

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	1
STA. 472+94.25 TO STA. 474+79.75				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 317 (US ROUTE 24)
SECTION (25B-1)I
PROJECT
LIVINGSTON COUNTY
C-93-017-06
BRIDGE REPAIR
S.N. 053-0152

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STANDARDS

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001 AREAS OF REINFORCEMENT BARS
- 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
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
- 702001-06 TRAFFIC CONTROL DEVICES
- 704001-02 TEMPORARY CONCRETE BARRIER

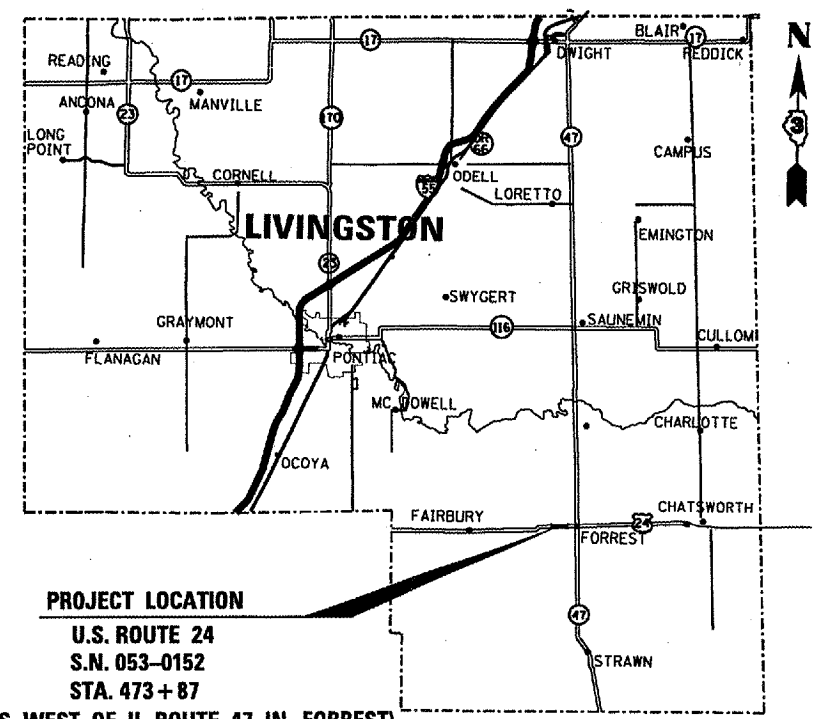
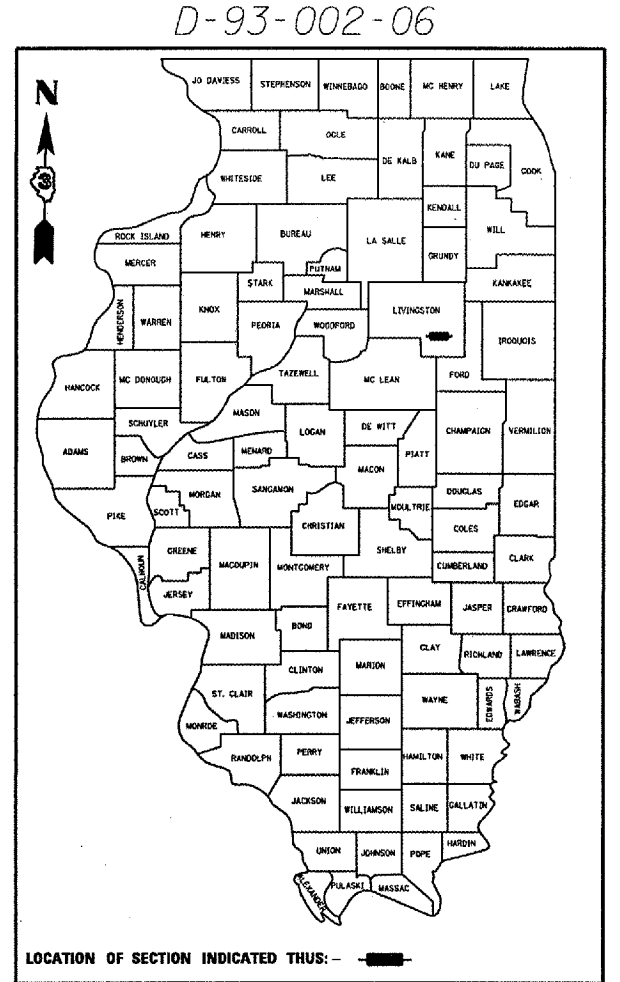
MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: TOM HUFNAGEL (815) 434-8418
UNIT CHIEF: RON WOODSHANK (815) 434-8419

CONTRACT NO. 66614



PROJECT LOCATION
U.S. ROUTE 24
S.N. 053-0152
STA. 473+87
(0.26 MILES WEST OF IL ROUTE 47 IN FORREST)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 10/31 20 05
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 9, 20 05
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

December 9, 20 05
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS/CHIEF ENGINEER

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FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	2
STA. 472+94.25		TO STA. 474+79.75		

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE 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 TO 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 BID FOR THE WORK.

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 PAY 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.

THE THICKNESS OF BITUMINOUS MIXTURES 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 ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

BITUMINOUS RESURFACING	112	LBS / SQ YD / IN
------------------------	-----	------------------

ALL NEW REINFORCEMENT BARS SHALL BE "EPOXY COATED" EXCEPT AS SHOWN.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 503.10(c) OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50* F.

EXISTING REINFORCEMENT BARS EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

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

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.

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.

DATE: 10/25/05

PREPARED BY: Bruce A. Anderson
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: Hubert D. [Signature]
DISTRICT CONSTRUCTION ENGINEER

Steve B. Andrews
ACTING DISTRICT STUDIES & PLANS ENGINEER

Keneth R. [Signature]
DISTRICT MATERIALS ENGINEER

	SUPERPAVE SURFACE COURSE
PG GRADE	PG64-22
MAX % RAP ALLOWABLE	10%
DESIGN AIR VOIDS	4.0% @ N70
MIXTURE COMPOSITION	IL 12.5 OR IL 9.5
FRICITION AGGREGATE	MIXTURE D
PLANT CONTROL LIMITS	CLASS I

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

FAP ROUTE 317 SECTION (25B-1)I

LIVINGSTON COUNTY

STA. 473+87

DATE 09/27/2005 DRAWN BY RW

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FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	3
STA. 472+94.25		TO STA. 474+79.75		

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY 2A

CODE NO.	ITEM	UNIT	RURAL 100% STATE TOTAL QUANTITY
28100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	42
44001000	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ YD	698
50102400	CONCRETE REMOVAL	CU YD	9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.1
50300530	FLOOR DRAIN EXTENSION	EACH	40
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	624
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	698
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3
67100100	MOBILIZATION	L SUM	1
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1534
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	80
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	666
70400100	TEMPORARY CONCRETE BARRIER	FOOT	425
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	370
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	200
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	7
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3
78300100	PAVEMENT MARKING REMOVAL	SQ FT	264
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10
X0320887	POLYMER CONCRETE	CU FT	5.2
X0322469	PLUG EXISTING FLOOR DRAINS	EACH	24
X0323076	SILICONE JOINT SEALER, 1 3/4"	FOOT	74
X0323078	REMOVE AND RE-ERECT EXISTING BRIDGE RAIL	FOOT	185
X4066416	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N70	TON	110
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1
Z0002600	BAR SPLICERS	EACH	10
Z0003700	BEARING PAD ADJUSTMENT	EACH	48
Z0029300	GROUT REPAIR	FOOT	71
Z0017300	DOWEL REPAIR	EACH	36
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1
Z0032700	KEYWAY REPAIR	FOOT	2035

*SFTY 3N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
FAP ROUTE 317 SECTION (25B-1)I
LIVINGSTON COUNTY
STA. 473+87

DATE 09/27/2005

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DATE: 09/27/2005
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FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	4
STA. 472+94.25		TO STA. 474+79.75		

STAGE CONSTRUCTION	PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING LINE 4"	TEMPORARY PAVEMENT MARKING LINE 24"	WORK ZONE PAVEMENT MARKING REMOVAL
	SQ FT	FOOT	FOOT	SQ FT
STAGE I	264	762	80	411
STAGE II		772		255
TOTAL	264	1534	80	666

STAGE CONSTRUCTION	FLOOR DRAIN EXTENSION	PLUG EXISTING FLOOR DRAINS
	EACH	EACH
STAGE I	20	12
STAGE II	20	12
TOTAL	40	24

STAGE CONSTRUCTION	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)
	EACH	EACH	EACH
STAGE I	10		
STAGE II		7	3
TOTAL	10	7	3

STAGE CONSTRUCTION	WATERPROOFING MEMBRANE SYSTEM
	EACH
STAGE I	349
STAGE II	349
TOTAL	698

STAGE CONSTRUCTION	SILICONE JOINT SEALER 1 3/4"
	FOOT
STAGE I	37
STAGE II	37
TOTAL	74

STAGE CONSTRUCTION	BITUMINOUS CONCRETE SURFACE REMOVAL	BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE MIX D, N70	POLYMER CONCRETE
	SQ YD	TON	CU FT
STAGE I	359	53	2.6
STAGE II	339	57	2.6
TOTAL	698	110	5.2

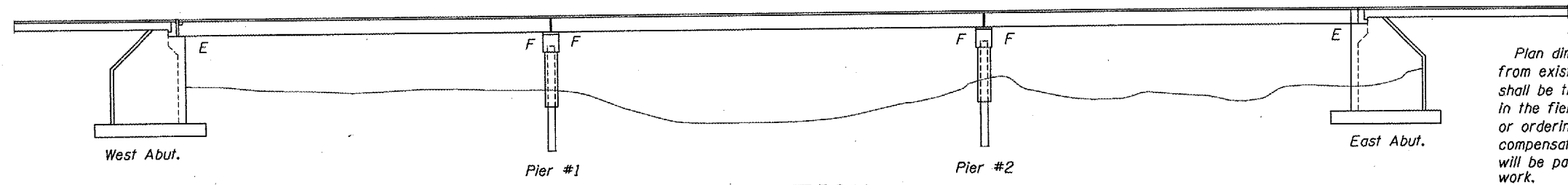
STAGE CONSTRUCTION	TEMPORARY CONCRETE BARRIER
	FOOT
STAGE I	425
STAGE II	
TOTAL	425

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULES
FAP ROUTE 317 SECTION (25B-1)I
LIVINGSTON COUNTY
STA. 473 + 87

DATE: 09/27/2005
 FILE: c:\projects\cme06\cm322\detail.dgn

CONTRACT NO. 66614				
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	5
STA. 472+94.25 TO STA. 474+79.75				



ELEVATION

GENERAL NOTES

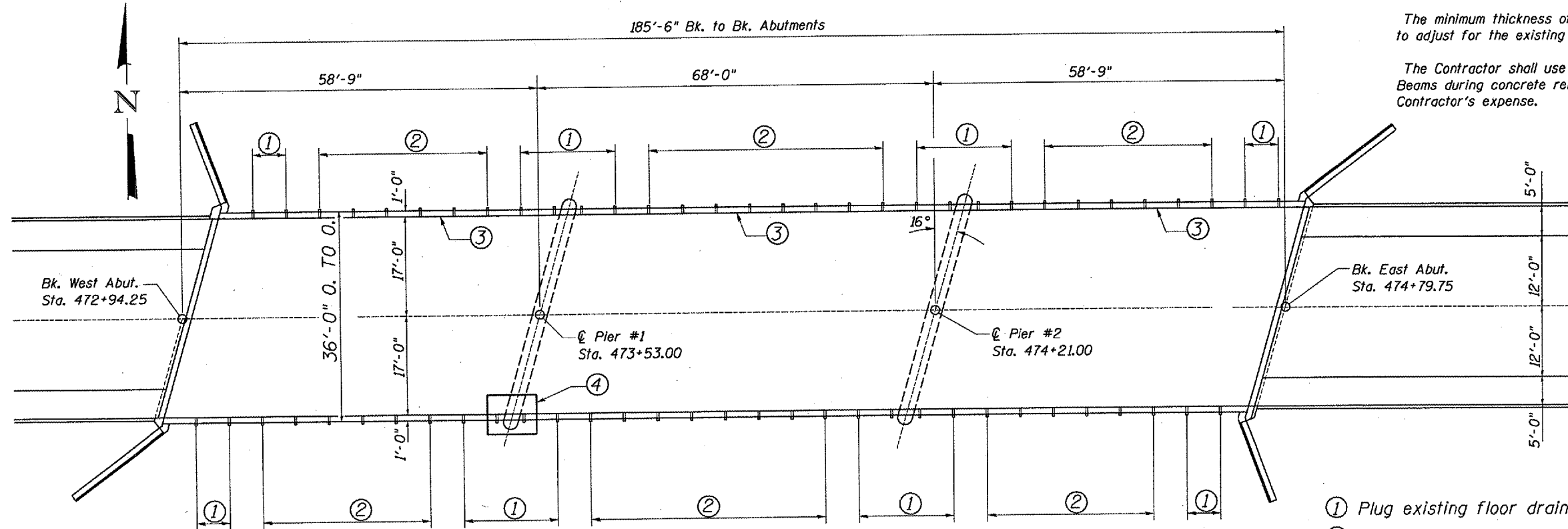
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction 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 bid for the work.

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

All construction joints shall be bonded.

The minimum thickness of the overlay shall be 1 3/4" and varies as required to adjust for the existing profile grade and beam camber.

The Contractor shall use extreme care so as not to damage the PCC Deck Beams during concrete removal. Any damage shall be repaired at the Contractor's expense.

