INDEX OF SHEETS

HIGHWAY STANDARDS

424001-05	CURB RAMPS FOR SIDEWALKS
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
701601-06	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720016-02	MAST ARM MOUNTED STREET NAME SIGNS
814001-02	HANDHOLES
814006-02	DOUBLE HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
877001-04	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
877011-04	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-07	CONCRETE FOUNDATION DETAILS
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

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

0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

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: 63152

DISTRICT 1 - LOCAL ROADS ENGINEER: MARILIN D. SOLOMON (847) 705-4407

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
PLANS FOR
TRAFFIC SIGNAL INTERCONNECT

CONGESTION MITIGATION AIR QUALITY
ROUTE: NEW YORK STREET
FROM LAKE STREET TO FARNSWORTH AVENUE
SECTION 07-00267-00-TL
PROJECT NO. CMM-8003 (925)
KANE COUNTY
JOB NO.: C-91-144-08

FAU ROUTE 2765

THIS IMPROVEMENT IS LOCATED IN THE CITY OF AURORA

LOCATION MAP
SCALE : N.T.S

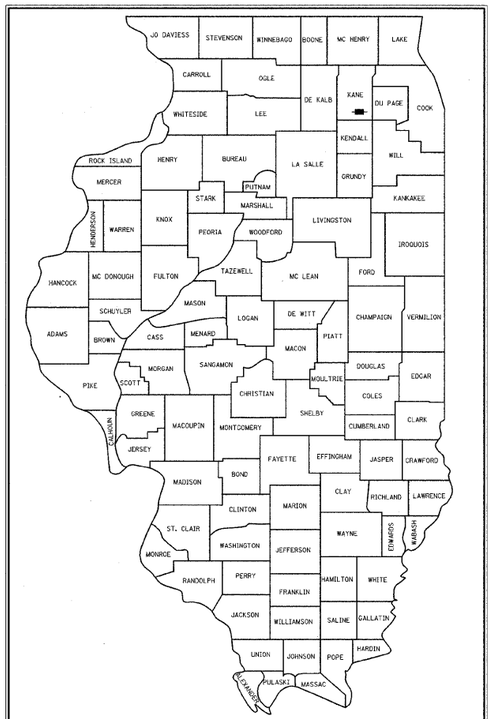
POSTED SPEED = 30 M.P.H.
PROJECT GROSS LENGTH = 10,700.00 FEET = 2.03 MILES
PROJECT NET LENGTH = 10,700.00 FEET = 2.03 MILES

ANTHONY P. SIMMONS
062-058414
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

4/15/2009
ANTHONY P. SIMMONS, P.E.
NO. 062-058414
EXPIRES: 11/30/09
SMITH ENGINEERING CONSULTANTS, INC.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	1

CONTRACT NO. 63152



LOCATION OF SECTION INDICATED THUS: -

AGENCY RESPONSIBLE FOR LETTING

APPROVED April 15 2009
CITY OF AURORA, CITY TRAFFIC ENGINEER

PASSED April 16 2009
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVEW April 16, 2009
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

Illinois Professional Design Firm # 184-000108
SEC Group, Inc.
Engineering
Surveying
Planning
Landscape Architecture
McHenry ▪ Yorkville ▪ New Lenox ▪ Chicago
www.secgroupinc.com

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	Y031-F								
				LAKE STREET	RIVER STREET	BROADWAY AVENUE	LINCOLN AVENUE	ROOT STREET	UNION STREET	OHIO STREET	FARNSWORTH AVENUE	INTERCONNECT
42400800	DETECTABLE WARNINGS	SQ FT	197	38						72	87	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	12	12								
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	32	32								
60255500	MANHOLES TO BE ADJUSTED	EACH	1								1	
60600605	CONCRETE CURB, TYPE B	FOOT	9	9								
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	28	28								
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	4									
67100100	MOBILIZATION	L SUM	1									
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1									
72000100	SIGN PANEL - TYPE 1	SQ FT	154.19	31.19			20	34	34	35		
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1235							609	626	
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	653	653								
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	455	82						196	177	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1539	365						651	523	
80400100	ELECTRICAL SERVICE INSTALLATION	EACH	3	1			1			1		
81000600	CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	5069	525			20	262	261	197	414	3390
81000700	CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	326	71			61	41	50	92	11	
81001000	CONDUIT IN TRENCH, 4" DIA.,GALVANIZED STEEL	FOOT	149	24			38	62	15	10		
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	2997	259			105	60	35		75	2463
81018600	CONDUIT PUSHED, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	64				33	31				
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	1108	219			186	148	181	374		
81400100	HANDHOLE	EACH	29	3			3	2	2	5	2	12
81400300	DOUBLE HANDHOLE	EACH	3					1	1	1		
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2076	551			501.5	235		788.5		
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	6148	619			180	459	361	533	606	3390
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	5					1		4		
82500510	LIGHTING CONTROLLER TYPE CB-RCS 60 AMP - 240 VOLT	EACH	3	1			1			1		
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	7	1	1	1	1	1	1		1	
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	5	1			1	1	1	1		
85900100	TRANSCEIVER	EACH	8									8
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	4059	499			482	512	441	1208	917	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	11809	2170		78	1776	1633	1209.5	2759	2183.5	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	7128	1370			1312.5	1542	1355	1548.5		
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1828				231.5			1596.5		
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	10059	1956.5			878.5	534.5	922.5	2694	3073	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	637	227			140	37.5	33.5	199		
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4							2	2	
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	10	3			2	3	2			
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3				1			2		
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	2					1	1			
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1						1			
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1					1				
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1							1		
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1							1		

PLAN — SURVEYED, PLOTTED, QUANTITIES CHECKED, NOTE BOOK, NO. ____, BY, DATE

PROFILE — SURVEYED, PLOTTED, QUANTITIES CHECKED, NOTE BOOK, NO. ____, BY, DATE

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st traffic signal design\cad\trans\fin.dwg\693 SUMMARY OF QUANTITIES

USER NAME = _USER_ | DESIGNED - | REVISED -
DRAWN - | REVISED -
PLOT SCALE = $SCALE$ | CHECKED APS | REVISED -
PLOT DATE = 4/15/2009 | DATE - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	2
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	Y031-F LAKE STREET	RIVER STREET	BROADWAY AVENUE	LINCOLN AVENUE	ROOT STREET	UNION STREET	OHIO STREET	FARNSWORTH AVENUE	INTERCONNECT
87702920	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	2							2		
87704040	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 22 FT. (SPECIAL)	EACH	2	1			1					
87704060	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 26 FT. (SPECIAL)	EACH	1				1					
87704070	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT. (SPECIAL)	EACH	2	1			1					
87704080	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 30 FT. (SPECIAL)	EACH	1	1								
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	76	12			12	16	12	16	8	
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	20	4			4	4	4	4		
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	141	33.5			30	10	13.5	54		
87900200	DRILL EXISTING HANDHOLE	EACH	82	17			9	5	14	13	21	3
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	17	5			4	2	2	4		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5	3			2					
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	5				1			4		
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	9				1	4	4			
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	5				1			4		
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6							4	2	
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	19	4			4	4	4	1	2	
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	22	5			5	2	2	8		
88500100	INDUCTIVE LOOP DETECTOR	EACH	38	5			5	3	5	10	10	
88600100	DETECTOR LOOP, TYPE I	FOOT	3652.6	187.6			387.3	244.9	402.7	1532.9	897.2	
88700200	LIGHT DETECTOR	EACH	16	3			3	3	3	4		
88700300	LIGHT DETECTOR AMPLIFIER	EACH	5	1			1	1	1	1		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	29	4			4	4	4	7	6	
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1							1		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	24070.5	2593.5			4167.5	2437	3695.5	9347	1830	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	6	1			1	1	1	1	1	
89502380	REMOVE EXISTING HANDHOLE	EACH	13	1			3	2	1	6		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	32	7			7	5	6	7		
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	8243.5									8243.5
X0324007	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1									1
X0324232	PAINT NEW MAST ARM POLE, UNDER 40 FEET	EACH	1						1			
X0325035	PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FEET	EACH	5					1		4		
X0325134	WIRELESS INTERCONNECT (COMPLETE)	EACH	1									1
X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1							1		
X0325810	WIRELESS ETHERNET RADIO	EACH	2		1			1				
X4402815	ISLAND PAVEMENT REMOVAL AND REPLACEMENT	SQ FT	1176							601	575	
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1							1		
X8510300	PAINT TRAFFIC SIGNAL POST	EACH	17	3			3	4	3	4		
X8620020	UNINTERRUPTABLE POWER SUPPLY	EACH	6	1			1	1	1	1	1	
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	8243.5									8243.5
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	3684	641			562.5	415	422	814	829.5	
44004600	SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	469	401							68	
XX003584	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT	FOOT	629.5			78		236		111.5	204	

FILE NAME = yt\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signal...	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	3

CONTRACT NO. 63152

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN: NOTE BOOK NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE: NOTE BOOK NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHKD
NOTE BOOK NO.
BY
DATE

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	Y031-F								
				LAKE STREET	RIVER STREET	BROADWAY AVENUE	LINCOLN AVENUE	ROOT STREET	UNION STREET	OHIO STREET	FARNSWORTH AVENUE	INTERCONNECT
X8730250	ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	2593.5	580		78	287.5	553	271.5	619.5	204	
XX005937	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	6	3			3					
XX006923	GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	25	4			2	2	5	4	8	
XX007251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	4			1		1		1	1	
XX007487	LUMINAIRE SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT (SPECIAL)	EACH	6	3			3					
XX007987	SIGNAL HEAD, LED, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4								4	
XX007989	SIGNAL HEAD, LED, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	8								8	
XX007990	SIGNAL HEAD, LED, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4								4	
X0326269	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4							2	2	
XX007952	TERMINAL SERVER	EACH	1									1
XX007992	ETHERNET SWITCH	EACH	1									1
XX007993	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1									1
XX007994	FIBER OPTIC SPLICE	EACH	1									1
△ Z0076600	TRAINEES	HOUR	500									

△ Y080

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals city of aurora\cad\trans\fin_dwg\690 ...dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	4
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

STA. TO STA.

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT 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.

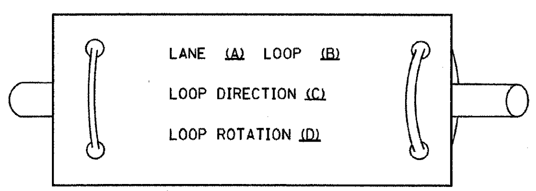
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

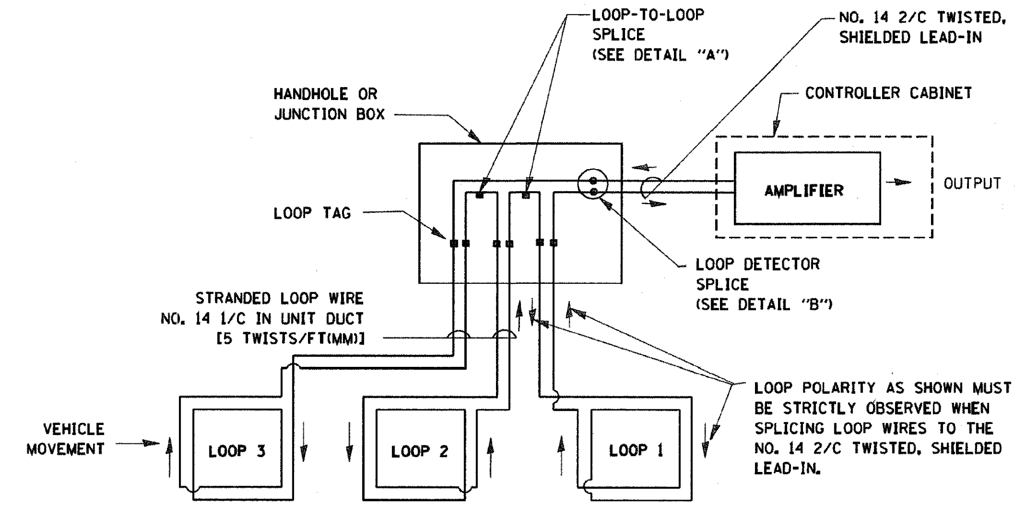


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

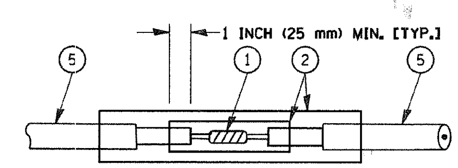
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

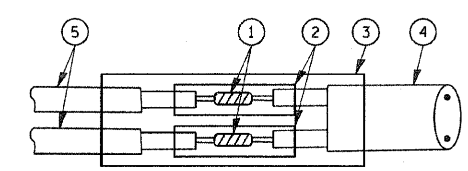


DETECTOR LOOP WIRING SCHEMATIC

- 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

LOOP DETECTOR SPLICE

1. WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
2. WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
3. WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
4. NO. 14 2/C TWISTED, SHIELDED CABLE.
5. LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DATE: 2/15/2006

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

TS05

REVISION DATE: 01/01/02

PLAN | NOTE BOOK | NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK | NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE

FILE NAME =	USER NAME = _USER_	DESIGNED -	REVISED -
y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signals ... \cad\trans\fin_dwg\... .dgn		DRAWN -	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNALS
DESIGN DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	5

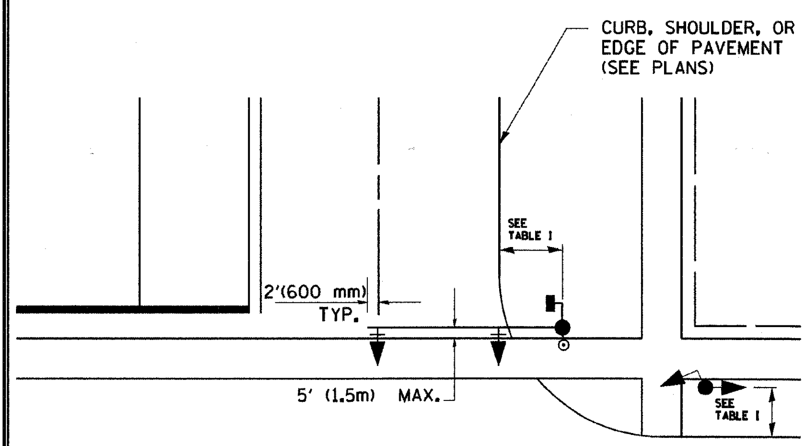
CONTRACT NO. 63152

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

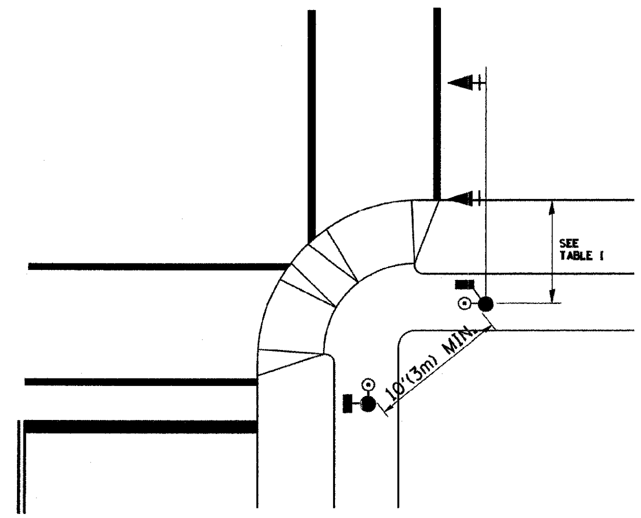
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

1. AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

   AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

   PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:

   A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.

   B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.

   C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

   D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).

   E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK

2. PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.

3. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.

4. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PLAN | NOTE BOOK | NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R.T. OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK | NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

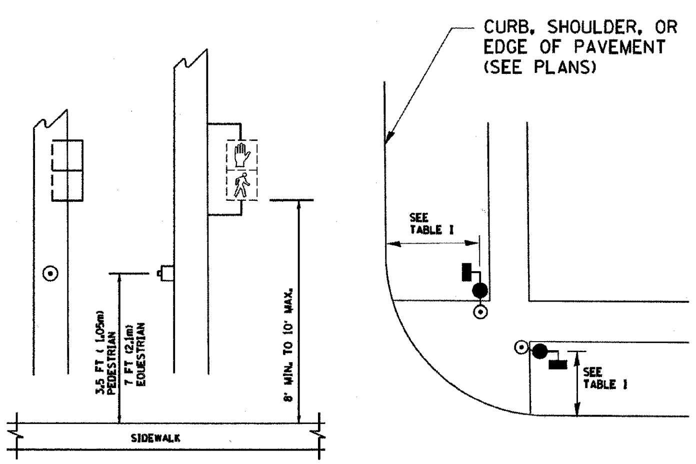


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DATE: 1/17/2007

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 2 OF 4

TS05

REVISION DATE: 01/01/02

FILE NAME =	USER NAME = _USER_	DESIGNED -	REVISED -
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	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

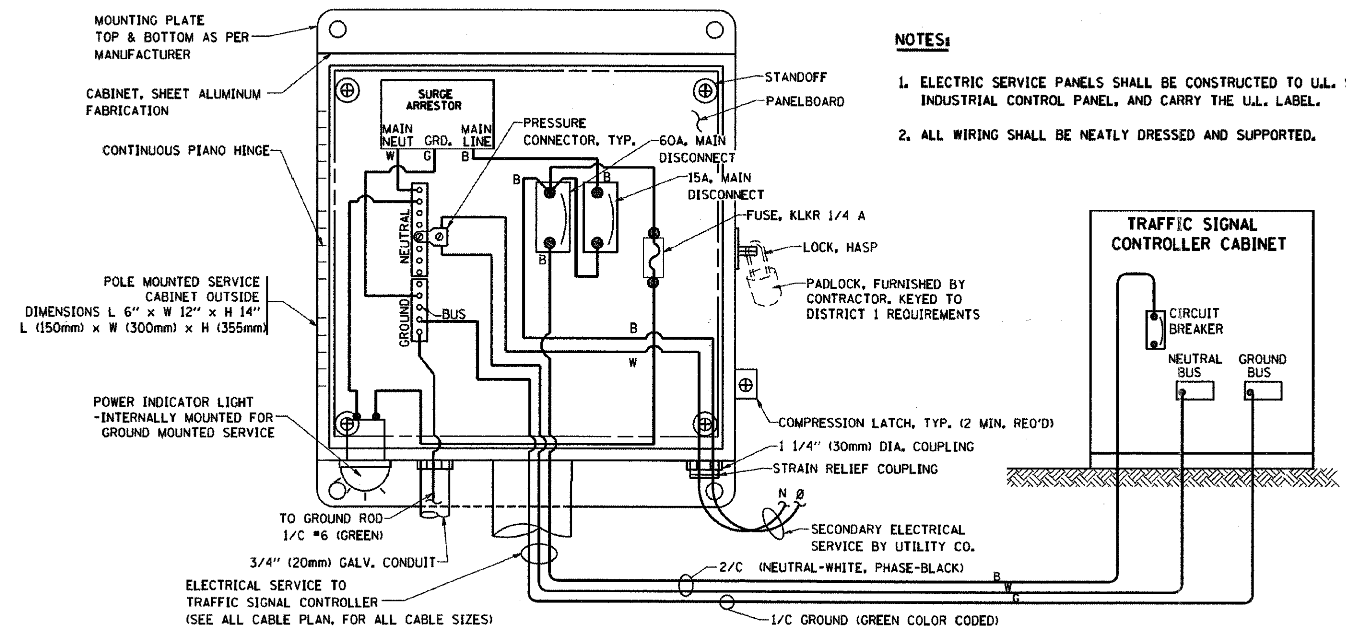
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNALS
DESIGN DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	6
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



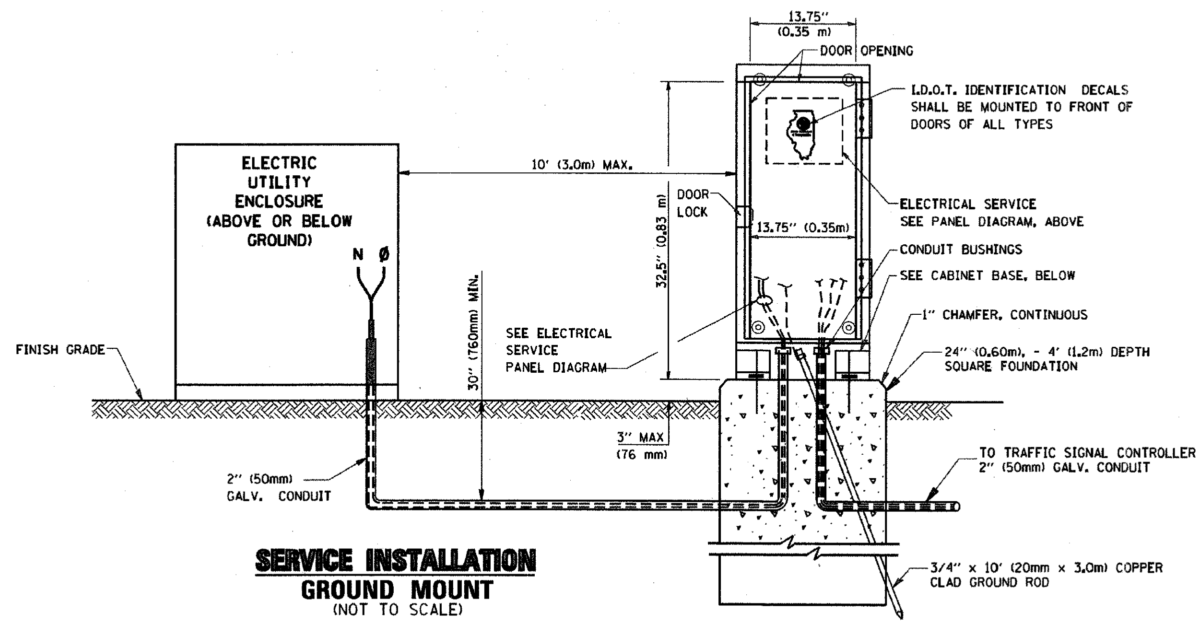
NOTES:

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

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

SERVICE INSTALLATION POLE MOUNT (SHOWN)

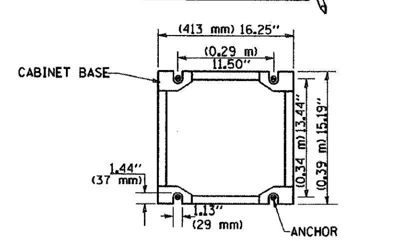
(NOT TO SCALE)



SERVICE INSTALLATION

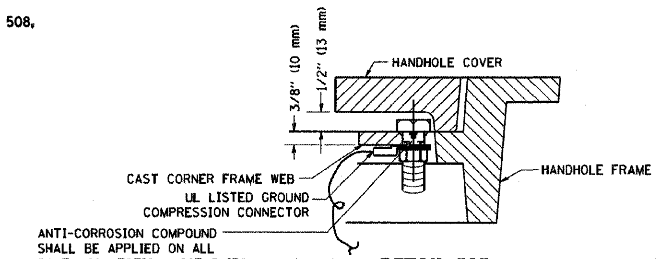
GROUND MOUNT

(NOT TO SCALE)

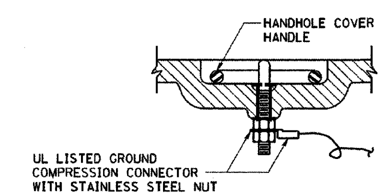


CABINET – BASE BOLT PATTERN

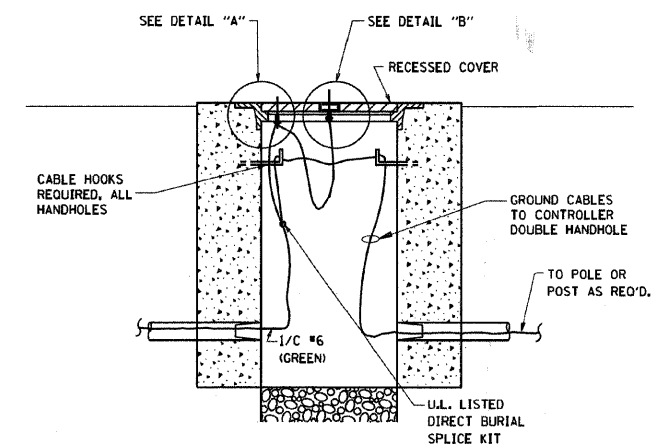
(NOT TO SCALE)



DETAIL "A"

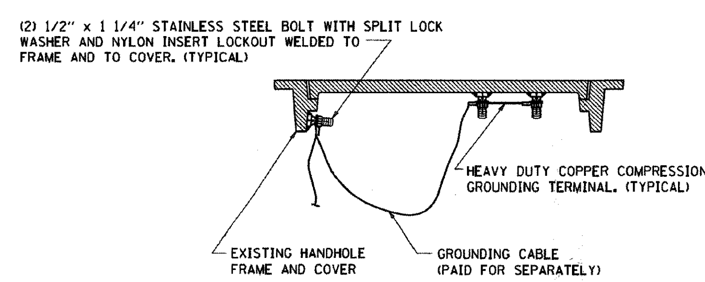


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



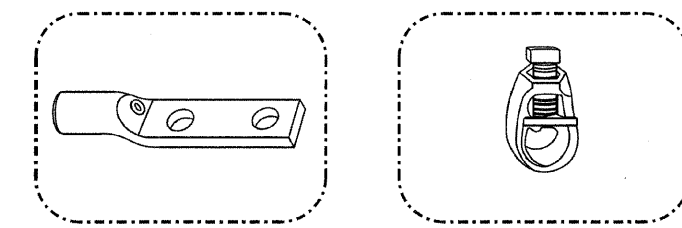
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

NOTES:

GROUNDING SYSTEM

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

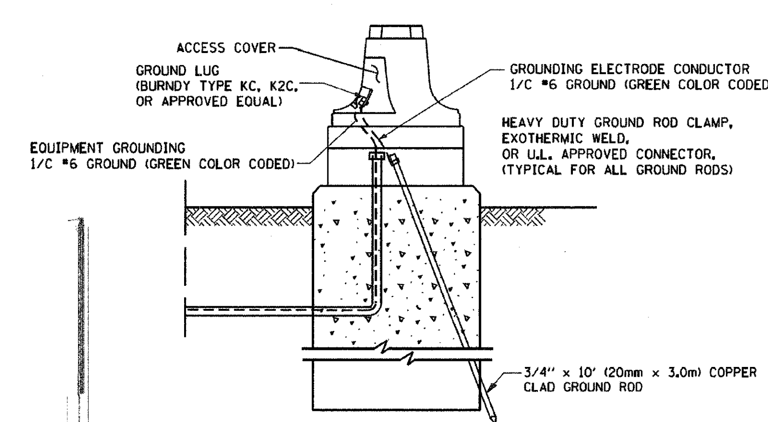


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

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

NOTES:

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



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DATE: 2/15/2006

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

TS05

REVISION DATE: 01/01/02

FILE NAME =	USER NAME = _USER_	DESIGNED -	REVISED -
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	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNALS
DESIGN DETAILS

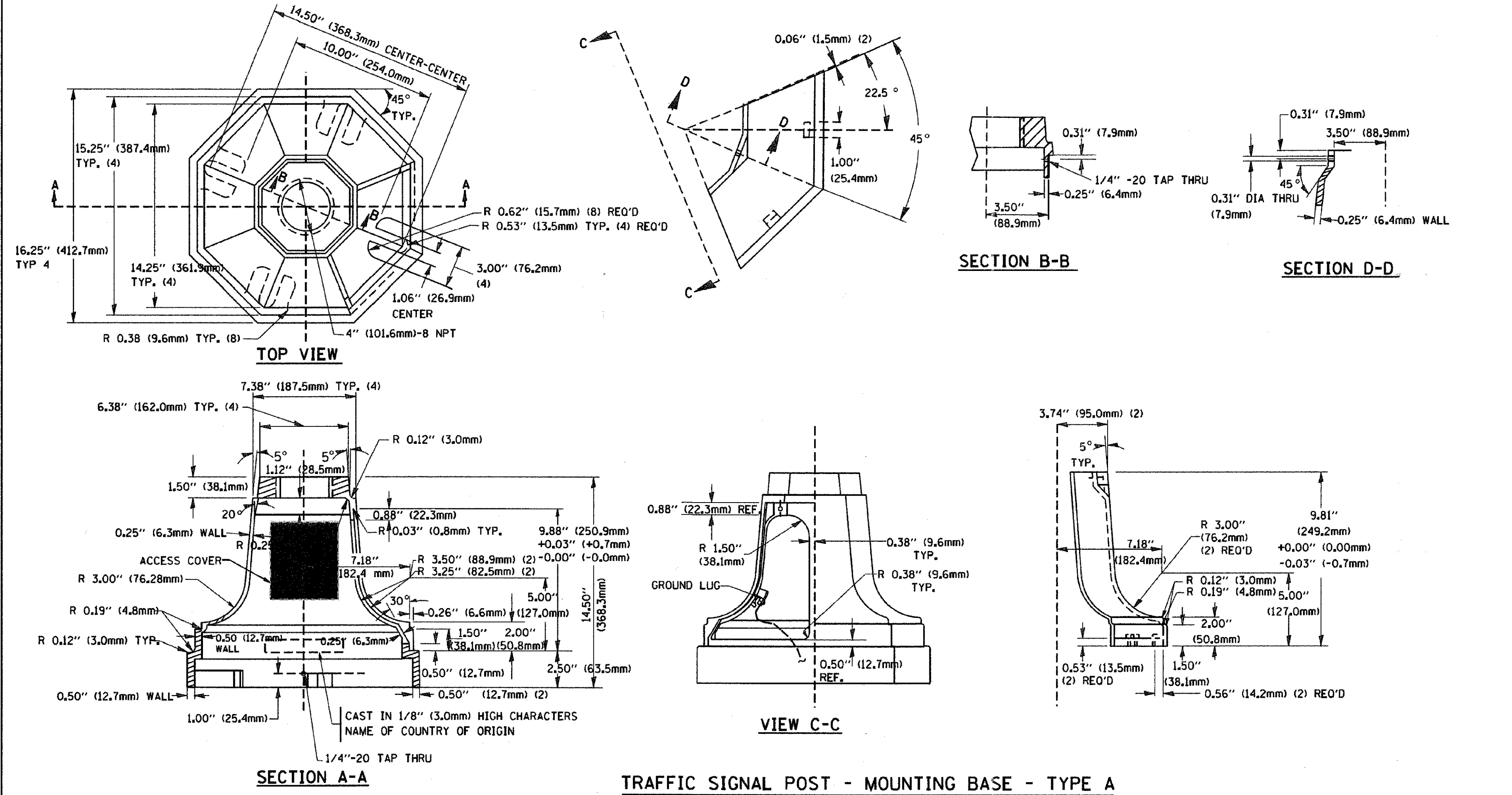
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	7
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.T. OF WAY CHECKED, CADD FILE NAME; NOTE BOOK NO.; BY; DATE

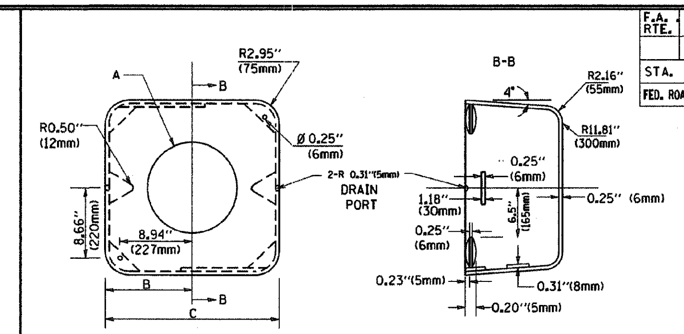
PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHK'D; NOTE BOOK NO.; BY; DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION A-A

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

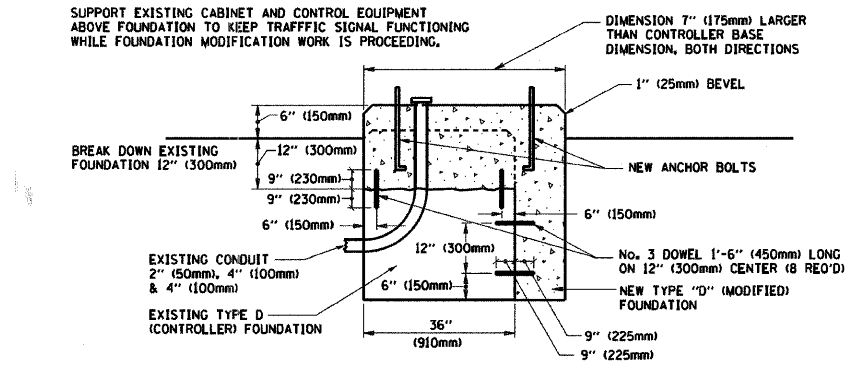


MATERIAL:
- ASTM A48 CLASS 30 GREY IRON
- ASTM A123 HOT DIPPED GALVANIZED

TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125"(257mm)	9.5"(241mm)	19"(483mm)	12" (300mm)	24kg
II	Ø 11.125"(283mm)	10.75"(273mm)	21.5"(546mm)	12" (300mm)	26kg

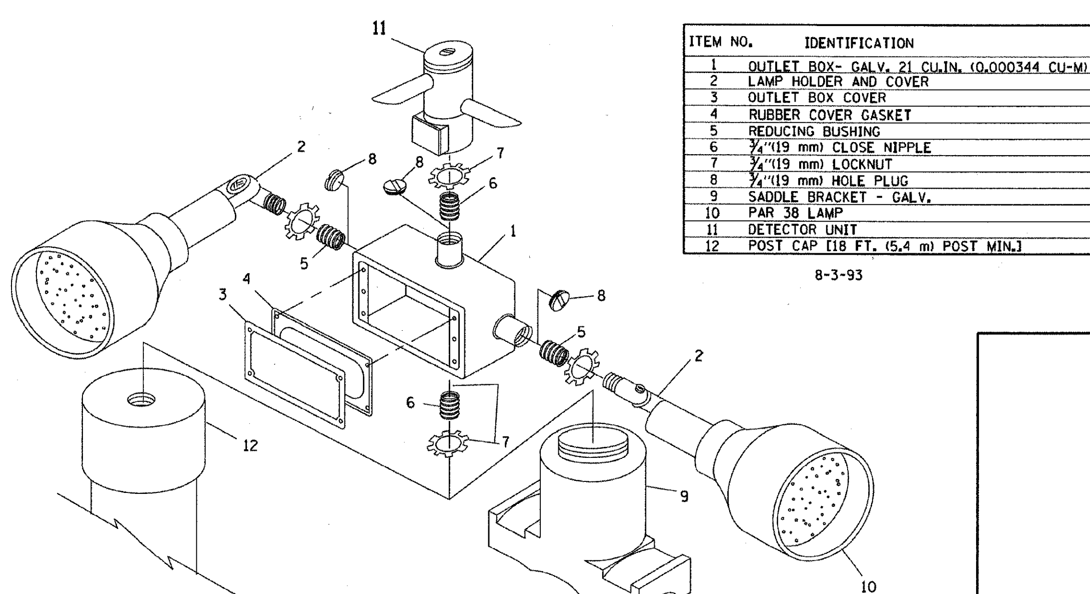
SHROUD DETAIL

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



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



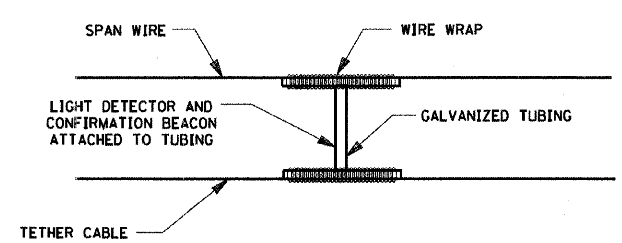
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

8-3-93

NOTES:

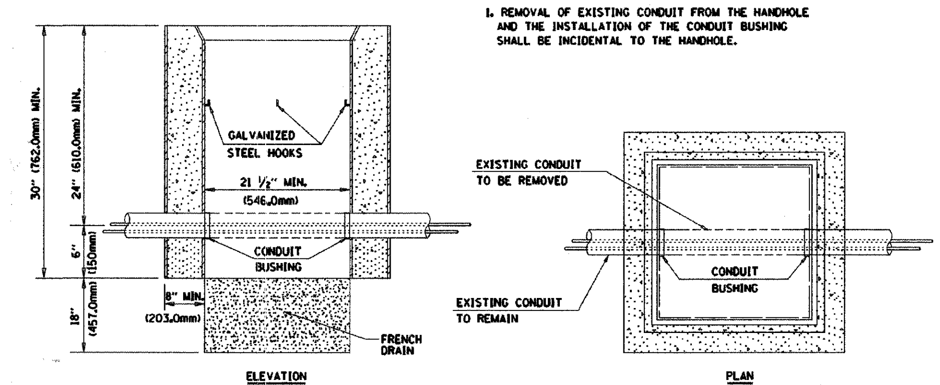
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS *2 AND *11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM *1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM *2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM *9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM *9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)

NOTES:
1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



DETAIL
HANDHOLE TO INTERCEPT EXISTING CONDUIT
N.T.S.

