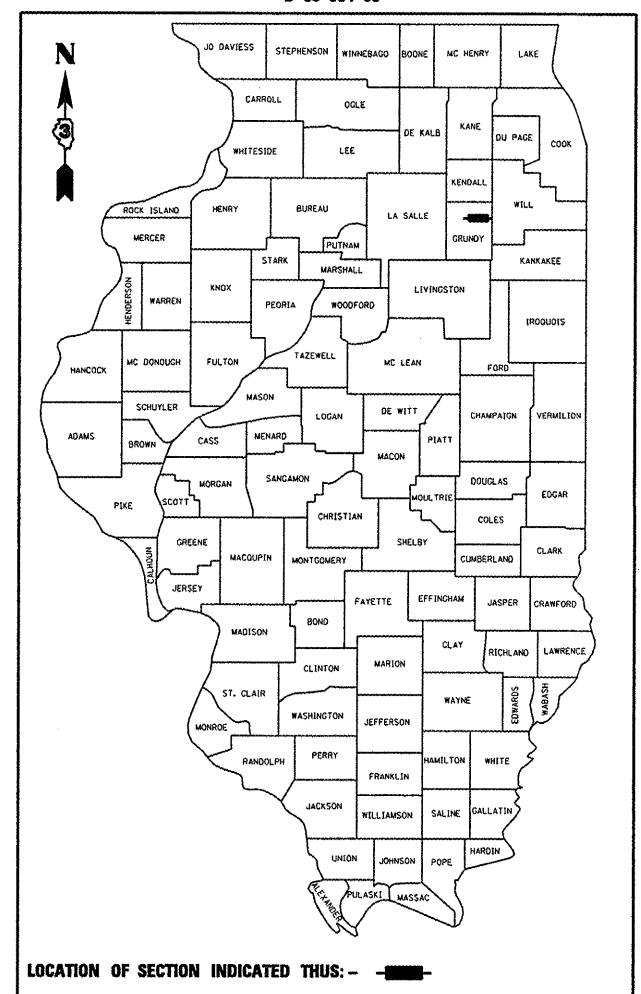


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0-BR-1)I	GRUNDY	12	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 66808		

12+1-13

D-93-054-08



FUNCTIONAL CLASSIFICATION
RURAL - MINOR ARTERIAL
F.A.P. ROUTE 623 (US 6)
2005 ADT = 3500
P.V = 85.0% M.U. = 5.7% S.U. = 9.3%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 3/25/08

Henry J. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008
Eric E. Harrold
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

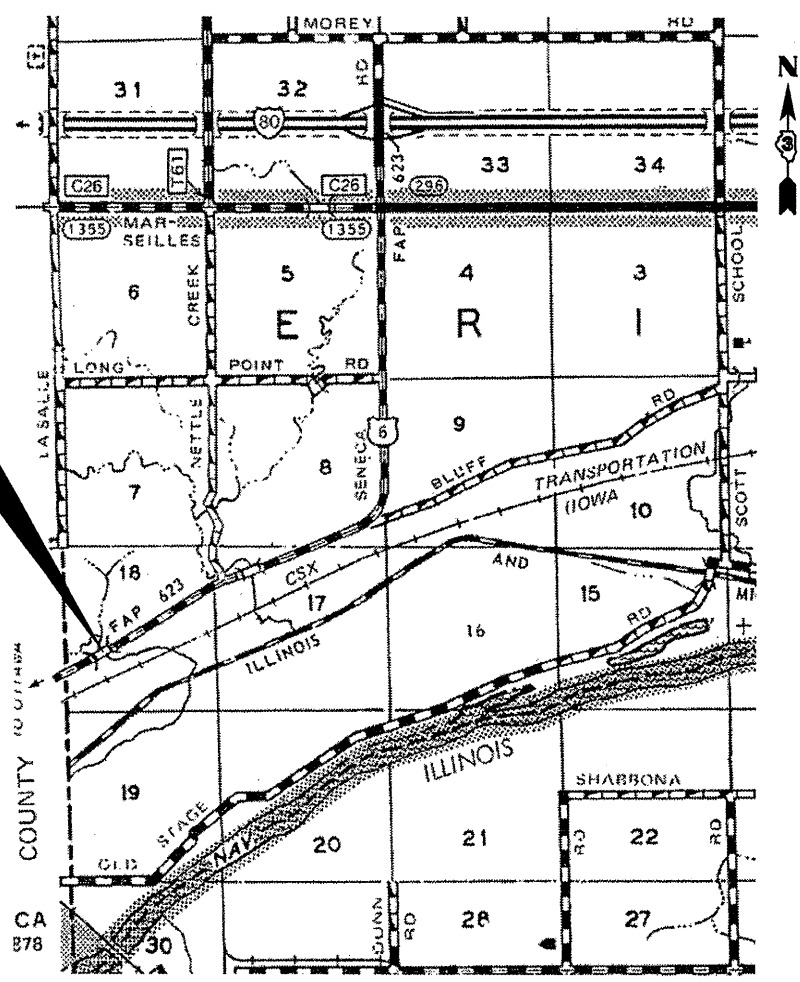
PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 623 (US 6)
SECTION (0-BR-1)I

GRUNDY COUNTY
C-93-085-08
DECK BEAM REPLACEMENT



LOCATION MAP
NOT TO SCALE
POINT LOCATION

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTIONS
- 5 - 7. STAGING DETAILS
8. TEMPORARY CONCRETE BARRIER
9. TYPICAL PAVEMENT MARKING
10. PLAN AND ELEVATION
- 11-12. REPAIR DETAILS

STANDARDS

- | | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 482011-03 | HMA SHOULDER STRIPS/SHOULDERS WITH RS OR WIDENING & RS PROJECTS |
| 701001-01 | OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY |
| 701006-02 | OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE |
| 701011-01 | OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY |
| 701201-02 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH |
| 701206-01 | LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH |
| 701301-02 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701311-02 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY |
| 701321-09 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701326-02 | LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH |
| 701901 | TRAFFIC CONTROL DEVICES |
| 704001-04 | TEMPORARY CONCRETE BARRIER |

PROJECT LOCATION
SN 032-0084
1.45 MILES EAST OF IL ROUTE 170

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

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

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: RON WOODSHANK

CONTRACT NO. 66808

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID PRICE FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED, SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS REMOVAL PAY ITEMS INVOLVED.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

THE THICKNESS OF HMA 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 HMA IS PLACED.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW BITUMINOUS PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

	HMA SURFACE	HMA WIDENING
PG GRADE	PG64-22	PG64-22
MAX % RAP ALLOWABLE	15%**	25%**
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 12.5 or IL 9.5	IL 19.0
FRICTION AGGREGATE	MIXTURE C	
DENSITY CONTROL METHOD	NUCLEAR	NUCLEAR

**IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

DATE: 3/25/08

PREPARED BY: *[Signature]*
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *[Signature]*
DISTRICT CONSTRUCTION ENGINEER

[Signature]
DISTRICT MATERIALS ENGINEER

[Signature]
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RLW	REVISED - ---
c:\projects\deck beam repl 08\en 032-0034.dgn		DRAWN - RLW	REVISED - ---
PLOT SCALE = 103.4029' / IN.		CHECKED - ---	REVISED - ---
PLOT DATE = Mar 24, 2008 - 10:34:44 AM		DATE - ---	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: _____ SHEET NO. 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0-BR-11)	GRUNDY	12	2
CONTRACT NO. 66808				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

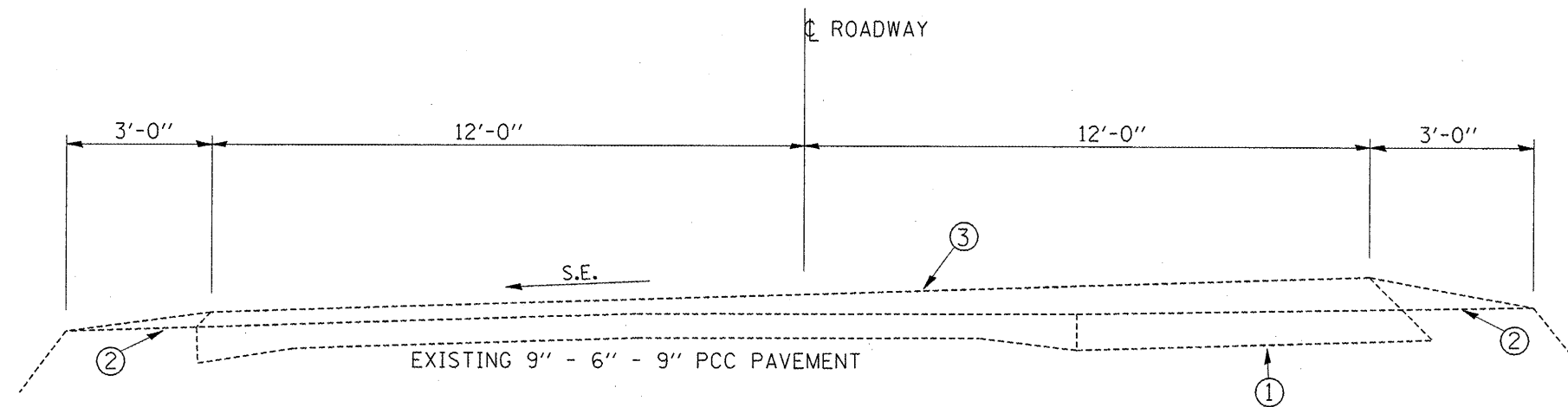
SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
20200500	EARTH EXCAVATION (WIDENING)	CU YD	90
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	326
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	22.1
44001005	HOT-MIX ASPHALT SURFACE REMOVAL	SQ YD	13.1
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	463
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	66
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	235
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	319
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	319
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	590
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	150
78300100	PAVEMENT MARKING REMOVAL	SQ FT	268
X0320047	REMOVAL OF EXISTING PRECAST PRESTRESSED CONCRETE DECK BEAMS	SQ FT	469
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	79
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	4
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2