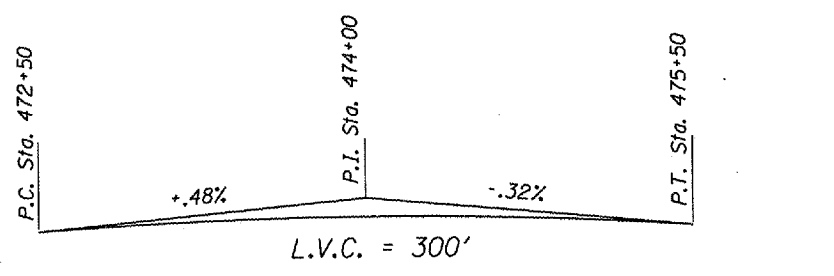


PLAN

DESIGN STRESSES

Field Units
 f'c = 3,500 psi
 fy = 60,000 psi (reinforcement)

- ① Plug existing floor drains
- ② Extend existing deck drains
- ③ Remove and replace existing curb
- ④ Place Stone Dumped Riprap, Class A4



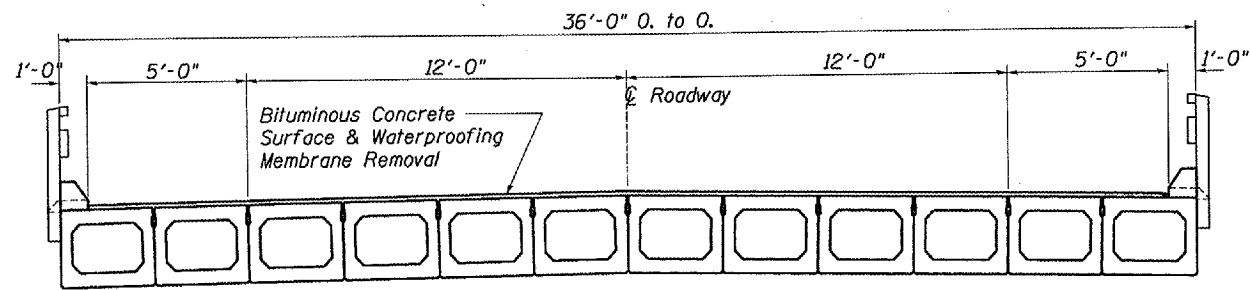
PROFILE GRADE U.S. ROUTE 24

REVISIONS	
NAME	DATE

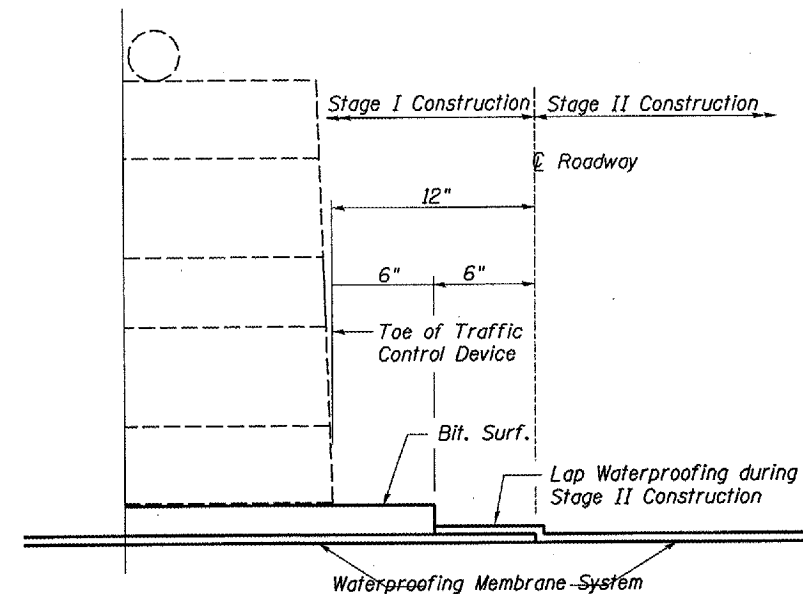
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GENERAL PLAN & ELEVATION
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/27/2005 DRAWN BY RW

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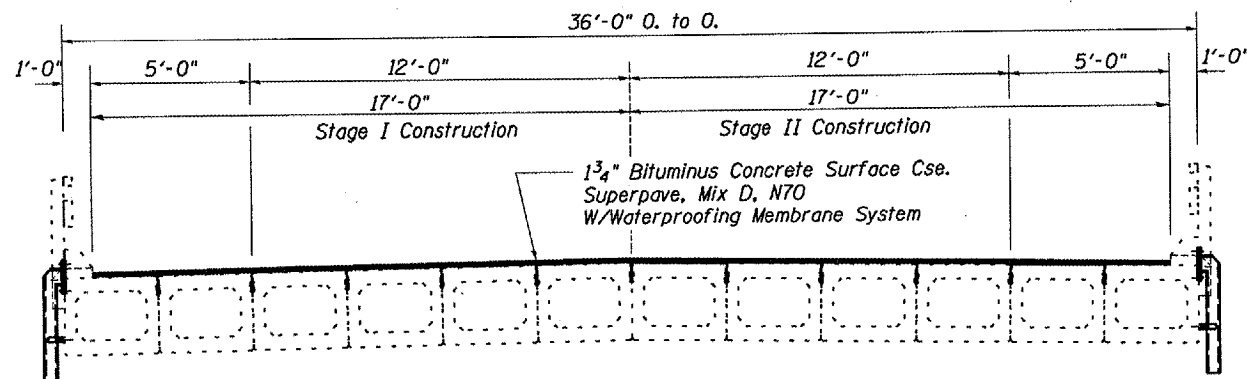
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317	(25B-1)1	LIVINGSTON	21	6
STA. 472+94.25		TO STA. 474+79.75		



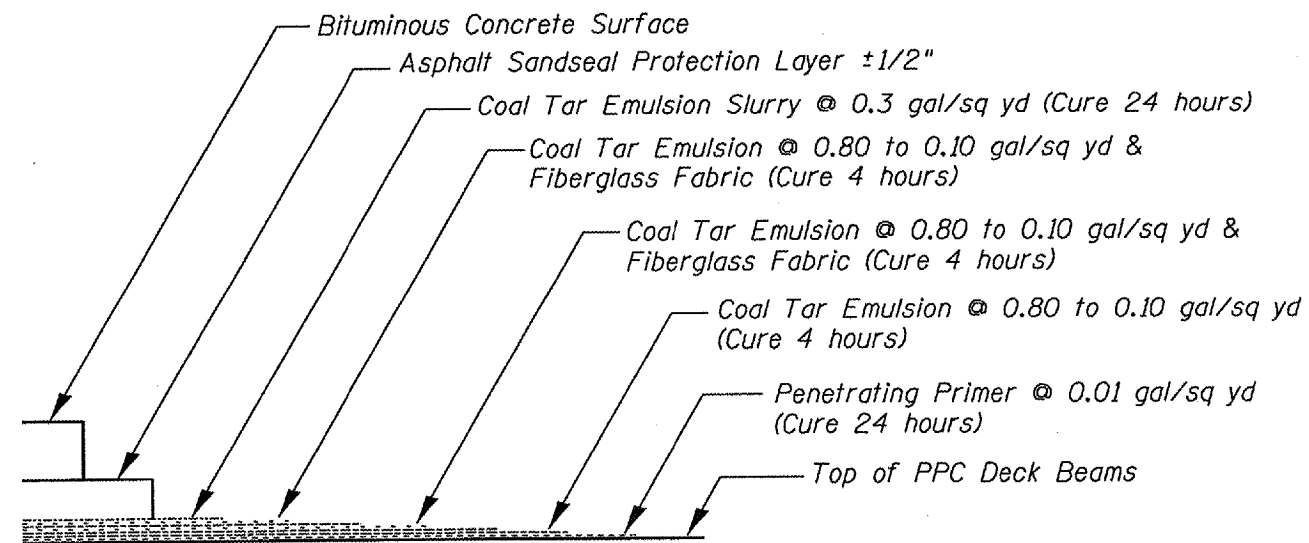
**EXISTING DECK CROSS SECTION
LOOKING EAST**



**WATERPROOFING TREATMENT
AT STAGE CONSTRUCTION**



**PROPOSED DECK CROSS SECTION
LOOKING EAST**



WATERPROOFING MEMBRANE SYSTEM DETAIL

REVISIONS	
NAME	DATE

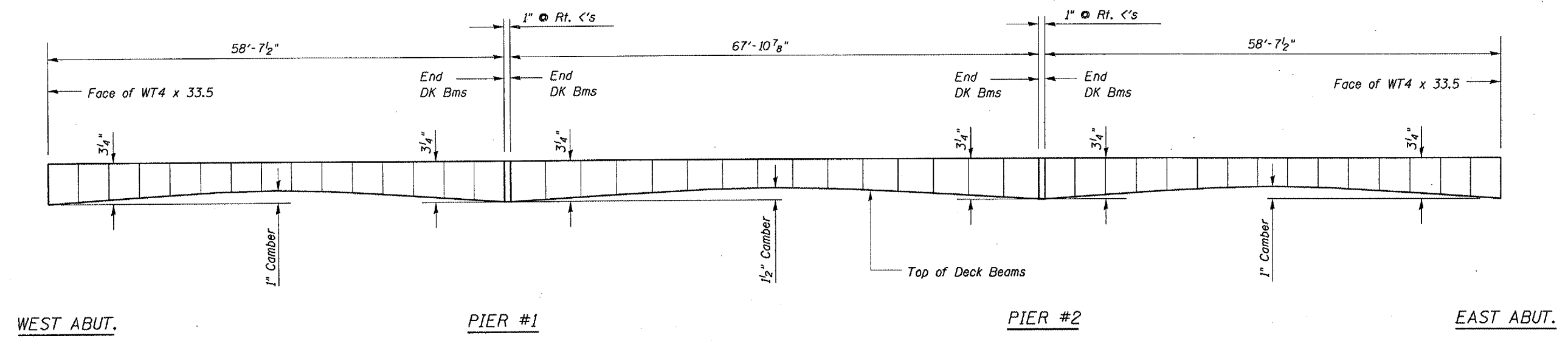
ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK RESURFACING DETAILS
FAP ROUTE 317 SECTION (25B-1)1
LIVINGSTON COUNTY
STA. 473+87

DATE 09/27/2005

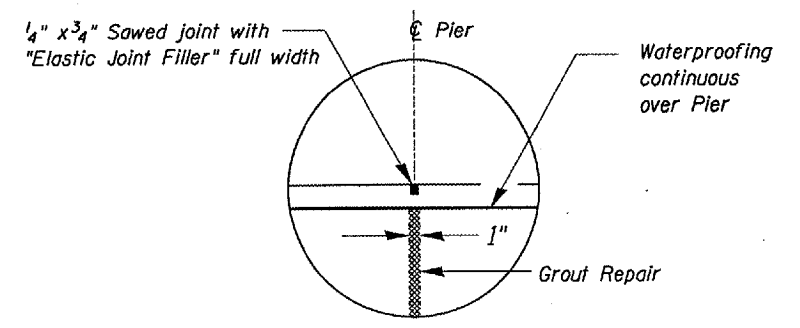
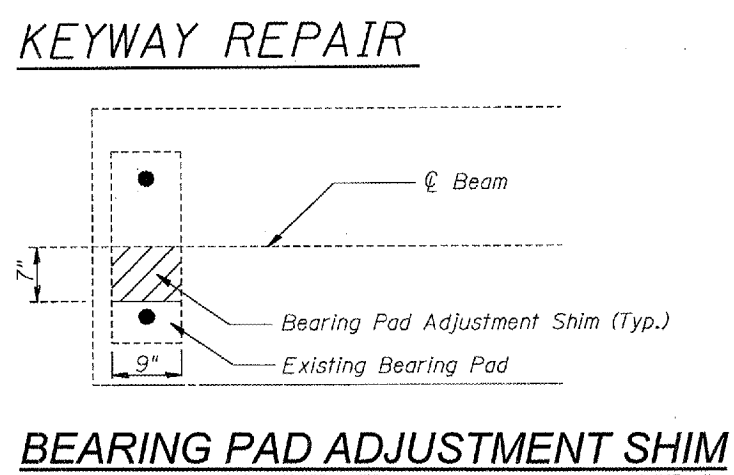
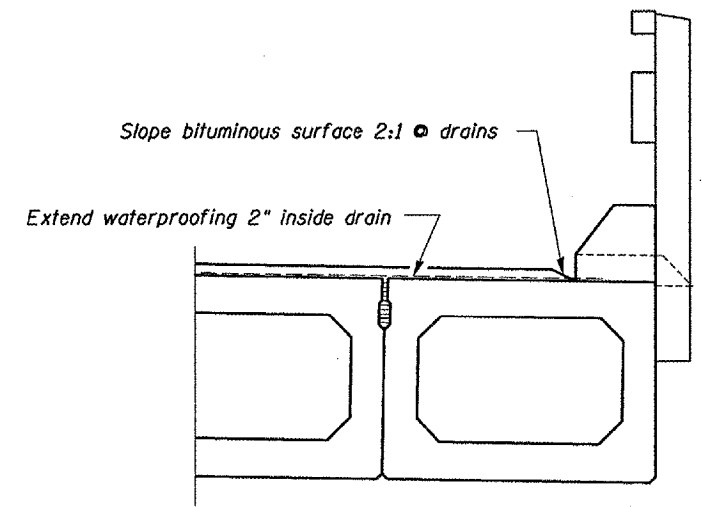
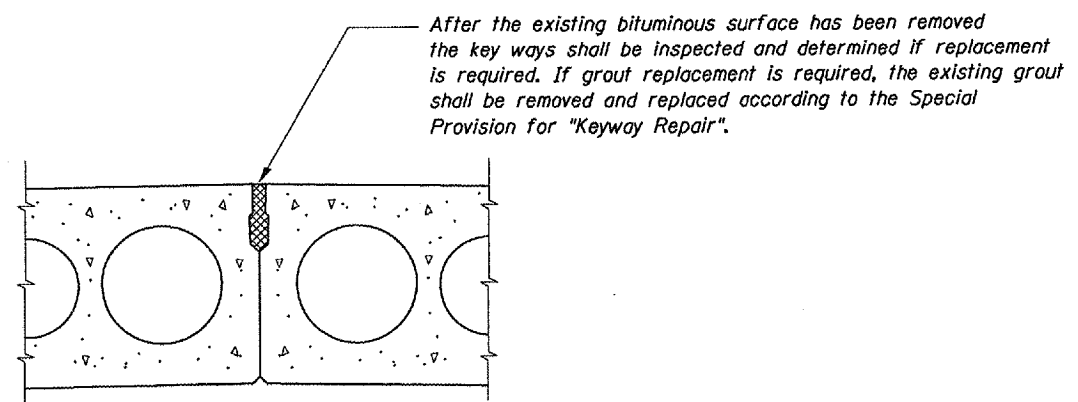
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CONTRACT NO. 66614				
FAP R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	7
STA. 472+94.25		TO STA. 474+79.75		



