

F.A.C. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
181	09-0099-07-TL	LAKE	72	1
		ILLINOIS CONTRACT NO. 63472		



LOCATION OF SECTION INDICATED THUS: —

IDOT STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 424001-05 CURB RAMPS FOR SIDEWALK
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, >15' AWAY
- 701006-03 OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
- 701101-02 OFF-ROAD OPERATIONS MULTILANE 15' TO 24' FROM PAVEMENT EDGE
- 701011-02 OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
- 701301-04 LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701502-08 URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
- 701602-05 URBAN LANE CLOSURE, MULTILANE 2W WITH BIDIRECTIONAL LEFT TURN LANE
- 701606-07 URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
- 701701-07 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 MOUNT DETAILS
- 814001-02 HANDHOLE
- 814006-02 DOUBLE HANDHOLE
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 873001-02 TRAFFIC SIGNAL GROUNDING AND BONDING
- 877001-04 STEEL MAST ARM ASSEMBLY AND POLE, 16' THROUGH 55'
- 877011-04 STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 16' THROUGH 55'
- 878001-08 CONCRETE FOUNDATION DETAILS
- 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED: *October 13, 2010*
Mark A. Suller
LAKE COUNTY DIVISION OF TRANSPORTATION
DIRECTOR OF TRANSPORTATION/COUNTY ENGINEER

PASSED: *NOVEMBER 9, 2010*
Chris A. Charnick
DISTRICT 1 ENGINEER OF LOCAL STREETS & ROADS

RELEASING FOR BID
BASED ON LIMITED
REVIEW: *11-4-2010*
Jim Oll
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

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

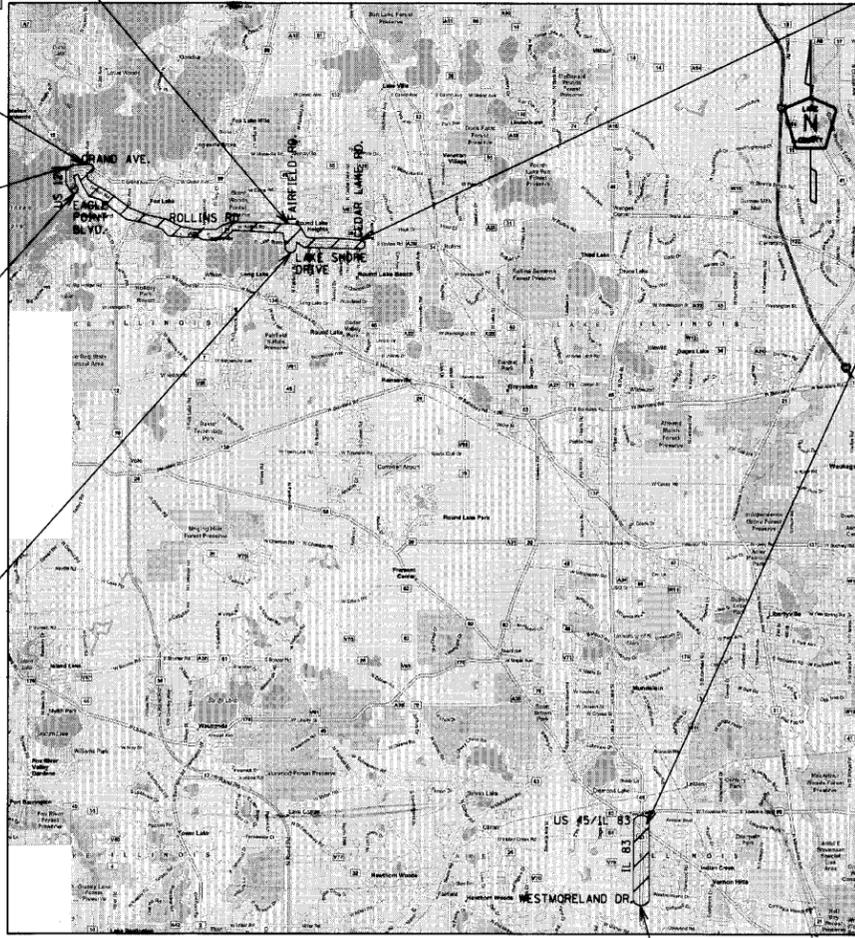
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**TRAFFIC SIGNAL MODERIZATION AND
FIBER OPTIC COMMUNICATION SYSTEM
CONGESTION MITIGATION AND AIR QUALITY
FAU 181 (ROLLINS RD.) FROM US 12 TO LOTUS DR.
FAP 344 (IL 83) US 45 TO WESTMORELAND DR.
FEDERAL PROJECT NO. CMM-9003(527)
SECTION 09-0099-07-TL
LAKE COUNTY DIVISION OF TRANSPORTATION
JOB NO. C-91-166-10**

INDEX OF SHEETS

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18 - 21	ROLLINS RD. @ FAIRFIELD RD.
22 - 26	ROLLINS RD. @ LOTUS DR.
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29 - 30	ROLLINS RD. @ WILSON RD.
31 - 32	US 12 (RAND RD.) @ GRAND AVE.
33 - 34	US 12 (RAND RD.) @ EAGLE POINT RD./SAYTON RD.
35 - 36	FAIRFIELD RD. @ LAKE SHORE DR.
37	ROLLINS RD. @ DRURY LN.
38	ROLLINS RD. @ IL 83
39 - 40	IL 83 @ WESTMORELAND DR.
41 - 42	IL 60 @ DIAMOND LAKE RD.
INTERCONNECT INSTALLATION LOCATIONS	
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44	GRAND AVE. FROM US 12 TO ROLLINS RD.
45 - 54	ROLLINS RD. FROM GRAND AVE. TO CEDAR LAKE RD.
55	ROLLINS RD. FROM HAINESVILLE RD. TO IL 83
56-58	IL 83 FROM WESTMORELAND RD. TO US 45
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70 - 72	DETAILS

LOCATION MAP
(NOT TO SCALE)



BEGIN PROJECT
FAIRFIELD RD. FROM
ROLLINS RD.
STA. 79+50

END PROJECT
ROLLINS RD. TO
CEDAR LAKE RD.
STA. 207+00

BEGIN PROJECT
ROLLINS RD. FROM
GRAND AVE.
STA. 0+00

END PROJECT
US 12 TO
GRAND AVE.
STA. 62+00

BEGIN PROJECT
US 12 FROM
EAGLE POINT BLVD
STA. 45+50

BEGIN PROJECT
IL 83 FROM
US 45/IL 83
STA. 345+00

END PROJECT
FAIRFIELD RD. TO
LAKE SHORE DR.
STA. 57+50

END PROJECT
IL 83 TO
WESTMORELAND RD.
STA. 281+00

THIS PROJECT IS LOCATED IN THE VILLAGE(S) OF: FOX LAKE
ROUND LAKE HEIGHTS
ROUND LAKE BEACH
VERNON HILLS

TOWNSHIP(S) OF: GRANT
AVON
VERNON

TRAFFIC DATA:

POSTED SPEED:
US 12
BETWEEN EAGLE PT. & GRAND AVE. = 35 MPH
ROLLINS RD.
BETWEEN GRAND AVE. & WILSON RD. = 35 MPH
BETWEEN WILSON RD. & FAIRFIELD RD. = 40 MPH
WEST OF LAKE SHORE DR. = 40 MPH
EAST OF LAKE SHORE DR. = 30 MPH
WEST OF GOLDENROD TERRACE = 30 MPH
EAST OF GOLDENROD TERRACE TO CEDAR LAKE RD. = 40 MPH

ADT:

23,900 BETWEEN EAGLE PT. & GRAND AVE. (US 12)
6,400 BETWEEN GRAND AVE. & SAYTON RD. (ROLLINS RD.)
8,500 BETWEEN SAYTON RD. & IL 59 (ROLLINS RD.)
11,400 BETWEEN IL 59 & WILSON RD. (ROLLINS RD.)
12,600 BETWEEN WILSON RD. & FAIRFIELD RD. (ROLLINS RD.)
15,700 BETWEEN FAIRFIELD RD. & LOTUS DR. (ROLLINS RD.)
23,900 BETWEEN LOTUS DR. & CEDAR LAKE RD. (ROLLINS RD.)

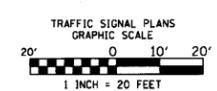
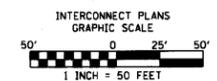
FUNCTIONAL CLASSIFICATION: ARTERIAL (US 12)
ARTERIAL (ROLLINS RD.)

CONTRACT NO. 63472

**J.U.L.I.E.
JOINT
UTILITY
LOCATION
INFORMATION
FOR
EXCAVATION
CALL 811**



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.



GROSS LENGTH = 50,250 FT. = 9.54 MILES
NET LENGTH = 37,328 FT. = 7.45 MILES

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. 847-705-4406 Schaumburg, IL



656 E. ALCONQUIN RD.
SCHAUMBURG, IL 60173
PHONE: 847-925-8128
FAX: 847-925-8148

ILLINOIS REGISTRATION NO. 062-047371
EXPIRATION DATE: 11/30/2011
PROFESSIONAL DESIGN FIRM NO. 184-000919



DRAWN BY: *Douglas J. Brazelton*
DATE: OCTOBER 13, 2010

GENERAL NOTES

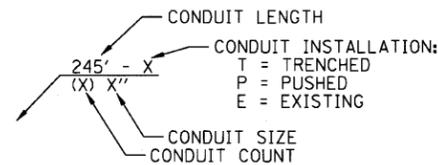
- 1) THIS PROJECT INVOLVES THE INSTALLATION OF CONDUIT, HANDHOLES, FIBER-OPTIC CABLE, PAN TILT ZOOM CAMERAS AND THEIR CABLES, MOUNTING POLES AND CABINETS, AND COMMUNICATION CABINETS AT LOCATIONS INDICATED ON PLANS.
- 2) ALL TRAFFIC SIGNAL CONTROLLER FIRMWARE UPGRADES AND CONTROLLER REMOVAL AND REPLACEMENT WORK WILL BE COMPLETED BY THE CONTRACTOR.
- 3) NEW FIBER-OPTIC CABLE SHALL BE INSTALLED, SPLICED, TERMINATED, AND TESTED, AS SPECIFIED IN THE SPECIAL PROVISIONS. NEW COMMUNICATION EQUIPMENT THAT WILL USE THE FIBER-OPTIC CABLE SHALL BE INSTALLED UNDER THIS CONTRACT. THE CABLE REROUTING, CONNECTIONS, AND OTHER WORK REQUIRED TO MAINTAIN EXISTING SIGNAL INTERCONNECT SYSTEMS IS ALSO INCLUDED UNDER THIS CONTRACT.
- 4) THESE PLANS USE EXISTING PLANS AS BACKGROUND WHERE POSSIBLE. THE CONTRACTOR MUST USE CARE TO CORRECTLY DISTINGUISH PROPOSED WORK FROM THE EXISTING WORK. CALLOUTS AND OTHER INFORMATION IN THE BACKGROUND OF THE VIDEO CAMERA INSTALLATION, COMMUNICATION NODES, AND COMMUNICATION INTERCONNECT PLAN SHEETS ARE NOT APPLICABLE TO THIS CONTRACT. APPLICABLE ITEMS ON THESE SHEETS ARE IDENTIFIED BY BOLD CALLOUTS AS DEFINED ON THE LEGEND ON THIS SHEET. BACKGROUNDS HAVE BEEN LIGHTENED TO HIGHLIGHT THE DISTINCTION BETWEEN BOLD CALLOUTS AND BACKGROUNDS.
- 5) THE SYSTEM COMMUNICATIONS ARE INTENDED TO OPERATE USING BOTH EXISTING AND PROPOSED FIBER OPTIC CABLES. INTERCONNECT SCHEMATICS ARE INCLUDED FOR AREAS THAT INVOLVE PROPOSED FIBER OPTIC CABLE. SHEETS SHOWING EXISTING CABLES ARE ALSO INCLUDED FOR INFORMATION ONLY.
- 6) GENERAL FIBER SPLICES AND TERMINATIONS ARE SHOWN ON THE FIBER LAYOUT SHEETS FOR SINGLE MODE FIBERS ONLY. SPECIFIC TUBE AND FIBERS THAT ARE SPLICED SHALL BE CHOSEN SYSTEMATICALLY AND BE DOCUMENTED TO THE SATISFACTION OF THE ENGINEER.
- 7) THE CONTRACTOR SHALL TERMINATE AND/OR SPLICE SINGLE-MODE FIBERS AS SHOWN ON THE PLANS. SEE FIBER LAYOUT SHEETS (62 - 69) FOR MORE DETAILS.
- 8) THE CONTRACTOR SHALL COORDINATE THE LOCATION AND ORIENTATION OF EACH PROPOSED CCTV CAMERA WITH THE ENGINEER PRIOR TO CAMERA INSTALLATION.
- 9) THE CONTRACTOR IS REQUIRED TO MARK THE RECORD DRAWINGS TO REFLECT ANY CHANGES TO THE PLANS. RECORD DRAWING REQUIREMENTS ARE IDENTIFIED IN SECTION 801.16 OF THE STANDARD SPECIFICATIONS.

UTILITY CONTACTS

ComEd	MR. FRANK ZACCARI (VILLAGE OF FOX LAKE)	(847) 816-5489
	MS. KIM KANGAS (VILLAGE OF ROUND LAKE HEIGHTS)	(847) 816-5497
	MS. KIM KANGAS (VILLAGE OF ROUND LAKE BEACH)	(847) 816-5497
AT&T CORP.	MR. HECTOR GARCIA	(847) 742-1631
NICOR	MS. CONSTANCE LANE	(630) 388-3830
ADESTA	MR. CHRIS ROBERTS	(630) 343-2806
COMCAST	MR. ROBERT SCHULTER	(630) 600-6347

TYPICAL CALLOUT NOTES

CALLOUT BOLD CALLOUT PERTAINING TO THIS PROJECT
(FOR VIDEO CAMERA INSTALLATION, COMMUNICATION NODES,
AND COMMUNICATION INTERCONNECT PLAN SHEETS)



- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE



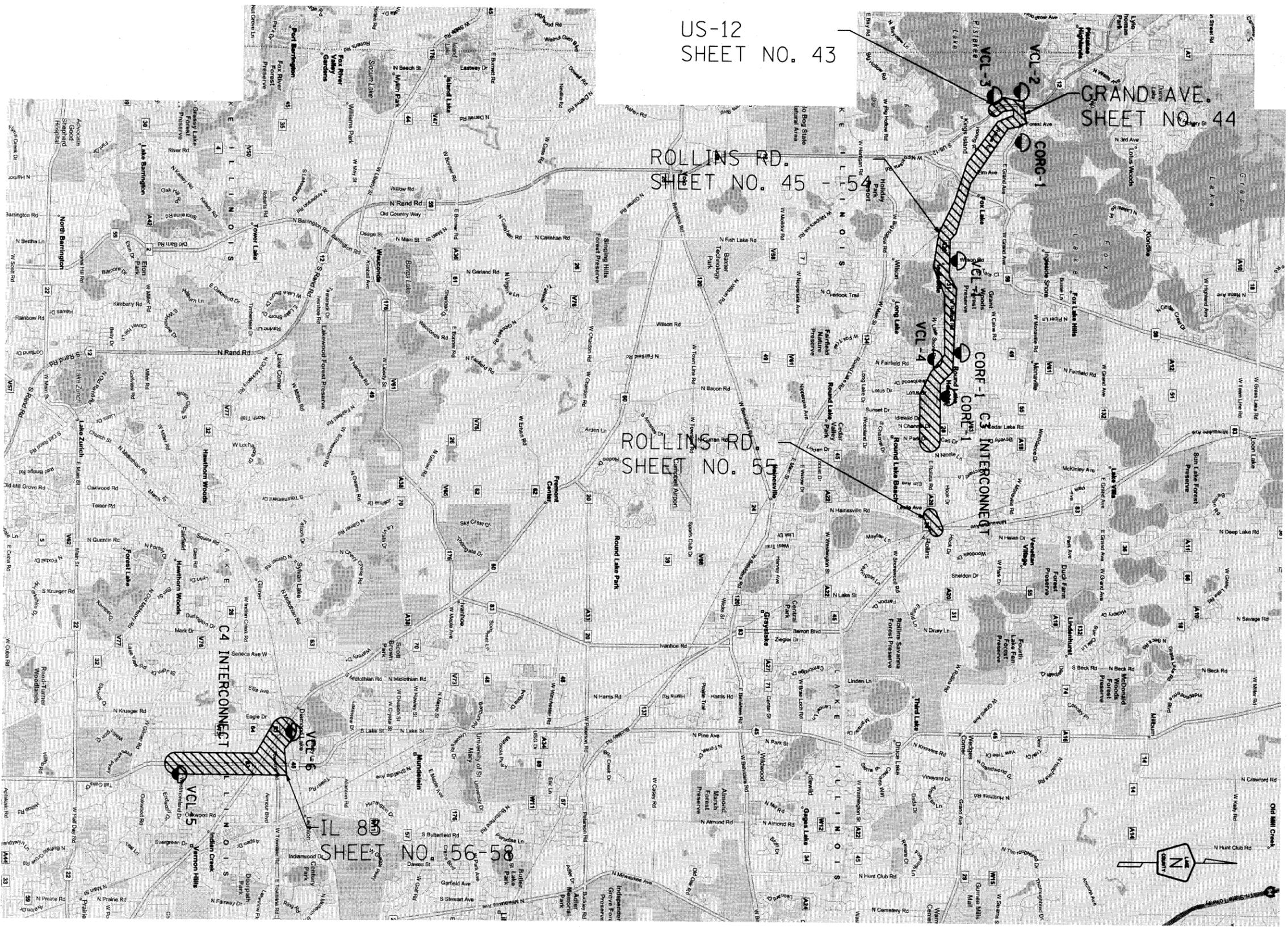
USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

SCALE: N/A

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	2	72
		GN-1	CONTRACT NO. 09472	



-  - CMAQ INTERCONNECT CORRIDOR
-  - CMAQ CAMERA LOCATIONS

US-12
SHEET NO. 43

GRAND AVE.
SHEET NO. 44

ROLLINS RD.
SHEET NO. 45 - 54

ROLLINS RD.
SHEET NO. 55

SHEET NO. 56-58



USER NAME = JM
DESIGNED - DG
DRAWN - JM
CHECKED - DG
PLOT DATE = 10-05-2010

REVISD -
REVISD -
REVISD -
REVISD -
DATE - 10-05-2010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAP OF LOCATIONS

SCALE: N/A

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	3	72
MLOC			CONTRACT NO. 09472	

NEW CAMERA INSTALL/TRAFFIC SIGNAL MODERNIZATION LOCATIONS

INSTALLATION TYPE	DRAWING NO.	INTERSECTION LOCATION	SHEET NO.
TRAFFIC SIGNAL MODERNIZATION	CORG-1 - CORG-4	ROLLINS RD @ GRAND AVE.	14 - 17
TRAFFIC SIGNAL MODERNIZATION	CORF-1 - CORF-4	ROLLINS RD @ FAIRFIELD RD.	18 - 21
TRAFFIC SIGNAL MODERNIZATION	CORL-1 - CORL-4	ROLLINS RD @ LOTUS DR.	22 - 26
CONTROLLER UPGRADE INTERSECTION LOCATION	CUGRO-1 - CUGRO-1-1	ROLLINS RD. @ WASHINGTON ST.	27 - 28
VIDEO CAMERA LOCATION	VCL-1 - VCL1-1	ROLLINS RD. @ WILSON RD.	29 - 30
VIDEO CAMERA LOCATION	VCL-2	US 12 (RAND RD.) @ GRAND AVE.	31 - 32
VIDEO CAMERA LOCATION	VCL-3 - VCL3-1	US 12 (RAND RD.) @ EAGLE POINT RD./SAYTON RD.	33 - 34
VIDEO CAMERA LOCATION	VCL-4 - VCL-4-1	FAIRFIELD RD. @ LAKE SHORE DR.	35 - 36
COMMUNICATION CABINET REMOVAL	COM-1	ROLLINS RD. @ DRURY LN.	37
COMMUNICATION CABINET REINSTALL	COM-2	ROLLINS RD. @ IL 83	38
VIDEO CAMERA LOCATION	VCL-5-1 - VCL-5-2	IL 83 @ WESTMORELAND DR.	39 - 40
VIDEO CAMERA LOCATION	VCL-6 - VCL-6-1	IL 60 @ DIAMOND LAKE RD.	41 - 42

INTERCONNECT LOCATIONS

INSTALLATION TYPE	DRAWING NO.	LOCATION	SHEET NO.
US 12 INTERCONNECT	C3-1	FROM EAGLE PT RD./SAYTON RD. TO GRAND AVE.	43
GRAND AVE. INTERCONNECT	C3-2	FROM US 12 TO ROLLINS RD.	44
ROLLINS ROAD INTERCONNECT	C3-3 - C3-12	FROM GRAND AVE. TO CEDAR LAKE RD.	45 - 54
ROLLINS RD. INTERCONNECT	C3-21	FROM HAINESVILLE RD. TO IL 83	55
IL 83 INTERCONNECT	C4-1 - C4-3	WESTMORELAND RD. TO US 45	56-58



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INSTALLATION LOCATIONS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	4	72
SCALE: N/A		ILOC	CONTRACT NO. 09472	

CONTRACT NO. 09472

Lake County Department of Transportation
 1001 North Lake Street
 Moline, IL 61201
 Phone: 309-243-3000
 Fax: 309-243-3001
 Website: www.lakecountyil.gov

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE													
				ROLLINS RD. & GRAND AVE. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & FAIRFIELD AVE. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & LOTUS ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & WASHINGTON ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & WILSON RD. ROADWAY 0021 (TYP) RURAL	US 12 @ GRAND AVE. ROADWAY 0021 (TYP) RURAL	US 12 @ EAGLE PT. / SAYTON RD. ROADWAY 0021 (TYP) RURAL	FAIRFIELD RD. @ LAKE SHORE DR. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. @ DRURY LN. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. @ IL 83 ROADWAY 0021 (TYP) RURAL	IL 83 @ WESTMORELAND DR. ROADWAY 0021 (TYP) RURAL	DIAMOND LAKE RD. @ IL 60 ROADWAY 0021 (TYP) RURAL	INTERCONNECT ROADWAY 0021 (TYP) RURAL	
* 42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	3238	1312	755	1171											
* 42400800	DETECTABLE WARNINGS	SO FT	288	96	96	96											
* 44000500	SIDEWALK REMOVAL	SO FT	2540	1312	755	473											
67100100	MOBILIZATION	L SUM	1														
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1														
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1														
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1														
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1														
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1														
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1														
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	2164	798	790	576											
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	910	196	282	432											
* 78300100	PAVEMENT MARKING REMOVAL	SO FT	2143	994	141	1008											
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	25368		235	145						30					24958
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	244	63	75	106											
81000900	CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	312	31	52	76			6	30			95		22		
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	121	20	20	71						10					
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	4456	15													
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	1190	410	406	263								111			4441
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	150														150
81300830	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 18" X 8"	EACH	2														2
81400100	HANDHOLE	EACH	49	3	2	2											42
81400200	HEAVY-DUTY HANDHOLE	EACH	5														5
81400300	DOUBLE HANDHOLE	EACH	5	1	2	2											
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT	2195	522	867	806											
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	26045	114	382	398			6	30		40	95		22		24958
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	10	3	4	3											
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	10				1	1	1	1	1	1	1	1	1	1	1
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	5587	1772	1979	1766			70								
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	7275	1920	2130	1795		184	310	217	215		301		203		
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3881	924	538	682			109	194			864		570		
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	5214	1395	1737	1320			121	115			312		214		
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	370	64	69	194						43					
87301815	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 3 C	FOOT	42									42					
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1						1								
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	3							1			1		1		
87704040	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT. (SPECIAL)	EACH	1		1												
87704050	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT. (SPECIAL)	EACH	2			2											
87704060	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT. (SPECIAL)	EACH	1		1												
87704080	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)	EACH	1	1													
87704090	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL)	EACH	3	1		2											
87704100	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL)	EACH	2		2												
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	84	32	16	32						4					
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	12	4	4	4											
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	4									4					
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	225	45	60	60			15	15			15		15		
87900200	DRILL EXISTING HANDHOLE	EACH	15		1				1	1		2	2		1		7
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	19	4	3	5			1	2			2		2		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4	1		1							1		1		
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4	4													
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	6		3	3											
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	12		5	3			1	1			1		1		
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1		1												

* SPECIALTY ITEM



USER NAME = JM
 PLOT SCALE =
 PLOT DATE = 10-05-2010

DESIGNED - DG
 DRAWN - JM
 CHECKED - DG
 DATE - 10-05-2010

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: N/A SHEET 1 OF 2

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-T	5	72
S00-1			CONTRACT NO. 63472	

DELTA COUNTY
 DEPARTMENT OF TRANSPORTATION
 10-05-2010

SUMMARY OF QUANTITIES (CONTD.)

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE													
				ROLLINS RD. & GRAND AVE. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & FAIRFIELD AVE. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & LOTUS ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & WASHINGTON ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & WILSON RD. ROADWAY 0021 (TYP) RURAL	US 12 & GRAND AVE. ROADWAY 0021 (TYP) RURAL	US 12 & EAGLE PT. / SAYTON RD. ROADWAY 0021 (TYP) RURAL	FAIRFIELD RD. & LAKE SHORE DR. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & DRURY LN. ROADWAY 0021 (TYP) RURAL	ROLLINS RD. & IL 83 ROADWAY 0021 (TYP) RURAL	IL 83 & WESTMORELAND DR. ROADWAY 0021 (TYP) RURAL	DIAMOND LAKE RD. & IL 60 ROADWAY 0021 (TYP) RURAL	INTERCONNECT ROADWAY 0021 (TYP) RURAL	
88030230	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	1	1													
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	26	8	8		4		4	2							
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3				1		2								
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	35	8	8	8			2	3				3		3	
88700200	LIGHT DETECTOR	EACH	9	3	2	2			1	1							
88700300	LIGHT DETECTOR AMPLIFIER	EACH	5	1	1	1			1	1							
88800100	PEDESTRIAN PUSH-BUTTON	EACH	25	8	8	8			1	1							
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	3	1	1	1			1								
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	3				1	1									
89502710	MODIFY EXISTING CONTROLLER CABINET	EACH	7						1	1	1	1	1	1	1	1	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	15637	5886	2718	4657			662	340				821		553	
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	22														
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	10	1	1	1	1	1	1	1				22			
89502380	REMOVE EXISTING HANDHOLE	EACH	25	5	10	10								1		1	
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	28	5	9	9			1	1				1		1	
X0325462	MEDIA CONVERTER	EACH	1						1	1				1		1	
X0326094	RELOCATE EXISTING ITS CONTROLLER CABINET	EACH	1											1			1
X0326810	WIRELESS COMMUNICATION DEVICE	EACH	2	1					1								
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1														
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	5	1	1	1			1								
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	6	1	1	1	1	1						3			
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	35				1	1									
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 IC	FOOT	1722	467	523	551			74							35	
X8730320	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	1616	474	484	426				119				64		43	
X8730535	ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4C	FOOT	1884	212	338	213			184	114				104		215	
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	8				2									301	203
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	17				6									4	2
X8808118	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	3						3						2	3
XX003661	ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	1884	212	338	213			184	114				104		215	
XX004442	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	14				2									301	203
XX004443	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	9				2			4						2	2
XX005123	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1		1				3	3							1
XX005931	TRAFFIC SIGNAL POST, 16 FOOT, (SPECIAL)	EACH	13	5	4	4											
XX005932	TRAFFIC SIGNAL POST, 18 FOOT, (SPECIAL)	EACH	4	2		2											
XX005937	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	12	4	4	4											
XX005940	REMOTE CONTROLLED VIDEO SYSTEM	EACH	9	1	1	1			1	1				1		1	
XX006655	LAYER II (DATALINK) SWITCH	EACH	10	1	1	1			1	1				1		1	
XX006657	RELOCATE EXISTING VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)	EACH	1				1	1	1	1				1		1	
XX007017	TERMINATE FIBER IN CABINET	EACH	56				1										
XX007739	WIRELESS VEHICLE DETECTION SYSTEM	EACH	2	1		1								6	26		24
XX007952	TERMINAL SERVER	EACH	2				1		1								
XX008131	ELECTRIC CABLE IN CONDUIT, NO. 18 3C FOR VIDEO	FOOT	867		867												
X8710021	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE	FOOT	34822														
XX008251	SPLICE FIBER IN CABINET	EACH	9														34822
XX008252	QUAD ENCODER	EACH	1											9			
XX008253	VIDEO ENCODER	EACH	10	1	1	1			1	1							
XX008256	UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	2						1	1				1		1	
XX008392	OUTDOOR RATED NETWORK CABLE	FOOT	1187	636		402			114							35	
XX008437	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 28 FT. AND 30 FT. (SPECIAL)	EACH	1	1													
Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	504	176	212	116											
Z0010688	CAMERA MOUNTING ASSEMBLY	EACH	2						1								
Z0033090	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	34286														
Z0076600	TRAINEES	HOUR	500													35	34251

* SPECIALTY ITEM
 Δ CONSTRUCTION CODE 0042



USER NAME = JM
 PLOT SCALE =
 PLOT DATE = 10-05-2010

DESIGNED - DG
 DRAWN - JM
 CHECKED - DG
 DATE - 10-05-2010

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: N/A SHEET 2 OF 2

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL 6	6	72
S00-2			CONTRACT NO. 63472	

FIBER OPTIC CABLE TERMINATING/SPLICING SCHEDULE
(BY INTERSECTION/LOCATION)

INTERSECTION/LOCATION	INC		ITS	
	T	S	T	S
US 12 (RAND RD.) @ EAGLE POINT RD./SAYTON RD.			12	
US 12 (RAND RD.) @ GRAND AVE.	8	4	8	
ROLLINS RD. @ GRAND AVE.	16	4		
ROLLINS RD. @ WASHINGTON RD	16	4		
ROLLINS RD. @ WILSON RD.	16	4		
ROLLINS RD. @ FAIRFIELD RD.	4	12	8	
W LAKE SHORE @ FAIRFIELD RD.			12	
ROLLINS RD. @ LOTUS DR.	8	8		
ROLLINS RD. @ CEDAR LAKE RD.	4	8		
ROLLINS RD. @ ORCHARD				8
ROLLINS RD. @ HAINESVILLE		2		6
ROLLINS RD. @ IL 83		4	26	
ROLLINS RD. @ JEWEL				3
ROLLINS RD. @ HOOK				3
ROLLINS RD. @ DRURY LN.			6	9
IL83 @ DIAMOND LAKE RD.			6	
IL60 @ IL83				6
IL60 @ US45			12	
US45 @ IL83	6	6		
IL83 @ WESTMORELAND	6	6	6	
GILMER @ DIAMOND LK			6	
GILMER @ IL83				12
IL83 @ IL22			6	

INC: INCLUDED IN THE COST FOR FIBER OPTIC SPLICING/TERMINATION
ITS: PAID FOR AS FIBER OPTIC SPLICING/TERMINATION
S: FIBER OPTIC SPLICE
T: FIBER OPTIC TERMINATION



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

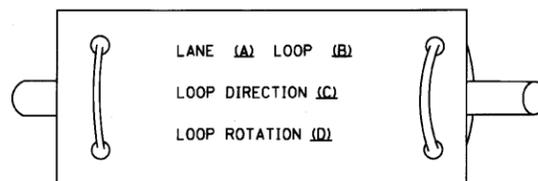
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC TERMINATIONS/SPLICES		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
SCALE: N/A		FAU 181		09-00999-07-TL	7	72
				F00	CONTRACT NO. 03472	

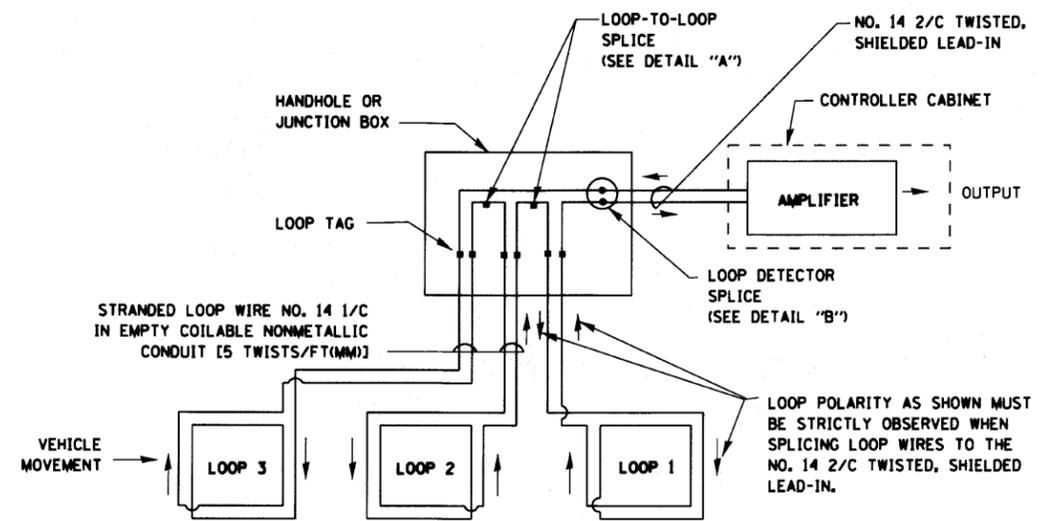
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

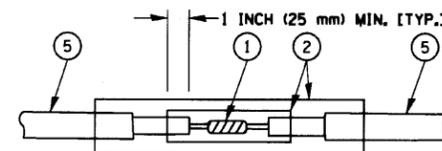


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

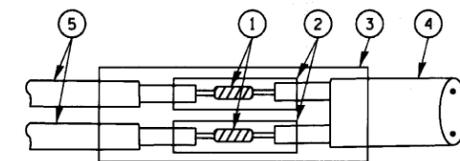


DETECTOR LOOP WIRING SCHEMATIC

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

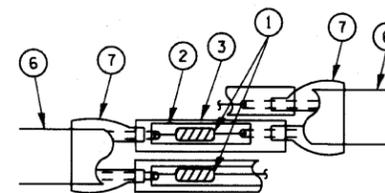


DETAIL "A" LOOP-TO-LOOP SPLICE

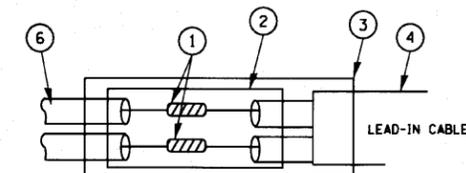


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



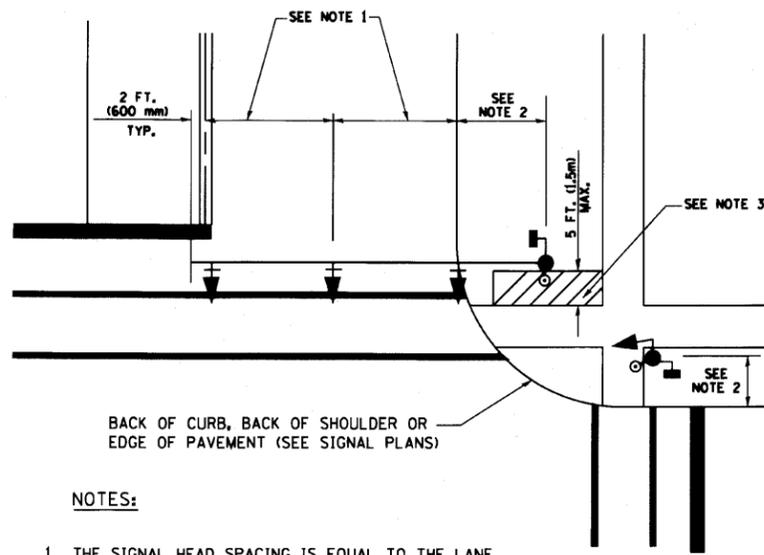
DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

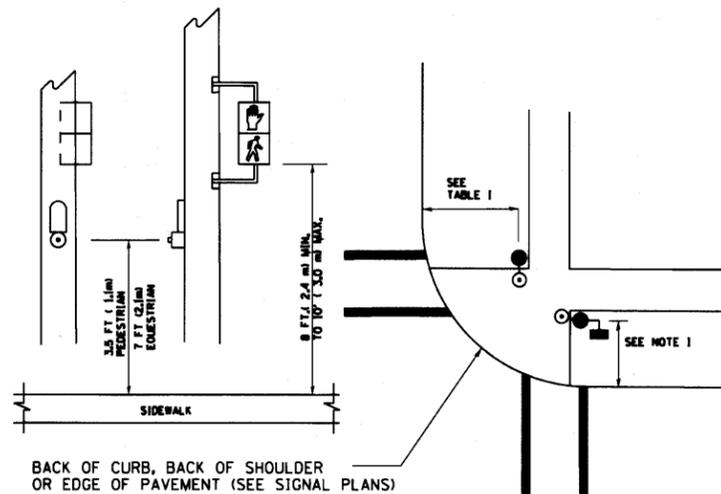
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

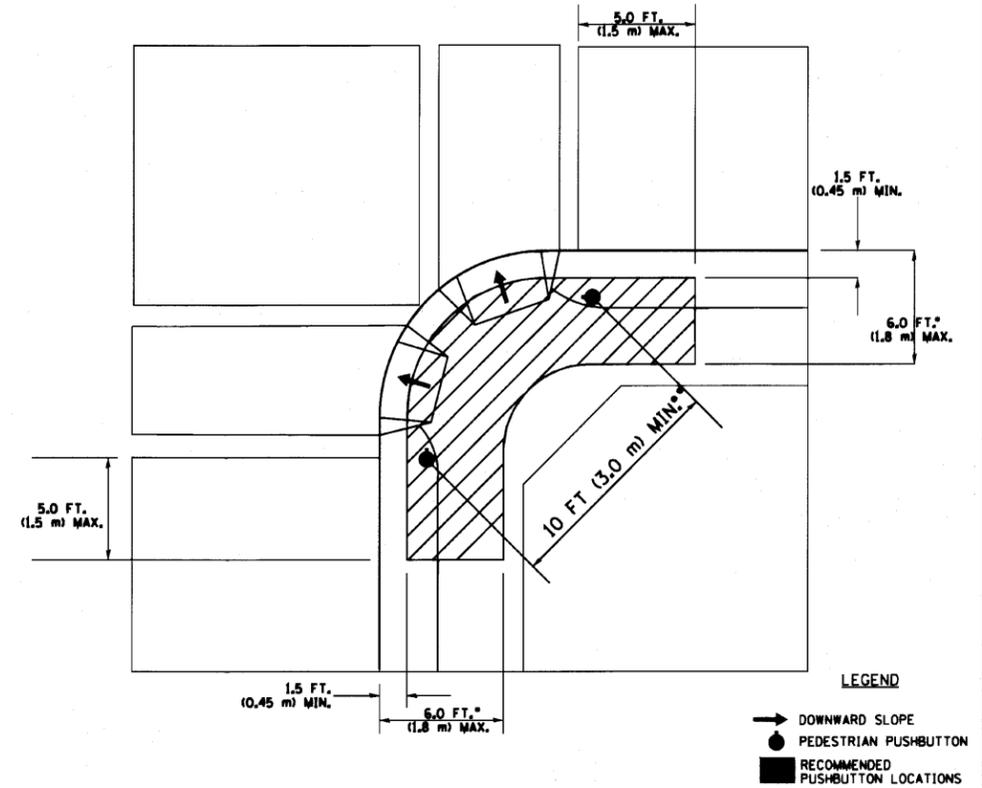
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



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

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

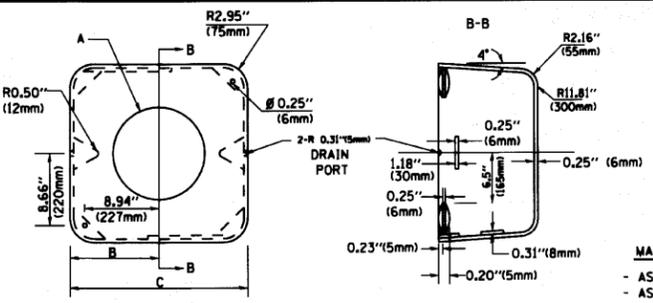
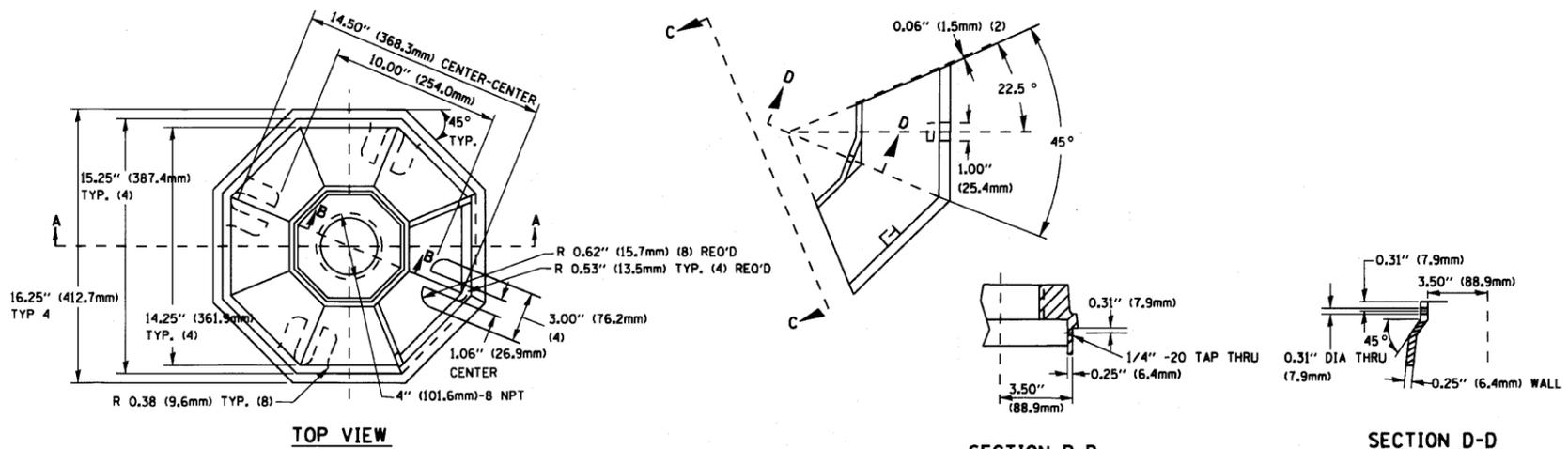


USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
STANDARD TRAFFIC DESIGN DETAILS		FAU 181		09-00999-07-TL	9	72
SCALE: N/A	SHEET 2 OF 6	TS-05		CONTRACT NO. 09472		

