

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

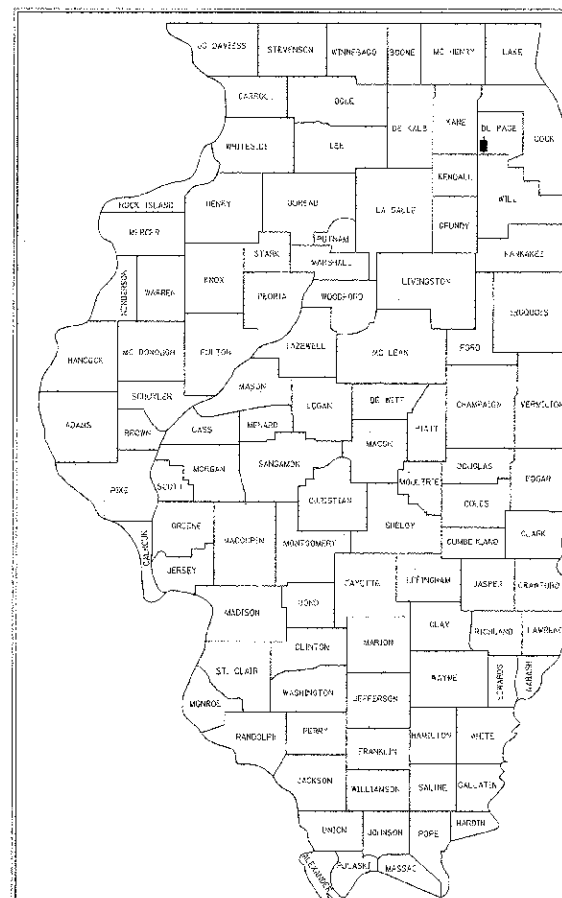
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

## PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**FAU 1531 (McCOY DRIVE)  
GREGORY STREET TO ILLINOIS ROUTE 59  
AND  
FAU 2532 (COMMONS DRIVE)  
US ROUTE 34 TO LIBERTY STREET  
TRAFFIC SIGNAL INTERCONNECT  
SECTION 11-00297-00-TL  
PROJECT NO. CMM-9003(939)  
DUPAGE COUNTY  
CITY OF AURORA  
JOB NO.: C-91-217-12**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1531/2532	11-00297-00-TL	DUPAGE	38	1

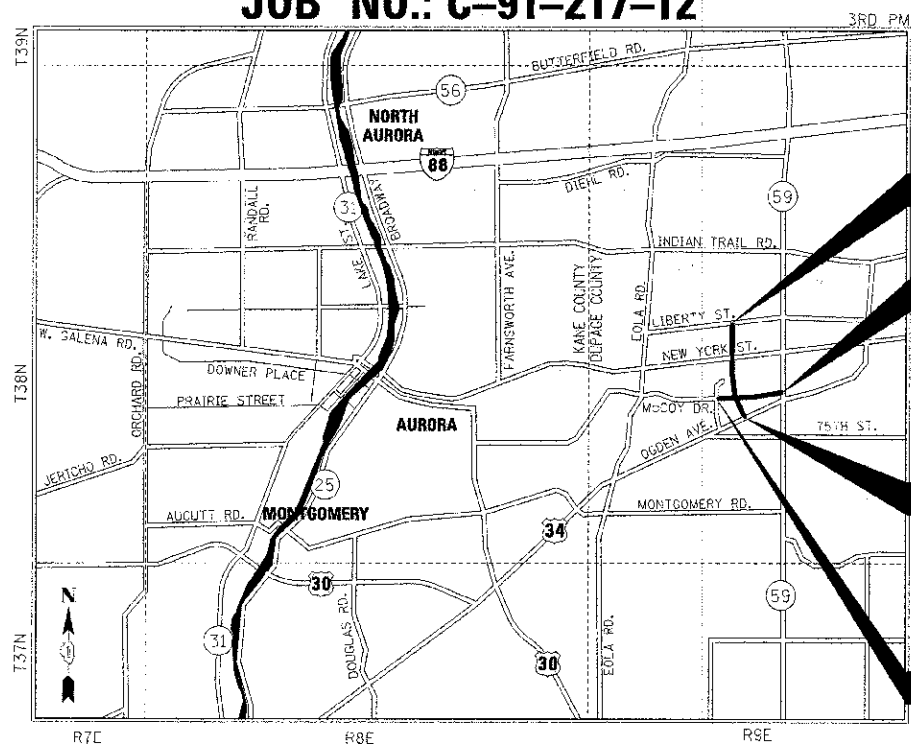
**CONTRACT NO. 63816**



LOCATION OF SECTION INDICATED THUS: — ■ —

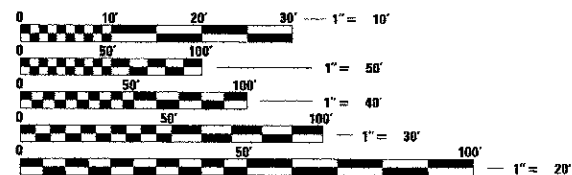
EXISTING ADT (2008) = COMMONS DRIVE: 13,500  
McCOY DRIVE: 9,700

POSTED / DESIGN SPEED = 30-35 M.P.H.  
DESIGN DESIGNATION = MINOR ARTERIAL



- END PROJECT (LIBERTY STREET) STA 3101+00
- END PROJECT (IL ROUTE 59) STA 4087+00
- BEGIN PROJECT (US ROUTE 34) STA 3031+00
- BEGIN PROJECT (GREGORY STREET) STA 4040+00

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: 63816**

**LOCATION MAP**

SCALE: N.T.S

PROJECT GROSS LENGTH = 7,000.00 FEET = 1.33 MILES (COMMONS DRIVE)  
= 4,700.00 FEET = 0.89 MILES (McCOY DRIVE)

PROJECT NET LENGTH = 7,000.00 FEET = 1.33 MILES (COMMONS DRIVE)  
= 4,700.00 FEET = 0.89 MILES (McCOY DRIVE)



*Matthew J. Feller*  
MATTHEW J. FELLER, P.E.  
NO. 062-065169  
EXPIRES: 11/30/2013  
HR GREEN, INC.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

APPROVED February 6 20 13  
*[Signature]*  
CITY OF AURORA, CITY TRAFFIC ENGINEER

PASSED February 25 20 13  
*[Signature]*  
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW February 27 20 13  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS



651 PRAIRIE POINTE, SUITE 201 | YORKVILLE, ILLINOIS 60550  
Phone: 630.553.7500 | Toll Free: 800.728.7805 | Fax: 630.553.7646 | HRGreen.com  
ILLINOIS PROFESSIONAL DESIGN FIRM #184-001322

DATE	BY
PLANNING	CHECKED
NOTE BOOK	FILE NAME
NO.	

DATE	BY
PROFILE	CHECKED
NOTE BOOK	FILE NAME
NO.	

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## LIST OF HIGHWAY STANDARDS

000001	- 06	STANDARD SYMBOLES, 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
701601	- 06	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701	- 06	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
857001	- 01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001	- 01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001	- 02	TRAFFIC SIGNAL GROUNDING & BONDING
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 = MFeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 2/22/2013	DATE - 02/21/2013	REVISED -
FILE NAME = 698_10_1.dwg		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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1531/2532	11-00297-00-TL		38	2
CONTRACT NO. 6381			ILLINOIS FED. AID PROJECT	

PLAN SURVEYED BY DATE  
 PLOTTED BY  
 NOTE BOOK NO. OF THIS CHECKED BY  
 FILE NAME

PROFILE SURVEYED BY DATE  
 PLOTTED BY  
 NOTE BOOK NO. OF THIS CHECKED BY  
 FILE NAME

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COMMONS DRIVE AT OGDEN AVENUE 0021	COMMONS DRIVE AT McCOY DRIVE 0021	COMMONS DRIVE AT RAINTREE ROAD 0021	COMMONS DRIVE AT NEW YORK STREET 0021	COMMONS DRIVE AT LIBERTY STREET 0021	McCOY DRIVE AT GREGORY STREET 0021	McCOY DRIVE AT MERRIAM DRIVE 0021	McCOY DRIVE AT VENUTI DRIVE 0021	McCOY DRIVE AT L. ROUTE 59 0021	INTERCONNECT 0021
* 42400300	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	866	36	81	207		45	153	144			
* 42400800	DETECTABLE WARNINGS	SQ FT	95	7	9	30		10	26	13			
* 44000600	SIDEWALK REMOVAL	SQ FT	522	38	81	207		45	153				
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
67100100	MOBILIZATION	L SUM	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
70100630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
70102840	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	450	186		134				130			
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	52			24				28			
* 78300100	PAVEMENT MARKING REMOVAL	SQ FT	155			66				89			
80500010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	7		1	1		1	1	1	1	1	
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	1									
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA	FOOT	8561	196						247	486	272	5360
81400100	HANDHOLE	EACH	26	1						1	2	1	21
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	10	1	1	1	1	1	1	1	1	1	1
86400100	TRANSCIVER - FIBER OPTIC	EACH	8										8
87100020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	16201.5										16201.5
87300010	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	57	6	8	9		7	6	8	6	7	
87300625	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	16201.5										16201.5
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	5560.5	489	476	804		1314	1516	498	483.5		
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	6146	561.5	553.5	832		1433.5	1572	512	497.5	164	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	11412.5	1471.5	1805	1118	724	890		2281	1828	889	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	780	122	185.5	24.5		29.5	20.5	195.5	174	25.5	
87301800	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	5206	855	806	687		760	769	808.5	552	589	
87900200	DRILL EXISTING HANDHOLE	EACH	32	1		6				10	2	1	12
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	14	2	2	4		2		2			
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6					2	4				
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	11		4	2	1			2	2		
88500100	INDUCTIVE LOOP DETECTOR	EACH	70	8	12	9	2	10		10	9	10	
88600100	DETECTOR LOOP, TYPE I	FOOT	1761	130		804				379	183	66	
88700200	LIGHT DETECTOR	EACH	1									1	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	9	1	1	1	1	1	1	1	1	1	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	28	2	2	4		6	8	2	2		
88502215	MODIFY EXISTING CONTROLLER FOUNDATION	EACH	7	1	1	1		1		1	1	1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	7185	1114	186	25		3088	2375	196	174	29	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	8	1	1	1		1	1	1	1	1	
X0324256	FIBER OPTIC CABLE SPLICE	EACH	1										1
X0326286	ETHERNET SWITCH	EACH	5			1				1	1	1	1
X0326812	CAT 5 ETHERNET CABLE	FOOT	280	78.5	63.5			77.5				60.5	
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	7	1	1	1		1		1	1	1	
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	8	1	1	1		1	1	1	1	1	
X8790250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	103.5										103.5
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	46	5	4	9		4		9	9	6	
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	27	3	4	2		4	4	2	2	6	
X8803110	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2						2				
X8803120	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2						2				
X8803388	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	11	1				4	2			4	
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	30	1	5	4		4	2	4	3	4	
X007251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	3	1	1			1					
X007952	TERMINAL SERVER	EACH	1										1
X007993	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1										1
X008955	EVP CONFIRMATION BEACON, LED RETROFIT	EACH	26	3	3	3		4	4	3	4	2	
Z0033058	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1										1
A Z0070890	TRAINEES	HOURL	500										
A Z0070904	TRAINEES TRAINING PROGRAM GRADUATE	HOURL	500										

\*SPECIALTY ITEMS  
 A CONSTRUCTION CODE TYPE 0042



USER NAME = Mfe11or  
 PLOT SCALE =  
 PLOT DATE = 2/22/2013  
 FILE NAME = 690.10\_sum01.dgn

DESIGNED - MJF  
 CHECKED - APS  
 DATE - 02/21/2013

REVISED -  
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 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

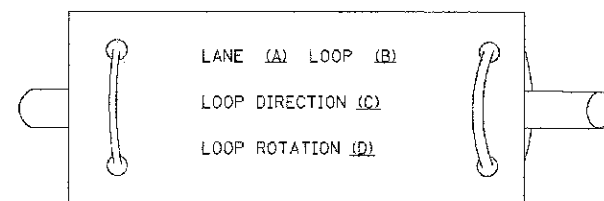
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.L. RTE. 1531/2632	SECTION 11-00297-00-TL	COUNTY	TOTAL SHEETS 38	SHEET NO. 3
CONTRACT NO. 63816		ILLINOIS FED. AID PROJECT		

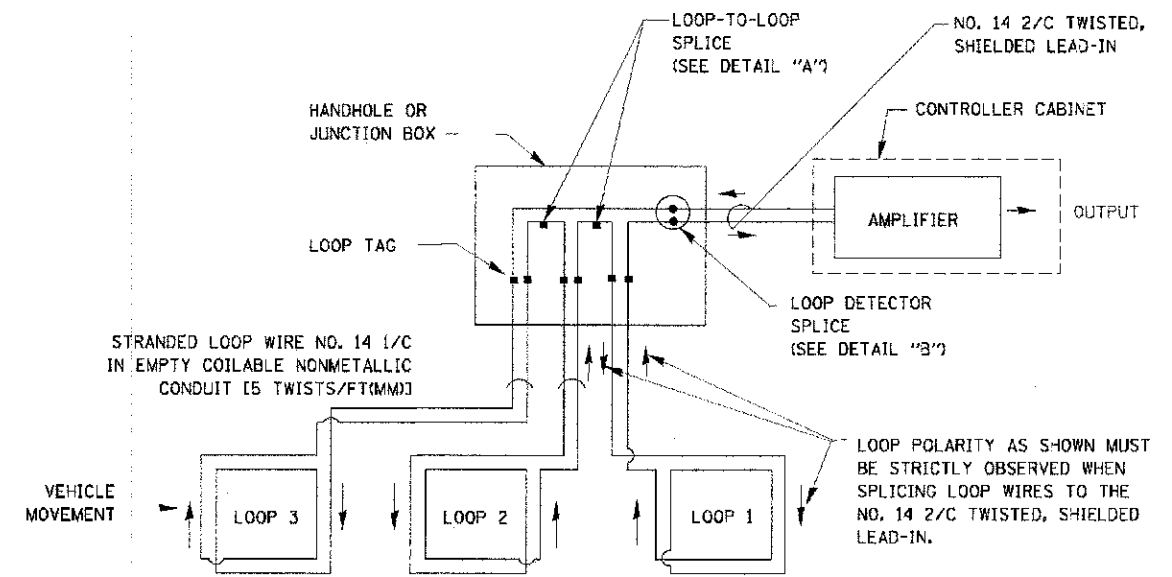
## LOOP DETECTOR NOTES

- 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.
- 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 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.
- 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

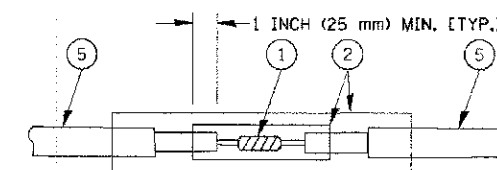


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

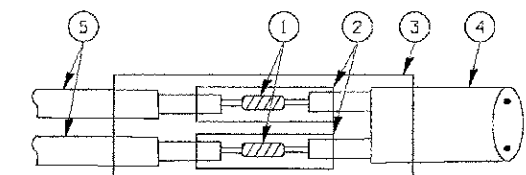


### DETECTOR LOOP WIRING SCHEMATIC

- 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.

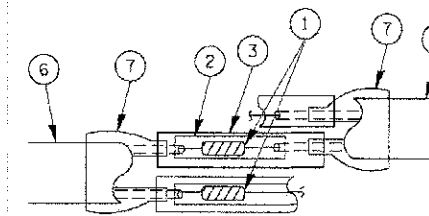


DETAIL "A"  
LOOP-TO-LOOP SPLICE

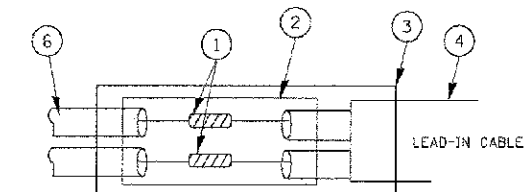


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

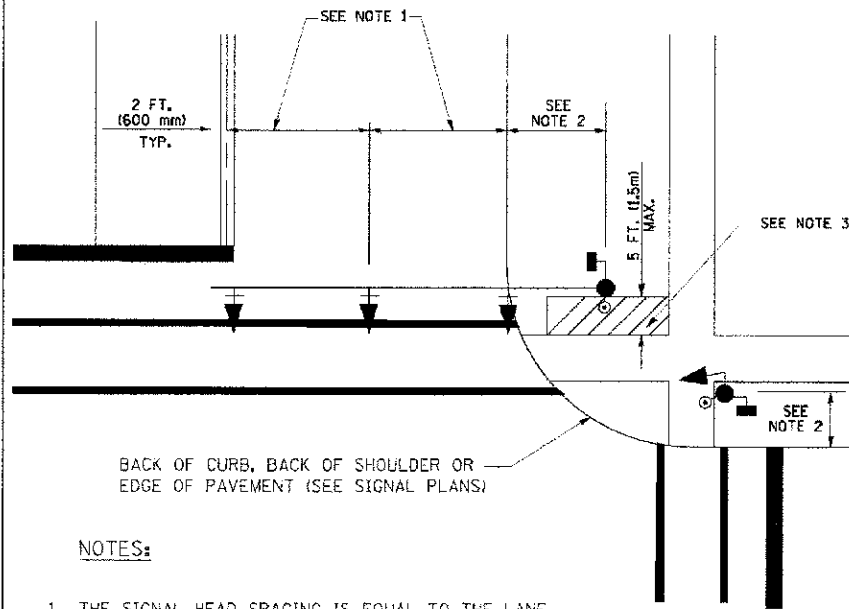
### LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = bcardi	DESIGNED - DAD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.I.L. RTE. 1537/2932	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEET SHEETS NO. 38   4	
PROJECT =	DATE = 11/4/2009	DRAWN - BCK	REVISED -			SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA. TO STA.	CONTRACT NO. 63816	
CHECKED - DAD	DATE - 10-28-09	REVISED -	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
DATE = 11/4/2009	DATE = 10-28-09	REVISED -	REVISED -							

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

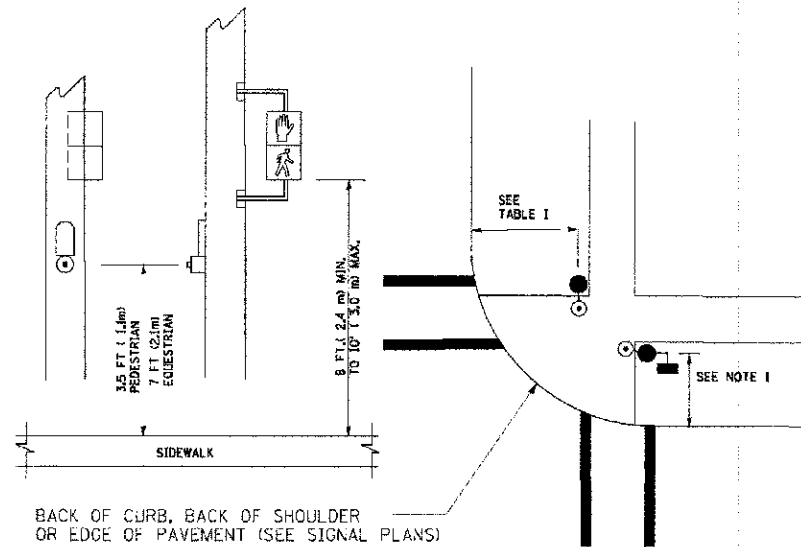
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