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DATE: 2/15/2006

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 4 OF 4

TS05

REVISION DATE: 01/01/02

PLAN	SURVEYED	PLOTTED	ALIGNMENT CHECKED	R.T. OF WAY CHECKED	CADD FILE NAME	NOTE BOOK	NO.	BY	DATE

PROFILE	SURVEYED	PLOTTED	GRADES CHECKED	B.M. NOTED	STRUCTURE NOTATIONS CHKD	NOTE BOOK	NO.	BY	DATE

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	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

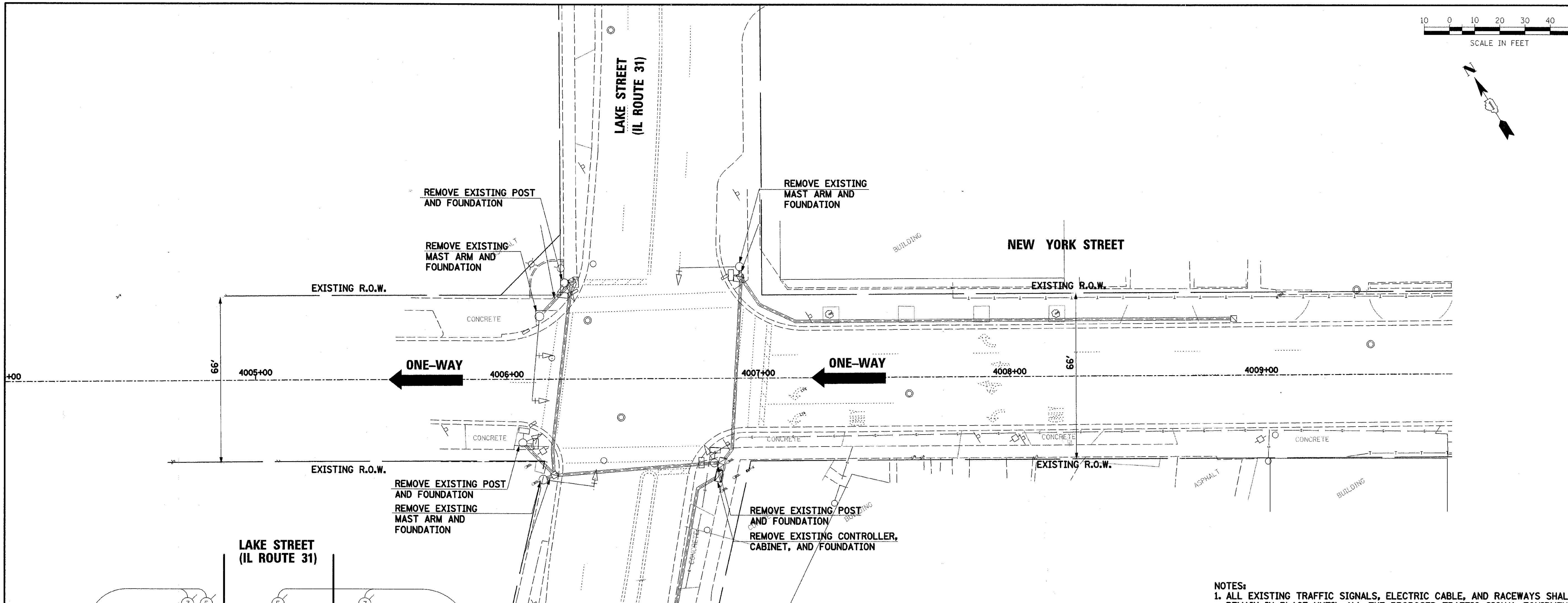
DISTRICT ONE
STANDARD TRAFFIC SIGNALS
DESIGN DETAILS

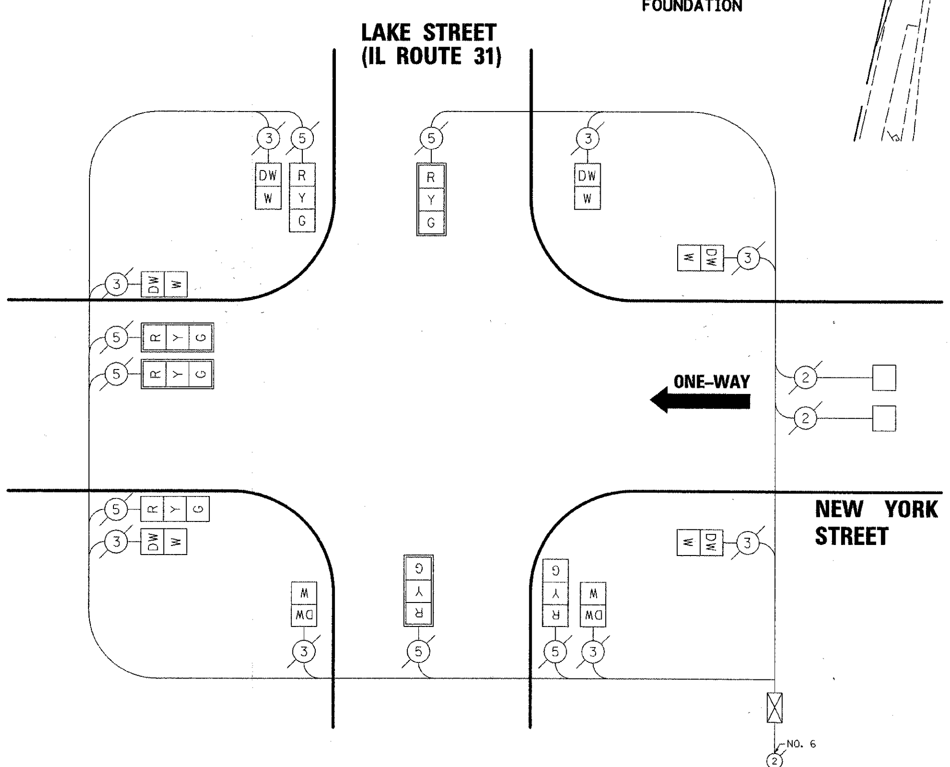
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	8
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN | NOTE BOOK | NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R.O.W. CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK | NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATIONS CHKD | BY | DATE





EXISTING CABLE PLAN

NOTES:

1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

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

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

1	EACH	TRAFFIC CONTROLLER AND CABINET (COMPLETE)
3	EACH	STEEL MAST ARM ASSEMBLY AND POLE
3	EACH	TRAFFIC SIGNAL POST
7	EACH	TRAFFIC SIGNAL HEADS
4	EACH	TRAFFIC SIGNAL BACKPLATES
8	EACH	PEDESTRIAN SIGNAL HEADS

FILE NAME = y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signals\...\cad\trans\fin_dwg\690_lake.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
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	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

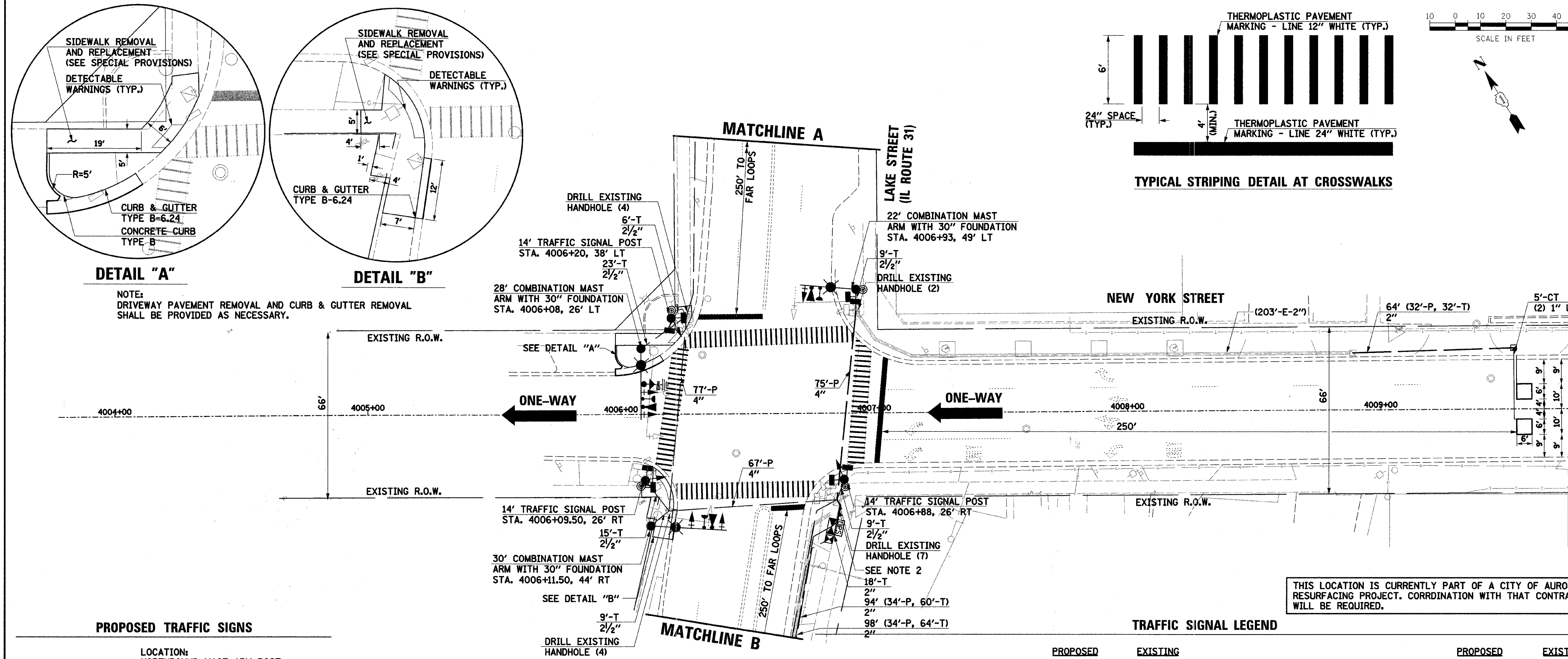
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED
LAKE STREET (IL ROUTE 31)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	9
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



THIS LOCATION IS CURRENTLY PART OF A CITY OF AURORA RESURFACING PROJECT. CORRDINATION WITH THAT CONTRACT WILL BE REQUIRED.

PROPOSED TRAFFIC SIGNS

Sign		Details
24 X 30 (1 EACH)	HISTORIC L ROUTE	LOCATION: NORTHBOUND MAST ARM POST. SIGN DETAIL: BLACK LETTERING (HISTORIC ROUTE) ON WHITE BACKGROUND. LOGO DETAIL: SOLID RED BAR (TOP), SOLID BLUE BAR (BOTTOM), BLUE LETTERING ON WHITE BACKGROUND (CENTER).
R6-2-2430 (2 EACH)	ONE WAY →	LOCATIONS: 1. SOUTHBOUND MAST ARM, 3' WEST OF THE OUTER 3-SECTION SIGNAL HEAD. 2. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING NORTH.
R6-2-2430 (2 EACH)	ONE WAY ←	LOCATIONS: 1. NORTHBOUND MAST ARM, 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD. 2. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.
M-I100-2424 (1 EACH) M6-4-2115 (1 EACH)	ILLINOIS 31 ←→	LOCATION: 1. WESTBOUND MAST ARM, 6' NORTH OF THE OUTER 3-SECTION SIGNAL HEAD.

NOTES:
1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE WESTBOUND MAST ARM, 3' NORTH OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
2. PROVIDE 12' OF CONDUIT IN COMMON TRENCH, 2 AT 4".
3. PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.
4. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

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.

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.

TRAFFIC SIGNAL LEGEND

Item	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
PAN/TILT/ZOOM CAMERA		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
WIRELESS ANTENNA		

FILE NAME = yi\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals ... \cad\trans\fin_dwg\690_lake.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN - BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
LAKE STREET (IL ROUTE 31)
SHEET 1 OF 2

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

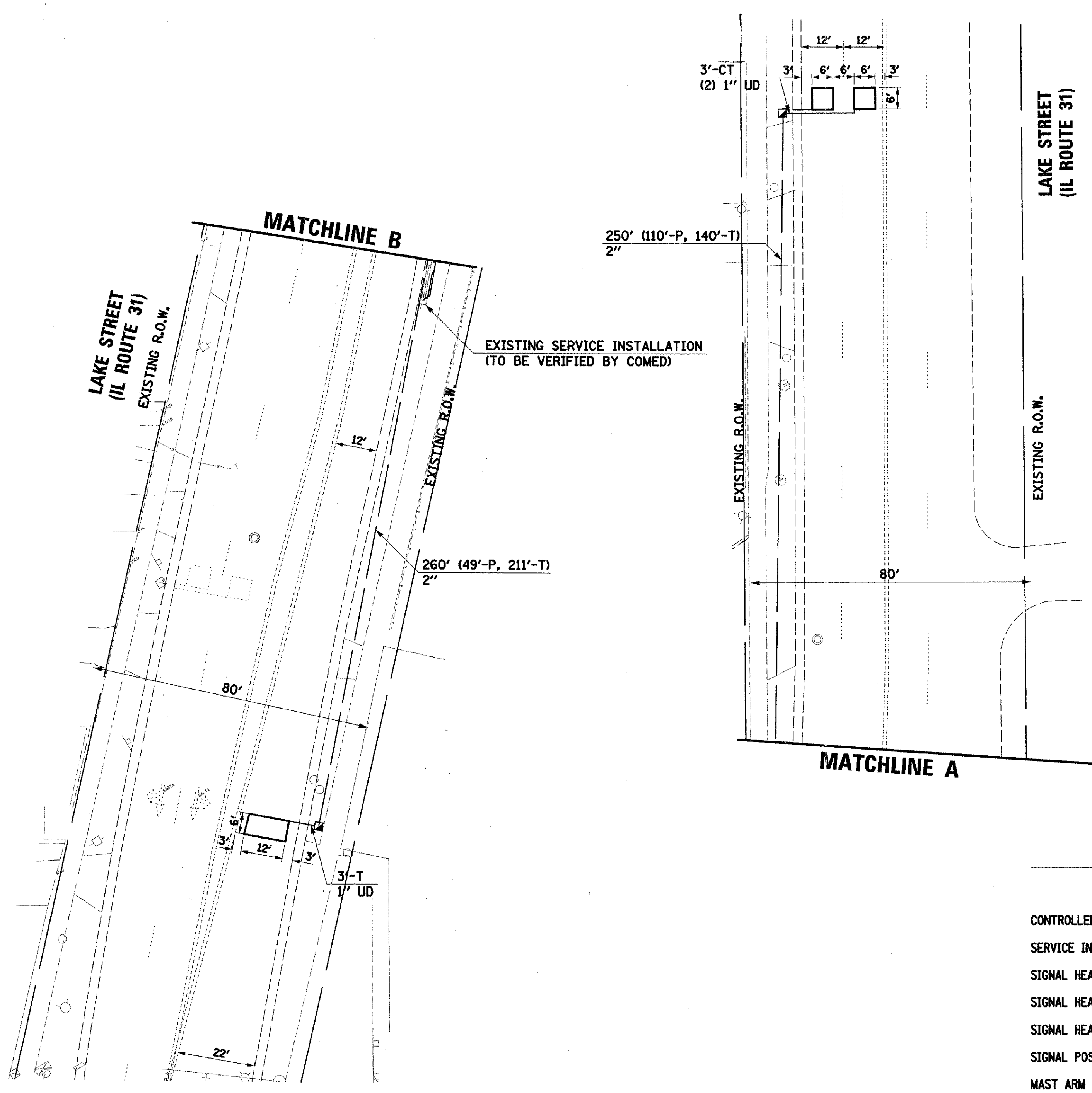
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	10
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK NO. / BY / DATE

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD / NOTE BOOK NO. / BY / DATE

THIS LOCATION IS CURRENTLY PART OF A CITY OF AURORA RESURFACING PROJECT. CORRDINATION WITH THAT CONTRACT WILL BE REQUIRED.

10 0 10 20 30 40 50
SCALE IN FEET



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
PAN/TILT/ZOOM CAMERA		

	PROPOSED	EXISTING
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
WIRELESS ANTENNA		

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.

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK NO.

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD / NOTE BOOK NO.

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PLOT SCALE = $SCALE$
PLOT DATE = 4/15/2009
DESIGNED -
DRAWN BAH
CHECKED APS
DATE -
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
LAKE STREET (IL ROUTE 31)
SHEET 2 OF 2

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

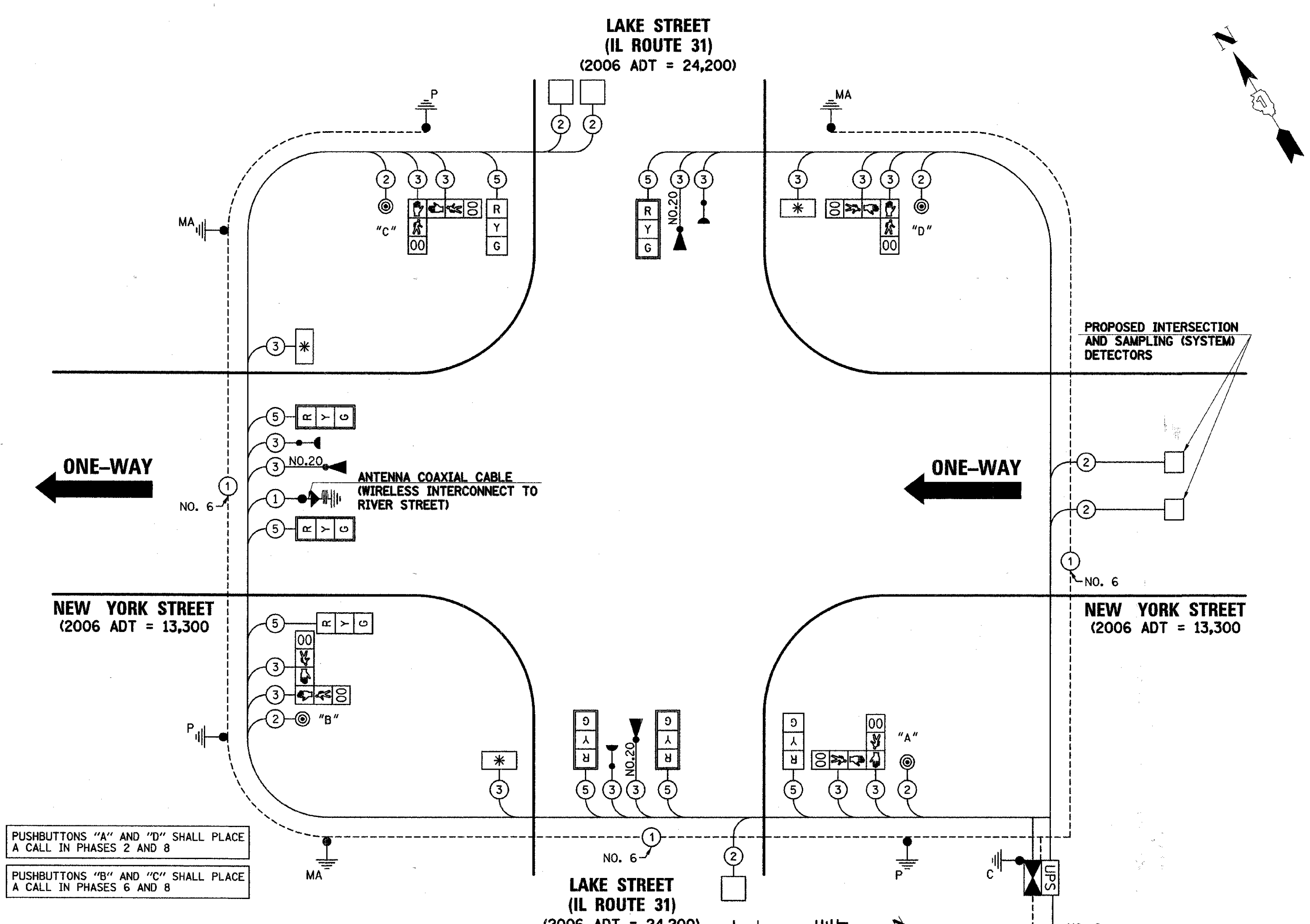
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	11

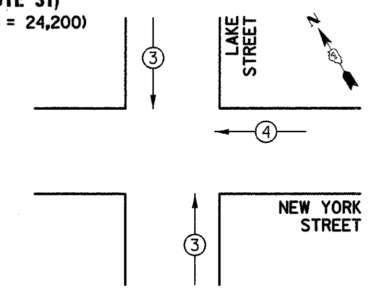
CONTRACT NO. 63152

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

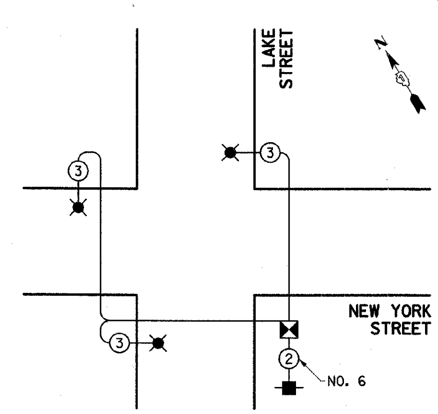
CABLE PLAN LEGEND

EXISTING / PROPOSED	DESCRIPTION
G	8" (200mm) TRAFFIC SIGNAL SECTION
R	12" (300mm) TRAFFIC SIGNAL SECTION
W	12" (300mm) PEDESTRIAN SIGNAL SECTION
00	12" (300mm) PEDESTRIAN SIGNAL SECTION
	CONTROLLER CABINET
	SERVICE INSTALLATION
T	TELEPHONE INSTALLATION
	VEHICLE DETECTOR, INDUCTION LOOP
	MAGNETIC DETECTOR
	EMERGENCY VEHICLE LIGHT DETECTOR
	CONFIRMATION BEACON
	PUSHBUTTON DETECTOR
	LUMINAIRE
2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
R Y G "E" "P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"	RAILROAD CONTROL CABINET
"E"	ILLUMINATED SIGN "NO LEFT TURN"
	ILLUMINATED SIGN "NO RIGHT TURN"
	WIRELESS ANTENNA
H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UNINTERRUPTABLE POWER SUPPLY
*	LED STREET NAME SIGN
V	VIDEO DETECTION CAMERA
	PAN/TILT/ZOOM CAMERA





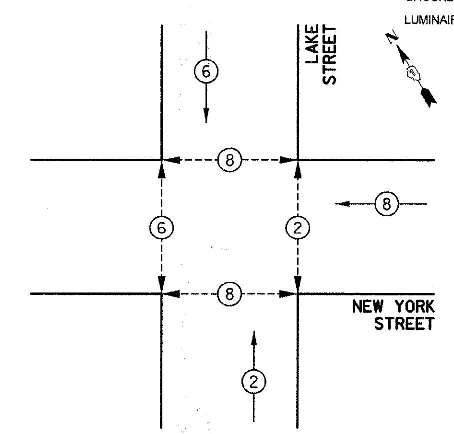
LIGHTING CABLE PLAN



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

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

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.

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	LAKE STREET
DETECTABLE WARNINGS	SQ FT	38
DRIVEWAY PAVEMENT REMOVAL	SQ YD	12
COMBINATION CURB AND GUTTER REMOVAL	FOOT	32
CONCRETE CURB, TYPE B	FOOT	9
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	28
SIGN PANEL - TYPE 1	SQ FT	31.19
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	653
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	82
PAVEMENT MARKING REMOVAL	SQ FT	365
ELECTRICAL SERVICE INSTALLATION	EACH	1
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	525
CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	71
CONDUIT IN TRENCH, 4" DIA.,GALVANIZED STEEL	FOOT	24
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	259
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	219
HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	551
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	619
LIGHTING CONTROLLER TYPE CB-RCS 60 AMP - 240 VOLT	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	499
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2170
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1370
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1956.5
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	227
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 22 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 30 FT. (SPECIAL)	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	33.5
DRILL EXISTING HANDHOLE	EACH	17
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	5
INDUCTIVE LOOP DETECTOR	EACH	5
DETECTOR LOOP, TYPE I	FOOT	187.6
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2593.5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
PAINT TRAFFIC SIGNAL POST	EACH	3
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	641
SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	401
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	580
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	3
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	4
LUMINAIRE SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT (SPECIAL)	EACH	3

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	8		17	0.50	68
(YELLOW)	8		25	0.25	50
(GREEN)	8		15	0.25	30
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LED SIGN	3		60	0.50	90
LUMINAIRE	3		250	0.50	375
				TOTAL =	938

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

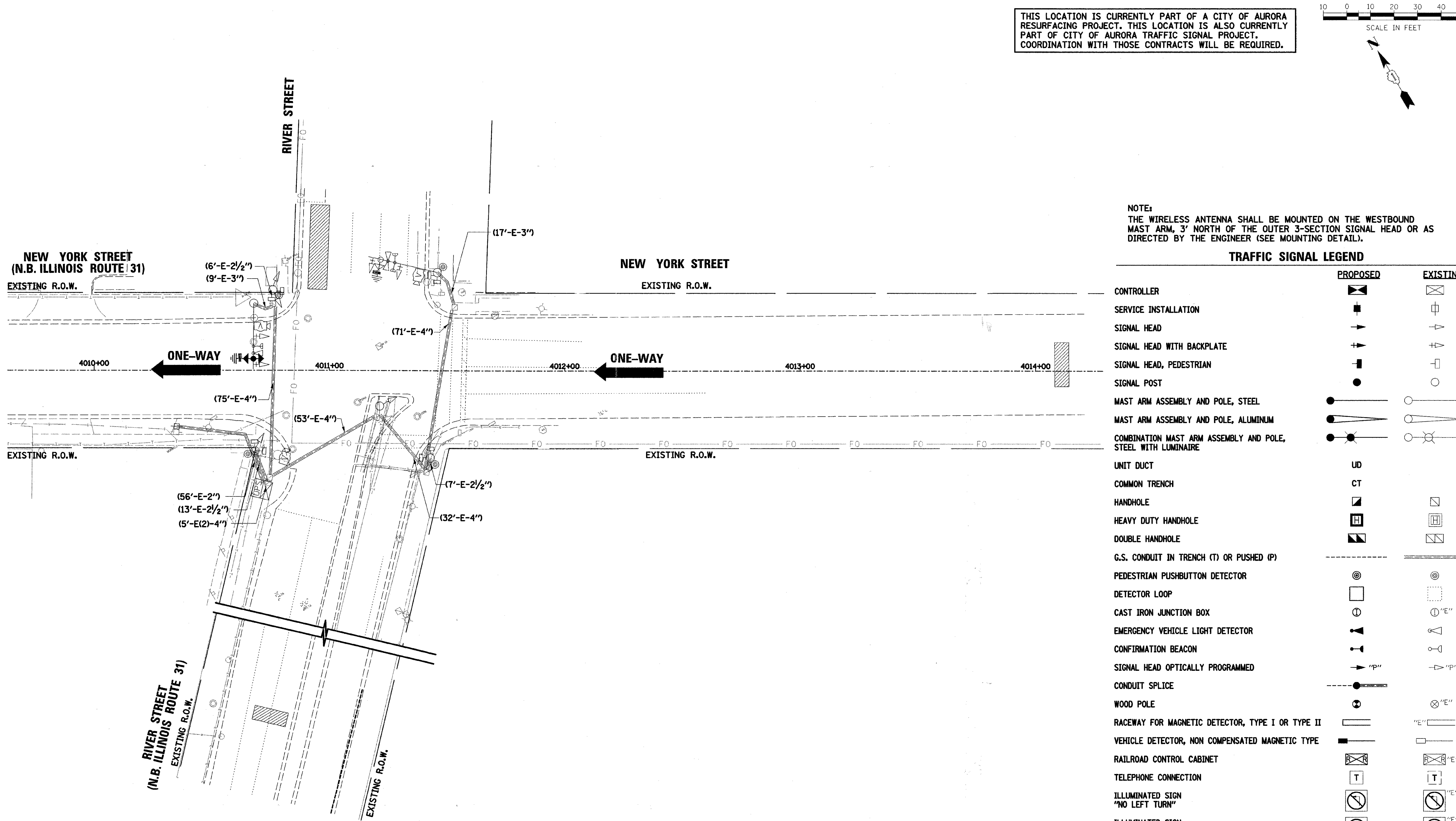
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK / NO.

