

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	56	1

D-91-061-05 62877

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

**PROPOSED
HIGHWAY PLANS**

**FAI 290/FAP 342 (I-290/L. 53)
FROM SOUTH OF IL. 62 (ALGONQUIN ROAD)
TO NORTH OF IL. 72 (HIGGINS ROAD)
SECTION: 0305-302 K-L-3**

LIGHTING, CCTV, AND FIBER OPTIC SYSTEM IMPORVEMENTS

**COOK COUNTY
C-91-061-05**



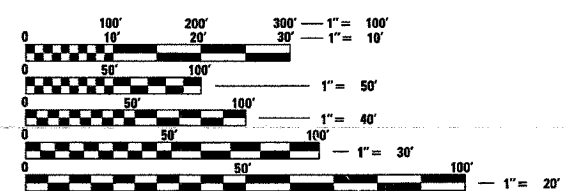
INDEX OF SHEETS:

1. COVER SHEET - INDEX
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3. LIGHTING - GENERAL NOTES
4. LIGHTING - REMOVAL PLANS
14. LIGHTING - PROPOSED PLANS
29. LIGHTING DETAILS
42. CCTV SYSTEM DETAILS
45. TRAFFIC DETAILS
50. SOIL BORING LOGS
- 55A. EXIST. TYPICAL CROSS SECTION

**PROJECT LOCATED IN THE
VILLAGE OF SCHAUMBURG AND
VILLAGE OF ROLLING MEADOWS**

DESCRIPTION OF PROJECT:

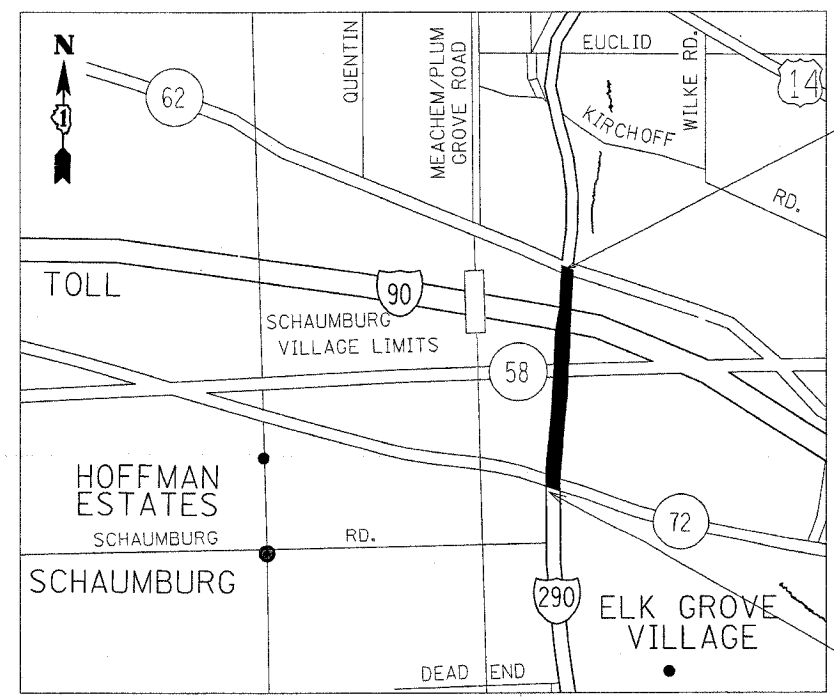
THE PROPOSED IMPROVEMENTS CONSIST OF REMOVAL AND RELOCATION OF EXISTING ROADWAY LIGHTING, INSTALLATION OF LIGHT TOWERS, CCTV MONITORING EQUIPMENT, FIBER OPTIC SYSTEM, AND MODIFICATION OF EXISTING SIGN LIGHTING, AND UNDERPASS LIGHTING.



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

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

CONTRACT NO. 62877



**LIMIT OF IMPROVEMENT
STA. 121 + 25**

**LIMIT OF IMPROVEMENT
STA. 24 + 85**

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

SUBMITTED March 30, 20 05
Diana O'Keefe / AP DISTRICT ENGINEER

May 13, 20 05
Mike Hene / @ ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 20 05
Victor Moden / @ DIRECTOR, DIVISION OF HIGHWAYS

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

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L3	COOK	55	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

URBAN

SUMMARY OF QUANTITIES		TOTAL	ROADWAY	LIGHTING	SURVEILLANCE	
CODE	ITEM	UNIT	100% STATE	I000	Y030-1E	Y032-1F
X8350405	LIGHTING TOWER, 120 FT. MOUNTING HEIGHT, LUMINAIRE MT. -12 (INSTALL ONLY)	EACH	52		52	
83700250	LIGHT TOWER FOUNDATION, 44" DIAMETER	FOOT	1,300		1,300	
82105700	LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 750 WATT	EACH	215		215	
80700140	GROUND ROD, 5/8" DIA. X 10 FT.	EACH	236		236	
X8160395	UNIT DUCT WITH 3-1/C NO. 2 AND 1/C NO. 4 GROUND, 600V (EPR-TYPE-RHW), 1/2" DIA. POLYETHYLENE	FOOT	34,060		34,060	
B1018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	3,240		1,890	1,350
X0324280	LIGHTING CONTROLLER, RADIO CONTROL, DUPLEX TYPE, WITH SCADA AND VIDEO POWER	EACH	2		2	
80400100	ELECTRIC SERVICE INSTALLATION	EACH	2		2	
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1		1	
X0325038	BUCK BOOST TRANSFORMER, 240 VOLT, SINGLE PHASE	EACH	16		16	
X8710028	FIBER OPTIC CABLE 6 FIBERS, SINGLE MODE	FOOT	24,800			24,800
X8710035	FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE	FOOT	4,700			4,700
X0323914	FIBER OPTIC SPLICE-LATERAL	EACH	6			6
X0323957	FIBER OPTIC SPLICE-MAINLINE	EACH	1			1
X0324597	CLOSED CIRCUIT TELEVISION CABINET	EACH	14		8	6
X0324807	CLOSED CIRCUIT TELEVISION CABINET EQUIPMENT	EACH	6			6
X0325049	CLOSED CIRCUIT TELEVISION DOME CAMERA (MATERIAL ONLY)	EACH	6			6
X0324237	CCTV DOME CAMERA HIGH MAST TOWER INSTALLATION	EACH	6			6
X0325039	CCTV DISTRIBUTION SUBSYSTEM	L SUM	1			1
X0325030	MODIFY EXISTING LIGHTING CONTROLLER	EACH	1			1
X8160165	UNIT DUCT WITH 2-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (EPR-TYPE-RHW), 1/4" DIA. POLYETHYLENE	FOOT	7,225			7,225
B1300820	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 18"x12"x10"	EACH	10		10	
X0325047	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE-RHW) 3-1/C NO. 2 AND 1/C NO. 4 GROUND	FOOT	2,600		2,600	
X0325048	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE-RHW) 2-1/C NO. 4 AND 1/C NO. 6 GROUND	FOOT	525			525
X8110119	CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA., PVC COATED, RIGID STEEL	FOOT	2,330		1,830	500
X8110127	CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED, RIGID STEEL	FOOT	960			960
B1400100	HANDHOLE	EACH	16			16
B1400105	HANDHOLE (SPECIAL)	EACH	1		1	
87900200	DRILL EXISTING HANDHOLE	EACH	2			2
B1300960	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 42"x36"x12"	EACH	4			4
X0325040	FIBER OPTIC INNERDUCT, 1/4" DIA.	FOOT	36,000			36,000
B1500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	29,800		29,800	
B1701385	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE) 3-1/C 350 MCM	FOOT	200		200	
X8450100	REMOVE EXISTING LIGHTING CONTROLLER AND SALVAGE	EACH	2		2	
84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	193		193	
84200705	LIGHTING FOUNDATION REMOVAL, PARTIAL	EACH	159		159	
83050820	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM (INSTALL ONLY)	EACH	22		22	
X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	12		12	
X0325041	REMOVE AND REPLACE LIGHTING UNIT IDENTIFICATION DECAL	EACH	100		100	
XX000986	REMOVAL OF EXISTING LUMINAIRE AND SALVAGE	EACH	56		56	

URBAN

SUMMARY OF QUANTITIES		TOTAL	ROADWAY	LIGHTING	SURVEILLANCE	
CODE	ITEM	UNIT	100% STATE	I000	Y030-1E	Y032-1F
82106400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT (INSTALL ONLY)	EACH	56		56	
83600200	LIGHT POLE FOUNDATION, 24" DIA.	FOOT	220		220	
67100100	MOBILIZATION	L SUM	1	1		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	1		
X0325042	MODIFY EXISTING CONNECTION TO SIGN STRUCTURE	EACH	8			8
X0325043	MODIFY EXISTING UNDERPASS LIGHTING- LOCATION 1	EACH	1			1
X0325044	MODIFY EXISTING UNDERPASS LIGHTING- LOCATION 2	EACH	1			1
X0325045	MODIFY EXISTING UNDERPASS LIGHTING- LOCATION 3	EACH	1			1
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
70101800	TRAFFIC CONTROL & PROTECTION, SPECIAL	L SUM	1	1		
X70101015	TRAFFIC CONTROL & PROTECTION, EXPRESSWAY	L SUM	1	1		
B1018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	350			350
B3800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	22			22
X8160370	UNIT DUCT WITH 3-1/C NO.4 AND 1/C NO.6 GROUND, 600V (EPR-TYPE-RHW) 1/4" DIA. POLYETHYLENE	FOOT	5000			5000
B9502205	MODIFY EXISTING CONTROLLER, SPECIAL	EACH	1			1
X0325046	ELECTRIC CABLE NO.19, 25 PAIR (INSTALL ONLY)	FOOT	6000			6000
B1300720	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16"x12"x8"	EACH	1			1
63302700	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2			2

OSFT-3C

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p align="center">ILLINOIS ROUTE 53 SUMMARY OF QUANTITIES</p> <p>SCALE: VERT. NONE HORIZ. DATE 2-28-2005</p> <p>DRAWN BY WDF CHECKED BY RER</p>

HOH
 HARRY D. HEYER - ASSOCIATES, INC. 55 East Jackson Blvd.
 DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
 312/346-8131
 PROJECT NUMBER 2672
 @\PROJECTS\2672\DOCS\FINAL_04_01_05\SEGMENT 1\LIGHTING\18.DGN

Rev.

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-301K-L3	COOK	55	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

LEGEND:

	LIGHTING CONTROLLER DUPLEX TYPE PROPOSED
	LIGHTING CONTROLLER DUPLEX TYPE EXISTING
	LIGHTING CONTROLLER SINGLE TYPE EXISTING
	UTILITY POWER POLE EXISTING
	TRAFFIC SIGNAL HEAVY DUTY HAND HOLE, EXISTING
	GROUND ROD
	EXISTING LIGHTING UNIT TO BE REMOVED
	EXISTING TWIN MAST LIGHTING UNIT TO BE REMOVED
	EXISTING LIGHTING UNIT
	REINSTALLED EXISTING LIGHTING UNIT
	LIGHT TOWER BASE, PROPOSED
	LIGHT TOWER BASE, EXISTING
	HANDHOLE, PROPOSED
	LIGHT TOWER LUMINAIRE
	LIGHT TOWER MAST ARM
	UNDERPASS LUMINAIRE, EXISTING
	SOIL BORING LOCATION
	EXISTING SIGN LUMINAIRE
	CONDUIT EXPOSED
	FIBER OPTIC CABLE
	UNIT DUCT, PROPOSED, SEE PLANS FOR SIZES
	CONDUIT CAPPED AS SPARE
	CONDUIT PUSHED PROPOSED, SEE PLANS FOR SIZES
	CONDUIT PUSHED EXIST.
	OVERHEAD UTILITY CABLE EXIST.
	LIGHTING JUNCTION BOX EXISTING
	LIGHTING JUNCTION BOX PROPOSED, SEE PLAN FOR SIZES
LT	LEFT OF STATION (VIEWED IN DIRECTION OF INCREASING STATION NUMBERS)
RT	RIGHT OF STATION (VIEWED IN DIRECTION OF INCREASING STATION NUMBERS)
MH	MOUNTING HEIGHT
MA	MAST ARM
EOP	EDGE OF PAVEMENT
ML	MAIN LINE (ROADWAY) CENTERLINE
BL	BASE LINE OF RAMP
EDS	EDGE OF SHOULDER
ROW	RIGHT OF WAY
GND	GROUND

GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING, PUSHING OR AUGERING. CONTRACTOR TO CONTACT ILLINOIS TOLLWAY FOR LOCATION OF UNDERGROUND TOLLWAY FACILITIES.
- BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL ComEd FOR APPROVAL OF LOCATION.
- FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL ComEd.
- ANY TREE TRIMMING REQUIRED AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (I.E. DECORATIVE ROCKS, SHRUBS, PLANTS, SOUNDWALL, ETC.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.
- ALL ROADWAY POLES SHALL BE UL LISTED.
- UNLESS OTHERWISE INDICATED, ALL ITEMS AND WORK SHOWN ON THESE PLANS ARE PROPOSED NEW ITEMS AND WORK.
- CONTRACTOR TO MARK AND STAKE LOCATIONS OF HIGH MAST TOWERS AND HANDHOLES. CONTRACTOR TO OBTAIN ENGINEERS APPROVAL BEFORE INSTALLATION OF SUCH.
- EXISTING CONTROLLERS O & P TO BE REMOVED AFTER INSTALLATION OF PROPOSED CONTROLLERS O & P.
- POLE REMOVALS TO BE PERFORMED AFTER ENERGIZATION OF HIGH MAST TOWER LIGHTING.
- THE MAJORITY OF THE POLES BEING REMOVED BY THIS CONTRACT WILL BE STORED IN STATE STOCK. THE REMAINDER OF THESE POLES SHALL BE RELOCATED TO HIGGINS ROAD. THE CONTRACTOR SHALL REFERENCE SHEETS E-14 AND E-15 FOR THE LOCATIONS OF POLES BEING RE-INSTALLED ON HIGGINS ROAD. CONTRACTOR TO COORDINATE THE AFOREMENTIONED ACTIVITIES WITH THE ENGINEER.
- THE DELIVERY OF POLES TO OR FROM STATE STOCK SHALL BE INCIDENTAL TO THE PAY ITEMS FOR REMOVAL OF EXISTING LIGHTING UNITS (SALVAGE), OR LIGHT POLE, ALUMINUM (INSTALL ONLY) OF A SPECIFIED TYPE OR AS DIRECTED BY THE ENGINEER.
- LIGHT TOWERS ARE BEING FURNISHED UNDER A SEPARATE CONTRACT.
- EXISTING FENCE SHALL REMAIN UNDISTURBED, EXCEPT AS APPROVED BY THE ENGINEER. ANY FENCE REMOVED TO FACILITATE THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE CONTRACT.
- SOIL BORING REPORTS INDICATE THAT SOME AREAS MAY CONTAIN CONTAMINATED SOIL WHICH WOULD REQUIRE SPECIAL WASTE DISPOSAL.
- UNIT DUCTS LOCATED WITHIN ONE FOOT OF EACH OTHER SHALL BE INSTALLED IN A COMMON TRENCH.
- UNLESS OTHERWISE INDICATED ALL RACEWAY PUSHES ARE RIGID GALVANIZED STEEL CONDUIT.

IDOT HIGHWAY STANDARDS

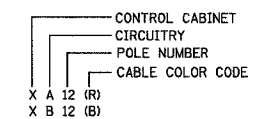
- 701001-01 OFF-ROAD OPERATIONS 2-L, 2-W, MORE THAN 15' AWAY
- 701006-02 OFF-ROAD OPERATIONS 2-L, 2-W, 15' TO 24" FROM PAVEMENT EDGE
- 701011-01 OFF-ROAD MOVING OPERATIONS 2-L, 2-W, DAY ONLY
- 701101-01 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701106-01 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- 701301-01 LANE CLOSURE, 2-L, 2-W, SHORT TIME OPERATIONS
- 701400-01 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-01 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701411-01 LANE CLOSURE MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH
- 701421-01 LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- 701446-01 TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701501-01 URBAN LANE CLOSURE 2-L, 2-W, UNDIVIDED
- 702001-01 TRAFFIC CONTROL DEVICES

***DISTRICT ONE STANDARD DETAILS**

- TC-8 ENTRANCE AND EXIT RAMP CLOSURE DETAILS
- TC-10 TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS, AND DRIVEWAYS
- TC-14 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
- TC-17 PARTIAL RAMP AND SHOULDER CLOSURE DETAILS
- TC-22 TEMPORARY INFORMATION SIGNING

* SUPPLIED BY DISTRICT ONE

LIGHT POLE LABEL LEGEND:



E-00

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**ILLINOIS ROUTE 53
 DRAWING LEGEND
 AND GENERAL NOTES**

SCALE: VERT. NONE
 HORIZ.
 DATE 02-28-2005

DRAWN BY MEK
 CHECKED BY RER

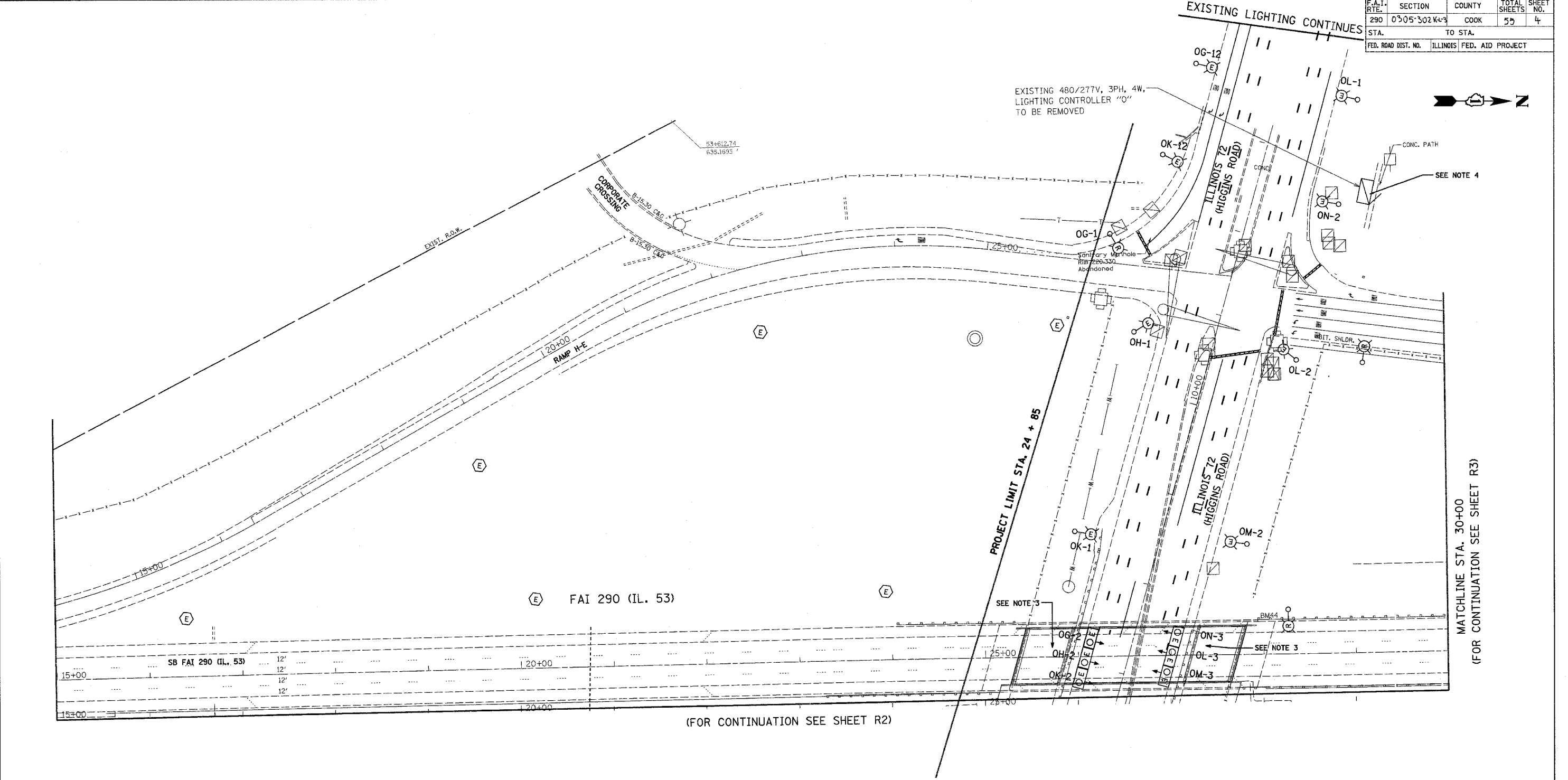
HOH HARRY G. HETTLER - ASSOCIATES, INC. 55 East Jackson Blvd.
 DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
 312/346-8131

PROJECT NUMBER 2672
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DATE-TIME
DESIGNER
USER

CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302 K-3	COOK	55	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. CONTRACTOR TO REMOVE EXISTING UNDERPASS LUMINAIRE DECALS. EXISTING UNDERPASS LUMINAIRES TO REMAIN IN PLACE.
4. ALL POLES WITHIN THE PROJECT LIMITS WHICH ARE CONNECTED TO EXISTING CONTROLLER "O", EXCEPT FOR THE POLES LOCATED ON HIGGINS ROAD, SHALL BE REMOVED.
5. CONTRACTOR TO REMOVE LIGHT POLE DECALS FROM POLES LOCATED ON HIGGINS ROAD WHICH ARE CONNECTED TO EXISTING CONTROLLER "O".

PLOT DATE = 4/7/2005
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

HOH
HARRY O. HEFTER - ASSOCIATES, INC.
DESIGN AND CONSULTING ENGINEERS
35 East Jackson Blvd.
Chicago, Illinois 60604
312.366-8131

2672

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53
WEST HALF OF HIGGINS RD.
I-53 INTERCHANGE

SCALE: VERT. 1"=50'
HORIZ. 1"=50'

DATE 04-01-2005

DRAWN BY WDF
CHECKED BY RER

R1

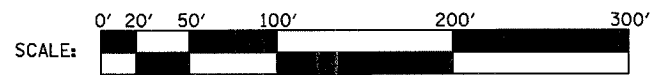
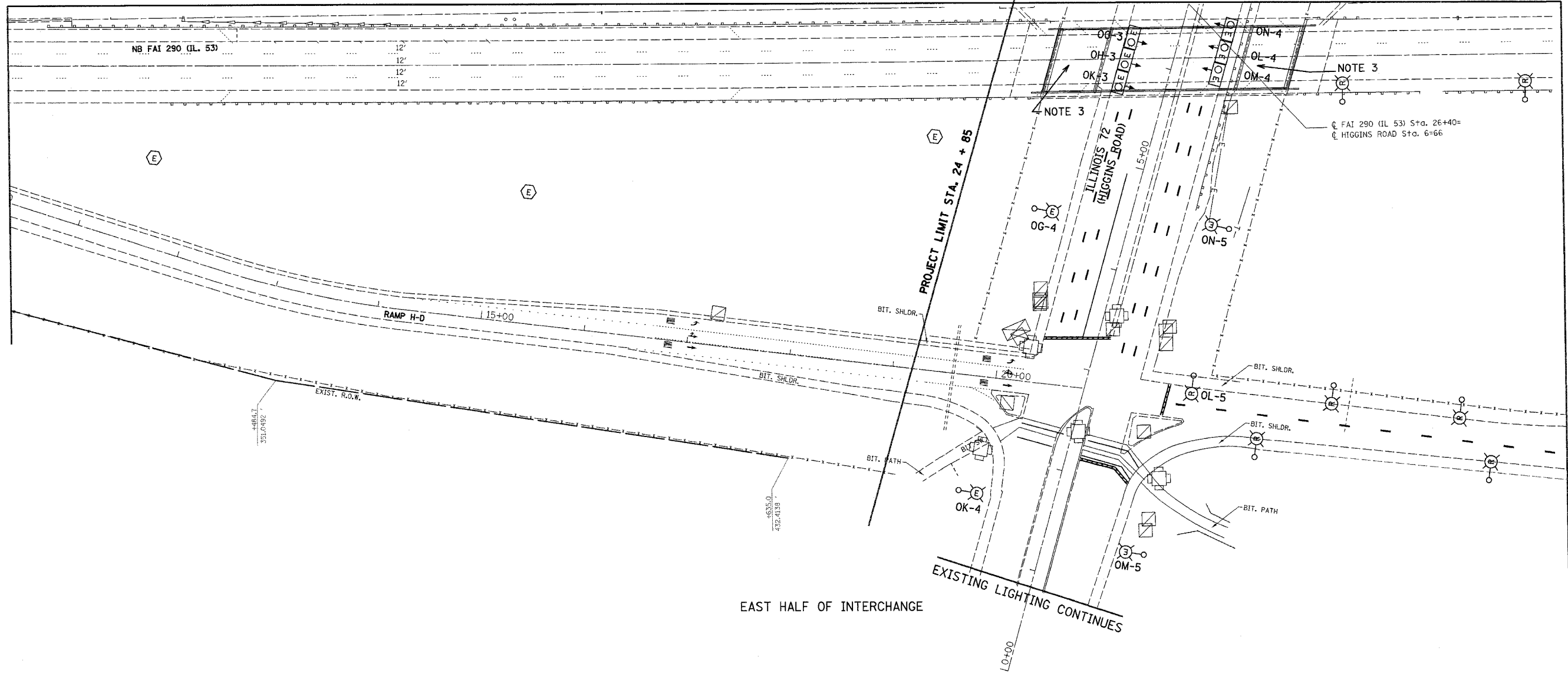
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CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302 K-1-3	COOK	55	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



(FOR CONTINUATION SEE SHEET R1)



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. CONTRACTOR TO REMOVE EXISTING UNDERPASS LUMINAIRE DECALS. EXISTING UNDERPASS LUMINAIRES TO REMAIN IN PLACE.
4. ALL POLES WITHIN THE PROJECT LIMITS WHICH ARE CONNECTED TO EXISTING CONTROLLER "O", EXCEPT FOR THE POLES LOCATED ON HIGGINS ROAD, SHALL BE REMOVED.
5. CONTRACTOR TO REMOVE LIGHT POLE DECALS FROM POLES LOCATED ON HIGGINS ROAD WHICH ARE CONNECTED TO EXISTING CONTROLLER "O".

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REFERENCE = #REF#

R2

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
 ILLINOIS ROUTE 53
 EAST HALF OF HIGGINS RD.
 I-53 INTERCHANGE

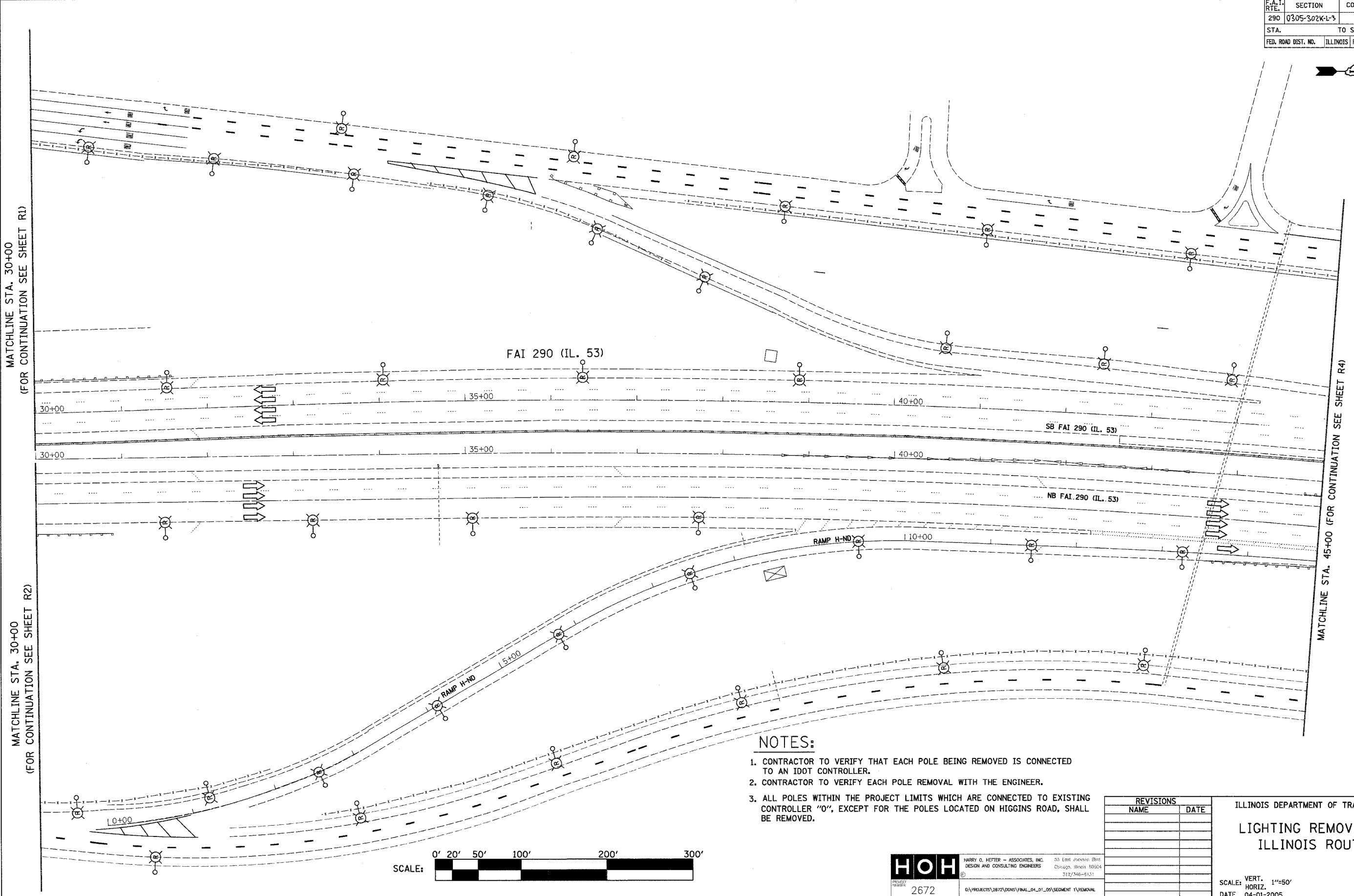
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 HORIZ. DATE 04-01-2005

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HOH HARRY O. HEFTER - ASSOCIATES, INC.
 DESIGN AND CONSULTING ENGINEERS
 55 East Jackson Blvd.
 Chicago, Illinois 60604
 312.266-8131

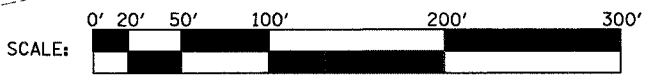
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. ALL POLES WITHIN THE PROJECT LIMITS WHICH ARE CONNECTED TO EXISTING CONTROLLER "O", EXCEPT FOR THE POLES LOCATED ON HIGGINS ROAD, SHALL BE REMOVED.



HOH HARRY O. HEFTER - ASSOCIATES, INC. 35 East Jackson Blvd.
 DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
 PROJECT NUMBER: 2672 0:\PROJECTS\2672\DDNS\FINAL_04_01_05\SEGMENT 1\REMOVAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
 ILLINOIS ROUTE 53

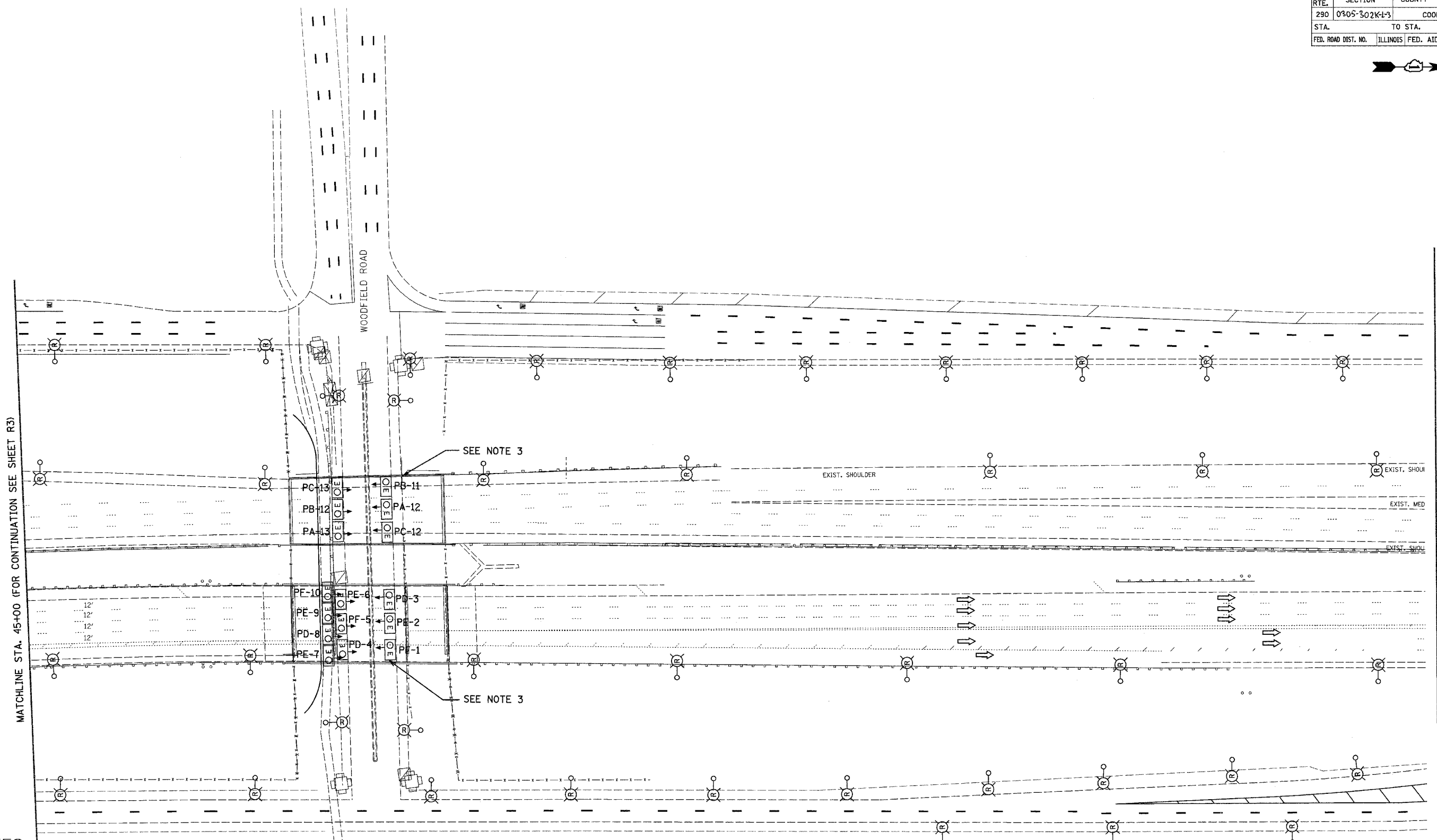
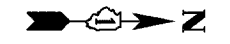
SCALE: VERT. 1"=50'
 HORIZ. 1"=100'
 DATE 04-01-2005
 DRAWN BY WDF
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 PLOT SCALE = #SCALE#
 REFERENCE = #REF#

DATE-TIME
PROJECT
USER

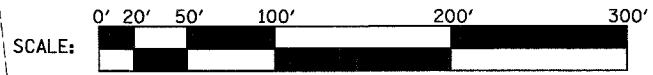
CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-3	COOK	55	7
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. CONTRACTOR TO REMOVE EXISTING UNDERPASS LUMINAIRE DECALS. EXISTING UNDERPASS LUMINAIRES TO REMAIN IN PLACE.
4. ALL POLES WITHIN THE PROJECT LIMITS WHICH ARE CONNECTED TO EXISTING CONTROLLER "O", EXCEPT FOR THE POLES LOCATED ON HIGGINS ROAD, SHALL BE REMOVED.
5. ALL POLES CONNECTED TO EXISTING CONTROLLER "P", SHALL BE REMOVED.



PLOT DATE = 4/7/2005
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

HOH HARRY G. HEFTER - ASSOCIATES, INC. 63 East Jackson Blvd. Chicago, Illinois 60604
DESIGN AND CONSULTING ENGINEERS 312/346-0131
2672 G:\PROJECTS\2672\0045\FINAL_04_01_05\SEGMENT 1\REMOVAL

REVISIONS	
NAME	DATE

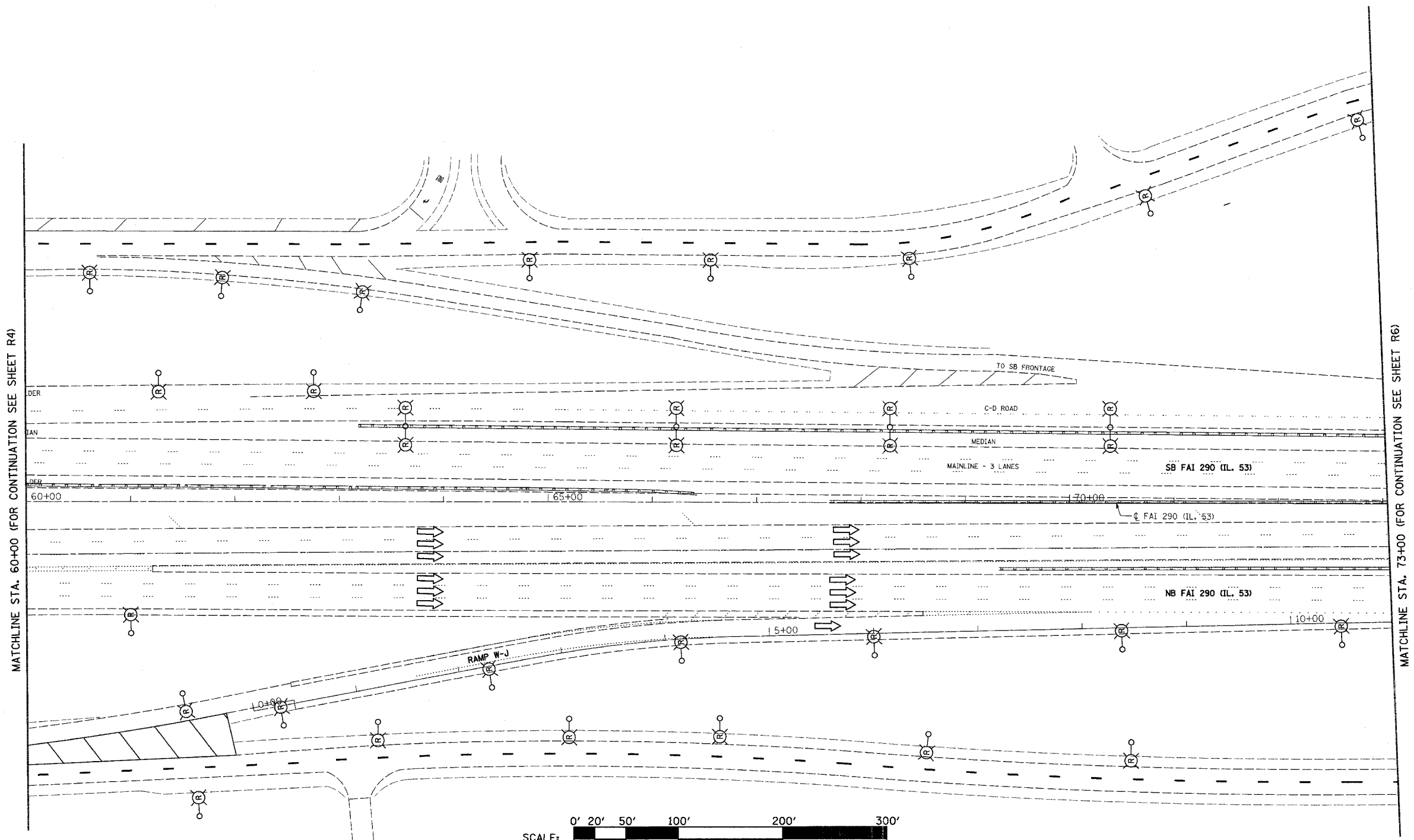
ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53
AT WOODFIELD ROAD
SCALE: VERT. 1"=50'
HORIZ. 1"=50'
DATE: 04-01-2005
DRAWN BY: WDF
CHECKED BY: RER

R4

DATE TIME
USER

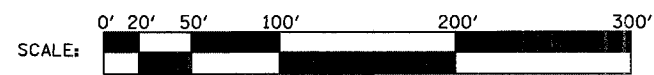
CONTRACT NO. 62871

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. ALL POLES CONNECTED TO EXISTING CONTROLLER "P", SHALL BE REMOVED.
4. LIGHT POLE FOUNDATIONS LOCATED IN CONCRETE MEDIAN WALL TO REMAIN IN PLACE.



