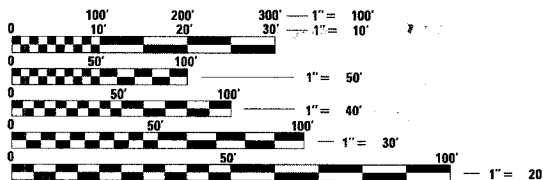


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- 9-10 KIRK RD @ WILSON ST
- 11-12 KIRK RD @ HUBBARD AVE
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- 701101-01 Off-Rd Opr., Mul tllane, 4.5m (15') to 600mm (24") From Pavement Edge
- 701301-02 Lane Closure 2L, 2W Short Time Opr.
- 701701-04 Urban Lane Closure, Mul tllane Intersecton
- 702001-05 Traffic Control Devices
- 814001 Concrete Handholes
- 814006 Double Handholes
- 857001 Standard Phase Deslgnatt on Diagrams and Phase Sequences
- 878001-03 Concrete Foundatlon Details
- 880006 Traffic Signal Mounting Details



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CONTRACT NO. 83808

FEDERAL AID COORDINATOR: PHIL MARCYN 847-705-4189

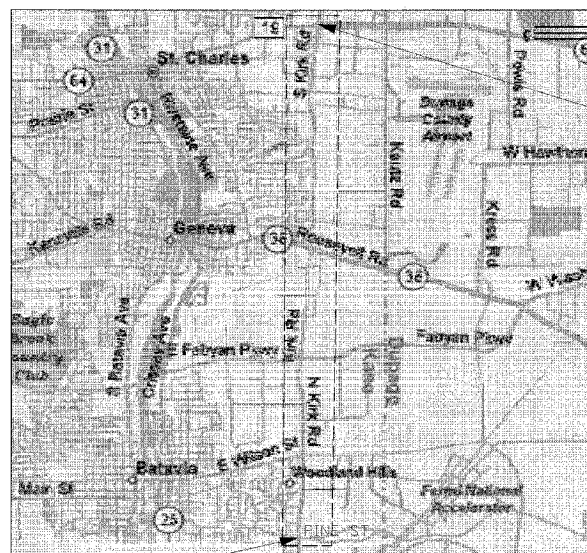
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
TRAFFIC SIGNAL INTERCONNECT**

DISTRICT 1
CONGESTION MITIGATION AIR QUALITY

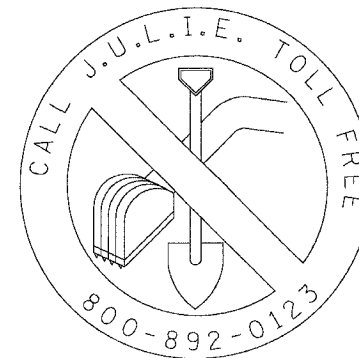
F.A.P. 360 KIRK ROAD (C.H. 77)
FROM PINE STREET TO IL RTE 64

FEDERAL PROJECT NO.: CMF-0360(009)
SECTION 03-00320-00-TL
KANE COUNTY
JOB NO: C-91-113-04



PROJECT BEGINS
KIRK ROAD AT
PINE STREET

LOCATION MAP
POSTED SPEED = 45 MPH
GROSS LENGTH = 5.60 MILES
NET LENGTH = 5.60 MILES



48 - HOURS BEFORE DIGGING

PROJECT ENDS
KIRK ROAD AT
IL RTE 64

David M. ...
7/19/05

EXPIRES 11/30/05

F.A.P. RTF.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	03-00320-00-TL	KANE	33	1

CONTRACT NO. 83808



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 20 20 05
Carl ... LOCAL AGENCY OFFICIAL

July 20 20 05
Dina O'Keefe DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

July 20 20 05
Chapman BUREAU/ CHIEF OF LOCAL ROADS AND STREETS

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

SUMMARY OF QUANTITIES
CONSTRUCTION TYPE CODE: Y031-1F

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83808				

CODE NO.	PAY ITEM	UNIT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	TOTAL
			Kirk Rd @ Pine St	Kirk Rd @ Wilson St	Kirk Rd @ Hubbard Ave	Kirk Rd @ Fabyan Pkwy	Kirk Rd @ Cherry Ln	Kirk Rd @ IL Rte 38	Kirk Rd @ Division St	Kirk Rd @ Tyler St	Kirk Rd @ Ohio Ave/DuKane Dr	Interconnect	
* 70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM										1	1
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	513			12	218					25138	25881
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT				5							5
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT					40					1119	1159
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT										1392	1392
81300810	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH										4	4
81400100	HANDHOLE	EACH	2				1					43	48
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	513			17	218					25138	25886
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	1	1	1	1	1	1	1		9
* 85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH		1	1								2
* 85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH				1							1
* 85700505	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH					1	1	1	1			4
86400100	TRANSCEIVER - FIBER OPTIC	EACH		1	1	1	1		1	1	1		7
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT										31502	31502
* XX003660	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MM24F & SM12F	FOOT										31692	31692
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT		265		94	87	81	80	221			818
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	827		799	714	1590		806		780		5516
XX003583	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C	FOOT		255		94	87	81	80	221			818
XX003584	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT	FOOT		255		94	87	81	80	221			818
87800200	CONCRETE FOUNDATION, TYPE D	FOOT				4							4
87900200	DRILL EXISTING HANDHOLE	EACH	2	2	2	4	7	2	2	2	2	1	28
88500100	INDUCTIVE LOOP DETECTOR	EACH	2	8	9	10	4		2		2		37
88800100	DETECTOR LOOP, TYPE I	FOOT					66						66
* 89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH		1		1							2
* 89502200	MODIFY EXISTING CONTROLLER	EACH	1								1	1	3
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH		1	1	1	1	1	1	1			7
* X8780110	MODIFY EXISTING TYPE "D" FOUNDATION	EACH		1	1	1							3
X8950100	RELOCATE EXISTING MASTER CONTROLLER	EACH										1	1
* XX002856	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM	LSUM										1	1
Z0048685	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM										1	1
* XX005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH		1		1	1	1	1	1			6
* XX006280	VIDEO COMMUNICATIONS SYSTEM AND CABINET	EACH				1							1
XX005462	CHANGEABLE MESSAGE SIGN	WEEK		2	2	2							6
△ Z0076600	TRAINEES	HOUR										500	500
67100100	MOBILIZATION	LSUM										1	1

* SEE SPECIAL PROVISIONS
△ Y080

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

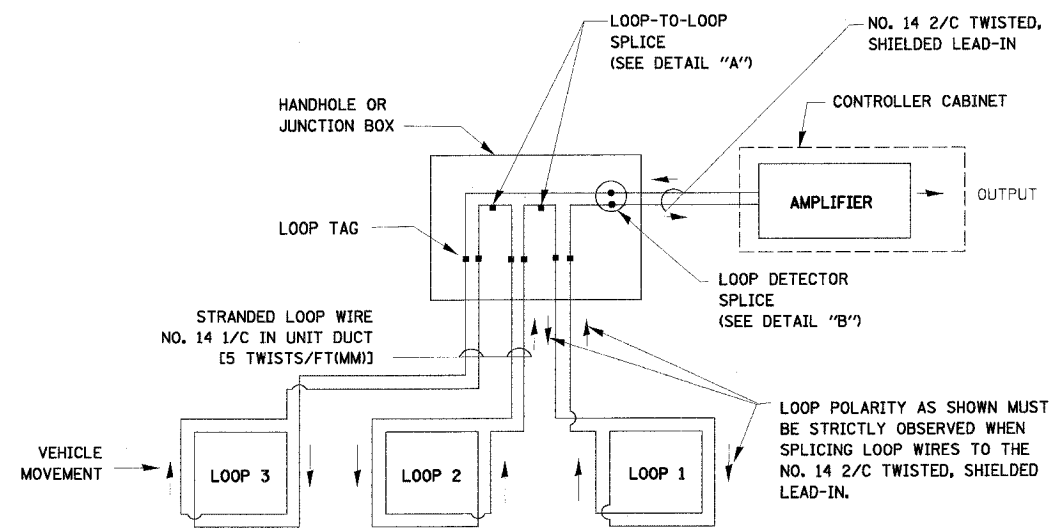
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
KIRK RD.
FROM PINE ST. TO IL RTE 64

SCALE: NONE
DATE: 07/19/05

DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

LOOP DETECTOR NOTES

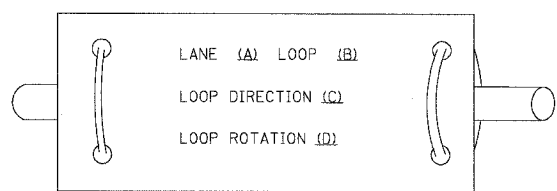
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED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



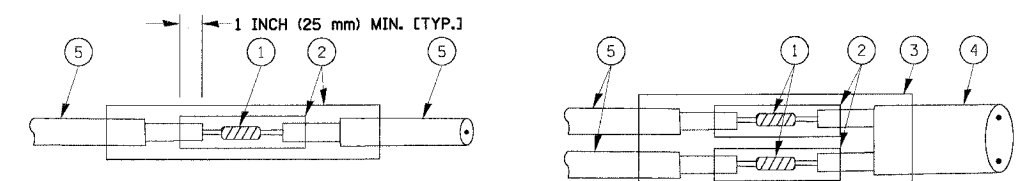
DETECTOR LOOP WIRING SCHEMATIC

- 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.

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.



**DETAIL "A"
LOOP-TO-LOOP SPLICE**

**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

LOOP DETECTOR SPLICE

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

REVISIONS	
NAME	DATE

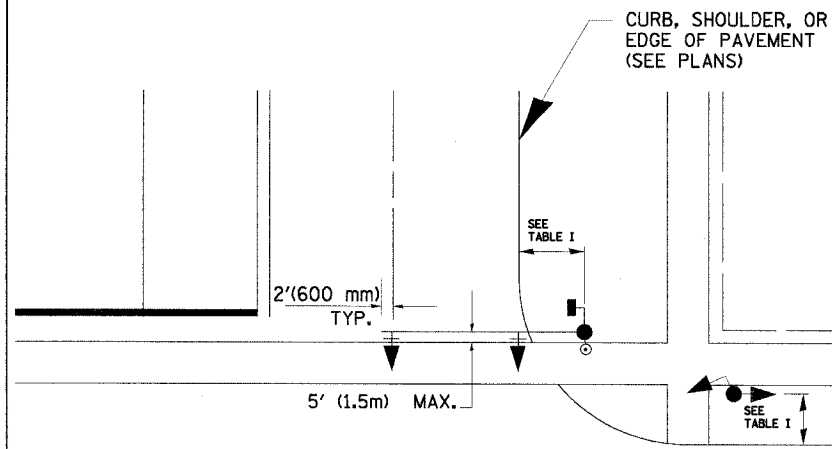
ILLINOIS DEPARTMENT OF TRANSPORTATION
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS**

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

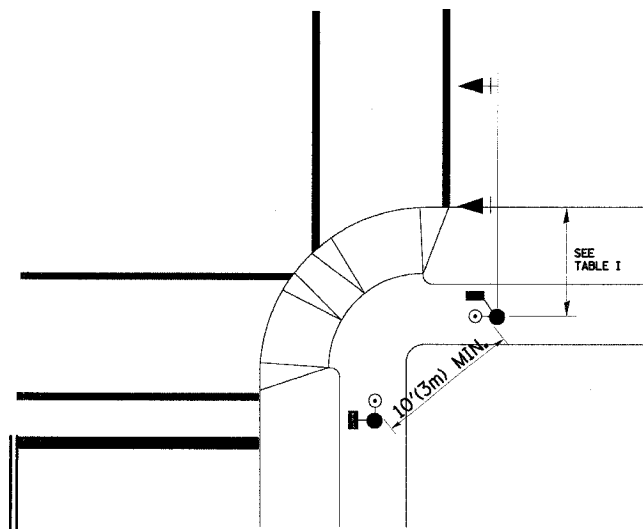
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	03-00320-00-TL	KANE	33	4
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 83808				

TRAFFIC SIGNAL MAST ARM AND POST

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



PEDESTRIAN SIGNAL PUSHBUTTON



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

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

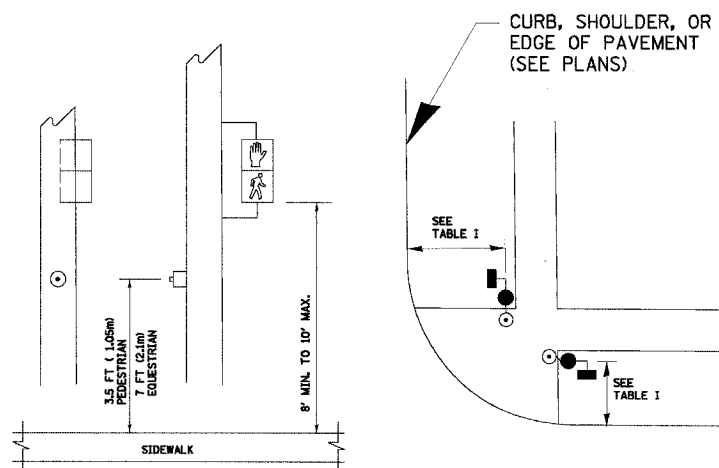


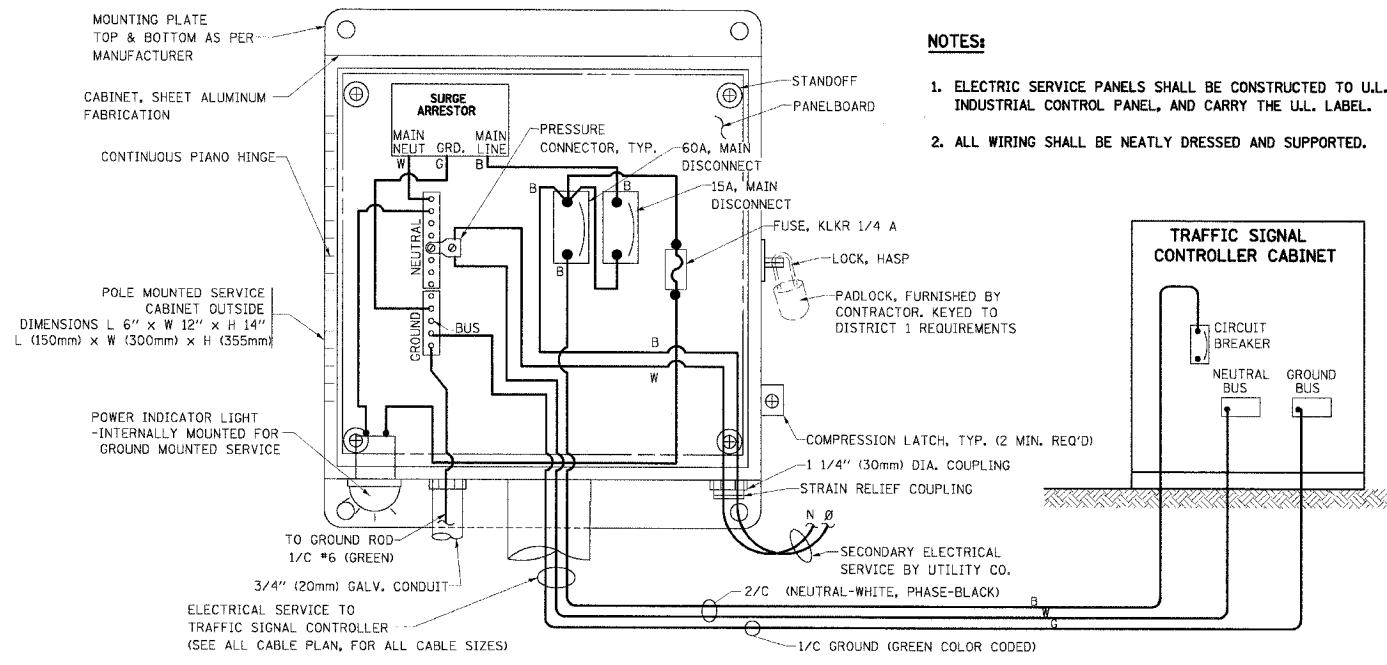
TABLE I

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

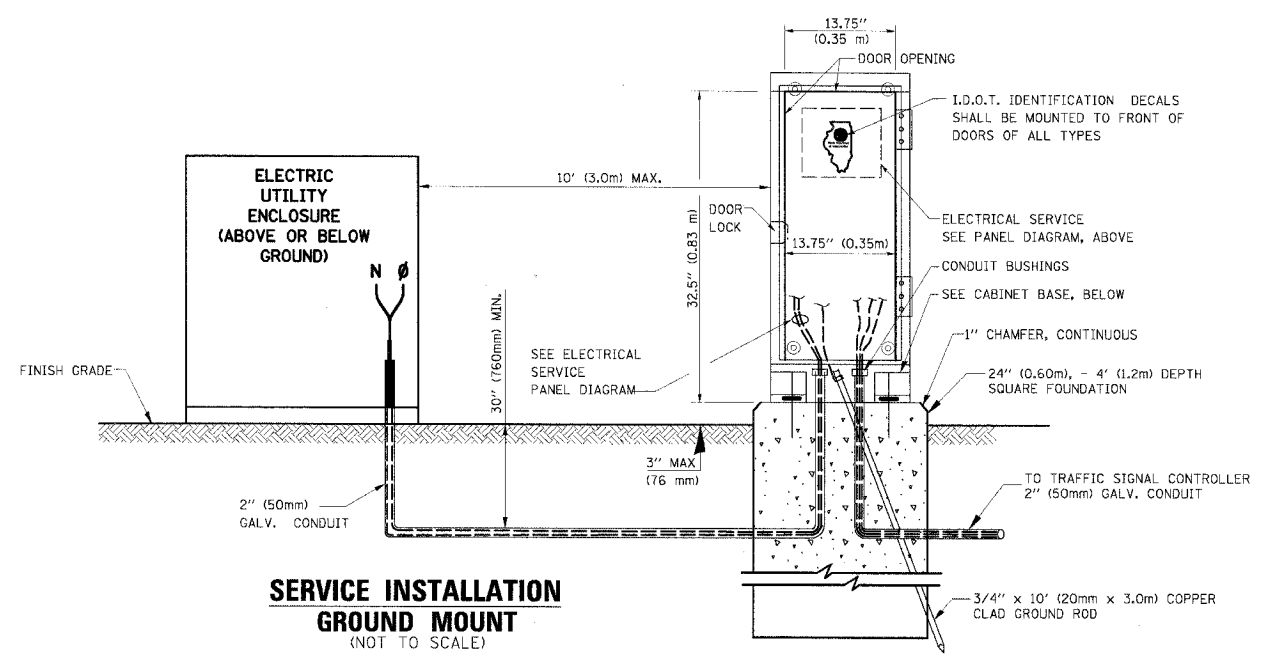
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS
 SCALE: VERT. NONE
 HORIZ. NONE
 DATE 1-01-02
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 2 OF 4

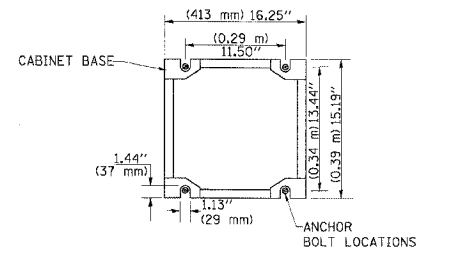
F.A.P. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360.03-00320-00-TL		KANE	33	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 83808				



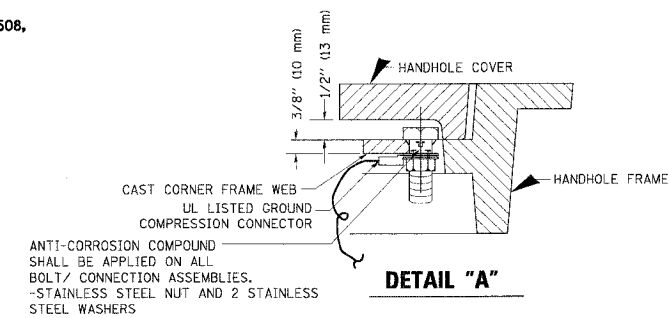
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



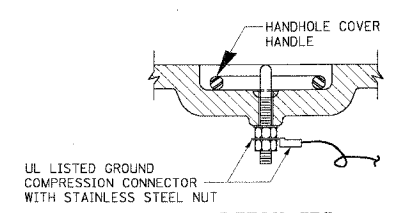
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



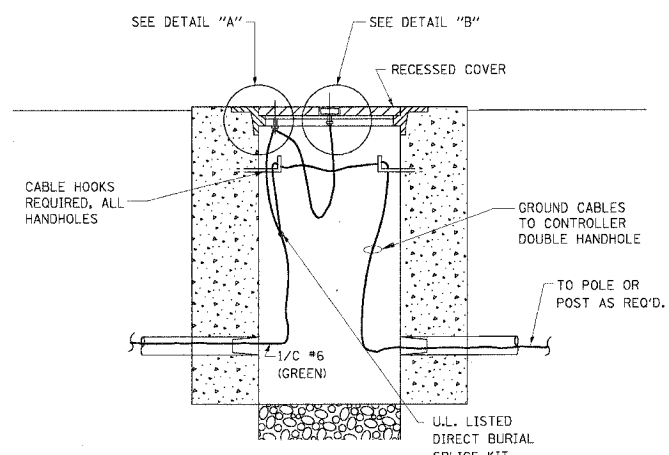
CABINET - BASE BOLT PATTERN (NOT TO SCALE)



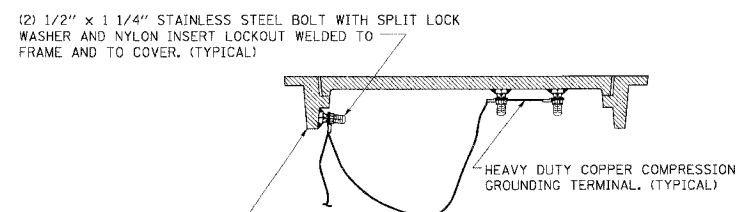
DETAIL "A"



