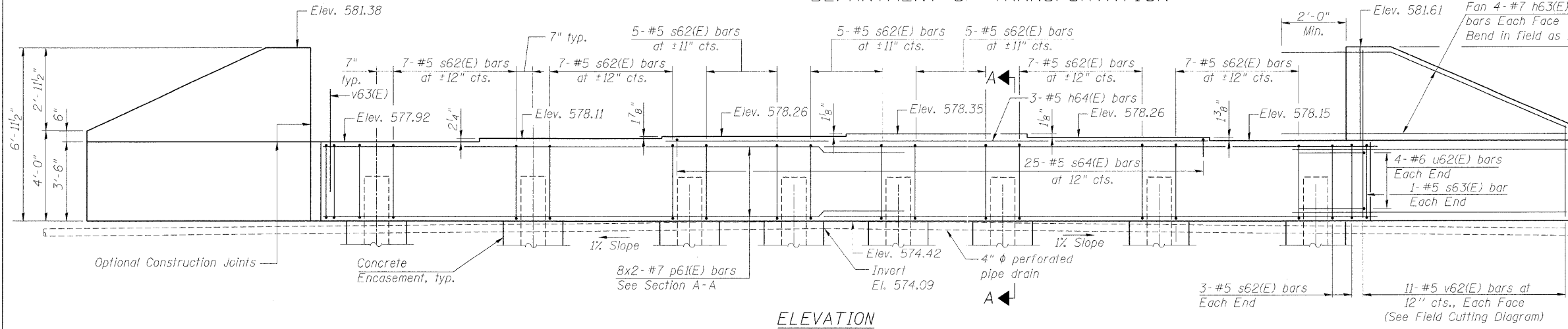
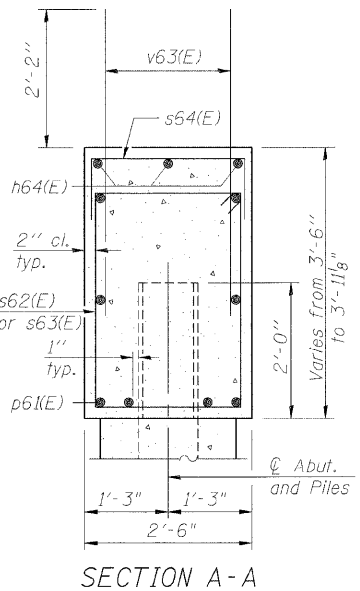


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 101	SHEET NO. 17 31 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT	Contract #64814 * I(HB,HB-1,VB,HB-2)R		

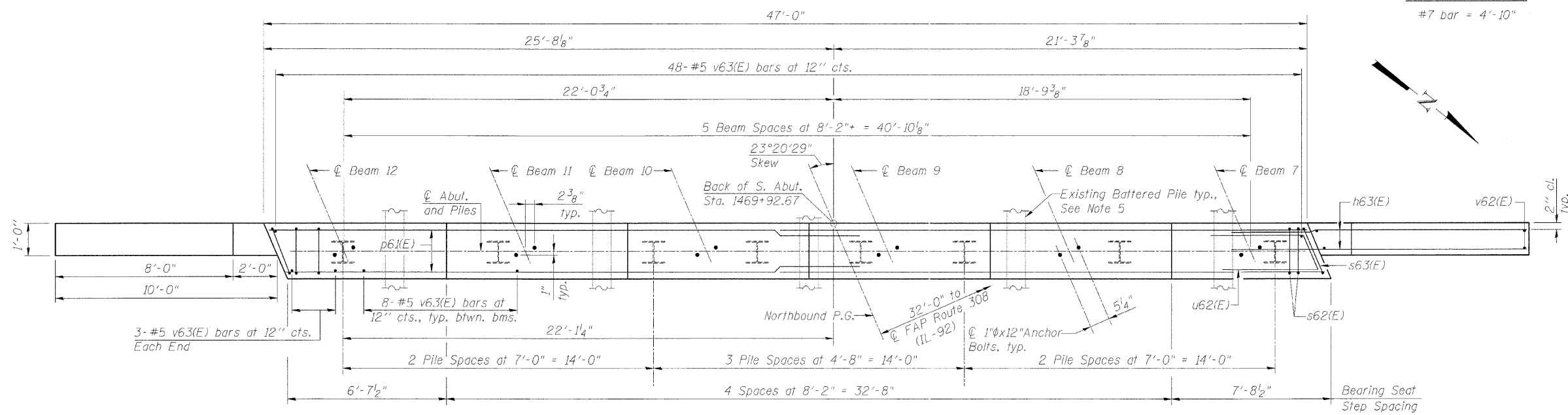


ELEVATION



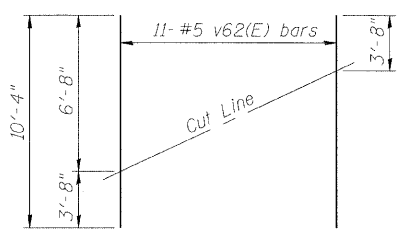
SECTION A-A

MIN. BAR LAP
#7 bar = 4'-10"

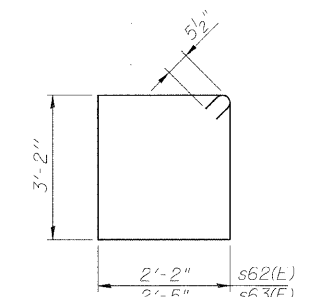


PLAN

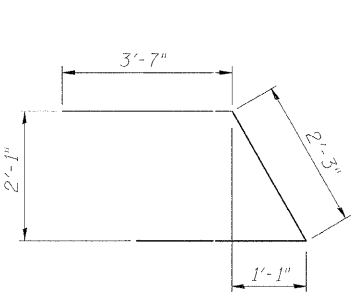
PILE DATA
Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 61 ft
No. Production Piles: 8
No. Test Piles: 0



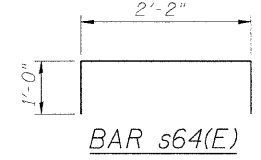
FIELD CUTTING DIAGRAM
Order v62(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s62(E) & s63(E)



BAR u62(E)



BAR s64(E)

NOTES

- For details of Bar Splicers, see Sheet No. 23
- For details of piles and Concrete Encasement, see Sheet No. 22
- For Section thru Abutment, see Sheet No. 16
- Bars indicated thus 8x2-#7 etc. indicates 8 lines of bars with 2 lengths per line.
- The Contractor shall verify the locations of existing piles before driving new piles.
- Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
- Pour steps monolithically with cap.
- For shim plates and bearing details, see Sheet No. 15
- For abutment diaphragm details, see Sheet No. 10

BILL OF MATERIAL

Bar No.	Size	Length	Shape
h63(E) 11	#7	11'-10"	—
h64(E) 3	#5	24'-2"	—
p61(E) 16	#7	25'-9"	—
s62(E) 49	#5	11'-7"	□
s63(E) 2	#5	12'-1"	□
s64(E) 25	#5	4'-2"	□
u62(E) 8	#6	9'-5"	△
v62(E) 22	#5	10'-4"	—
v63(E) 94	#5	4'-4"	—
Porous Granular Embankment (Special) Structure Excavation	Cu. Yd.	70	
Concrete Structures	Cu. Yd.	44	
Reinforcement Bars, Epoxy Coated	Pound	20.8	
Furnishing Steel Piles HP12x53	Foot	3,480	
Driving Piles	Foot	488	
Pile Shoes	Each	8	
Concrete Encasement	Cu. Yd.	488	
Geocomposite Wall	Sq. Yd.	8	
Pipe Underdrains for Structures 4"	Foot	42	

SOUTH ABUTMENT (NB)
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

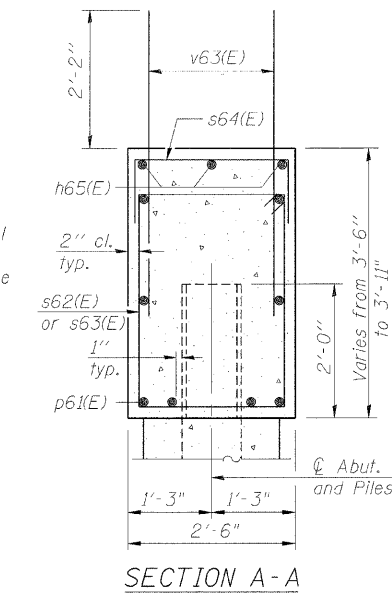
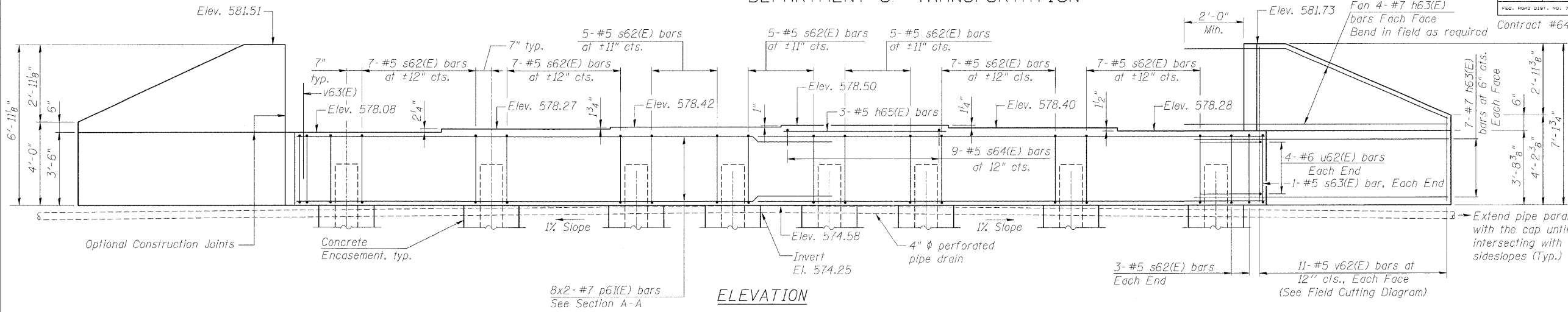
DESIGNED	AMK
CHECKED	JSD
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

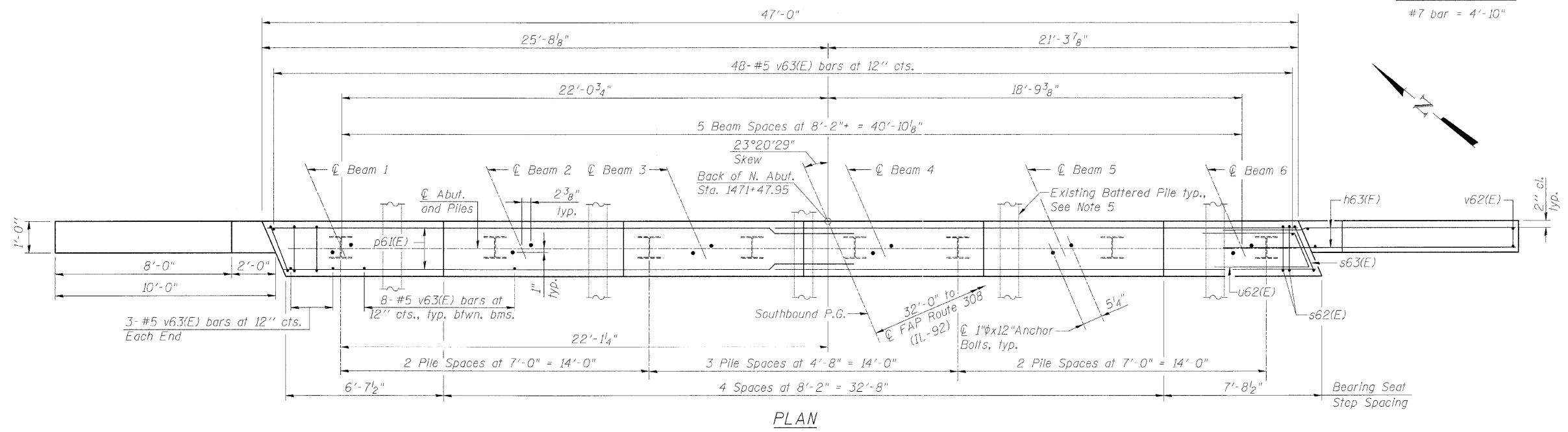
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 18
F.A.P. 308	*	ROCK ISLAND	210	102	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract #64814 * 1(HB,HB-1,VB,HB-2)R		



MIN. BAR LAP
#7 bar = 4'-10"

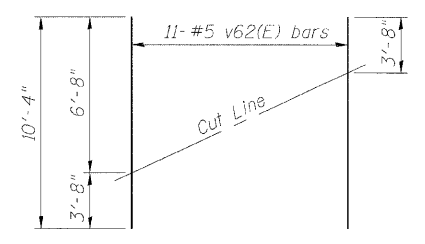


BILL OF MATERIAL

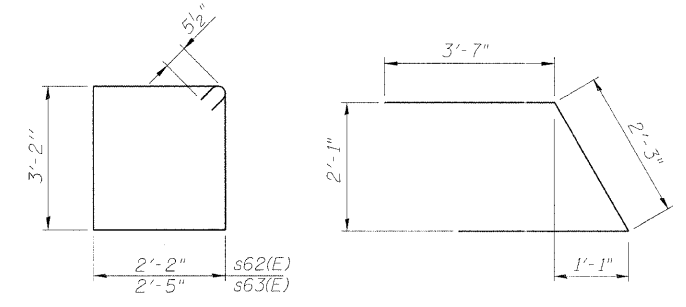
Bar	No.	Size	Length	Shape
h63(E)	44	#7	11'-10"	—
h65(E)	3	#5	7'-10"	—
p61(E)	16	#7	25'-9"	—
s62(E)	47	#5	11'-7"	□
s63(E)	2	#5	12'-1"	□
s64(E)	9	#5	4'-2"	□
u62(E)	8	#6	9'-5"	△
v62(E)	22	#5	10'-4"	—
v63(E)	94	#5	4'-4"	—
Porous Granular Embankment (Special)		Cu. Yd.	70	
Structure Excavation		Cu. Yd.	41	
Concrete Structures		Cu. Yd.	20.9	
Reinforcement Bars, Epoxy Coated		Pound	3,340	
Furnishing Steel Piles HP12x53		Foot	488	
Driving Piles		Foot	488	
Pile Shoes		Each	8	
Concrete Encasement		Cu. Yd.	2.8	
Geocomposite Wall Drain		Sq. Yd.	43	
Pipe Underdrains for Structures 1"		Foot	85	

PILE DATA

Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 61 ft
No. Production Piles: 8
No. Test Piles: 0



FIELD CUTTING DIAGRAM
Order v62(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s62(E) & s63(E) BAR u62(E)



BAR s64(E)

NOTES

- For details of Bar Splicers, see Sheet No. 23
- For details of piles and Concrete Encasement, see Sheet No. 22
- For Section thru Abutment, see sheet No. 16
- Bars indicated thus 8x2-#7 etc. indicates 8 lines of bars with 2 lengths per line.
- The Contractor shall verify the locations of existing piles before driving new pile.
- Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
- Pour steps monolithically with cap.
- For shim plates and bearing details, see Sheet No. 15
- For abutment diaphragm details, see Sheet No. 10

NORTH ABUTMENT (SB)
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

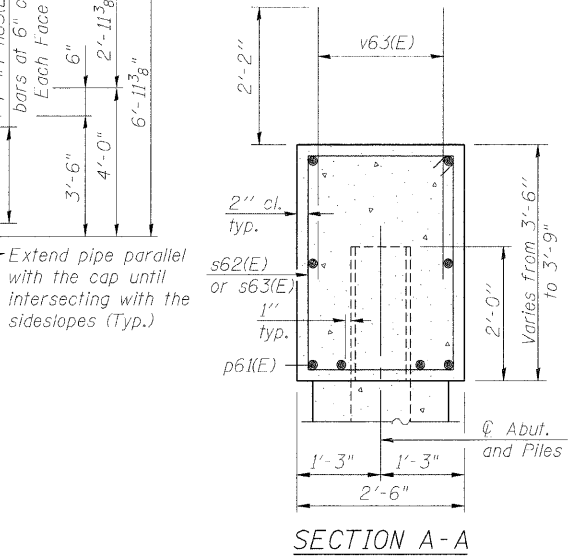
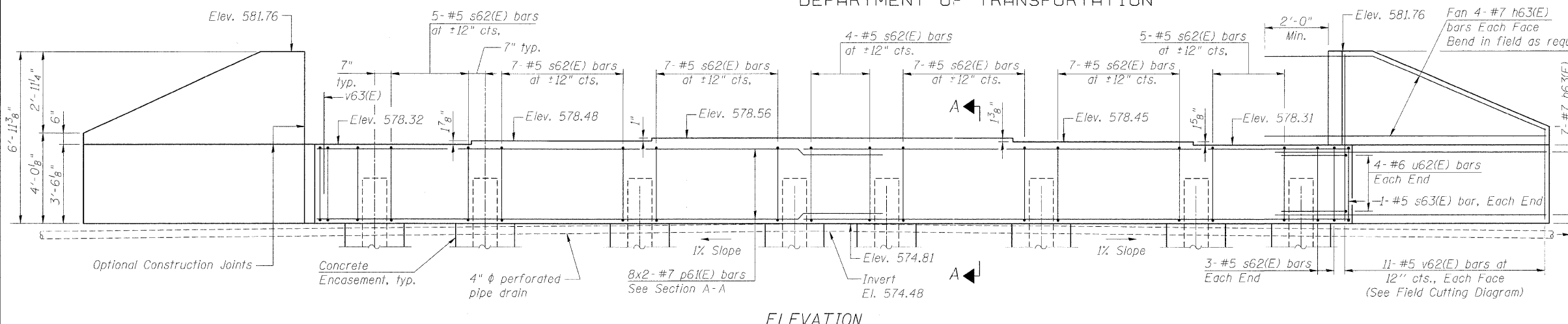
DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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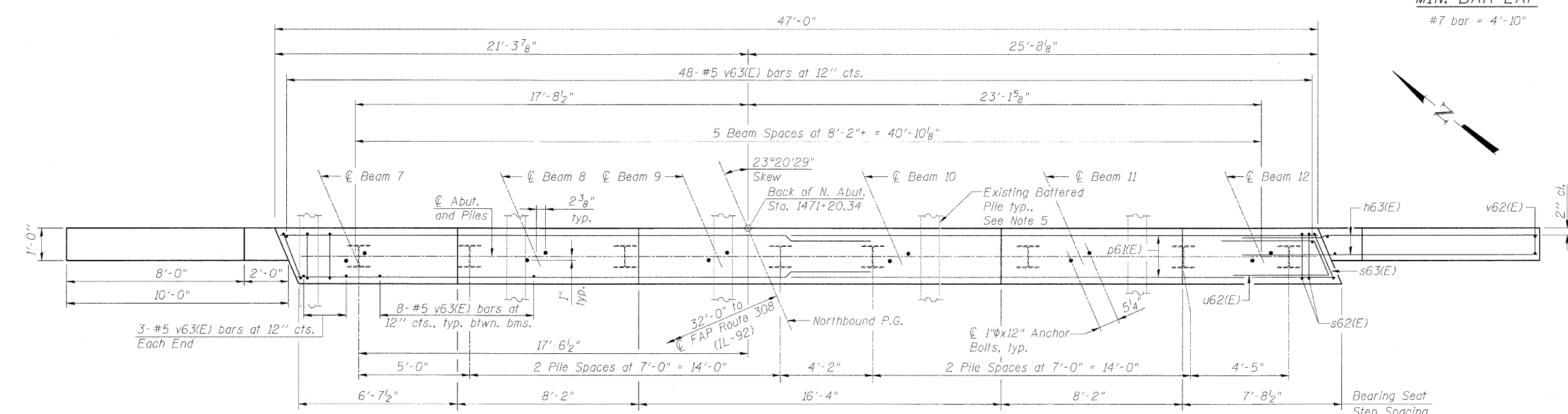
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.	SHEET NO. 19 31 SHEETS
F.A.P. 308	#	ROCK ISLAND	210	103	
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		Contract #64814 * (1HB, HB-1, VB, HB-2)R	



ELEVATION

MIN. BAR LAP
#7 bar = 4'-10"



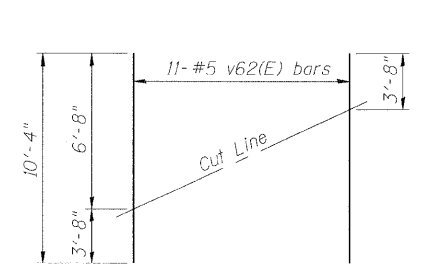
PLAN

Bar No.	Size	Length	Shape
h63(E)	#7	11'-10"	—
p61(E)	#7	25'-9"	—
s62(E)	#5	11'-7"	□
s63(E)	#5	12'-1"	□
u62(E)	#6	9'-5"	▱
v62(E)	#5	10'-4"	—
v63(E)	#5	4'-4"	—

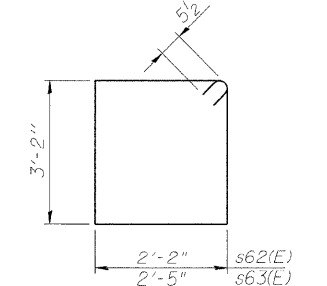
Material	Unit	Quantity
Porous Granular Embankment (Special)	Cu. Yd.	68
Structure Excavation	Cu. Yd.	38
Concrete Structures	Cu. Yd.	20.5
Reinforcement Bars, Epoxy Coated	Pound	3,260
Furnishing Steel Piles HP12x53	Foot	488
Driving Piles	Foot	488
Pile Shoes	Each	8
Concrete Encasement	Cu. Yd.	2.8
Geocomposite Wall Drain	Sq. Yd.	43
Pipe Underdrains for Structures 4"	Foot	85

BILL OF MATERIAL

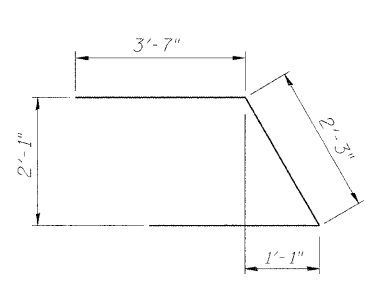
PILE DATA
Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 61 ft
No. Production Piles: 8
No. Test Piles: 0



FIELD CUTTING DIAGRAM
Order v62(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s62(E) & s63(E)



BAR u62(E)

NOTES

- For details of Bar Splicers, see Sheet No. 23
- For details of piles and Concrete Encasement, see Sheet No. 22
- For Section thru Abutment, see Sheet No. 16
- Bars indicated thus 8x2-#7 etc. indicates 8 lines of bars with 2 lengths per line.
- The Contractor shall verify the locations of existing piles before driving new piles.
- Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
- Pour steps monolithically with cap.
- For shim plates and bearing details, see Sheet No. 15
- For abutment diaphragm details, see Sheet No. 10

NORTH ABUTMENT (NB)
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

DESIGNED	AMK
CHECKED	JSD
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see Sheet No. 22
4. For pier enhancement details see Sheet No. 24
5. Concrete Sealer shall be applied to all exposed surfaces of piers.

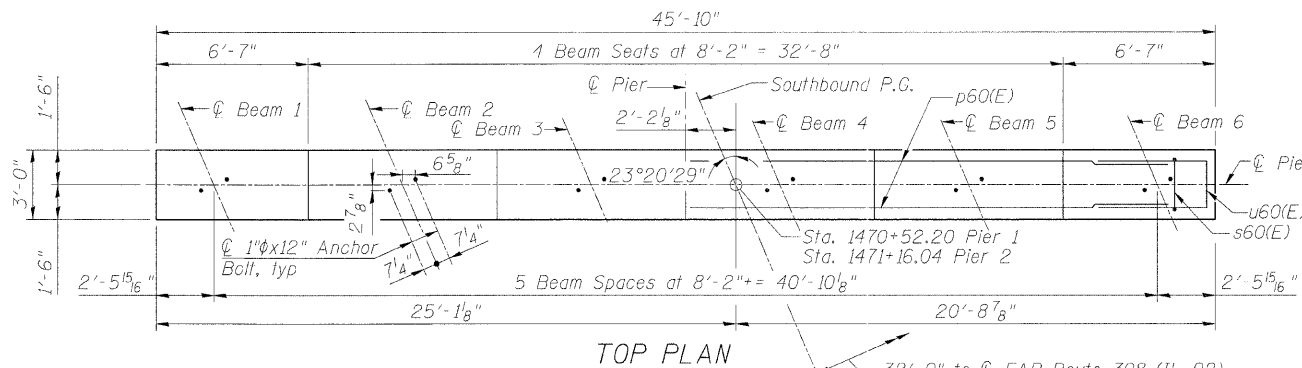
PILE DATA

Type: HP14X89 with Pile Shoes
 Nominal Required Bearing: 705K
 Allowable Resistance Available: 235K
 Est. Length: 63 ft (Pier 1) and 65 ft (Pier 2)
 No. Production Piles: 9 (Pier 1) and 9 (Pier 2)
 No. Test Piles: 0

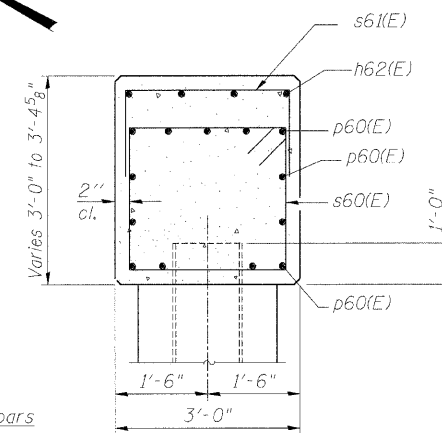
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	PROJECT	SHEET NO.	SHEET NO. 20
F.A.P. 308	*	ROCK ISLAND	210	104	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

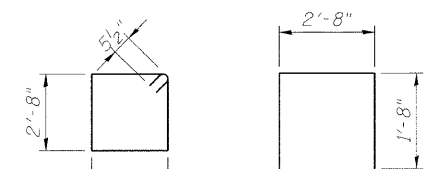
Contract #64814 * (KHB, HB-1, VB, HB-2)R



TOP PLAN



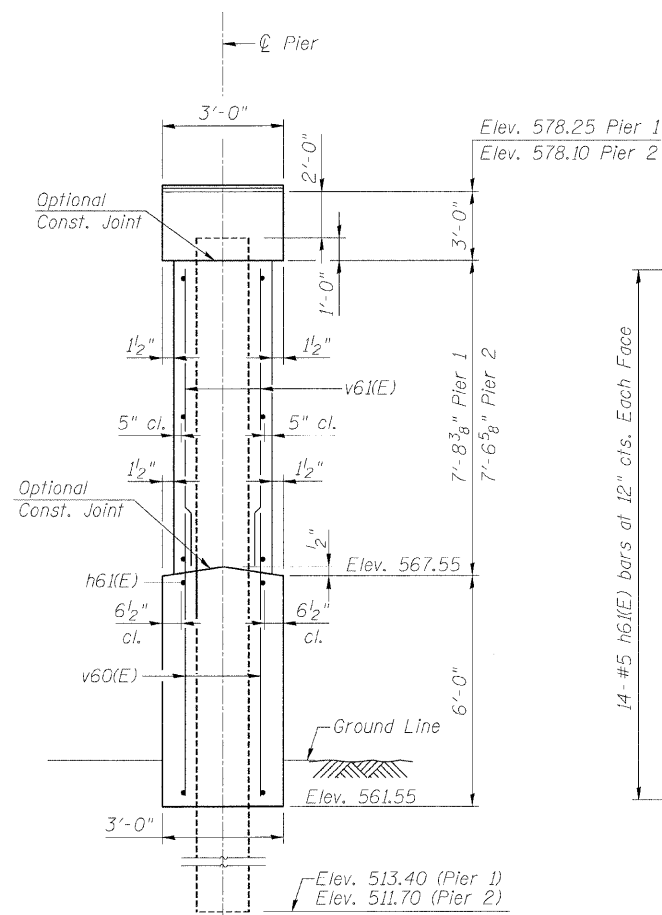
SECTION A-A



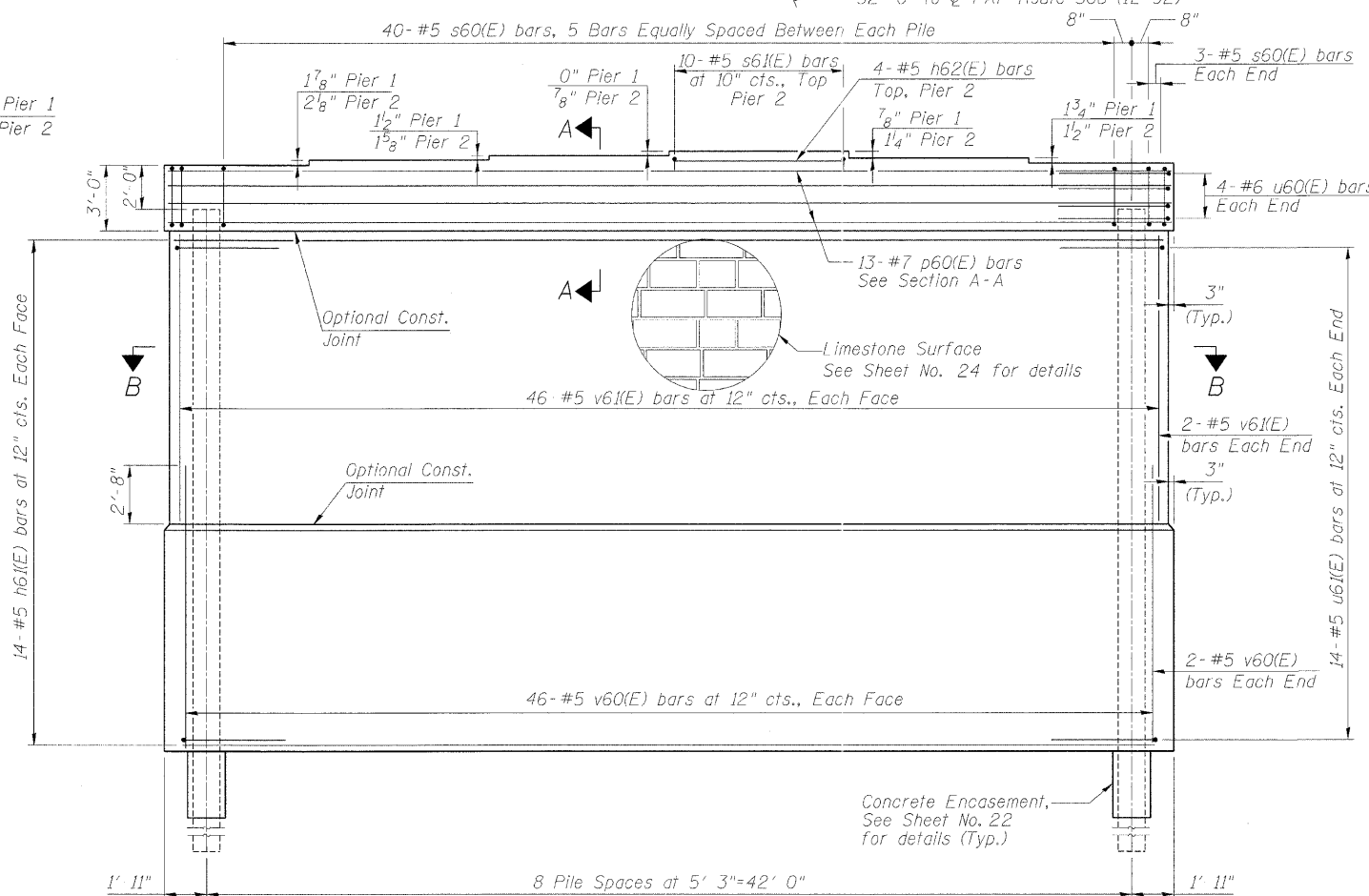
BAR s60(E)

BAR s61(E)

BARS u60(E) and u61(E)

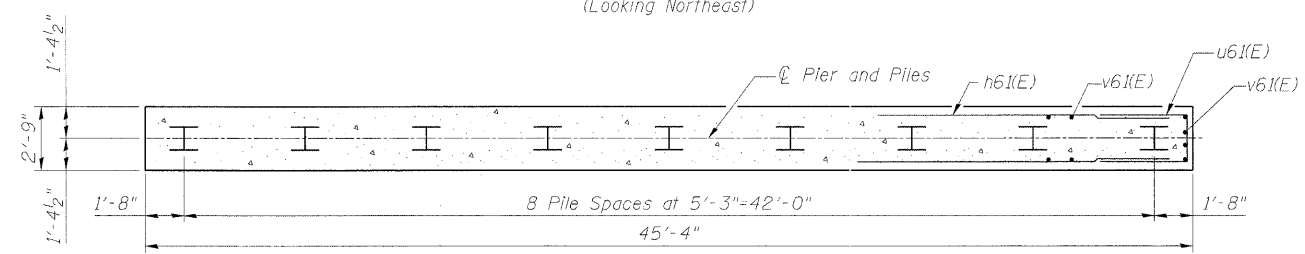


END VIEW



ELEVATION

(Looking Northeast)



SECTION B-B

BILL OF MATERIAL FOR PIER 1

Bar	No.	Size	Length	Shape
h61(E)	28	#5	44'-6"	—
h62(E)	4	#5	7'-10"	—
p60(E)	13	#7	45'-6"	—
s60(E)	46	#5	11'-7"	□
u60(E)	8	#6	7'-9"	—
u61(E)	28	#5	6'-7"	—
v60(E)	96	#5	8'-6"	—
v61(E)	96	#5	7'-3"	—
Structure Excavation			Cu. Yd.	20
Concrete Structures			Cu. Yd.	82.3
Rubbed Finish			Sq. Ft.	847
Form Liner Limestone Surface			Sq. Ft.	741
Reinforcement Bars, Epoxy Coated			Pound	4,930
Furnishing Steel Piles HP14x89			Foot	567
Driving Piles			Foot	567
Pile Shoes			Each	9
Concrete Encasement			Cu. Yd.	4.9
Concrete Sealer			Sq. Ft.	1,630

BILL OF MATERIAL FOR PIER 2

Bar	No.	Size	Length	Shape
h61(E)	28	#5	44'-6"	—
h62(E)	4	#5	7'-10"	—
p60(E)	13	#7	45'-6"	—
s60(E)	46	#5	11'-7"	□
s61(E)	10	#5	6'-0"	□
u60(E)	8	#6	7'-9"	—
u61(E)	28	#5	6'-7"	—
v60(E)	96	#5	8'-6"	—
v61(E)	96	#5	7'-3"	—
Structure Excavation			Cu. Yd.	20
Concrete Structures			Cu. Yd.	81.9
Rubbed Finish			Sq. Ft.	852
Form Liner Limestone Surface			Sq. Ft.	726
Reinforcement Bars, Epoxy Coated			Pound	5,020
Furnishing Steel Piles HP14x89			Foot	585
Driving Piles			Foot	585
Pile Shoes			Each	9
Concrete Encasement			Cu. Yd.	4.9
Concrete Sealer			Sq. Ft.	1,622

A & B DIMENSIONS

Bar	A	B
u60(E)	2'-7"	2'-7"
u61(E)	1'-11"	2'-4"

BEARING SEAT ELEVATIONS

BEAM	PIER 1	PIER 2
1	578.25	578.10
2	578.41	578.28
3	578.53	578.42
4	578.53	578.49
5	578.46	578.39
6	578.31	578.26

PIERS 1 AND 2 (SB)
 IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
 OVER 31ST AVENUE
 FAP ROUTE 308 SEC. 1(KHB-2)R
 ROCK ISLAND COUNTY
 STATION 1470+70.31
 STRUCTURE NO. 081-0172 (SB)

DESIGNED J.D.G.	<p>DB STERLIN CONSULTANTS, INC. 208 S. LASALLE ST. SUITE 1130 CHICAGO, ILLINOIS 60604 TEL. 312/857-1006 FAX. 312/857-1056</p>
CHECKED W.P.K.	
DRAWN D.C.S.	
CHECKED J.D.G.	

Contract #64814 * (HB,HB-1,VB,HB-2)R

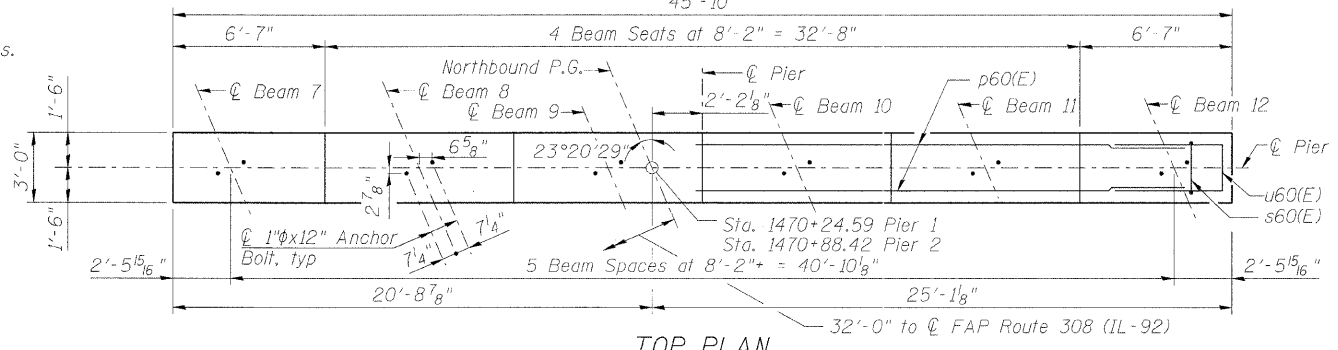
NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet No. 22
4. For pier enhancement details see sheet No. 24
5. Concrete Sealer shall be applied to all exposed surfaces of piers.

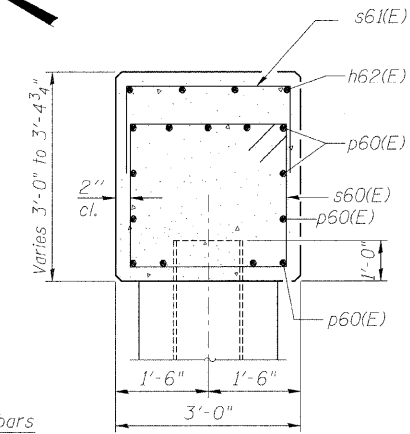
PILE DATA

Type: HP14X89 with Pile Shoes
 Nominal Required Bearing: 705K
 Allowable Resistance Available: 235K
 Est. Length: 64 ft (Pier 1) and 64 ft (Pier 2)
 No. Production Piles: 9 (Pier 1) and 9 (Pier 2)
 No. Test Piles: 0

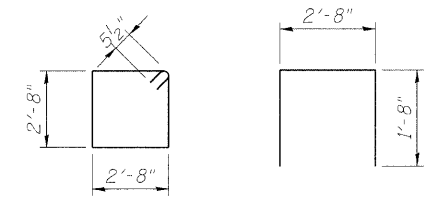
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION



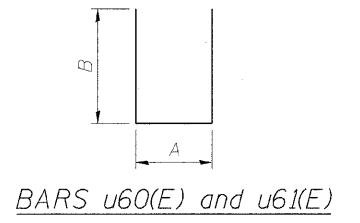
TOP PLAN



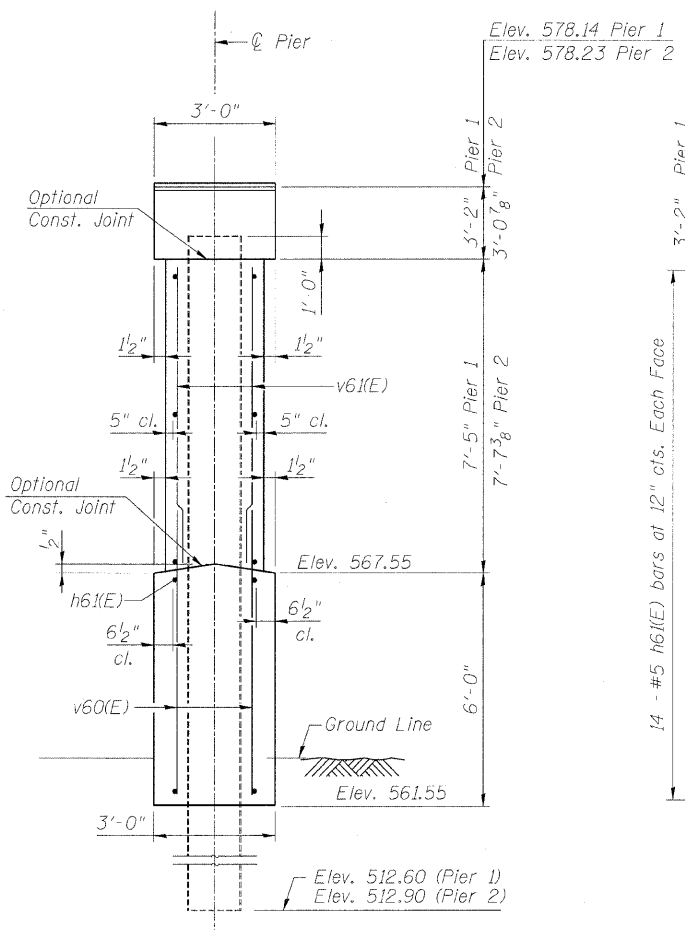
SECTION A-A



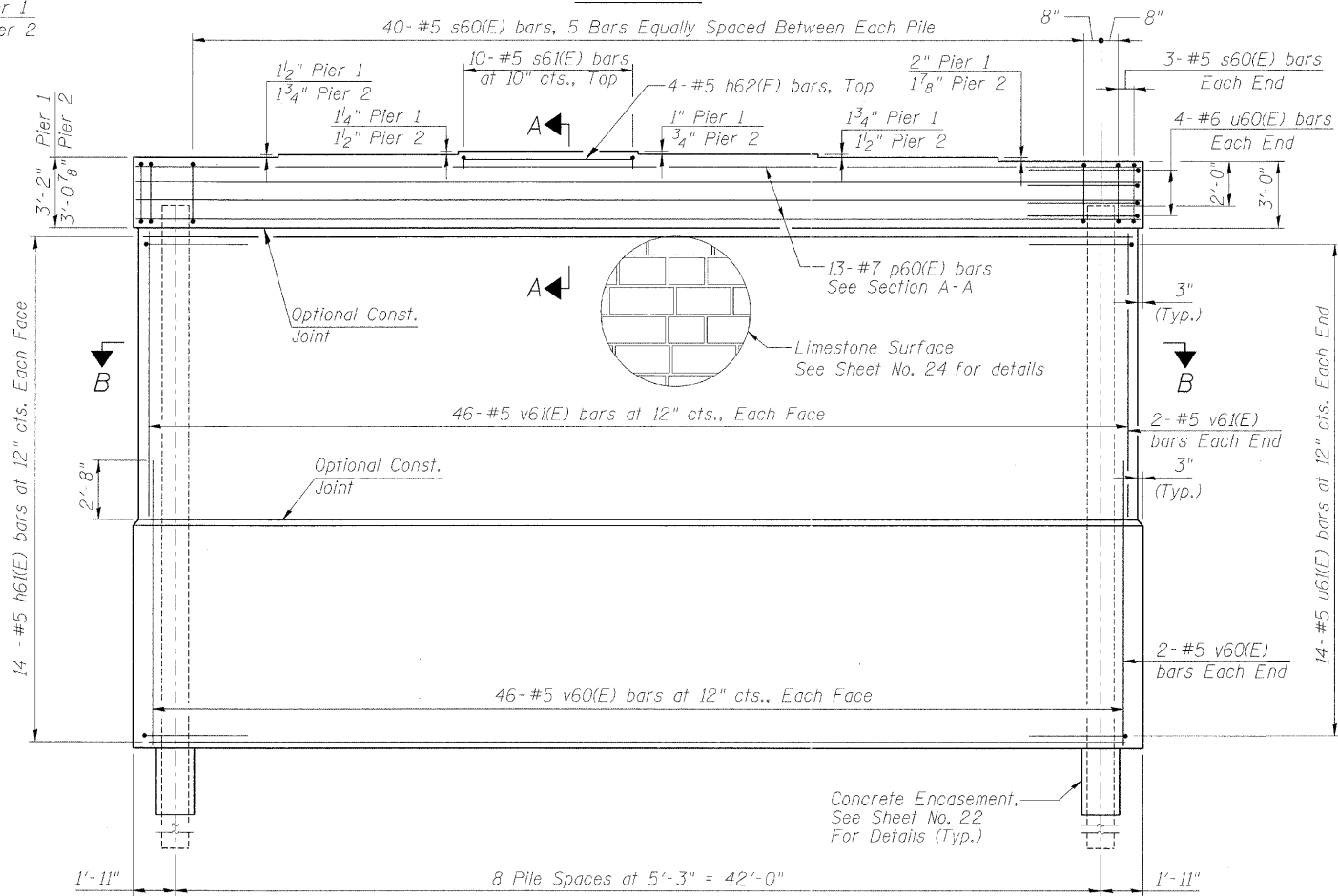
BAR s60(E) BAR s61(E)



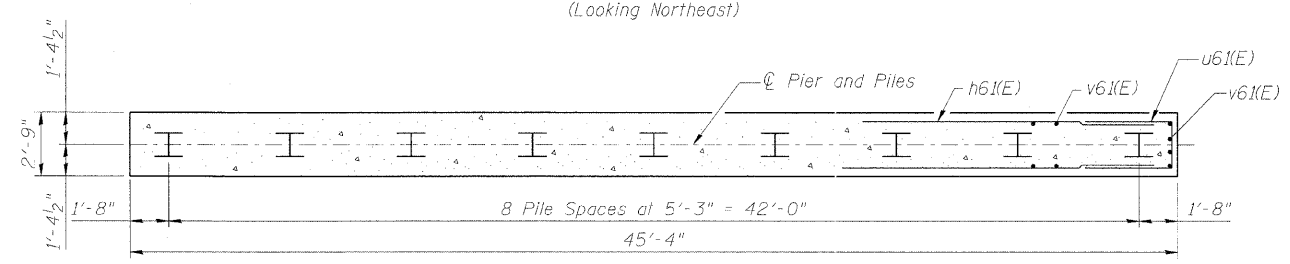
BARS u60(E) and u61(E)



END VIEW



ELEVATION
 (Looking Northeast)



SECTION B-B

BILL OF MATERIAL FOR PIER 1

Bar	No.	Size	Length	Shape
h61(E)	28	#5	44'-6"	—
h62(E)	4	#5	7'-10"	—
p60(E)	13	#7	45'-6"	—
s60(E)	46	#5	11'-7"	□
s61(E)	10	#5	6'-0"	U
u60(E)	8	#6	7'-9"	—
u61(E)	28	#5	6'-7"	—
v60(E)	96	#5	8'-6"	—
v61(E)	96	#5	7'-3"	—
Structure Excavation	Cu. Yd.	20		
Concrete Structures	Cu. Yd.	81.4		
Rubbed Finish	Sq. Ft.	853		
Form Liner Limestone Surface	Sq. Ft.	714		
Reinforcement Bars, Epoxy Coated	Pound	5,020		
Furnishing Steel Piles HP14x89	Foot	576		
Driving Piles	Foot	576		
Pile Shoes	Each	9		
Concrete Encasement	Cu. Yd.	4.9		
Concrete Sealer	Sq. Ft.	1,610		

BILL OF MATERIAL FOR PIER 2

Bar	No.	Size	Length	Shape
h61(E)	28	#5	44'-6"	—
h62(E)	4	#5	7'-10"	—
p60(E)	13	#7	45'-6"	—
s60(E)	46	#5	11'-7"	□
s61(E)	10	#5	6'-0"	U
u60(E)	8	#6	7'-9"	—
u61(E)	28	#5	6'-7"	—
v60(E)	96	#5	8'-6"	—
v61(E)	96	#5	7'-3"	—
Structure Excavation	Cu. Yd.	20		
Concrete Structures	Cu. Yd.	81.9		
Rubbed Finish	Sq. Ft.	848		
Form Liner Limestone Surface	Sq. Ft.	732		
Reinforcement Bars, Epoxy Coated	Pound	5,020		
Furnishing Steel Piles HP14x89	Foot	576		
Driving Piles	Foot	576		
Pile Shoes	Each	9		
Concrete Encasement	Cu. Yd.	4.9		
Concrete Sealer	Sq. Ft.	1,628		

A & B DIMENSIONS

Bar	A	B
u60(E)	2'-7"	2'-7"
u61(E)	1'-11"	2'-4"

BEARING SEAT ELEVATIONS

BFAM	PIER 1	PIER 2
7	578.14	578.23
8	578.27	578.38
9	578.37	578.50
10	578.29	578.44
11	578.14	578.32
12	577.97	578.16

PIERS 1 AND 2 (NB)
 IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
 OVER 31ST AVENUE
 FAP ROUTE 308 SEC. 1(HB-2)R
 ROCK ISLAND COUNTY
 STATION 1470+70.31
 STRUCTURE NO. 081-0173 (NB)