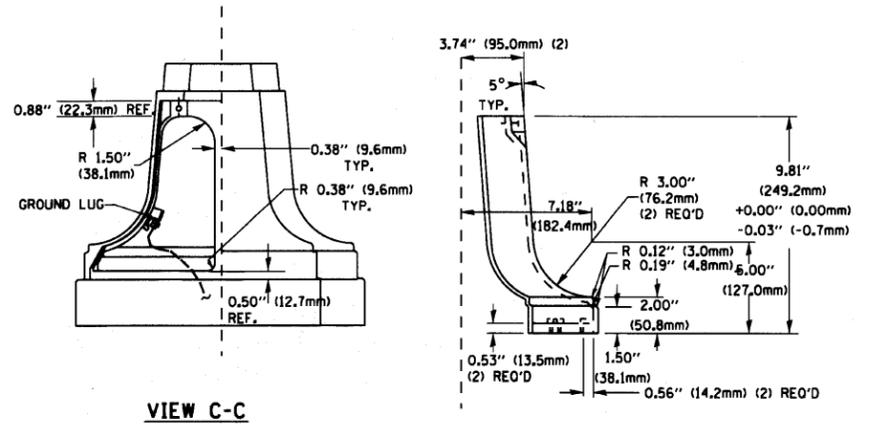
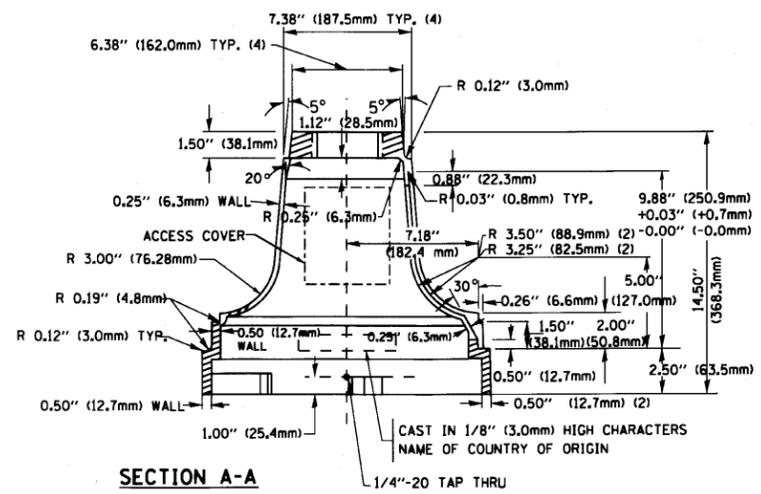
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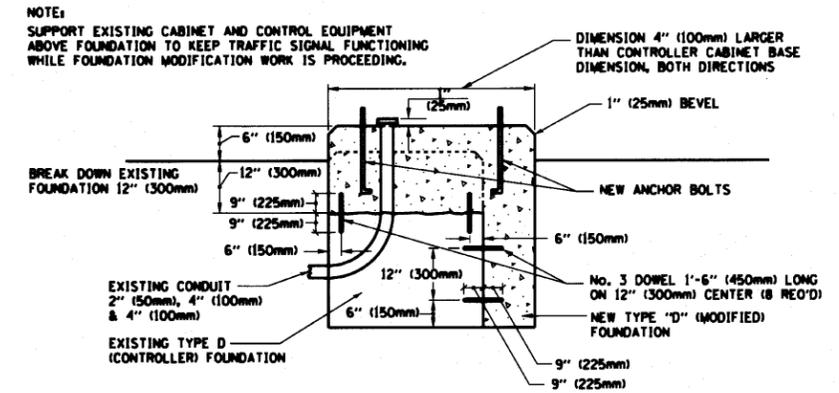
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIABLES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIABLES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIABLES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)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

SHROUD

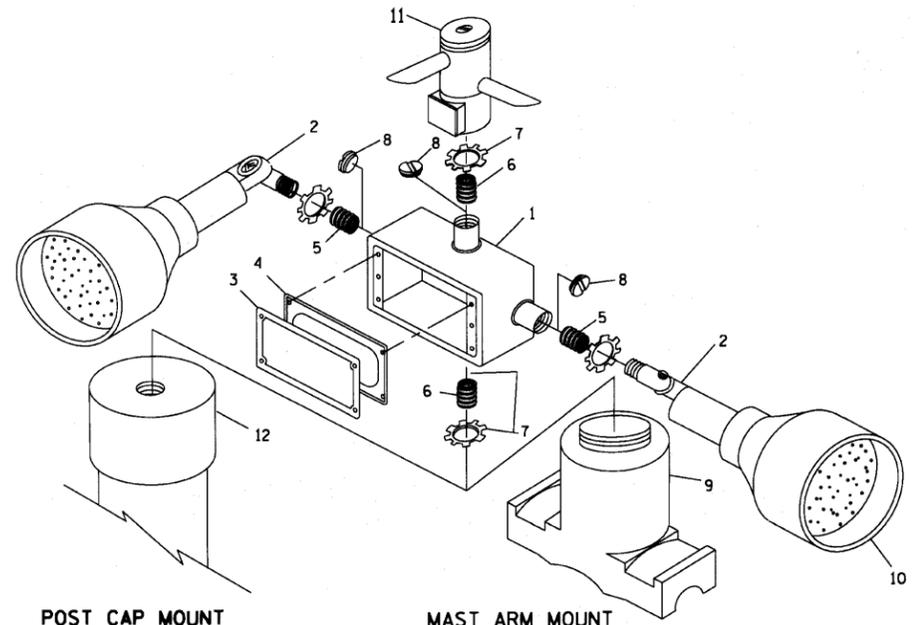
- NOTES:**
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST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



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

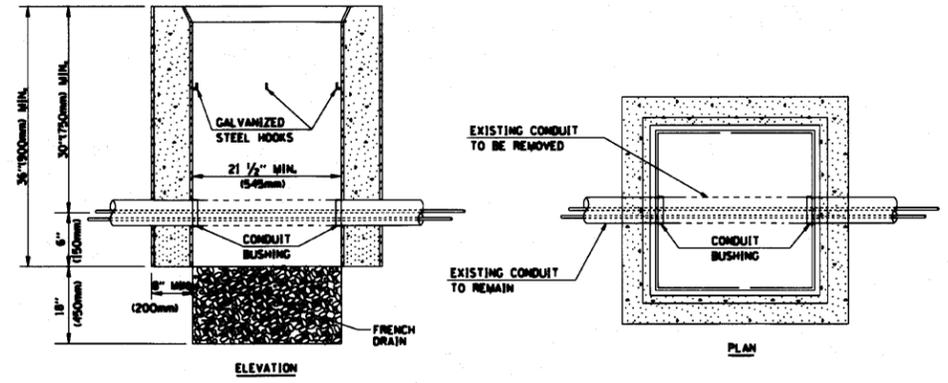


MODIFY EXISTING TYPE "D" FOUNDATION



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

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



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

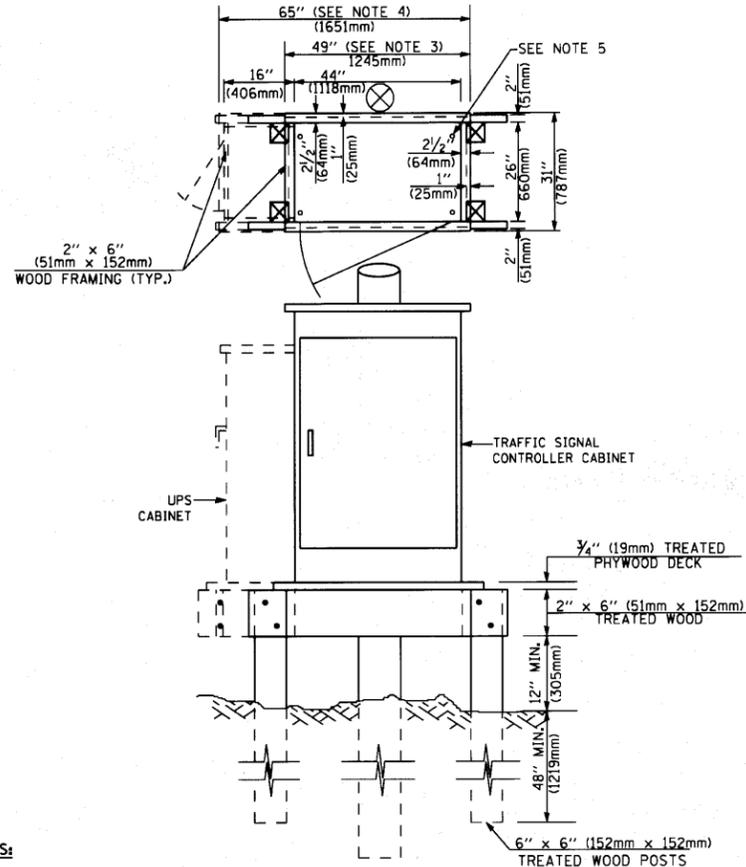
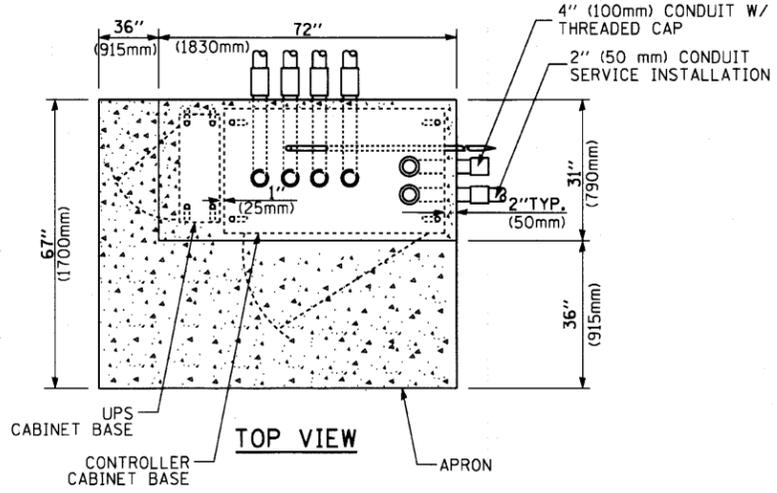
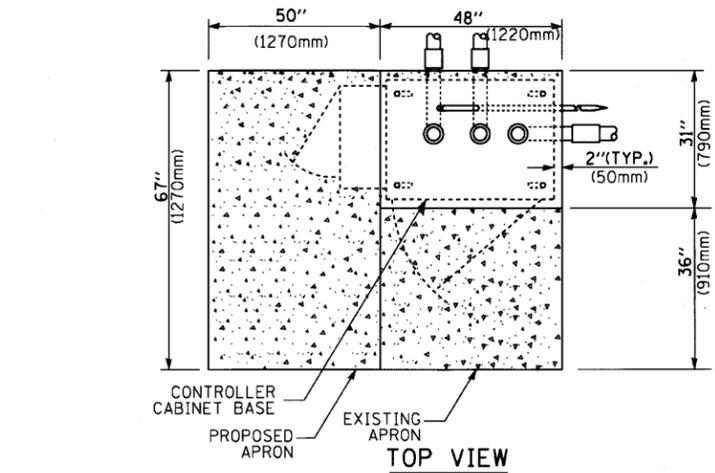
HANDHOLE TO INTERCEPT EXISTING CONDUIT



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

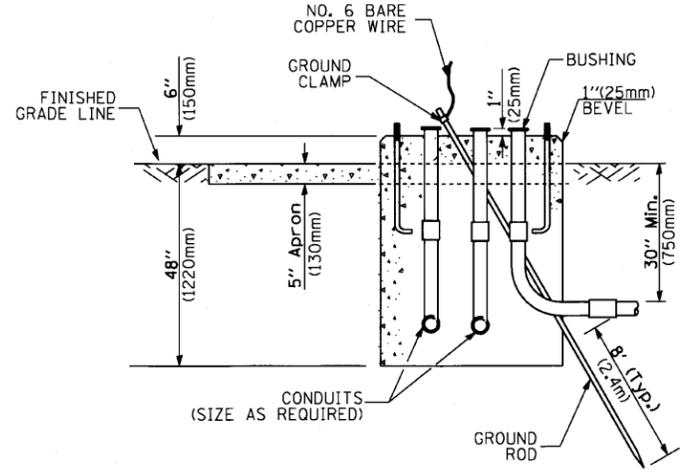
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
STANDARD TRAFFIC DESIGN DETAILS		FAU		09-00999-07-TL	11	72
SCALE: N/A		SHEET 4 OF 6		TS-05		CONTRACT NO. 68472

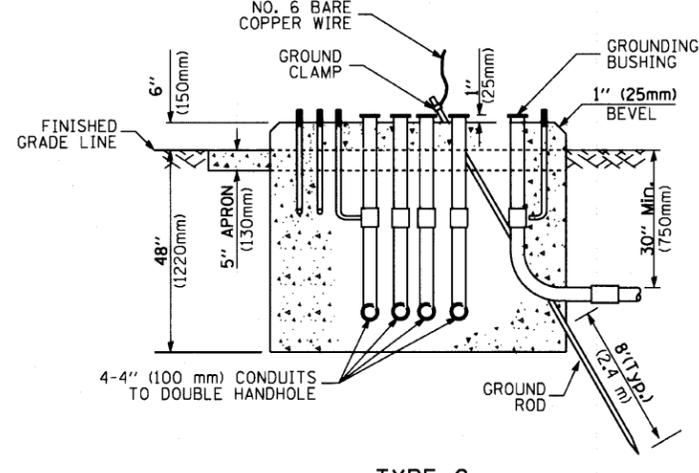


- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET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

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM



TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 56' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E



USER NAME = JM	DESIGNED - DC	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
STANDARD TRAFFIC DESIGN DETAILS		FAU	181	09-00999-07-TL	12	72
SCALE: N/A	SHEET 5 OF 6	TS-05		CONTRACT NO. 094172		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET			
RAILROAD CONTROL CABINET			
COMMUNICATIONS CABINET			
MASTER CONTROLLER			
MASTER MASTER CONTROLLER			
UNINTERRUPTIBLE POWER SUPPLY			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT			
STEEL MAST ARM ASSEMBLY AND POLE			
ALUMINUM MAST ARM ASSEMBLY AND POLE			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA			
SIGNAL POST			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM			
GUY WIRE			
SIGNAL HEAD			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			
SIGNAL HEAD WITH BACKPLATE			
SIGNAL HEAD OPTICALLY PROGRAMMED			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)			
PEDESTRIAN SIGNAL HEAD			
PEDESTRIAN PUSHBUTTON DETECTOR			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR			
ILLUMINATED SIGN "NO LEFT TURN"			
ILLUMINATED SIGN "NO RIGHT TURN"			
DETECTOR LOOP, TYPE I			
PERFORMED DETECTOR LOOP			
MICROWAVE VEHICLE SENSOR			
VIDEO DETECTION CAMERA			
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA			
WIRELESS DETECTOR SENSOR			
WIRELESS ACCESS POINT			

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR			
CONFIRMATION BEACON			
HANDHOLE			
HEAVY DUTY HANDHOLE			
DOUBLE HANDHOLE			
JUNCTION BOX			
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION			
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE			
SIGNAL FACE			
SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD			
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER			
RADIO INTERCONNECT			
RADIO REPEATER			
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED			
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)			

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
COAXIAL CABLE			
VENDOR CABLE FOR CAMERA			
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
FIBER OPTIC CABLE NO. 62.5/125, MM12F			
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SAMPLING (SYSTEM) DETECTOR			
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PREFORMED SAMPLING (SYSTEM) DETECTOR			

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		



USER NAME = JM	DESIGNED - DG	REVISED -
DRAWN - JM	CHECKED - DG	REVISED -
PLOT SCALE =	DATE - 10-05-2010	REVISED -
PLOT DATE = 10-05-2010		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

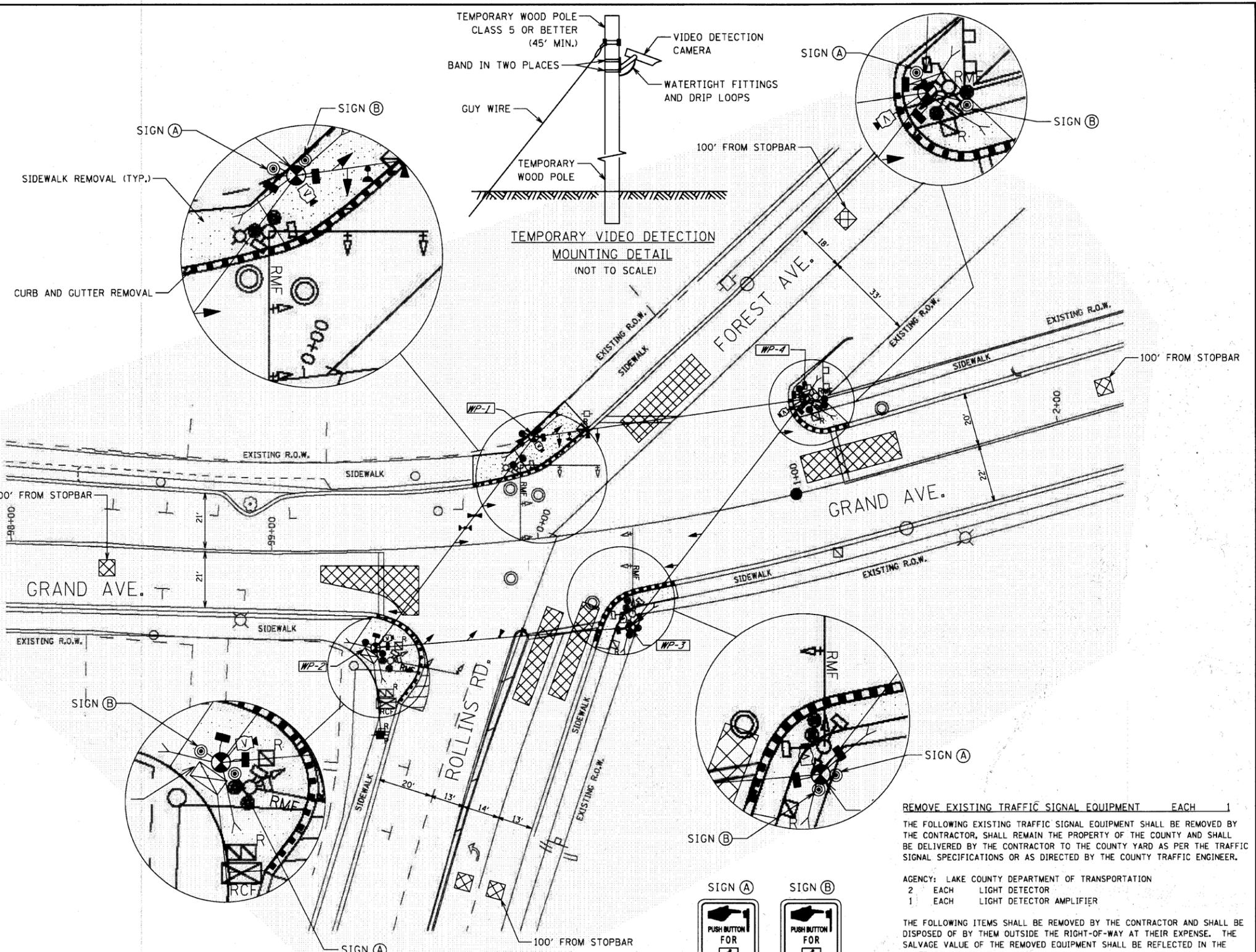
DISTRICT ONE	
STANDARD TRAFFIC DESIGN DETAILS	
ROUTE	SECTION
FAU 181	
SECTION NUMBER	
09-00999-07-TL	
TS-05	

SHEET	SHEETS
13	72
CONTRACT NO. 09472	

SCALE: N/A SHEET 6 OF 6

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (30mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME, 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. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT THE TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM (PTZ) CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



CONSTRUCTION NOTES FOR TEMPORARY TRAFFIC SIGNALS:

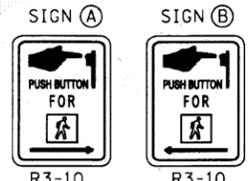
1. THE CONTRACTOR SHALL ABANDON ALL EXISTING CONDUITS. THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".
2. THE CONTRACTOR SHALL ABANDON THE EXISTING LOOP(S). THE EXISTING LEAD-IN CABLE SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. INCLUDED IN COST FOR "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1
 THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR. SHALL REMAIN THE PROPERTY OF THE COUNTY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS OR AS DIRECTED BY THE COUNTY TRAFFIC ENGINEER.

AGENCY: LAKE COUNTY DEPARTMENT OF TRANSPORTATION
 2 EACH LIGHT DETECTOR
 1 EACH LIGHT DETECTOR AMPLIFIER

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

9	EACH	SIGNAL HEAD, 3-SECTION
4	EACH	SIGNAL HEAD, 4-SECTION
8	EACH	PEDESTRIAN SIGNAL HEAD
8	EACH	PEDESTRIAN PUSH-BUTTON
3	EACH	STEEL MAST ARM ASSEMBLY AND POLE
1	EACH	TRAFFIC SIGNAL POST
1	EACH	SERVICE INSTALLATION
1	EACH	CABINET AND CONTROLLER (COMPLETE)



4 REQUIRED 4 REQUIRED
 (INCLUDED IN COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION)



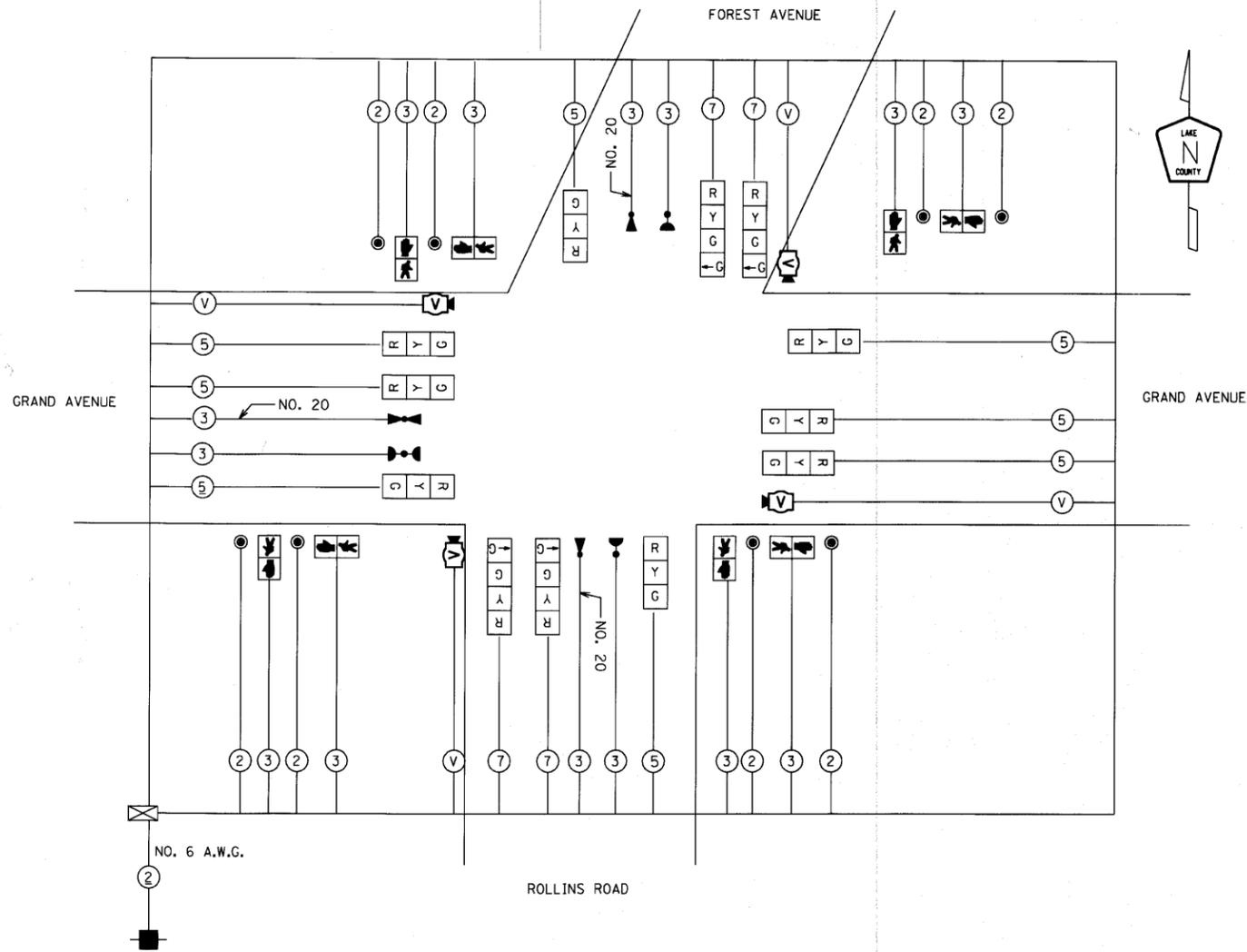
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PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

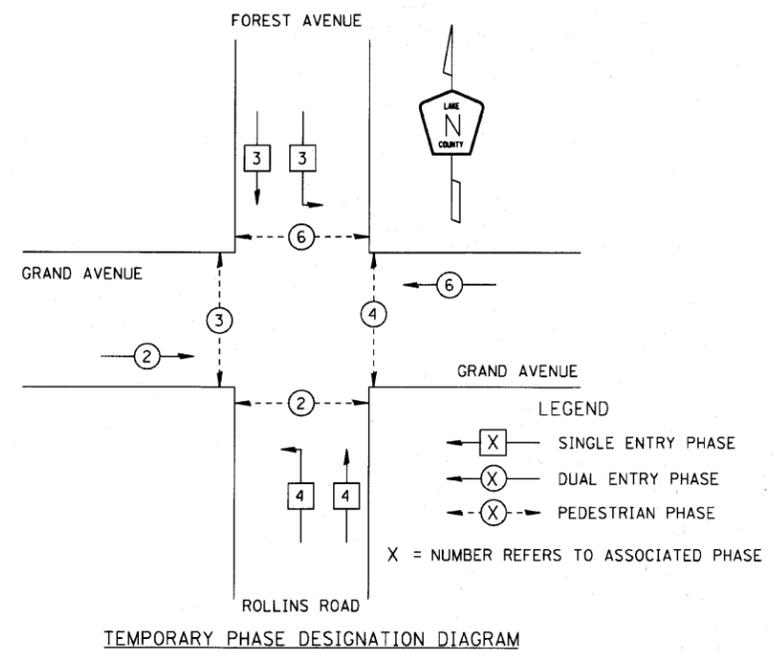
REMOVAL & TEMPORARY TRAFFIC SIGNAL INSTALLATION	
ROLLINS RD. @ GRAND AVE.	
SCALE: 1"=20'	

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	14	72
		CORR-1	CONTRACT NO. 09472	

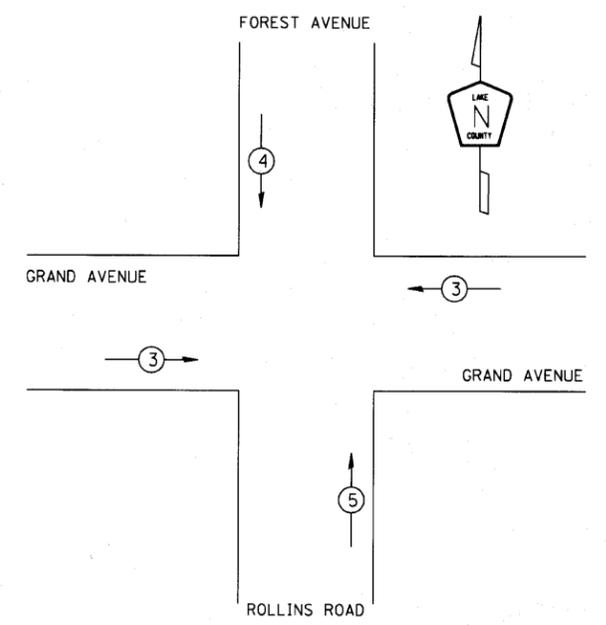
DATE PLOTTED: 10/05/2010 10:05:20 AM
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TEMPORARY CONTROLLER SEQUENCE
 REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



TEMPORARY EMERGENCY
 VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	← →	↓	↑

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (L.E.D.)
		INCAND.	LED		
SIGNAL (RED)	12		10	0.50	60
(YELLOW)	12		19	0.10	22.8
(GREEN)	16		11	0.40	70.4
PED SIGNAL	8		9	1.00	72
CONTROLLER	1		100	1.00	100
LUMINAIRE			250	0.50	
L.E.D. ST. NAME SIGN			64	0.50	
VIDEO SYSTEM	1		150	1.00	150
BATTERY BACKUP			25		
TOTAL					475.20

ENERGY COSTS - BILLED TO: VILLAGE OF FOX LAKE
 (ADDRESS) 66 THILLEN DR.
 (ADDRESS) FOX LAKE, IL
 ENERGY SUPPLY - CONTACT: MR. FRANK ZACCARI
 PHONE: (847) 816-5489
 COMPANY: COMED

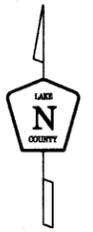
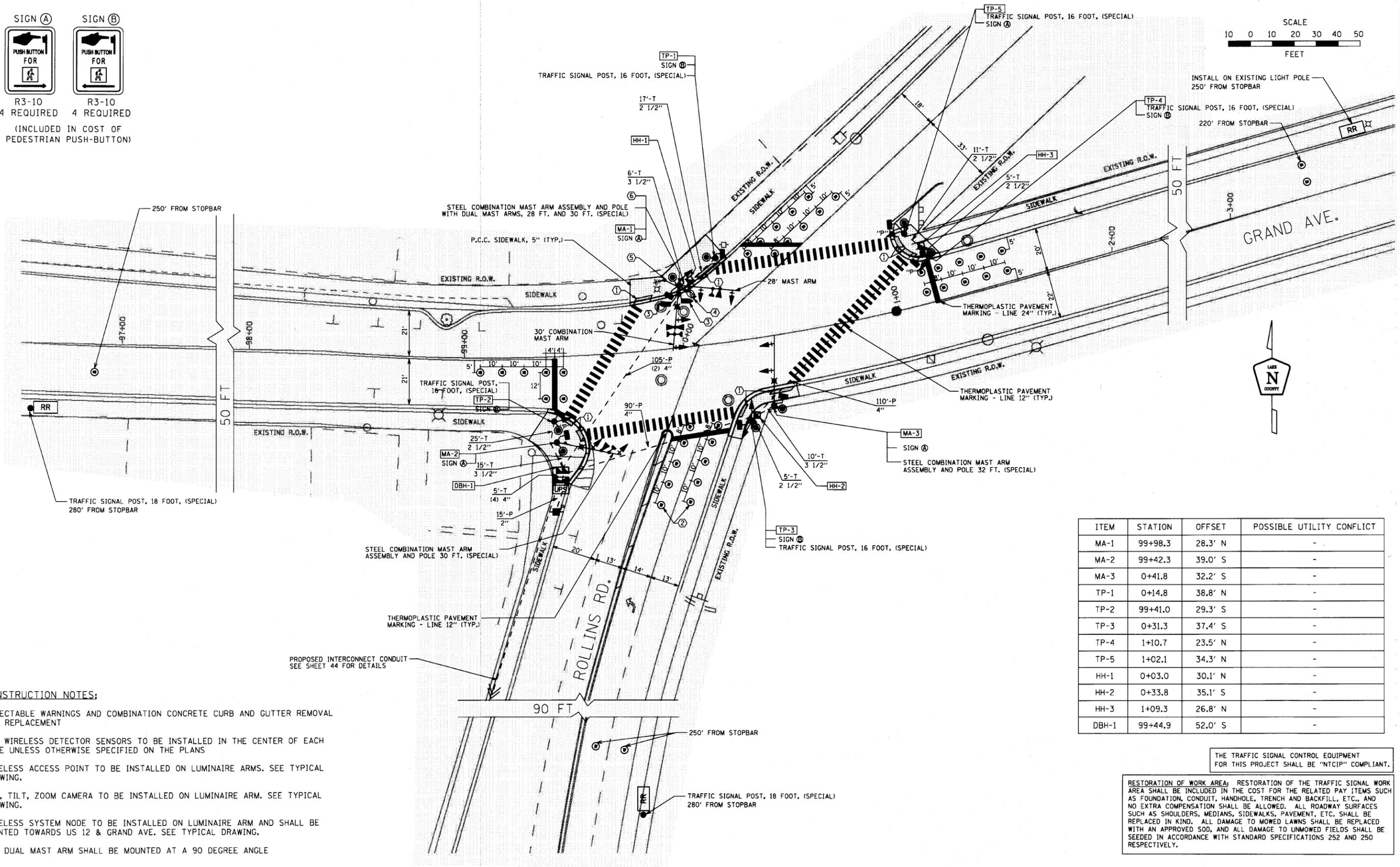
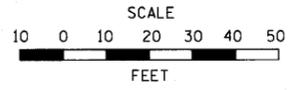


SIGN (A)

 R3-10
 4 REQUIRED
 (INCLUDED IN COST OF PEDESTRIAN PUSH-BUTTON)

SIGN (B)

 R3-10
 4 REQUIRED
 (INCLUDED IN COST OF PEDESTRIAN PUSH-BUTTON)



ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
MA-1	99+98.3	28.3' N	-
MA-2	99+42.3	39.0' S	-
MA-3	0+41.8	32.2' S	-
TP-1	0+14.8	38.8' N	-
TP-2	99+41.0	29.3' S	-
TP-3	0+31.3	37.4' S	-
TP-4	1+10.7	23.5' N	-
TP-5	1+02.1	34.3' N	-
HH-1	0+03.0	30.1' N	-
HH-2	0+33.8	35.1' S	-
HH-3	1+09.3	26.8' N	-
DBH-1	99+44.9	52.0' S	-

- CONSTRUCTION NOTES:**
- DETECTABLE WARNINGS AND COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
 - ALL WIRELESS DETECTOR SENSORS TO BE INSTALLED IN THE CENTER OF EACH LANE UNLESS OTHERWISE SPECIFIED ON THE PLANS
 - WIRELESS ACCESS POINT TO BE INSTALLED ON LUMINAIRE ARMS. SEE TYPICAL DRAWING.
 - PAN, TILT, ZOOM CAMERA TO BE INSTALLED ON LUMINAIRE ARM. SEE TYPICAL DRAWING.
 - WIRELESS SYSTEM NODE TO BE INSTALLED ON LUMINAIRE ARM AND SHALL BE POINTED TOWARDS US 12 & GRAND AVE. SEE TYPICAL DRAWING.
 - THE DUAL MAST ARM SHALL BE MOUNTED AT A 90 DEGREE ANGLE

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP" COMPLIANT.

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



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

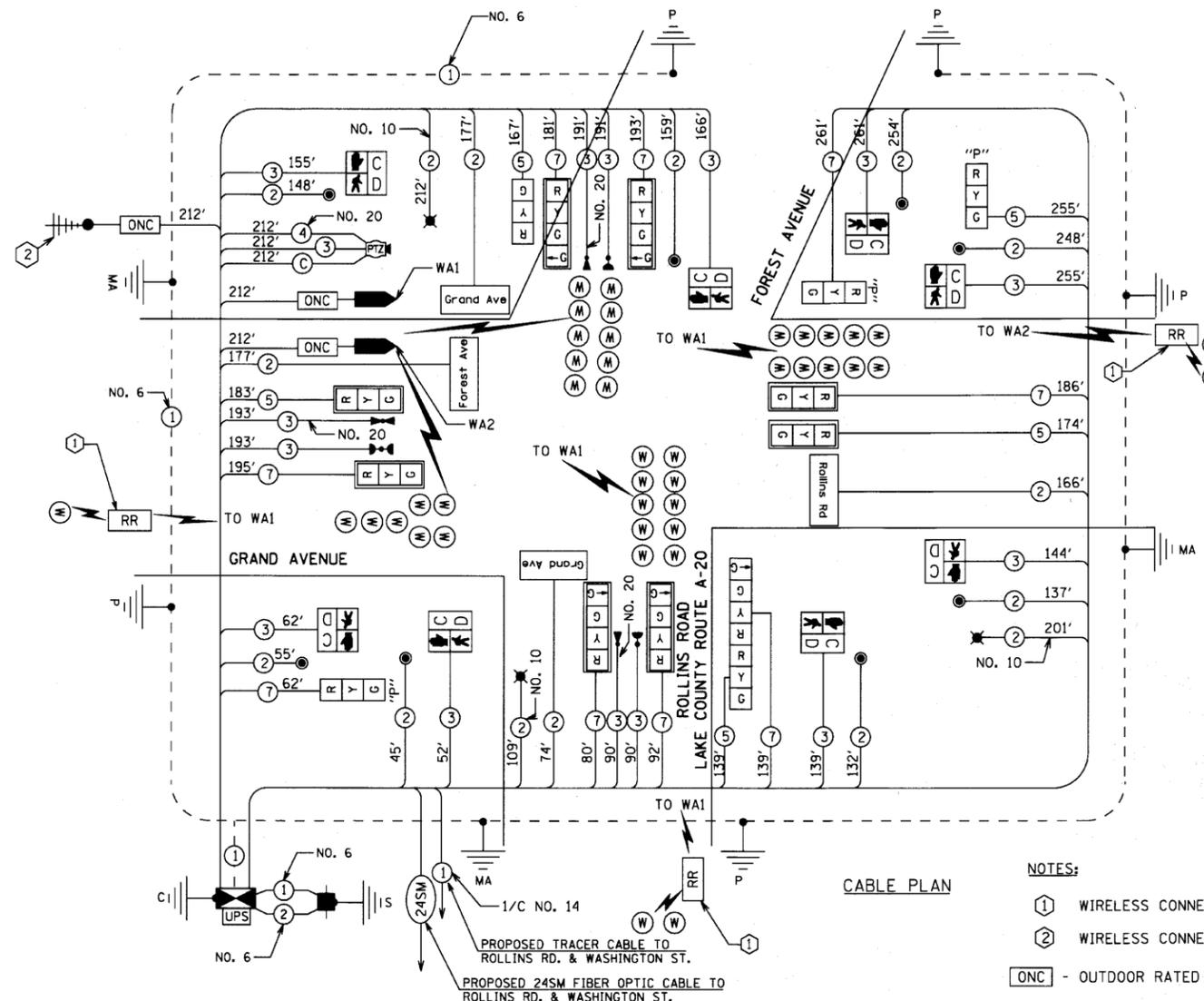
TRAFFIC SIGNAL MODERNIZATION PLAN	
ROLLINS RD. @ GRAND AVE.	
SCALE: 1"=20'	

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	16	72
		CONG-3	CONTRACT NO. 08472	

FILE NAME = SFILES

SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1312
DETECTABLE WARNINGS	SQ FT	96
SIDEWALK REMOVAL	SQ FT	1312
COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	176
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	798
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	196
PAVEMENT MARKING REMOVAL	SQ FT	994
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	63
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	31
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	20
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	15
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	410
HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT	522
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	114
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	3
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1772
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1920
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	924
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1395
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	64
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL)	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	32
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	5886
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	5
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	467
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	474
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	212
TRAFFIC SIGNAL POST, 16 FOOT, (SPECIAL)	EACH	5
TRAFFIC SIGNAL POST, 18 FOOT, (SPECIAL)	EACH	2
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
WIRELESS VEHICLE DETECTION SYSTEM	EACH	1
VIDEO ENCODER	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	636
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	212
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 28FT. AND 30FT. (SPECIAL)	EACH	1
WIRELESS SYSTEM NODE	EACH	1



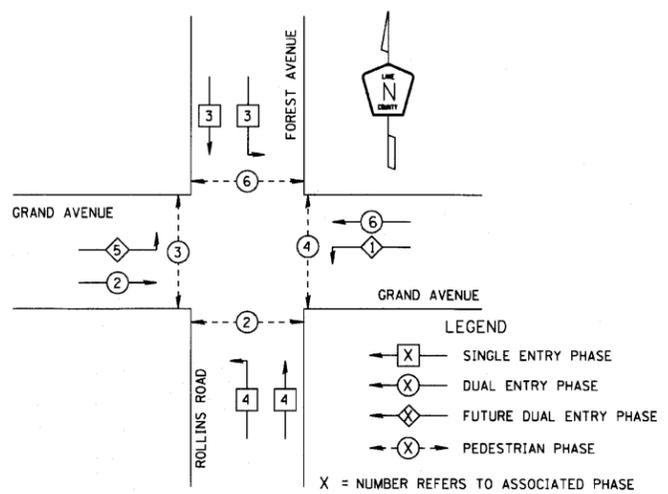
- NOTES:
- ① WIRELESS CONNECTION TO ACCESS POINT
 - ② WIRELESS CONNECTION TO GRAND AVE. @ US 12
 - ONC - OUTDOOR RATED NETWORK CABLE

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (LED)
		INCAND.	LED		
SIGNAL	(RED)	13	10	0.50	65
	(YELLOW)	13	19	0.10	24.7
	(GREEN)	17	11	0.40	74.8
PED SIGNAL	8	9	1.00	72	
CONTROLLER	1	100	1.00	100	
LUMINAIRE	3	250	0.50	375	
L.E.D. ST. NAME SIGN	4	64	0.50	128	
VIDEO SYSTEM	1	150	1.00	150	
BATTERY BACKUP	1	25	1.00	25	
TOTAL					1,014.50

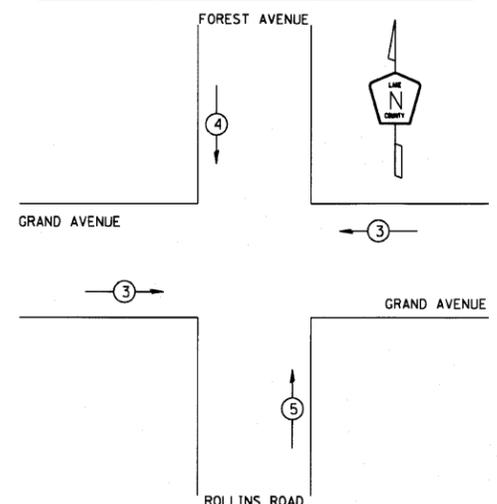
ENERGY COSTS - BILLED TO: VILLAGE OF FOX LAKE
 (ADDRESS) 66 THILLEN DR.
 (ADDRESS) FOX LAKE, IL

ENERGY SUPPLY - CONTACT: MR. FRANK ZACCARI
 PHONE: (847) 816-5489
 COMPANY: COMED

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	←	↓	↑

FILE NAME: #FILE#



USER NAME = JM
 PLOT SCALE = 1 INCH = 20 FEET
 PLOT DATE = 10-05-2010

DESIGNED - DG
 DRAWN - JM
 CHECKED - DG
 DATE - 10-05-2010

REVISED -
 REVISED -
 REVISED -
 REVISED -

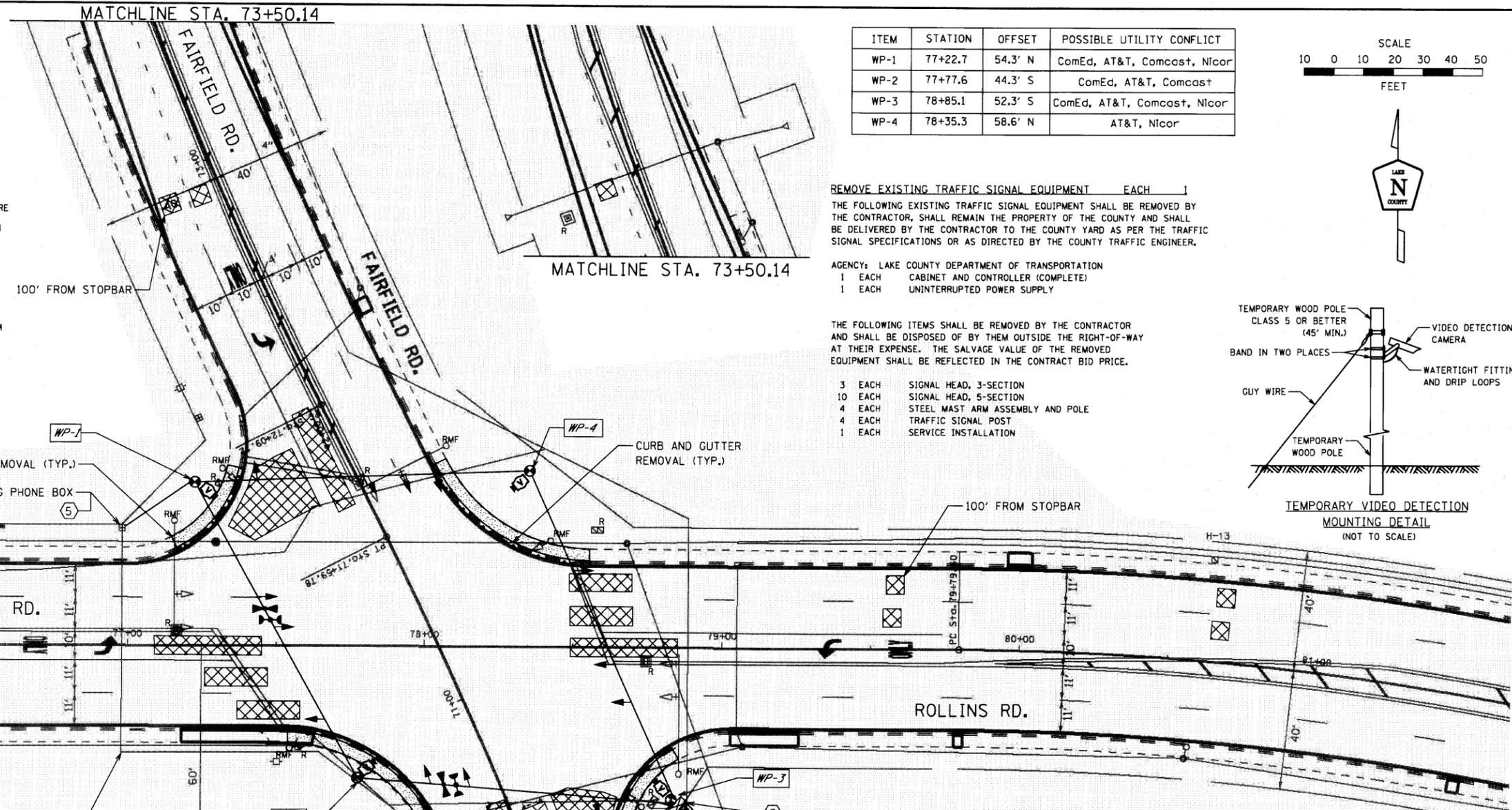
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 ROLLINS RD. @ GRAND AVE.
 SCALE: N/A

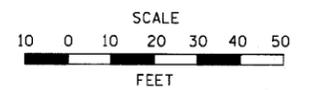
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	17	72
COR# 4			CONTRACT NO. 03472	

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (30mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME, 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.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- 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.



ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
WP-1	77+22.7	54.3' N	ComEd, AT&T, Comcast, Nicor
WP-2	77+77.6	44.3' S	ComEd, AT&T, Comcast
WP-3	78+85.1	52.3' S	ComEd, AT&T, Comcast, Nicor
WP-4	78+35.3	58.6' N	AT&T, Nicor

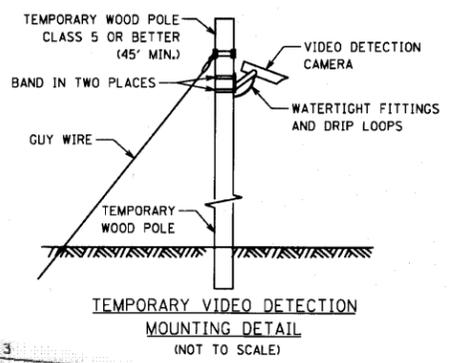


REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR. SHALL REMAIN THE PROPERTY OF THE COUNTY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS OR AS DIRECTED BY THE COUNTY TRAFFIC ENGINEER.

- AGENCY: LAKE COUNTY DEPARTMENT OF TRANSPORTATION
- 1 EACH CABINET AND CONTROLLER (COMPLETE)
 - 1 EACH UNINTERRUPTED POWER SUPPLY

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

- 3 EACH SIGNAL HEAD, 3-SECTION
- 10 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 1 EACH SERVICE INSTALLATION



NOTES FOR TEMPORARY TRAFFIC SIGNALS (CONTD.):

- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT THE TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM (PTZ) CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

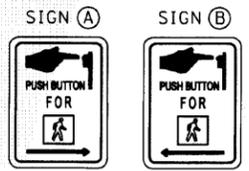
CONSTRUCTION NOTES FOR TEMPORARY TRAFFIC SIGNALS:

- THE CONTRACTOR SHALL ABANDON ALL EXISTING CONDUITS. THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".
- THE CONTRACTOR SHALL ABANDON THE EXISTING LOOP(S). THE EXISTING LEAD-IN CABLE SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST SHALL BE INCLUDED IN COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- RELOCATE EXISTING MASTER CONTROLLER TO TEMPORARY CABINET. COST SHALL BE INCLUDED IN COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- DISCONNECT EXISTING INTERCONNECT AND TRACER CABLES FROM EXISTING TRAFFIC SIGNAL CABINET. COIL INTERCONNECT AND TRACER CABLES IN HANDHOLE (HI) AND SPLICE EXISTING INTERCONNECT CABLE TO TEMPORARY AERIAL INTERCONNECT CABLE. CONNECT TEMPORARY AERIAL INTERCONNECT CABLE IN TEMPORARY CABINET. COST FOR DISCONNECTION, COILING, SPLICING, AERIAL INTERCONNECT CABLES, AND RECONNECTION SHALL BE INCLUDED IN THE COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- DISCONNECT EXISTING PHONE CABLE FROM EXISTING TRAFFIC SIGNAL CABINET. COIL EXISTING CABLE BACK TO PHONE BOX. SPLICE EXISTING PHONE CABLE TO TEMPORARY AERIAL PHONE CABLE. CONNECT TEMPORARY AERIAL PHONE CABLE IN TEMPORARY CABINET. COST FOR DISCONNECTION, COIL, SPLICING, AERIAL PHONE CABLE, AND RECONNECTION SHALL BE INCLUDED IN COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.

AERIAL INTERCONNECT FROM FAIRFIELD RD. & LAKE SHORE DR.

FAIRFIELD RD CURVE 1

PI	69+28.53
Δ	18° 39' 57.57"
L	466.68'
T	235.43
R	1,432.50'
PC	66+93.10
PT	71+59.78



(INCLUDED IN COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION)

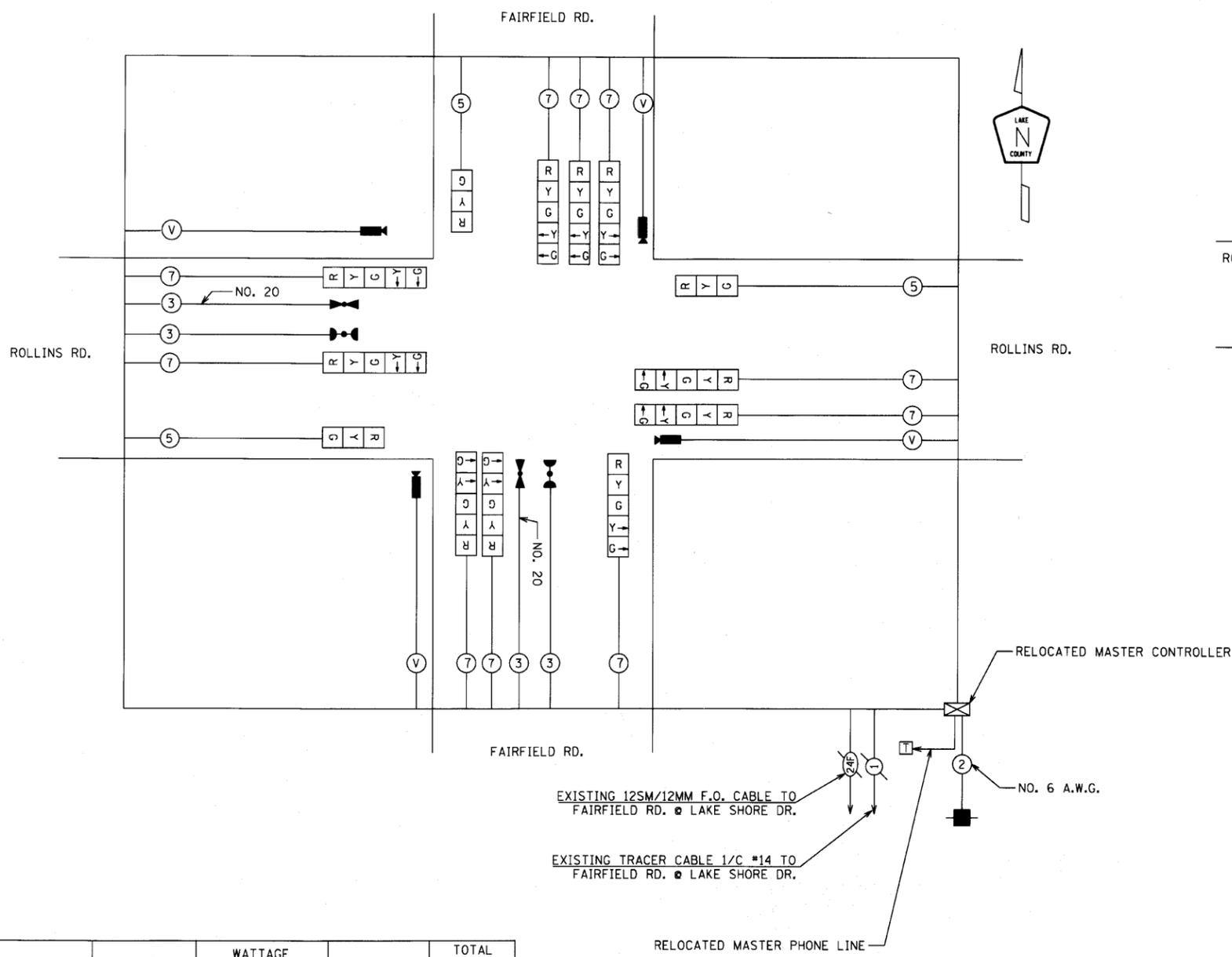


USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

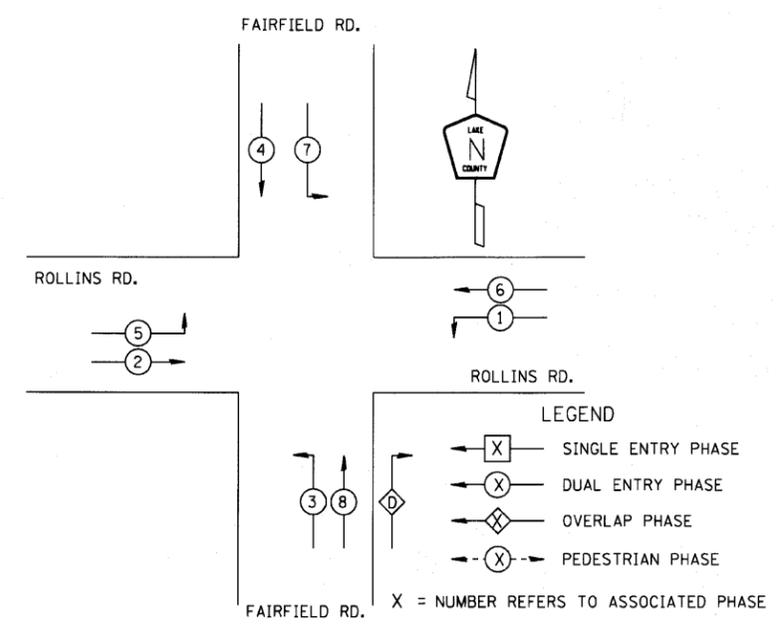
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL & TEMPORARY TRAFFIC SIGNAL INSTALLATION		ROUTE SECTION	SECTION NUMBER	SHEET	SHEETS
ROLLINS RD. @ FAIRFIELD RD.		FAU 181	09-00999-07-TL	18	72
SCALE: 1"=20'		CONF-1		CONTRACT NO. 09472	

DATE PLOTTED: 10/05/2010 10:05:20 AM



TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

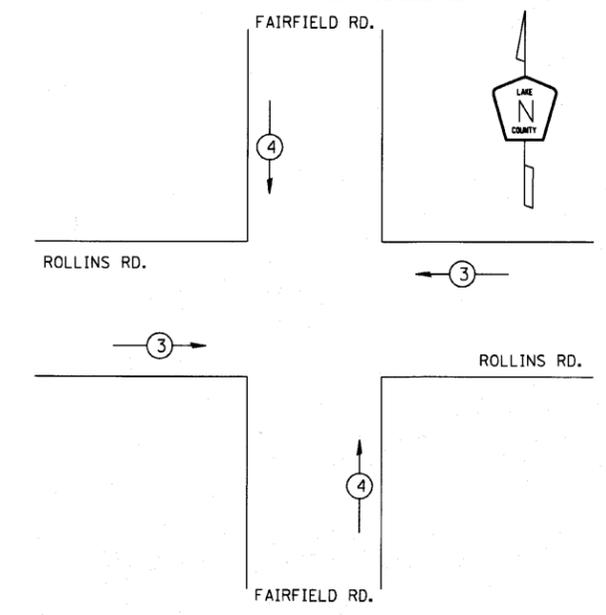
PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PROTECTED/PERMITTED LEFT TURN PHASING
WITH RIGHT TURN OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



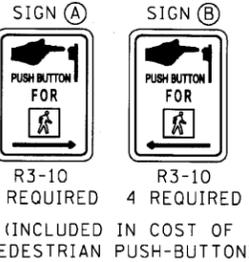
PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (LED)
		INCAND.	LED		
SIGNAL	(RED)	13	10	0.50	65
	(YELLOW)	13	19	0.10	24.7
	(GREEN)	13	11	0.40	57.2
ARROW	20		9	0.10	18
PED SIGNAL			9	1.00	
CONTROLLER	1		9	1.00	100
LUMINAIRE			9	0.50	
L.E.D. ST. NAME SIGN			100	0.50	
VIDEO SYSTEM	1		250	1.00	150
BATTERY BACKUP			64		
			150		
			25		
TOTAL					414.90

ENERGY COSTS - BILLED TO: ROUND LAKE HEIGHTS
(ADDRESS) 619 PONTIAC CT.
(ADDRESS) ROUND LAKE HEIGHTS, IL

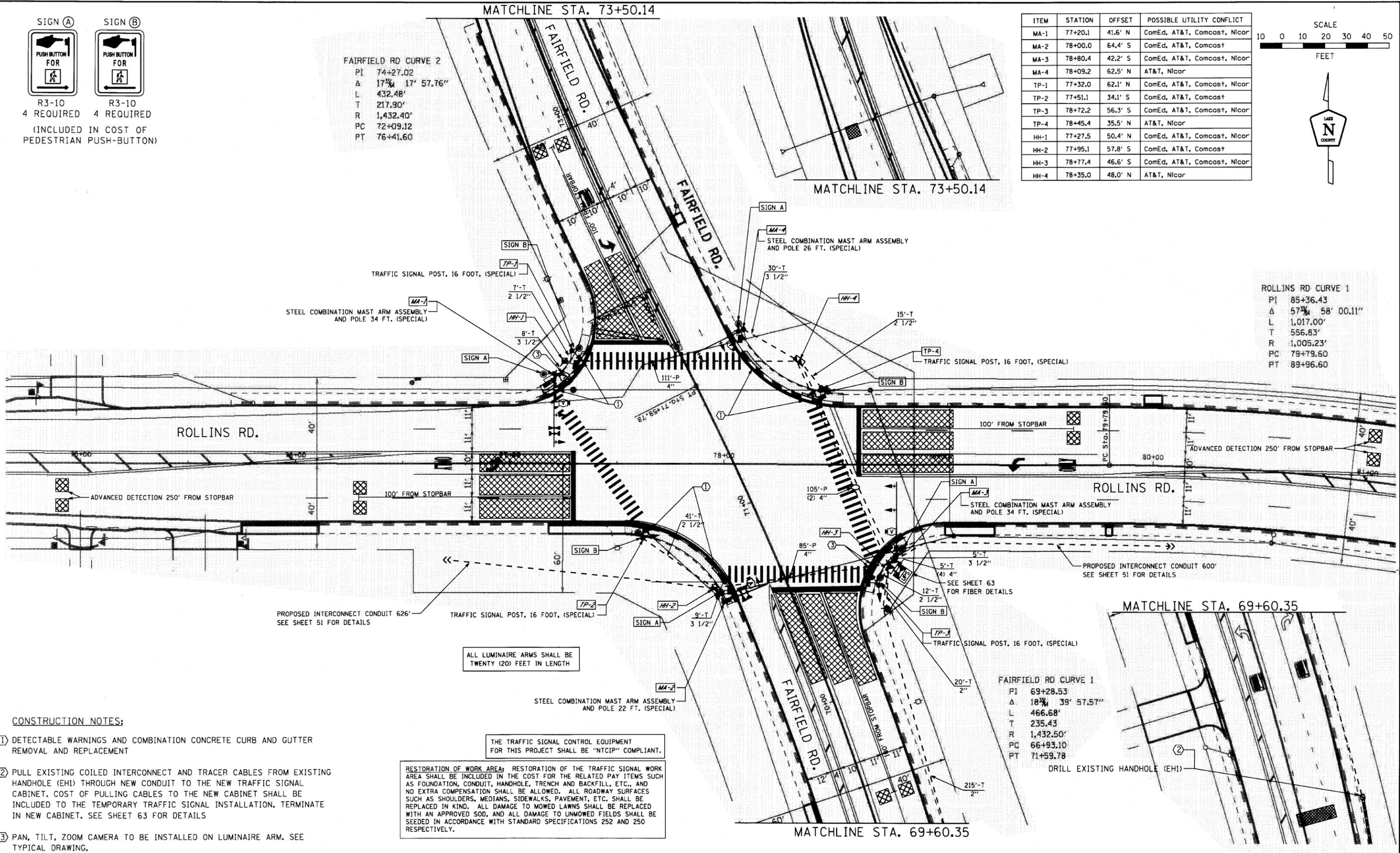
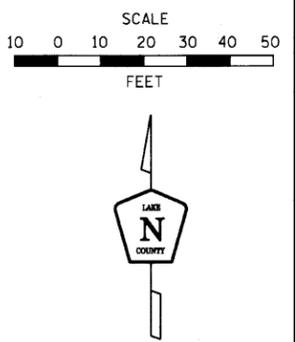
ENERGY SUPPLY - CONTACT: MS. KIM KANGAS
PHONE: (847) 816-5497
COMPANY: COMED

DATE PLOTTED: 10-05-2010 10:05:20 AM



FAIRFIELD RD CURVE 2
 PI 74+27.02
 Δ 17° 17' 57.76"
 L 432.48'
 T 217.90'
 R 1,432.40'
 PC 72+09.12
 PT 76+41.60

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
MA-1	77+20.1	41.6' N	ComEd, AT&T, Comcast, Nicor
MA-2	78+00.0	64.4' S	ComEd, AT&T, Comcast
MA-3	78+80.4	42.2' S	ComEd, AT&T, Comcast, Nicor
MA-4	78+09.2	62.5' N	AT&T, Nicor
TP-1	77+32.0	62.1' N	ComEd, AT&T, Comcast, Nicor
TP-2	77+51.1	34.1' S	ComEd, AT&T, Comcast
TP-3	78+72.2	56.3' S	ComEd, AT&T, Comcast, Nicor
TP-4	78+45.4	35.5' N	AT&T, Nicor
HH-1	77+27.5	50.4' N	ComEd, AT&T, Comcast, Nicor
HH-2	77+95.1	57.8' S	ComEd, AT&T, Comcast
HH-3	78+77.4	46.6' S	ComEd, AT&T, Comcast, Nicor
HH-4	78+35.0	48.0' N	AT&T, Nicor



ROLLINS RD CURVE 1
 PI 85+36.43
 Δ 57° 58' 00.11"
 L 1,017.00'
 T 556.83'
 R 1,005.23'
 PC 79+79.60
 PT 89+96.60

FAIRFIELD RD CURVE 1
 PI 69+28.53
 Δ 18° 39' 57.57"
 L 466.68'
 T 235.43
 R 1,432.50'
 PC 66+93.10
 PT 71+59.78

CONSTRUCTION NOTES:

- DETECTABLE WARNINGS AND COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
- PULL EXISTING COILED INTERCONNECT AND TRACER CABLES FROM EXISTING HANDHOLE (EHI) THROUGH NEW CONDUIT TO THE NEW TRAFFIC SIGNAL CABINET. COST OF PULLING CABLES TO THE NEW CABINET SHALL BE INCLUDED TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. TERMINATE IN NEW CABINET. SEE SHEET 63 FOR DETAILS
- PAN, TILT, ZOOM CAMERA TO BE INSTALLED ON LUMINAIRE ARM. SEE TYPICAL DRAWING.

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

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP" COMPLIANT.

ALL LUMINAIRE ARMS SHALL BE TWENTY (20) FEET IN LENGTH

STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT. (SPECIAL)

PROPOSED INTERCONNECT CONDUIT 626' SEE SHEET 51 FOR DETAILS

PROPOSED INTERCONNECT CONDUIT 600' SEE SHEET 51 FOR DETAILS

SEE SHEET 63 FOR FIBER DETAILS



USER NAME = JM
 PLOT SCALE = 1 INCH = 20 FEET
 PLOT DATE = 10-05-2010

DESIGNED - DG	REVISED -
DRAWN - JM	REVISED -
CHECKED - DG	REVISED -
DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
 ROLLINS RD. @ FAIRFIELD RD.
 SCALE: 1"=20'

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	20	72
		CONF-3	CONTRACT NO. 09472	

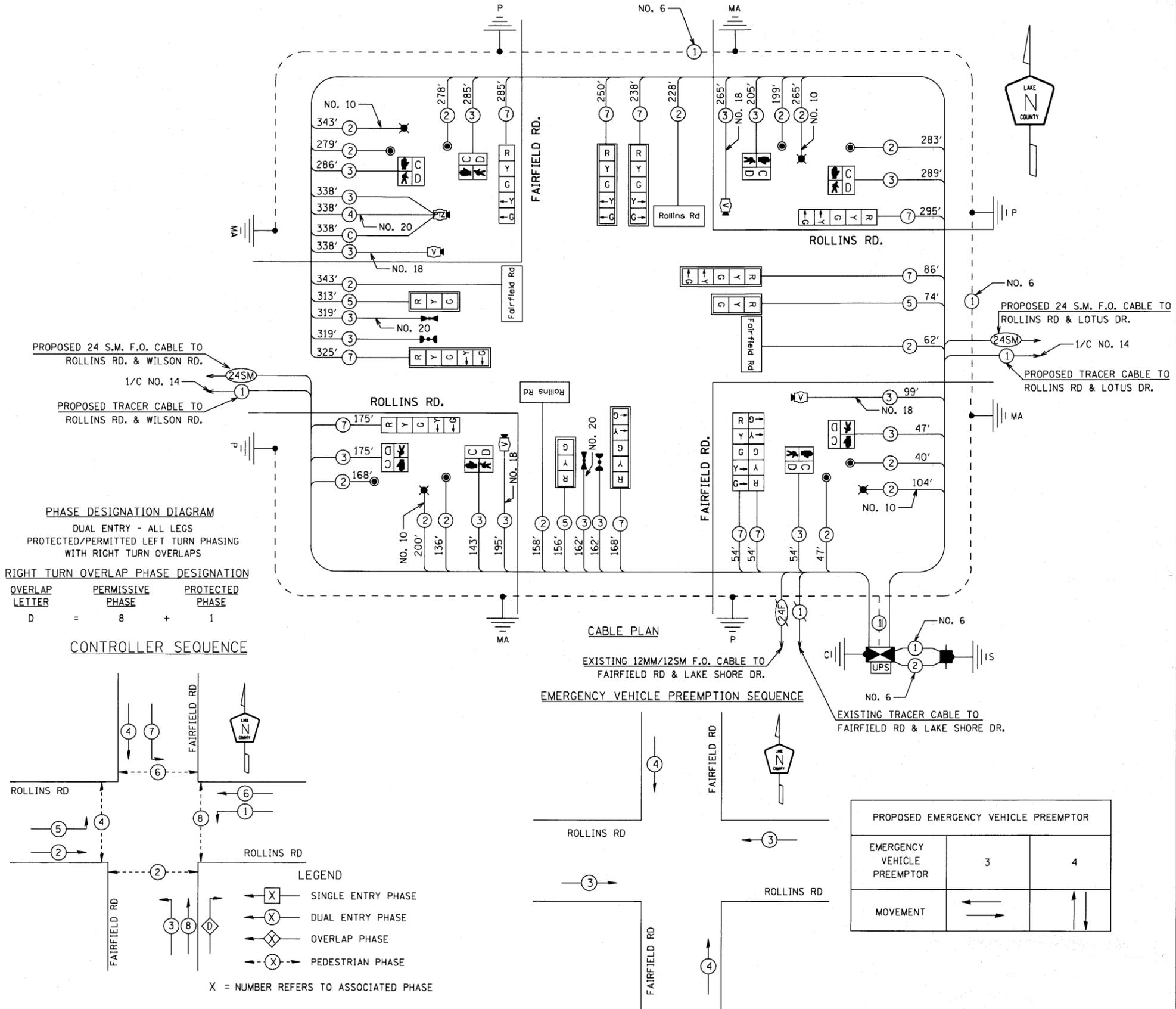
SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	755
DETECTABLE WARNINGS	SQ FT	96
SIDEWALK REMOVAL	SQ FT	755
COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	212
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	790
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	282
PAVEMENT MARKING REMOVAL	SQ FT	141
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	235
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	75
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	52
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	20
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	406
HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT	867
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	382
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	4
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1979
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2130
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	538
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1737
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	69
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 34 FT. (SPECIAL)	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2718
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	523
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	484
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	338
VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
TRAFFIC SIGNAL POST, 16 FOOT, (SPECIAL)	EACH	4
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
ELECTRIC CABLE IN CONDUIT, NO. 18 3C FOR VIDEO	FOOT	867
VIDEO ENCODER	EACH	1
ELECTRIC CABLE IN CONDUIT, 4/C *20, VIDEO	FOOT	338

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (LED)
		INCAND.	LED		
SIGNAL	(RED)	13	10	0.50	65
	(YELLOW)	13	19	0.10	24.7
	(GREEN)	13	11	0.40	57.2
ARROW	20		9	0.10	18
PED SIGNAL	8		9	1.00	72
CONTROLLER	1		100	1.00	100
LUMINAIRE	4		250	0.50	500
L.E.D. ST. NAME SIGN	4		64	0.50	128
VIDEO SYSTEM	1		150	1.00	150
BATTERY BACKUP	1		25	1.00	25
TOTAL					1139.90

ENERGY COSTS - BILLED TO: ROUND LAKE HEIGHTS
 (ADDRESS) 619 PONTIAC CT.
 (ADDRESS) ROUND LAKE HEIGHTS, IL

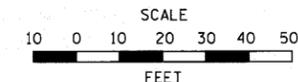
ENERGY SUPPLY - CONTACT: MS. KIM KANGAS
 PHONE: (847) 816-5497
 COMPANY: COMED



USER NAME - JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

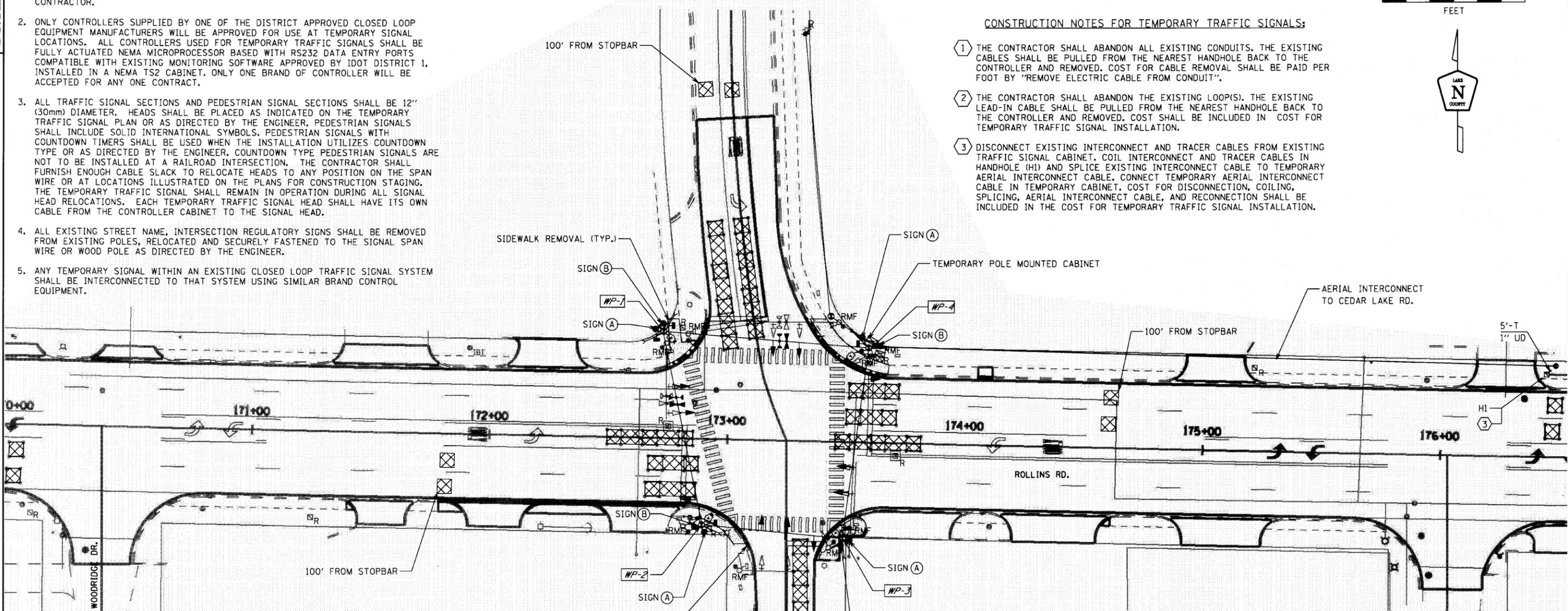
NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (30mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME, 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.



CONSTRUCTION NOTES FOR TEMPORARY TRAFFIC SIGNALS:

- 1 THE CONTRACTOR SHALL ABANDON ALL EXISTING CONDUITS. THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".
- 2 THE CONTRACTOR SHALL ABANDON THE EXISTING LOOP(S). THE EXISTING LEAD-IN CABLE SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST SHALL BE INCLUDED IN COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 DISCONNECT EXISTING INTERCONNECT AND TRACER CABLES FROM EXISTING TRAFFIC SIGNAL CABINET. COIL INTERCONNECT AND TRACER CABLES IN HANDHOLE (HI) AND SPLICE EXISTING INTERCONNECT CABLE TO TEMPORARY AERIAL INTERCONNECT CABLE. CONNECT TEMPORARY AERIAL INTERCONNECT CABLE IN TEMPORARY CABINET. COST FOR DISCONNECTION, COILING, SPLICING, AERIAL INTERCONNECT CABLE, AND RECONNECTION SHALL BE INCLUDED IN THE COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.

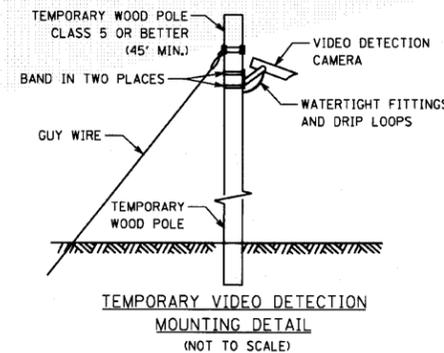


NOTES FOR TEMPORARY TRAFFIC SIGNALS:

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS, AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL AT THE TIME OF THE TURN-ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT THE TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM (PTZ) CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



R3-10 4 REQUIRED 4 REQUIRED
 (INCLUDED IN COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION)



REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE COUNTY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS OR AS DIRECTED BY THE COUNTY TRAFFIC ENGINEER.

- AGENCY: LAKE COUNTY DEPARTMENT OF TRANSPORTATION
- 1 EACH CABINET AND CONTROLLER (COMPLETE)
 - 2 EACH LIGHT DETECTOR
 - 1 EACH LIGHT DETECTOR AMPLIFIER

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

- 6 EACH SIGNAL HEAD, 3-SECTION
- 6 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 8 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 1 EACH SERVICE INSTALLATION

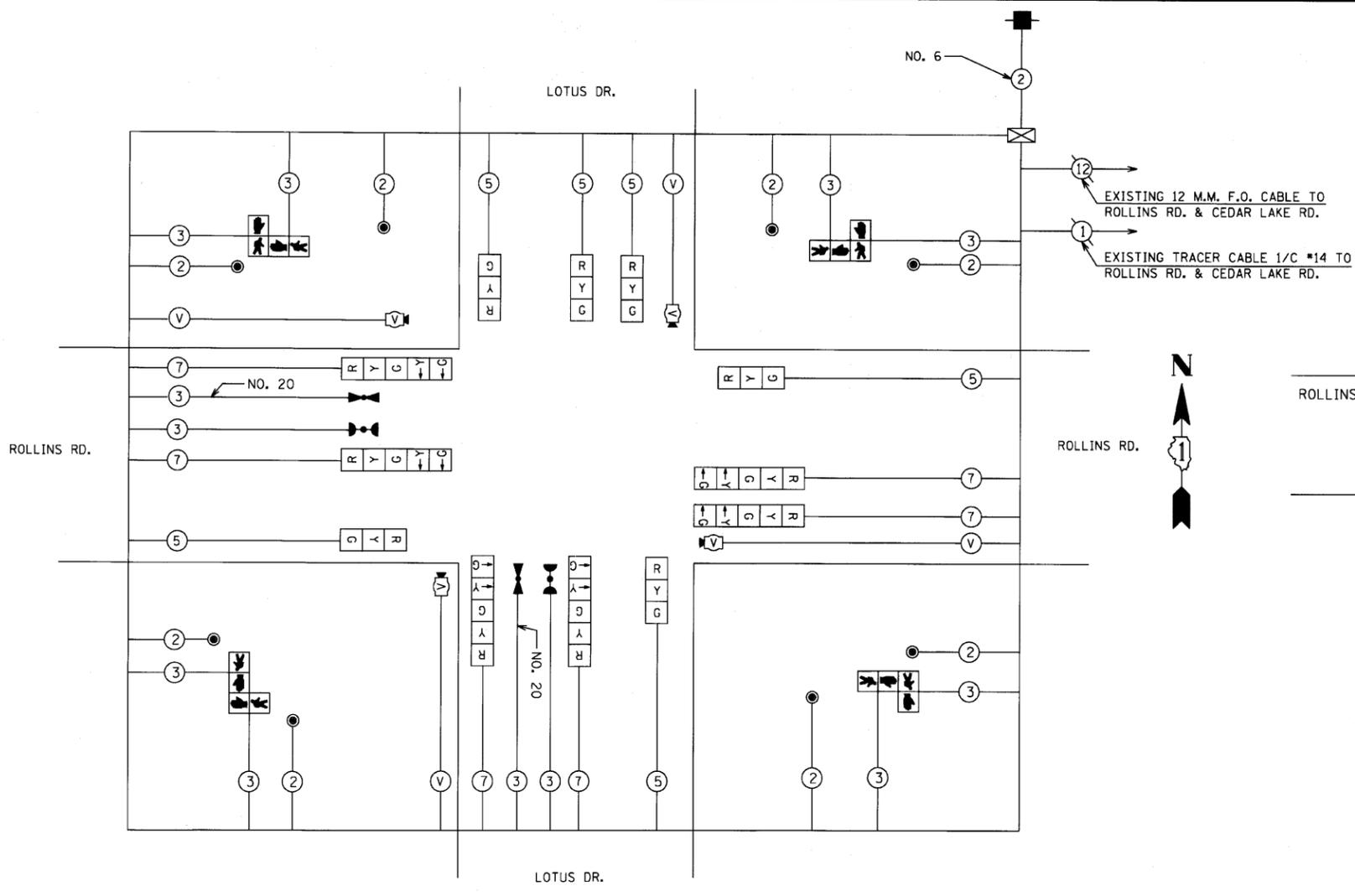


USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

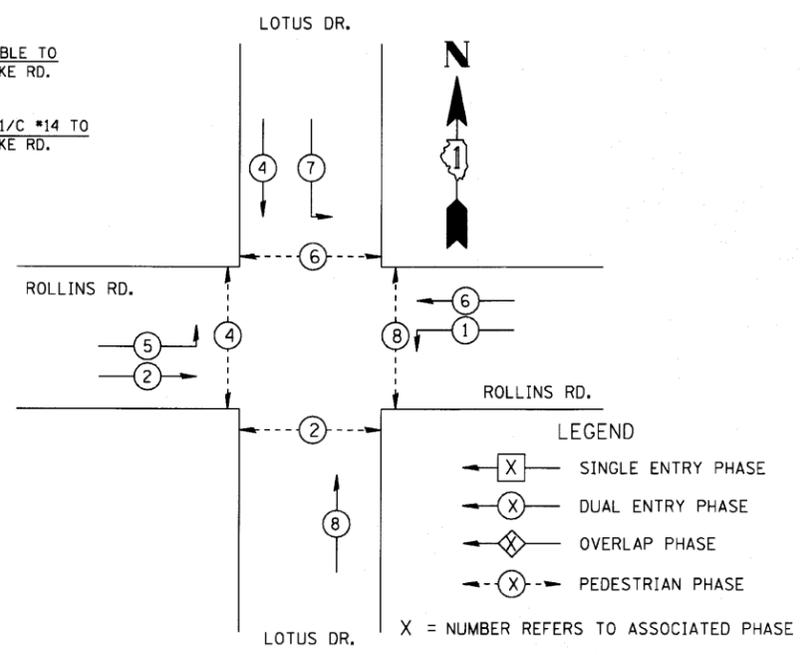
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**REMOVAL & TEMPORARY TRAFFIC SIGNAL INSTALLATION
 ROLLINS RD. @ LOTUS DR.**

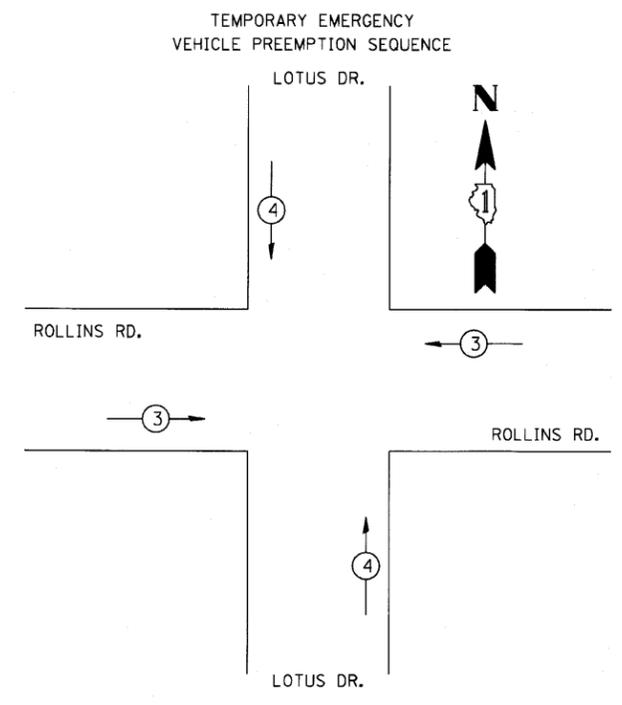
ROUTE SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181	09-00999-07-TL	22	72
SCALE: 1"=20'		CONTRACT NO. 09472	



TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

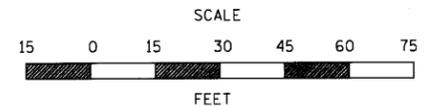


PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (INCAND.)
		INCAND.	LED		
SIGNAL	(RED)	12	10	0.50	60
	(YELLOW)	12	19	0.10	22.8
	(GREEN)	12	11	0.40	52.8
ARROW	12	9	0.10	10.8	
PED SIGNAL	8	9	1.00	72	
CONTROLLER	1	100	1.00	100	
LUMINAIRE		250	0.50		
L.E.D. ST. NAME SIGN		64	0.50		
VIDEO SYSTEM	1	150	1.00	150	
BATTERY BACKUP		25			
TOTAL					468.40

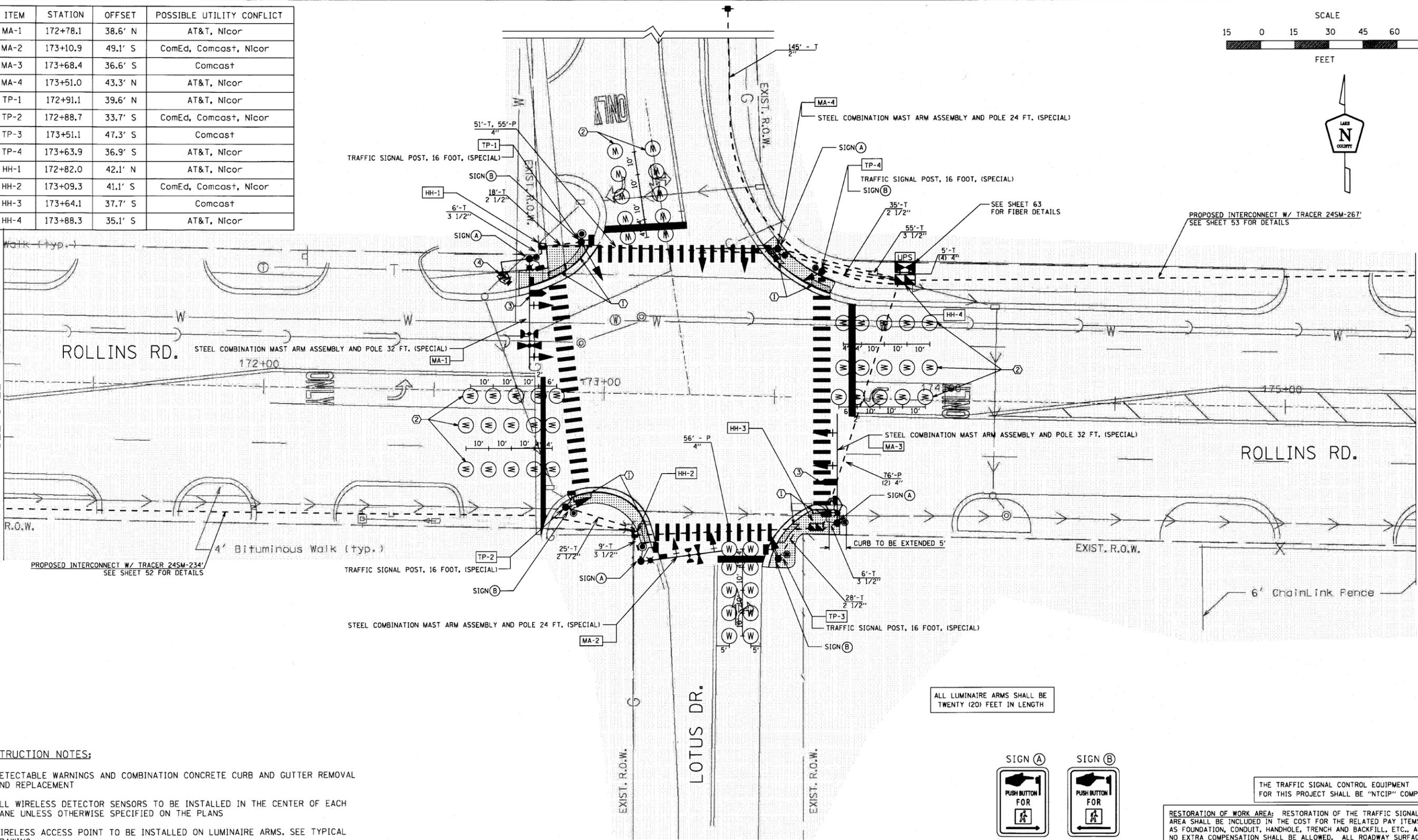
ENERGY COSTS - BILLED TO: ROUND LAKE HEIGHTS
 (ADDRESS) 619 PONTIAC CT.
 (ADDRESS) ROUND LAKE HEIGHTS, IL
 ENERGY SUPPLY - CONTACT: MS. KIM KANGAS
 PHONE: (847) 816-5497
 COMPANY: COMED

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
MA-1	172+78.1	38.6' N	AT&T, Nicor
MA-2	173+10.9	49.1' S	ComEd, Comcast, Nicor
MA-3	173+68.4	36.6' S	Comcast
MA-4	173+51.0	43.3' N	AT&T, Nicor
TP-1	172+91.1	39.6' N	AT&T, Nicor
TP-2	172+88.7	33.7' S	ComEd, Comcast, Nicor
TP-3	173+51.1	47.3' S	Comcast
TP-4	173+63.9	36.9' S	AT&T, Nicor
HH-1	172+82.0	42.1' N	AT&T, Nicor
HH-2	173+09.3	41.1' S	ComEd, Comcast, Nicor
HH-3	173+64.1	37.7' S	Comcast
HH-4	173+88.3	35.1' S	AT&T, Nicor



MATCH LINE STA. 171+23.5
SEE SHEET NO. 25

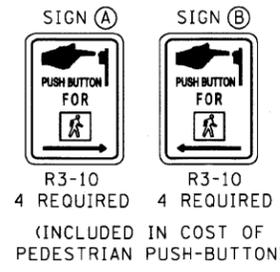
MATCHLINE STA. 175+38.2
SEE SHEET NO. 25



CONSTRUCTION NOTES:

- ① DETECTABLE WARNINGS AND COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
- ② ALL WIRELESS DETECTOR SENSORS TO BE INSTALLED IN THE CENTER OF EACH LANE UNLESS OTHERWISE SPECIFIED ON THE PLANS
- ③ WIRELESS ACCESS POINT TO BE INSTALLED ON LUMINAIRE ARMS. SEE TYPICAL DRAWING.
- ④ PAN, TILT, ZOOM CAMERA TO BE INSTALLED ON LUMINAIRE ARM. SEE TYPICAL DRAWING.