PLOT DATE = 4/7/2005
FILE NAME = FILEL
PLOT SCALE = SCALE
REFERENCE = REF

R5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 04-01-2005

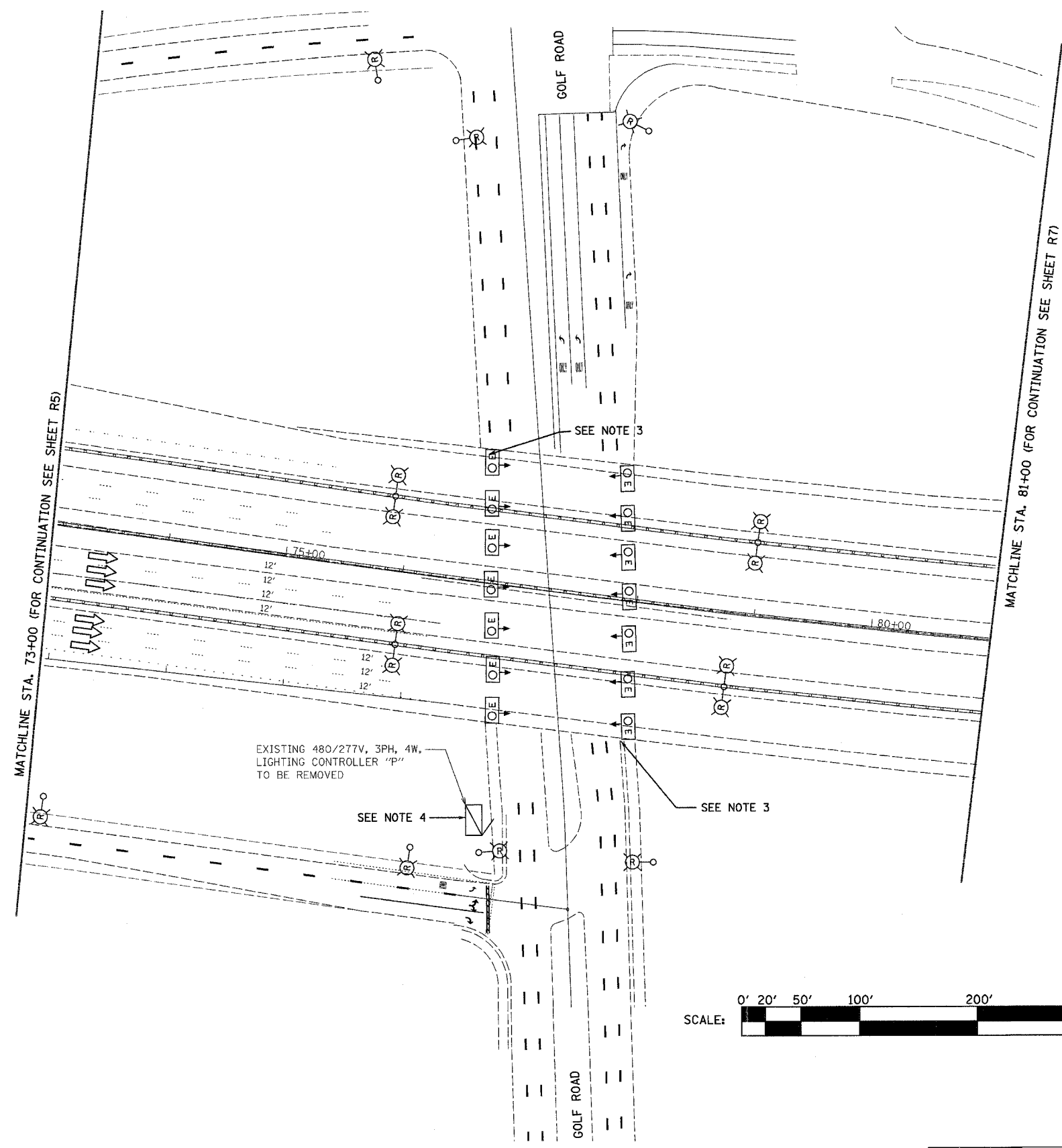
DRAWN BY WDF
 CHECKED BY RER

HOH HARRY O. HEFTER - ASSOCIATES, INC. 98 East Jackson Blvd.
 DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
 312.734.8131
 2672 G:\PROJECTS\2672\2005\FINAL_04_01_05\SEGMENT 1\REMOVAL

DATE-TIME
USER

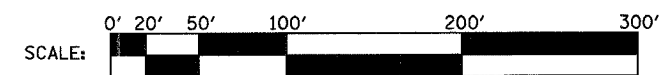
CONTRACT NO. 62871

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-3	COOK	55	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. CONTRACTOR TO REMOVE EXISTING UNDERPASS LUMINAIRE DECALS. EXISTING UNDERPASS LUMINAIRES TO REMAIN IN PLACE.
4. ALL POLES CONNECTED TO EXISTING CONTROLLER "P", SHALL BE REMOVED.
5. LIGHT POLE FOUNDATIONS LOCATED IN CONCRETE MEDIAN WALL TO REMAIN IN PLACE.



PLOT DATE = 4/7/2005
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

R6

HOH HARRY O. HETTER - ASSOCIATES, INC. 55 East Jackson Blvd.
DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
312/348-6131

2672 0:\PROJECTS\2872\0405\FINAL_04_01_05\SEGMENT 1\REMOVAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53.
AT GOLF ROAD

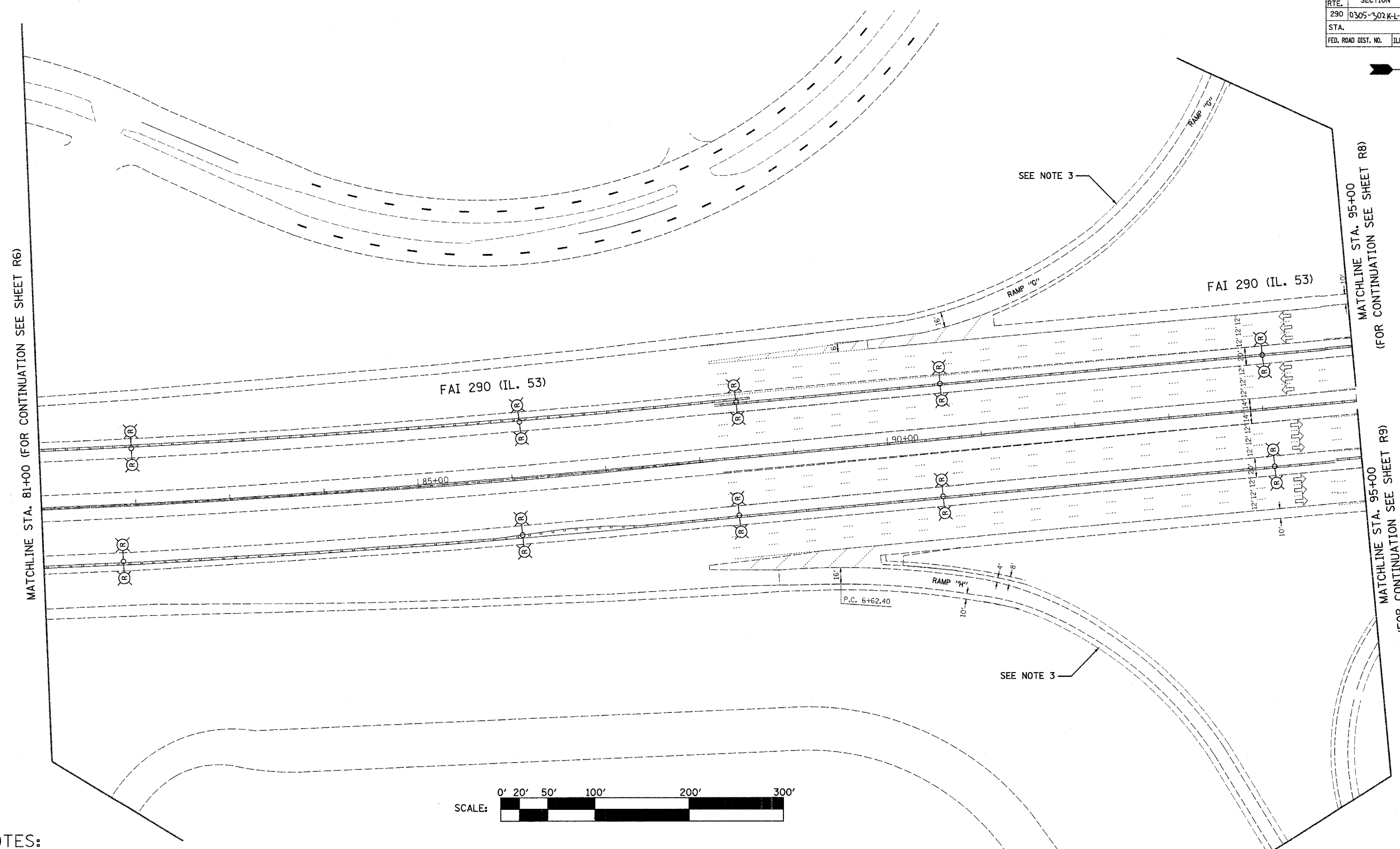
SCALE: VERT. 1"=50'
HORIZ. DATE 04-01-2005

DRAWN BY WDF
CHECKED BY RER

DATE TIME
USER

CONTRACT NO. 6287

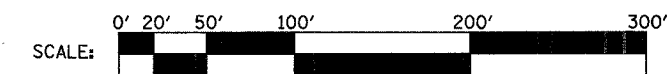
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MATCHLINE STA. 81+00 (FOR CONTINUATION SEE SHEET R6)

MATCHLINE STA. 95+00
(FOR CONTINUATION SEE SHEET R8)

MATCHLINE STA. 95+00
(FOR CONTINUATION SEE SHEET R9)



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. POLES LOCATED ON THE OUTER RAMPS OF THE TOLLWAY CLOVER LEAF SHALL REMAIN IN PLACE.
4. ALL POLES CONNECTED TO EXISTING CONTROLLER "P", SHALL BE REMOVED.
5. LIGHT POLE FOUNDATIONS LOCATED IN CONCRETE MEDIAN WALL TO REMAIN IN PLACE.

PLOT DATE = 4/7/2005
FILE NAME = FILEL
PLOT SCALE = SCALE
REFERENCE = REF

HOH HARRY O. HEFTER - ASSOCIATES, INC. 55 East Jackson Blvd.
DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
312.734-8131

PROJECT NO. 2672
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

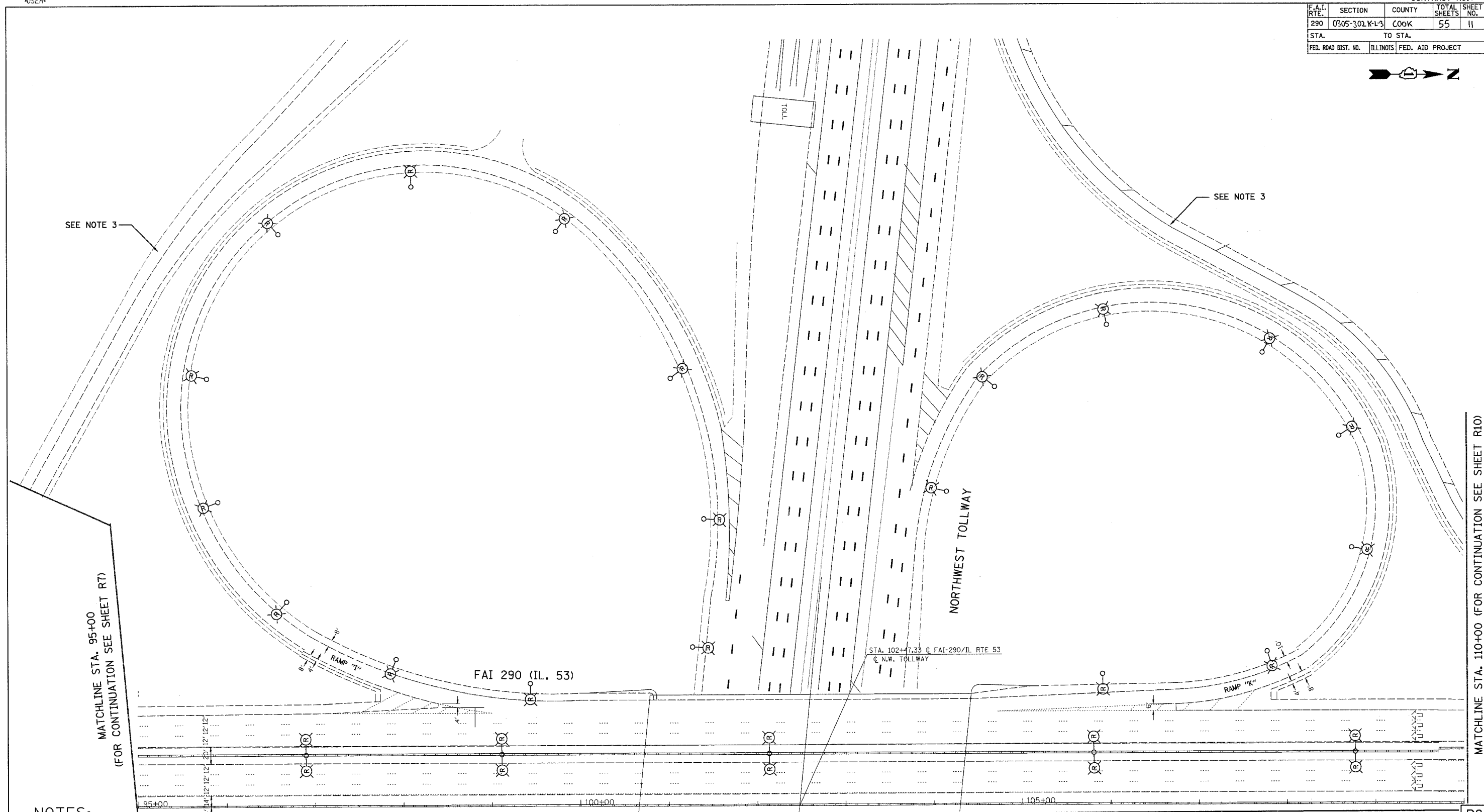
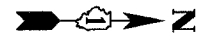
LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53

SCALE: VERT. 1"=50'
HORIZ. DATE 04-01-2005

DRAWN BY WDF
CHECKED BY RER

R7

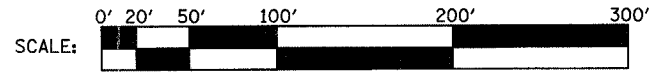
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302 K-L-3	COOK	55	11
STA. 95+00 TO STA. 110+00		ILLINOIS FED. AID PROJECT		



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. POLES LOCATED ON THE OUTER RAMPS OF THE TOLLWAY CLOVER LEAF SHALL REMAIN IN PLACE.
4. ALL POLES CONNECTED TO EXISTING CONTROLLER "P", SHALL BE REMOVED.
5. ALL POLES RESIDING SOUTH OF STATION 117+60 AND CONNECTED TO EXISTING CONTROLLER "R", SHALL BE REMOVED.
6. LIGHT POLE FOUNDATIONS LOCATED IN CONCRETE MEDIAN WALL TO REMAIN IN PLACE.

MATCHLINE (FOR CONTINUATION, SEE SHEET R9)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
 ILLINOIS ROUTE 53
 WEST HALF OF I-90/
 I-53 INTERCHANGE

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'

DATE 04-01-2005

DRAWN BY WDF
 CHECKED BY RER

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 312/348-6131

2672 0:\PROJECTS\0872\WORK\FINAL_04_01_05\SEGMENT 1\REMOVAL

DATE = 4/7/2005
 FILE NAME = #FILE#
 PLOT SCALE = #SCALE#
 REFERENCE = #REF#

DATE TIME
USER

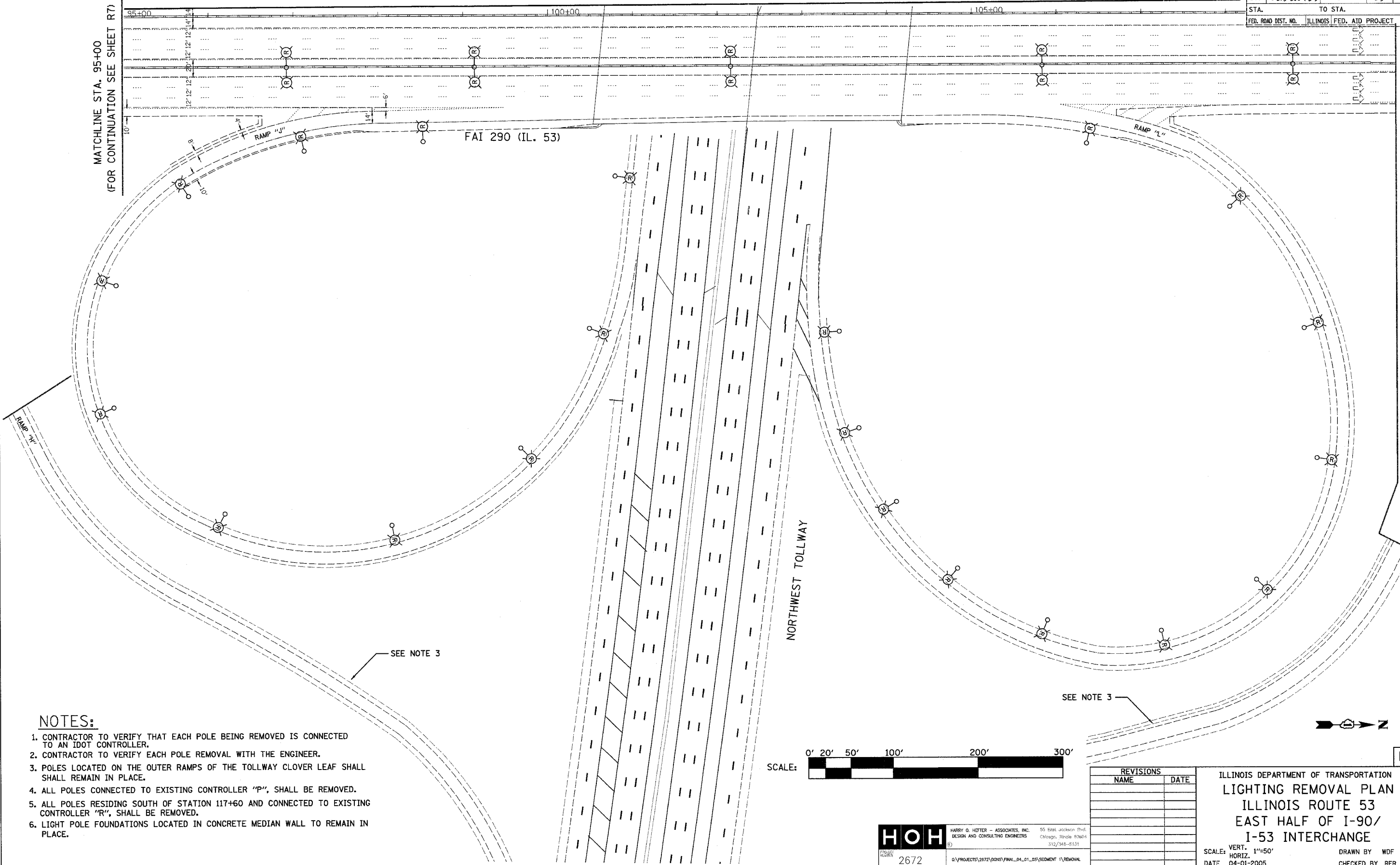
CONTRACT NO. 62877

MATCHLINE (FOR CONTINUATION, SEE SHEET R8)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302 K-L-3	COOK	55	12
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.				

MATCHLINE STA. 95+00
(FOR CONTINUATION SEE SHEET R7)

MATCHLINE STA. 110+00 (FOR CONTINUATION SEE SHEET R10)



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. POLES LOCATED ON THE OUTER RAMPS OF THE TOLLWAY CLOVER LEAF SHALL REMAIN IN PLACE.
4. ALL POLES CONNECTED TO EXISTING CONTROLLER "P", SHALL BE REMOVED.
5. ALL POLES RESIDING SOUTH OF STATION 117+60 AND CONNECTED TO EXISTING CONTROLLER "R", SHALL BE REMOVED.
6. LIGHT POLE FOUNDATIONS LOCATED IN CONCRETE MEDIAN WALL TO REMAIN IN PLACE.

SEE NOTE 3

SEE NOTE 3



R9

PLOT DATE = 4/7/2005
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

HOH HARRY O. HEFTER - ASSOCIATES, INC. 55 East Jackson Blvd.
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312/348-8131

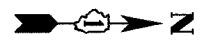
2672 @:\PROJECTS\2672\0405\FINAL_04_01_05\SEGMENT 1\REMOVAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53
EAST HALF OF I-90/
I-53 INTERCHANGE

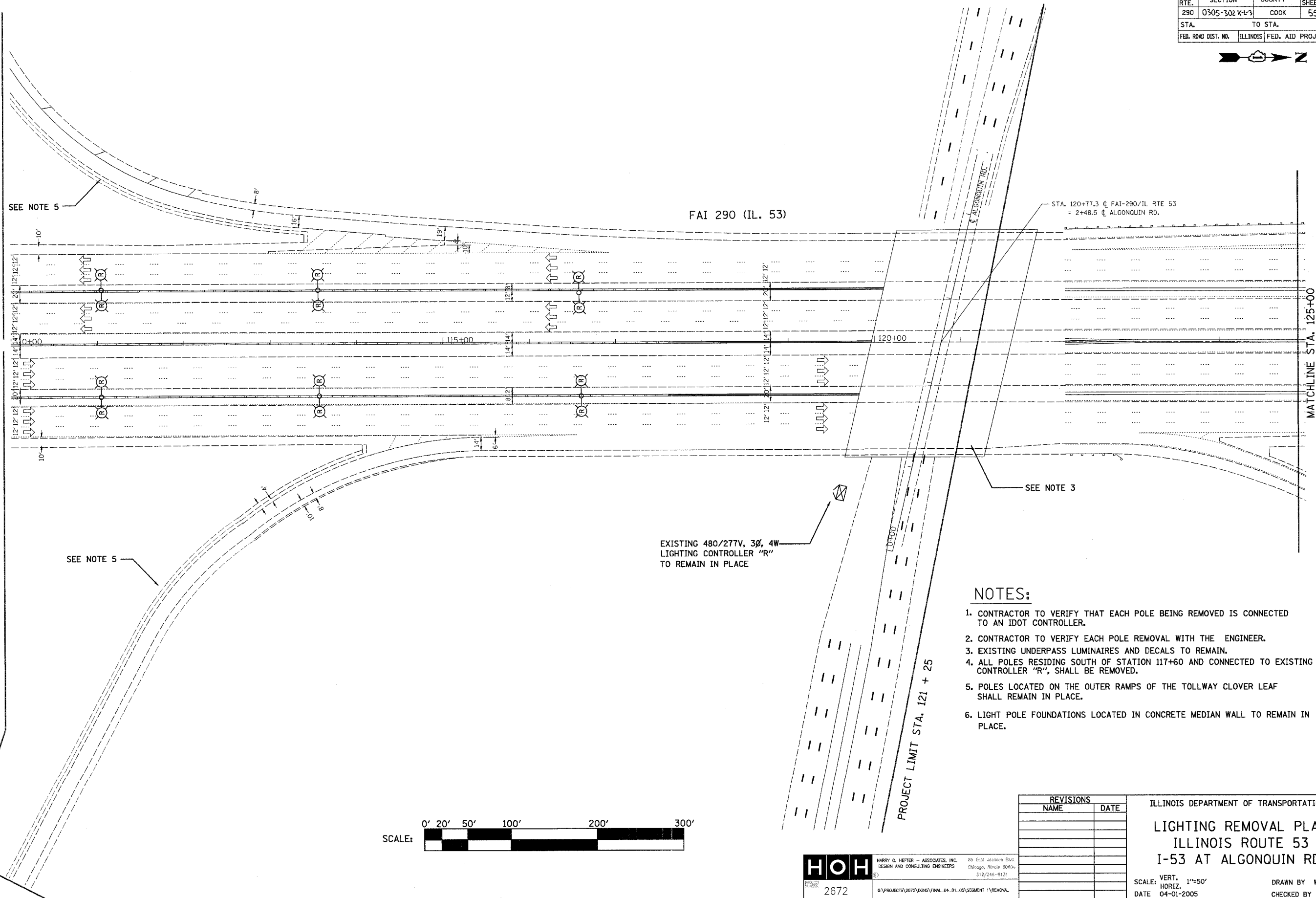
SCALE: VERT. 1"=50'
HORIZ. DATE 04-01-2005
DRAWN BY WDF
CHECKED BY RER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302 K-L-3	COOK	55	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



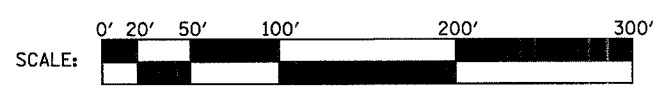
MATCHLINE STA. 110+00
(FOR CONTINUATION SEE SHEET R8)

MATCHLINE STA. 110+00
(FOR CONTINUATION SEE SHEET R9)



NOTES:

1. CONTRACTOR TO VERIFY THAT EACH POLE BEING REMOVED IS CONNECTED TO AN IDOT CONTROLLER.
2. CONTRACTOR TO VERIFY EACH POLE REMOVAL WITH THE ENGINEER.
3. EXISTING UNDERPASS LUMINAIRES AND DECALS TO REMAIN.
4. ALL POLES RESIDING SOUTH OF STATION 117+60 AND CONNECTED TO EXISTING CONTROLLER "R", SHALL BE REMOVED.
5. POLES LOCATED ON THE OUTER RAMPS OF THE TOLLWAY CLOVER LEAF SHALL REMAIN IN PLACE.
6. LIGHT POLE FOUNDATIONS LOCATED IN CONCRETE MEDIAN WALL TO REMAIN IN PLACE.



PLOT DATE = 4/7/2005
 FILE NAME = R13.DWG
 REFERENCE = AREA

HOH HARRY G. HEFTER - ASSOCIATES, INC.
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 55 East Jackson Blvd.
 Chicago, Illinois 60604
 312/246-9131

PROJECT NO. 2672
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REVISIONS	
NAME	DATE

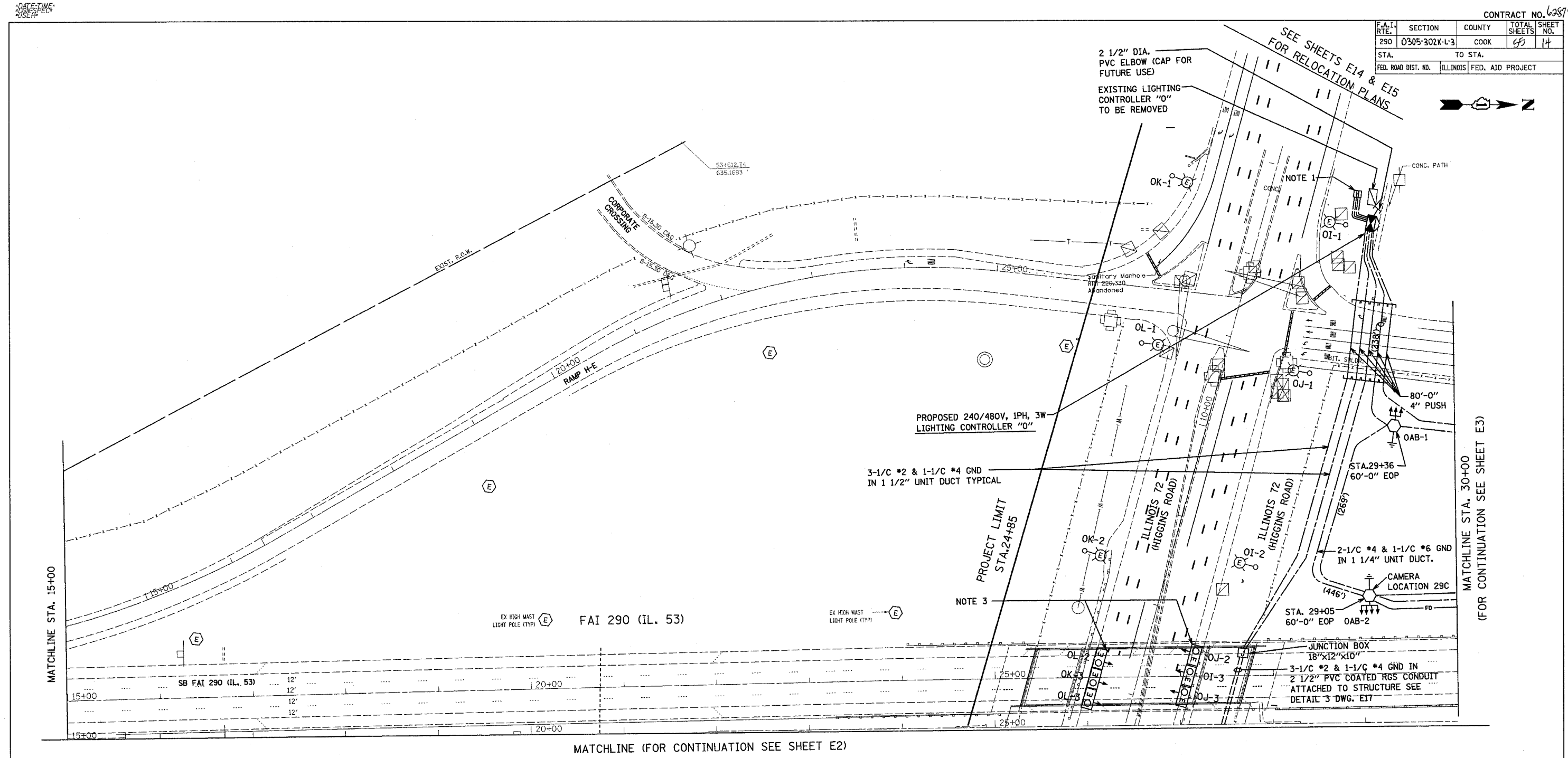
ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING REMOVAL PLAN
ILLINOIS ROUTE 53
I-53 AT ALGONQUIN RD.

SCALE: VERT. 1"=50'
 HORIZ. DATE 04-01-2005

DRAWN BY WDF
 CHECKED BY RER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	69	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



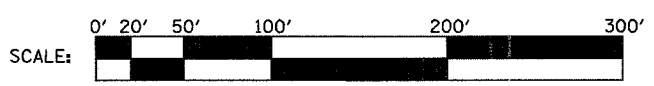
MATCHLINE STA. 15+00

MATCHLINE STA. 30+00
(FOR CONTINUATION SEE SHEET E3)

MATCHLINE (FOR CONTINUATION SEE SHEET E2)

NOTES:

- INTERCEPT EXISTING HIGGINS ROAD LIGHTING CIRCUITS AND RECONNECT TO PROPOSED CONTROLLER "O" IN ACCORDANCE WITH SINGLE LINE DIAGRAM, SHEET E11. RECONNECTION TO BE DONE DURING ONE DAYTIME PERIOD. IF NOT, ENGINEER MUST APPROVE TEMPORARY WIRING FOR THESE CIRCUITS AT NO ADDITIONAL COST TO THE CONTRACT. RE-LABEL ALL ASSOCIATED LUMINAIRE NUMBERING DECALS.
- REPLACE ALL LUMINAIRE HEADS ON HIGGINS RD. WITH LUMINAIRES WITH MULTI-TAP BALLASTS OF THE SAME TYPE AND WATTAGE. LUMINAIRES TO BE PROVIDED FROM STATE STOCK. SET TAPS FOR 240V OPERATION. SEE SINGLE LINE DIAGRAM, SHEET E11.
- RECONNECT UNDERPASS LUMINAIRES IN ACCORDANCE WITH SINGLE LINE DIAGRAM, SHEET E11.
- LIGHT POLES ON HIGGINS ROAD ARE TO BE RELABELLED IN ACCORDANCE WITH SINGLE LINE DIAGRAM, SHEET E11, AND RELOCATION PLANS ON SHEETS E14 AND E15.



PLOT DATE = 04/28/2005
FILE NAME = E11.E
PLOT SCALE = 1/4"=50'
REFERENCE = REF#

HOH HARRY O. HETTER - ASSOCIATES, INC. 55 East Jackson Blvd.
DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
312/346-8131

PROJECT NUMBER: 2672
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
ILLINOIS ROUTE 53
WEST HALF OF HIGGINS RD.
I-53 INTERCHANGE

SCALE: VERT. 1"=50'
HORIZ. 1"=50'
DATE 02-28-2005

DRAWN BY MEK
CHECKED BY RER

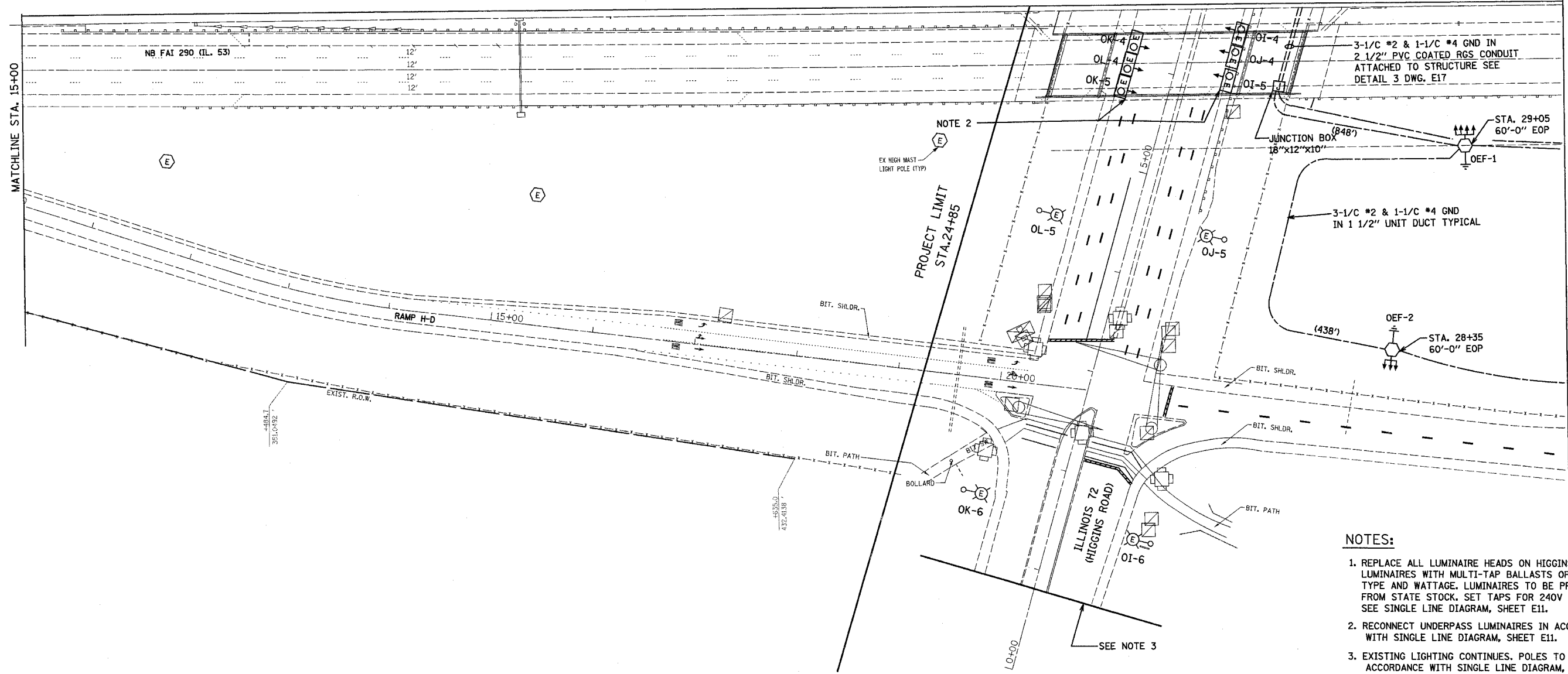
DATE TIME
DESIGNER
USER

CONTRACT NO. 62871

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	65	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

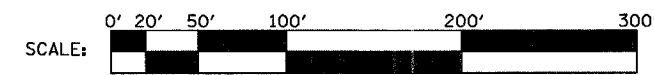


MATCHLINE (FOR CONTINUATION SEE SHEET E1)



NOTES:

1. REPLACE ALL LUMINAIRE HEADS ON HIGGINS RD. WITH LUMINAIRES WITH MULTI-TAP BALLASTS OF THE SAME TYPE AND WATTAGE. LUMINAIRES TO BE PROVIDED FROM STATE STOCK. SET TAPS FOR 240V OPERATION. SEE SINGLE LINE DIAGRAM, SHEET E11.
2. RECONNECT UNDERPASS LUMINAIRES IN ACCORDANCE WITH SINGLE LINE DIAGRAM, SHEET E11.
3. EXISTING LIGHTING CONTINUES. POLES TO BE RELAIED IN ACCORDANCE WITH SINGLE LINE DIAGRAM, SHEET E11.



