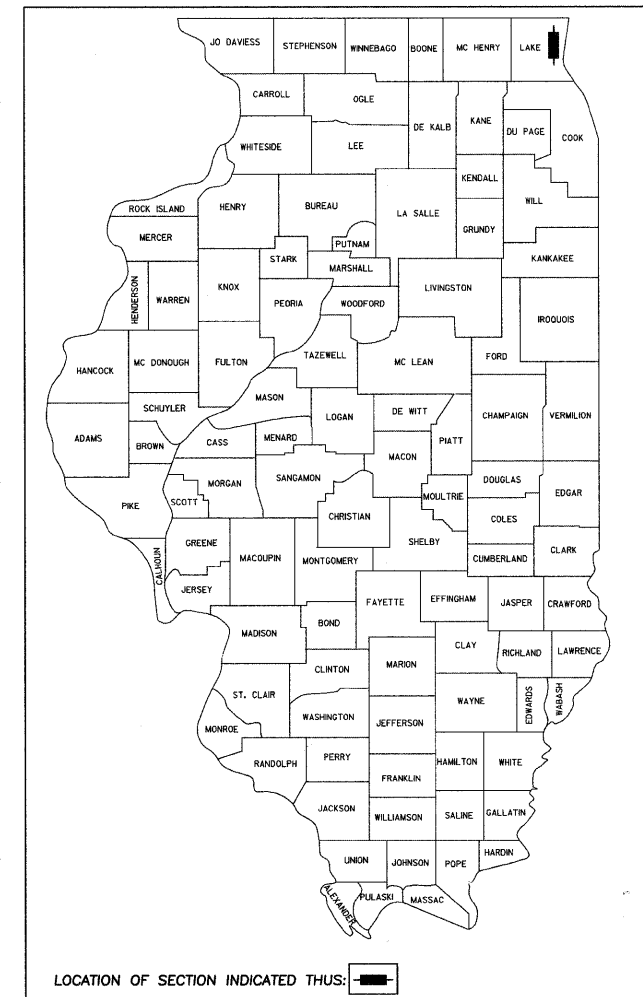


INDEX OF SHEETS

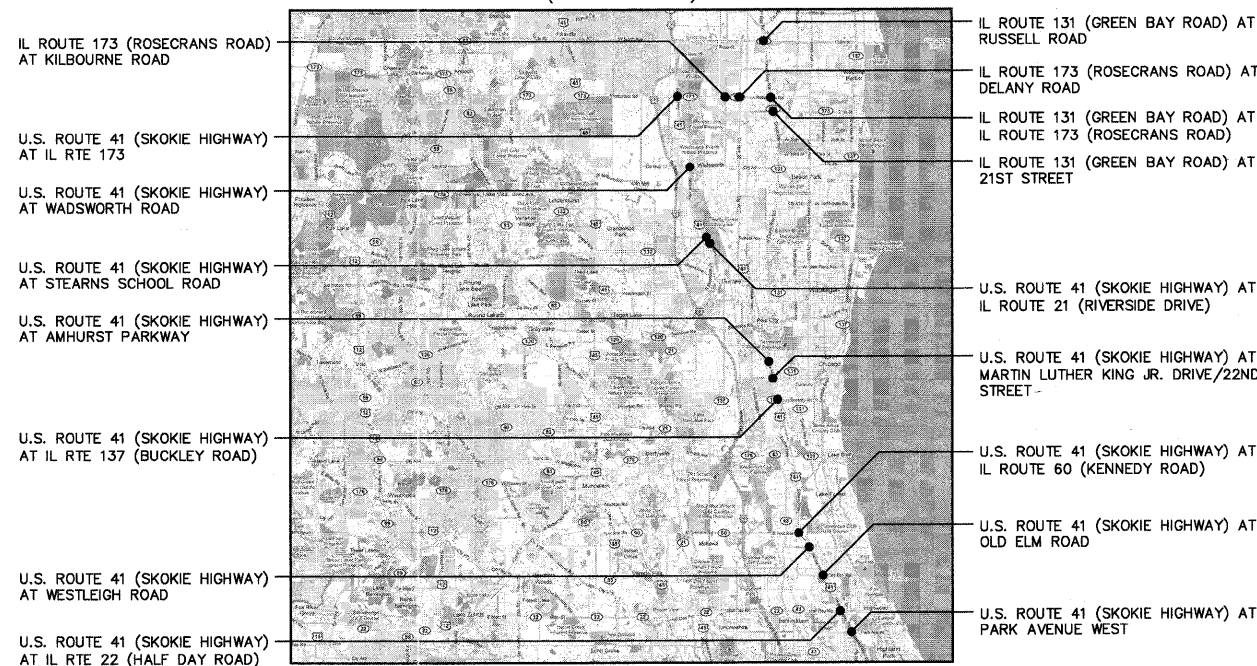
1. TITLE SHEET
- 2.-5. SCHEDULE OF QUANTITIES
- 6.-11. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
- 12.-13. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST
14. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST
- 15.-16. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 22 (HALF DAY ROAD)
17. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 22 (HALF DAY ROAD)
- 18.-19. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD
20. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD
- 21.-22. RAILROAD PREEMPTION SEQUENCE OF OPERATIONS & SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD
- 23.-24. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD
25. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD
26. RAILROAD PREEMPTION SEQUENCE OF OPERATIONS & SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD
27. EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD
28. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 60 (KENNEDY ROAD)
29. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 60 (KENNEDY ROAD)
- 30.-31. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)
32. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)
33. RAILROAD PREEMPTION SEQUENCE OF OPERATIONS & SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)
34. EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)
- 35.-36. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET
37. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET
38. RAILROAD PREEMPTION SEQUENCE OF OPERATIONS & SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET
39. EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS - U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET
40. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT AMHURST PARKWAY
41. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT AMHURST PARKWAY
42. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 21 (RIVERSIDE DRIVE)
43. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 21 (RIVERSIDE DRIVE)
44. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD
45. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD
46. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT WADSWORTH ROAD
47. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT WADSWORTH ROAD
- 48.-49. TRAFFIC SIGNAL MODERNIZATION PLAN - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 173 (ROSECRANS ROAD)
50. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 173 (ROSECRANS ROAD)
51. TRAFFIC SIGNAL MODERNIZATION PLAN - IL RTE 173 (ROSECRANS ROAD) AT KILBOURNE ROAD
52. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - IL RTE 173 (ROSECRANS ROAD) AT KILBOURNE ROAD
53. TRAFFIC SIGNAL MODERNIZATION PLAN - IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD
54. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD
55. TRAFFIC SIGNAL MODERNIZATION PLAN - IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET
56. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET
- 57.-58. TRAFFIC SIGNAL MODERNIZATION PLAN - IL RTE 131 (GREEN BAY ROAD) AT IL RTE 173 (ROSECRANS ROAD)
59. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - IL RTE 131 (GREEN BAY ROAD) AT IL RTE 173 (ROSECRANS ROAD)
- 60.-61. TRAFFIC SIGNAL MODERNIZATION PLAN - IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD (STATE LINE ROAD)
62. SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, VEHICLE PREEMPTION SEQUENCE - IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD (STATE LINE ROAD)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED HIGHWAY
PLANS**
DISTRICT 1
TRAFFIC SIGNAL MODERNIZATION
VARIOUS ROUTES / VARIOUS LOCATIONS
SECTION: 2011-042-TS
LAKE COUNTY, ILLINOIS
JOB NO: C-91-564-11

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-042-TS	LAKE	62	1
		CONTRACT #:	60P49	
ILLINOIS FED. AID PROJECT				



LOCATION MAP
(NOT TO SCALE)



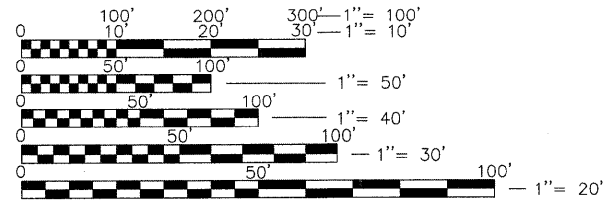
CONTRACT NO. 60P49

J.U.L.I.E. TOLL FREE
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
Call 48 hours before you dig
(Excluding Sat., Sun., & Holidays)
1-800-892-0123

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 BIDDER. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR 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 UTILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

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.

- DOT STANDARDS:**
- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, & PATTERNS
 - 001006 DECIMAL OF AN INCH OF A FOOT
 - 424001-05 CURB RAMPS FOR SIDEWALKS
 - 701006-03 OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
 - 701011-02 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
 - 701101-02 OFF-RD OPERATIONS, MULTILANE, 15'(4.5 m) TO 24"(600 mm) FROM PAVEMENT EDGE
 - 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
 - 701301-04 LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
 - 701701-06 URBAN LANE CLOSURE MULTILANE INTERSECTION
 - 701801-04 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
 - 701901-01 TRAFFIC CONTROL DEVICES
 - 780001-02 TYPICAL PAVEMENT MARKINGS
 - 805001-01 ELECTRIC SERVICE INSTALLATION DETAILS
 - 814001-02 HANDHOLE
 - 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
 - 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)
 - 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING
 - 877001-04 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
 - 877002-01 STEEL MAST ARM ASSEMBLY AND POLE 56' THROUGH 75'
 - 878001-08 CONCRETE FOUNDATION DETAILS
 - 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
 - 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
 - 886001-01 DETECTOR LOOP INSTALLATIONS
 - 886006-01 TYPICAL LAYOUTS FOR DETECTION LOOPS



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 BELOW SCALES MAY BE USED.

KEVIN L. BELGRAVE
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
DATE: 6/30/2011
EXPIRES: 11/30/2011

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: Suly 8 20 11
Devin M O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 19 20 11
Scott E. Stitt P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

August 19 20 11
Christine M. Fiedler
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES		URBAN										
		LOCATION	1.	2., 6., 9., 12., 16.	3., 4., 5.	7., 10., 11., 13., 15., 17.	8.	14.	10.	12., 13., 14.	17.	
CODE NO.	ITEM	UNIT	TOTAL	90% FEDERAL 5% STATE 5% CITY OF HIGHLAND PARK	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% CITY OF LAKE FOREST	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 6.67% STATE 3.33% CITY OF WAUKEGAN	90% FEDERAL 5% STATE 2.5% LAKE COUNTY 2.5% VILLAGE OF WADSWORTH	100% VILLAGE OF GURNEE	100% NEWPORT TOWNSHIP FIRE PROTECTION DISTRICT	100% CITY OF ZION
				0021	0021	0021	0021	0021	0021	0021	0021	0021
20200100	EARTH EXCAVATION	CU YD	2			2						
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	785	190	80	395	80		40			
42400800	DETECTABLE WARNINGS	SQ FT	148	48		100						
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	26			26						
44000600	SIDEWALK REMOVAL	SQ FT	496	150		346						
60603900	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (ABUTTING EXISTING PAVEMENT)	FOOT	26			26						
67100100	MOBILIZATION	L SUM	1.00	0.05	0.26	0.18	0.43	0.03	0.05			
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.00	0.05	0.26	0.18	0.43	0.03	0.05			
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.00	0.05	0.26	0.18	0.43	0.03	0.05			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1.00	0.05	0.26	0.18	0.43	0.03	0.05			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1.00				1.00					
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	965	300		665						
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	88				88					
* 78300100	PAVEMENT MARKING REMOVAL	SQ FT	540	150		355	35					
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	620				620					
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	51				51					
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	52				52					
81400100	HANDHOLE	EACH	1				1					
81400200	HEAVY-DUTY HANDHOLE	EACH	5				5					
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	671				671					
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	17	1	5	3	6	1	1			
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	3		1		1		1			
87200400	SPAN WIRE	FOOT	250				250					
87200500	TETHER WIRE	FOOT	250				250					
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	707							433		274
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3,047		605	194	2,248					
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	981				981					
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	726				726					
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	35				35					
87302225	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 3C	FOOT	176								176	
87302245	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 5C	FOOT	1,048				1,048					
87302255	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 7C	FOOT	544				544					
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1				1					
87700300	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1				1					
87700330	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	1				1					
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28				28					
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21				21					
87900200	DRILL EXISTING HANDHOLE	EACH	3				3					

* SPECIALTY ITEM

1. U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST
2. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 22 (HALF DAY ROAD)
3. U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD
4. U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD
5. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 60 (KENNEDY ROAD)
6. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)

7. U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET
8. U.S. RTE 41 (SKOKIE HIGHWAY) AT AMHURST PARKWAY
9. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 21 (RIVERSIDE DRIVE)
10. U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD
11. U.S. RTE 41 (SKOKIE HIGHWAY) AT WADSWORTH ROAD
12. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 173 (ROSECRANS ROAD)

13. IL RTE 173 (ROSECRANS ROAD) AT KILBOURNE ROAD
14. IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD
15. IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET
16. IL RTE 131 (GREEN BAY ROAD) AT IL RTE 173 (ROSECRANS ROAD)
17. IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD (STATE LINE ROAD)

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES (SHEET 1 OF 2)			F.A.P. RTE. VARIES	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 2
	PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -		SCALE N.A.	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT #: 60P49				
	PLOT DATE = 6/30/2011	CHECKED - KLB	REVISED -		ILLINOIS FED. AID PROJECT							

Rev. GHA #4085.874

URBAN

SUMMARY OF QUANTITIES		LOCATION		1.	2., 6., 9., 12., 16.	3., 4., 5.	7., 10., 11., 13., 15., 17	8.	14.	10.	12., 13., 14.	17.
		FUNDING BREAK-DOWNS		90% FEDERAL 5% STATE 5% CITY OF HIGHLAND PARK	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% CITY OF LAKE FOREST	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 6.67% STATE 3.33% CITY OF WAUKEGAN	90% FEDERAL 5% STATE 2.5% LAKE COUNTY 2.5% VILLAGE OF WADSWORTH	100% VILLAGE OF GURNEE	100% NEWPORT TOWNSHIP FIRE PROTECTION DISTRICT	100% CITY OF ZION
CODE NO.	ITEM	UNIT	TOTAL	0021	0021	0021	0021	0021	0021	0021	0021	0021
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	26		13	1	6		6			
88030030	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED	EACH	8				8					
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3				1		2			
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	6		4				2			
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	13		8		3		2			
88030120	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, SPAN WIRE MOUNTED	EACH	4				4					
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4		4							
88100200	PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED	EACH	2			2						
88102710	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2			2						
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2		2							
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	1			1						
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6				6					
88500100	INDUCTIVE LOOP DETECTOR	EACH	28		15		6		7			
88600100	DETECTOR LOOP, TYPE I	FOOT	588				588					
88700200	LIGHT DETECTOR	EACH	2								2	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1								1	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	16	4	6	6						
89501400	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2							1		1
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	2								2	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,381				2,381					
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	16	1	4	3	6	1	1			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	3				3					
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1				1					
X0325878	TRAFFIC SIGNAL WOOD POLE, 60 FT., CLASS 4	EACH	4				4					
X0326770	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE	EACH	104	12	30	25	32	5				
00500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	4			3	1					
06200120	UNINTERRUPTIBLE POWER SUPPLY	EACH	7		2		4		1			
07301900	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	69				69					
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	707							433		274
X8730255	ELECTRIC CABLE AERIAL SUSPENDED NO. 20 3/C, TWISTED, SHIELDED	FOOT	176								176	
X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	5	2		3						
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2				2					
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	31	12		7	12					
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	9			3	6					
X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1			1						
XX004442	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	6				6					
X0003051	SIGNAL HEAD, LED, 3-FACE, 2-3-SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2	2								
07302650	ELECTRIC CABLE AERIAL SUSPENDED, LEAD-IN, NO. 14 1 PAIR	FOOT	710				710					

* SPECIALTY ITEM

- 1. U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST
- 2. U.S. RTE 41 (SKOKIE HIGHWAY) AT L. RTE 22 (HALF DAY ROAD)
- 3. U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD
- 4. U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD
- 5. U.S. RTE 41 (SKOKIE HIGHWAY) AT L. RTE 60 (KENNEDY ROAD)
- 6. U.S. RTE 41 (SKOKIE HIGHWAY) AT L. RTE 137 (BUCKLEY ROAD)

- 7. U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET
- 8. U.S. RTE 41 (SKOKIE HIGHWAY) AT AMHURST PARKWAY
- 9. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 21 (RIVERSIDE DRIVE)
- 10. U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD
- 11. U.S. RTE 41 (SKOKIE HIGHWAY) AT WADSWORTH ROAD
- 12. U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 173 (ROSECRANS ROAD)

- 13. IL RTE 173 (ROSECRANS ROAD) AT KILBOURNE ROAD
- 14. IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD
- 15. IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET
- 16. IL RTE 131 (GREEN BAY ROAD) AT IL RTE 173 (ROSECRANS ROAD)
- 17. IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD (STATE LINE ROAD)

Rev. GHA #4085.874

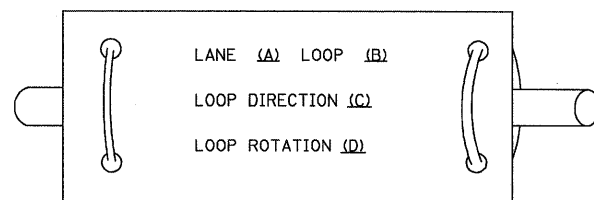
LOCATION	U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST	U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 22 (HALF DAY ROAD)	U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD	U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD	U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 60 (KENNEDY ROAD)	U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)	U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR.	U.S. RTE 41 (SKOKIE HIGHWAY) AT AMHURST PARKWAY	U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 21 (RIVERSIDE DRIVE)	U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD	U.S. RTE 41 (SKOKIE HIGHWAY) AT WADSWORTH ROAD	U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 173 (ROSECRANS ROAD)	IL RTE 173 (ROSECRANS ROAD) AT KILBOURNE ROAD	IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD	IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET	IL RTE 131 (GREEN BAY ROAD) AT IL RTE 173 (ROSECRANS)	IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD (STATE LINE ROAD)			
	FUNDING BREAK-DOWNS	90% FEDERAL 5% STATE 5% CITY OF HIGHLAND PARK	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% CITY OF LAKE FOREST	90% FEDERAL 5% STATE 5% CITY OF LAKE FOREST	90% FEDERAL 5% STATE 5% CITY OF LAKE FOREST	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 6.67% STATE 3.33% CITY OF WAUKEGAN	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 5% STATE 2.5% LAKE COUNTY 2.5% VILLAGE OF WADSWORTH	90% FEDERAL 5% STATE 5% LAKE COUNTY	90% FEDERAL 10% STATE	90% FEDERAL 5% STATE 5% LAKE COUNTY		
TYPE	TRAFFIC SIGNALS																			
ITEM	UNIT	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021		
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH		2		1						2	***		7			6	4	4	****
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED	EACH												8							
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH									1						2				
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH															2			4	
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH									1				4			2		4	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, SPAN WIRE MOUNTED	EACH												4			4				
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH													4						
PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED	EACH				2															
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH			2																
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH												2							
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH			1																
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH																			6
INDUCTIVE LOOP DETECTOR	EACH												15			6		7		
DETECTOR LOOP, TYPE I	FOOT															588				
LIGHT DETECTOR	EACH																	2		
LIGHT DETECTOR AMPLIFIER	EACH																	1		
PEDESTRIAN PUSH-BUTTON	EACH	4	2	4	2									4						
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH											1								1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH															1				
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT										1,340									1,041
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH										1									2
TEMPORARY TRAFFIC SIGNAL TIMING	EACH																			1
TRAFFIC SIGNAL WOOD POLE, 60 FT., CLASS 4	EACH																			4
RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE	EACH	12	8	10	9	6	15	13	5	6	7		1			12				
SERVICE INSTALLATION - POLE MOUNTED	EACH			1	1	1										1				
UNINTERRUPTIBLE POWER SUPPLY	EACH													1	1		1		1	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT																			69
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT										433									274
ELECTRIC CABLE AERIAL SUSPENDED NO. 20 3/C, TWISTED, SHIELDED	FOOT															176				
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2		3																
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH													2						
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	12		7										8					4	
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH			3										2					4	
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH			1																
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH													2					4	
SIGNAL HEAD, LED, 3-FACE, 2-3-SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2																		
ELECTRIC CABLE AERIAL SUSPENDED, LEAD-IN, NO. 14 1 PAIR	FOOT															710				

* SPECIALTY ITEM
 * * ITEM PAID FOR BY THE NEWPORT TOWNSHIP FIRE PROTECTION DISTRICT
 * * * ITEM PAID FOR BY THE VILLAGE OF GURNEE
 * * * * ITEM PAID FOR BY THE CITY OF ZION

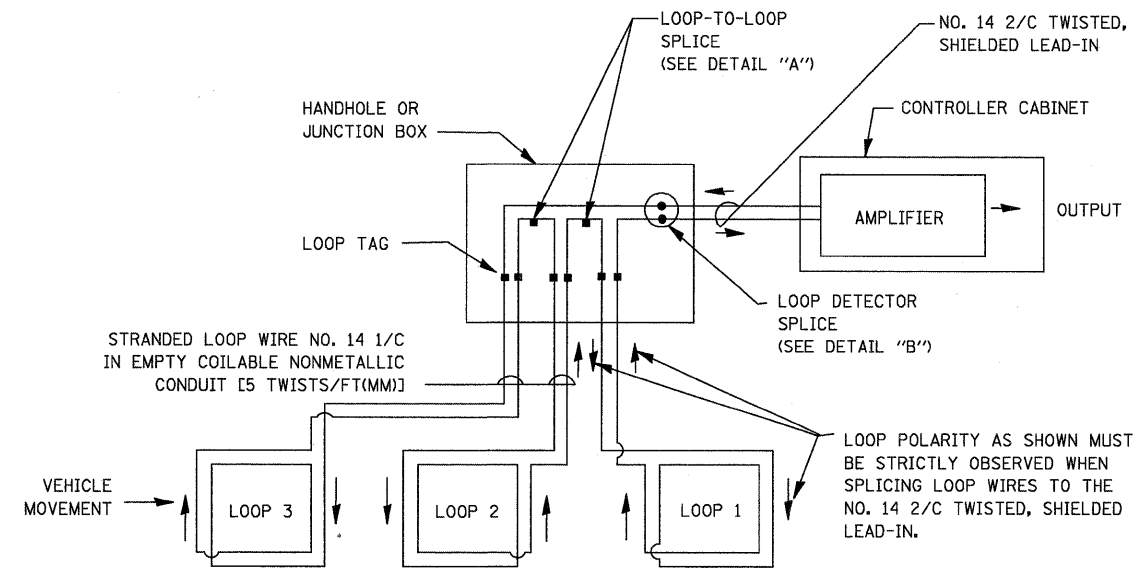
LOOP DETECTOR NOTES

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 DIVESHOLES 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

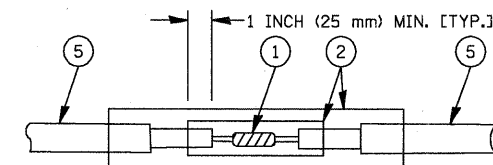


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

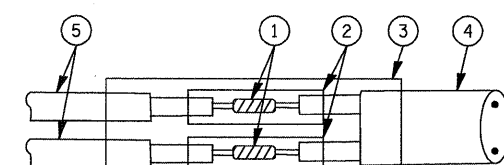


DETECTOR LOOP WIRING SCHEMATIC

- 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.

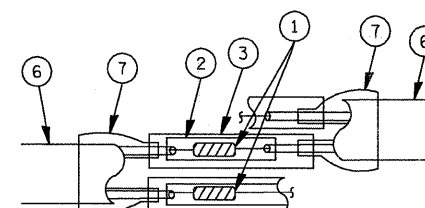


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

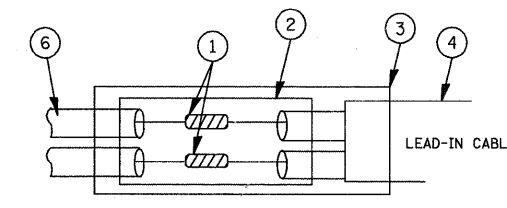


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP



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



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

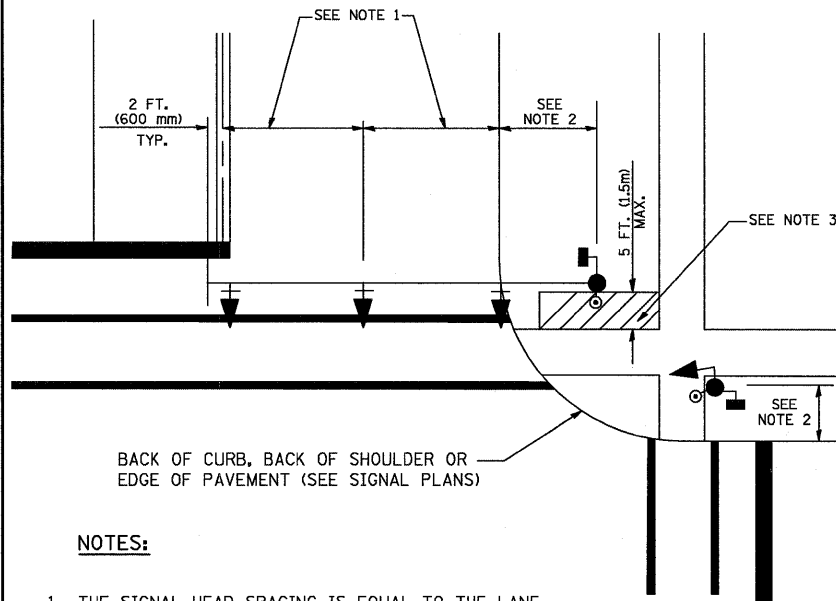
LOOP DETECTOR SPLICE

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

FILE NAME = 4085.874-TRI.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 -		SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.	2011-042-TS	LAKE	62	6
		CHECKED - DAD	REVISED -						TC-05		CONTRACT #: 60P49	
		DATE - 10-28-09	REVISED -						ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

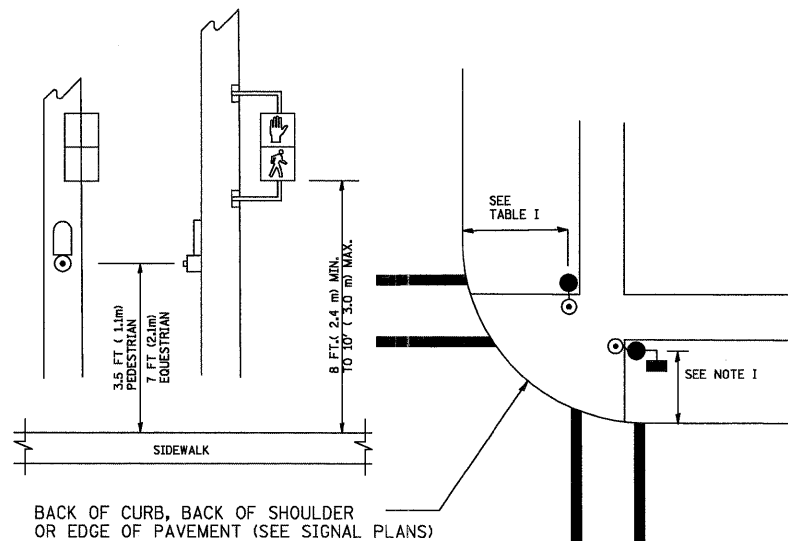
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

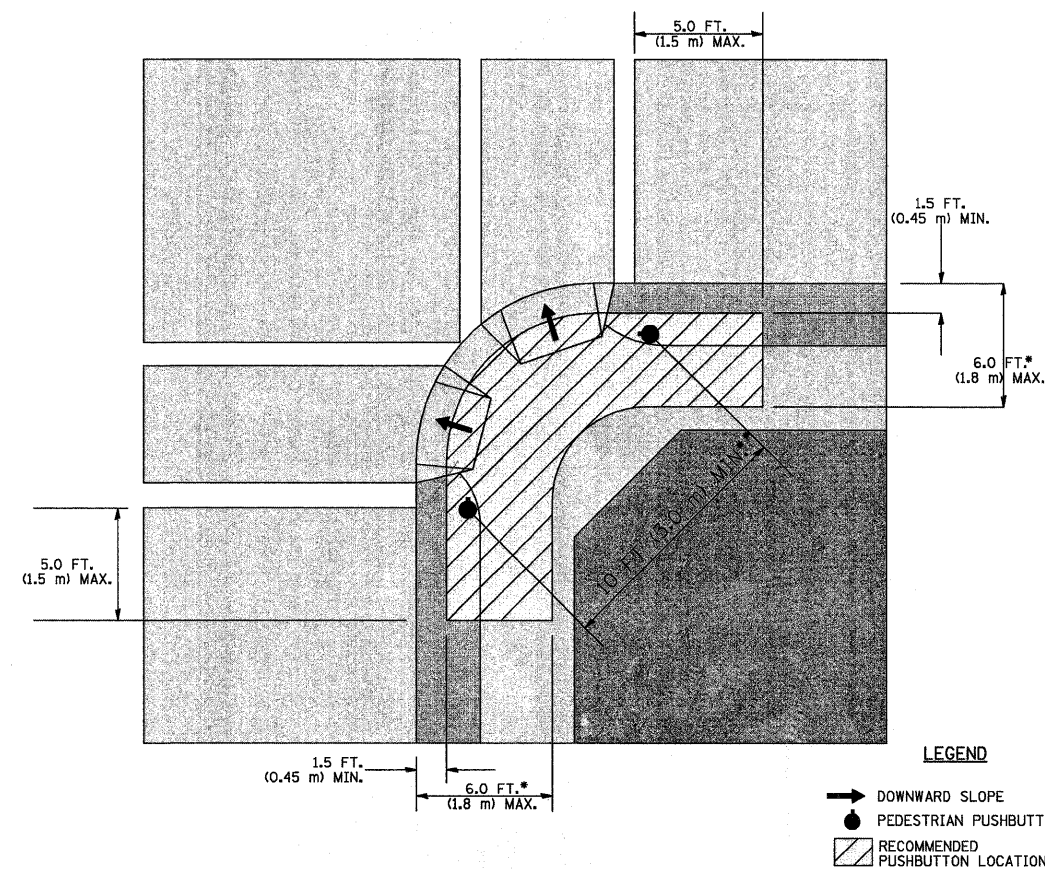
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ 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.

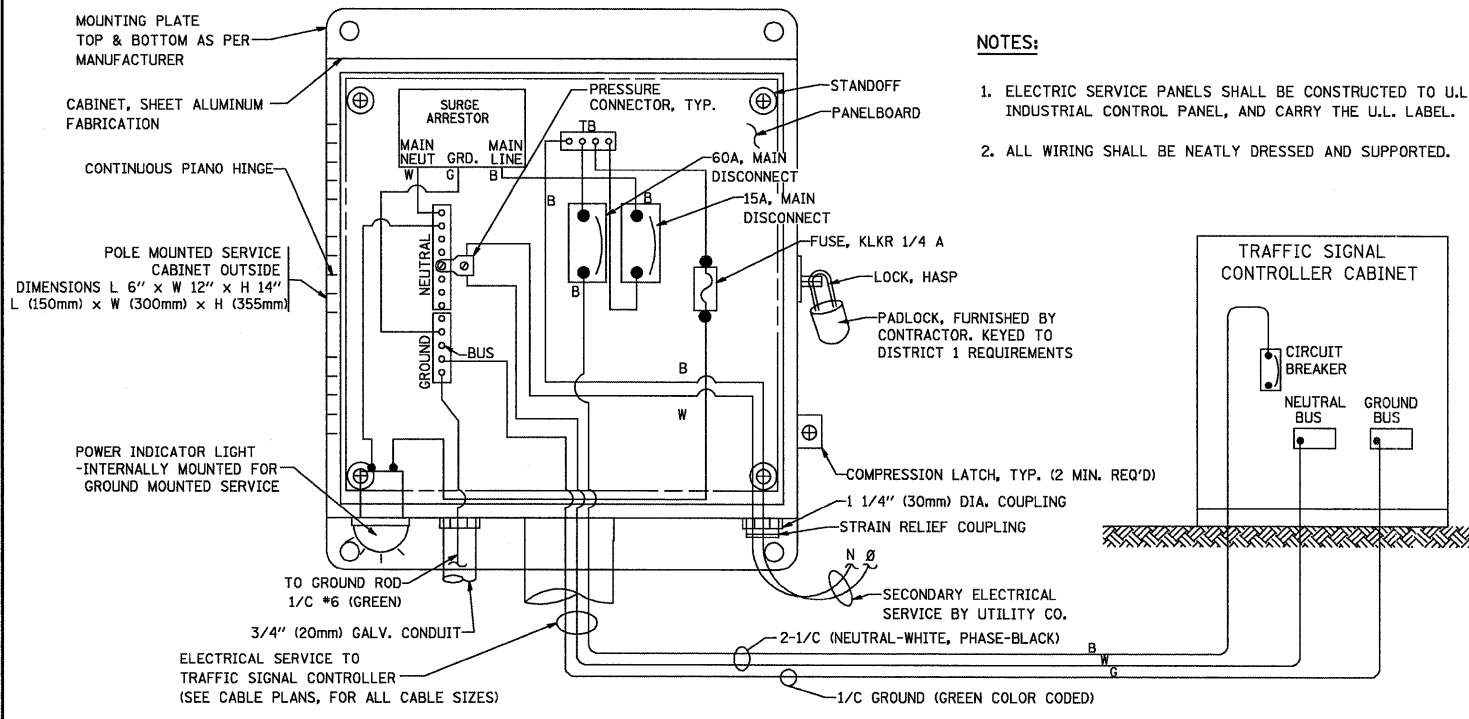
THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

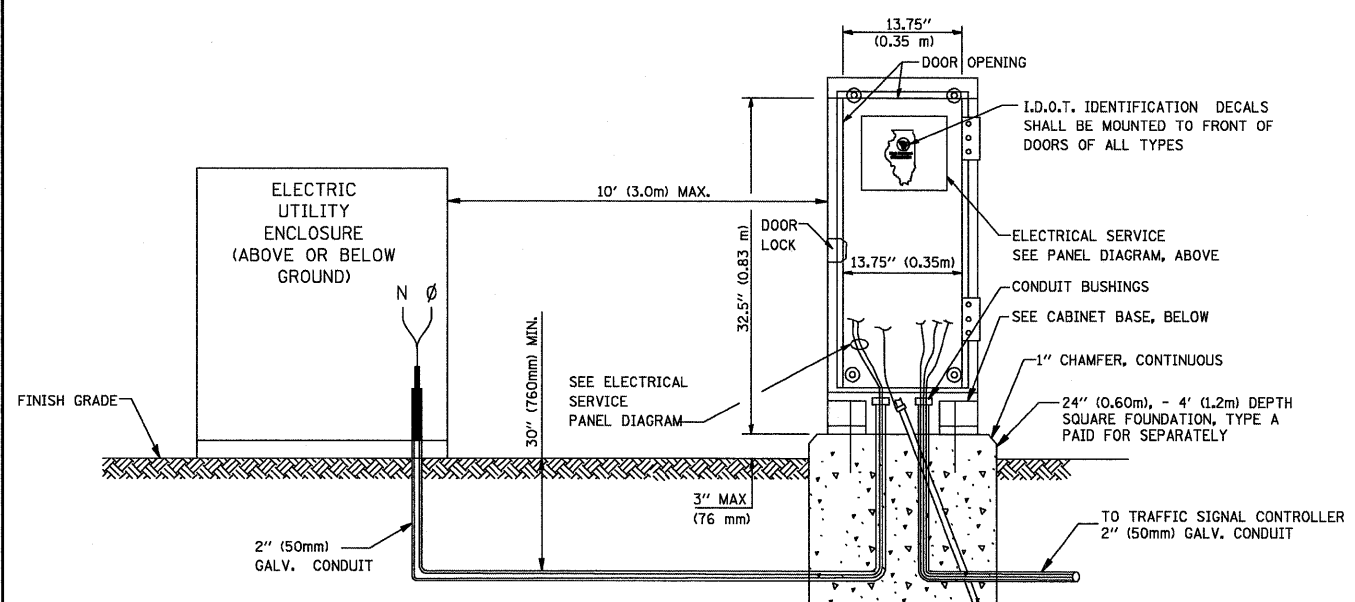
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

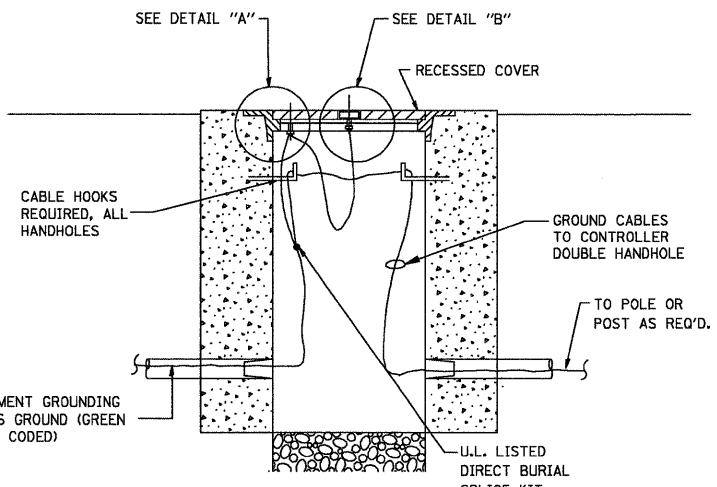
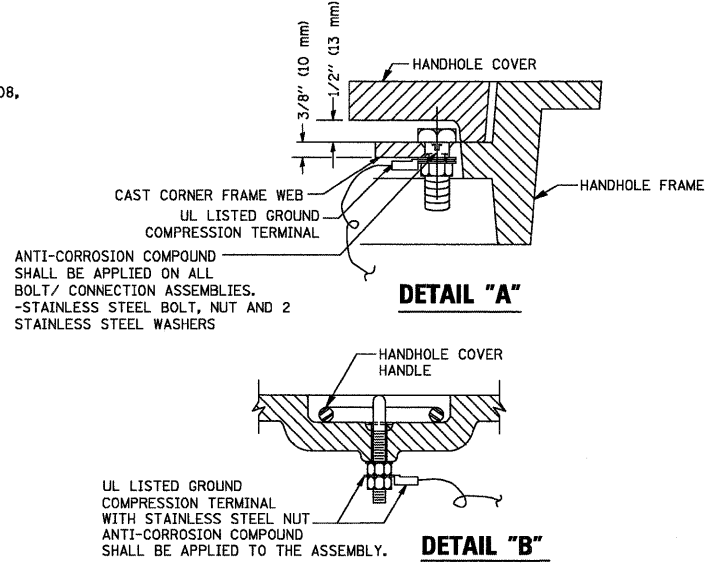


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

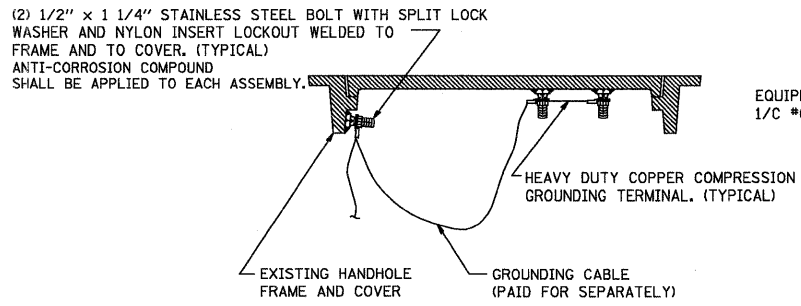


SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)

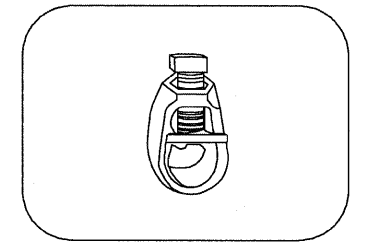
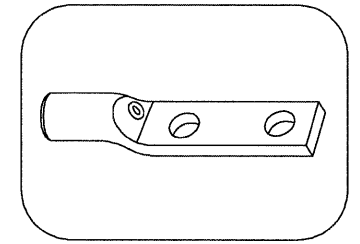


HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

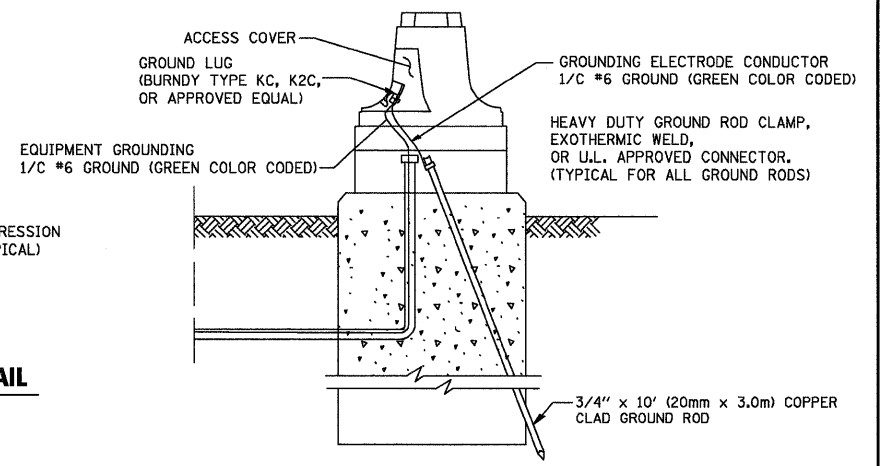


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

- NOTES:**
- GROUNDING SYSTEM**
- 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.
 - 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.
 - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- 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)

FILE NAME = 4085.B74-TR1.dwg

USER NAME = ZACH WALLSTEN
 DESIGNED - DAD
 DRAWN - BCK
 CHECKED - DAD
 DATE - 10-28-09

REVISED -
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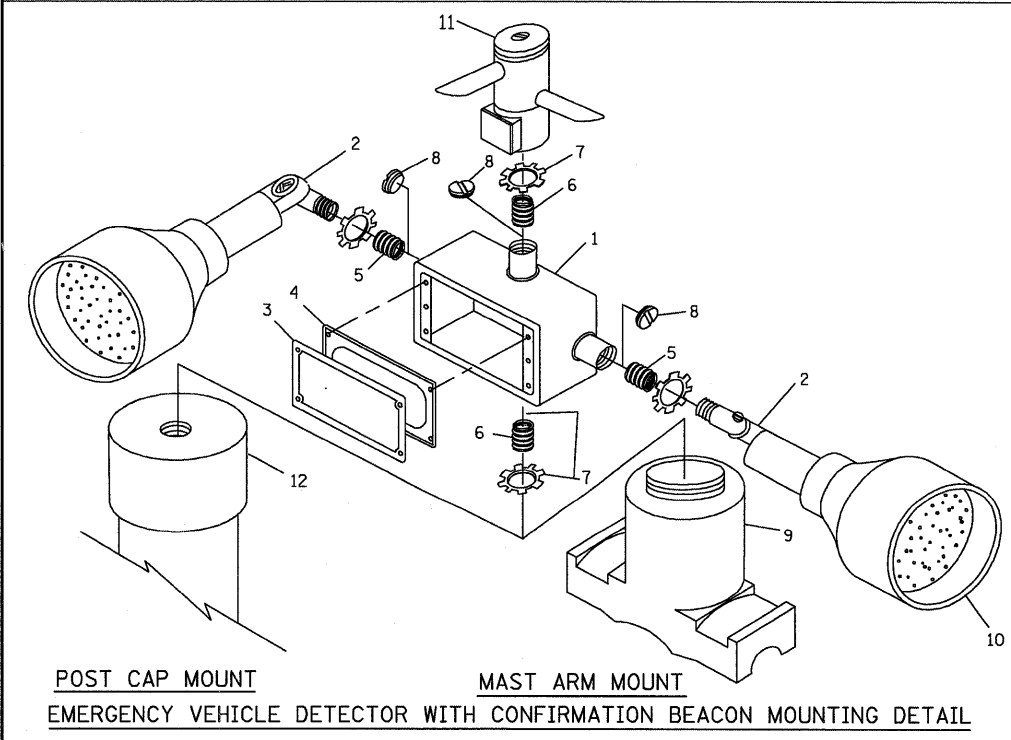
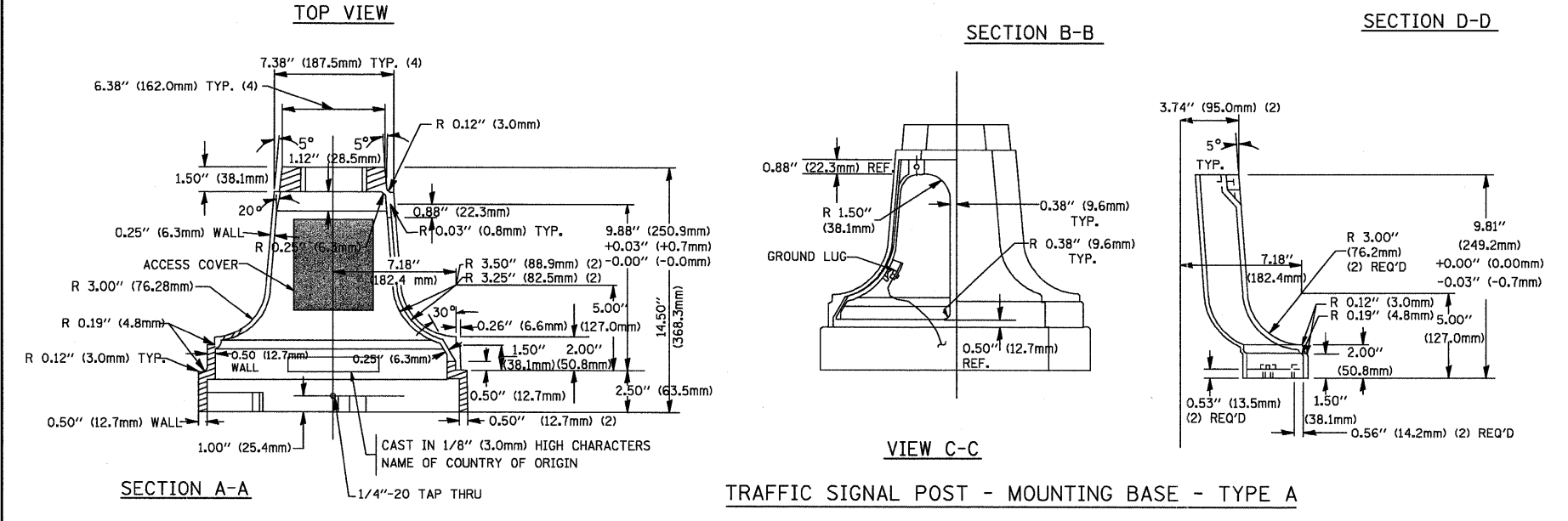
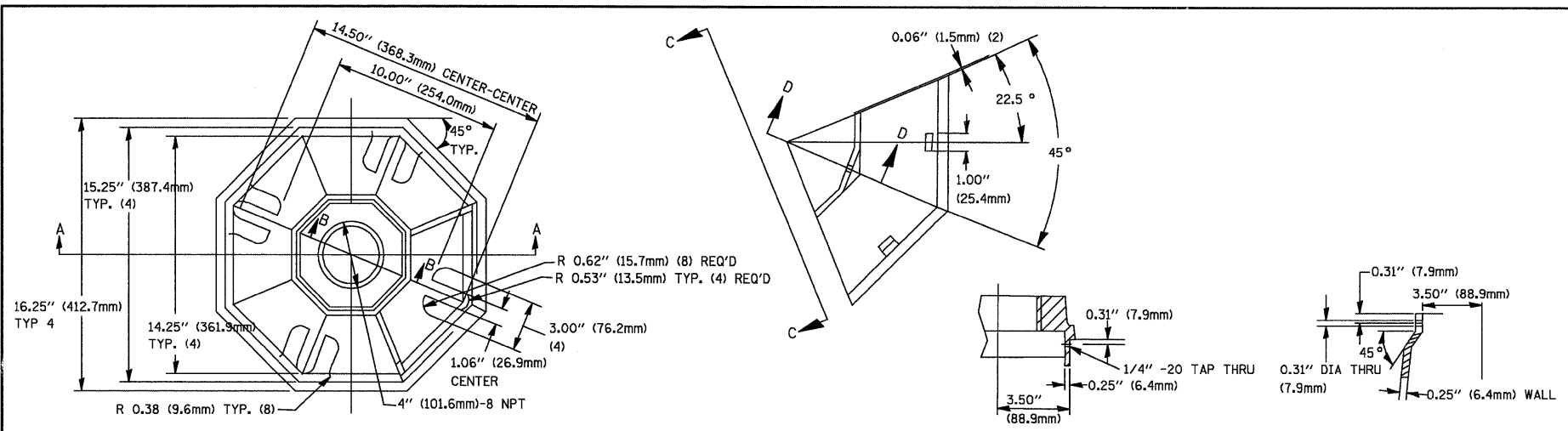
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
 SCALE: NONE SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. VARIES SECTION 2011-042-TS COUNTY LAKE CONTRACT # 60P49 SHEET NO. 8

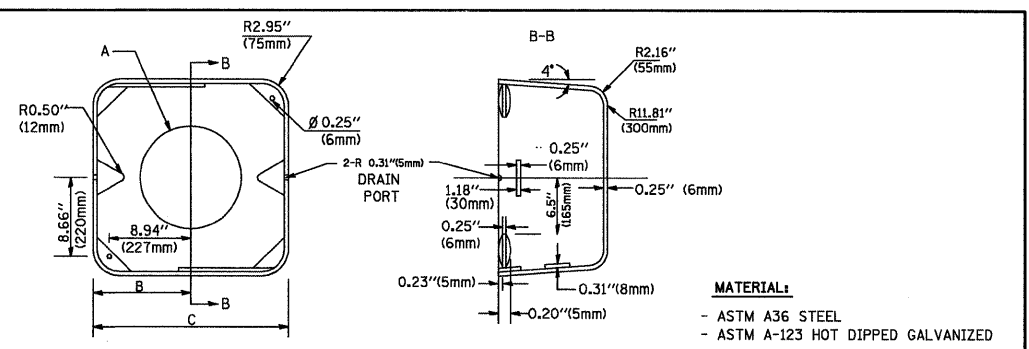
GHA #4085.874

ILLINOIS FED. AID PROJECT



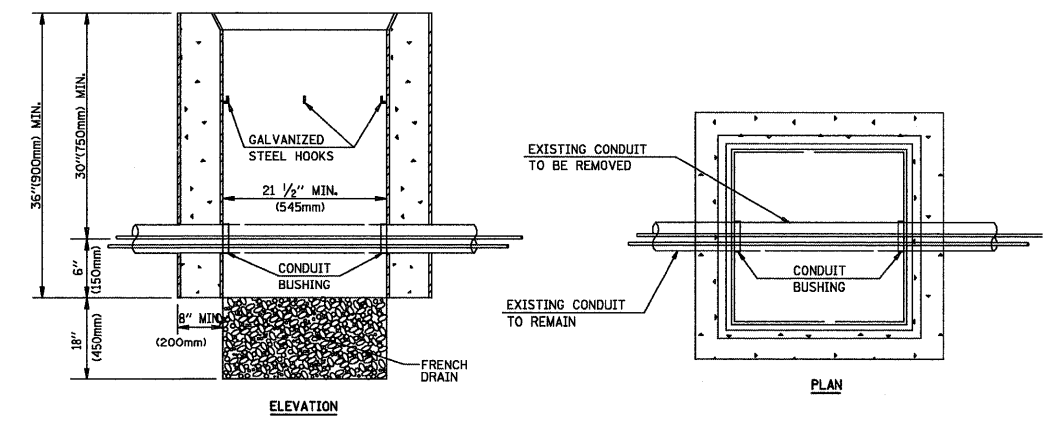
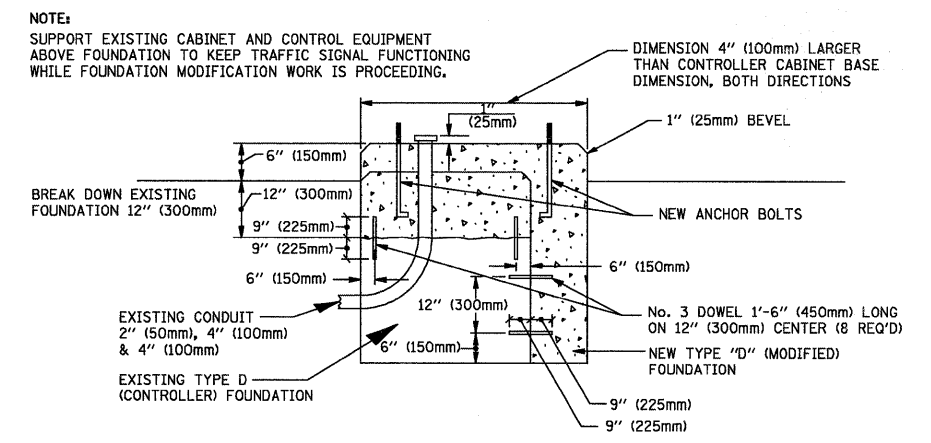
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR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

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

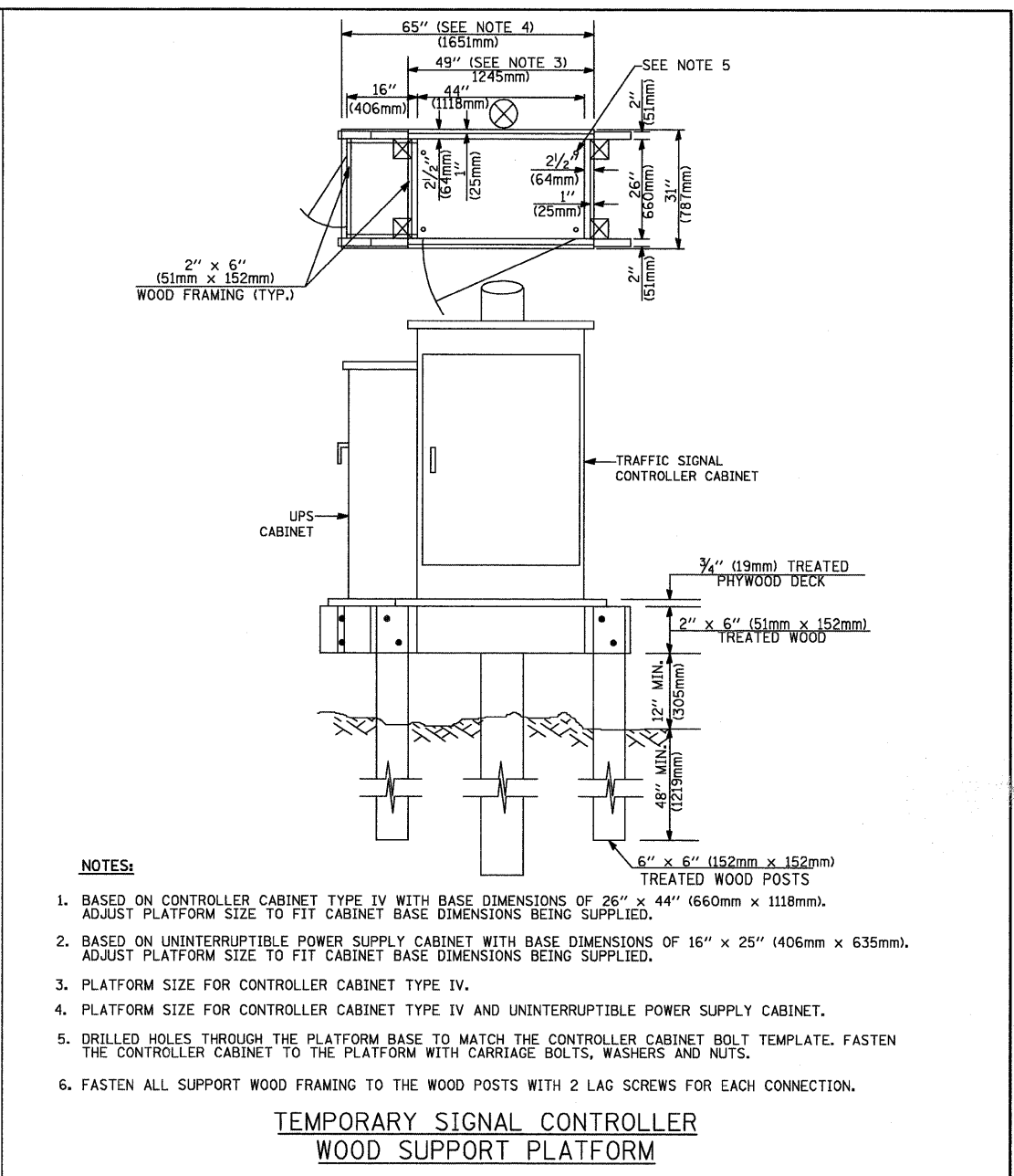
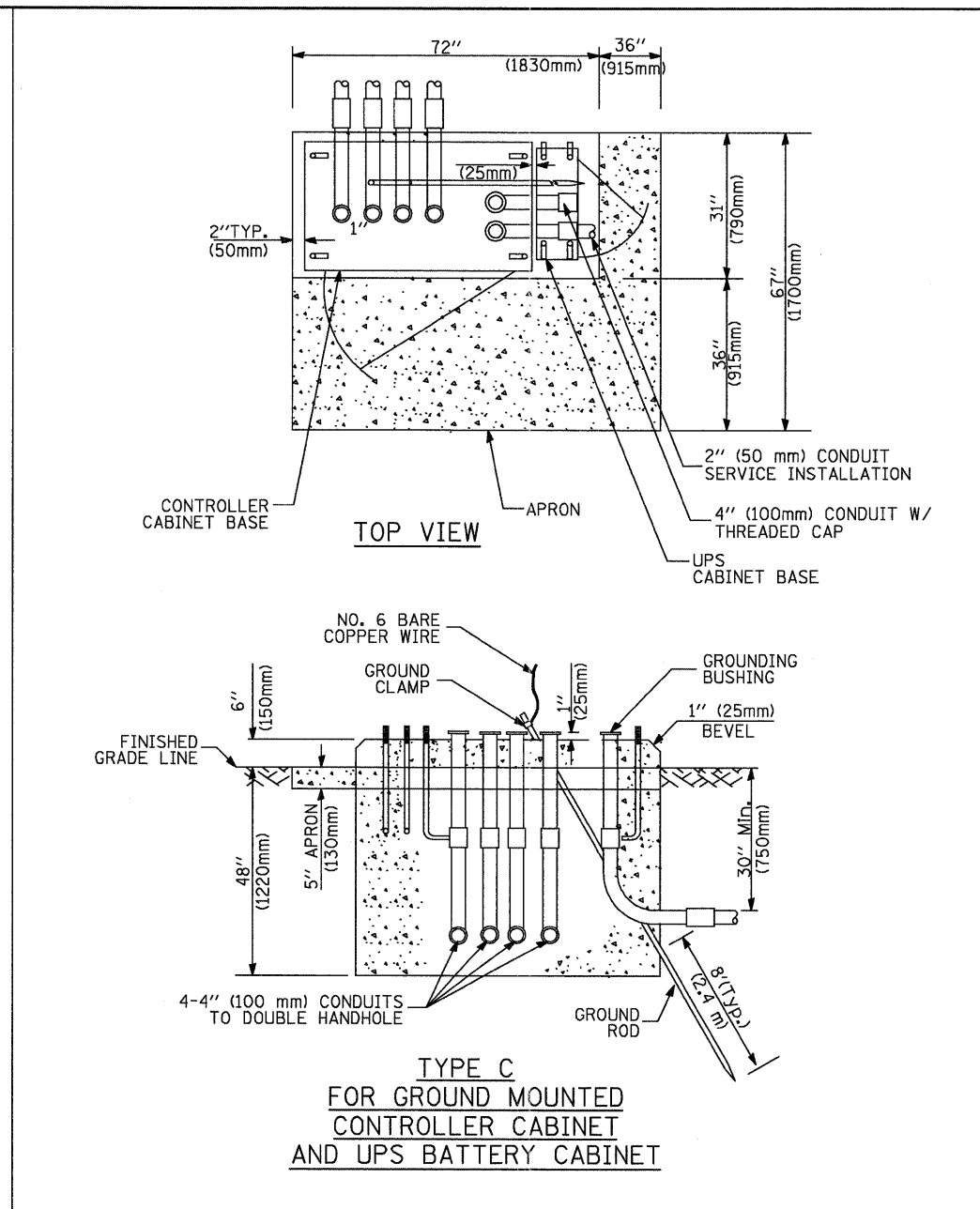
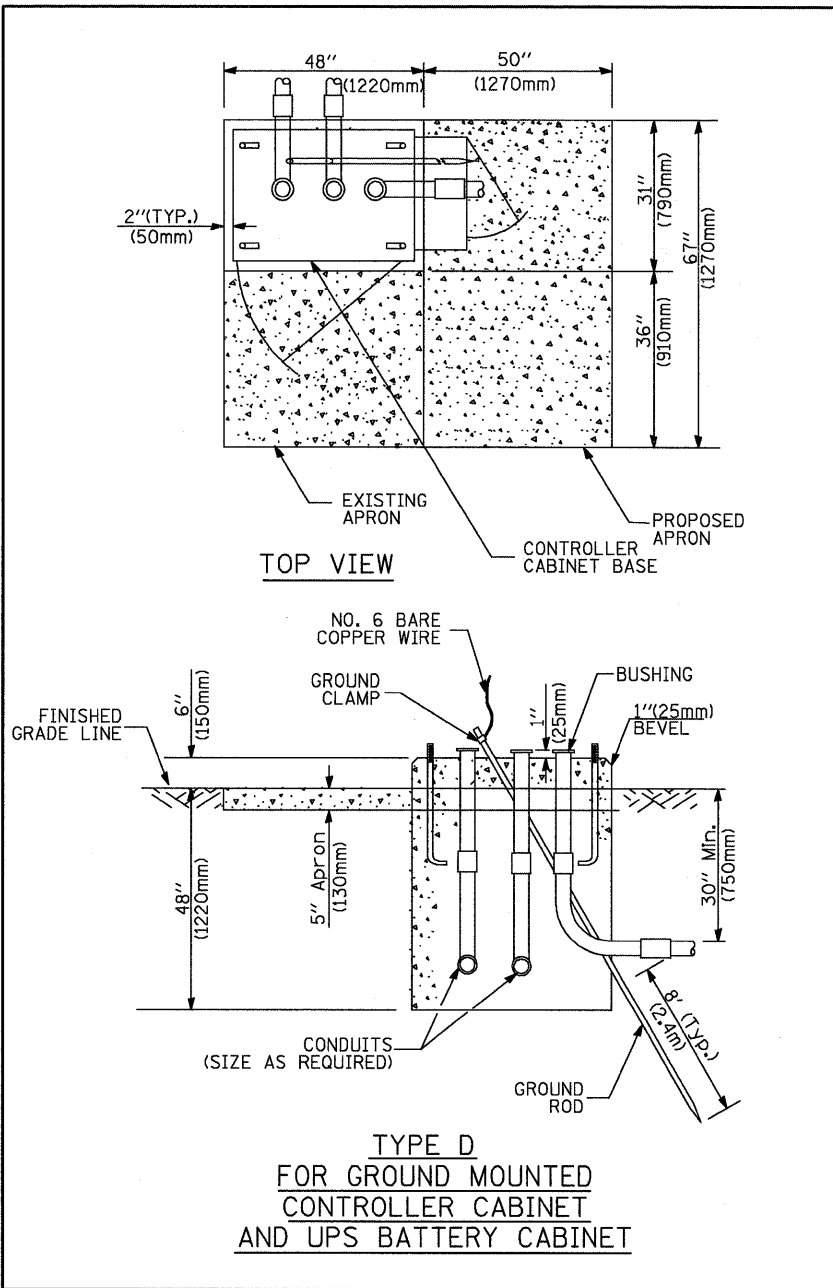


A	B	C	HEIGHT	WEIGHT
VARIES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) -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

- NOTES:**
- 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.
 - THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



- NOTES:**
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.



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	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)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- 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.
 - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 - For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

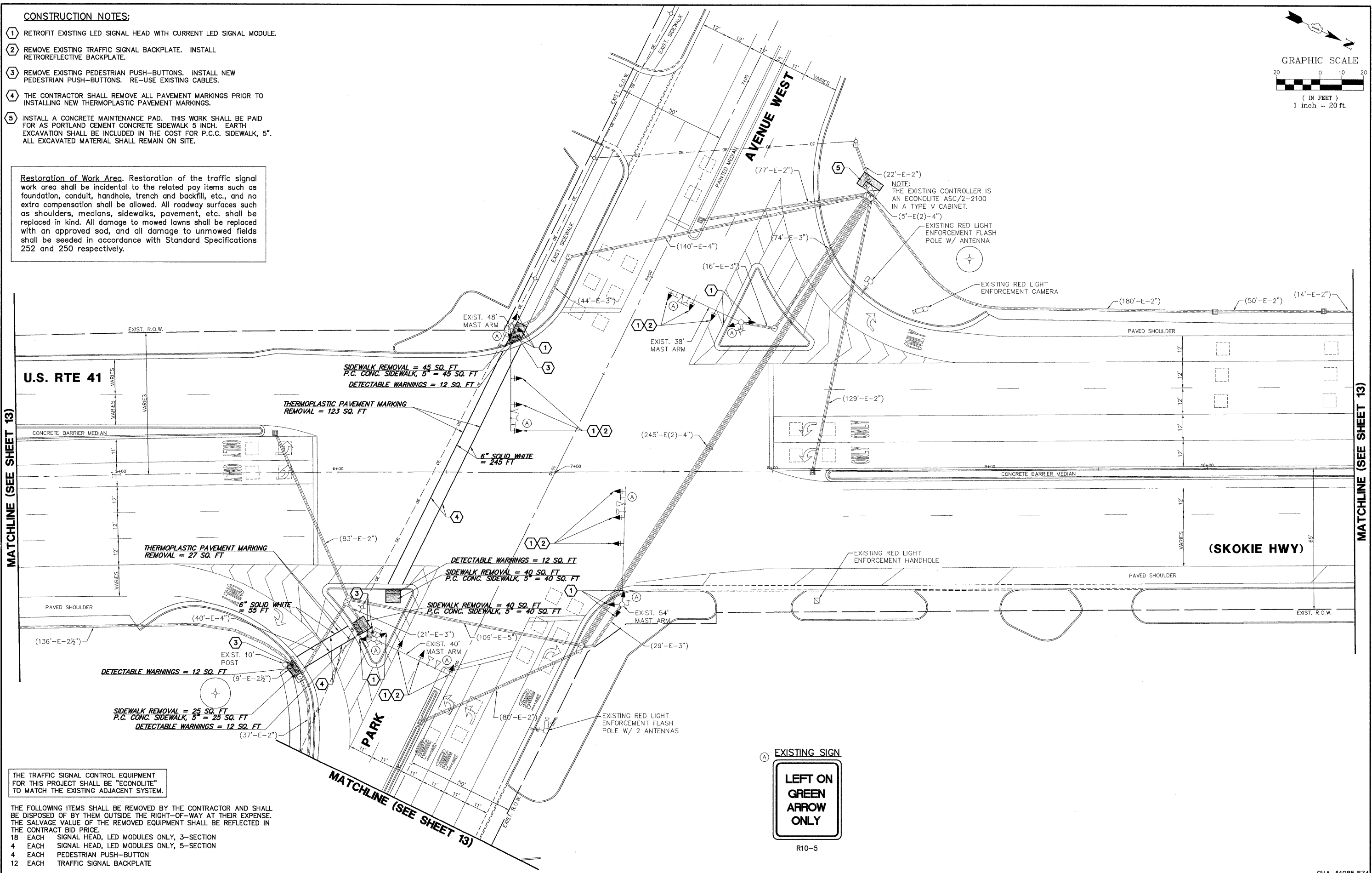
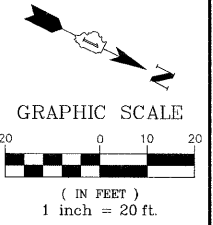
TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																					
GUY WIRE				ABANDON ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED																					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				INTERSECTION & SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR																					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				EXISTING PREFORMED INTERSECTION LOOP DETECTOR																					
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				PREFORMED SAMPLING (SYSTEM) DETECTOR																					
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				<h2 style="margin: 0;">RAILROAD SYMBOLS</h2> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">EXISTING</th> <th style="width: 25%;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td>RAILROAD CONTROL CABINET</td> <td></td> <td></td> </tr> <tr> <td>RAILROAD CANTILEVER MAST ARM</td> <td></td> <td></td> </tr> <tr> <td>FLASHING SIGNAL</td> <td></td> <td></td> </tr> <tr> <td>CROSSING GATE</td> <td></td> <td></td> </tr> <tr> <td>CROSSBUCK</td> <td></td> <td></td> </tr> </tbody> </table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
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CROSSING GATE																													
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ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																									
MICROWAVE VEHICLE SENSOR																													
VIDEO DETECTION CAMERA																													
VIDEO DETECTION ZONE																													
PAN, TILT, ZOOM CAMERA																													
WIRELESS DETECTOR SENSOR																													
WIRELESS ACCESS POINT																													

CONSTRUCTION NOTES:

- 1 RETROFIT EXISTING LED SIGNAL HEAD WITH CURRENT LED SIGNAL MODULE.
- 2 REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.
- 3 REMOVE EXISTING PEDESTRIAN PUSH-BUTTONS. INSTALL NEW PEDESTRIAN PUSH-BUTTONS. RE-USE EXISTING CABLES.
- 4 THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS PRIOR TO INSTALLING NEW THERMOPLASTIC PAVEMENT MARKINGS.
- 5 INSTALL A CONCRETE MAINTENANCE PAD. THIS WORK SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH. EARTH EXCAVATION SHALL BE INCLUDED IN THE COST FOR P.C.C. SIDEWALK, 5". ALL EXCAVATED MATERIAL SHALL REMAIN ON SITE.

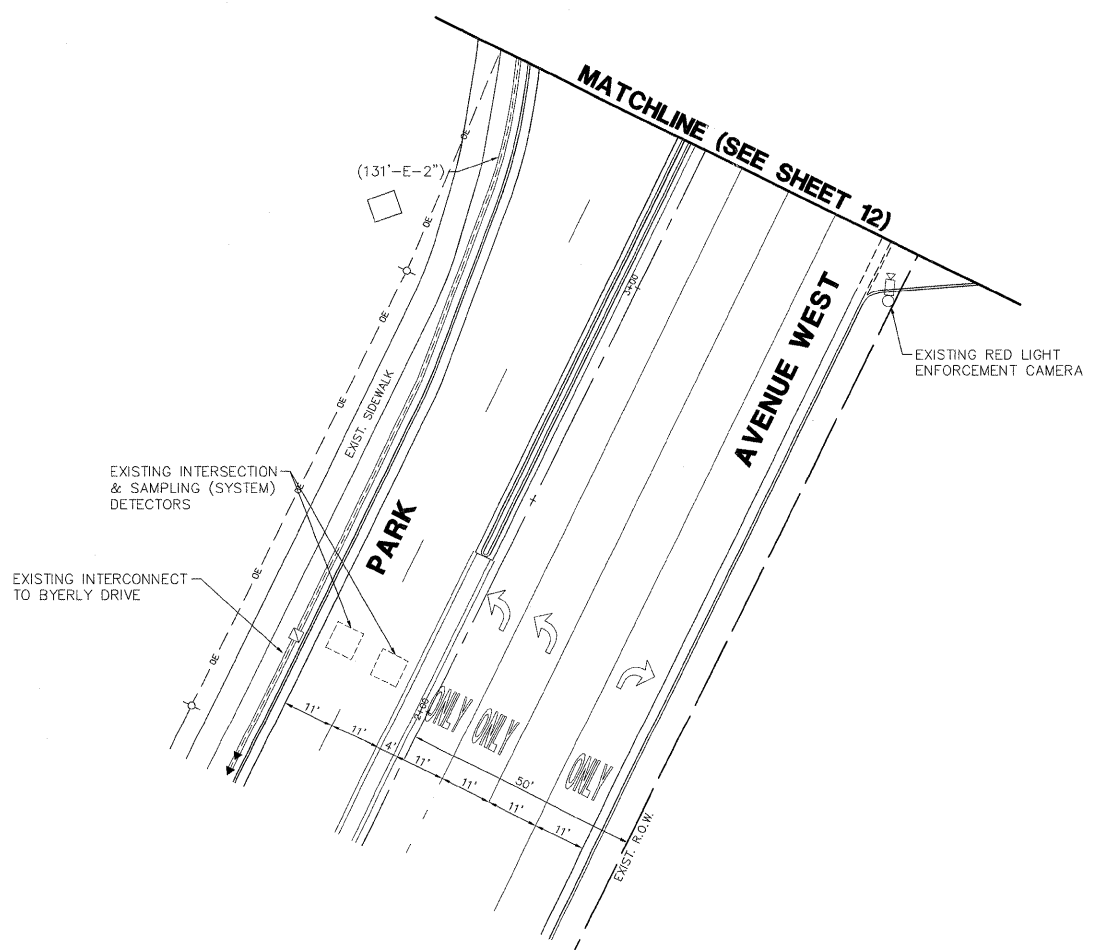
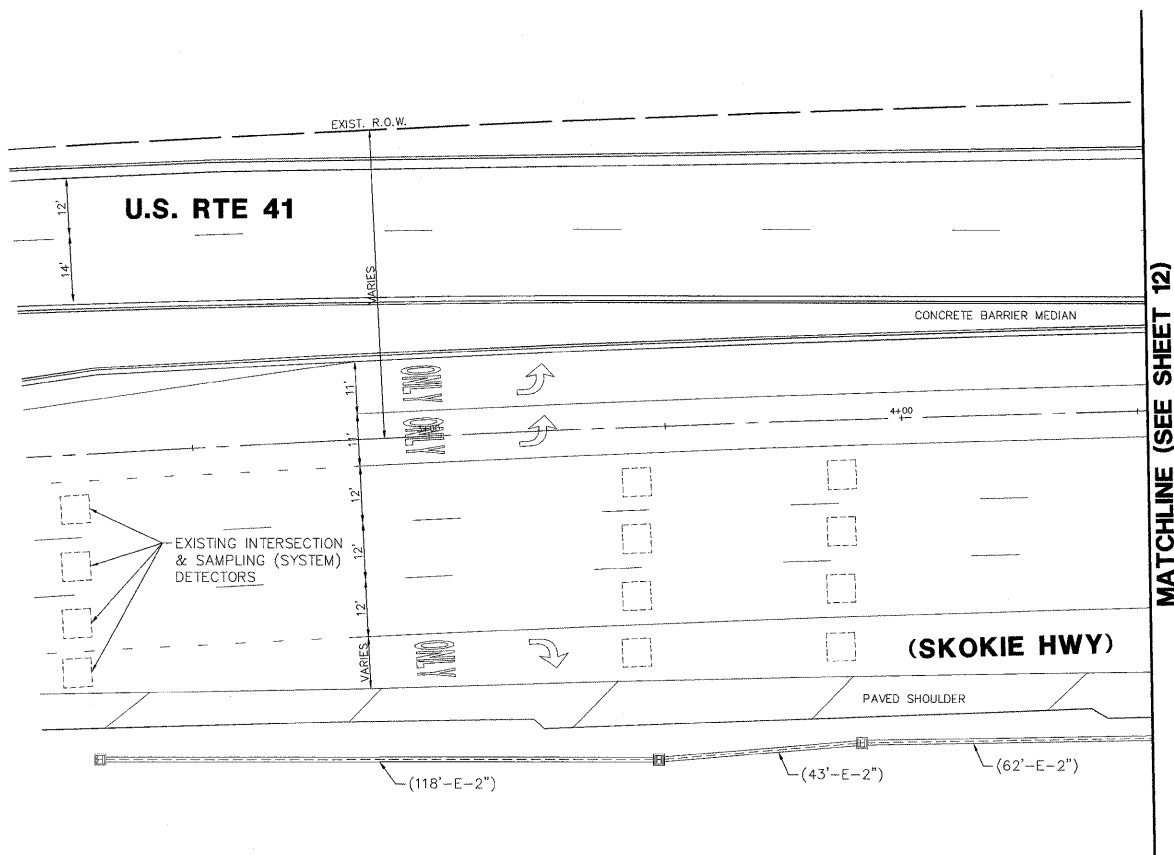
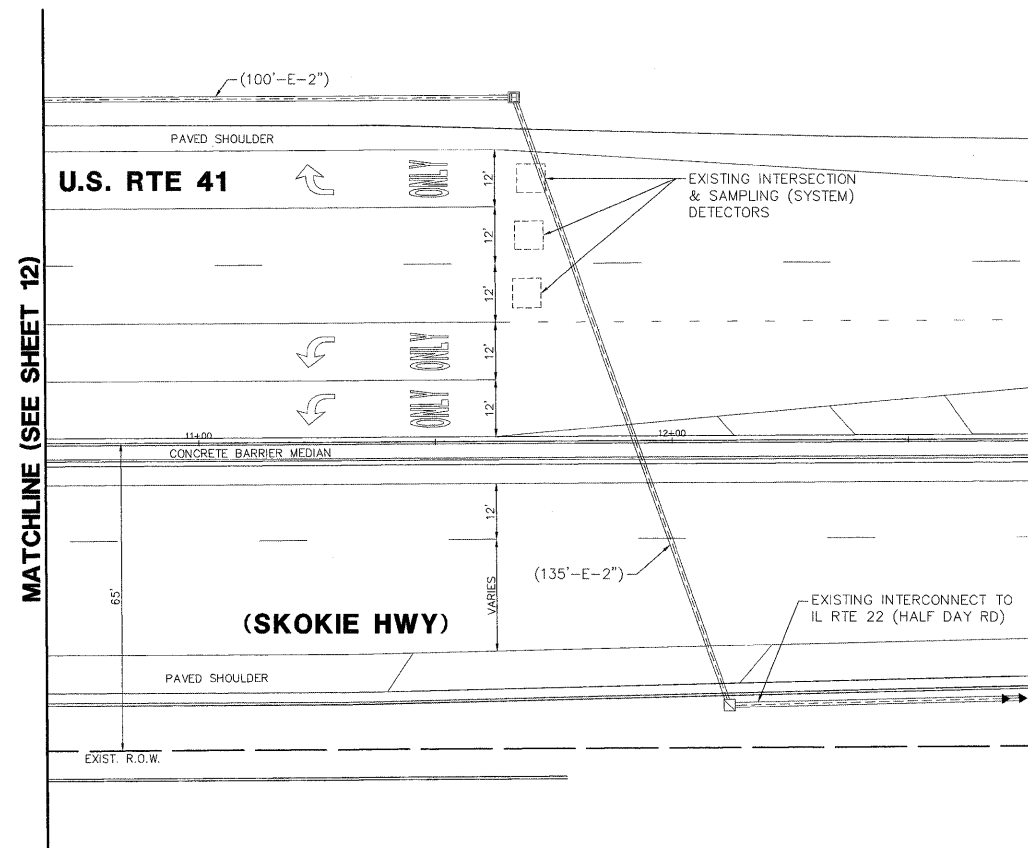
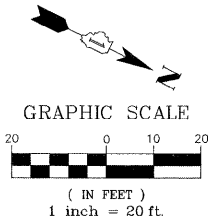
Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.



