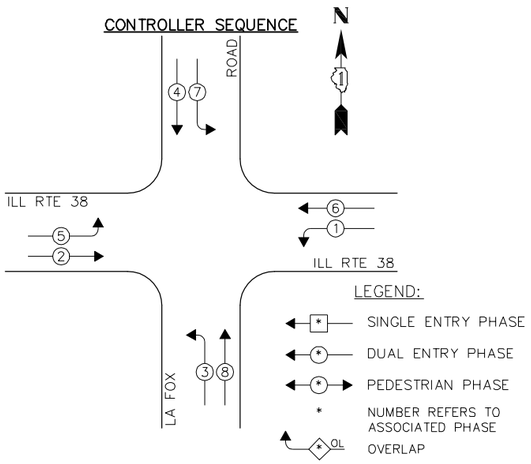
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 31 (SECOND STREET) AT PRAIRIE STREET

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

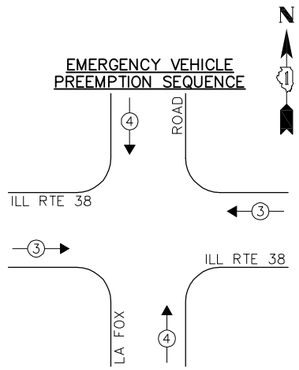
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011–221–I	KANE	43	35
		CONTRACT #: 60R81		
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

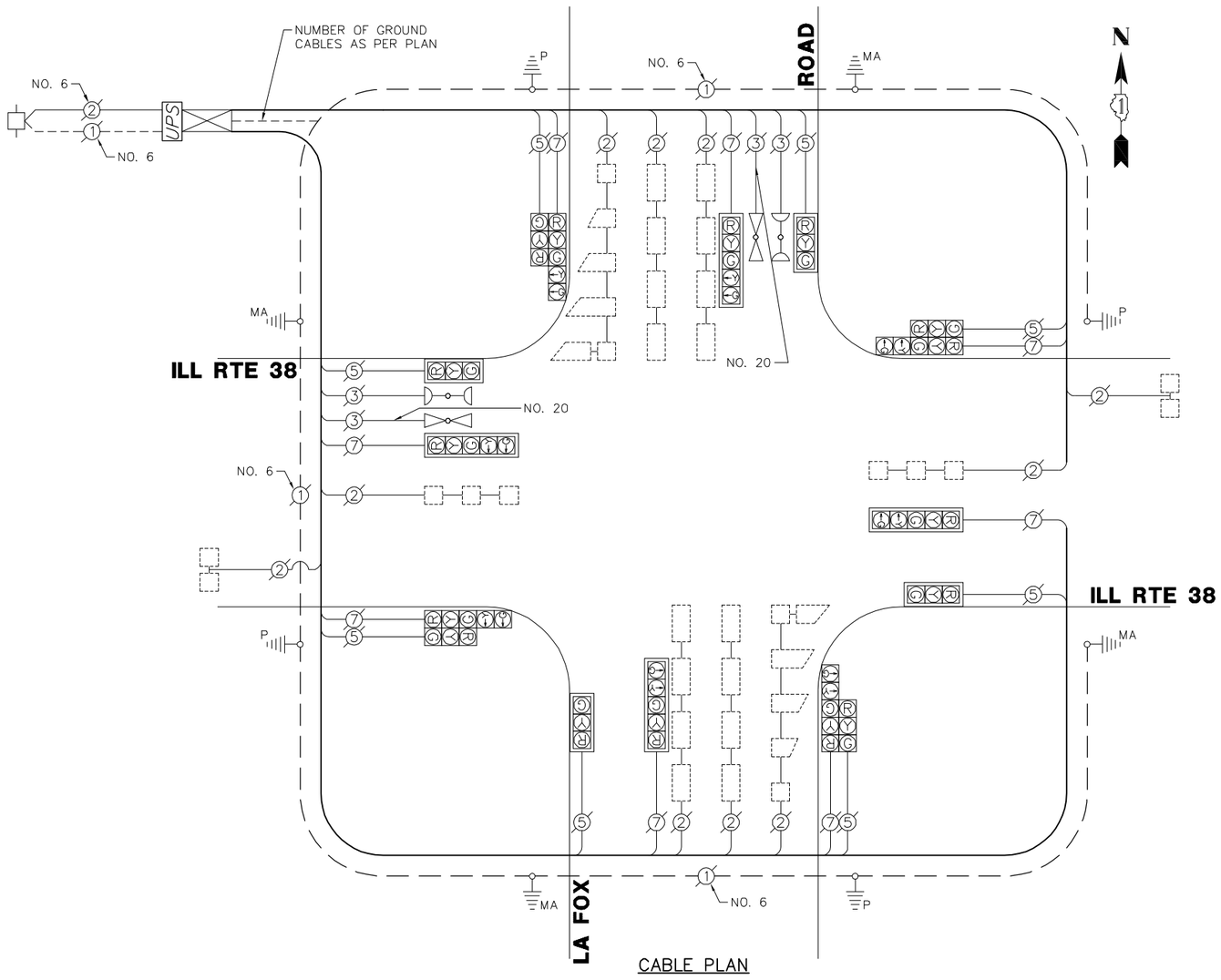
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	10..0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	440.2

ENERGY COSTS – BILLED TO: CITY OF ST. CHARLES
(ADDRESS) 2 E. MAIN STREET
(ADDRESS) ST. CHARLES, IL 60174
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

