

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

PROJECT IS LOCATED IN THE VILLAGES
OF ROUND LAKE BEACH, LAKE VILLA,
AND ANTIOCH.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

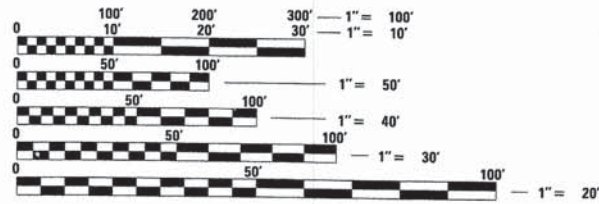
FAP 0866 (IL RTE 83 /MILWAUKEE AVE./MAIN ST.)
MILLSTONE DRIVE TO COUNTY HWY 3 (NORTH AVE.)
TRAFFIC SIGNAL INTERCONNECT
SECTION: 12-00999-25-TL
PROJECT NO.: CMM-4003 (291)
LAKE COUNTY
JOB NO.: C-91-245-14

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	61A74	



TRAFFIC DATA

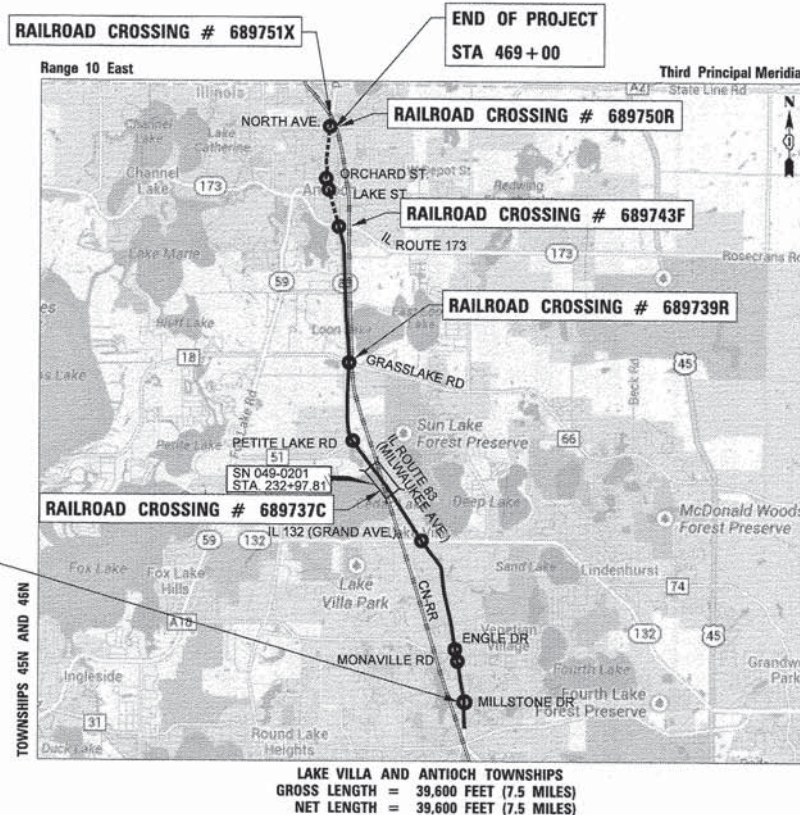
ROUTE SEGMENT	SPEED (MPH)	ADT (2013)	CLASSIFICATION
IL ROUTE 83 FROM COUNTY HWY 31 / ROLLINS RD TO MILLSTONE DR	35	25,100	2 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM MILLSTONE DR TO COUNTY HWY 55 / MONAVILLE RD	45	25,100	2 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM COUNTY HWY 55 / MONAVILLE RD TO ENGLE DR	45	15,400	4 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM ENGLE DR TO IL ROUTE 132 / GRAND AVE	45	15,400	2 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM IL ROUTE 132 / GRAND AVE TO SQUIRE RD	35	13,000	4 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM SQUIRE RD TO PETITE LAKE RD	45	13,000	3 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM PETITE LAKE RD TO COUNTY HWY 18 / GRASS LAKE RD	50	13,000	2 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM COUNTY HWY 18 / GRASS LAKE RD TO IL ROUTE 173	40	11,900	3 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM IL ROUTE 173 TO LAKE ST	30	10,900	3 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM LAKE ST TO ORCHARD ST	30	10,900	2 LANE OTHER PRINCIPAL ARTERIAL
IL ROUTE 83 FROM ORCHARD ST TO NORTH AVE	20	13,900	3 LANE OTHER PRINCIPAL ARTERIAL



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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

- KEY:
- SIGNALIZED INTERSECTION
 - PROPOSED INTERCONNECT
 - EXISTING INTERCONNECT



LAKE VILLA AND ANTIOCH TOWNSHIPS
GROSS LENGTH = 39,600 FEET (7.5 MILES)
NET LENGTH = 39,600 FEET (7.5 MILES)

FEDERAL AID ENGINEER: FAWAD AQJEEL, P.E., PTOE (847) 705-4021 SCHAUMBURG

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED Aug. 15 2014
Paula Trigg
LAKE COUNTY DIVISION OF TRANSPORTATION, COUNTY ENGINEER

PASSED August 28 2014
Christopher Holt
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW August 28 2014
John Foltmann
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

CB CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500
PROFESSIONAL DESIGN FIRM No.: 184-001742
EXPIRATION DATE: 04-30-2015

George M. Ziegler 08-18-2014
ENGINEER DATE
GEORGE M. ZIEGLER
ILLINOIS REGISTRATION No. 062-045853
EXPIRATION DATE: 11-30-2015

GENERAL NOTES:

GENERAL

- 1) All construction shall be done according to the State of Illinois Standard Specifications for Road and Bridge Construction adopted Jan. 1, 2012; the Supplemental Specifications and Recurring Special Provisions, adopted Jan. 1, 2014; the Standards and Details shown on these plans; and the Special Provisions included in the contract documents.
- 2) The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of all public authorities bearing on safety of persons or property or their protection from damage, injury or loss.
- 3) The Contractor shall notify the Engineer, Lake County Division of Transportation (847) 377-7400 and the IDOT Arterial Traffic Control Supervisor (847) 705-4470 a minimum of 72 hours in advance of beginning work. The Contractor shall also notify the other agencies (local) and utilities prior to construction.
- 4) The Contractor shall ensure all permits have been obtained prior to the commencement of work.
- 5) Before acceptance by the County and final payment, all work will be inspected and approved by the Engineer. Final payment will be made after all the Contractor's work has been approved and accepted.
- 6) The Contractor shall at all times provide Traffic Control and Protection. No work shall commence until the Traffic Control requirements are met. This shall be accomplished by the application of traffic control devices as required by the Standard Specifications, contract special provisions and as shown on the plans.
- 7) The contract documents (plan, special provisions, details and standards) are not intended to show every detail and/or all details of the work to be performed and/or the materials and equipment to be supplied. The intent of the contract documents is to illustrate the design and layout. The Contractor shall be knowledgeable and regularly engaged in the type of work described by the contract documents, and shall be responsible for understanding their intent. Any work performed or item of equipment to be supplied which is not specifically called for by the contract document, but which is necessary to provide a complete and successful working system shall be included in the Contractor's scope of work at no additional cost to the County.
- 8) The Contractor shall plan his/her work based on their own explorations and observations to determine soil conditions at the location of the proposed work.
- 9) The Contractor will be required to relocate or remove and replace signs which interfere with construction operations, and to temporarily reset all such signs during construction operations. This work will not be paid for separately, but shall be included in the cost of the contract. All work involving signs shall be governed by the following requirements:
 - a) Signs shall not be moved until progress of work necessitates it.
 - b) Every sign removed must be re-erected at a temporary location in a workmanlike manner and be visible to traffic for which it is intended. All such signs must be maintained straight and clean for the duration of the temporary setting.
 - c) All signs shall be re-erected in permanent locations as the roadway is completed by LCDOT forces. Horizontal location from the edge of pavement shall be as designated by the engineer.
 - d) All unused signs will be returned to the County.
 - e) Longer posts may be required at some temporary or permanent sign locations to maintain proper sign elevations.
- 10) The Contractor is prohibited from transporting soil off of state ROW. All soil must be graded to match existing ground levels.
- 11) Contractor shall maintain sufficient equipment, supplies, and materials on hand to confine, control, and dispose of any leaked drilling fluids due to frac-outs. All drilling operations to be suspended until containment is achieved.

REMOVAL

- 1) It shall be the Contractor's responsibility to remove any and all materials and debris from the site that result from Construction operations, at no additional cost to the County. Removed pavement, sidewalk, curb, curb and gutter, unusable/unsalvageable materials, short term pavement markings, etc..., shall be disposed of outside the right-of-way according to Article 202.03 of the Standard Specifications at locations provided by the Contractor at no additional cost to the County.

DRAINAGE

- 1) CONSTRUCTION OPERATIONS: During construction operations the Contractor shall ensure positive site drainage at the conclusion of each day. Site drainage may be achieved by ditching, pumping, or any other method acceptable to the Engineer. During construction operations when any loose material is deposited in the flow line of ditches, gutters or drainage structures so the natural flow of water is obstructed, the material shall be removed at the close of each working day. At the conclusion of construction operations all drainage structures shall be free from all dirt and debris. This work will not be paid for separately but shall be considered included in the cost of the project.

MEASUREMENTS

- 1) Unless otherwise noted, locations shown on the plans are to the edge of pavement, etc, are measured from the centerline. Flat tops and cones are to be eccentric. Station/offset labels and locations for flared end sections are to the outside end of the end sections.

MISCELLANEOUS

- 1) The Contractor shall provide access to the abutting properties at all times during construction of this project. Any cost incurred by the Contractor to meet this requirement that is not covered by a specific pay item will be included in the cost of the contract.
- 2) The Contractor shall be responsible for returning all existing areas (to remain) affected by construction activities, equipment, or laborers to the original undisturbed conditions. The Contractor shall also be responsible for protecting all new work until the completion of the contract.
- 3) Where new work is proposed to meeting existing features, it shall be the Contractor's responsibility to field check all dimensions and elevations and notify the Engineer of discrepancies before proceeding with construction.
- 4) Where proposed curb and/or curb and gutter meet existing curb and gutter, the proposed curb and gutter shall transition to the existing over a distance of ten feet or as directed by the Engineer. The transition length will be paid for at the contract unit price of the proposed curb and gutter.
- 5) All unballasted Type II barricades shall be installed as specified in the NCHRP 350 Letter for the device.
- 6) The Contractor's attention is called to the fact that some quantities are given in both summary form and on the plan sheets. Care should be taken to avoid duplication of quantities

7) All proposed handholes shall be located to limit the intrusion into the existing sidewalk. If this cannot be avoided the handhole shall be placed flush with the existing sidewalk system and the contractor shall replace the entire sidewalk area between joints, in accordance with Section 424 of the Standard Specifications for Road and Bridge Construction. The cost for the removal, excavation, and placement of sidewalk shall be included in the pay item: HANDHOLE or HEAVY DUTY HANDHOLE.

- 8) The Contractor shall repair, to the satisfaction of the Engineer, all damage to existing items not scheduled for removal. This work shall be done by the Contractor at the Contractor's own expense.
- 9) POLLUTION CONTROL: The Contractor shall be required to comply with all state and local regulations regarding air, water and noise pollution. The Contractor will not be allowed to build fires on the site.
- 10) ROW MONUMENTS: Where section and subsection monuments are encountered, the Engineer shall be notified before the monuments are removed. The Contractor shall carefully preserve all property marks and monuments until the owner, authorized surveyor or agent has witnessed or otherwise reference their location. Any right-of-way markers distributed by the Contractor's operations that are not scheduled for removal shall be reestablished by a Registered Land Surveyor at the Contractors expense.

UTILITIES

- 1) The locations of public and/or private utilities shown on the plans are approximate and their accuracy is not guaranteed. The Contractor shall be required to ascertain the exact location of such utilities so as not to damage them according to Article 107.31 of the Standard Specifications. The Contractor shall be responsible for contacting the utility owners so that their facilities may be adjusted or relocated if necessary prior to construction operations.
- 2) The Contractor shall be responsible for any damage or destruction of public or private property according to Article 107.20 of the Standard Specifications. The Contractor shall restore such property at his/her own expense. The Contractor shall use all necessary precautions and protective measures required to maintain existing utilities, sewers and appurtenances that must be kept in operation. In particular the Contractor shall take adequate measures to prevent the undermining of utilities and sewers which are still in service.
- 3) When the plans or special provisions include information pertaining to the location of existing utility facilities, such information only represents the opinion of the Engineer as to the location of such facilities and is only included for the Contractor's convenience. The Engineer and the County assume no responsibility for the sufficiency or accuracy of the information shown in the plan relating to the location of existing facilities or the manner in which they are to be removed or adjusted.
- 4) Coordination of all utility work involved in the construction area will be discussed at the preconstruction meeting. The Contractor is responsible for verifying the nature and status of all utility relocation work prior to the start of construction. The Contractor shall take appropriate measures to ensure that his/her construction activities do not interfere with utility facilities and relocation work. The Contractor's schedule should reflect construction sequencing which coordinates with all utility relocation work. The Contractor shall be required to adjust the sequence schedule of work to coordinate with the relocation schedule of conflicting utility companies.

<p>PROFILE</p> <p>DATE: _____</p> <p>BY: _____</p> <p>NOTED: _____</p> <p>STRUCTURE: _____</p> <p>NOTARY'S CKFD: _____</p>	<p>PLAN</p> <p>DATE: _____</p> <p>BY: _____</p> <p>NOTED: _____</p> <p>RT. OF WAY CHECKED: _____</p> <p>NO. _____</p> <p>FILE NAME: _____</p>
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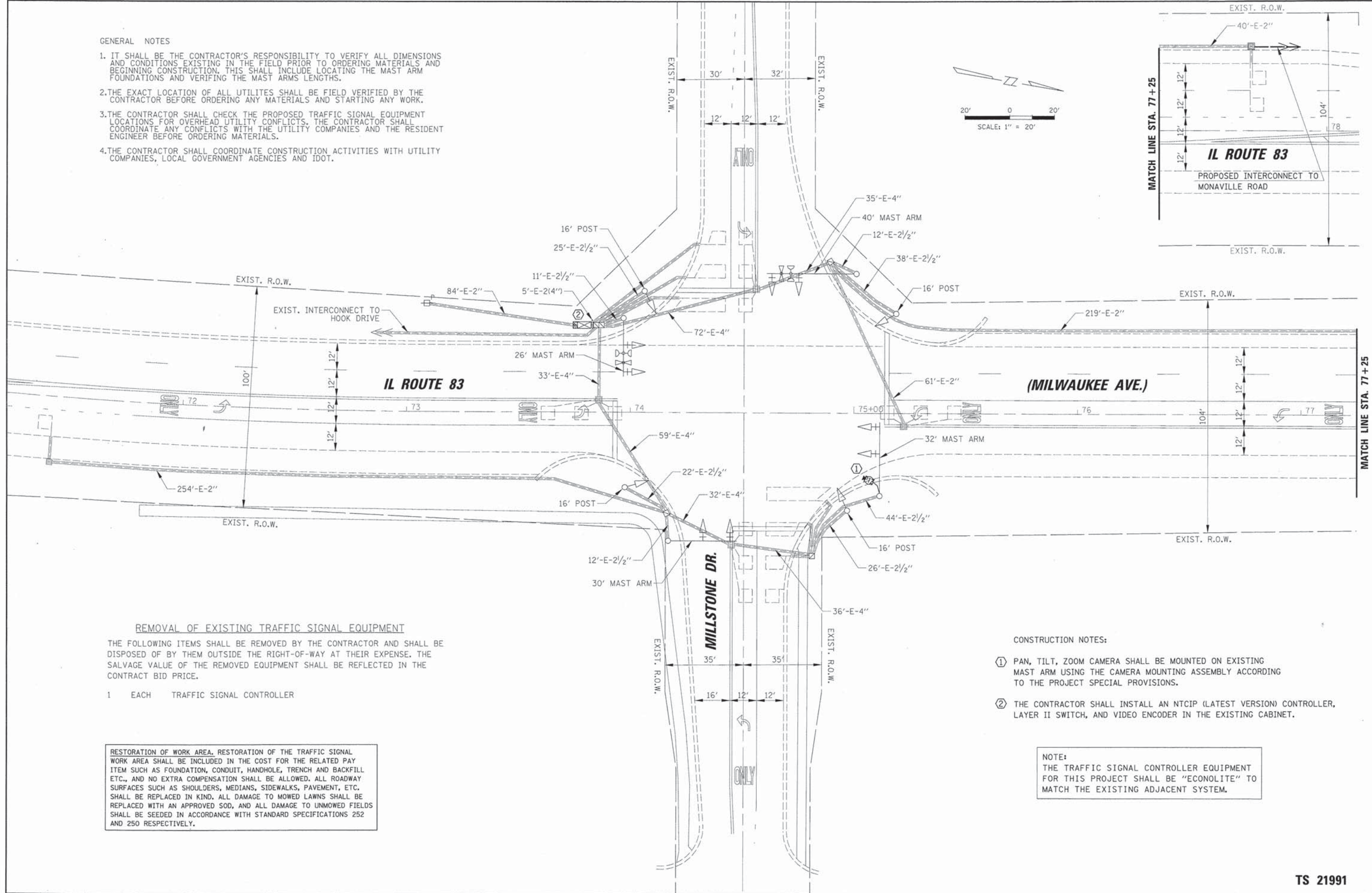
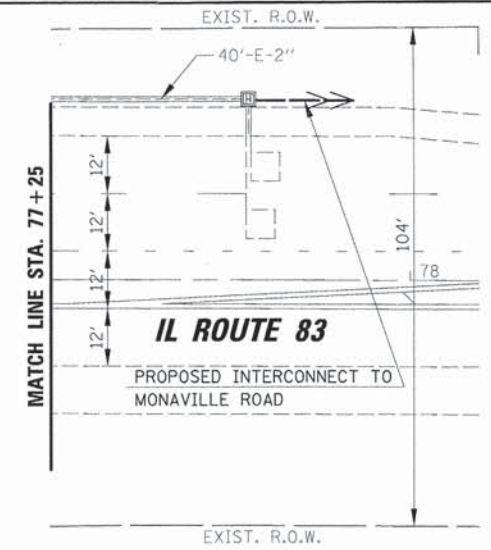
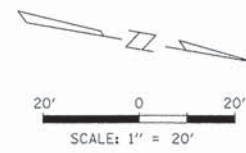
CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 9675 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



FILE NAME =	USER NAME = fbariso	DESIGNED - EAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	83.dgn	DRAWN - FPB	REVISED -			0866	12-00999-25-TL	LAKE	61	3	
	PLOT SCALE = 1"	CHECKED - GMZ	REVISED -			CONTRACT NO. 61A74					
	PLOT DATE = 9/5/2014	DATE -	REVISED -			SCALE: 1" = 20'		SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK.
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



REMOVAL OF EXISTING TRAFFIC SIGNAL 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.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

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

CONSTRUCTION NOTES:

- ① PAN, TILT, ZOOM CAMERA SHALL BE MOUNTED ON EXISTING MAST ARM USING THE CAMERA MOUNTING ASSEMBLY ACCORDING TO THE PROJECT SPECIAL PROVISIONS.
- ② THE CONTRACTOR SHALL INSTALL AN NTCIP (LATEST VERSION) CONTROLLER, LAYER II SWITCH, AND VIDEO ENCODER IN THE EXISTING CABINET.

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

<p>PROFILE</p> <p>DATE: _____</p> <p>BY: _____</p> <p>REVISIONS:</p> <p>NO. _____</p> <p>DATE _____</p> <p>BY _____</p> <p>REASON FOR CHANGE _____</p>	<p>PLAN</p> <p>DATE: _____</p> <p>BY: _____</p> <p>REVISIONS:</p> <p>NO. _____</p> <p>DATE _____</p> <p>BY _____</p> <p>REASON FOR CHANGE _____</p>
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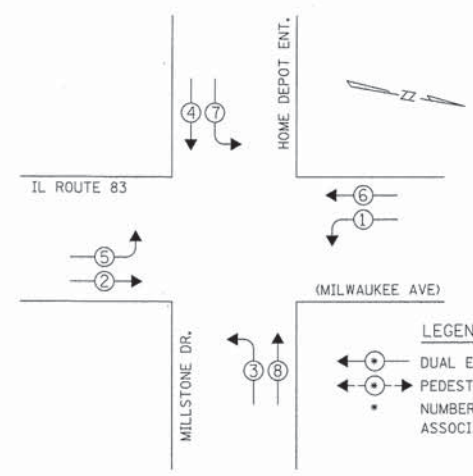
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 8575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (617) 823-5500

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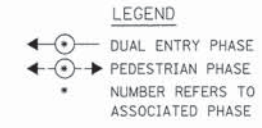
FILE NAME =	USER NAME = fbariso	DESIGNED - EAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN IL ROUTE 83 (MILWAUKEE AVE.) AND MILLSTONE DR.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT SCALE = 28'		CHECKED - GMZ	REVISED -			CONTRACT NO. 61A74					
PLOT DATE = 9/5/2014		DATE -	REVISED -			SCALE: 1" = 20'		SHEET NO. OF SHEETS STA. TO STA.			

BY: DATE: SURVEYED: CHECKED: PLAN: ENGINEERING LTD. 8575 West Higgins Road, Suite 600 Rosemont, Illinois 60018 (847) 923-0800

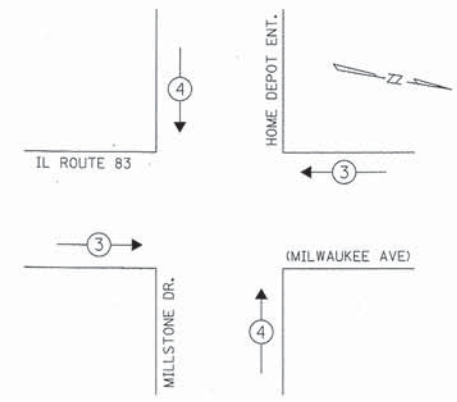
EXISTING CONTROLLER SEQUENCE



EXISTING PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
LUMINAIRE	-		250	0.50	-
ILLUMINATED SIGN	-		25	-	-
PTZ CAMERA	1		100	1.00	100.00
BATTERY BACKUP SYSTEM	-		25	1.00	-
FLASHER	-			0.50	-
ENERGY COSTS TO:					TOTAL = 441.20



ENERGY SUPPLY: PHONE: (866) 639-3532
COMPANY: COMED

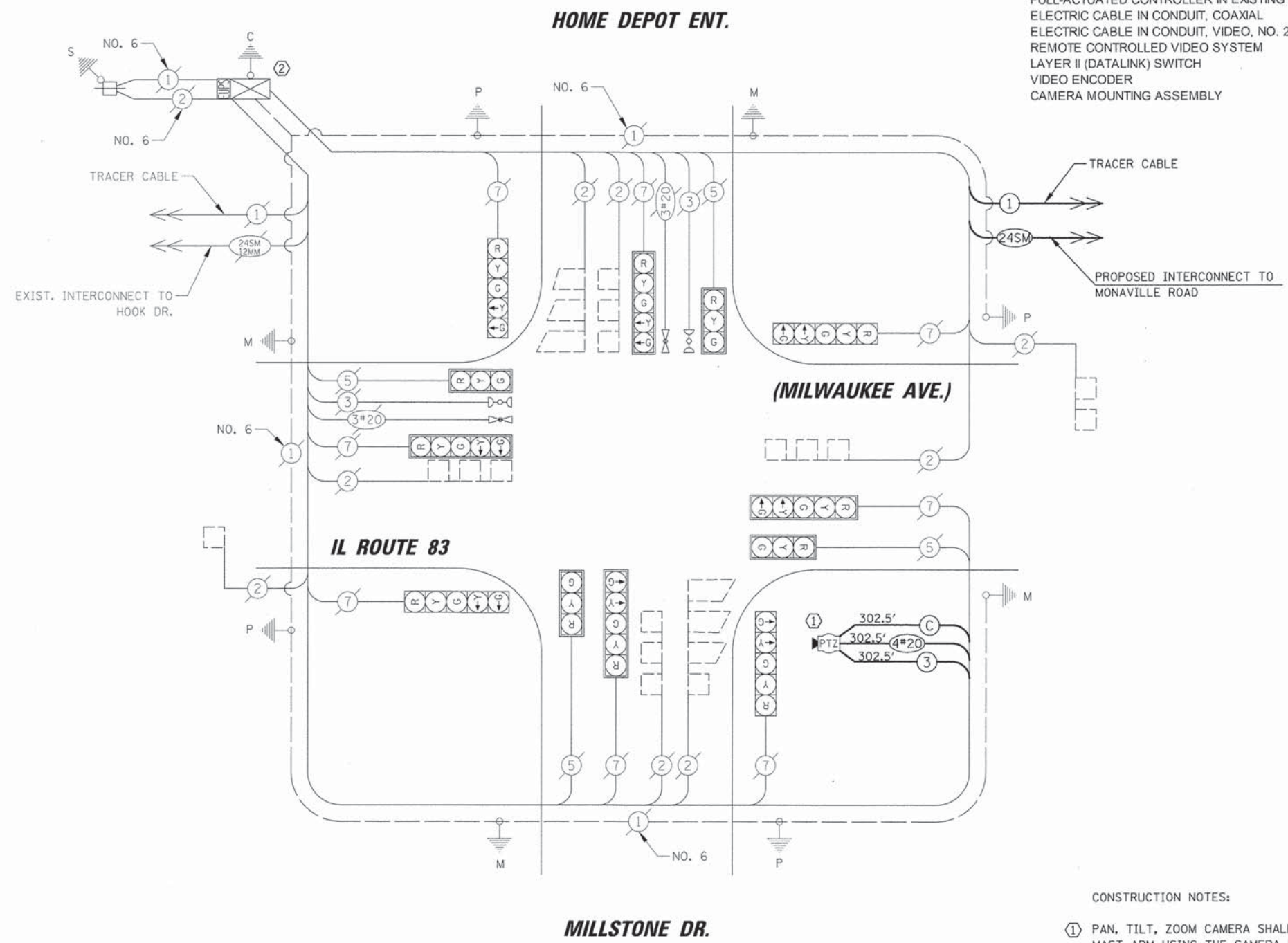
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	PLOT SCALE = 20'	CHECKED - GMZ	REVISED -
	PLOT DATE = 9/5/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL ROUTE 83 (MILWAUKEE AVE.) AND MILLSTONE DR/HOME DEPOT ENT.
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	6
CONTRACT NO.			61A74	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	303
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	303
ELECTRIC CABLE IN CONDUIT, VIDEO, NO. 20 4 C	FOOT	303
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1



CONSTRUCTION NOTES:

- ① PAN, TILT, ZOOM CAMERA SHALL BE MOUNTED ON EXISTING MAST ARM USING THE CAMERA MOUNTING ASSEMBLY ACCORDING TO THE PROJECT SPECIAL PROVISIONS.
- ② THE CONTRACTOR SHALL INSTALL AN NTCIP (LATEST VERSION) CONTROLLER, LAYER II SWITCH, AND VIDEO ENCODER IN THE EXISTING CABINET.

