

FOR INDEX OF SHEETS, SEE SHEET NO. 2
 FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

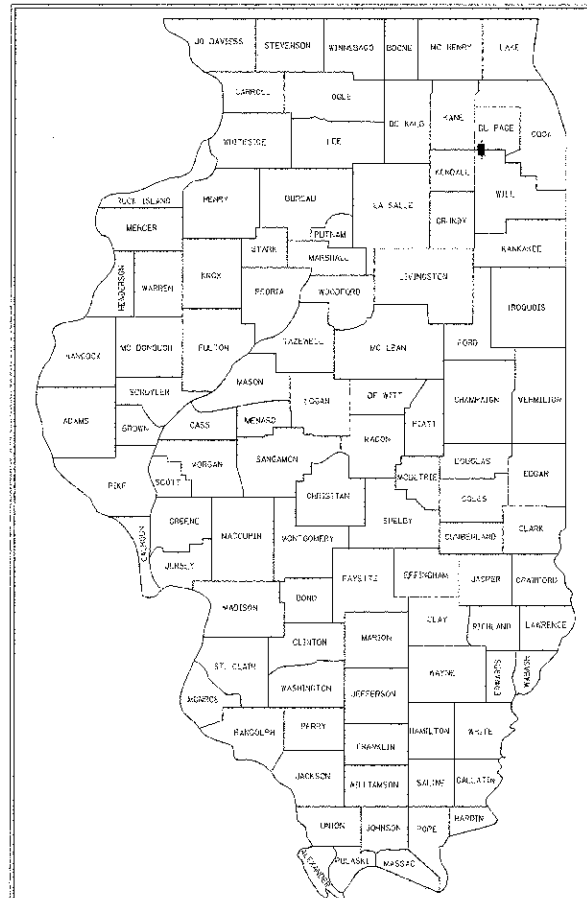
STATE OF ILLINOIS 04-26-13 LETTING ITEM 046
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	DUPAGE/WILL	48	

CONTRACT NO. 63786

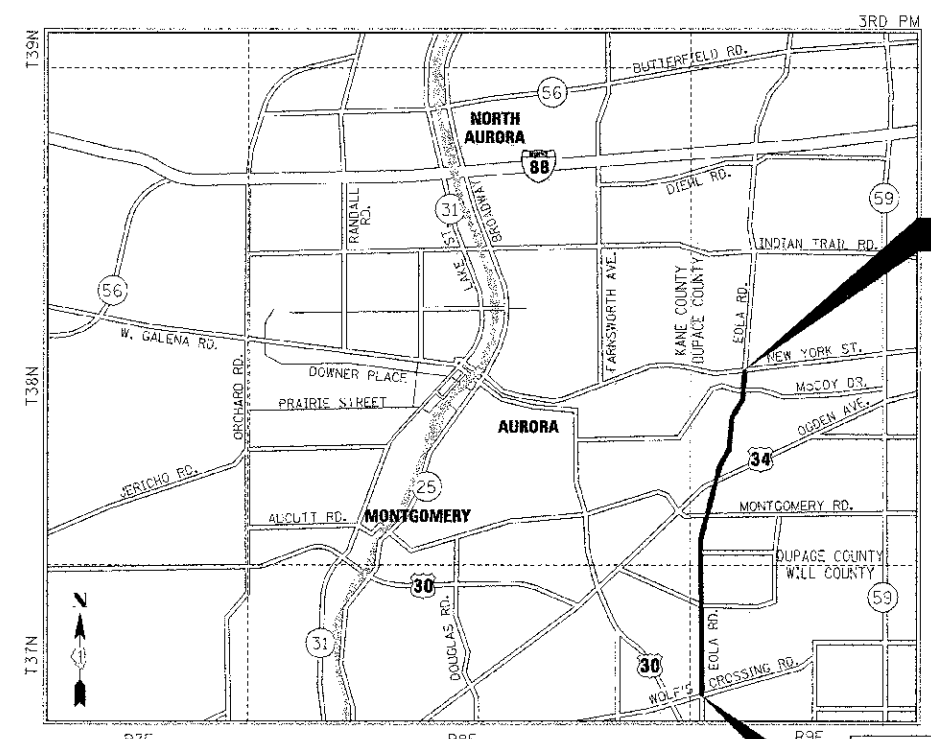
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 2531 (EOLA ROAD)
 WOLF'S CROSSING ROAD TO E. NEW YORK STREET
 TRAFFIC SIGNAL INTERCONNECT
 SECTION 11-00296-00-TL
 PROJECT NO. CMM-9003 (937)
 DUPAGE /WILL COUNTY
 JOB NO.: C-91-218-12
 CITY OF AURORA



LOCATION OF SECTION INDICATED THUS: — ■ —

THIS IMPROVEMENT IS LOCATED IN THE CITY OF AURORA



END PROJECT (E. NEW YORK STREET) STA 1240+00

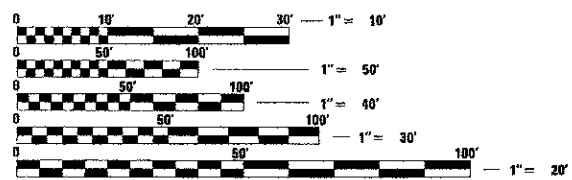
BEGIN PROJECT (WOLF'S CROSSING ROAD) STA 1005+00

LOCATION MAP SCALE: N.T.S

PROJECT GROSS LENGTH = 23,500.00 FEET = 4.45 MILES
 PROJECT NET LENGTH = 23,500.00 FEET = 4.45 MILES

EXISTING ADT (2008) = 33,000
 POSTED / DESIGN SPEED = 30-35 M.P.H.
 DESIGN DESIGNATION = MAJOR ARTERIAL

J.U.L.I.E.
 JOINT UTILITY LOCATING INFORMATION FOR EXCAVATION
 1-800-892-0123 (CALL 48 HOURS IN ADVANCE)



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

CONTRACT NO: 63786

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

APPROVED DECEMBER 17 2012
E. J. Della
 CITY OF AURORA, CITY TRAFFIC ENGINEER

PASSED DECEMBER 31 2012
C. Holt
 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED REVIEW JANUARY 21 2013
J. P. ...
 DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

651 PRAIRIE POINTE, SUITE 201 | YORKVILLE, ILLINOIS 60560
 Phone: 630.553.7560 | Toll Free: 800.728.7805 | Fax: 630.553.7646 | HRGreen.com
 ILLINOIS PROFESSIONAL DESIGN FIRM #184-001322

ANTHONY P. SIMMONS, P.E.
 NO. 12-058414
 EXPIRES: 11/30/2013
 HR GREEN, INC.
 12/17/2012

DISTRICT 1 - PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4406, SCHAUMBURG

DATE	
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LIST OF HIGHWAY STANDARDS

000001	-	06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001	-	07	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006	-	01	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011	-	01	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021	-	01	DEPRESSED CORNER FOR SIDEWALKS
606001	-	05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701001	-	02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006	-	04	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
701101	-	03	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE
701106	-	02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701501	-	06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601	-	08	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606	-	08	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701	-	08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801	-	05	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901	-	02	TRAFFIC CONTROL DEVICES
720001	-	01	SIGN PANEL MOUNTING DETAILS
720006	-	03	SIGN PANEL ERECTION DETAILS
720016	-	03	MAST ARM MOUNTED STREET NAME SIGNS
805001	-	01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001	-	02	HANDHOLES
814006	-	02	DOUBLE HANDHOLES
825011	-	02	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240V
857001	-	01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001	-	01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001	-	02	TRAFFIC SIGNAL GROUNDING & BONDING
877011	-	05	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 65'
878001	-	09	CONCRETE FOUNDATION DETAILS
880006	-	01	TRAFFIC SIGNAL MOUNTING DETAILS
886001	-	01	DETECTOR LOOP INSTALLATIONS
886006	-	01	TYPICAL LAYOUTS FOR DETECTION LOOPS



USER NAME	MFedlow	DESIGNER	MJF	REVISED	-
PLCY SCALE		CHECKED	APS	REVISED	-
PLOT DATE	11/19/2013	DATE	12/27/2012	REVISED	-
FILE NAME	D:\9.11.index.dgn			REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS / LIST OF HIGHWAY STANDARDS

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-FL		48	2
CONTRACT NO.			63786	
FED. AID PROJECT				

MAN
 DRAWING NO.
 DATE
 PROJECT NAME
 SHEET NO.
 TOTAL SHEETS

PROF.
 SURVEY
 PLANNING
 ENGINEERING
 ARCHITECTURE
 STRUCTURE
 MECHANICAL
 ELECTRICAL
 PLUMBING
 CIVIL
 ENVIRONMENTAL
 LANDSCAPE ARCHITECTURE
 CONSTRUCTION MANAGEMENT

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	HAFENRICHTER ROAD	KEATING DRIVE	OGDEN AVENUE	VILLAGE GREEN DRIVE / STADIUM DRIVE	LONG GROVE DRIVE	MCCOY DRIVE	NEW YORK STREET	INTERCONNECT
				0021	0021	0021	0021	0021	0021	0021	
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	244				244				
42400400	DETECTABLE WARNINGS	SQ FT	33				33				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	49				49				
44000600	SIDEWALK REMOVAL	SQ FT	53				53				
60503800	COMBINATION CONCRETE CURB AND GUTTER TYPE B& 12	FOOT	98				98				
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	4								
67100100	MOBILIZATION	L SUM	1								
70102520	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1								
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701608	L SUM	1								
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1								
70102835	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1								
70102840	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1								
72000100	SIGN PANEL - TYPE 1	SQ FT	67.5	12	27		28.5				
72000200	SIGN PANEL - TYPE 2	SQ FT	46	22.5			22.5				
80400100	ELECTRIC SERVICE INSTALLATION	EACH	3	1	1		1				
80500010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1						1		
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	5	1	1	1	1	1			
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	20895	38	125	505	105				20119
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	144	12	111		21				
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	233	72	79		82				
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1034	330	389		318				
81100605	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	FOOT	53								53
81300948	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	2								2
81400100	HANDHOLE	EACH	62	3	4	2	4				48
81400300	DOUBLE HANDHOLE	EACH	3	1	1		1				
81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/0 NO. 10	FOOT	2546	860	917.5		888				
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	12	4	4		4				
82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	3	1	1		1				
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	0	1	1	1	1	1	1	1	2
85100500	PAINT NEW TRAFFIC SIGNAL POST	EACH	3	1	4		3				
85100800	PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FOOT	EACH	5	2	1		2				
85100901	PAINT NEW COMBINATION MAST ARM AND POLE, 40 FOOT AND OVER	EACH	7	2	3		2				
86400100	TRANSCEIVER - FIBER OPTIC	EACH	8								6
87100020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	25702								25702
87300010	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	23			9		7	7		
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	25702								25702
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	8097	659	1487		1379	1009	1447	2045.5	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	9689	1016.5	1930	84.5	1751.5	1201	1503	2202	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3824	1496.5	967		1357.5				
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	4204	631	1652		1620.5				
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4212			1434.5		817.0	799.5	1181.0	
87301615	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	2646	850	817.5		858				
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2 C	FOOT	452	73	149	33	136	31	27.5		
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 5 1C	FOOT	4057	531	806	857.5	622	631	610		
87502410	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1		1						
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	6	1	3		2				
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	1				1				
87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1				1				
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	3	2	1						
87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1				1				
87702940	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1				1				
87702950	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	3	1	2						
87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1	1							
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1		1						



HRGreen.com
 Illinois Professional Design Firm
 #104-001522

USER NAME: mfrater
 PLOT SCALE:
 PLOT DATE: 1/9/2013
 FILE NAME: 040_11_suc-pl.dgn

DESIGNED: MJF
 CHECKED: APS
 DATE: 12/27/2012

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.L. RT.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:
2531	11-00296-CC-TL	DUPAGE/WILL	48	31
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63786	

DATE	BY
12/27/2012	MJF
PROJECT	11-00296-00-TL
DESCRIPTION	ILLINOIS STATE ROAD DISTRICT 2531
LOCATION	NEW YORK STREET
SCALE	AS SHOWN
DATE	BY
12/27/2012	MJF
PROJECT	11-00296-00-TL
DESCRIPTION	ILLINOIS STATE ROAD DISTRICT 2531
LOCATION	NEW YORK STREET
SCALE	AS SHOWN

DATE	BY
12/27/2012	MJF
PROJECT	11-00296-00-TL
DESCRIPTION	ILLINOIS STATE ROAD DISTRICT 2531
LOCATION	NEW YORK STREET
SCALE	AS SHOWN
DATE	BY
12/27/2012	MJF
PROJECT	11-00296-00-TL
DESCRIPTION	ILLINOIS STATE ROAD DISTRICT 2531
LOCATION	NEW YORK STREET
SCALE	AS SHOWN

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	HAFENRICHTER ROAD	KEATING DRIVE	OGDEN AVENUE	VILLAGE GREEN DRIVE / STADLUM DRIVE	LONG GROVE DRIVE	McGOY DRIVE	NEW YORK STREET	INTERCONNECT
				0021	0021	0021	0021	0021	0021	0021	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	32	4	16		12				
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	12	4	4		4				
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	145	48	50		47				
87900200	DRILL EXISTING HANDHOLE	EACH	10			2					8
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	18	7	5		6				
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1	1							
88030100	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	8	1	4		3				
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	11	3	4		4				
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1	1							
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1				1				
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	13	2				2	6	3	
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	14	1	4		4	2	1	2	
88102757	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1							1	
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	28	10	9		10				
88500100	INDUCTIVE LOOP DETECTOR	EACH	33			11		9	10	3	
88500100	DETECTOR LOOP, TYPE I	FOOT	356			158					
88700200	LIGHT DETECTOR	EACH	6	2	2		2				
88700300	LIGHT DETECTOR AMPLIFIER	EACH	7	1	1	1	1	1	1	1	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	44	4	8		8	5	8	10	
88802215	MODIFY EXISTING CONTROLLER FOUNDATION	EACH	3			1		1	1	1	
88802300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	22749	4541	4933	1028.5	4865	1653	2790.5	2967.5	
88802375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	7	1	1	1	1	1	1	1	
X0324256	FIBER OPTIC CABLE SPLICE	EACH	1								1
X0324612	RADIO ANTENNA	EACH	1								1
X0325810	WIRELESS ETHERNET RADIO	EACH	1								1
X0326266	ETHERNET SWITCH	EACH	4	1			1		1		1
X0326812	CAT 5 ETHERNET CABLE	FOOT	317		89.5	84.5		60		86.5	
X0326885	VIDEO DETECTION SYSTEM	EACH	3	1	1		1				
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	6	1	1	1	1	1	1		
X8820200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	6	1	1	1	1	1	1		
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	967	325.5	320.5		319.5				
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	10			4		2	4		
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	14			6		4	4		
X8803088	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	11			4		3	4		
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	11			4		3	4		
X007251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	4		1	1		1		1	
X007952	TERMINAL SERVER	EACH	1								1
X007993	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1								1
X008565	EVP CONFIRMATION BEACON, LED RETROFIT	EACH	11			4		3	4		
Z0033058	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1								1
Z0078800	TRAINEES	HOUR	500								
Z0079804	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500								

CONSTRUCTION CODE TYPE 0042



USER NAME: mjf
 PLOT SCALE: 1"=40'
 PLOT DATE: 12/27/2012
 FILE NAME: 11-00296-00-TL.dwg

DESIGNED: MJF
 CHECKED: APS
 DATE: 12/27/2012

REVISED: -
 REVISED: R-VLSFD
 REVISED: -
 REVISED: -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

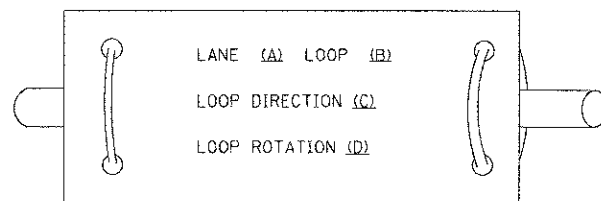
SCALE: SHEET NO. OF SHEETS STA. TO STA.

SECTION	COUNTY	TOTAL SHEETS
11-00296-00-TL	DUPAGE/WILL	48
CONTRACT NO. 63786		4

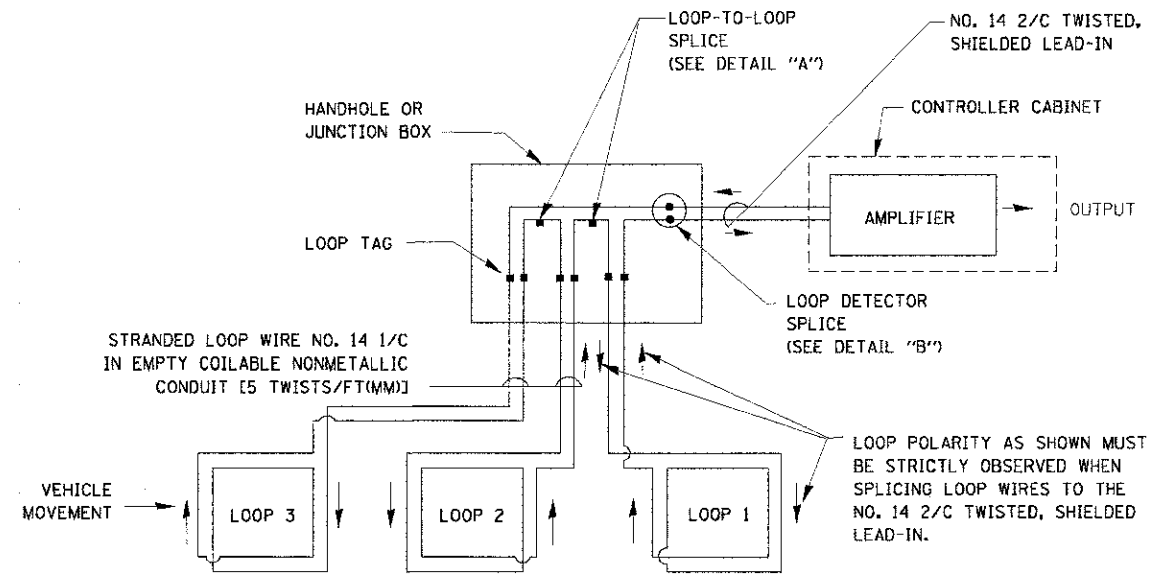
LOOP DETECTOR NOTES

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

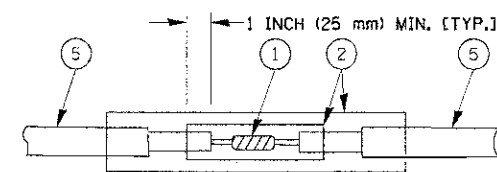


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

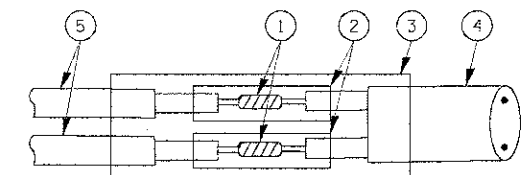


DETECTOR LOOP WIRING SCHEMATIC

- 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.

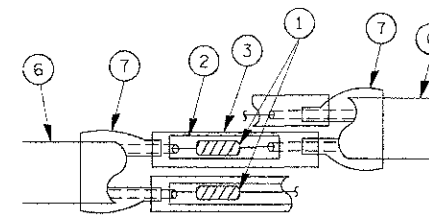


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

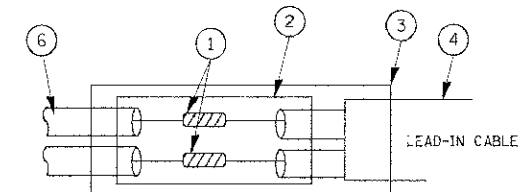


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP



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



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

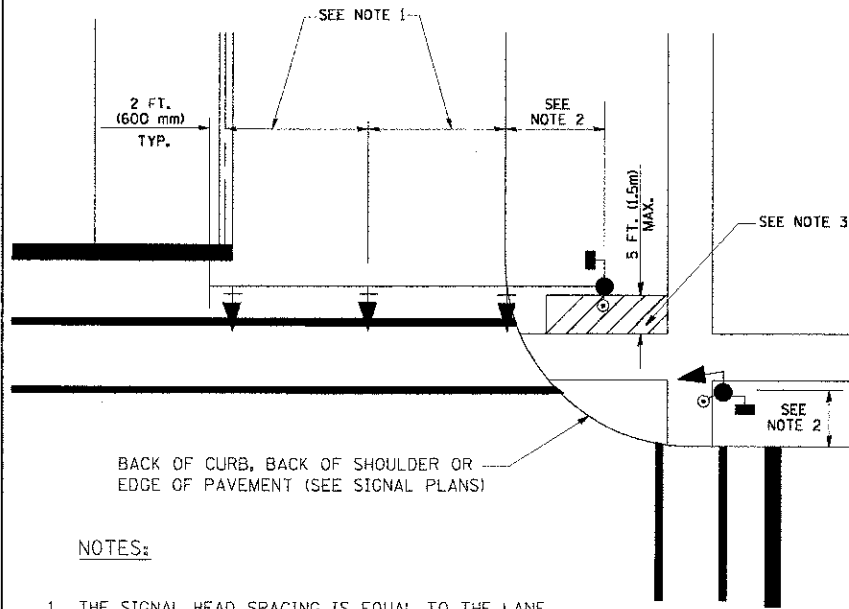
LOOP DETECTOR SPLICE

- 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 =	USER NAME = bauer01	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET NO.	
ct:\work\PH\DOT\B\JERCL\03\03\5\1-09	agn	DRAWN - BCK	REVISED -			2531	11-00296-00-TL	DUPAGE/WILL	48	5
PLCT SCALE = 5/8"=1' / 3/4"		CHECKED - DAD	REVISED -			TS-05		CONTRACT NO. 63786		
PLST DATE = 11/4/2009		DATE - 10-28-09	REVISED -			SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.	
						FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

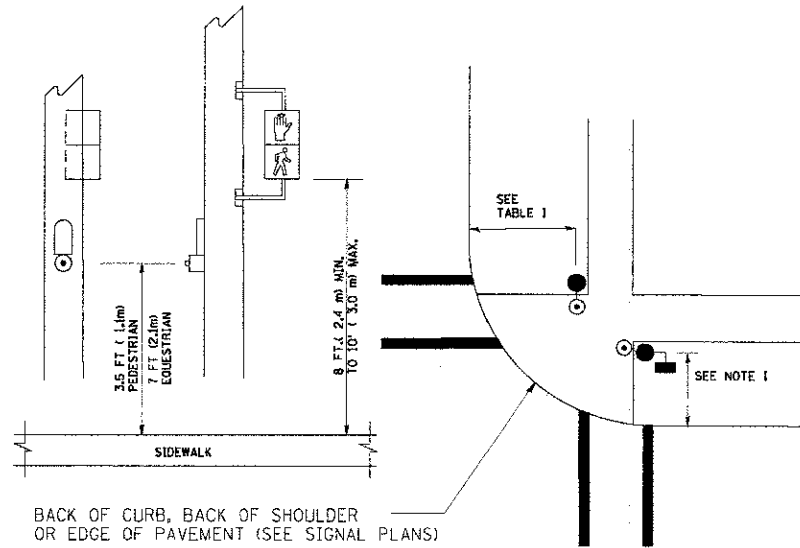
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

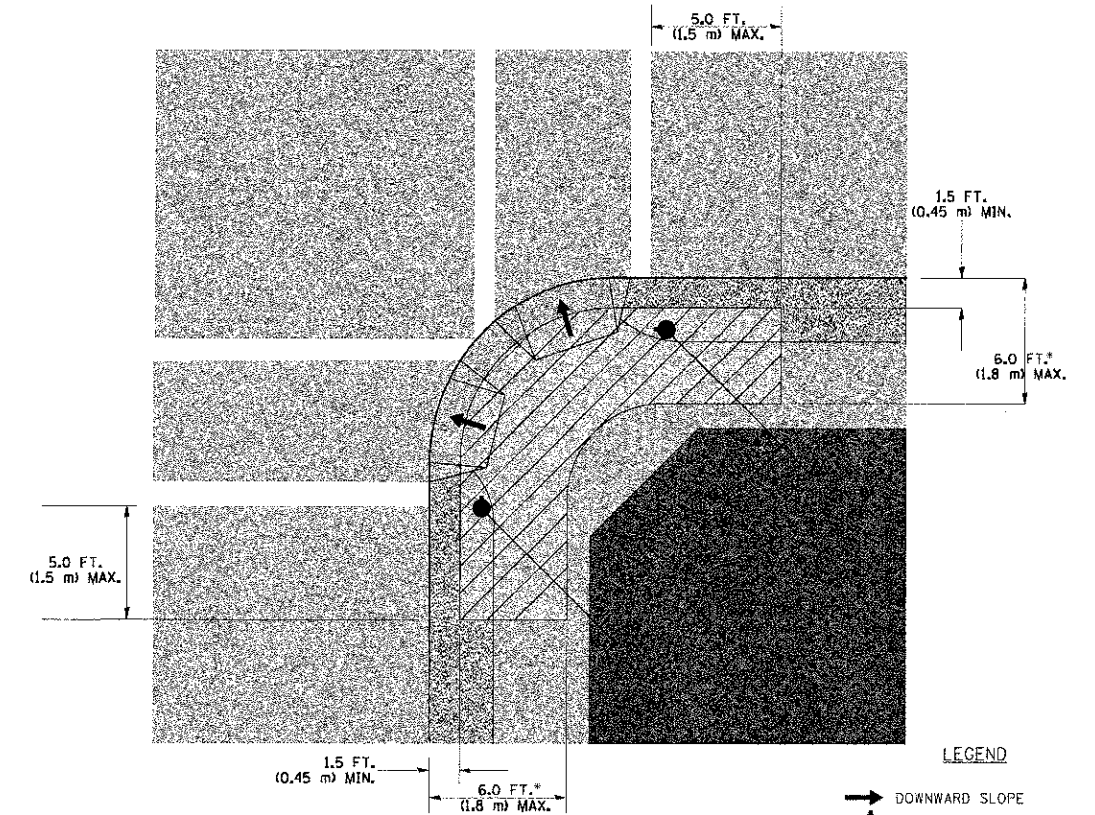
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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:

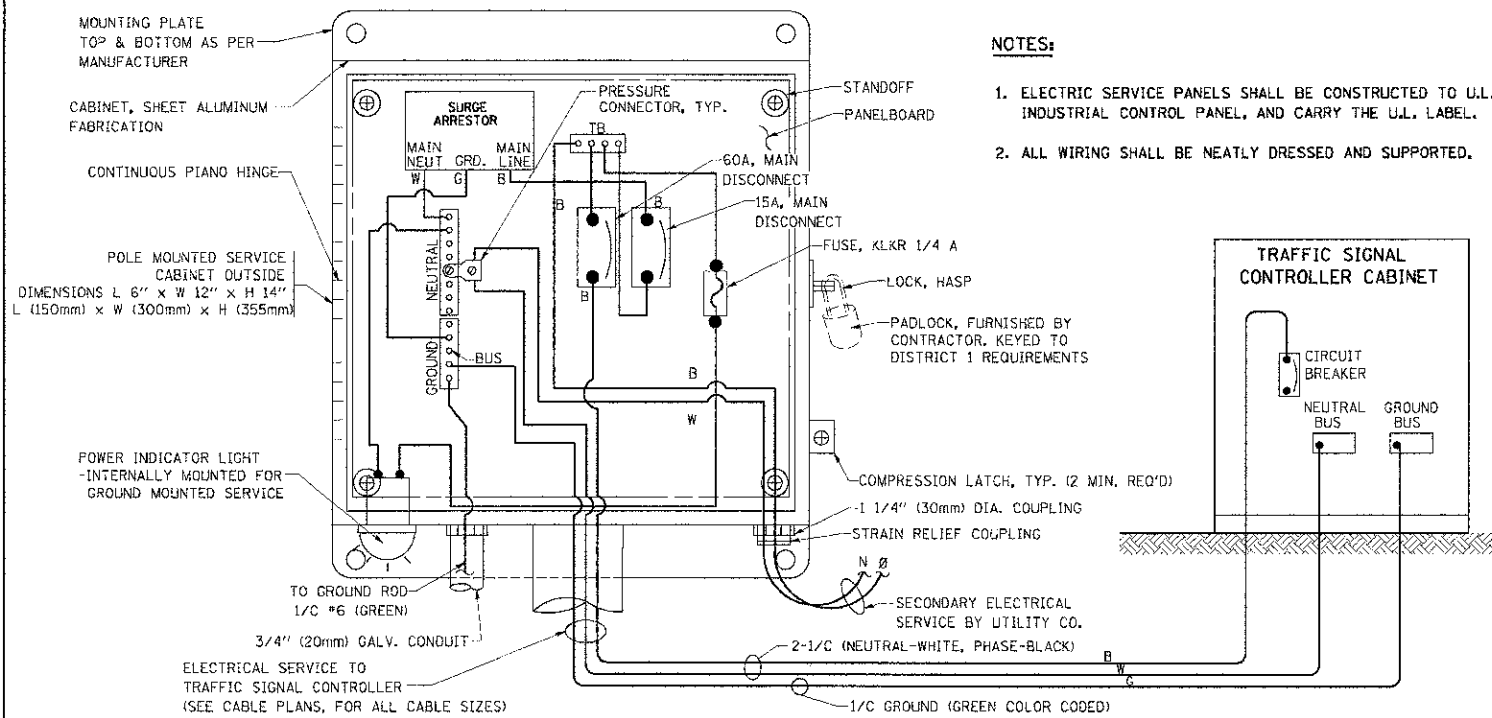
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM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

