

FOR INDEX OF SHEETS, SEE SHEET NO. 2 03-08-2019 LETTING ITEM 150

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

EXISTING ADT (2017) = 18,100-20,800  
 POSTED / DESIGN SPEED = 35 M.P.H.  
 DESIGN DESIGNATION = MINOR ARTERIAL

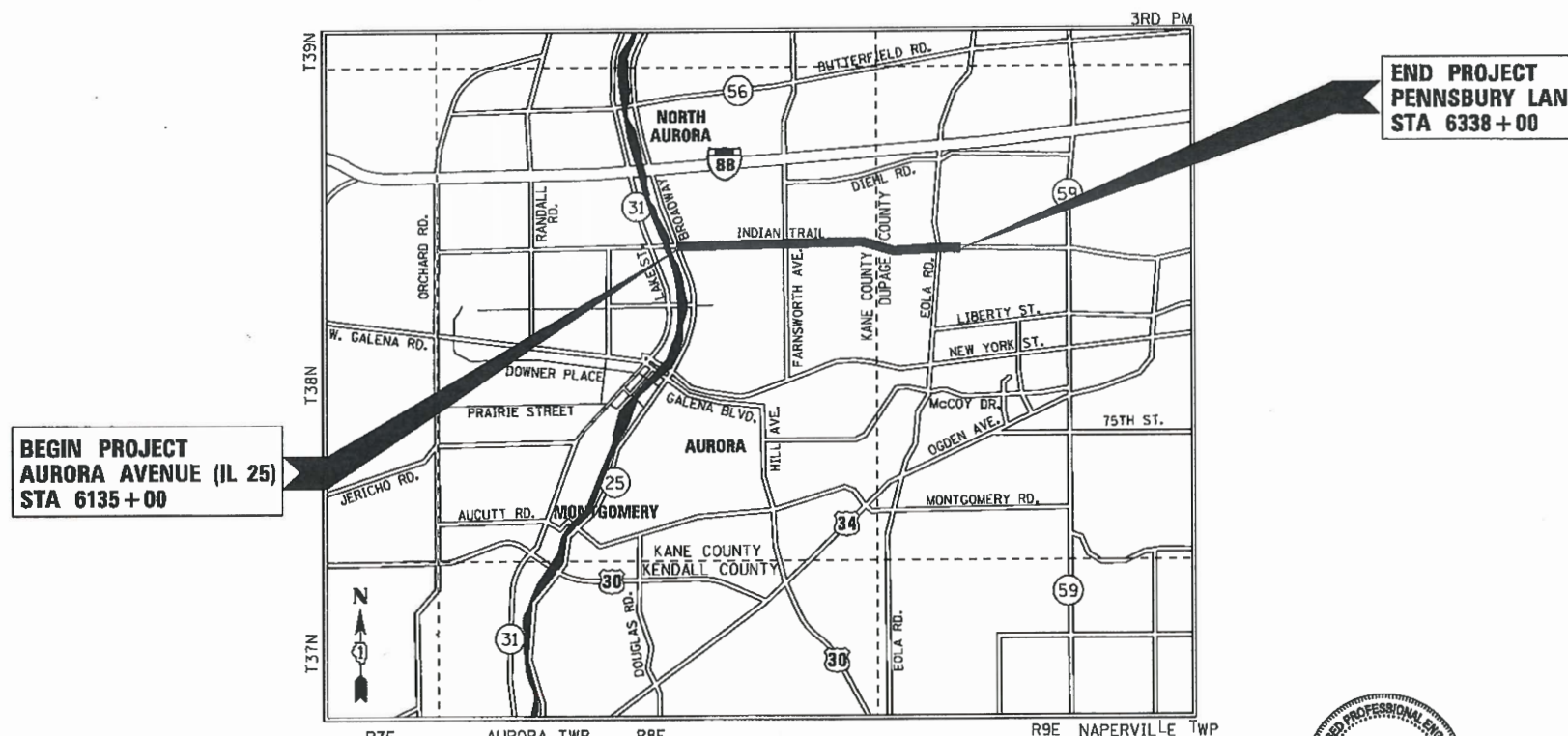
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	1

CONTRACT NO. 61F59

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 1503 / MUN 1157 / FAU 1509 (INDIAN TRAIL)  
 AURORA AVENUE (IL 25) TO PENNSBURY LANE  
 TRAFFIC SIGNAL INTERCONNECT

18-00322-00-TL  
 PROJECT NO. 78S5(994)  
 KANE /DUPAGE COUNTY  
 CITY OF AURORA  
 C-91-235-18



BEGIN PROJECT  
 AURORA AVENUE (IL 25)  
 STA 6135+00

END PROJECT  
 PENNSBURY LANE  
 STA 6338+00

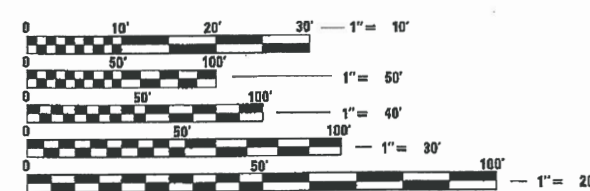
LOCATION MAP  
 SCALE: N.T.S

PROJECT GROSS LENGTH = 20,300.00 FEET = 3.84 MILES  
 PROJECT NET LENGTH = 20,300.00 FEET = 3.84 MILES



*Matthew J. Feller*  
 MATTHEW J. FELLER, P.E.  
 NO. 062-065169  
 EXPIRES: 11/30/2019  
 HR GREEN, INC.

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: 61F59

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

APPROVED DECEMBER 10 2018  
*Rob...*  
 CITY OF AURORA, CITY TRAFFIC ENGINEER

PASSED DECEMBER 13 2018  
*Ch...*  
 DISTRICT ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
 BASED ON LIMITED  
 REVIEW DECEMBER 17 2018  
*Anthony...*  
 REGIONAL ENGINEER

PRINTED BY THE AUTHORITY  
 OF THE STATE OF ILLINOIS

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

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E., SCHAUMBURG, IL

PLAN	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	BY
	CHECKED	
	AT	
	COMPUTER	
	FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK NO.	GRADES CHECKED	BY
	STRUCTURE	
	NOTATIONS	

**INDEX OF SHEETS**

- 1 COVER SHEET
- 2 INDEX OF SHEETS / LIST OF HIGHWAY STANDARDS
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- 13-15 TRAFFIC SIGNAL PLANS - IL 25
- 16-19 TRAFFIC SIGNAL PLANS - MITCHELL ROAD
- 20-22 TRAFFIC SIGNAL PLANS - FELTON ROAD
- 23-25 TRAFFIC SIGNAL PLANS - STONEBRIDGE BOULEVARD (WEST)
- 26-28 TRAFFIC SIGNAL PLANS - STONEBRIDGE BOULEVARD (EAST)
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- 43-44 MISCELLANEOUS DETAILS

**LIST OF HIGHWAY STANDARDS**

- 000001-07 - STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 424001-11 - PERPENDICULAR CURB RAMPS FOR SIDEWALKS
- 424006-04 - DIAGONAL CURB RAMPS FOR SIDEWALKS
- 424011-04 - CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
- 424021-05 - DEPRESSED CORNER FOR SIDEWALKS
- 606001-07 - CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 701101-05 - OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
- 701501-06 - URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701502-09 - URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
- 701601-09 - URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701602-10 - URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
- 701701-10 - URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-06 - SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-08 - TRAFFIC CONTROL DEVICES
- 720001-01 - SIGN PANEL MOUNTING DETAILS
- 720006-04 - SIGN PANEL ERECTION DETAILS
- 720011-01 - METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
- 720016-04 - MAST ARM MOUNTED STREET NAME SIGNS
- 805001-01 - ELECTRICAL SERVICE INSTALLATION DETAILS
- 814001-03 - HANDHOLES
- 814006-02 - DOUBLE HANDHOLES
- 825011-04 - LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240V
- 857001-01 - STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 - UNINTERRUPTABLE POWER SUPPLY (UPS)
- 873001-02 - TRAFFIC SIGNAL GROUNDING & BONDING
- 876001-04 - PEDESTRIAN PUSH BUTTON POST
- 877001-07 - STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 877011-10 - STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-10 - CONCRETE FOUNDATION
- 880006-1 - TRAFFIC SIGNAL MOUNTING DETAILS
- 886001-01 - DETECTOR LOOP INSTALLATIONS
- 886006-01 - TYPICAL LAYOUT FOR DETECTION LOOPS

**DISTRICT 1 DETAILS**

- TC 10 - TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
- TC 22 - ARTERIAL ROAD INFORMATION SIGN

HRG PROJECT NO.: 070690J5  
 HRG PROJ. CONTACT: 630.551.7600/udgn  
 PLOT DRIVER: ppa1hobart.fbi  
 PEN TABLE:



USER NAME = mfeiler	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX /HIGHWAY STANDARDS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	2
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

PLAN	SURVEYED	DATE
	PLOTTED	
	BY	
	NOTE BOOK	
	NO.	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	BY	
	NOTE BOOK	
	NO.	
	FILE NAME	

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	AURORA AVENUE	MITCHELL ROAD	FELTON ROAD	STONEBRIDGE BOULEVARD (WEST)	STONEBRIDGE BOULEVARD (EAST)	EOLA ROAD	PENNSBURY LANE	INTERCONNECT	SAFETY
				(IL 25) 0021	0021	0021	0021	0021	0021	0021	0021	0021
67100100	MOBILIZATION	L SUM	1									1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1									1
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1									1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1									1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1									1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1									1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1									1
72000100	SIGN PANEL - TYPE 1	SQ FT	22.50		22.50							
80500010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	2				1	1				
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1		1							
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	24		24							
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	206		172					34		
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	40		40							
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	8								8	
81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	372		372							
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	2		2							
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	10	1	1	1	1	1	1	1	3	
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	6		1	1	1	1		1	1	
86400100	TRANSCEIVER - FIBER OPTIC	EACH	10								10	
87300010	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	15				8	7				
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	23052								23052	
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	3601			1274	416	651		1260		
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	5265	86	587	1438	525	883	94	1447	205	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1253		1253							
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1604		1604							
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3410		811	974	824	801				
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	111		45		32	34				
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1846		593		691	519		43		
87500600	TRAFFIC SIGNAL POST, 10 FT	EACH	2							2		
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3		3							
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1		1							
87702830	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 20 FT.	EACH	1		1							
87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1		1							
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	23		15		4	4				
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4		4							
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	32		32							
87900200	DRILL EXISTING HANDHOLE	EACH	23		14					2	7	
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5		5							
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3		3							
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3		3							
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	24			8	4	4		8		
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8		8							
88500100	INDUCTIVE LOOP DETECTOR	EACH	37		10	10	10	7				

HRG PROJECT NO.: 070690/5  
 HRG PROJ. CONTACT: 690JA.sum@hr.com  
 FILE NAME: IL\_018-2019-01.ctb  
 PLOT DRIVER: plotter.ctb  
 PEN TABLE:



USER NAME = mCeller	DESIGNED - GF	REVISED -
DRAWN - GF	CHECKED - MJF	REVISED -
DATE - 10/3/2018		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES (SHEET 1 OF 2)			
SCALE:	SHEET	OF	SHEETS
			STA.
			TO STA.

F.A.U. RTE. 1503	SECTION NO. 18-00322-00-TL	COUNTY KANE/DUPAGE	TOTAL SHEETS 44	SHEET NO. 3
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		CONTRACT NO. 61F59		

PLAN SURVEYED \_\_\_\_\_ PLOTTED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_ RI, OF WAY CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_ CADD FILE NAME \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

PROFILE SURVEYED \_\_\_\_\_ PLOTTED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_ S.M. NOTED \_\_\_\_\_  
 NO. \_\_\_\_\_ STRUCTURE NOTATIONS DPKD \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	AURORA AVENUE (IL 25) 0021	MITCHELL ROAD 0021	FELTON ROAD 0021	STONEBRIDGE BOULEVARD (WEST) 0021	STONEBRIDGE BOULEVARD (EAST) 0021	EOLA ROAD 0021	PENNSBURY LANE 0021	INTERCONNECT 0021	SAFETY 0021
88700200	LIGHT DETECTOR	EACH	2		2							
88700300	LIGHT DETECTOR AMPLIFIER	EACH	5		1	1	1	1		1		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	24			8	4	4		8		
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	4	1					1		2	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	7656		3891		892	1315		1558		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	6		1	1	1	1		1	1	
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5		5							
X0320021	MODIFY EXISTING TYPE "D" FOUNDATION	EACH	5			1	1	1		1	1	
X0324256	FIBER OPTIC CABLE SPLICE	EACH	2								2	
X0326266	ETHERNET SWITCH	EACH	10	1	1	1	1	1	1	1	3	
X1400127	CAT. 6 ETHERNET CABLE	FOOT	1157	86	247	108	81	205	94	131	205	
X1400302	FIBER OPTIC CABLE, MICRO, 144 FIBERS, SINGLE MODE	FOOT	23052								23052	
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	6		1	1	1	1		1	1	
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	340		340							
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	13				6	5		2		
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	15				6	3		6		
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	5				2	1		2		
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	5				2	1		2		
XX07251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	10	1	1	1	1	1	1	1	3	
XX07993	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1								1	
XX08565	EVP CONFIRMATION BEACON, LED RETROFIT	EACH	15			4	4	3		4		
XX08981	CONDUIT SPECIAL	FOOT	5272								5272	
Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1								1	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.4									51.4

HRG PROJECT NO.: 070690J5  
 HRG PROJ CONTACT: 690J5\_sum02.dgn  
 FILE NAME: A\_drf\_bw.ctb  
 PLOT DRIVER: pldtbl.tbl  
 PEN TABLE:



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PLOT SCALE =	DRAWN - GF	REVISED -
PLOT DATE = 1/11/2019	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 2 OF 2)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE. 1503	SECTION NO. 18-00322-00-TL	COUNTY KANE/DUPAGE	TOTAL SHEETS 44	SHEET NO. 4
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

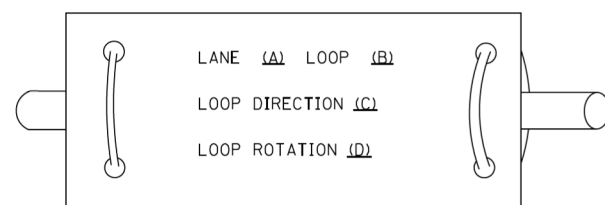




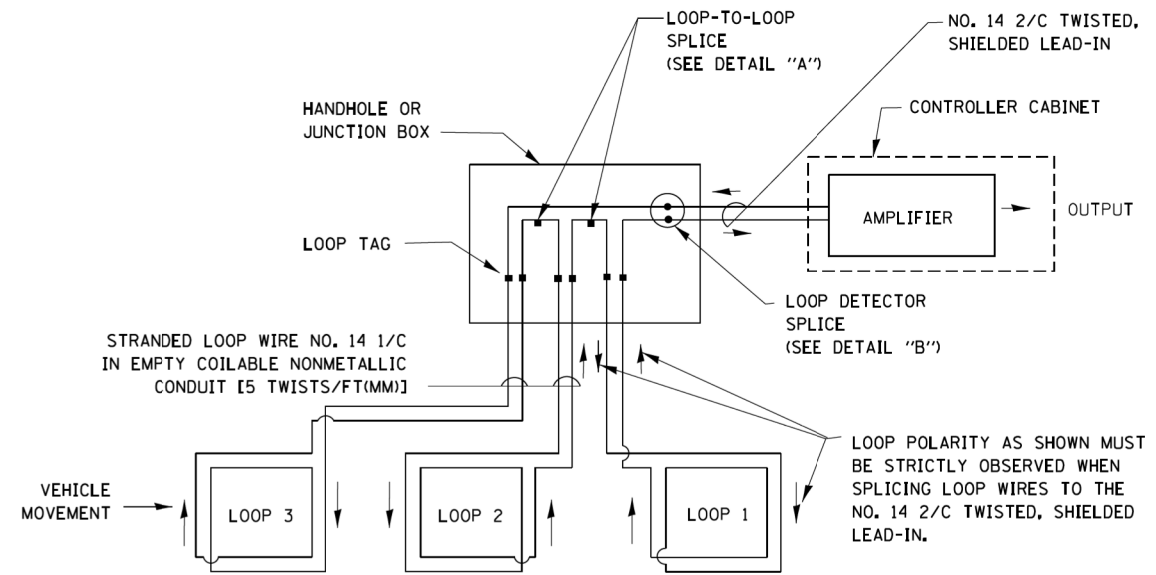
**LOOP DETECTOR NOTES**

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

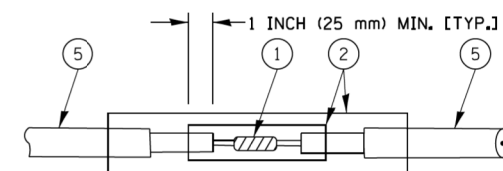


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

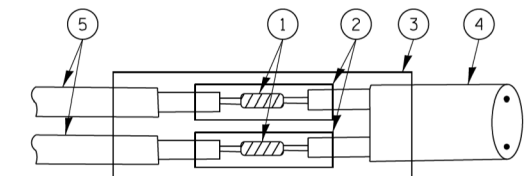


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

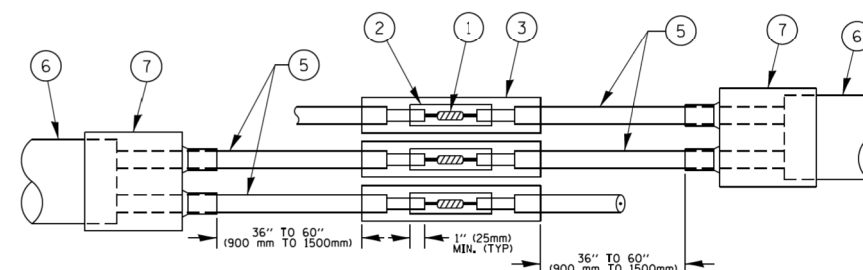


DETAIL "A"  
LOOP-TO-LOOP SPLICE

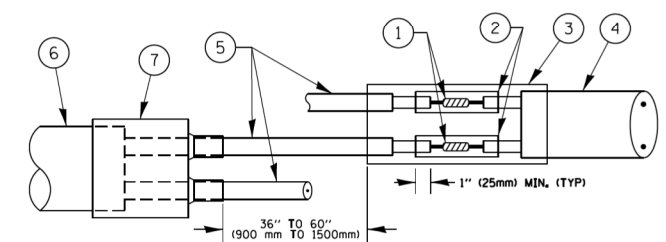


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

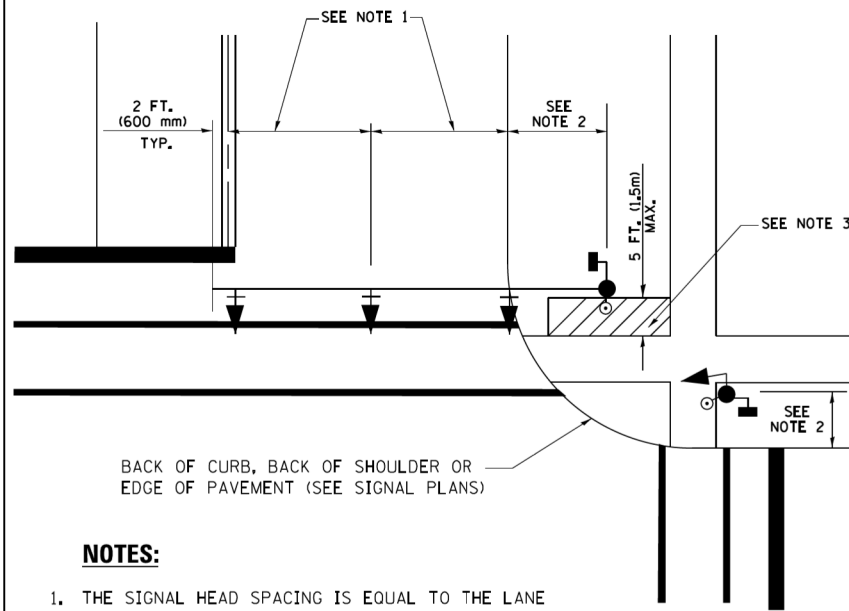
**PREFORMED LOOP**

**LOOP DETECTOR SPLICE**

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

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\pwork\pwork\footemj\00108315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	1503	18-00322-00-TL	KANE/DUPAGE	44	6
		CHECKED - DAD	REVISED -						<b>TS-05</b>				CONTRACT NO. 61F59
		DATE - 10-28-09	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

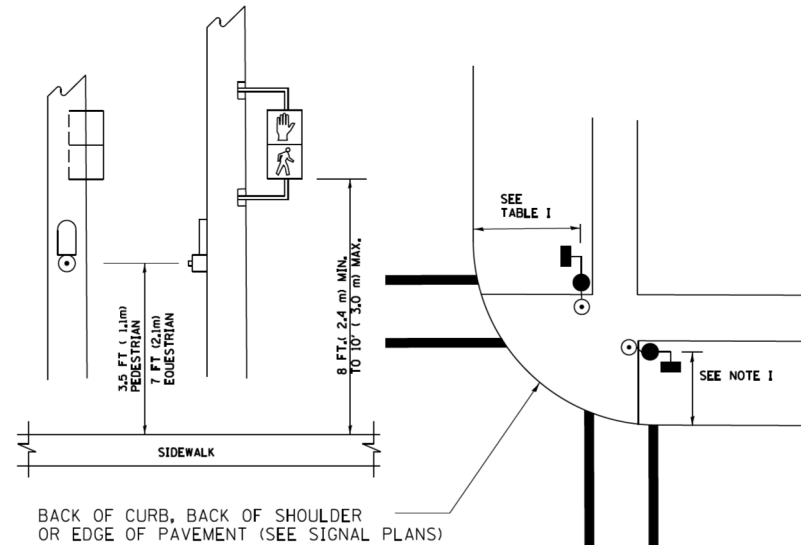
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

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

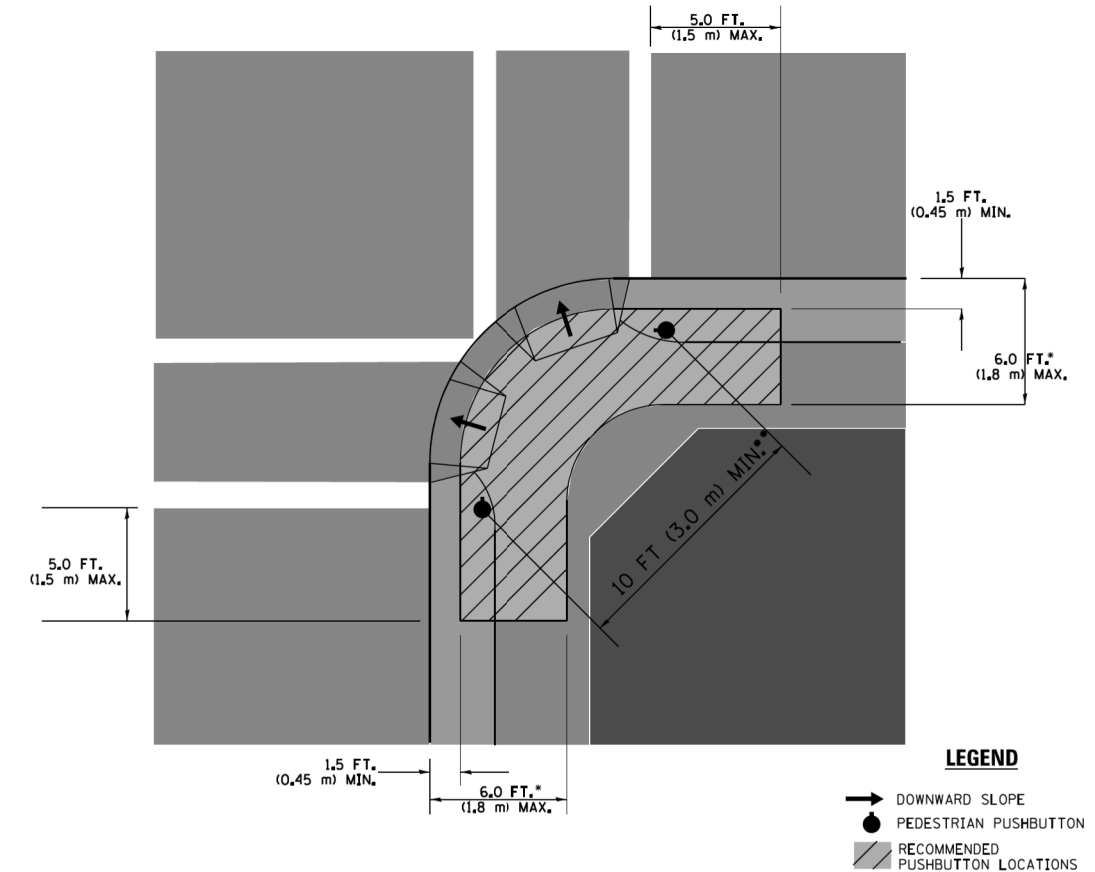
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**NOTES:**