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

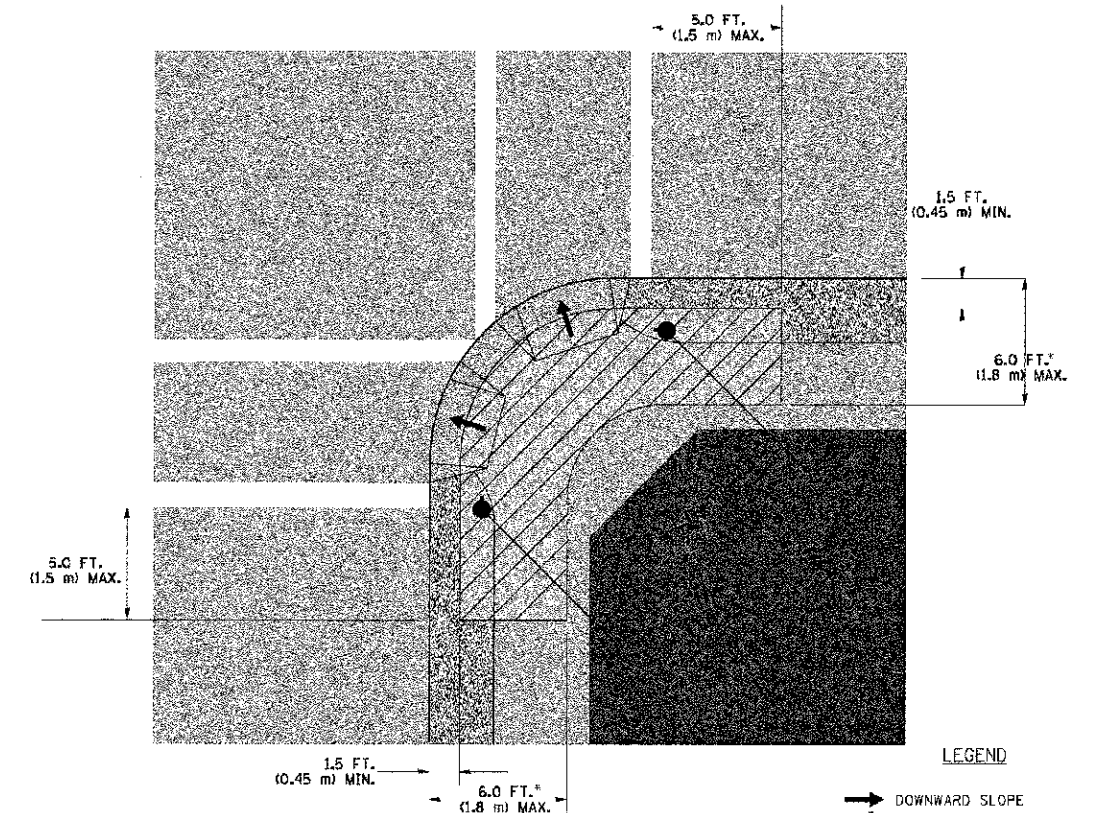
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**NOTES:**

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.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

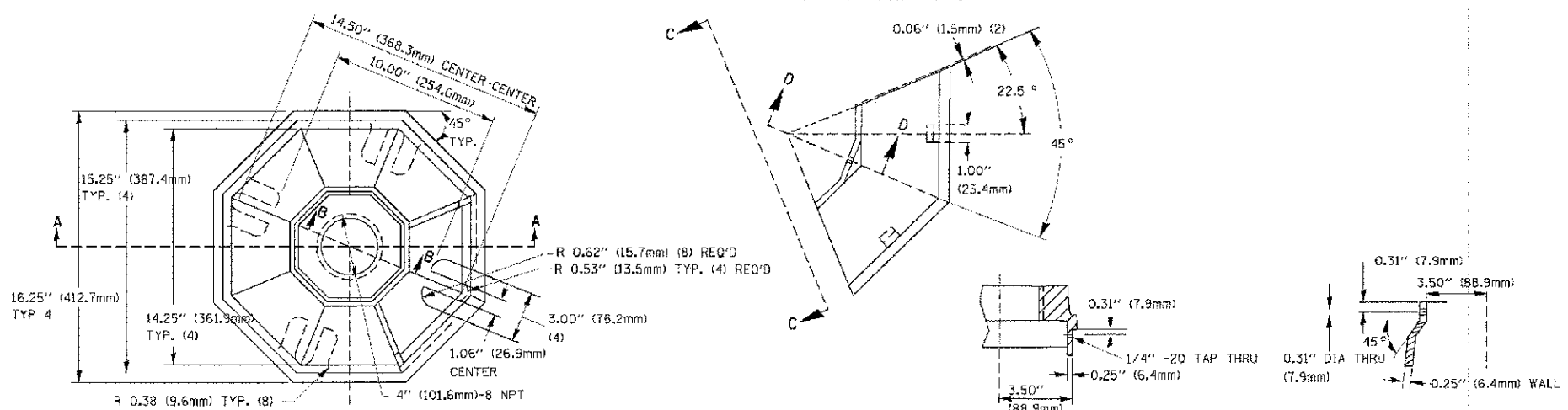
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 2 OF 6 SHEETS STA. TO STA.

F.A.U. RTE. 1537/2932	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEETS 38	SHEET NO. 5
TS-05			CONTRACT NO. 63816	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



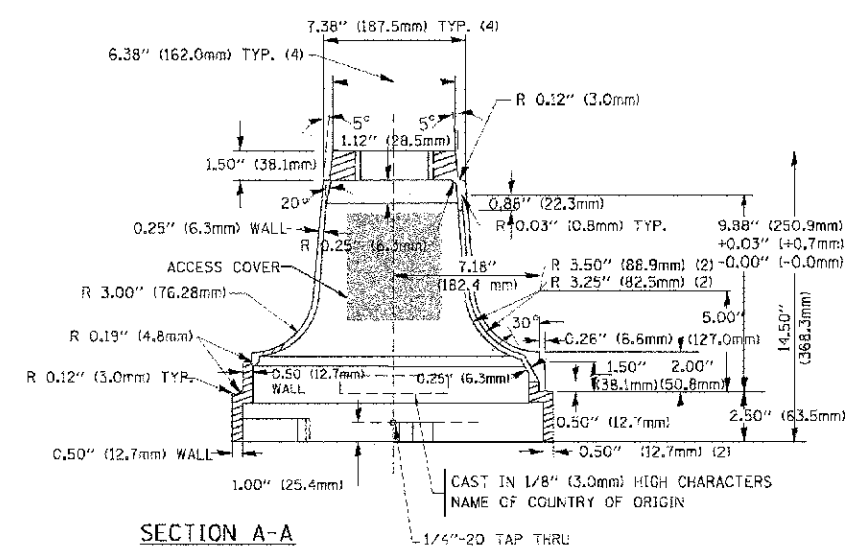




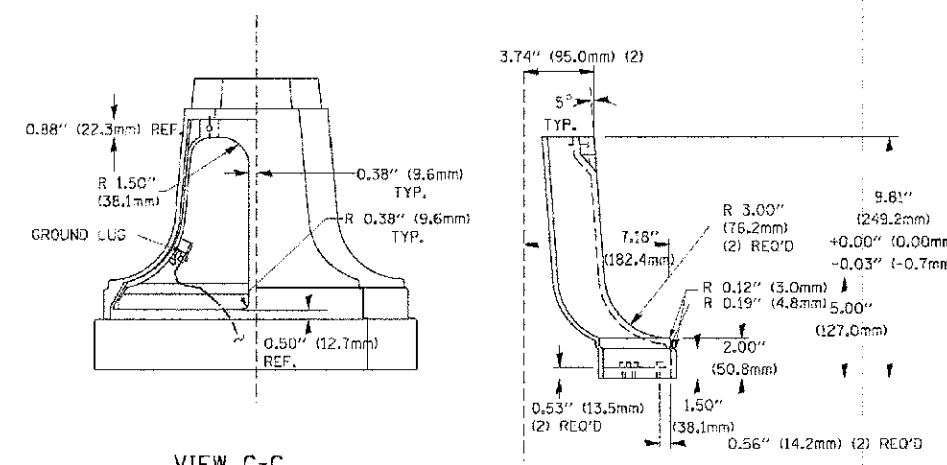
TOP VIEW

SECTION B-B

SECTION D-D

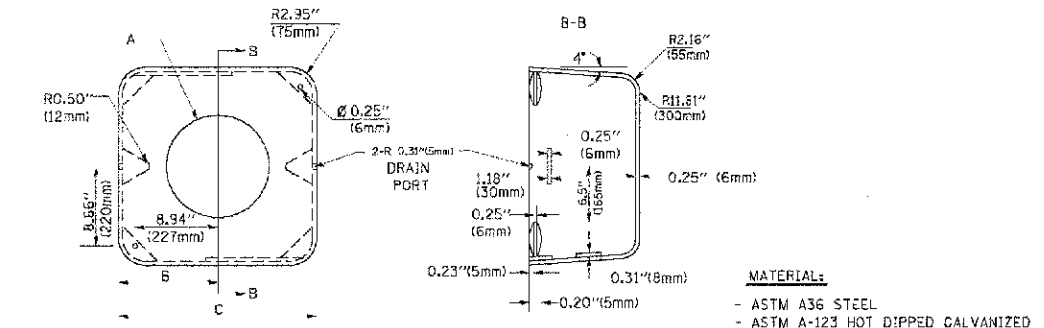


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

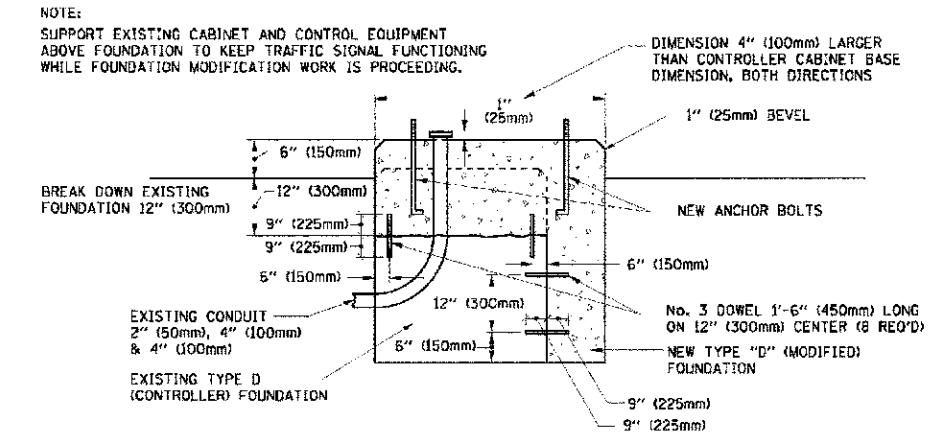


A	B	C	HEIGHT	WEIGHT
VARIES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)	126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

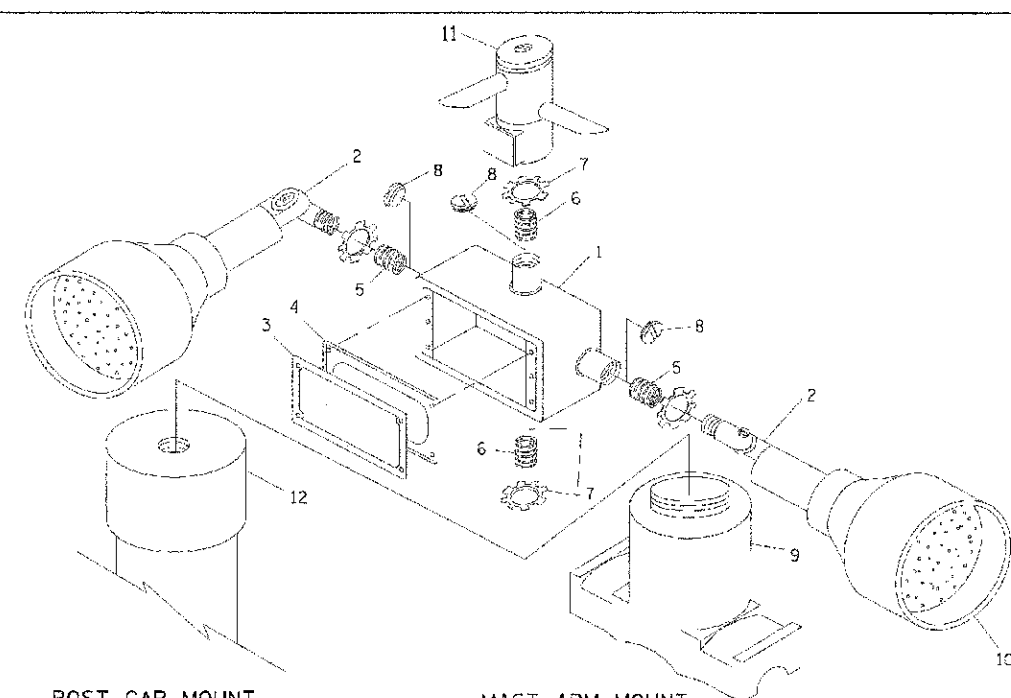
SHROUD

NOTES:

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



MODIFY EXISTING TYPE "D" FOUNDATION



POST CAP MOUNT

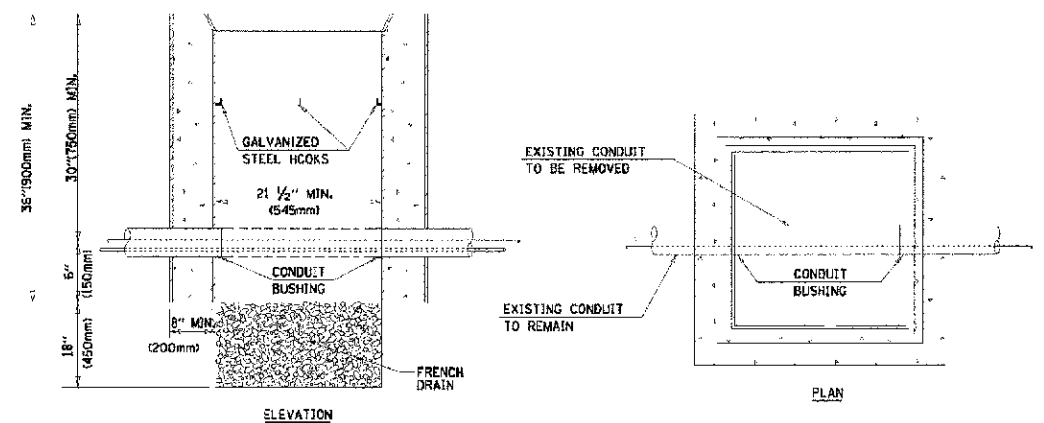
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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

NOTES:

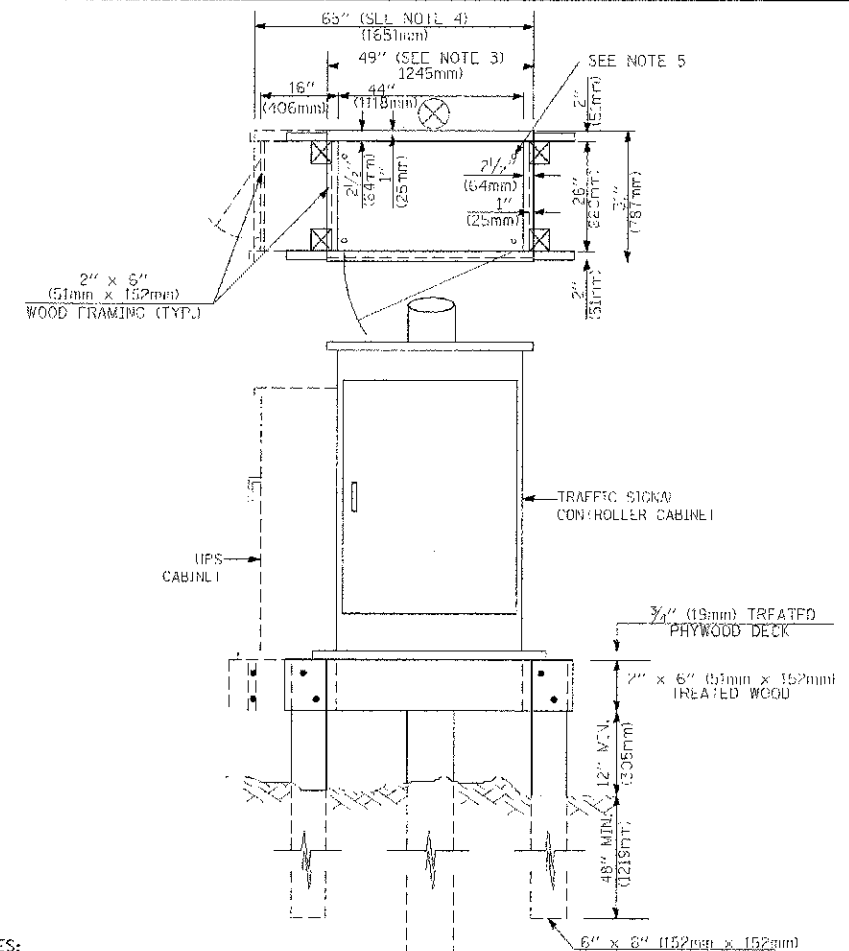
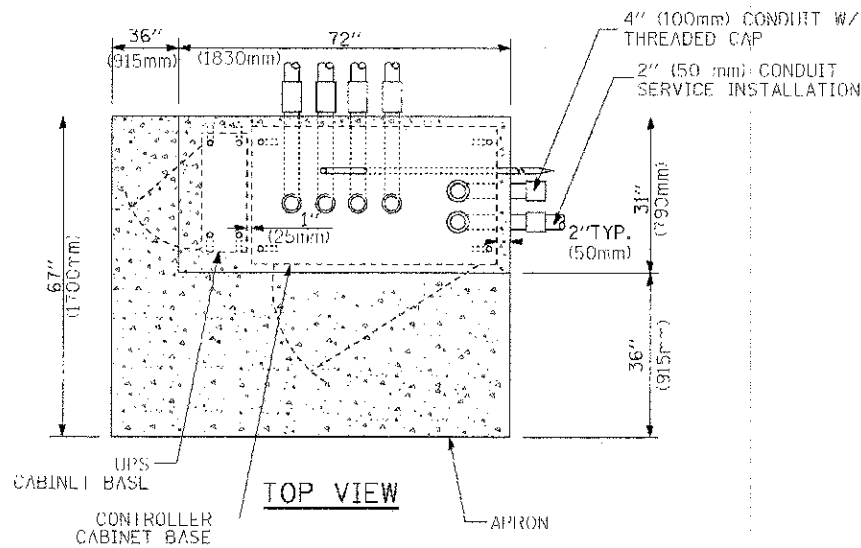
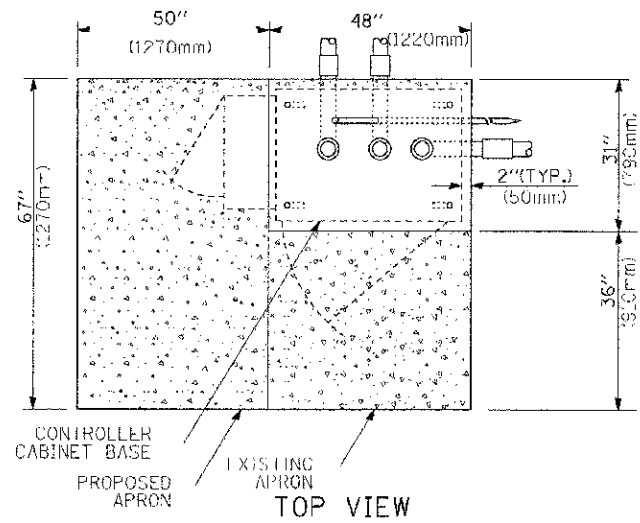
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #3- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 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.