SCHEDULE OF QUANTITIES

ILL RTE 38 AT LA FOX ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

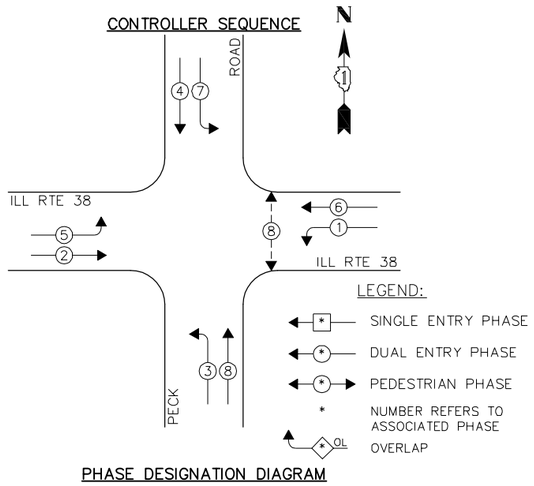
FILE NAME =	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
4085.881-TR1.dwg		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

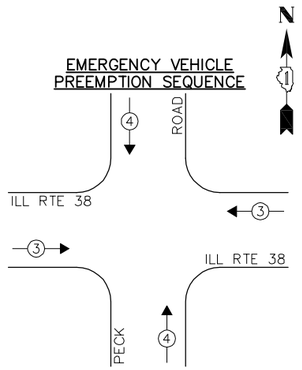
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 38 AT LA FOX ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	36
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		



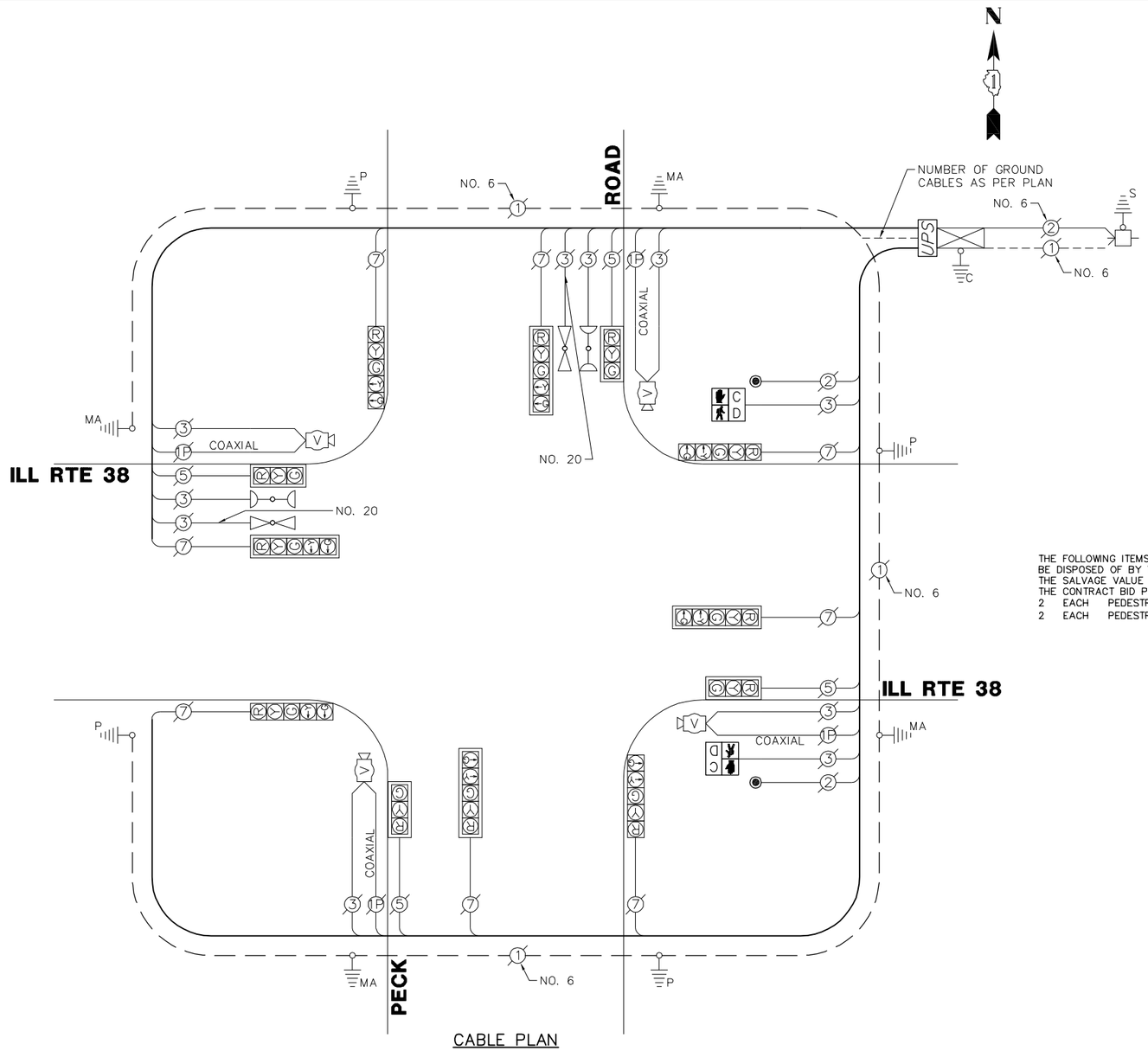
PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	2	90	25	1.00	50.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	1	–	150	1.00	150.0
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	566.2

ENERGY COSTS – BILLED TO: CITY OF ST. CHARLES
(ADDRESS) 2 E. MAIN STREET
(ADDRESS) ST. CHARLES, IL 60174
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

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 PEDESTRIAN SIGNAL HEAD
2 EACH PEDESTRIAN PUSH BUTTON

SCHEDULE OF QUANTITIES

ILL RTE 38 AT PECK ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	2	EACH	PEDESTRIAN PUSH-BUTTON
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME =	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
4085.881-TR1.dwg		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