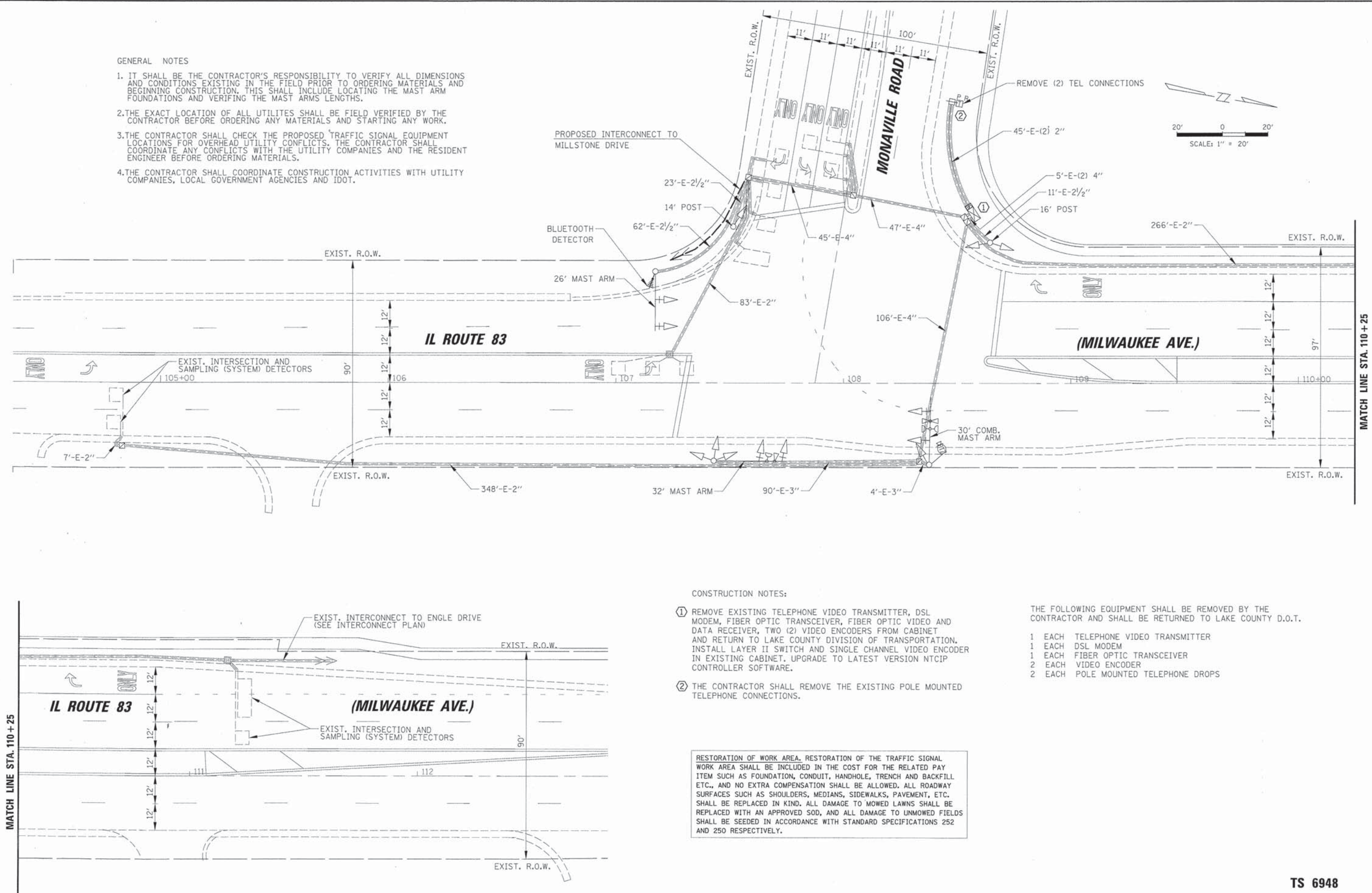
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 PLAN: _____
 NOTE BOOK: _____
 RT. OF WAY CHECKED: _____
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 DATE: _____ BY: _____
 SURVEYED: _____
 PROFILE: _____
 NOTE BOOK: _____
 RT. OF WAY CHECKED: _____
 NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-6580

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
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4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



CONSTRUCTION NOTES:

- 1 REMOVE EXISTING TELEPHONE VIDEO TRANSMITTER, DSL MODEM, FIBER OPTIC TRANSCEIVER, FIBER OPTIC VIDEO AND DATA RECEIVER, TWO (2) VIDEO ENCODERS FROM CABINET AND RETURN TO LAKE COUNTY DIVISION OF TRANSPORTATION. INSTALL LAYER II SWITCH AND SINGLE CHANNEL VIDEO ENCODER IN EXISTING CABINET. UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.
- 2 THE CONTRACTOR SHALL REMOVE THE EXISTING POLE MOUNTED TELEPHONE CONNECTIONS.

THE FOLLOWING EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RETURNED TO LAKE COUNTY D.O.T.

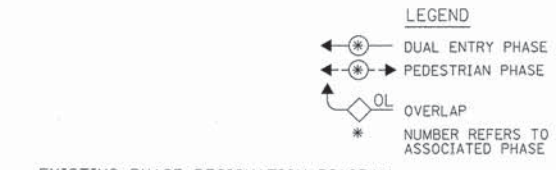
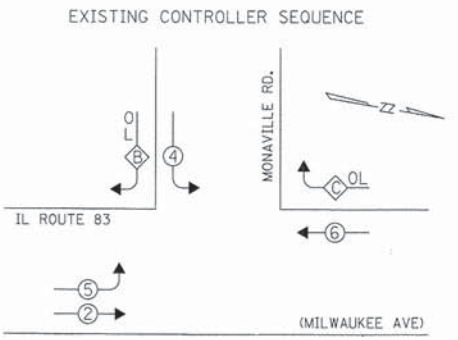
- 1 EACH TELEPHONE VIDEO TRANSMITTER
- 1 EACH DSL MODEM
- 1 EACH FIBER OPTIC TRANSCEIVER
- 2 EACH VIDEO ENCODER
- 2 EACH POLE MOUNTED TELEPHONE DROPS

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

TS 6948

FILE NAME = N:\LCO01\128226\4 - IL 83\Traffic\MOD.M	USER NAME = fberiso	DESIGNED - EAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN IL ROUTE 83 (MILWAUKEE AVE.) AND MONAVILLE RD.	F.A.P. RTE. 0866	SECTION 12-00999-25-TL	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 7
PLOT SCALE = 20'	PLOT DATE = 9/5/2014	DRAWN - FPB	REVISED -			CONTRACT NO. 61A74				
		CHECKED - GMZ	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
		DATE -	REVISED -			SCALE: 1" = 20'	SHEET NO. OF SHEETS STA. TO STA.			

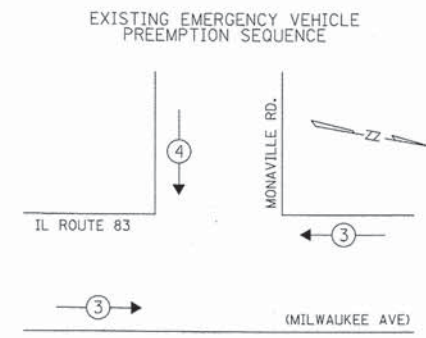
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 SURVEYED: _____
 ALIGNED: _____
 CHECKED: _____
 (PT. OF WAY CHECKED)
 CAD FILE NAME: _____
 PLAN NO.: _____
 NOTE BOOK NO.: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (630) 823-0660
 PROFILE SURVEYED: _____
 GRADES CHECKED: _____
 (S.M. NOTED)
 STRUCTURE NOTATIONS: CRWD



EXISTING PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

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



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

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

TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	17	0.50	110.50	
(YELLOW)	13	25	0.25	81.25	
(GREEN)	13	15	0.25	48.75	
ARROW	8	12	0.10	9.60	
PED. SIGNAL	-	25	1.00	-	
CONTROLLER	1	100	1.00	100.00	
LUMINAIRE	-	250	0.50	-	
ILLUMINATED SIGN	-	25	-	-	
PTZ CAMERA	1	100	1.00	100.00	
BATTERY BACKUP SYSTEM	1	25	1.00	25.00	
FLASHER	-	0.50	-	-	
ENERGY COSTS TO:	TOTAL =				475.10



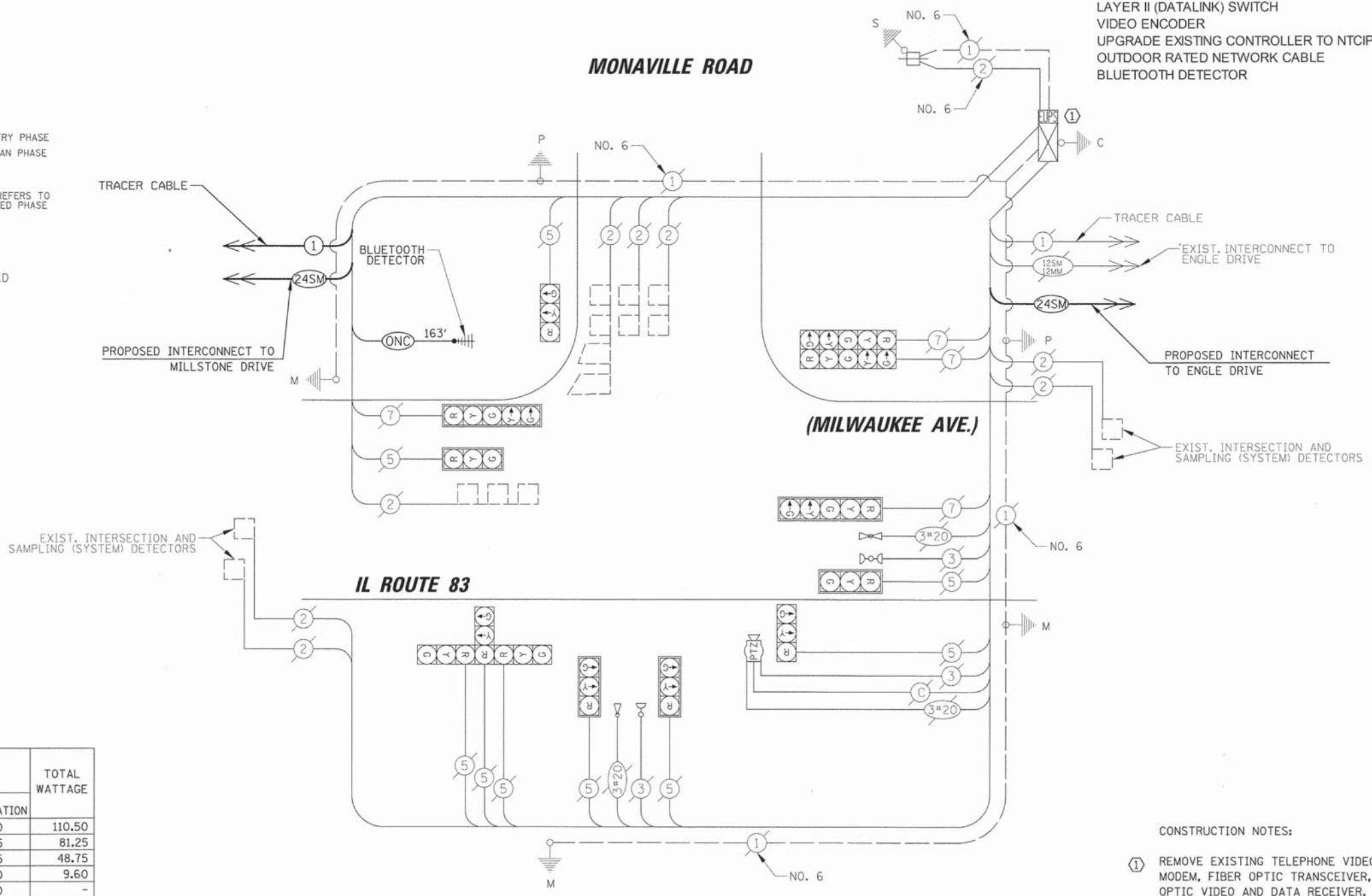
ENERGY SUPPLY: PHONE: (866) 639-3532
 COMPANY: COMED

MONAVILLE ROAD

(MILWAUKEE AVE.)

IL ROUTE 83

CABLE PLAN



SCHEDULE OF QUANTITIES

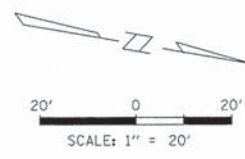
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	163
BLUETOOTH DETECTOR	EACH	1

CONSTRUCTION NOTES:

① REMOVE EXISTING TELEPHONE VIDEO TRANSMITTER, DSL MODEM, FIBER OPTIC TRANSCEIVER, FIBER OPTIC VIDEO AND DATA RECEIVER, TWO (2) VIDEO ENCODERS FROM CABINET AND RETURN TO LAKE COUNTY DIVISION OF TRANSPORTATION. INSTALL LAYER II SWITCH AND SINGLE CHANNEL VIDEO ENCODER IN EXISTING CABINET. UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK.
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



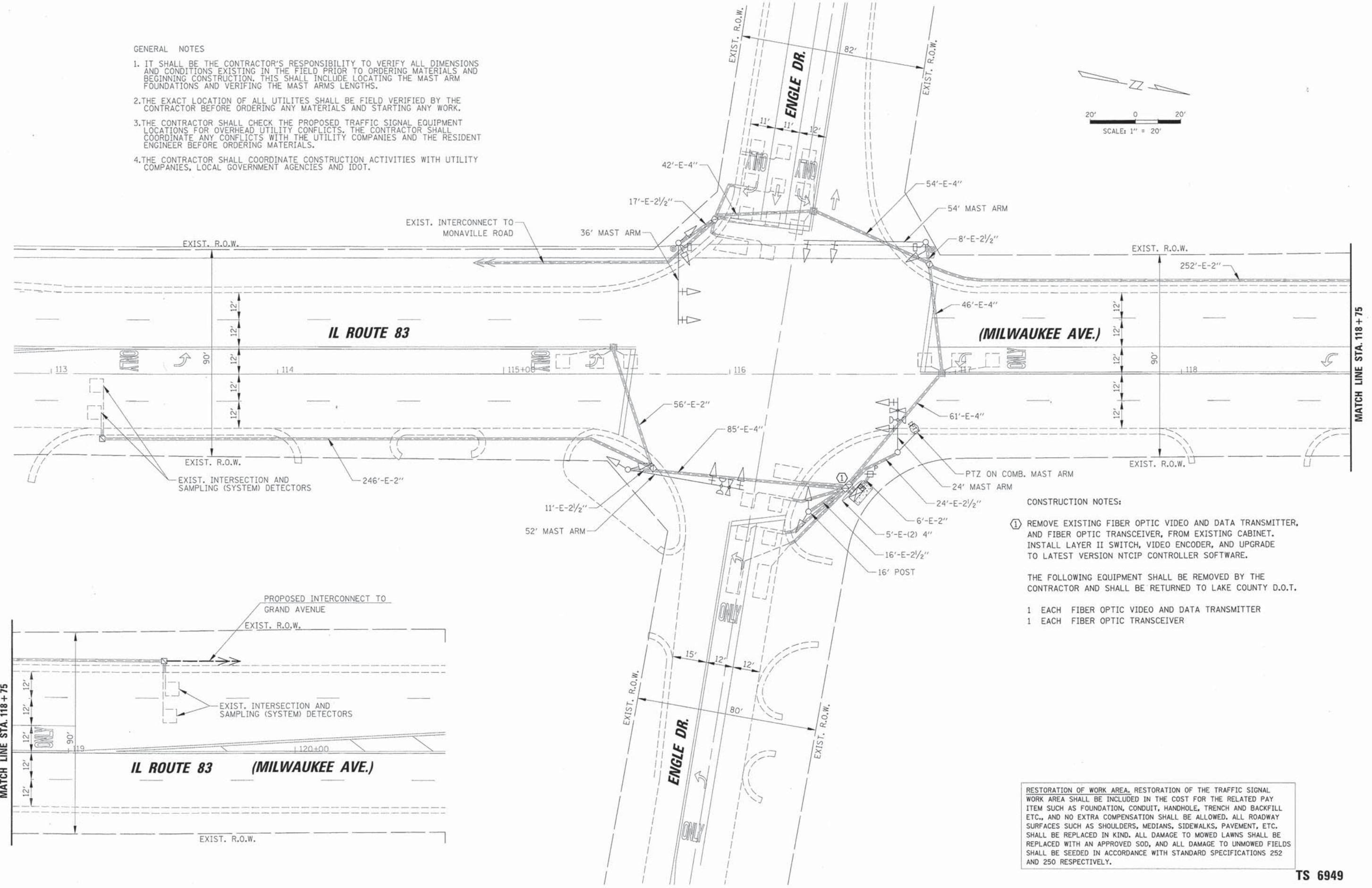
DATE	BY	DATE	BY
DATE	BY	DATE	BY

DATE	BY

DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

DATE	BY



- CONSTRUCTION NOTES:**
- ① REMOVE EXISTING FIBER OPTIC VIDEO AND DATA TRANSMITTER, AND FIBER OPTIC TRANSCEIVER, FROM EXISTING CABINET. INSTALL LAYER II SWITCH, VIDEO ENCODER, AND UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.
- THE FOLLOWING EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RETURNED TO LAKE COUNTY D.O.T.
- 1 EACH FIBER OPTIC VIDEO AND DATA TRANSMITTER
 - 1 EACH FIBER OPTIC TRANSCEIVER

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

TS 6949

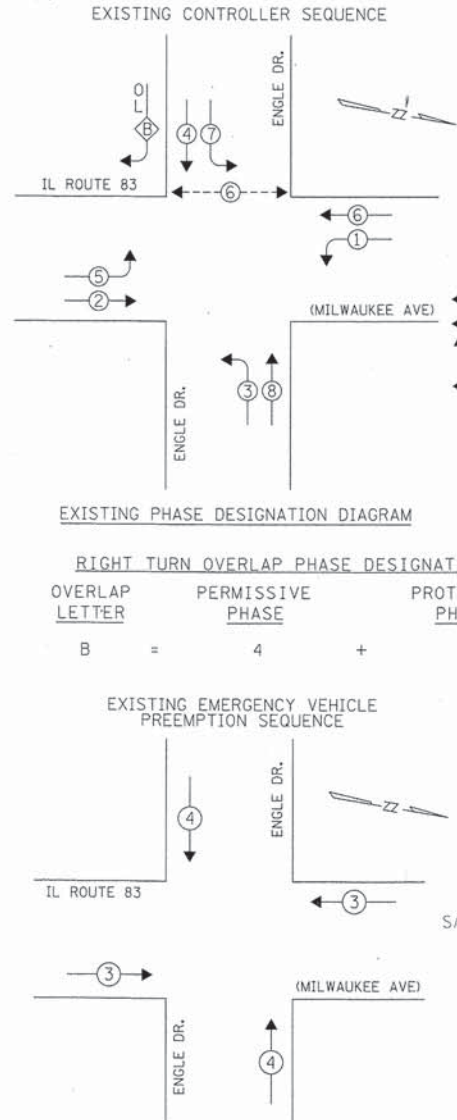
FILE NAME =	USER NAME = fbariso	DESIGNED - EAJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN IL ROUTE 83 (MILWAUKEE AVE.) AND ENGLE DRIVE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\L\CDOT\120226\4 - IL 83\Traffic\M00.ENGLE.dgn		DRAWN - FPB	REVISED -			0866	12-00999-25-TL	LAKE	61	9	
PLT SCALE = 20'		CHECKED - GMZ	REVISED -			CONTRACT NO. 61A74					
PLT DATE = 9/5/2014		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

PROFILE SURVEYED BY DATE
 PLAN CHECKED BY DATE
 NOTE BOOK NO. FILE NAME
 SURVEYED BY DATE
 PLAN CHECKED BY DATE
 NOTE BOOK NO. FILE NAME
 SURVEYED BY DATE
 PLAN CHECKED BY DATE
 NOTE BOOK NO. FILE NAME

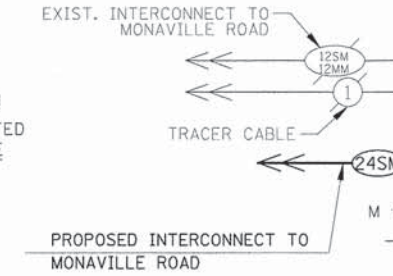
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 820-0600



PROFILE SURVEYED BY DATE
 PLAN CHECKED BY DATE
 NOTE BOOK NO. FILE NAME
 SURVEYED BY DATE
 PLAN CHECKED BY DATE
 NOTE BOOK NO. FILE NAME



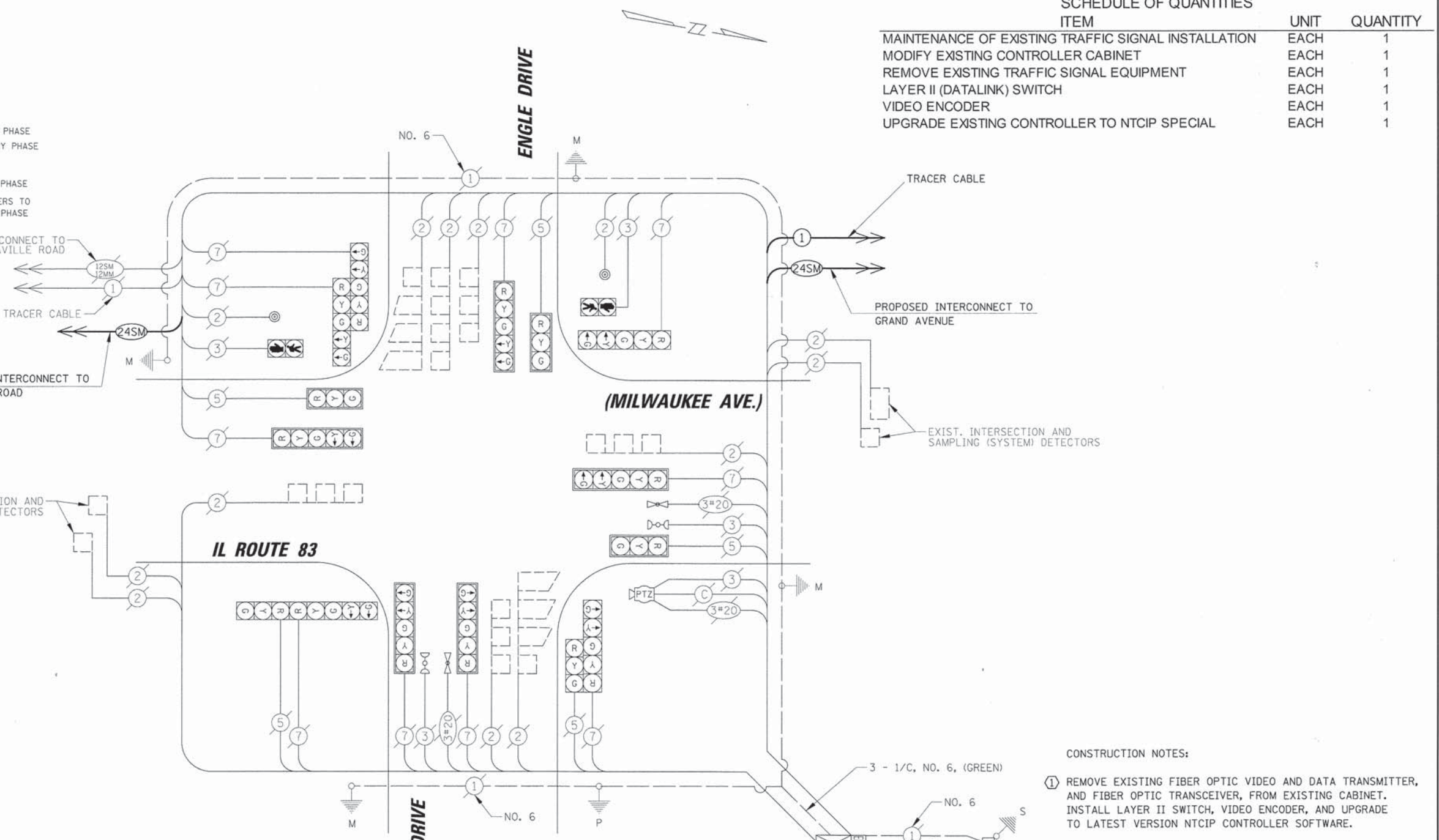
LEGEND
 * DUAL ENTRY PHASE
 * SINGLE ENTRY PHASE
 OL OVERLAP
 * PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	X % OPERATION	
SIGNAL (RED)	15		17	0.50	127.50
(YELLOW)	15		25	0.25	93.75
(GREEN)	15		15	0.25	56.25
ARROW	20		12	0.10	24.00
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
LUMINAIRE	-		250	0.50	-
ILLUMINATED SIGN	-		25	-	-
PTZ CAMERA	1		100	1.00	100.00
BATTERY BACKUP SYSTEM	1		25	1.00	25.00
FLASHER	-		0.50	-	-
ENERGY COSTS TO:					TOTAL = 576.50