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

- 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.
- 18 EACH SIGNAL HEAD, LED MODULES ONLY, 3-SECTION
 - 4 EACH SIGNAL HEAD, LED MODULES ONLY, 5-SECTION
 - 4 EACH PEDESTRIAN PUSH-BUTTON
 - 12 EACH TRAFFIC SIGNAL BACKPLATE

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST				F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 12
	PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT # 60P49			
	PLOT DATE = 6/30/2011	CHECKED - KLB	REVISED -							ILLINOIS FED. AID PROJECT			
		DATE - 6/30/2011	REVISED -							GHA #4085.874			



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

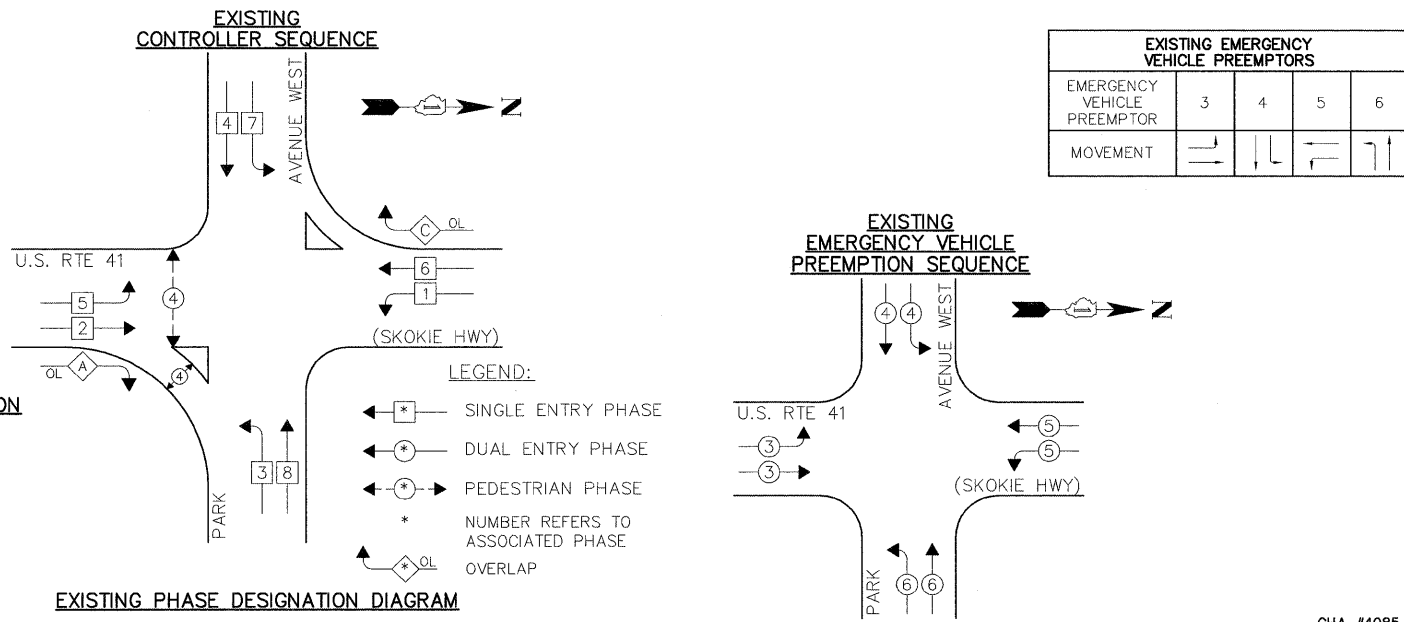
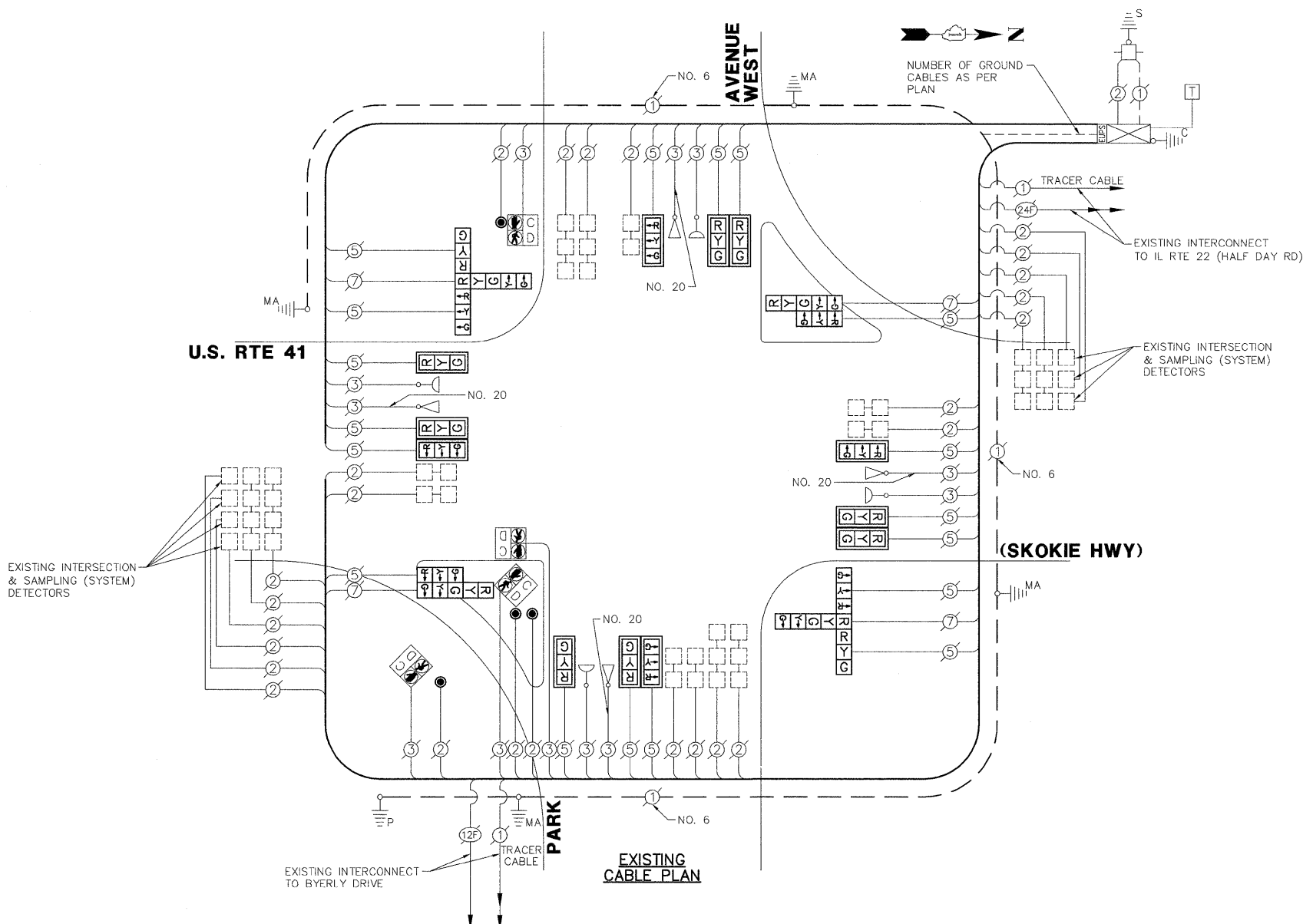
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	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49 ILLINOIS FED. AID PROJECT		
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -									

CHA #4085.874

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT PARK AVENUE WEST

NO.	QUANT.	UNIT	DESCRIPTION
1.	190	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	48	SQ FT	DETECTABLE WARNINGS
3.	150	SQ FT	SIDEWALK REMOVAL
4.	300	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
5.	150	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
6.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
7.	4	EACH	PEDESTRIAN PUSH-BUTTON
8.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
9.	12	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE
10.	2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
11.	12	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
12.	2	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3-SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	→	→	→

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	L.E.D.		
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	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 =					641.6

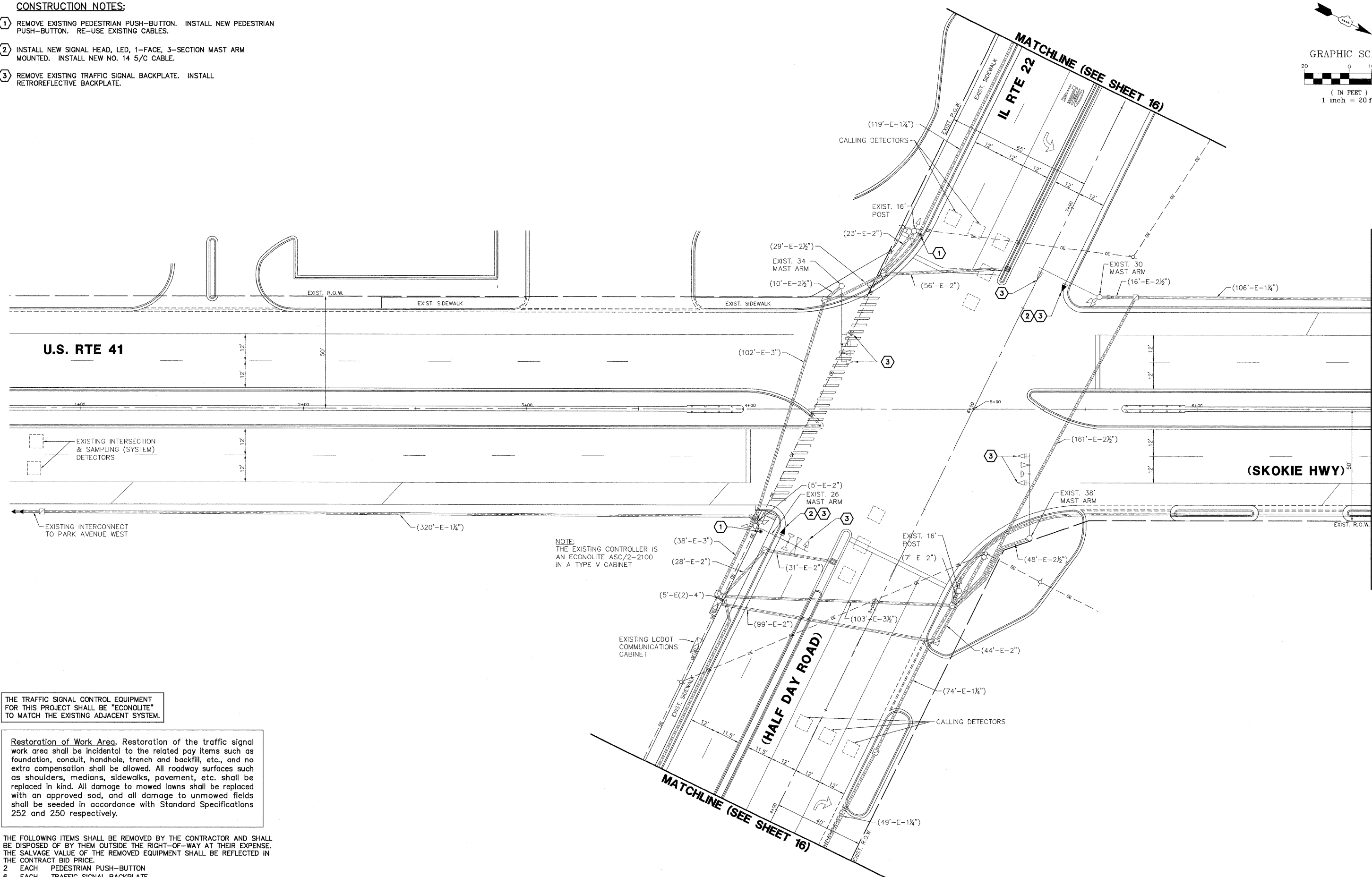
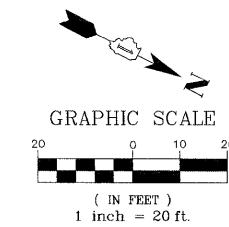
ENERGY COSTS - BILLED TO: CITY OF HIGHLAND PARK
(ADDRESS) 1707 ST. JOHNS AVENUE
(ADDRESS) HIGHLAND PARK IL, 60035
ENERGY SUPPLY - CONTACT: JEAN WILL
PHONE: (847) 816-5455
COMPANY: COMED

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

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
C	= 6	+ 7

CONSTRUCTION NOTES:

- ① REMOVE EXISTING PEDESTRIAN PUSH-BUTTON. INSTALL NEW PEDESTRIAN PUSH-BUTTON. RE-USE EXISTING CABLES.
- ② INSTALL NEW SIGNAL HEAD, LED, 1-FACE, 3-SECTION MAST ARM MOUNTED. INSTALL NEW NO. 14 5/C CABLE.
- ③ REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.



NOTE:
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2-2100 IN A TYPE V CABINET

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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

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- 2 EACH PEDESTRIAN PUSH-BUTTON
- 6 EACH TRAFFIC SIGNAL BACKPLATE

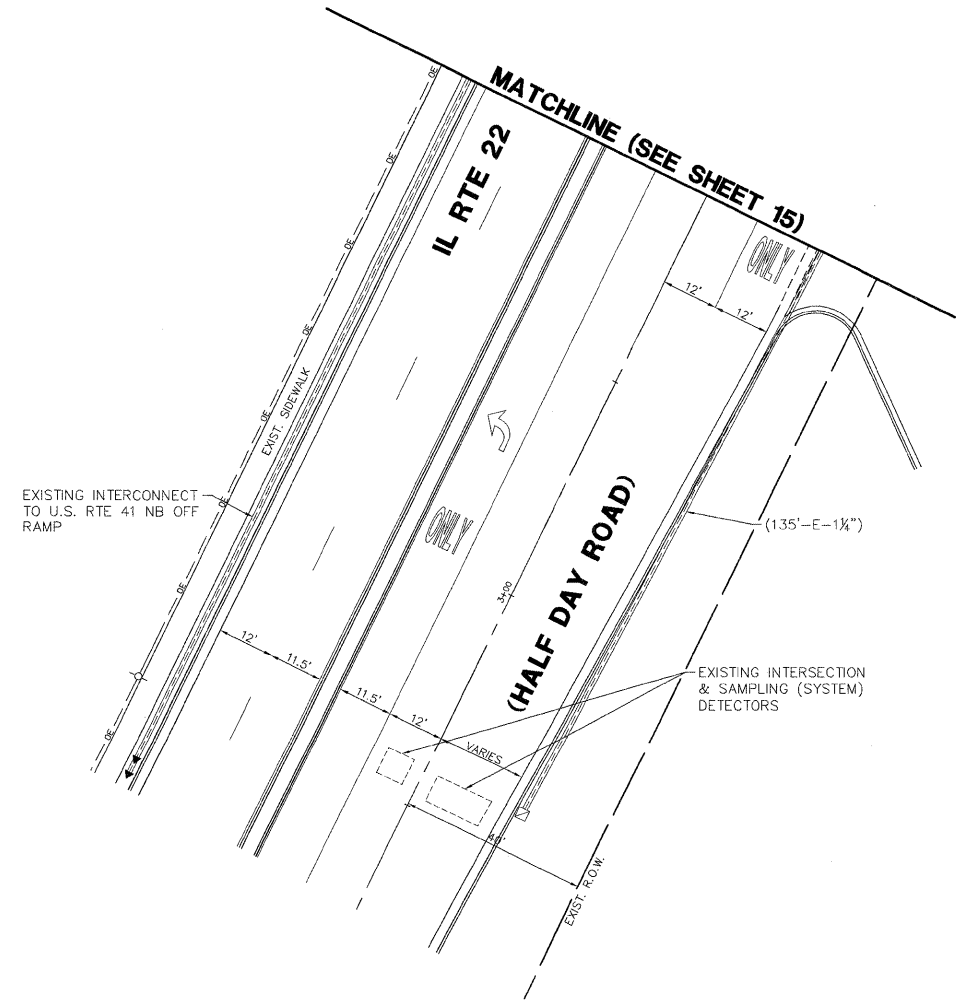
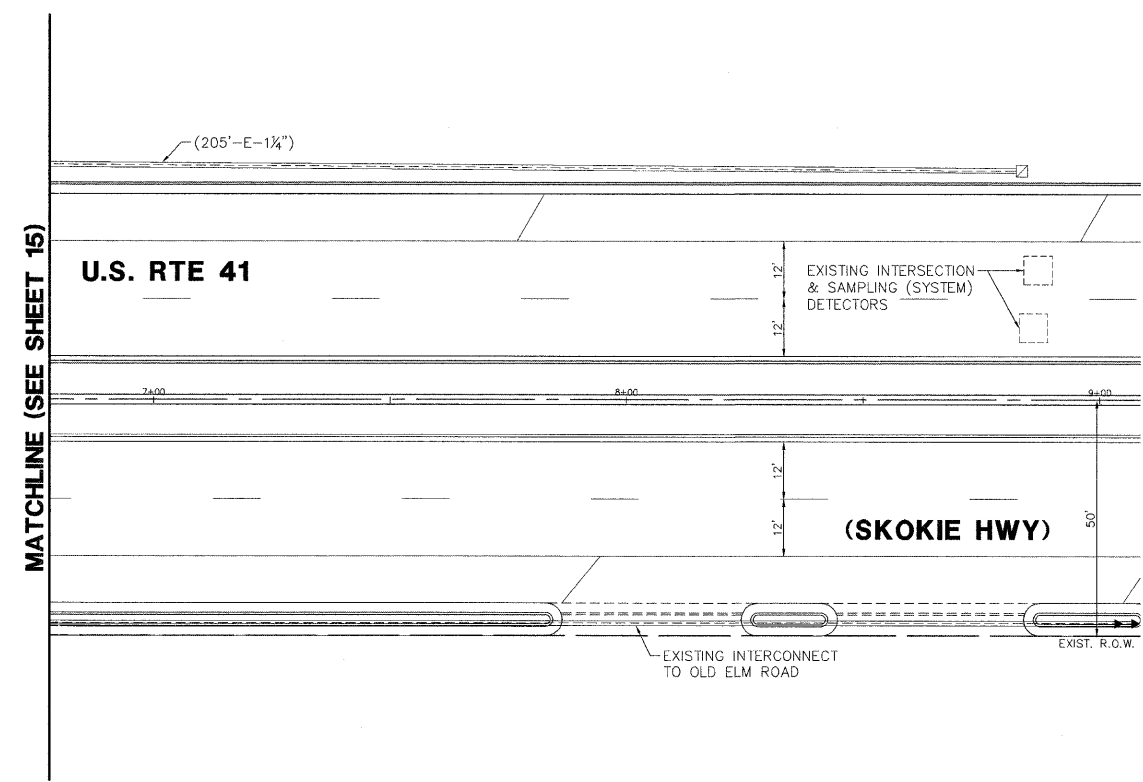
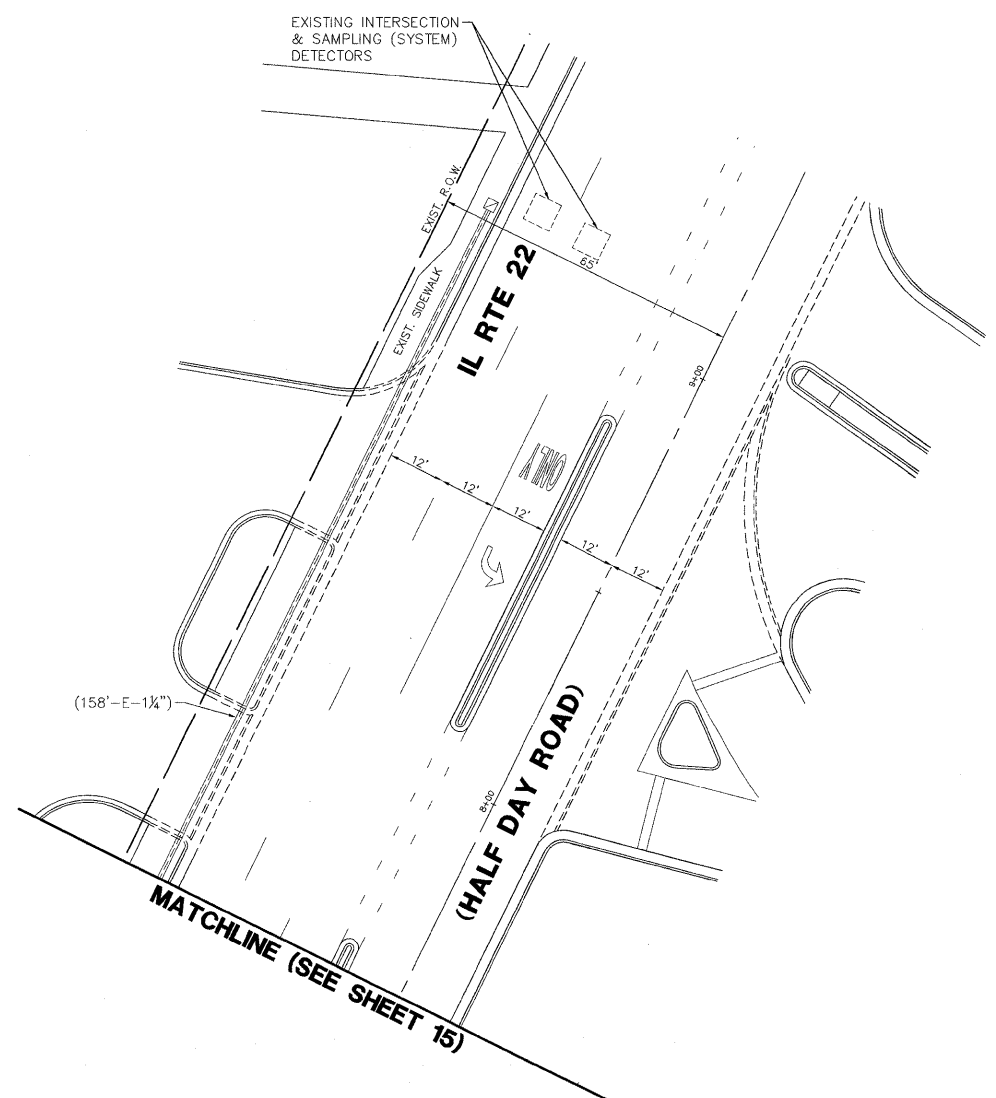
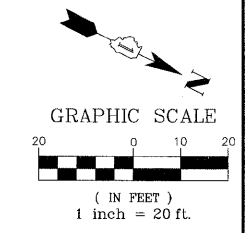
FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
U.S. RTE 41 (SKOKIE HWY) AT IL RTE 22 (HALF DAY RD)**

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 15
CONTRACT #: 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				



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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

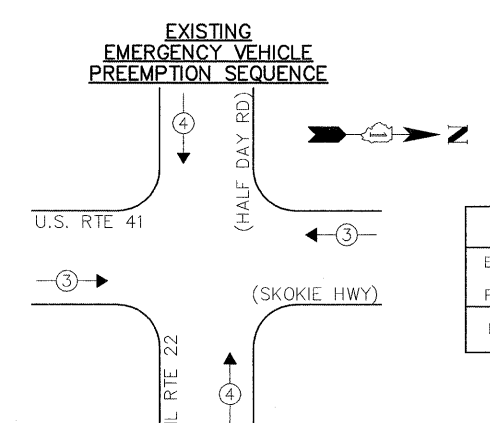
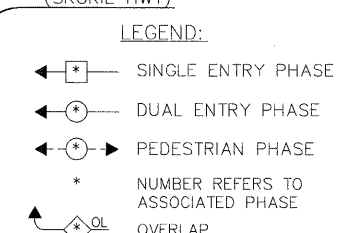
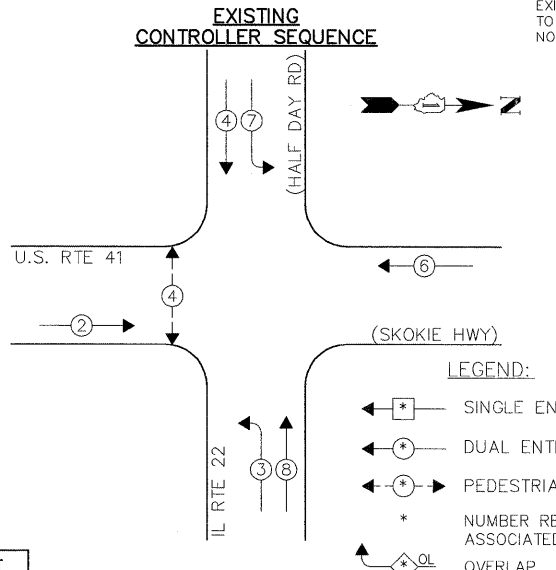
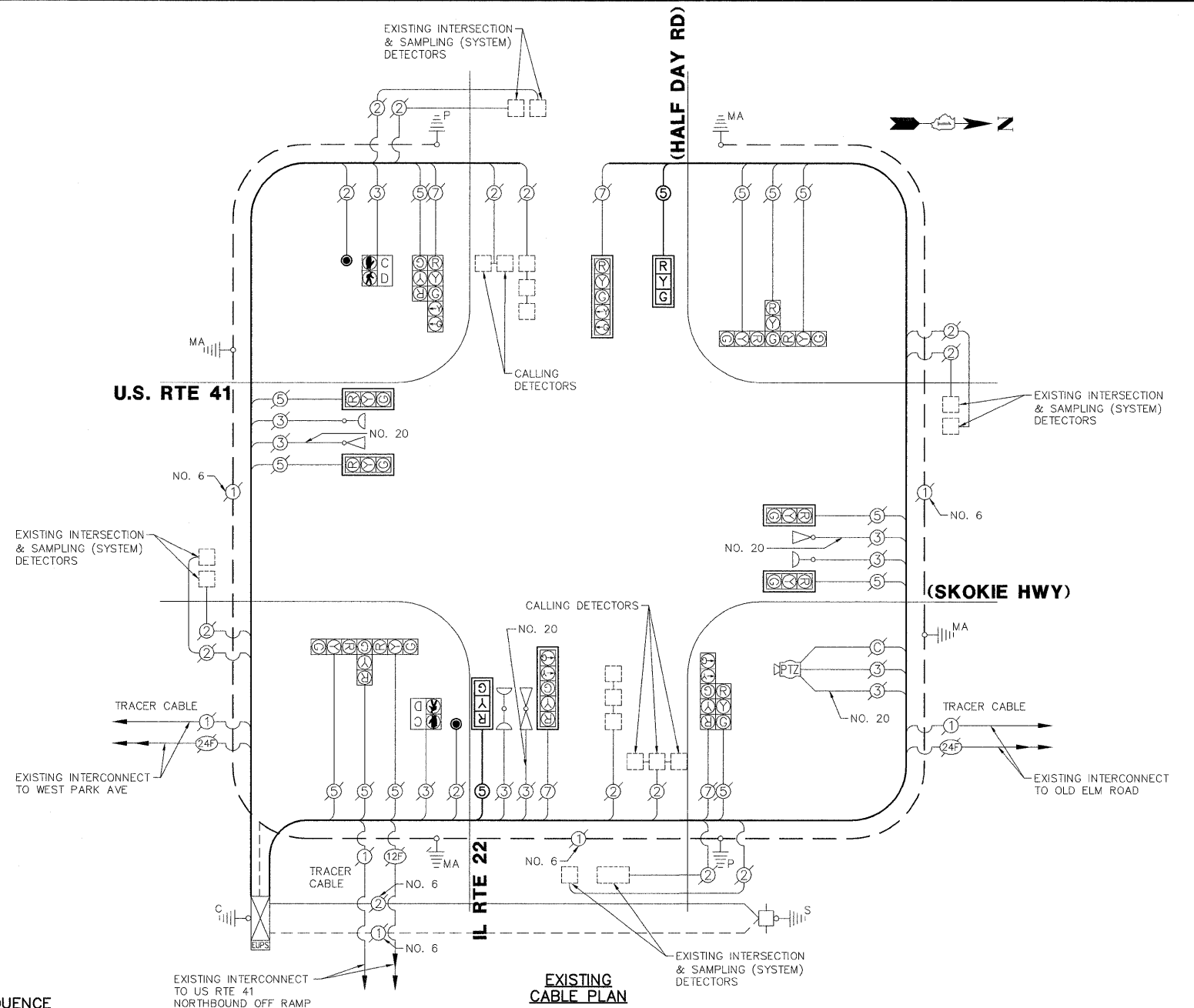
**TRAFFIC SIGNAL MODERNIZATION PLAN
U.S. RTE 41 (SKOKIE HWY) AT IL RTE 22 (HALF DAY RD)**

SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 16
CONTRACT #: 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 22 (HALF DAY ROAD)

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	491	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
3.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4.	2	EACH	PEDESTRIAN PUSH-BUTTON
5.	8	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE



EMERGENCY VEHICLE PREEMPTOR	NO.
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

EXISTING PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	% OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
ARROW	8	135	12	0.10	9.6
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 =					517.6

ENERGY COSTS - BILLED TO: CITY OF HIGHLAND PARK (ADDRESS) 1707 ST. JOHNS AVENUE (ADDRESS) HIGHLAND PARK, IL 60035
ENERGY SUPPLY - CONTACT: JEAN WILL (PHONE) 847.816.5459 (COMPANY) COMED

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

FILE NAME = 4085.B74-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DRAWN - JRM	REVISED -
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISIONS	REVISED - 346

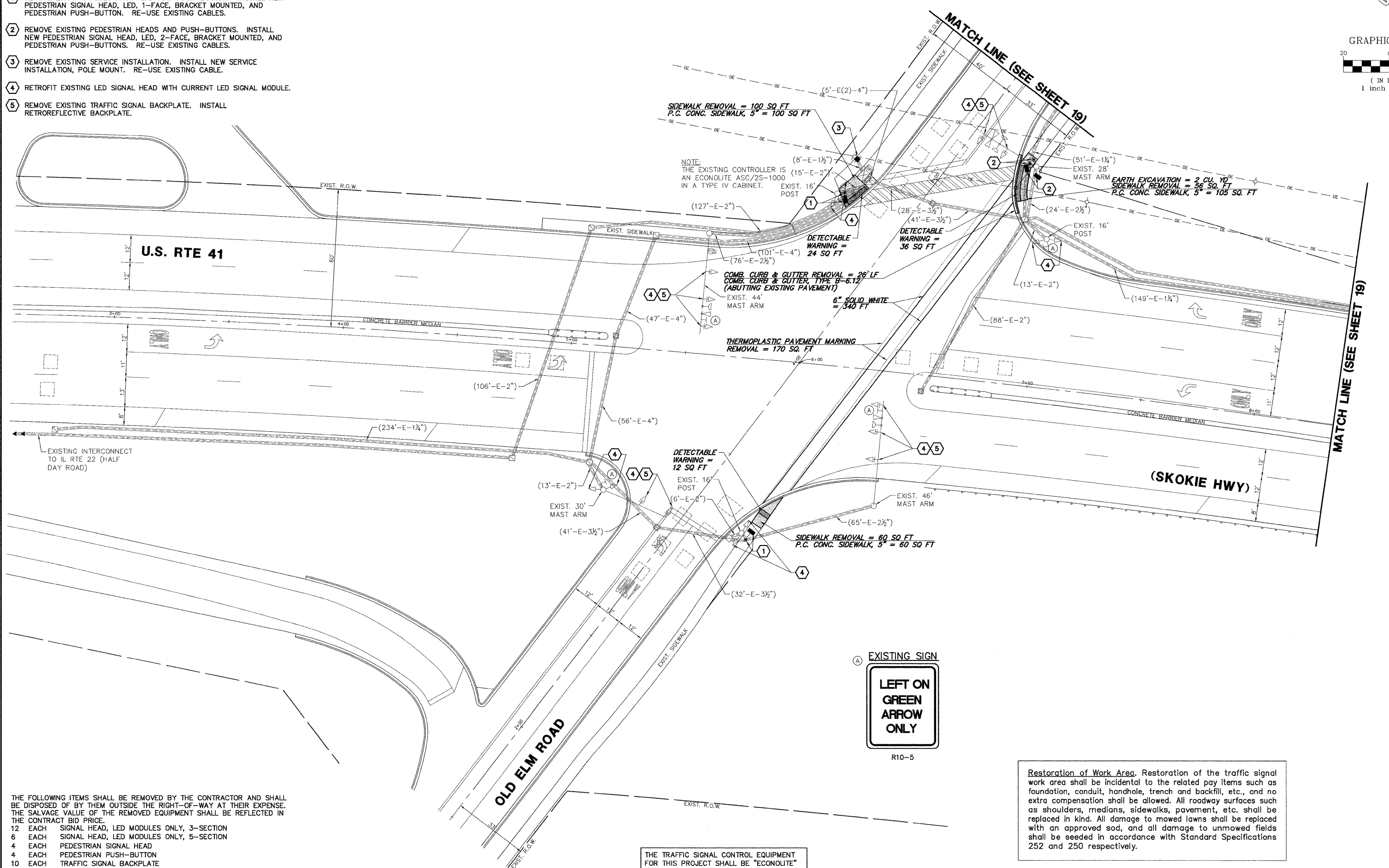
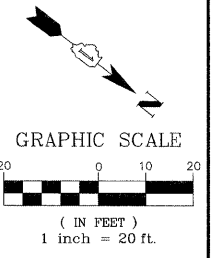
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
U.S. RTE 41 (SKOKIE HWY) AT IL RTE 22 (HALF DAY RD)

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 17
CONTRACT # 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING PEDESTRIAN HEAD AND PUSH-BUTTON. INSTALL NEW PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSH-BUTTON. RE-USE EXISTING CABLES.
- 2 REMOVE EXISTING PEDESTRIAN HEADS AND PUSH-BUTTONS. INSTALL NEW PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSH-BUTTONS. RE-USE EXISTING CABLES.
- 3 REMOVE EXISTING SERVICE INSTALLATION. INSTALL NEW SERVICE INSTALLATION, POLE MOUNT. RE-USE EXISTING CABLE.
- 4 RETROFIT EXISTING LED SIGNAL HEAD WITH CURRENT LED SIGNAL MODULE.
- 5 REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.



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.

- 12 EACH SIGNAL HEAD, LED MODULES ONLY, 3-SECTION
- 6 EACH SIGNAL HEAD, LED MODULES ONLY, 5-SECTION
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 10 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH SERVICE INSTALLATION

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



Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.674-TR1.dwg

USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 6/30/2011

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 6/30/2011

REVISED -
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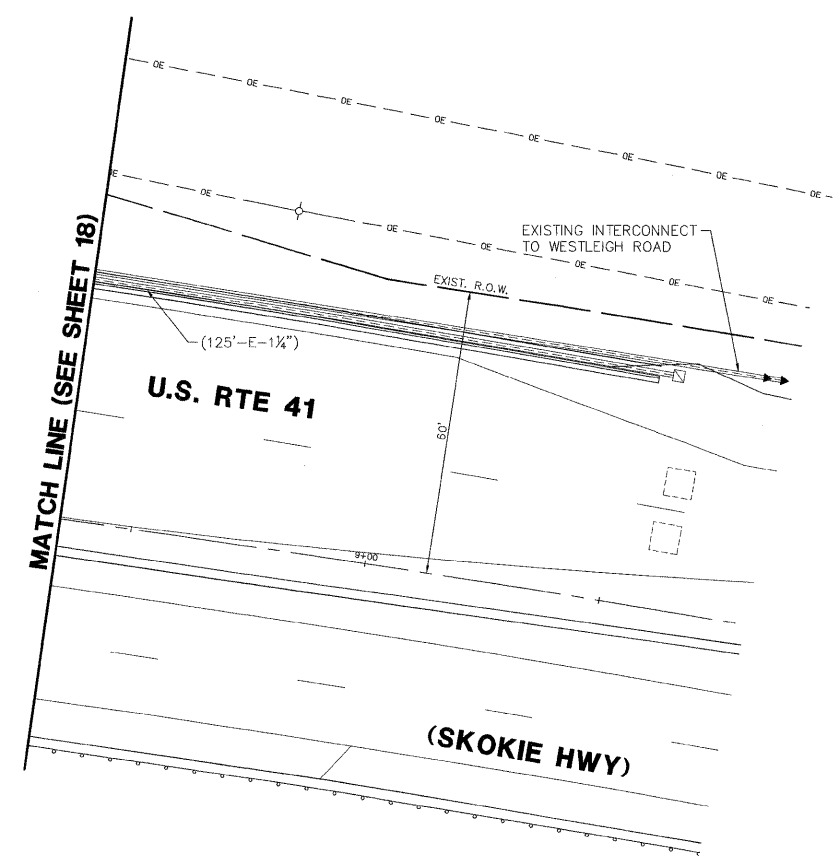
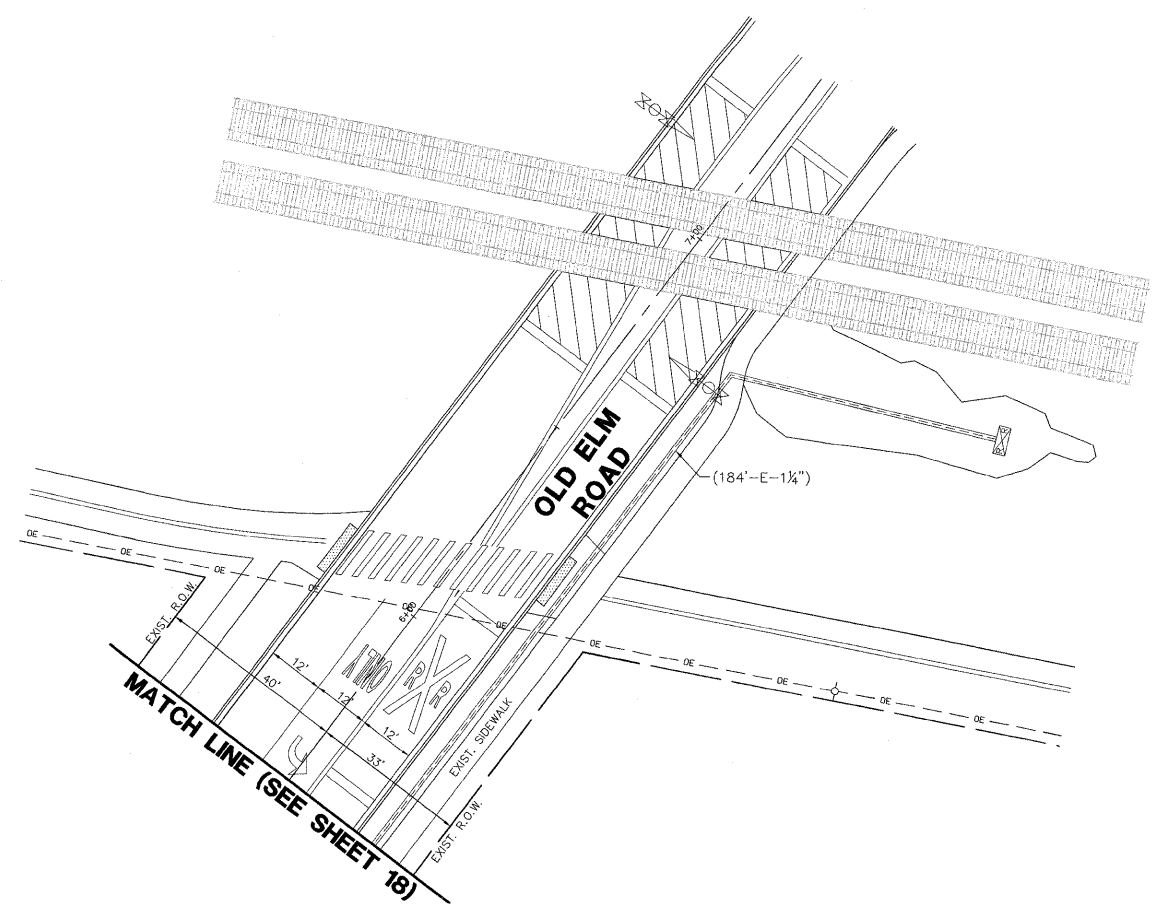
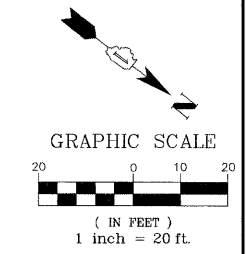
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
 U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD**

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 18
ILLINOIS FED. AID PROJECT			CONTRACT # 60P49	