NOTES:

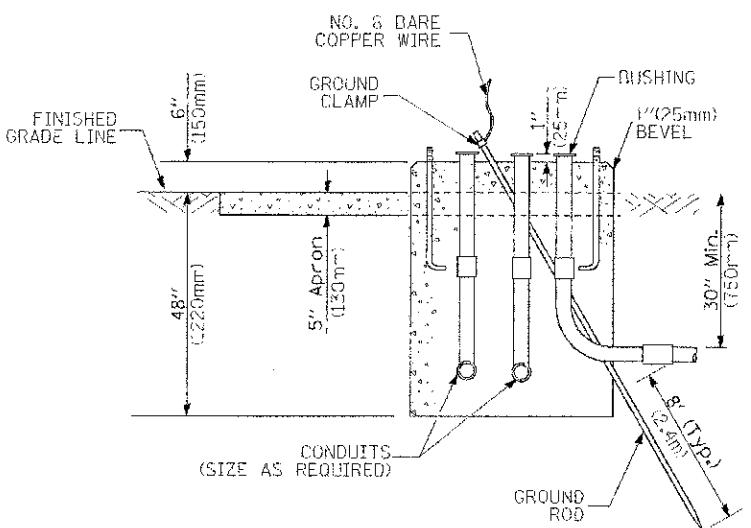
1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

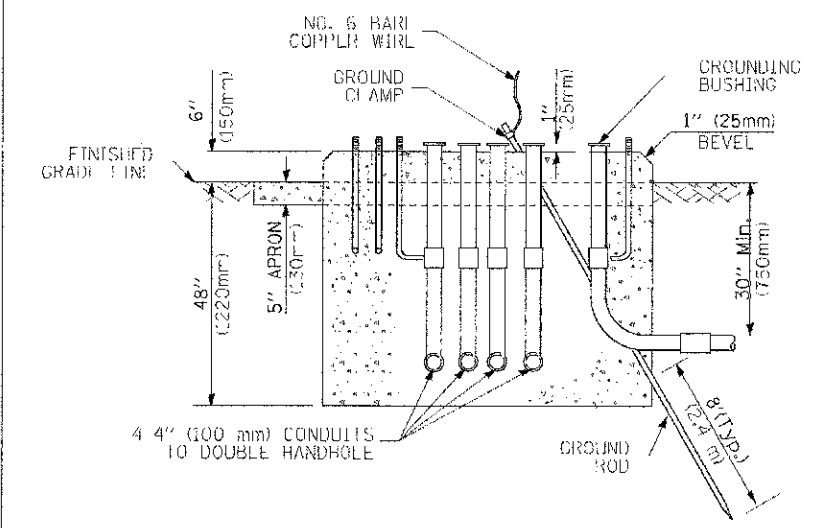


- NOTES:**
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET 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 REBAR
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 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)
	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
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 testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
  2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  4. For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**



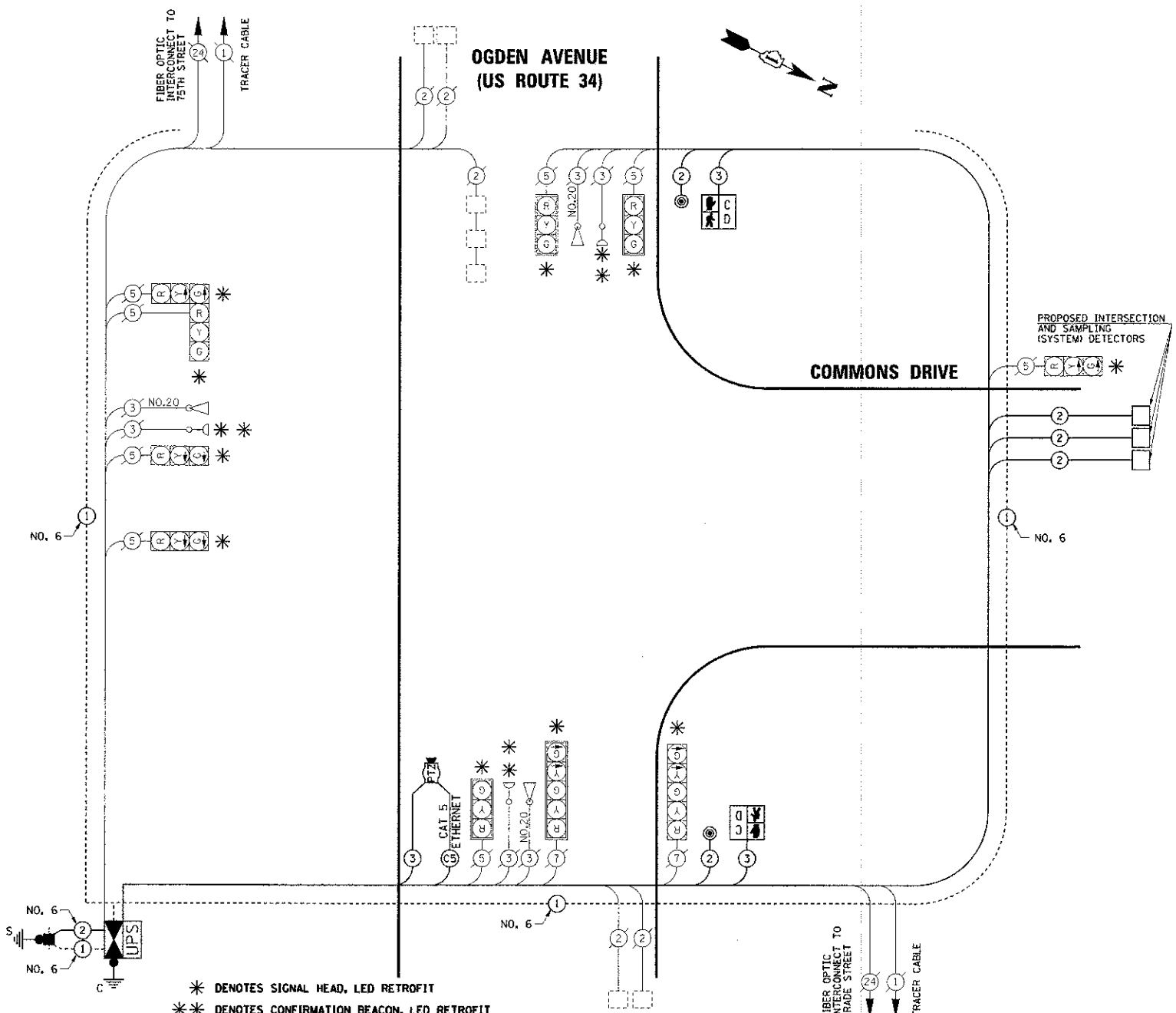




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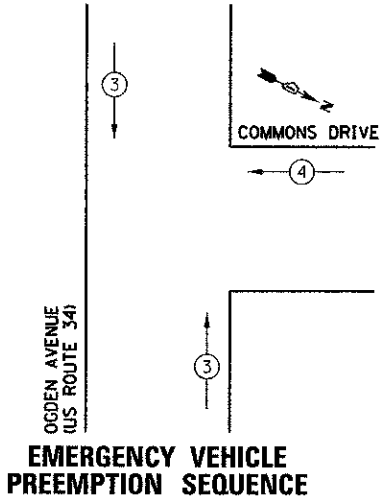


\* DENOTES SIGNAL HEAD, LED RETROFIT  
 \*\* DENOTES CONFIRMATION BEACON, LED RETROFIT

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	6		25	0.25	37.5
(GREEN)	6		15	0.25	22.5
ARROW	12		12	0.10	14.4
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					309.4

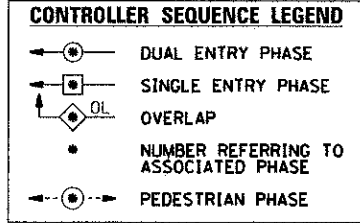
ENERGY COSTS TO: CITY OF AURORA  
 44 E. DOWNER PLACE  
 AURORA, ILLINOIS 60507-2067

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



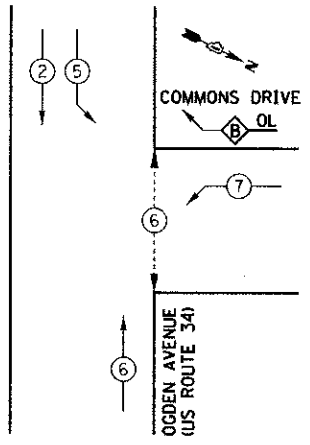
EMERGENCY VEHICLE PREEMPTION SEQUENCE

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



CONTROLLER SEQUENCE LEGEND

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
B	= 7	+ 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 764 MULTIMODE PHASE SELECTORS.

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

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	OGDEN AVENUE
PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	36
DETECTABLE WARNINGS	SQ FT	7
SIDEWALK REMOVAL	SQ FT	36
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	0.3
MOBILIZATION	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	188
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	188
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	196
HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	6
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	489
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	582
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1472
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	122
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	695
DRILL EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	8
DETECTOR LOOP, TYPE I	FOOT	130
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1114
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 5 ETHERNET CABLE	FOOT	79
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	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	3



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 # 104-001822

USER NAME = MFeiler  
 DESIGNED - MJF  
 CHECKED - APS  
 DATE - 02/21/2013

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM  
 COMMONS DRIVE AT OGDEN AVENUE (US ROUTE 34)

F.A.U. RTE. 1531/2532	SECTION 11-00297-00-TL	COUNTY DU PAGE	TOTAL SHEETS 38	SHEET NO. 11
CONTRACT NO. 63816				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

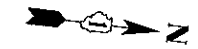
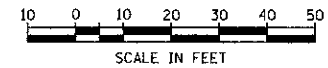
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE 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 REMOVE ITEMS TO BE PAID FOR SEPARATELY).

- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)
- 1 EACH WIRELESS INTERCONNECT RADIO (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.

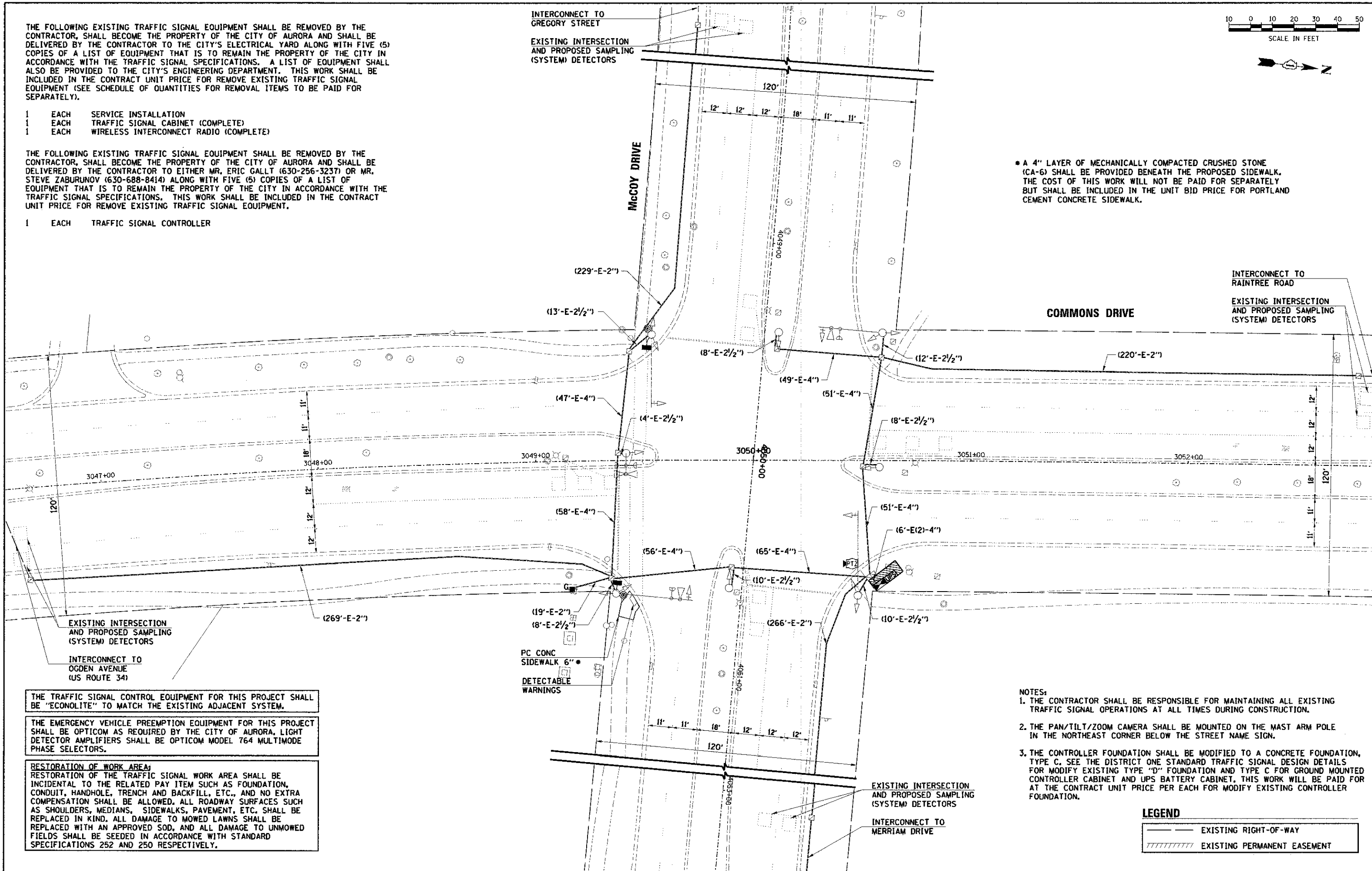
- 1 EACH TRAFFIC SIGNAL CONTROLLER

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



DATE	
BY	
REVISIONS	
PLAN	
NOTE BOOK	
NO.	
DATE	
BY	
REVISIONS	
PROFILE	
NOTE BOOK	
NO.	

DATE	
BY	
REVISIONS	
PROFILE	
NOTE BOOK	
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.

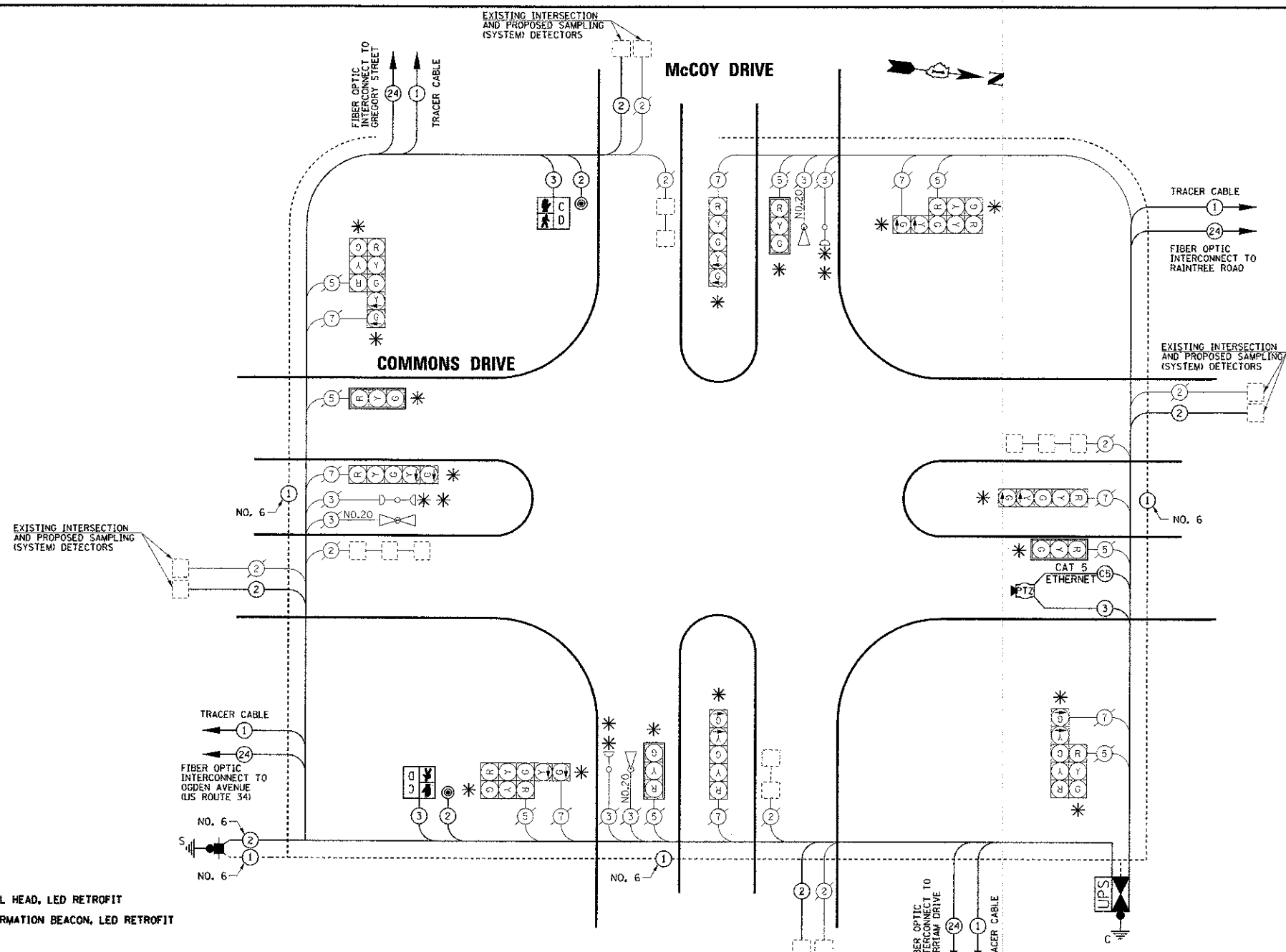
- NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
  2. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE MAST ARM POLE IN THE NORTHEAST CORNER BELOW THE STREET NAME SIGN.
  3. THE CONTROLLER FOUNDATION SHALL BE MODIFIED 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.