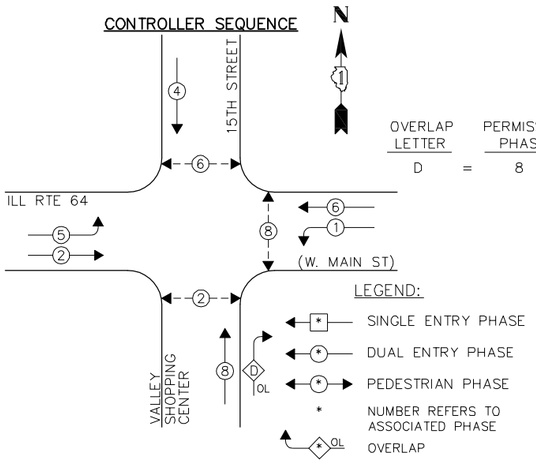
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 38 AT PECK ROAD

SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	37
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

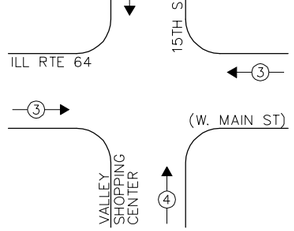
CONTROLLER SEQUENCE



OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
D	=	8	+	1

PHASE DESIGNATION DIAGRAM

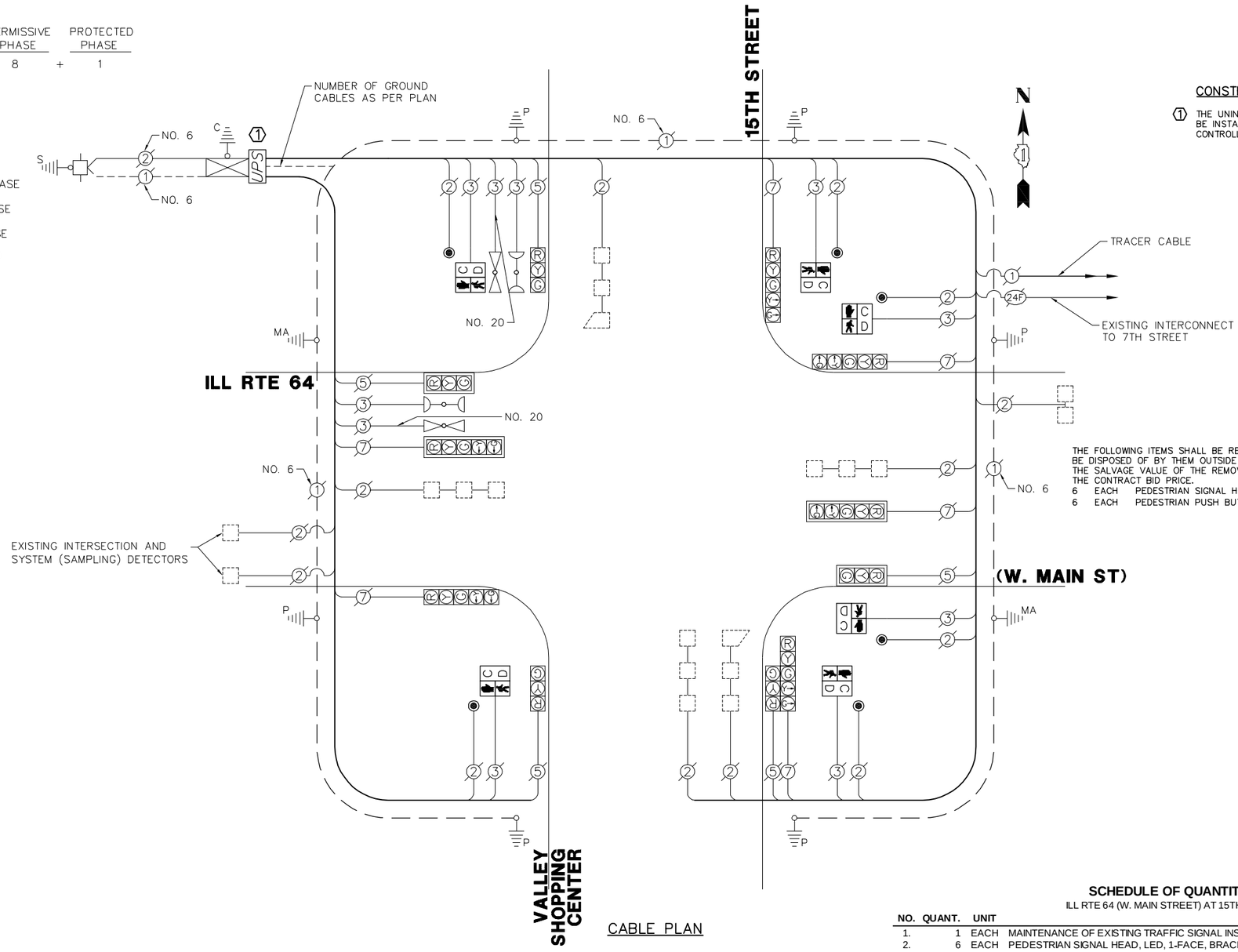
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	11	135	15	0.25	41.25
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	6	90	25	1.00	150.0
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	492.9

ENERGY COSTS – BILLED TO: CITY OF ST. CHARLES
(ADDRESS) 2 E. MAIN STREET
(ADDRESS) ST. CHARLES, IL 60174
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

CONSTRUCTION NOTES:

(1) THE UNINTERRUPTIBLE POWER SUPPLY UNIT SHALL BE INSTALLED ON THE LEFT SIDE OF THE EXISTING CONTROLLER CABINET

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.