GHA #4085.874



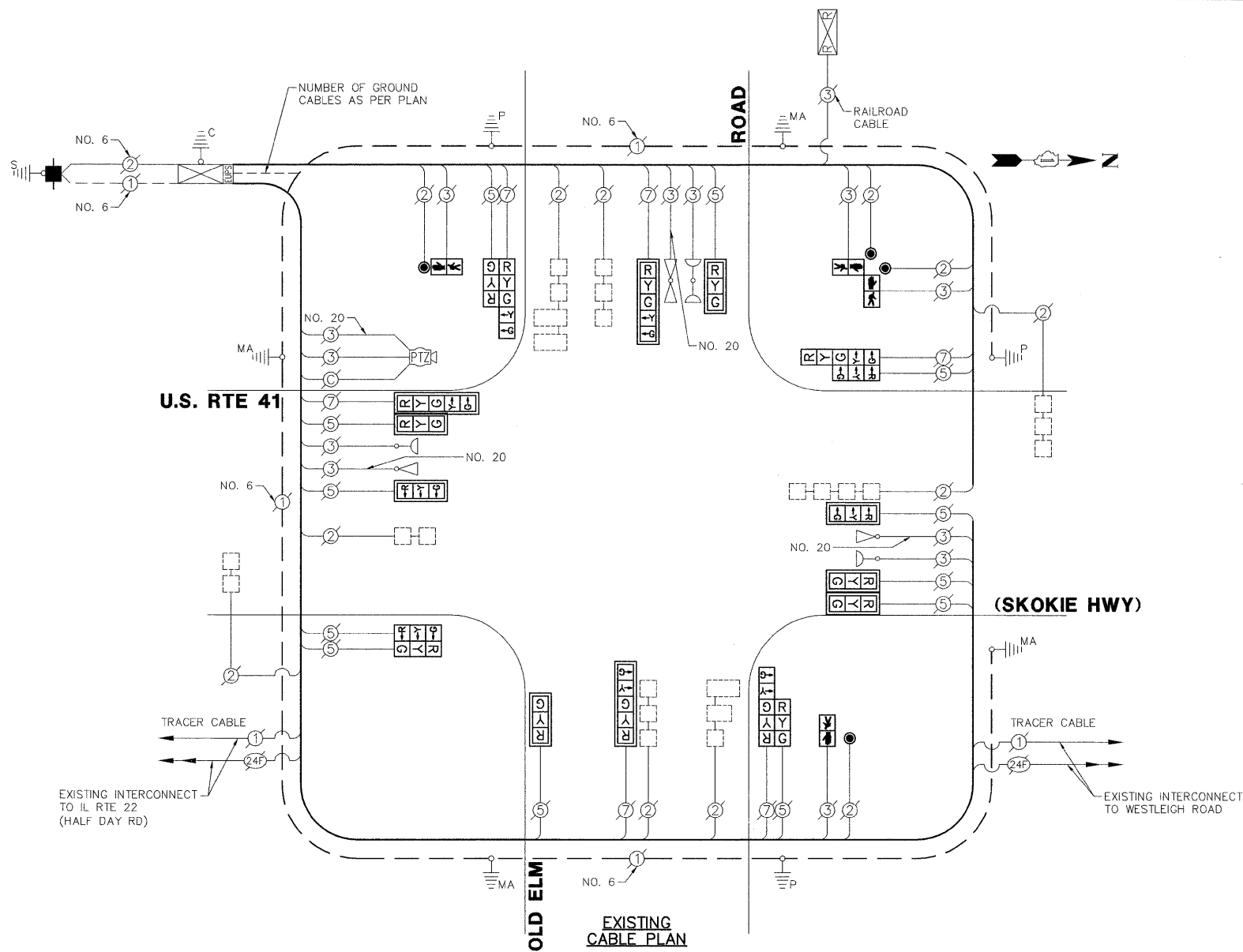
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD			F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 19
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -					SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.			CONTRACT #: 60P49	
PLOT DATE = 6/30/2011	DATE = 6/30/2011	REVISED -	REVISED -	GHA #4085.874 ILLINOIS FED. AID PROJECT								

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT OLD ELM ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	2	CU YD	EARTH EXCAVATION
2.	265	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
3.	72	SQ FT	DETECTABLE WARNINGS
4.	26	FOOT	COMBINATION CURB AND GUTTER REMOVAL
5.	216	SQ FT	SIDEWALK REMOVAL
6.	26	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (ABUTTING EXISTING PAVEMENT)
7.	340	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
8.	170	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
9.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
10.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED
11.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
12.	4	EACH	PEDESTRIAN PUSH-BUTTON
13.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
14.	10	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE
15.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
16.	3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, BRACKET MOUNTED, RETROFIT
17.	7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
18.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
19.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
ARROW	12	135	12	0.10	14.4
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 =					572.4

ENERGY COSTS -- BILLED TO: CITY OF LAKE FOREST
(ADDRESS) 220 E. DEERPATH RD.
(ADDRESS) LAKE FOREST, IL 60045
ENERGY SUPPLY -- CONTACT: JOE HURLEY
PHONE: 1.866.639.3552
COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - JRM	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
U.S. RTE 41 (SKOKIE HWY) AT OLD ELM ROAD**

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

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 20
CONTRACT # 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				

EXISTING SEQUENCE OF OPERATIONS

MOVEMENT	N →								5 → ← 1				↔ ← 6 → 1				5 → 2 →				↔ ← 6 → 2								↖ 7 ↗ 3 ↑ OL				↕ ↕ 8				4 7 ↕ ↑ OL				4 7 ↕ ↕ 8				FLASH							
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	6	7A	7B	8	9A	9B	10	11	12A	12B	13A	13B	14A	14B	15	16	17	18	19	20	21A	21B	22	23	24A	24B	25	26	27	28A	28B													
CHANGE TO	1+6								2+5				2+6				1+6								2+5				1+5 3+7 3+8 4+7 4+8				1+5 1+6 2+5 2+6 4+8				1+5 1+6 2+5 2+6				1+5 1+6 2+5 2+6											
U.S. RTE. 41 S/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	G	G	G	G	R	R	R	G	G	G	G	Y	R	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R									
U.S. RTE. 41 S/B MT MAST ARM SIGNAL	R	R	R	R	R	R	R	G	G	G	G	R	R	R	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					
U.S. RTE. 41 S/B END MAST ARM AND FAR LEFT SIGNALS	← G	← G	← G	← Y	← 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	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R				
U.S. RTE. 41 NEAR RIGHT, N/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	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	R	
U.S. RTE. 41 N/B END MAST AND FAR LEFT SIGNALS	← G	← Y	← R	← G	← G	← Y	← R	← 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	← R		
OLD ELM RD. W/B NEAR AND FAR RIGHT SIGNALS	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	R	R	R	R	R	R	R	R	R	R	R	R	
OLD ELM RD. W/B END MAST ARM AND FAR LEFT SIGNALS	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	R	R	R	R	R	R	R	R	R	R	R	R	
OLD ELM RD. E/B NEAR AND FAR RIGHT SIGNALS	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	R	R	R	R	R	R	R	R	R	R	R	R	R
OLD ELM RD. E/B END MAST ARM AND FAR LEFT SIGNALS	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	R	R	R	R	R	R	R	R	R	R	R	R	R
PEDESTRIAN SIGNALS CROSSING U.S. RTE. 41 ON NORTHSIDE OF OLD ELM ROAD	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
PEDESTRIAN SIGNALS CROSSING OLD ELM ROAD ON WESTSIDE OF U.S. RTE. 41	H	H	H	H	H	H	H	*P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H

EXISTING RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 3								PREEMPTOR NUMBER 4				PREEMPTOR NUMBER 5				PREEMPTOR NUMBER 2				CLEAR TO NORMAL SEQUENCE																																																																																					
	1	5	8	10	15	19	23	26	2	3	4	5	6	7	8	9	10	11	12	13		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	[REDACTED]																																																																																△																									
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	2	3	4	5	△																																																																																	
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	1F	2	1H	2	2	1L	2	2	1P	2	1R	2	1T	2	1V	2	3	4	5	△																																																																																		
U.S. RTE. 41 S/B NEAR AND FAR RIGHT SIGNALS	R	R	Y	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	△																																																																																	
U.S. RTE. 41 S/B MID MAST ARM SIGNAL	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	△																																																																																		
U.S. RTE. 41 S/B END MAST ARM AND FAR LEFT SIGNALS	← Y	← R	← Y	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← Y	← R	← R	← R	← R	← R	← R	△																																																																																		
U.S. RTE. 41 NEAR RIGHT, N/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	△																																																																																		
U.S. RTE. 41 N/B END MAST ARM AND FAR LEFT SIGNALS	← Y	← R	← R	← R	← Y	← R	← R	← R	← R	← R	← R	← R	← R	← R	← Y	← R	← R	← R	← R	← R	← R	← R	△																																																																																			
OLD ELM RD. W/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	R	Y	R	R	R	△																																																																																			
OLD ELM RD. W/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	R	Y	R	R	R	△																																																																																			
OLD ELM RD. E/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	G	G	G	R	R	R	R	G	G	G	Y	R	△																																																																																		
OLD ELM RD. E/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	G	G	G	R	R	R	R	G	G	G	Y	R	△																																																																																		
PEDESTRIAN SIGNALS CROSSING U.S. RTE. 41 ON NORTHSIDE OF OLD ELM ROAD	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	△																																																																																			
PEDESTRIAN SIGNALS CROSSING OLD ELM ROAD ON WESTSIDE OF U.S. RTE. 41	H	H	FH	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△																																																																																			

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING "H" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

⊕ THIS "P" OR FLASHING "H" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "P" OR FLASHING "H" INTERVALS.

P = ILLUMINATED PERSON = WALK
FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
H = ILLUMINATED SOLID HAND = DON'T WALK

PHASES 2 AND 6 SHALL BE PLACED ON RECALL.

FL = FLASHING
DK = DARK

△ 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.

⊕ RAILROAD PREEMPTION SEQUENCE SHALL BE CAPABLE OF CYCLING BETWEEN PHASES 1+6, 2+6, AND PHASE 3 UNTIL RAILROAD PREEMPTION IS TERMINATED.


FOR INFORMATION ONLY





EXISTING EMERGENCY VEHICLE SYSTEM PREEMPTION SEQUENCE OF OPERATIONS

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		1		1		5			5	8		8			10			10			10			15	19			19		23		23	26			26	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	CLEAR TO NORMAL SEQUENCE									
	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	2	3	4												
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	2	3	4												
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	3	1F	4	1H	1J	2 OR 4	3	2	1N	3 OR 4	1Q	1S	2	1T	1U	3	1W	1X	4	2, 3 OR 4	1AA	1BB	2 OR 3	1DD	4	1FF	2 OR 3	4	1JJ	1KK	2 OR 3	4				◇											
U.S. RTE. 41 S/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	G	Y	R	G	R	R	R	G	Y	R	G	G	G	G	Y	R	Y →	R	R	R	R	R	Y →	R	Y →	R	R	R	R	R	R	R	R	R	G	R	◇							
U.S. RTE. 41 S/B MID MAST ARM SIGNAL	R	R	R	R	R	R	G	Y	R	G	R	R	R	G	Y	R	G	G	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	G	R	◇				
U.S. RTE. 41 NEAR MAST ARM AND FAR LEFT SIGNALS	← Y	← R	← G	← G	← Y	← R	← G	← Y	← R	← G	← 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	◇			
U.S. RTE. 41 NEAR RIGHT, N/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	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	◇		
U.S. RTE. 41 END MAST ARM AND FAR LEFT SIGNALS	← G	← G	← Y	← R	← Y	← R	← 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	◇		
OLD ELM RD. W/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	R	R	R	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	◇		
OLD ELM RD. W/B END MAST ARM AND FAR LEFT SIGNALS	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	G	← G	← Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
OLD ELM RD. E/B NEAR AND FAR RIGHT SIGNALS	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	R	R	R	R	R	R	R	R	R	R	◇
OLD ELM RD. E/B END MAST ARM AND FAR LEFT SIGNALS	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	R	R	R	R	R	R	R	R	R	R	◇
PEDESTRIAN SIGNALS CROSSING U.S. RTE. 41 ON NORTHSIDE OF OLD ELM ROAD	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇		
PEDESTRIAN SIGNALS CROSSING OLD ELM ROAD ON WESTSIDE OF U.S. RT. 41	H	H	H	H	H	H	FH	H	H	FH	H	H	H	FH	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇	

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

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING  IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

⊙ THIS  OR FLASHING  INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE  OR FLASHING  INTERVALS.

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
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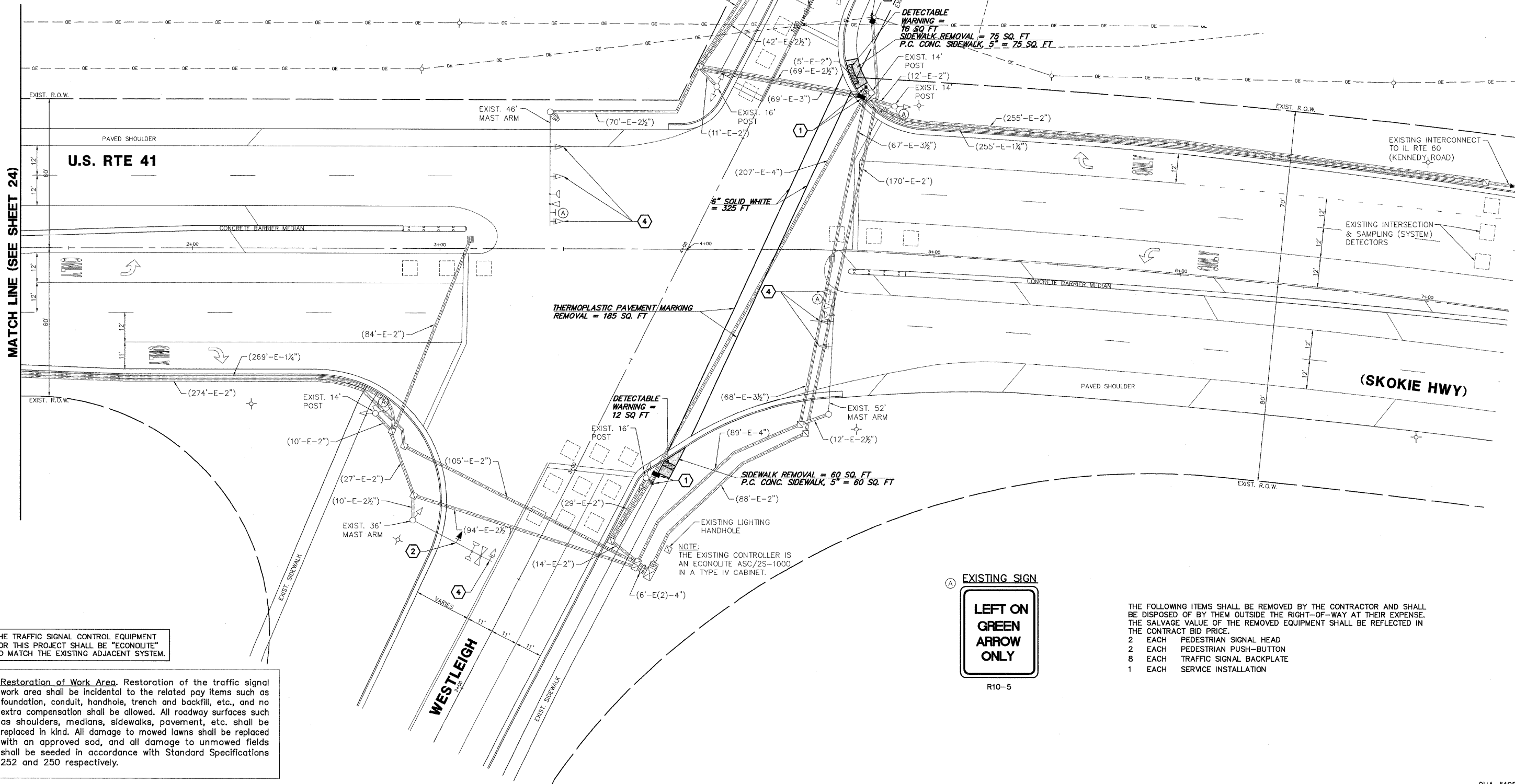
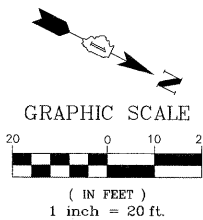
PHASES 2 AND 6 SHALL BE PLACED ON RECALL.

FL = FLASHING
 DK = DARK

FOR INFORMATION ONLY

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING PEDESTRIAN HEADS AND PUSH-BUTTONS. INSTALL NEW PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED, AND PEDESTRIAN PUSH-BUTTONS. RE-USE EXISTING CABLES.
- 2 INSTALL NEW SIGNAL HEAD, LED, 1-FACE, 3-SECTION MAST ARM MOUNTED. INSTALL NEW NO. 14 5/C CABLE.
- 3 REMOVE EXISTING SERVICE INSTALLATION. INSTALL NEW SERVICE INSTALLATION, POLE MOUNT. RE-USE EXISTING CABLE.
- 4 REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.



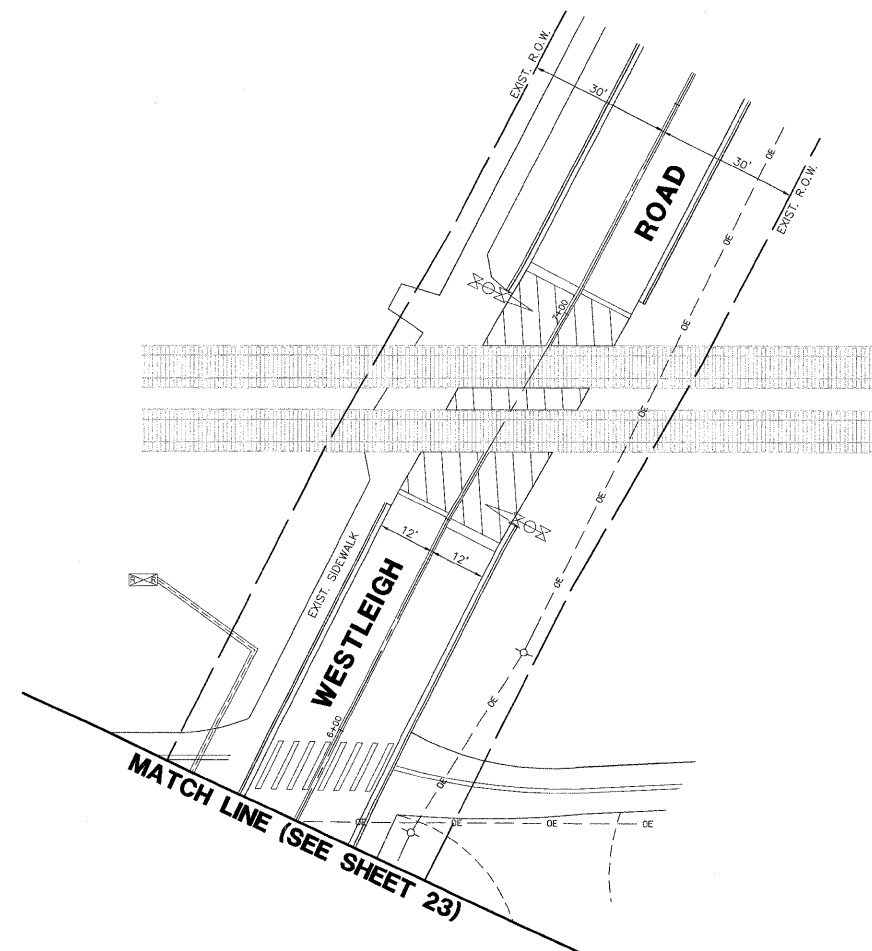
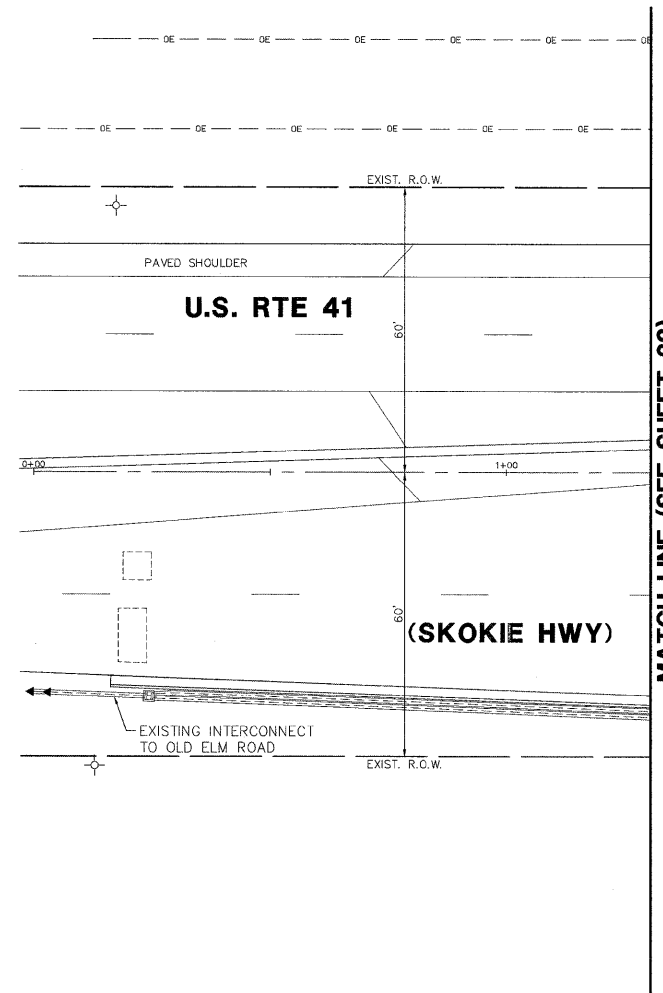
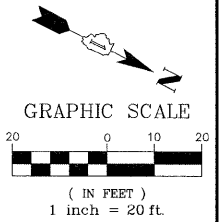
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.



- 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
 - 8 EACH TRAFFIC SIGNAL BACKPLATE
 - 1 EACH SERVICE INSTALLATION

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HWY) AT WESTLEIGH ROAD	F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 23	CONTRACT # 60P49	GHA #4085.874	
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DATE - 6/30/2011	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -										



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

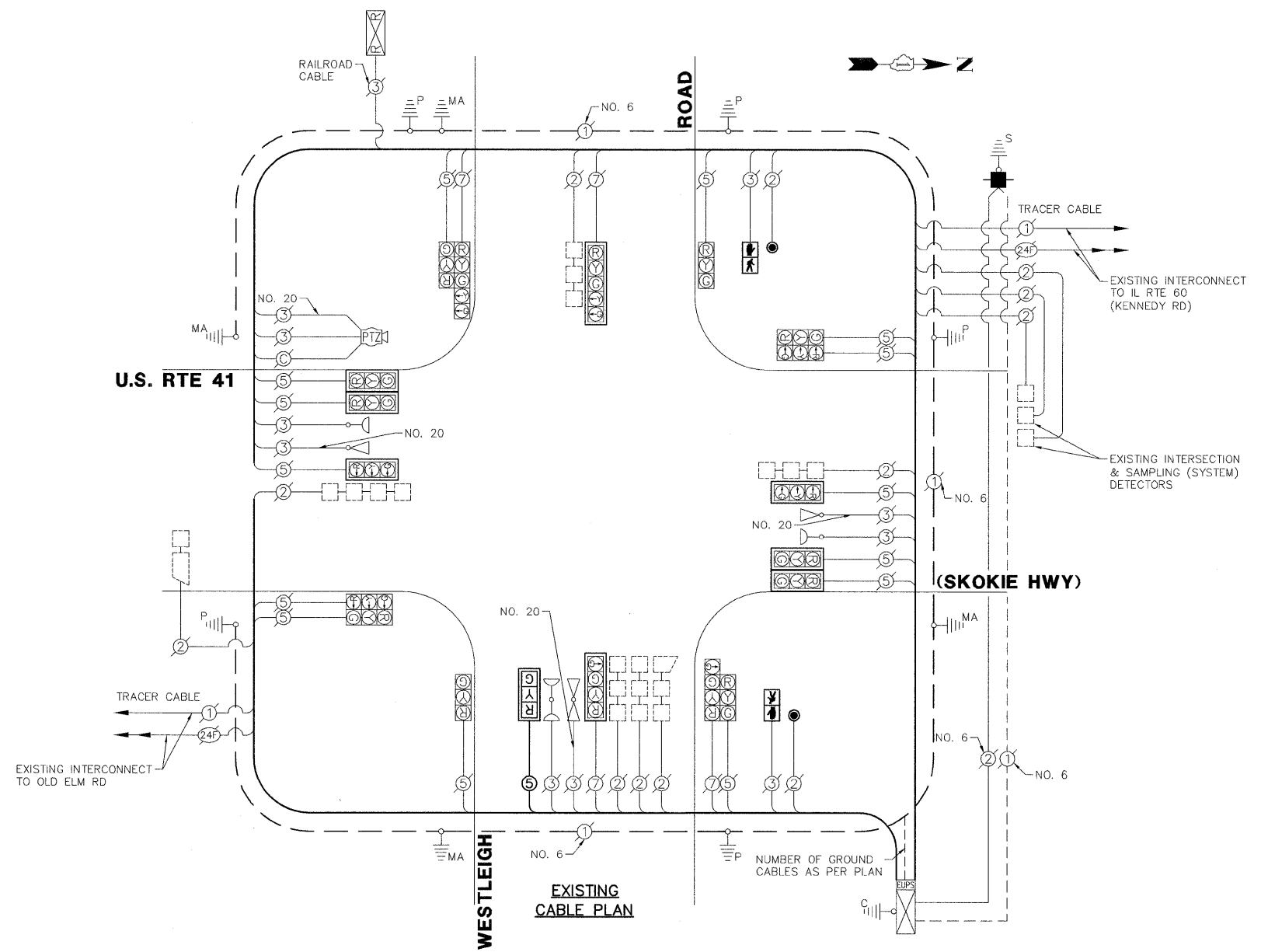
Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HWY) AT WESTLEIGH ROAD			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -					346	2011-042-TS	LAKE	62	24
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -	SCALE: 1"=20'	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
ILLINOIS FED. AID PROJECT												

GHA #4085.874

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT WESTLEIGH ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	130	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	28	SQ FT	DETECTABLE WARNINGS
3.	130	SQ FT	SIDEWALK REMOVAL
4.	325	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
5.	185	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
6.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
7.	194	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
8.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
9.	2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
10.	2	EACH	PEDESTRIAN PUSH-BUTTON
11.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
12.	9	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE
13.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	19	135	17	0.50	161.5
SIGNAL (YELLOW)	19	135	25	0.25	118.75
SIGNAL (GREEN)	19	135	15	0.25	71.25
ARROW	6	135	12	0.10	7.2
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 =					533.7

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

ENERGY COSTS - BILLED TO: CITY OF LAKE FOREST
(ADDRESS) 220 E. DEERPATH RD
(ADDRESS) LAKE FOREST, IL 60045
ENERGY SUPPLY - CONTACT: JOE HURLEY
PHONE: 1.866.639.3552
COMPANY: COMED

FILE NAME = 4085.B74-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - JRM	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES AND CABLE PLAN U.S. RTE 41 (SKOKIE HWY) AT WESTLEIGH ROAD			
SCALE: N.A.	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 25
CONTRACT # 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				

EXISTING SEQUENCE OF OPERATIONS

MOVEMENT	← 6 ↙ 1				← 6 ↙ 1			5 → 2 →			← 6 2 →						↑ 1 ↓ 3 ↑ 8 ↓ 8				4 ↑ ↓ 8				FLASH								
PHASE	1+5				1+6			2+5			2+6						3+8				4+8												
INTERVAL	1	2A	2B	3A	3B	4A	4B	5	6A	6B	7	8A	8B	9	10A	10B	11A	11B	12A	12B	13	14	15A	15B		16	17	18	19A	19B			
CHANGE TO	1+6				2+5			2+6			2+6			1+6						2+5				1+5 1+6 2+5 2+6				1+5 1+6 2+5 2+6					
U.S. RTE 41 NEAR RIGHT, S/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	R	R	R	G	G	G	R	R	R	G	G	G	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
U.S. RTE 41 S/B END MAST ARM AND FAR LEFT SIGNALS	← 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	
U.S. RTE 41 NEAR RIGHT, N/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	G	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
U.S. RTE 41 N/B END MAST ARM AND FAR LEFT SIGNALS	← 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	
WESTLEIGH ROAD W/B NEAR AND FAR RIGHT SIGNALS	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	Y	R	
WESTLEIGH ROAD W/B END MAST ARM AND FAR LEFT SIGNALS	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	← Y	G	G	Y	
WESTLEIGH ROAD E/B NEAR AND FAR RIGHT SIGNALS	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	
WESTLEIGH ROAD E/B END MAST ARM AND FAR LEFT SIGNALS	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	
PEDESTRIAN SIGNALS CROSSING U.S. RTE 41 ON NORTHSIDE OF WESTLEIGH ROAD	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	*P	**FH H	H	H	*P	**FH H	H	H	DK

EXISTING RAILROAD PREEMPTION SEQUENCE OF OPERATIONS

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 3																PREEMPTOR NUMBER 4																PREEMPTOR NUMBER 5																PREEMPTOR NUMBER 2																				
	1	5	7	9	13	17	2																3																4																2														
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																																																																					
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	2	3	4	5	6	7	8	9	10	11	12	CLEAR TO NORMAL SEQUENCE																																							
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	1F	2	1H	2	1K	2	1M	2	1P	2	1R	2	1T	2	3	4	5	6	7	8	9	10	11	12	13																																								
U.S. RTE 41 NEAR RIGHT, S/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	G	G	G	G	Y	R	R	R	△																																							
U.S. RTE 41 S/B END MAST ARM AND FAR LEFT SIGNALS	← Y	← R	← Y	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← Y	← R	← R	← R	← R	← R	← R	← G	← Y	← R	← R	← R	← R	← R	← R	← R	△																																						
U.S. RTE 41 NEAR RIGHT, N/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	△																																							
U.S. RTE 41 N/B END MAST ARM AND FAR LEFT SIGNALS	← Y	← R	← R	← R	← Y	← R	← R	← R	← R	← R	← R	← R	← Y	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	△																																							
WESTLEIGH ROAD W/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																								
WESTLEIGH ROAD W/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	△																																								
WESTLEIGH ROAD E/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	G	G	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	△																																							
WESTLEIGH ROAD E/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	G	G	R	R	R	R	G	G	← G	← G	Y	R	R	R	R	R	R	R	R	△																																							
PEDESTRIAN SIGNALS CROSSING U.S. RTE 41 ON NORTHSIDE OF WESTLEIGH ROAD	H	H	H	H	H	H	H	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△																																								

△ 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 13 IS TERMINATED.

⊙ RAILROAD PREEMPTION SEQUENCE SHALL BE CAPABLE OF CYCLING BETWEEN PHASES 1+6, 2+6 AND PHASE 3 UNTIL RAILROAD PREEMPTION IS TERMINATED.

△ HOLD

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

⊙ THIS OR FLASHING INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE OR FLASHING INTERVALS.

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DONT WALK
 H = ILLUMINATED SOLID HAND = DONT WALK

PHASES 2 AND 6 SHALL BE PLACED ON RECALL

FL = FLASHING
 DK = DARK

FOR INFORMATION ONLY


FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING SEQUENCE OF OPERATIONS AND EXISTING RAILROAD PREEMPTION SEQUENCE OF OPERATIONS U.S. RTE 41 (SKOKIE HWY) AT WESTLEIGH ROAD	F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 26	CONTRACT # 60P49
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	SCALE: N.A.			SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -									





EXISTING EMERGENCY VEHICLE SYSTEM PREEMPTION SEQUENCE OF OPERATIONS

	1		1		1		5		5		7		7		9		9		9		13			13			17			17	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	CLEAR TO NORMAL SEQUENCE
CHANGE FROM NORMAL 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	2	3	4				
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	2	3	4				
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	3	1F	4	1H	² OR ⁴	3	2	1M	³ OR ⁴	1P	2	1R	3	1T	4	1V	1W	² OR ³	1Y	4	1AA	1BB	² OR ³	4							◇
U.S. RTE 41 NEAR RIGHT, S/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	R	R	Y	R	G	R	R	R	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
U.S. RTE 41 S/B END MAST ARM AND FAR LEFT SIGNALS	← Y	← R	← G	← G	← Y	← R	← Y	← R	← G	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← R	← G	← R	◇	
U.S. RTE 41 NEAR RIGHT, N/B FAR RIGHT AND MID MAST ARM SIGNALS	R	R	R	R	R	R	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	◇
U.S. RT 41 N/B END MAST ARM AND FAR LEFT SIGNALS	← 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	◇
WESTLEIGH ROAD W/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	G	Y	R	G	R	R	G	◇
WESTLEIGH ROAD W/B END MAST ARM AND FAR LEFT SIGNALS	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 ← Y	^G ← Y	G	Y	R	G	R	R	G	◇	
WESTLEIGH ROAD E/B NEAR AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	R	R	G	◇		
WESTLEIGH ROAD E/B END MAST ARM AND FAR LEFT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	R	R	G	◇		
PEDESTRIAN SIGNALS CROSSING U.S. RTE 41 ON NORTHSIDE OF WESTLEIGH ROAD	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH H	H	H	FH H	H	FH H	H	H	FH H	H	H	◇	

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

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING  IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

Ø THIS  OR FLASHING  INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE  OR FLASHING  INTERVALS.

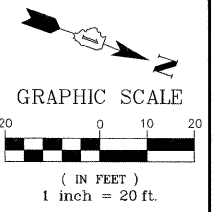
P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK

PHASES 2 AND 6 SHALL BE PLACED ON RECALL.

FL = FLASHING
 DK = DARK

FOR INFORMATION ONLY

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS U.S. RTE 41 (SKOKIE HWY) AT WESTLEIGH ROAD	F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 27		
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	SCALE: N.A.			SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT CONTRACT #: 60P49				
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -										
GHA #4085.874												



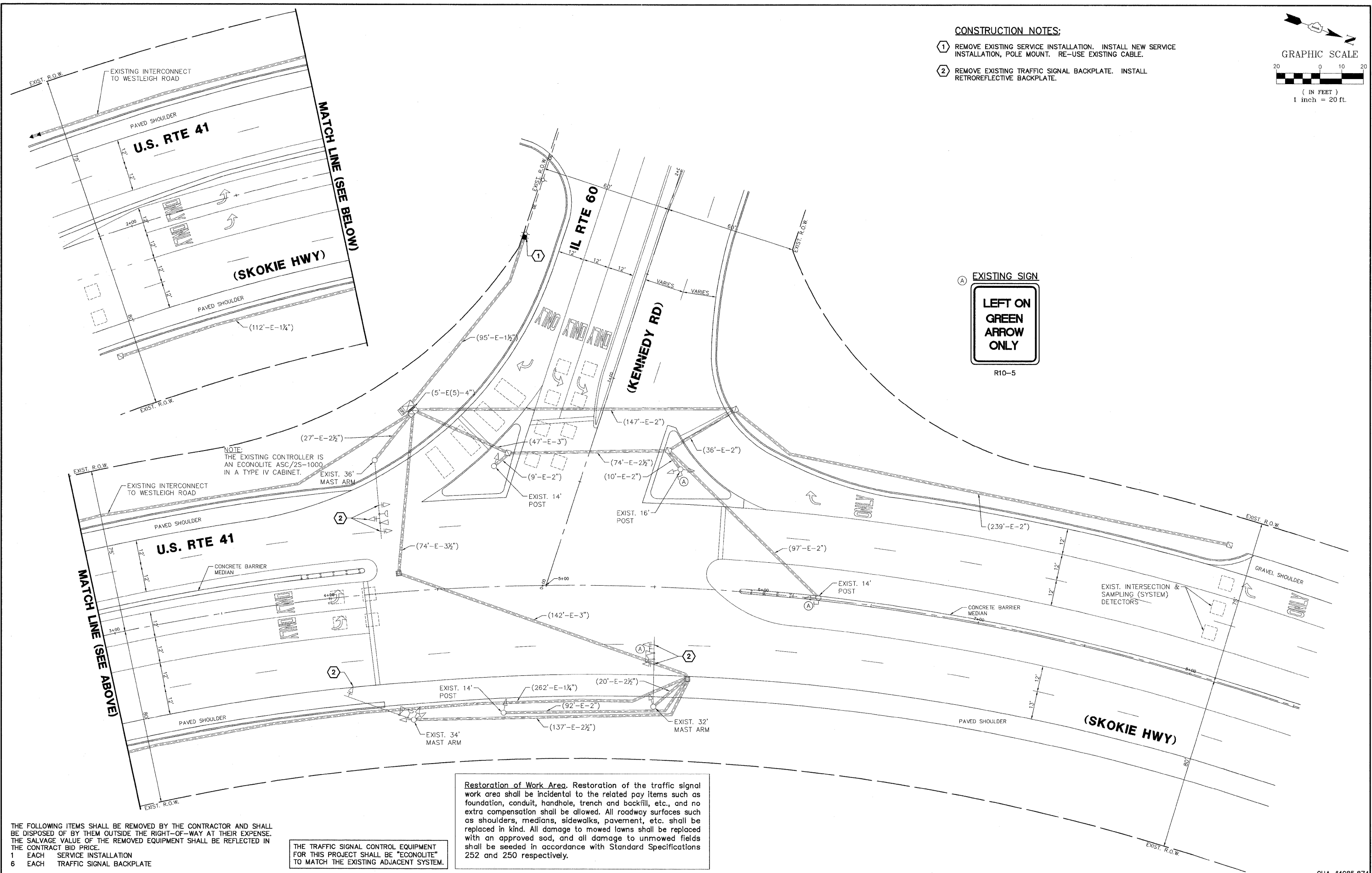
CONSTRUCTION NOTES:

- ① REMOVE EXISTING SERVICE INSTALLATION. INSTALL NEW SERVICE INSTALLATION, POLE MOUNT. RE-USE EXISTING CABLE.
- ② REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.