BITUMINOUS SURFACING PROFILE



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK RESURFACING DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/27/2005
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DATE: 06/21/2005
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FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	8
STA. 472+94.25		TO STA. 474+79.75		

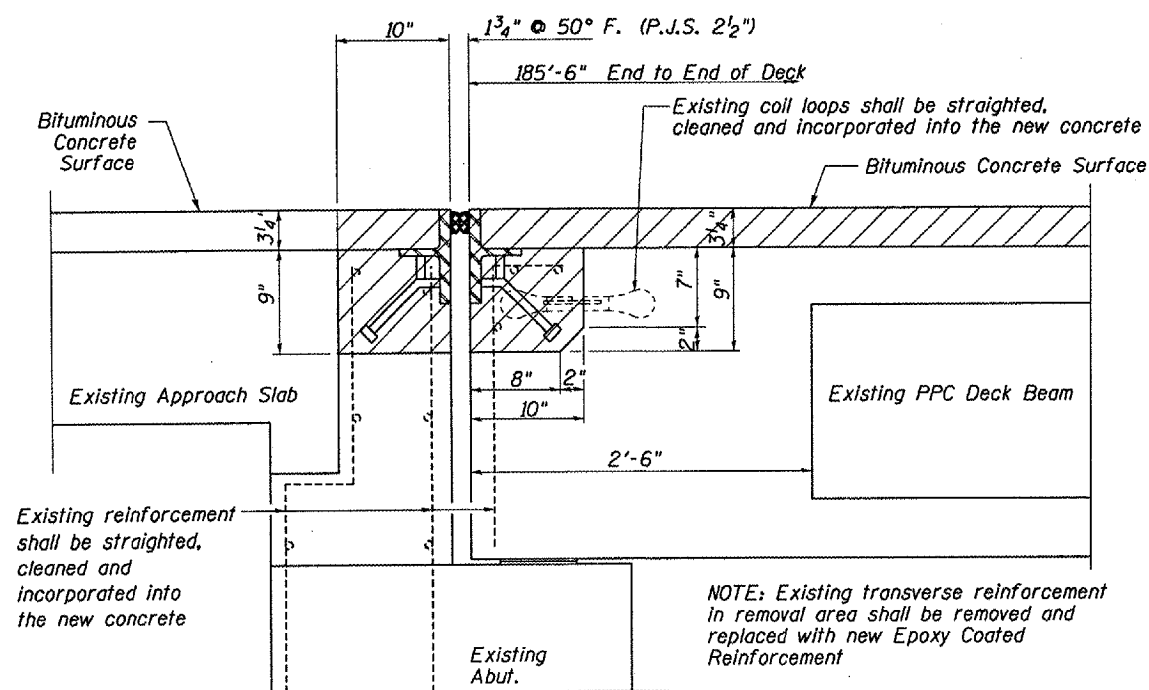
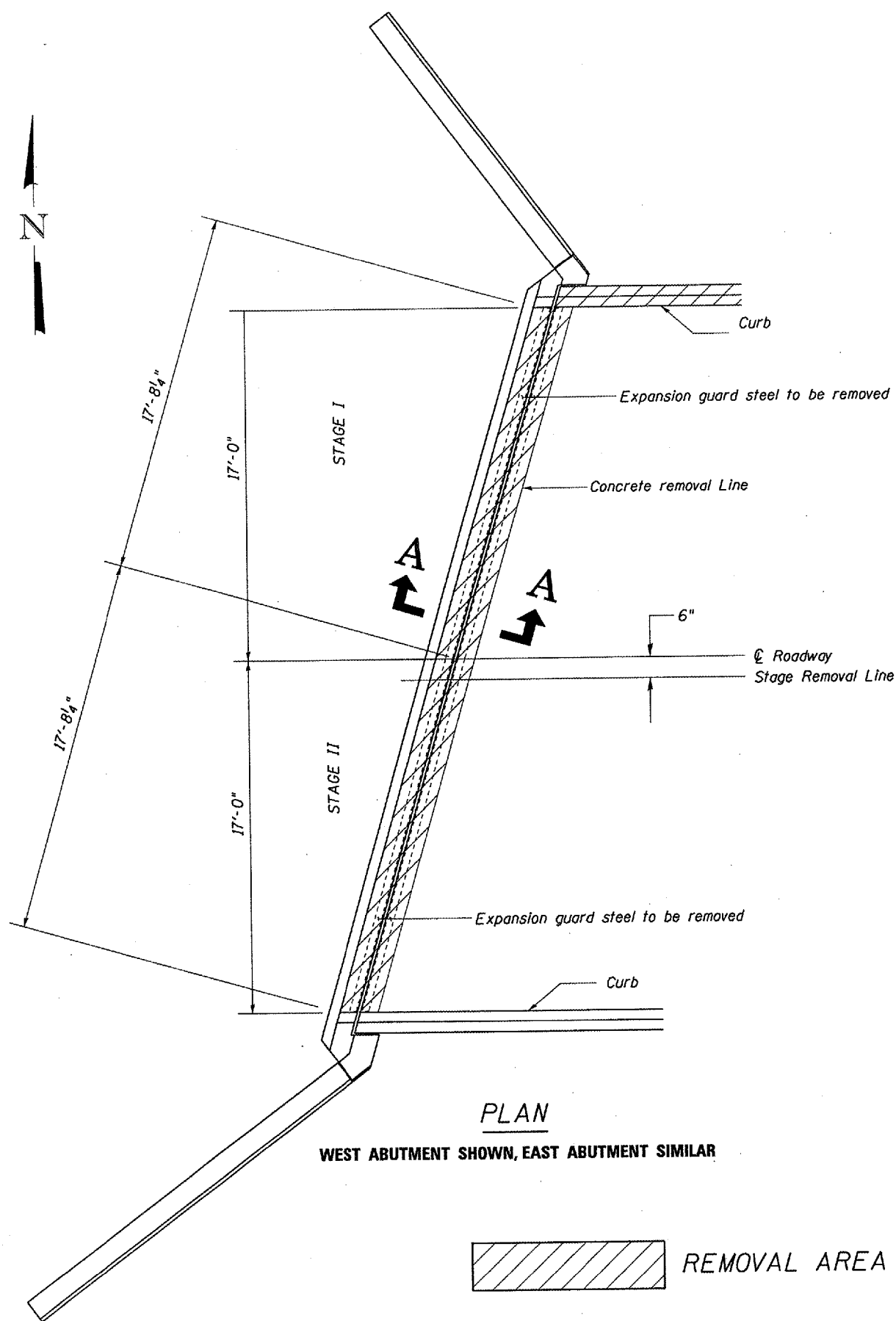
NOTES:

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 bid for the work.

Expansion joint plates and attached bars shall be removed and become the property of the contractor. Cost shall be included with "Concrete Removal"

Existing reinforcement extending into removal area, that are specified to remain in place shall be cleaned, straightened and incorporated into the new concrete. Reinforcement bars that are to remain in place, which are damaged during concrete removal operations shall be replaced using approved bar splicer or anchorage system. Cost shall be included with Concrete Removal

Existing coil loops shall remain in place. If the coil loops are damaged during removal operations, they shall be repaired or replaced as directed by the Engineer.

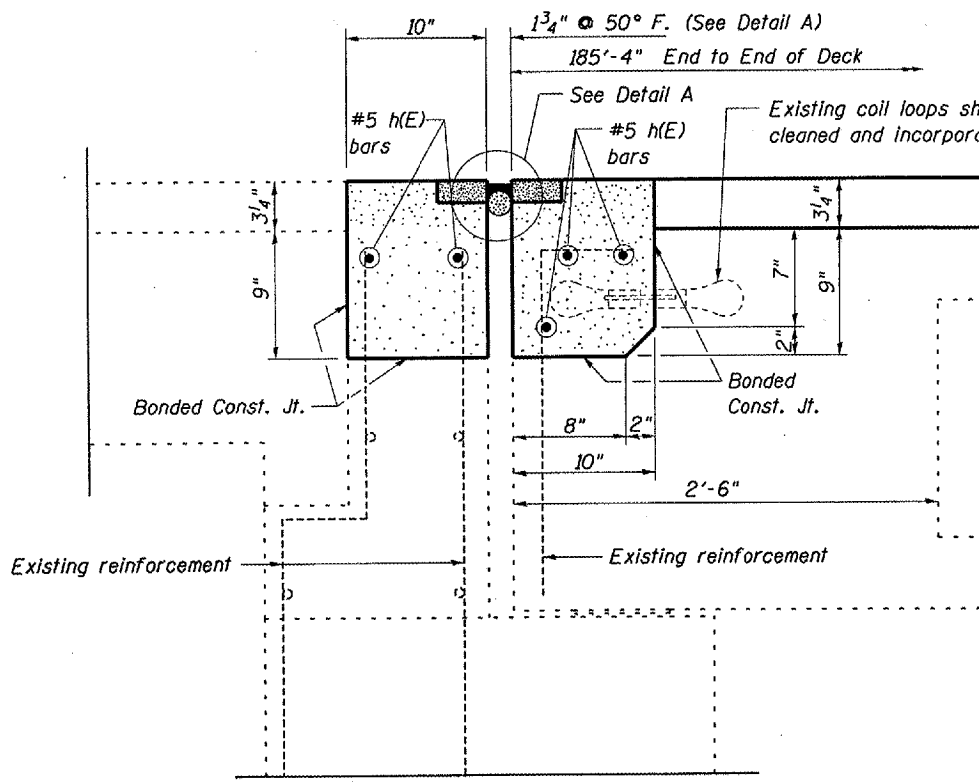
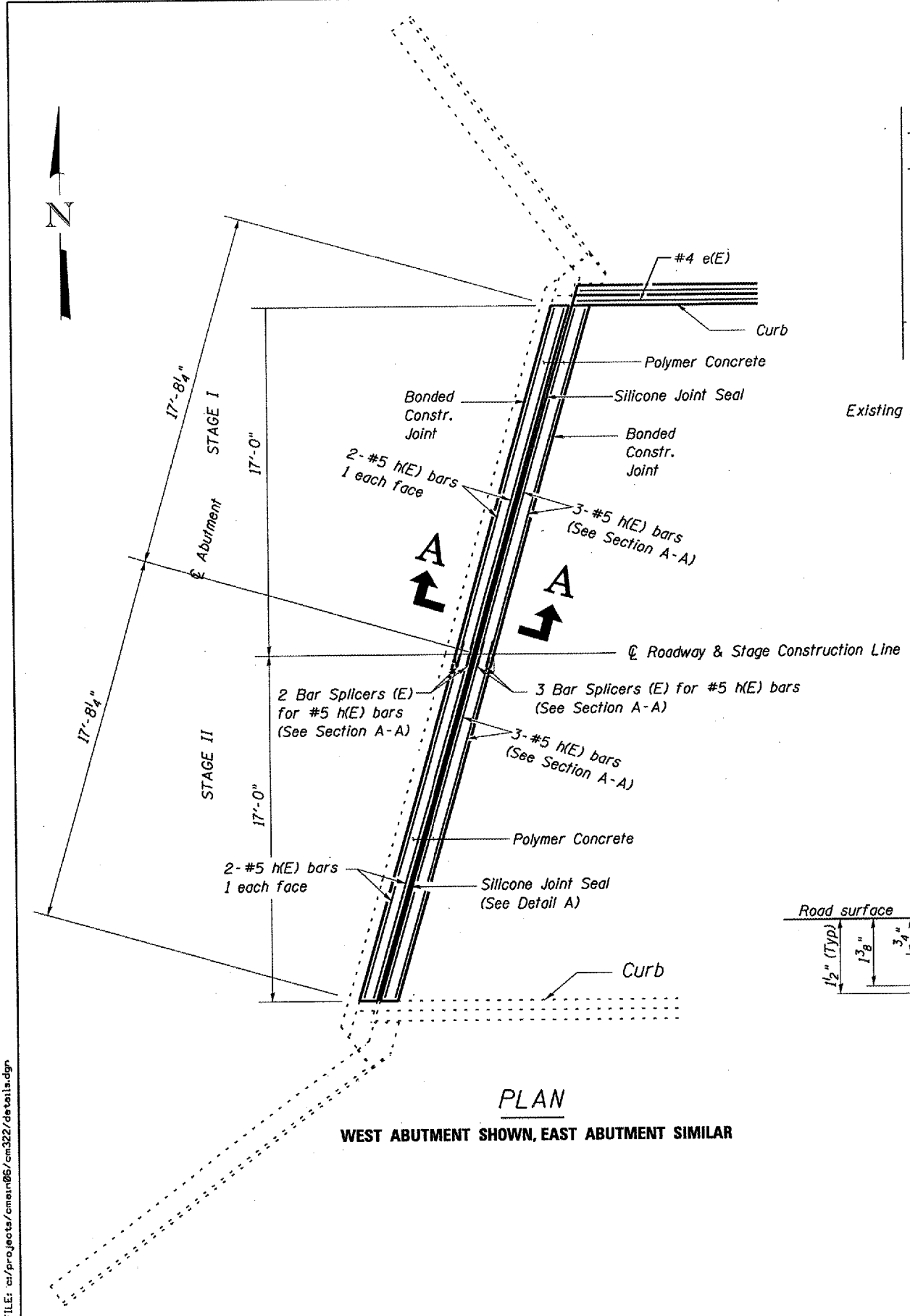


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING ABUTMENT DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/21/2005 DRAWN BY RW