TRAFFIC SIGNAL EQUIPMENT OFFSET

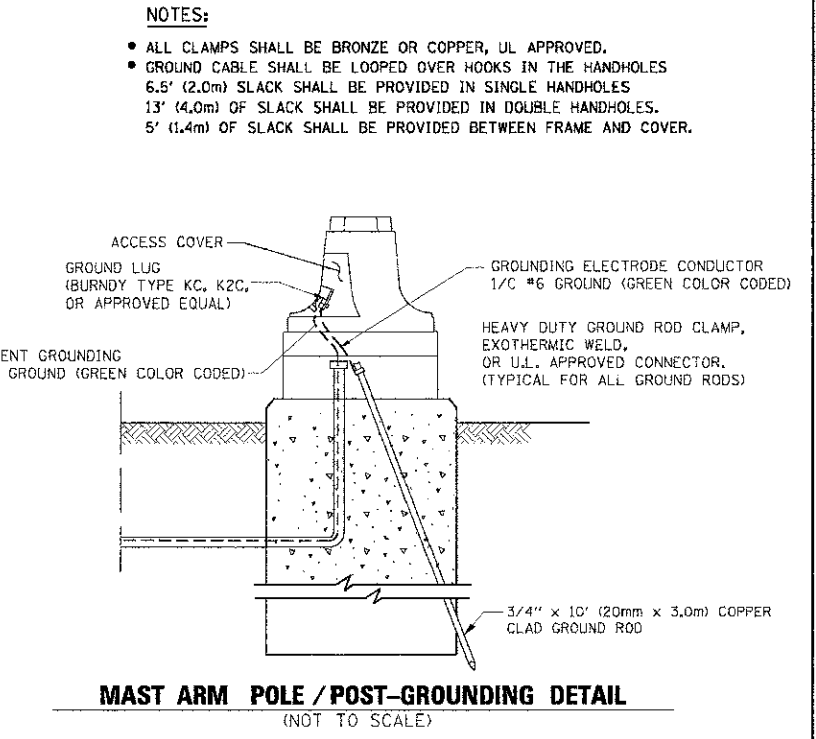
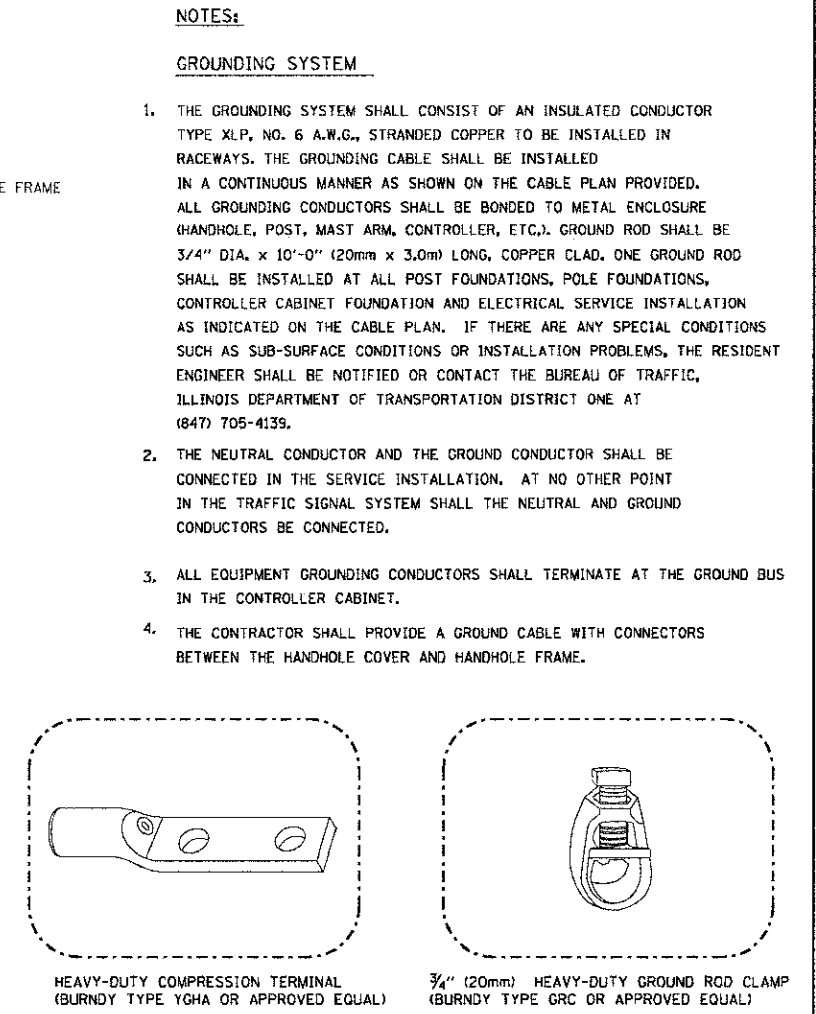
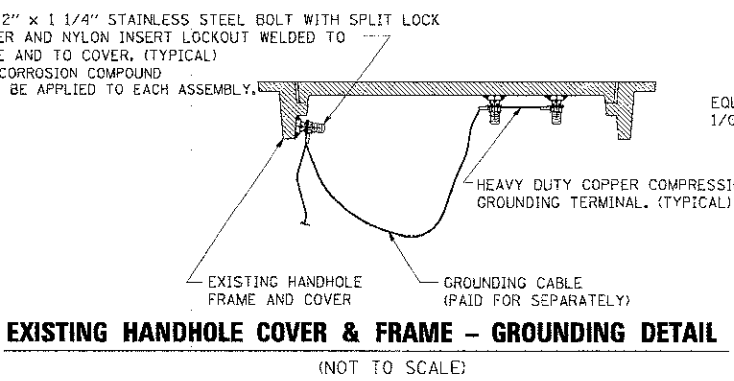
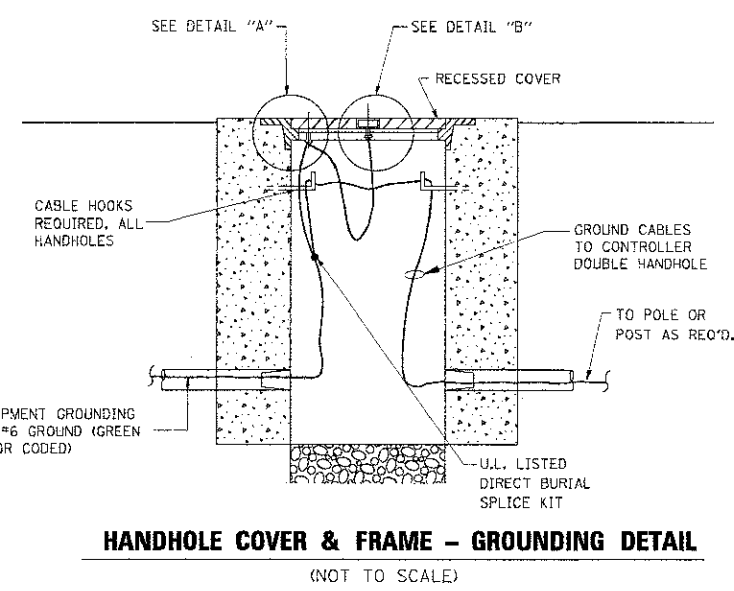
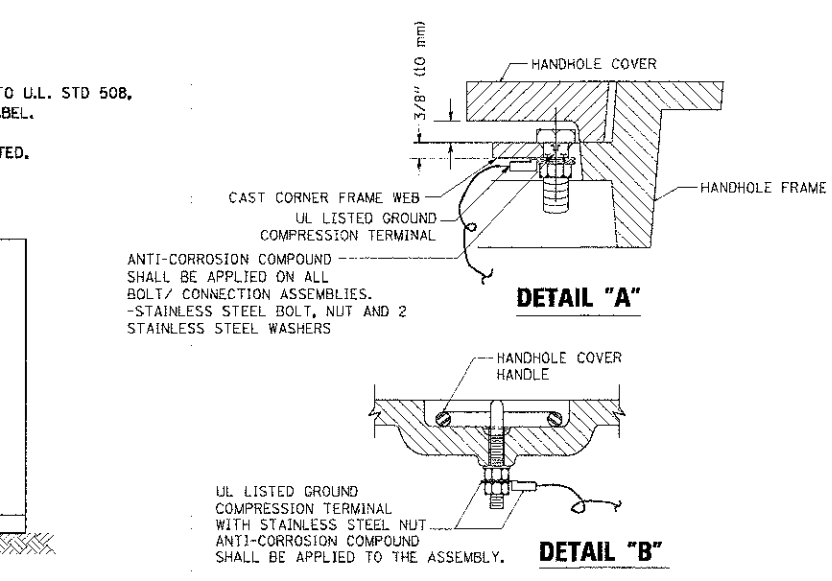
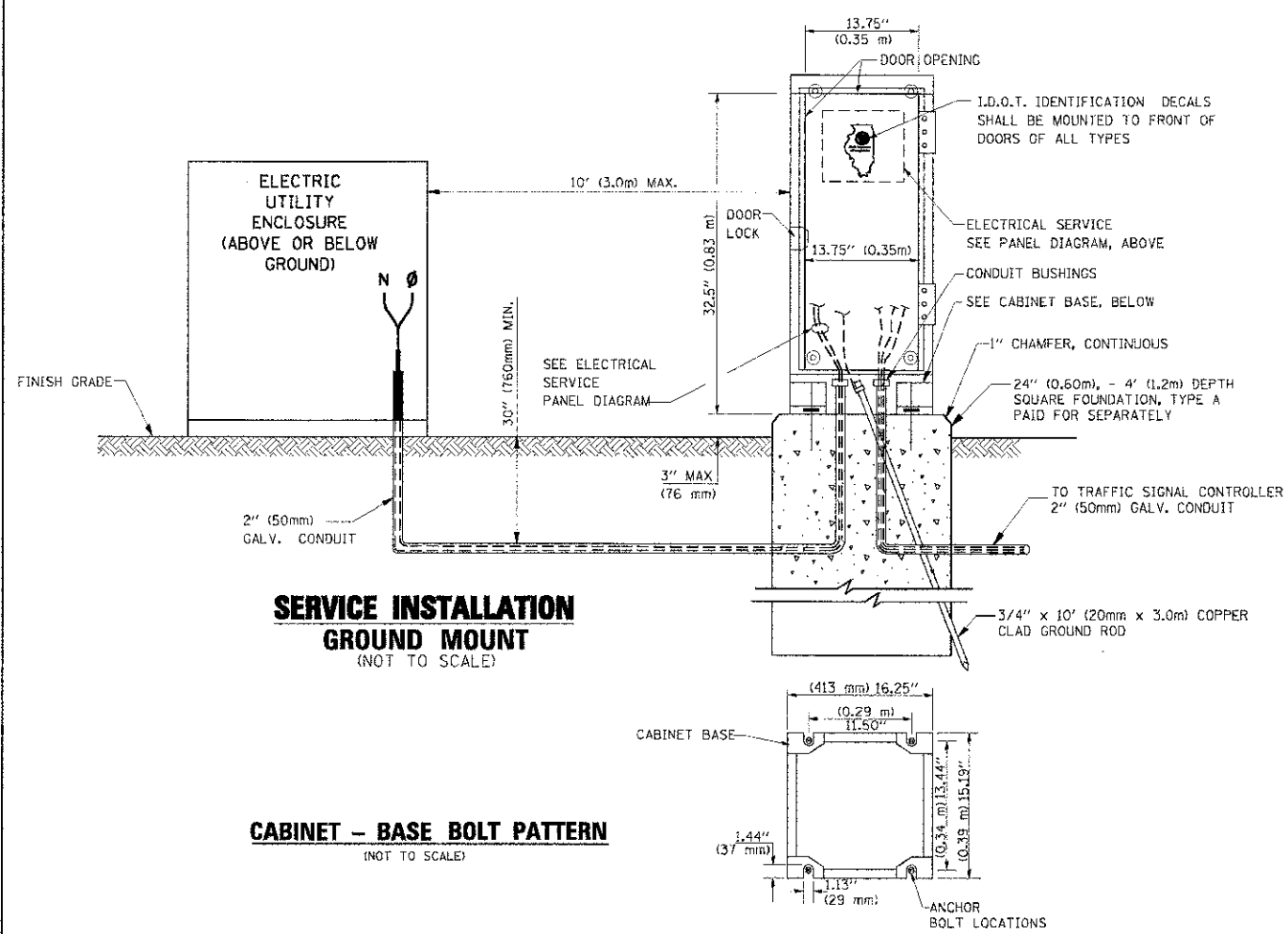
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

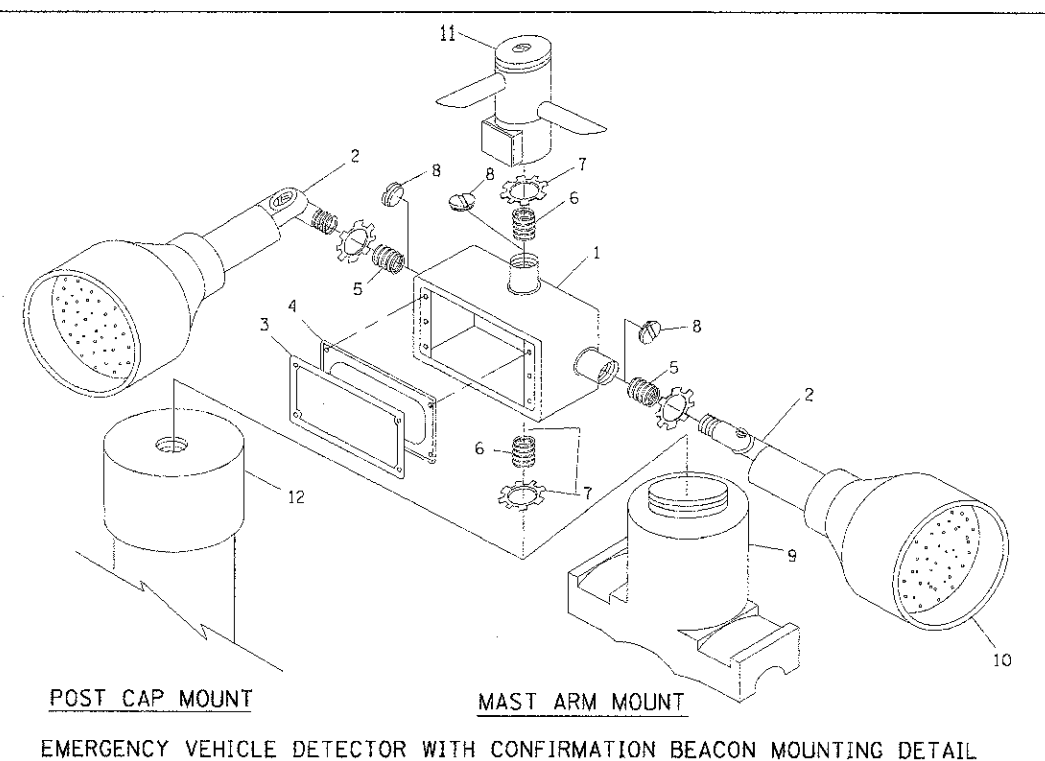
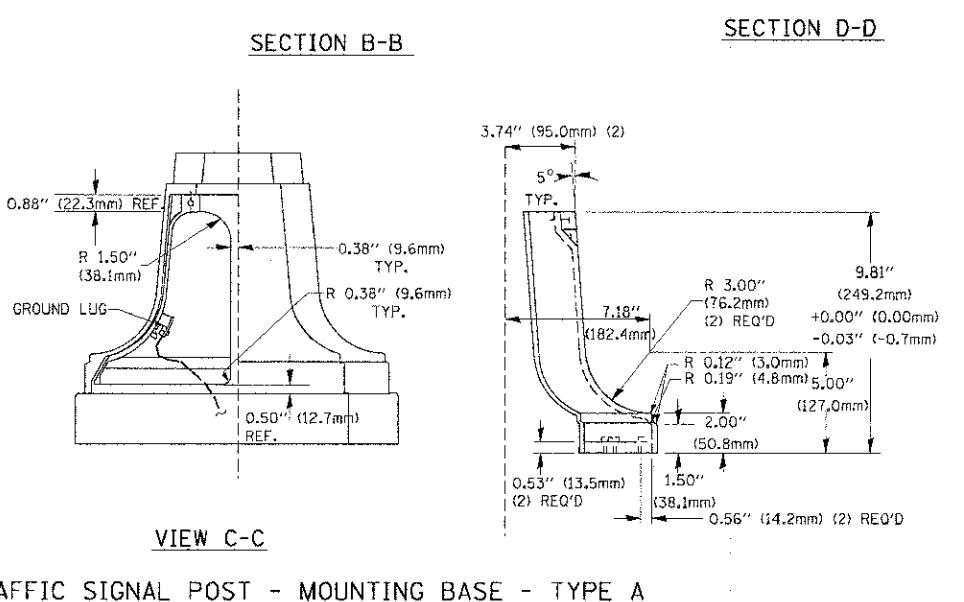
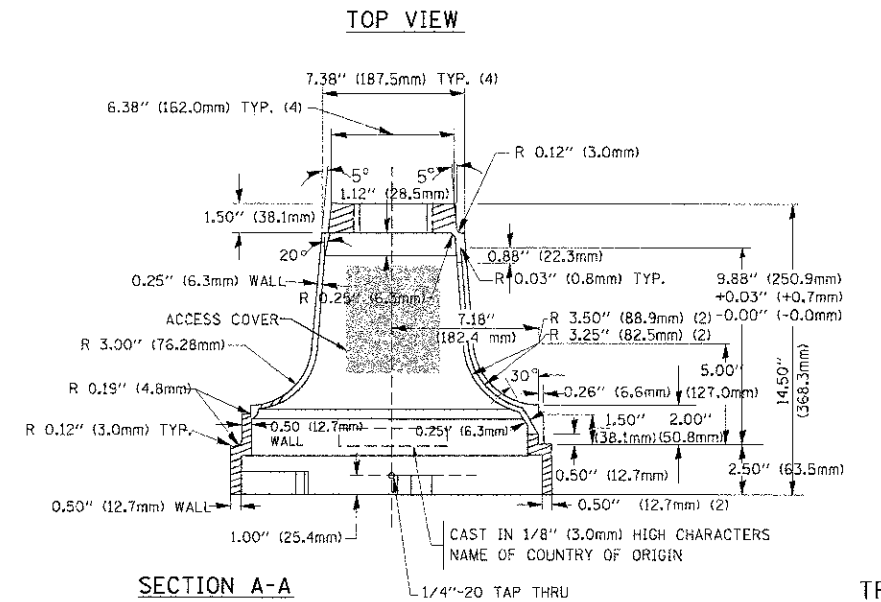
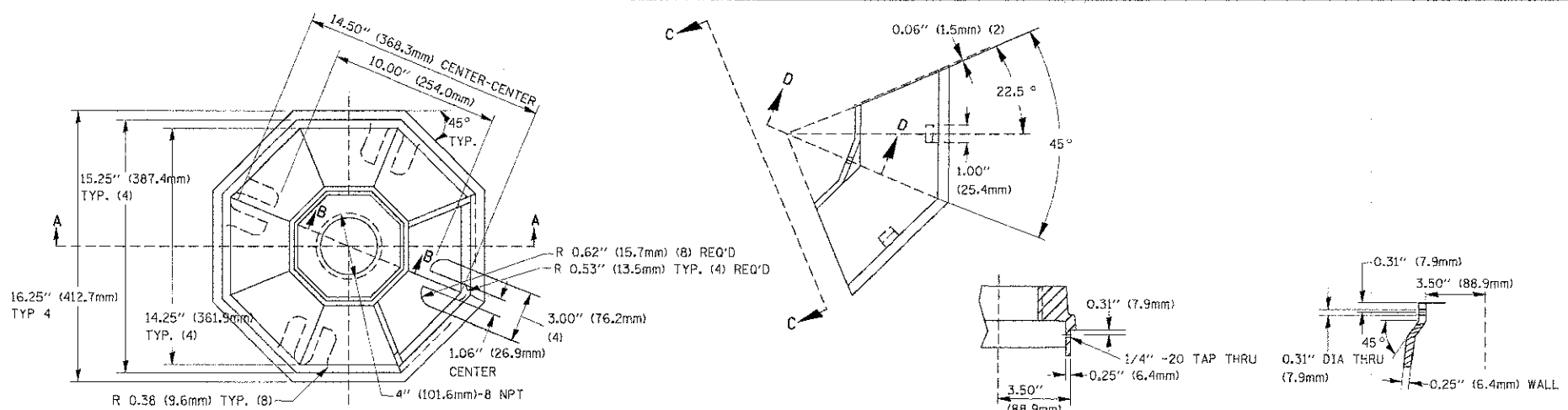
NOTES:

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.



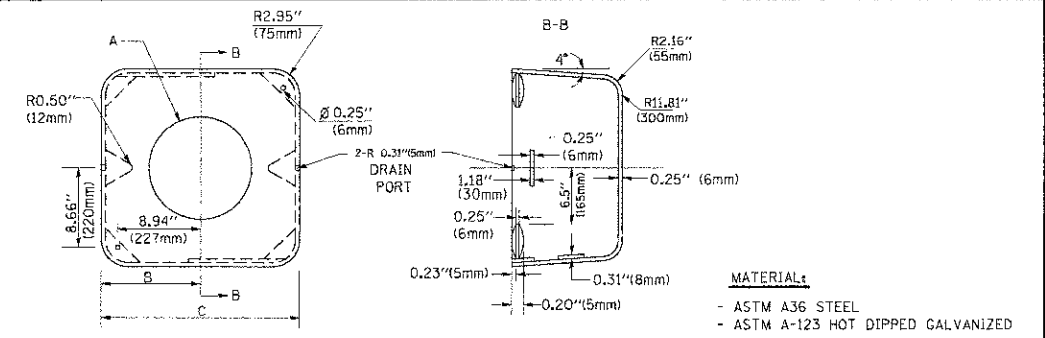
**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)**





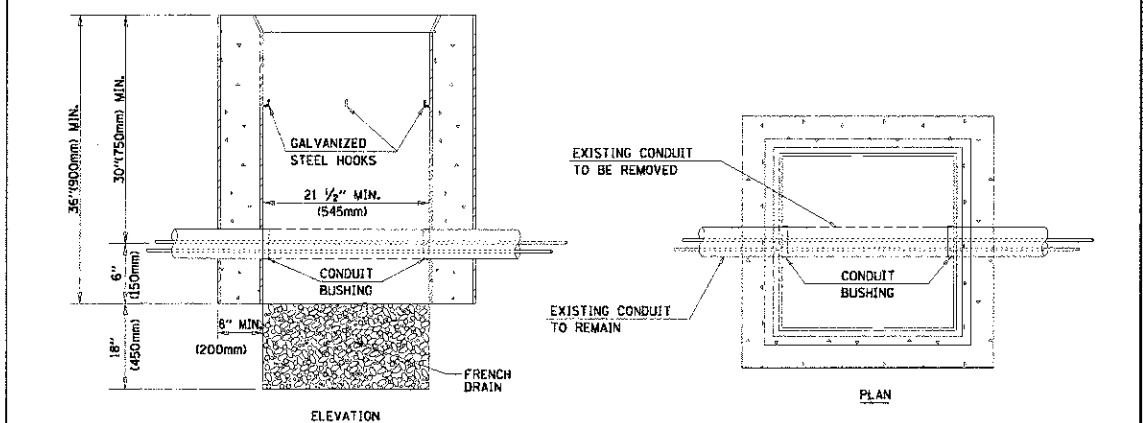
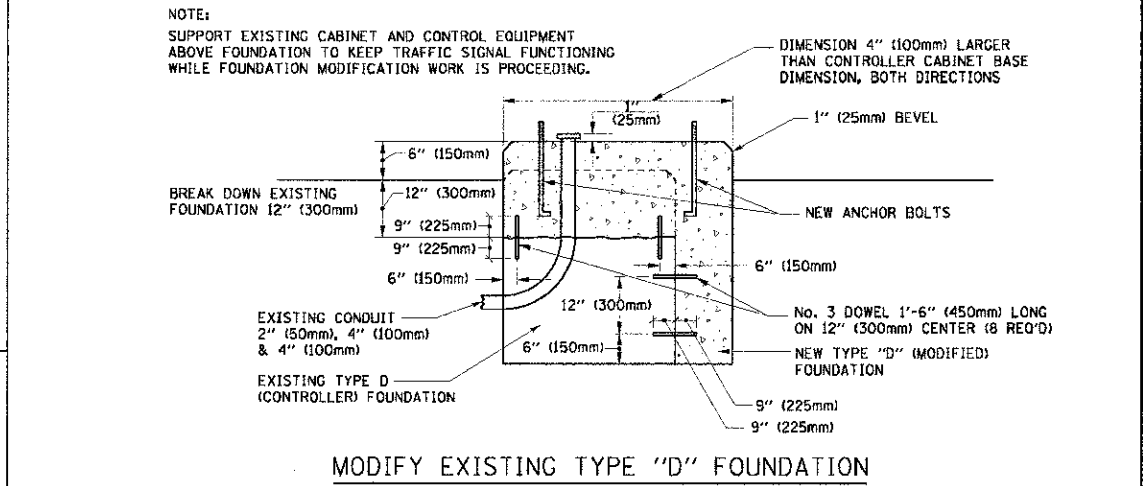
ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU. M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	1/4\" (19 mm) CLOSE NIPPLE
7	1/4\" (19 mm) LOCKNUT
8	1/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR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

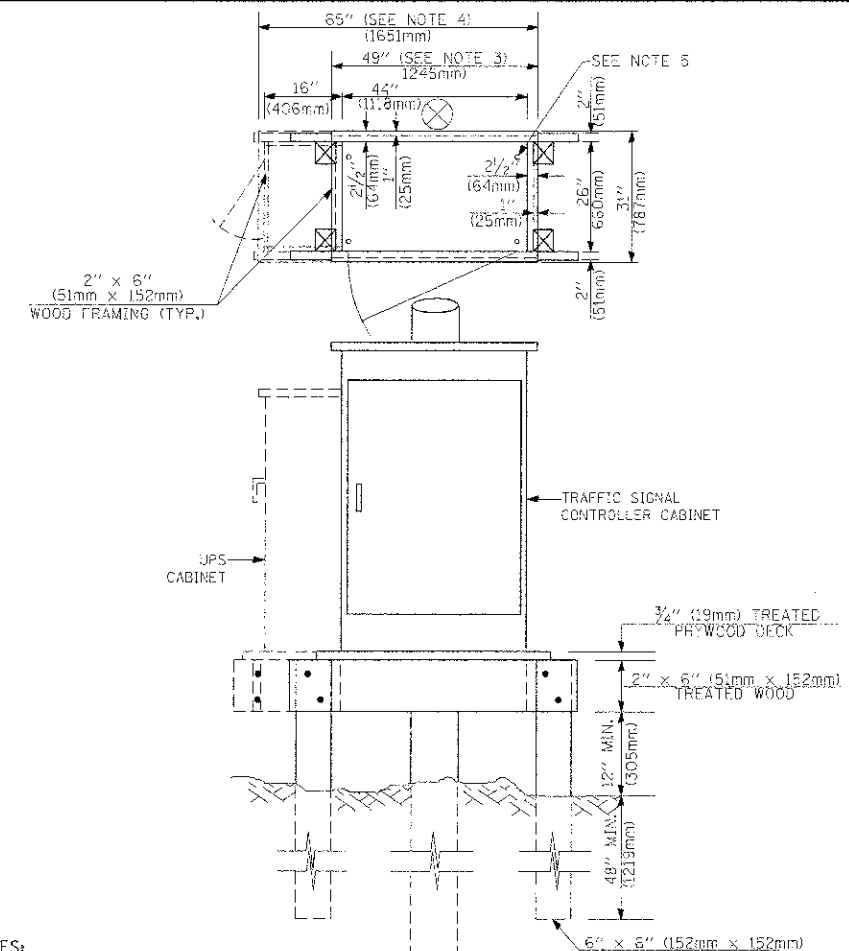
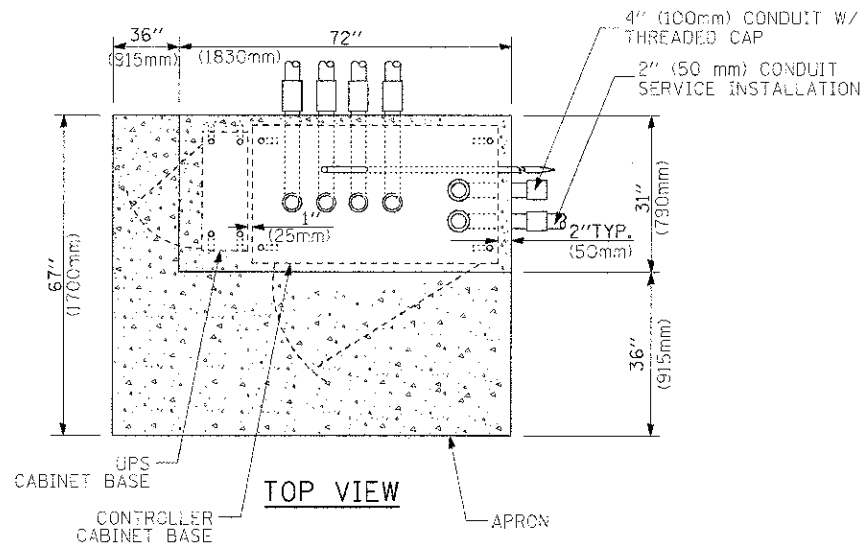
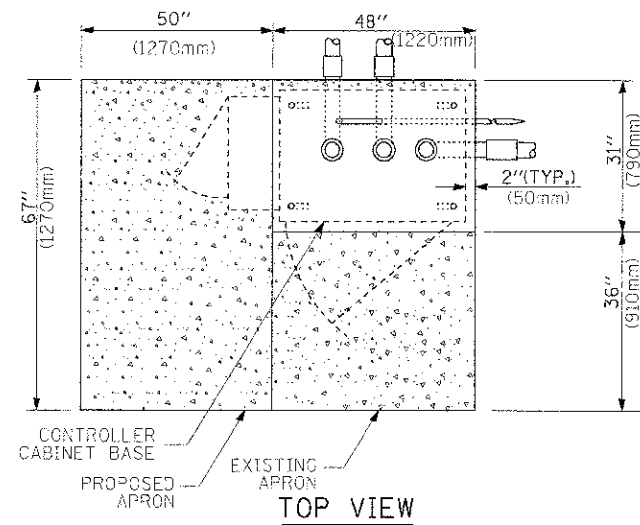


A	B	C	HEIGHT	WEIGHT
VARIES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) -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

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

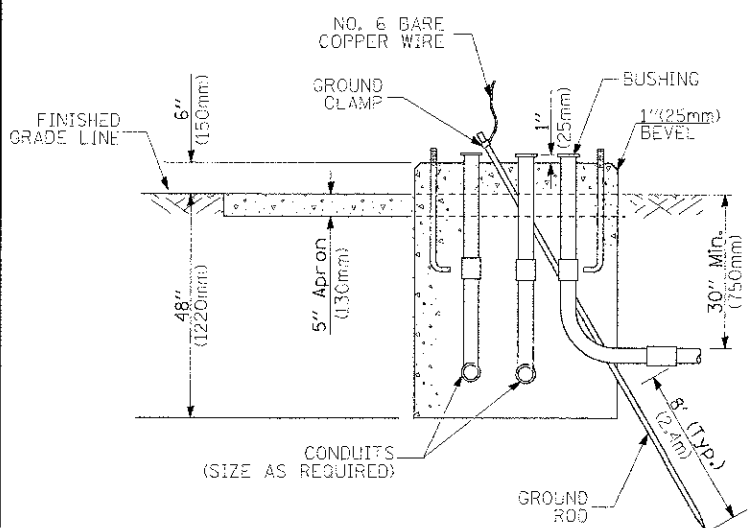


- NOTES:**
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

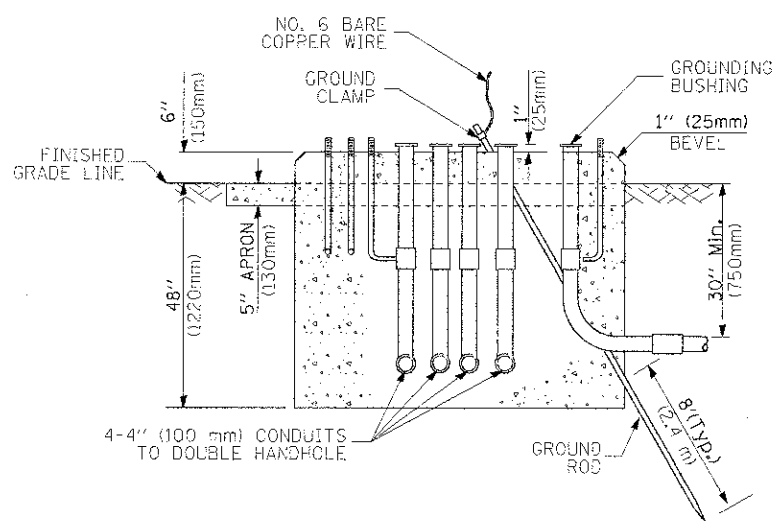


- NOTES:**
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET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

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM



TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET

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

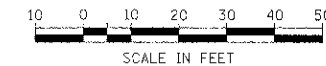
Mast Arm Length	Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal 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 up to 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 less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average unconfined compressive strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
 2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			SIGNAL POST AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
GUY WIRE				ABANDON ITEM	A			SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED 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				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				RAILROAD SYMBOLS			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				EXISTING PROPOSED			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT							
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER							
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED							
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											



THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. A LIST OF EQUIPMENT SHALL ALSO BE PROVIDED TO THE CITY'S ENGINEERING DEPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVE ITEMS TO BE PAID FOR SEPARATELY).