Ⓐ EXISTING SIGN



R10-5



NOTE:
THE EXISTING CONTROLLER IS
AN ECONOLITE ASC/2S-1000
IN A TYPE IV CABINET.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

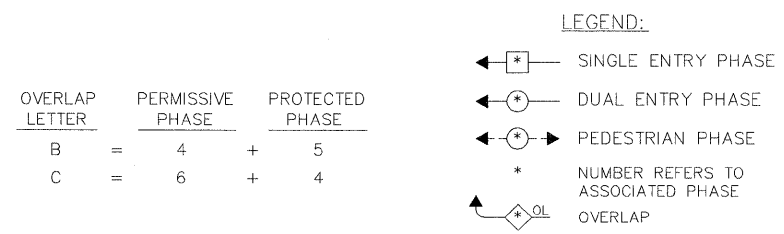
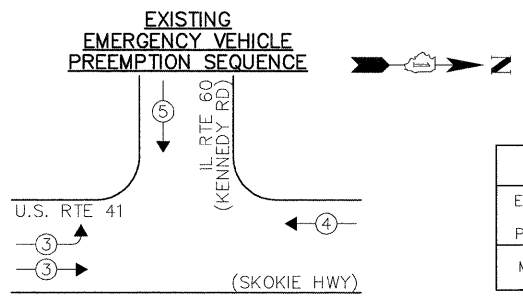
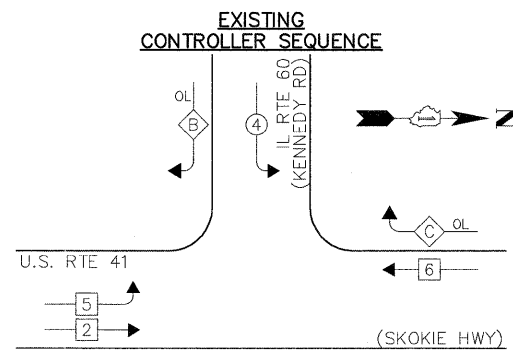
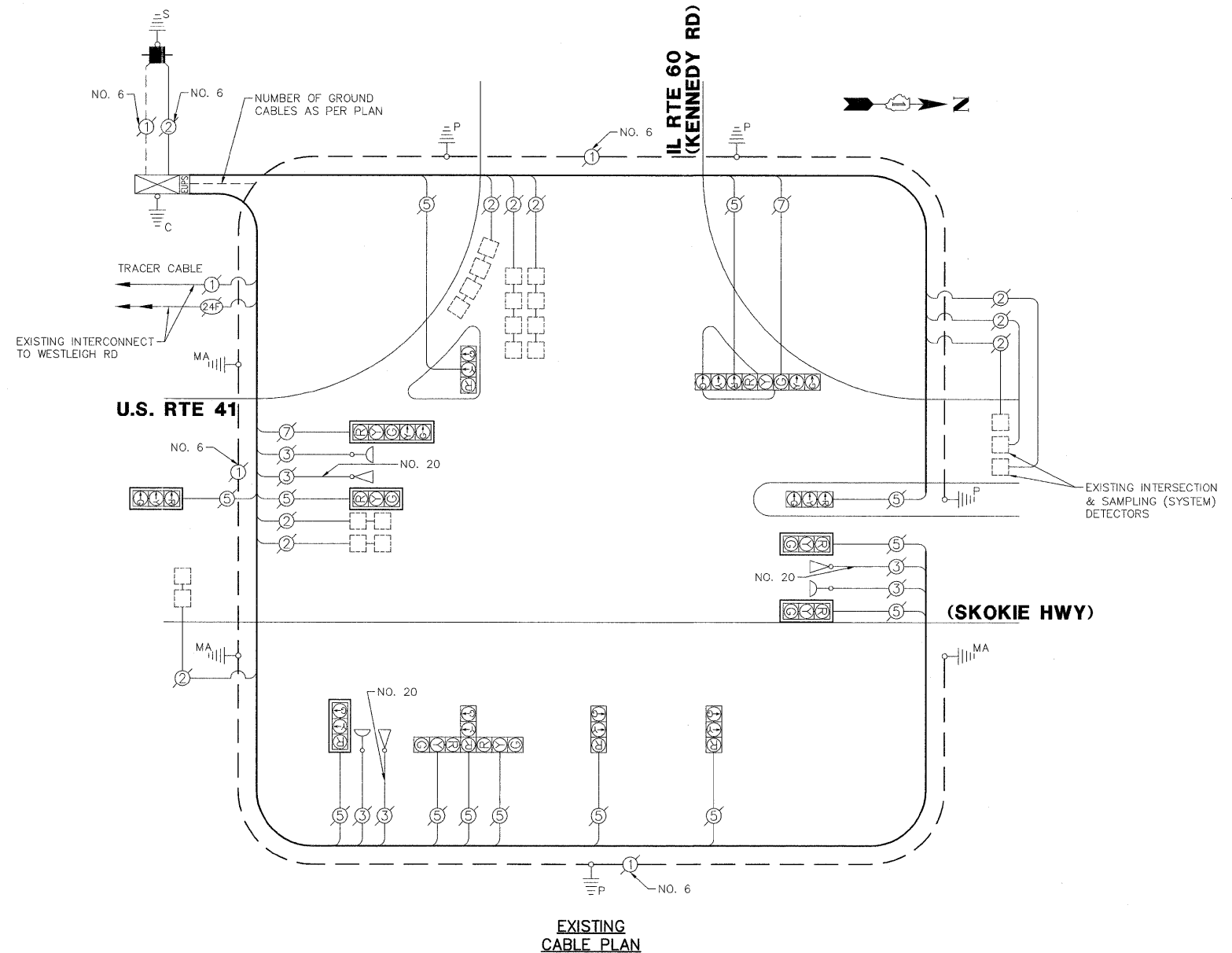
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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.
1 EACH SERVICE INSTALLATION
6 EACH TRAFFIC SIGNAL BACKPLATE

FILE NAME = 4085.874-TRI.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HWY) AT IL RTE 60 (KENNEDY RD)			F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 28
	PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
	PLOT DATE = 6/30/2011	CHECKED - KLB	REVISED -							ILLINOIS FED. AID PROJECT		
		DATE - 6/30/2011	REVISED -							GHA #4085.874		

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 60 (KENNEDY ROAD)

NO.	QUANT.	UNIT
1.	1	EACH MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3.	6	EACH RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE
4.	1	EACH SERVICE INSTALLATION - POLE MOUNTED



EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
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)	15	135	17	0.50	127.5
SIGNAL (YELLOW)	15	135	25	0.25	93.75
SIGNAL (GREEN)	15	135	15	0.25	56.25
ARROW	4	135	12	0.10	4.8
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 =					407.3

ENERGY COSTS - BILLED TO: CITY OF LAKE FOREST
(ADDRESS) 220 E. DEERPATH RD.
(ADDRESS) LAKE FOREST, IL 60045
ENERGY SUPPLY - CONTACT: JOE HURLEY
PHONE: 1.866.639.3552
COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'		DRAWN - JRM	REVISED -
PLOT DATE = 6/30/2011		CHECKED - KLB	REVISED -
		DATE - 6/30/2011	REVISED -

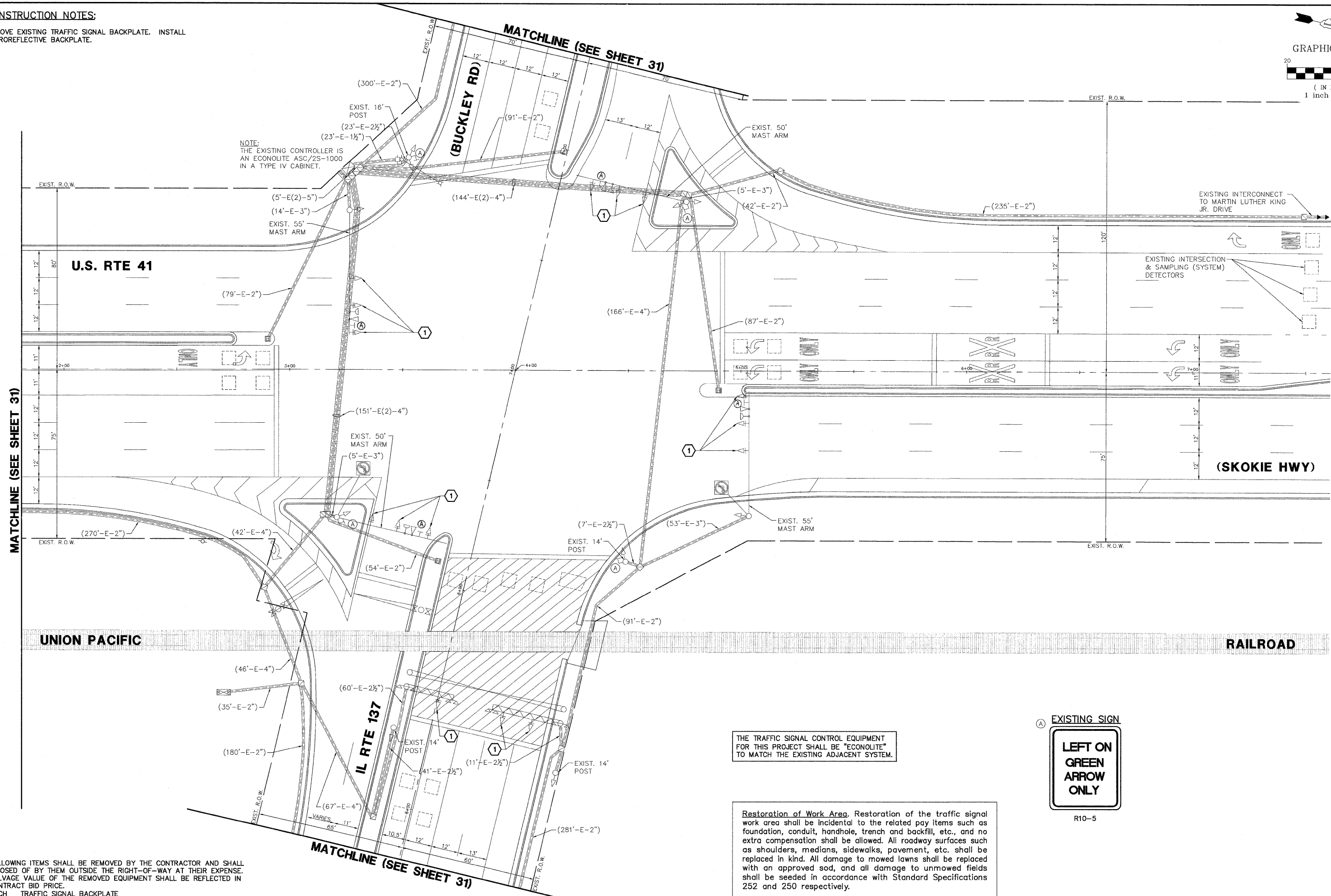
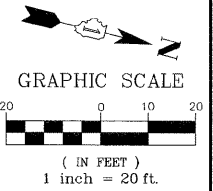
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
U.S. RTE 41 (SKOKIE HWY) AT IL RTE 60 (KENNEDY RD)

F.A.P. RTE 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 29
				CONTRACT #: 60P49
GHA #4085.874				
ILLINOIS FED. AID PROJECT				

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.

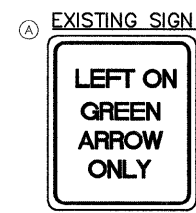


NOTE:
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2S-1000 IN A TYPE IV CABINET.

EXISTING INTERCONNECT TO MARTIN LUTHER KING JR. DRIVE

EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS

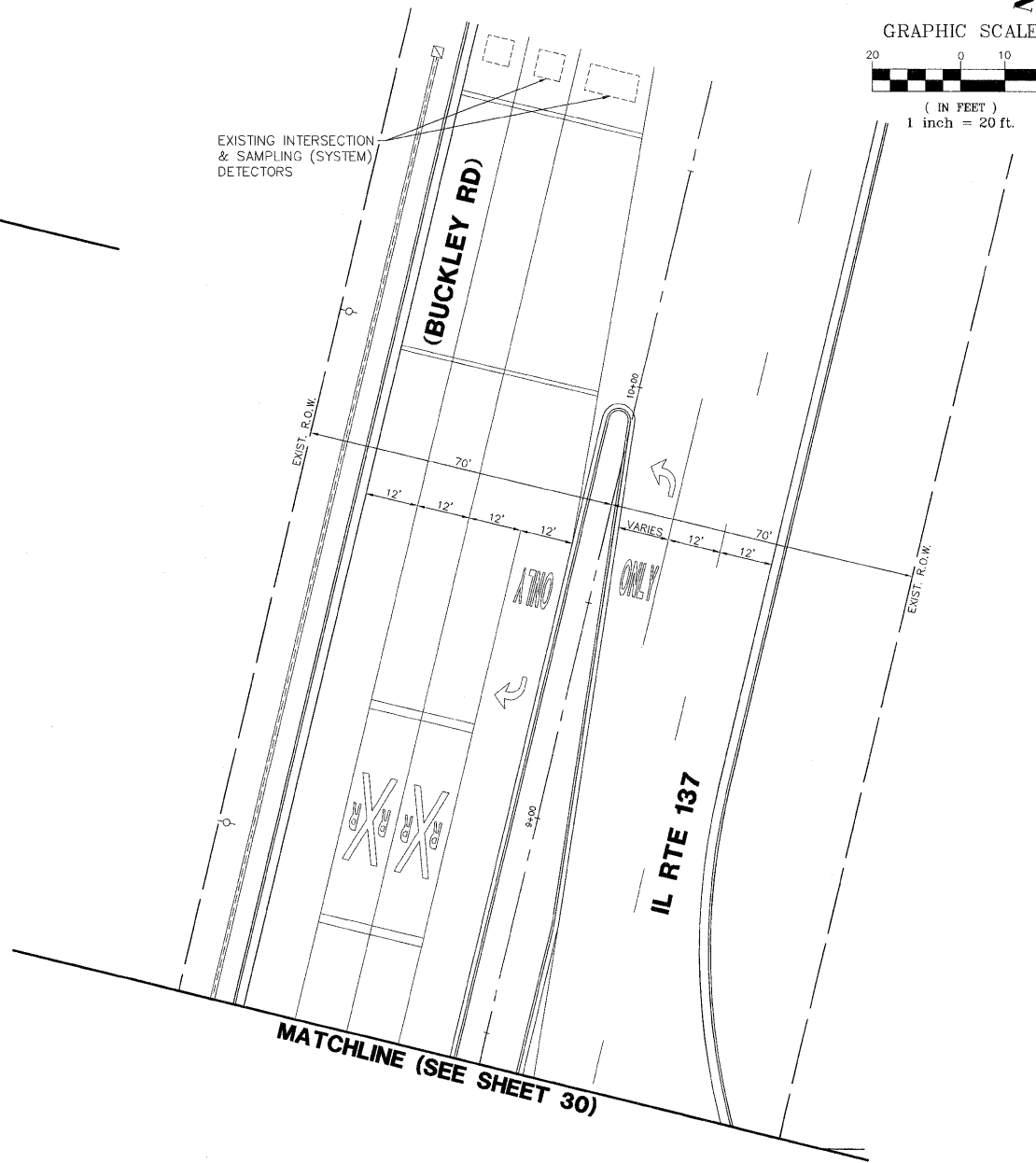
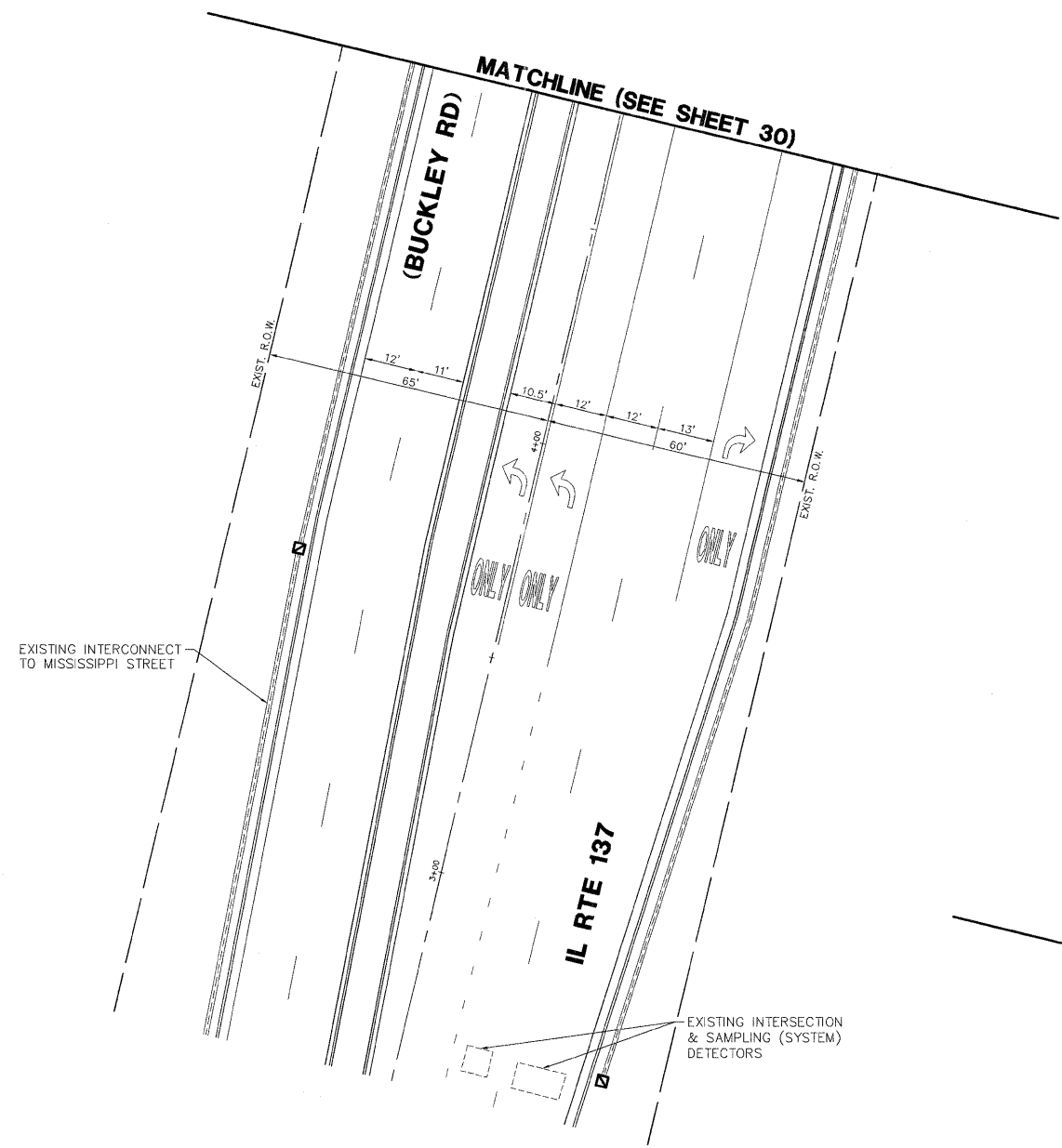
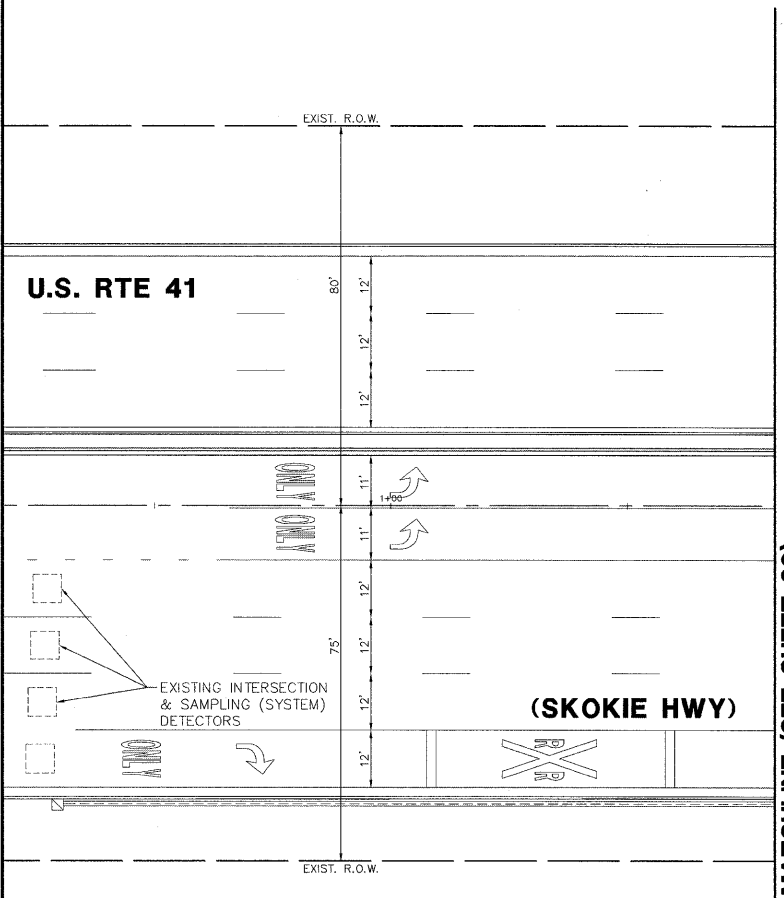
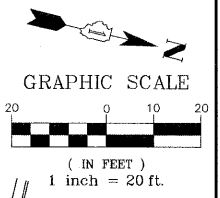
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

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.
15 EACH TRAFFIC SIGNAL BACKPLATE

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HWY) AT IL RTE 137 (BUCKLEY RD)			F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 30
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							
GHA #4085.874												



UNION PACIFIC RAILROAD

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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.B74-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

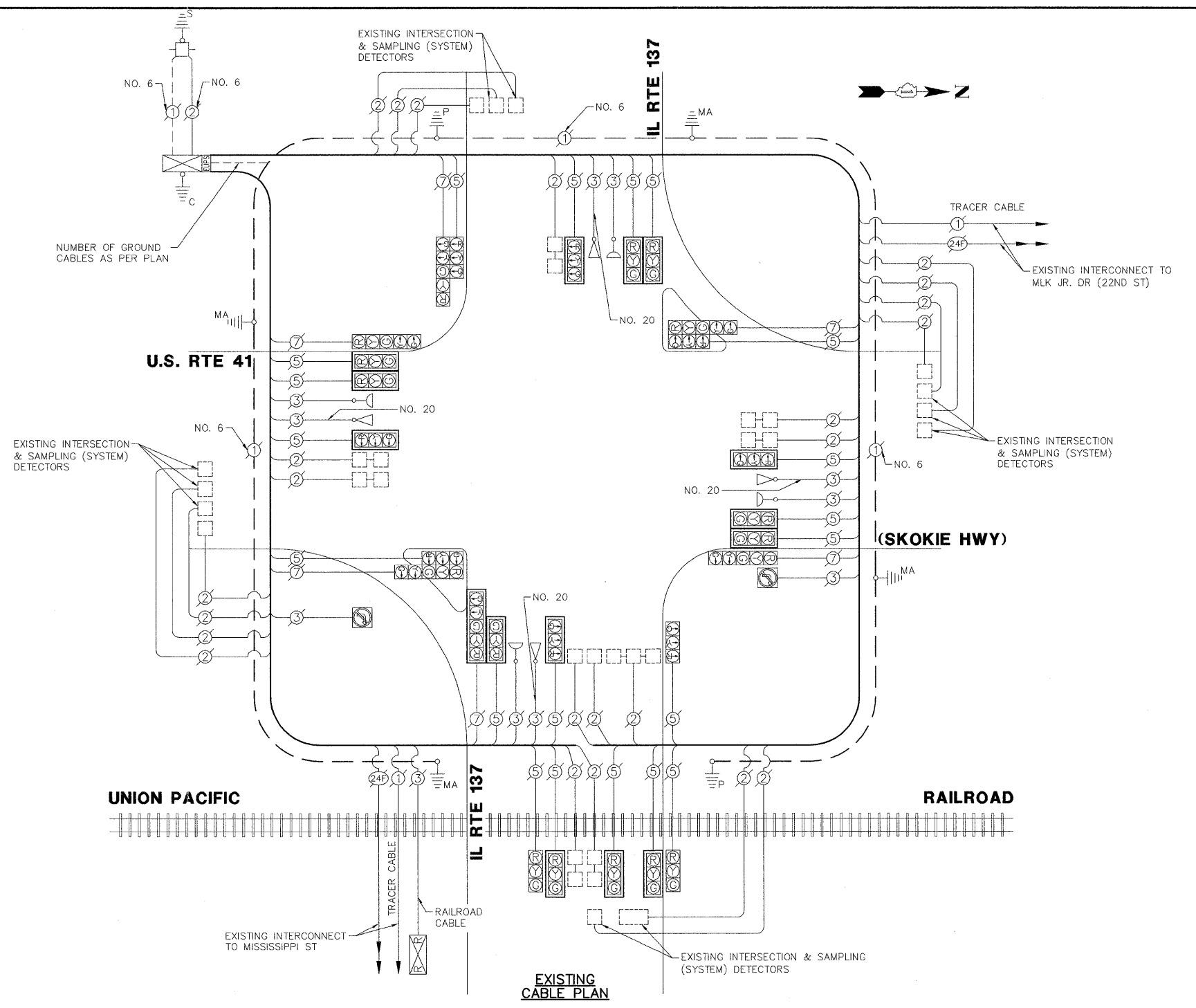
**TRAFFIC SIGNAL MODERNIZATION PLAN
U.S. RTE 41 (SKOKIE HWY) AT IL RTE 137 (BUCKLEY RD)**

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 31
CONTRACT #: 60P49			ILLINOIS FED. AID PROJECT	

GHA #4085.874

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 137 (BUCKLEY ROAD)

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3.	15	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	26	135	17	0.50	221.0
SIGNAL (YELLOW)	26	135	25	0.25	162.5
SIGNAL (GREEN)	26	135	15	0.25	97.5
ARROW	12	135	12	0.10	14.4
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 =					620.4

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

ENERGY COSTS - BILLED TO: IDOT - DISTRICT 1
(ADDRESS) 201 WEST CENTER COURT
(ADDRESS) SCHAMBURG, IL 60196
ENERGY SUPPLY - CONTACT: ALICE TAYLOR
PHONE: 847.816.5458
COMPANY: COMED

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - JRM	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES AND CABLE PLAN			
U.S. RTE 41 (SKOKIE HWY) AT IL RTE 137 (BUCKLEY RD)			
SCALE: N.A.	SHEET NO. OF SHEETS	STA.	TO STA.

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 32
CONTRACT #:			60P49	
ILLINOIS FED. AID PROJECT				

GHA #4085.874

EXISTING SEQUENCE OF OPERATIONS

Table with columns for PHASE, INTERVAL, and CHANGE TO, and rows for various signal types including NB ILS, S/B ILS, and W/B ILS. Includes a vertical label 'FLASH' on the right side.

PHASES 2+6 SHALL BE ON SOFT RECALL

EXISTING RAILROAD PREEMPTION SEQUENCE OF OPERATIONS

Large table for RAILROAD PREEMPTION SEQUENCE OF OPERATIONS with columns for PREEMPTOR NUMBERS (3-6, 2) and rows for various signal types and intervals.

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 13 IS TERMINATED.

RAILROAD PREEMPTION SEQUENCE SHALL BE CAPABLE OF CYCLING BETWEEN PHASES 1+6, 2+6, AND PHASE 3 UNTIL RAILROAD PREEMPTION IS TERMINATED.

NRT = NO RIGHT TURN

FOR INFORMATION ONLY

Project information and metadata section including FILE NAME, USER NAME (ZACH WALLSTEN), DESIGNER (JRD), DRAWN (ZCW), CHECKED (KLB), DATE (6/30/2011), STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION, and sheet numbering (346 of 346).

EXISTING EMERGENCY VEHICLE SYSTEM PREEMPTION SEQUENCE OF OPERATIONS

																									PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	PREEMPTOR NUMBER 6																											
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1				1				1				5				5	9	9	13				13				13	17		17		17		21		21	25	25		29		29		29						CLEAR TO NORMAL SEQUENCE				
EMERGENCY VEHICLE SYSTEM 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	1NN	1PP	1QQ	1RR	1SS	1TT	1UU	1VV	1WW	1XX	2	3	4	5					
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2 OR 3	1F	1G	1H	4	1K	5	1M	1N	1P	2, 3, OR 4	5	1S	2, 3, OR 5	4	1V	1W	1X	2 OR 3	1Z	1AA	1BB	4	1DD	5	1FF	2	1HH	3	1KK	4 OR 5	1MM	2, 4 OR 5	3	2	1RR	3, 4 OR 5	1TT	2	1VV	3	1XX	4 OR 5					◇				
NB U.S. RTE 41 FAR RIGHT AND NEAR RIGHT SIGNALS	Y→	R	R	R	G→	G→	Y→	R	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	R	R	R	R	G	Y	R	G	G	Y	R	Y	R	Y	R	G	R	R	R	R	◇
NB U.S. RTE 41 CENTER MAST ARM SIGNALS	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	G	Y	R	G	G	Y	R	Y	R	Y	R	G	R	R	R	R	◇
NB U.S. RTE 41 FAR LEFT AND FAR LEFT MAST ARM SIGNALS	←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	←G	←G	←R	←R	←G	←G	←R	←R	←G	←G	←R	←R	◇				
S/B U.S. RTE 41 FAR RIGHT AND NEAR RIGHT SIGNALS	Y→	R	R	R	Y→	R	R	R	Y→	R	R	R	R	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	Y	R	G	R	R	R	Y	R	G	G	Y	R	R	R	R	R	◇
S/B U.S. RTE 41 CENTER MAST ARM SIGNALS	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	R	R	R	R	R	R	R	R	R	R	R	◇				
S/B U.S. RTE 41 FAR LEFT AND FAR LEFT MAST ARM SIGNALS	←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	←Y	←Y	←G	←G	←Y	←Y	←G	←G	←R	←R	←R	←R	◇				
WB IL RTE 137 (EAST OF TRACKS) NEAR LEFT AND NEAR LEFT CANTILEVER MOUNTED PRE SIGNALS	←Y	←R	←R	←R	←Y	←R	←R	←R	←G	←G	←Y	←R	←R	←R	←G	←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	←G	◇				
WB IL RTE 137 (EAST OF TRACKS) NEAR RIGHT AND NEAR RIGHT CANTILEVER MOUNTED PRE SIGNALS	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	G	R	R	R	Y	R	R	R	Y	R	R	R	G	G	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	◇
WB IL RTE 137 (WEST OF TRACKS) FAR RIGHT AND CENTER MAST ARM SIGNALS	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	G	R	R	R	G	G	Y	R	G	G	Y	R	G	G	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	◇
WB IL RTE 137 (WEST OF TRACKS) FAR LEFT AND FAR LEFT MAST ARM SIGNALS	←G	←G	←Y	←R	←G	←G	←Y	←R	←G	←G	←G	←G	←Y	←R	←G	←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	←G	◇				
EB IL RTE 137 FAR RIGHT MAST ARM AND NEAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	G	Y	R	R	R	G	G	G	G	Y	R	Y→	R	Y→	R	Y→	R	R	R	R	R	Y→	Y→	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
EB IL RTE 137 CENTER MAST ARM SIGNAL	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	G	Y	R	R	R	G	G	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	◇
EB IL RTE 137 FAR LEFT AND FAR LEFT MAST ARM SIGNAL	←G	←G	←Y	←R	←G	←G	←Y	←R	←G	←Y	←R	←R	←R	←R	←Y	←R	←G	←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	←R	◇				

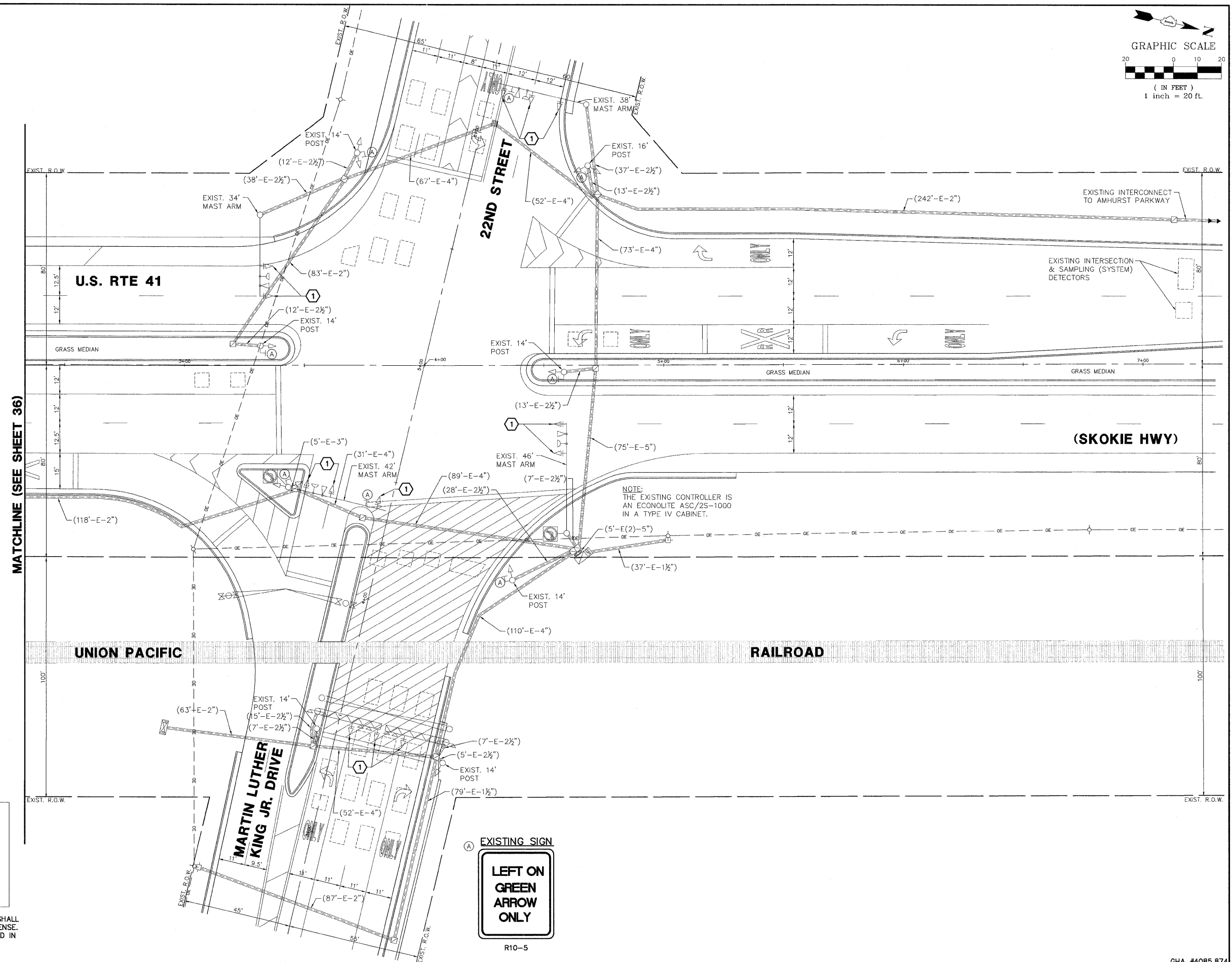
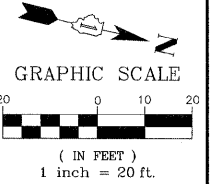
◇ EMERGENCY VEHICLE PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY INTERVAL 2, 3, 4, OR 5 IS TERMINATED.

FOR INFORMATION ONLY

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p align="center">EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS U.S. RTE 41 (SKOKIE HWY) AT IL RTE 137 (BUCKLEY RD)</p>	F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 34		
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	SCALE: N.A.			SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT #: 60P49				
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	ILLINOIS FED. AID PROJECT									
GHA #4085.874												

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.



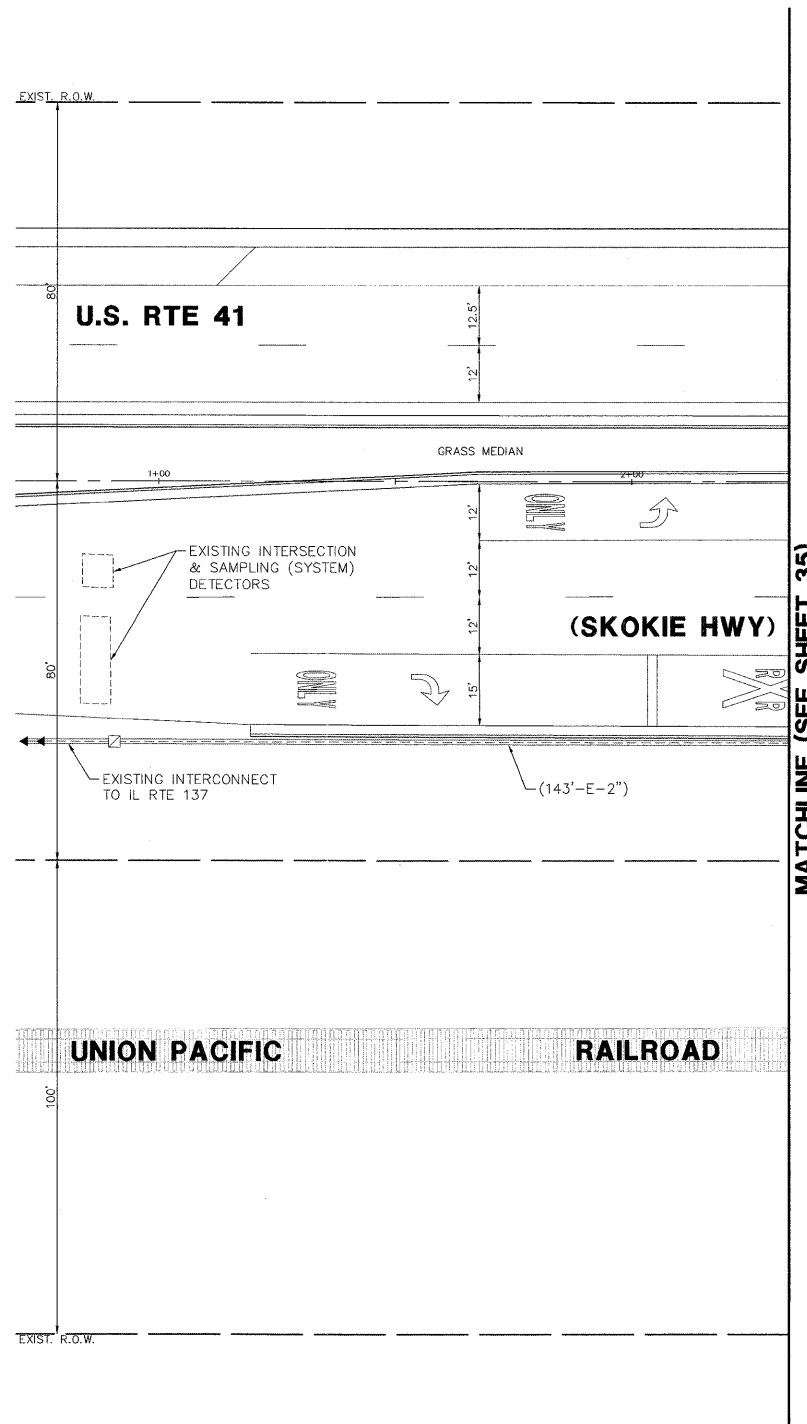
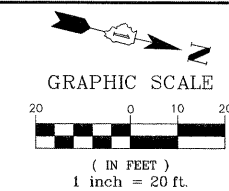
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

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.
13 EACH TRAFFIC SIGNAL BACKPLATE



FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE / 22ND STREET	F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 35	CONTRACT # 60P49	GHA #4085.874	
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISOR -	REVISOR -			SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISOR -	REVISOR -										



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

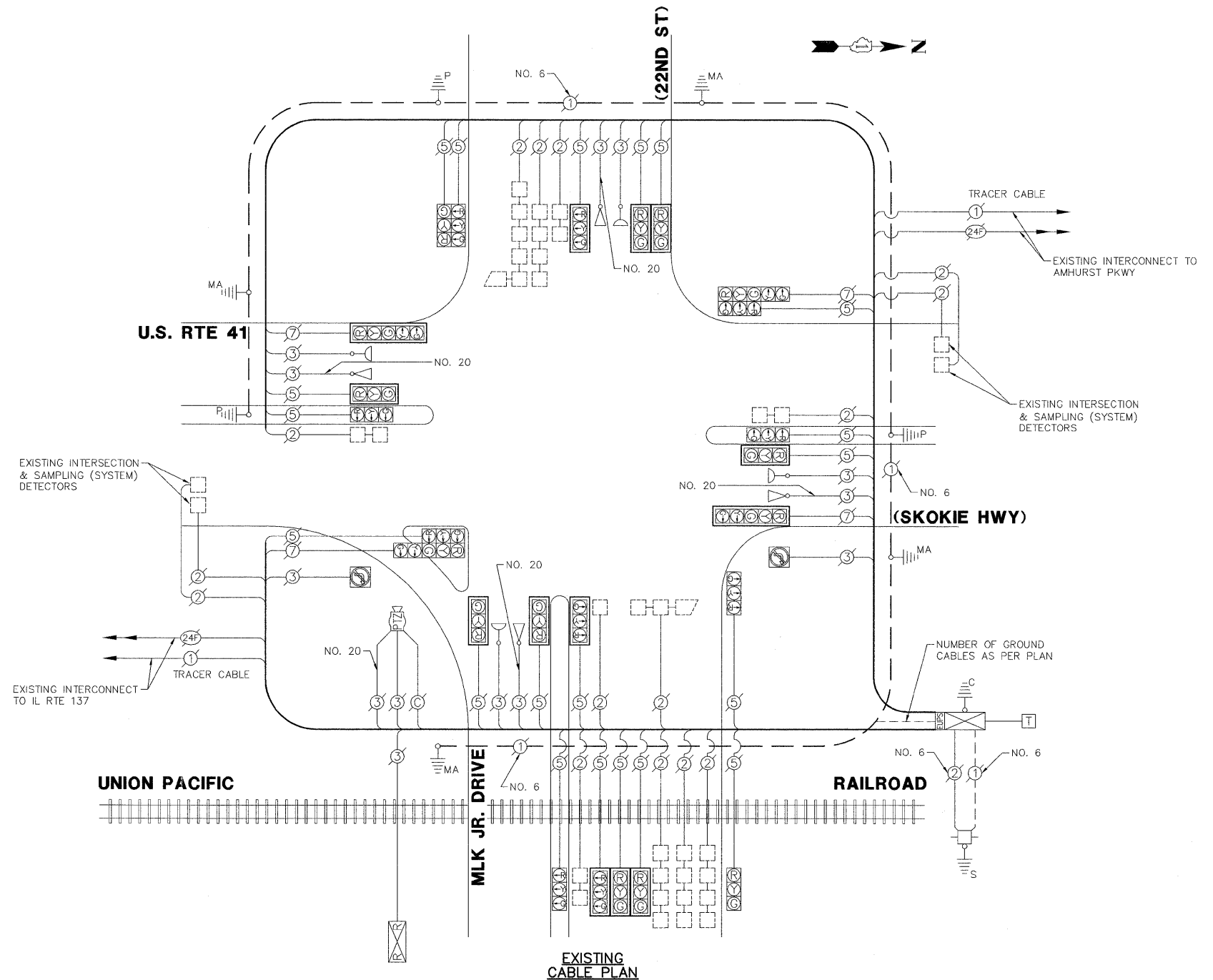
Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE / 22ND STREET			F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 36
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -					CONTRACT #: 60P49				
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	SCALE: 1"=20'		SHEET NO.	OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			
GHA #4085.874												

SCHEDULE OF QUANTITIES

U.S. RTE 41 (SKOKIE HIGHWAY) AT MARTIN LUTHER KING JR. DRIVE/22ND STREET

NO.	QUANT.	UNIT
1.	1	EACH MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3.	13	EACH RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	23	135	17	0.50	195.5
SIGNAL (YELLOW)	23	135	25	0.25	143.75
SIGNAL (GREEN)	23	135	15	0.25	86.25
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 =					560.1

ENERGY COSTS - BILLED TO: IDOT - DISTRICT 1
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHAUMBURG, IL 60196
 ENERGY SUPPLY - CONTACT: ALICE TAYLOR
 PHONE: 847.816.5458
 COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	DATE = 6/30/2011	DRAWN - JRM	REVISED -
		CHECKED - KLB	REVISED -
			REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
 U.S. RTE 41 (SKOKIE HWY) AT MLK JR. DRIVE/22ND STREET**

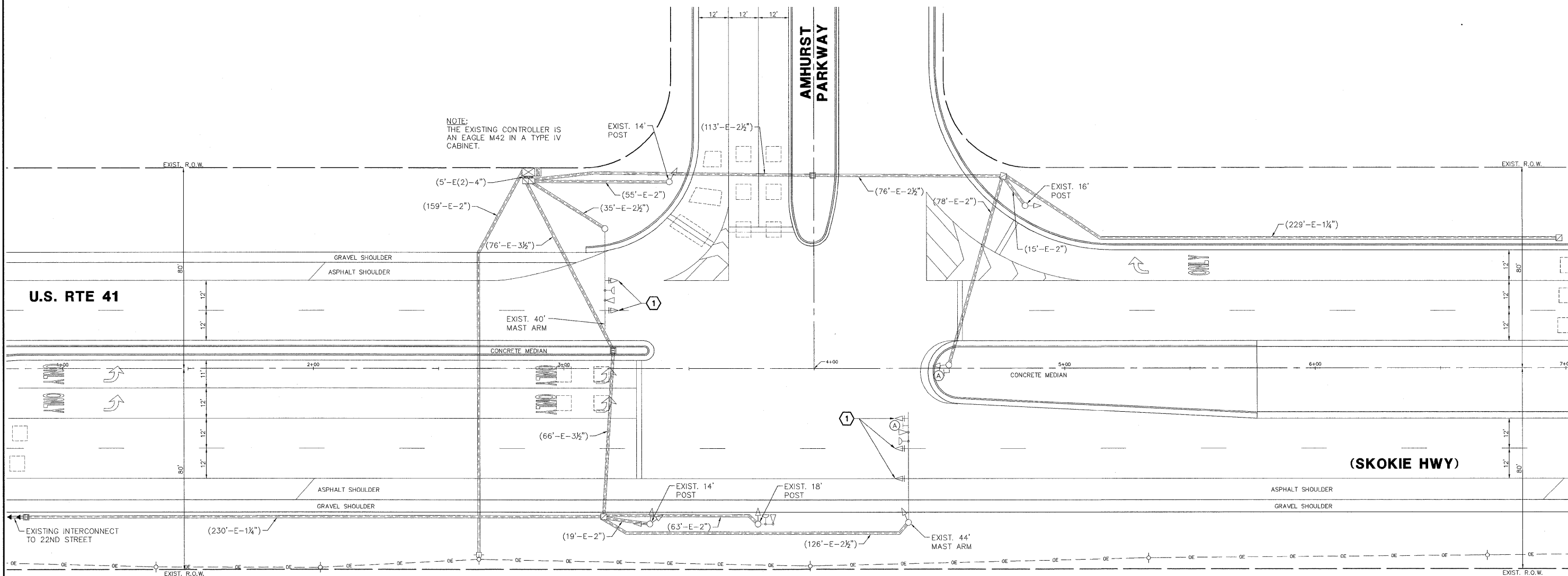
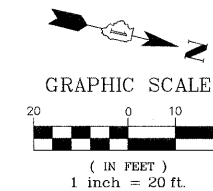
SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 37
ILLINOIS FED. AID PROJECT			CONTRACT # 60P49	

GHA #4085.874

CONSTRUCTION NOTES:

- ① REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.