ENERGY SUPPLY: PHONE: (866) 639-3532
 COMPANY: COMED

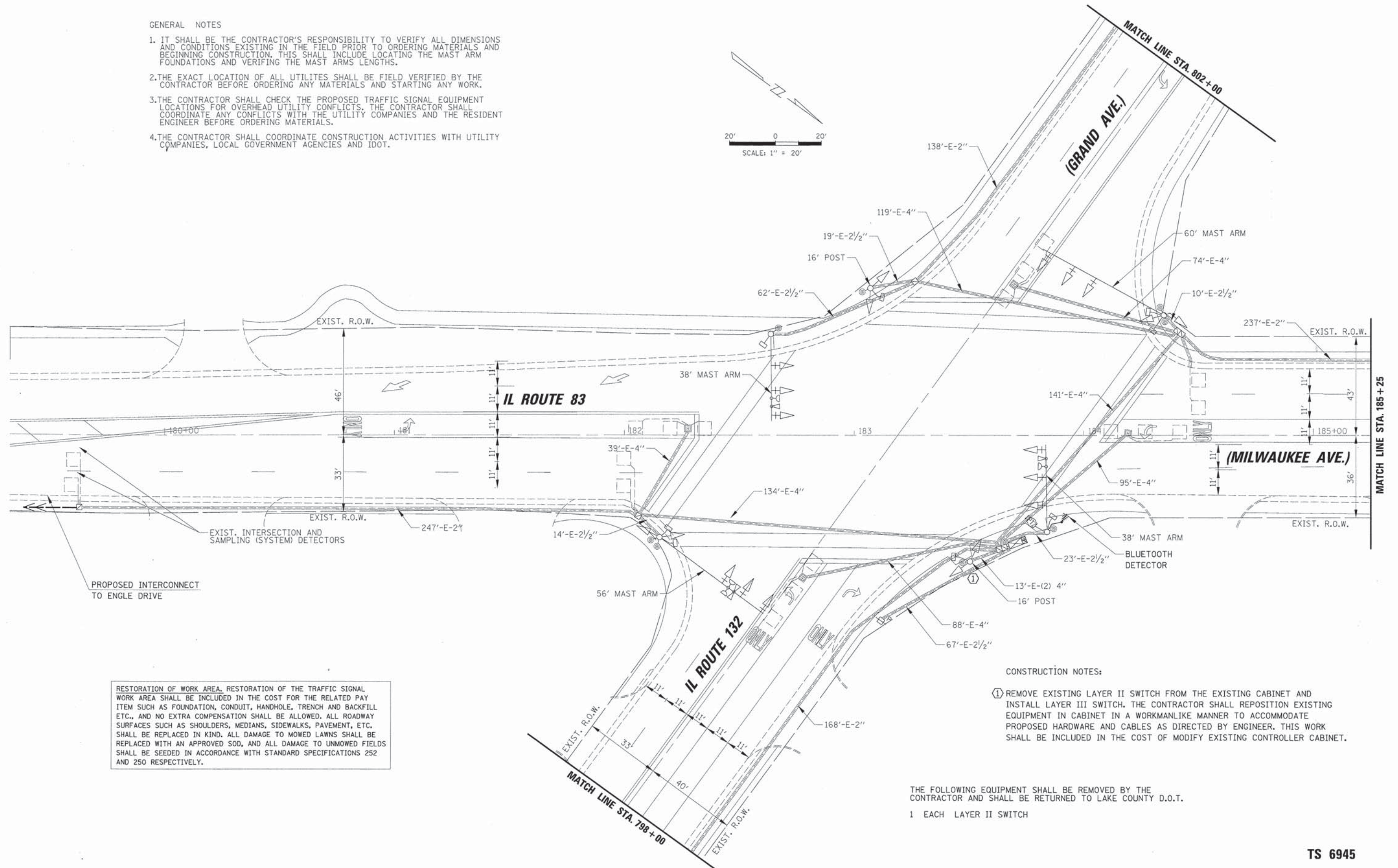
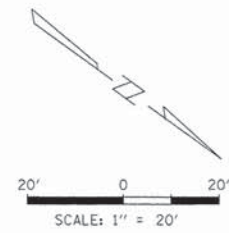


SCHEDULE OF QUANTITIES		
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1

CONSTRUCTION NOTES:
 ① REMOVE EXISTING FIBER OPTIC VIDEO AND DATA TRANSMITTER, AND FIBER OPTIC TRANSCEIVER, FROM EXISTING CABINET. INSTALL LAYER II SWITCH, VIDEO ENCODER, AND UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK.
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



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

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING LAYER II SWITCH FROM THE EXISTING CABINET AND INSTALL LAYER III SWITCH. THE CONTRACTOR SHALL REPOSITION EXISTING EQUIPMENT IN CABINET IN A WORKMANLIKE MANNER TO ACCOMMODATE PROPOSED HARDWARE AND CABLES AS DIRECTED BY ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST OF MODIFY EXISTING CONTROLLER CABINET.

THE FOLLOWING EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RETURNED TO LAKE COUNTY D.O.T.

- 1 EACH LAYER II SWITCH

DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 625-0500

FILE NAME =
H:\CDDT\120226\4 - IL 83\Traffic\MOD. GRAND.01.dgn

USER NAME = fbariso	DESIGNED - EAJ	REVISED -
PLOT SCALE = 20'	DRAWN - FPB	REVISED -
PLOT DATE = 9/5/2014	CHECKED - GMZ	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 83 (MILWAUKEE AVE.) AND
IL ROUTE 132 (GRAND AVE.) (SHEET 1 OF 2)

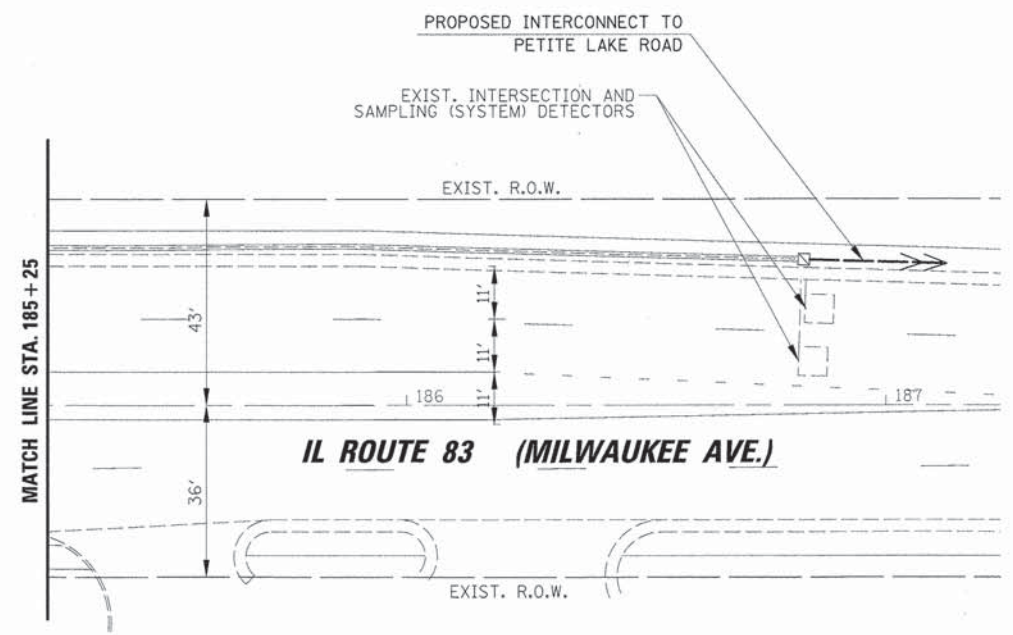
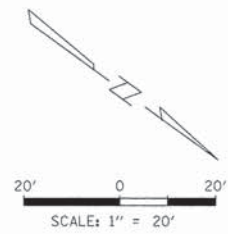
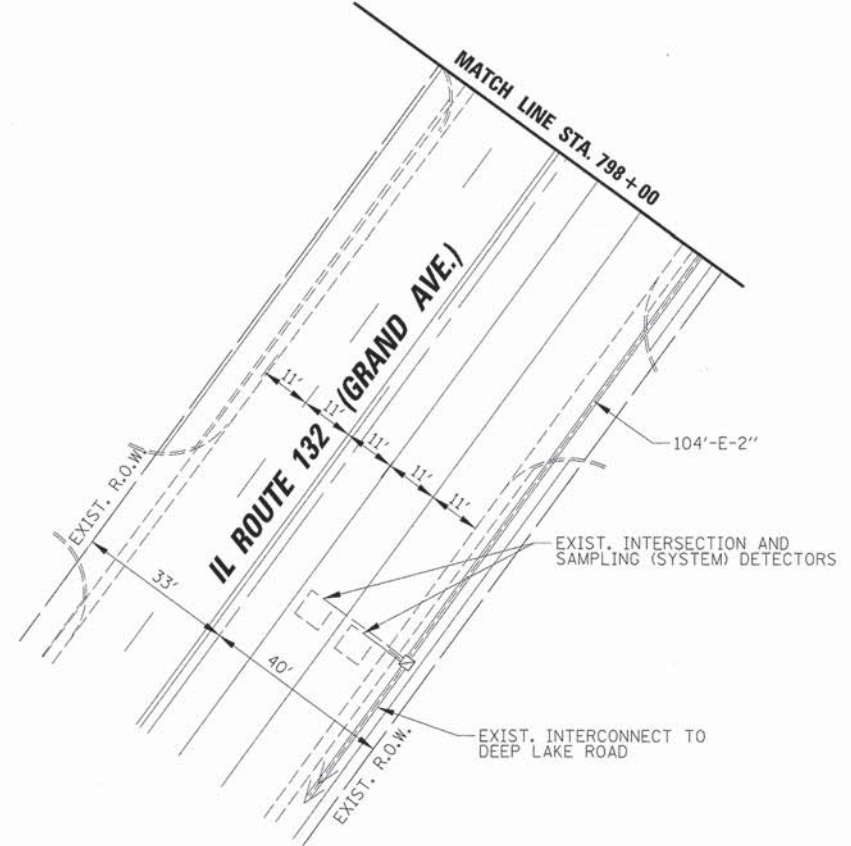
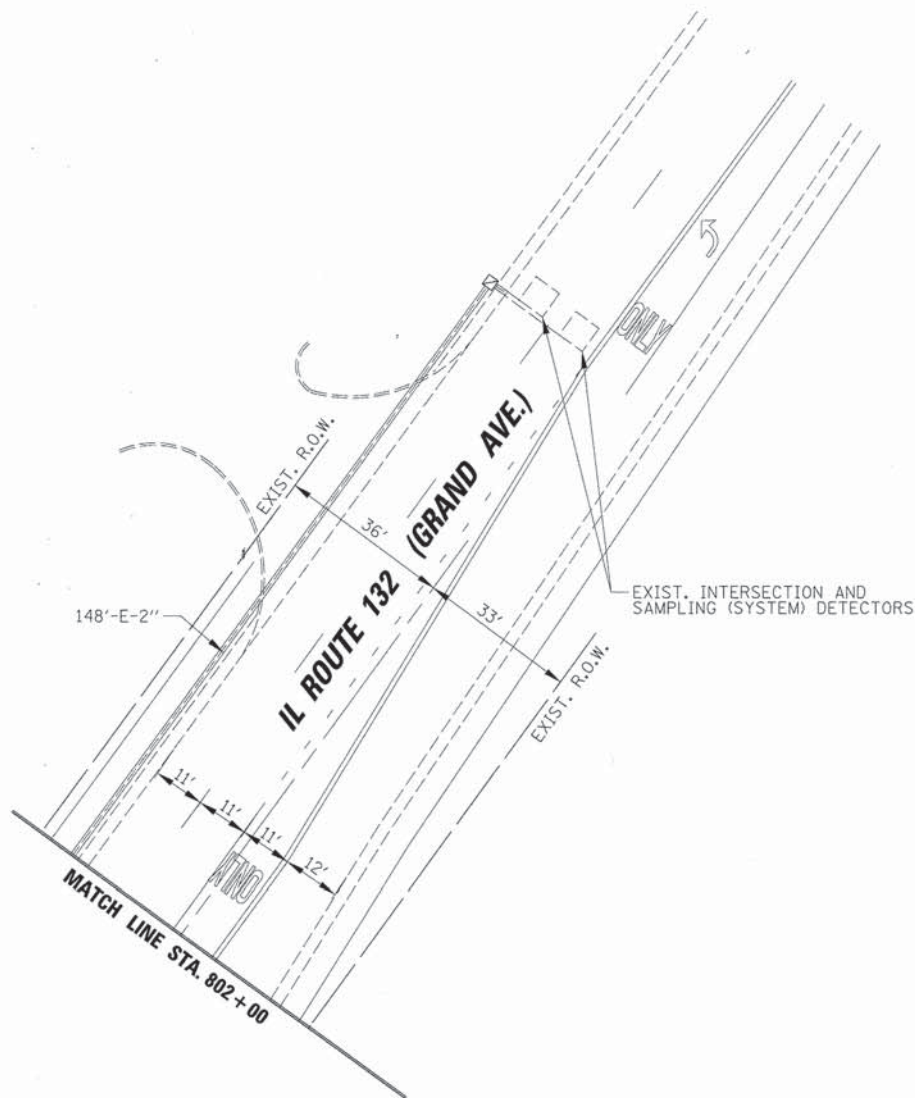
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	11
CONTRACT NO.			61A74	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS 6945

PROFILE	BY	DATE
NOTE BOOK NO.		
STRUCTURE NOTATION: CRFD		
PLAN	BY	DATE
NOTE BOOK NO.		
PAID FILE NAME		
SURVEYED		
ALIGNED		
RT. OF WAY CHECKED		
PAID FILE NAME		

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (647) 823-0500



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

TS 6945

FILE NAME = N:\C001\120226\4 - IL 83\Traffic\MOD.GRAND_02.dgn	USER NAME = fbariso	DESIGNED - EAJ	REVISED -
PLT SCALE = 20'		DRAWN - FPB	REVISED -
PLT DATE = 9/5/2014		CHECKED - GMZ	REVISED -
		DATE -	REVISED -

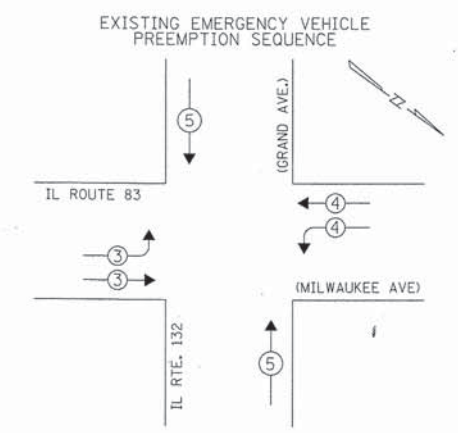
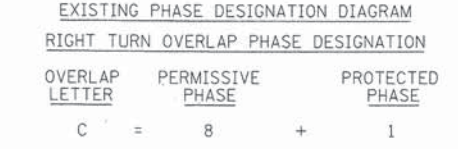
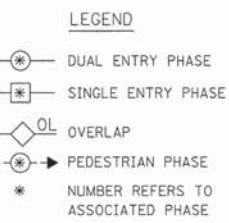
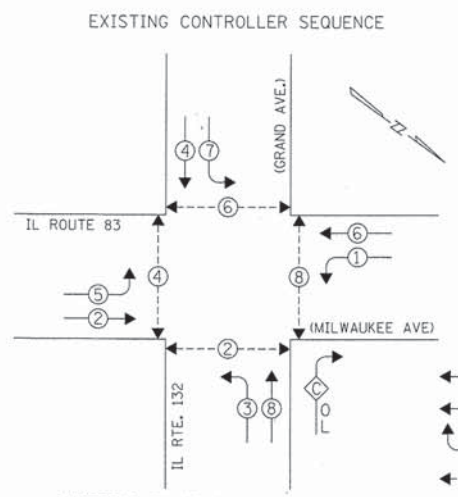
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL MODIFICATION PLAN IL ROUTE 83 (MILWAUKEE AVE.) AND IL ROUTE 132 (GRAND AVE.) (SHEET 2 OF 2)			
SCALE: 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	12
CONTRACT NO.			61A74	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SURVEYED BY: _____ DATE: _____
 PLANNED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 DRAWN BY: _____ DATE: _____
 PROJECT: _____
 SHEET NO.: _____ OF _____ SHEETS
 PROJECT TITLE: _____
 DRAWING TITLE: _____
 DATE: _____

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 8575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 825-0800
CB



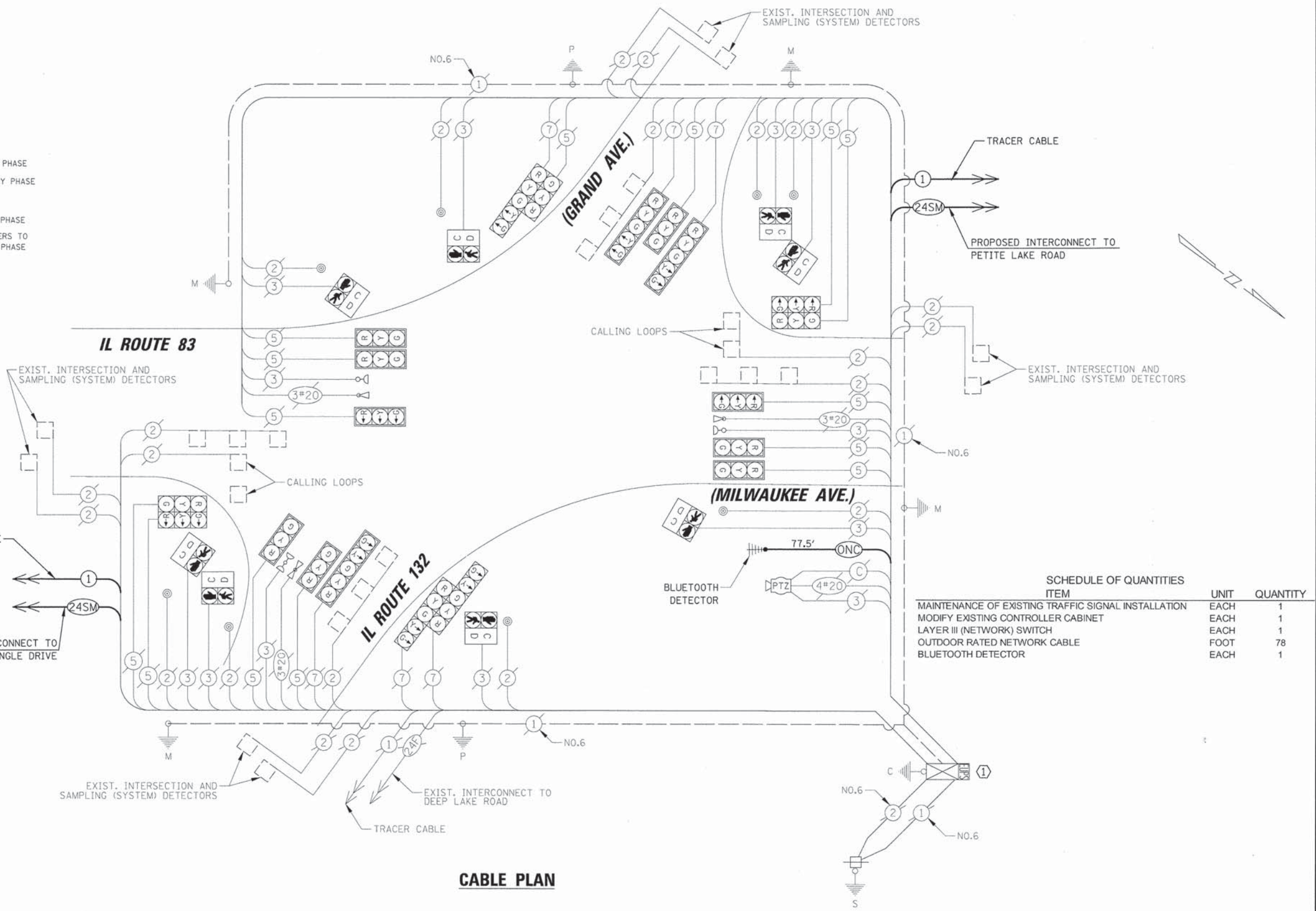
EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

PROPOSED INTERCONNECT TO ENGLE DRIVE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	20		17	0.50	170.00
(YELLOW)	20		25	0.25	125.00
(GREEN)	20		15	0.25	75.00
ARROW	12		12	0.10	14.40
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
LUMINAIRE	-		250	0.50	-
ILLUMINATED SIGN	-		25		-
PTZ CAMERA	1		100	1.00	100.00
BATTERY BACKUP SYSTEM	1		25	1.00	25.00
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 809.40



ENERGY SUPPLY: PHONE: (866) 639-3532
 COMPANY: COMED



CABLE PLAN

CONSTRUCTION NOTES:
 1 REMOVE EXISTING LAYER II SWITCH FROM THE EXISTING CABINET AND INSTALL LAYER III SWITCH. THE CONTRACTOR SHALL REPOSITION EXISTING EQUIPMENT IN CABINET IN A WORKMANLIKE MANNER TO ACCOMMODATE PROPOSED HARDWARE AND CABLES AS DIRECTED BY ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST OF MODIFY EXISTING CONTROLLER CABINET.