EAST HALF OF INTERCHANGE

PLOT DATE = 04/28/2005
FILE NAME = #FILE#
FILE NUMBER = #FILE#
REFERENCE = #REF#

HOH HARRY O. HEFTER - ASSOCIATES, INC. 30 East Jackson Blvd. Chicago, Illinois 60604
DESIGN AND CONSULTING ENGINEERS 312/346-9131

PROJECT NUMBER: 2672
FILE PATH: G:\PROJECTS\2672\DOCS\FINAL_04_01_05\SEGMENT 1\LIGHTING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
ILLINOIS ROUTE 53
EAST HALF OF HIGGINS RD.
I-53 INTERCHANGE

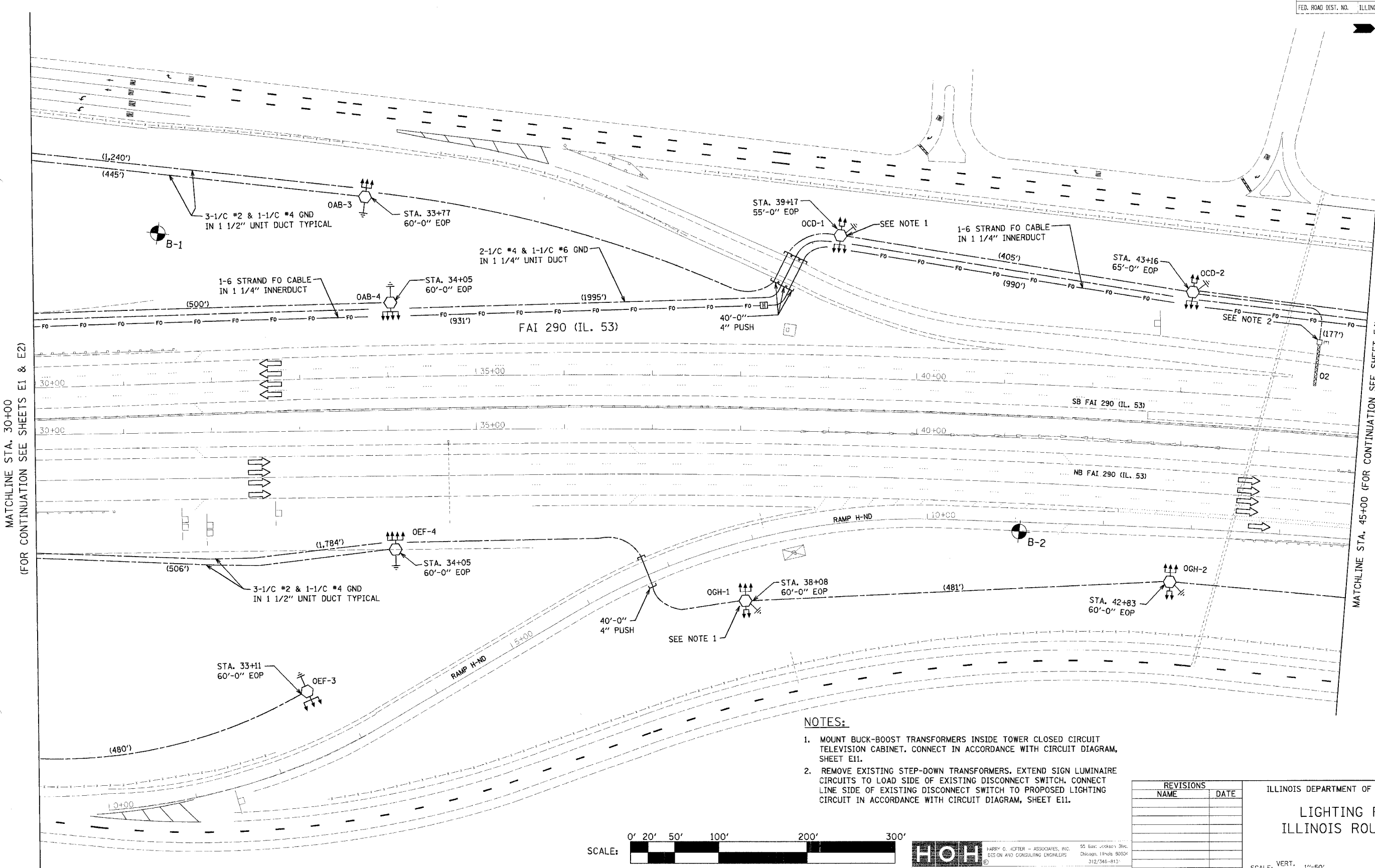
SCALE: VERT. 1"=50'
HORIZ. 1"=50'

DATE: 02-28-2005

DRAWN BY: MEK
CHECKED BY: RER

E2

STATE	SECTION	COUNTY	TOTAL SHEETS
290	0305-302K-L3	COOK	55
NO.			16
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

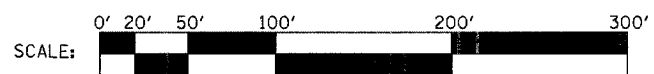


MATCHLINE STA. 30+00
(FOR CONTINUATION SEE SHEETS E1 & E2)

MATCHLINE STA. 45+00 (FOR CONTINUATION SEE SHEET E4)

NOTES:

1. MOUNT BUCK-BOOST TRANSFORMERS INSIDE TOWER CLOSED CIRCUIT TELEVISION CABINET. CONNECT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E11.
2. REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E11.



HARRY O. HEFTLER - ASSOCIATES, INC.
 95 East Jackson Blvd.
 CHICAGO, ILLINOIS 60604
 312/345-8113

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN
ILLINOIS ROUTE 53

SCALE: VERT. 1"=50'
HORIZ. 1"=100'

DATE 02-28-2005

DRAWN BY MEK
CHECKED BY RER

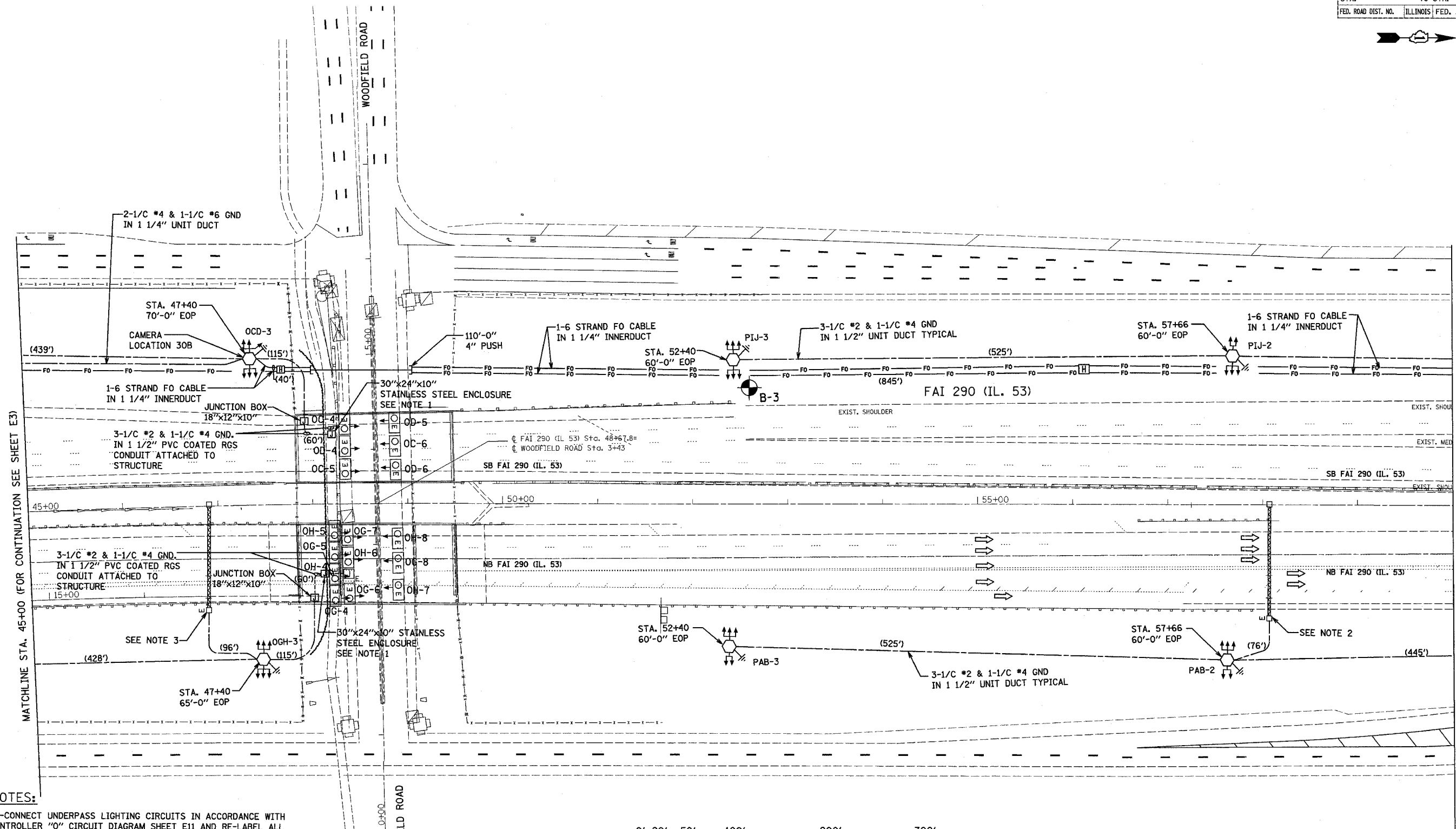
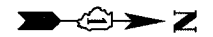
E3

PLOT DATE = 04/05/2005
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 PLOT SCALE = #SCALE#
 REFERENCE = #REF#

DATE TIME
DESIGNER
USER

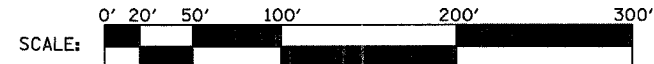
CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L3	COOK		17
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTES:

- RE-CONNECT UNDERPASS LIGHTING CIRCUITS IN ACCORDANCE WITH CONTROLLER 'O' CIRCUIT DIAGRAM SHEET E11 AND RE-LABEL ALL ASSOCIATED LUMINAIRE NUMBERING DECALS. SEE DETAIL#4 SHEET E17 FOR TRANSFORMER MOUNTING DETAILS.
- REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E12.
- REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E11.



PLT DATE = 8/28/2005
FILE NAME = #FILE#
PLT SCALE = #SCALE#
REFERENCE = #REF#

HOH
HARRY O. HEFTER - ASSOCIATES, INC.
DESIGN AND CONSULTING ENGINEERS
35 East Jackson Blvd.
Chicago, Illinois 60604
312/348-8131

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
ILLINOIS ROUTE 53
I-53 AT WOODFIELD RD.

SCALE: VERT. 1"=50'
HORIZ. DATE 02-28-2005

DRAWN BY MEK
CHECKED BY RER

E4

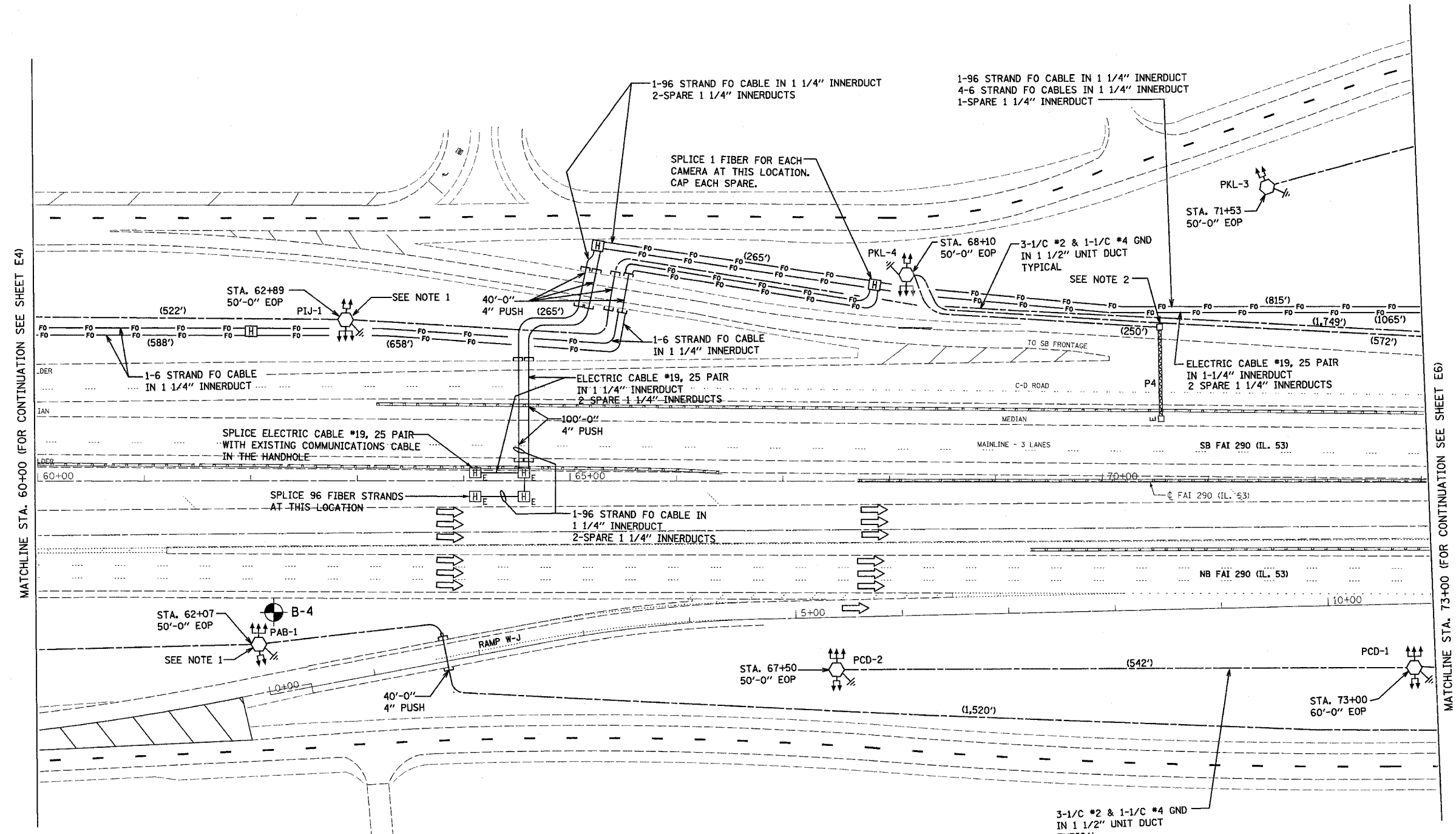
MATCHLINE STA. 45+00 (FOR CONTINUATION SEE SHEET E3)

MATCHLINE STA. 60+00 (FOR CONTINUATION SEE SHEET E5)

DATE-TIME
PROJECT
USER

CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK		13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

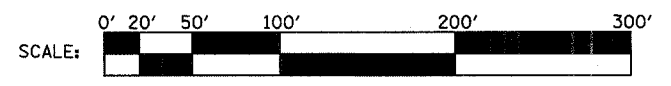


MATCHLINE STA. 60+00 (FOR CONTINUATION SEE SHEET E4)

MATCHLINE STA. 73+00 (FOR CONTINUATION SEE SHEET E6)

NOTES:

1. MOUNT BUCK-BOOST TRANSFORMERS INSIDE TOWER CLOSED CIRCUIT TELEVISION CABINET. CONNECT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E11.
2. REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E12.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**LIGHTING PLAN
ILLINOIS ROUTE 53**

SCALE: VERT. 1"=50'
HORIZ. DATE 02-28-2005
DRAWN BY MEK
CHECKED BY RER

PLOT DATE = 04/29/2005
 FILE NAME = FILE16
 PLOT SCALE = SCALE8
 REFERENCE = REF9

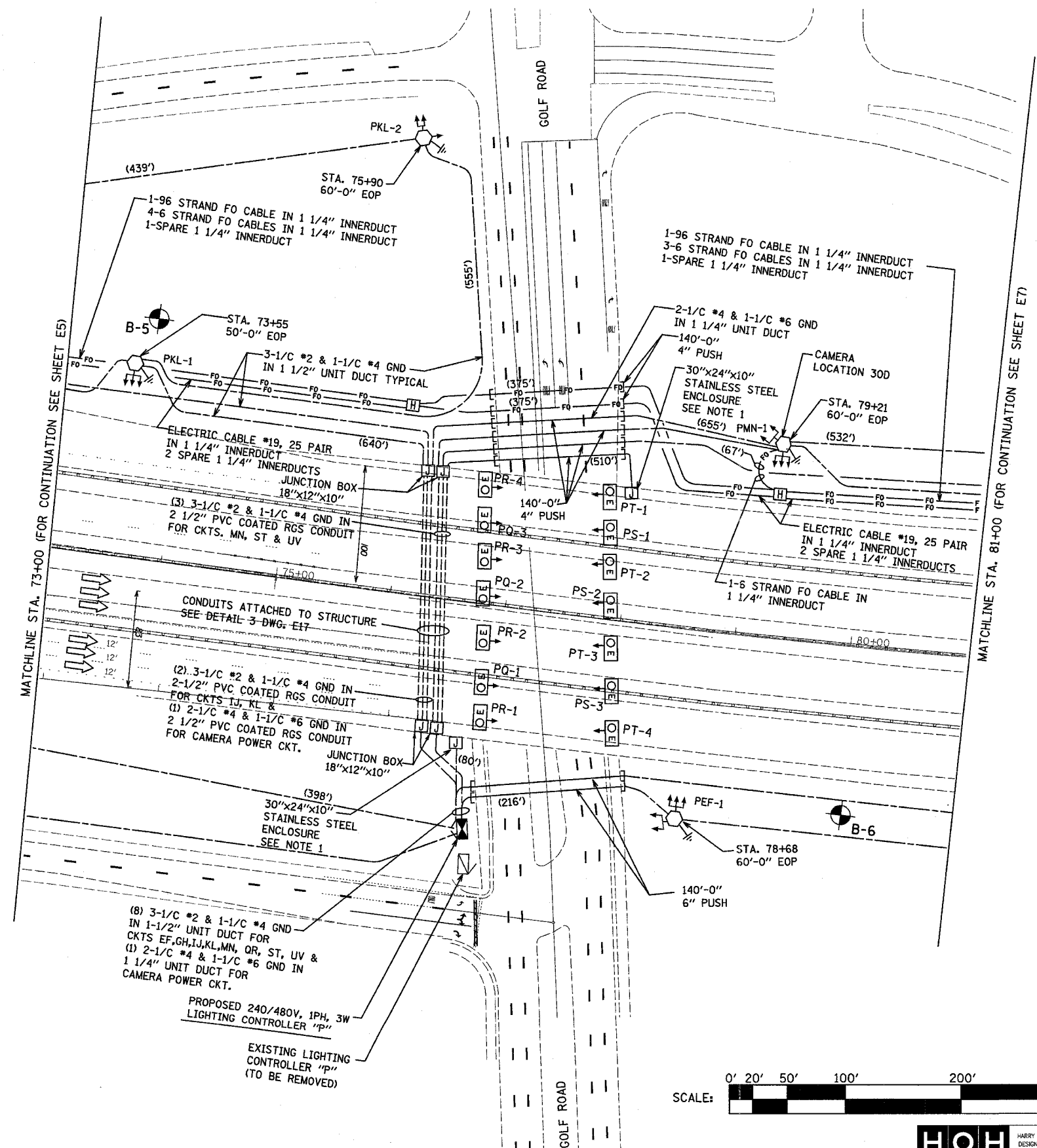
HOH
 HARRY O. HEFTER - ASSOCIATES, INC.
 DESIGN AND CONSULTING ENGINEERS
 55 East Jackson Blvd.
 Chicago, Illinois 60604
 312.346.8131
 2672
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E5

DATE TIME
DESIGNER
USER

CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK		19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



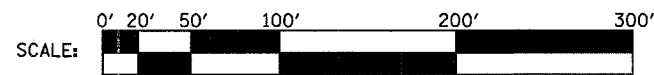
MATCHLINE STA. 73+00 (FOR CONTINUATION SEE SHEET E5)

MATCHLINE STA. 81+00 (FOR CONTINUATION SEE SHEET E7)

NOTES:

1. RE-CONNECT UNDERPASS LIGHTING CIRCUITS IN ACCORDANCE WITH CONTROLLER "P" CIRCUIT DIAGRAM SHEET E12 AND RE-LABEL ALL ASSOCIATED LUMINAIRE NUMBERING DECALS. SEE DETAIL#1 SHEET E16 FOR TRANSFORMER MOUNTING DETAILS.

PLOT DATE = 04/28/2005
 FILE NAME = 0305-302K-L-3
 PLOT SCALE = 1"=50'
 REFERENCE = 485E7



HOH HARRY D. HETTER - ASSOCIATES, INC.
 DESIGN AND CONSULTING ENGINEERS
 55 East Jackson Blvd.
 Chicago, Illinois 60604
 312/348-8131

PROJECT NO. 2672
 G:\PROJECTS\2012\LOGS\FINAL_04_01_05\SEGMENT 1\LIGHTING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
 ILLINOIS ROUTE 53
 I-53 AT GOLF ROAD

SCALE: VERT. 1"=50'
 HORIZ. 1"=100'
 DATE 02-28-2005
 DRAWN BY MEK
 CHECKED BY RER

E6

DATE TIME
DRAWN BY
USER

CONTRACT NO. 62871

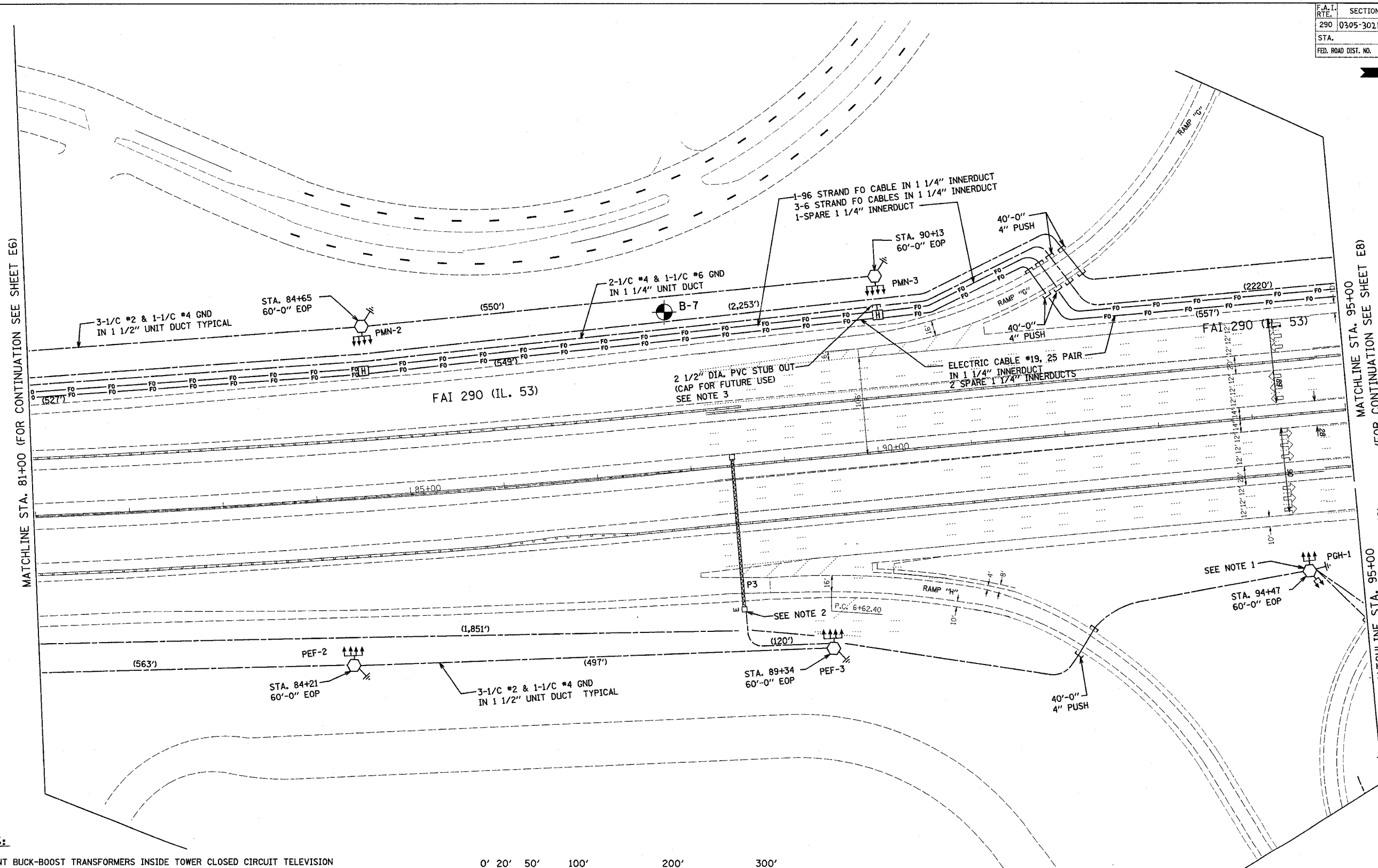
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-1-3	COOK		20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MATCHLINE STA. 81+00 (FOR CONTINUATION SEE SHEET E6)

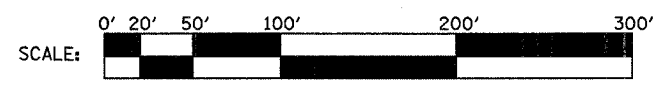
MATCHLINE STA. 95+00 (FOR CONTINUATION SEE SHEET E8)

MATCHLINE STA. 95+00 (FOR CONTINUATION SEE SHEET E9)



NOTES:

1. MOUNT BUCK-BOOST TRANSFORMERS INSIDE TOWER CLOSED CIRCUIT TELEVISION CABINET. CONNECT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E12.
2. REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E12.
3. PVC STUB OUT AND ALL OTHER ASSOCIATED MATERIAL AND LABOR IS INCLUDED UNDER PAY ITEM FOR HANDHOLE.



PLOT DATE = 04/28/2005
 FILE NAME = #FILEL#
 PLOT SCALE = #SCALE#
 REFERENCE = #REF#

HOH HARRY O. HETTER - ASSOCIATES, INC.
 DESIGN AND CONSULTING ENGINEERS
 55 East Jackson Blvd.
 Chicago, Illinois 60604
 312/248-5131

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
 ILLINOIS ROUTE 53

SCALE: VERT. 1"=50'
 HORIZ. DATE 02-28-2005

DRAWN BY MEK
 CHECKED BY RER

E7

2672

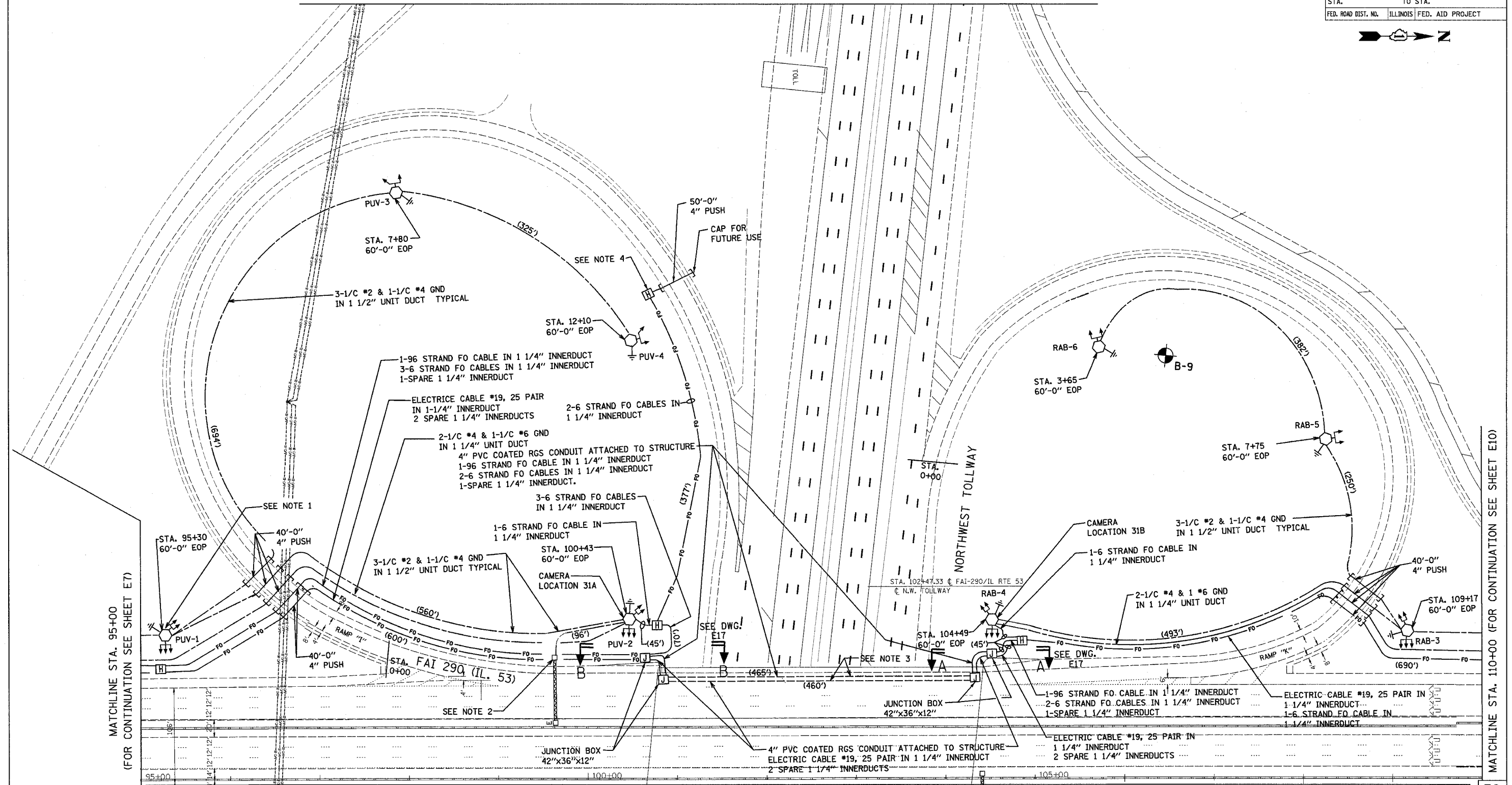
G:\PROJECTS\2672\DDNS\FINAL_04_01_05\SEGMENT 1\LIGHTING

DATE TIME USER

CONTRACT NO. 12871

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK		21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

(FOR CONTINUATION, SEE NORTHWEST TOLLWAY SHEET)



MATCHLINE STA. 95+00 (FOR CONTINUATION SEE SHEET E7)

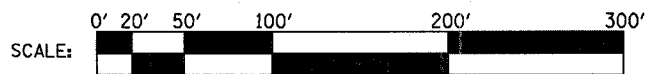
MATCHLINE STA. 110+00 (FOR CONTINUATION SEE SHEET E10)

NOTES:

1. MOUNT BUCK-BOOST TRANSFORMERS INSIDE TOWER CLOSED CIRCUIT TELEVISION CABINET. CONNECT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E12.
2. REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E-12.
3. 4" CONDUITS RUNNING IN THE NORTH / SOUTH DIRECTION SHALL BE ROUTED ALONG THE WEB OF THE SECOND BEAM FROM THE WEST SIDE OF THE OVERPASS.

4. COORDINATE EXACT LOCATION OF THE HANDHOLE WITH THE ENGINEER. COIL AN EXTRA 300 FEET OF FIBER OPTIC CABLE IN HANDHOLE FOR FUTURE EXTENSION.

(FOR CONTINUATION SEE EAST HALF OF INTERCHANGE SHEET E9)



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 312/348-8131

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
 ILLINOIS ROUTE 53
 WEST HALF OF I-90/
 I-53 INTERCHANGE
 SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 02-28-2005
 DRAWN BY MEK
 CHECKED BY RER

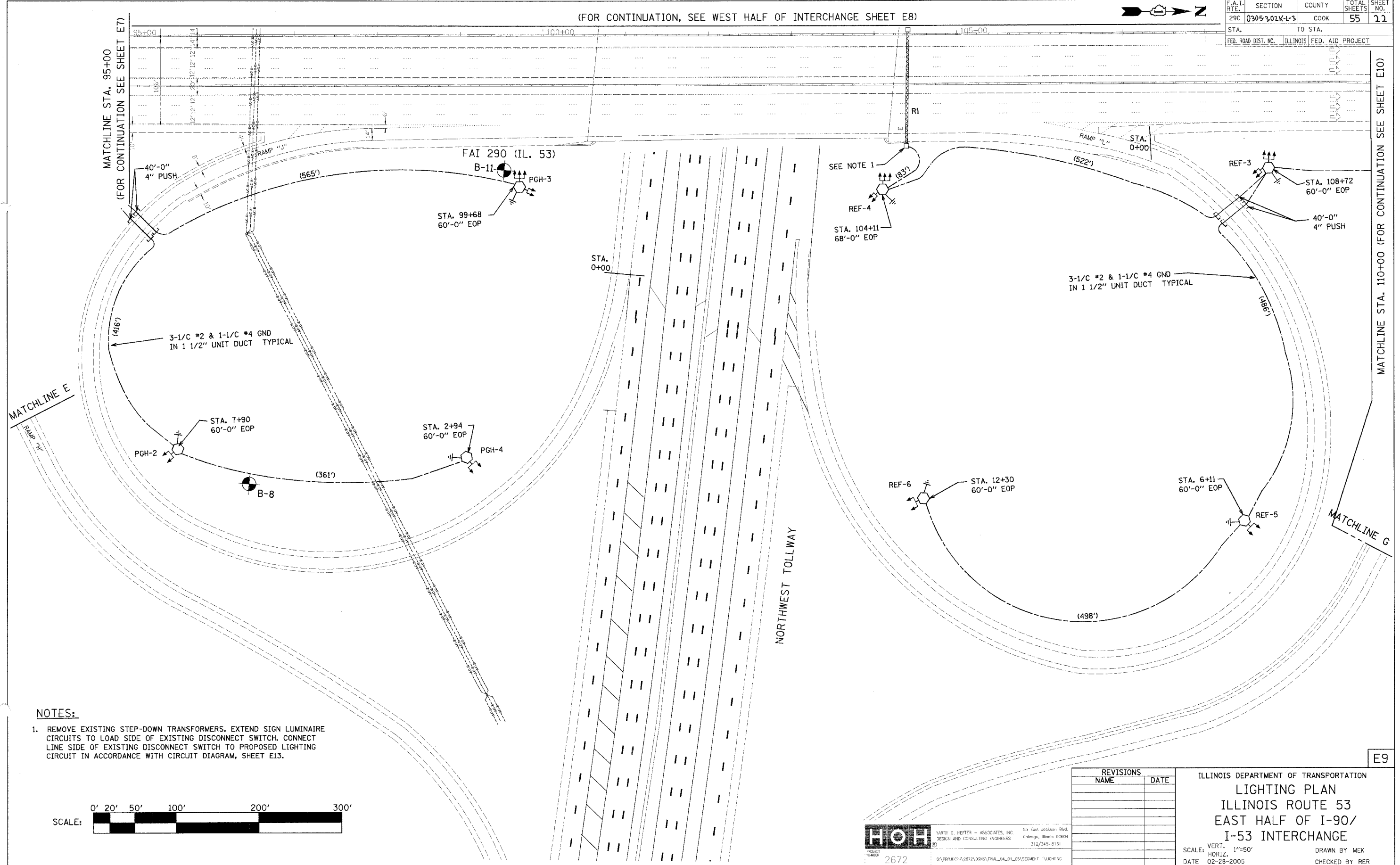
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DATE TIME USER

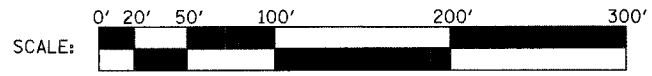
CONTRACT NO. 62877

(FOR CONTINUATION, SEE WEST HALF OF INTERCHANGE SHEET E8)

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305302K-L-3	COOK	55	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



- NOTES:**
1. REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E13.



PLOT DATE = 04/08/2005
 FILE NAME = FILEL3
 PLOT SCALE = 1/4\"/>

HOH
 HARRY O. HETTER - ASSOCIATES, INC.
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 55 East Jackson Blvd.
 Chicago, Illinois 60604
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REVISIONS	
NAME	DATE

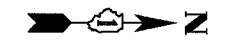
ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
 ILLINOIS ROUTE 53
 EAST HALF OF I-90/
 I-53 INTERCHANGE

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 02-28-2005

DRAWN BY MEK
 CHECKED BY RER

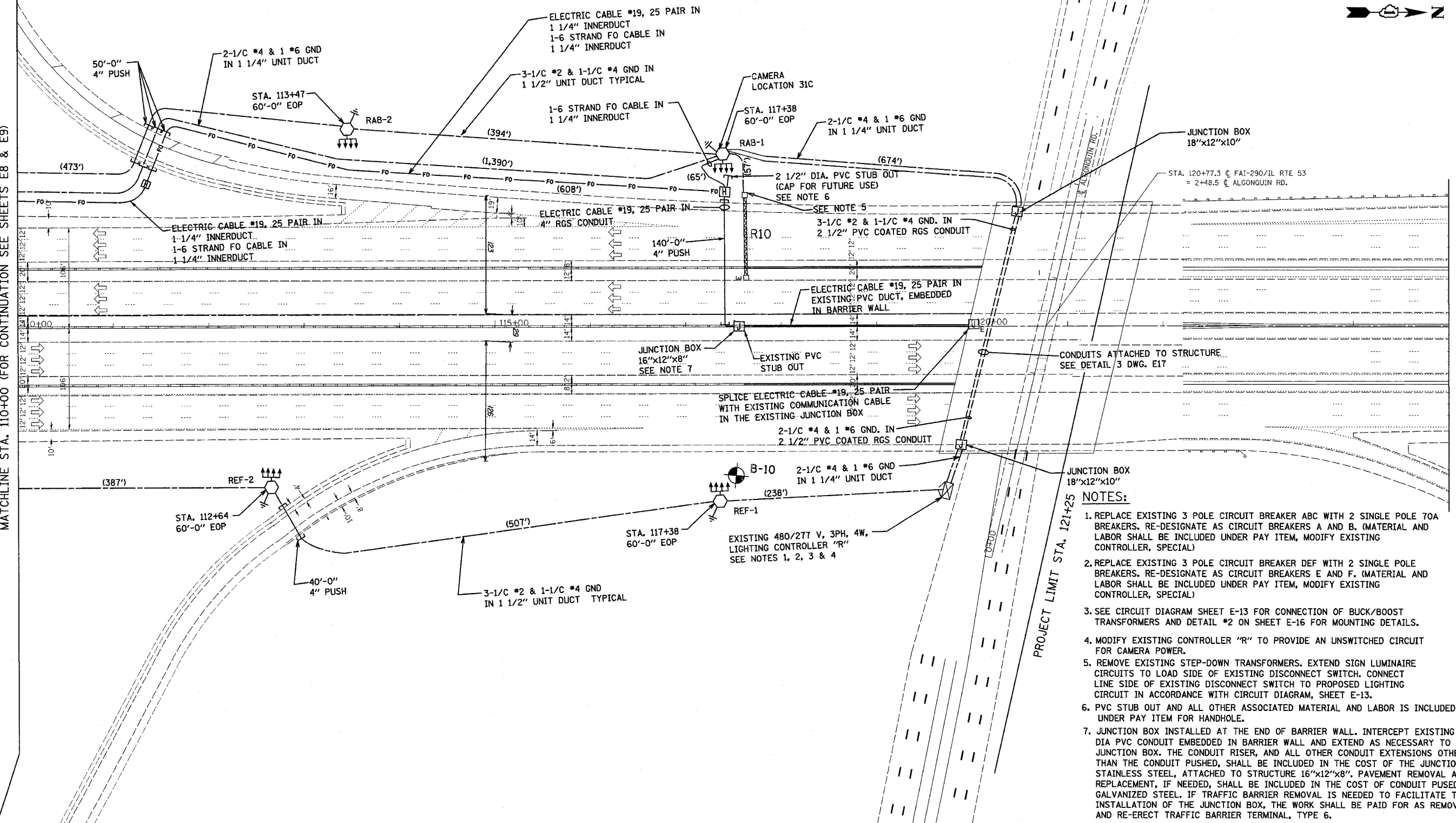
E9

F.A.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290 0305-302K-L-3	COOK		23
STA. TO STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



MATCHLINE STA. 110+00 (FOR CONTINUATION SEE SHEETS E8 & E9)

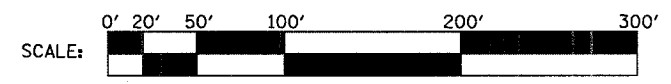
MATCHLINE STA. 125+00



NOTES:

1. REPLACE EXISTING 3 POLE CIRCUIT BREAKER ABC WITH 2 SINGLE POLE 70A BREAKERS. RE-DESIGNATE AS CIRCUIT BREAKERS A AND B. (MATERIAL AND LABOR SHALL BE INCLUDED UNDER PAY ITEM, MODIFY EXISTING CONTROLLER, SPECIAL)
2. REPLACE EXISTING 3 POLE CIRCUIT BREAKER DEF WITH 2 SINGLE POLE BREAKERS. RE-DESIGNATE AS CIRCUIT BREAKERS E AND F. (MATERIAL AND LABOR SHALL BE INCLUDED UNDER PAY ITEM, MODIFY EXISTING CONTROLLER, SPECIAL)
3. SEE CIRCUIT DIAGRAM SHEET E-13 FOR CONNECTION OF BUCK/BOOST TRANSFORMERS AND DETAIL #2 ON SHEET E-16 FOR MOUNTING DETAILS.
4. MODIFY EXISTING CONTROLLER "R" TO PROVIDE AN UNSWITCHED CIRCUIT FOR CAMERA POWER.
5. REMOVE EXISTING STEP-DOWN TRANSFORMERS. EXTEND SIGN LUMINAIRE CIRCUITS TO LOAD SIDE OF EXISTING DISCONNECT SWITCH. CONNECT LINE SIDE OF EXISTING DISCONNECT SWITCH TO PROPOSED LIGHTING CIRCUIT IN ACCORDANCE WITH CIRCUIT DIAGRAM, SHEET E-13.
6. PVC STUB OUT AND ALL OTHER ASSOCIATED MATERIAL AND LABOR IS INCLUDED UNDER PAY ITEM FOR HANDHOLE.
7. JUNCTION BOX INSTALLED AT THE END OF BARRIER WALL. INTERCEPT EXISTING 4" DIA PVC CONDUIT EMBEDDED IN BARRIER WALL AND EXTEND AS NECESSARY TO ATTACH TO JUNCTION BOX. THE CONDUIT RISER, AND ALL OTHER CONDUIT EXTENSIONS OTHER THAN THE CONDUIT PUSHED, SHALL BE INCLUDED IN THE COST OF THE JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 16"x12"x8". PAVEMENT REMOVAL AND REPLACEMENT, IF NEEDED, SHALL BE INCLUDED IN THE COST OF CONDUIT PUSED, 4" DIA., GALVANIZED STEEL. IF TRAFFIC BARRIER REMOVAL IS NEEDED TO FACILITATE THE INSTALLATION OF THE JUNCTION BOX, THE WORK SHALL BE PAID FOR AS REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 6.