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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

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 TRAFFIC SIGNAL BACKPLATE

Ⓐ EXISTING SIGN



R10-5

FILE NAME = 4085.874-TR1.dwg

USER NAME = ZACH WALLSTEN

DESIGNED - JRD
DRAWN - ZCW

REVISED -
REVISED -
REVISED -
REVISED -

PLOT SCALE = 1" = .0833'
PLOT DATE = 6/30/2011

CHECKED - KLB
DATE - 6/30/2011

REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

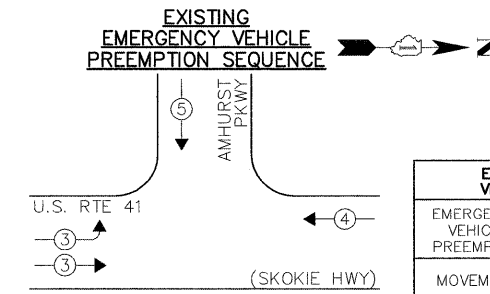
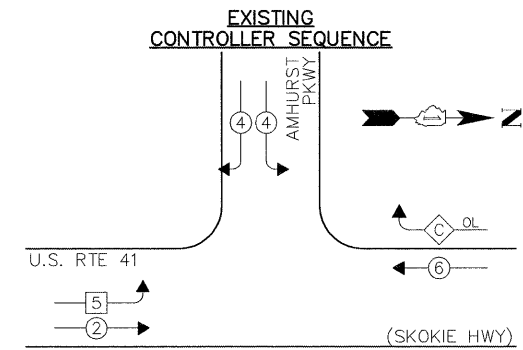
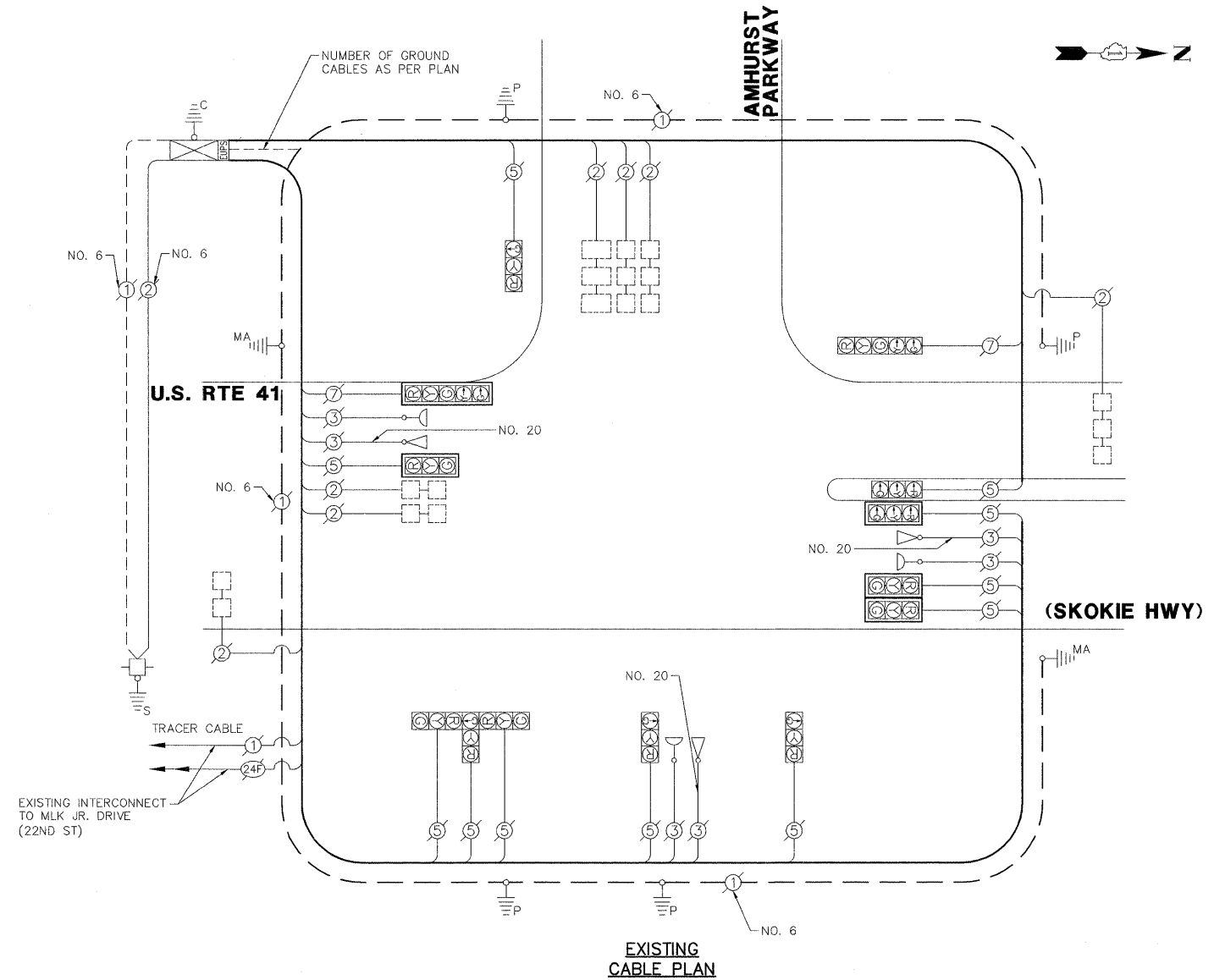
**TRAFFIC SIGNAL MODERNIZATION PLAN
U.S. RTE 41 (SKOKIE HWY) AT AMHURST PARKWAY**

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 40
CONTRACT #: 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT AMHURST PARKWAY

NO.	QUANT.	UNIT
1.	1	EACH MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3.	5	EACH RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE



OVERLAP LETTER PERMISSIVE PHASE PROTECTED PHASE
C = 6 + 4

- LEGEND:**
- ◀ * ▶ SINGLE ENTRY PHASE
 - ◀ * DUAL ENTRY PHASE
 - ◀ * ▶ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE
 - ◀ * OL ▶ OVERLAP

EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	←	↓

EXISTING PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.50
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	45.75
ARROW	4	135	12	0.10	4.80
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.00
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.00
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					367.30

ENERGY COSTS - BILLED TO: IDOT DISTRICT 1
(ADDRESS) 201 WEST CENTER STREET
(ADDRESS) SCHALMBURG, IL
ENERGY SUPPLY - CONTACT: ALICE TAYLOR
PHONE: 847.816.5458
COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	DATE = 6/30/2011	DRAWN - JRM	REVISED -
		CHECKED - KLB	REVISED -
		DATE = 6/30/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
U.S. RTE 41 (SKOKIE HWY) AT AMHURST PARKWAY**

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

F.A.P. RTE. NO. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 41
CONTRACT #: 60P49				GH# 4085.874
ILLINOIS FED. AID PROJECT				

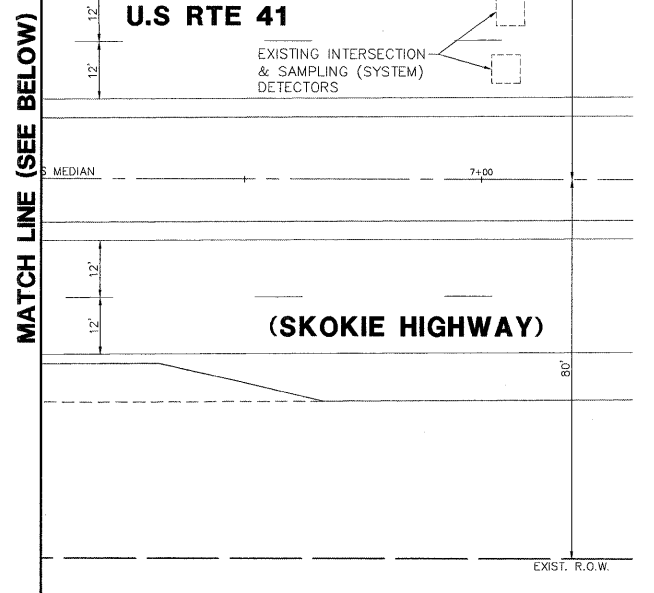
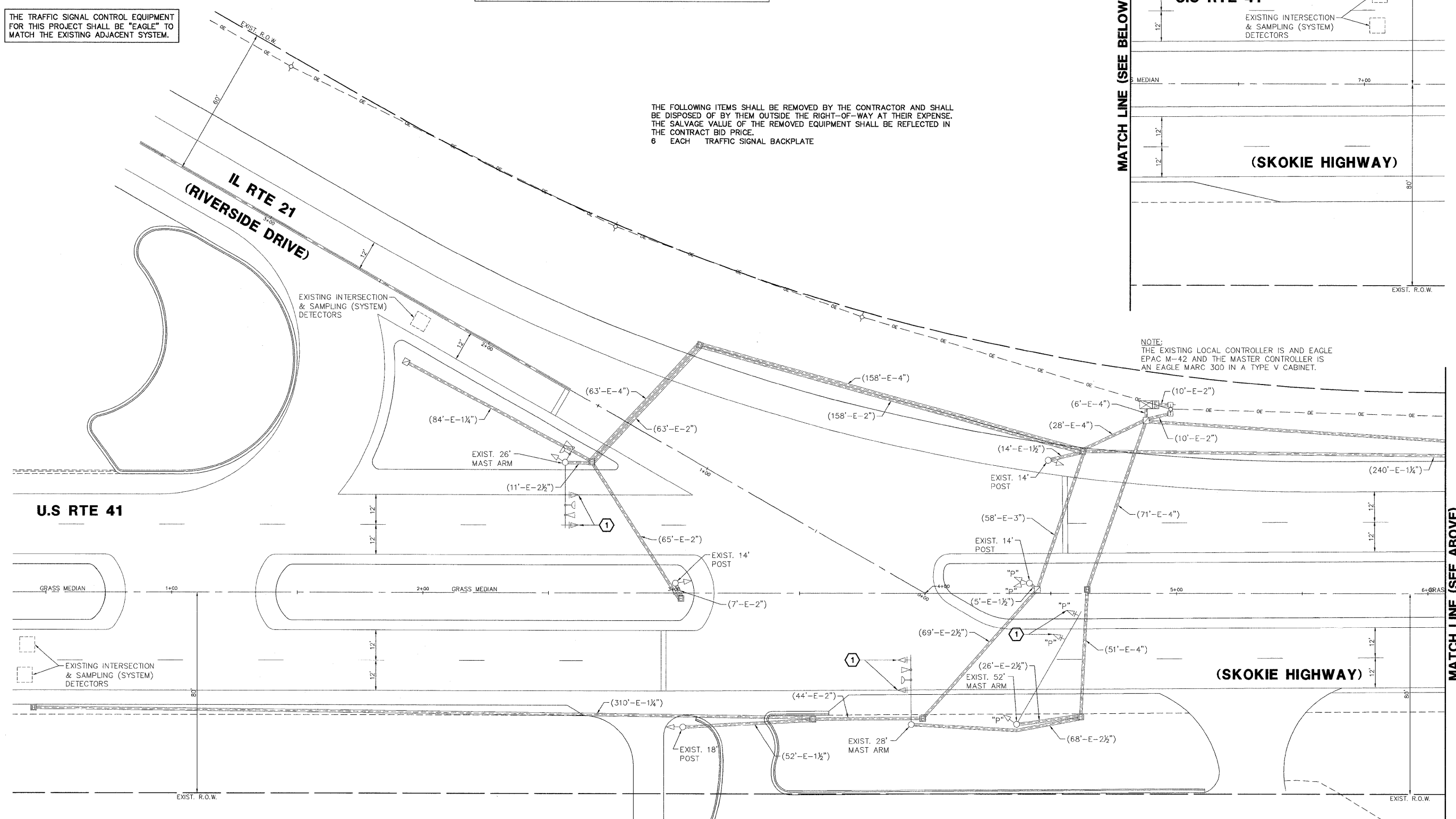
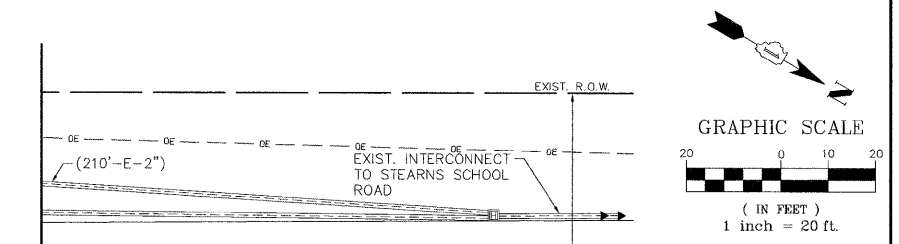
CONSTRUCTION NOTES:

- 1 REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

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

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 TRAFFIC SIGNAL BACKPLATE



NOTE:
 THE EXISTING LOCAL CONTROLLER IS AN EAGLE EPAC M-42 AND THE MASTER CONTROLLER IS AN EAGLE MARC 300 IN A TYPE V CABINET.

MATCH LINE (SEE ABOVE)

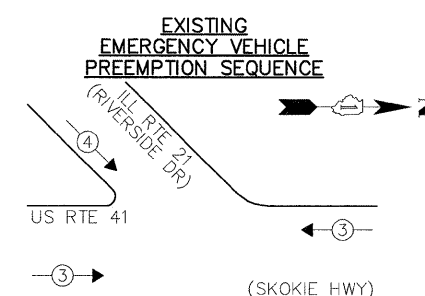
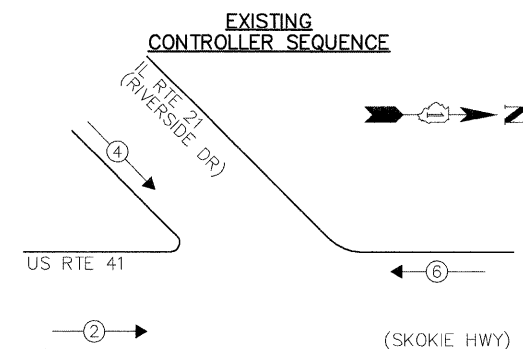
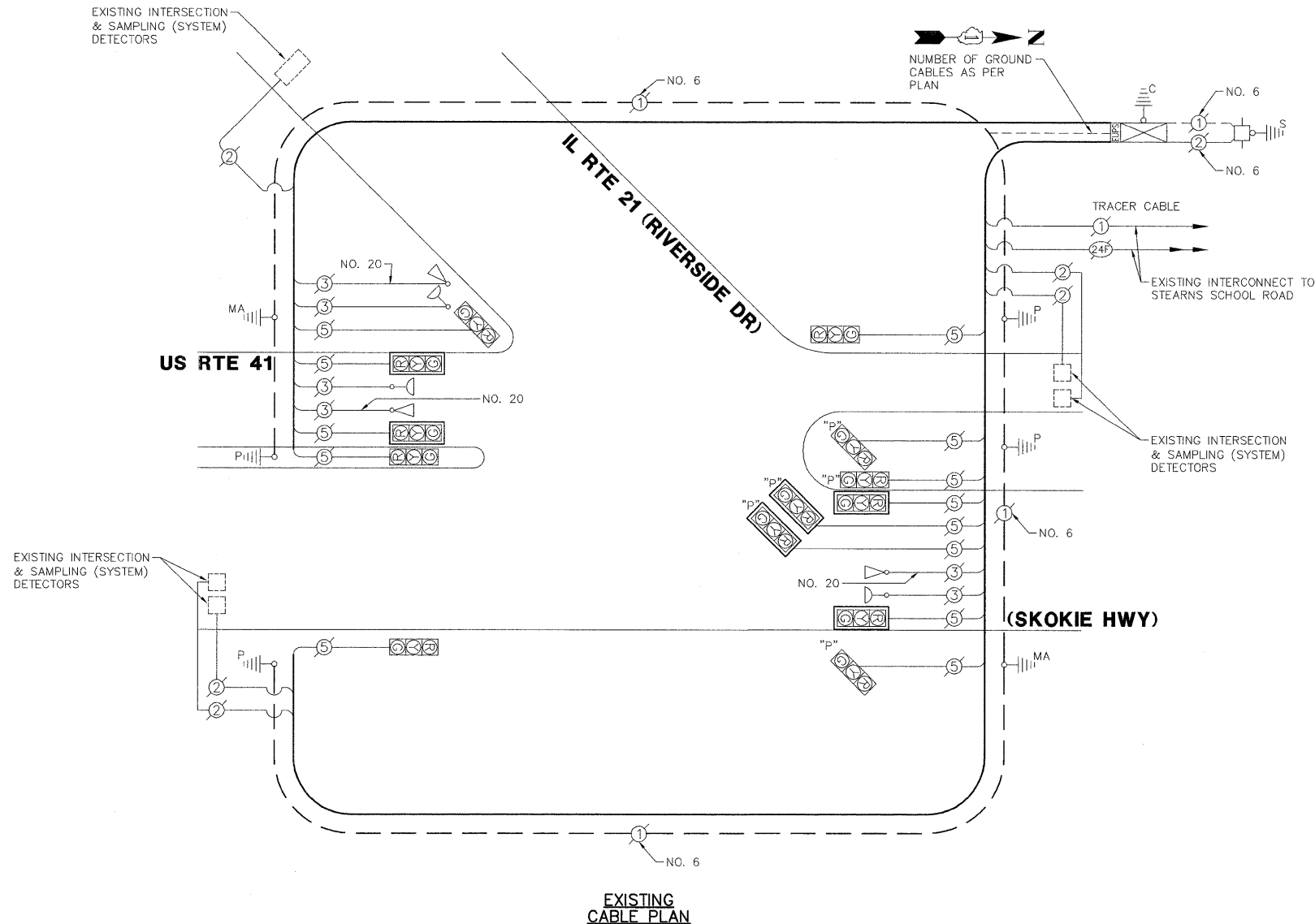
FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN			F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 42
					U.S. RTE 41 (SKOKIE HWY) AT IL RTE 21 (RIVERSIDE DRIVE)			SCALE: 1"=20'		CONTRACT #: 60P49		
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DATE - 6/30/2011	REVISED -		SHEET NO. OF SHEETS			STA. TO STA.		ILLINOIS FED. AID PROJECT		
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -									

GHA #4085.874

SCHEDULE OF QUANTITIES

U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 21 (RIVERSIDE DRIVE)

NO.	QUANT.	UNIT
1.	1	EACH MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3.	6	EACH RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE



LEGEND:
 ◀[*] SINGLE ENTRY PHASE
 ◀[*] DUAL ENTRY PHASE
 ◀[*] PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE
 ◀[*] OVERLAP

EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	→ ↘

EXISTING PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.50
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	-	135	12	0.10	-
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.00
LUMINAIRE	-	250	0.50	-	-
L.E.D. ST. NAME SIGN	-	64	0.50	-	-
VIDEO SYSTEM	-	150	1.00	-	-
BATTERY BACKUP	1	25	1.00	25.00	25.00
ILLUMINATED SIGN	-	25	0.05	-	-
TOTAL =					365.5

ENERGY COSTS - BILLED TO: IDOT DISTRICT 1
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHAUMBURG, IL 60196
 ENERGY SUPPLY - CONTACT: ALICE TAYLOR
 PHONE: 847.816.5458
 COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	DATE = 6/30/2011	DRAWN - JRM	REVISED -
		CHECKED - KLB	REVISED -
		DATE = 6/30/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

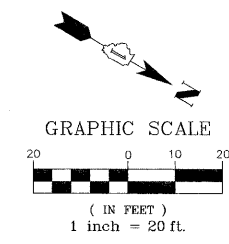
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 41 (SKOKIE HWY) AT IL RTE 21 (RIVERSIDE DR)

FAP RTE 348	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 43
CONTRACT # 60P49				ILLINOIS FED. AID PROJECT

GHA #4085.874

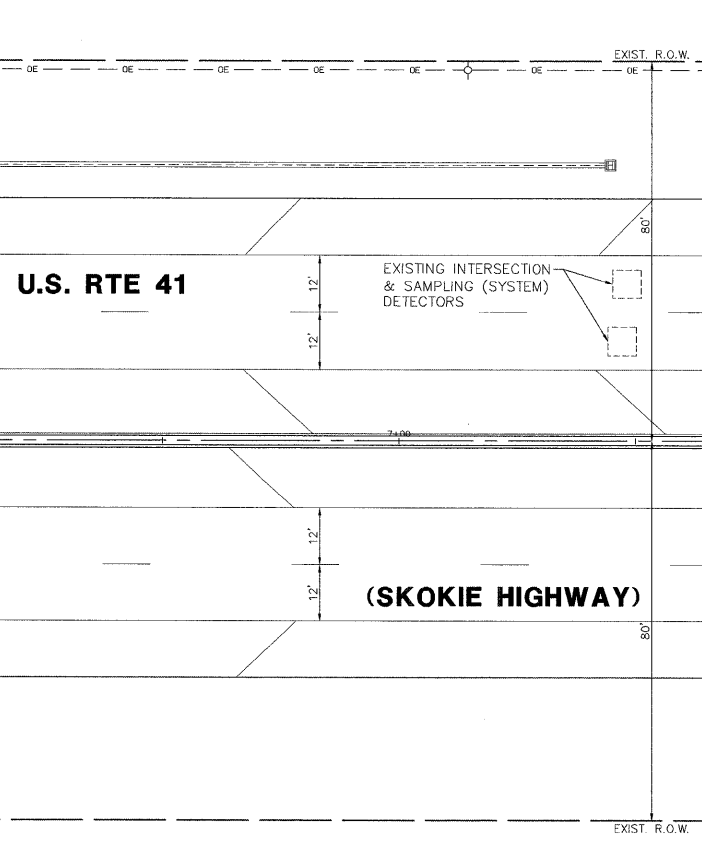
CONSTRUCTION NOTES:

- ① REMOVE EXISTING TRAFFIC SIGNAL BACKPLATE. INSTALL RETROREFLECTIVE BACKPLATE.
- ② REMOVE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON AND RELOCATE THEM TO NEW MAST ARM ASSEMBLY AND POLE. INSTALL NEW CABLES.



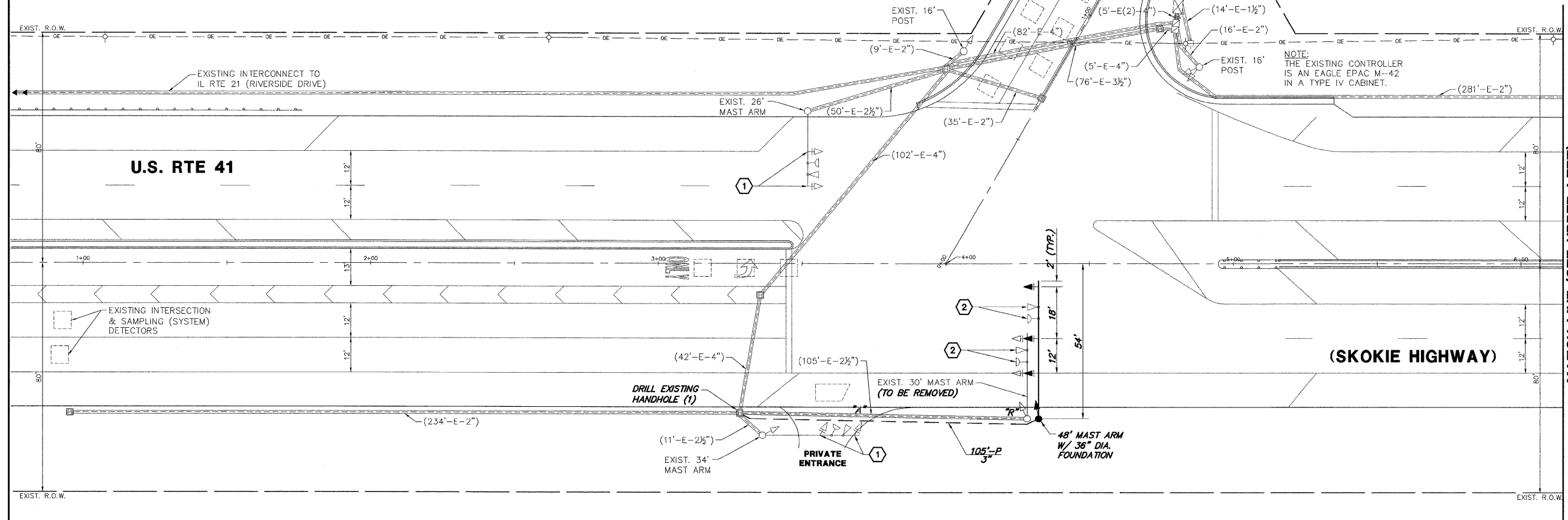
- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 6 EACH TRAFFIC SIGNAL BACKPLATE
 - 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
 - 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
 - 1 EACH MAST ARM ASSEMBLY AND POLE

MATCH LINE (SEE LOWER RIGHT)



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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.



MATCH LINE (SEE UPPER LEFT)

FILE NAME = 4085.874-TR1.dwg

USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 6/30/2011

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 6/30/2011

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

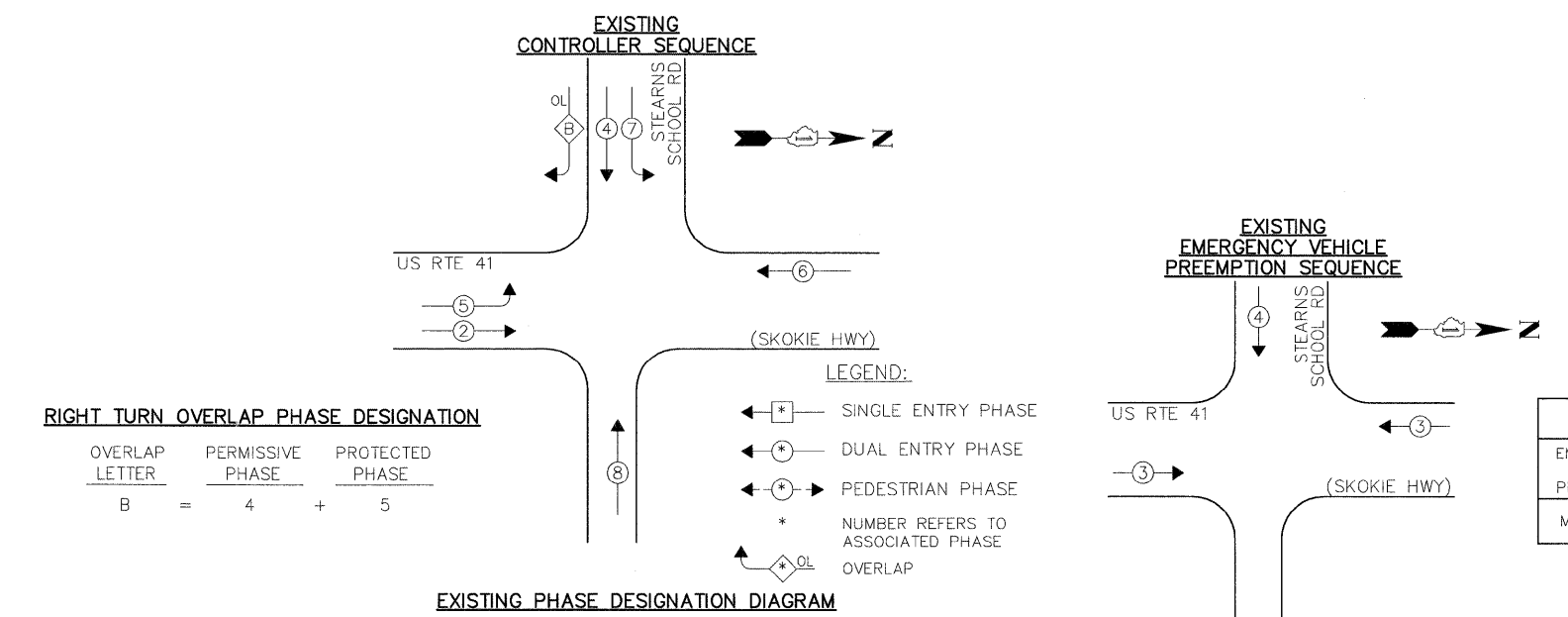
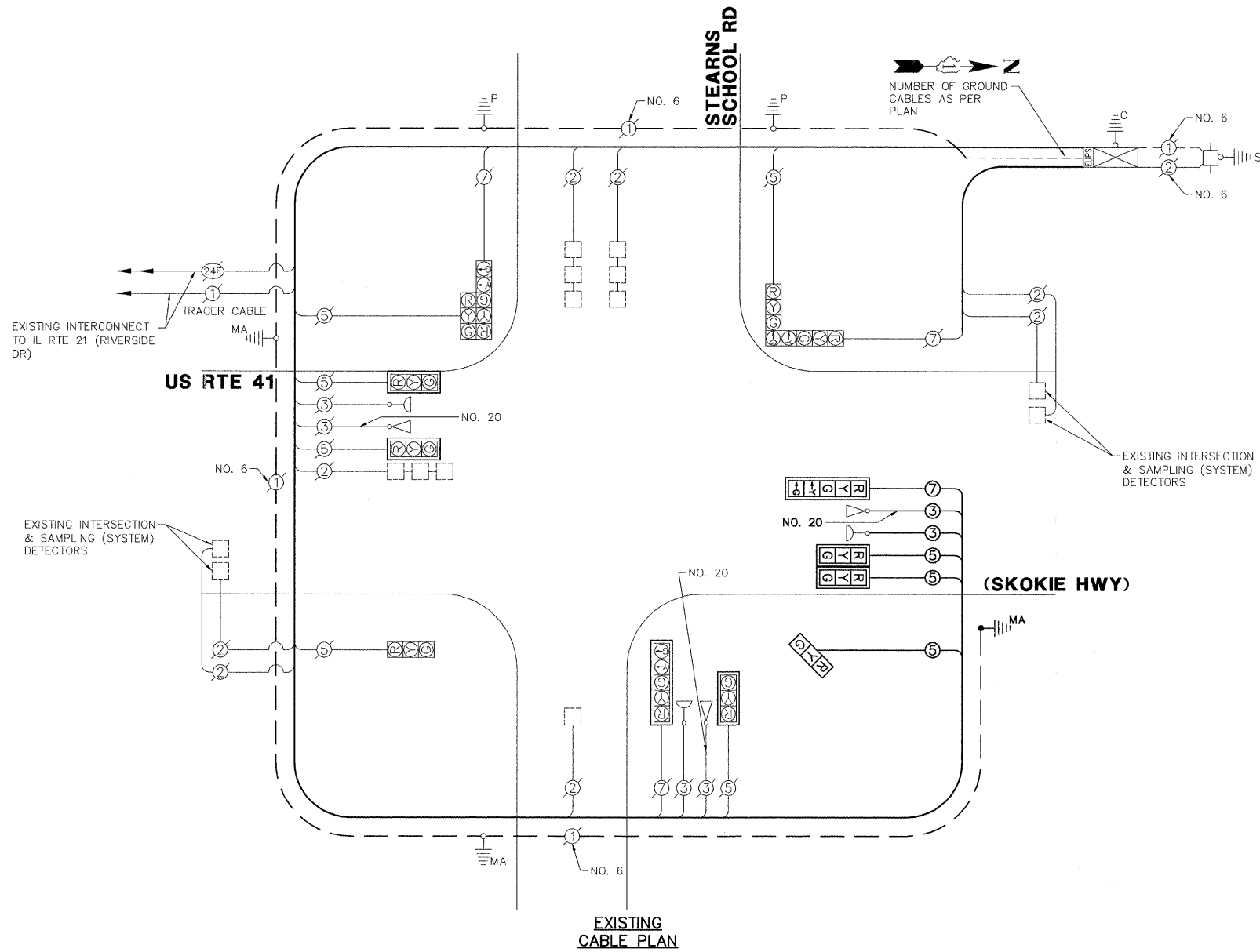
**TRAFFIC SIGNAL MODERNIZATION PLAN
 U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD**

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 44
CONTRACT #: 60P49			ILLINOIS FED. AID PROJECT	

GHA #4085.874

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT STEARNS SCHOOL ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
* 2.	433	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3.	1,233	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
4.	439	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
5.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.
6.	13	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
7.	1	EACH	DRILL EXISTING HANDHOLE
8.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
9.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
10.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
* 11.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
12.	1,340	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
13.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
14.	1	EACH	REMOVE EXISTING CONCRETE FOUNDATION
15.	7	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE
* 16.	433	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
* ITEM PAID FOR BY THE VILLAGE OF GURNEE			



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL 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	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.00
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 =					375.1

ENERGY COSTS - BILLED TO: IDOT DISTRICT 1
(ADDRESS) 201 WEST CENTER COURT
(ADDRESS) SCHAUMBURG, IL
ENERGY SUPPLY - CONTACT: ALICE TAYLOR
PHONE: 847.816.5458
COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DRAWN - JRM	REVISED -
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISIONS	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

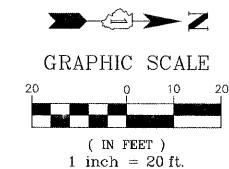
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 41 (SKOKIE HWY) AT STEARNS SCHOOL ROAD

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 45
CONTRACT #: 60P49				ILLINOIS FED. AID PROJECT

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

CONSTRUCTION NOTES:

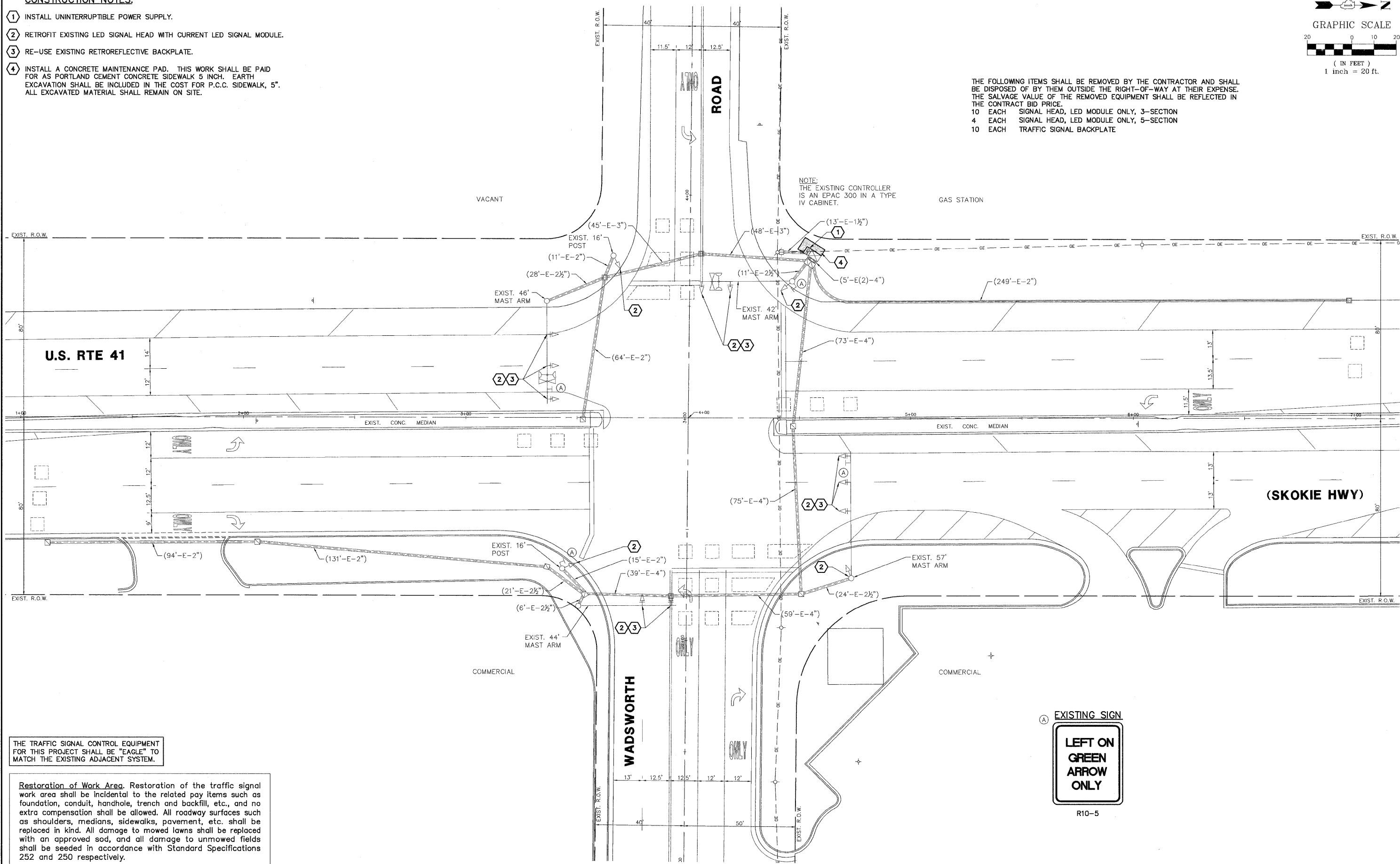
- 1 INSTALL UNINTERRUPTIBLE POWER SUPPLY.
- 2 RETROFIT EXISTING LED SIGNAL HEAD WITH CURRENT LED SIGNAL MODULE.
- 3 RE-USE EXISTING RETROREFLECTIVE BACKPLATE.
- 4 INSTALL A CONCRETE MAINTENANCE PAD. THIS WORK SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH. EARTH EXCAVATION SHALL BE INCLUDED IN THE COST FOR P.C.C. SIDEWALK, 5". ALL EXCAVATED MATERIAL SHALL REMAIN ON SITE.