* SPECIALTY ITEM

FILE NAME =	USER NAME = woodshenkr1	DESIGNED - RLW	REVISED - ----	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\projects\deck beam repl 00\sn 032-0084.dgn		DRAWN - RLW	REVISED - ----			623	(0-BR-1)I	GRUNDY	12	3	
PLOT SCALE = 1/8" = 1'-0"		CHECKED - ----	REVISED - ----			CONTRACT NO. 66808					
PLOT DATE = Mar 27, 2008 - 09:05:49 AM		DATE - ----	REVISED - ----			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

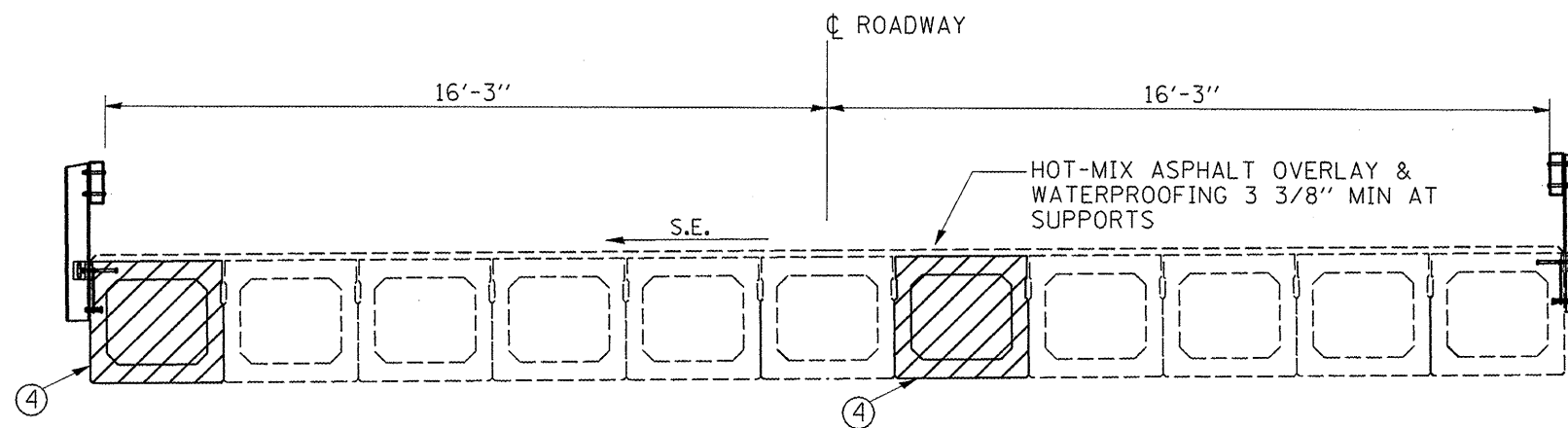


TYPICAL SECTION

STA. 415+00 TO STA. 417+03
 STA. 417+85 TO STA. 419+00

LEGEND

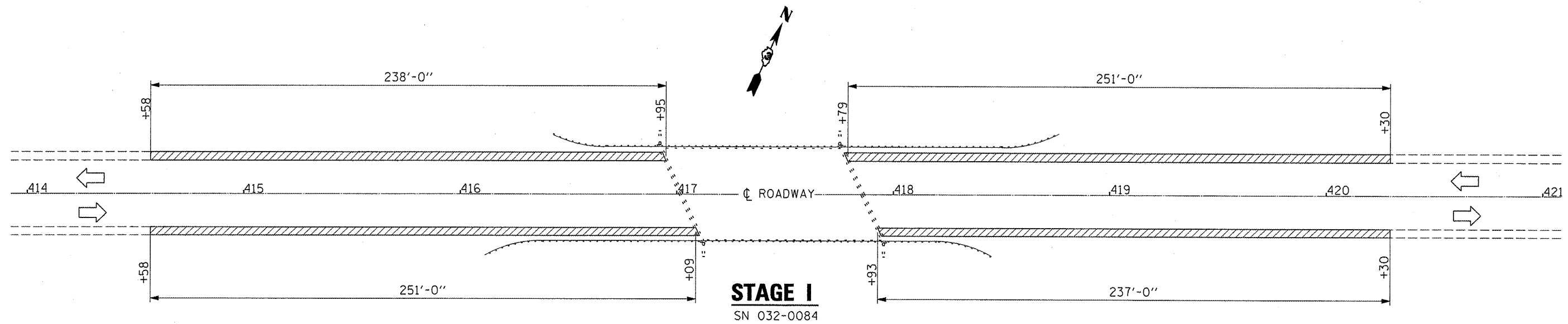
- ① HOT-MIX ASPHALT WIDENING 9"
- ② AGGREGATE SHOULDER
- ③ HOT-MIX ASPHALT SURFACE, VARIABLE THICKNESS
- ④ BEAM REPLACEMENT



TYPICAL SECTION

SN 032-0084
 STA. 417+03 TO STA. 417+85

FILE NAME =	USER NAME = carpenterdj	DESIGNED - RLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\deck beam repl 08\sn 032-0084.dgn	DRAWN - RLW	REVISED -	623			(0-BR-1)	GRUNDY	12	4	
PLOT SCALE = 1/8" = 1' IN.	CHECKED -	REVISED -	CONTRACT NO. 66808							
PLOT DATE = Mar 12, 2008 - 08:17:03 AM	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.										



BILL OF MATERIALS

EARTH EXCAVATION WIDENING	CU YD	90
HOT-MIX ASPHALT BASE	SQ YD	326
COURSE WIDENING		

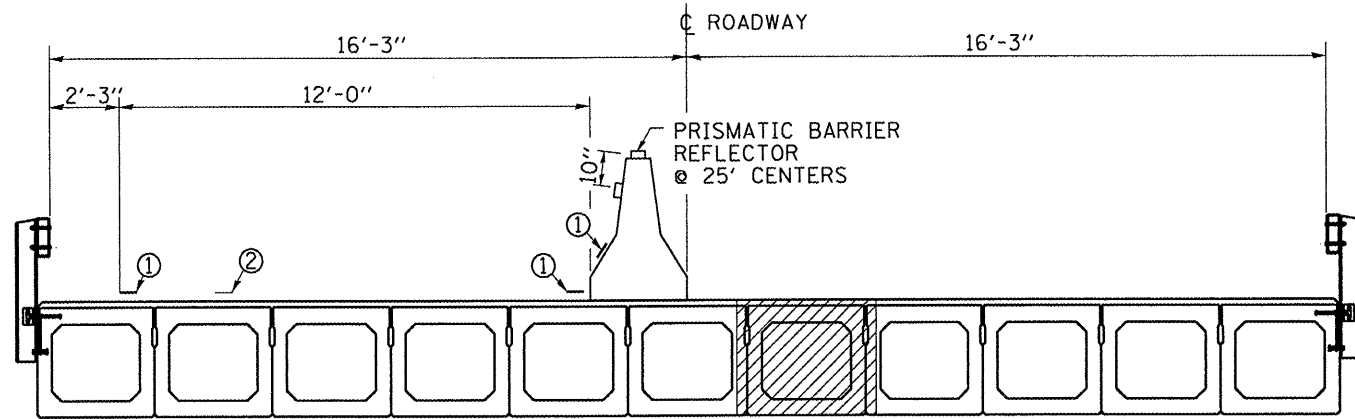
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PLOT SCALE = 1/32" = 1/8" / IN.		CHECKED - ---	REVISED - ---
PLOT DATE = Mar 12, 2008 - 08:17:12 AM		DATE - ---	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING DETAILS - STAGE I