E10



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 Chicago, Illinois 60604
 312/746-8131

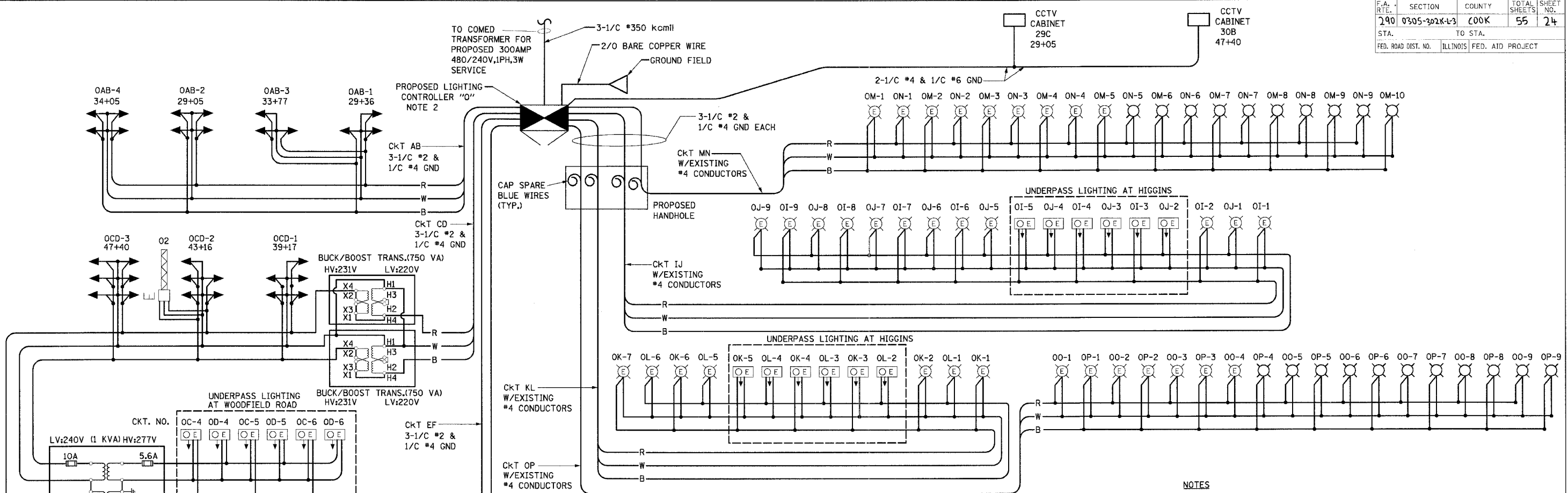
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING PLAN
 ILLINOIS ROUTE 53
 I-53 AT ALGONQUIN RD.
 SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 02-28-2005
 DRAWN BY MEK
 CHECKED BY REE

PLOT DATE = 04/28/2005
 FILE NAME = #FILE#
 PLOT SCALE = #SCALE#
 REFERENCE = #REF#

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-202K-L3	COOK	55	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LOAD TABULATION FOR LIGHTING CONTROLLER "O"

CIRCUIT	DESCRIPTION	PHASE A (RED) AMPS	PHASE B (BLACK) AMPS	BREAKER SIZE AMPS
A	7 FIXTURES	27.3		70
B	7 FIXTURES		27.3	70
C	8 FIXTURES +1 SIGN + 3 UNDERPASS	34.5		70
D	8 FIXTURES + 2 SIGN + 3 UNDERPASS		35.4	70
E	7 FIXTURES	27.3		70
F	7 FIXTURES		27.3	70
G	8 FIXTURES + 3 SIGN + 5 UNDERPASS	35.4		70
H	8 FIXTURES + 4 SIGN + 5 UNDERPASS		36.3	70
I	6 FIXTURES + 3 UNDERPASS	15		70
J	6 FIXTURES + 3 UNDERPASS		15	70
K	4 FIXTURES + 3 UNDERPASS	10.8		70
L	3 FIXTURES + 3 UNDERPASS		8.7	70
M	10 FIXTURES	21		70
N	9 FIXTURES		18.9	70
O	9 FIXTURES	18.9		70
P	9 FIXTURES		18.9	70
Q				70
R				70
S				70
T				70
U				70
V				70
W				70
X				70
TOTAL		190.2	187.8	
CONNECTED LOAD		90.7kVA		

- NOTES**
- BUCK/BOOST TRANSFORMERS TO BE INSTALLED AT THE DISCRETION OF THE ENGINEER.
 - PROPOSED LIGHTING CONTROLLER "O" IS LOCATED AT THE NORTHWEST CORNER OF HIGGINS ROAD AND FRONTAGE ROAD.

- LEGEND**
- ← PROPOSED TOWER MOUNTED 750W HPS LUMINAIRE-240V DESIGNATION AS INDICATED
 - ⊙ EXISTING HPS LUMINAIRE TO BE REPLACED WITH HPS LUMINAIRE WITH MULTI-TAP BALLAST DESIGNATION AS INDICATED
 - ⊘ REINSTALLED LIGHTING UNIT
 - ⊙E EXISTING 150W MULTI-TAP UNDERPASS LUMINAIRE
 - E ⊗ EXISTING SIGN LUMINAIRE
 - ⊠ PROPOSED LIGHTING CONTROLLER, DUPLEX TYPE WITH RADIO CONTROL AND SCADA
 - B BLACK PHASE CONDUCTOR
 - W WHITE NEUTRAL CONDUCTOR
 - R RED PHASE CONDUCTOR
 - G GREEN GROUND CONDUCTOR

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		ILLINOIS ROUTE 53 SINGLE LINE DIAGRAM PROPOSED CONTROLLER "O"

SCALE: VERT. NONE
HORIZ. DATE 02-28-2005

DRAWN BY WDF
CHECKED BY RER

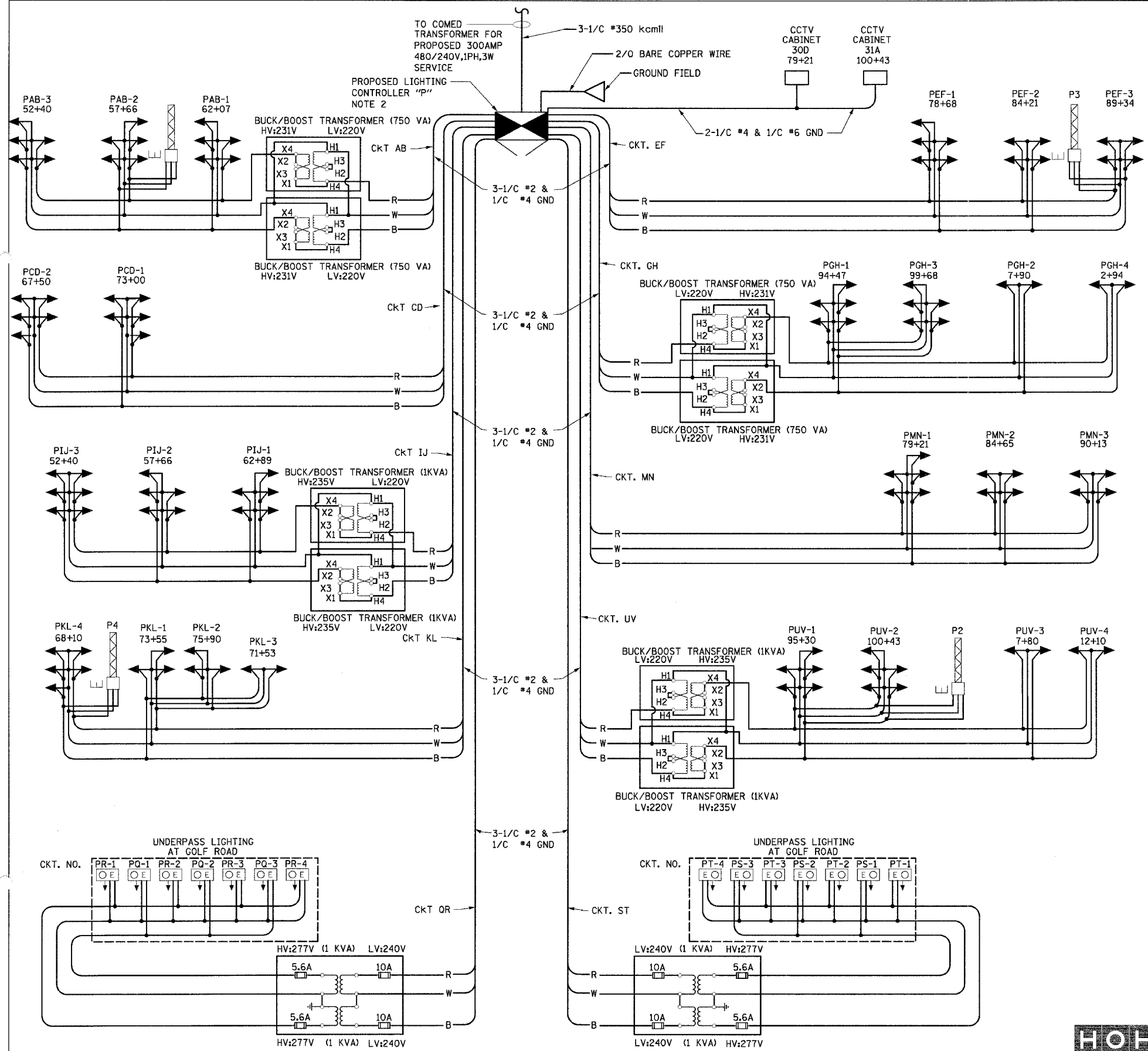
HOH HARRY O. HETTER - ASSOCIATES, INC.
DESIGN AND CONSTRUCTION ENGINEERS
55 East Jackson Blvd.
Chicago, Illinois 60604
312/348-8131

PROJECT NO. 2672

E-11

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302K-L-3	COOK	55	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



CIRCUIT	DESCRIPTION	PHASE A (RED) AMPS	PHASE B (BLACK) AMPS	BREAKER SIZE AMPS
A	7 FIXTURES + 4 SIGN	30.9		70
B	8 FIXTURES + 3 SIGN		33.9	70
C	5 FIXTURES	19.5		70
D	5 FIXTURES		19.5	70
E	7 FIXTURES + 3 SIGN	30		70
F	6 FIXTURES + 4 SIGN		27	70
G	7 FIXTURES	27.3		70
H	7 FIXTURES		27.3	70
I	8 FIXTURES	31.2		70
J	8 FIXTURES		31.2	70
K	6 FIXTURES + 4 SIGN	27		70
L	7 FIXTURES + 3 SIGN		30	70
M	6 FIXTURES	23.4		70
N	7 FIXTURES		27.3	70
O				70
P				70
Q	3 FIXTURES	2.4		70
R	4 FIXTURES		3.2	70
S	3 FIXTURES	2.4		70
T	4 FIXTURES		3.2	70
U	7 FIXTURES + 4 SIGN	30.9		70
V	7 FIXTURES + 4 SIGN		30.9	70
W				70
X				70
TOTAL		225	233.5	
CONNECTED LOAD		110 kVA		

- NOTES**
- BUCK BOOST TRANSFORMERS TO BE INSTALLED AT THE DISCRETION OF THE ENGINEER.
 - PROPOSED LIGHTING CONTROLLER "P" IS LOCATED ON THE SOUTHEAST CORNER OF GOLF ROAD AND FRONTAGE ROAD, EAST OF ILLINOIS ROUTE 53.

- LEGEND**
- ← PROPOSED TOWER MOUNTED 750W HPS LUMINAIRE-240V DESIGNATION AS INDICATED
 - ⊙ EXISTING UNDERPASS LUMINAIRE
 - ⊞ EXISTING SIGN LUMINAIRE
 - ⊞ PROPOSED LIGHTING CONTROLLER, DUPLEX TYPE WITH RADIO CONTROL AND SCADA
 - B BLACK PHASE CONDUCTOR
 - W WHITE NEUTRAL CONDUCTOR
 - R RED PHASE CONDUCTOR
 - G GREEN GROUND CONDUCTOR

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
E-12		ILLINOIS ROUTE 53 SINGLE LINE DIAGRAM PROPOSED CONTROLLER "P"
SCALE:	VERT. NONE HORIZ. NONE	
DATE:	02-28-2005	
DRAWN BY: WDF		CHECKED BY: RER

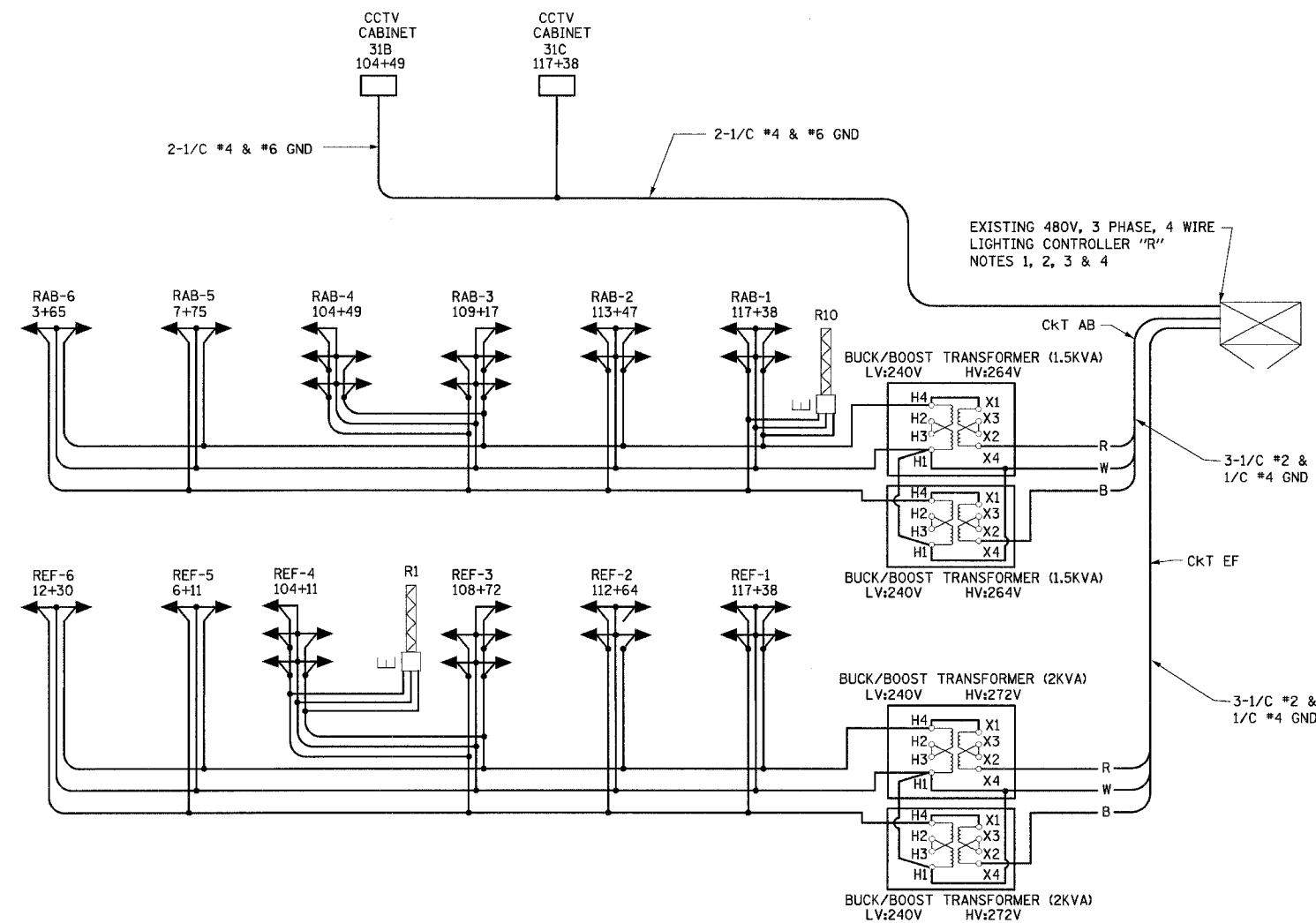
HOHL HARRY O. HETTER - ASSOCIATES, INC. 55 East Jackson Blvd. Chicago, Illinois 60601 312/346-8131

2672

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62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302K-13	COOK	55	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



CIRCUIT	DESCRIPTION	PHASE A (RED) AMPS	PHASE B (BLACK) AMPS	BREAKER SIZE AMPS
A	11 FIXTURES + 3 SIGN	39.5		70
B	11 FIXTURES + 3 SIGN		39.5	70
C	SPACE			70
D	SPACE			70
E	11 FIXTURES + 4 SIGN	40.3		70
F	11 FIXTURES + 4 SIGN		40.3	70
G				70
H				70
I				70
J				70
K				70
L				70
M				70
N				70
O				70
P				70
Q				70
R				70
S				70
T				70
U				70
V				70
W				70
X				70
TOTAL CONNECTED LOAD				

NOTES

1. REPLACE EXISTING 3 POLE CIRCUIT BREAKER ABC WITH 2 SINGLE POLE, 70A BREAKERS. RE-DESIGNATE AS CIRCUIT BREAKERS A AND B. (MATERIAL AND LABOR SHALL BE INCLUDED UNDER PAY ITEM, MODIFY EXISTING CONTROLLER, SPECIAL)
2. REPLACE EXISTING 3 POLE CIRCUIT BREAKER DEF WITH 2 SINGLE POLE BREAKERS. RE-DESIGNATE AS CIRCUIT BREAKERS E AND F. (MATERIAL AND LABOR SHALL BE INCLUDED UNDER PAY ITEM, MODIFY EXISTING CONTROLLER, SPECIAL)
3. MODIFY EXISTING CONTROLLER "R" TO PROVIDE AN UNSWITCHED CIRCUIT FOR CAMERA POWER.
4. EXISTING CONTROLLER "R" IS LOCATED ON THE SOUTH SIDE OF ALGONQUIN ROAD, EAST OF ILLINOIS ROUTE 53.

LEGEND

- ← PROPOSED TOWER MOUNTED 750W HPS LUMINAIRE-240V DESIGNATION AS INDICATED
- ⊠ EXISTING SIGN LUMINAIRE
- ⊠ EXISTING LIGHTING CONTROLLER, DUPLEX TYPE WITH RADIO CONTROL AND SCADA
- B BLACK PHASE CONDUCTOR
- W WHITE NEUTRAL CONDUCTOR
- R RED PHASE CONDUCTOR
- G GREEN GROUND CONDUCTOR

E-13

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ILLINOIS ROUTE 53
 SINGLE LINE DIAGRAM
 EXISTING CONTROLLER "R"

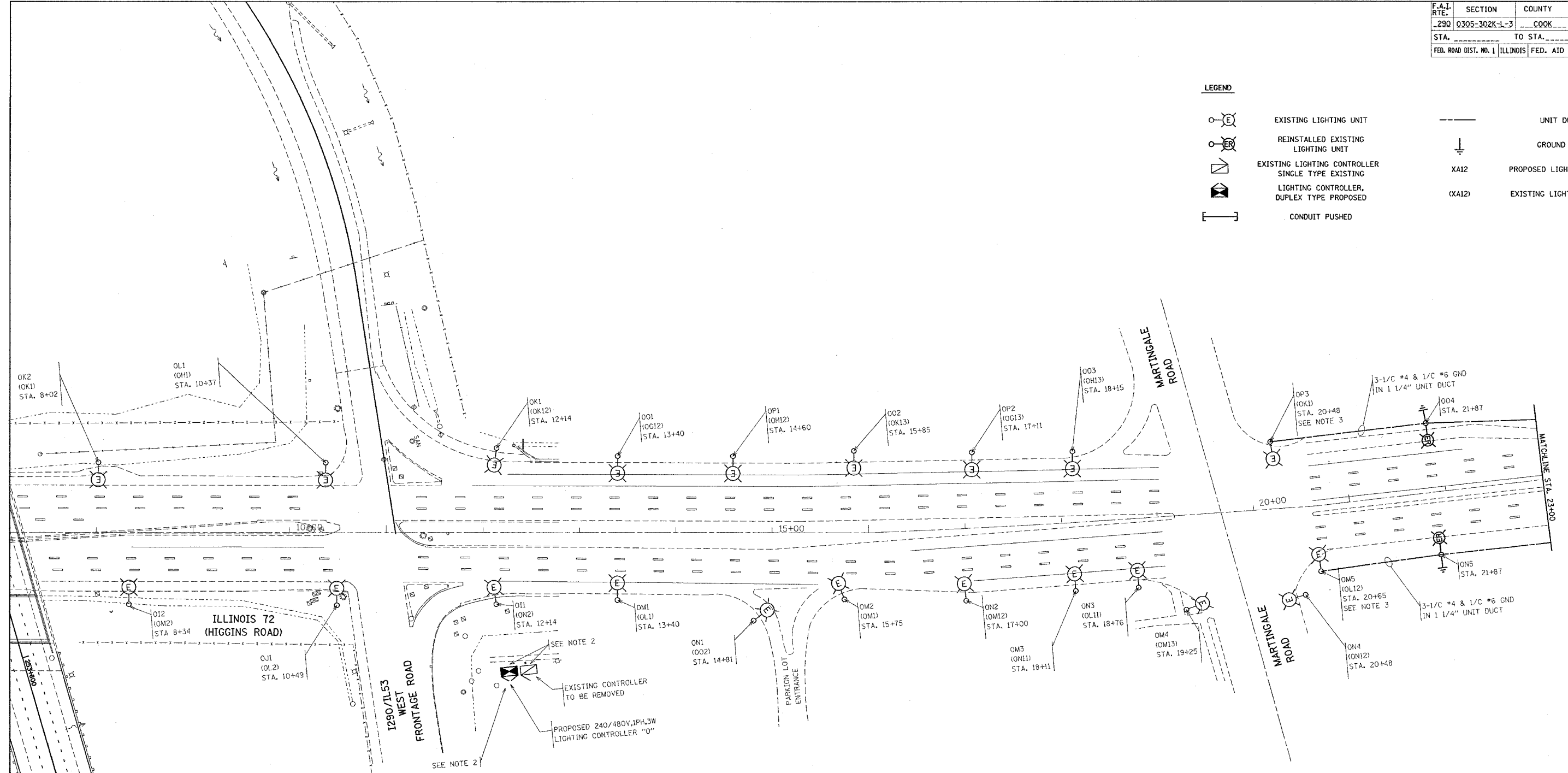
HOH HARRY D. HULTER - ASSOCIATES, INC. 55 East Jackson Blvd. CHICAGO, ILLINOIS 60604
 PROJECT 2672 6:\PROJECTS\2672\CONSTR\FINAL_04_01_05\SEGMENT 1\07-TRNG\13.DWG
 DATE 02-28-2005

SCALE: VERT. NONE HORIZ. NONE
 DATE 02-28-2005 DRAWN BY WDF CHECKED BY RER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-230	0305-302K-1-3	COOK	55	21
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

LEGEND

	EXISTING LIGHTING UNIT		UNIT DUCT
	REINSTALLED EXISTING LIGHTING UNIT		GROUND ROD
	EXISTING LIGHTING CONTROLLER SINGLE TYPE EXISTING		XA12 PROPOSED LIGHTING DECAL
	LIGHTING CONTROLLER, DUPLEX TYPE PROPOSED		(XA12) EXISTING LIGHTING DECAL
	CONDUIT PUSHED		



NOTES:

- EXISTING LIGHT POLES EAST OF I-290 TO BE RELOCATED AS SHOWN ON ONE LINE DIAGRAM SHEET E-11.
- FOR EXISTING CONTROLLER REMOVAL, PROPOSED CONTROLLER INSTALLATION, AND RECONNECTION OF EXISTING ROADWAY LIGHTING UNITS TO THE PROPOSED CONTROLLER, SEE SHEETS E-1 AND E-11.
- THE CONTRACTOR SHALL INTERCEPT THE EXISTING CIRCUITS AND EXTEND TO THE RELOCATED LIGHTING UNITS. PROVIDE NEW UNIT DUCT. COORDINATE EXACT ROUTING OF UNIT DUCT IN THE FIELD. THIS WORK IS PAID FOR UNDER THE PAY ITEM FOR UNIT DUCT OF THE TYPE SPECIFIED.
- REINSTALLED LIGHTING UNITS ARE TO MATCH THE EXISTING POLES IN MOUNTING HEIGHT, MAST ARM, SET BACK, LUMINAIRE TYPE, AND LUMINAIRE WATTAGE. IF EXISTING SET BACK CAN NOT BE MATCHED, MINIMUM SET BACK SHALL BE 12 FEET FROM THE EDGE OF TRAVELED PAVEMENT.
- REINSTALLED EXISTING LIGHTING UNITS SHALL BE RELOCATED FROM I-290/IL 53 PROJECT LIMITS OR DELIVERED FROM STATE STOCK, AS DIRECTED BY THE ENGINEER.
- REPLACEMENT LUMINAIRES FOR THE EXISTING AND RELOCATED LIGHTING UNITS ON HIGGINS ROAD RECONNECTED TO PROPOSED CONTROLLER "Q" SHALL BE DELIVERED FROM STATE STOCK. BALLASTS SHALL BE SET FOR 240 VOLT OPERATION. THIS WORK SHALL BE PAID FOR UNDER THE PAY ITEM FOR LUMINAIRE (INSTALL ONLY), OF THE TYPE SPECIFIED.

PLOT DATE = 4/7/2005
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 USER NAME = jlaposa

E-14

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**IL-72 (HIGGINS ROAD)
 LIGHTING RELOCATION
 PLANS**

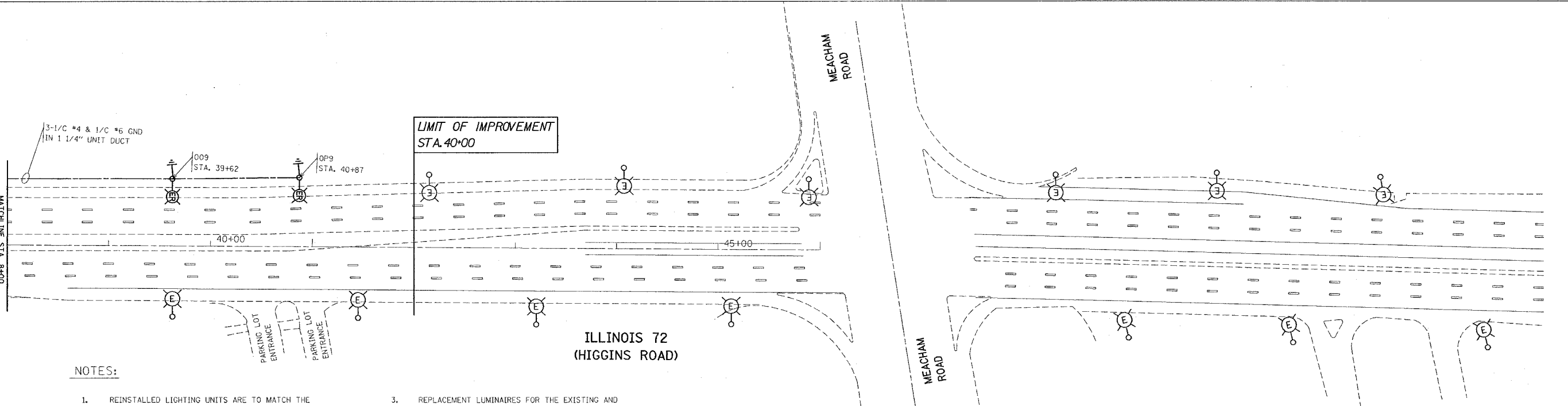
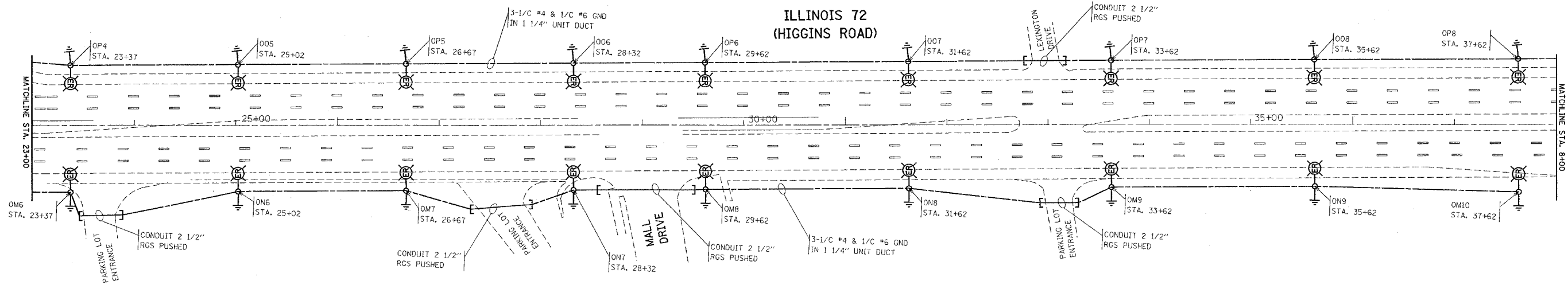
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 HORIZ. AS SHOWN
 DATE 4/7/2005

DRAWN BY MP
 CHECKED BY SL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-1-3	COOK	55	18
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

LEGEND

	EXISTING LIGHTING UNIT		UNIT DUCT
	REINSTALLED EXISTING LIGHTING UNIT		GROUND ROD
	EXISTING LIGHTING CONTROLLER SINGLE TYPE EXISTING	XA12	PROPOSED LIGHTING DECAL
	LIGHTING CONTROLLER, DUPLEX TYPE PROPOSED	(XA12)	EXISTING LIGHTING DECAL
	CONDUIT PUSHED		



NOTES:

- REINSTALLED LIGHTING UNITS ARE TO MATCH THE EXISTING POLES IN MOUNTING HEIGHT, MAST ARM, SET BACK, LUMINAIRE TYPE, AND LUMINAIRE WATTAGE. IF EXISTING SET BACK CAN NOT BE MATCHED, MINIMUM SET BACK SHALL BE 12 FEET FROM THE EDGE OF TRAVELED PAVEMENT.
- REINSTALLED EXISTING LIGHTING UNIT SHALL BE RELOCATED FROM I-290/IL 53 PROJECT LIMITS OR DELIVERED FROM STATE STOCK, AS DIRECTED BY THE ENGINEER.
- REPLACEMENT LUMINAIRES FOR THE EXISTING AND RELOCATED LIGHTING UNITS ON HIGGINS ROAD RECONNECTED TO PROPOSED CONTROLLER "O" SHALL BE DELIVERED FROM STATE STOCK. BALLASTS SHALL BE SET FOR 240 VOLT OPERATION. THIS WORK SHALL BE PAID FOR UNDER THE PAY ITEM FOR LUMINAIRE (INSTALL ONLY), OF THE TYPE SPECIFIED.
- EXISTING LIGHTING UNITS AT THE INTERSECTION OF HIGGINS ROAD AND MEACHAM ROAD INCLUDING TRANSITION LIGHTING ARE OWNED AND MAINTAINED BY THE VILLAGE OF SHAUMBURG, AND ARE NOT PART OF THIS PROJECT IMPROVEMENT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

IL-72 (HIGGINS ROAD) LIGHTING RELOCATION PLANS

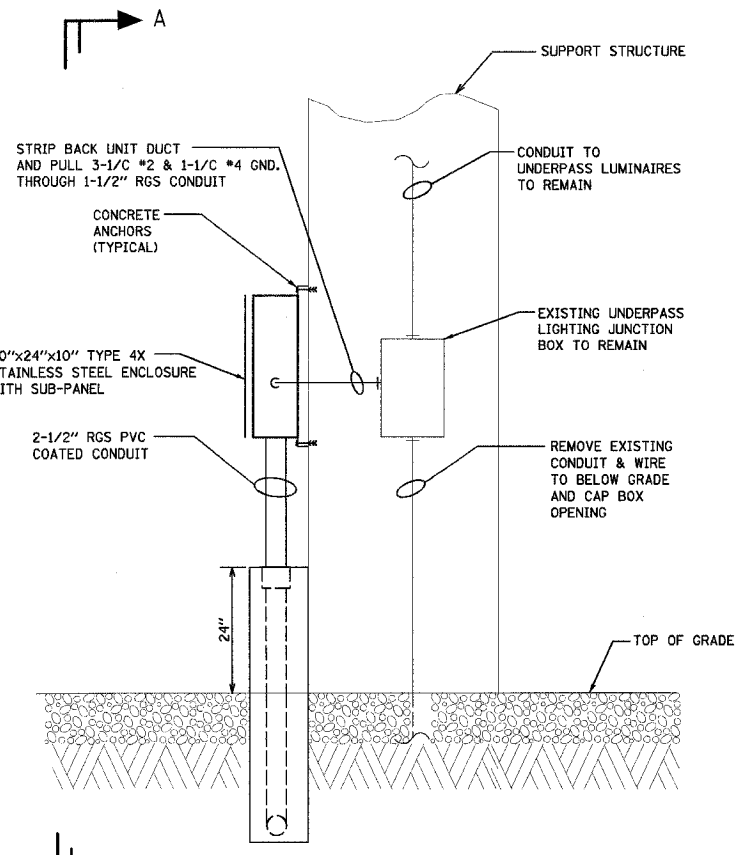
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HORIZ. 1"=50'
DATE 4/7/2005

DRAWN BY MP
CHECKED BY SL

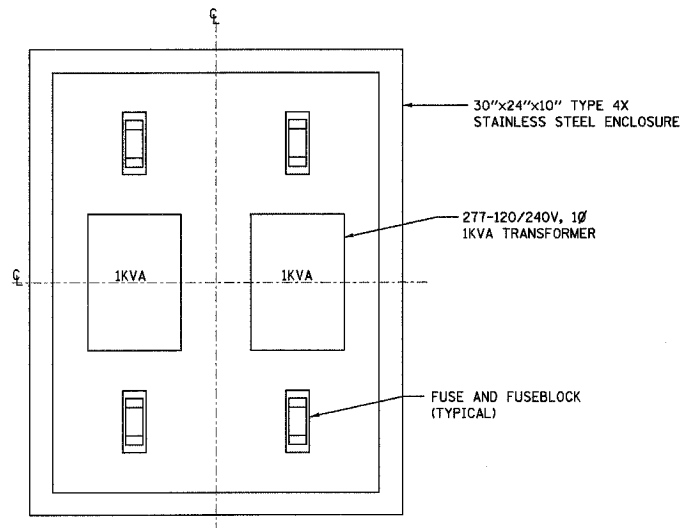
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 USER NAME = juposa

62877

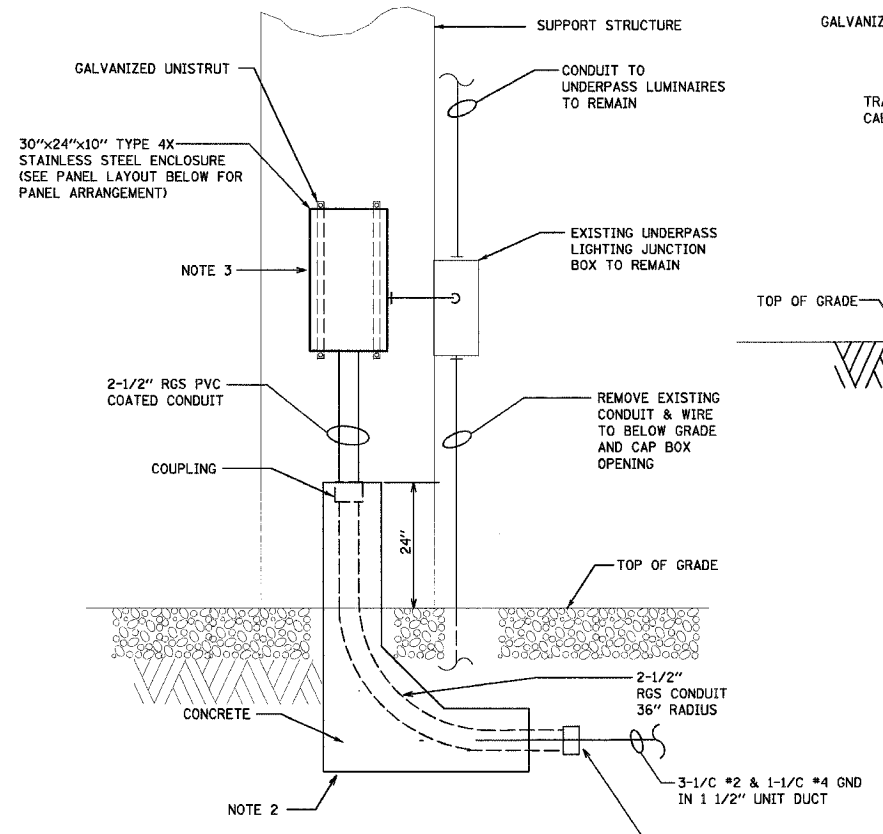
F.A. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-1-3	COOK	55	29
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



DETAIL NO.1
PULLBOX AND TRANSFORMER
MOUNTING AT GOLF RD. DWG. E6
SCALE: NONE



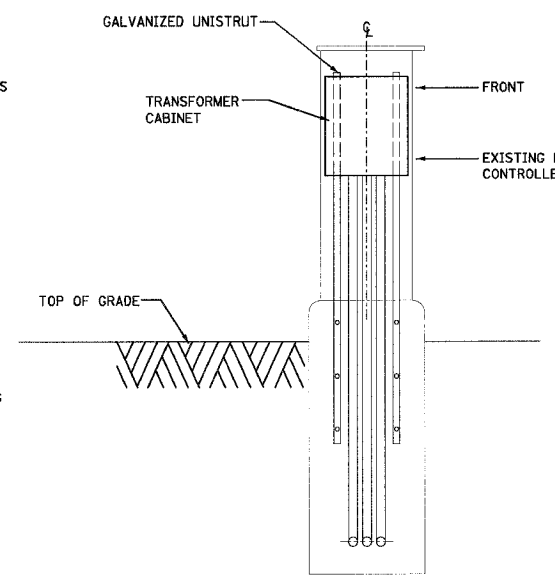
PANEL LAYOUT FOR DETAIL No.1
SCALE: NONE



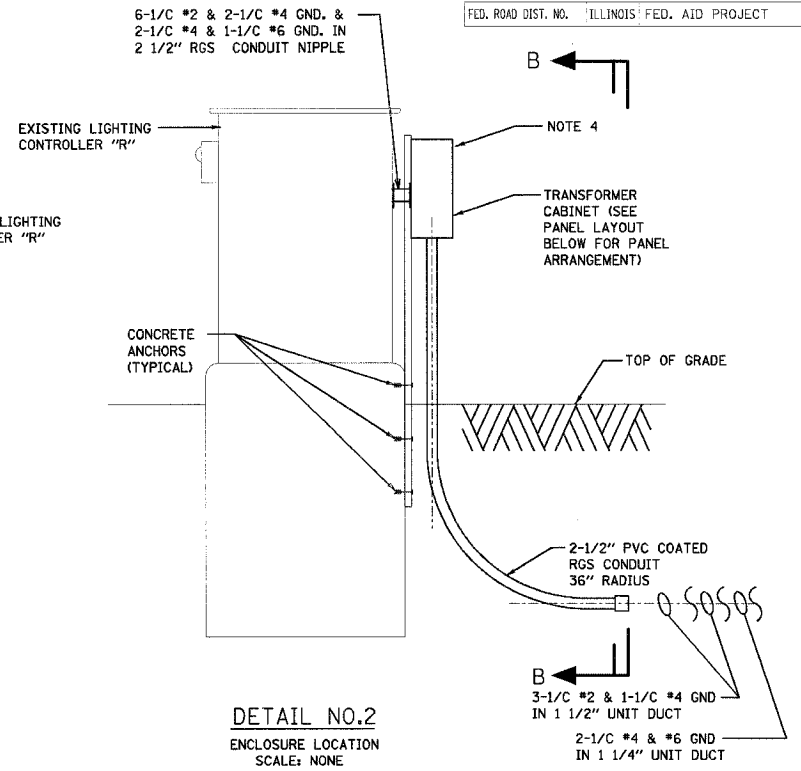
SECTION A-A
SCALE: NONE

NOTES:

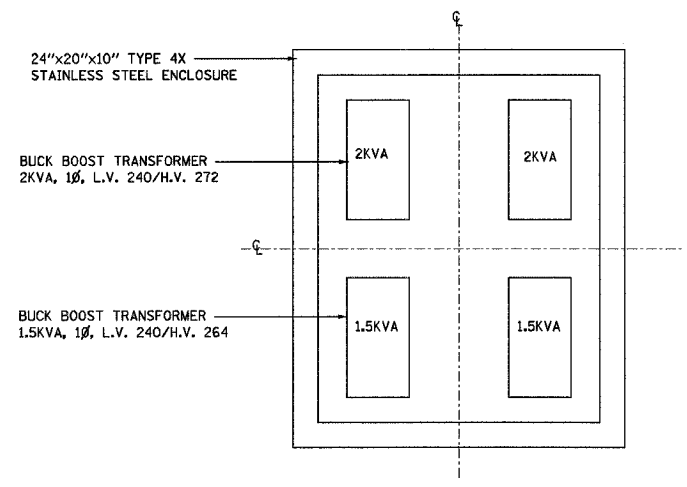
1. PROVIDE WATERTIGHT HUBS FOR ENTRY INTO CONTROLLER ENCLOSURE. (INCLUDED UNDER MODIFY EXISTING CONTROLLER, SPECIAL)
2. CONCRETE, RGS CONDUIT, COUPLING AND ALL ASSOCIATED MATERIAL AND LABOR REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE INCLUDED AS PART OF PAY ITEM, MODIFY EXISTING UNDERPASS LIGHTING-GOLF RD.
3. STAINLESS STEEL ENCLOSURE, 2 1/2" RGS PVC COATED CONDUIT, UNISTRUT, CONCRETE ANCHORS AND ALL ASSOCIATED MATERIAL AND LABOR REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE INCLUDED AS PART OF PAY ITEM, MODIFY EXISTING UNDERPASS LIGHTING-GOLF RD.
4. ENCLOSURE, UNISTRUT, CONCRETE ANCHORS AND ASSOCIATED MATERIAL AND LABOR REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE INCLUDED AS PART OF PAY ITEM, MODIFY EXISTING CONTROLLER, SPECIAL.