DETAIL "B"



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

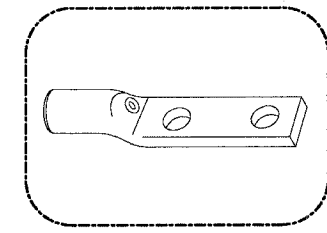


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

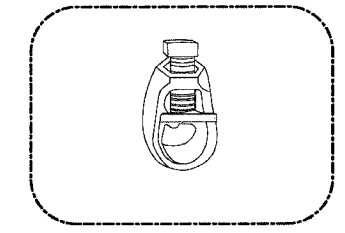
NOTES:

GROUNDING SYSTEM

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



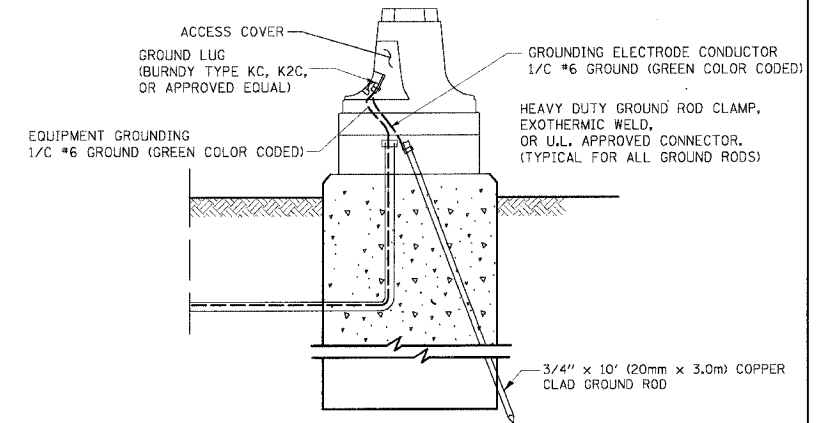
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

NOTES:

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



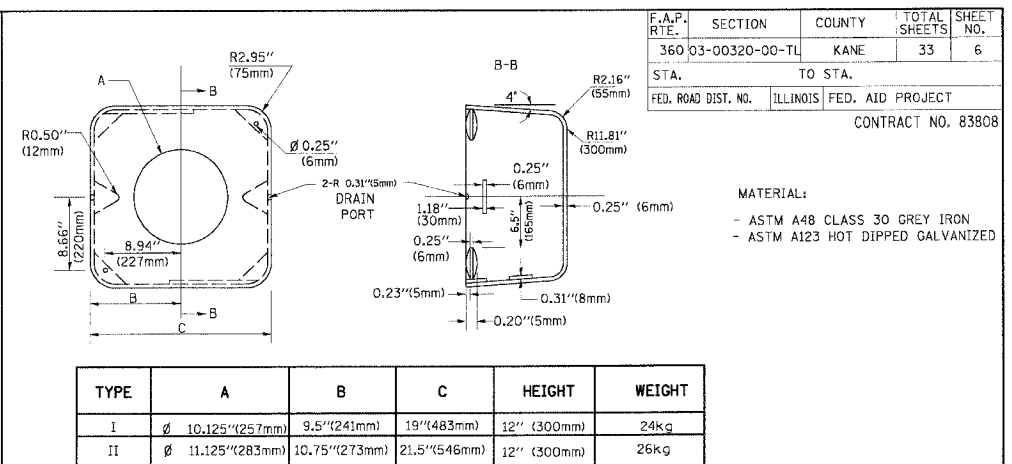
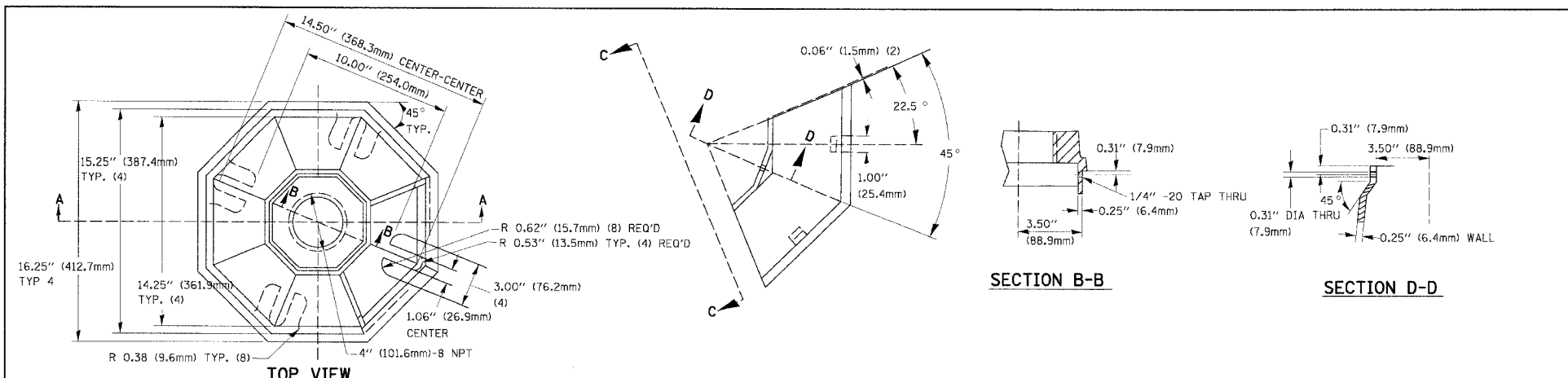
MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

REVISIONS	
NAME	DATE

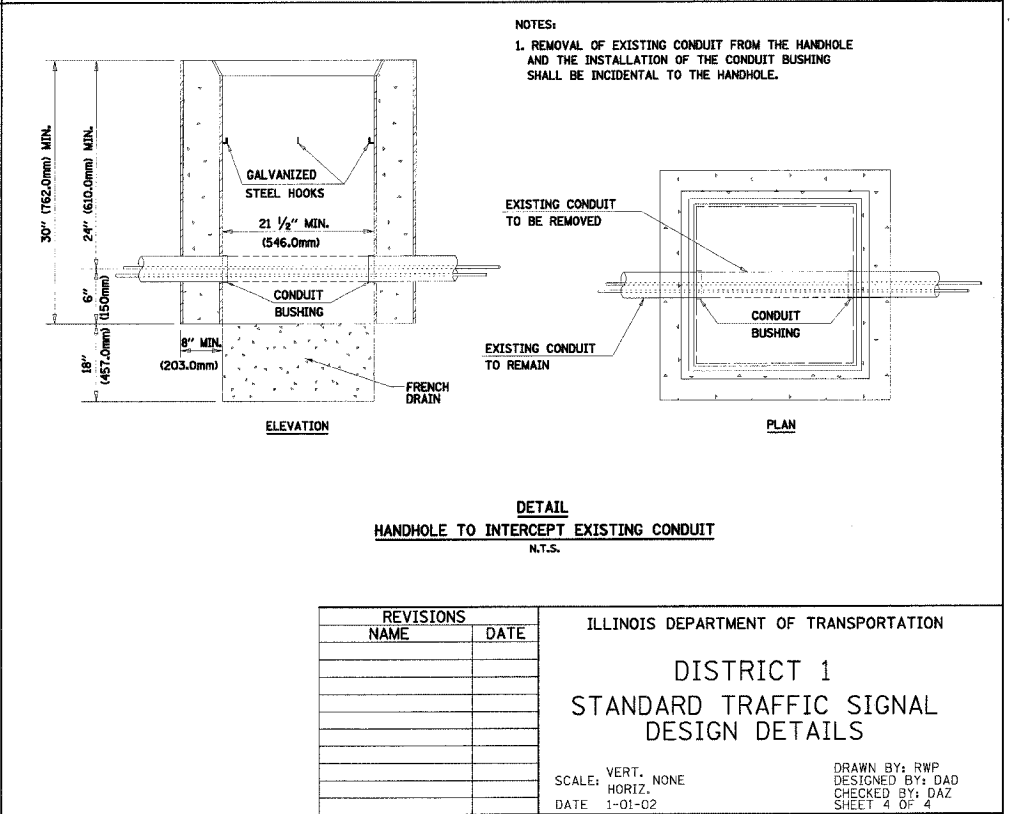
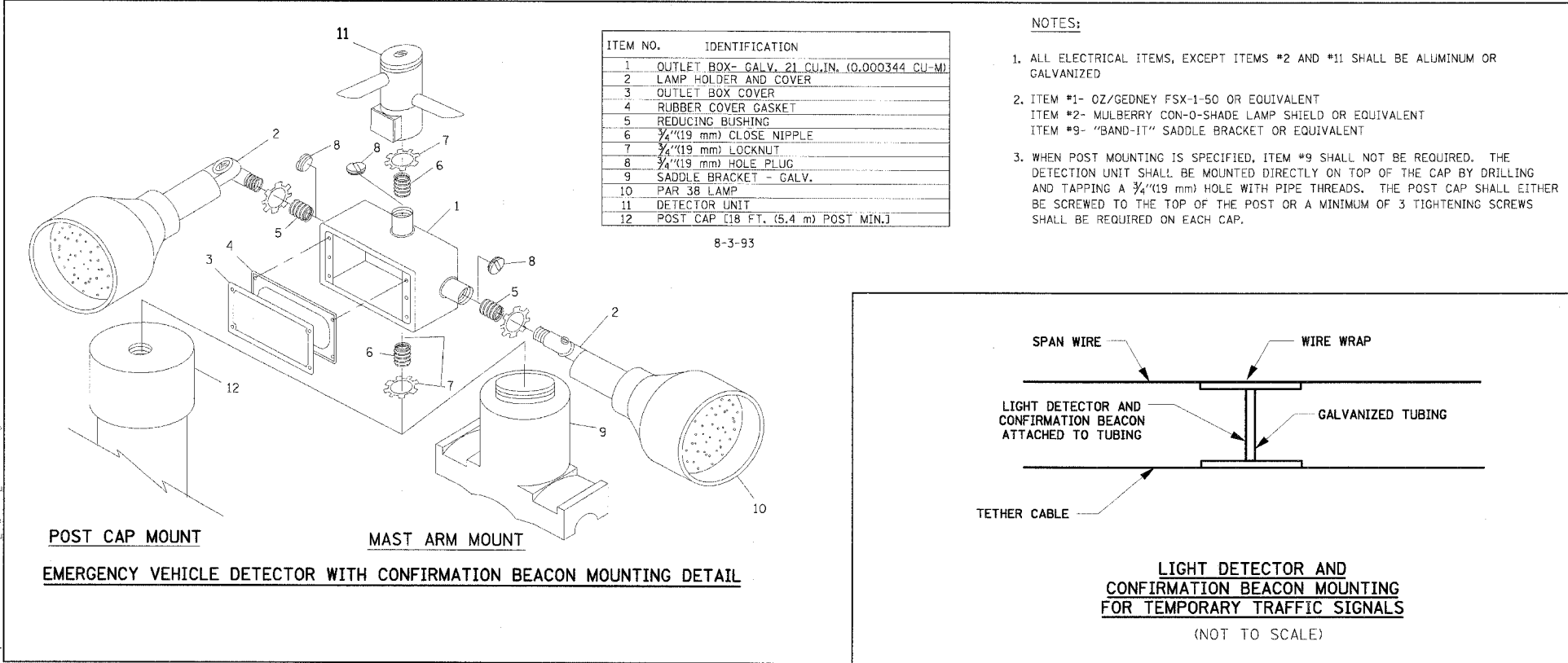
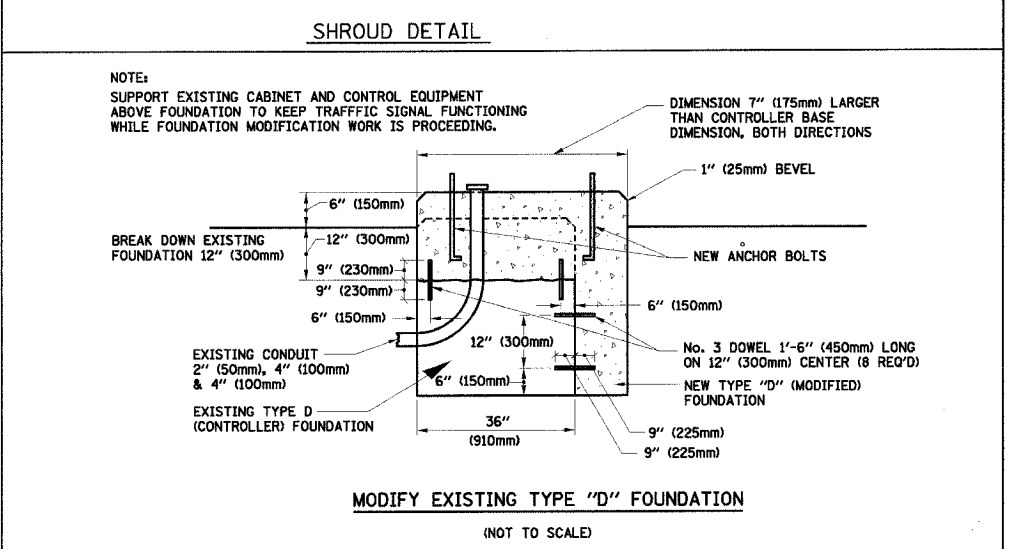
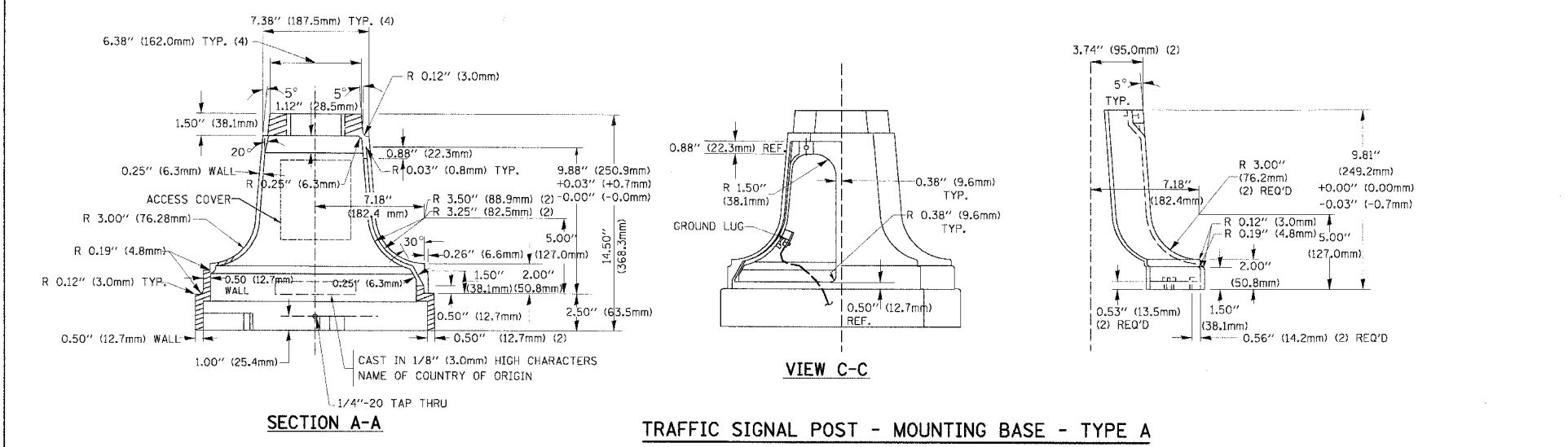
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. NONE
 DATE: 1-01-02
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 3 OF 4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	03-00320-00-TL	KANE	33	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 83808	



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



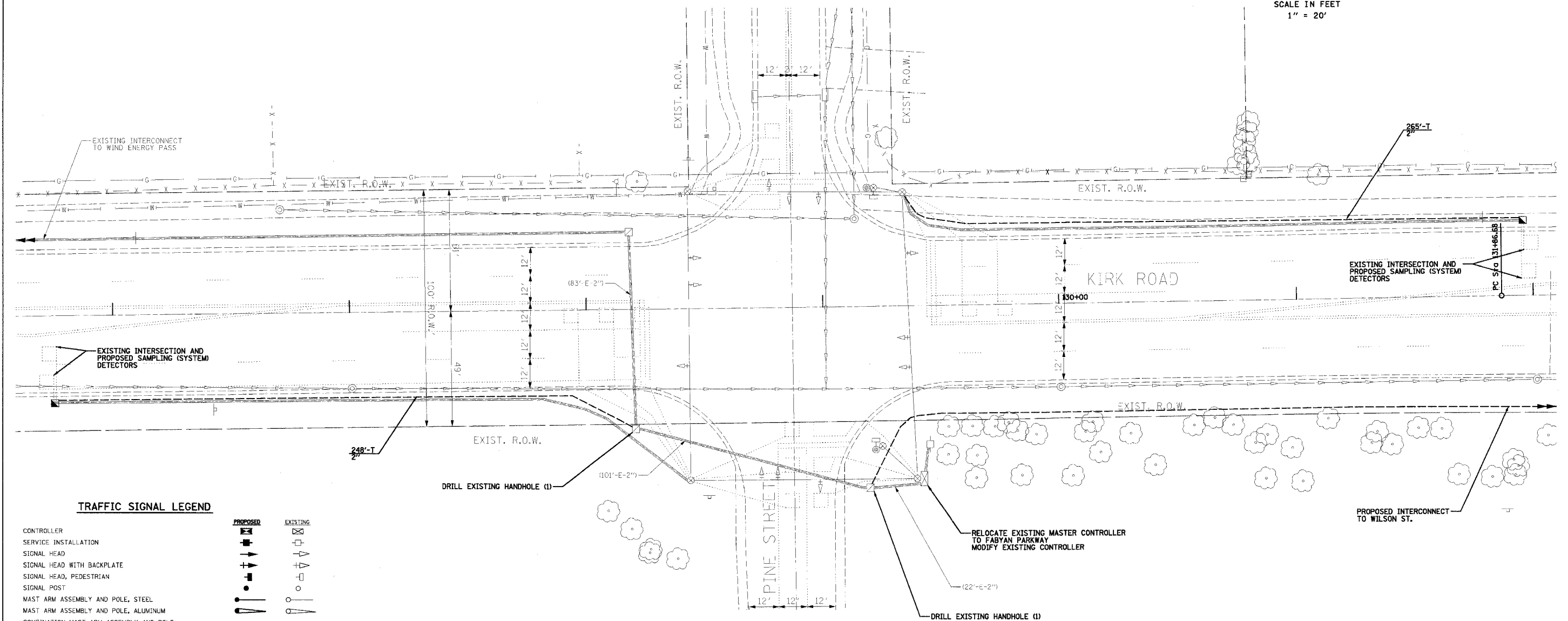
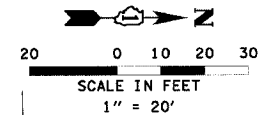
REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

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

11/04-280 kfk C:\MA3\slp\csls06-st04.dgn
 07/19/02



TRAFFIC SIGNAL LEGEND

- | | | | |
|--|--|----------|--|
| CONTROLLER | | EXISTING | |
| SERVICE INSTALLATION | | | |
| SIGNAL HEAD | | | |
| SIGNAL HEAD WITH BACKPLATE | | | |
| SIGNAL HEAD, PEDESTRIAN | | | |
| SIGNAL POST | | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | |
| UNIT DUCT | | | |
| COMMON TRENCH | | | |
| HANDHOLE | | | |
| HEAVY DUTY HANDHOLE | | | |
| DOUBLE HANDHOLE | | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | |
| DETECTOR LOOP | | | |
| CAST IRON JUNCTION BOX | | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | | |
| CONFIRMATION BEACON | | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | | |
| CONDUIT SPLICE | | | |
| WOOD POLE | | | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | | |
| VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | | |
| RAILROAD CONTROL CABINET | | | |
| TELEPHONE CONNECTION | | | |
| ILLUMINATED SIGN "NO LEFT TURN" | | | |
| ILLUMINATED SIGN "NO RIGHT TURN" | | | |
| MICROWAVE VEHICLE SENSOR | | | |

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT PINE ST.