SCALE: _____ SHEET NO. 1 OF 3 SHEETS STA. 414+00 TO STA. 421+00

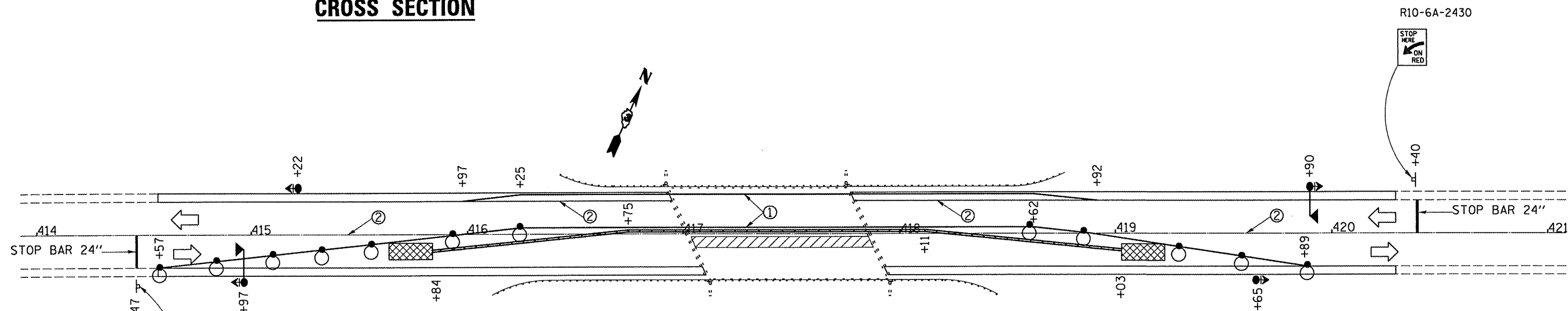
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0-BR-11)	GRUNDY	12	5
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66808	



CROSS SECTION

NOTES:

1. THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.
2. THE COST OF THE REFLECTORS AND THE BARRIER/PAVEMENT MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.
3. THE COST OF THE TEMPORARY PAVEMENT MARKING IS INCLUDED IN THE COST OF STANDARD 701321



STAGE II
SN 032-0084

- ① MARKING LINE 4"
- ② PAVEMENT MARKING REMOVAL

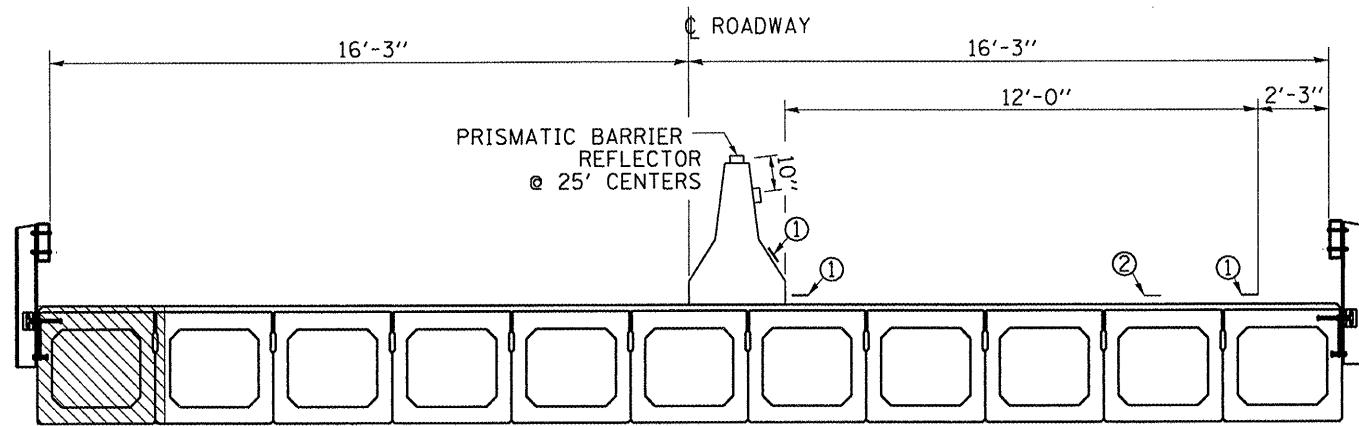
SYMBOLS

- Work area
- Sign
- Type III barricade
- Microwave detector
- Traffic signal with backplate
- Impact attenuator
- Drum with steady burning light at 25' cts.
- Temporary concrete barrier
- Double vertical panel at 25' cts.
- Crystal, bidirectional barrier wall/guardrail marker at 25' cts.

BILL OF MATERIAL

PAVEMENT MARKING REMOVAL	SQ FT	171
TEMPORARY CONCRETE BARRIER	FOOT	319

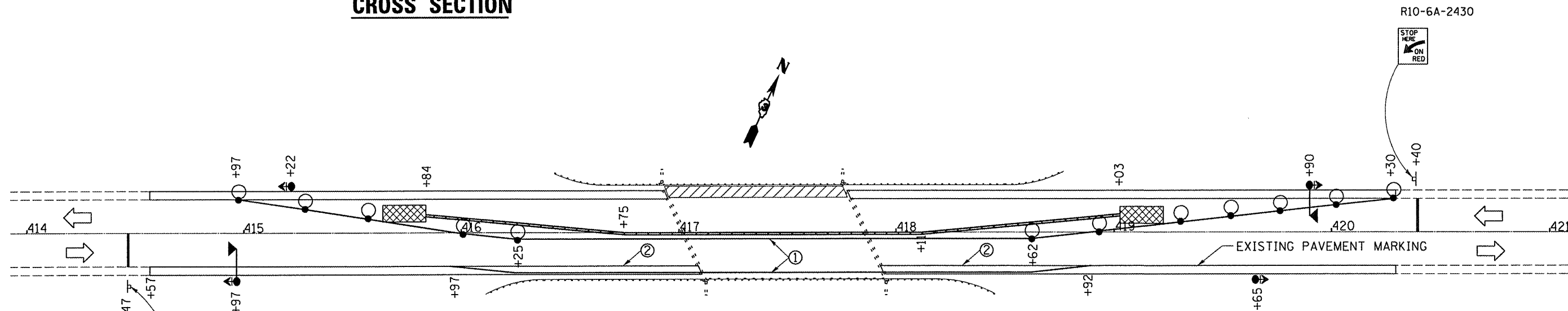
SEE STANDARD 701321 FOR DETAILS NOT SHOWN



CROSS SECTION

NOTES:

1. THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.
2. THE COST OF THE REFLECTORS AND THE BARRIER/PAVEMENT MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.
3. THE COST OF THE TEMPORARY PAVEMENT MARKING IS INCLUDED IN THE COST OF STANDARD 701321



STAGE III
SN 032-0084

- ① MARKING LINE 4"
- ② PAVEMENT MARKING REMOVAL

BILL OF MATERIAL

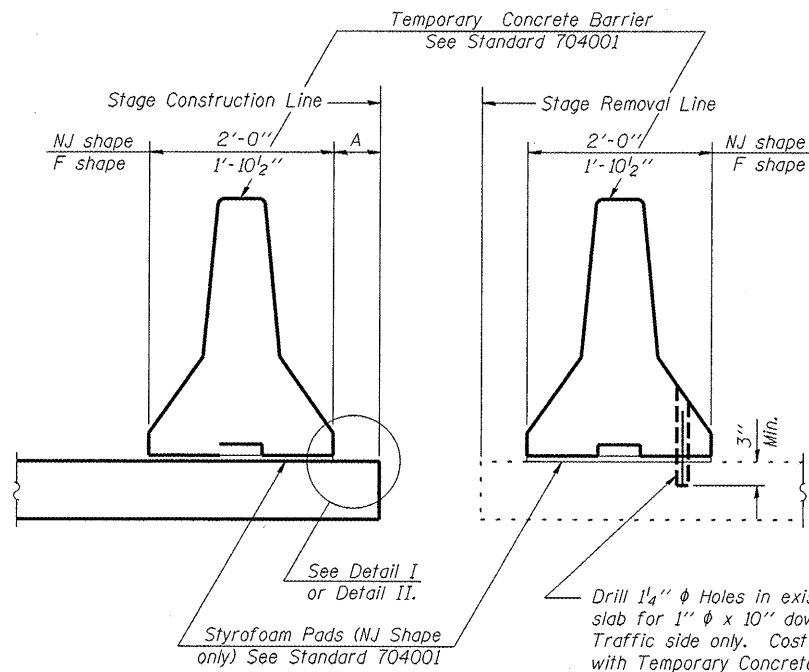
PAVEMENT MARKING REMOVAL	SQ FT	97
RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	319
IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, TEST LEVEL 3)	EACH	2
IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, TEST LEVEL 3)	EACH	2
THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	590
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	150

SYMBOLS

- Work area
- Sign
- Type III barricade
- Microwave detector
- Traffic signal with backplate
- Impact attenuator
- Drum with steady burning light at 25' cts.
- Double vertical panel at 25' cts.
- Crystal, bidirectional barrier wall/guardrail marker at 25' cts.
- Temporary concrete barrier

SEE STANDARD 701321 FOR DETAILS NOT SHOWN

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RLW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING DETAILS - STAGE III	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\deck beam repl 08\sn 032-0084.dgn	DRAWN - RLW	REVISED -	623			(O-BR-11)	GRUNDY	12	7	
PLOT SCALE = 103.4029' / IN.	CHECKED -	REVISED -	CONTRACT NO. 66808							
PLOT DATE = Mar 14, 2008 - 06:31:58 AM	DATE -	REVISED -	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT							
				SCALE: _____ SHEET NO. 2 OF 3 SHEETS STA. 414+00 TO STA. 421+00						



SECTIONS THRU SLAB

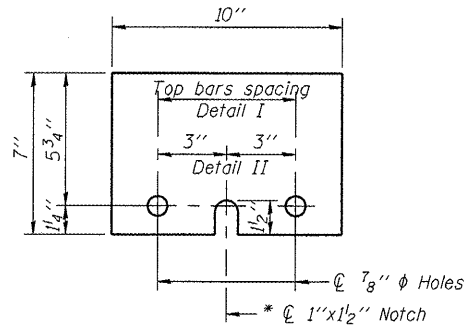
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel plate to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate center of each barrier panel.