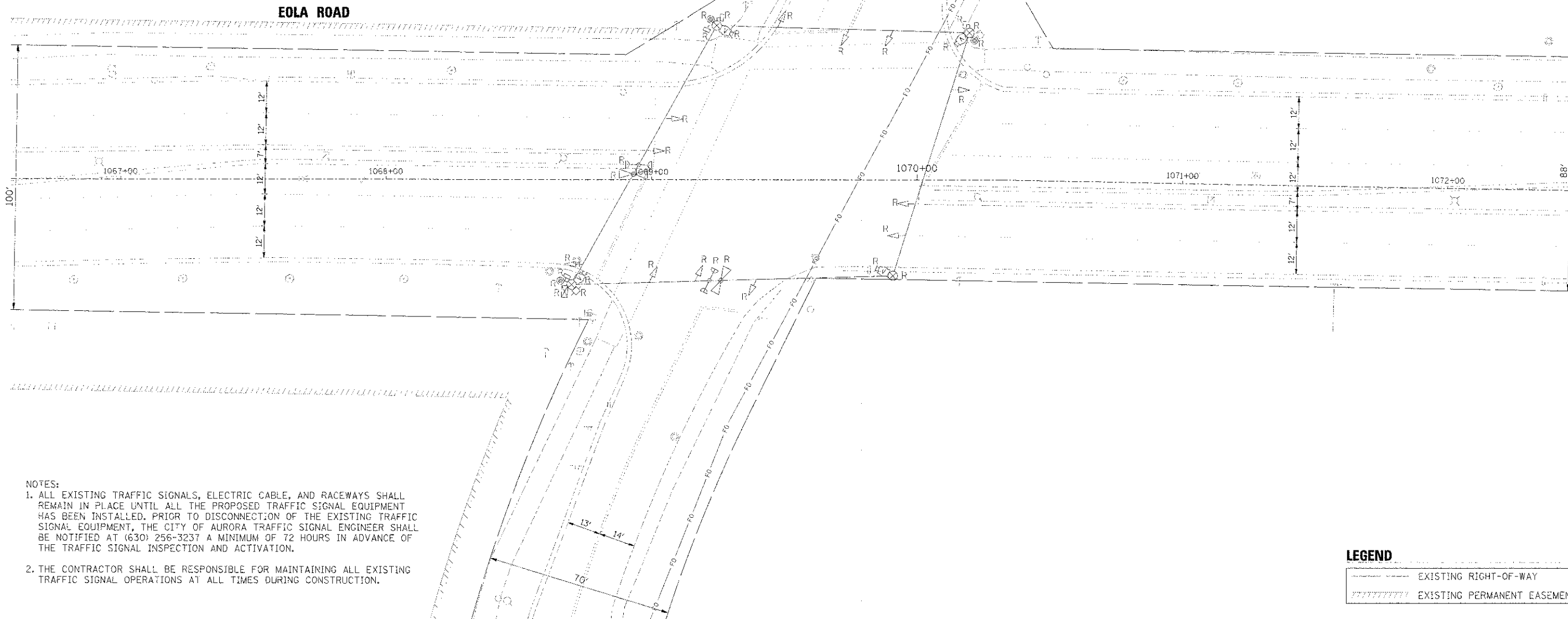
- 4 EACH TRAFFIC SIGNAL WOOD POLES
- 4 EACH VIDEO DETECTION CAMERAS
- 2 EACH LIGHT DETECTORS
- 2 EACH CONFIRMATION BEACONS
- 12 EACH TRAFFIC SIGNAL HEADS
- 4 EACH PEDESTRIAN SIGNAL HEADS
- 3 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO EITHER MR. ERIC GALLI (630-256-3237) OR MR. STEVE ZABURUNOV (630-688-8414) ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

DATE	
BY	
CHECKED	
DATE	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	

DATE	
BY	
CHECKED	
DATE	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	



NOTES:

1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3237 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



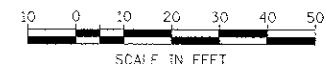
USER NAME	MJF	DESIGNED	MJF
CHECKED	APS	REVISIONS	
DATE	12/27/2012	REVISIONS	
FILE NAME	6190 11.0103\hbf-hafenrichter.dgn		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED
HAFENRICHTER ROAD**

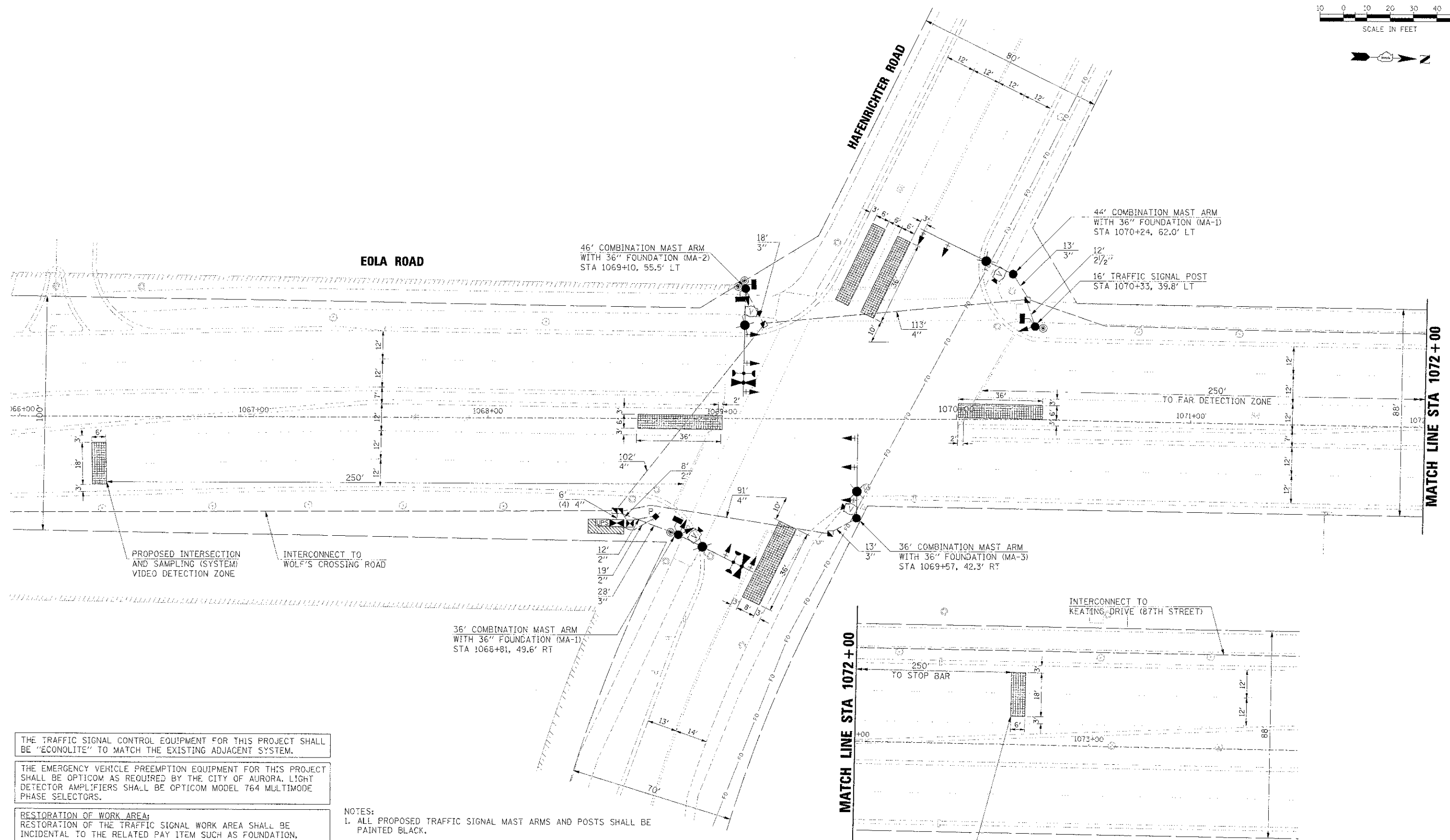
SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
253	11-00296-C0-TL	DUPAGE/WILL	48	11
CONTRACT NO. 63786				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



DATE	3/1/12
BY	MF
PROJECT	TRAFFIC SIGNAL
PLANNED	
NOTED	
NO.	

DATE	3/1/12
BY	MF
PROJECT	TRAFFIC SIGNAL
PLANNED	
NOTED	
NO.	



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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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

- NOTES:**
1. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS SHALL BE PAINTED BLACK.
 2. THE PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.
 3. AN ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET AT HAFENRICHTER ROAD (SEE SPECIAL PROVISIONS).

LEGEND

---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

HRGreen.com	USER NAME = MFelie	DESIGNED = MJF	REVISED =
Illinois Professional Design Firm #184-001922	PLT SCALE =	CHECKED = APS	REVISED =
	PLT DATE = 1/24/2012	DATE = 12/27/2012	REVISED =
	FILE NAME = 692.11.sig/KIP_hafenrichter.dgn		REVISED =

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 HAFENRICHTER ROAD**

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

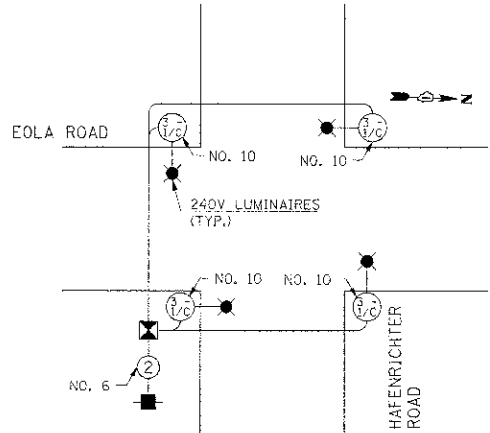
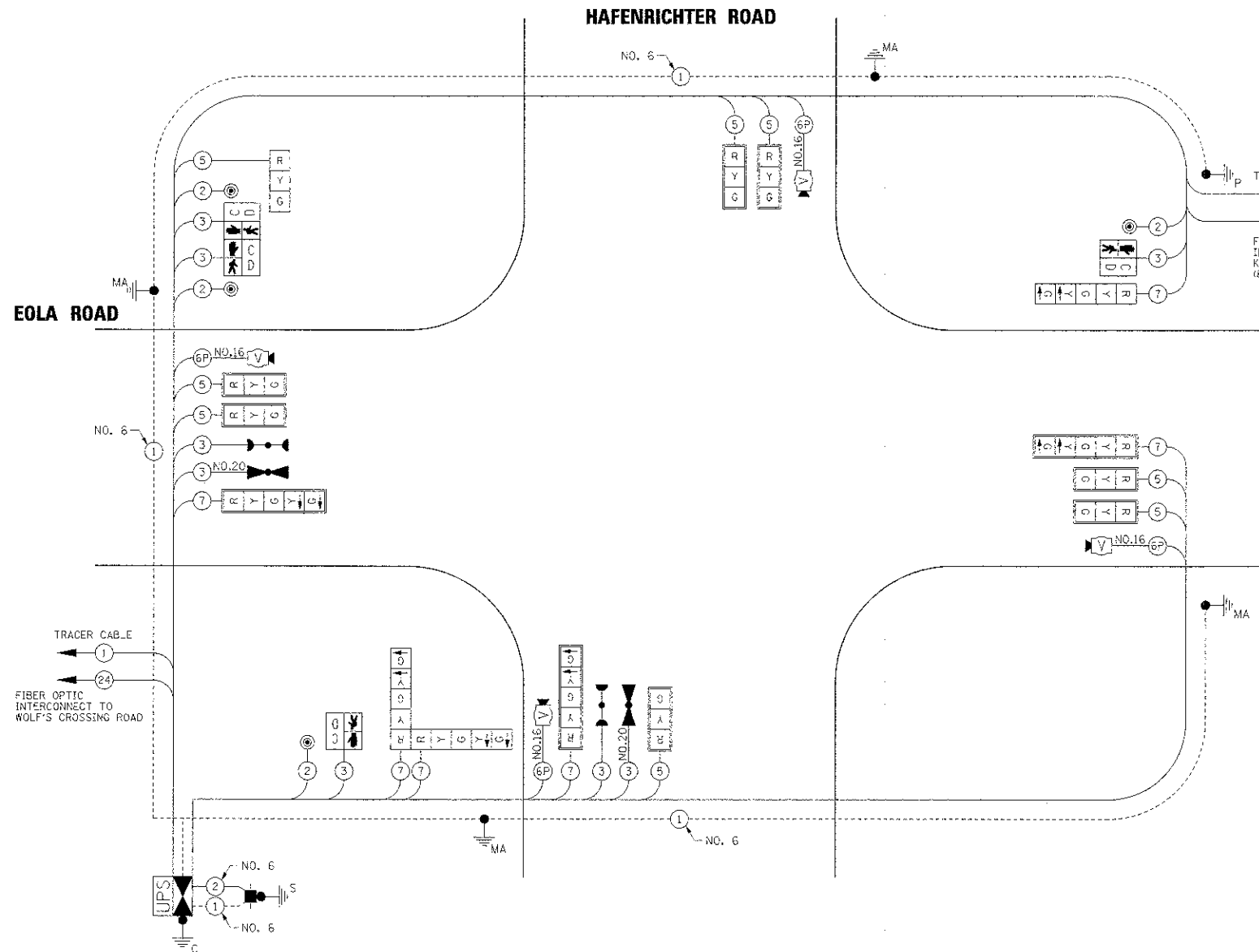
F.A.I. RTE. 2531	SECTION 11-00296-00-TL	COUNTY DUPAGE/WILL	TOTAL SHEETS 48
			SHEET NO. 12
			CONTRACT NO. 63786
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

PLAN
 NO. 10
 DATE: 12/27/2012
 PROJECT: HAFENRICHTER ROAD
 SHEET: 48 OF 48
 DRAWN BY: M.J.F.
 CHECKED BY: A.P.S.
 DATE: 12/27/2012

DATE: 12/27/2012
 PROJECT: HAFENRICHTER ROAD
 SHEET: 48 OF 48
 DRAWN BY: M.J.F.
 CHECKED BY: A.P.S.
 DATE: 12/27/2012

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	HAFENRICHTER ROAD
SIGN PANEL - TYPE 1	SQ FT	12
SIGN PANEL - TYPE 2	SQ FT	22.5
ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	39
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	12
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	72
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	330
HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/2" NO. 10	FOOT	860
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	1
PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FOOT	EACH	2
PAINT NEW COMBINATION MAST ARM AND POLE, 40 FOOT AND OVER	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	659
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1016.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 6C	FOOT	1499.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	931
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	860
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	73
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	531
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4641
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET SWITCH	EACH	1
VIDEO DETECTION SYSTEM	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	328.5

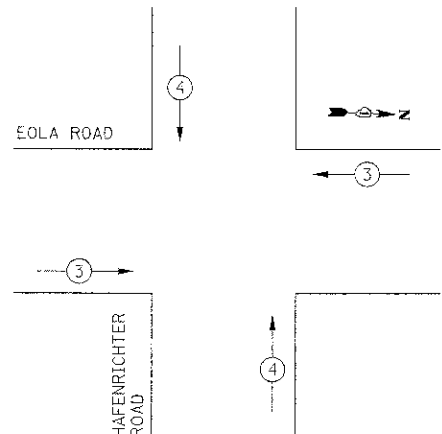


LIGHTING CABLE PLAN

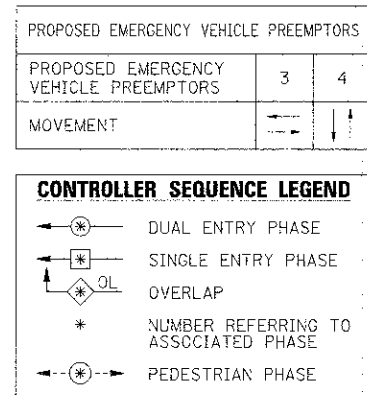
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	87.5
(GREEN)	14		15	0.25	52.5
ARROW	12		12	0.10	14.4
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
VIDEO SYSTEM	1		15	1.00	15
LUMINAIRE	4		250	0.50	500
TOTAL =					988.4

ENERGY COSTS TO: CITY OF AURORA
 44 E. DOWNER PLACE
 AURORA, ILLINOIS 60507-2067

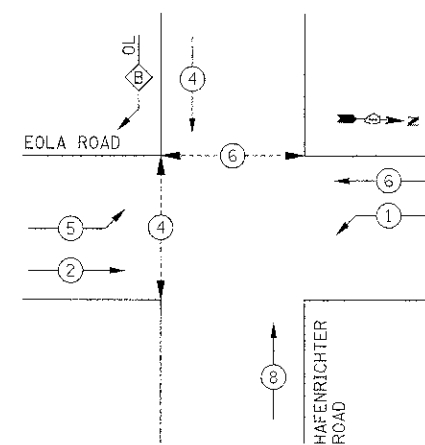
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
 PHONE: (630) 723-2128
 COMPANY: COMMONWEALTH EDISON



EMERGENCY VEHICLE PREEMPTION SEQUENCE



CONTROLLER SEQUENCE



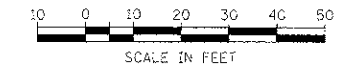
PHASE DESIGNATION DIAGRAM

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
3	= 4	+ 5

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL T64 MULTIMODE PHASE SELECTORS.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. A LIST OF EQUIPMENT SHALL ALSO BE PROVIDED TO THE CITY'S ENGINEERING DEPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVE ITEMS TO BE PAID FOR SEPARATELY).

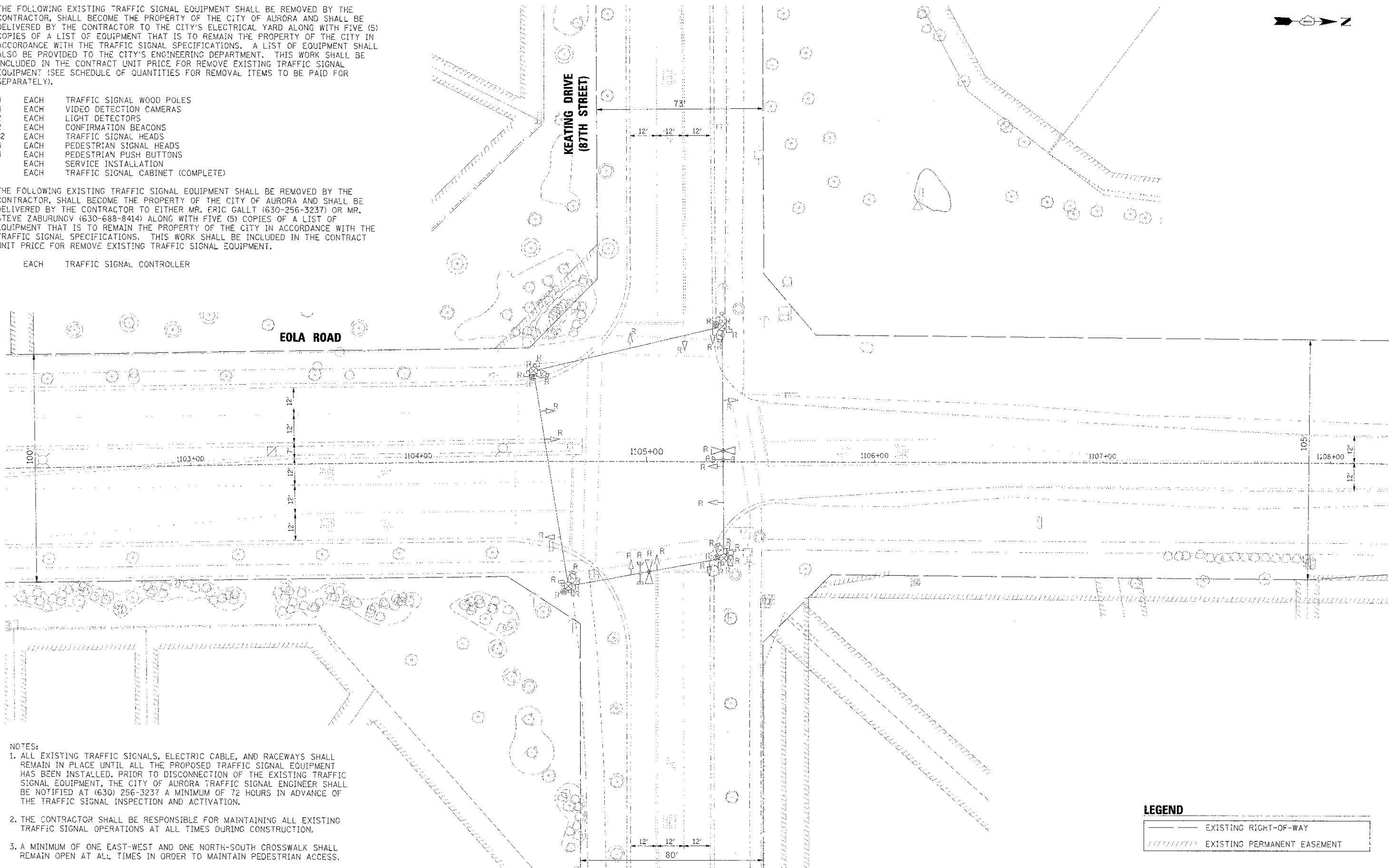
- 4 EACH TRAFFIC SIGNAL WOOD POLES
- 4 EACH VIDEO DETECTION CAMERAS
- 2 EACH LIGHT DETECTORS
- 2 EACH CONFIRMATION BEACONS
- 12 EACH TRAFFIC SIGNAL HEADS
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 4 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO EITHER MR. ERIC GALLT (630-256-3237) OR MR. STEVE ZABURUNOV (630-688-8414) ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

PLAN	SURVEYED	DATE
NOTE BOOK	DATE	
NO.	BY	

PROFILE	SURVEYED	DATE
NOTE BOOK	DATE	
NO.	BY	

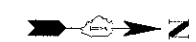
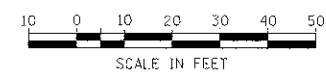


- NOTES:
1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3237 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
 3. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

LEGEND

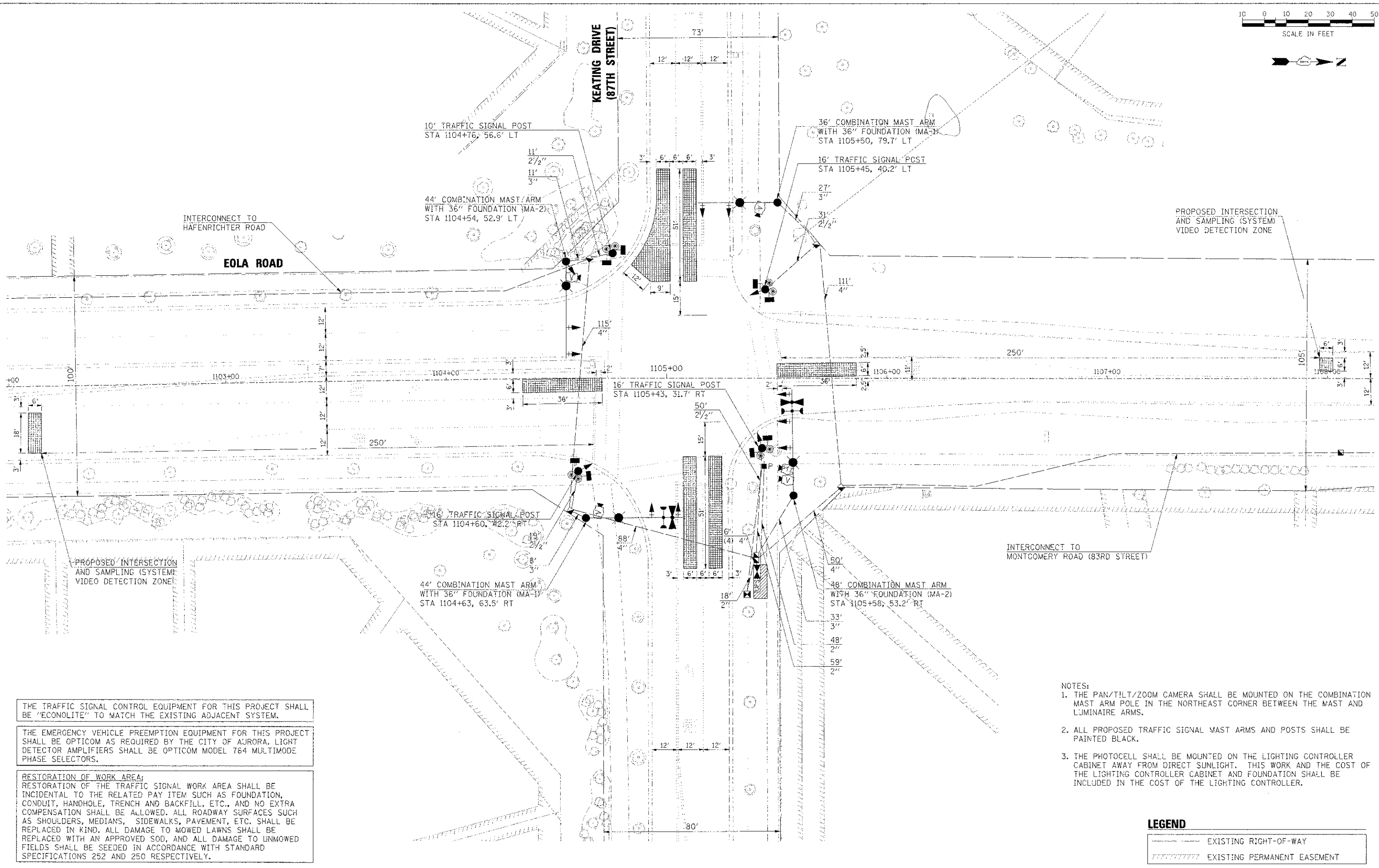
---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

	USER NAME = MPfeller PLOT SCALE = PLOT DATE = 12/27/2013 FILE NAME = 698.111.dwg@2a.keating.dgn	DESIGNED - M.J.F. CHECKED - AFS DATE - 12/27/2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED KEATING DRIVE (87TH STREET)	F.A.U. RTE. 2531	SECTION 11-00296-00-TL	COUNTY	TOTAL SHEETS 48	SHEET NO. 15	CONTRACT NO. 63786
	SCALE:	SHEET NO. OF SHEETS	STA. TO STA.			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				



PLAN	DATE
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PROFILE	DATE
REVISIONS	
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BY	



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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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

- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE NORTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.
 2. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS SHALL BE PAINTED BLACK.
 3. THE PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.