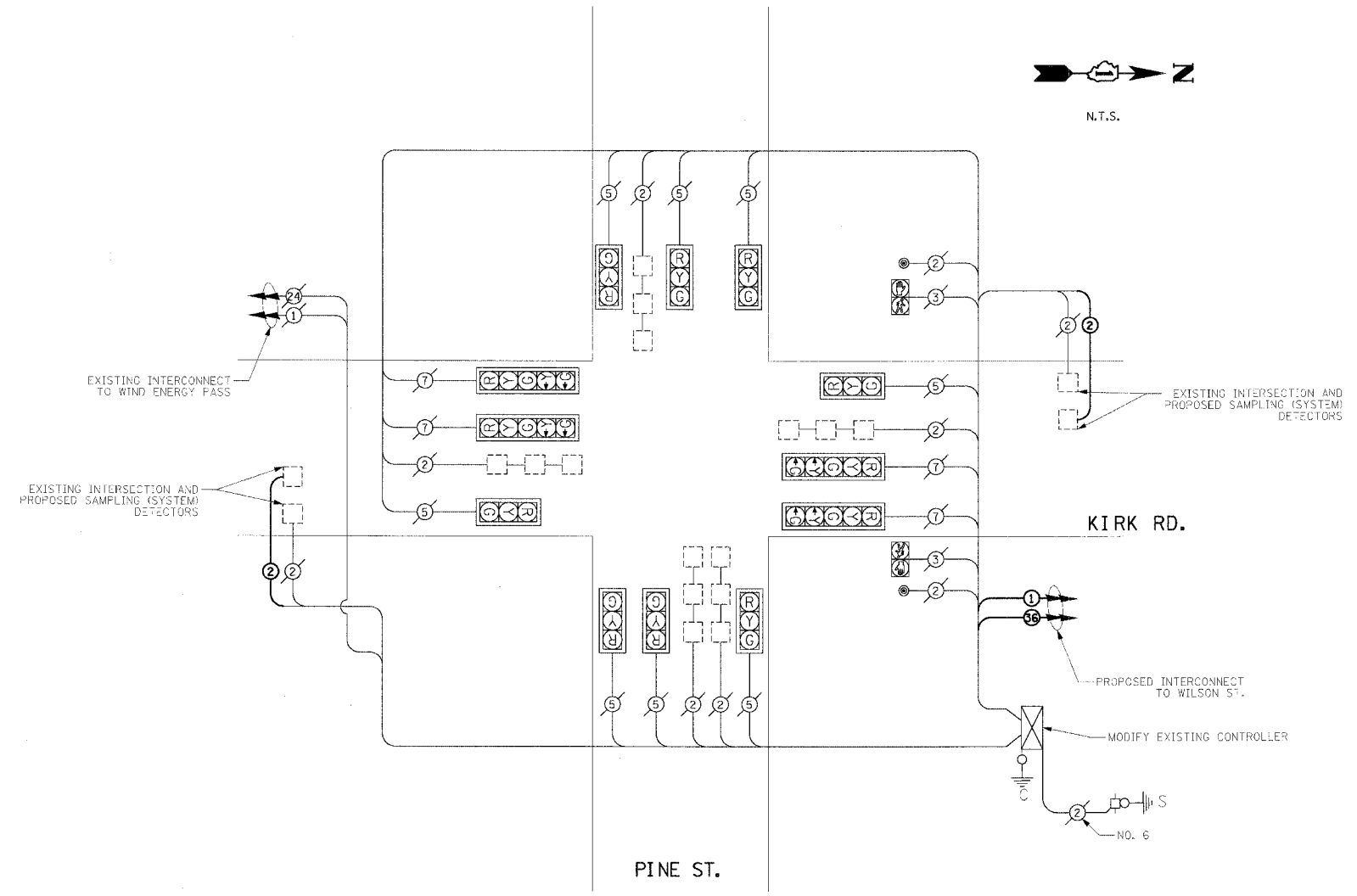
SCALE: 1" = 20'
DATE: 07/19/05
DRAWN BY: MD
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	D3-00320-00-TL	KANE	33	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83808				

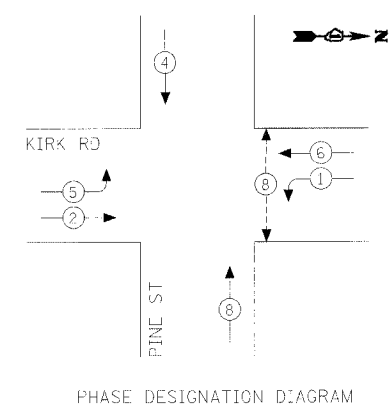
CABLE PLAN LEGEND

- | | | | |
|---|--|---|--|
| | | | |
| 8" (200mm) TRAFFIC SIGNAL SECTION | 12" (300mm) TRAFFIC SIGNAL SECTION | 12" (300mm) PEDESTRIAN SIGNAL SECTION | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | | |
| CONTROLLER CABINET | SERVICE INSTALLATION | TELEPHONE CONNECTION | VEHICLE DETECTOR, INDUCTION LOOP |
| | | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | CONFIRMATION BEACON | PUSHBUTTON DETECTOR | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | | |
| FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. | RAILROAD CONTROL CABINET | ILLUMINATED SIGN "NO LEFT TURN" |
| | | | |
| GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD), OR CONTROLLER (C) | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) | GROUND ROD AT ELECTRIC SERVICE INSTALLATION | MICROWAVE VEHICLE SENSOR |
| | | | |
| FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F | | |

CABLE PLAN



EXISTING CONTROLLER SEQUENCE



SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
513	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
2	EACH	HANDHOLE
513	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
827	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	MODIFY EXISTING CONTROLLER

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	810.0
(YELLOW)	12	135	25	0.25	405.0
(GREEN)	12	135	15	0.25	405.0
ARROW	8	135	12	0.10	108.0
PED. SIGNAL	2	90	25	1.00	180.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN					
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	2008.0
CITY OF BATAVIA 100 N. ISLAND AVENUE BATAVIA, ILLINOIS 60510					
ENERGY SUPPLY CONTACT: STEVE LUSTED PHONE: (630) 879-1424 X 302 COMPANY: CITY OF BATAVIA					

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H.-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L.-0.6m)=
	24" (600mm)	CONTROL CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

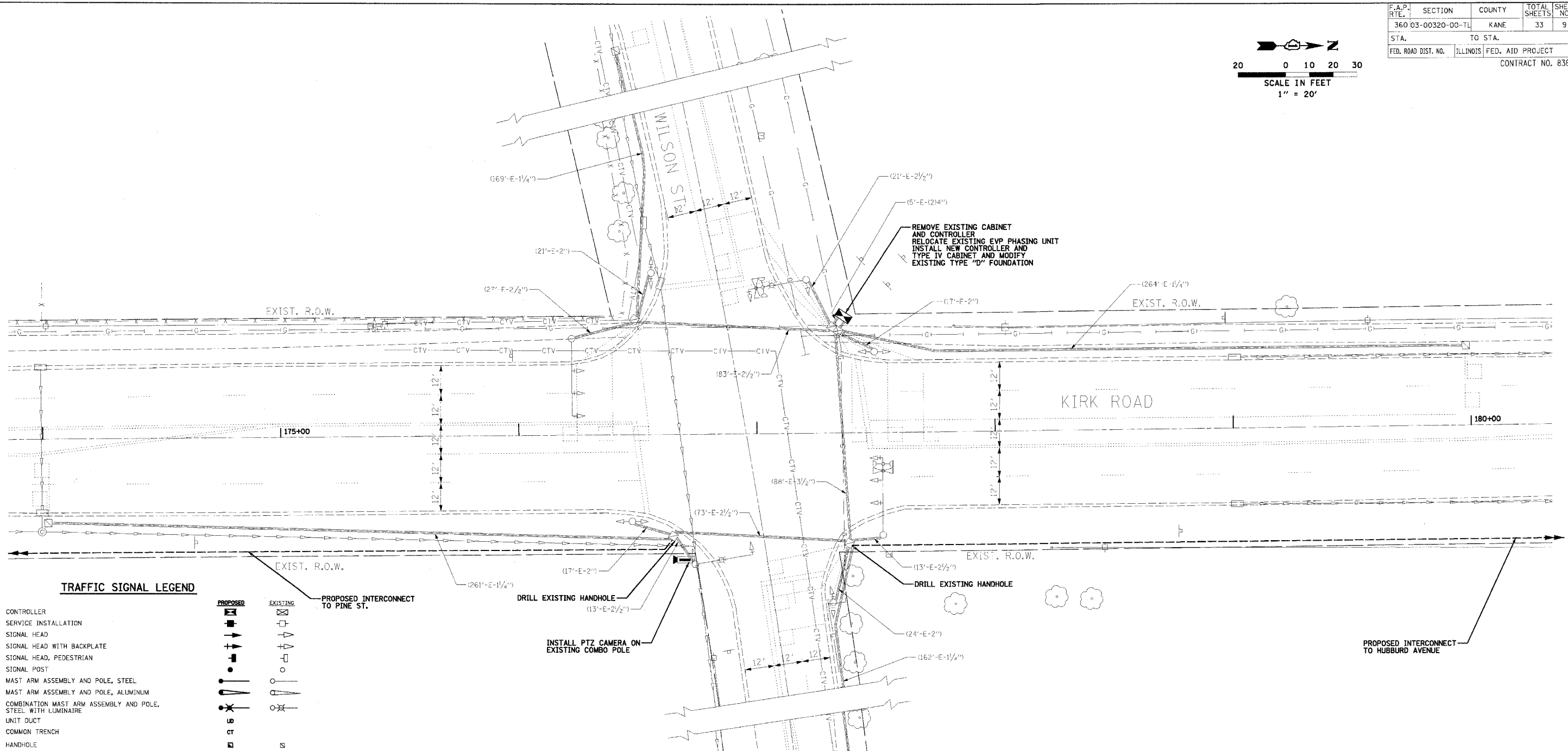
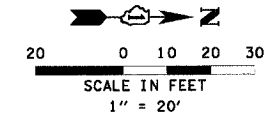
KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
SCHEDULE OF QUANTITIES
KIRK RD AT PINE ST

SCALE: NONE
DATE: 07/19/05

DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS



TRAFFIC SIGNAL LEGEND

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

PROPOSED INTERCONNECT TO PINE ST.

DRILL EXISTING HANDHOLE
(13'-E-2 1/2")

INSTALL PTZ CAMERA ON EXISTING COMBO POLE

DRILL EXISTING HANDHOLE
(13'-E-2 1/2")

PROPOSED INTERCONNECT TO HUBBARD AVENUE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY DIVISION OF TRANSPORTATION AND SHALL BE DELIVERED BY THE CONTRACTOR TO KANE COUNTY'S YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

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

- 1 EACH TRAFFIC SIGNAL CABINET, COMPLETE (WITHOUT CONTROLLER)

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

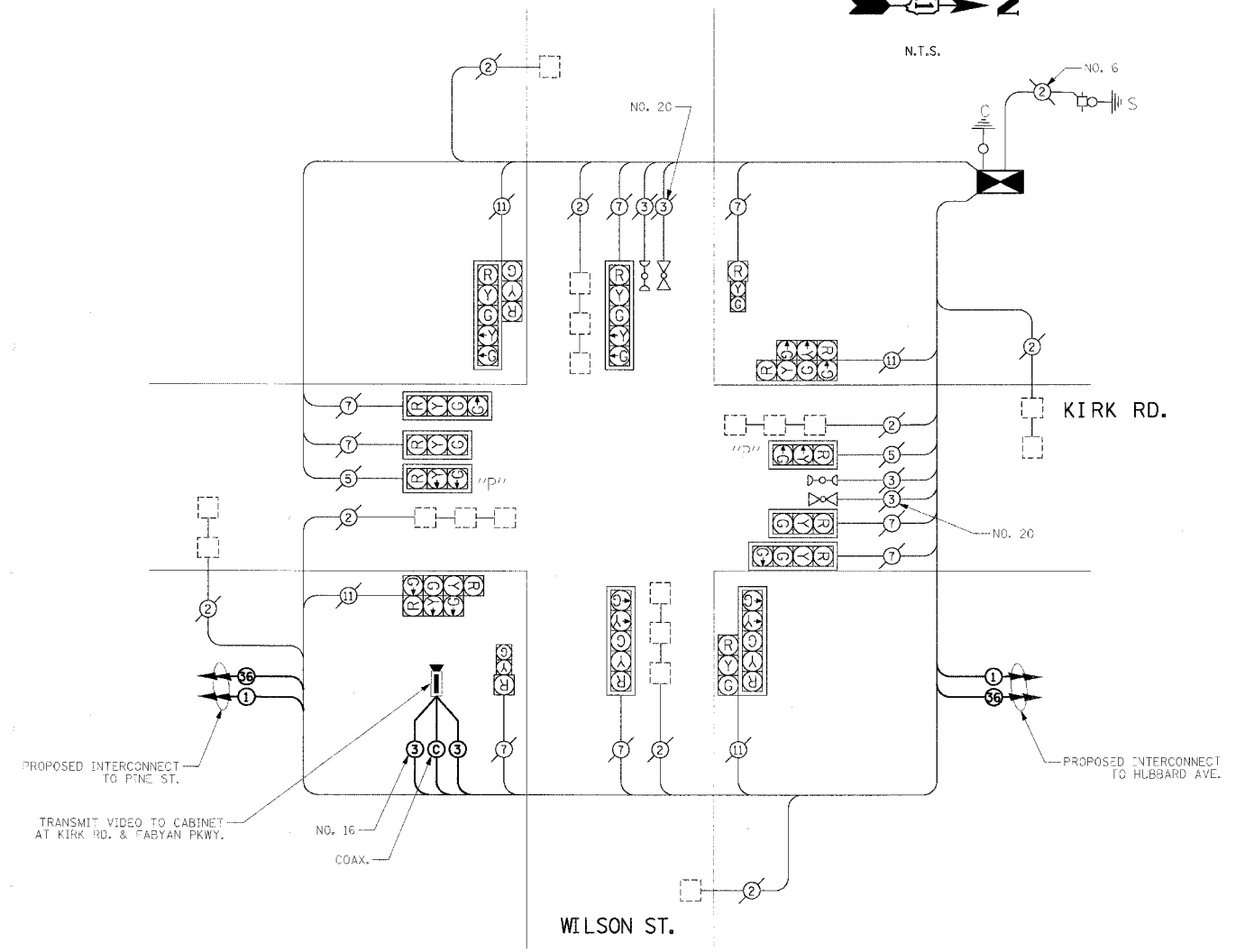
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT WILSON ST.

SCALE: 1" = 20'
DATE: 07/19/05
DRAWN BY: MD
DESIGNED BY: DMS
CHECKED BY: DMS

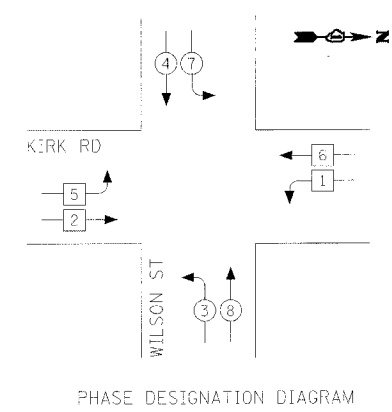
CABLE PLAN LEGEND

- | | | |
|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | MICROWAVE VEHICLE SENSOR |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |
| | | PAN-TILT-ZOOM CAMERA |

CABLE PLAN



PROPOSED CONTROLLER SEQUENCE



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

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
255	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
255	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
255	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
2	EACH	DRILL EXISTING HANDHOLE
8	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	MODIFY EXISTING TYPE "D" FOUNDATION
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM
1	WEEK	CHANGEABLE MESSAGE SIGN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	18	135	17	0.50	1215.0
(YELLOW)	14	135	25	0.25	472.5
(GREEN)	14	135	15	0.25	472.5
ARROW	20	135	12	0.10	270.0
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					2530.0

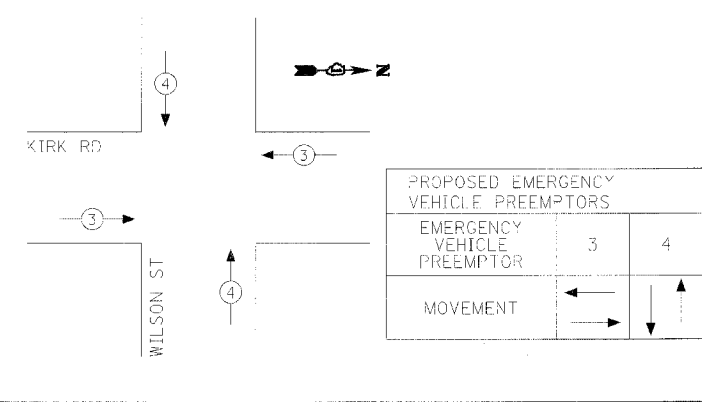
ENERGY COSTS TO: CITY OF BATAVIA, 100 N. ISLAND AVENUE, BATAVIA, ILLINOIS 60510

ENERGY SUPPLY CONTACT: STEVE LUSTED, PHONE: (630) 879-1424 X 302, COMPANY: CITY OF BATAVIA

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2= (6m-H-0.6m)=
E - M. ARM POLE	24" (600mm)	SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	CONTROLLER CAB.	1 (0.3)	PED. PUSHBUTTON	4 (1.2)
		FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.3)	POST MOUNTED	6 (1.8)

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



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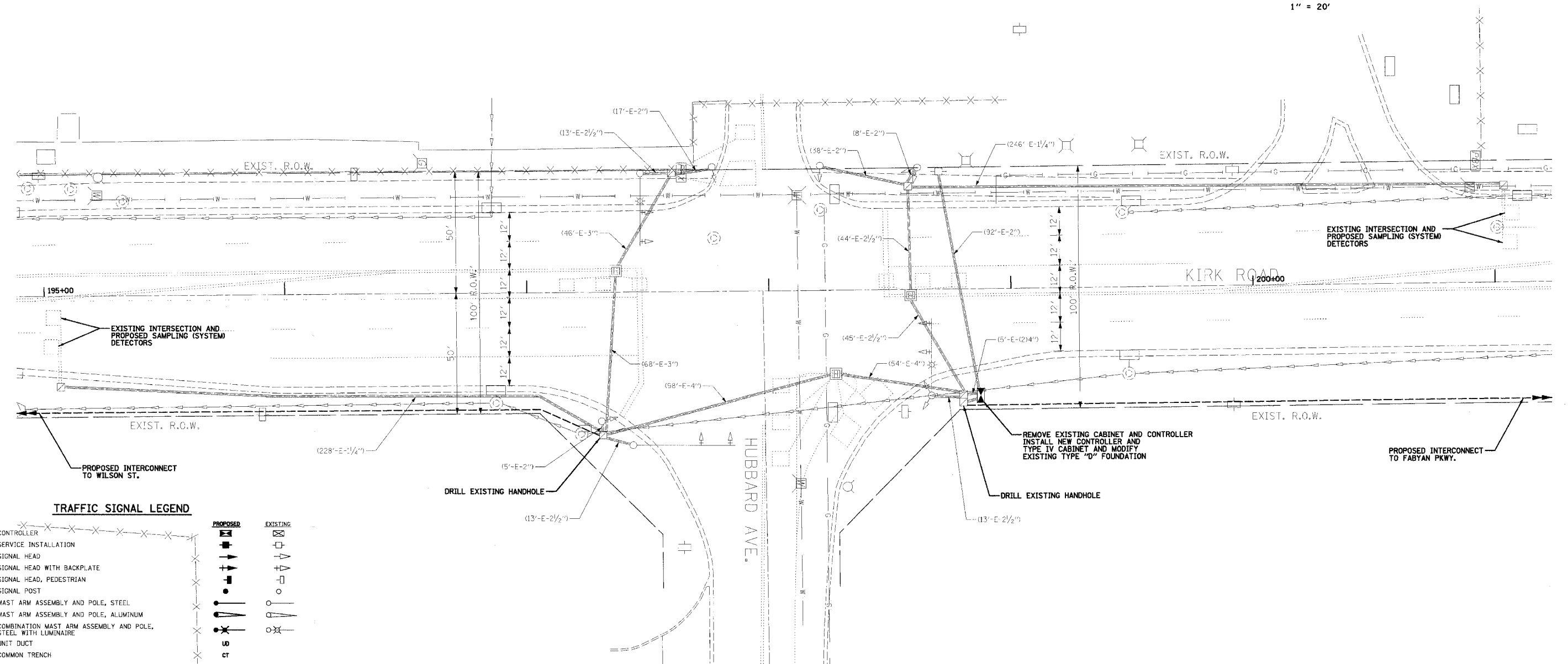
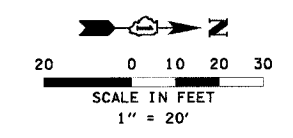
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES
KIRK RD AT WILSON ST

SCALE: NONE
DATE: 07/19/05

DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	CONTRACT NO. 83808			



TRAFFIC SIGNAL LEGEND

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

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR. THIS EQUIPMENT SHALL REMAIN THE PROPERTY OF THE KANE COUNTY DIVISION OF TRANSPORTATION AND SHALL BE DELIVERED BY THE CONTRACTOR TO KANE COUNTY'S YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

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

- 1 EACH TRAFFIC SIGNAL CABINET, COMPLETE (WITHOUT CONTROLLER)

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
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ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT HUBBARD AVE.