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTAT'NS CH'KD / NOTE BOOK / NO.

THIS LOCATION IS CURRENTLY PART OF A CITY OF AURORA RESURFACING PROJECT. THIS LOCATION IS ALSO CURRENTLY PART OF CITY OF AURORA TRAFFIC SIGNAL PROJECT. COORDINATION WITH THOSE CONTRACTS WILL BE REQUIRED.



NOTE:
THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE WESTBOUND MAST ARM, 3' NORTH OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
PAN/TILT/ZOOM CAMERA		

PLAN	NOTE BOOK	NO.	SURVEYED	PLOTTED	ALIGNMENT CHECKED	R.T. OF WAY CHECKED	CADD FILE NAME	BY	DATE

PROFILE	NOTE BOOK	NO.	SURVEYED	PLOTTED	GRADES CHECKED	B.M. NOTED	STRUCTURE NOTATN'S CHK'D	BY	DATE

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	PLOT SCALE = $SCALE$	DRAWN -	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
RIVER STREET (IL ROUTE 31)

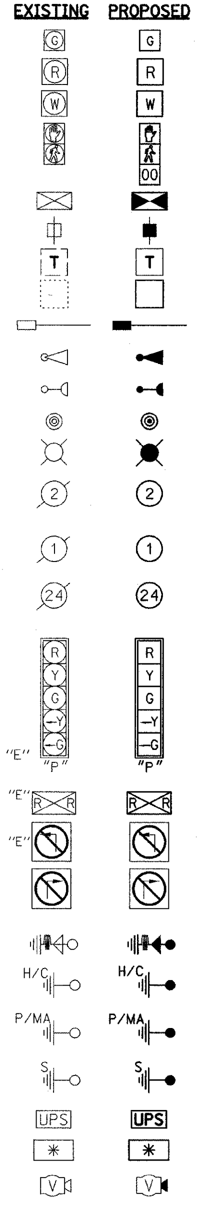
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	13
		CONTRACT NO. 63152		

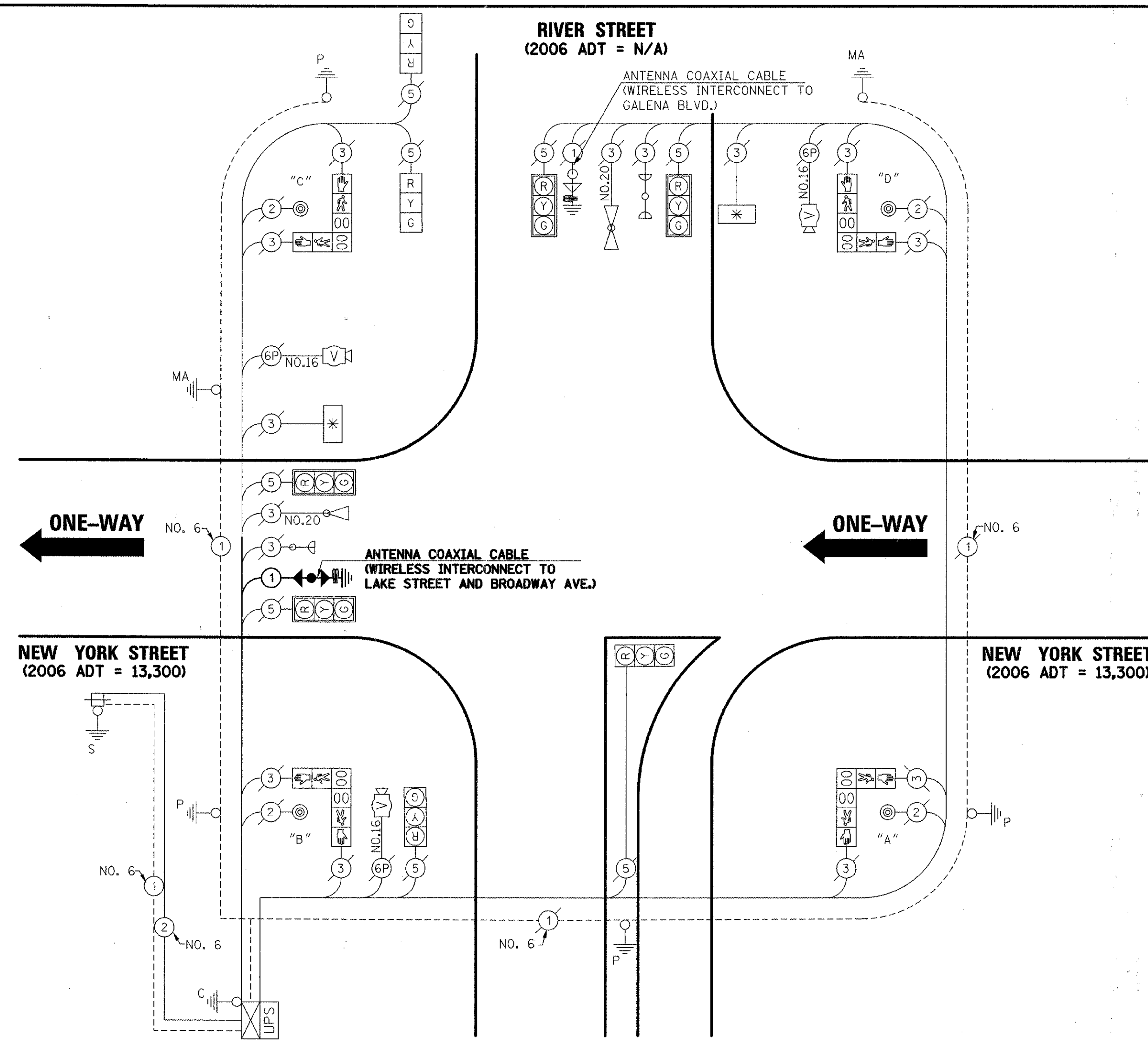
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

CABLE PLAN LEGEND

EXISTING / PROPOSED



- 8" (200mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- TELEPHONE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- MAGNETIC DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- LUMINAIRE
- DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- RAILROAD CONTROL CABINET
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- WIRELESS ANTENNA
- GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
- GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
- GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- UNINTERRUPTABLE POWER SUPPLY
- LED STREET NAME SIGN
- VIDEO DETECTION CAMERA
- PAN/TILT/ZOOM CAMERA



PUSHBUTTONS "A" AND "D" SHALL PLACE A CALL IN PHASES 2 AND 8

PUSHBUTTONS "B" AND "C" SHALL PLACE A CALL IN PHASES 6 AND 8

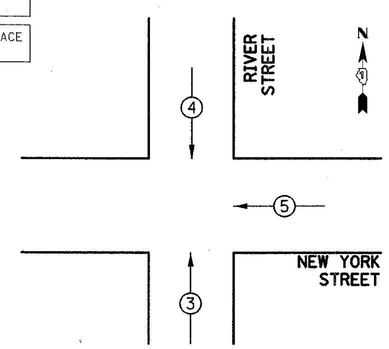
SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	RIVER STREET
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
WIRELESS ETHERNET RADIO	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	8		17	0.50	68
(YELLOW)	8		25	0.25	50
(GREEN)	8		15	0.25	30
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LED SIGN	2		60	0.50	60
VIDEO SYSTEM	1		15	1.00	15
				TOTAL =	548

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

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

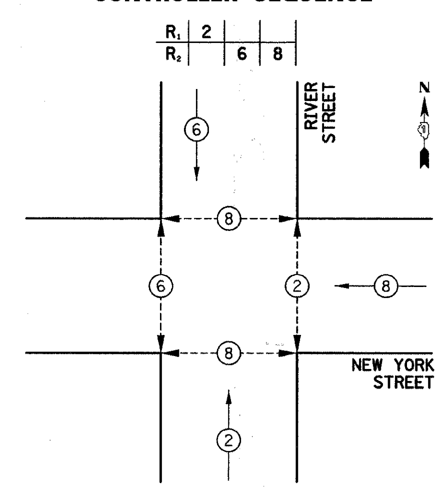


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

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

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\city of aurora\cad\trans\fin_dwg\690.04 sig02_river.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
RIVER STREET (IL ROUTE 31)

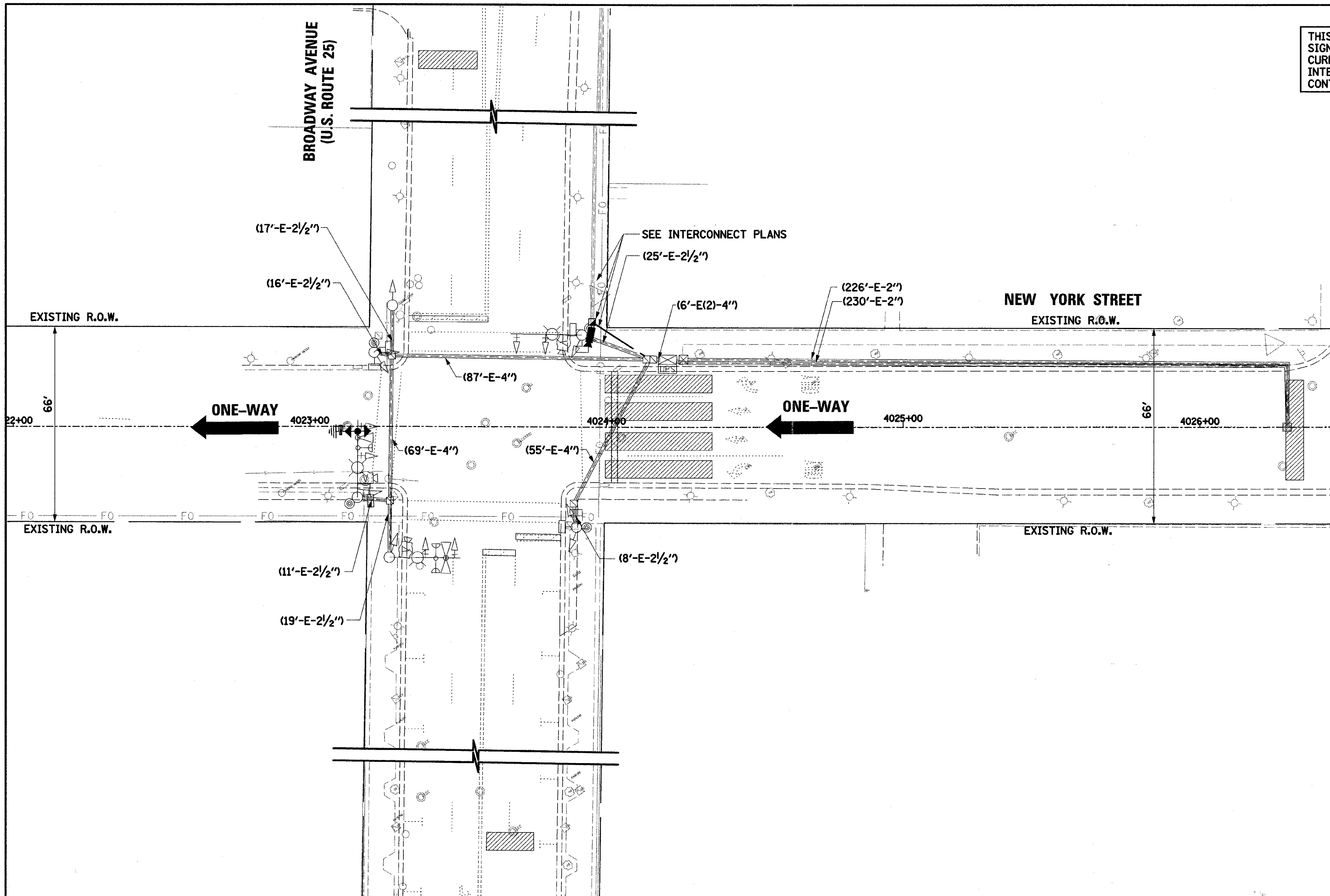
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	14
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/T. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO. / BY / DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD, NOTE BOOK, NO. / BY / DATE



THIS LOCATION IS CURRENTLY PART OF AN IDOT TRAFFIC SIGNAL MODERNIZATION PROJECT. THIS LOCATION IS ALSO CURRENTLY PART OF A CITY OF AURORA TRAFFIC SIGNAL INTERCONNECT PROJECT. COORDINATION WITH THOSE CONTRACTS WILL BE REQUIRED.

SCALE IN FEET: 10 0 10 20 30 40 50

NOTES:
1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE WESTBOUND MAST ARM, 3' SOUTH OF THE OUTER SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
2. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE NORTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
PAN/TILT/ZOOM CAMERA		

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic sig...\cad\trans\fin_dwg\690...broad.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN - BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
BROADWAY AVENUE (IL ROUTE 25)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	15
		CONTRACT NO. 63152		

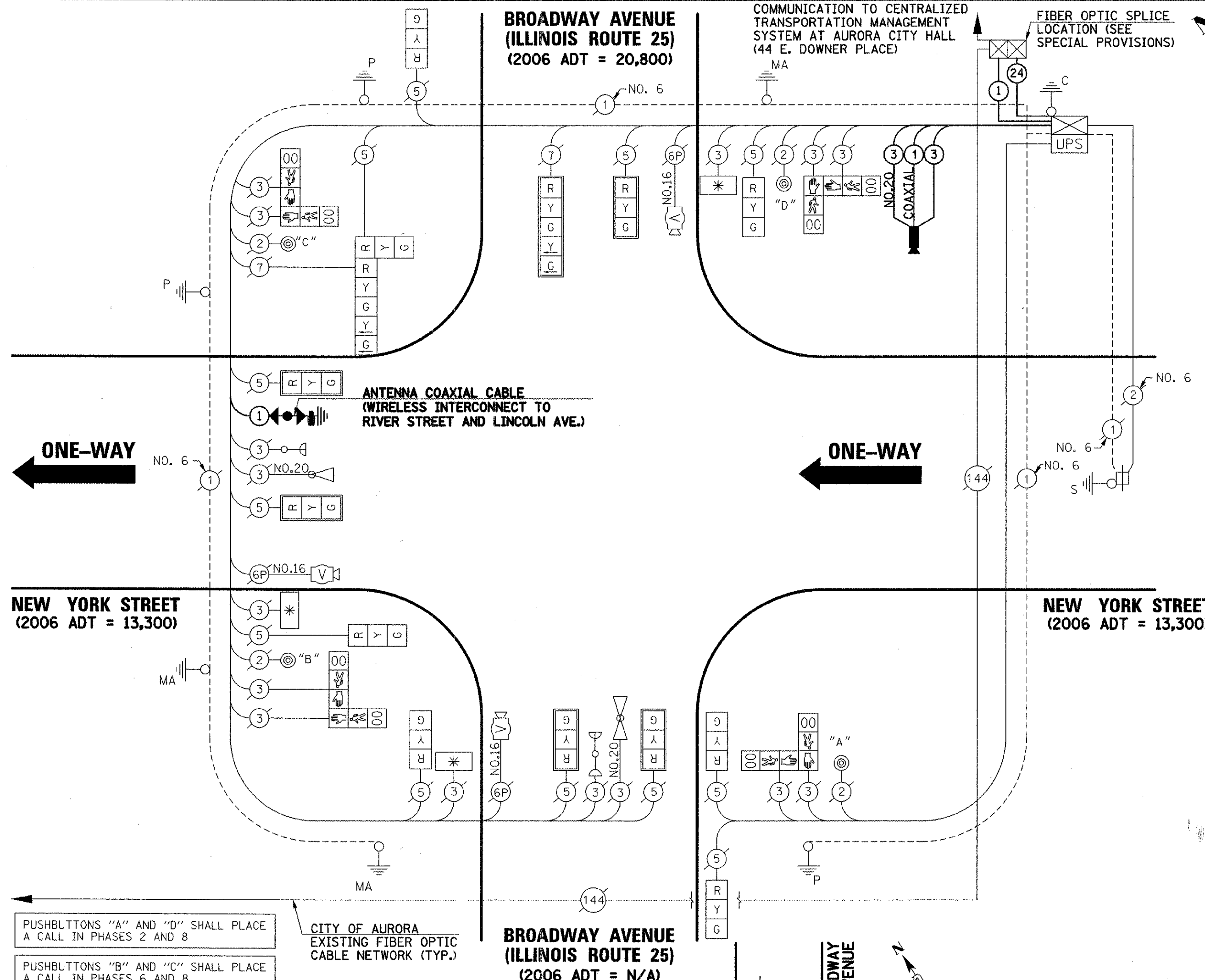
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN: NOTE BOOK NO. / SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME / BY / DATE

PROFILE: NOTE BOOK NO. / SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD / BY / DATE

CABLE PLAN LEGEND

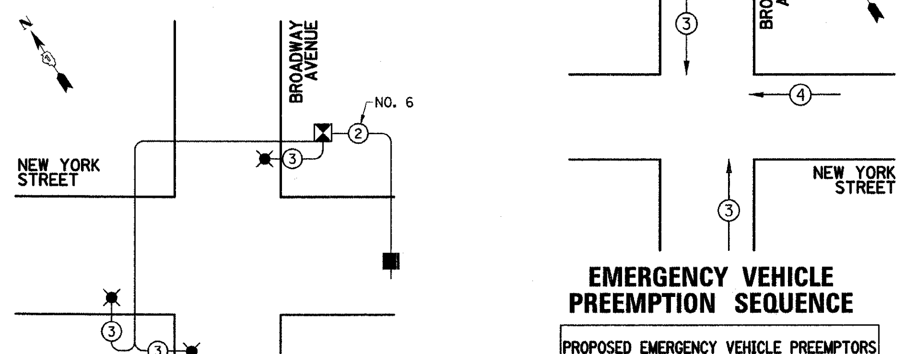
EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		LUMINAIRE
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
"E" "P"	"P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		WIRELESS ANTENNA
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UPS	UNINTERRUPTABLE POWER SUPPLY
		LED STREET NAME SIGN
		VIDEO DETECTION CAMERA
		PAN/TILT/ZOOM CAMERA



SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	BROADWAY AVENUE
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	78
VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT	FOOT	78
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	78
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1

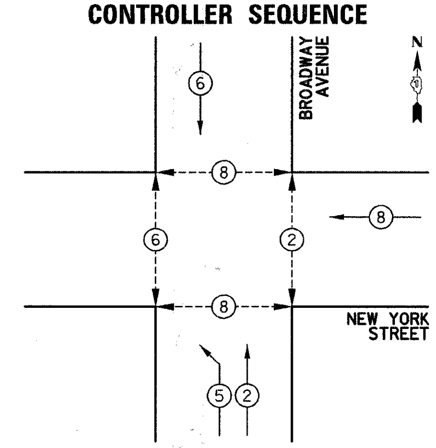
LIGHTING CABLE PLAN



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

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

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	87.5
(GREEN)	14		15	0.25	52.5
ARROW	4		12	0.10	4.8
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LED SIGN	3		60	0.50	90
VIDEO SYSTEM	1		15	1.00	15
LUMINAIRE	3		250	0.50	375
				TOTAL =	1068.8

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

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

PLAN	NOTE BOOK NO.	SURVEYED / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / CADD FILE NAME	BY	DATE

PROFILE	NOTE BOOK NO.	SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHK'D	BY	DATE

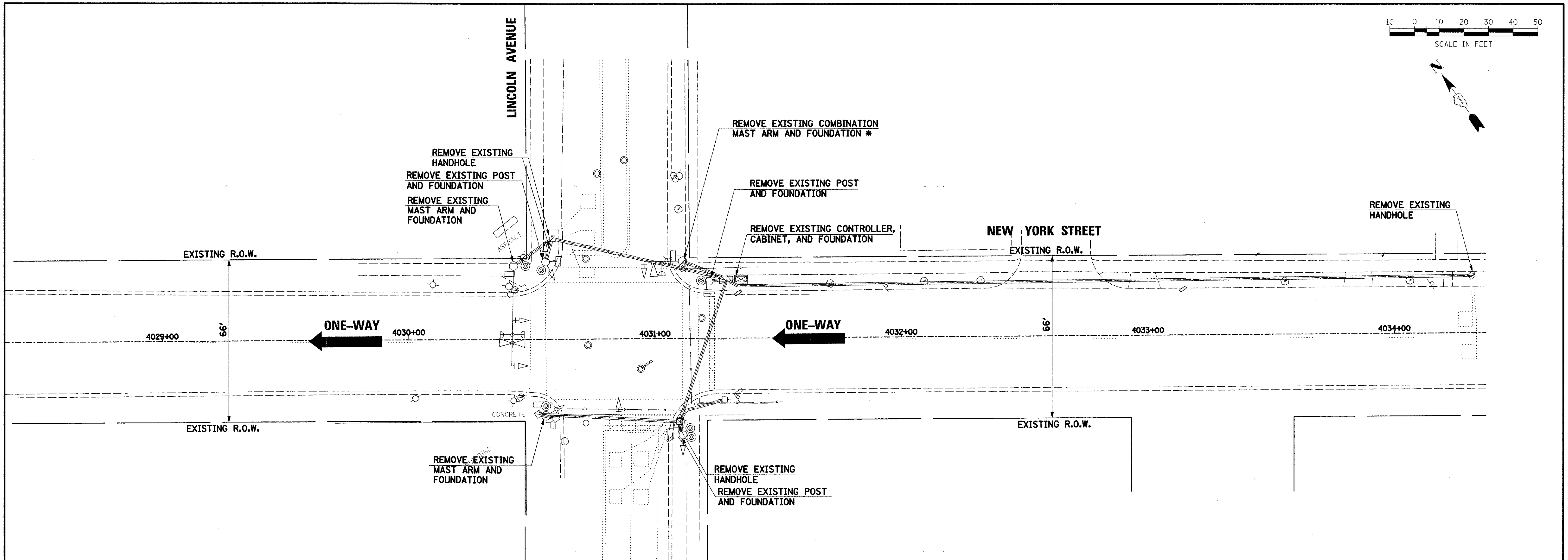
FILE NAME = yt\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\... \cad\trans\fin_dwg\690_broad.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN - BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
BROADWAY AVENUE (IL ROUTE 25)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	16
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



NOTES:

1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

* THE EXISTING WIRELESS EQUIPMENT SHALL BE RELOCATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

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

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

2	EACH	STEEL MAST ARM ASSEMBLY AND POLE
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
3	EACH	TRAFFIC SIGNAL POST
10	EACH	TRAFFIC SIGNAL HEADS
4	EACH	TRAFFIC SIGNAL BACKPLATES
8	EACH	PEDESTRIAN SIGNAL HEADS
7	EACH	PEDESTRIAN PUSH BUTTONS

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

1	EACH	TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
1	EACH	LUMINAIRE
3	EACH	CONFIRMATION BEACON
3	EACH	LIGHT DETECTOR

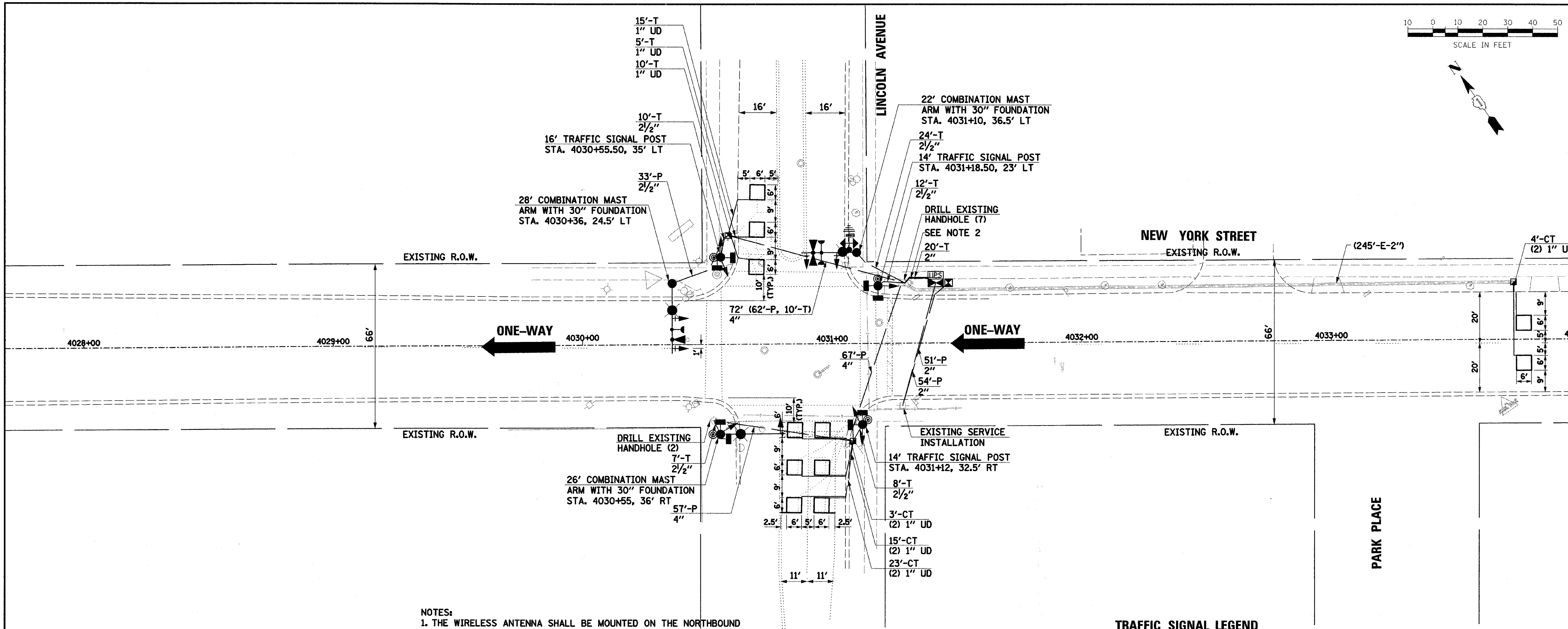
EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

PLAN — NOTE BOOK / NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK / NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — BY — DATE

FILE NAME =	USER NAME = _USER_	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED LINCOLN AVENUE	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\city of aurora\cad\trans\fin_dwg\690_lincoln.dgn	PLOT SCALE = $SCALE$	DRAWN - BAH	REVISED -				07-00267-00-TL	KANE	48	17
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 63152			
		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



NOTES:

1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE NORTHBOUND COMBINATION LUMINAIRE ARM OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
2. PROVIDE 14' OF CONDUIT IN COMMON TRENCH, 2 AT 4".
3. PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.
4. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

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.

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.

PROPOSED TRAFFIC SIGNS

R6-2-2430 (2 EACH) — ONE WAY →

LOCATIONS:
1. SOUTHBOUND MAST ARM, 3' WEST OF THE OUTER 3-SECTION SIGNAL HEAD.
2. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING NORTH.

R6-2-2430 (2 EACH) — ONE WAY ←

LOCATIONS:
1. NORTHBOUND MAST ARM, 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD.
2. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
PAN/TILT/ZOOM CAMERA		

	PROPOSED	EXISTING
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET	R	R "E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
WIRELESS ANTENNA		

FILE NAME = yr\jobs\smith\2007\070690 aura - traffic signals\070690.04 aura new york st. traffic s...\cad\trans\fin_dwg\69...lincoln.dgn	USER NAME = USER	DESIGNED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
LINCOLN AVENUE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	18
		CONTRACT NO. 63152		

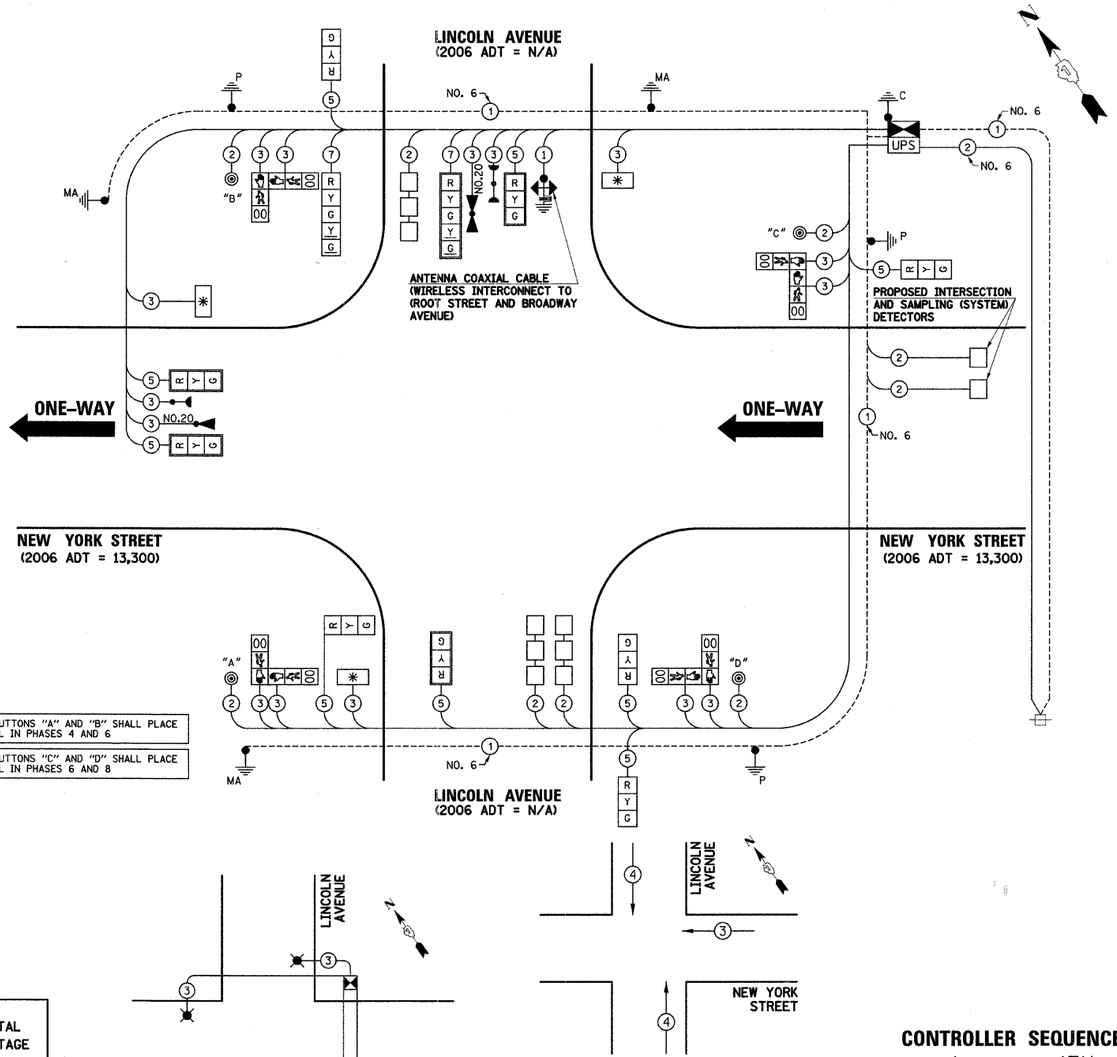
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

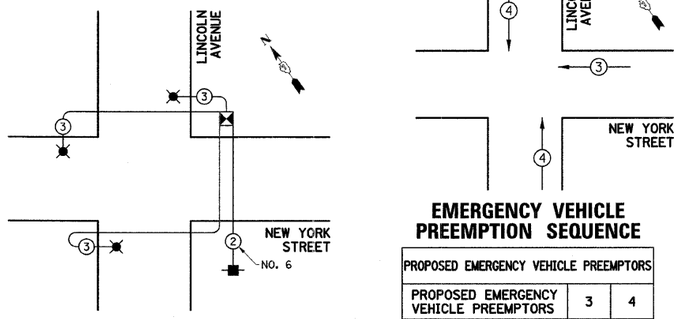
PLAN — NOTE BOOK / NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. CHECKED / B.M. NOTED / CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK / NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHECKED — BY — DATE

CABLE PLAN LEGEND

EXISTING	PROPOSED	
C	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		LUMINAIRE
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E" R R	R R	RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		WIRELESS ANTENNA
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UPS	UNINTERRUPTABLE POWER SUPPLY
		LED STREET NAME SIGN
V	V	VIDEO DETECTION CAMERA
		PAN/TILT/ZOOM CAMERA





LIGHTING CABLE PLAN

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	11		17	0.50	93.5
(YELLOW)	11		25	0.25	68.8
(GREEN)	11		15	0.25	41.3
ARROW	4		12	0.10	4.8
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LED SIGN	3		60	0.50	90
LUMINAIRE	3		250	0.50	375
				TOTAL =	998.4

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

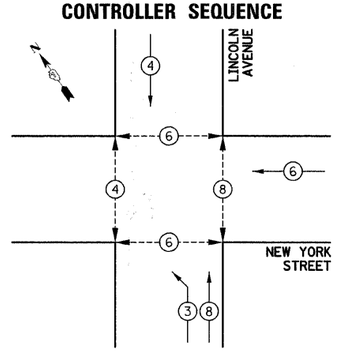
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
≤50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP (OL)
- * NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE

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.