**LEGEND**

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

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO. _____	
	DATE _____	

PROFILE	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO. _____	
	DATE _____	



\* DENOTES SIGNAL HEAD, LED RETROFIT  
 \*\* DENOTES CONFIRMATION BEACON, LED RETROFIT

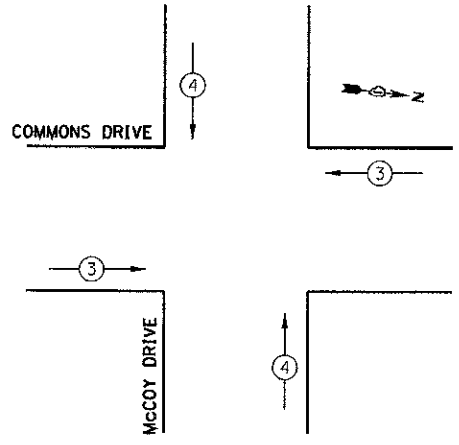
### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	McCOY DRIVE
PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	81
DETECTABLE WARNINGS	SQ FT	9
SIDEWALK REMOVAL	SQ FT	81
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	0.3
MOBILIZATION	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	476
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	554
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1805
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	186
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	606
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	12
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	186
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 5 ETHERNET CABLE	FOOT	64
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, BRACKET MOUNTED, RETROFIT	EACH	8
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					
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	2		25	1.00	50
CONTROLLER	1		100	1.00	100
<b>TOTAL =</b>					<b>465.2</b>

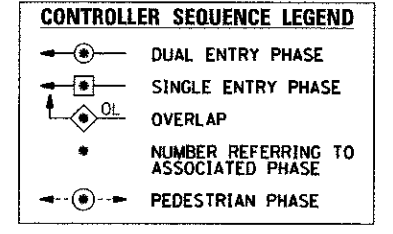
ENERGY COSTS TO: CITY OF AURORA  
 44 E. DOWNER PLACE  
 AURORA, ILLINOIS 60507-2067

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

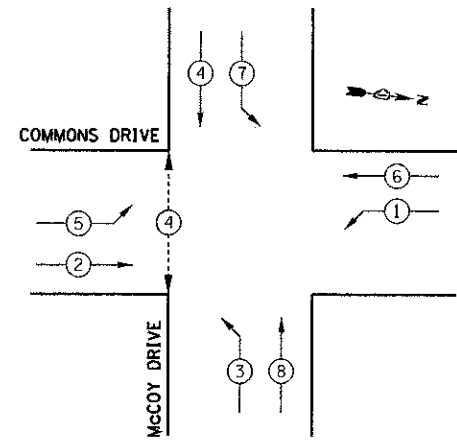


**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

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



### CONTROLLER SEQUENCE



**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 = MjFeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 2/22/2013	DATE - 02/21/2013	REVISED -
FILE NAME = 690_10_sigs@20_mccoys.dgn		REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM COMMONS DRIVE AT McCOY DRIVE			
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.U. RTE. 153/2532	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEETS 38	SHEET NO. 13
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63816	

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).

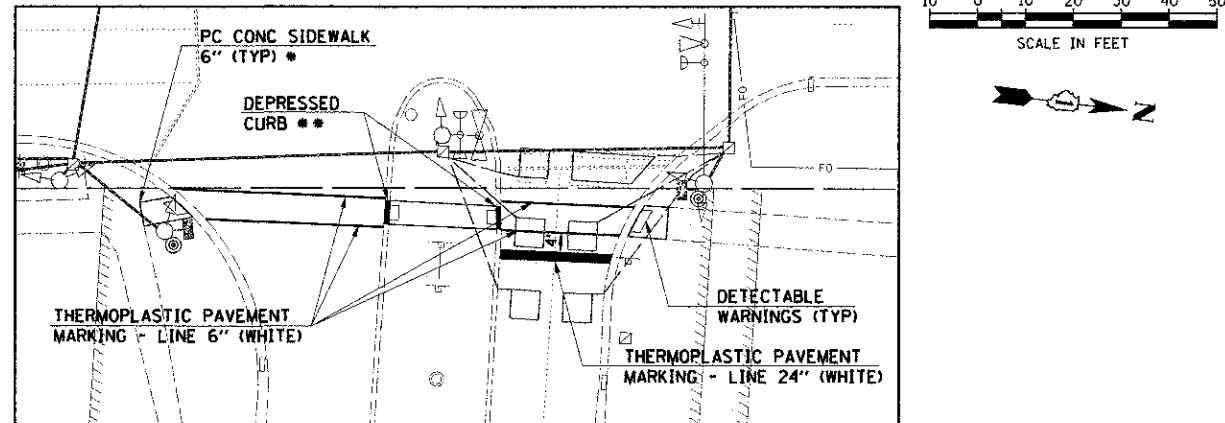
- 1 EACH SERVICE INSTALLATION
- 1 EACH TRAFFIC SIGNAL CABINET (COMPLETE)

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

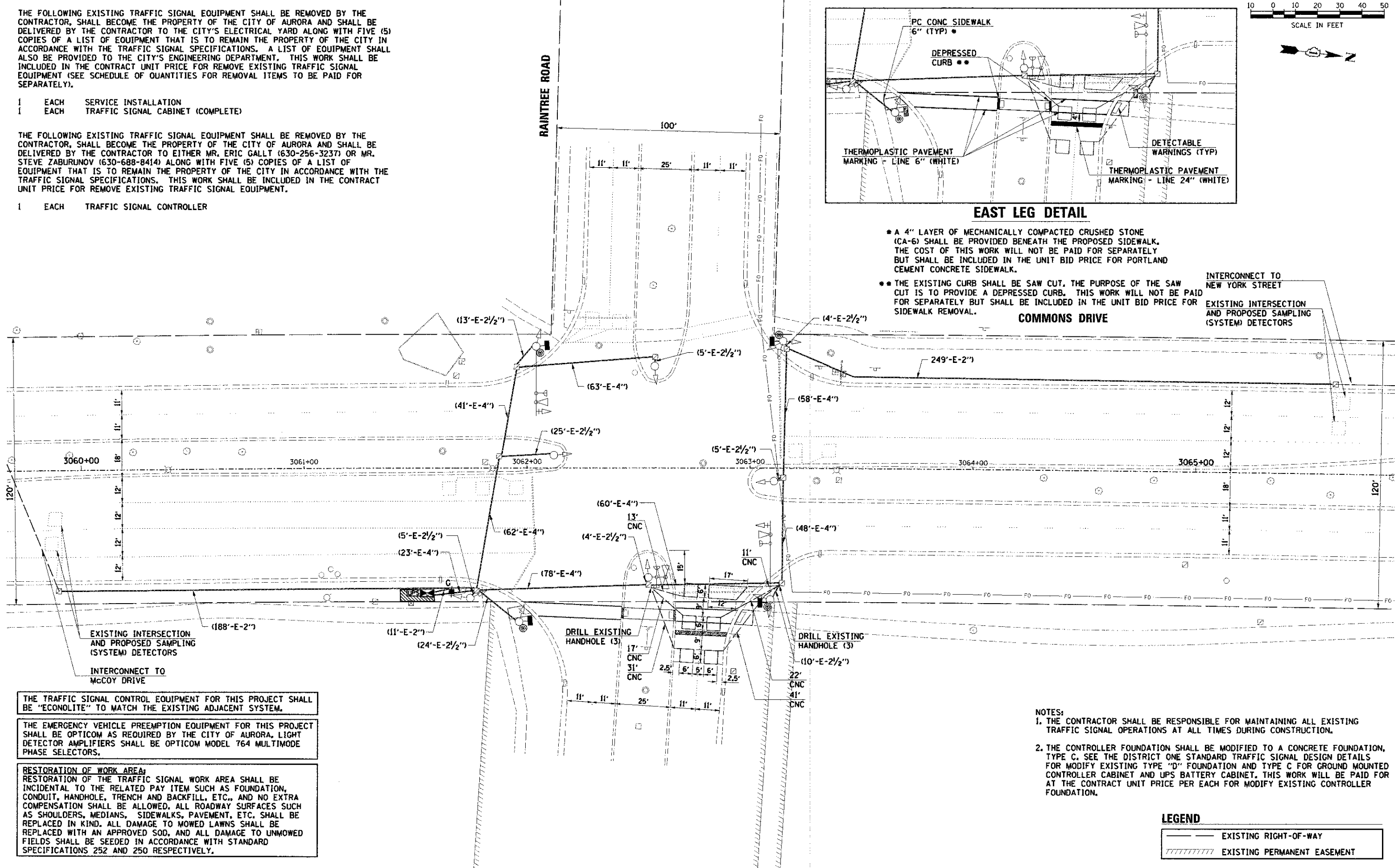
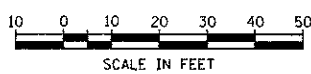
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SURVEYED	
PLAN	
NOTE BOOK	
NO. OF WAY CHECKED	
DATE FILED	
FILE NAME	

DATE	
BY	
GRADES CHECKED	
STRUCTURE NOTATION	
NOTE BOOK	
NO.	



**EAST LEG DETAIL**

- \* A 4" LAYER OF MECHANICALLY COMPACTED CRUSHED STONE (CA-6) SHALL BE PROVIDED BENEATH THE PROPOSED SIDEWALK. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR PORTLAND CEMENT CONCRETE SIDEWALK.
- \*\* THE EXISTING CURB SHALL BE SAW CUT, THE PURPOSE OF THE SAW CUT IS TO PROVIDE A DEPRESSED CURB. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR SIDEWALK REMOVAL.



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 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.

**LEGEND**

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



USER NAME =	Mifaller
DESIGNED =	MJF
REVISOR =	
PLT SCALE =	
CHECKED =	APS
REVISOR =	
PLT DATE =	2/22/2013
DATE =	02/21/2013
REVISOR =	
FILE NAME =	6798_10_sig03ob_raintreedgn
REVISOR =	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC SIGNAL MODIFICATION PLAN  
COMMONS DRIVE AT RAINTREE ROAD**

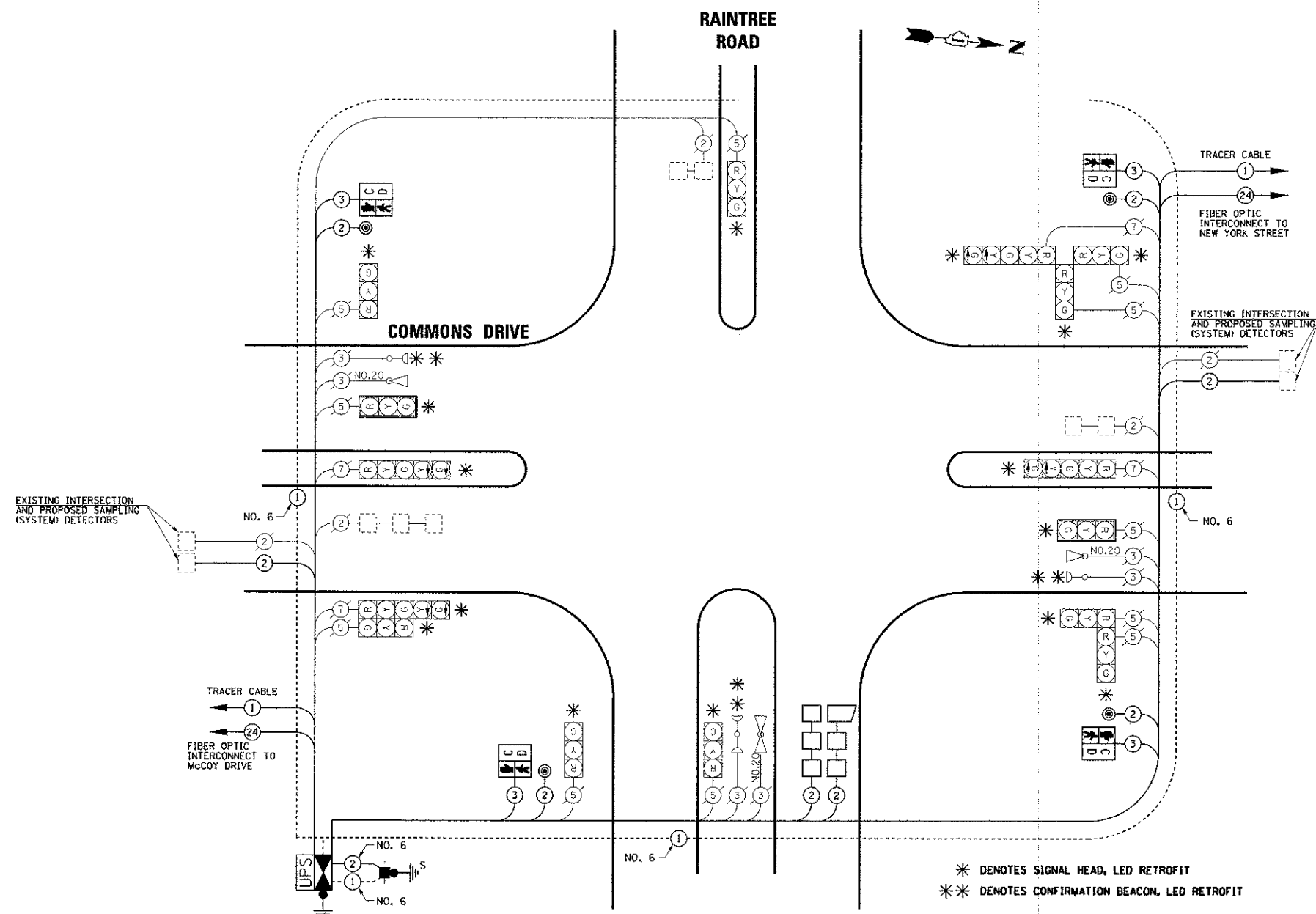
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1531/2532	11-00297-00-TL	DUPAGE	38	14
CONTRACT NO.			63816	
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



REVISIONS	DATE
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REVISIONS	DATE
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\* DENOTES SIGNAL HEAD, LED RETROFIT  
 \*\* DENOTES CONFIRMATION BEACON, LED RETROFIT

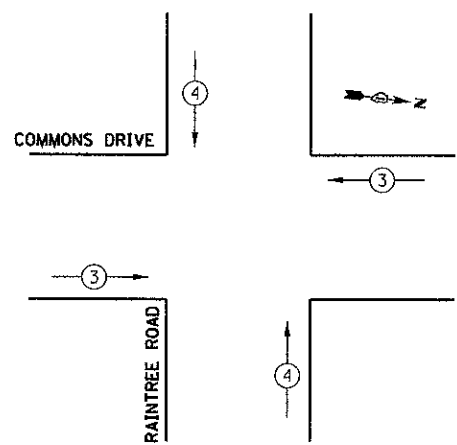
### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	RAINTREE ROAD
PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	207
DETECTABLE WARNINGS	SQ FT	30
SIDEWALK REMOVAL	SQ FT	207
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	0.3
MOBILIZATION	L.SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L.SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L.SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L.SUM	0.1
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	134
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	24
PAVEMENT MARKING REMOVAL	SQ FT	66
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL, INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	9
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2C	FOOT	804
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	832
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1118
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	25
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	687
DRILL EXISTING HANDHOLE	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	9
DETECTOR LOOP, TYPE I	FOOT	804
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	25
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	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	3

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	8		12	0.10	9.6
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
<b>TOTAL =</b>					<b>437.2</b>

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

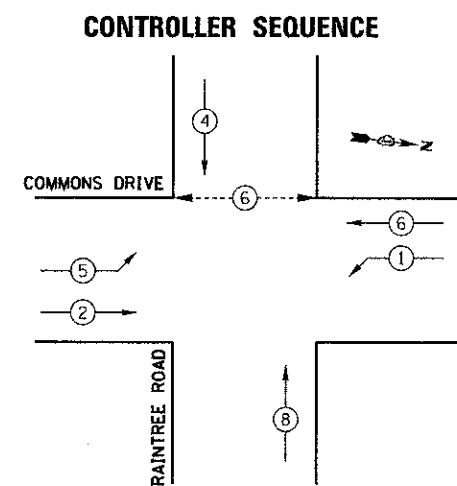
ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
 PHONE: (630) 723-2128  
 COMPANY: COMMONWEALTH EDISON



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

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

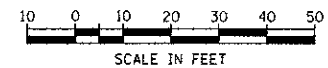


PHASE DESIGNATION DIAGRAM

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

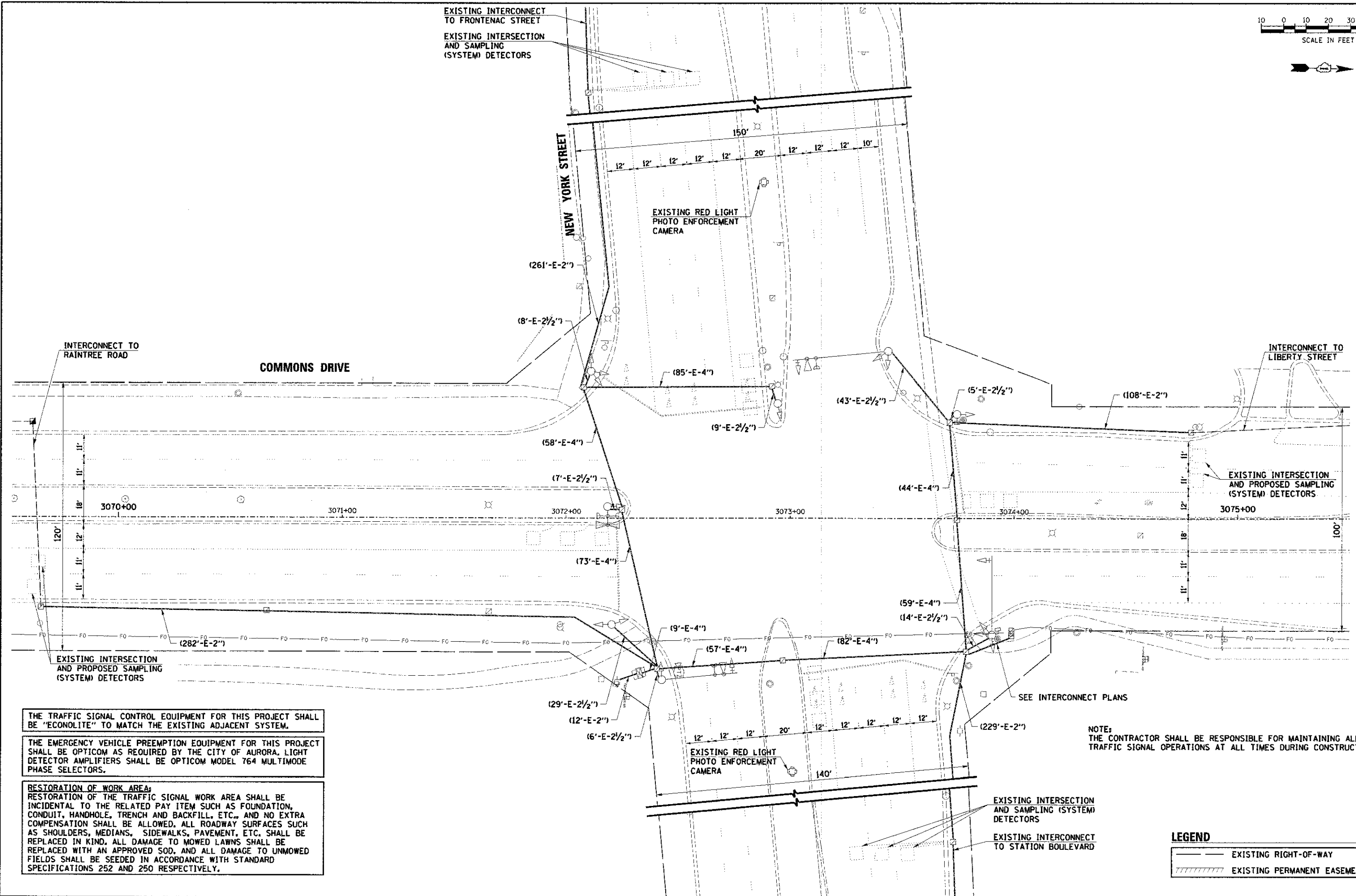
THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA. LIGHT DETECTOR AMPLIFIERS SHALL BE OPTICOM MODEL 764 MULTIMODE PHASE SELECTORS.

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



DATE	
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REVISIONS	
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DESCRIPTION	



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.