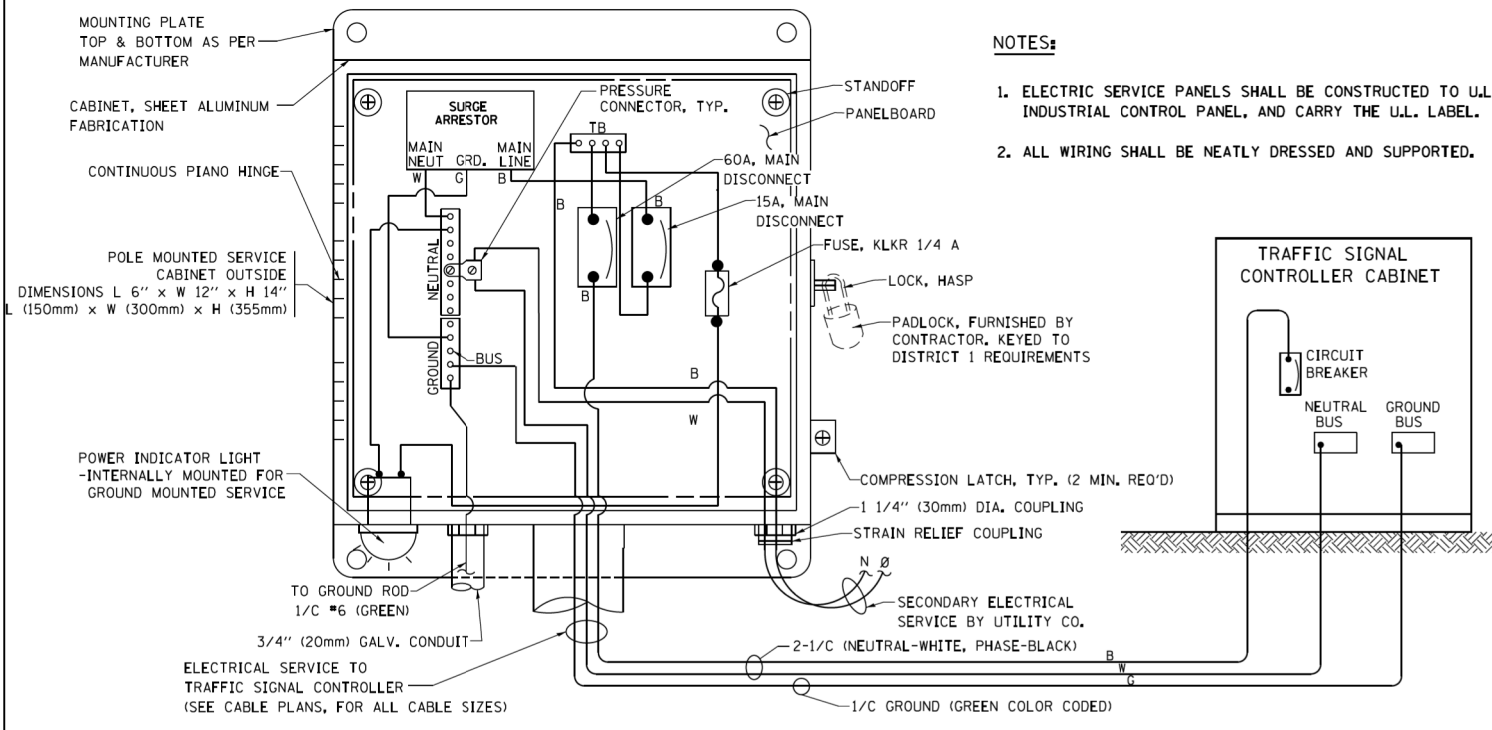
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM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

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

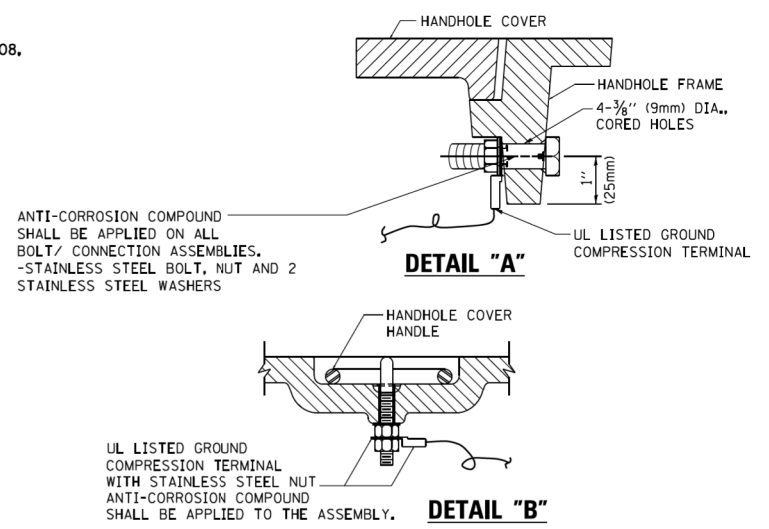
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

**NOTES:**

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

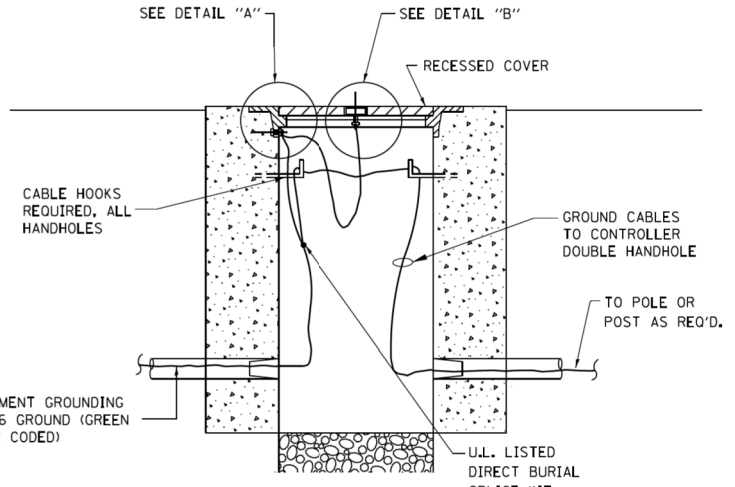


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)**

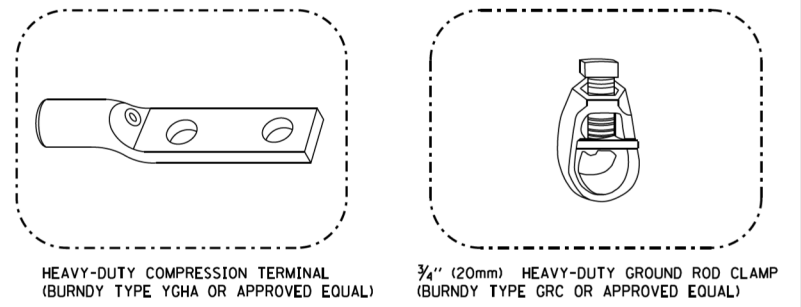


**NOTES:**  
**GROUNDING SYSTEM**

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD, ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

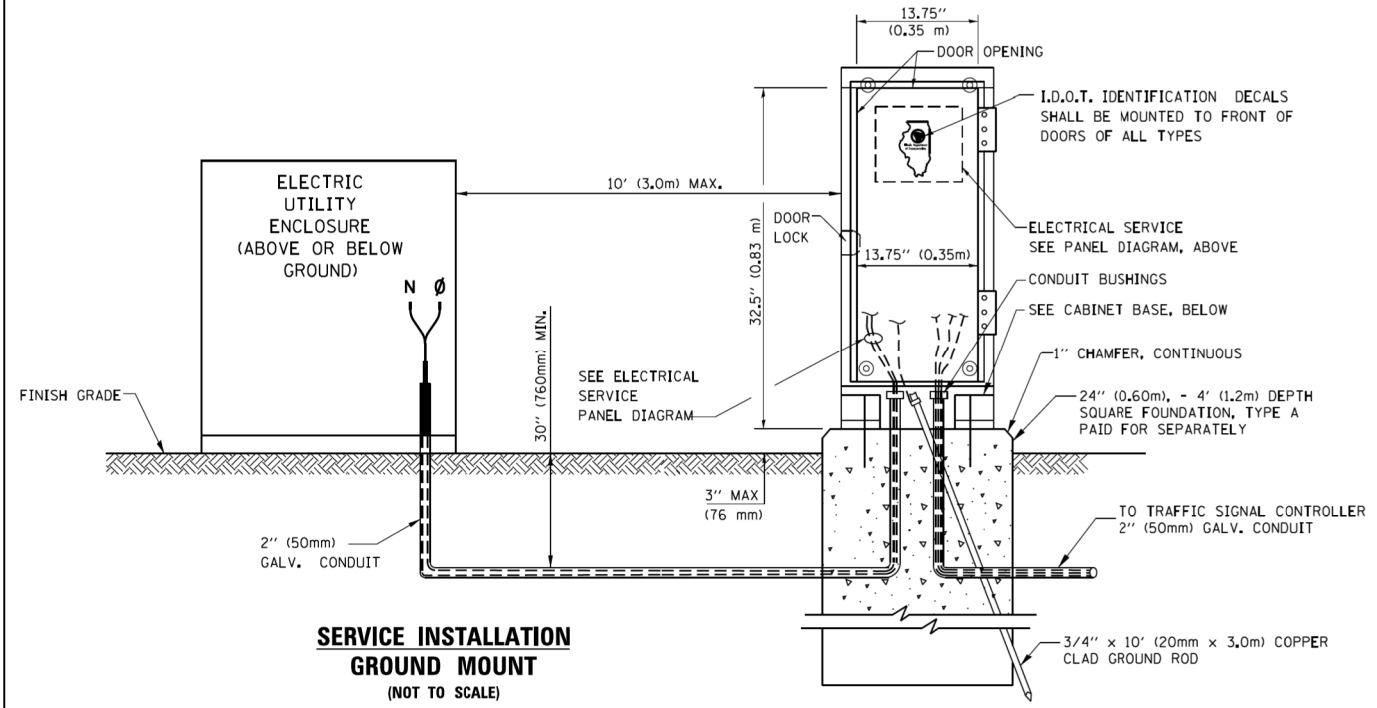


**HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**

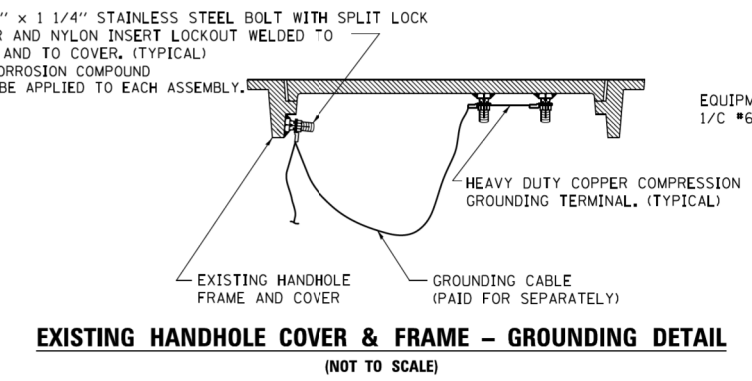


**NOTES:**

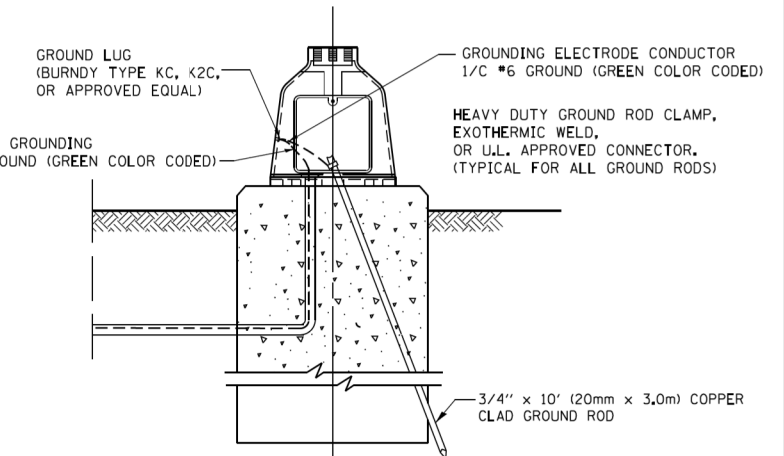
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)**

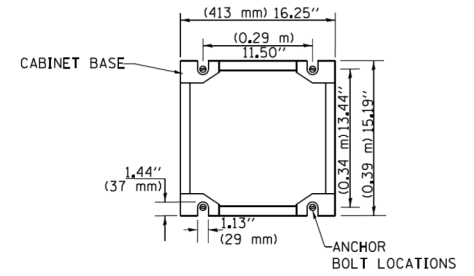


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**



**MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)**

**CABINET - BASE BOLT PATTERN (NOT TO SCALE)**

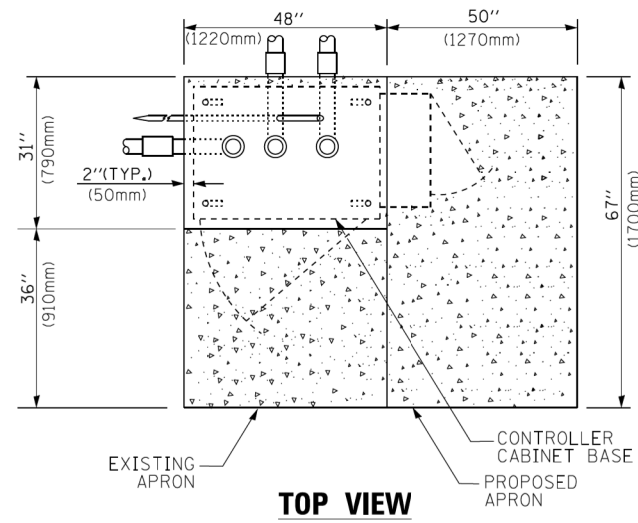


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		DATE - 10-28-09	REVISED -

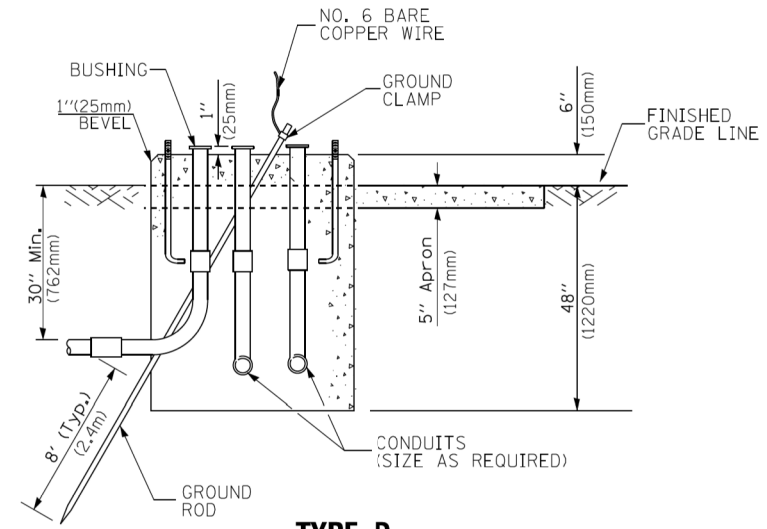
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>	
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS STA. TO STA.

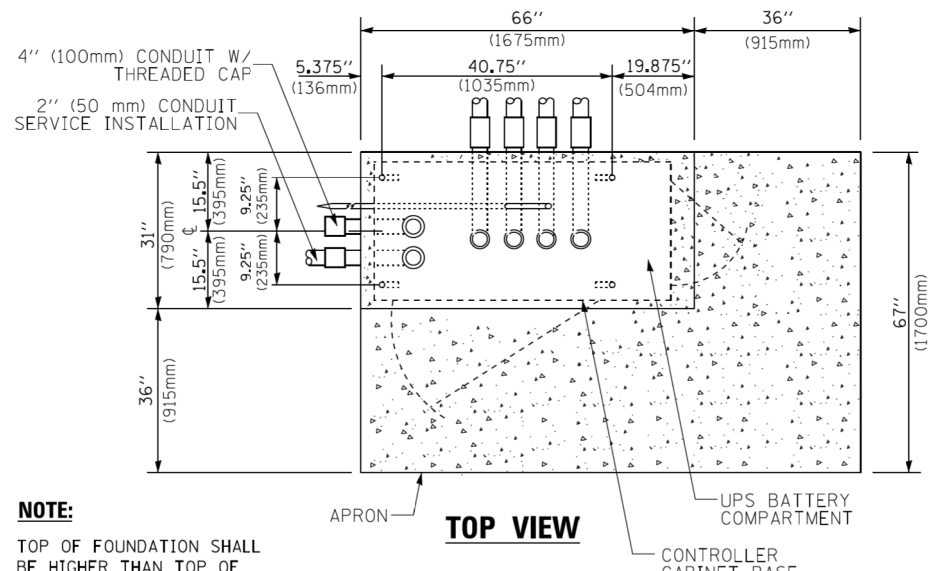
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1503	18-00322-00-TL	KANE/DUPAGE	44	8
<b>TS-05</b>		CONTRACT NO.	61F59	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TOP VIEW**

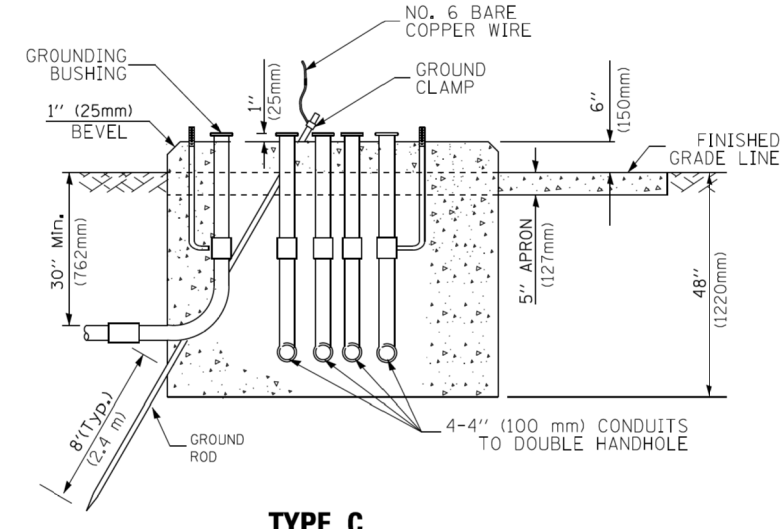


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

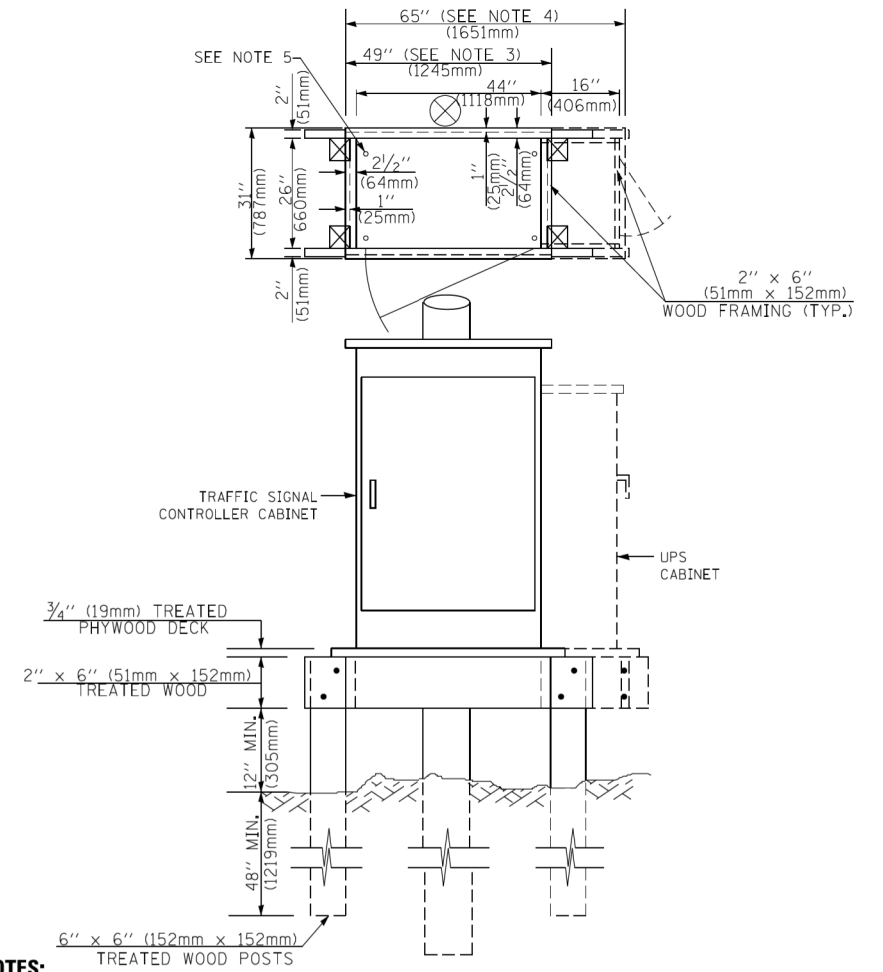


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

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

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

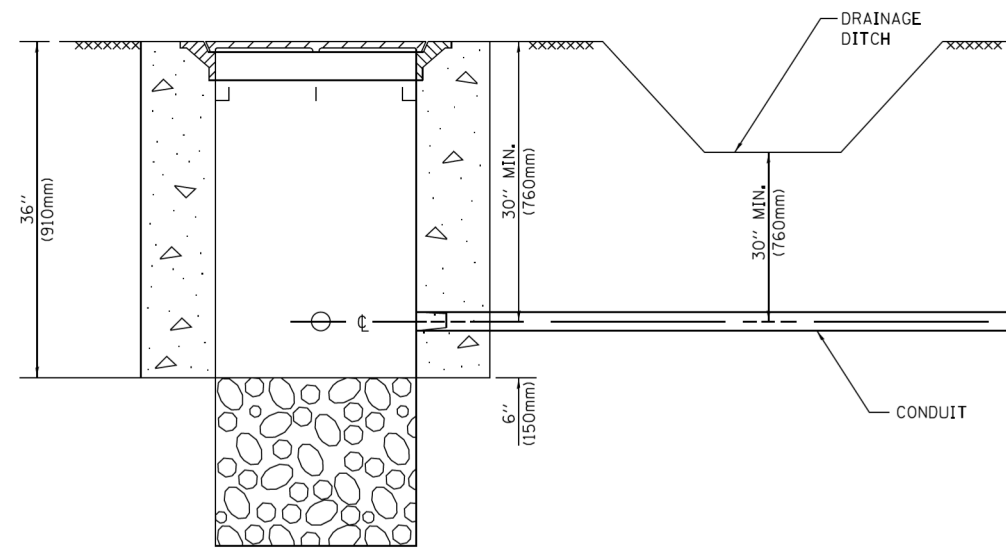
MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