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	LINCOLN AVENUE
SIGN PANEL - TYPE 1	SQ FT	20
ELECTRICAL SERVICE INSTALLATION	EACH	1
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	20
CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	61
CONDUIT IN TRENCH, 4" DIA.,GALVANIZED STEEL	FOOT	38
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	105
CONDUIT PUSHED, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	33
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	186
HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	501.5
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	180
LIGHTING CONTROLLER TYPE CB-RCS 60 AMP - 240 VOLT	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	482
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1776
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1312.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	231.5
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	878.5
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	140
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 22 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 26 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT. (SPECIAL)	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	5
INDUCTIVE LOOP DETECTOR	EACH	5
DETECTOR LOOP, TYPE I	FOOT	387.3
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4167.5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	3
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
PAINT TRAFFIC SIGNAL POST	EACH	3
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	562.5
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	287.5
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	3
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	2
LUMINAIRE SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT (SPECIAL)	EACH	3

PLAN: DATE | BY | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R.T. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO.

PROFILE: DATE | BY | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTATIONS CHKD | NOTE BOOK | NO.

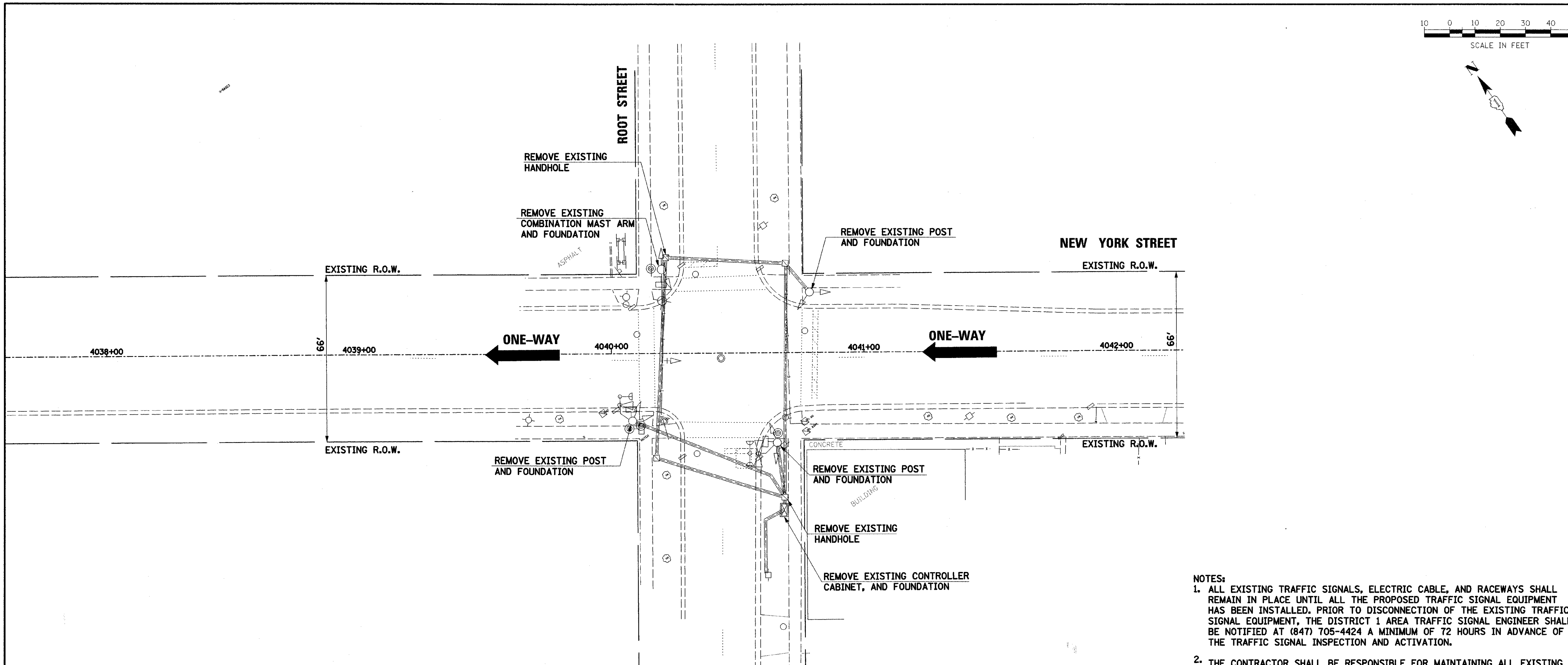
FILE NAME = y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signal.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = *SCALE*	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
LINCOLN AVENUE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	19
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

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

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

1	EACH	COMBINATION MAST ARM ASSEMBLY AND POLE
3	EACH	TRAFFIC SIGNAL POST
9	EACH	TRAFFIC SIGNAL HEADS
4	EACH	PEDESTRIAN SIGNAL HEADS
4	EACH	PEDESTRIAN PUSHBUTTONS
1	EACH	TRAFFIC SIGNAL BACKPLATES

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

1	EACH	TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
1	EACH	LUMINAIRE
3	EACH	LIGHT DETECTOR
3	EACH	CONFIRMATION BEACON

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\city of aurora\cad\trans\fin_dwg\690_rem_sig_root.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED
ROOT STREET

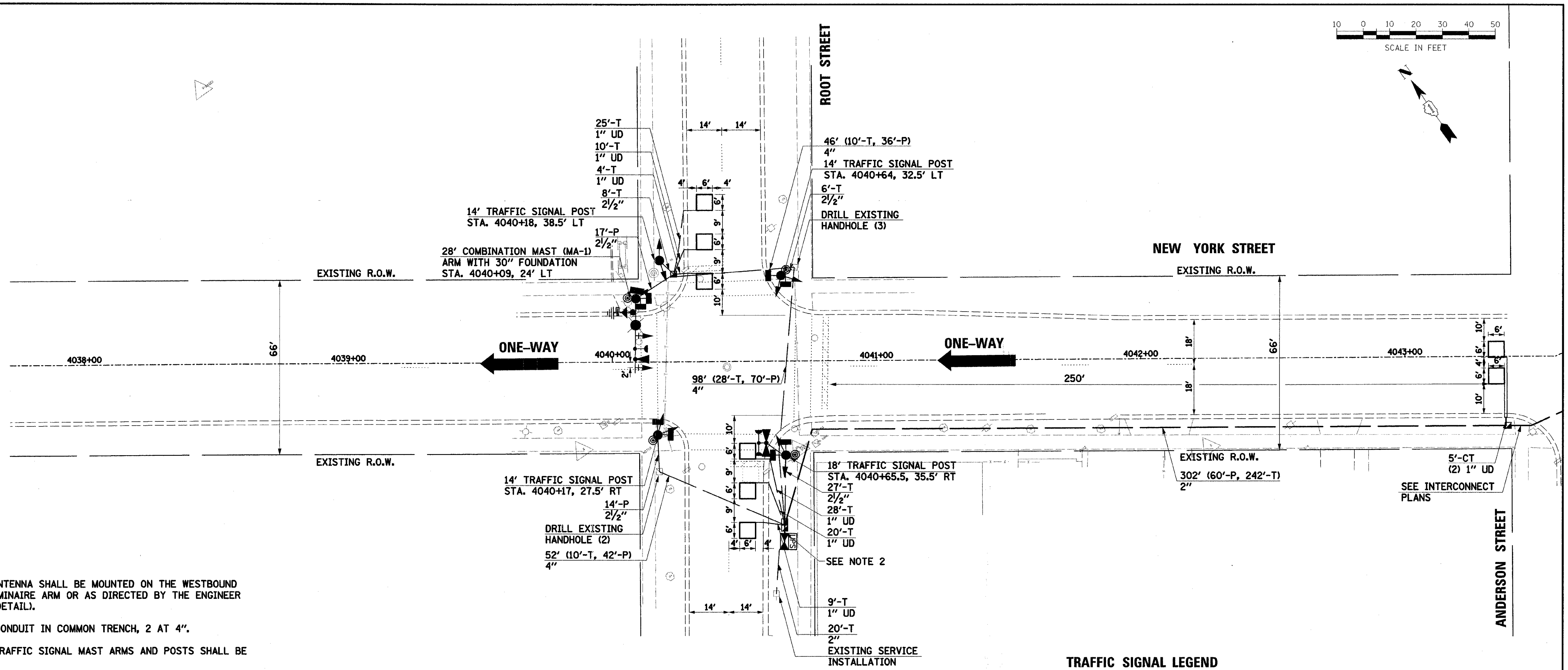
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	20
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN	
NOTE BOOK NO.	SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME
BY	DATE

PROFILE	
NOTE BOOK NO.	SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTAT'NS CHK'D
BY	DATE



NOTES:
1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE WESTBOUND COMBINATION LUMINAIRE ARM OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
2. PROVIDE 7' OF CONDUIT IN COMMON TRENCH, 2 AT 4".
3. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS SHALL BE PAINTED BLACK.
4. THERE IS NO LIGHTING CONTROLLER PROPOSED FOR THIS INTERSECTION. THE CIRCUIT BREAKER AND THE DISCONNECT SHALL BE INSTALLED WITHIN THE TRAFFIC SIGNAL CABINET. THE PHOTOCELL SHALL BE MOUNTED ON THE TRAFFIC SIGNAL CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE TRAFFIC SIGNAL CABINET.
5. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.
6. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE NORTHWEST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.

PROPOSED TRAFFIC SIGNS

R6-2-2430 (1 EACH) — ONE WAY →
LOCATIONS:
1. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING NORTH.

R6-2-2430 (1 EACH) — ONE WAY ←
LOCATIONS:
1. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.

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.

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.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
PAN/TILT/ZOOM CAMERA		

	PROPOSED	EXISTING
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		
WIRELESS ANTENNA		

FILE NAME = gt\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic sig\city of aurora\cad\trans\fin.dwg\6904_root.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN - BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
ROOT STREET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	21
		CONTRACT NO. 63152		

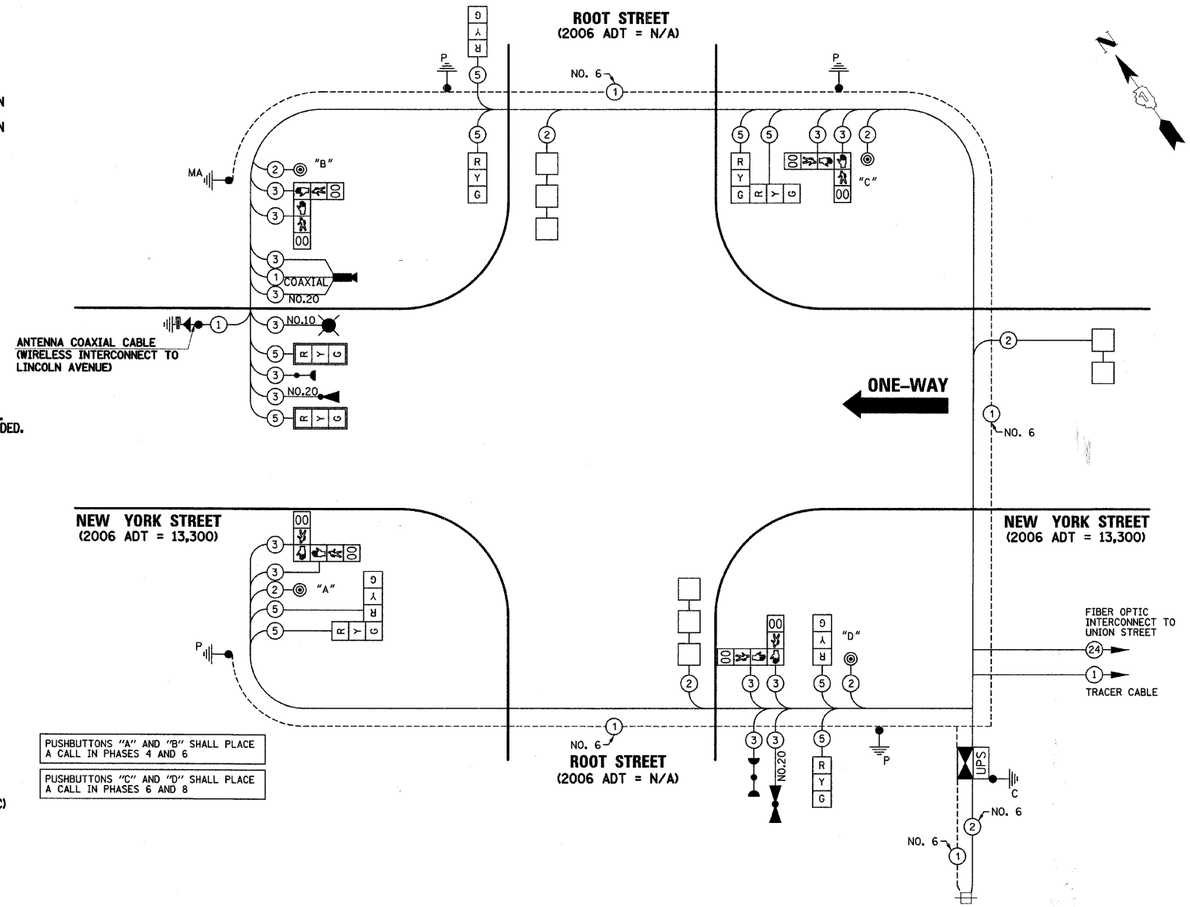
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.T. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK NO. — BY — DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHK'D, NOTE BOOK NO. — BY — DATE

CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) PEDESTRIAN SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		LUMINAIRE
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"	"P"	
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		WIRELESS ANTENNA
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UPS	UNINTERRUPTABLE POWER SUPPLY
		LED STREET NAME SIGN
V	V	VIDEO DETECTION CAMERA
		PAN/TILT/ZOOM CAMERA



PUSHBUTTONS "A" AND "B" SHALL PLACE A CALL IN PHASES 4 AND 6

PUSHBUTTONS "C" AND "D" SHALL PLACE A CALL IN PHASES 6 AND 8

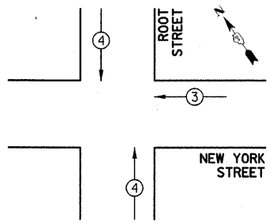
SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	ROOT STREET
SIGN PANEL - TYPE 1	SQ FT	34
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	282
CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	41
CONDUIT IN TRENCH, 4" DIA.,GALVANIZED STEEL	FOOT	62
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	60
CONDUIT PUSHED, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	31
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	148
HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	235
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	459
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	512
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1633
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1542
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	534.5
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	37.5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	3
DETECTOR LOOP, TYPE I	FOOT	244.9
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2437
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	2
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FEET	EACH	1
WIRELESS ETHERNET RADIO	EACH	1
PAINT TRAFFIC SIGNAL POST	EACH	4
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	415
VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT	FOOT	236
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	553
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	2
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	62.5
(GREEN)	10		15	0.25	37.5
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LUMINAIRE	1		250	0.50	125
				TOTAL =	635

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

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

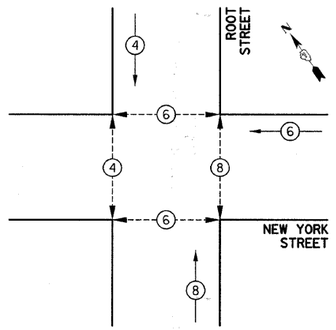


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

FOUNDATION (DEPTH)		FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST		4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER		4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER		4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH			CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50'	36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50'	36" (900mm)	15 (4.6)				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

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

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.

PLAN — SURVEYED, PLOTTED, DRAWING CHECKED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, NOTE BOOK, C:ADD FILE NAME, NO. ____, BY, DATE

PROFILE — SURVEYED, PLOTTED, DRAWING CHECKED, B.M. NOTED, STRUCTURE NO'S/TYPES CHKD, NOTE BOOK, NO. ____, BY, DATE

FILE NAME = y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signal design of plans\cad\trans\fin.dwg\690root.dgn	USER NAME = _USER_	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABLE PLAN AND PHASE DESIGNATION DIAGRAM ROOT STREET
	PLOT SCALE = $SCALE$	DRAWN BAH	REVISED -		
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -		
		DATE -	REVISED -		

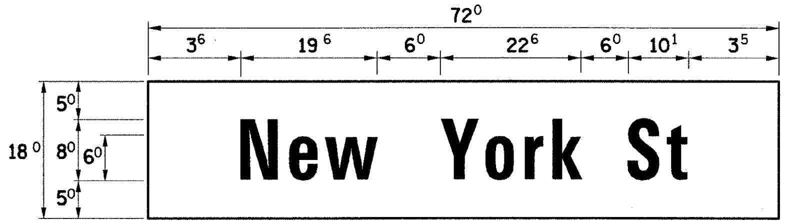
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	22
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN | NOTE BOOK | NO. | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R/L OF WAY CHECKED | CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK | NO. | SURVEYED | PLOTTED | GRADES CHECKED | B.M. NOTED | STRUCTURE NOTAT'NS CH'KD | BY | DATE

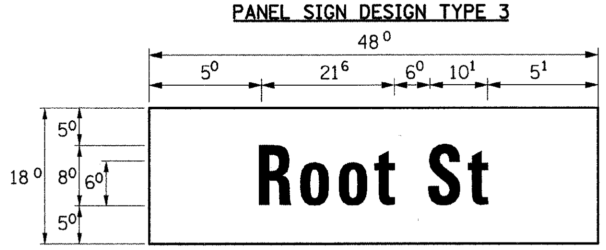
PANEL SIGN DESIGN TYPE 3



NOTE:
THESE SIGNS SHALL BE MOUNTED ON THE FRONT AND BACK OF THE MAST ARM POLE PER THE SINGLE ARM DETAIL AT RIGHT OR AS DIRECTED BY THE ENGINEER.

MA-1
9.00 Sq. Ft each
2 Required
Design Series D

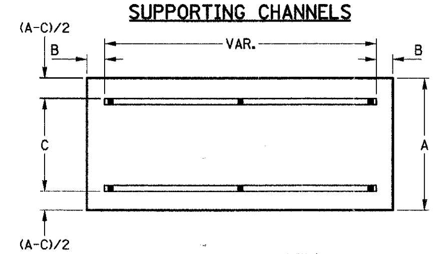
PANEL SIGN DESIGN TYPE 3



NOTE:
THIS SIGN SHALL BE MOUNTED ON THE MAST ARM IN ACCORDANCE WITH STANDARD 720016 OR AS DIRECTED BY THE ENGINEER.

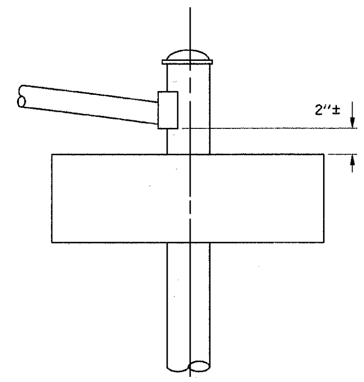
MA-1
6.00 Sq. Ft each
1 Required
Design Series D

SUPPORTING CHANNELS

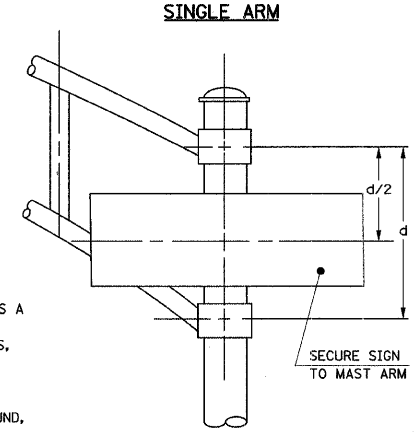


A	B	C
18″	2″	12″
30″	2″	22″

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5



SINGLE ARM



DUAL ARM

EXAMPLE, 2③— DENOTES 3/8″

Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER / SERIES	a c d e g o q C	a c d e g o q D	b h i k l m n p r u C	b h i k l m n p r u D	f w C	f w D	j C	j D	s t C	s t D	v y C	v y D	x C	x D	z C	z D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

FIRST LETTER / SERIES	a c d e g o q C	a c d e g o q D	b h i k l m n p r u C	b h i k l m n p r u D	f w C	f w D	j C	j D	s t C	s t D	v y C	v y D	x C	x D	z C	z D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER / SERIES	0 C	0 D	1 C	1 D	2 C	2 D	3 C	3 D	4 C	4 D	5 C	5 D	6 C	6 D	7 C	7 D	8 C	8 D	9 C	9 D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2′-6″ BY 6′-0″ SIGN PANEL 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.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6′-0″
4. ALL BORDERS SHALL BE 3/4″ WIDE AND CORNER RADIUS SHALL BE 2 1/4″.
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION
  SCHAUMBURG, IL.
- AMERICAN FABRICATION CO.
  CHICAGO HEIGHTS, IL.
- TUCKER COMPANY, INC.
  WAUWATOSA, WI.
- WESTERN TRAFFIC CONTROL, INC.
  CICERO, IL.

PARTS LISTING:

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

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

FILE NAME =	USER NAME = _USER_	DESIGNED -	REVISED -
y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\city of aurora\cad\trans\fin_dwg\690_signs_root.dgn		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

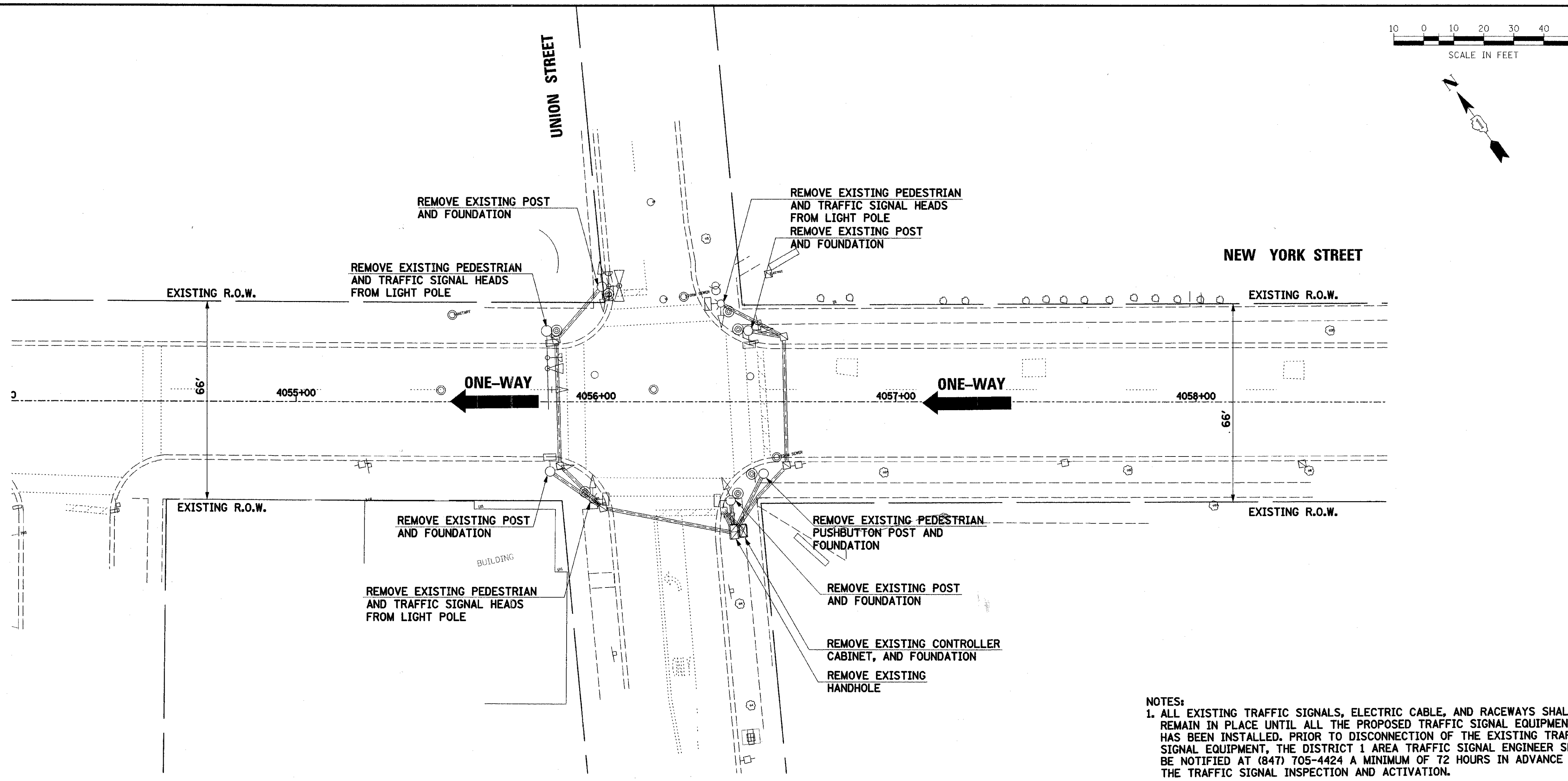
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED
STREET NAME SIGNS
ROOT STREET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	23
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



NOTES:

1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

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

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

1	EACH	MAST ARM ASSEMBLY AND POLE
1	EACH	PEDESTRIAN PUSHBUTTON POST
4	EACH	TRAFFIC SIGNAL POST
9	EACH	TRAFFIC SIGNAL HEADS
7	EACH	PEDESTRIAN PUSHBUTTONS
8	EACH	PEDESTRIAN SIGNAL HEADS
1	EACH	TRAFFIC SIGNAL BACKPLATES

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

1	EACH	TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
3	EACH	LIGHT DETECTOR
3	EACH	CONFIRMATION BEACON

EXISTING EQUIPMENT TO BE REMOVED LEGEND

Symbol	Description
	EXISTING SIGNAL HEAD TO BE REMOVED
"E"	EXISTING SERVICE INSTALLATION TO BE REMOVED
	EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
	EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
"E"	EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
"E"	EXISTING HANDHOLE TO BE REMOVED
	EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
	EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
	EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
	CONFIRMATION BEACON TO BE REMOVED
"E"	EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
	EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\...	USER NAME = .USER.	DESIGNED -	REVISED -
		DRAWN - BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

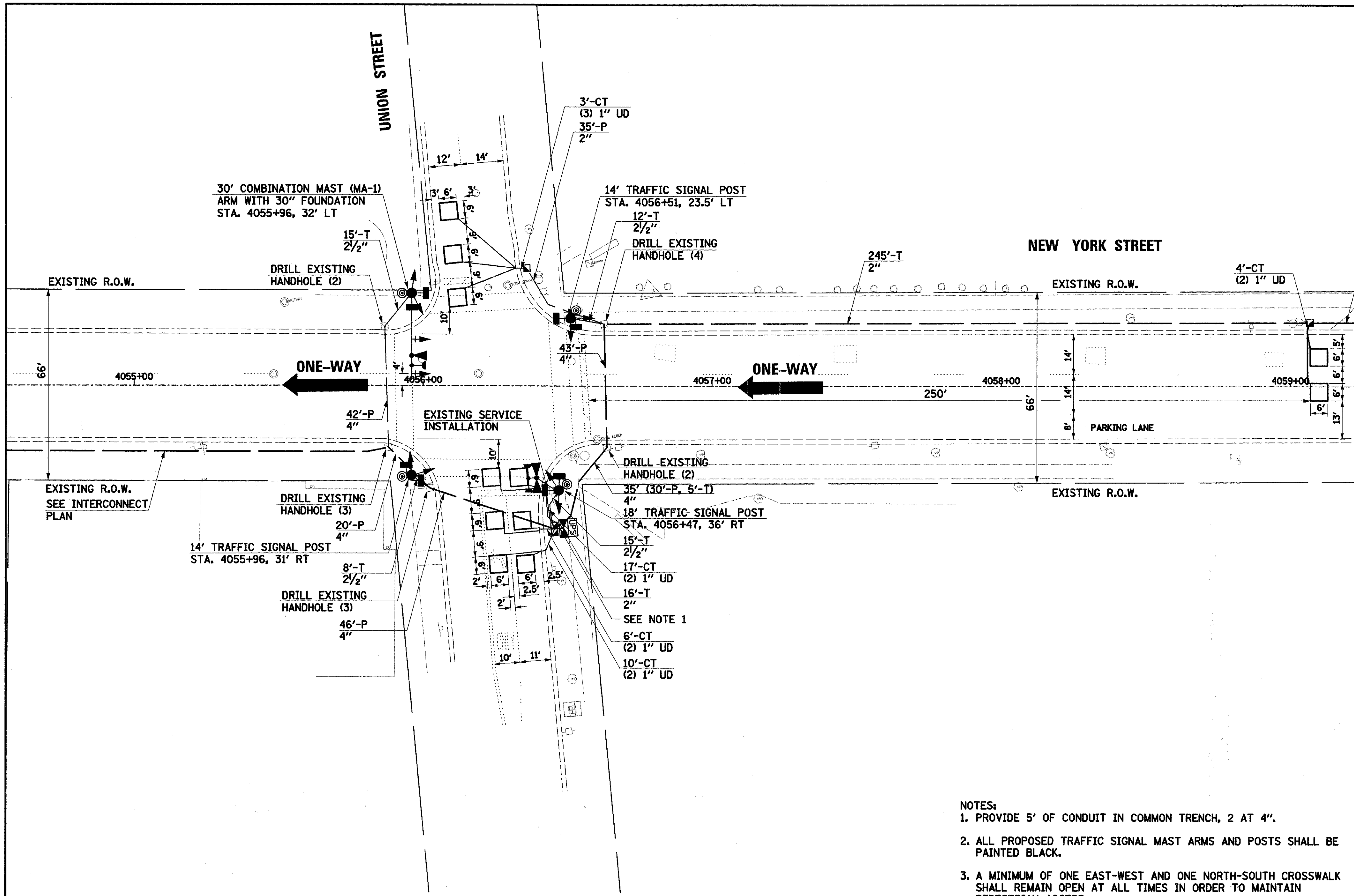
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

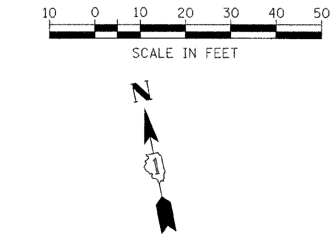
EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED
UNION STREET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	24
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT





TRAFFIC SIGNAL LEGEND

PROPOSED / EXISTING

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT — UD
- COMMON TRENCH — CT
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX — "E"
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED — "P" / "P"
- CONDUIT SPLICE
- WOOD POLE — "E"
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II — "E"
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET — "E"
- TELEPHONE CONNECTION — T / T
- ILLUMINATED SIGN "NO LEFT TURN" — "E"
- ILLUMINATED SIGN "NO RIGHT TURN" — "E"
- UNINTERRUPTABLE POWER SUPPLY — UPS
- WIRELESS ANTENNA
- VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PAN/TILT/ZOOM CAMERA

NOTES:
1. PROVIDE 5' OF CONDUIT IN COMMON TRENCH, 2 AT 4".
2. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS SHALL BE PAINTED BLACK.
3. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

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.

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.

PROPOSED TRAFFIC SIGNS

R6-2-2430 (1 EACH) — ONE WAY →

LOCATIONS:
1. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING NORTH.

R6-2-2430 (1 EACH) — ONE WAY ←

LOCATIONS:
1. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.