DATE: 06/21/2005
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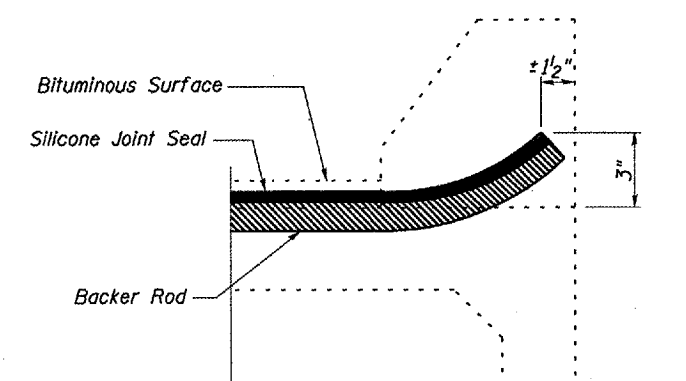
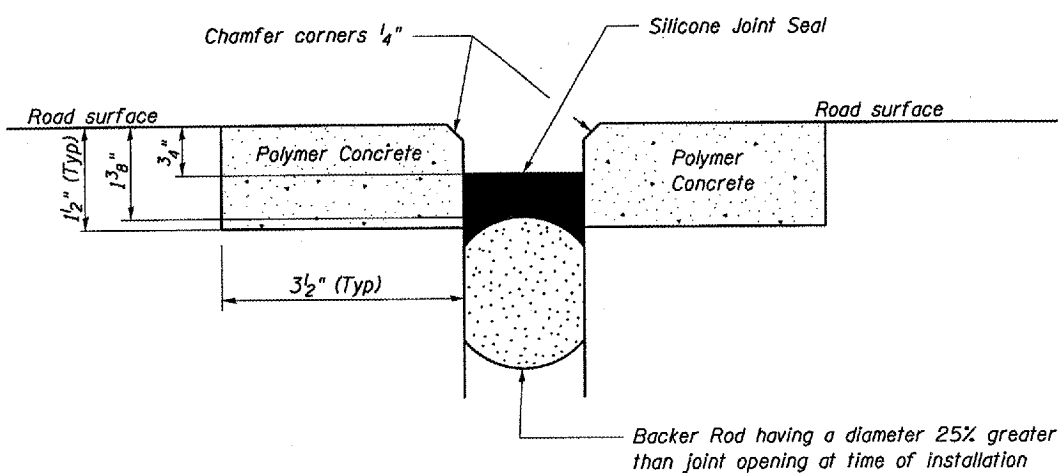
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STA. 472+94.25 TO STA. 474+79.75				



BILL OF MATERIALS FOR TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h(E)	20	#5	17'-4"	—
Concrete Removal			Cu Yd	3.3
Concrete Superstructure			Cu Yd	4.4
Polymer Concrete			Cu Ft	5.2
Reinforcement Bars, Epoxy Coated			Pound	362
Bar Splicers			Each	10

Reinforcement bars designated (E) shall be epoxy coated.



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	PROPOSED ABUTMENT DETAILS	
		FAP ROUTE 317 SECTION (25B-1)I	
		LIVINGSTON COUNTY	
		STA. 473+87	
		DATE 09/27/2005	DRAWN BY RW

DATE: 09/27/2005
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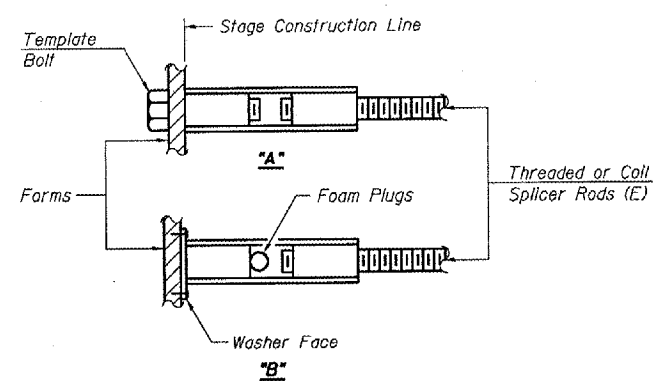
The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR

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

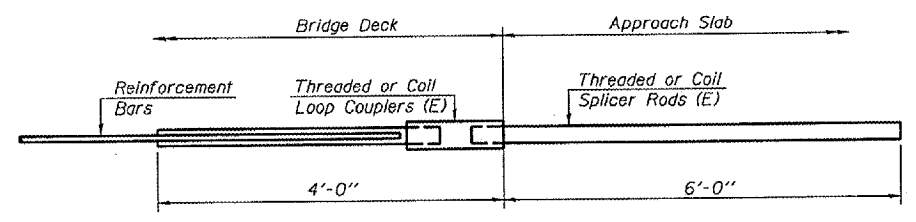
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the 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:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
 (Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{sallow} \times A_t$
 (Tension in kips)

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

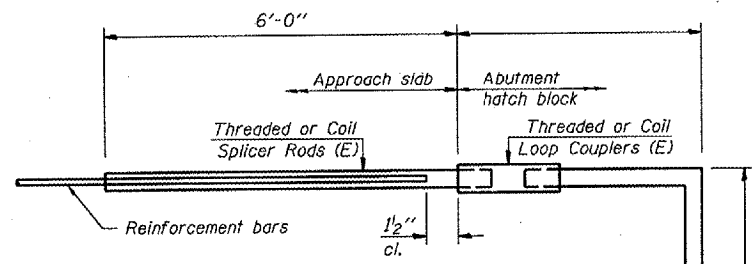
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 50B 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."



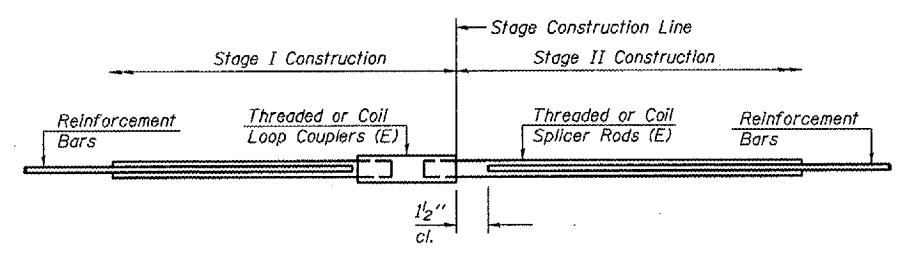
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



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 =



STANDARD

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = - 10

BAR SPLICER ASSEMBLY DETAILS

REVISIONS	
NAME	DATE

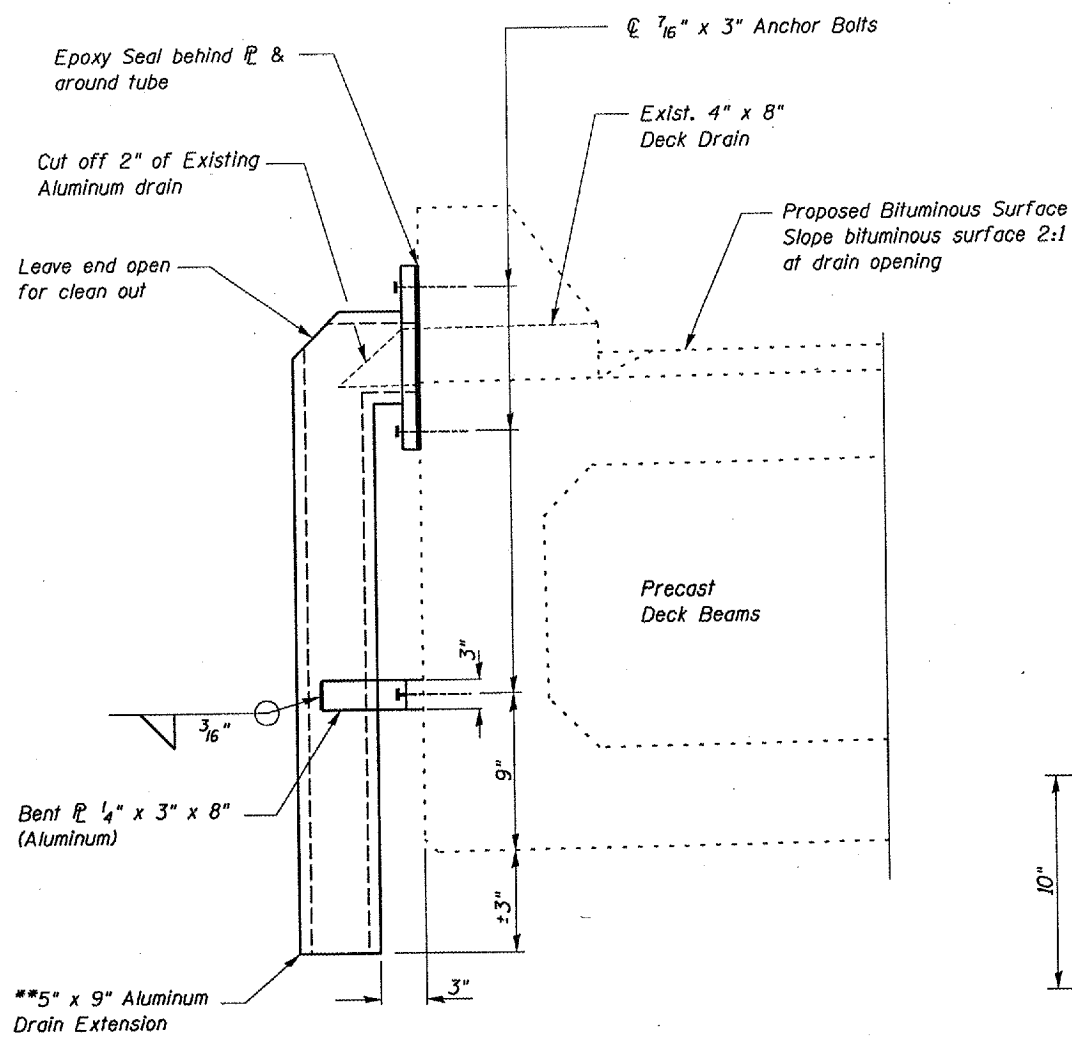
ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER ASSEMBLY DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473 + 87

DRAWN BY RW

DATE: 09/27/2005
 FILE: c:/projects/amein06/cm322/detail.dgn

BSD-1 9-01-03

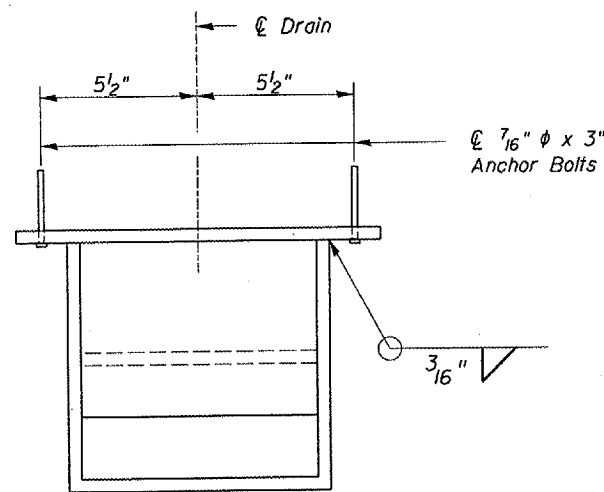
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	11
STA. 472+94.25 TO STA. 474+79.75				



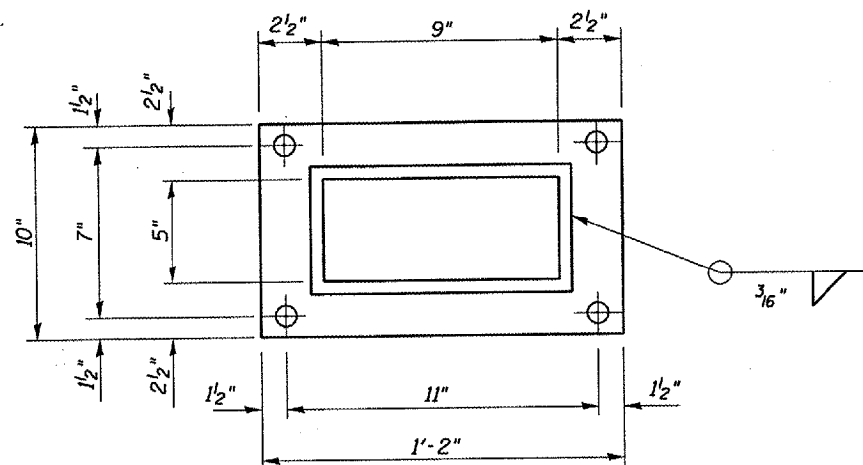
CURB SECTION

**3/16" Aluminum Sheets (Welded)
ASTM: B209 alloy 6061-T6

The Contractor shall "Field" measure the drain extensions prior to ordering of materials.

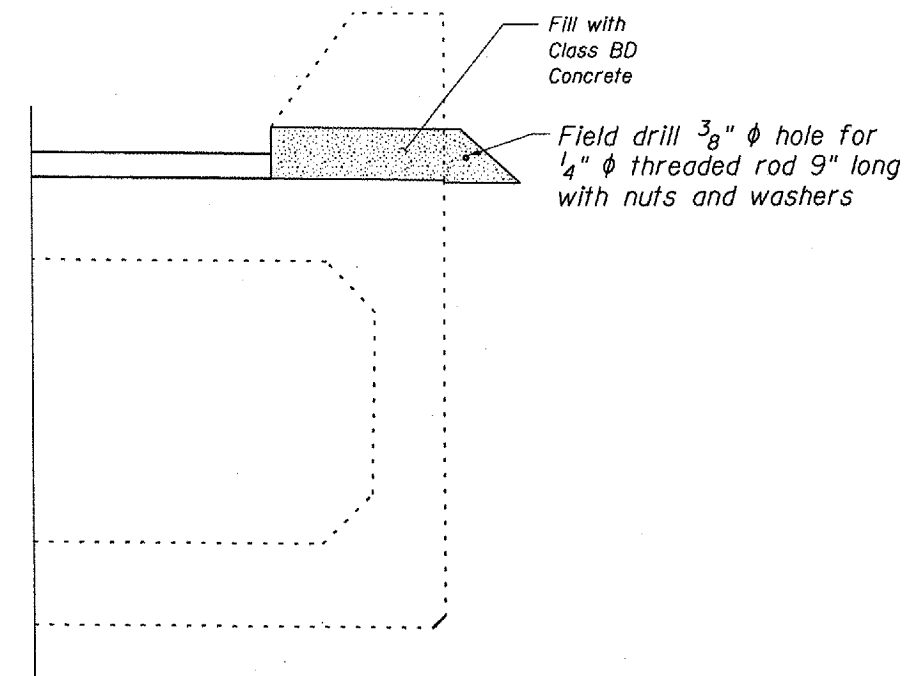


TOP PLAN



SECTION A-A

P 1/4" x 10" x 1'-2" (Aluminum)