LEGEND

---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



USER NAME	MJF
DESIGNED	MJF
REVISIONS	
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DATE	
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CHECKED	APS
REVISIONS	
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DATE	12/27/2012
BY	
FILE NAME	S:\98.11.12\22b.keating.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**TRAFFIC SIGNAL INSTALLATION PLAN
KEATING DRIVE (87TH STREET)**

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.D.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
2531	11-00296-00-TL	DUPAGE/WILL	48
			16
			CONTRACT NO. 63786
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

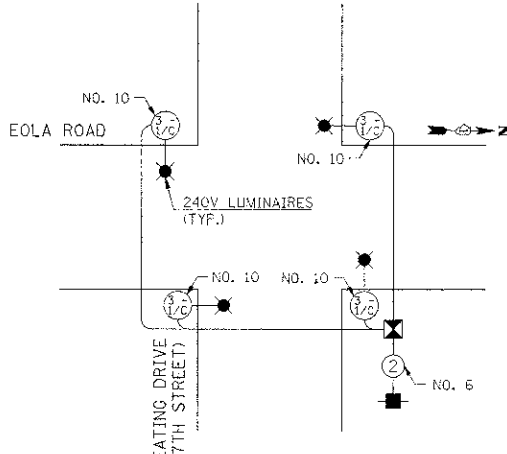
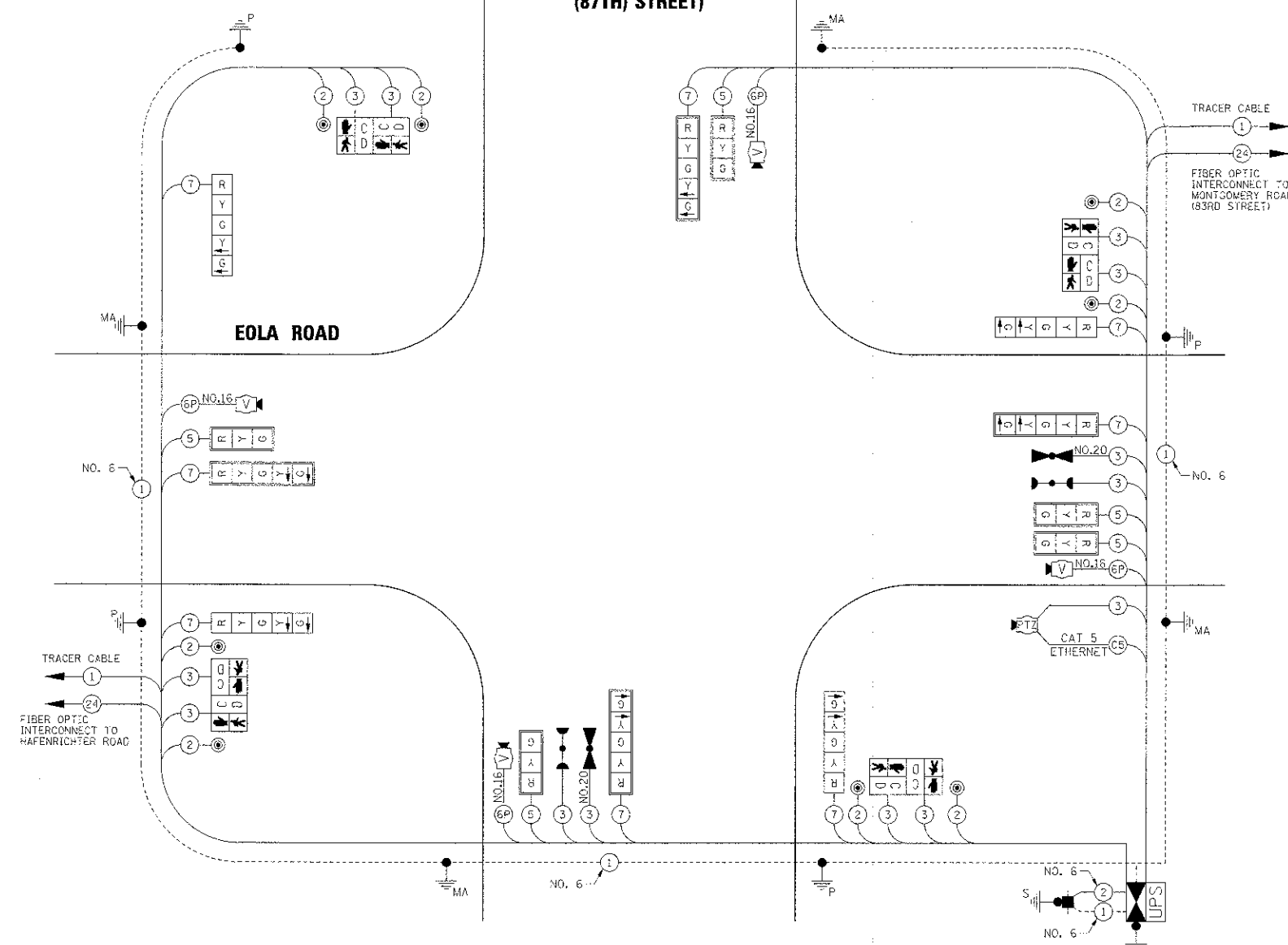
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SCHEDULE OF QUANTITIES

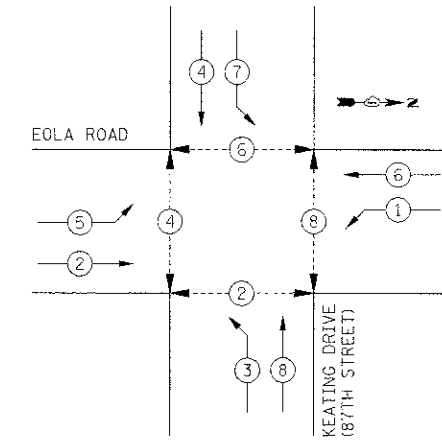
PAY ITEM DESCRIPTION	UNIT	KEATING DRIVE
SIGN PANEL - TYPE 1	SQ FT	27
ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	125
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	111
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	79
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	388
HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/0 NO. 10	FOOT	917.5
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	4
PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FOOT	EACH	1
PAINT NEW COMBINATION MAST ARM AND POLE, 40 FOOT AND OVER	EACH	3
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1467
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1930
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	967
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1652
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	917.5
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	149
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	606
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	9
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4933
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 5 ETHERNET CABLE	FOOT	86.5
VIDEO DETECTION SYSTEM	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	320.5
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1

KEATING DRIVE (87TH STREET)

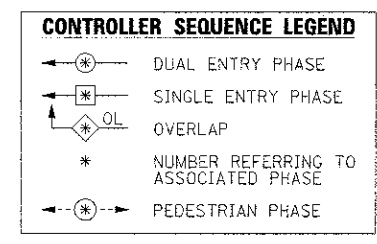
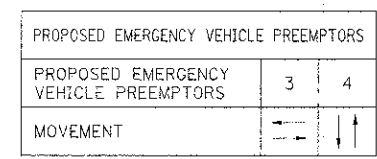


LIGHTING CABLE PLAN

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		0.25		45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
VIDEO SYSTEM	1		15	1.00	15
LUMINAIRE	4	250		0.50	500
				TOTAL =	1056.2

ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON

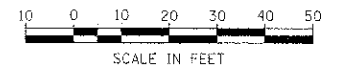
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

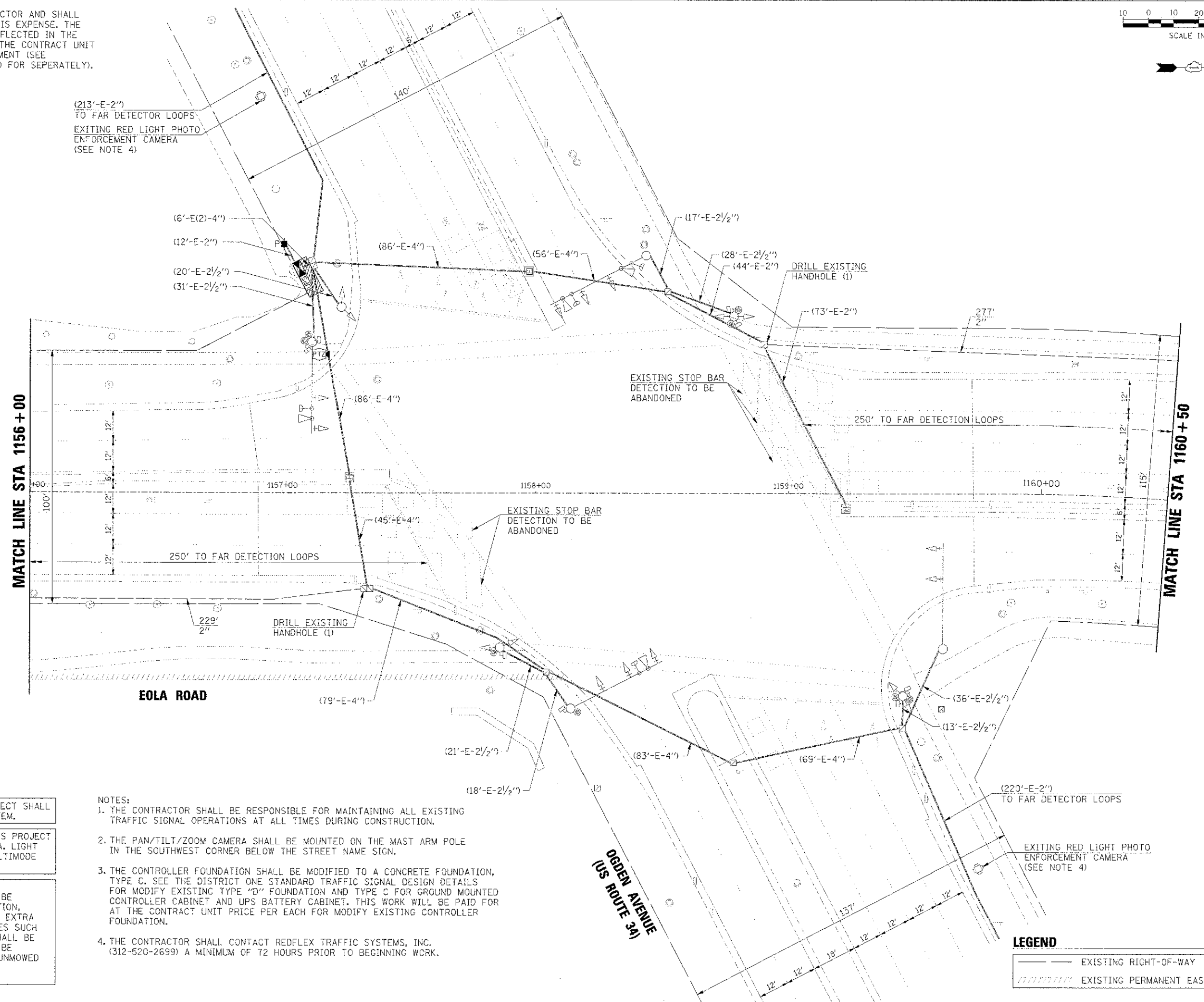
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)
- 1 EACH TRAFFIC SIGNAL CONTROLLER



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PROFILE	DATE	BY
REVISION	DATE	BY
NOTED	DATE	BY
NO.		



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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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

- NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
 2. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE MAST ARM POLE IN THE SOUTHWEST CORNER BELOW THE STREET NAME SIGN.
 3. THE CONTROLLER FOUNDATION SHALL BE MODIFIED TO A CONCRETE FOUNDATION, TYPE C. SEE THE DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS FOR MODIFY EXISTING TYPE "D" FOUNDATION AND TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR MODIFY EXISTING CONTROLLER FOUNDATION.
 4. THE CONTRACTOR SHALL CONTACT REDFLEX TRAFFIC SYSTEMS, INC. (312-520-2699) A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.

LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



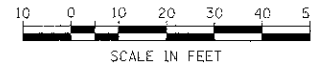
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**TRAFFIC SIGNAL MODIFICATION PLAN
OGDEN AVENUE (US ROUTE 34)
(SHEET 1 OF 2)**

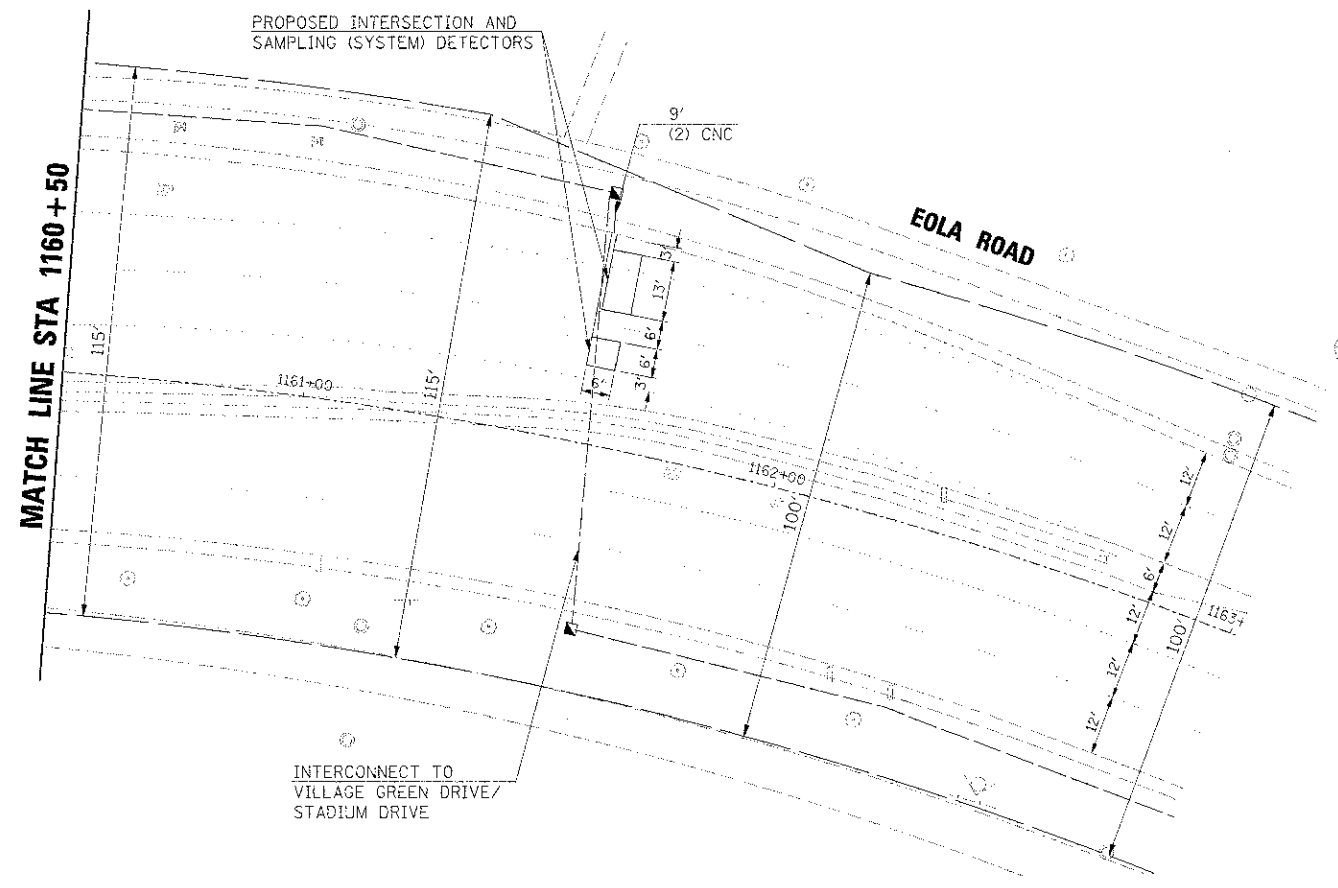
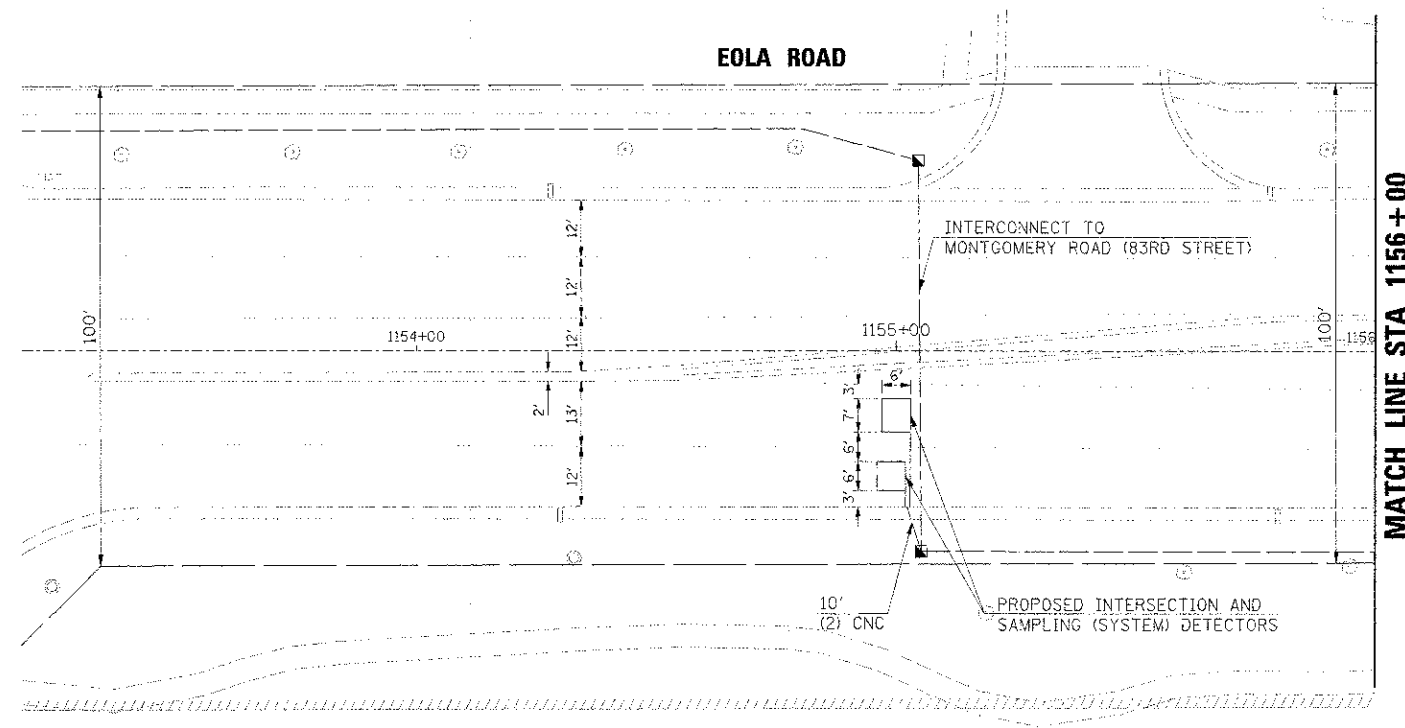
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F.A./J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	DUPAGE/WILL	48	19
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 63786	



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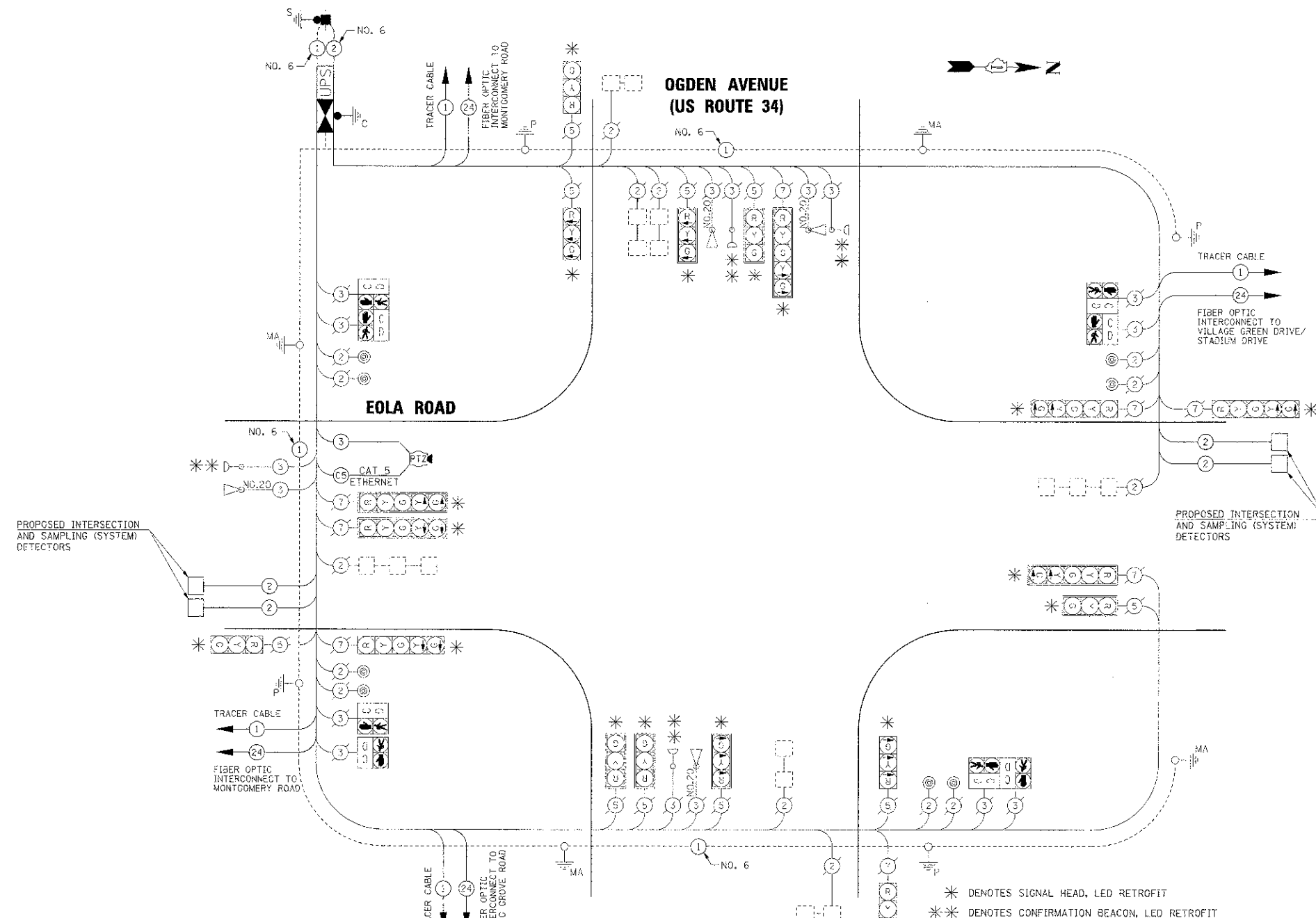
RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

LEGEND

---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

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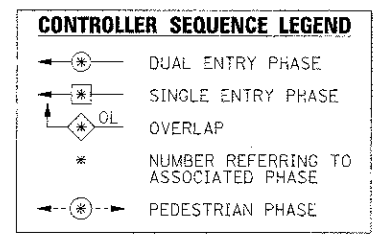
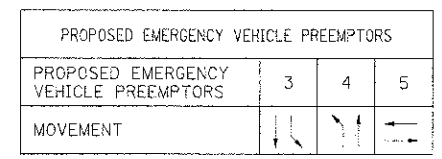
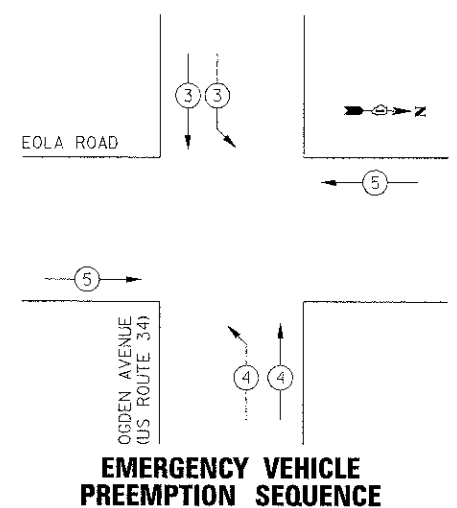
SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	OGDEN AVENUE
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	606
HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	9
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	84.5
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1434.6
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	33
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	857.5
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	11
DETECTOR LOOP, TYPE I	FOOT	156
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1028.5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 5 ETHERNET CABLE	FOOT	84.5
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	4

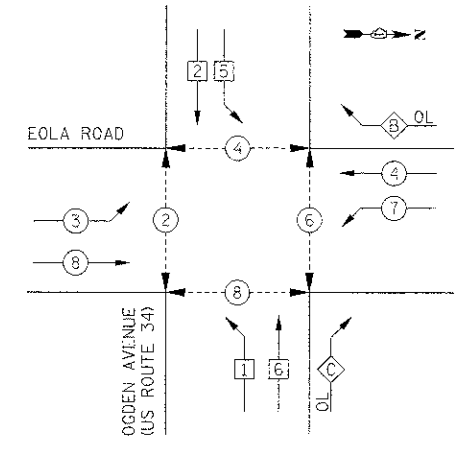
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	87.5
(GREEN)	14		15	0.25	52.5
ARROW	28		12	0.10	33.6
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					492.6

ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON



CONTROLLER SEQUENCE



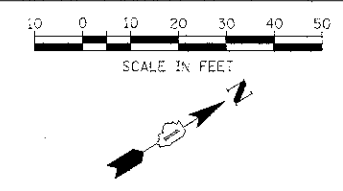
OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
B =	4 +	5
C =	6 +	7

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

PHASE DESIGNATION DIAGRAM



THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. A LIST OF EQUIPMENT SHALL ALSO BE PROVIDED TO THE CITY'S ENGINEERING DEPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

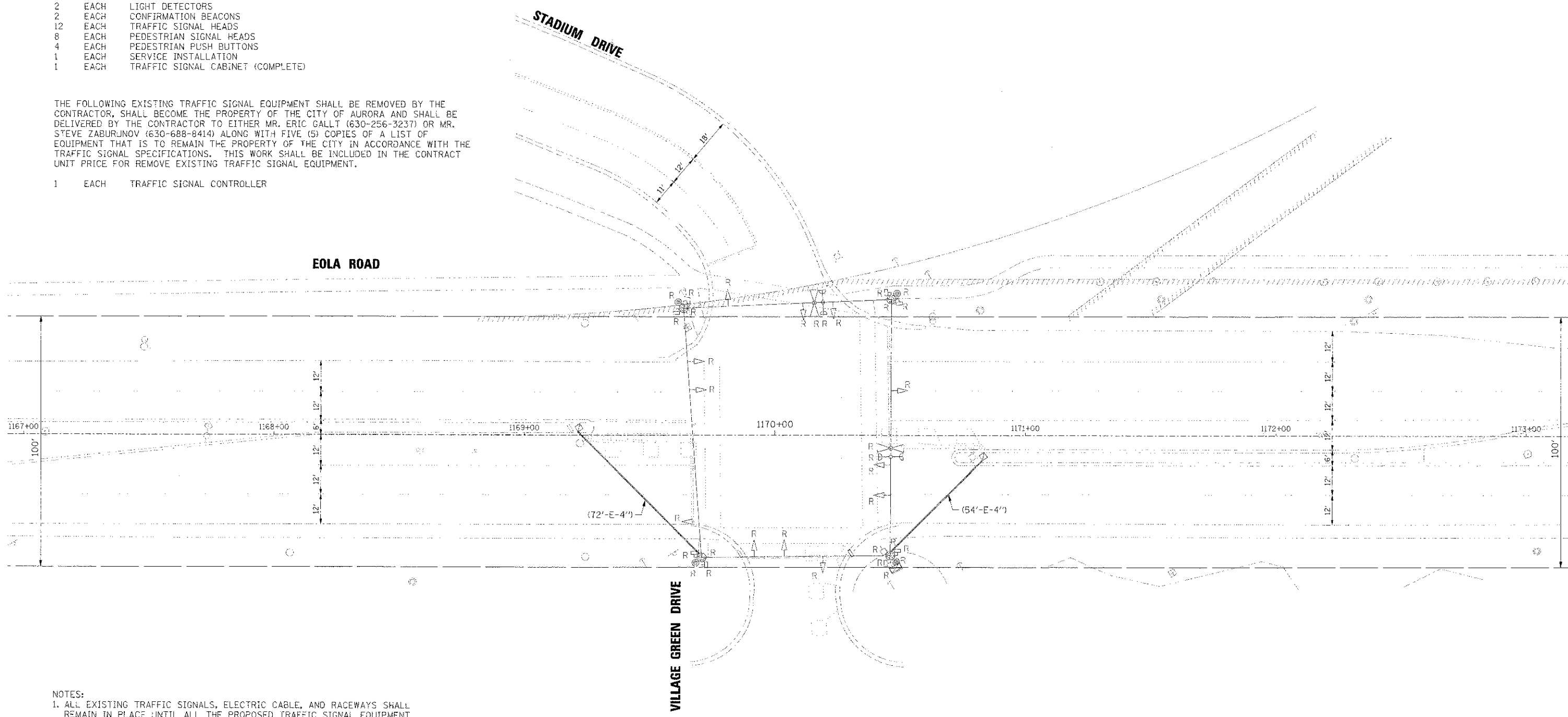
- 4 EACH TRAFFIC SIGNAL WOOD POLES
- 2 EACH LIGHT DETECTORS
- 2 EACH CONFIRMATION BEACONS
- 12 EACH TRAFFIC SIGNAL HEADS
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 4 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO EITHER MR. ERIC GALLT (630-256-3237) OR MR. STEVE ZABURJNOV (630-688-8414) ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

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BY	MF
PROJECT	2531
NO.	22

DATE	01/27/2013
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PROJECT	2531
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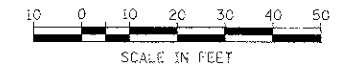


- NOTES:
- ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3237 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

LEGEND

---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

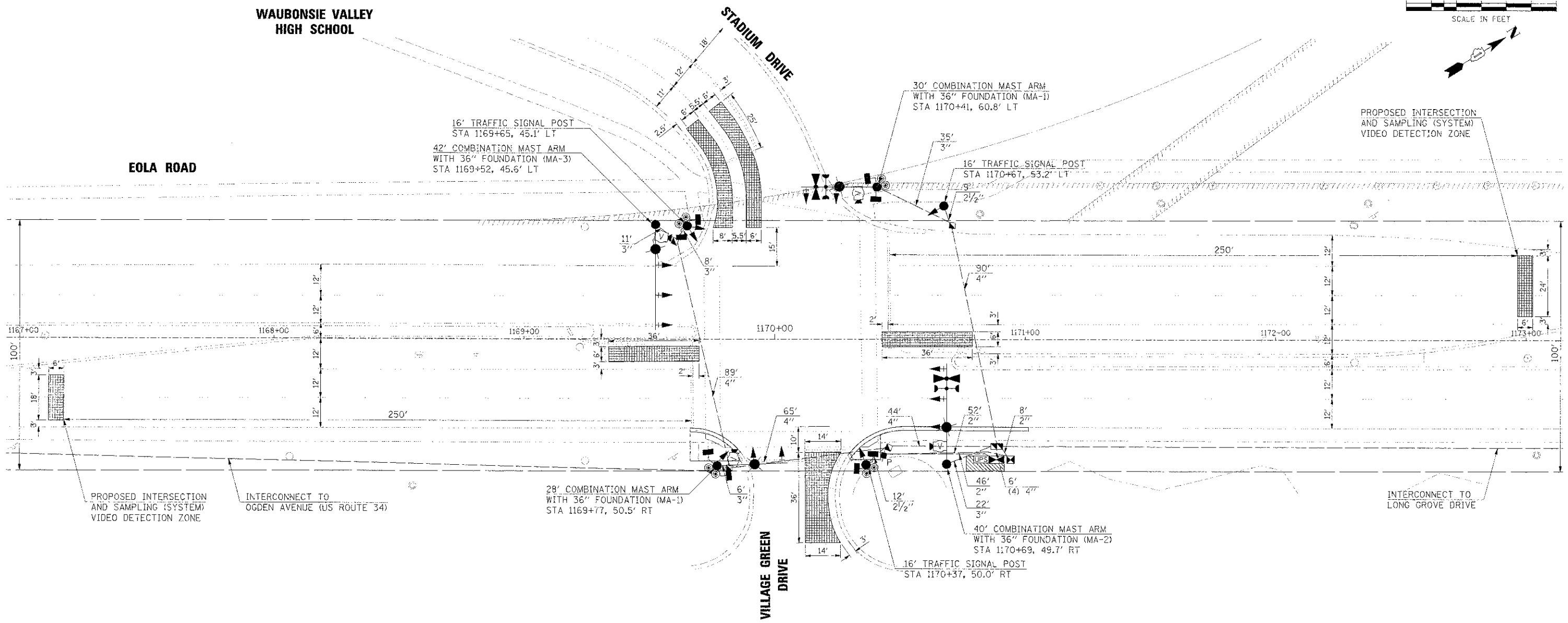
	USER NAME = MF DESIGNED = MJF CHECKED = APS DATE = 12/27/2012	REVISED = REVISED = REVISED = REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED VILLAGE GREEN DRIVE /STADIUM DRIVE	F.A.U. RTE. = 2531 SECTION = 11-00296-00-TL COUNTY = DURAGE/WILL TOTAL SHEETS = 48 SHEET NO. = 22 CONTRACT NO. = 63786
	PLOT SCALE = PLOT DATE = 12/27/2012 FILE NAME = 898.11.210913.villagegreen.dwg	SCALE: SHEET NO. OF SHEETS STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



WAUBONSIE VALLEY HIGH SCHOOL

STADIUM DRIVE

EOLA ROAD



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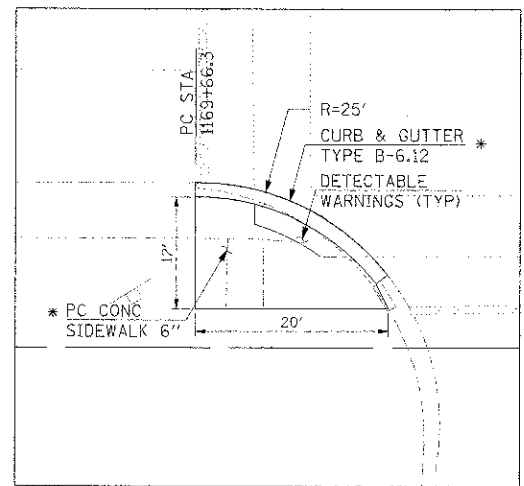
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- NOTES:**
1. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS SHALL BE PAINTED BLACK.
 2. THE PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.
 3. AN ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET AT VILLAGE GREEN DRIVE / STADIUM DRIVE (SEE SPECIAL PROVISIONS).