ALL LUMINAIRE ARMS SHALL BE TWENTY (20) FEET IN LENGTH



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP" COMPLIANT.

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

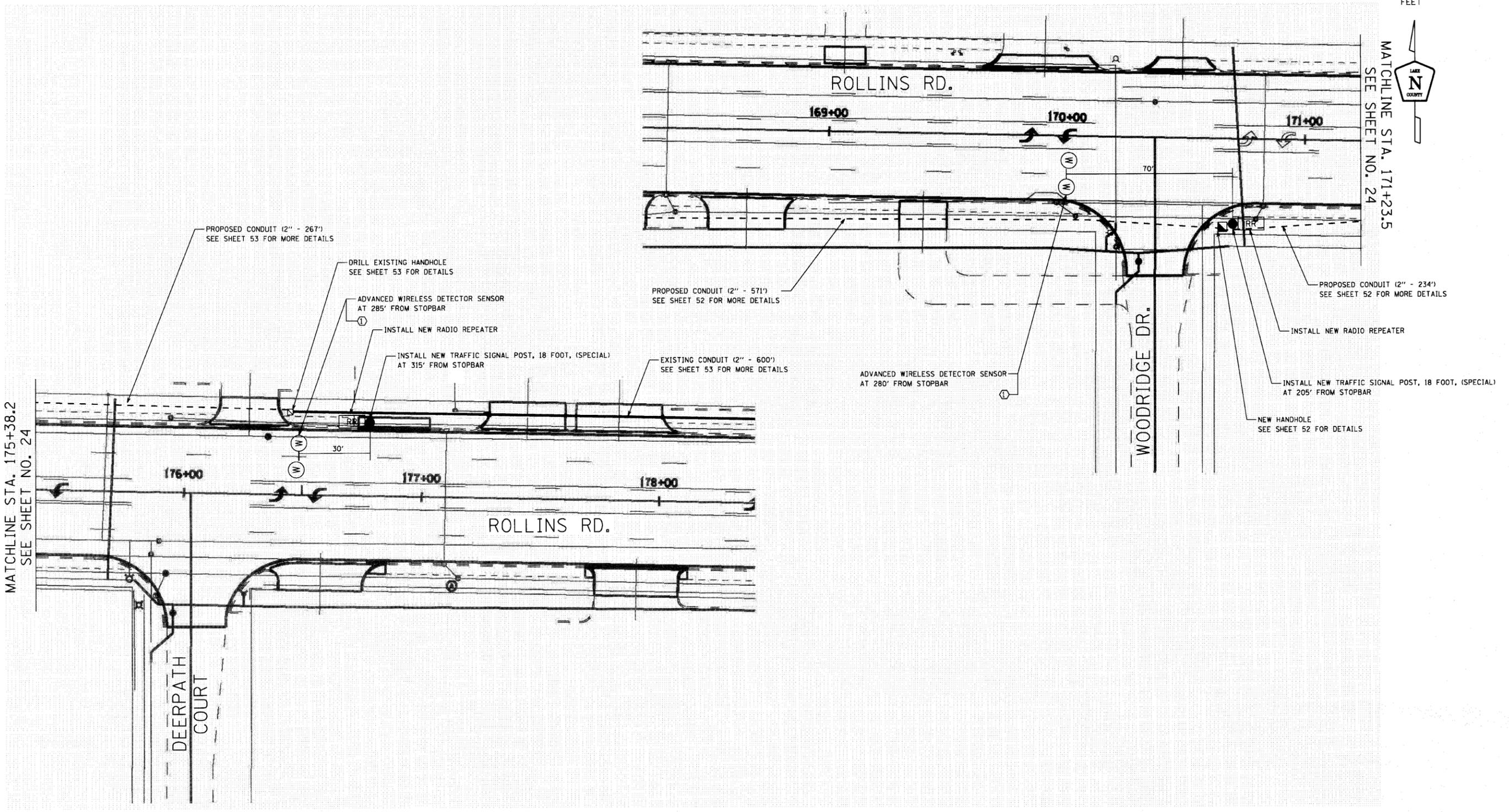
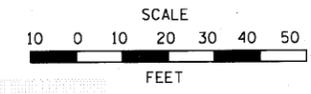


USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
ROLLINS RD. @ LOTUS DR.

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	24	72
SCALE: 1"=15'		SHEET 1 OF 2		CONTRACT NO. 09472



MATCHLINE STA. 175+38.2
SEE SHEET NO. 24

MATCHLINE STA. 171+23.5
SEE SHEET NO. 24

NOTES:
 ① ALL WIRELESS DETECTOR SENSORS TO BE INSTALLED IN THE CENTER OF EACH LANE



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

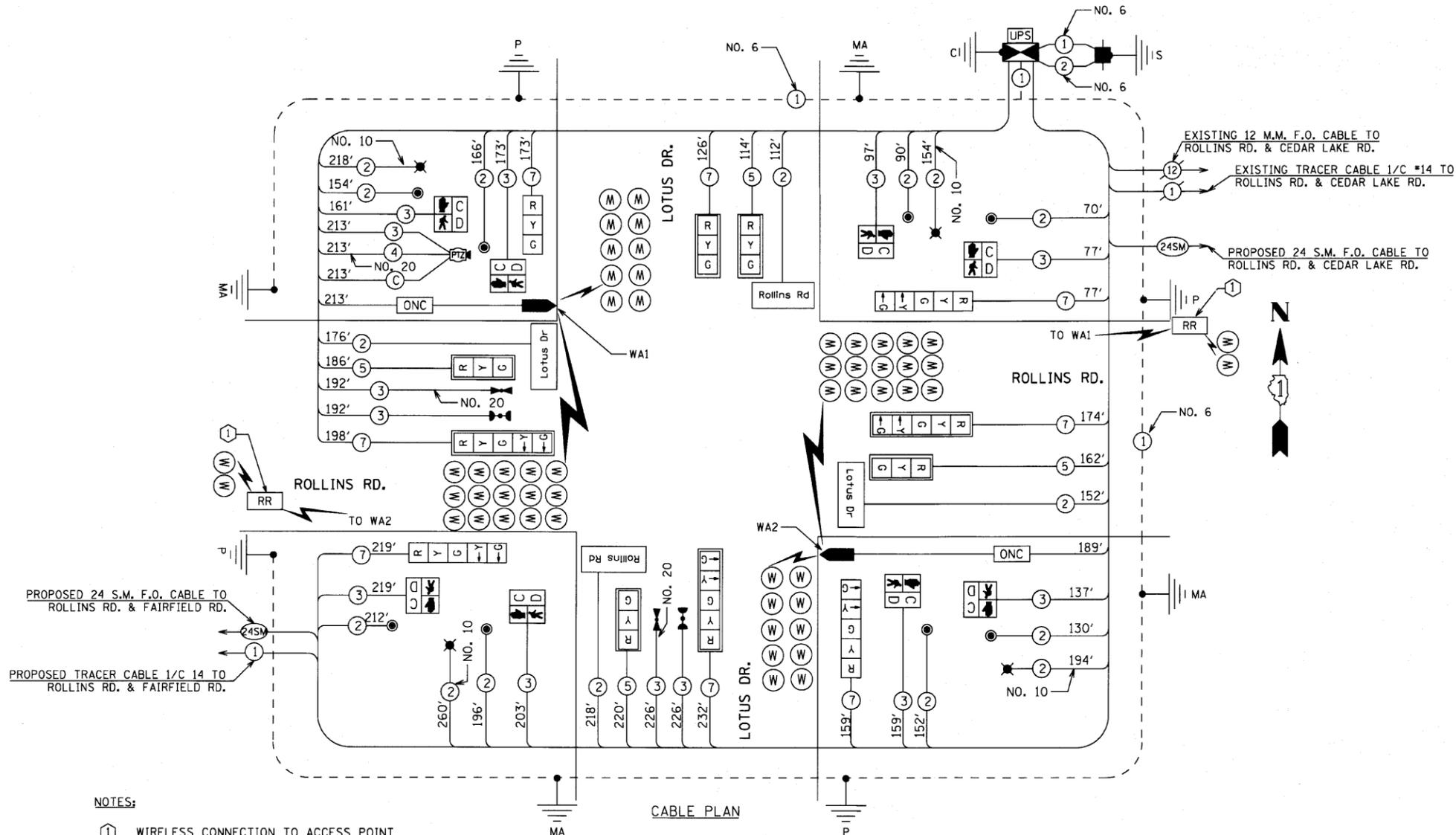
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN	
ROLLINS RD. @ LOTUS DR.	
SCALE: 1"=20'	SHEET 2 OF 2

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU		09-00999-07-TL	25	72
181				
CONL-3-2			CONTRACT NO. 09472	

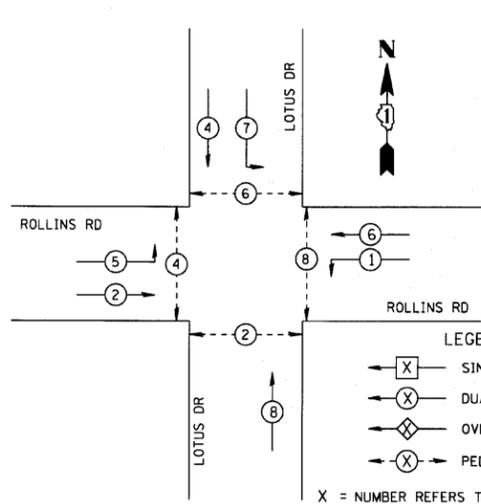
SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	1171
DETECTABLE WARNINGS	SO FT	96
SIDEWALK REMOVAL	SO FT	473
COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	116
THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	576
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	432
PAVEMENT MARKING REMOVAL	SO FT	1008
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	145
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	106
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	76
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	71
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	263
HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT	806
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	398
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	3
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1766
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1795
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	682
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1320
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	194
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT. (SPECIAL)	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL)	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	32
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4657
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	551
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	426
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	213
TRAFFIC SIGNAL POST, 16 FOOT, (SPECIAL)	EACH	4
TRAFFIC SIGNAL POST, 18 FOOT, (SPECIAL)	EACH	2
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
WIRELESS VEHICLE DETECTION SYSTEM	EACH	1
VIDEO ENCODER	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	402
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	213

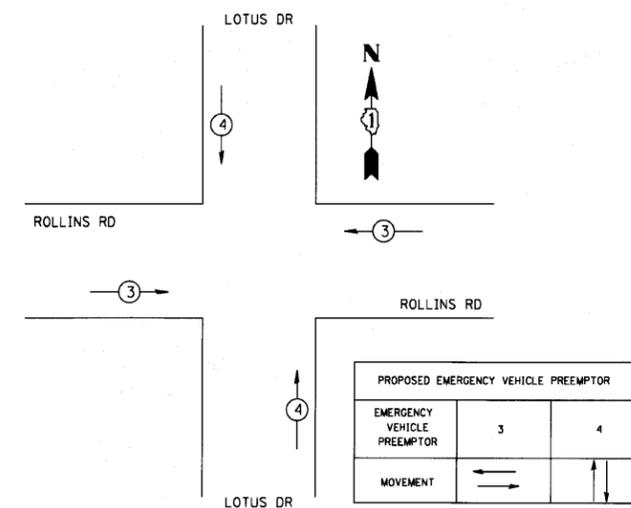


NOTES:
 ① WIRELESS CONNECTION TO ACCESS POINT
 [ONC] - OUTDOOR RATED NETWORK CABLE

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE

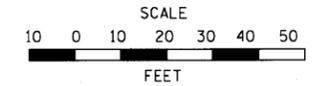


TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (LED)
		INCAND.	LED		
SIGNAL	(RED)	12	10	0.50	60
	(YELLOW)	12	19	0.10	22.8
	(GREEN)	12	11	0.40	52.8
ARROW	12	9	0.10	10.8	
PED SIGNAL	8	9	1.00	72	
CONTROLLER	1	100	1.00	100	
LUMINAIRE	4	250	0.50	500	
L.E.D. ST. NAME SIGN	4	64	0.50	128	
VIDEO SYSTEM	1	150	1.00	150	
BATTERY BACKUP	1	25	1.00	25	
TOTAL					1121.40

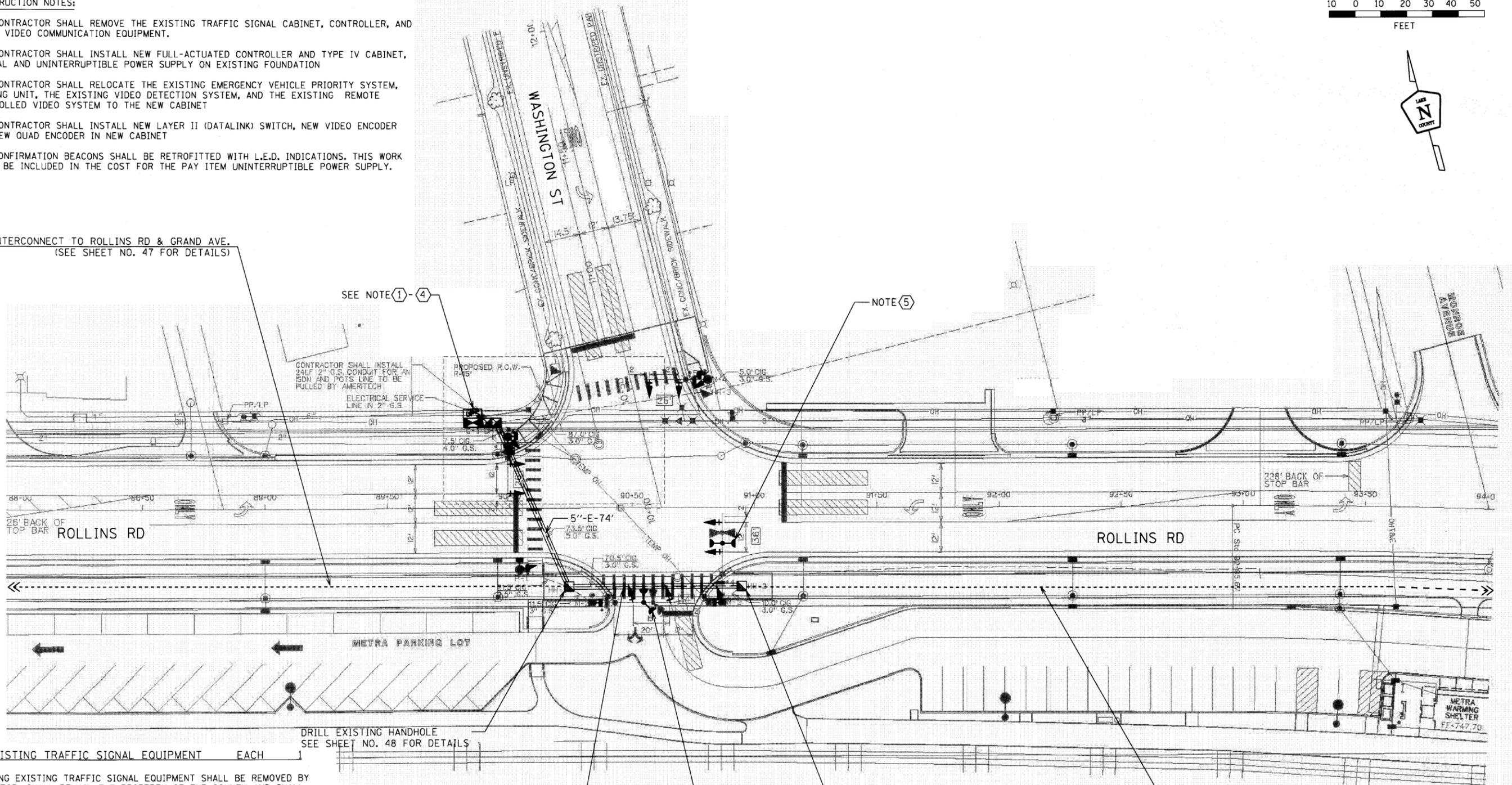
ENERGY COSTS - BILLED TO: ROUND LAKE HEIGHTS
 (ADDRESS) 619 PONTIAC CT.
 (ADDRESS) ROUND LAKE HEIGHTS, IL.
 ENERGY SUPPLY - CONTACT: MS. KIM KANGAS
 PHONE: (847) 816-5497
 COMPANY: COMED

CONSTRUCTION NOTES:

- 1 THE CONTRACTOR SHALL REMOVE THE EXISTING TRAFFIC SIGNAL CABINET, CONTROLLER, AND ADPRO VIDEO COMMUNICATION EQUIPMENT.
- 2 THE CONTRACTOR SHALL INSTALL NEW FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL AND UNINTERRUPTIBLE POWER SUPPLY ON EXISTING FOUNDATION
- 3 THE CONTRACTOR SHALL RELOCATE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT, THE EXISTING VIDEO DETECTION SYSTEM, AND THE EXISTING REMOTE CONTROLLED VIDEO SYSTEM TO THE NEW CABINET
- 4 THE CONTRACTOR SHALL INSTALL NEW LAYER II (DATALINK) SWITCH, NEW VIDEO ENCODER AND NEW QUAD ENCODER IN NEW CABINET
- 5 ALL CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM UNINTERRUPTIBLE POWER SUPPLY.



PROPOSED INTERCONNECT TO ROLLINS RD & GRAND AVE.
 (SEE SHEET NO. 47 FOR DETAILS)



REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE COUNTY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS OR AS DIRECTED BY THE COUNTY TRAFFIC ENGINEER.

- AGENCY: LAKE COUNTY DEPARTMENT OF TRANSPORTATION
- 1 EACH CABINET AND CONTROLLER (COMPLETE)
 - 1 EACH ADPRO VIDEO COMMUNICATION EQUIPMENT

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

- 6 EACH PEDESTRIAN SIGNAL HEADS



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CONTROLLER UPGRADE INTERSECTION LOCATION
 ROLLINS RD. @ WASHINGTON ST.

SCALE: 1"=20'

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	27	72
CUGRO-1			CONTRACT NO. 09472	

SCHEDULE OF QUANTITIES

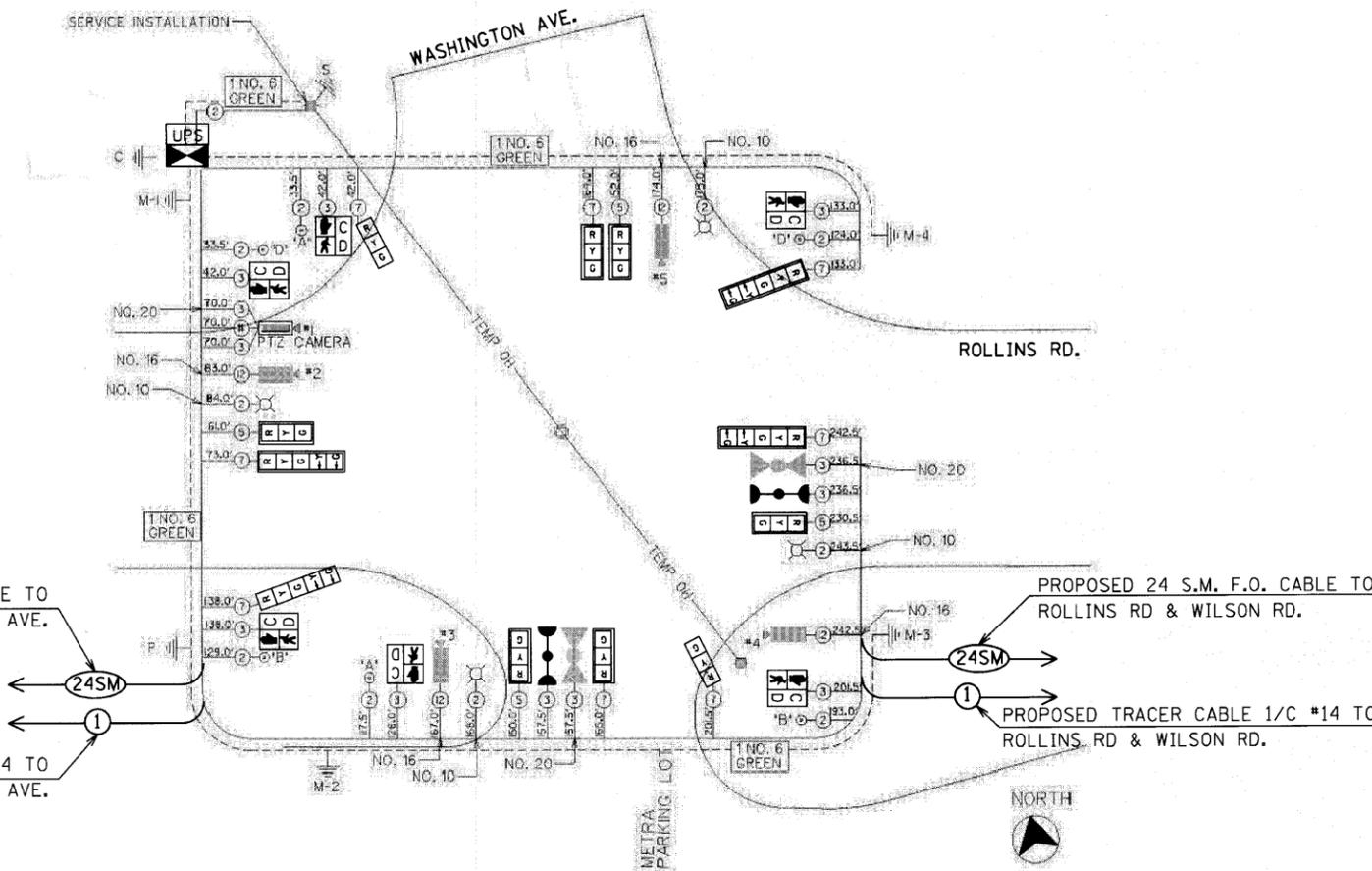
ITEM	UNIT	QTY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SIGNAL HEAD ,LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD ,LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD ,LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD ,LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	2
LAYER II (DATALINK) SWITCH	EACH	1
RELOCATE EXISTING VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)	EACH	1
TERMINAL SERVER	EACH	1
QUAD ENCODER	EACH	1
VIDEO ENCODER	EACH	1

PROPOSED 24 S.M. F.O. CABLE TO ROLLINS RD & GRAND AVE.

PROPOSED TRACER CABLE 1/C #14 TO ROLLINS RD & GRAND AVE.

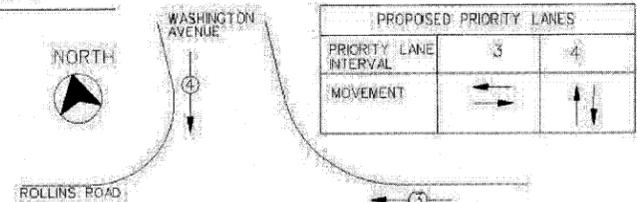
PROPOSED 24 S.M. F.O. CABLE TO ROLLINS RD & WILSON RD.

PROPOSED TRACER CABLE 1/C #14 TO ROLLINS RD & WILSON RD.



CABLE PLAN

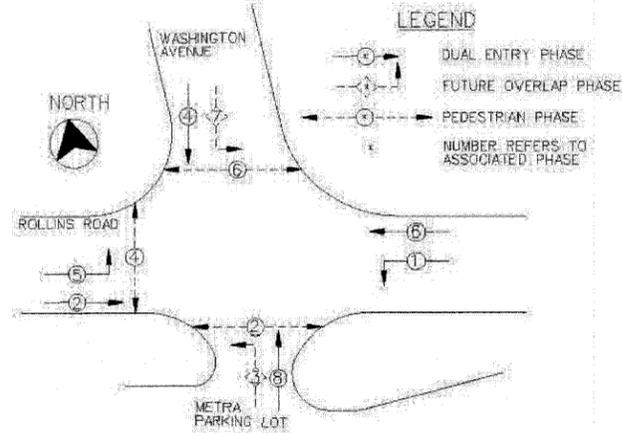
No Scale



- NOTES:
- ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S TERMINATION OF A PHASE(S).
 - TERMINATION OF ALL PEDESTRIAN PHASES SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
 - IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS

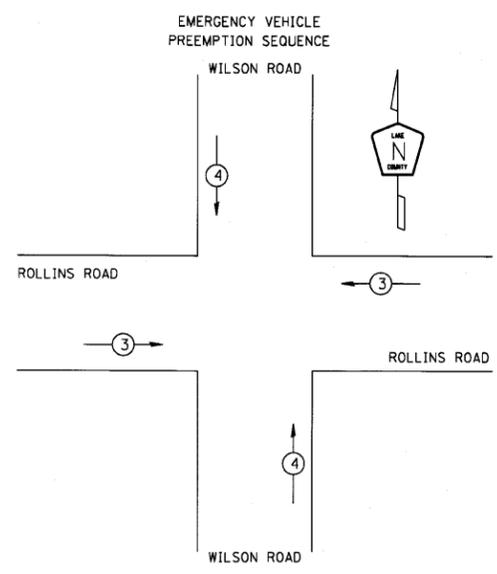


PHASE DESIGNATION DIAGRAM

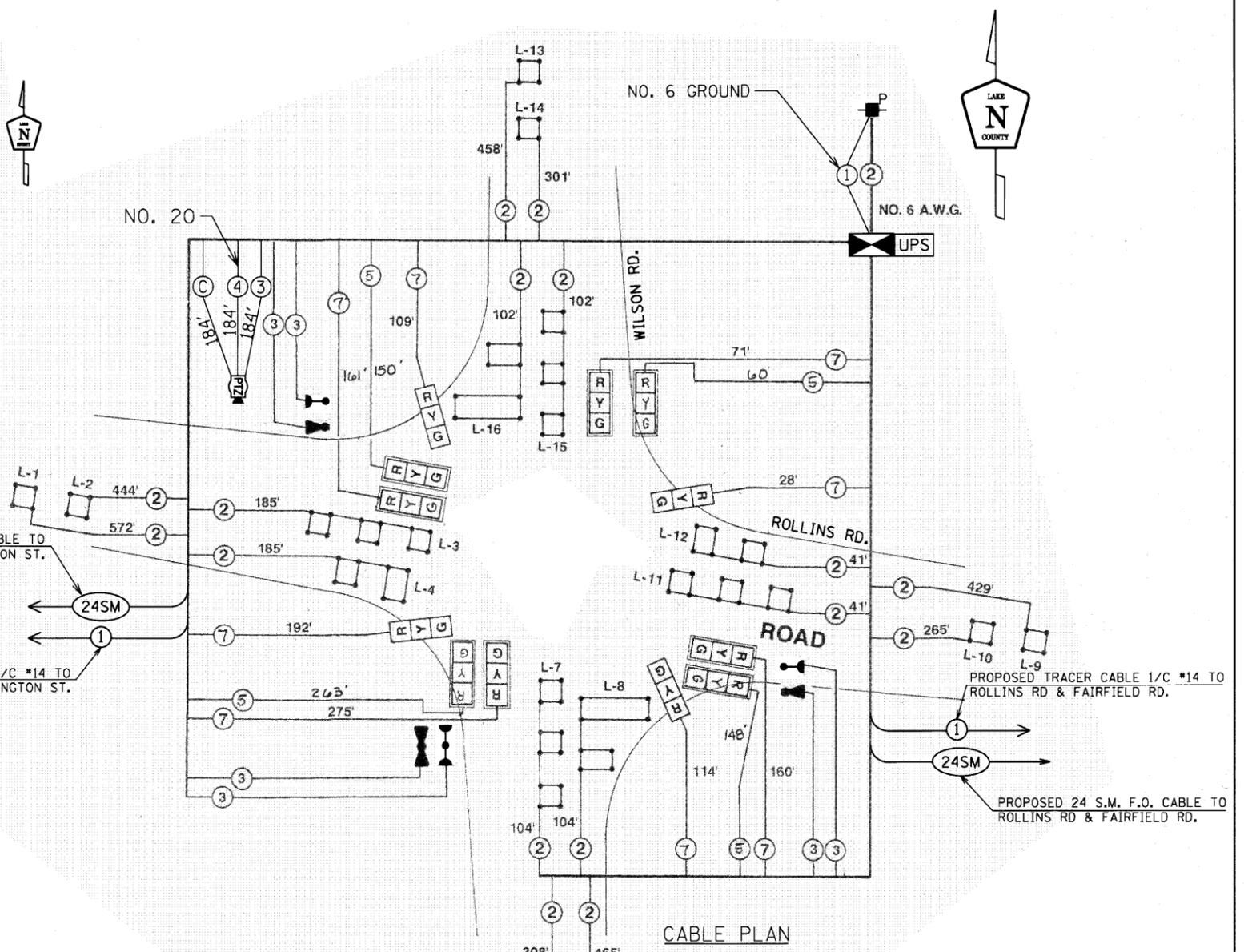
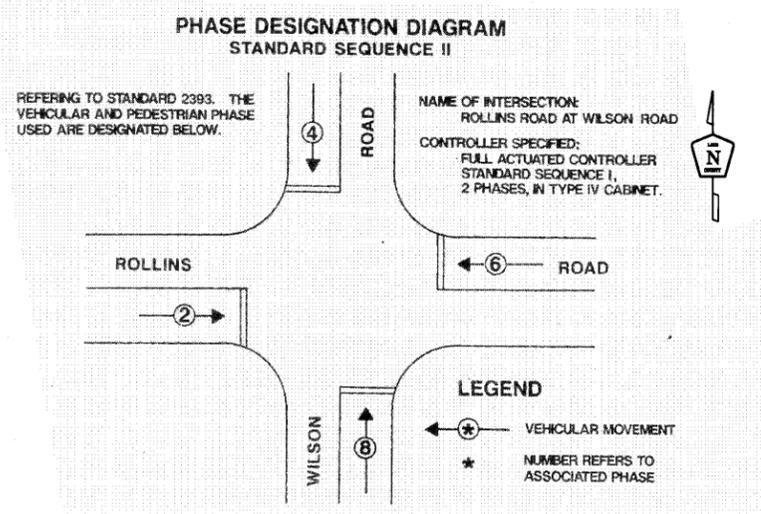
DUAL ENTRY - ALL LEGS - PERMITTED PHASING

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (INCAND.)
		INCAND.	LED		
SIGNAL	(RED)	12	10	0.50	60
	(YELLOW)	12	19	0.10	22.8
	(GREEN)	12	11	0.40	52.8
ARROW	8		9	0.10	7.2
PED SIGNAL	6		9	1.00	54
CONTROLLER	1		100	1.00	100
LUMINAIRE	4		250	0.50	500
L.E.D. ST. NAME SIGN			64	0.50	
VIDEO SYSTEM	1		150	1.00	150
BATTERY BACKUP	1		25	1.00	25
TOTAL					971.80

ENERGY COSTS - BILLED TO: VILLAGE OF FOX LAKE
 (ADDRESS) 66 THILLEN DR.
 (ADDRESS) FOX LAKE, IL
 ENERGY SUPPLY - CONTACT: MR. FRANK ZACCARI
 PHONE: (847) 816-5489
 COMPANY: COMED



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



SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY
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 3C	FOOT	184
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	74
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	184
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	184

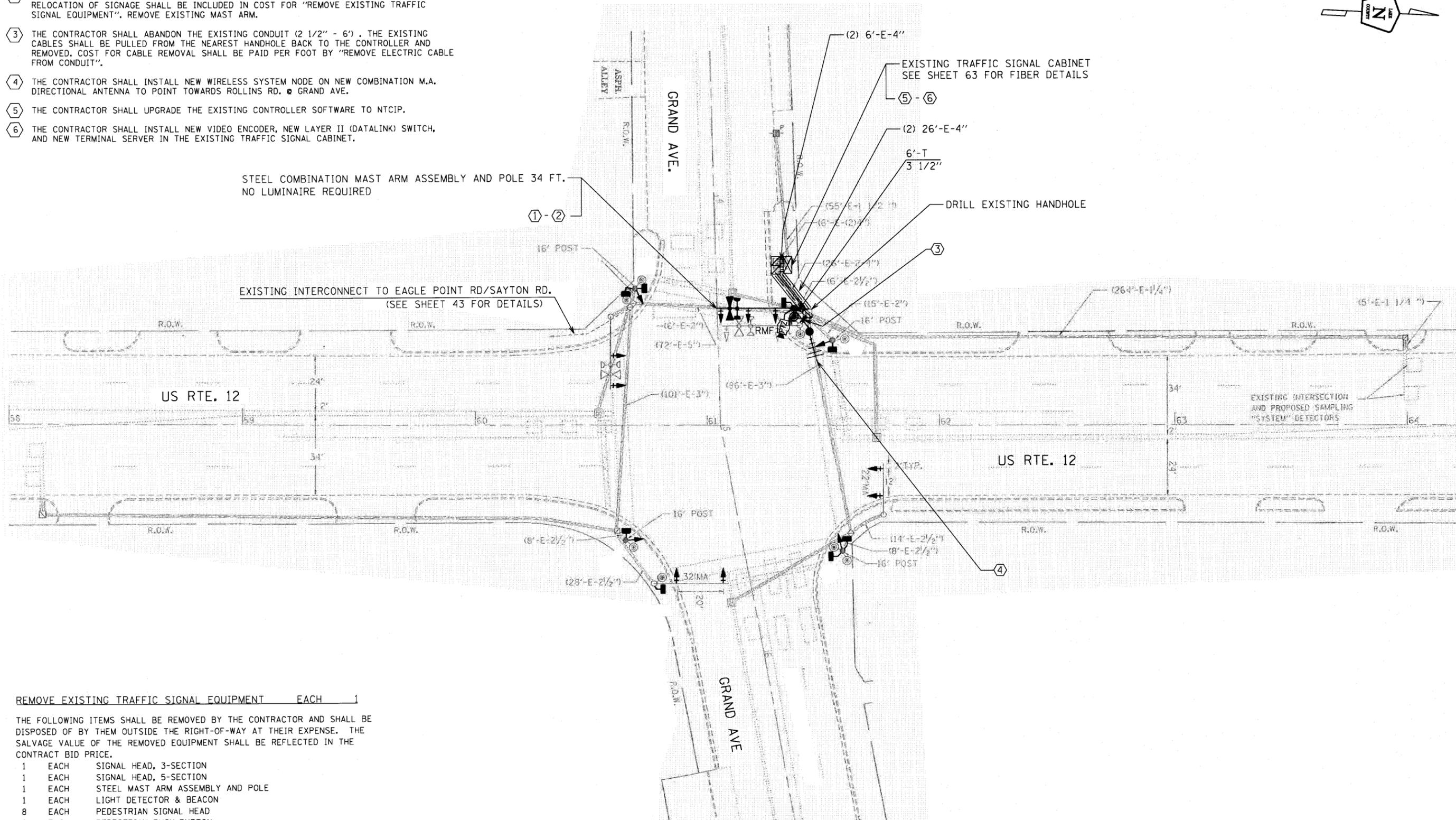
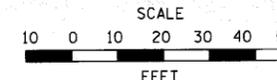
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE (L.E.D.)
		INCAND.	LED		
SIGNAL	(RED)	12	10	0.50	60
	(YELLOW)	12	19	0.10	22.8
	(GREEN)	12	11	0.40	52.8
ARROW			9	0.10	
PED SIGNAL			9	1.00	
CONTROLLER	1		100	1.00	100
LUMINAIRE			250	0.50	
L.E.D. ST. NAME SIGN			64	0.50	
VIDEO SYSTEM	1		150	1.00	150
BATTERY BACKUP			25	1.00	0
TOTAL					385.60

ENERGY COSTS - BILLED TO: VILLAGE OF FOX LAKE
 (ADDRESS) 66 THILLEN DR.
 (ADDRESS) FOX LAKE, IL

ENERGY SUPPLY - CONTACT: MR. FRANK ZACCARI
 PHONE: (847) 816-5489
 COMPANY: COMED

CONSTRUCTION NOTES:

- ① THE CONTRACTOR SHALL INSTALL NEW MAST ARM 8' FROM EXISTING MAST ARM. THE EXISTING MAST ARM SHALL NOT BE REMOVED OR DISCONNECTED UNTIL THE PROPOSED MAST ARM IS INSTALLED AND WITH ALL SIGNAL EQUIPMENT OPERATIONAL.
- ② THE CONTRACTOR SHALL RELOCATE ALL SIGNAGE TO NEW COMBINATION MAST ARM. COST FOR RELOCATION OF SIGNAGE SHALL BE INCLUDED IN COST FOR "REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT". REMOVE EXISTING MAST ARM.
- ③ THE CONTRACTOR SHALL ABANDON THE EXISTING CONDUIT (2 1/2" - 6"). THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".
- ④ THE CONTRACTOR SHALL INSTALL NEW WIRELESS SYSTEM NODE ON NEW COMBINATION M.A. DIRECTIONAL ANTENNA TO POINT TOWARDS ROLLINS RD. @ GRAND AVE.
- ⑤ THE CONTRACTOR SHALL UPGRADE THE EXISTING CONTROLLER SOFTWARE TO NTCIP.
- ⑥ THE CONTRACTOR SHALL INSTALL NEW VIDEO ENCODER, NEW LAYER II (DATALINK) SWITCH, AND NEW TERMINAL SERVER IN THE EXISTING TRAFFIC SIGNAL CABINET.



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

- | | | |
|---|------|----------------------------------|
| 1 | EACH | SIGNAL HEAD, 3-SECTION |
| 1 | EACH | SIGNAL HEAD, 5-SECTION |
| 1 | EACH | STEEL MAST ARM ASSEMBLY AND POLE |
| 1 | EACH | LIGHT DETECTOR & BEACON |
| 8 | EACH | PEDESTRIAN SIGNAL HEAD |
| 1 | EACH | PEDESTRIAN PUSH-BUTTON |



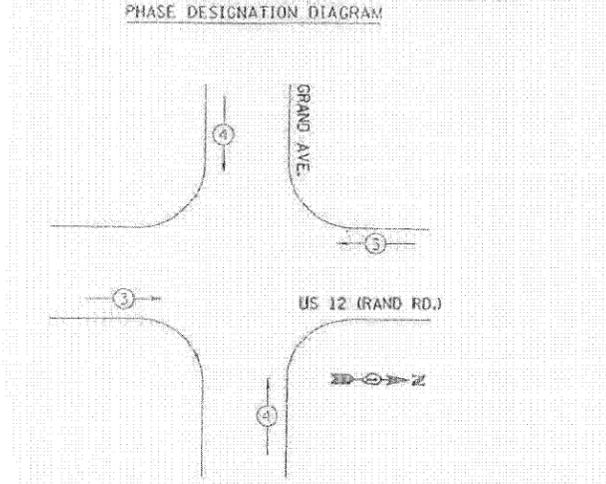
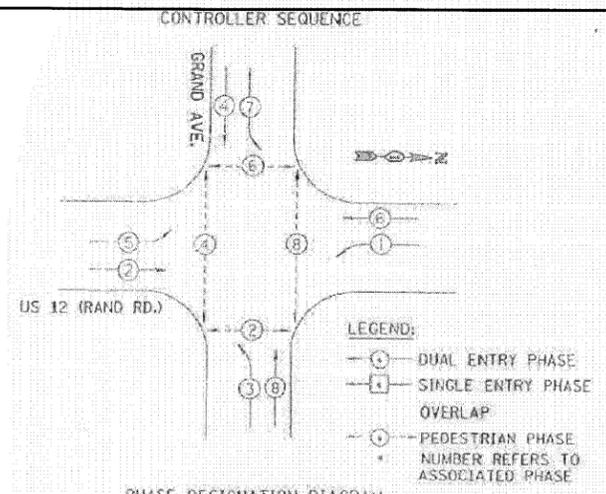
USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**VIDEO CAMERA LOCATION
US 12 (RAND RD.) @ GRAND AVE.**

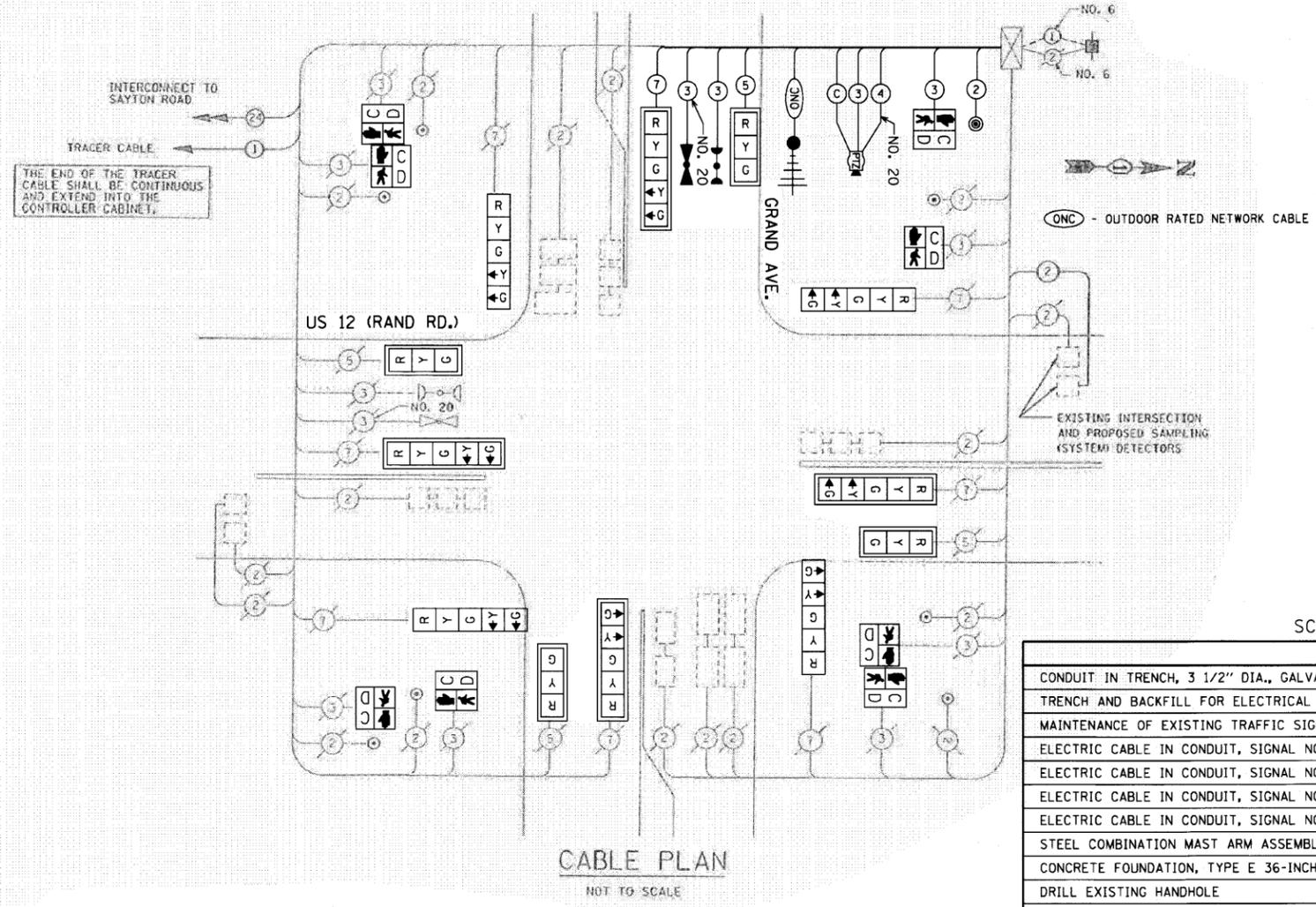
SCALE: 1"=20'

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	31	72
VCL-2			CONTRACT NO. 09472	



PROPOSED EMERGENCY VEHICLE PREEMPTORS:

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	



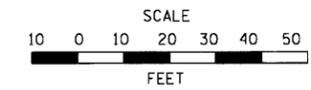
SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY.
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	6
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	6
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	70
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	310
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	109
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	121
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
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	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
LIGHT DETECTOR	EACH	1
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	662
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	119
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	114
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	3
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINAL SERVER	EACH	1
VIDEO ENCODER	EACH	1
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	114
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	114
WIRELESS SYSTEM NODE	EACH	1