SCHEDULE OF QUANTITIES		
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
LAYER III (NETWORK) SWITCH	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	78
BLUETOOTH DETECTOR	EACH	1

FILE NAME =	USER NAME = fbariso	DESIGNED - EAJ	REVISED -
N:\L\CDOT\120226\4 - IL 83\Traffic\CAB.D	AND.dgn	DRAWN - FPB	REVISED -
	PLOT SCALE = 20'	CHECKED - GMZ	REVISED -
	PLOT DATE = 9/5/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

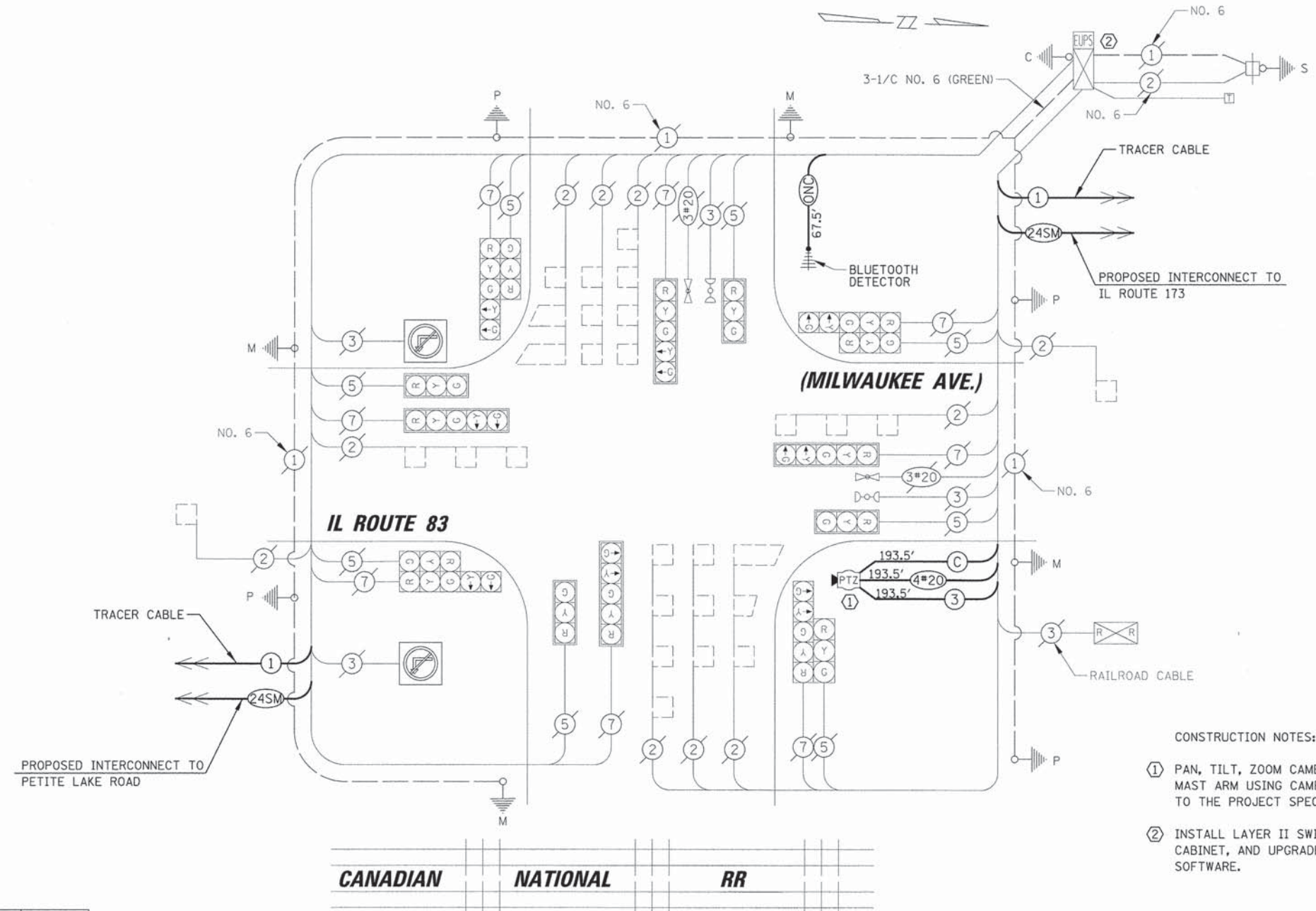
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL ROUTE 83 (MILWAUKEE AVE.) AND IL ROUTE 132 (GRAND AVE.)
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	13
CONTRACT NO.			61A74	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS 6945

BY: _____ DATE: _____
 SURVEYED _____
 PLANNED _____
 CHECKED _____
 NOTE BOOK NO. _____
 CADD FILE NAME _____
 PROJECT: _____
 SURVEYED _____
 PLANNED _____
 CHECKED _____
 NOTE BOOK NO. _____
 CADD FILE NAME _____

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



- CONSTRUCTION NOTES:**
- ① PAN, TILT, ZOOM CAMERA SHALL BE MOUNTED ON EXISTING MAST ARM USING CAMERA MOUNTING ASSEMBLY ACCORDING TO THE PROJECT SPECIAL PROVISIONS.
 - ② INSTALL LAYER II SWITCH AND VIDEO ENCODER IN EXISTING CABINET, AND UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	X % OPERATION	
SIGNAL (RED)	16	17		0.50	136.00
(YELLOW)	16	25		0.25	100.00
(GREEN)	16	15		0.25	60.00
ARROW	16	12		0.10	19.20
PED. SIGNAL	-	25		1.00	-
CONTROLLER	1	100		1.00	100.00
LUMINAIRE		250		0.50	-
ILLUMINATED SIGN	2	25		0.05	2.50
PTZ CAMERA	1	100		1.00	100.00
BATTERY BACKUP SYSTEM	1	25		1.00	25.00
FLASHER				0.50	-
ENERGY COSTS TO:					TOTAL = 542.70

SCHEDULE OF QUANTITIES		
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	194
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	194
ELECTRIC CABLE IN CONDUIT, VIDEO, NO. 20 4 C	FOOT	194
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	68
BLUETOOTH DETECTOR	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1



ENERGY SUPPLY: PHONE: (866) 639-3532
 COMPANY: COMED

FILE NAME =	USER NAME = fbariso	DESIGNED - EAJ	REVISED -
N:\CDDT\120226\4 - IL 83\Traffic\CAB_CROSSLAKE.dgn		DRAWN - FPB	REVISED -
		CHECKED - GMZ	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN
IL ROUTE 83 (MILWAUKEE AVE.) AND GRASS LAKE ROAD
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	17
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

TS 6970

CONTRACT NO. 61A74

PROFILE SURVEYED ALIGNED CHECKED BY DATE
 NOTE BOOK (S.M. NOTED) (S.M. CHECKED) (S.M. CHECKED) (S.M. CHECKED)
 STRUCTURE NOTATIONS C/P/D
 PLAN SURVEYED ALIGNED CHECKED BY DATE
 NOTE BOOK (S.M. NOTED) (S.M. CHECKED) (S.M. CHECKED) (S.M. CHECKED)
 CADD FILE NAME
 BY DATE
 SURVEYED ALIGNED CHECKED BY DATE
 NOTE BOOK (S.M. NOTED) (S.M. CHECKED) (S.M. CHECKED) (S.M. CHECKED)
 CADD FILE NAME

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 8575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (630) 925-0600
 CB
 EB

EXISTING RAILROAD PREEMPTION SEQUENCE OF OPERATION

															PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 2									
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	7	9	11	15	18	21																		
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER															2	3										
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1T	2	3	4	5	CLEAR TO NORMAL SEQUENCE				
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	2	2	1L	2	1N	2	10	2	1T	2	3	4	5						
IL. ROUTE 83 (MAIN ST.) NEAR RIGHT AND FAR RIGHT MAST ARM SIGNALS	N/B	R	R	Y	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	G	△				
IL. ROUTE 83 (MAIN ST.) END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	Y	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	G	△				
IL. ROUTE 83 (MAIN ST.) NEAR RIGHT AND FAR RIGHT MAST ARM SIGNALS	S/B	R	Y	R	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	G	△				
IL. ROUTE 83 (MAIN ST.) END MAST ARM AND FAR LEFT SIGNALS	S/B	R	Y	R	R	Y	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	G	△				
GRASS LAKE ROAD NEAR RIGHT AND FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	R	△				
GRASS LAKE ROAD END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	R	△				
GRASS LAKE ROAD NEAR RIGHT AND FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	R	R	R	R	G	R	R	G	G	R	R	G	G	G	Y	R	△				
GRASS LAKE ROAD END MAST ARM AND FAR LEFT SIGNALS	W/B	R	R	R	R	R	R	R	R	G	R	R	G	G	R	R	G	G	G	Y	R	△				
IL ROUTE 83 (MAIN ST.) NO LEFT TURN SIGNS	S/B	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	△				

NLT = "NO LEFT TURN" OR 

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

HOLD

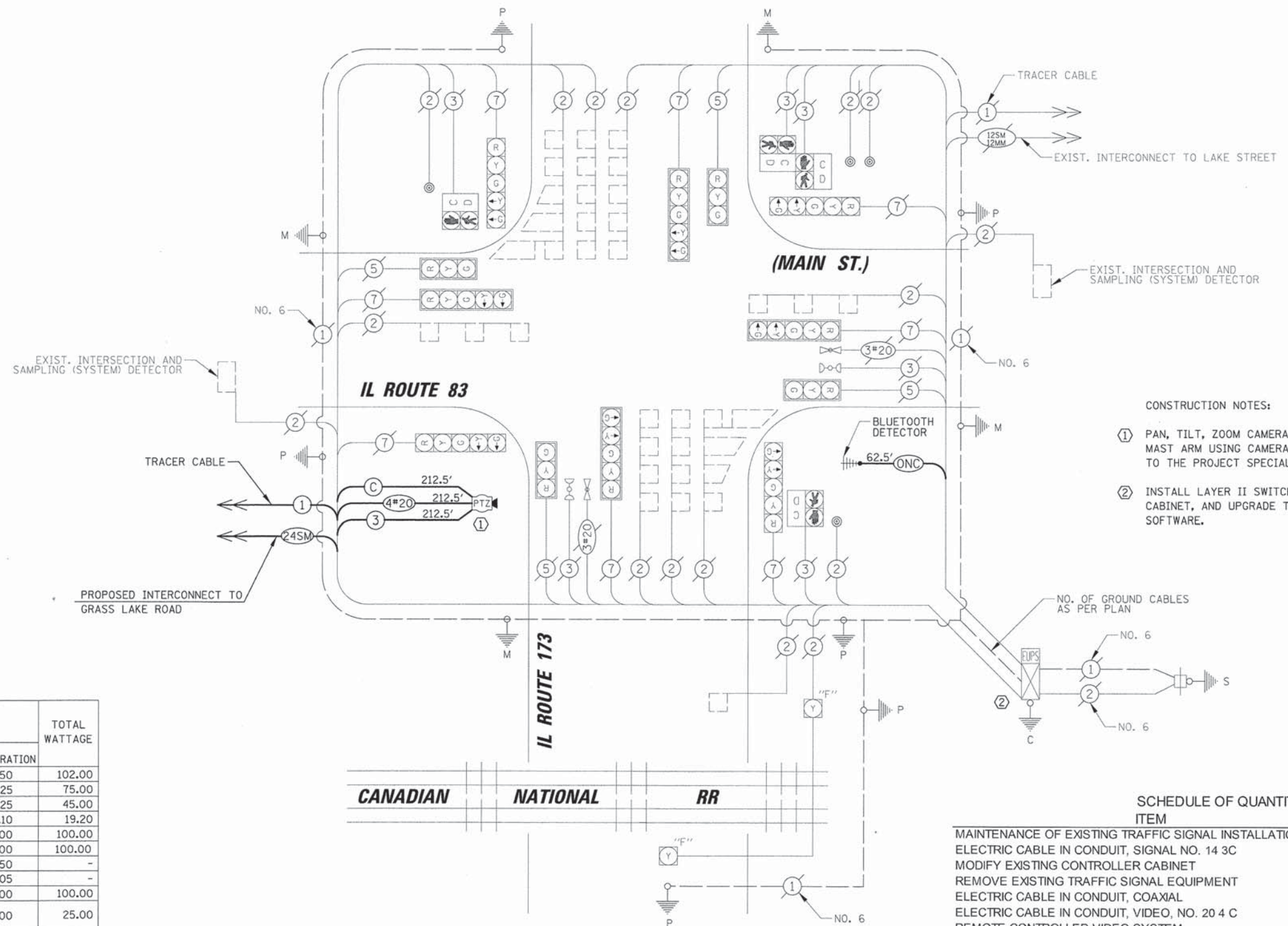
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

																			PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	CLEAR TO NORMAL SEQUENCE			
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	5	7	7	9	9	11	15	15	18	18	21	21										
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1T	1U	1V	1X	2	3		
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	2	1D	3	2	1G	3	2	1K	3	2 OR 3	1N	2	3	1R	2	3	1V	2	3			◇	
IL. ROUTE 83 (MAIN ST.) NEAR RIGHT AND FAR RIGHT MAST ARM SIGNALS	N/B	R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
IL. ROUTE 83 (MAIN ST.) END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
IL. ROUTE 83 (MAIN ST.) NEAR RIGHT AND FAR RIGHT MAST ARM SIGNALS	S/B	R	G	Y	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
IL. ROUTE 83 (MAIN ST.) END MAST ARM AND FAR LEFT SIGNALS	S/B	R	G	Y	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
GRASS LAKE ROAD NEAR RIGHT AND FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	R	R	G	R	G	R	◇
GRASS LAKE ROAD END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	R	R	G	R	G	R	◇
GRASS LAKE ROAD NEAR RIGHT AND FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	R	R	R	R	R	R	Y	R	G	R	R	R	G	R	G	R	G	R	◇
GRASS LAKE ROAD (WEST OF TRACKS) END MAST ARM AND FAR LEFT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	Y	R	G	R	R	R	G	R	G	R	G	R	◇

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

TS 6970

PROFILE SURVEYED BY DATE
 GRADES CHECKED BY DATE
 I.M. NOTED BY DATE
 STRUCTURE NOTED BY DATE
 PLAN SURVEYED BY DATE
 NOTE BOOK NO. _____
 PAID FILE NAME _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 6675 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
C.B.



- CONSTRUCTION NOTES:**
- ① PAN, TILT, ZOOM CAMERA SHALL BE MOUNTED ON EXISTING MAST ARM USING CAMERA MOUNTING ASSEMBLY ACCORDING TO THE PROJECT SPECIAL PROVISIONS.
 - ② INSTALL LAYER II SWITCH AND VIDEO ENCODER IN EXISTING CABINET, AND UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12	17	0.50		102.00
(YELLOW)	12	25	0.25		75.00
(GREEN)	12	15	0.25		45.00
ARROW	16	12	0.10		19.20
PED. SIGNAL	4	25	1.00		100.00
CONTROLLER	1	100	1.00		100.00
LUMINAIRE	-	250	0.50		-
ILLUMINATED SIGN	-	25	0.05		-
PTZ CAMERA	1	100	1.00		100.00
BATTERY BACKUP SYSTEM	1	25	1.00		25.00
FLASHER	2	25	0.50		25.00
ENERGY COSTS TO:					TOTAL = 591.20



ENERGY SUPPLY: PHONE: (866) 639-3532
 COMPANY: COMED

SCHEDULE OF QUANTITIES		
ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	213
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	213
ELECTRIC CABLE IN CONDUIT, VIDEO, NO. 20 4 C	FOOT	213
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
VIDEO ENCODER	EACH	1
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	63
BLUETOOTH DETECTOR	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1

TS 6950

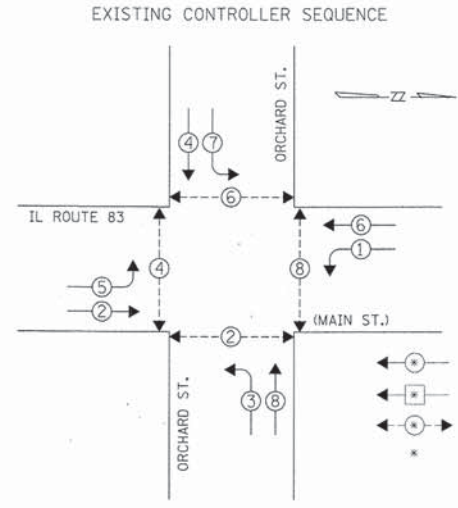
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 SURVIVED: _____
 CHECKED: _____
 RT. OF MAY CHECKED: _____
 ADD FILE NAME: _____

PLAN: _____
 NOTE BOOK NO.: _____
 NO.: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 822-0690

DATE: _____ BY: _____
 SURVIVED: _____
 CHECKED: _____
 RT. OF MAY CHECKED: _____
 ADD FILE NAME: _____

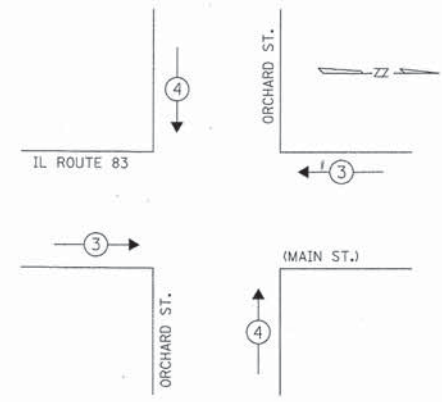
PROFILE: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 STRUCTURE NOTATION: _____



LEGEND
 DUAL ENTRY PHASE
 SINGLE ENTRY PHASE
 PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

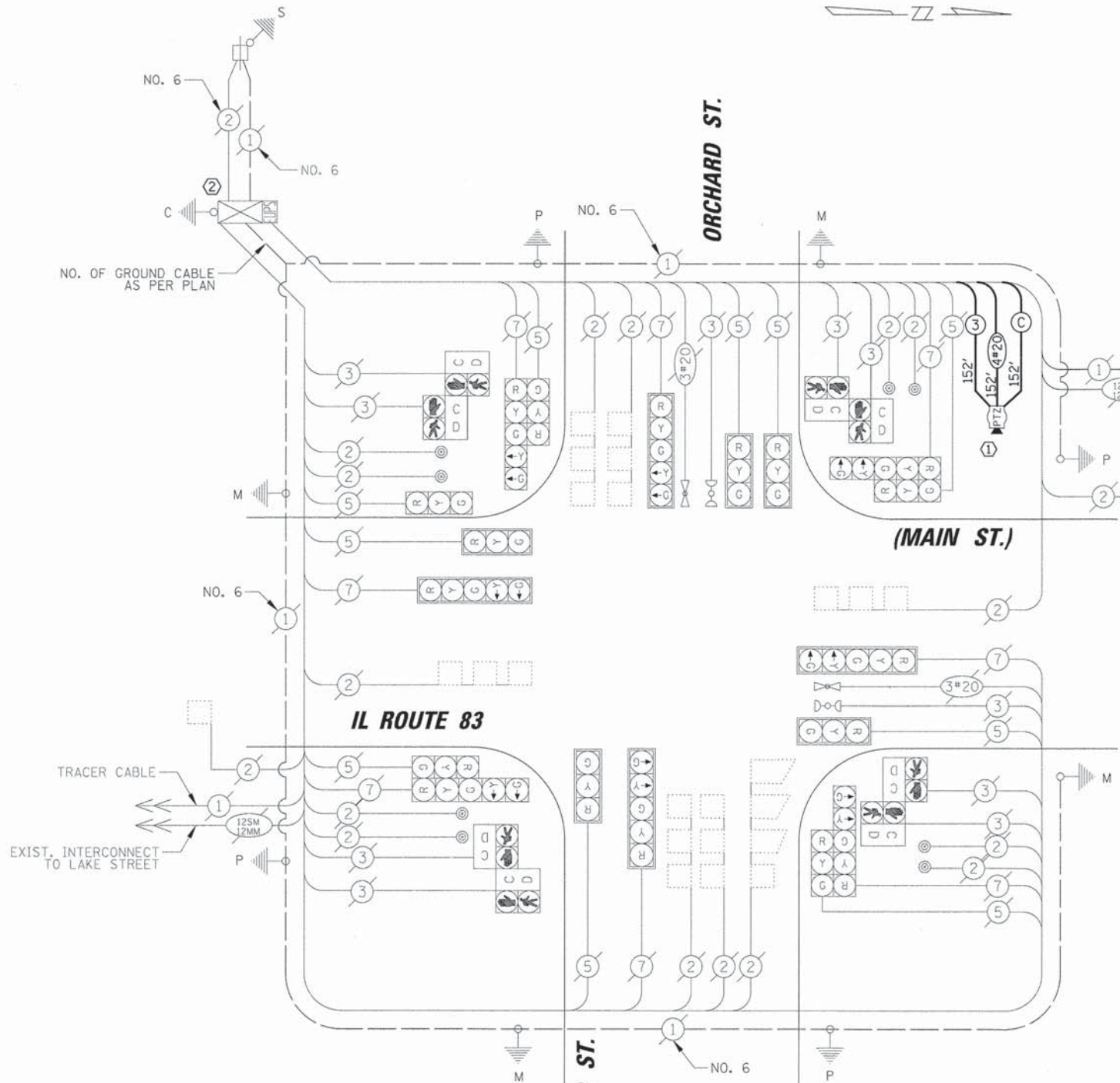


EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←	↑	→

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE x INCAND.	LED x % OPERATION		
SIGNAL (RED)	18		17	0.50	153.00
(YELLOW)	18		25	0.25	112.50
(GREEN)	18		15	0.25	67.50
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
LUMINAIRE	-		250	0.50	-
ILLUMINATED SIGN	-		25	0.05	-
PTZ CAMERA	1		100	1.00	100.00
BATTERY BACKUP SYSTEM	1		25	1.00	25.00
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	777.20



ENERGY SUPPLY: PHONE: (866) 639-3532
 COMPANY: COMED



CABLE PLAN

- CONSTRUCTION NOTES:
- 1 PAN, TILT, ZOOM CAMERA SHALL BE MOUNTED ON EXISTING COMBINATION MAST ARM ACCORDING TO THE PROJECT SPECIAL PROVISIONS.
 - 2 INSTALL LAYER II SWITCH AND VIDEO ENCODER IN EXISTING CABINET, AND UPGRADE TO LATEST VERSION NTCIP CONTROLLER SOFTWARE.

SCHEDULE OF QUANTITIES			
ITEM	UNIT	QUANTITY	
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	152	
MODIFY EXISTING CONTROLLER CABINET	EACH	1	
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	152	
ELECTRIC CABLE IN CONDUIT, VIDEO, NO. 20 4 C	FOOT	152	
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1	
LAYER II (DATALINK) SWITCH	EACH	1	
VIDEO ENCODER	EACH	1	
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1	

FILE NAME =	USER NAME = fbariso	DESIGNED = EAJ	REVISED =
N:\L\DOT\120226\4 - IL 83\Traffic\CAB_0\CHARD.dgn		DRAWN = FPB	REVISED =
		CHECKED = GMZ	REVISED =
		DATE = 9/5/2014	REVISED =

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

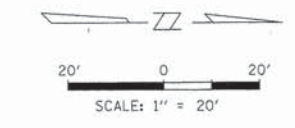
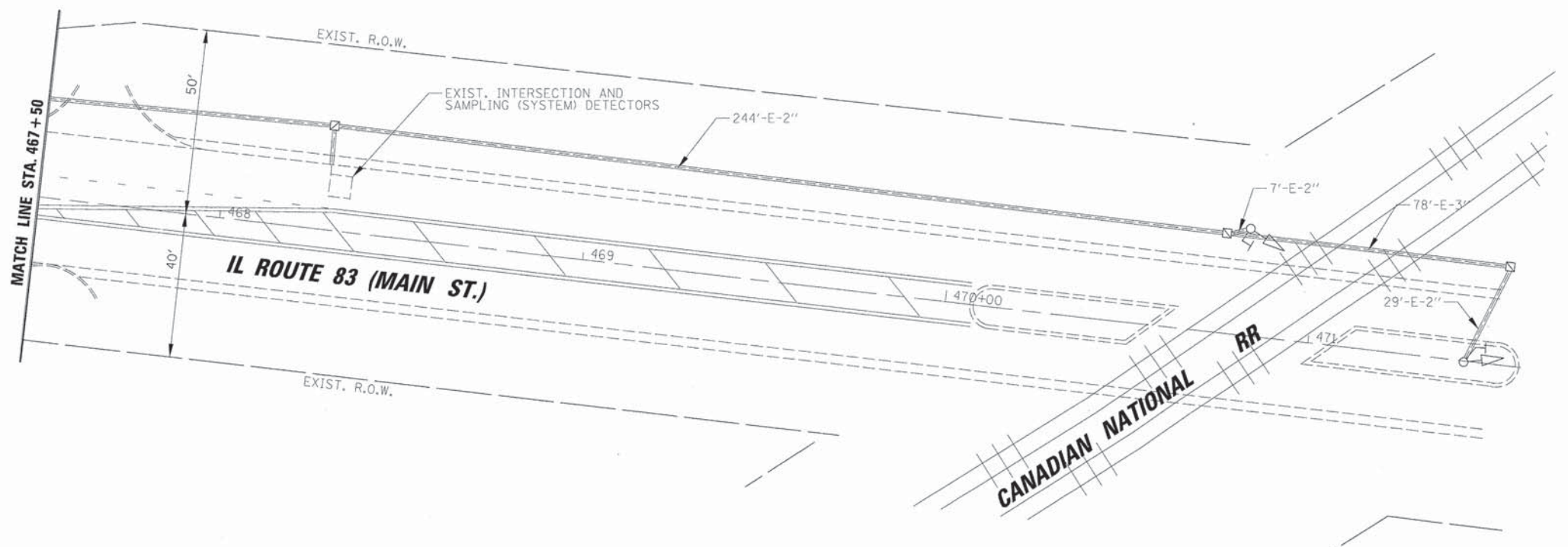
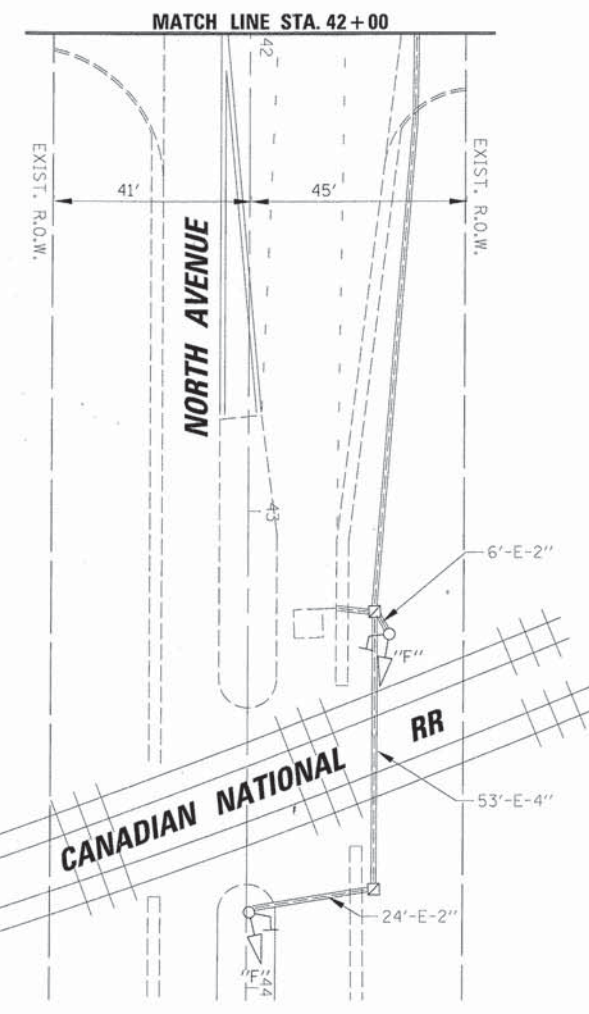
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
 DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 IL ROUTE 83 (MAIN STREET) AND ORCHARD STREET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	28
CONTRACT NO.			61A74	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TS 4712

PROFILE	DATE	BY
NOTED		
CHECKED		
STRUCTURE		
NOTATIONS		
CHKD		
NO.		
NOTE BOOK		
NO.		
PLANNED		
CHECKED		
BY		
DATE		
PLAN		
NO.		
NOTE BOOK		
NO.		
DATE		
BY		
DATE		

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9975 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



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

TS 4710

FILE NAME =	USER NAME = fbariso	DESIGNED = EAJ	REVISED =
\\N\CDOT\120226\4 - IL 83\Traffic\MOD\NORTH.02.dgn		DRAWN = FPB	REVISED =
	PLOT SCALE = 20'	CHECKED = GMZ	REVISED =
	PLOT DATE = 9/5/2014	DATE =	REVISED =

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 83 (MAIN ST.) AND NORTH AVENUE
(SHEET 2 OF 2)**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	30
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 61A74

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

	1	5	5	7	7	9	9	12	16	16	19	19	22	22	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	CLEAR TO NORMAL SEQUENCE																
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	2	3					
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	1C	2	1E	3	1G	2	1J	3	2	1M	1N	3	2 OR 3	1S	2	1U	3	1W	2	1Y	3	1AA	1BB	2	3							
IL. ROUTE. 83 (MAIN ST.) FAR RIGHT MAST ARM SIGNAL	N/B	R	R	R	R	G	G	G	Y	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇				
IL. ROUTE. 83 (MAIN ST.) END MAST ARM AND FAR LEFT SIGNALS	N/B	R ← Y	R	R	R	R	G ← G	G ← Y	G ← G	Y	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇			
IL. ROUTE. 83 (MAIN ST.) FAR LEFT MAST ARM SIGNAL	S/B	R	G	G	G	Y	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇			
IL. ROUTE. 83 (MAIN ST.) END MAST ARM AND FAR LEFT SIGNALS	S/B	R ← Y	G ← G	G ← Y	G ← G	Y	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇			
NORTH AVENUE FAR RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	G	G	G	Y	R	G	R	G	◇			
NORTH AVENUE END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	G	G	Y	R	G	R	G	◇				
NORTH AVENUE FAR RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	G	G	Y	R	G	R	G	◇				
NORTH AVENUE END MAST ARM AND FAR LEFT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	G	G	Y	R	G	R	G	◇				
NORTH AVENUE FLASHING SIGNALS (EAST & WEST OF RR TRACKS)	W/B	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	DARK	FL Y	DARK	DARK	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	DARK	FL Y	DARK	◇
IL. ROUTE. 83 (MAIN ST.) FLASHING SIGNALS NORTH AND SOUTH OF RR TRACKS	S/B	FL Y	DARK	DARK	DARK	FL Y	FL Y	FL Y	FL Y	FL Y	DARK	DARK	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	FL Y	DARK	FL Y	◇
PEDESTRIAN SIGNALS CROSSING IL RTE 83 (MAIN ST) ON NORTH SIDE OF NORTH AVE.	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	FH	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	◇	
PEDESTRIAN SIGNALS CROSSING IL RTE 83 (MAIN ST) ON SOUTH SIDE OF NORTH AVE.	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	FH	H	FH	H	H	FH	H	H	H	H	H	H	◇
PEDESTRIAN SIGNALS CROSSING NORTH AVENUE ON EAST SIDE OF IL ROUTE 83	H	H	H	H	H	FH	H	FH	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇
PEDESTRIAN SIGNALS CROSSING NORTH AVENUE ON WEST SIDE OF IL ROUTE 83	H	FH	H	FH	H	H	H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK
 FL = FLASHING YELLOW
 Y

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE 2 OR 3 IS TERMINATED.