6 EACH PEDESTRIAN SIGNAL HEAD
6 EACH PEDESTRIAN PUSH BUTTON

SCHEDULE OF QUANTITIES

ILL RTE 64 (W. MAIN STREET) AT 15TH STREET

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	6	EACH	PEDESTRIAN PUSH-BUTTON
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME =	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
4085.881-TR1.dwg		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

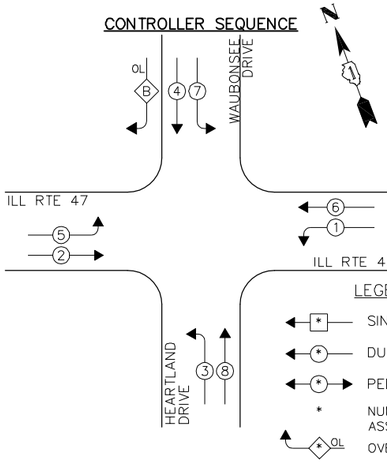
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 64 (W. MAIN ST) AT 15TH STREET

SCALE: N.A. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	38
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE



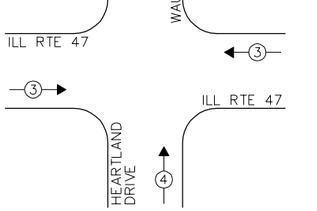
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5

LEGEND:

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

PHASE DESIGNATION DIAGRAM

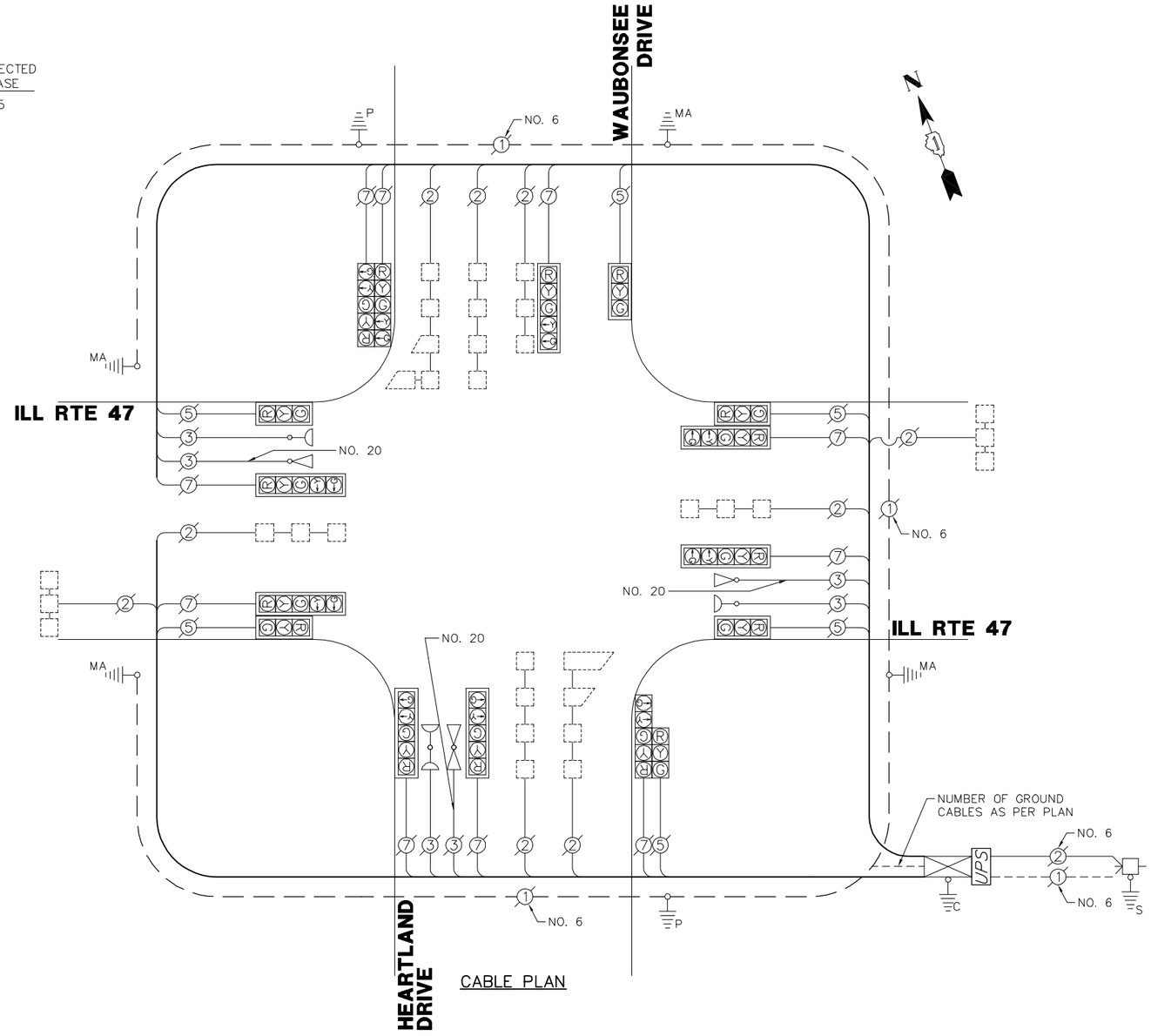
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	—	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	20	135	12	0.10	24.0
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	445.0

ENERGY COSTS – BILLED TO: VILLAGE OF SUGAR GROVE
(ADDRESS) 10 S. MUNICIPAL DRIVE
(ADDRESS) SUGAR GROVE, IL 60554
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –



CABLE PLAN

SCHEDULE OF QUANTITIES

ILL RTE 47 AT WAUBONSEE DRIVE / HEARTLAND DRIVE

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

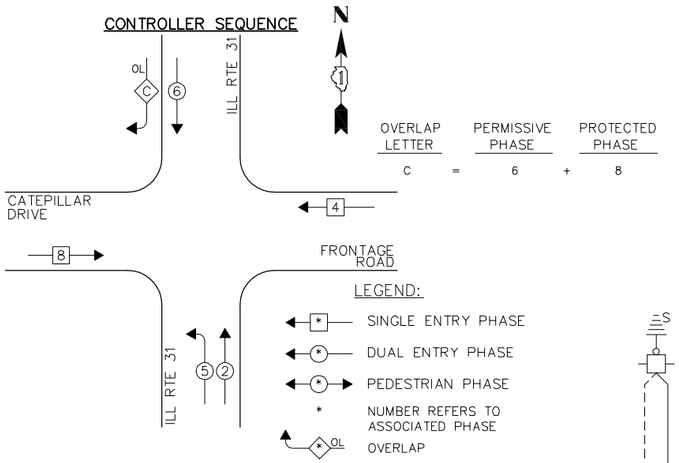
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL RTE 47 AT WAUBONSEE DRIVE/HEARTLAND DRIVE

SCALE: N.A. | SHEET NO. OF SHEETS | STA. | TO STA.

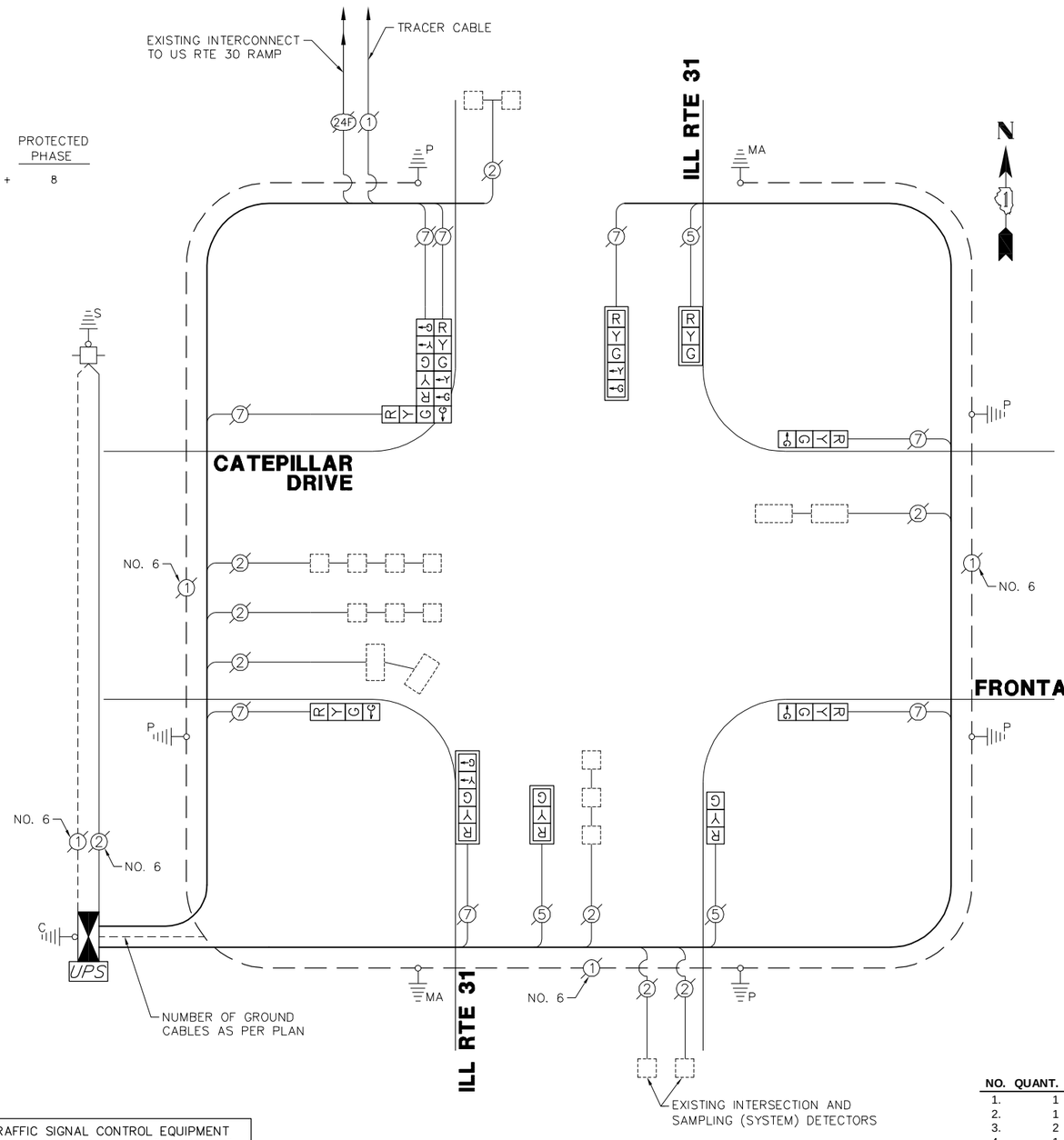
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KANE	43	39
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE



OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
C	=	6	+	8

PHASE DESIGNATION DIAGRAM



CABLE PLAN

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, 3-SECTION
4	EACH	SIGNAL HEAD, 4-SECTION
4	EACH	SIGNAL HEAD, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
1	EACH	CABINET AND CONTROLLER (COMPLETE)

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION	
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	15	135	15	0.25	56.25
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	353.1

ENERGY COSTS – BILLED TO: VILLAGE OF MONTGOMERY
(ADDRESS) 200 N. RIVER STREET
(ADDRESS) MONTGOMERY, IL 60538
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

ILL RTE 31 AT CATERPILLAR DRIVE / FRONTAGE ROAD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	TRANSCEIVER - FIBER OPTIC
3.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
5.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED
6.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
7.	1	EACH	SIGNAL HEAD, LED, 3-FACE, 1-4 SECTION, 2-5 SECTION, BRACKET MOUNTED
8.	4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9.	8	EACH	INDUCTIVE LOOP DETECTOR
10.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
11.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
12.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL

GHA #4085.881

FILE NAME =	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
4085.881-TR1.dwg		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -

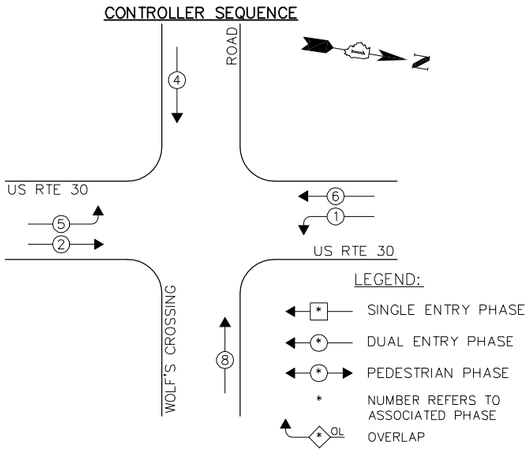
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM
ILL RTE 31 AT CATEPILLAR DRIVE / FRONTAGE ROAD

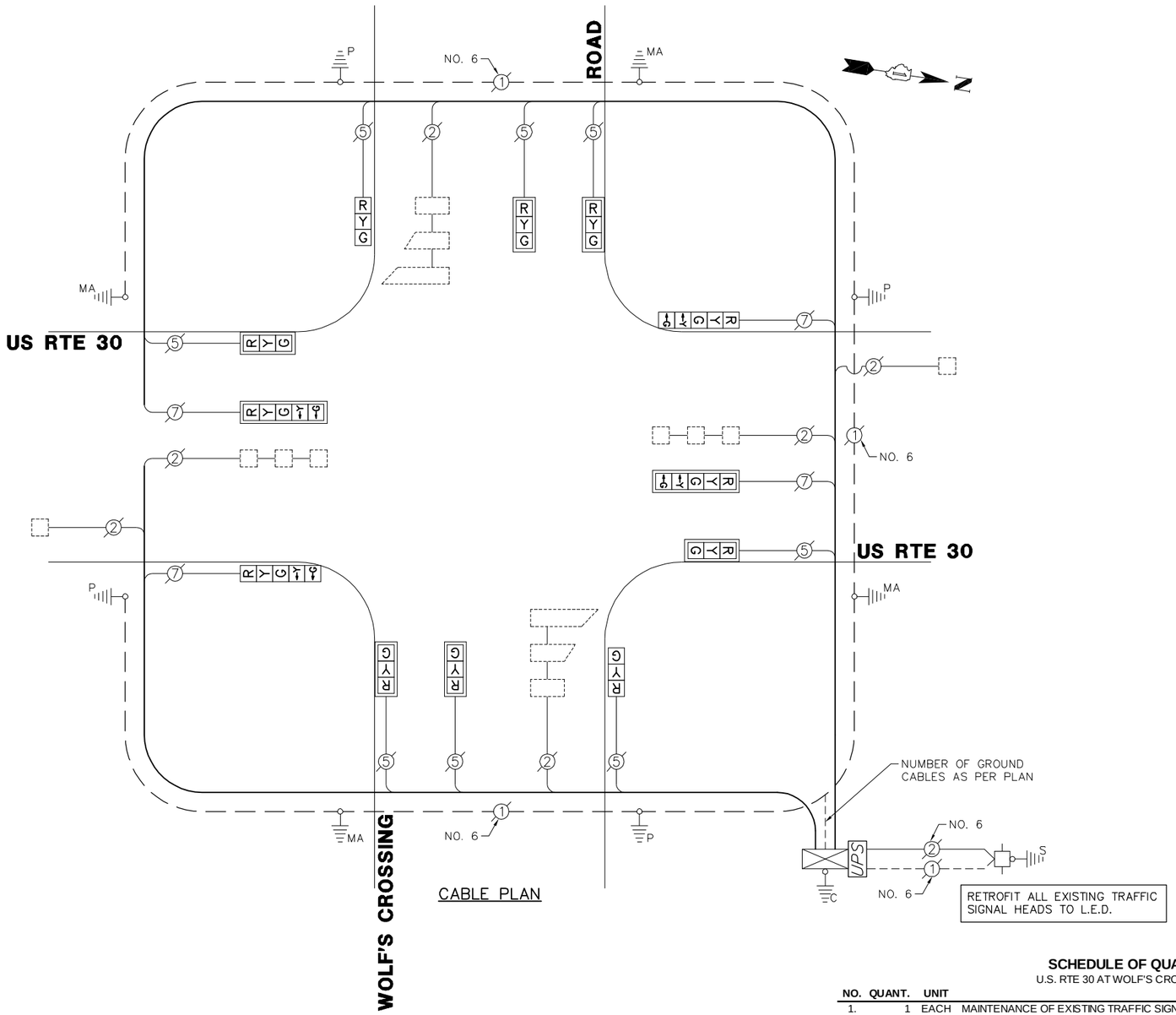
SCALE: N.A. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KENDALL	43	40
		CONTRACT #:	60R81	
		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	356.6

ENERGY COSTS – BILLED TO: ILLINOIS DEPT. OF TRANS.
(ADDRESS) 201 W. CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