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

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

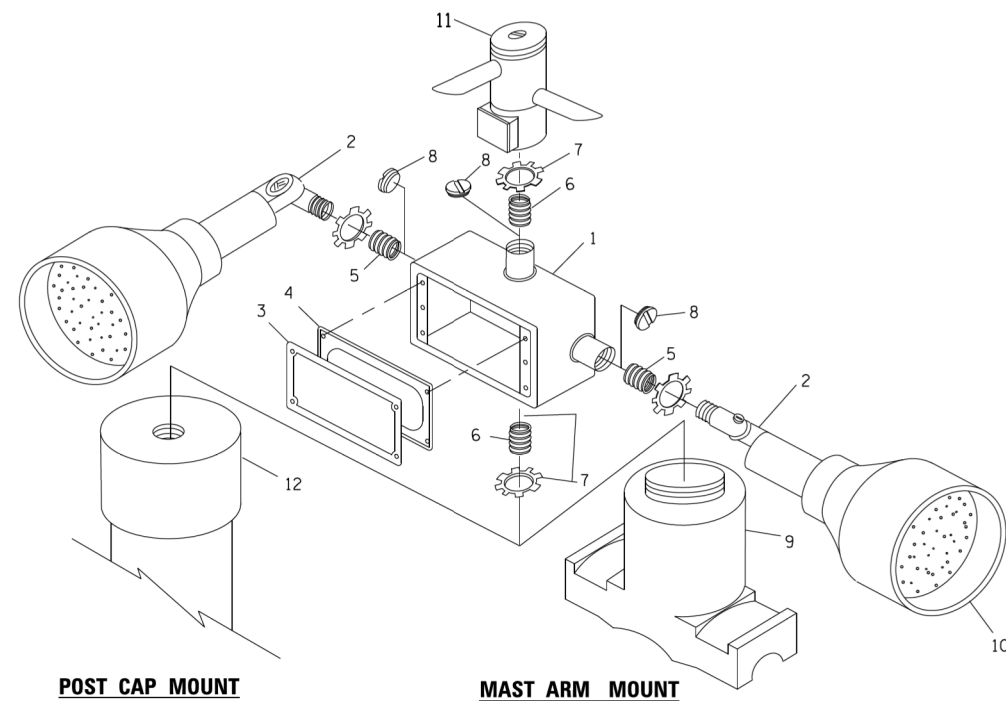




**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

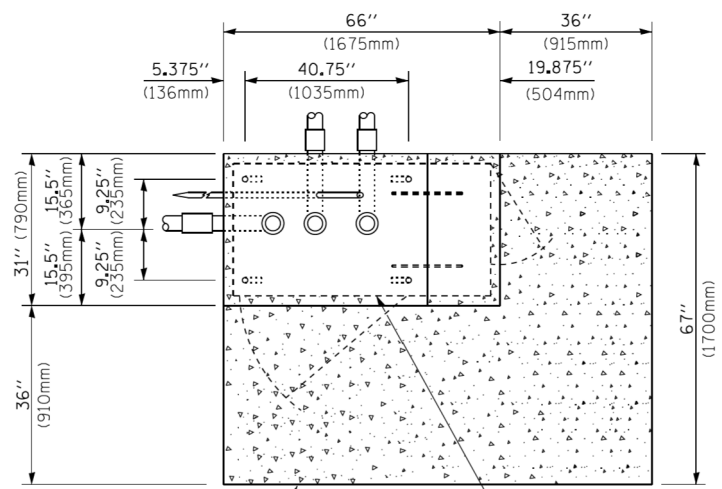
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



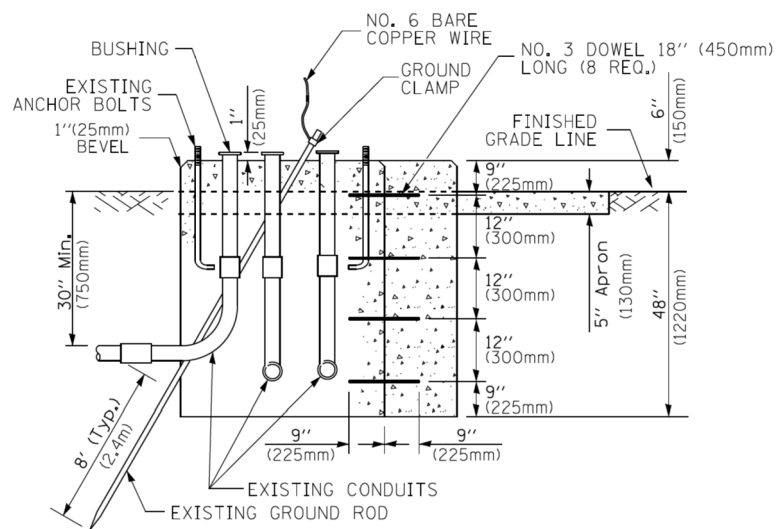
**POST CAP MOUNT**

**MAST ARM MOUNT**

**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



**TOP VIEW**  
(NOT TO SCALE)

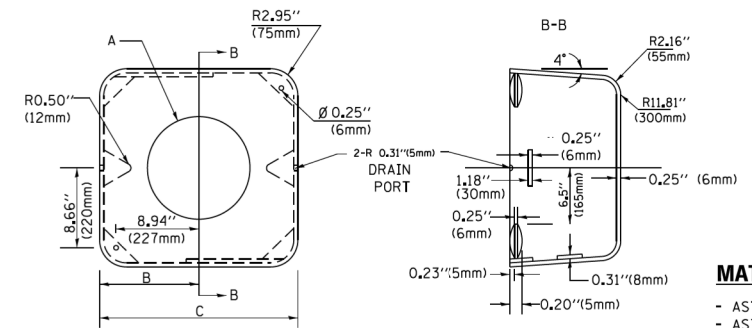


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	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 #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



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

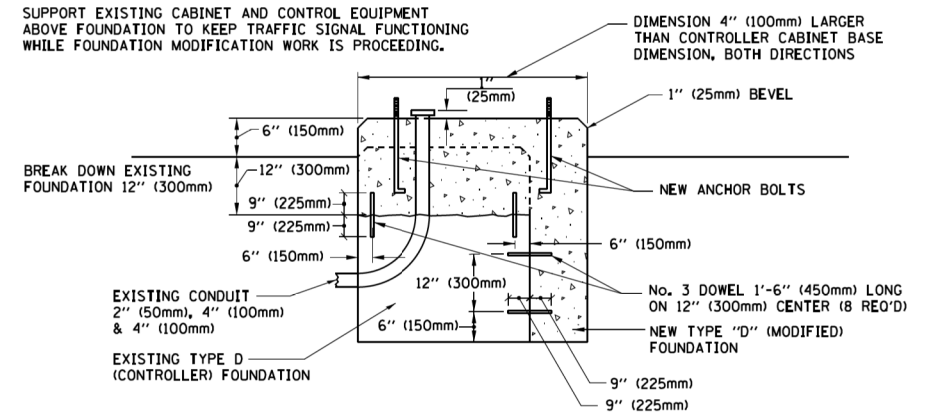
**SHROUD**

**NOTES:**

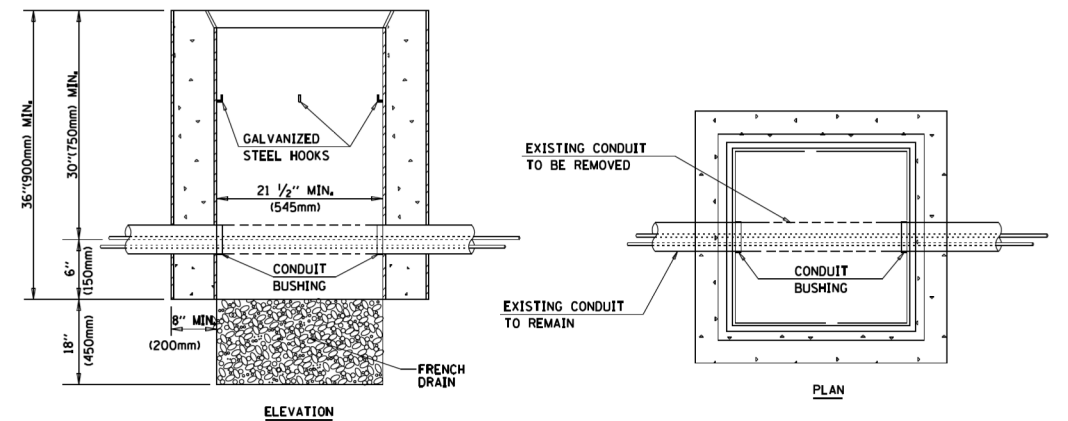
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

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



**MODIFY EXISTING TYPE "D" FOUNDATION**



**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 INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

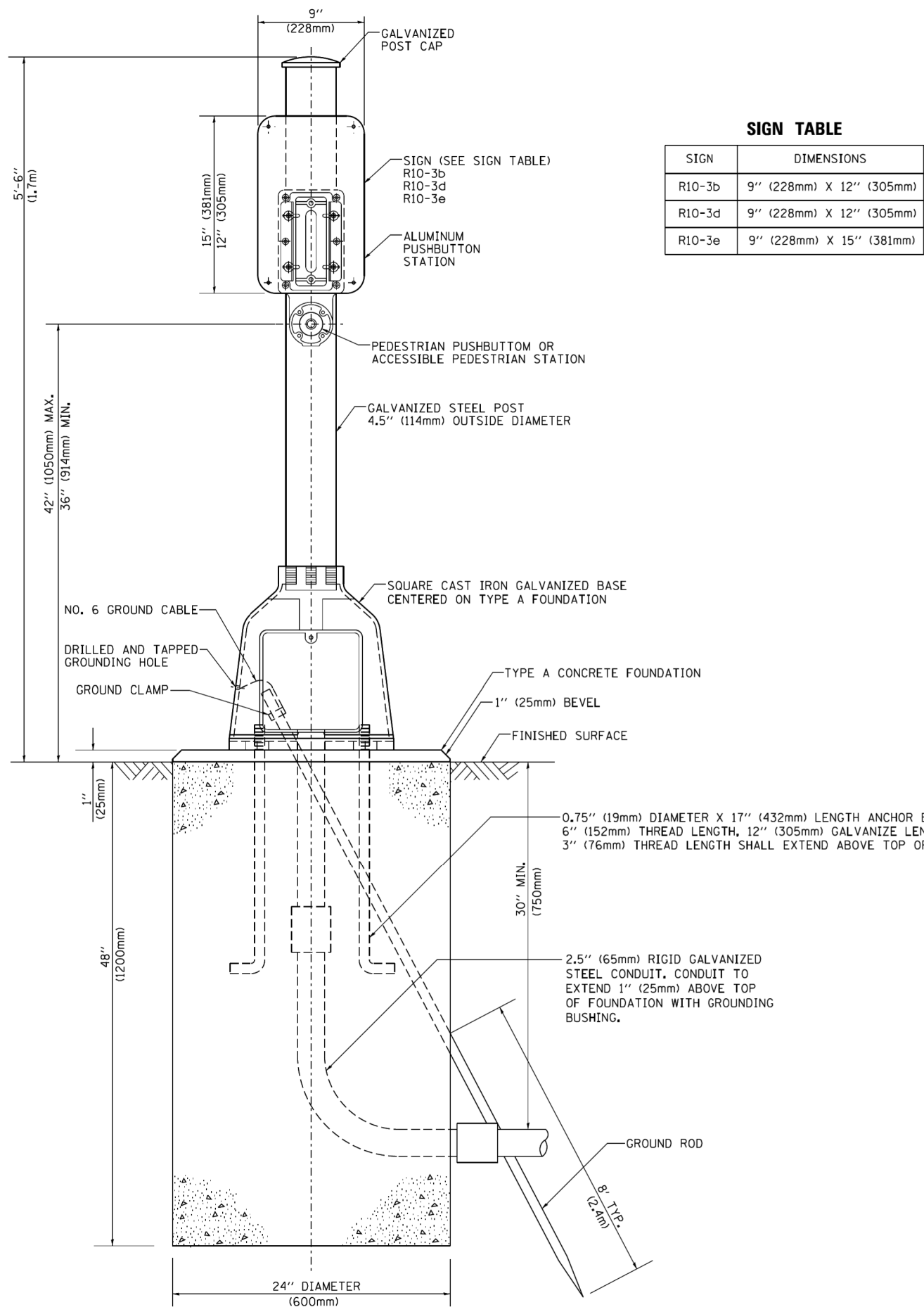
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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

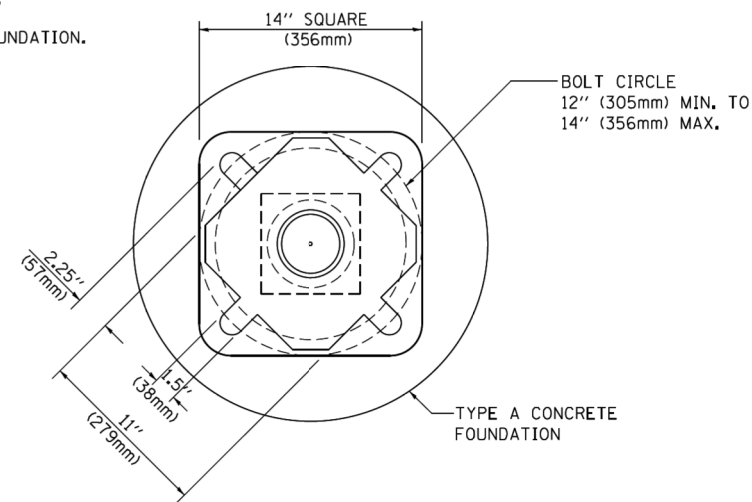
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1503	18-00322-00-TL	KANE/DUPAGE	44	10
	TS-05			CONTRACT NO. 61F59
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**

FILE NAME =	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14
ca:\pwork\pwork\footemj\00108315\ts05.dgn		DRAWN - GND	REVISED -
	PLOT SCALE = 50.0000' / 1"	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -

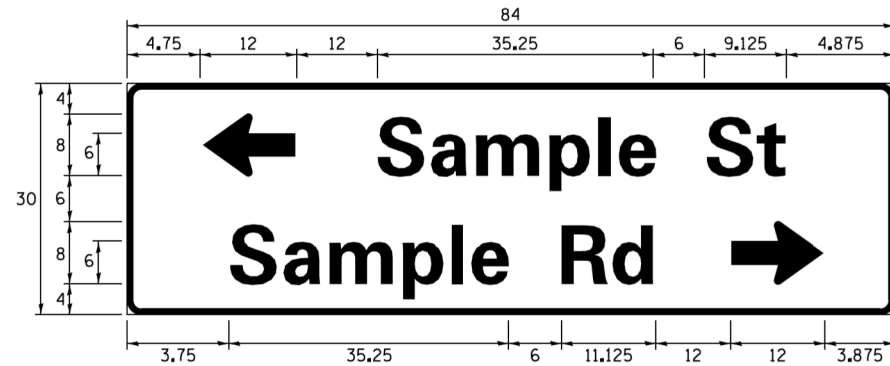
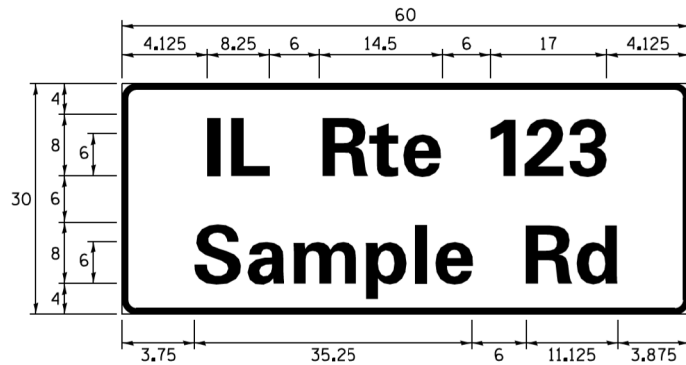
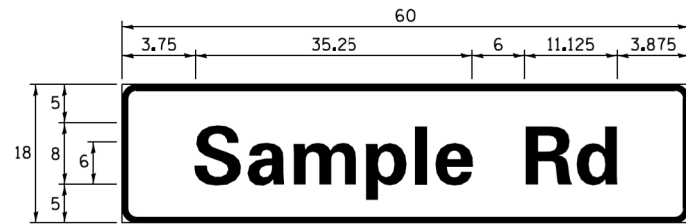
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	11
<b>TS-05</b>			<b>CONTRACT NO. 61F59</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SIGN PANEL – TYPE 1 OR TYPE 2**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

**COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

**GENERAL NOTES**

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

**LOCAL SUPPLIERS:**

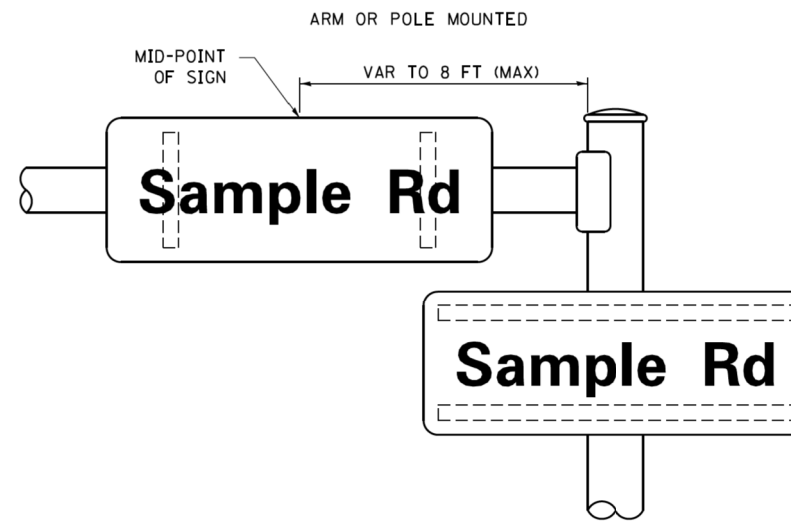
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

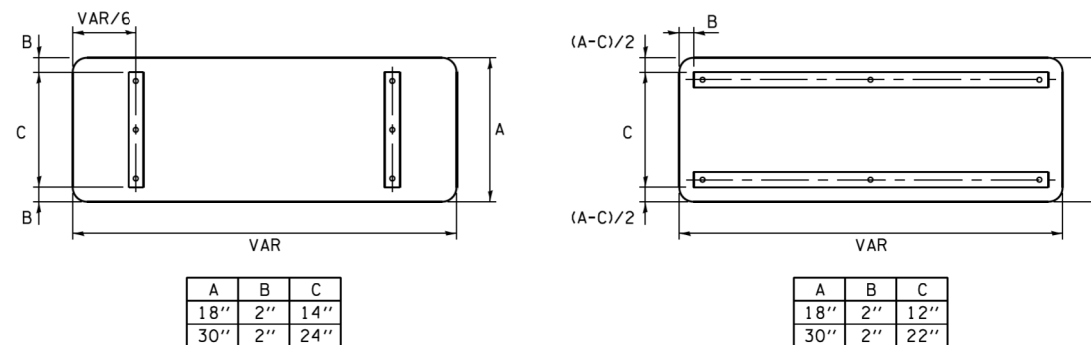
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART #HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

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

**MOUNTING LOCATION**



**SUPPORTING CHANNELS**



**STANDARD ALPHABETS SPACING CHART**

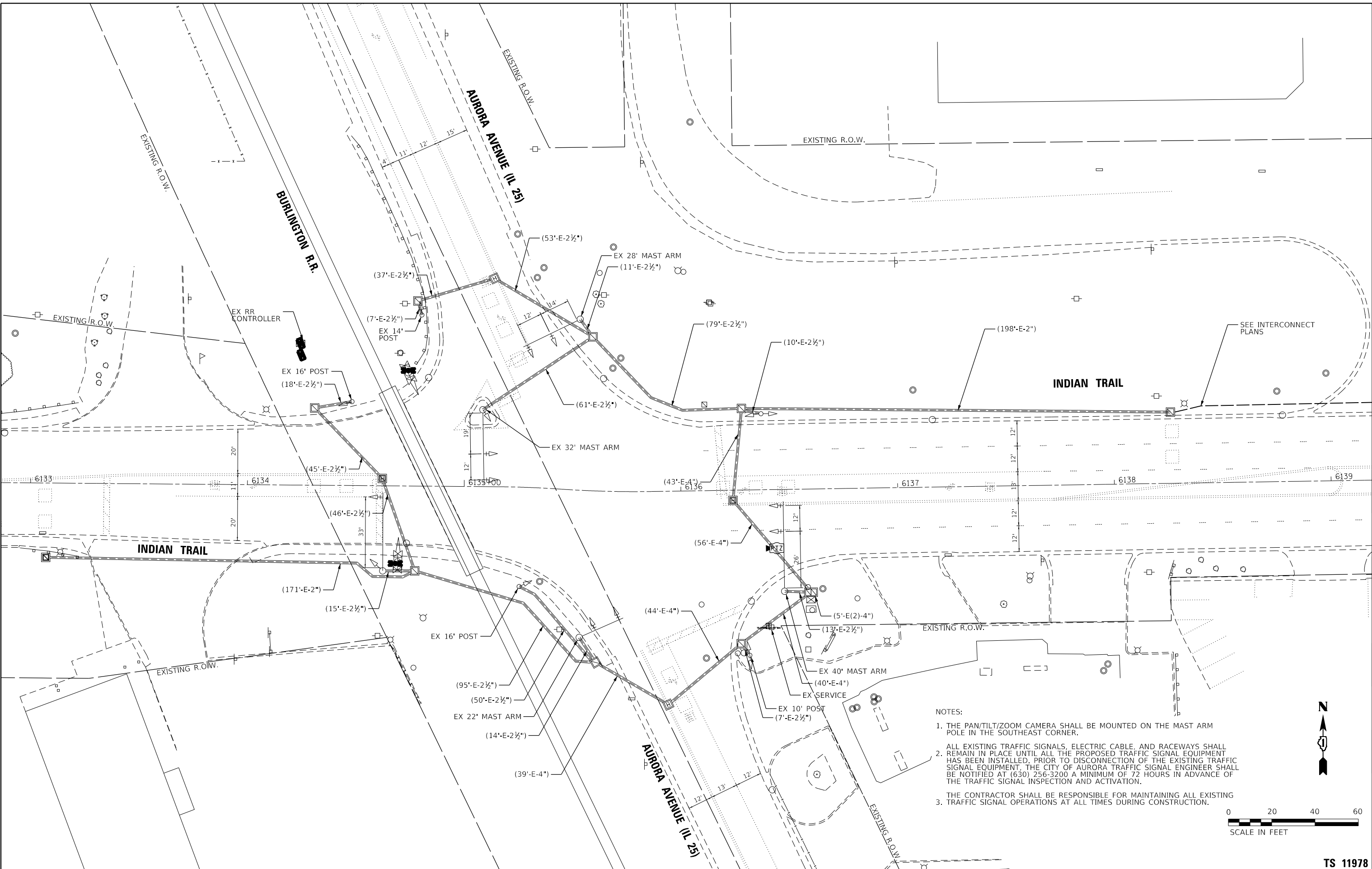
( 8" ) UPPER CASE AND ( 6" ) LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING ( INCH )	WIDTH ( INCH )	RIGHT SPACING ( INCH )	CHARACTER	LEFT SPACING ( INCH )	WIDTH ( INCH )	RIGHT SPACING ( INCH )
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	FILE NAME	
	FILE NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	FILE NO.	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.551.5100; 255.dgr  
 FILE NUMBER: 18-00322-00-TL  
 PEN TABLE: 18-00322-00-TL



- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE MAST ARM POLE IN THE SOUTHEAST CORNER.
  2. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3200 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.