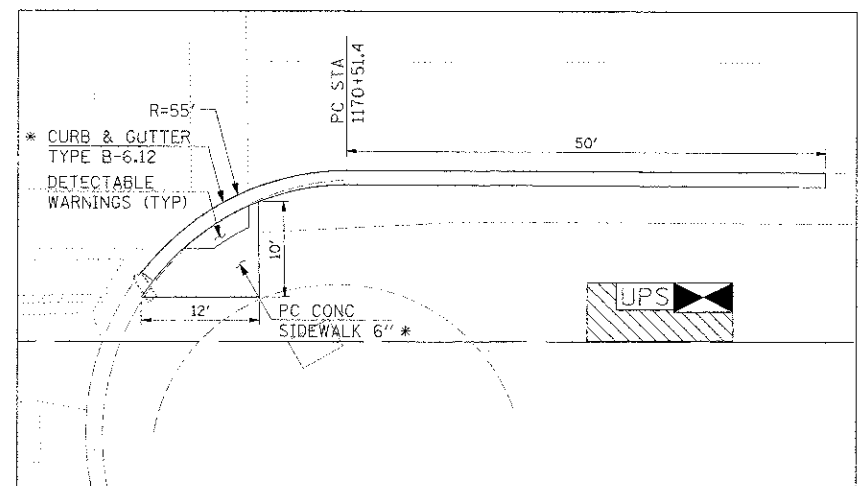
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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



SE CORNER DETAIL



NE CORNER DETAIL

* A 4" LAYER OF MECHANICALLY COMPACTED CRUSHED STONE (CA-6) SHALL BE PROVIDED BENEATH THE PROPOSED SIDEWALK AND CURB AND GUTTER. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICES FOR PORTLAND CEMENT CONCRETE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER.

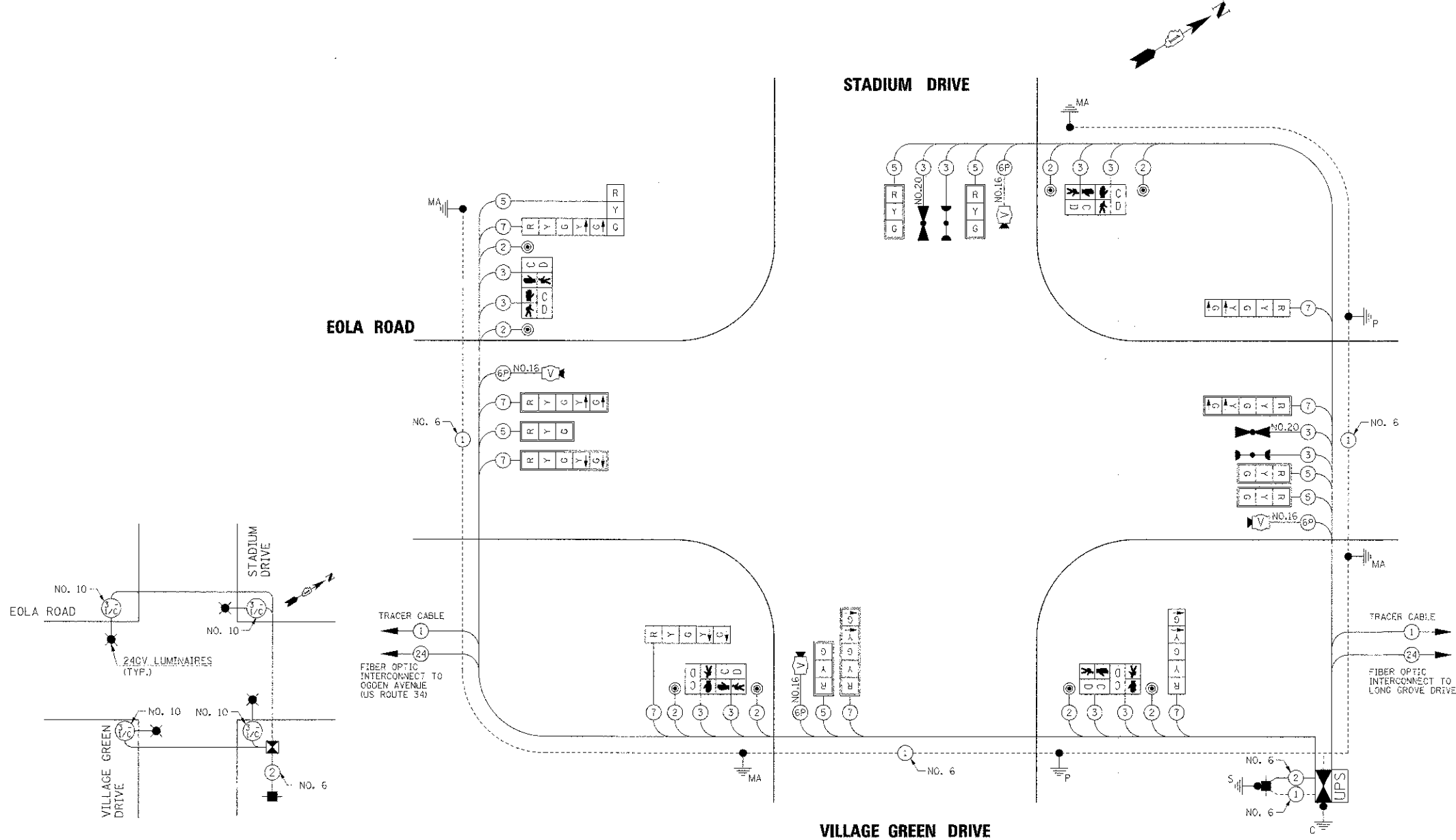
- NOTES:**
1. THE TRANSITION FROM FULL HEIGHT CURB TO DEPRESSED CURB SHALL BE IN ACCORDANCE WITH ARTICLE 606.07 OF THE STANDARD SPECIFICATIONS.
 2. ANY REQUIRED SAWCUTTING SHALL BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

PLAN	REVISIONS	DATE
NO. 1	REVISED	12/27/2012
NO. 2	REVISED	12/27/2012
NO. 3	REVISED	12/27/2012
NO. 4	REVISED	12/27/2012
NO. 5	REVISED	12/27/2012
NO. 6	REVISED	12/27/2012

PROFILE	REVISIONS	DATE
NO. 1	REVISED	12/27/2012
NO. 2	REVISED	12/27/2012
NO. 3	REVISED	12/27/2012
NO. 4	REVISED	12/27/2012
NO. 5	REVISED	12/27/2012
NO. 6	REVISED	12/27/2012



SCHEDULE OF QUANTITIES

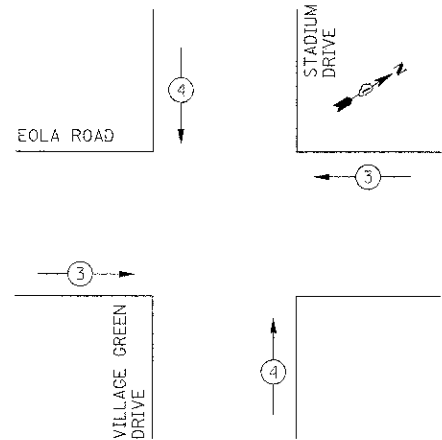
PAY ITEM DESCRIPTION	UNIT	VILLAGE GREEN DRIVE / STADIUM DRIVE
PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	244
DETECTABLE WARNINGS	SQ FT	33
COMBINATION CURB AND GUTTER REMOVAL	FOOT	49
SIDEWALK REMOVAL	SQ FT	53
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	98
SIGN PANEL - TYPE 1	SQ FT	28.5
SIGN PANEL - TYPE 2	SQ FT	22.5
ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	106
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	21
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	82
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	316
HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 800V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	868
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	3
PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FOOT	EACH	2
PAINT NEW COMBINATION MAST ARM AND POLE, 40 FOOT AND OVER	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1379
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1761.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1367.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1620.5
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	868
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	138
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	622
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 38-INCH DIAMETER	FOOT	47
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4666
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET SWITCH	EACH	1
VIDEO DETECTION SYSTEM	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	316.5

LIGHTING CABLE PLAN

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	15		17	0.50	127.5
(YELLOW)	15		25	0.25	93.8
(GREEN)	15		15	0.25	56.3
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
VIDEO SYSTEM	1		15	1.00	15
LUMINAIRE	4	250		0.50	500
TOTAL =					1111.8

ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON

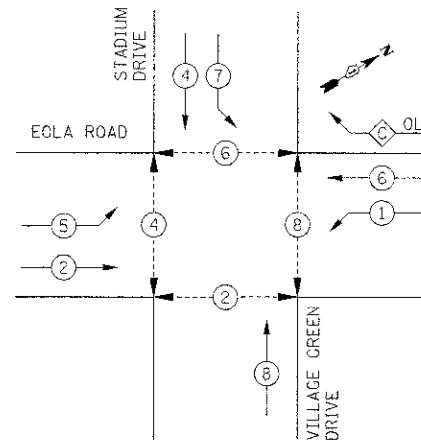


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE LEGEND	
←*→	DUAL ENTRY PHASE
←*	SINGLE ENTRY PHASE
OL	OVERLAP
*	NUMBER REFERRING TO ASSOCIATED PHASE
←*→	PEDESTRIAN PHASE

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
C	=	6 + 7

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



DESIGNED - MJF	REVISIONS -
CHECKED - APS	REVISIONS -
DATE - 12/27/2012	REVISIONS -
DATE -	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

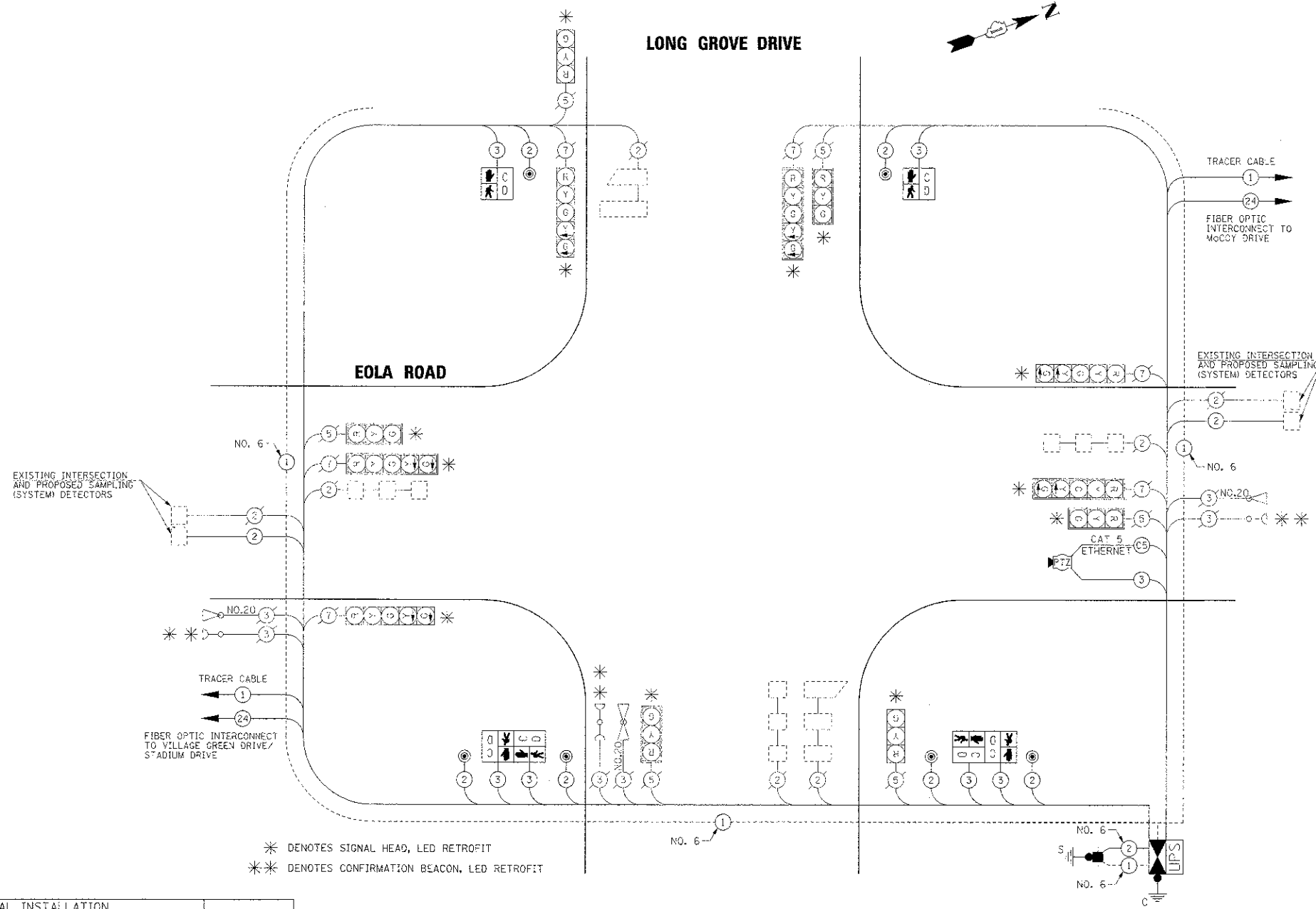
CABLE PLAN AND PHASE DESIGNATION DIAGRAM VILLAGE GREEN DRIVE / STADIUM DRIVE

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

F.A.U. RTE. 2531	SECTION 11-00296-00-TL	COUNTY DUPAGE/WILL.	TOTAL SHEETS 48	SHEET NO. 24
FED. ROAD DIST. NO. ILLINOIS FEB. AID PROJECT			CONTRACT NO. 63786	

PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO. 1	REVISIONS	
NO. 2	NO. 3	
NO. 4	NO. 5	
NO. 6	NO. 7	
NO. 8	NO. 9	
NO. 10	NO. 11	
NO. 12	NO. 13	
NO. 14	NO. 15	
NO. 16	NO. 17	
NO. 18	NO. 19	
NO. 20	NO. 21	
NO. 22	NO. 23	
NO. 24	NO. 25	
NO. 26	NO. 27	
NO. 28	NO. 29	
NO. 30	NO. 31	
NO. 32	NO. 33	
NO. 34	NO. 35	
NO. 36	NO. 37	
NO. 38	NO. 39	
NO. 40	NO. 41	
NO. 42	NO. 43	
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NO. 68	NO. 69	
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NO. 72	NO. 73	
NO. 74	NO. 75	
NO. 76	NO. 77	
NO. 78	NO. 79	
NO. 80	NO. 81	
NO. 82	NO. 83	
NO. 84	NO. 85	
NO. 86	NO. 87	
NO. 88	NO. 89	
NO. 90	NO. 91	
NO. 92	NO. 93	
NO. 94	NO. 95	
NO. 96	NO. 97	
NO. 98	NO. 99	
NO. 100	NO. 101	

PROJECT	DATE
NO. 1	
NO. 2	
NO. 3	
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NO. 100	



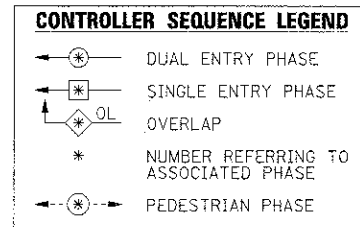
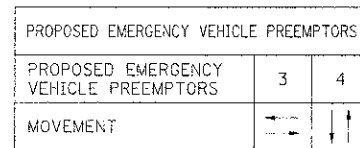
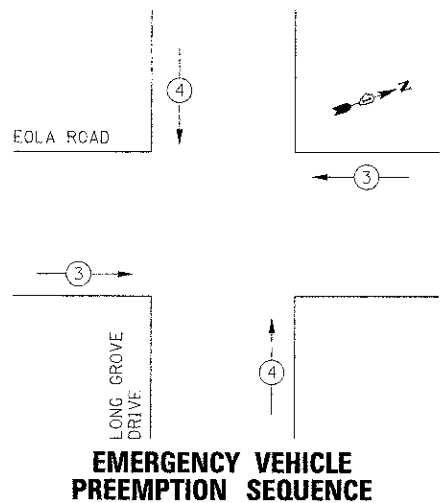
SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	LONG GROVE DRIVE
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	7
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1099
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1201
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	817
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	31
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	631
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	9
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	6
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1853
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 5 ETHERNET CABLE	FOOT	80
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	3

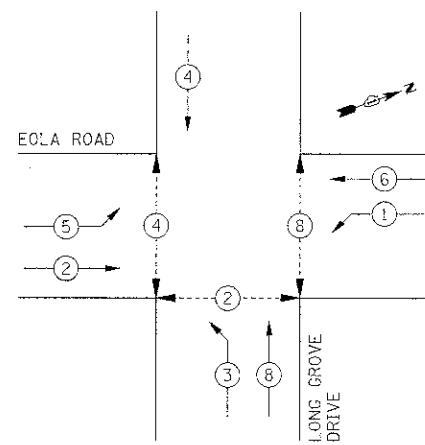
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	12		12	0.10	14.4
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					486.4

ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON



CONTROLLER SEQUENCE

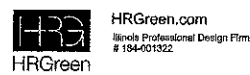


PHASE DESIGNATION DIAGRAM

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



USER NAME = jfeller
PLOT SCALE =
PLOT DATE = 1/9/2013
FILE NAME = 692.11.sig@6011-grgrove.dgn

DESIGNED - MJF
CHECKED - APS
DATE - 12/27/2012

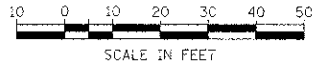
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND
PHASE DESIGNATION DIAGRAM
LONG GROVE DRIVE

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

P.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL		48	27
CONTRACT NO. 63786				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. A LIST OF EQUIPMENT SHALL ALSO BE PROVIDED TO THE CITY'S ENGINEERING DEPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

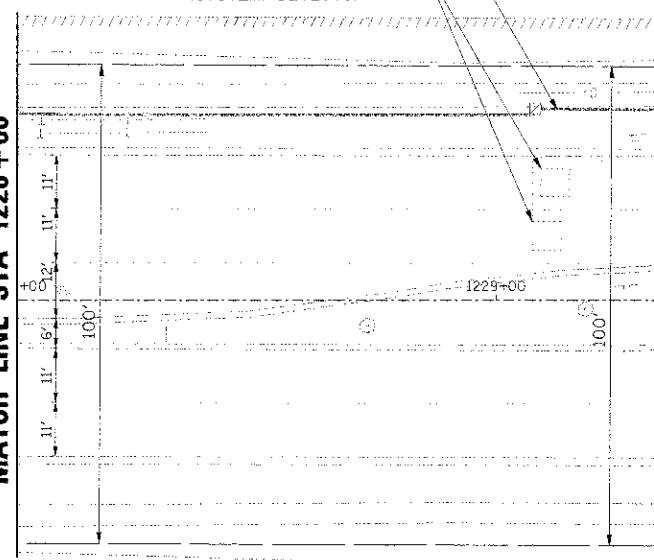
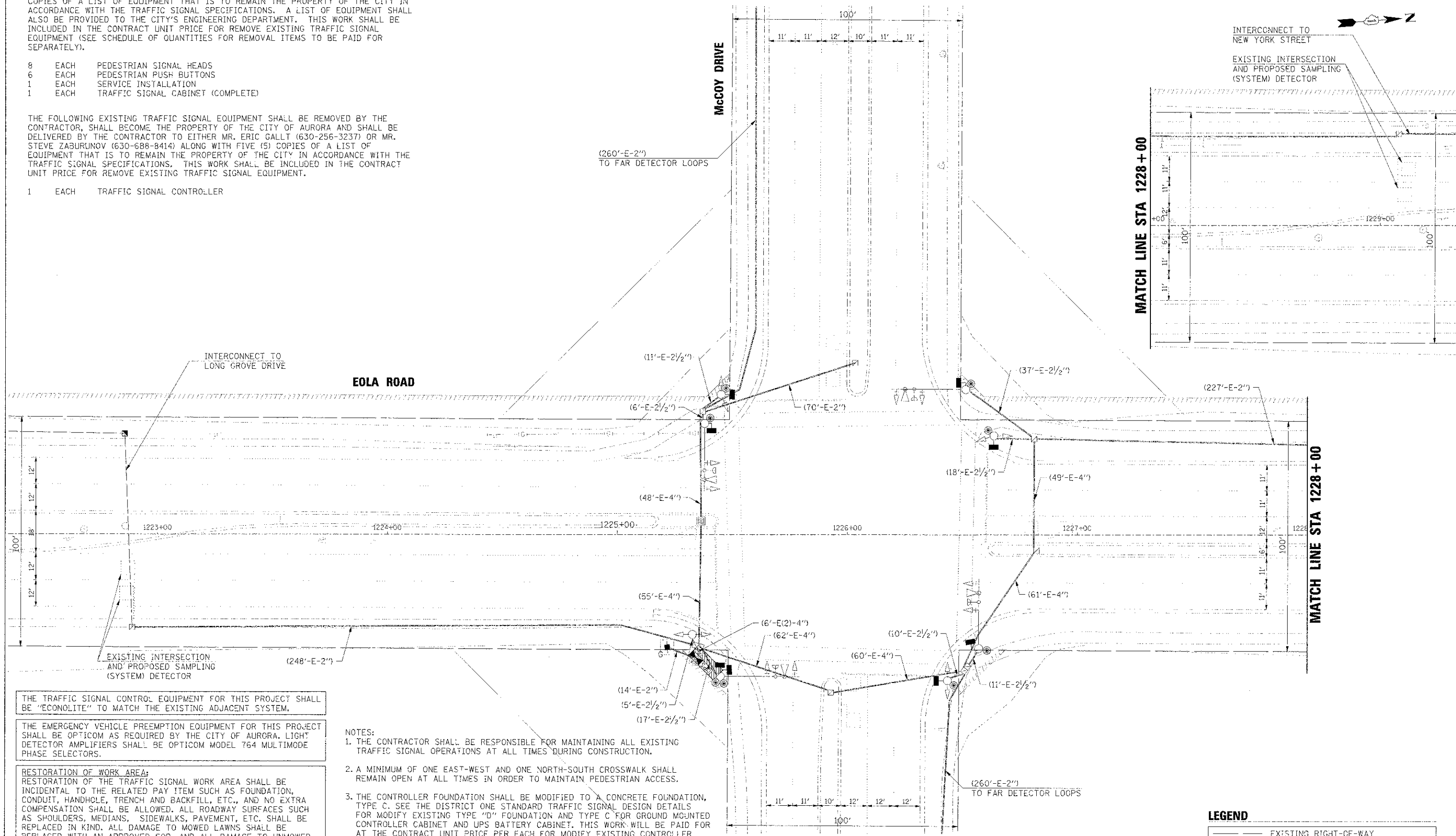
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 6 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO EITHER MR. ERIC GALLT (630-256-3237) OR MR. STEVE ZABURUNOV (630-688-8414) ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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

- NOTES:
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
 - A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.
 - THE CONTROLLER FOUNDATION SHALL BE MODIFIED TO A CONCRETE FOUNDATION, TYPE C. SEE THE DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS FOR MODIFY EXISTING TYPE "D" FOUNDATION AND TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR MODIFY EXISTING CONTROLLER FOUNDATION.
 - AN ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET AT MCCOY DRIVE (SEE SPECIAL PROVISIONS).

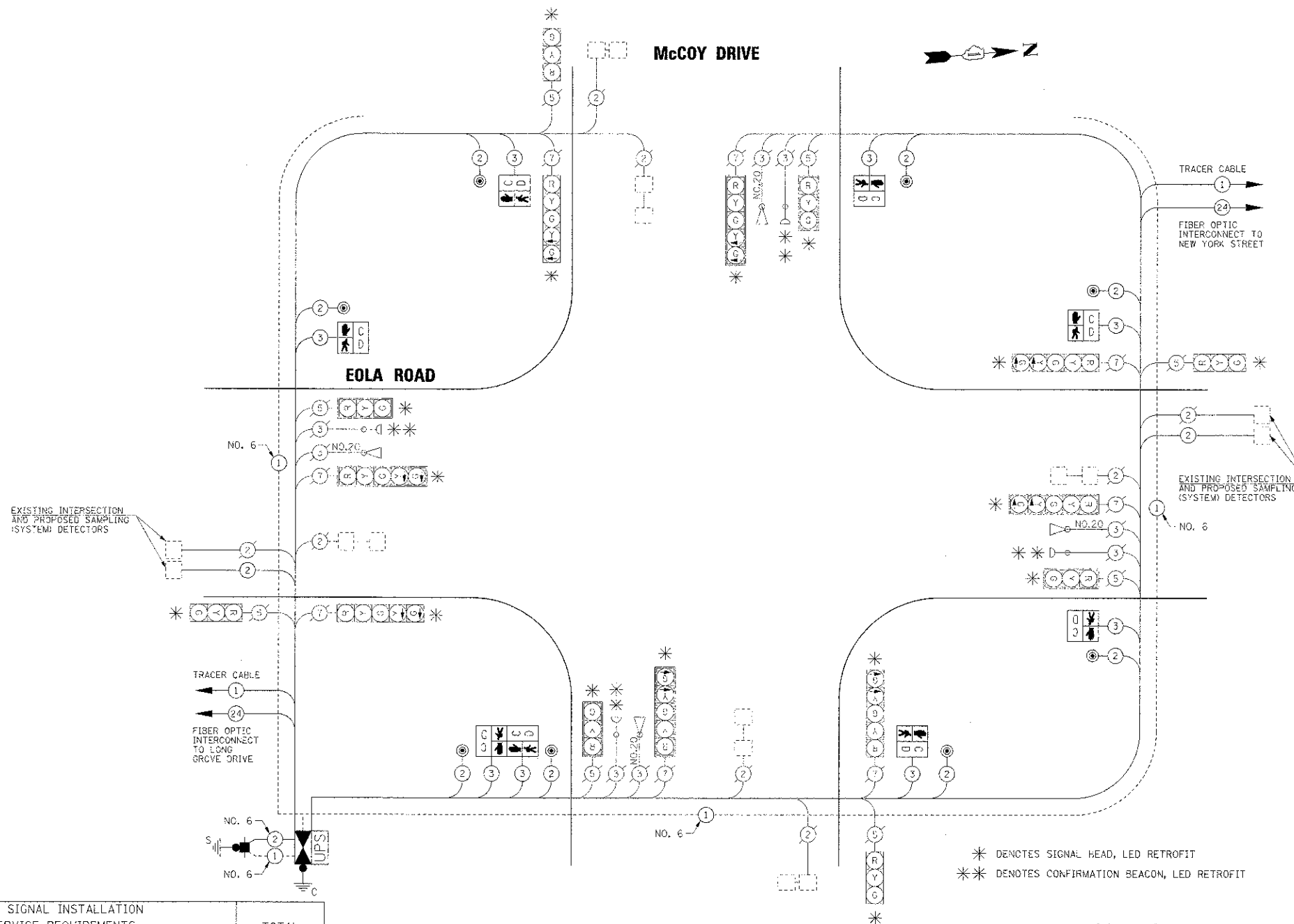
LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

	USER NAME - RFPoie- PLOT SCALE - PLOT DATE - 1/9/2013 FILE NAME - 6% 11.11.13/12.27.2012.mxd	DESIGNED - MJF CHECKED - APS DATE - 12/27/2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN MCCOY DRIVE	F.A.U. RTE. - 2531 SECTION - 11-00296-00-TL COUNTY - DUPAGE/WILL CONTRACT NO. - 63786	TOTAL SHEETS - 48 SHEET NO. - 28
	SCALE:		SHEET NO. OF SHEETS STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

SCHEDULE OF QUANTITIES

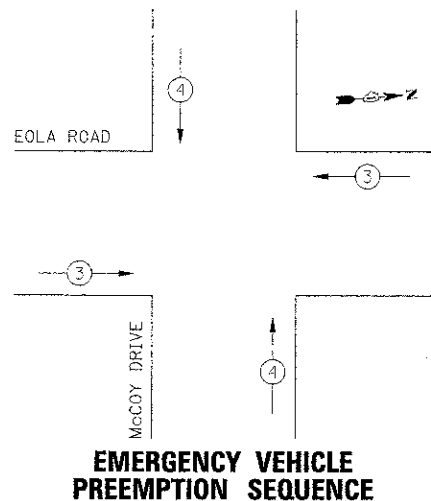
PAY ITEM DESCRIPTION	UNIT	McCOY DRIVE
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	7
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1447
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1503
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	799.5
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	27.5
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	610
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	10
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2760.5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET SWITCH	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	4