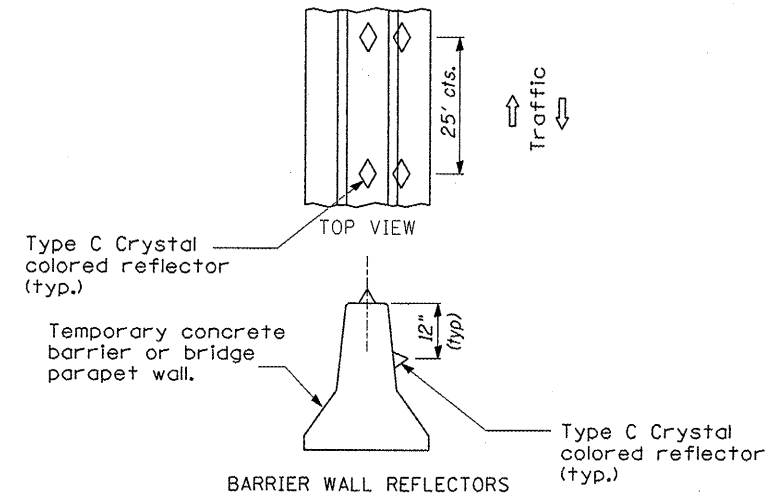
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel plate to the concrete slab with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate center of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

Drill 1/4" φ Holes in existing slab for 1" φ x 10" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

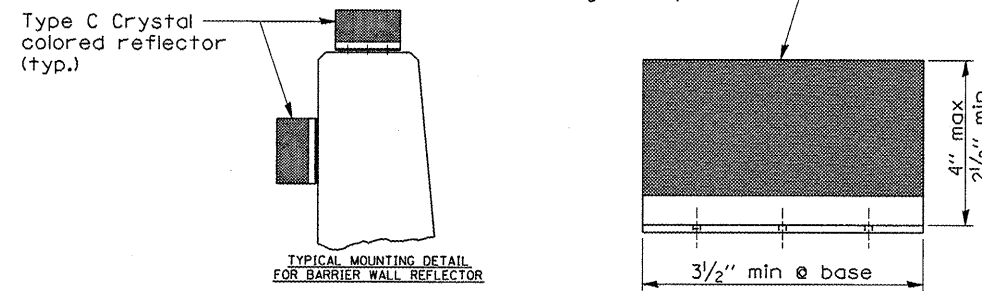


1" x 7" x 10"
* Required only with Detail II

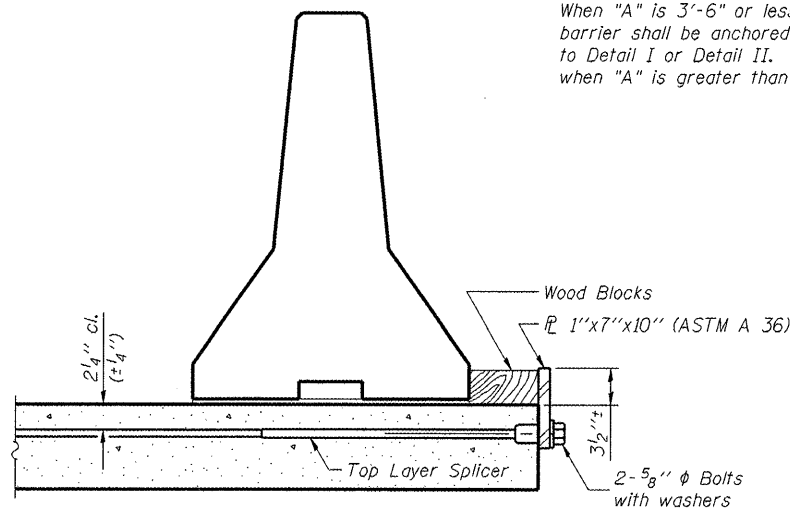


DETAIL A

Min. reflective area 6 1/2" each side may be rectangular or slight trapezoid

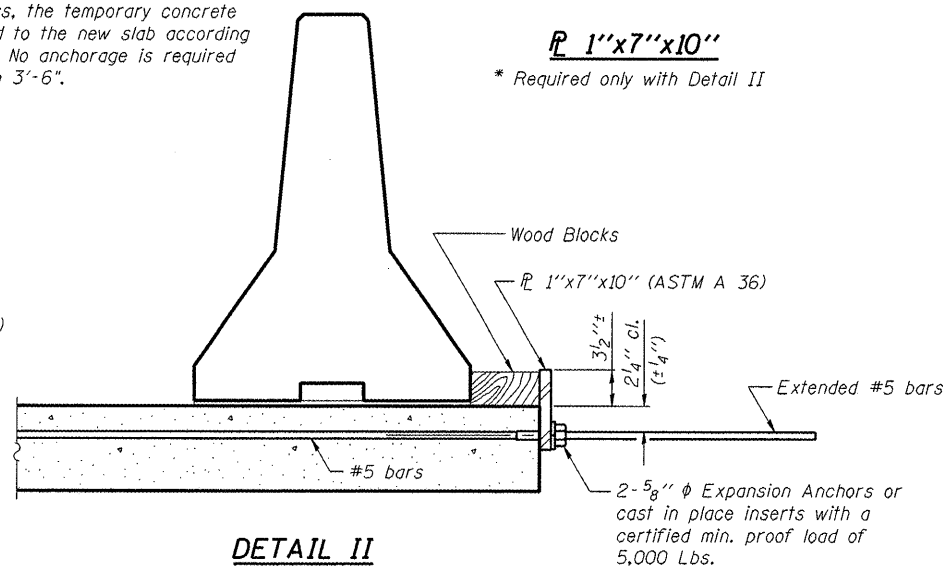


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



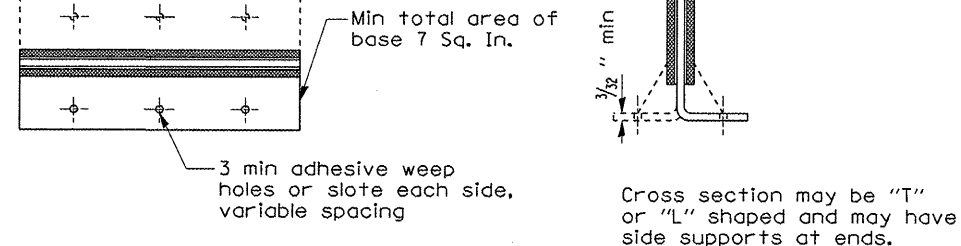
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" 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.



TYPE C REFLECTOR

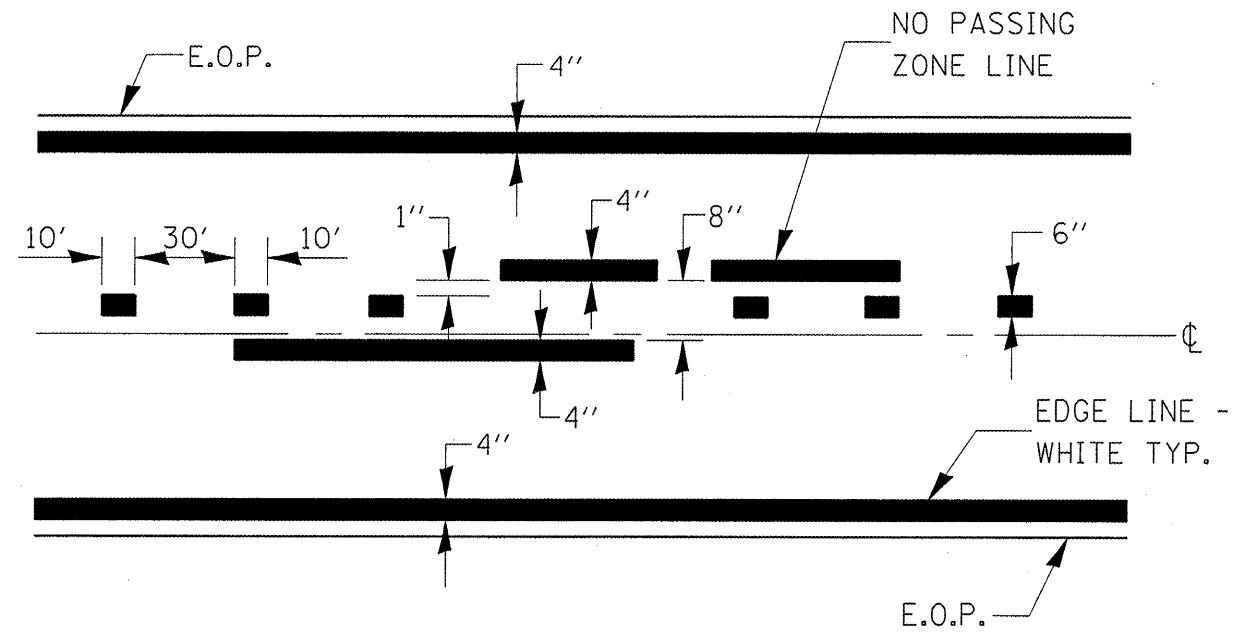
FILE NAME =	USER NAME = carpenter.dj	DESIGNED - RLW	REVISED - ---
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	PLOT SCALE = 1/8" = 1' IN.	CHECKED - ---	REVISED - ---
	PLOT DATE = Mar 12, 2008 - 08:17:36 AM	DATE - ---	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY CONCRETE BARRIER