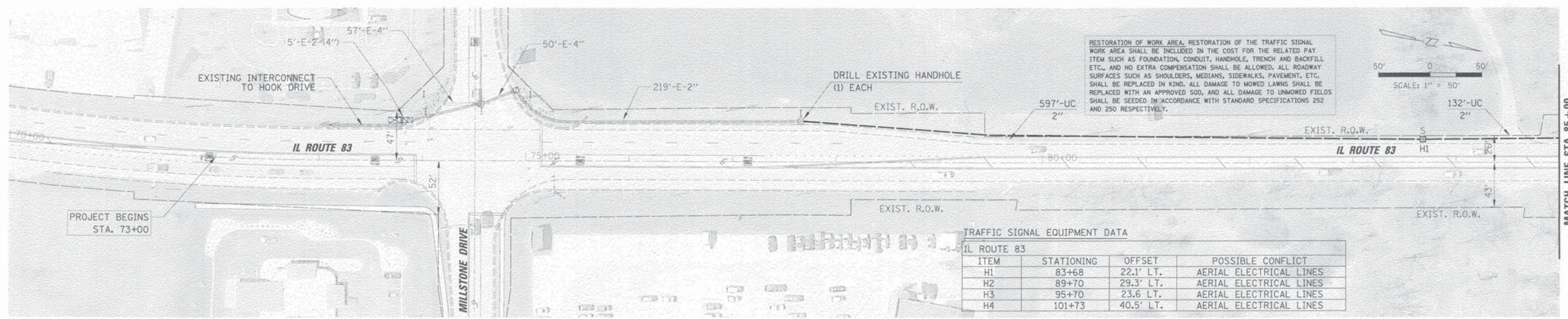
DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 CHECKED: _____
 DATE: _____ BY: _____
 PROFILE: _____
 CHECKED: _____
 DATE: _____ BY: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 5975 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

PROFILE SURVEYS
 CHECKED
 DATE
 NO.
 STRUCTURE NOTES: OK'D
 NO.

PLAN
 SURVEYED
 IN CONFORMITY WITH
 ILL. SURVEYING ACT
 NO. 120/03
 DATE
 NO.

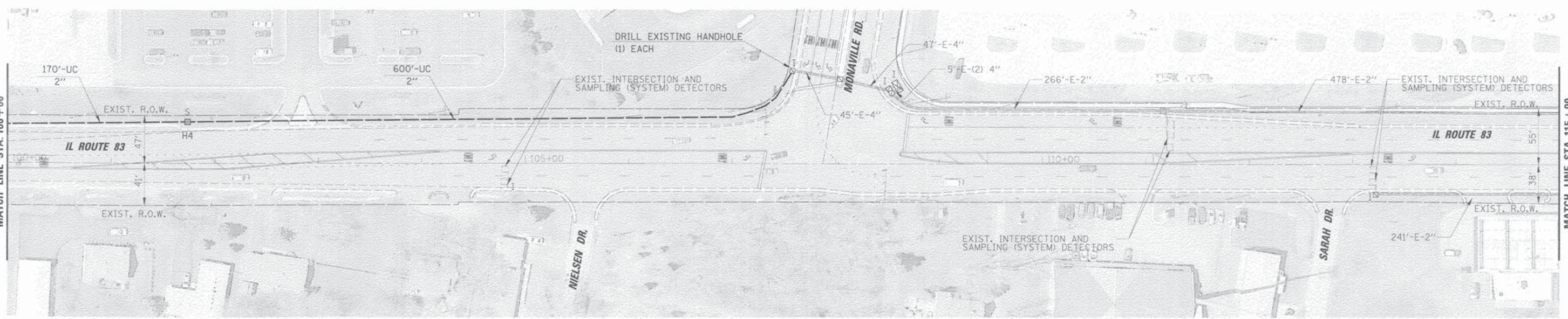
CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



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

TRAFFIC SIGNAL EQUIPMENT DATA

ITEM	STATIONING	OFFSET	POSSIBLE CONFLICT
H1	83+68	22.1' LT.	AERIAL ELECTRICAL LINES
H2	89+70	29.3' LT.	AERIAL ELECTRICAL LINES
H3	95+70	23.6' LT.	AERIAL ELECTRICAL LINES
H4	101+73	40.5' LT.	AERIAL ELECTRICAL LINES



PROFILE SURVEYED
 NOTE BOOK
 DATE NOTED
 NO.

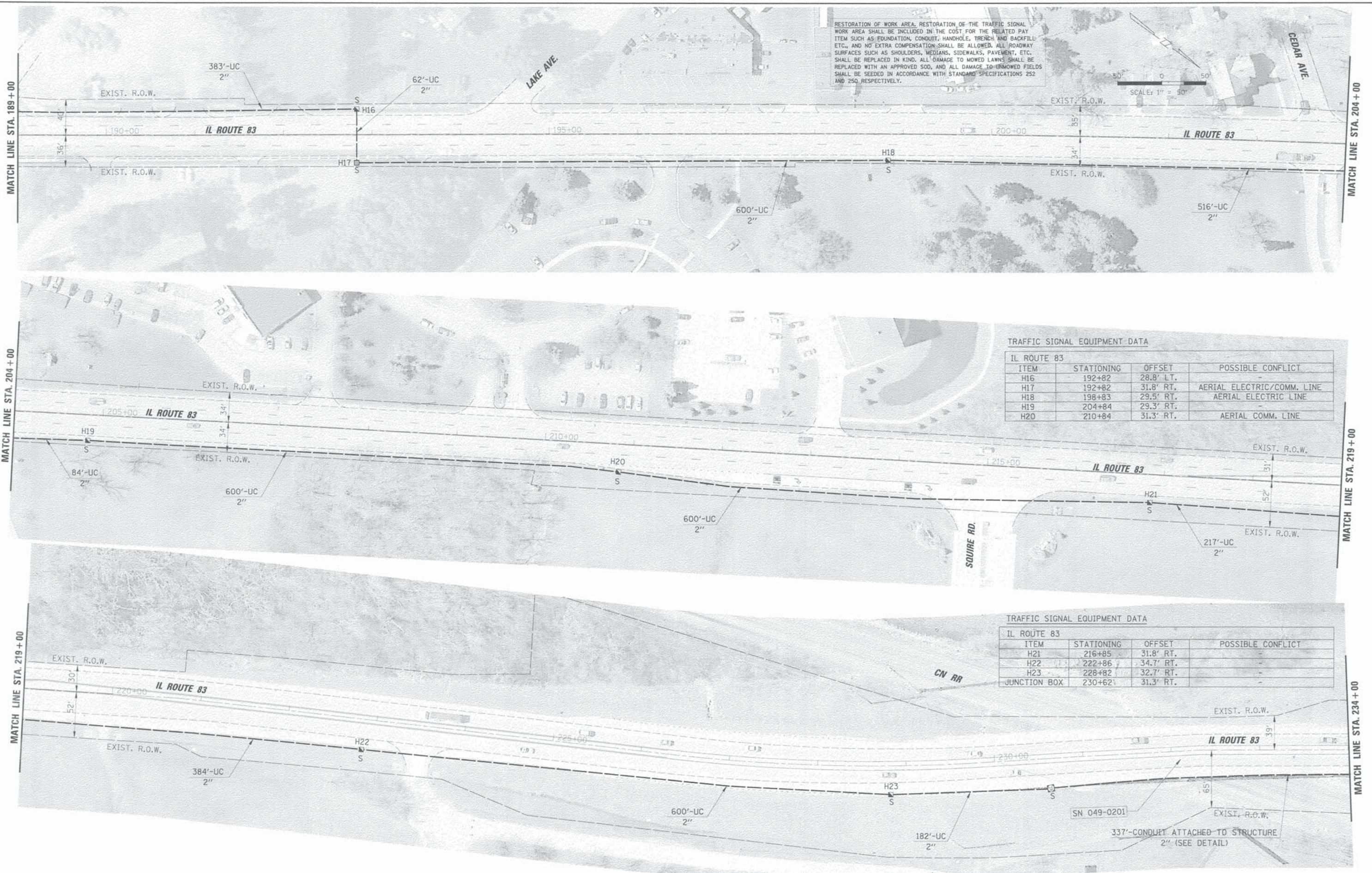
PLAN
 DATE BOOK
 NO.

SURVEYED
 CHECKED
 BY
 DATE

PROJECT
 NO.

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 923-0500

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



TRAFFIC SIGNAL EQUIPMENT DATA

IL ROUTE 83			
ITEM	STATIONING	OFFSET	POSSIBLE CONFLICT
H16	192+82	28.8' LT.	-
H17	192+82	31.8' RT.	AERIAL ELECTRIC/COMM. LINE
H18	198+83	29.5' RT.	AERIAL ELECTRIC LINE
H19	204+84	29.3' RT.	-
H20	210+84	31.3' RT.	AERIAL COMM. LINE

TRAFFIC SIGNAL EQUIPMENT DATA

IL ROUTE 83			
ITEM	STATIONING	OFFSET	POSSIBLE CONFLICT
H21	216+85	31.8' RT.	-
H22	222+86	34.7' RT.	-
H23	228+82	32.7' RT.	-
JUNCTION BOX	230+62	31.3' RT.	-

FILE NAME	USER NAME	DESIGNED	REVISED
N:\CDDT\1282254 - IL 83\T-INT\PLAN\1282254.dwg	FBIER230	SRD	-
		DRAWN	FPB
		CHECKED	GMZ
		DATE	-
			REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

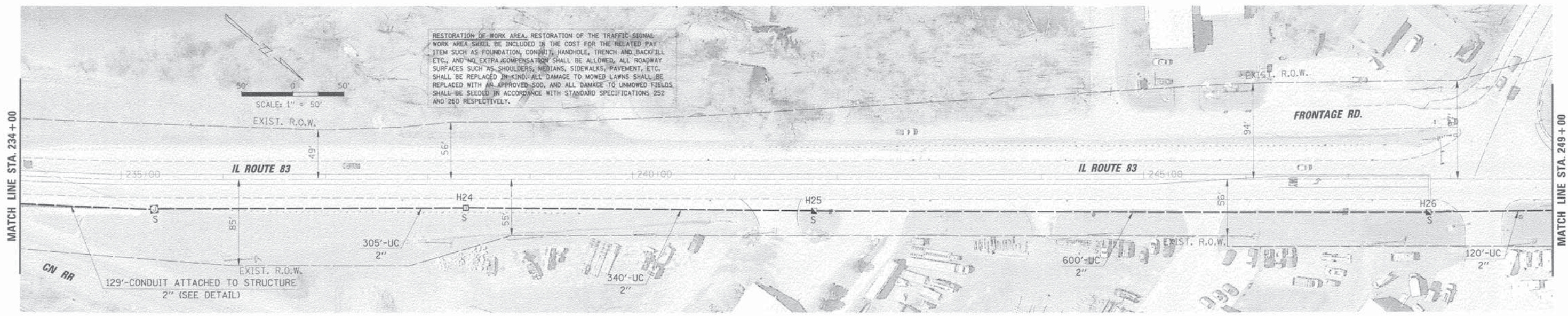
INTERCONNECT PLAN
 IL ROUTE 83 FROM MILLSTONE DRIVE TO NORTH AVENUE
 (SHEET 4 OF 12)

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	37
CONTRACT NO.			61A74	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PROJECT: SURVEYED
 DRAWN BY: J. BURKE
 CHECKED BY: J. BURKE
 DATE: 9/15/2014
 PROJECT: SURVEYED
 DRAWN BY: J. BURKE
 CHECKED BY: J. BURKE
 DATE: 9/15/2014

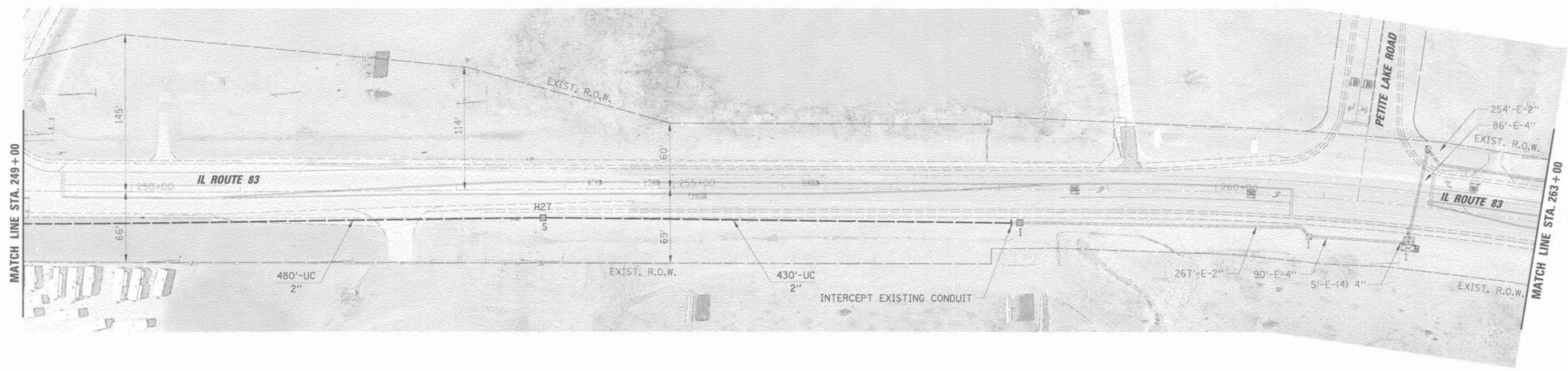
CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0660



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

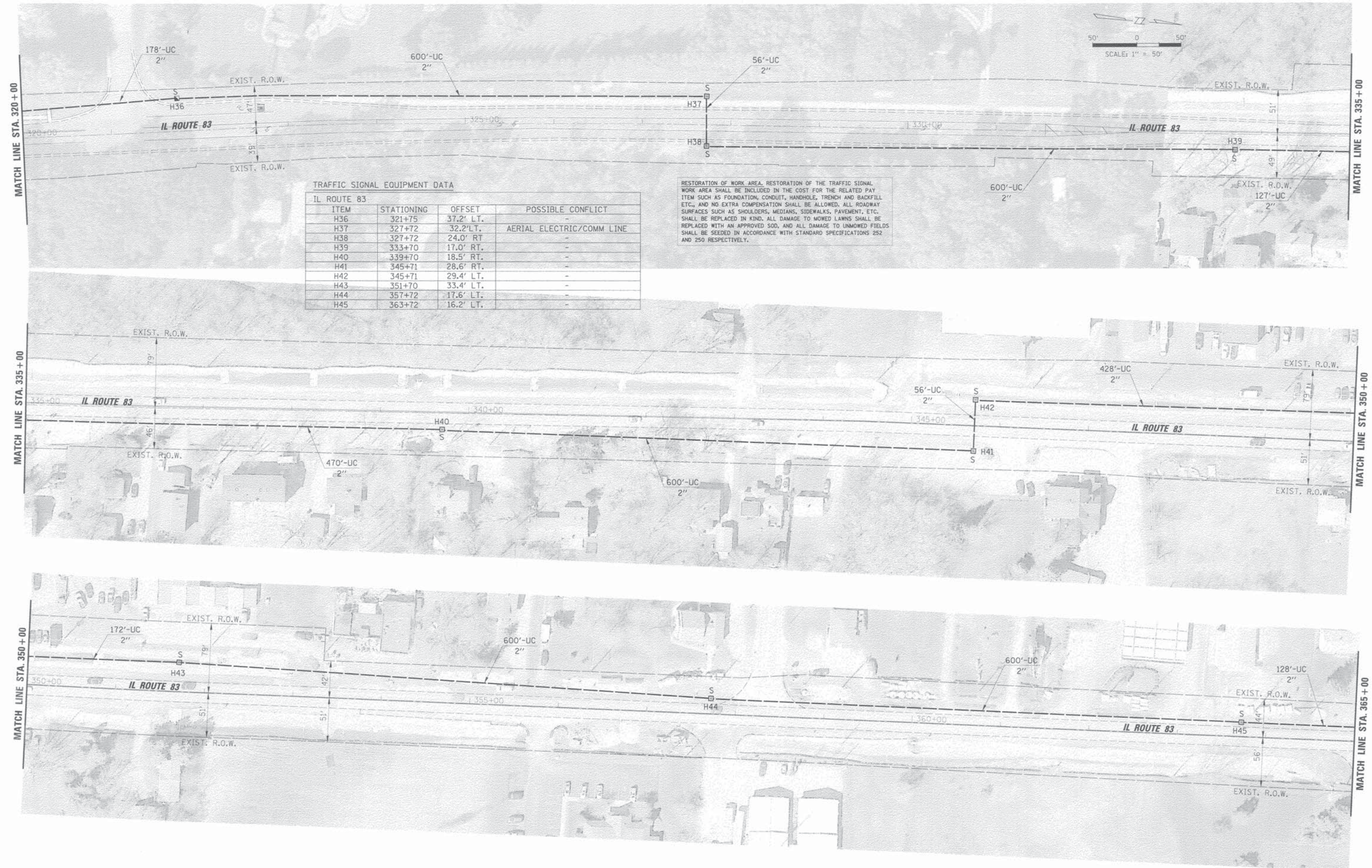
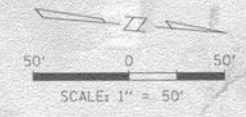
TRAFFIC SIGNAL EQUIPMENT DATA

IL ROUTE 83			
ITEM	STATIONING	OFFSET	POSSIBLE CONFLICT
JUNCTION BOX	235+32	29.2' RT.	-
H24	238+37	28.1' RT.	-
H25	241+78	31.0' RT.	-
H26	247+79	32.4' RT.	-
H27	253+79	26.3' RT.	-



PROFILE SHEET NO. 0866
 DATE 12/15/14
 CHECKED BY GMZ
 DRAWN BY FFB
 DESIGNED BY SRD
 USER NAME fbaris
 FILE NAME N:\C007\12822614 - IL 83\Interconnect\INT_83_08.dgn

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 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
CB



TRAFFIC SIGNAL EQUIPMENT DATA

ITEM	STATIONING	OFFSET	POSSIBLE CONFLICT
H36	321+75	37.2' LT.	-
H37	327+72	32.2' LT.	AERIAL ELECTRIC/COMM LINE
H38	327+72	24.0' RT	-
H39	333+70	17.0' RT.	-
H40	339+70	18.5' RT.	-
H41	345+71	28.6' RT.	-
H42	345+71	29.4' LT.	-
H43	351+70	33.4' LT.	-
H44	357+72	17.6' LT.	-
H45	363+72	16.2' LT.	-

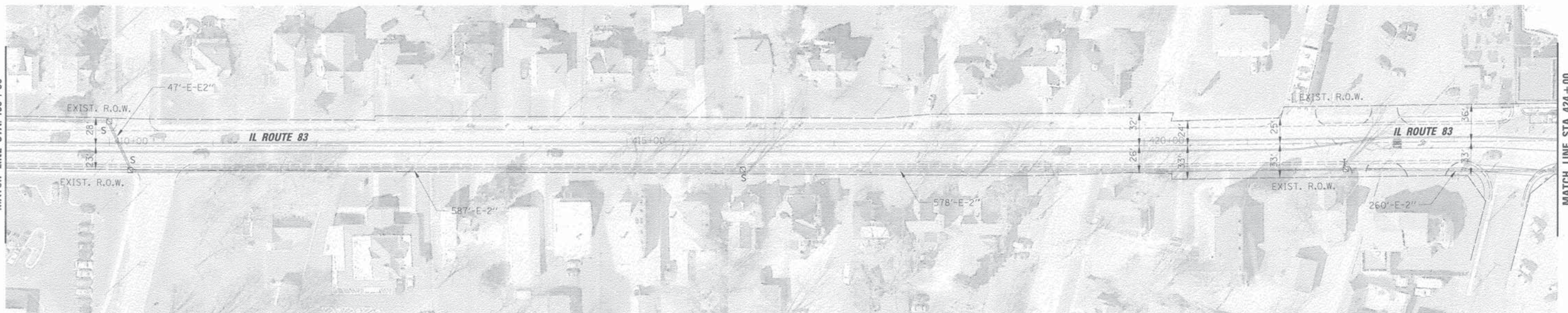
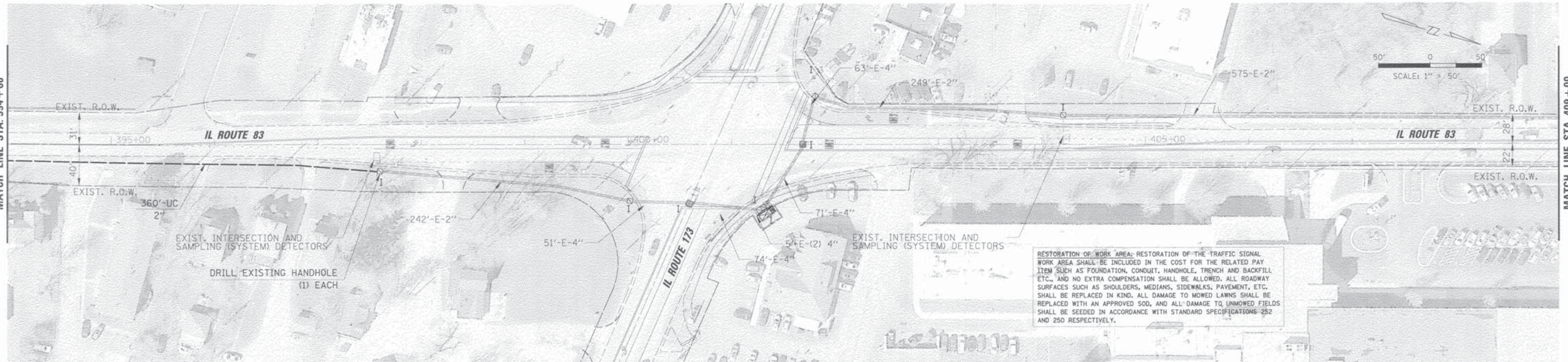
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE COST FOR THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT,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