I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					615.2

ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

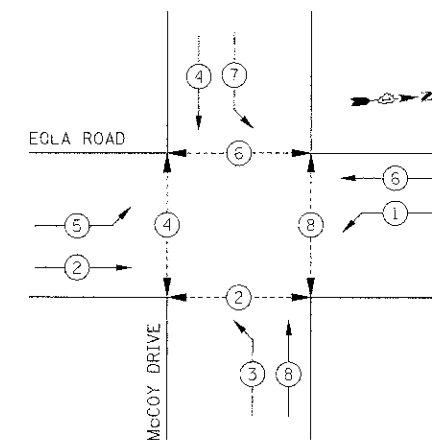
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	←	↑

CONTROLLER SEQUENCE LEGEND	
← *	DUAL ENTRY PHASE
← *	SINGLE ENTRY PHASE
← *	OVERLAP
*	NUMBER REFERRING TO ASSOCIATED PHASE
← *	PEDESTRIAN PHASE

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

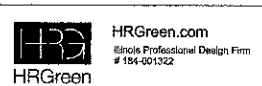
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

DATE	3/1/2013
BY	MJF
TYPE	PLAN
NO.	1
PROJECT NAME	63011150070.mccoymc
PROJECT NO.	11-00296-00-TC
SECTION	SECTION
COUNTY	DUPAGE/WILL
TOTAL SHEETS	48
SHEET NO.	29
CONTRACT NO.	63786

DATE	3/1/2013
BY	MJF
TYPE	PLAN
NO.	1
PROJECT NAME	63011150070.mccoymc
PROJECT NO.	11-00296-00-TC
SECTION	SECTION
COUNTY	DUPAGE/WILL
TOTAL SHEETS	48
SHEET NO.	29
CONTRACT NO.	63786



USER NAME	MJFeller	DESIGNED	MJF	REVISED	
PROJECT SCALE		CHECKED	APS	REVISED	
PROJECT DATE	1/9/2013	DATE	12/27/2012	REVISED	
FILE NAME	63011150070.mccoymc	REVISED			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
McCOY DRIVE		2533	11-00296-00-TC	DUPAGE/WILL	48
SCALE:		SHEET NO.	OF	SHEETS	STA. TO STA.
					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

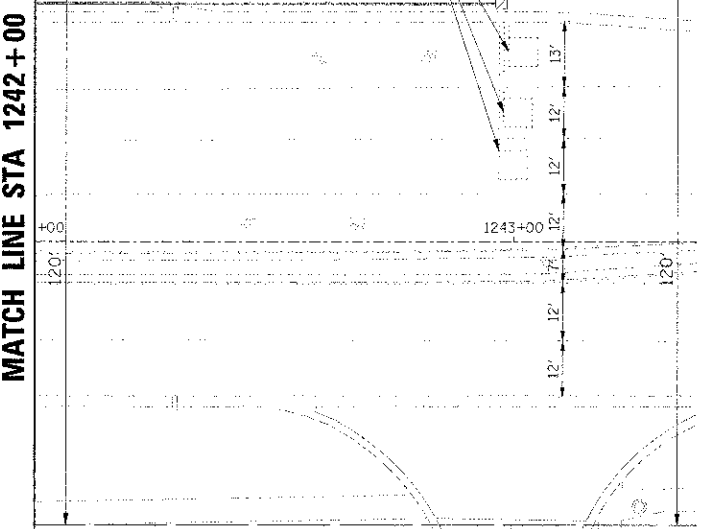
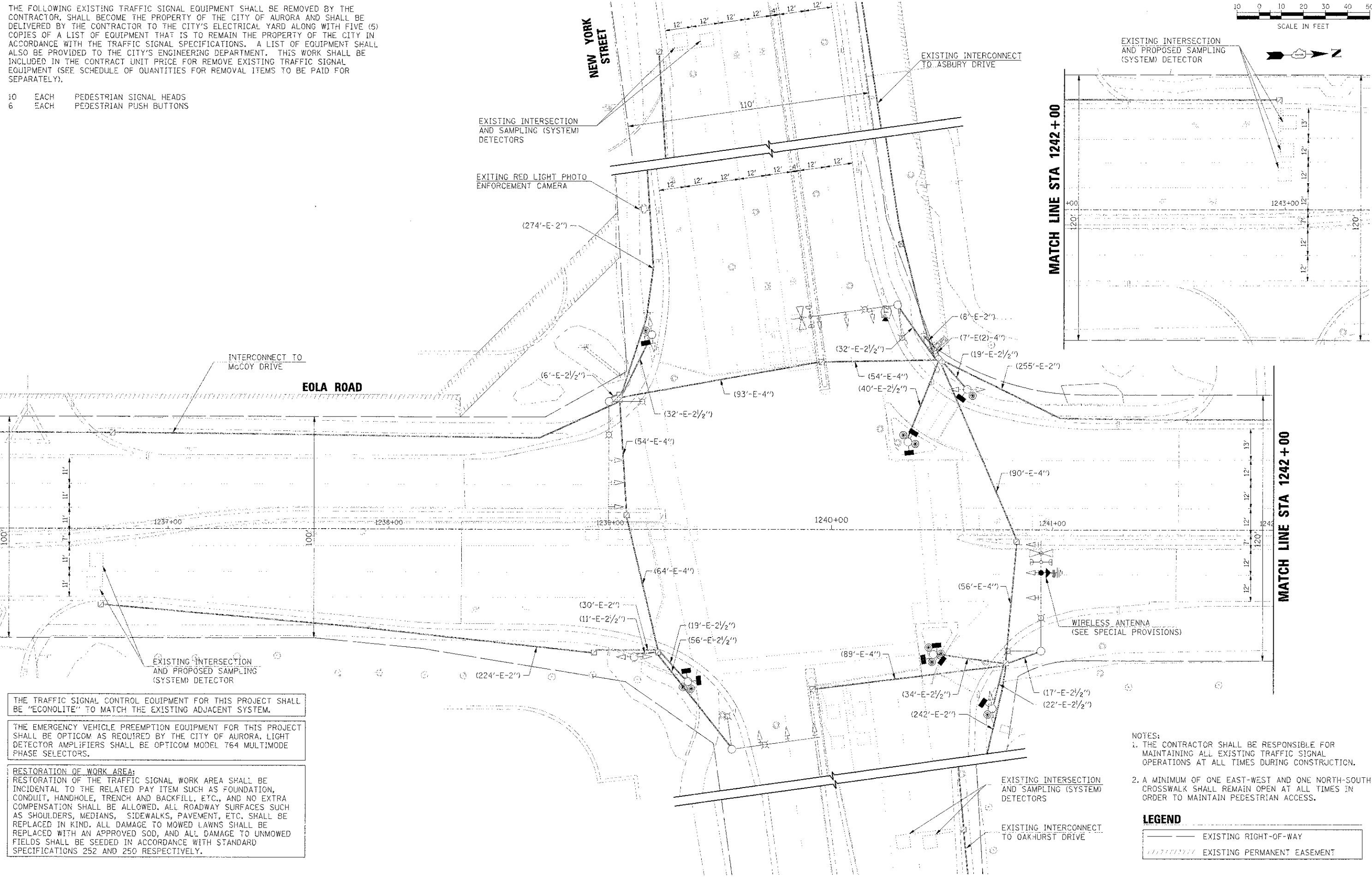
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
2533	11-00296-00-TC	DUPAGE/WILL	48
		CONTRACT NO.	63786

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. A LIST OF EQUIPMENT SHALL ALSO BE PROVIDED TO THE CITY'S ENGINEERING DEPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVE ITEMS TO BE PAID FOR SEPARATELY).

- 10 EACH PEDESTRIAN SIGNAL HEADS
- 6 EACH PEDESTRIAN PUSH BUTTONS

PLAN	DATE
NO.	BY
NO.	BY
NO.	BY
NO.	BY
NO.	BY

PROF. I.L.E.	DATE
NO.	BY
NO.	BY
NO.	BY
NO.	BY
NO.	BY



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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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

- NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
 2. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

LEGEND

---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

DATE	
BY	
REVISIONS	
NO. 1	DATE
NO. 2	DATE
NO. 3	DATE
NO. 4	DATE
NO. 5	DATE
NO. 6	DATE
NO. 7	DATE
NO. 8	DATE
NO. 9	DATE
NO. 10	DATE
NO. 11	DATE
NO. 12	DATE
NO. 13	DATE
NO. 14	DATE
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NO. 30	DATE

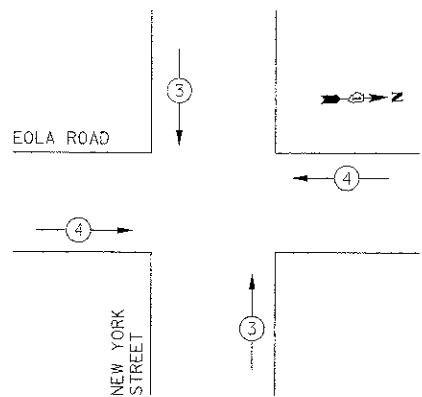
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BY	
REVISIONS	
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NO. 2	DATE
NO. 3	DATE
NO. 4	DATE
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NO. 25	DATE
NO. 26	DATE
NO. 27	DATE
NO. 28	DATE
NO. 29	DATE
NO. 30	DATE

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	36		12	0.10	43.2
PED. SIGNAL	10		25	1.00	250
CONTROLLER	1		100	1.00	100
				TOTAL =	689.2

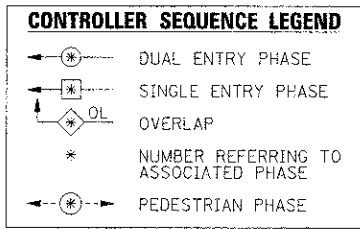
ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON

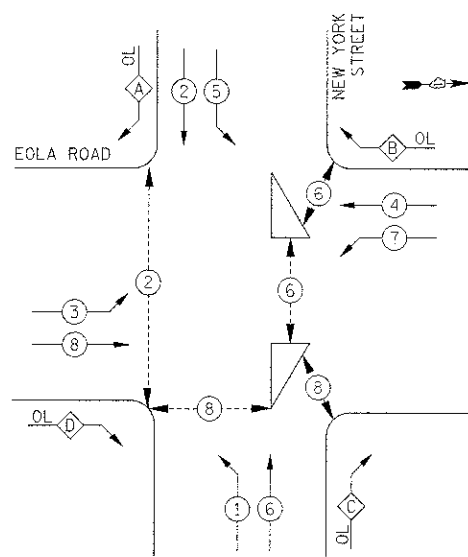
EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



CONTROLLER SEQUENCE



OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
A =	2 +	3
B =	4 +	5
C =	6 +	7
D =	8 +	1

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

PHASE DESIGNATION DIAGRAM

CABLE PLAN AND PHASE DESIGNATION DIAGRAM NEW YORK STREET

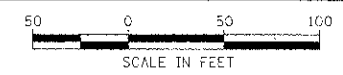
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	JUPAGE/WILL.	48	31
CONTRACT NO.			63786	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

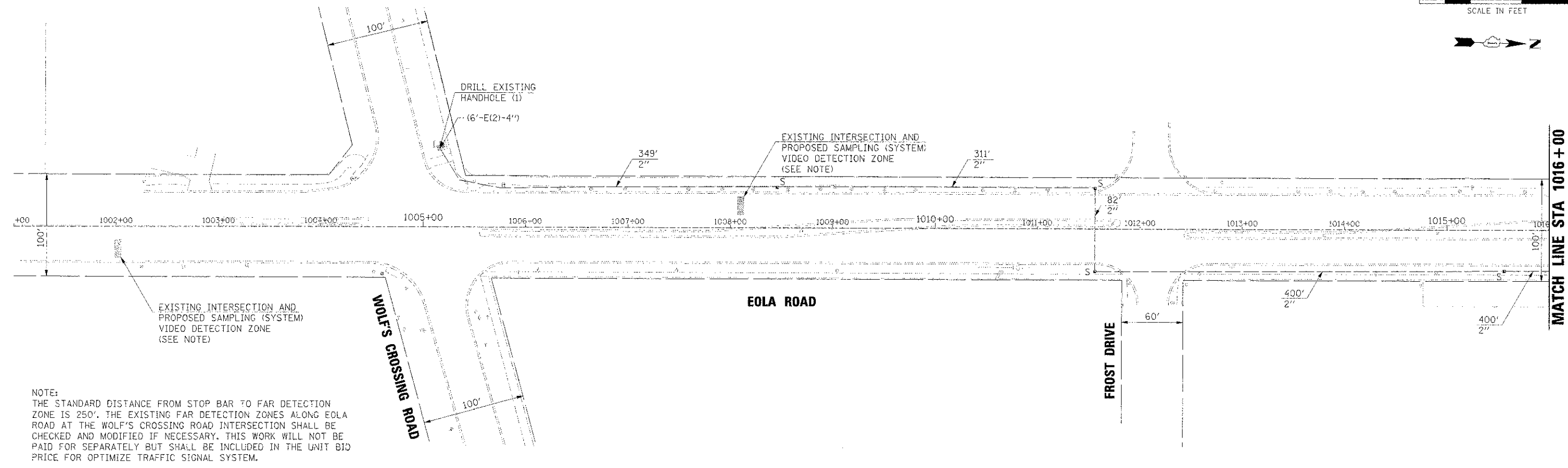
SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	NEW YORK STREET
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2045.6
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2202
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1161
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	10
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2887.5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 6 ETHERNET CABLE	FOOT	86.5
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1

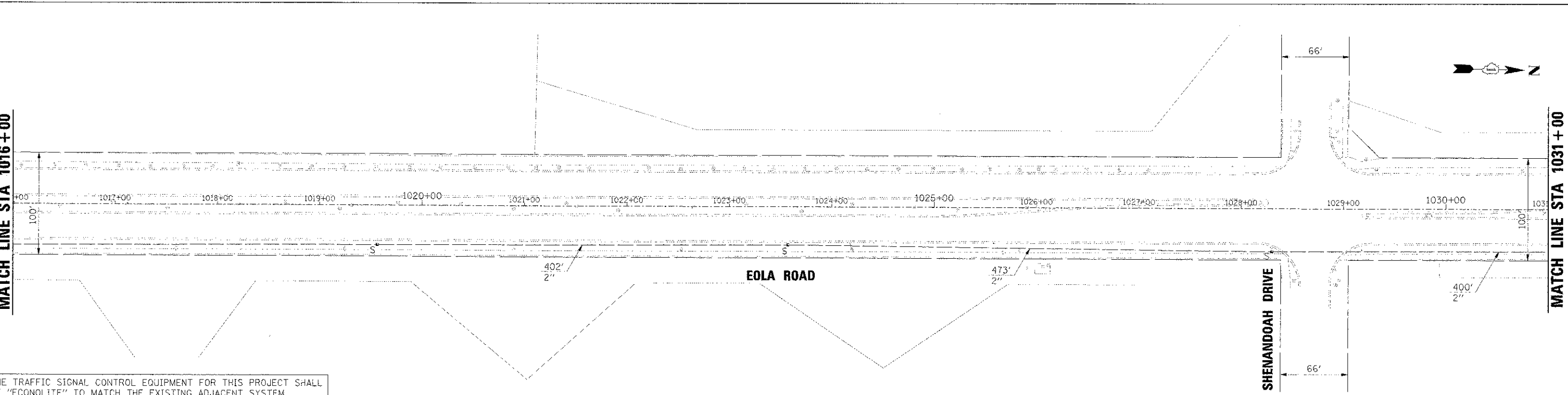
USER NAME	DESIGNED	REVISED
PILOT SCALE	CHECKED	REVISED
PRINT DATE	DATE	REVISED
FILE NAME	REVISED	



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

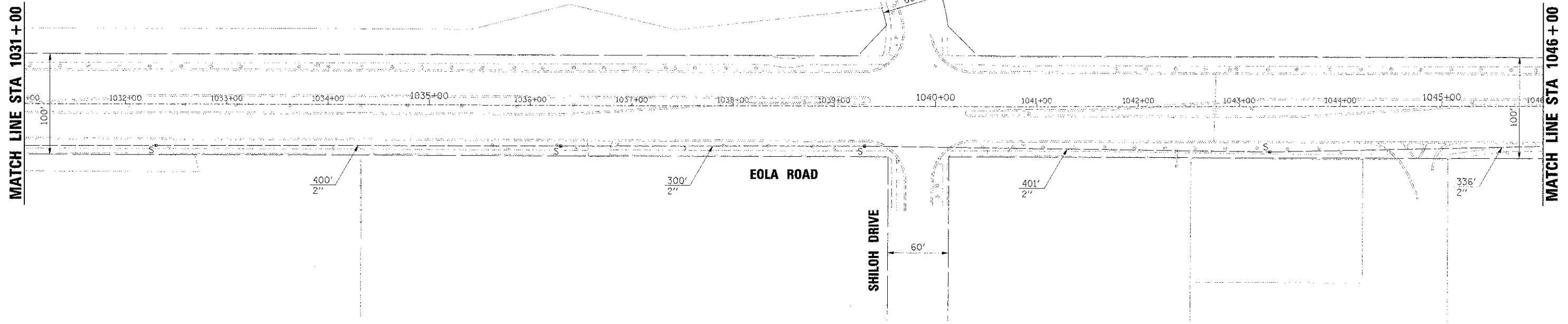
RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

LEGEND

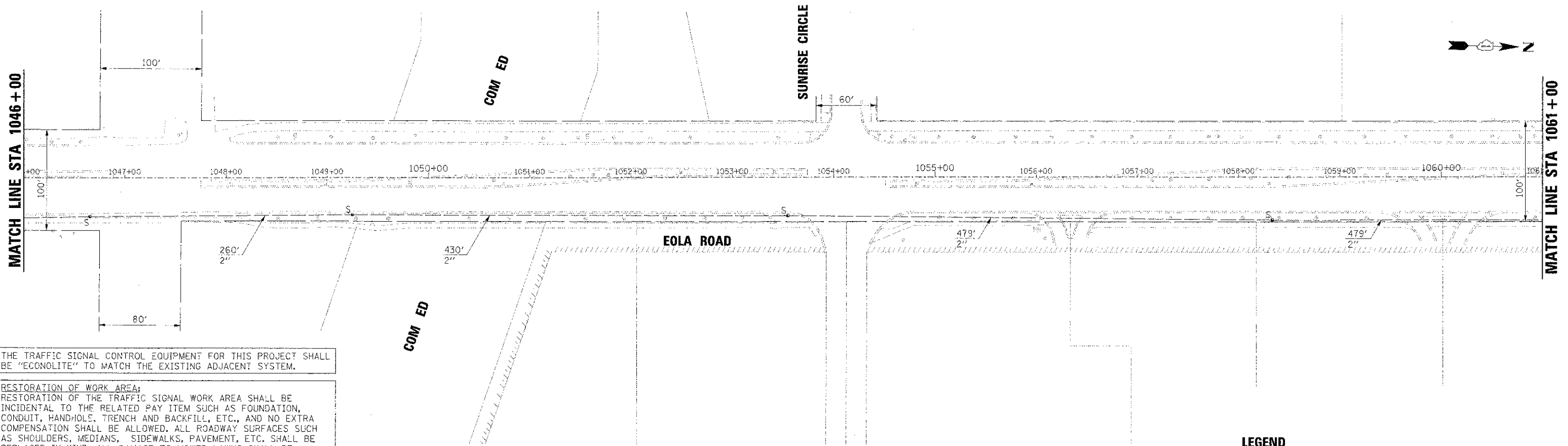
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



PLAN	DATE
DESIGNED	
CHECKED	
DATE	
FILE NAME	



PROFILE	DATE
DESIGNED	
CHECKED	
DATE	
FILE NAME	



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

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LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

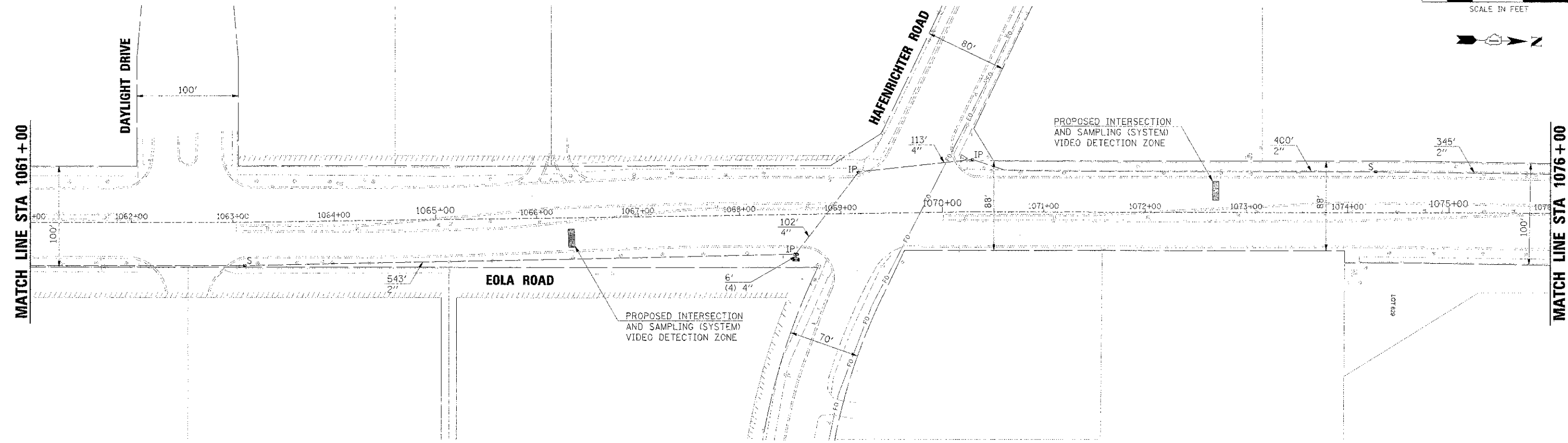
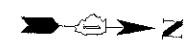
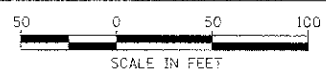
HRGreen.com Illinois Professional Design Firm #104-001322	USER NAME: mwallen DESIGNED: MJF CHECKED: APS DATE: 12/27/2012	REVISIONS: 1. REVISIONS: - 2. REVISIONS: - 3. REVISIONS: - 4. REVISIONS: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN (SHEET 2 OF 9)	F.A.U. RTE.: 2531 SECTION: 11-00296-00-TL COUNTY: DUPAGE/WILL. TOTAL SHEET NO.: 48 SHEETS: 33 CONTRACT NO.: 63786
	PLOT DATE: 1/9/2013 FILE NAME: 63786_IL_SignR2.dgn	SCALE: SHEET NO. OF SHEETS STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PLAN	REVIEWED	DATE
	PLOTTED	
	REVISIONS CHECKED	
	NO. DATE	

PROFILE	REVIEWED	DATE
	PLOTTED	
	REVISIONS CHECKED	
	NO. DATE	

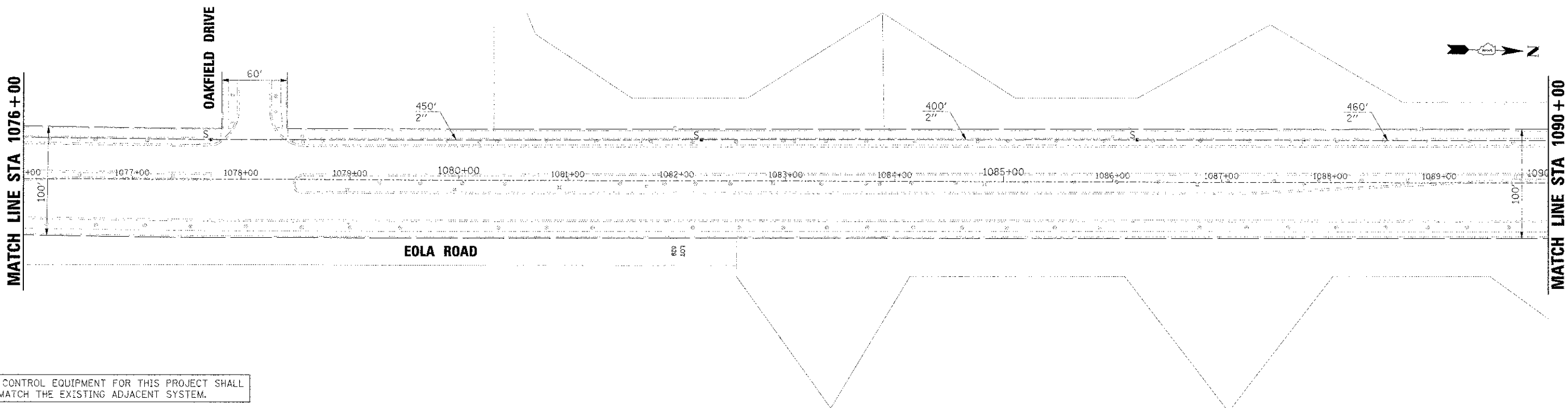
MATCH LINE STA 1061 + 00

MATCH LINE STA 1076 + 00



MATCH LINE STA 1076 + 00

MATCH LINE STA 1090 + 00



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LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



USER NAME	MPeller	DESIGNED	MJF	REVISED	-
FILE SCALE		CHECKED	APS	REVISED	-
PLT DATE	1/9/2013	DATE	12/27/2012	REVISED	-
FILE NAME	E90_01_singint83.dgn				

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

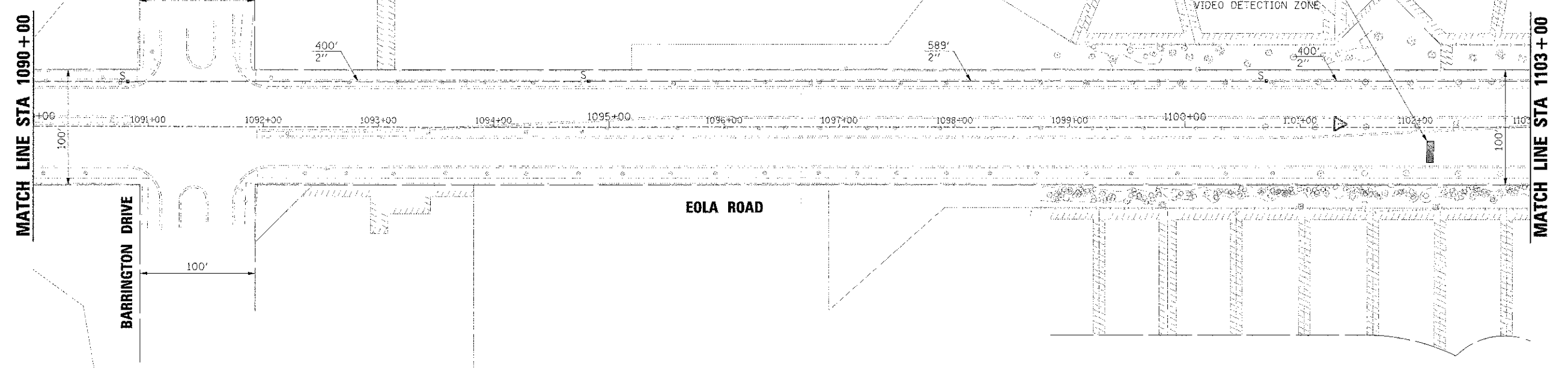
INTERCONNECT PLAN
 (SHEET 3 OF 9)

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

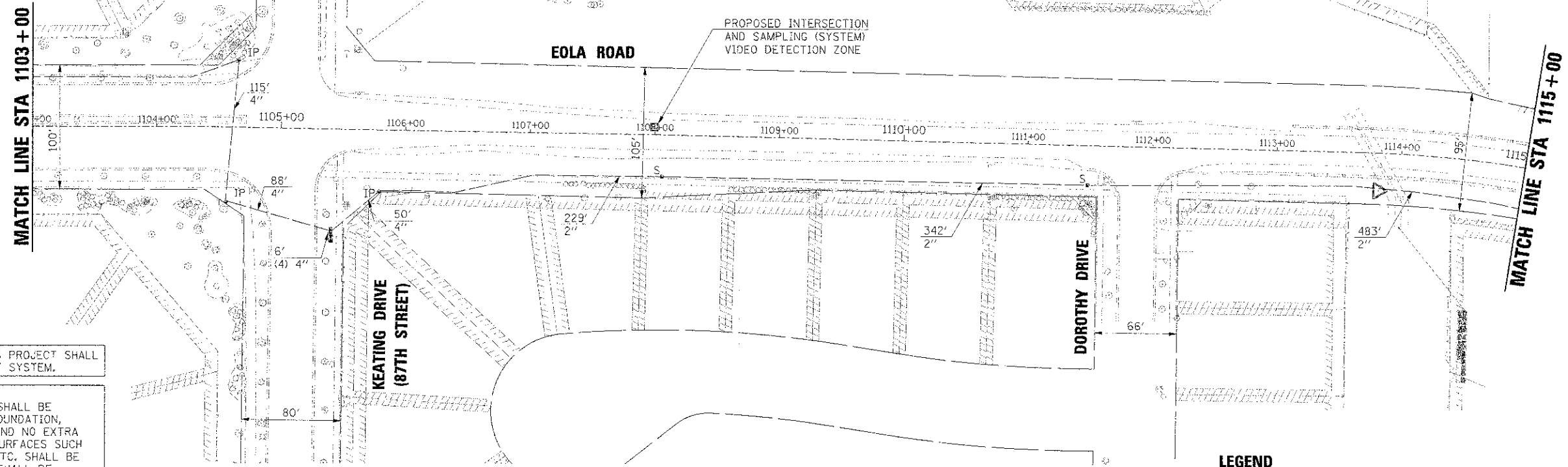
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
2531	11-00296-00-TL	DUPAGE/WILL	48 34
CONTRACT NO.			63786
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			



PLAN	SURVEYED	DATE
NOTED	PLOTTED	
NO. 1	NO. 2	
NO. 3	NO. 4	
NO. 5	NO. 6	
NO. 7	NO. 8	
NO. 9	NO. 10	
NO. 11	NO. 12	
NO. 13	NO. 14	
NO. 15	NO. 16	
NO. 17	NO. 18	
NO. 19	NO. 20	
NO. 21	NO. 22	
NO. 23	NO. 24	
NO. 25	NO. 26	
NO. 27	NO. 28	
NO. 29	NO. 30	
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NO. 95	NO. 96	
NO. 97	NO. 98	
NO. 99	NO. 100	