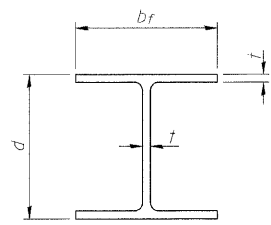
DESIGNED JDG	<p>DB STERLIN CONSULTANTS, INC. 208 S. LASALLE ST. SUITE 1130 CHICAGO, ILLINOIS 60604 TEL. 312/857-1006 FAX. 312/857-1056</p>
CHECKED WPK	
DRAWN DCS	
CHECKED JDG	

SIZES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

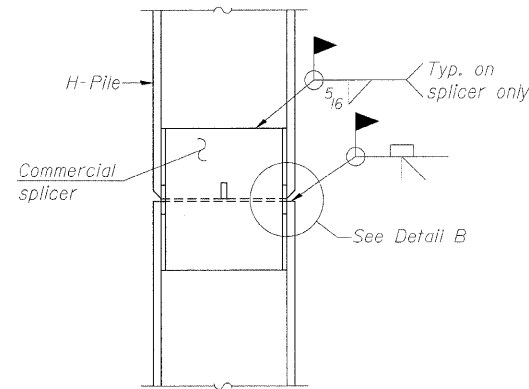
ROUTE NO.	SECTION	COUNTY	PROJECT NO.	SHEET NO.	SHEET NO. 22 31 SHEETS
F.A.P. 308	*	ROCK ISLAND	210	106	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64814 * I(HB,HB 1VB,HB 2)R

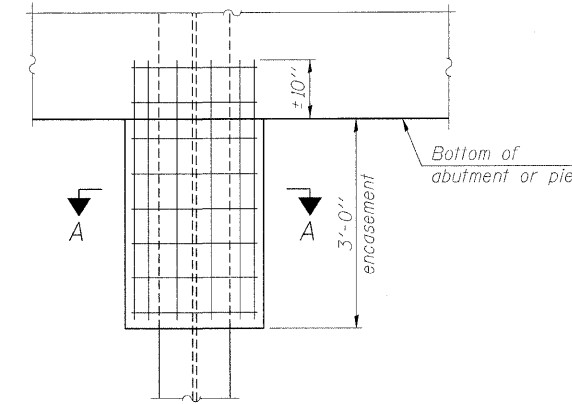


STEEL PILE TABLE

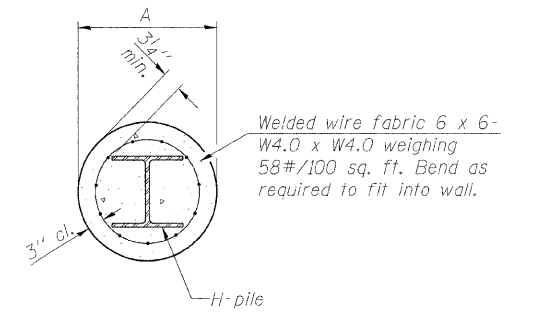
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

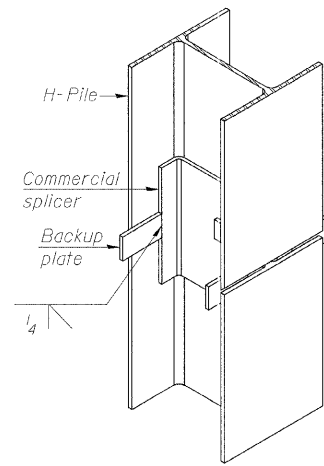


ELEVATION

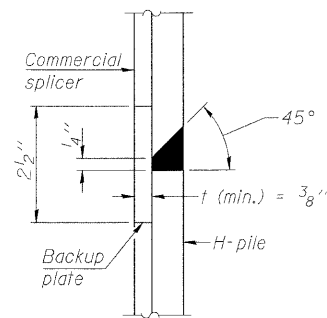


SECTION A-A

PILE ENCASEMENT

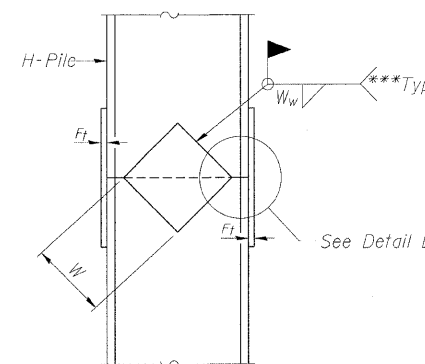


ISOMETRIC VIEW

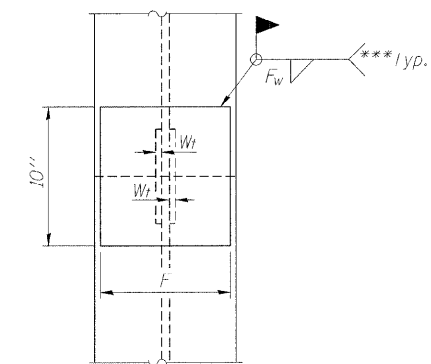


DETAIL "B"

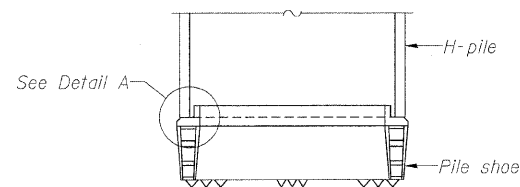
WELDED COMMERCIAL SPLICE



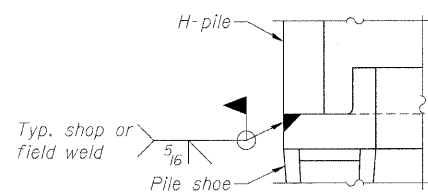
ELEVATION



END VIEW

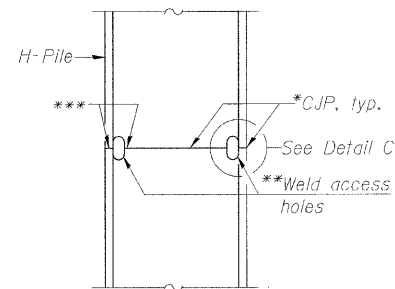


ELEVATION

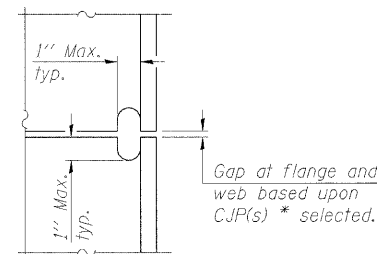


DETAIL A

H-PILE SHOE ATTACHMENT

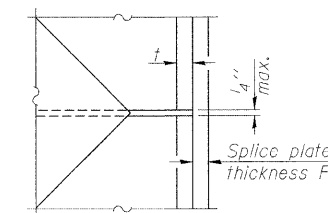


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

***Interrupt welds 1/4" from end of each pile.

DESIGNED JDG	DB STERLIN CONSULTANTS, INC. 208 S. LASALLE ST. SUITE 1130 CHICAGO, ILLINOIS 60604 TEL. 312/857-1006 FAX. 312/857-1056
CHECKED WPK	
DRAWN DCS	
CHECKED JDG	

F-HP 9-3-07

STEEL PILE DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31ST AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 23
F.A.P. 308	*	ROCK ISLAND	210	107	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB,HB-1,VB,HB-2)R

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 = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

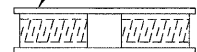
The diameter of this part is equal or larger than the diameter of bar spliced.
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

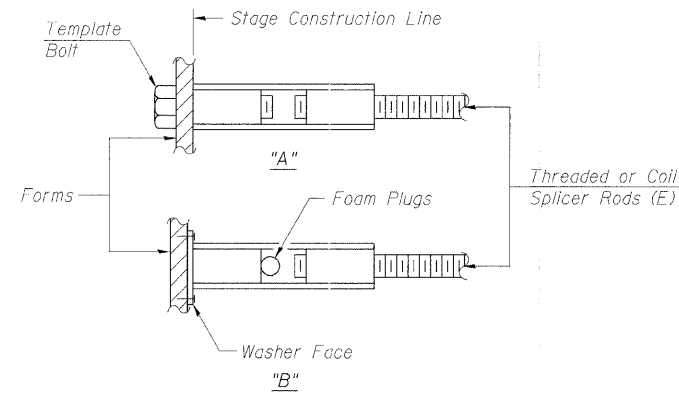
Wire Connector



WELDED SECTIONS

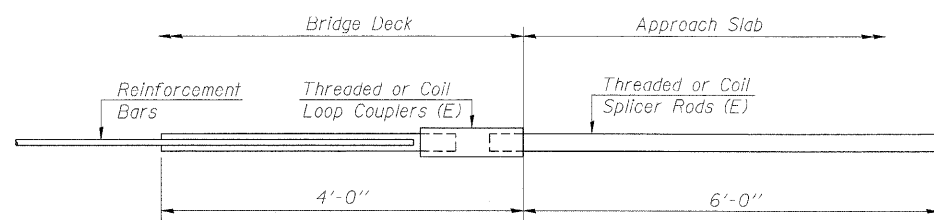
BAR SPLICER ASSEMBLY ALTERNATIVES

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



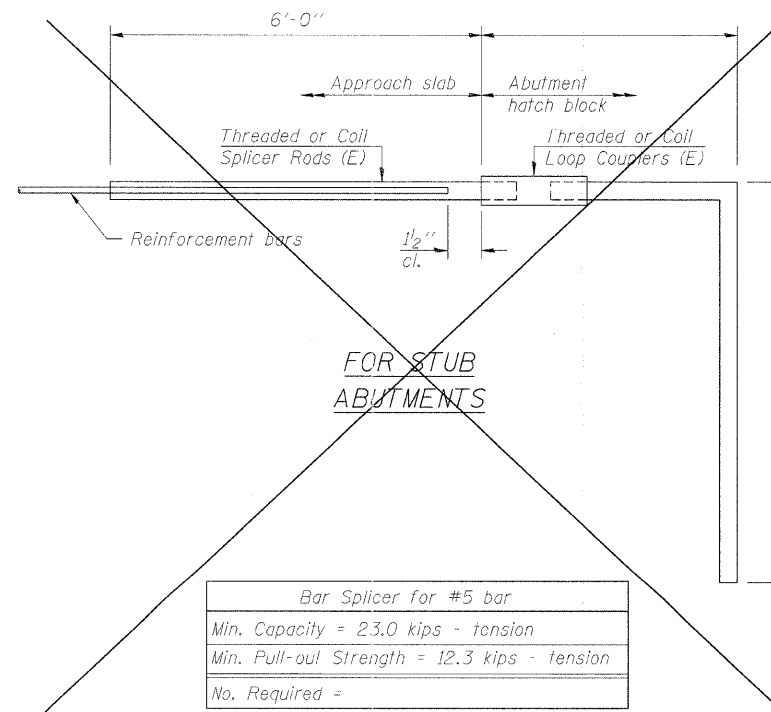
INSTALLATION AND SETTING METHODS

"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.



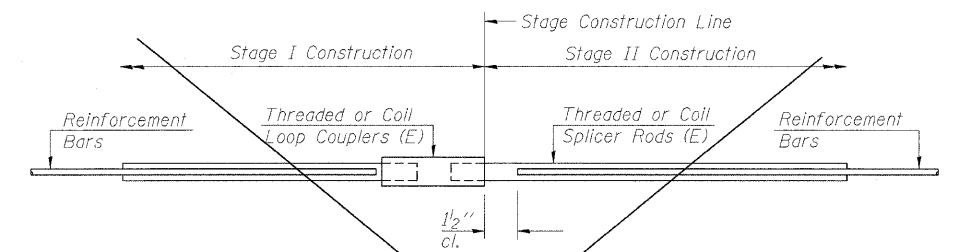
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 160



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	AMK

BSD-1

11-1-06

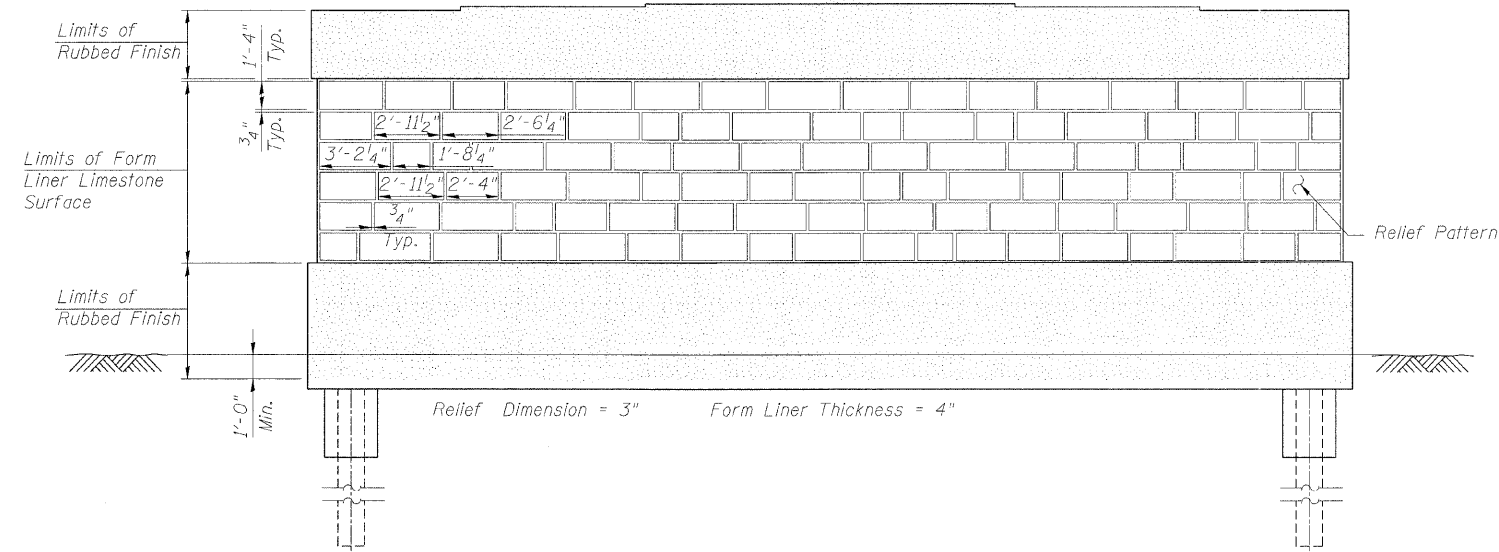
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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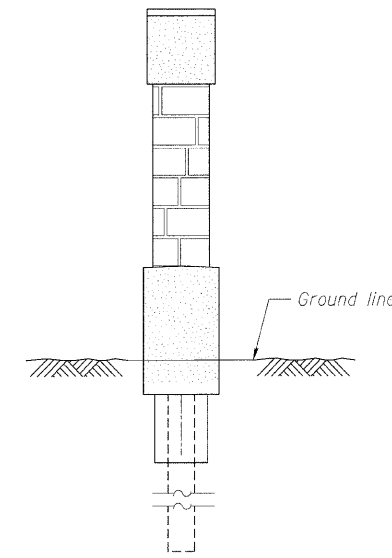
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	108	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

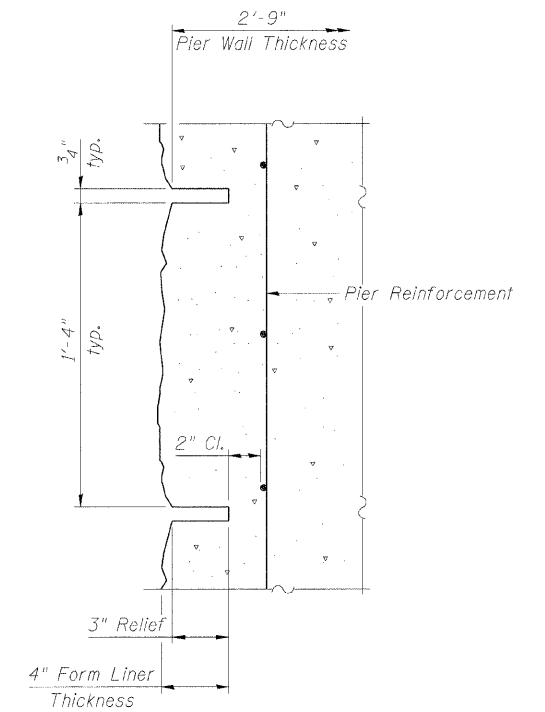
Contract #64814 * 1(HB,HB-1,VB,HB-2)R



PIER ELEVATION
Rustication Finish



END VIEW



RELIEF DETAIL

NOTES

1. Relief pattern shown is for reference only. Final relief pattern to be developed by the Contractor and submitted to the Engineer for approval.
2. For additional information on Form Liner Limestone Surface, see Special Provision.
3. Rubbed Finish shall be in accordance with Article 503.06 of the Standard Specifications and will be paid for per square foot of finished surface.
4. For pier dimensions, reinforcement details and quantities, see Sheet Nos. 20 and 21.

PIER ENHANCEMENTS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st. AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

DESIGNED	BJN
CHECKED	AMK
DRAWN	BJN
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

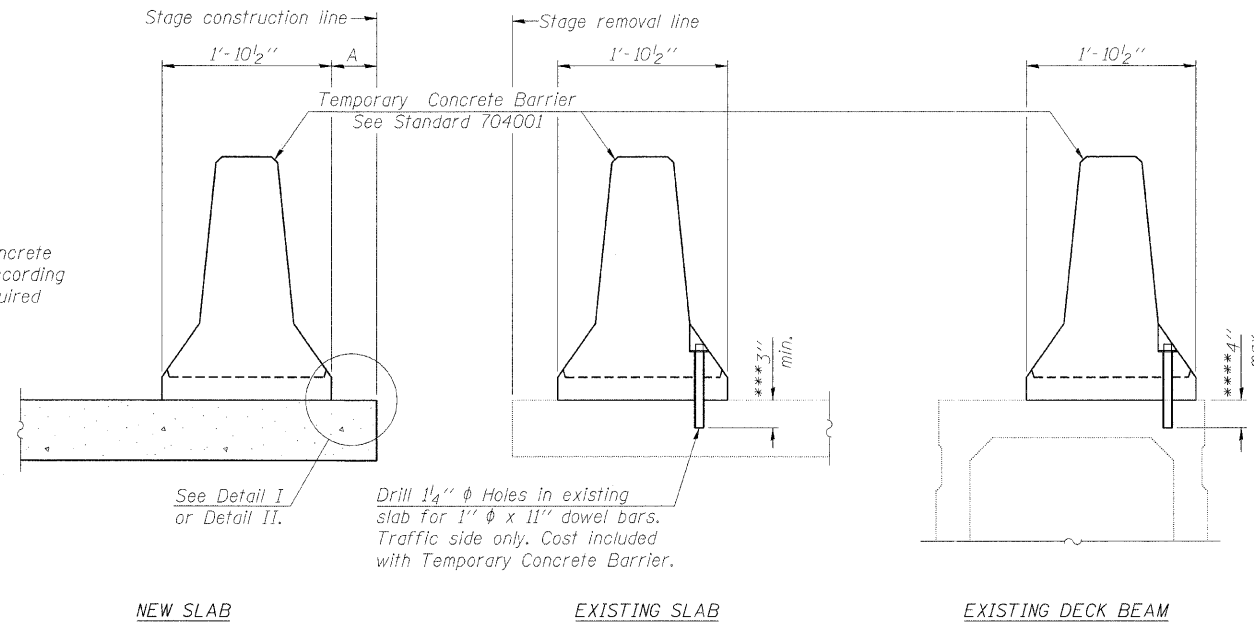
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	100% SHEETS	SHEET	SHEET NO. 25
F.A.P. 308	*	ROCK ISLAND	210	109	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB,HB-1,VB,HB-2)R

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".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

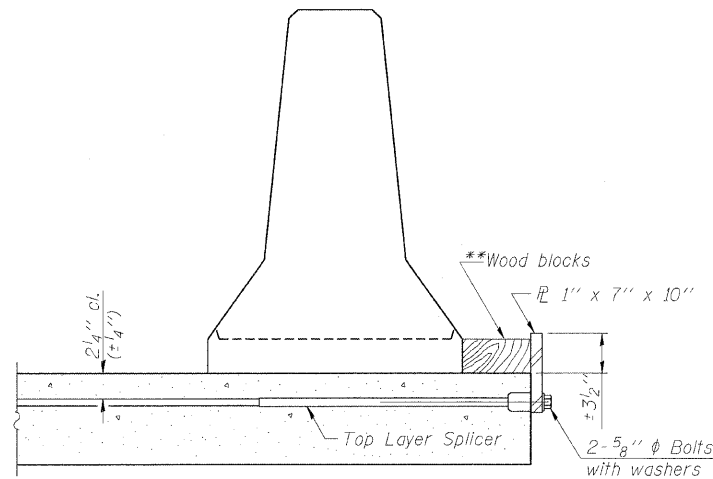
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

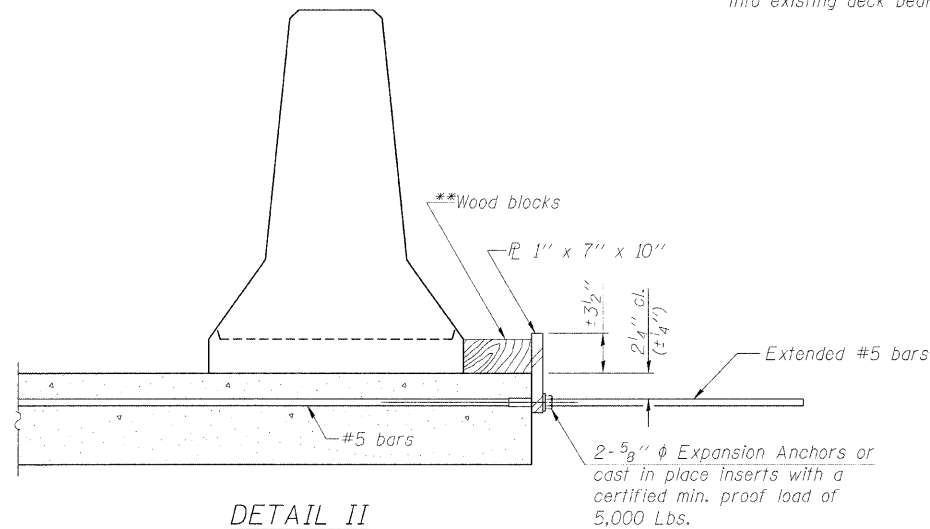
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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

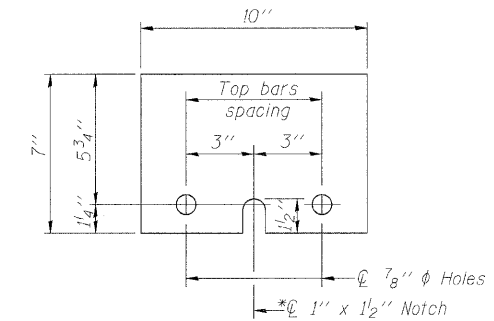


DETAIL I



DETAIL II

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



STEEL RETAINER PL 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st. AVENUE
FAP ROUTE 308 SEC. (1HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

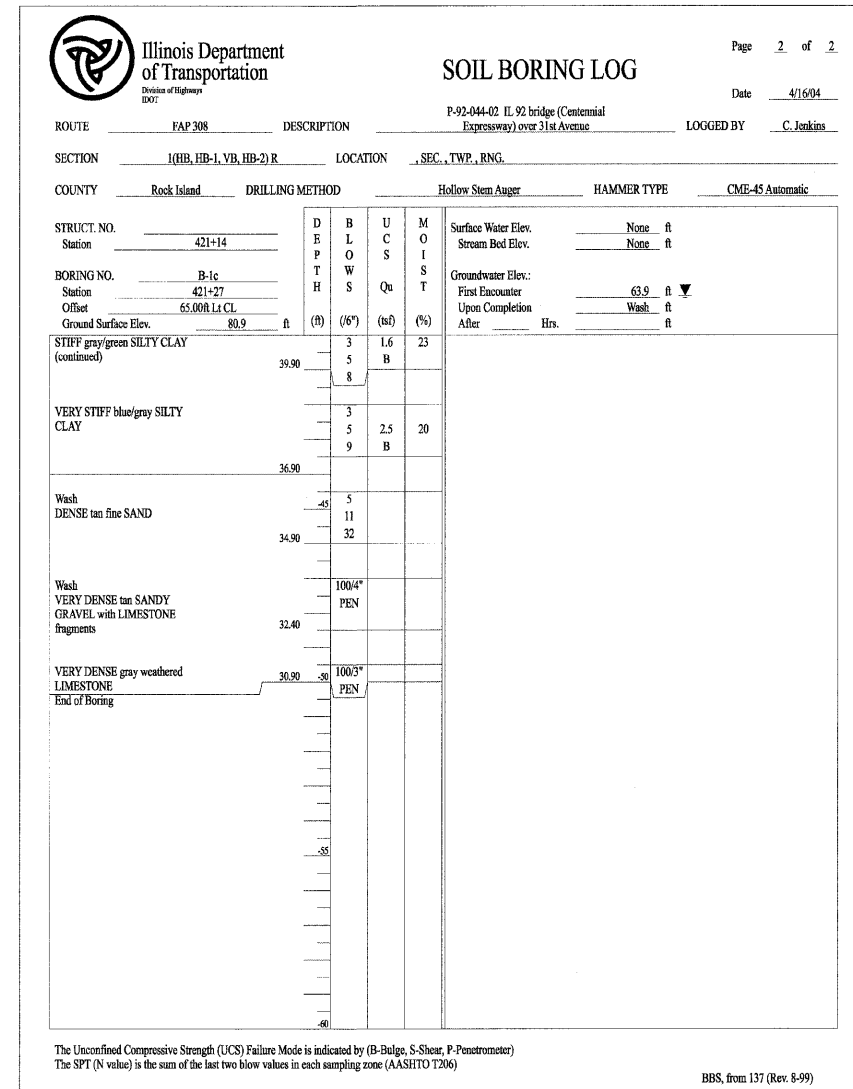
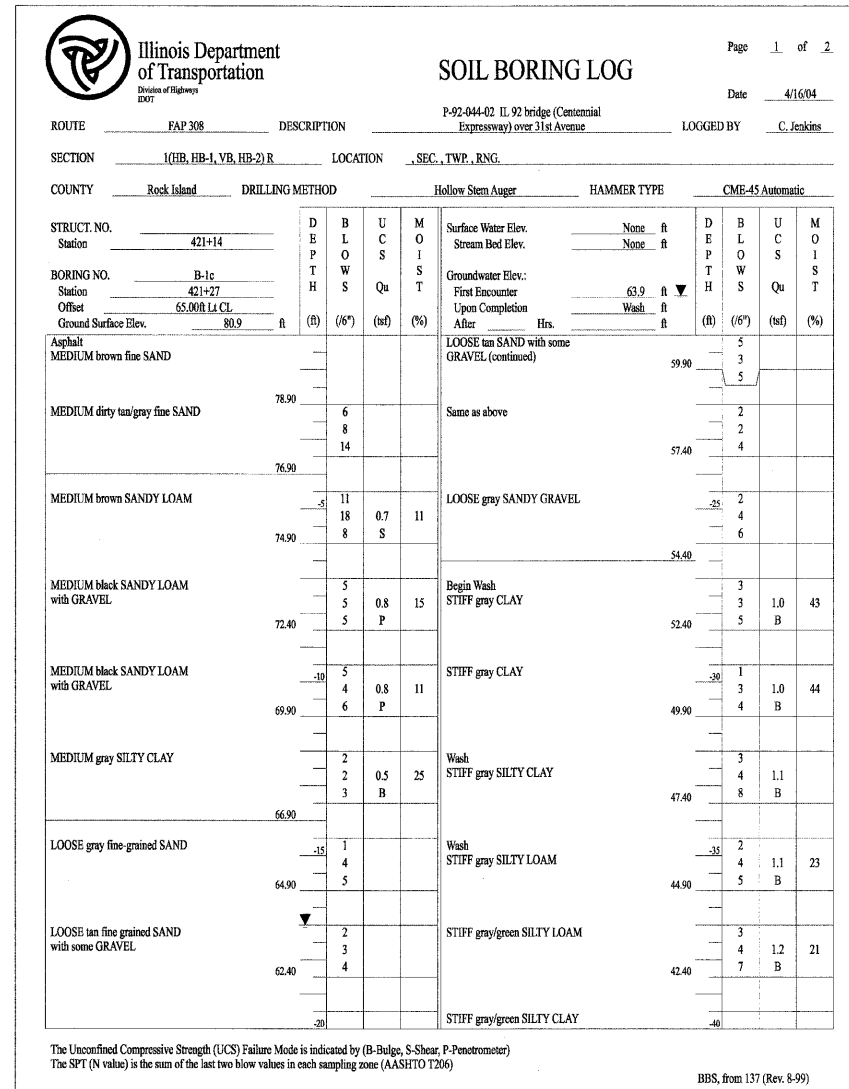
R-27

9-3-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 26 31 SHEETS
F.A.P. 308	*	ROCK ISLAND	210	110	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * 1(HB,HB-1,VB,HB-2)R



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DESIGNED
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LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SOIL BORINGS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 1 of 2

Date: 4/26/04

ROUTE FAP 308 DESCRIPTION F-92-044-02 IL 92 bridge (Centennial Expressway) over 31st Avenue LOGGED BY C. Jenkins

SECTION 1(HB, HB-1, VB, HB-2) R LOCATION . SEC. TWP. RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Dieckrich Automatic

STRUCT. NO. <u>421+14</u>	D	B	U	M	Surface Water Elev. <u>None</u> ft	D	B	U	M
Station <u>421+06</u>	E	L	C	O	Stream Bed Elev. <u>None</u> ft	E	L	C	O
BORING NO. <u>B-2c</u>	P	O	S	I	Groundwater Elev.:	T	W	S	S
Station <u>421+06</u>	H	S	Q _u	T	First Encounter <u>70.0</u> ft ∇	H	S	Q _u	T
Offset <u>65.00 ft R/CL</u>					Upon Completion <u>Wash</u> ft				
Ground Surface Elev. <u>80.5</u> ft	(ft)	(ft)	(bl)	(%)	After <u>Wash</u> ft	(ft)	(ft)	(bl)	(%)

MEDIUM tan fine SAND	75.50				LOOSE tan fine to medium grained SAND				
		8				5			
		20				5			
		19				58.50			
	75.50	-5							
		8				2			
		6				4			
		6				56.00			
	75.50					-25			
		8				1			
		6				0			
		6				2			
	73.00					53.50			
		4				9			
		4				10			
		6				12			
	71.00					51.00			
		2				9			
		7				12			
		5				7			
	68.00					48.50			
		1				2			
		2				4			
		3				6			
	65.50					46.00			
		2				1			
		4				3			
		6				5			
	63.50					43.50			
		2				9			
		2				14			
		7				16			
	61.00					41.00			
						-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 2 of 2

Date: 4/26/04

ROUTE FAP 308 DESCRIPTION F-92-044-02 IL 92 bridge (Centennial Expressway) over 31st Avenue LOGGED BY C. Jenkins

SECTION 1(HB, HB-1, VB, HB-2) R LOCATION . SEC. TWP. RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Dieckrich Automatic

STRUCT. NO. <u>421+14</u>	D	B	U	M	Surface Water Elev. <u>None</u> ft	D	B	U	M
Station <u>421+06</u>	E	L	C	O	Stream Bed Elev. <u>None</u> ft	E	L	C	O
BORING NO. <u>B-2c</u>	P	O	S	I	Groundwater Elev.:	T	W	S	S
Station <u>421+06</u>	H	S	Q _u	T	First Encounter <u>70.0</u> ft ∇	H	S	Q _u	T
Offset <u>65.00 ft R/CL</u>					Upon Completion <u>Wash</u> ft				
Ground Surface Elev. <u>80.5</u> ft	(ft)	(ft)	(bl)	(%)	After <u>Wash</u> ft	(ft)	(ft)	(bl)	(%)

Wash HARD gray SANDY CLAY TILL	38.50				LOOSE tan SAND & GRAVEL				
		9				14			
		14				6.8			
		24				11			
	38.50					-4			
		17				4			
		22				8.3			
		28				11			
	35.50					-4			
		12				9			
		25				10			
		30				12			
	33.50					51.00			
		4				9			
		1000*				12			
		PEN				7			
	31.30					48.50			
						2			
						4			
						6			
	31.30					46.00			
						1			
						3			
						5			
	31.30					43.50			
		2				9			
		2				14			
		7				16			
	61.00					41.00			
						-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORINGS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 112	SHEET NO. 28 31 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #64814 * 1(HB,HB-1,VB,HB-2)R

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG Page 1 of 2

Date 4/26/04

ROUTE FAP 308 DESCRIPTION P-92-044-02 IL 92 bridge (Centennial Expressway) over 31st Avenue LOGGED BY C. Jenkins

SECTION 1(HB, HB-1, VB, HB-2)R LOCATION . SEC., TWP., RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diehdich Automatic

STRUCT. NO. 421+14 Station

BORING NO. B-3c Station 421+59
Offset 60.00ft Lt CL Median
Ground Surface Elev. 80.7 ft

Description	D	B	U	M	Surface Water Elev. None ft	Stream Bed Elev. None ft	Groundwater Elev. First Encounter Upon Completion After Hrs.	D	B	U	M	Elev. (ft)	Pen. (blows)	SPT (N)	Notes
MEDIUM tan fine SAND under asphalt shoulder															
MEDIUM gray fine grained SAND		4													
		7													
		7													
VERY STIFF black SANDY LOAM with GRAVEL & SAND lenses		9													
		11	2.2	10											
		13	P												
STIFF black SANDY LOAM with GRAVEL & SAND lenses		3													
		6	1.1	27											
		6	S												
MEDIUM black SANDY LOAM with GRAVEL		0													
		1	0.6	13											
		3	P												
STIFF gray SILTY CLAY with SAND lenses and ORGANICS		1													
		2	1.1	23											
		4	B												
MEDIUM tan fine SAND		4													
		5													
		6													
LOOSE tan/brown SAND & GRAVEL		1													
		5													
		4													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bludge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG Page 2 of 2

Date 4/26/04

ROUTE FAP 308 DESCRIPTION P-92-044-02 IL 92 bridge (Centennial Expressway) over 31st Avenue LOGGED BY C. Jenkins

SECTION 1(HB, HB-1, VB, HB-2)R LOCATION . SEC., TWP., RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diehdich Automatic

STRUCT. NO. 421+14 Station

BORING NO. B-3c Station 421+59
Offset 60.00ft Lt CL Median
Ground Surface Elev. 80.7 ft

Description	D	B	U	M	Surface Water Elev. None ft	Stream Bed Elev. None ft	Groundwater Elev. First Encounter Upon Completion After Hrs.	D	B	U	M	Elev. (ft)	Pen. (blows)	SPT (N)	Notes
Wash		3													
STIFF gray SILTY CLAY TILL		5	1.6	25											
		7	B												
Wash		4													
STIFF gray SILTY CLAY		7	1.7	22											
		10	B												
STIFF gray/black SILTY LOAM		0													
		5	1.4	27											
		8	B												
VERY DENSE gray weathered LIMESTONE		25													
		29													
		27													
Same as above		29.70	100/3"												
Borehole continued with rock coring.			PEN												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bludge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

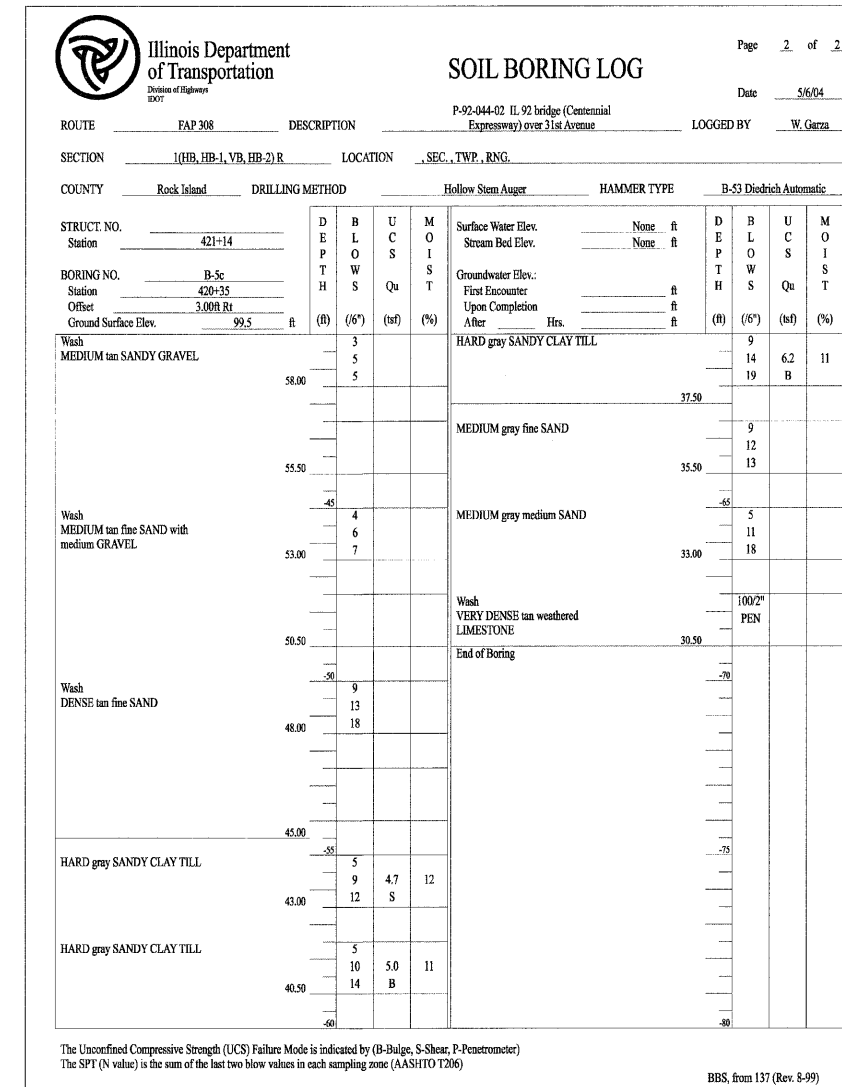
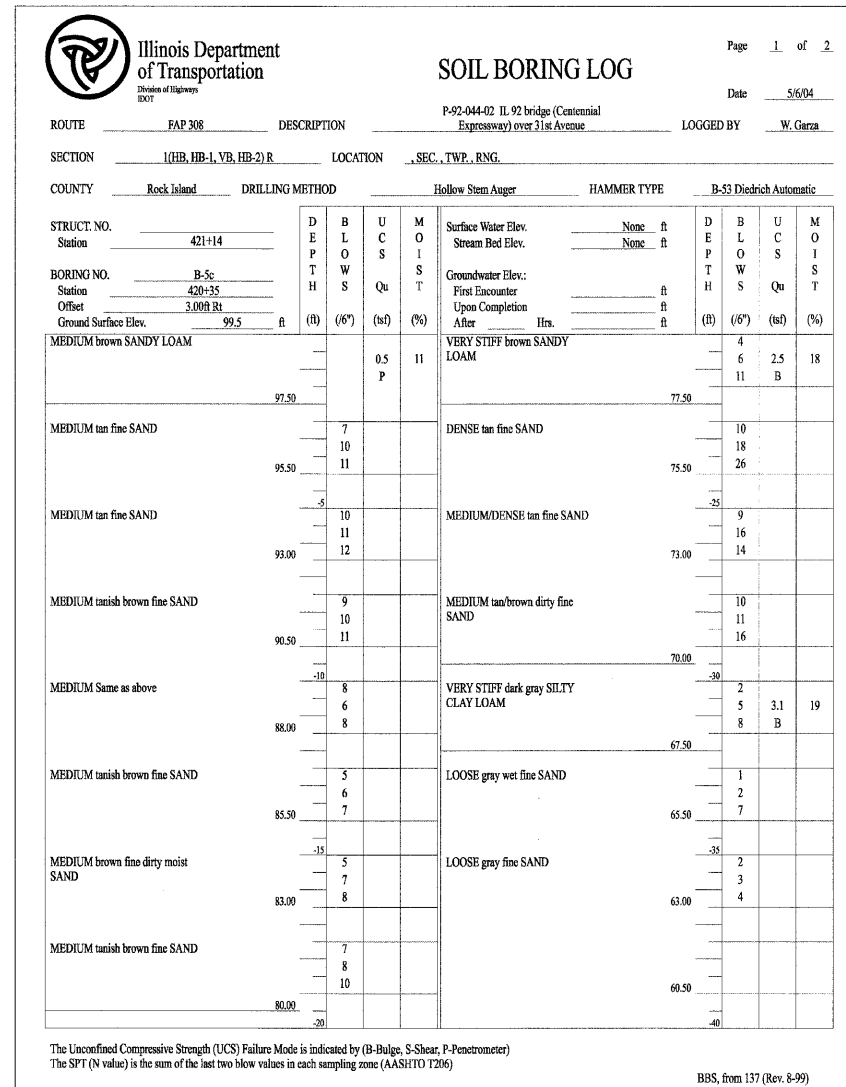
SOIL BORINGS 3
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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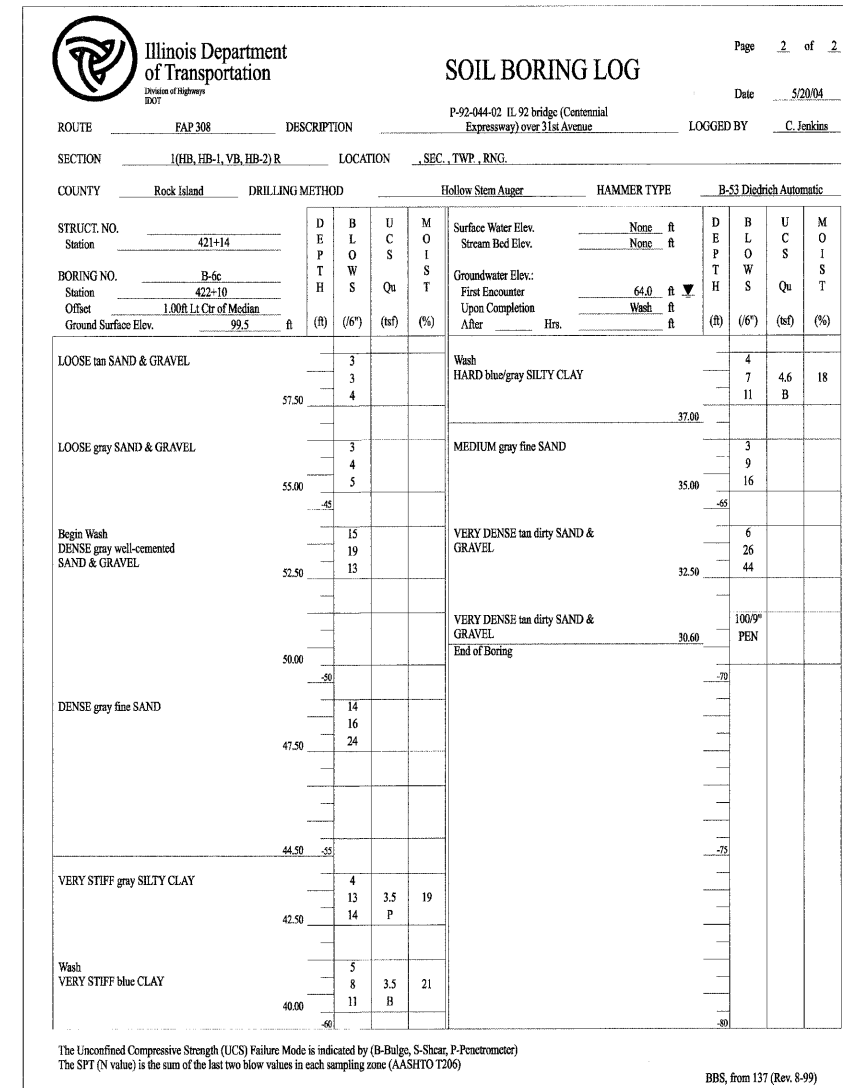
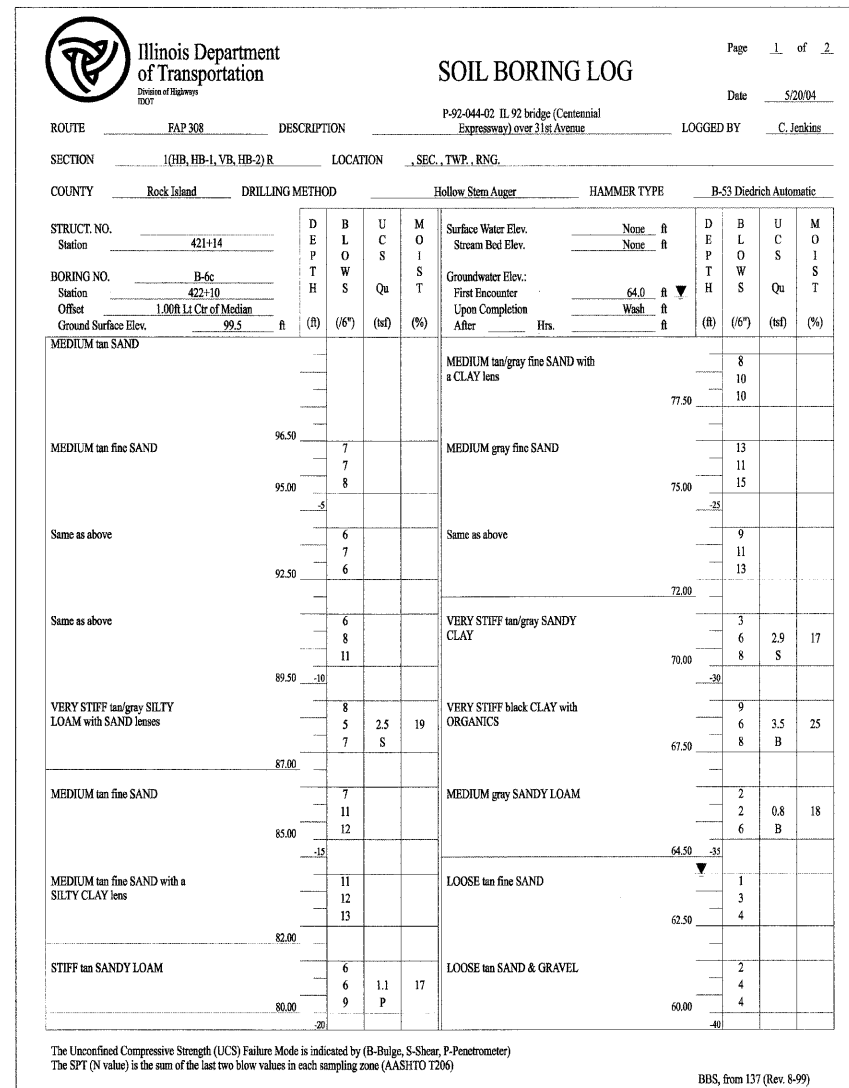
DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SOIL BORINGS 5
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 31
F.A.P. 308	*	ROCK ISLAND	210	115	31 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract #64814 * (1HB, HB-1, VB, HB-2)R		



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DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SOIL BORINGS 6
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 31st AVENUE
FAP ROUTE 308 SEC. 1(HB-2)R
ROCK ISLAND COUNTY
STATION 1470+70.31
STRUCTURE NO. 081-0172 (SB)
STRUCTURE NO. 081-0173 (NB)

Bench Mark: B.M. #497 - Chiseled square on top of wingwall
Sta. 1507+88, 36' Rt. of IL-92, Elev. 595.14

Existing Structure: S.N. 081-0064, Built as F.A. Route 199, Sec. 1-VB in 1963.
Three span, 228'-10" back to back of abutments, 78'-0" out to out. Superstructure consists of a curved R.C. deck on WF beams (kinked to accommodate the curve) supported on multi-column piers and spill-through abutments. Deck to be removed and replaced. Traffic to be maintained during the rehabilitation by staged construction.