FILE NAME: N:\C007\12822614 - IL 83\Interconnect\INT_83_08.dgn USER NAME: fbaris DESIGNED: SRD DRAWN: FFB CHECKED: GMZ DATE: 12/15/14	DESIGNED: SRD DRAWN: FFB CHECKED: GMZ DATE: 12/15/14	REVISED: - REVISED: - REVISED: - REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN IL ROUTE 83 FROM MILLSTONE DRIVE TO NORTH AVENUE (SHEET 8 OF 12)	F.A.P. RTE. 0866 SECTION 12-00999-25-TL COUNTY LAKE TOTAL SHEETS 61 SHEET NO. 41 CONTRACT NO. 61A74
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PROFILE DATE
 SURVEYED
 DRAWN
 CHECKED
 IN CHARGE
 DATE
 FILE NAME
 DATE
 PLAN DATE
 SURVEYED
 DRAWN
 CHECKED
 IN CHARGE
 DATE
 FILE NAME

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 8575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 922-0900

PROFILE DATE
 SURVEYED
 DRAWN
 CHECKED
 IN CHARGE
 DATE
 FILE NAME



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

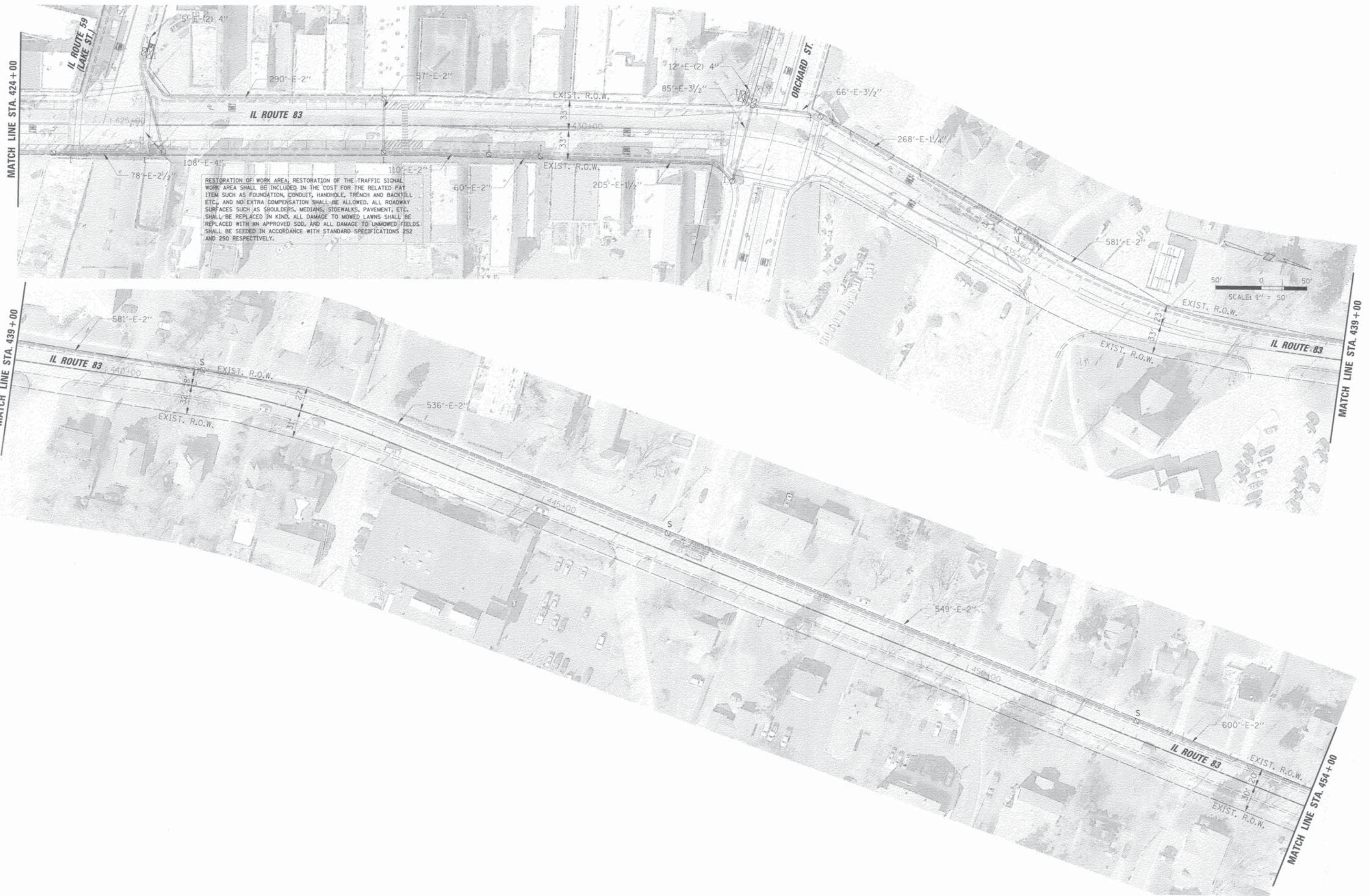
FILE NAME =	USER NAME = fbariso	DESIGNED = SRD	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN IL ROUTE 83 FROM MILLSTONE DRIVE TO NORTH AVENUE (SHEET 10 OF 12)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
W:\CD07\120220\4 - IL 83\107\Fig\INT_10.dgn	PL01 SCALE = 50'	DRAWN = FPB	REVISED =			0866	12-00999-25-TL	LAKE	61	43	
PL01 DATE = 9/2/2014	PL01 DATE = 9/2/2014	CHECKED = GMZ	REVISED =			SCALE: 1" = 50'		SHEET NO. OF SHEETS		CONTRACT NO. 61A74	
		DATE	REVISED =			STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

PROFILE
 DATE
 BY
 CHECKED
 DATE
 NO.

SERVICES
 CHECKED
 DATE
 NO.

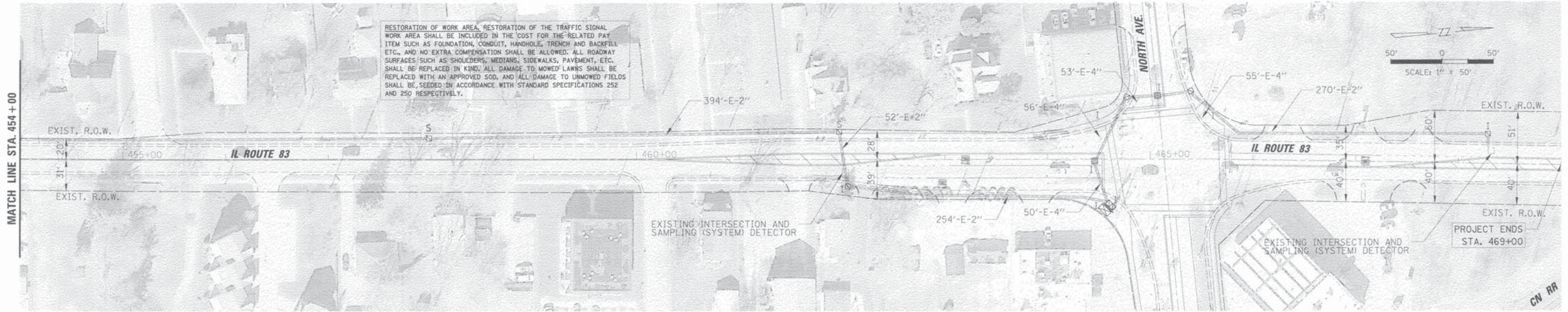
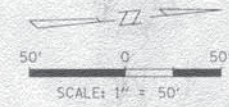
PLAN
 DATE
 BY
 CHECKED
 DATE
 NO.

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60631
 (847) 929-0500



FILE NAME: N:\0201\12222614 - IL 83\1+Aff\10\INT_03.Dwg	USER NAME: fbariss	DESIGNED: SRD	REVISED:	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN IL ROUTE 83 FROM MILLSTONE DRIVE TO NORTH AVENUE (SHEET 11 OF 12)	F.A.P. RTE. 0866	SECTION 12-00999-25-TL	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 44	CONTRACT NO. 61A74
SCALE: 1" = 50'	PLOT SCALE: 50'	DRAWN: FPB	REVISED:			SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
CHECKED: GMZ	DATE:	DATE:	REVISED:								
PLOT DATE: 1/9/2014											

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



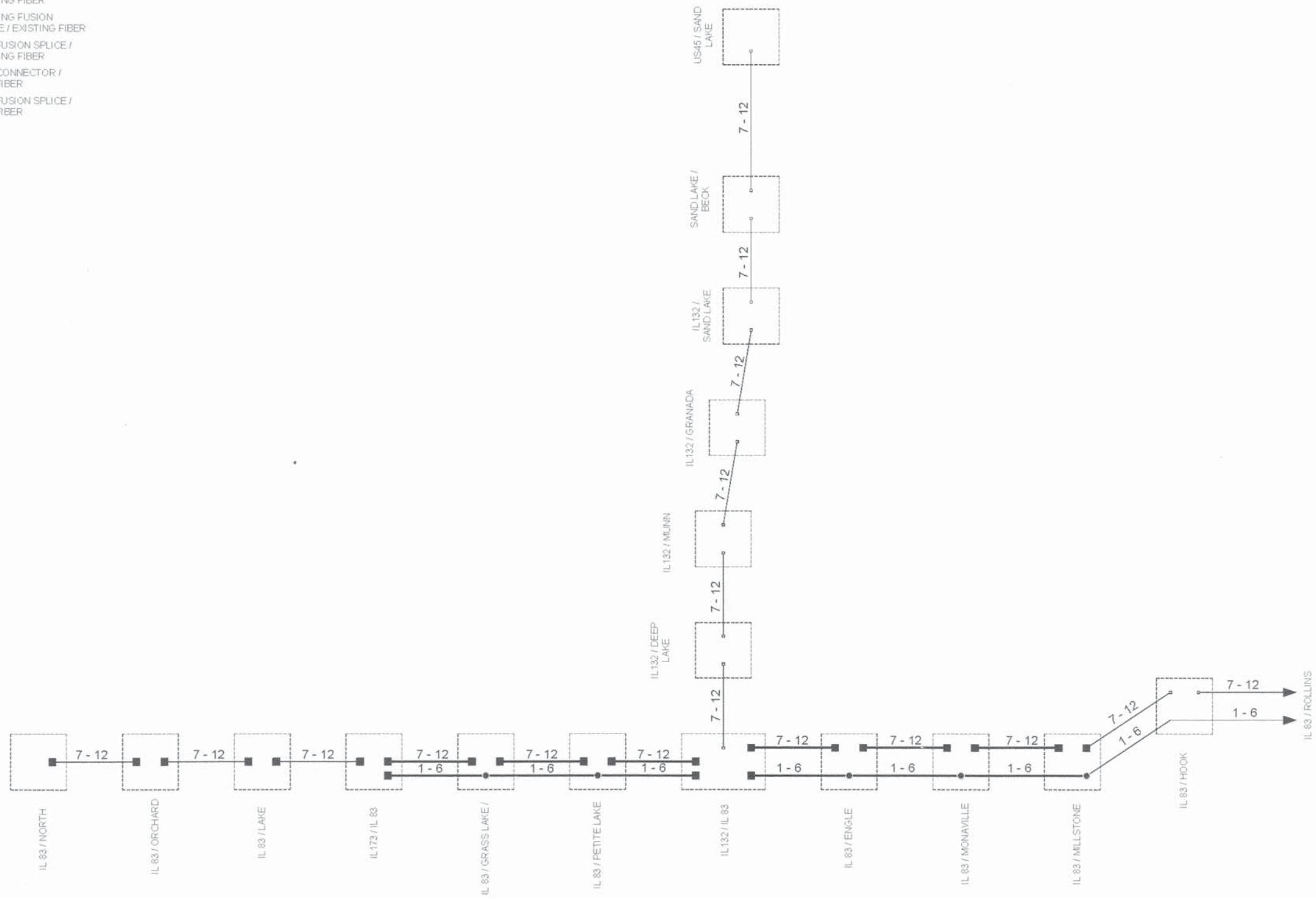
PROFILE	DATE
PLANNING	DATE
DESIGN	DATE
CHECKED	DATE
APPROVED	DATE
DATE	

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 ENGINEERING LTD.
 8575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

FILE NAME =	USER NAME = fbariso	DESIGNED = SRD	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN IL ROUTE 83 FROM MILLSTONE DRIVE TO NORTH AVENUE (SHEET 12 OF 12)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\\NLC001\128226\4 - IL 83\Trf\Fig\INT 12	03.12.rdg	DRAWN = FPB	REVISED =		0866	12-00999-25-TL	LAKE	61	45			
	PLDT SCALE = 50'	CHECKED = GMZ	REVISED =		SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 61A74				
	PLDT DATE = 5/5/2014	DATE =	REVISED =		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

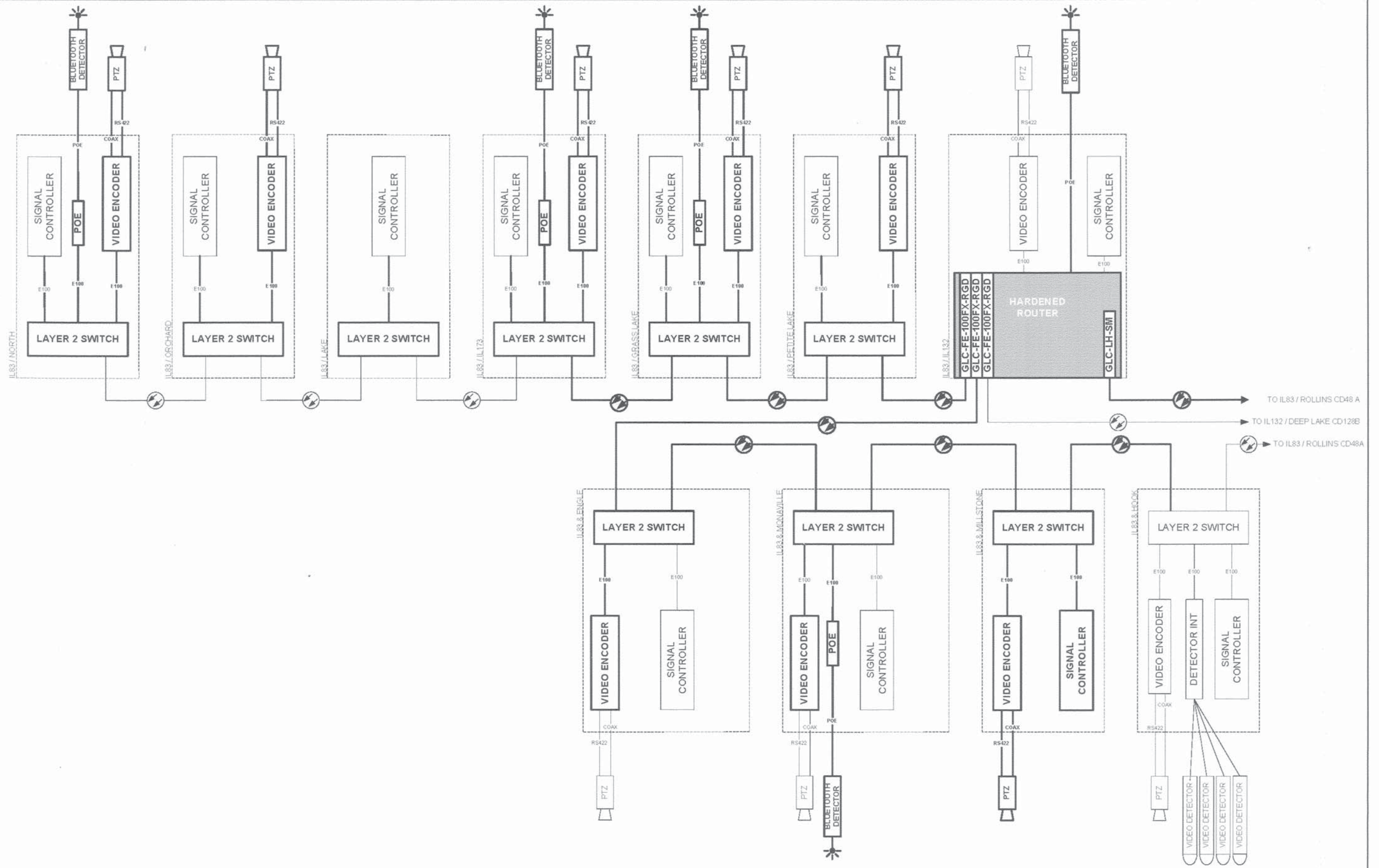


- FUTURE FIBER
- EXISTING CONNECTOR / EXISTING FIBER
- NEW CONNECTOR / EXISTING FIBER
- EXISTING FUSION SPLICE / EXISTING FIBER
- NEW FUSION SPLICE / EXISTING FIBER
- NEW CONNECTOR / NEW FIBER
- NEW FUSION SPLICE / NEW FIBER

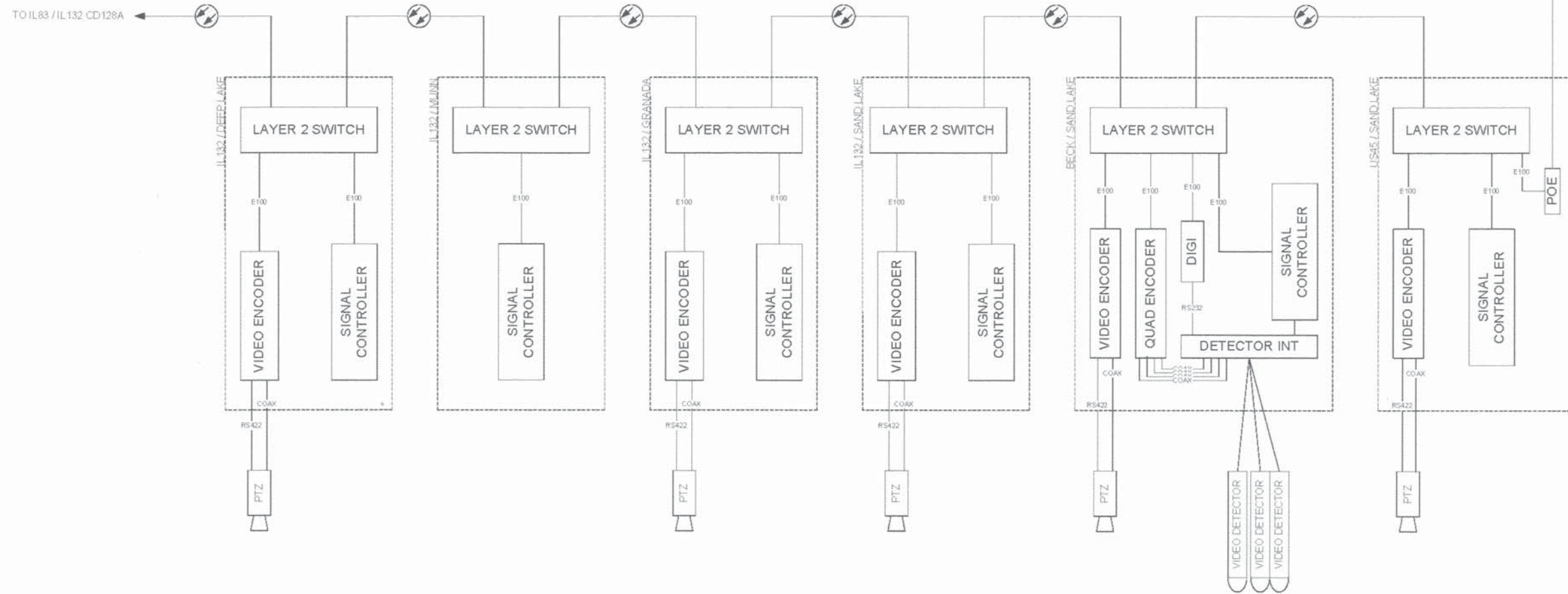
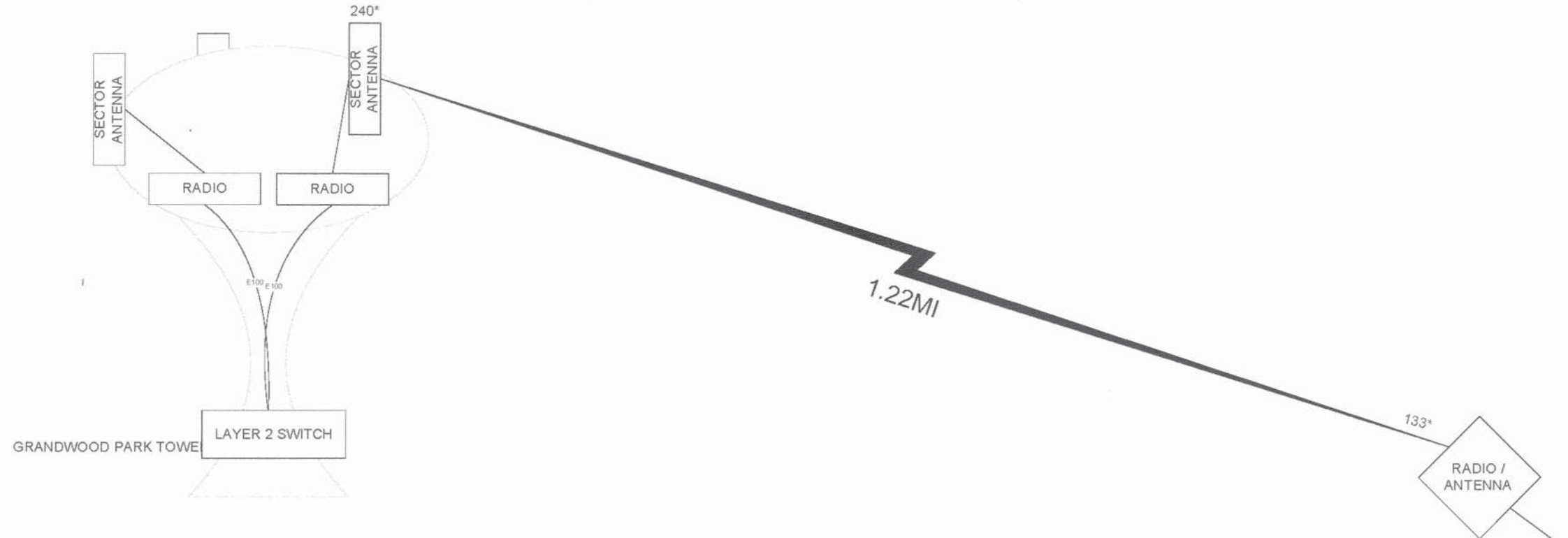


	DESIGNED - DG	REVISED - 2013.11.27	LAKE COUNTY DIVISION OF TRANSPORTATION	FIBER SPLICING DIAGRAM IL83 FROM MILLSTONE TO NORTH	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	DRAWN - YM	REVISED -			IL 83	12-00999-25-IL		48	61
	CHECKED - DG	REVISED -							
	DATE 08/16/11	REVISED -			CONTRACT No. 61A74				

SCALE N/A



DESIGNED - DG	REVISED - 2013.11.27	LAKE COUNTY DIVISION OF TRANSPORTATION	128A IL83 / IL132		ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
DRAWN - YM	REVISED -		SCALE N/A	IL 83	12-00999-25-TL		49	61	
CHECKED - DG	REVISED -								
DATE 08/16/11	REVISED -								
CONTRACT NO. 61A74									



TO IL83 / IL132 CD128A

DESIGNED - DG	REVISED - 2013.11.27	LAKE COUNTY DIVISION OF TRANSPORTATION	128B	ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
DRAWN - YM	REVISED -		IL83 / IL132	IL 83	12-001999		50	61
CHECKED - DG	REVISED -		SCALE N/A		25-TL			
DATE 08/16/11	REVISED -							

LC4202

CONCRETE WASHOUT FACILITIES
SHEET 1 OF 2

APPROVED BY: MGZ
DATE: March 17, 2008

Lake County
Division of Transportation

CONCRETE WASHOUT FACILITIES
SHEET 1 OF 2

REVISIONS DATE

NOT TO SCALE

BELOW GRADE

PLAN VIEW

SECTION A-A

SECTION B-B

NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. OTHER WASHOUT DESIGNS MAY BE USED IF APPROVED BY THE ENGINEER.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

LC4202

CONCRETE WASHOUT FACILITIES
SHEET 2 OF 2

APPROVED BY: MGZ
DATE: March 17, 2008

Lake County
Division of Transportation

CONCRETE WASHOUT FACILITIES
SHEET 2 OF 2

REVISIONS DATE

NOT TO SCALE

ABOVE GRADE

PLAN VIEW

SECTION C-C

SECTION D-D

STRAW BALES

NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. OTHER WASHOUT DESIGNS MAY BE USED IF APPROVED BY THE ENGINEER.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