NOTE:  
 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 =	MFuller
DESIGNED =	MJF
PLCT SCALE =	
CHECKED =	APS
PLCT DATE =	2/22/2013
DATE =	02/21/2013
FILE NAME =	690_10_sig04ab_nexjor.kjg
REVISIONS	
NO.	
DESCRIPTION	
DATE	
BY	
NO.	
DESCRIPTION	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN  
 COMMONS DRIVE AT NEW YORK STREET**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
153/2532	11-00297-00-TL	DUPAGE	38	16
CONTRACT NO. 63816				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		







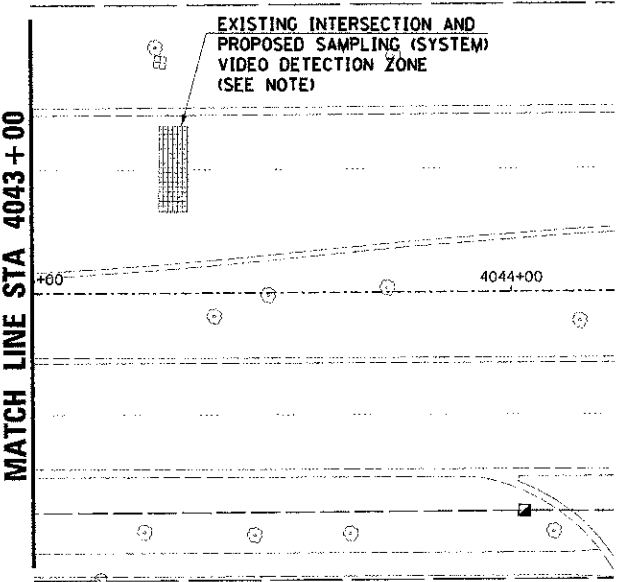
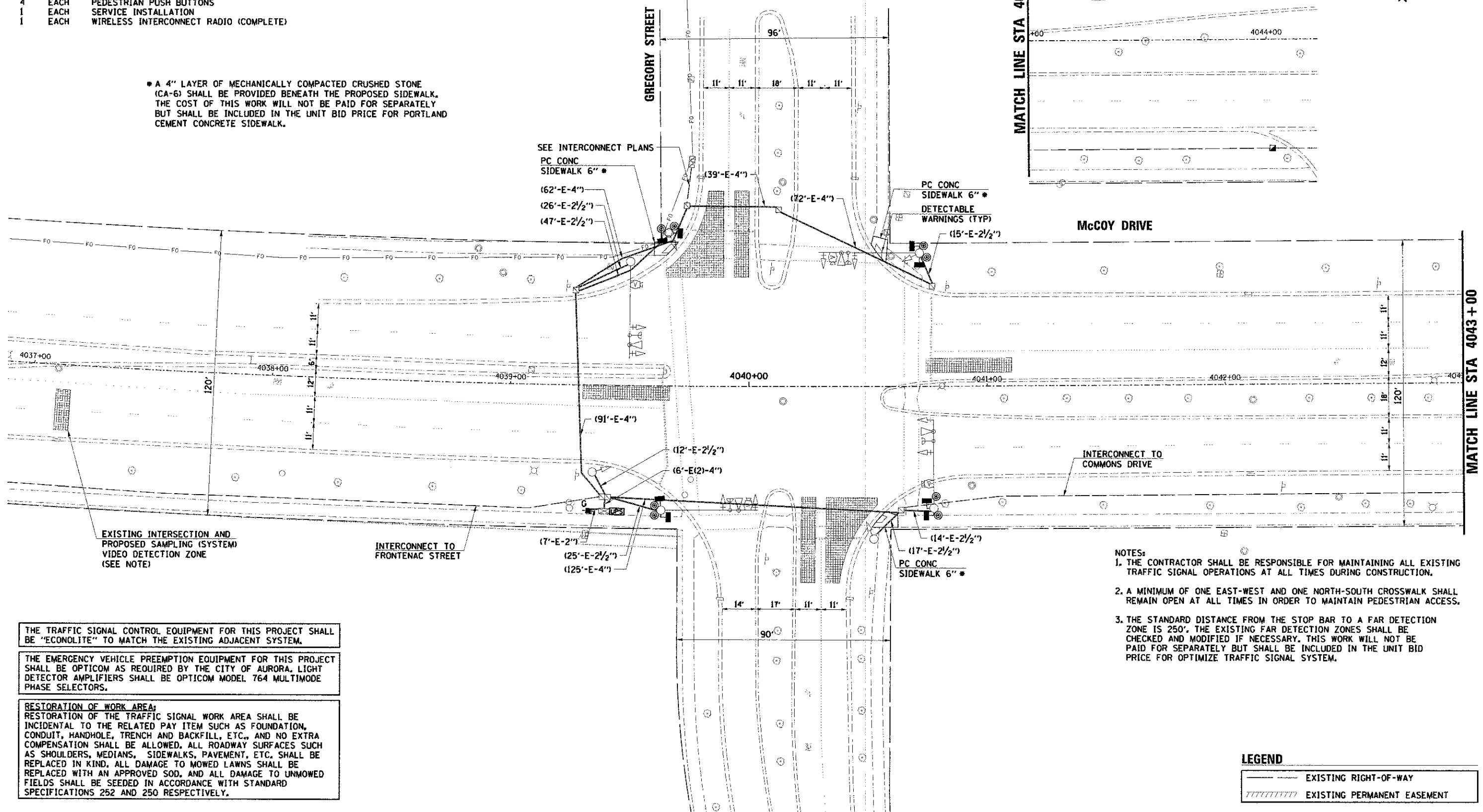
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY'S ELECTRICAL YARD ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE 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 REMOVE ITEMS TO BE PAID FOR SEPARATELY).

- 8 EACH PEDESTRIAN SIGNAL HEADS
- 4 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION
- 1 EACH WIRELESS INTERCONNECT RADIO (COMPLETE)

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

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BY	
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REVISION	
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. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.
  3. THE STANDARD DISTANCE FROM THE STOP BAR TO A FAR DETECTION ZONE IS 250'. THE EXISTING FAR DETECTION ZONES SHALL BE CHECKED AND MODIFIED IF NECESSARY. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR OPTIMIZE TRAFFIC SIGNAL SYSTEM.

**LEGEND**

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

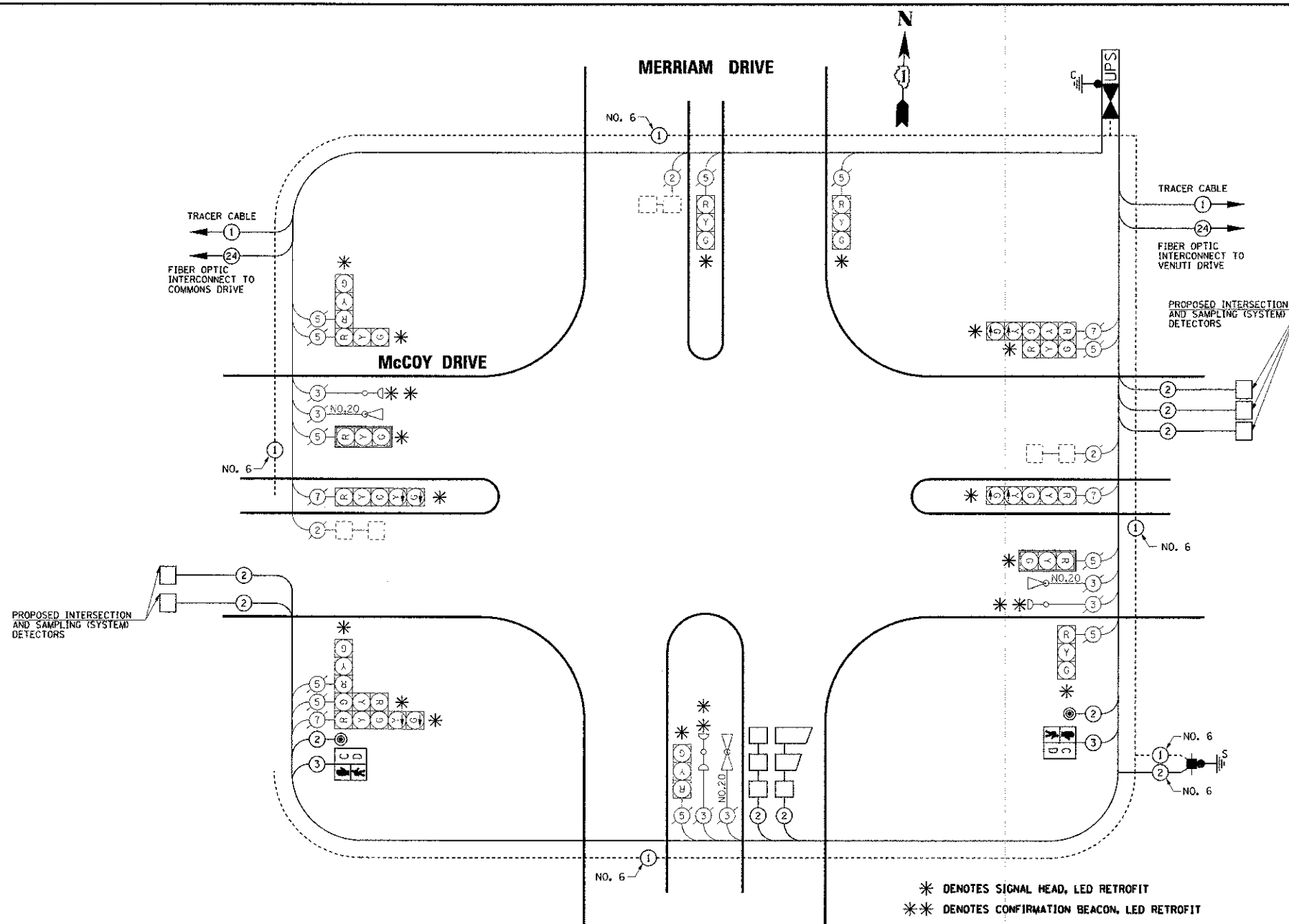






PLAN	SUBMITTED	DATE
NOTE BOOK	PLOTTED	
NO.	CHECKED	
	BY	
	DATE	
	NO.	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	CHECKED	
	BY	
	DATE	
	NO.	



\* DENOTES SIGNAL HEAD, LED RETROFIT  
 \*\* DENOTES CONFIRMATION BEACON, LED RETROFIT

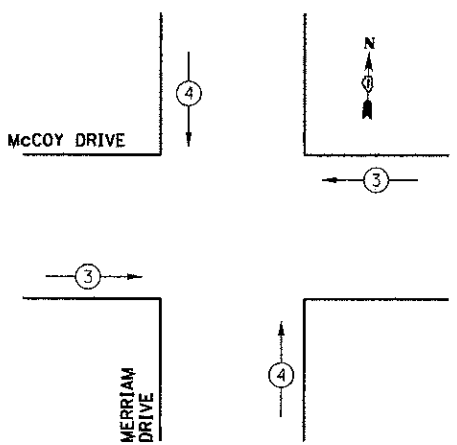
### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	MERRIAM DRIVE
PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	144
DETECTABLE WARNINGS	SQ FT	13
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	0.3
MOBILIZATION	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	130
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	28
PAVEMENT MARKING REMOVAL	SQ FT	89
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	247
HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	498
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	512
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2281
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	196
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	609
DRILL EXISTING HANDHOLE	EACH	10
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	378
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	196
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET SWITCH	EACH	1
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	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	3

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	8		12	0.10	9.6
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
<b>TOTAL =</b>					<b>437.2</b>

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

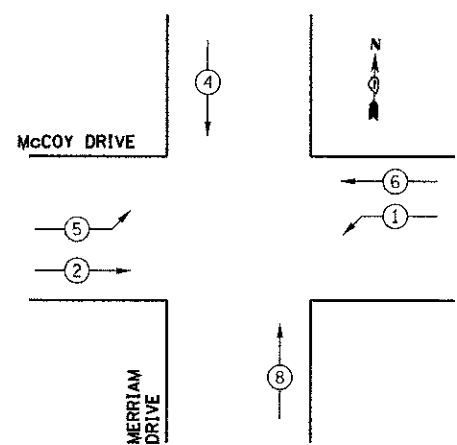


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE LEGEND	
← ● →	DUAL ENTRY PHASE
← ■ →	SINGLE ENTRY PHASE
← ◆ →	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.



USER NAME = MFeller	DESIGNED = MJF	REVISED =
PLOT SCALE =	CHECKED = APS	REVISED =
PLOT DATE = 2/22/2013	DATE = 02/21/2013	REVISED =
FILE NAME = 690_10_ssg07a_merriam.dgn		REVISED =

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM			
McCOY DRIVE AT MERRIAM DRIVE			
SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	

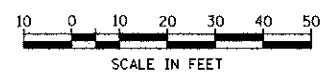
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
153/2532	11-00297-00-TL	DUPAGE	38	23
CONTRACT NO. 63816				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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 REMOVE ITEMS TO BE PAID FOR SEPARATELY).

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

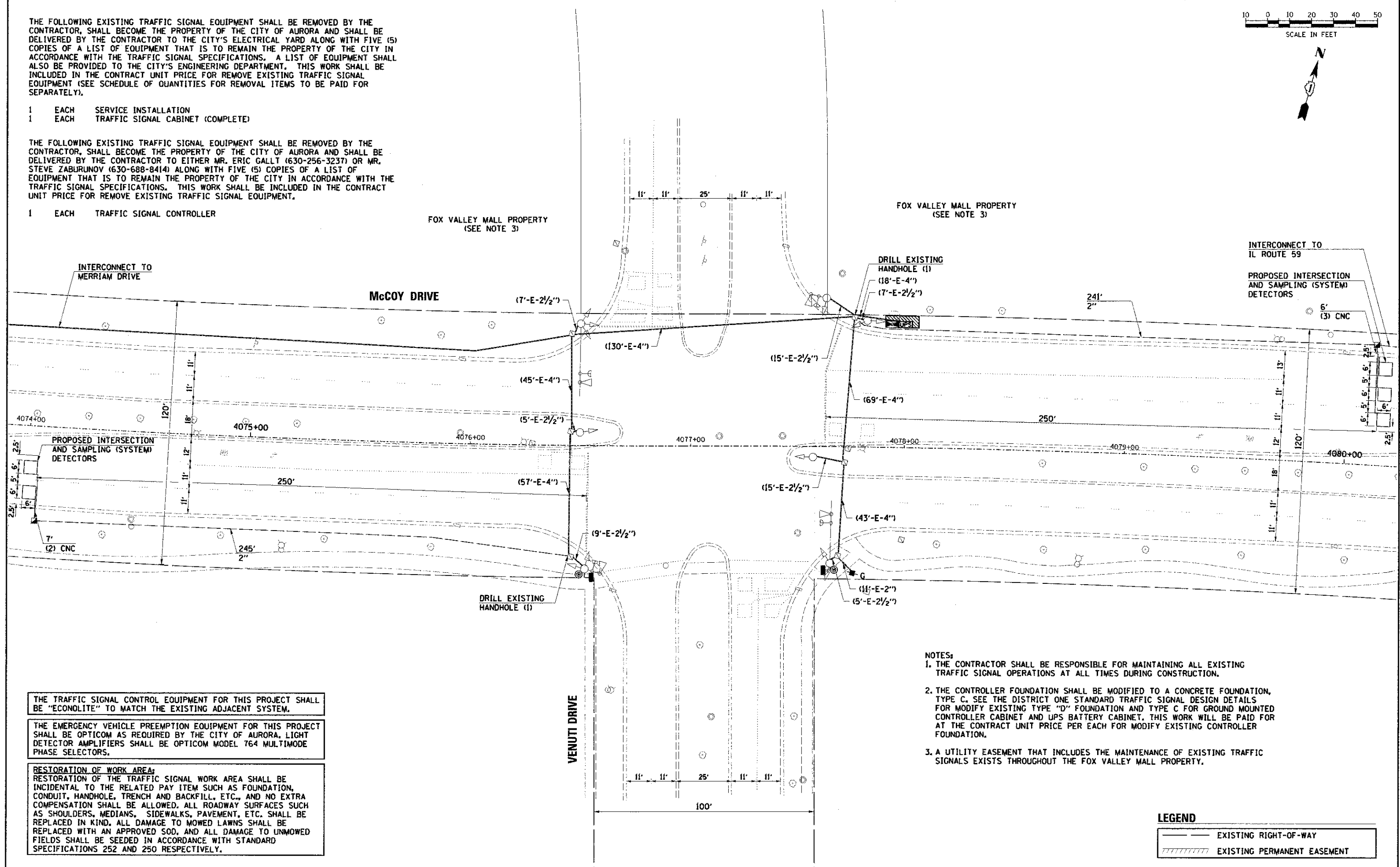
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO EITHER MR. ERIC GALLT (630-256-3237) OR MR. STEVE ZABURUNOV (630-688-8414) ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT 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



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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 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 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.
  3. A UTILITY EASEMENT THAT INCLUDES THE MAINTENANCE OF EXISTING TRAFFIC SIGNALS EXISTS THROUGHOUT THE FOX VALLEY MALL PROPERTY.

**LEGEND**

	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



USER NAME = Mfeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 2/22/2013	DATE - 02/21/2013	REVISED -
FILE NAME = 690-10.sig08ab_venuti.dgn		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN  
McCOY DRIVE AT VENUTI DRIVE

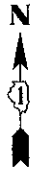
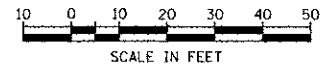
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 212	11-00297-00-TL	DUPAGE	38	24
CONTRACT NO. 63816			ILLINOIS FED. AID PROJECT	



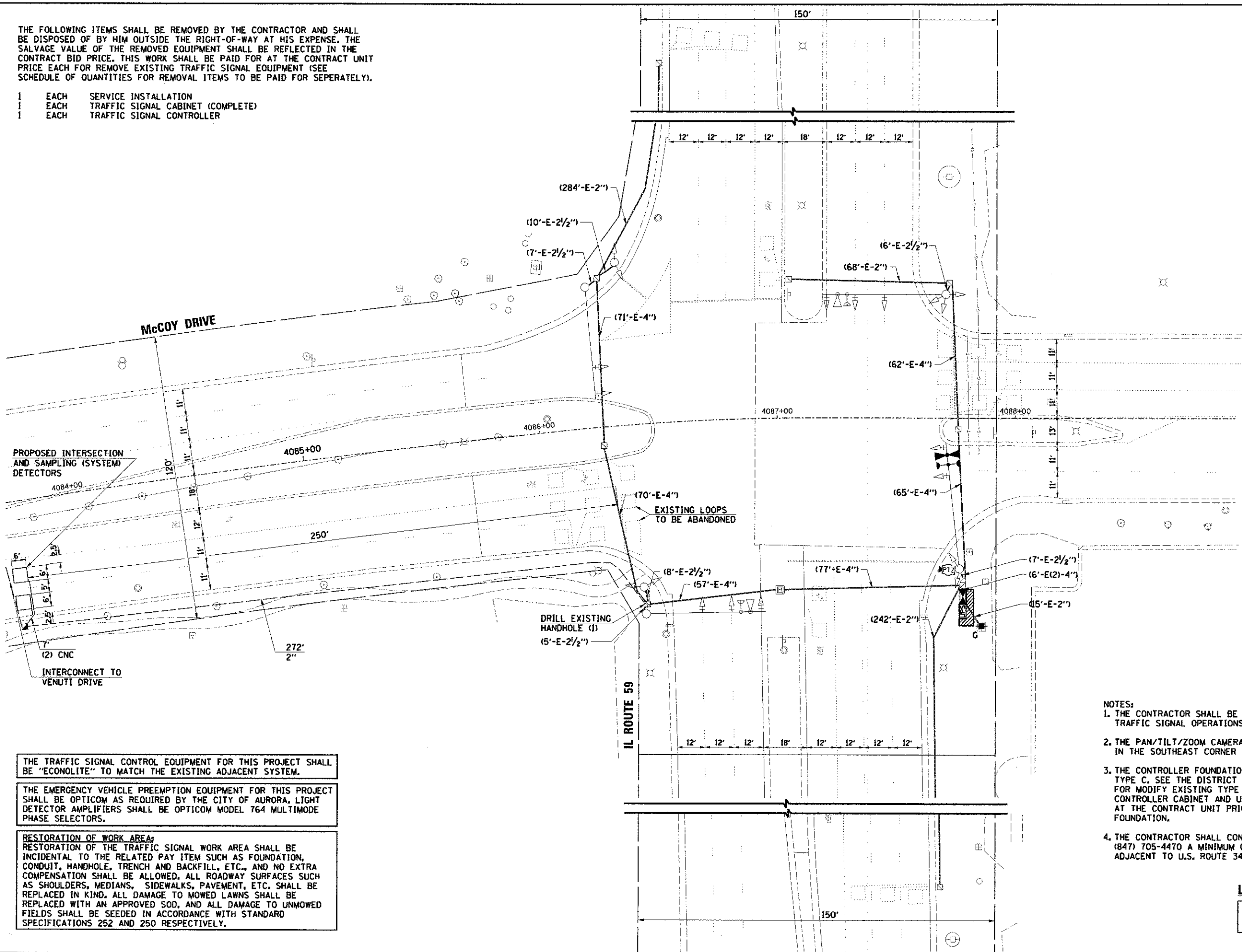
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC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



PLAN	SURVEYED	DATE
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PROFILE	SURVEYED	DATE
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PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

EXISTING LOOPS TO BE ABANDONED

DRILL EXISTING HANDHOLE (1)  
(5'-E-2 1/2'')

- 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 SOUTHEAST 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 THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK ADJACENT TO U.S. ROUTE 34 (OGDEN AVENUE) AND IL ROUTE 59.