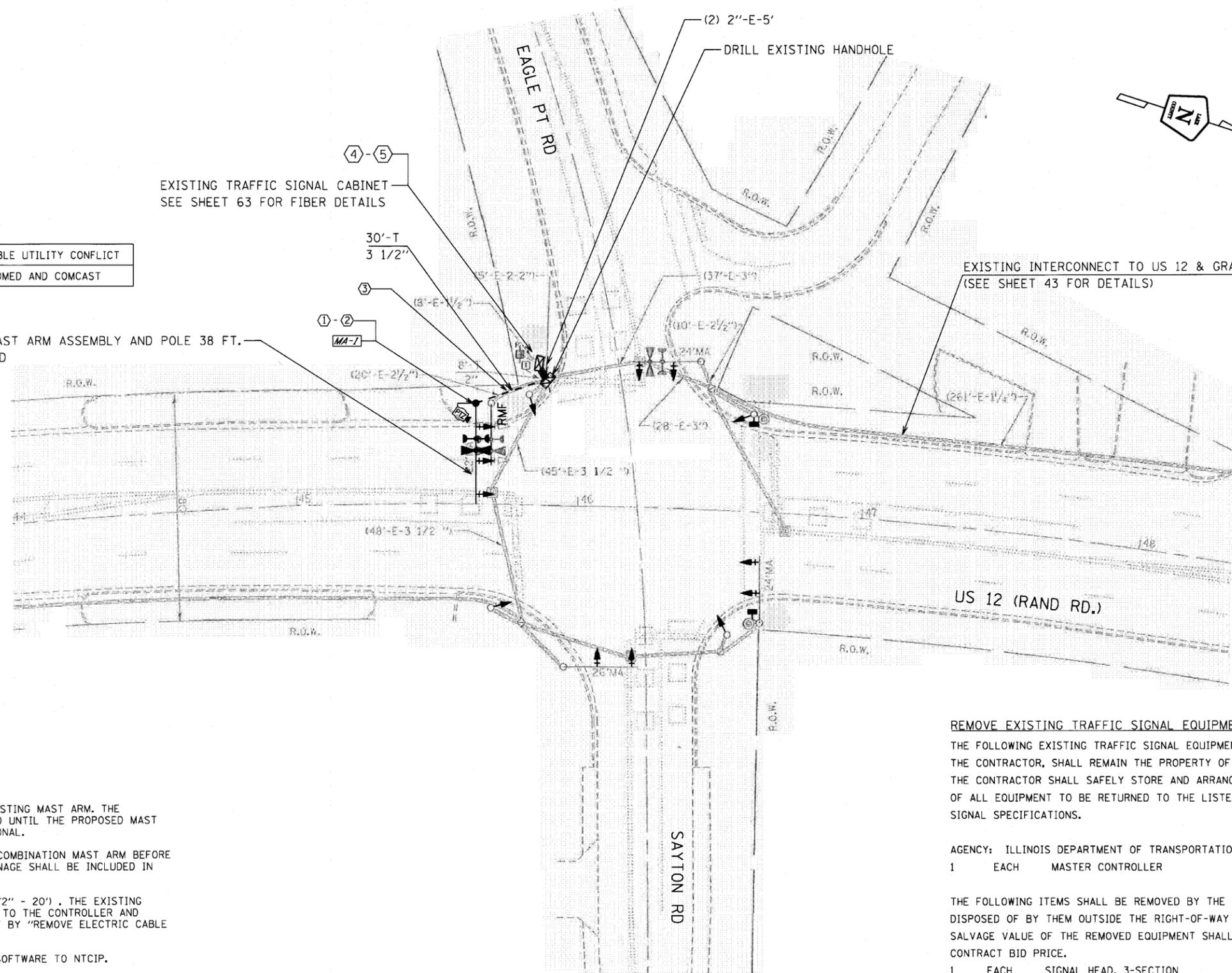
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE LED	% OPERATION	TOTAL WATTAGE (LED)
SIGNAL	(RED)	12	0.50	60
	(YELLOW)	12	0.10	22.8
	(GREEN)	12	0.40	52.8
ARROW	16	9	0.10	14.4
PED SIGNAL	8	9	1.00	72
CONTROLLER	1	100	1.00	100
ILLUMINATED SIGN		35	0.05	
VIDEO SYSTEM	1	150	1.00	150
TOTAL				472.00

ENERGY COSTS - BILLED TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHAMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY - CONTACT: JUDY SCHOMER
 PHONE: 847-870-2063
 COMPANY: COMED



ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
MA-1	45+65.1	36.4' N	COMED AND COMCAST



STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.
NO LUMINAIRE REQUIRED

EXISTING TRAFFIC SIGNAL CABINET
SEE SHEET 63 FOR FIBER DETAILS

DRILL EXISTING HANDHOLE

EXISTING INTERCONNECT TO US 12 & GRAND AVE.
(SEE SHEET 43 FOR DETAILS)

CONSTRUCTION NOTES:

- ① THE CONTRACTOR SHALL INSTALL NEW MAST ARM 10' FROM EXISTING MAST ARM. THE EXISTING MAST ARM SHALL NOT BE REMOVED OR DISCONNECTED UNTIL THE PROPOSED MAST ARM IS INSTALLED AND WITH ALL SIGNAL EQUIPMENT OPERATIONAL.
- ② THE CONTRACTOR SHALL RELOCATE ALL SIGNAGE TO THE NEW COMBINATION MAST ARM BEFORE REMOVING EXISTING MAST ARM. COST FOR RELOCATION OF SIGNAGE SHALL BE INCLUDED IN COST FOR "REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT".
- ③ THE CONTRACTOR SHALL ABANDON THE EXISTING CONDUIT (2 1/2" - 20'). THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".
- ④ THE CONTRACTOR SHALL UPGRADE THE EXISTING CONTROLLER SOFTWARE TO NTCIP.
- ⑤ THE CONTRACTOR SHALL INSTALL NEW VIDEO ENCODER AND NEW LAYER II (DATALINK) SWITCH IN THE EXISTING TRAFFIC SIGNAL CABINET.
- ⑥ THE CONTRACTOR SHALL RETURN THE EXISTING MASTER CONTROLLER TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OR DELIVERY OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: ILLINOIS DEPARTMENT OF TRANSPORTATION
1 EACH MASTER CONTROLLER

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

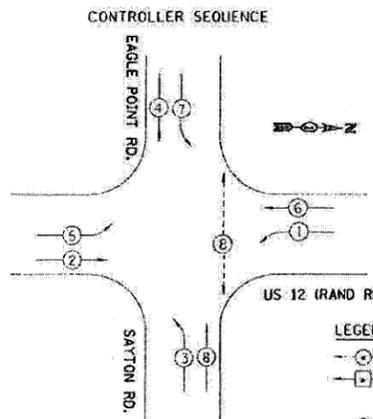
- 1 EACH SIGNAL HEAD, 3-SECTION
- 1 EACH SIGNAL HEAD, 5-SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

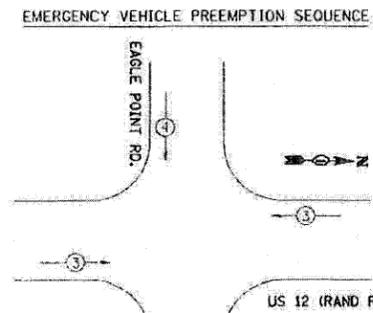
VIDEO CAMERA LOCATION		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
US 12 (RAND RD.) @ EAGLE POINT RD./SAYTON RD.		FAU		09-00999-07-TL	33	72
SCALE: 1"=20'		VCL-3		CONTRACT NO. 09472		



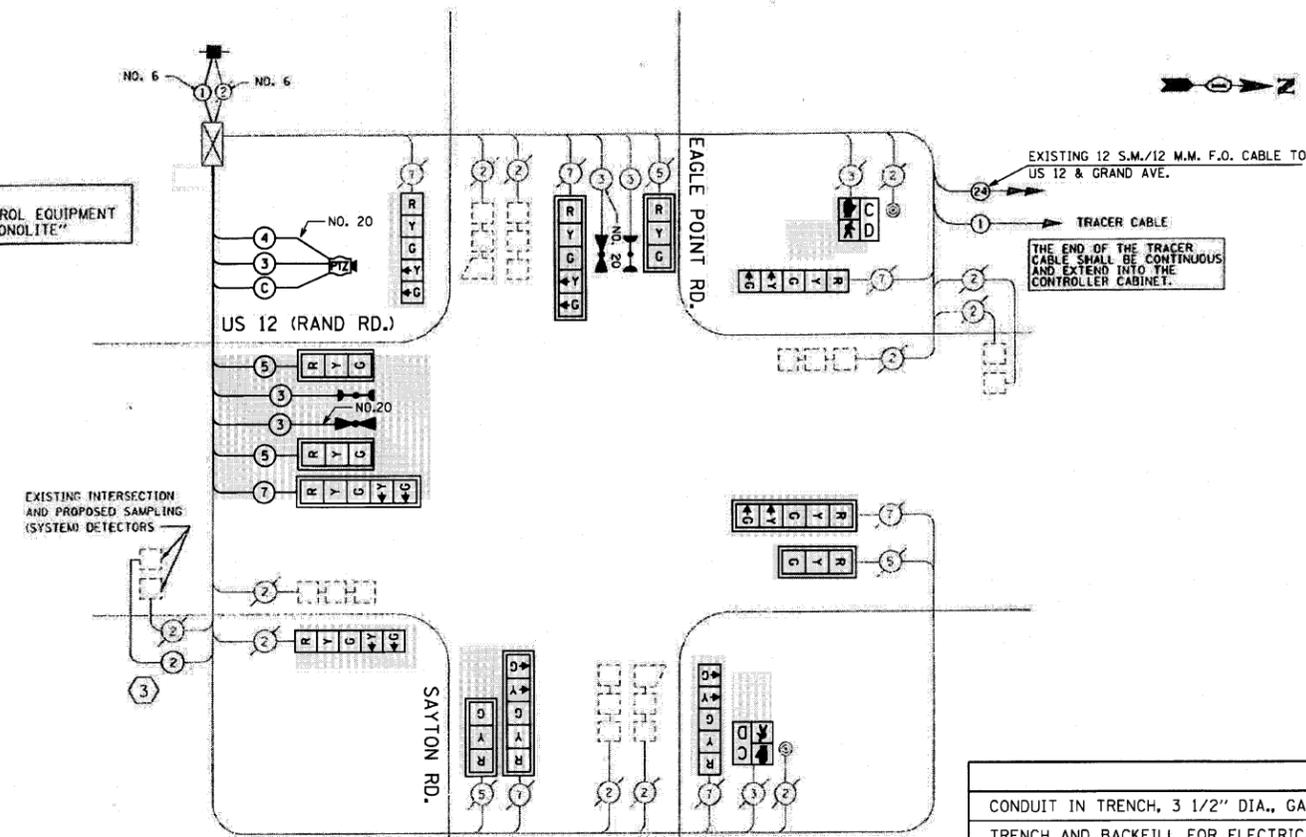
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT
FOR THIS PROJECT IS "ECONOLITE"

LEGEND:
 ○ DUAL ENTRY PHASE
 □ SINGLE ENTRY PHASE
 ○ OVERLAP
 ○ PEDESTRIAN PHASE
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



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



CABLE PLAN
NOT TO SCALE

SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY.
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	30
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	30
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	217
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	194
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	115
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	3
LIGHT DETECTOR	EACH	1
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	340
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED	FOOT	113
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	104
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	3
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	104

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

TYPE	NO. OF LAMPS	WATTAGE LED	% OPERATION	TOTAL WATTAGE (LED)	
SIGNAL	(RED)	12	10	0.50	60
	(YELLOW)	12	19	0.10	22.8
	(GREEN)	12	11	0.40	52.8
ARROW	16	9	0.10	14.4	
PED SIGNAL	2	9	1.00	18	
CONTROLLER	1	100	1.00	100	
LUMINAIRE		250	0.50		
L.E.D. ST. NAME SIGN		64	0.50		
VIDEO SYSTEM	1	150	1.00	150	
BATTERY BACKUP		25	1.00		
TOTAL				418.00	

ENERGY COSTS - BILLED TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
(ADDRESS) 201 WEST CENTER COURT
(ADDRESS) SCHLAUBURG, ILLINOIS 60196-1096
ENERGY SUPPLY - CONTACT: JUDY SCHOMER
PHONE: 847-870-2063
COMPANY: COMED



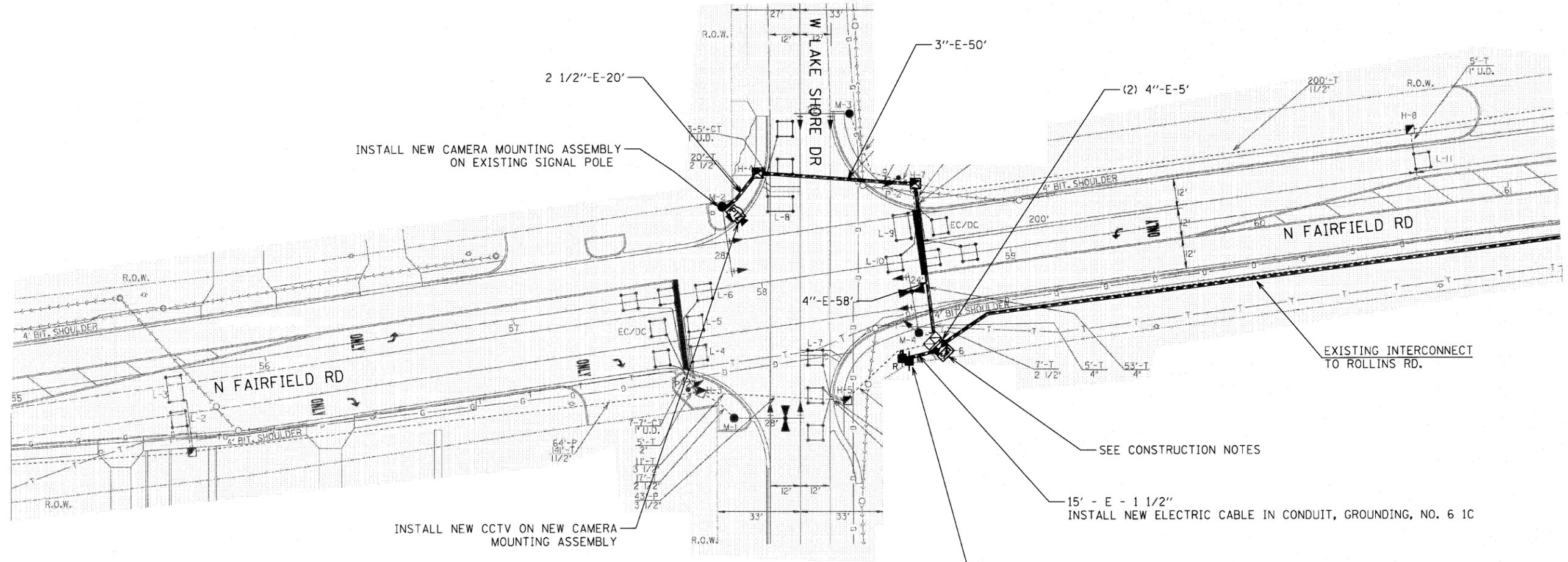
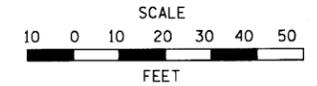
USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VIDEO CAMERA LOCATION		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
US 12 (RAND RD.) @ EAGLE POINT RD./SAYTON RD.		FAU		09-00999-07-TL	34	72
SCALE: N/A		CABLE DRAWING		VCL-3-1	CONTRACT NO. 09472	

CONSTRUCTION NOTES:

- 1 THE CONTRACTOR SHALL REMOVE EXISTING TRAFFIC SIGNAL CABINET AND CONTROLLER.
- 2 THE CONTRACTOR SHALL INSTALL NEW FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL AND UNINTERRUPTIBLE POWER SUPPLY ON EXISTING FOUNDATION. SEE SHEET 63 FOR FIBER DETAILS
- 3 THE CONTRACTOR SHALL INSTALL NEW VIDEO ENCODER AND NEW LAYER II (DATALINK) SWITCH IN THE NEW CABINET
- 4 THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CABINET



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE COUNTY AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS OR AS DIRECTED BY THE COUNTY TRAFFIC ENGINEER.

AGENCY: LAKE COUNTY DEPARTMENT OF TRANSPORTATION
1 EACH CABINET AND CONTROLLER (COMPLETE)

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

1 EACH SERVICE INSTALLATION



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

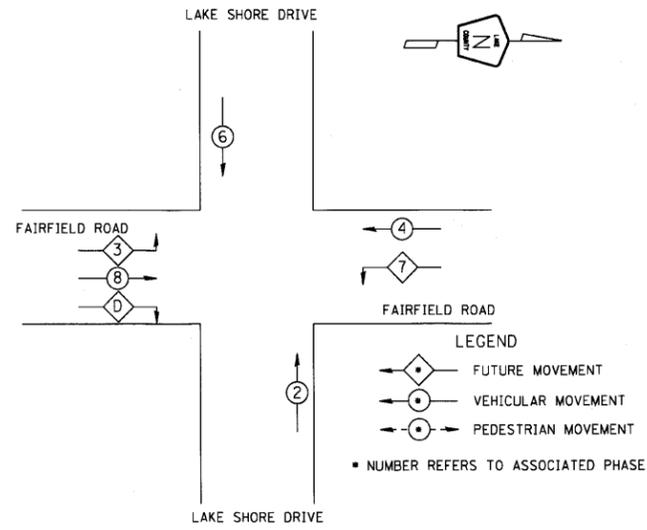
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**VIDEO CAMERA LOCATION
FAIRFIELD RD. @ LAKE SHORE DR.**

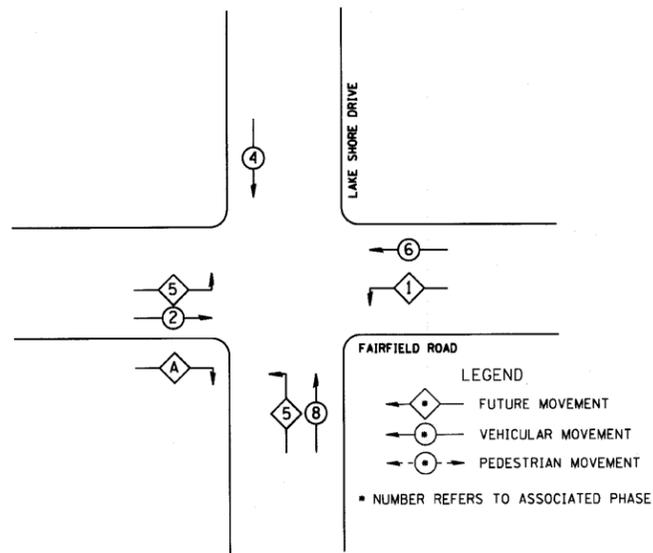
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	35	72
		VCL-4	CONTRACT NO. 09472	

SCALE: 1"=20'

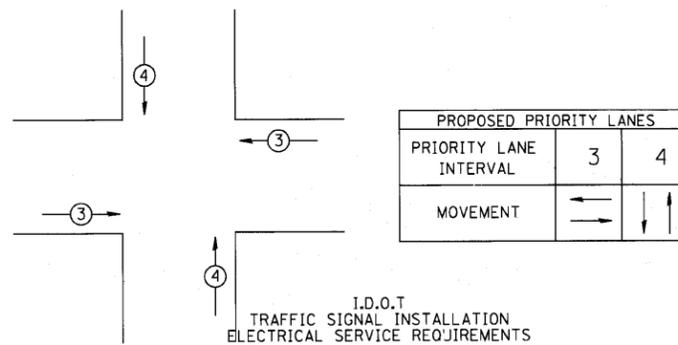
EXISTING PHASE DESIGNATION DIAGRAM



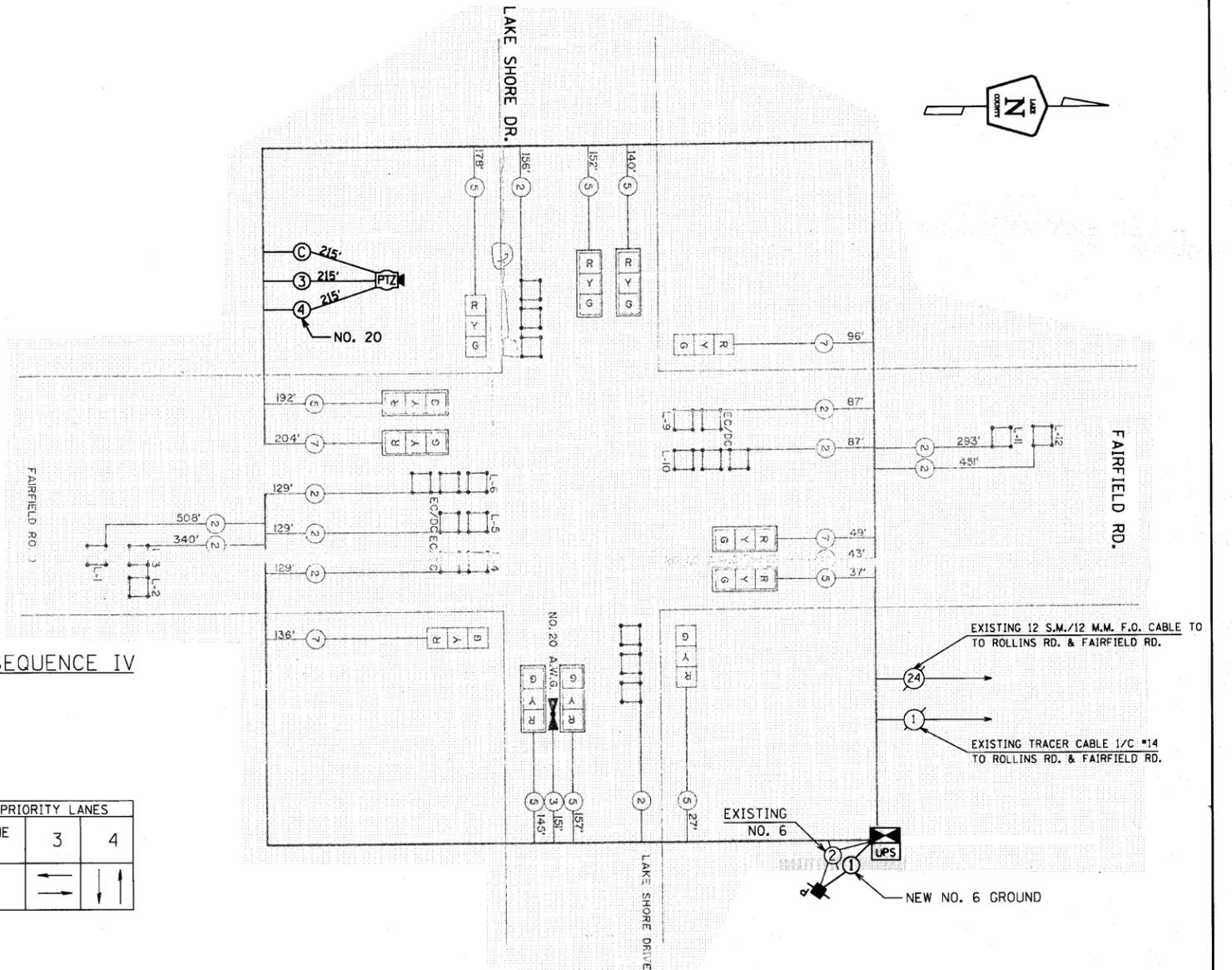
PROPOSED PHASE DESIGNATION DIAGRAM



PRIORITY SEQUENCE FOR CONTROLLER SEQUENCE IV



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



TYPE	NO. OF LAMPS	WATTAGE LED	% OPERATION	TOTAL WATTAGE (LED)
SIGNAL (RED)	12	10	0.50	60
(YELLOW)	12	19	0.10	22.8
(GREEN)	12	11	0.40	52.8
ARROW	9	9	1.00	81
PED SIGNAL	9	9	1.00	81
CONTROLLER	1	100	1.00	100
LUMINAIRE	250	250	0.50	125000
L.E.D. ST. NAME SIGN	64	64	0.50	32000
VIDEO SYSTEM	1	150	1.00	150
BATTERY BACKUP	25	25	1.00	2500
TOTAL				385.60

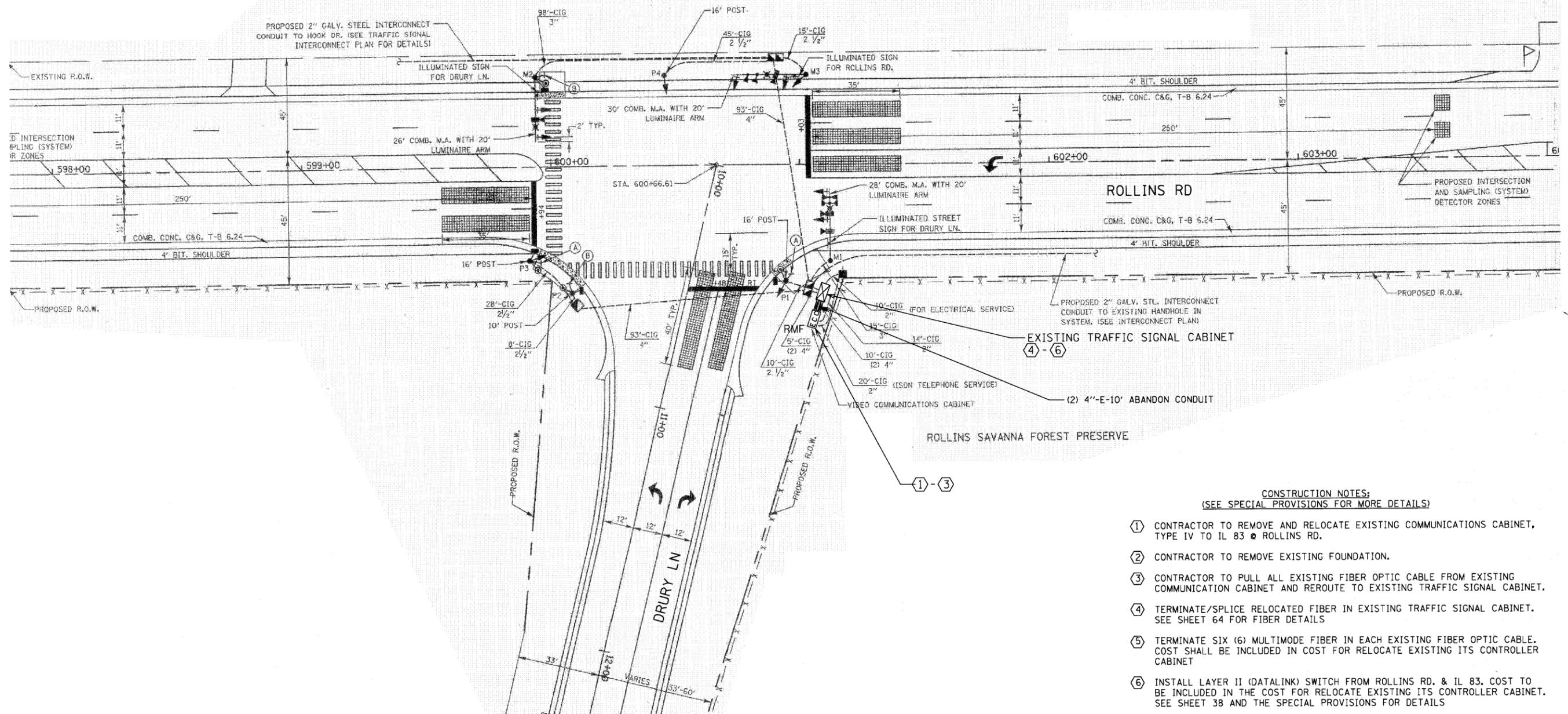
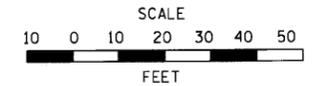
ENERGY COSTS - BILLED TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
 (ADDRESS) 201 WEST CENTER COURT
 (ADDRESS) SCHALMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY - CONTACT: JUDY SCHOMER
 PHONE: 847-870-2063
 COMPANY: COMED

SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY.
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 3C	FOOT	215
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	64
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	215
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	215

SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	22
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
RELOCATE EXISTING ITS CONTROLLER CABINET	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
SPLICE FIBER IN CABINET	EACH	9



- CONSTRUCTION NOTES:**
(SEE SPECIAL PROVISIONS FOR MORE DETAILS)
- ① CONTRACTOR TO REMOVE AND RELOCATE EXISTING COMMUNICATIONS CABINET, TYPE IV TO IL 83 @ ROLLINS RD.
 - ② CONTRACTOR TO REMOVE EXISTING FOUNDATION.
 - ③ CONTRACTOR TO PULL ALL EXISTING FIBER OPTIC CABLE FROM EXISTING COMMUNICATION CABINET AND REROUTE TO EXISTING TRAFFIC SIGNAL CABINET.
 - ④ TERMINATE/SPLICE RELOCATED FIBER IN EXISTING TRAFFIC SIGNAL CABINET. SEE SHEET 64 FOR FIBER DETAILS
 - ⑤ TERMINATE SIX (6) MULTIMODE FIBER IN EACH EXISTING FIBER OPTIC CABLE. COST SHALL BE INCLUDED IN COST FOR RELOCATE EXISTING ITS CONTROLLER CABINET
 - ⑥ INSTALL LAYER II (DATALINK) SWITCH FROM ROLLINS RD. & IL 83. COST TO BE INCLUDED IN THE COST FOR RELOCATE EXISTING ITS CONTROLLER CABINET. SEE SHEET 38 AND THE SPECIAL PROVISIONS FOR DETAILS



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

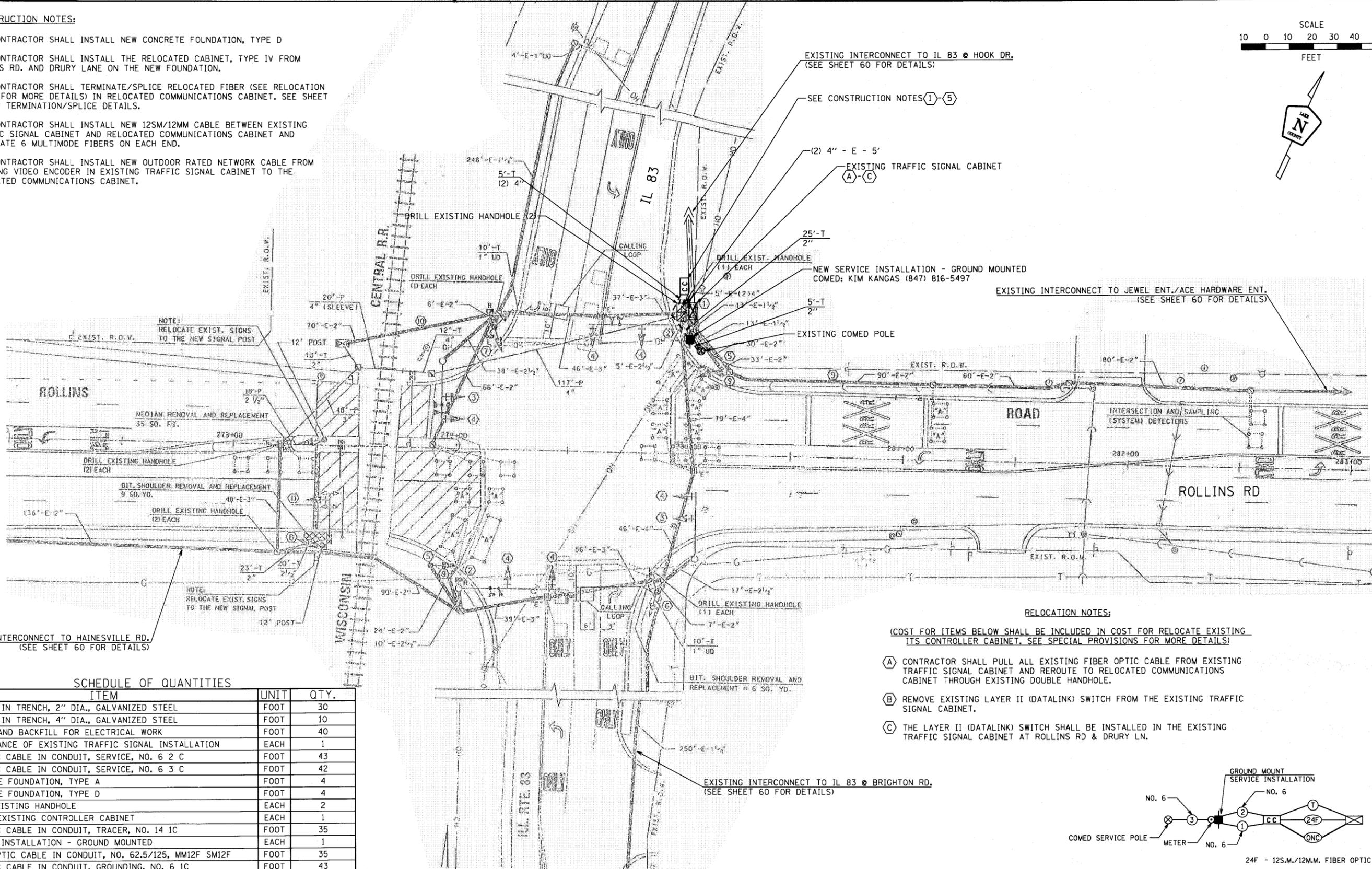
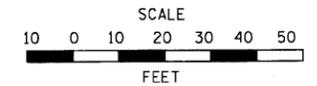
COMMUNICATION CABINET REMOVAL
ROLLINS RD. @ DRURY LN.

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	37	72
		COM-1	CONTRACT NO. 09472	

SCALE: 1"=20'

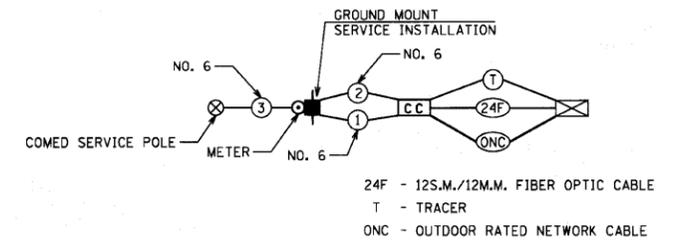
CONSTRUCTION NOTES:

- ① THE CONTRACTOR SHALL INSTALL NEW CONCRETE FOUNDATION, TYPE D
- ② THE CONTRACTOR SHALL INSTALL THE RELOCATED CABINET, TYPE IV FROM ROLLINS RD. AND DRURY LANE ON THE NEW FOUNDATION.
- ③ THE CONTRACTOR SHALL TERMINATE/SPLICE RELOCATED FIBER (SEE RELOCATION NOTES FOR MORE DETAILS) IN RELOCATED COMMUNICATIONS CABINET. SEE SHEET 64 FOR TERMINATION/SPLICE DETAILS.
- ④ THE CONTRACTOR SHALL INSTALL NEW 12SM/12MM CABLE BETWEEN EXISTING TRAFFIC SIGNAL CABINET AND RELOCATED COMMUNICATIONS CABINET AND TERMINATE 6 MULTIMODE FIBERS ON EACH END.
- ⑤ THE CONTRACTOR SHALL INSTALL NEW OUTDOOR RATED NETWORK CABLE FROM EXISTING VIDEO ENCODER IN EXISTING TRAFFIC SIGNAL CABINET TO THE RELOCATED COMMUNICATIONS CABINET.



RELOCATION NOTES:

- (COST FOR ITEMS BELOW SHALL BE INCLUDED IN COST FOR RELOCATE EXISTING ITS CONTROLLER CABINET. SEE SPECIAL PROVISIONS FOR MORE DETAILS)
- (A) CONTRACTOR SHALL PULL ALL EXISTING FIBER OPTIC CABLE FROM EXISTING TRAFFIC SIGNAL CABINET AND REROUTE TO RELOCATED COMMUNICATIONS CABINET THROUGH EXISTING DOUBLE HANDHOLE.
 - (B) REMOVE EXISTING LAYER II (DATALINK) SWITCH FROM THE EXISTING TRAFFIC SIGNAL CABINET.
 - (C) THE LAYER II (DATALINK) SWITCH SHALL BE INSTALLED IN THE EXISTING TRAFFIC SIGNAL CABINET AT ROLLINS RD & DRURY LN.



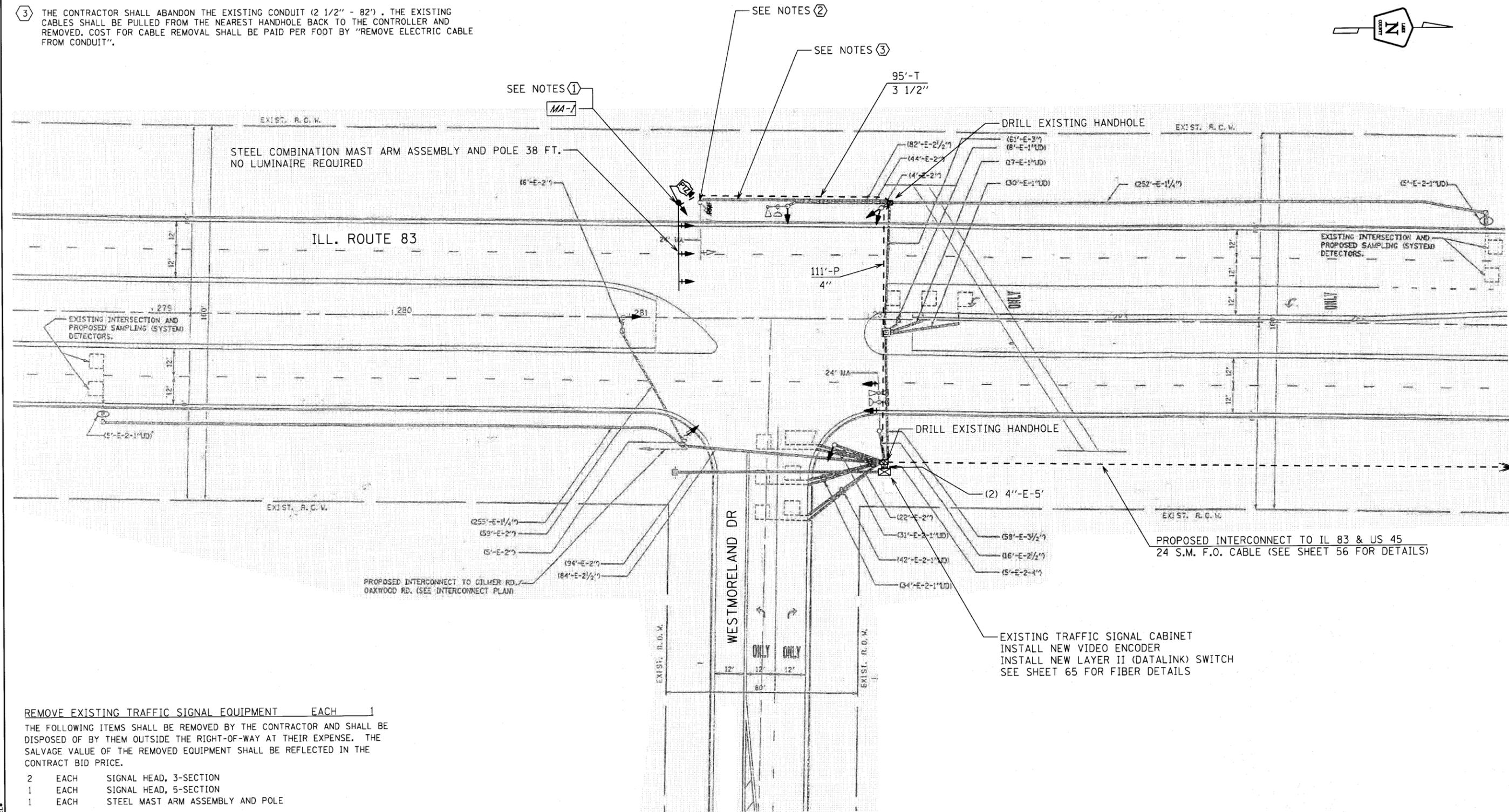
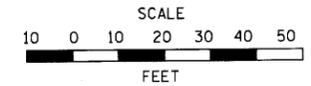
SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY.
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	30
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	40
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	43
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 3 C	FOOT	42
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE D	FOOT	4
DRILL EXISTING HANDHOLE	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	35
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	35
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	43
TERMINATE FIBER IN CABINET	EACH	26
OUTDOOR RATED NETWORK CABLE	FOOT	35

CONSTRUCTION NOTES:

- ① THE CONTRACTOR SHALL INSTALL NEW MAST ARM 10' FROM EXISTING MAST ARM. THE EXISTING MAST ARM SHALL NOT BE REMOVED OR DISCONNECTED UNTIL THE PROPOSED MAST ARM IS INSTALLED AND WITH ALL SIGNAL EQUIPMENT OPERATIONAL.
- ② THE CONTRACTOR SHALL RELOCATE ALL SIGNAGE TO THE NEW COMBINATION MAST ARM BEFORE REMOVING EXISTING MAST ARM. COST FOR RELOCATION OF SIGNAGE SHALL BE INCLUDED IN COST FOR "REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT".
- ③ THE CONTRACTOR SHALL ABANDON THE EXISTING CONDUIT (2 1/2" - 82"). THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
MA-1	281+21.4	49.8' N	



REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1
 THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH SIGNAL HEAD, 3-SECTION
- 1 EACH SIGNAL HEAD, 5-SECTION
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE



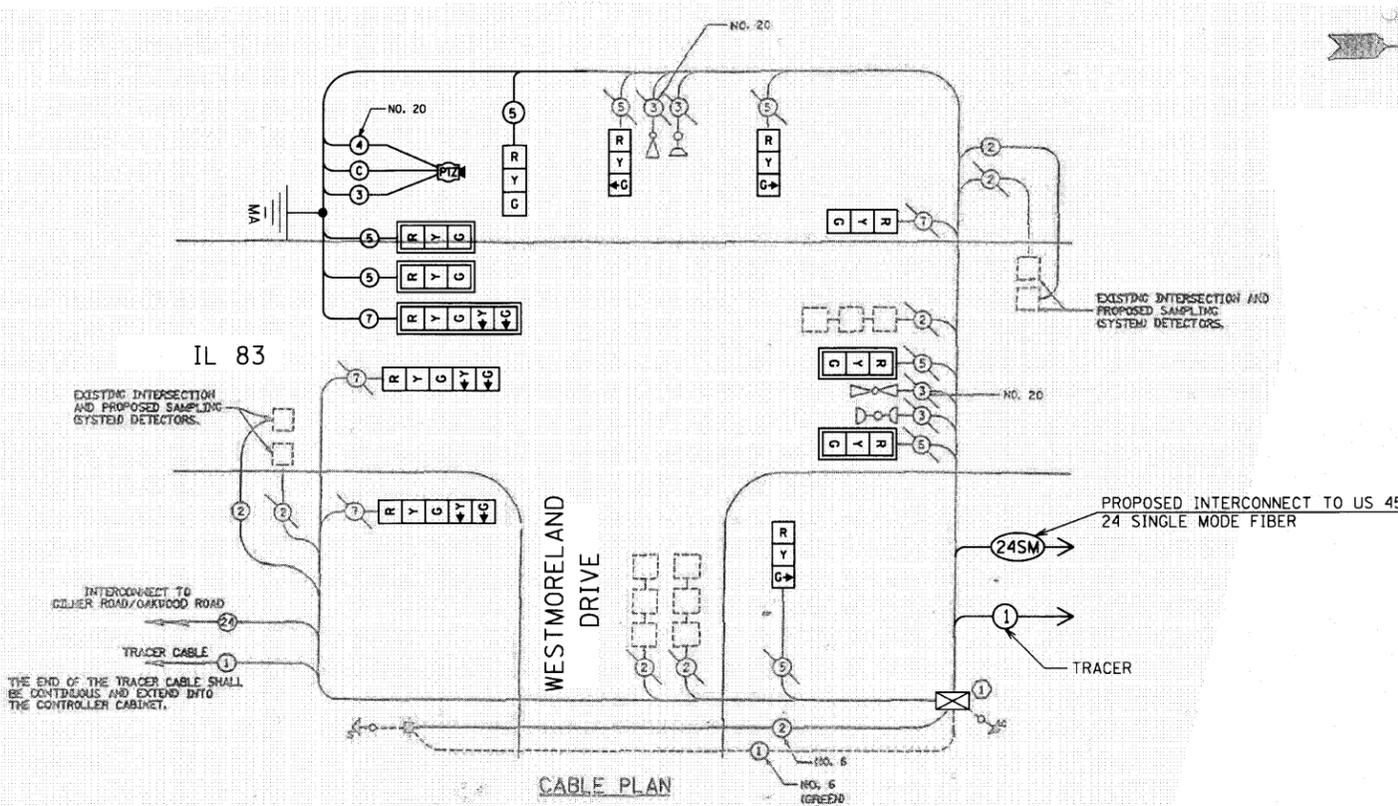
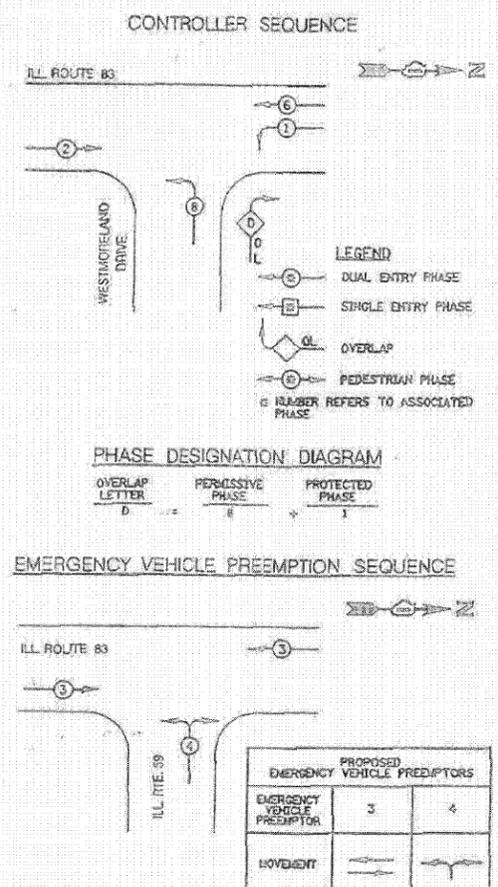
USER NAME = JM	DESIGNED - DG	REVISED -
DRAWN - JM	REVISIONS -	
PLOT SCALE = 1 INCH = 20 FEET	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=20'	VIDEO CAMERA LOCATION IL 83 @ WESTMORELAND DR.
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ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	39	72
		VCL-5	CONTRACT NO. 69472	