SCALE: _____ SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE. 623	SECTION (O-BR-1)	COUNTY GRUNDY	TOTAL SHEETS 12	SHEET NO. 8
CONTRACT NO. 66808				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



CENTERLINE & NO PASSING
ZONE LINES - YELLOW

(SEE TYPICAL SECTIONS)

PAVEMENT MARKING

FILE NAME =	USER NAME = carpenterdj	DESIGNED - RLW	REVISED - ---
ct:\projects\deek beam repl 08\sn 032-084.dgn		DRAWN - RLW	REVISED - ---
		CHECKED - ---	REVISED - ---
		DATE - ---	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL PAVEMENT MARKING

SCALE: _____ SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	(0-BR-1)I	GRUNDY	12	9
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66808	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	LIST SHEETS	SHEET NO.	SHEET NO. 1 3 SHEETS
FAP 623	*	GRUNDY	12	10	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract Number: 66808 * (0-BR-D)		

GENERAL NOTES

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.

If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the bridge, 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 or existing beams. To distribute load to multiple beams and protect the existing surface, 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. If heavy equipment will be placed on new PPC deck beams, the following shall be done prior to placement of the timber mats: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.

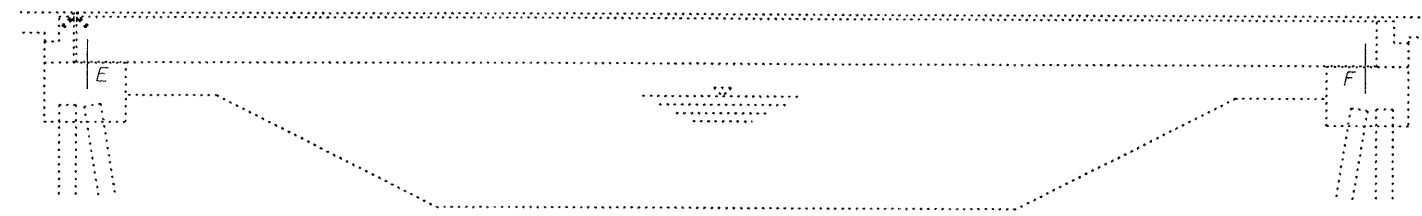
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.

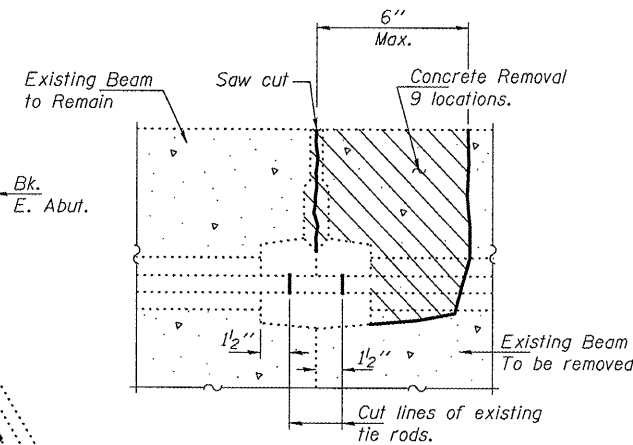
Temporary concrete barrier shall only be anchored into the overlay and not the PPC Deck Beams.

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with PPC Deck Beams (33").

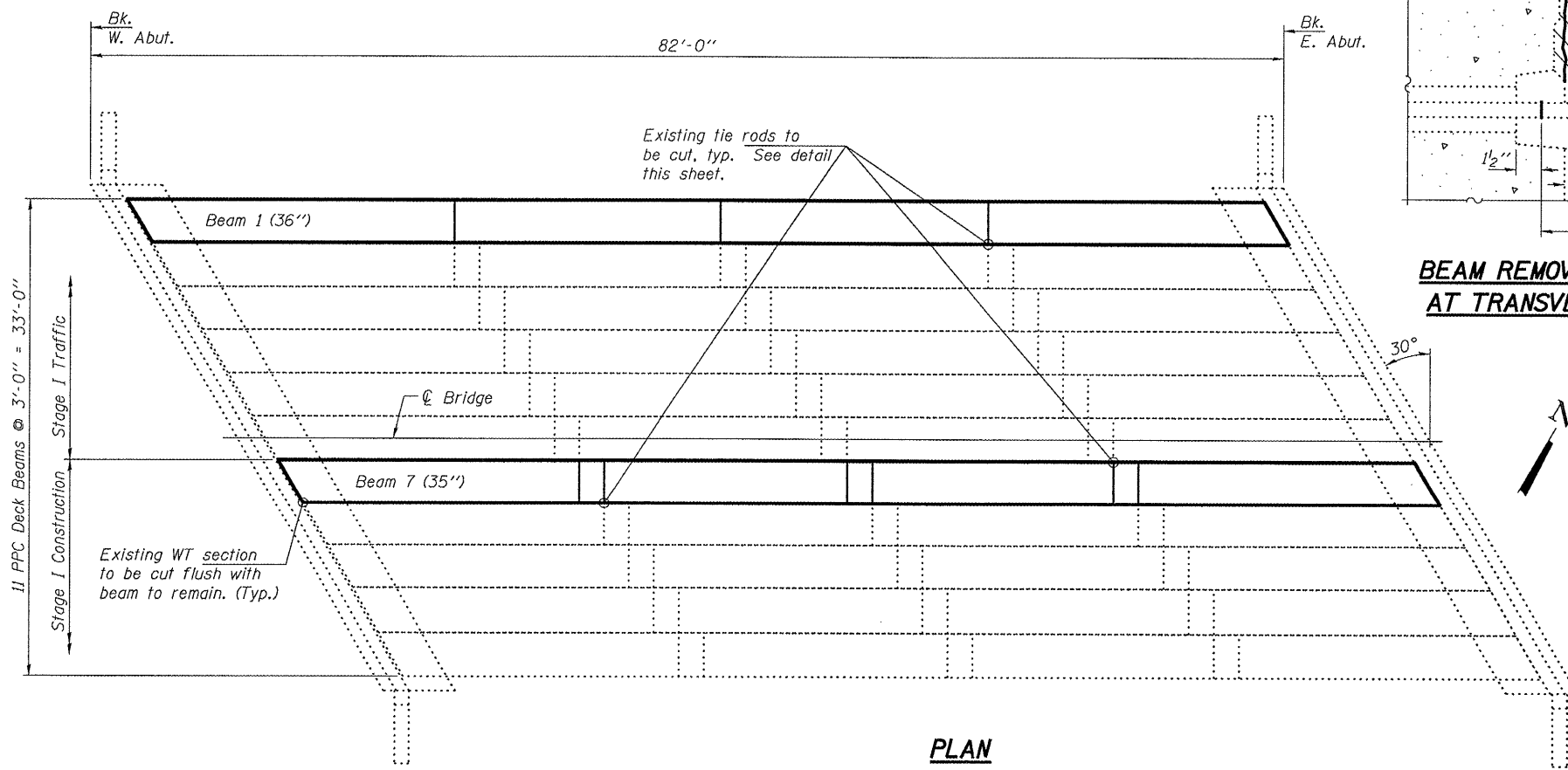
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.



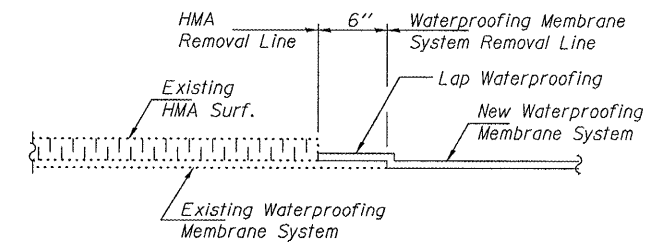
ELEVATION



BEAM REMOVAL DETAIL AT TRANSVERSE TIES



PLAN



WATERPROOFING TREATMENT

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
HMA Surface Removal	Sq. Yd.	13.1
HMA Surface Course, Mix "C", N50	Tons	22.1
Removal of Existing PPC Deck Beams	Sq. Ft.	469
PPC Deck Beams (33" Depth)	Sq. Ft.	463
Asbestos Bearing Pad Removal	Each	4
Removing and Re-Erecting Existing Railing	Foot	79
PC Mortar Fairing Course	Foot	235
Waterproofing Membrane System	Sq. Yd.	66