PLAN — NOTE BOOK NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. CHECKED / CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — BY — DATE

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	PLOT SCALE = $SCALE$	DRAWN BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

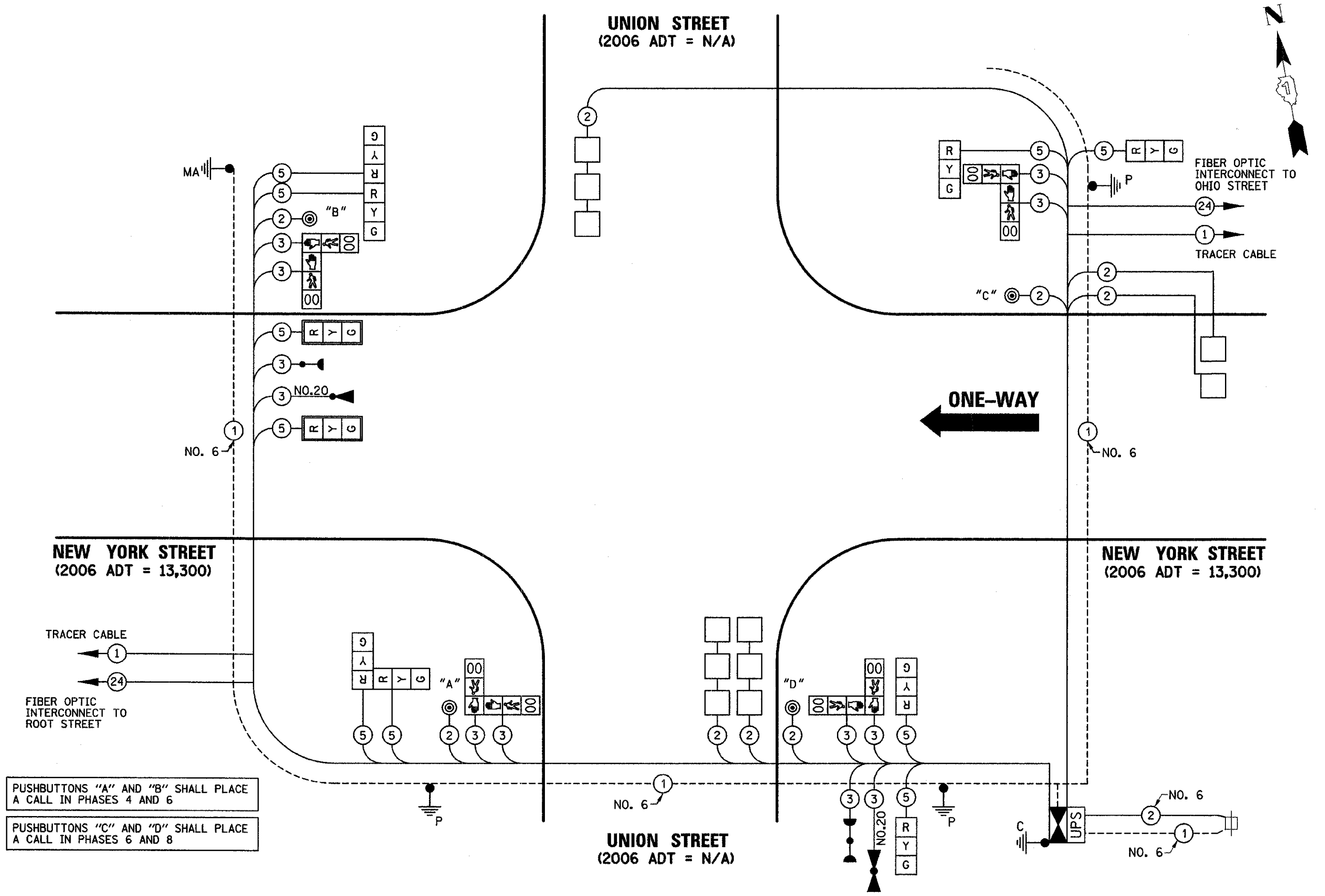
TRAFFIC SIGNAL MODIFICATION PLAN
UNION STREET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	25
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

CABLE PLAN LEGEND

EXISTING / PROPOSED	
G	8" (200mm) TRAFFIC SIGNAL SECTION
R	12" (300mm) TRAFFIC SIGNAL SECTION
W	12" (300mm) PEDESTRIAN SIGNAL SECTION
00	12" (300mm) PEDESTRIAN SIGNAL SECTION
	CONTROLLER CABINET
	SERVICE INSTALLATION
T	TELEPHONE INSTALLATION
	VEHICLE DETECTOR, INDUCTION LOOP
	MAGNETIC DETECTOR
	EMERGENCY VEHICLE LIGHT DETECTOR
	CONFIRMATION BEACON
	PUSHBUTTON DETECTOR
	LUMINAIRE
2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
"E" "P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"	RAILROAD CONTROL CABINET
"E"	ILLUMINATED SIGN "NO LEFT TURN"
	ILLUMINATED SIGN "NO RIGHT TURN"
	WIRELESS ANTENNA
H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UNINTERRUPTABLE POWER SUPPLY
*	LED STREET NAME SIGN
V	VIDEO DETECTION CAMERA
	PAN/TILT/ZOOM CAMERA

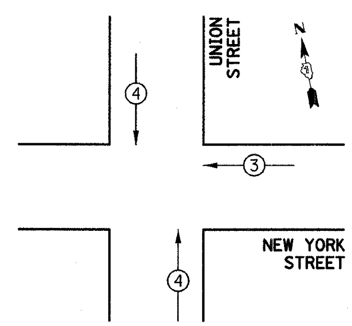


PUSHBUTTONS "A" AND "B" SHALL PLACE A CALL IN PHASES 4 AND 6

PUSHBUTTONS "C" AND "D" SHALL PLACE A CALL IN PHASES 6 AND 8

SCHEDULE OF QUANTITIES

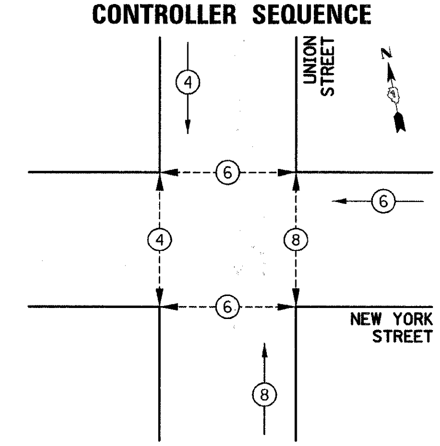
PAY ITEM DESCRIPTION	UNIT	UNION STREET
SIGN PANEL - TYPE 1	SQ FT	34
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	261
CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	50
CONDUIT IN TRENCH, 4" DIA.,GALVANIZED STEEL	FOOT	15
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	35
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	181
HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	361
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	441
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1209.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1355
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	922.5
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	33.5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5
DRILL EXISTING HANDHOLE	EACH	14
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	5
DETECTOR LOOP, TYPE I	FOOT	402.7
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3695.5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
PAINT NEW MAST ARM POLE, UNDER 40 FEET	EACH	1
PAINT TRAFFIC SIGNAL POST	EACH	3
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	422
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	271.5
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	5



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

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

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.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	62.5
(GREEN)	10		15	0.25	37.5
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
				TOTAL =	510

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

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

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	PLOT SCALE = $SCALE$	DRAWN BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM UNION STREET

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

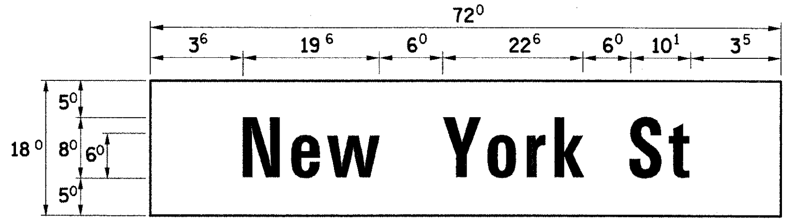
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	26
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN	PROFILE
NOTE BOOK NO. / SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. CHECKED / CADD FILE NAME / BY / DATE	NOTE BOOK NO. / SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD / BY / DATE

EXAMPLE, 2③ — DENOTES 3/8"

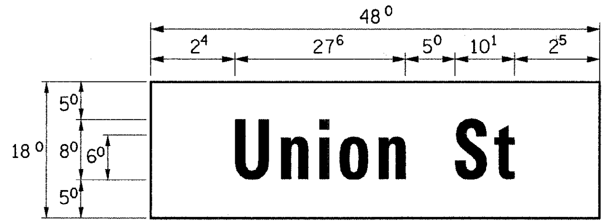
PANEL SIGN DESIGN TYPE 3



NOTE:
THESE SIGNS SHALL BE MOUNTED ON THE FRONT AND BACK OF THE MAST ARM POLE PER THE SINGLE ARM DETAIL AT RIGHT OR AS DIRECTED BY THE ENGINEER.

MA-1
9.00 Sq. Ft each
2 Required
Design Series D

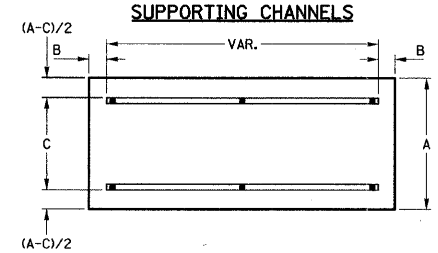
PANEL SIGN DESIGN TYPE 3



NOTE:
THIS SIGN SHALL BE MOUNTED ON THE MAST ARM IN ACCORDANCE WITH STANDARD 720016 OR AS DIRECTED BY THE ENGINEER.

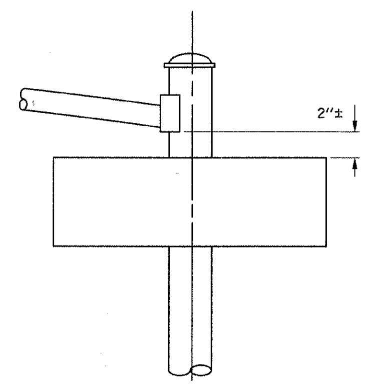
MA-1
6.00 Sq. Ft each
1 Required
Design Series D

SUPPORTING CHANNELS

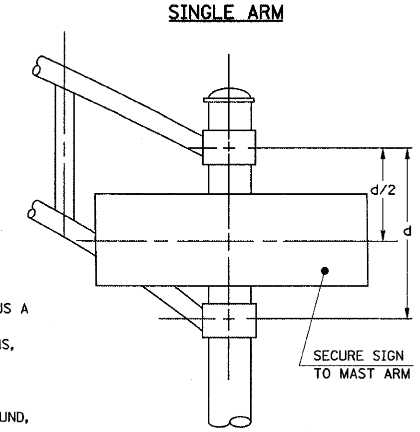


A	B	C
18"	2"	12"
30"	2"	22"

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5



SINGLE ARM



DUAL ARM

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2'-6" BY 6'-0" SIGN PANEL 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.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0"
4. ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2 1/4".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION
  SCHAUMBURG, IL.
- AMERICAN FABRICATION CO.
  CHICAGO HEIGHTS, IL.
- TUCKER COMPANY, INC.
  WAUWATOSA, WI.
- WESTERN TRAFFIC CONTROL, INC.
  CICERO, IL.

PARTS LISTING:

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

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

Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND LETTER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	D	8 INCH UPPER CASE LETTERS SERIES C	D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	D	8 INCH SERIES C	D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

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PROFILE: DATE / BY / SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHECKED / NOTE BOOK / NO.

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\city of aurora\cad\trans\fin_dwg\690_REVISED_union.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

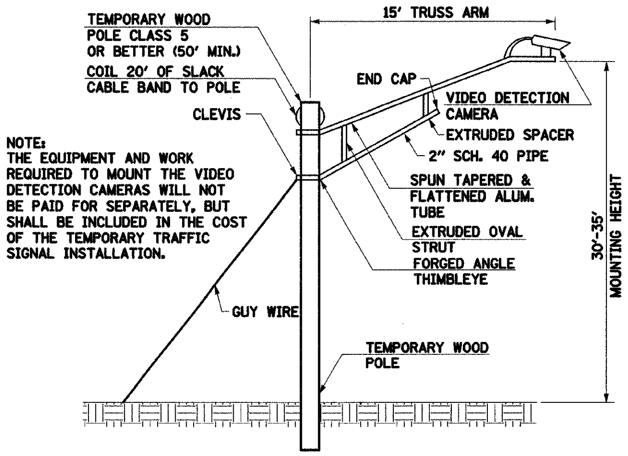
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED
STREET NAME SIGNS
UNION STREET

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

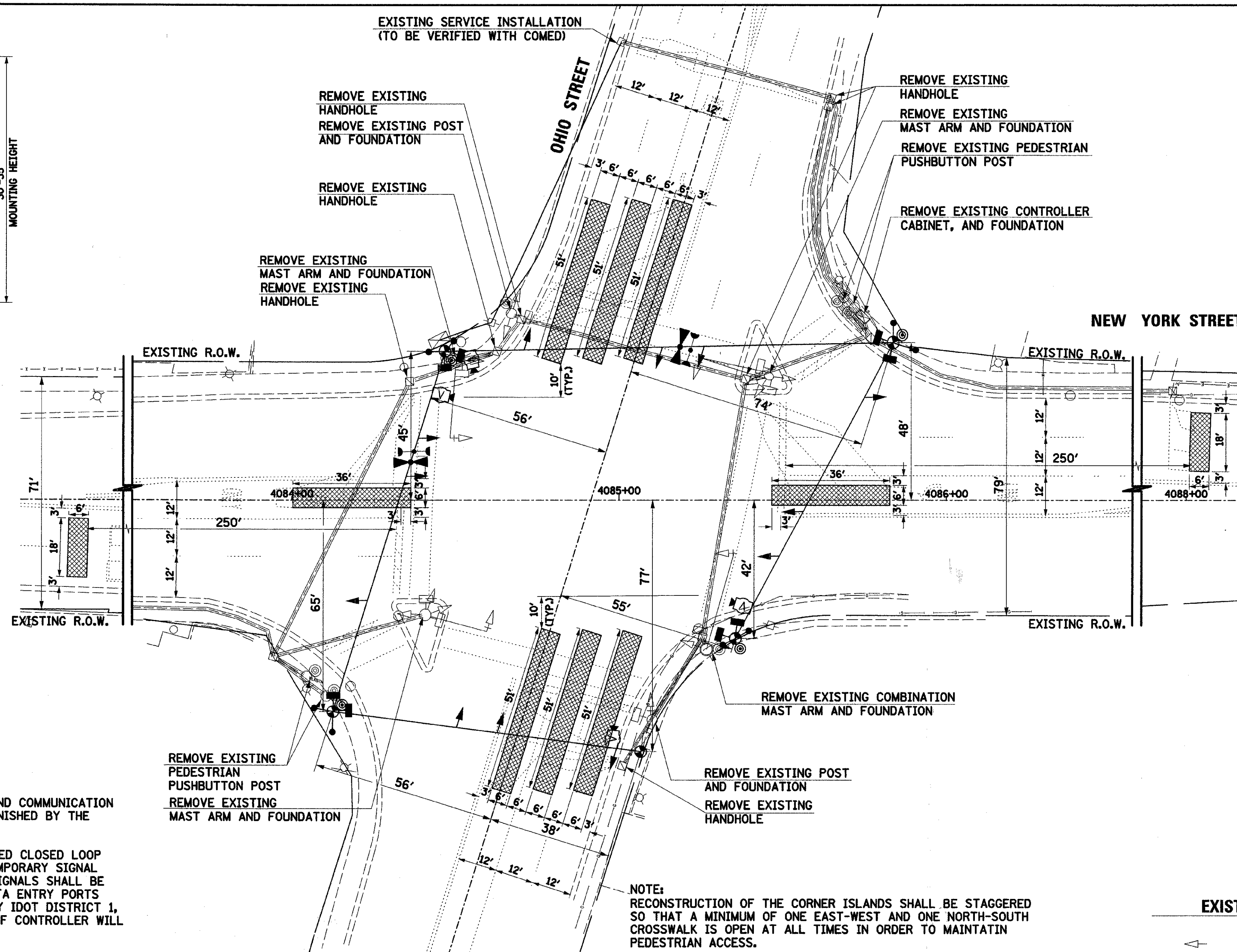
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	27
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



NOTE:
THE EQUIPMENT AND WORK REQUIRED TO MOUNT THE VIDEO DETECTION CAMERAS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.

TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE
- HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- UNINTERRUPTIBLE POWER SUPPLY

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. THE WOOD POLES FOR THE TEMPORARY TRAFFIC SIGNALS SHALL BE LONG ENOUGH TO ACCOMMODATE THE LUMINAIRE MOUNTING HEIGHT AS SPECIFIED ON THE TEMPORARY LIGHTING PLANS.
8. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.

NOTE:
RECONSTRUCTION OF THE CORNER ISLANDS SHALL BE STAGGERED SO THAT A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK IS OPEN AT ALL TIMES IN ORDER TO MAINTATIN PEDESTRIAN ACCESS.

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

1	EACH	COMBINATION MAST ARM ASSEMBLY AND POLE
3	EACH	MAST ARM ASSEMBLY AND POLE
2	EACH	TRAFFIC SIGNAL POST
16	EACH	TRAFFIC SIGNAL HEADS
8	EACH	PEDESTRIAN PUSHBUTTONS
8	EACH	PEDESTRIAN SIGNAL HEADS
4	EACH	PEDESTRIAN PUSH BUTTON POSTS
4	EACH	TRAFFIC SIGNAL BACKPLATES
1	EACH	SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

1	EACH	TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
4	EACH	LIGHT DETECTOR
4	EACH	CONFIRMATION BEACON

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

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USER NAME = _USER_ | PLOT SCALE = $SCALE$ | PLOT DATE = 4/15/2009
DESIGNED - | DRAWN BAH | CHECKED APS | DATE -
REVISED - | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

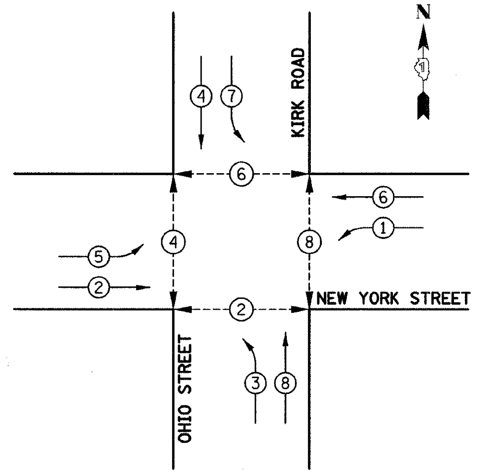
TEMPORARY TRAFFIC SIGNAL INSTALLATION AND EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED OHIO STREET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	28
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE LEGEND

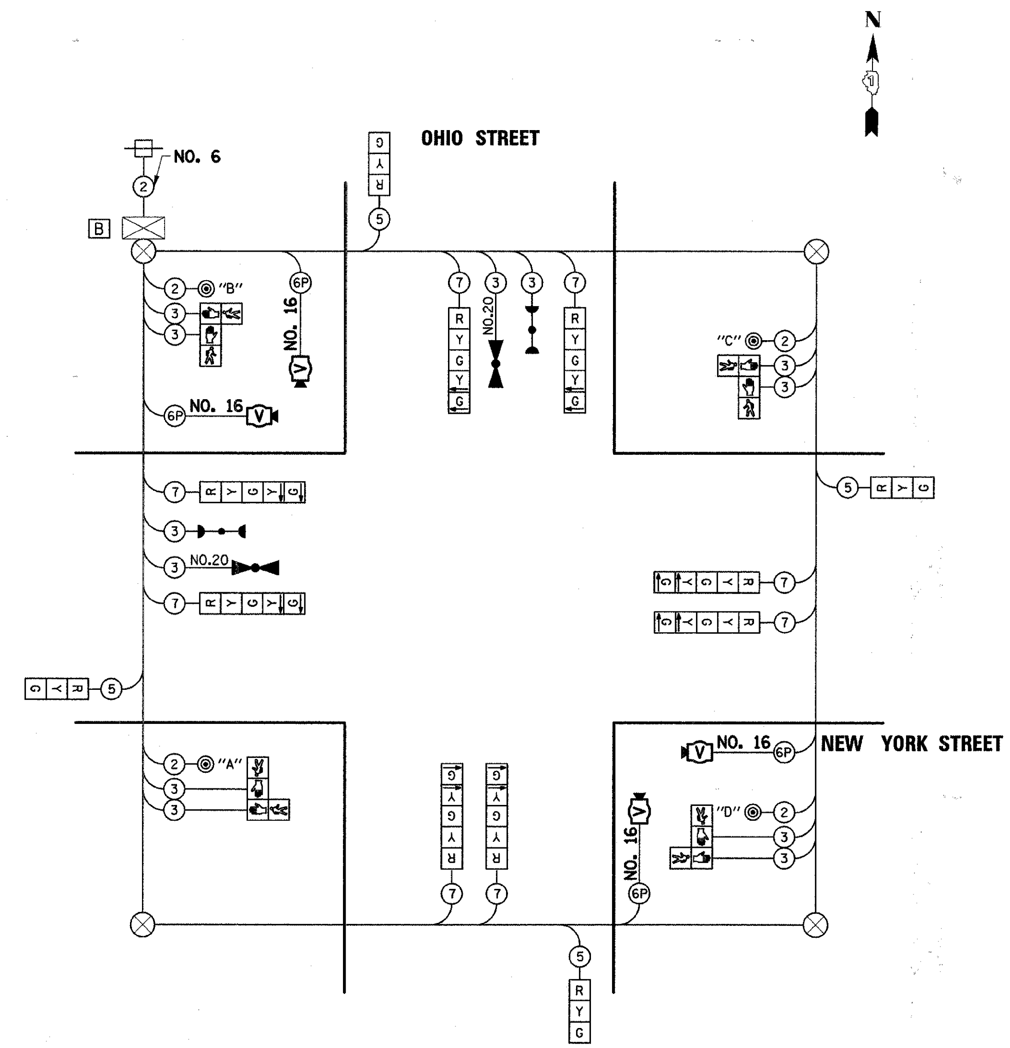
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- * NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE

PUSHBUTTONS "A" SHALL PLACE A CALL IN PHASES 2 AND 4

PUSHBUTTONS "B" SHALL PLACE A CALL IN PHASES 4 AND 6

PUSHBUTTONS "C" SHALL PLACE A CALL IN PHASES 6 AND 8

PUSHBUTTONS "D" SHALL PLACE A CALL IN PHASES 2 AND 8



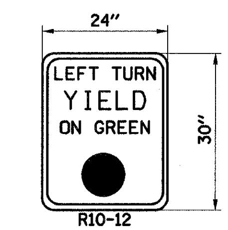
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS (MAINTENANCE OF TRAFFIC STAGE I AND STAGE IIA)					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
VIDEO SYSTEM	1		15	1.00	15
UPS	1		25	1.00	25
				0.50	
				TOTAL =	581.2

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

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

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NO. 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- V — VIDEO DETECTION CAMERA
- B — UNINTERRUPTABLE POWER SUPPLY



TYPE "A" SHEETING REQUIRED

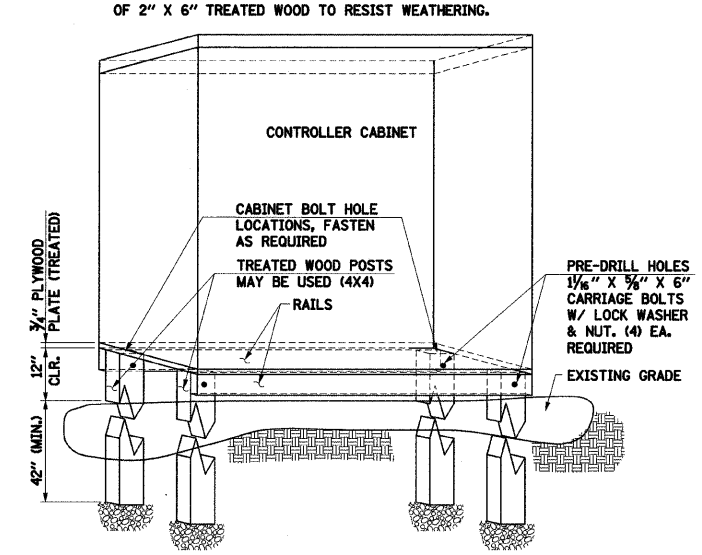
5.0 SQ. FT. EACH
4 REQUIRED

LEFT-TURN CONTROL SIGN DETAIL

THIS SIGN SHALL BE MOUNTED ON THE SPAN WIRE, 6 TO 12 INCHES TO THE RIGHT OF THE LEFT MOST SIGNAL HEAD IN ALL DIRECTIONS.

CONTROLLER CABINET TYPE AND DIMENSIONS VARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECT CABINET DIMENSIONS PRIOR TO THE CONSTRUCTION OF THE CABINET MOUNTING PLATFORM SHOWN BELOW.

CABINET PLATFORM LEGS AND RAILS SHALL BE CONSTRUCTED OF 2" X 6" TREATED WOOD TO RESIST WEATHERING.



TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM DETAIL

(NOT TO SCALE)

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PROFILE / NOTE BOOK / NO.	SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD	BY	DATE

FILE NAME = y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signal\cadd of BAH\cad\trans\fin_dwg\690_ohio.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN - BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

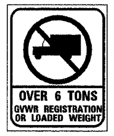
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL
CABLE PLAN AND PHASE DESIGNATION DIAGRAM
OHIO STREET

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

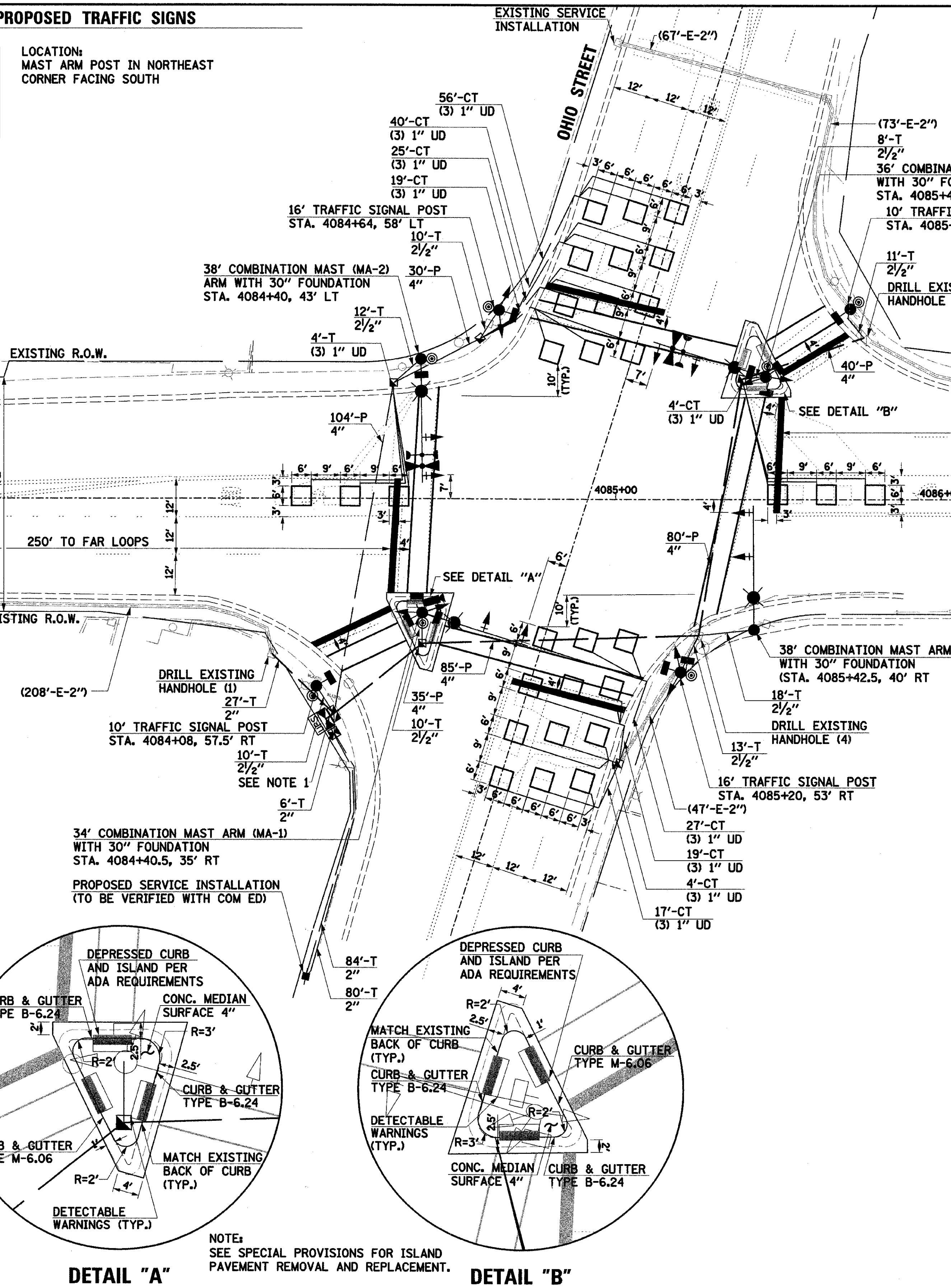
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	29
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROPOSED TRAFFIC SIGNS



R5-2-2430
(1 EACH)

LOCATION:
MAST ARM POST IN NORTHEAST CORNER FACING SOUTH



NOTE:
SEE SPECIAL PROVISIONS FOR ISLAND PAVEMENT REMOVAL AND REPLACEMENT.

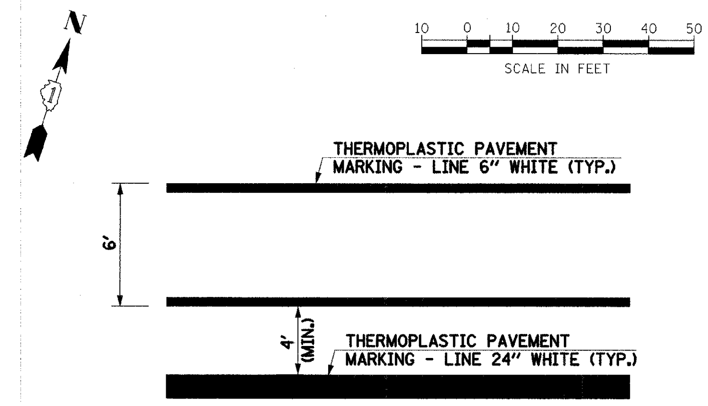
NOTES:

1. PROVIDE 5' OF CONDUIT IN COMMON TRENCH, 2 AT 4".
2. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS SHALL BE PAINTED BLACK.
3. PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.
4. RECONSTRUCTION OF THE CORNER ISLANDS SHALL BE STAGGERED SO THAT A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK IS OPEN AT ALL TIMES IN ORDER TO MAINTATIN PEDESTRIAN ACCESS.
5. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE SOUTHWEST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.

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.

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.