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.

- 10 EACH SIGNAL HEAD, LED MODULE ONLY, 3-SECTION
- 4 EACH SIGNAL HEAD, LED MODULE ONLY, 5-SECTION
- 10 EACH TRAFFIC SIGNAL BACKPLATE

NOTE:
THE EXISTING CONTROLLER IS AN EPAC 300 IN A TYPE IV CABINET.



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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

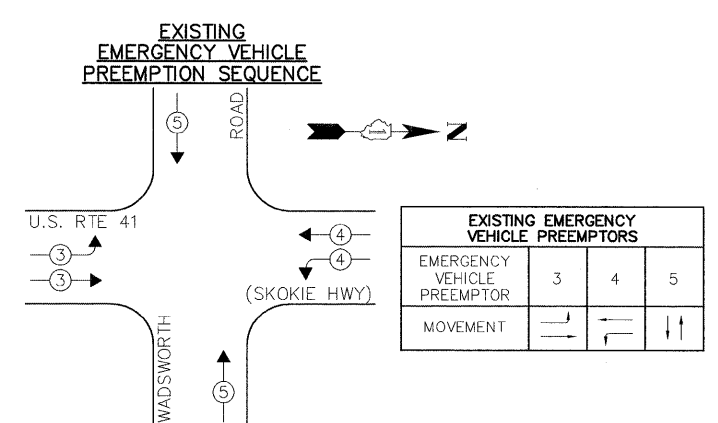
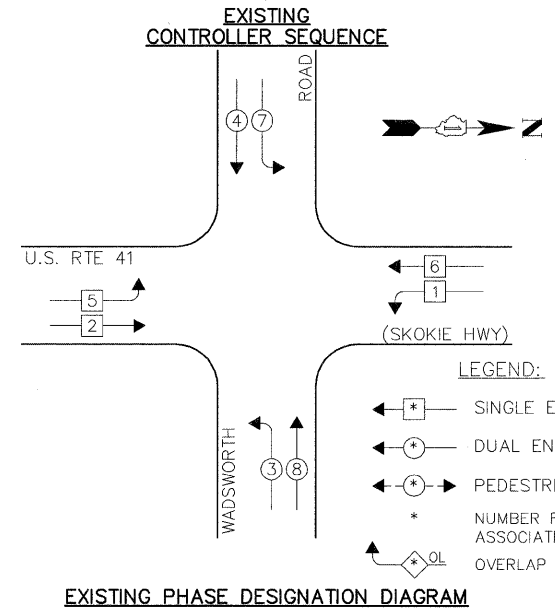
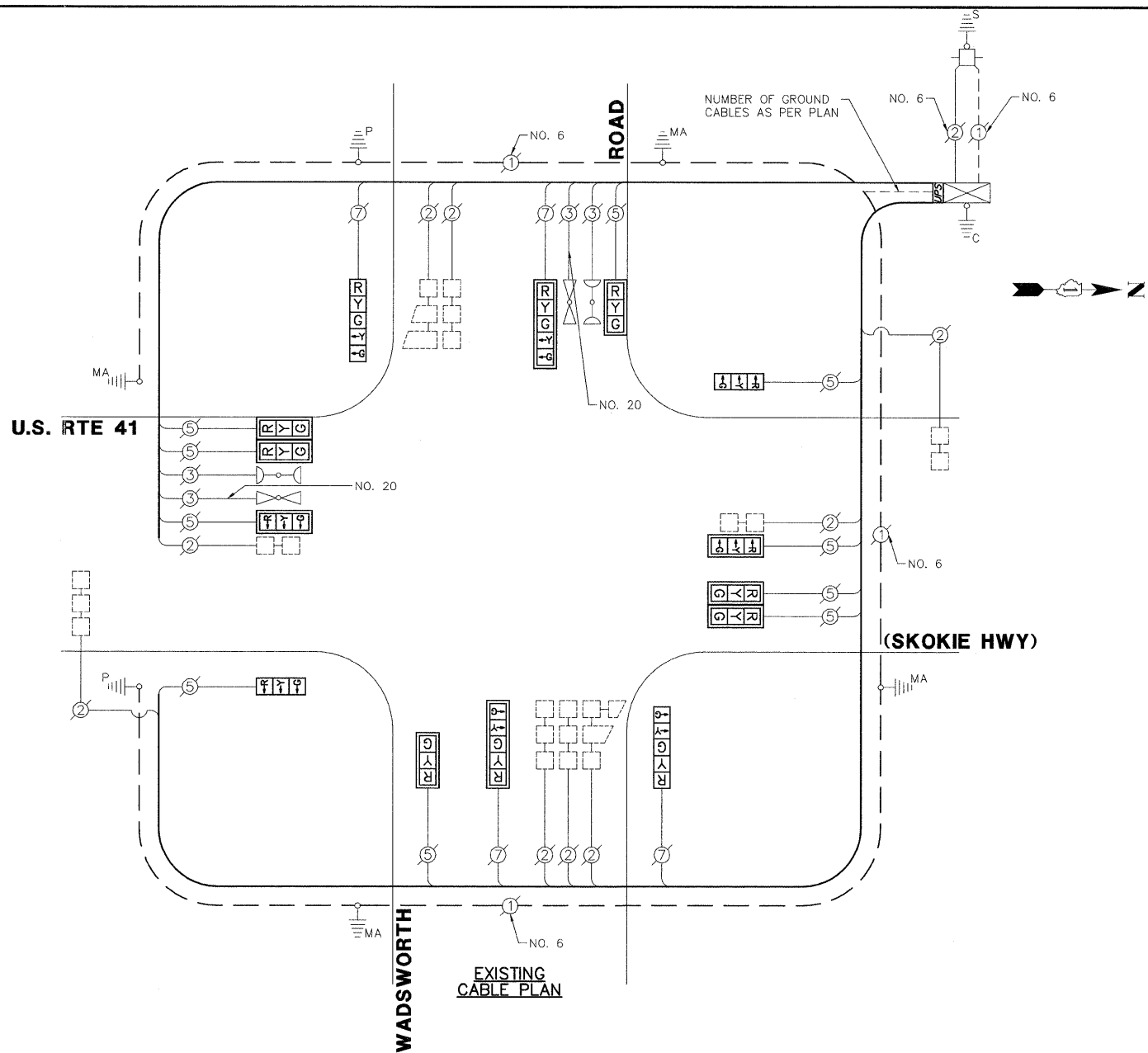


FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HWY) AT WADSWORTH ROAD			F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 46
PLOT SCALE = 1" = .0833'		DRAWN - ZCW	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
PLOT DATE = 6/30/2011		CHECKED - KLB	REVISED -		ILLINOIS FED. AID PROJECT							
DATE - 6/30/2011		DATE - 6/30/2011	REVISED -									

GHA #4085.874

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT WADSWORTH ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	40	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
5.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
6.	8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
7.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
8.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
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 =					393.6

ENERGY COSTS - BILLED TO: IDOT DISTRICT 1
(ADDRESS) 201 WEST CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196
ENERGY SUPPLY - CONTACT: ALICE TAYLOR
PHONE: 847.816.5458
COMPANY: COMED

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DRAWN - JRM	REVISED -
PLOT DATE = 6/30/2011	DATE - 6/30/2011		REVISED -

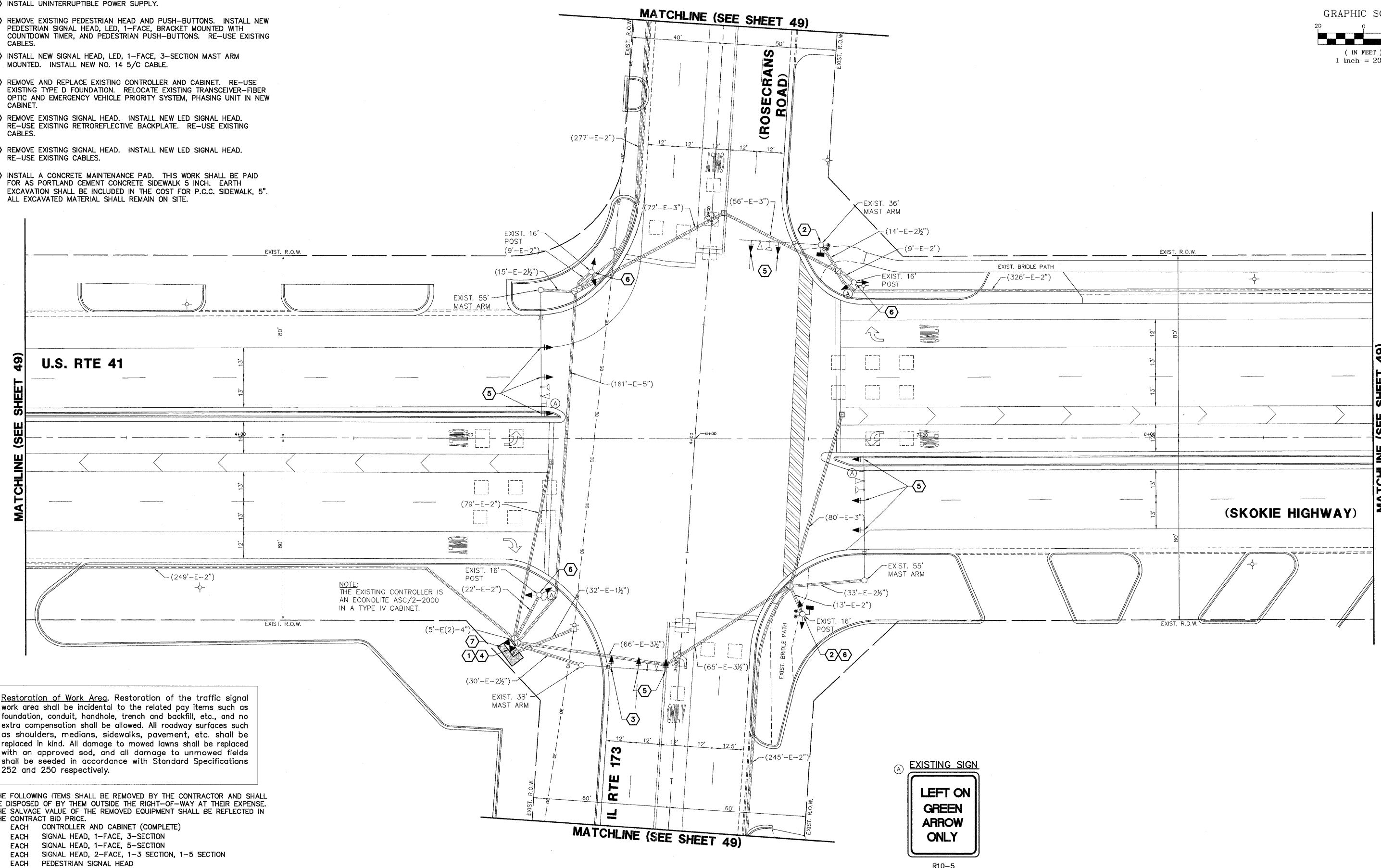
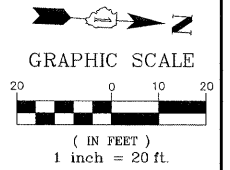
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
U.S. RTE 41 (SKOKIE HWY) AT WADSWORTH ROAD

F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 47
CONTRACT # 60P49			GHA #4085.874	
ILLINOIS FED. AID PROJECT				

CONSTRUCTION NOTES:

- 1 INSTALL UNINTERRUPTIBLE POWER SUPPLY.
- 2 REMOVE EXISTING PEDESTRIAN HEAD AND PUSH-BUTTONS. INSTALL NEW PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER, AND PEDESTRIAN PUSH-BUTTONS. RE-USE EXISTING CABLES.
- 3 INSTALL NEW SIGNAL HEAD, LED, 1-FACE, 3-SECTION MAST ARM MOUNTED. INSTALL NEW NO. 14 5/C CABLE.
- 4 REMOVE AND REPLACE EXISTING CONTROLLER AND CABINET. RE-USE EXISTING TYPE D FOUNDATION. RELOCATE EXISTING TRANSCIEVER-FIBER OPTIC AND EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT IN NEW CABINET.
- 5 REMOVE EXISTING SIGNAL HEAD. INSTALL NEW LED SIGNAL HEAD. RE-USE EXISTING RETROREFLECTIVE BACKPLATE. RE-USE EXISTING CABLES.
- 6 REMOVE EXISTING SIGNAL HEAD. INSTALL NEW LED SIGNAL HEAD. RE-USE EXISTING CABLES.
- 7 INSTALL A CONCRETE MAINTENANCE PAD. THIS WORK SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH. EARTH EXCAVATION SHALL BE INCLUDED IN THE COST FOR P.C.C. SIDEWALK, 5". ALL EXCAVATED MATERIAL SHALL REMAIN ON SITE.



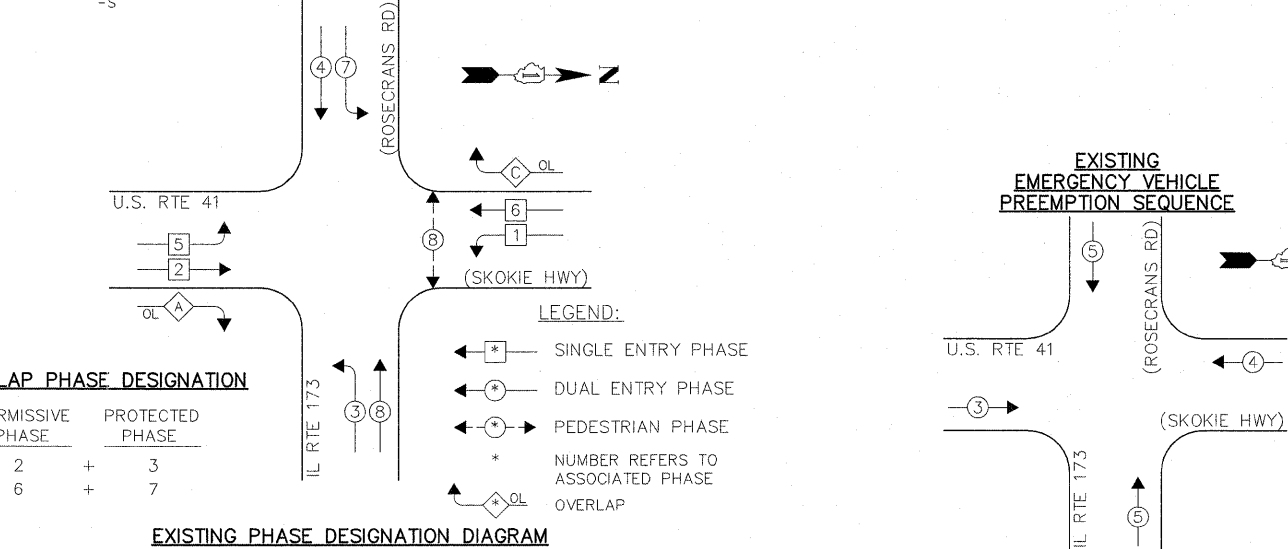
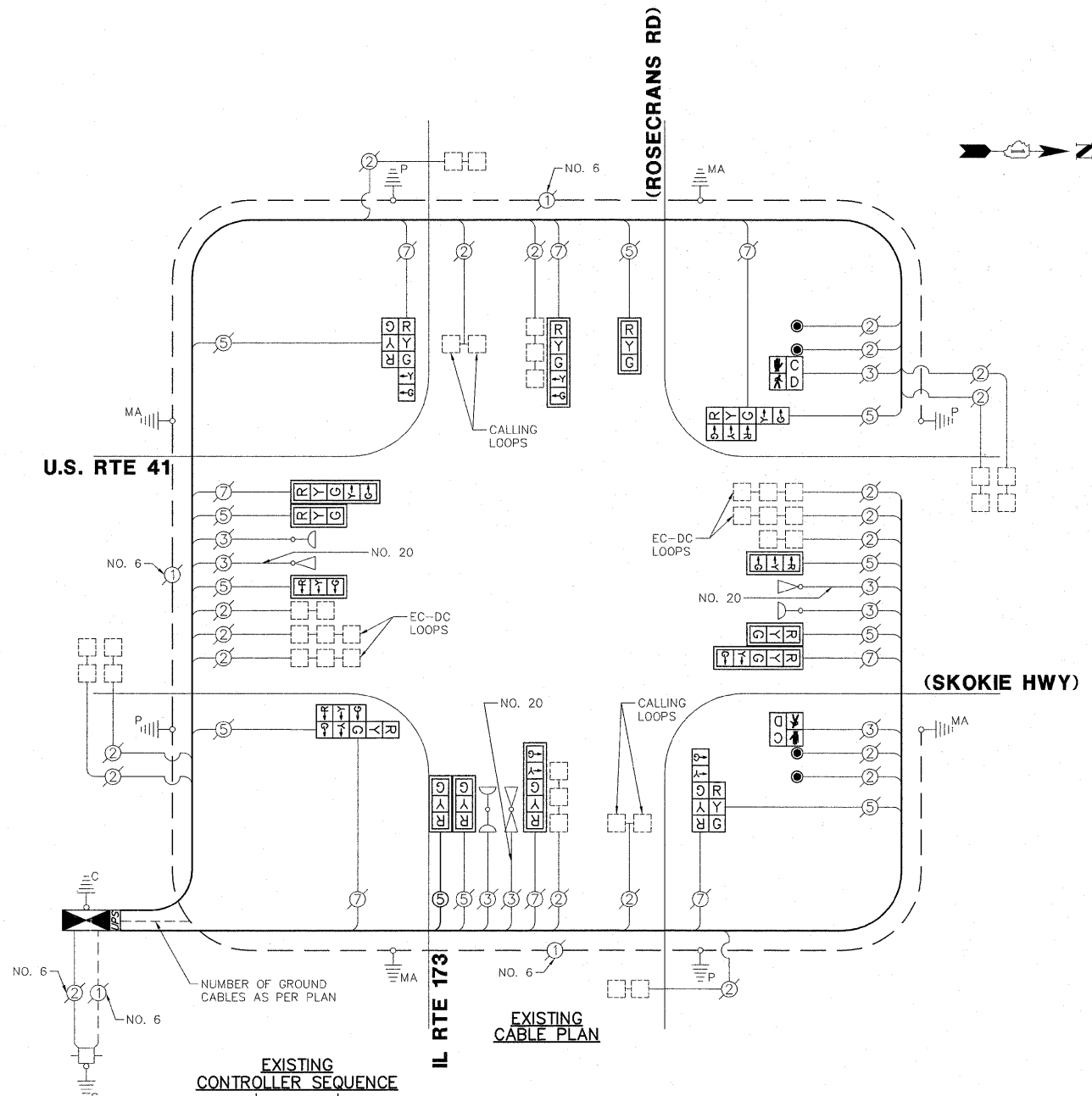
Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

- 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.
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
 - 6 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
 - 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
 - 4 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
 - 2 EACH PEDESTRIAN SIGNAL HEAD
 - 2 EACH PEDESTRIAN PUSH-BUTTON

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE HWY) AT IL RTE 173 (ROSECRANS RD)			F.A.P. RTE. 346	SECTION 2011-042-TS	COUNTY LAKE	CONTRACT # 60P49	CHA #4085.874	TOTAL SHEETS 62	SHEET NO. 48
PLOT SCALE = 1" = .0833'		CHECKED - KLB	REVISED -		SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT						
PLOT DATE = 6/30/2011		DATE - 6/30/2011	REVISED -											

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE HIGHWAY) AT IL RTE 173 (ROSECRANS ROAD)

NO.	QUANT.	UNIT	DESCRIPTION
1.	40	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
4.	114	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
5.	7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
7.	4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
8.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
9.	15	EACH	INDUCTIVE LOOP DETECTOR
10.	4	EACH	PEDESTRIAN PUSH-BUTTON
* 11.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
12.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
13.	1	EACH	RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATE
14.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
* 15.			ITEM PAID FOR BY THE NEWPORT TOWNSHIP FIRE PROTECTION DISTRICT

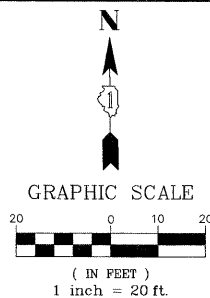


I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	19	135	17	0.50	181.5
SIGNAL (YELLOW)	19	135	25	0.25	118.75
SIGNAL (GREEN)	19	135	15	0.25	71.25
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	2	90	25	1.00	50.0
CONTROLLER	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 =					545.7

ENERGY COSTS - BILLED TO: IDOT DISTRICT 1
(ADDRESS) 201 WEST CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196
ENERGY SUPPLY - CONTACT: ALICE TAYLOR
PHONE: 847.816.5458
COMPANY: COMED

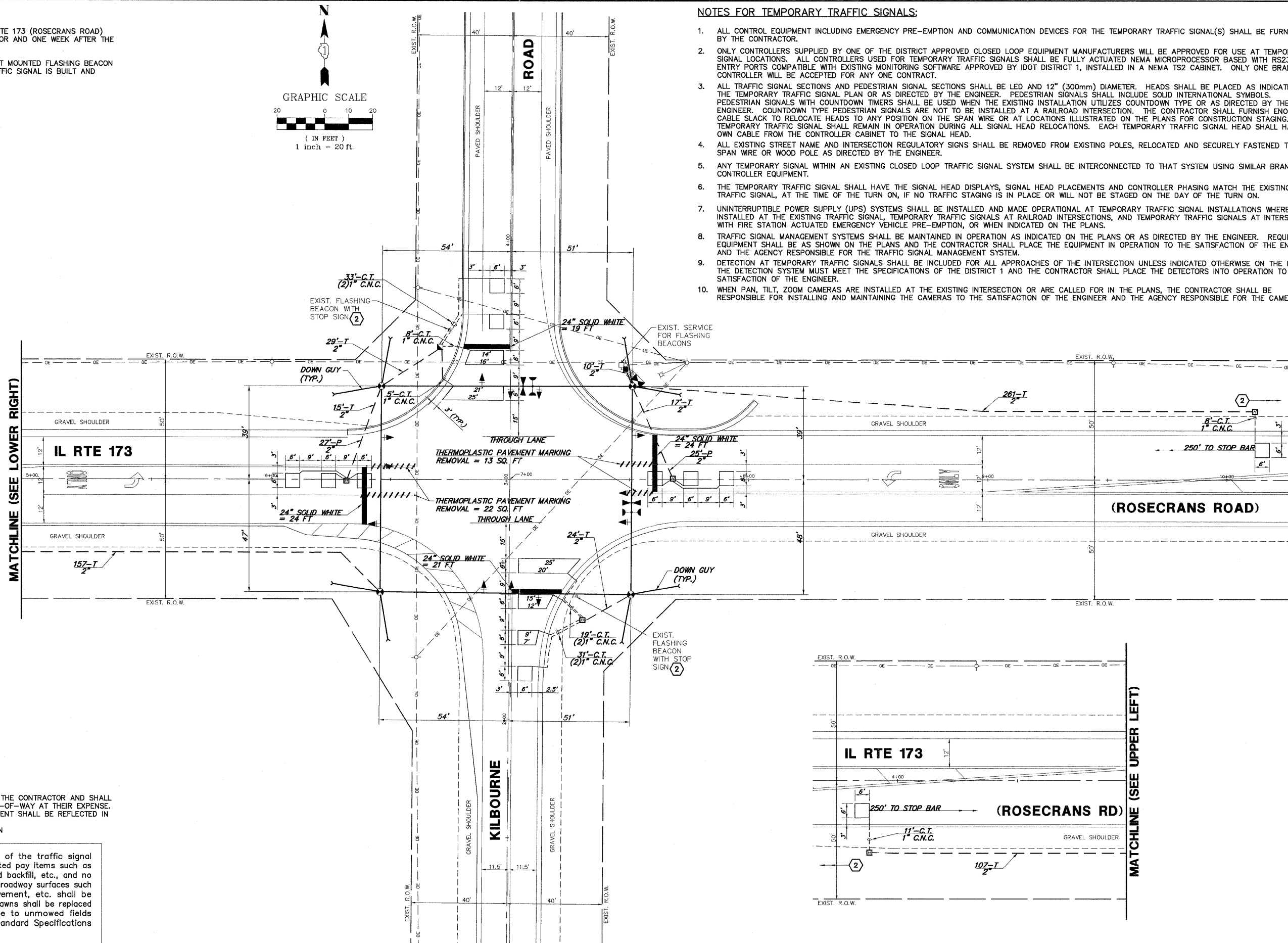
CONSTRUCTION NOTES:

1. TWO CHANGEABLE MESSAGE SIGNS ON IL RTE 173 (ROSECRANS ROAD) WILL NEED TO BE IN PLACE ONE WEEK PRIOR AND ONE WEEK AFTER THE TRAFFIC SIGNAL IS TO BE TURNED-ON.
2. THE CONTRACTOR SHALL REMOVE THE POST MOUNTED FLASHING BEACON AND SIGNAGE AFTER THE TEMPORARY TRAFFIC SIGNAL IS BUILT AND OPERATIONAL.



NOTES FOR TEMPORARY TRAFFIC SIGNALS:

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



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.

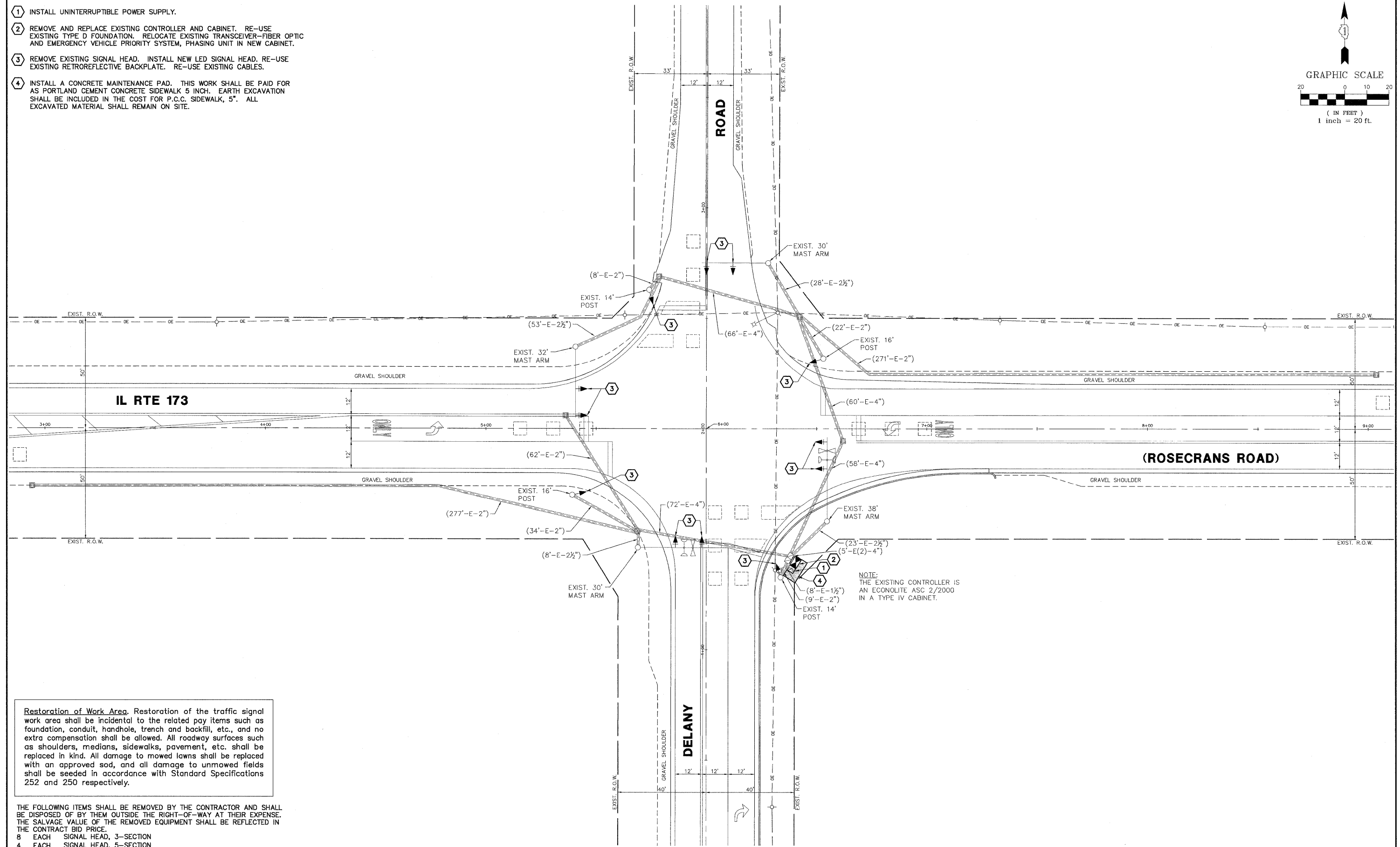
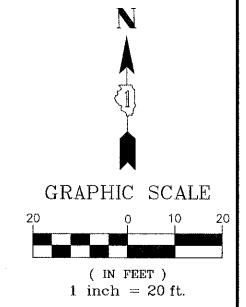
- 4 EACH POST MOUNTED FLASHING BEACON

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION IL RTE 173 (ROSECRANS ROAD) AT KILBOURNE ROAD			F.A.P. RTE: 303	SECTION: 2011-042-TS	COUNTY: LAKE	TOTAL SHEETS: 62	SHEET NO.: 51	CONTRACT #: 60P49	ILLINOIS FED. AID PROJECT
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	REVISED -		SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.							
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -											
													GHA #4085.874	

CONSTRUCTION NOTES:

- 1 INSTALL UNINTERRUPTIBLE POWER SUPPLY.
- 2 REMOVE AND REPLACE EXISTING CONTROLLER AND CABINET. RE-USE EXISTING TYPE D FOUNDATION. RELOCATE EXISTING TRANSCEIVER-FIBER OPTIC AND EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT IN NEW CABINET.
- 3 REMOVE EXISTING SIGNAL HEAD. INSTALL NEW LED SIGNAL HEAD. RE-USE EXISTING RETROREFLECTIVE BACKPLATE. RE-USE EXISTING CABLES.
- 4 INSTALL A CONCRETE MAINTENANCE PAD. THIS WORK SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH. EARTH EXCAVATION SHALL BE INCLUDED IN THE COST FOR P.C.C. SIDEWALK, 5". ALL EXCAVATED MATERIAL SHALL REMAIN ON SITE.



NOTE:
THE EXISTING CONTROLLER IS
AN ECONOLITE ASC 2/2000
IN A TYPE IV CABINET.

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

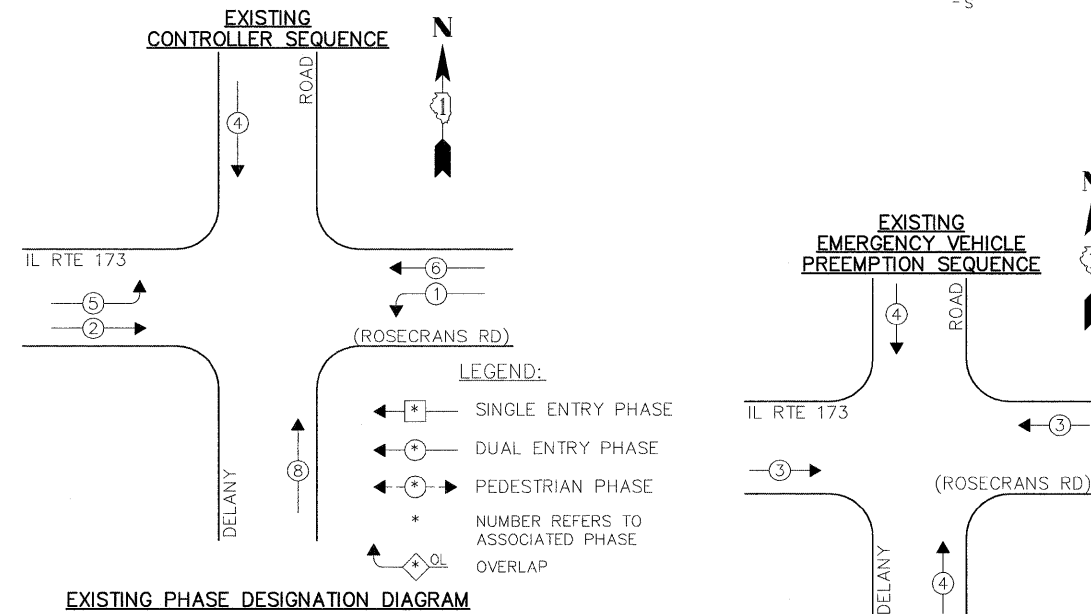
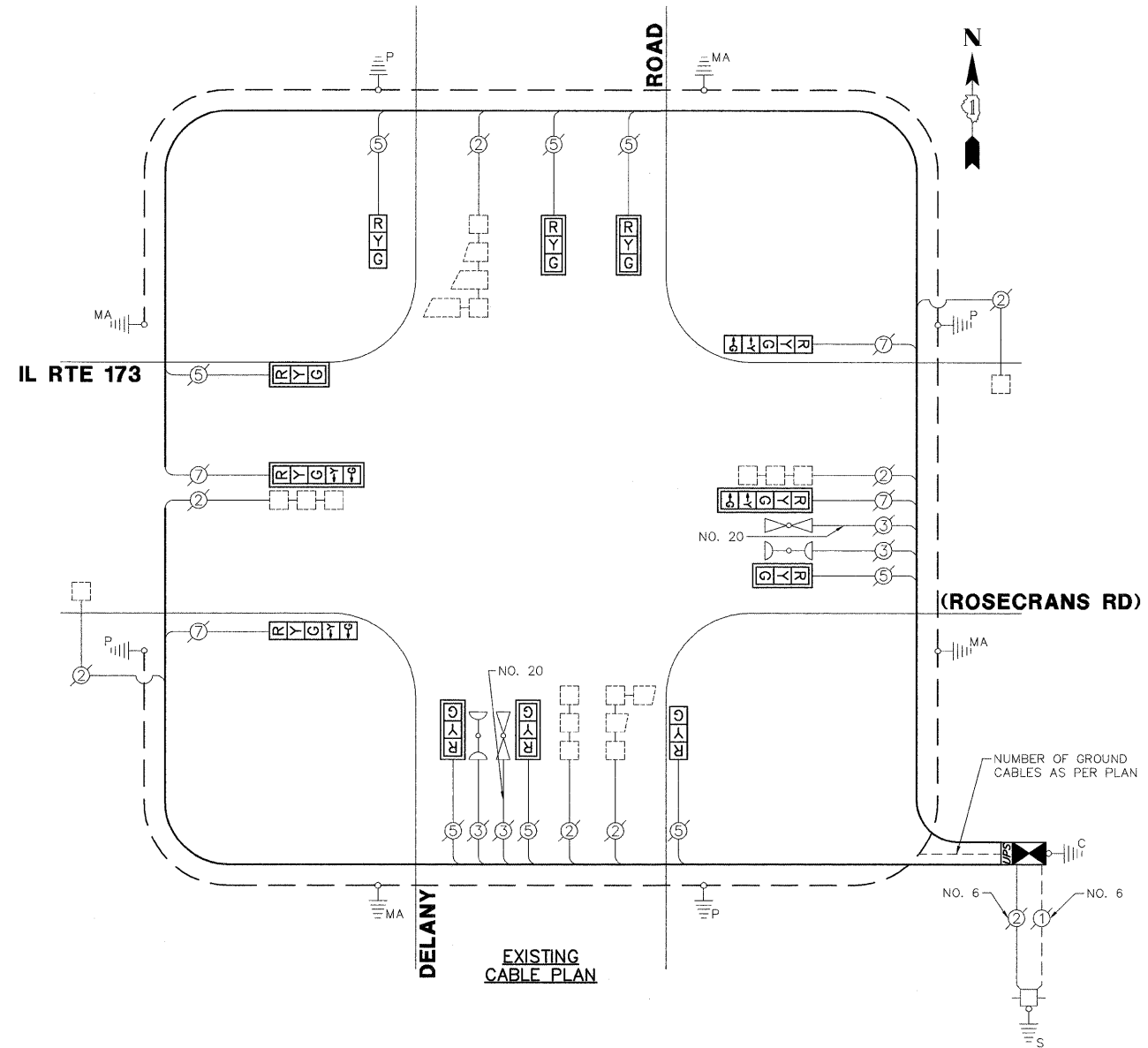
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

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

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD			F.A.P. RTE. 303	SECTION 2011-042-TS	COUNTY LAKE	GHA #4085.874 TOTAL SHEETS 62	SHEET NO. 53
PLOT SCALE = 1" = .0833'	DATE = 6/30/2011	CHECKED - KLB	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
		DATE = 6/30/2011	REVISED -		ILLINOIS FED. AID PROJECT							

SCHEDULE OF QUANTITIES
IL RTE 173 (ROSECRANS ROAD) AT DELANY ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	40	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
4.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
5.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
6.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
7.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
8.	7	EACH	INDUCTIVE LOOP DETECTOR
* 9.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
10.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
11.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
* ITEM PAID FOR BY THE NEWPORT TOWNSHIP FIRE PROTECTION DISTRICT			



EMERGENCY VEHICLE PREEMPTOR	MOVEMENT
3	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE 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: IDOT DISTRICT 1
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHAUMBURG, IL 60196
 ENERGY SUPPLY - CONTACT: ALICE TAYLOR
 PHONE: 847.816.5458
 COMPANY: COMED

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - JRM	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 6/30/2011	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE				F.A.P. RTE. 303	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 54
IL RTE 173 (ROSECRANS RD) AT DELANY ROAD								SCALE N.A.	SHEET NO.	OF SHEETS	STA.	TO STA.
CONTRACT #: 60P49												

GHA #4085.874

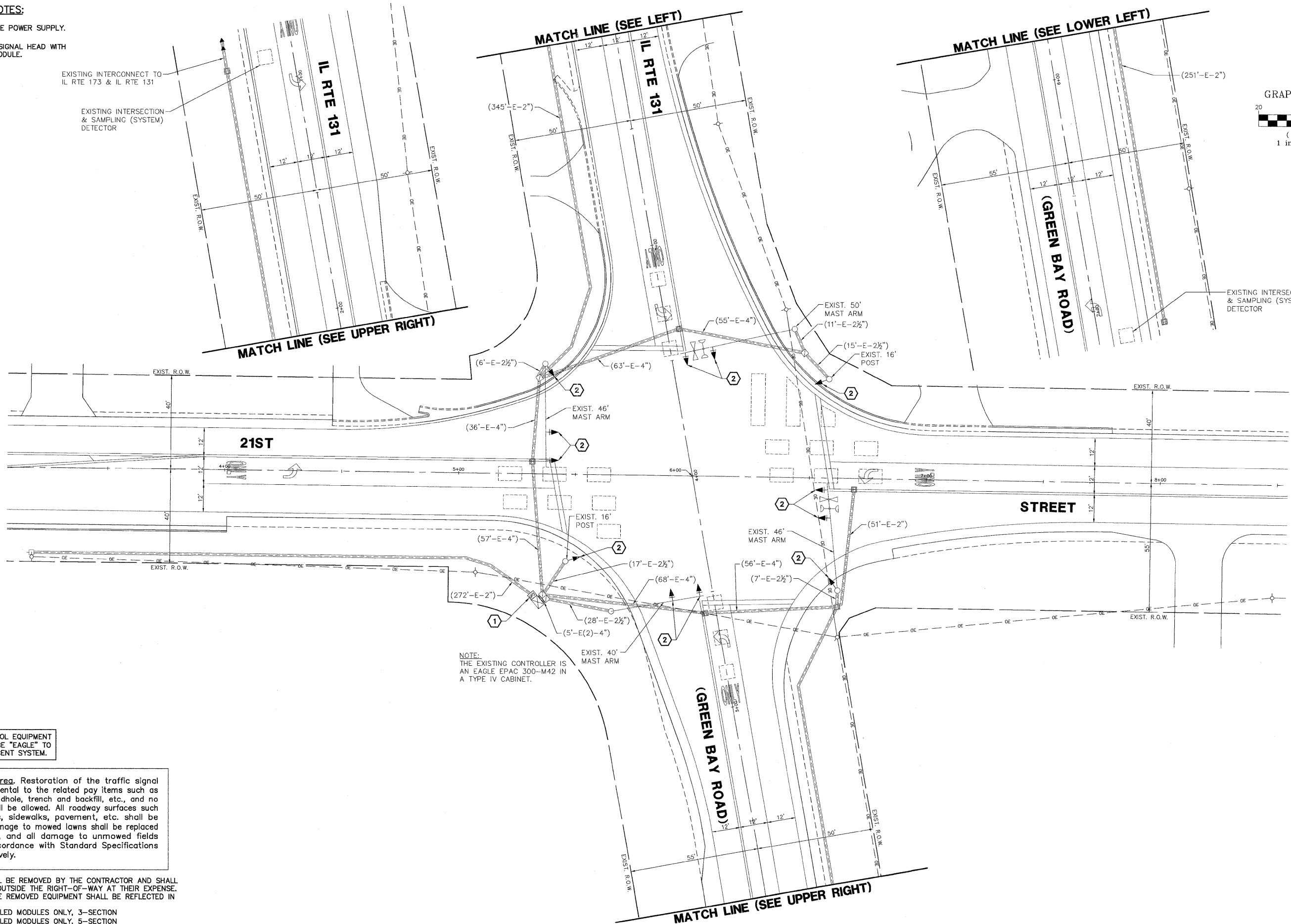
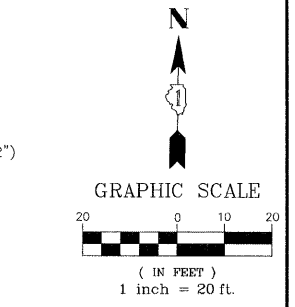
ILLINOIS FED. AID PROJECT

CONSTRUCTION NOTES:

- ① INSTALL UNINTERRUPTIBLE POWER SUPPLY.
- ② RETROFIT EXISTING LED SIGNAL HEAD WITH CURRENT LED SIGNAL MODULE.