USER NAME = mfaller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -
PLOT SCALE =		
PLOT DATE = 12/31/2018		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

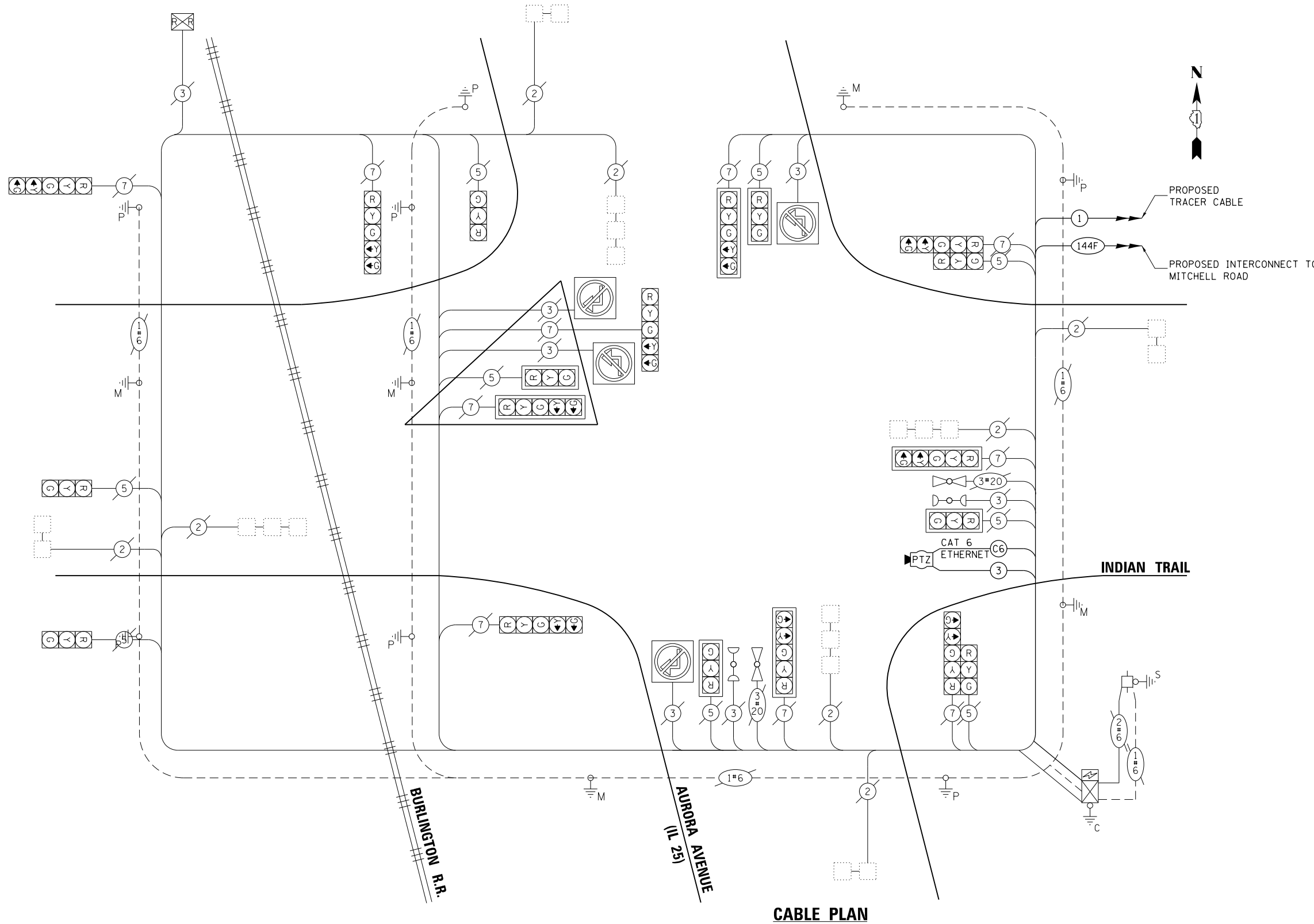
TRAFFIC SIGNAL MODERNIZATION PLAN			
IL RTE 25 AND INDIAN TRAIL			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	13
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

TS 11978

**EXISTING CONTROLLER SEQUENCE**

**THERE ARE NO PROPOSED CHANGES TO THE EXISTING CONTROLLER SEQUENCE. FOR SEQUENCING INFORMATION, SEE THE EXISTING CONTROLLER CABINET.**



PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	PAID FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	PAID FILE NAME	

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	19	11	50	104.5
(YELLOW)	19	20	5	19.0
(GREEN)	19	12	45	102.6
ARROW	20	10	10	20.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150
BLANK-OUT SIGN	4	25	5	5
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	526.1

ENERGY COSTS TO:  
 CITY OF AURORA  
 44 E DOWNER PLACE  
 AURORA, IL 60507  
 ENERGY SUPPLY: CONTACT: MARK SCHERIBEL  
 PHONE: (630) 723-2128  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.05.sig@hr.com  
 FILE NAME: 1800322-00-TL.dwg  
 PEN TABLE: 1800322-00-TL.dwg



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL RTE 25 AND INDIAN TRAIL**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	14
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61F59	

**TS 11978**



**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	AURORA AVENUE (IL 25)
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	86
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	86
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO. _____	PLOTTED		
	ALIGNMENT		
	CHECKED		
	BY		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO. _____	PLOTTED		
	GRADES CHECKED		
	STRUCTURE		
	NOT AT THIS OFFICE		

HRG PROJECT NO.: 070690.5  
 HRG PROJ CONTACT: 690.52.sig@hr.com  
 FILE NUMBER: 18-00322-00-TL  
 PEN TABLE: 6/1/2018



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES  
 IL RTE 25 AND INDIAN TRAIL**

SCALE: SHEET OF SHEETS STA. TO STA.

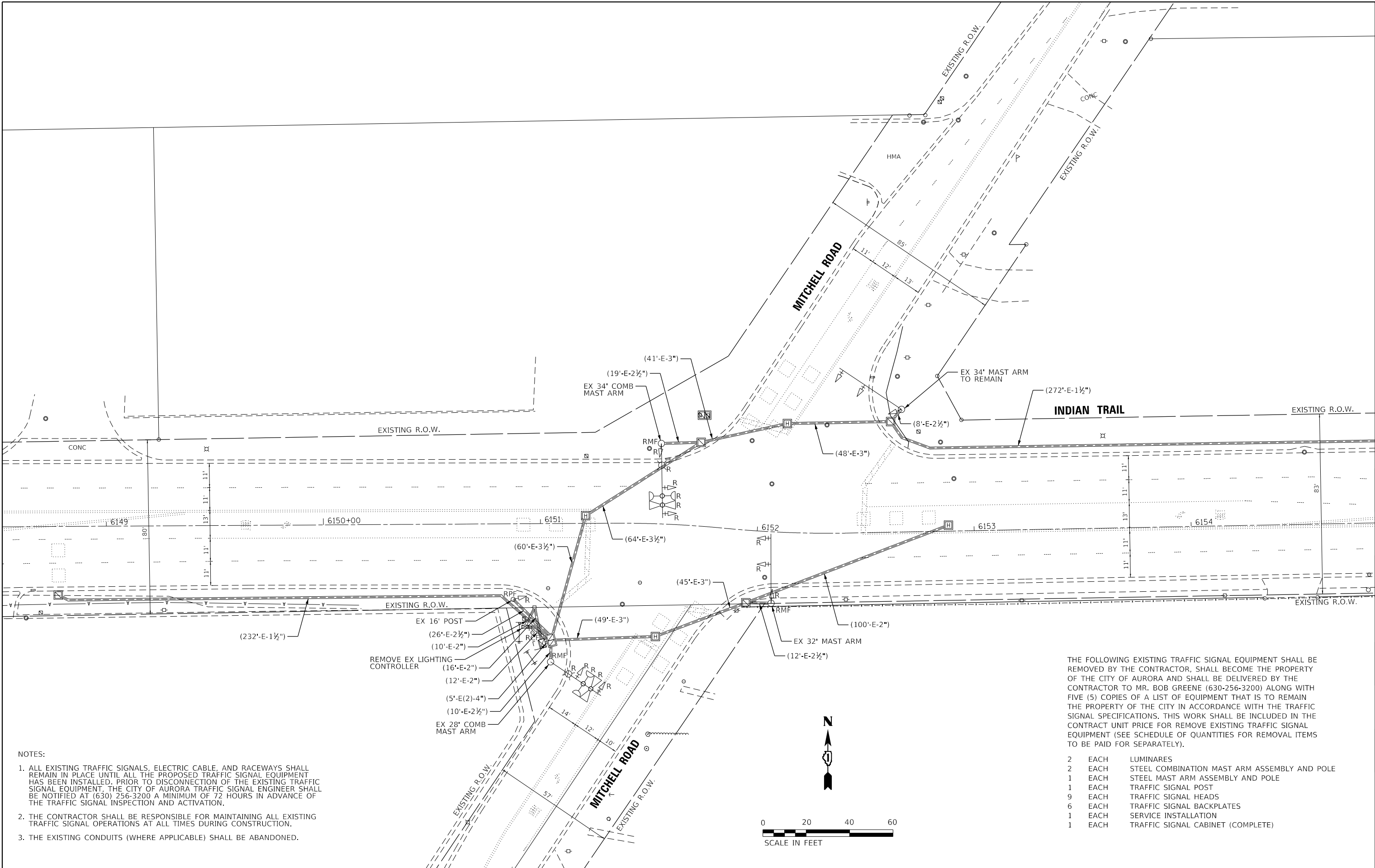
F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	15
CONTRACT NO.			61F59	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**TS 11978**

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO.	

HRG PROJECT NO.: 070690.05  
 HRG PROJ. CONTACT: 630.551.5100  
 FILE NUMBER: 630.551.5100  
 PEN TABLE: 630.551.5100



**NOTES:**

- ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3200 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
- THE EXISTING CONDUITS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO MR. BOB GREENE (630-256-3200) 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 (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

2	EACH	LUMINAIRES
2	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE
1	EACH	TRAFFIC SIGNAL POST
9	EACH	TRAFFIC SIGNAL HEADS
6	EACH	TRAFFIC SIGNAL BACKPLATES
1	EACH	SERVICE INSTALLATION
1	EACH	TRAFFIC SIGNAL CABINET (COMPLETE)



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN  
 INDIAN TRAIL AND MITCHELL ROAD

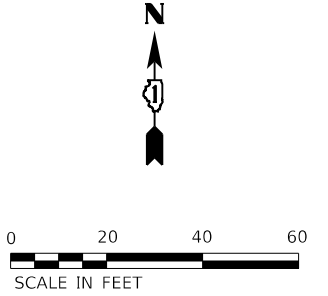
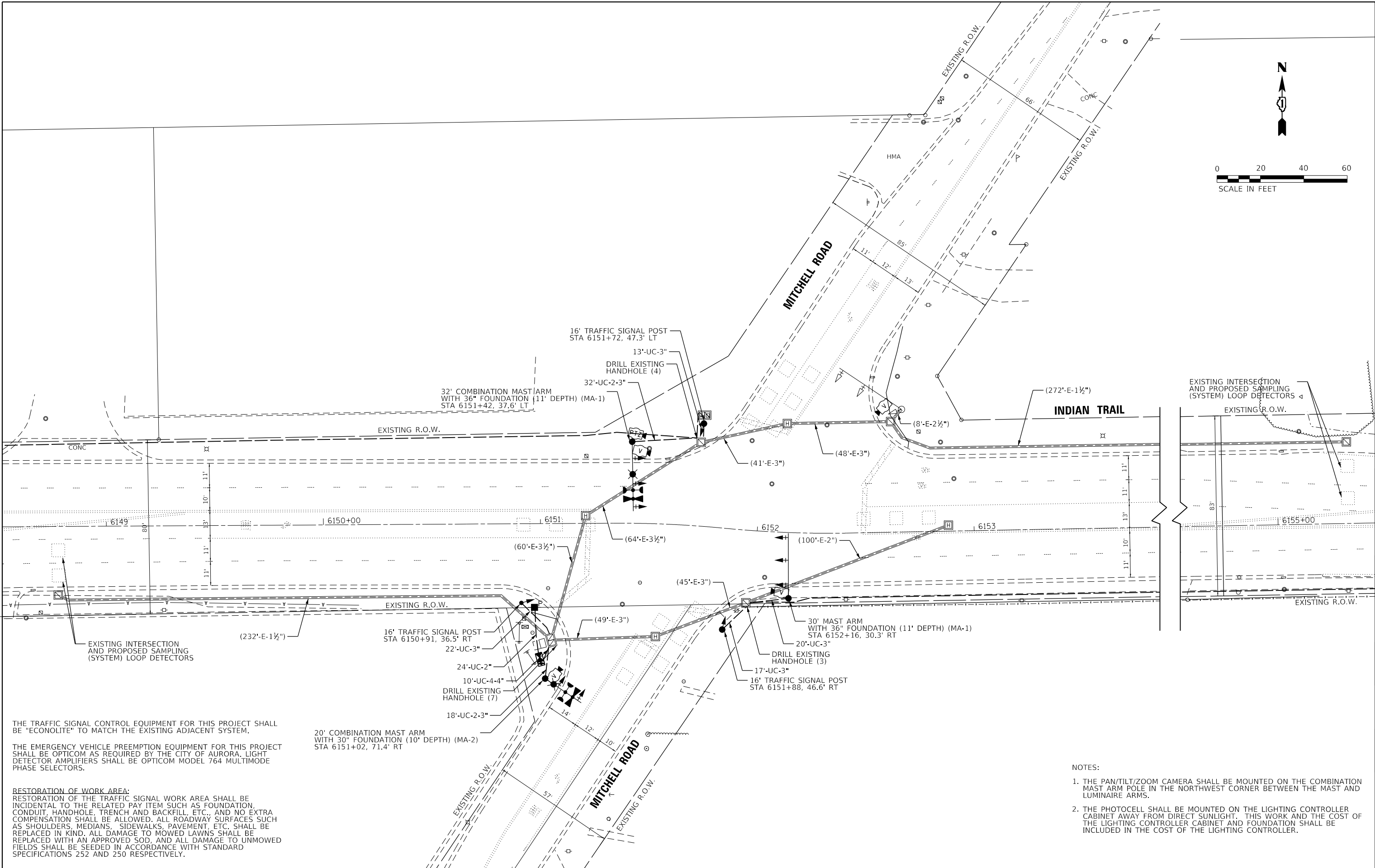
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	16
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	BY	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOT AT THIS OFFICE	
	BY	
	NO.	

HRG PROJECT NO.: 070690.05  
 HRG PROJ. CONTACT: 630.25.5192  
 FILE NUMBER: 63025.5192-22-00-01-01  
 PEN TABLE: 63025.5192-22-00-01-01



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

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

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

- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE NORTHWEST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.
  2. THE PHOTOCCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC SIGNAL MODERNIZATION PLAN</b>			
<b>INDIAN TRAIL AND MITCHELL ROAD</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

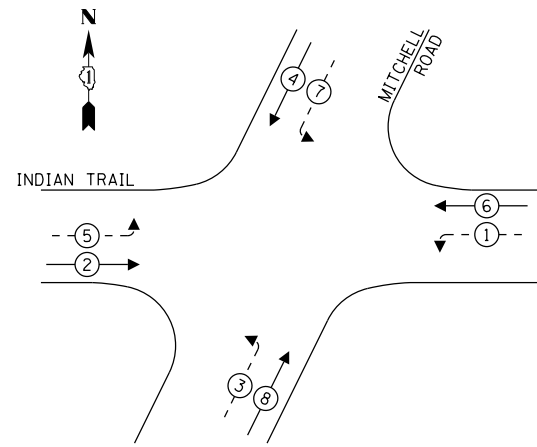
F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	17
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

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

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

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.512.5100  
 FILE NUMBER: 630.512.5100-00-01  
 PEN NUMBER: 630.512.5100-00-01

### EXISTING CONTROLLER SEQUENCE



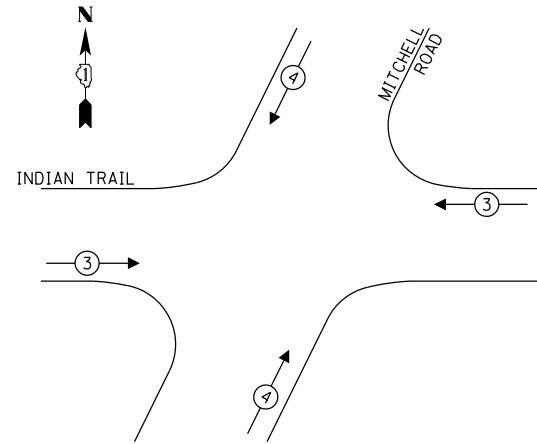
### LEGEND:

- ←\*→ PROTECTED PHASE
- ←-\*- PROTECTED/PERMITTED PHASE
- ←\*→ PEDESTRIAN PHASE
- ←\*→ OL OVERLAP

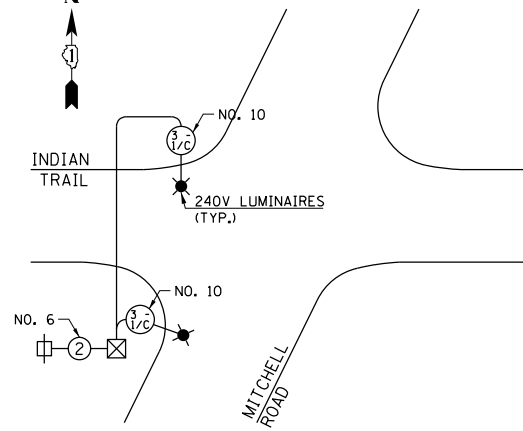
### RIGHT TURN OVERLAP PHASE DESIGNATION:

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

### EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



### LIGHTING CABLE PLAN



### TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

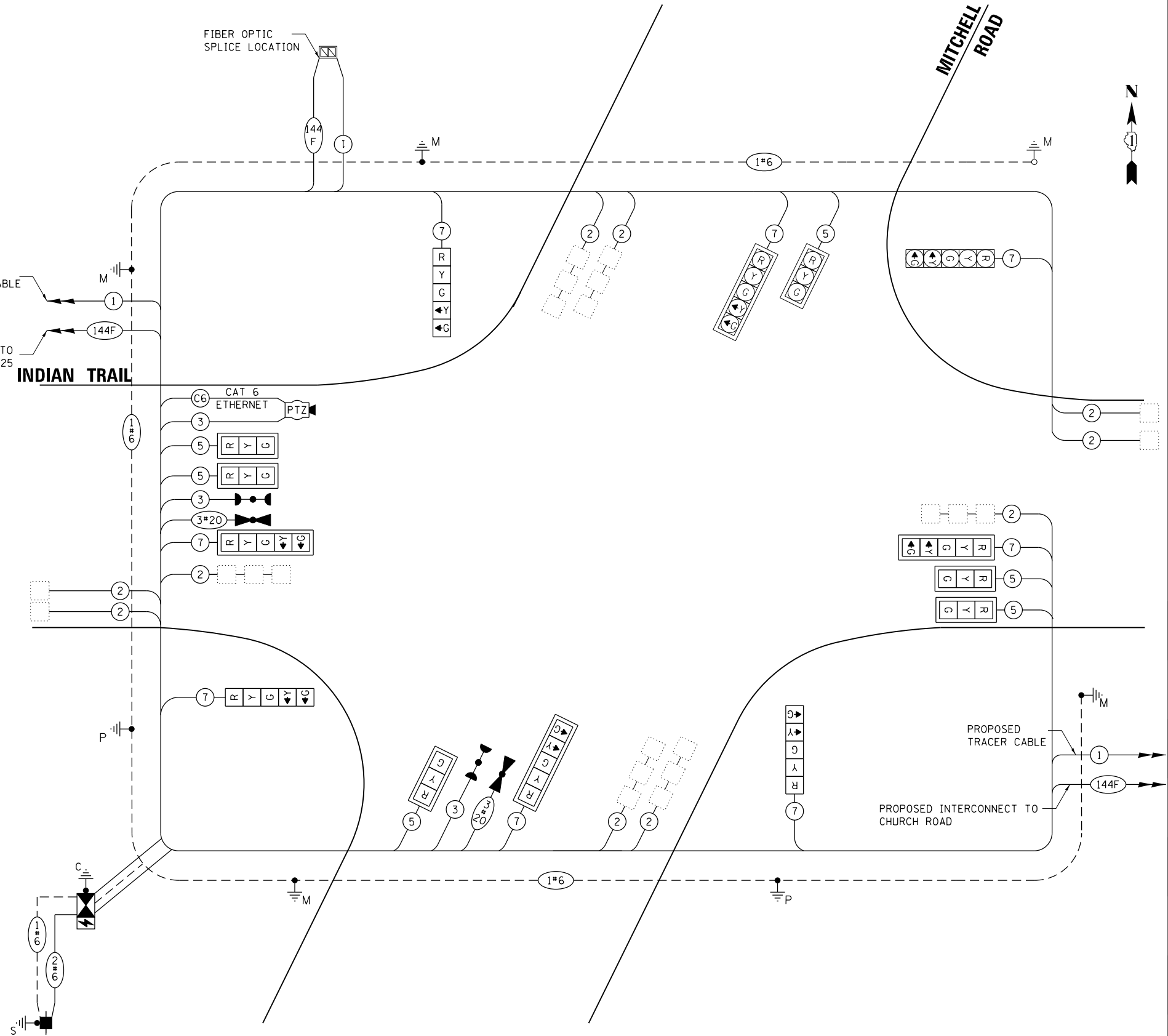
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
ARROW	16	10	10	16.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				457.6

ENERGY COSTS TO:

CITY OF AURORA  
 44 E DOWNER PLACE  
 AURORA, IL 60507

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

PROPOSED TRACER CABLE  
 PROPOSED INTERCONNECT TO IL 25



### CABLE PLAN



USER NAME = mfaller	DESIGNED - GF	REVISED -
DRAWN - GF	REVISIONS -	
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

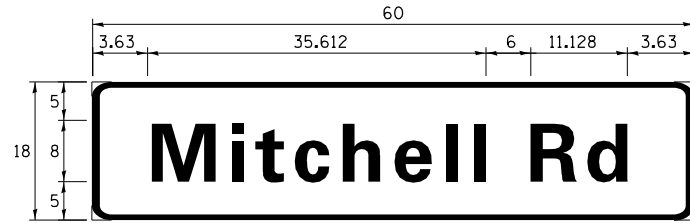
CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 INDIAN TRAIL AND MITCHELL ROAD

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	18
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

**SCHEDULE OF QUANTITIES**

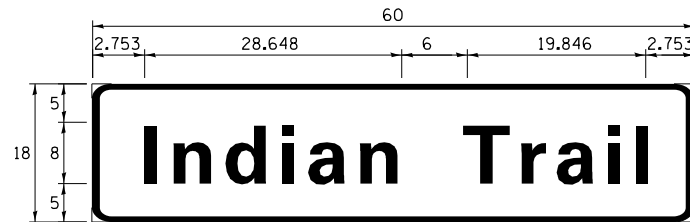
PAY ITEM DESCRIPTION	UNIT	MITCHELL ROAD
SIGN PANEL - TYPE 1	SO FT	22.50
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	24
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	172
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	40
ELECTRIC CABLE IN CONDUIT, 600V (XLP•TYPE USE) 3•1/C NO. 10	FOOT	372
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	587
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1253
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1604
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	811
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	45
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	593
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 20 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	15
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	32
DRILL EXISTING HANDHOLE	EACH	14
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	10
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3891
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	247
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	340
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1



MA-1

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	7.5	1	ZZ	2

SHALL BE MOUNTED ON THE MAST ARMS IN THE NORTHWEST AND SOUTHEAST CORNERS.



MA-2

DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	7.5	1	ZZ	1

SHALL BE MOUNTED ON THE MAST ARM IN SOUTHWEST CORNER.