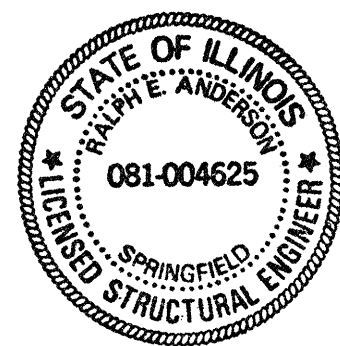
DESIGN STRESSES

PRECAST PRESTRESSED UNITS

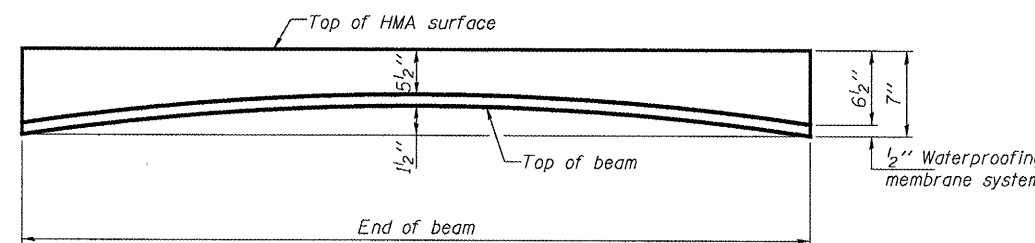
$f'_c = 6,000 \text{ psi}$
 $f'_{ci} = 5,000 \text{ psi}$
 $f'_s = 270,000 \text{ psi}$ ($\frac{1}{2}$ " ϕ low lax strands)
 $f'_{si} = 201,960 \text{ psi}$ ($\frac{1}{2}$ " ϕ low lax strands)

DESIGNED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>
DRAWN	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>

EXAMINED	<i>[Signature]</i> MAY 2, 2008
PASSED	<i>[Signature]</i>



Expires: November 30, 2008



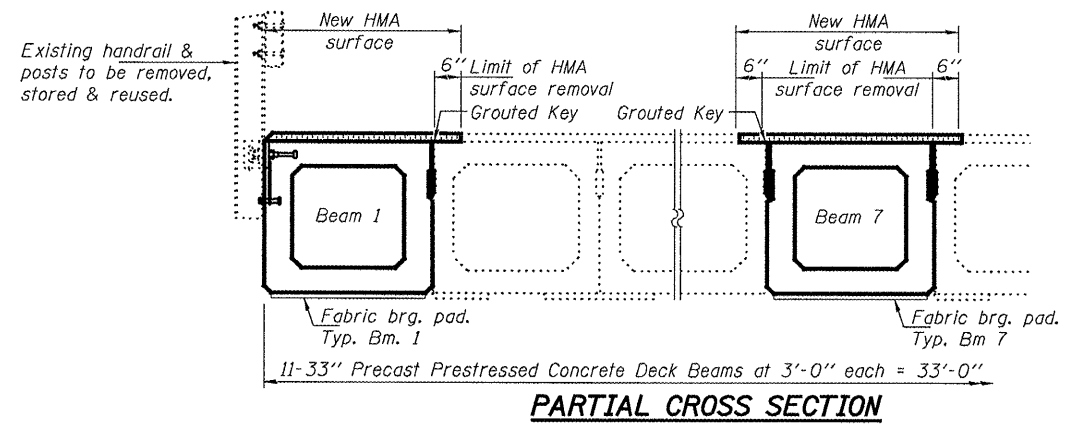
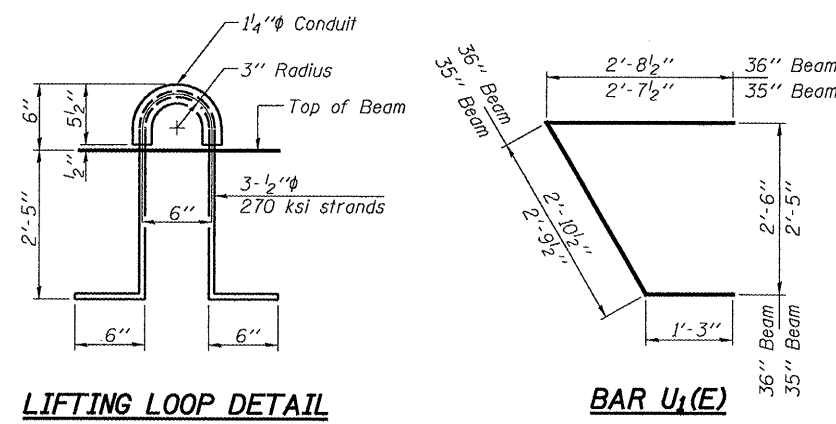
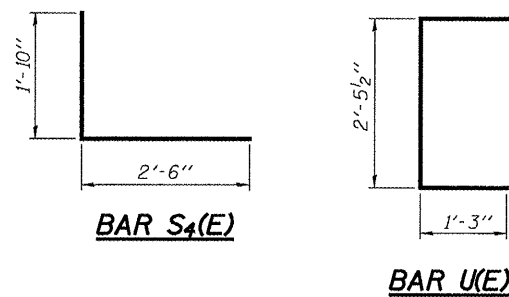
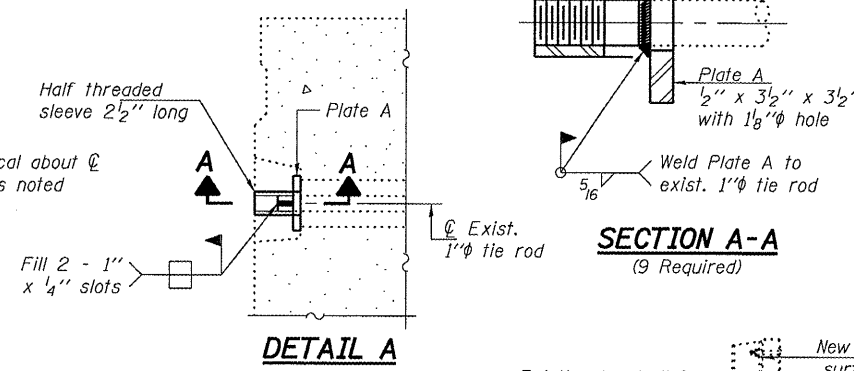
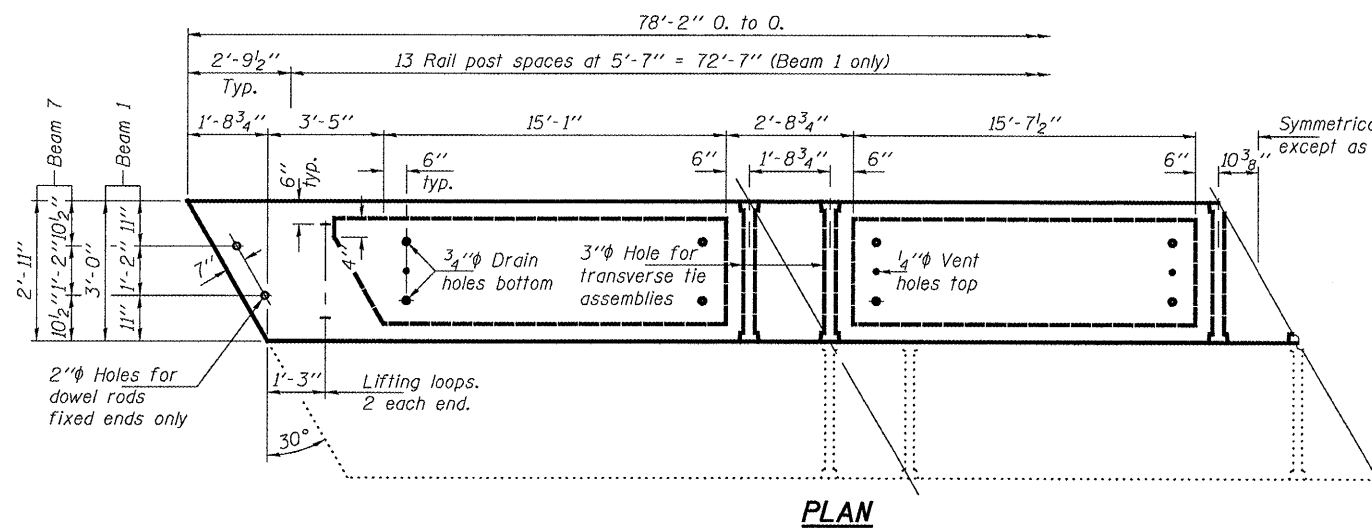
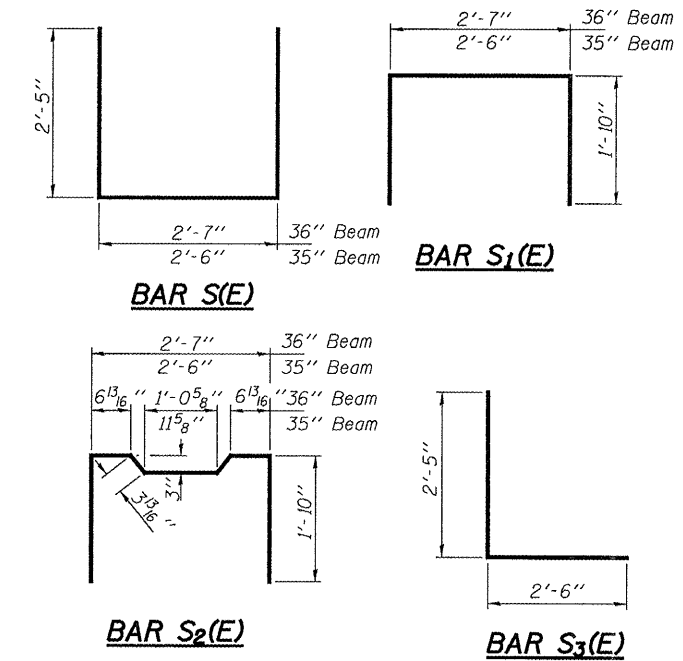
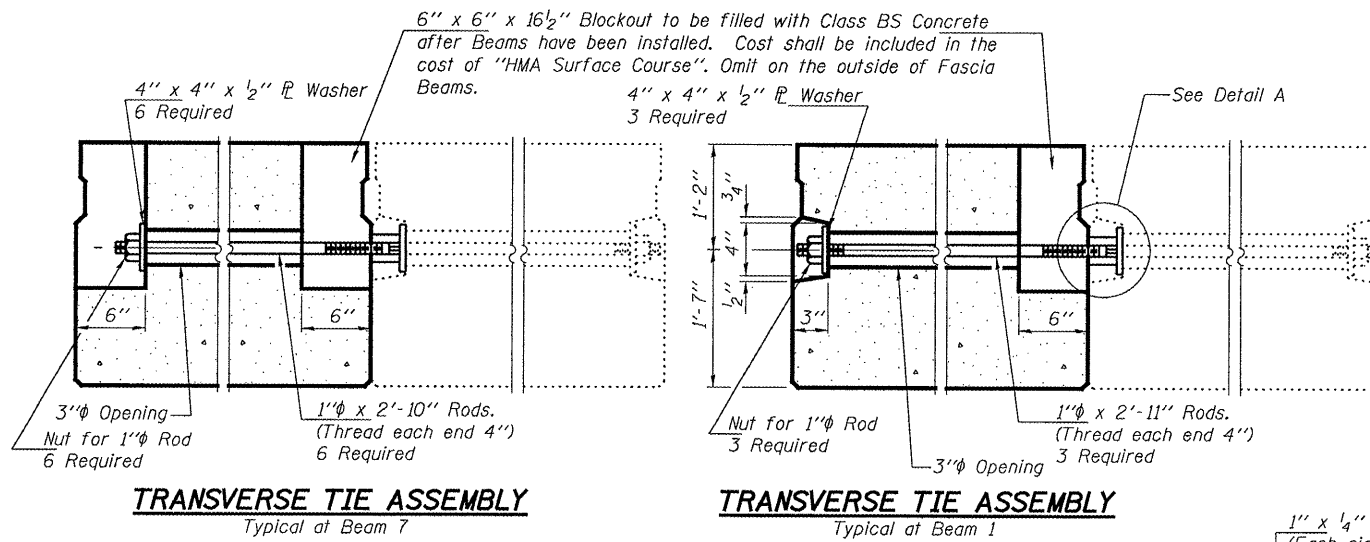
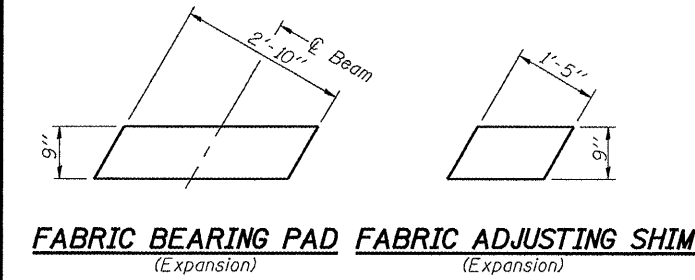
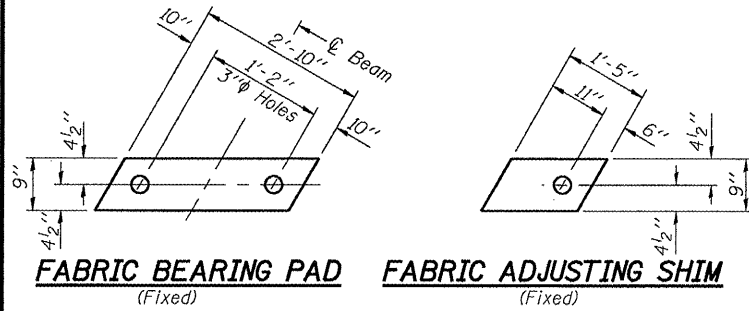
ANTICIPATED INITIAL CAMBER DIAGRAM

