F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60N88		

DESIGN DESIGNATION

OTHER PRINCIPAL ARTERIAL
F.A.P. ROUTE 350 (IL 50)

11-18-11 LETTING ITEM 036

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF BRIDGE REHABILITATION OF THE IL 50 BRIDGE OVER THE CAL SAG CHANNEL.

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS IMPROVEMENT IS LOCATED IN THE VILLAGE OF ALSIP

TRAFFIC DATA

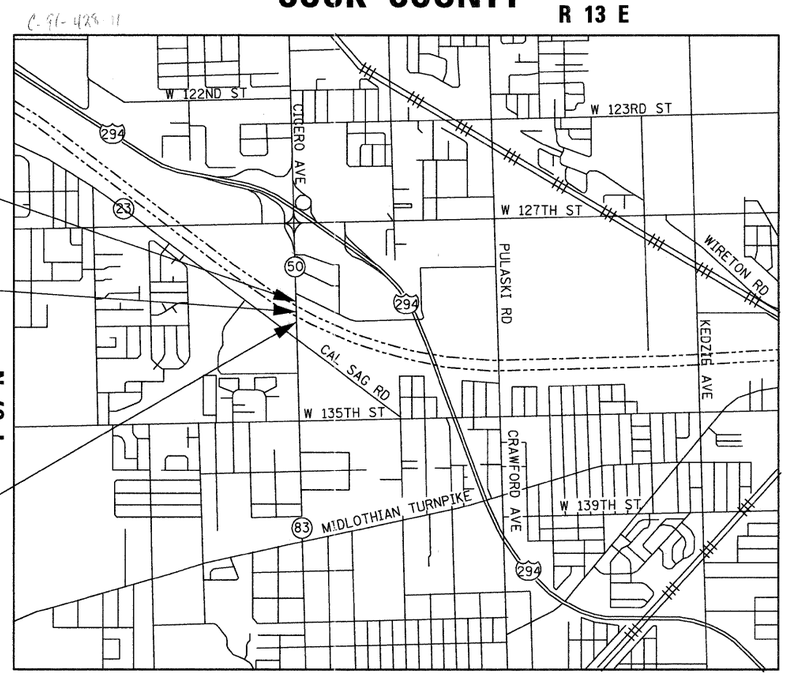
2009 ADT = 41700
POSTED SPEED LIMIT = 35 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 350 (IL 50)
OVER THE CAL SAG CHANNEL
SECTION 3068 A-B-R-1
PROJECT: ACBHF-0350(035)
BRIDGE REHABILITATION
COOK COUNTY

C-91-428-11



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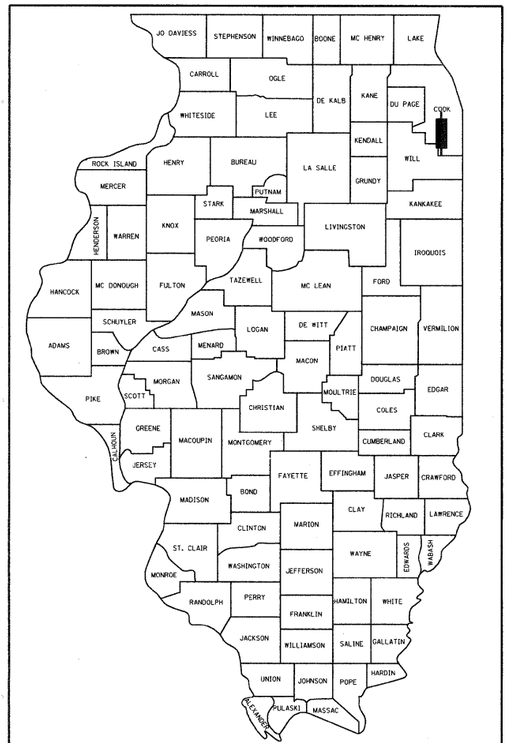
LOCATION MAP

1" = 2000'
GROSS AND NET LENGTH OF PROJECT = 378 FT = 0.07 MI.

D-91-428-11



LOCATION OF SECTION INDICATED THUS: –■–

DISTRICT 1 EXPRESSWAY UNIT ENGINEER: H. PAZON (847)-705-4523

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

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

PROJECT MANAGER: HELEN PAZON

CONTRACT NO. 60N88

Ciorba Group, Inc.
DESIGN FIRM
REGISTRATION NUMBER
184-001016
CONSULTING ENGINEERS
SUITE 402, 5507 NORTH CUMBERLAND AVE
CHICAGO, ILLINOIS 60656 :: (773) 775-4009

JOSEPH M. VONDRA
062-055648
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
DATE: 9/6/2011
SEAL EXPIRES: 11/30/2011

STATE OF ILLINOIS
LICENSED STRUCTURAL ENGINEER
DAJIN LIU
081-005944
DATE: 9/6/2011
SEAL EXPIRES: 11/30/2012

FRED M. LIN
062-056704
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
DATE: 9/6/2011
SEAL EXPIRES: 11/30/2011
SHEETS: 4-7

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED September 7, 20 11
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 14 20 11
Scott E. Stitt, P.E. /or
acting ENGINEER OF DESIGN AND ENVIRONMENT
October 14 20 11
Christine M. Reed /or
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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INDEX OF SHEETS

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2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES
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7	ALIGNMENT, TIES & BENCHMARKS
8	MAINTENANCE OF TRAFFIC PLAN - STAGE I
9	MAINTENANCE OF TRAFFIC PLAN - STAGE II
10	PAVEMENT MARKING PLAN
11	NAVIGATION AND ROADWAY LIGHTING REMOVAL PLAN
12	TEMPORARY LIGHTING SYSTEM
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14	NAVIGATION LIGHTING ONE LINE DIAGRAM
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24-50	STRUCTURAL SHEETS
51	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)
52	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)
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55	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
56	ARTERIAL ROAD INFORMATION SIGN (TC-22)
57	DRIVEWAY ENTRANCE SIGNING (TC-26)

STATE STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVATIONS AND PATTERNS
606306-03	CORRUGATED PC CONCRETE MEDIANS
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701427	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER. FOR SPEEDS LESS THAN OR EQUAL TO 40MPH
701606-07	URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATION OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

COMMITMENTS

1 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING TREES WITHIN THE CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED ON THE PLANS.

2 THE CONTRACTOR SHALL CONTACT THE US COAST GUARD FOUR WEEKS PRIOR TO STARTING ANY WORK THAT MAY INTERFERE WITH NAVIGATION OPERATIONS IN THE CHANNEL. SEE SPECIAL PROVISIONS FOR DETAILS.
THE CONTACT PERSON IS AS FOLLOWS:

DISTRICT COMMANDER
SCOTT STRIFFLER, BRIDGE PROGRAM MANAGER
UNITED STATES COAST GUARD
NINTH U.S. COAST GUARD DISTRICT
1240 EAST NINTH STREET
CLEVELAND, OH 44199
PHONE: (216) 902-6085

GENERAL NOTES

1 WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.

2 THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

3 THE CONTRACTOR SHALL CONTACT PATRICE HARRIS, THE AREA TRAFFIC FIELD TECHNICICAN, AT (708) 597-9800 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

4 ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE PROPOSED PAVEMENT MARKING LIMITS SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

5 BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING, EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS CHART

OPERATIONS	MIXTURE TYPE	AIR VOIDS @ Ndes
TEMPORARY PAVEMENT	TEMPORARY PAVEMENT, 10" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM), 2" TEMPORARY PAVEMENT (HMA BINDER IL-19 MM), 8"	4% @ 50 GYR 4% @ 50 GYR

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

NOTE FOR TEMPORARY PAVEMENT:
PCC TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ART. 1020 OF THE STANDARD SPECIFICATIONS"; TYPICALLY 10" THICK.

ENGINEERING CONSULTANT
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	2
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

				CONSTRUCTION CODE		
				URBAN - 80% FEDERAL, 20% STATE		100% VILLAGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004	STRUCTURAL 0014	LIGHTING 0021
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	6	6		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	250	60		190
25000210	SEEDING, CLASS 2A	ACRE	0.1			0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	4	1		3
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	4	1		3
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	4	1		3
25200200	SUPPLEMENTAL WATERING	UNIT	8	2		6
44000100	PAVEMENT REMOVAL	SQ YD	74	74		
50102400	CONCRETE REMOVAL	CU YD	26.1		26.1	
50157300	PROTECTIVE SHIELD	SQ YD	60		60	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	26.1		26.1	
50300300	PROTECTIVE COAT	SQ YD	91		91	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6,040		6,040	
50800515	BAR SPLICERS	EACH	70		70	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	241		241	
58700300	CONCRETE SEALER	SQ FT	195		195	
59000200	EPOXY CRACK INJECTION	FOOT	6		6	
60624600	CORRUGATED MEDIAN	SQ FT	663	663		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8		
67100100	MOBILIZATION	L SUM	1	1		
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5		
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	10	10		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	3,133	3,133		

▪ DENOTES SPECIALTY ITEM

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Email chicago@ciorba.com

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PLOT DATE = 9/9/2011	DATE - 9/2/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	3
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		

				CONSTRUCTION CODE		
				URBAN - 80% FEDERAL, 20% STATE		100% VILLAGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004	STRUCTURAL 0014	LIGHTING 0021
70400100	TEMPORARY CONCRETE BARRIER	FOOT	625	625		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	600	600		
• 78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	36	36		
• 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	6,794	6,794		
• 78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	165	165		
• 78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FT	124	124		
• 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	103	103		
• 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	38	38		
• 78200530	BARRIER WALL MARKERS, TYPE C	EACH	100	100		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	2,510	2,510		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	141	141		
• 80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1		
• 81000500	CONDUIT IN TRENCH, 1 1/2" DIA., GALVANIZED STEEL	FOOT	85	85		
• 81100320	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	670	670		
• 81100510	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., PVC COATED GALVANIZED STEEL	FOOT	630			630
• 81100805	CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	10			10
• 81300320	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 8" X 6"	EACH	9	6		3
• 81300810	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH	3	1		2
• 81603035	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	280			280
• 81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2,500	2,500		
• 81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1,920			1,920
• 81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	3605	3605		
• 82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4			4
• 82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	6	6		
• 83008500	LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. MAST ARM	EACH	1			1

• DENOTES SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
SUMMARY OF QUANTITIES

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

Rev.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	4
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		

					CONSTRUCTION CODE		
					URBAN - 80% FEDERAL, 20% STATE		100% VILLAGE 0021
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004	STRUCTURAL 0014	LIGHTING 0021
•	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	7			7
•	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	1			1
•	84301200	REMOVAL OF NAVIGATION OBSTRUCTION WARNING LIGHTING SYSTEM	L SUM	1	1		
•	X0300864	MAINTENANCE OF NAVIGATION	L SUM	1	1		
•	X0325541	REMOVE EXISTING LIGHTING SYSTEM	L SUM	1			1
•	X8771100	MAST ARM REPLACEMENT (SPECIAL)	EACH	3			3
•	X8110551	CONDUIT, FLEXIBLE NON-METALLIC, WEATHERPROOF, 1" DIAMETER	FOOT	25	25		
	X5030530	FLOOR DRAIN EXTENSION	EACH	24		24	
	X6060500	CORRUGATED MEDIAN REMOVAL	SQ FT	663	663		
	X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	9,113	9,113		
	X7030040	WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH	FOOT	190	190		
*	X8050050	SERVICE INSTALLATION, TYPE C (SPECIAL)	EACH	1	1		
*	X8410102	TEMPORARY LIGHTING SYSTEM	L SUM	1			1
	Z0001905	STRUCTURAL STEEL REPAIR	POUND	16,240		16,240	
•	Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1		1	
•	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1	
	Z0012102	CONCRETE BRIDGE DECK SCARIFICATION (3/8 INCH)	SQ YD	2,300		2,300	
	Z0012193	BRIDGE DECK THIN POLYMER OVERLAY 3/8"	SQ YD	2,300		2,300	
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	408		408	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
	Z0015802	PLUG EXISTING DECK DRAINS	EACH	8		8	
	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	3		3	
	Z0021902	SILICONE JOINT SEALER, 1/2"	FOOT	22		22	
	Z0030255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		
	Z0030322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		

• DENOTES SPECIALTY ITEM

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STATE OF ILLINOIS
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		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

				CONSTRUCTION CODE		
				URBAN - 80% FEDERAL, 20% STATE		100% VILLAGE 0021
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004	STRUCTURAL 0014	LIGHTING
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	100	100		
* Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	5			5
Z0053800	RIVET REMOVAL AND REPLACEMENT	EACH	240		240	
Z0062456	TEMPORARY PAVEMENT	SQ YD	74	74		
• X8260112	MAINTENANCE OF NAVIGATION LIGHTING SYSTEM	CAL MO	5	5		
• X8110553	CONDUIT, FLEXIBLE NON-METALLIC, WEATHERPROOF, 1.5" DIAMETER	FOOT	100	5		95
~~• X8110507~~	~~CONDUIT, FLEXIBLE METALLIC, WEATHERPROOF, 2.5"~~	~~FOOT~~	~~5~~	~~5~~		
• X8110509	CONDUIT, FLEXIBLE METALLIC, WEATHERPROOF, 3"	FOOT	10			10

• DENOTES SPECIALTY ITEM

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ENGINEERING CONSULTANT					
Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = wlancaster	DESIGNED - JMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILL. 50 OVER THE CAL SAG CHANNEL STRUCTURE NO. 016-0421 SUMMARY OF QUANTITIES
		DRAWN - JMK	REVISED -		
	PLOT SCALE = 1.0000 ' / IN.	CHECKED - JMV	REVISED -		
	PLOT DATE = 9/9/2011	DATE - 9/2/11	REVISED -		SCALE: 1" = 20' | SHEET NO. OF SHEETS | STA. TO STA.

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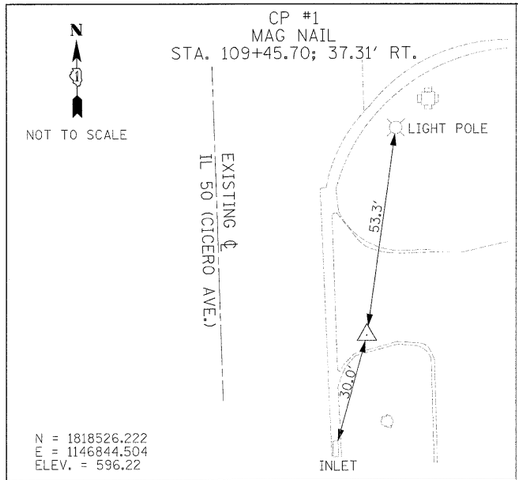
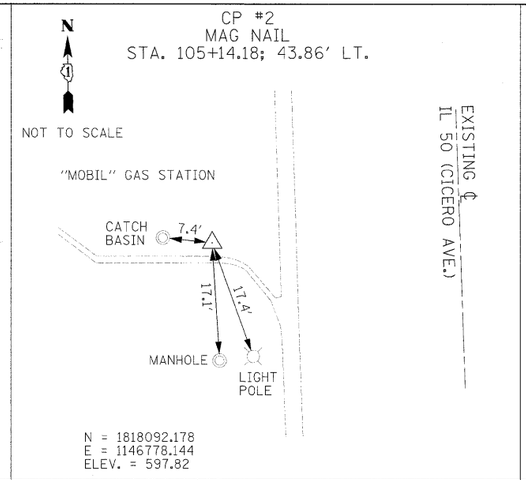
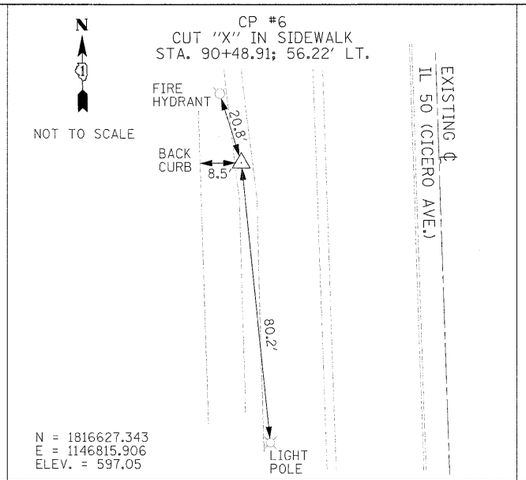
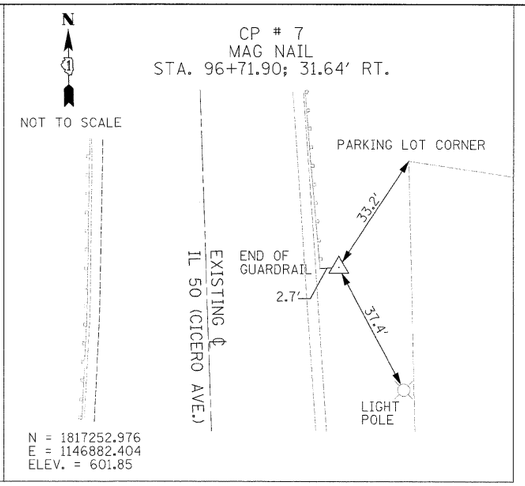
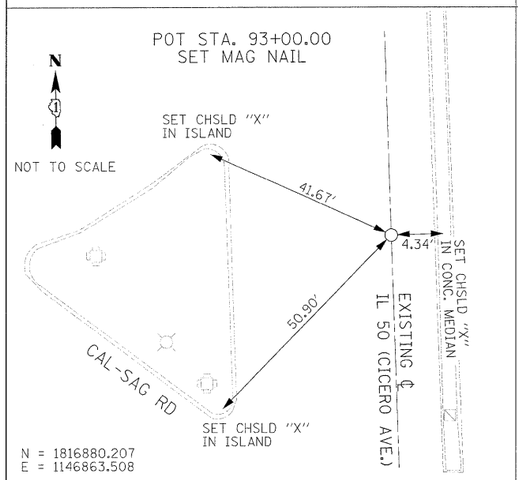
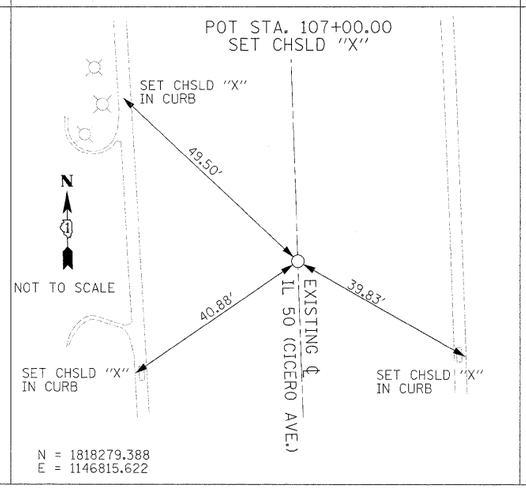












BENCHMARK 1
CHISELLED "□" IN CONC. BASE OF MAST ARM
NW CORNER OF CICERO AVE. AND CAL-SAG ROAD.
STA. = 92+98, OFFSET = 61.3' LEFT
ELEV. = 596.70

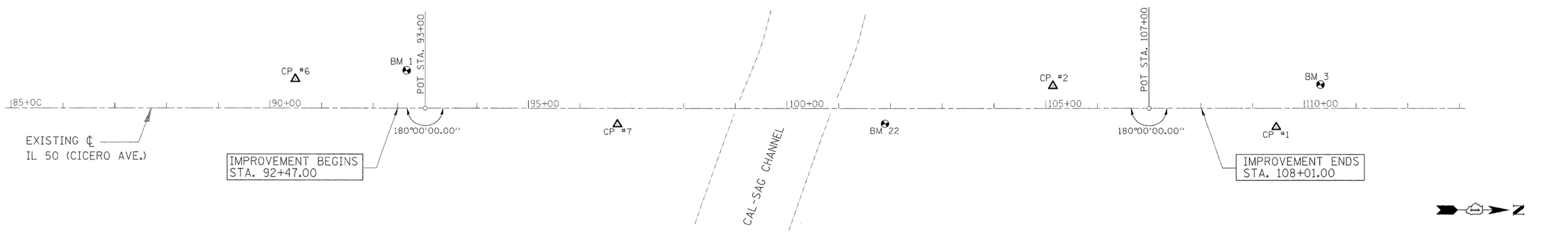
BENCHMARK 22
CHISELLED "□" IN NE WINGWALL OF IL 50 BRIDGE
OVER CAL-SAG CHANNEL.
STA. = 101+88, OFFSET = 30.7' RIGHT
ELEV. = 606.15

BENCHMARK 3
CHISELLED "□" IN CONC. BASE OF MAST ARM
SW CORNER OF CICERO AVE. AND 128TH PLACE.
STA. = 110+27, OFFSET = 46.5' LEFT
ELEV. = 596.53

NOTES:

1. HORIZONTAL AND VERTICAL CONTROL PROVIDED BY IDOT.

2. ELEVATIONS FOR CONTROL POINTS PROVIDED FOR INFORMATION ONLY. ALL ELEVATIONS FOR CONSTRUCTION SHALL UTILIZE BENCHMARK ELEVATIONS.



LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	USER NAME = Plotted by flin	DESIGNED - GLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT, TIES & BENCHMARKS IL 50 (CICERO AVE.) OVER CAL SAG CHANNEL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BMD	REVISED -			350	3068 A-B-R-1	COOK	57	7
	PLOT SCALE = 100.000 ' / IN.	CHECKED - GLW	REVISED -			JOB NO. D-91-428-11		CONTRACT NO. 60N88		
	PLOT DATE = 9/9/2011	DATE - 9/2/11	REVISED -		NOT TO SCALE / SHEET NO. 1 OF 1 SHEETS / STA. 93+00.00 TO STA. 107+00.00	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LEGEND

- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TEMPORARY CONCRETE BARRIER
- BARRICADE, DRUM OR DIRECTION INDICATOR BARRICADE
- SIGN
- TYPE III BARRICADE
- FLASHING ARROW BOARD
- WORK AREA
- TEMPORARY PAVEMENT, 10"

PRE-STAGE:

1. REMOVE EXISTING CORRUGATED MEDIAN FROM STA. 102+46 TO STA. 103+85 AND PLACE TEMPORARY PAVEMENT IN ACCORDANCE WITH HIGHWAY STANDARD 701606-07.

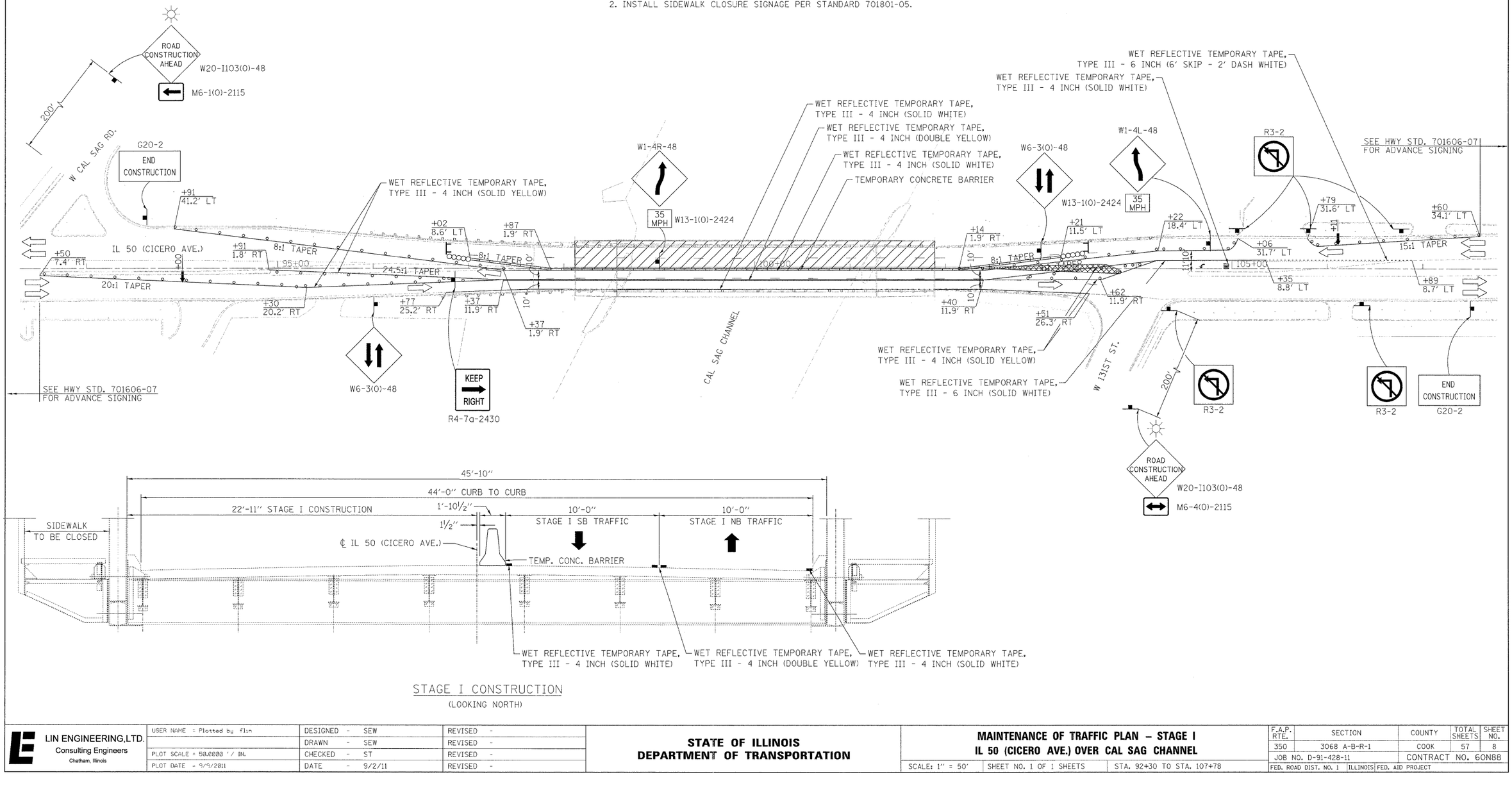
STAGE 1:

1. REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS.
2. CLOSE WEST HALF OF IL 50 (CICERO AVE.) IN ACCORDANCE WITH HIGHWAY STANDARD 701606-07 AND AS SHOWN IN PLANS. DRIVEWAY ENTRANCES TO BE MAINTAINED AT ALL TIMES.
3. PERFORM STRUCTURAL REPAIRS AS SHOWN IN THE PLANS.

NOTES:

1. ACCESS TO DRIVEWAYS SHOULD BE MAINTAINED AT ALL TIMES.
2. INSTALL SIDEWALK CLOSURE SIGNAGE PER STANDARD 701801-05.

0 50' 100'
SCALE: 1" = 50'



STAGE I CONSTRUCTION
(LOOKING NORTH)

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		DRAWN - SEW	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - ST	REVISED -
	PLOT DATE = 9/9/2011	DATE - 9/2/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN – STAGE I
IL 50 (CICERO AVE.) OVER CAL SAG CHANNEL

SCALE: 1" = 50' | SHEET NO. 1 OF 1 SHEETS | STA. 92+30 TO STA. 107+78

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	8
JOB NO. D-91-428-11		CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LEGEND

- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2
- TEMPORARY CONCRETE BARRIER
- BARRICADE, DRUM OR DIRECTION INDICATOR BARRICADE
- SIGN
- TYPE III BARRICADE
- FLASHING ARROW BOARD
- WORK AREA
- TEMPORARY PAVEMENT, 10"

STAGE 2:

1. REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS.
2. CLOSE EAST HALF OF IL 50 (CICERO AVE.) IN ACCORDANCE WITH HIGHWAY STANDARD 701606-07 AND AS SHOWN IN PLANS. DRIVEWAY ENTRANCES TO BE MAINTAINED AT ALL TIMES.
3. PERFORM STRUCTURAL REPAIRS AS SHOWN IN THE PLANS.

STAGE 3:

1. REMOVE TEMPORARY PAVEMENT PLACED IN STAGE I AND REPLACE WITH CORRUGATED MEDIAN IN ACCORDANCE WITH HIGHWAY STANDARD 701606-07.
2. PLACE PROPOSED PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS UNDER HIGHWAY STANDARD 701427 IN ACCORDANCE WITH DISTRICT 1 STANDARD TC 11, TC 13 AND AS SHOWN IN THE PLANS.

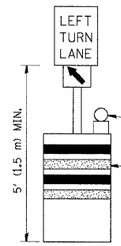
NOTES:

1. ACCESS TO DRIVEWAYS TO BE MAINTAINED AT ALL TIMES.
2. INSTALL SIDEWALK CLOSURE SIGNAGE PER STANDARD 701801-05.

N

0 50' 100'

SCALE: 1" = 50'



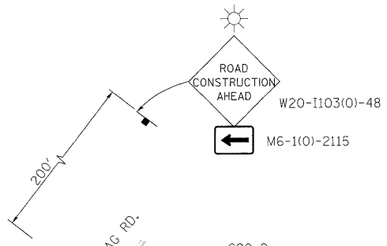
R 3-I100L 24 x 24 (600 x 600)

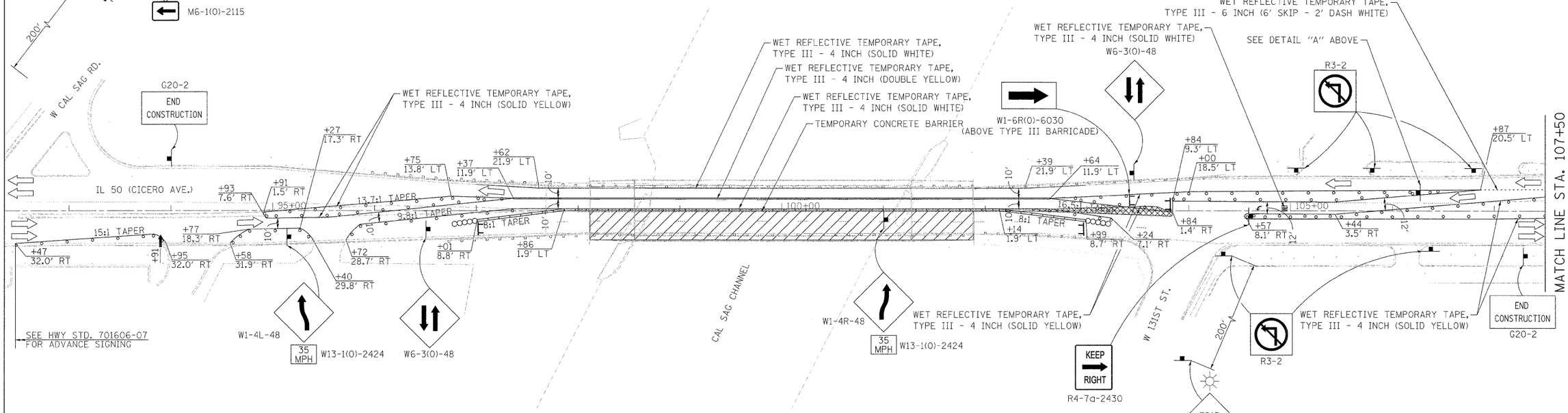
M6-2L 21 x 15 (530 x 380)

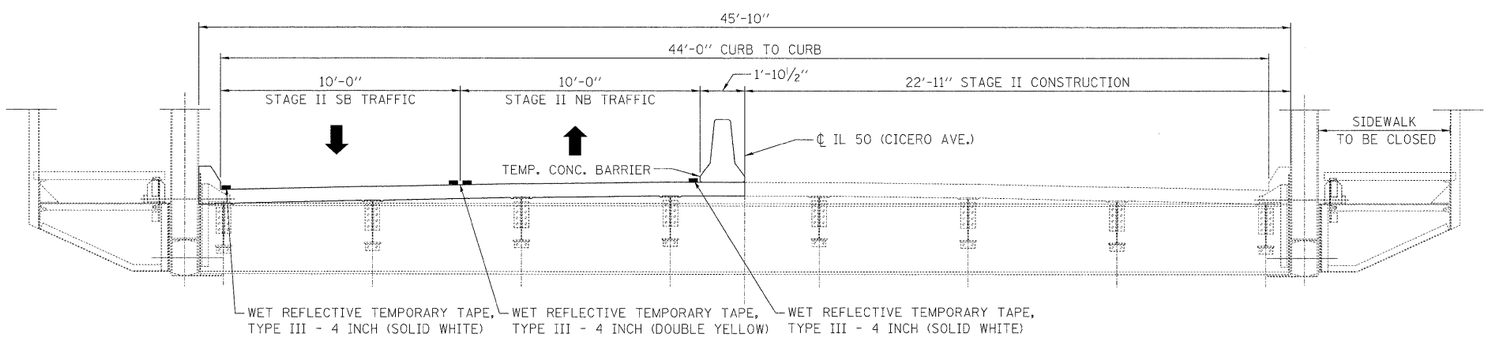
OPTIONAL FLASHING LIGHT

STANDARD 701901
SEE NOTE 8 OF D1 STD. TC 14.

DETAIL "A"

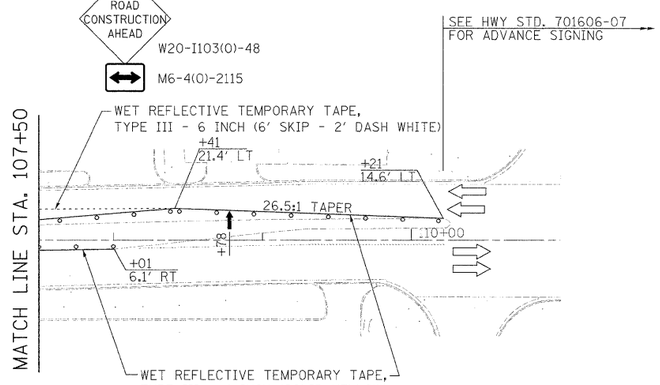






STAGE II CONSTRUCTION

(LOOKING NORTH)



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Consulting Engineers
Chatham, Illinois

USER NAME = Plotted by flin	DESIGNED - SEW	REVISED -	
	DRAWN - SEW	REVISED -	
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PLOT DATE = 9/9/2011	DATE - 9/2/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PLAN – STAGE II
IL 50 (CICERO AVE.) OVER CAL SAG CHANNEL

SCALE: 1" = 50' | SHEET NO. 1 OF 1 SHEETS | STA. 92+40 TO STA. 111+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	9
JOB NO. D-91-428-11		CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

NOTES:

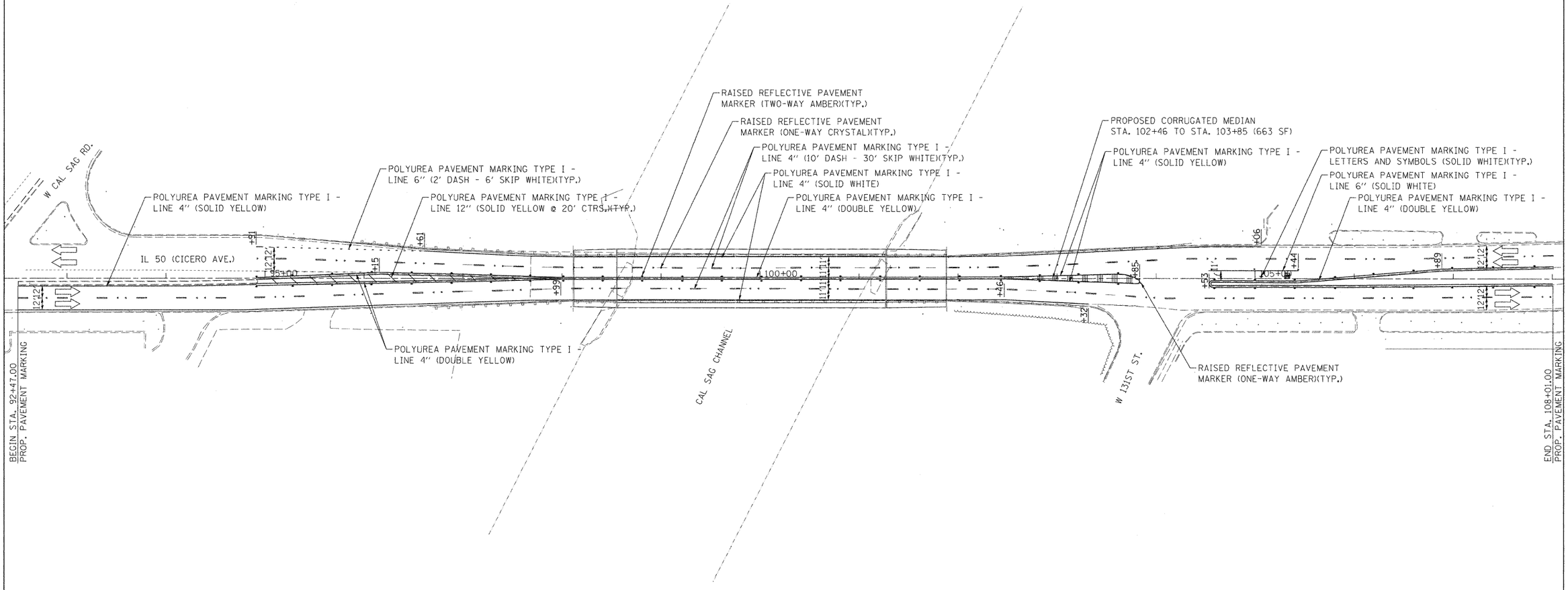
1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE STANDARDS "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" (TC-11) AND "TYPICAL PAVEMENT MARKINGS" (TC-13).

2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID UNIT PRICE FOR THE WORK.

N

0 50' 100'

SCALE: 1" = 50'



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		DRAWN - SEW	REVISED -	
	PLOT SCALE = 100.0000 ' / IN.	CHECKED - ST	REVISED -	
	PLOT DATE = 9/16/2011	DATE - 9/2/11	REVISED -	

PAVEMENT MARKING PLAN
IL 50 (CICERO AVE.) OVER CAL SAG CHANNEL

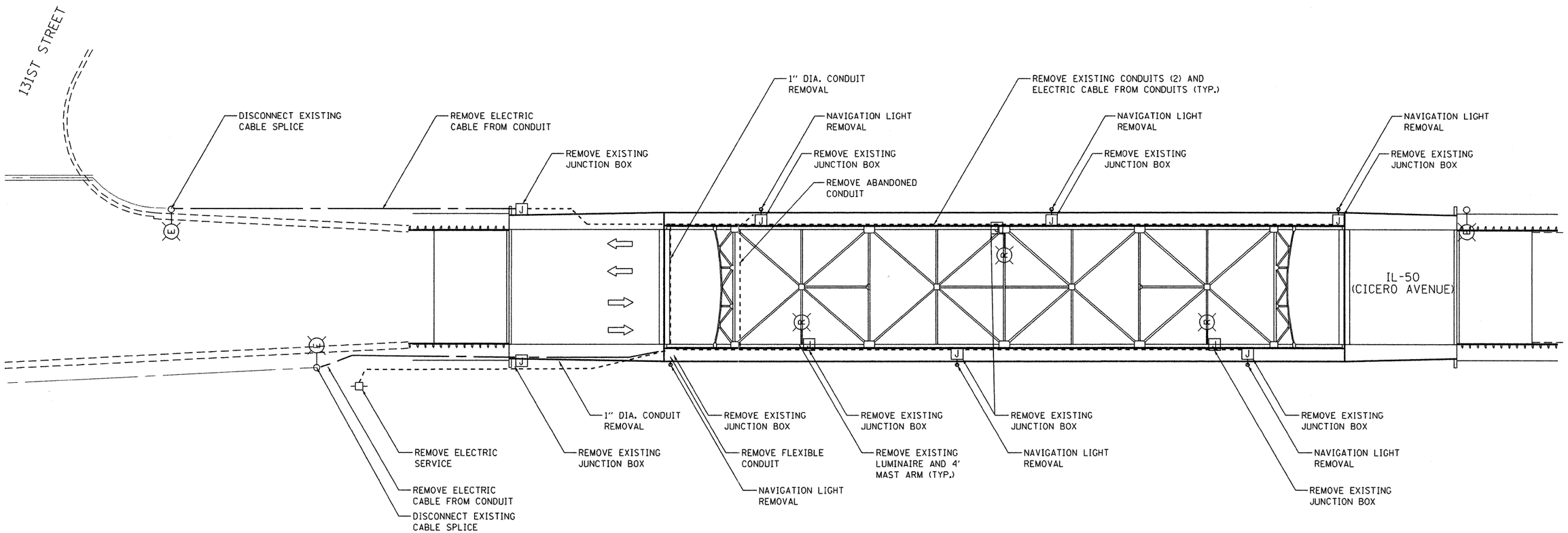
SCALE: 1" = 50' | SHEET NO. 1 OF 1 SHEETS | STA. 92+40 TO STA. 108+10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	10
JOB NO. D-91-428-11		CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LEGEND

- (R) — REMOVE EXISTING LUMINAIRE AND 4' MAST ARM
- (E) — EXISTING LIGHTING UNIT TO REMAIN
- [J] — JUNCTION BOX, ATTACHED TO STRUCTURE, TO BE REMOVED
- ——— — REMOVE ELECTRIC CABLE FROM CONDUIT
- - - - - - - - - CONDUIT ATTACHED TO STRUCTURE, TO BE REMOVED INCLUDING CONDUCTORS
- -□- — EXISTING ELECTRIC SERVICE

0 — 50' — 100' — 1" = 20'



REMOVAL OF EXISTING ROADWAY LIGHT SYSTEM
THIS WORK INCLUDES:
- REMOVE EXISTING JUNCTION BOX, 5 EACH
- REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE, 710 FEET
- REMOVE EXISTING LUMINAIRE AND 4' MAST ARM, 3 EACH
- REMOVE EXISTING CABLE FROM CONDUIT, 2600 FEET

REMOVAL OF NAVIGATION OBSTRUCTION WARNING LIGHT SYSTEM
THIS WORK INCLUDES:
- REMOVE EXISTING JUNCTION BOX, 7 EACH
- REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE, 750 FEET
- REMOVE EXISTING NAVIGATION LIGHT, 6 EACH
- REMOVE EXISTING CABLE FROM CONDUIT, 2250 FEET
- REMOVE EXISTING ELECTRIC SERVICE

NOTES:
1) EXISTING NAVIGATION AND ROADWAY LIGHTING SYSTEMS MUST REMAIN IN SERVICE AT ALL TIMES UNTIL THE NEW SYSTEM IS APPROVED AND OPERATIONAL.
2) ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AS WELL AS THE NATIONAL ELECTRIC CODE, 2011 EDITION.
3) THE EXISTING NAVIGATION AND ROADWAY LIGHTING LUMINAIRE MOUNTING LOCATIONS WILL BE REUSED. THE CONTRACTOR SHALL ACCOUNT FOR THIS IN THE PROGRESSION OF THEIR WORK.

ENGINEERING CONSULTANT
Clorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4050 Fax 773.775.4014
Email chicago@clorba.com

USER NAME = wlancaster	DESIGNED - JMV	REVISED - 10/5/2011	
	DRAWN - JMK	REVISED - ADDENDUM #1	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - JMV	REVISED -	
PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
NAVIGATION AND ROADWAY LIGHTING REMOVAL PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	11
		CONTRACT NO. 60N88		
	ILLINOIS	FED. AID PROJECT		

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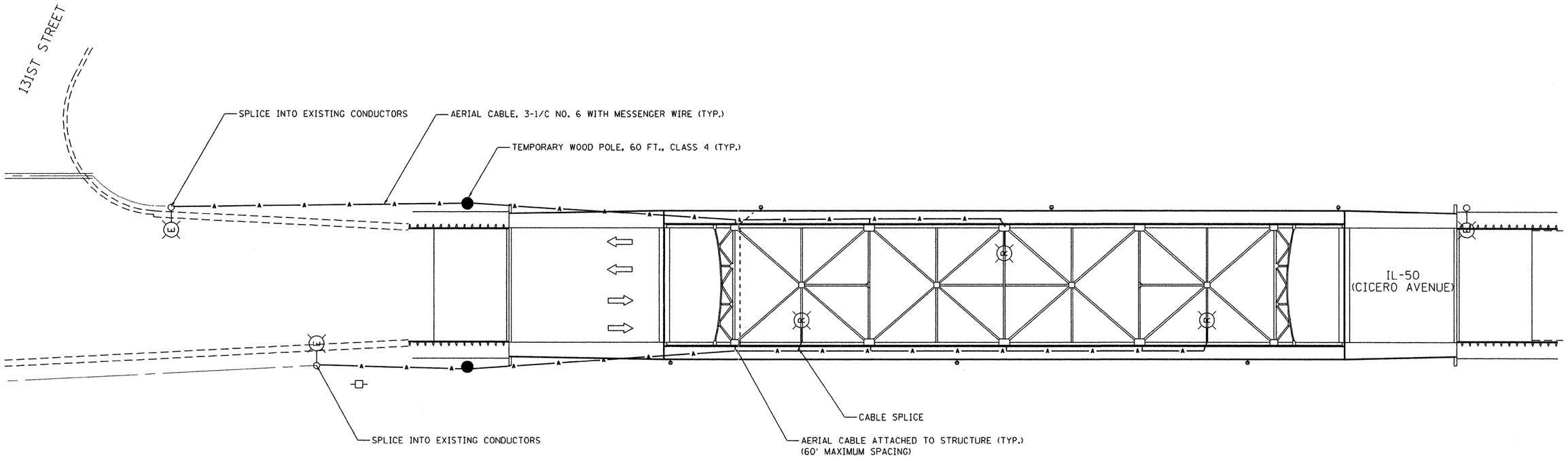
LEGEND

- EXISTING LUMINAIRE AND 4' ARM TO BE REMOVED AND REPLACED
- EXISTING LIGHTING UNIT TO REMAIN
- AERIAL CABLE, 3-1/C NO. 6 WITH MESSENGER WIRE, 825 FEET
- TEMPORARY WOOD POLE, 60 FT., CLASS 4

0 — 50' — 100' — 1" = 20'

N



TEMPORARY LIGHTING SYSTEM

THIS WORK INCLUDES:
- TEMPORARY WOOD POLE, 60 FT., CLASS 4, 2 EACH
- AERIAL CABLE, 3-1/C NO. 6 WITH MESSENGER WIRE, 825 FEET
- CABLE SPLICE, 3 EACH
- AERIAL CABLE ATTACHED TO STRUCTURE, 9 EACH
- TEMPORARY AERIAL CONNECTION TO EXISTING LIGHT POLE, 2 EACH
- REMOVAL OF ALL TEMPORARY MATERIALS, 1 LUMP SUM

NOTES:
1) EXISTING ROADWAY LIGHTING SYSTEMS MUST REMAIN IN SERVICE AT ALL TIMES UNTIL THE NEW SYSTEM IS APPROVED AND OPERATIONAL.
2) THE EXISTING NAVIGATION AND ROADWAY LIGHTING LUMINAIRE MOUNTING LOCATIONS WILL BE REUSED. THE CONTRACTOR SHALL ACCOUNT FOR THIS IN THE PROGRESSION OF THEIR WORK.

ENGINEERING CONSULTANT
Clorba Group, Inc.
CONSULTING ENGINEERS
6507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014
Email chicago@clorba.com

USER NAME = wlancaster	DESIGNED - JMV	REVISED - 10/5/2011	
	DRAWN - JMK	REVISED - ADDENDUM #1	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - JMV	REVISED -	
PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
TEMPORARY LIGHTING SYSTEM

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	12
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		

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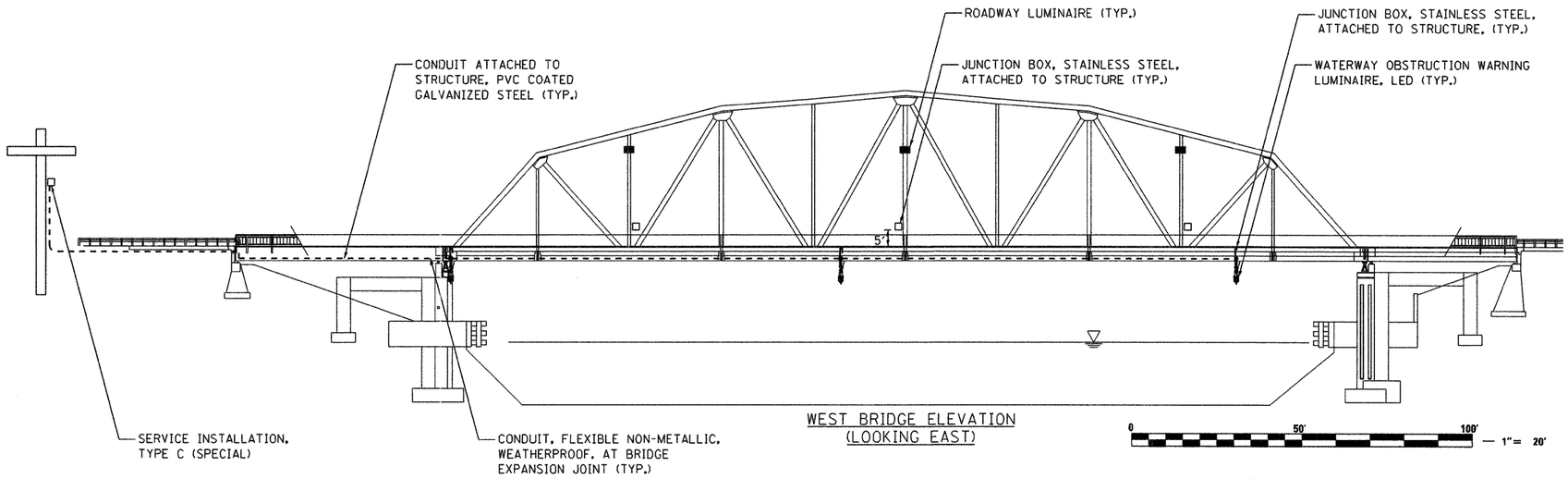
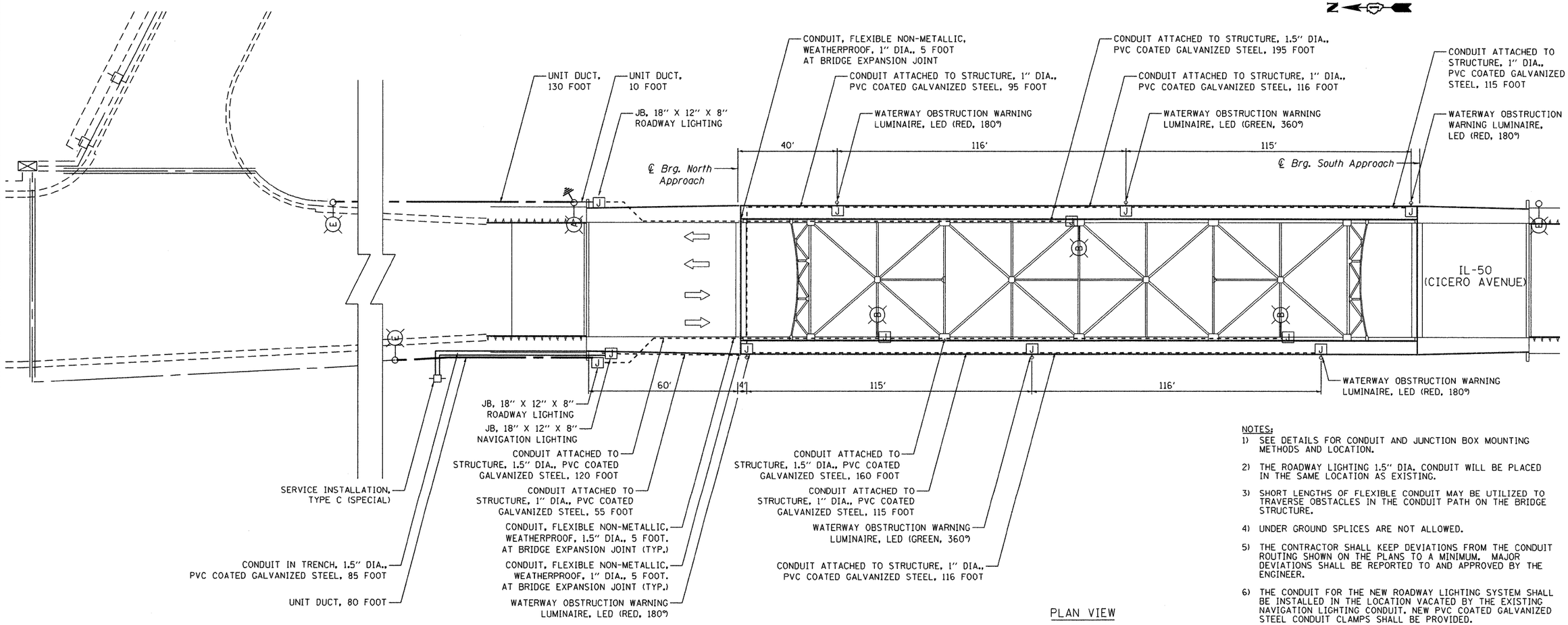
LEGEND

- (A) LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. MAST ARM
- (B) REPLACE EXISTING LUMINAIRE AND 4 FT. MAST ARM MOUNTED ON BRIDGE STRUCTURE
- UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE
- CONDUIT ATTACHED TO STRUCTURE
- CONDUIT IN TRENCH
- (R) REMOVAL OF LIGHTING UNIT, SALVAGE
- (E) EXISTING LIGHTING UNIT TO REMAIN
- [J] JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 8" X 6" UNLESS OTHERWISE NOTED
- GROUND ROD, 5/8" DIA. X 10 FT.



WEST BRIDGE ELEVATION
(LOOKING EAST)

N



PLAN VIEW

NOTES:

1) SEE DETAILS FOR CONDUIT AND JUNCTION BOX MOUNTING METHODS AND LOCATION.
2) THE ROADWAY LIGHTING 1.5" DIA. CONDUIT WILL BE PLACED IN THE SAME LOCATION AS EXISTING.
3) SHORT LENGTHS OF FLEXIBLE CONDUIT MAY BE UTILIZED TO TRAVERSE OBSTACLES IN THE CONDUIT PATH ON THE BRIDGE STRUCTURE.
4) UNDER GROUND SPLICES ARE NOT ALLOWED.
5) THE CONTRACTOR SHALL KEEP DEVIATIONS FROM THE CONDUIT ROUTING SHOWN ON THE PLANS TO A MINIMUM. MAJOR DEVIATIONS SHALL BE REPORTED TO AND APPROVED BY THE ENGINEER.
6) THE CONDUIT FOR THE NEW ROADWAY LIGHTING SYSTEM SHALL BE INSTALLED IN THE LOCATION VACATED BY THE EXISTING NAVIGATION LIGHTING CONDUIT. NEW PVC COATED GALVANIZED STEEL CONDUIT CLAMPS SHALL BE PROVIDED.

ENGINEERING CONSULTANT
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Email chicago@ciorba.com

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PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
NAVIGATION AND ROADWAY LIGHTING CONDUIT PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	13
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		

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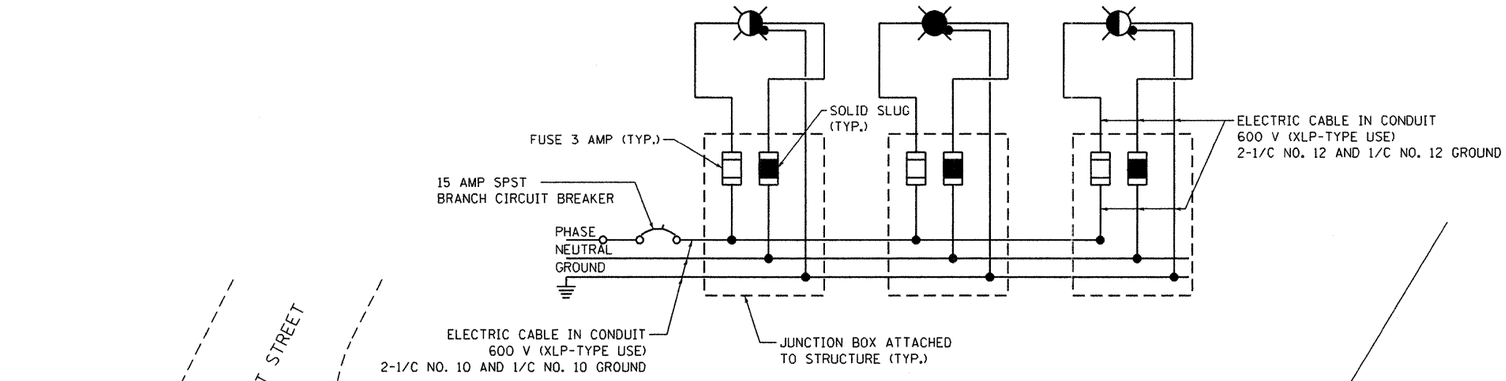
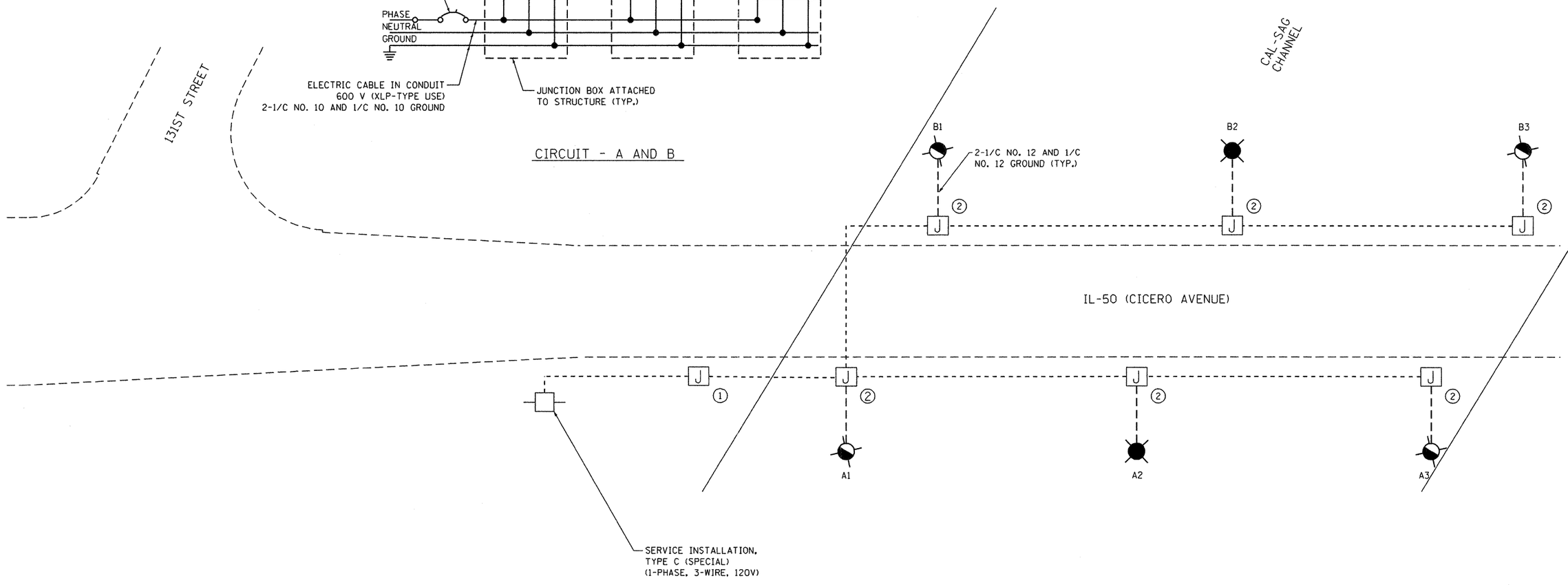


CIRCUIT - A AND B

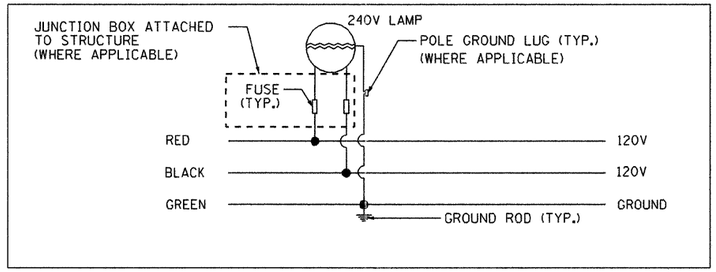


LEGEND

- EXISTING POWER POLE / ELECTRIC UTILITY SERVICE CONNECTION
- J ① — JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 18" X 12" X 8"
- J ② — JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 8" X 8" X 6"
- WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED (120) (CENTER CHANNEL, GREEN, 360°)
- WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED (120) (CHANNEL MARGIN, RED, 180°)
- -------- ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-1/C NO. 10 AND 1/C NO. 10 GROUND UNLESS NOTED OTHERWISE

ENGINEERING CONSULTANT	USER NAME = wlancaster	DESIGNED - JMV	REVISED - 10/5/2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILL. 50 OVER THE CAL SAG CHANNEL STRUCTURE NO. 016-0421 NAVIGATION LIGHTING ONE LINE DIAGRAM	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Ciorba Group, Inc. CONSULTING ENGINEERS 6907 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel: 773.775.4008 Fax 773.775.4914 Email chicago@ciorba.com		DRAWN - JMK	REVISED - ADDENDUM #1			350	3068 A-B-R-1	COOK	57	14
	PLOT SCALE = 48.0000 ' / IN.	CHECKED - JMV	REVISED -		SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 60N88		
	PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -					ILLINOIS FED. AID PROJECT		

TYPICAL POLE WIRING DIAGRAM



LEGEND

	EXISTING POWER POLE / ELECTRIC UTILITY SERVICE CONNECTION	(E)	LIGHT POLE, EXISTING 250W LUMINAIRE
J ①	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 18" X 12" X 8"	(A)	LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. MAST ARM 250W LUMINAIRE
J ②	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 8" X 8" X 6"	(B)	LUMINAIRE AND 4 FT. MAST ARM 250W LUMINAIRE MOUNTED ON BRIDGE STRUCTURE
	EXISTING LIGHTING CONTROLLER, 120/240V, 100A	--------	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-1/C NO. 6 AND 1/C NO. 6 GROUND

ENGINEERING CONSULTANT
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CONSULTING ENGINEERS
5907 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014
Email chicago@clorba.com

USER NAME = wlancaster	DESIGNED - JMV	REVISED - 10/5/2011	
	DRAWN - JMK	REVISED - ADDENDUM #1	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - JMV	REVISED -	
PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
ROADWAY LIGHTING ONE LINE DIAGRAM

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	15
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

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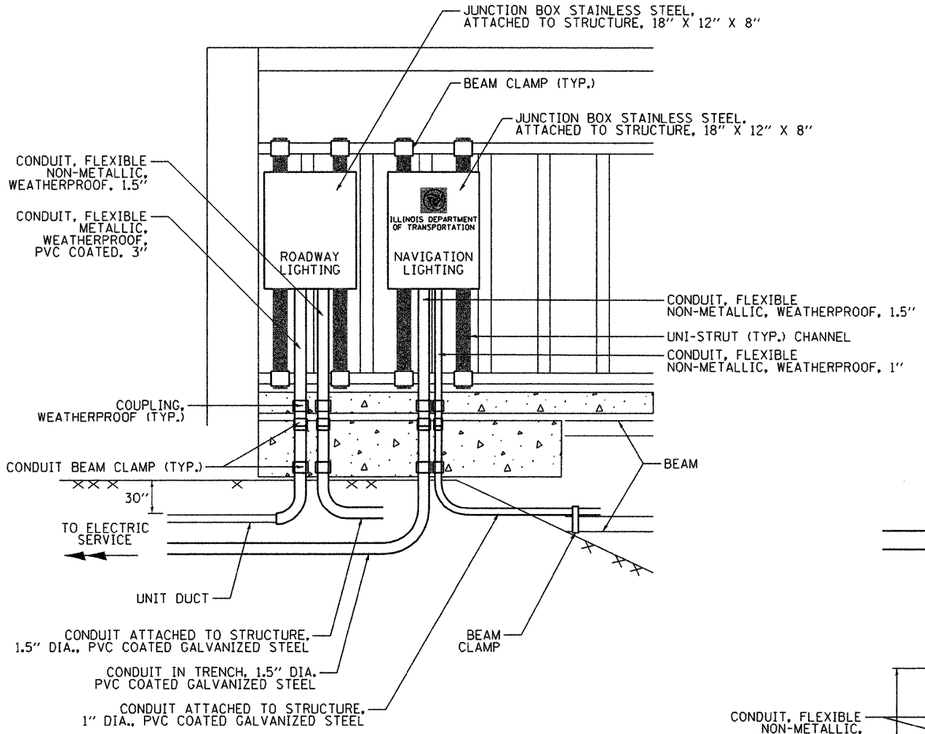
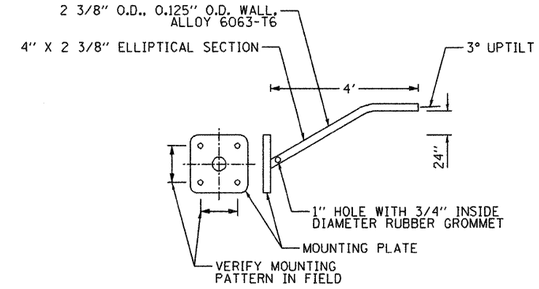
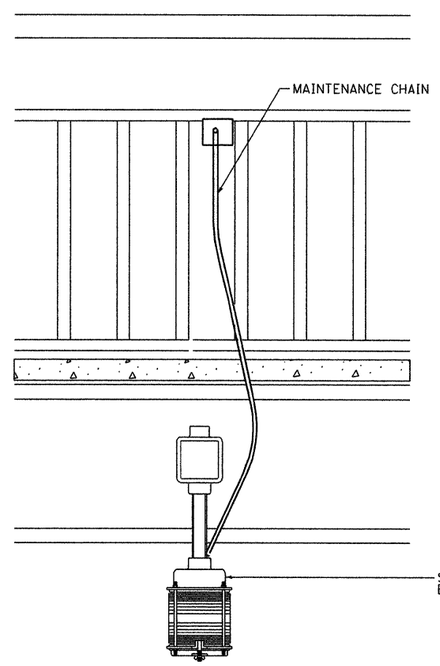


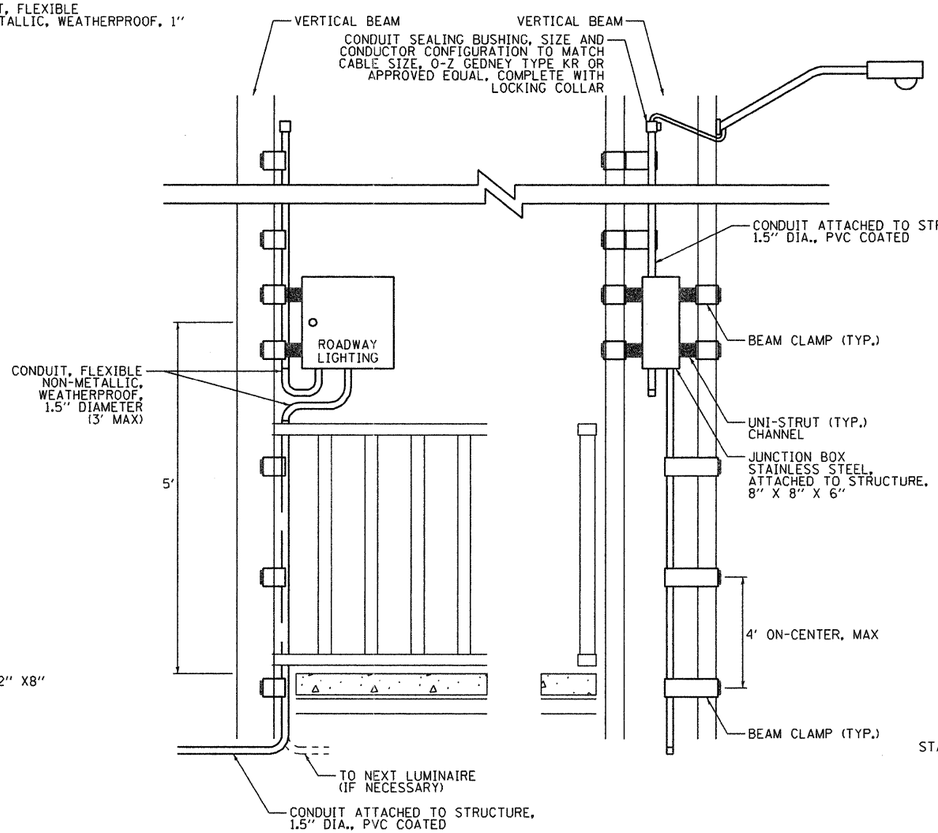
JUNCTION BOX (18" X 12" X 8") MOUNTING DETAIL
ELEVATION VIEW - WEST SIDE, LOOKING EAST
(NOT TO SCALE)



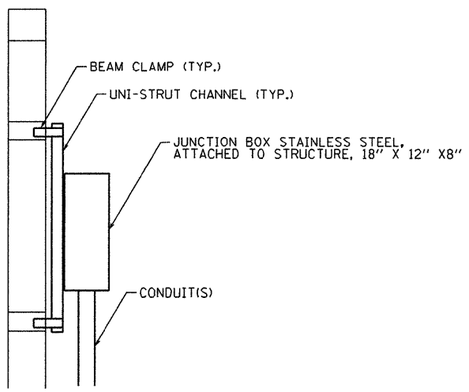
MAST ARM REPLACEMENT (SPECIAL)



NAVIGATION LIGHT MOUNTING DETAIL
ELEVATION VIEW
(NOT TO SCALE)

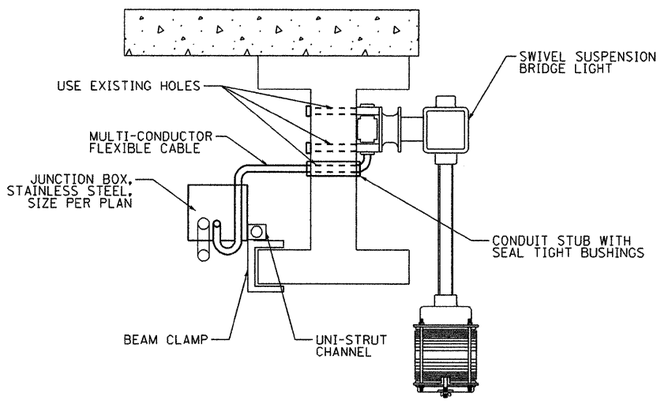


JUNCTION BOX (8" X 8" X 6") MOUNTING DETAIL
ELEVATION VIEW — CUT SECTION VIEW
WEST SIDE, LOOKING EAST
(NOT TO SCALE)



JUNCTION BOX (18" X 12" X 8") MOUNTING DETAIL
CUT SECTION VIEW
(NOT TO SCALE)

NOTE:
THE CONDUIT FOR THE NEW ROADWAY LIGHTING SYSTEM SHALL BE INSTALLED IN THE LOCATION VACATED BY THE EXISTING NAVIGATION LIGHTING CONDUIT. NEW PVC COATED GALVANIZED STEEL CONDUIT CLAMPS SHALL BE PROVIDED.



NAVIGATION LIGHT MOUNTING DETAIL
CUT SECTION VIEW
(NOT TO SCALE)

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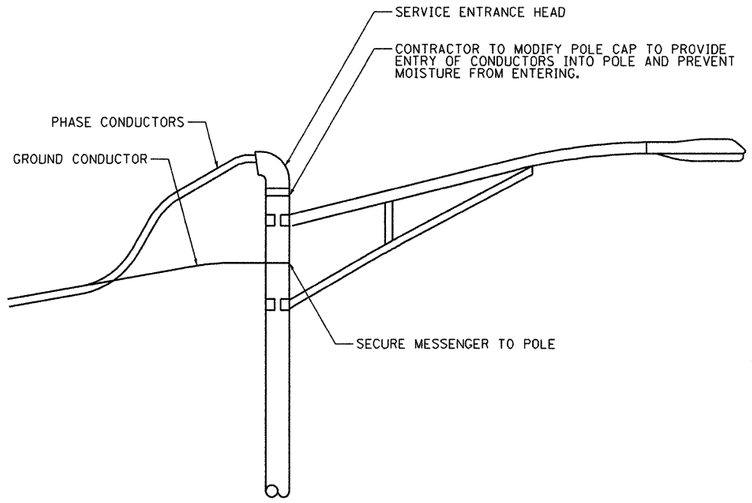
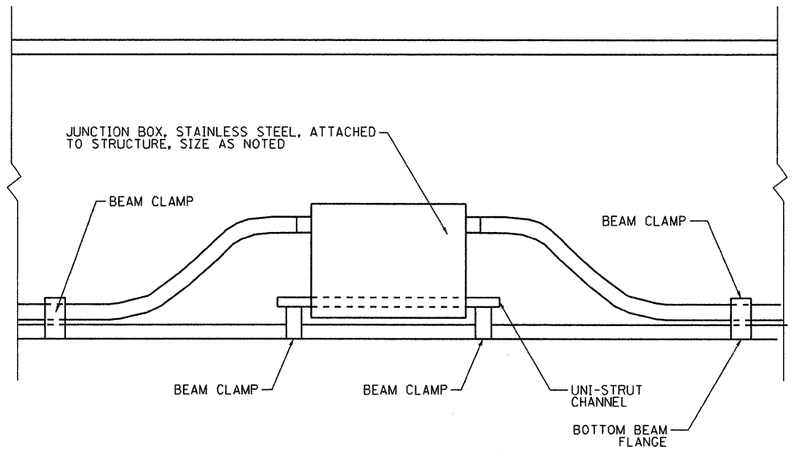
ENGINEERING CONSULTANT					
Clorba Group, Inc. CONSULTING ENGINEERS 8507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel: 773.775.4009 Fax 773.775.4914 E-mail chicago@clorba.com	USER NAME = wlancaster	DESIGNED - JMV	REVISED - 10/5/2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILL. 50 OVER THE CAL SAG CHANNEL STRUCTURE NO. 016-0421 NAVIGATION AND ROADWAY LIGHTING DETAILS
		DRAWN - JMK	REVISED - ADDENDUM #1		
	PLOT SCALE = 40.0000 ' / IN.	CHECKED - JMV	REVISED -		
	PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -		SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

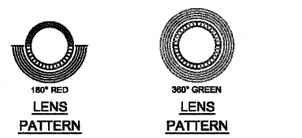
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	16
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

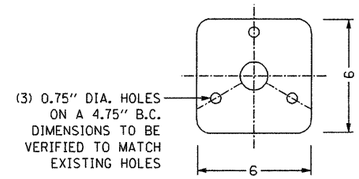


TEMPORARY AERIAL CONNECTION
TO EXISTING LIGHT POLE

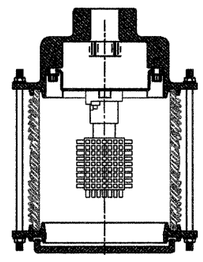


JUNCTION BOX MOUNTING DETAIL
ELEVATION VIEW
(NOT TO SCALE)

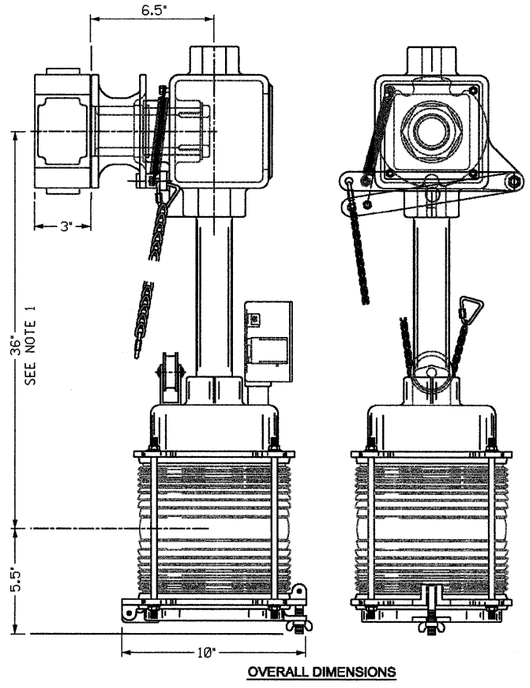




MOUNTING DIMENSIONS



FIXTURE SECTION



OVERALL DIMENSIONS

WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED

NOTES:
CONTRACTOR SHALL VERIFY ARM LENGTH IN FIELD.
ENTIRE LENS SHALL BE LOCATED BELOW THE LOW STEEL POINT, ALLOWING THE NAVIGATION LIGHT TO BE VISIBLE FROM BOTH CHANNEL APPROACHES.

NEW LUMINAIRES MAY NOT EXTEND LOWER THAN THE EXISTING LUMINAIRES.

ENGINEERING CONSULTANT
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	DRAWN - JMK	REVISED - ADDENDUM #1
PLOT SCALE = 2.0000 ' / IN.	CHECKED - JMV	REVISED -
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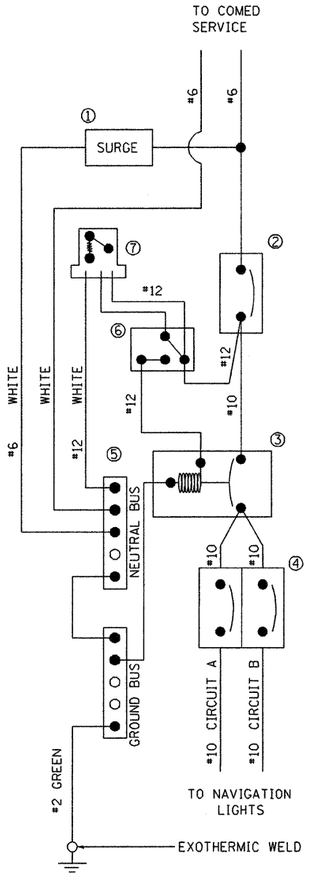
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
NAVIGATION AND ROADWAY LIGHTING DETAILS

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

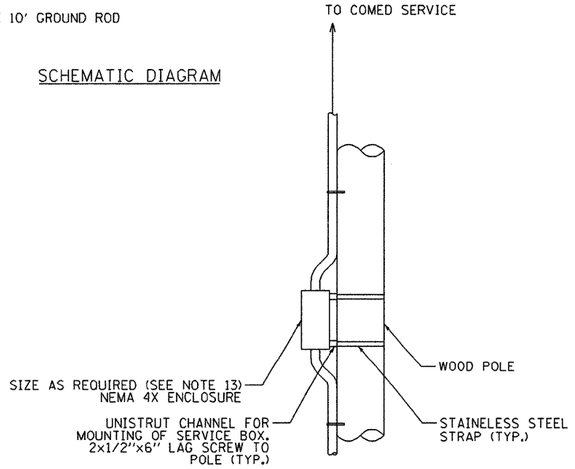
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	17
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			



SCHEMATIC DIAGRAM

COMPONENTS

① SURGE PROTECTOR
② MAIN BREAKER 1P, 30A, THERMAL MAGNETIC
③ RELAY SWITCH, 1P, 30A
④ BRANCH BREAKER 1P, 15A, THERMAL MAGNETIC
⑤ GROUND/NEUTRAL BUS
⑥ BYPASS SWITCH, SPDT
⑦ PHOTOCEL, 120V

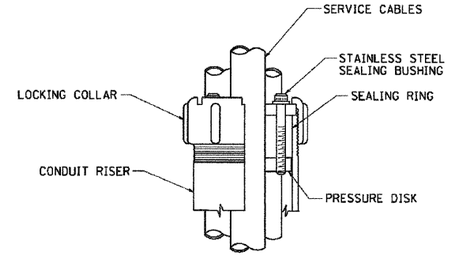


DISCONNECT MOUNTING DETAIL

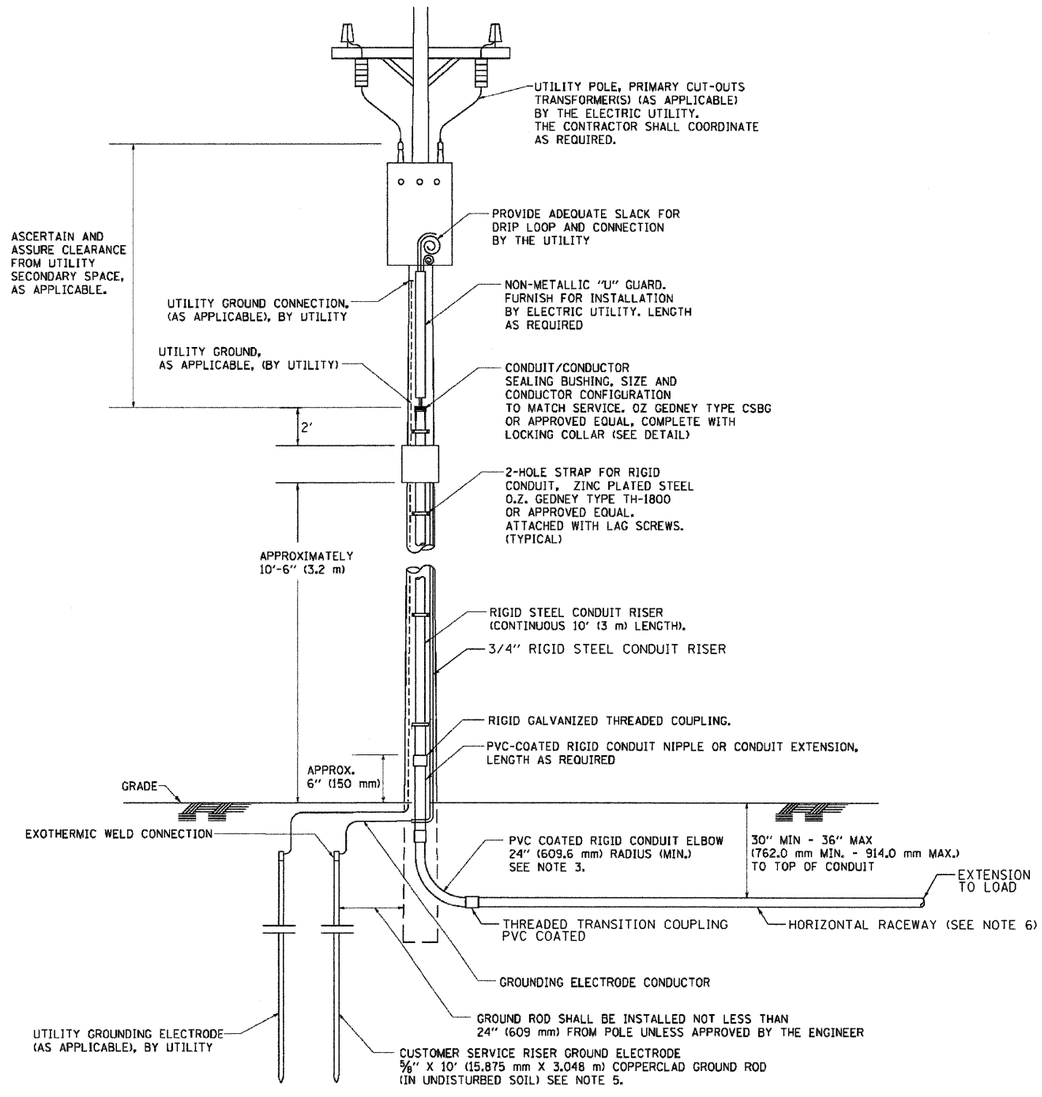
NOT TO SCALE

NOTES

1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY.
2. THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 120V 2W SERVICE, COMPLETE WITH MAIN BREAKER.
3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADOCK PROVISIONS AND DOOR STOP.
5. CIRCUIT BREAKER SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 120 VOLTS. IT SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLE SHALL BE TRIP FREE.
6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449 OR APPROVED EQUAL.
7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS.
8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
11. LUGS AND CONNECTORS SHALL BE RATED FOR 90 C CONDUCTOR.
12. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.
13. ENCLOSURE SHALL BE NO LARGER THAN 20" X 16" X 8", UNLESS APPROVED BY COMED.
14. PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
15. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLTION AND SERVICE CONNECTION.
16. THE HORIZONTAL RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT.
17. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHEMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY. FURNISHING SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE SERVICE INSTALLATION, TYPE C (SPECIAL) PAY ITEMS.



SEALING BUSHING DETAIL



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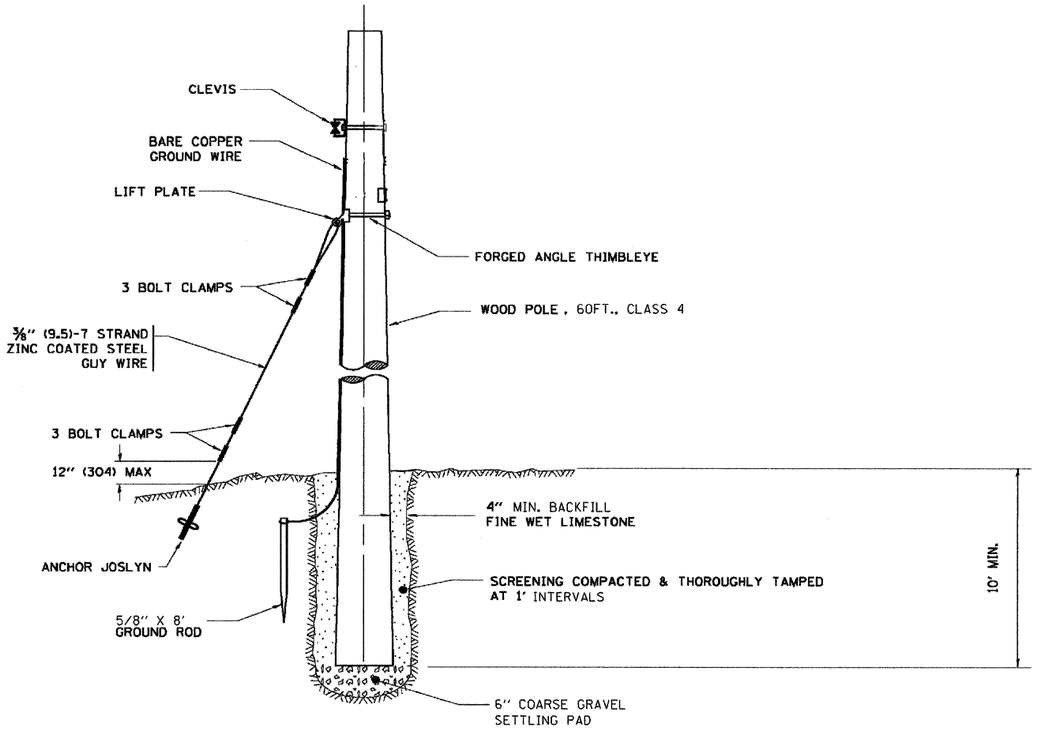
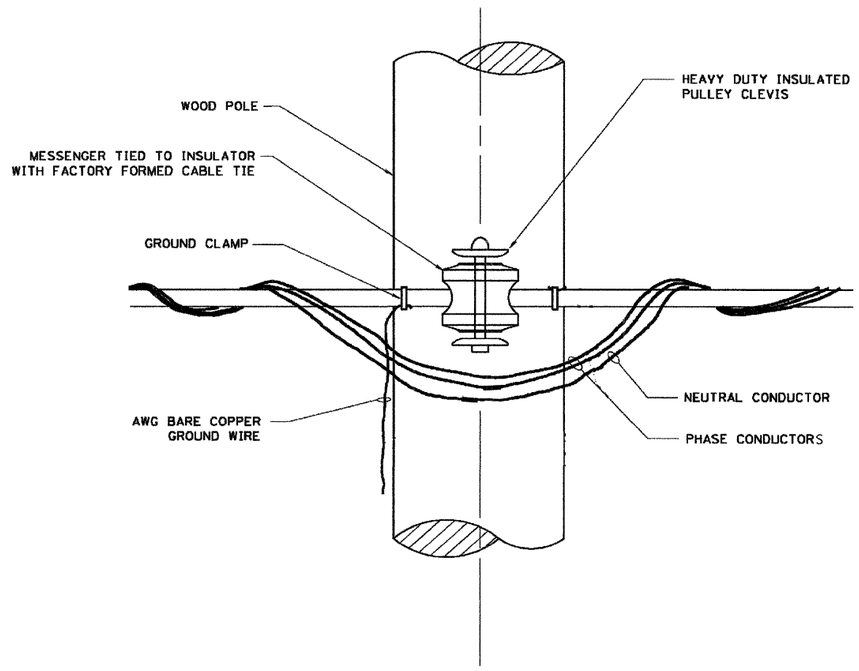
ENGINEERING CONSULTANT	USER NAME = wlancaster	DESIGNED - JMV	REVISED - 10/5/2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILL. 50 OVER THE CAL SAG CHANNEL STRUCTURE NO. 016-0421 SERVICE INSTALLATION, TYPE C (SPECIAL) DETAIL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Clorba Group, Inc. CONSULTING ENGINEERS 5207 North Cumberland Avenue, Suite 492 Chicago, Illinois 60656 Tel. 773.775.4008 Fax 773.775.4914 Email chicago@clorba.com		DRAWN - JMK	REVISED - ADDENDUM #1			350	3068 A-B-R-1	COOK	57	18
	PLOT SCALE = 2.0000 ' / IN.	CHECKED - JMV	REVISED -					CONTRACT NO. 60N88		
	PLOT DATE = 10/5/2011	DATE - 9/2/11	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



TEMPORARY WOOD POLE DETAIL



TEMPORARY WOOD POLE ATTACHMENT DETAIL

ENGINEERING CONSULTANT
Clorba Group, Inc.
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5007 North Cumberland Avenue, Suite 402
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

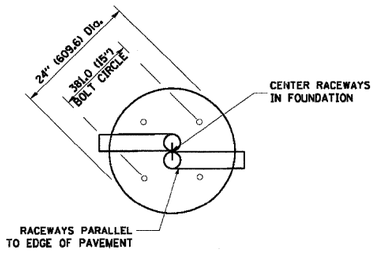
ILL. 50 OVER THE CAL SAG CHANNEL
STRUCTURE NO. 016-0421
TEMPORARY WOOD POLE DETAILS

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

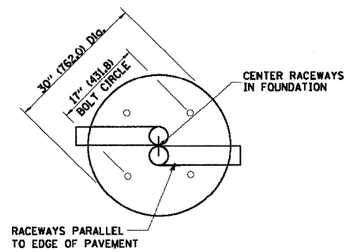
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	19
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

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

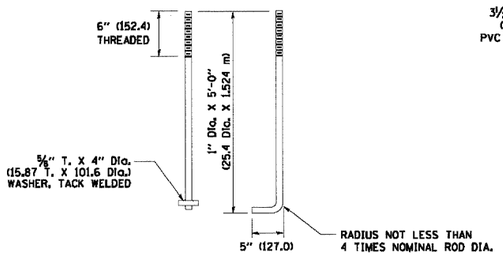
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND ø = 34°	9'-0" (2.74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



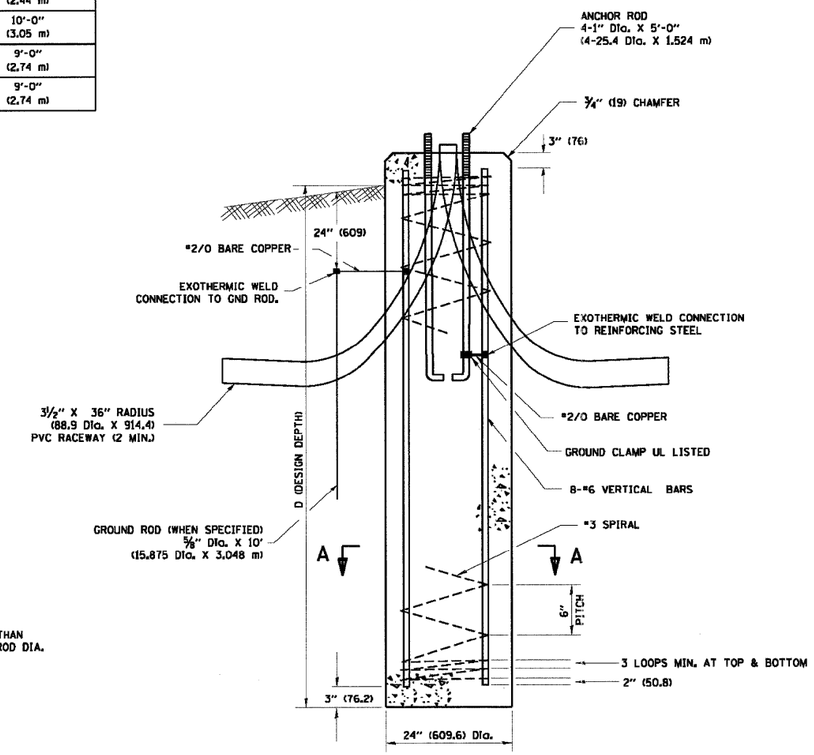
TOP VIEW



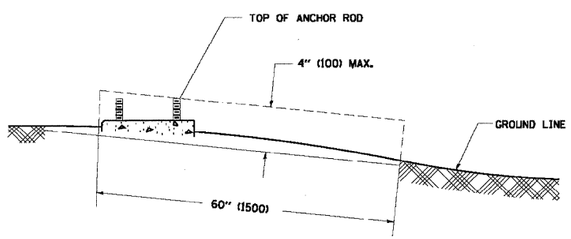
TOP VIEW



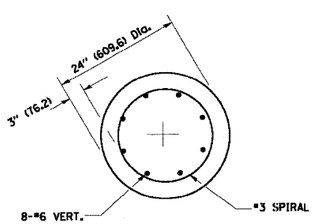
ANCHOR ROD DETAIL



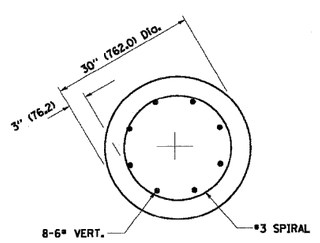
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) 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.
4. 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.
5. 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 3/4-IN. (20 mm).
6. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
7. 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.
8. 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.
9. 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 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
11. ANCHOR RODS SHALL PROJECT 2¾" (69.9 mm) 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.
12. THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

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		DRAWN -	REVISED -	
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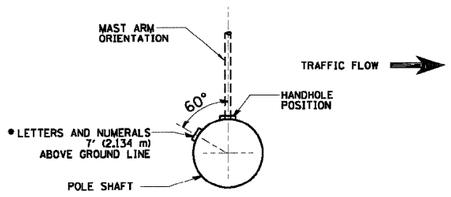
	PLOT DATE = 1/4/2008	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

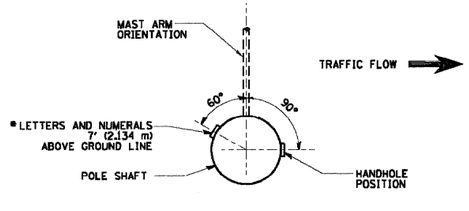
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE

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

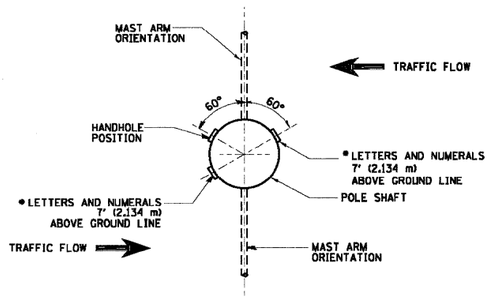
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	20
	BE-301	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



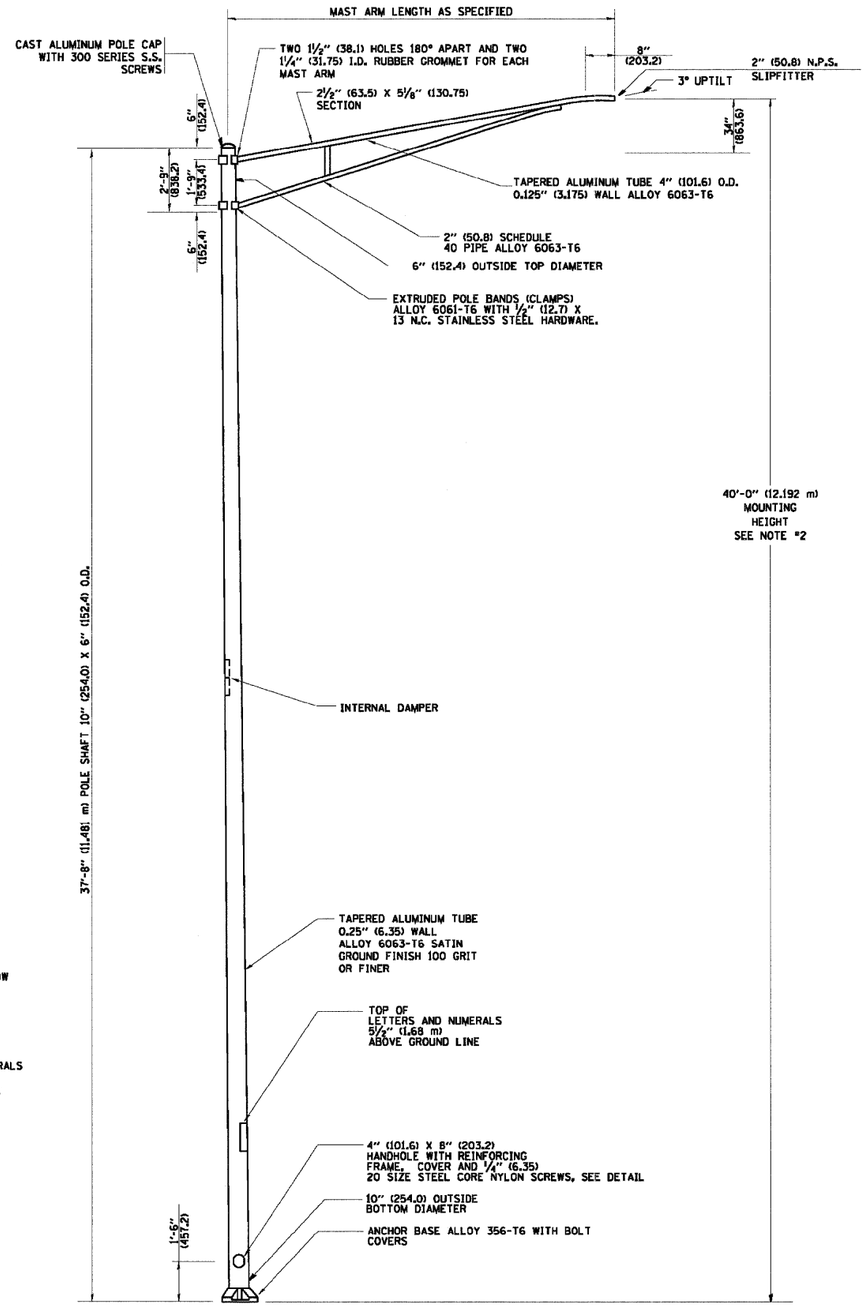
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL

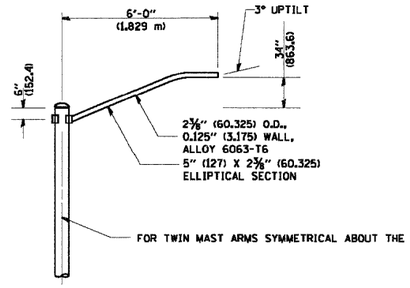


POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

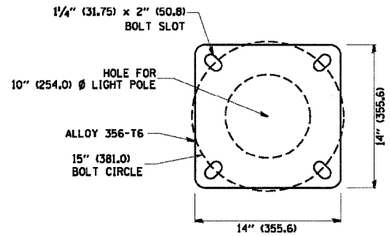




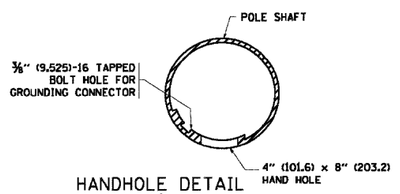
6' (1.8 m) SINGLE MEMBER MAST ARM
(N.T.S.)

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



HANDHOLE DETAIL
(N.T.S.)

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		DRAWN -	REVISED - R. TOMSONS 09-02-03					350	3068 A-B-R-1	COOK	57	21
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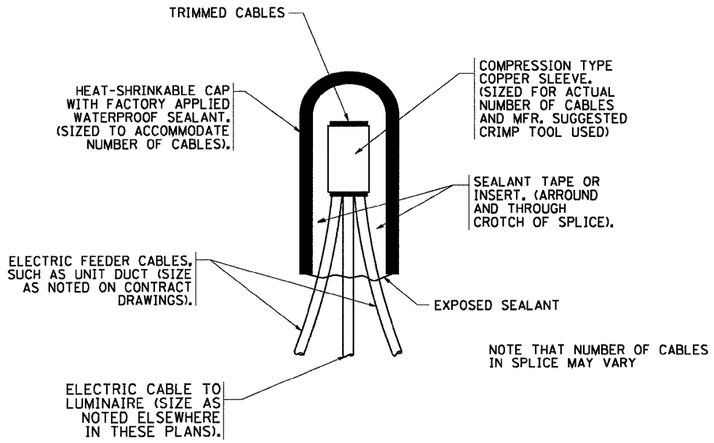
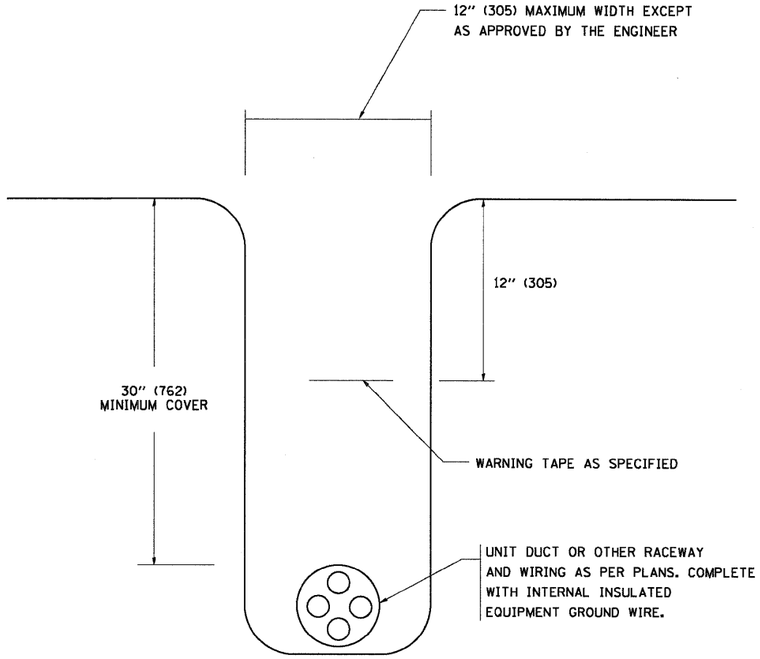
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



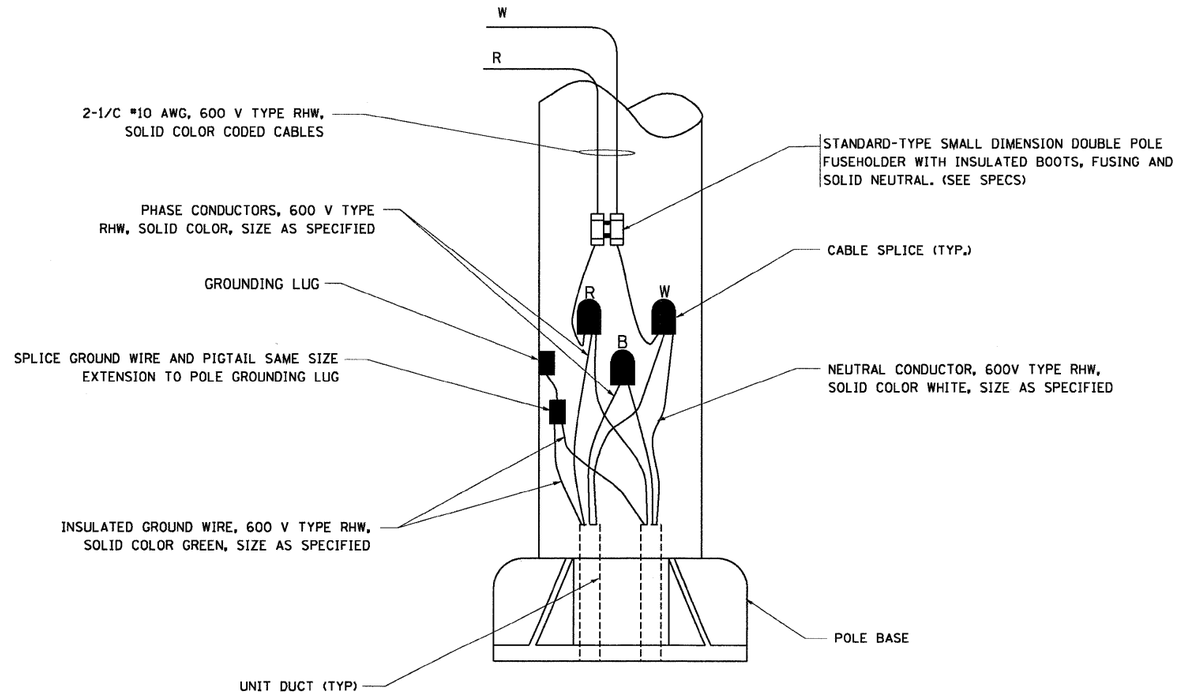
TYPICAL SPLICE DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.

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		DRAWN -	REVISED -						350	3068 A-B-R-1	COOK	57	22
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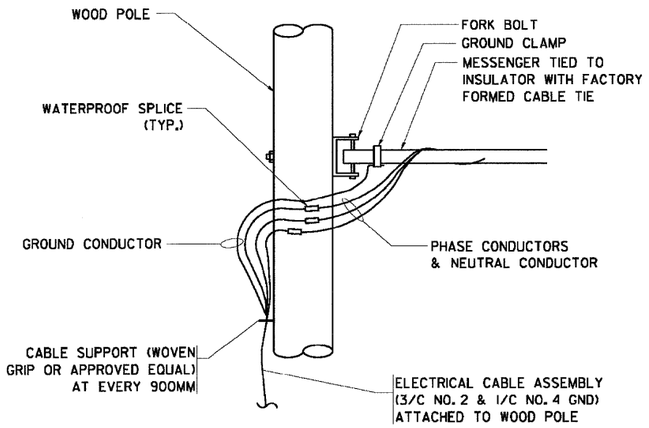
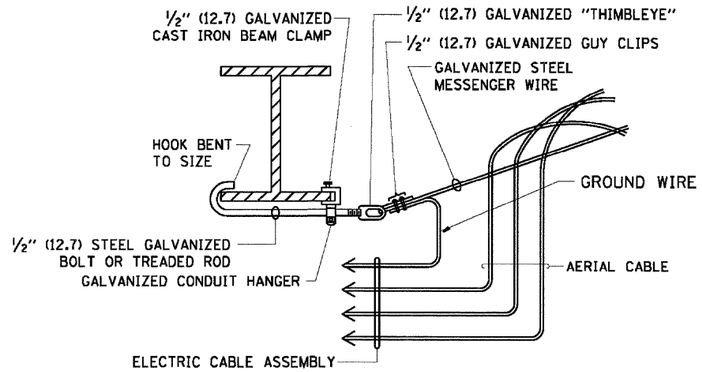


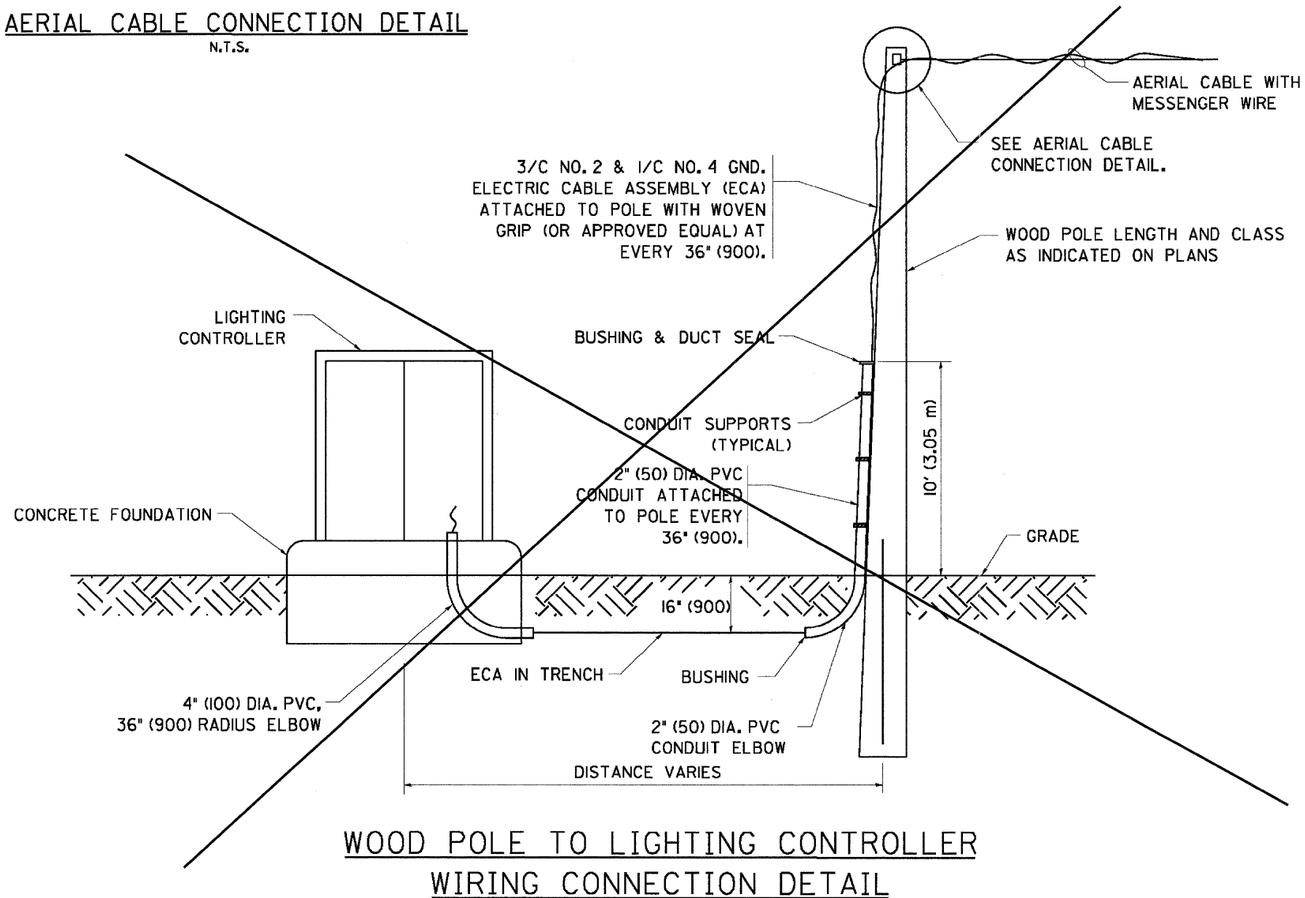
AERIAL CABLE CONNECTION DETAIL

N.T.S.



AERIAL CABLE ATTACHED TO STRUCTURE

NOT TO SCALE



WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL

N.T.S.

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.

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		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY AERIAL CABLE INSTALLATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	23
	BE-801	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

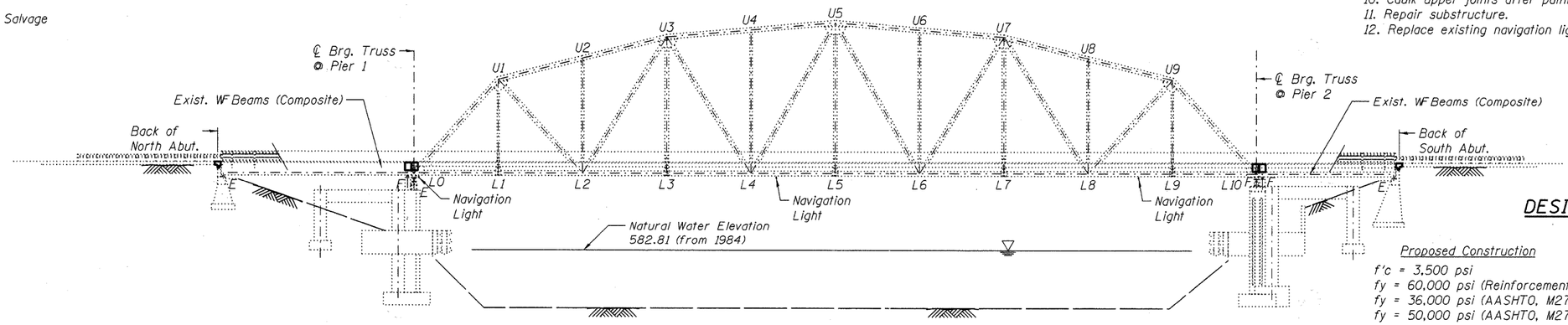
Benchmark:
Chiseled "□" on top of N.E. Wingwall, Sta. 101+88, 30.7' Rt, Elev. 606.15

Existing Structure:
SN. 016-0421 Built in 1938 and rehabilitated in 1984 is a 3 span structure consisting of a 59'-2" steel beam North approach span, a 270'-0" steel Warren truss, and a 42'-0½" steel beam south approach span. Total length = 378'-9" Bk to Bk. Abuts. The clear roadway width is 44'-0" with 5'-0" sidewalks on either side supported outside of the traffic rail. North and south abutments are reinforced concrete abutments on spread footing. Pier 1 and Pier 2 are reinforced concrete bearing on limestone.
A navigation improvement project completed in 1963 included construction of concrete towers for a future lift tower, construction of a pier protection system and installation of navigation lights.
Two lanes of traffic shall be maintained utilizing stage construction.

No Salvage

SCOPE OF WORK

1. Scarify and place $\frac{3}{8}$" epoxy overlay on bridge deck and approach slab.
2. Partial depth patching of deck.
3. Plug deck drains within 10' of substructure, clean and extend remaining deck drains.
4. Replace transverse expansion joints.
5. Repair sidewalk railing and brackets.
6. Remove angle seats at stringer to floor beam connection points.
7. Replace stay plates and lattices on the bottom chords.
8. Repair bottom truss chord and panel point gusset plates.
9. Clean and paint all steel elements including bearings.
10. Caulk upper joints after painting.
11. Repair substructure.
12. Replace existing navigation lighting system.

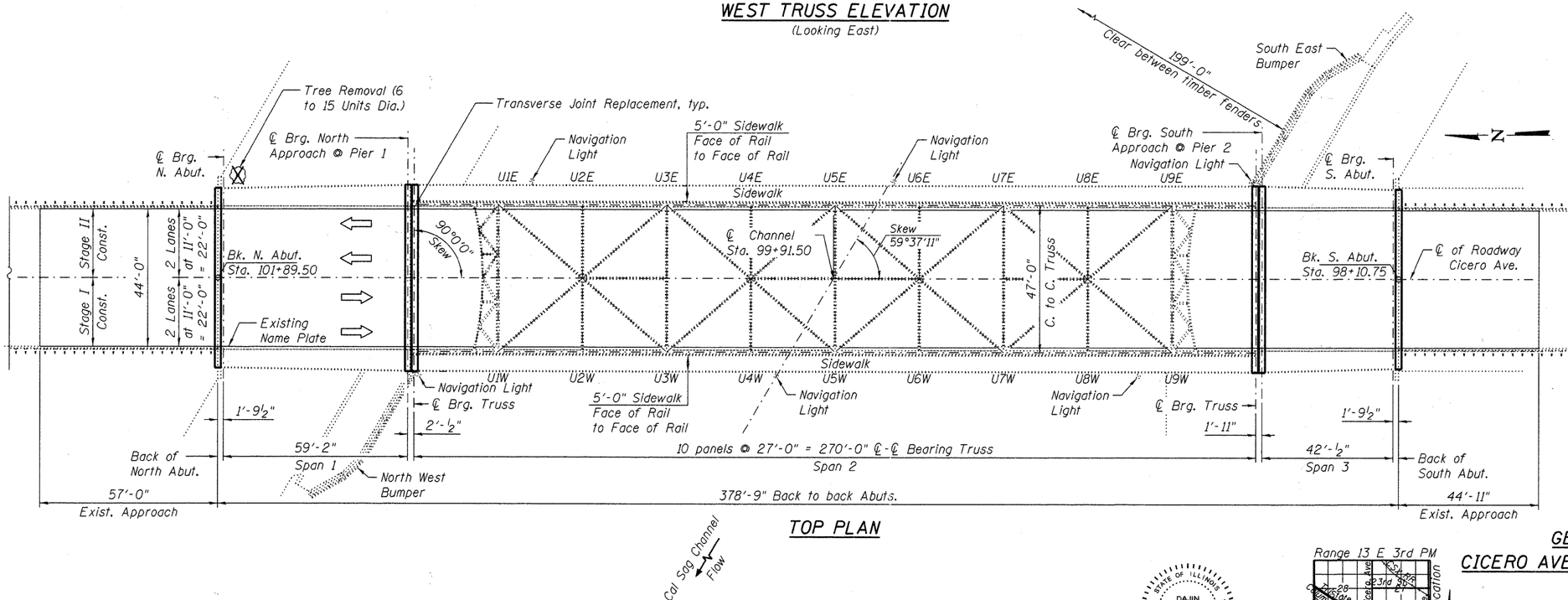


WEST TRUSS ELEVATION
(Looking East)

DESIGN STRESSES
FIELD UNITS

Proposed Construction
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (AASHTO, M270 Gr. 36)
fy = 50,000 psi (AASHTO, M270 Gr. 50)

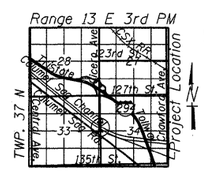
Existing Construction
f'c = 3,500 psi (Deck)
Reinforcing Steel
fs = 20,000 psi (Original)
Structural Steel
fs = 18,000 psi (Carbon Steel, Original)
fs = 24,000 psi (Silicon Steel, Original)
fy = 36,000 psi (1984 rehab)



TOP PLAN

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS-20-44
No allowance for future wearing surface.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
CICERO AVENUE (IL 50) OVER CAL-SAG CHANNEL
PUBLIC WATERS
F.A.P. RTE 350 - SEC. 3068 A-B-R-1
COOK COUNTY
STATION 99+91.50
STRUCTURE NO. 016-0421

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USER NAME = akhan	DESIGNED - BWS	REVISED -	
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PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 016-0421
SHEET NO. S-1 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	24
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. All new Structural Steel shall be AASHTO M270 Grade 36 unless otherwise noted.
2. All new fasteners shall be high strength bolts. Holes shall be $^{15}/_{16}$" dia. for $^{7}/_{8}$" dia. bolts, unless otherwise noted.
3. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts, unless otherwise noted.
4. Calculated weight of Structural Steel = 7,880 lbs. (M270 Grade 36)
   8,360 lbs. (M270 Grade 50)
5. No field welding is permitted except as specified in the contract documents.
6. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
7. Reinforcement bars designated (E) shall be epoxy coated.
8. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding $^{1}/_{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
9. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
10. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
11. The Contractor shall obtain all necessary permits from the Coast Guard and shall be per Maintenance of Navigation Special Provision. All channel clearances and free navigation shall not be unreasonably interfered with. The Contractor shall submit a plan of operations to the Coast Guard which shall include a schedule of construction site activities.
12. Concrete Sealer shall be applied to the designated areas of the pier and abutment repairs and the proposed backwall.
13. Cleaning and painting of the existing structural steel shall be as specified in the special provisions for "Cleaning and Painting Existing Steel Structures." All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirement of Paint System 1 -OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Light Gray, Munsell No. 5B 7/1. The color of the final finish coat for truss members shall be Blue, Munsell No. 10B 3/6.
14. The Contractor shall submit calculations and details demonstrating the structural integrity of the bridge is maintained under the additional imposed loads of the containment system. See Special Provisions.
15. A minimum of 4 air monitors will be required to monitor abrasive blasting operations at the site. See Special Provision for "Containment and Disposal of Lead Paint Cleaning Residues".
16. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1. Cost included in Structural Steel Repair.
17. Any steel repair work on the steel superstructure except work on the railing posts, shall take place on the portion of the structure without stage construction traffic. For repair sequence, see notes on repair sheets.
18. Existing structural steel that will be in contact with new structural steel and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
19. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

INDEX OF SHEETS

TOTAL BILL OF MATERIALS

	DESCRIPTION	UNIT	SUB	SUPER	TOTAL
	Concrete Removal	Cu Yd		26.1	26.1
	Protective Shield	Sq Yd		60	60
	Concrete Superstructure	Cu Yd		26.1	26.1
	Protective Coat	Sq Yd		91	91
	Reinforcement Bars, Epoxy Coated	Pound		6040	6040
	Bar Splicers	Each		70	70
	Preformed Joint Strip Seal	Foot		241	241
	Concrete Sealer	Sq Ft	195		195
	Epoxy Crack Injection	Foot	6		6
*	Floor Drain Extension	Each		24	24
*	Structural Steel Repair	Pound		16240	16240
*	Containment And Disposal Of Lead Paint Cleaning Residues	L Sum		1	1
*	Cleaning And Painting Steel Bridge No. 1	L Sum		1	1
*	Concrete Bridge Deck Scarification (3/8 Inch)	Sq Yd		2300	2300
*	Bridge Deck Thin Polymer Overlay 3/8"	Sq Yd		2300	2300
*	Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	408		408
*	Plug Existing Deck Drains	Each		8	8
*	Deck Slab Repair (Partial)	Sq Yd		3	3
*	Silicone Joint Sealer, 1/2"	Foot		22	22
*	Rivet Removal And Replacement	Each		240	240

* Special Provision

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USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - AMK	REVISED -	
PLOT SCALE = 0.1 '/ in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK/DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & BILL OF MATERIAL
STRUCTURE NO. 016-0421
SHEET NO. S-2 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	25
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

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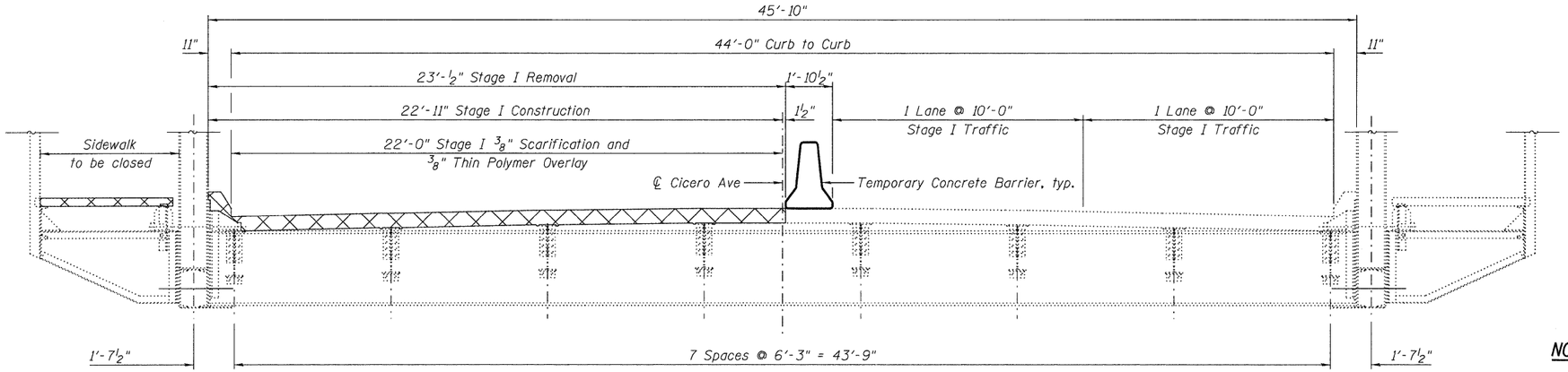
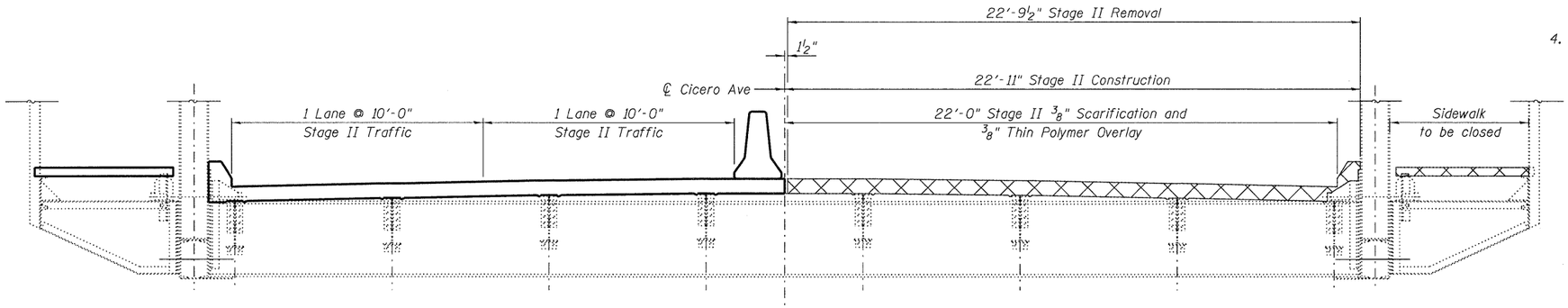


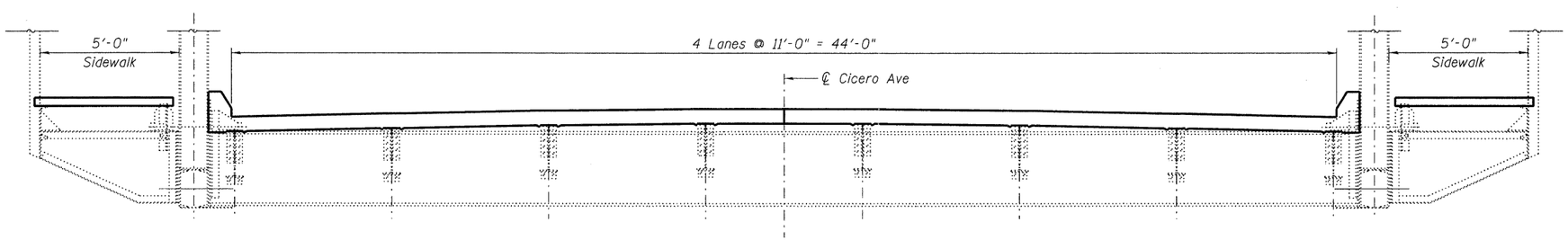
STAGE I CONSTRUCTION

(Looking North)



STAGE II CONSTRUCTION

(Looking North)



FINAL SECTION

(Looking North)

LEGEND

Concrete Removal for Exp. Joint Replacement. See Note 1.

NOTES:

1. Concrete Deck Parapet Removal as required for the expansion joint replacement. See sheet S-4.
2. See sheet S-5 for Temporary Concrete Barrier Details.
3. The Contractor is responsible for means and methods to ensure the complete stability at the structural members during construction.
4. See Roadway Plans for quantity of Temporary Concrete Barrier.

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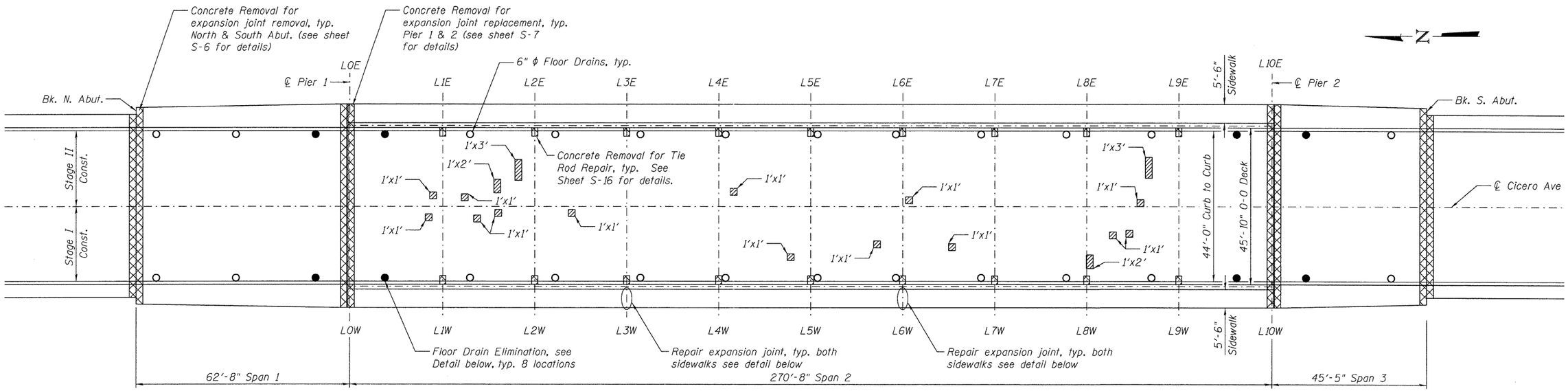
USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - AMK	REVISED -	
PLOT SCALE = 2.8 '/ in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

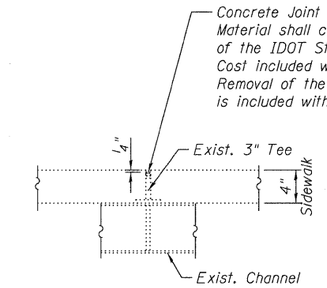
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
STRUCTURE NO. 016-0421
SHEET NO. S-3 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	26
		CONTRACT NO.	60N88	
	ILLINOIS	FED. AID PROJECT		

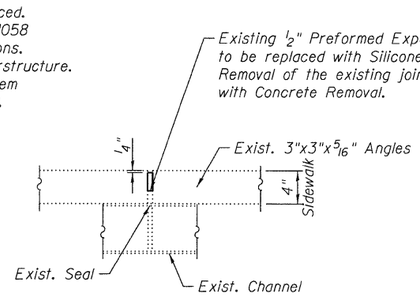


DECK PLAN



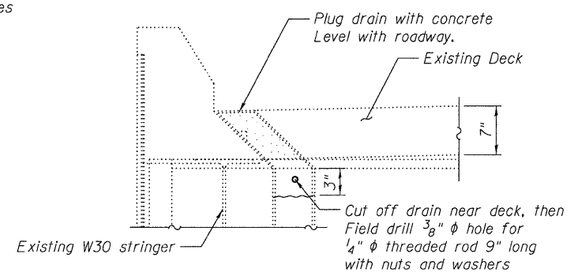
SIDEWALK JOINT DETAIL

(Typ. L1, L2, L4, L5, L6, L8 & L9)



SIDEWALK JOINT DETAIL

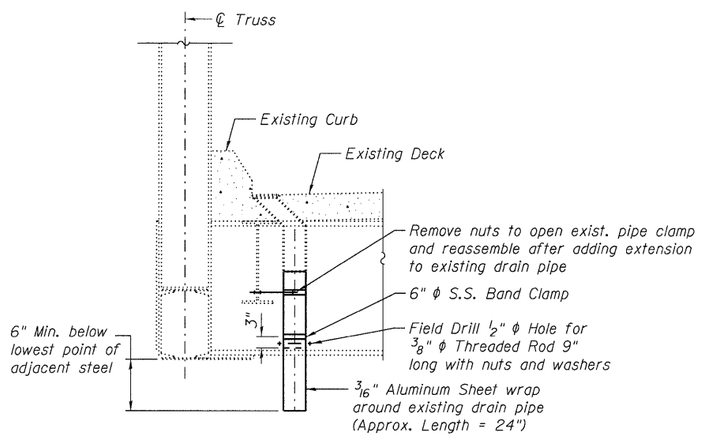
(Typ. L3 & L7)



SECTION AT DRAIN

DRAIN ELIMINATION DETAIL

(8 thus)



FLOOR DRAIN EXTENSION

(24 Thus)

Cost of field drilling and all associated material or floor drain extension included with "Floor Drain Extension".

NOTES:

1. Deck condition survey performed January 2011.
2. Repairs should include but not be limited to the areas shown on the plans. The actual areas to be determined by the engineer at the time of construction.
3. The Engineer shall record the actual deck repair areas in order to document as-built condition for future reference.
4. For expansion joint replacement, see sheets S-6, S-7 & S-8.
5. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal".
6. Scarification and overlay includes Bridge Deck and approach slabs.

LEGEND

Deck Slab Repair (Partial Depth) Protective shield to be placed under all Partial Depth Patches. Limits of Protective Shield should extend from stringer to stringer and 2' wider than patch in each direction.

Concrete Removal

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Bridge Deck Scarification 3/8"	Sq. Yd.	2,300
Bridge Deck Thin Polymer Overlay 3/8"	Sq. Yd.	2,300
Concrete Removal	Cu. Yd.	26.1
Floor Drain Extension	Each	24
Plug Existing Deck Drains	Each	8
Silicone Joint Sealer 1/2"	Foot	22
Deck Slab Repair (Partial Depth)	Sq. Yd.	3
Protective Shield	Sq. Yd.	60

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 04 Deck Repair Plan.dgn

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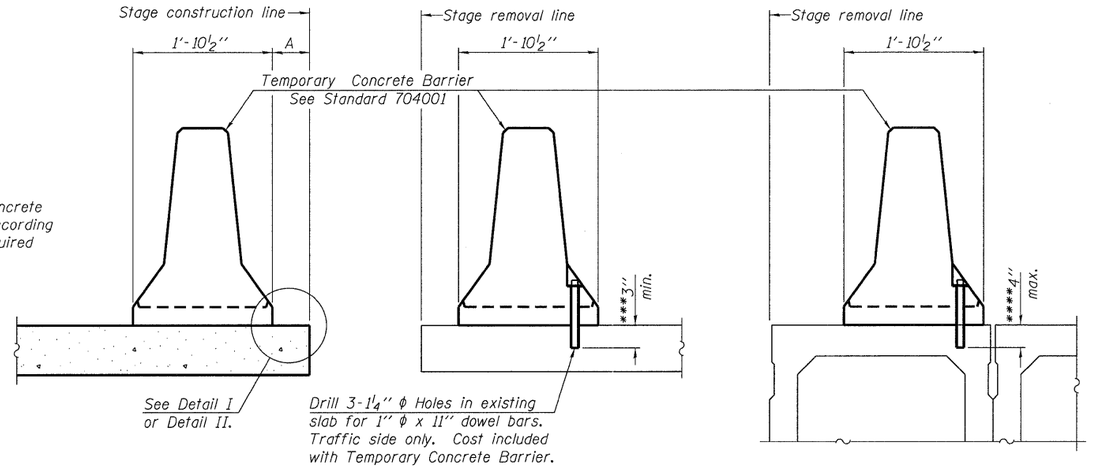
PLOT SCALE = 15ø '1' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK REPAIR PLAN
STRUCTURE NO. 016-0421
SHEET NO. S-4 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	27
		CONTRACT NO.		60N88
		ILLINOIS FED. AID PROJECT		

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

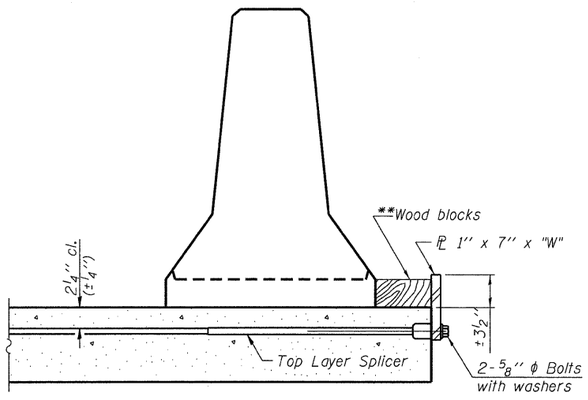
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

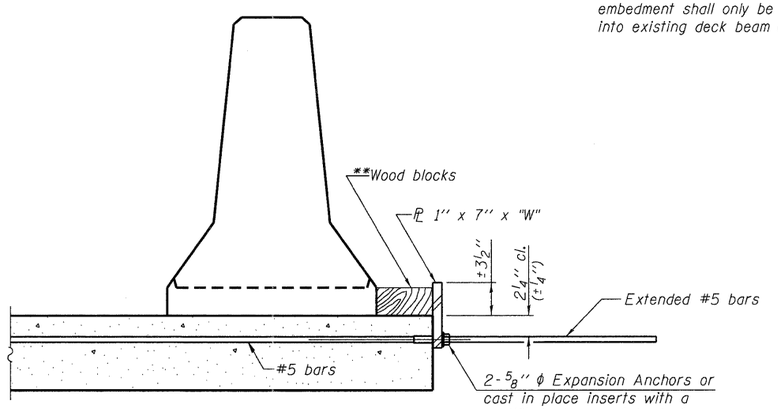
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



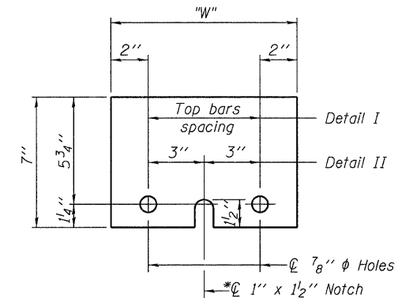
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"



STEEL RETAINER ℄ 1" x 7" x "W"

* Required only with Detail II

R-27

7-1-10

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 05 Temporary Concrete Barrier.dgn

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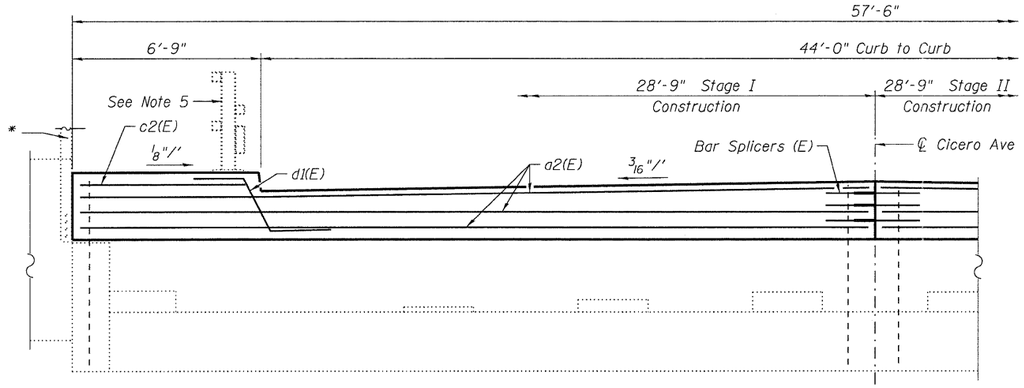
PLOT SCALE = 01 '1' / in.	DRAWN - RD	REVISED -
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-0421
SHEET NO. S-5 OF S-27 SHEETS

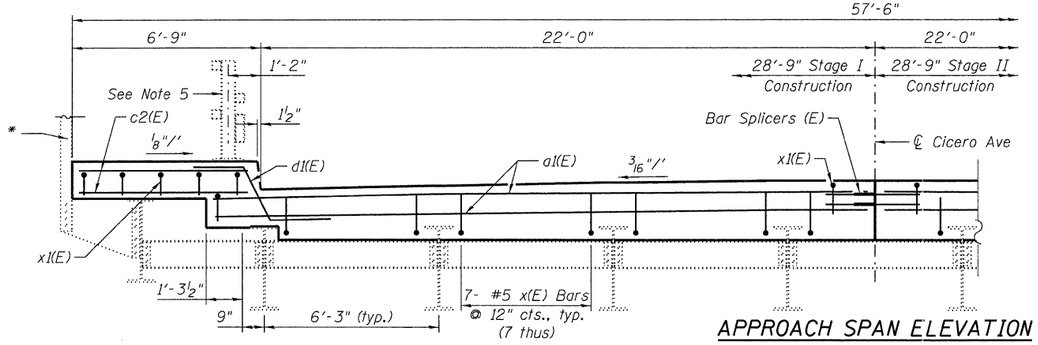
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	28
		CONTRACT NO.	60N88	
	ILLINOIS	FED. AID PROJECT		



* Railing to be removed, stored and reattached as needed. Removal and reattachment of Railing included in Concrete Removal cost.

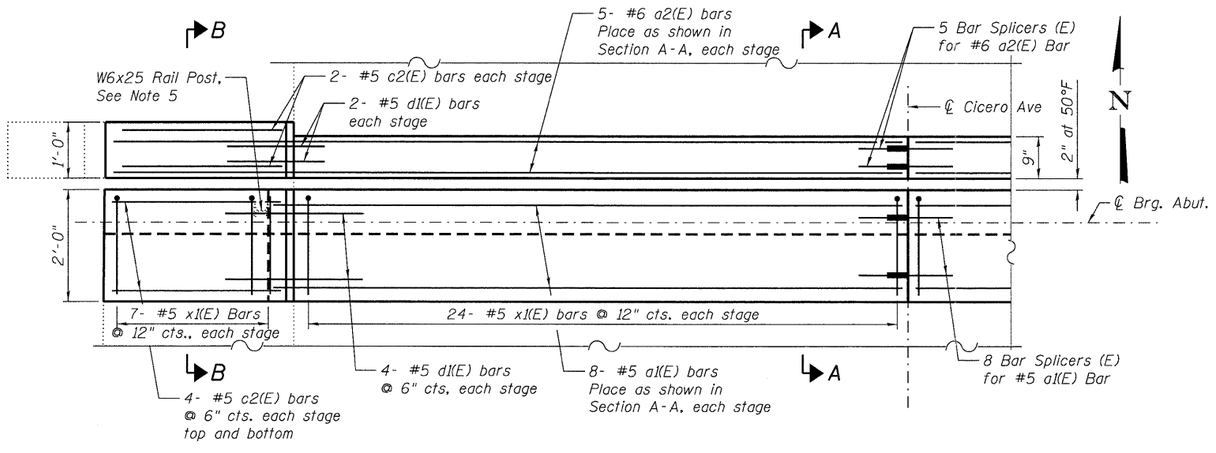
NORTH ABUTMENT ELEVATION

Looking North
(Symmetrical about ℄)
(South Abutment similar, opposite hand)



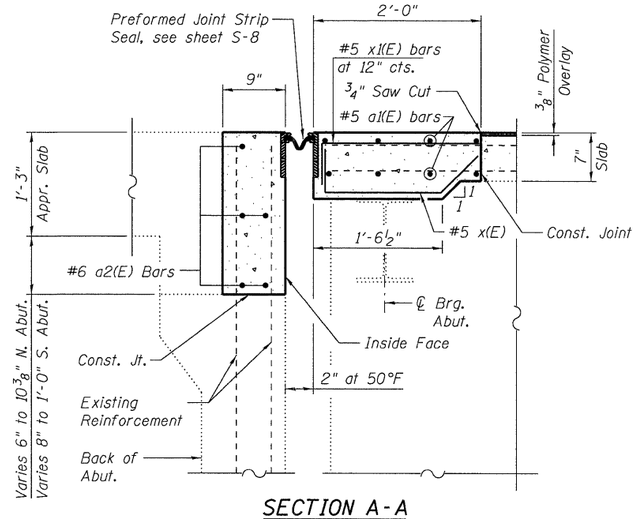
APPROACH SPAN ELEVATION

Looking North
(Symmetrical about ℄)
(South Abutment similar, opposite hand)



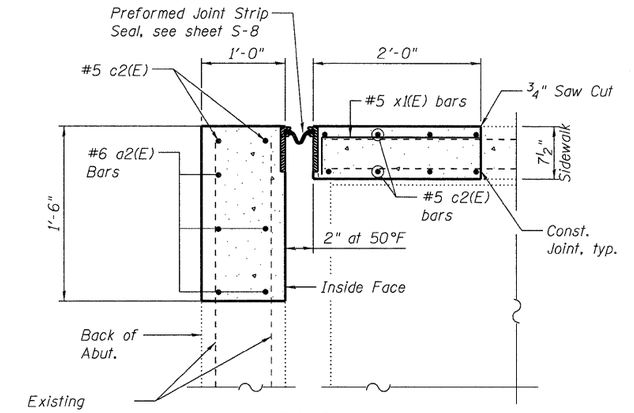
NORTH ABUTMENT PLAN

(Symmetrical about ℄)
(South Abutment similar by rotation)



SECTION A-A

Thru Deck



SECTION B-B

Thru Sidewalk

NOTES:

1. Work this sheet with sheets S-3 and S-7.
2. Existing reinforcement shown should be blast cleaned, straightened, and incorporated into new construction. Cost included with Concrete Removal.
3. Bar bending details shown on sheet S-7.
4. For Joint Detail see sheet S-8.
5. Traffic Rail Posts to be removed, stored and replaced. Drill and grout 4- 1" ϕ x 12" Anchor Bolts into traffic rail post base plate after post is relocated. Weld NE & SW Traffic post to existing Base Plate. Cost included in cost of Concrete Superstructure.
6. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other then 50°F.
7. Concrete Sealer to be applied to the inside face of proposed backwall.
8. Perimeter of concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.

BILL OF MATERIAL

Two Abutments

Bar	No.	Size	Length	Shape
$a_1(E)$	32	#5	23'-7"	
$a_2(E)$	20	#6	28'-5"	
$c_2(E)$	40	#5	6'-5"	
$d_1(E)$	24	#5	6'-1"	
$x(E)$	98	#5	2'-2"	
$x_1(E)$	124	#5	2'-2"	
Concrete Superstructure			Cu. Yd.	12.9
Bar Splicers			Each	26
Reinforcement Bars, Epoxy Coated			Pound	2,570
Protective Coat			Sq. Yd.	37
Concrete Sealer			Sq. Ft.	173

N:\PROJ\03398.00\Design\Structural\CAD\03398_00 06 Joint Constr N and S Abut.dgn

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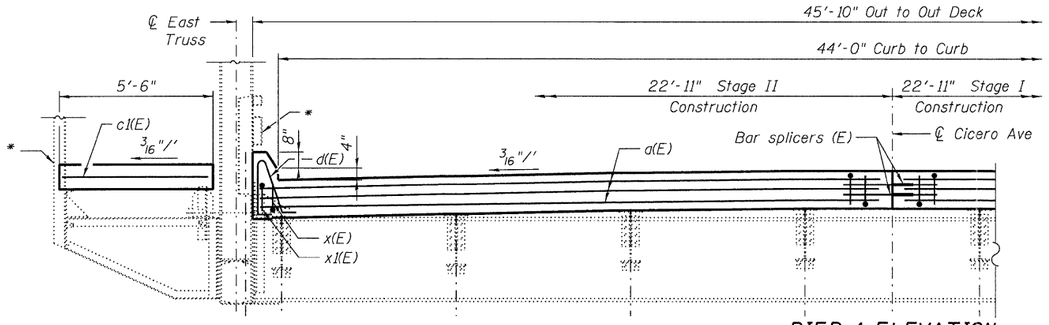
PLOT SCALE = 2:8 '1' / in.	DRAWN RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT CONSTRUCTION, NORTH AND SOUTH ABUTMENTS
STRUCTURE NO. 016-0421
SHEET NO. S-6 OF S-27 SHEETS

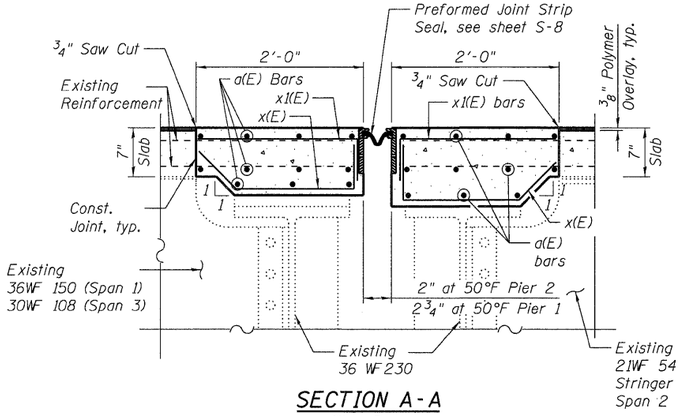
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	29
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		



* Railing to be removed, stored and reattached as needed. Removal and reattachment of Railing included in Concrete Removal cost.

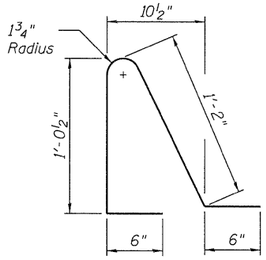
PIER 1 ELEVATION

Looking South
(Symmetrical about ℄)
(Pier 2 similar, opposite hand)

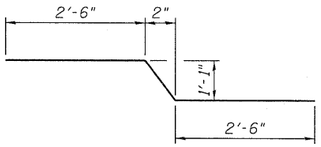


SECTION A-A

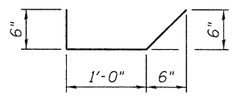
Thru Deck



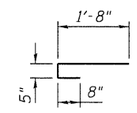
Bar d(E)



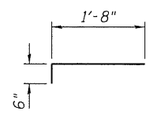
Bar d_1(E)



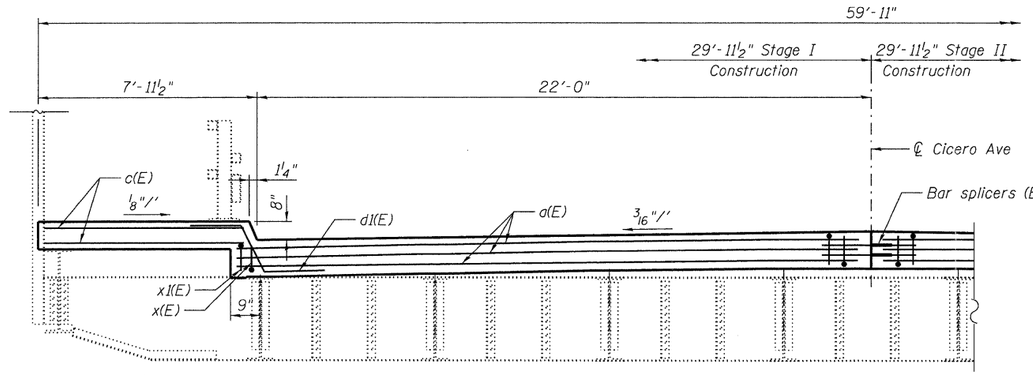
Bar x(E)



Bar x2(E)

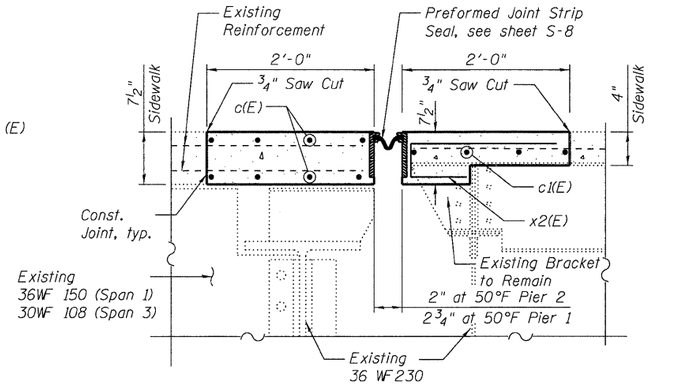


Bar x1(E)



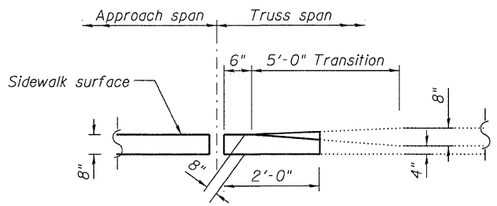
PIER 1 ELEVATION

Looking North
(Symmetrical about ℄)
(Pier 2 similar, opposite hand)



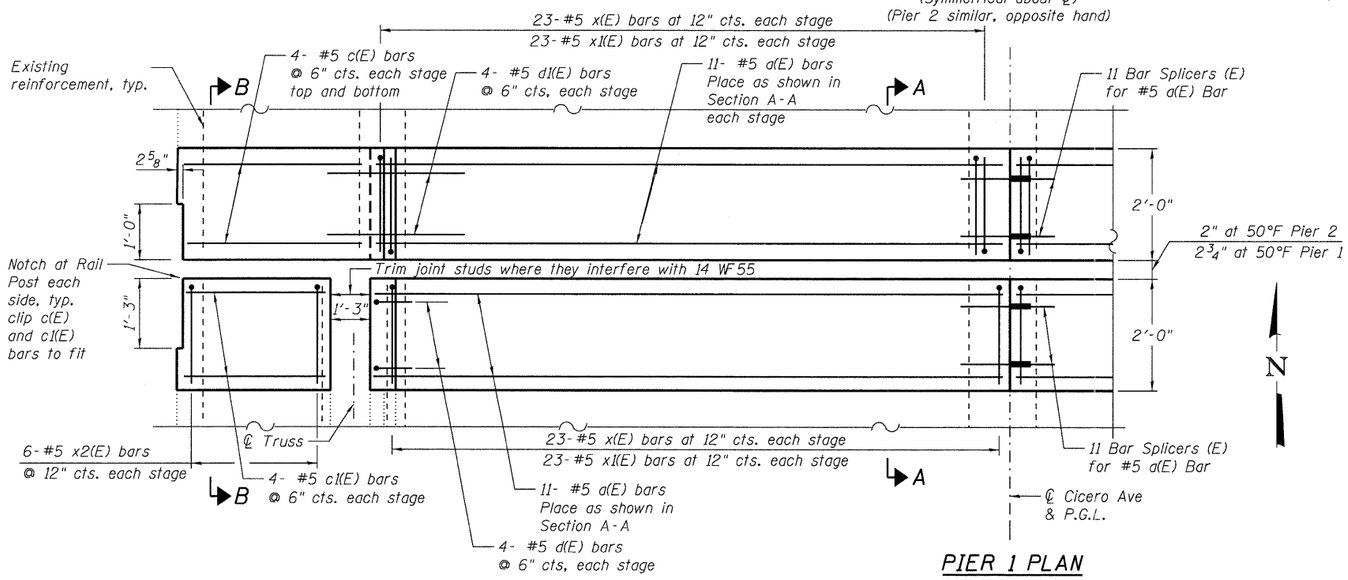
SECTION B-B

Thru Sidewalk



CURB TRANSITION DETAIL

Elevation view



PIER 1 PLAN

(Pier 2 similar, by rotation)
(Symmetrical about ℄)

BILL OF MATERIAL

Two Piers

Bar	No.	Size	Length	Shape
a(E)	88	#5	22'-7"	
c(E)	32	#5	7'-7"	
c_1(E)	16	#5	5'-2"	
d(E)	16	#5	3'-3"	
d_1(E)	16	#5	6'-1"	
x(E)	184	#5	2'-2"	
x_1(E)	184	#5	2'-2"	
x_2(E)	24	#5	2'-9"	
Concrete Superstructure		Cu. Yd.	11.8	
Bar Splicers		Each	44	
Reinforcement Bars, Epoxy Coated		Pound	3,470	
Protective Coat		Sq. Yd.	54	

NOTES:

1. Work this sheet with sheets S-3 and S-6.
2. Existing reinforcement shown should be blast cleaned, straightened, and incorporated into new construction. Cost included with Concrete Removal.
3. For joint details see sheet S-8.
4. Perimeter of concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.

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PLOT SCALE = 2:8 '-' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT CONSTRUCTION, SPANS 1-2 & 2-3
STRUCTURE NO. 016-0421
SHEET NO. S-7 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	30
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			

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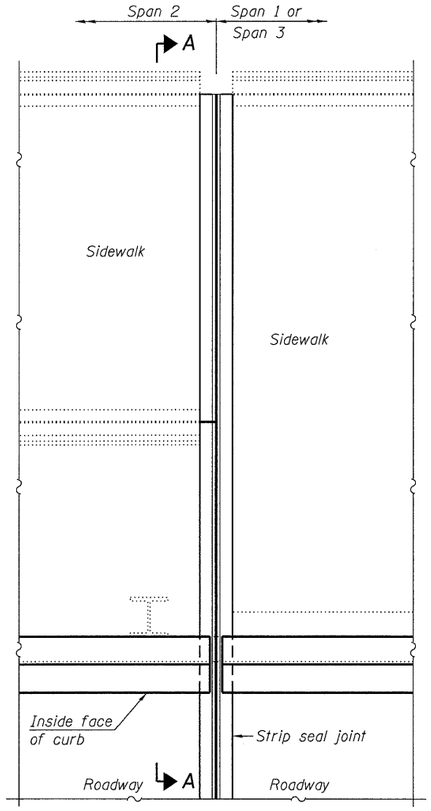
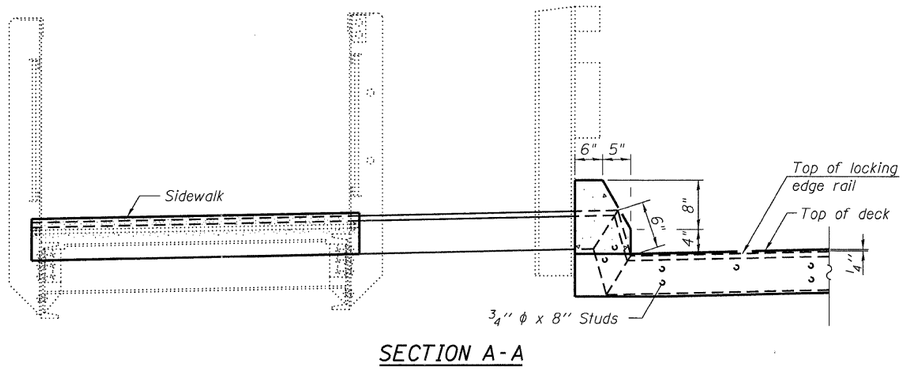
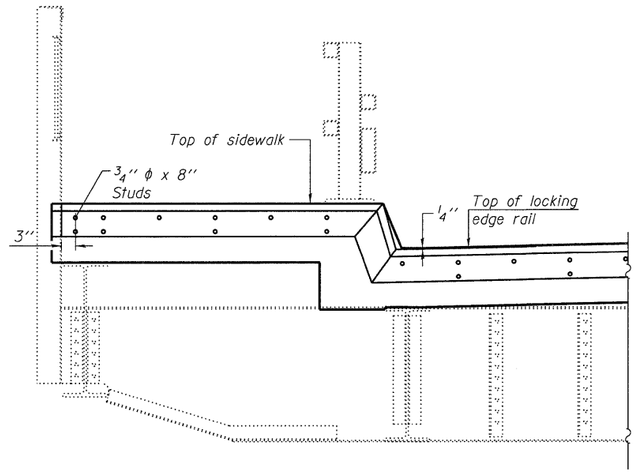


PLAN
AT PIER 1, PIER 2

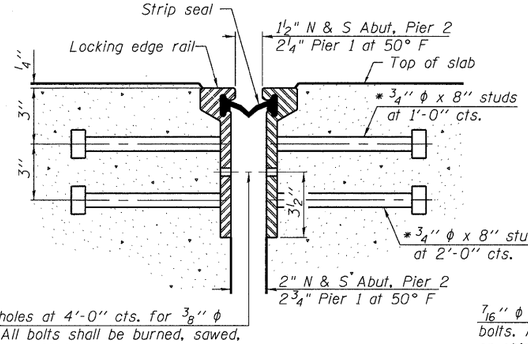


SECTION A-A



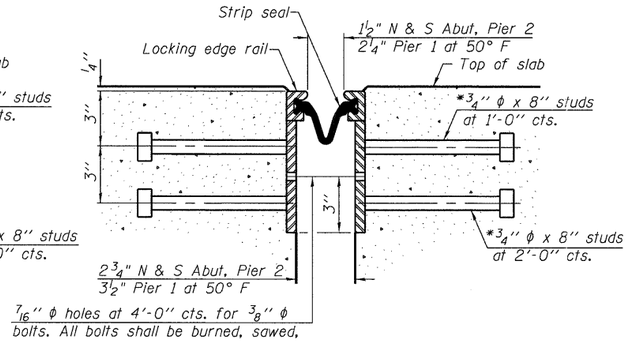
TYPICAL END TREATMENT AT SIDEWALK

Shorter plates with a single row of studs at 12" cts. may be necessary on sidewalks which are shallower than 9". See manufacturer's recommendation.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

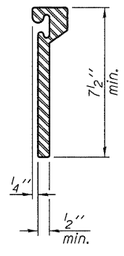
SECTION THRU
ROLLED RAIL JOINT



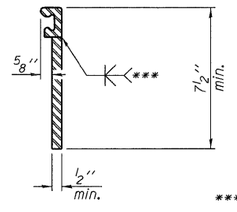
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT

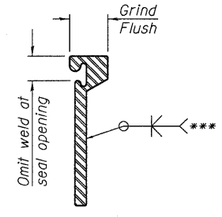
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED
EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE
RAIL SPLICE

LOCKING EDGE RAILS

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	241

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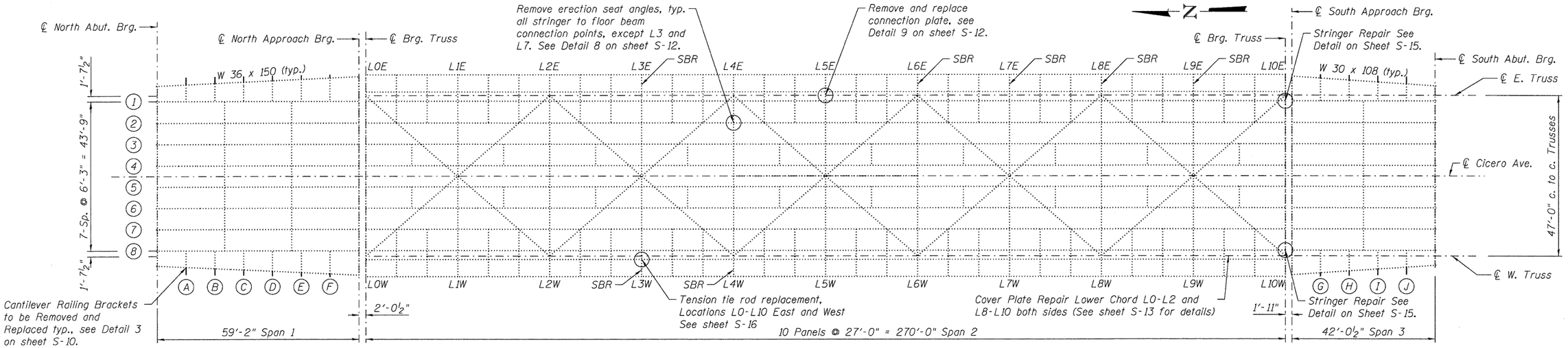
PLOT SCALE = 0.1 '/ '' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-0421
SHEET NO. S-8 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	31
		CONTRACT NO.	60N88	
	ILLINOIS FED. AID PROJECT			

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 08 Preformed Joint Strip Seal.dgn



BOTTOM CHORD FRAMING PLAN

L0 - L10 : Floor Beam and Panel Point Numbers

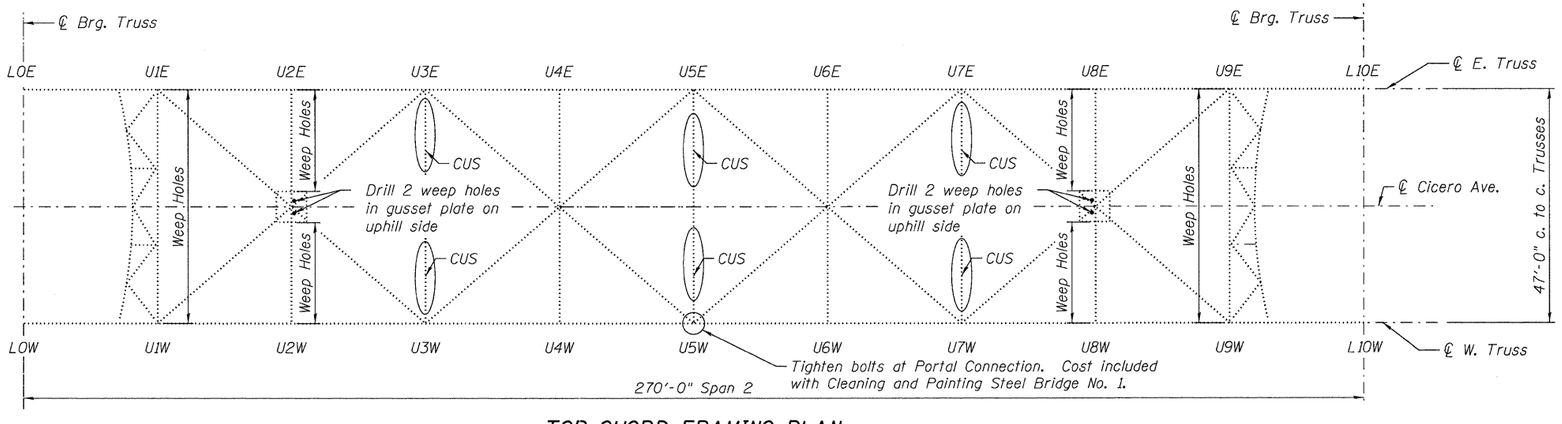
① - ⑧ : Stringer Numbers

Ⓐ - Ⓙ : Cantilever Railing Bracket

LEGEND:

CUS - Caulk Uphill Side
(Typ. Panel Points 3, 5, 7)
See Caulking Detail on sheet S-14

SBR - Sidewalk Bracket Repair
See Sheet S-15 for
locations and details



TOP CHORD FRAMING PLAN

Note: See Weep Hole Details on sheet S-13

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 09 Framing Plan.dgn

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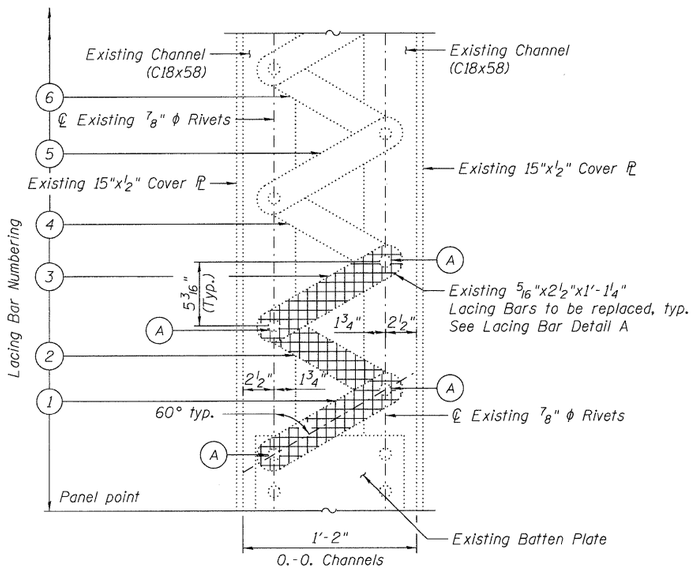
USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - DL	REVISED -	
PLOT SCALE = 150 '/ in.	DRAWN - LVH	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

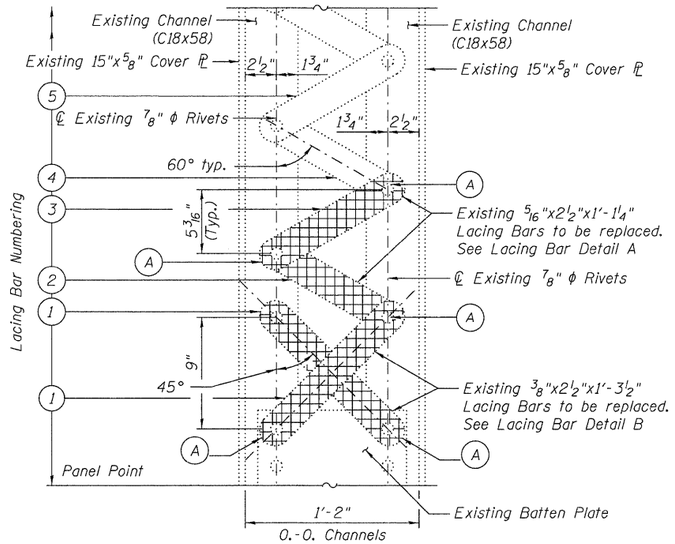
FRAMING PLAN
STRUCTURE NO. 016-0421
SHEET NO. S-9 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	32
		CONTRACT NO.	60N88	
	ILLINOIS FED. AID PROJECT			



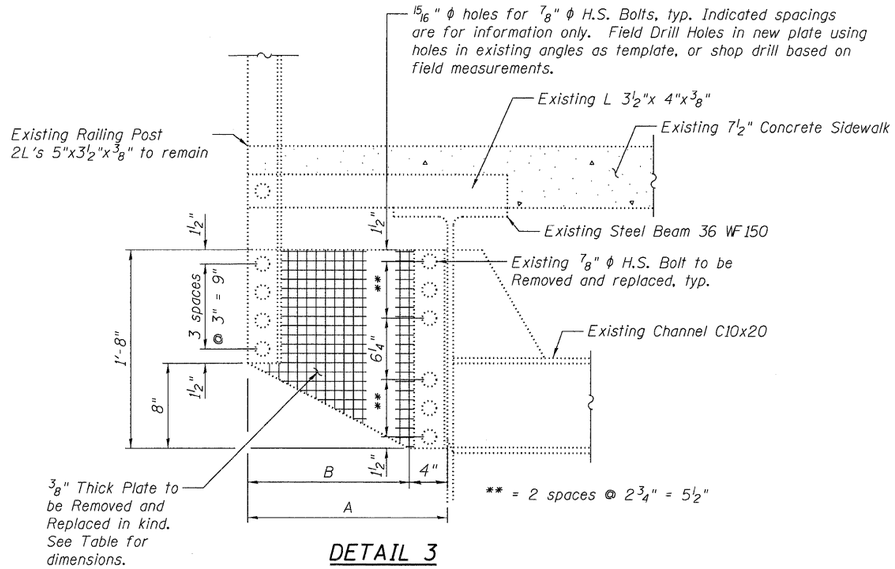
DETAIL 1

TYPICAL LACING BAR DETAIL AT L2-L4, L6-L8



DETAIL 2

TYPICAL LACING BAR DETAIL AT L4-L6



DETAIL 3

Approach span Cantilever Railing Bracket Repairs

LACING BAR RETROFIT AT LOWER CHORDS

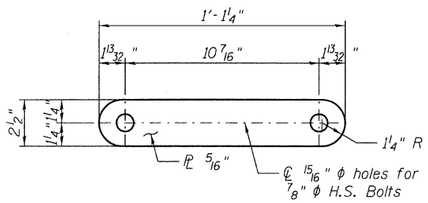
(Retrofit Applied Only to Bottom Lacing Bars of Lower Chord)

(A) Remove the lacing bars and existing 7/8" ϕ rivets from the surface of the channel flange. Existing rivets which are adjacent to lacing bars to remain in place shall not be burned off. Existing rivets which are adjacent to lacing bars to be removed may be burned off. All rivet removal shall be in accordance with the Special Provision for Structural Steel Repair.

LACING BARS TO BE REPLACED

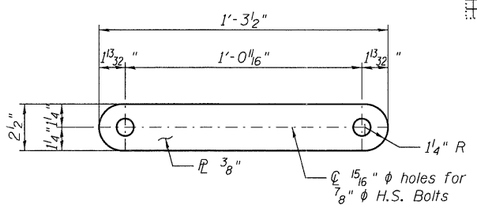
LOCATION	STARTING FROM PANEL POINT	LACING BAR NUMBER*
L4E-L5E	L5E	1-3, 8-16, 32-38, 41
L5E-L6E	L5E	1, 2, 7, 9, 18
L6E-L7E	L7E	12-19, 26, 37, 42, 48
L7E-L8E	L8E	1-8, 10, 18, 22, 26, 28, 30, 31

*Lacing Numbering starts at Panel Point indicated. Lacing Bar numbered "1" in location L4-L5 or L5-L6 include both crossed lacing bars next to panel point.



LACING BAR DETAIL A

(50 Required)



LACING BAR DETAIL B

(4 Required)

Field drill holes in plate using holes in existing channels as templates, or shop drill based on field requirements.

TABLE - BRACKET DIMENSIONS

BRACKET	A	B
A	2' - 7 1/2"	2' - 3 1/2"
B	2' - 4"	2' - 0"
C	2' - 0 1/2"	1' - 8 1/2"
D	1' - 9"	1' - 5"
E	1' - 5 3/8"	1' - 1 3/8"
F	1' - 1 7/8"	0' - 9 7/8"
G	1' - 3 5/8"	0' - 11 5/8"
H	1' - 8 7/8"	1' - 4 7/8"
I	2' - 2 1/4"	1' - 10 1/4"
J	2' - 7 1/2"	2' - 3 1/2"

See Framing Plan for location.
All new brackets are 3/8" thick plates.

LEGEND:

Members to be removed and replaced.

NOTES:

1. The Contractor shall verify all dimensions in the field before ordering lacing bars.
2. Only two lacing bars may be removed at a time. When lacing bars are removed, the proposed lacing bars must be in place and the bolts tightened before additional lacing bars are removed.
3. Repairs should include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of Construction.
4. If lacing bar to be replaced is under lacing bar to remain, the Contractor shall take care when removing the rivet so as to not to damage the top lacing bar to remain in place. If the top lacing bar is damaged, the cost of replacing the lacing bar will be at the Contractor's expense.
5. Cost of materials, drilling holes and removing rivets to make structural steel repairs are included in pay item for "Structural Steel Repair".

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USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - AMK	REVISED -	
PLOT SCALE = 0:4 1/2 / in.	DRAWN - LVH	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS I
STRUCTURE NO. 016-0421
SHEET NO. S-10 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	33
		CONTRACT NO.		60N88
		ILLINOIS FED. AID PROJECT		

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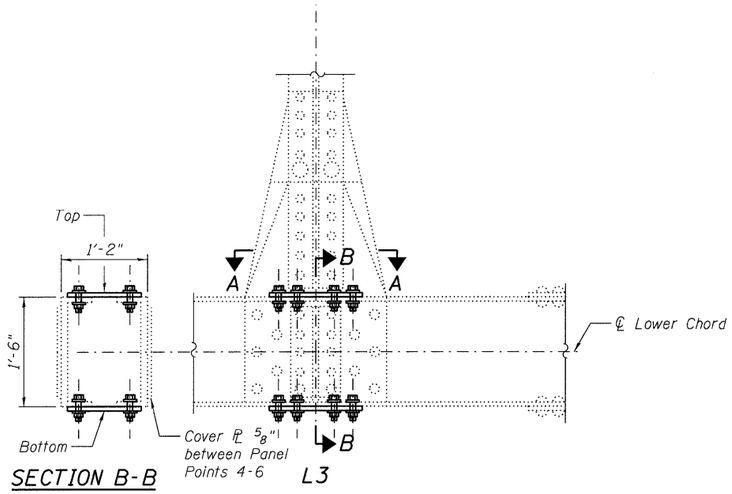
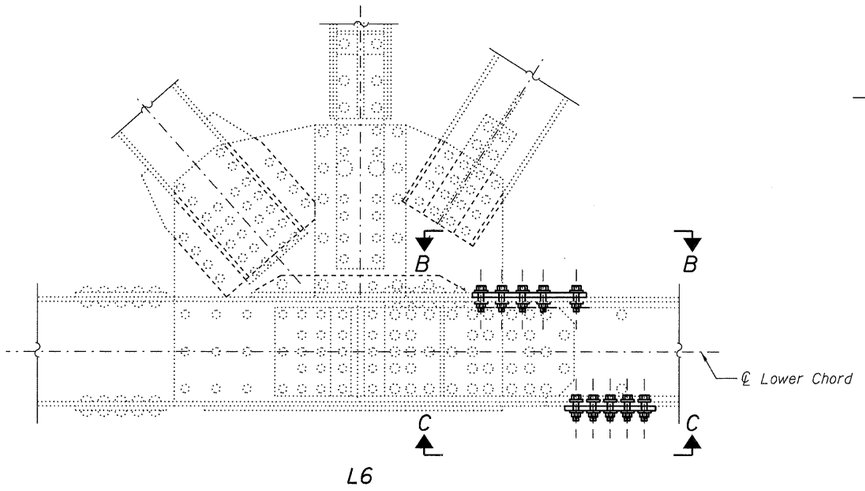


SECTION B-B

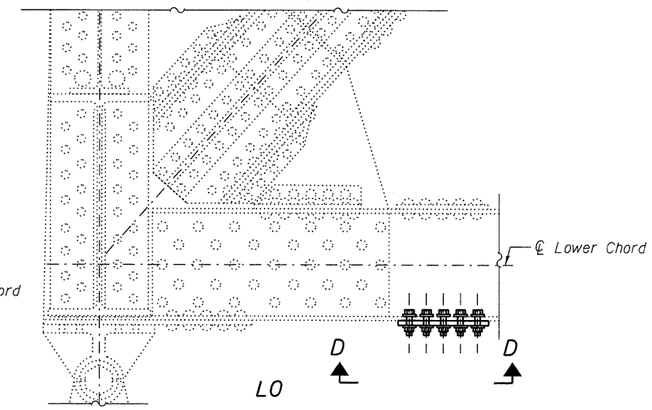
DETAIL 4 - STAY PLATE AT PANEL POINT

(L5, L7 similiar)

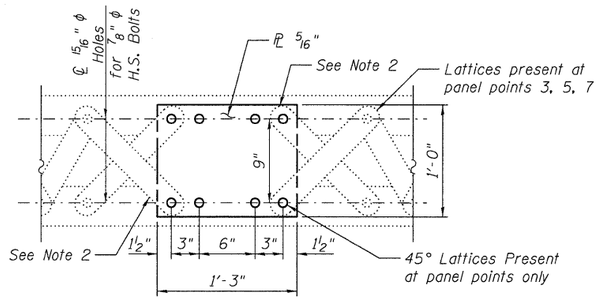


DETAIL 5 - STAY PLATE AT PANEL POINT

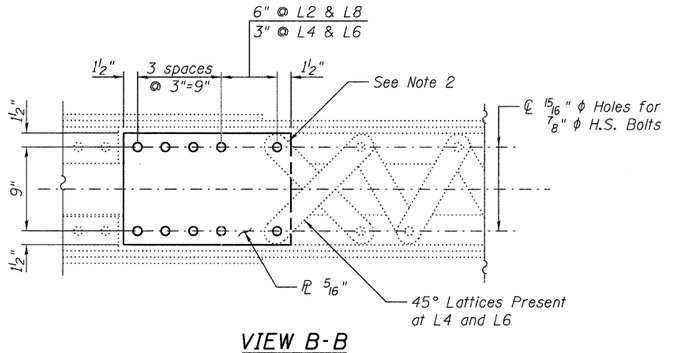
(L8 similar)



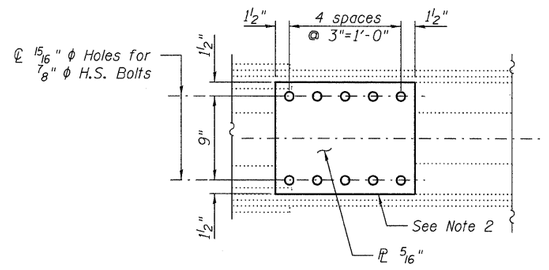
DETAIL 6 - STAY PLATE AT PANEL POINT



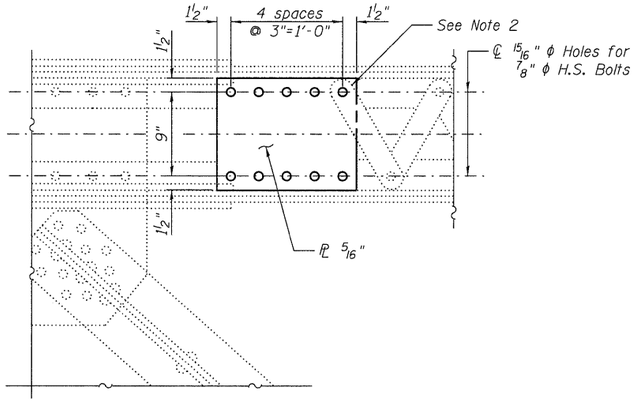
VIEW A-A



VIEW B-B



VIEW D-D



VIEW C-C

NOTES:

1. All dimensions shall be verified in the field before ordering stay plates.
2. All plate replacements shown are "in-kind". Existing plates to be removed and replaced, not shown for clarity.
3. Remove the stay plates and existing 7/8" ϕ rivets from the surface of the channel flange. Existing rivets which are adjacent to lacing bars to remain in place shall not be burned off. Existing rivets which are adjacent to lacing bars to be removed may be burned off. All rivet removal shall follow Structural Steel Repair Special Provision.
4. Repairs should include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of construction.
5. Cost of materials, drilling holes, and removing rivets to make structural steel repairs are included in the cost of "Structural Steel Repair".

PANEL POINT STAY PLATES TO BE REPLACED

PANEL POINT	TOP/BOTTOM	DETAIL
L0E	Bottom	6
L3E	TOP	4
L5E	TOP	4
L6W	BOTTOM	5
L7E	TOP	4
L8E	TOP	5
L8W	BOTTOM	5

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USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - DL	REVISED -	
PLOT SCALE = 1:0.0300 '' / in.	DRAWN - LVH	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS II
STRUCTURE NO. 016-0421
SHEET NO. S-11 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	34
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

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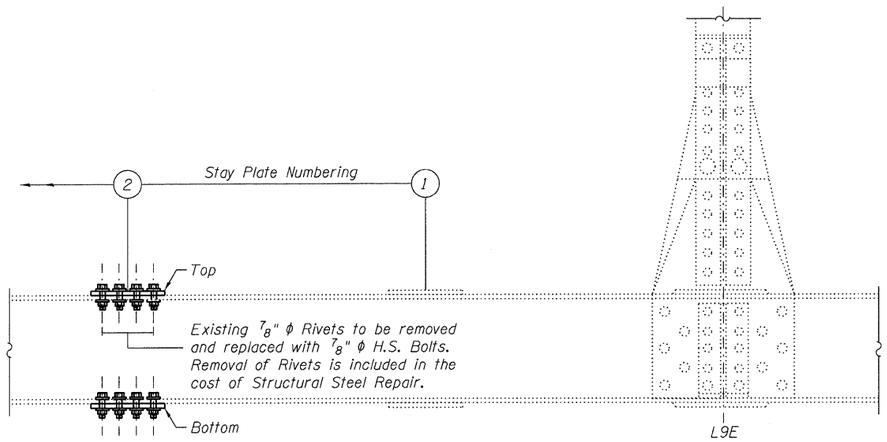
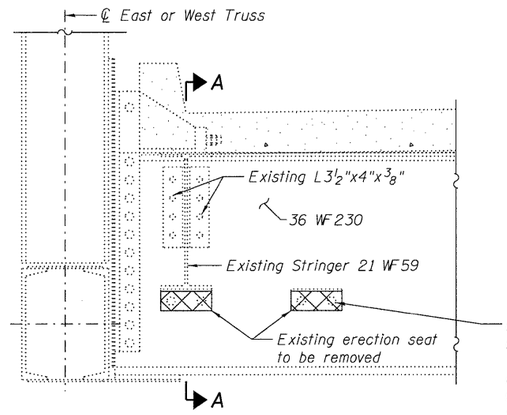


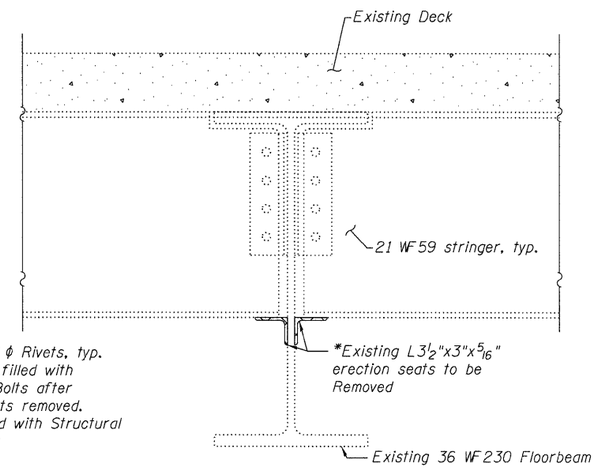
DETAIL 7 - STAY PLATE BETWEEN PANEL POINTS ELEVATION

(Looking West)



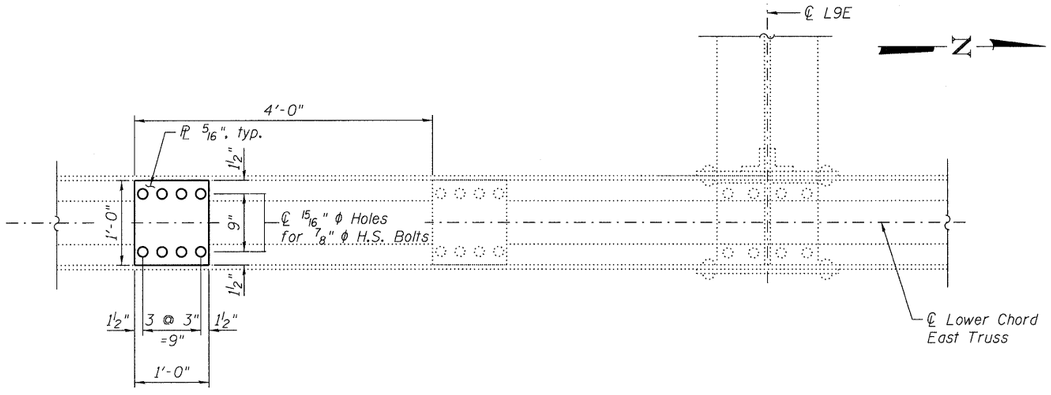
DETAIL 8 ANGLE SEAT REMOVAL

(144 Thus)



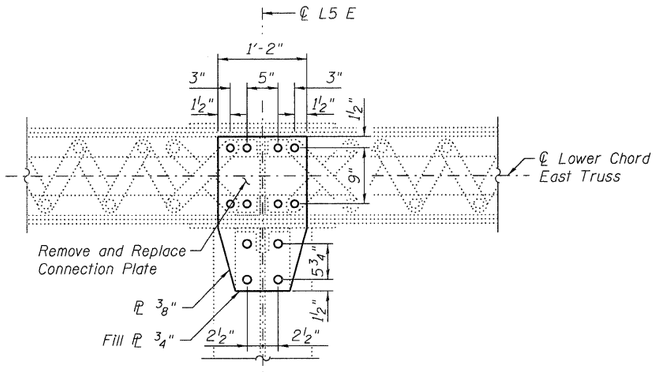
SECTION A-A

*Existing rivets adjacent to erection seats to be removed may be burned off. All rivet removal shall follow Structural Steel Repair Special Provision. Cost included with Structural Steel Repair.



PLAN

(Top & Bottom)



DETAIL 9 CONNECTION PLATE REPAIR AT L5E

(Underside Plan)

NOTES:

1. Repairs should include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of construction.
2. All plate replacements shown are "in-kind". Existing plates to be removed and replaced, not shown for clarity.
3. Holes in stay plates and connection plates shall be subpunched or subdrilled 13/16" ϕ and reamed in the field to 15/16" ϕ for 7/8" ϕ H.S. bolts.
4. One stay plate shall be removed and replaced at a time. When stay plates are removed, the proposed stay plate must be in place and the bolts tightened before additional stay plates are removed.

STAY PLATES TO BE REPLACED BETWEEN PANEL POINTS

Location	Starting From Panel Point	Stay Plate Number
L9E-L10E Top	L9E	2, 3, 4
L9E-L10E Bottom	L9E	4, 5

(5 Thus)

LEGEND

Existing to be removed

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 12 Steel Repairs III.dgn

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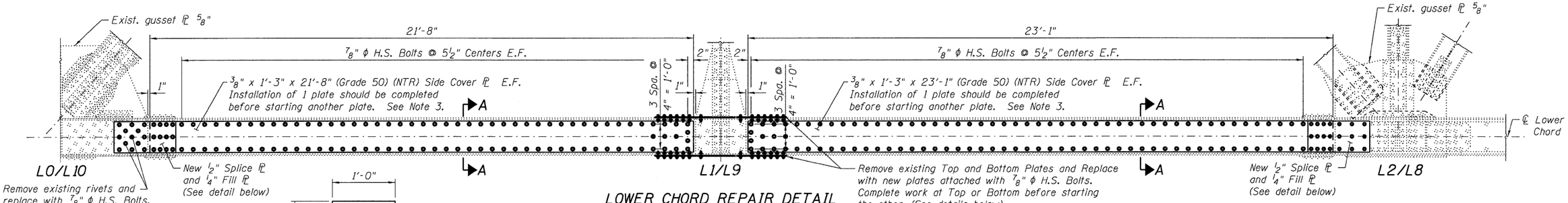
USER NAME = akhan	DESIGNED - BWS	REVISED -
	CHECKED - DL	REVISED -
PLOT SCALE = 1i0 'i' / in.	DRAWN - RD	REVISED -
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -

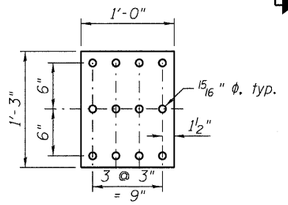
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS III
STRUCTURE NO. 016-0421
SHEET NO. S-12 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	35
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

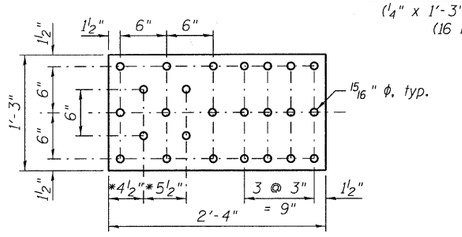


LOWER CHORD REPAIR DETAIL PARTIAL ELEVATION



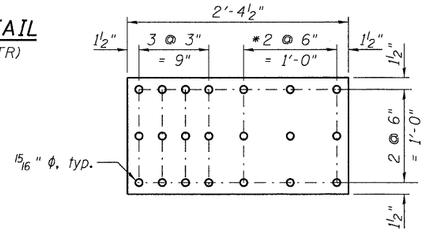
FILL PLATE DETAIL

(1/4" x 1'-3" x 1'-0") (NTR)
(16 required)



SPLICE PLATE DETAIL AT L0/L10 (E/W)

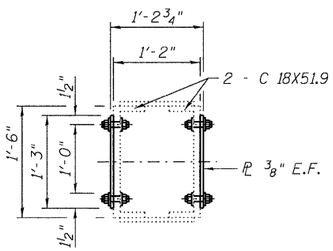
(1/2" x 1'-3" x 2'-4" Grade 50) (NTR)
(8 required)



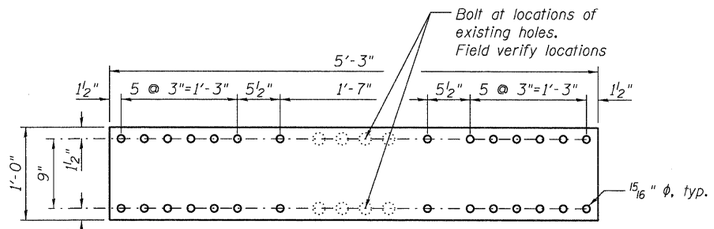
SPLICE PLATE DETAIL AT L2/L8 (E/W)

(1/2" x 1'-3" x 2'-4 1/2" Grade 50) (NTR)
(8 required)

* Verify dimensions in the field prior to fabrication of steel.

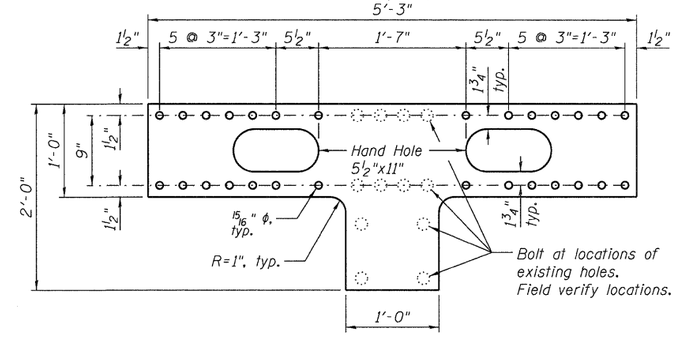


SECTION A-A



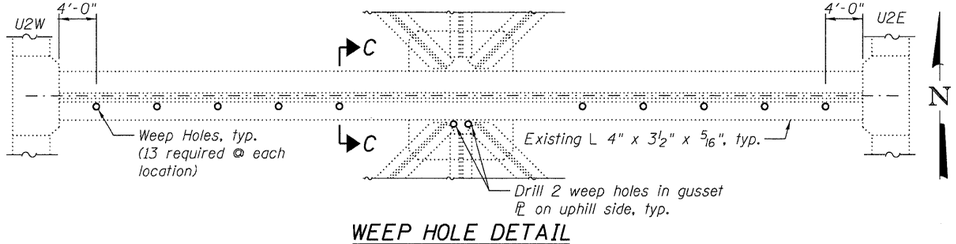
LOWER CHORD TOP COVER PLATE DETAIL AT L1/L9 (E/W)

(3/8" x 1'-0" x 5'-3" Grade 50) (NTR)
(4 required)



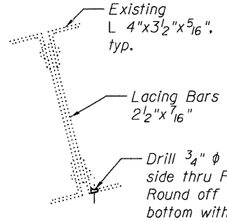
LOWER CHORD BOTTOM COVER PLATE DETAIL AT L1/L9 (E/W)

(3/8" x 2'-0" x 5'-3" Grade 50) (NTR)
(4 required)

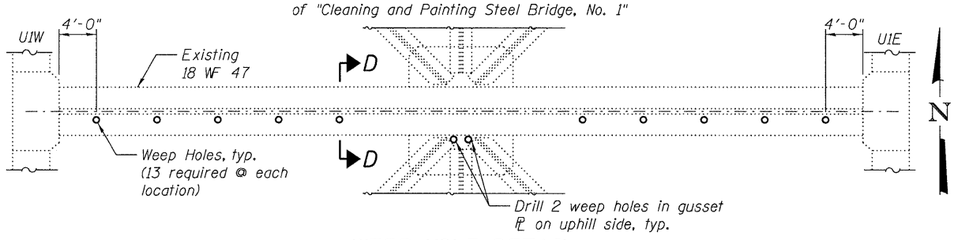


WEEP HOLE DETAIL

U2W - U2E shown.
U8W - U8E similar
Cost of weep holes included in cost of "Cleaning and Painting Steel Bridge, No. 1"

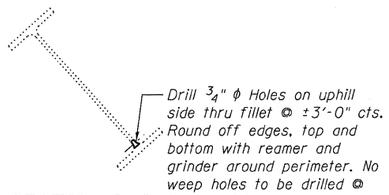


SECTION C-C



WEEP HOLE DETAIL

U1W - U1E shown.
U9W - U9E similar
Cost of weep holes included in cost of "Cleaning and Painting Steel Bridge No. 1"



SECTION D-D

LEGEND

- Existing Rivet to Remain
- New 7/8" ϕ H.S. Bolt in 15/16" ϕ Hole. Use new plates as templates for drilling.
- New Member
- Existing Member to Remain
- E.F. Each Face

NOTES:

1. Cost of materials, drilling holes and removing rivets to make structural steel repairs are included in the pay item for "Structural Steel Repair".
2. All dimensions shall be verified in the field before ordering materials and fabrication.
3. Field drill holes in existing chord based on template of Side Cover PL. Holes drilled in existing lower chord should be staggered so that at no time two holes will line up vertically. When enough holes have been drilled to support the proposed cover plate, the cover plate shall be installed and the remaining holes drilled using the cover plate as a template.
4. Load carring components designated "NTR" shall conform to the Supplemental Requirements of Notch Toughness Zone 2.

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 13 Steel Repairs IV.dgn

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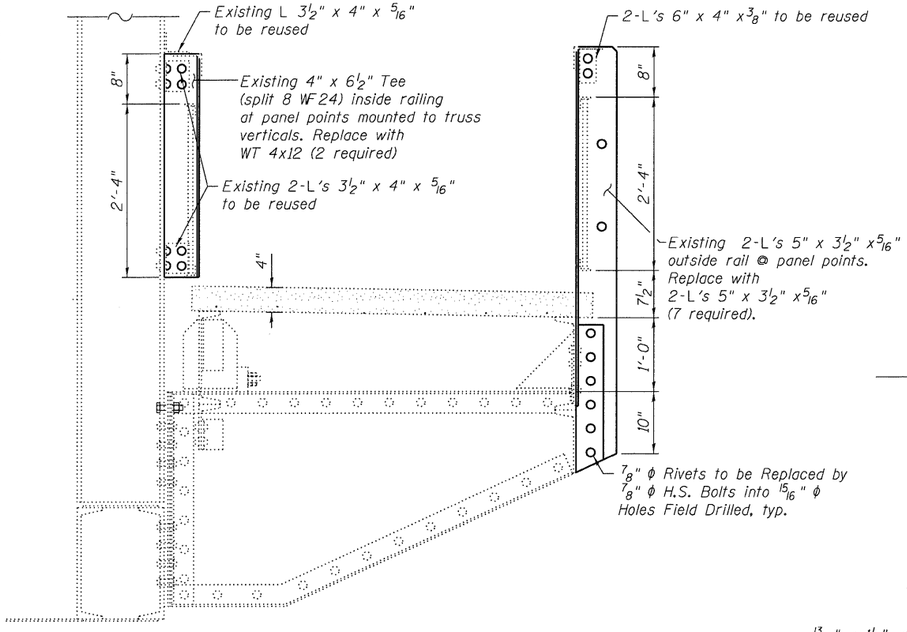
USER NAME = akhan	DESIGNED - BWS	REVISED -
	CHECKED - DL	REVISED -
PLOT SCALE = 2:0 '' / in.	DRAWN - RD	REVISED -
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -

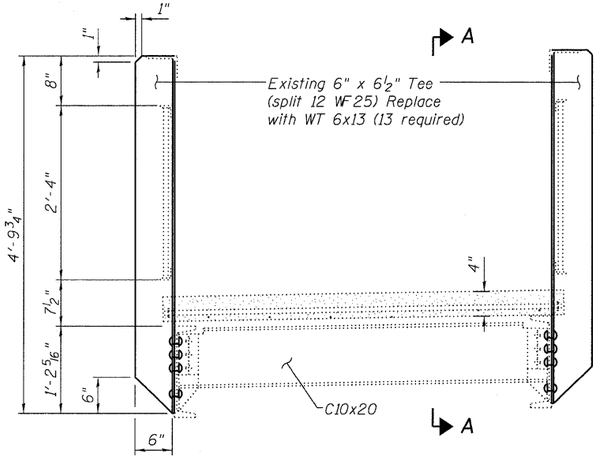
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS IV
STRUCTURE NO. 016-0421
SHEET NO. S-13 OF S-27 SHEETS

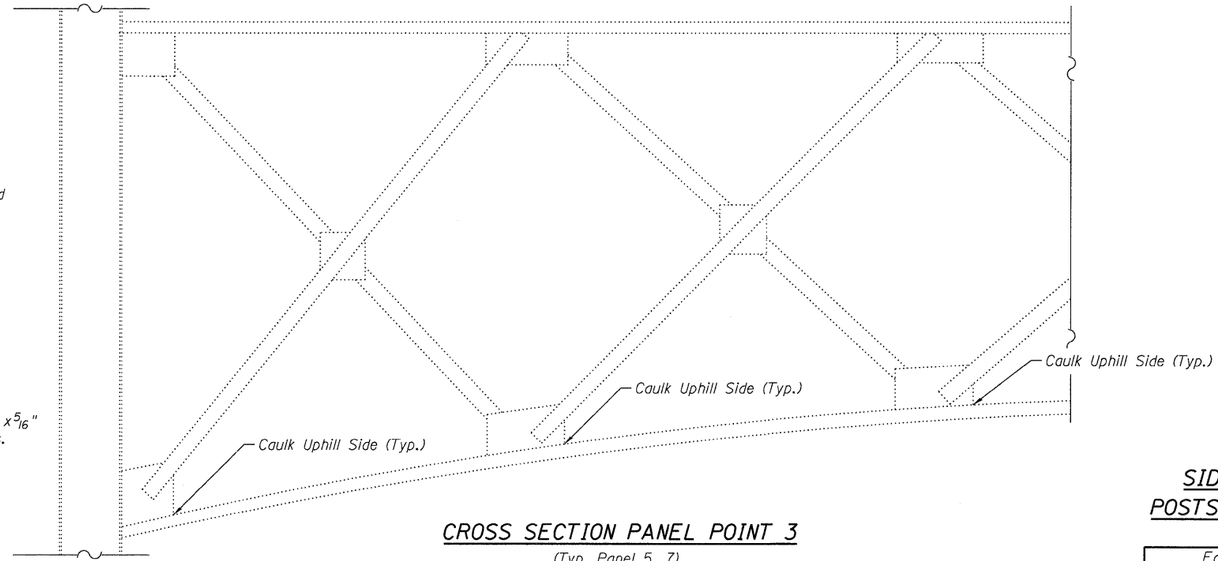
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	36
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			



SECTION @ PANEL POINT



SECTION @ THIRD PANEL POINT

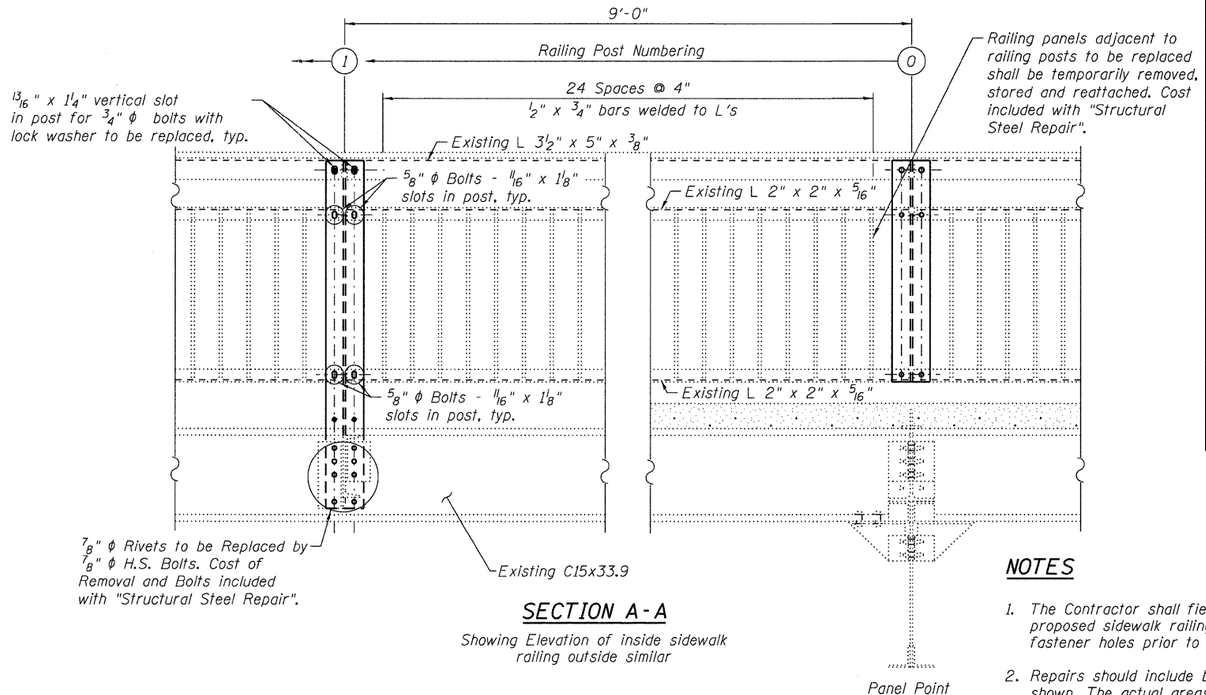


CROSS SECTION PANEL POINT 3

(Typ. Panel 5, 7)

CAULKING DETAIL

Caulk shall be applied to the designated locations to prevent moisture penetration between steel plys. Silicone caulk shall be used in accordance with manufacturers recommendations and the cost shall be included in the cost of "Cleaning and Painting Steel Bridge No. 1".



SECTION A-A

Showing Elevation of inside sidewalk railing outside similar

RAIL POST REPAIRS

SIDEWALK RAILING POSTS TO BE REPLACED

East Truss Inside Rail		
Location	Starting From Panel Point	Railing Post Number
L0-L1	L0	0, 1
L1-L2	L1	1
L3-L4	L3	2
L4-L5	L4	1
L5-L6	L5	1
L6-L7	L6	1
L8-L9	L8	1
L9-L10	L9	1
East Truss Outside Rail		
Location	Starting From Panel Point	Railing Post Number
L0-L1	L0	0
L2-L3	L2	0
L9-L10	L9	3
West Truss Inside Rail		
Location	Starting From Panel Point	Railing Post Number
L0-L1	L0	0
L4-L5	L4	2
L5-L6	L5	2
L7-L8	L7	1
L9-L10	L9	2
West Truss Outside Rail		
Location	Starting From Panel Point	Railing Post Number
L0-L1	L0	0
L2-L3	L2	0
L7-L8	L7	0
L9-L10	L9	1, 3

NOTES

1. The Contractor shall field verify the dimensions of the proposed sidewalk railing posts and the layout of the fastener holes prior to ordering material.
2. Repairs should include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of Construction.

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 14 Steel Repairs V.dgn

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	CHECKED - DL	REVISED -	
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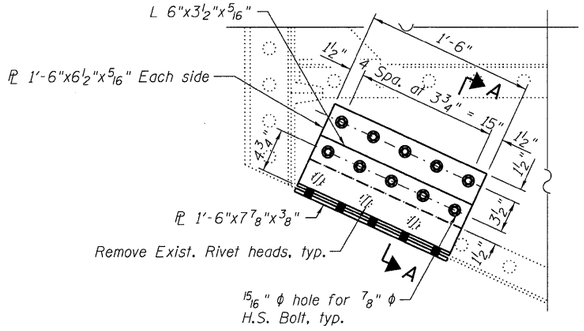
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

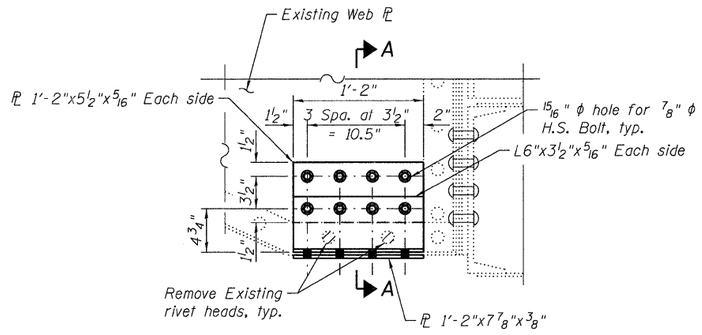
STEEL REPAIRS V
STRUCTURE NO. 016-0421
SHEET NO. S-14 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	37
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			



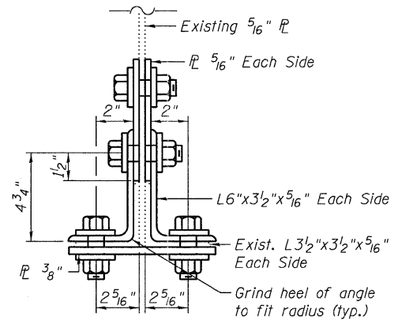
SIDEWALK BRACKET REPAIR - DETAIL 1

Location L9E



SIDEWALK BRACKET REPAIR - DETAIL 2

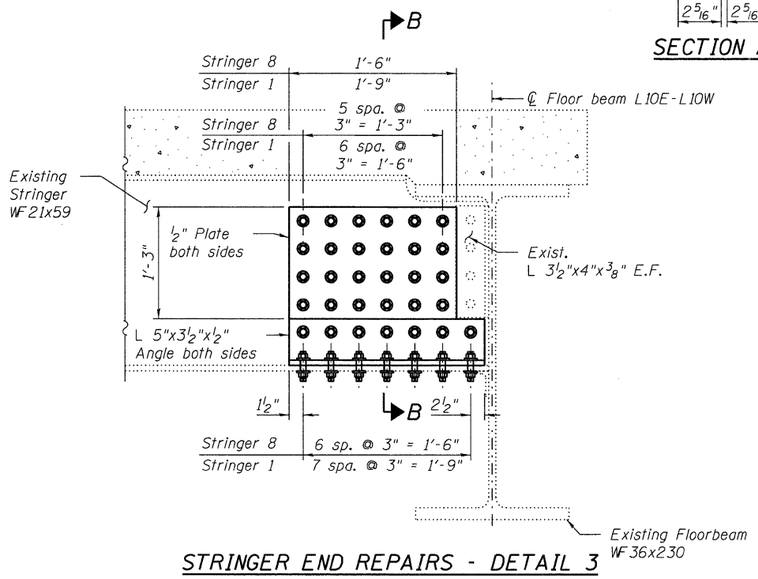
Locations L3E, L6E, L7E, L8E, L3W, L4W



SECTION A-A

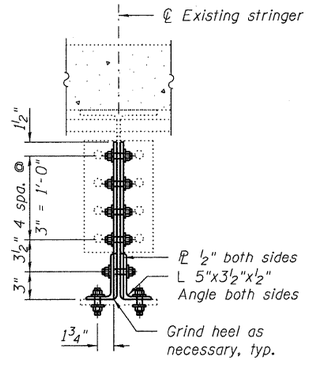
LEGEND:

- Existing Rivet to Remain
- Existing Rivet to be Removed and Replaced with 7/8" ϕ H.S. Bolts
- New 7/8" ϕ H.S. Bolt in 15/16" Hole. Use new plates as template for drilling.



STRINGER END REPAIRS - DETAIL 3

Field Drill Holes in stringer using holes in plates as templates



SECTION B-B

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	CHECKED - DL	REVISED -	
PLOT SCALE = 1:0 '' / in.	DRAWN - LVH	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - SCD	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS VI
STRUCTURE NO. 016-0421
SHEET NO. S-15 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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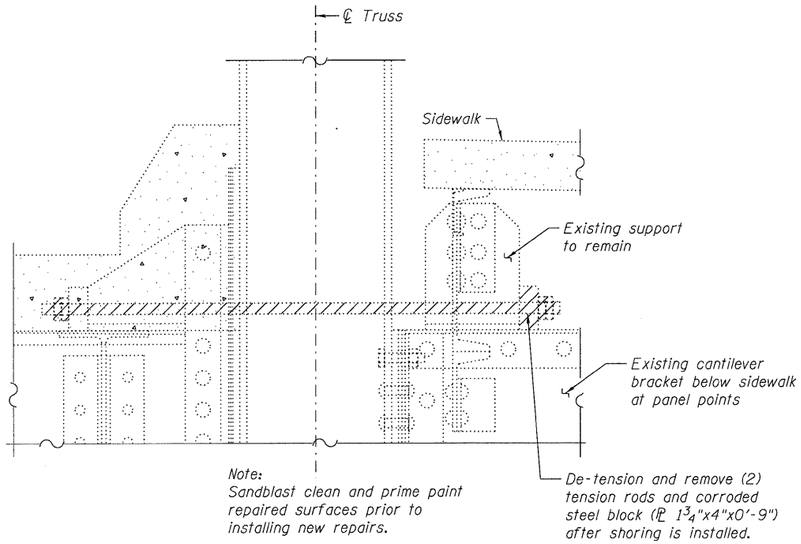
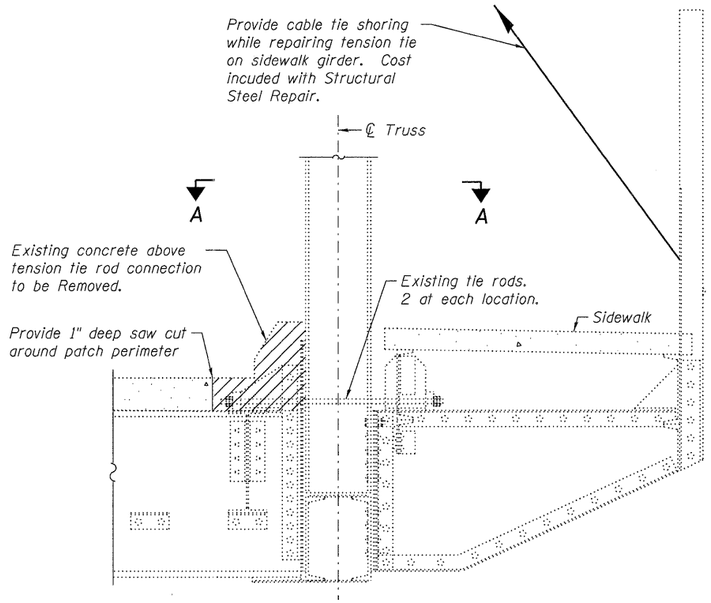
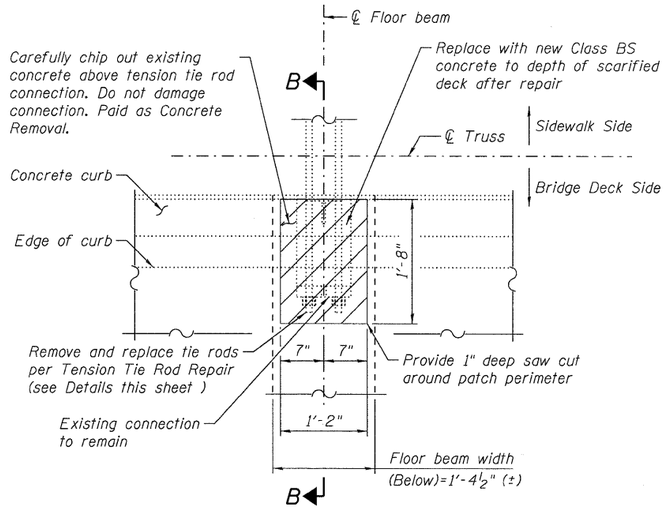
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			



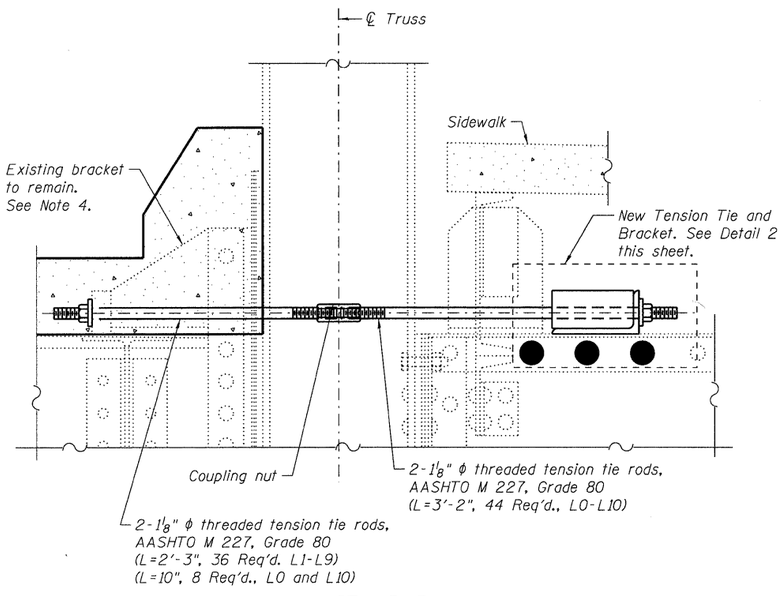
VIEW B-B
EXISTING CONDITIONS



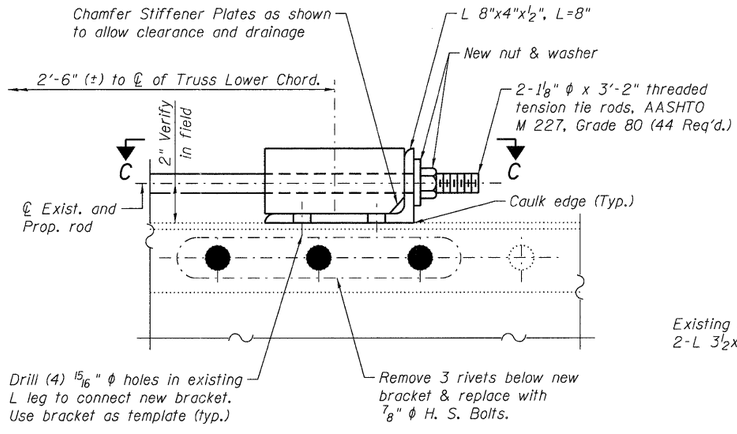
DETAIL 1
EXISTING SIDEWALK BRACKET



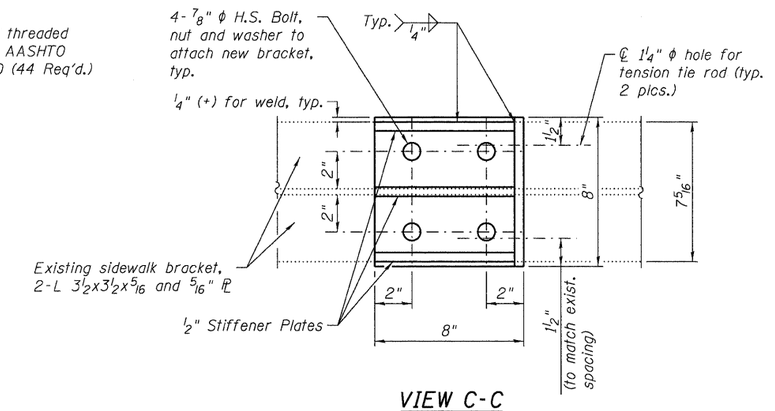
VIEW A-A
LIMITS OF CONCRETE REMOVAL
(For Tension Tie Rod repair)



VIEW B-B
PROPOSED CONDITION
At L0-L10 East and West



DETAIL 2
TENSION TIE AND BRACKET
(Sidewalk Side)



VIEW C-C
TENSION TIE BRACKET DETAIL

NOTES:

1. All dimensions shall be verified in the field before ordering materials.
2. All rivet removal shall follow Structural Steel Repair Special Provision.
3. Cost of materials, drilling holes, and removing rivets to make structural steel repairs are included in the cost of Structural Steel Repair.
4. The Engineer will inspect the existing bracket after concrete removal. The existing bracket shall be replaced in-kind if the Engineer deems that there is significant deterioration. This work shall be paid for as Structural Steel Repair.

BILL OF MATERIAL

ITEM	UNIT	QUANITY
Concrete Superstructure	Cu. Yd.	1.4

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS VII
STRUCTURE NO. 016-0421
SHEET NO. S-16 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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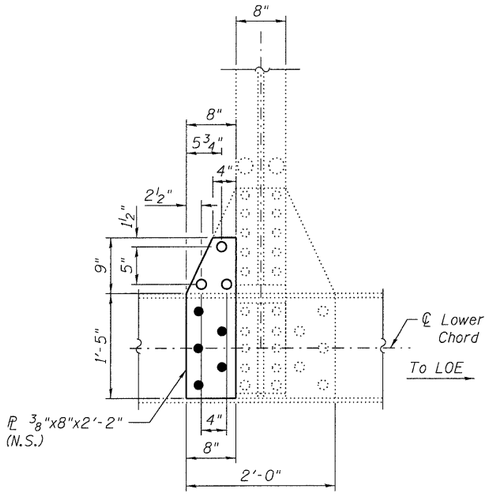
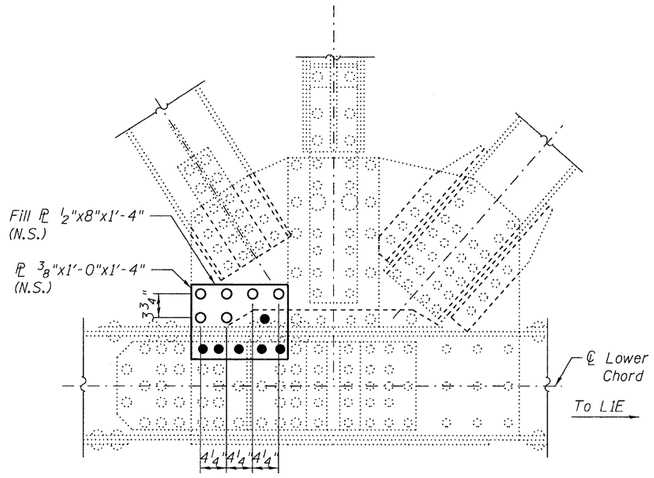
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			



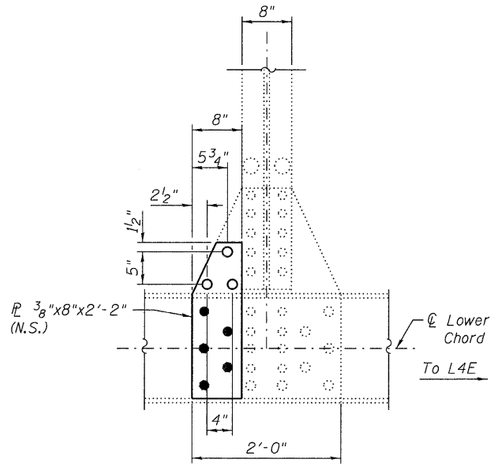
L1E

EAST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L1E
EAST TRUSS
(Looking West)



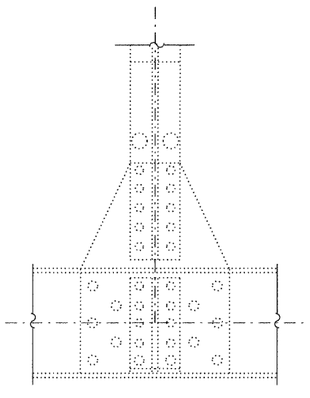
L2E

EAST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L2E
EAST TRUSS
(Looking West)



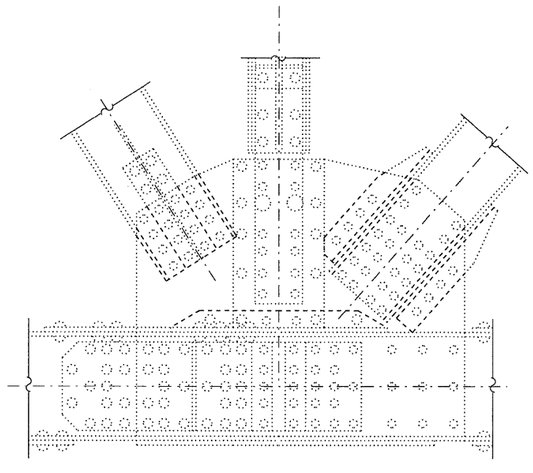
L5E

EAST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L5E
EAST TRUSS
(Looking West)



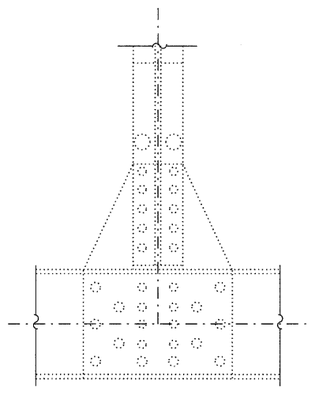
L1E

EAST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L1E
EAST TRUSS
(Looking West)



L2E

EAST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L2E
EAST TRUSS
(Looking West)



L5E

EAST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L5E
EAST TRUSS
(Looking West)

LEGEND:

- ○ *Indicates 15/16" ϕ shop drilled holes for 7/8" ϕ H.S. bolts. Contractor may elect to field drill holes.*
- ● *Indicates 15/16" ϕ field drill holes for 7/8" ϕ H.S. bolts.*

N.S. = Near Side

F.S. = Far Side

NOTES:

1. *The Contractor shall field verify the dimensions of the proposed connection plates, connection angles and the layout of the fastener holes prior to ordering materials. The minimum distance between the centers of any of the holes in any direction shall not be less than 2 5/8". The Bureau of Bridges and Structures shall be contacted for further disposition if the field measurements indicate that the location of the existing fasteners result in a center-to-center spacing of the holes in the proposed connection plates or connection angles of less than the minimum specified.*
2. *Existing gusset plate rivets are to be replaced one at a time with High Strength Bolts. At no time shall there be more than one empty fastener hole, however removal and replacement of the rivets for the inside and outside gusset plates may be done simultaneously. After the removal of each rivet, the holes shall be reamed to 15/16" ϕ, 7/8" ϕ H.S. Bolt placed in the hole, and the nut hand tightened. After the specified rivets have been removed, the nuts can be removed, plate installed, and the nuts reinstalled.*
3. *The Contractor shall field verify the required bolt length and length of thread necessary to install all bolts in accordance with the Standard Specifications and Section 8.2.1 of the 2004 RCSC "Specification for Structural Joints Using ASTM A325 or A490 Bolts".*
4. *Repairs should include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of Construction.*
5. *Work this sheet with Sheet S-18 thru S-21.*

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PLOT DATE = 9/9/2011	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS VIII
STRUCTURE NO. 016-0421
SHEET NO. S-17 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	40
		CONTRACT NO.	60N88	
	ILLINOIS FED. AID PROJECT			

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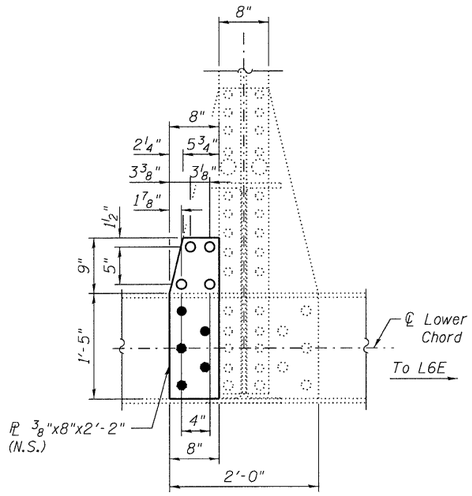
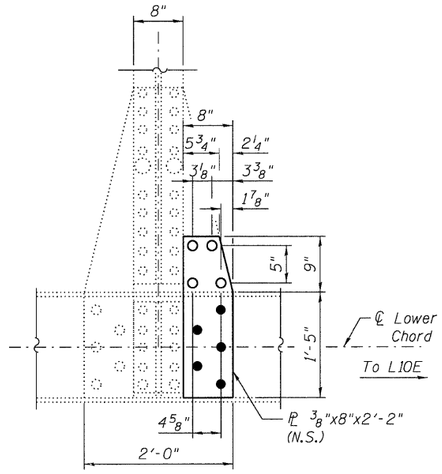


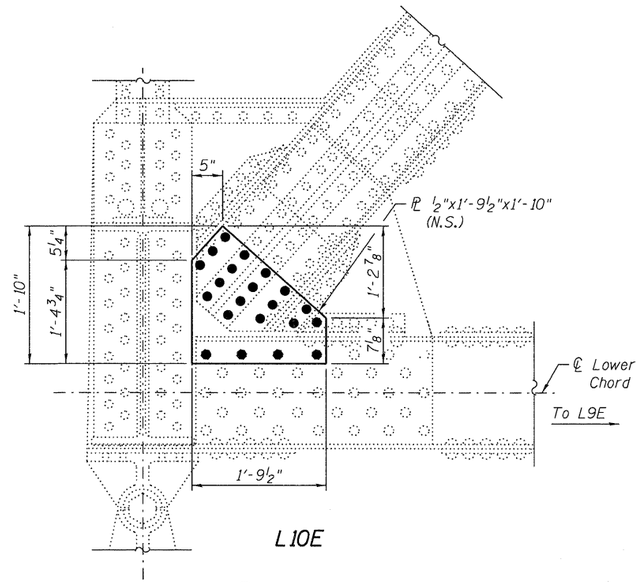
L5E

WEST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L5E
EAST TRUSS
(Looking East)



L9E

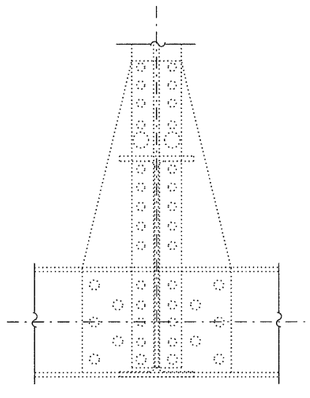
WEST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L9E
EAST TRUSS
(Looking East)



L10E

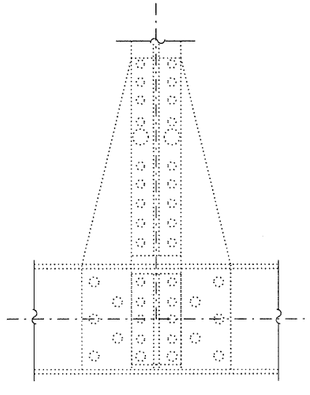
EAST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L10E
EAST TRUSS
(Looking West)

Note:
For Repair Notes and Legend see Sheet S-17.



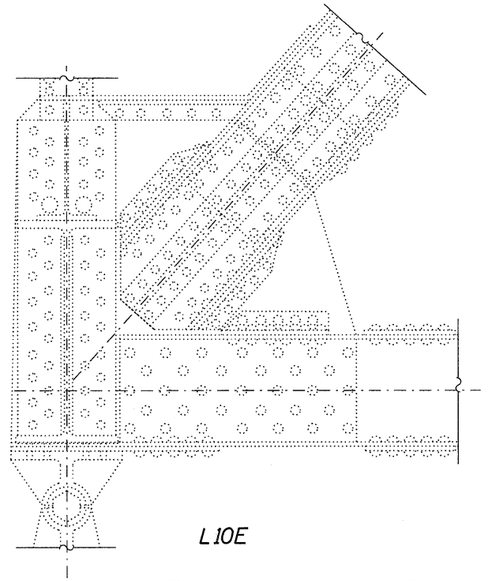
L5E

WEST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L5E
EAST TRUSS
(Looking East)



L9E

WEST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L9E
EAST TRUSS
(Looking East)



L10E

EAST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L10E
EAST TRUSS
(Looking West)

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 18 Steel Repairs IX.dgn

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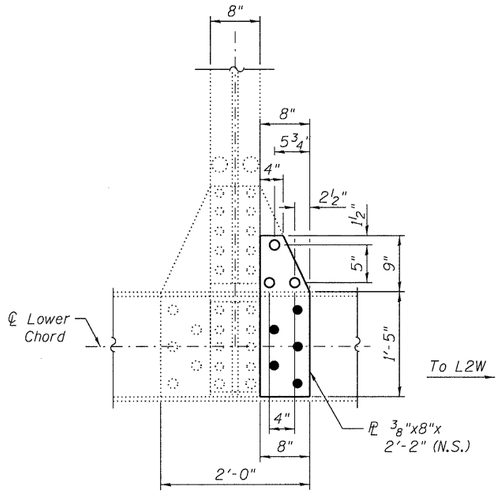
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

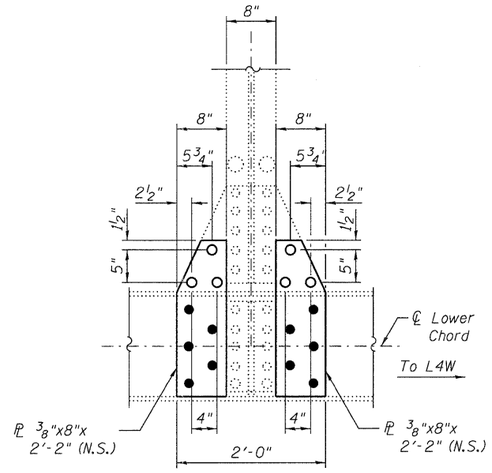
STEEL REPAIRS IX
STRUCTURE NO. 016-0421
SHEET NO. S-18 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	41
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			



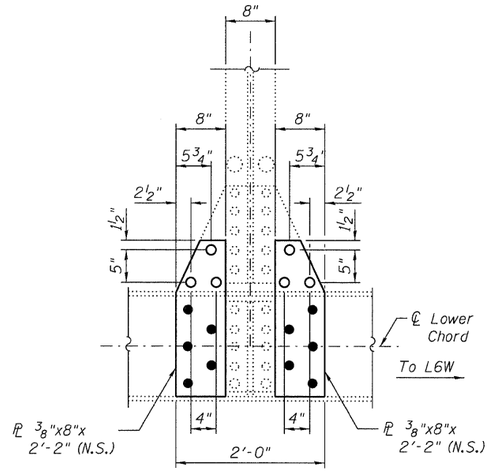
L1W

WEST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L1W
WEST TRUSS
(Looking East)



L3W

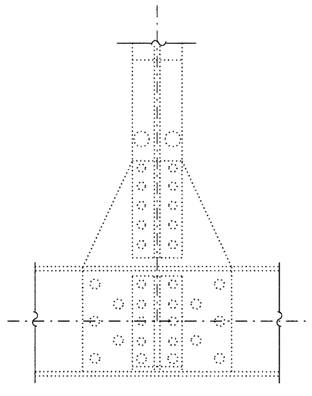
WEST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L3W
WEST TRUSS
(Looking East)



L5W

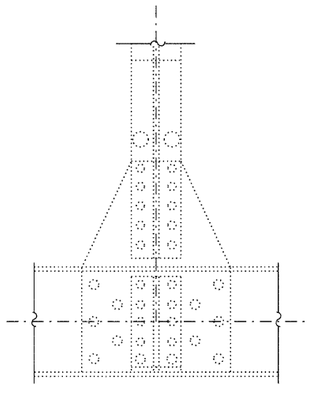
WEST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L5W
WEST TRUSS
(Looking East)

Note:
For Repair Notes and Legend see Sheet S-17.



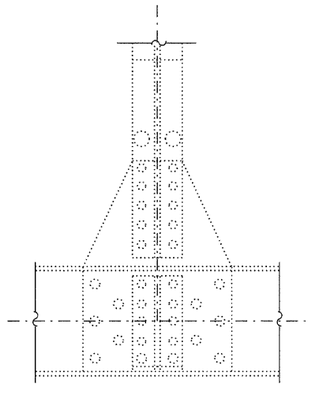
L1W

WEST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L1W
WEST TRUSS
(Looking East)



L3W

WEST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L3W
WEST TRUSS
(Looking East)



L5W

WEST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L5W
WEST TRUSS
(Looking East)

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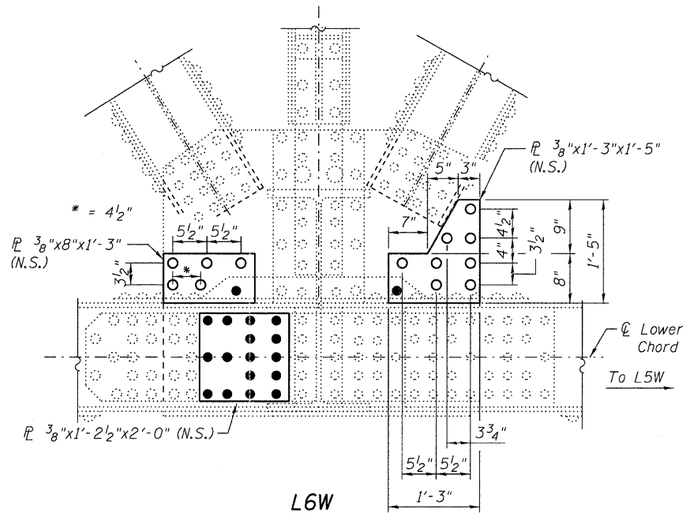
PLOT DATE = 9/9/2011	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIRS X
STRUCTURE NO. 016-0421
SHEET NO. S-19 OF S-27 SHEETS

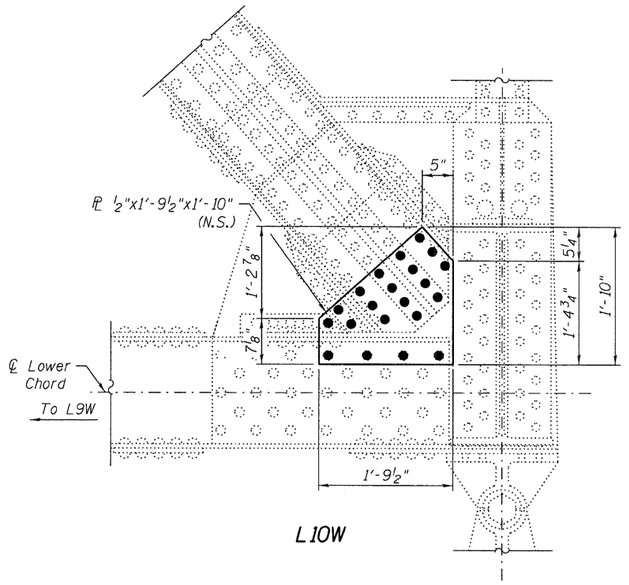
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	42
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 19 Steel Repairs X.dgn



L6W

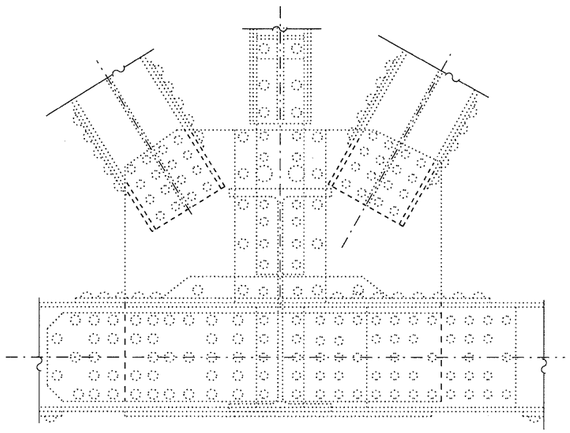
EAST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L6W
WEST TRUSS
(Looking West)



L10W

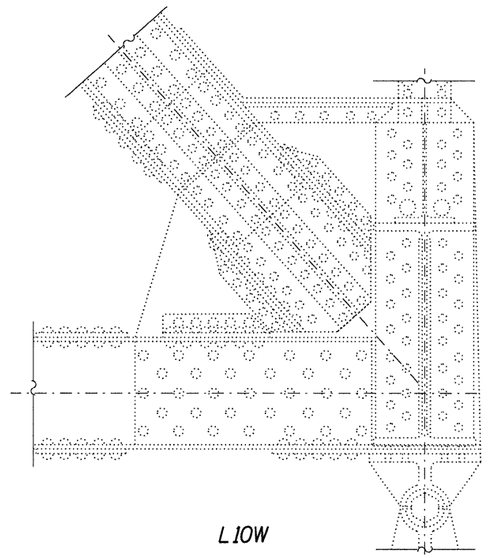
WEST GUSSET ℄ ELEVATION - PROPOSED
AT JOINT L10W
WEST TRUSS
(Looking East)

Note:
For Repair Notes and Legend see Sheet S-17.



L6W

EAST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L6W
WEST TRUSS
(Looking West)



L10W

WEST GUSSET ℄ ELEVATION - EXISTING
AT JOINT L10W
WEST TRUSS
(Looking East)

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 20 Steel Repairs XI.dgn

Ciorba Group, Inc.
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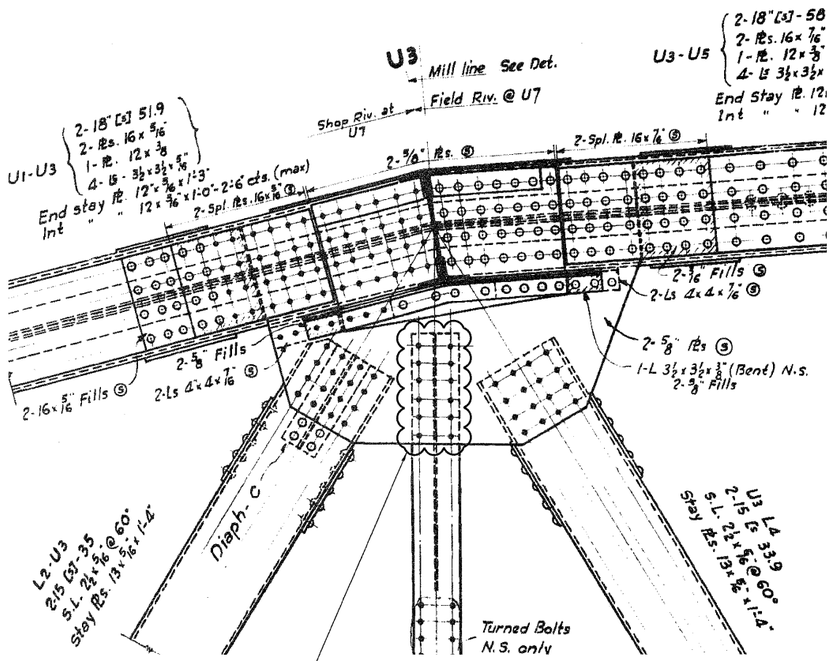
USER NAME = akhan	DESIGNED - DL	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 1.000000 ' / in.	DRAWN - LVH	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

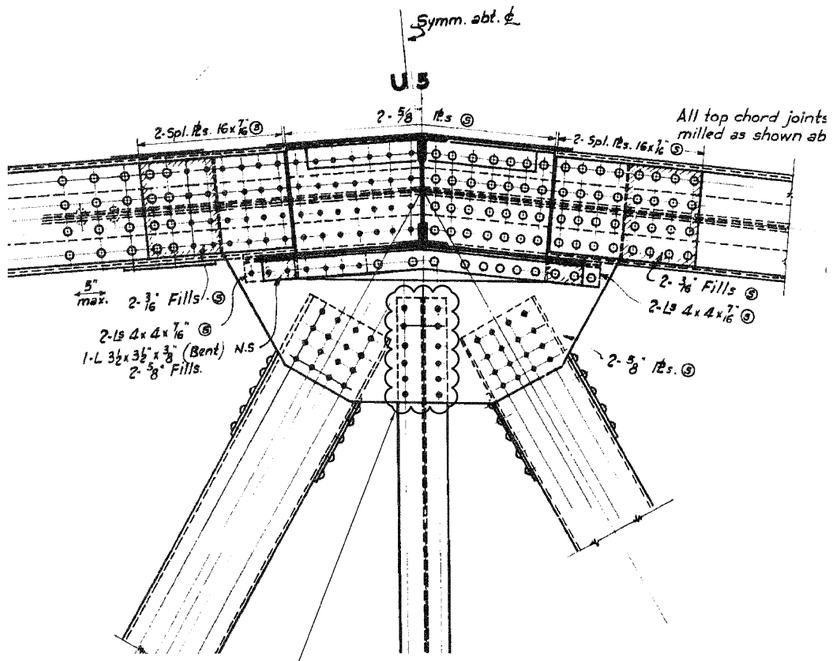
STEEL REPAIRS XI
STRUCTURE NO. 016-0421
SHEET NO. S-20 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	43
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			



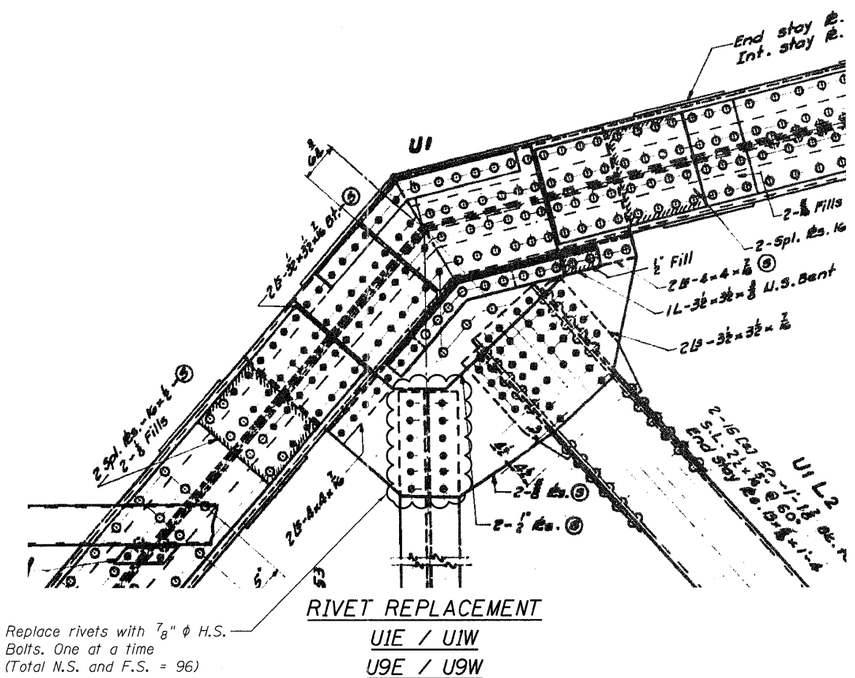
Replace rivets with 7/8" ϕ H.S. Bolts. One at a time (Total N.S. and F.S. = 96)

RIVET REPLACEMENT
U3E / U3W
U7E / U7W



Replace rivets with 7/8" ϕ H.S. Bolts. One at a time (Total N.S. and F.S. = 48)

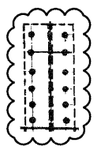
RIVET REPLACEMENT
U5E / U5W



Replace rivets with 7/8" ϕ H.S. Bolts. One at a time (Total N.S. and F.S. = 96)

RIVET REPLACEMENT
U1E / U1W
U9E / U9W

LEGEND:



Indicates rivets to be removed and replaced with 7/8" ϕ H.S. Bolts

BILL OF MATERIALS

ITEM	UNIT	TOTAL
Rivet Removal and Replacement	Each	240

NOTES:

1. Existing rivets adjacent to members to remain shall not be burned off. All rivet removal shall be paid for as "Rivet Removal and Replacement" in accordance with Special Provision for Rivet Removal and Replacement.
2. Repairs should include but not be limited to the areas shown. The actual areas to be determined by the Engineer at the time of Construction.
3. For Repair Notes see Sheet S-17.

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 21 Steel Repairs XII.dgn

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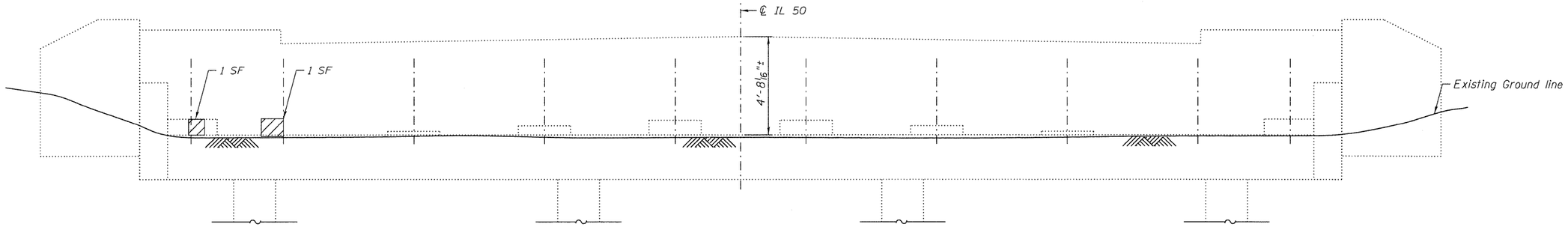
USER NAME = akhan	DESIGNED - DL	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 1.000000 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - BWS	REVISED -	

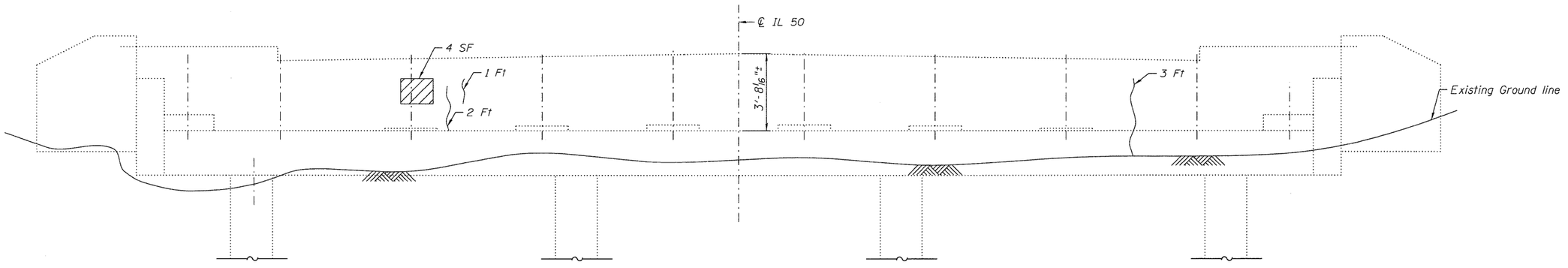
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR XII
STRUCTURE NO. 016-0421
SHEET NO. S-21 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	44
		CONTRACT NO.	60N88	
	ILLINOIS	FED. AID PROJECT		



NORTH ABUTMENT ELEVATION
(Looking North)



SOUTH ABUTMENT ELEVATION
(Looking South)

NOTES:

1. Repairs shall include but not be limited to the areas shown on the plan. The actual areas to be repaired will be determined by the Engineer at the time of construction.
2. Concrete sealer shall be applied to all structural repair of concrete on backwalls and bridge seats.

LEGEND

Structural Repair of Concrete (Depth Equal to or less than 5 inches)

Epoxy Crack Injection

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	6
Epoxy Crack Injection	Feet	6
Concrete Sealer	Sq. Ft.	6

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USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - AMK	REVISED -	
PLOT SCALE = 2.8 '/ in.	DRAWN - LVH	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

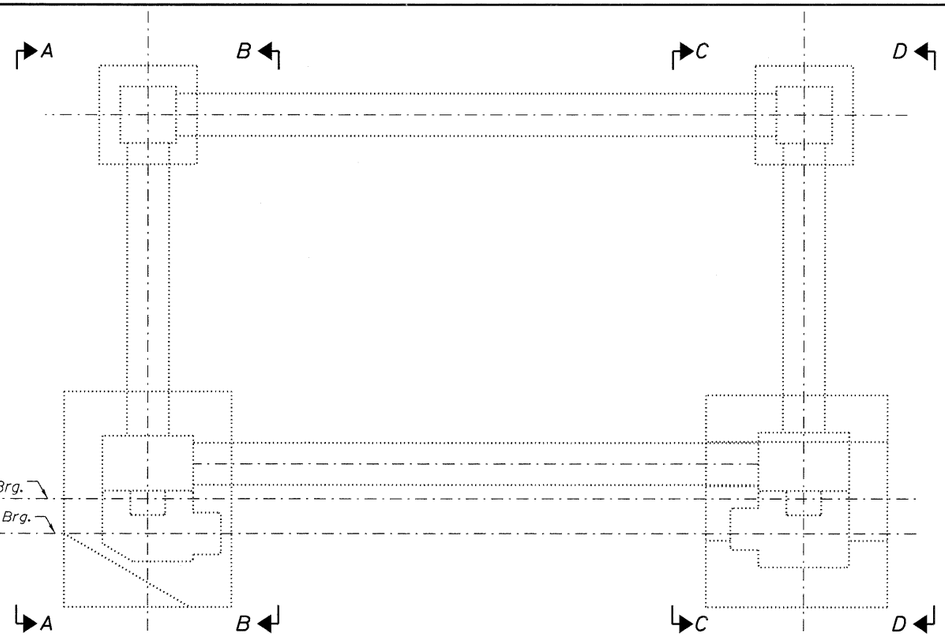
ABUTMENT REPAIRS
STRUCTURE NO. 016-0421
SHEET NO. S-22 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	45
		CONTRACT NO. 60N88		
	ILLINOIS FED. AID PROJECT			

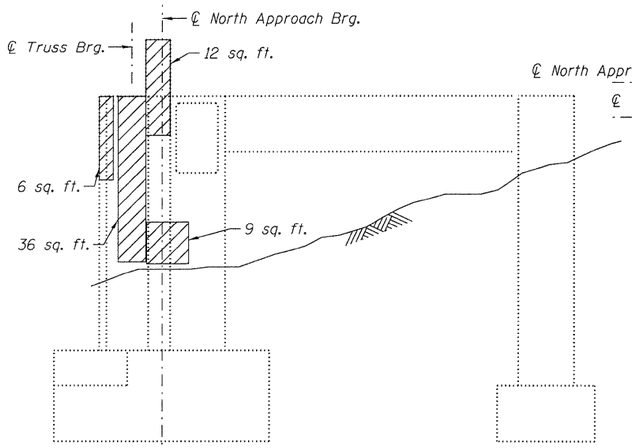
N:\PROJ\03398.00\Design\Structural\CAD\03398.00 22 Abutment Repairs.dgn

NOTES:

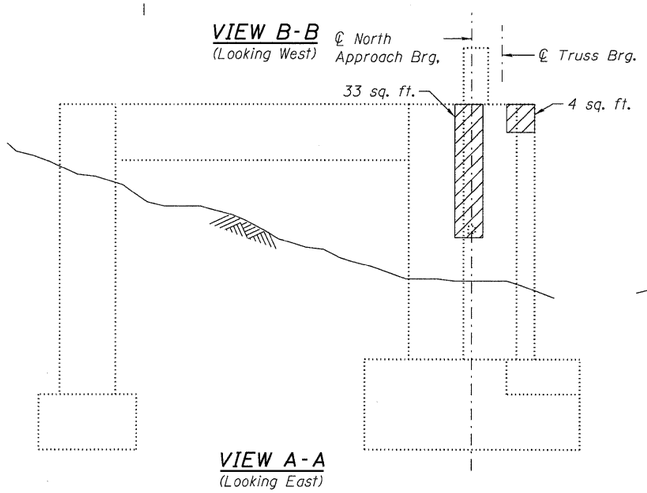
1. There will be no structural repair of concrete performed on areas of the pier not directly supporting the superstructure.
2. Concrete Sealer shall be applied to all structural repair of concrete on the bearing seats.
3. Concrete repairs on the piers should match the same finish as the existing piers.
4. Repairs of the existing piers shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.



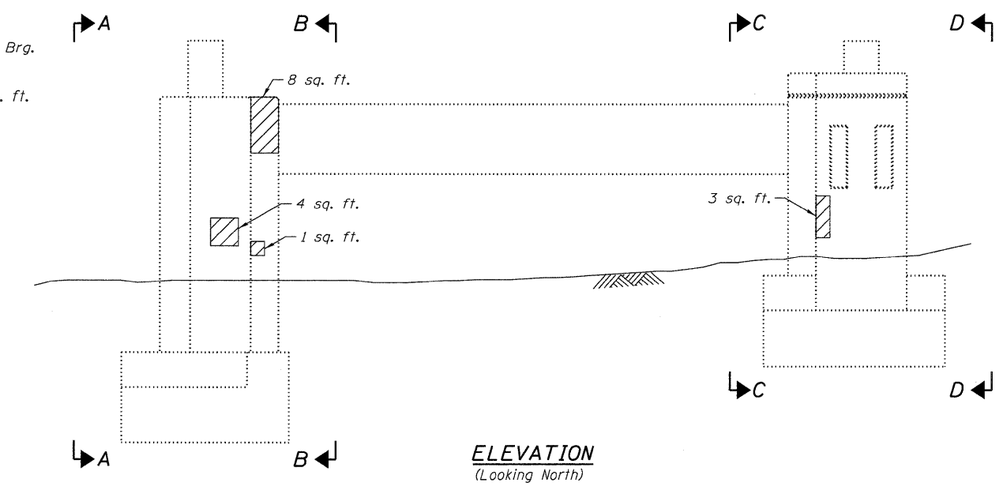
PLAN



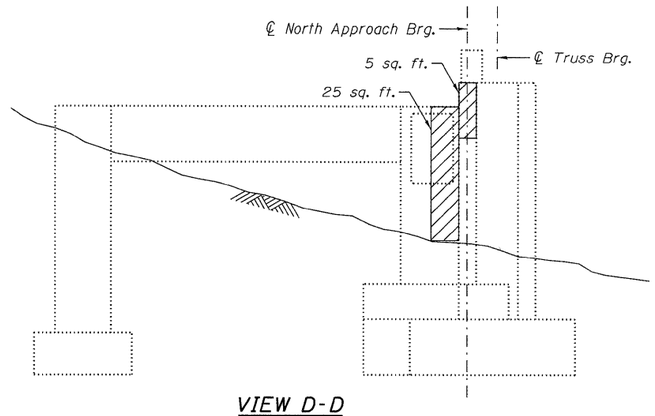
VIEW B-B
(Looking West)



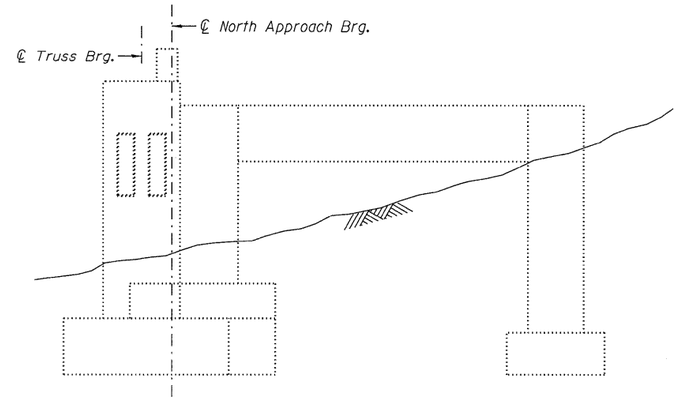
VIEW A-A
(Looking East)



ELEVATION
(Looking North)



VIEW D-D
(Looking West)



VIEW C-C
(Looking East)

LEGEND

Structural Repair of Concrete
(Depth Equal to or Less than 5 inches)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	146
Concrete Sealer	Sq. Ft.	12

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N:\PROJ\03398.00\Design\Structural\CAD\03398.00 23 Pier 1 Repairs.dgn

USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - AMK	REVISED -	
PLOT SCALE = 5:4 '/ in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

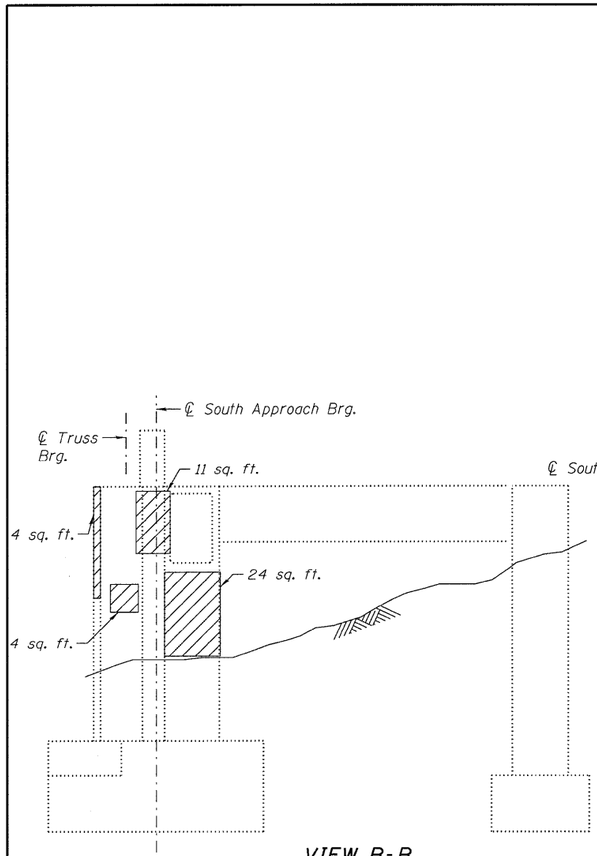
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REPAIRS
STRUCTURE NO. 016-0421
SHEET NO. S-23 OF S-27 SHEETS

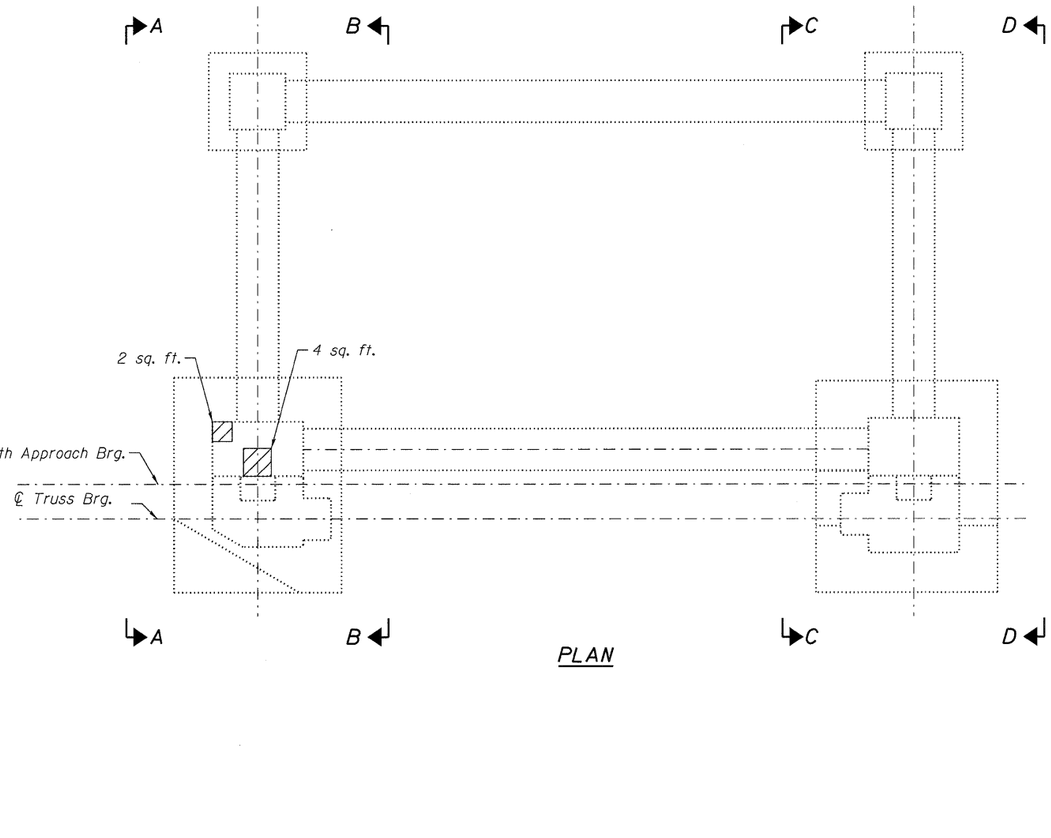
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	46
		CONTRACT NO. 60N88		
		ILLINOIS FED. AID PROJECT		

NOTES:

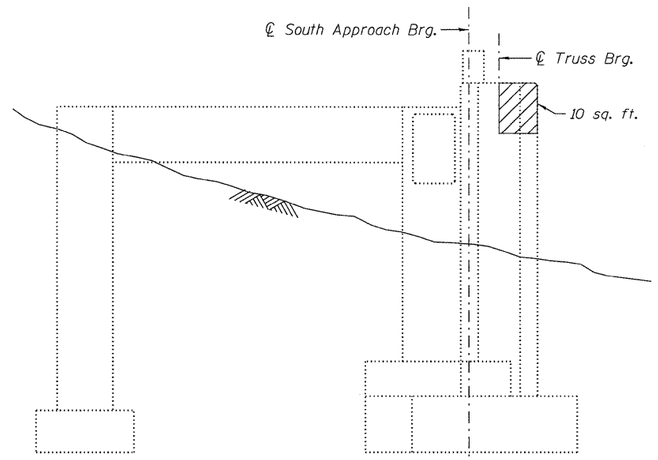
1. There will be no structural repair of concrete performed on areas of the pier not directly supporting the superstructure.
2. Concrete Sealer shall be applied to all structural repair of concrete on the bearing seats.
3. Concrete repairs on the piers should match the same finish as the existing piers.
4. Repairs of the existing piers shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.



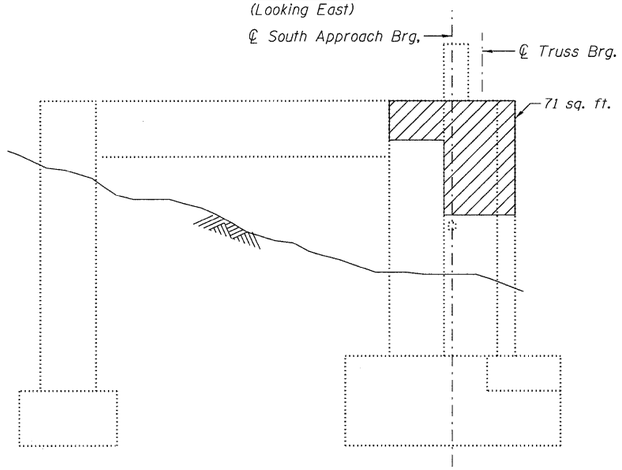
VIEW B-B
(Looking East)



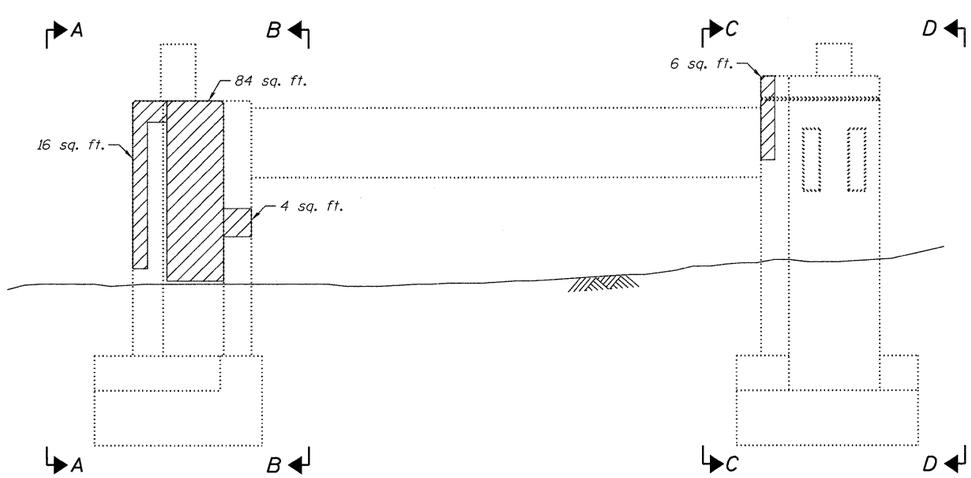
PLAN



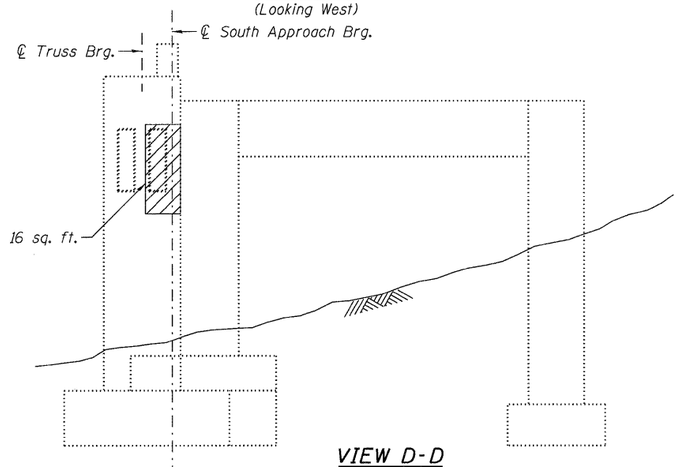
VIEW C-C
(Looking West)



VIEW A-A
(Looking West)



ELEVATION
(Looking South)



VIEW D-D
(Looking East)

LEGEND

Structural Repair of Concrete
(Depth Equal to or Less than 5 inches)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	256
Concrete Sealer	Sq. Ft.	4

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 24 Pier 2 Repairs.dgn

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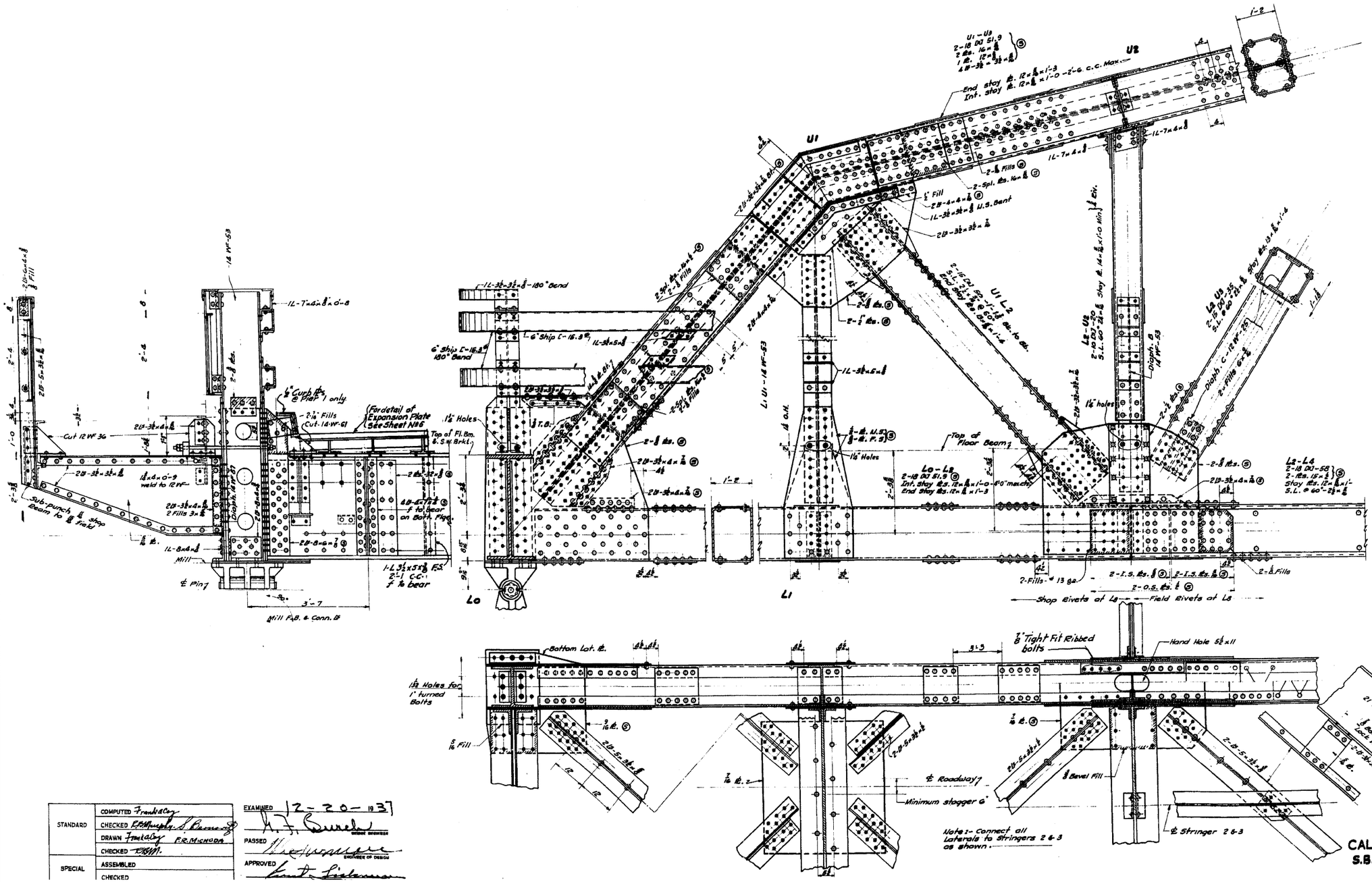
USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - AMK	REVISED -	
PLOT SCALE = 5:4 '1' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - AMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REPAIRS
STRUCTURE NO. 016-0421
SHEET NO. S-24 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	47
		CONTRACT NO.	60N88	
	ILLINOIS FED. AID PROJECT			



STANDARD	COMPUTED	Frankacy
	CHECKED	E.R.Murphy-S.Barnes
	DRAWN	Frankacy F.R.MICHODA
	CHECKED	E.R.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-20-1937
PASSED
APPROVED

FOR INFORMATION ONLY

SPAN-2 TRUSS L0-L2
PROJECT 141-G
CALUMET- SAG CHANNEL BRIDGE
S.B.I. ROUTE 50 - SEC. 3068-F-E-P
COOK COUNTY

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Fax 773.775.4014
Email chicago@clorba.com

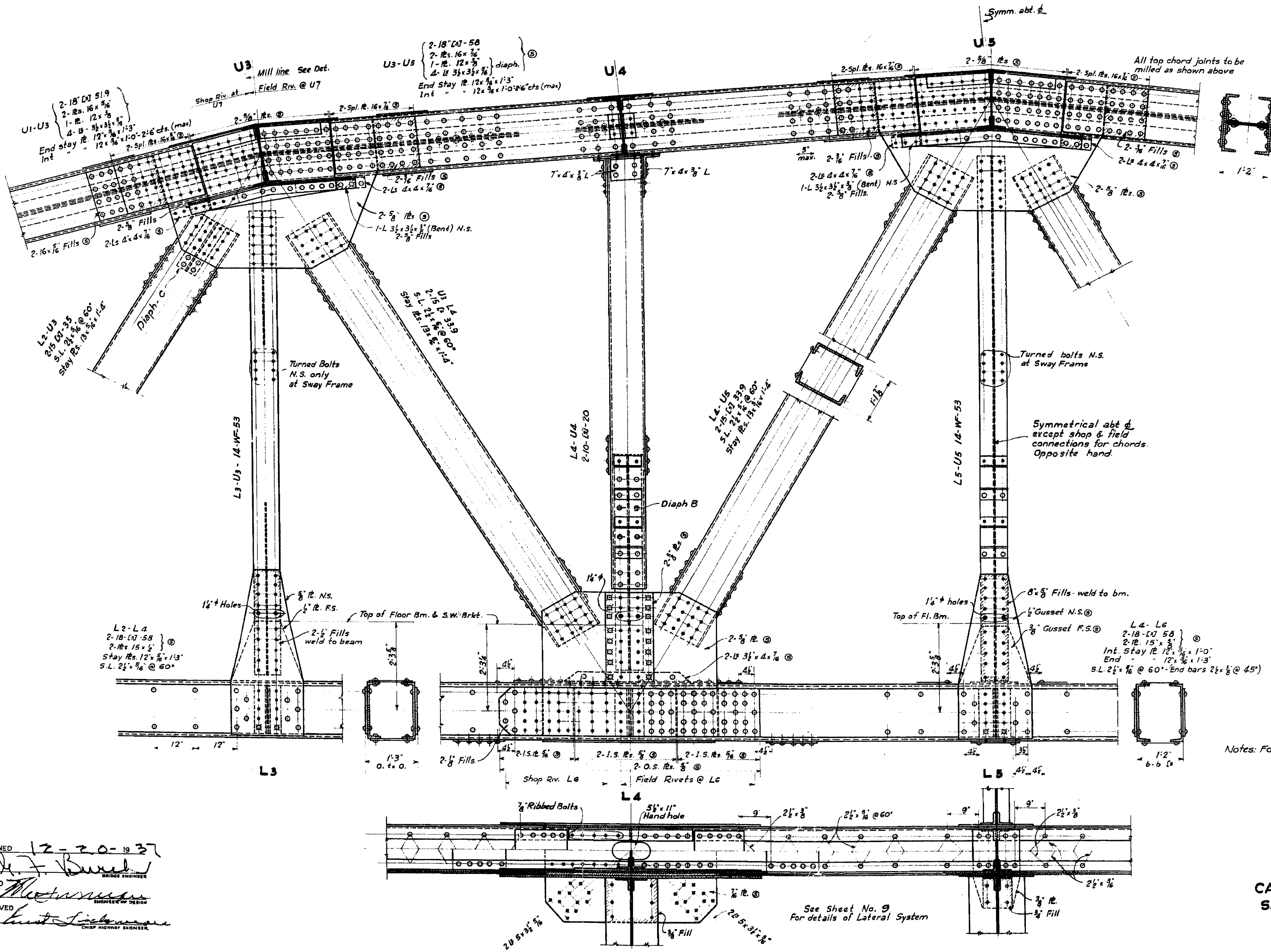
USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - DL	REVISED -	
PLOT SCALE = 0.1 '/' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TRUSS DETAILS I
STRUCTURE NO. 016-0421
SHEET NO. S-25 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	48
		CONTRACT NO.	60N88	
	ILLINOIS FED. AID PROJECT			

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 25 Existing Truss Details I.dgn



Notes: For General Notes see Sh. #8

SPAN 2- L3 L5
PROJECT 141-G
CALUMET-SAG CHANNEL BRIDGE
S.B.I. ROUTE 50-SEC. 3068 F-E-P
COOK COUNTY

STANDARD	COMPUTED	
	CHECKED	
	DRAWN	
	CHECKED	
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 12-20-1937
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

FOR INFORMATION ONLY

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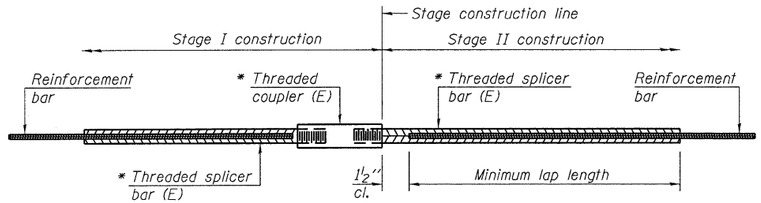
USER NAME = akhan	DESIGNED BWS	REVISED -	
	CHECKED - DL	REVISED -	
PLOT SCALE = 0.1 ' / in.	DRAWN RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TRUSS DETAILS II
STRUCTURE NO. 016-0421
SHEET NO. S-26 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	49
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 26 Existing Truss Details II.dgn



STANDARD BAR SPLICER ASSEMBLY

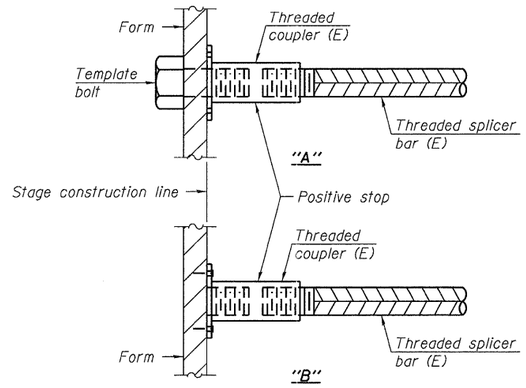
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

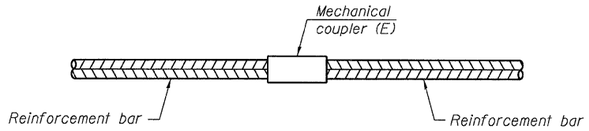
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Pier 1, Pier 2	#5	44	3
N. & S. Abutment	#6	10	3
N. & S. Abutment	#5	16	3



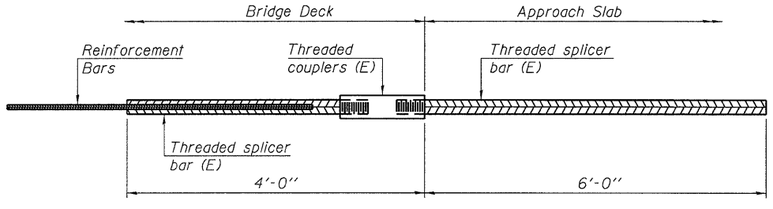
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



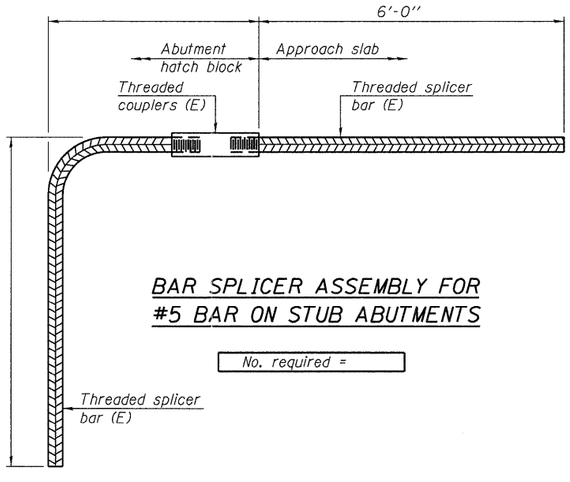
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

7-1-10

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402, Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4516
Email chicago@ciorba.com

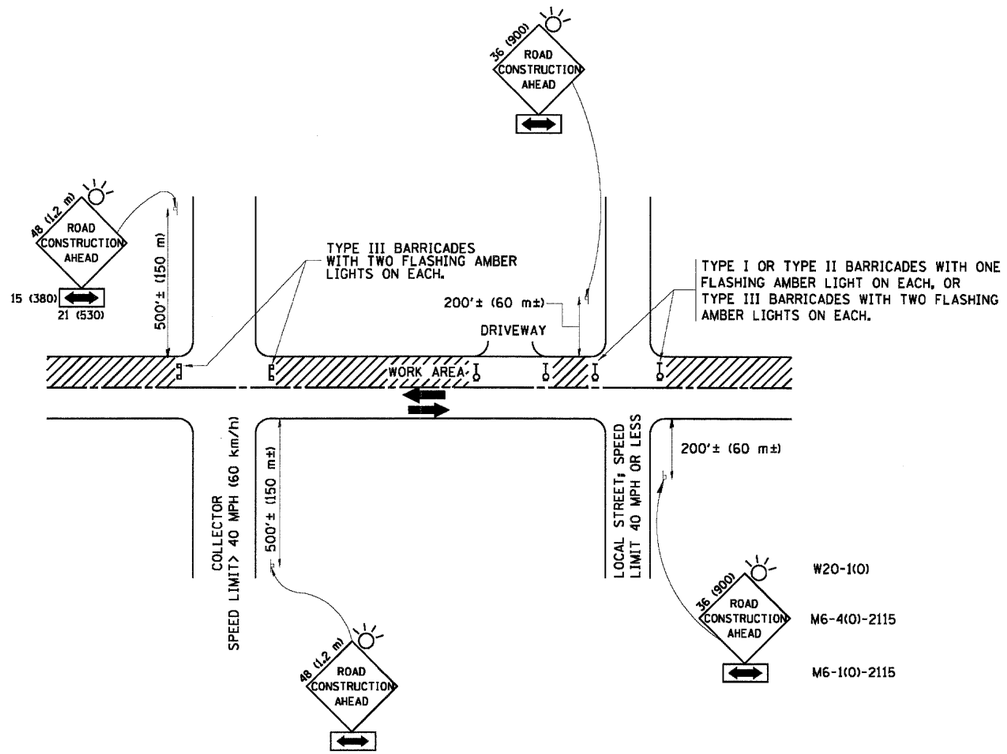
USER NAME = akhan	DESIGNED - BWS	REVISED -	
	CHECKED - DL	REVISED -	
PLOT SCALE = 0.1 '/ IN.	DRAWN - RD	REVISED -	
PLOT DATE = 9/9/2011	CHECKED - DL	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-0421
SHEET NO. S-27 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	50
		CONTRACT NO.		60N88
	ILLINOIS FED. AID PROJECT			

N:\PROJ\03398.00\Design\Structural\CAD\03398.00 27 Bar Splicer Detail.dgn



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

NOTES:

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

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

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

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

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

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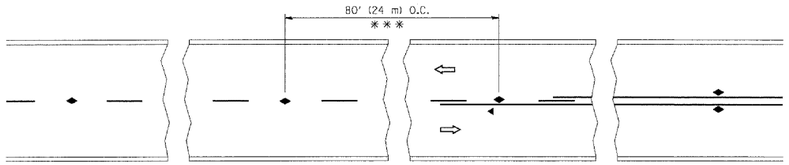
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.200 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2228	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

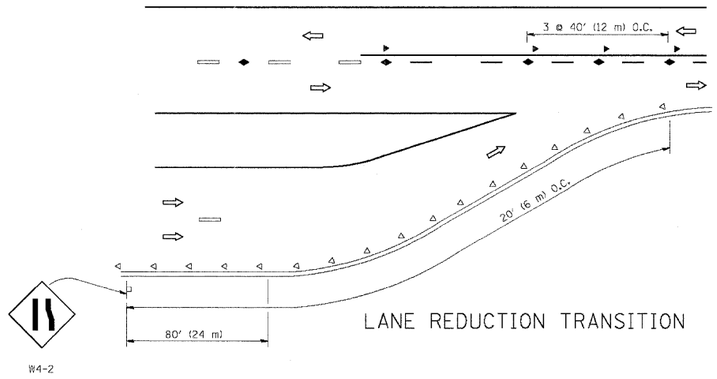
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	51
	TC-10	CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

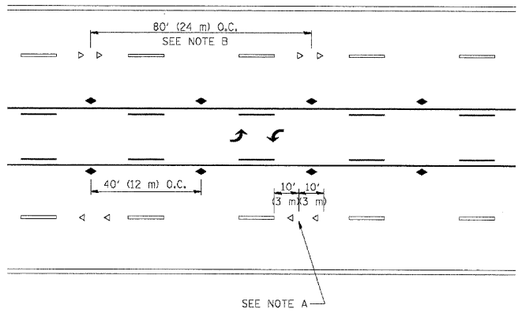


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 Km/h) OR LESS.

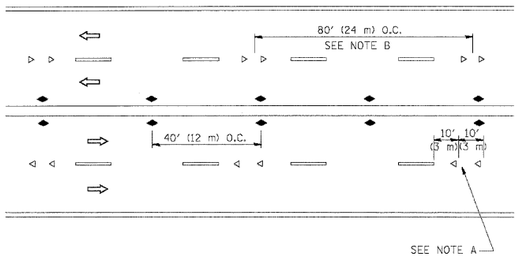
TWO-LANE/TWO-WAY



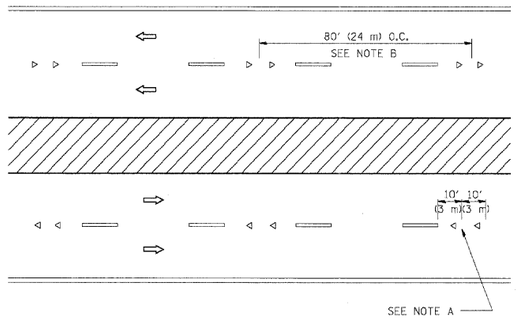
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

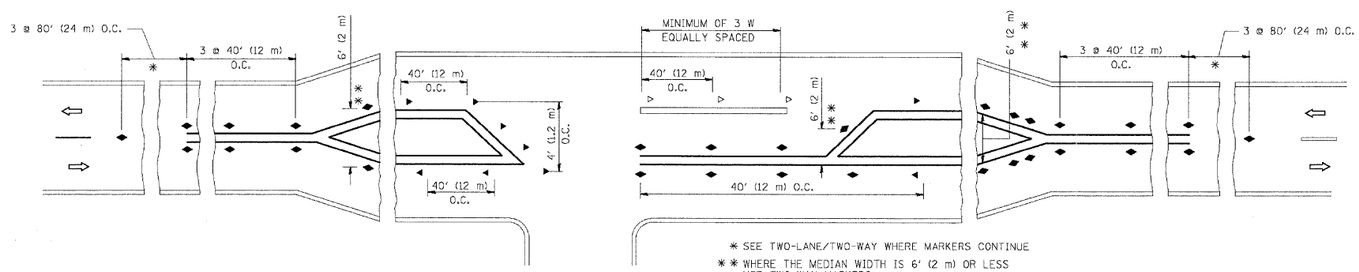
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

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

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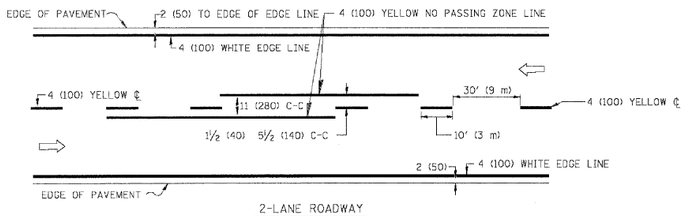
		DRAWN -	REVISED -T. RAMMACHER 03-12-99
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00
	PLOT DATE = 9/9/2009	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

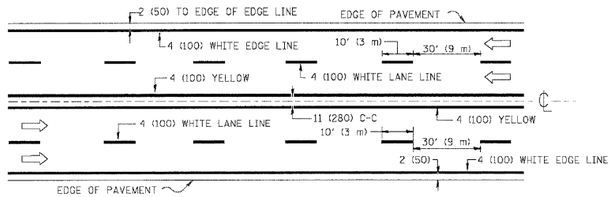
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

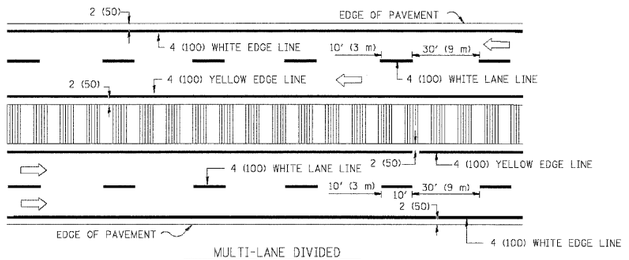
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	52
	TC-11	CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



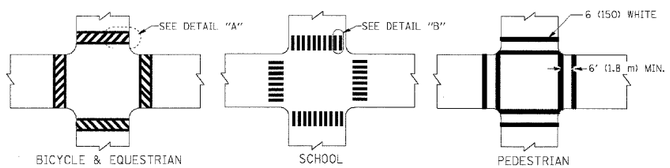
MULTI-LANE UNDIVIDED



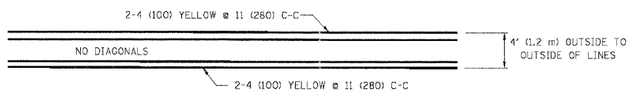
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

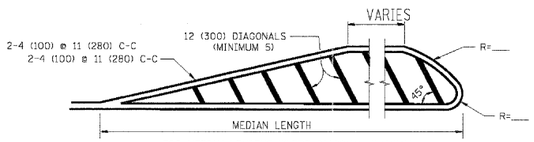
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



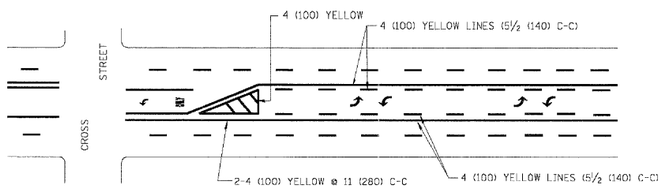
4' (1.2 m) WIDE MEDIANS ONLY



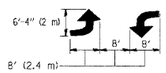
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

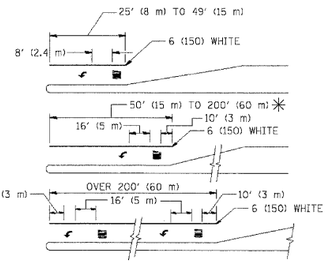


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

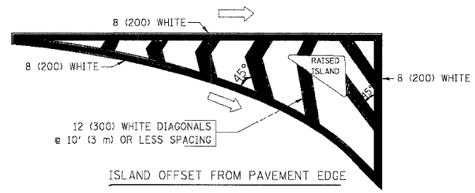


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

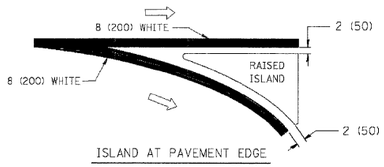
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

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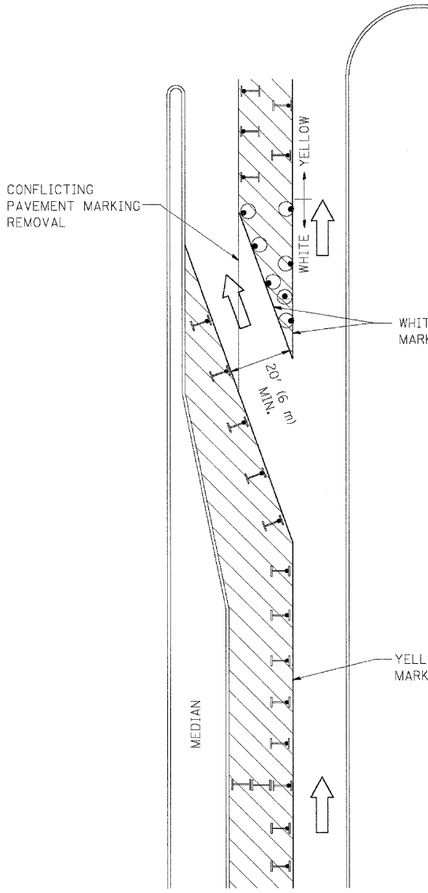
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

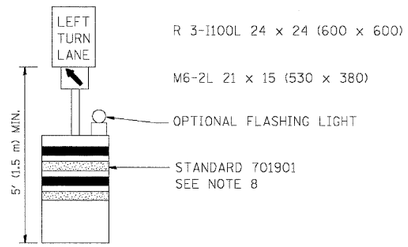
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	53
	TC-13	CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

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

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	PLOT SCALE = 49.9999 '/ IN.	REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT DATE = 9/14/2009	REVISED - A. HOUSEH 10-12-96	REVISED -
		REVISED -T. RAMMACHER 01-06-00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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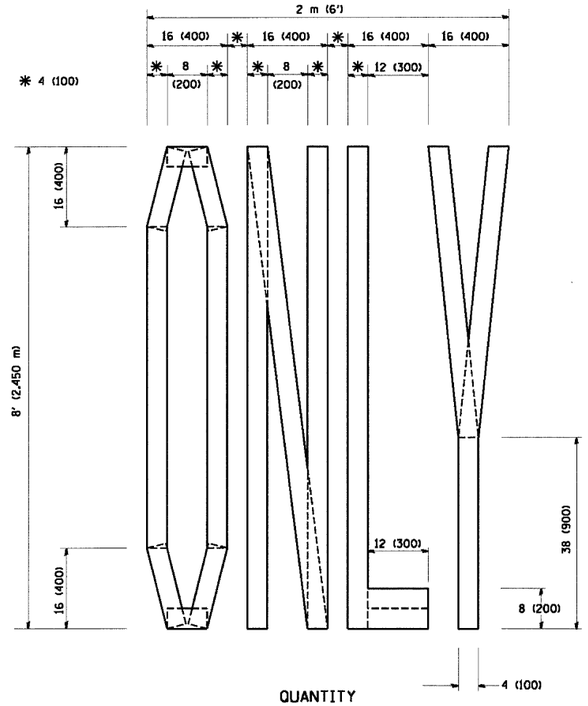
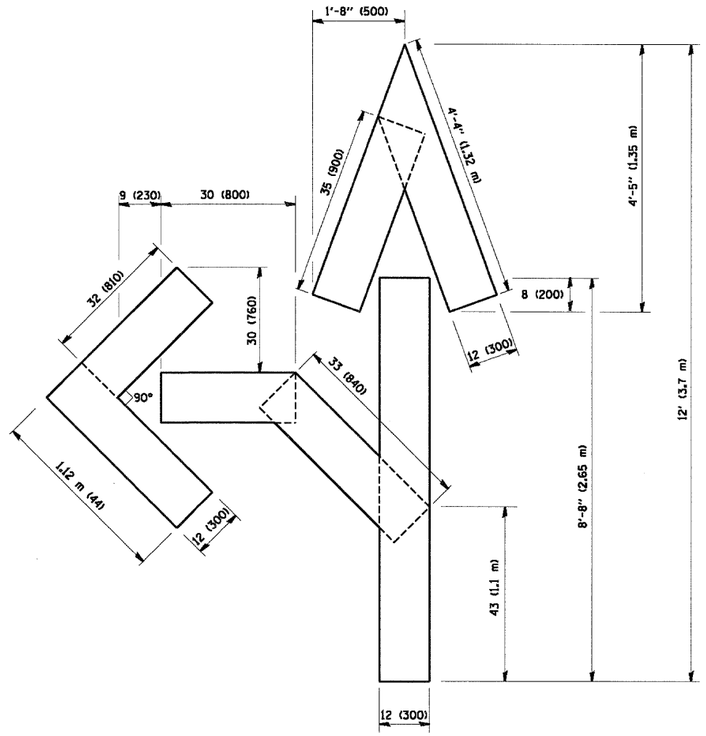
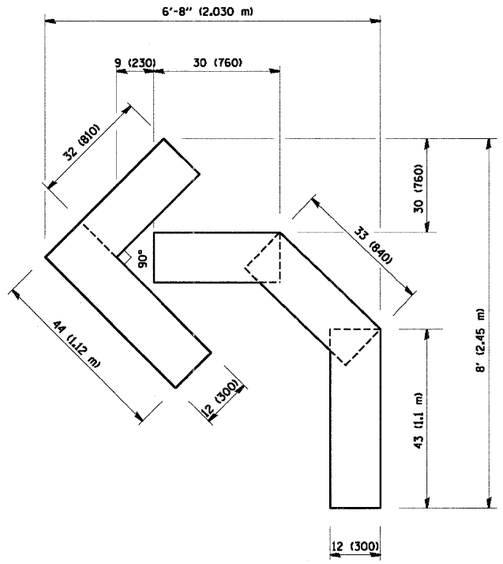
	TC-14	CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

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

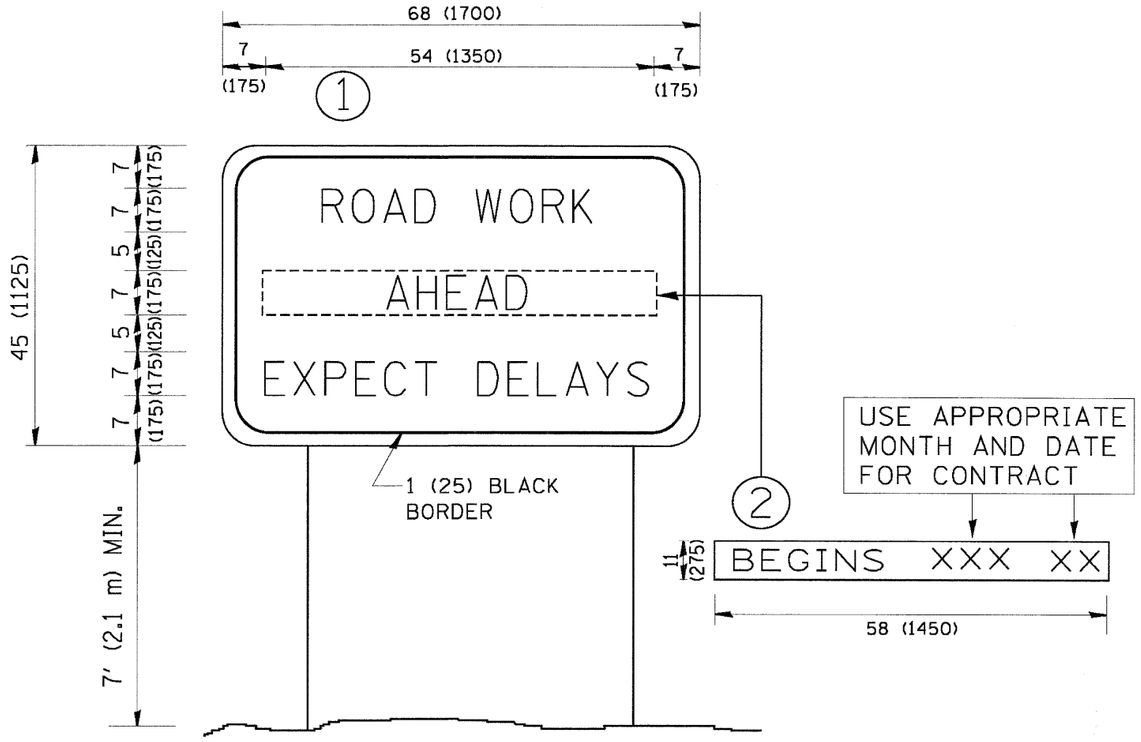
FILE NAME = W:\diststd\22x34\tc16.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 52.2022 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2228	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	55
	TC-16	CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

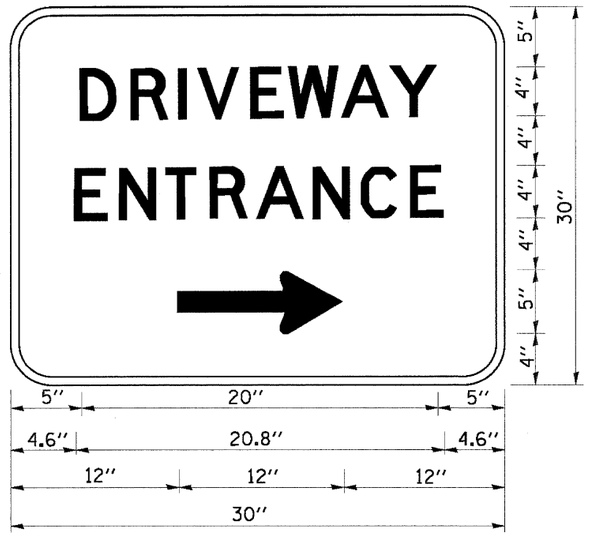
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gagliansbt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2000	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	3068 A-B-R-1	COOK	57	56
	TC-22	CONTRACT NO. 60N88		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



3.0'' RADIUS, 0.5'' BORDER, WHITE ON GREEN; REFLECTORIZED
''DRIVEWAY'' D; ''ENTRANCE'' D; STANDARD ARROW CUSTOM 12.0'' x 5.0''

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM ''TEMPORARY INFORMATION SIGNING''.

FILE NAME = W:\diststa\22x34\tc26.dgn	USER NAME = gagliancbt	DESIGNED -	REVISED - C. JUCIUS 02-15-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAY ENTRANCE SIGNING				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						350	3068 A-B-R-1	COOK	57	57
	PLOT SCALE = 50.200 '/ IN.	CHECKED -	REVISED -							TC-26	CONTRACT NO. 60N88		
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	