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	AS-BUILT CHECKED	
	FIELD FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	AS-BUILT CHECKED	
	FIELD FILE NAME	
	NO.	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.55.sig@hr.com  
 FILE NAME: 18-00322-00-TL  
 PEN TABLE: 18-00322-00-TL



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 1/18/2019	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>MAST ARM MOUNTED STREET NAME SIGNS        AND SCHEDULE OF QUANTITIES        INDIAN TRAIL AND MITCHELL ROAD</b>	
SCALE: _____	SHEET OF SHEETS STA. _____ TO STA. _____

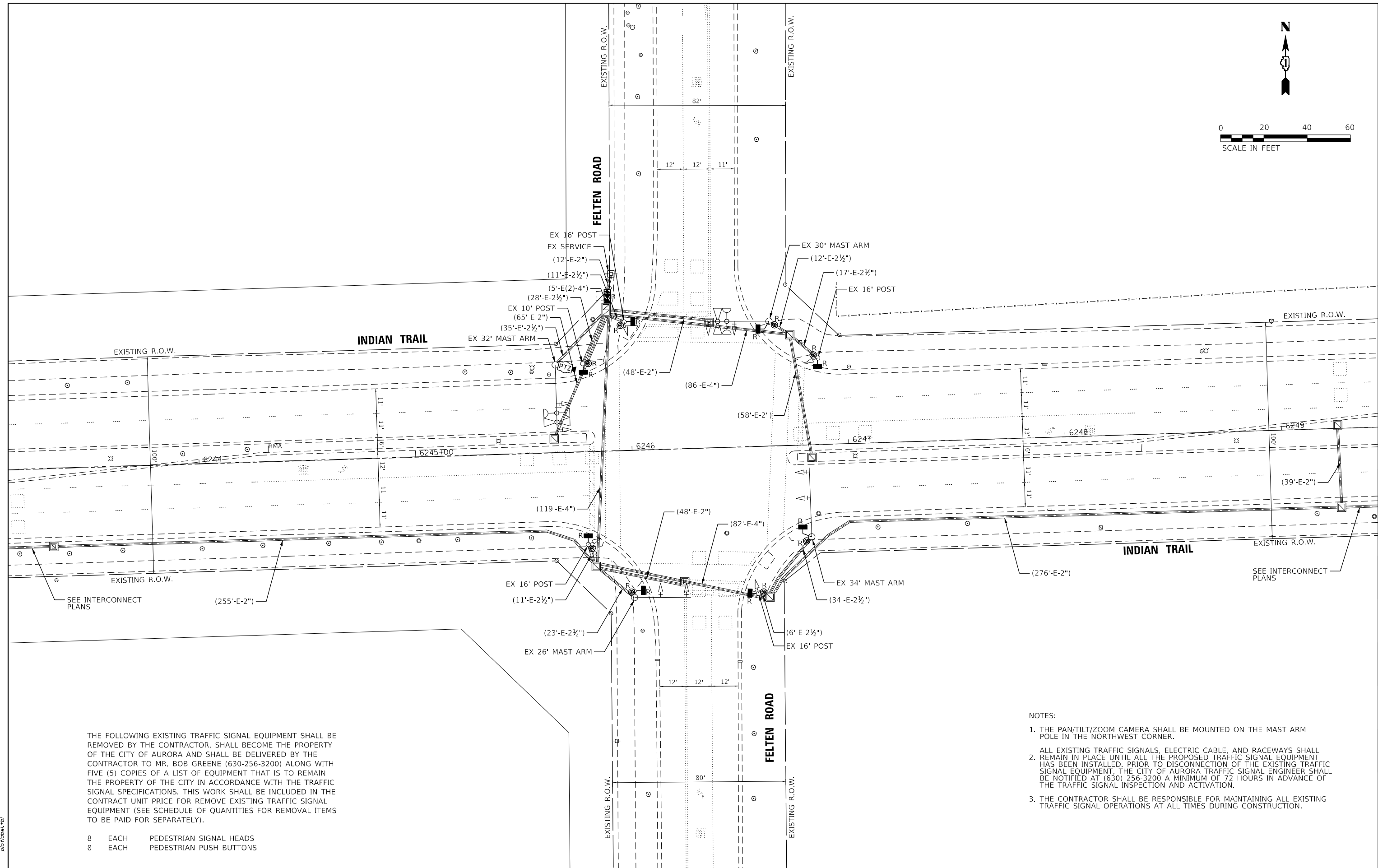
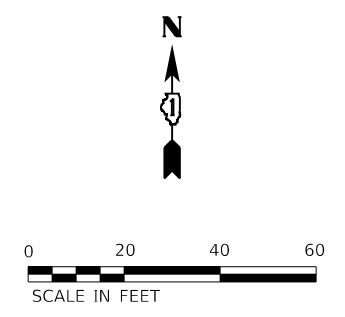
F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	19
CONTRACT NO. 61F59			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



PLAN	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOT AT THIS OFFICE	
	NO. _____	
	FILE NAME _____	
	PEN TABLE _____	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOT AT THIS OFFICE	
	NO. _____	
	FILE NAME _____	
	PEN TABLE _____	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.256.3200  
 FILE NAME: 630.256.sig03c.feltrn.dgn  
 PEN TABLE: pofc06bkt.tbl



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 MR. BOB GREENE (630-256-3200) 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 (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

- 8 EACH PEDESTRIAN SIGNAL HEADS
- 8 EACH PEDESTRIAN PUSH BUTTONS

- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE MAST ARM POLE IN THE NORTHWEST CORNER.
  2. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3200 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

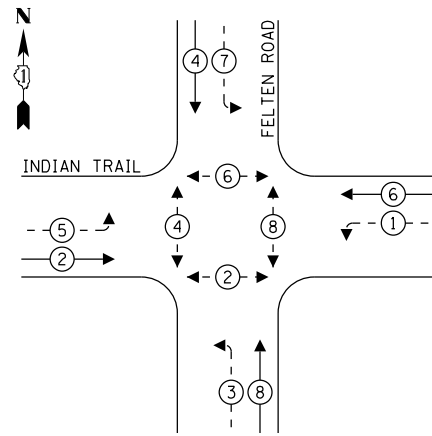
	HRGreen.com <small>Micro Professional Design Firm #184-001322</small>	USER NAME = mfaller DESIGNED - GF DRAWN - GF CHECKED - MJF PLOT DATE = 12/31/2018	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODERNIZATION PLAN INDIAN TRAIL AND FELTEN ROAD</b>	F.A.U R.T.E. 1503 SECTION NO. 18-00322-00-TL COUNTY KANE/DUPAGE TOTAL SHEETS 44 SHEET NO. 20	CONTRACT NO. 61F59 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
	SCALE: SHEET OF SHEETS STA. TO STA.						

DATE	
BY	
PLAN	
NO.	
NO. OF SHEETS	
DATE	
BY	
FILE NAME	
DATE	
BY	
FILE NAME	
DATE	
BY	
FILE NAME	

DATE	
BY	
PROFILE	
NO.	
NO. OF SHEETS	
DATE	
BY	
FILE NAME	
DATE	
BY	
FILE NAME	
DATE	
BY	
FILE NAME	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.512.5100  
 FILE NAME: 630.512.5100-630.512.5100-630.512.5100.dgn  
 PEN TABLE: 630.512.5100-630.512.5100-630.512.5100.tbl

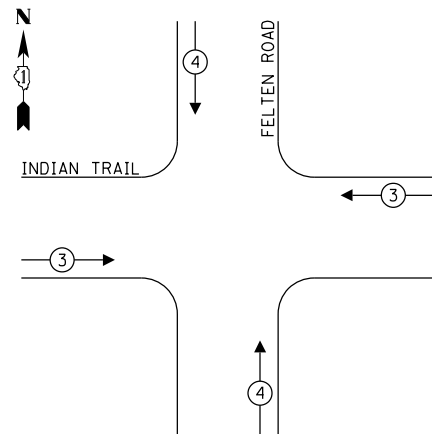
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← \* → PROTECTED PHASE
- ← \* - - \* → PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	593.8

ENERGY COSTS TO:

CITY OF AURORA  
 44 E DOWNER PLACE  
 AURORA, IL 60507

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

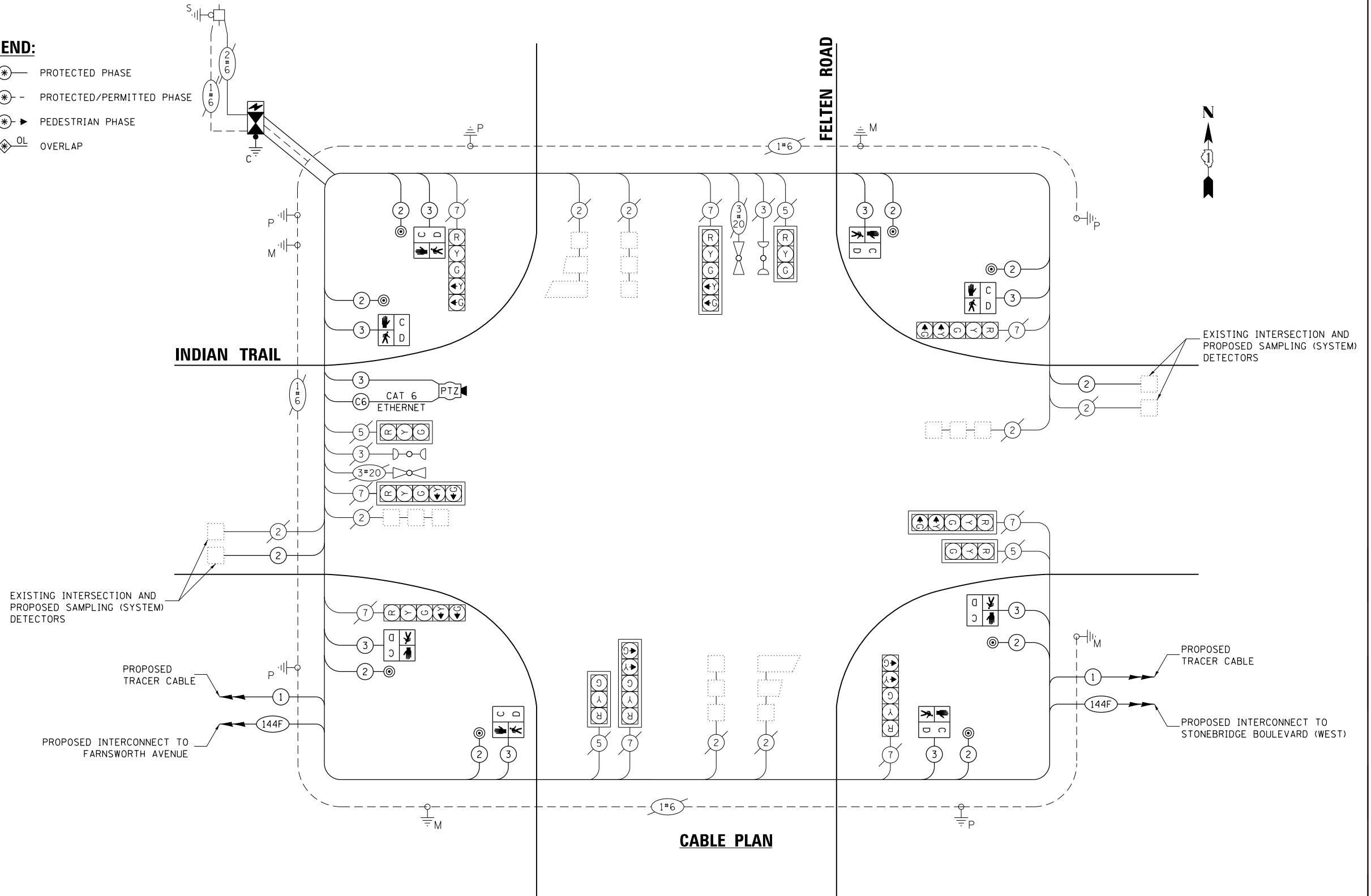


USER NAME = mfaller	DESIGNED - GF	REVISED -
PLOT SCALE =	DRAWN - GF	REVISED -
PLOT DATE = 12/31/2018	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE INDIAN TRAIL AND FELTEN ROAD			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	21
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59



### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	FELTON ROAD
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1274
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1438
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	974
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	10
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	108
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	4

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		

HRG PROJECT NO.: 070690.5  
 HRG PROJ CONTACT: 630.55.5103 ext. 6919/6920  
 FILE NAME: 18-00322-00-TL.dgn  
 PEN TABLE:



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES  
 INDIAN TRAIL AND FELTEN ROAD

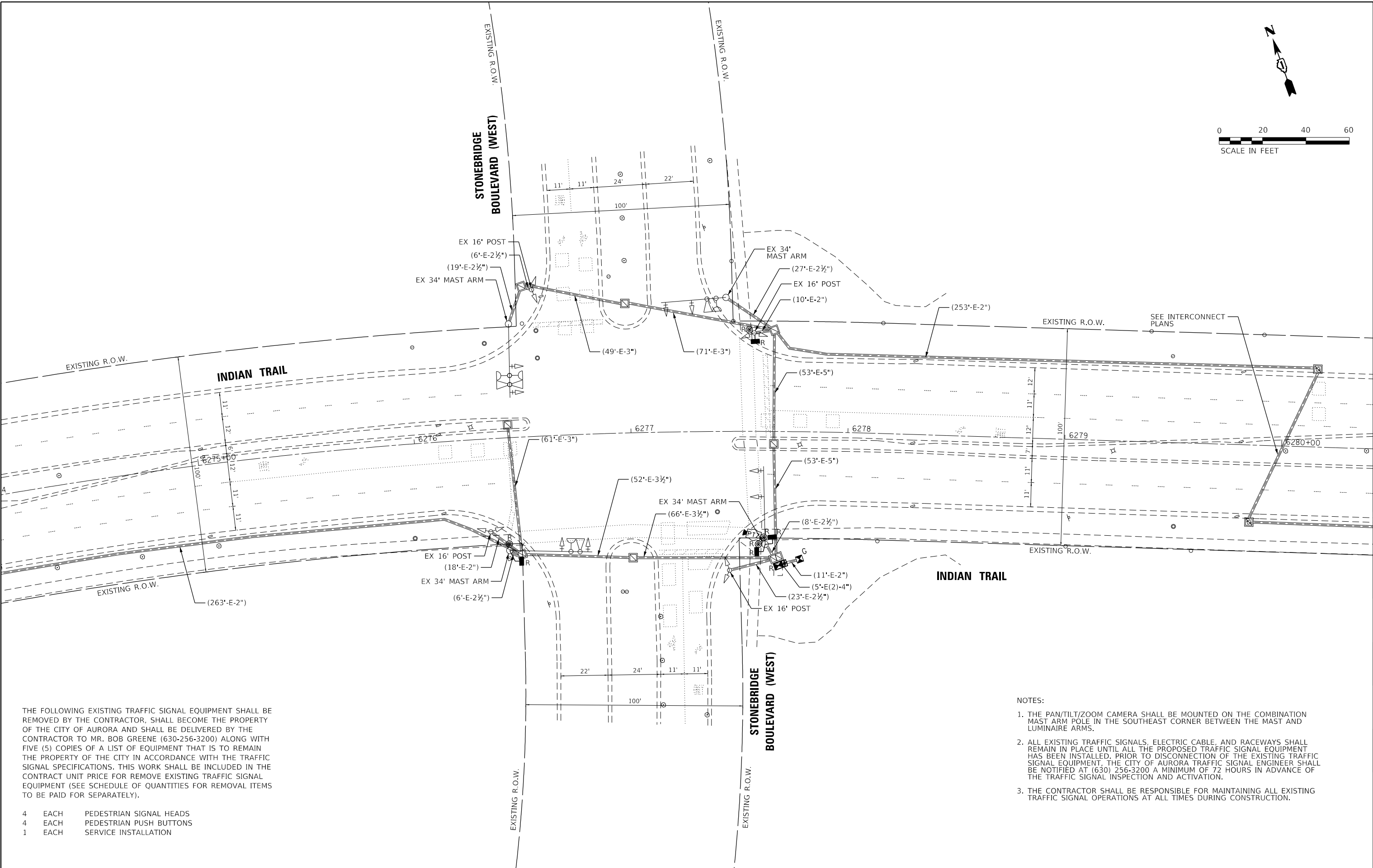
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	22
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61F59	

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK	
	NO.	
	BY	
	DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK	
	NO.	
	BY	
	DATE	

HRG PROJECT NO.: 070690J  
 HRG PROJ. CONTACT: 630.256.3200  
 FILE NAME: 630J\_SigMod\_wstms.dgn  
 PEN TABLE: p01tbl.tbl



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 MR. BOB GREENE (630-256-3200) 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 (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

- 4 EACH PEDESTRIAN SIGNAL HEADS
- 4 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION

- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE SOUTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.
  2. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3200 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.



USER NAME = mfaller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC SIGNAL MODERNIZATION PLAN</b>			
<b>INDIAN TRAIL AND STONEBRIDGE BOULEVARD (WEST)</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

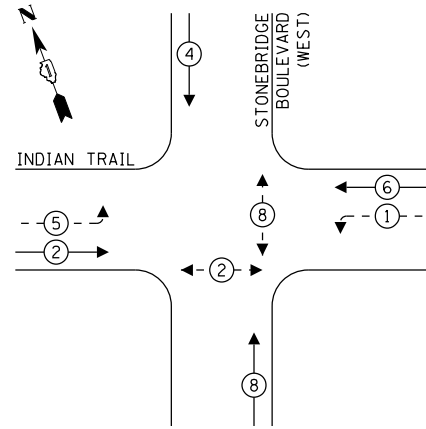
F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	23
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO.	61F59

PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	FIELD FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	GRADES CHECKED	BY
NO.	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	FIELD FILE NAME	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.512.5100  
 FILE NUMBER: 630.512.5100-18-00322-00-TL  
 PEN TABLE: 6/1/2018

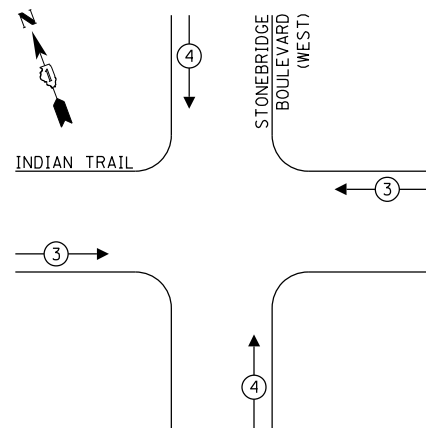
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← \* → PROTECTED PHASE
- ← \* - - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
ARROW	8	10	10	8.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				403.4

ENERGY COSTS TO:

CITY OF AURORA  
 44 E DOWNER PLACE  
 AURORA, IL 60507

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



USER NAME = mfaller	DESIGNED - GF	REVISED -
PLOT SCALE =	DRAWN - GF	REVISED -
PLOT DATE = 12/31/2018	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

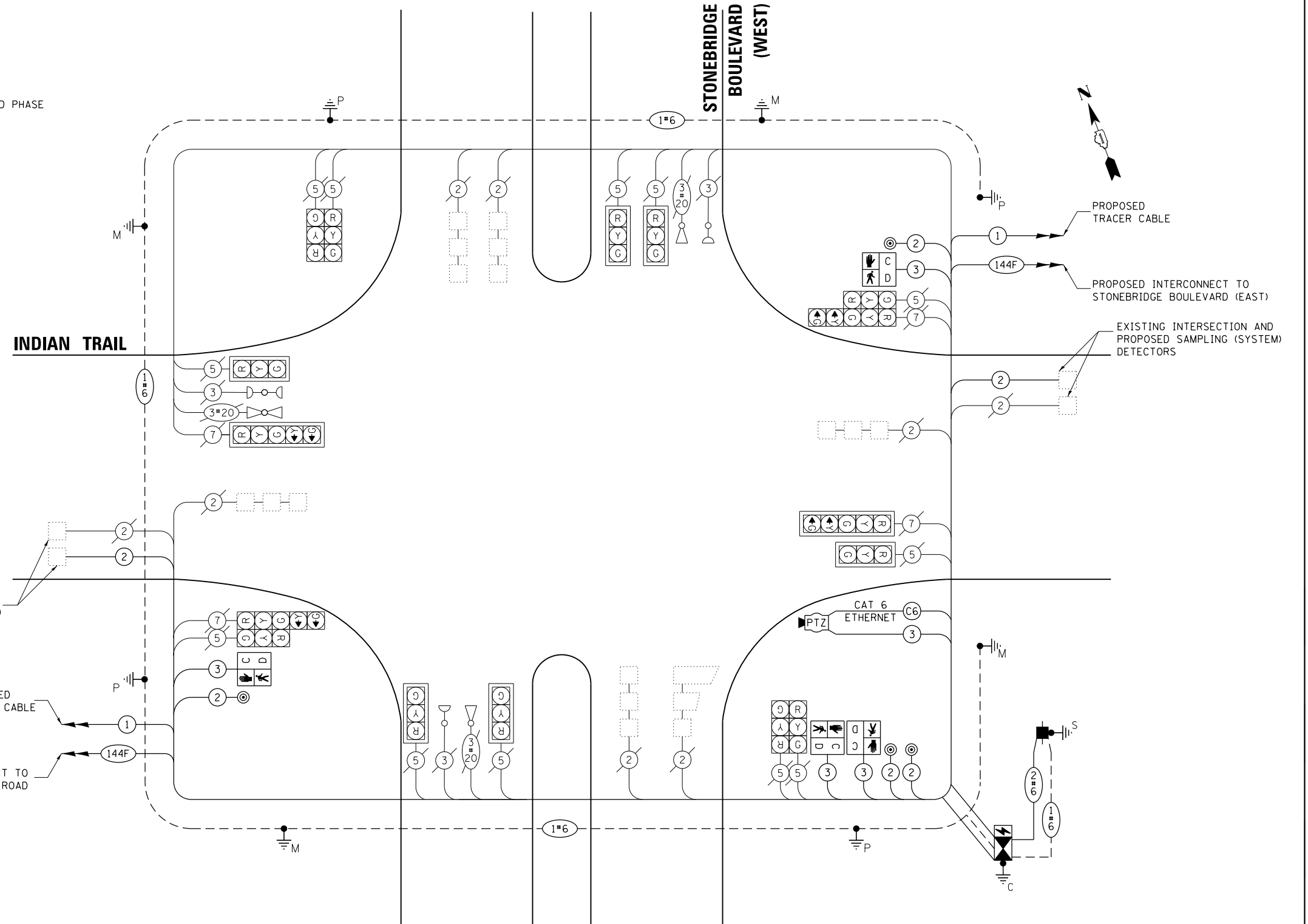
**CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 INDIAN TRAIL AND STONEBRIDGE BOULEVARD (WEST)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	24
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS

PROPOSED TRACER CABLE  
 PROPOSED INTERCONNECT TO FELTON ROAD



**CABLE PLAN**



**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	STONEBRIDGE BOULEVARD (WEST)
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	416
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	525
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	824
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	32
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	691
CONCRETE FOUNDATION, TYPE A	FOOT	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	10
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	892
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	81
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	4

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.52.sig@hr.com  
 FILE NAME: 690.52.sig@hr.com  
 PEN TABLE: 690.52.sig@hr.com



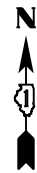
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	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES  
 INDIAN TRAIL AND STONEBRIDGE BOULEVARD (WEST)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	25
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59



PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK NO.	GRADES CHECKED		
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PROFILE	SURVEYED	BY	DATE
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	STRUCTURE NOT AT THIS CHKD		

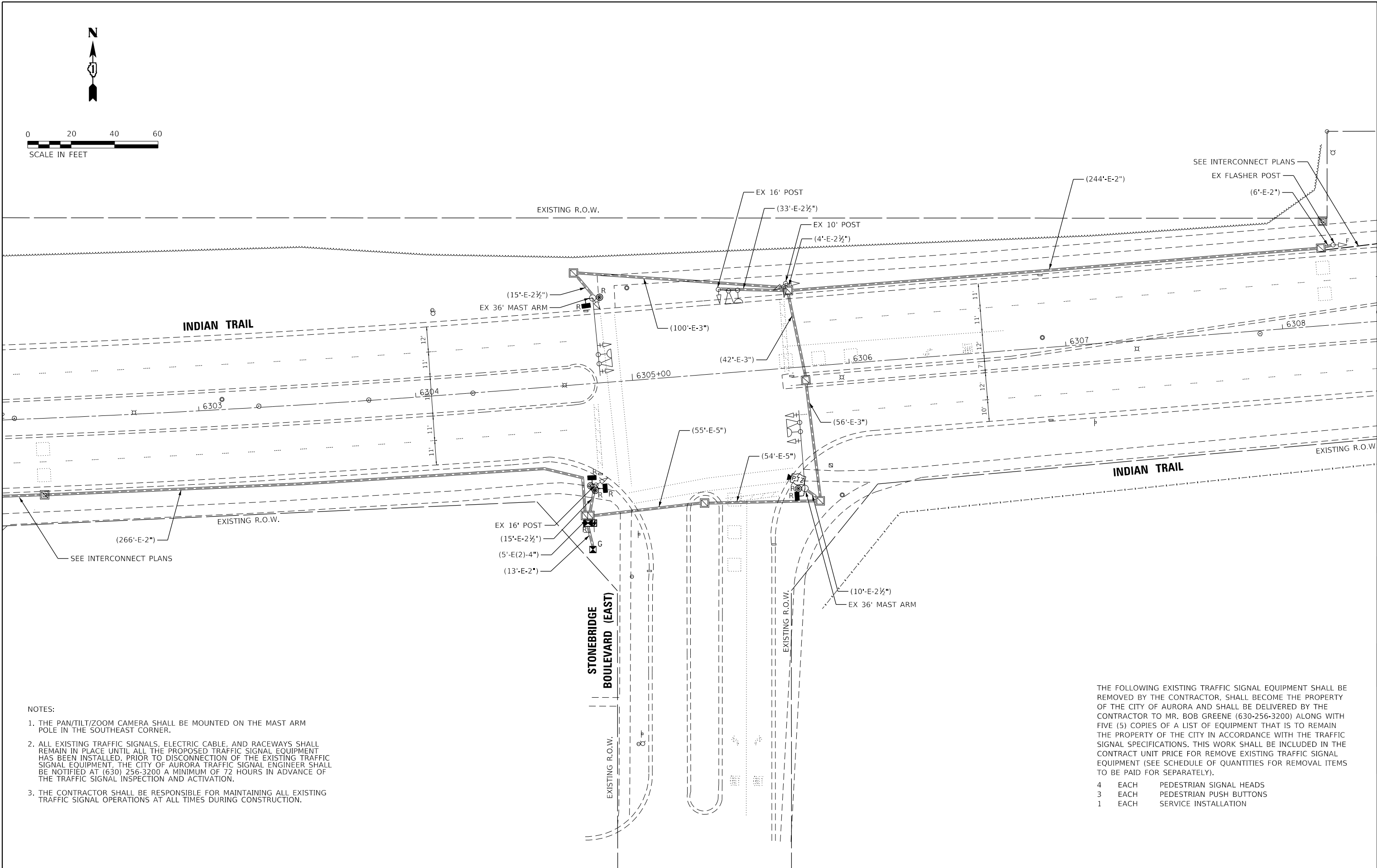
**NOTES:**

1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE MAST ARM POLE IN THE SOUTHEAST CORNER.
2. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3200 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

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 MR. BOB GREENE (630-256-3200) 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 (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

4	EACH	PEDESTRIAN SIGNAL HEADS
3	EACH	PEDESTRIAN PUSH BUTTONS
1	EACH	SERVICE INSTALLATION

HRG PROJECT NO.: 070690J5  
 HRG PROJ. CONTACT: 630.52.sig05a.est@hr.com  
 FILE NAME: 1800322-00-TL-61F59.dwg  
 PEN TABLE: profiletbl.tbl



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 Illinois Professional Design Firm  
 #184-001322

USER NAME = mfaller	DESIGNED - GF	REVISED -
PLOT SCALE =	DRAWN - GF	REVISED -
PLOT DATE = 12/31/2018	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN**  
**INDIAN TRAIL AND STONEBRIDGE BOULEVARD (EAST)**

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	26
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

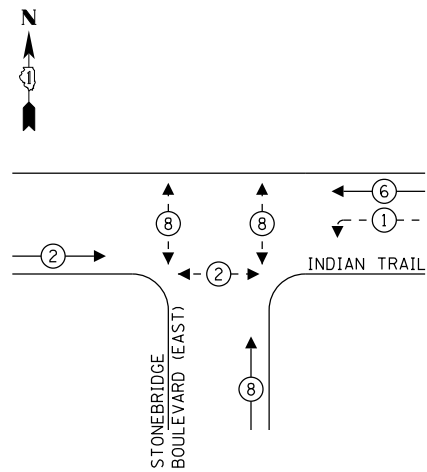
SCALE: SHEET OF SHEETS STA. TO STA.