CURB SECTION

FLOOR DRAIN PLUG DETAILS

FLOOR DRAIN EXTENSION DETAILS

DATE: 09/27/2005
FILE: c:\projects\cmeir\05\cm322\details.dgn

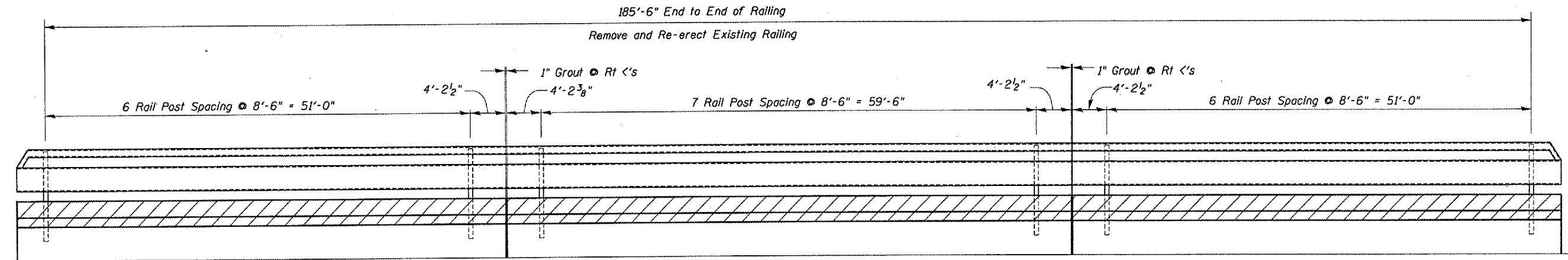
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FLOOR DRAIN DETAILS
FAP ROUTE 317 SECTION (25B-1)I
LIVINGSTON COUNTY
STA. 473+87

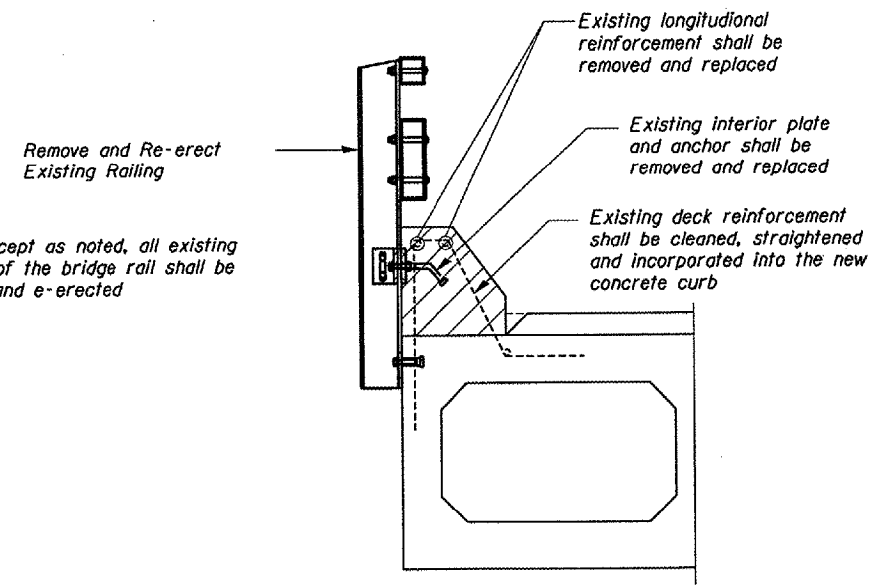
DATE 09/27/2005

DRAWN BY RW

CONTRACT NO. 66614			
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS
317	(25B-1)I	LIVINGSTON	21
SHEET NO.		12	
STA. 472+94.25		TO STA. 474+79.75	

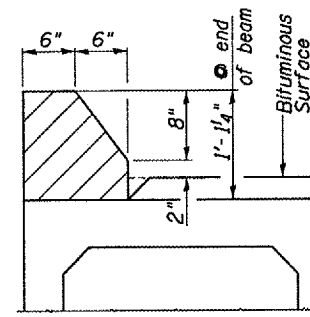


ELEVATION



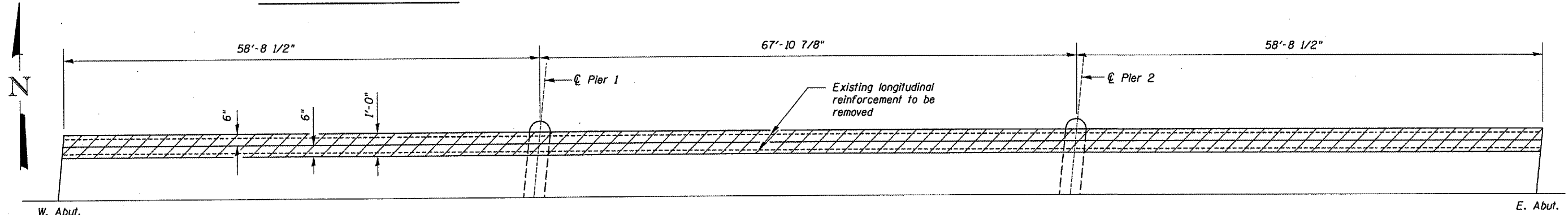
NOTE: Except as noted, all existing elements of the bridge rail shall be salvaged and e-erected

CURB SECTION
DIMENSIONS



 CURB REMOVAL AND REPLACEMENT

CURB SECTION



PLAN

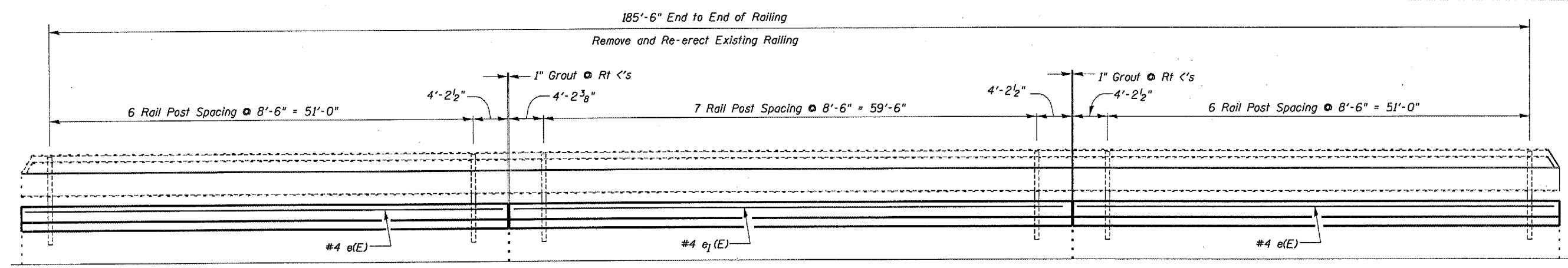
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING CURB DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473 + 87

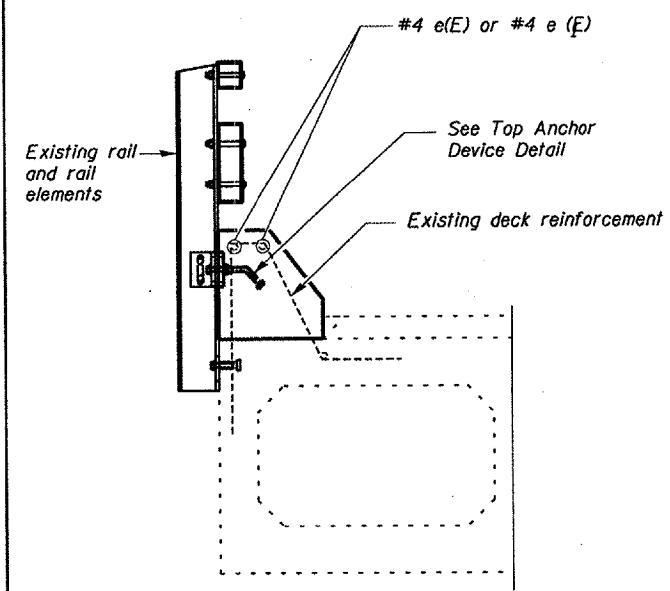
DATE 09/27/2005 DRAWN BY RW

DATE: 09/27/2005
 FILE: c:\projects\main06\cm322\details.dgn

CONTRACT NO. 66614			
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS
317	(25B-1)I	LIVINGSTON	21
STA. 472+94.25	TO STA. 474+79.75		

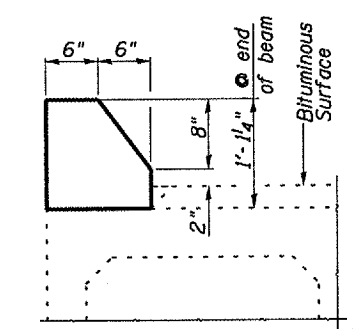


ELEVATION

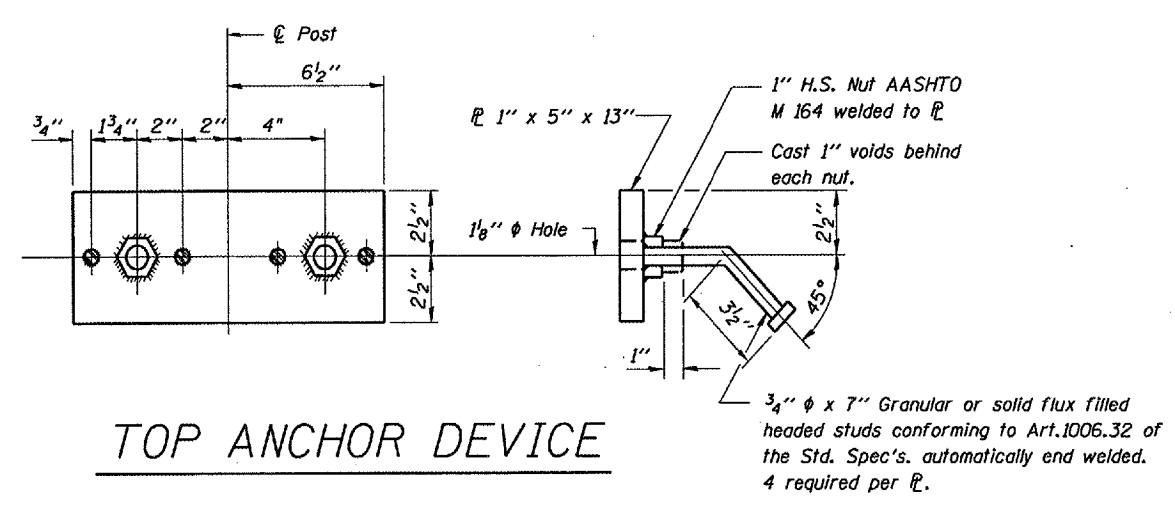


CURB SECTION

Cost of Top Anchor Device is included in the cost of Remove and Re-erect Existing Bridge Rail.



CURB SECTION DIMENSIONS

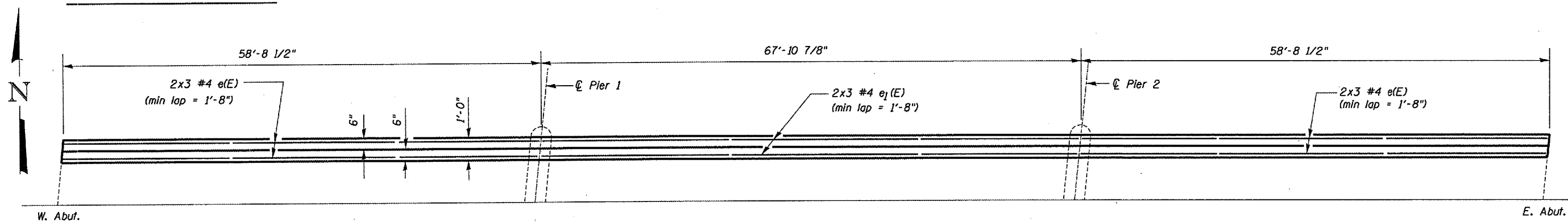


TOP ANCHOR DEVICE

BILL OF MATERIALS FOR ONE CURB

Bar	No.	Size	Length	Shape
e(E)	12	#4	20'-9"	—
e_j(E)	6	#4	23'-9"	—
Concrete Removal			Cu Yd	5.7
Concrete Superstructure			Cu Yd	5.7
Reinforcement Bars, Epoxy Coated			Pound	262

Reinforcement bars designated (E) shall be epoxy coated.