SECTION B-B
SCALE: NONE



DETAIL NO.2
ENCLOSURE LOCATION
SCALE: NONE



PANEL LAYOUT FOR DETAIL No.2
SCALE: NONE

E-16

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**ILLINOIS ROUTE 53
PROPOSED LIGHTING PLAN
SECTION AND DETAILS**

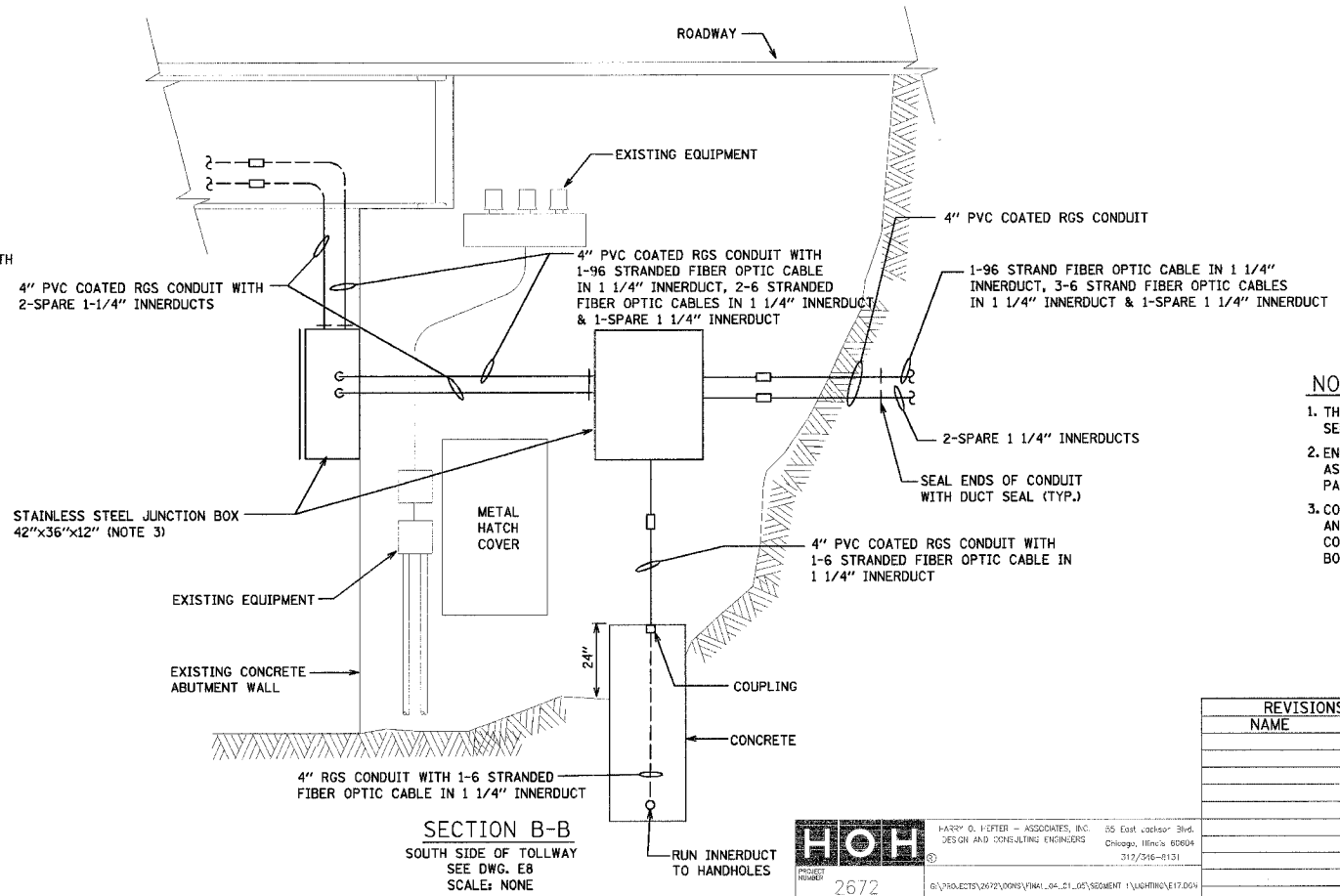
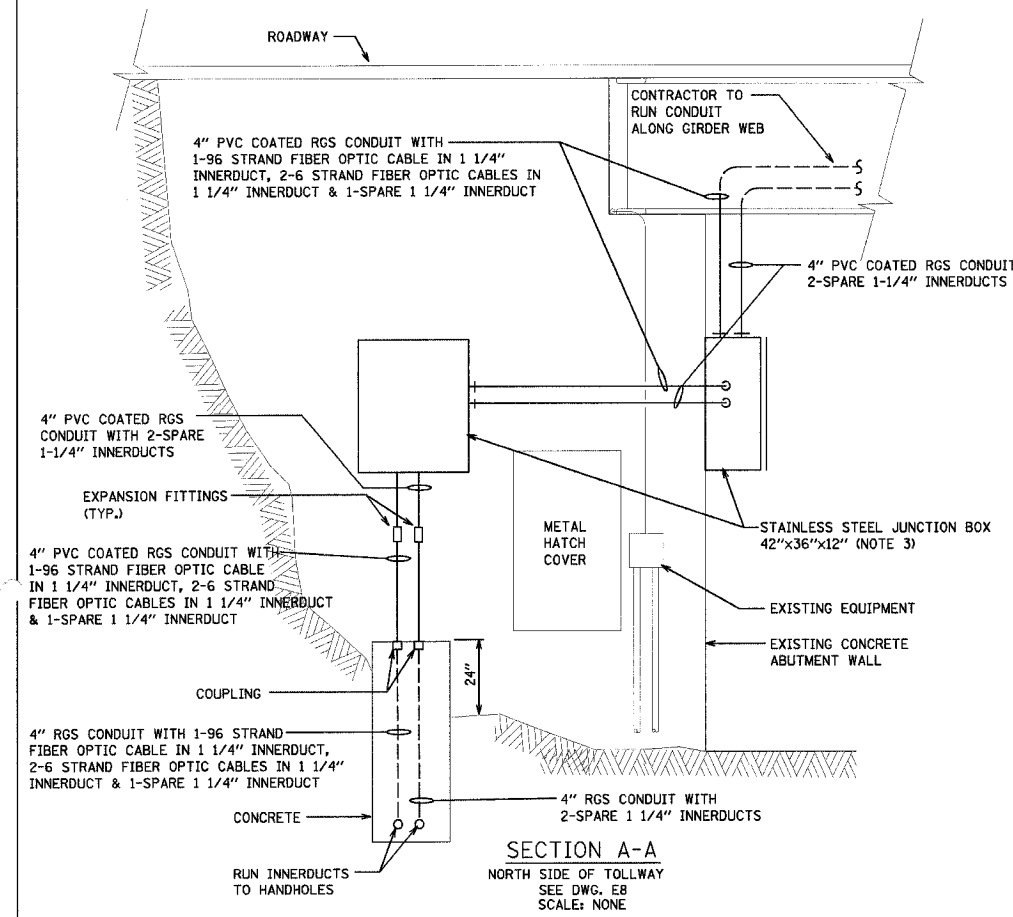
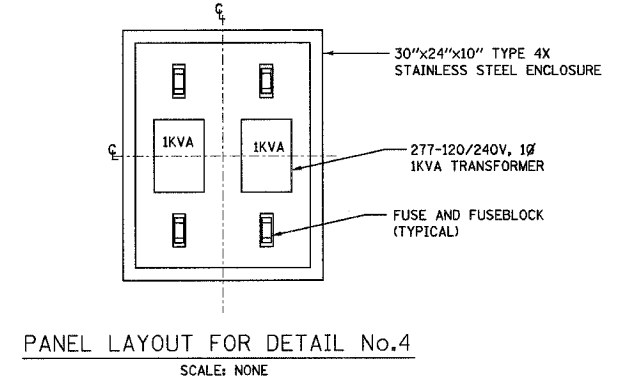
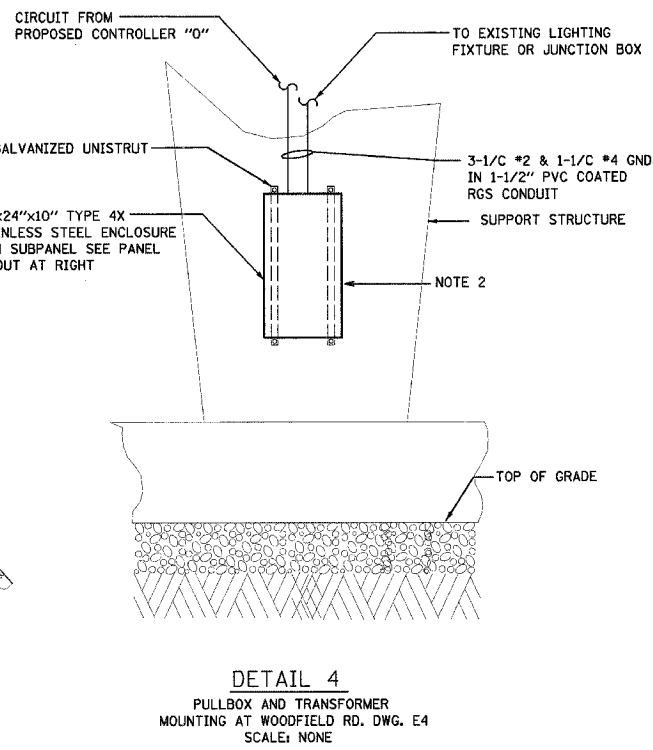
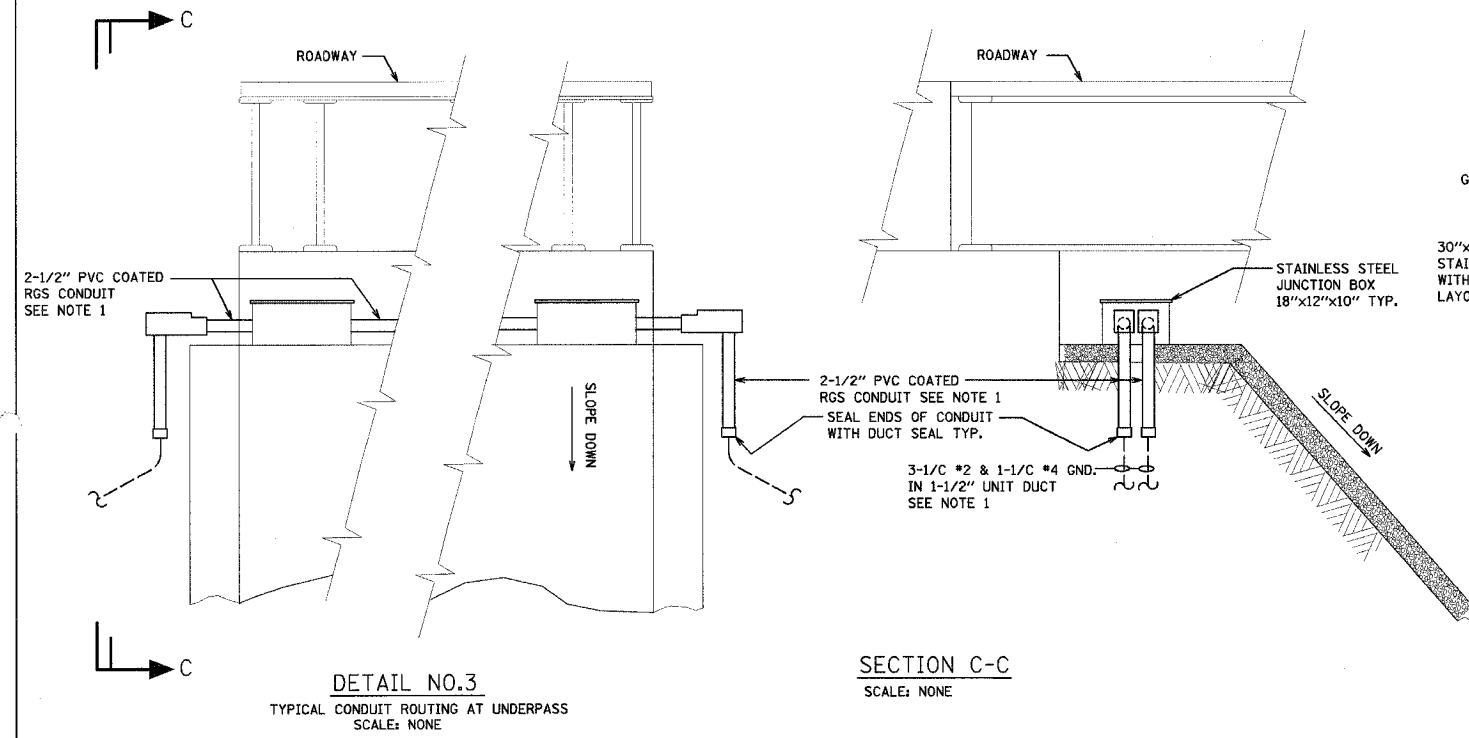
SCALE: VERT. NONE
HORIZ. DATE 2-28-2005

DRAWN BY MEK
CHECKED BY PBL

HOH
HARRY O. HOFFER & ASSOCIATES, INC. 85 First Jackson Blvd
DESIGN AND CONSULTING ENGINEERS Chicago, Illinois 60604
312/546-8131

2672

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-3	COOK	55	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



- NOTES:**
1. THE WIRE GAUGE, AMOUNT AND SIZE OF CONDUIT VARIES SEE PLAN DWG. E1, E2, E6 AND E10 FOR SPECIFICS.
 2. ENCLOSURE, 1 1/2" PVC COATED RGS CONDUIT, AND ALL OTHER ASSOCIATED MATERIAL AND LABOR, SHALL BE INCLUDED AS PART OF PAY ITEM, MODIFY EXISTING UNDERPASS LIGHTING-WOODFIELD RD.
 3. CONCRETE, PVC COATED RGS CONDUIT, EXPANSION FITTINGS, COUPLINGS AND ALL OTHER ASSOCIATED MATERIAL AND LABOR REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE INCLUDED IN PAY ITEM, JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 42"x30"x12".

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**ILLINOIS ROUTE 53
 PROPOSED LIGHTING PLAN
 SECTION AND DETAILS**

SCALE: VERT. NONE
 HORIZ. NONE
 DATE 2-28-2005

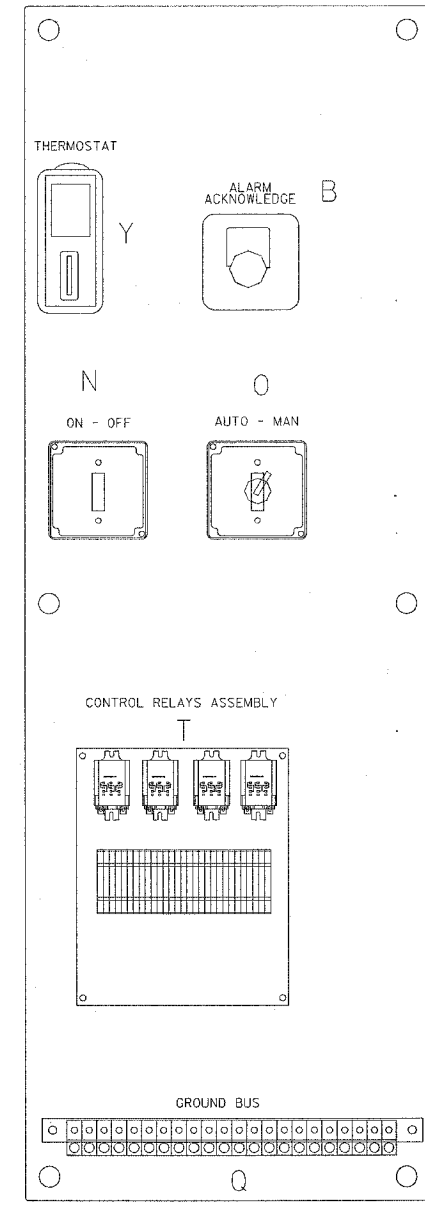
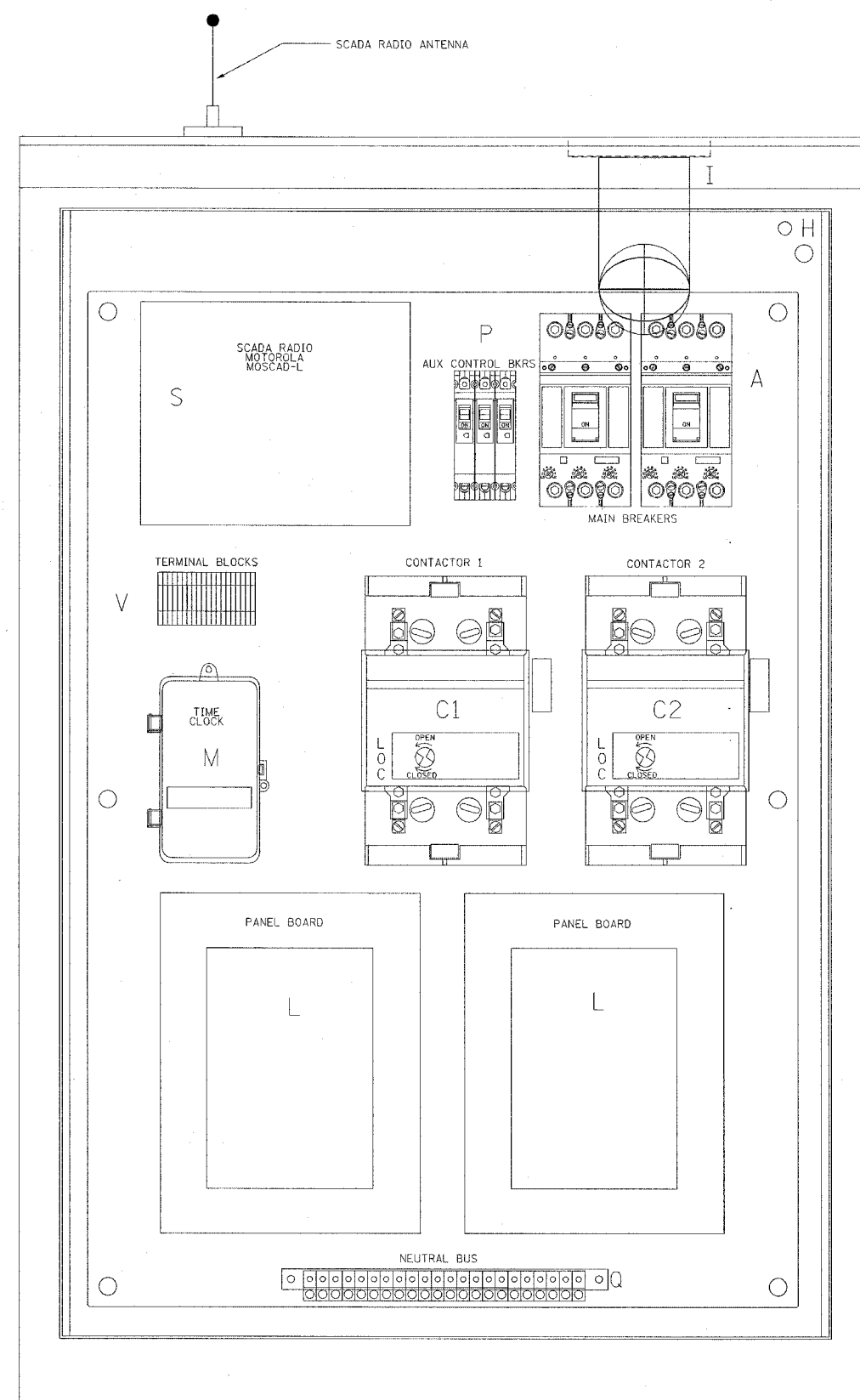
DRAWN BY MEK
 CHECKED BY PBL

HOH HARRY O. HOFFER - ASSOCIATES, INC.
 DESIGN AND CONSULTING ENGINEERS
 55 East Madison Blvd.
 Chicago, Illinois 60604
 312/754-8131
 312/754-8131

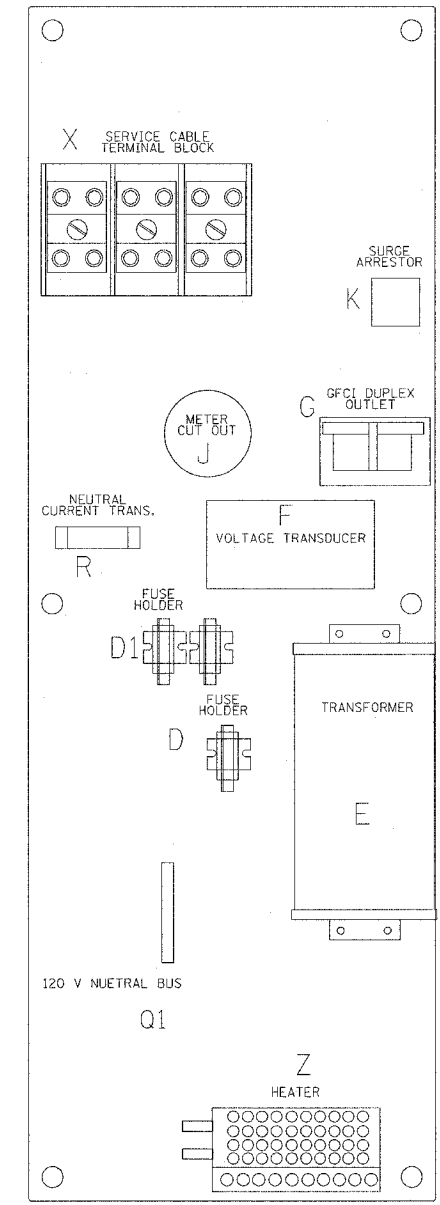
PROJECT NUMBER: 2672
 DATE: 2-28-2005

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	31
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEFT SIDE PANEL



RIGHT SIDE PANEL

BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-15 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900IKS11BH13, 2 POSITION SWITCH IN 900IKY1 ENCLOSURE OR APPROVED EQUAL
P	3	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T*	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X*	1	620 AMP SLPICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

REVISIONS	
NAME	DATE
R. TOMSONS	4/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

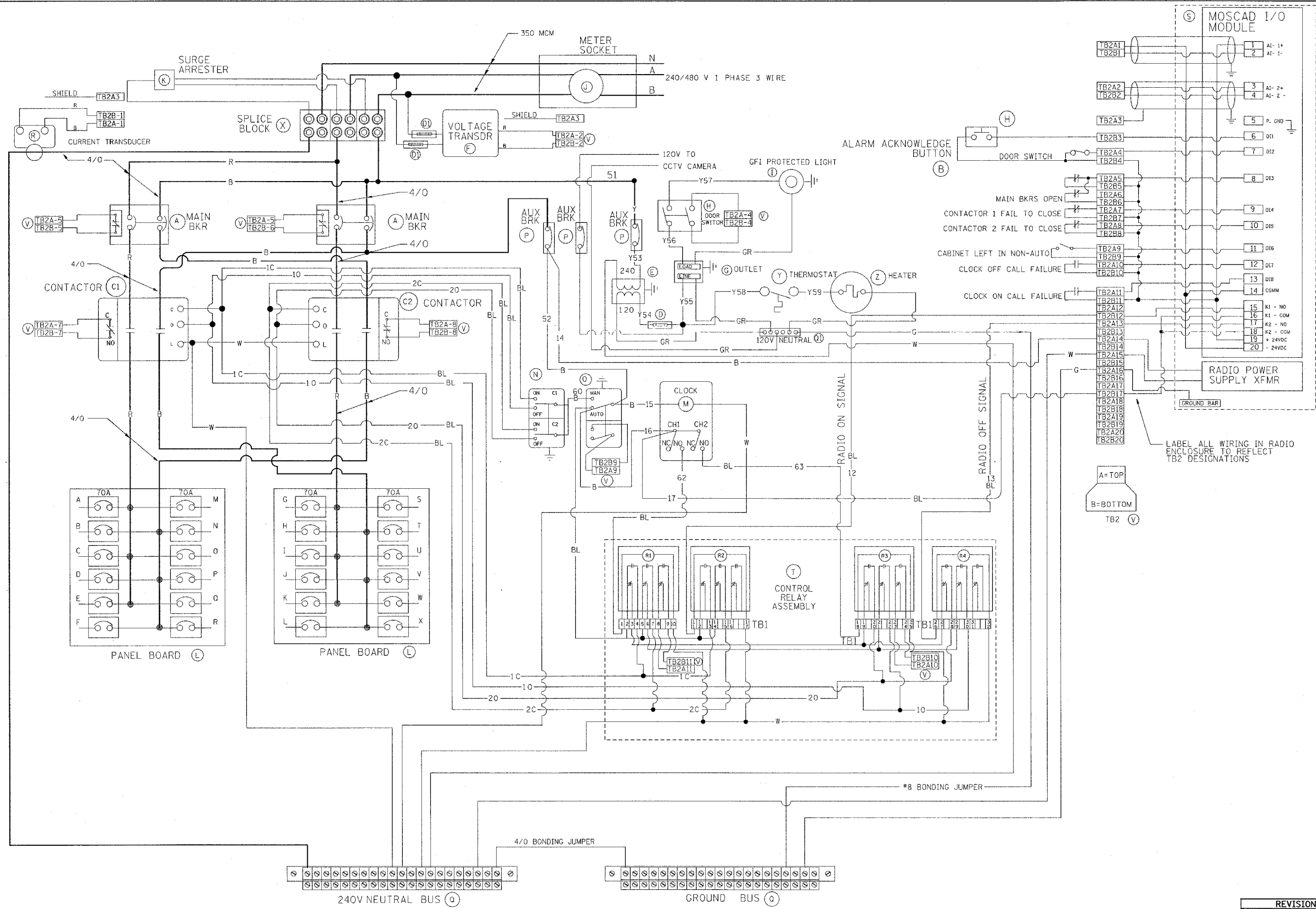
LIGHTING CONTROLLER
RADIO CONTROL DUPLEX TYPE
WITH SCADA AND CCTV POWER
BE-207 SHT 1 OF 4

SCALE: VERT. NONE
HORIZ. NONE
DATE 3/31/2005

DRAWN BY CADD
CHECKED BY BE207

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	0305-301K-L3	COOK	55	32
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



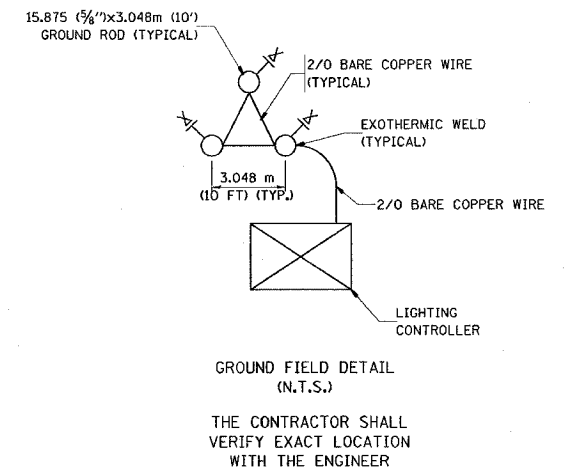
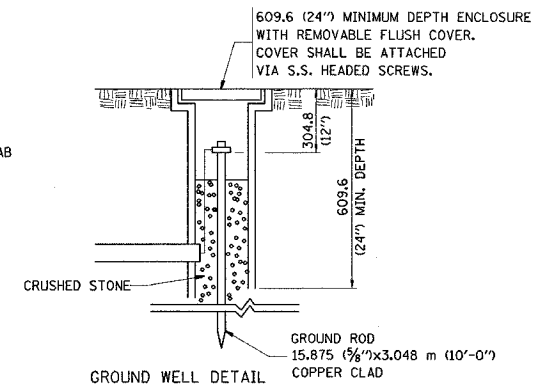
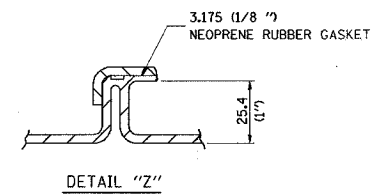
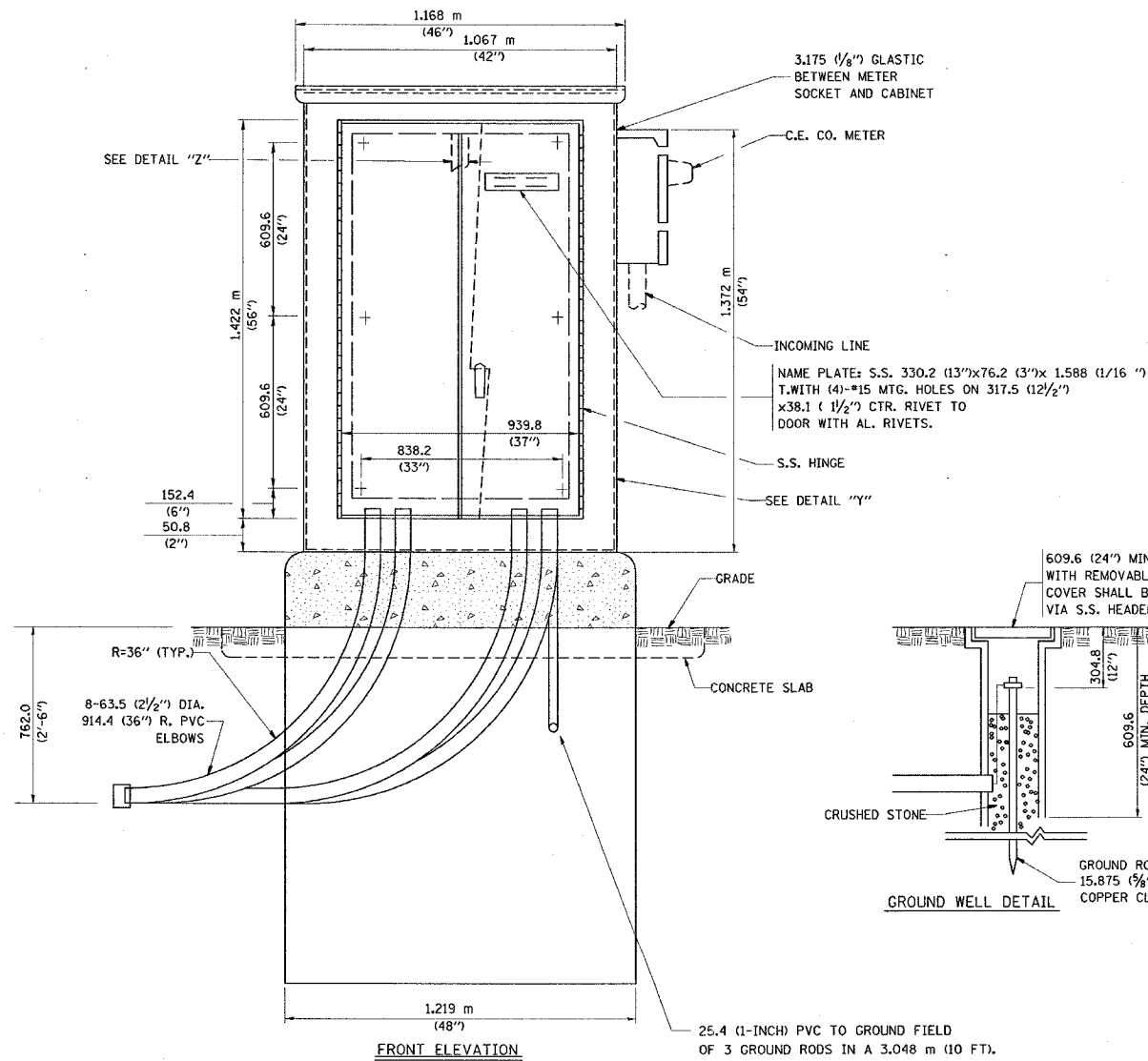
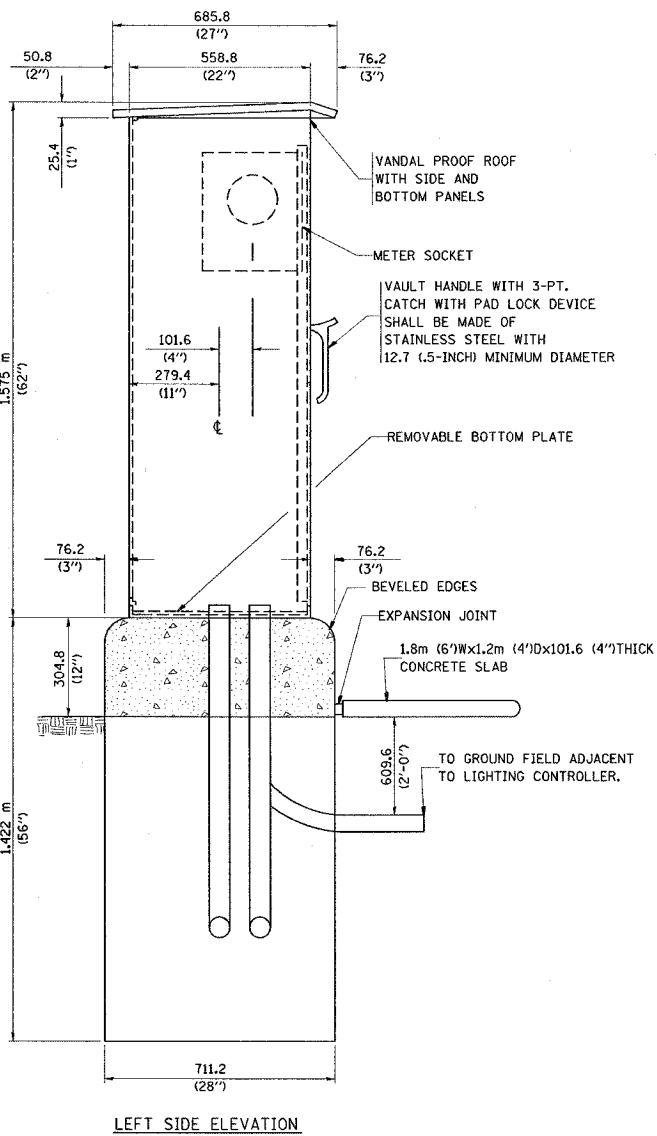
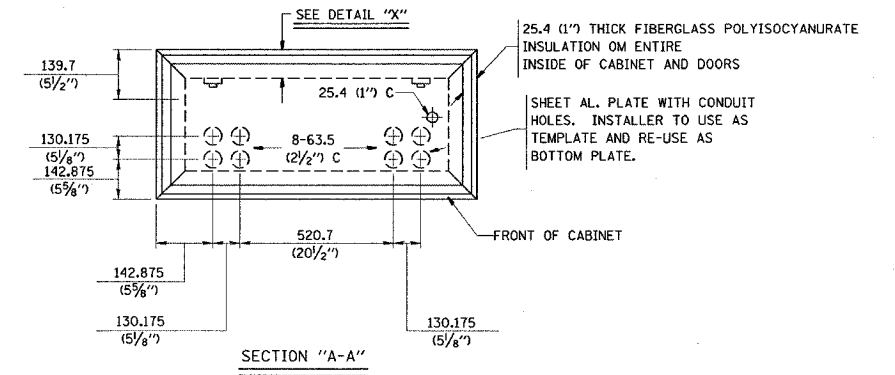
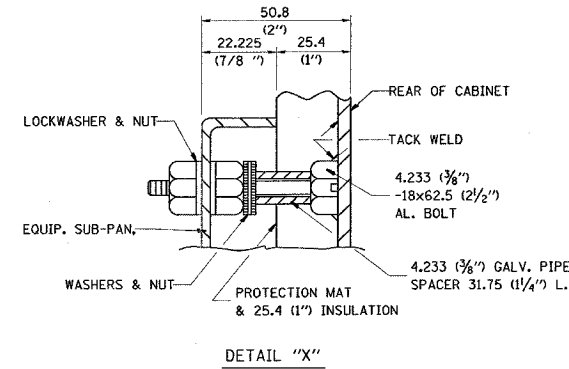
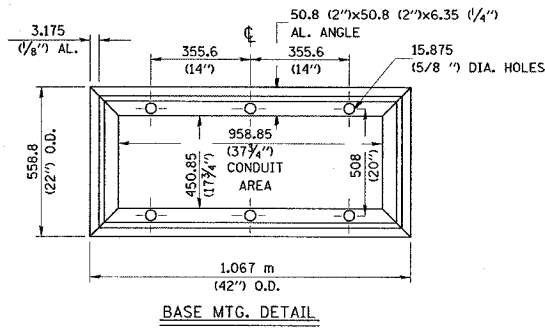
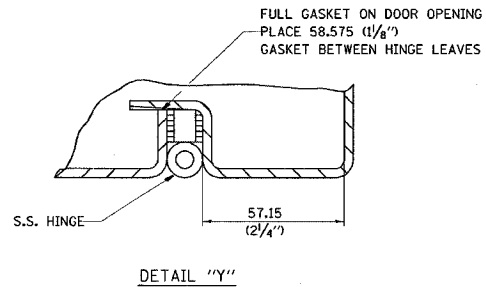
BILL OF MATERIALS		
ITEM #	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-10 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
F	1	VOLTAGE TRANSDUCER
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH A-20GQ-B7-K
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900IKS11BH13, 2 POSITION SWITCH IN 900IKY1 ENCLOSURE
P	3	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
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R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) - QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

REVISIONS	
NAME	DATE
R. TOMSONS	4/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IDOT LIGHTING CONTROLLER,
 RADIO CONTROL, DUPLEX TYPE
 WITH SCADA, AND CCTV POWER
 BE-207 SHT 2 OF 4