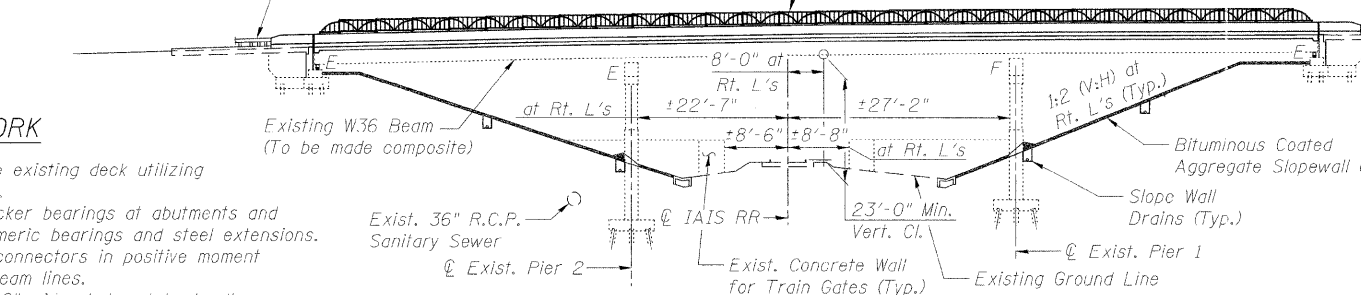
No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	116
SHEET NO. 1 32 SHEETS				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
Contract #64814	*	(IHB, HB-1, VB, HB-2)R		

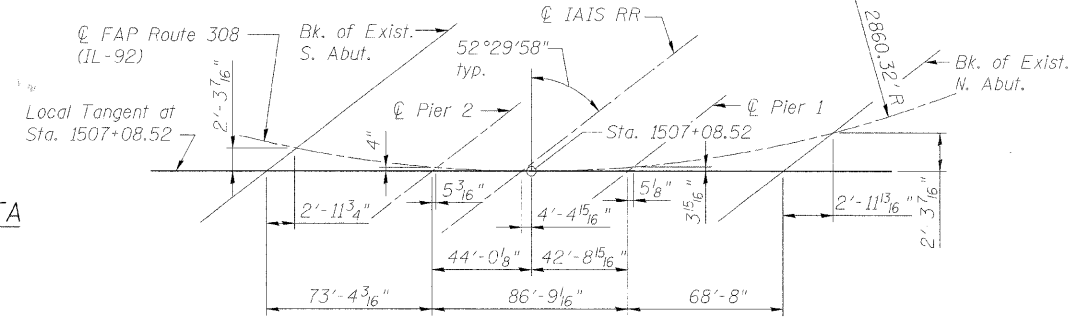
Traffic Barrier Terminal
Std. 631031 - Type 6 (NB)
Std. 631026 - Type 5 (SB)

Traffic Barrier Terminal
Std. 631031 - Type 6 (SB)
Std. 631026 - Type 5 (NB)



HORIZ. CURVE DATA

∠ Exist. IL Route 92
 $\Delta = 42^\circ 40' 47''$ (LT)
 $D = 2^\circ 00' 11''$
 $T = 1,117.49'$
 $L = 2,130.66'$
 $E = 210.54'$
 $R = 2,860.32'$
 $S.E. = 2.00\%$
 P.C. STA. = 1498+91.16
 P.T. STA. = 1520+21.82
 P.I. STA. = 1510+08.65



OFFSET SKETCH

SCOPE OF WORK

1. Remove and replace existing deck utilizing staged construction.
2. Remove existing rocker bearings at abutments and replace with elastomeric bearings and steel extensions.
3. Install stud shear connectors in positive moment areas of existing beam lines.
4. Remove existing 1'-0" wide abutment backwalls and replace with 1'-6" wide backwalls.
5. Modify existing abutment ends and wingwalls to accommodate wider bridge deck and approach pavement.
6. Remove existing concrete slope wall and replace with Bituminous Coated Aggregate Slope wall 6".
7. Remove and replace deteriorated steel diaphragms and connection plates.
8. Install new steel diaphragms in center beam bay.
9. Perform concrete repairs at abutments and piers.
10. Clean and paint existing Structural Steel.

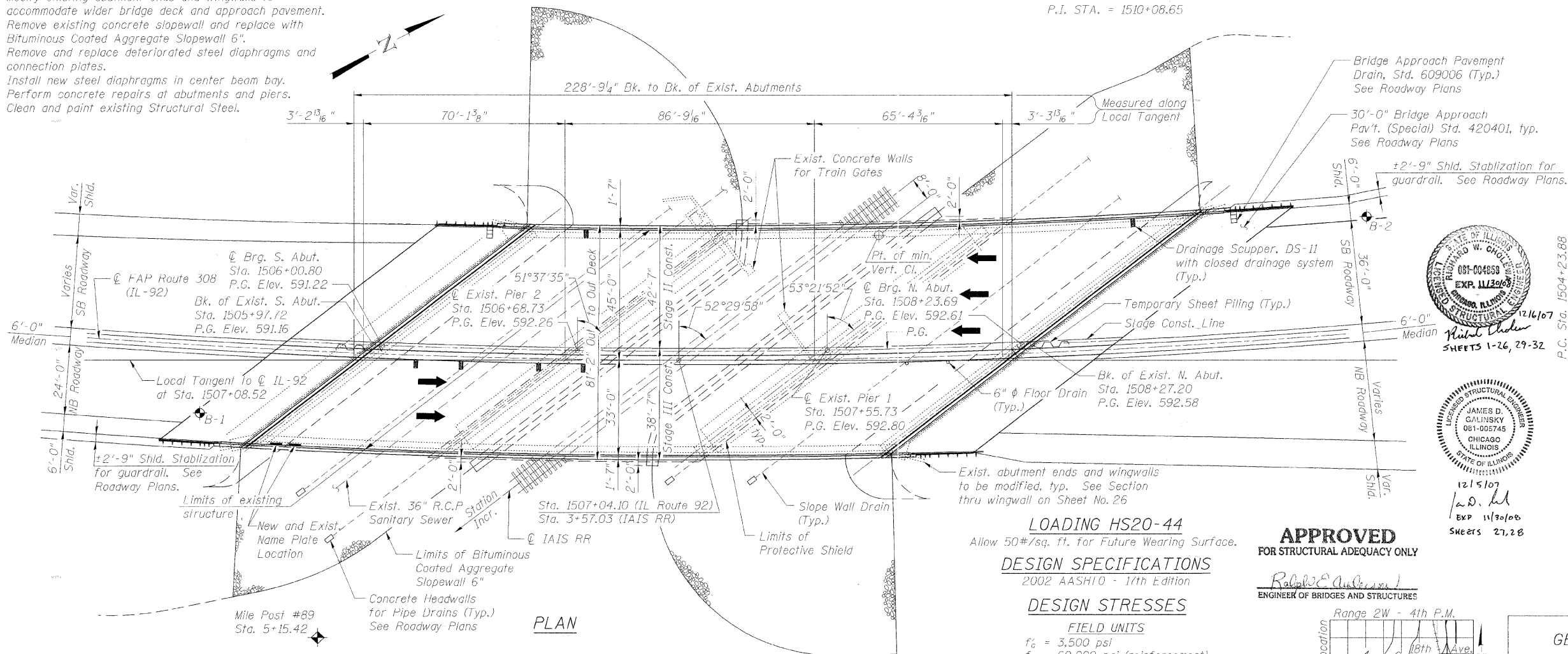
ELEVATION

STATION 1507+04.10
 RE-BUILT 20__ BY
 STATE OF ILLINOIS
 F.A. ROUTE 308 SEC. 1(VB)R
 LOADING HS20
 STRUCTURE NO. 081-0064

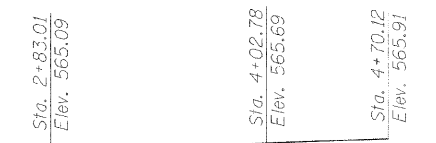
NAME PLATE

Refer to Std. 515001

Note:
 The Existing name plate shall be removed, cleaned and relocated next to the new name plate. Cost included with Name Plate.

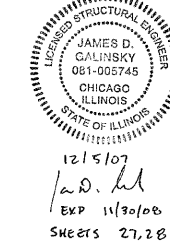


PROPOSED PROFILE GRADE
IL-ROUTE 92



TOP OF RAIL ELEVATIONS
IAIS RR

GENERAL PLAN AND ELEVATION
 IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
 OVER IAIS RAILROAD
 FAP ROUTE 308 SEC. 1(VB)R
 ROCK ISLAND COUNTY
 STATION 1507+04.10
 STRUCTURE NO. 081-0064



LOADING HS20-44
 Allow 50#/sq. ft. for Future Wearing Surface.

DESIGN SPECIFICATIONS
 2002 AASHTO - 11th Edition

DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 36,000$ psi (Struct. Steel) (M270 Grade 36)

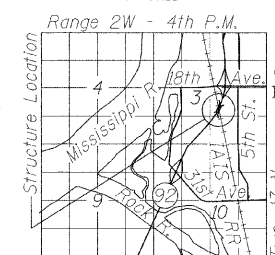
EXISTING CONSTRUCTION
 $f_c = 1,400$ psi (Concrete)
 $f_s = 20,000$ psi (Reinforcement)
 $f_s = 20,000$ psi (Struct. Steel)

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.034g
 Site Coefficient (S) = 1.0

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
 H.W. LOCHNER, INC., CHICAGO, ILLINOIS

LEGEND

- ◆ Indicates Soil Boring Location
- ◆ Indicates Railroad Mile Post Marker

NOTES

1. For General Notes, Bill of Material, Index of Sheets and slope wall details, see Sheet No. 2
2. For temporary sheet piling details see Sheet No. 3

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GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. dia., holes $\frac{15}{16}$ in. dia., unless otherwise noted.
- Calculated weight of Structural Steel M270 Grade 36 = 17,820 lbs.
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that cannot be removed by grinding $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- 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.
- Concrete Sealer shall be applied to the designated areas of the Abutments.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Existing contact surface areas at the locations of the diaphragm removal and replacements shall be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
- Cleaning and painting of the existing structural steel shall be as specified in the Special Provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel in the two end spans of the bridge shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All remaining structural steel (in the center span of the bridge) shall be cleaned per Power Tool Cleaning - Modified SSPC-SP3. The designated areas cleaned per Near White Blast Cleaning - SSPC-SP10 shall be painted according to the requirements of Paint System 1 - OZ/E/U. The designated areas cleaned per Power Tool Cleaning - Modified SSPC-SP3 shall be painted according to the requirements of Paint System 2 - PS/EM/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6.
- A minimum of two (2) air monitors will be required to monitor abrasive blasting operations at this site, see Special Provision for "Containment and Disposal of Lead Paint Cleaning Residues".
- Slip forming of the parapets and median barrier is not allowed.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	117
SHEET NO. 2 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	ILL. AID PROJECT		
Contract #64814 * I(HB,HB-1,VB,HB-2)R				

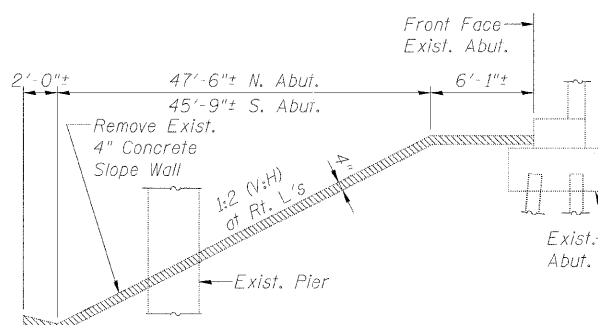
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub		Total
			Piers	Abut.	
Porous Granular Embankment, Special	Cu. Yd.			348	348
Concrete Removal	Cu. Yd.			62.0	62.0
Slope Wall Removal	Sq. Yd.			1,825	1,825
Removal of Existing Concrete Deck	Each	1			1
Protective Shield	Sq. Yd.	797			797
Structure Excavation	Cu. Yd.			348	348
Floor Drains	Each	2			2
Concrete Structures	Cu. Yd.			69.7	69.7
Concrete Superstructure	Cu. Yd.	648.7			648.7
Bridge Deck Grooving	Sq. Yd.	1,783			1,783
Protective Coat	Sq. Yd.	2,267			2,267
Structural Repair of Concrete (Depth Equal To or Less Than 5")	Sq. Ft.		474		474
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.		50		50
Furnishing and Erecting Structural Steel	Pound	17,820			17,820
Stud Shear Connectors	Each	7,872			7,872
Jack and Remove Existing Bearings	Each			28	28
Structural Steel Removal	Pound	13,820			13,820
Cleaning and Painting Steel Bridge	L. Sum	1			1
Containment and Disposal of Lead Paint Cleaning Residues	L. Sum	1			1
Reinforcement Bars, Epoxy Coated	Pound	145,780		14,290	160,070
Bar Splicers	Each	715		298	1,013
Slope Wall 4"	Sq. Yd.			132	132
Bituminous Coated Aggregate Slope Wall 6"	Sq. Yd.			3,474	3,474
Temporary Sheet Piling	Sq. Ft.			147	147
Name Plates	Each	1			1
Preformed Joint Strip Seal	Foot	255			255
Elastomeric Bearing Assembly, Type I	Each			14	14
Elastomeric Bearing Assembly, Type II	Each			14	14
Anchor Bolts, 1"	Each			56	56
Concrete Sealer	Sq. Ft.			1,453	1,453
Geocomposite Wall Drain	Sq. Yd.			211	211
Pipe Underdrains for Structures 4"	Foot			1,018**	1,018
Drainage Scuppers, DS-II	Each	6			6
Ornamental Railing	Foot	441			441
Drainage System	L. Sum	0.4			0.4

**Quantity includes lengths for Slope Wall Drains

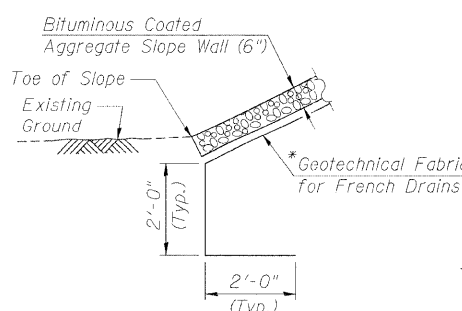
INDEX OF SHEETS

SHEET NO.	TITLE
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS
3	STAGING DETAILS
4	TOP OF SLAB ELEVATIONS 1
5	TOP OF SLAB ELEVATIONS 2
6	TOP OF SLAB ELEVATIONS 3
7	TOP OF SLAB ELEVATIONS 4
8	TOP OF SOUTH APPROACH SLAB ELEVATIONS
9	TOP OF NORTH APPROACH SLAB ELEVATIONS
10	DECK PLAN
11	PARAPET DETAILS
12	APPROACH PARAPET DETAILS
13	MEDIAN BARRIER DETAILS
14	DECK DETAILS
15	ORNAMENTAL RAILING DETAILS
16	EXPANSION JOINT DETAILS
17	DRAINAGE SCUPPER, DS-II
18	CLOSED DRAINAGE SYSTEM
19	FRAMING PLAN
20	STEEL DETAILS
21	BEARING DETAILS 1
22	BEARING DETAILS 2
23	ABUTMENT CONCRETE REMOVAL PLAN
24	SOUTH ABUTMENT
25	NORTH ABUTMENT
26	ABUTMENT DETAILS
27	PIER 1 REPAIRS
28	PIER 2 REPAIRS
29	BAR SPLICER ASSEMBLY DETAILS
30	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
31	SOIL BORINGS 1
32	SOIL BORINGS 2

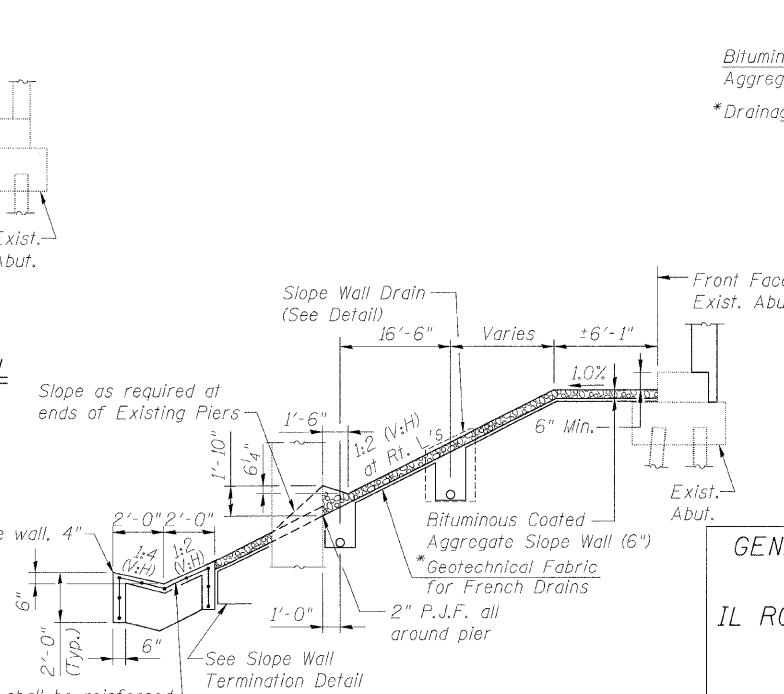


SECTION THRU EXIST. SLOPE WALL

(Horiz. dim. at Rt. L's)

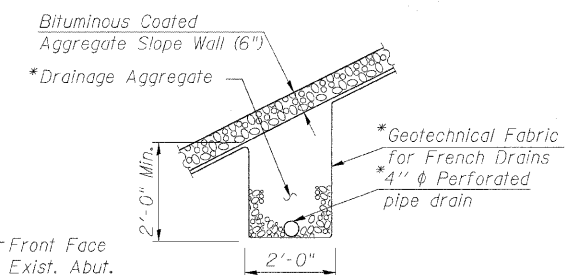


SLOPE WALL TERMINATION DETAIL



SECTION THRU SLOPE WALL

(Horiz. dim. at Rt. L's)



SLOPE WALL DRAIN DETAIL

* Included in the cost of Pipe Underdrains for Structures, 4"

GENERAL NOTES, BILL OF MATERIALS AND INDEX OF SHEETS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

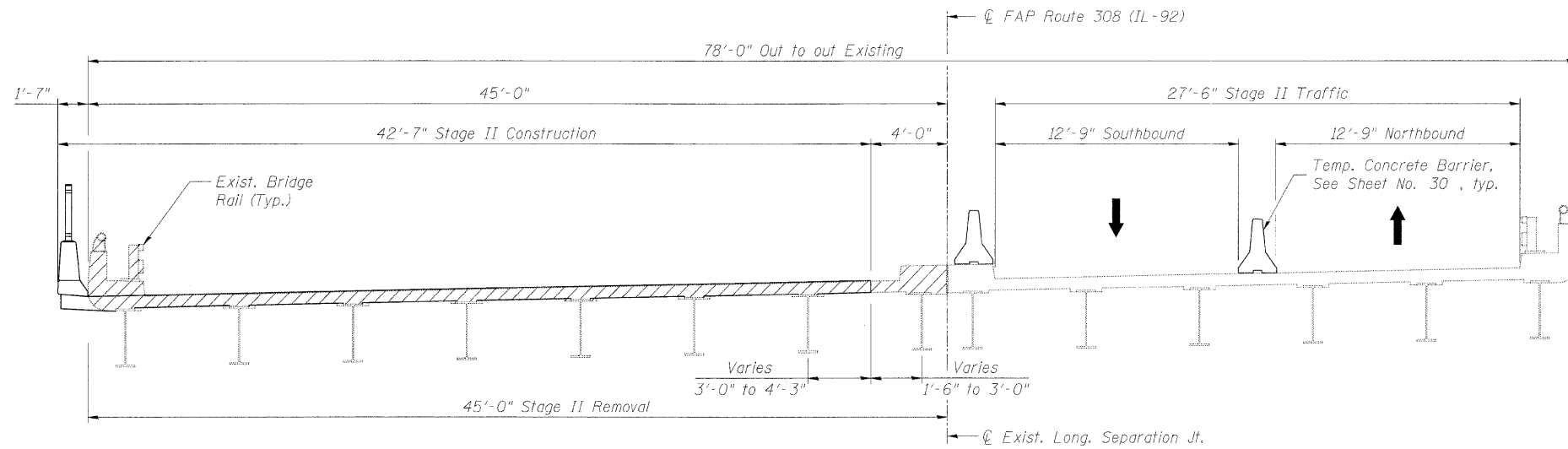
DESIGNED	AMK
CHECKED	CMM
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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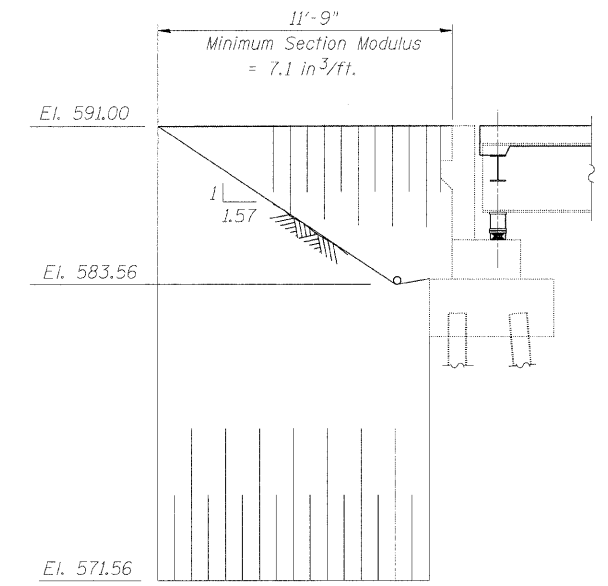
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	118
SHEET NO. 3 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
Contract #64814 * 1(HB,HB-1,VB,HB-2)R				

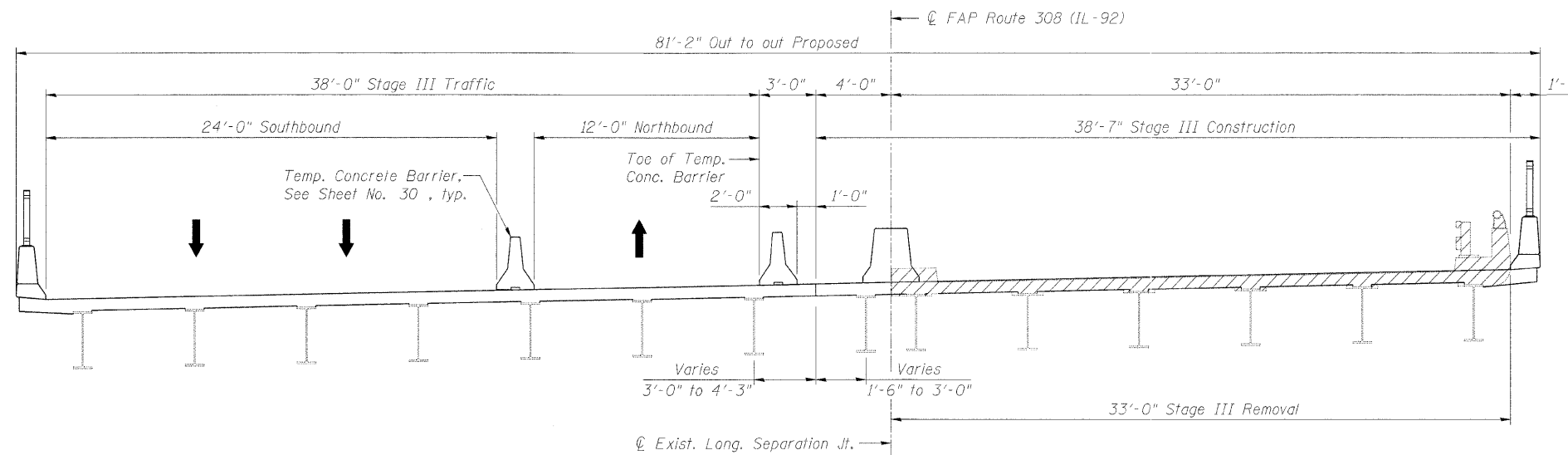


CROSS SECTION (STAGE II)

Looking North
Note: Horizontal dimensions shown are radial

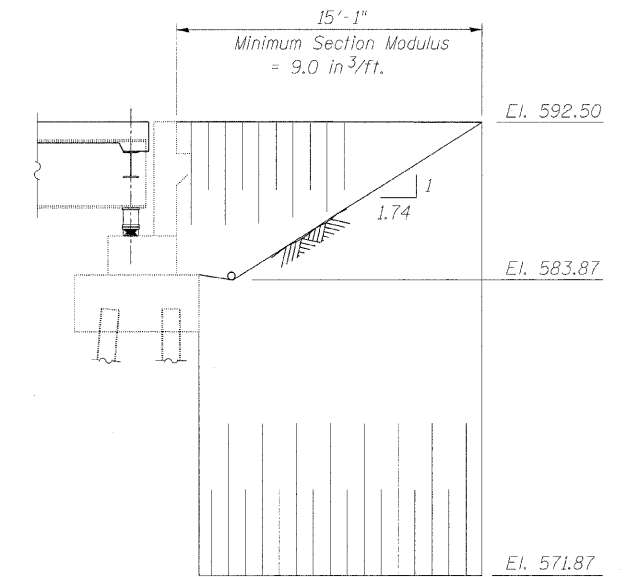


SOUTH ABUTMENT



CROSS SECTION (STAGE III)

Looking North
Note: Horizontal dimensions shown are radial



NORTH ABUTMENT

TEMPORARY SHEET PILING DETAILS

LEGEND

Indicates Removal of Existing Concrete Deck and Rails

DESIGNED	AMK
CHECKED	CMM
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

NOTES

- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
- The pay limits for Temporary Sheet Piling shall be the exposed surface area of the Sheeting.
- Cost of removing existing steel bridge rails is included with Removal of Existing Concrete Deck.

STAGING DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

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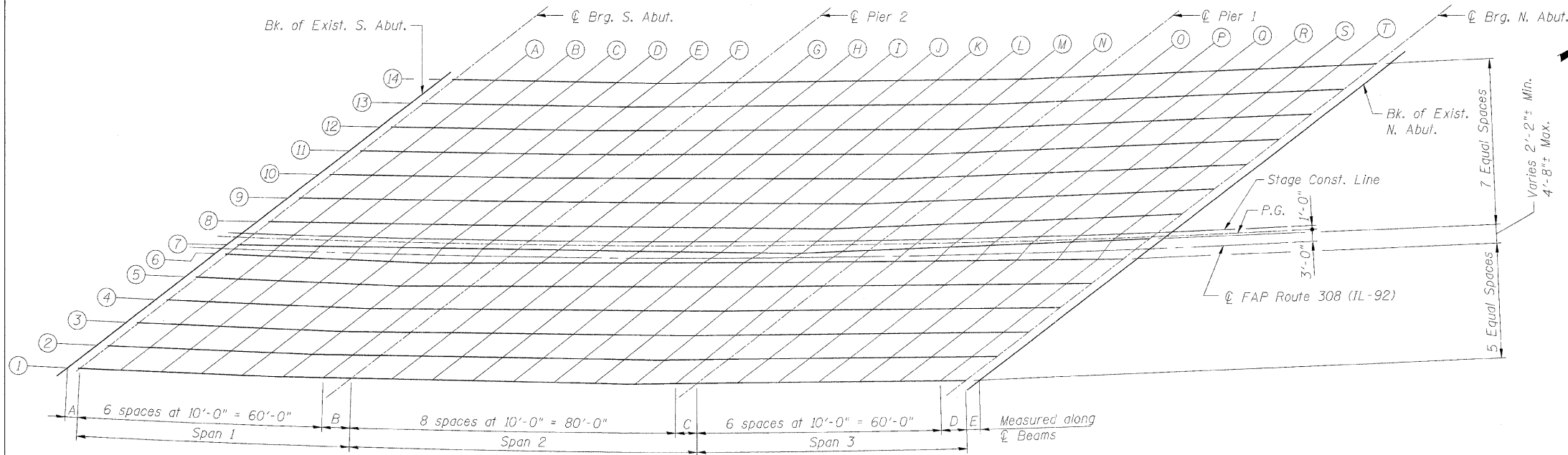
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	119	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB, HB-1, VB, HB-2)R

TABLE OF END DIMENSIONS

Beam	A	B	C	D	E
1	3'-1"±	6'-11"±	5'-3"±	6'-3"±	3'-4"±
2	3'-1"±	7'-0"±	5'-8"±	6'-3"±	3'-4"±
3	3'-1"±	7'-1"±	6'-1"±	6'-3"±	3'-4"±
4	3'-1"±	7'-2"±	6'-5"±	6'-3"±	3'-4"±
5	3'-1"±	7'-4"±	6'-10"±	6'-3"±	3'-4"±
6	3'-1"±	7'-5"±	7'-3"±	6'-3"±	3'-4"±
7	3'-2"±	8'-9"±	6'-6"±	9'-2"±	3'-6"±
8	3'-2"±	8'-10"±	6'-10"±	9'-2"±	3'-6"±
9	3'-2"±	8'-11"±	7'-2"±	9'-2"±	3'-6"±
10	3'-2"±	9'-0"±	7'-6"±	9'-2"±	3'-6"±
11	3'-2"±	9'-1"±	7'-10"±	9'-2"±	3'-6"±
12	3'-2"±	9'-2"±	8'-2"±	9'-2"±	3'-6"±
13	3'-2"±	9'-3"±	8'-6"±	9'-2"±	3'-6"±
14	3'-2"±	9'-4"±	8'-10"±	9'-2"±	3'-6"±

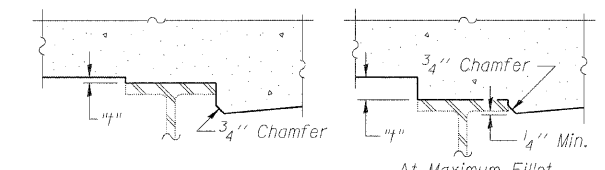


BEAM 14

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+47.40	-43.23	591.19	591.19
☉ Brg. S. Abut.	1506+50.62	-43.24	591.23	591.23
A	1506+60.77	-43.26	591.36	591.38
B	1506+70.92	-43.25	591.48	591.51
C	1506+81.08	-43.20	591.58	591.62
D	1506+91.23	-43.12	591.68	591.71
E	1507+01.38	-42.99	591.77	591.78
F	1507+11.53	-43.07	591.83	591.84
☉ Pier 2	1507+20.97	-43.16	591.89	591.89
G	1507+31.12	-43.21	591.93	591.94
H	1507+41.28	-43.23	591.97	591.99
I	1507+51.43	-43.22	591.99	592.03
J	1507+61.58	-43.17	592.00	592.05
K	1507+71.74	-43.08	592.00	592.05
L	1507+81.89	-42.96	591.99	592.03
M	1507+92.04	-42.80	591.97	591.99
N	1508+02.19	-42.88	591.93	591.93
☉ Pier 1	1508+11.15	-42.95	591.88	591.88
O	1508+21.31	-42.99	591.82	591.83
P	1508+31.46	-43.00	591.75	591.76
Q	1508+41.61	-42.97	591.66	591.69
R	1508+51.76	-42.91	591.57	591.60
S	1508+61.92	-42.81	591.46	591.49
T	1508+72.07	-42.68	591.34	591.36
☉ Brg. N. Abut.	1508+81.41	-42.52	591.23	591.23
Bk. Exist. N. Abut.	1508+84.97	-42.46	591.18	591.18

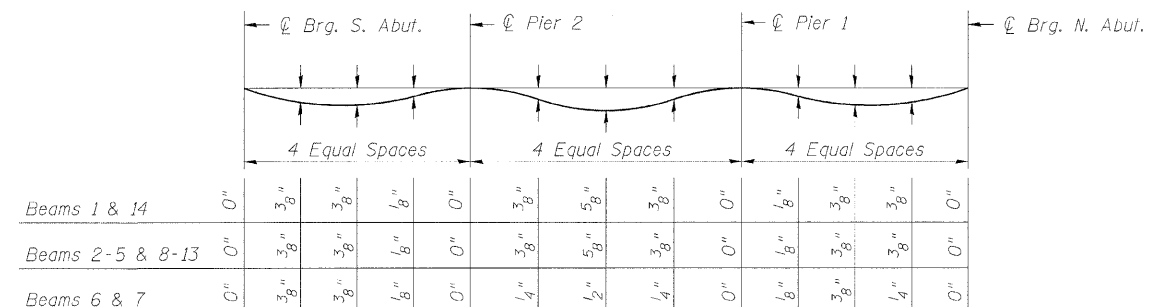
BEAM 13

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+39.86	-37.25	591.20	591.20
☉ Brg. S. Abut.	1506+43.07	-37.28	591.24	591.24
A	1506+53.21	-37.32	591.38	591.40
B	1506+63.34	-37.34	591.51	591.54
C	1506+73.47	-37.31	591.62	591.66
D	1506+83.60	-37.26	591.73	591.76
E	1506+93.73	-37.16	591.82	591.84
F	1507+03.86	-37.24	591.90	591.90
☉ Pier 2	1507+13.20	-37.31	591.96	591.96
G	1507+23.33	-37.36	592.01	592.02
H	1507+33.46	-37.37	592.06	592.08
I	1507+43.59	-37.35	592.09	592.13
J	1507+53.72	-37.29	592.11	592.16
K	1507+63.86	-37.19	592.12	592.17
L	1507+73.99	-37.06	592.12	592.16
M	1507+84.12	-36.90	592.11	592.13
N	1507+94.25	-37.01	592.08	592.08
☉ Pier 1	1508+02.85	-37.10	592.04	592.04
O	1508+12.98	-37.17	591.99	591.99
P	1508+23.11	-37.21	591.93	591.94
Q	1508+33.24	-37.21	591.85	591.88
R	1508+43.37	-37.18	591.76	591.80
S	1508+53.51	-37.11	591.67	591.70
T	1508+63.64	-37.00	591.56	591.58
☉ Brg. N. Abut.	1508+72.96	-36.88	591.45	591.45
Bk. Exist. N. Abut.	1508+76.52	-36.82	591.40	591.40



To determine "t": After the existing concrete deck has been removed, elevations of the top flanges of the beams shall be taken at intervals shown herein. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown herein, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

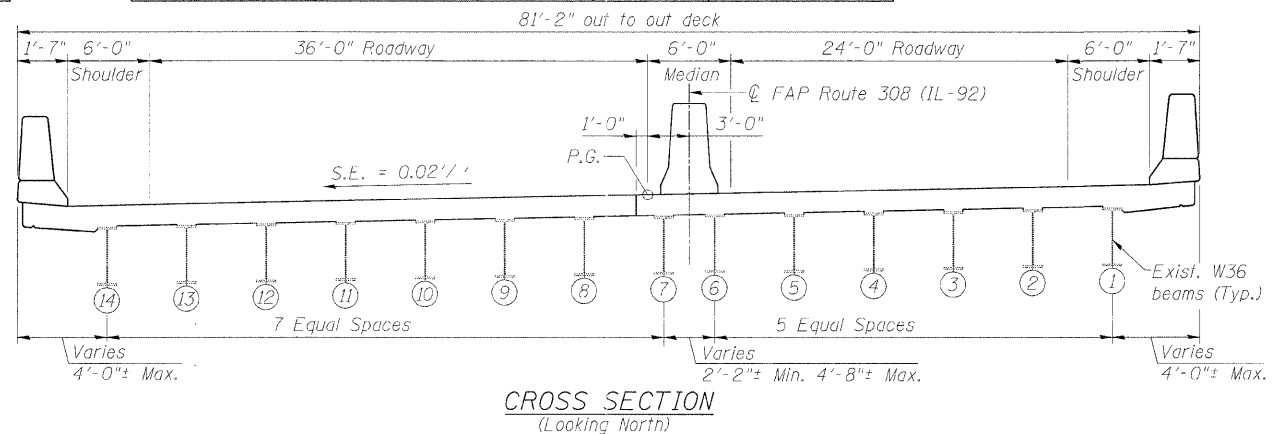
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" as shown on this sheet and Sheet Nos. 5 thru 7.

NOTES

1. Work this Sheet with Sheet Nos. 5 thru 7.
2. Offsets are taken from ☉ FAP Route 308 (IL-92).

TOP OF SLAB ELEVATIONS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064



CROSS SECTION
(Looking North)

DESIGNED	AMK
CHECKED	CMM
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 120	SHEET NO. 5 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract #64814 * (HB,HB-1,VB,HB-2)R

BEAM 12

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+32.36	-31.26	591.20	591.20
☉ Brg. S. Abut.	1506+35.56	-31.29	591.25	591.25
A	1506+45.67	-31.36	591.40	591.42
B	1506+55.78	-31.40	591.53	591.57
C	1506+65.89	-31.41	591.66	591.69
D	1506+76.00	-31.38	591.77	591.80
E	1506+86.12	-31.31	591.87	591.89
F	1506+96.23	-31.38	591.96	591.96
☉ Pier 2	1507+05.45	-31.44	592.03	592.03
G	1507+15.56	-31.48	592.09	592.10
H	1507+25.68	-31.49	592.14	592.17
I	1507+35.79	-31.45	592.18	592.23
J	1507+45.90	-31.38	592.21	592.27
K	1507+56.01	-31.28	592.23	592.29
L	1507+66.12	-31.14	592.24	592.28
M	1507+76.23	-30.97	592.24	592.26
N	1507+86.33	-31.12	592.22	592.22
☉ Pier 1	1507+94.58	-31.23	592.19	592.19
O	1508+04.69	-31.33	592.15	592.15
P	1508+14.80	-31.39	592.09	592.11
Q	1508+24.91	-31.43	592.03	592.06
R	1508+35.02	-31.42	591.95	591.99
S	1508+45.13	-31.38	591.86	591.90
T	1508+55.24	-31.31	591.77	591.78
☉ Brg. N. Abut.	1508+64.54	-31.21	591.66	591.66
Bk. Exist. N. Abut.	1508+68.10	-31.16	591.62	591.62

BEAM 11

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+24.89	-25.25	591.20	591.20
☉ Brg. S. Abut.	1506+28.08	-25.28	591.26	591.26
A	1506+38.17	-25.39	591.41	591.43
B	1506+48.26	-25.45	591.55	591.59
C	1506+58.35	-25.48	591.68	591.72
D	1506+68.44	-25.48	591.81	591.84
E	1506+78.53	-25.43	591.91	591.93
F	1506+88.62	-25.50	592.01	592.01
☉ Pier 2	1506+97.74	-25.56	592.09	592.09
G	1507+07.83	-25.59	592.16	592.17
H	1507+17.92	-25.58	592.22	592.25
I	1507+28.01	-25.54	592.27	592.32
J	1507+38.10	-25.46	592.31	592.37
K	1507+48.19	-25.35	592.34	592.39
L	1507+58.28	-25.20	592.36	592.40
M	1507+68.37	-25.01	592.36	592.39
N	1507+78.45	-25.20	592.35	592.36
☉ Pier 1	1507+86.34	-25.33	592.33	592.33
O	1507+96.43	-25.46	592.30	592.30
P	1508+06.52	-25.56	592.25	592.27
Q	1508+16.61	-25.62	592.20	592.23
R	1508+26.70	-25.64	592.13	592.17
S	1508+36.79	-25.63	592.05	592.09
T	1508+46.88	-25.59	591.96	591.98
☉ Brg. N. Abut.	1508+56.16	-25.51	591.87	591.87
Bk. Exist. N. Abut.	1508+59.71	-25.48	591.83	591.83

BEAM 10

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+17.44	-19.21	591.20	591.20
☉ Brg. S. Abut.	1506+20.63	-19.26	591.25	591.25
A	1506+30.70	-19.39	591.41	591.43
B	1506+40.77	-19.48	591.57	591.60
C	1506+50.84	-19.53	591.71	591.74
D	1506+60.91	-19.56	591.83	591.87
E	1506+70.97	-19.54	591.95	591.97
F	1506+81.04	-19.60	592.06	592.06
☉ Pier 2	1506+90.06	-19.65	592.14	592.14
G	1507+00.13	-19.67	592.22	592.23
H	1507+10.20	-19.65	592.29	592.32
I	1507+20.27	-19.60	592.35	592.40
J	1507+30.34	-19.51	592.40	592.46
K	1507+40.41	-19.39	592.44	592.49
L	1507+50.48	-19.23	592.47	592.51
M	1507+60.54	-19.05	592.48	592.51
N	1507+70.61	-19.27	592.48	592.48
☉ Pier 1	1507+78.13	-19.41	592.47	592.47
O	1507+88.20	-19.57	592.44	592.45
P	1507+98.27	-19.70	592.41	592.43
Q	1508+08.34	-19.78	592.36	592.39
R	1508+18.41	-19.84	592.30	592.34
S	1508+28.48	-19.86	592.23	592.27
T	1508+38.55	-19.84	592.15	592.17
☉ Brg. N. Abut.	1508+47.81	-19.79	592.07	592.07
Bk. Exist. N. Abut.	1508+51.35	-19.77	592.04	592.04

BEAM 9

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+10.03	-13.16	591.19	591.19
☉ Brg. S. Abut.	1506+13.22	-13.22	591.24	591.24
A	1506+23.26	-13.37	591.41	591.43
B	1506+33.31	-13.49	591.57	591.61
C	1506+43.36	-13.57	591.72	591.76
D	1506+53.40	-13.62	591.86	591.89
E	1506+63.45	-13.63	591.98	592.00
F	1506+73.50	-13.69	592.10	592.10
☉ Pier 2	1506+82.42	-13.72	592.19	592.19
G	1506+92.47	-13.73	592.28	592.29
H	1507+02.51	-13.70	592.36	592.39
I	1507+12.56	-13.64	592.43	592.47
J	1507+22.61	-13.54	592.49	592.54
K	1507+32.57	-13.41	592.53	592.59
L	1507+42.71	-13.24	592.57	592.61
M	1507+52.73	-13.06	592.59	592.62
N	1507+62.79	-13.31	592.60	592.60
☉ Pier 1	1507+69.96	-13.47	592.59	592.59
O	1507+80.01	-13.66	592.58	592.58
P	1507+90.06	-13.81	592.55	592.57
Q	1508+00.11	-13.93	592.52	592.55
R	1508+10.15	-14.01	592.47	592.50
S	1508+20.20	-14.06	592.41	592.44
T	1508+30.25	-14.07	592.34	592.36
☉ Brg. N. Abut.	1508+39.50	-14.05	592.26	592.26
Bk. Exist. N. Abut.	1508+43.03	-14.04	592.23	592.23

BEAM 8

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1506+02.66	-7.09	591.17	591.17
☉ Brg. S. Abut.	1506+05.83	-7.15	591.23	591.23
A	1506+15.85	-7.33	591.41	591.43
B	1506+25.88	-7.48	591.58	591.61
C	1506+35.90	-7.58	591.73	591.77
D	1506+45.93	-7.66	591.88	591.91
E	1506+55.96	-7.70	592.01	592.03
F	1506+65.99	-7.75	592.13	592.14
☉ Pier 2	1506+74.80	-7.77	592.23	592.23
G	1506+84.83	-7.77	592.33	592.34
H	1506+94.86	-7.73	592.42	592.45
I	1507+04.88	-7.66	592.50	592.54
J	1507+14.91	-7.55	592.56	592.62
K	1507+24.94	-7.41	592.62	592.67
L	1507+34.96	-7.23	592.67	592.71
M	1507+44.98	-7.06	592.70	592.72
N	1507+55.00	-7.34	592.71	592.72
☉ Pier 1	1507+61.83	-7.50	592.71	592.71
O	1507+71.85	-7.72	592.71	592.71
P	1507+81.88	-7.90	592.69	592.71
Q	1507+91.91	-8.05	592.66	592.69
R	1508+01.93	-8.16	592.62	592.66
S	1508+11.96	-8.24	592.57	592.61
T	1508+21.99	-8.28	592.51	592.53
☉ Brg. N. Abut.	1508+31.22	-8.29	592.44	592.44
Bk. Exist. N. Abut.	1508+34.74	-8.28	592.42	592.42

NOTES

1. Work this Sheet with Sheet No. 4.
2. Offsets are taken from ☉ FAP Route 308 (IL-92).

TOP OF SLAB ELEVATIONS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED AMK
CHECKED CMM
DRAWN EF
CHECKED RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	121
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #64814 * (HB,HB-1,VB,HB-2)R

STAGE CONST. LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+98.92	-4.00	591.16	591.16
☉ Brg. S. Abut.	1506+02.01	-4.00	591.22	591.22
A	1506+12.01	-4.00	591.41	591.42
B	1506+22.01	-4.00	591.58	591.61
C	1506+32.01	-4.00	591.74	591.78
D	1506+42.01	-4.00	591.89	591.92
E	1506+52.01	-4.00	592.03	592.05
F	1506+62.01	-4.00	592.16	592.16
☉ Pier 2	1506+70.00	-4.00	592.25	592.25
G	1506+80.00	-4.00	592.36	592.36
H	1506+90.00	-4.00	592.45	592.47
I	1507+00.00	-4.00	592.53	592.56
J	1507+10.00	-4.00	592.61	592.64
K	1507+20.00	-4.00	592.66	592.70
L	1507+30.00	-4.00	592.71	592.74
M	1507+40.00	-4.00	592.75	592.76
N	1507+50.00	-4.00	592.77	592.77
☉ Pier 1	1507+57.08	-4.00	592.78	592.78
O	1507+67.08	-4.00	592.78	592.79
P	1507+77.08	-4.00	592.78	592.79
Q	1507+87.08	-4.00	592.76	592.78
R	1507+97.08	-4.00	592.73	592.76
S	1508+07.08	-4.00	592.68	592.71
T	1508+17.08	-4.00	592.63	592.64
☉ Brg. N. Abut.	1508+25.11	-4.00	592.58	592.58
Bk. Exist. N. Abut.	1508+28.63	-4.00	592.55	592.55

PROFILE GRADE LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+97.72	-3.00	591.16	591.16
☉ Brg. S. Abut.	1506+00.80	-3.00	591.22	591.22
A	1506+10.80	-3.00	591.41	591.42
B	1506+20.80	-3.00	591.58	591.61
C	1506+30.80	-3.00	591.74	591.78
D	1506+40.80	-3.00	591.90	591.92
E	1506+50.80	-3.00	592.04	592.05
F	1506+60.80	-3.00	592.16	592.17
☉ Pier 2	1506+68.73	-3.00	592.26	592.26
G	1506+78.73	-3.00	592.37	592.37
H	1506+88.73	-3.00	592.46	592.48
I	1506+98.73	-3.00	592.54	592.57
J	1507+08.73	-3.00	592.62	592.65
K	1507+18.73	-3.00	592.68	592.71
L	1507+28.73	-3.00	592.73	592.75
M	1507+38.73	-3.00	592.76	592.78
N	1507+48.73	-3.00	592.79	592.79
☉ Pier 1	1507+55.73	-3.00	592.80	592.80
O	1507+65.73	-3.00	592.80	592.81
P	1507+75.73	-3.00	592.80	592.82
Q	1507+85.73	-3.00	592.78	592.81
R	1507+95.73	-3.00	592.75	592.78
S	1508+05.73	-3.00	592.71	592.74
T	1508+15.73	-3.00	592.66	592.67
☉ Brg. N. Abut.	1508+23.69	-3.00	592.61	592.61
Bk. Exist. N. Abut.	1508+27.20	-3.00	592.58	592.58

BEAM 7

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+95.31	-1.00	591.15	591.15
☉ Brg. S. Abut.	1505+98.48	-1.07	591.21	591.21
A	1506+08.48	-1.28	591.40	591.42
B	1506+18.48	-1.45	591.57	591.60
C	1506+28.49	-1.58	591.74	591.77
D	1506+38.49	-1.68	591.89	591.92
E	1506+48.50	-1.74	592.03	592.05
F	1506+58.50	-1.79	592.16	592.17
☉ Pier 2	1506+67.22	-1.81	592.26	592.26
G	1506+77.23	-1.79	592.37	592.38
H	1506+87.23	-1.74	592.47	592.49
I	1506+97.24	-1.66	592.56	592.59
J	1507+07.24	-1.54	592.64	592.67
K	1507+17.25	-1.38	592.70	592.74
L	1507+27.25	-1.19	592.76	592.78
M	1507+37.25	-1.04	592.80	592.81
N	1507+47.25	-1.34	592.82	592.82
☉ Pier 1	1507+53.73	-1.52	592.83	592.83
O	1507+63.73	-1.76	592.83	592.84
P	1507+73.73	-1.97	592.82	592.84
Q	1507+83.74	-2.15	592.80	592.83
R	1507+93.75	-2.29	592.77	592.80
S	1508+03.75	-2.39	592.73	592.76
T	1508+13.76	-2.46	592.68	592.69
☉ Brg. N. Abut.	1508+22.97	-2.49	592.62	592.62
Bk. Exist. N. Abut.	1508+26.49	-2.50	592.60	592.60