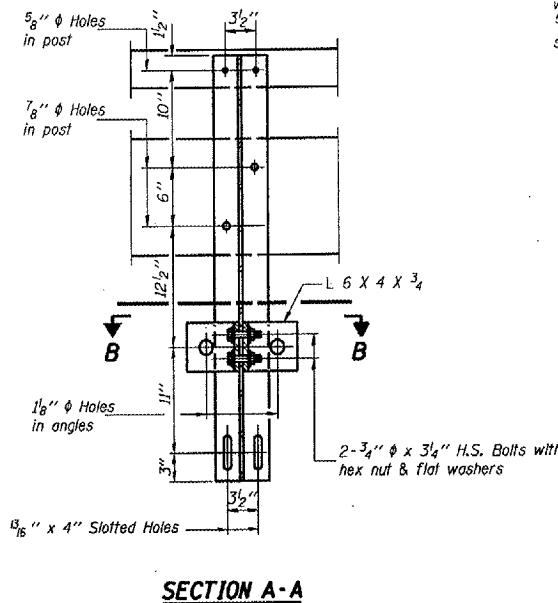
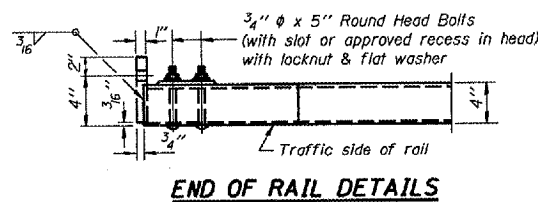
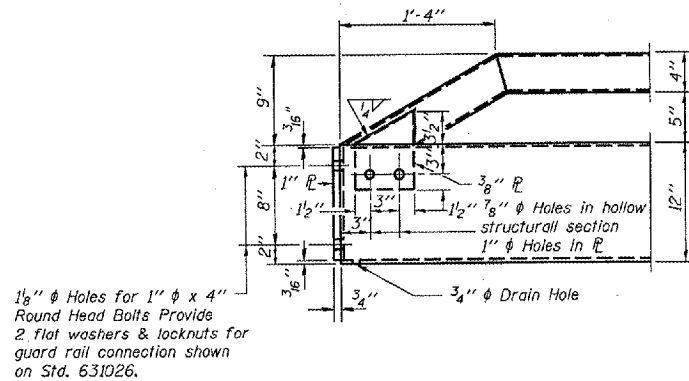
PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED CURB DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/21/2005 DRAWN BY RW

DATE: 09/21/2005
 FILE: c:\projects\main06\cm322\details.dgn

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	14
STA. 472+94.25		TO STA. 474+79.75		

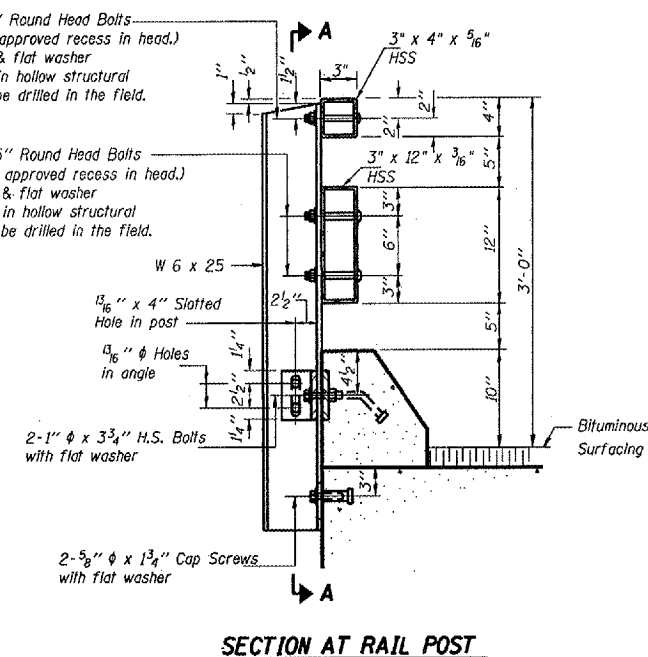


2-1/2" φ x 5" Round Head Bolts (With slot or approved recess in head.) with locknut & flat washer

5/8" φ Holes in hollow structural section may be drilled in the field.

2-3/4" φ x 5" Round Head Bolts (With slot or approved recess in head.) with locknut & flat washer

5/8" φ Holes in hollow structural section may be drilled in the field.



NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs. at 0 °F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

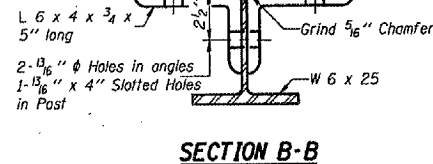
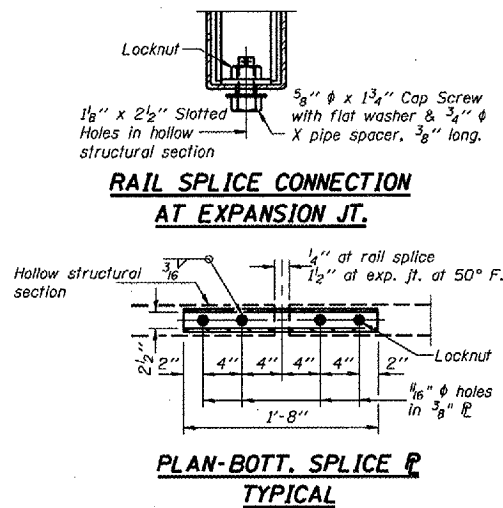
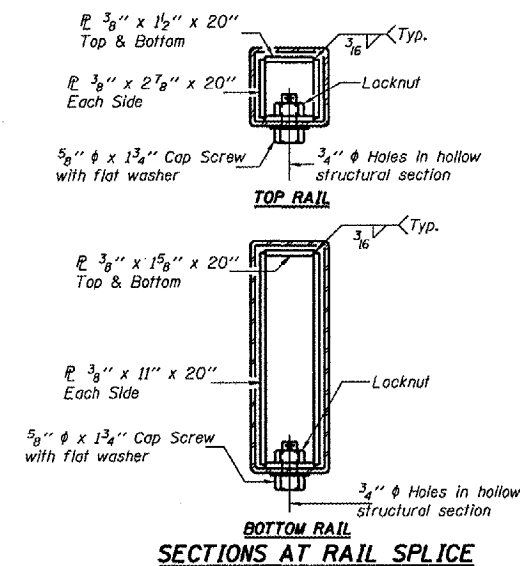
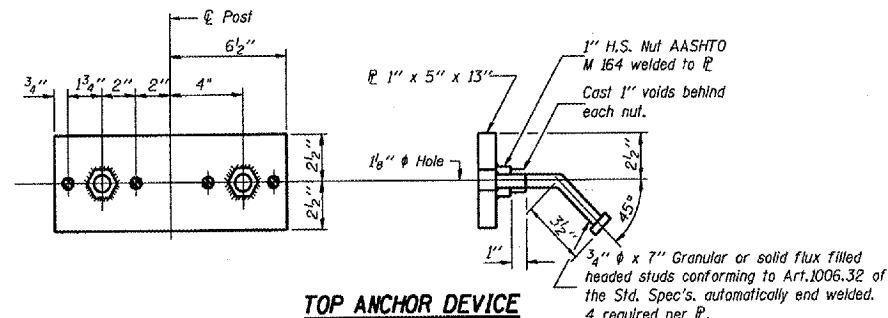
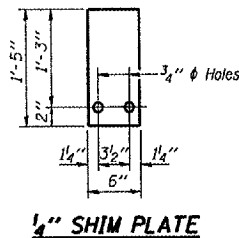
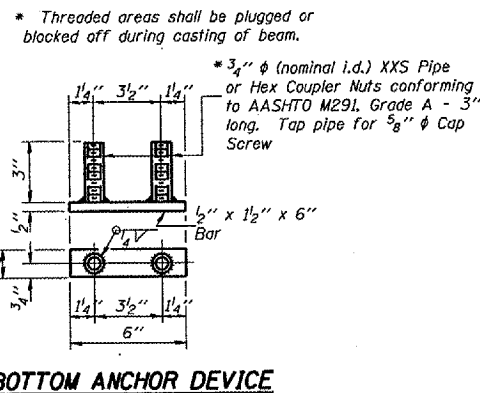
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL RAILING, TYPE T-1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pad between the post and concrete.

The 3/4" φ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(FX2) of the Standard Specifications. The 1" φ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" φ cap screws in bottom of posts shall be tightened to a snug fit only.

For multi-span bridges, sufficient 1/4" x 6" x 1'-5" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing.



R-24A 10-31-02 (9'-6" Maximum Post Spacing)

THIS SHEET FOR INFORMATION "ONLY"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPE T STEEL RAILING

FAP ROUTE 317 SECTION (25B-1)I

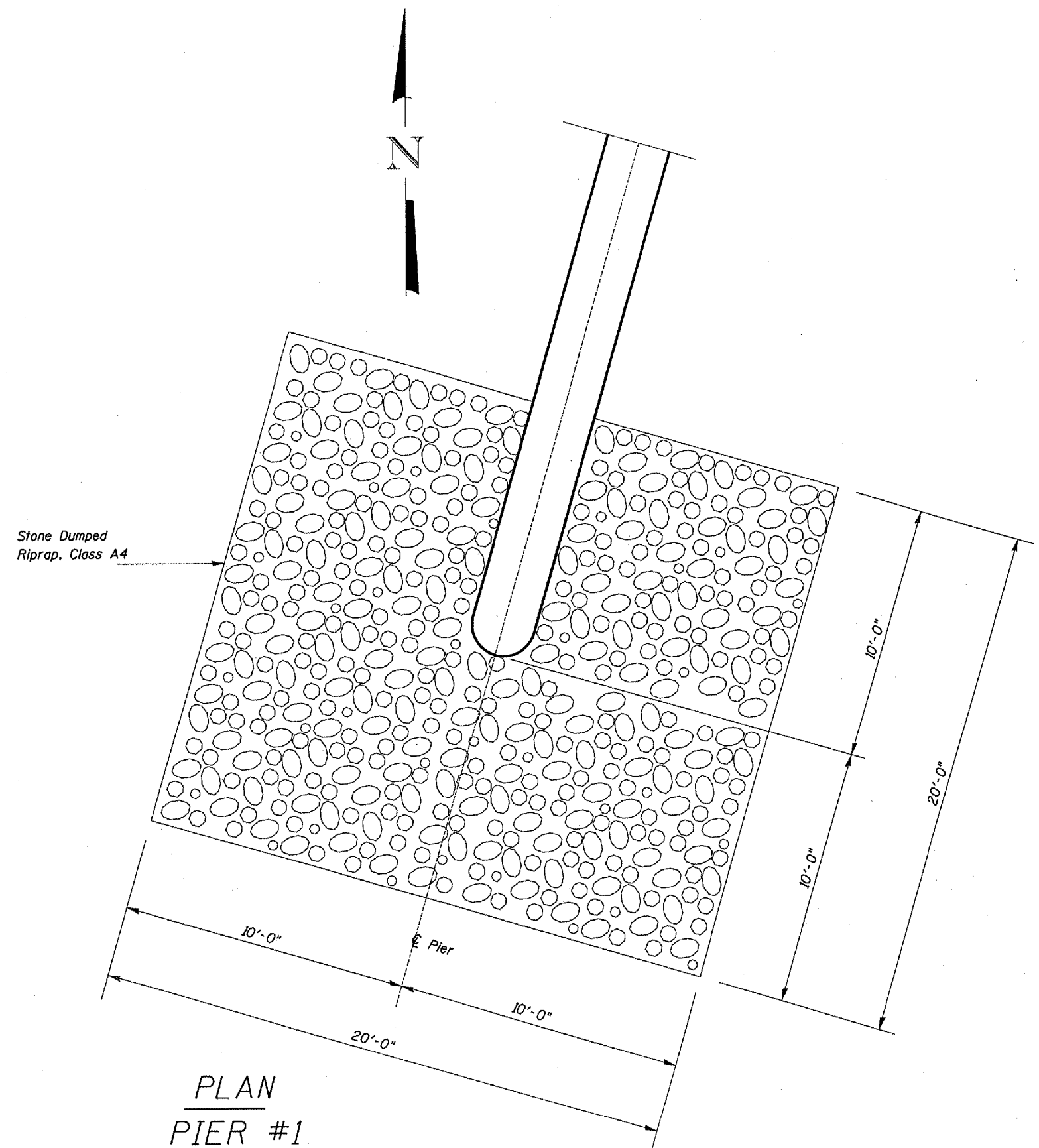
LIVINGSTON COUNTY

STA. 473 + 87

DATE 09/27/2005

DRAWN BY RW

FAP RYE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	15
STA. 472+94.25		TO STA. 474+79.75		

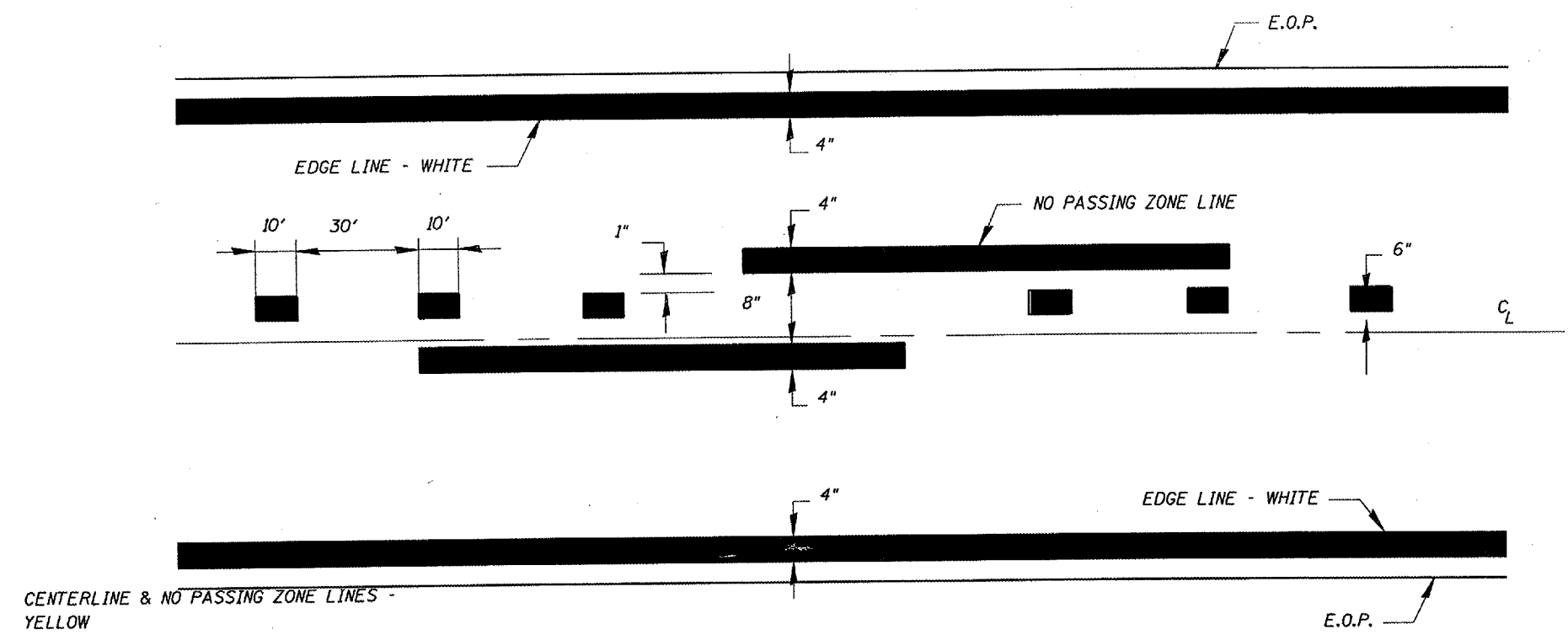


DATE: 09/27/2005
 FILE: c:/projects/cman06/cm322/detail.dgn

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
RIPRAP DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/27/2005
 DRAWN BY RW

CONTRACT NO. 66614				
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	16
STA. 472+94.25 TO STA. 474+79.75				