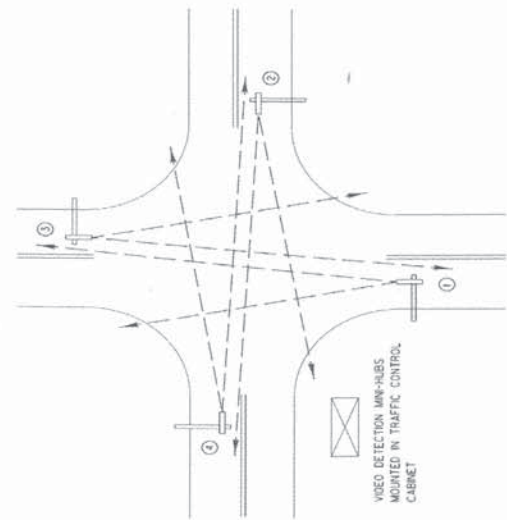
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PLOT SCALE: 1"	CHECKED: GMZ	REVISED:	REVISED:
PLOT DATE: 4/25/2014	DATE:	REVISED:	REVISED:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY STANDARD DETAILS
LC4202

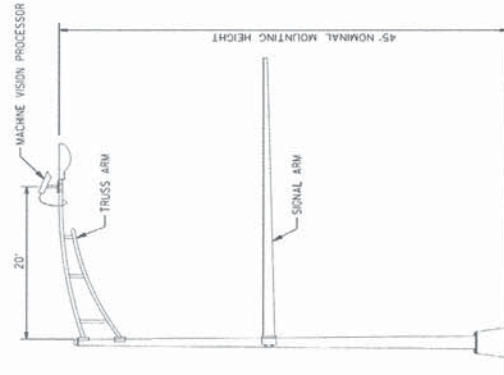
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 0866	SECTION 12-00999-25-TL	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 52
CONTRACT NO. 61A74			ILLINOIS FED. AID PROJECT	



TYPICAL VIDEO VEHICLE DETECTION SYSTEM
(NOT TO SCALE)

1) MACHINE VISION PROCESSOR ASSEMBLY AND BRACKETS
 2) MACHINE VISION PROCESSOR (24 VAC)
 3) POWER CABLE TO EACH MACHINE VISION PROCESSOR (24 VAC)
 4) SIGNAL ARM

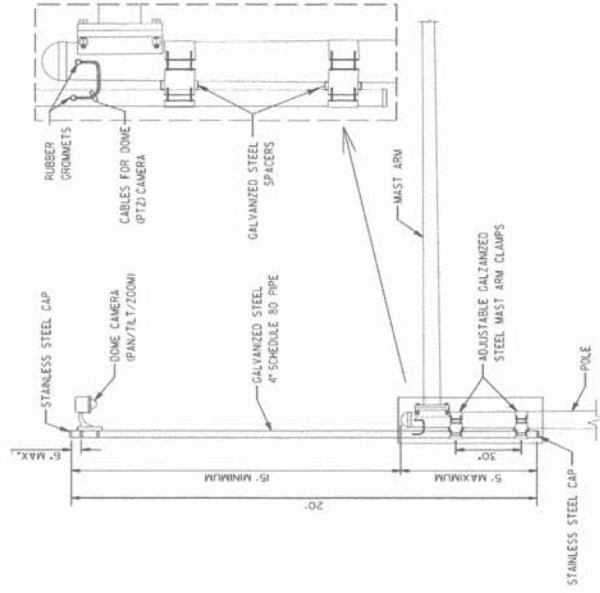


COMBINATION MAST ARM ASSEMBLY AND POLE DIMENSIONS
(NOT TO SCALE)

CENTER POINT OF INTERSECTION

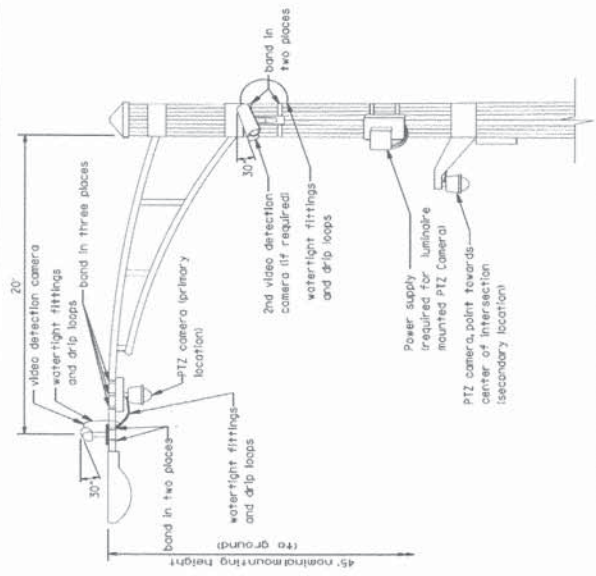


IMAGE SENSOR MOUNTING DETAILS
(NO SCALE)



CAMERA MOUNTING ASSEMBLY DETAIL
(NOT TO SCALE)

NOTES:
 - MAST ARM IS THREADED.
 - USE EXTENSION POLE VERTICAL AND PLUM BY HOISTING/INSTALLING BRACKETS AS NECESSARY. ADDITIONAL SPACERS REQUIRED ARE INCLUDED IN THE COST OF THE CAMERA MOUNTING ASSEMBLY OF THE TYPE SPECIFIED.
 - SPACERS ARE TO BE INTEGRATED OR MANUFACTURED WITH THE MAST ARM BRACKETS.



VIDEO DETECTION CAMERA(S) AND DOME (PTZ) CAMERA MOUNTING DETAIL
(NOT TO SCALE)

NOTES FOR SINGLE, DUAL AND MULTIPLE MIP MOUNTING:
 - MOUNT LUMINAIRE MOUNTING BRACKET AS HIGH AS POSSIBLE.
 - AIM BRACKET TOWARD DIRECTION OF TRAFFIC TO BE DETECTED.
 - MOUNT MACHINE VISION PROCESSOR AIMING DOWN AT 30 DEGREE ANGLE.

REVISIONS	DATE	APPROVED BY: 4. KHANJALA	DATE: APRIL 1, 2007
Mounting Details Revised	05/07/08	Laure County	
2nd Camera Locat added	07/14/09	Division of Transportation	
Mast Arm Tiger Detail	08/01/12		

VIDEO DETECTION DETAILS

PROJECT NAME	ROUTE SECTION	SECTION NUMBER	SHEET NUMBER
LAKE COUNTY STANDARDS & DETAILS	CHX0000	XX-XXXX-XX-XX	XXX XXX



LAKE COUNTY
Division of Transportation

REVISIONS	DATE	APPROVED BY: 4. KHANJALA	DATE: APRIL 1, 2007
Mounting Details Revised	05/07/08	Laure County	
2nd Camera Locat added	07/14/09	Division of Transportation	
Mast Arm Tiger Detail	08/01/12		

VIDEO DETECTION DETAILS

PROJECT NAME	ROUTE SECTION	SECTION NUMBER	SHEET NUMBER
LAKE COUNTY STANDARDS & DETAILS	CHX0000	XX-XXXX-XX-XX	XXX XXX



LAKE COUNTY
Division of Transportation

REVISIONS	DATE	APPROVED BY: 4. KHANJALA	DATE: APRIL 1, 2007
Mounting Details Revised	05/07/08	Laure County	
2nd Camera Locat added	07/14/09	Division of Transportation	
Mast Arm Tiger Detail	08/01/12		

VIDEO DETECTION DETAILS

PROJECT NAME	ROUTE SECTION	SECTION NUMBER	SHEET NUMBER
LAKE COUNTY STANDARDS & DETAILS	CHX0000	XX-XXXX-XX-XX	XXX XXX



LAKE COUNTY
Division of Transportation

FILE NAME: N:\LC001\12822814 - IL 83V\Final\DET.L	USER NAME: fbariso	DESIGNED: EAJ	REVISED:
PLT SCALE: 1"	PLT DATE: 7/5/2014	DRAWN: FPB	REVISED:
		CHECKED: GMZ	REVISED:
		DATE:	REVISED:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LAKE COUNTY STANDARD DETAILS
LC8900

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	53
CONTRACT NO.				61A74
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

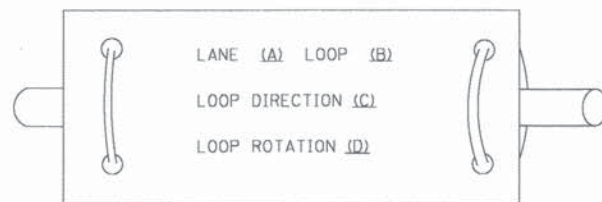
TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																	
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																				
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																				
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																				
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																				
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																				
UNINTERRUPTABLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																				
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F																				
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F																				
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																				
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																				
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																				
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																				
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																				
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED																				
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR																				
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR																				
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				QUEUE DETECTOR																				
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PREFORMED QUEUE DETECTOR																				
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																				
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				"RB" INDICATES REFLECTIVE BACKPLATE				PREFORMED SAMPLING (SYSTEM) DETECTOR																				
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				<h2 style="margin: 0;">RAILROAD SYMBOLS</h2> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">EXISTING</th> <th style="width: 25%;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td>RAILROAD CONTROL CABINET</td> <td></td> <td></td> </tr> <tr> <td>RAILROAD CANTILEVER MAST ARM</td> <td></td> <td></td> </tr> <tr> <td>FLASHING SIGNAL</td> <td></td> <td></td> </tr> <tr> <td>CROSSING GATE</td> <td></td> <td></td> </tr> <tr> <td>CROSSBUCK</td> <td></td> <td></td> </tr> </tbody> </table>				EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																										
RAILROAD CONTROL CABINET																												
RAILROAD CANTILEVER MAST ARM																												
FLASHING SIGNAL																												
CROSSING GATE																												
CROSSBUCK																												
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED																								
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																								
ILLUMINATED SIGN "NO LEFT TURN"				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																								
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO INTERCONNECT																								
DETECTOR LOOP, TYPE I				RADIO REPEATER																								
PREFORMED DETECTOR LOOP				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																								
MICROWAVE VEHICLE SENSOR				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																								
VIDEO DETECTION CAMERA																												
VIDEO DETECTION ZONE																												
PAN, TILT, ZOOM CAMERA																												
WIRELESS DETECTOR SENSOR																												
WIRELESS ACCESS POINT																												

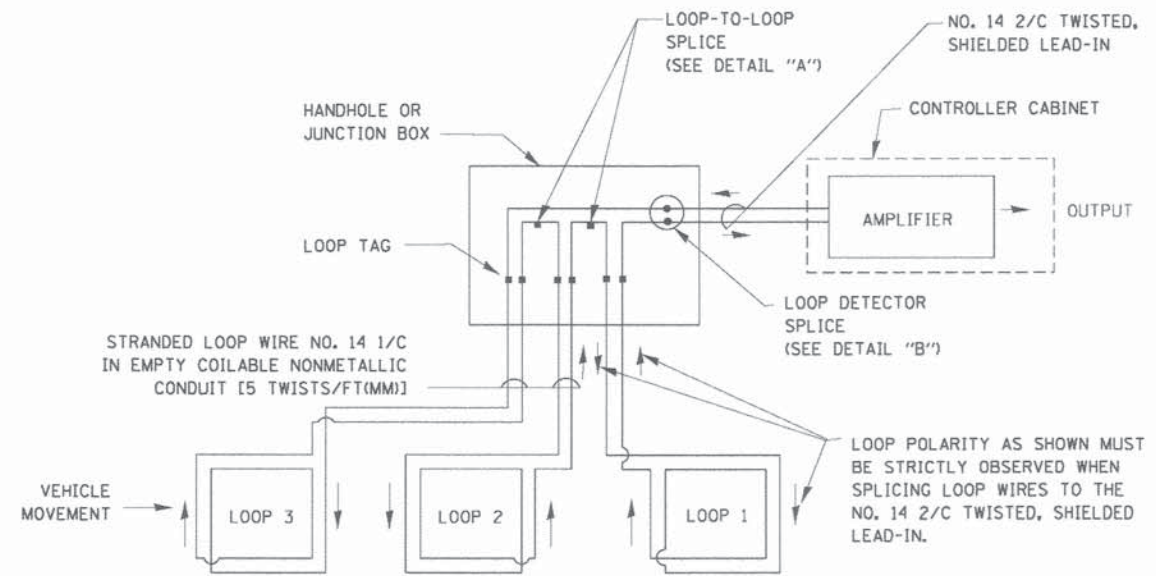
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

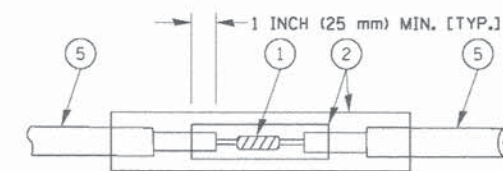


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

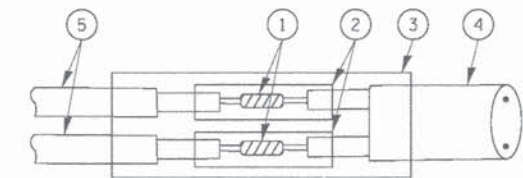


DETECTOR LOOP WIRING SCHEMATIC

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

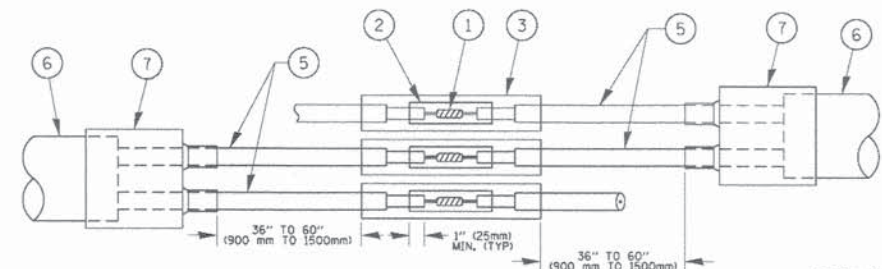


DETAIL "A"
LOOP-TO-LOOP SPLICE

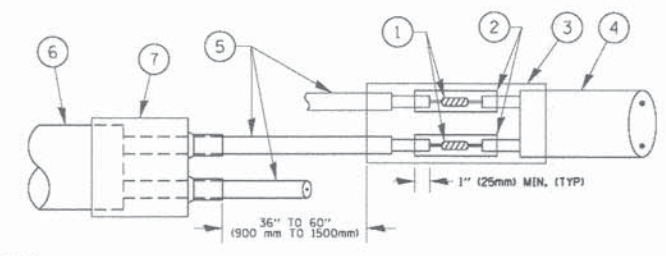


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

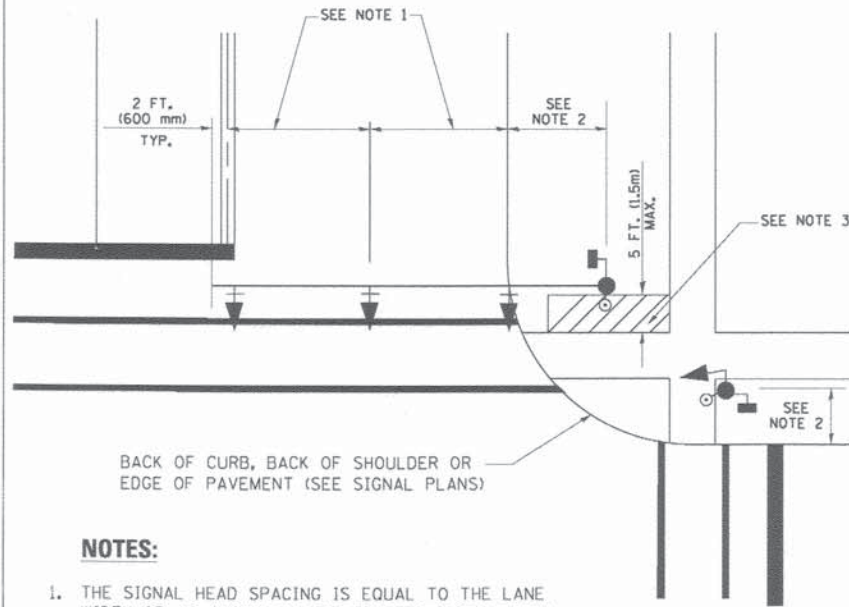
PREFORMED LOOP

LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = footamj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A. P. RTE. 0866	SECTION 12-00999-25-TL	COUNTY LAKE	TOTAL SHEETS 61	SHEET NO. 55
ctrl\pe_work\pedit\footamj\d0180315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	TS-05		CONTRACT NO. 61A74	
		CHECKED - DAD	REVISED -				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
		DATE - 10-28-09	REVISED -								

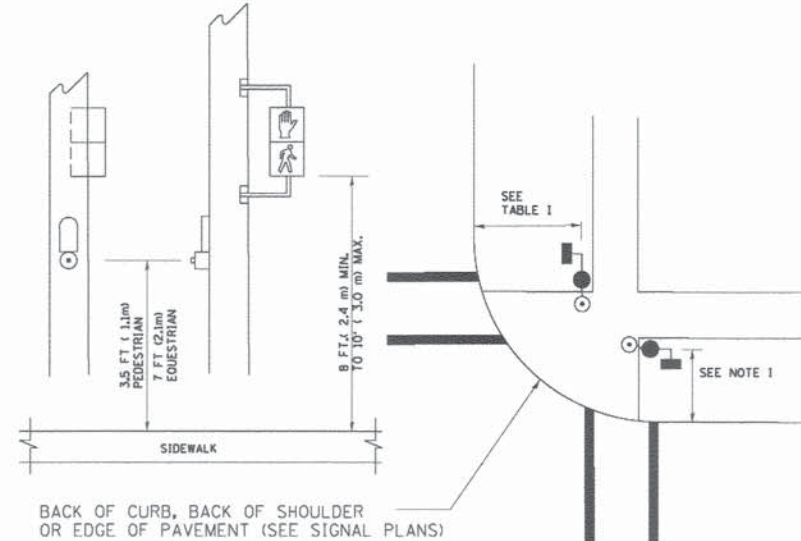
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



NOTES:

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

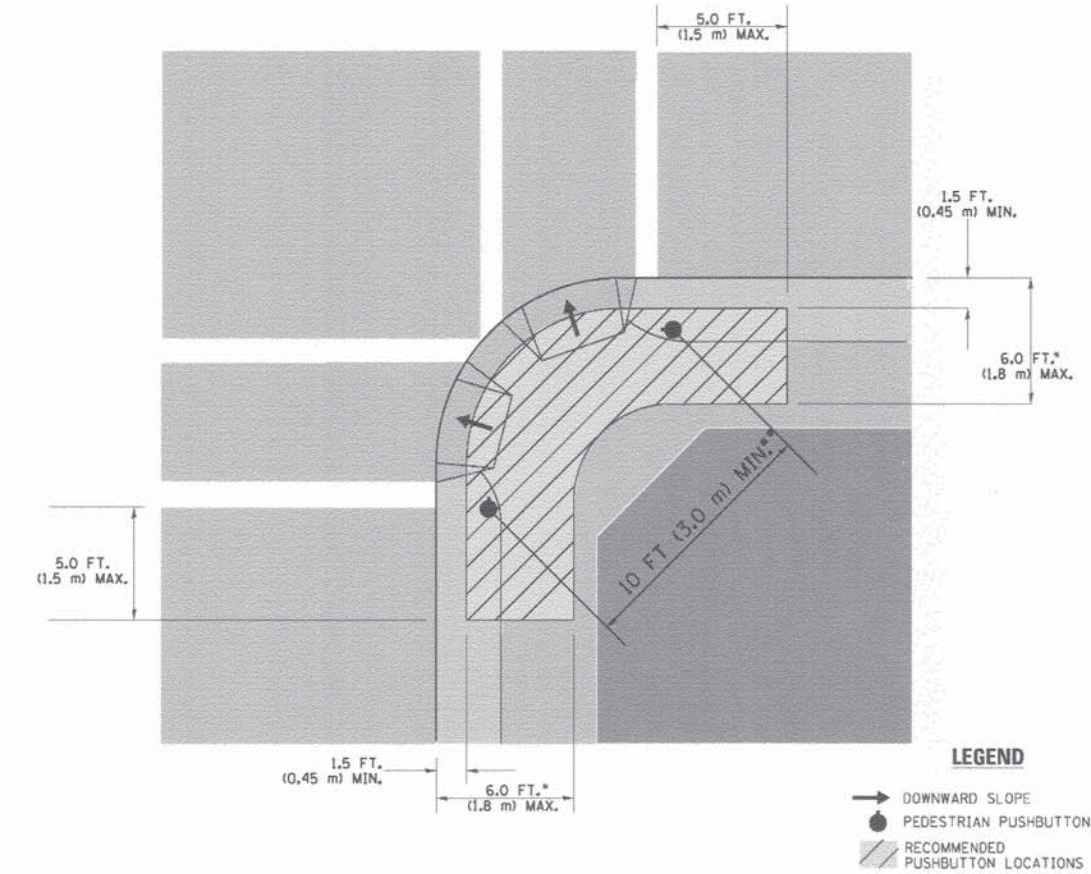
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



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

NOTES:

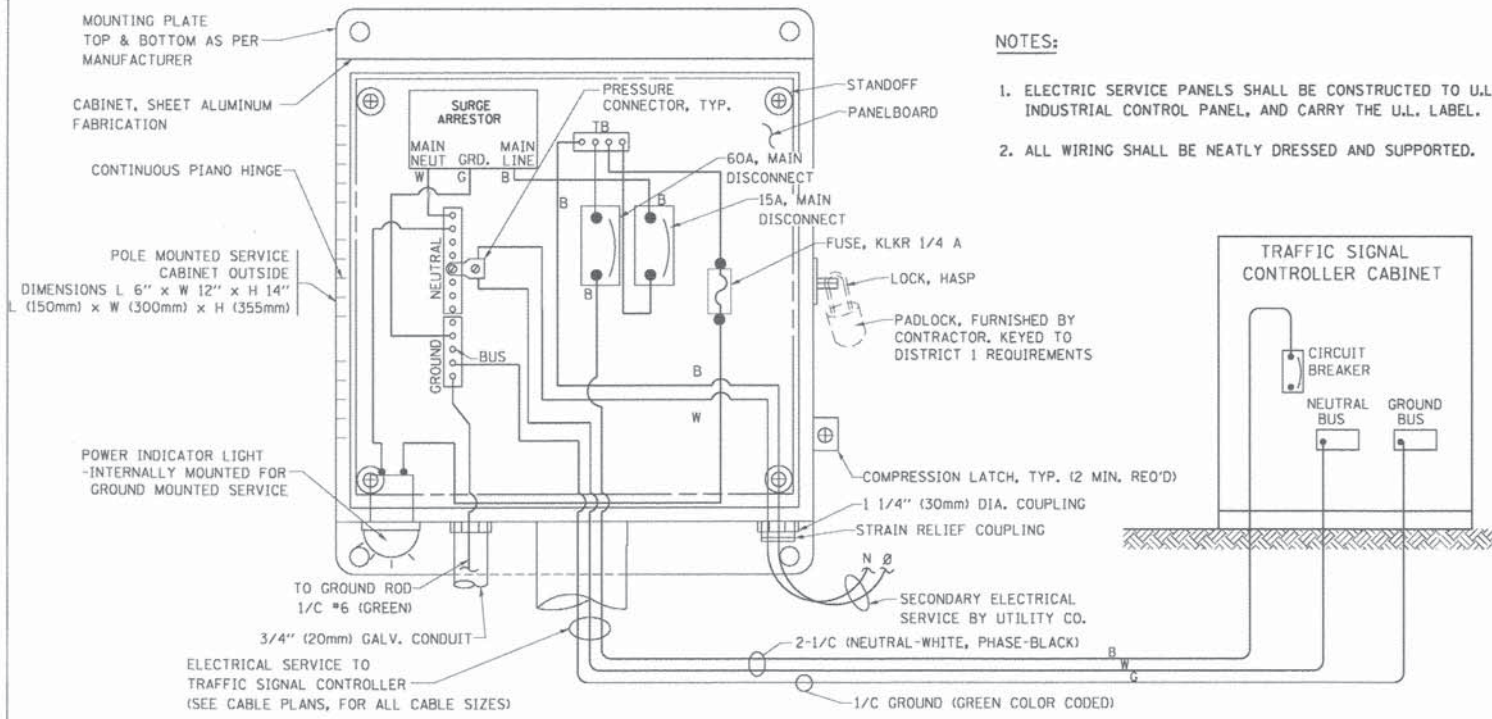
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM 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