BEAM 6

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+92.49	1.35	591.14	591.14
☉ Brg. S. Abut.	1505+95.55	1.36	591.20	591.20
A	1506+05.54	1.42	591.40	591.42
B	1506+15.54	1.51	591.58	591.61
C	1506+25.53	1.64	591.75	591.79
D	1506+35.52	1.80	591.91	591.94
E	1506+45.52	1.99	592.06	592.08
F	1506+55.51	1.76	592.19	592.20
☉ Pier 2	1506+62.90	1.61	592.28	592.28
G	1506+72.90	1.44	592.39	592.40
H	1506+82.89	1.30	592.49	592.51
I	1506+92.89	1.20	592.58	592.61
J	1507+02.88	1.14	592.66	592.70
K	1507+12.88	1.11	592.73	592.76
L	1507+22.88	1.11	592.78	592.81
M	1507+32.87	1.15	592.83	592.84
N	1507+42.87	1.15	592.86	592.86
☉ Pier 1	1507+50.11	1.17	592.87	592.87
O	1507+60.11	1.23	592.89	592.89
P	1507+70.10	1.33	592.89	592.91
Q	1507+80.10	1.46	592.88	592.91
R	1507+90.09	1.62	592.86	592.89
S	1508+00.08	1.82	592.83	592.86
T	1508+10.07	2.06	592.79	592.80
☉ Brg. N. Abut.	1508+16.30	2.22	592.76	592.76
Bk. Exist. N. Abut.	1508+19.66	2.32	592.74	592.74

BEAM 5

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+85.48	7.21	591.11	591.11
☉ Brg. S. Abut.	1505+88.54	7.22	591.18	591.18
A	1505+98.51	7.25	591.38	591.40
B	1506+08.49	7.32	591.57	591.60
C	1506+18.46	7.42	591.75	591.79
D	1506+28.43	7.56	591.92	591.95
E	1506+38.41	7.72	592.08	592.09
F	1506+48.38	7.51	592.21	592.22
☉ Pier 2	1506+55.66	7.38	592.31	592.31
G	1506+65.63	7.23	592.43	592.44
H	1506+75.61	7.11	592.54	592.57
I	1506+85.58	7.03	592.63	592.68
J	1506+95.56	6.98	592.72	592.77
K	1507+05.53	6.97	592.79	592.85
L	1507+15.51	6.99	592.86	592.90
M	1507+25.49	7.05	592.91	592.94
N	1507+35.46	7.02	592.95	592.96
☉ Pier 1	1507+42.29	7.02	592.97	592.97
O	1507+52.26	7.06	593.00	593.00
P	1507+62.24	7.12	593.01	593.03
Q	1507+72.21	7.23	593.01	593.04
R	1507+82.19	7.37	593.00	593.03
S	1507+92.16	7.54	592.97	593.00
T	1508+02.13	7.75	592.94	592.95
☉ Brg. N. Abut.	1508+08.35	7.89	592.91	592.91
Bk. Exist. N. Abut.	1508+11.70	7.98	592.90	592.90

NOTES

1. Work this Sheet with Sheet No. 4.
2. Offsets are taken from ☉ FAP Route 308 (IL-92).

TOP OF SLAB ELEVATIONS 3
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	AMK
CHECKED	CMM
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 122	SHEET NO. 7 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

Contract #64814 * (HB,HB-1,VB,HB-2)R

BEAM 4

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+78.51	13.10	591.08	591.08
☉ Brg. S. Abut.	1505+81.56	13.09	591.15	591.15
A	1505+91.51	13.10	591.36	591.38
B	1506+01.47	13.14	591.55	591.59
C	1506+11.42	13.22	591.74	591.78
D	1506+21.37	13.33	591.92	591.95
E	1506+31.33	13.48	592.08	592.10
F	1506+41.28	13.28	592.23	592.23
☉ Pier 2	1506+48.45	13.17	592.33	592.33
G	1506+58.40	13.03	592.46	592.47
H	1506+68.35	12.94	592.57	592.60
I	1506+78.31	12.87	592.68	592.73
J	1506+88.26	12.84	592.77	592.83
K	1506+98.22	12.85	592.86	592.91
L	1507+08.17	12.89	592.93	592.97
M	1507+18.13	12.96	592.99	593.02
N	1507+28.08	12.91	593.04	593.05
☉ Pier 1	1507+34.49	12.89	593.07	593.07
O	1507+44.45	12.90	593.10	593.10
P	1507+54.40	12.94	593.12	593.14
Q	1507+64.36	13.02	593.13	593.16
R	1507+74.31	13.13	593.12	593.16
S	1507+84.27	13.27	593.11	593.14
T	1507+94.22	13.45	593.08	593.10
☉ Brg. N. Abut.	1508+00.42	13.58	593.06	593.06
Bk. Exist. N. Abut.	1508+03.77	13.66	593.05	593.05

BEAM 3

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+71.56	18.99	591.04	591.04
☉ Brg. S. Abut.	1505+74.61	18.98	591.11	591.11
A	1505+84.54	18.96	591.33	591.35
B	1505+94.47	18.98	591.53	591.57
C	1506+04.41	19.04	591.73	591.76
D	1506+14.34	19.12	591.91	591.94
E	1506+24.27	19.24	592.08	592.10
F	1506+34.21	19.07	592.24	592.24
☉ Pier 2	1506+41.26	18.97	592.34	592.34
G	1506+51.19	18.86	592.48	592.49
H	1506+61.13	18.78	592.60	592.63
I	1506+71.06	18.74	592.72	592.77
J	1506+81.00	18.73	592.82	592.88
K	1506+90.93	18.76	592.92	592.97
L	1507+00.87	18.82	593.00	593.04
M	1507+10.80	18.89	593.07	593.09
N	1507+20.74	18.82	593.12	593.13
☉ Pier 1	1507+26.73	18.79	593.15	593.15
O	1507+36.67	18.77	593.19	593.20
P	1507+46.60	18.78	593.22	593.24
Q	1507+56.54	18.83	593.24	593.27
R	1507+66.47	18.91	593.24	593.28
S	1507+76.41	19.03	593.24	593.27
T	1507+86.34	19.18	593.22	593.24
☉ Brg. N. Abut.	1507+92.53	19.29	593.21	593.21
Bk. Exist. N. Abut.	1507+95.87	19.36	593.20	593.20

BEAM 2

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+64.65	24.91	591.00	591.00
☉ Brg. S. Abut.	1505+67.68	24.89	591.07	591.07
A	1505+77.60	24.85	591.30	591.32
B	1505+87.51	24.84	591.51	591.54
C	1505+97.42	24.87	591.71	591.75
D	1506+07.34	24.93	591.90	591.93
E	1506+17.25	25.03	592.08	592.09
F	1506+27.16	24.88	592.24	592.25
☉ Pier 2	1506+34.10	24.79	592.35	592.35
G	1506+44.02	24.70	592.50	592.51
H	1506+53.93	24.64	592.63	592.66
I	1506+63.85	24.62	592.75	592.80
J	1506+73.76	24.63	592.87	592.92
K	1506+83.68	24.68	592.97	593.02
L	1506+93.59	24.76	593.06	593.10
M	1507+03.50	24.85	593.14	593.16
N	1507+13.42	24.74	593.20	593.21
☉ Pier 1	1507+19.00	24.70	593.23	593.23
O	1507+28.92	24.65	593.28	593.29
P	1507+38.83	24.64	593.32	593.34
Q	1507+48.75	24.66	593.34	593.37
R	1507+58.66	24.72	593.36	593.39
S	1507+68.58	24.81	593.36	593.39
T	1507+78.49	24.93	593.35	593.37
☉ Brg. N. Abut.	1507+84.67	25.03	593.34	593.34
Bk. Exist. N. Abut.	1507+88.00	25.09	593.34	593.34

BEAM 1

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. Exist. S. Abut.	1505+57.76	30.84	590.96	590.96
☉ Brg. S. Abut.	1505+60.79	30.81	591.03	591.03
A	1505+70.68	30.75	591.26	591.28
B	1505+80.57	30.72	591.48	591.51
C	1505+90.47	30.72	591.69	591.72
D	1506+00.36	30.76	591.89	591.91
E	1506+10.25	30.83	592.07	592.09
F	1506+20.15	30.70	592.24	592.25
☉ Pier 2	1506+26.98	30.63	592.36	592.36
G	1506+36.87	30.56	592.51	592.52
H	1506+46.76	30.53	592.65	592.68
I	1506+56.66	30.53	592.78	592.82
J	1506+66.55	30.56	592.90	592.95
K	1506+76.45	30.63	593.01	593.06
L	1506+86.34	30.73	593.11	593.15
M	1506+96.23	30.82	593.20	593.22
N	1507+06.13	30.69	593.27	593.28
☉ Pier 1	1507+11.31	30.64	593.31	593.31
O	1507+21.20	30.56	593.36	593.37
P	1507+31.09	30.52	593.41	593.42
Q	1507+40.99	30.52	593.44	593.47
R	1507+50.88	30.54	593.46	593.50
S	1507+60.78	30.61	593.48	593.50
T	1507+70.67	30.71	593.48	593.49
☉ Brg. N. Abut.	1507+76.84	30.78	593.47	593.47
Bk. Exist. N. Abut.	1507+80.17	30.83	593.47	593.47

NOTES

1. Work this Sheet with Sheet No. 4.
2. Offsets are taken from ☉ FAP Route 308 (IL-92).

TOP OF SLAB ELEVATIONS 4
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	AMK
CHECKED	CMM
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	123
SHEET NO. 8 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
Contract #64814 * (HB,HB-1,VB,HB-2)R				

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1506+18.97	-45.42	590.70
A	1506+29.39	-45.44	590.87
B	1506+39.78	-45.42	591.03
Back of Exist. South Abut.	1506+49.65	-45.00	591.18

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1506+11.03	-39.00	590.69
A	1506+21.37	-39.00	590.87
B	1506+31.72	-39.00	591.04
Back of Exist. South Abut.	1506+42.06	-39.00	591.19

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1505+68.82	-4.00	590.52
A	1505+78.85	-4.00	590.75
B	1505+88.89	-4.00	590.96
Back of Exist. South Abut.	1505+98.92	-4.00	591.16

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1505+67.64	-3.00	590.52
A	1505+77.67	-3.00	590.74
B	1505+87.69	-3.00	590.96
Back of Exist. South Abut.	1505+97.72	-3.00	591.16

☉ FAP ROUTE 308 (IL-92)

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1505+64.11	0.00	590.49
A	1505+74.11	0.00	590.72
B	1505+84.11	0.00	590.94
Back of Exist. South Abut.	1505+94.11	0.00	591.15

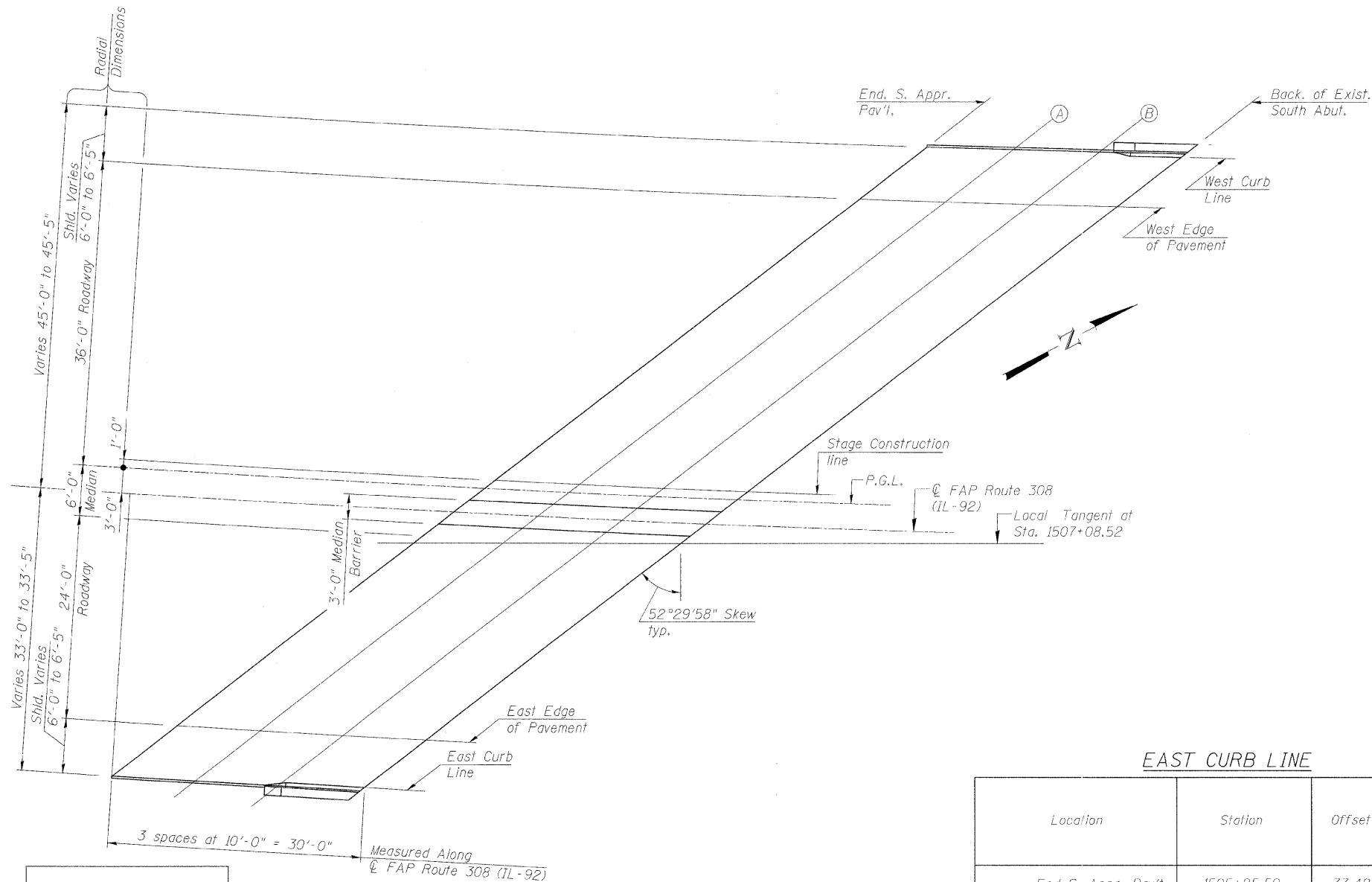
EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1505+32.87	27.00	590.24
A	1505+42.65	27.00	590.50
B	1505+52.43	27.00	590.75
Back of Exist. South Abut.	1505+62.21	27.00	590.99

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pav't.	1505+25.59	33.42	590.17
A	1505+35.36	33.38	590.43
B	1505+45.46	33.06	590.69
Back of Exist. South Abut.	1505+55.26	33.00	590.94

TOP OF SOUTH APPROACH
SLAB ELEVATIONS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064



PLAN

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET 124	SHEET NO. 9 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT Contract #64814 * I(HB,HB-1,VB,HB-2)R		

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1508+88.82	-45.00	591.07
C	1508+99.48	-45.10	590.91
D	1509+10.49	-45.43	590.72
End N. Appr. Pav't.	1509+20.99	-45.42	590.54

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1508+28.63	-4.00	592.55
C	1508+38.67	-4.00	592.47
D	1508+48.71	-4.00	592.38
End N. Appr. Pav't.	1508+58.76	-4.00	592.27

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1508+27.20	-3.00	592.58
C	1508+37.23	-3.00	592.50
D	1508+47.27	-3.00	592.41
End N. Appr. Pav't.	1508+57.30	-3.00	592.31

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1508+79.78	-39.00	591.32
C	1508+90.22	-39.00	591.17
D	1509+00.66	-39.00	591.01
End N. Appr. Pav't.	1509+11.10	-39.00	590.84

☉ FAP ROUTE 308 (IL-92)

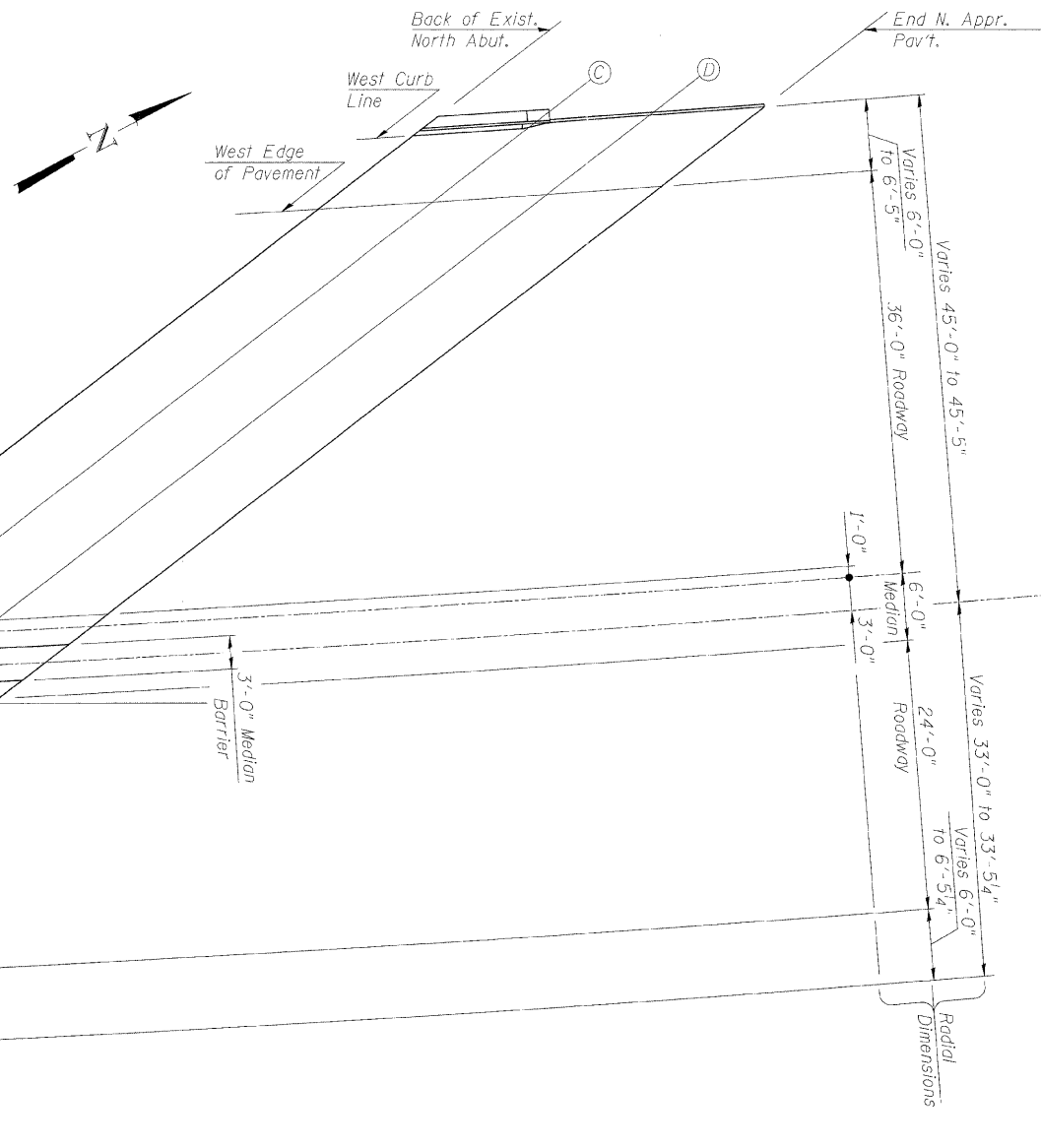
Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1508+22.94	0.00	592.67
C	1508+32.94	0.00	592.60
D	1508+42.94	0.00	592.51
End N. Appr. Pav't.	1508+52.94	0.00	592.42

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1507+85.38	27.00	593.38
C	1507+95.11	27.00	593.35
D	1508+04.83	27.00	593.31
End N. Appr. Pav't.	1508+14.55	27.00	593.26

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back of Exist. North Abut.	1507+77.23	33.00	593.52
C	1507+86.33	33.41	593.51
D	1507+96.00	33.41	593.48
End N. Appr. Pav't.	1508+05.61	33.43	593.44



Stage Construction line
P.G.L.
☉ FAP Route 308 (IL-92)
Local Tangent at Sta. 1507+08.52
52°29'58" Skew typ.
East Edge of Pavement
East Curb Line
3 spaces at 10'-0" = 30'-0" Measured Along ☉ FAP Route 308 (IL-92)

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

PLAN

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

TOP OF NORTH APPROACH
SLAB ELEVATIONS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. I(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

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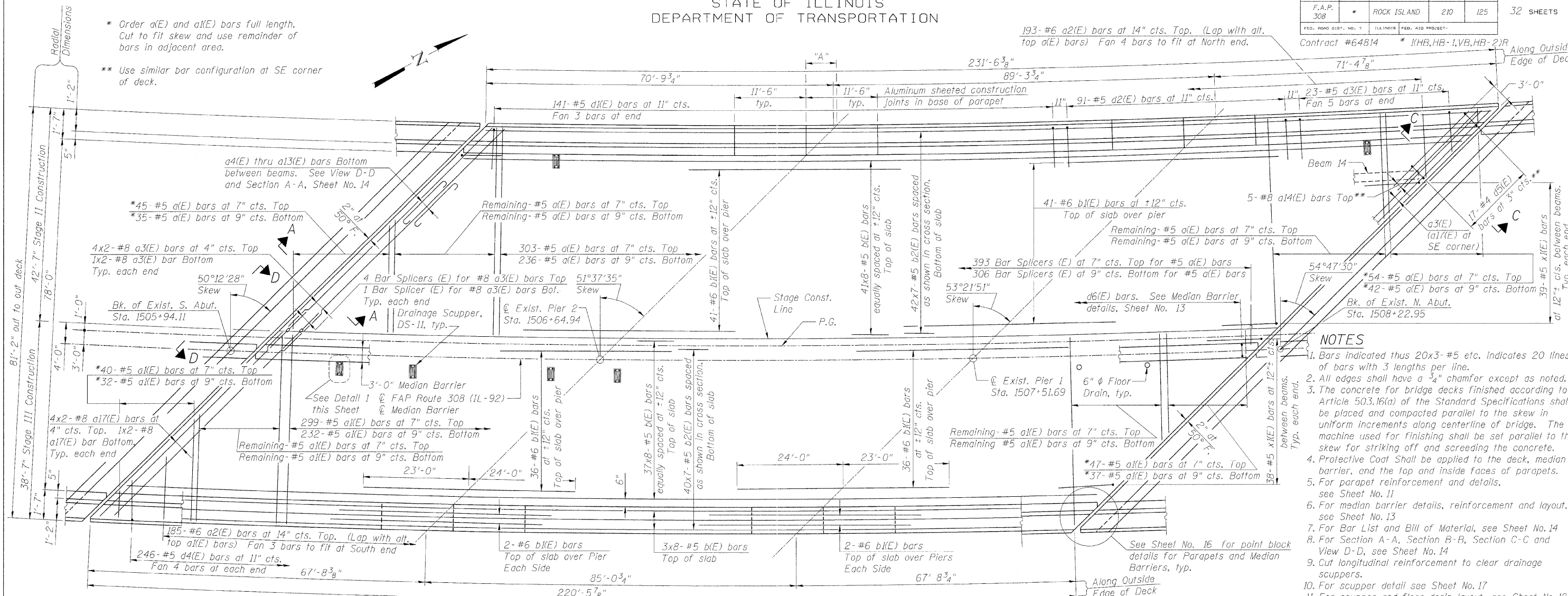
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	125	32 SHEETS
Contract #64814 * (HB, HB-1, VB, HB-2)R					

* Order a(E) and a(E) bars full length. Cut to fit skew and use remainder of bars in adjacent area.

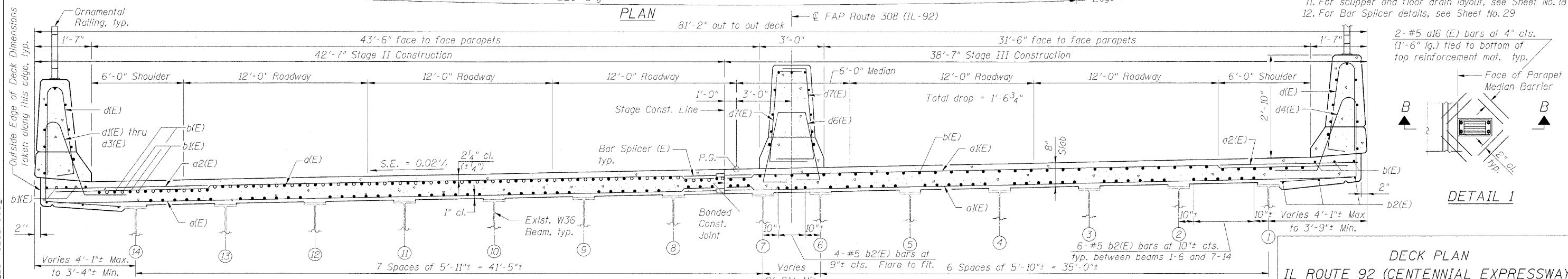
** Use similar bar configuration at SE corner of deck.

193-#6 a2(E) bars at 14" cts. Top. (Lap with alt. top a(E) bars) Fan 4 bars to fit at North end.



NOTES

1. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
2. All edges shall have a 3/4" chamfer except as noted.
3. The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.
4. Protective Coat shall be applied to the deck, median barrier, and the top and inside faces of parapets.
5. For parapet reinforcement and details, see Sheet No. 11
6. For median barrier details, reinforcement and layout, see Sheet No. 13
7. For Bar List and Bill of Material, see Sheet No. 14
8. For Section A-A, Section B-B, Section C-C and View D-D, see Sheet No. 14
9. Cut longitudinal reinforcement to clear drainage scuppers.
10. For scupper detail see Sheet No. 17
11. For scupper and floor drain layout, see Sheet No. 18
12. For Bar Splicer details, see Sheet No. 29



DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

NEAR PIER "A" Dimension

West Parapet, Pier 2	2'-1"
West Parapet, Pier 1	2'-2 3/4"
East Parapet, Pier 2	1'-11 1/4"
East Parapet, Pier 1	2'-0 3/4"

CROSS SECTION (Looking North)
Note: Horizontal dimensions shown are radial

MINIMUM BAR LAP

#5 Bars	= 2'-2"
#8 Bars	= 6'-4"

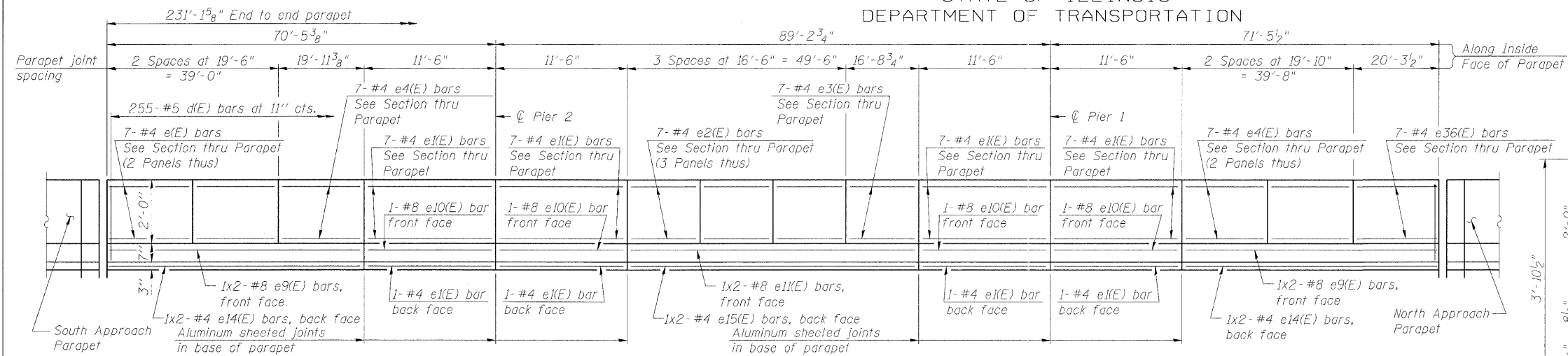
DECK PLAN
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

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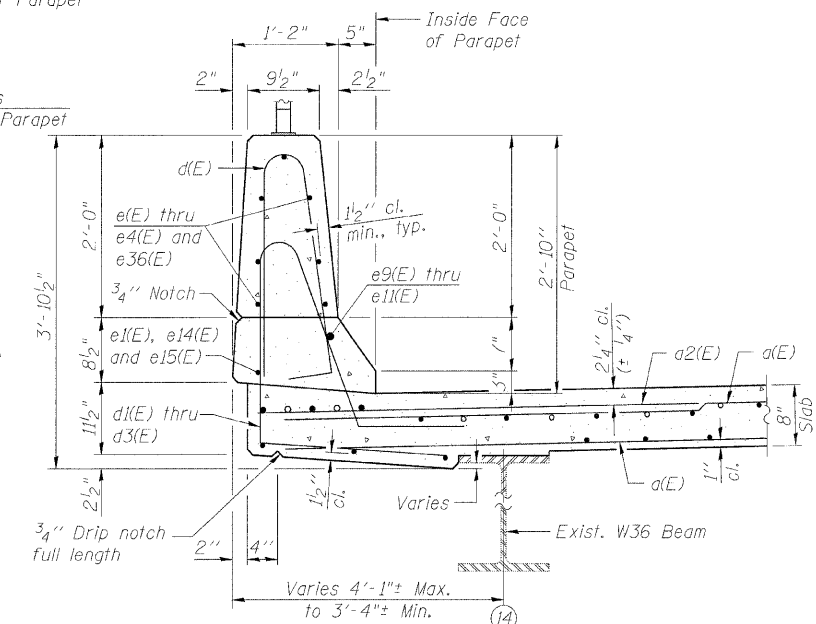
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	126
SHEET NO. 11				
32 SHEETS				

Contract #64814 * (1HB, HB-1, VB, HB-2)R

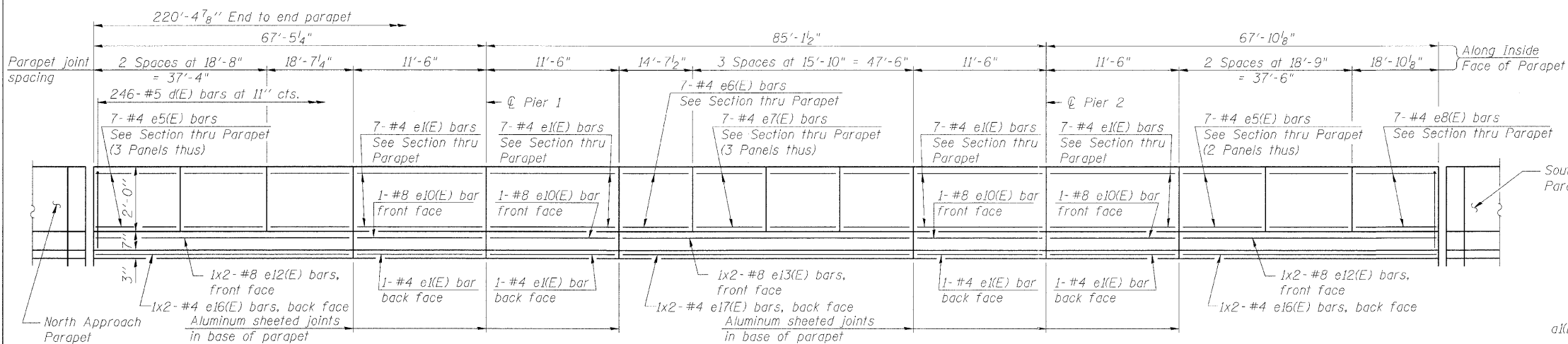


INSIDE ELEVATION OF WEST PARAPET

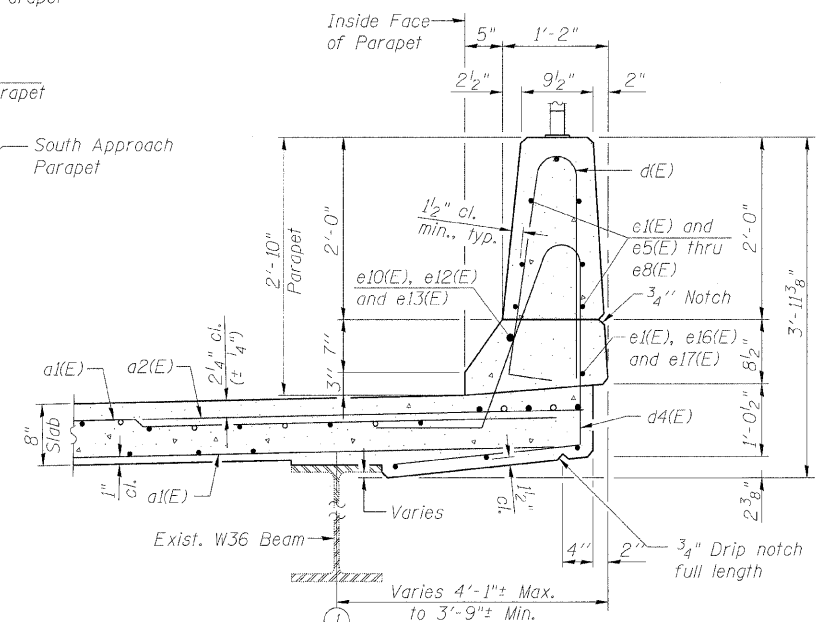


SECTION THRU WEST PARAPET

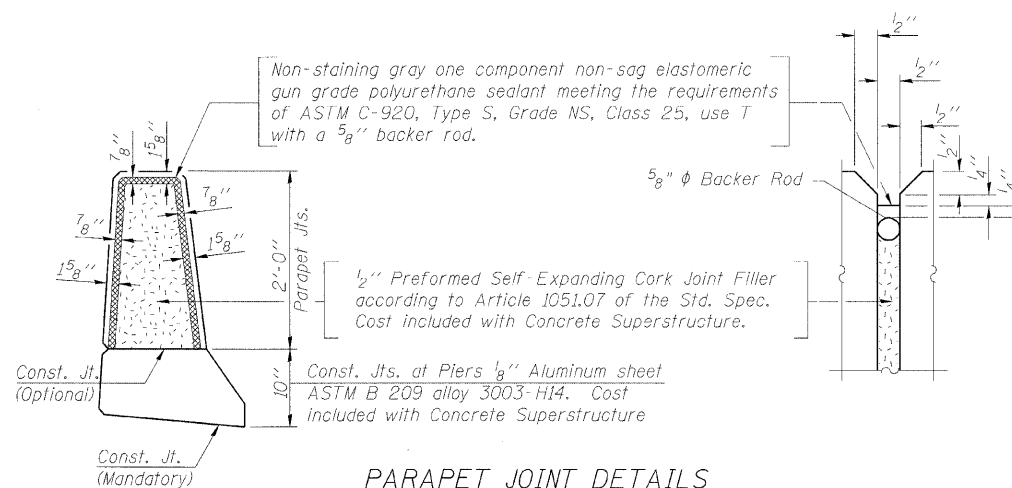
MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



INSIDE ELEVATION OF EAST PARAPET



SECTION THRU EAST PARAPET



PARAPET JOINT DETAILS

NOTES

1. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
2. All edges shall have a 3/4" chamfer except as noted.
3. For Bar List and Bill of Material, see Sheet No. 14
4. For Approach Parapet details, see Sheet No. 12

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

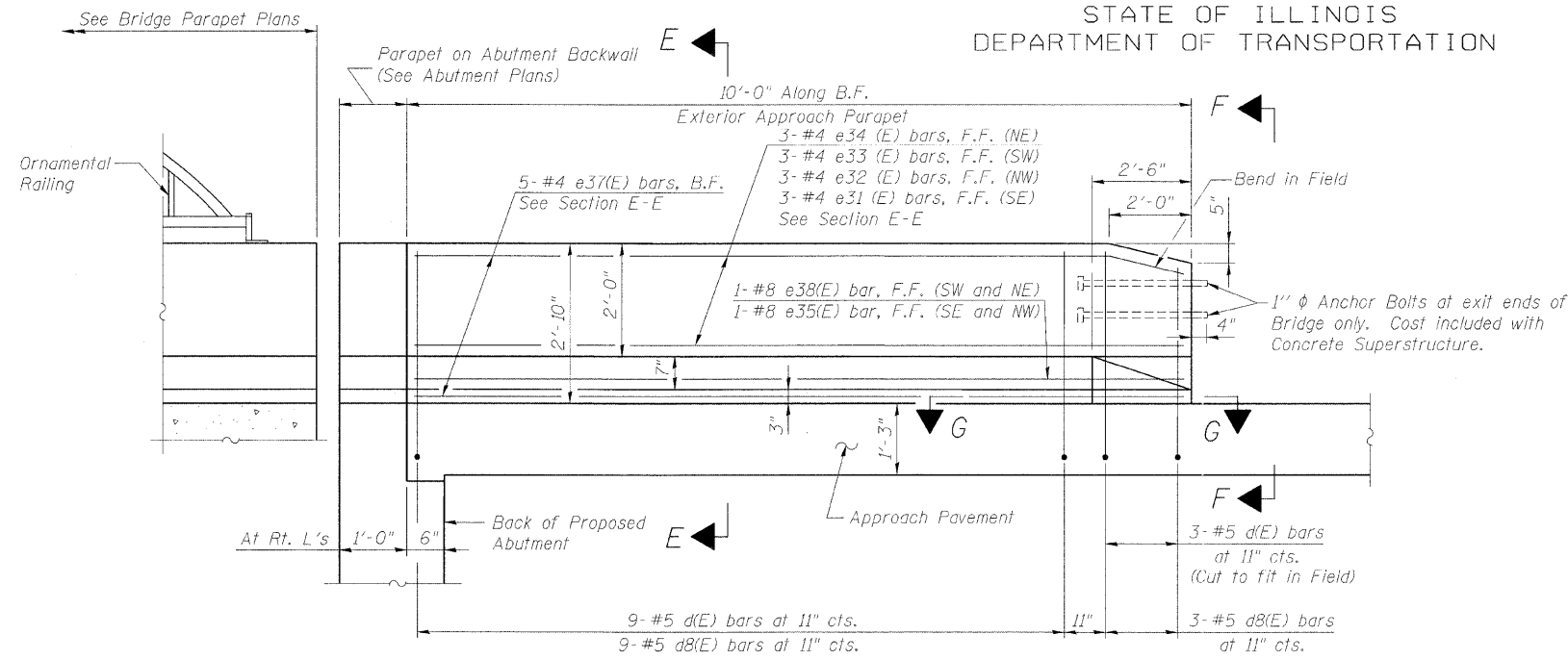
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

PARAPET DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

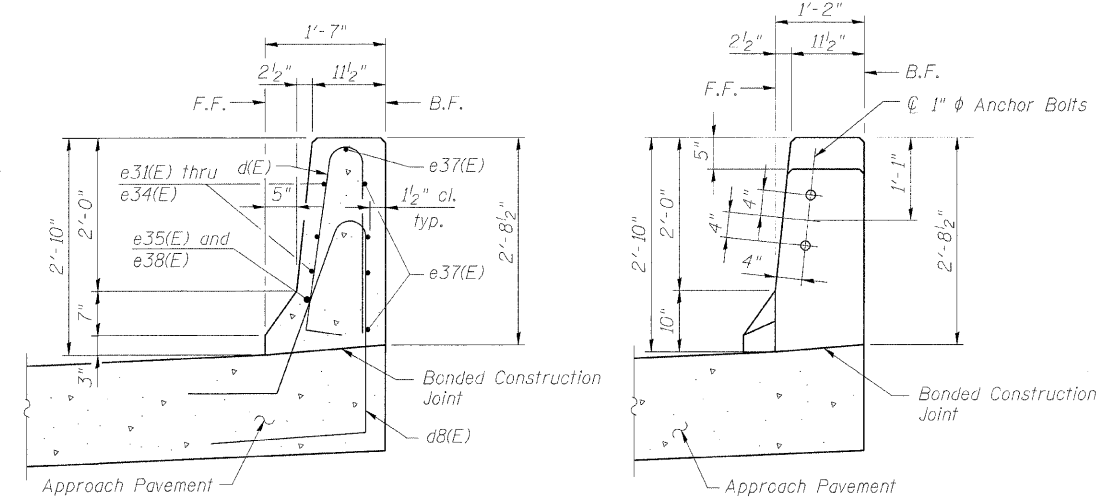
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	127
SHEET NO. 12 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		
Contract #64814 * (HB,HB-1,VB,HB-2)R				

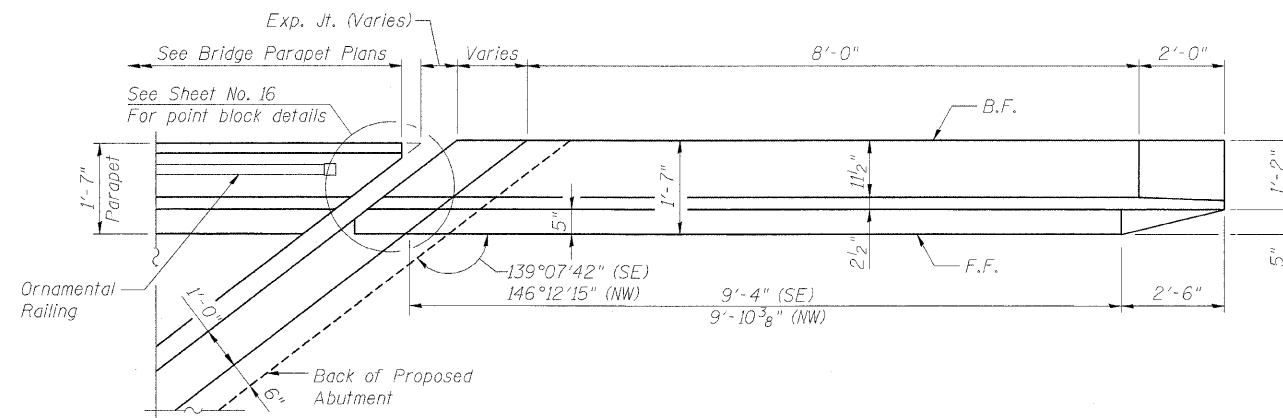


INSIDE ELEVATION - EXTERIOR APPROACH PARAPET

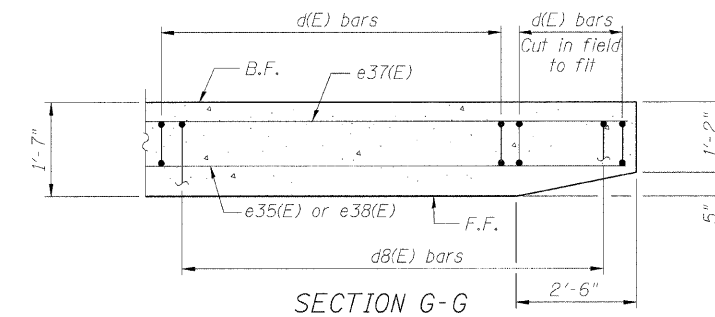


SECTION E-E

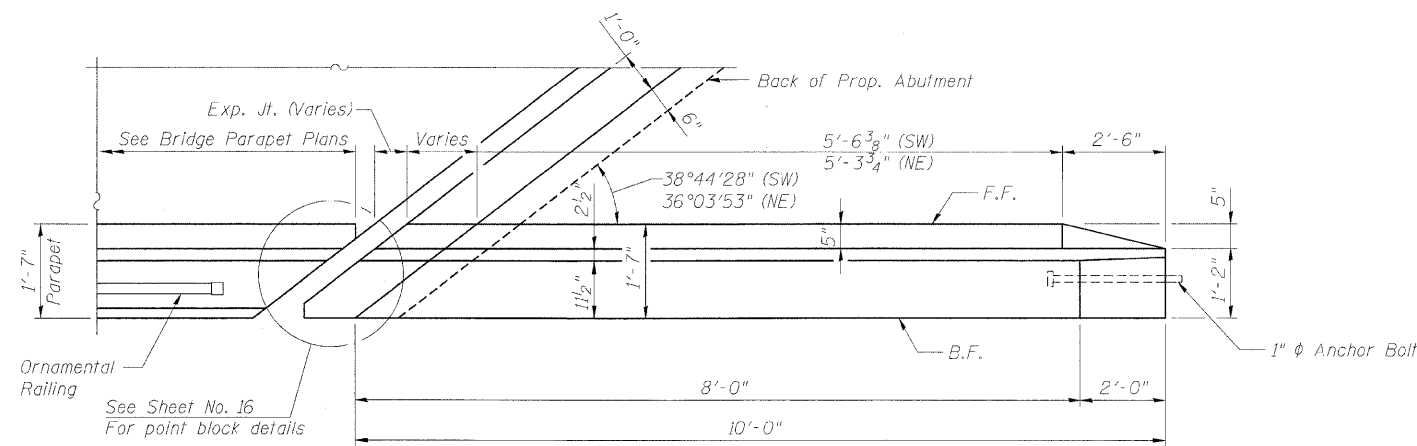
VIEW F-F



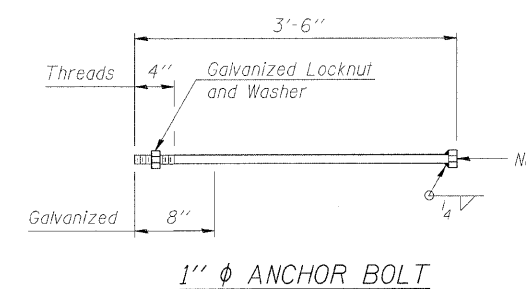
PLAN - EXTERIOR APPROACH PARAPET (SE AND NW)



SECTION G-G



PLAN - EXTERIOR APPROACH PARAPET (SW AND NE)



1" φ ANCHOR BOLT

NOTES

1. For Bar List and Bill of Material see Sheet No. 14
2. B.F. denotes Back Face
E.F. denotes Each Face
F.F. denotes Front Face
3. For Traffic Barrier Terminal details see IDOT Standard Drawings.
4. For Approach Pavement reinforcement and details see IDOT Standard Drawings.