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.

**LEGEND**

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

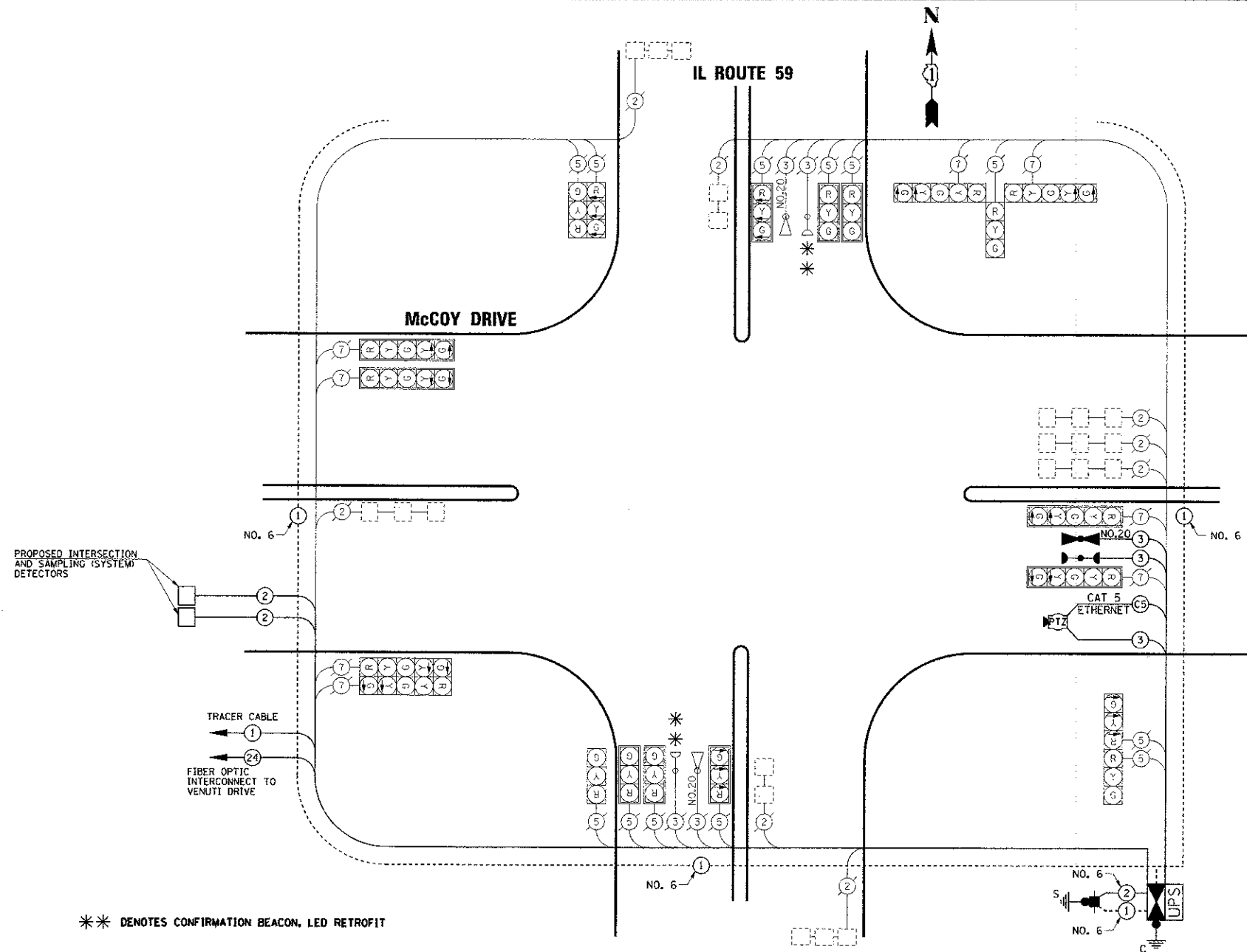


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REVISIONS	
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### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	IL ROUTE 59
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	0.3
MOBILIZATION	L.SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L.SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L.SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L.SUM	0.1
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	272
HANDHOLE	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 3C	FOOT	164
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	896
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	29
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	588
DRILL EXISTING HANDHOLE	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE 1	FOOT	66
LIGHT DETECTOR	EACH	1
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	20
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAT 5 ETHERNET CABLE	FOOT	61
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	104
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	2

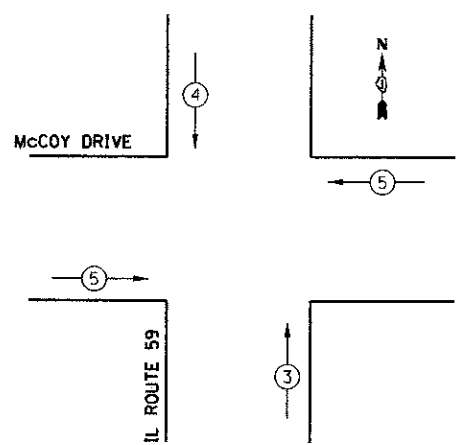


\*\* DENOTES CONFIRMATION BEACON, LED RETROFIT

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	28		12	0.10	33.6
CONTROLLER	1		100	1.00	100
<b>TOTAL =</b>					<b>429.6</b>

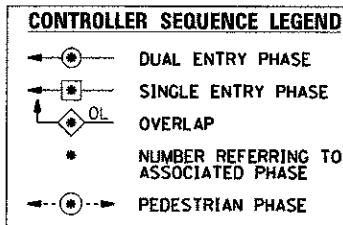
ENERGY COSTS TO: CITY OF AURORA  
44 E. DOWNER PLACE  
AURORA, ILLINOIS 60507-2067

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

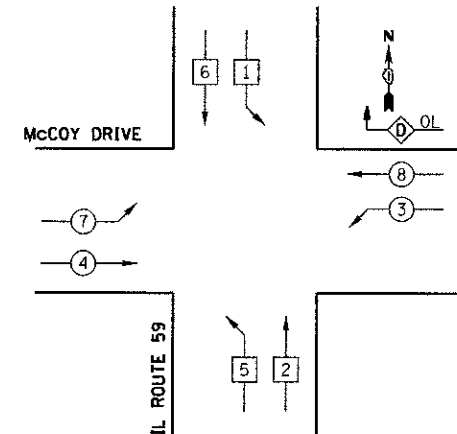


**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

PROPOSED EMERGENCY VEHICLE PREEMPTORS			
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	↑	↓	→



### CONTROLLER SEQUENCE



**PHASE DESIGNATION DIAGRAM**

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

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.



HRGreen.com  
Illinois Professional Design Firm  
#194-001522

USER NAME = MFu1er  
DESIGNED - MJF  
CHECKED - APS  
DATE - 02/21/2013

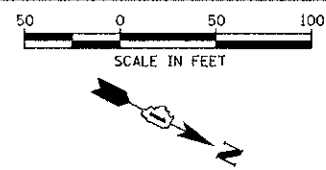
REVISIONS  
NO. DATE BY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

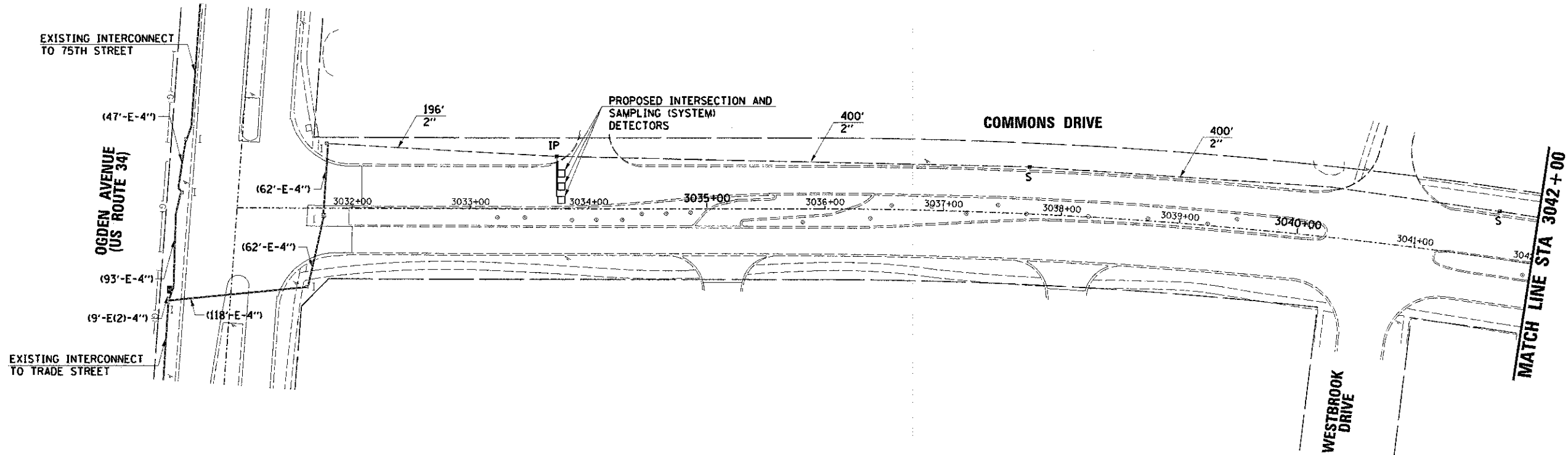
CABLE PLAN AND  
PHASE DESIGNATION DIAGRAM  
McCoy Drive at IL Route 59

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

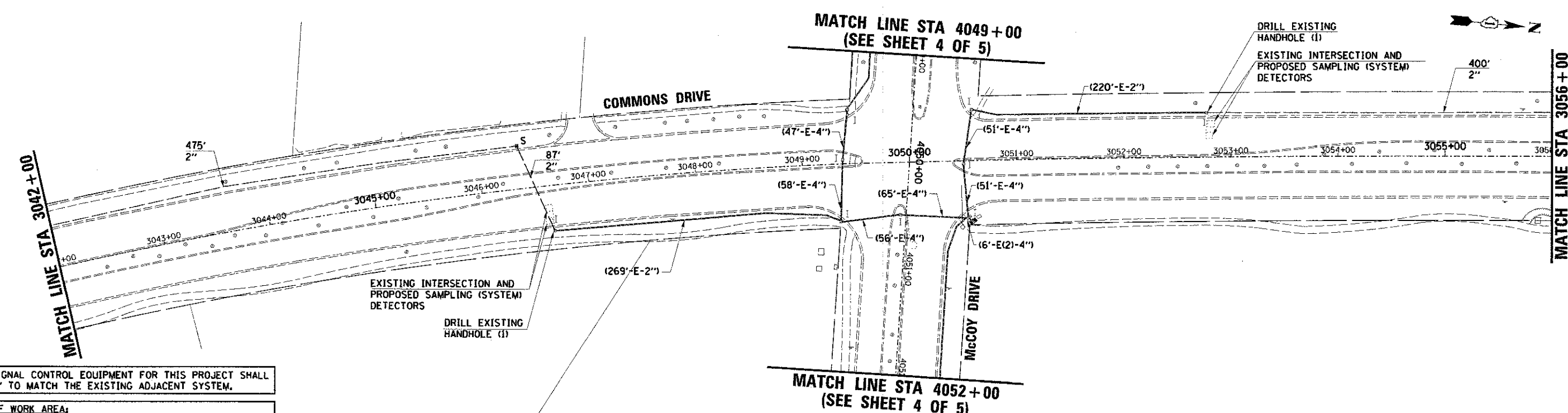
F.A.U. RTE. 1531/2532	SECTION 11-00297-00-TL	COUNTY	TOTAL SHEETS NO. 38	SHEET NO. 27
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63816	



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REVISIONS	
PLANNED	
ALIGNED	
CHECKED	
DATE	
FILE NAME	
NO.	



DATE	
BY	
REVISIONS	
PROFILE	
GRADES	
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FILE NAME	
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THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

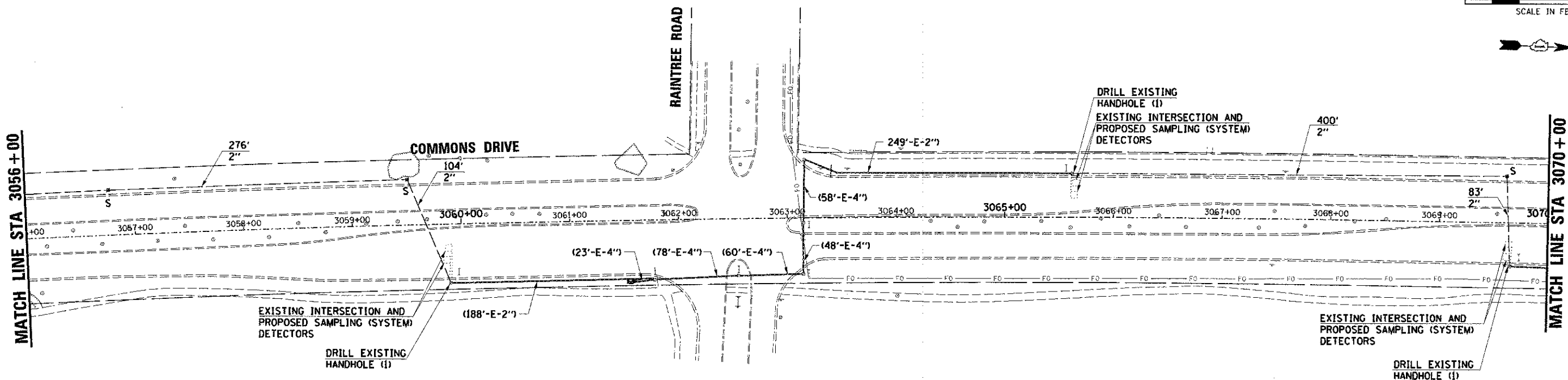
**RESTORATION OF WORK AREA:**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

<b>LEGEND</b>	
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT

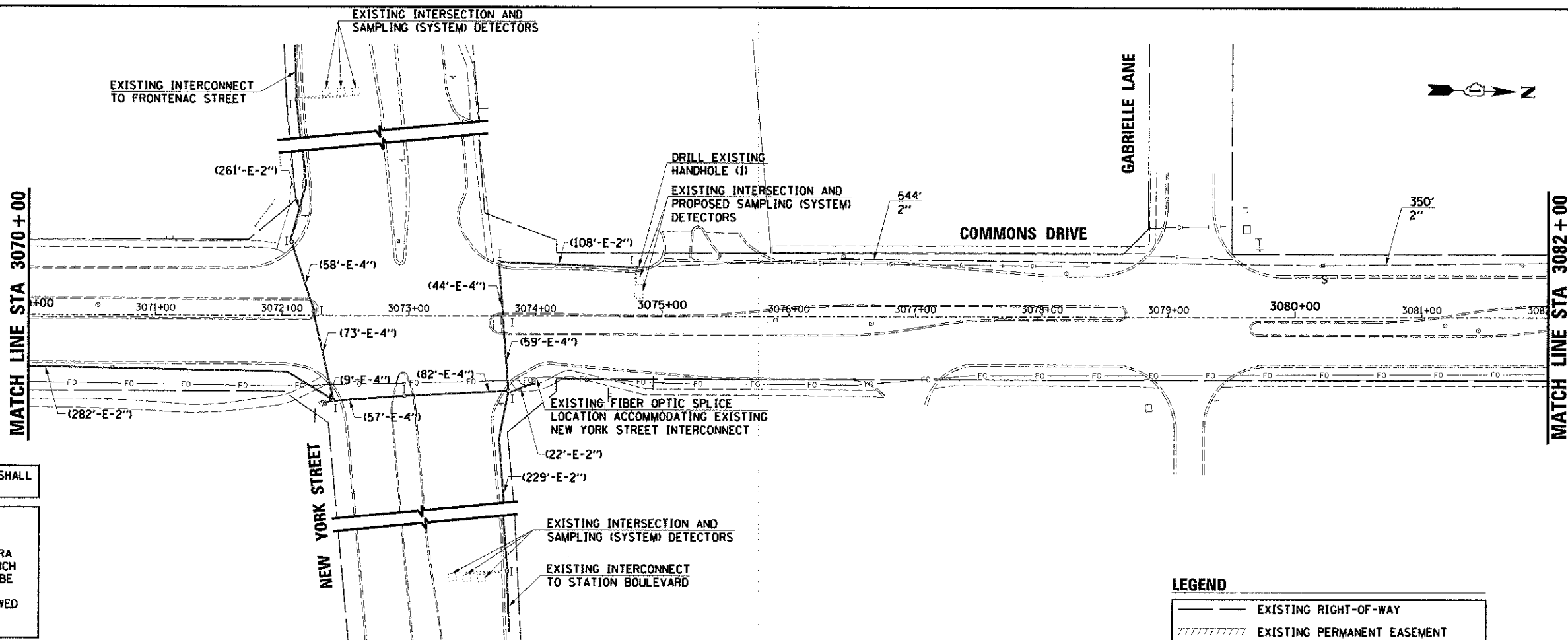
HRGreen.com Illinois Professional Design Firm #104-001322	USER NAME = Mjoller PLOT SCALE = PLOT DATE = 2/22/2013 FILE NAME = 690_10_sigm01.dgn	DESIGNED - MJF CHECKED - APS DATE - 02/21/2013	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>INTERCONNECT PLAN</b> <b>(SHEET 1 OF 5)</b>	F.A.U. RTE. 1531/2532 SECTION 11-00297-00-TL COUNTY DUPAGE TOTAL SHEETS 38 SHEET NO. 28 CONTRACT NO. 63816	SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



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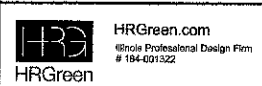
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THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