SCALE: 1" = 20'
DATE: 07/19/05

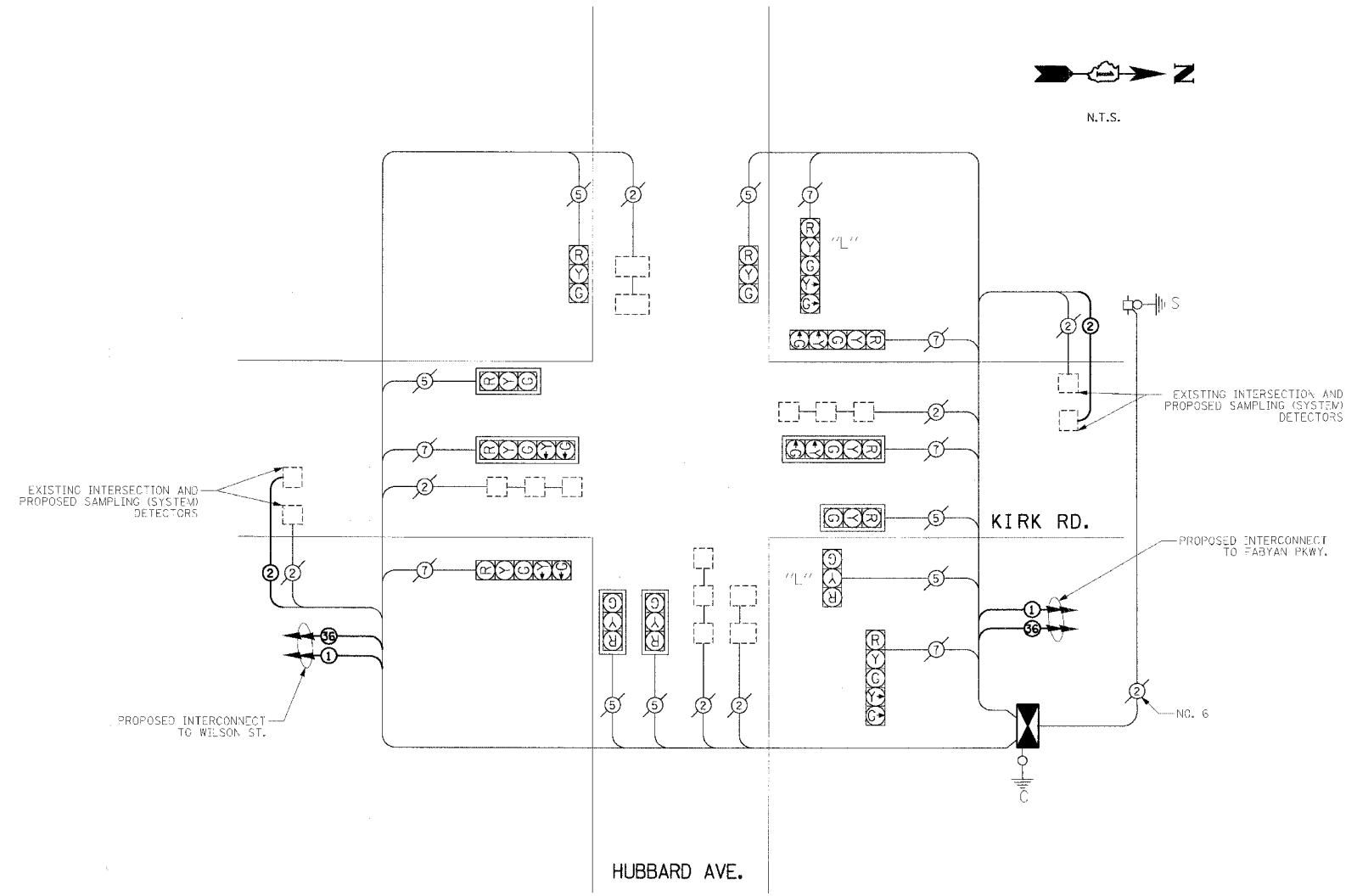
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DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	D3-00320-00-TL	KANE	33	12
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 83808				

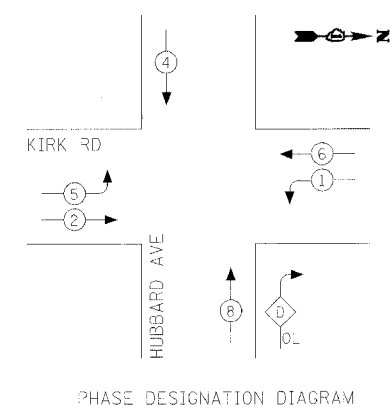
CABLE PLAN LEGEND

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CABLE PLAN



PROPOSED CONTROLLER SEQUENCE



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

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
799	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
2	EACH	DRILL EXISTING HANDHOLE
9	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	MODIFY EXISTING TYPE 'D' FOUNDATION
1	WEEK	CHANGEABLE MESSAGE SIGNS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	877.50
(YELLOW)	13	135	25	0.25	438.75
(GREEN)	13	135	15	0.25	438.75
ARROW	12	135	12	0.10	162.00
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: CITY OF BATAVIA 100 N. ISLAND AVENUE, BATAVIA, ILLINOIS 60510					TOTAL = 2017.0
ENERGY SUPPLY CONTACT: STEVE LUSTED, PHONE: (630) 879-1424 X 302, COMPANY: CITY OF BATAVIA					

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

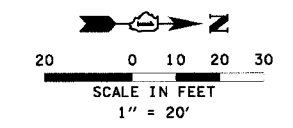
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H.-2" (6m+L.-0.6m)=
E - M. ARM POLE	24" (600mm)	SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
		FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES
KIRK RD AT HUBBARD AVE
SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360.03-00320-00-TL	KANE	33	13
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83808			

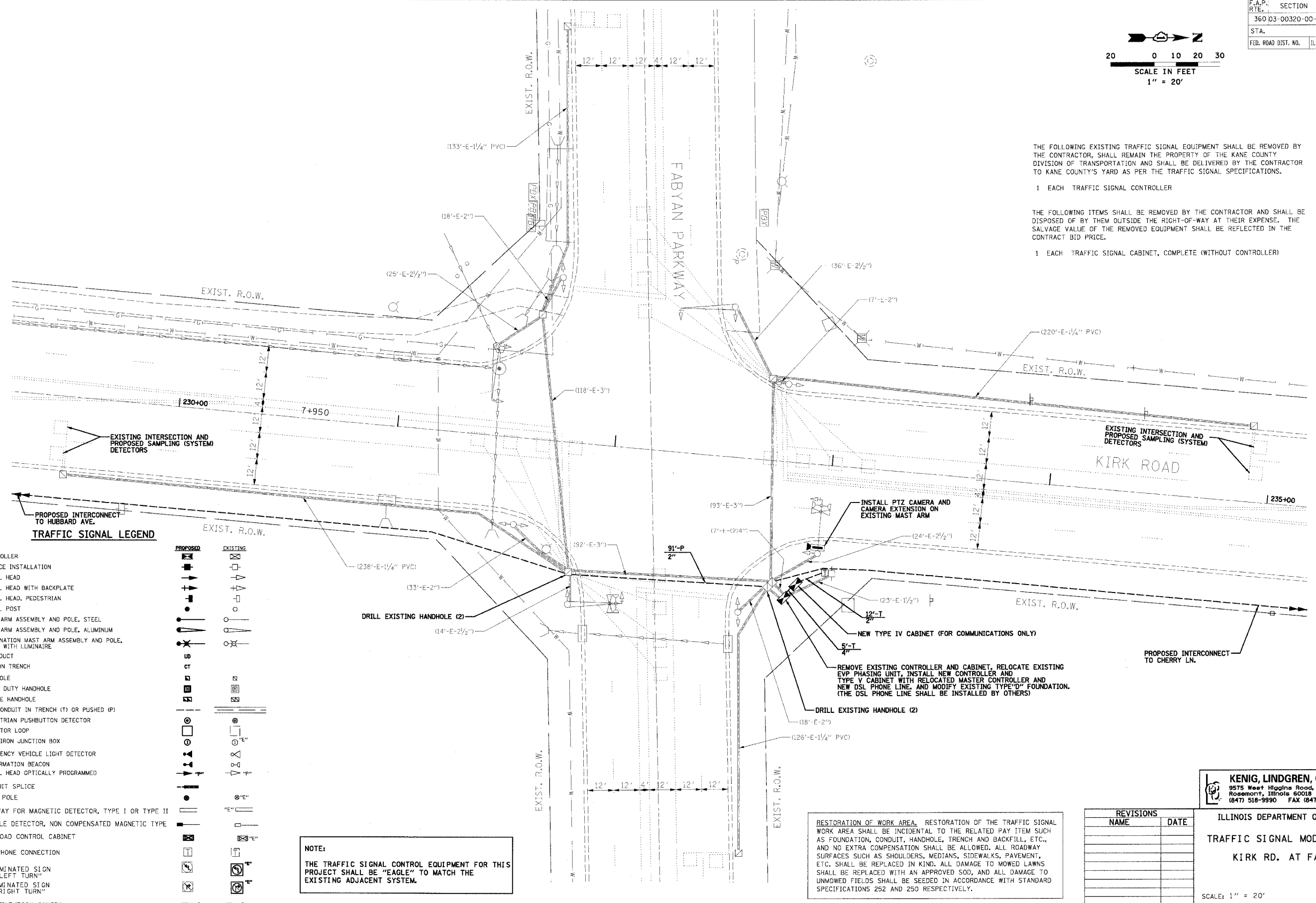


THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY DIVISION OF TRANSPORTATION AND SHALL BE DELIVERED BY THE CONTRACTOR TO KANE COUNTY'S YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH TRAFFIC SIGNAL CONTROLLER

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

1 EACH TRAFFIC SIGNAL CABINET, COMPLETE (WITHOUT CONTROLLER)



TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT FABYAN PKWY.

SCALE: 1" = 20'
DATE: 07/19/05

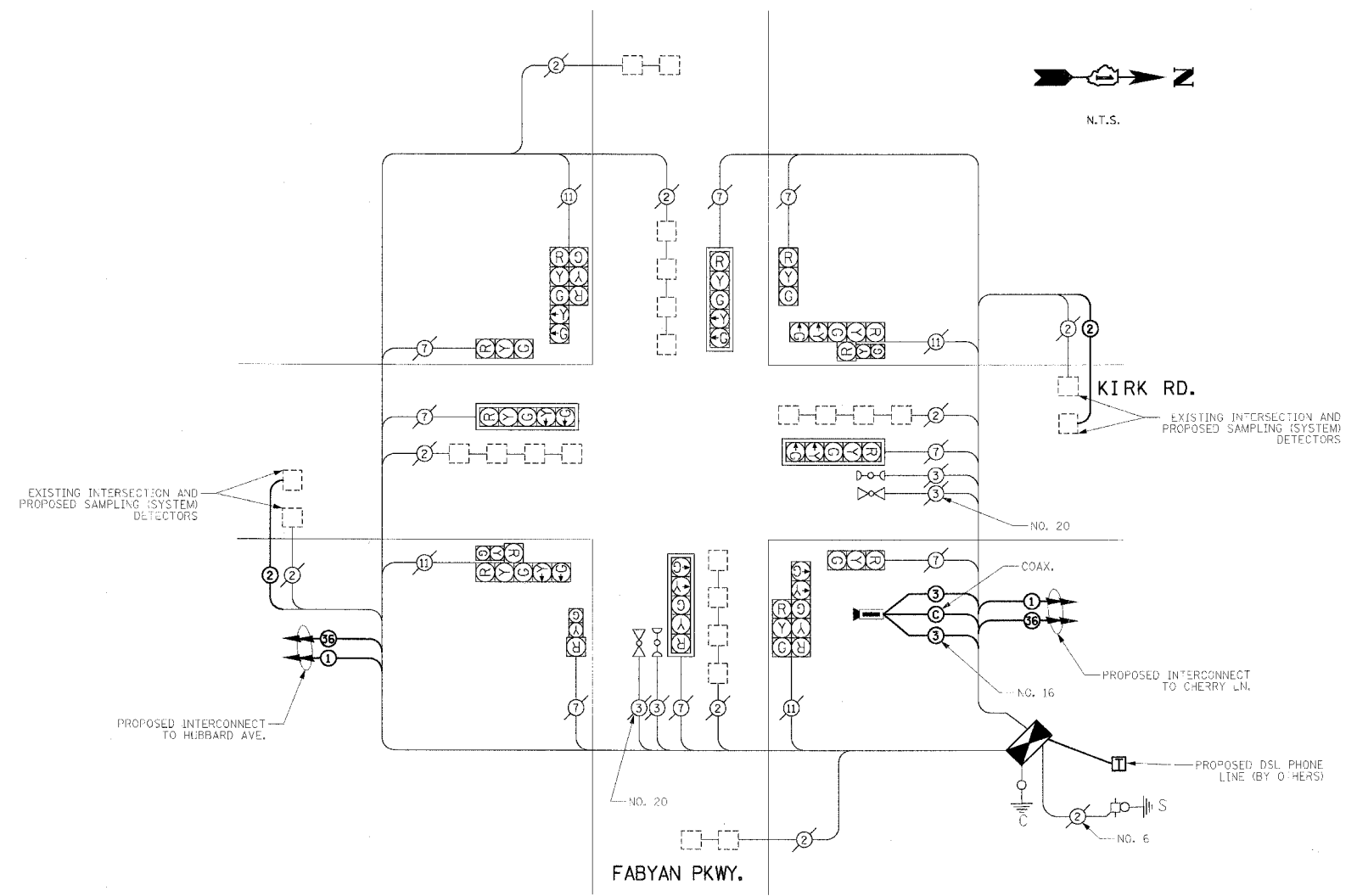
DRAWN BY: MD
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
360 03-00320-00-TL		KANE	33
STA.	TO STA.		14
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 83808			

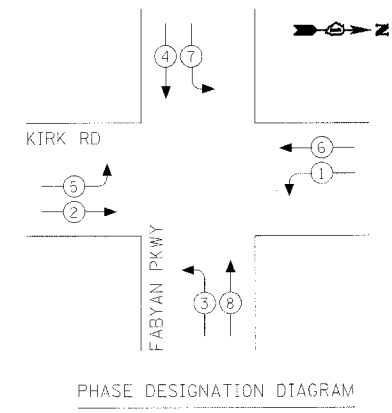
CABLE PLAN LEGEND

- | | | |
|--|--|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | CONFIRMATION BEACON |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |

CABLE PLAN



PROPOSED CONTROLLER SEQUENCE



SCHEDULE OF QUANTITIES

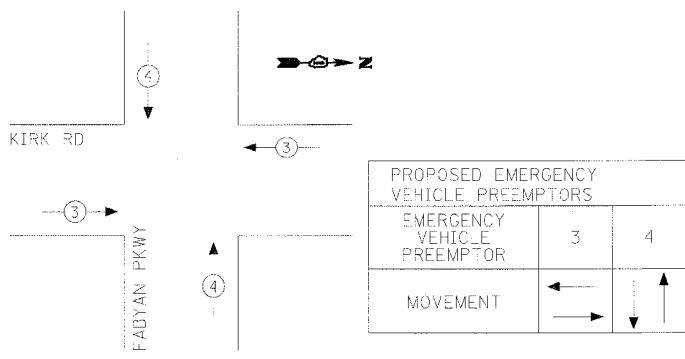
QTY	UNIT	ITEM DESCRIPTION
12	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
5	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
17	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
94	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
714	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
94	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
94	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
4	FOOT	CONCRETE FOUNDATION, TYPE D
4	EACH	DRILL EXISTING HANDHOLE
10	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	MODIFY EXISTING TYPE 'D' FOUNDATION
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM
1	EACH	VIDEO COMMUNICATIONS SYSTEM AND CABINET
1	WEEK	CHANGEABLE MESSAGE SIGN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	1080.0
(YELLOW)	16	135	25	0.25	540.0
(GREEN)	16	135	15	0.25	540.0
ARROW	16	135	12	0.10	216.0
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN				0.05	
FLASHER					0.50
TOTAL =					2476.0

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



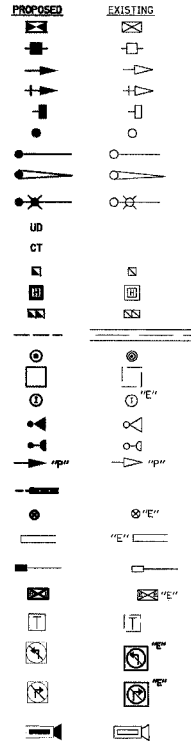
KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

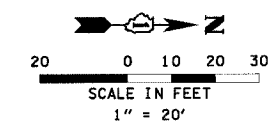
ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
SCHEDULE OF QUANTITIES
KIRK RD AT FABYAN PKWY
SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

TRAFFIC SIGNAL LEGEND

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



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83808				

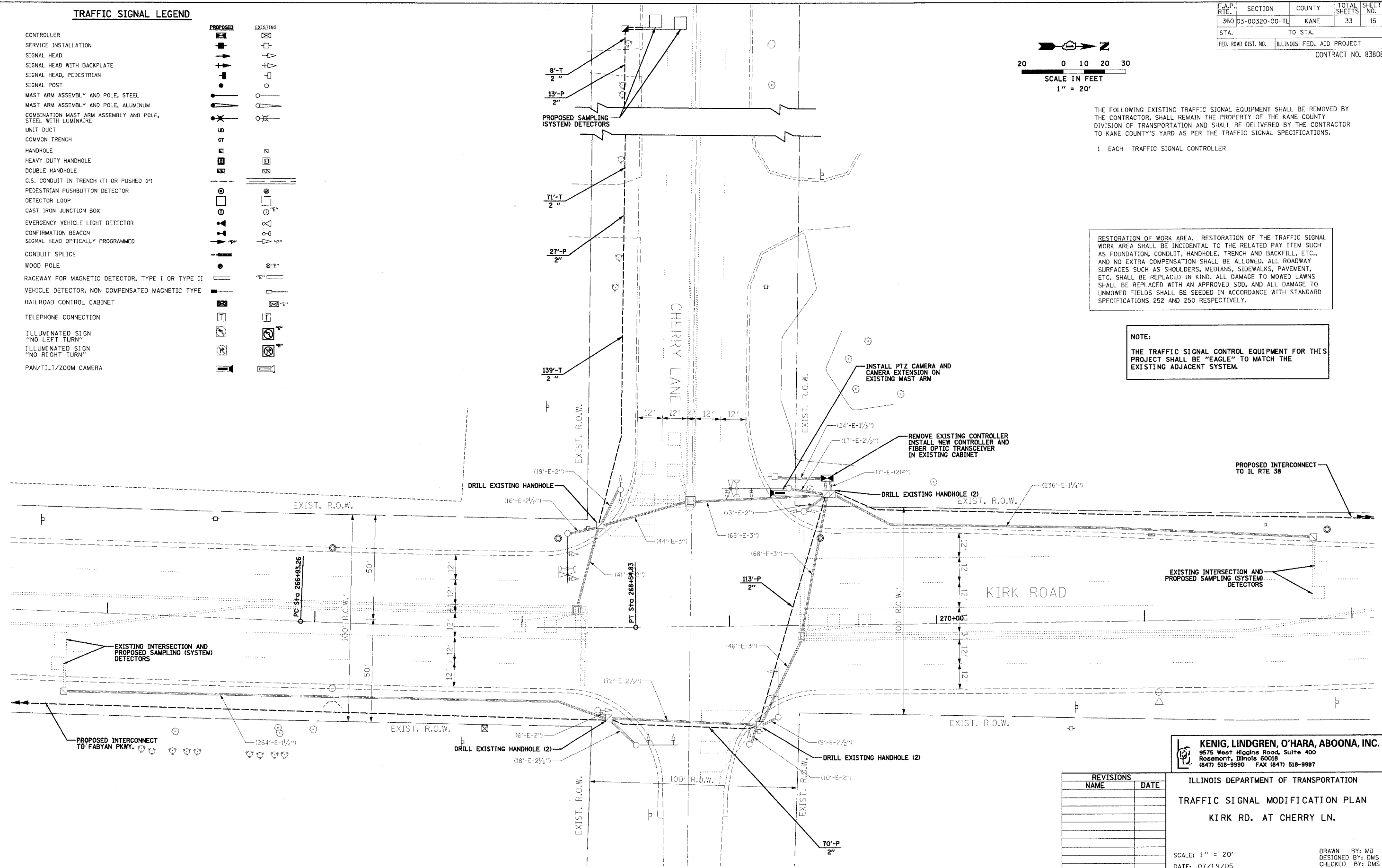


THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY DIVISION OF TRANSPORTATION AND SHALL BE DELIVERED BY THE CONTRACTOR TO KANE COUNTY'S YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH TRAFFIC SIGNAL CONTROLLER

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

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



REVISIONS	
NAME	DATE

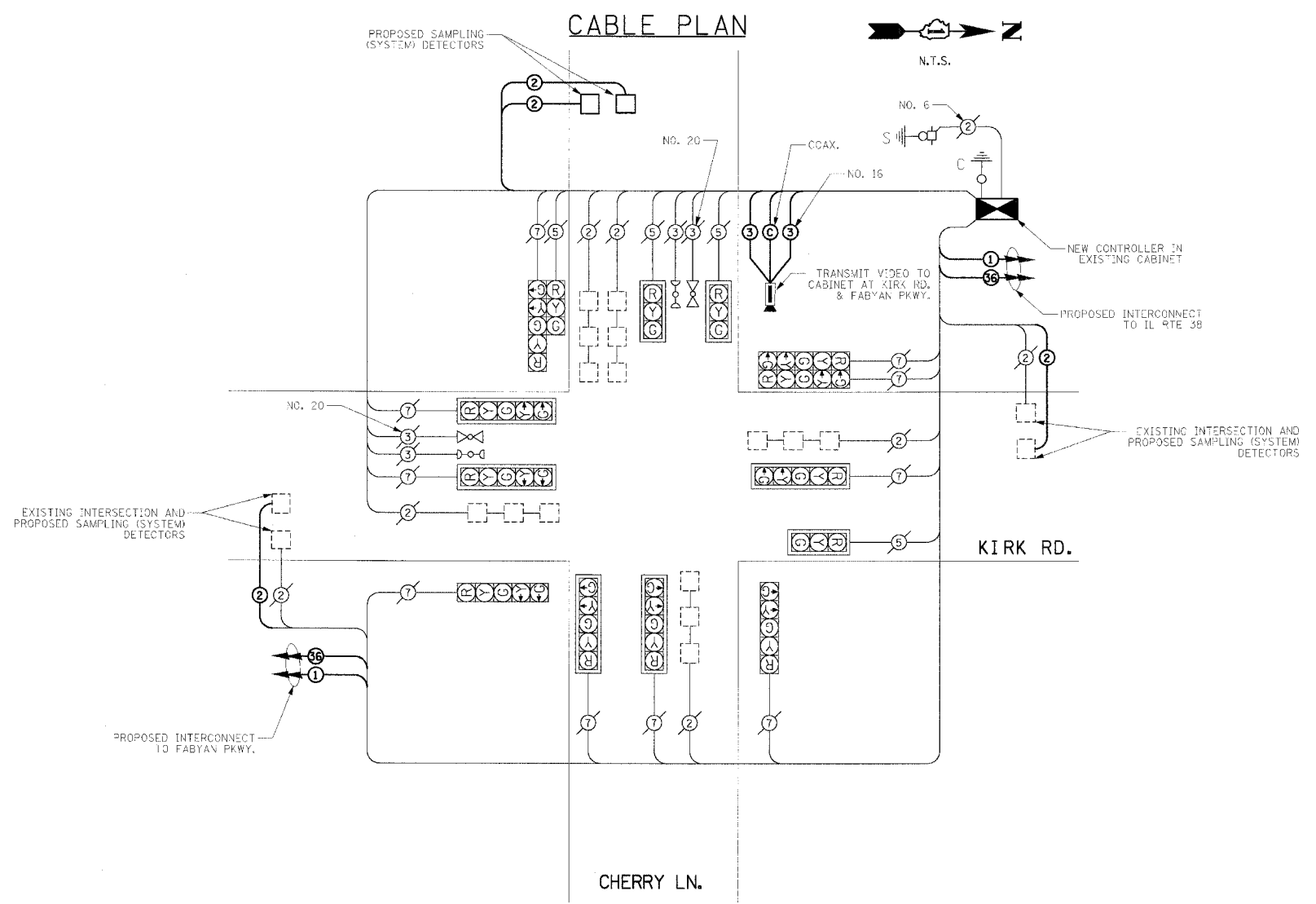
KENIG, LINDGREN, O'HARA, ABOONA, INC.
 9575 West Higgins Road, Suite 400
 Rosemont, Illinois 60018
 (847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
 KIRK RD. AT CHERRY LN.