APPROACH PARAPET DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

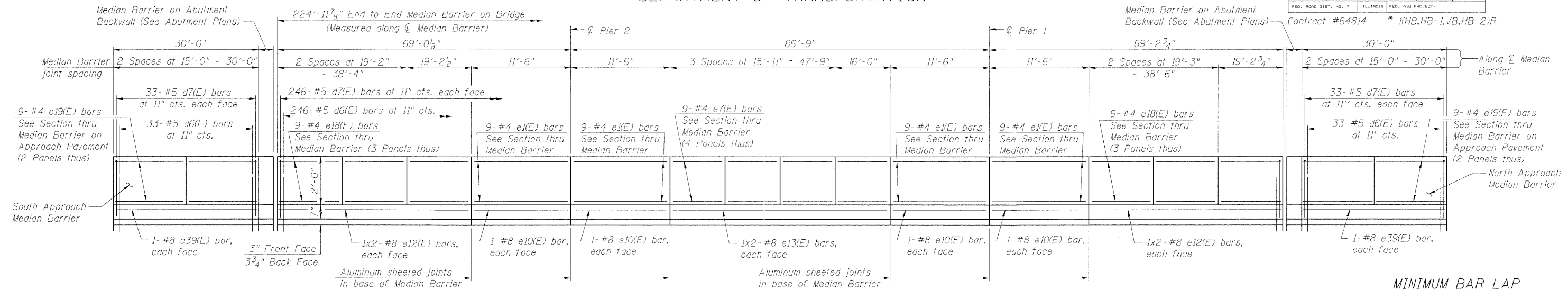
DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

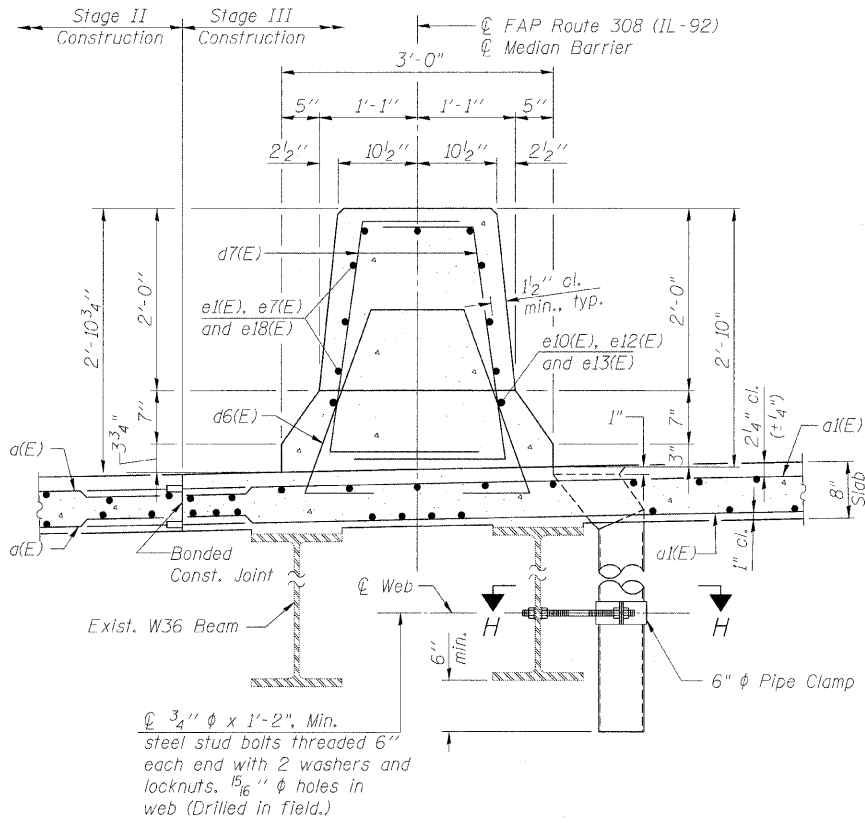
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	128
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #64814 * (1VB,HB-1,VB,HB-2)R

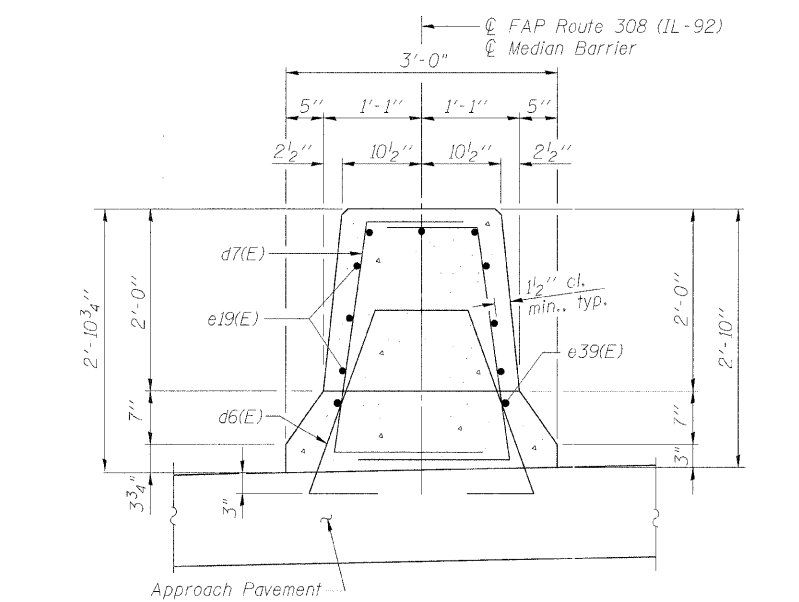


MEDIAN BARRIER ELEVATION
(Looking West)

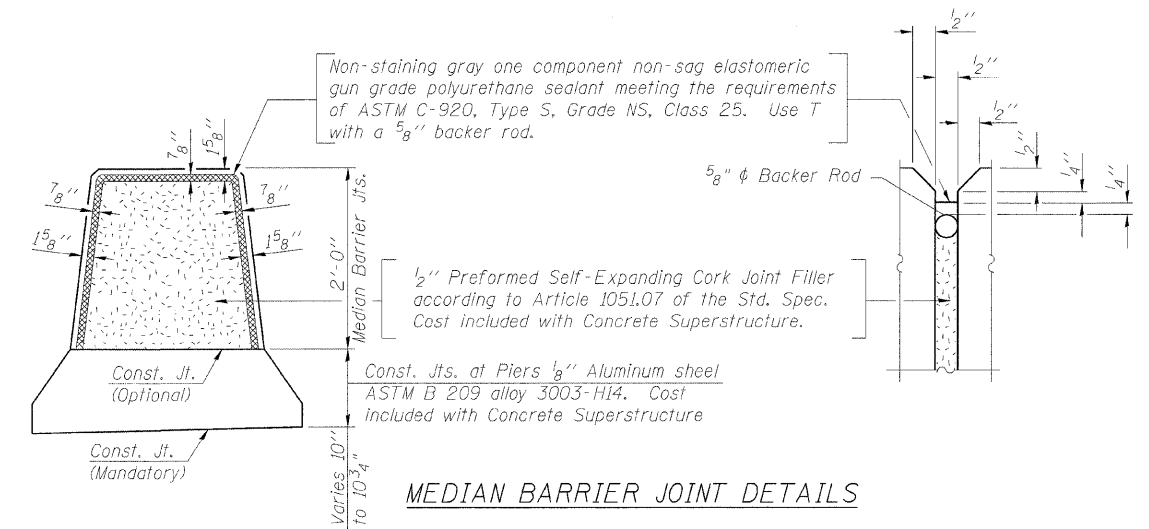
MINIMUM BAR LAP
(Median Barrier)
#4 bar = 1'-4"
#8 bar = 3'-5"



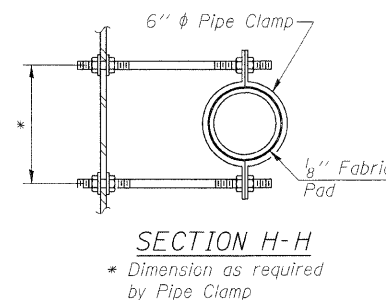
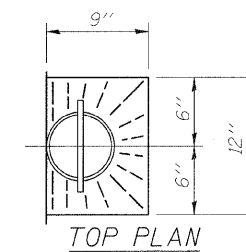
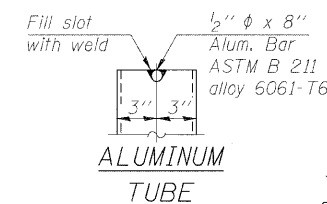
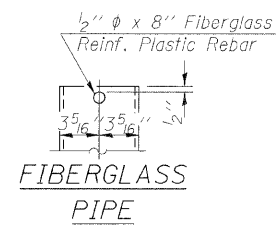
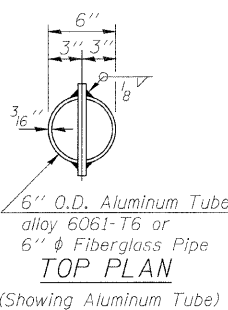
SECTION THRU MEDIAN BARRIER ON BRIDGE
(Looking North)



SECTION THRU MEDIAN BARRIER ON APPROACH PAVEMENT
(Looking North)



MEDIAN BARRIER JOINT DETAILS



NOTES

1. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
2. For Bar List and Bill of Material, see Sheet No. 14
3. All edges shall have a 3⁴" chamfer except as noted.
4. Cost of median concrete on approach pavement included with Concrete Superstructure.
5. For Approach Pavement reinforcement and details see IDOT Standard Drawings.

MEDIAN BARRIER DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

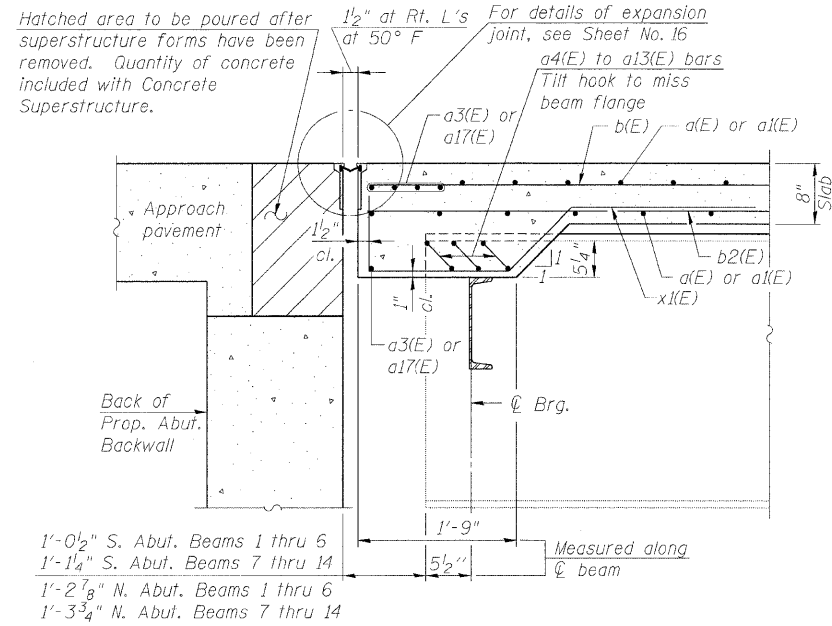
Notes:

The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

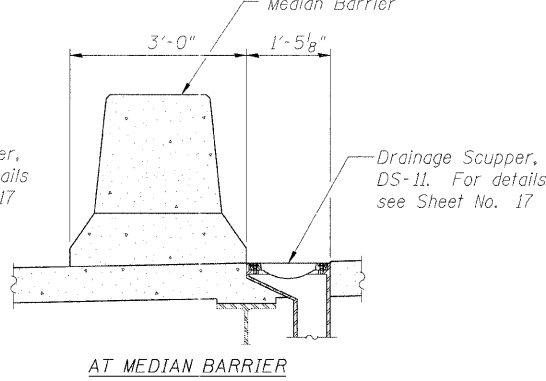
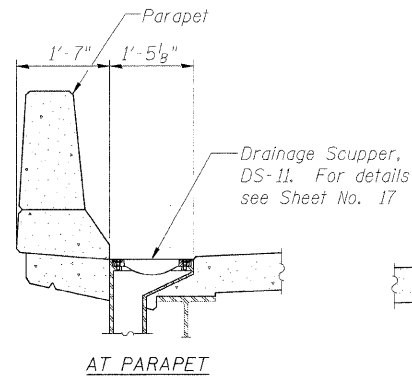
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	MILES	SHEET NO.	SHEET NO. 14
F.A.P. 308	*	ROCK ISLAND	210	129	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (HB, HB-1, VB, HB-2)R		



SECTION A-A



SECTION B-B

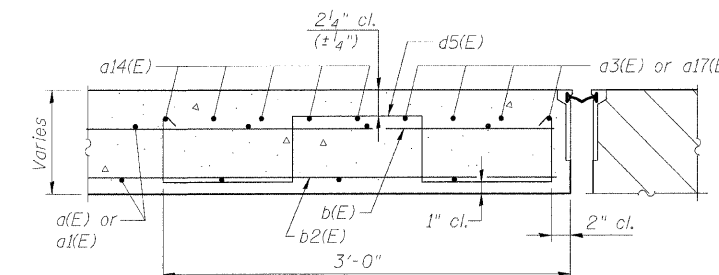
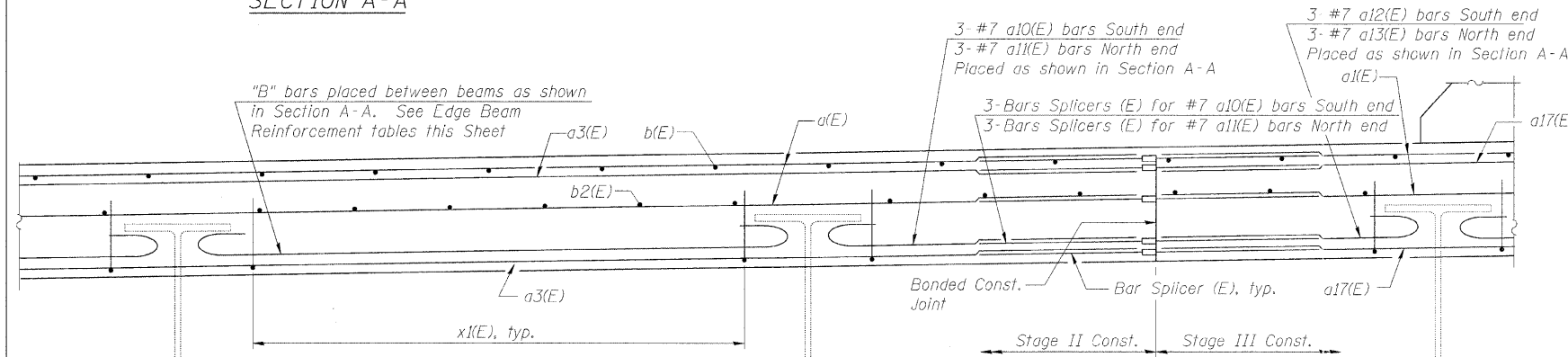
Notes:
For location of Drainage Scuppers see Sheet No. 18
Cut longitudinal reinforcement to clear drainage scuppers.
For drainage system details see Sheet No. 18

SUPERSTRUCTURE
BILL OF MATERIAL

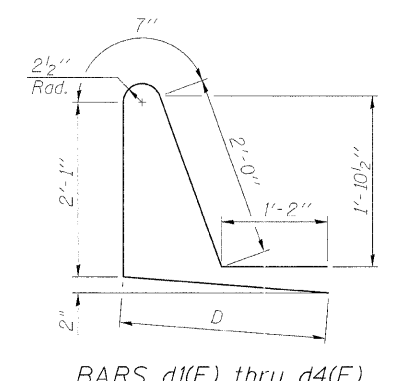
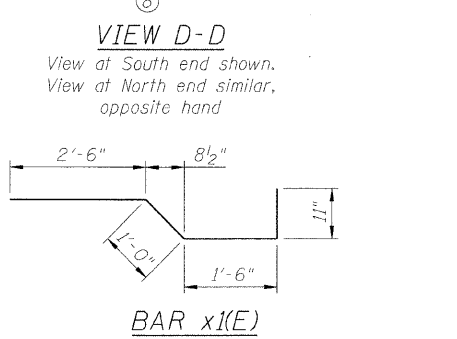
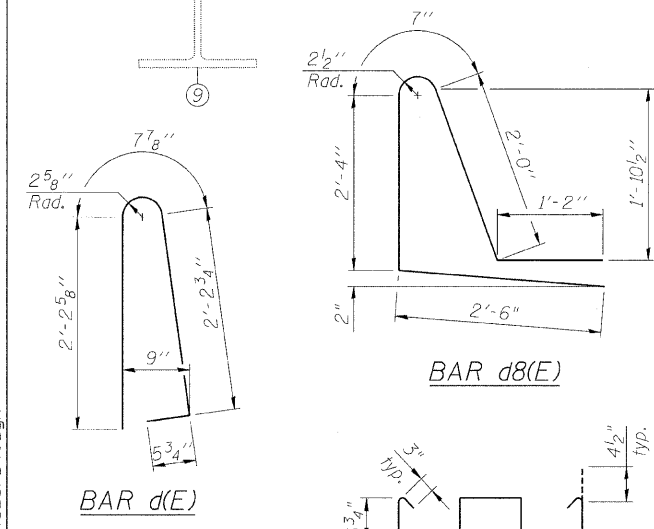
Bar	No.	Size	Length	Shape
a1(E)	715	#5	42'-2"	—
a1(E)	687	#5	38'-2"	—
a2(E)	378	#6	7'-0"	—
a3(E)	20	#8	40'-5"	—
a4(E)	18	#7	10'-11"	—
a5(E)	18	#7	11'-5"	—
a6(E)	3	#7	5'-2"	—
a7(E)	15	#7	10'-6"	—
a8(E)	3	#7	9'-7"	—
a9(E)	15	#7	11'-2"	—
a10(E)	3	#7	5'-5"	—
a11(E)	3	#7	7'-11"	—
a12(E)	3	#7	5'-2"	—
a13(E)	3	#7	3'-2"	—
a14(E)	10	#8	10'-0"	—
a16(E)	48	#5	1'-6"	—
a17(E)	20	#8	35'-11"	—

SUPERSTRUCTURE
BILL OF MATERIAL (CONT'D)

Bar	No.	Size	Length	Shape
b1(E)	672	#5	30'-10"	—
b1(E)	162	#6	47'-0"	—
b2(E)	574	#5	34'-11"	—
d1(E)	549	#5	5'-7"	—
d1(E)	141	#5	8'-4"	—
d2(E)	91	#5	8'-6"	—
d3(E)	23	#5	8'-10"	—
d4(E)	246	#5	8'-9"	—
d5(E)	34	#4	5'-6"	—
d6(E)	312	#5	7'-8"	—
d7(E)	624	#5	6'-3"	—
d8(E)	48	#5	8'-7"	—



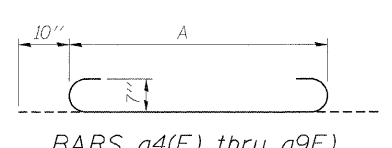
SECTION C-C
Outside of Exterior Beam



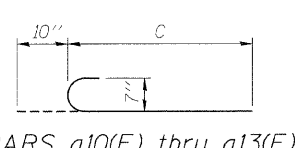
Bar	D
d1(E)	2'-6"
d2(E)	2'-8"
d3(E)	3'-0"
d4(E)	2'-11"

EDGE BEAM REINFORCEMENT

Between Beams	"B"	Between Beams	"B"
1 and 2	3-#7 a9(E)	1 and 2	3-#7 a7(E)
2 and 3	3-#7 a9(E)	2 and 3	3-#7 a7(E)
3 and 4	3-#7 a9(E)	3 and 4	3-#7 a7(E)
4 and 5	3-#7 a9(E)	4 and 5	3-#7 a7(E)
5 and 6	3-#7 a9(E)	5 and 6	3-#7 a7(E)
6 and 7	3-#7 a8(E)	6 and 7	3-#7 a6(E)
8 and 9	3-#7 a5(E)	8 and 9	3-#7 a4(E)
9 and 10	3-#7 a5(E)	9 and 10	3-#7 a4(E)
10 and 11	3-#7 a5(E)	10 and 11	3-#7 a4(E)
11 and 12	3-#7 a5(E)	11 and 12	3-#7 a4(E)
12 and 13	3-#7 a5(E)	12 and 13	3-#7 a4(E)
13 and 14	3-#7 a5(E)	13 and 14	3-#7 a4(E)



Bar	A
a4(E)	9'-3"
a5(E)	9'-9"
a6(E)	3'-6"
a7(E)	8'-10"
a8(E)	7'-11"
a9(E)	9'-6"



Bar	C
a10(E)	4'-7"
a11(E)	7'-1"
a12(E)	4'-4"
a13(E)	2'-4"

NOTES
1. For location of Section A-A and View D-D, see Sheet No. 10

DECK DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED AMK
CHECKED CMM
DRAWN AMK
CHECKED RWC

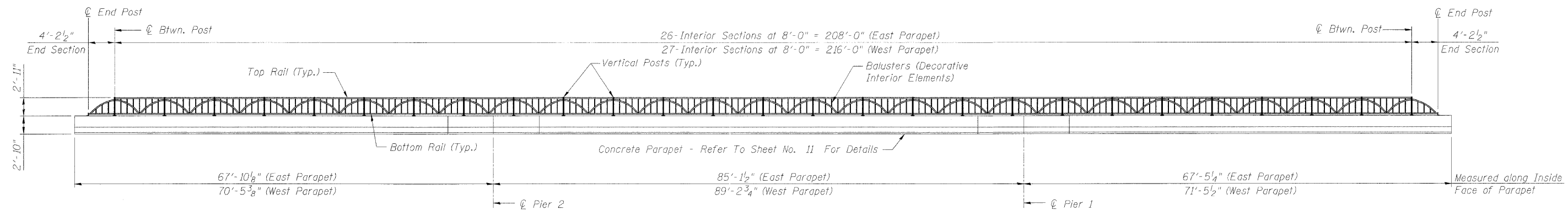
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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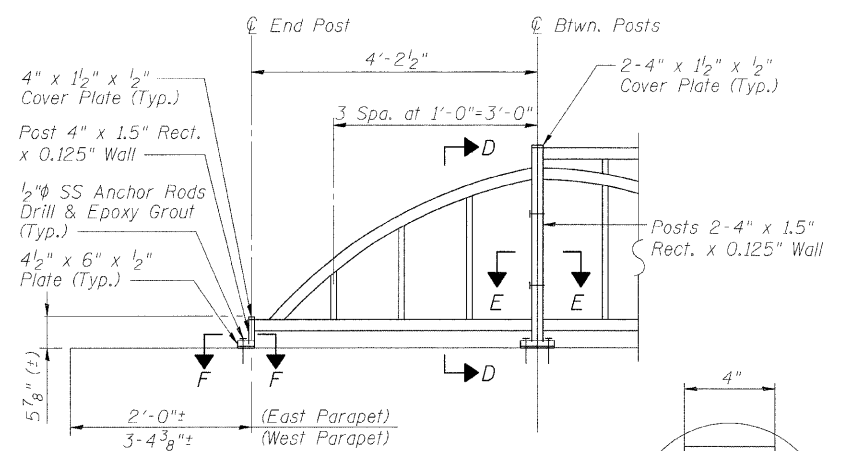
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO. 15
F.A.P. 308	*	ROCK ISLAND	210	130	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

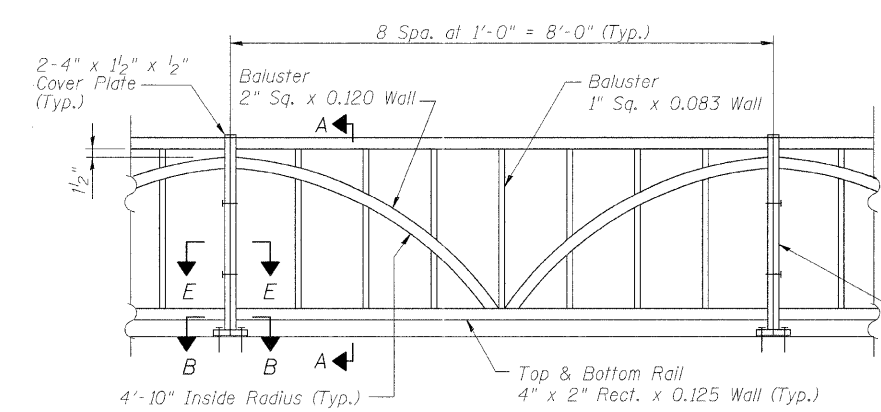
Contract #64814 * (HB, HB-1, VB, HB-2)R



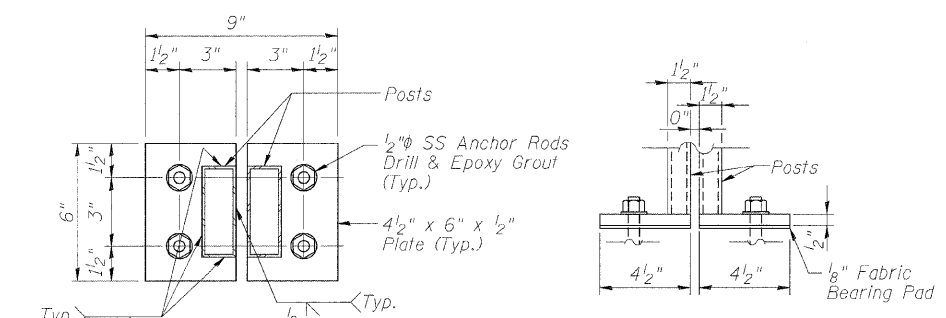
ORNAMENTAL BRIDGE RAIL ELEVATION



TYPICAL END SECTION



TYPICAL INTERIOR SECTION



SECTION B-B

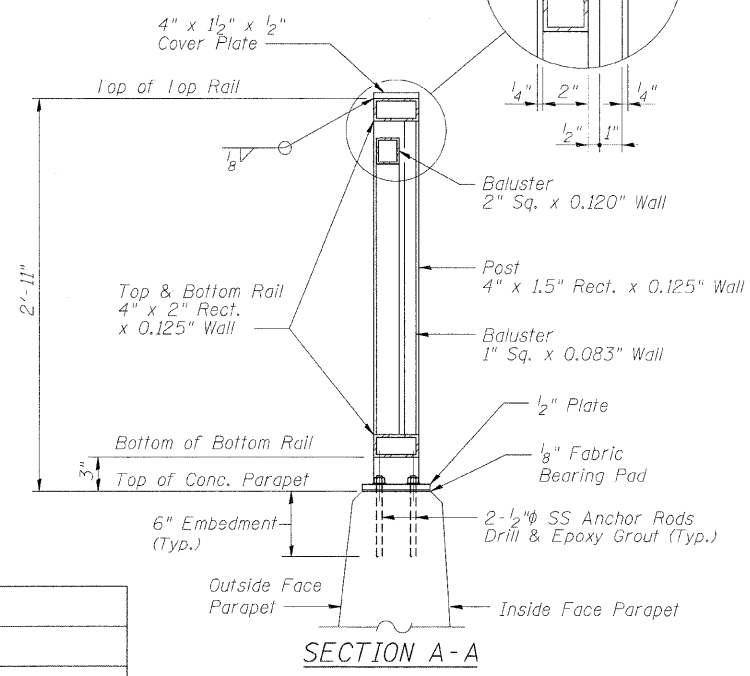
VIEW C-C

BILL OF MATERIAL

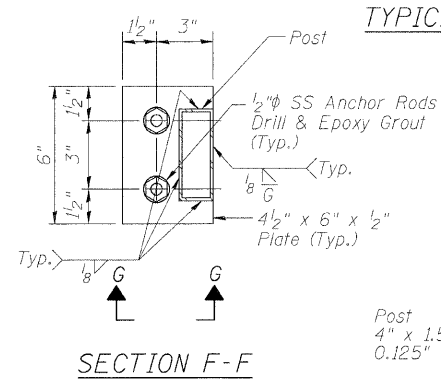
Item	Unit	Quantity
Ornamental Railing	Foot	441

NOTES

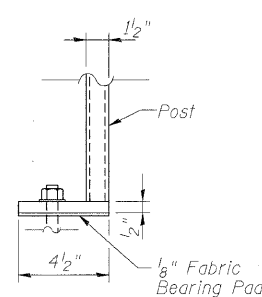
- Ornamental Rail. Ornamental-Aluminum alloy rail shall conform to the requirements of Alloy 6061-T6 with a minimum yield of 35,000 psi, a minimum tensile strength of 38,000 psi, and an elongation of 10 percent in 2 in.
- Stainless Steel Carriage Bolts. Stainless steel nuts, washers, lock washers, carriage bolts shall conform to the requirements of Article 1006.29(d) of the Standard Specifications.
- Stainless Steel Bars. Stainless steel bars shall conform to the requirements of ASTM A 276, Type No. 302 or 304, Condition B. Threads, when required, shall be Class 2B.
- Three stainless steel shims per post (1 at 1/8 in. and 2 at 1/16 in.) shall be provided for 25 percent of the posts. Shims shall be similar to base plate in size and holes. Shims shall be installed as req'd. between base plate and fabric bearing pad.
- The pay item Ornamental Railing shall include all costs associated with the fabrication and erection of aluminum rail shown. The cost of anchor rods, plates, bolts and fabric bearing pads shall be included with Ornamental Railing.



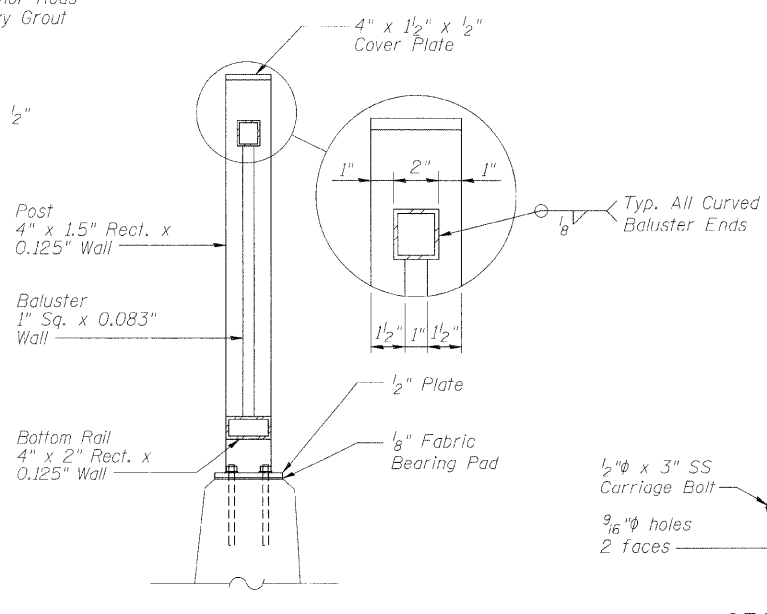
SECTION A-A



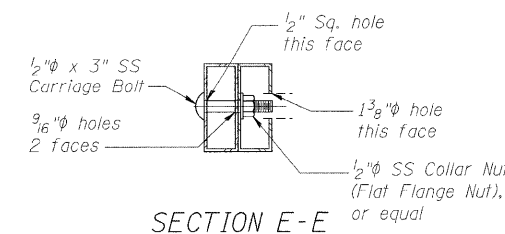
SECTION F-F



VIEW G-G



SECTION D-D



SECTION E-E
ALIGNMENT CONNECTION DETAIL
(Typ. 2 places per paired post)

DESIGNED CMM
CHECKED AMK
DRAWN
CHECKED RWC

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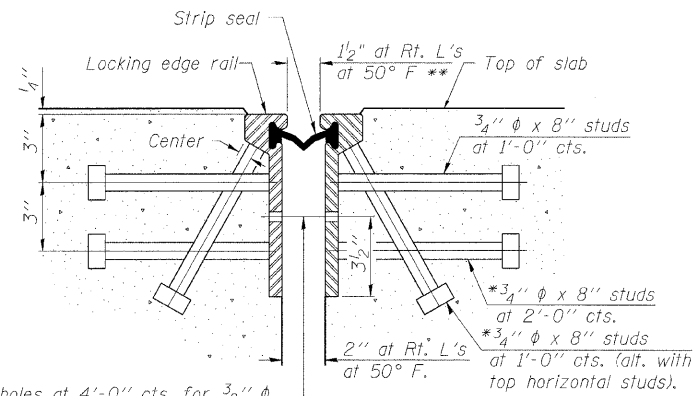
ORNAMENTAL RAILING DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0170

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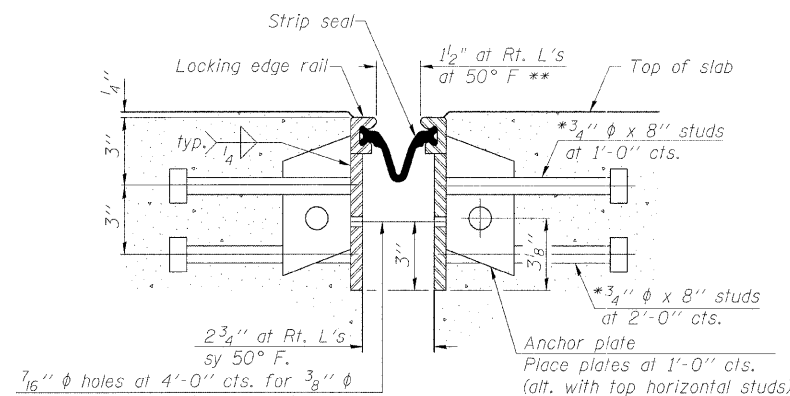
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION #	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 131	SHEET NO. 16 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		Contract #64814 * I(HB,HB-1,VB,HB-2)R	

*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.
**When joint is fixed, dimension is set at 1 1/2".



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

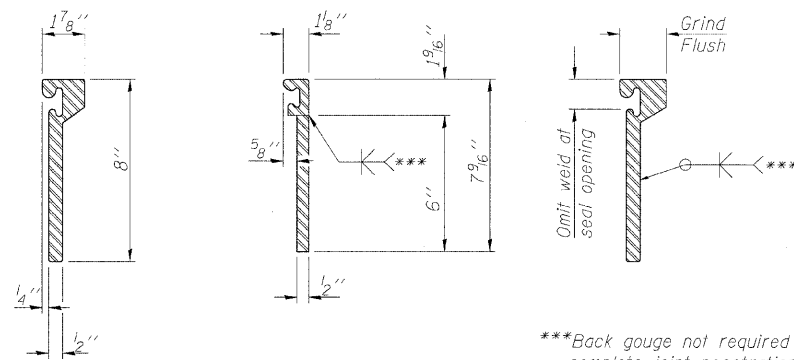


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

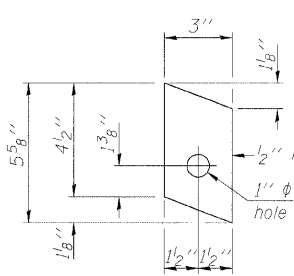
SECTION THRU
ROLLED RAIL JOINT

SECTION THRU
WELDED RAIL JOINT

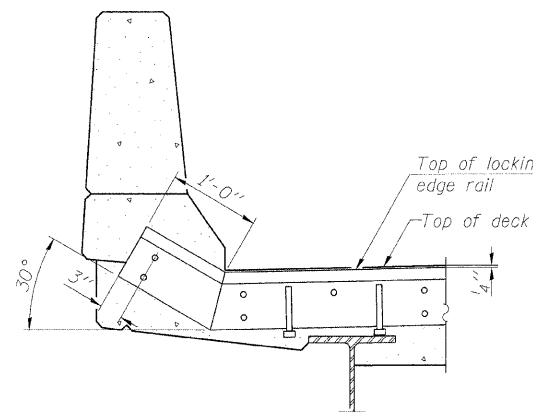
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



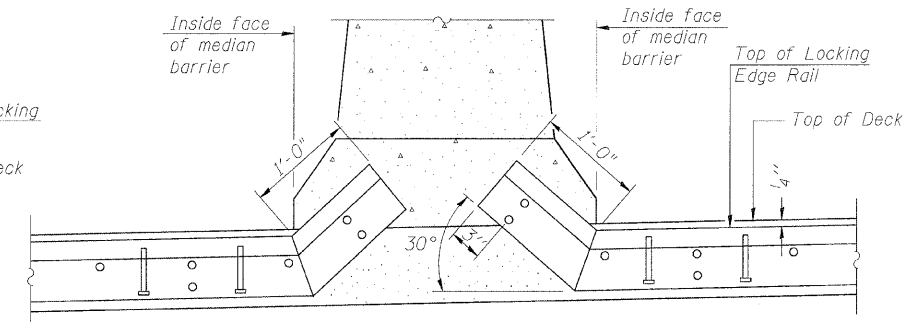
***Back gouge not required if complete joint penetration is verified by mock-up.



ANCHOR PLATE
(for welded rail)



AT PARAPET



AT MEDIAN BARRIER

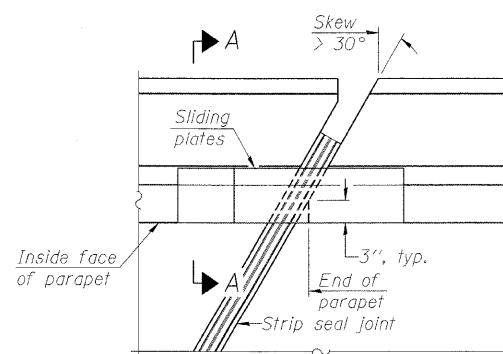
ROLLED
(EXTRUDED) RAIL WELDED RAIL

LOCKING EDGE
RAIL SPLICE

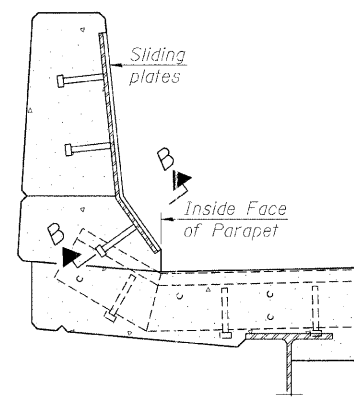
The inside of the locking edge rail groove shall be free of weld residue.

TYPICAL END TREATMENTS

LOCKING EDGE RAILS

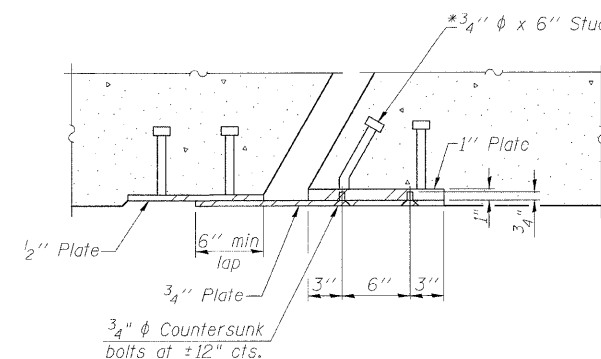


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	255

EXPANSION JOINT DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

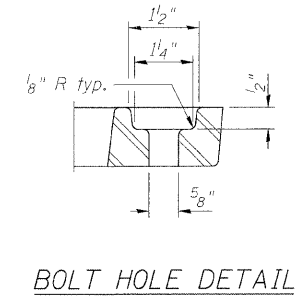
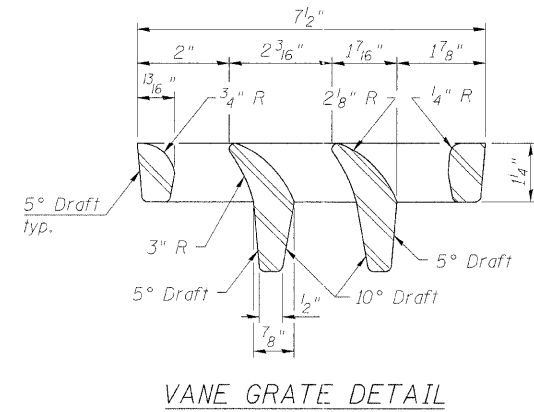
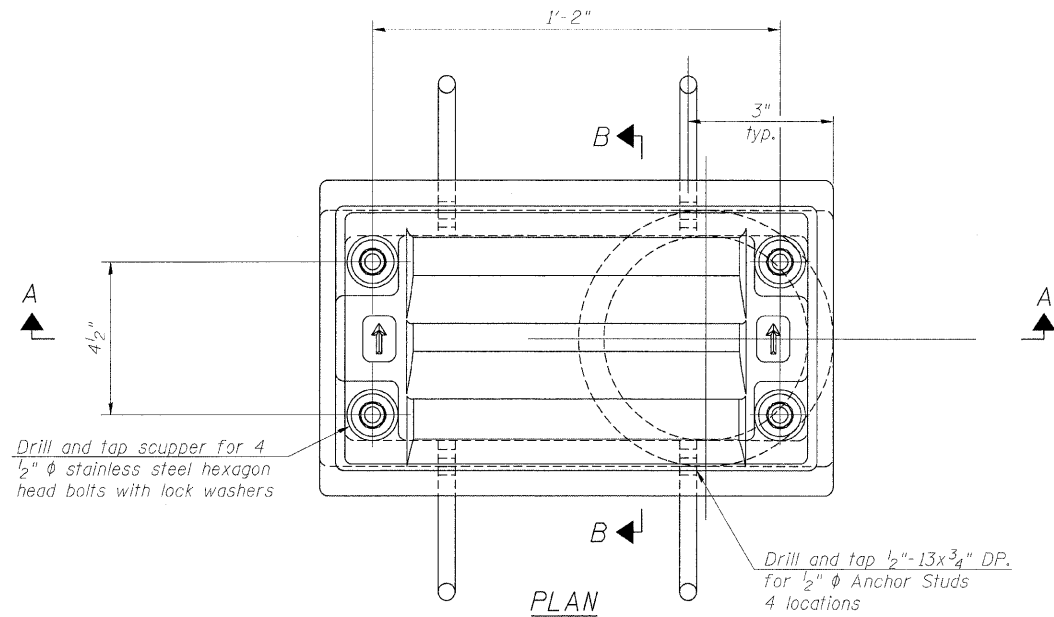
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 17
F.A.P. 308	#	ROCK ISLAND	210	132	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64814 * (HB,HB-1,VB,HB-2)R



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

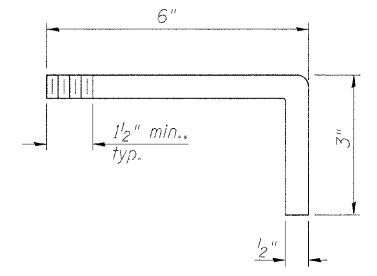
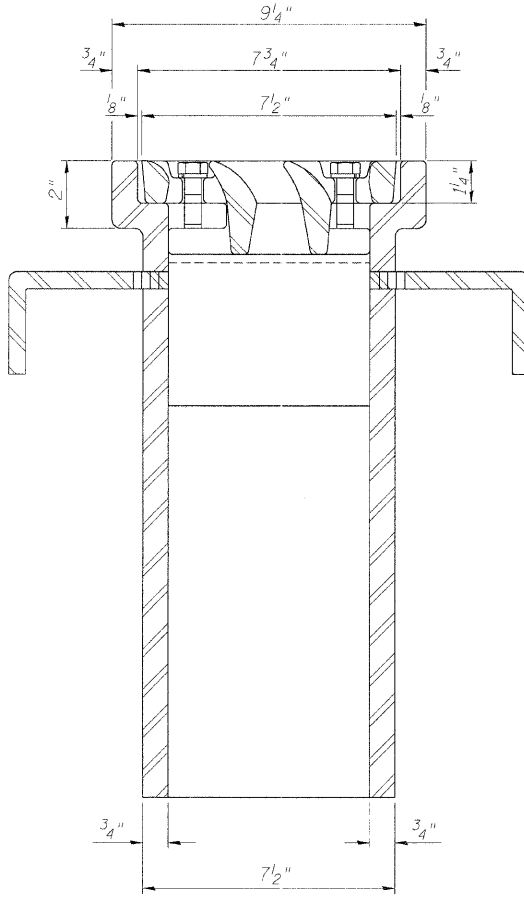
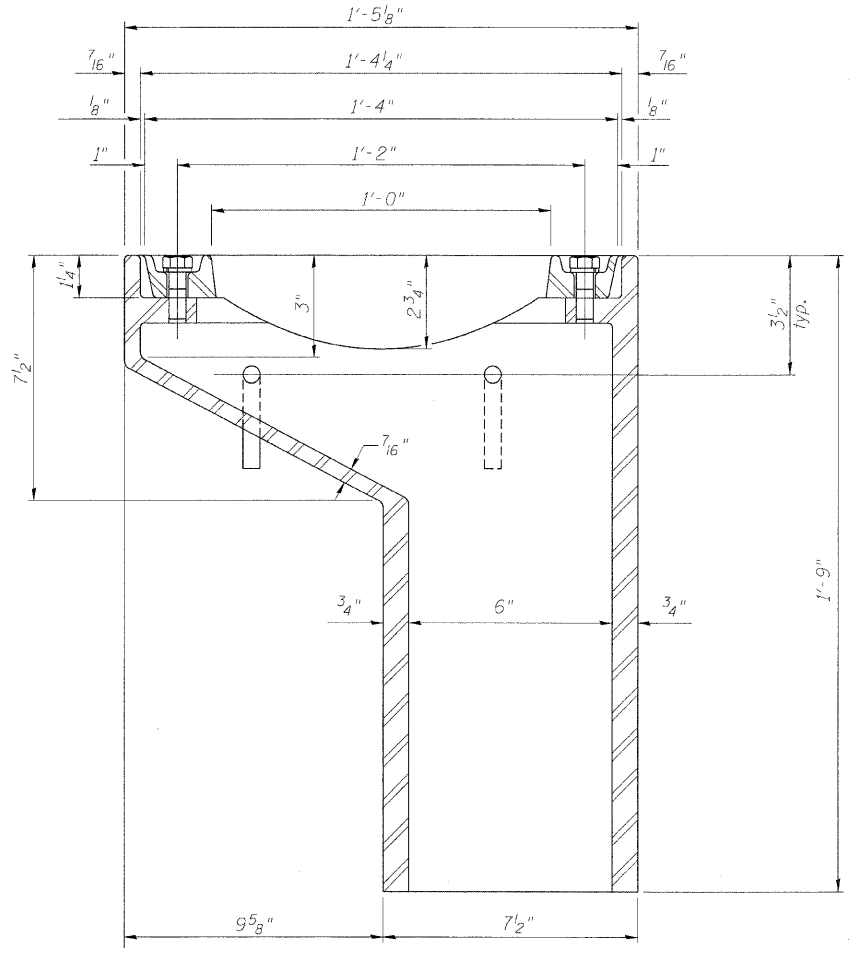
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Work this sheet with Sheet No. 18



See Sheet No. 14 for scupper location relative to the Parapet and Median Barrier

BILL OF MATERIAL

Item	Unit	Total
Drainage Scupper, DS-11	Each	6

DRAINAGE SCUPPER, DS-11
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

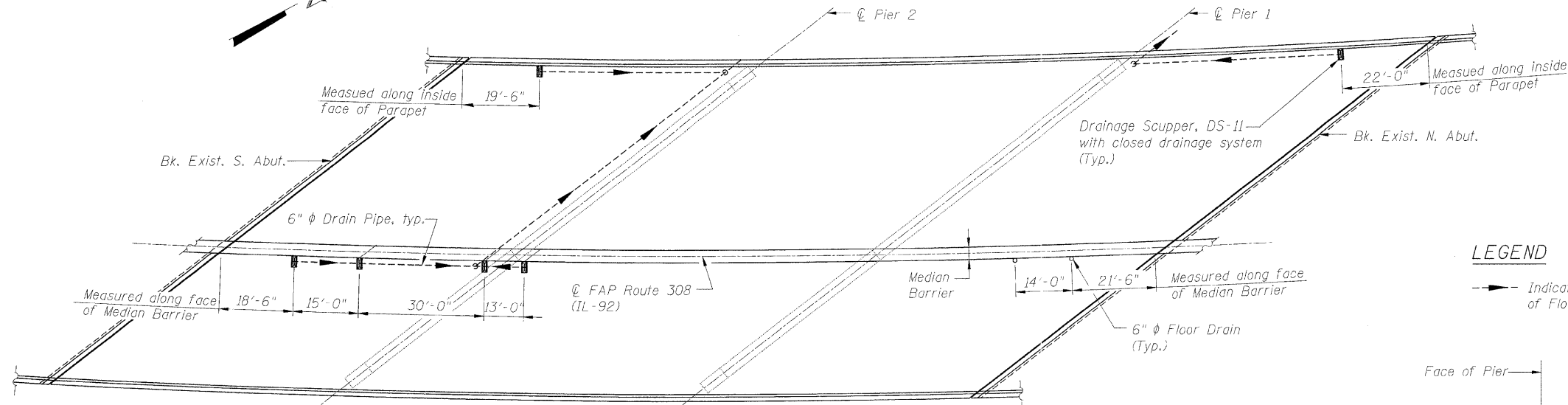
DESIGNED	AMK
CHECKED	CMM
DRAWN	OS
CHECKED	RWC

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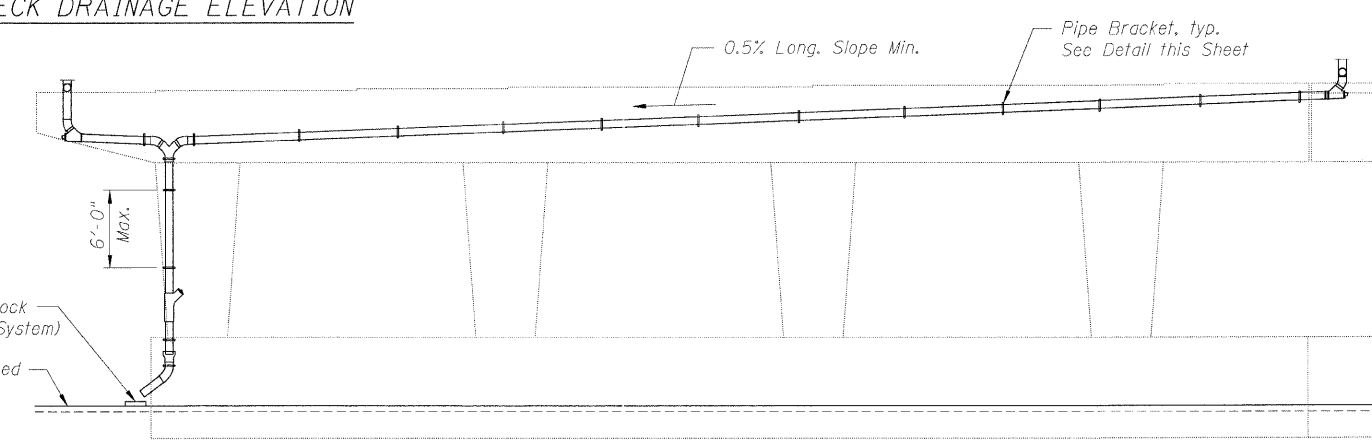
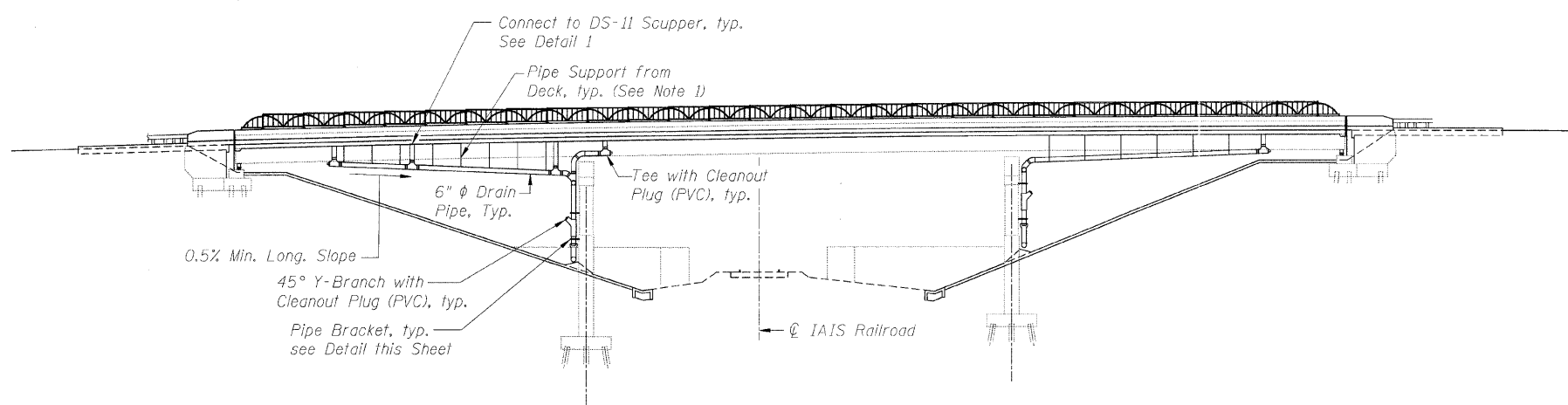
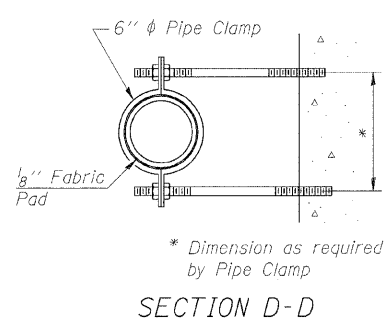
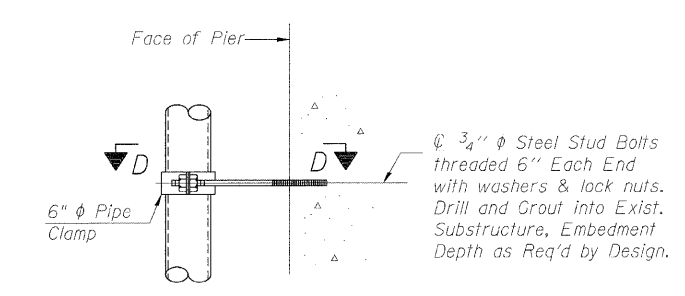
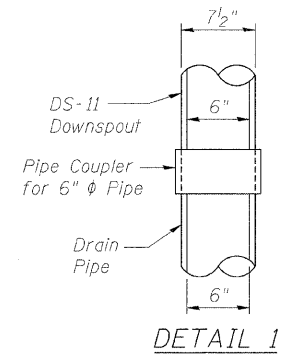
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DIRECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	133
SHEET NO. 18 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		
Contract #64814 * (HB, HB-1, VB, HB-2)R				