DATE PLOTTED: 10/05/2010 10:05:28 AM



SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY.
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	95
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	111
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	95
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	301
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	864
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	312
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
DRILL EXISTING HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	821
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	301
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	301

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

TYPE	NO. OF LAMPS	WATTAGE LED	% OPERATION	TOTAL WATTAGE (LED)
SIGNAL (RED)	12	10	0.50	60
(YELLOW)	12	19	0.10	22.8
(GREEN)	12	11	0.40	52.8
ARROW	6	9	0.10	5.4
PED SIGNAL		9	1.00	
CONTROLLER	1	100	1.00	100
LUMINAIRE		250	0.50	
L.E.D. ST. NAME SIGN		64	0.50	
VIDEO SYSTEM	1	150	1.00	150
BATTERY BACKUP		25	1.00	
TOTAL				391.00

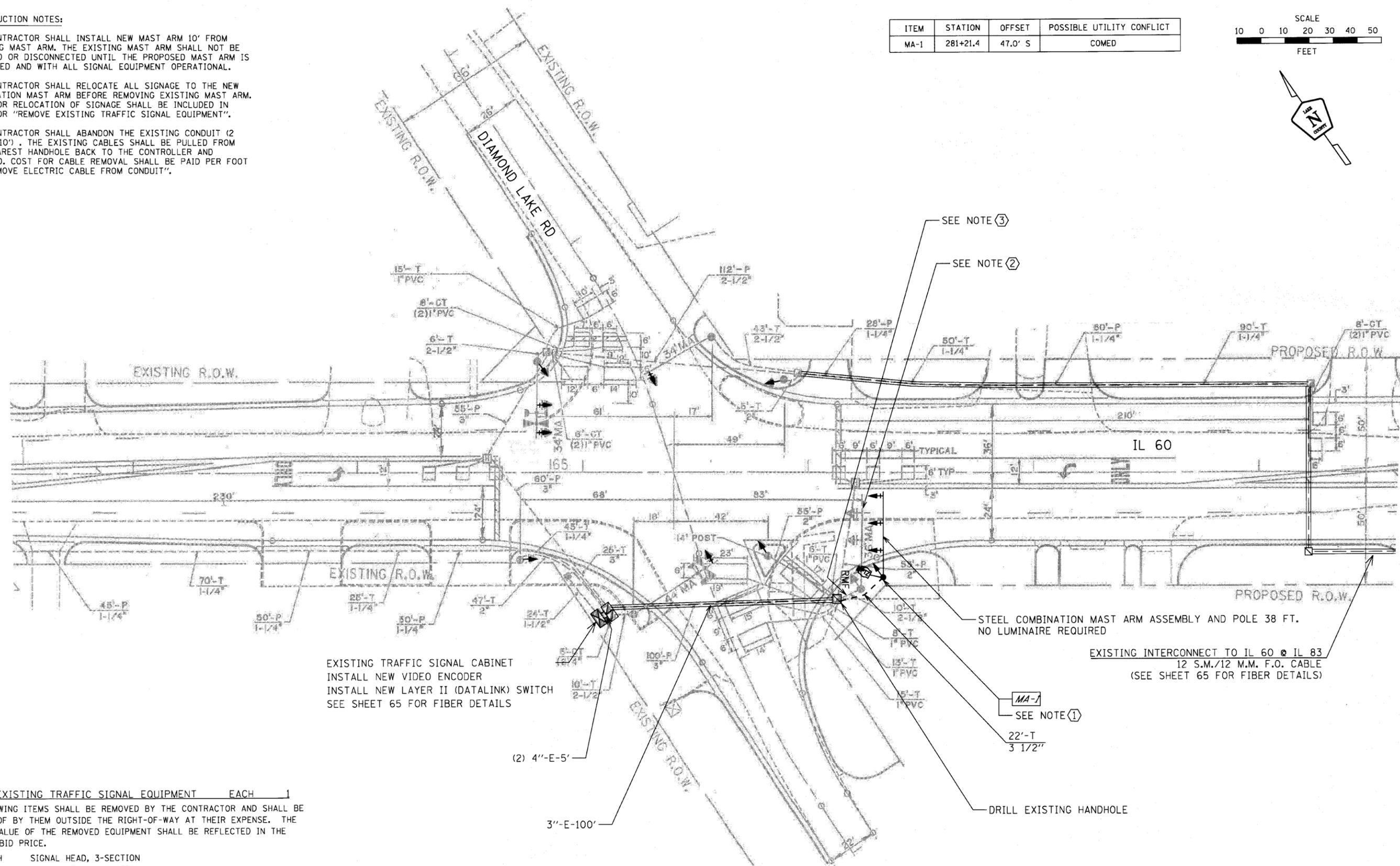
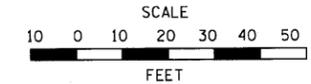
ENERGY COSTS - BILLED TO: VILLAGE OF VERNON HILLS
(ADDRESS) 490 GREENLEAF DRIVE
(ADDRESS) VERNON HILLS, IL. 60061

ENERGY SUPPLY - CONTACT: PAUL CRUZ
PHONE: 847-816-5247
COMPANY: COMED

CONSTRUCTION NOTES:

- ① THE CONTRACTOR SHALL INSTALL NEW MAST ARM 10' FROM EXISTING MAST ARM. THE EXISTING MAST ARM SHALL NOT BE REMOVED OR DISCONNECTED UNTIL THE PROPOSED MAST ARM IS INSTALLED AND WITH ALL SIGNAL EQUIPMENT OPERATIONAL.
- ② THE CONTRACTOR SHALL RELOCATE ALL SIGNAGE TO THE NEW COMBINATION MAST ARM BEFORE REMOVING EXISTING MAST ARM. COST FOR RELOCATION OF SIGNAGE SHALL BE INCLUDED IN COST FOR "REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT".
- ③ THE CONTRACTOR SHALL ABANDON THE EXISTING CONDUIT (2 1/2" - 10'). THE EXISTING CABLES SHALL BE PULLED FROM THE NEAREST HANDHOLE BACK TO THE CONTROLLER AND REMOVED. COST FOR CABLE REMOVAL SHALL BE PAID PER FOOT BY "REMOVE ELECTRIC CABLE FROM CONDUIT".

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
MA-1	281+21.4	47.0' S	COMED



REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1
 THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	SIGNAL HEAD, 3-SECTION
1	EACH	SIGNAL HEAD, 5-SECTION
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

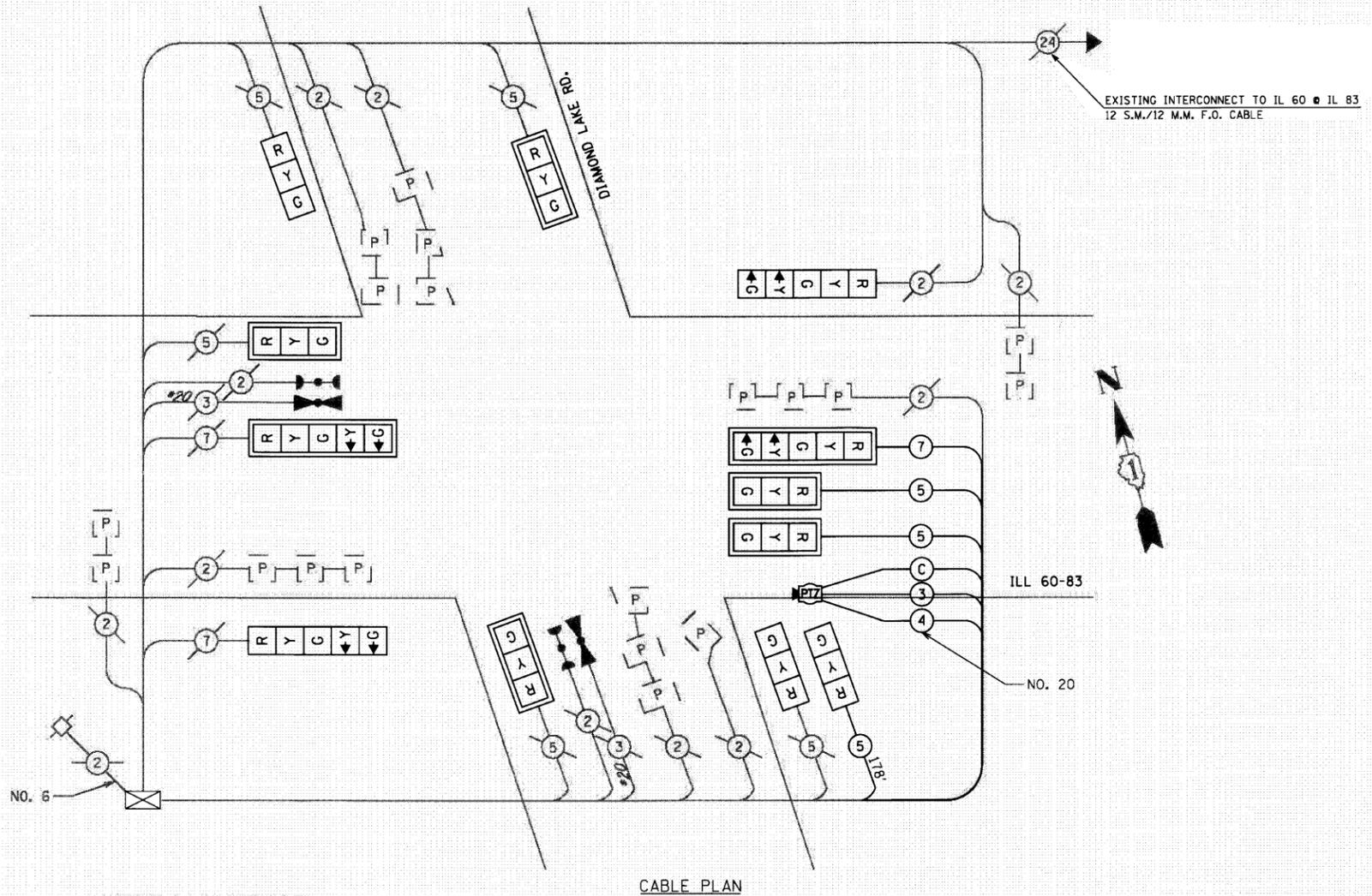
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	41	72
SCALE: 1"=20'		VCL-6	CONTRACT NO. 09472	

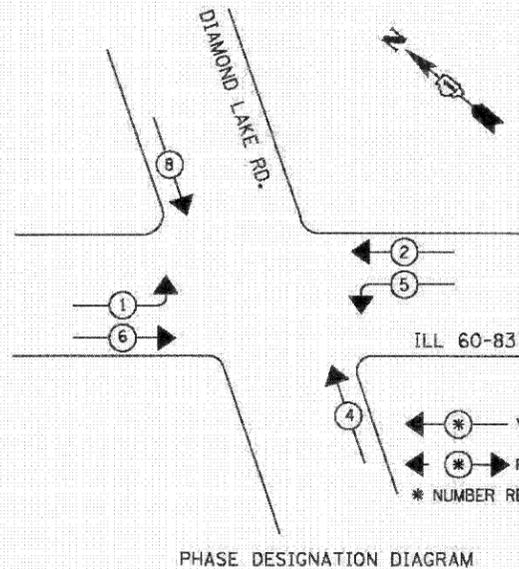
**CAMERA INTERSECTION LOCATION
 IL 60 @ DIAMOND LAKE RD.**

SCHEDULE OF QUANTITIES

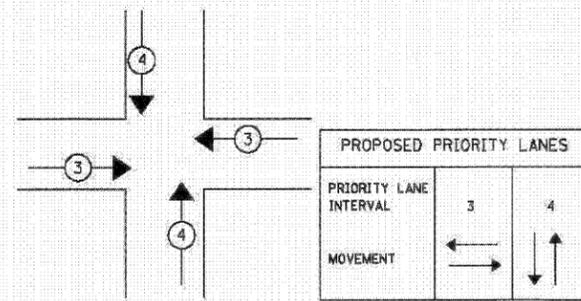
ITEM	UNIT	QTY.
CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	FOOT	22
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	22
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	203
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	570
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	214
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	553
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	203
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	1
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
ELECTRIC CABLE IN CONDUIT, 4/C #20, VIDEO	FOOT	203



CONTROLLER SEQUENCE IV
 REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW



LEGEND
 * VEHICULAR MOVEMENT
 * PEDESTRIAN MOVEMENT
 * NUMBER REFERS TO ASSOCIATED PHASE



EXISTING PRIORITY SEQUENCE FOR CONTROLLER SEQUENCE IV

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

TYPE	NO. OF LAMPS	WATTAGE LED	% OPERATION	TOTAL WATTAGE (LED)
SIGNAL (RED)	12	10	0.50	60
(YELLOW)	12	19	0.10	22.8
(GREEN)	12	11	0.40	52.8
ARROW	8	9	0.10	7.2
PED SIGNAL		9	1.00	
CONTROLLER	1	100	1.00	100
LUMINAIRE		250	0.50	
L.E.D. ST. NAME SIGN		64	0.50	
VIDEO SYSTEM	1	150	1.00	150
BATTERY BACKUP		25	1.00	
TOTAL				392.80

ENERGY COSTS - BILLED TO: VILLAGE OF MUNDELEIN
 (ADDRESS) 440 E. HAWLEY ST.
 (ADDRESS) MUNDELEIN, IL 60060
 ENERGY SUPPLY - CONTACT: PAUL CRUZ
 PHONE: 847-816-5247
 COMPANY: COMED



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

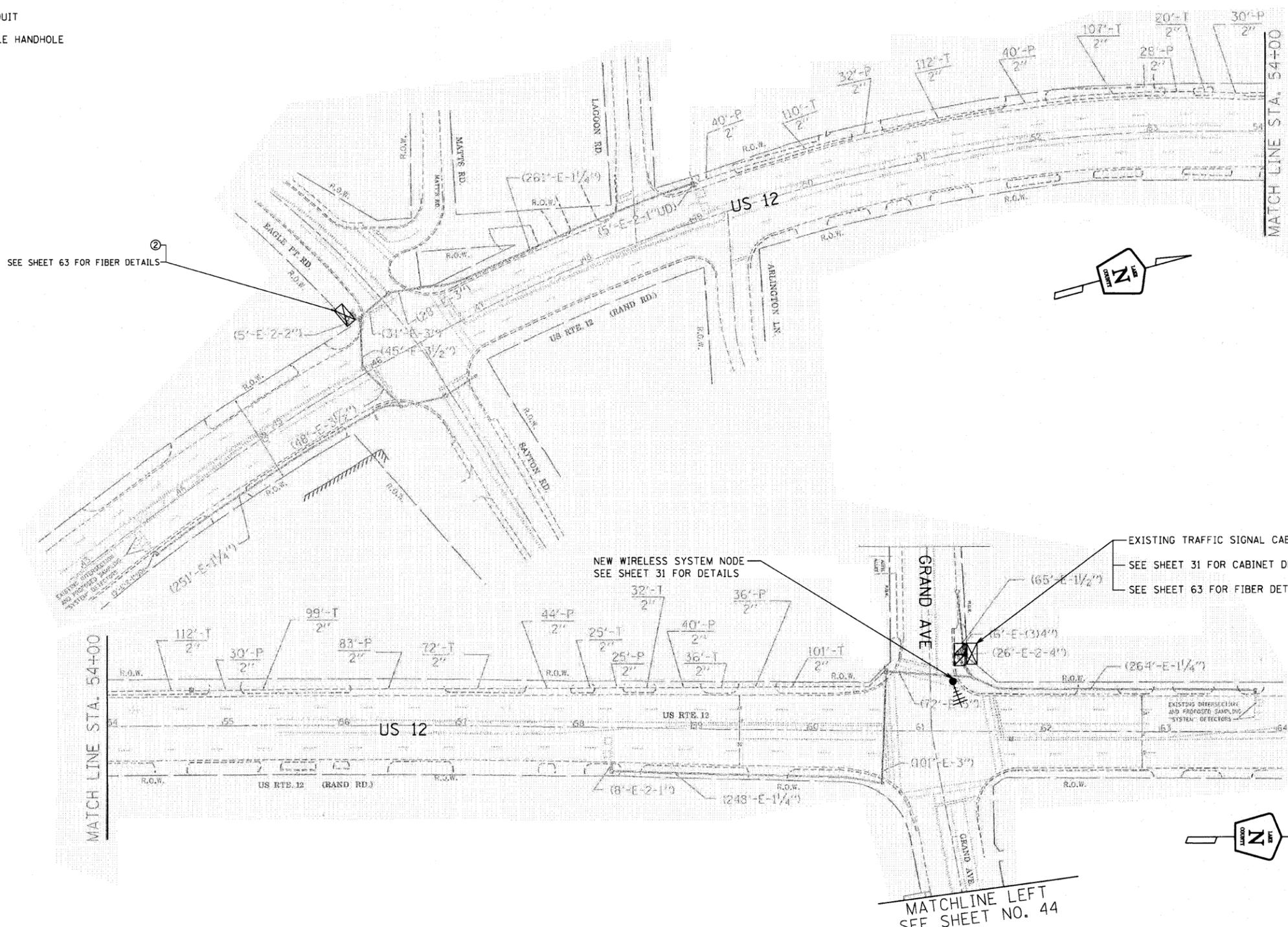
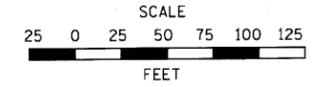
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
 IL 60 @ DIAMOND LAKE RD.

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	42	72
SCALE: N/A		VCL-6-1	CONTRACT NO. 09472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



SEE SHEET 63 FOR FIBER DETAILS

NEW WIRELESS SYSTEM NODE
SEE SHEET 31 FOR DETAILS

EXISTING TRAFFIC SIGNAL CABINET
SEE SHEET 31 FOR CABINET DETAILS
SEE SHEET 63 FOR FIBER DETAILS

MATCHLINE LEFT
SEE SHEET NO. 44



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

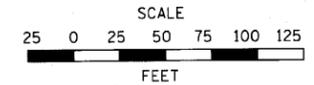
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 12 INTERCONNECT FROM EAGLE PT RD./SAYTON RD. TO GRAND AVE.	
SCALE: 1"=50'	SHEET 1 OF 12

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	43	72
C3-1			CONTRACT NO. 09472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



COMPANY	POSSIBLE UTILITY CONFLICT
AT&T	X
NICOR	

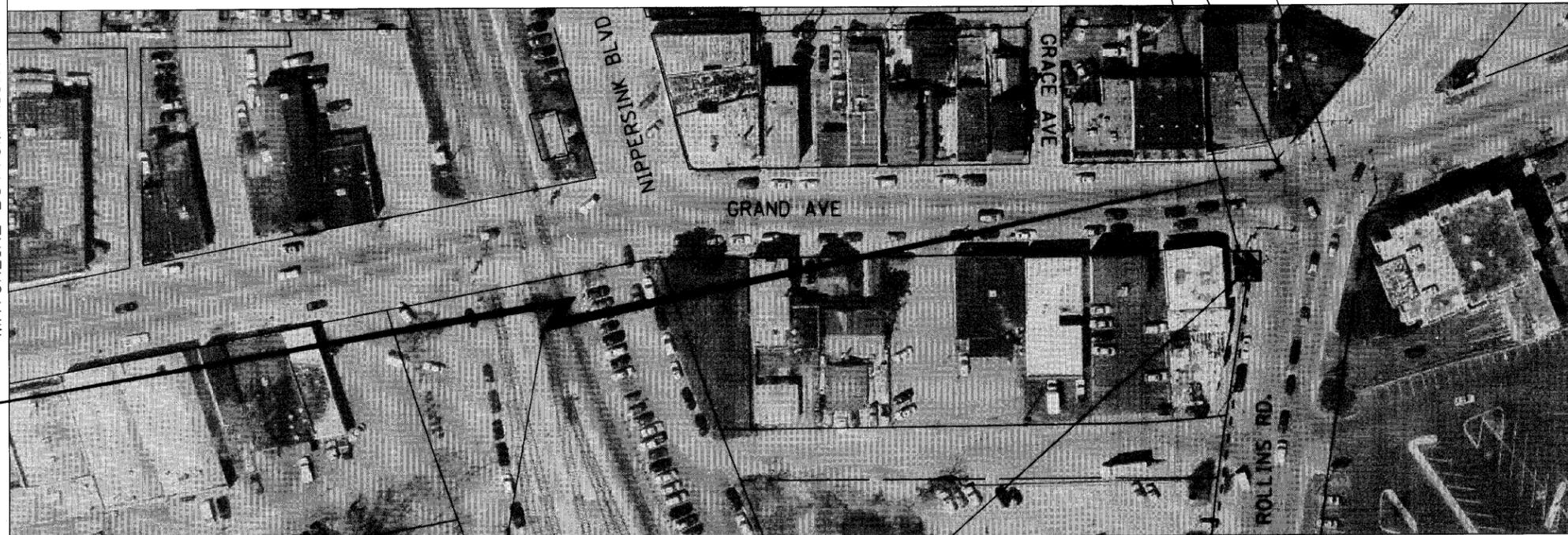
INTERSECTION SCHEDULED FOR MODERIZATION IN THIS CONTRACT. SEE SHEETS 14 - 17 FOR DETAILS

SEE SHEET 16 FOR WIRELESS SYSTEM NODE INSTALLATION DETAILS

SEE SHEET 16 FOR CONDUIT DETAILS

① ③ -5'

SEE SHEET NO. 43
MATCHLINE BOTTOM RIGHT



WIRELESS CONNECTION AT
US 12 AND GRAND AVE

WIRELESS CONNECTION

SEE SHEET 16 FOR CABINET DETAILS

SEE SHEET 63 FOR FIBER DETAILS

MATCHLINE TOP LEFT
SEE SHEET NO. 45



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GRAND AVE. INTERCONNECT
FROM US 12 TO ROLLINS RD.**

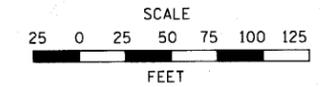
SCALE: 1"=50'

SHEET 2 OF 12

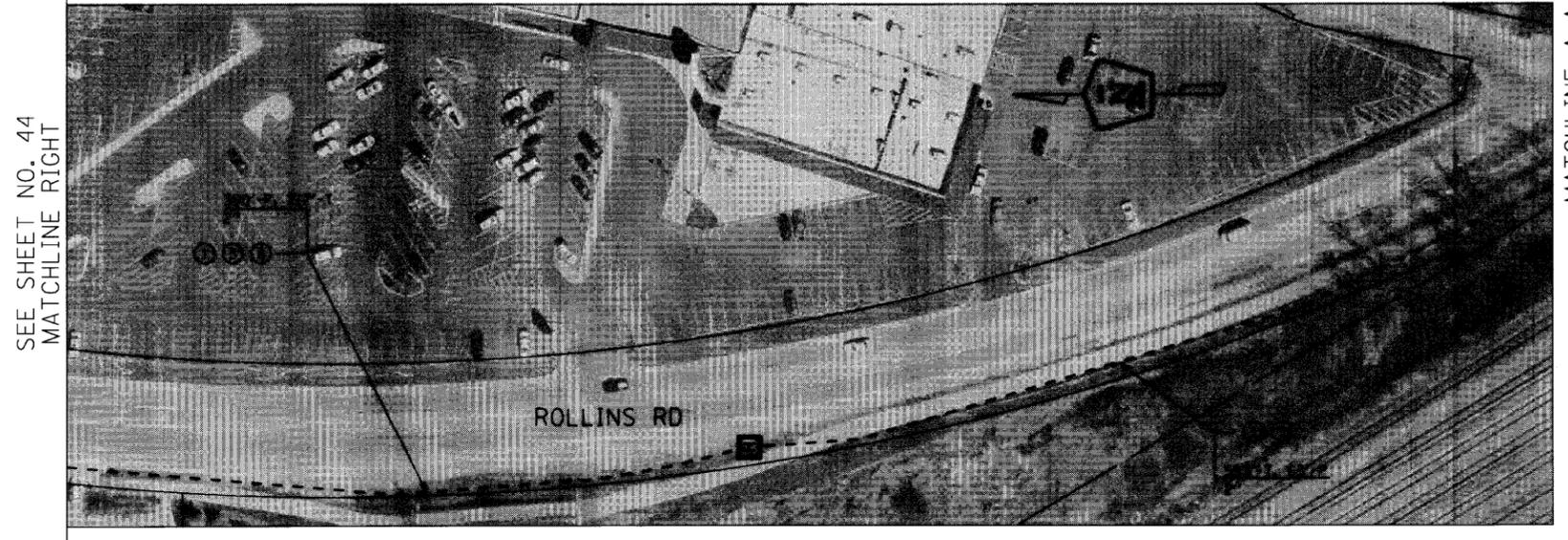
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	44	72
C3-2			CONTRACT NO. 09472	

NOTES:

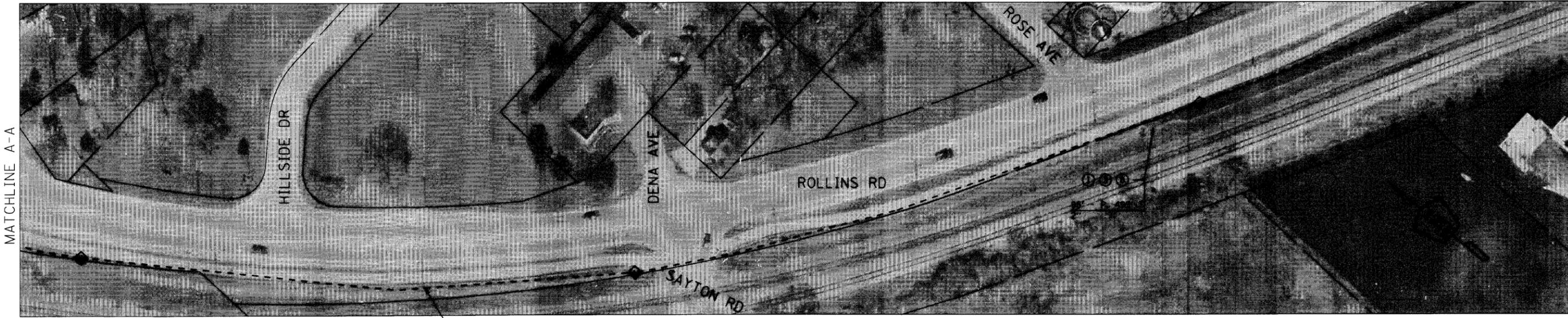
- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



COMPANY	POSSIBLE UTILITY CONFLICT
AT&T	X
NICOR	X



MATCHLINE A-A



MATCHLINE A-A

MATCHLINE TOP LEFT
SEE SHEET NO. 46

① ③ ⑧
564'-T
2"



USER NAME = JM	DESIGNED - DC	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

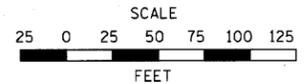
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROLLINS ROAD INTERCONNECT FROM GRAND AVE. TO CEDAR LAKE RD.	
SCALE: 1"=50'	SHEET 3 OF 12

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	45	72
C3-3			CONTRACT NO. 03472	

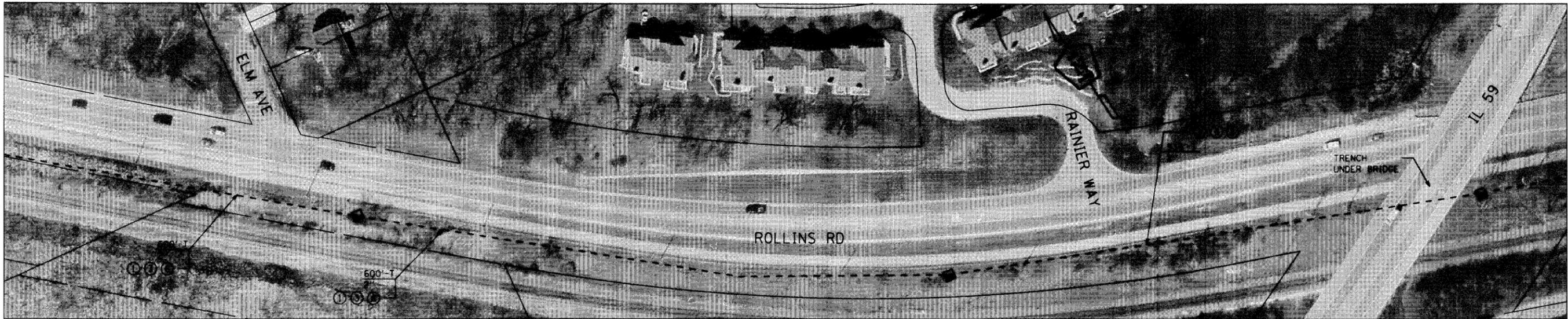
NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



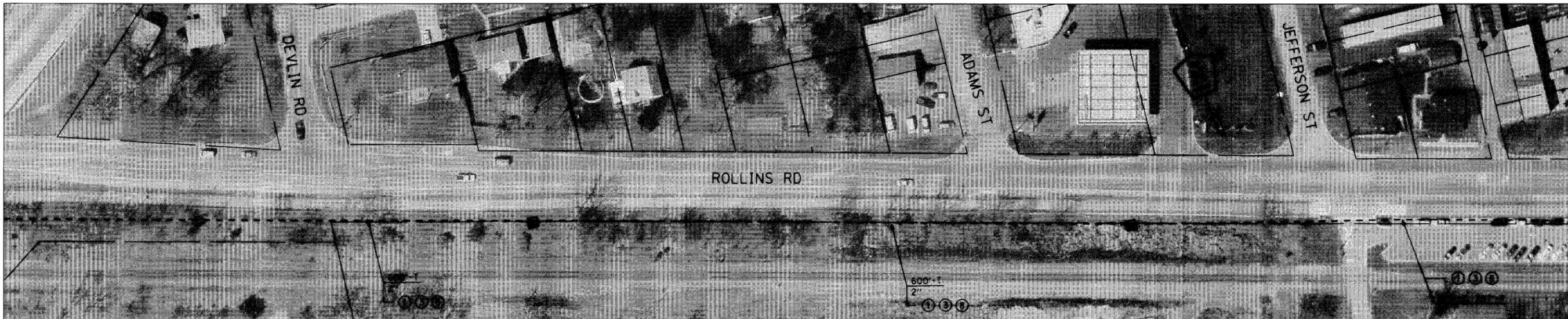
COMPANY	POSSIBLE UTILITY CONFLICT
AT&T	X
NICOR	X

SEE SHEET NO. 46
 MATCHLINE BOTTOM RIGHT



MATCHLINE A-A

MATCHLINE A-A



MATCHLINE TOP LEFT
 SEE SHEET NO. 48



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DC	REVISED -
	DATE - 10-05-2010	REVISED -

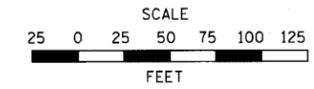
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

ROLLINS ROAD INTERCONNECT FROM GRAND AVE. TO CEDAR LAKE RD.	
SCALE: 1"=50'	SHEET 5 OF 12

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	47	72
C3-5			CONTRACT NO. 09072	

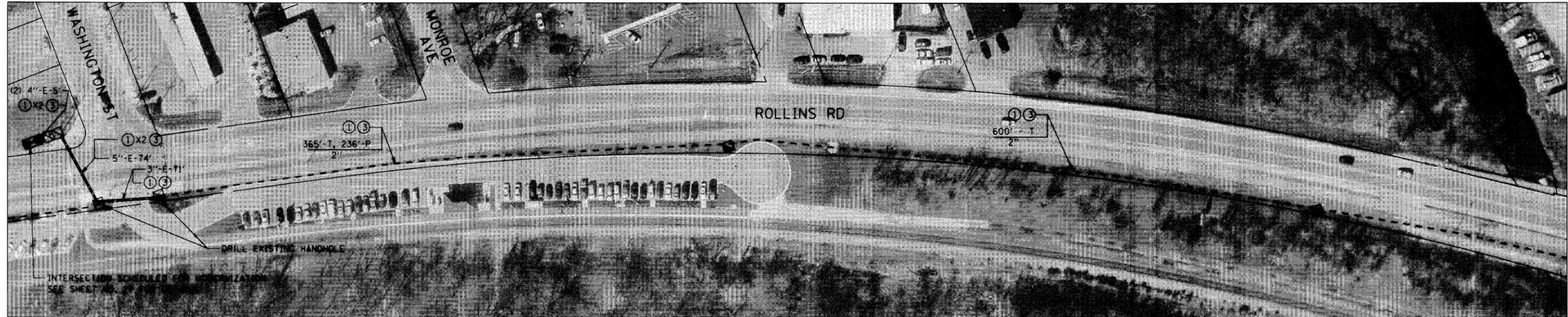
NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



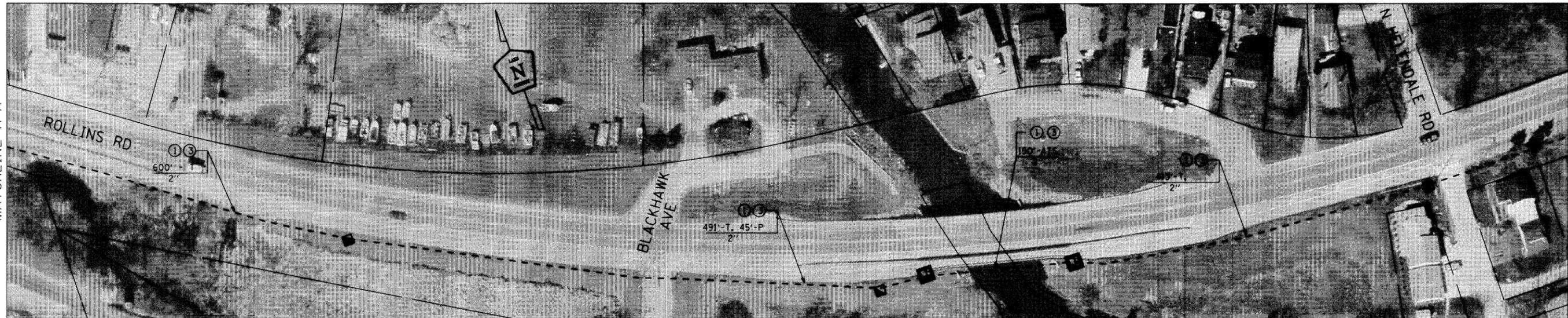
x
x

SEE SHEET NO. 47
MATCHLINE BOTTOM RIGHT



MATCHLINE A-A

MATCHLINE A-A



MATCHLINE TOP LEFT
SEE SHEET NO. 49



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

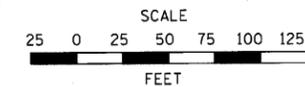
ROLLINS ROAD INTERCONNECT
FROM GRAND AVE. TO CEDAR LAKE RD.

SCALE: 1"=50' SHEET 6 OF 12

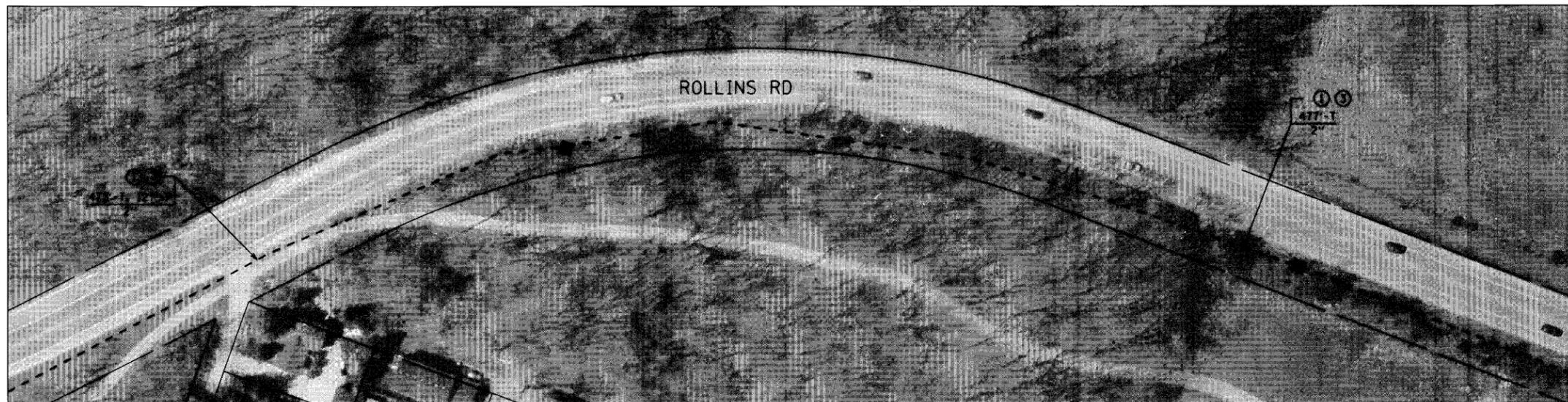
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	48	72
		C3-5	CONTRACT NO. 09472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT

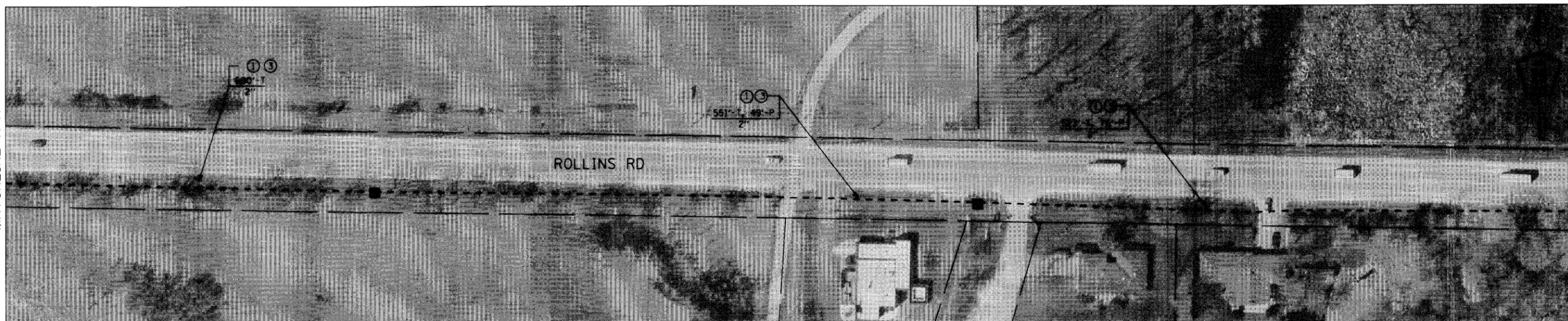


SEE SHEET NO. 49
MATCHLINE BOTTOM RIGHT



MATCHLINE A-A

MATCHLINE A-A



MATCHLINE TOP LEFT
SEE SHEET NO. 51



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DC	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROLLINS ROAD INTERCONNECT
FROM GRAND AVE. TO CEDAR LAKE RD.