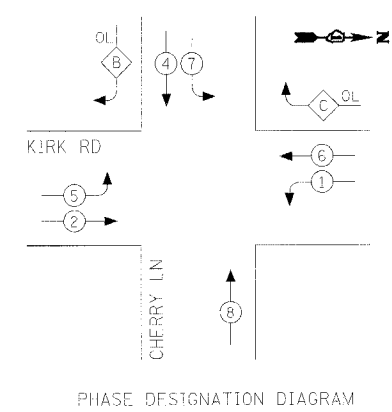
SCALE: 1" = 20'
 DATE: 07/19/05
 DRAWN BY: MD
 DESIGNED BY: DMS
 CHECKED BY: DMS

CABLE PLAN LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | MICROWAVE VEHICLE SENSOR |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |
| | | PAN-TILT-ZOOM CAMERA |



PROPOSED CONTROLLER SEQUENCE



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

- ### LEGEND
- DUAL ENTRY PHASE
 - SINGLE ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

SCHEDULE OF QUANTITIES

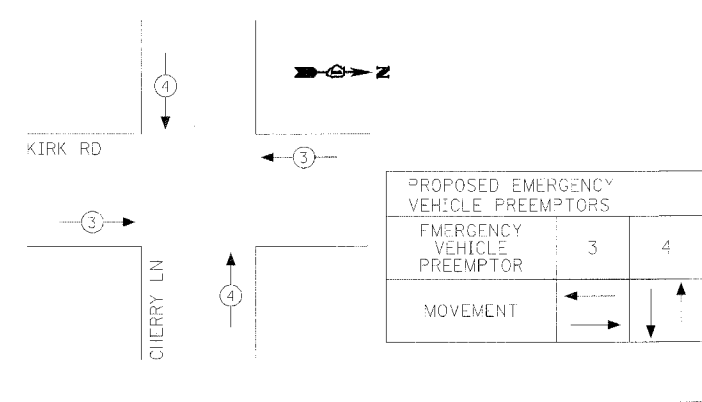
QTY	UNIT	ITEM DESCRIPTION
218	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
40	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
1	EACH	HANDHOLE
218	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL TRANSCIEVER - FIBER OPTIC
87	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1590	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
87	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
87	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
7	EACH	DRILL EXISTING HANDHOLE
4	EACH	INDUCTIVE LOOP DETECTOR
66	FOOT	DETECTOR LOOP, TYPE I
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	945.0
(YELLOW)	14	135	25	0.25	472.5
(GREEN)	14	135	15	0.25	472.5
ARROW	20	135	12	0.10	270.0
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: KANE COUNTY DIVISION OF TRANSPORTATION 41011 BURLINGTON ROAD ST. CHARLES, ILLINOIS 60175					TOTAL = 2260.0
ENERGY SUPPLY CONTACT: CLAY TIKNIS PHONE: (630) 691-4363 COMPANY: COMED					

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+H-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES
KIRK RD AT CHERRY LN
SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH TRAFFIC SIGNAL CONTROLLER

REMOVE EXISTING CONTROLLER
INSTALL NEW CONTROLLER AND
STAR MODEM IN EXISTING CABINET

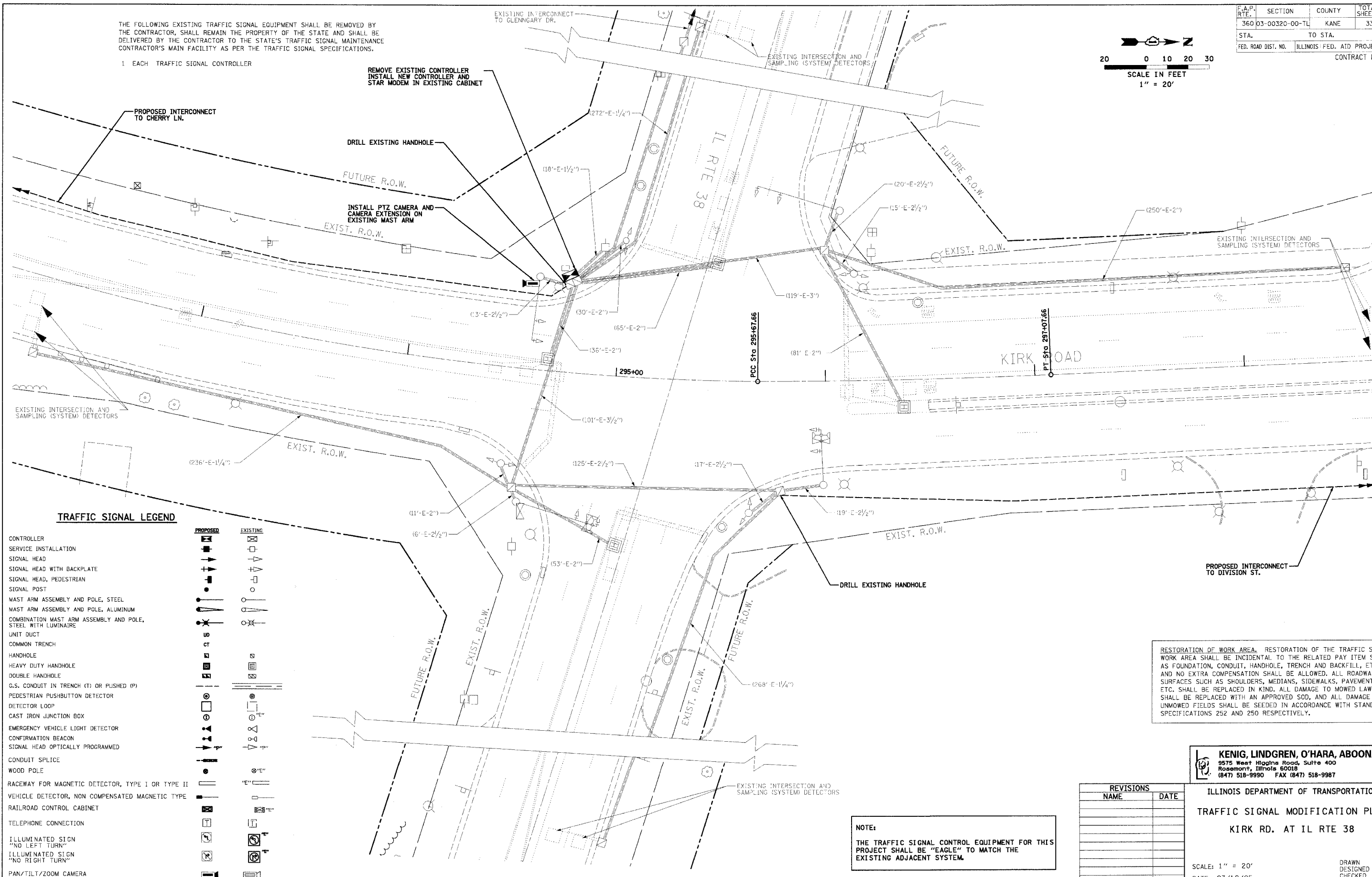
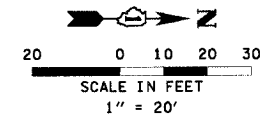
DRILL EXISTING HANDHOLE

INSTALL PTZ CAMERA AND
CAMERA EXTENSION ON
EXISTING MAST ARM

EXISTING INTERCONNECT
TO GLENNARY DR.

EXISTING INTERSECTION AND
SAMPLING (SYSTEM) DETECTORS

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 83808				



TRAFFIC SIGNAL LEGEND

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

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

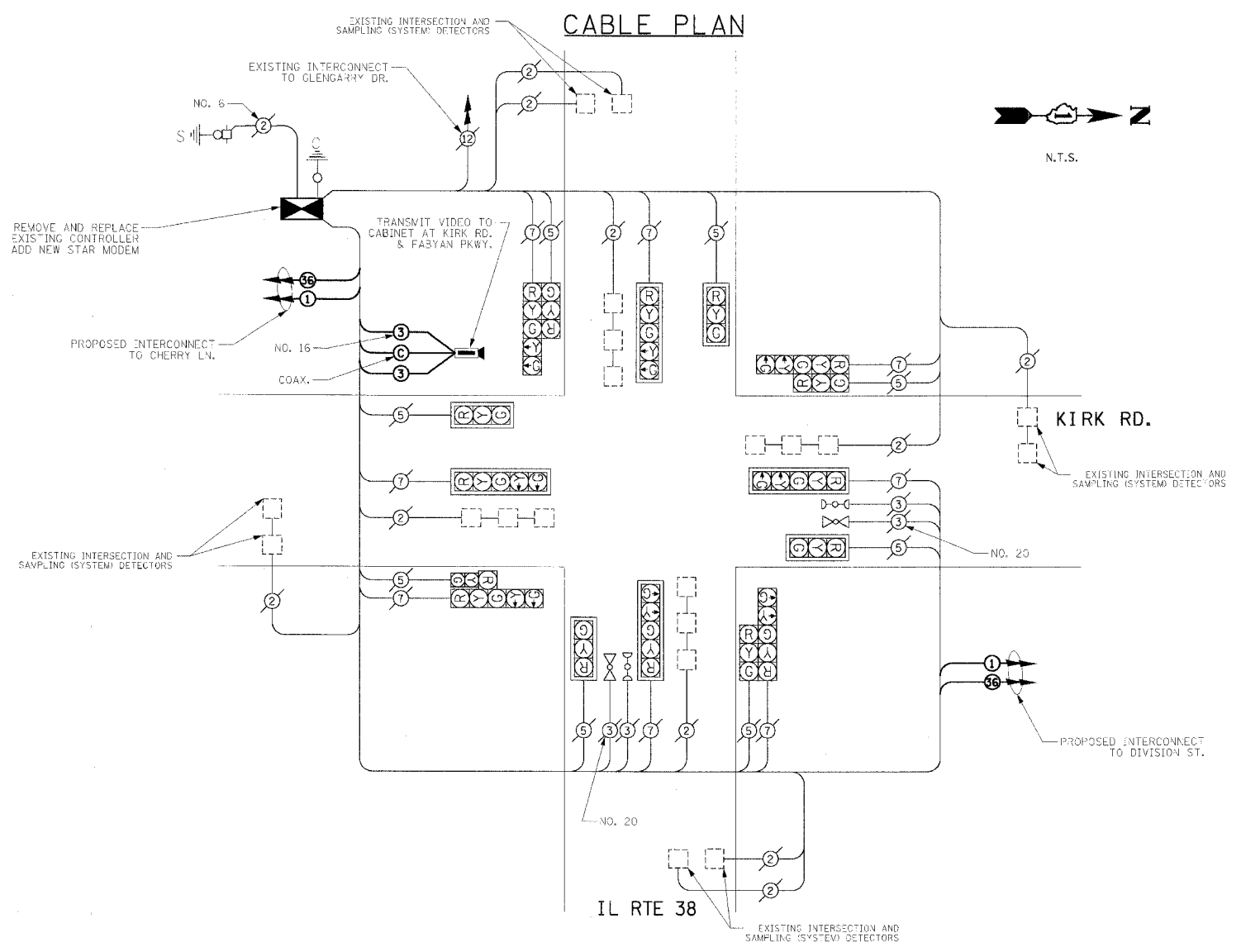
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT IL RTE 38

SCALE: 1" = 20'
DATE: 07/19/05
DRAWN BY: MD
DESIGNED BY: DMS
CHECKED BY: DMS

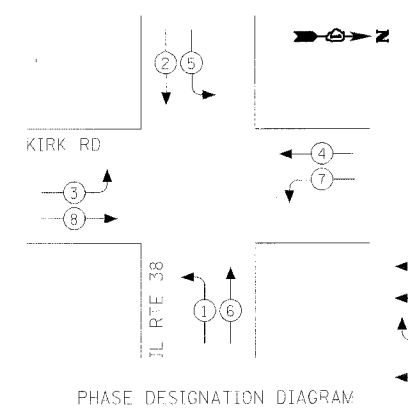
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	D3-00320-00-TL	KANE	33	18
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83808				

CABLE PLAN LEGEND

- | | |
|--|--|
| | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | CONTROLLER CABINET |
| | SERVICE INSTALLATION |
| | TELEPHONE CONNECTION |
| | VEHICLE DETECTOR, INDUCTION LOOP |
| | MAGNETIC DETECTOR |
| | EMERGENCY VEHICLE LIGHT DETECTOR |
| | CONFIRMATION BEACON |
| | PUSHBUTTON DETECTOR |
| | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | 1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | 24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F |
| | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | RAILROAD CONTROL CABINET |
| | ILLUMINATED SIGN "NO LEFT TURN" |
| | ILLUMINATED SIGN "NO RIGHT TURN" |
| | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | MICROWAVE VEHICLE SENSOR |
| | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |
| | PAN-TILT-ZOOM CAMERA |



PROPOSED CONTROLLER SEQUENCE

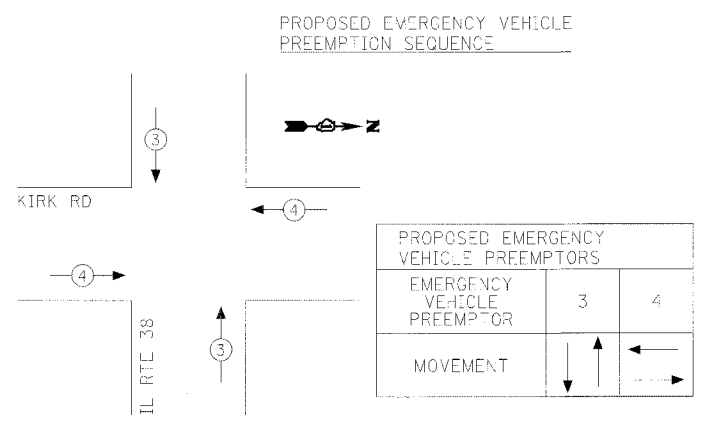
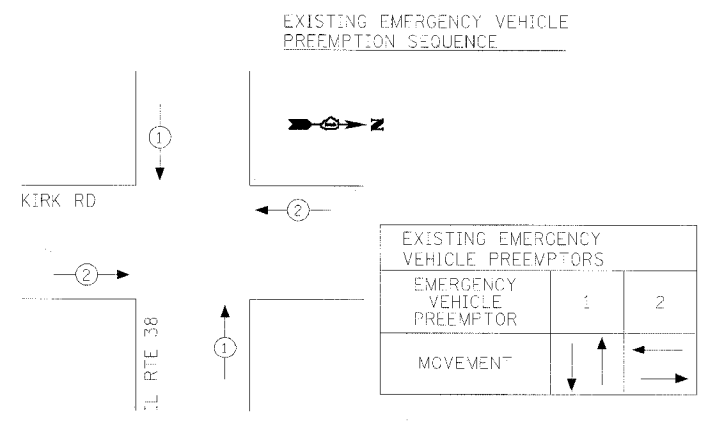


SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL
81	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
81	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
81	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
2	EACH	DRILL EXISTING HANDHOLE
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	1080.0
(YELLOW)	16	135	25	0.25	540.0
(GREEN)	16	135	15	0.25	540.0
ARROW	16	135	12	0.10	216.0
PED. SIGNAL	30	25		1.00	
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					2476.0



FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20" H - 2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m + L - 0.6m) =
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

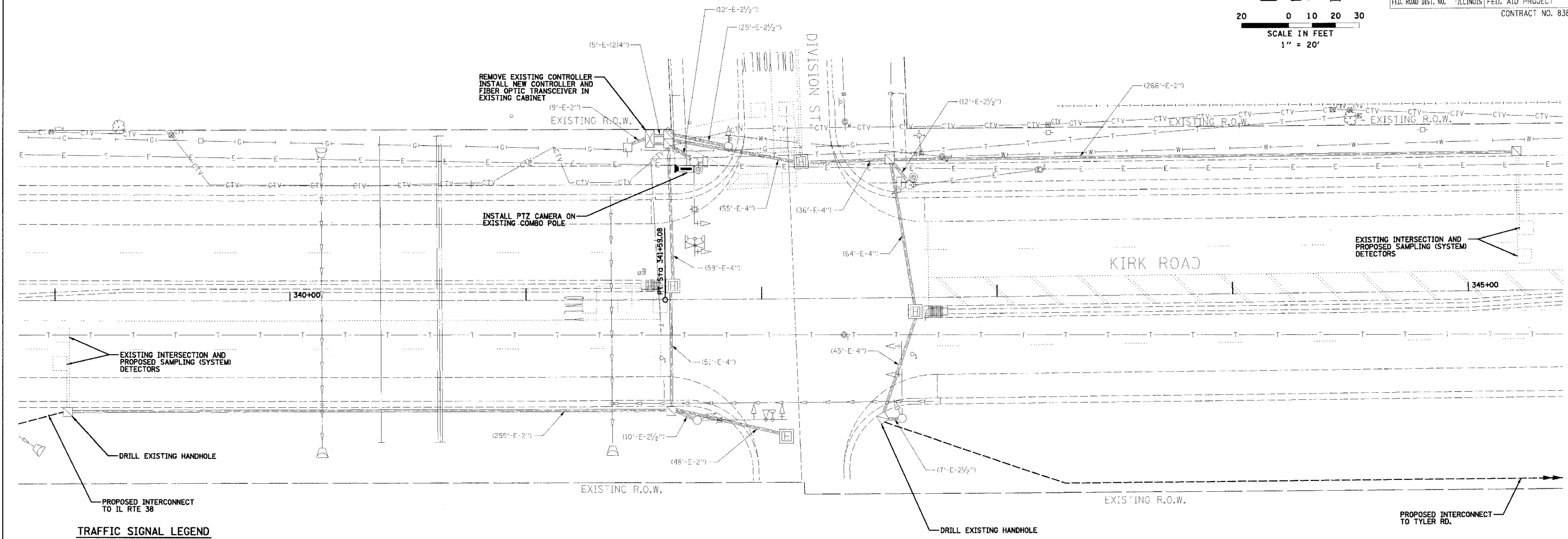
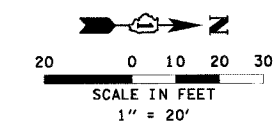
ENERGY COSTS TO: **TOTAL = 2476.0**
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SCHAMBURG, ILLINOIS 60196
CONTACT: JENNIFER HILKEMANN
PHONE: (630) 232-1503
COMPANY: CITY OF GENEVA

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES
KIRK RD AT IL RTE 38
SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 83808		



TRAFFIC SIGNAL LEGEND

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

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY DIVISION OF TRANSPORTATION AND SHALL BE DELIVERED BY THE CONTRACTOR TO KANE COUNTY'S YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH TRAFFIC SIGNAL CONTROLLER

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT DIVISION ST.