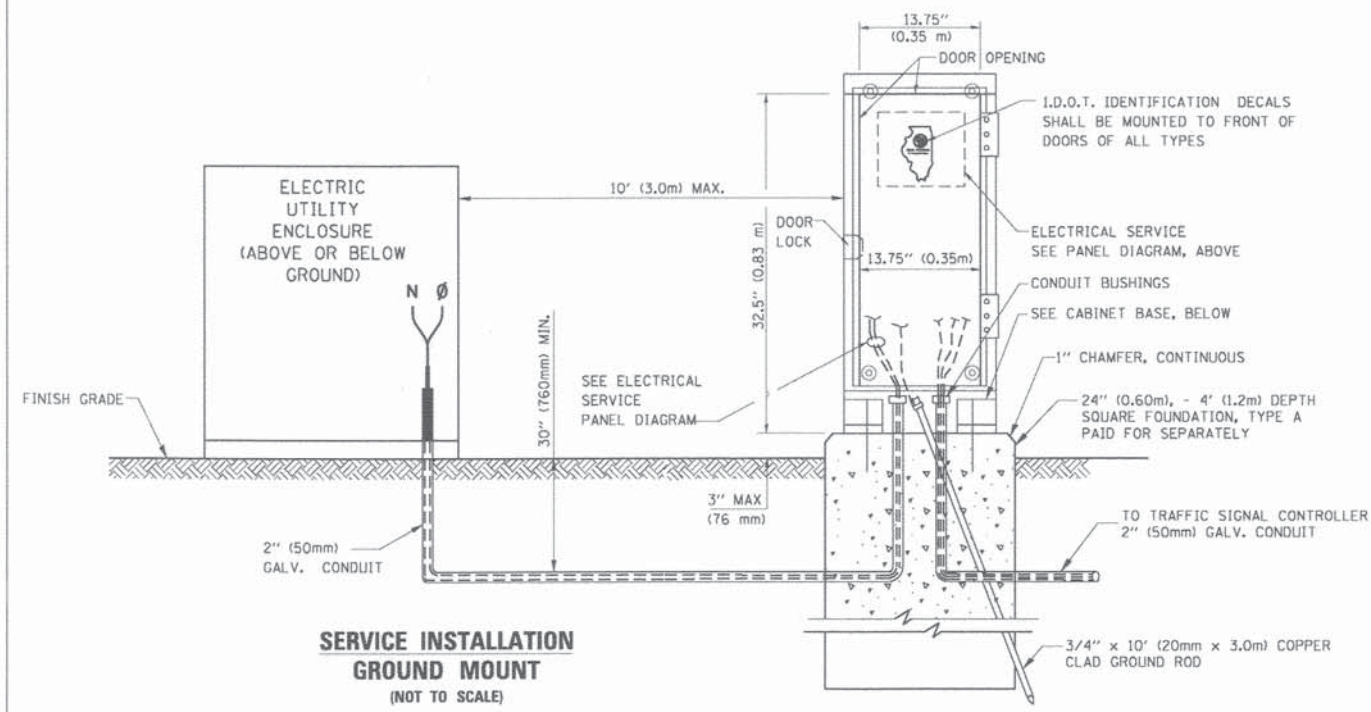
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

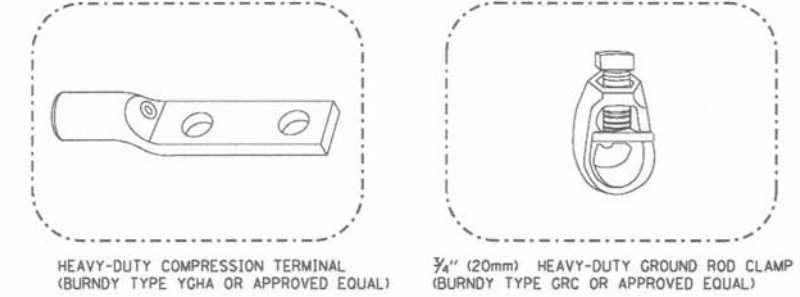
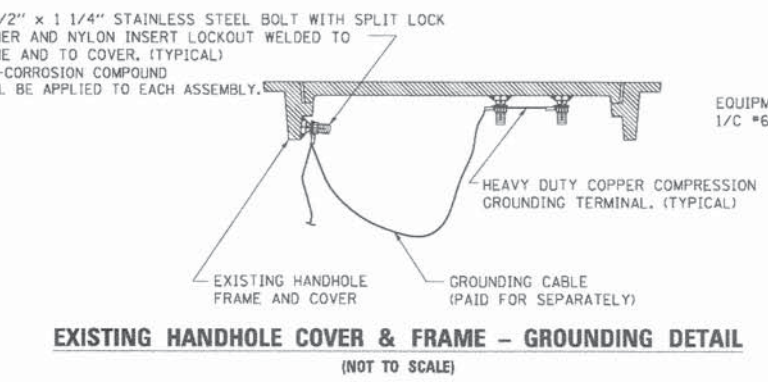
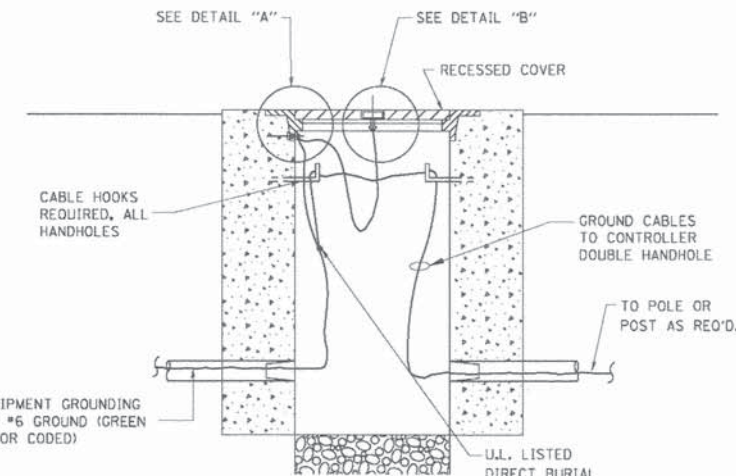
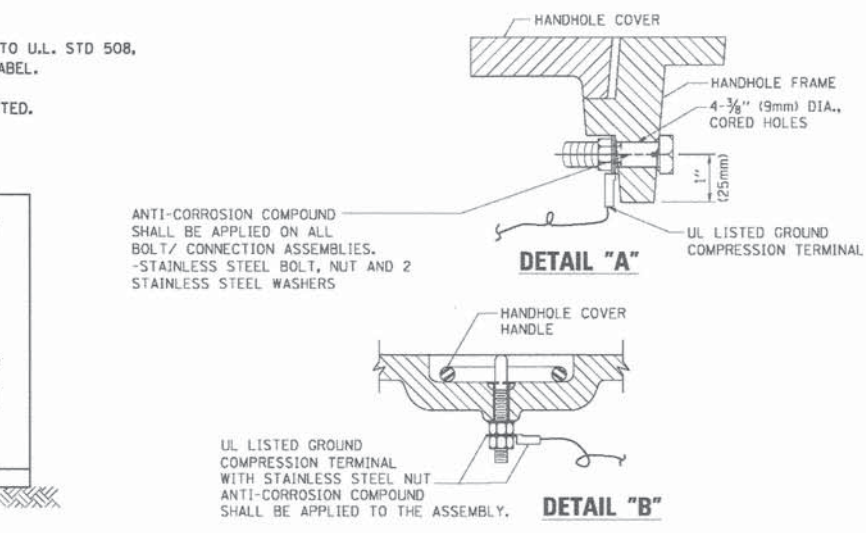
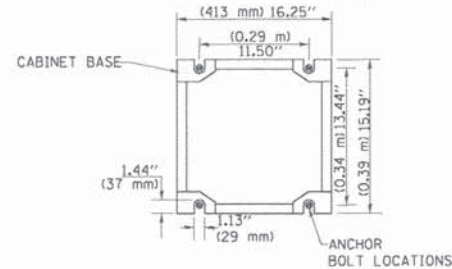
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM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



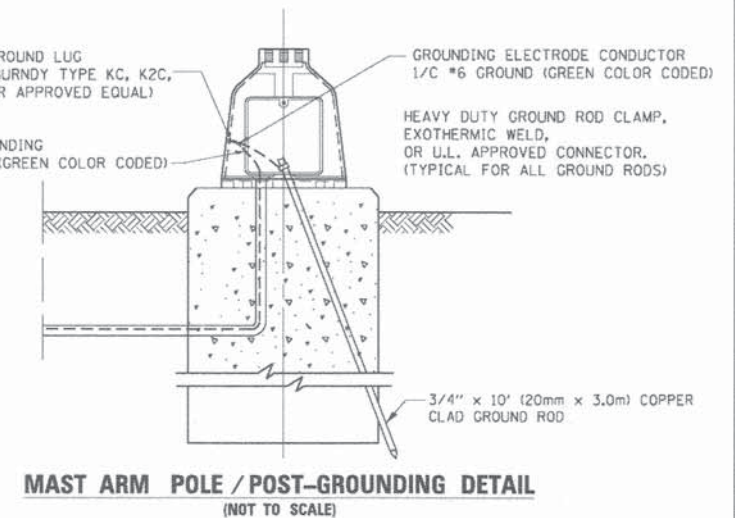
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



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

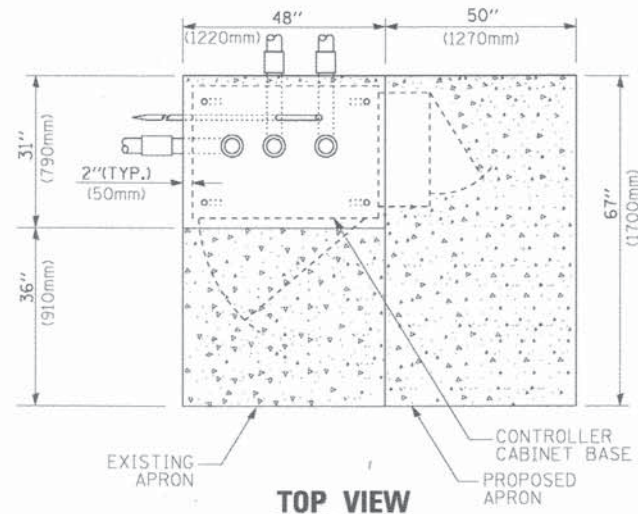


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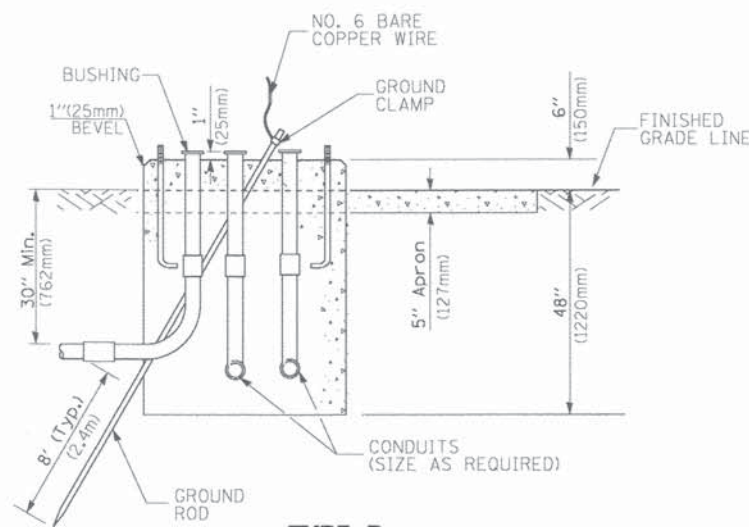
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

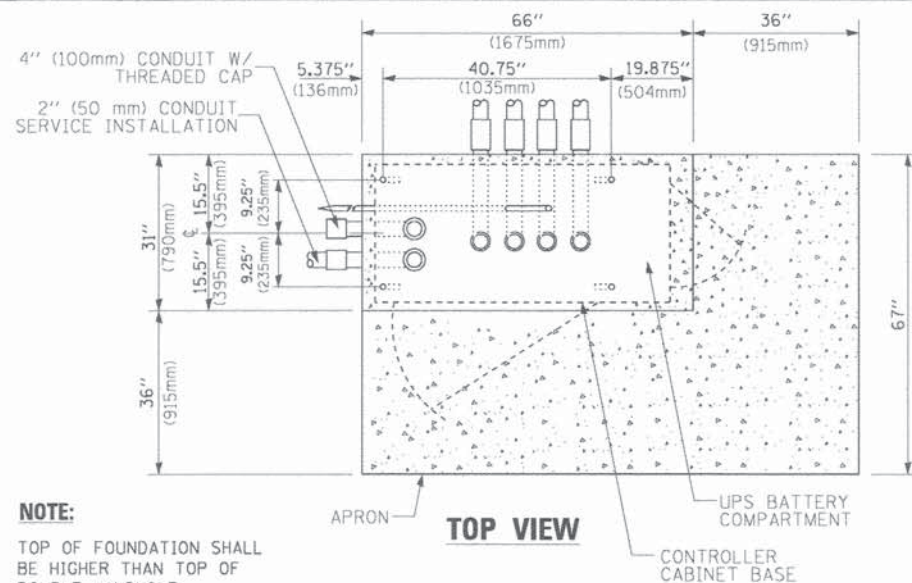
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TS-05		CONTRACT NO. 61A74		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TOP VIEW



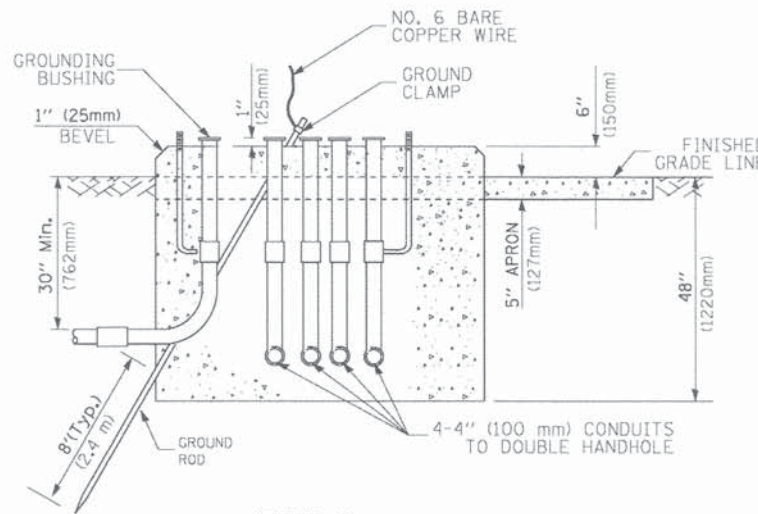
**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



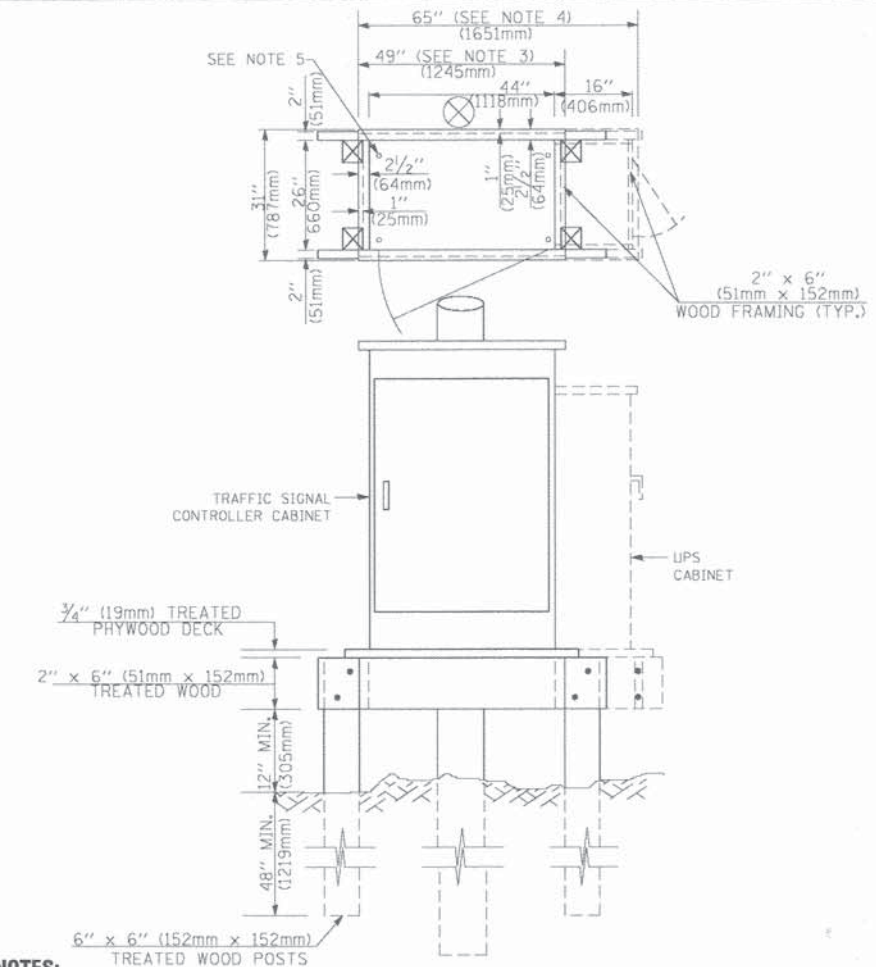
TOP VIEW

NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



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



NOTES:

- 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**

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)

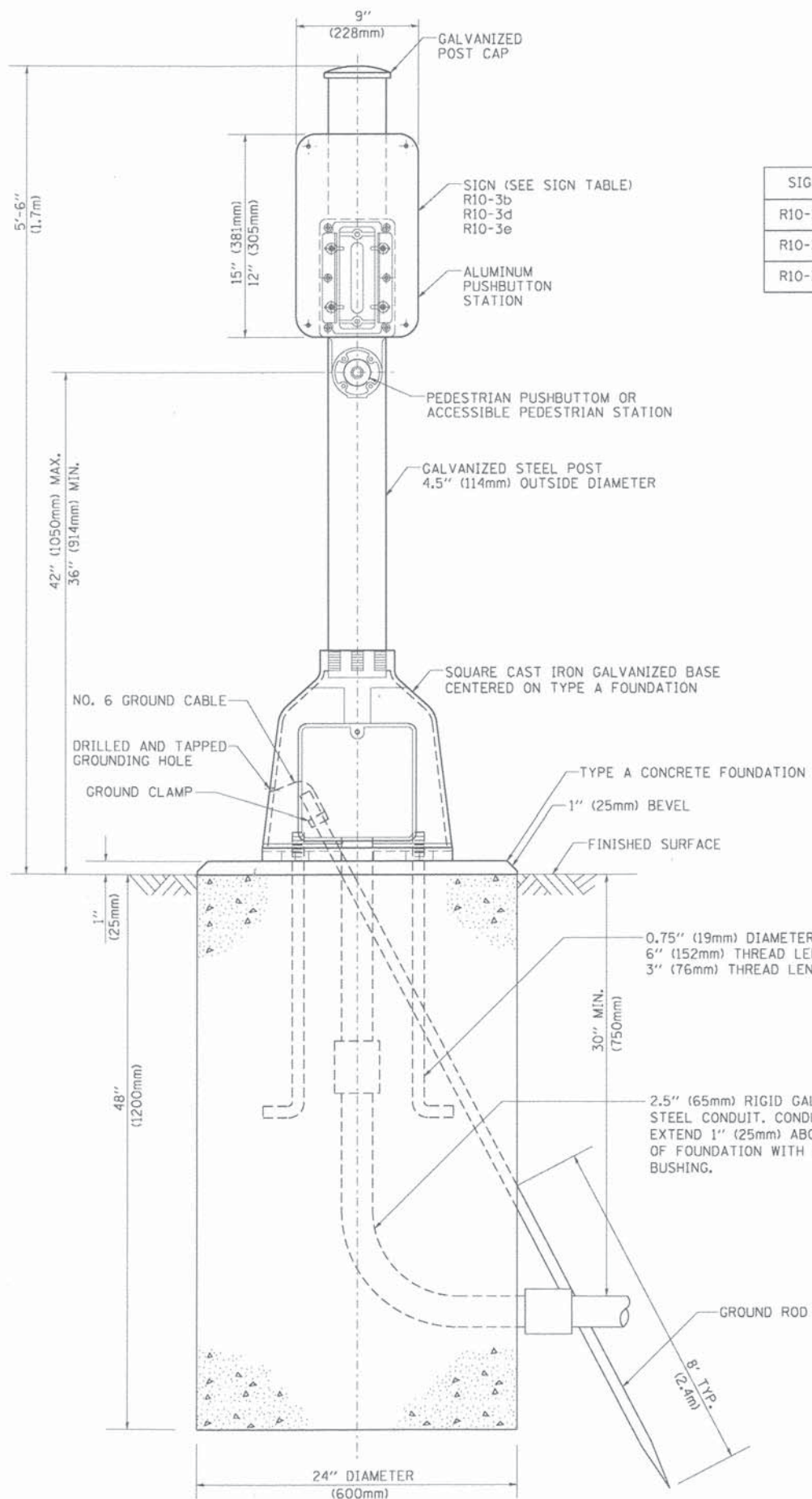
DEPTH OF FOUNDATION

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)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	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)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

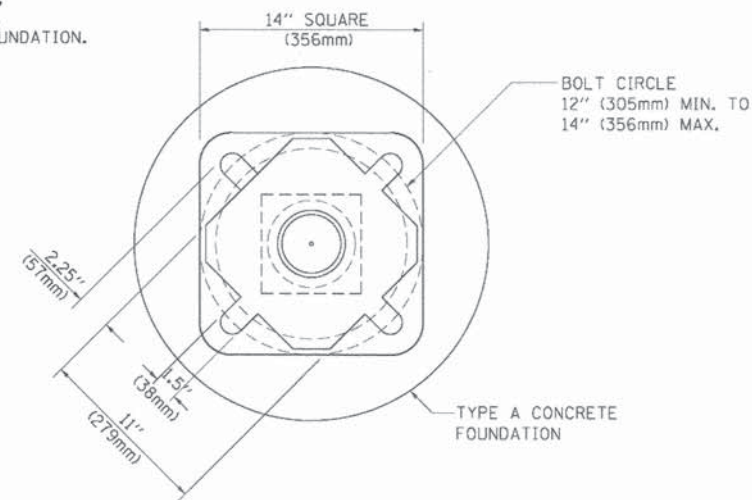
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer 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



SIGN TABLE

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



BOLT PATTERN
PEDESTRIAN PUSH BUTTON POST, TYPE A

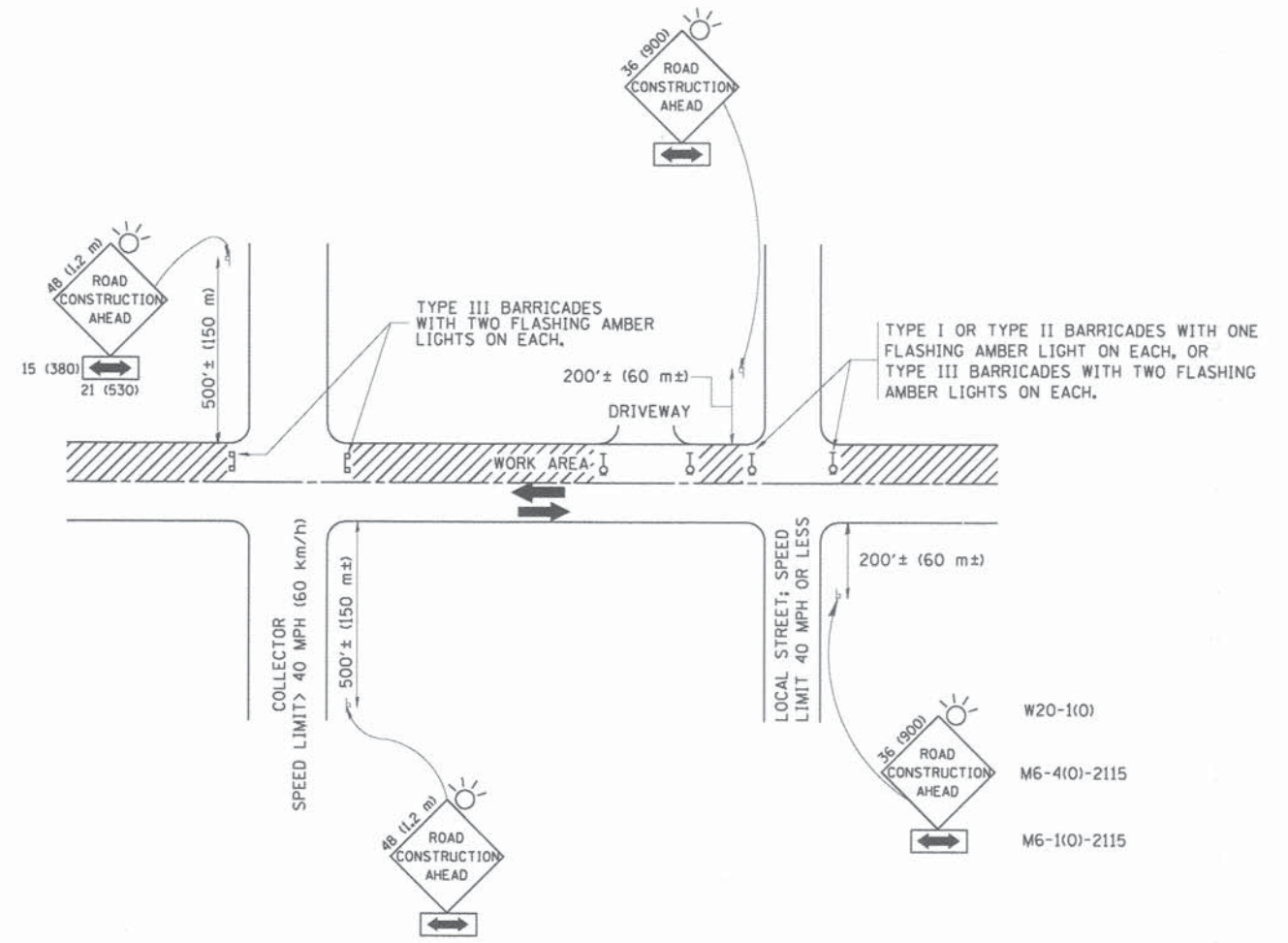
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ca:\pwork\pwork\footemj\d0108315\ts05.dgn		DRAWN - GND	REVISED -
	PLOT SCALE = 50.0000' / 1"	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	60
TS-05			CONTRACT NO. 61A74	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

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

 - C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
 - D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME = W:\distatd\22x34\1c18.dgn	USER NAME = gegliemobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0866	12-00999-25-TL	LAKE	61	61
TC-10			CONTRACT NO. 61A74	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				