TYPICAL STRIPING DETAIL AT CROSSWALKS

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
PAN/TILT/ZOOM CAMERA		

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	PLOT SCALE = $SCALE$	DRAWN - BAH	REVISED -
		CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

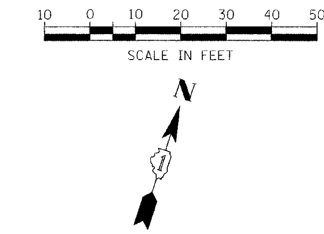
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

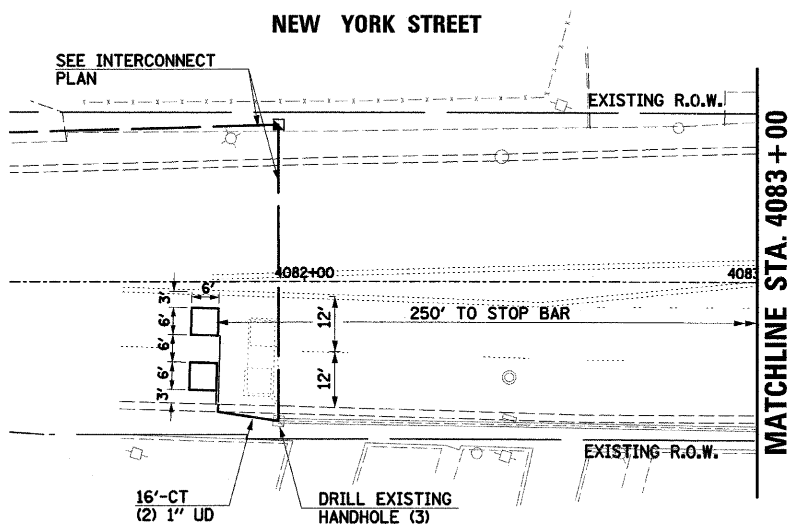
TRAFFIC SIGNAL MODIFICATION PLAN
OHIO STREET
SHEET 1 OF 2

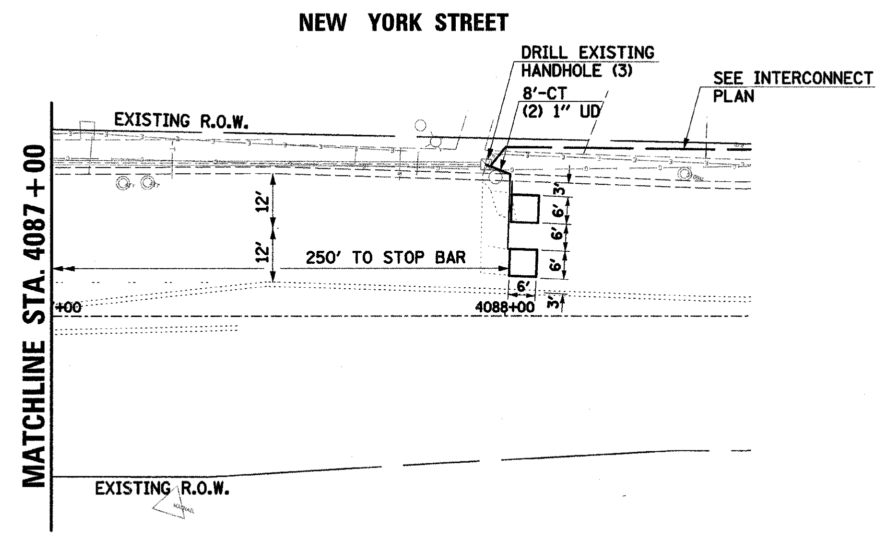
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	30
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT







TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
PAN/TILT/ZOOM CAMERA		

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		DRAWN BAH	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -	
	PLOT DATE = 4/15/2009	DATE -	REVISED -	

TRAFFIC SIGNAL MODIFICATION PLAN
OHIO STREET
SHEET 2 OF 2

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	31
		CONTRACT NO. 63152		

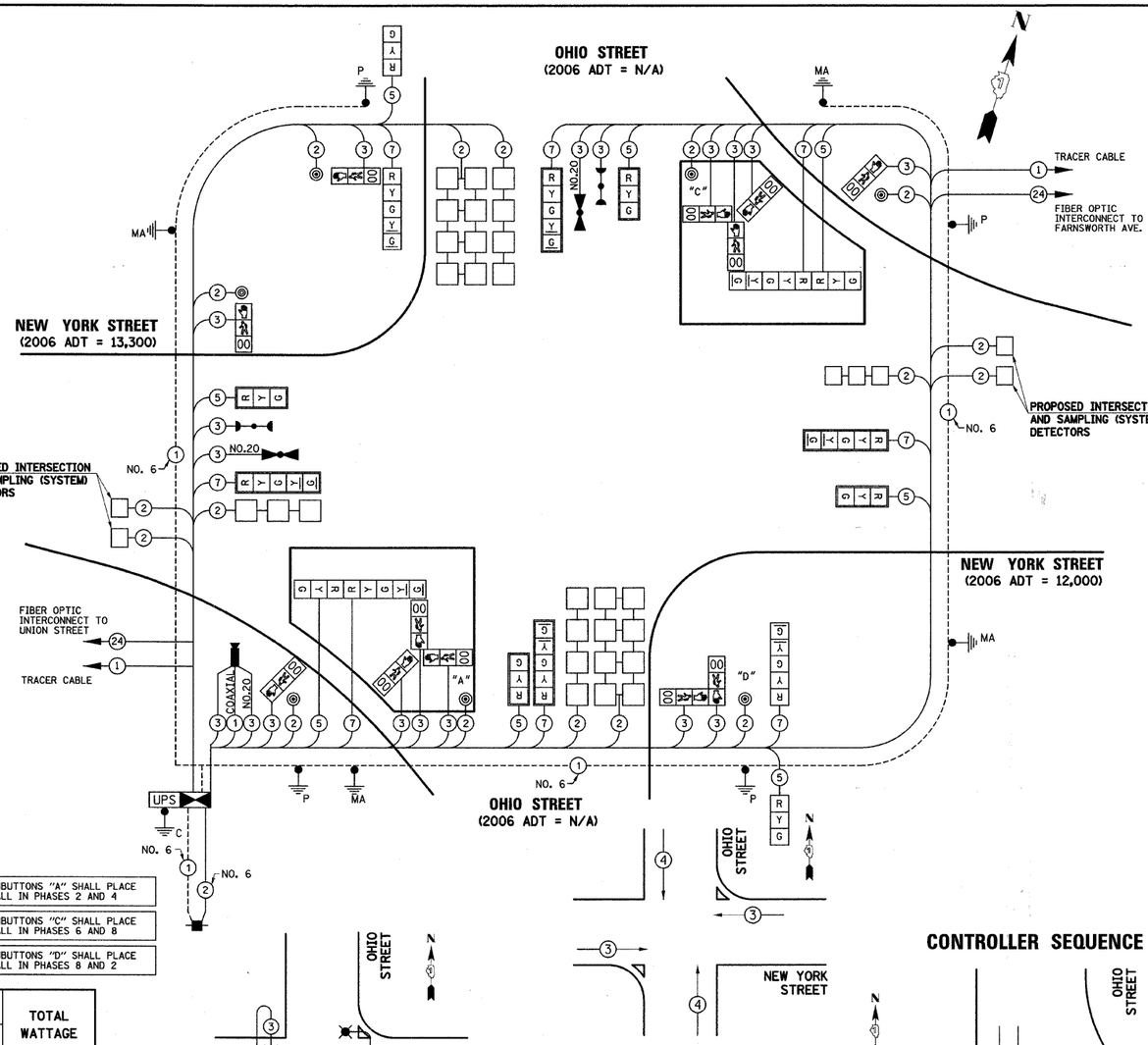
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN — NOTE BOOK NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R. OF WAY CHECKED / CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTAT'NS CHKD — BY — DATE

CABLE PLAN LEGEND

EXISTING	PROPOSED	
C	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
	R 00	12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		LUMINAIRE
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
R Y G LT-Y LT-G "E" "P"	R Y G LT-Y LT-G "P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		WIRELESS ANTENNA
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UPS	UNINTERRUPTABLE POWER SUPPLY
*	*	LED STREET NAME SIGN
V	V	VIDEO DETECTION CAMERA
		PAN/TILT/ZOOM CAMERA



PUSHBUTTONS "A" SHALL PLACE A CALL IN PHASES 2 AND 4

PUSHBUTTONS "C" SHALL PLACE A CALL IN PHASES 6 AND 8

PUSHBUTTONS "D" SHALL PLACE A CALL IN PHASES 8 AND 2

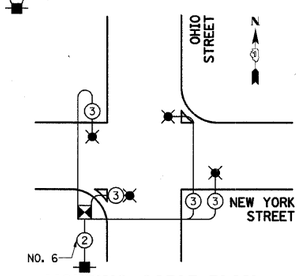
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19.2
PED. SIGNAL	12		25	1.00	300
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LUMINAIRE	4		250	0.50	500
				TOTAL =	1240.2

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

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

LIGHTING CABLE PLAN

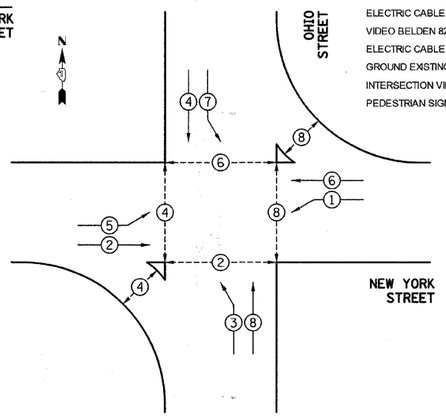


FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

CONTROLLER SEQUENCE



CONTROLLER SEQUENCE LEGEND

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

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.

PHASE DESIGNATION DIAGRAM

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	OHIO STREET
DETECTABLE WARNINGS	SQ FT	72
SIGN PANEL - TYPE 1	SQ FT	35
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	609
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	196
PAVEMENT MARKING REMOVAL	SQ FT	651
ELECTRICAL SERVICE INSTALLATION	EACH	1
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	197
CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	92
CONDUIT IN TRENCH, 4" DIA.,GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	374
HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	788.5
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	533
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
LIGHTING CONTROLLER TYPE CB-RCS 60 AMP - 240 VOLT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1208
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2759
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1548.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1596.5
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2694
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	199
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54
DRILL EXISTING HANDHOLE	EACH	13
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	1532.9
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	7
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	9347
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	6
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FEET	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
ISLAND PAVEMENT REMOVAL AND REPLACEMENT	SQ FT	601
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
PAINT TRAFFIC SIGNAL POST	EACH	4
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	814
VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT	FOOT	111.5
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	619.5
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	4
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2

PLAN / PROFILE — SURVEYED, DRAWN, GRADES CHECKED, ALIGNMENT CHECKED, BENCH MARK, STRUCTURE NO., NOTE BOOK, CADD FILE NAME, BY, DATE, NOTATIONS

FILE NAME = y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic sys	USER NAME = _USER_	DESIGNED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN City of Aurora\cad\trans\fin_dwg\690_ohio.dgn	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

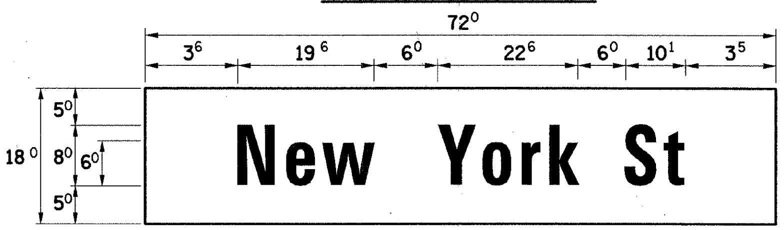
CABLE PLAN AND PHASE DESIGNATION DIAGRAM OHIO STREET

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	32
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXAMPLE, 2③ DENOTES 3/8"

PANEL SIGN DESIGN TYPE 3



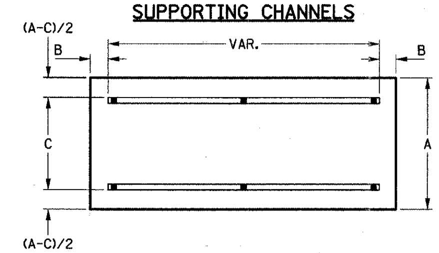
MA-1

9.00 Sq. Ft each

2 Required

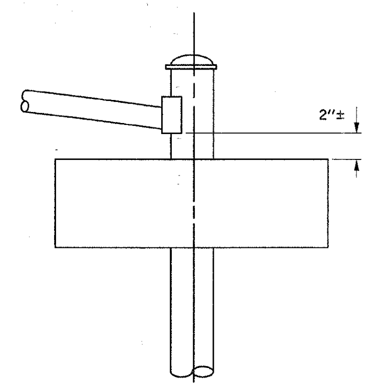
Design Series D

SUPPORTING CHANNELS



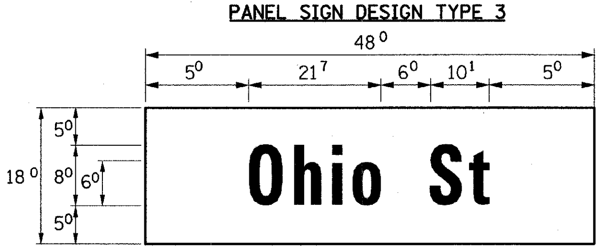
A	B	C
18"	2"	12"
30"	2"	22"

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5



SINGLE ARM

PANEL SIGN DESIGN TYPE 3

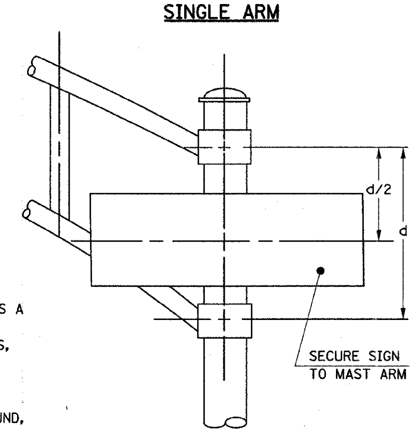


MA-2

6.00 Sq. Ft each

2 Required

Design Series D



DUAL ARM

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2'-6" BY 6'-0" SIGN PANEL 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.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0"
4. ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2 1/4".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION SCHAUMBURG, IL.
- AMERICAN FABRICATION CO. CHICAGO HEIGHTS, IL.
- TUCKER COMPANY, INC. WAUWATOSA, WI.
- WESTERN TRAFFIC CONTROL, INC. CICERO, IL.

PARTS LISTING:

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

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

Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND LETTER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

PLAN: NOTE BOOK NO. ___ SURVEYED, PLOTTED, ALIGNMENT CHECKED, R. OF WAY CHECKED, CADD FILE NAME — BY — DATE

PROFILE: NOTE BOOK NO. ___ SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD — BY — DATE

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals\city of aurora\cad\trans\fin_dwg\690...ohio.dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

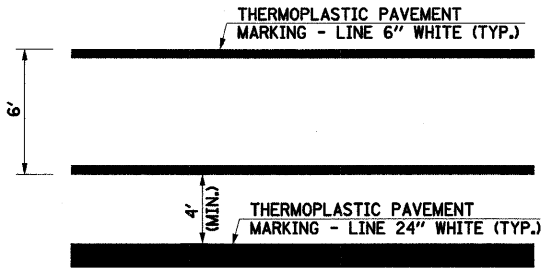
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS OHIO STREET

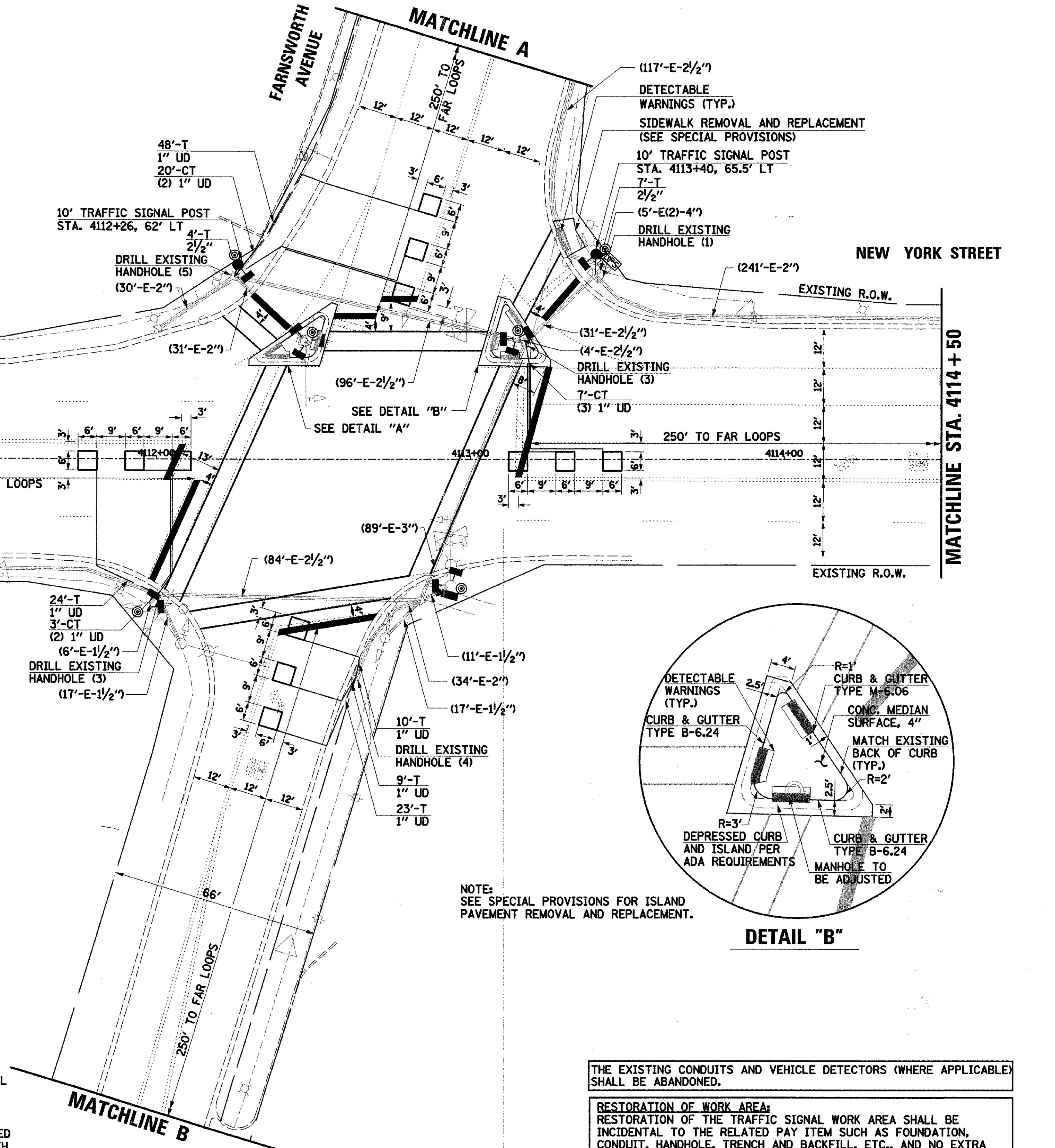
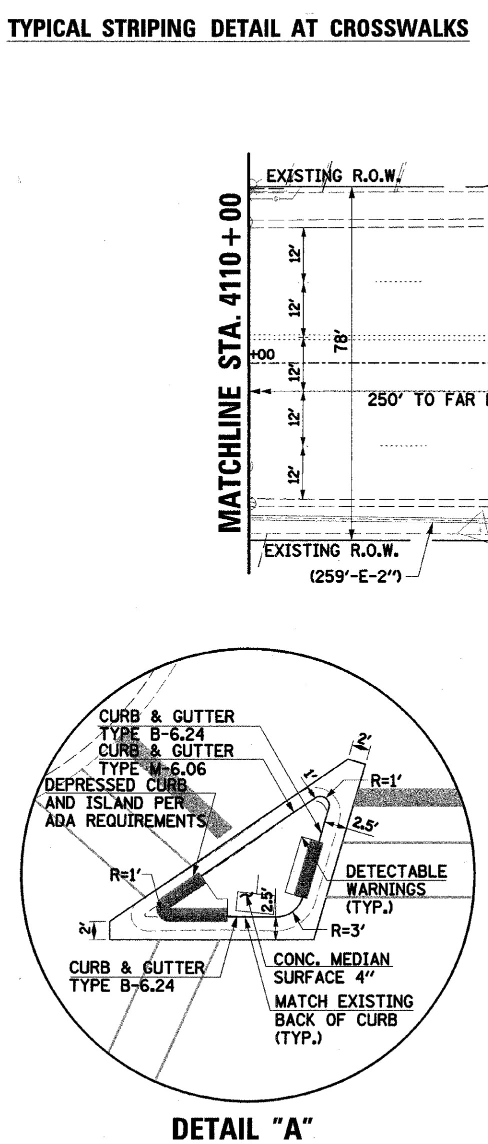
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	33
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



TYPICAL STRIPING DETAIL AT CROSSWALKS

NOTE:
SEE SPECIAL PROVISIONS FOR ISLAND PAVEMENT REMOVAL AND REPLACEMENT.

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

4	EACH	PEDESTRIAN SIGNAL HEADS
4	EACH	PEDESTRIAN PUSHBUTTONS
1	EACH	PUSHBUTTON POSTS

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET	R	R "E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
PAN/TILT/ZOOM CAMERA		

NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTINGTRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
2. RECONSTRUCTION OF THE CORNER ISLANDS SHALL BE STAGGERED SO THAT A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK IS OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.
3. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE SOUTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.

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

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.

FILE NAME = y:\jobs\smith\2007\070690 aurora - traffic signals\070690.04 aurora new york st. traffic signals\...\cad\trans\fin_dwg\...farns.dgn	USER NAME = USER	DESIGNED -	REVISED -
	PLOT SCALE = $SCALE$	DRAWN - BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
FARNSWORTH AVENUE
SHEET 1 OF 2

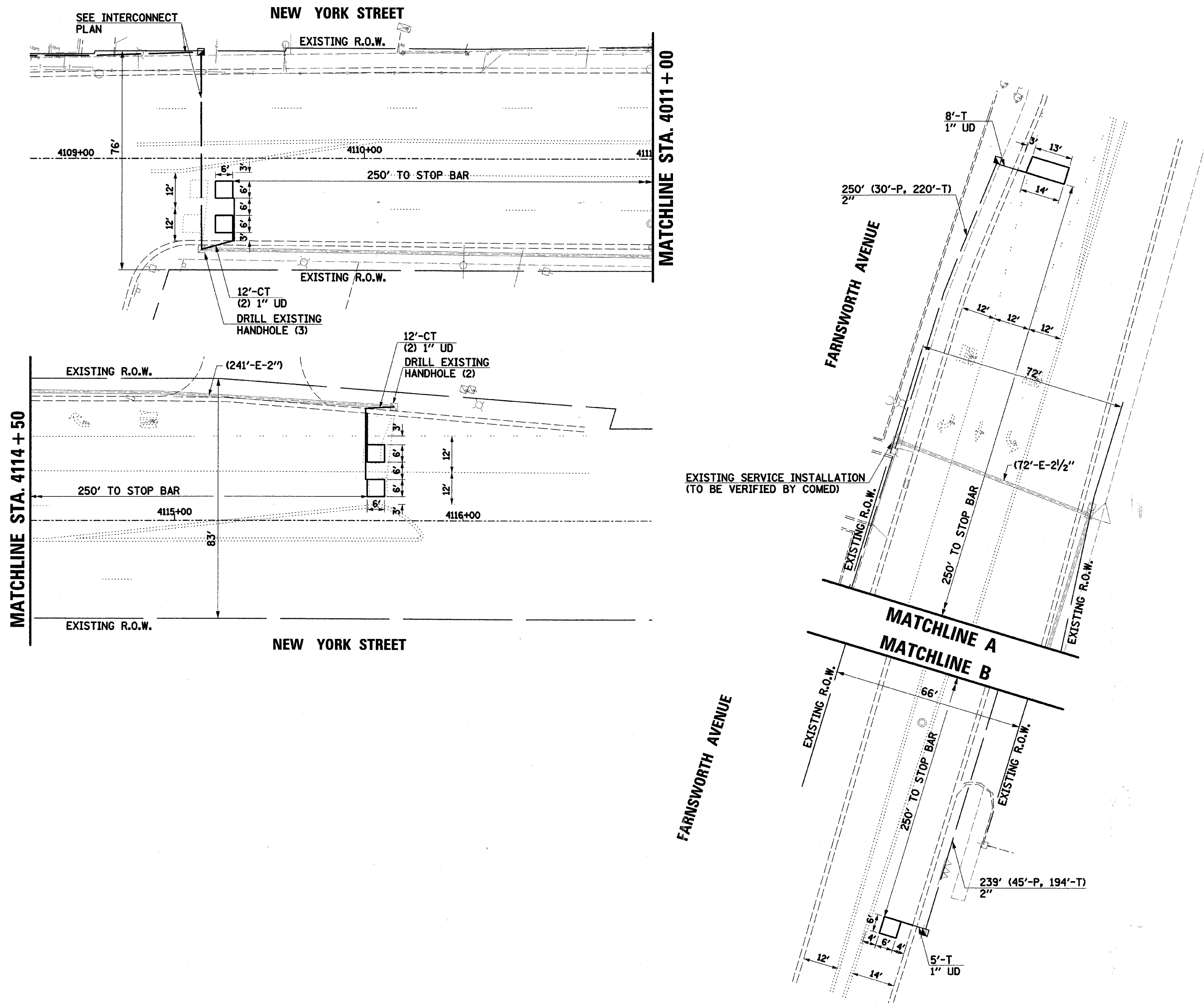
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

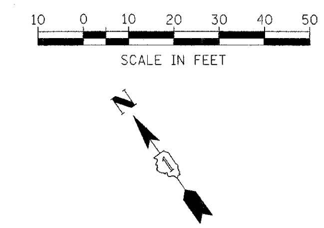
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	34
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN: SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. WAY CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD / NOTE BOOK / NO. / BY / DATE





TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		"E"
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED	"P"	"P"
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION	T	T
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA	V	V
VIDEO DETECTION AREA		
PAN/TILT/ZOOM CAMERA		

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.

PLAN	
SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
R.O.W. CHECKED	
CADD FILE NAME	
NOTE BOOK NO.	
BY	DATE

PROFILE	
SURVEYED	
PLOTTED	
GRADES CHECKED	
B.M. NOTED	
STRUCTURE NOTATNS CHKD	
NOTE BOOK NO.	
BY	DATE

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		DRAWN - BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
FARNSWORTH AVENUE
SHEET 2 OF 2

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	35
		CONTRACT NO. 63152		

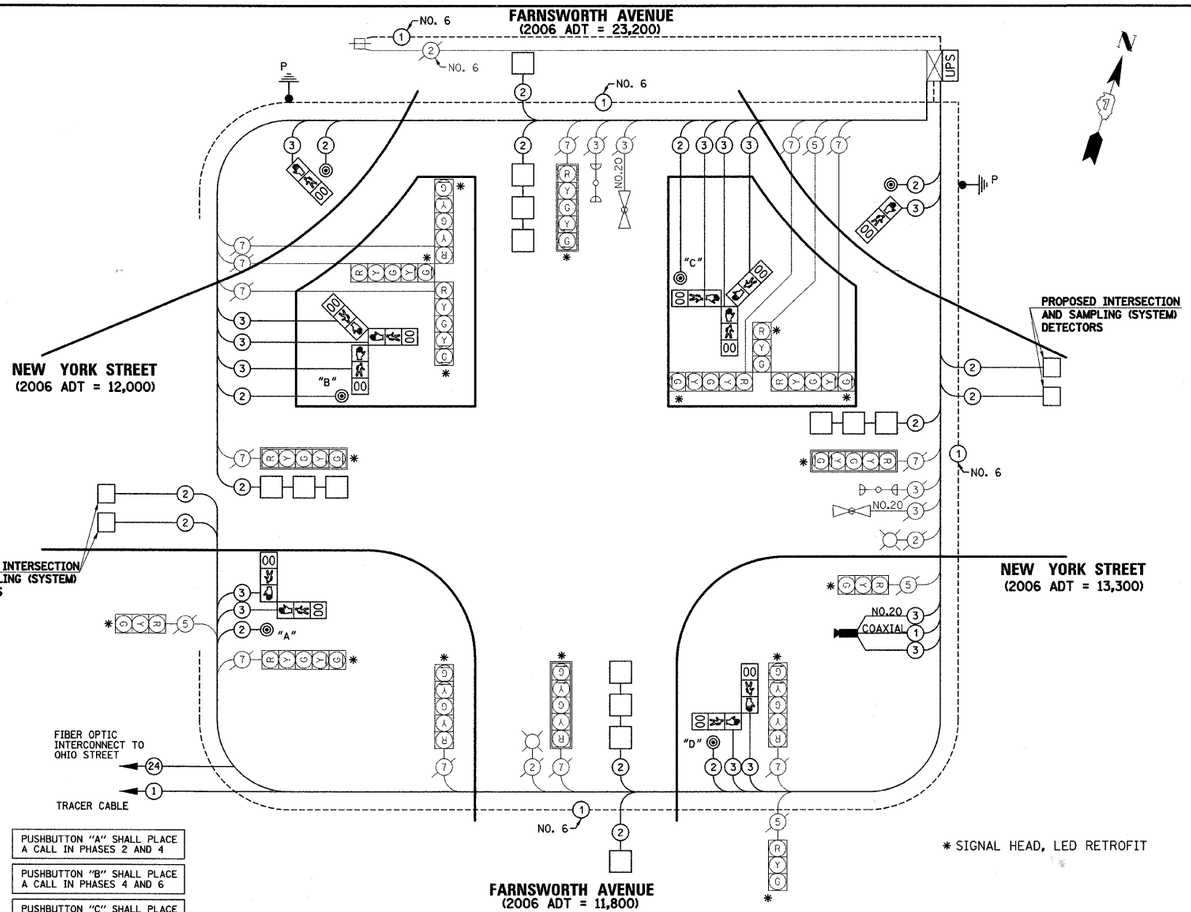
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
	00	12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		LUMINAIRE
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
R Y G ←Y ←G "E"	R Y G ←Y ←G "P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		WIRELESS ANTENNA
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P/MA	P/MA	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
UPS	UPS	UNINTERRUPTABLE POWER SUPPLY
*	*	LED STREET NAME SIGN
V	V	VIDEO DETECTION CAMERA
		PAN/TILT/ZOOM CAMERA

PLAN — SURVEYED, PLOTTED, GRADES CHECKED, ALIGNMENT CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, ALIGNMENT CHECKED, STRUCTURE NO(S)/MS CHKD, NOTE BOOK, NO., BY, DATE



PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4

PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2

* SIGNAL HEAD, LED RETROFIT

SCHEDULE OF QUANTITIES

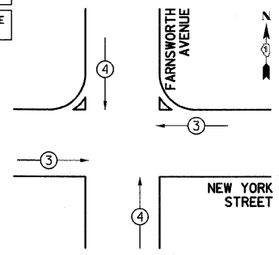
PAY ITEM DESCRIPTION	UNIT	FARNSWORTH AVENUE
DETECTABLE WARNINGS	SQ FT	87
MANHOLES TO BE ADJUSTED	EACH	1
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	626
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	177
PAVEMENT MARKING REMOVAL	SQ FT	523
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	414
CONDUIT IN TRENCH, 2 1/2" DIA.,GALVANIZED STEEL	FOOT	11
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	75
HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	606
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	917
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2183.5
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3073
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
DRILL EXISTING HANDHOLE	EACH	21
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	897.2
PEDESTRIAN PUSH-BUTTON	EACH	6
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1830
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ISLAND PAVEMENT REMOVAL AND REPLACEMENT	SQ FT	575
UNINTERRUPTABLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	829.5
SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	68
VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT	FOOT	204
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	204
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	8
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
SIGNAL HEAD, LED, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	8
SIGNAL HEAD, LED, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	24		12	0.10	28.8
PED. SIGNAL	12		25	1.00	200
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
LUMINAIRE	2		250	0.50	250
				TOTAL =	899.8

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

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

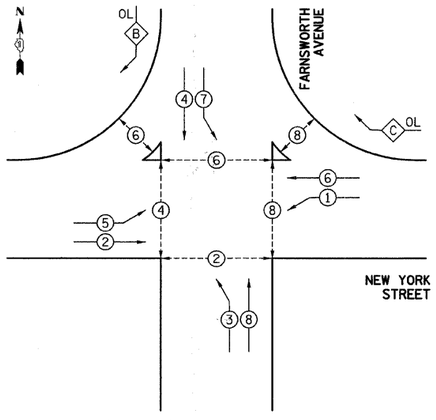


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

FOUNDATION (DEPTH)		FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST		4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER		4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)
D - CONTROLLER		4 (1.2)	SIGNAL POST	2 (1.0)		
E - M.A. LENGTH			CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50'	36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50'	36" (900mm)	15 (4.6)				

CONTROLLER SEQUENCE



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

CONTROLLER SEQUENCE LEGEND

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

PHASE DESIGNATION DIAGRAM

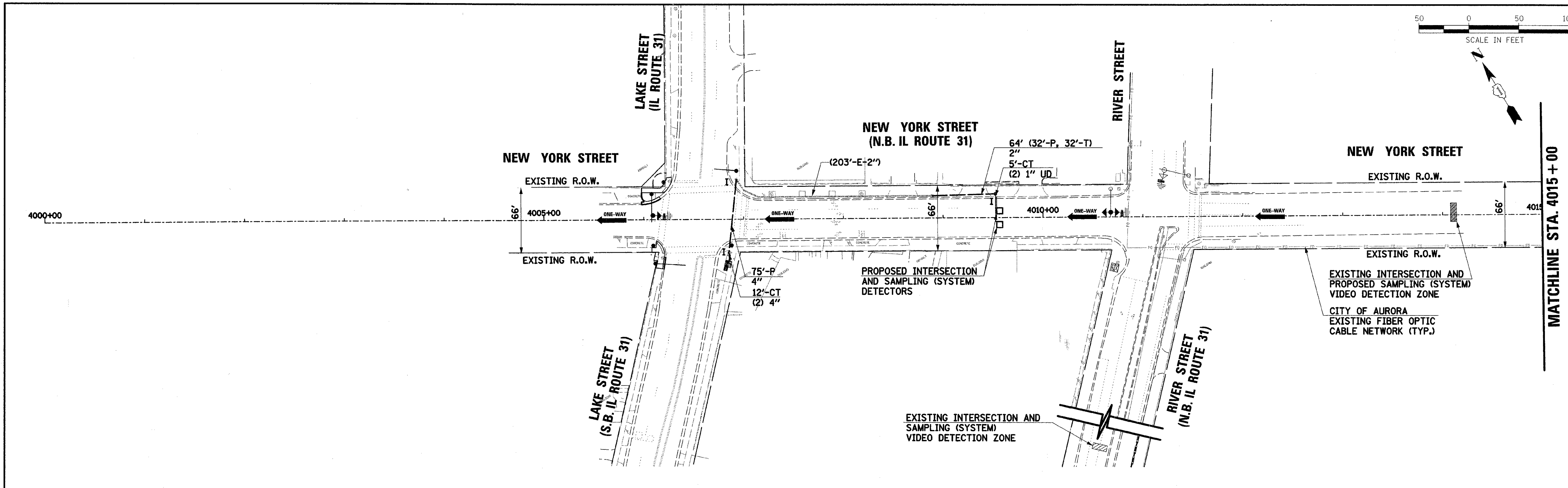
FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic sig	USER NAME = .USER.	DESIGNED -	REVISED -
		DRAWN - by of Bath\cad\trans\fin_dwg\6906	REVISED farns.dgn
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

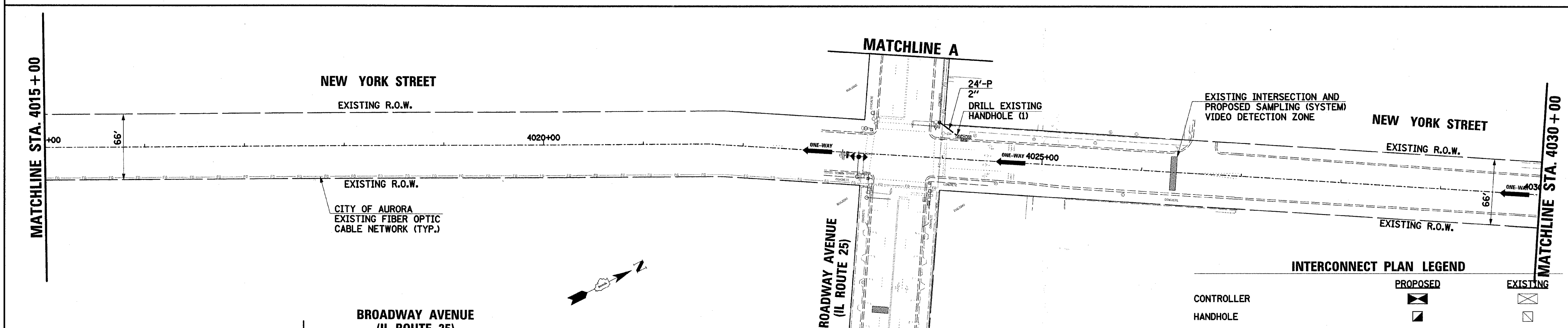
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

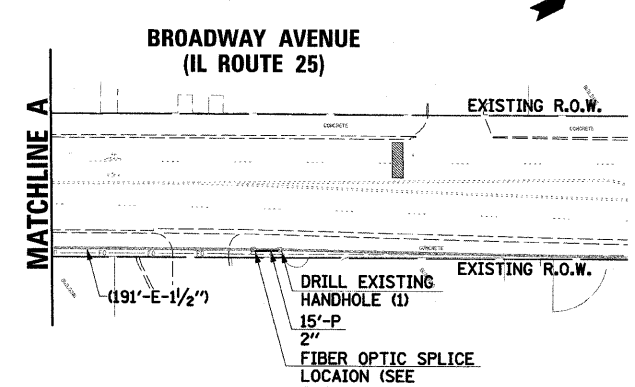
CABLE PLAN AND PHASE DESIGNATION DIAGRAM FARNSWORTH AVENUE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	36
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		







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

NOTE:
THE PROPOSED TERMINAL SERVER AND ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE EXISTING TRAFFIC SIGNAL CONTROLLER CABINET AT BROADWAY AVENUE (SEE SPECIAL PROVISIONS).