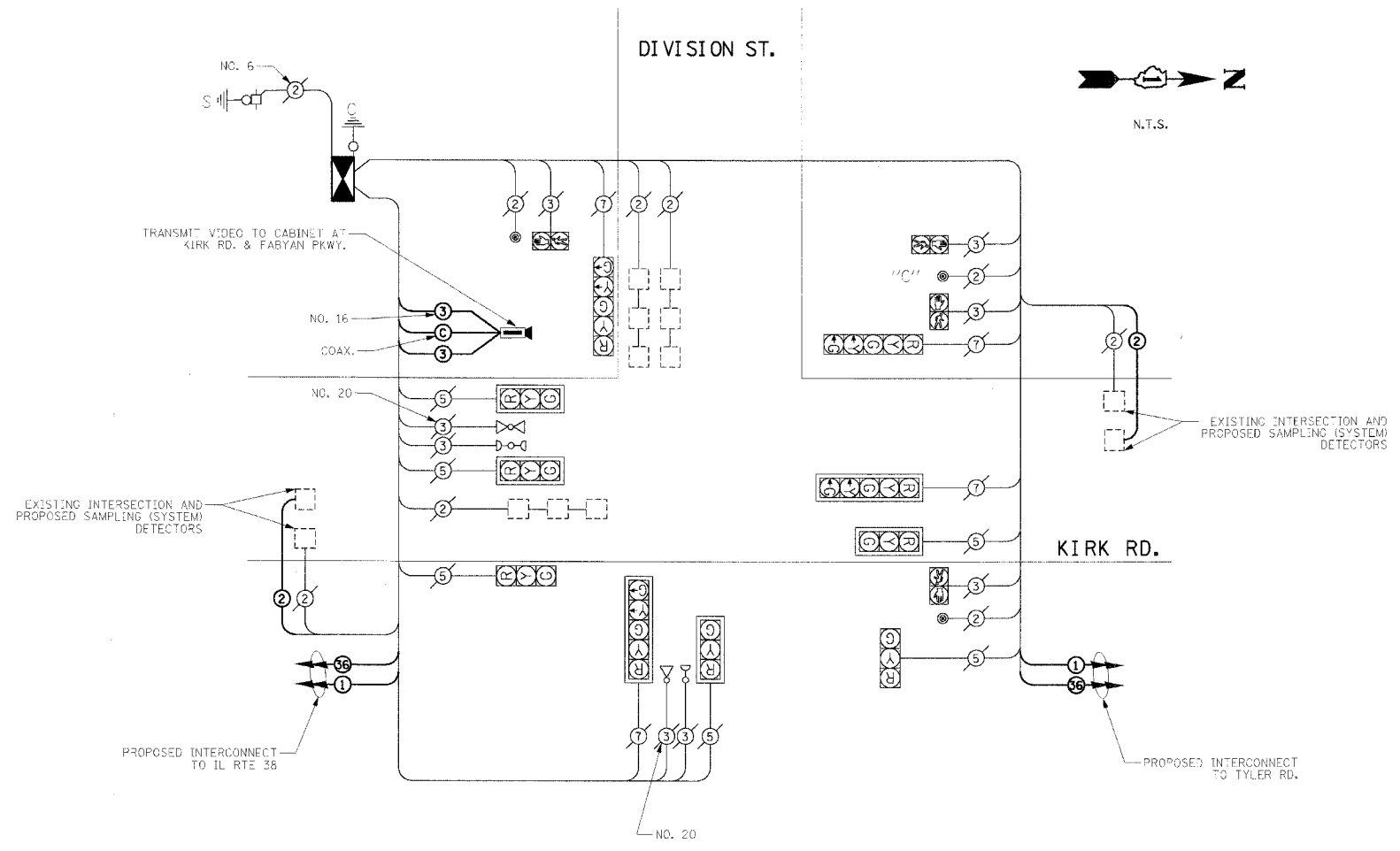
SCALE: 1" = 20'
DATE: 07/19/05

DRAWN BY: MD
DESIGNED BY: DMS
CHECKED BY: DMS

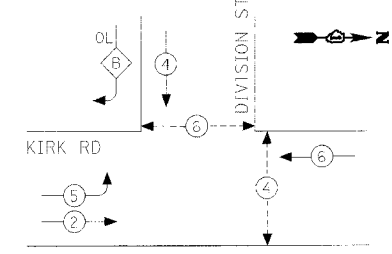
CABLE PLAN LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | MICROWAVE VEHICLE SENSOR |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |
| | | PAN-TILT-ZOOM CAMERA |

CABLE PLAN



PROPOSED CONTROLLER SEQUENCE



- #### LEGEND
- DUAL ENTRY PHASE
 - SINGLE ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

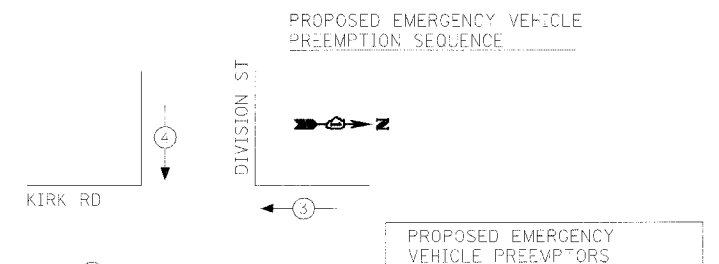
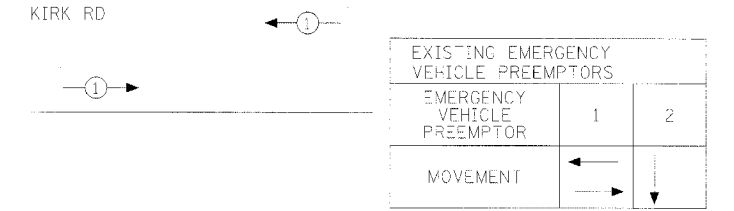
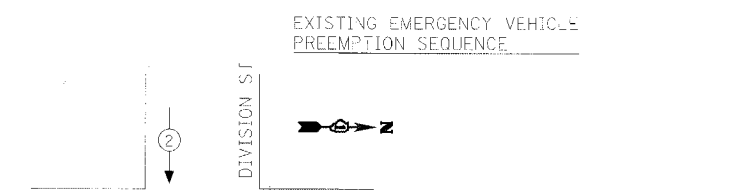
SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
80	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
806	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
80	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
80	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM

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

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

TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135	17	0.50	675.0
(YELLOW)	10	135	25	0.25	337.5
(GREEN)	10	135	15	0.25	337.5
ARROW	8	135	12	0.10	108.0
PED. SIGNAL	4	90	25	1.00	360.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL =					1918.0



FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO:
CITY OF ST. CHARLES
2 E. MAIN STREET
ST. CHARLES, ILLINOIS 60174

ENERGY SUPPLY CONTACT: JENNIFER HILKEMANN
PHONE: (630) 232-1503
COMPANY: CITY OF GENEVA

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

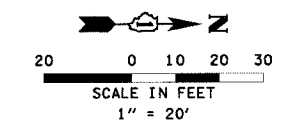
REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
SCHEDULE OF QUANTITIES
KIRK RD AT DIVISION ST

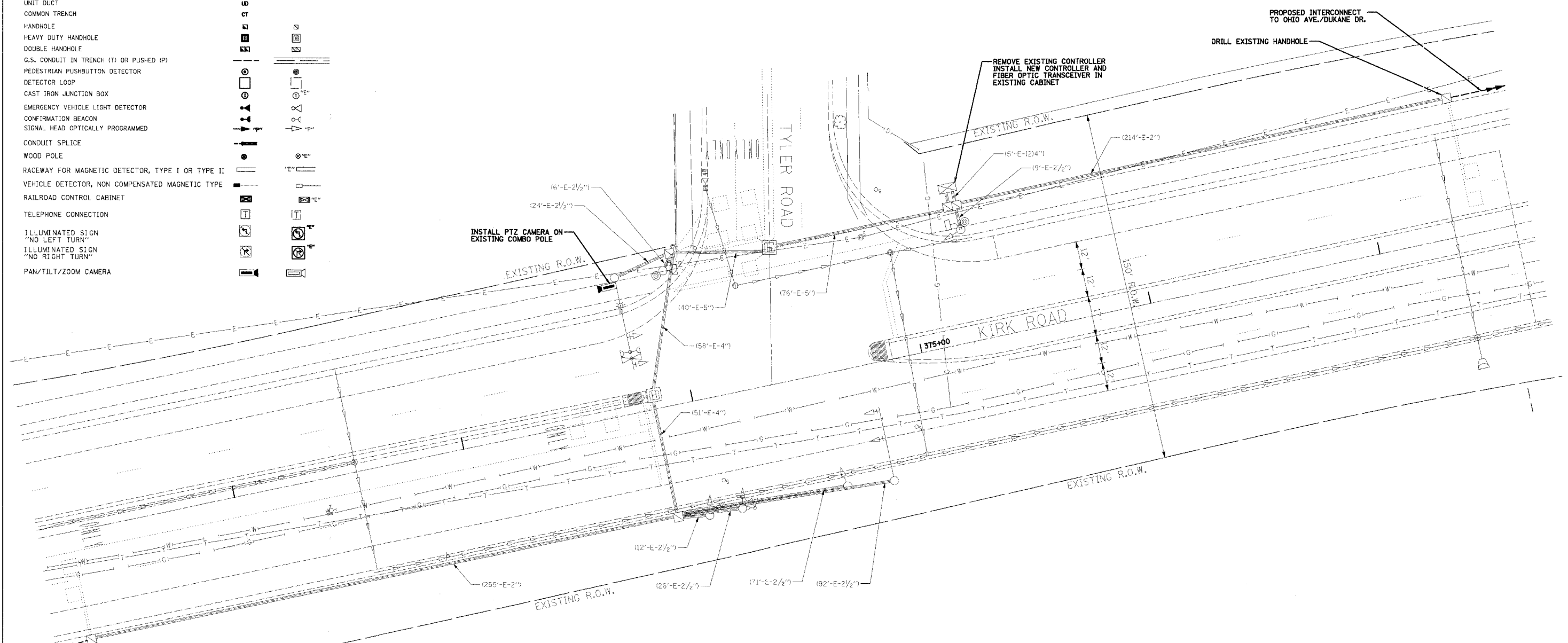
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DATE: 07/19/05

DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS



TRAFFIC SIGNAL LEGEND

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



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY DIVISION OF TRANSPORTATION AND SHALL BE DELIVERED BY THE CONTRACTOR TO KANE COUNTY'S YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH TRAFFIC SIGNAL CONTROLLER

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

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

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
KIRK RD. AT TYLER RD.

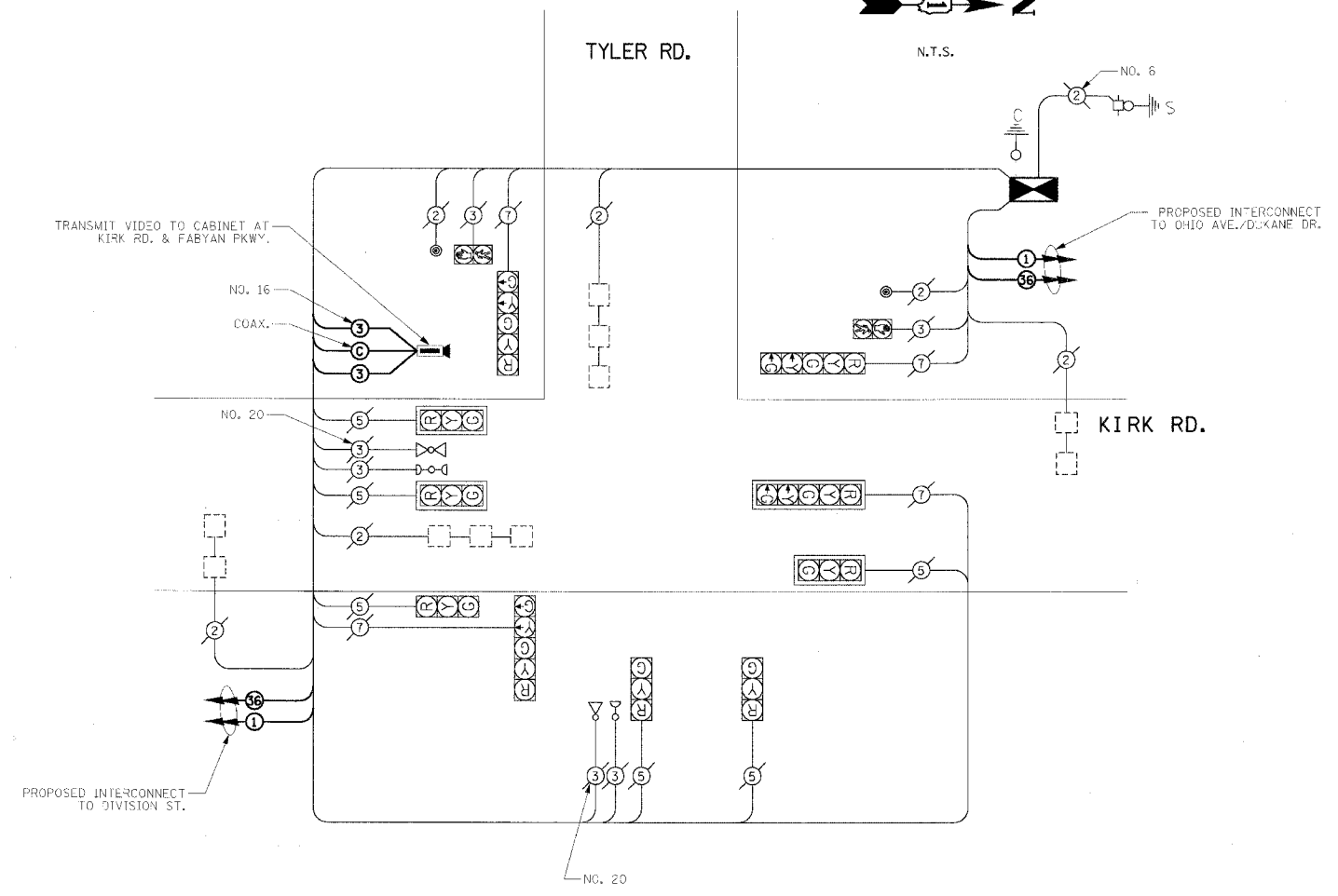
SCALE: 1" = 20'
DATE: 07/19/05

DRAWN BY: MD
DESIGNED BY: DMS
CHECKED BY: DMS

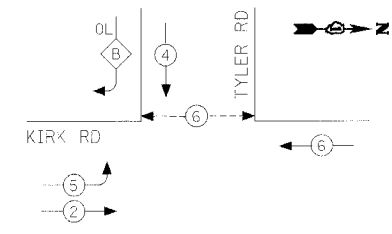
CABLE PLAN LEGEND

- | | | |
|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | MICROWAVE VEHICLE SENSOR |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |
| | | PAN-TILT-ZOOM CAMERA |

CABLE PLAN



PROPOSED CONTROLLER SEQUENCE



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

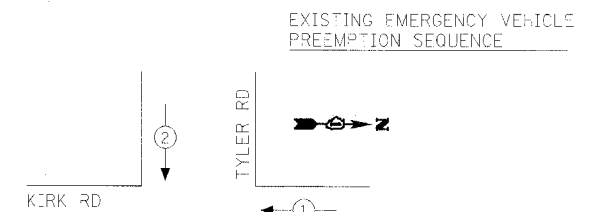
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
221	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
221	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
221	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
2	EACH	DRILL EXISTING HANDHOLE
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM

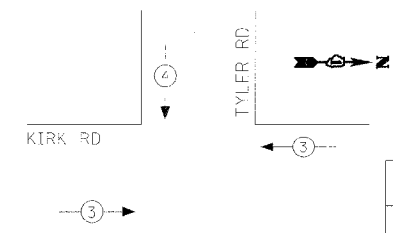
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	←	↓

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135	17	0.50	675.0
(YELLOW)	10	135	25	0.25	337.5
(GREEN)	10	135	15	0.25	337.5
ARROW	8	135	12	0.10	108.0
PED. SIGNAL	2	90	25	1.00	180.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					1738.0

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2" (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.3)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.3)	POST MOUNTED	6 (1.8)

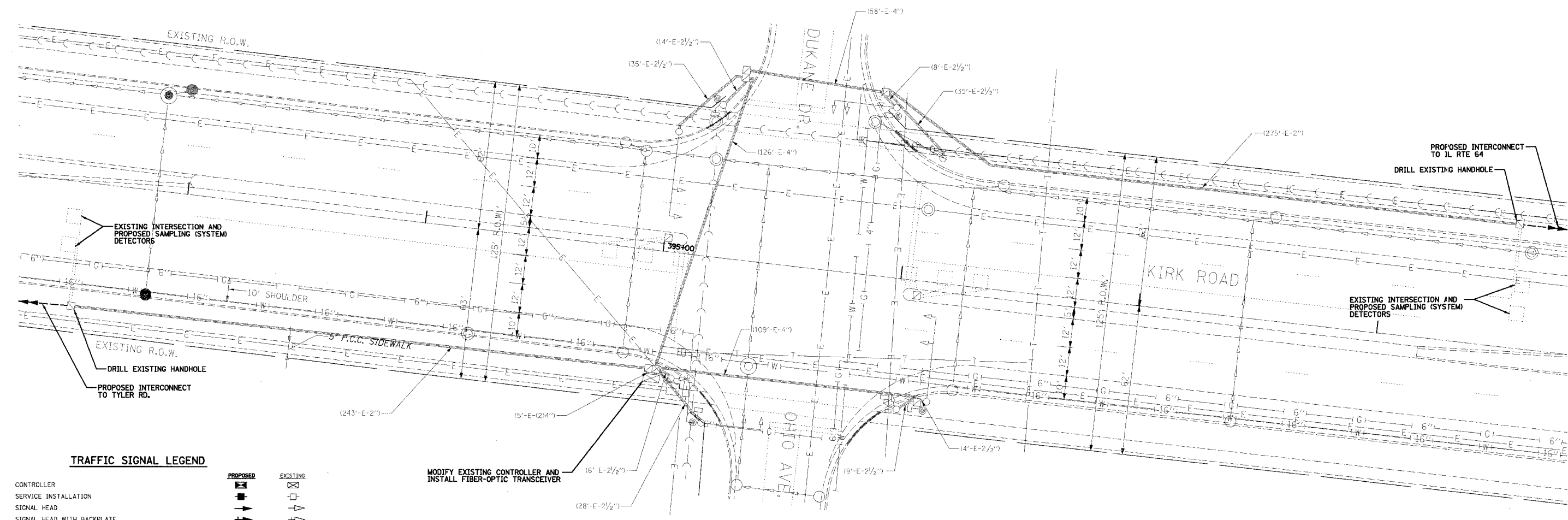
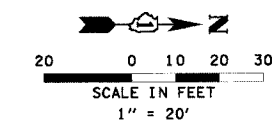
ENERGY COSTS TO:
CITY OF ST. CHARLES
2 E. MAIN STREET
ST. CHARLES, ILLINOIS 60174
CONTACT: TOM BRUHL
PHONE: (630) 377-4401
COMPANY: CITY OF ST. CHARLES

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
SCHEDULE OF QUANTITIES
KIRK RD AT TYLER RD
SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS



TRAFFIC SIGNAL LEGEND

CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
MICROWAVE VEHICLE SENSOR		

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

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

REVISIONS	
NAME	DATE

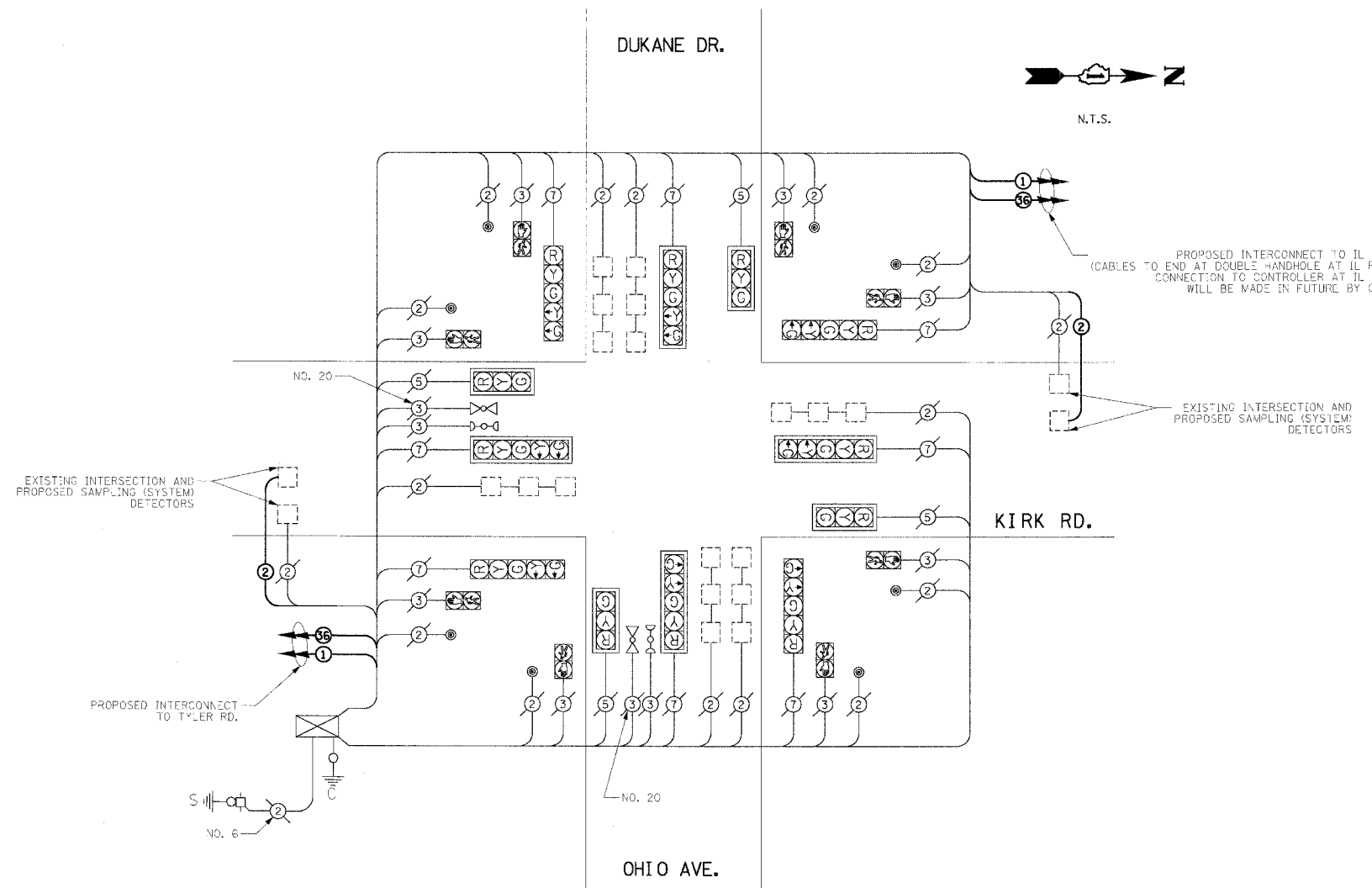
KENIG, LINDGREN, O'HARA, ABOONA, INC.
 9575 West Higgins Road, Suite 400
 Rosemont, Illinois 60018
 (847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL MODIFICATION PLAN
 KIRK RD. AT OHIO AVE./DUKANE DR.
 SCALE: 1" = 20'
 DATE: 07/19/05
 DRAWN BY: MD
 DESIGNED BY: DMS
 CHECKED BY: DMS