U.S. RTE 30 AT WOLF'S CROSSING ROAD

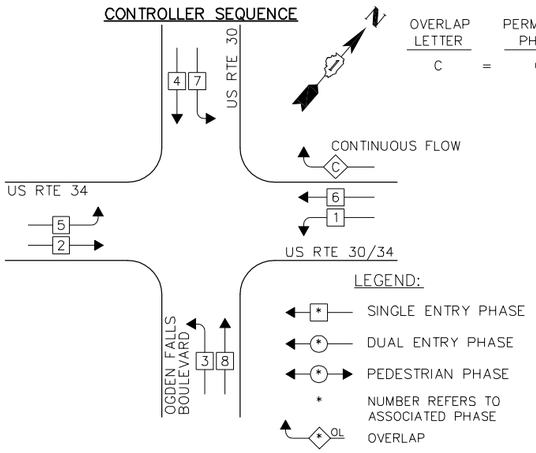
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
5.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
6.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
7.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM US RTE 30 AT WOLF'S CROSSING ROAD
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		SCALE N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KENDALL	43	41
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE

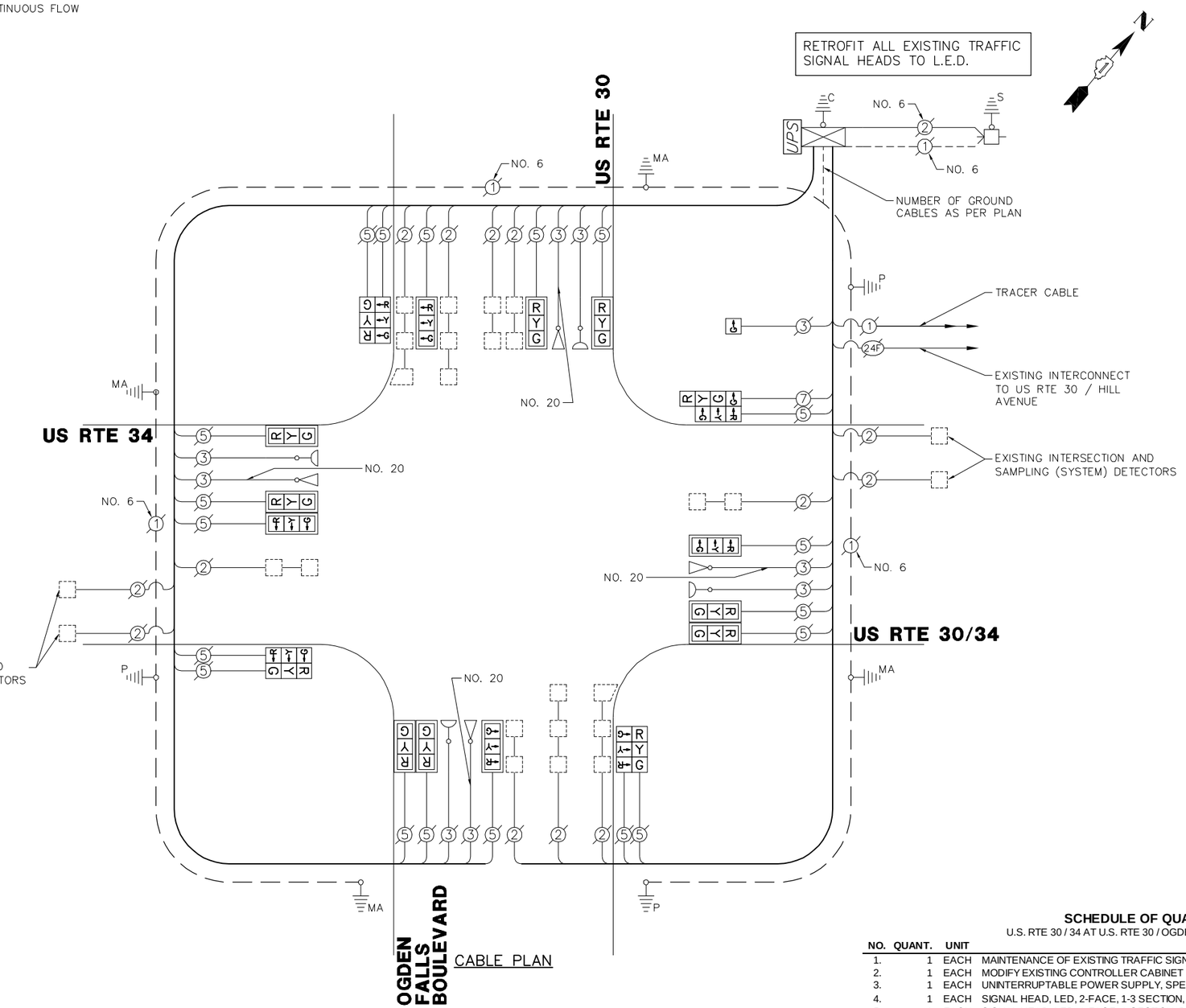


OVERLAP LETTER		PERMISSIVE PHASE	PROTECTED PHASE
C	=	CONTINUOUS FLOW	

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EXISTING EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	20	135	17	0.50	170.0
SIGNAL (YELLOW)	20	135	25	0.25	125.0
SIGNAL (GREEN)	22	135	15	0.25	82.5
ARROW	–	135	12	0.10	–
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	1	–	25	1.00	25.0
ILLUMINATED SIGN	–	–	25	0.05	–
				TOTAL =	502.5

ENERGY COSTS – BILLED TO: VILLAGE OF OSWEGO
(ADDRESS) 100 PARKERS MILL
(ADDRESS) OSWEGO, IL 60543
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

U.S. RTE 30 / 34 AT U.S. RTE 30 / OGDEN FALLS BOULEVARD

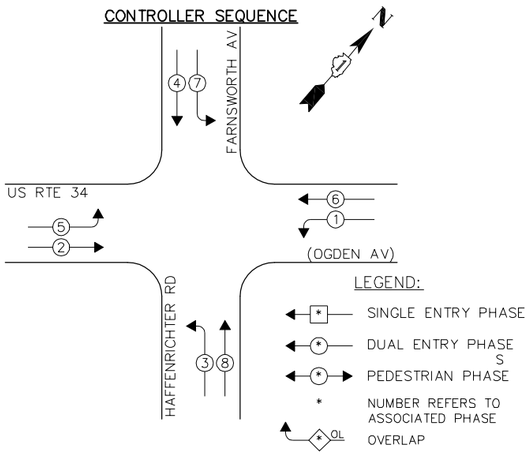
NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED, RETROFIT
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 1-SECTION, BRACKET MOUNTED, RETROFIT
6.	12	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
7.	3	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE US RTE 30/34 AT US RTE 30 / OGDEN FALLS BOULEVARD
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