<b>LEGEND</b>	
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



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 CHECKED - APS  
 DATE - 02/21/2013

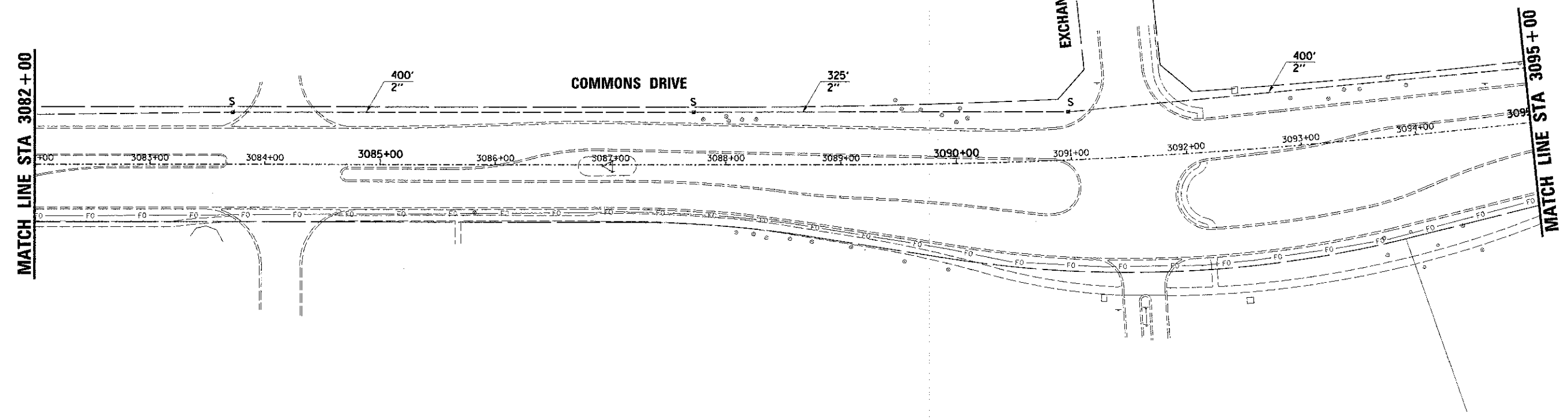
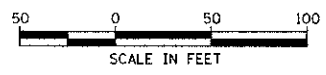
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

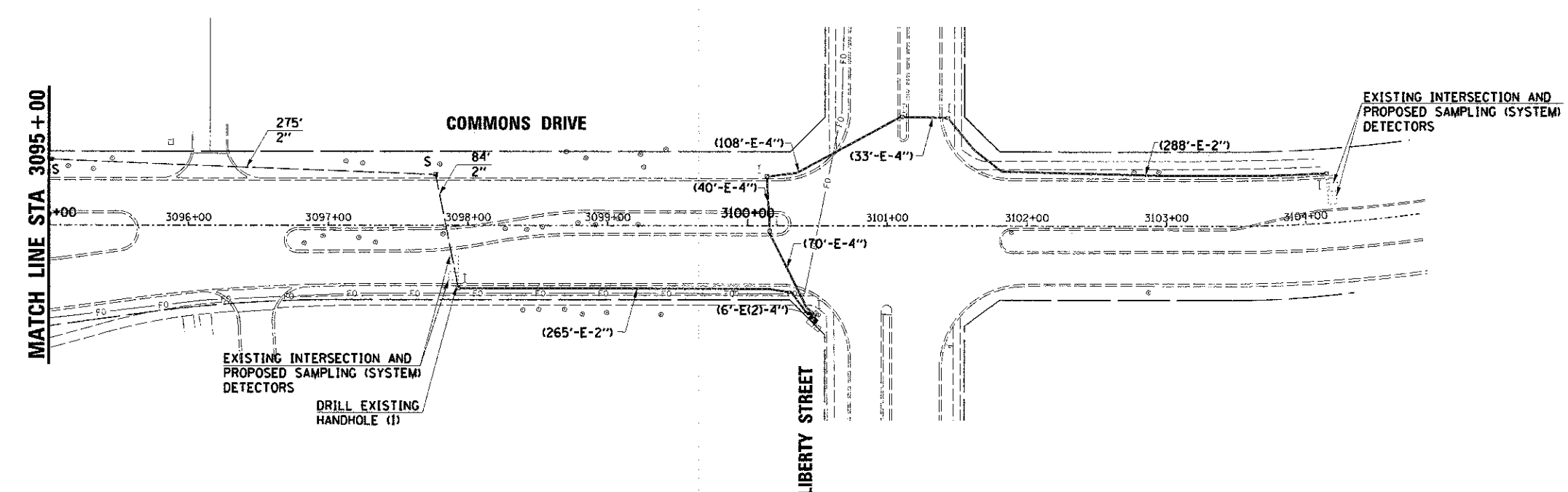
INTERCONNECT PLAN  
 (SHEET 2 OF 5)

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

F.A.I. RTE. 151/2932	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEETS 38	SHEET NO. 29
CONTRACT NO. 63816			ILLINOIS FED. AID PROJECT	



PLAN	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	FILED	
	BY	
	DATE	



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

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 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.

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS  
 DRILL EXISTING HANDHOLE (1)

LEGEND	
	EXISTING RIGHT-OF-WAY
	EXISTING PERMANENT EASEMENT



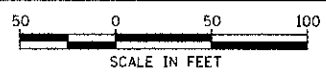
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

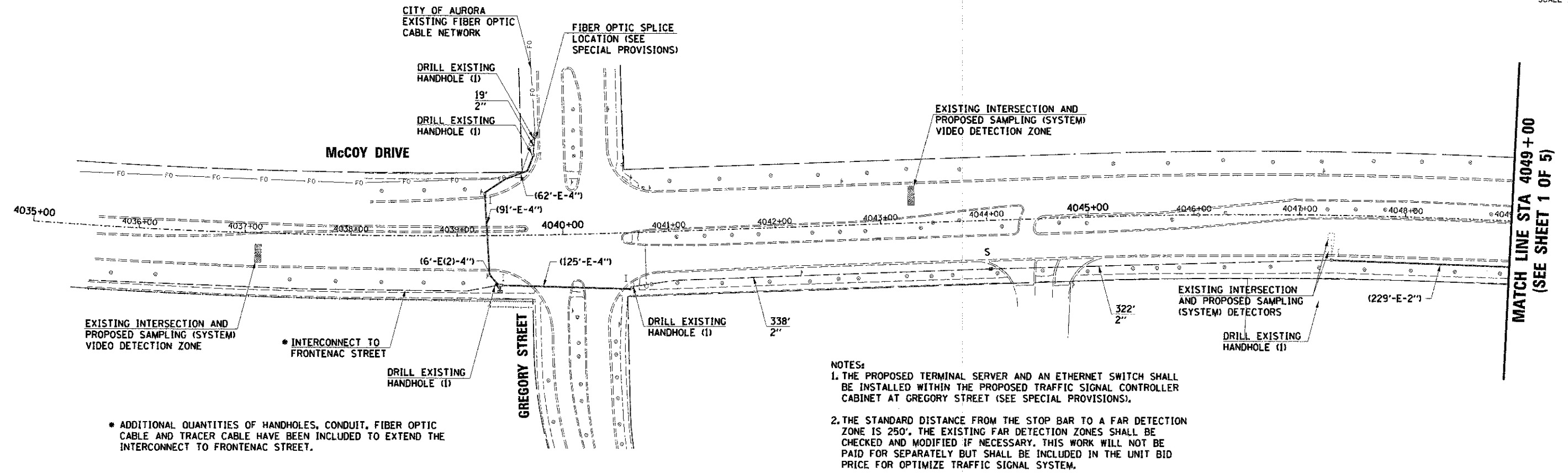
INTERCONNECT PLAN  
 (SHEET 3 OF 5)

SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A.U. RTE. 1537 4342	SECTION 11-00297-00-TL	COUNTY	TOTAL SHEETS 38	SHEET NO. 30
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 63816		



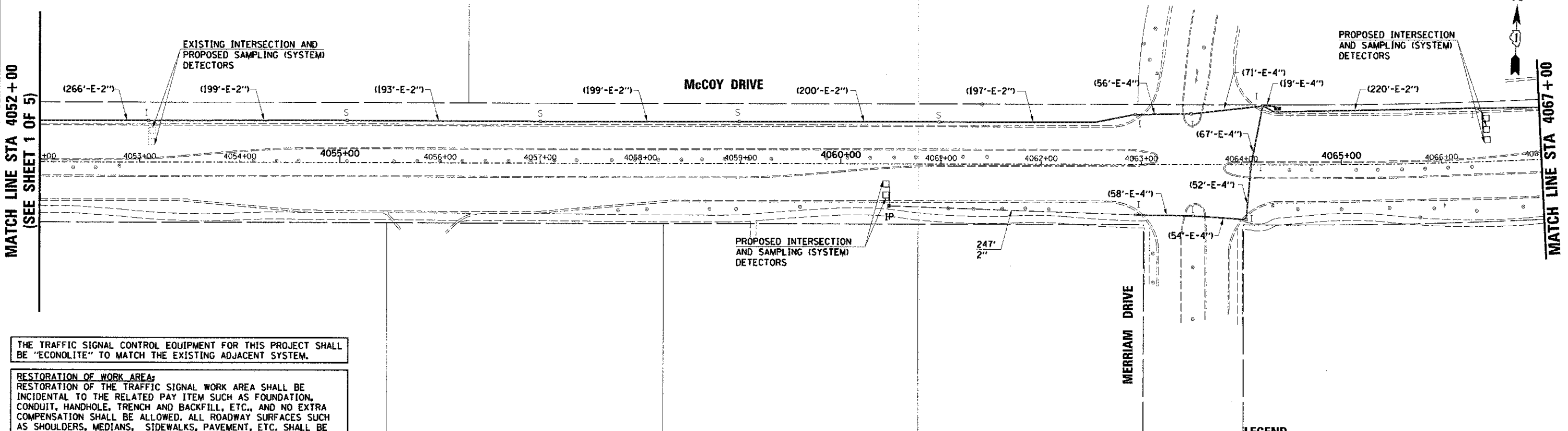
PLAN	SURVEYED	DATE
	PLOTTED	
	NOTED	
	REVISIONS	
	BY	
	DATE	
	NO.	



\* ADDITIONAL QUANTITIES OF HANDHOLES, CONDUIT, FIBER OPTIC CABLE AND TRACER CABLE HAVE BEEN INCLUDED TO EXTEND THE INTERCONNECT TO FRONTENAC STREET.

- NOTES:
1. THE PROPOSED TERMINAL SERVER AND AN ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET AT GREGORY STREET (SEE SPECIAL PROVISIONS).
  2. THE STANDARD DISTANCE FROM THE STOP BAR TO A FAR DETECTION ZONE IS 250'. THE EXISTING FAR DETECTION ZONES SHALL BE CHECKED AND MODIFIED IF NECESSARY. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR OPTIMIZE TRAFFIC SIGNAL SYSTEM.

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTED	
	REVISIONS	
	BY	
	DATE	
	NO.	



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



USER NAME = Mfeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
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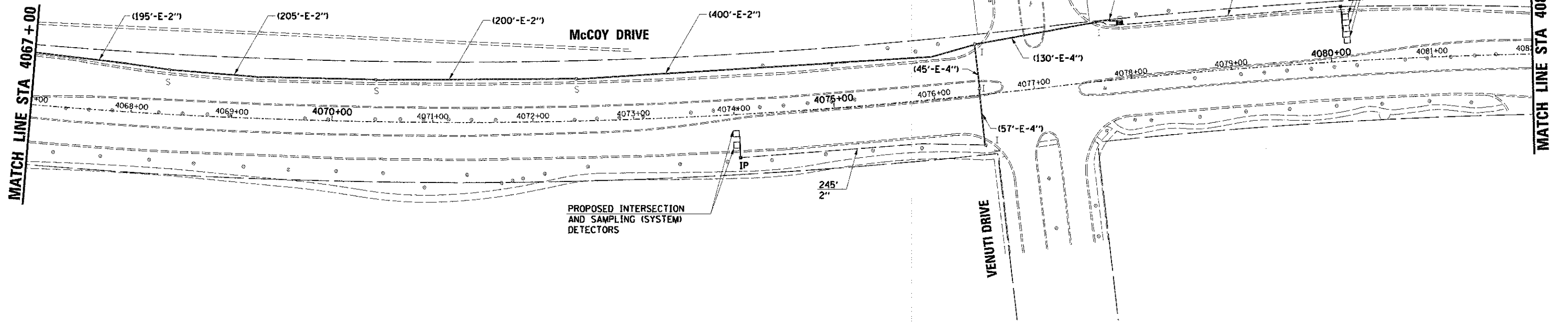
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN  
 (SHEET 4 OF 5)

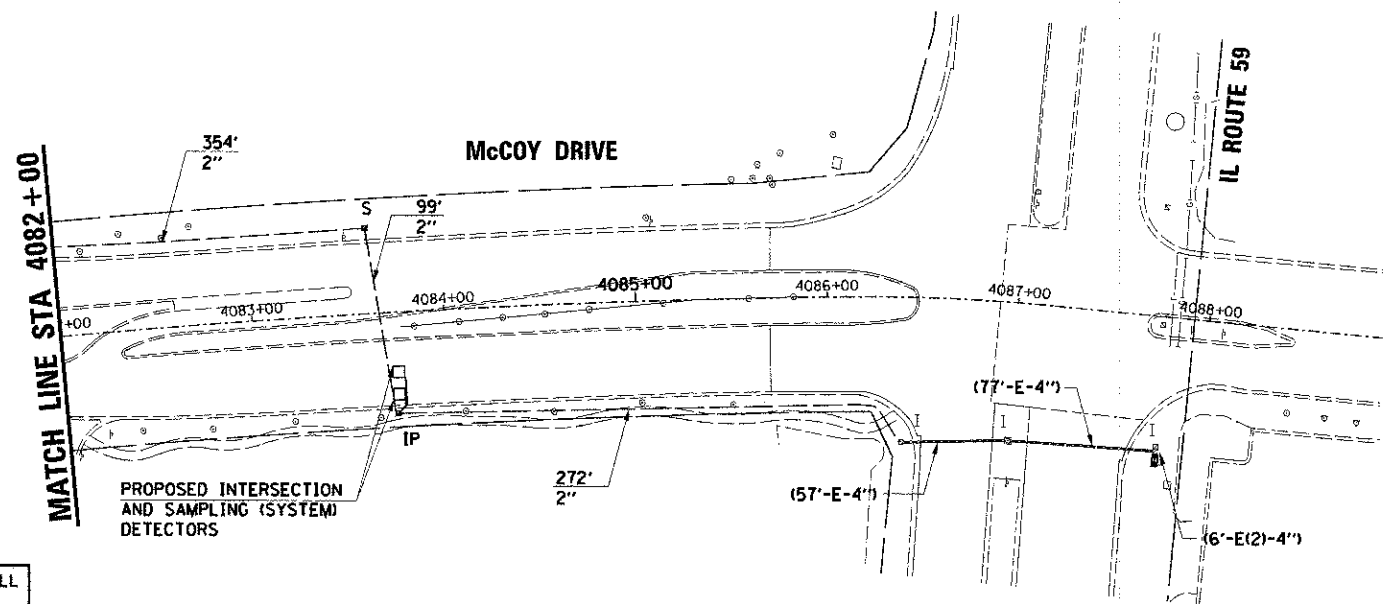
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE. 1537 232	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEETS 38	SHEET NO. 31
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 63816				

DATE	
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PROFILE	
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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



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DESIGNED	= MJF
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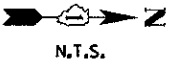
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN  
 (SHEET 5 OF 5)

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
153	11-00297-00-TL	DUPAGE	38	32
CONTRACT NO. 63616				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PLAN	DATE
DESIGNED	BY
CHECKED	DATE
NOTED	DATE
DATE	DATE

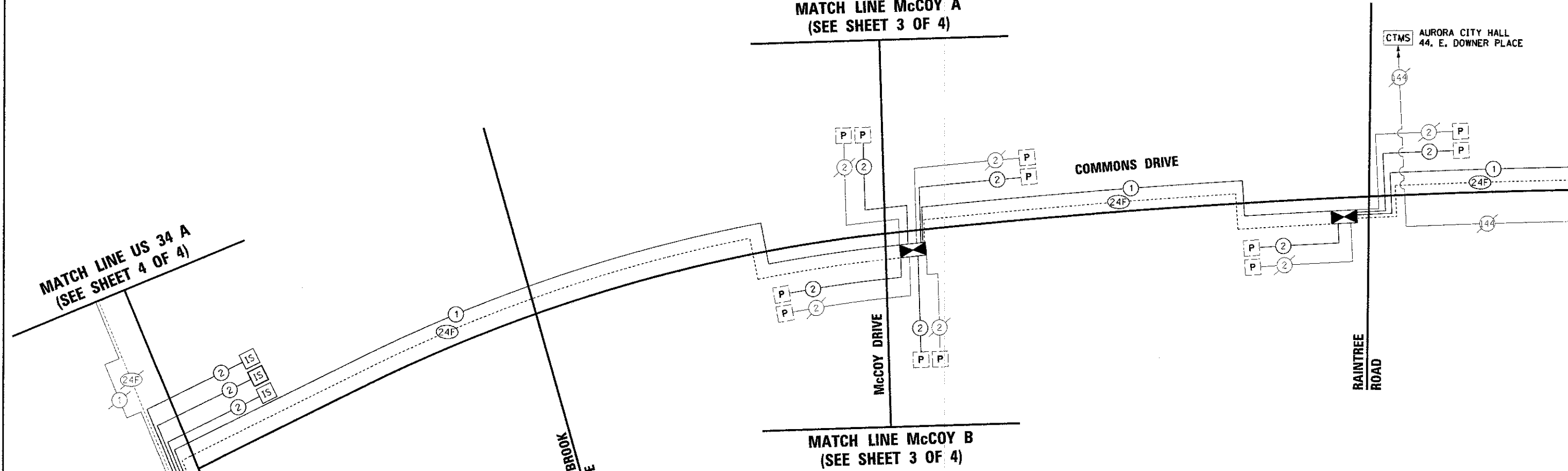
PROFILE	DATE
DESIGNED	BY
CHECKED	DATE
NOTED	DATE
DATE	DATE

MATCH LINE McCOY A  
(SEE SHEET 3 OF 4)

MATCH LINE US 34 A  
(SEE SHEET 4 OF 4)

MATCH LINE US 34 B  
(SEE SHEET 4 OF 4)

MATCH LINE COMMONS A  
(SEE SHEET 2 OF 4)



**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	INTERCONNECT
ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	0.3
MOBILIZATION	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	8360
HANDHOLE	EACH	21
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	8
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	16291.5
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	16291.5
DRILL EXISTING HANDHOLE	EACH	12
FIBER OPTIC CABLE SPLICE	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.



USER NAME = MFeller	DESIGNED - MJF	REVISED -
PLOT SCALE =	CHECKED - APS	REVISED -
PLOT DATE = 2/22/2013	DATE - 02/21/2013	REVISED -
FILE NAME = 590_10_schem_2.dgn		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC  
(SHEET 1 OF 4)

SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15N/2532	11-00297-00-TL	DUPAGE	38	33
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 63816	



PLAN	DATE
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PROFILE	DATE
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CHECKED	
DESIGNED	
NOTED	
NO.	