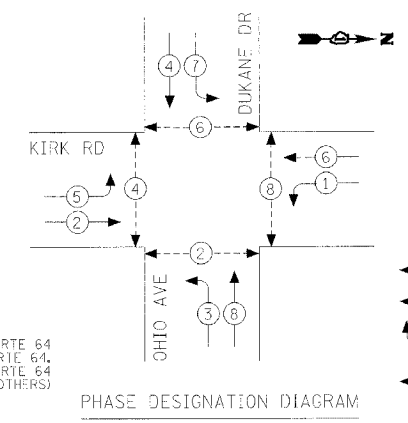
CABLE PLAN LEGEND

- | | | |
|--|--|---|
| | | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | MICROWAVE VEHICLE SENSOR |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F |

CABLE PLAN



EXISTING CONTROLLER SEQUENCE



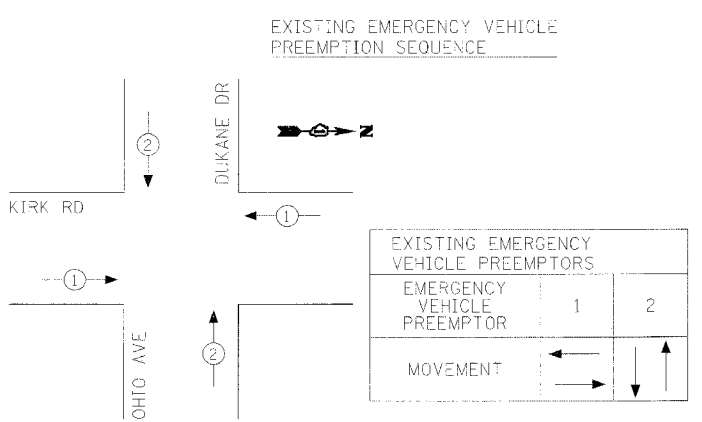
SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	TRANSCEIVER - FIBER OPTIC
780	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	MODIFY EXISTING CONTROLLER

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	810.0
(YELLOW)	12	135	25	0.25	405.0
(GREEN)	12	135	15	0.25	405.0
ARROW	16	135	12	0.10	216.0
PED. SIGNAL	8	90	25	1.00	720.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					2656.0

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



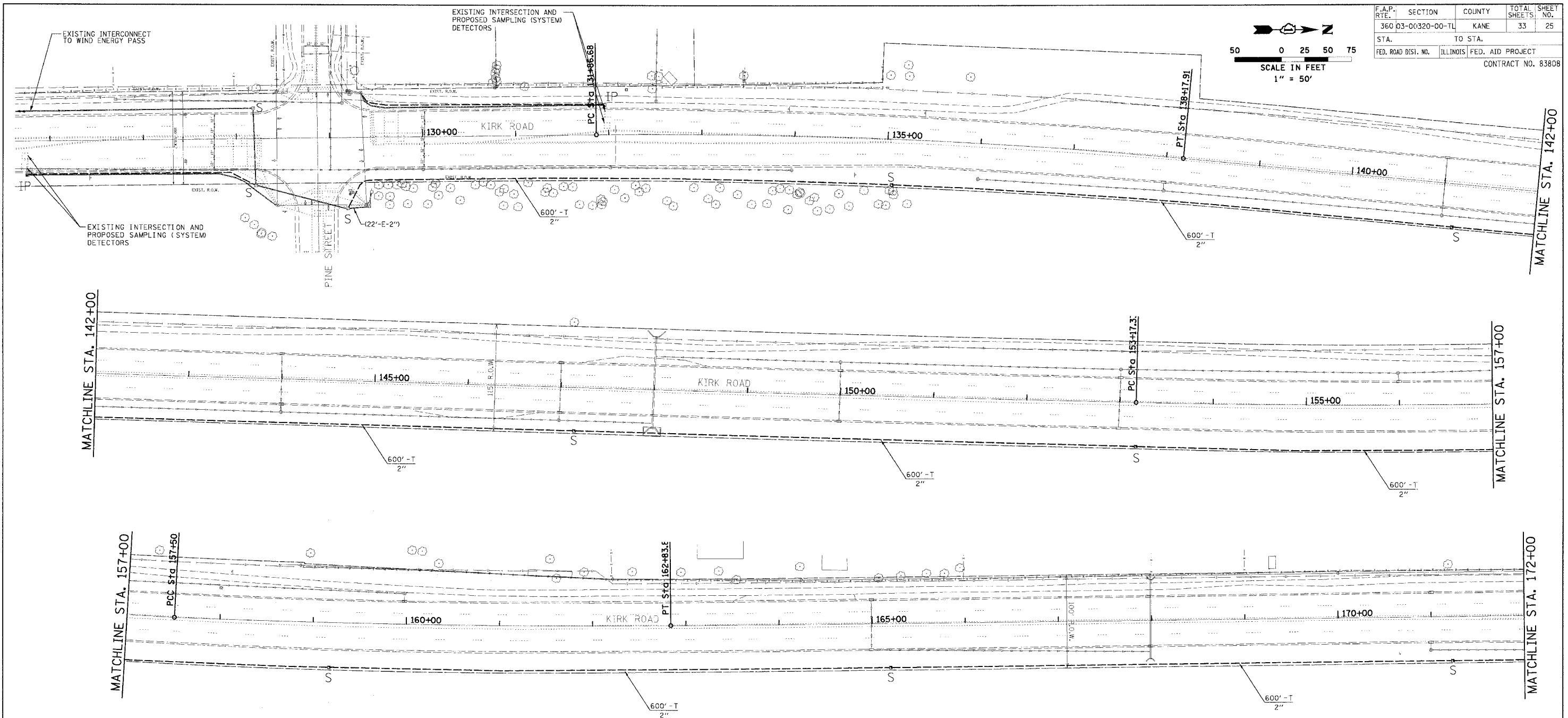
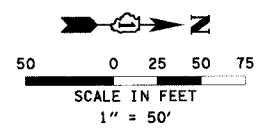
KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Hagar Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES
KIRK RD AT OHIO AVE/DUKANE DR

SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		CONTRACT NO. 83808



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT		
SYSTEM		
INTERSECTION		
COMMON TRENCH		

SCHEDULE OF INTERCONNECT QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	L SUM	TRAFFIC CONTROL AND PROTECTION (SPECIAL)
25138	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
1119	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
1392	FOOT	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL
4	EACH	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"
43	EACH	HANDHOLE
25138	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
31502	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
31892	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MM24F & SM12F
1	EACH	DRILL EXISTING HANDHOLE
1	EACH	MODIFY EXISTING CONTROLLER
1	EACH	RELOCATE EXISTING MASTER CONTROLLER
1	L SUM	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM
1	L SUM	RAILROAD PROTECTIVE LIABILITY INSURANCE
500	HOUR	TRAINEES

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

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

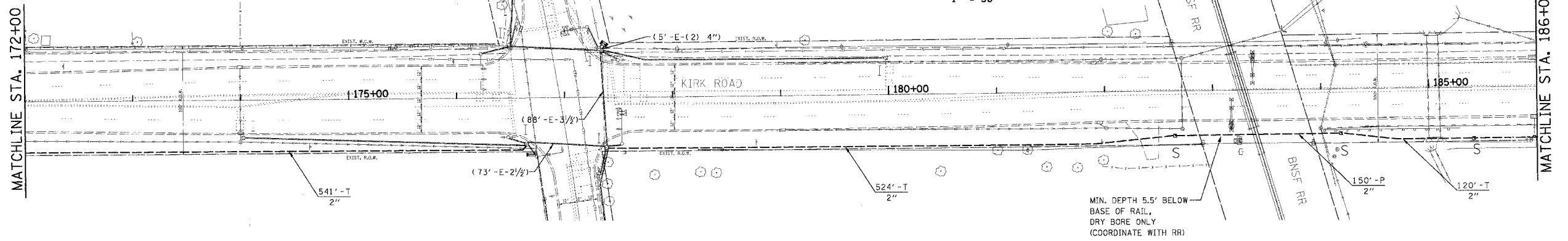
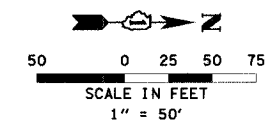
REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

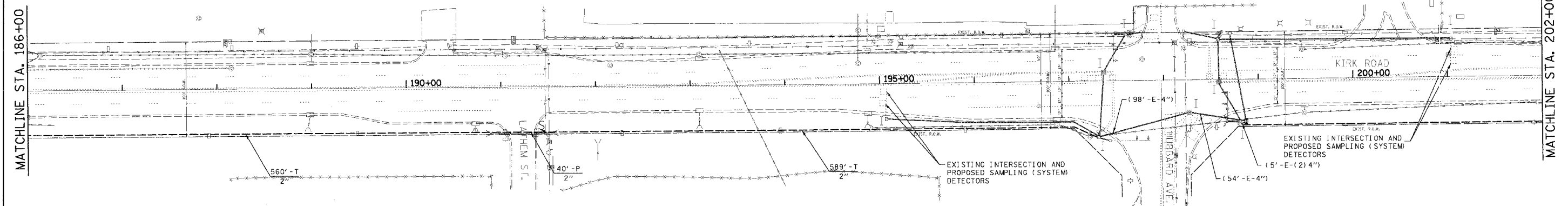
ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 1 OF 7)

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 83808	

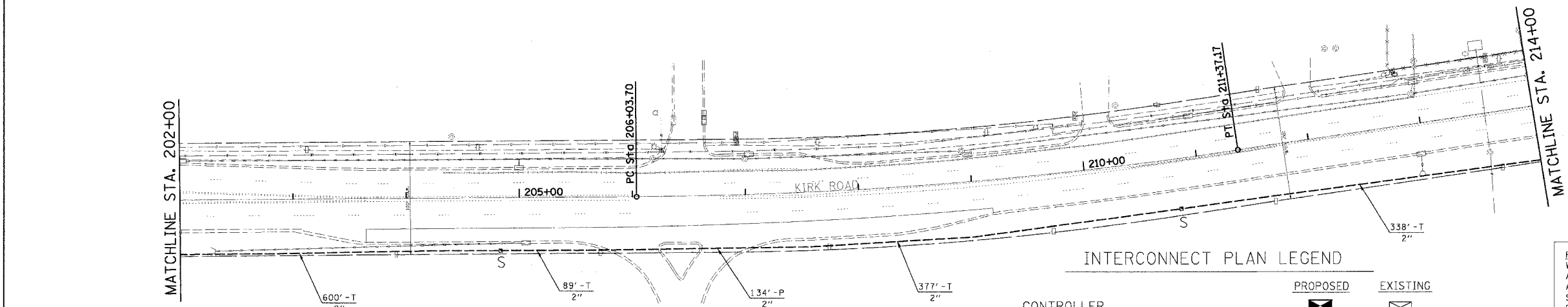


MIN. DEPTH 5.5' BELOW
BASE OF RAIL,
DRY BORE ONLY
(COORDINATE WITH RR)



EXISTING INTERSECTION AND
PROPOSED SAMPLING (SYSTEM)
DETECTORS

EXISTING INTERSECTION AND
PROPOSED SAMPLING (SYSTEM)
DETECTORS



NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "E/AGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
COMMON TRENCH	CT	

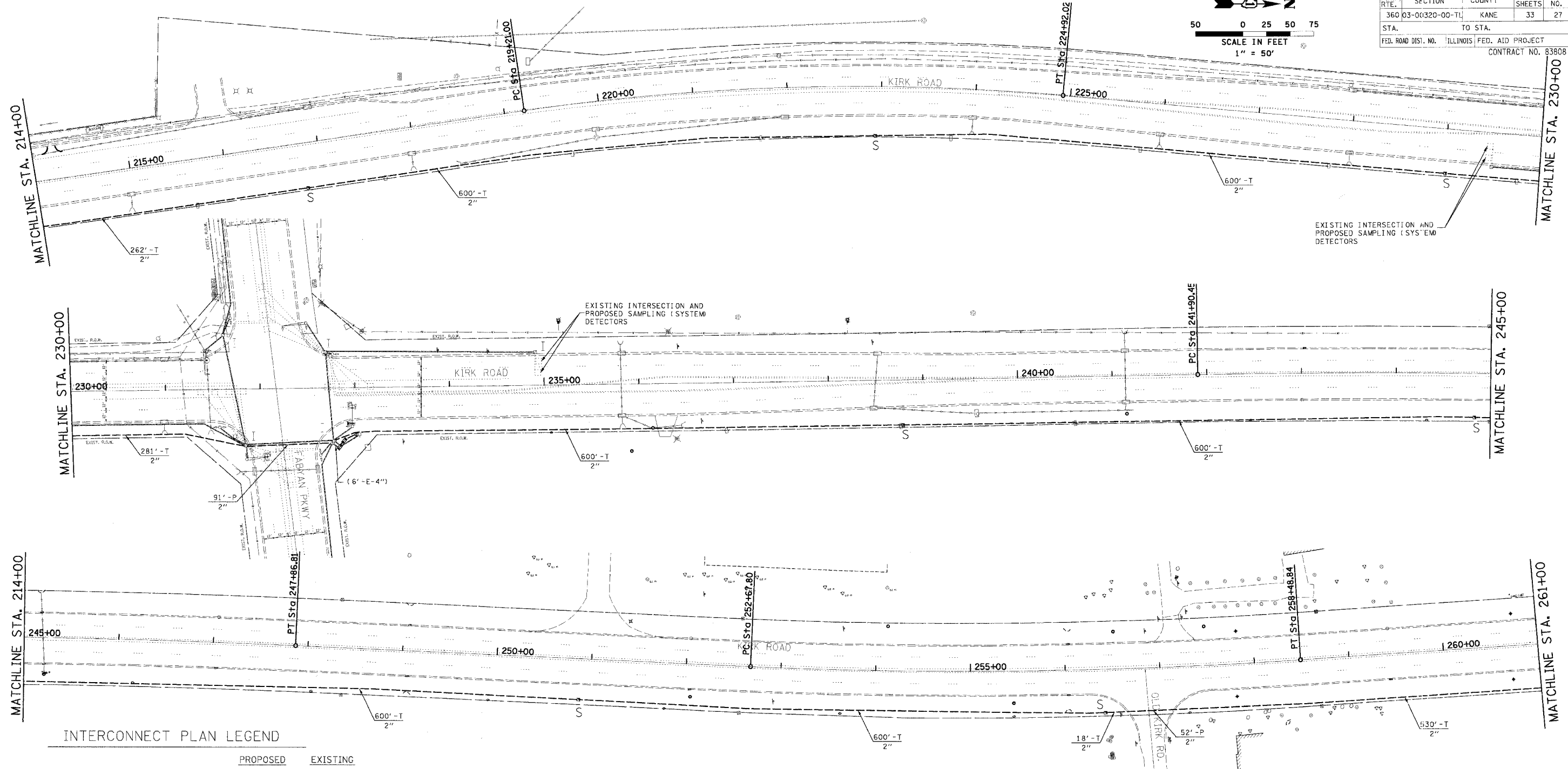
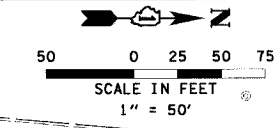
REVISIONS	DATE
NAME	

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 2 OF 7)

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 83808		



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
COMMON TRENCH	CT	

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

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

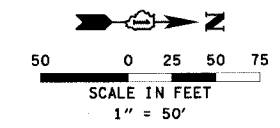
REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Highgate Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

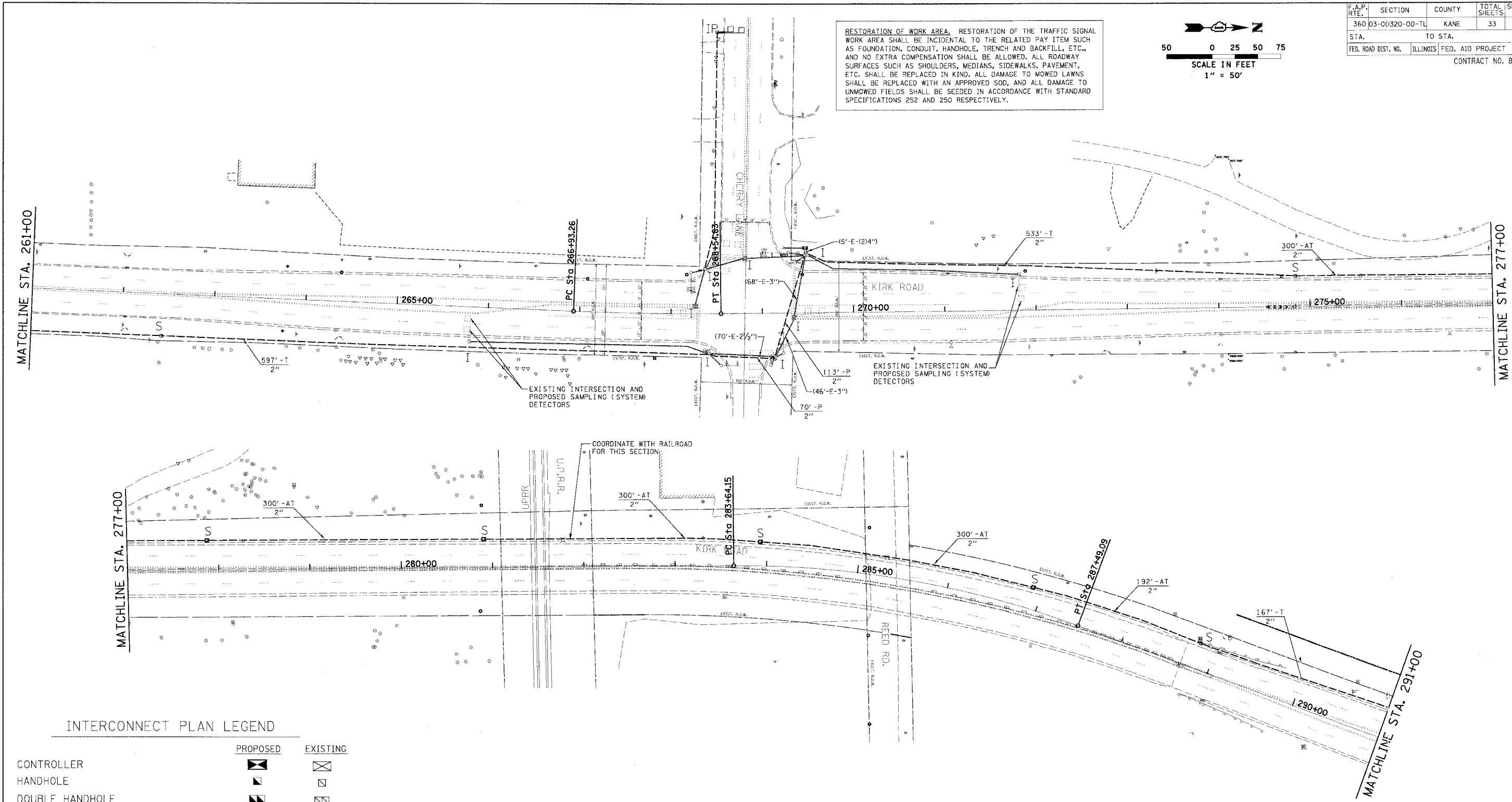
ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 3 OF 7)

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	28
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	CONTRACT NO. 83808			



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



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
COMMON TRENCH	CT	

NOTE: THE CONTRACTOR SHALL INSTALL ADDITIONAL 150 FEET OF SLACK FIBER AND TRACER CABLES IN THE HANDHOLES BETWEEN CHERRY LN AND ILLINOIS ROUTE 38 CONTROLLERS.

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

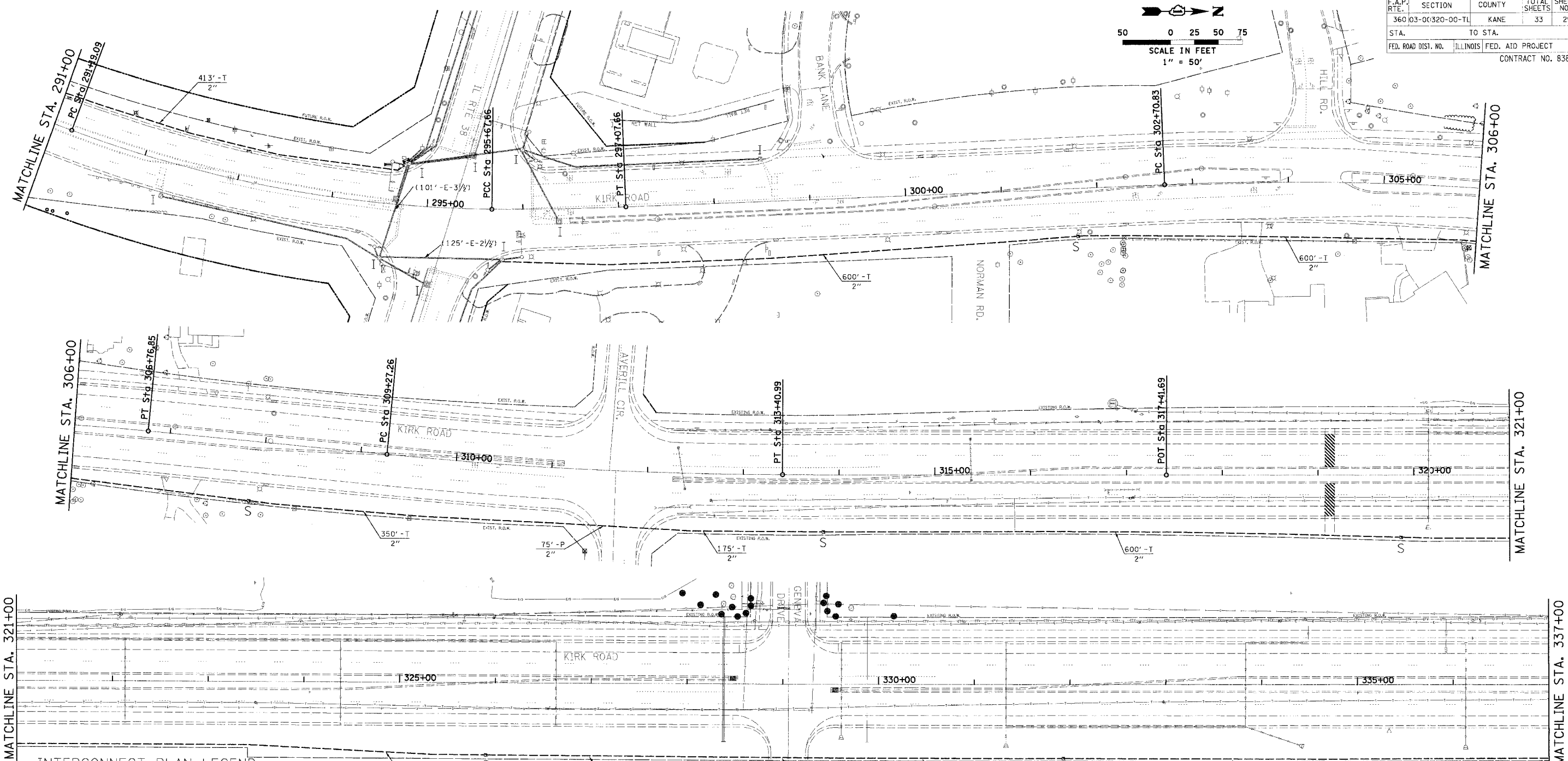
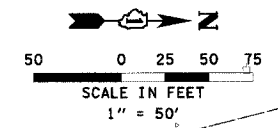
REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 4 OF 7)

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	29
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 63808				



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
COMMON TRENCH	CT	

NOTE: THE CONTRACTOR SHALL INSTALL ADDITIONAL 150 FEET OF SLACK FIBER AND TRACER CABLES IN THE HANDHOLES BETWEEN ILLINOIS ROUTE 38 AND DIVISION ST CONTROLLERS.