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
 DATE 3/31/2005 BE207

P.A. RFL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302K-L-3	COOK	55	33
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REVISIONS		4/05
NAME	DATE	
R. TOMSONS		

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LIGHTING CONTROLLER
 RADIO CONTROL, DUPLEX TYPE
 WITH SCADA AND CCTV POWER
 BE-207 SHT 3 OF 4
 SCALE: NONE
 DATE 3/31/2005
 DRAWN BY C.A.D.
 CHECKED BY BE207
 REVISION DATE: 04/31/05

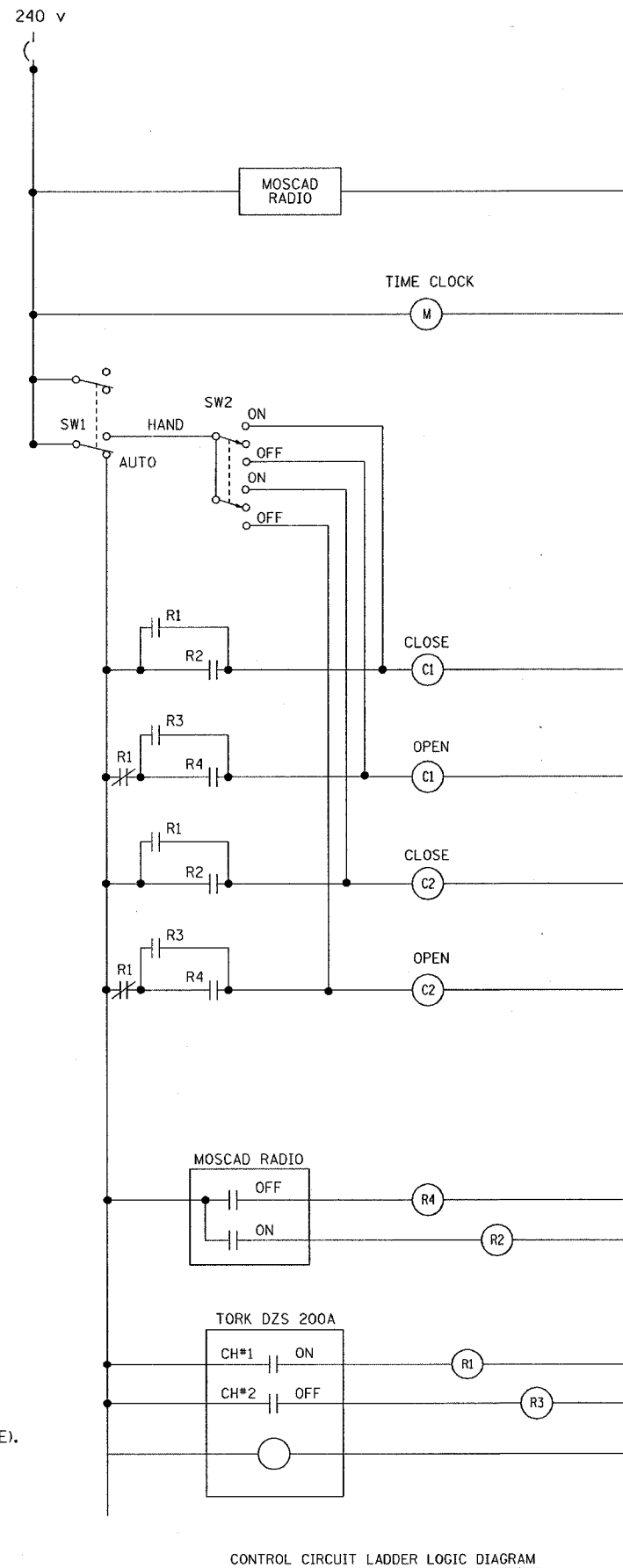
62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302 K-3	COOK	55	34
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES

- CABINET SHALL BE FABRICATED FROM 3.175 (0.125-INCH) SHEET ALUMINUM # 3003H14, FORMED AND ARC WELDED.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- NAME PLATE SHALL HAVE ENGRAVED 19.05 (0.75-INCH) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 3.175 (0.125-INCH) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- SET LATITUDE TO 42 DEGREES. SET CH.1 TO 25 MINUTES AFTER ASTRONOMICAL SUNSET, 40 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +20 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE
- ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

R - RED	Y - YELLOW
B - BLACK	W - WHITE
BL - BLUE	G - GREEN
	GR - GREY
- MOSCAD I/O WIRING SHALL BE:
 - DIGITAL INPUT (DI) WIRING SHALL BE #16 MTW PURPLE
 - ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.
 - AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE INDICATED.
- SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.
- WHEN A MODIFICATION TO AN EXISTING LIGHTING CONTROLLER IS INDICATED, A 15A CKT BREAKER AND WIRING SHALL BE ADDED AS INDICATED, *FOR CCTV VIDEO POWER*



MOSCAD I/O ASSIGNMENTS		
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	Analog Input 1 (+)	CABINET NEUTRAL CURRENT
2	Analog Input 1 (-)	CABINET NEUTRAL CURRENT
3	Analog Input 2 (+)	CABINET SERVICE VOLTAGE
4	Analog Input 2 (-)	CABINET SERVICE VOLTAGE
5	P. Ground	GROUND
6	Digital Input 1	ALARM KNOWLEDGE
7	Digital Input 2	DOOR OPEN
8	Digital Input 3	MAIN(S) BREAKER OPEN
9	Digital Input 4	CONTACTOR 1 OPEN
10	Digital Input 5	CONTACTOR 2 OPEN
11	Digital Input 6	CABINET IN NON-AUTO
12	Digital Input 7	BACK-UP CLOCK OFF CALL
13	Digital Input 8	BACK-UP CLOCK ON CALL
14	DI Common	COMMON
15	K1 NO	LIGHTS ON CALL
16	K1 C	K1 COMMON
17	K2 NO	LIGHTS OFF CALL
18	K2 C	K2 COMMON
19	24 V+	24+VDC
20	24 V-	24-VDC

All analog Inputs will be 4-20 mA only. Digital output relays will be Electrically energized and momentarily held
Mixed I/O module model number V436

REVISIONS	
NAME	DATE
R. TOMSONS	4/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING CONTROLLER
RADIO CONTROL, DUPLEX TYPE
WITH SCADA AND CCTV POWER
BE-207 SHT 4 OF 4

SCALE: VERT. NONE
HORIZ. DATE 3/31/2005

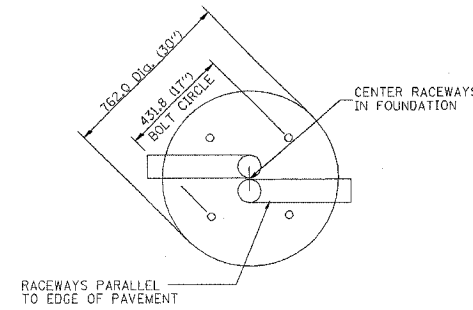
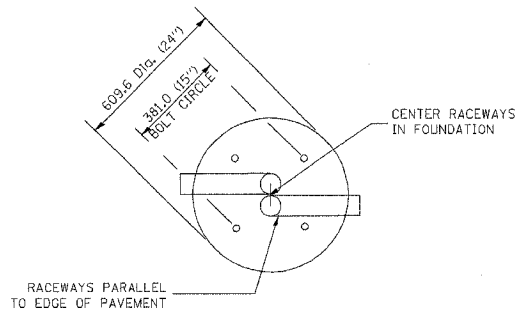
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CHECKED BY
BE207

62877

P.L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
230	0305-302K-L-3	COOK	55	35
STA.	TO STA.			
FED. ROAD DIST. NO. 7	BALANCE	FED. AID PROJECT		

LIGHT POLE FOUNDATION DEPTH TABLE
12.192M (40 FT.) TO 14.478M (47.5 FT.) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	3.96M (13'-0")	4.57M (15'-0")
MEDIUM CLAY Qu = 0.75 TON/SQ.FT.	2.09M (9'-6")	3.23M (10'-9")
STIFF CLAY Qu = 1.50 TON/SQ. FT.	2.13M (7'-0")	2.44M (8'-0")
LOOSE SAND φ = 34°	2.74M (9'-0")	3.05M (10'-0")
MEDIUM SAND φ = 37.5°	2.52M (8'-3")	2.74M (9'-0")
DENSE SAND φ = 40°	2.36M (7'-9")	2.74M (9'-0")

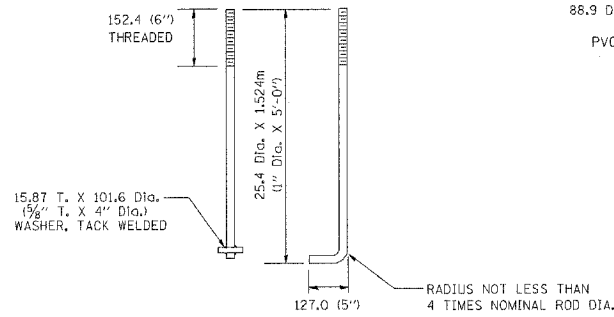


TOP VIEW

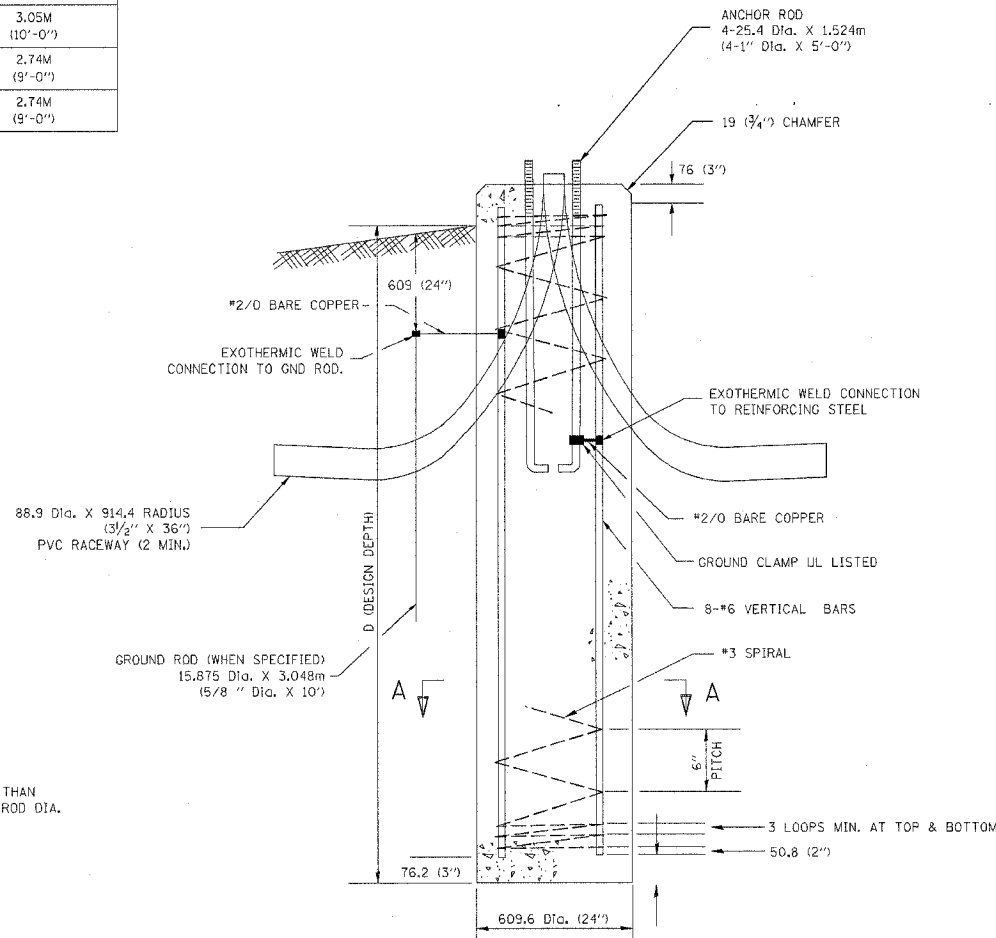
TOP VIEW

NOTES

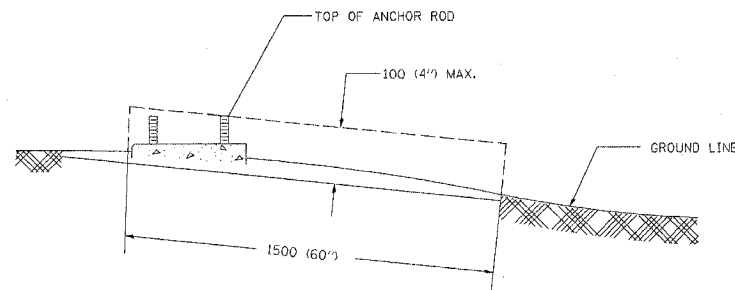
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 1.5M (60 IN.) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 20MM (3/4-IN.).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG (MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 150 MM (6 INCHES) WITH A MINIMUM OF 75 MM (3 INCHES) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 69.9MM (2 3/4") ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 152.4MM (6") PITCH OR MAY SUBSTITUTE #3 TIES AT 304.8MM (12") O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 25.4MM (1") ABOVE THE TOP OF THE FOUNDATION.



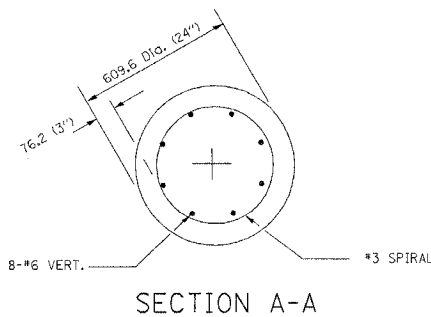
ANCHOR ROD DETAIL



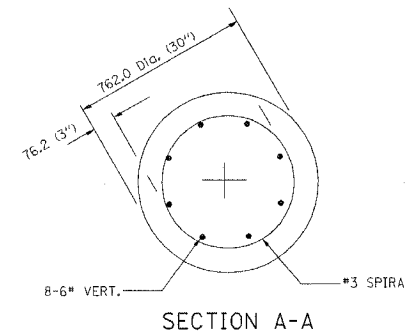
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

REVISIONS	
NAME	DATE

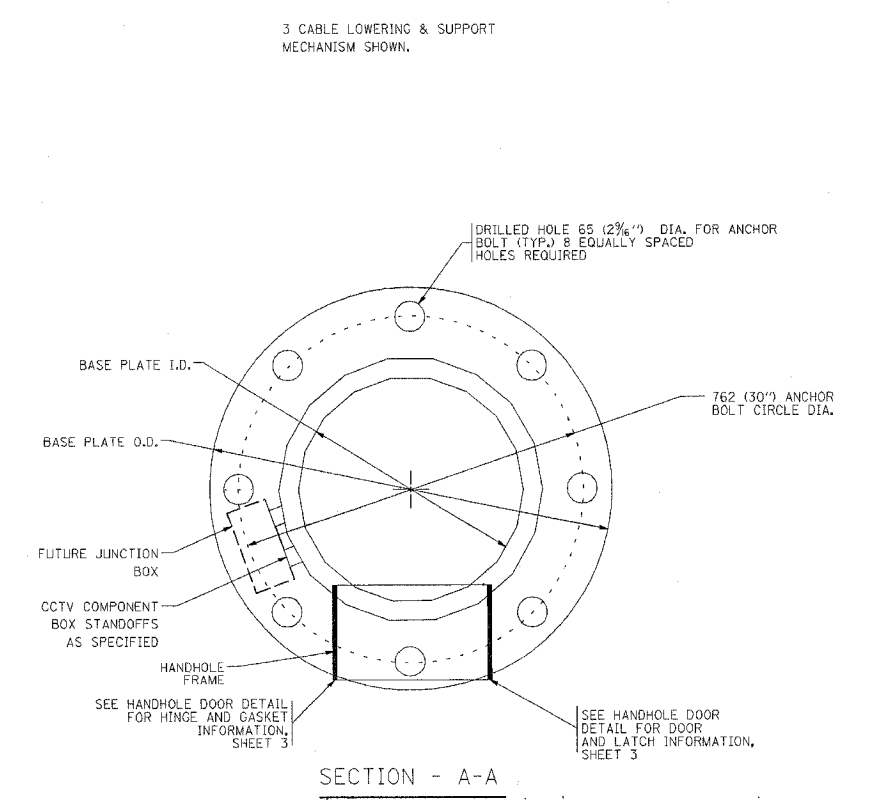
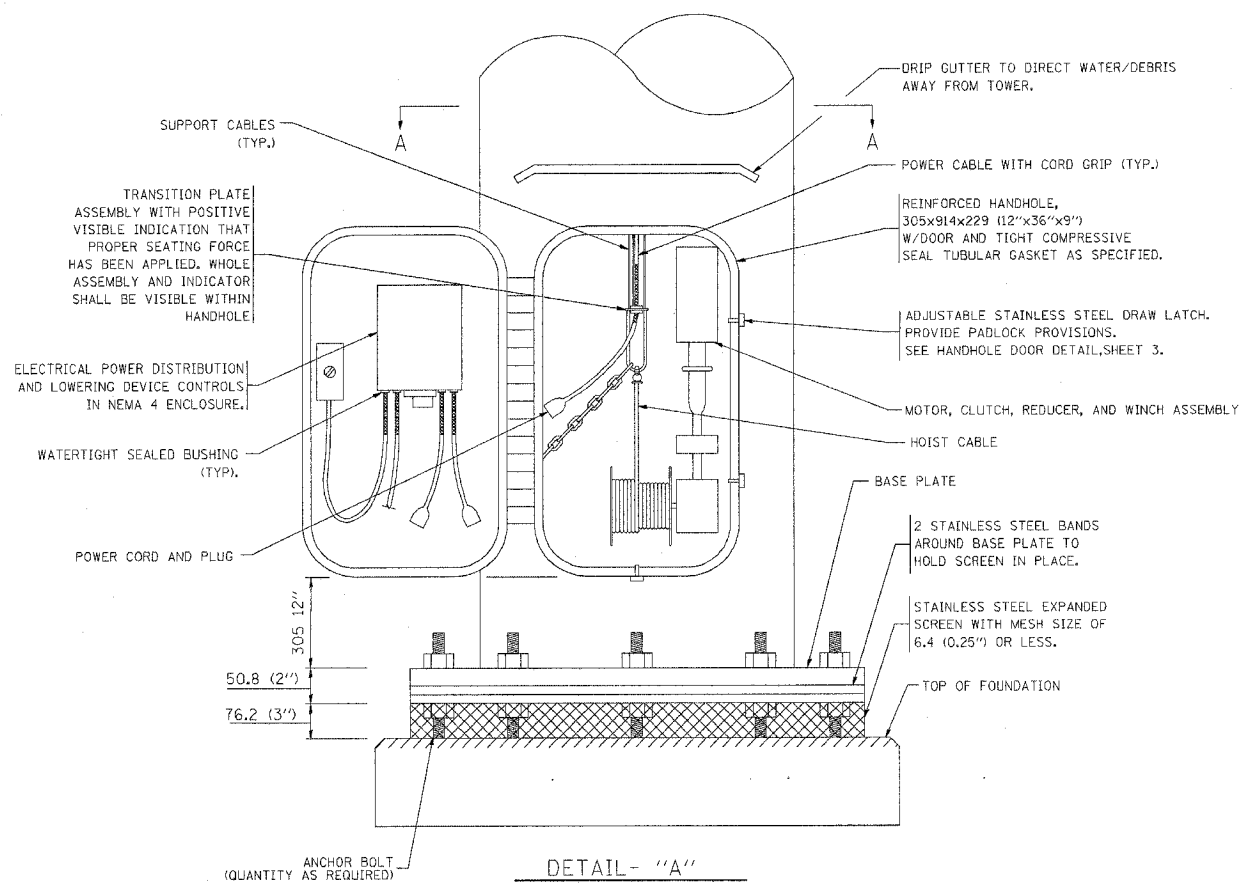
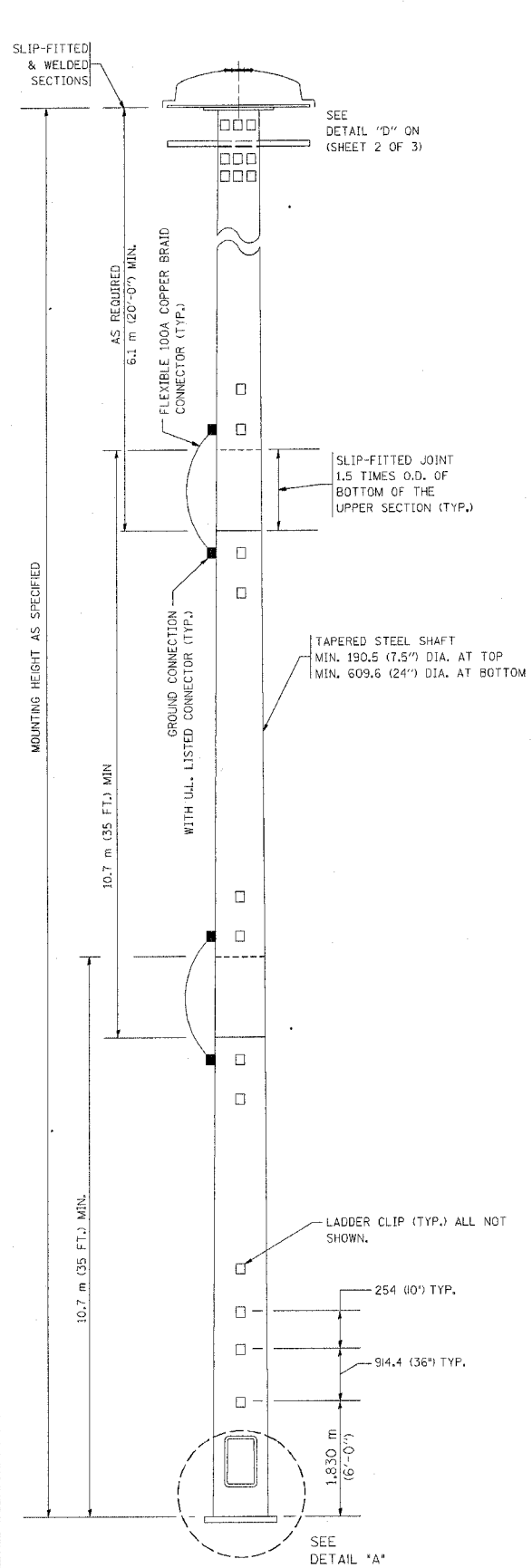
E-301
ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHT POLE FOUNDATION
12.192M (40') TO 14.478M (47 1/2') M.H.
381 (15") BOLT CIRCLE

SCALE: NONE
DATE 10/18/2002

DRAWN BY JKM
CHECKED BY

BE301
REVISION DATE: 04/22/02

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302K+3	COOK	55	36
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



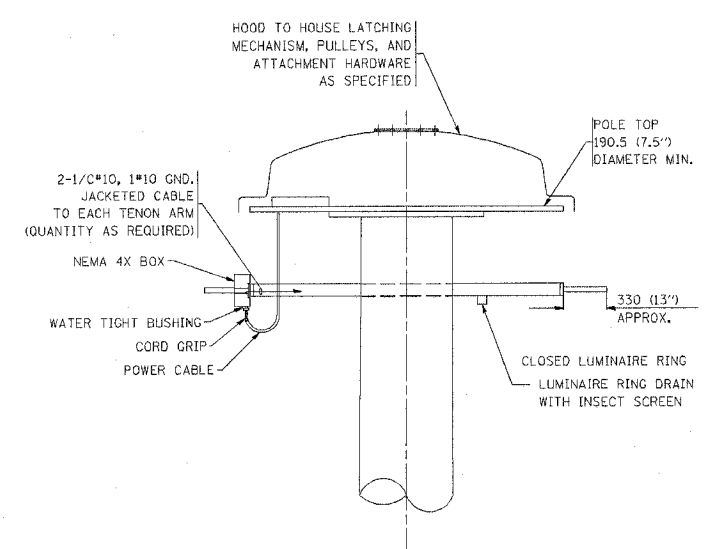
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE DESIGN SHALL BE BASED UPON AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" CURRENT AT THE TIME THE PROJECT IS ADVERTISED AND A TOTAL COMBINED LUMINAIRE WEIGHT OF 326 KG (720 LBS.) AND HAVING A TOTAL PROJECTED AREA OF 7.3 SQ M (24 SQ. FT.).
- ALL TOWER SHAFT COMPONENTS, INCLUDING, BUT NOT LIMITED TO THE SHAFT SECTIONS, BASE PLATE, LADDER CLIPS, HANDHOLE DOOR, HANDHOLE REINFORCING, RAIN GUTTER, AND BASE PLATE, SHALL BE FABRICATED FROM HIGH-STRENGTH, LOW ALLOY, STEEL WITH A MINIMUM YIELD STRENGTH OF 345 K PA (50,000 PSI) ACCORDING TO AASHTO M 223 (ASTM A 572 GR50)
- THE ELECTRIC MOTOR, MOTOR GEAR REDUCER, WINCH DRUM ASSEMBLY AND AUTOMATIC SHUTOFF SWITCH OF THE LOWERING DEVICE SHALL BE ACCESSIBLE FROM THE FRONT OF THE TOWER FOR EASY REMOVAL AND MAINTENANCE. ALL COMPONENTS SHALL BE REMOVABLE THROUGH THE HANDHOLE.
- THE LIGHT TOWER SHAFT SHALL HAVE LADDER CLIPS. CLIPS SHALL BEGIN 1.8 M (6 FT.) ABOVE THE BASE PLATE WITH ALTERNATE 900 (36 INCH) AND 250 (10 INCH) SPACING THEREAFTER, FOR THE ENTIRE LENGTH. THE TOP 3 M (10 FT.) OF THE POLE SHAFT SHALL HAVE 3 SETS OF CLIPS. EACH SET OF CLIPS SHALL BE 120 DEGREES APART. CLIPS SHALL BE 6 X 50 (0.25 X 2 INCHES) WELDED TO THE SHAFT TO PRODUCE A SLOT 15.9 (0.625 INCHES) DEEP AND 41.3 (1.625 INCHES) LONG. THE TOP INSIDE EDGE SHALL BE CHAMFERED.
- A COPPER BONDING JUMPER SHALL BOND SLIP-FIT POLE SECTIONS TOGETHER WITH A FLAT COPPER MESH AND STAINLESS STEEL GROUND LUGS.
- ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- THE ENTIRE TOWER INCLUDING THE SHAFT, HANDHOLE, HANDHOLE DOOR, BASE PLATE AND ALL OTHER ELEMENTS WELDED TO THE SHAFT SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 (ASTM A 123) AND THEN PAINTED AS SPECIFIED. THE LUMINAIRE RING SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE FINISH COAT SHALL BE FEDERAL STANDARD COLOR NUMBER 16307 (HANFORD GREY). COLOR SAMPLE TO BE SUBMITTED FOR APPROVAL
- ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.
- PRIOR TO DELIVERY, THE TOWER AND ALL ITS COMPONENTS SHALL BE INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE IN THE PRESENCE OF THE ENGINEER. ANY PARTS FOUND TO BE DEFECTIVE SHALL BE REPAIRED OR REPLACED.
- THE LIGHT TOWER SHALL BE STRAIGHT AND CENTERED ON ITS LONGITUDINAL AXIS. UNDER NO-WIND CONDITIONS, SO WHEN EXAMINED WITH A TRANSIT FROM ANY DIRECTION, THE DEVIATION FROM THE NORMAL SHALL NOT EXCEED 2 MM IN 1 M (1/8 IN. IN 3 FT) WITHIN ANY 1.5 M (5 FT) OF HEIGHT, WITH TOTAL DEVIATION NOT TO EXCEED 75 (3 IN.) FROM THE VERTICAL AXIS THROUGH THE CENTER OF THE POLE BASE.
- PVC CONDUIT WILL NOT BE ALLOWED.
- THE NUMBER OF COUNTER WEIGHTS TO BE SUPPLIED AS A PART OF THE LIGHT TOWER PAY ITEM IS

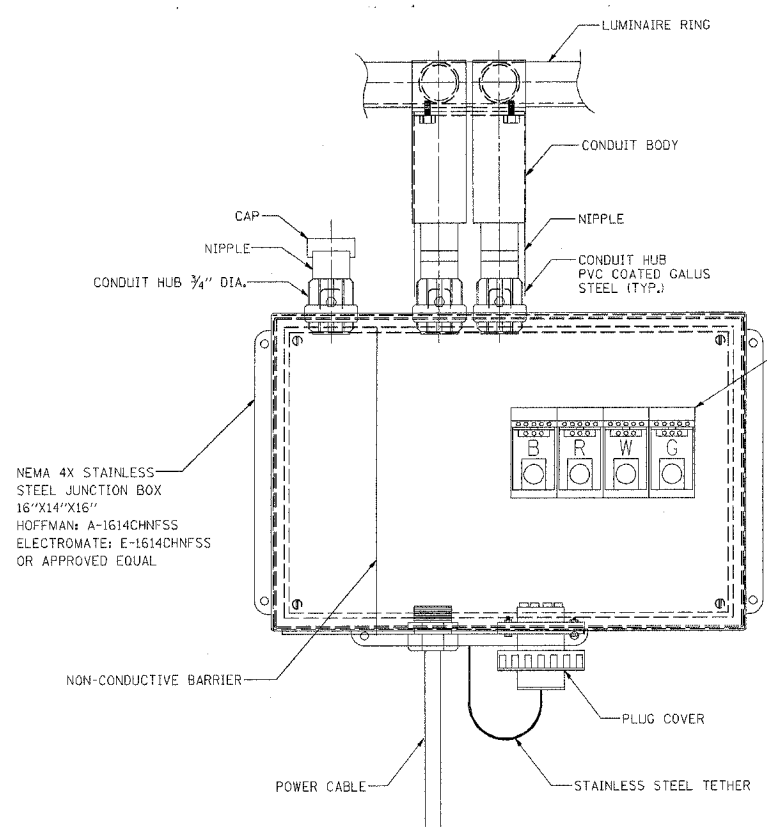
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION HIGH MAST LIGHT TOWER 27m TO 36m (90FT TO 120FT) SHEET 1 OF 3
NAME	DATE	
		SCALE: VERT. NONE HORIZ. DATE

DRAWN BY
CHECKED BY

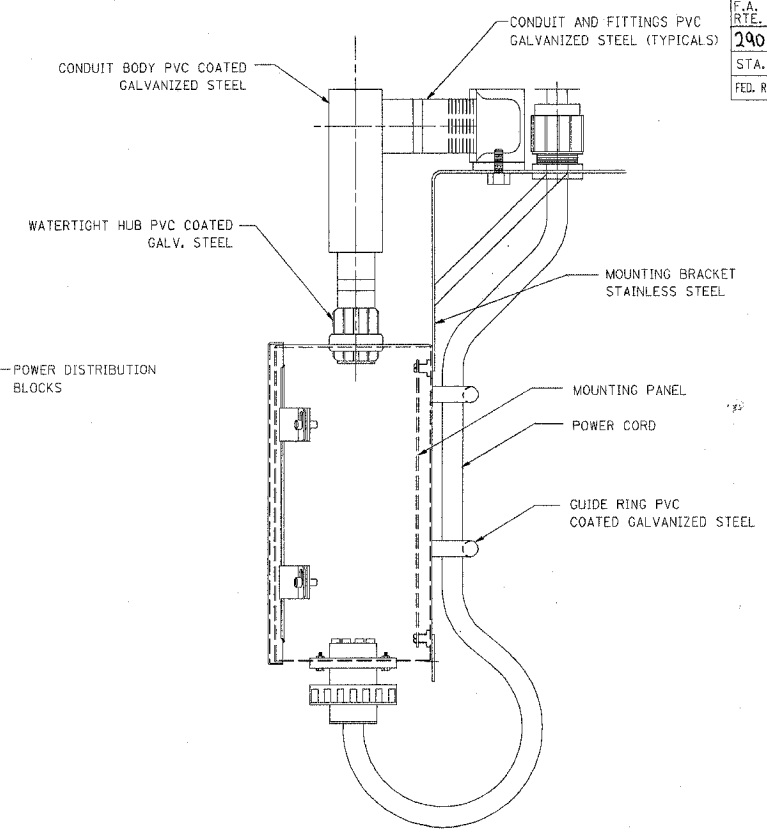
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-3024-3	COOK	55	37
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DETAIL "D"

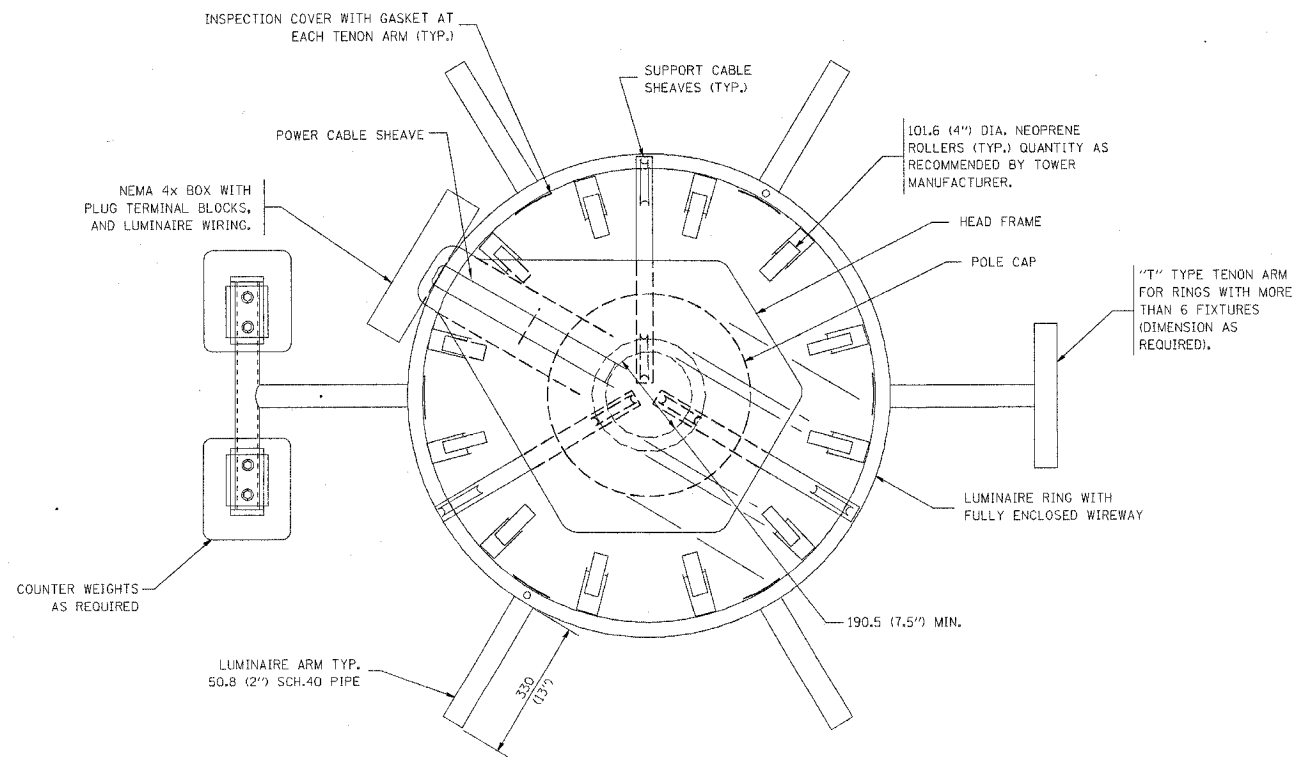


FRONT VIEW



SIDE VIEW

LUMINAIRE RING TERMINAL BOX



SECTION A-A

NOTES:

- LUMINAIRE WIRES SHALL EXTEND 609 MM (24 INCHES) LONGER THAN THEIR RESPECTIVE TENON ARM AND SHALL BE TRAINED BACK INTO THE ARM WHICH SHALL THEN BE CLOSED WITH A CAP AS SPECIFIED. ALL WIRES SHALL BE CAPPED WITH HEAT SHRINK INSULATING BOOTS, CRIMP CAPS ARE UNACCEPTABLE. ALL RING WIRES SHALL BE TAGGED WITH WIRE MARKERS AT BOTH ENDS. THE TENON ARMS SHALL ALSO BE TAGGED CORRESPONDING TO THE WIRING CONTAINED WITHIN.
- SPLICING WILL NOT BE ALLOWED WITHIN THE LUMINAIRE RING.
- ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.