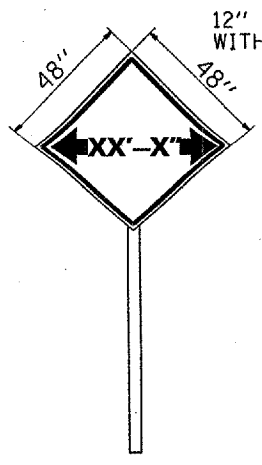


PAVEMENT MARKING

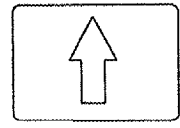
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REVISIONS	
NAME	DATE

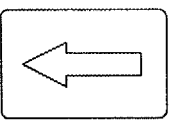
ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING DETAILS
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/27/2005 DRAWN BY RW



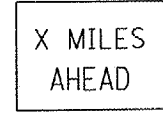
12" D BLACK LETTERING WITH ORANGE BACKGROUND



M6-3(O)
21"x15"

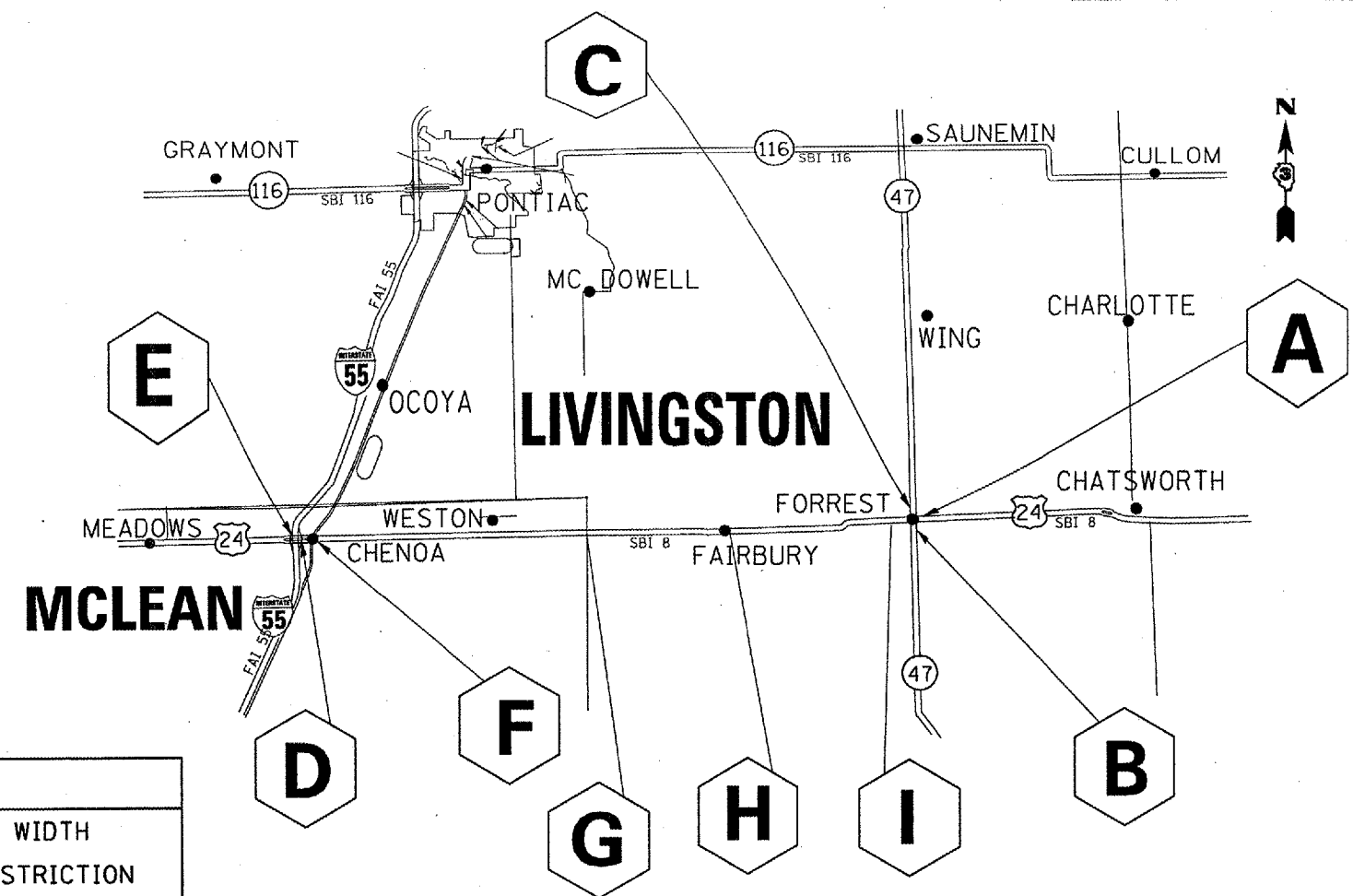


M6-1(O)
21"x15"



W12-I 101(O)
21"x15"

4" C BLACK SYMBOLS & LETTERING WITH ORANGE BACKGROUND



TO BE POST MOUNTED AS SHOWN ELSEWHERE IN THE PLANS.

THE ENGINEER WILL NOTIFY THE BUREAU OF PERMITS IN SPRINGFIELD 14 CALENDAR DAYS PRIOR TO INSTALLING ANY TRAFFIC CONTROL DEVICES THAT WILL RESTRICT THE PAVEMENT WIDTH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

WIDTH RESTRICTION SIGNING DETAILS

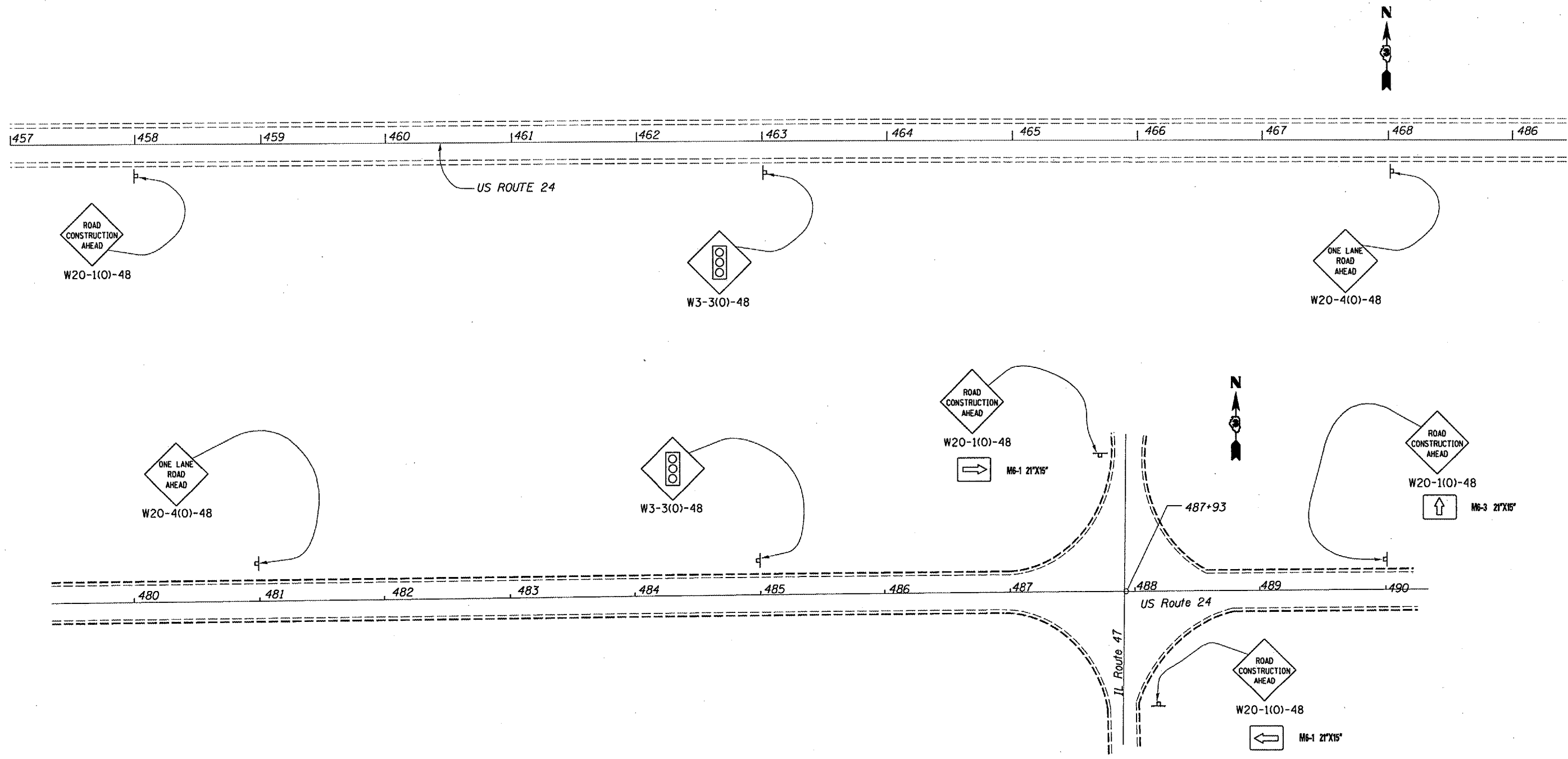
TABLE OF WIDTH RESTRICTION SIGNS				
LOCATION NO.	NO. OF SIGNS	TYPE OF SIGN	LOCATION OF SIGNS OF SIGNS	WIDTH RESTRICTION & MILES AHEAD
A	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-3(O)	ON WESTBOUND US ROUTE 24 NE CORNER US 24 & IL 47	10'-6" 1400 FT AHEAD
B	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-1(O)	ON NORTHBOUND IL ROUTE 47 SE CORNER US 24 & IL 47	10'-6" 1400 FT AHEAD
C	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-1(O)	ON SOUTHBOUND IL ROUTE 47 NW CORNER US 24 & IL 47	10'-6" 1400 FT AHEAD
D	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-3(O)	TOP OF NORTHBOUND I-55 OFF RAMP TO EASTBOUND US ROUTE 24	10'-6" 16 MILES AHEAD
E	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-1(O)	TOP OF SOUTHBOUND I-55 OFF RAMP TO EASTBOUND US ROUTE 24	10'-6" 16 MILES AHEAD
F	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-3(O)	ON EASTBOUND US ROUTE 24 SE CORNER OF US 24 AND O.R. 66	10'-6" 15.5 MILES AHEAD
G	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-3(O)	ON EASTBOUND US ROUTE 24 MCLEAN/LIVINGSTON COUNTY LINE	10'-6" 9 MILES AHEAD
H	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-3(O)	ON EASTBOUND US ROUTE 24 ECL OF FAIRBURY	10'-6" 5 MILES AHEAD
I	1	WIDTH RESTRICTION WITH W12-1101(O) & M6-3(O)	ON EASTBOUND US ROUTE 24 WITHIN TRAFFIC CONTROL PLAN 250' BEHIND RCA SIGN	10'-6" AHEAD

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WIDTH RESTRICTION SIGNING
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473 + 87
 DATE 09/21/2005 DRAWN BY RW

DATE: 09/27/2005 FILE: cr/projects/cmar06/cm322/deta/ls.dgn

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	18
STA. 472+94.25 TO STA. 474+79.75				



DATE: 09/27/2005
FILE: c:\projects\cma06\cm322\detaila.dgn

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN FOR
STAGE I CONSTRUCTION - ADVANCED SIGNING
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87
 DATE 09/27/2005
 DRAWN BY RW

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	19
STA. 472+94.25		TO STA. 474+79.75		

GENERAL NOTES

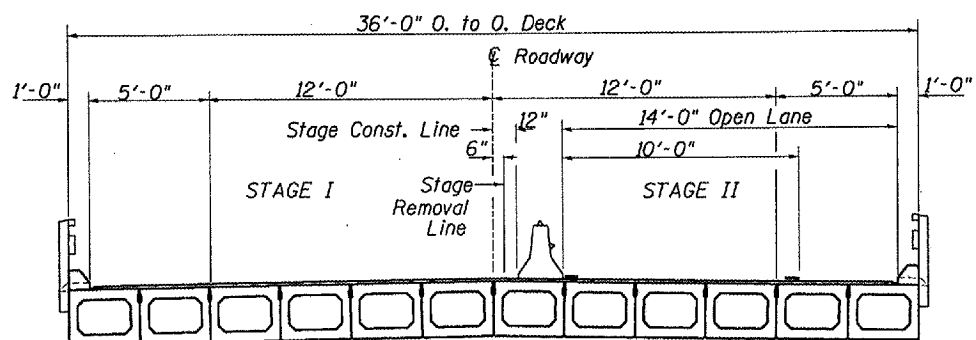
This Standard is used where, at any time any vehicle, equipment, workers, or their activities will encroach on one lane of a bridge. Traffic signals and a positive barrier are required.

When traffic signals are not in operation, flaggers shall be used and traffic control devices shall conform to Standard 701201 or 701206.

Temporary concrete barrier shall be according to Standard 704001.

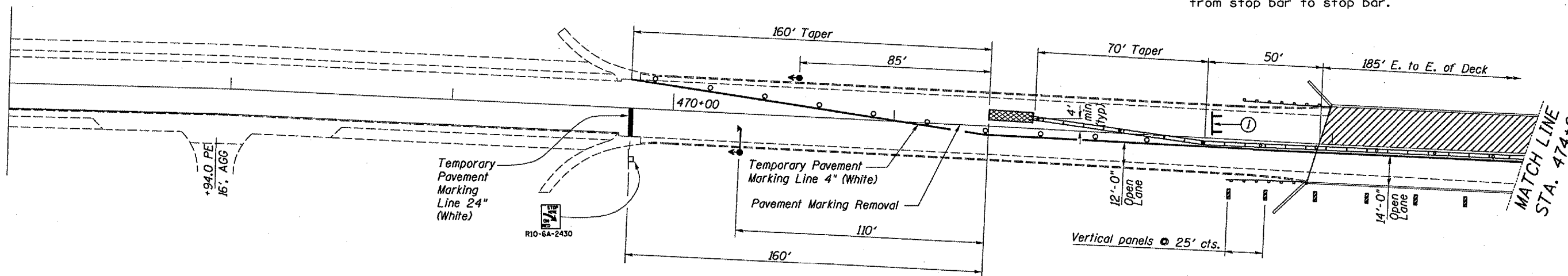
Bi-directional lights shall be used at night along the centerline where the work area is separated from the travel lane using barricades or drums. Monodirectional lights shall be used at night on all other barricades or drums.