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

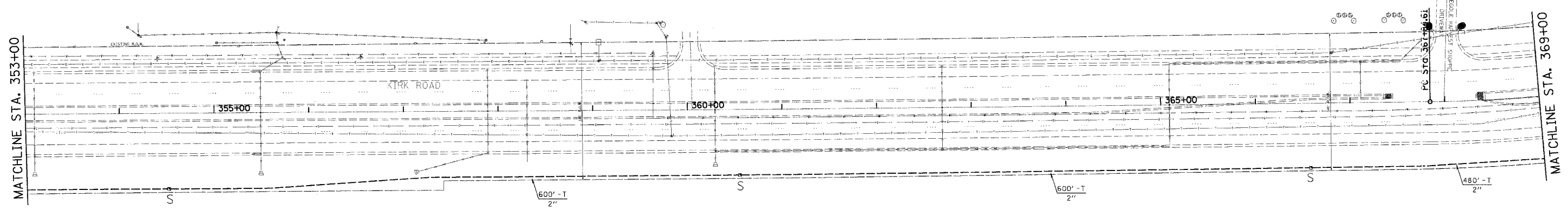
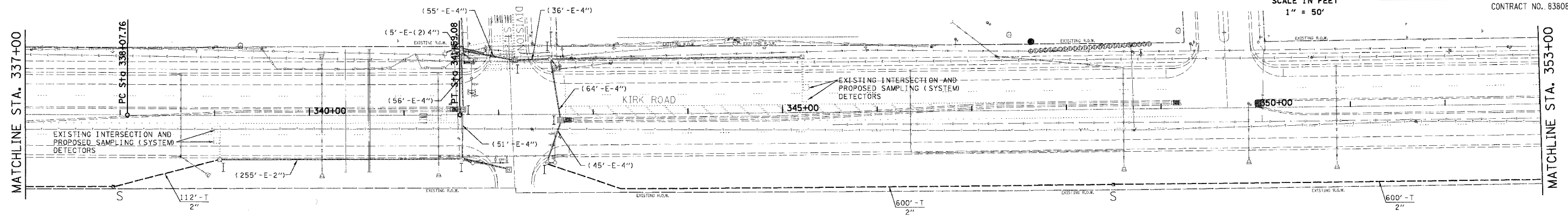
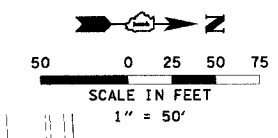
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

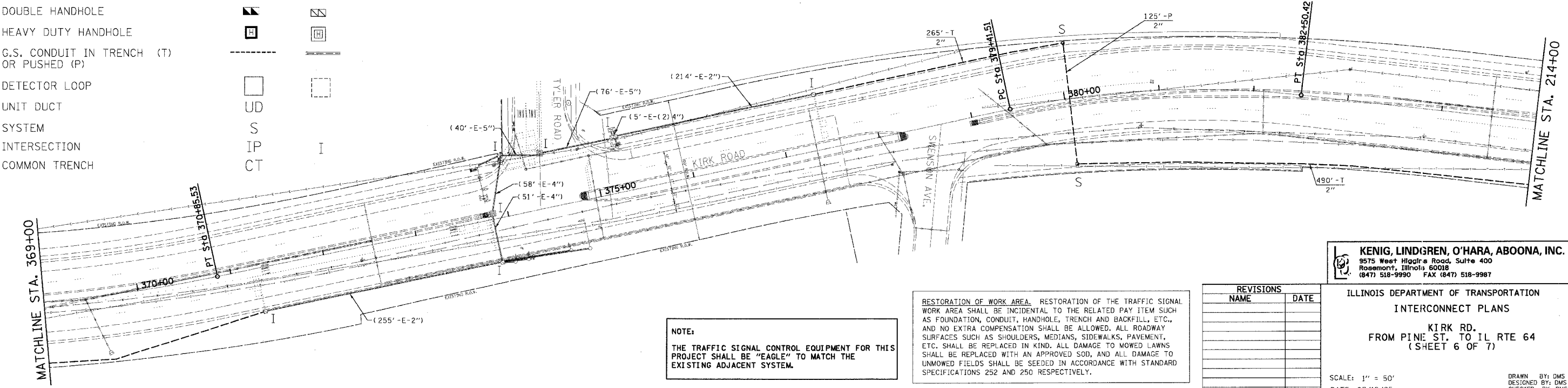
ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 5 OF 7)

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT		
SYSTEM		
INTERSECTION		
COMMON TRENCH		



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

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

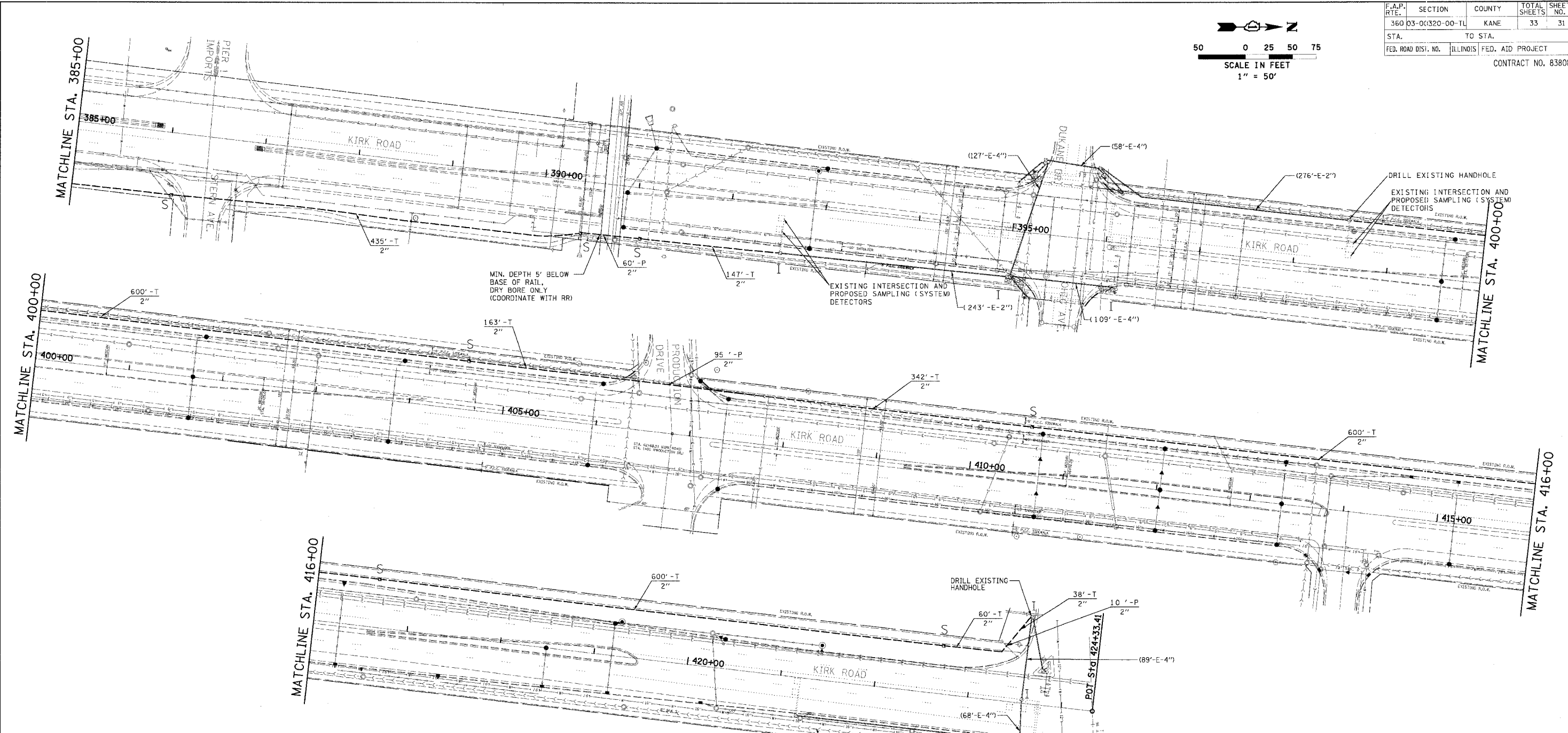
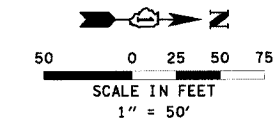
REVISIONS	
NAME	DATE

KENIG, LINDIGREN, O'HARA, ABOONA, INC.
9575 West Higgin's Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 6 OF 7)

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	03-00320-00-TL	KANE	33	31
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83808				



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
COMMON TRENCH	CT	

PROPOSED INTERCONNECT FIBER AND TRACER CABLE SHALL BE INSTALLED UP TO THIS CONTROLLER CABINET TO PROTECT THE ENDS OF CABLES. CONNECTION TO CONTROLLER AT IL RTE 64 SHALL BE MADE IN FUTURE BY OTHERS

NOTE: THE CONTRACTOR SHALL INSTALL ADDITIONAL 150 FEET OF SLACK FIBER AND TRACER CABLES IN THE HANDHOLES BETWEEN OHIO AVE/DUKANE DR AND ILLINOIS ROUTE 64 (NORTH AVE) CONTROLLERS.

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

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

KENIG, LINDGREN, O'HARA, ABOONA, INC.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
(847) 518-9990 FAX (847) 518-9987

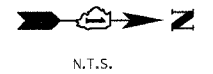
ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLANS
KIRK RD.
FROM PINE ST. TO IL RTE 64
(SHEET 7 OF 7)

REVISIONS	
NAME	DATE

SCALE: 1" = 50'
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS

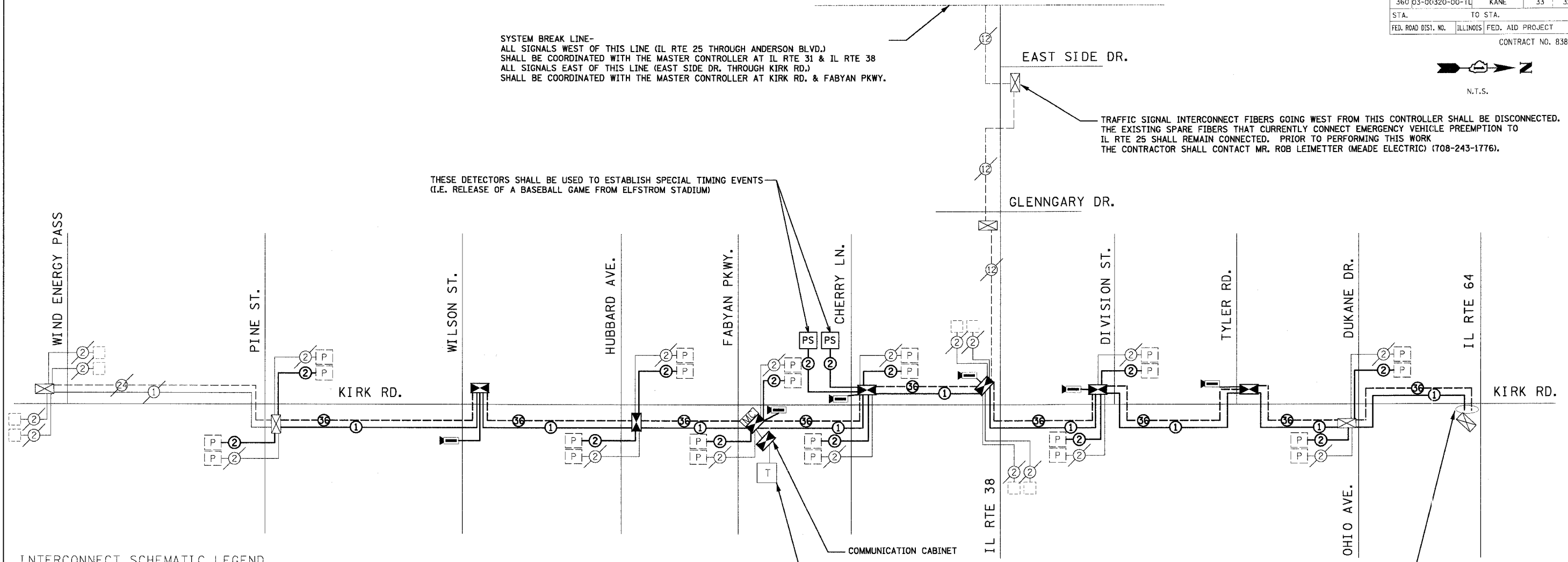
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360 03-00320-00-TL		KANE	33	32
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83808				

SYSTEM BREAK LINE-
 ALL SIGNALS WEST OF THIS LINE (IL RTE 25 THROUGH ANDERSON BLVD.)
 SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT IL RTE 31 & IL RTE 38
 ALL SIGNALS EAST OF THIS LINE (EAST SIDE DR. THROUGH KIRK RD.)
 SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT KIRK RD. & FABYAN PKWY.



TRAFFIC SIGNAL INTERCONNECT FIBERS GOING WEST FROM THIS CONTROLLER SHALL BE DISCONNECTED.
 THE EXISTING SPARE FIBERS THAT CURRENTLY CONNECT EMERGENCY VEHICLE PREEMPTION TO
 IL RTE 25 SHALL REMAIN CONNECTED. PRIOR TO PERFORMING THIS WORK
 THE CONTRACTOR SHALL CONTACT MR. ROB LEIMETTER (MEADE ELECTRIC) (708-243-1776).

THESE DETECTORS SHALL BE USED TO ESTABLISH SPECIAL TIMING EVENTS
 (I.E. RELEASE OF A BASEBALL GAME FROM ELFSTROM STADIUM)



INTERCONNECT SCHEMATIC LEGEND

EXISTING INTERSECTION CONTROLLER		EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM2F SM12F	
PROPOSED INTERSECTION CONTROLLER		PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM2F SM12F	
EXISTING MASTER CONTROLLER		EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
PROPOSED MASTER CONTROLLER		PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
MASTER MASTER CONTROLLER		EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
EXISTING INTERSECTION LOOP DETECTORS		PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
PROPOSED SAMPLING (SYSTEM) DETECTORS		EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	
EXISTING SAMPLING (SYSTEM) DETECTORS.		PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	
PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.		EXISTING TELEPHONE CONNECTION	
EXISTING SAMPLING (SYSTEM) DETECTORS.		PROPOSED TELEPHONE CONNECTION	
PROPOSED SAMPLING (SYSTEM) DETECTORS.		EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM24F SM12F	
EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM24F SM12F	
PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PAN-TILT-ZOOM CAMERA	
EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS		VARIABLE MESSAGE SIGN	
PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS			

PROPOSED INTERCONNECT CABLES SHALL BE INSTALLED UP TO THE DOUBLE HANDHOLE AT KIRK RD & IL RTE 64. 150 FEET OF EXTRA SLACK SHALL BE WRAPPED IN THE HANDHOLES BETWEEN OHIO AND IL RTE 64 AND CONNECTION SHALL NOT BE MADE TO THE CONTROLLER AT IL RTE 64. FUTURE CABLE TERMINATIONS SHALL BE MADE BY OTHERS WHEN THE SYSTEM ON IL RTE 64 IS UPGRADED TO FIBER OPTIC.

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

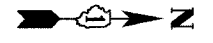
KENIG, LINDIGREN, O'HARA, ABOONA, INC.
 9575 West Higley Road, Suite 400
 Rosemont, Illinois 60018
 (847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

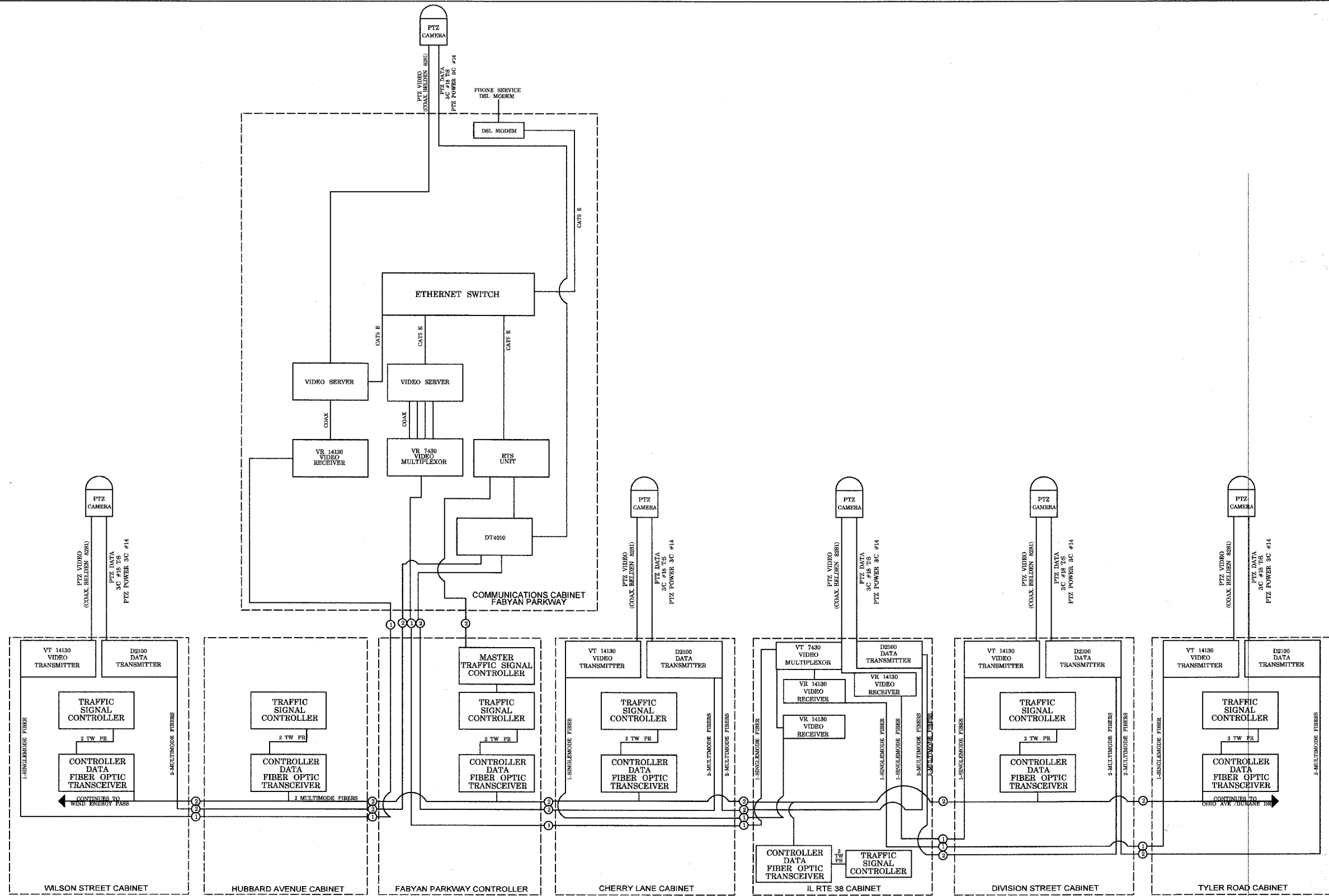
ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERCONNECT SCHEMATIC
 KIRK RD.
 FROM WIND ENERGY PASS TO IL RTE 64
 SCALE: NONE
 DATE: 07/19/05
 DRAWN BY: DMS
 DESIGNED BY: DMS
 CHECKED BY: DMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
360	03-00320-00-TL	KANE	33	33
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83808



N.T.S.



KENIG, LINDGREN, O'HARA, ABOONA, INC.
 9575 West Highre Road, Suite 400
 Rosemont, Illinois 60018
 (847) 518-9990 FAX (847) 518-9987

ILLINOIS DEPARTMENT OF TRANSPORTATION
VIDEO TRANSMISSION SYSTEM SCHEMATIC
 KIRK RD.
 FROM WILSON STREET TO TYLER ROAD

REVISIONS	
NAME	DATE

SCALE: NONE
 DATE: 07/19/05
 DRAWN BY: FBS
 DESIGNED BY: DMS
 CHECKED BY: DMS