PLAN	DATE
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
ALIGNMENT CHECKED	
STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	
FILE NAME	
PEN TABLE	

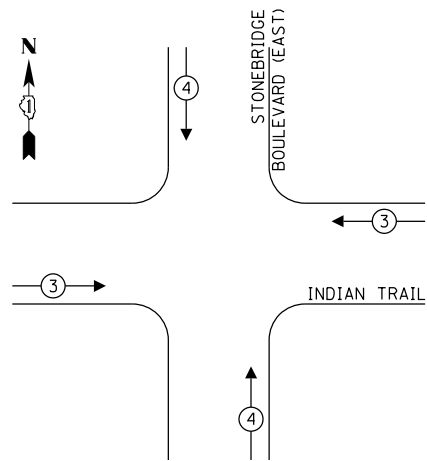
PROFILE	DATE
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
ALIGNMENT CHECKED	
STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	
FILE NAME	
PEN TABLE	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.512.5100  
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**EXISTING CONTROLLER SEQUENCE**



**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

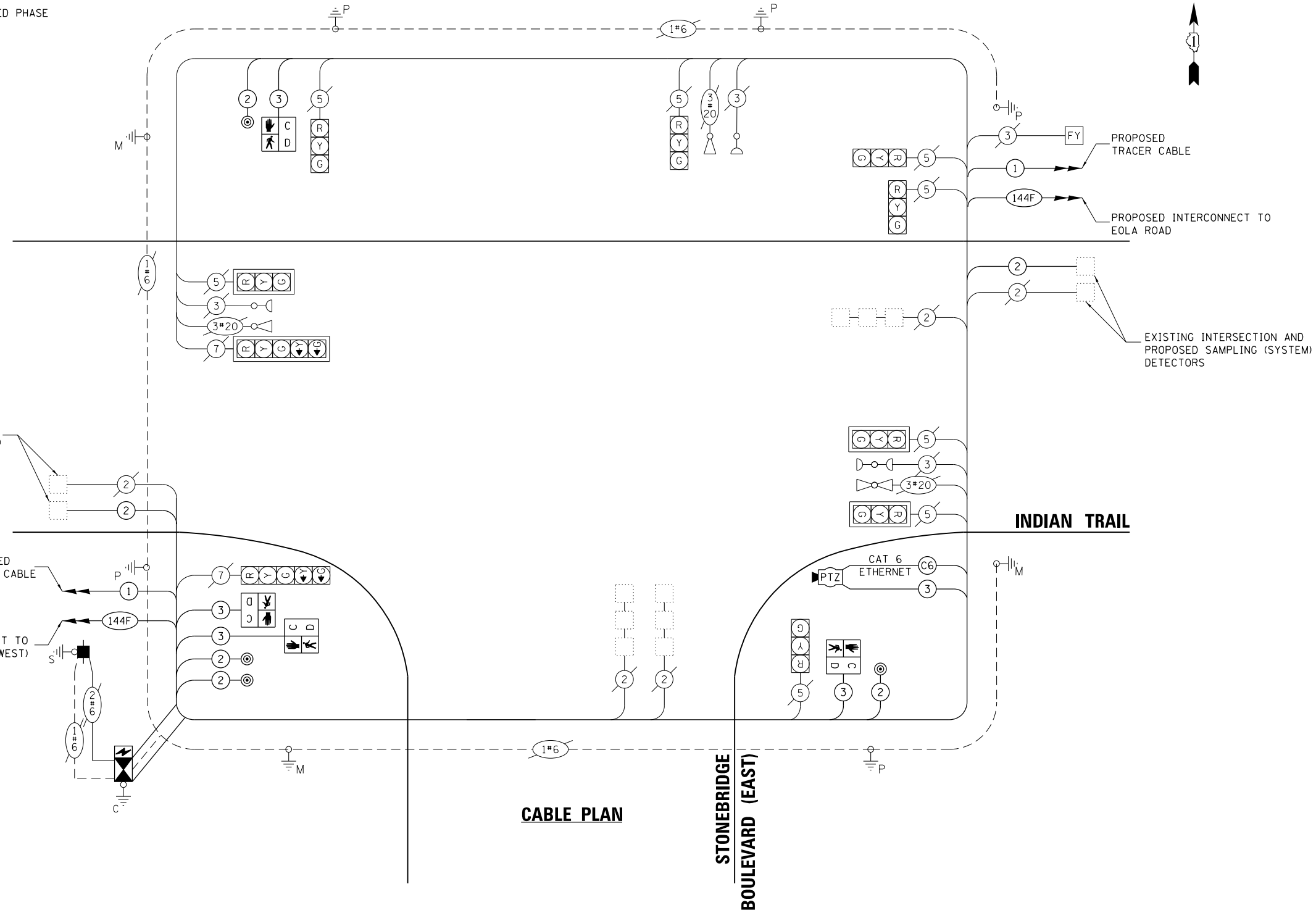
- ← ⊙ → PROTECTED PHASE
- ← ⊙ - - ⊙ → PROTECTED/PERMITTED PHASE
- ← ⊙ ⊙ → PEDESTRIAN PHASE
- ⊙ OL OVERLAP

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	9	11	50	49.5
(YELLOW)	9	20	5	9.0
(GREEN)	9	12	45	48.6
ARROW	4	10	10	4.0
PED. SIGNAL	5	20	100	100.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				336.1

ENERGY COSTS TO:  
 CITY OF AURORA  
 44 E DOWNER PLACE  
 AURORA, IL 60507  
 ENERGY SUPPLY: CONTACT: MARK SCHERIBEL  
 PHONE: (630) 723-2128  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS

PROPOSED INTERCONNECT TO STONEBRIDGE BOULEVARD (WEST)



**CABLE PLAN**

STONEBRIDGE BOULEVARD (EAST)

INDIAN TRAIL

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 INDIAN TRAIL AND STONEBRIDGE BOULEVARD (EAST)

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	27
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	



USER NAME = mfeiler	DESIGNED - GF	REVISED -
PLLOT SCALE =	DRAWN - GF	REVISED -
PLLOT DATE = 12/31/2018	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	STONEBRIDGE BOULEVARD (EAST)
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	7
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	651
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	883
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	801
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	34
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	519
CONCRETE FOUNDATION, TYPE A	FOOT	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	7
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1315
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	205
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

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	FILE NAME		

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.52.sig@hrgreen.com  
 FILE NAME: 690.52.sig@hrgreen.com  
 PEN TABLE: profile.tbl



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES  
 INDIAN TRAIL AND STONEBRIDGE BOULEVARD (EAST)**

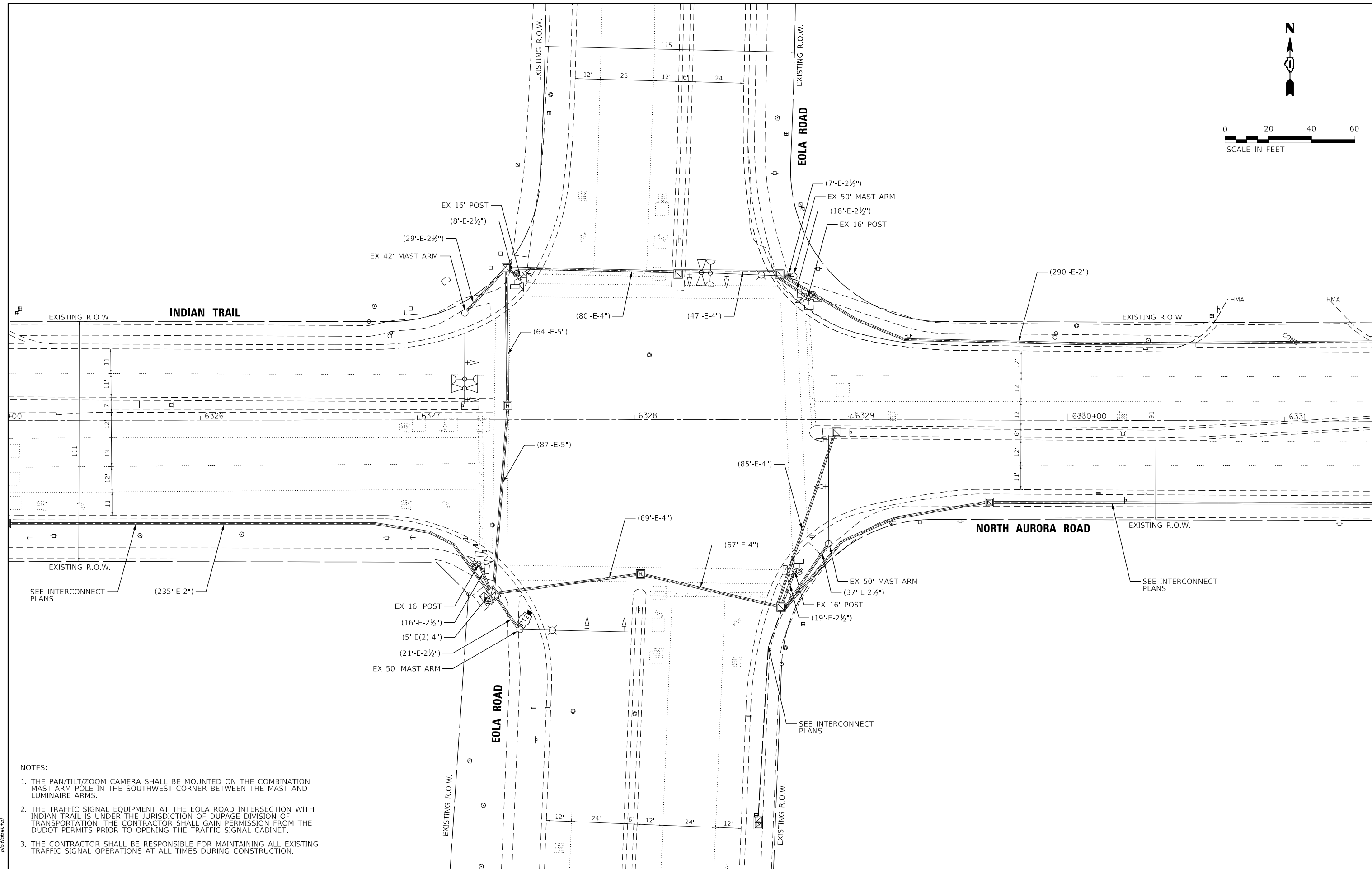
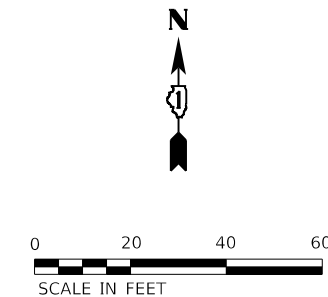
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	28
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

PLAN	SURVEYED	DATE
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	FILE NAME	
	FILE NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
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HRG PROJECT NO.: 070690J5  
 HRG PROJ. CONTACT: 690J5.sig66.eola.dgn  
 FILE NUMBER: 18-00322-00-TL  
 PEN TABLE:



- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE SOUTHWEST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.
  2. THE TRAFFIC SIGNAL EQUIPMENT AT THE EOLA ROAD INTERSECTION WITH INDIAN TRAIL IS UNDER THE JURISDICTION OF DUPAGE DIVISION OF TRANSPORTATION. THE CONTRACTOR SHALL GAIN PERMISSION FROM THE DUDOT PERMITS PRIOR TO OPENING THE TRAFFIC SIGNAL CABINET.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN  
 INDIAN TRAIL AND EOLA ROAD**

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	29
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

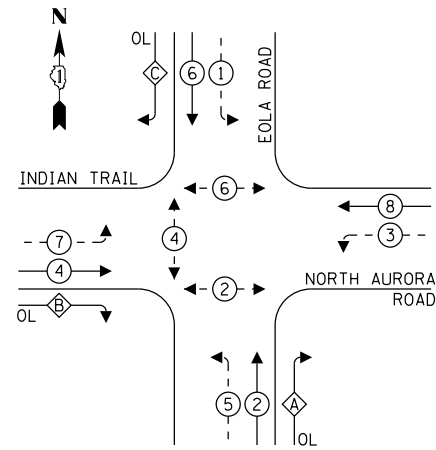
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ALIGNMENT CHECKED	
STRUCTURE NOTATIONS CHECKED	
FILE NAME	
FILE NUMBER	
PEN TABLE	

DATE	
BY	
PROFILE	
NO. BOOK	
NO.	
SURVEYED	
PLOTTED	
GRADES CHECKED	
ALIGNMENT CHECKED	
STRUCTURE NOTATIONS CHECKED	
FILE NAME	
FILE NUMBER	
PEN TABLE	

HRG PROJECT NO.: 070690.5  
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### EXISTING CONTROLLER SEQUENCE



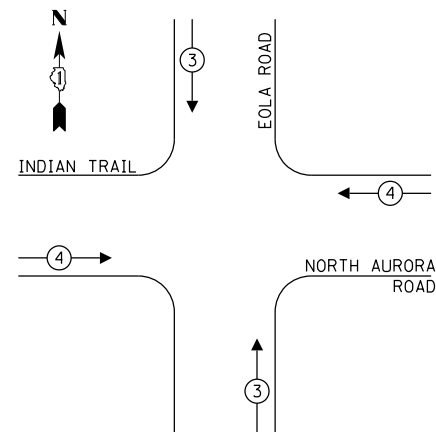
### LEGEND:

- ← \* → PROTECTED PHASE
- ← \* - - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP

### RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7

### EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



### TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	24	10	10	24.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				499.4

#### ENERGY COSTS TO:

CITY OF AURORA  
 44 E DOWNER PLACE  
 AURORA, IL 60507

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

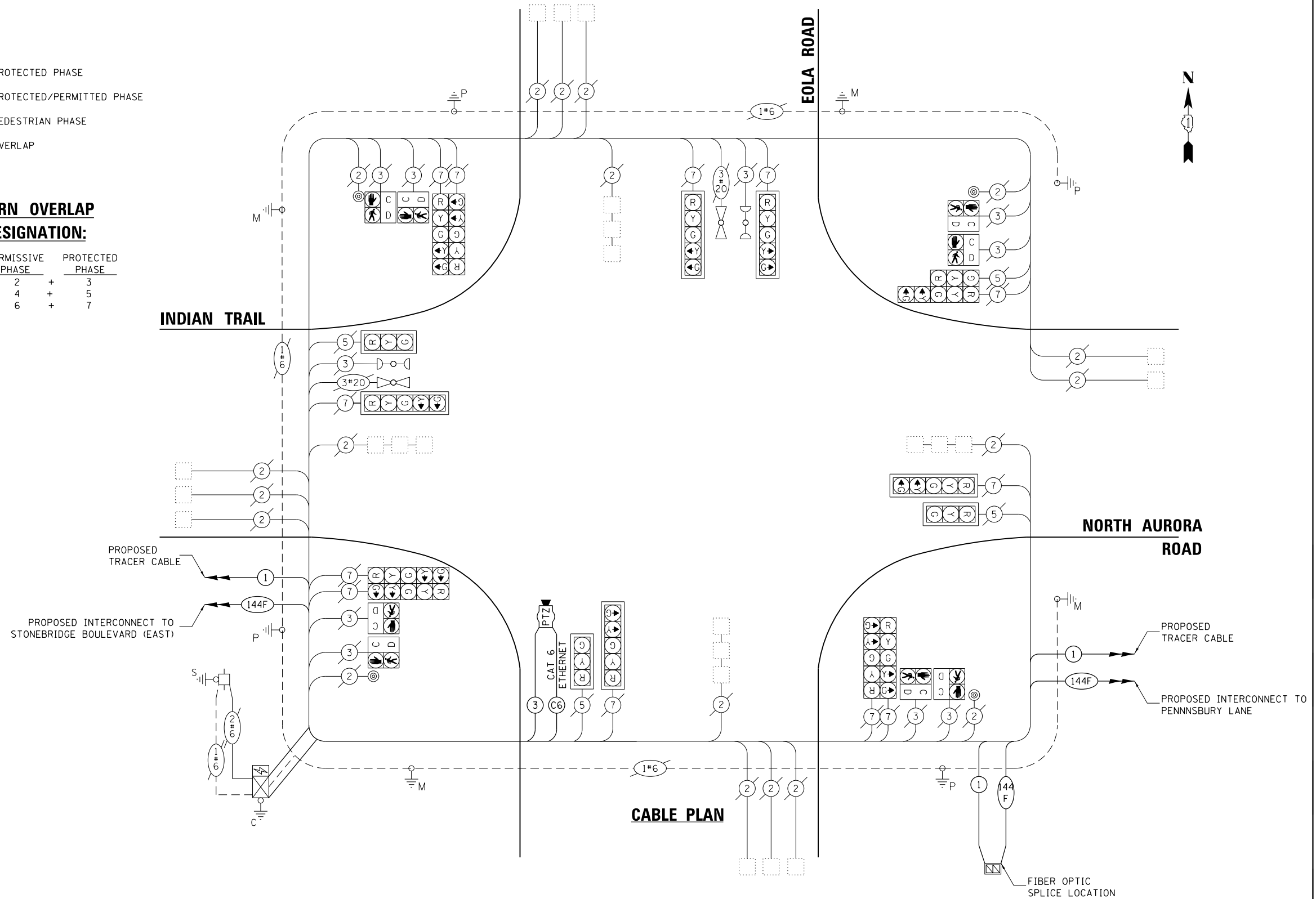


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PLOT DATE = 12/31/2018	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE INDIAN TRAIL AND EOLA ROAD			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	30
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61F59	



### CABLE PLAN

**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	EOLA ROAD
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	94
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	94
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
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PROFILE	SURVEYED	BY	DATE
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	FILE NAME		

HRG PROJECT NO.: 070690.5  
 HRG PROJ CONTACT: 630.55.5106  
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 #184-001322

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	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES  
 INDIAN TRAIL AND EOLA ROAD**

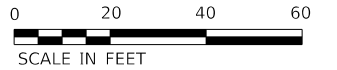
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	31
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61F59	



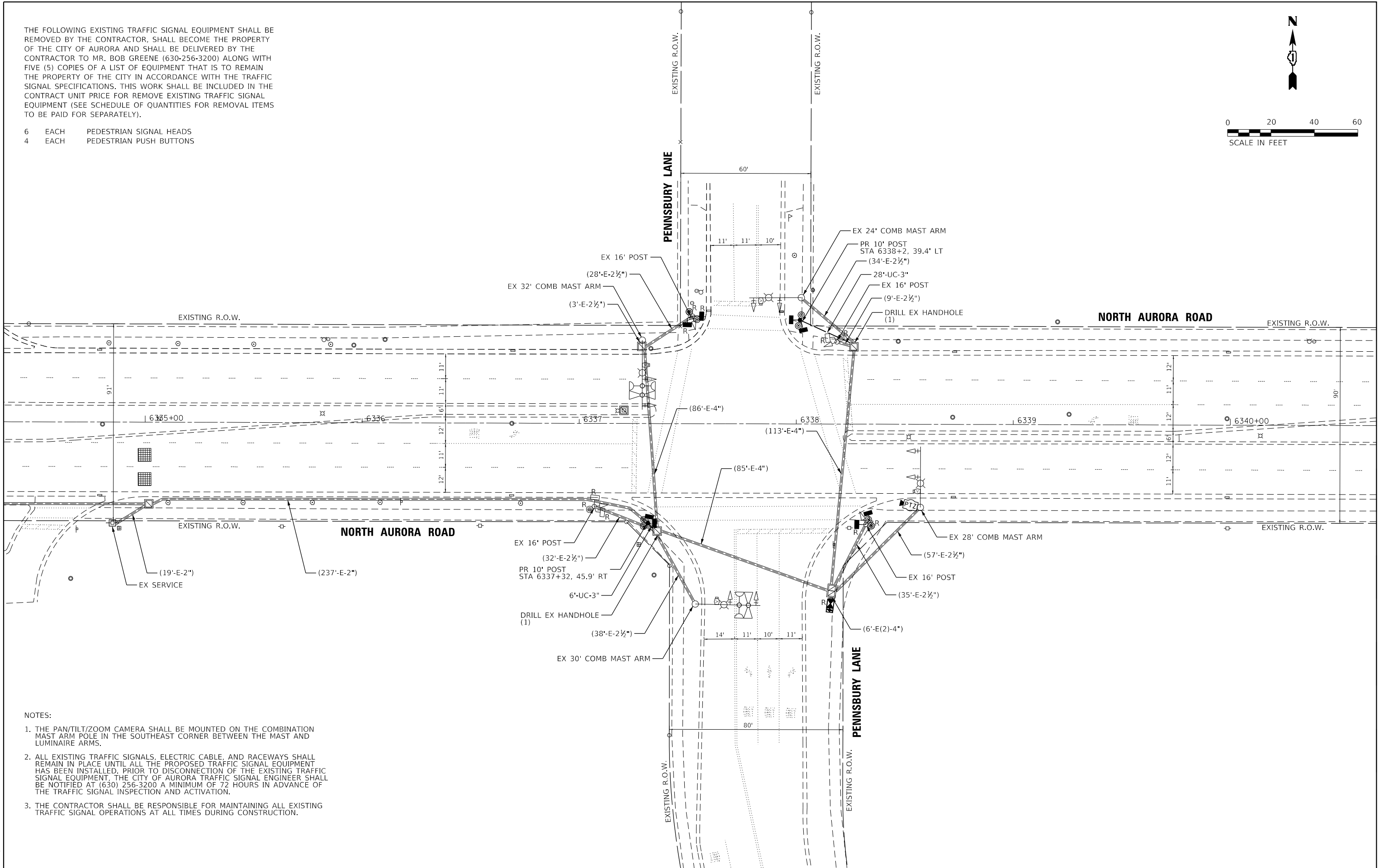
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL BECOME THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO MR. BOB GREENE (630-256-3200) ALONG WITH FIVE (5) COPIES OF A LIST OF EQUIPMENT THAT IS TO REMAIN THE PROPERTY OF THE CITY IN ACCORDANCE WITH THE TRAFFIC SIGNAL SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPARATELY).