PROFILE	SURVEYED	DATE
NOTED	PLOTTED	
NO. 1	NO. 2	
NO. 3	NO. 4	
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NO. 53	NO. 54	
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NO. 59	NO. 60	
NO. 61	NO. 62	
NO. 63	NO. 64	
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NO. 71	NO. 72	
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NO. 87	NO. 88	
NO. 89	NO. 90	
NO. 91	NO. 92	
NO. 93	NO. 94	
NO. 95	NO. 96	
NO. 97	NO. 98	
NO. 99	NO. 100	



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RESTORATION OF WORK AREA:
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LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



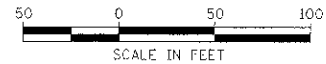
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PLAT SCALE =	CHECKED = APS	REVISED =
PLAT DATE = 1/9/2013	DATE = 12/21/2012	REVISED =
FILE NAME = 8%_11_sigsheet5.dgn		REVISED =

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

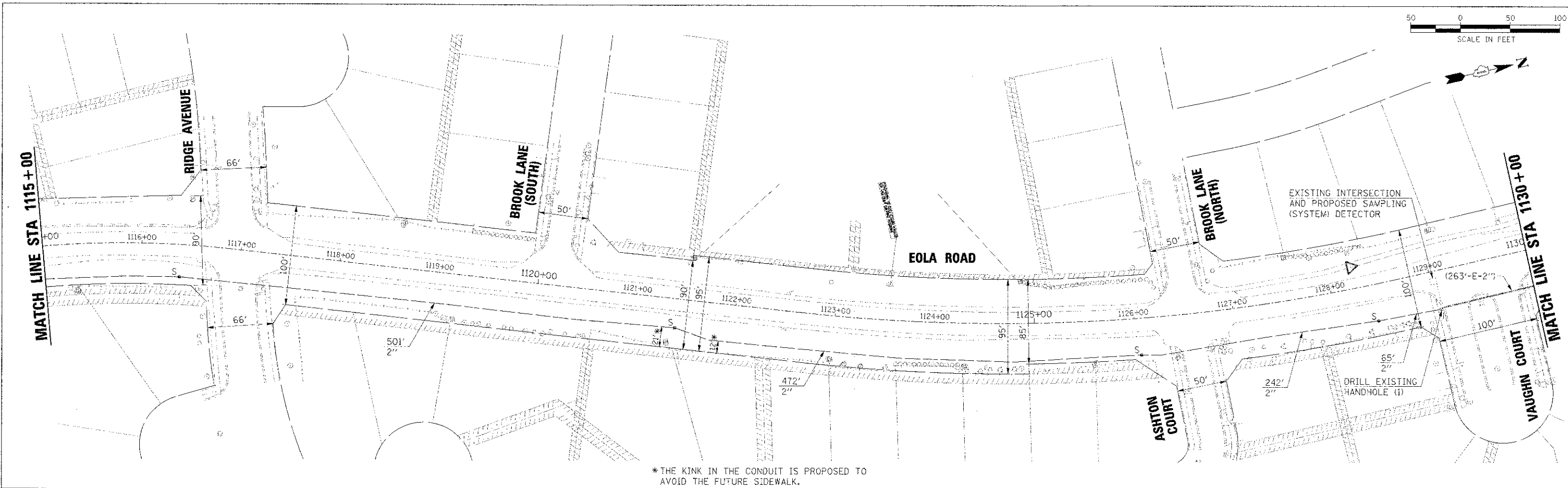
INTERCONNECT PLAN
 (SHEET 4 OF 9)

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
253	11-00296-00-TL	DUPAGE/WILL	48	35
CONTRACT NO.			63786	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

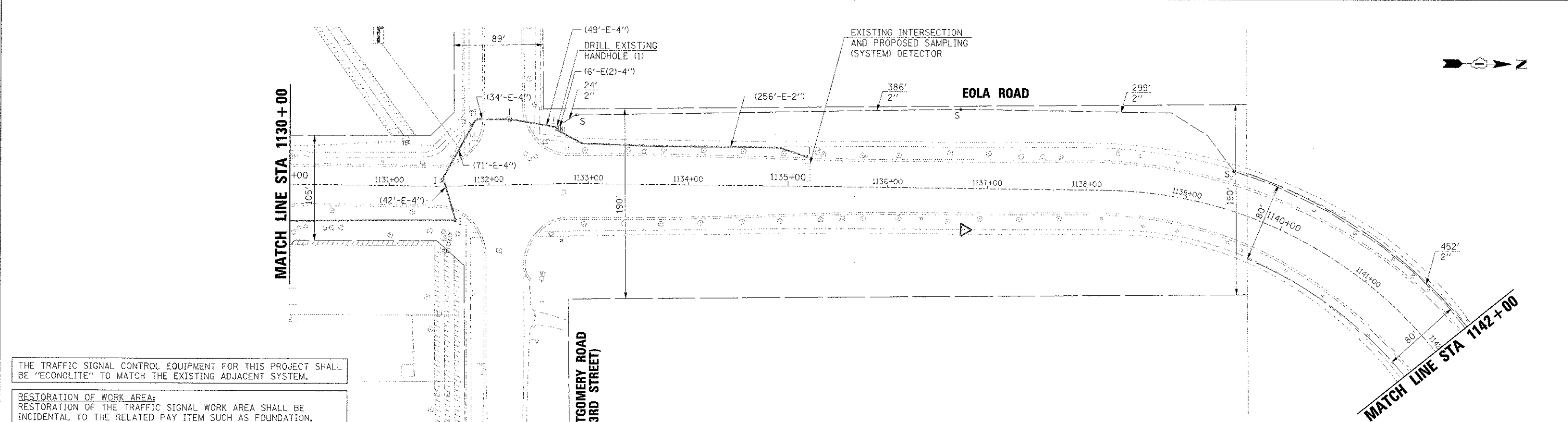


DATE	
BY	
PROJECT	
PLANNED	
DESIGNED	
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*THE KINK IN THE CONDUIT IS PROPOSED TO AVOID THE FUTURE SIDEWALK.

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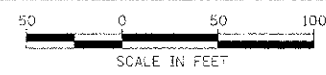
NOTE:
THE INTERSECTION OF EOLA ROAD AND MONTGOMERY ROAD IS TO BE RECONSTRUCTED IN THE FUTURE BY OTHERS. AN EXTRA 50' OF FIBER OPTIC AND TRACER CABLE SLACK HAS BEEN PROVIDED IN THE PROPOSED HANDHOLE IN THE NORTHEAST CORNER OF THE INTERSECTION AND THE PROPOSED HANDHOLE BETWEEN ASHTON COURT AND VAUGHN COURT TO ACCOMMODATE THE FUTURE IMPROVEMENTS.

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

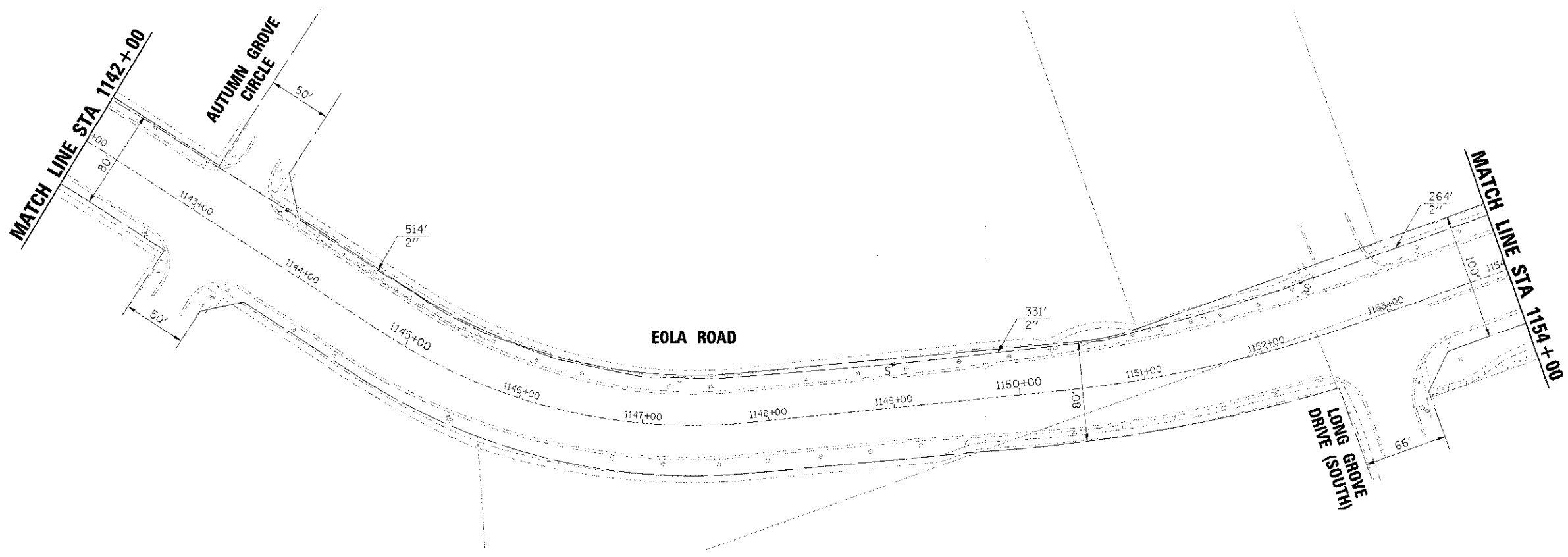
RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

LEGEND

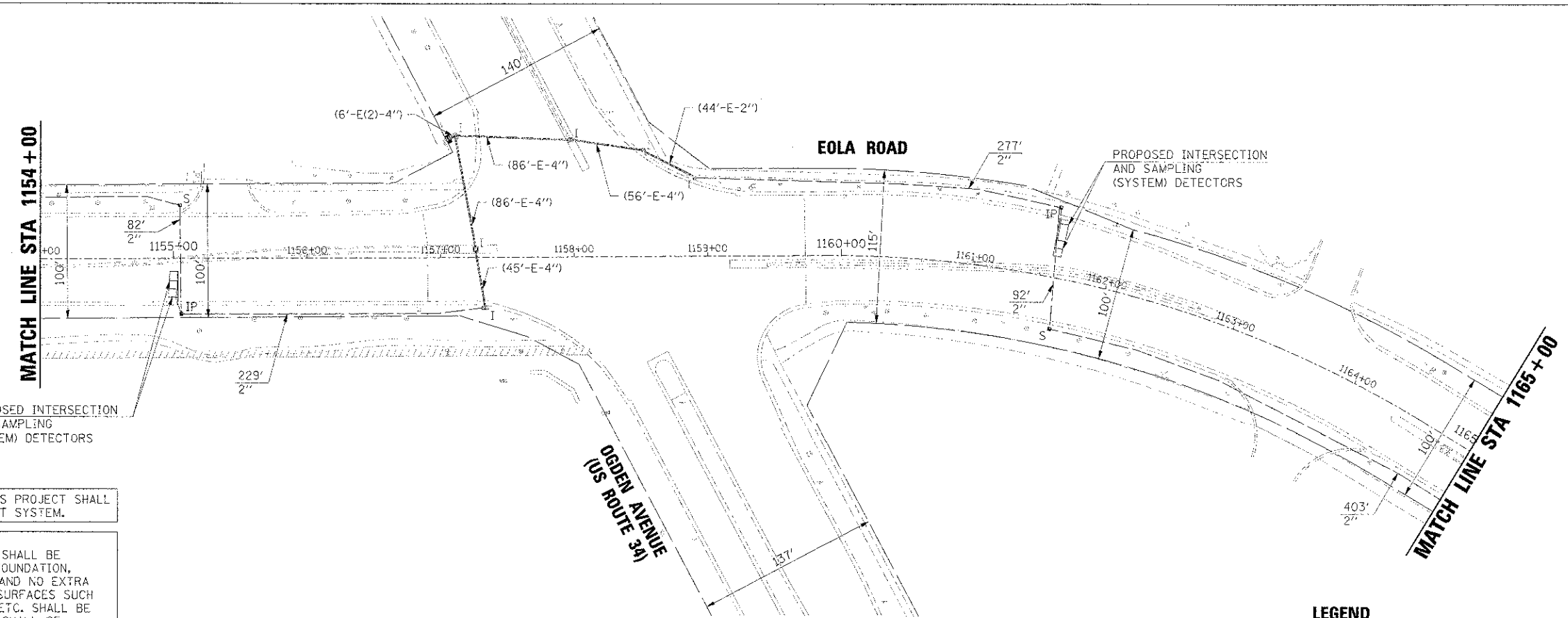
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



DATE	3/1/12
BY	MF
CHECKED	AFS
DESIGNED	MJF
PROJECT	2531
PROJ. NO.	11-00296-00-TL
NOTE BOOK	
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DATE	3/1/12
BY	MF
CHECKED	AFS
DESIGNED	MJF
PROJECT	2531
PROJ. NO.	11-00296-00-TL
NOTE BOOK	
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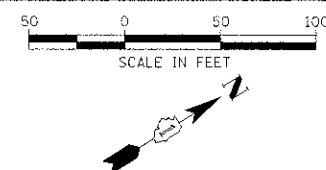


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

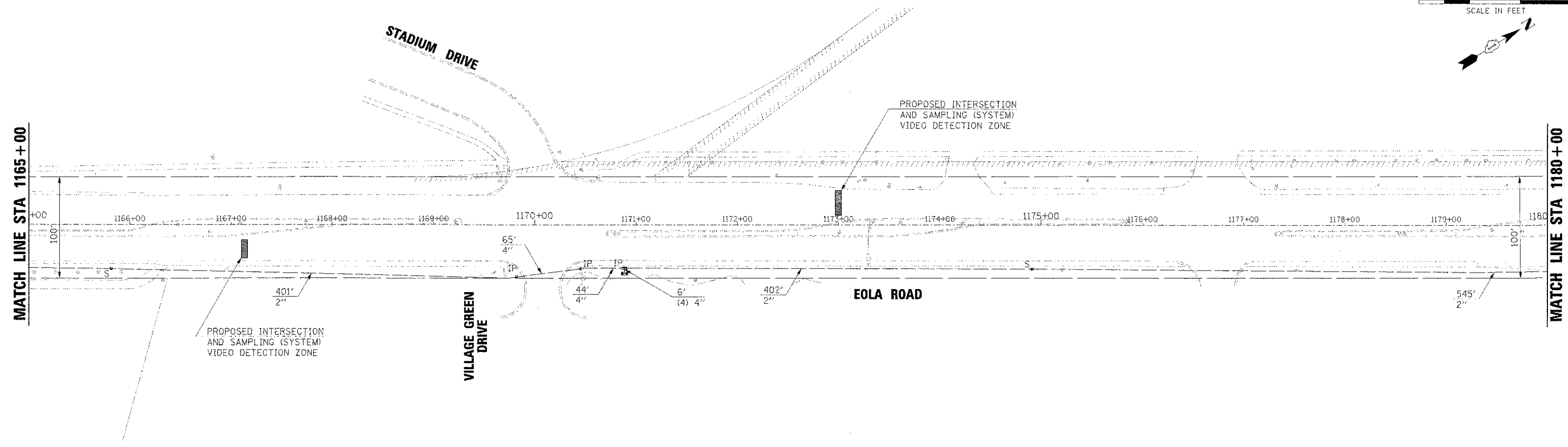
RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

LEGEND	
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

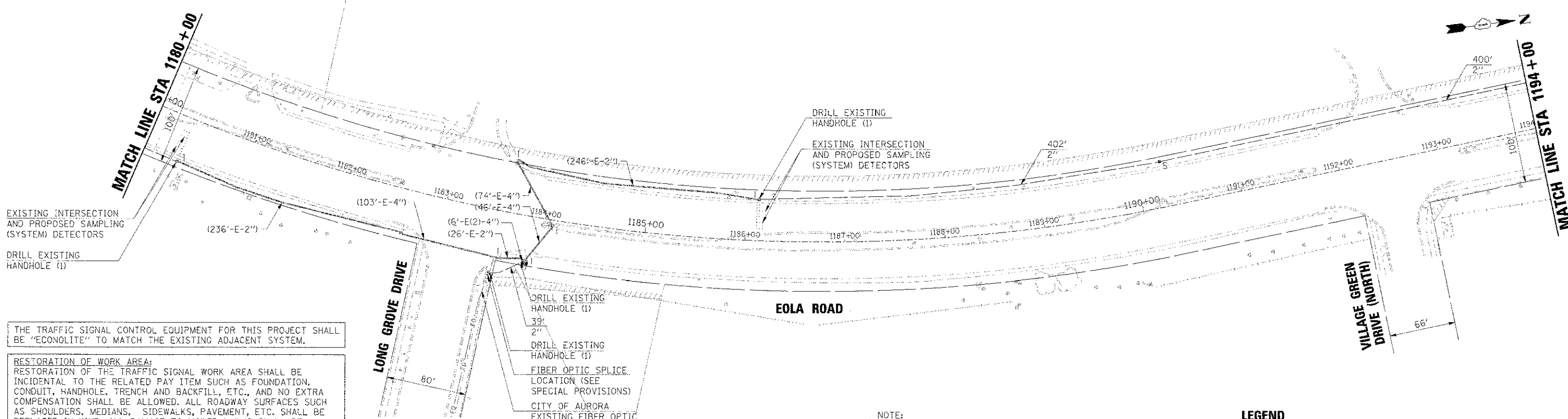
HRGreen.com Illinois Professional Design Firm #184-001922	USER NAME: MFellner DESIGNED: MJF CHECKED: AFS DATE: 12/27/2012	REVISED: - REVISED: - REVISED: - REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN (SHEET 6 OF 9)	F.A.U. RTE.: 2531 SECTION: 11-00296-00-TL COUNTY: DUPAGE/WILL TOTAL SHEETS: 48 SHEET NO.: 37 CONTRACT NO.: 63786
	FILE NAME: G:\184\11-00296-00-TL\sigint26.dwg	SCALE: SHEET NO. OF SHEETS STA. TO STA.			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT



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IN CHARGE	
PROJECT	
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FILE NAME	



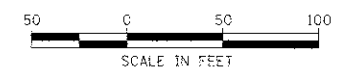
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

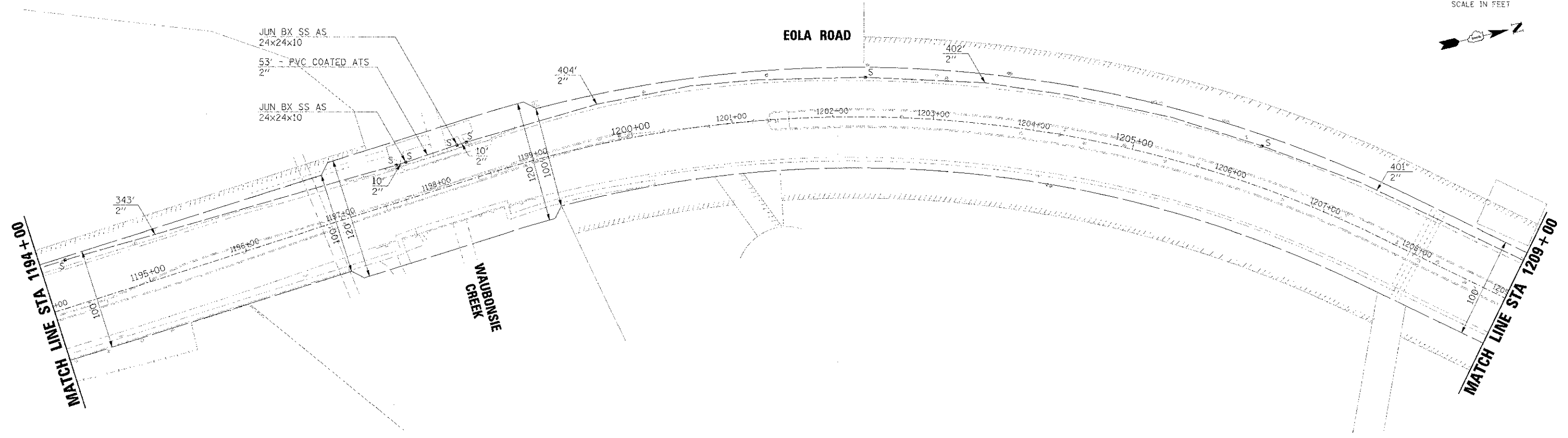
NOTE:
 THE PROPOSED TERMINAL SERVER AND AN ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET AT LONG GROVE DRIVE (SEE SPECIAL PROVISIONS).

LEGEND

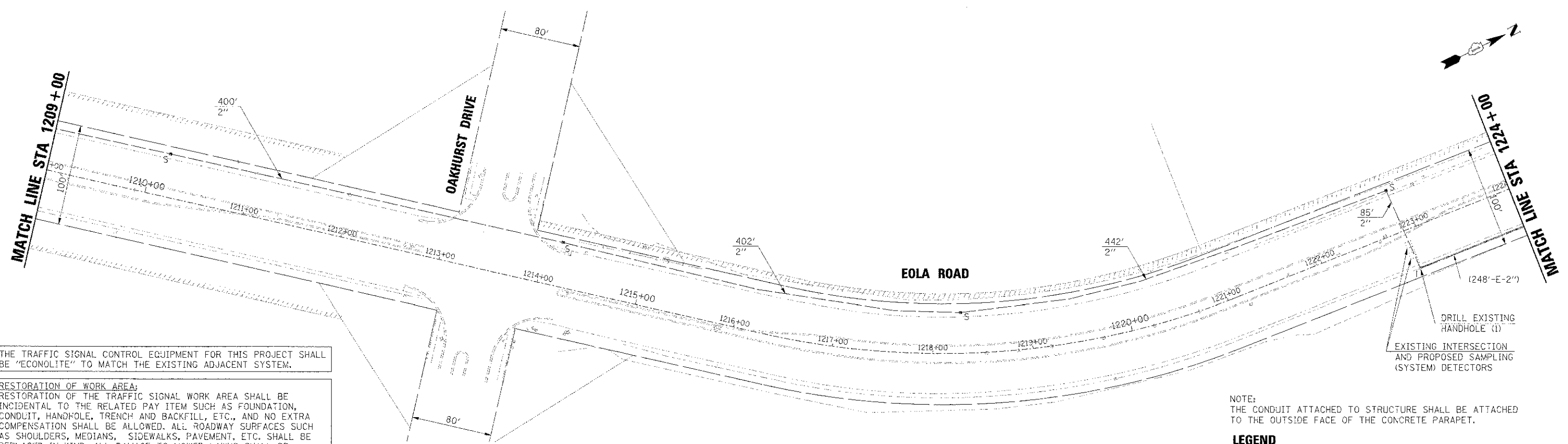
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



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

RESTORATION OF WORK AREA:
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NOTE:
 THE CONDUIT ATTACHED TO STRUCTURE SHALL BE ATTACHED TO THE OUTSIDE FACE OF THE CONCRETE PARAPET.

LEGEND

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



USER NAME = MFuller
 PLOT SCALE = 1/8"=1'-0"
 PLOT DATE = 1/9/2013
 FILE NAME = 990111sigum10.dgn

DESIGNED - MJF
 CHECKED - APS
 DATE - 12/27/2012

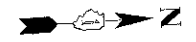
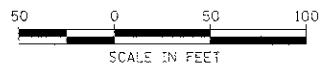
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

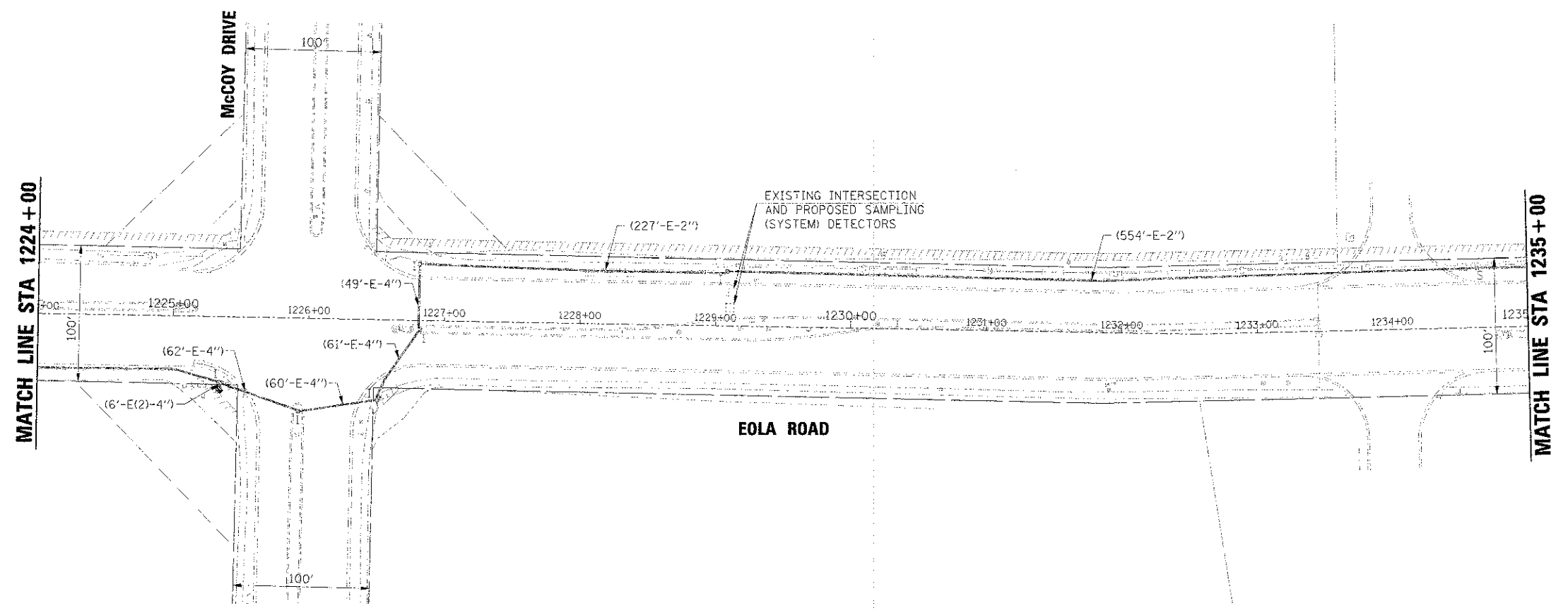
INTERCONNECT PLAN
 (SHEET 8 OF 9)

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

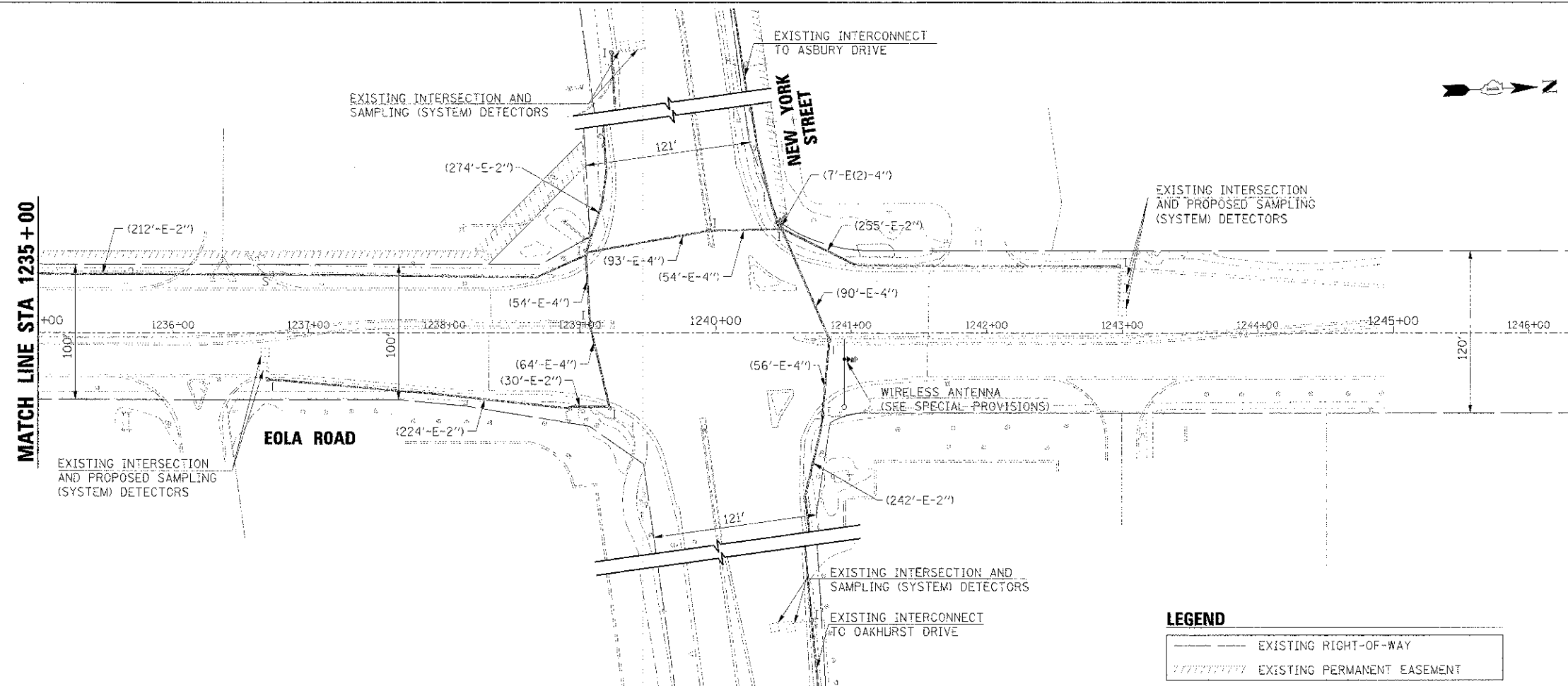
F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	DUPAGE/WILL	48	39
CONTRACT NO.			63786	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLAN	SUPVISE	DATE
NOTE BOOK	PLotted	
NO.	FILE NAME	



PROF. LIT.	DATE
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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 ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

LEGEND	
---	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



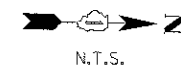
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PROJECT NAME		CHECKED	APS	REVISED	-
PLT DATE	1/9/2013	DATE	12/27/2012	REVISED	-
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