Existing or temporary pavement marking shall be on both sides of the open lane from stop bar to stop bar.

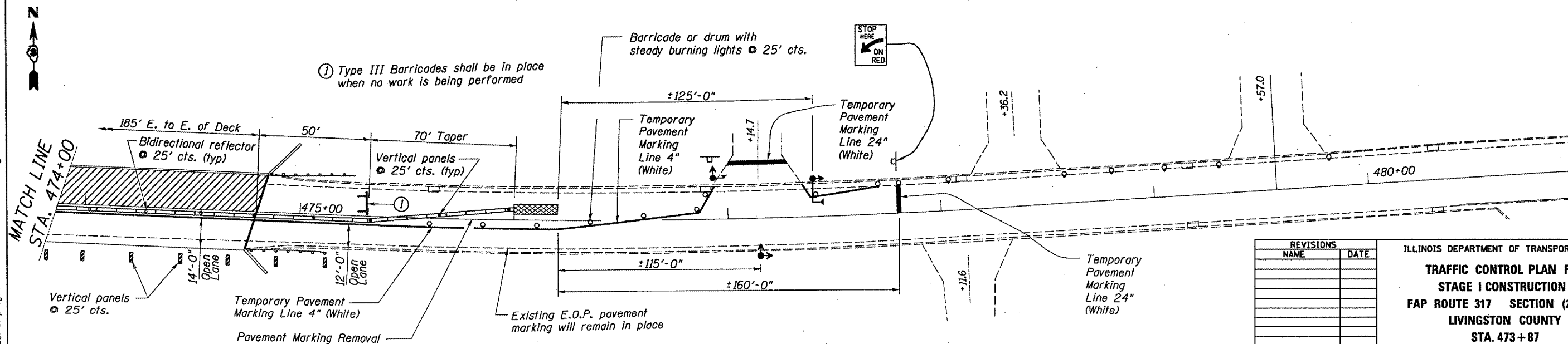


CROSS SECTION
LOOKING EAST

- SYMBOLS
- Work area
 - Sign
 - Type III barricade
 - Drum with steady burning light
 - Traffic signal
 - Double vertical panel
 - Type C Bidirectional reflector
 - Temporary concrete barrier
 - Impact attenuator
 - Steady burning lights and double vertical panels
 - Microwave Detector



① Type III Barricades shall be in place when no work is being performed



① Type III Barricades shall be in place when no work is being performed

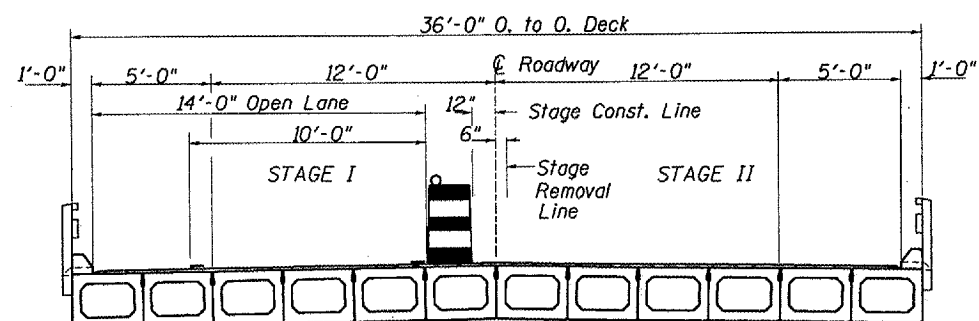
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL PLAN FOR
 STAGE I CONSTRUCTION**
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87

DATE 09/27/2005

DRAWN BY RW

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	20
STA. 472+94.25 TO STA. 474+79.75				



CROSS SECTION
LOOKING EAST

- SYMBOLS**
- Work area
 - Sign
 - Type III barricade
 - Drum with steady burning light
 - Traffic signal
 - Double vertical panel
 - Type C Bidirectional reflector

GENERAL NOTES

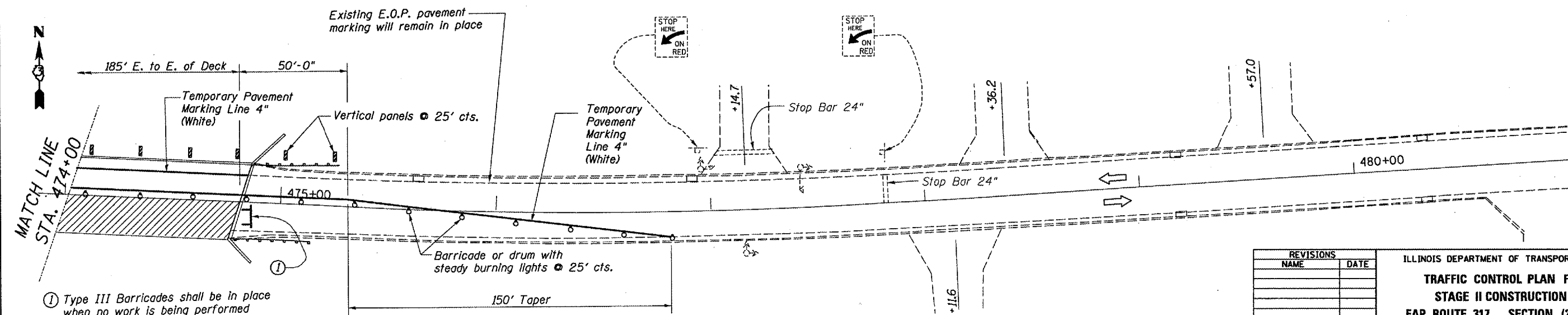
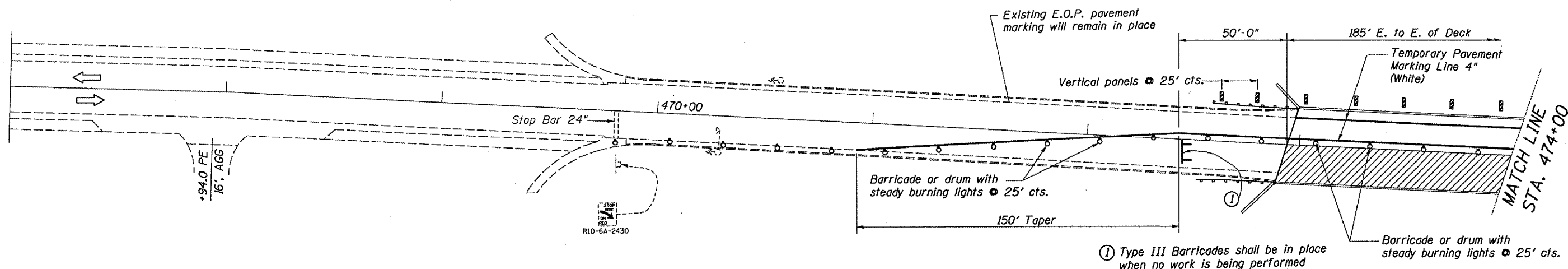
This Standard is used where, at any time any vehicle, equipment, workers, or their activities will encroach on one lane of a bridge. Traffic signals and a positive barrier are required.

When traffic signals are not in operation, flaggers shall be used and traffic control devices shall conform to Standard 701201 or 701206.

Temporary concrete barrier shall be according to Standard 704001.

Bi-directional lights shall be used at night along the centerline where the work area is separated from the travel lane using barricades or drums. Monodirectional lights shall be used at night on all other barricades or drums.

Existing or temporary pavement marking shall be on both sides of the open lane from stop bar to stop bar.



NOTE: WORK THIS SHEET WITH THE TRAFFIC CONTROL PLAN FOR STAGE I CONSTRUCTION

REVISIONS	
NAME	DATE

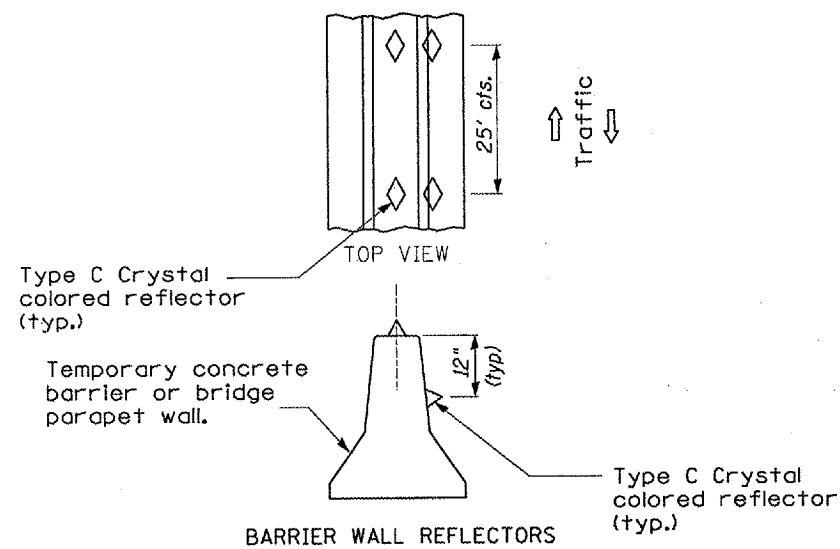
ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL PLAN FOR
 STAGE II CONSTRUCTION**
 FAP ROUTE 317 SECTION (25B-1)I
 LIVINGSTON COUNTY
 STA. 473+87

DATE 09/27/2005

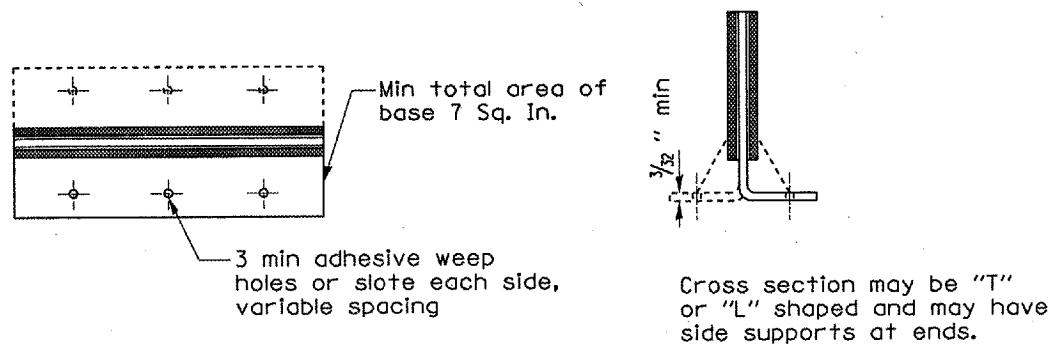
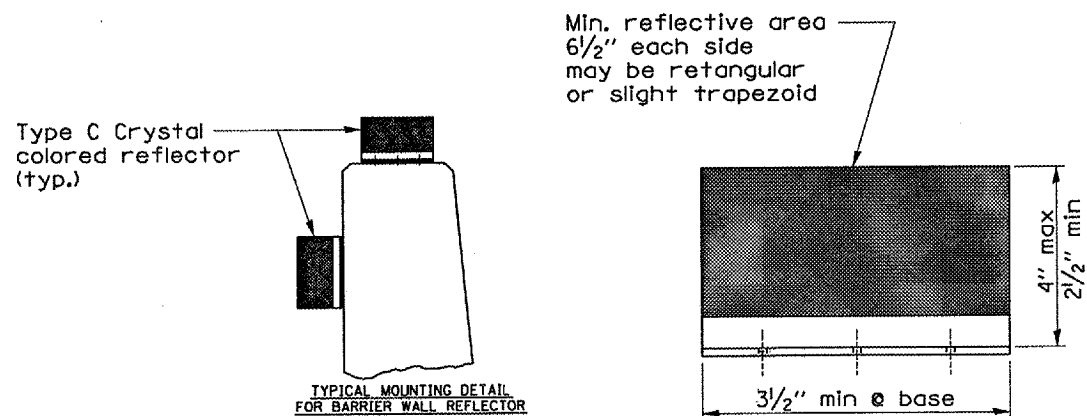
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DATE: 09/27/2005
 FILE: c:\projects\emara06\cm322\detaila.dgn

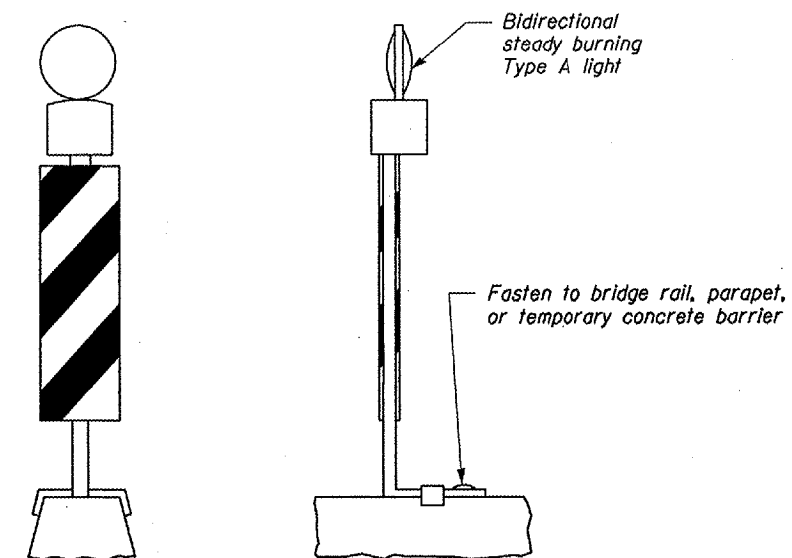
FAP R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(25B-1)I	LIVINGSTON	21	21
STA. 472+94.25		TO STA. 474+79.75		



DETAIL A



TYPE C REFLECTOR



(Suggested mounting detail)

VERTICAL PANELS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS

FAP ROUTE 317 SECTION (25B-1)I

LIVINGSTON COUNTY

STA. 473 + 87

DATE 09/27/2005

DRAWN BY RW

DATE: 09/27/2005
FILE: c:\projects\cman06\cm322\detail.dgn