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



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO. _____	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO. _____	



- NOTES:
1. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE SOUTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.
  2. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 256-3200 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.55.sig@ra.penns.dgn  
 FILE NUMBER: 18-00322-00-TL  
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USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN  
 NORTH AURORA ROAD AND PENNSBURY LANE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	32
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 61F59



### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	PENNSBURY LANE
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	34
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1260
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1447
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	43
TRAFFIC SIGNAL POST, 10 FT	EACH	2
DRILL EXISTING HANDHOLE	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1558
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
ETHERNET SWITCH	EACH	1
CAT. 6 ETHERNET CABLE	FOOT	131
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
EVP CONFIRMATION BEACON, LED RETROFIT	EACH	4

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FILE NAME		

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.55.sig@hr.com  
 FILE NAME: 18-00322-00-01.dgn  
 PEN TABLE: 18-00322-00-01.tbl



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES  
 NORTH AURORA ROAD AND PENNSBURY LANE

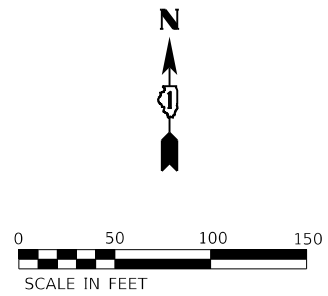
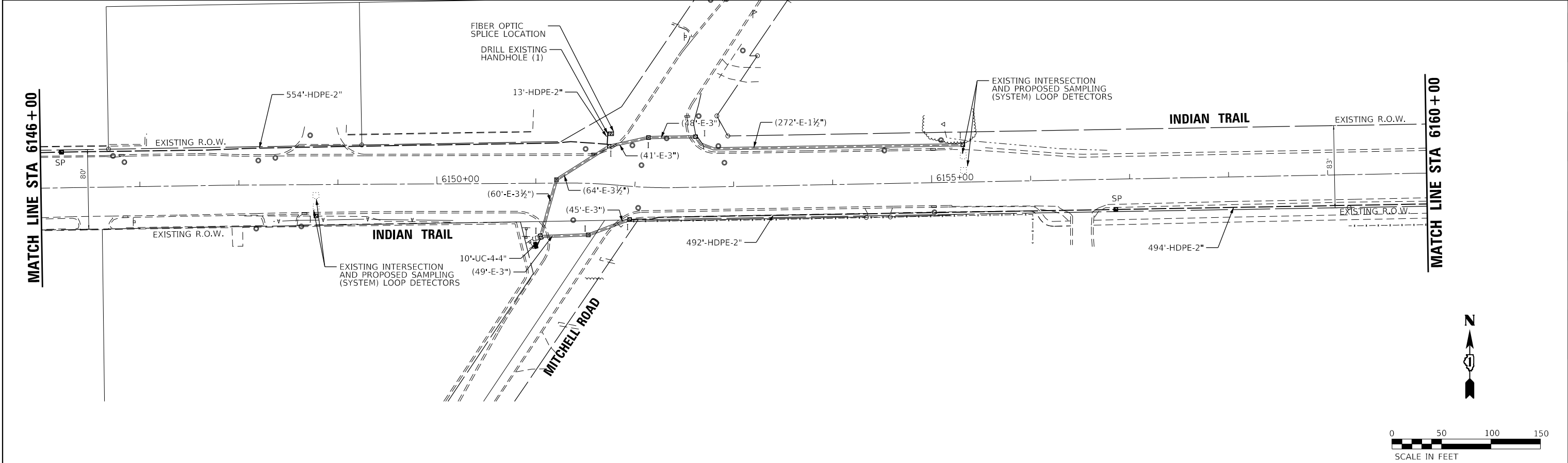
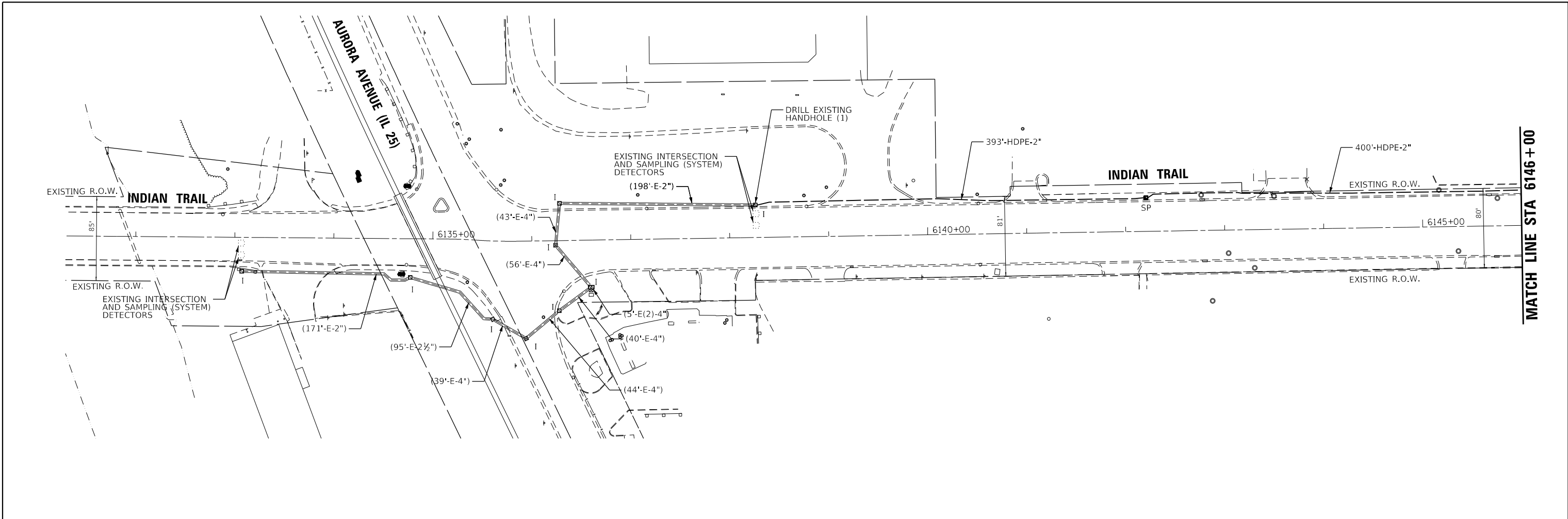
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F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	34
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO.	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.55.sig.int@ohg.com  
 FILE NUMBER: 18-00322-00-TL  
 PEN TABLE: 61f59tbl.rvt



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	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 1 OF 7)  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE**

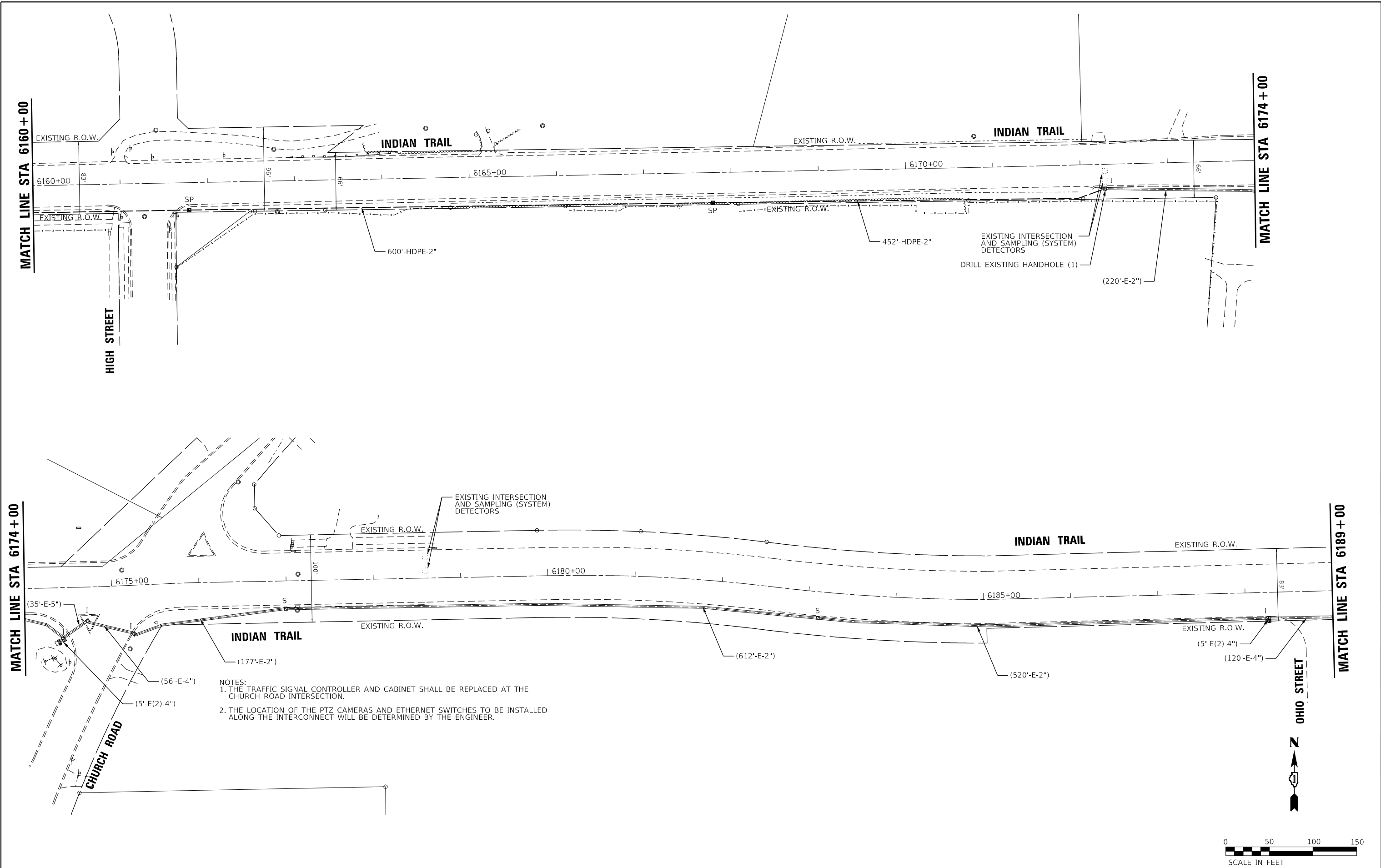
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	35
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
NOTE BOOK NO.	FILE NAME	

PROFILE	SURVEYED	DATE
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	FILE NAME	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.55.sig.inr02.dgn  
 FILE NAME: 1800322-00-TL.dwg  
 PEN TABLE: p01tbltbl.tbl



- NOTES:
1. THE TRAFFIC SIGNAL CONTROLLER AND CABINET SHALL BE REPLACED AT THE CHURCH ROAD INTERSECTION.
  2. THE LOCATION OF THE PTZ CAMERAS AND ETHERNET SWITCHES TO BE INSTALLED ALONG THE INTERCONNECT WILL BE DETERMINED BY THE ENGINEER.



USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 2 OF 7)  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE**

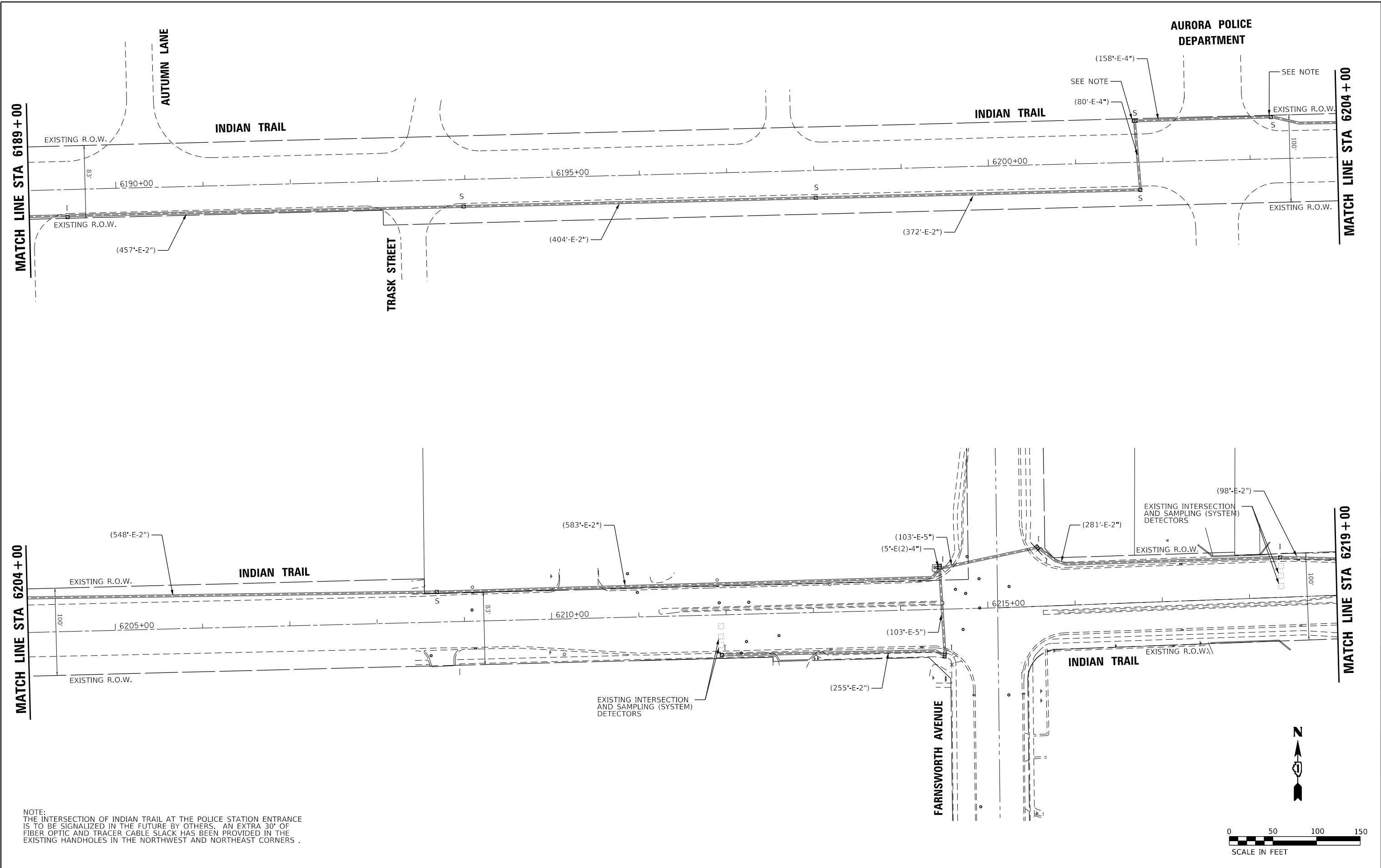
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	36
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

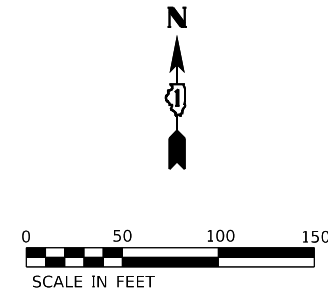
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NOTE BOOK	PLOTTED	BY
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	CHECKED	
	FILE NAME	
	FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	GRADES CHECKED	BY
NO.	STRUCTURE	
	NOTATRS CHKD	

HRG PROJECT NO.: 070690J5  
 HRG PROJ CONTACT: 690J5\_sip\_in03.dgn  
 FILE NUMBER: 690J5\_sip\_in03.dgn  
 PEN TABLE: p01tbltbl.tbl



NOTE:  
 THE INTERSECTION OF INDIAN TRAIL AT THE POLICE STATION ENTRANCE IS TO BE SIGNALIZED IN THE FUTURE BY OTHERS. AN EXTRA 30' OF FIBER OPTIC AND TRACER CABLE SLACK HAS BEEN PROVIDED IN THE EXISTING HANDHOLES IN THE NORTHWEST AND NORTHEAST CORNERS.



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PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

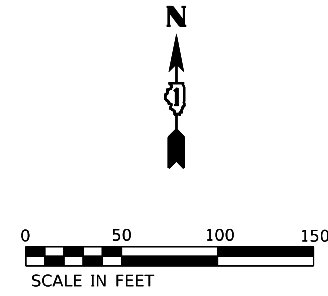
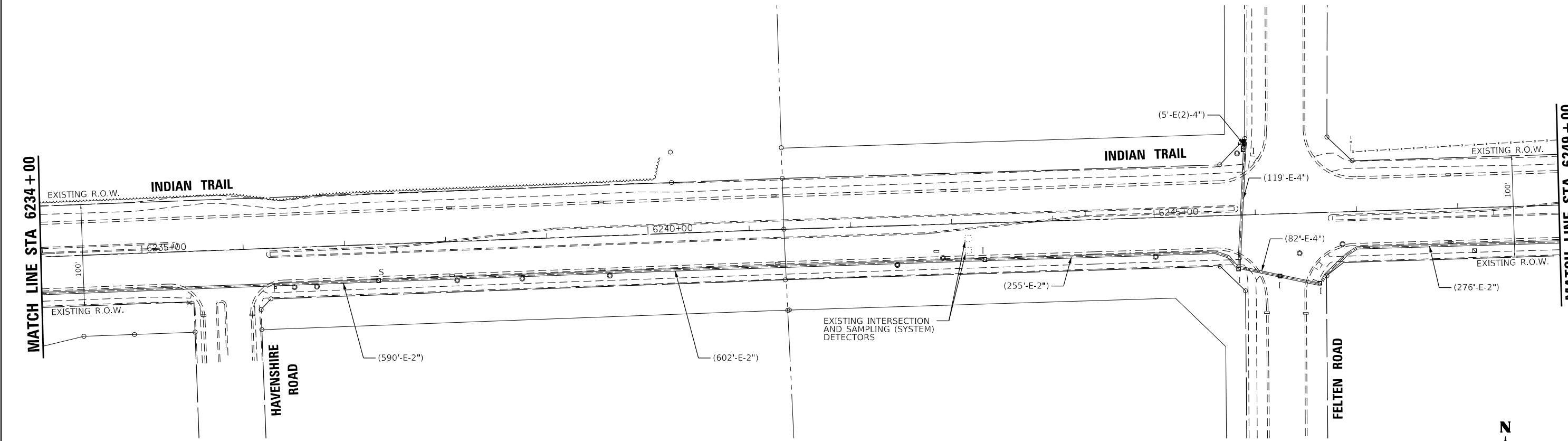
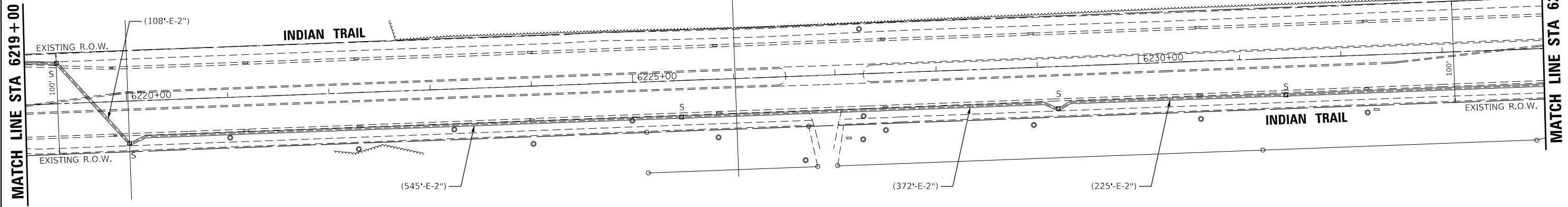
**PROPOSED INTERCONNECT PLAN (SHEET 3 OF 7)  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE**

F.A.U. R.E.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	37
SCALE:		SHEET OF SHEETS		STA. TO STA.
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 61F59

PLAN	SURVEYED	DATE
	PLOTTED	
	NOTED	
	CHECKED	
	FILE NAME	
	FILE NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTED	
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	FILE NAME	
	FILE NO.	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 690.55.sig.int04.dgn  
 FILE NAME: 18-00322-00-TL  
 PEN TABLE: 18-00322-00-TL



USER NAME = mfeiler	DESIGNED - GF	REVISED -
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PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

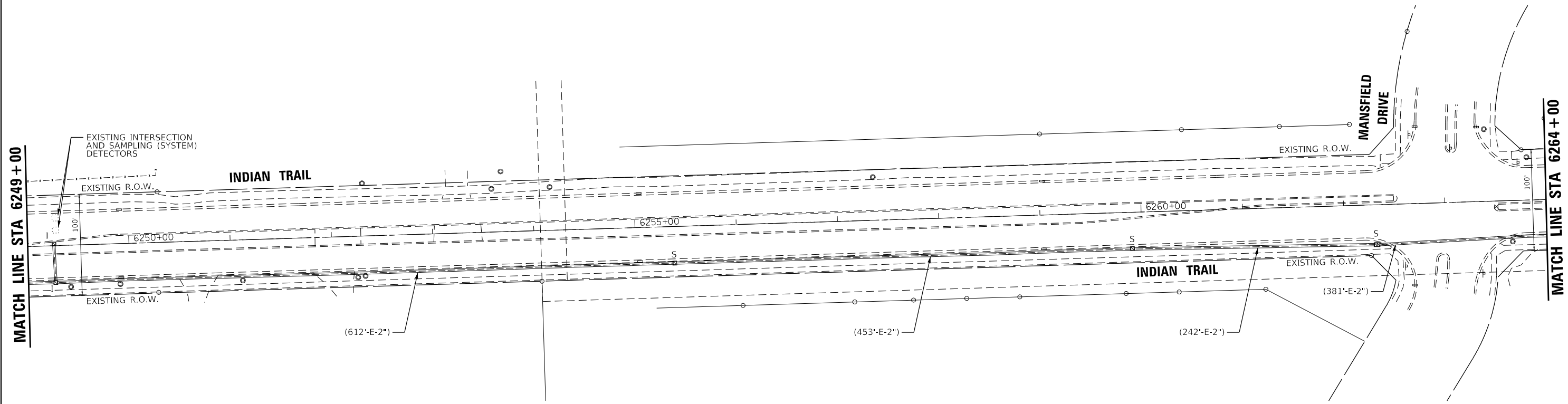
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 4 OF 7)  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE**

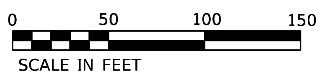
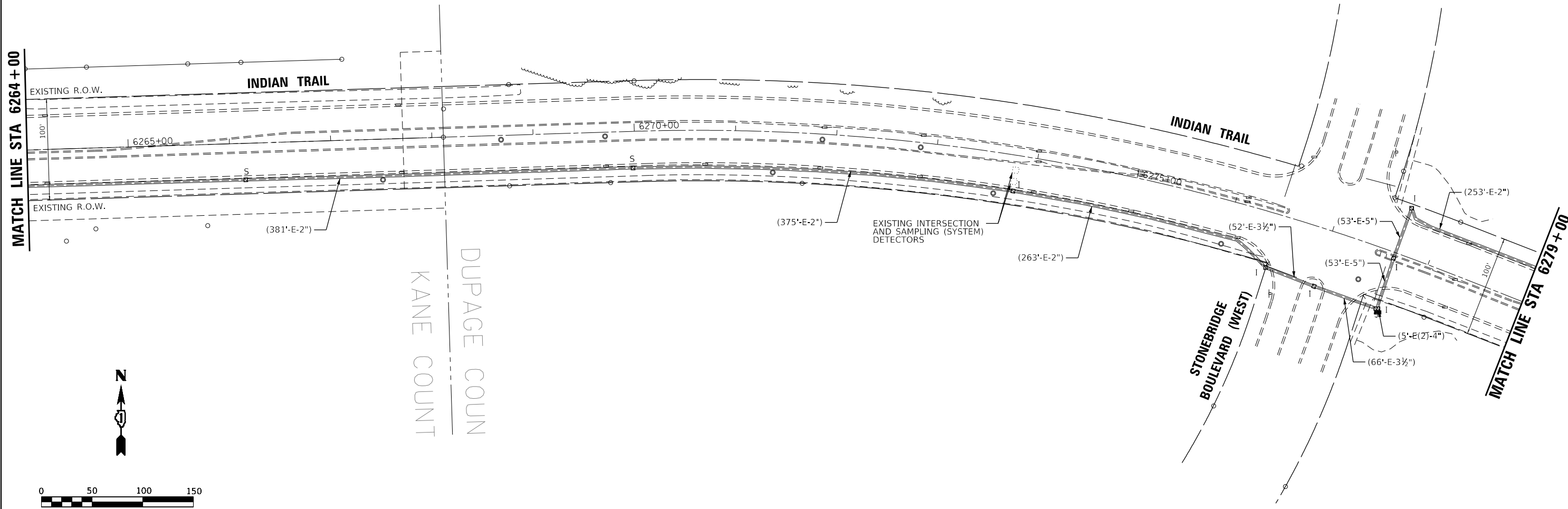
F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	38
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

SCALE: SHEET OF SHEETS STA. TO STA.