LEGEND

--- Indicates Direction of Flow



BILL OF MATERIAL

Item	Unit	Total
Drainage System	L. Sum	0.4
Floor Drains	Each	2

NOTES

1. Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendation, not to exceed 6' cts. Cost included with "Drainage System."
2. No part of the Drainage System shall extend below the bottom flange of Beam 5 at any point in the center span.
3. For scupper details see Sheet No. 17
4. For floor drain details, see Sheet No. 13

CLOSED DRAINAGE SYSTEM
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAMS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

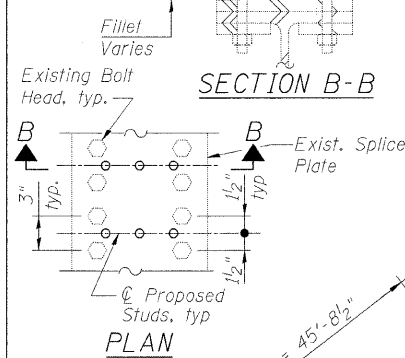
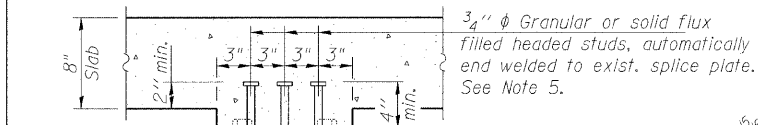
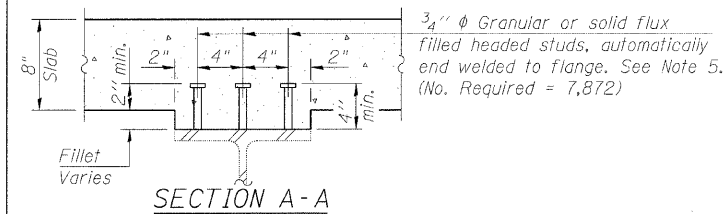
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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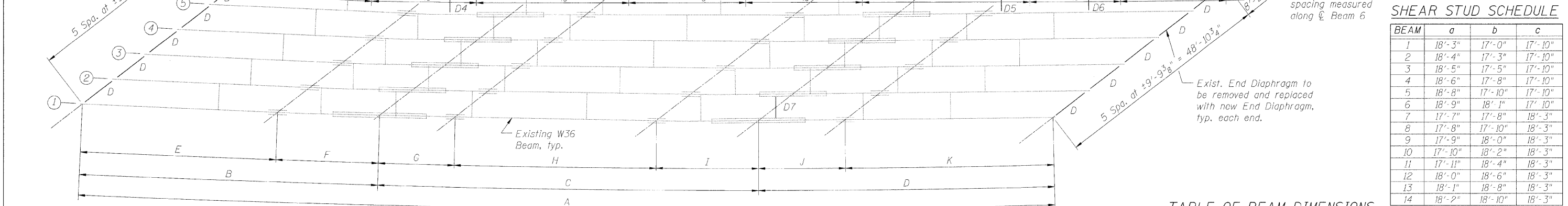
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	134
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		32 SHEETS

Contract #64814 * (HB, HB-1, VB, HB-2)JR



DETAIL 1



FRAMING PLAN

SHEAR STUD SCHEDULE

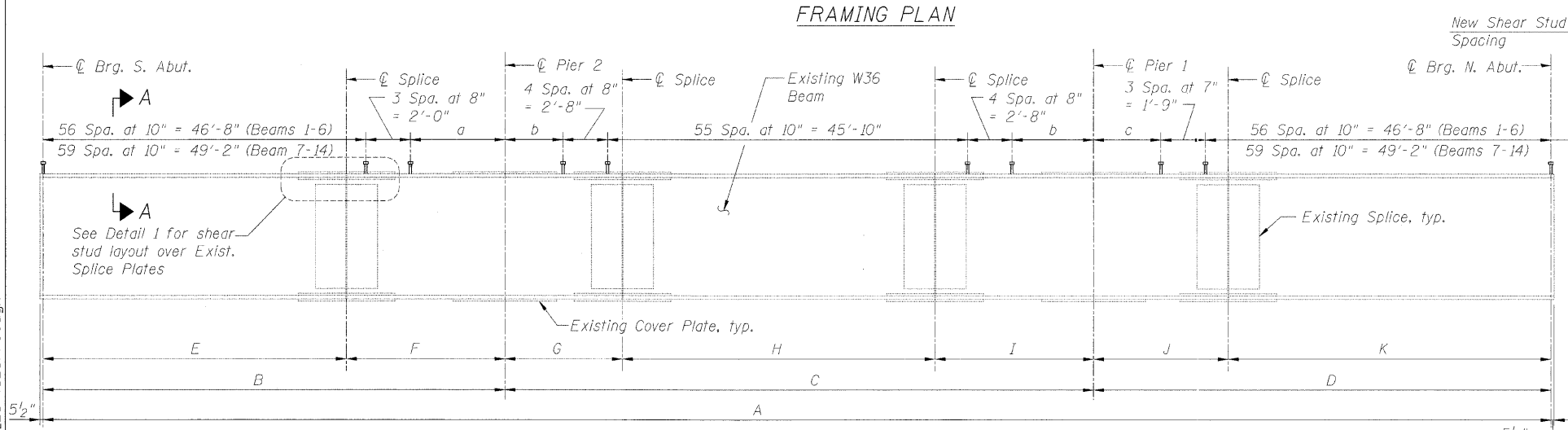
BEAM	a	b	c
1	18'-3"	17'-0"	17'-10"
2	18'-4"	17'-3"	17'-10"
3	18'-5"	17'-5"	17'-10"
4	18'-6"	17'-8"	17'-10"
5	18'-8"	17'-10"	17'-10"
6	18'-9"	18'-1"	17'-10"
7	17'-7"	17'-8"	18'-3"
8	17'-8"	17'-10"	18'-3"
9	17'-9"	18'-0"	18'-3"
10	17'-10"	18'-2"	18'-3"
11	17'-11"	18'-4"	18'-3"
12	18'-0"	18'-6"	18'-3"
13	18'-1"	18'-8"	18'-3"
14	18'-2"	18'-10"	18'-3"

TABLE OF BEAM DIMENSIONS

BEAM	A	B	C	D	E	F	G	H	I	J	K
1	218'-4 1/16"	66'-10 3/16"	85'-2 1/16"	66'-2 1/16"	43'-11 3/16"	22'-11 5/16"	17'-0"	45'-3 1/2"	22'-11 1/16"	19'-6"	46'-8 1/16"
2	218'-10 1/16"	67'-0"	85'-7 3/4"	66'-2 1/16"	43'-11 3/16"	23'-0 3/16"	17'-0"	45'-8 5/16"	22'-11 1/16"	19'-6"	46'-8 1/16"
3	219'-4 1/2"	67'-1 1/4"	86'-0 9/16"	66'-2 1/16"	43'-11 3/16"	23'-2 1/16"	17'-0"	46'-1 1/8"	22'-11 1/16"	19'-6"	46'-8 1/16"
4	219'-10 1/2"	67'-2 1/8"	86'-5 1/16"	66'-2 1/16"	43'-11 3/16"	23'-3 1/16"	17'-0"	46'-6"	22'-11 1/16"	19'-6"	46'-8 1/16"
5	220'-4 9/16"	67'-3 5/8"	86'-10 1/4"	66'-2 1/16"	43'-11 3/16"	23'-4 1/16"	17'-0"	46'-10 3/16"	22'-11 1/16"	19'-6"	46'-8 1/16"
6	220'-10 3/8"	67'-4 1/2"	87'-3 3/8"	66'-2 1/16"	43'-11 3/16"	23'-5 5/8"	17'-0"	47'-3 1/16"	22'-11 1/16"	19'-6"	46'-8 1/16"
7	224'-4 1/16"	68'-8 5/8"	86'-5 3/4"	69'-2 5/16"	45'-7 7/16"	23'-1 1/16"	17'-0"	45'-9 3/16"	23'-8 3/16"	19'-6"	49'-8 5/16"
8	224'-9 5/8"	68'-9 9/16"	86'-9 3/4"	69'-2 5/16"	45'-7 7/16"	23'-2"	17'-0"	46'-1 1/16"	23'-8 9/16"	19'-6"	49'-8 5/16"
9	225'-2 5/8"	68'-10 3/16"	87'-1 3/4"	69'-2 5/16"	45'-7 7/16"	23'-3"	17'-0"	46'-5 1/16"	23'-8 3/16"	19'-6"	49'-8 5/16"
10	225'-7 1/16"	68'-11 9/16"	87'-5 1/16"	69'-2 5/16"	45'-7 7/16"	23'-4"	17'-0"	46'-9 1/4"	23'-8 3/16"	19'-6"	49'-8 5/16"
11	226'-0 1/16"	69'-0 1/16"	87'-9 3/16"	69'-2 5/16"	45'-7 7/16"	23'-5"	17'-0"	47'-1 1/4"	23'-8 3/16"	19'-6"	49'-8 5/16"
12	226'-5 3/4"	69'-1 1/16"	88'-1 1/8"	69'-2 5/16"	45'-7 7/16"	23'-6"	17'-0"	47'-5 5/16"	23'-8 3/16"	19'-6"	49'-8 5/16"
13	226'-10 3/16"	69'-2 3/16"	88'-5 5/16"	69'-2 5/16"	45'-7 7/16"	23'-7"	17'-0"	47'-9 3/16"	23'-8 3/16"	19'-6"	49'-8 5/16"
14	227'-3 7/8"	69'-3 1/16"	88'-10"	69'-2 5/16"	45'-7 7/16"	23'-8"	17'-0"	48'-1 1/16"	23'-8 3/16"	19'-6"	49'-8 5/16"

NOTES

- All new steel on this sheet shall conform to the requirements of AASHTO M270 Grade 36.
- Contractor shall remove existing rivets where necessary to replace existing diaphragms and connection angles. Cost included with Furnishing and Erecting Structural Steel.
- Contractor shall determine locations of existing rivets and/or bolts and field verify dimensions and angles prior to ordering Structural Steel.
- For diaphragm details see Sheet No. 20
- Stud shear connectors shall not be placed within 3" of the field splice centerline.
- Stud shear connector spacing over existing splice locations shall be adjusted as required to avoid existing bolts.



BEAM ELEVATION

DESIGNED	AMK
CHECKED	JSD
DRAWN	AMK
CHECKED	RWC

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FRAMING PLAN
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

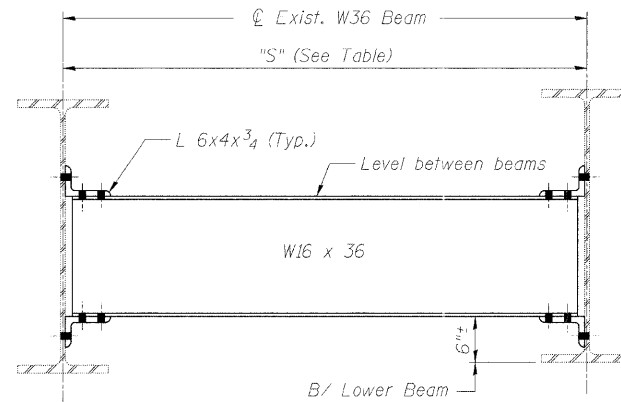
ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	SHEET NO. 210	SHEET 135	SHEET NO. 20 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #64814 * I(HB,HB-1,VB,HB-2)R

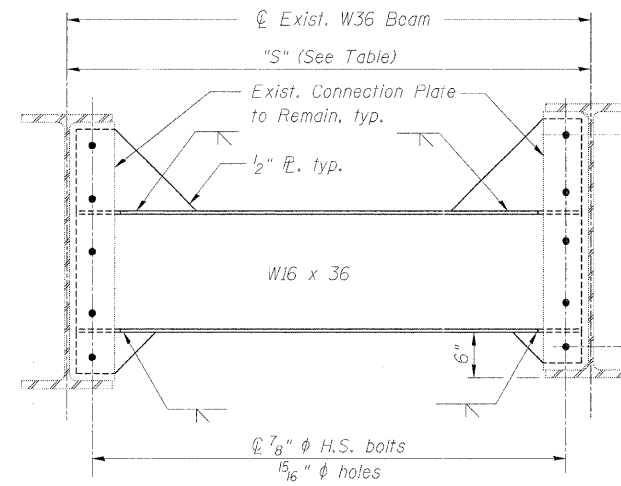
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴)	9,750	13,416	9,750
$I_c(n)$	(in ⁴)	21,873	-	21,783
$I_c(3n)$	(in ⁴)	16,198	-	16,198
S_s	(in ³)	542	725	542
$S_c(n)$	(in ³)	730	-	730
$S_c(3n)$	(in ³)	66.3	-	66.3
Z	(in ³)	-	825	-
ρ	(k/')	0.77	1.17	0.77
$M \rho$	(k)	240	742	246
$s \rho$	(k/')	0.40	-	0.40
$M_s \rho$	(k)	136	-	156
M_L	(k)	429	311	478
M_{Imp}	(k)	110	76	112
$S_3 [M_L + M_{Imp}]$	(k)	898	645	983
M_o	(k)	1,656	1,803	1,801
M_u	(k)	2,833	2,450	2,833
$f_s \rho$ non-comp	(ksi)	5.3	12.3	5.4
$f_s \rho$ (comp)	(ksi)	2.5	-	2.8
$f_s \rho_3 [M_L + M_{Imp}]$	(ksi)	14.8	10.7	16.2
f_s (Overload)	(ksi)	22.6	23.0	24.4
f_s (Total)	(ksi)	-	-	-
VR	(k)	50.1	-	38.6

	S. Abut.	Pier 2	Pier 1	N. Abut.
$R \rho$	(k)	29.8	103.0	29.8
R_L	(k)	36.0	44.2	36.0
Imp.	(k)	9.3	7.8	9.3
R_{Total}	(k)	75.1	155.0	75.1

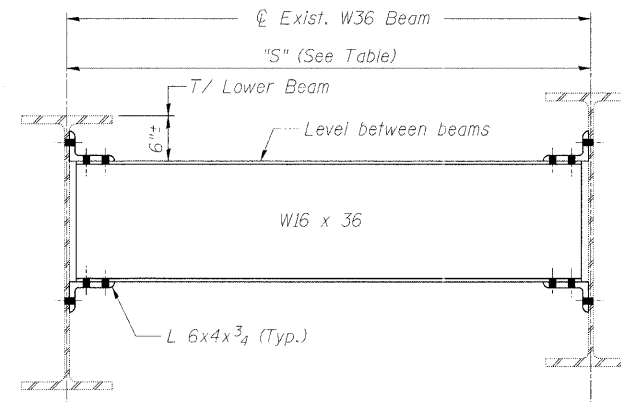
- * Compact section
- ** Braced non-compact and partially braced section
- *** Beam 13 Shown (Worst-case interior beam)
- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z: Plastic Section Modulus of the steel section in non-composite areas (in³).
- ρ : Un-factored non-composite dead load (kips/ft.).
- $M \rho$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s \rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s \rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_L : Un-factored live load moment (kip-ft.).
- M_{Imp} : Un-factored moment due to impact (kip-ft.).
- M_o : Factored design moment (kip-ft.).
 $1.3 [M \rho + M_s \rho + \frac{5}{3} (M_L + M_{Imp})]$
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M \rho + M_s \rho + \frac{5}{3} (M_L + M_{Imp})$
- f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M \rho + M_s \rho + \frac{5}{3} (M_L + M_{Imp})]$
- VR: Maximum $L +$ impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).



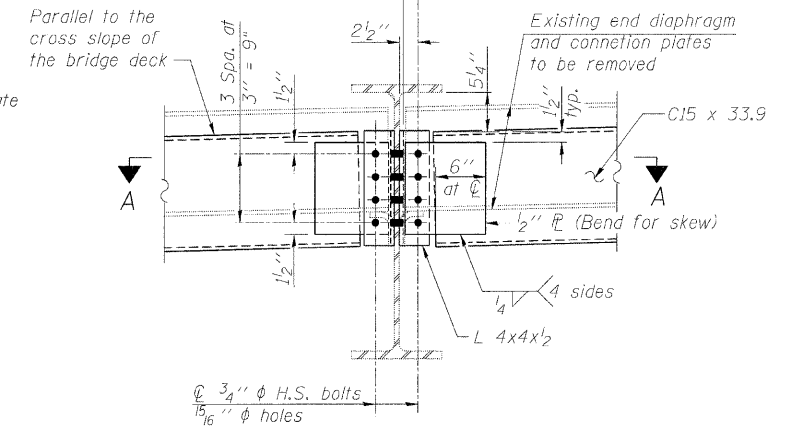
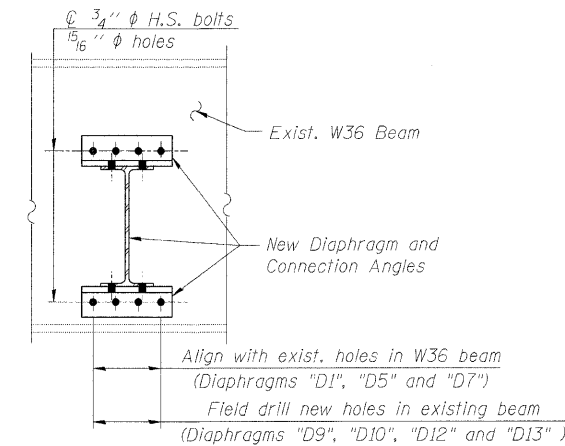
INTERIOR DIAPHRAGMS "D1", "D5",
"D7", "D9", "D10", "D12" and "D13"



INTERIOR DIAPHRAGMS "D2" and "D4"



DIAPHRAGMS "D3", "D6", "D8", "D11" and "D14"



TYPICAL END DIAPHRAGM "D"
26 Required

BEAM SPACING AT DIAPHRAGMS

Diaphragm	"S" Dimension
D1	5'-10 1/16"
D2	5'-11"
D3	5'-9 7/16"
D4	5'-8 7/8"
D5	5'-10 1/2"
D6	5'-10 1/2"
D7	5'-8 9/16"
D8	3'-13 9/16"
D9	3'-8 1/16"
D10	3'-1"
D11	2'-7 5/8"
D12	2'-2 1/16"
D13	3'-3 9/16"
D14	3'-11 3/8"

NOTES

- For Framing Plan and Beam Elevation, see Sheet No.19
- Two hardened washers required for each set of oversized holes.

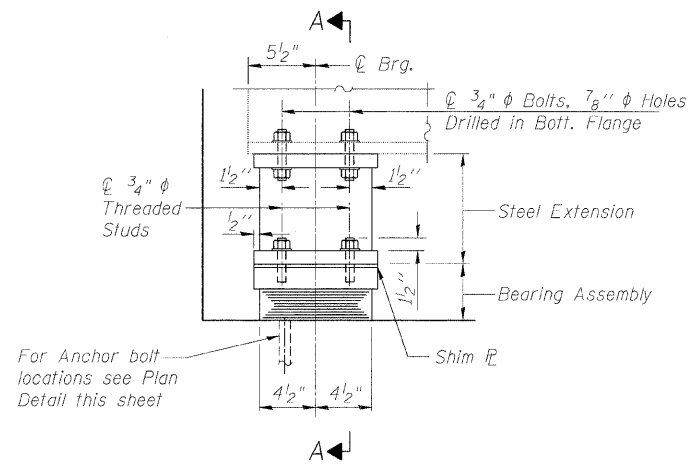
STEEL DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	AMK
CHECKED	JSD
DRAWN	AMK
CHECKED	RWC

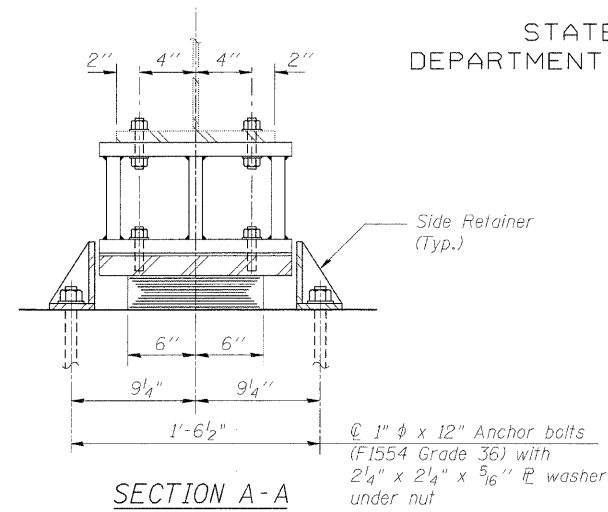
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

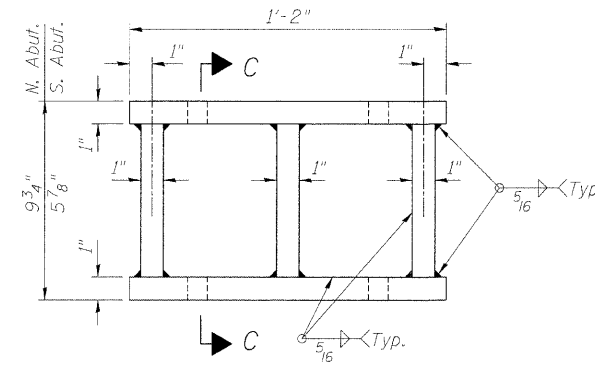
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	136
SHEET NO. 21 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		
Contract #64814 * (HB, HB-1, VB, HB-2)R				



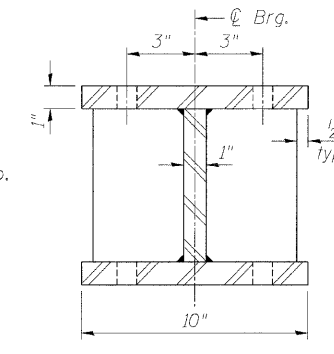
ELEVATION AT ABUT.



SECTION A-A

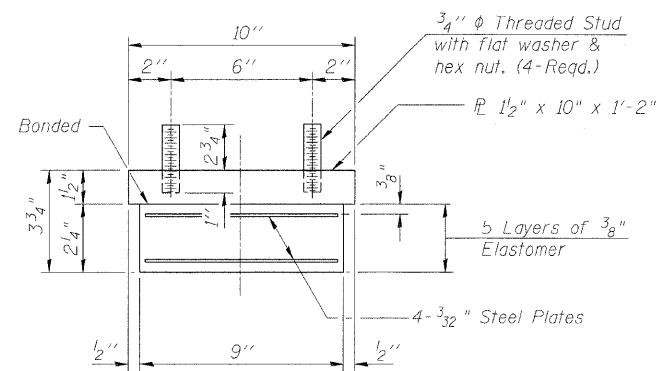


ELEVATION



SECTION C-C

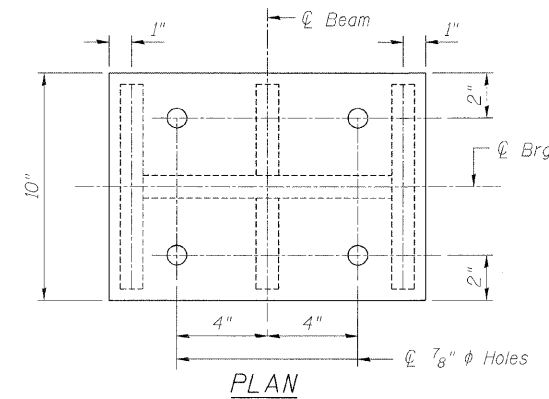
TYPE I ELASTOMERIC EXP. BRG.
NORTH ABUTMENT



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
The Contractor shall submit for approval to the Engineer plans for jacking prior to commencing any work at the bearings. Dead load (Beam self-weight) of 4.8 kips at each beam at abutments. Minimum jack capacity at each beam shall be 5 tons.
Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

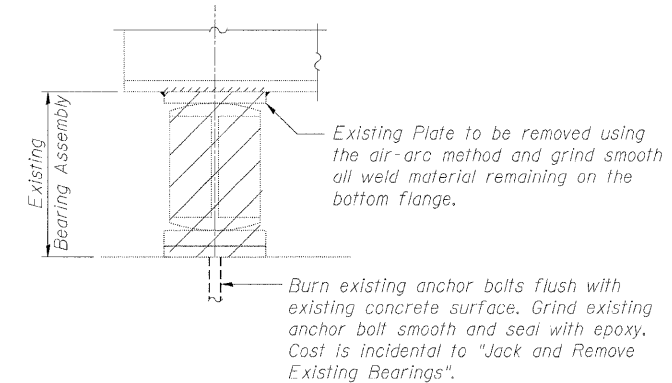


PLAN

STEEL EXTENSION

28 Required
Weight included with Structural Steel

Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.



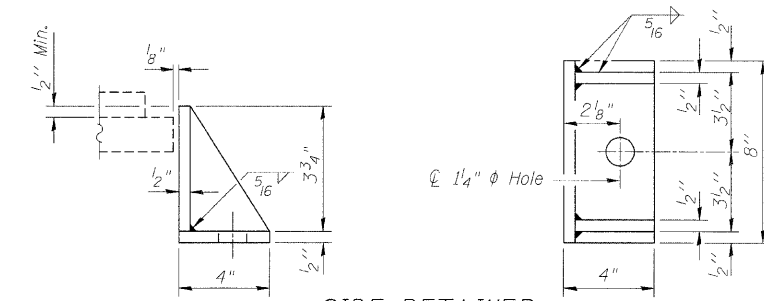
EXISTING BEARING ASSEMBLY REMOVAL

(North and South Abutment Only)

	N. Abut.	S. Abut.
R _R (k)	29.8	29.8
R _L (k)	36.0	36.0
Imp. (k)	9.3	9.3
R _{Total} (k)	75.1	75.1

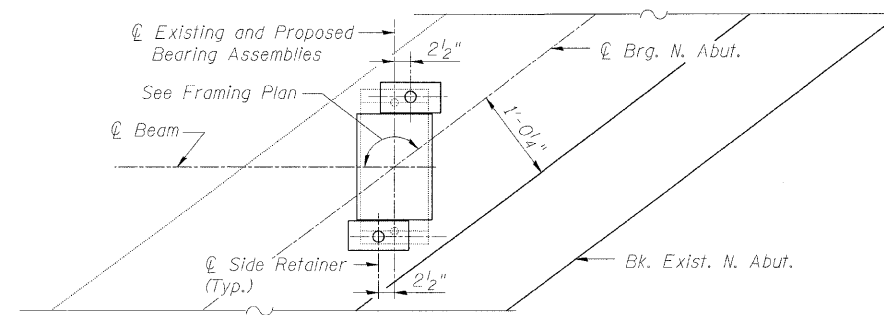
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	14
Anchor Bolts, 1"	Each	28
Jack and Remove Existing Bearings	Each	28



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PLAN AT NORTH ABUTMENT

BEARING DETAILS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

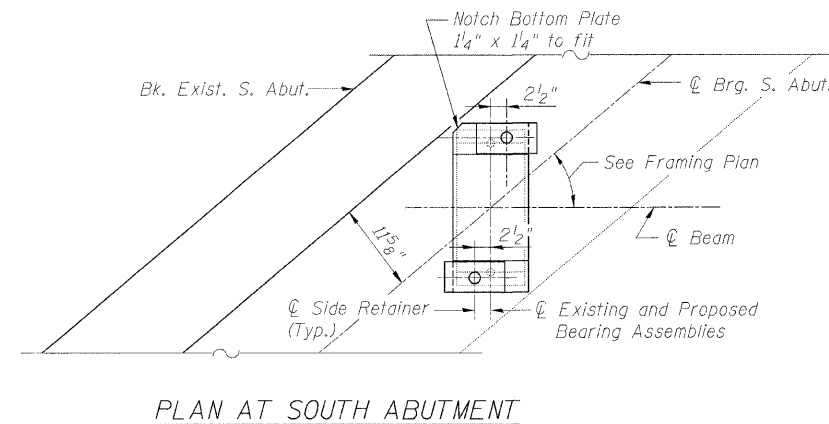
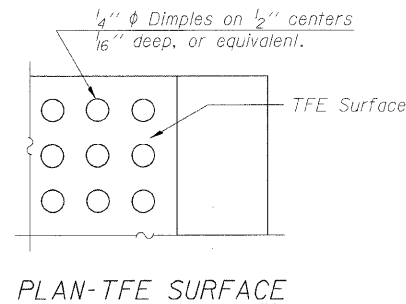
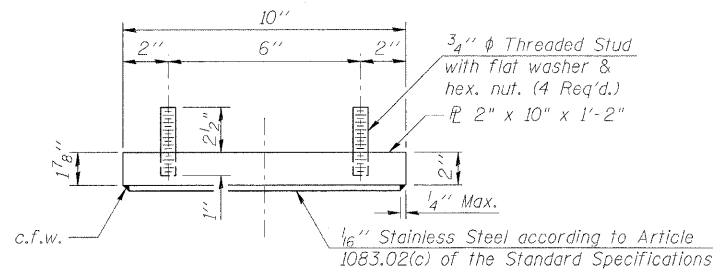
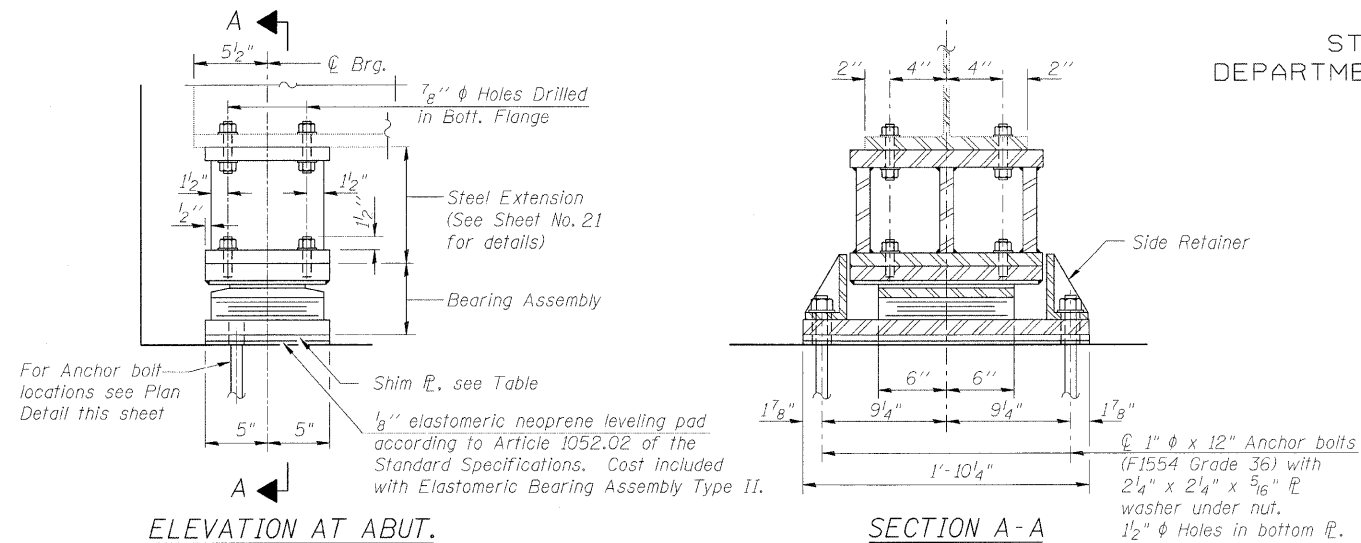
DESIGNED	AMK
CHECKED	CMM
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	SHEET NO. 210	SHEET 137	SHEET NO. 22 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #64814 * (IHB, HB-1, VB, HB-2)R



Notes:
Anchor bolts shall be ASTM F1554 all-thread (for an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

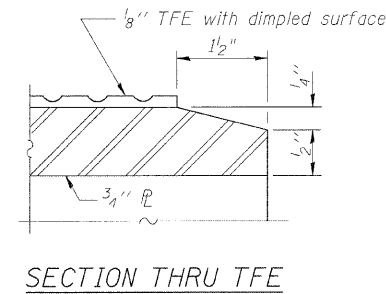
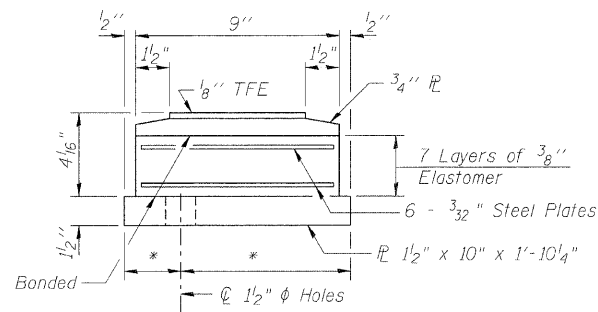
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

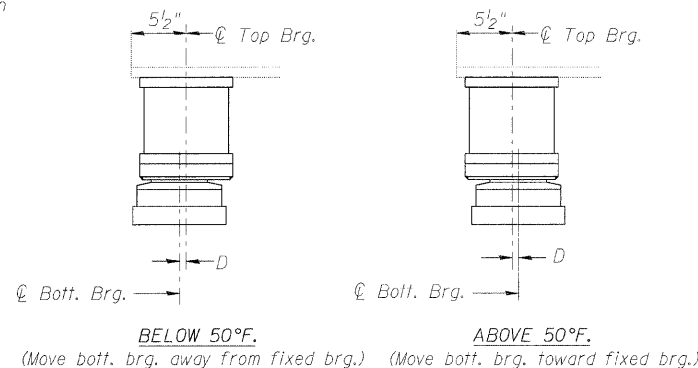
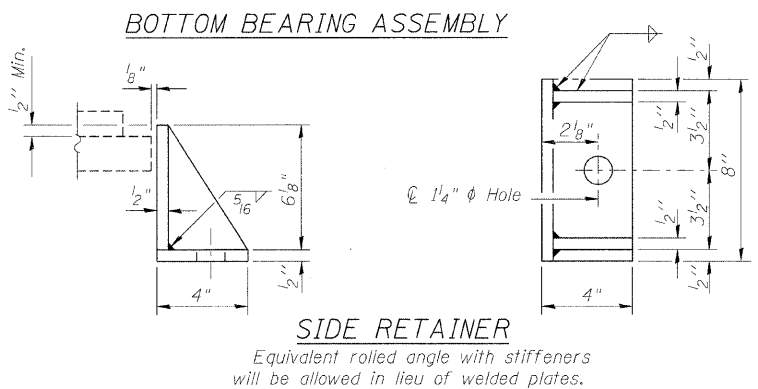
For Existing Bearing Removal Details and Beam Reaction Table, see Sheet No. 21

Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



SHIM PLATES
(South Abutment only)

Beam	Shim Plate Thickness
1	0
2	1/2"
3	0
4	3/8"
5	5/8"
6	0
7	0
8	1/4"
9	3/8"
10	3/8"
11	3/8"
12	3/8"
13	1/8"
14	0



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

DESIGNED	AMK
CHECKED	CMM
DRAWN	EF
CHECKED	RWC

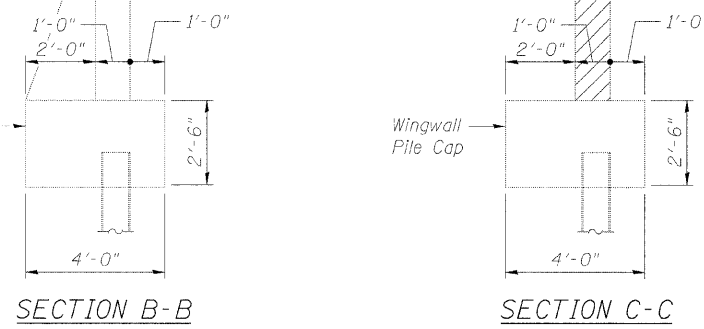
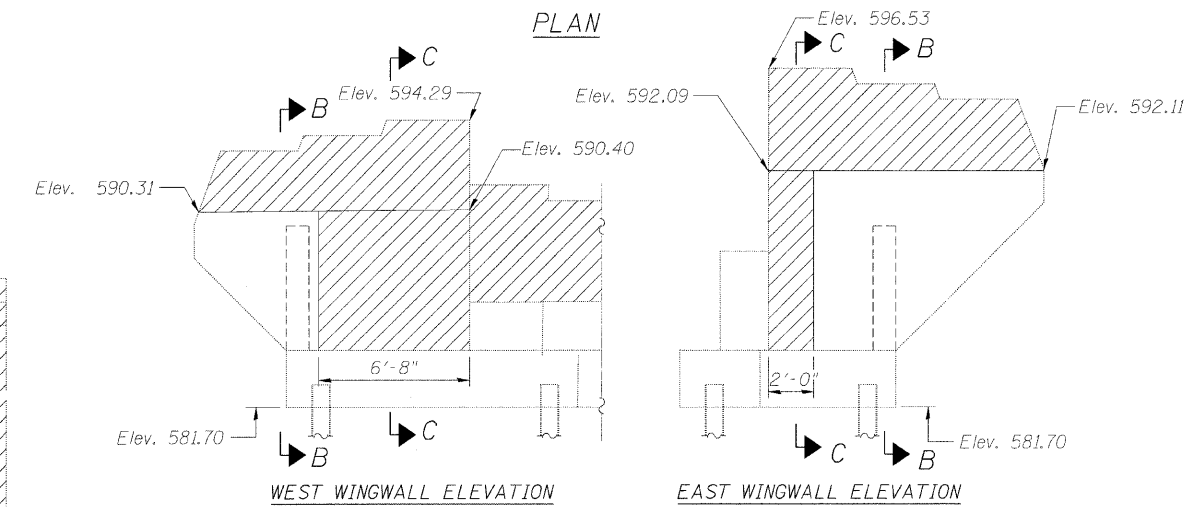
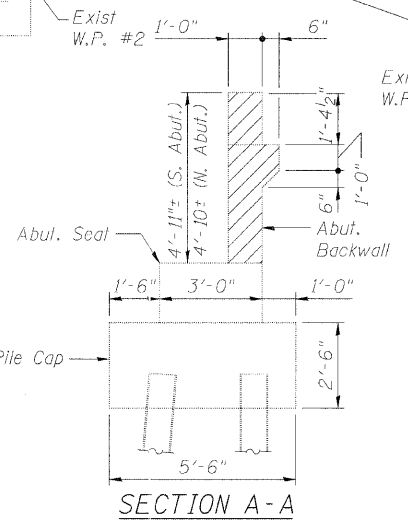
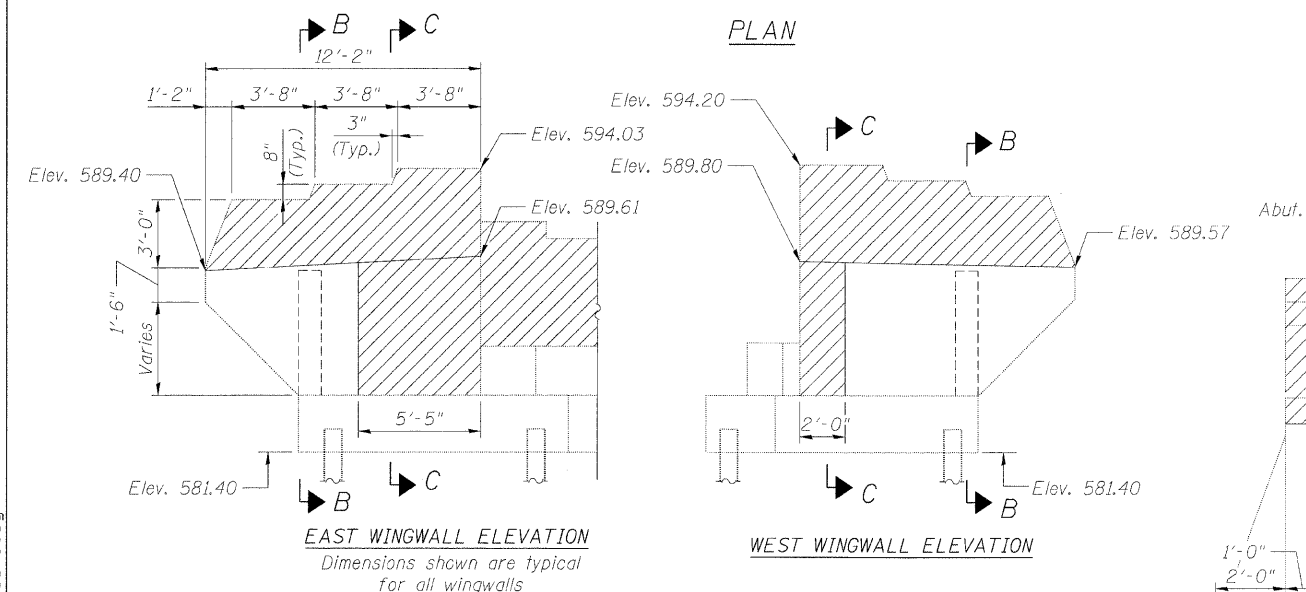
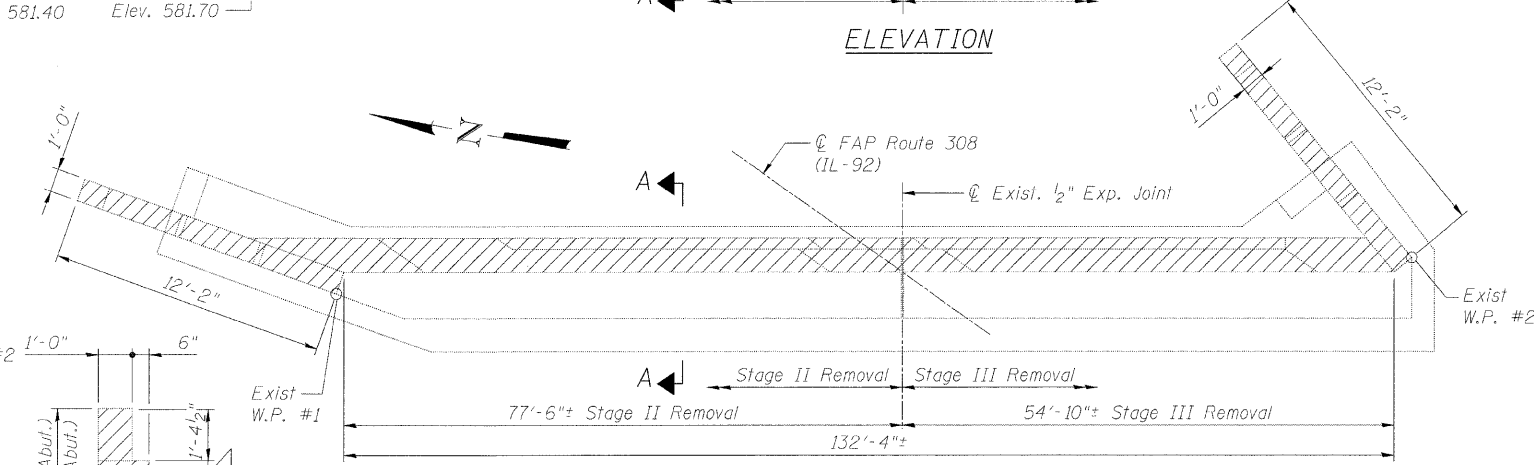
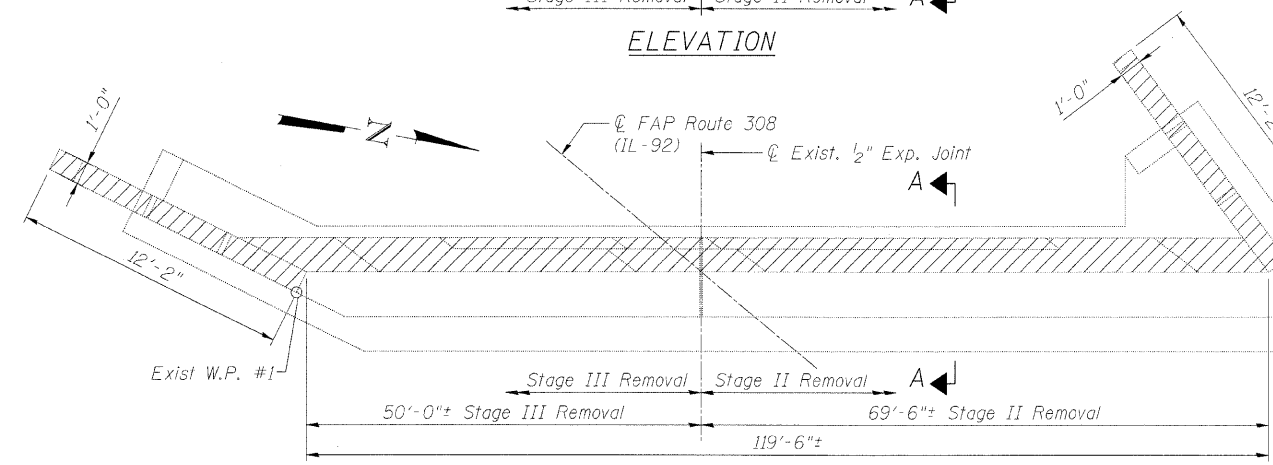
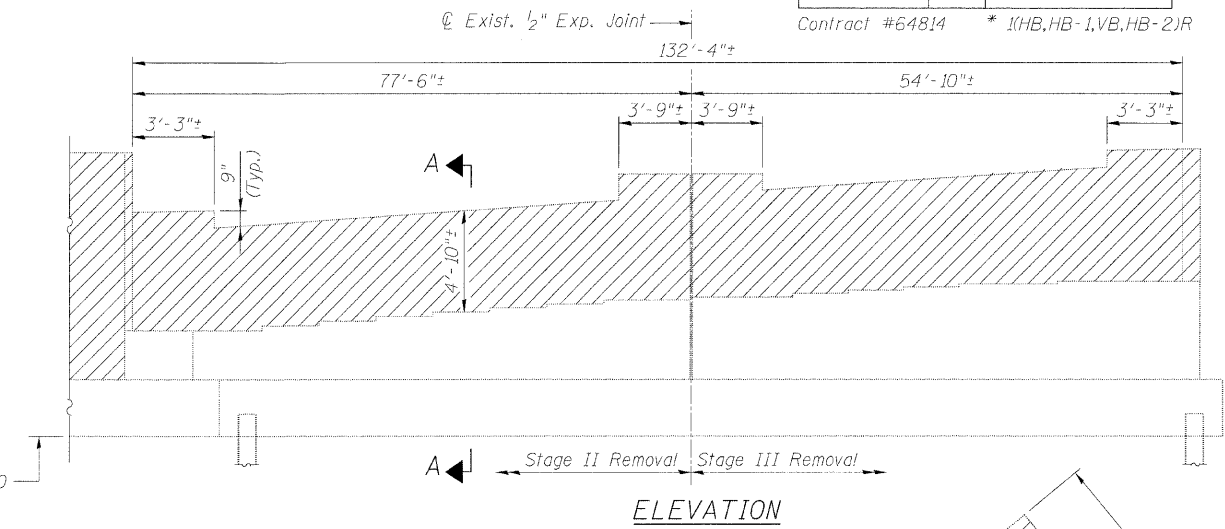
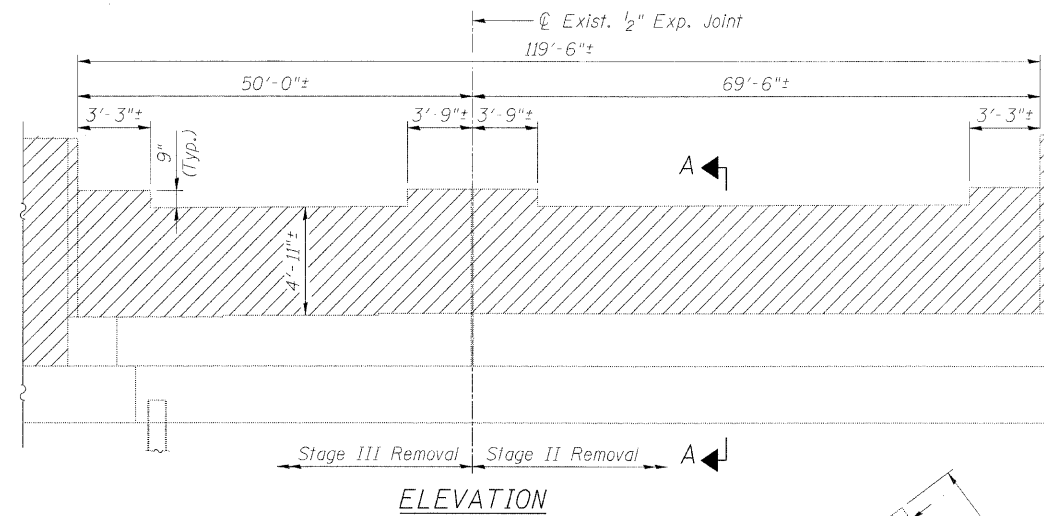
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