EXISTING INTERCONNECT TO IL RTE 173 & IL RTE 131

EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTOR



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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

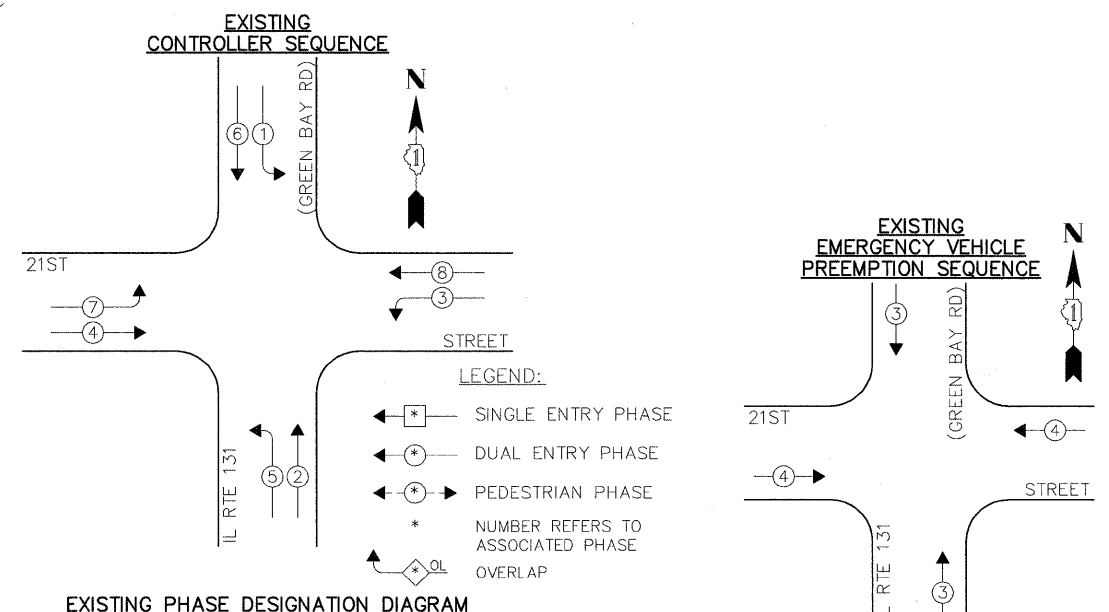
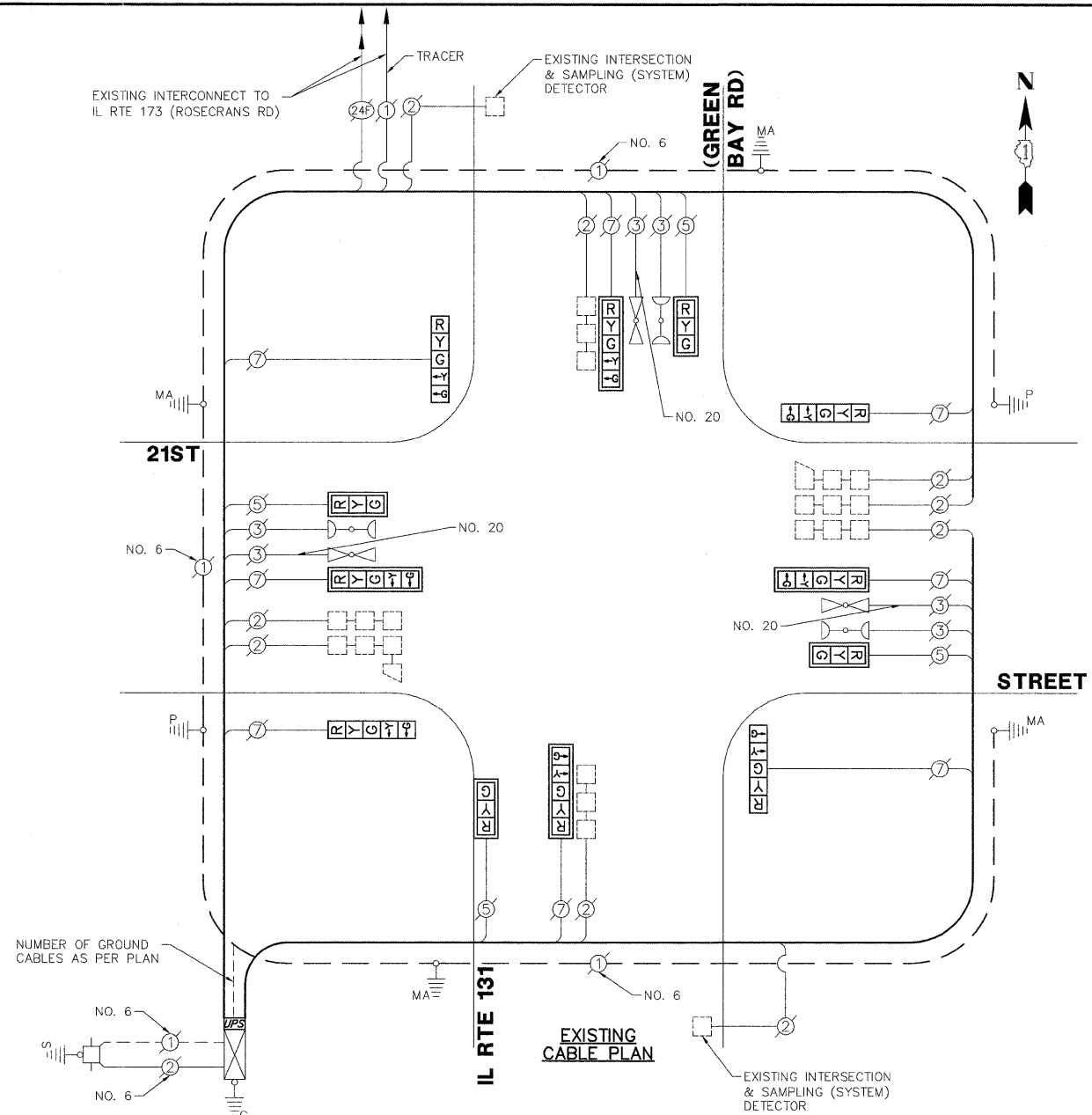
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID ITEMS.

- 4 EACH SIGNAL HEAD, LED MODULES ONLY, 3-SECTION
- 8 EACH SIGNAL HEAD, LED MODULES ONLY, 5-SECTION

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET			F.A.P. RTE 880	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 55
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISOR -	DATE - 6/30/2011		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
										ILLINOIS FED. AID PROJECT		
										GHA #4085.874		

SCHEDULE OF QUANTITIES
IL RTE 131 (GREEN BAY ROAD) AT 21ST STREET

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
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



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

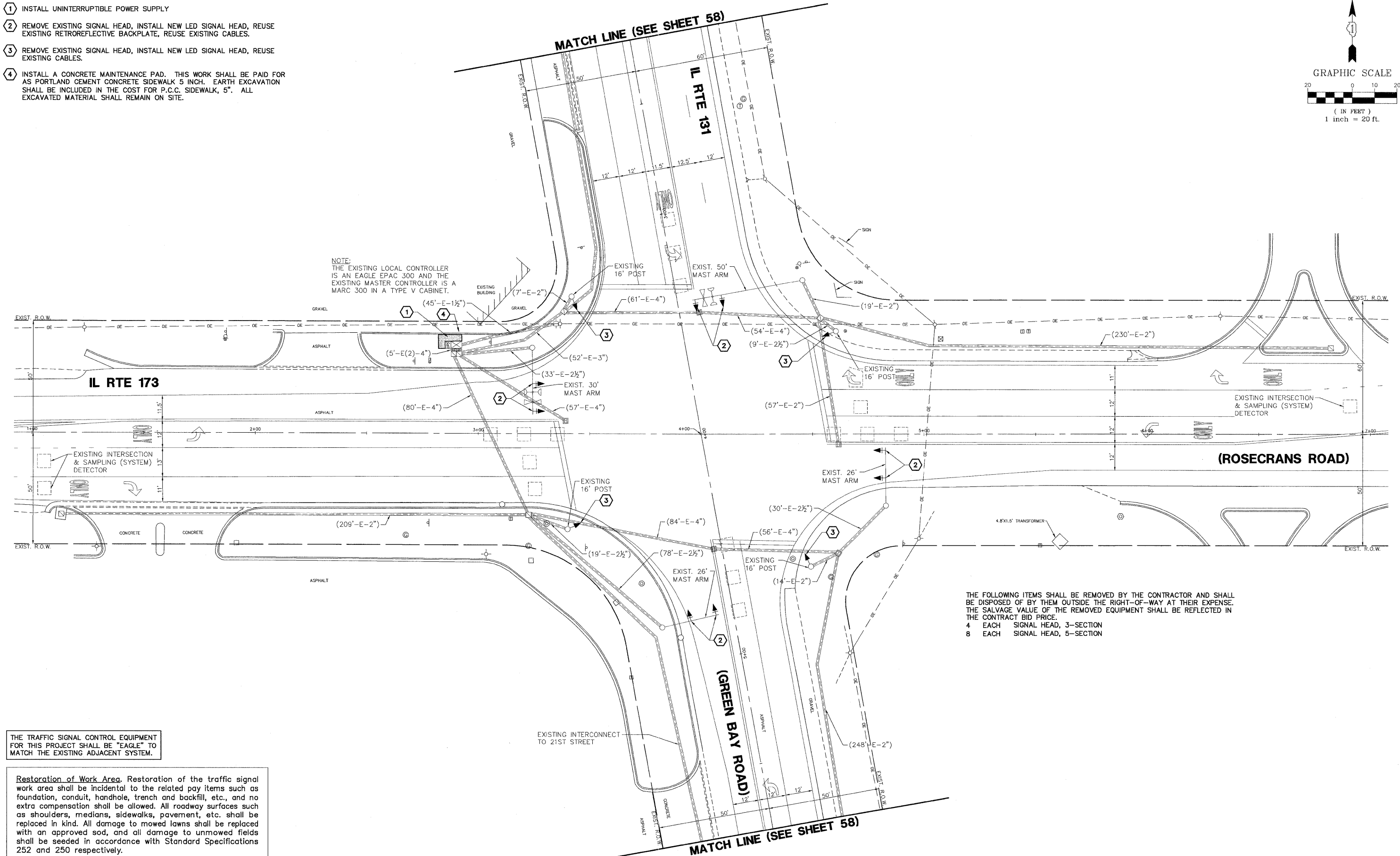
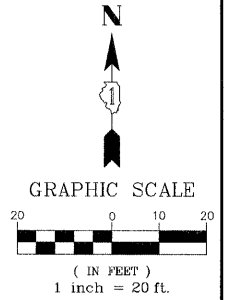
ENERGY COSTS - BILLED TO: JDOT DISTRICT 1
(ADDRESS) 201 WEST CENTER COURT
(ADDRESS) SCHAUMBURG, IL 60196
ENERGY SUPPLY - CONTACT: ALICE TAYLOR
PHONE: 847.816.5458
COMPANY: COMED

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

EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

CONSTRUCTION NOTES:

- 1 INSTALL UNINTERRUPTIBLE POWER SUPPLY
- 2 REMOVE EXISTING SIGNAL HEAD, INSTALL NEW LED SIGNAL HEAD, REUSE EXISTING RETROREFLECTIVE BACKPLATE, REUSE EXISTING CABLES.
- 3 REMOVE EXISTING SIGNAL HEAD, INSTALL NEW LED SIGNAL HEAD, REUSE EXISTING CABLES.
- 4 INSTALL A CONCRETE MAINTENANCE PAD. THIS WORK SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH. EARTH EXCAVATION SHALL BE INCLUDED IN THE COST FOR P.C.C. SIDEWALK, 5". ALL EXCAVATED MATERIAL SHALL REMAIN ON SITE.



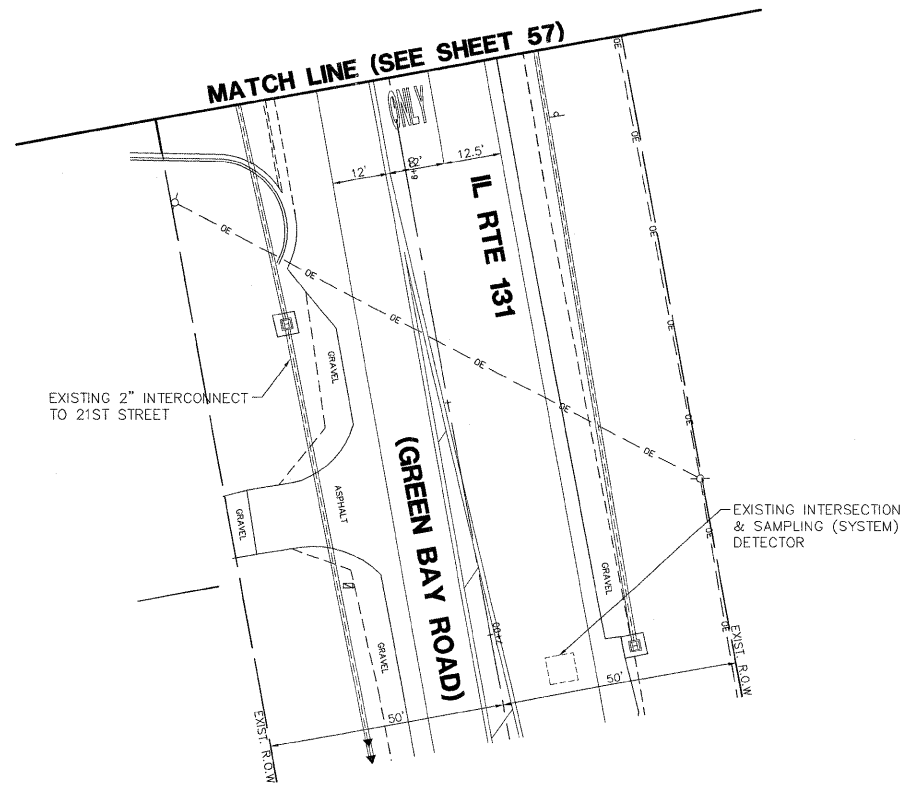
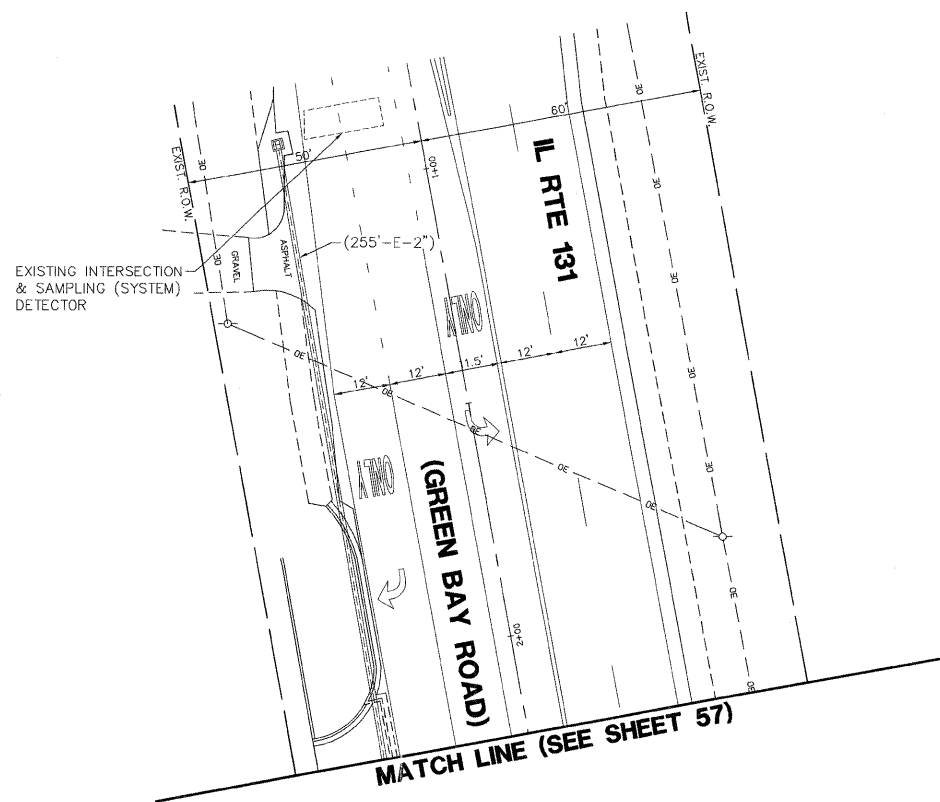
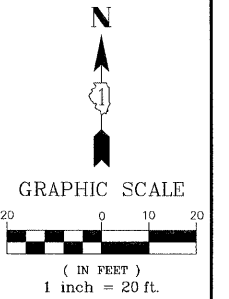
NOTE:
THE EXISTING LOCAL CONTROLLER IS AN EAGLE EPAC 300 AND THE EXISTING MASTER CONTROLLER IS A MARC 300 IN A TYPE V CABINET.

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.
4 EACH SIGNAL HEAD, 3-SECTION
8 EACH SIGNAL HEAD, 5-SECTION

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

Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL RTE 131 (GREEN BAY RD) AT IL RTE 173 (ROSECRANS RD)	F.A.P. RTE: 880	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 57	GHA #4085.874 CONTRACT #: 60P49 ILLINOIS FED. AID PROJECT
PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -	SCALE 1"=20'			SHEET NO. OF SHEETS	STA. TO STA.				
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -									



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

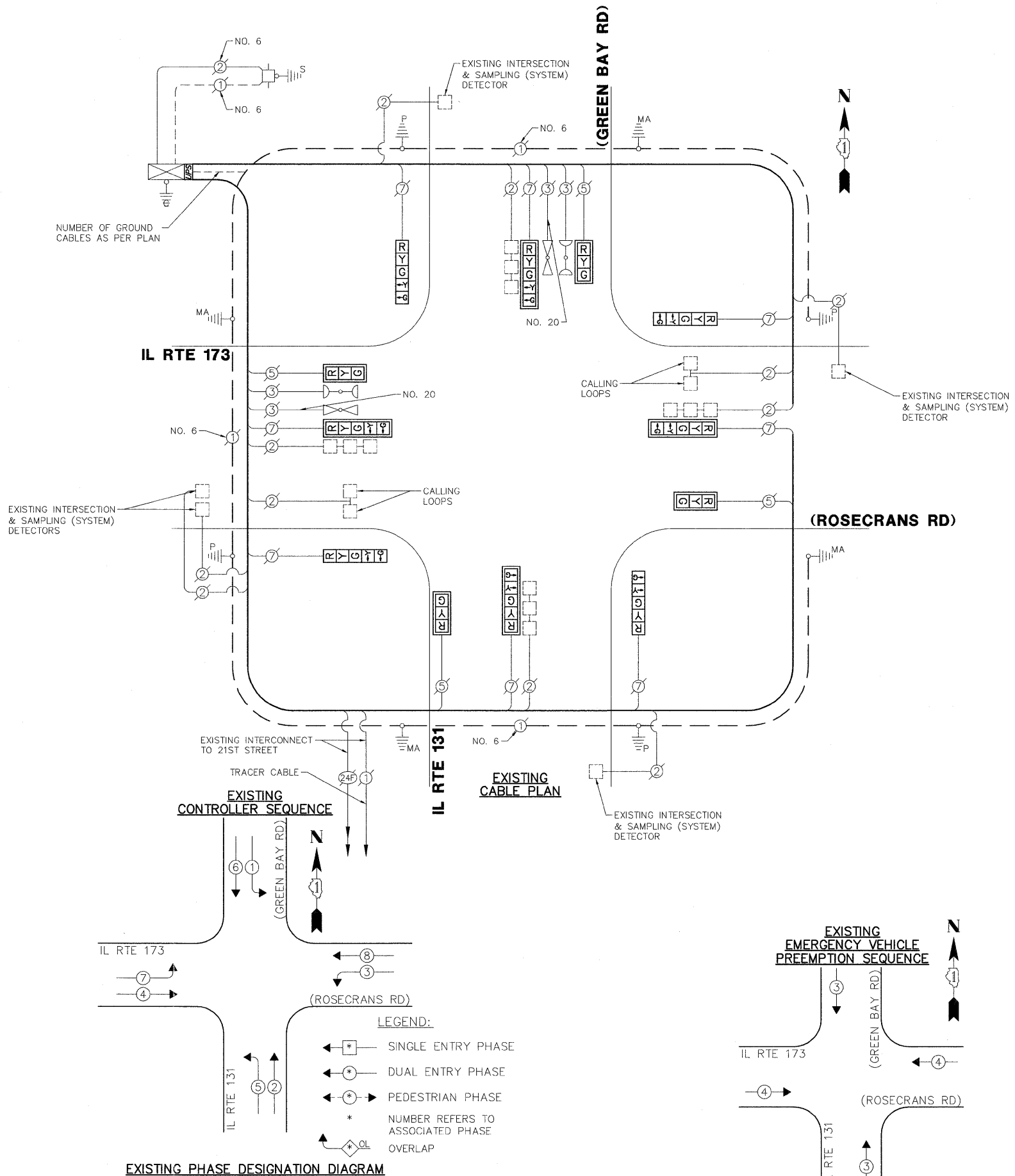
Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

FILE NAME = 4085.874-TRI.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN			F.A.P. RTE. 880	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 58
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		IL RTE 131 (GREEN BAY RD) AT IL RTE 173 (ROSECRANS RD)			CONTRACT #: 60P49				
	PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
GHA #4085.874												

SCHEDULE OF QUANTITIES

IL RTE 131 (GREEN BAY ROAD) AT IL RTE 173 (ROSECRANS ROAD)

NO.	QUANT.	UNIT
1.	40	SG FT PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	1	EACH MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
3.	4	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4.	4	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
5.	4	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
6.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7.	1	EACH UNINTERRUPTIBLE POWER SUPPLY



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE 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: IDOT DISTRICT 1
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHAMBURG, IL 60196
 ENERGY SUPPLY - CONTACT: ALICE TAYLOR
 PHONE: 847.816.5458
 COMPANY: COMED

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

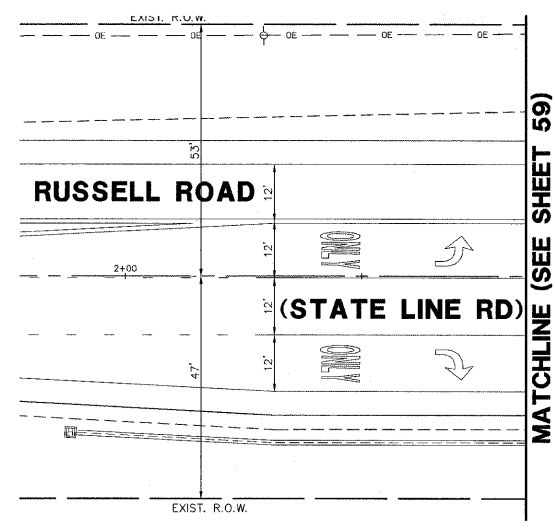
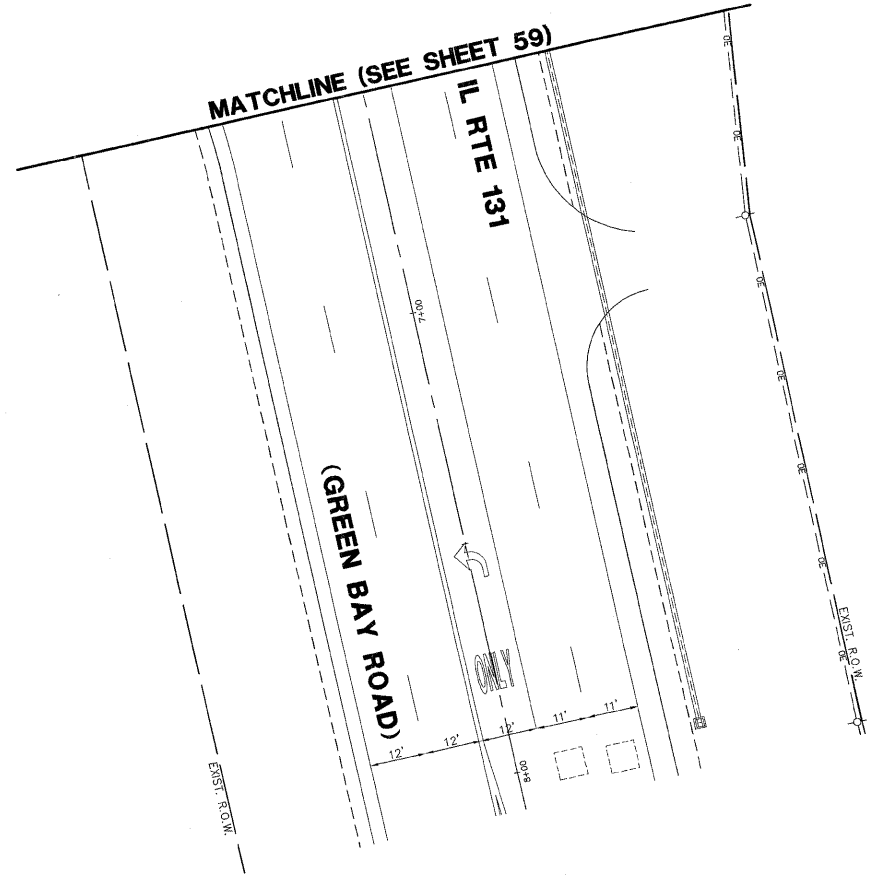
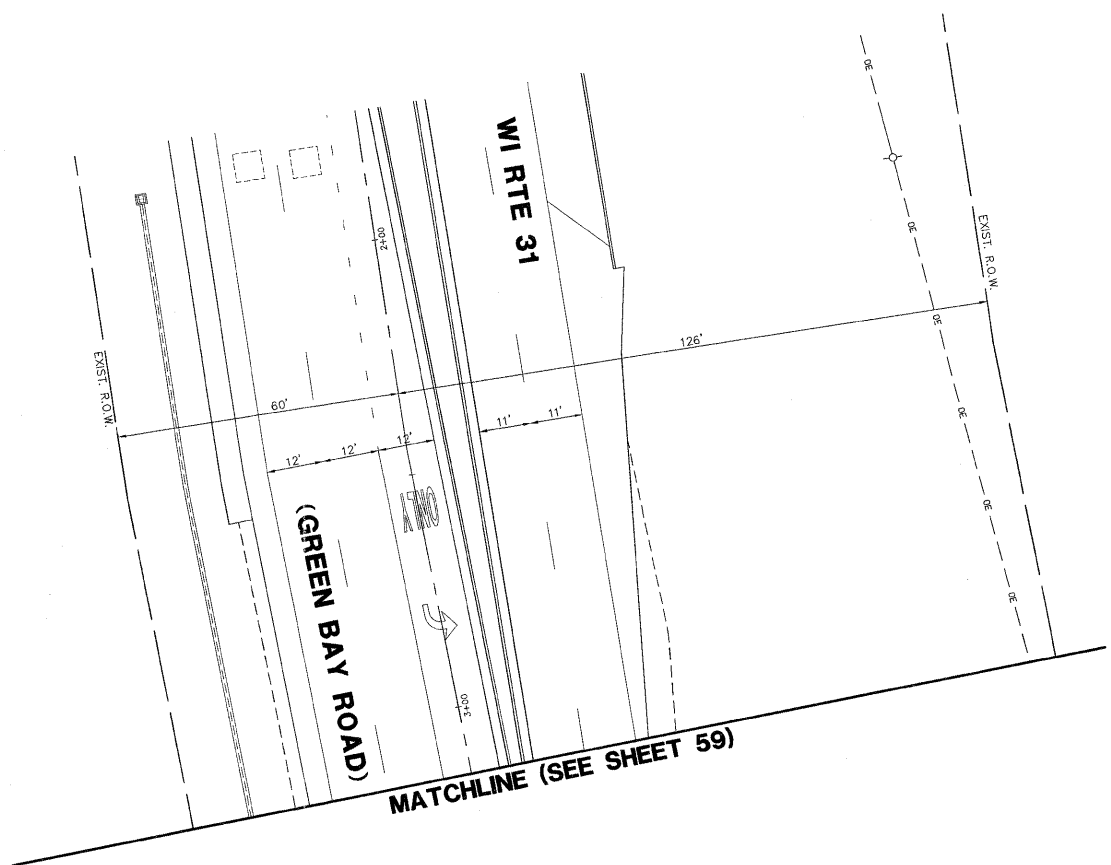
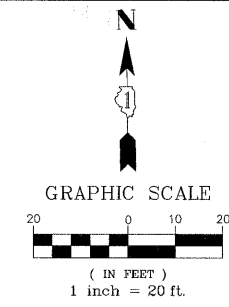
FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DRAWN - JRM	REVISED -
PLOT DATE = 6/30/2011	DATE - 6/30/2011		REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
 IL RTE 131 (GREEN BAY RD) AT IL RTE 173 (ROSECRANS RD)

F.A.P. RTE. 880	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 59
CONTRACT # 60P49				ILLINOIS FED. AID PROJECT

GHA #4085.874



Restoration of Work Area. Restoration of the traffic signal work area shall be incidental to the related pay items 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, and all damage to unmowed fields shall be seeded in accordance with Standard Specifications 252 and 250 respectively.

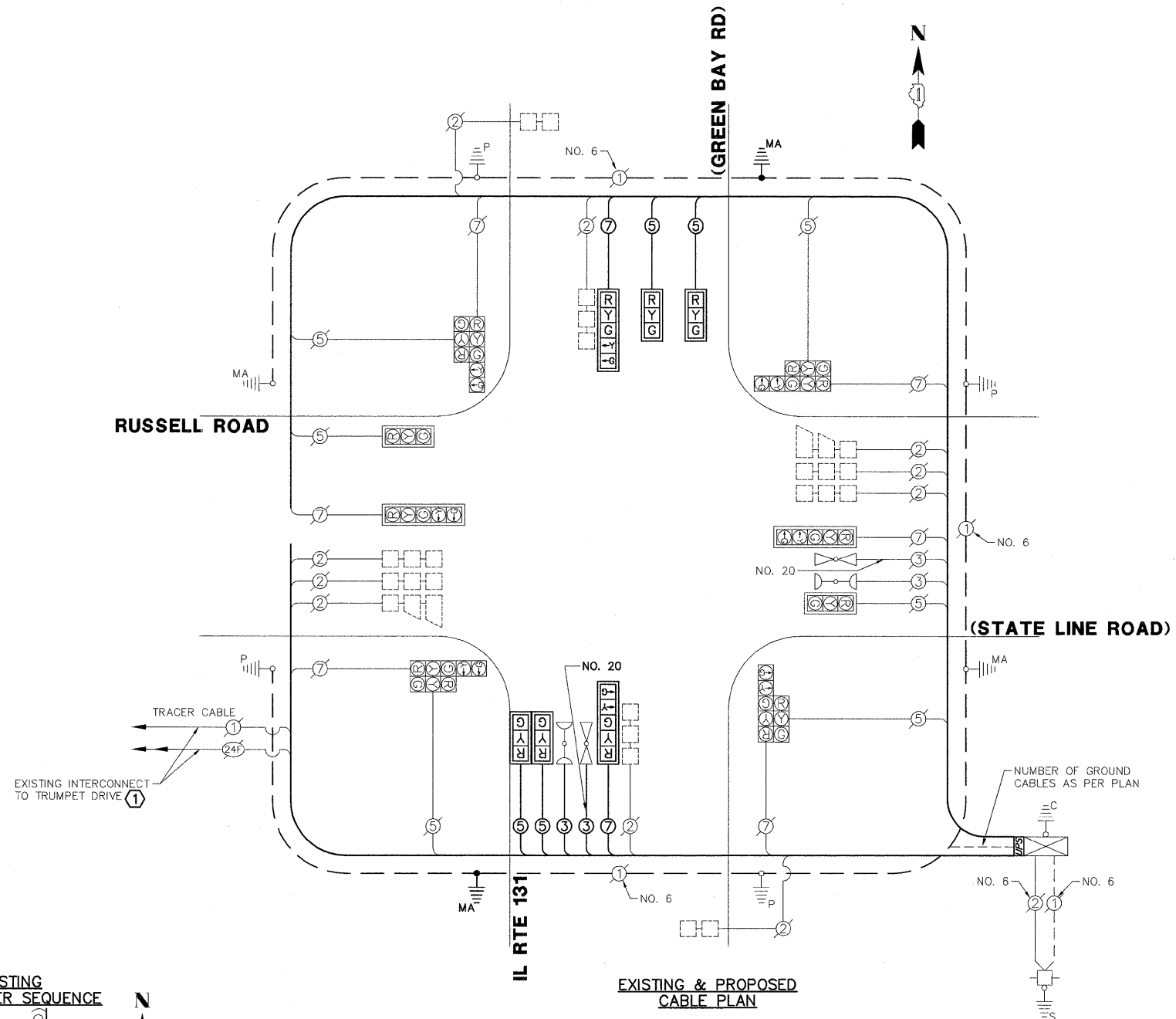
FILE NAME = 4085.874-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD			F.A.P. RTE: 880	SECTION 2011-042-TS	COUNTY LAKE	TOTAL SHEETS 62	SHEET NO. 61
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT #: 60P49		
PLOT DATE = 6/30/2011	DATE - 6/30/2011	REVISED -	REVISED -	ILLINOIS FED. AID PROJECT								

GHA #4085.874

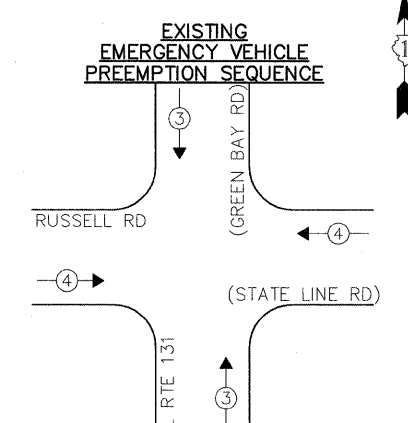
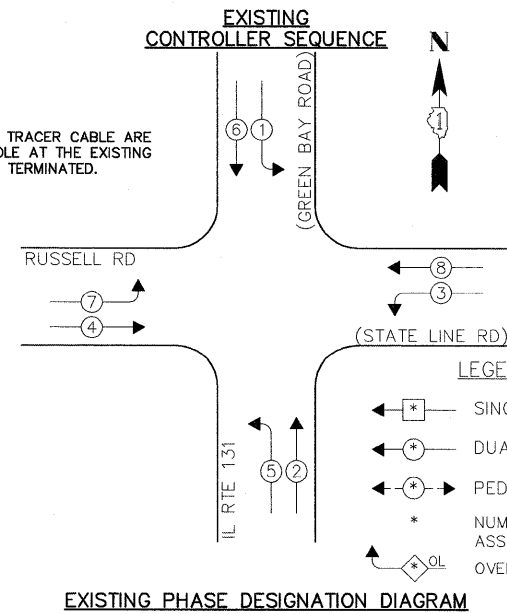
SCHEDULE OF QUANTITIES

IL RTE 131 (GREEN BAY ROAD) AT RUSSELL ROAD (STATE LINE ROAD)

NO.	QUANT.	UNIT	DESCRIPTION
1.	40	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH
2.	51	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
3.	51	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
4.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
* 5.	274	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
6.	1,015	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
7.	542	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
8.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.
9.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.
10.	15	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
11.	21	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
12.	2	EACH	DRILL EXISTING HANDHOLE
13.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
14.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
15.	6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
* 16.	1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
17.	1,041	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
18.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
19.	2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
20.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
21.	69	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
* 22.	274	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
* ITEM PAID FOR BY THE CITY OF ZION			



CONSTRUCTION NOTE:
 ① THE EXISTING FIBER OPTIC AND TRACER CABLE ARE COILED IN THE DOUBLE HANDHOLE AT THE EXISTING CONTROLLER CABINET AND NOT TERMINATED.



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	→

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
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	-	-	25	0.05	-
TOTAL =					477.2

ENERGY COSTS - BILLED TO: IDOT DISTRICT 1
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHAUMBURG, IL 60196
 ENERGY SUPPLY - CONTACT: ALICE TAYLOR
 PHONE: 847.816.5458
 COMPANY: COMED