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.

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
MAST ARM ASSEMBLY AND POLE, STEEL		
WIRELESS ANTENNA		
VIDEO DETECTION ZONE		

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	PLOT SCALE = $SCALE$	DRAWN BAH	REVISED -
	PLOT DATE = 4/15/2009	CHECKED APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 1 OF 4)

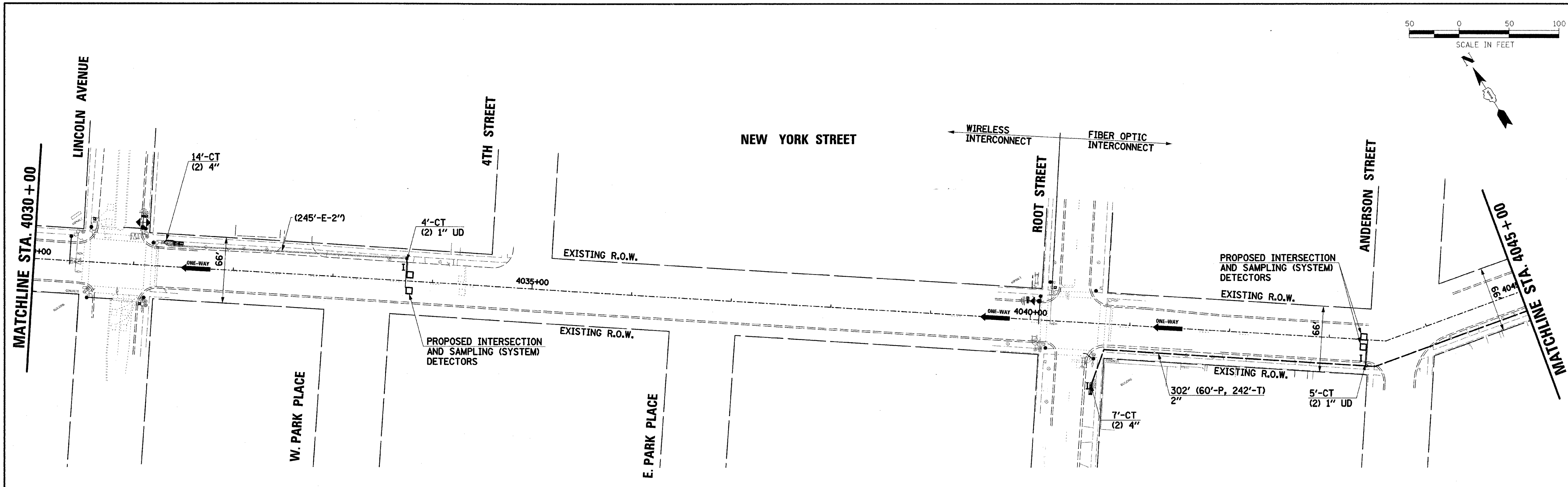
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

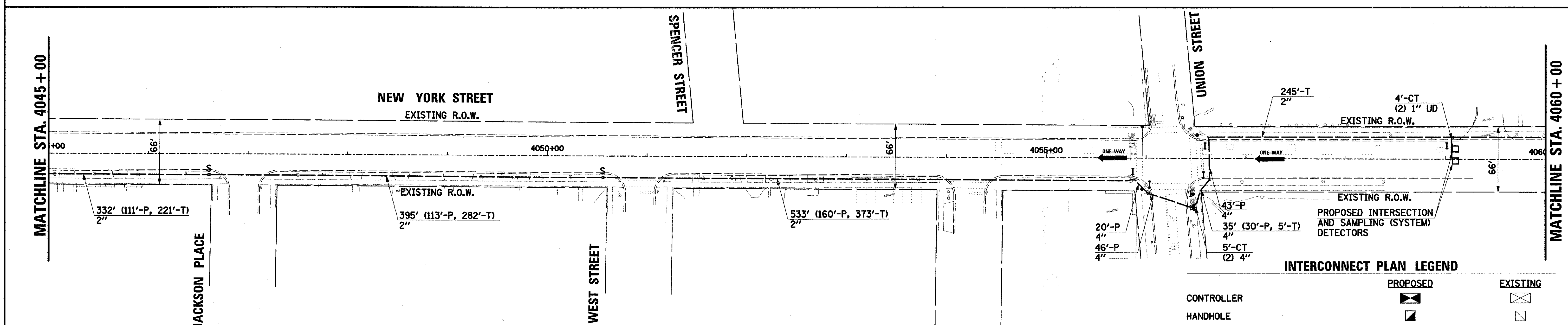
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	37
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN: NOTE BOOK, NO., SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.O.W. CHECKED, CADD FILE NAME, BY, DATE

PROFILE: NOTE BOOK, NO., SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CHK'D, BY, DATE





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

RESTORATION OF WORK AREA:
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INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE	H	H
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
MAST ARM ASSEMBLY AND POLE, STEEL		
WIRELESS ANTENNA		
VIDEO DETECTION ZONE		

PLAN	
NOTE BOOK NO.	
SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
R.O.W. CHECKED	
CADD FILE NAME	

PROFILE	
NOTE BOOK NO.	
SURVEYED	
PLOTTED	
GRADES CHECKED	
B.M. NOTED	
STRUCTURE NOTATNS CHKD	

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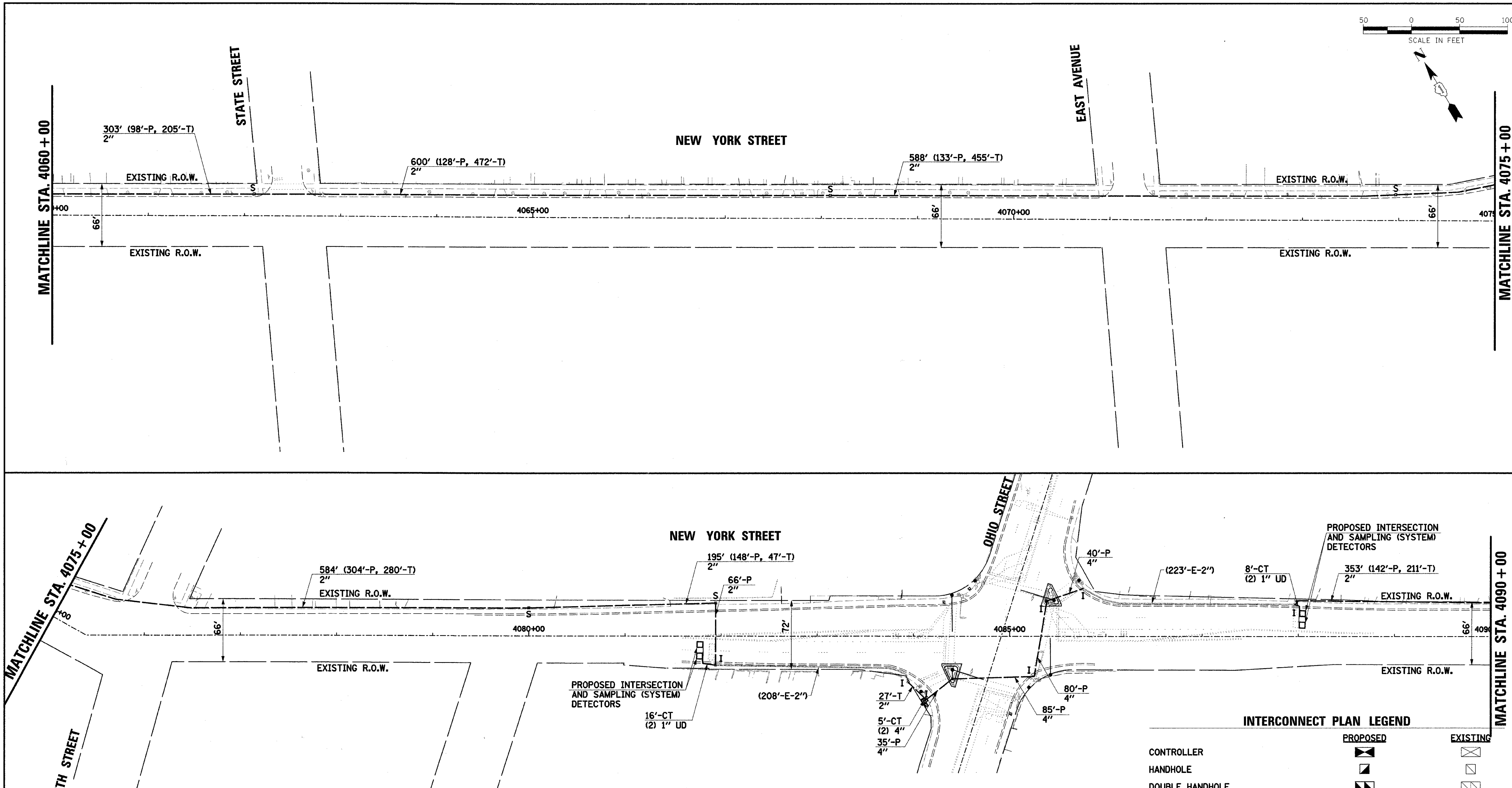
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 2 OF 4)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	38
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE	H	H
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
MAST ARM ASSEMBLY AND POLE, STEEL		
WIRELESS ANTENNA		
VIDEO DETECTION ZONE		

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

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

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	PLOT DATE = 4/15/2009	CHECKED - APS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 3 OF 4)

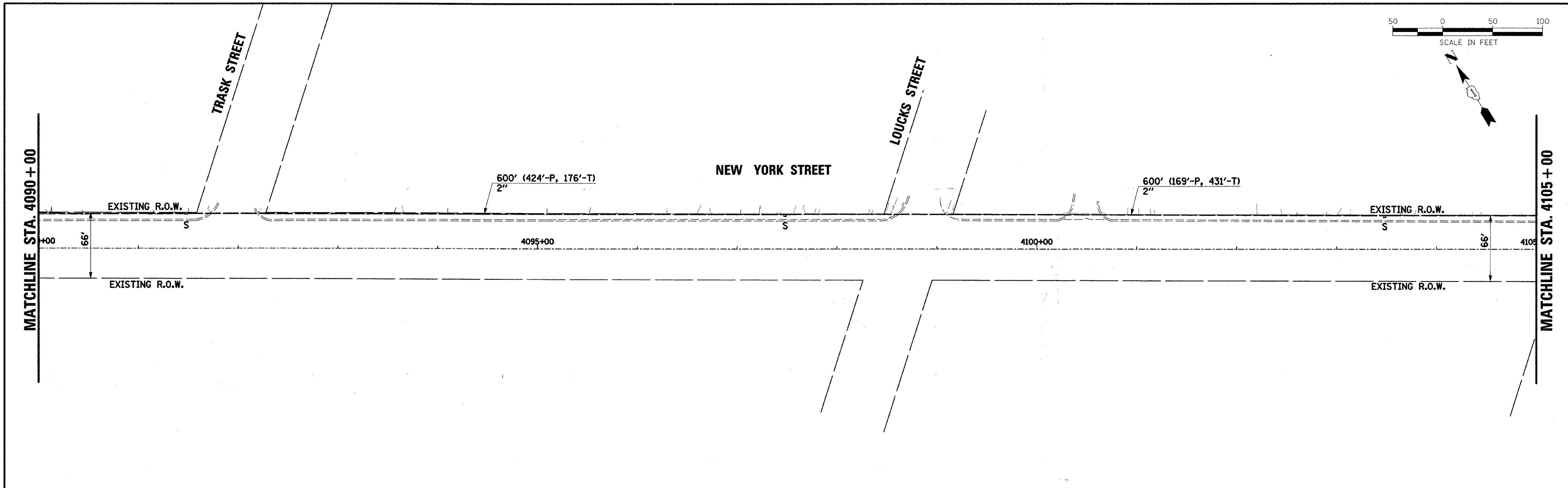
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

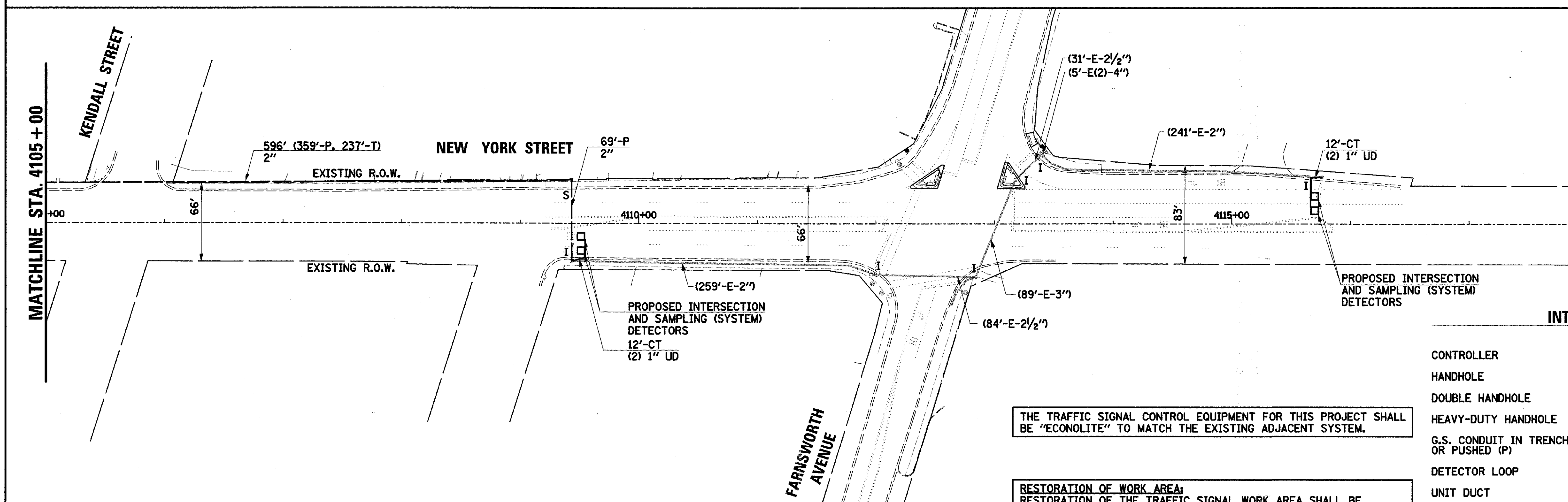
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	39
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/W CHECKED, CADD FILE NAME, NOTE BOOK, NO. | BY | DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHKD, NOTE BOOK, NO. | BY | DATE





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

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

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE	H	H
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
MAST ARM ASSEMBLY AND POLE, STEEL		
WIRELESS ANTENNA		
VIDEO DETECTION ZONE		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
(SHEET 4 OF 4)

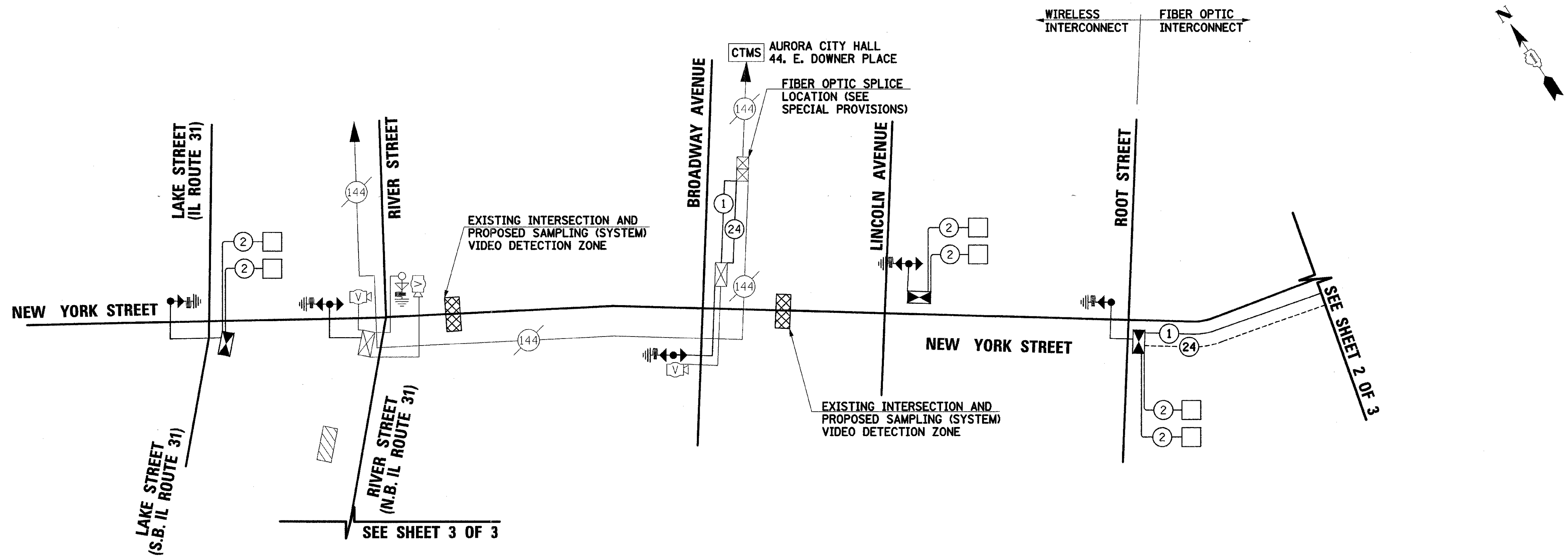
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	40
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN — NOTE BOOK NO. — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/L OF WAY CHECKED, CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK NO. — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHK'D — BY — DATE



SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	INTERCONNECT
CONDUIT IN TRENCH, 2" DIA.,GALVANIZED STEEL	FOOT	3390
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	2463
HANDHOLE	EACH	12
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	3390
TRANSCEIVER	EACH	8
DRILL EXISTING HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	8243.5
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
WIRELESS INTERCONNECT (COMPLETE)	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	8243.5
TERMINAL SERVER	EACH	1
ETHERNET SWITCH	EACH	1
CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1
FIBER OPTIC SPLICE	EACH	1

INTERCONNECT SCHEMATIC LEGEND

Symbol	Description
	EXISTING INTERSECTION CONTROLLER
	PROPOSED INTERSECTION CONTROLLER
EMC	EXISTING MASTER CONTROLLER
MC	PROPOSED MASTER CONTROLLER
MMC	MASTER MASTER CONTROLLER
	EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
	PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
P	EXISTING INTERSECTION LOOP DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS
ES	EXISTING SAMPLING (SYSTEM) DETECTORS
PS	PROPOSED SAMPLING (SYSTEM) DETECTORS
ESP	EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
ESPS	EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS
PD	EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
PD	PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
ESPD	EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS
PSPD	PROPOSEED SAMPLING (SYSTEM) PREFORMED DETECTORS
24	EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
24	PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
12	EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
12	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
6	EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
6	PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
2	EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
2	PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
1	EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED)
1	PROPOSED ELECTRIC CABLE 1/C (AS SPECIFIED)
T	EXISTING TELEPHONE CONNECTION
T	PROPOSED TELEPHONE CONNECTION
V	EXISTING VIDEO DETECTION CAMERA
	EXISTING SAMPLING (SYSTEM) VIDEO DETECTION ZONE
CTMS	PROPOSED CENTRALIZED TRANSPORTATION MANAGEMENT SYSTEM

NOTE:
SEE WIRING DETAIL FOR COMBINATION OF WIRELESS AND FIBER OPTIC INTERCONNECT SYSTEMS.

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

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PLOT DATE = 4/15/2009

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

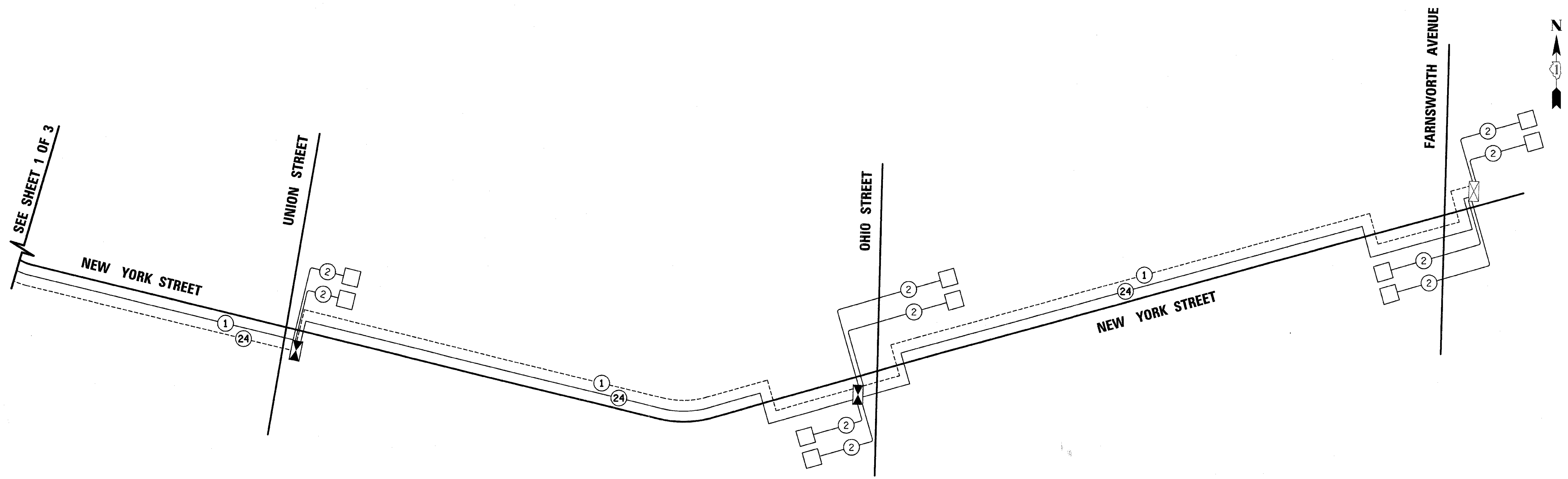
INTERCONNECT SCHEMATIC
(SHEET 1 OF 3)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	41

CONTRACT NO. 63152

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



INTERCONNECT SCHEMATIC LEGEND

Symbol	Description
⊠	EXISTING INTERSECTION CONTROLLER
▶◀	PROPOSED INTERSECTION CONTROLLER
EMC	EXISTING MASTER CONTROLLER
MC	PROPOSED MASTER CONTROLLER
MMC	MASTER MASTER CONTROLLER
⌜ ⌟	EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
□	PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
P	EXISTING INTERSECTION LOOP DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS
ES	EXISTING SAMPLING (SYSTEM) DETECTORS
PS	PROPOSED SAMPLING (SYSTEM) DETECTORS
ESP	EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
ESPS	EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS
PD	EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
PD	PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
ESPD	EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS
PSPD	PROPOSEED SAMPLING (SYSTEM) PREFORMED DETECTORS
24	EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
24	PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
12	EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
12	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
6	EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
6	PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
2	EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
2	PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
1	EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED)
1	PROPOSED ELECTRIC CABLE 1/C (AS SPECIFIED)
T	EXISTING TELEPHONE CONNECTION
T	PROPOSED TELEPHONE CONNECTION
V	EXISTING VIDEO DETECTION CAMERA
▨	EXISTING SAMPLING (SYSTEM) VIDEO DETECTION ZONE
CTMS	PROPOSED CENTRALIZED TRANSPORTATION MANAGEMENT SYSTEM

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

PLAN — NOTE BOOK NO. ___ SURVEYED ___ PLOTTED ___ ALIGNMENT CHECKED ___ RT. OF WAY CHECKED ___ CADD FILE NAME ___ BY DATE

PROFILE — NOTE BOOK NO. ___ SURVEYED ___ PLOTTED ___ GRADES CHECKED ___ B.M. NOTED ___ STRUCTURE NOTAT'NS CHK'D ___ BY DATE

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	PLOT DATE = 4/15/2009	DATE -	REVISED -

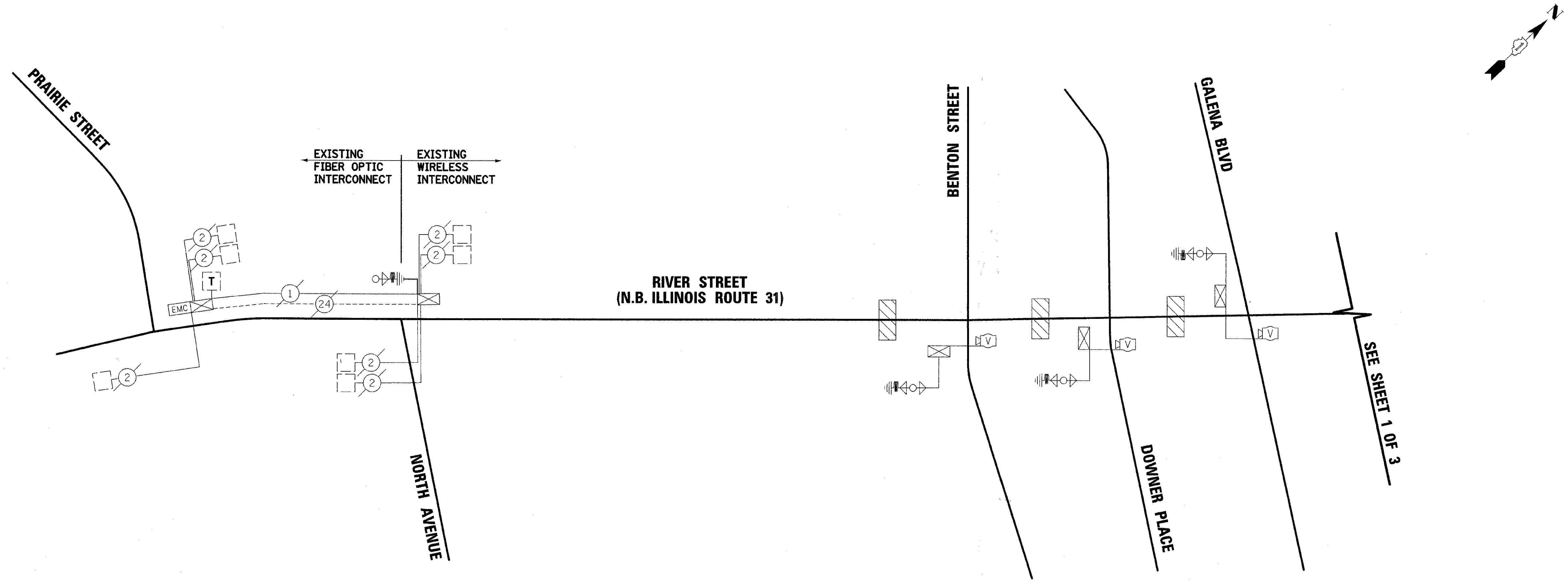
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC
(SHEET 2 OF 3)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	42
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



INTERCONNECT SCHEMATIC LEGEND

Symbol	Description	Symbol	Description
	EXISTING INTERSECTION CONTROLLER	24	EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
	PROPOSED INTERSECTION CONTROLLER	24	PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
EMC	EXISTING MASTER CONTROLLER	12	EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
MC	PROPOSED MASTER CONTROLLER	12	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
MMC	MASTER MASTER CONTROLLER	6	EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
	EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS	6	PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
	PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	2	EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
P	EXISTING INTERSECTION LOOP DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS	2	PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
ES	EXISTING SAMPLING (SYSTEM) DETECTORS	1	EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED)
PS	PROPOSED SAMPLING (SYSTEM) DETECTORS	1	PROPOSED ELECTRIC CABLE 1/C (AS SPECIFIED)
ESP	EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	T	EXISTING TELEPHONE CONNECTION
ESPS	EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS	T	PROPOSED TELEPHONE CONNECTION
PD	EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	V	EXISTING VIDEO DETECTION CAMERA
PD	PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING SAMPLING (SYSTEM) VIDEO DETECTION ZONE
ESPD	EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS	CTMS	PROPOSED CENTRALIZED TRANSPORTATION MANAGEMENT SYSTEM
PSPD	PROPOSEED SAMPLING (SYSTEM) PREFORMED DETECTORS		

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

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/W CHECKED, CADD FILE NAME — NOTE BOOK NO. — BY — DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHKD — NOTE BOOK NO. — BY — DATE

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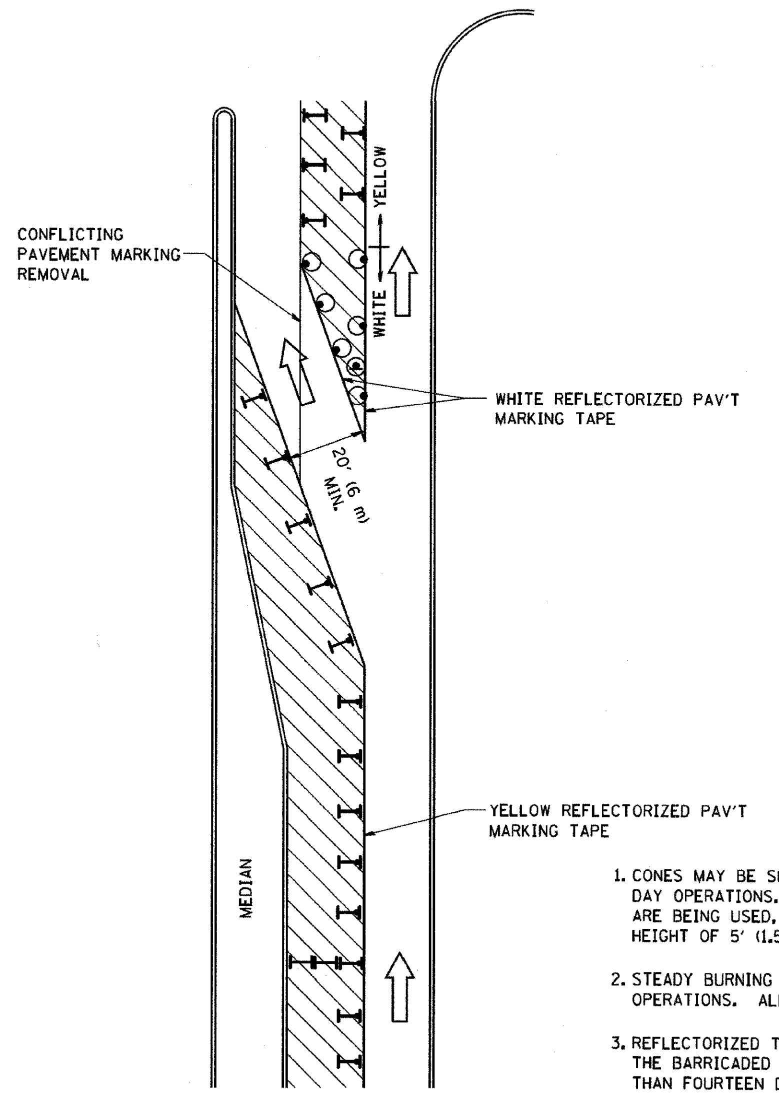
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