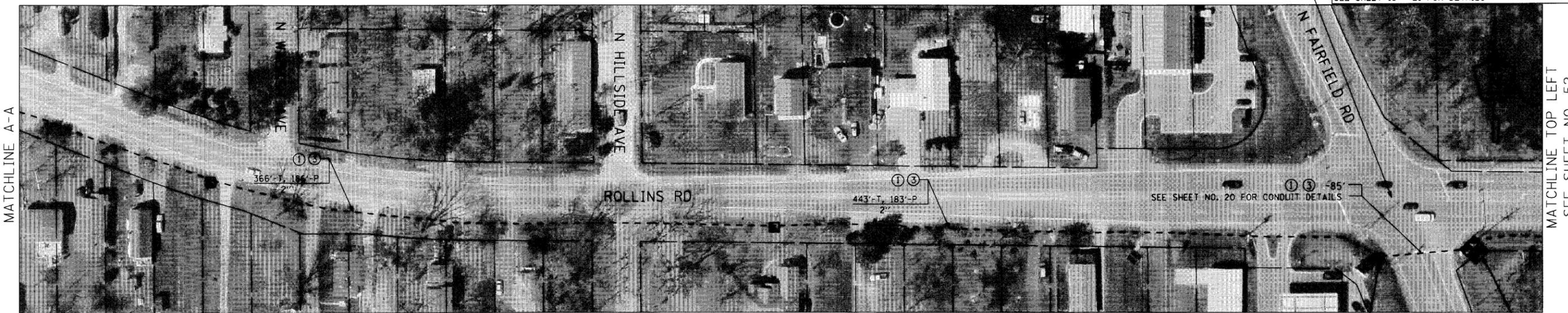
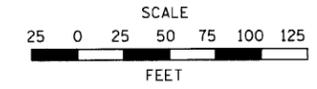
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	50	72
SCALE: 1"=50'			SHEET 8 OF 12	
			CONTRACT NO. 09472	

C3-8

CONTRACT NO. 09472

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



SEE SHEET NO. 20 FOR CONDUIT DETAILS

SEE SHEET NO. 20 FOR HANDHOLE DETAILS

SEE SHEET NO. 20 FOR CABINET DETAILS
SEE SHEET NO. 63 FOR FIBER DETAILS



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DC	REVISED -
	DATE - 10-05-2010	REVISED -

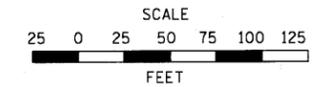
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE SECTION		SECTION NUMBER	SHEET	SHEETS
FAU		09-00999-07-TL	51	72
181		C3-9		

SCALE: 1"=50'	SHEET 9 OF 12	CONTRACT NO. 09472
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NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



SEE SHEET NO. 51
MATCHLINE TOP LEFT



MATCHLINE A-A

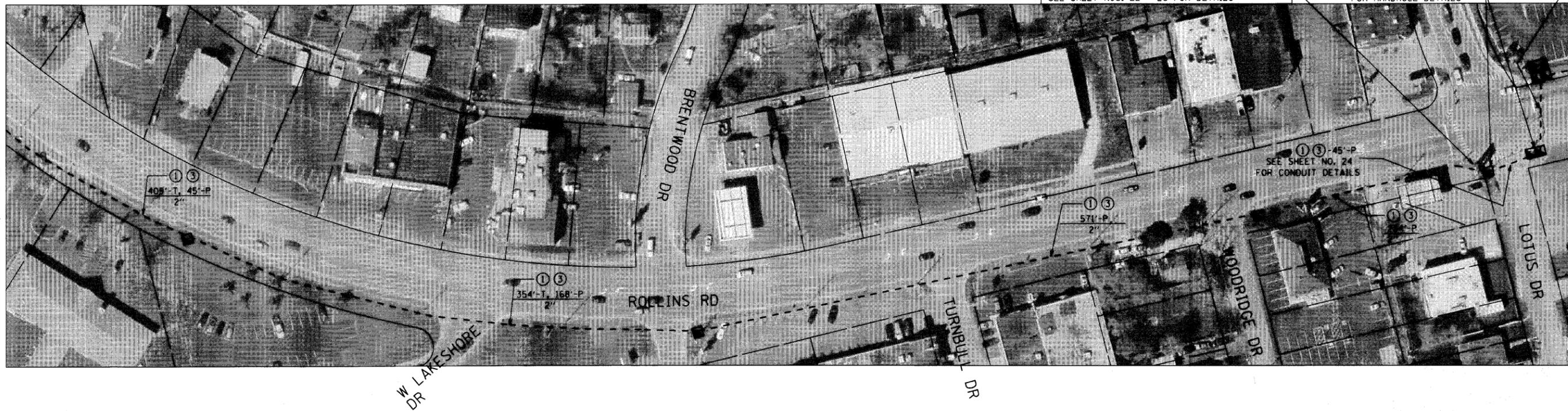


① ③ -80'-P
SEE SHEET NO. 24
FOR CONDUIT DETAILS

INTERSECTION IS SCHEDULED FOR MODERIZATION
SEE SHEET NOS. 22 - 26 FOR DETAILS

SEE SHEET NO. 24
FOR HANDHOLE DETAILS

MATCHLINE A-A



MATCHLINE TOP LEFT
SEE SHEET NO. 53



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DC	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

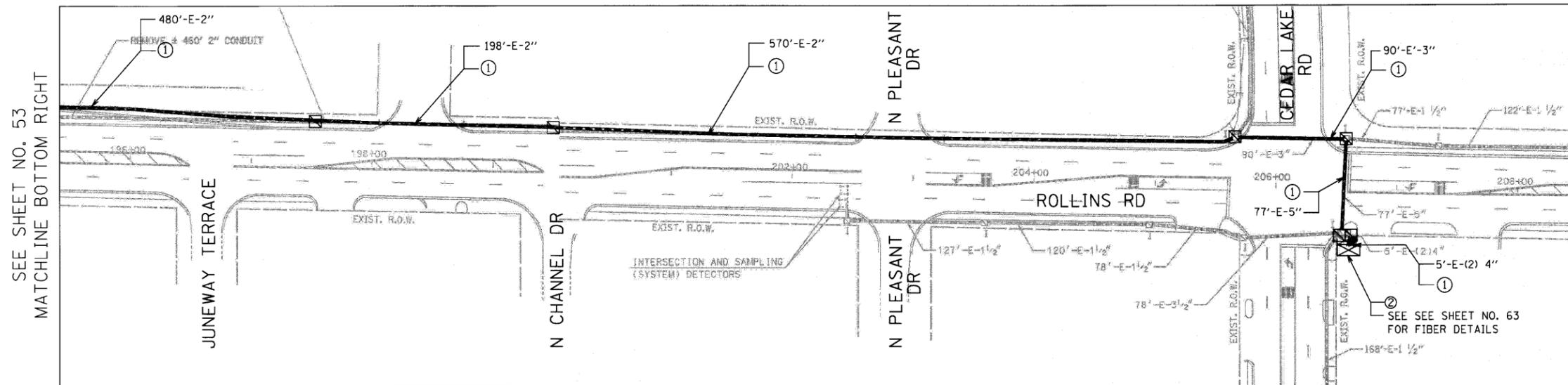
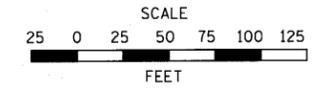
ROLLINS ROAD INTERCONNECT
FROM GRAND AVE. TO CEDAR LAKE RD.

SCALE: 1"=50' SHEET 10 OF 12

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	52	72
		C3-10	CONTRACT NO. 09472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

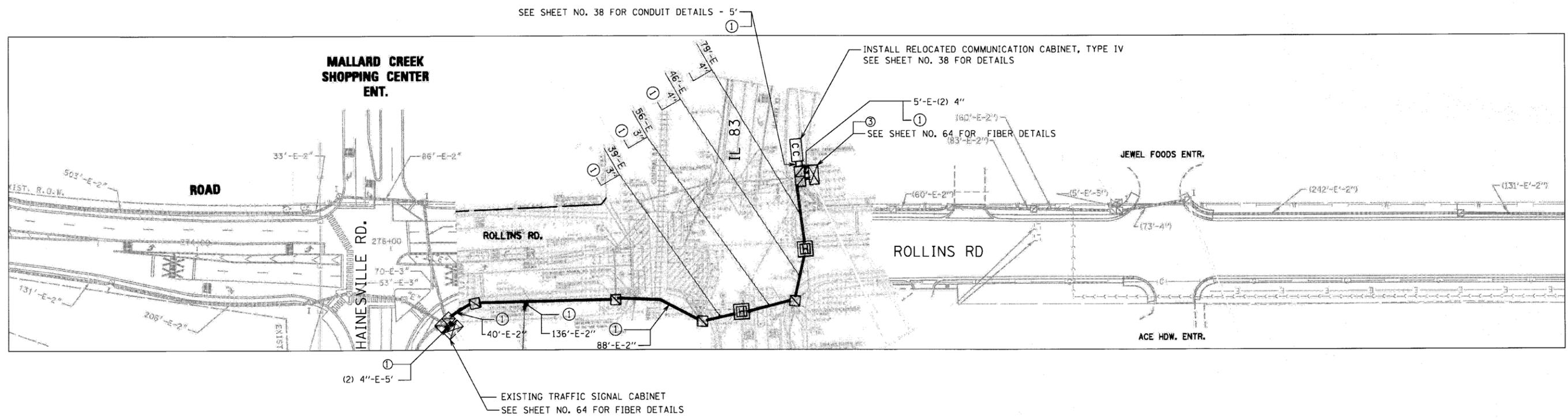
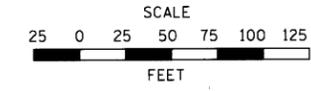
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROLLINS ROAD INTERCONNECT FROM GRAND AVE. TO CEDAR LAKE RD.	
SCALE: 1"=50'	SHEET 12 OF 12

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	54	72
		C3-12	CONTRACT NO. 09472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

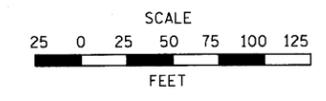
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROLLINS ROAD INTERCONNECT FROM HAINESVILLE RD. TO IL 83	
ROUTE FAU 181	SECTION SECTION NUMBER 09-00999-07-TL
SCALE: 1"=50'	SHEET 1 OF 1

SHEET 55	SHEETS 72
CONTRACT NO. 00472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT

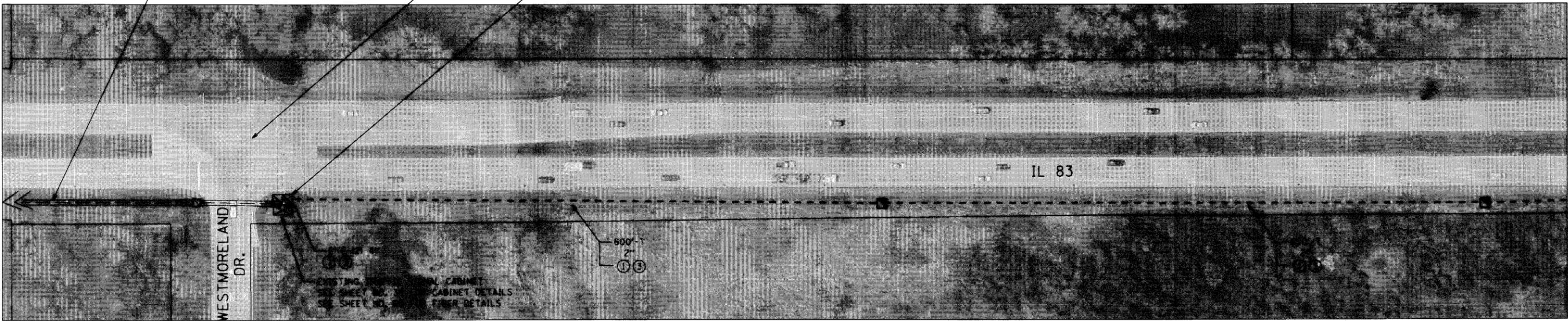


COMPANY	POSSIBLE UTILITY CONFLICT
AT&T	
NICOR	X

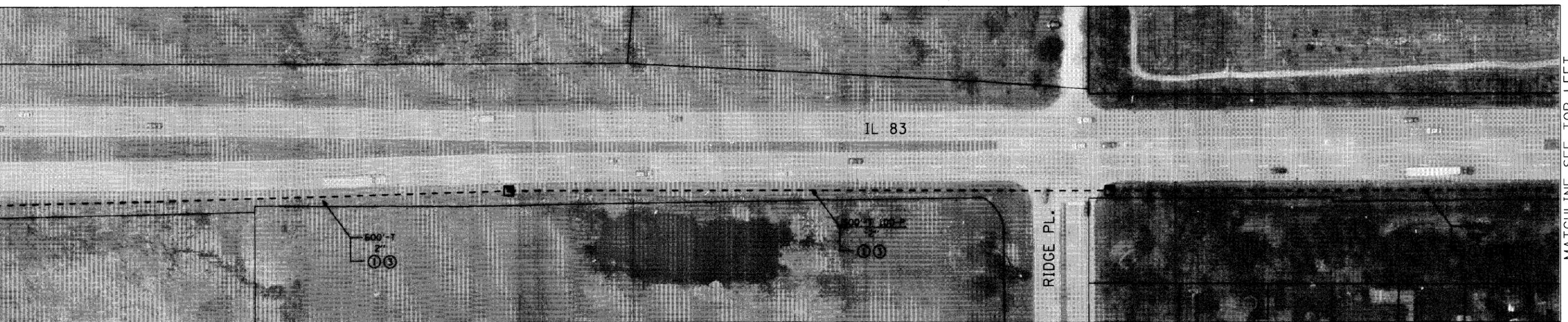
INTERSECTION SCHEDULED FOR MODERNIZATION
SEE SHEET NO. 39 FOR DETAILS

EXISTING INTERCONNECT TO IL 83 & GILMER RD.
SEE SHEET NO. 65 FOR DETAILS

DRILL EXISTING HANDHOLE



MATCHLINE A-A



MATCHLINE SEE TOP LEFT
SHEET NO. 57



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

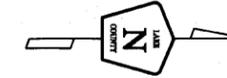
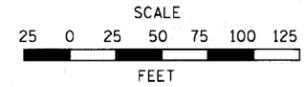
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE SECTION		SECTION NUMBER	SHEET	SHEETS
FAU	181	09-00999-07-TL	56	72
SCALE: 1"=50'		SHEET 1 OF 3		

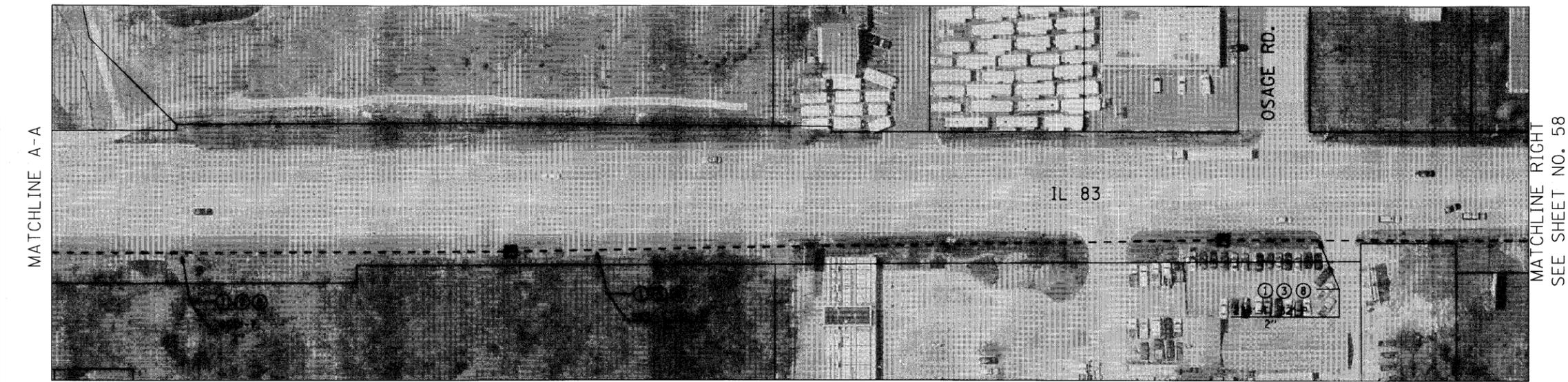
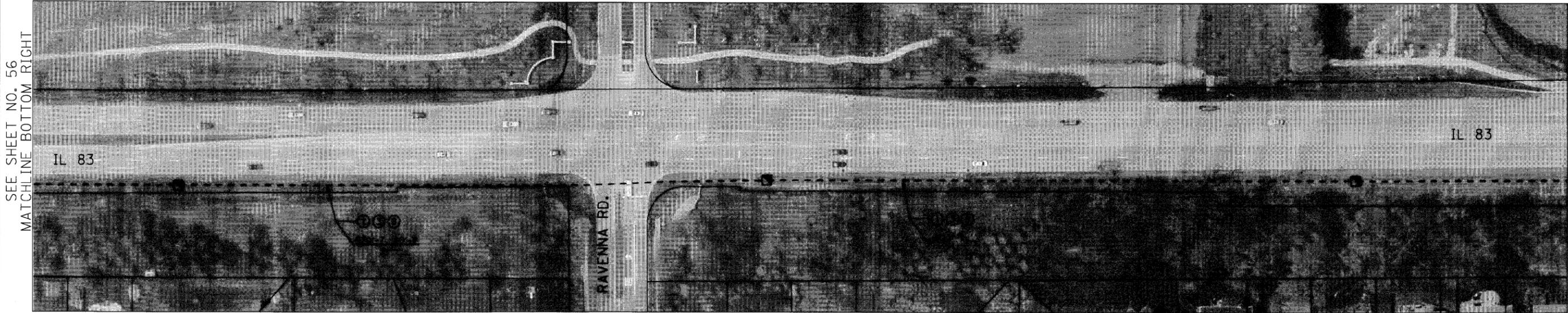
ROUTE SECTION		SECTION NUMBER	SHEET	SHEETS
FAU	181	09-00999-07-TL	56	72
		C4-1	CONTRACT NO. 03472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT



COMPANY	POSSIBLE UTILITY CONFLICT
AT&T	
NICOR	X



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

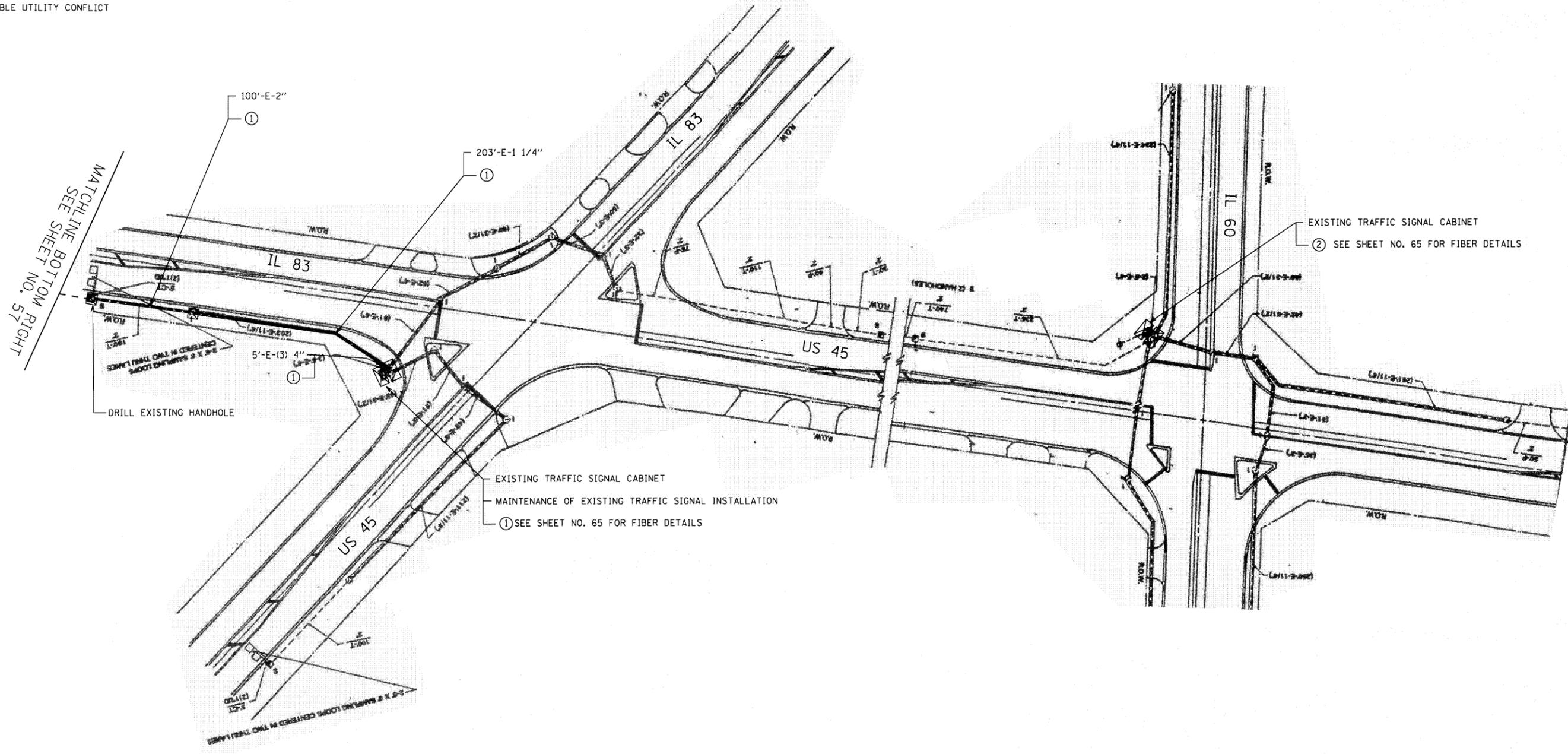
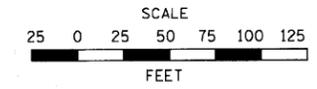
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL 83 INTERCONNECT FROM WESTMORELAND DR. TO US 45	
SCALE: 1"=50'	SHEET 2 OF 3

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	57	72
C4-2			CONTRACT NO. 09472	

NOTES:

- ① PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- ② TERMINATE FIBERS AT DISTRIBUTION ENCLOSURE IN CABINET
- ③ PROPOSED ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
- ④ SPLICE FIBERS IN CABINET
- ⑤ EXISTING 12F MM FIBER OPTIC AND TRACER CABLES TO REMAIN
- ⑥ REMOVE COPPER INTERCONNECT CABLE FROM CONDUIT
- ⑦ COIL 40' OF FIBER OPTIC CABLE SLACK IN DOUBLE HANDHOLE
- ⑧ POSSIBLE UTILITY CONFLICT

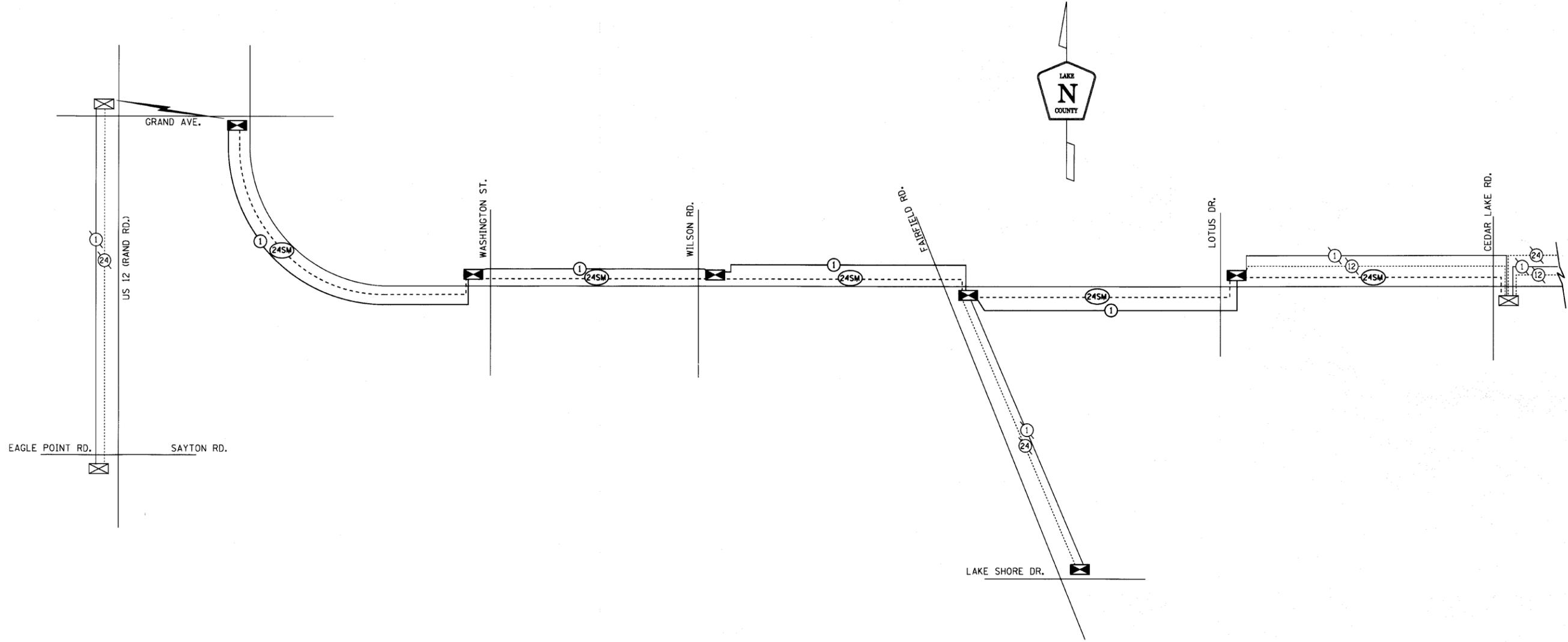


USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

IL 83 INTERCONNECT FROM WESTMORELAND DR. TO US 45	
ROUTE FAU 181	SECTION SECTION NUMBER 09-00999-07-TL
SCALE: 1"=50'	SHEET 3 OF 3

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	58	72
C4-3			CONTRACT NO. 09472	



MATCHLINE SEE SHEET NO. 60

INTERCONNECT SCHEMATIC LEGEND

- COMMUNICATIONS CABINET
- EXISTING MASTER CONTROLLER
- EXISTING TRAFFIC SIGNAL CABINET
- PROPOSED TRAFFIC SIGNAL CABINET
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F, SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F, SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM12F
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING NO. 14 1/C TRACER CABLE
- PROPOSED NO. 14 1/C TRACER CABLE
- PROPOSED WIRELESS INTERCONNECT



USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE =	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU		09-00999-07-TL	59	72
181		SCH-1		

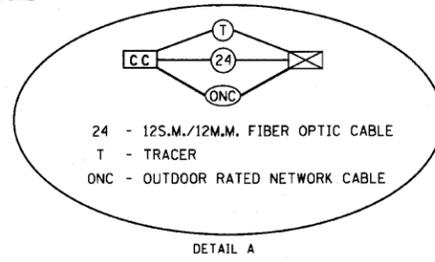
**SCHEMATICS
SHEET 1 OF 3**

SCALE: N/A

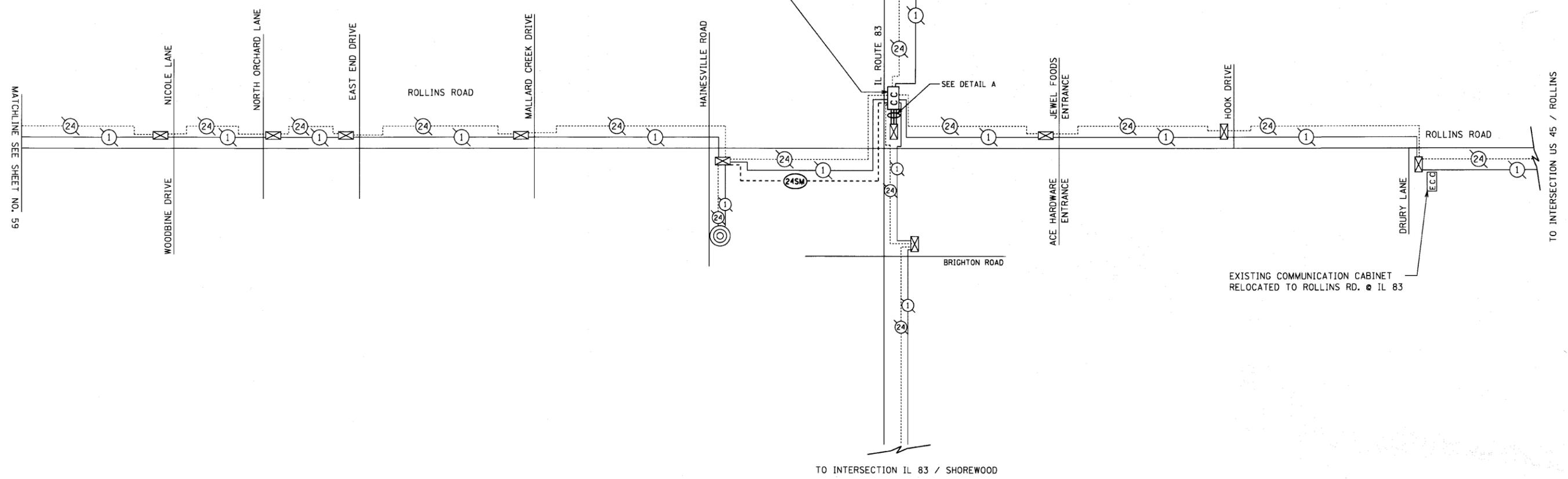
CONTRACT NO. 09472

DATE PLOTTED: 10/05/2010 10:05:20 AM

TO INTERSECTION IL 83 / MILLSTONE



RELOCATED COMMUNICATION CABINET TYPE IV
REMOVED FROM ROLLINS RD. @ DRURY LN.



INTERCONNECT SCHEMATIC LEGEND

- COMMUNICATIONS CABINET
- EXISTING MASTER CONTROLLER
- EXISTING TRAFFIC SIGNAL CABINET
- PROPOSED TRAFFIC SIGNAL CABINET
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F, SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F, SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM12F
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING NO. 14 1/C TRACER CABLE
- PROPOSED NO. 14 1/C TRACER CABLE

TO INTERSECTION IL 83 / SHOREWOOD

EXISTING COMMUNICATION CABINET
RELOCATED TO ROLLINS RD. @ IL 83



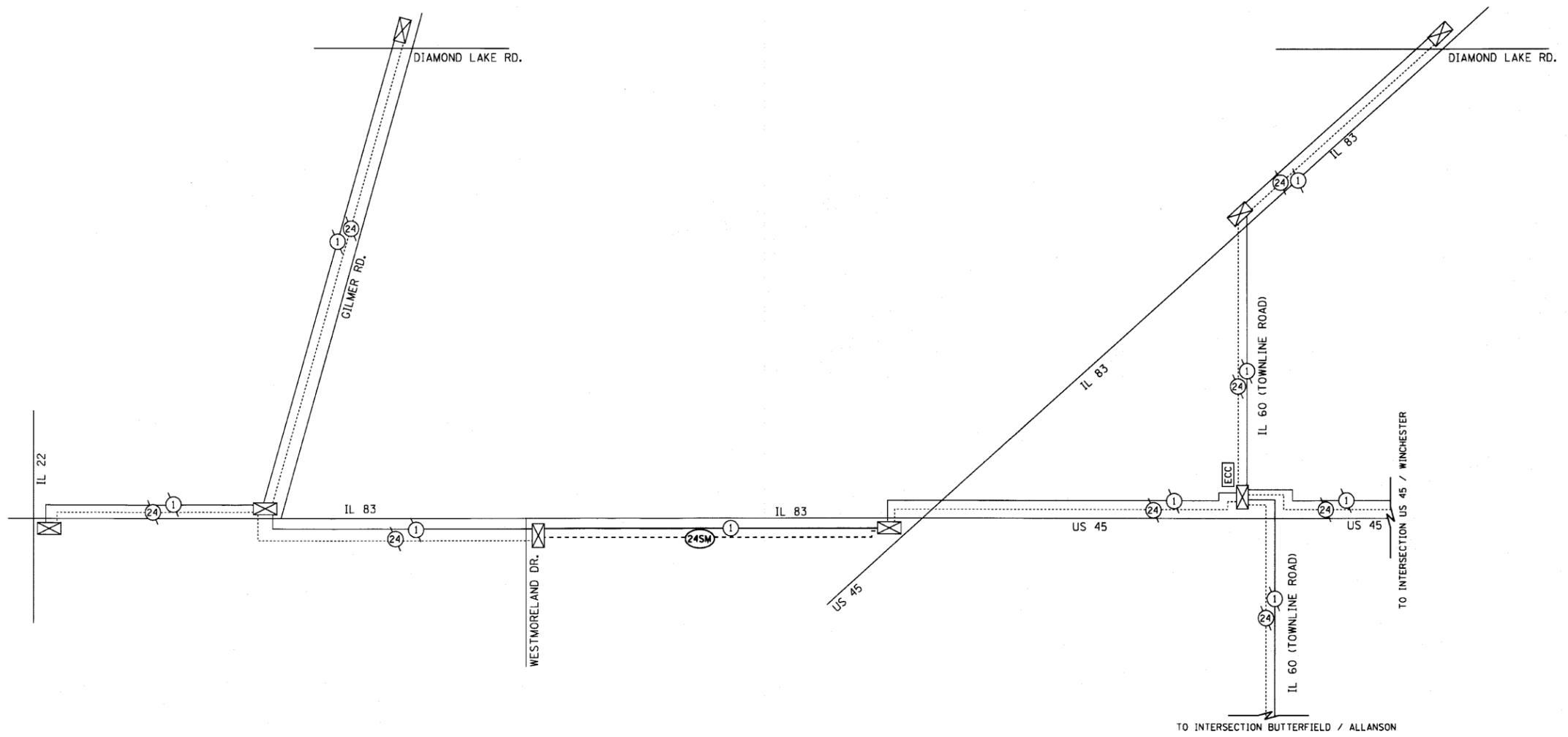
USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEMATICS	
SHEET 2 OF 3	
ROUTE	SECTION
FAU	
181	
SCALE: N/A	

SECTION NUMBER	SHEET	SHEETS
09-00999-07-TL	60	72
SCH-2		
CONTRACT NO. 69472		

FILE NAME = #FILEL8



INTERCONNECT SCHEMATIC LEGEND

- COM COMMUNICATIONS CABINET
- EMC EXISTING MASTER CONTROLLER
- X EXISTING TRAFFIC SIGNAL CABINET
- X PROPOSED TRAFFIC SIGNAL CABINET
- (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
- (24SM)--- PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM24F
- (12)--- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F
- (12SM)--- PROPOSED FIBER OPTIC CABLE IN CONDUIT, SM12F
- (6)--- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- (1)--- EXISTING NO. 14 1/C TRACER CABLE
- (1)--- PROPOSED NO. 14 1/C TRACER CABLE



USER NAME = JM	DESIGNED - DG	REVISED -
PLOT SCALE =	DRAWN - JM	REVISED -
PLOT DATE = 10-05-2010	CHECKED - DG	REVISED -
	DATE - 10-05-2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEMATICS	
SHEET 3 OF 3	
SCALE: N/A	

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	61	72
SCH-3			CONTRACT NO. 63472	

PATCH PANEL COLOR CODING

SINGLE MODE FIBER

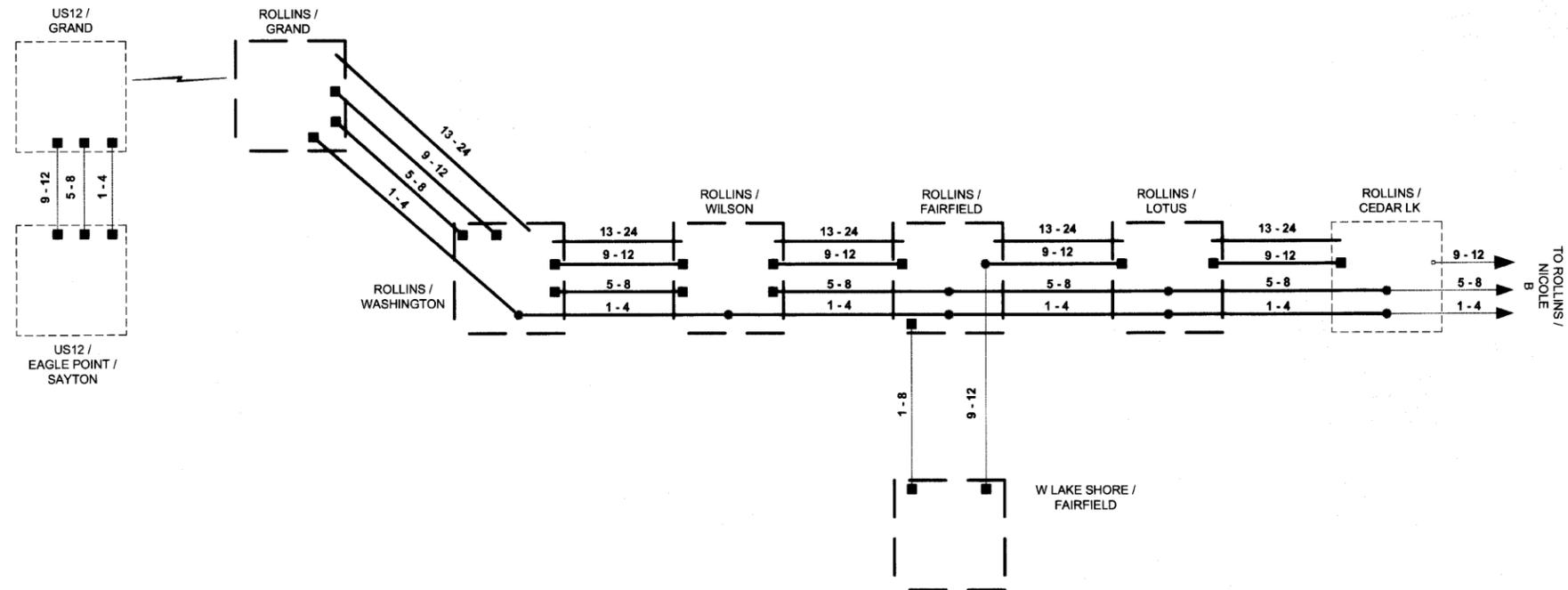
- 1 ■ BLUE
- 2 ■ ORANGE
- 3 ■ GREEN
- 4 ■ BROWN
- 5 ■ SLATE
- 6 ■ WHITE
- 7 ■ RED
- 8 ■ BLACK
- 9 ■ YELLOW
- 10 ■ VIOLET
- 11 ■ ROSE
- 12 ■ AQUA

SINGLE MODE FIBER

- 13 ■ BLUE W / STRIPE
- 14 ■ ORANGE W / STRIPE
- 15 ■ GREEN W / STRIPE
- 16 ■ BROWN W / STRIPE
- 17 ■ SLATE W / STRIPE
- 18 ■ WHITE W / STRIPE
- 19 ■ RED W / STRIPE
- 20 ■ BLACK W / STRIPE
- 21 ■ YELLOW W / STRIPE
- 22 ■ VIOLET W / STRIPE
- 23 ■ ROSE W / STRIPE
- 24 ■ AQUA W / STRIPE

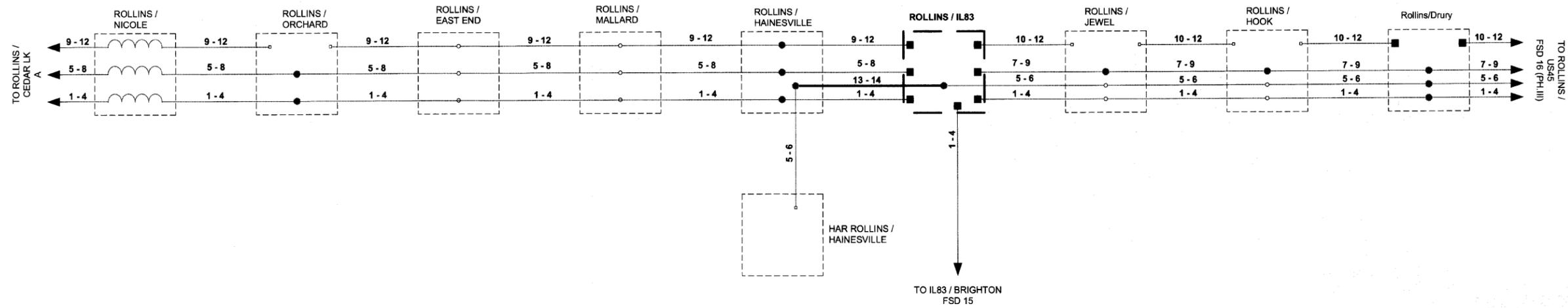
ALL SINGLE MODE
PATCH PANEL
CONNECTORS ARE
TO BE TYPE SC

Lake County Division of Transportation	USER NAME = *USER*	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PATCH PANEL COLOR CODE	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	PLOT SCALE = N/A	CHECKED - DG	REVISED -					09-00999-07-TL	62	72
	PLOT DATE = *DATE*	DATE 05/19/10	REVISED -			SCALE N/A	CONTRACT NO. 63472			



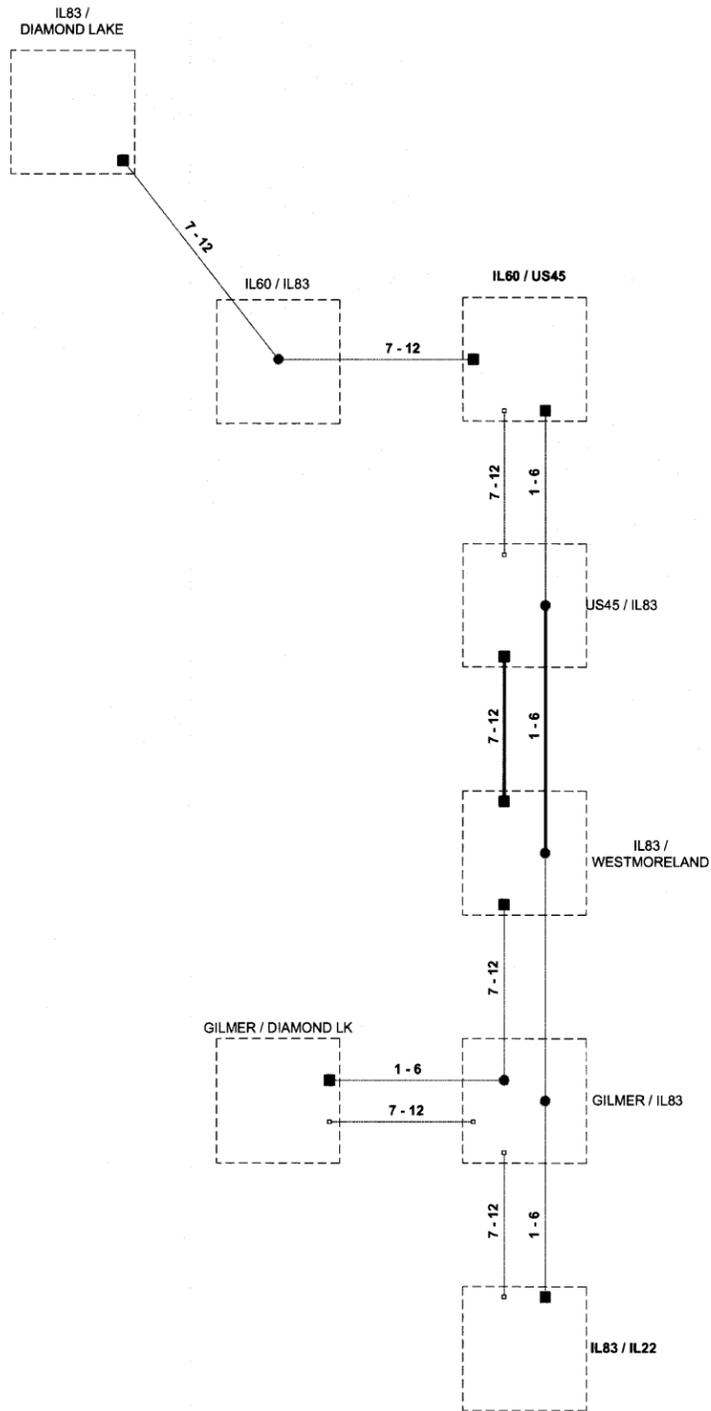
- ⚡— WIRELESS CONNECTION
- EXISTING CONNECTOR / EXISTING FIBER
- NEW CONNECTOR / EXISTING FIBER
- EXISTING FUSION SPLICE / EXISTING FIBER
- NEW FUSION SPLICE / EXISTING FIBER
- NEW CONNECTOR / NEW FIBER
- NEW FUSION SPLICE / NEW FIBER

Lake County Division of Transportation	USER NAME = "USER"	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER SPLICING DIAGRAM – A US 12 / GRAND	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	PLOT SCALE = N/A	CHECKED - DG	REVISED -					09-00999-07-TL	63	72
	PLOT DATE = "DATE"	DATE 05/19/10	REVISED -			CONTRACT NO. 63472				



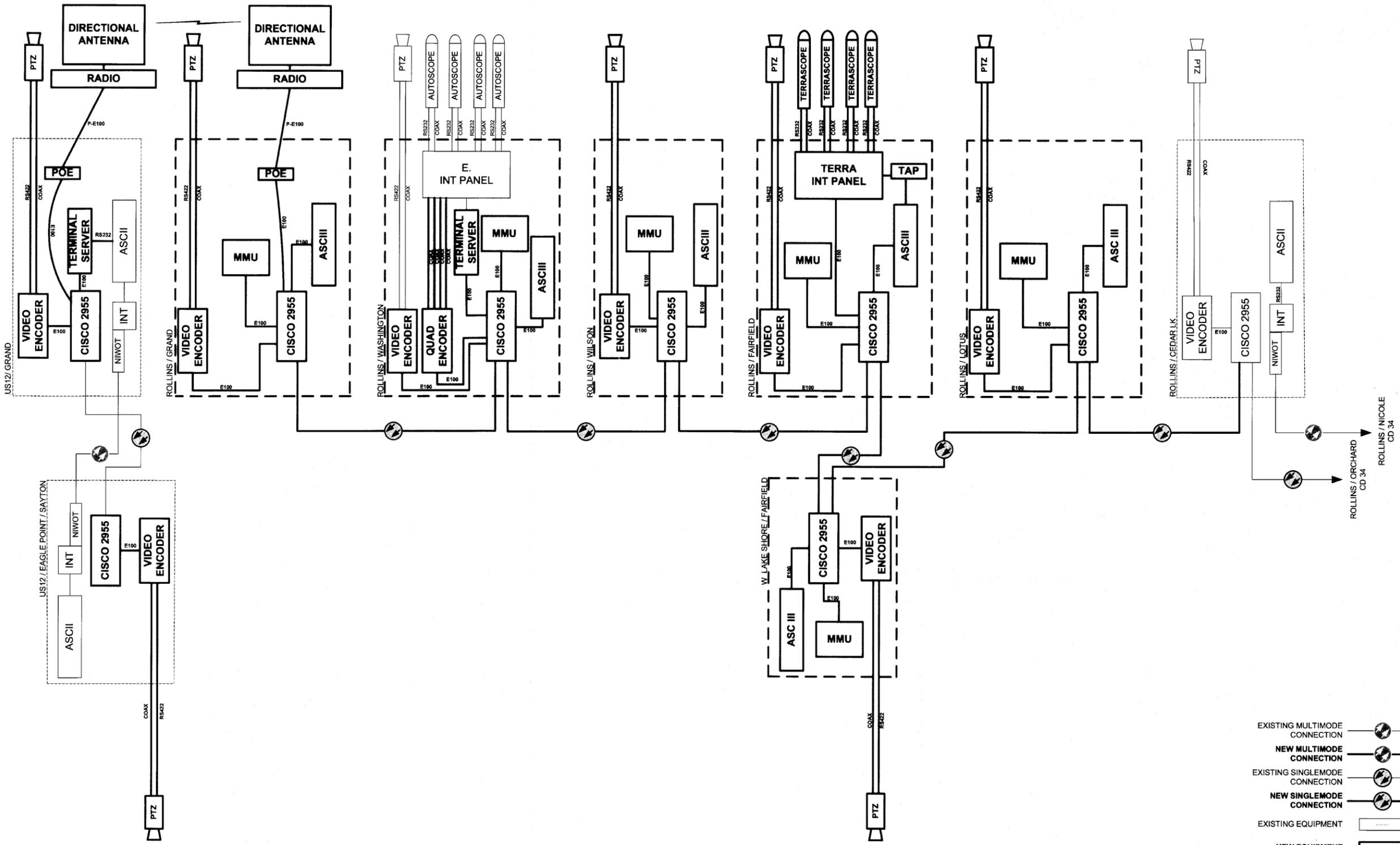
-  EXISTING FIBER (COILED IN HAND HOLE)
-  EXISTING CONNECTOR / EXISTING FIBER
-  NEW CONNECTOR / EXISTING FIBER
-  EXISTING FUSION SPLICE / EXISTING FIBER
-  NEW FUSION SPLICE / EXISTING FIBER
-  NEW CONNECTOR / NEW FIBER
-  NEW FUSION SPLICE / NEW FIBER