MATCH LINE NEW YORK A  
(SEE SHEET BELOW)

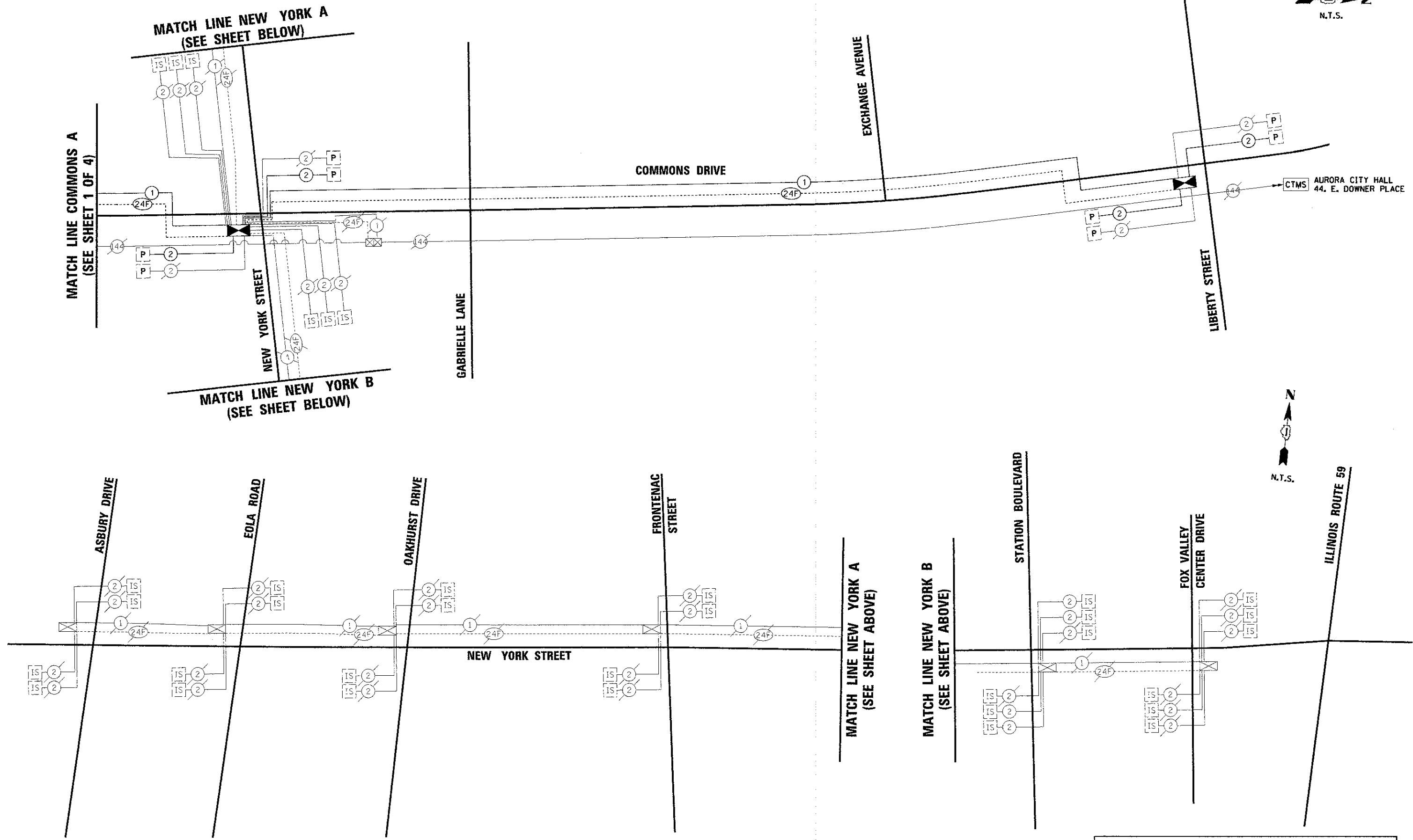
MATCH LINE COMMONS A  
(SEE SHEET 1 OF 4)

MATCH LINE NEW YORK B  
(SEE SHEET BELOW)

MATCH LINE NEW YORK A  
(SEE SHEET ABOVE)

MATCH LINE NEW YORK B  
(SEE SHEET ABOVE)

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



**HRGreen**  
HRGreen.com  
Illinois Professional Design Firm  
#184-001322

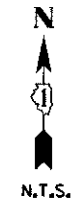
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC  
(SHEET 2 OF 4)

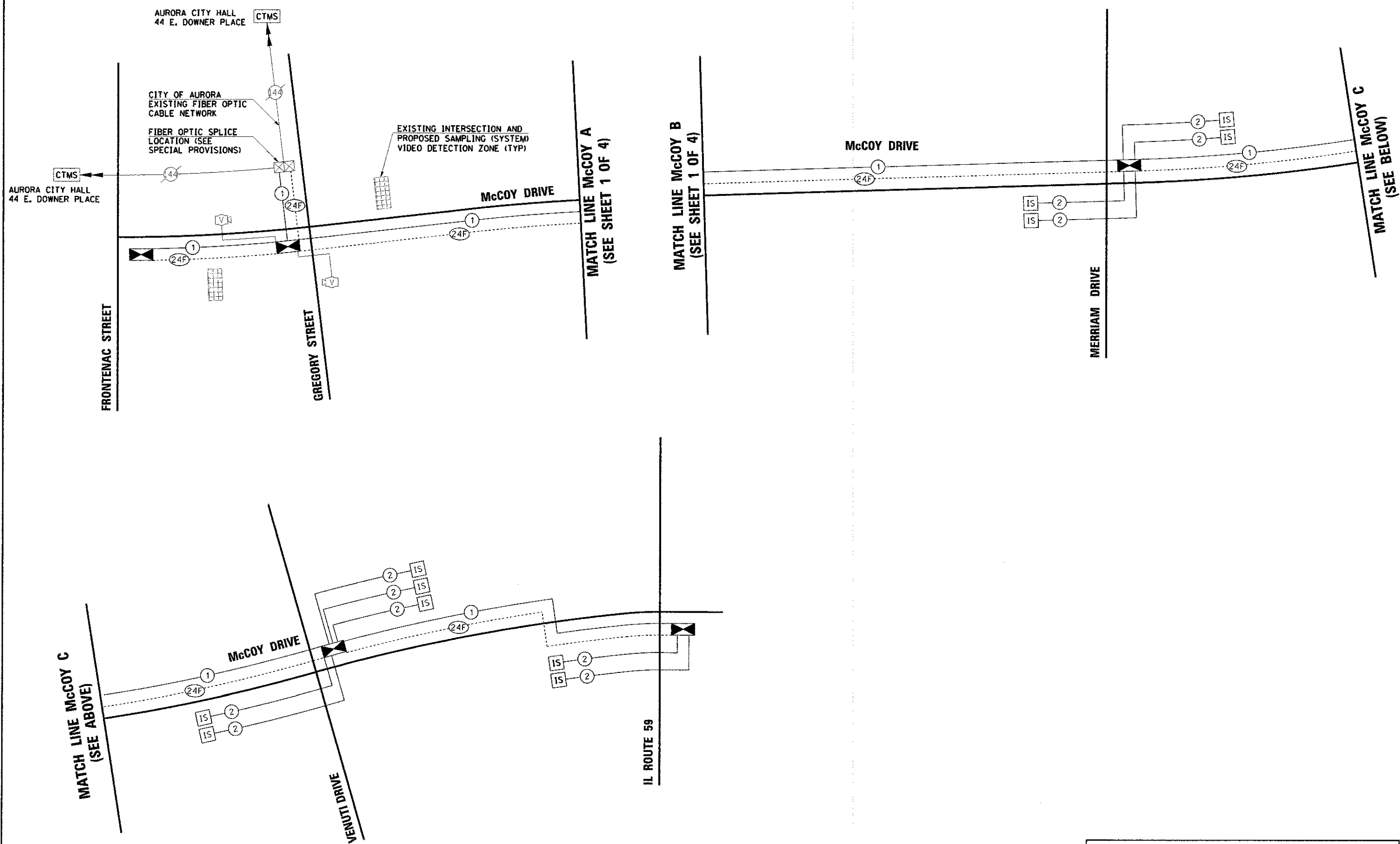
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A.U. RTE. 153/2532	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEETS 38	SHEET NO. 34
CONTRACT NO. 63816				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PLAN	DATE
DESIGNED	BY
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PROFILE	DATE
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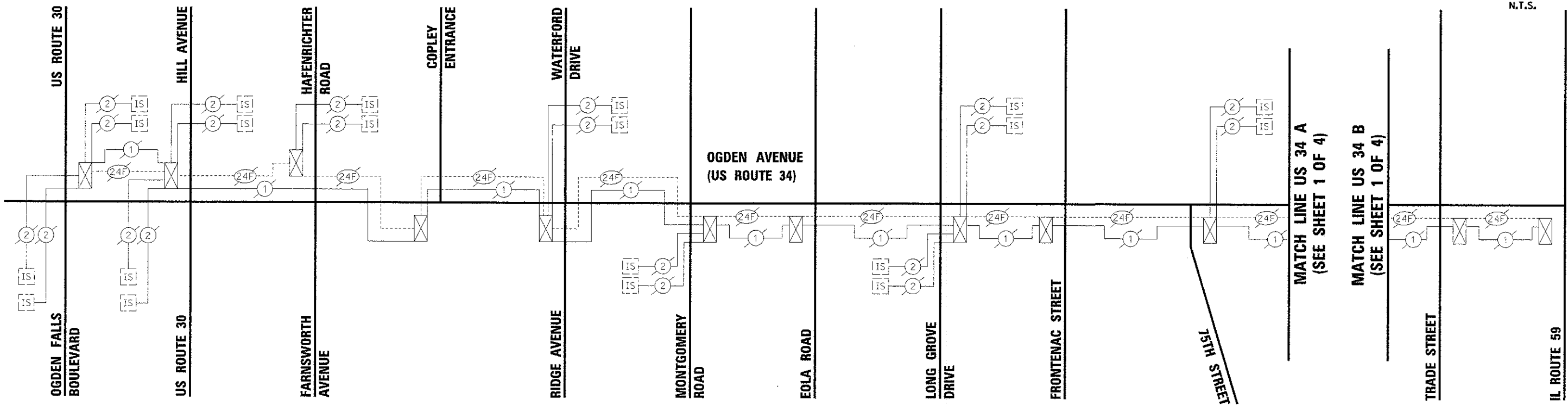


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

	HRGreen.com Illinois Professional Design Firm #184-001822	USER NAME = Mjoller DESIGNED - MJF CHECKED - APS DATE - 02/21/2013	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>INTERCONNECT SCHEMATIC</b> <b>(SHEET 3 OF 4)</b>	F.A.U. RTE. 153/2532 SECTION 11-00297-00-TL COUNTY TOTAL SHEETS 38 SHEETS NO. 35 CONTRACT NO. 63816	SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
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PLAN	SUBMITTED	DATE
NOTE BOOK	PLOTTED	
NO.	ALIGNMENT CHECKED	
	PAID FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	STRUCTURE NOTATION	



N.T.S.

MATCH LINE US 34 A  
(SEE SHEET 1 OF 4)

MATCH LINE US 34 B  
(SEE SHEET 1 OF 4)

15TH STREET

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



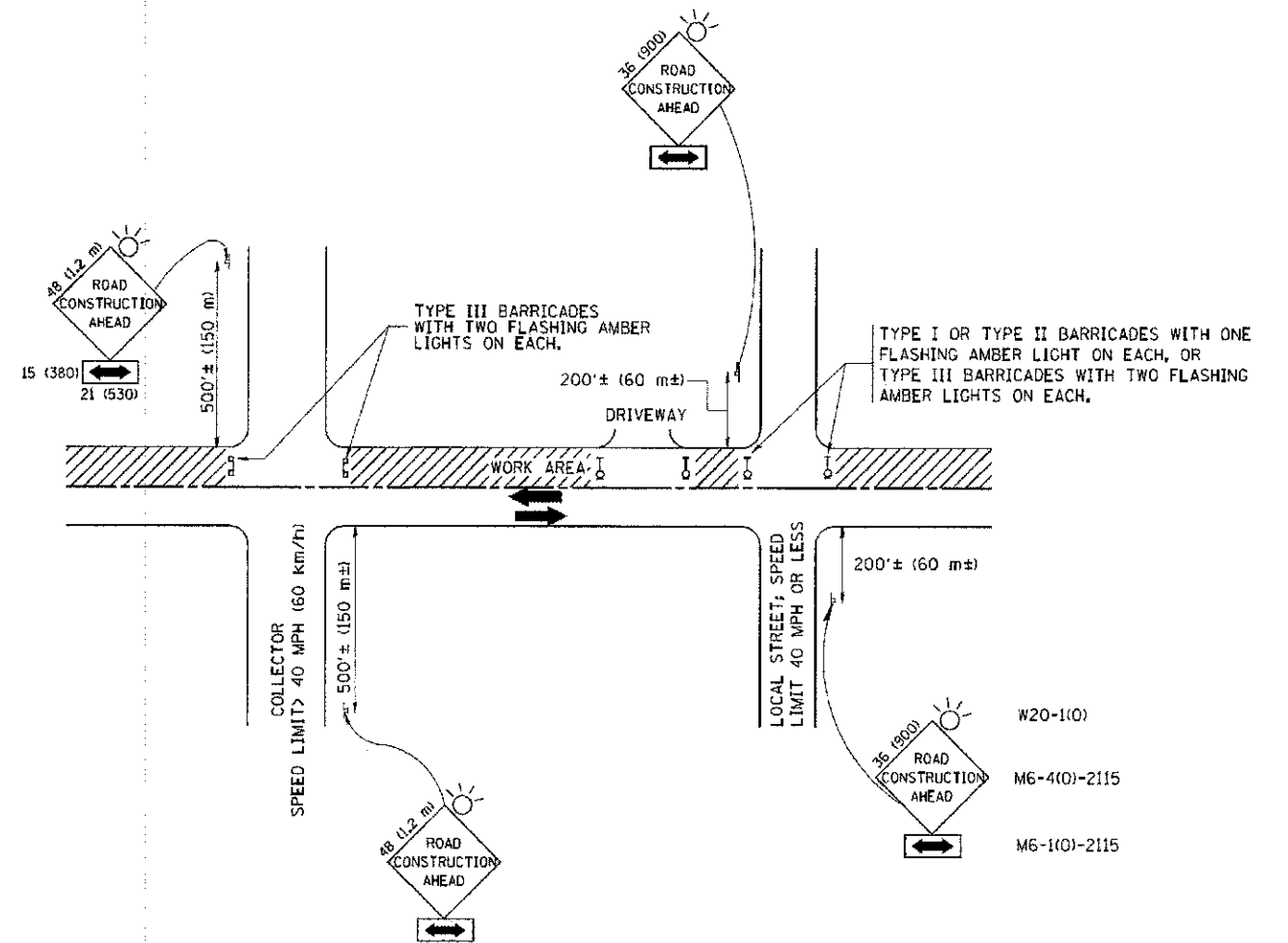
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC  
(SHEET 4 OF 4)

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
153/2532	11-00297-00-TL	DUPAGE	38	36
CONTRACT NO. 63816			ILLINOIS FED. AID PROJECT	



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

#### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1,2 m x 1,2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 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. 701506 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

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

FILE NAME =	USER NAME = gagliardi	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\advis\ad\22x34\tr18.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
		CHECKED -	REVISED - A. HOUSEH 10-15-96
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

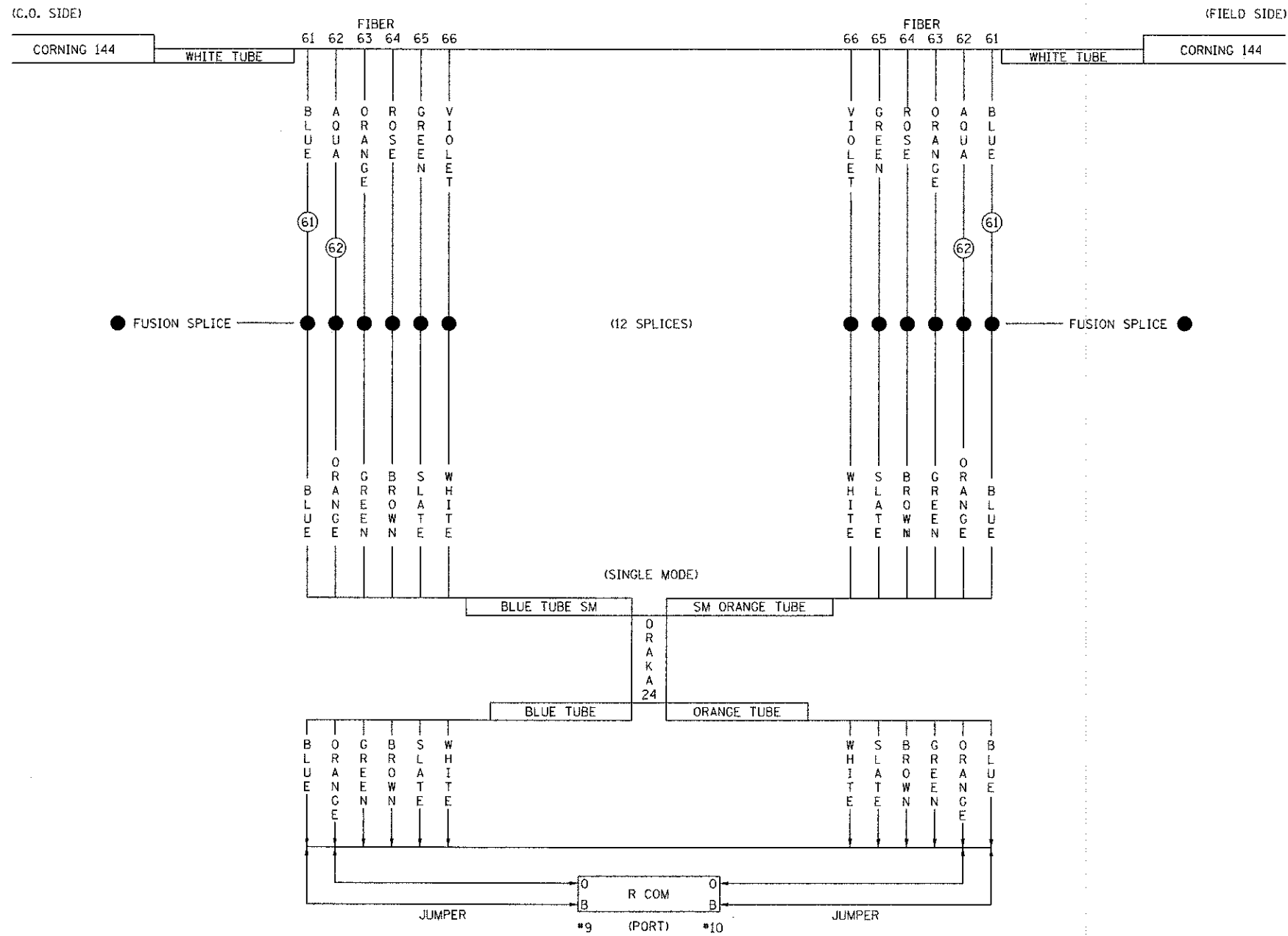
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

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

F.A.U. RTE. 1531/2532	SECTION 11-00297-00-TL	COUNTY DUPAGE	TOTAL SHEETS 38	SHEET NO. 37
TC-10			CONTRACT NO. 63816	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

### TRAFFIC SIGNAL - FIBER 'T' SPLICE



- 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

### 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.

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