E-500

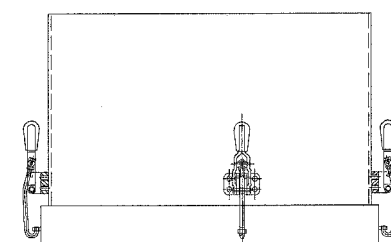
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 HIGH MAST LIGHT TOWER
 27m TO 36m (90FT TO 120FT)
 SHEET 2 OF 3

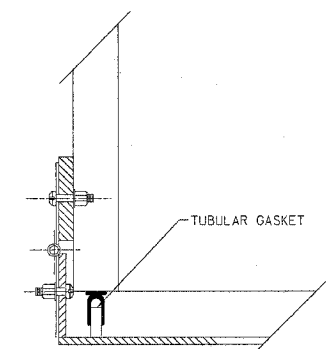
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 HORIZ. NONE
 DATE: DRAWN BY: CHECKED BY:

62877

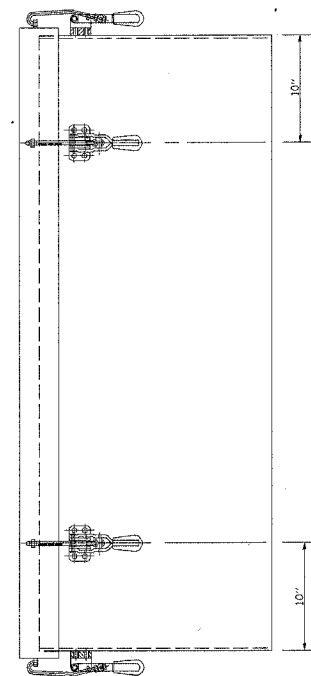
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



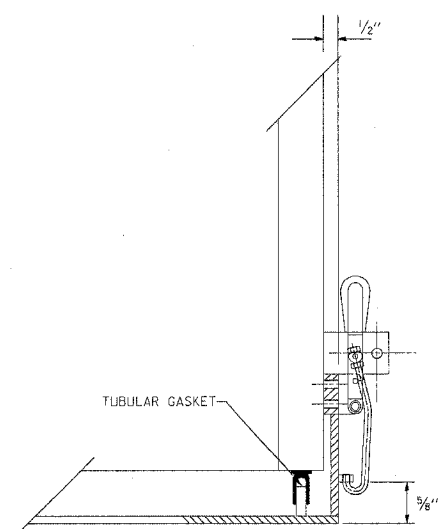
TOP VIEW



HINGE DETAIL

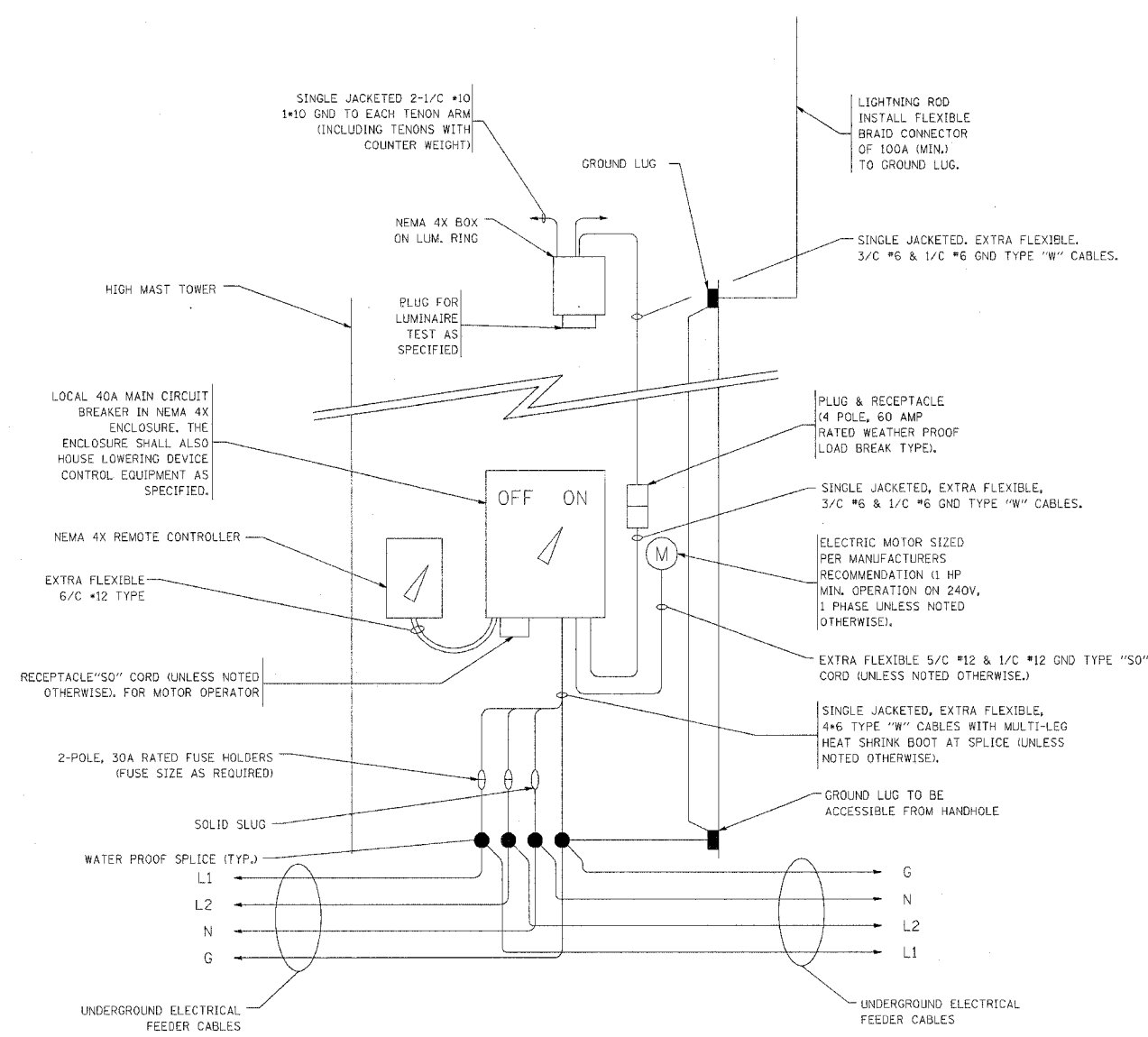


SIDE VIEW

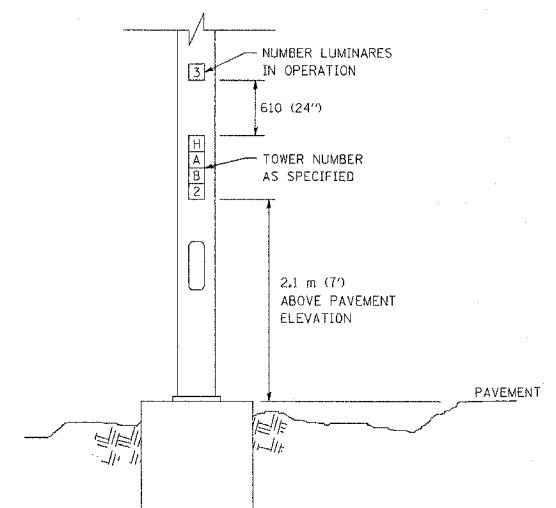


LATCH DETAIL

HANDHOLE DOOR DETAILS



HIGH MAST POLE WIRING DIAGRAM



LIGHT TOWER NUMBERING DETAIL

E-500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGH MAST LIGHT TOWER
 27m TO 36m (90FT TO 120FT)
 SHEET 3 OF 3

SCALE: VERT. NONE
 HORIZ. DATE

DRAWN BY
 CHECKED BY

05/12/2004
 K:\d\st\04e500.dgn
 V:\BE500
 LEYSA

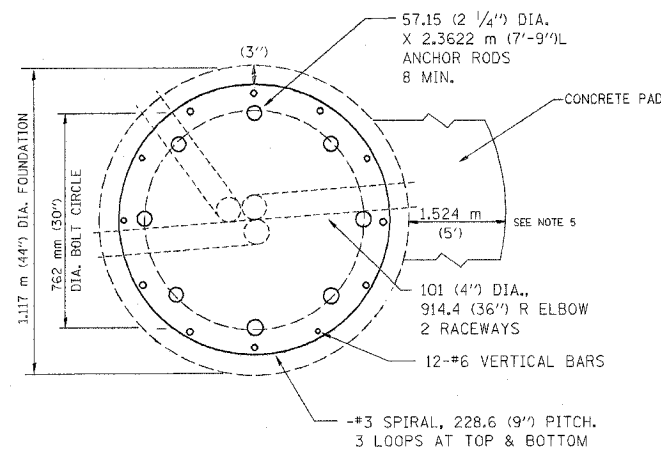
F. & E. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0205-302K-3	COOK	55	39
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT

LIGHT TOWER FOUNDATION DEPTH "D"

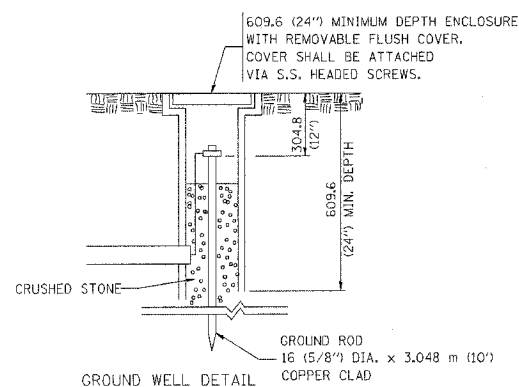
MOUNTING HEIGHT	SOIL CONDITIONS					
	SOFT CLAY Qu = 0.375 TON/SQ. FT	MEDIUM CLAY Qu = 0.75 TON/SQ. FT	STIFF CLAY Qu = 1.50 TON/SQ. FT	LOOSE SAND φ = 34°	MEDIUM SAND φ = 37.5°	DENSE SAND φ = 40°
27m (90 ft)	8.779m (29 ft)	6.035m (20 ft)	4.389m (15 ft)	4.389m (15 ft)	3.840m (13 ft)	3.429m (12 ft)
30m (100 ft)	9.754m (32 ft)	6.706m (22 ft)	4.877m (16 ft)	4.877m (16 ft)	4.267m (14 ft)	3.81m (13 ft)
33m (110 ft)	10.719m (35 ft)	7.377m (24 ft)	5.365m (18 ft)	5.365m (18 ft)	4.694m (15 ft)	4.191m (14 ft)
36m (120 ft)	11.705m (38 ft)	8.046m (26 ft)	5.652m (19 ft)	5.652m (19 ft)	5.120m (17 ft)	4.572m (16 ft)

DESIGN NOTES

- (1) ALL DIMENSIONS IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
- (2) THE HOLE FOR THE FOUNDATION SHALL BE ACCORDING
- (3) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (4) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (5) THE TOP OF THE FOUNDATION TO 450 (18") BELOW GRADE SHALL BE FORMED.
- (6) A CONCRETE WORK PAD SHALL BE PROVIDED AS INDICATED IN THE PLANS AS A PART OF THIS ITEM.
- (7) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (8) THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (9) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725(GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (10) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (11) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (12) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.

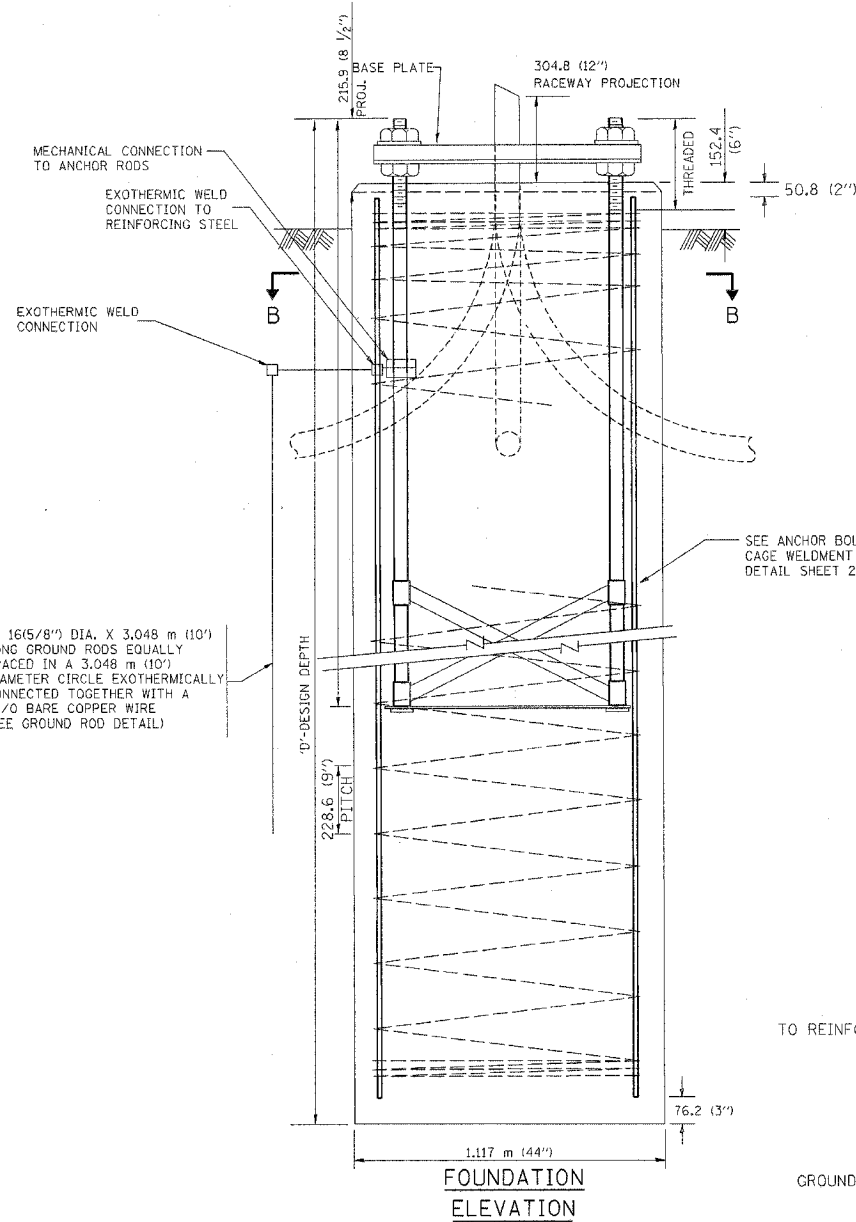


SECTION-B-B

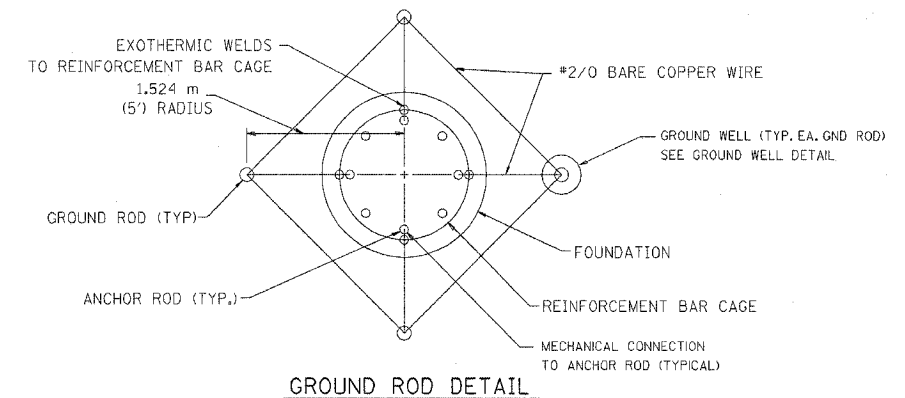


GROUND WELL DETAIL

4- 16(5/8") DIA. X 3.048 m (10') LONG GROUND RODS EQUALLY SPACED IN A 3.048 m (10') DIAMETER CIRCLE EXOTHERMICALLY CONNECTED TOGETHER WITH A #2/0 BARE COPPER WIRE (SEE GROUND ROD DETAIL)



FOUNDATION ELEVATION



GROUND ROD DETAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HIGH MAST LIGHT TOWER
27m TO 36m (90FT TO 120FT)
FOUNDATION DETAIL

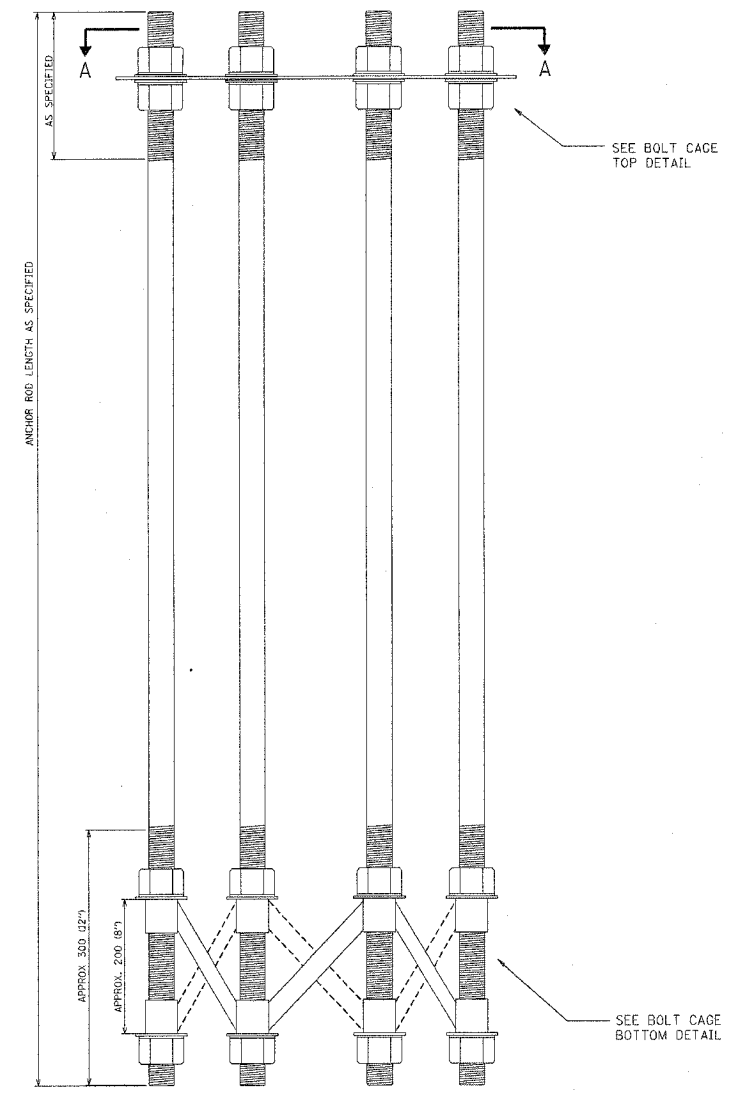
SHEET 1 OF 2

SCALE: NONE
DATE: 10/18/2002

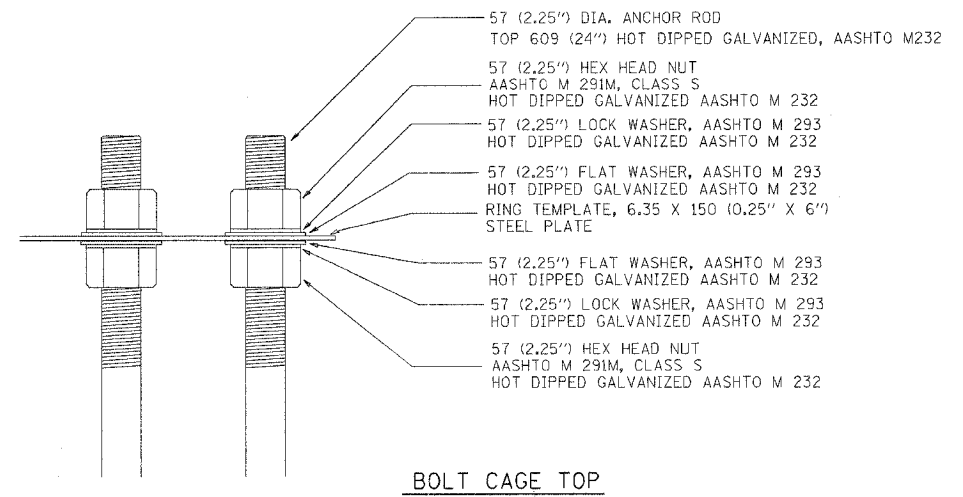
DRAWN BY: BE08
CHECKED BY: BE501
REVISION DATE: 04/22/02

62877

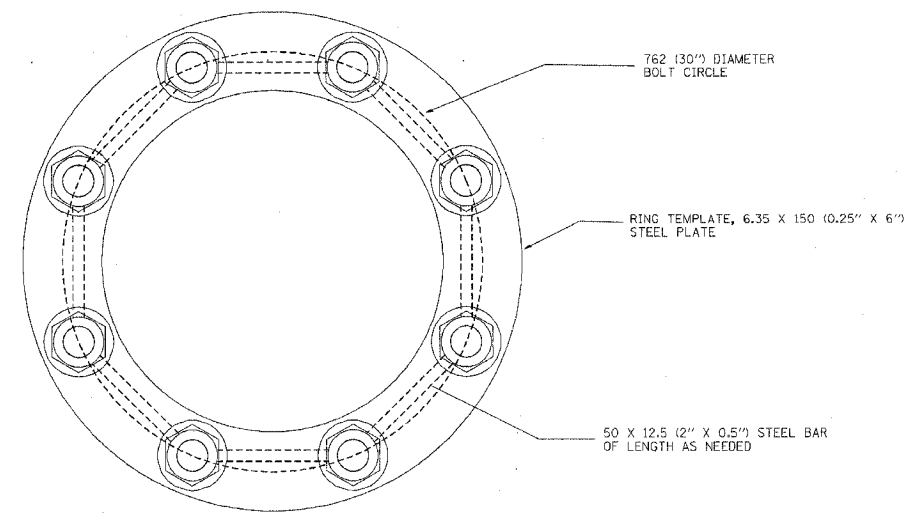
F. A. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	40
STA.	TO STA.			
FED. ROAD DIST. NO. 1	BLK/NO.	FED. AID PROJ. NO.		



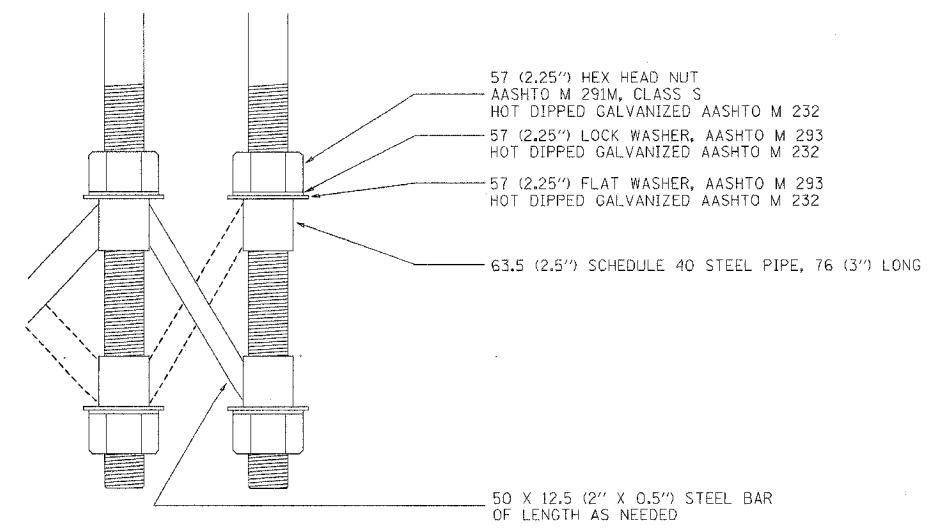
ANCHOR BOLT CAGE



BOLT CAGE TOP



SECTION A-A



BOLT CAGE BOTTOM

NOTES

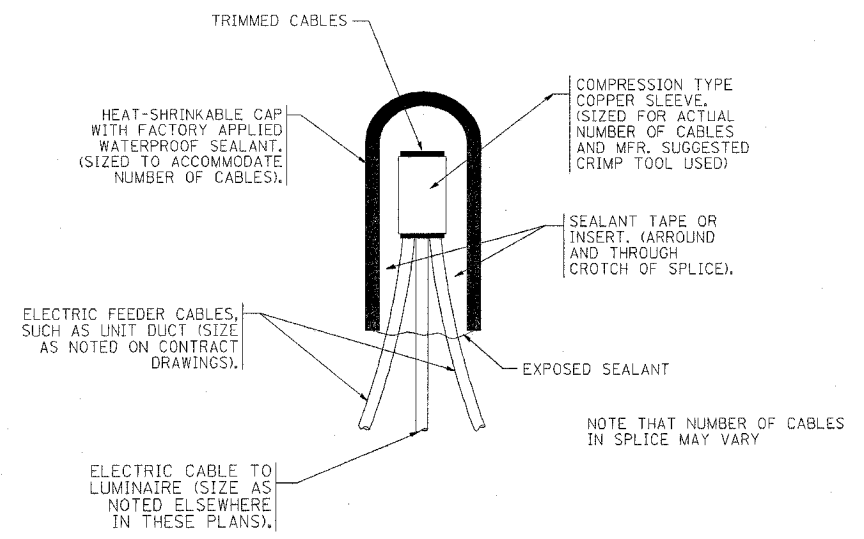
1. ALL DIMENSIONS IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.09.
3. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS.

REVISIONS	
NAME	DATE

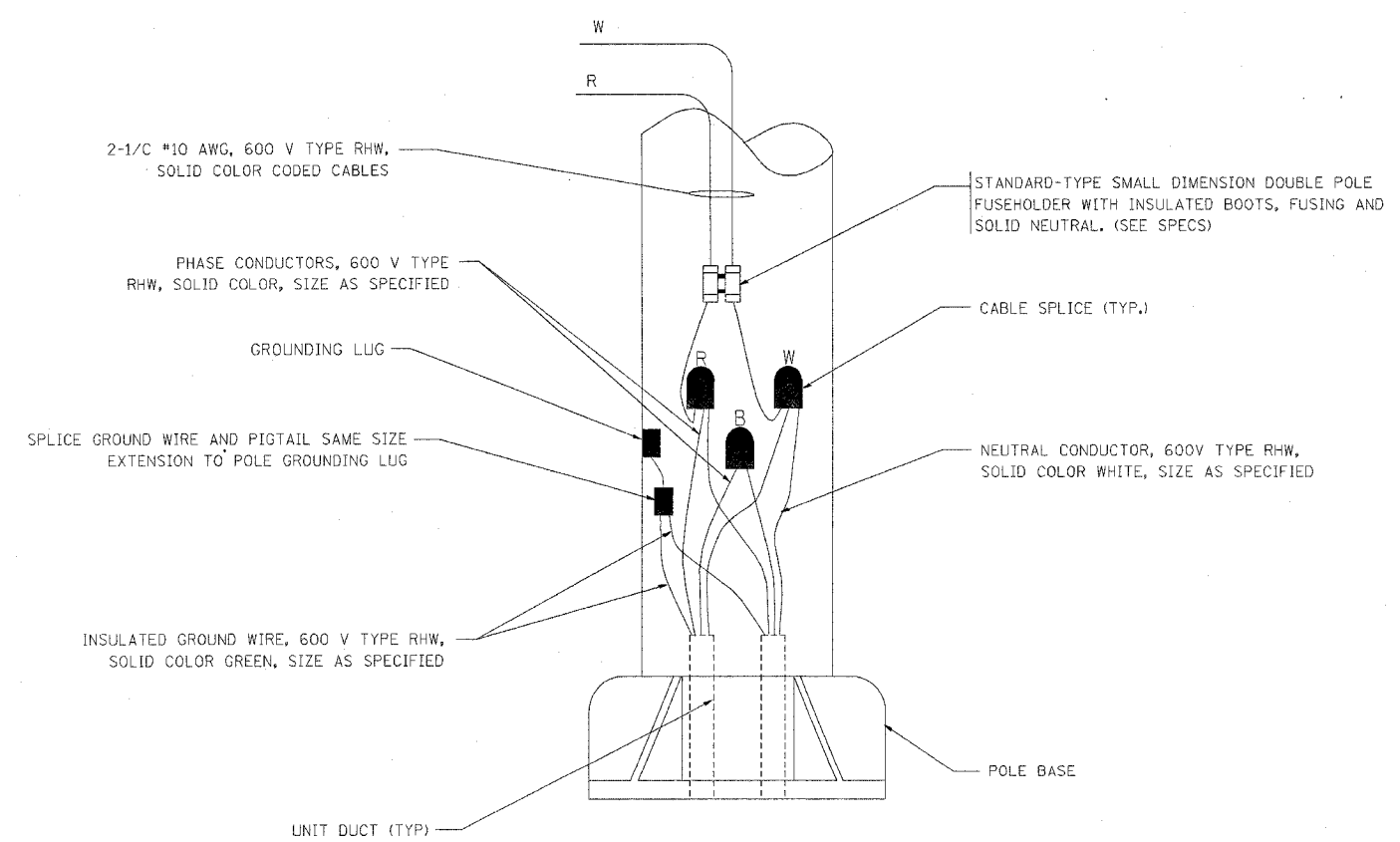
BE501
ILLINOIS DEPARTMENT OF TRANSPORTATION
HIGH MAST LIGHT TOWER
27m TO 36m (90FT TO 120FT)
FOUNDATION DETAIL
SHEET 2 OF 2
SCALE: NONE
DATE 10/18/2002
DRAWN BY
CHECKED BY
BE08 (BE501)
REVISION DATE: 04/22/02

DATE-TIME
DGN-SPEC
VHBB

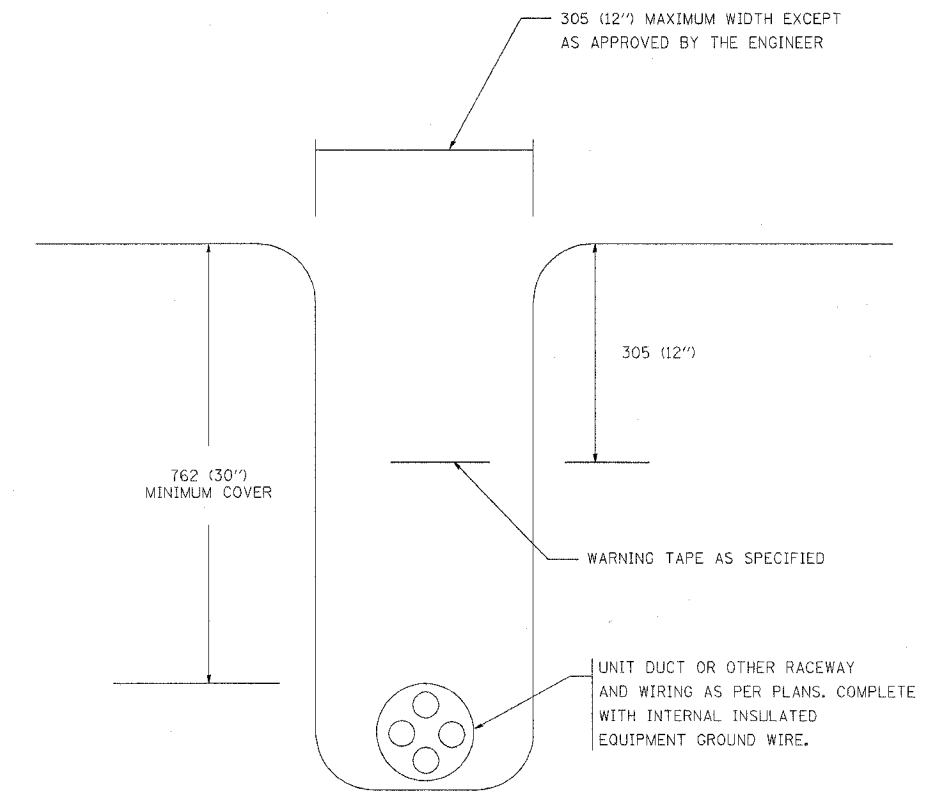
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-3	COOK	55	41
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPICAL SPLICE DETAIL
N.T.S.



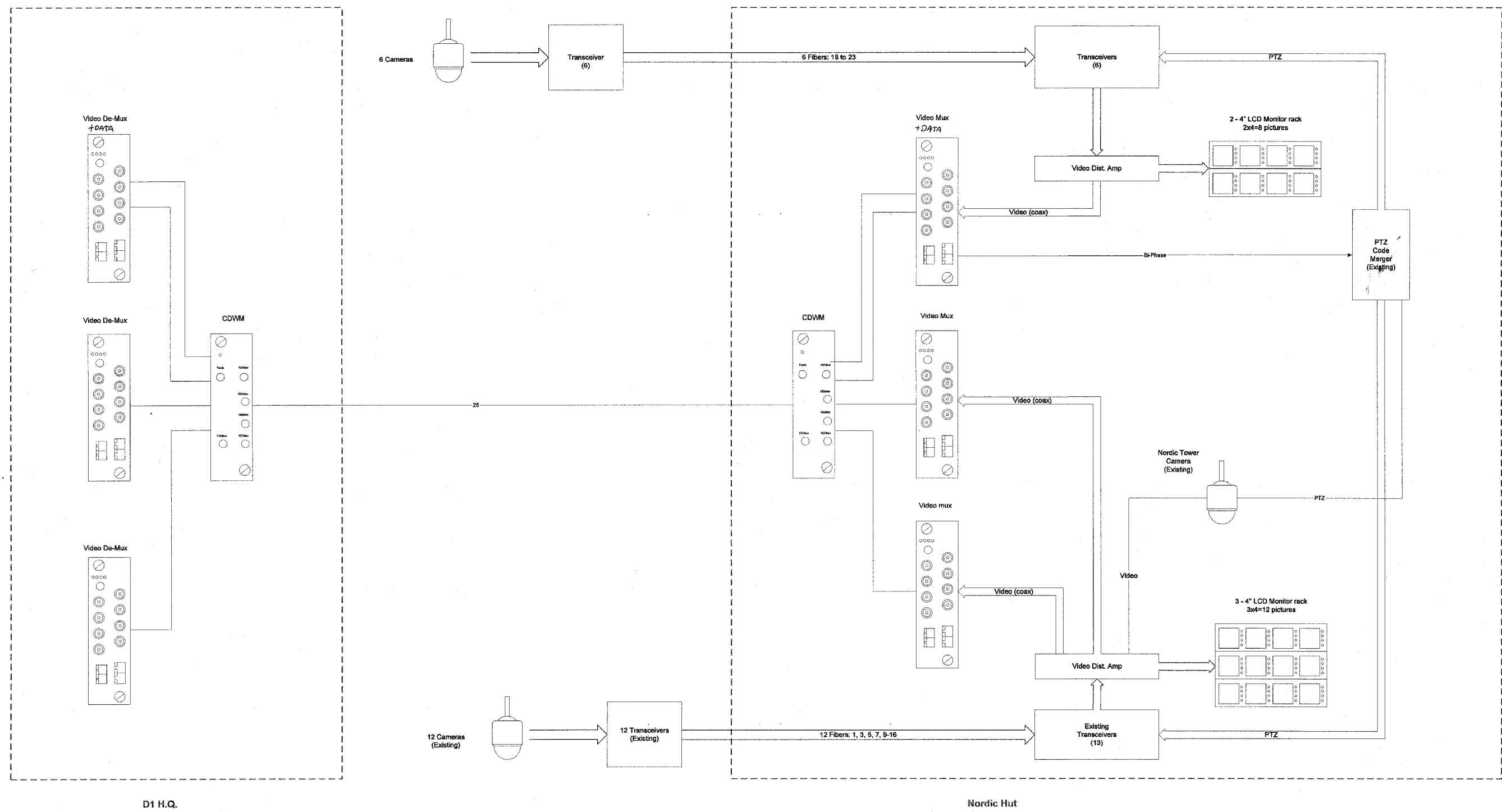
POLE WIRING DETAIL
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		MISC. ELECTRICAL DETAILS SHEET A
SCALE: NONE		DRAWN BY
DATE: 05/19/2003		CHECKED BY

62877



D1 H.Q.

Nordic Hut

- NOTES:**
1. All work is proposed unless identified as existing.
 2. This drawing is only for CCTV equipment.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

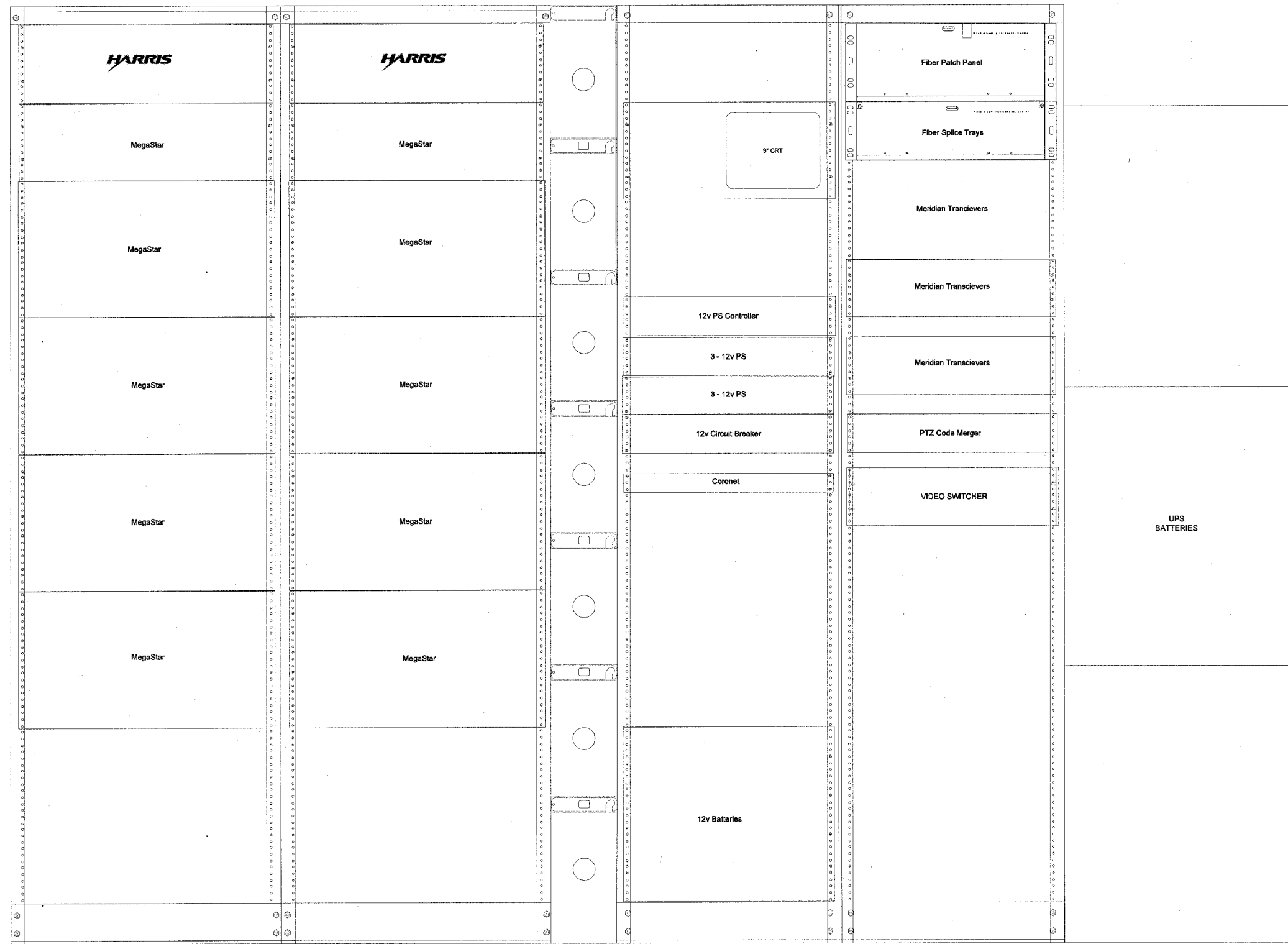
VIDEO DISTRIBUTION SYSTEM
I-290 FROM IL72 TO IL62
CCTV BLOCK DIAGRAM

Scale: None
 Date: 03/30/05
 DRAWN BY: RT

SUNTECH VIDEO SYSTEMS, INC.

62877

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	43
STA.		TO STA.		
CONTRACT NO:		02877		



NOTES:

THE DEPICTED EQUIPMENT ELEVATION LAYOUT MAY VARY FROM THE ACTUAL INSTALLED CONFIGURATION, BUT GENERALLY DEPICTS THE LOCATIONS OF THE INSTALLED EQUIPMENT

REVISIONS	
NAME	DATE

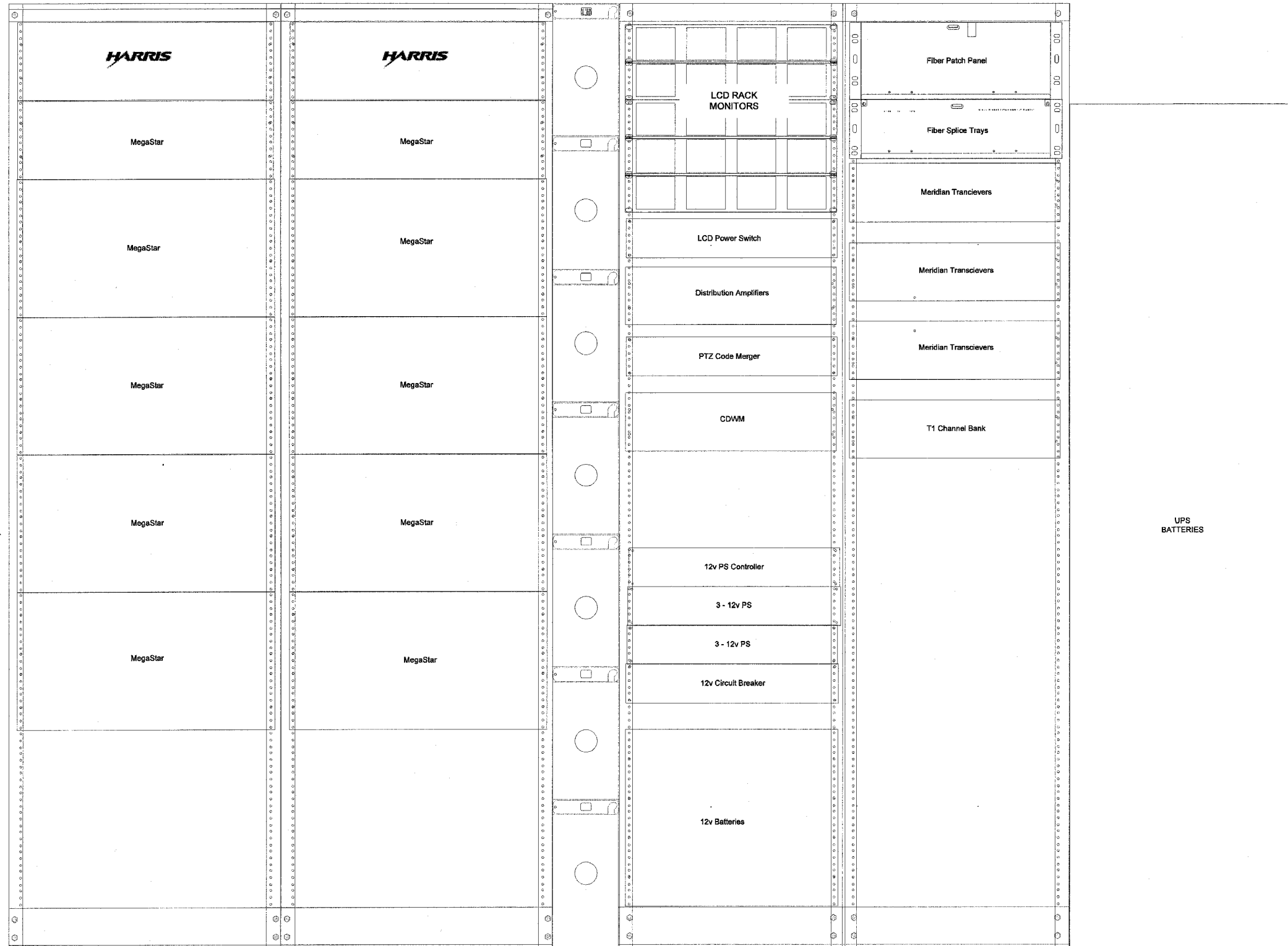
ILLINOIS DEPARTMENT OF TRANSPORTATION

VIDEO DISTRIBUTION SYSTEM
I-290 FROM IL72 TO IL62
EXISTING NORDIC EQUIPMENT ELEVATION

Scale: None
 Date: 03/30/05
 DRAWN BY: RT

62877

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
290	0305-302K-L-3	COOK	55	44
STA.		TO STA.		
CONTRACT NO:		62877		



8/24/05 11:00 AM C:\TEMP\WORK\PROJECTS\VIDEO\VIDEO.DWG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

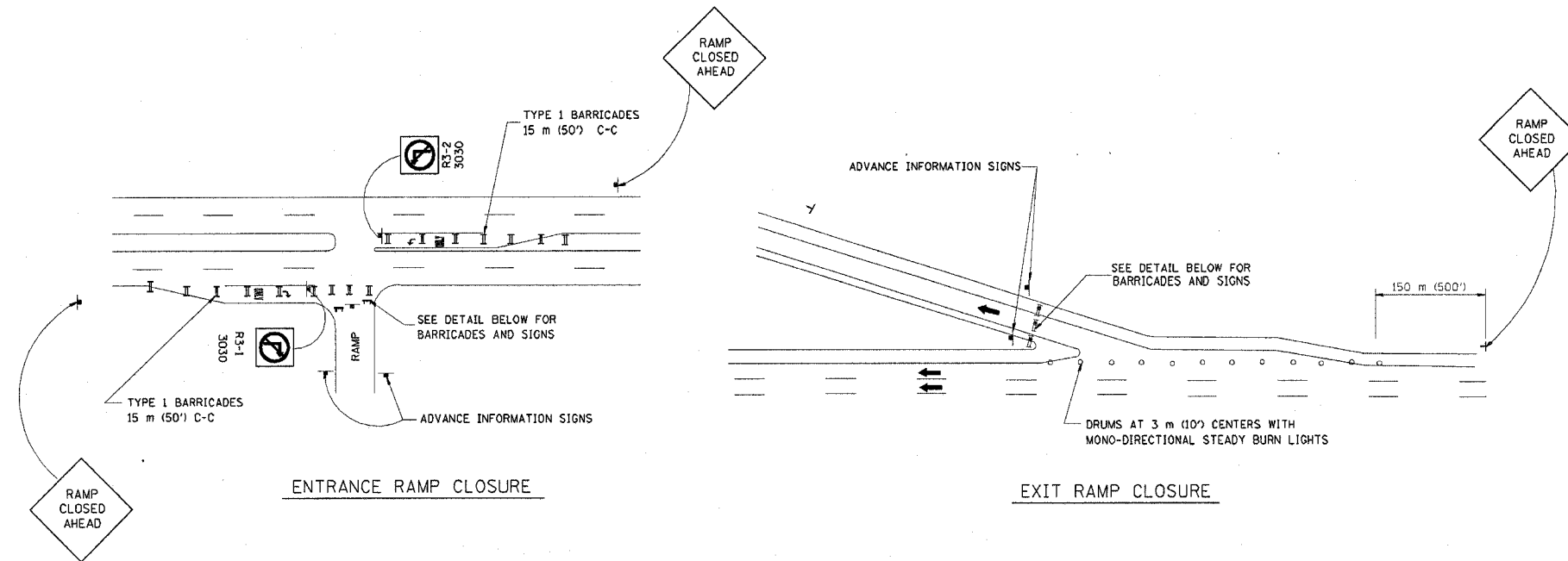
**VIDEO DISTRIBUTION SYSTEM
I-290 FROM IL72 TO IL62
PROPOSED NORDIC EQUIPMENT ELEVATION**

Scale: None
Date: 03/30/05

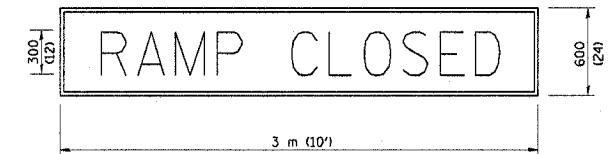
DRAWN BY: RT

62877

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



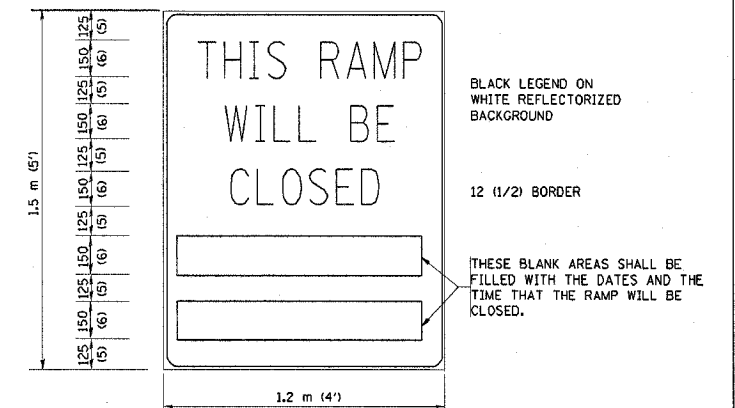
RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

25 (1) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE REFLECTORIZED BACKGROUND

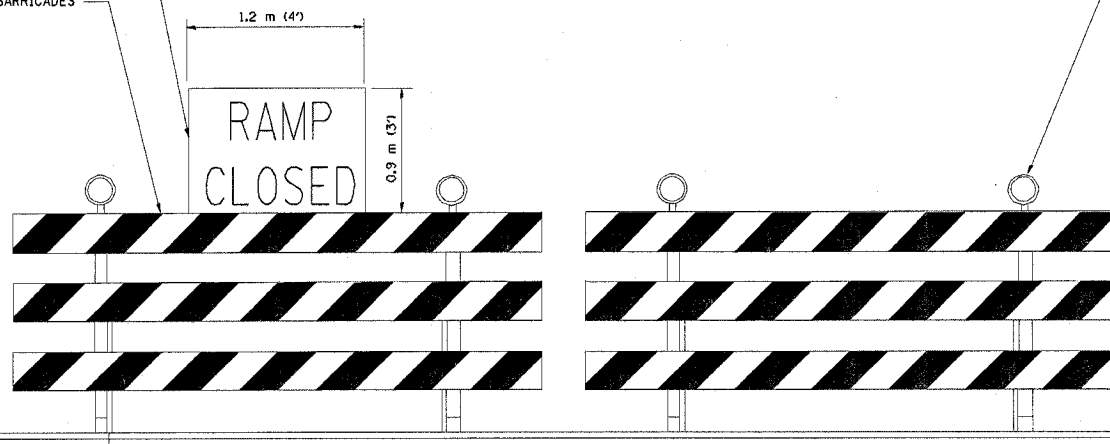
12 (1/2) BORDER

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, 4 MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THE "RAMP CLOSED" SIGN SHALL BE B/W WITH 200 (8) CAPS. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.

TYPE III BARRICADES



FLASHER UNIT (AMBER) (BOTH SIDES OF EACH TYPE III BARRICADE)

RS-1-4B48

DETAIL FOR REQUIRED BARRICADES & SIGNS

NOTES:

- CONES MAY BE SUBSTITUTED FOR TYPE I AND TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28" IN HEIGHT.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS.
- ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY FOUR (24) HOURS IN LENGTH.

GENERAL NOTES:

- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 700 (28) HIGH.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- FOR DAYTIME RAMP CLOSURES, LASTING 6 HOURS OR LESS, THE CONTRACTOR MAY ELIMINATE THE ADVANCE WARNING SIGNS ON THE EXIT GUIDE SIGNS.
- ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS

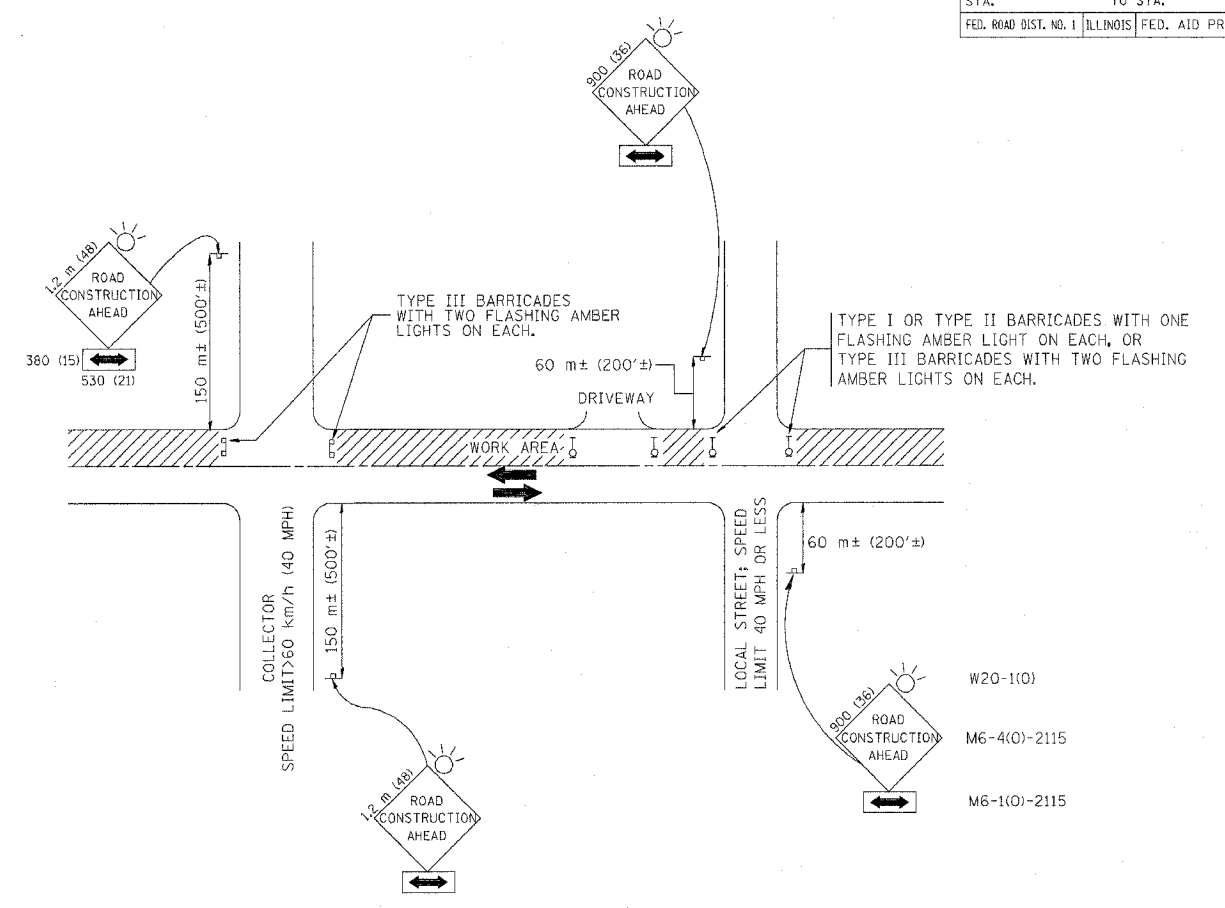
REVISIONS	
NAME	DATE
DWS	2-83
DWS	1/90
DWS	9/94
DWS	12/94
DWS/JAF	12/02
Revise devices to meet NCHRP 350	4/03

SCALE: NONE
DATE 05/06/2003

DRAWN BY
CHECKED BY
TC-8

62877

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L3	COOK	55	46
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 1. SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
 - USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
 - C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
 - D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

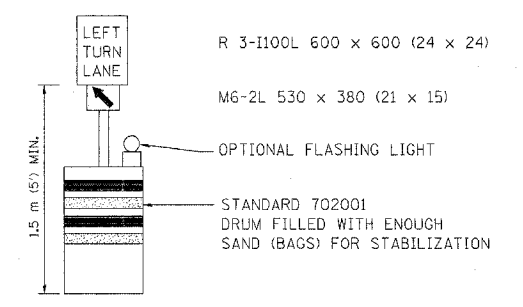
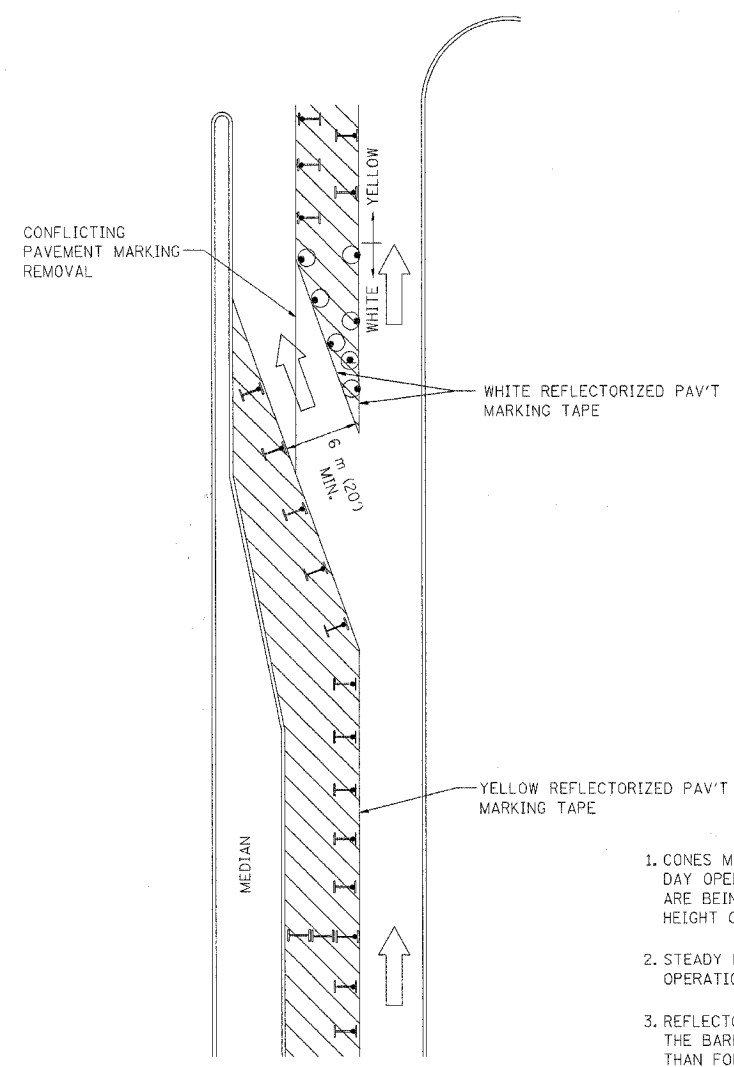
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

SCALE: VERT. _____
 HORIZ. _____
 DATE 10/18/2002

DRAWN BY _____
 CHECKED BY _____
 TC-10

62877

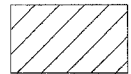





F. L. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302K-3	COOK	55	47
STA.		TO STA.		
FED. ROAD DIST. NO.	ALINOS	FED. AID PROJECT		



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 710 (28) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 1.5 m (5').
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 600 x 600 (24 x 24) AND M6-2R 530 x 380 (21 x 15) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 AT TURN BAYS
 (TO REMAIN OPEN TO TRAFFIC)

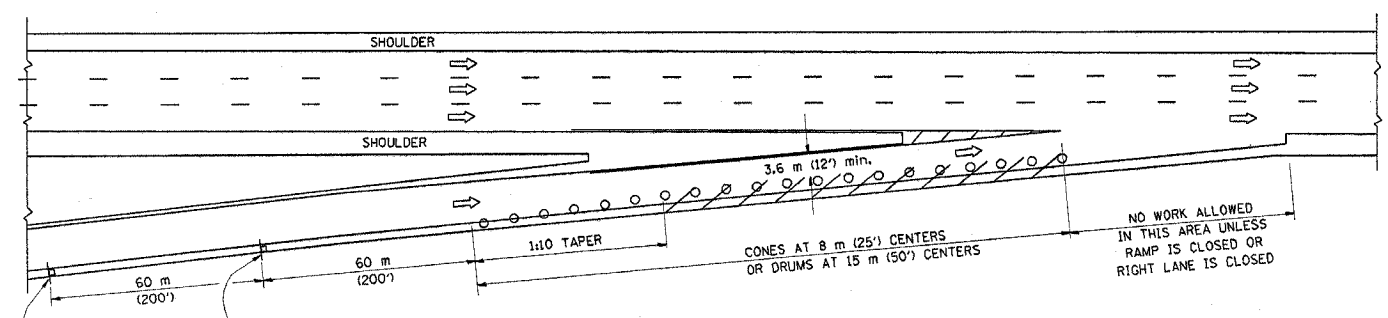
REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

SCALE: NONE
 DATE: 10/18/2002
 DRAWN BY: LHA
 CHECKED BY: LHA
 TC-14

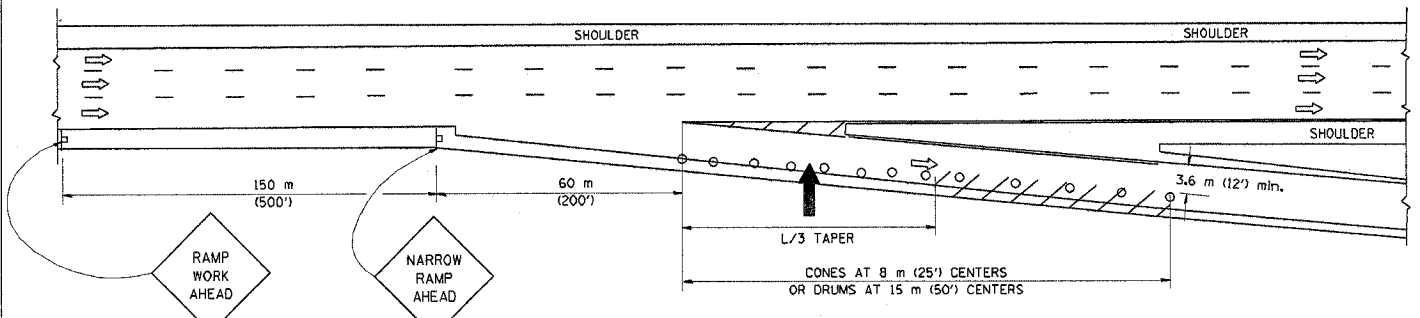
PARTIAL RAMP CLOSURE DETAILS

SHOULDER CLOSURE DETAILS

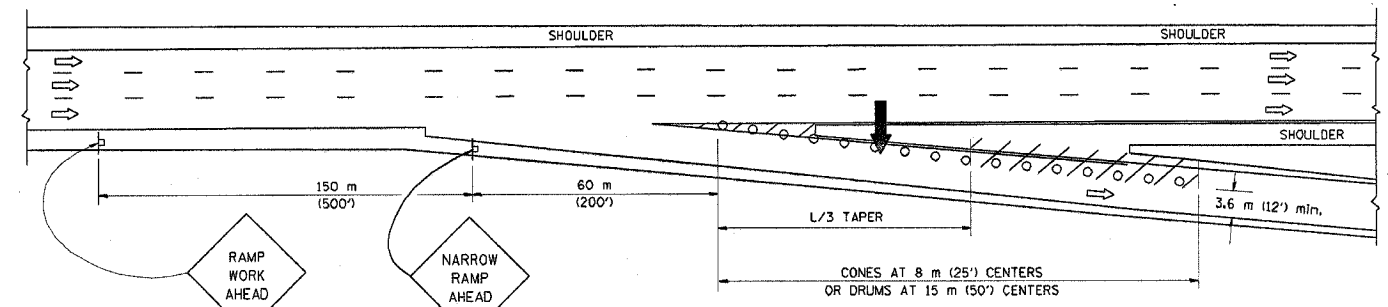
F.A. RITE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
240	0305-302K-L-3	COOK	55	48
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

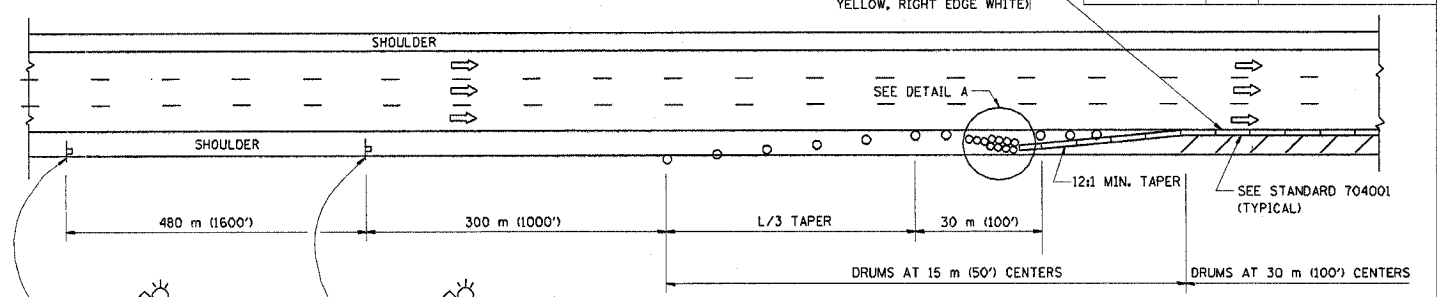
SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- CONES - 700 (28) IN HEIGHT

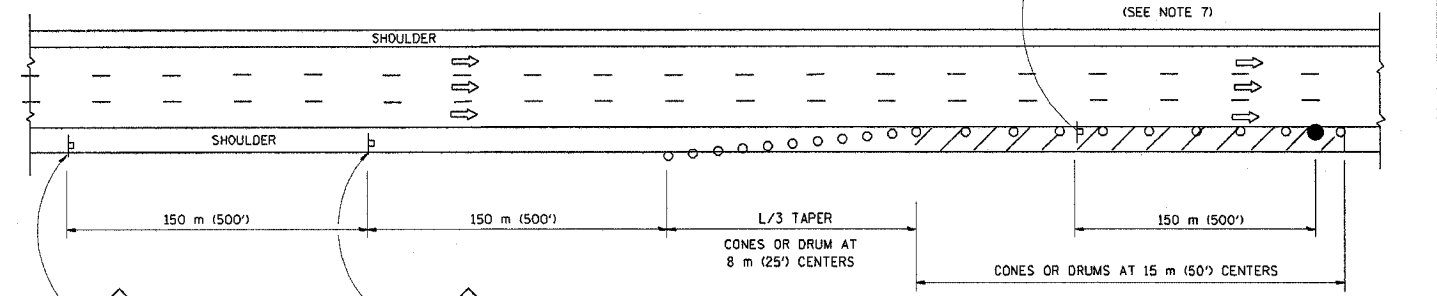
GENERAL NOTES

- THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
80 km/h (45 mph) OR GREATER:	METRIC $L=0.65(W)(S)$ ENGLISH $L=(W)(S)$
	W = WIDTH OF OFFSET IN METERS (FEET)
	S = NORMAL POSTED SPEED KM/H (MPH)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

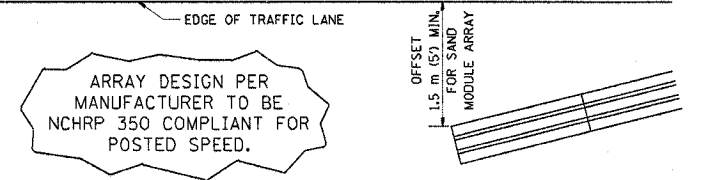


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRDACH IN AN AREA CLOSER THAN 4.5 m (15') TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
 IMPACT ATTENUATOR, TEMPORARY
 (SEE NOTE 5)

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS OUTSIDE THE CLEAR ZONE OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - THE WORK AVTIVITY REQUIRES FREQUENT ENCRDACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 30 m (100') TO 60 m (200') IN ADVANCE OF THE WORKERS.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
 ILLINOIS DEPARTMENT OF TRANSPORTATION

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES
 SCALE: NONE
 DATE: 05/06/2003
 DRAWN BY: DWS
 DESIGNED BY: DWS
 CHECKED BY: [blank]
 TC-17

BORING B-1

BORING B-2

CONTRACT NO. 62877				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	50
STA. 24+85		TO STA. 121+25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62877				

PAGE 1 of 1

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Antiques Court, Suite 204
Naperville, Illinois 60565
(630) 855-8200

DATE February 21, 2005
LOGGED BY RH
GSI JOB No. 0502-A

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53/FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. B-1
Northing 1956618.5
Easting 1066266.7
Ground Surface Elev. 732.6

D E P T H H	B L O W S	U C S Q u	M O I S T T	Surface Water Elev.		D E P T H H	B L O W S	U C S Q u	M O I S T T
				(ft)	(6")				
				731.6					
	2						6		
	3						6		
	7	2.5B	24				7	2.7B	17
	3						3		
	4						6		
	5	1.0B	25				10	2.7B	20
	3						3		
	6						6		
	9	4.9B	23				9	3.4B	20
	3						3		
	5						6		
	7	4.2B	18				10	2.5B	20
	2						2		
	5						6		
	8	3.5B	19				8	3.4B	21
	2						3		
	6						7		
	12	1.75P	13				12	2.0B	20
	4						4		
	5						5		
	7	1.75B	14				7		
	2						2		
	4						4		
	6						6		
	12	1.75B	17				12	1.75B	17

TOPSOIL-black (A-7) Fill
CLAY-brown, gray & black-stiff to very stiff (A-6) Fill, Wet
CLAY-gray-stiff to very stiff (A-6)
TOPSOIL-black (A-7)
CLAY-brown & gray-stiff to hard (A-6)
CLAY-gray-stiff to very stiff (A-6)
End of Boring @ -35.0'
Boring Backfilled Upon Completion
Hollow Stem Augers
D-50 ATV

PAGE 1 of 1

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Antiques Court, Suite 204
Naperville, Illinois 60565
(630) 855-8200

DATE February 07, 2005
LOGGED BY RH
GSI JOB No. 0502-A

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53/FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME-55 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. B-2
Northing 1957592.6
Easting 1066551.7
Ground Surface Elev. 738.4

D E P T H H	B L O W S	U C S Q u	M O I S T T	Surface Water Elev.		D E P T H H	B L O W S	U C S Q u	M O I S T T
				(ft)	(6")				
				735.9					
	12						4		
	15						7		
	14	NP	5				12	2.5B	19
	2						5		
	3						11		
	5	2.2B	18				15	2.5B	17
	2						4		
	4						8		
	6	3.4B	19				10	3.4B	20
	5						4		
	8						8		
	10	2.7B	17				12	2.5B	21
	5						4		
	6						6		
	8	3.4B	21				8	3.4B	21
	6						4		
	8						7		
	12	4.2B	18				12	2.8B	21
	2						2		
	9						9		
	10	6.4B	17				10	6.4B	17
	3						3		
	6						6		
	7	3.5B	18				7	3.5B	18

CRUSHED ASPHALT & STONE-very loose (Fill)
CLAY-brown & gray-very stiff to hard (A-6) Fill
CLAY-brown & gray-very stiff to hard (A-6) Fill
CLAY-brown & gray-very stiff (A-6)
End of Boring @ -35.0'
Boring Grouted Upon Completion
Hollow Stem Augers
CME-55

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

PLOT DATE = 4/7/2005
 FILE NAME = c:\projects\electrical\2004\1153\32
 PLOT SCALE = 50.0000 / IN.
 USER NAME = luppas

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAI 290/FAP 342 (I-290IL 53) IL 62 (ALGONQUIN ROAD) TO IL 72 (HIGGINS ROAD) BORING LOG I

SCALE: VERT. _____
HORIZ. _____
DATE _____ DRAWN BY _____
CHECKED BY _____

BORING B-5

PAGE 1 of 1

SOIL BORING LOG

DATE February 23, 2005
LOGGED BY RH
GSI JOB No. 0502-A

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. **B-5**
Northing 1960896.5
Easting 1066652.0
Ground Surface Elev. 721.4

D E P T H H	B L O W S	U C S Q _u	M O I S T T	Surface Water Elev.		D E P T H H	B L O W S	U C S Q _u	M O I S T T
				(ft)	(6")				
				720.4					
	3						4		
	4						5		
	5	2.7B	13				7	1.8B	24
				717.9					
	2						2		
	2						3		
	-5	3	0.4B				-25	5	1.0B
				715.4					
	2						2		
	4						4		
	7		33				8	2.7B	17
				712.9					
	2						5		
	4						8		
	-10	6	1.25B				-30	13	1.0P
				707.9					
	2						2		
	5						4	1.25B	
	7	3.0B	21						
				686.4			-35	503"	27
	3								
	6								
	11	3.7B	16						
	1								
	4								
	-20	6	1.8B				-40		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Blow, (S)-Shear, (P)-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

BORING B-6

PAGE 1 of 1

SOIL BORING LOG

DATE February 07, 2005
LOGGED BY RH
GSI JOB No. 0502-A

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME-55 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. **B-6**
Northing 1961514.5
Easting 1067065.5
Ground Surface Elev. 736.5

D E P T H H	B L O W S	U C S Q _u	M O I S T T	Surface Water Elev.		D E P T H H	B L O W S	U C S Q _u	M O I S T T
				(ft)	(6")				
				735.5					
	2						4		
	2						7		
	3	2.5B	18				10	4.9B	16
				725.5					
	4						2		
	5						5		
	-5	6	3.5B				-25	8	1.8B
				723.5					
	3						3		
	8						5		
	10	2.8B	23				7	2.5B	18
				725.5					
	4						3		
	10						6		
	-10	8	4.0B				-30	7	3.4B
				723.5					
	3						3		
	7						9	2.5B	27
				723.5					
	4						3		
	8						5		
	-15	8	3.5B				-35	7	3.1B
				718.5					
	4						4		
	7						7		
	8	3.5B	19				8	3.5B	19
				718.5					
	5						5		
	8						8		
	-20	12	3.5B				-40		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Blow, (S)-Shear, (P)-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	52
STA. 24+85		TO STA. 121+25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62877

PLOT DATE = 4/7/2005
 FILE NAME = c:\projects\electrical\2004\1153.a32
 PLOT SCALE = 80.0000 / IN.
 USER NAME = lupew

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAI 290FAP 342 (I-290IL 53) IL 62 (ALGONQUIN ROAD) TO IL 72 (HIGGINS ROAD) BORING LOG III
SCALE:	VERT. HORIZ.	DRAWN BY
DATE		CHECKED BY

BORING B-7

PAGE 1 of 1

SOIL BORING LOG

DATE February 07, 2005
LOGGED BY RH
GSI JOB No. 0502-A

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amundson Court, Suite 204
Naperville, Illinois 60563
(630) 455-1500

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. **B-7**
Northing 1962273.9
Easting 1066864.8
Ground Surface Elev. 738.1

D E P T H H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev. Groundwater Elevation: First Encounter Upon Completion After Hrs.	D E P T H H	B L O W S	U C S	M O I S T	Description	Elevation
				CLAY-brown & gray- very stiff to hard (A-6)						717.1
	3					3				
	5			CLAY-brown & gray- stiff (A-6)		5				715.1
	7	4.4B	16			7	1.5P	19		
				CLAY-brown & gray- very stiff to hard (A-6) Fill						
	3									
	7					1				
	-5	7	3.0B	22		4				
				CLAY-gray-stiff to hard (A-6)						
	1					3				
	7					6				
	10	5.3B	14			8	3.4B	19		
				CRUSHED CONCRETE & STONE- dense (Fill)						
	8					3				
	27					4				
	-10	13	NP	10		7	3.0B	21		
				CLAY-brown & gray- stiff to hard (A-6)						
	5									
	7									
	10	2.8B	16							
				CLAY-brown & gray- stiff to hard (A-6)						
	3					3				
	6					6				
	-15	7	5.0P	17		10	4.25P	12		
				End of Boring @ -35.0' Boring Grouted Upon Completion Hollow Stem Augers CME-55						
	3									
	6									
	8	3.7B	17							
	4									
	8									
	-20	10	2.8B	19						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

BORING B-8

PAGE 1 of 1

SOIL BORING LOG

DATE February 07, 2005
LOGGED BY RH
GSI JOB No. 0502-A

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amundson Court, Suite 204
Naperville, Illinois 60563
(630) 455-1500

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. **B-8**
Northing 1963110.2
Easting 1067567.6
Ground Surface Elev. 724.3

D E P T H H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev. Groundwater Elevation: First Encounter Upon Completion After Hrs.	D E P T H H	B L O W S	U C S	M O I S T	Description	Elevation
				CLAY-brown & gray- stiff to hard (A-6)						717.1
	2					2				
	3			CLAY-gray- stiff to very stiff (A-6)		3				715.1
	7					7				
				CLAY Mixed with TOPSOIL- dark brown & black- medium stiff (A-6A-7) Fill, Wet						
	2									
	4					5				
	-6	6	0.9B	29		7	1.8B	17		
				CLAY-gray-stiff to hard (A-6)						
	2					3				
	4					6				
	8	1.6B	26			8	3.4B	19		
				CLAY-brown & gray- stiff to very stiff (A-6)						
	2									
	5					3				
	-10	7	2.7B	18		7	3.0B	21		
				CLAY-gray- stiff to very stiff (A-6)						
	2									
	4									
	9	3.7B	18							
				CLAY-gray- stiff to very stiff (A-6)						
	2									
	4									
	-15	8	2.5P	12		10	4.25P	12		
				End of Boring @ -35.0' Boring Backfilled Upon Completion Hollow Stem Augers D-50 ATV						
	2									
	3									
	5	1.0B	17							
	2									
	4									
	-20	6	1.8B	17						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

CONTRACT NO. 62877

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	53
STA. 24+85		TO STA. 121+25		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62877

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAI 290/FAP 342 (I-290/IL 53) IL 62 (ALGONQUIN ROAD) TO IL 72 (HIGGINS ROAD) BORING LOG IV

SCALE: VERT. _____
HORIZ. _____
DATE _____ DRAWN BY _____
CHECKED BY _____

PLOT DATE = 4/7/2005
 FILE NAME = c:\projects\electr\04\2804\1133.mxd
 PLOT SCALE = 50.0000 / IN.
 USER NAME = djpsaw

BORING B-9

PAGE 1 of 1

SOIL BORING LOG

DATE February 24, 2005
LOGGED BY RH
GSI JOB No. 0502-A

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Ambrose Court, Suite 204
Naperville, Illinois 60565

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53/FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. B-9
Northing 1964114.8
Easting 1066602.2
Ground Surface Elev. 719.5

D E P T H H	B L O W S Q u	U M S T	M O I S T	Surface Water Elev.		D E P T H H	B L O W S Q u	U M S T	M O I S T	
				(ft)	(6")					(tsf)
				718.5						
	2						4			
	4						3			
	6	3.2B	18				7	2.1B	19	
	3						2			
	5						6			
	-5	6	1.0B	16			-25	9	3.4B	17
				713.5						
	1						4			
	3						6			
	4	1.5P	12				10	6.0B	16	
				711.0						
	1						4			
	4						7			
	-10	6	1.6B	18			-30	11	3.5B	19
	2									
	3									
	7	1.8B	21							
	1						2			
	4						5			
	-15	7	1.8B	20	684.5		-35	8	2.5B	20
	3									
	4									
	7	2.5B	21							
	3									
	5									
	-20	10	2.7B	19			-40			

End of Boring @ -35.0'
Boring Backfilled Upon Completion
Hollow Stem Augers
D-50 ATV

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

BORING B-10

PAGE 1 of 1

SOIL BORING LOG

DATE February 07, 2005
LOGGED BY RH
GSI JOB No. 0502-A

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Ambrose Court, Suite 204
Naperville, Illinois 60565

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53/FAI 290, Higgins to Algonquin
SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME-55 Automatic

STRUCT. NO. n/a
Station n/a

BORING NO. B-10
Northing 1965212.6
Easting 1067255.3
Ground Surface Elev. 742.1

D E P T H H	B L O W S Q u	U M S T	M O I S T	Surface Water Elev.		D E P T H H	B L O W S Q u	U M S T	M O I S T	
				(ft)	(6")					(tsf)
				739.6						
	3						4			
	6						7			
	2	NP	12				10	3.5B	17	
				719.1						
	3						4			
	7						7			
	-5	9	5.1B	21			-25	10	3.5B	16
	4						3			
	9						6			
	10	4.4B	20				9	2.8B	16	
	7						3			
	10						5			
	-10	11	6.2B	16			-30	6	1.9B	16
	4									
	7									
	10	5.7B	20							
	2						2			
	7						3			
	-15	9	2.8B	24	708.1		-35	3	NP	19
	6									
	10									
	10	6.6B	19							
				724.1						
	6									
	9									
	-20	9	2.8B	16			-40			

End of Boring @ -35.0'
Boring Backfilled Upon Completion
Hollow Stem Augers
CME-55

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	54
STA. 24+85		TO STA. 121+25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62877

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAI 290/FAP 342 (I-290/IL 53) IL 62 (ALGONQUIN ROAD) TO IL 72 (HIGGINS ROAD) BORING LOG V


SCALE: VERT. _____
HORIZ. _____
DATE _____ DRAWN BY _____
CHECKED BY _____

PLOT DATE = 4/7/2005
 FILE NAME = c:\projects\electrical\2004\1153.mxd
 PLOT SCALE = 80.0000 / IN.
 USER Name = lipson

62877

F.A.I. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
290	0305-302K-L-3	COOK	55	55
STA. 24+85		TO STA.121.25		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

BORING B-11



Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Northwest Court, Suite 204
Naperville, Illinois 60566
(630) 407-1000

SOIL BORING LOG

PAGE 1 of 1
DATE February 24, 2005
LOGGED BY RH
GSI JOB No. 0502-A

ROUTE FAI 290IL-53 DESCRIPTION High-Mast Light Pole Foundations IL 53FAI 290, Higgins to Algonquin
 SECTION 0305-302K-L-3 LOCATION NW & SW CORNERS, SEC. 18 & 7, TWP. 41N, RNG. 11E, 3rd PM
 COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Automatic

STRUCT. NO. n/a Station n/a
 BORING NO. B-11
 Northing 1963412.2
 Easting 1067193.5
 Ground Surface Elev. 741.8

D E P T H H	B L O W S	U C S Q _u	M I S T	Surface Water Elev. <u>n/a</u> Stream Bed Elev. <u>n/a</u>	D E P T H H	B L O W S	U C S Q _u	M I S T	Groundwater Elevation:	
									First Encounter	Upon Completion
(ft)	(6")	(tsf)	(%)		(ft)	(6")	(tsf)	(%)	After	Hrs.
TOPSOIL-dark brown & black (A-7) Fill										
	3					5				
	4					7				
	8		58	CLAY-brown & gray-stiff to hard (A-6)		10	4.6B	17		
738.3										
	2					3				
CLAY-brown & gray-stiff (A-6) Fill										
	4					5				
	-5	7	1.6B	19		-25	11	3.9B	18	
735.8										
	2					4				
	4					8				
	7		3.2B	22		13	3.9B	16		
CLAY-dark brown spotted black-stiff to very stiff (A-6) Fill, Wet										
	3				713.3	3				
	4					4				
	-10	6	1.4B	25		-30	9	2.8B	15	
730.8										
CLAY-brown & gray-stiff to hard (A-6)										
	2					3				
	6					4				
	10		3.1B	17						
	1					3				
	2					4				
	-15	5	1.9B	18	706.8	-35	10	2.7B	20	
End of Boring @ -35.0' Boring Backfilled Upon Completion Hollow Stem Augers D-50 ATV										
	1									
	2									
	5		3.7B	19						
	6									
	11									
	-20	17	3.9B	19		-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

PLOT DATE = 4/7/2005
 FILE NAME = c:\projects\electrical\208\1153.mxd
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 USER NAME = jupess

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAI 290FAP 342 (I-290IL 53) IL 62 (ALGONQUIN ROAD) TO IL 72 (HIGGINS ROAD) BORING LOG VI
SCALE: VERT. _____		DRAWN BY _____
DATE _____		