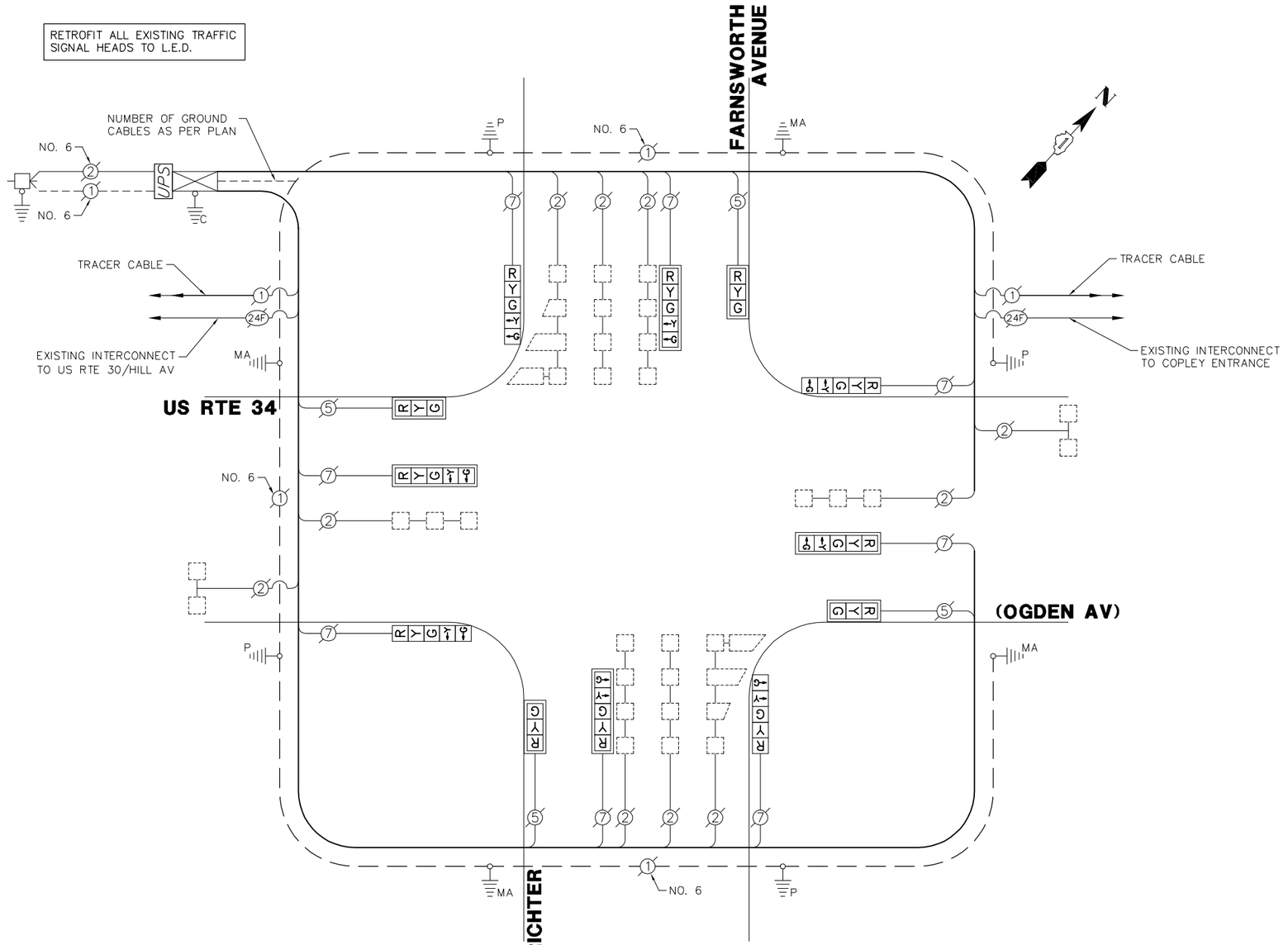
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KENDALL	43	42
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
		WATTAGE			
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	–	90	25	1.00	–
CONTROLLER	1	–	100	1.00	100.0
LUMINAIRE	–	–	250	0.50	–
L.E.D. ST. NAME SIGN	–	–	64	0.50	–
VIDEO SYSTEM	–	–	150	1.00	–
BATTERY BACKUP	–	–	25	1.00	25.0
ILLUMINATED SIGN	1	–	25	0.05	–
				TOTAL =	366.2

ENERGY COSTS – BILLED TO: CITY OF AURORA
(ADDRESS) 44 E. DOWNER PLACE
(ADDRESS) AURORA, IL 60507
ENERGY SUPPLY – CONTACT: –
PHONE: –
COMPANY: –

SCHEDULE OF QUANTITIES

U.S. RTE 34 (OGDEN AVENUE) AT FARNSWORTH AV / HAFFENRICHTER RD

NO.	QUANT.	UNIT	
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
5.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT

GHA #4085.881

FILE NAME = 4085.881-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM US RTE 34 (OGDEN AV) AT FARNSWORTH AV/HAFFENRICHTER RD
		DRAWN - ZCW	REVISED -		
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE N.A. SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 2/3/2012	DATE - 2/3/2012	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-221-I	KENDALL	43	43
		CONTRACT #:	60R81	
	ILLINOIS FED. AID PROJECT			