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	CHECKED
	NOTED	FILE NAME
	NO.	



PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	CHECKED
	STRUCTURE	NOTATIONS CHECKED
	NO.	



HRG PROJECT NO.: 070690.5  
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 PEN TABLE: 18-00322-00-TL



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	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 5 OF 7)  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE**

SCALE: SHEET OF SHEETS STA. TO STA.

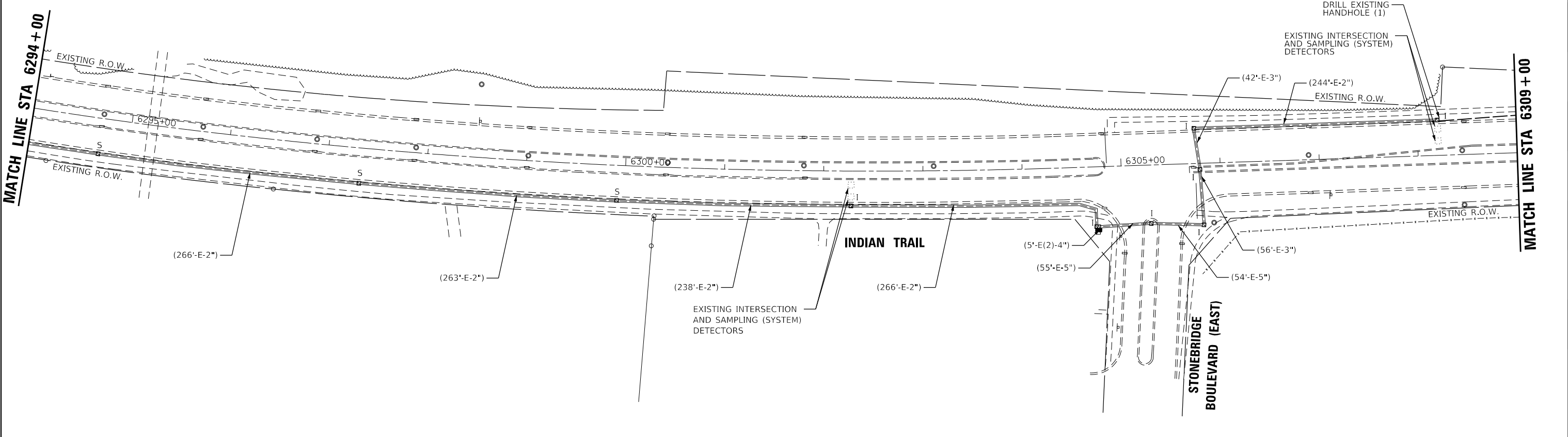
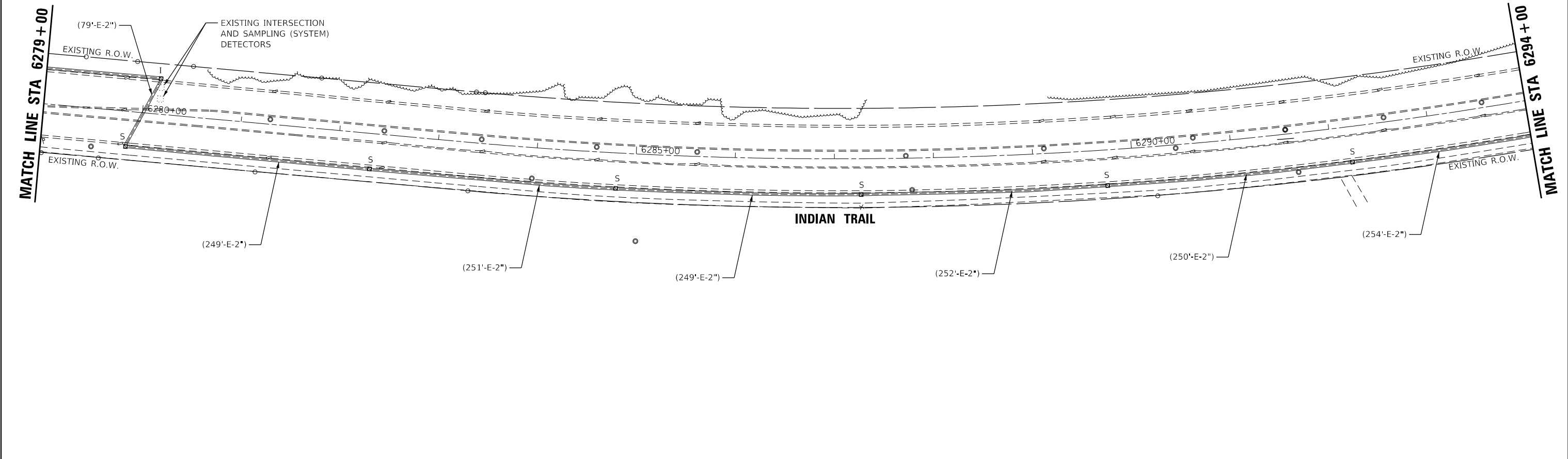
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1503	18-00322-00-TL	KANE/DUPAGE	44	39
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59



PLAN	SURVEYED	DATE
	PLOTTED	
	NOTED	
	CHECKED	
	FILED	
	FILE NAME	
	FILE NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	FILE NO.	

HRG PROJECT NO.: 070690.5  
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PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 6 OF 7)  
INDIAN TRAIL  
IL 25 TO PENNSBURY LANE**

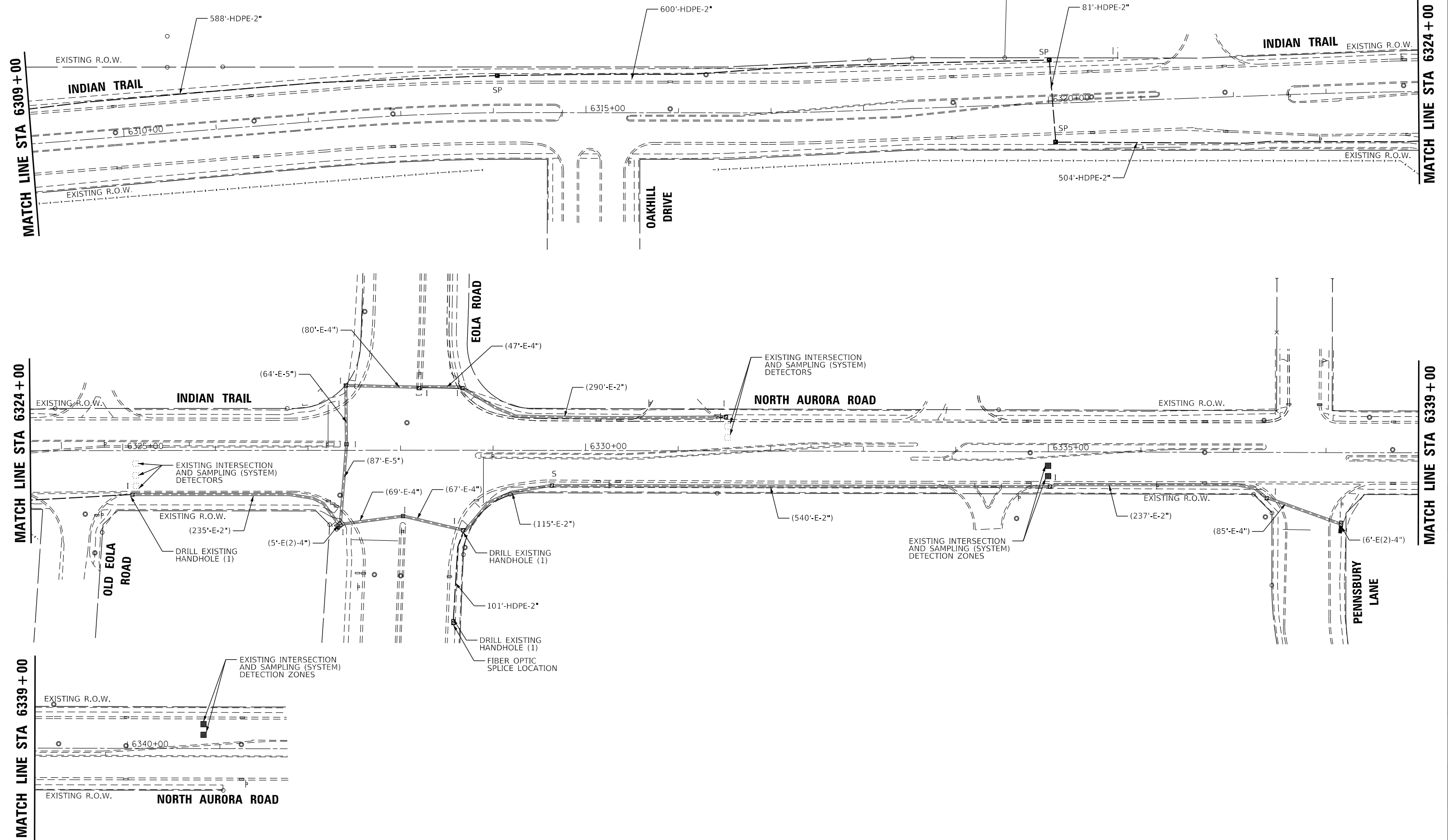
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	40
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61F59	

PLAN	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	FILE NAME	
	FILE NO.	
	FILE DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	FILE NAME	
	FILE NO.	
	FILE DATE	

HRG PROJECT NO.: 070690.5  
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 FILE NAME: 18-00322-00-TL.dwg  
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USER NAME = mfoeller	DESIGNED - GF	REVISED -
	DRAWN - GF	REVISED -
PLOT SCALE =	CHECKED - MJF	REVISED -
PLOT DATE = 12/31/2018	DATE - 10/3/2018	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 7 OF 7)  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE**

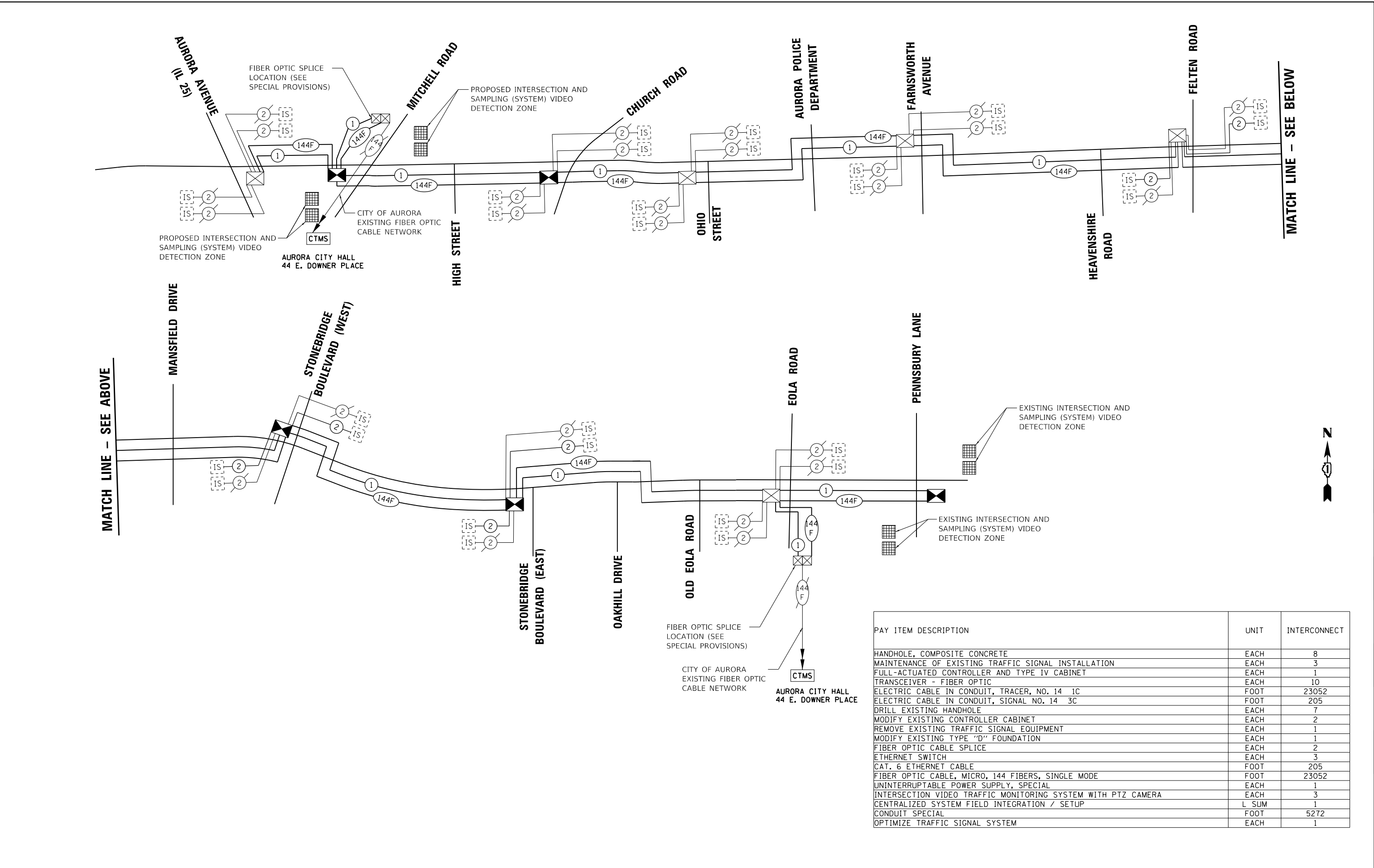
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1503	18-00322-00-TL	KANE/DUPAGE	44	41
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

SCALE: SHEET OF SHEETS STA. TO STA.

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	BY	
	DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	BY	
	DATE	

HRG PROJECT NO.: 070690.5  
 HRG PROJ. CONTACT: 630.551.5100  
 FILE NUMBER: 18-00322-00-TL  
 PEN TABLE: 61F59



PAY ITEM DESCRIPTION	UNIT	INTERCONNECT
HANDHOLE, COMPOSITE CONCRETE	EACH	8
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	10
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	23052
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	205
DRILL EXISTING HANDHOLE	EACH	7
MODIFY EXISTING CONTROLLER CABINET	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
FIBER OPTIC CABLE SPLICE	EACH	2
ETHERNET SWITCH	EACH	3
CAT. 6 ETHERNET CABLE	FOOT	205
FIBER OPTIC CABLE, MICRO, 144 FIBERS, SINGLE MODE	FOOT	23052
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	3
CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1
CONDUIT SPECIAL	FOOT	5272
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1

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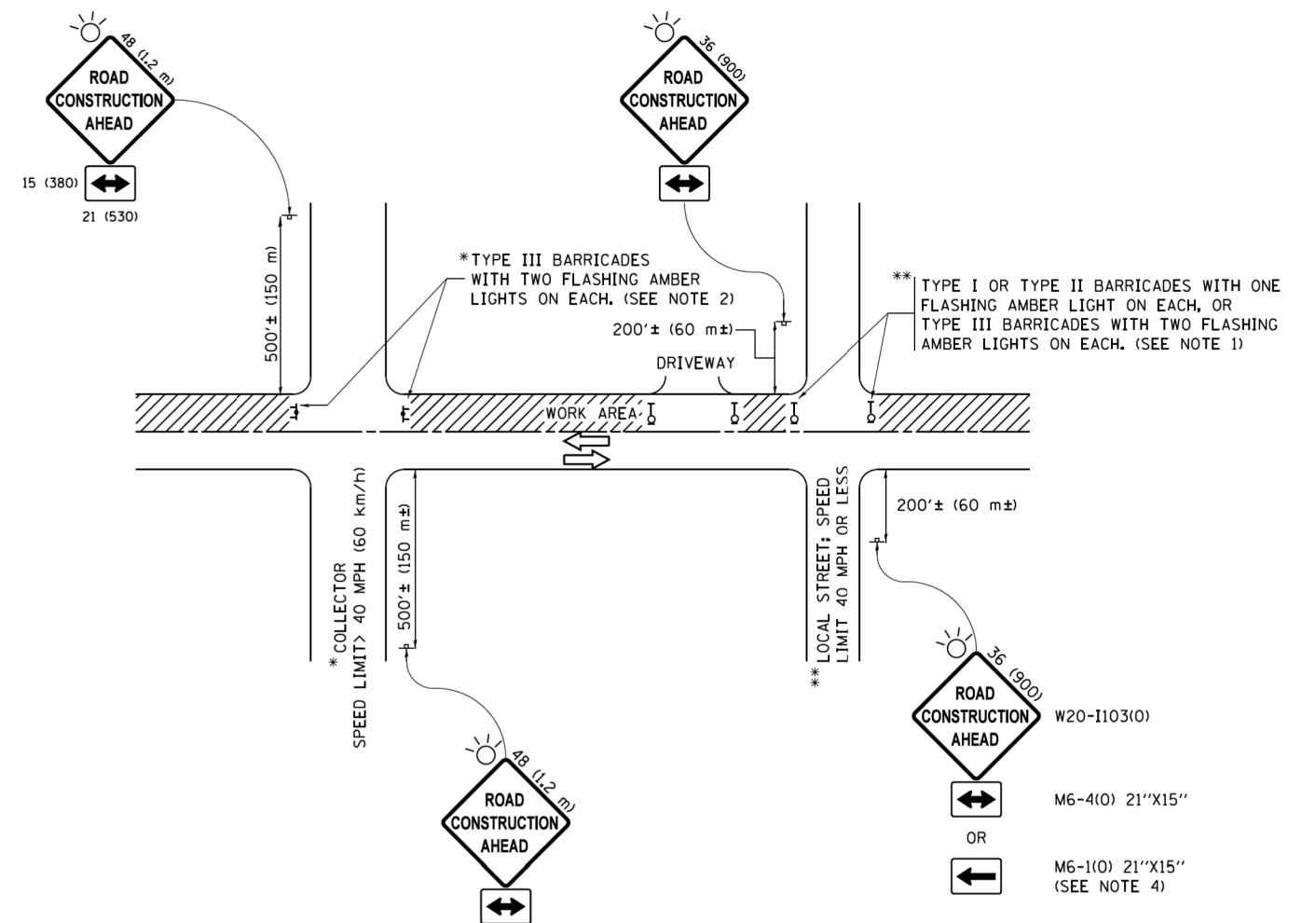
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	DRAWN - GF	REVISED -
	CHECKED - MJF	REVISED -
	DATE - 10/3/2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
 INDIAN TRAIL  
 IL 25 TO PENNSBURY LANE

F.A.U. RTE.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	42
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61F59

SCALE: SHEET OF SHEETS STA. TO STA.



**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

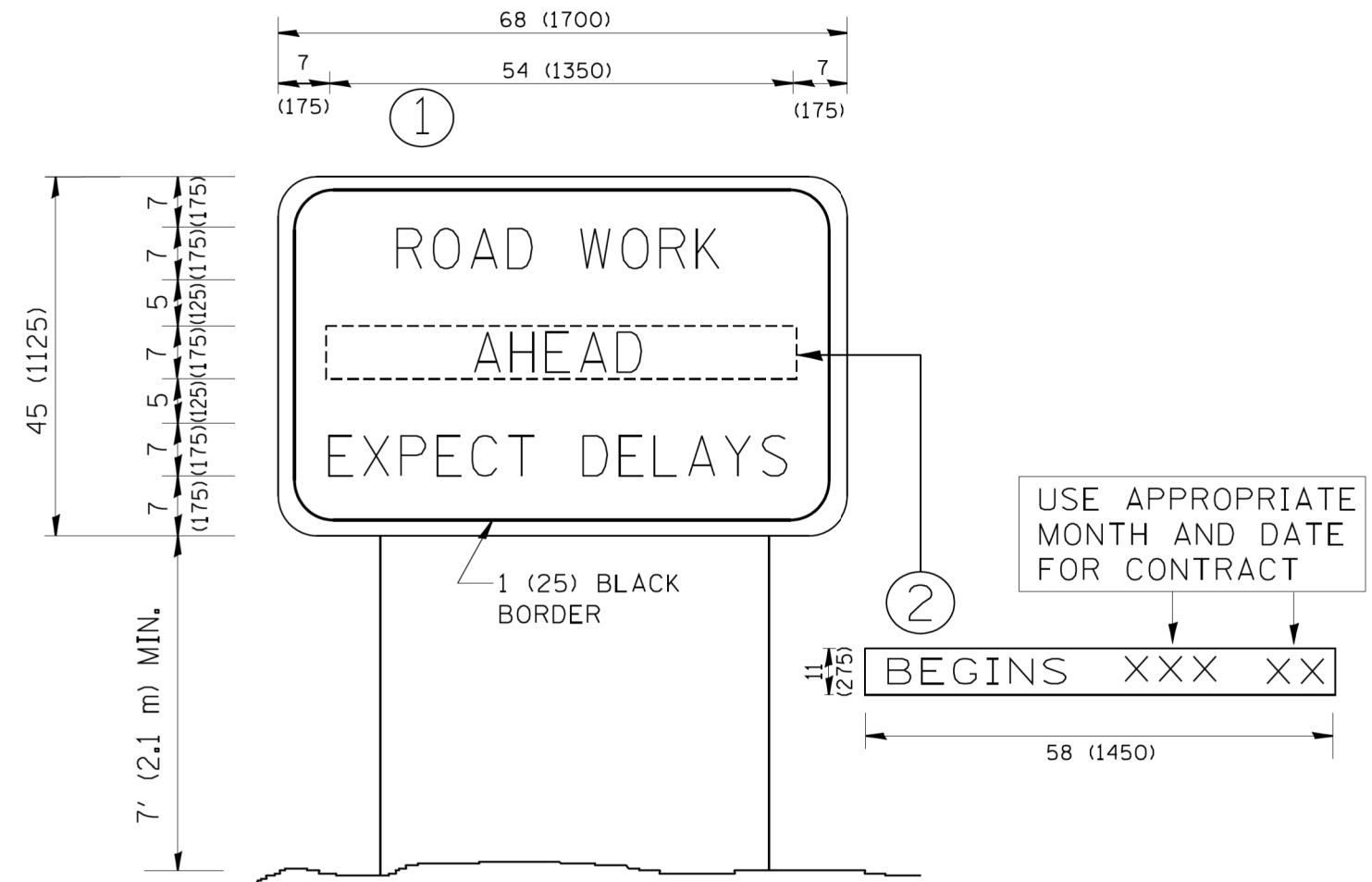
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Default	PLOT SCALE = 50,000' / 1" =	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	43
<b>TC-10</b>			<b>CONTRACT NO. 61F59</b>	
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl1enobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	18-00322-00-TL	KANE/DUPAGE	44	44
<b>TC-22</b>		<b>CONTRACT NO.</b>	<b>61F59</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				