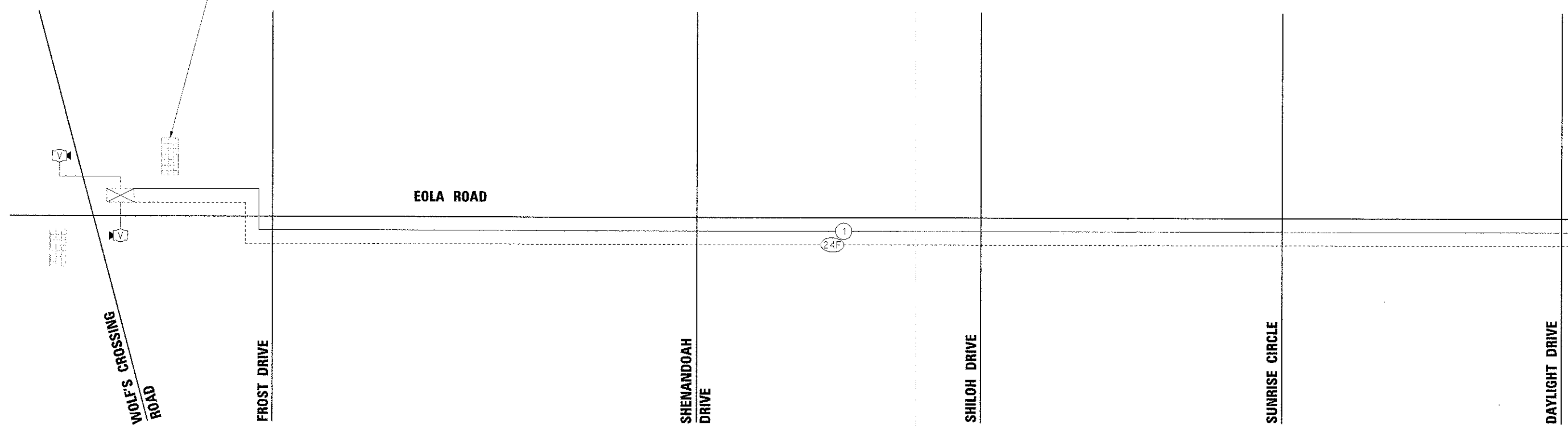
INTERCONNECT PLAN
 (SHEET 9 OF 9)

SCALE:	SHEET NO.	OF	SHEETS	SFA.	TO	STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	DUPAGE/WILL	48	40
CONTRACT NO.			63786	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) VIDEO DETECTION ZONE (TYP)



MATCH LINE - SEE SHEET 2 OF 6

PLAN	DATE
NO. 1000	12/27/2012
NO. 1000	12/27/2012
NO. 1000	12/27/2012

PROFILE	DATE
NO. 1000	12/27/2012
NO. 1000	12/27/2012
NO. 1000	12/27/2012

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	INTERCONNECT
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	20119
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	FOOT	53
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	2
HANDHOLE	EACH	49
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
TRANSCIEVER - FIBER OPTIC	EACH	8
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	25702
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	25702
DRILL EXISTING HANDHOLE	EACH	8
FIBER OPTIC CABLE SPLICE	EACH	1
RADIO ANTENNA	EACH	1
WIRELESS ETHERNET RADIO	EACH	1
ETHERNET SWITCH	EACH	1
TERMINAL SERVER	EACH	1
CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1

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



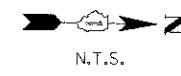
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PLOT SCALE =	CHECKED = APS	REVISED =
PLOT DATE = 1/9/2013	DATE = 12/27/2012	REVISED =
FILE NAME = 692_IL_schem_01.dgn		REVISED =

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT SCHEMATIC
(SHEET 1 OF 6)**

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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P.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-FL	DUPAGE/WILL	48	41
CONTRACT NO.			63786	
ILLINOIS FED. AID PROJECT				

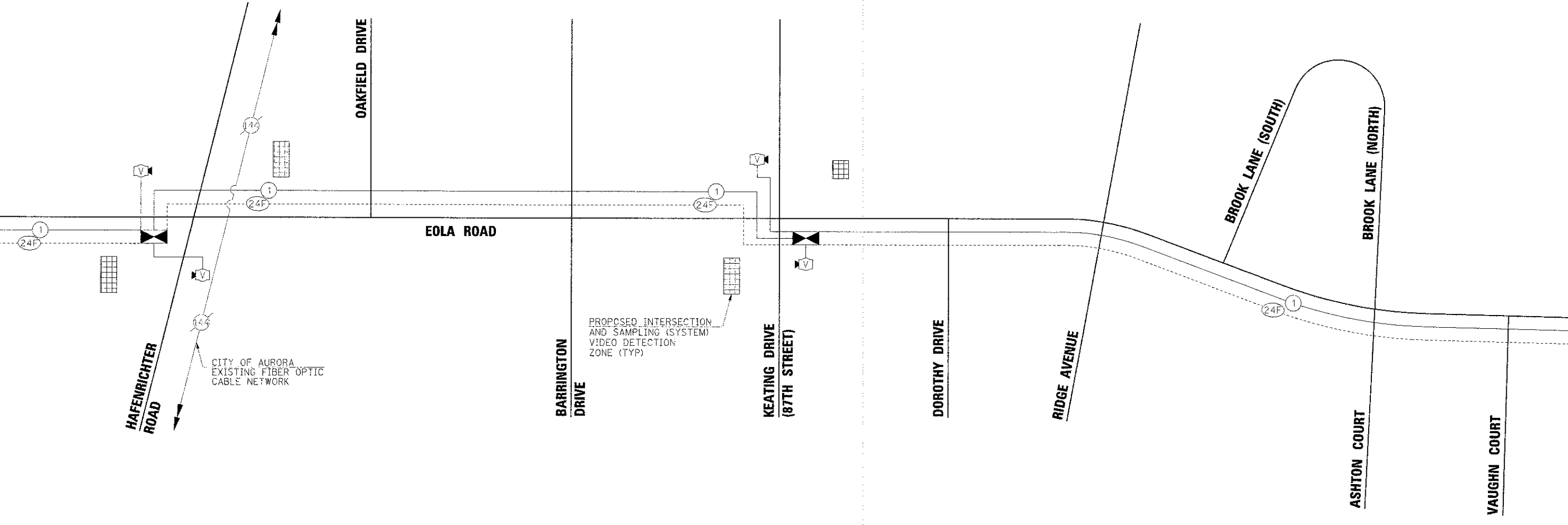


PLAN	DESIGNED	DATE
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	APPROVED	
	DATE	

PROJ. NO.	DATE

MATCH LINE - SEE SHEET 1 OF 6

MATCH LINE - SEE SHEET 3 OF 6



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



USER NAME = MFeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 1/9/2013	DATE = 12/27/2012	REVISED -
FILE NAME = 638_IL.schem_02.dgn		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC
(SHEET 2 OF 6)

SCALE:	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.U. RTE. 293	SECTION 11-00296-00-TL	COUNTY DUPAGE/WILL	TOTAL SHEETS 48	SHEET NO. 42
CONTRACT NO. 63786			ILLINOIS FED. AID PROJECT	



MATCH LINE - SEE SHEET 2 OF 6

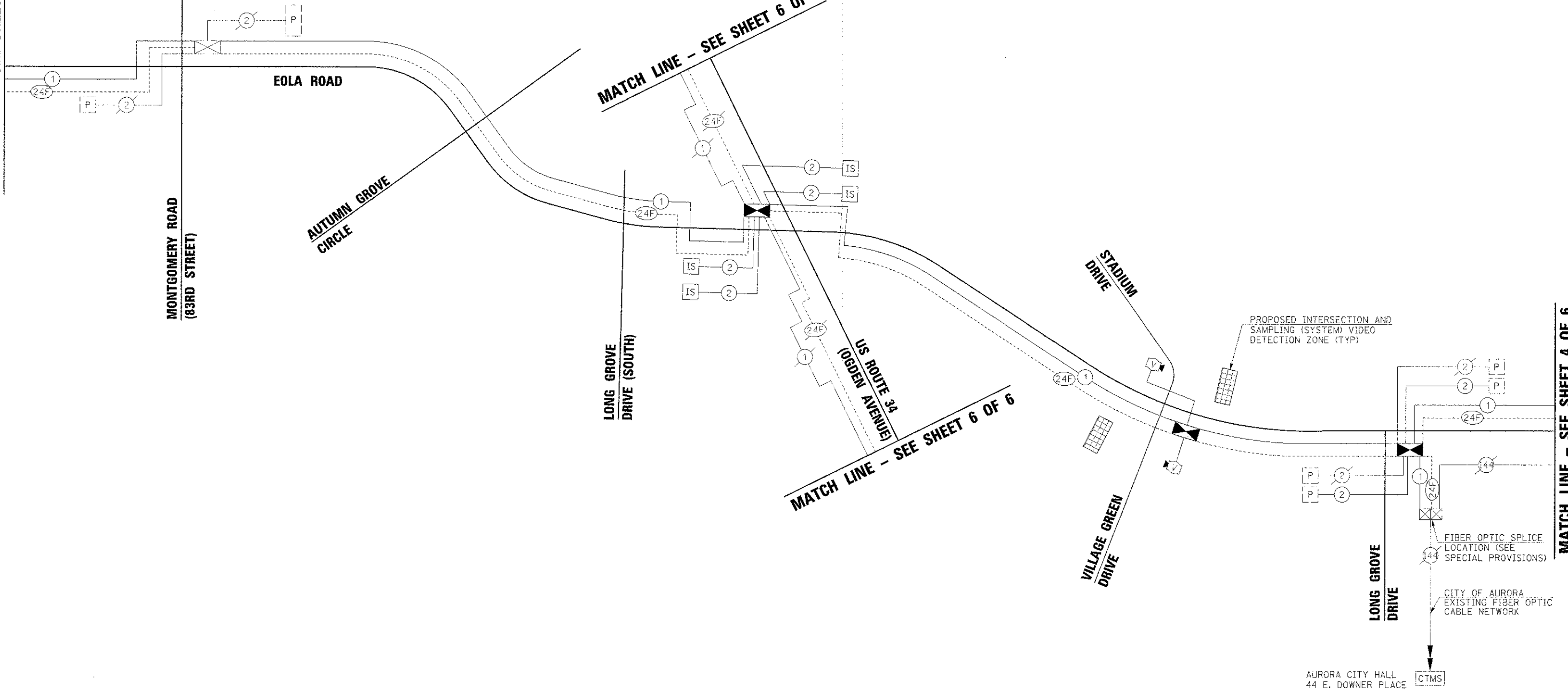
MATCH LINE - SEE SHEET 6 OF 6

MATCH LINE - SEE SHEET 6 OF 6

MATCH LINE - SEE SHEET 4 OF 6

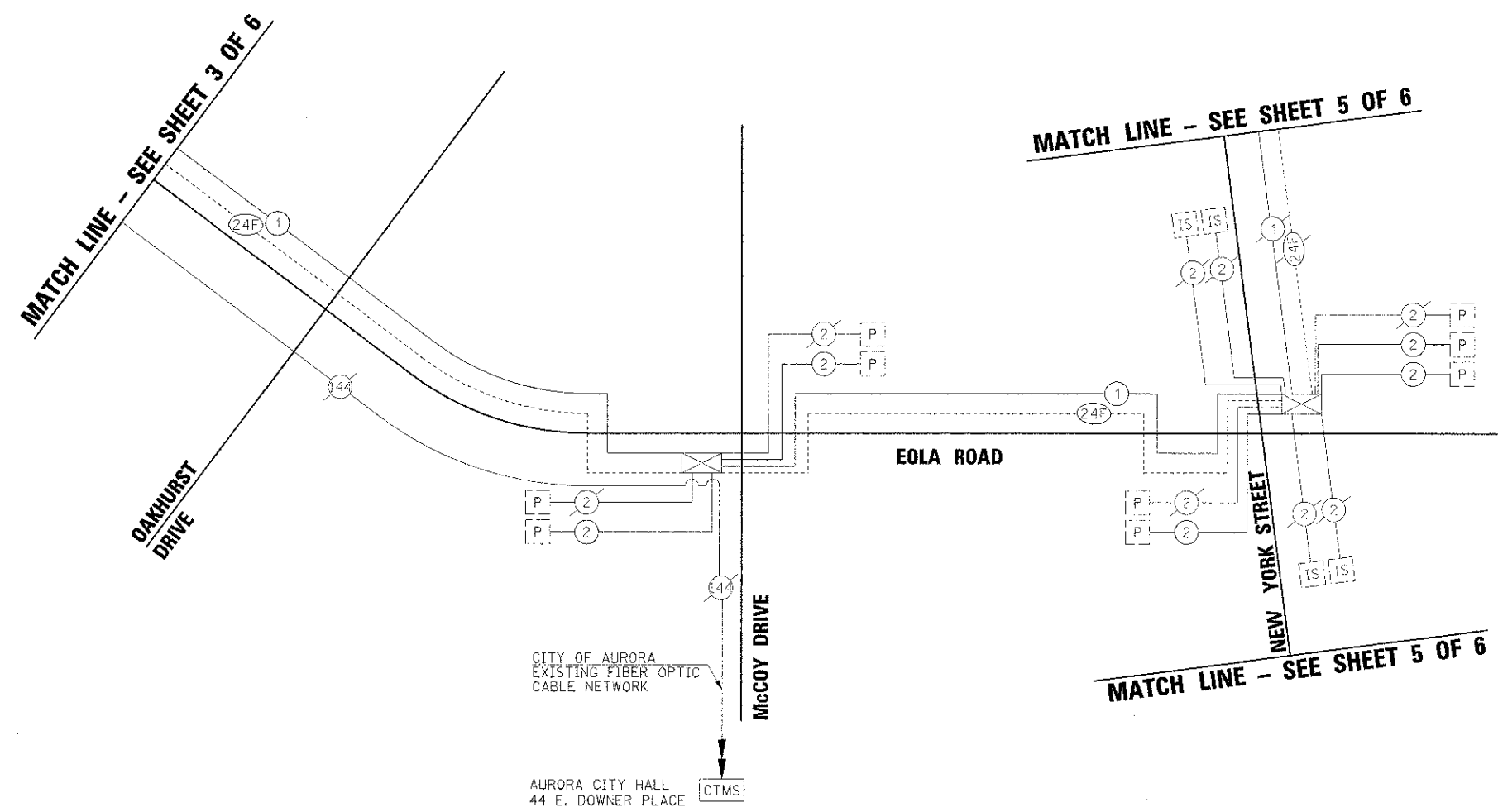
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PROFILE	REVISED	DATE
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NO. 8	BY	
NO. 9	BY	
NO. 10	BY	



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

	HRGreen.com Illinois Professional Design Firm #164-001322	USER NAME - MFuller DESIGNED - MJF CHECKED - APS DATE - 12/27/2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC (SHEET 3 OF 6)	F.A.G. RT. 2531 SECTION 11-00236-00-TL COUNTY DUPAGE/WILL TOTAL SHEETS 48 SHEET NO. 43 CONTRACT NO. 63786
	PLOT DATE - 1/9/2013 FILE NAME - 696-IL-Intercon-03.dgn	SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			



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



USER NAME = Mfeller	DESIGNED - MJF	REVISD -
PLOT SCALE =	CHECKED - APS	REVISD -
PLOT DATE = 12/19/2013	DATE - 12/27/2012	REVISD -
FILE NAME = 698LL.usheer_04.dgn		REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC
(SHEET 4 OF 6)

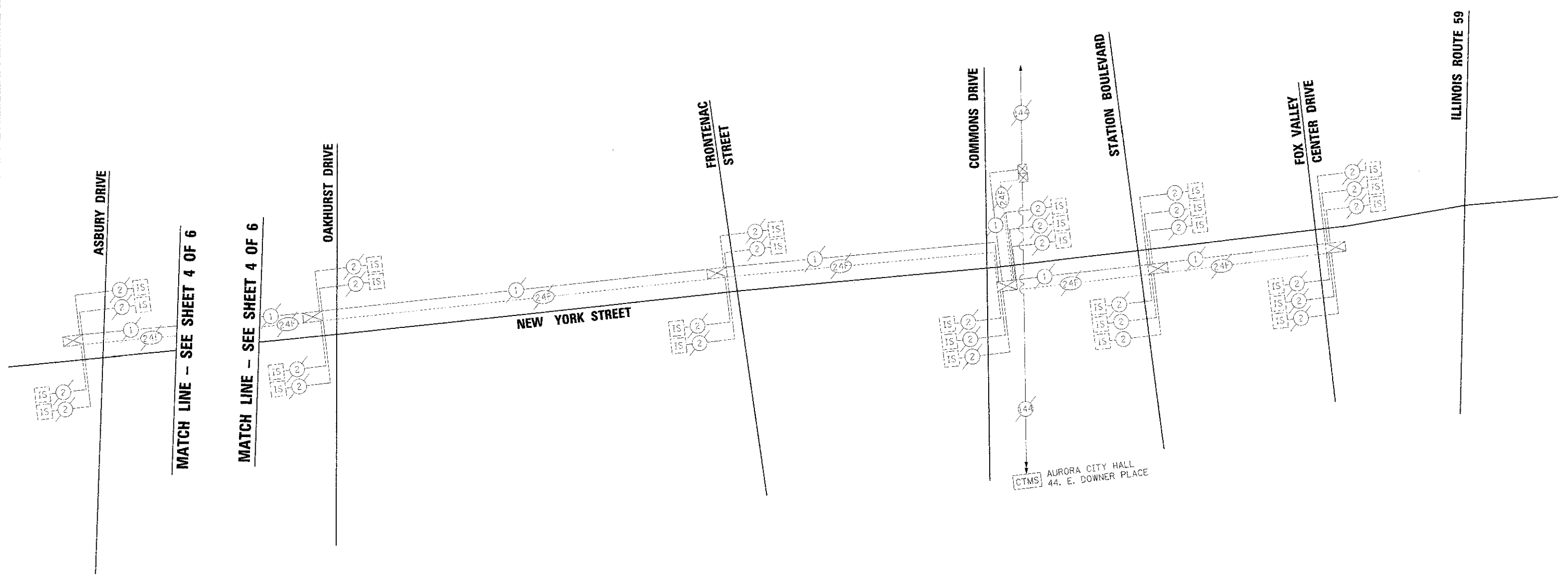
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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P.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	SHEET NO.
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FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 63786	



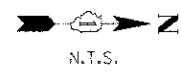
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NOTE BOOK	PLOTTED	
NO.	REVISIONS	
	DATE	
	BY	
	CHKD	
	DATE	

PROJECT	STRUCTURE	DATE
NO.	NO.	



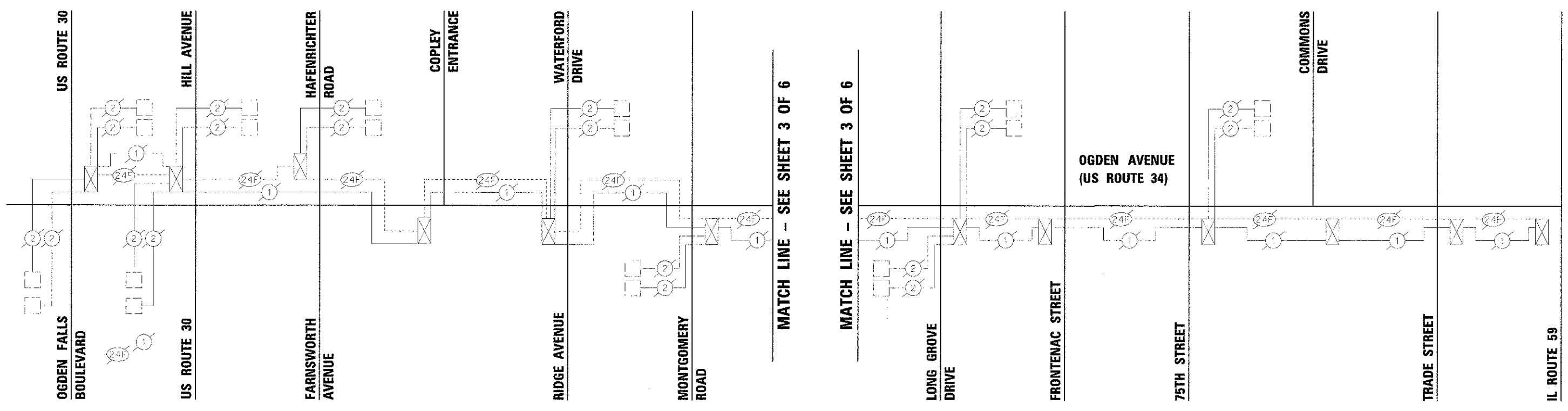
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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	SCALE: SHEET NO. OF SHEETS STA. TO STA.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



PLAN	DATE
SUBMITTED	
REVISED	
APPROVED	
BY	
DATE	
NOTE BOOK	
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FILE NAME	

PROFILE	DATE
SUBMITTED	
REVISED	
APPROVED	
BY	
DATE	
NOTE BOOK	
NO.	
FILE NAME	



MATCH LINE - SEE SHEET 3 OF 6

MATCH LINE - SEE SHEET 3 OF 6

SCHEDULE OF QUANTITIES



DESIGN NAME	DESIGNED	REVISIONS
PROJECT NAME	CHECKED	REVISIONS
DATE	DATE	REVISIONS
FILE NAME		REVISIONS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

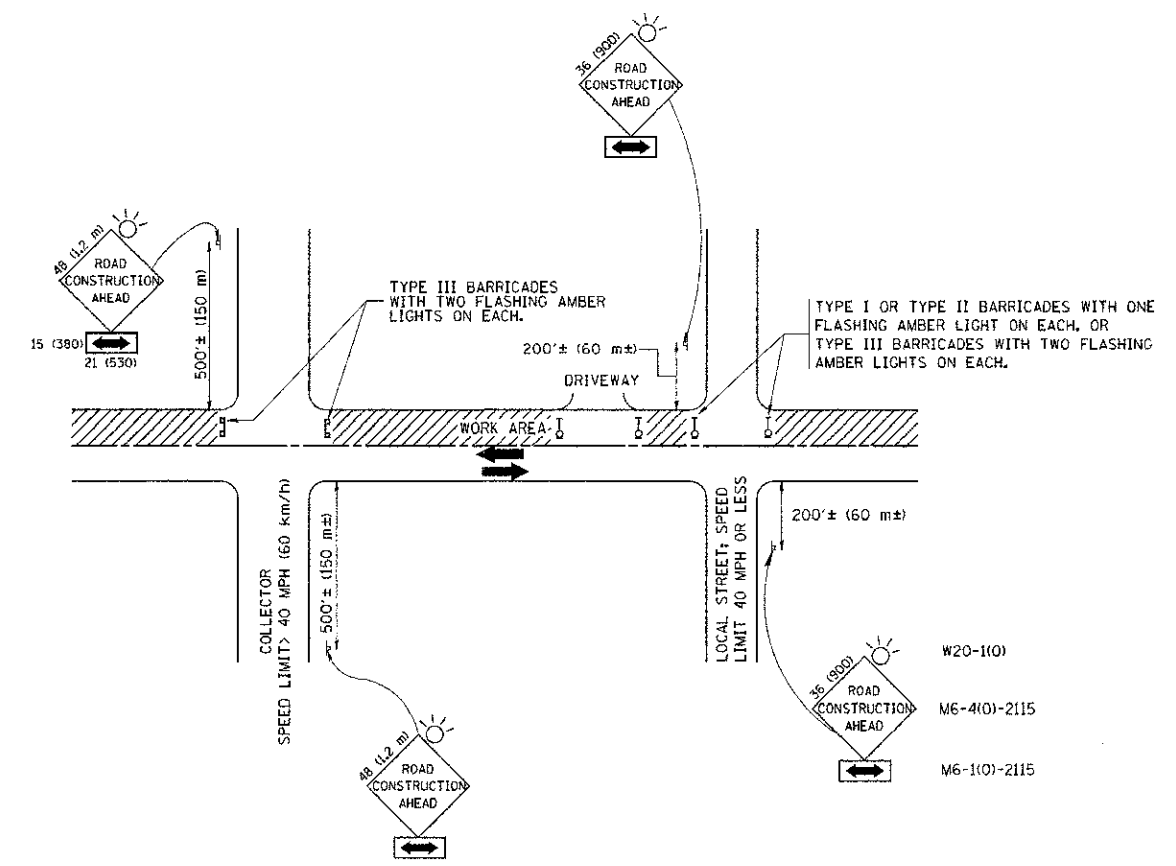
**INTERCONNECT SCHEMATIC
(SHEET 6 OF 6)**

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	DUPAGE/WILL	46	46
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 63786

PLAN	REVISIONS	DATE
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2	NOTES CHECKED	
3	NO. SIGNATURE	
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PROFILE	REVISIONS	DATE
1	PLOTTED	
2	NOTES CHECKED	
3	NO. SIGNATURE	
4	NO. SIGNATURE	



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 - 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER.
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER.
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (12 m x 12 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY
 - USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
 - C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
 - D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME = W:\d\10\122-34\10.dgn	USER NAME = gogienobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 96,000 / IN	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-10 CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



USER NAME = mFeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 1/9/2013	DATE - 12/27/2012	REVISED -
FILE NAME = S:\10\122-34\10.dgn		REVISED -

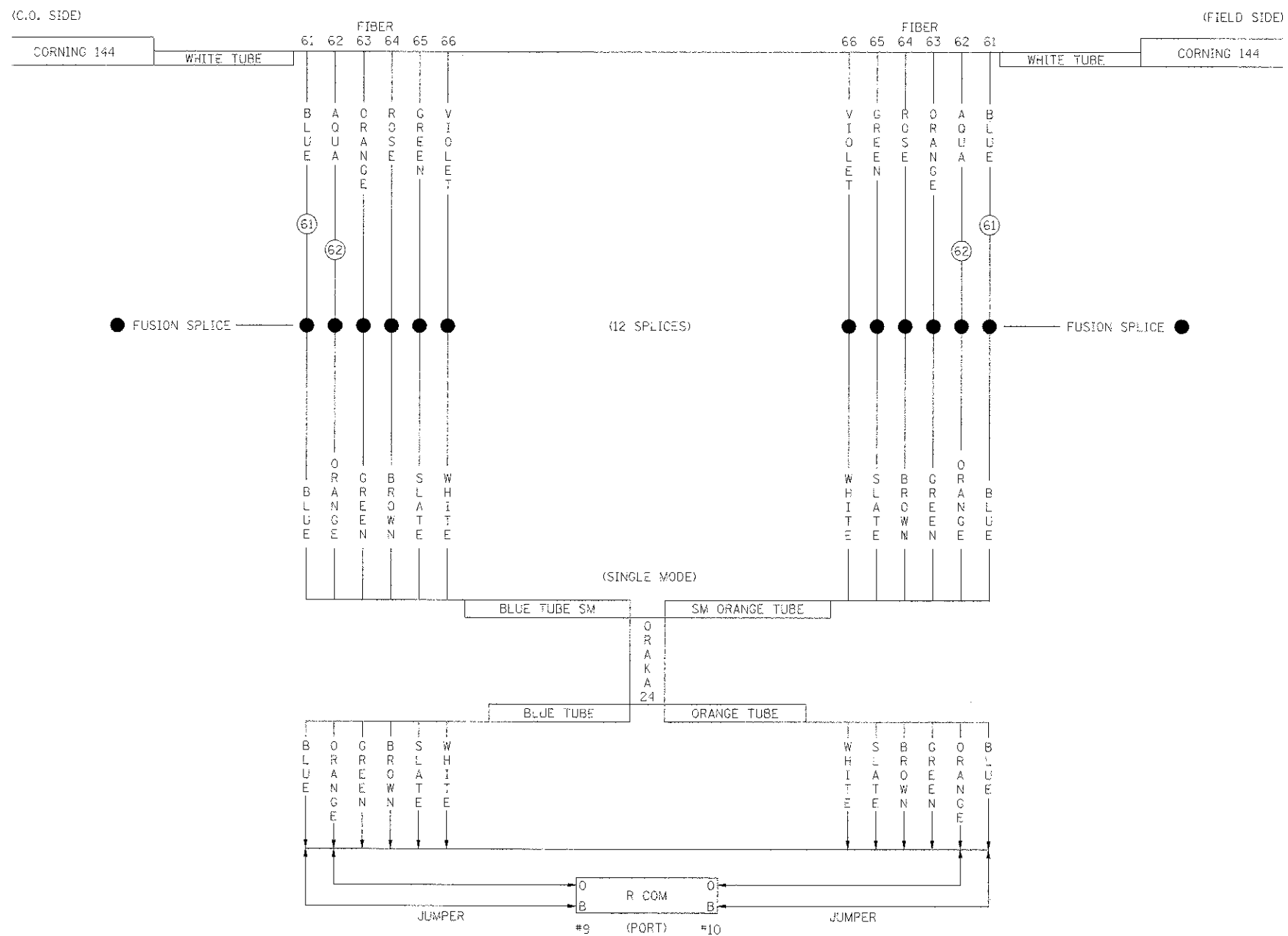
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION DETAIL FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	11-00296-00-TL DUPAGE/WILL CONTRACT NO. 63786		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2531	11-00296-00-TL	DUPAGE/WILL	48	47
CONTRACT NO. 63786				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL - FIBER 'T' SPLICE

FIBER OPTIC INTERCONNECT AND SPLICE GENERAL NOTES



1. AT ALL CABINETS, THE FOLLOWING SHALL BE USED:
MULTI MODE - GREEN TUBE
SINGLE MODE - BLUE TUBE
2. AT ALL CABINETS, A MINIMUM OF SIX (6) MULTI MODE AND SIX (6) SINGLE MODE FIBERS SHALL BE TERMINATED WITH APPROVED MECHANICAL CONNECTORS AT THE DISTRIBUTION ENCLOSURE. FIBERS NOT ATTACHED SHALL BE CAPPED, SEALED, AND LABELED "MM SPARE" OR "SM SPARE".
3. THE DISTRIBUTION ENCLOSURE AND ALL CONNECTORS WILL BE INCLUDED IN THE COST OF THE FIBER OPTIC CABLE.
4. ALL FIBERS SHALL BE TERMINATED IN THE CABINET PRIOR TO THE FUSION SPLICE BEING PERFORMED, SO THAT OTDR TESTS CAN BE RUN TO APPROVE THE SPLICE.
5. OTDR TESTING SHALL BE INCLUDED IN THE COST OF THE FIBER OPTIC SPLICE.
6. AT THE CABINET, TERMINATE ALL TWELVE (12) SINGLE MODE WITH "SC" MECHANICAL CONNECTORS.
7. AT THE CABINET, TERMINATE ALL MULTI MODE WITH "ST" MECHANICAL CONNECTORS.

1 EACH: TYCO FOSC 450 D6 CLOSURE
INCLUDED IN STD. 450 D6:
1 EACH: STD. 6 TRAY
1 EACH: 6-HOLE PORT
1 EACH: TRACER GROUND LUG

PLAN	SURVEYED	DATE
NOTED	PLOTTED	
NOTE BOOK	RECORDED	
	FILED	

PROF. FILE	SURVEYED	DATE
NOTED	PLOTTED	
NOTE BOOK	RECORDED	
	FILED	