PLAN AND ELEVATION
FAP 623
GRUNDY COUNTY
SN 032-0084

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 3 SHEETS
FAP 623	*	GRUNDY	12	11	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract Number: 66808
* 10-BR-11



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. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706 (1L MOD), Grade 60. (See Special Provisions)
Two 1/8" fabric adjusting shims of the dimensions shown shall be provided for each bearing pad location. A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms.	Sq. Ft.	463
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REPAIR DETAILS
FAP 623
GRUNDY COUNTY
SN 032-0084

DESIGNED	AJB
CHECKED	VHV
DRAWN	baliva
CHECKED	AJB VHV

EXAMINED MAY 2, 2008
Ralph E. Anderson
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 623	*	GRUNDY	12	3
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

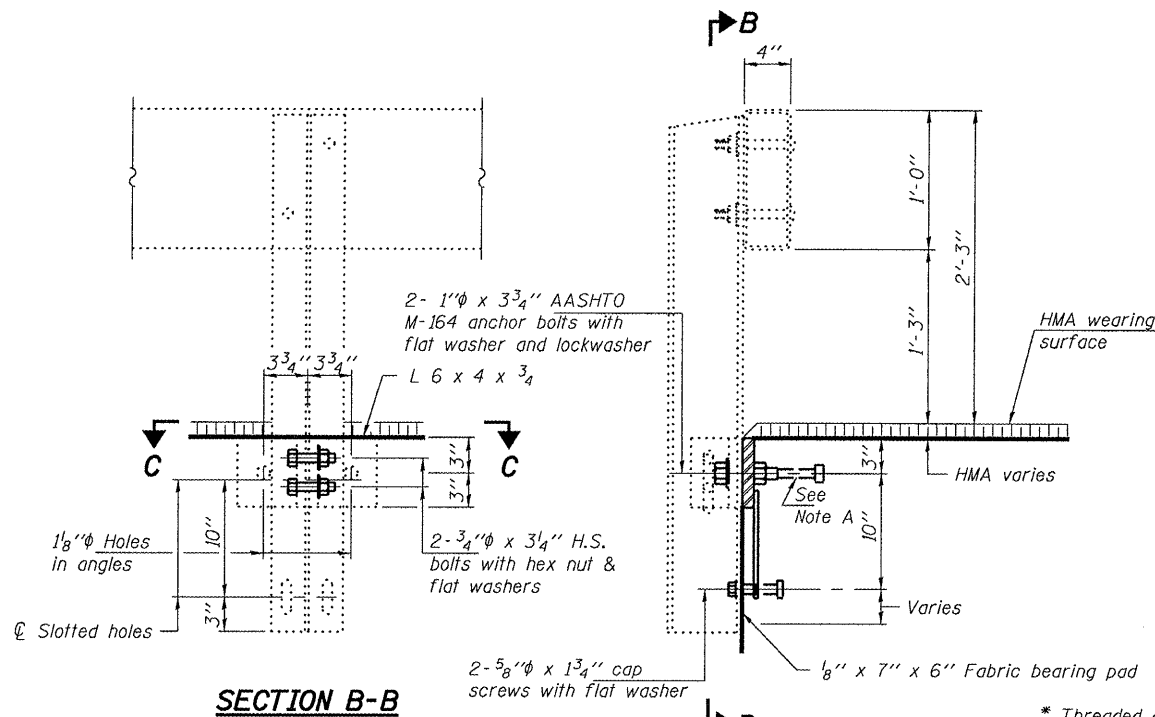
Contract Number: 66808
10-BR-11

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
The removal and re-erecting of the existing railing shall be according to Section 509 and 533 of the Standard Specifications.
The cost of removing and re-erecting the existing railing and post with all applicable new hardware shall be included in the cost of Removing and Re-erecting Existing Railing. The work shall be paid for at the contract unit price per foot for Removing and Re-erecting Existing Railing.

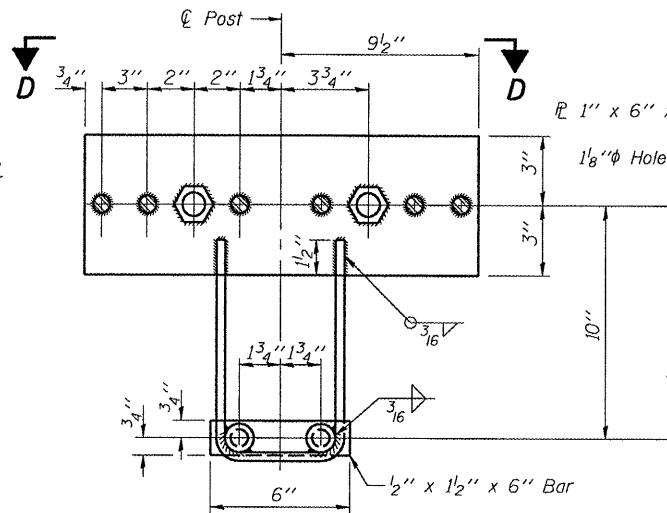
Note A:

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.