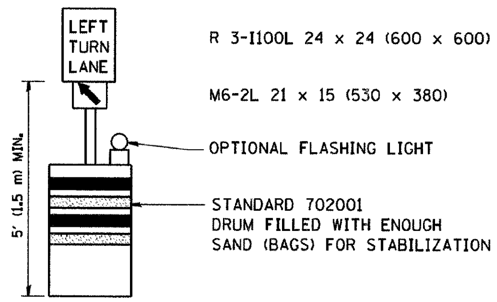
INTERCONNECT SCHEMATIC
(SHEET 3 OF 3)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	43
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT





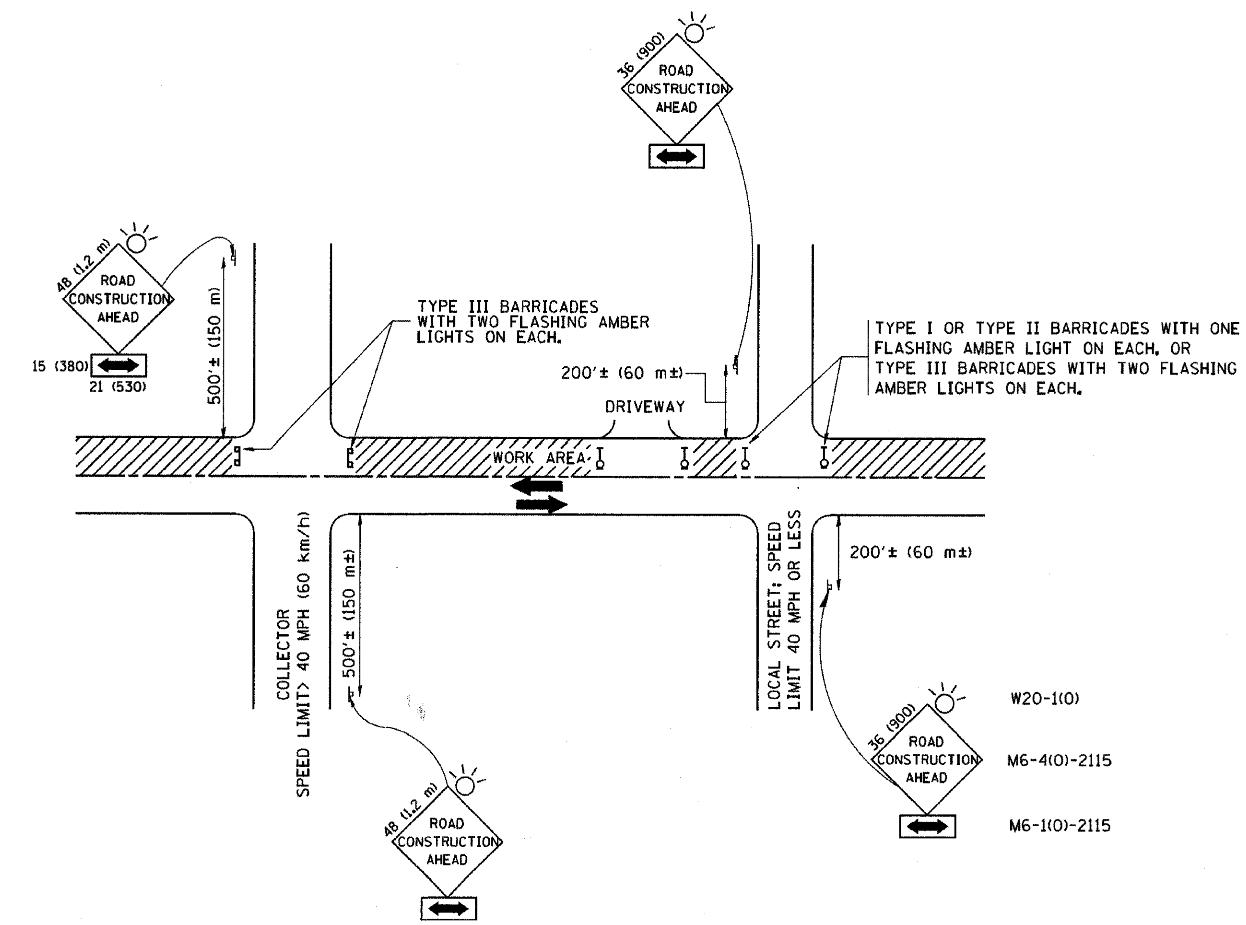
GENERAL NOTES

1. 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. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (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. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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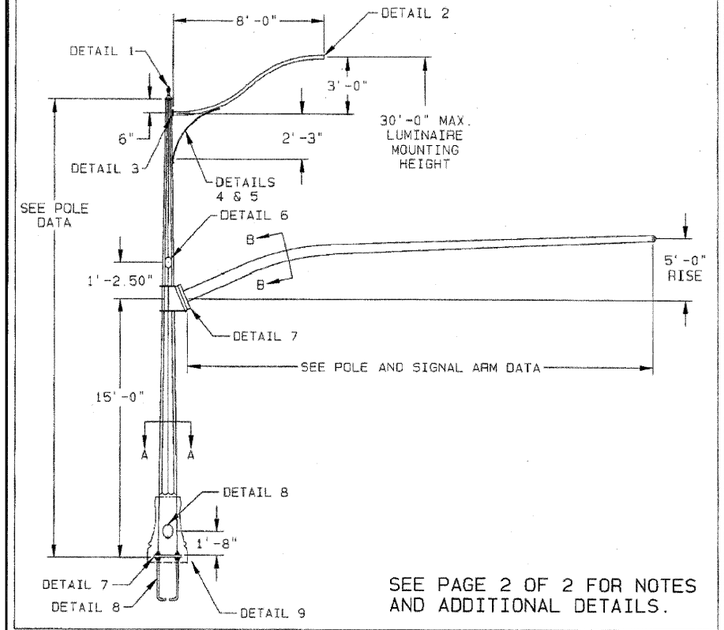
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

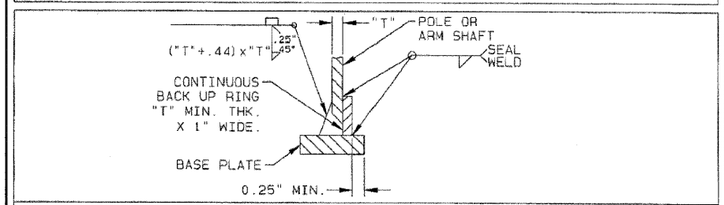
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

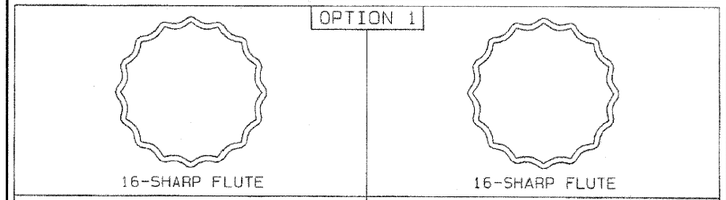
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) AND FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

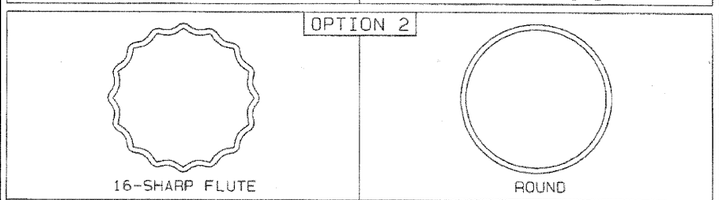
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

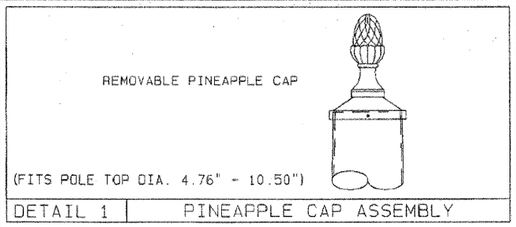
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	44
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

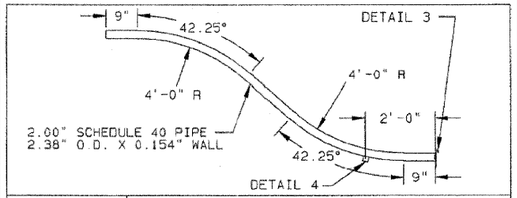


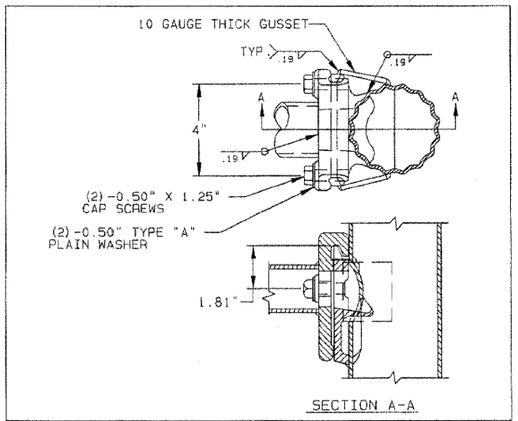


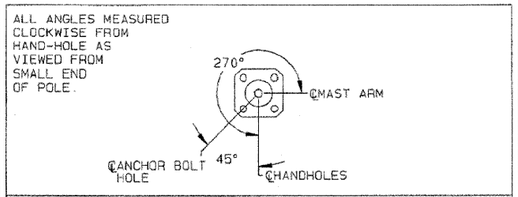


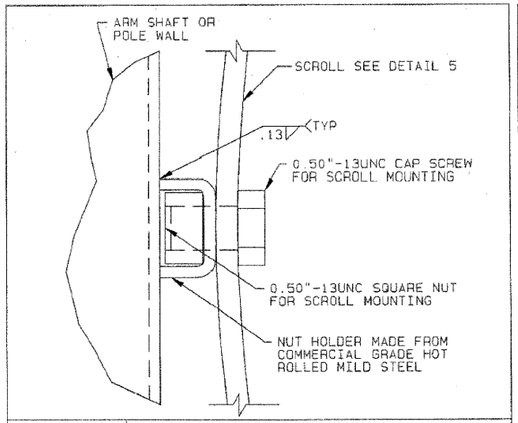


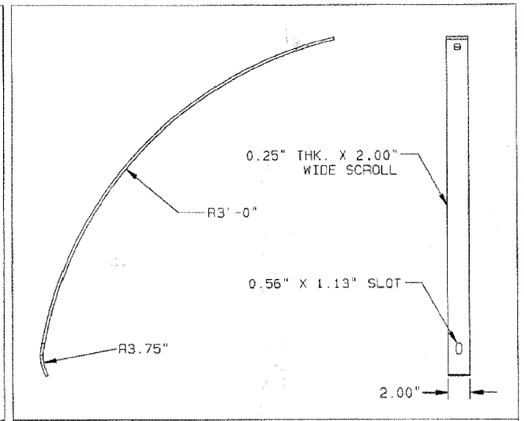


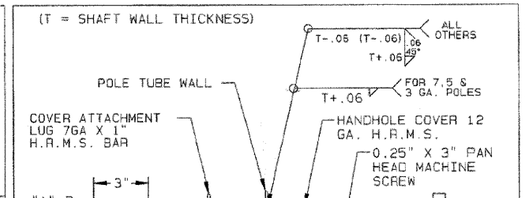


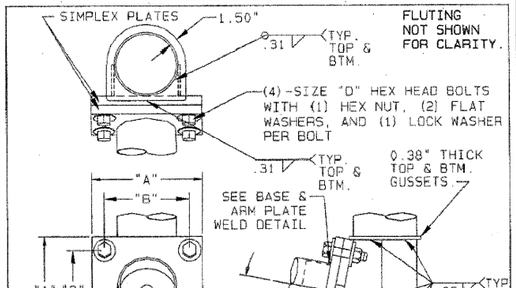


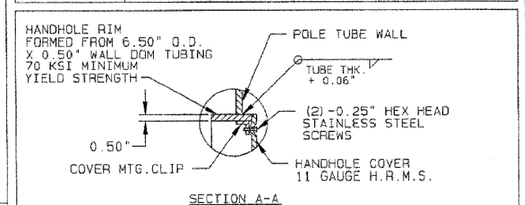


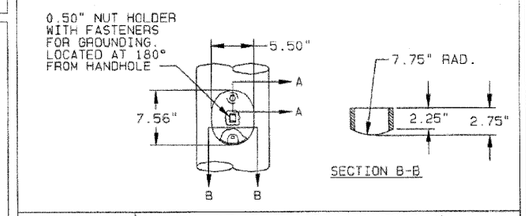












PLAN | NOTE BOOK NO. | SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME | BY | DATE

PROFILE | NOTE BOOK NO. | SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD | BY | DATE

SEE PAGE 2 OF 2 FOR NOTES AND ADDITIONAL DETAILS.

DETAIL 1 PINEAPPLE CAP ASSEMBLY

DETAIL 2 LUMINAIRE ARM

DETAIL 4 SCROLL ATTACHMENT

DETAIL 7 SINGLE SIGNAL ARM ATTACHMENT

SIGNAL ARM ATTACHMENT DATA

ARM SPAN (FT)	"A" (IN)	"B" (IN)	"C" (IN)	"D"
20.00	17.25	14.00	1.75	1.25" X 5.25"

BASE AND ARM PLATE WELD

DETAIL 3 LUMINAIRE ARM ATTACHMENT

DETAIL 5 SCROLL ARM

DETAIL 8 SEMI-FLUSH HANDHOLE

OPTION 1

SECTION A-A SECTION B-B

RADIAL INDEX

POLE GA.	"A"	"B"
7, 5 & 3	1.00"	0.179"
ALL OTHERS	0.50"	0.375"

DETAIL 6 HANDHOLE

OPTION 2

SECTION A-A SECTION B-B

BASE COAT: HOT DIP GALVANIZE

TOP COAT: TGIC OR URETHANE POLYESTER POWDER

COLOR: BLACK

VALMONT SPEC: F283A

FINISH NOTE

REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION
—	BCM 09/18/07	BCM 09/20/07	— — — — — — — — — —

SOLD TO:
SHIP TO:
P.O. #:
AGENT: LIGHTING SOLUTIONS

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TITLE TRAFFIC SIGNAL STRUCTURES

VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.

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Valley, NE 68064
(402) 359-2201

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PLOT DATE = 4/15/2009

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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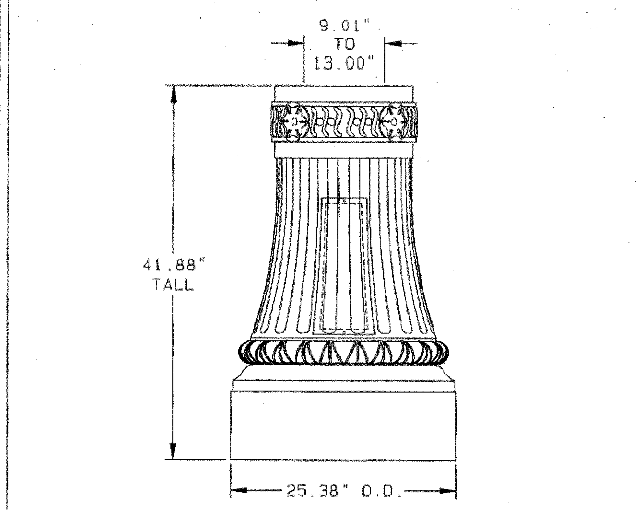
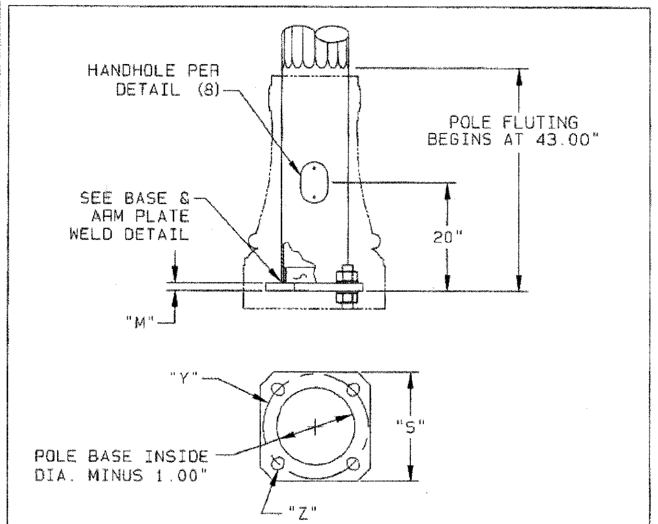
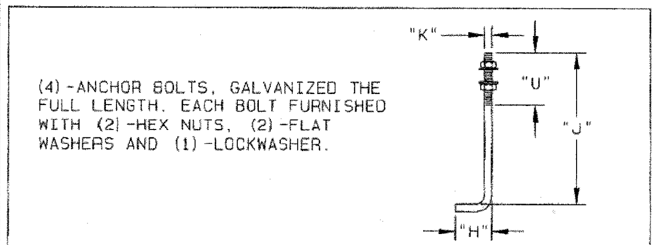
		CONTRACT NO. 63152		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



DETAIL 9 | HN25AB DECORATIVE BASE



DETAIL 10 | HN25AB POLE BASE



DETAIL 11 | ANCHOR BOLT

NOTES:

1. POLE AND ARM SHAFTS 13.00" AND SMALLER-CONFORMS TO ASTM DESIGNATION: A595 GR. A WITH 55,000 P.S.I. MININMUM YIELD STRENGTH. LINEAR TAPER-0.14"/FT. POLE AND ARM SHAFTS LARGER THAN 13.00"-CONFORMS TO ASTM DESIGNATION: M-223 A572 GR. 65 WITH A 65,000 P.S.I. MINIMUM YIELD STRENGTH. LINEAR TAPER-0.14"/FT.
2. BASE PLATE AND SIMPLEX PLATES-CONFORM TO AASHTO M-183 (ASTM: A36).
3. ANCHOR BOLTS-ALL STRUCTURES: ASTM F1554 GR.55 55,000 P.S.I. MINIMUM YIELD STRENGTH. (AASHTO M314)
4. TRAFFIC SIGNAL ARM END CAP SECURED IN PLACE WITH 3 STAINLESS STEEL SET SCREWS. (TRAFFIC SIGNAL ARM END CAP PROVIDED WITH (2) ADDITIONAL STAINLESS STEEL HEX BOLTS).
5. ALL NON-STAINLESS THREADED FASTENERS TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153 (AASHTO M232).
6. SIMPLEX CONNECTING BOLTS-ASTM DESIGNATION: A325 (M164) GALVANIZED TO ASTM DESIGNATION: A153 LUBRICATE THREADS IN FIELD IF NECESSARY BEFORE INSTALLATION.
7. ALL VEHICULAR AND/OR PEDESTRIAN SIGNAL LIGHTS AND NECESSARY HARDWARE FOR ATTACHMENT TO BE FIELD LOCATED AND FURNISHED BY OTHERS.
8. POLES AND ARMS TO BE GALVANIZED TO ASTM DESIGNATION: A123 (AASHTO MIII). ACCESSORIES TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153 (AASHTO M232).
9. ACCESS HOLES IN ARMS AT SIGNALS TO BE FIELD DRILLED BY CONTRACTOR-LOCATED AS SHOWN IN PLANS.
10. LUMINAIRE ARM SHAFT CONFORMS TO 2" SCHEDULE 40 PIPE W/ 36,000 PSI MIN. YIELD STRENGTH.
11. SHAFT GAUGE OR THICKNESS ARE AS FOLLOWS: 11 GA.= 0.1196", 7 GA.= 0.1793", 5 GA.= 0.2092", 3 GA.=0.2391", AND 2" SCHED.40 PIPE = 0.154".

LOADING AND ALLOWABLE STRESS CRITERIA: 1994 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

STATE OF ILLINOIS

GENERAL NOTES

POLE AND SIGNAL ARM DATA - OPTION 1

POLE TUBE				POLE BASE				ANCHOR BOLT				SIGNAL ARM TUBE			MAXIMUM LUMINAIRE ARM SPAN (FT)
BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE / SLOT "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	FIXED END DIA. (IN)	GAUGE OR THICK (IN)	SPAN (FT)	
12.50	8.65	27.50	5	17.00	17.00	1.50	1.75	1.50	54.00	6.00	8.00	9.00	7	20.00	8.00

POLE AND SIGNAL ARM DATA - OPTION 2

POLE TUBE				POLE BASE				ANCHOR BOLT				SIGNAL ARM TUBE			MAXIMUM LUMINAIRE ARM SPAN (FT)
BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE / SLOT "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	FIXED END DIA. (IN)	GAUGE OR THICK (IN)	SPAN (FT)	
12.50	8.65	27.50	5	17.00	17.00	1.50	1.75	1.50	54.00	6.00	8.00	8.00	7	20.00	8.00

JOB

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(402) 359-2201

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y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic sig...		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	46
		CONTRACT NO.		**63152**

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

PLAN	NOTE BOOK NO.	SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / ADD FILE NAME	BY	DATE

PROFILE	NOTE BOOK NO.	SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHK'D	BY	DATE

* PER MANUFACTURERS SPECIFICATIONS FOR THE CITY OF AURORA.

LED STREET NAME SIGNS (CLEARVIEW FONT – DESIGN SERIES "D")

NOTE:
THESE SIGNS SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE PLANS.
SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

UPPER CASE TO LOWER CASE SPACING CHART 8–6 INCH SERIES "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

LOWER CASE TO LOWER CASE SPACING CHART 6 INCH SERIES "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

NUMBER TO NUMBER SPACING CHART 8 INCH SERIES "C & D"

FIRST NUMBER	SECOND LETTER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

PLAN: NOTE BOOK NO. ___ SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME — BY / DATE

PROFILE: NOTE BOOK NO. ___ SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — BY / DATE

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USER NAME = .USER.
PLOT SCALE = $SCALE$
PLOT DATE = 4/15/2009
DESIGNED -
DRAWN BAH
CHECKED APS
DATE -
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

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

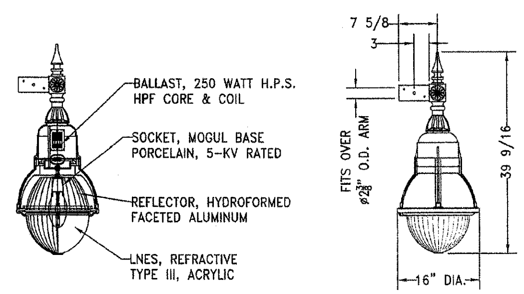
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	47

CONTRACT NO. 63152

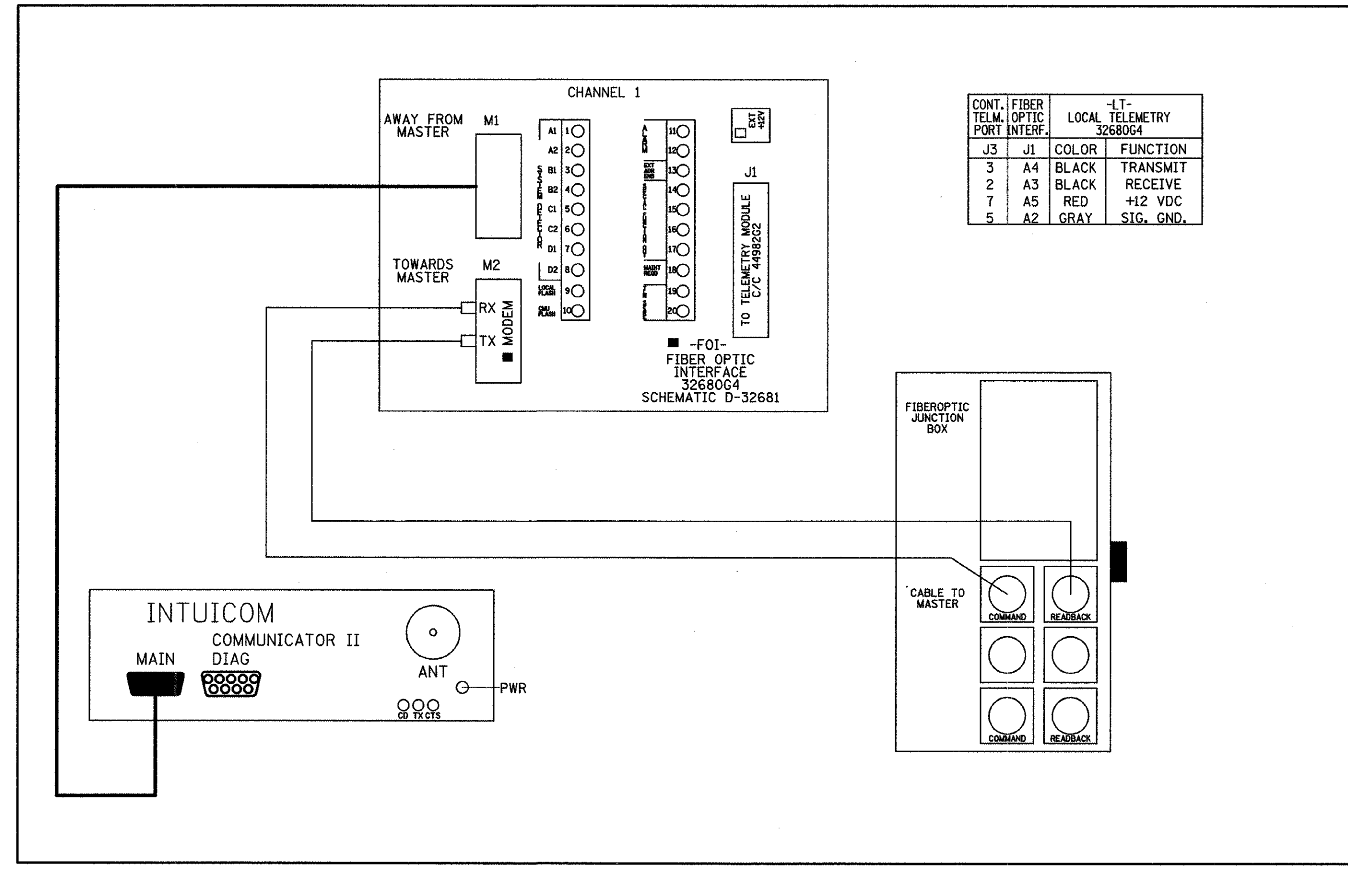
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

NOTES:

1. LUMINAIRE SHALL BE A MODEL AL-32000 LUMINAIRE, ARM END MOUNTED AS MANUFACTURED BY BEACON PRODUCTS OR AN EQUAL APPROVED BY THE CITY OF AURORA.
2. ALL CAST ALUMINUM PARTS ARE COPPER FREE ALLOY A356. ALL EXTRUDED ALUMINUM PARTS ARE ALLOY 6051-T6.
3. LENS: ACRYLIC PRISMATIC TYPE III ACRYLIC.
4. OPTICS: HYDROFORMED FACETED REFLECTOR WITH LIGHT SOURCE: 250 WATT H.P.S., ED-28 LAMP, (BY OTHERS). BALLAST: 250 WATT H.P.S., HPF CORE & COIL.
5. VOLTAGE: 240 VOLTS HZ:80.
6. FIXTURE SHALL BE NRTL LISTED FOR WET LOCATION.
7. FASTNERS: ALL FASTNERS ARE STAINLESS STEEL (TAMPER RESISTANT OPTIONAL, SPANNER HD (SHAKE EYE) SPECIAL TOOL REQUIRED, NOT PROVIDED).
8. FINISH: BEACOTE III POLYESTHER POWDER COAT ELECTROSTATICALLY APPLIED AND THERMOCURED. COLOR (SPECIFY).

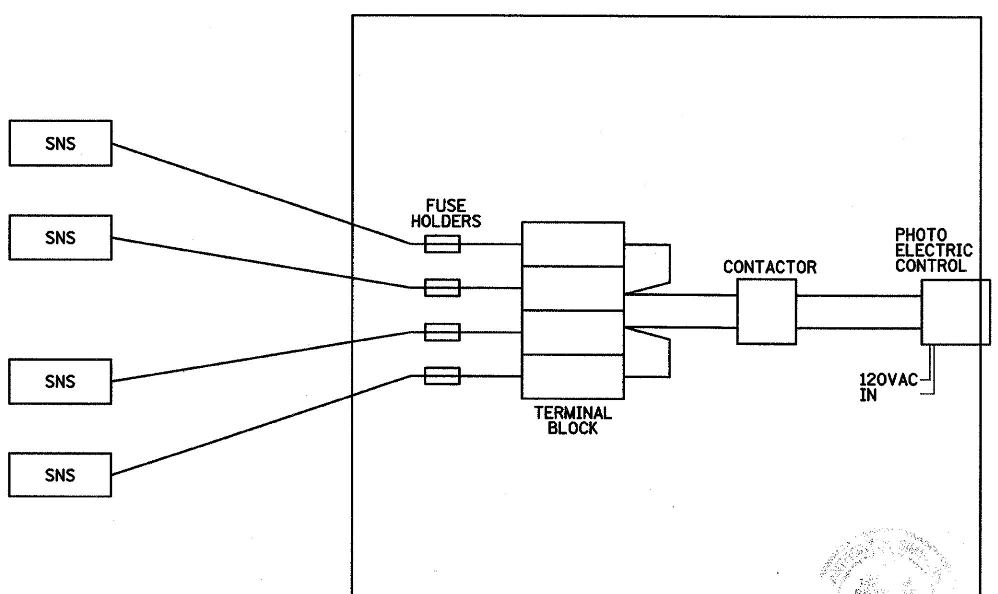


AL-32000 LUMINAIRE, ARM END MOUNTED

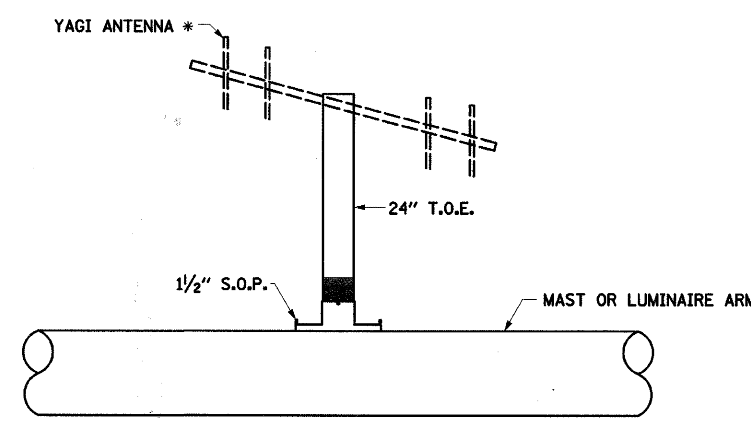


CONT. TELM. PORT	FIBER OPTIC INTERF.	-LT- LOCAL TELEMETRY 32680G4	
J3	J1	COLOR	FUNCTION
3	A4	BLACK	TRANSMIT
2	A3	BLACK	RECEIVE
7	A5	RED	+12 VDC
5	A2	GRAY	SIG. GND.

WIRING DETAIL FOR COMBINATION OF WIRELESS AND FIBER OPTIC INTERCONNECT SYSTEMS



LED STREET NAME SIGNS - PHOTOCELL WIRING DETAIL



WIRELESS ANTENNA MOUNTING DETAIL

* OR EQUAL APPROVED BY THE CITY OF AURORA.

FILE NAME = y:\jobs\smith\2007\070690 auro - traffic signals\070690.04 auro new york st. traffic signals... cad\trans\fin_dwg\690 ... dgn	USER NAME = _USER_	DESIGNED -	REVISED -
		DRAWN BAH	REVISED -
	PLOT SCALE = $SCALE$	CHECKED APS	REVISED -
	PLOT DATE = 4/15/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00267-00-TL	KANE	48	48
		CONTRACT NO. 63152		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT