

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49 BR-1	KANE	27	1
			+4	
			<u>31</u>	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

**F.A.U. 2503: ILLINOIS ROUTE 25
OVER NORTON CREEK**

SECTION: 49 BR-1

SN: 045-0045

BRIDGE DECK REPLACEMENT

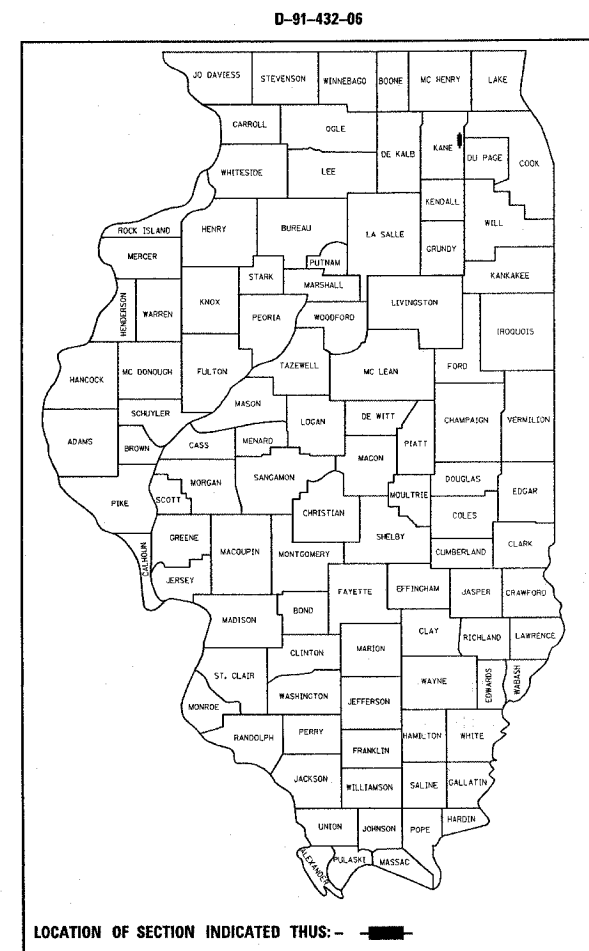
KANE COUNTY

C-91-432-06

FOR INDEX OF SHEETS, SEE SHEET NO. 2

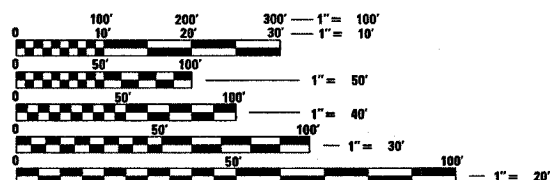
THIS IMPROVEMENT IS LOCATED IN THE CITY OF ST. CHARLES AND ST. CHARLES TOWNSHIP

TRAFFIC DATA:
2005 ADT: 10,000
SPEED LIMIT: 35 MPH



LOCATION OF SECTION INDICATED THIS: - [Black Box] -

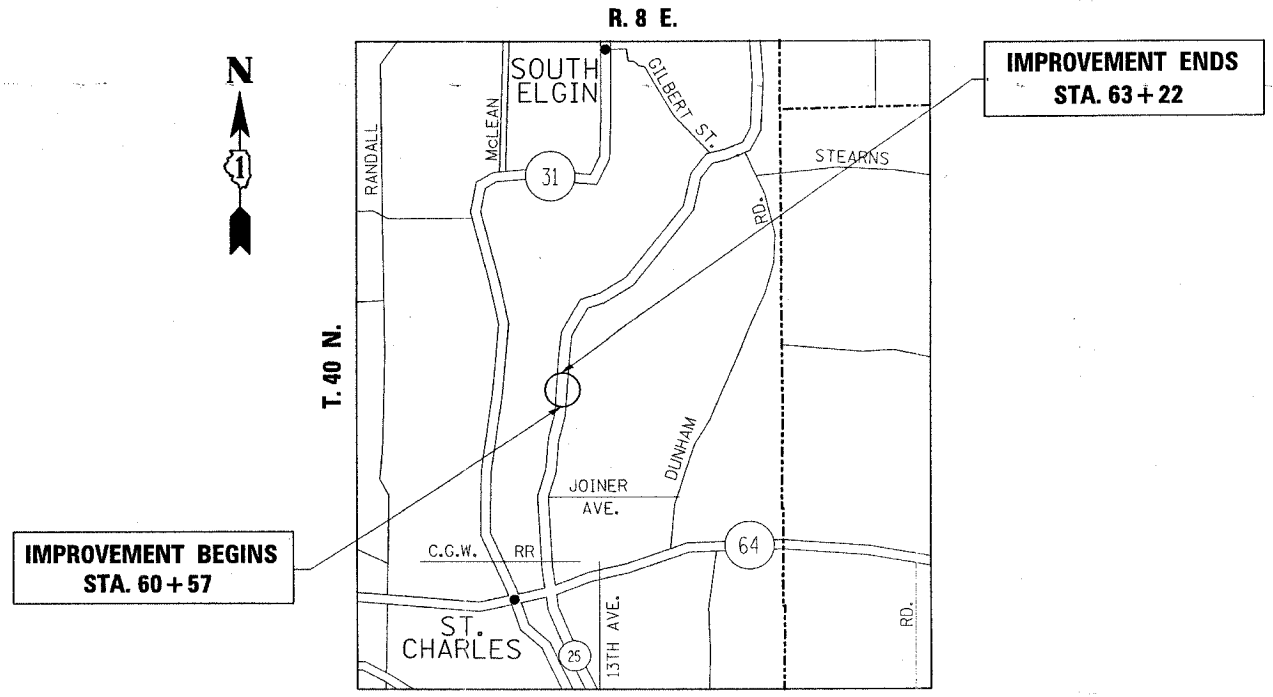
DISTRICT ONE - DESIGN AND PLAN PREPARATION ENGINEER - K. ENG / L. TRAN (847) 705-4240



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

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

CONTRACT NO. 60B81



GROSS AND NET LENGTH OF IMPROVEMENT = 266 FEET (0.05 MILE)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 17 2007

Diane O'Keefe Keel
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 27 2007
Eric S. Harshbarger
ENGINEER OF DESIGN AND ENVIRONMENT

June 29 2007
Michael R. See, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49BR-1	KANE	27	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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 5. TYPICAL SECTIONS
 6. STAGING PLANS
 - 7.-16. BRIDGE PLANS (SN 045-0045)
 17. ROADWAY AND PAVEMENT MARKING PLAN
 18. TEMPORARY TRAFFIC SIGNAL PLAN
 19. CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
 20. TEMPORARY LIGHTING PLAN
 21. BROOKWOOD RD DETOUR PLAN
 22. BUTT JOINT AND HMA TAPER DETAILS
 23. TEMPORARY INFORMATION SIGNING
 24. DISTRICT ONE TYPICAL PAVEMENT MARKINGS
 25. TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
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 27. TEMPORARY LIGHT POLE DETAILS
- 27A-27D. GUARDRAIL DETAILS**

LIST OF STATE STANDARDS

- | | |
|-----------|--|
| 420401-05 | BRIDGE APPROACH PAVEMENT |
| 631032-03 | TRAFFIC BARRIER TERMINAL, TYPE 6A |
| 701301-02 | LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS |
| 701311-02 | LANE CLOSURE 2L, 2W, MOVING OPERATIONS-DAY ONLY |
| 701321-08 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 702001-06 | TRAFFIC CONTROL DEVICES |
| 704001-03 | TEMPORARY CONCRETE BARRIER |

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E" AT (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND 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.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRATOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRATOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL CONTACT DON CHIARUGI AT (847) 741-9857 TWO (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL FOR TYPICAL APPLICATION OF RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) SHOWN IN THE PLANS.

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

THE CONTRATOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, CITY OF ST. CHARLES, ST. CHARLES TOWNSHIP.

THE CONTRATOR SHALL BE RESPONSIBLE, DURING THE DETOUR OF BROOKWOOD RD FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, I.D.O.T.'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.

THE ENGINEER SHALL CONTACT MR. TERRY MASTERSON, BUSINESS OWNER AT 5N160 ROUTE 25, ST. CHARLES, ILLINOIS AT (630) 513-8597 PRIOR TO THE TEMPORARY CLOSURE TO BROOKWOOD DRIVE TO COORDINATE ACCESS FOR HIS DELIVERY TRUCKS.

THE RESIDENT ENGINEER SHALL CONTACT MR. STEVEN HOOCHKIRK, BUREAU OF MAINTENANCE SUPPORT SECTION AT (847) 705-4177 FOR AVAILABILITY OF TEMPORARY CONCRETE BARRIER, STATE OWNED. IF TEMPORARY CONCRETE BARRIER, STATE OWNED, IS AVAILABLE, IT SHALL BE UTILIZED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL LOAD THE TEMPORARY CONCRETE BARRIER FROM THE STATE MAINTENANCE YARD, TRANSPORT, UNLOAD AND PLACE THE TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE DETAILS SHOWN IN THE PLAN. AT THE CONCLUSION OF WORK, REMOVE, TRANSPORT AND UNLOAD THE BARRIER UNITS AT THE SPECIFIED STATE MAINTENANCE AS DIRECTED BY THE ENGINEER. IF TEMPORARY CONCRETE BARRIER, STATE OWNED, IS NOT AVAILABLE, THE CONTRACTOR SHALL PROVIDE TEMPORARY CONCRETE BARRIER. THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY CONCRETE BARRIER TERMINAL SECTIONS. AT THE COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE, TRANSPORT AND UNLOAD THE TEMPORARY BARRIER TERMINAL SECTIONS AT THE SPECIFIED STATE MAINTENANCE YARD AND THE TERMINAL SECTIONS SHALL BECOME THE PROPERTY OF THE DEPARTMENT OF TRANSPORTATION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p style="text-align: center;">INDEX OF SHEETS GENERAL NOTES AND STATE STANDARDS</p> <p>SCALE: VERT. DATE DRAWN BY CHECKED BY</p>

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Rev

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49 BR-1	KANE	27	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN 100% STATE SFTY-2A				
X0325774	RELOCATE TEMPORARY IMPACT ATTENUATOR	EACH	2	2				
20201006	GRADING AND SHAPING SHOULDERS	UNIT	1	1				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.5	0.5				
40600300	AGGREGATE (PRIME COAT)	TON	2	2				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS	TON	0.5	0.5				
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	55	55				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	39	39				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	55	55				
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	173.4	173.4				
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR - (FLEXIBLE)	SQ YD	30.67	30.67				
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	600	600				
48101200	AGGREGATE SHOULDERS, TYPE B	TON	6	6				
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1				
50300260	BRIDGE DECK GROOVING	SQ YD	313	313				
50300300	PROTECTIVE COAT	SQ YD	328	328				
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	2944	2944				
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4100	4100				
50800515	BAR SPLICERS	EACH	65	65				
50901050	STEEL RAILING, TYPE SM	FOOT	128	128				
51500100	NAME PLATES	EACH	1	1				
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	1.8	1.8				
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3	3				
* 63300230	REMOVAL AND REINSTALLATION OF EXISTING STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	75	75				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				
67100100	MOBILIZATION	L SUM	1	1				
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1				
70300500	PAVEMENT MARKING TAPE, TYPE III	FOOT	800	800				

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	URBAN 100% STATE SFTY-2A				
70400100	TEMPORARY CONCRETE BARRIER	FOOT	636	636				
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	636	636				
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	550	550				
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	10	10				
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	152	152				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12				
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4	4				
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	3	3				
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16	16				
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1				
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1				
* 81603035	UNIT DUCT, 600V, 2-1C NO. 6, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	100	100				
* 81800190	AERIAL CABLE, 2-1/C NO. 2 WITH MESSENGER WIRE	FOOT	1100	1100				
* 81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	100	100				
* 82103400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	7	7				
* 83057350	LIGHT POLE, WOOD, 60 FOOT, CLASS 4	EACH	1	1				
* 83057355	LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15FT MAST ARM	EACH	7	7				
* 84100110	REMOVAL OF TEMPORARY LIGHTING UNITS	EACH	7	7				
* 84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	7	7				
* 84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1	1				
* 89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1				
58700300	CONCRETE SEALER	SQ FT	865.3	865.3				
* X0323115	REFLECTOR MARKERS, TYPE A	EACH	4	4				
* X0323116	REFLECTOR MARKERS, TYPE B	EACH	9	9				
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	2.5	2.5				

*SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

5/18/2007 10:48:10 AM

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49 BR-1	KANE	27	4
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		URBAN 100% STATE SFTY-2A					
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	13.4	13.4					
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	320	320					
XX005369	TRAFFIC CONTROL & PROTECTION FOR TEMPORARY DETOUR	L SUM	1	1					
XX006937	GROUND ROD, 5/8" DIA. X 10 FT.	EACH	8	8					
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	64	64					
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2					
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2					
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	76	76					
48203037	HOT-MIX ASPHALT SHOULDER, 10"	SQ YD	150	150					
X0325864	BRIDGE APPROACH PAVEMENT REMOVAL	SQ YD	133	133					

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		URBAN 100% STATE SFTY-2A					

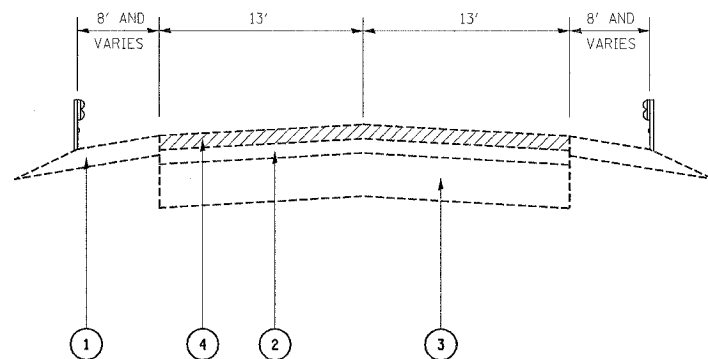
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

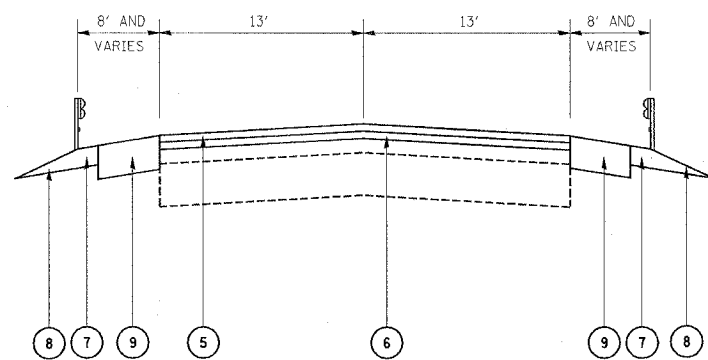
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49BR-1	KANE	27	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



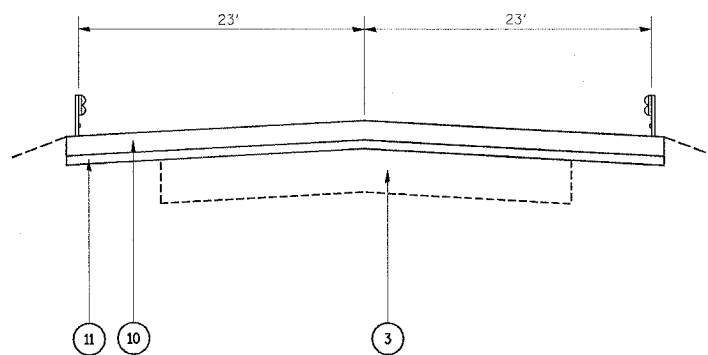
EXISTING TYPICAL SECTION (ILL. RTE. 25)
 STA 60+57 - STA 61+57
 STA 62+22 - STA 63+22

NOTE: EXISTING BRIDGE TYPICAL SECTION (SN 045-0045)
 STA 61+57 - STA 62+22
 SEE BRIDGE PLAN SH 3



PROPOSED TYPICAL SECTION (ILL. RTE. 25)
 STA 60+57 - STA 61+21
 STA 62+58 - STA 63+22

NOTE: PROPOSED BRIDGE TYPICAL SECTION (SN 045-0045)
 STA 61+57 - STA 62+22
 SEE BRIDGE PLAN SH 3



PROPOSED TYPICAL SECTION (ILL. RTE. 25)
 STA 61+21 - STA 61+57
 STA 62+22 - STA 62+58

NOTE: PROPOSED BRIDGE TYPICAL SECTION (SN 045-0045)
 STA 61+57 - STA 62+22
 SEE BRIDGE PLAN SH 3

LEGEND

- 1 EXISTING AGGREGATE SHOULDER
- 2 EXISTING HMA OVERLAY COURSE
- 3 EXISTING PCC PAVEMENT
- 4 PROPOSED HMA SURFACE REMOVAL, 2"
- 5 PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1 1/2"
- 6 PROPOSED HMA LEVELING BINDER, MACHINE METHOD, N70, 1 1/2"
- 7 PROPOSED GRADING AND SHAPING SHOULDERS
- 8 PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- 9 PROPOSED HOT-MIX ASPHALT SHOULDER, 10"
- 10 PROPOSED BRIDGE APPROACH SLAB, 15" (TYP.)
- 11 PROPOSED SUBBASE GRANULAR MAT'L. 4" (TYP.)

BITUMINOUS MIXTURE REQUIREMENTS

MIXTURE USE	AC/PG	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5MM MIX "D", N70	PG 64-22	4% @ 70 GYR
HOT-MIX ASPHALT BINDER COURSE,* IL-9.5MM, N70 (MACHINE METHOD)	PG 64-22/58-22	4% @ 70 GYR
HOT-MIX ASPHALT SHOULDER, 10"	PG 64-22/58-22	2% @ 50 GYR

NOTE: THE UNIT WEIGHT USED FOR ALL BITUMINOUS SURFACE MIXTURES IS 112 LBS./SQ.YD./IN.
 * WHEN RAP EXCEEDS 20% THE NEW ASPHALT BINDER SHALL BE PG58-22.

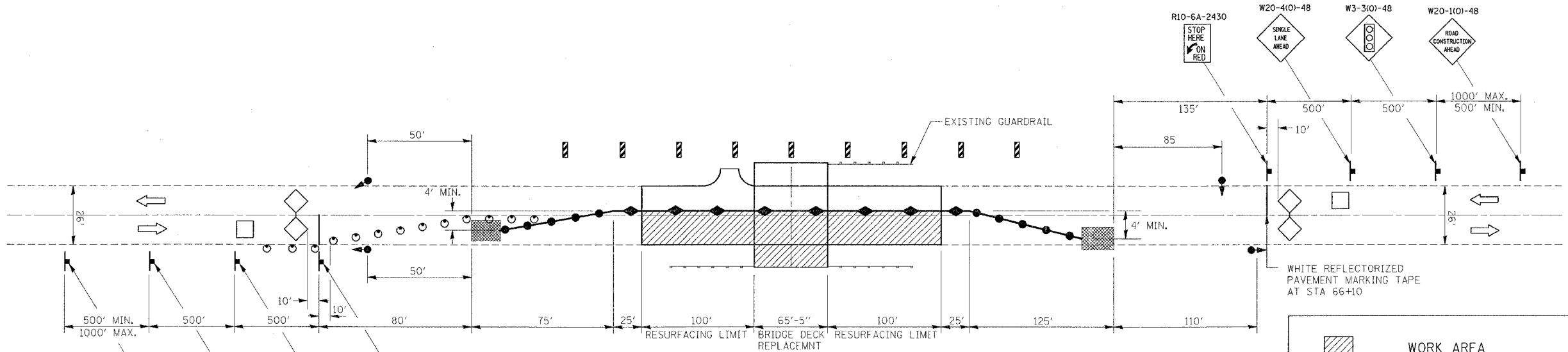
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**IL 25 OVER NORTON CREEK
 TYPICAL SECTIONS**

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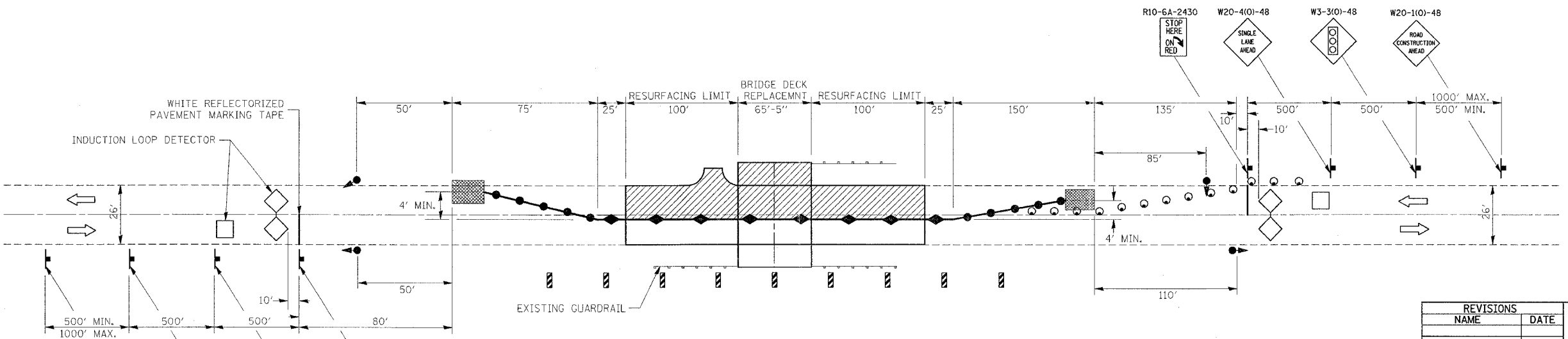
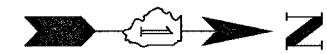
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49BR-1	KANE	27	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE I

	WORK AREA
	SIGN
	DRUM WITH STEADY BURNING LIGHT
	TRAFFIC SIGNAL
	INDUCTION LOOP DETECTOR
	DOUBLE VERTICAL PANEL
	TYPE C BIDIRECTIONAL REFLECTOR
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS



STAGE II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

IL 25 OVER NORTON CREEK STAGING PLAN

SCALE: VERT. / HORIZ.

DATE

DRAWN BY

CHECKED BY

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 PLOT SCALE = 50.00000 / IN.
 USER NAME = byumsh

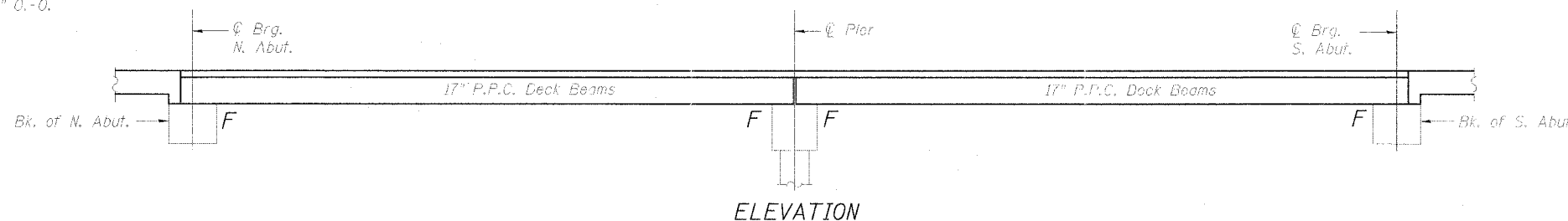
Benchmark: Chiselad box on top of parapet at S.E. corner of existing bridge. Elev. = 100.00

Existing Structure: No. 045-0015 built in 1967.
Two span, 65'-5" Bk-Bk Abuts. PPC Dk. Beams 46'-0" O.-O.
Concrete parapet with aluminum handrail on top.
4" CWS added in 1988.

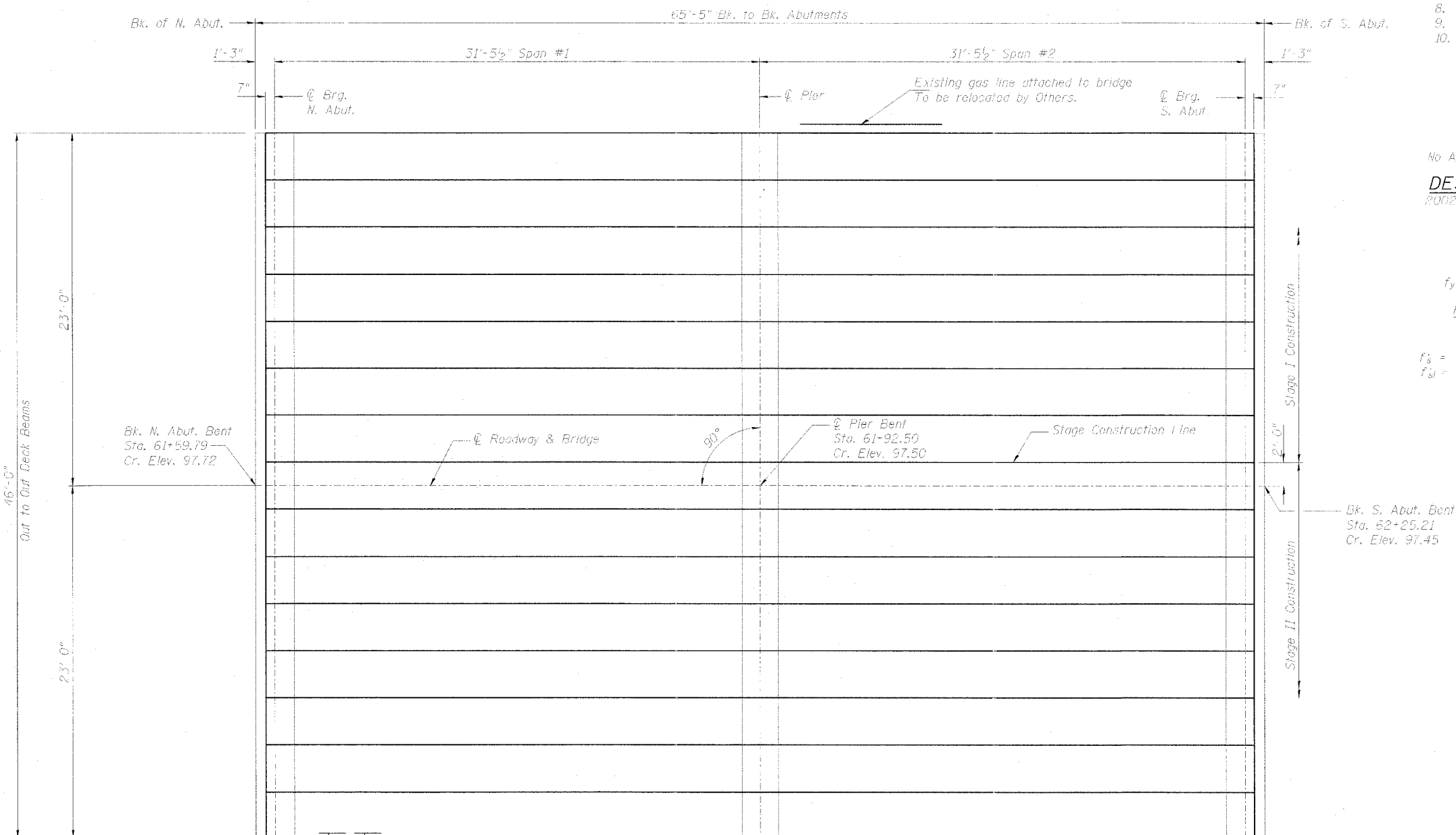
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	DATE	SHEET NO.
SA 13		Kane	27	7
10 SHEETS				

Contract # 60581



ELEVATION



PLAN

INDEX OF SHEETS

1. General Plan & Elevation
2. General Notes and Total Bill of Material
3. Stage Construction
4. Temporary Concrete Barrier
5. Superstructure Details - 17" Deck Beams
6. Superstructure Details - Sections and Joint Details
7. Rail Post Spacing and Concrete Wearing Surface
8. Steel Railing, Type SM w/ Concrete Wearing Surface
9. Bar Splicer Assembly Details
10. Substructure Repairs

LOADING HS20-44

No Allowance for future wearing surface

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

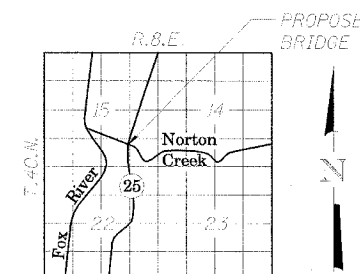
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST/PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_a = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" low lax strands)
 $f'_{si} = 201,960$ psi (1/2" low lax strands)



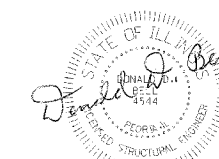
LOCATION SKETCH

GENERAL PLAN & ELEVATION
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

APPROVED
For Structural Adequacy Only
Ralph E. Anderson
Engineer of Bridges & Structures



License Expires: 11/30/08
Date Signed: 8-16-07

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8484
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
SA 13	X	KANE	27	8	10 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 60B81 X 44 B2-1

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A706 GR 60 (IL Modified). See special provisions.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
3. All Construction joints shall be bonded.
4. The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
5. No instream work will be allowed on this project.
6. Repair of the pier caps and abutment shall be completed prior to placement of the new deck beams.
7. The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
8. If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats, the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum, and after grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.
9. The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirement of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
10. Concrete Sealer shall be applied to the designated areas of the abutments and pier.

STATION 61+92.50
REBUILT 200_ BY
STATE OF ILLINOIS
S.A. RTE. 13
LOADING HS20
STR. NO. 045-0045

NAME PLATE

See Std. 515001
Relocate existing name plate next to rebuilt name plate, cost included in Name Plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	328		328
Removal of Existing Superstructures	Each	1		1
Bridge Deck Grooving	Sq. Yd.	313		313
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2,944		2,944
Reinforcement Bars, Epoxy Coated	Pound	4,100		4,100
Steel Railing, Type SM	Foot	128		128
Name Plates	Each	1		1
Concrete Wearing Surface, 5"	Sq. Yd.	328		328
Bar Splicers	Each	65		65
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.		2.5	2.5
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.		13.4	13.4
Concrete Sealer	Sq. Ft.		865	865
Controlled Low-Strength Material	Cu. Yd.		1.8	1.8

**GENERAL NOTES AND
TOTAL BILL OF MATERIAL
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045**

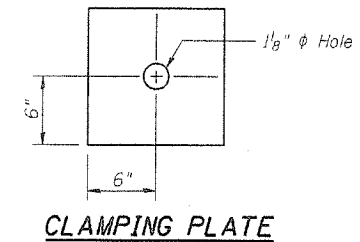
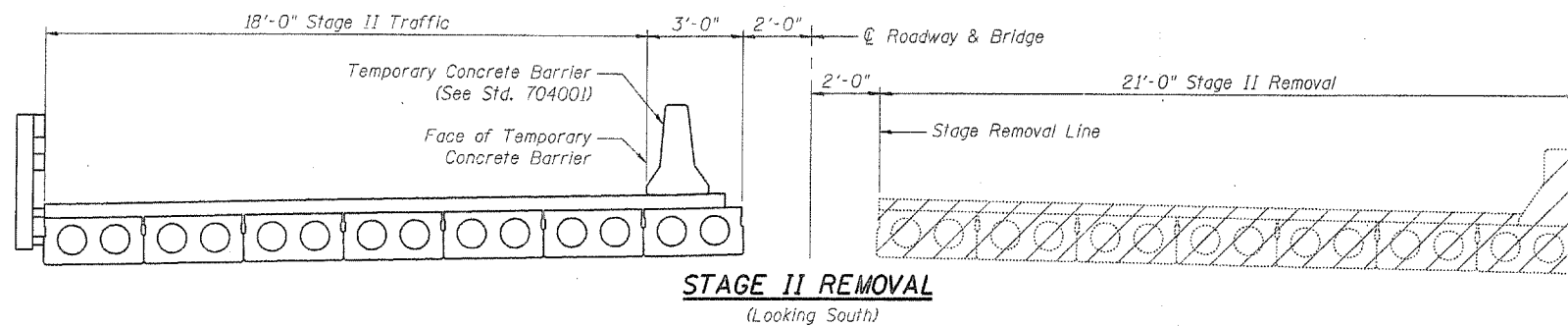
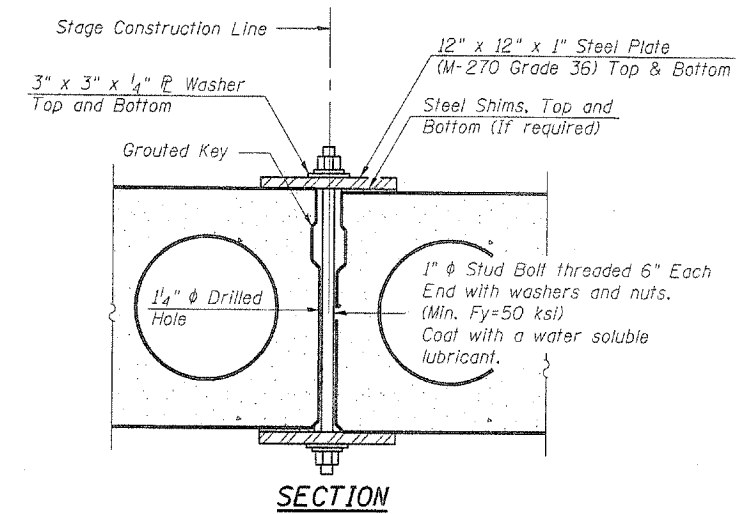
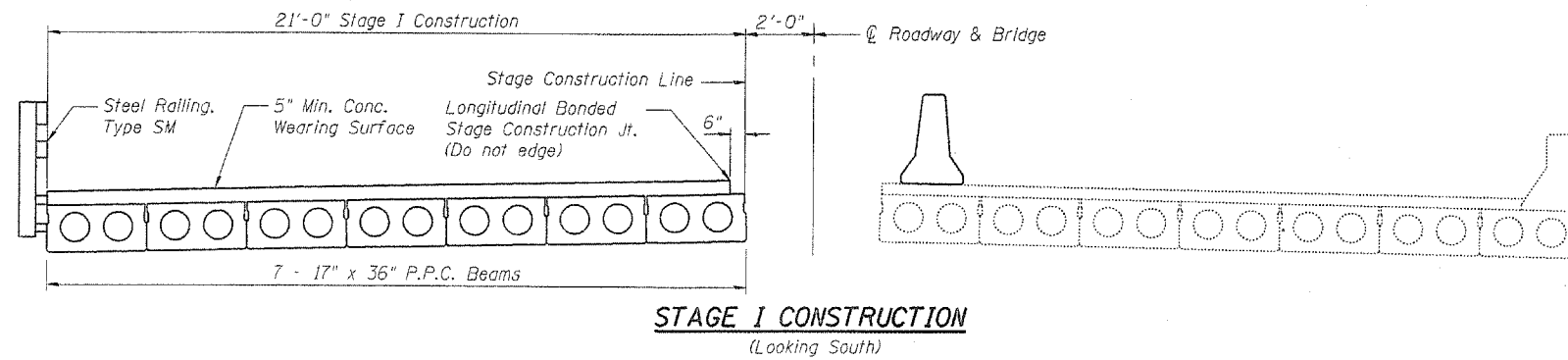
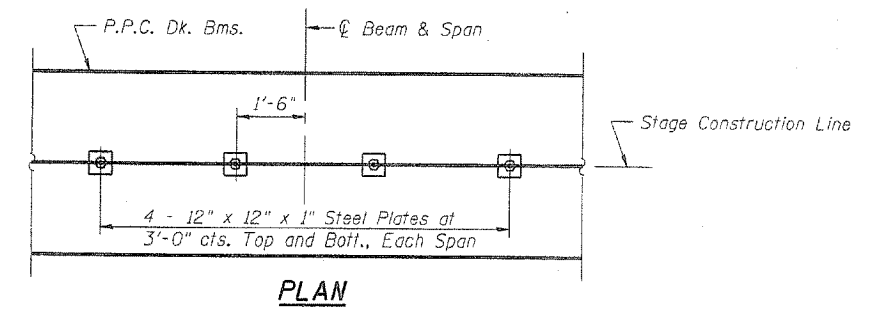
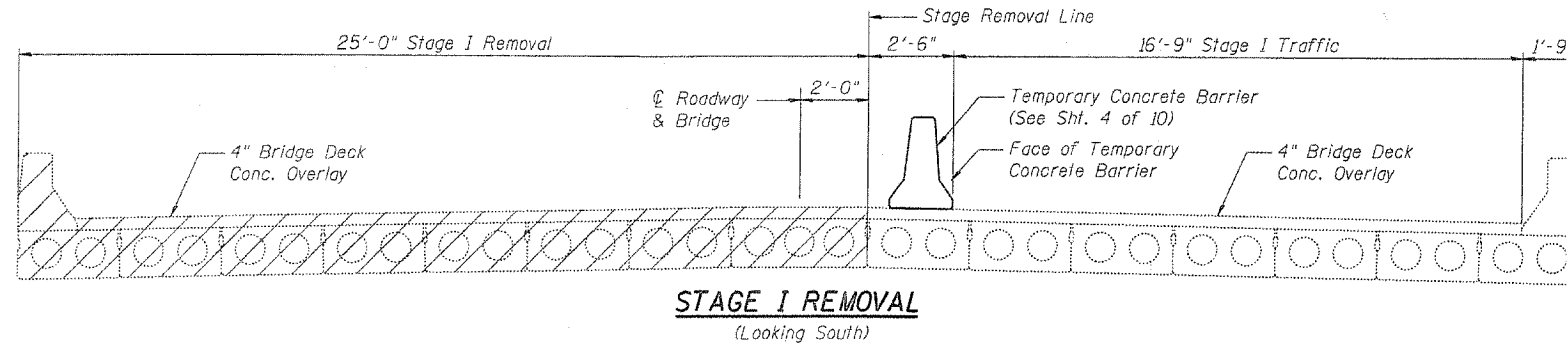
DESIGNED DDB	200
CHECKED LLV	EXAMINED
DRAWN MGM	PASSED
CHECKED DDB	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

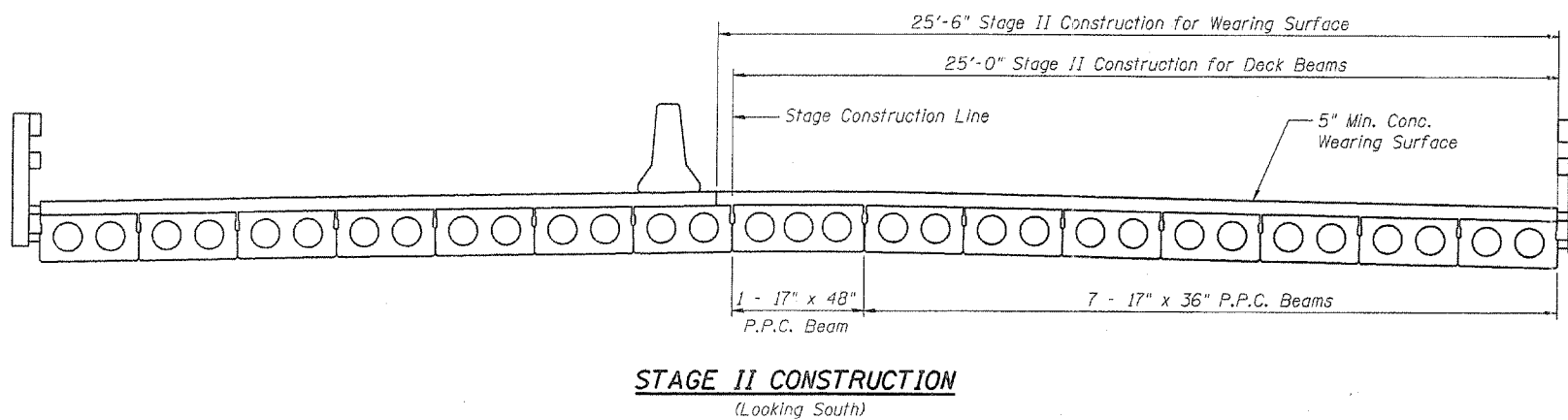
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 3 10 SHEETS
SA 13	*	Kane	21	9	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract # 60B81 * A9 BR-1



SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

1. See Standard Specifications for Stage Construction of Precast Prestressed Concrete Deck Beams.
2. Cost included with "Precast Prestressed Concrete Deck Beams".
3. See Stage Construction Details on Roadway Plans for traffic lanes.



STAGE CONSTRUCTION
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

DESIGNED <u>DDB</u>	EXAMINED <u>200</u>
CHECKED <u>LLV</u>	PASSED <u>ENGINEER OF BRIDGE DESIGN</u>
DRAWN <u>MGM</u>	PASSED <u>ENGINEER OF BRIDGES AND STRUCTURES</u>
CHECKED <u>DDB</u>	

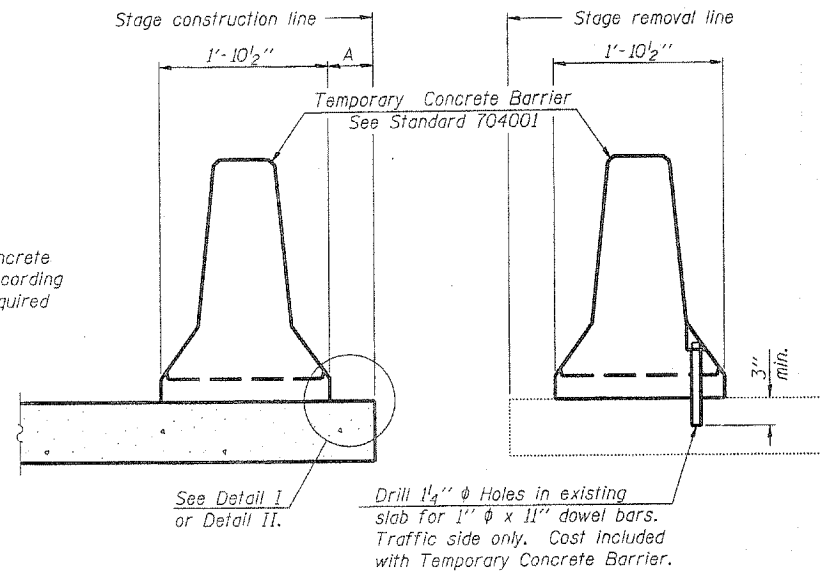
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
SA 13	X	Kane	27	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 60B81 X 49 BR-1

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

SECTIONS THRU SLAB

NOTES

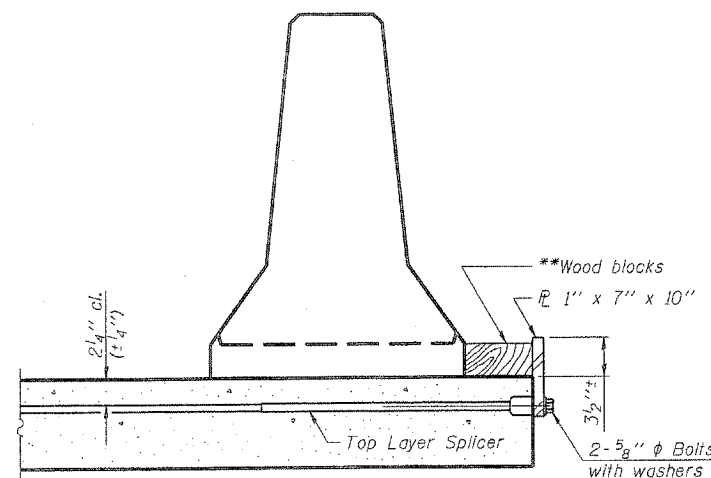
Detail I - With Bar Splicer or Couplers:

Connect one (1) 1"x7"x10" steel \bar{r} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{c} of each barrier panel.

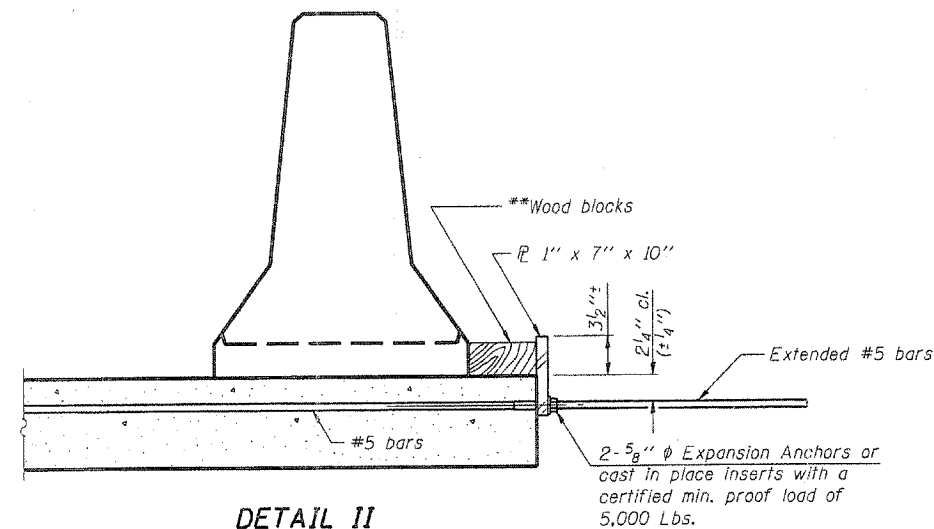
Detail II - With Extended Reinforcement Bars:

Connect one (1) 1"x7"x10" steel \bar{r} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{c} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" 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.

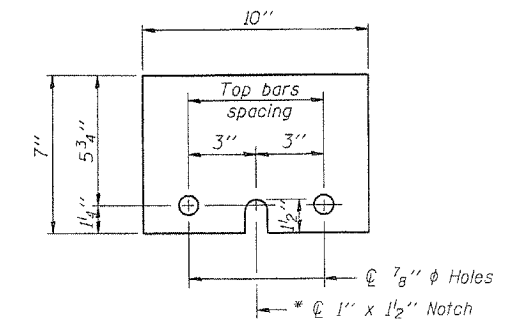


DETAIL I



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.



STEEL RETAINER \bar{r} 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

R-27

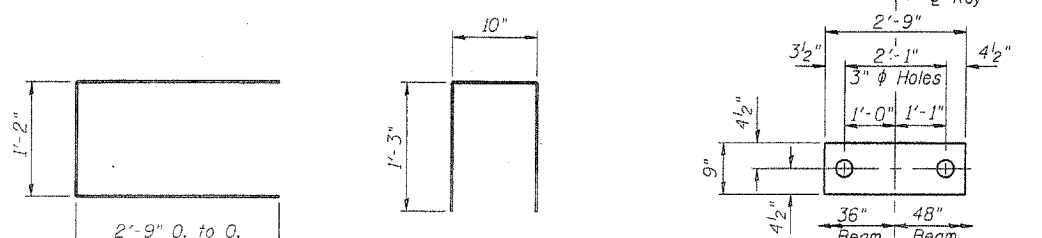
11-1-06

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FAX (309) 676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
SA 13	13	Kane	27	11	10 - SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 60B81 * 49 B2-1

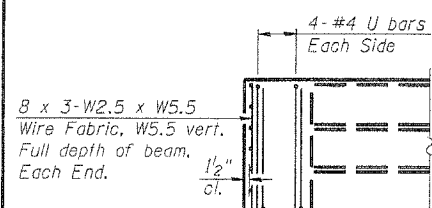


BAR U

(D/E) BAR

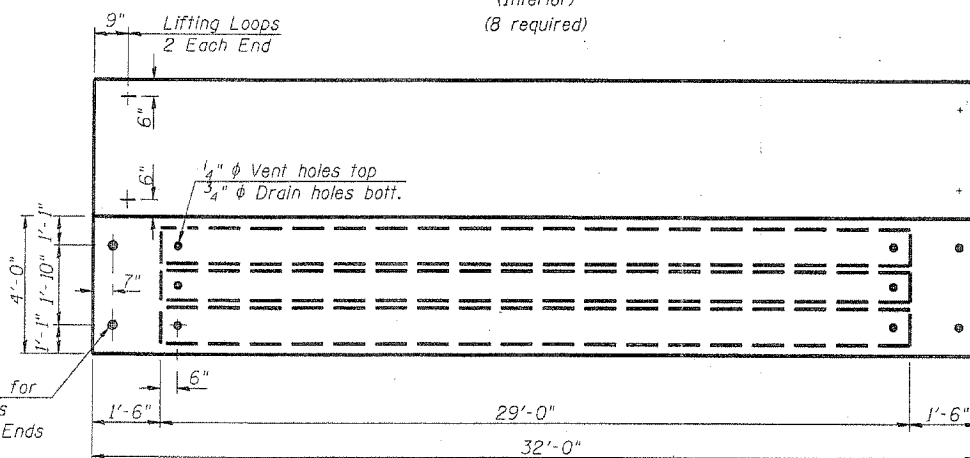
FABRIC BEARING PAD
36" & 48" BEAMS

(Interior)
(8 required)



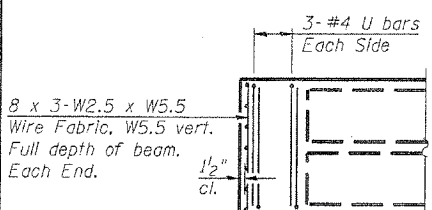
END PLAN

2" ϕ Holes for
Dowel Rods
Typ. Both Ends



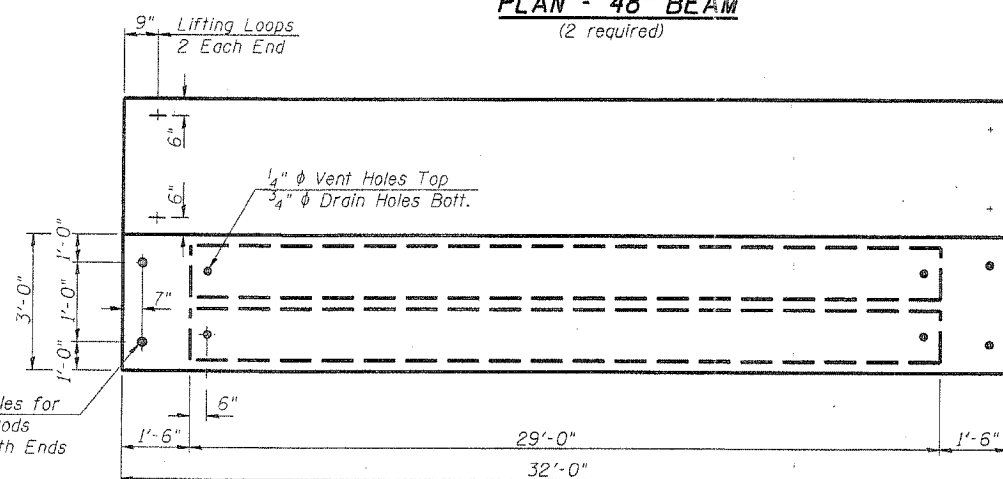
PLAN - 48" BEAM

(2 required)



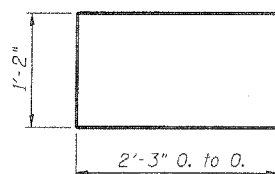
END PLAN

2" ϕ Holes for
Dowel Rods
Typ. Both Ends

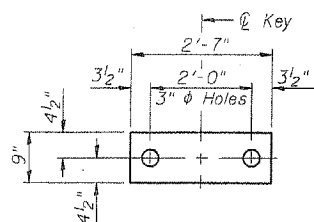


PLAN - 36" BEAM

(28 required)

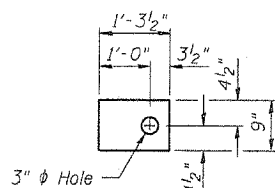


BAR U



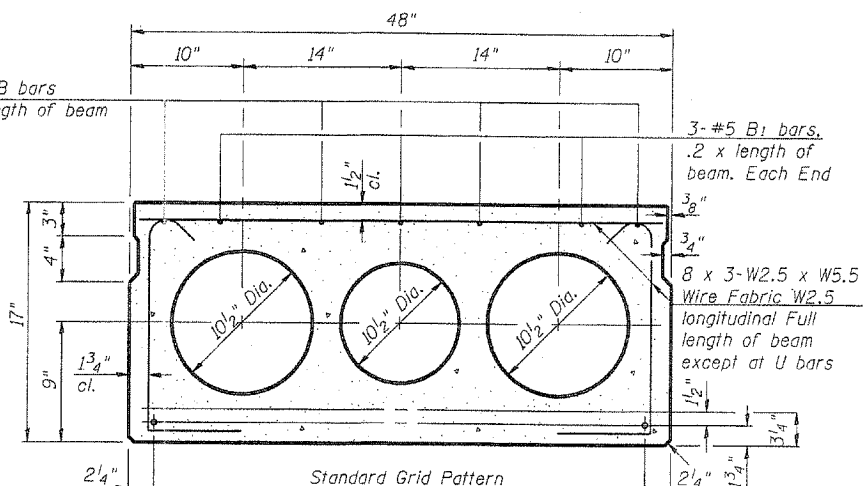
FABRIC BEARING PAD
36" BEAM

(Interior)
(48 required)



FABRIC BEARING PAD
36" BEAM

(Exterior)
(8 required)



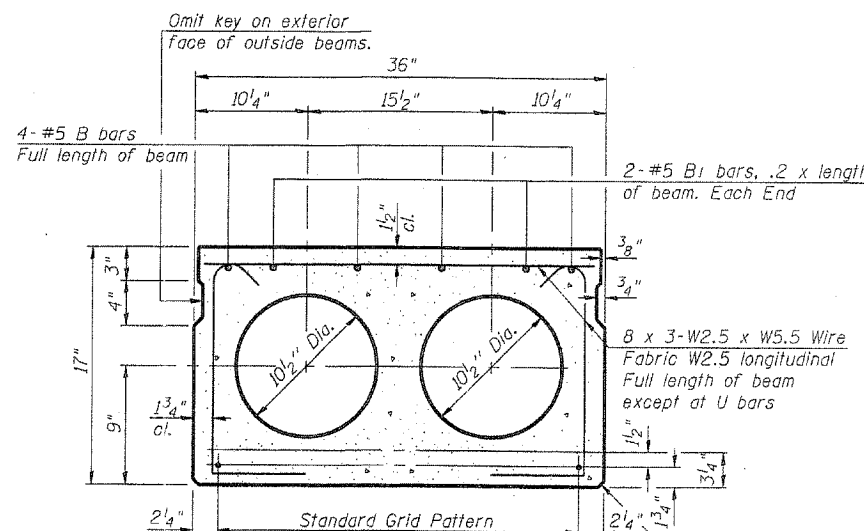
TYPICAL SECTION - 48" BEAM

12 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8-Strands 1 3/4" up, 4-Strands 3/4" up

Note: Place strands symmetrically about ϕ of beam.

BILL OF MATERIAL - 48" BEAM

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	256



TYPICAL SECTION - 36" BEAM

9 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
5-Strands 1 3/4" up, 4-Strands 3/4" up

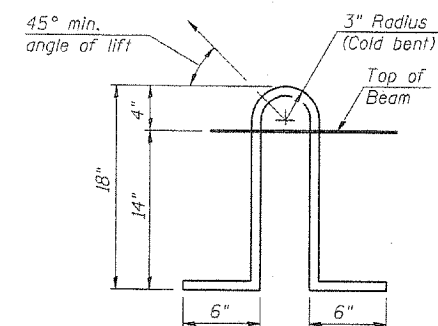
Note: Place strands symmetrically about ϕ of beam.

BILL OF MATERIAL - 36" BEAM

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	2688

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown.
- Non prestressing steel shall conform to ASTM A706 GR 60 (IL Modified). See special provisions.
- The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
- Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'ci, shall be 4,000 p.s.i.
- See Sht. 7 of 10 and Sht. 8 of 10 for (D/E) bars and Rail Post Anchor devices cast into exterior beams.



LIFTING LOOP DETAIL

SUPERSTRUCTURE DETAILS

17" DECK BEAMS

S.A. 13 (IL RTE. 25)

OVER NORTON CREEK

S.A. RTE. 13 (F.A.S. 106)

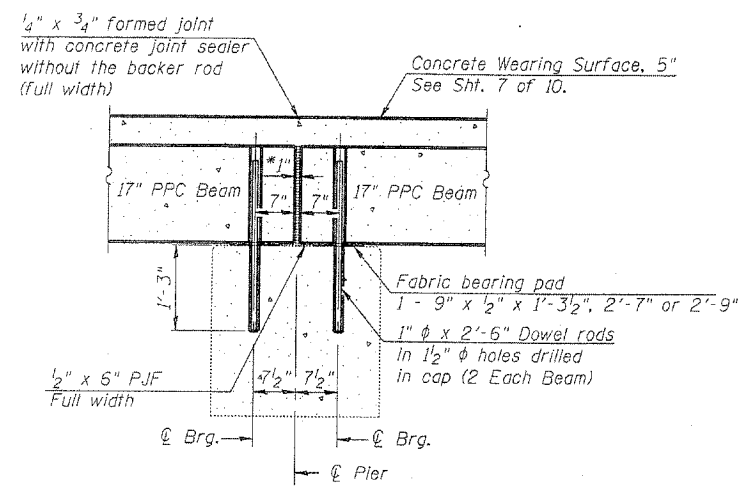
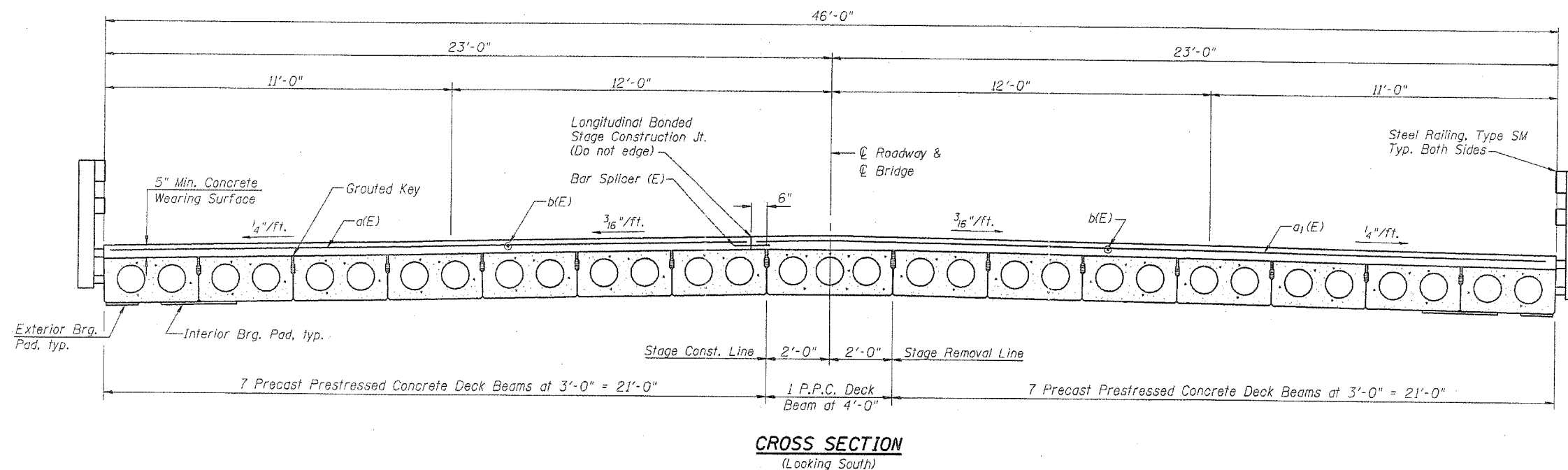
KANE COUNTY, STA. 61+92.50

STRUCTURE NO. 045-0045

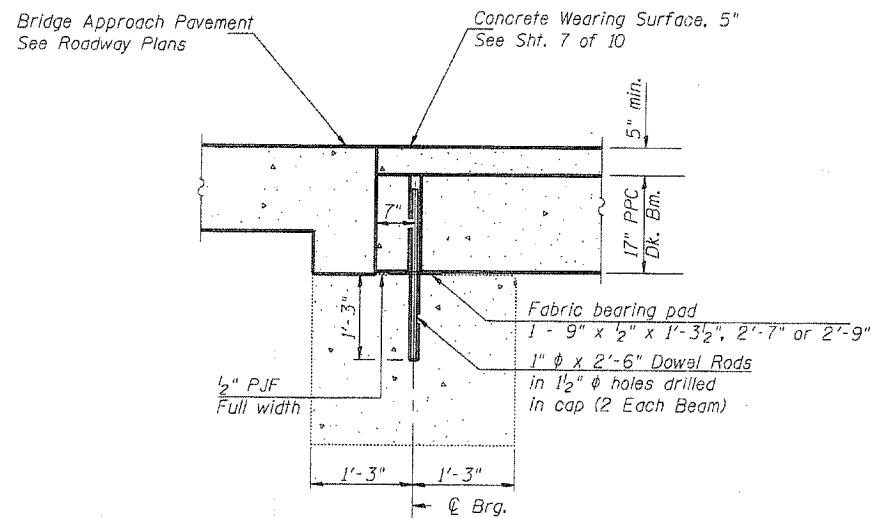
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Peoria, Illinois 61602
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FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

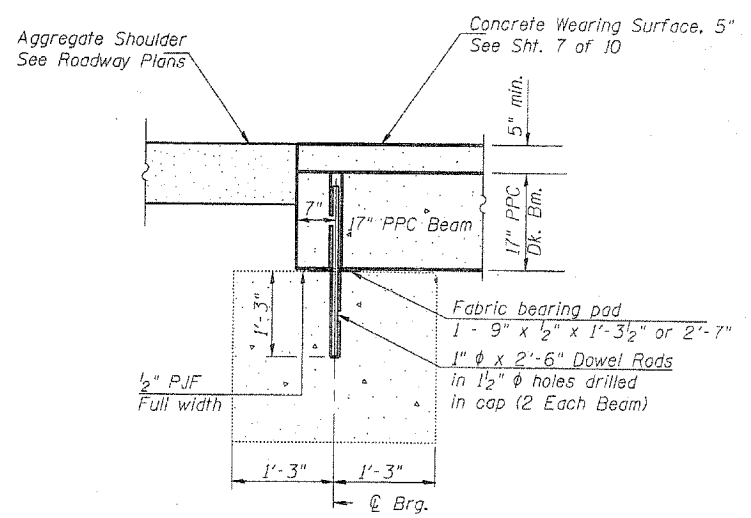
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
SA 13	4	Kane	27	12	10 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	
				Contract # 60BB1 49 BR-1	



SECTION THRU FIXED PIER
* 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.



SECTION THRU ABUTMENT AT APPROACH SLAB



SECTION THRU ABUTMENT AT SHOULDERS

**SUPERSTRUCTURE DETAILS
SECTIONS AND JOINT DETAILS**
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

- Notes:
1. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
 2. All horizontal dimensions are at right angles to beam ends.
 3. See Sht. 5 of 10 for bearing pad details.
 4. Existing dowel rods shall be burned off flush with the top of the abutment or pier.

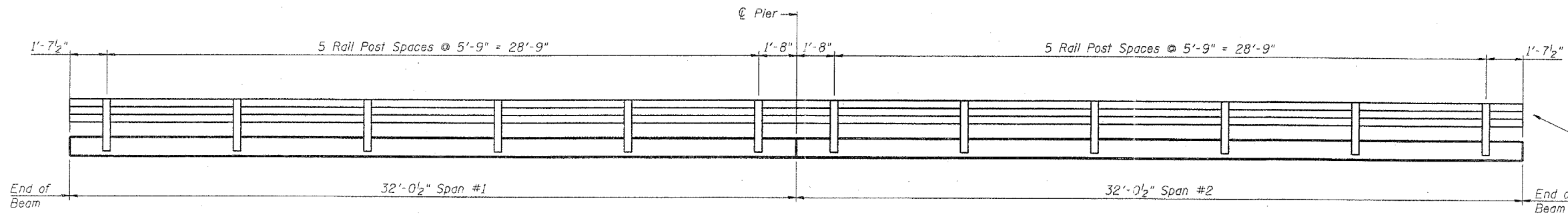
DESIGNED DDB	200
CHECKED LLV	EXAMINED
DRAWN MGM	PASSED
CHECKED DDB	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

STS Consultants
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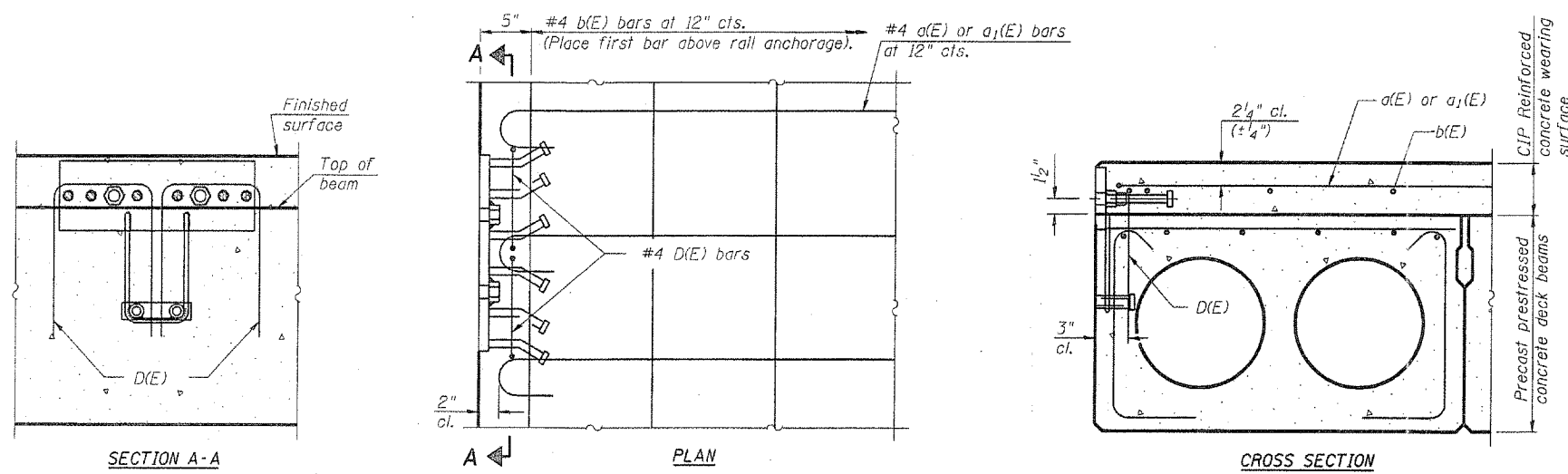
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
SA 13	X	Kane	27	13	10 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 60B81 X 49 BE-1

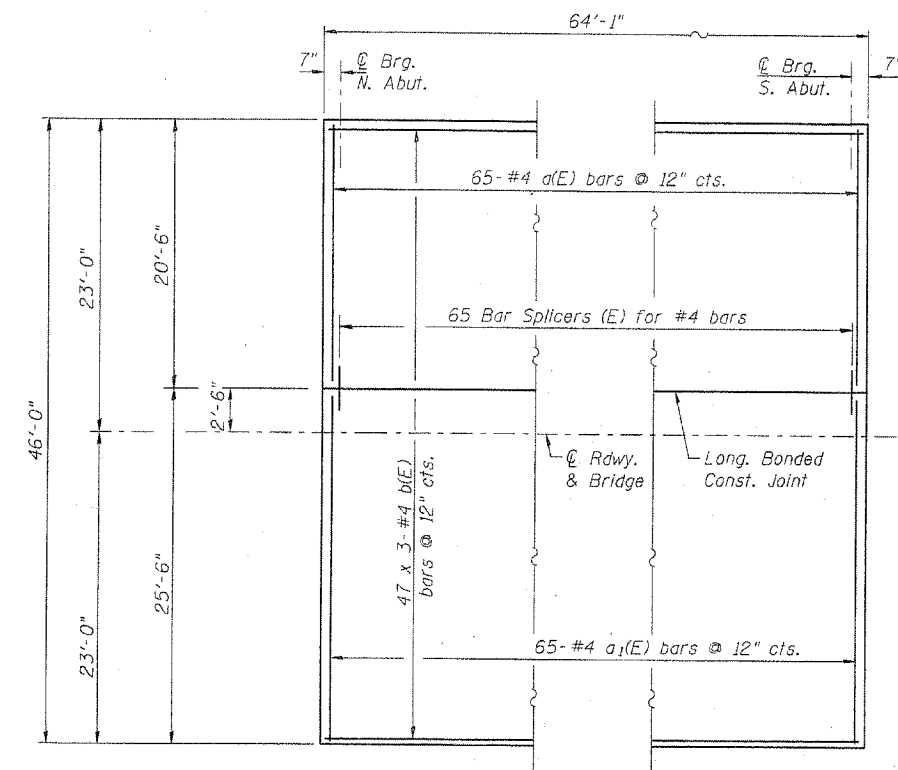


RAIL POST SPACING DETAIL



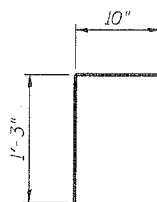
REINFORCED CONCRETE WEARING SURFACE AND RAILING CONNECTION DETAILS

The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

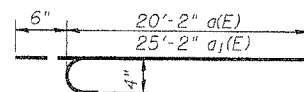


CONCRETE WEARING SURFACE PARTIAL PLAN

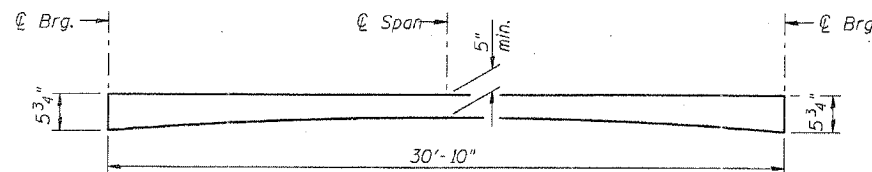
Laps: #4 bars - 1'-4"



D(E) BAR



a(E) & a1(E) BAR



REINFORCED CONCRETE WEARING SURFACE PROFILE

Thickness on center beam will vary from those shown above at edges to an additional 3/8" at \O of roadway.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	65	#4	20'-8"	U
a1(E)	65	#4	25'-8"	U
b(E)	141	#4	22'-2"	U

**RAIL POST SPACING AND
CONCRETE WEARING SURFACE
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045**

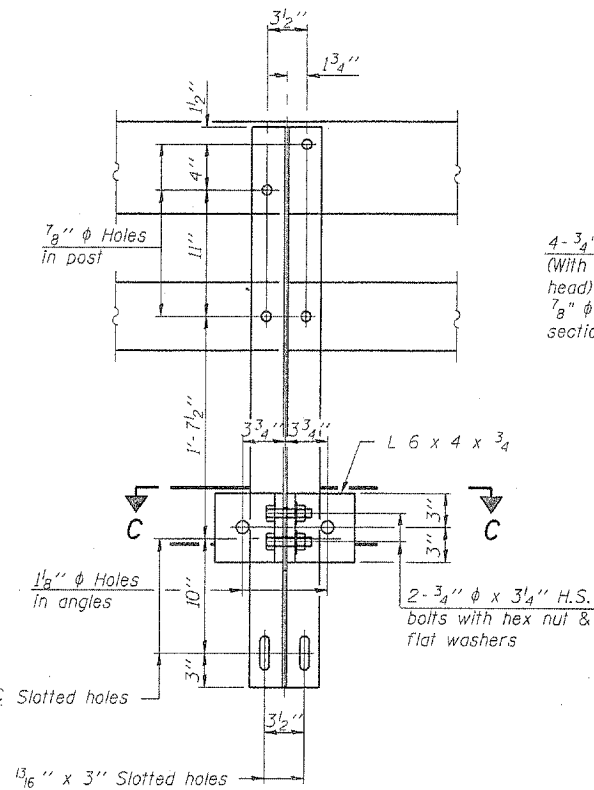
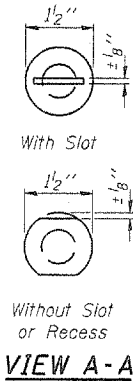
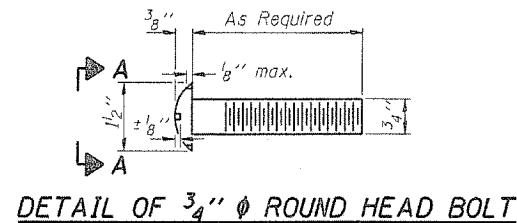


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CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

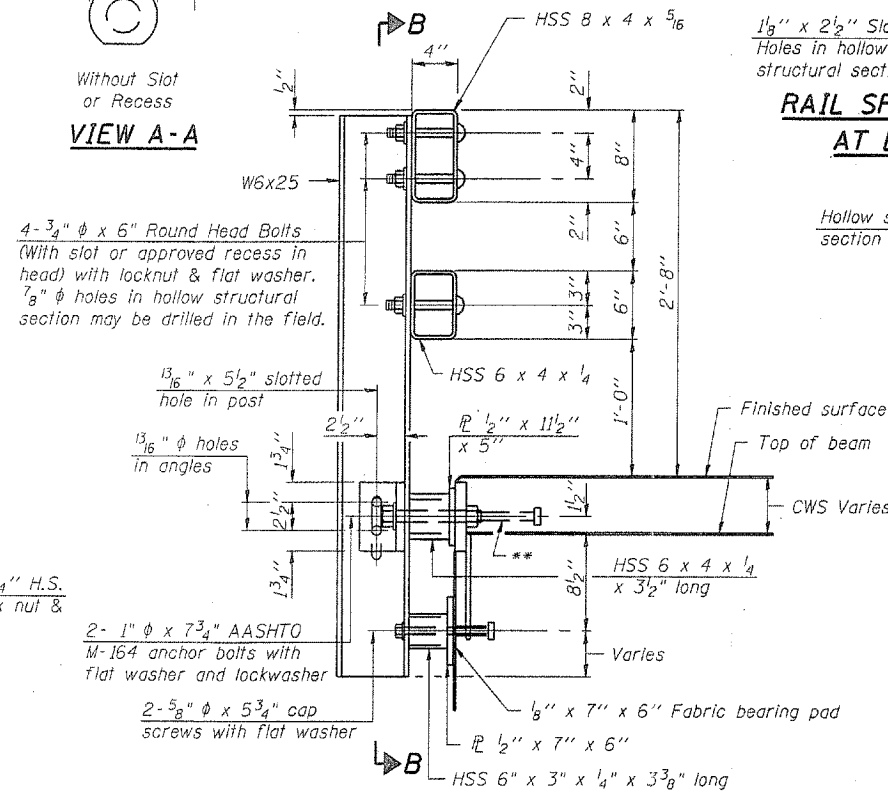
EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

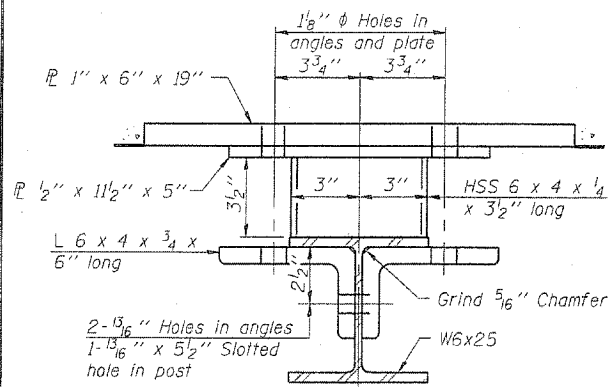
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SET	SHEET NO. 8 10 SHEETS
SA 13	*	Kane	21	14	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		CONTRACT # 60BB1 * 49 B-E-1



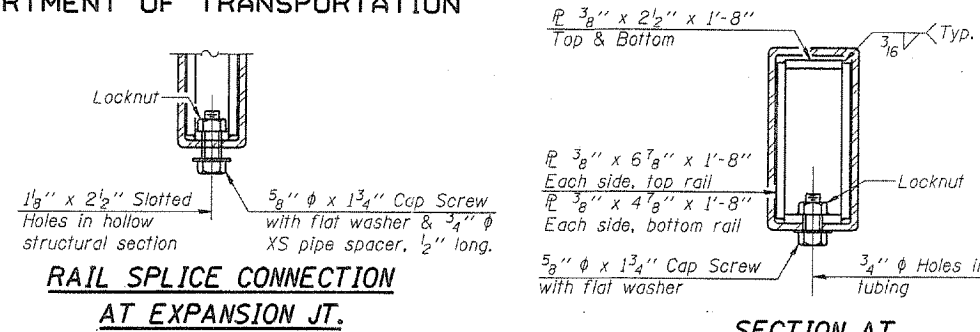
SECTION B-B



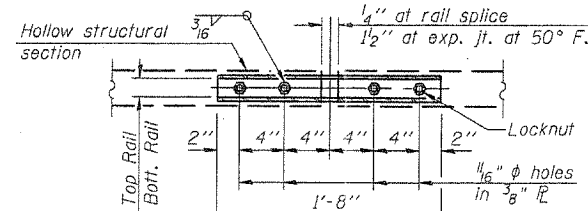
SECTION AT RAIL POST



SECTION C-C

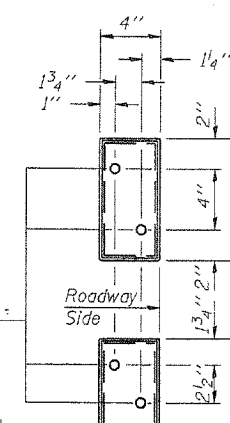


RAIL SPLICE CONNECTION
AT EXPANSION JT.

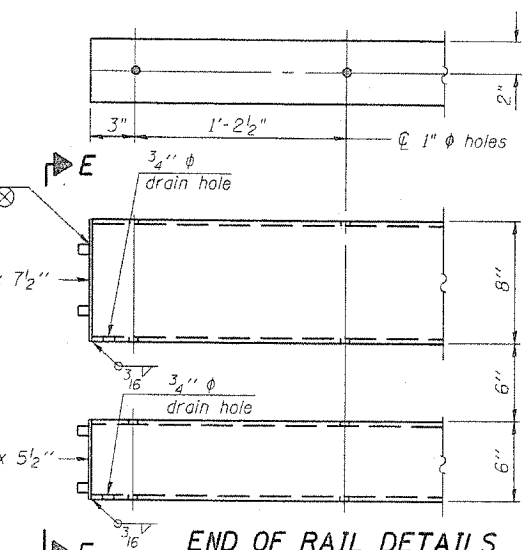


PLAN-BOTT. SPLICE P
TYPICAL

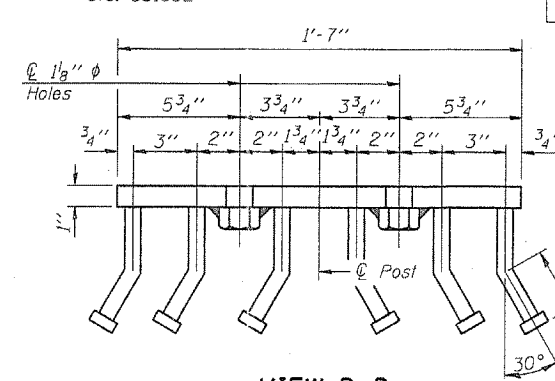
SECTION AT
RAIL SPLICE



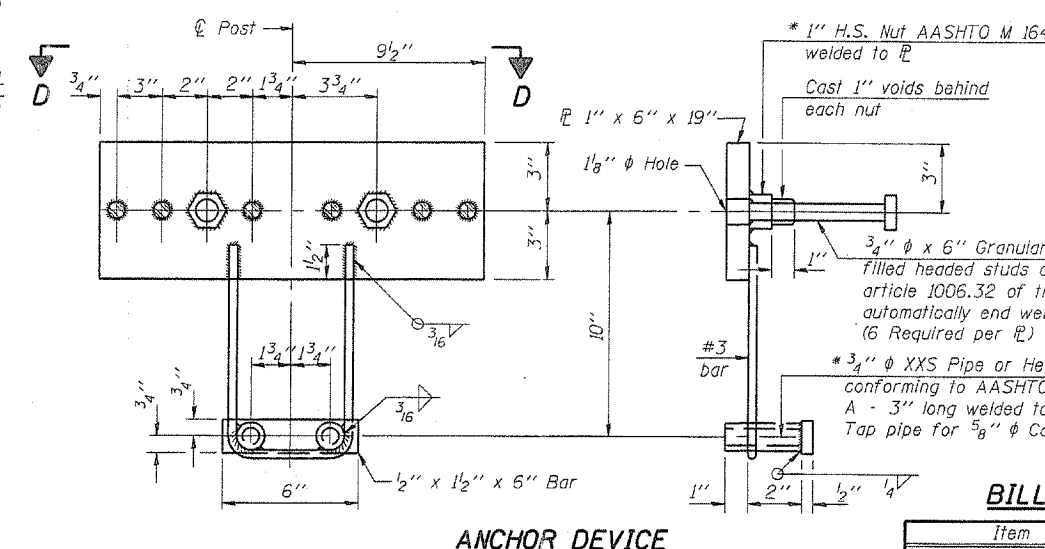
VIEW E-E



END OF RAIL DETAILS



VIEW D-D



ANCHOR DEVICE

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

**STEEL RAILING, TYPE SM
WITH CONCRETE WEARING SURFACE**
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

BILL OF MATERIAL

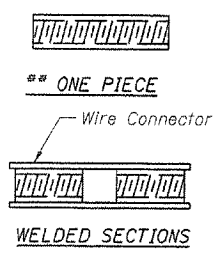
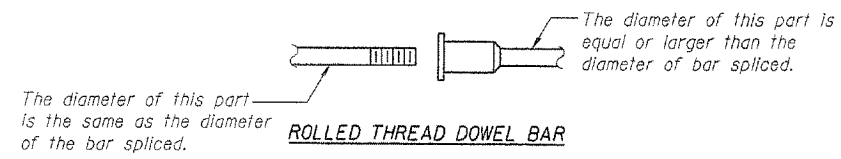
Item	Unit	Quantity
Steel Railing, Type SM	Foot	128

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

DESIGNED DDB	200
CHECKED LLV	ENGINEER OF BRIDGE DESIGN
DRAWN MGM	PASSED
CHECKED DDB	ENGINEER OF BRIDGES AND STRUCTURES

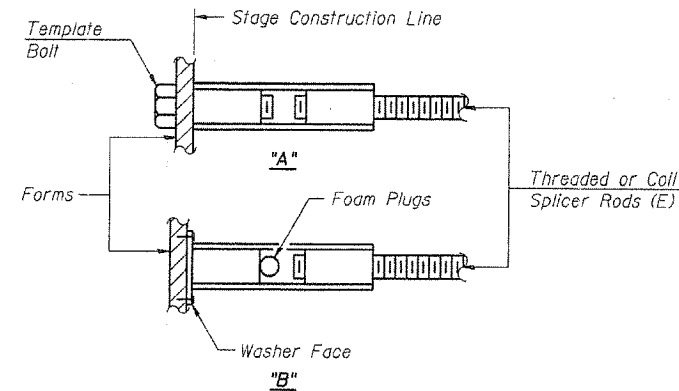
R-34CWS 11-1-06 (16'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

NOTES

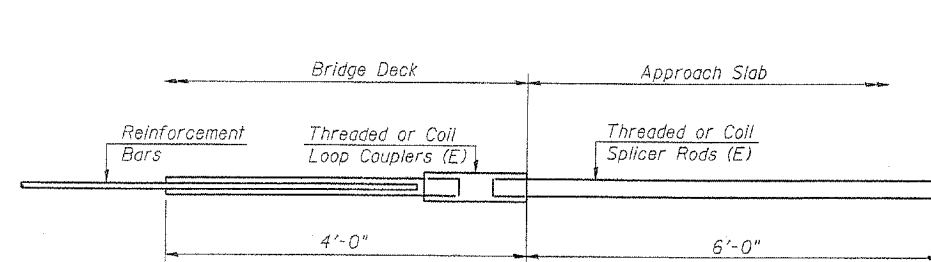
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_1$
- Minimum Pull-out Strength (Tension in kips) = $1.25 \times f_{s,allow} \times A_1$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_1 = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

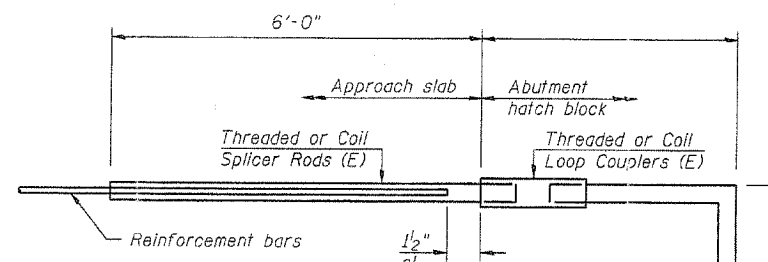
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



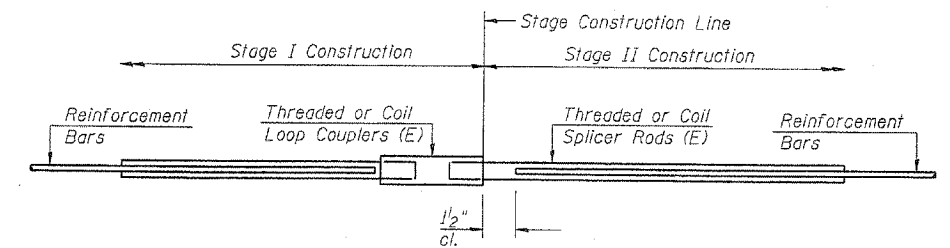
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 0



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#4	65	Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

DESIGNED DDB
CHECKED LLV
DRAWN MGM
CHECKED DDB



EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

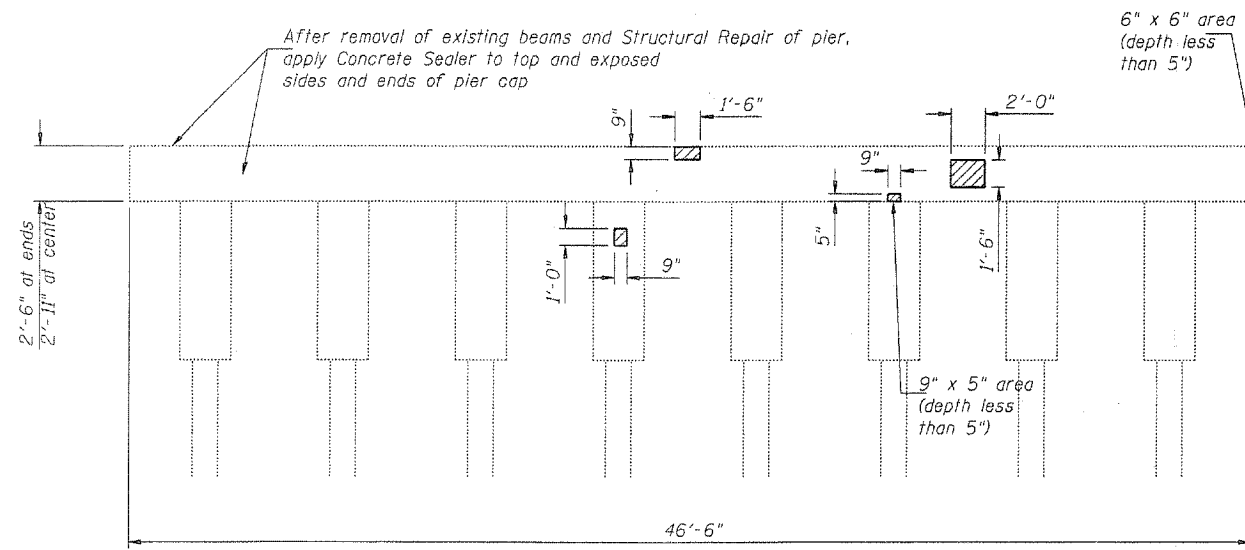
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SET	SHEET NO.
SA 13	-	Kane	21	16	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

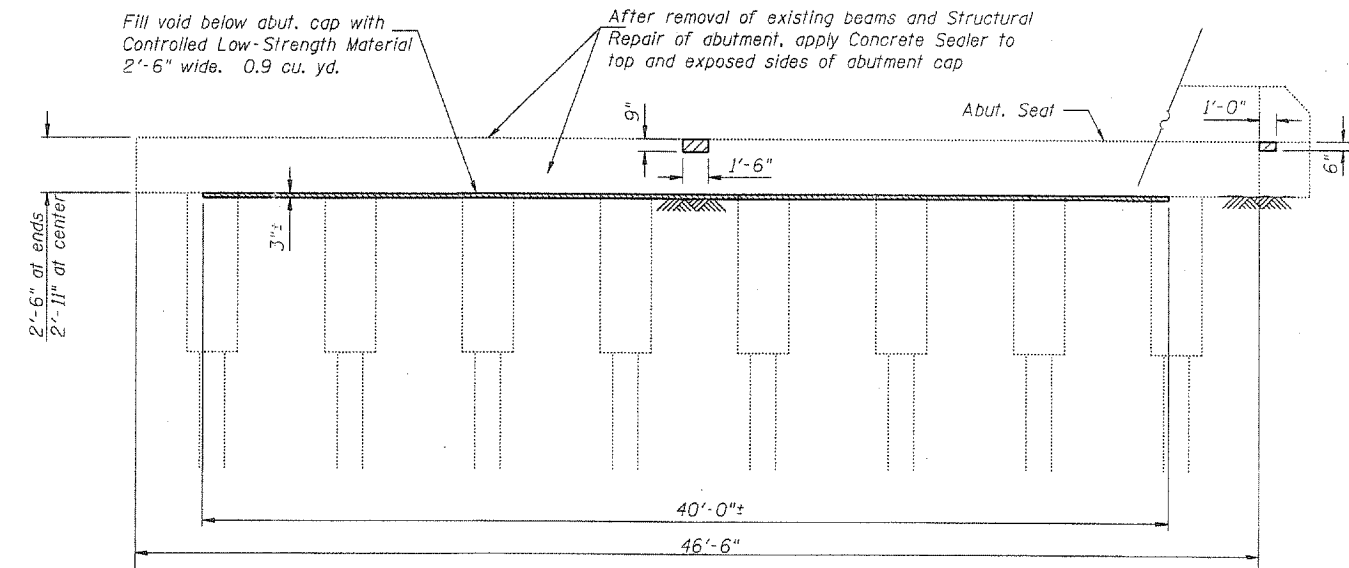
Contract # 60B81 * 49 B2-1

LEGEND

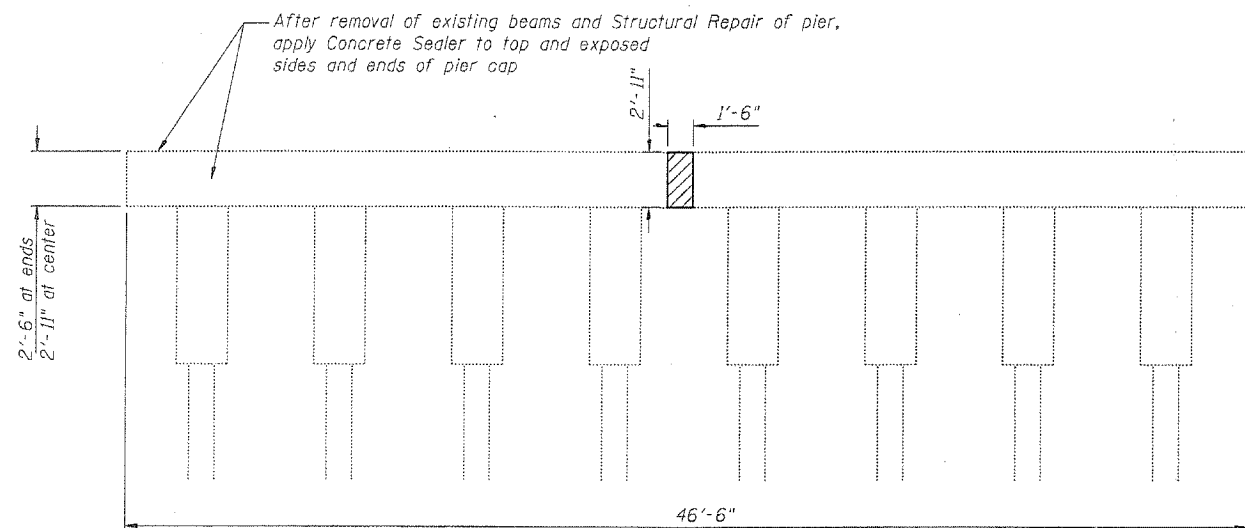
-  Structural Repair of Concrete (Depth Equal to or Less than 5")
-  Structural Repair of Concrete (Depth Greater than 5")



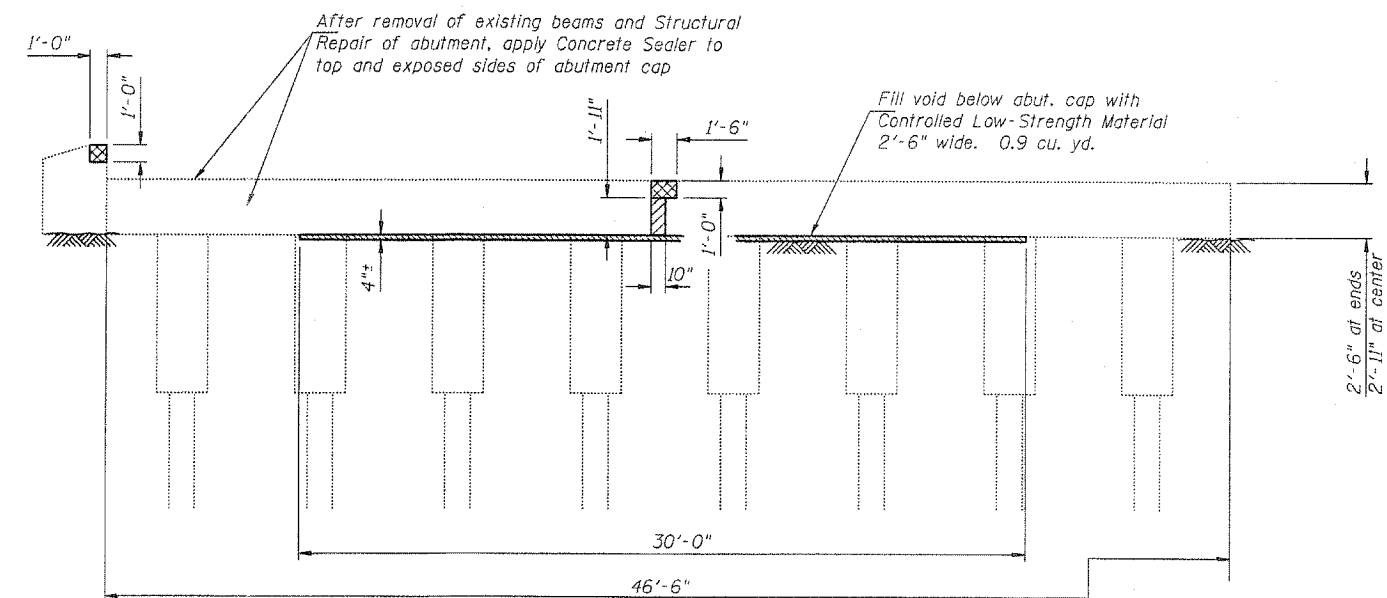
PIER - NORTH FACE



NORTH ABUTMENT



PIER - SOUTH FACE



SOUTH ABUTMENT

SUBSTRUCTURE REPAIRS
S.A. 13 (IL RTE. 25)
OVER NORTON CREEK
S.A. RTE. 13 (F.A.S. 106)
KANE COUNTY, STA. 61+92.50
STRUCTURE NO. 045-0045

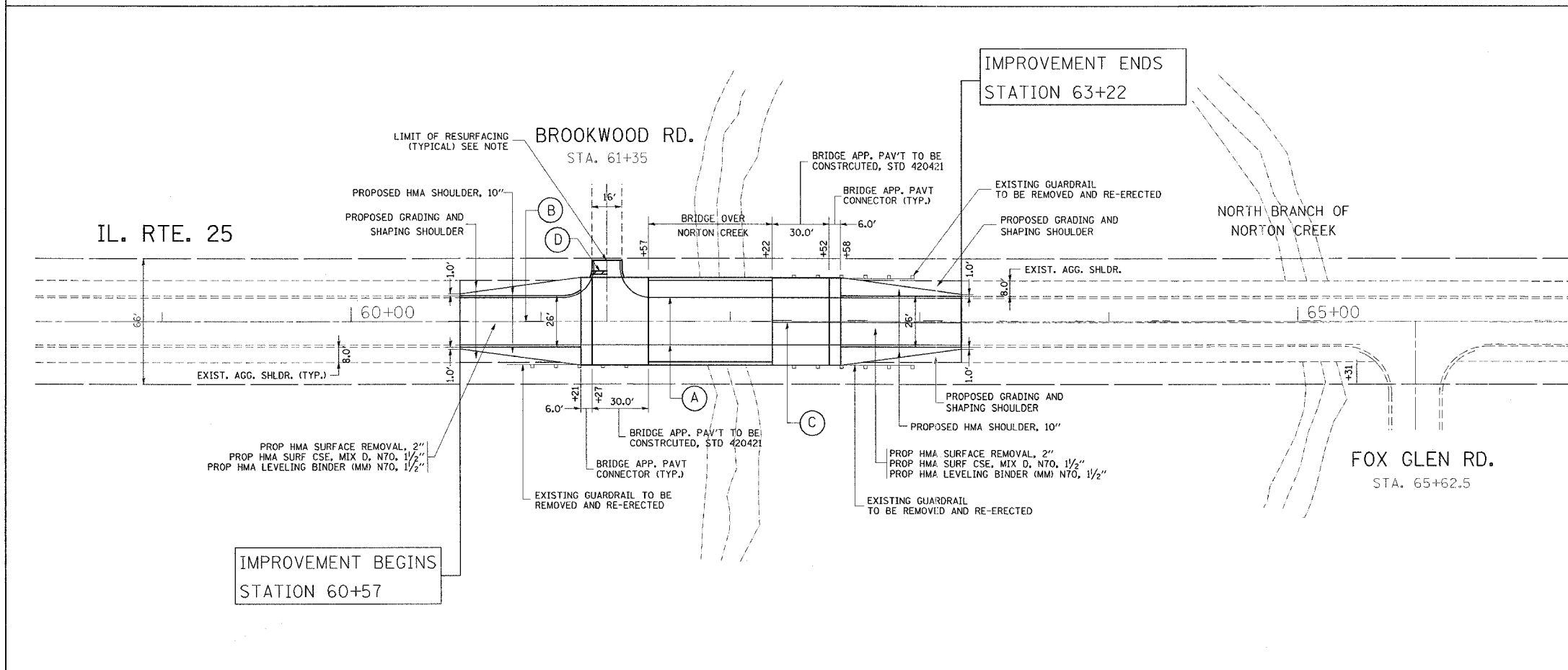
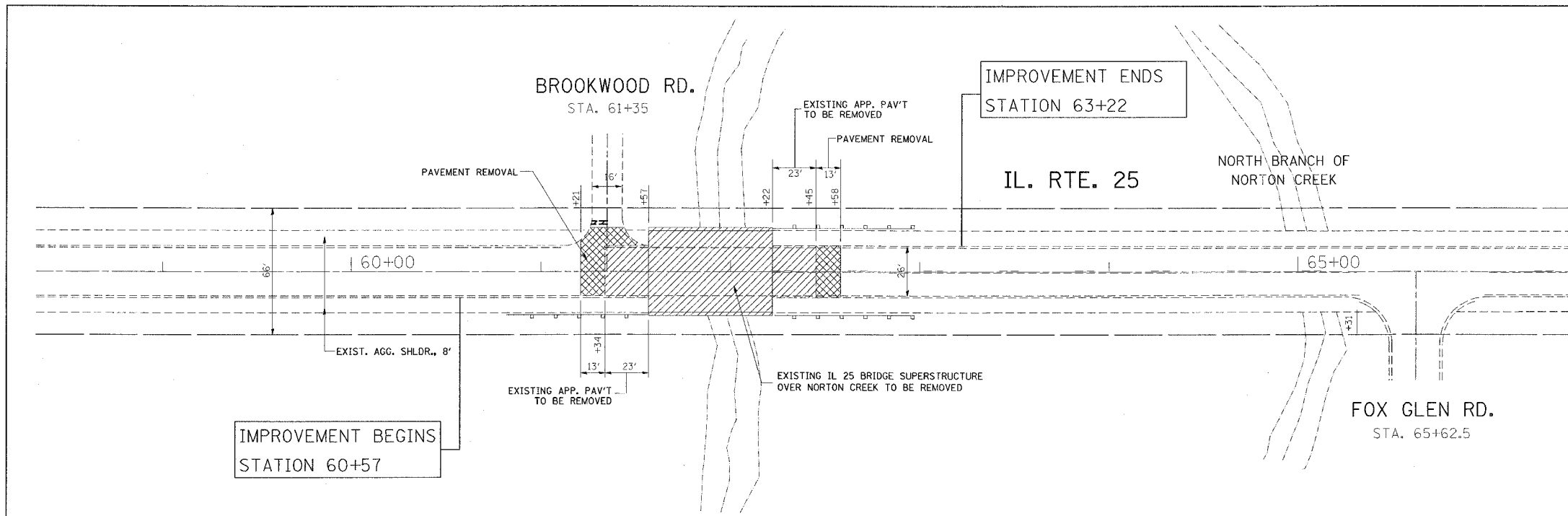
BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	2.5
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	13.4
Concrete Sealer	Sq. Ft.	865
Controlled Low-Strength Material	Cu. Yd.	1.8

DESIGNED DDB	200
CHECKED LLV	EXAMINED
DRAWN MGM	PASSED
CHECKED DDB	ENGINEER OF BRIDGES AND STRUCTURES

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49BR-1	KANE	27	17
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND:

- (A) PAVEMENT MARKING LINE, 4" EDGELINE (SOLID WHITE)
- (B) PAVEMENT MARKING LINE, 4" SKIP-DASH CENTERLINE (YELLOW) (10' DASH & 30' SKIP)
- (C) PAVEMENT MARKING LINE, NO PASSING ZONE, 4" (SOLID YELLOW) (5 1/2" C-C FROM SKIP DASH LINE)
- (D) PAVEMENT MARKING LINE, 24" STOP BAR (SOLID WHITE)

NOTE: BROOKWOOD DR SHALL BE CLOSED DURING CONSTRUCTION. SEE SHEET 21 FOR ITS DETOUR PLAN.

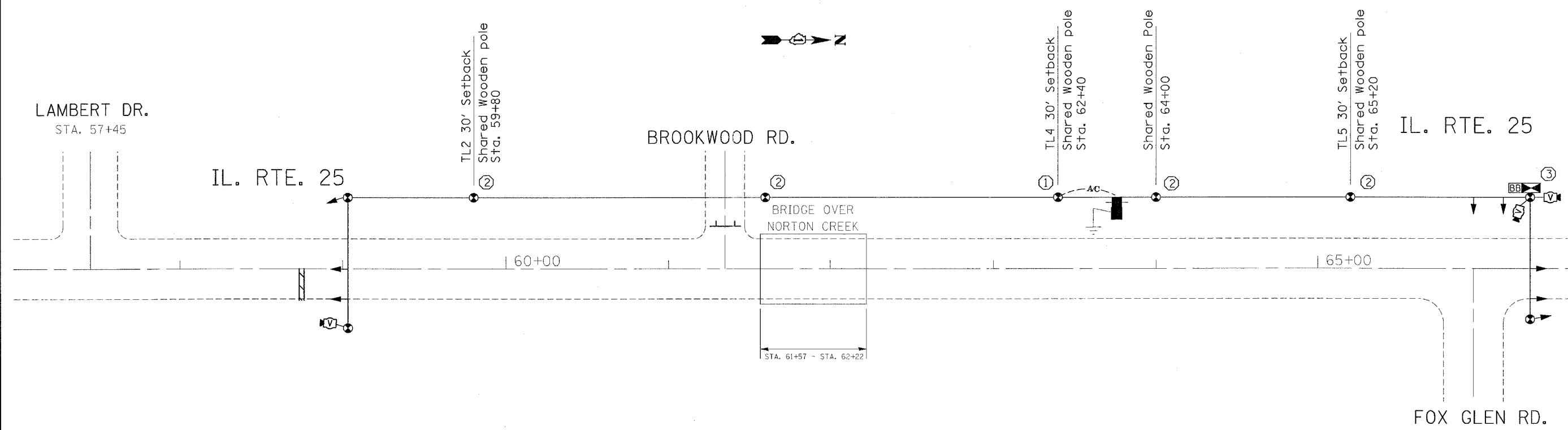
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		IL 25 OVER NORTON CREEK ROADWAY AND PAVEMENT MARKING PLAN

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

DRAWN BY _____
 CHECKED BY _____

PLOT DATE = 8/26/2007
 PLOT SCALE = 50.0000" / 1" / 1"
 USER NAME = byunah

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 60B81				



TEMPORARY TRAFFIC SIGNAL AND REMOVAL LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION		
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM		
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED		
VIDEO DETECTOR		
BATTERY BACK-UP		

CONSTRUCTION NOTES:

- ① SHARED TRAFFIC SIGNAL AND ROADWAY LIGHTING ELECTRICAL SERVICE ENCLOSURE. SEE ROADWAY LIGHTING DETAIL.
- ② SHARED TRAFFIC SIGNAL AND ROADWAY LIGHTING WOOD POLE WITH LUMINAIRE MOUNTING LIGHT.
- ③ CONTROLLER WITH STEEL BASE CABINET AND BATTERY BACK-UP CABINET SHALL BE MOUNTED ON A WOOD STAND

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY TRAFFIC SIGNAL PLAN
 IL. RTE. 25 @
 FOX GLEN RD./LAMBERT DR.

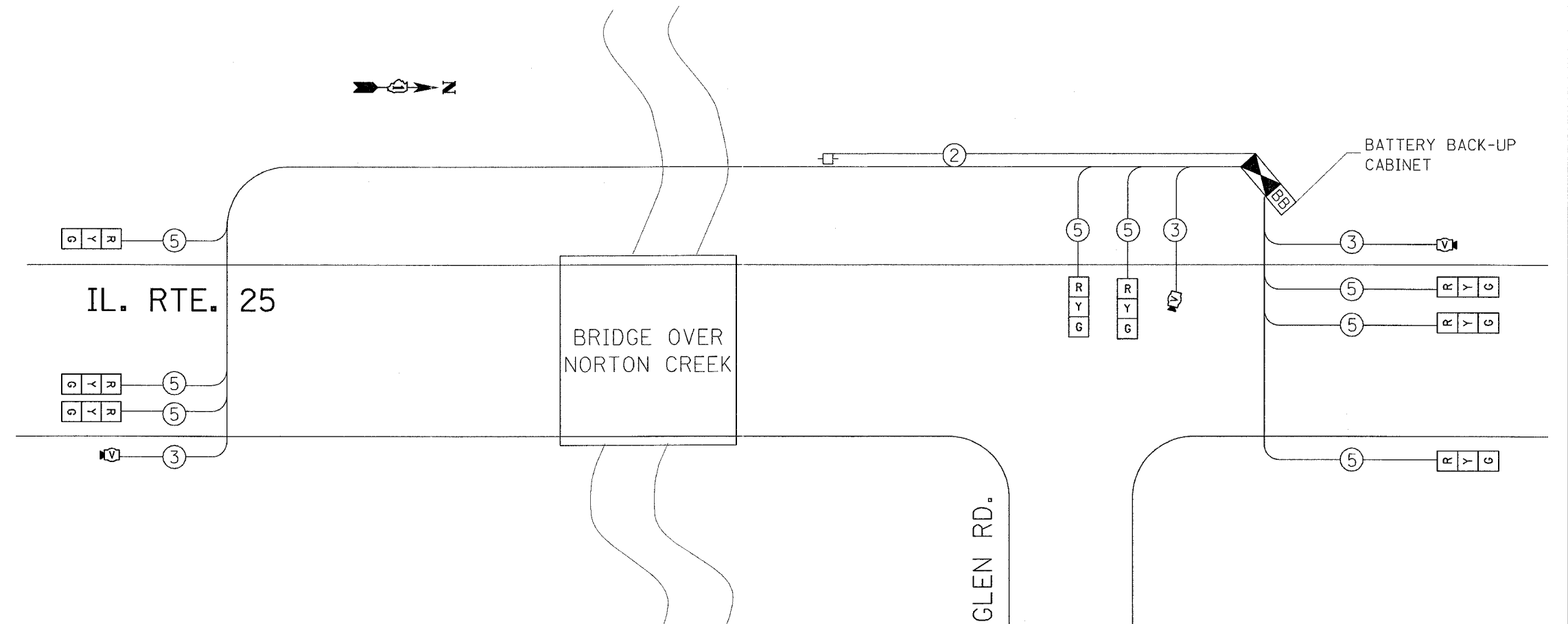
SCALE: VERT. 1"=20'
 HORIZ.
 DATE 5/16/2007

DRAWN BY BCK
 DESIGNED BY BCK
 CHECKED BY DAD

PLOT DATE = 5/16/2007
 FILE NAME = c:\proje\eta\eta\eff\io\1070008\1256f\oglen.dgn
 PLOT SCALE = 24.0000 / IN.
 USER NAME = kentphix@jbc

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
BATTERY BACK-UP		



CABLE PLAN

MOVEMENT	IL. RTE. 25	IL. RTE. 25	IL. RTE. 25	F
				L
PHASE	1	2	3	A
INTERVAL	1 2A 2B	3 4A 4B	5 6A 6B	S
CHANGE TO	2	1,3	1,2	H
FOX GLEN RD.	G Y R	R R R	R R R	R
IL. RTE. 25 SIGNALS	S/B	R R R	G Y R	R R R
IL. RTE. 25 SIGNALS	N/B	R R R	R R R	G Y R

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION	
SIGNAL (RED)	8	135	17	0.50	68.00
(YELLOW)	8	135	25	0.25	50.00
(GREEN)	8	135	15	0.25	30.00
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 248.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196-1096
 CONTACT: LARRY D. SHANK
 PHONE: (847) 291-3214
 COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' ± L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		6m ± L-0.6m=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

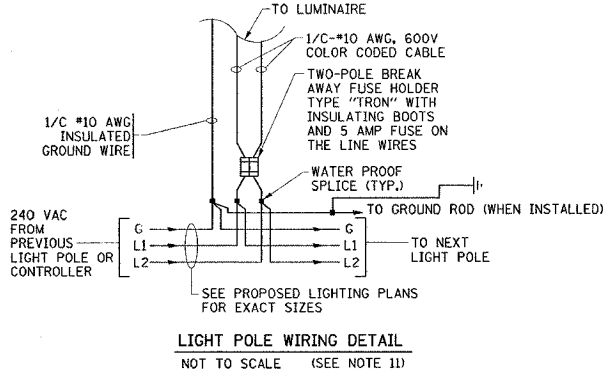
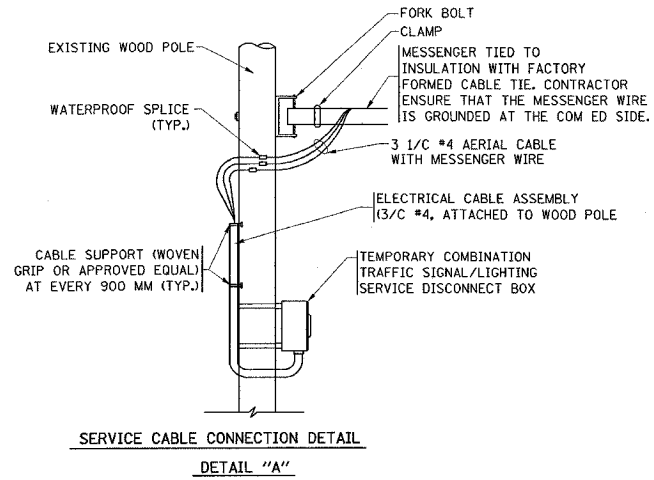
NOTE:
 THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
 IL. RTE. 25 @ LAMBERT DR./FOX GLEN RD.
 SCALE: 1"=20'
 DATE 5/16/2007
 DRAWN BY BCK
 DESIGN BY BCK
 CHECKED BY DAD

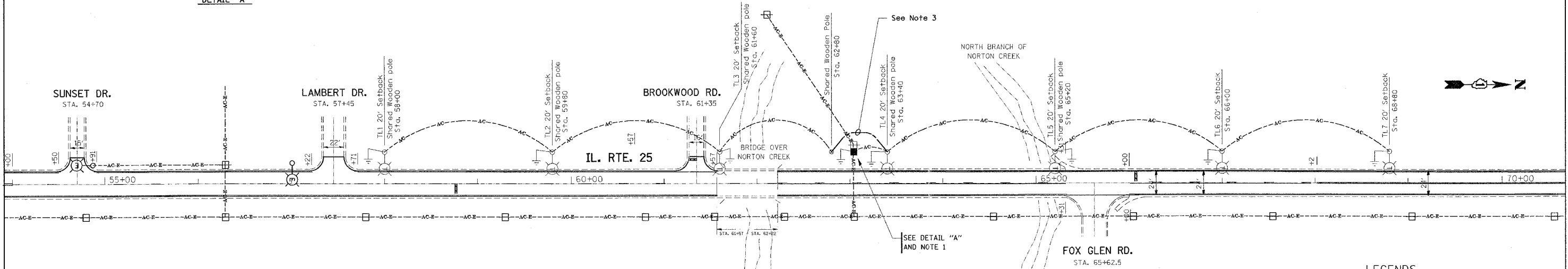
PLOT DATE = 5/16/2007
 FILE NAME = c:\p\projects\traff\60B81\1258foxglen.dgn
 PLOT SCALE = 28.0000 / IN.
 USER NAME = kentrphdsg

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49 BR-1	KANE	27	20
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



IL-25 OVER NORTON CREEK
SUMMARY OF QUANTITIES, ELECTRICAL PAY ITEMS

Pay Code	Item Description	Unit	Quantity
80400100	ELECTRIC SERVICE INSTALLATION	Each	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	Each	1
80700100	GROUND ROD, 5/8" DIA. X 10 FT	Each	8
81603035	UNIT DUCT, 600V, 2-1/2" NO. 6, 1/2" NO. 8 GROUND, (EPR-TYPE RHW), 1" DIA. POLYETHYLENE	Foot	100
8180019	AERIAL CABLE, 2-1/2" NO. 4 WITH MESSANGER WIRE	Foot	1100
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	Foot	100
82103400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROLL, 400 WATT	Each	7
83057350	LIGHT POLE, WOOD, 60 FOOT, CLASS 4	Each	1
83057355	LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15 FT MAST ARM	Each	7
84100110	REMOVAL OF TEMPORARY LIGHTING UNITS	Each	7
84200500	REMOVAL OF TEMPORARY LIGHTING UNIT, SALVAGE	Each	7
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	Each	1



LEGENDS

- 400W, 240V, MCIII HPS. WITH PHOTO CELL 15' MA, 50 MH ON WOOD POLE
- 2-1/2" AWG, AERIAL CABLE WITH MESSANGER WIRE UNLESS OTHERWISE NOTED
- WOODEN POLE
- TL-1 TEMPORARY LIGHTING UNIT NUMBER - ONE
- GROUND ROD 5/8" DIA. X 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- UNIT DUCT, 1-2" AWG 6 1-1/2" AWG 8 GND.
- EXISTING AERIAL CABLE
- EXISTING UTILITY POLE
- EXISTING UTILITY POLE

Notes:

- Temporary combination service disconnect box shall feed a temporary traffic signal controller and the temporary lighting units.
- A lighting controller is not proposed. Each lighting unit shall be controlled by a photo cell mounted on the associated luminaire with the lighting circuit fed directly from the temporary service disconnect box.
- Unit duct is proposed between lighting units TL4 and TL5 to avoid conflict with existing electrical aerial cable. This unit duct may be eliminated if aerial cable can be installed while maintaining minimum vertical clearance as required by the local utility and as directed by the engineer. Coordination with the Village of St. Charles electric utility will be required.
- The materials and installation methods shall comply with the latest codes, standards and ordinances of Federal, State and Local governing bodies having jurisdiction. All works shown on the plans and described elsewhere shall also conform to the latest National Electrical Code.
- All electrical equipment, components and devices shall be U/L listed.
- All material parts of the light poles shall be grounded and bonded conforming to NEC Article 250. The equipment ground shall be part of the temporary light pole pay item.
- The light pole setback from the edge of travel pavement shall be 20' unless the light pole is behind guardrail. The light poles when installed behind the guardrail should have at least eight foot setback from the back of the shoulder and or as directed by the engineer.
- The plan shows six shared wooden poles that are common for lighting and traffic systems. The electrical contractor shall install only the luminaire and mast arm on the shared poles. The traffic system contractor should supply, and install these 60' Class 4 wooden poles. The electrical summary of quantities excludes these poles.
- The temporary light poles should have identification numbers as shown on the plans.
- The contractor shall be responsible for any damage to the equipment or devices and not limited to the light system. The contractor shall not install damaged equipment or devices, instead the contractor shall replace it with new ones at no cost to IDOT and as directed by the Engineer.
- The contractor shall splice aerial cable at the light pole using heat shrinkable caps with the factory applied waterproof sealant. The installation and required material shall be part of the Light Pole pay item.
- It is the contractor's responsibility to contact J.U.L.I.E. prior to the start of construction and coordinate location of existing underground utilities. The contractor shall locate, flag and protect all underground utilities prior to and during construction. Any damage to existing utilities during construction shall be repaired immediately at no cost to IDOT.
- The material quantities as shown in the electrical summary of quantities are approximations only. It is the contractor's responsibility to field verify all quantities prior to ordering materials.
- The contractor shall coordinate construction and staging activities being done in the same area by the utility companies or other contractors and setup coordination meetings if necessary without any additional financial compensation.
- The utility company shall be contacted as soon as possible and notified of the pending electrical connections and installations to ensure continuity of night time hours of lighting operation.
- All areas disturbed under this contract shall be restored to the original condition or better to the satisfaction of the Engineer.
- Cost of splices and mounting hardware shall be included in the unit price for aerial cable.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

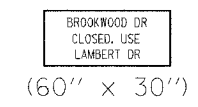
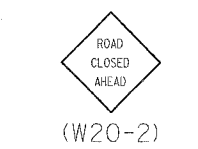
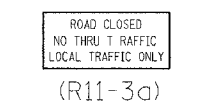
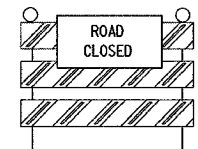
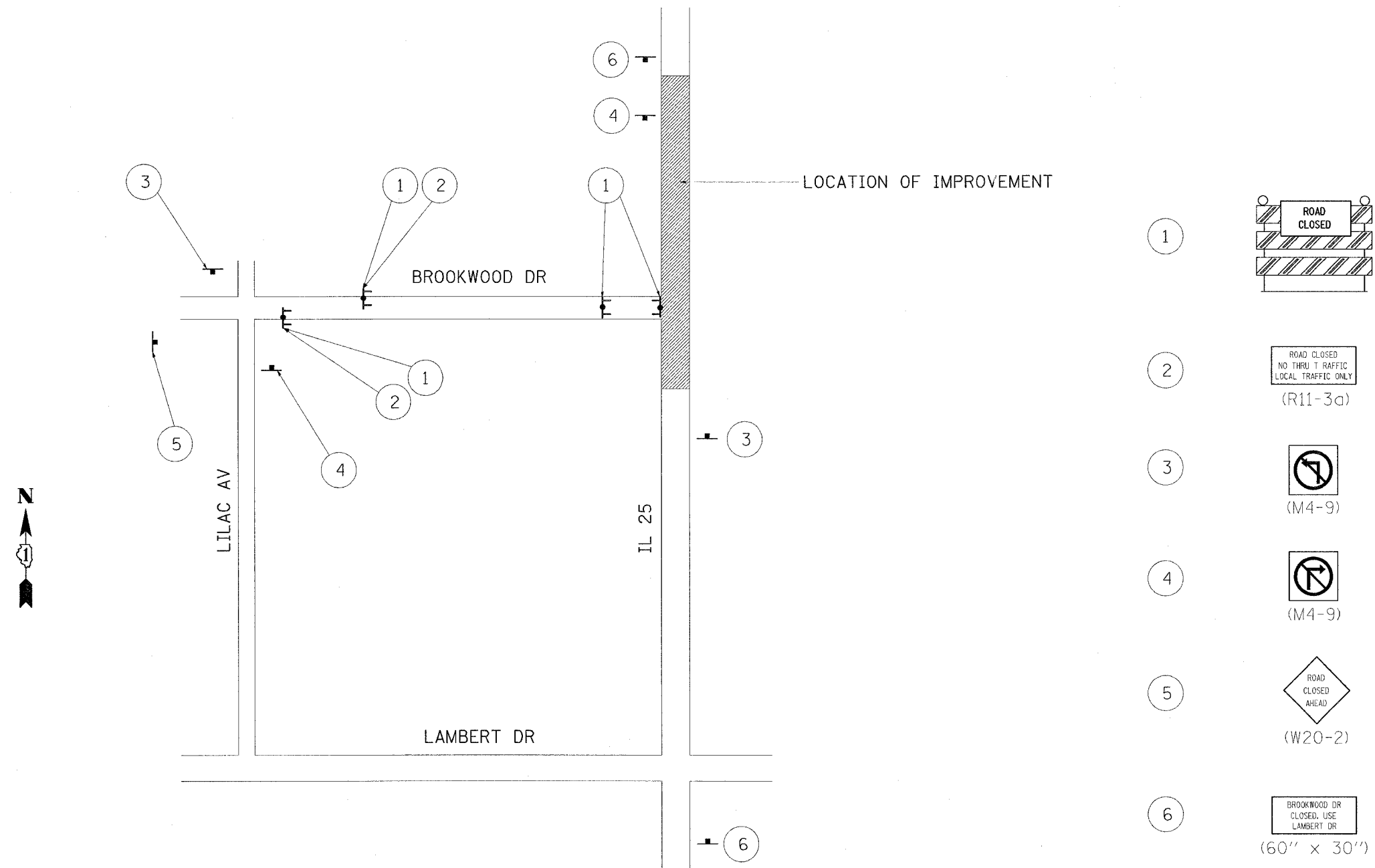
TEMPORARY LIGHTING PLAN

SCALE: VERT. HORIZ. DATE

DRAWN BY: CHECKED BY:

PLOT DATE = 5/19/2007
 PLOT SCALE = 60/800
 USER NAME = bynash

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49BR-1	KANE	27	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

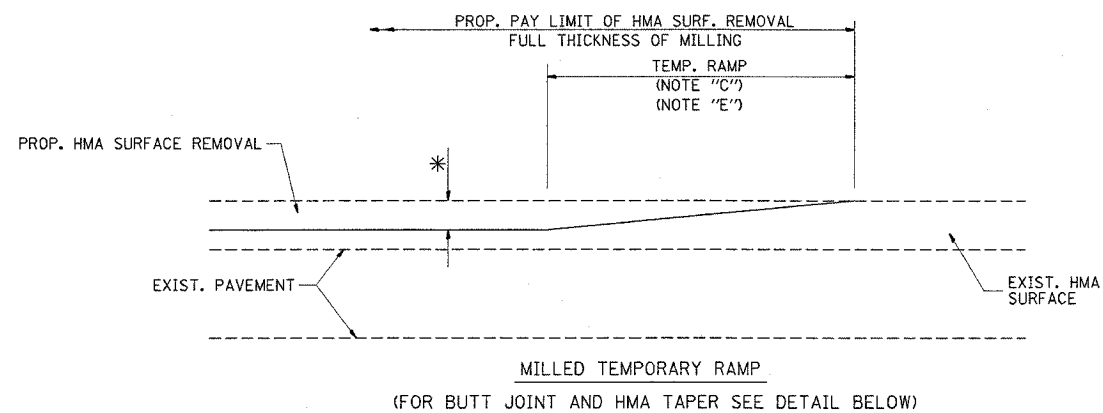


REVISIONS	
NAME	DATE

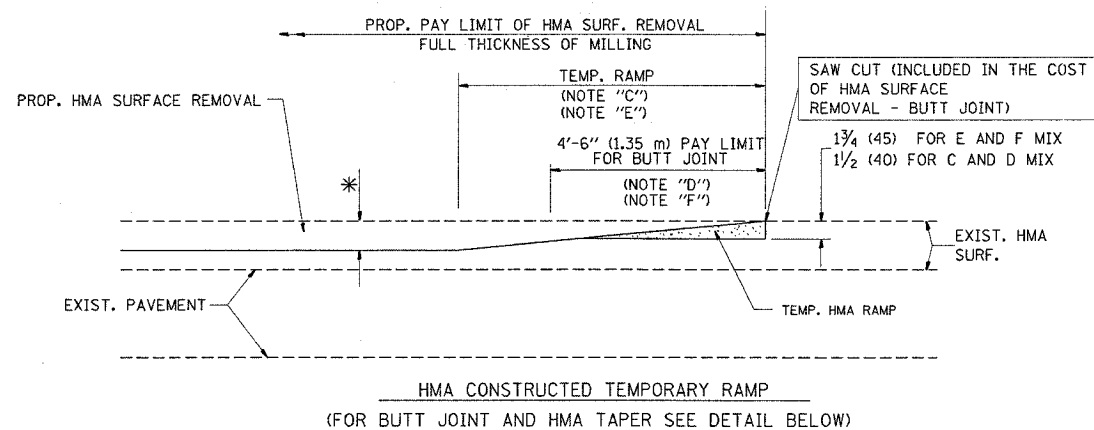
ILLINOIS DEPARTMENT OF TRANSPORTATION
**IL 25 OVER NORTON CREEK
 DETOUR ROUTE PLAN FOR
 BROOKWOOD RD**
 SCALE: VERT. _____
 HORIZ. _____
 DATE _____ DRAWN BY _____
 CHECKED BY _____

PLOT DATE = 5/18/2007
 FILE NAME = c:\projects\446100\446100.dwg
 USER NAME = agp

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	22
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

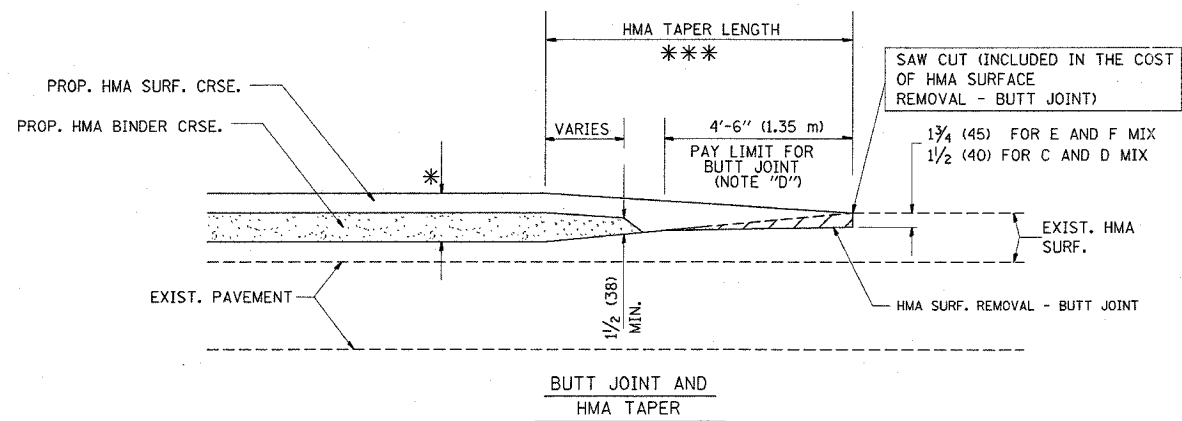


OPTION 1

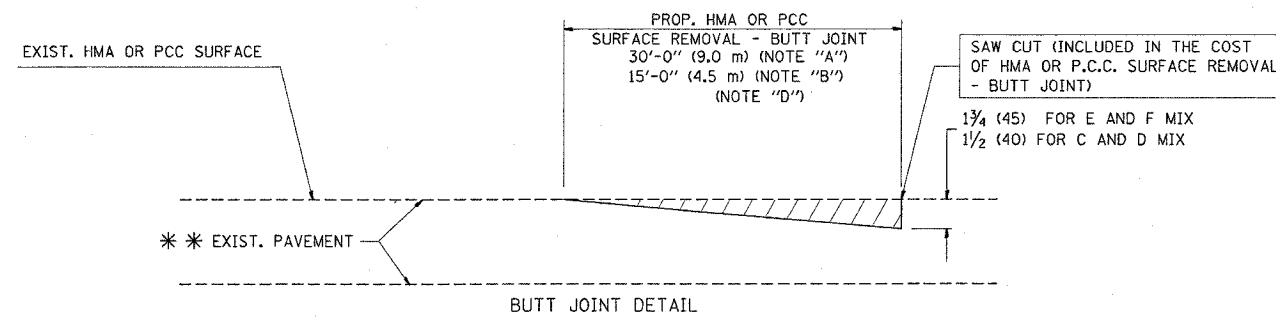


OPTION 2

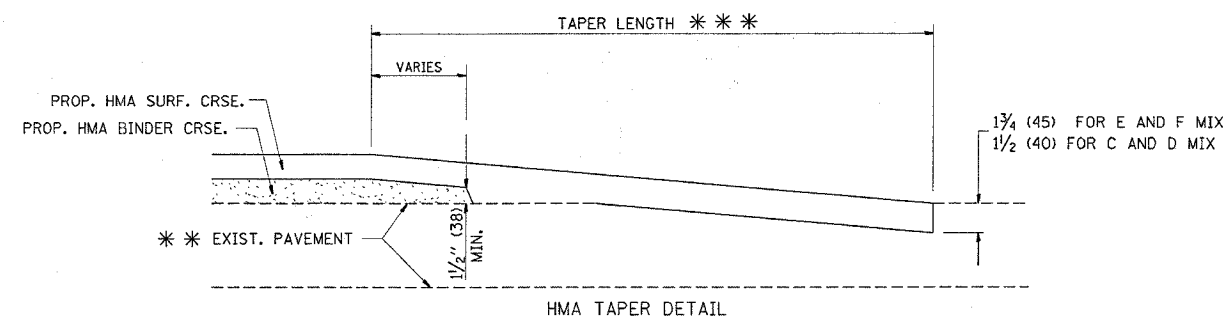
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

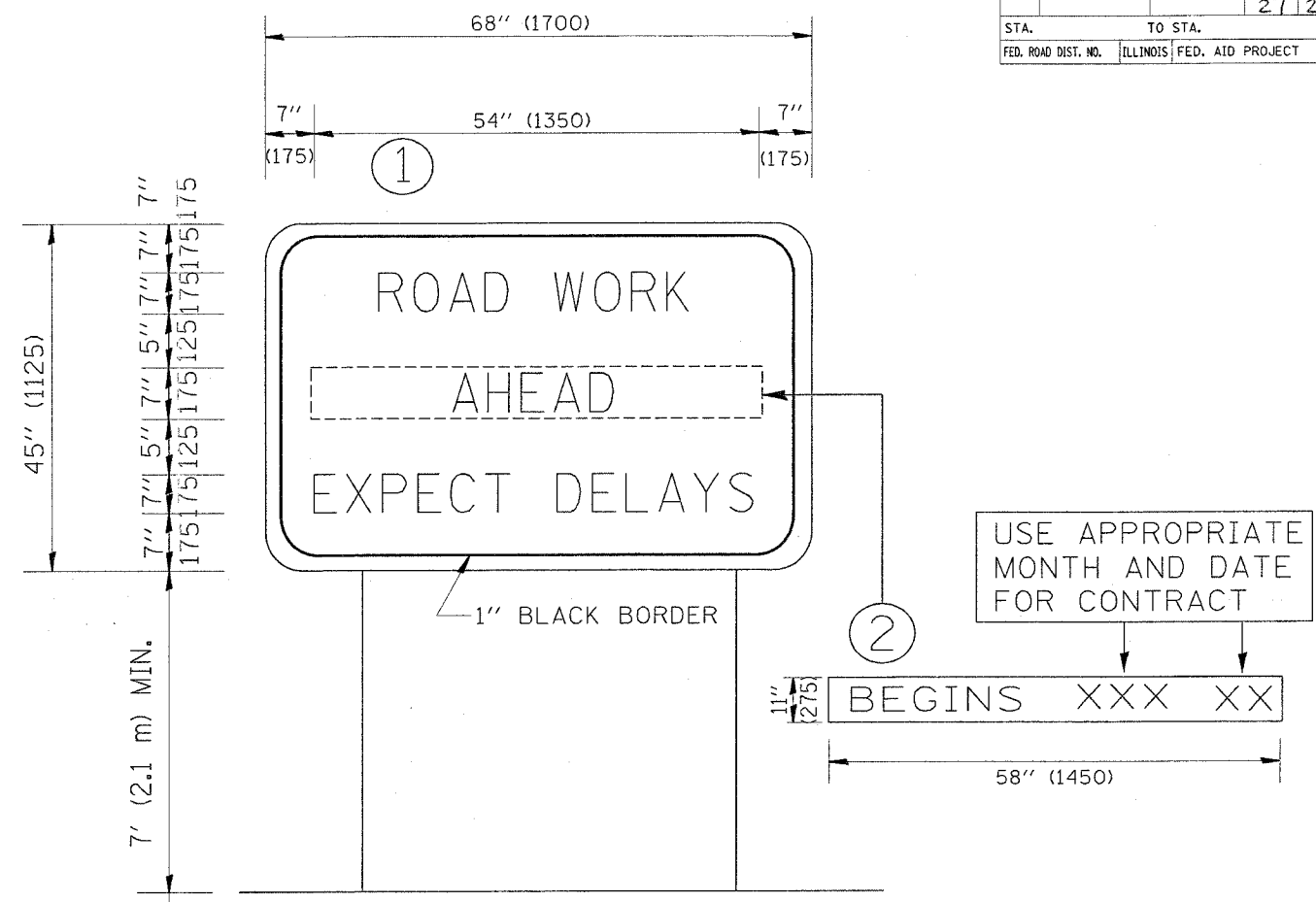
BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE
HORIZ. 1"=20'
PLOT DATE: 1/23/2007

DRAWN BY
CHECKED BY

BD400-05 (VI-BD32)
REVISION DATE: 01/01/07

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	23
STA.		TO STA.		
FED. ROAD DIST. NO.	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.)

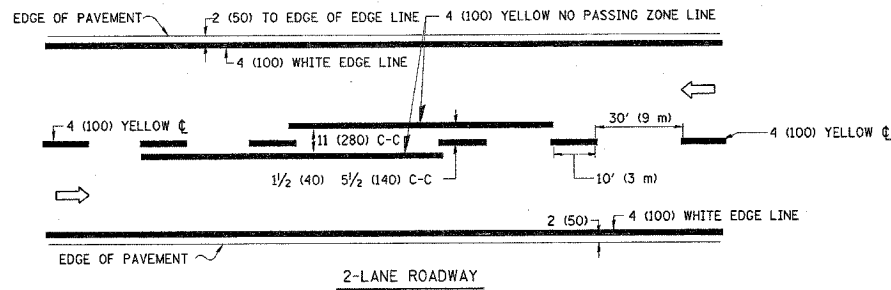
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99

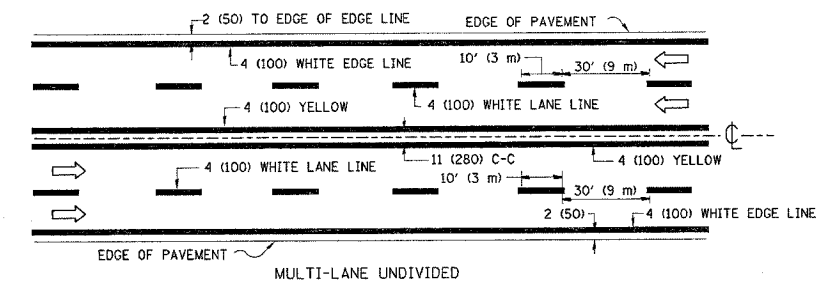
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY INFORMATION SIGNING
 SCALE: DATE: 1/23/2007
 DRAWN BY DESIGN
 CHECKED BY
 TC22
 REVISION DATE: 02/02/99

PLOT DATE = 1/23/2007
 FILE NAME = w:\detroit\1222.dgn
 PLOT SCALE = 50.0000 / 1 IN.
 USER NAME = bgrunsh

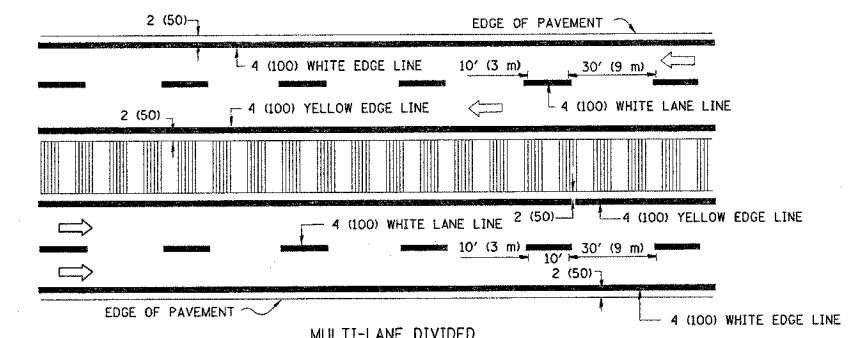
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	24
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



2-LANE ROADWAY



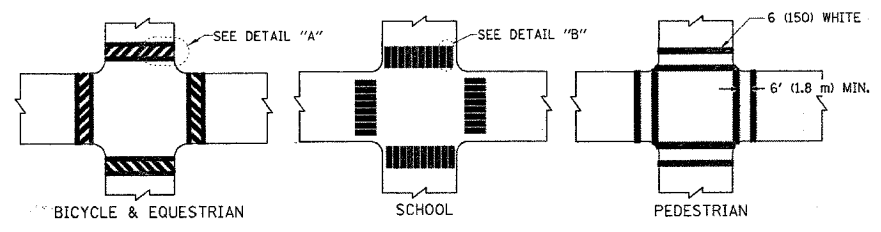
MULTI-LANE UNDIVIDED



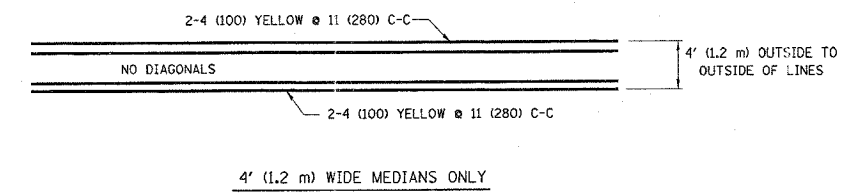
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

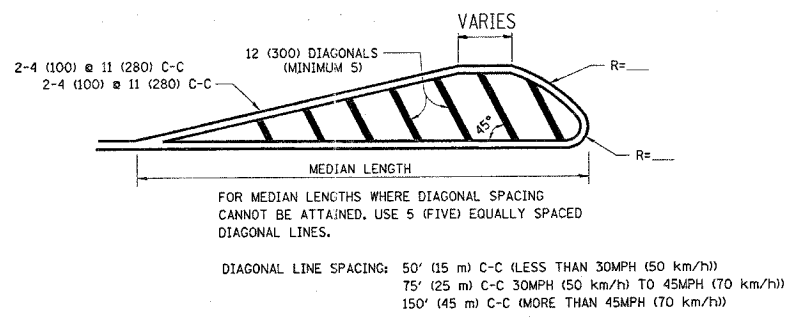
TYPICAL LANE AND EDGE LINE MARKING



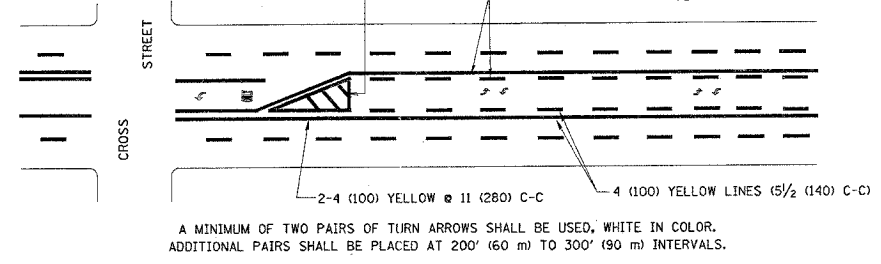
TYPICAL CROSSWALK MARKING



4' (1.2 m) WIDE MEDIANS ONLY

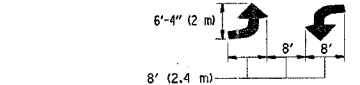


MEDIANS OVER 4' (1.2 m) WIDE

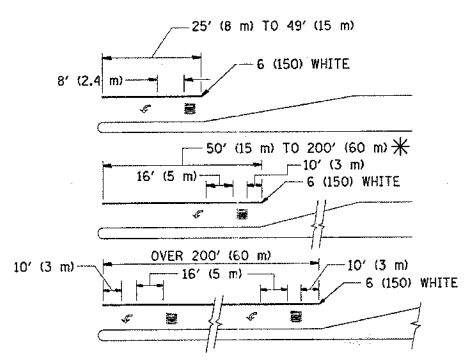


TYPICAL PAINTED MEDIAN MARKING

MEDIAN WITH TWO-WAY LEFT TURN LANE

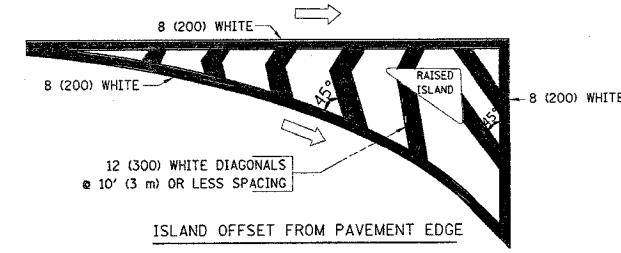


TYPICAL PAINTED MEDIAN MARKING

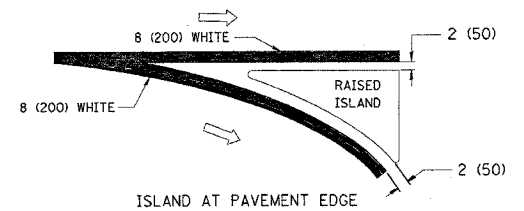


TYPICAL LEFT (OR RIGHT) TURN LANE

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	5/2 (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; 5/2 (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 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.

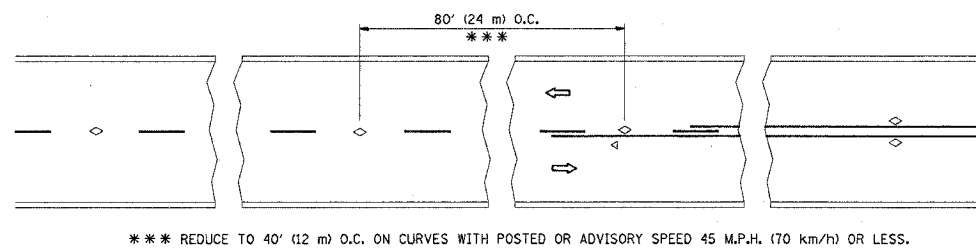
All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

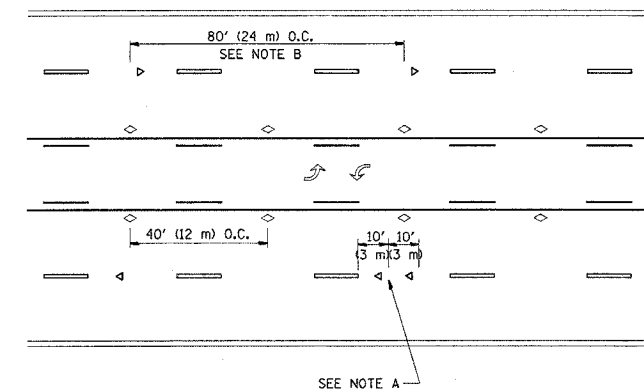
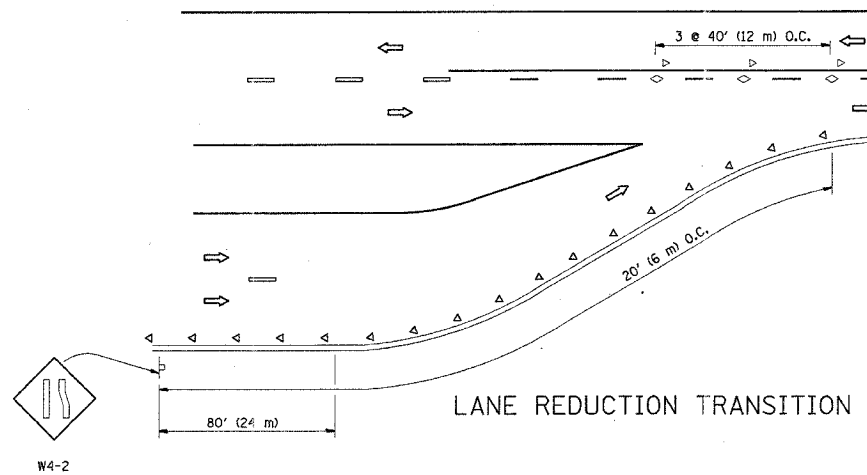
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS
SCALE: NONE
DRAWN BY CADD
CHECKED BY
TC-13
REVISION DATE: 01/06/00

PLOT DATE = 1/23/2007
FILE NAME = w:\advised\vol3.dgn
PLOT SCALE = 0.0000 / IN.
USER NAME = bgyarnh

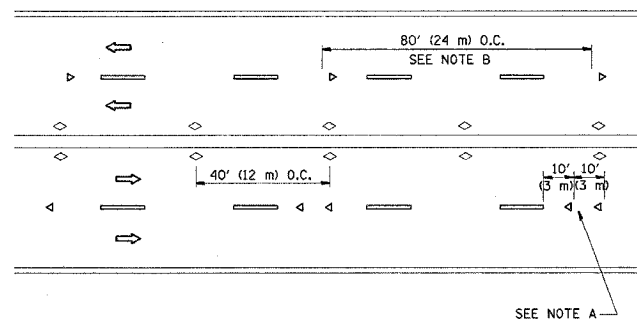
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



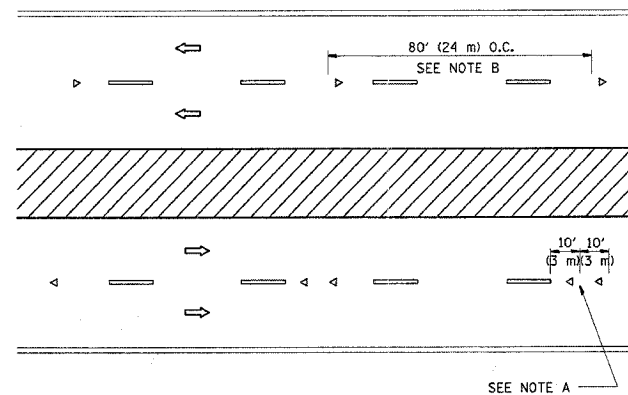
TWO-LANE/TWO-WAY



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.

LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

SYMBOLS

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

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.

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

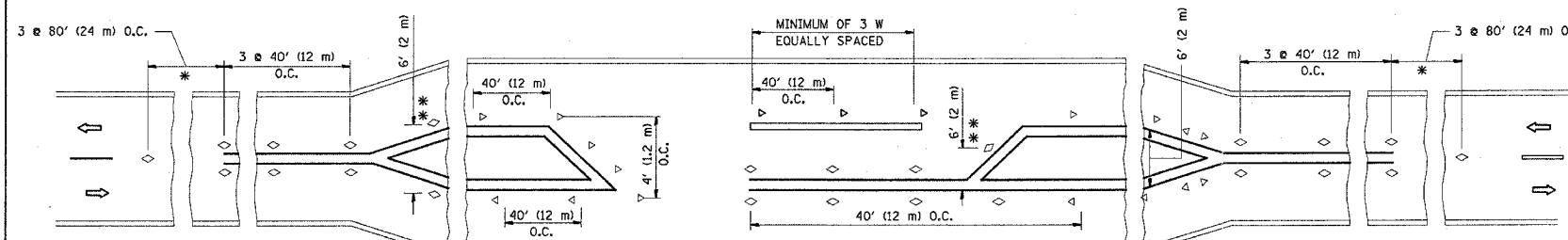
REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT
MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE
DATE: 1/23/2007

* DRAWN BY CADD
CHECKED BY
TC-11

REVISION DATE: 01/06/00



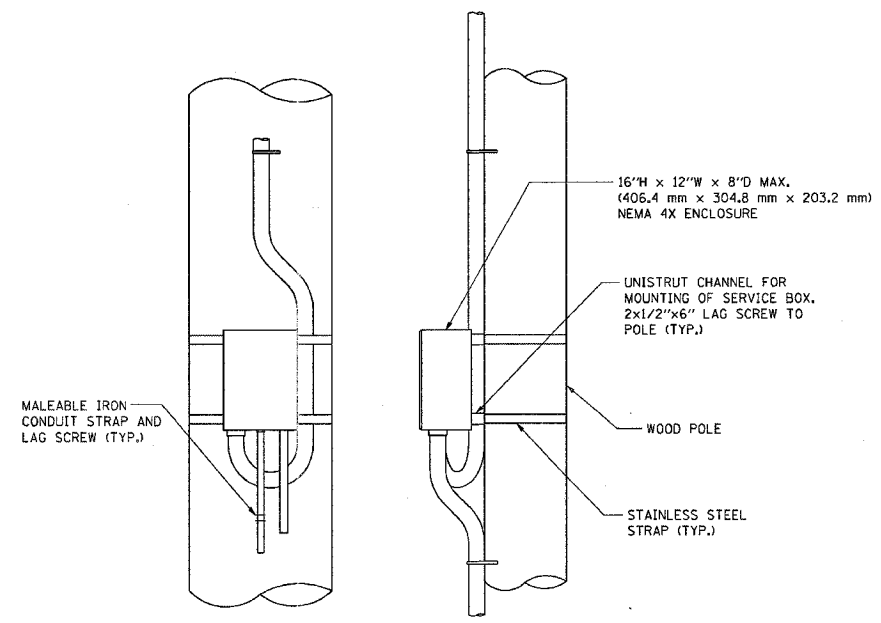
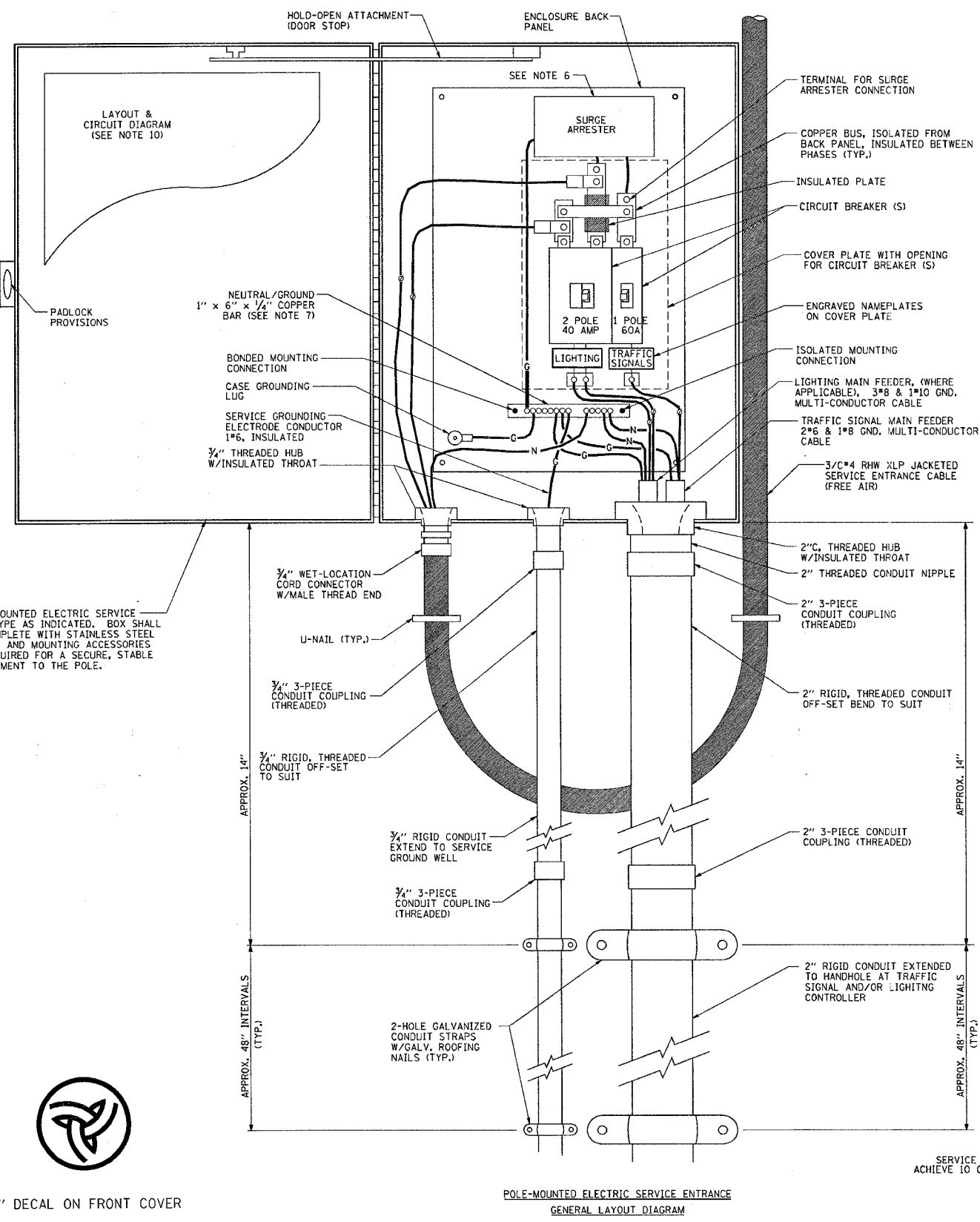
- * SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
- ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

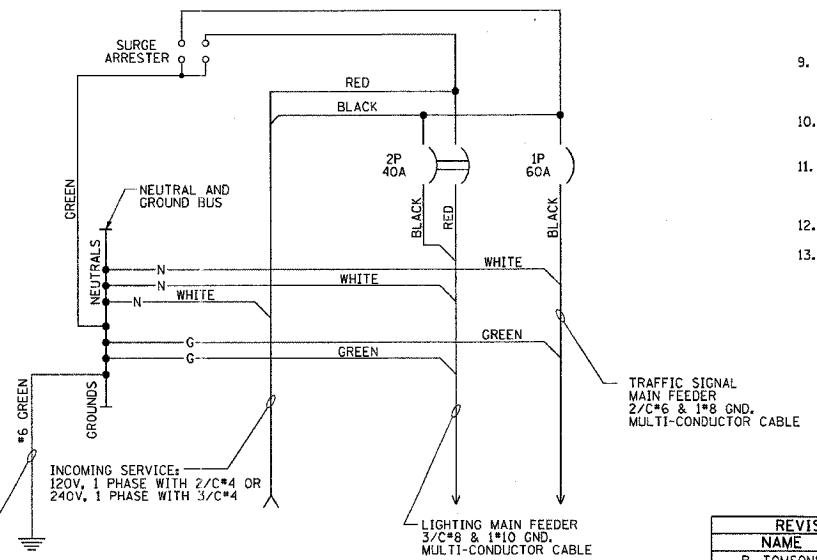
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FILE NAME = \\sctserver\cadd\ltdgn
PLOT SCALE = 1/8"=1'-0"
USER NAME = byunah

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

- NOTES:**
- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
 - THE POLE-MOUNTED ELECTRIC SERVICE BOX DETAIL DEPICTS THE BASIC CONSTRUCTION OF THE EQUIPMENT. SLIGHT MODIFICATIONS APPLY FOR DIFFERING SERVICES AND APPLICATIONS AS FOLLOWS:
 - TYPE A FULLY EQUIPPED FOR 240/120V. 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER
 - TYPE A1 FULLY EQUIPPED FOR 240/120V. 3W SERVICE, BLANK COVER IN LIEU OF LIGHTING MAIN BREAKER
 - TYPE B EQUIPPED FOR 120V. SERVICE, COMPLETE WITH 1P, 60A. TRAFFIC SIGNALS MAIN BREAKER
 - TYPE B1 EQUIPPED FOR 120V. SERVICE, COMPLETE WITH 1P, 40A. TRAFFIC SURVEILLANCE MAIN BREAKER
 - THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
 - THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208556LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
 - CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
 - THE SURGE PROTECTOR SHALL BE SUITABLE FOR 240/120 VOLT SINGLE PHASE 60HZ AC ELECTRICAL SERVICE, 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, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
 - 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, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
 - 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.
 - THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
 - A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
 - A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
 - LUGS AND CONNECTORS SHALL BE RATED FOR 75°C CONDUCTOR.
 - 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.



DISCONNECT MOUNTING DETAIL
N.T.S.



SCHEMATIC DIAGRAM

POLE-MOUNTED ELECTRIC SERVICE BOX, TYPE AS INDICATED. BOX SHALL BE COMPLETE WITH STAINLESS STEEL STRAPS AND MOUNTING ACCESSORIES AS REQUIRED FOR A SECURE, STABLE ATTACHMENT TO THE POLE.



6" DECAL ON FRONT COVER

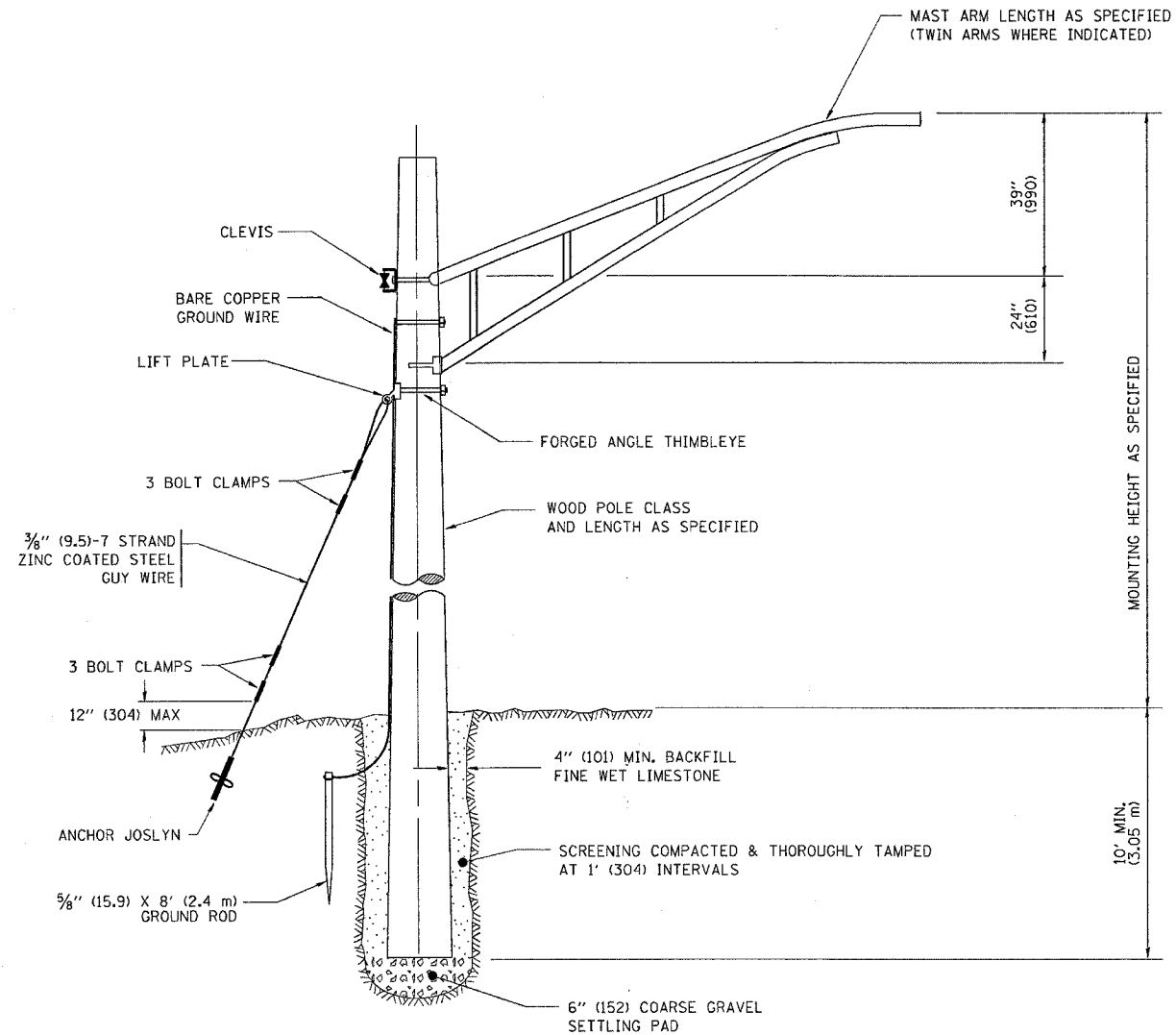
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 USER NAME = bbaum01

BE-230

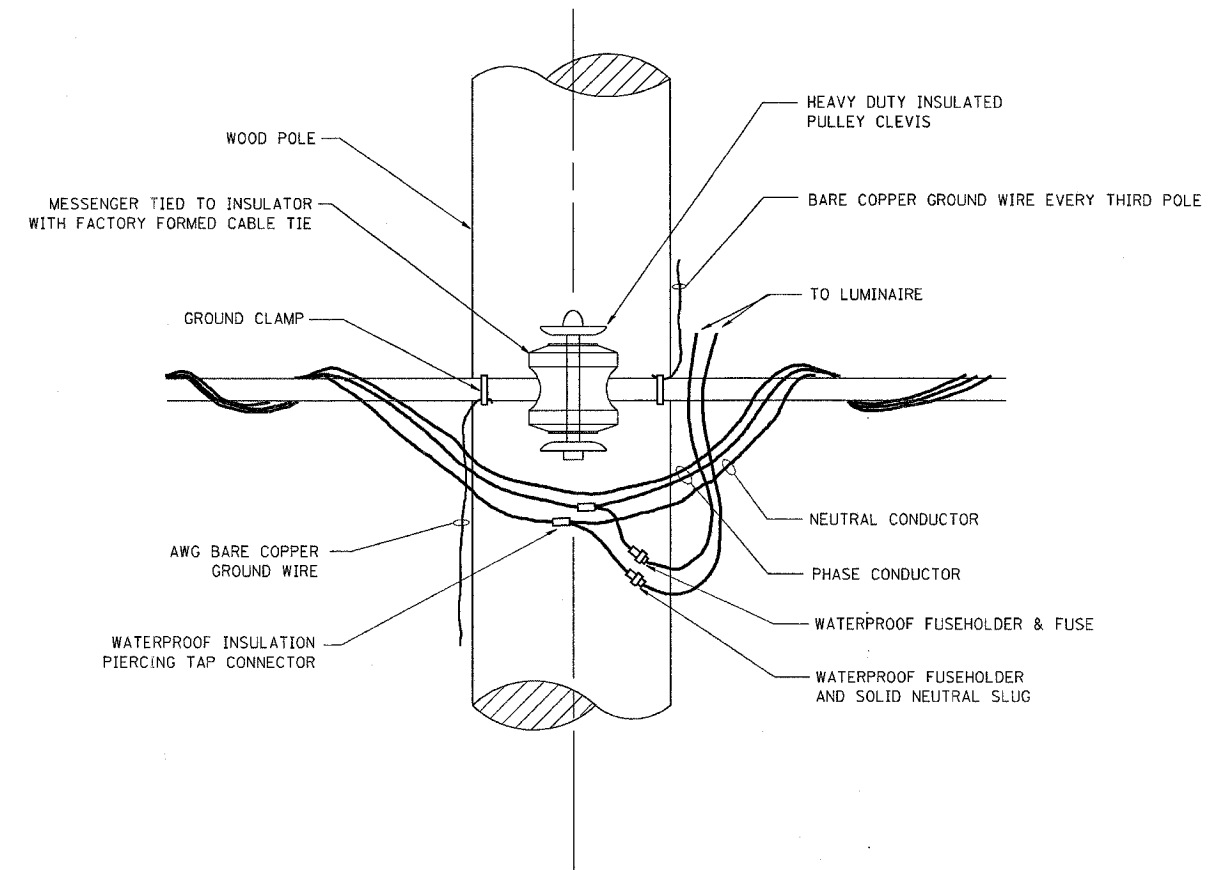
REVISIONS	
NAME	DATE
R. TOWSONS	8-13-04

ILLINOIS DEPARTMENT OF TRANSPORTATION
COMBINATION LIGHTING & TRAFFIC POLE MOUNTED ELECTRIC SERVICE BOX DETAIL
 SCALE: NONE
 DRAWN BY: [blank]
 CHECKED BY: BE-230

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			27	27
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

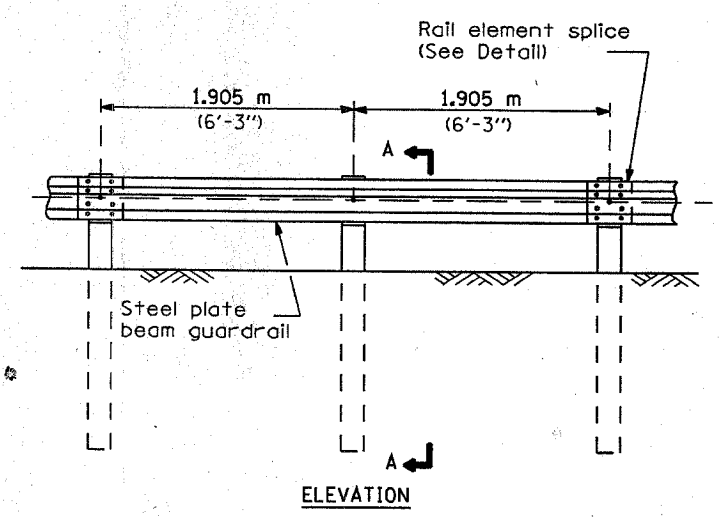
NOTES:
 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

PLOT DATE = 2/27/2007
 PLOT SCALE = 500000 / IN.
 USER NAME = bauer-dl

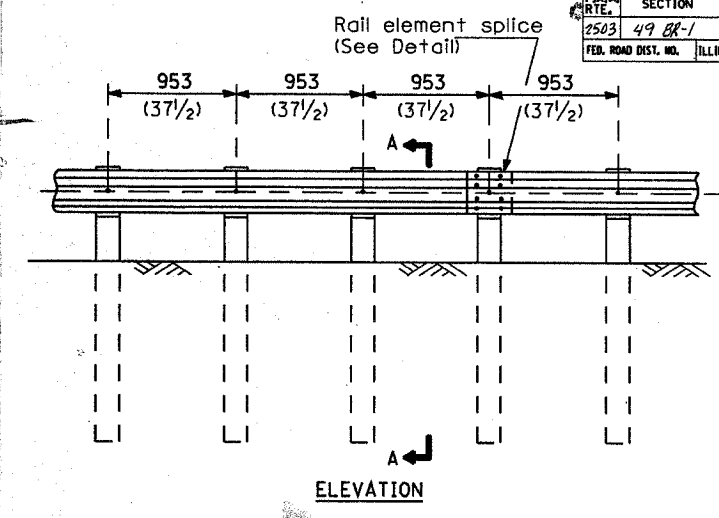
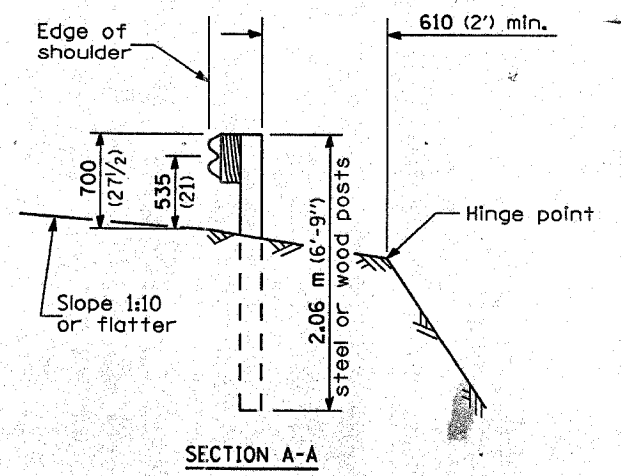
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY LIGHT POLE
 DETAILS
 SCALE: VERT. / HORIZ.
 DATE: 2/27/2007
 DRAWN BY
 CHECKED BY
 BE-800
 REVISION DATE: 01/01/07

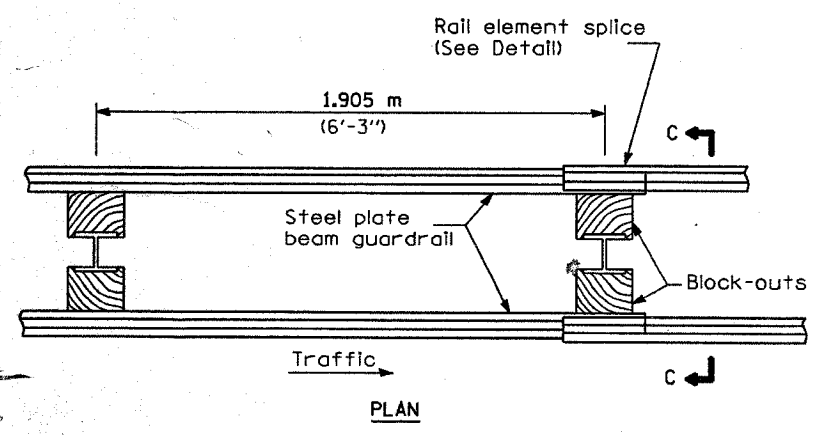
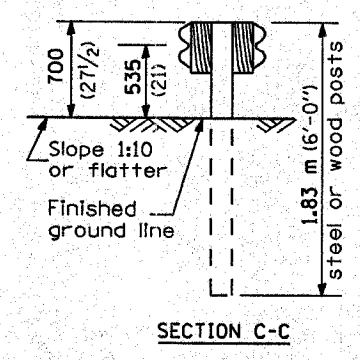
Contract 60881				
F.A.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2503	49 BR-1	Kane	27	27A
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



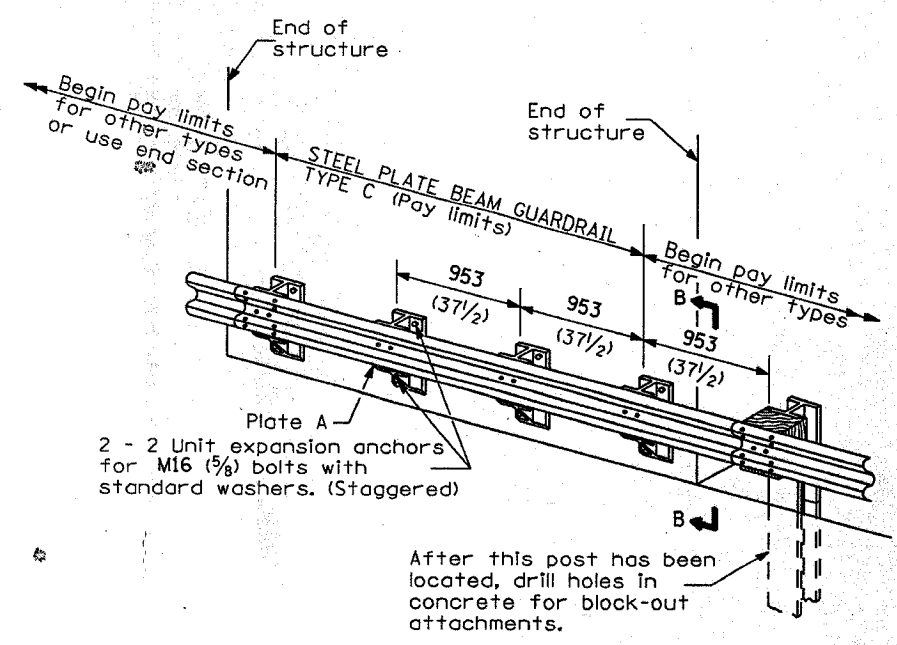
TYPE A
1.905 m (6'-3") Typical post spacing



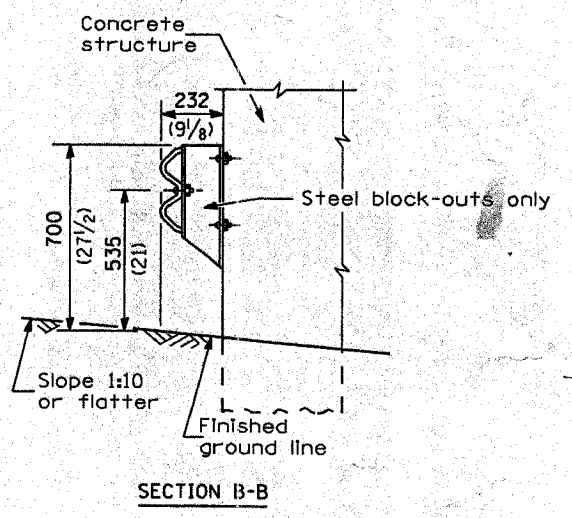
TYPE B
953 (37 1/2) Closed post spacing



TYPE D
Double steel plate beam guardrail
1.905 m (6'-3") typical post spacing



TYPE C
953 (37 1/2) Block-out spacing



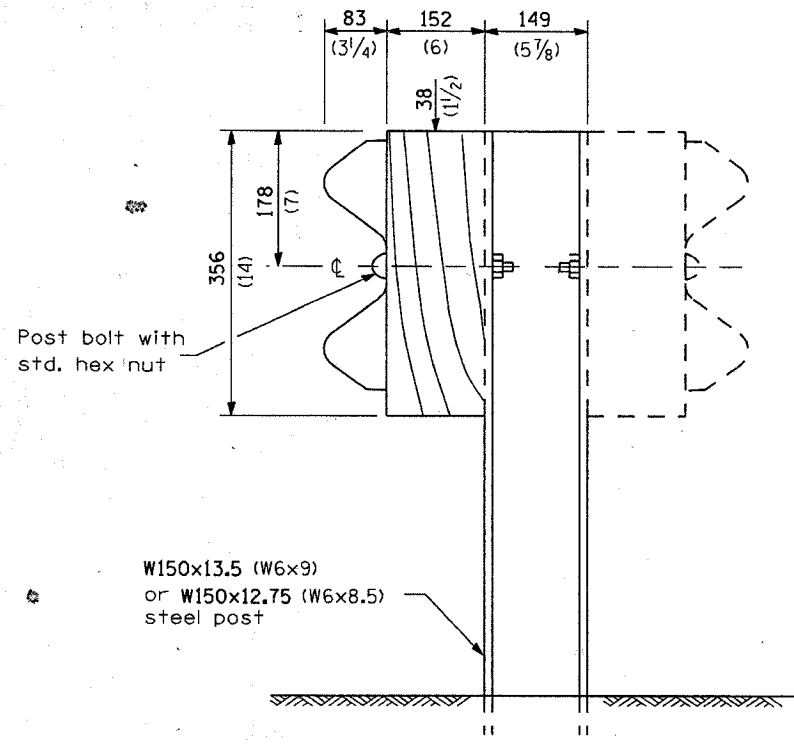
GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in millimeters (inches) unless otherwise shown.
 The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.
 This detail is applicable to the guardrail system used prior to January 1, 2007.
 For details on the Midwest Guardrail System, see Standard 630001.

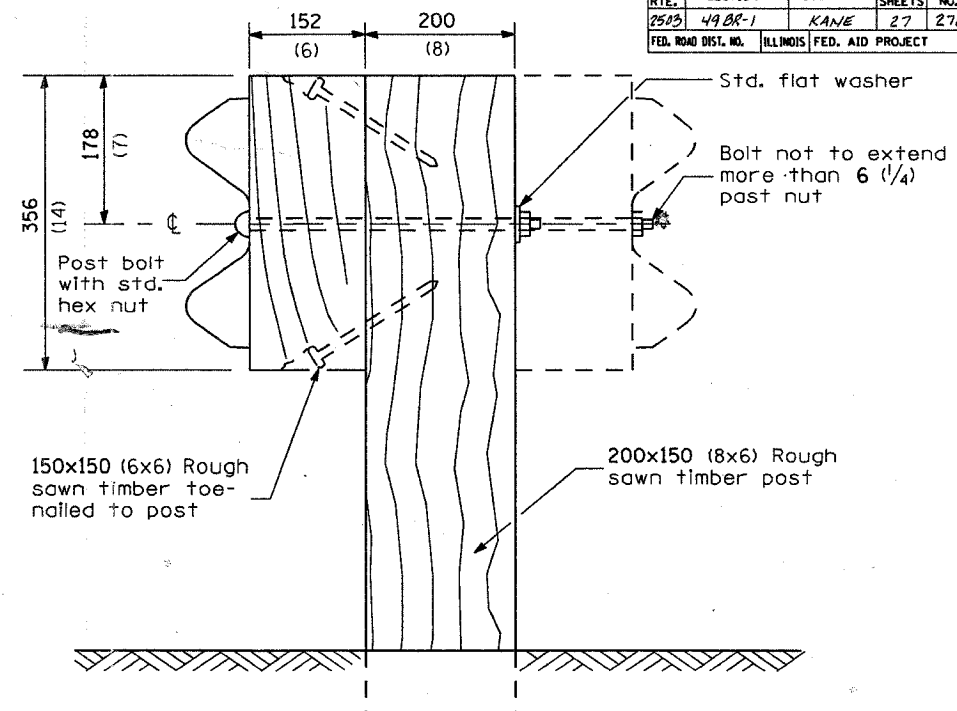
**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**
(Sheet 1 of 4)

DETAIL

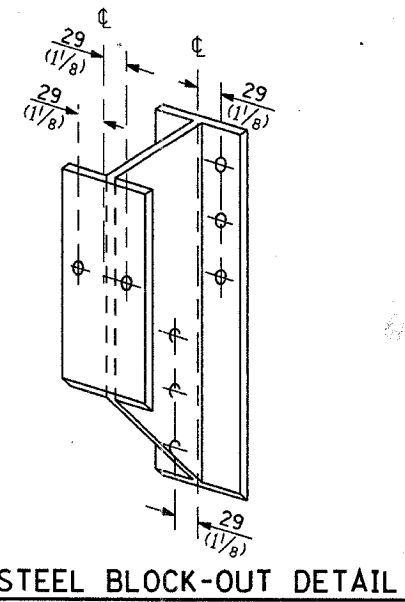
F.A.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2509	49 BR-1	KANE	27	27B
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



STEEL POST CONSTRUCTION



WOOD POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL

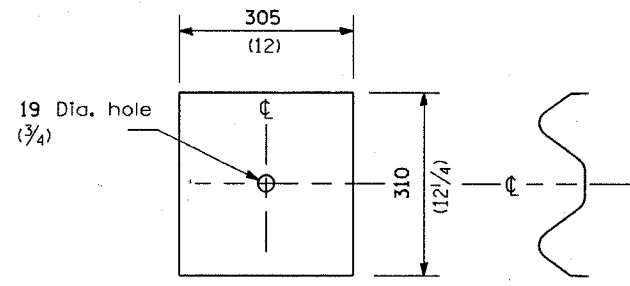
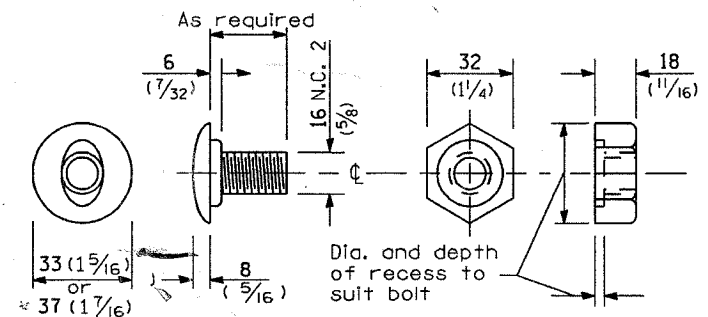


PLATE A

NOTE
Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

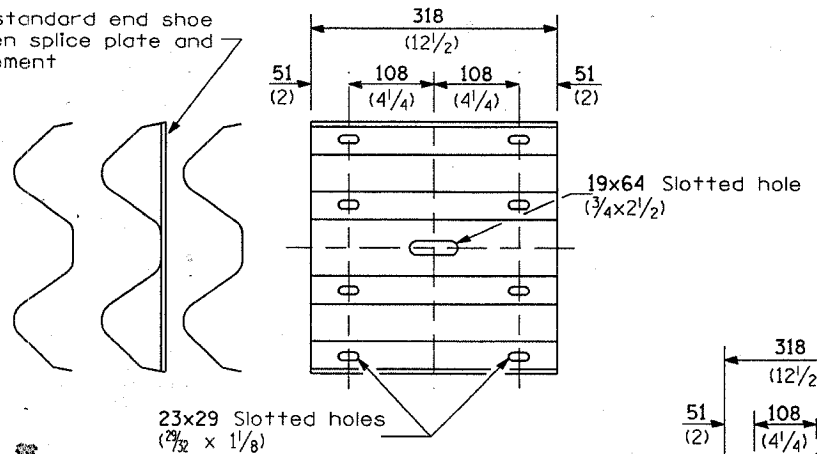


POST OR SPLICE BOLT & NUT

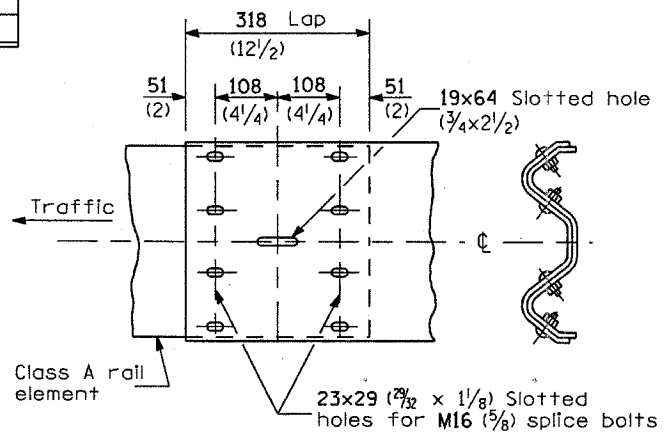
**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**
(Sheet 2 of 4)
DETAIL

F.A.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	4908-1	KANE	27	27C
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

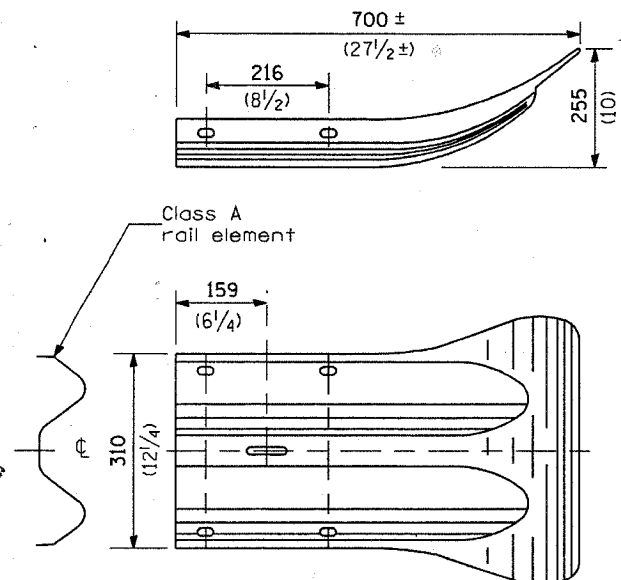
Place standard end shoe between splice plate and rail element



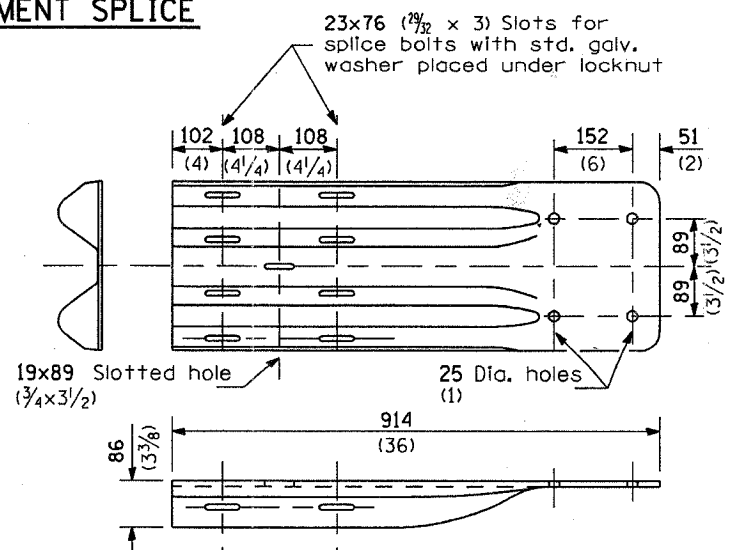
SPLICE PLATE



RAIL ELEMENT SPLICE



END SECTION



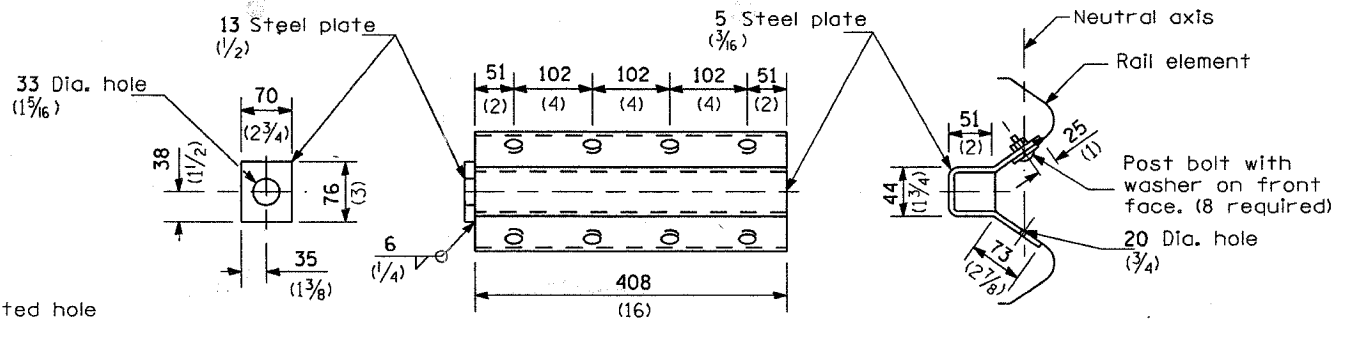
NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

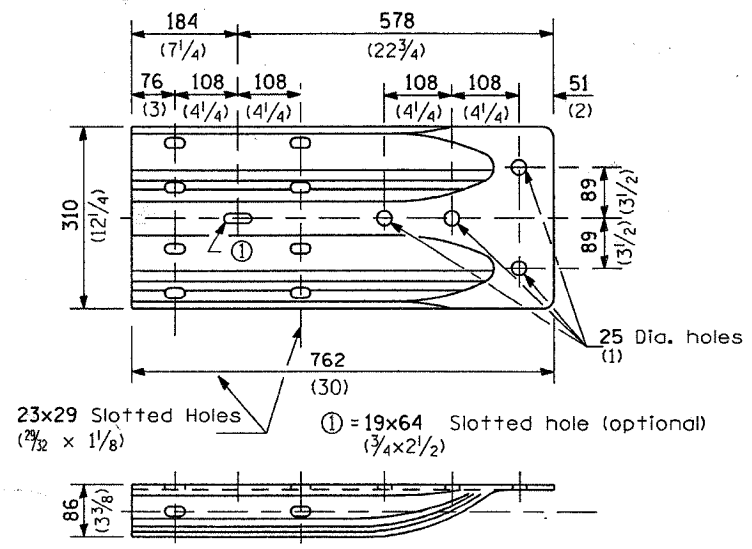
END SHOE



NOTE

Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

ANCHOR PLATE T DETAILS



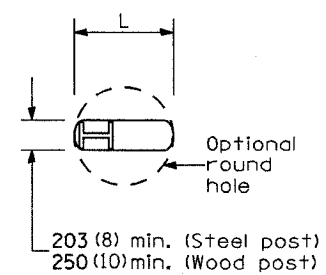
ALTERNATE END SHOE

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

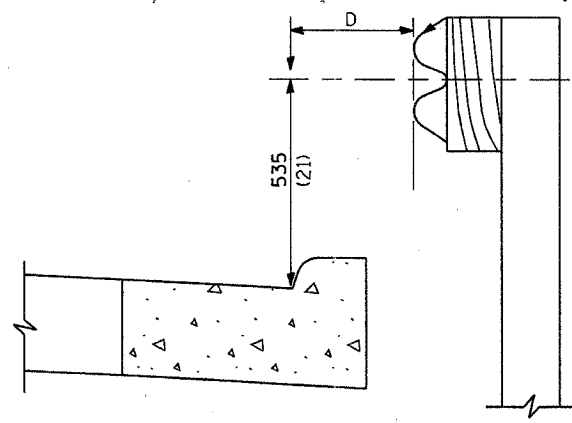
(Sheet 3 of 4)

DETAIL

F.A. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	49BR-1	Kane		270
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



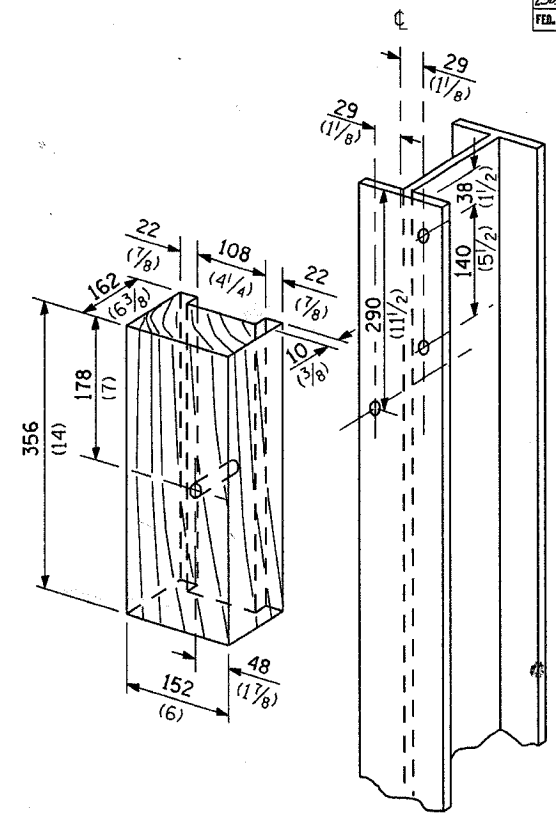
PLAN



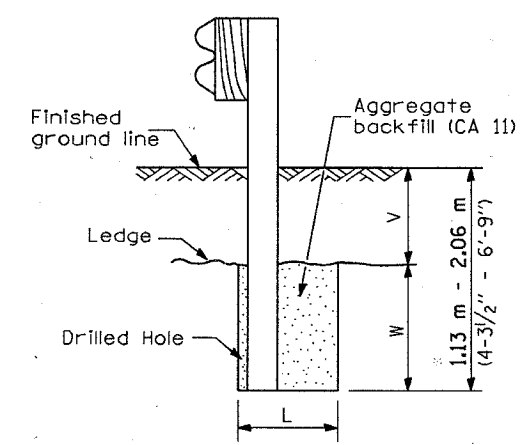
Note:
If it is necessary for D to be more than 300 (12) and less than 3.0 m (10'-0") type M-5 (M-2) curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 300 (12) maximum)



WOOD BLOCK-OUT AND STEEL POST DETAILS

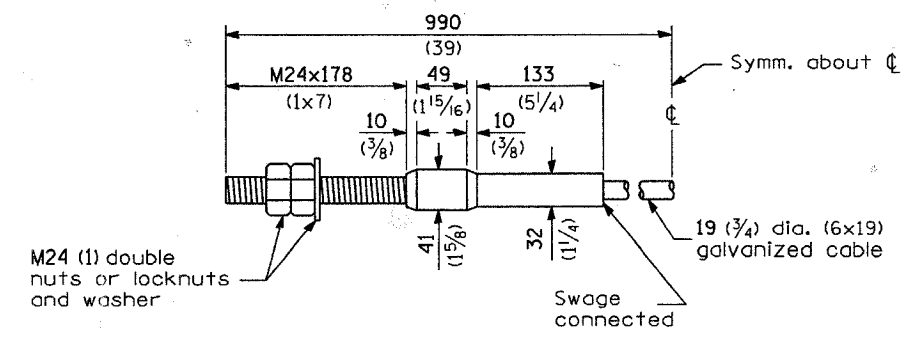


Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

V	W	L	
		Steel Post	Wood Post
0 - 460 (0 - 18)	610 (24)	530 (21)	580 (23)
>460 - 825 (>18 - 41.5)	305 (12)	203 (8)	250 (10)
>825 - 1.13 m (>41.5 - 53.5)	305 - 0 (12 - 0)	203 (8)	250 (10)



CABLE ASSEMBLY

(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL
(Sheet 4 of 4)

DETAIL