SECTION B-B

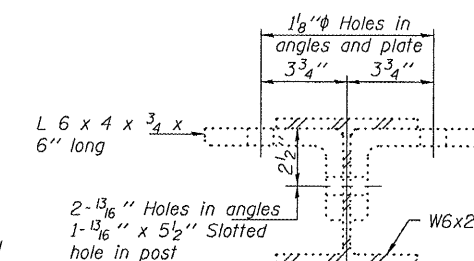
SECTION AT RAILING POST



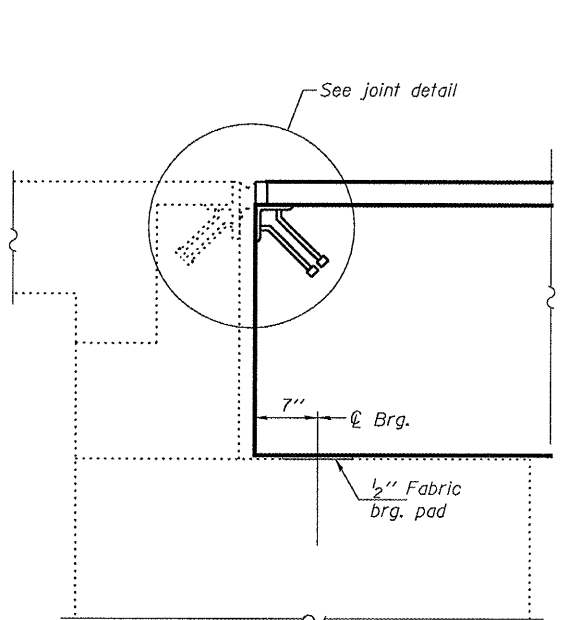
ANCHOR DEVICE

* 1" H.S. Nut AASHTO M 164 welded to \bar{L}
Cast 1" voids behind each nut
3/4" ϕ x 6" Granular or solid flux filled headed studs conforming to article 1006.32 of the Std. Specs. automatically end welded. (6 Required per \bar{L})
** #3 bar
* 3/4" ϕ XXS Pipe or Hex Coupler Nuts conforming to AASHTO M291, Grade A-3" long welded to #3 bar and Tap pipe for 5/8" ϕ Cap Screw.

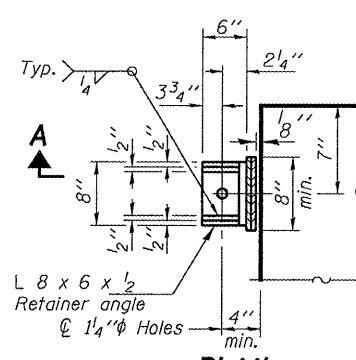
*** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



SECTION C-C

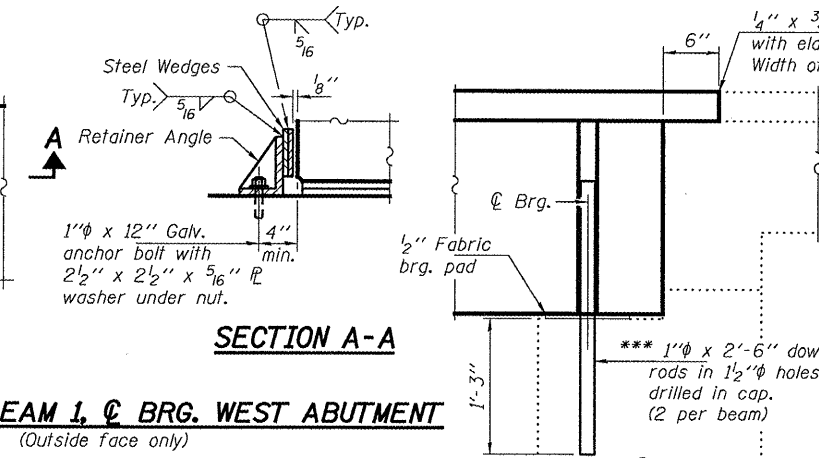


TYPICAL WEST ABUTMENT SECTION



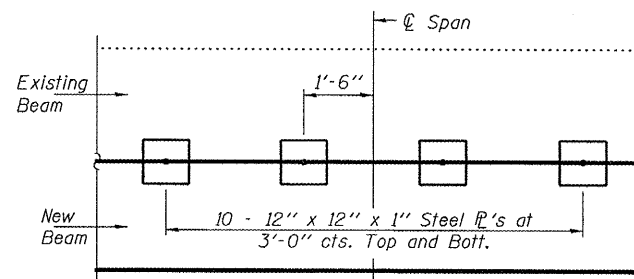
PLAN RETAINER AT BEAM 1, C BRG. WEST ABUTMENT (Outside face only)

Anchor bolts may be cast into the masonry or approved threaded rod may be placed in drilled holes and grouted in place. Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams.

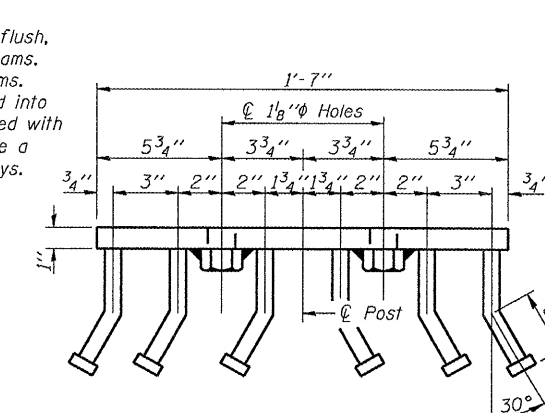


SECTION A-A

TYPICAL EAST ABUTMENT SECTION



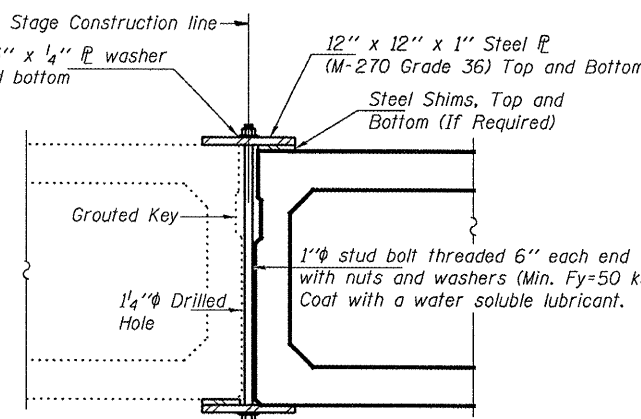
PLAN



VIEW D-D

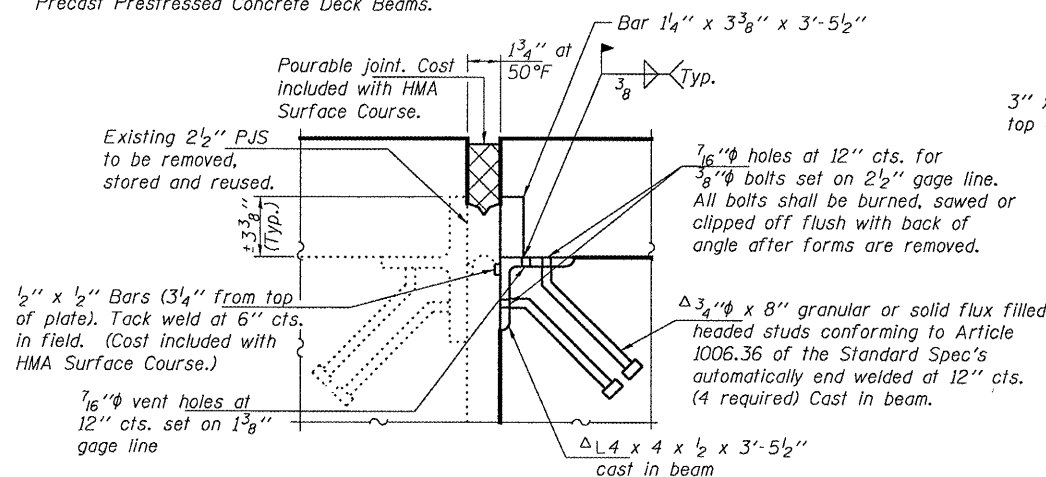
CLAMPING PLATE

Notes:
See Special Provisions for Stage Construction Precast Prestressed Concrete Deck Beams.
See sheet 1 of 4 for Stage traffic lanes.
Cost is included with Precast Prestressed Concrete Deck Beams.



SHEAR KEY CLAMPING DEVICE

ELEVATION NEW JOINT P TO EXISTING JOINT P



WEST ABUTMENT JOINT DETAIL

(Cost included with PPC Deck Beams)

DESIGNED	AJB
CHECKED	VHV
DRAWN	baliva
CHECKED	AJB VHV

MAY 2, 2008
EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

REPAIR DETAILS
FAP 623
GRUNDY COUNTY
SN 032-0084