Lake County Division of Transportation	USER NAME = "USER"	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER SPLICING DIAGRAM - B IL 83 / ROLLINS	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	PLOT SCALE = N/A	CHECKED - DG	REVISED -					09-00999-07-TL	64	72
	PLOT DATE = "DATE"	DATE 05/19/10	REVISED -			SCALE N/A	CONTRACT NO. 63472			



- EXISTING CONNECTOR / EXISTING FIBER
- NEW CONNECTOR / EXISTING FIBER
- EXISTING FUSION SPLICE / EXISTING FIBER
- NEW FUSION SPLICE / EXISTING FIBER
- NEW CONNECTOR / NEW FIBER
- NEW FUSION SPLICE / NEW FIBER

Lake County Division of Transportation	USER NAME = "USER"	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER SPLICING DIAGRAM - C US 45 / IL 60	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	PLOT SCALE = N/A	DRAWN - YM	REVISED -					09-00999-07-TL	65	72
	PLOT DATE = "DATE"	CHECKED - DG	REVISED -			SCALE N/A	CONTRACT NO. 63472			
	DATE 05/19/10	REVISED -								



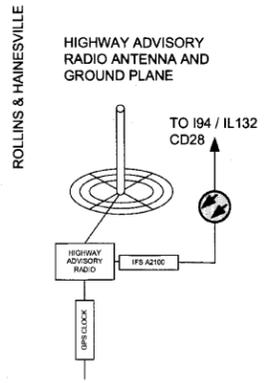
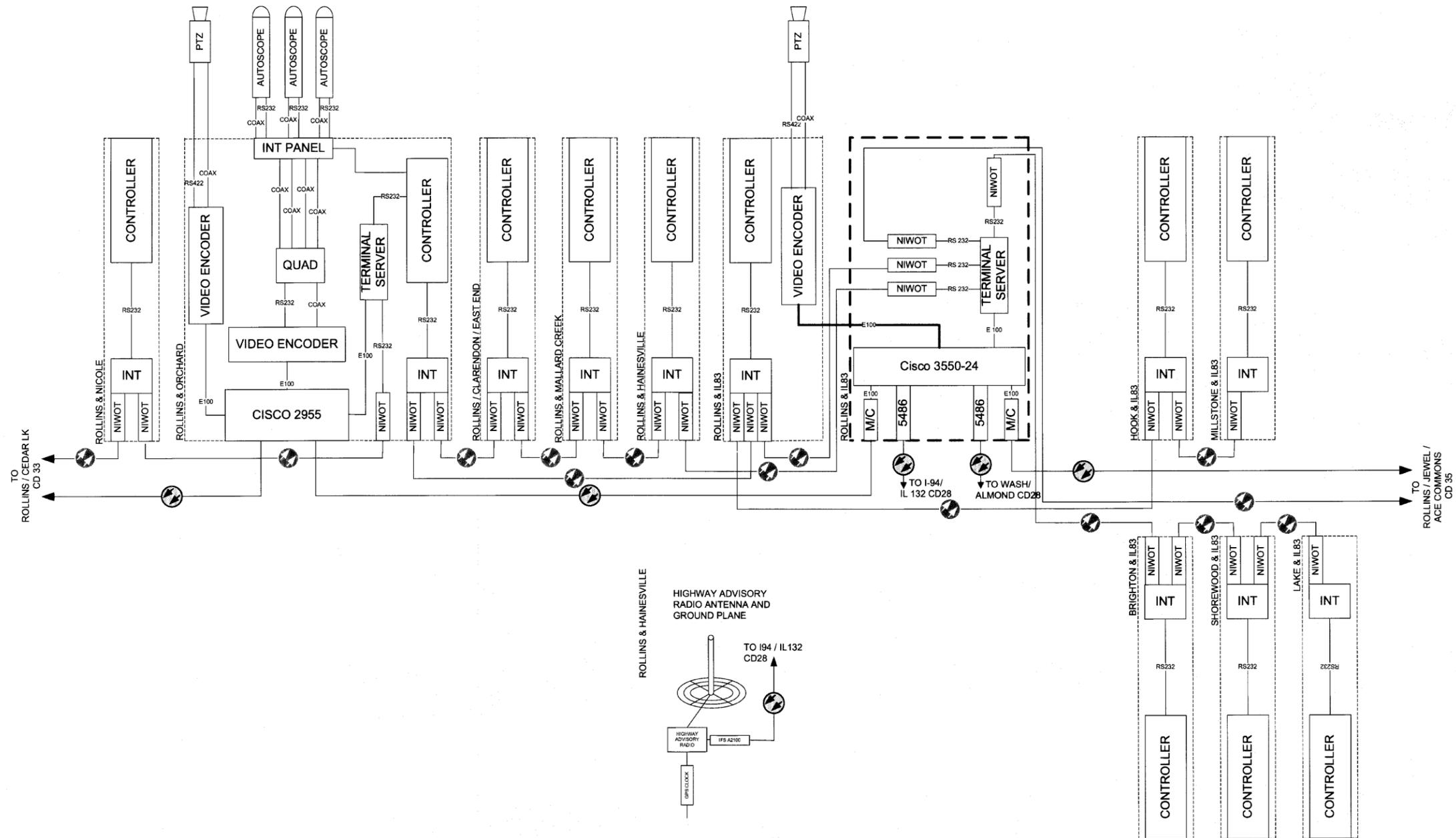
Lake County
Division of Transportation

USER NAME = "USER"	DESIGNED - DG	REVISED -
PLOT SCALE = N/A	DRAWN - YM	REVISED -
PLOT DATE = "DATE"	CHECKED - DG	REVISED -
	DATE 05/19/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

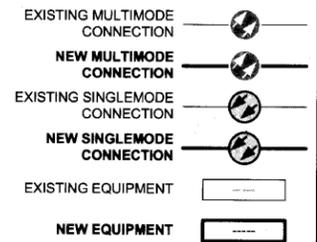
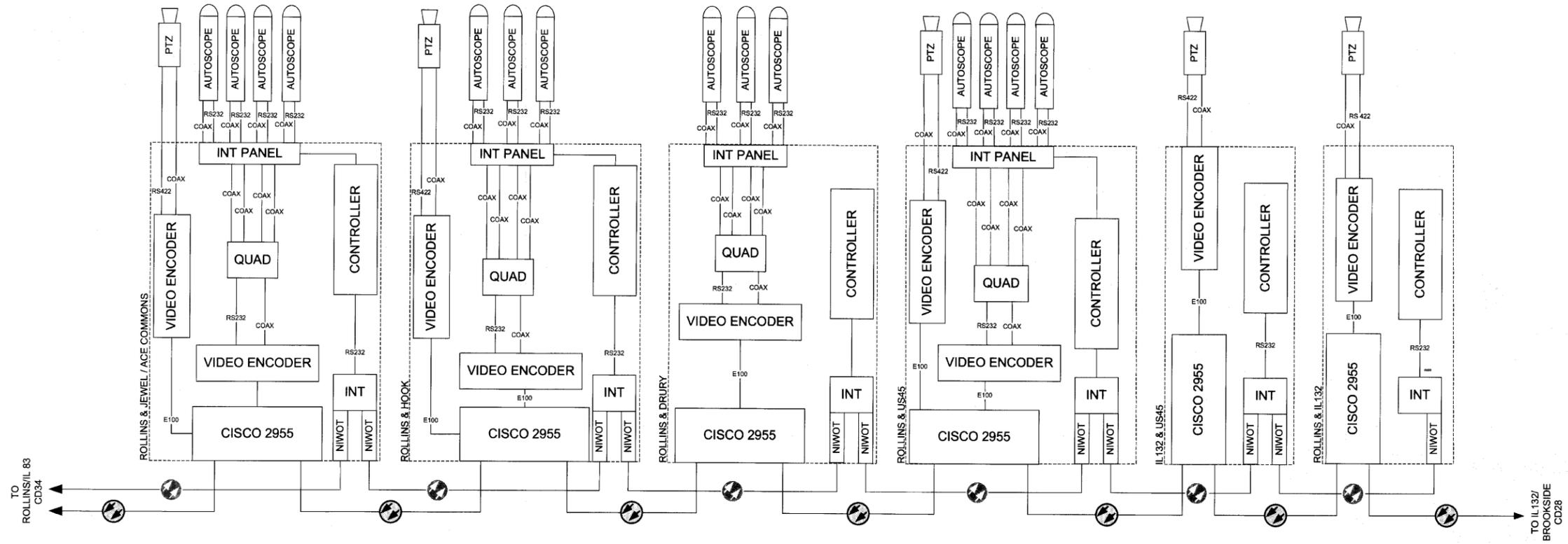
CABINET DETAIL 33
US12 / GRAND

ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
		09-00999-07-TL	66	72
CONTRACT NO. 63472				

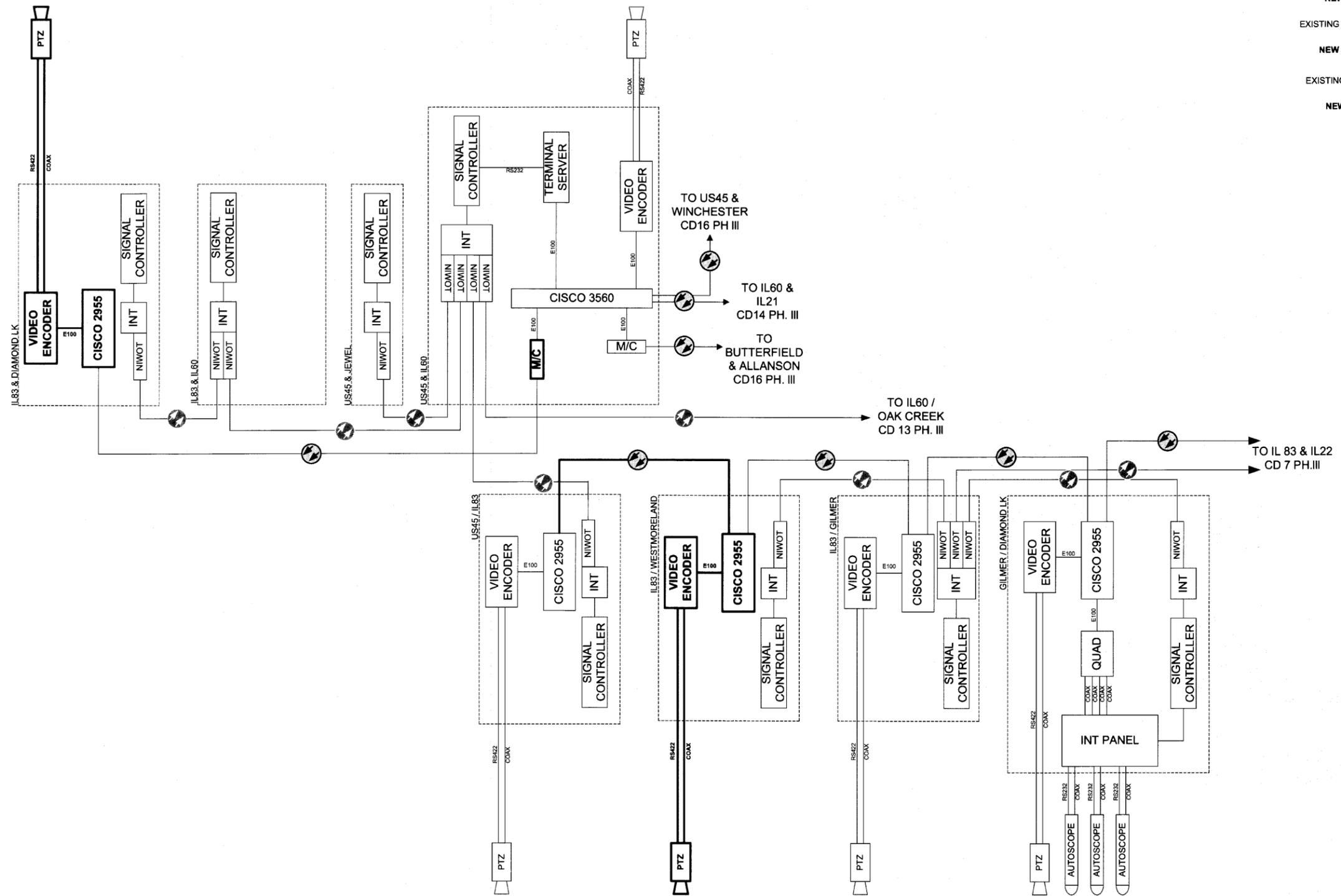


- EXISTING MULTIMODE CONNECTION
- NEW MULTIMODE CONNECTION
- EXISTING SINGLEMODE CONNECTION
- NEW SINGLEMODE CONNECTION
- EXISTING EQUIPMENT
- NEW EQUIPMENT

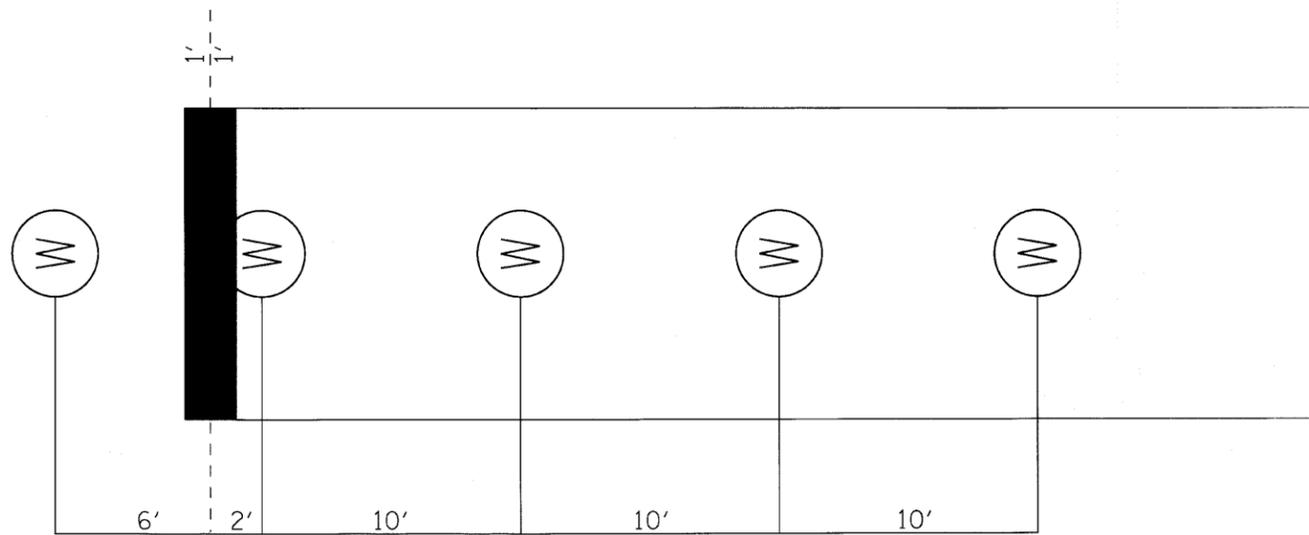
Lake County Division of Transportation	USER NAME = *USER*	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABINET DETAIL 34 IL83 / ROLLINS	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	PLOT SCALE = N/A	DRAWN - YM	REVISED -					09-00999-07-TL	67	72
	PLOT DATE = *DATE*	CHECKED - DG	REVISED -			SCALE N/A	CONTRACT NO. 63472			
	DATE 05/19/10	REVISED -								



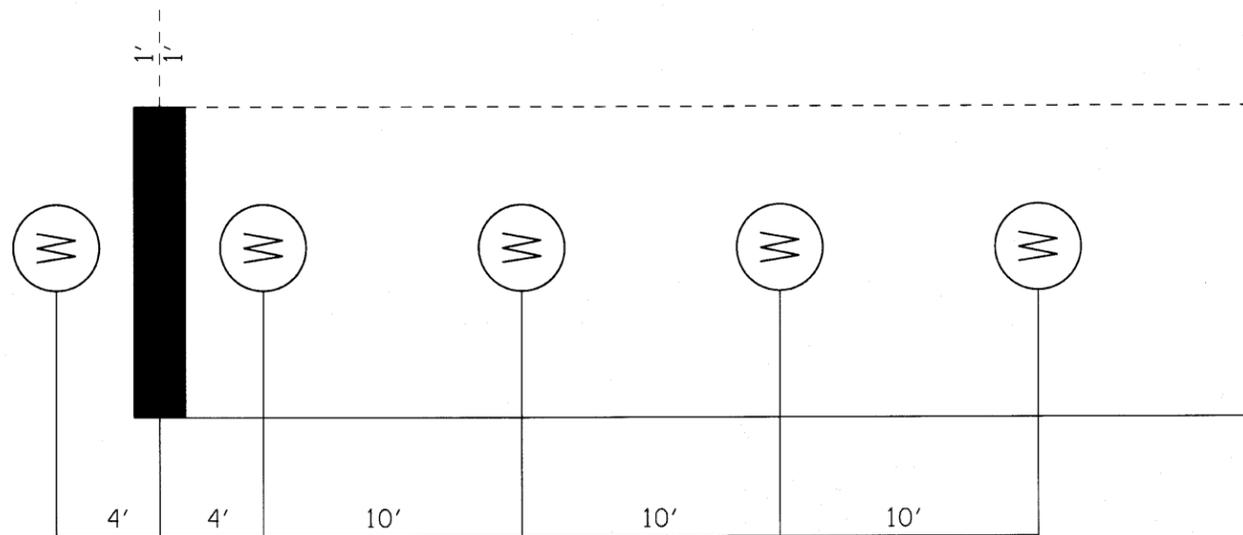
Lake County Division of Transportation	USER NAME = "USER"	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABINET DETAIL 35 ROLLINS / DRURY	ROUTE	SECTION	ROUTE	SECTION	SHEET	SHEETS	
	PLOT SCALE = N/A	DRAWN - YM	REVISED -							09-00999-07-TL	68	72
	PLOT DATE = "DATE"	CHECKED - DG	REVISED -			SCALE N/A	CONTRACT NO. 63472					



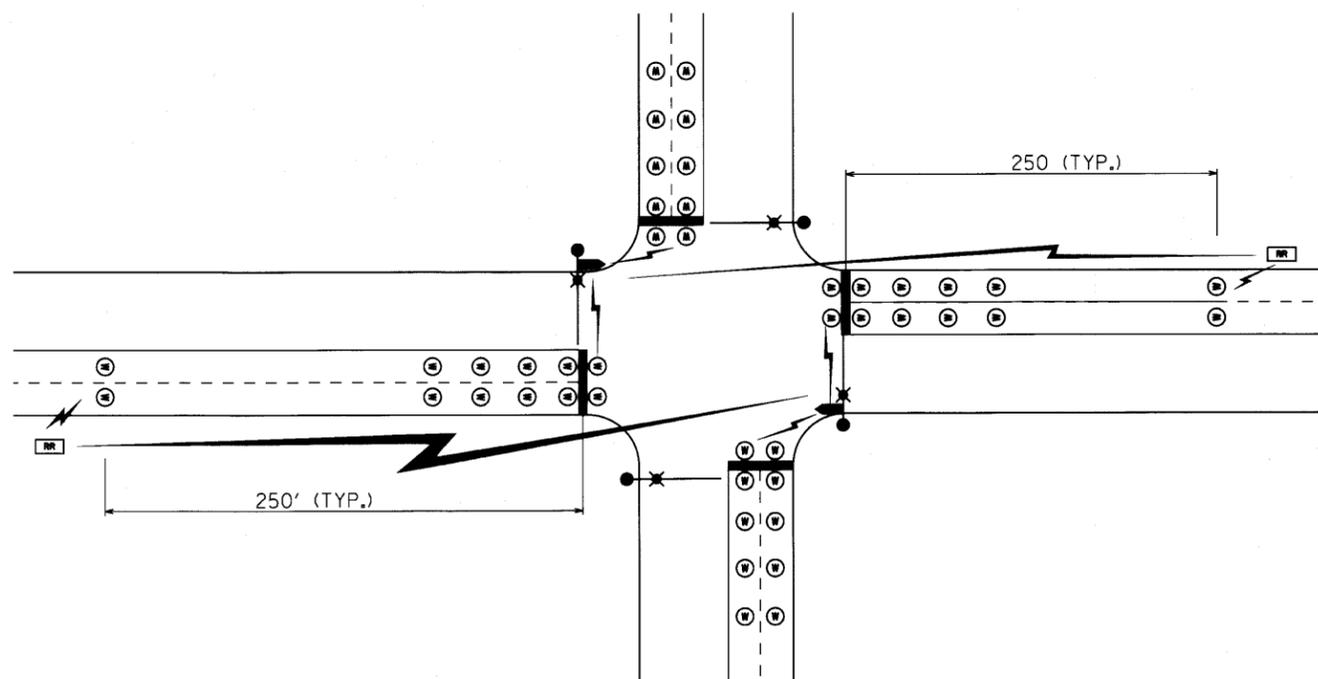
Lake County Division of Transportation	USER NAME = "USER"	DESIGNED - DG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABINET DETAIL 36 US45 & IL60	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	PLOT SCALE = N/A	DRAWN - YM	REVISED -					09-00999-07-TL	69	72
	PLOT DATE = "DATE"	CHECKED - DG	REVISED -			CONTRACT NO. 63472				



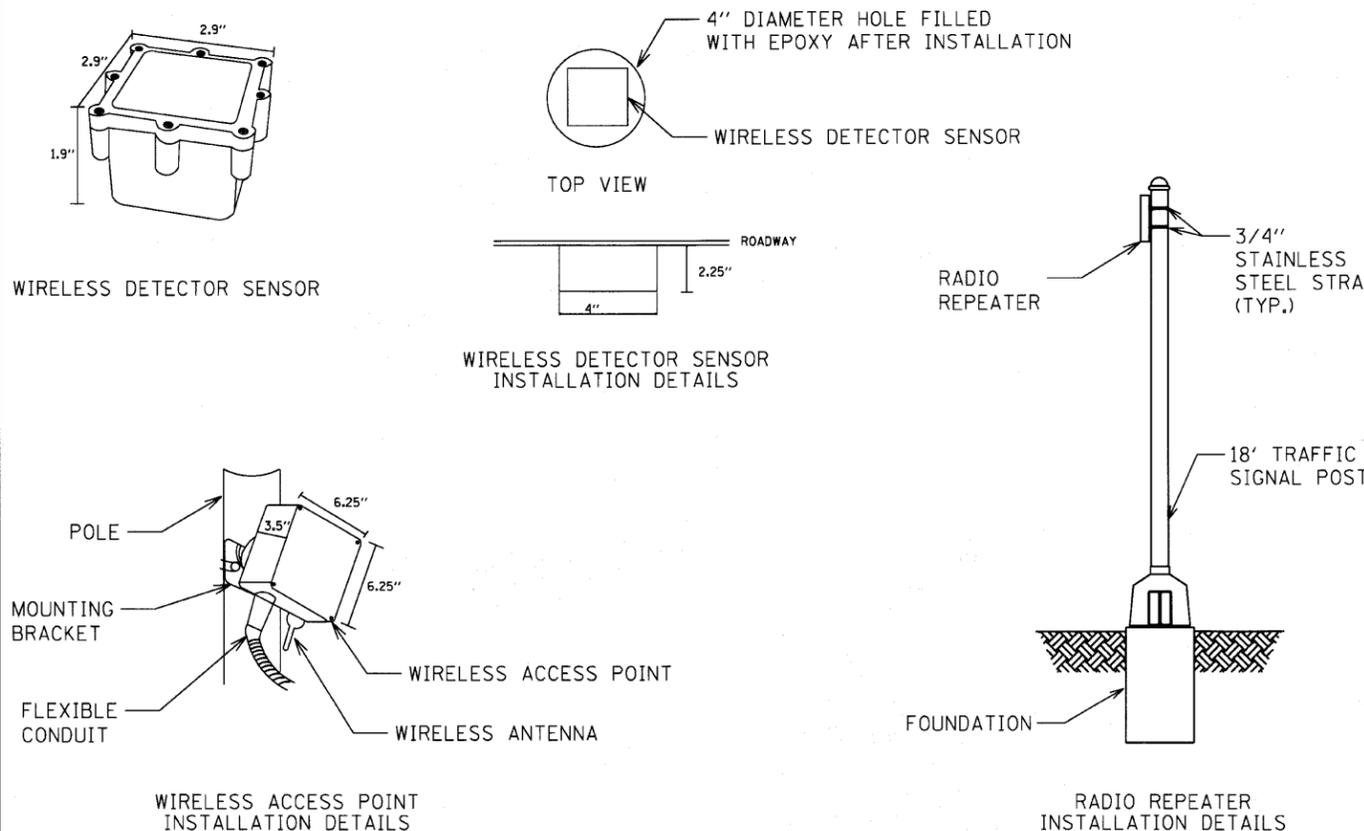
TYPICAL LAYOUT FOR WIRELESS DETECTION IN LEFT TURN LANE



TYPICAL LAYOUT FOR WIRELESS DETECTION THRU LANE

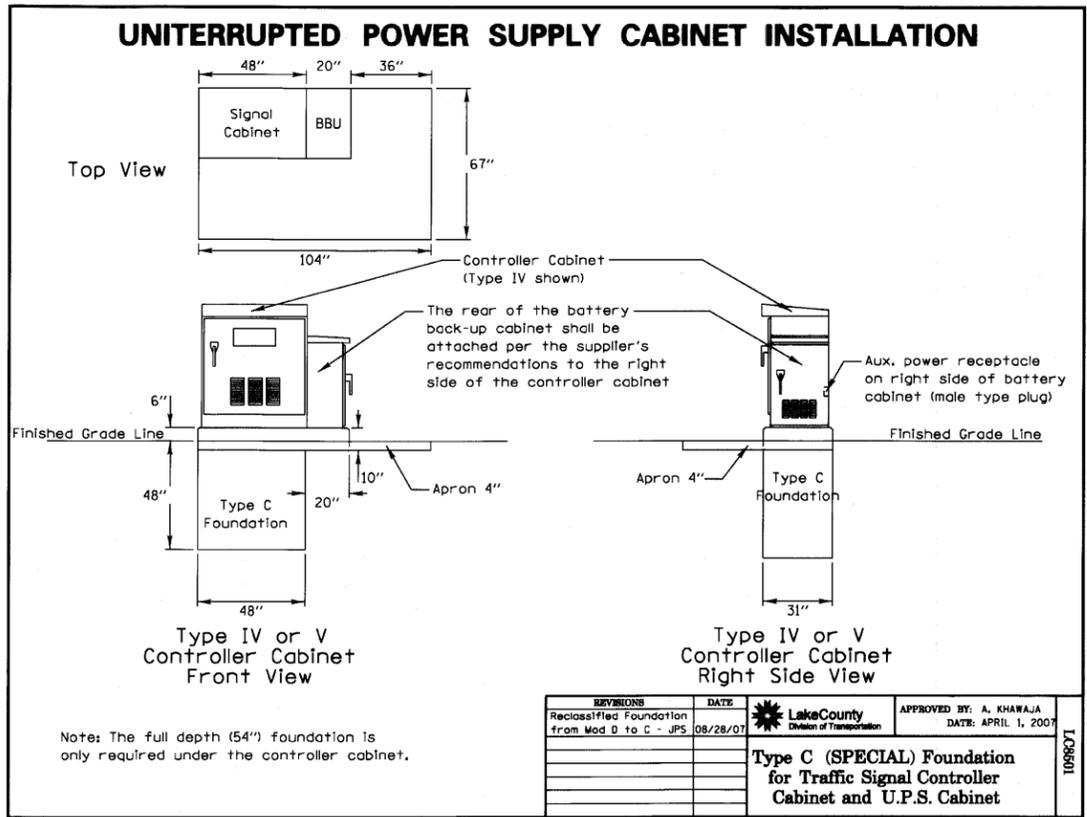
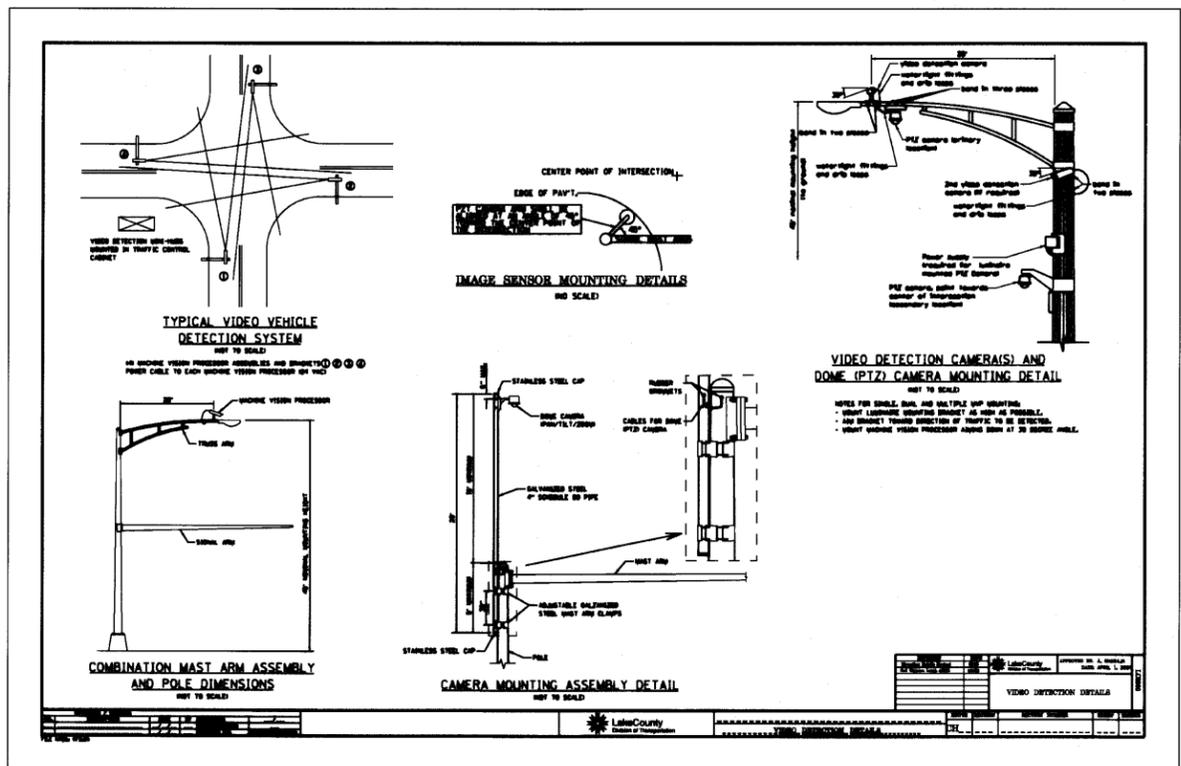
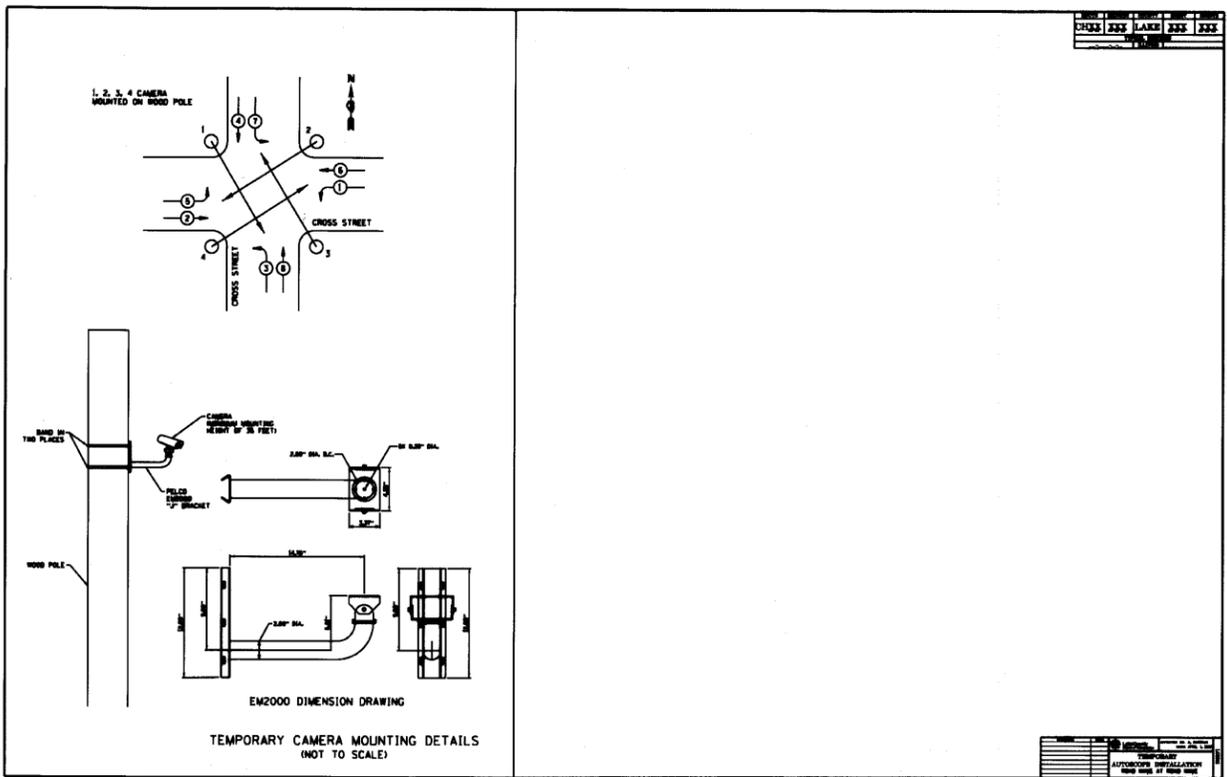


TYPICAL LAYOUT FOR ADVANCED WIRELESS DETECTION

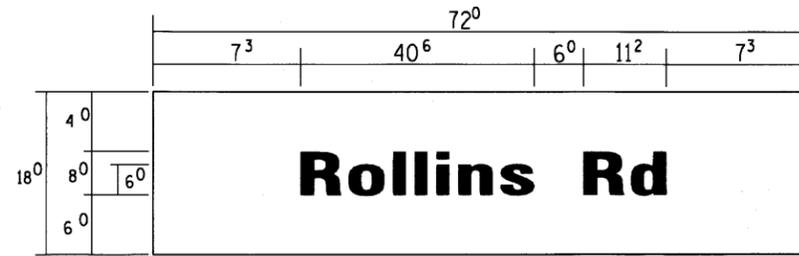


WIRELESS ACCESS POINT INSTALLATION DETAILS

RADIO REPEATER INSTALLATION DETAILS



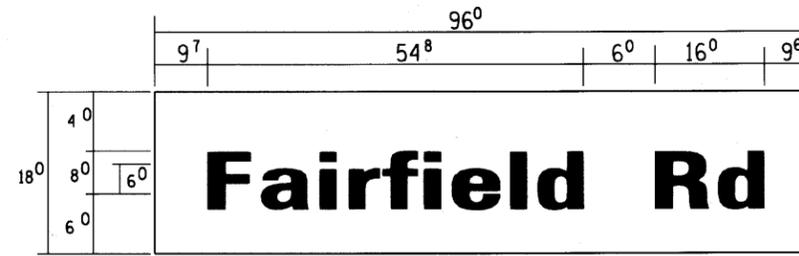
PANEL DESIGN TYPE 1



ALL DIMENSIONS SHOWN IN INCHES

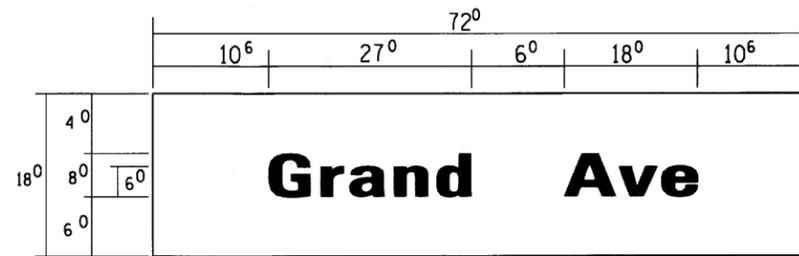
9.0 SO. FT. EACH
5 REQUIRED
 SINGLE SIDED REQUIRED
 X DOUBLE SIDED REQUIRED
 DESIGN SERIES D
 CLEARVIEW FONT

PANEL DESIGN TYPE 1



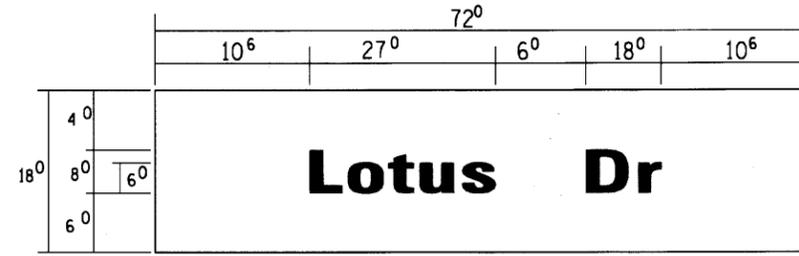
ALL DIMENSIONS SHOWN IN INCHES

12.0 SO. FT. EACH
2 REQUIRED
 SINGLE SIDED REQUIRED
 X DOUBLE SIDED REQUIRED
 DESIGN SERIES D
 CLEARVIEW FONT



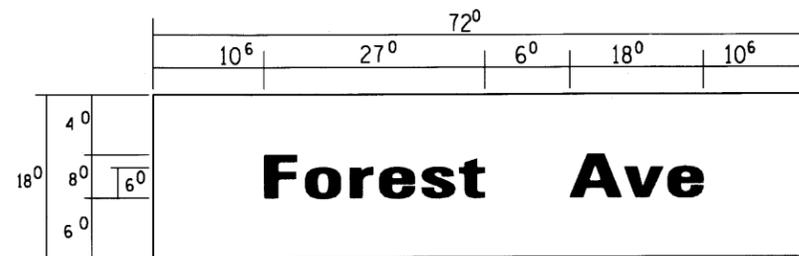
ALL DIMENSIONS SHOWN IN INCHES

9.0 SO. FT. EACH
2 REQUIRED
 SINGLE SIDED REQUIRED
 X DOUBLE SIDED REQUIRED
 DESIGN SERIES D
 CLEARVIEW FONT



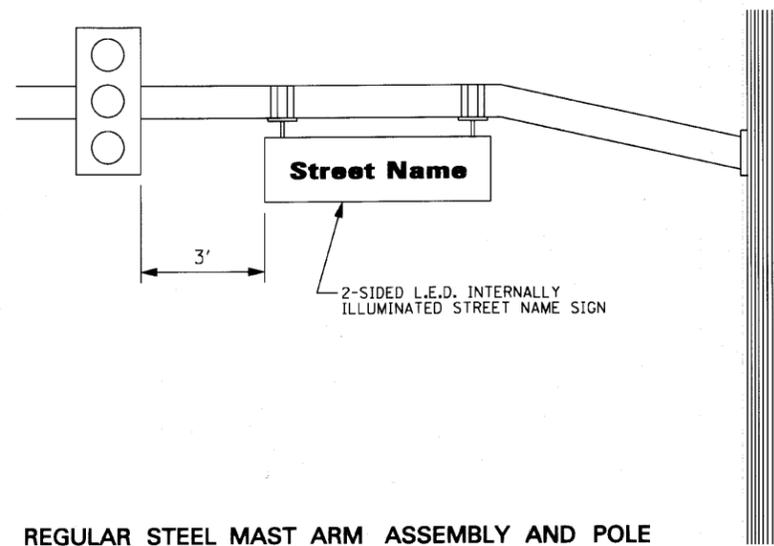
ALL DIMENSIONS SHOWN IN INCHES

9.0 SO. FT. EACH
2 REQUIRED
 SINGLE SIDED REQUIRED
 X DOUBLE SIDED REQUIRED
 DESIGN SERIES D
 CLEARVIEW FONT

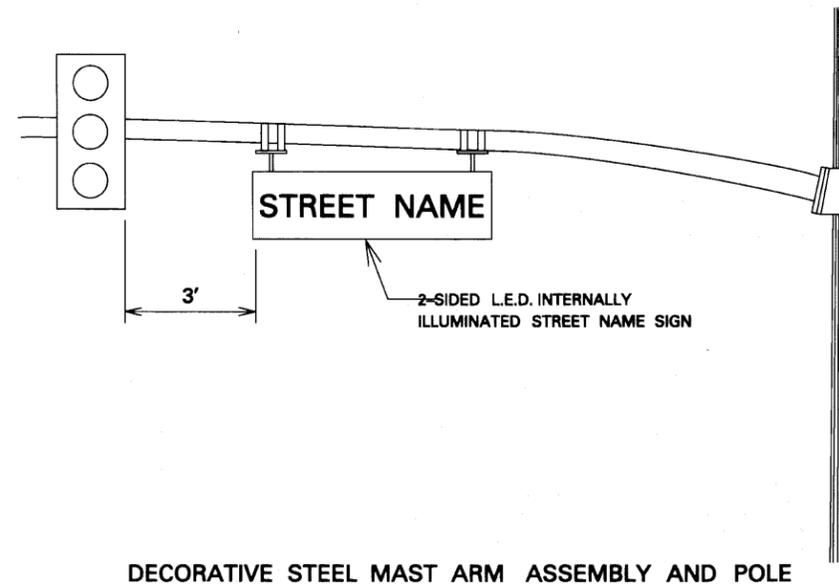


ALL DIMENSIONS SHOWN IN INCHES

9.0 SO. FT. EACH
1 REQUIRED
 SINGLE SIDED REQUIRED
 X DOUBLE SIDED REQUIRED
 DESIGN SERIES D
 CLEARVIEW FONT



REGULAR STEEL MAST ARM ASSEMBLY AND POLE



DECORATIVE STEEL MAST ARM ASSEMBLY AND POLE

USER NAME = JM	DESIGNED - DG	REVISED -
	DRAWN - JM	REVISED -
PLOT SCALE = 1 INCH = 20 FEET	CHECKED - DG	REVISED -
PLOT DATE = 10-05-2010	DATE - 10-05-2010	REVISED -

LCDOT STANDARD DETAILS	
LED TRAFFIC SIGNAL NAMES	
SCALE: N/A	

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
FAU 181		09-00999-07-TL	72	72
LCSTD-6			CONTRACT NO. 60472	