BEARING DETAILS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	MILE POSTS	SHEET NO.	SHEET NO. 23
F.A.P. 308	*	ROCK ISLAND	210	138	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * I(HB,HB-1,VB,HB-2)R		



EXISTING SOUTH ABUTMENT - CONCRETE REMOVAL

EXISTING NORTH ABUTMENT - CONCRETE REMOVAL

DESIGNED	AMK
CHECKED	JSD
DRAWN	AMK
CHECKED	RWC

LEGEND

Concrete Removal

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

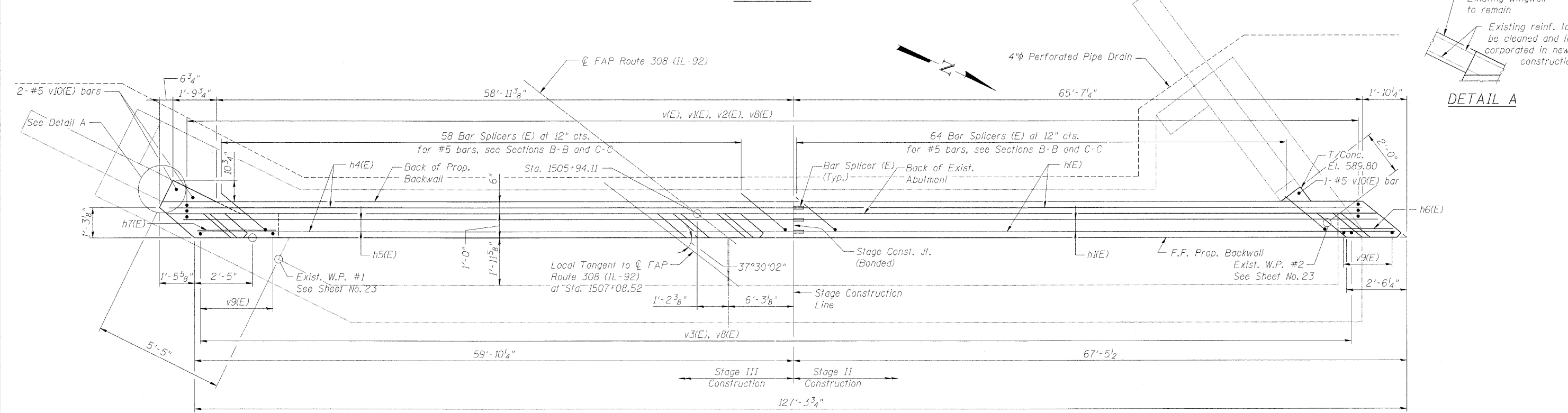
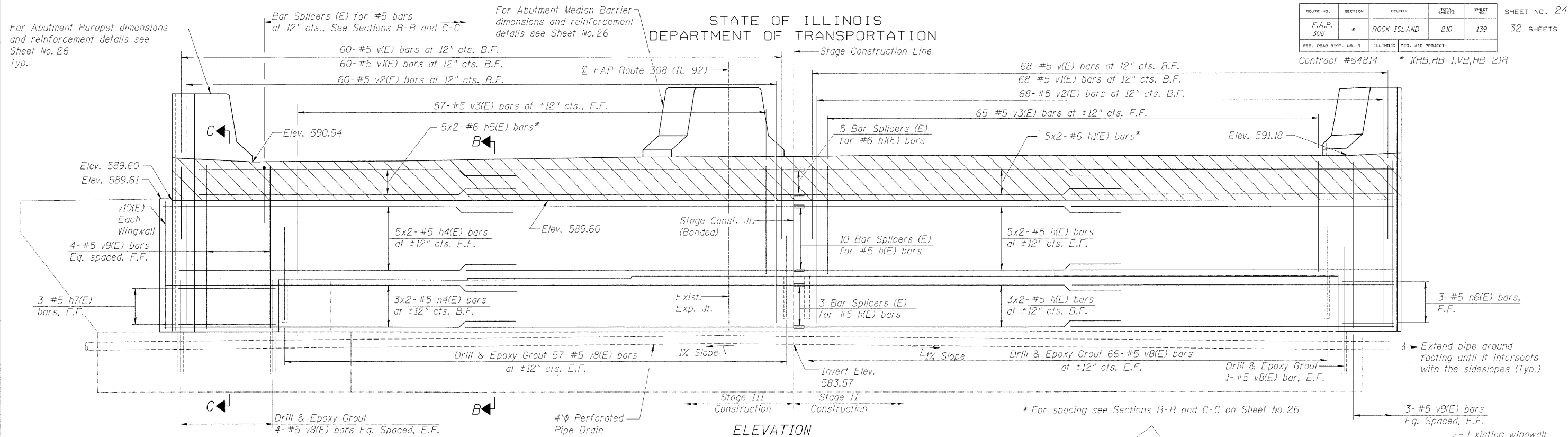
- NOTES**
1. Approximately 1'-10" of existing horizontal reinforcement bars in wingwalls shall be cleaned and incorporated into the new structure.
 2. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal".
 3. See Sheet No. 26 for Bills of Material.
 4. For proposed plan and elevations, see Sheet Nos. 24 and 25.

ABUTMENT CONCRETE REMOVAL PLAN
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. I(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	POST MILES 210	SHEET NO. 139	SHEET NO. 24 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		Contract #64814 * (HB,HB-1,VB,HB-2)R	



DESIGNED	AMK
CHECKED	JSD
DRAWN	AMK
CHECKED	JSD

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

MINIMUM BAR LAP
#5 bar = 3'-0"
#6 bar = 3'-7"

LEGEND
Hatched area to be poured after superstructure falsework has been removed. Quantity of concrete included with Concrete Superstructure.

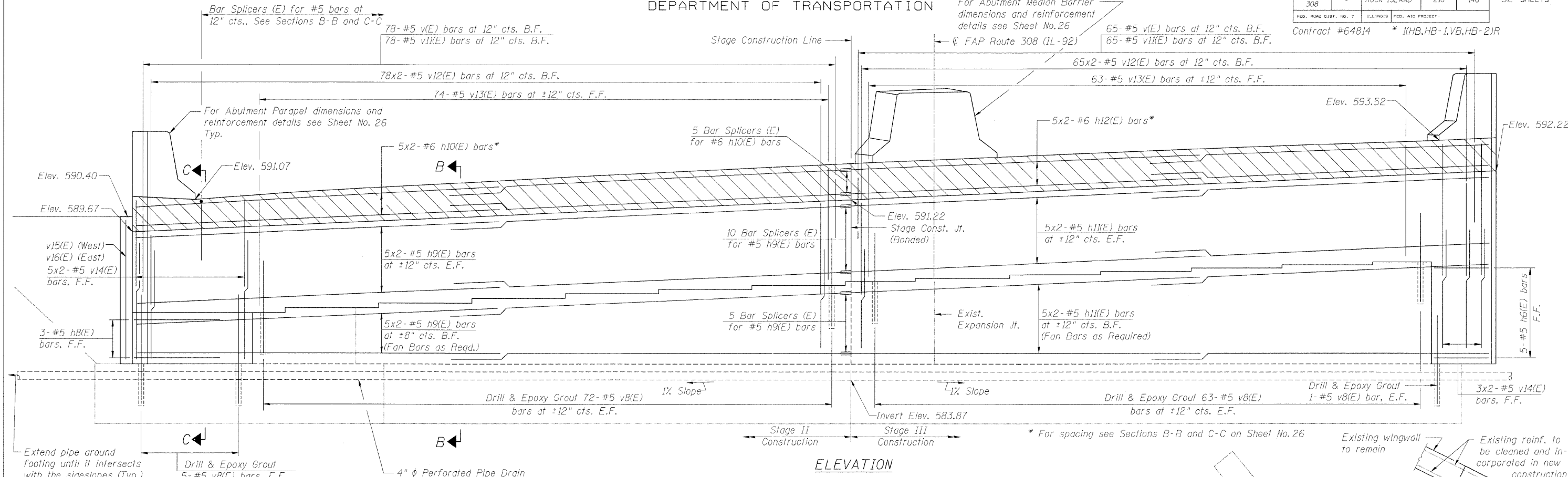
- NOTES**
- For Bill of Material see Sheet No. 26
 - Drill and epoxy grouting of bars is included with the cost of Concrete Structures.
 - Bars indicated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.
 - F.F. denotes Front Face; B.F. denotes Back Face; E.F. denotes Each Face
 - For bar splicers see Sheet No. 29
 - For Sections B-B and C-C see Sheet No. 26
 - For existing abutment concrete removal details see Sheet No. 23

**SOUTH ABUTMENT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064**

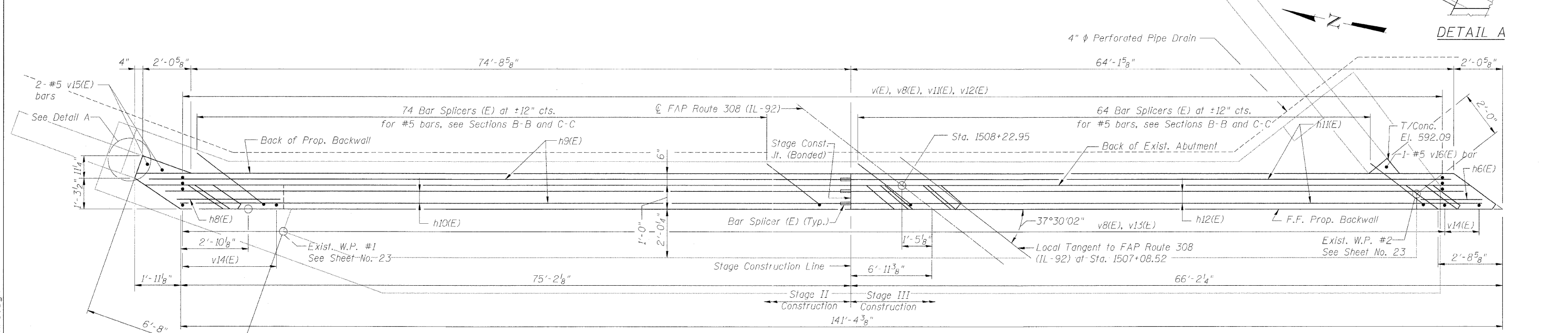
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 25
F.A.P. 308	*	ROCK ISLAND	210	140	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			
Contract #64814 * (HB, HB-1, VB, HB-2)R					



ELEVATION



TOP VIEW

(Superstructure hatching not shown for clarity)

NOTES

1. For Bill of Material see Sheet No. 26
2. Drill and epoxy grouting of bars is included with the cost of Concrete Structures.
3. Bars indicated thus 5x2-#5 etc. Indicates 5 lines of bars with 2 lengths per line.
4. F.F. denotes Front Face; B.F. denotes Back Face; E.F. denotes Each Face
5. For bar splicers see Sheet No. 29
6. For Sections B-B and C-C see Sheet No. 26
7. For existing abutment concrete removal details see Sheet No. 23

NORTH ABUTMENT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064


DESIGNED	AMK
CHECKED	JSD
DRAWN	EF
CHECKED	JSD

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

MINIMUM BAR LAP

- #5 bar = 3'-0" (horizontal bars)
- #5 bar = 2'-2" (vertical bars)
- #6 bar = 3'-7"

LEGEND

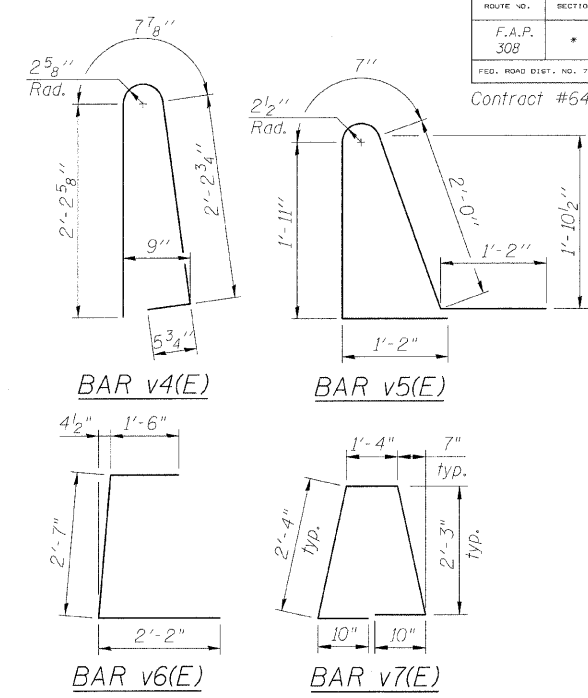
 Hatched area to be poured after superstructure falsework has been removed. Quantity of concrete included with Concrete Superstructure.

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SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	26	#5	35'-2"	
h2(E)	25	#4	1'-3"	
h3(E)	4	#8	1'-3"	
h4(E)	26	#5	31'-9"	
h5(E)	10	#6	32'-1"	
h6(E)	3	#5	2'-2"	
h7(E)	3	#5	3'-3"	
v1(E)	128	#5	3'-2"	
v2(E)	128	#5	4'-2"	
v3(E)	122	#5	4'-6"	
v4(E)	4	#5	5'-7"	
v5(E)	4	#5	6'-10"	
v6(E)	4	#5	6'-3"	
v7(E)	2	#5	7'-8"	
v8(E)	256	#5	3'-2"	
v9(E)	7	#5	6'-8"	
v10(E)	3	#5	5'-4"	

Structure Excavation	Cu. Yd.	145
Concrete Structures	Cu. Yd.	31.3
Concrete Removal	Cu. Yd.	29.8
Reinforcement Bars, Epoxy Coated	Pound	6,150
Porous Granular Embankment (Special)	Cu. Yd.	145
Pipe Underdrains for Structures 4"	Foot	168
Geocomposite Wall Drain	Sq. Yd.	93



BARS v1(E) & v11(E)

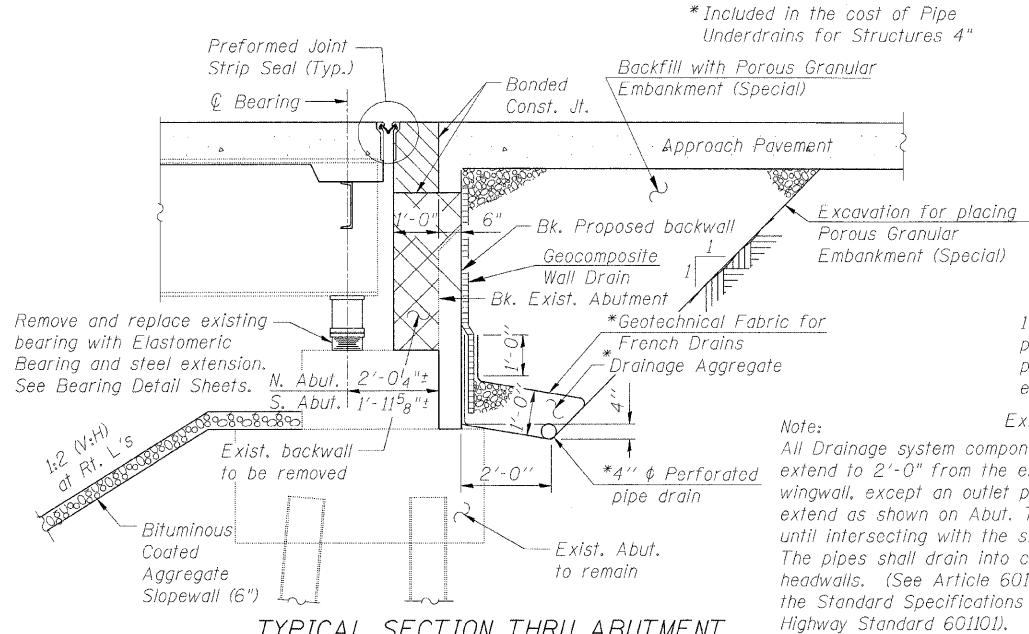
NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	25	#4	1'-3"	
h3(E)	4	#8	1'-3"	
h6(E)	5	#5	2'-2"	
h8(E)	3	#5	4'-0"	
h9(E)	30	#5	34'-11"	
h10(E)	10	#6	39'-3"	
h11(E)	30	#5	34'-7"	
h12(E)	10	#6	34'-10"	
v1(E)	143	#5	3'-2"	
v4(E)	4	#5	5'-7"	
v5(E)	4	#5	6'-10"	
v6(E)	4	#5	6'-3"	
v7(E)	2	#5	7'-8"	
v8(E)	282	#5	3'-2"	
v11(E)	143	#5	4'-0"	
v12(E)	286	#5	5'-1"	
v13(E)	137	#5	4'-5"	
v14(E)	16	#5	5'-9"	
v15(E)	2	#5	6'-2"	
v16(E)	1	#5	7'-6"	

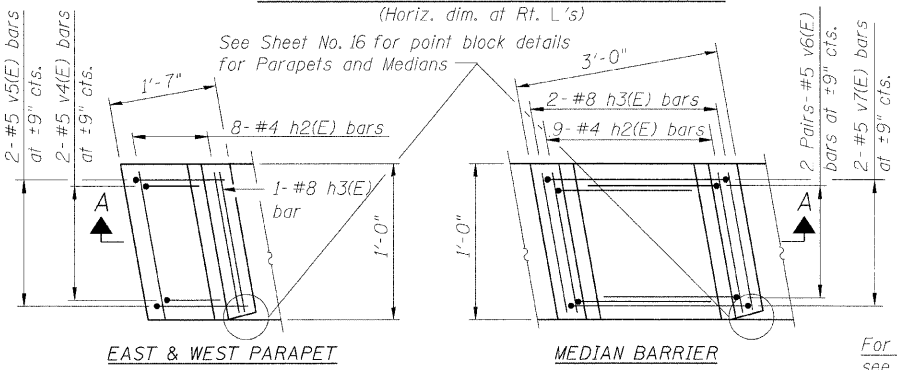
Structure Excavation	Cu. Yd.	203
Concrete Structures	Cu. Yd.	38.4
Concrete Removal	Cu. Yd.	32.2
Reinforcement Bars, Epoxy Coated	Pound	8,140
Porous Granular Embankment (Special)	Cu. Yd.	203
Pipe Underdrains for Structures 4"	Foot	180
Geocomposite Wall Drain	Sq. Yd.	118

NOTES

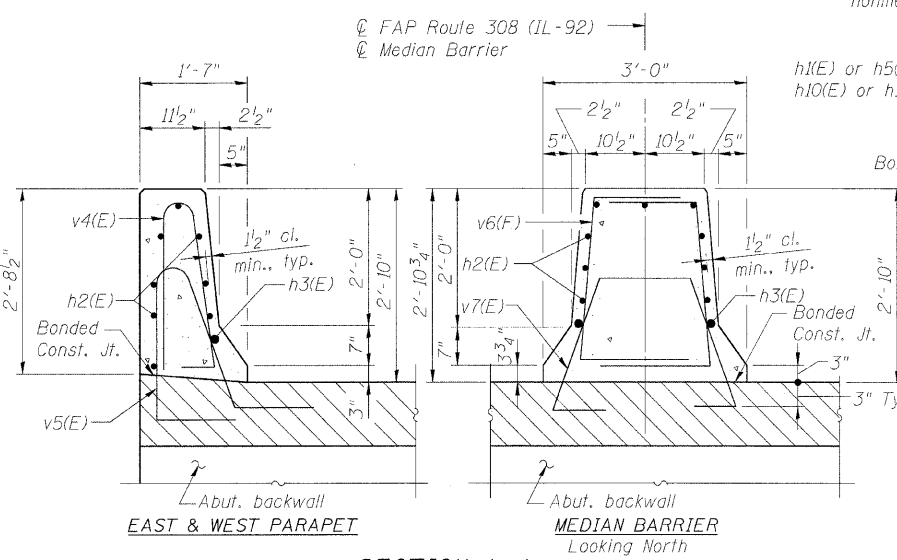
- For bar splicers see Sheet No. 29
- Drilling and epoxy grouting of bars is included with the cost of Concrete Structures.
- For locations of Sections B-B and C-C see Sheet Nos. 24 and 25
- Concrete Sealer shall be applied to the front face of the new backwalls.



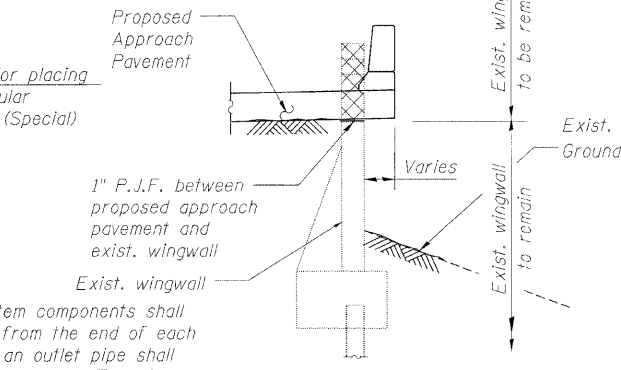
TYPICAL SECTION THRU ABUTMENT
(Horiz. dim. at Rt. L's)



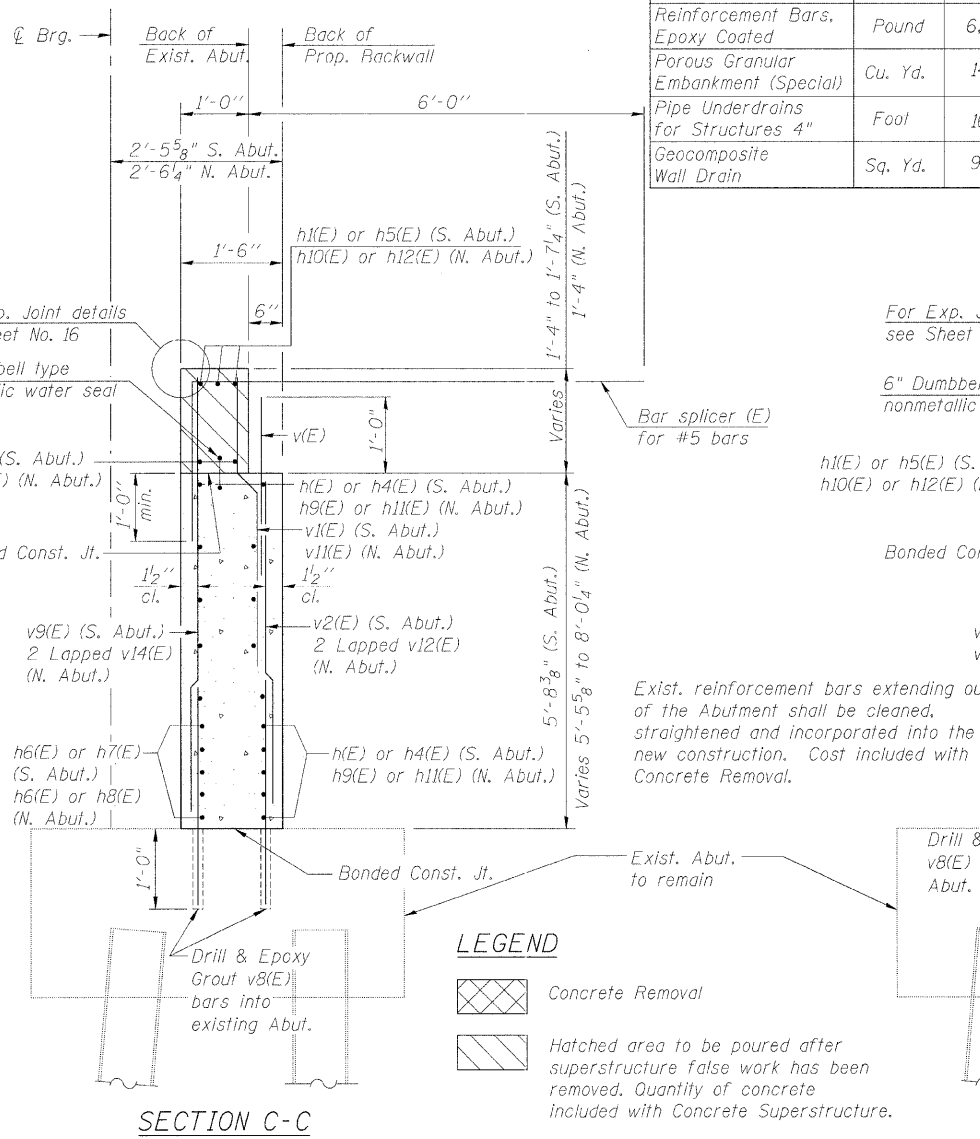
ABUTMENT PARAPET & MEDIAN BARRIER PLANS



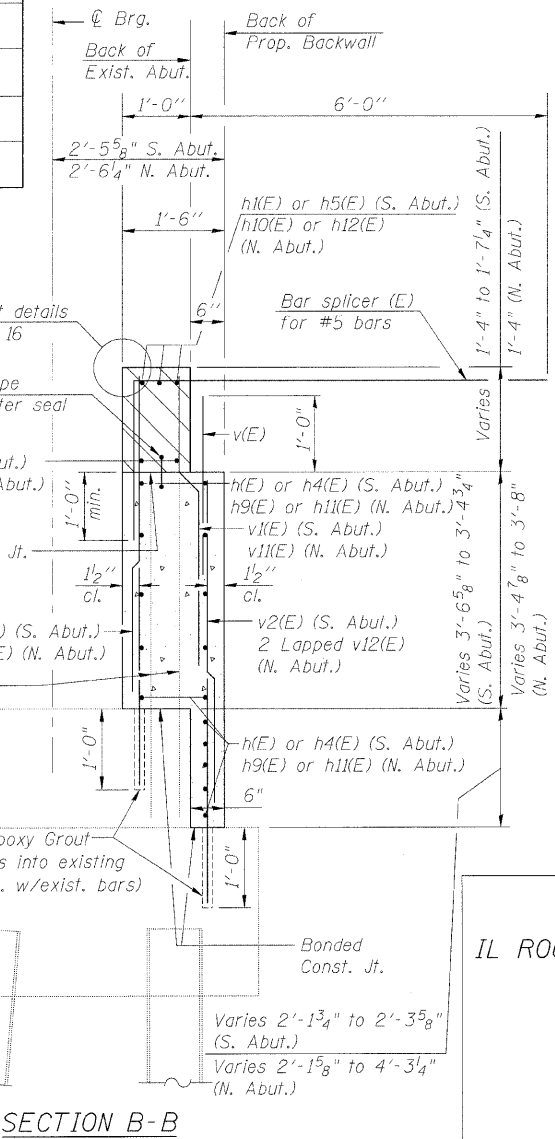
SECTION A-A



SECTION THRU WINGWALL



SECTION C-C



SECTION B-B

LEGEND

- Concrete Removal
- Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

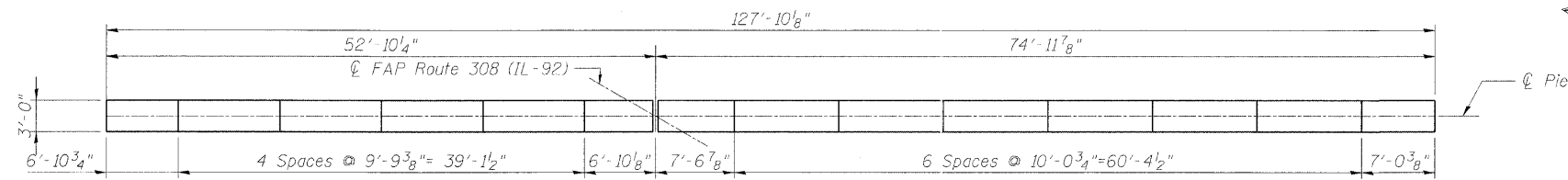
DESIGNED AMK
CHECKED JSD
DRAWN AMK/EF
CHECKED RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

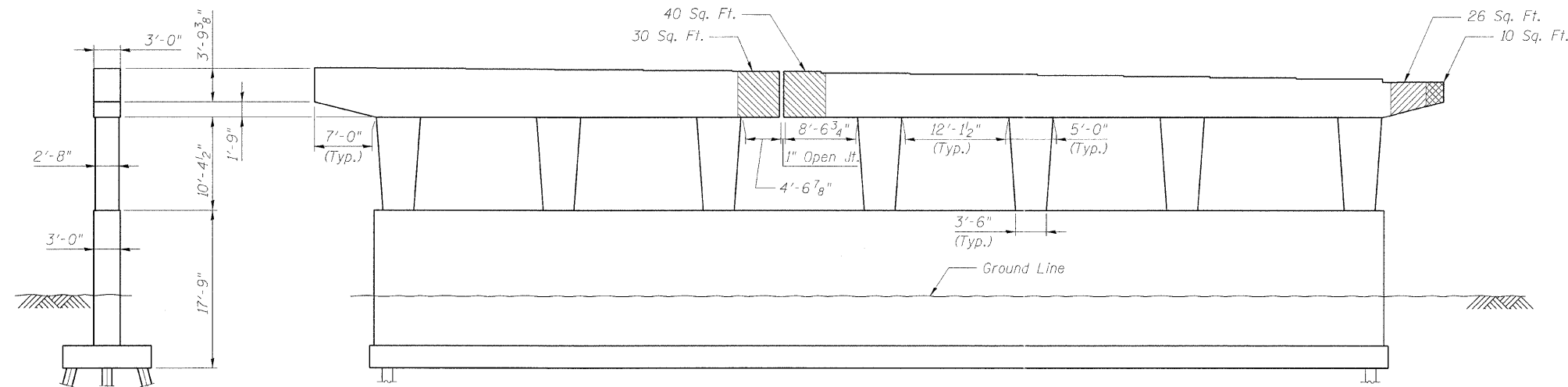
ABUTMENT DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP RTE 308, SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 27
F.A.P. 308	#	ROCK ISLAND	210	142
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		32 SHEETS
Contract #64814 * I(HB,HB-1,VB,HB-2)R				



PLAN

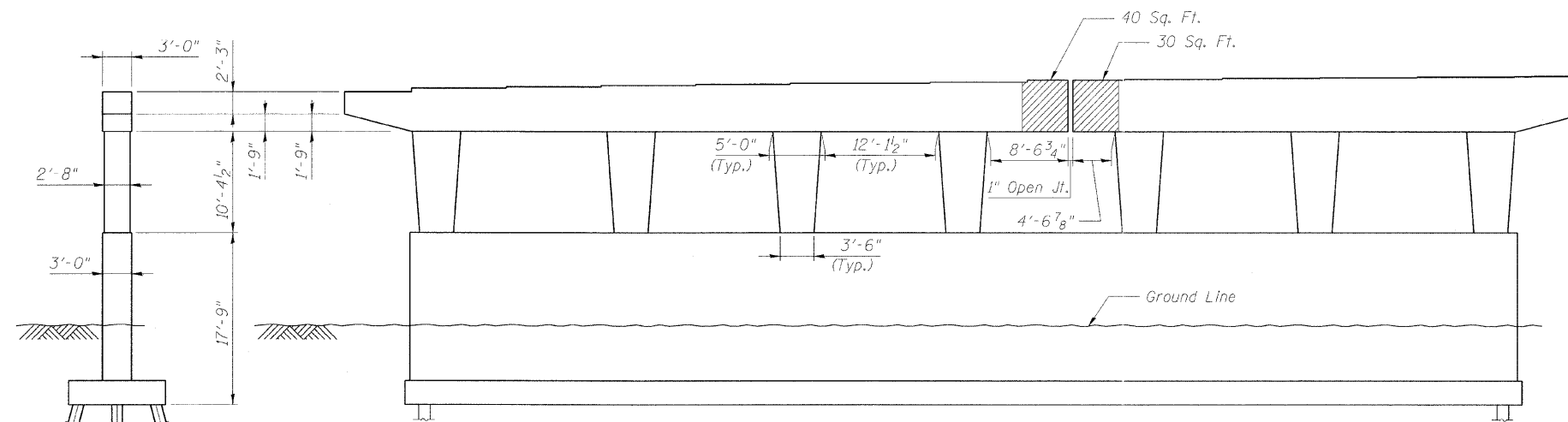


ELEVATION
(Looking Southwest)

END VIEW
(Looking Northwest)

LEGEND

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



ELEVATION
(Looking Northeast)

END VIEW
(Looking Southeast)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	166
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	10

Note: Locations of Structural Repair of Concrete shown are approximate. The final locations of the repairs will be determined by the Engineer in the field.

PIER 1 REPAIRS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

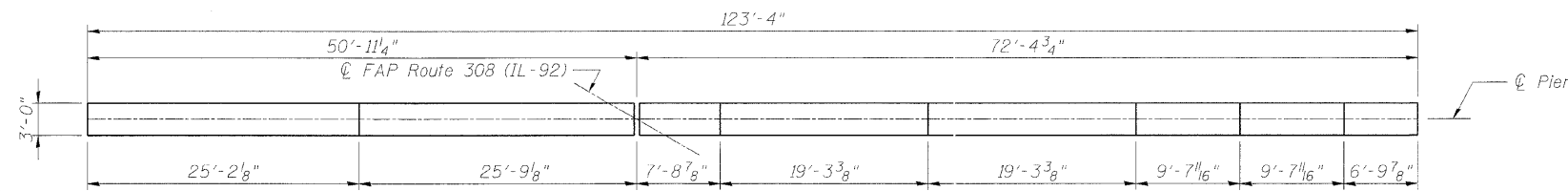
DESIGNED JDG	DB STERLIN CONSULTANTS, INC. 123 N. WACKER DRIVE SUITE 2003 CHICAGO, ILLINOIS 60606 TEL. 312/857-1006 FAX. 312/857-1056
CHECKED WPK	
DRAWN DCS	
CHECKED JDG	

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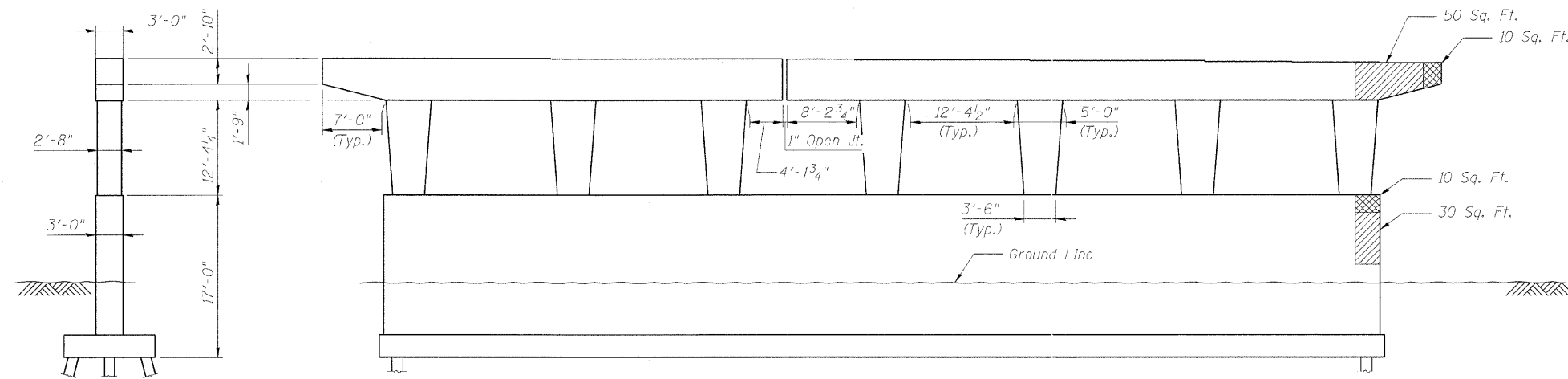
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	DATE 2/10	SHEET 143	SHEET NO. 28 32 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #64814 * I(HB,HB-1,VB,HB-2)R



PLAN

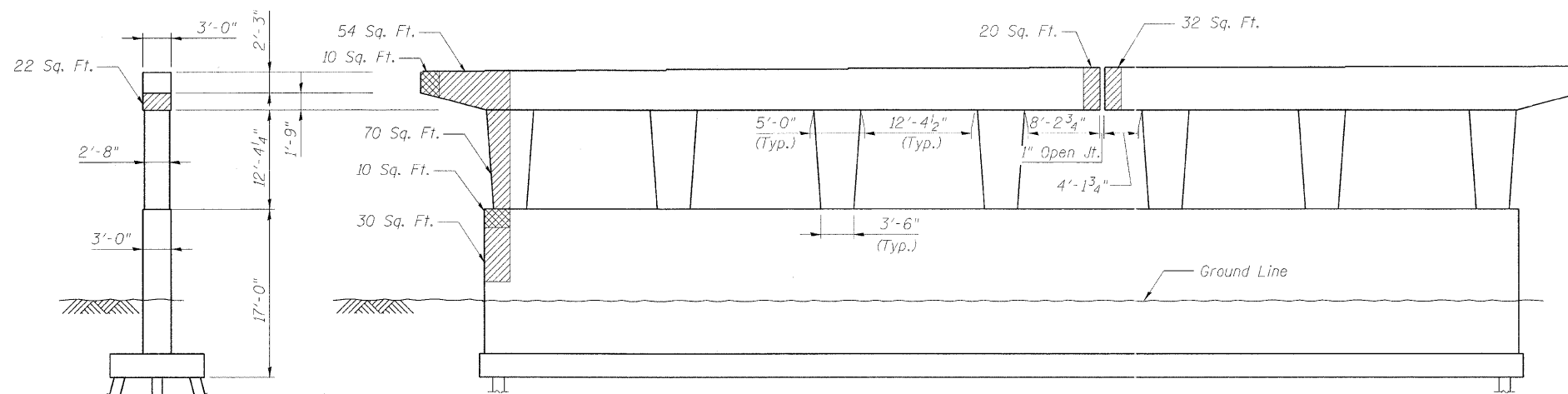


ELEVATION
(Looking Southwest)

END VIEW
(Looking Northwest)

LEGEND

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



ELEVATION
(Looking Northeast)

END VIEW
(Looking Southeast)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or less than 5 inches)	Sq. Ft.	308
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	40

Note: Locations of Structural Repair of Concrete shown are approximate. The final locations of the repairs will be determined by the Engineer in the field.

PIER 2 REPAIRS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED	JDG
CHECKED	WPK
DRAWN	DCS
CHECKED	JDG




DB STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2003
CHICAGO, ILLINOIS 60606
TEL. 312/857-1006 FAX. 312/857-1056

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

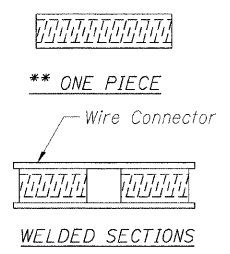
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	144
SHEET NO. 29 32 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #64814 * I(HB,HB-1,VB,HB-2)R

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

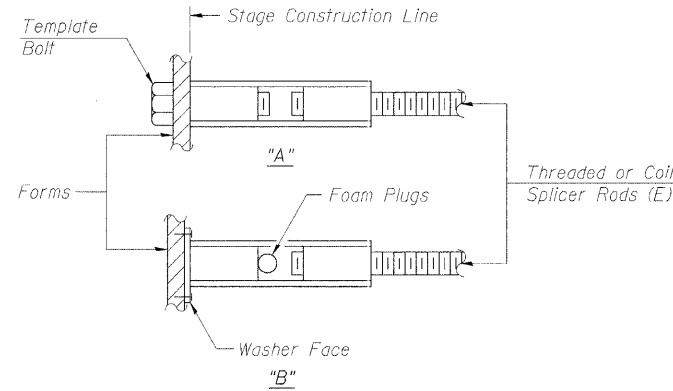


ROLLED THREAD DOWEL BAR



BAR SPLICER ASSEMBLY ALTERNATIVES

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



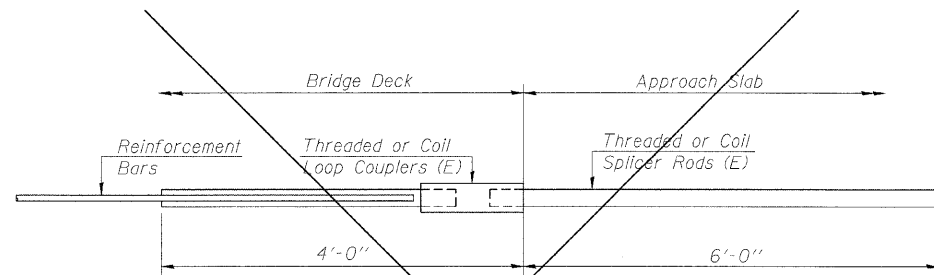
INSTALLATION AND SETTING METHODS

"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:

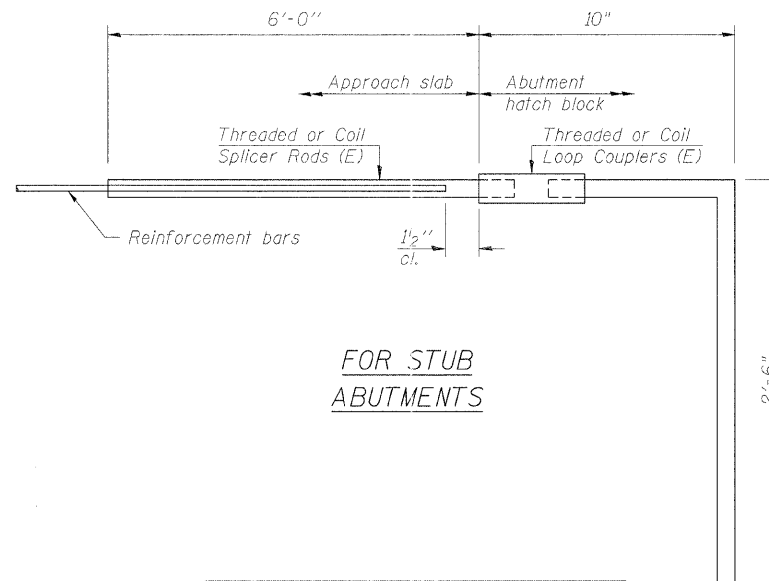
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_s$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_s$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_s = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



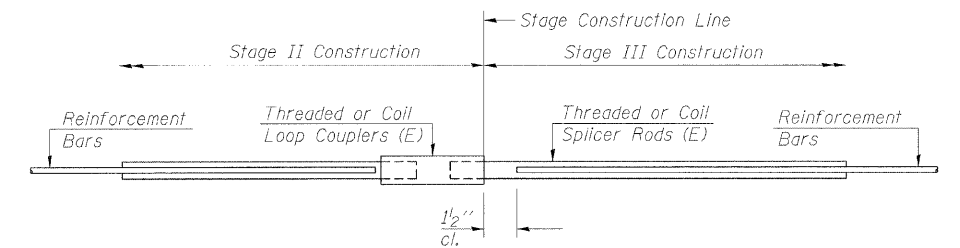
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 260



STANDARD

Bar Size	No. Assemblies Required	Location
#5	699	Deck
#7	6	Deck
#8	10	Deck
#5	28	Abut. Backwalls
#6	10	Abut. Backwalls

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

DESIGNED AMK
CHECKED JSD
DRAWN OS
CHECKED AMK

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

BSD-1

11-1-06

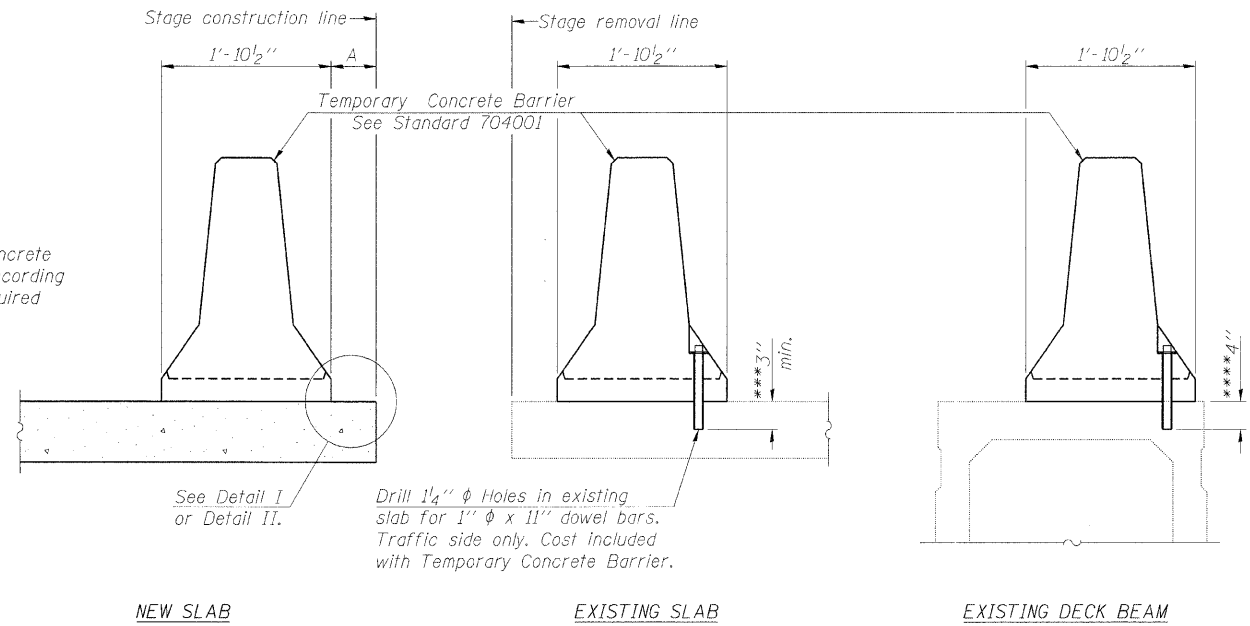
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 30 32 SHEETS
F.A.P. 308	*	ROCK ISLAND	210	145	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (HB,HB-1,VB,HB-2)R

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".

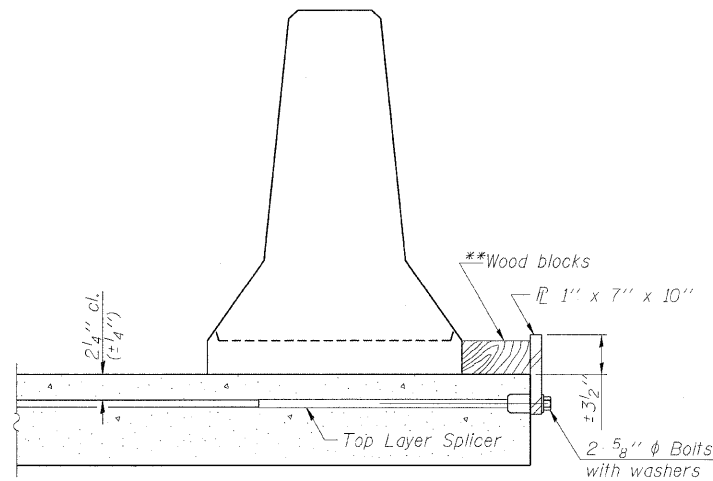


SECTIONS THRU SLAB OR DECK BEAM

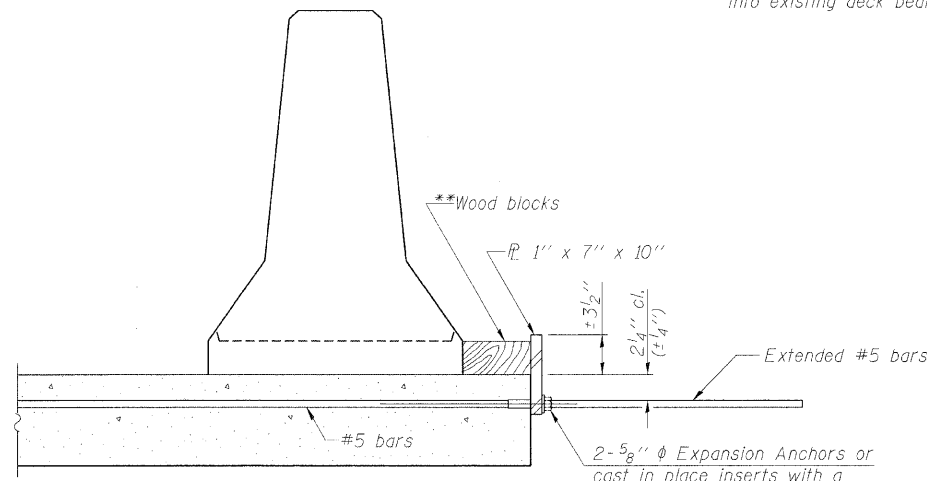
NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate 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.

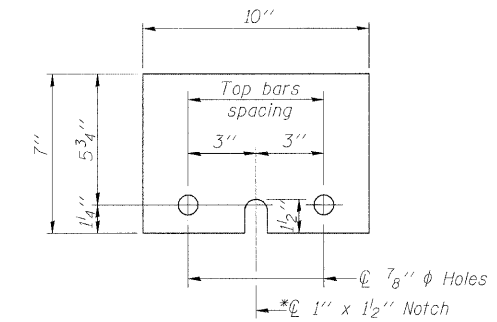
- ***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- ****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with 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.

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0164

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

R-27

9-3-07

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	146
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #64814 * (1HB, HB-1, VB, HB-2)R

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 1 of 2
Date 1/25/05

ROUTE FA 199 DESCRIPTION P92-139-00 Centennial Expressway over Iowa Interstate Railroad LOGGED BY W. Garza

SECTION 1VB LOCATION South Rock Island Township - 3SE, SEC. 1, TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station 384+77.69

BORING NO. B-1
Station 386+43
Offset 23.50ft L to CL
Ground Surface Elev. 588.9 ft

Soil Description	Depth (ft)	(B)	(6")	(sf)	(%)	Soil Description	Depth (ft)	(B)	(6")	(sf)	(%)
Asphalt/Concrete						DENSE tan fine SAND	13				
MEDIUM brown fine SAND							15				
							20				
	586.40						14				
MEDIUM brown fine SAND		7				DENSE tan fine SAND	18				
		6					21				
	584.90	7					25				
LOOSE brown/tan fine SAND						DENSE tan fine SAND	15				
		3					22				
		4					26				
	582.40	4					17				
MEDIUM tan fine SAND						DENSE tan brown fine SAND	19				
		5					24				
		6					30				
	579.90	7					15				
MEDIUM tan fine SAND						DENSE gray fine SAND	15				
		3					15				
		5					19				
	577.40	6					12				
MEDIUM tan fine SAND						STIFF gray SANDY LOAM	6	2.0	25		
		4					6	S			
		5					1				
	574.90	7				MEDIUM gray SANDY LOAM, moist with SAND lens	2	0.8	21		
DENSE tan fine SAND							3	P			
		9					1				
		20				MEDIUM gray SILTY LOAM	1	0.6	27		
		24					2	B			
DENSE tan fine SAND							1				
		15					2				
		20					2				
	569.90	21					40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 2 of 2
Date 1/25/05

ROUTE FA 199 DESCRIPTION P92-139-00 Centennial Expressway over Iowa Interstate Railroad LOGGED BY W. Garza

SECTION 1VB LOCATION South Rock Island Township - 3SE, SEC. 1, TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station 384+77.69

BORING NO. B-1
Station 386+43
Offset 23.50ft L to CL
Ground Surface Elev. 588.9 ft

Soil Description	Depth (ft)	(B)	(6")	(sf)	(%)	Soil Description	Depth (ft)	(B)	(6")	(sf)	(%)
VERY LOOSE brown fine SAND							1				
							1				
							2				
	547.40						2				
LOOSE brown fine SAND, very moist							3				
							4				
	544.90						2				
LOOSE brown clean medium SAND							3				
							6				
	542.40						7				
Wash LOOSE brown fine SAND with medium GRAVEL							5				
							3				
	539.90						9				
Wash DENSE brown top 12" fine SAND bottom 6" SAND & GRAVEL							13				
							38				
	536.90						23				
Wash VERY DENSE tan SAND & GRAVEL with LIMESTONE fragments							100/11"				
							28				
							9				
	532.40						14				
Wash MEDIUM tan SAND & GRAVEL with LIMESTONE fragments											
End of Boring											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SOIL BORINGS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 32
F.A.P. 308	*	ROCK ISLAND	210	147	32 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB,HB-1,VB,HB-2)R

Page 1 of 2

SOIL BORING LOG

Date 1/26/05

ROUTE FA 199 DESCRIPTION P92-139-00 Centennial Expressway over Iowa Interstate Railroad LOGGED BY W. Garza

SECTION 1VB LOCATION South Rock Island Twp. - 3 SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station 384+77.69

BORING NO. B-2 Station 382+65
Offset 40.00ft RL CL
Ground Surface Elev. 589.4 ft

SOIL DESCRIPTION	DEPTH (ft)	(B)	(6")	(sf)	(%)	SOIL DESCRIPTION	DEPTH (ft)	(B)	(6")	(sf)	(%)
MEDIUM brown SANDY LOAM	10		0.5	12		MEDIUM tan fine SAND	10				
	17		P				17				
	586.90						586.90				
MEDIUM brown fine SAND	7					DENSE tan fine SAND	13				
	5						16				
	585.40						24				
	585.40						585.40				
LOOSE brown fine SAND	3					DENSE tan fine SAND	8				
	3						16				
	582.90						20				
	582.90						582.90				
LOOSE/MEDIUM brown fine SAND	3					DENSE tan fine SAND	15				
	4						18				
	580.40						23				
	580.40						580.40				
MEDIUM brown fine SAND	6					DENSE tan fine SAND	10				
	8						17				
	577.90						23				
	577.90						577.90				
MEDIUM tan fine SAND	8					DENSE tan/brown fine SAND	13				
	10						14				
	575.40						17				
	575.40						575.40				
MEDIUM tan fine SAND	5					VERY DENSE tan fine SAND	19				
	11						36				
	572.90						43				
	572.90						572.90				
MEDIUM tan fine SAND	9					MEDIUM dark gray SANDY LOAM	5				
	12						6	0.8		30	
	570.40						5	P			
	570.40						570.40				
	570.40						570.40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Page 2 of 2

SOIL BORING LOG

Date 1/26/05

ROUTE FA 199 DESCRIPTION P92-139-00 Centennial Expressway over Iowa Interstate Railroad LOGGED BY W. Garza

SECTION 1VB LOCATION South Rock Island Twp. - 3 SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. Station 384+77.69

BORING NO. B-2 Station 382+65
Offset 40.00ft RL CL
Ground Surface Elev. 589.4 ft

SOIL DESCRIPTION	DEPTH (ft)	(B)	(6")	(sf)	(%)	SOIL DESCRIPTION	DEPTH (ft)	(B)	(6")	(sf)	(%)
MEDIUM dark gray SANDY LOAM	1						1				
	10						10				
	17						17				
	547.40						547.40				
LOOSE/MEDIUM gray fine moist SAND	3						3				
	4						4				
	545.40						545.40				
	545.40						545.40				
LOOSE gray fine SAND	1						1				
	1						1				
	4						4				
	539.40						539.40				
	539.40						539.40				
Wash	6					DENSE tan SAND & GRAVEL	6				
	12						12				
	537.90						537.90				
	537.90						537.90				
VERY DENSE tan SAND & GRAVEL	37						37				
	40						40				
	535.40						535.40				
	535.40						535.40				
End of Boring	55						55				
	55						55				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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H.W. LOCHNER, INC., CHICAGO, ILLINOIS

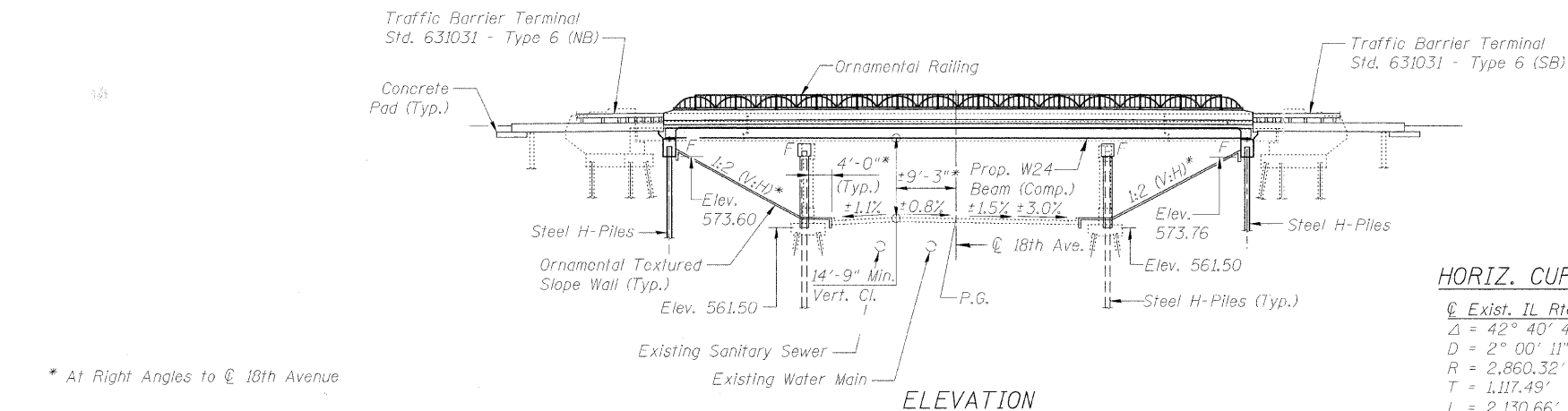
SOIL BORINGS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER IAIS RAILROAD
FAP ROUTE 308 SEC. 1(VB)R
ROCK ISLAND COUNTY
STATION 1507+04.10
STRUCTURE NO. 081-0064

Bench Mark: B.M. #498 - Chiseled square on top of Northeast wingwall
Sta. 1518+55, 36' Rt. of IL-92, Elev. 583.13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

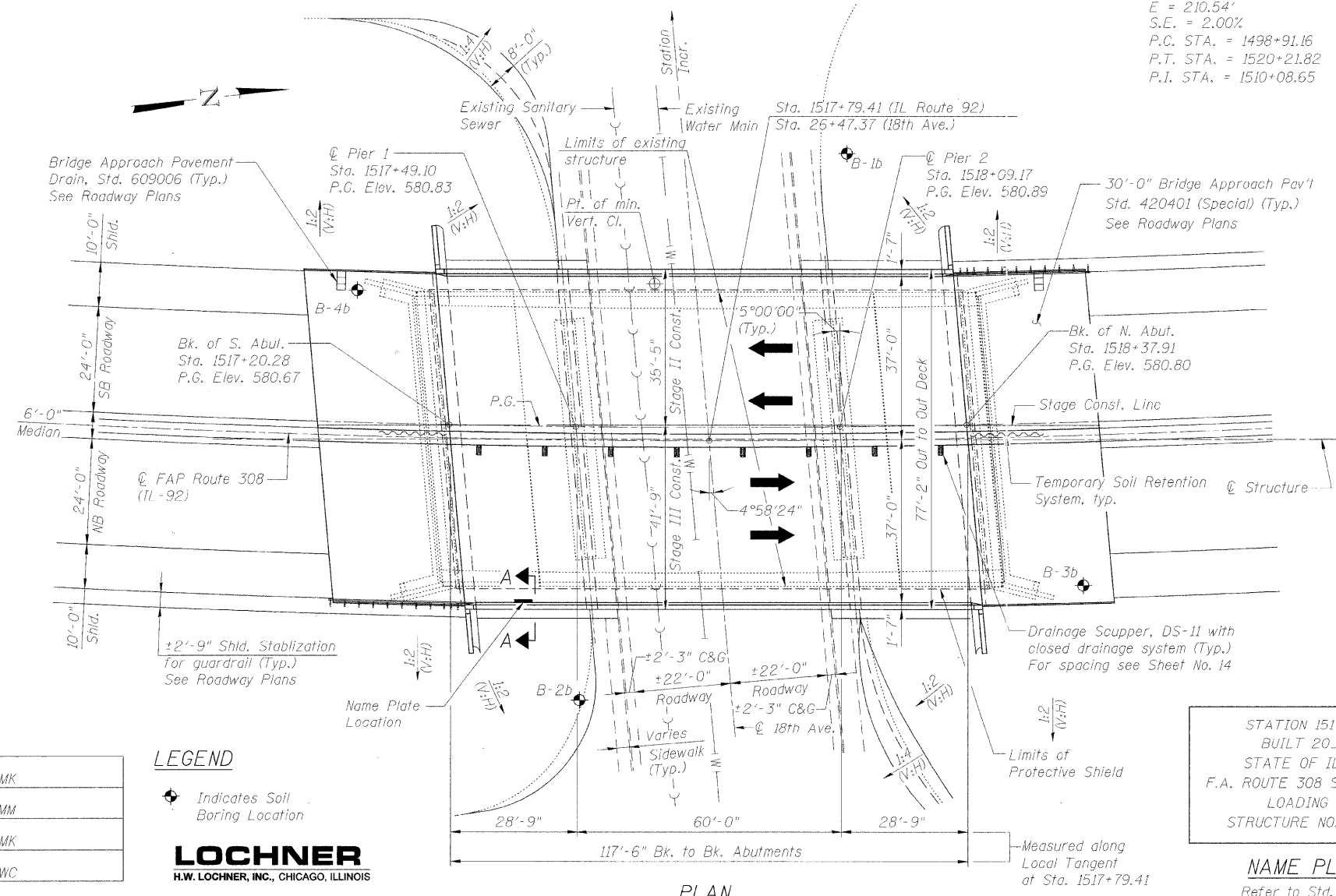
Existing Structure: S.N. 081-0063, Built as F.A. Route 199, Sec. 1-HB-1 in 1963.
Three span, 129'-3" back to back of abutments, 66'-9" out to out. Superstructure consists of a R.C. deck on WF beams supported on multi-column piers and spill-through abutments.
Structure to be removed and replaced. Traffic to be maintained during the reconstruction by staged construction.

No Salvage



* At Right Angles to \odot 18th Avenue

HORIZ. CURVE DATA
 \odot Exist. IL Rte. 92
 $\Delta = 42^\circ 40' 47''$ (LT)
 $D = 2^\circ 00' 11''$
 $R = 2,860.32'$
 $T = 1,117.49'$
 $L = 2,130.66'$
 $E = 210.54'$
 $S.E. = 2.00\%$
 $P.C. STA. = 1498+91.16$
 $P.T. STA. = 1520+21.82$
 $P.I. STA. = 1510+08.65$

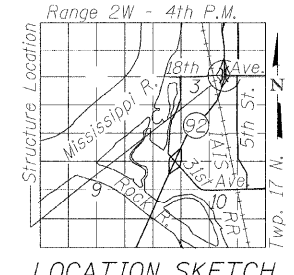


DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LEGEND
 Indicates Soil Boring Location
LOCHNER
 H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATION 1517+79.41
 BUILT 20__ BY
 STATE OF ILLINOIS
 F.A. ROUTE 308 SEC. 1(HB)-1R
 LOADING HS20
 STRUCTURE NO. 081-0171

NAME PLATE
 Refer to Std. 515001



GENERAL PLAN AND ELEVATION
 IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
 OVER 18th AVENUE
 FAP ROUTE 308 SEC. 1(HB)-1R
 ROCK ISLAND COUNTY
 STATION 1517+79.41
 STRUCTURE NO. 081-0171

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 R. J. ...
 ENGINEER OF BRIDGES AND STRUCTURES



LOADING HS20-44
 Allow 50#/sq. ft. for Future Wearing Surface.

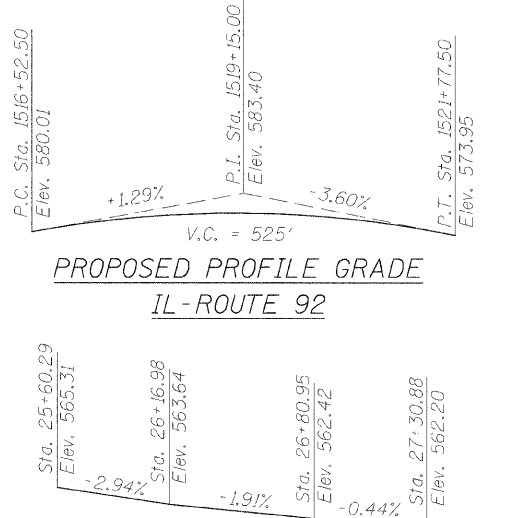
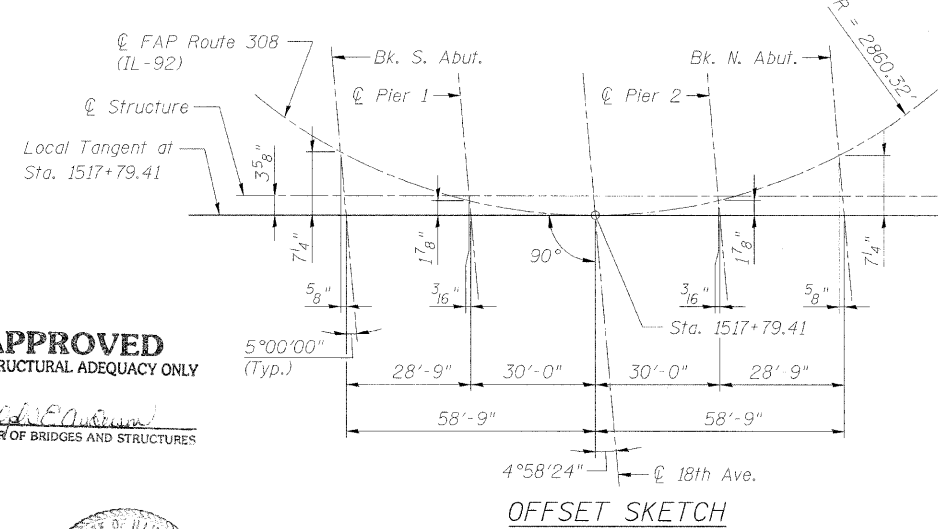
DESIGN SPECIFICATIONS
 2002 AASHTO - 17th Edition

DESIGN STRESSES
 FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (Struct. Steel) (M270 Grade 50)

SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.034g
 Site Coefficient (S) = 1.0

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	148
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #64814 * 1(HB,HB-1,VB,HB-2)R



EXISTING PROFILE GRADE
 18th AVENUE

NOTES
 1. For General Notes, Bill of Material and Index of Sheets see Sheet No. 2
 2. For Section A-A see Sheet No. 3
 3. For temporary sheet piling details see Sheet No. 4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	149
SHEET NO. 2				
28 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #64814 * I(HB,HB-1,VB,HB-2)R

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. dia., holes 15/16 in. dia., unless otherwise noted.
- Calculated weight of Structural Steel M270 Grade 36 = 23,560 lbs.
Calculated weight of Structural Steel M270 Grade 50 = 170,830 lbs.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the designated areas of the Piers.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B, 3/6. See Special Provision for "Cleaning and Painting New Metal Structures".
- In lieu of the hammer selection criteria and use of the FHWA Modified Gates formula specified in Section 512 of the Standard Specifications, the Contractor shall conduct a wave equation analysis to establish the driving criteria at all pile foundations which specify a nominal required bearing above 600 kips. The analysis and calculations shall be submitted to the Engineer for approval.
- Slip forming of the parapets and median barrier is not allowed.
- See Electrical Plans for Bridge Underpass Lighting details.
- All concrete for "Concrete Structures" in the area of the Form Liner Limestone Surface shall be Self-Consolidating Concrete. See Special Provisions for "Self-Consolidating Concrete for Cast-in-Place Construction."

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub		Total
			Piers	Abuts.	
Porous Granular Embankment, Special	Cu. Yd.			310	310
Removal of Existing Structures No. 2	Each	1			1
Protective Shield	Sq. Yd.	944			944
Structure Excavation	Cu. Yd.		67	127	194
Concrete Structures	Cu. Yd.		239.6	70.1	309.7
Rubbed Finish	Sq. Ft.		3,132		3,132
Concrete Superstructure	Cu. Yd.	341.0			341.0
Bridge Deck Grooving	Sq. Yd.	875			875
Concrete Encasement	Cu. Yd.		14.2	9.2	23.4
Protective Coat	Sq. Yd.	1,179			1,179
Furnishing and Erecting Structural Steel	L. Sum	0.3			0.3
Stud Shear Connectors	Each	3,471			3,471
Reinforcement Bars, Epoxy Coated	Pound	68,650	16,800	11,280	96,730
Bar Splicers	Each	489	84	20	593
Furnishing Steel Piles HP12x53	Foot			1,482	1,482
Furnishing Steel Piles HP14x89	Foot		1,014		1,014
Driving Piles	Foot		1,014	1,482	2,496
Pile Shoes	Each		26	26	52
Name Plates	Each	1			1
Anchor Bolts, 1"	Each		52	52	104
Concrete Sealer	Sq. Ft.		5,042		5,042
Geocomposite Wall Drain	Sq. Yd.			138	138
Pipe Underdrains for Structures 4"	Foot			224	224
Textured Slopewall	Sq. Yd.			587	587
Form Liner Limestone Surface	Sq. Ft.		1,757		1,757
Drainage Scuppers, DS-11	Each	8			8
Temporary Soil Retention System	Sq. Ft.			160	160
Ornamental Railing	Foot	225			225
Drainage System	L. Sum	0.3			0.3

INDEX OF SHEETS

SHEET NO.	TITLE
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS
3	FOOTING LAYOUT
4	STAGING DETAILS
5	TOP OF SLAB ELEVATIONS 1
6	TOP OF SLAB ELEVATIONS 2
7	TOP OF APPROACH SLAB ELEVATIONS
8	DECK PLAN
9	INTEGRAL ABUTMENT DIAPHRAGM DETAILS
10	MEDIAN BARRIER DETAILS
11	PARAPET DETAILS
12	ORNAMENTAL RAILING DETAILS
13	DRAINAGE SCUPPER, DS-11
14	CLOSED DRAINAGE SYSTEM
15	FRAMING PLAN
16	STEEL DETAILS 1
17	STEEL DETAILS 2
18	SOUTH ABUTMENT
19	NORTH ABUTMENT
20	PIERS 1 AND 2
21	STEEL PILE DETAILS
22	BAR SPLICER ASSEMBLY DETAILS
23	CANTILEVER FORMING BRACKETS
24	PIER ENHANCEMENTS
25	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
26	SOIL BORINGS 1
27	SOIL BORINGS 2
28	SOIL BORINGS 3

GENERAL NOTES, BILL OF MATERIAL &
INDEX OF SHEETS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

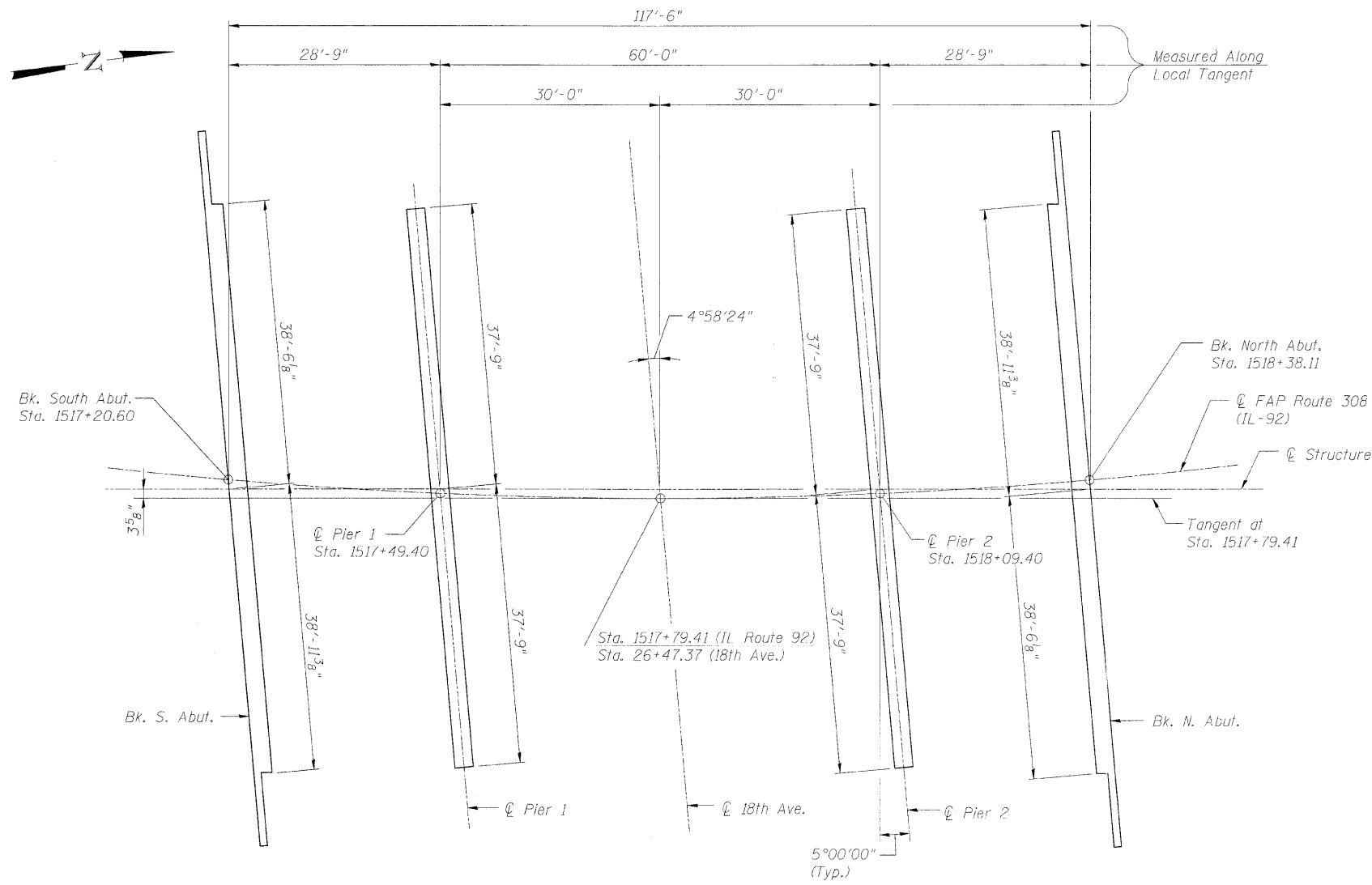
DESIGNED AMK
CHECKED CMM
DRAWN OS
CHECKED RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

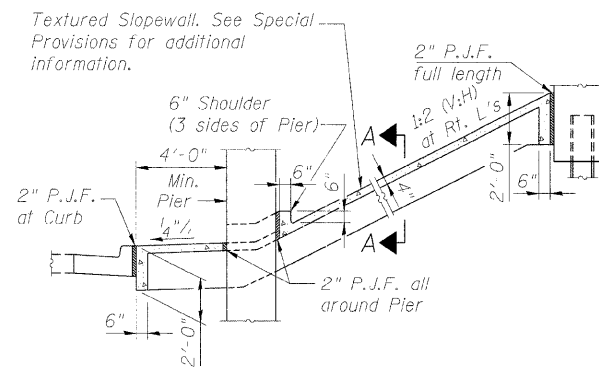
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210 150	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

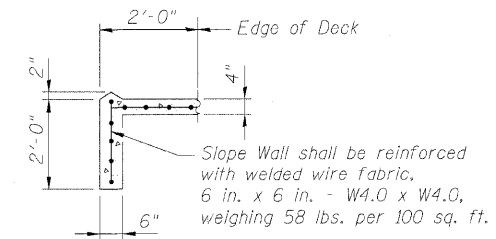
Contract #64814 * (1HB,HB-1,VB,HB-2)R



FOOTING LAYOUT



SECTION THRU SLOPEWALL



SECTION A-A

FOOTING LAYOUT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	AMK
CHECKED	CMM
DRAWN	OS
CHECKED	RWC

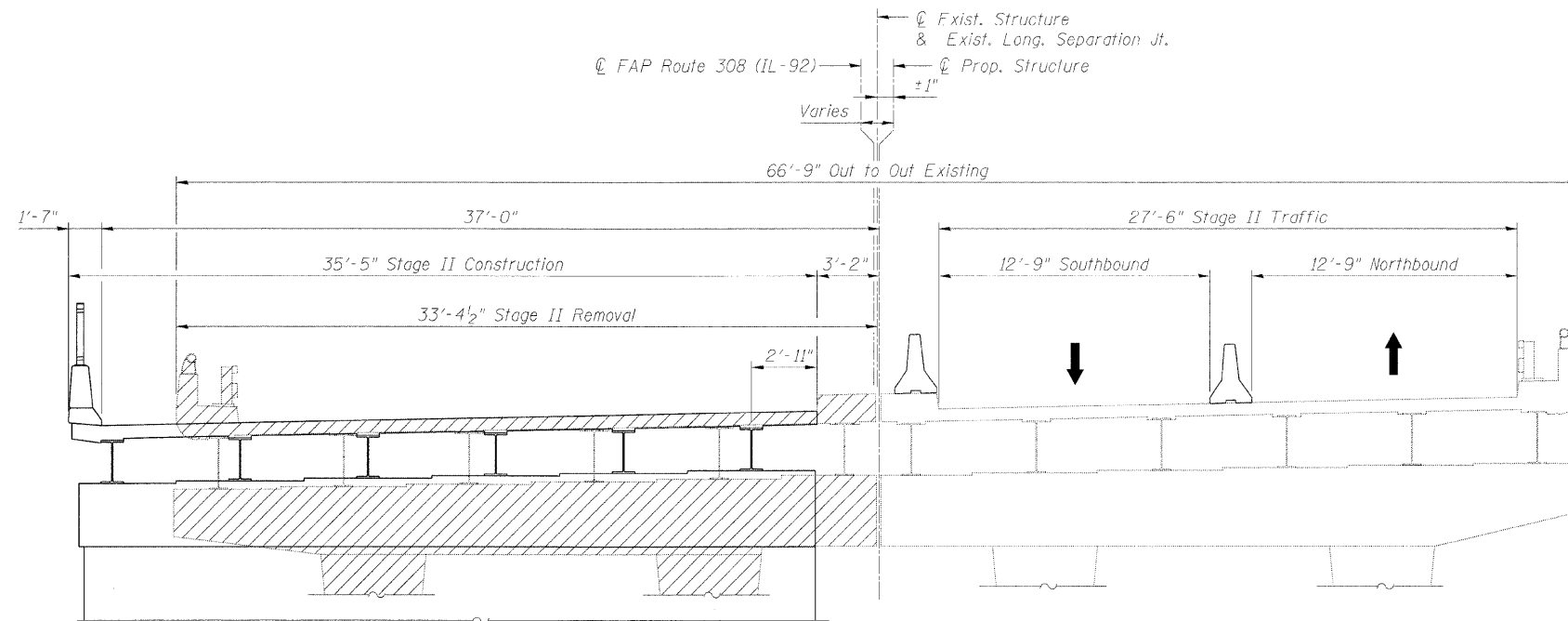
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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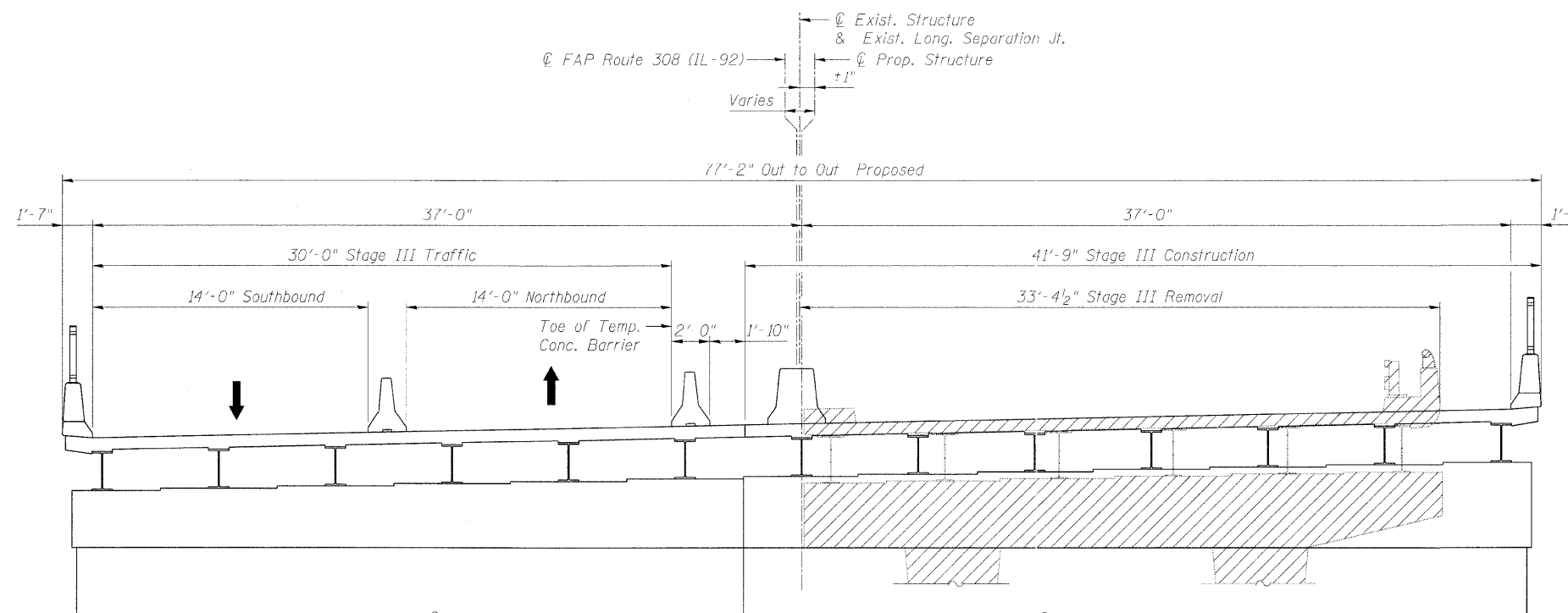
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	151	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

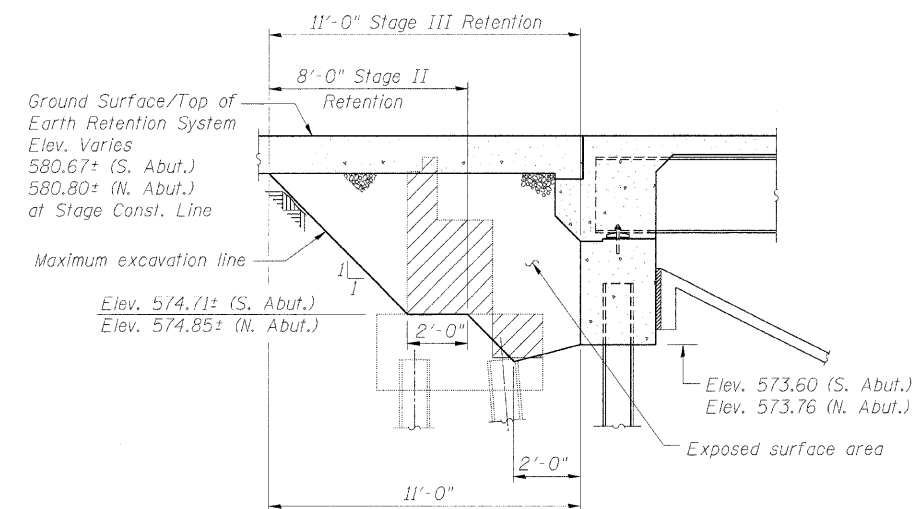
Contract #64814 * (1HB, HB-1, VB, HB-2)R



CROSS SECTION (STAGE II)
Looking North



CROSS SECTION (STAGE III)
Looking North



TEMPORARY SOIL RETENTION SYSTEM
BOTH ABUTMENTS

Note:
A cantilevered sheet piling design does not appear feasible and additional members or other retention system may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

DESIGNED	AMK
CHECKED	BJN
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

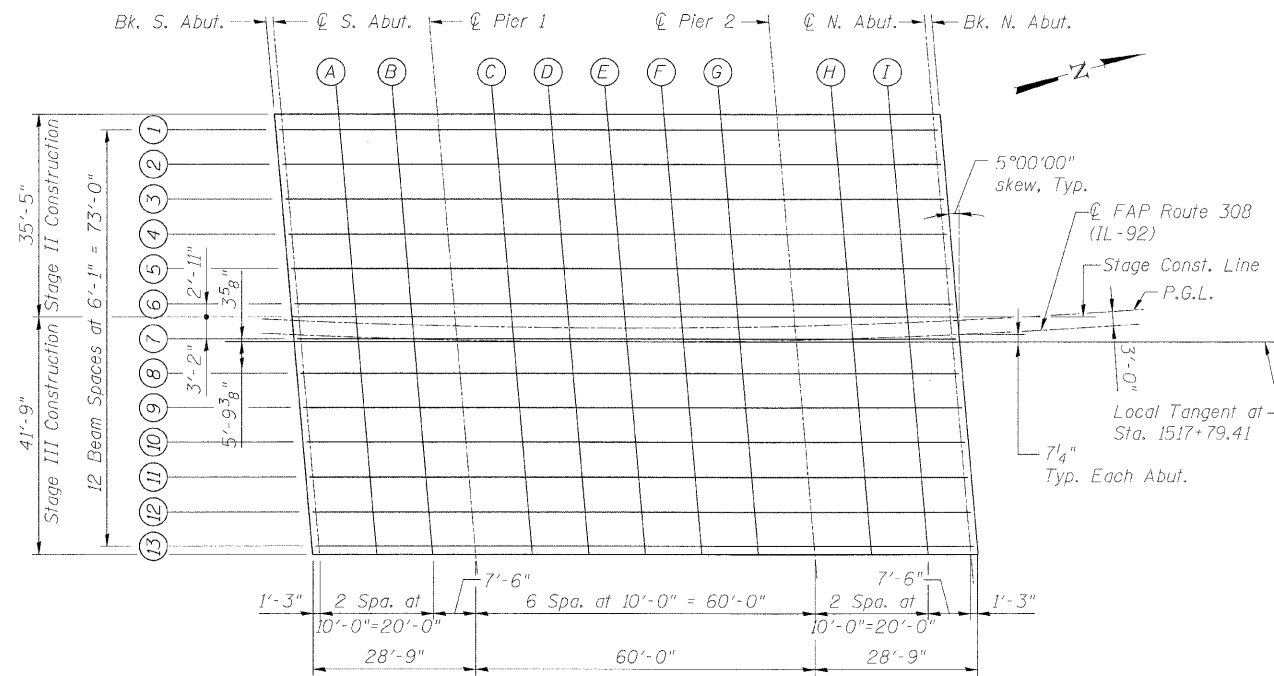
LEGEND

 Indicates Removal of Existing Structures

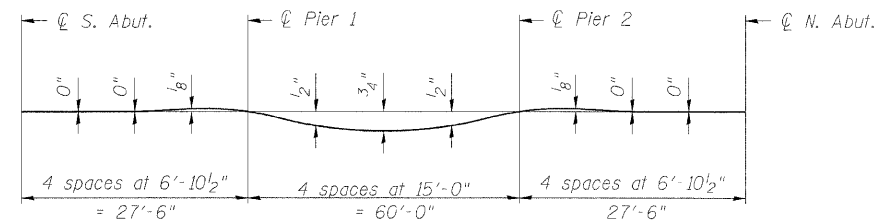
STAGING DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	152	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



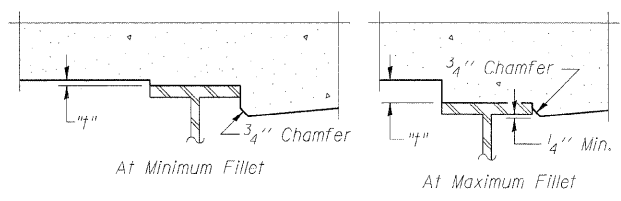
PLAN



DEAD LOAD DEFLECTION DIAGRAM

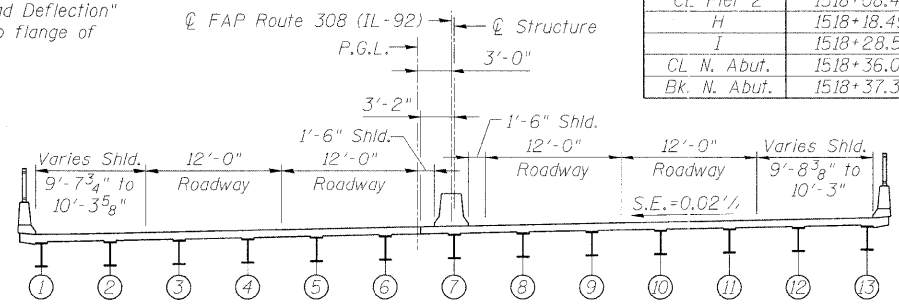
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown herein.



FILLET HEIGHTS

To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown herein. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown herein, minus slab thickness, equals the fillet heights "f" above top flange of beams.



CROSS SECTION

Looking North
Note: Horizontal dimensions shown are radial.

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+16.64	-36.12	579.99	579.99
CL S. Abut.	1517+17.91	-36.15	580.00	580.00
A	1517+28.03	-36.35	580.06	580.05
B	1517+38.16	-36.51	580.11	580.10
CL Pier 1	1517+45.76	-36.61	580.14	580.14
C	1517+55.89	-36.71	580.18	580.20
D	1517+66.02	-36.77	580.20	580.26
E	1517+76.15	-36.80	580.22	580.29
F	1517+86.28	-36.79	580.23	580.28
G	1517+96.41	-36.75	580.23	580.26
CL Pier 2	1518+06.54	-36.68	580.22	580.22
H	1518+16.67	-36.56	580.21	580.20
I	1518+26.80	-36.41	580.18	580.18
CL N. Abut.	1518+34.39	-36.28	580.15	580.15
Bk. N. Abut.	1518+35.66	-36.26	580.15	580.15

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+17.99	-23.98	580.24	580.24
CL S. Abut.	1517+19.25	-24.01	580.25	580.25
A	1517+29.33	-24.20	580.31	580.30
B	1517+39.41	-24.36	580.36	580.35
CL Pier 1	1517+46.98	-24.45	580.39	580.39
C	1517+57.06	-24.55	580.42	580.45
D	1517+67.15	-24.61	580.45	580.50
E	1517+77.24	-24.63	580.47	580.53
F	1517+87.32	-24.62	580.47	580.53
G	1517+97.41	-24.58	580.47	580.50
CL Pier 2	1518+07.50	-24.50	580.46	580.46
H	1518+17.58	-24.38	580.45	580.44
I	1518+27.67	-24.23	580.42	580.42
CL N. Abut.	1518+35.23	-24.10	580.39	580.39
Bk. N. Abut.	1518+36.49	24.07	580.39	580.39

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+19.32	-11.84	580.49	580.49
CL S. Abut.	1517+20.57	-11.87	580.50	580.50
A	1517+30.61	-12.05	580.56	580.55
B	1517+40.65	-12.21	580.60	580.60
CL Pier 1	1517+48.18	-12.30	580.64	580.64
C	1517+58.23	-12.39	580.67	580.70
D	1517+68.27	-12.45	580.69	580.75
E	1517+78.31	-12.47	580.71	580.78
F	1517+88.36	-12.45	580.72	580.77
G	1517+98.40	-12.41	580.72	580.74
CL Pier 2	1518+08.44	-12.32	580.71	580.71
H	1518+18.49	-12.20	580.69	580.68
I	1518+28.53	-12.05	580.66	580.66
CL N. Abut.	1518+36.06	-11.91	580.63	580.63
Bk. N. Abut.	1518+37.31	-11.89	580.63	580.63

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+17.32	-30.05	580.11	580.11
CL S. Abut.	1517+18.58	-30.08	580.12	580.12
A	1517+28.68	-30.27	580.18	580.18
B	1517+38.79	-30.43	580.23	580.23
CL Pier 1	1517+46.37	-30.53	580.26	580.26
C	1517+56.48	-30.63	580.30	580.33
D	1517+66.58	-30.69	580.33	580.38
E	1517+76.69	-30.72	580.34	580.41
F	1517+86.80	-30.71	580.35	580.41
G	1517+96.91	-30.67	580.35	580.38
CL Pier 2	1518+07.02	-30.59	580.34	580.34
H	1518+17.13	-30.47	580.33	580.32
I	1518+27.23	-30.32	580.30	580.30
CL N. Abut.	1518+34.81	-30.19	580.27	580.27
Bk. N. Abut.	1518+36.07	-30.16	580.27	580.27

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+18.65	-17.91	580.37	580.37
CL S. Abut.	1517+19.91	-17.94	580.37	580.37
A	1517+29.97	-18.13	580.43	580.43
B	1517+40.03	-18.28	580.48	580.47
CL Pier 1	1517+47.58	-18.38	580.51	580.51
C	1517+57.65	-18.47	580.55	580.57
D	1517+67.71	-18.53	580.57	580.63
E	1517+77.78	-18.55	580.59	580.65
F	1517+87.84	-18.54	580.60	580.65
G	1517+97.91	-18.49	580.59	580.62
CL Pier 2	1518+07.97	-18.41	580.59	580.59
H	1518+18.04	-18.29	580.57	580.56
I	1518+28.10	-18.14	580.54	580.54
CL N. Abut.	1518+35.64	-18.00	580.51	580.51
Bk. N. Abut.	1518+36.90	-17.98	580.51	580.51

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+19.98	-5.77	580.62	580.62
CL S. Abut.	1517+21.23	-5.79	580.62	580.62
A	1517+31.25	-5.98	580.68	580.68
B	1517+41.27	-6.13	580.73	580.72
CL Pier 1	1517+48.78	-6.22	580.76	580.76
C	1517+58.81	-6.31	580.79	580.82
D	1517+68.83	-6.37	580.82	580.87
E	1517+78.85	-6.39	580.83	580.90
F	1517+88.87	-6.37	580.84	580.89
G	1517+98.89	-6.32	580.84	580.86
CL Pier 2	1518+08.92	-6.23	580.83	580.83
H	1518+18.94	-6.11	580.81	580.80
I	1518+28.96	-5.96	580.78	580.78
CL N. Abut.	1518+36.47	-5.82	580.75	580.75
Bk. N. Abut.	1518+37.72	-5.79	580.75	580.75

NOTE

Work this Sheet with Sheet No. 6

TOP OF SLAB ELEVATIONS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	CMM
CHECKED	AMK
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	POST MILES	SHEET	SHEET NO. 6 28 SHEETS
F.A.P. 308	*	ROCK ISLAND	210	153	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

Contract #64814 * (1HB, HB-1, VB, HB-2)R

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+20.29	-2.86	580.68	580.68
CL S. Abut.	1517+21.54	-2.88	580.68	580.68
A	1517+31.55	-3.07	580.74	580.74
B	1517+41.56	-3.22	580.79	580.78
CL Pier 1	1517+49.07	-3.31	580.82	580.82
C	1517+59.08	-3.40	580.85	580.88
D	1517+69.09	-3.45	580.88	580.93
E	1517+79.11	-3.47	580.89	580.96
F	1517+89.12	-3.45	580.90	580.95
G	1517+99.13	-3.40	580.90	580.92
CL Pier 2	1518+09.14	-3.31	580.89	580.89
H	1518+19.15	-3.19	580.87	580.86
I	1518+29.16	-3.04	580.84	580.84
CL N. Abut.	1518+36.67	-2.90	580.81	580.81
Bk. N. Abut.	1518+37.92	-2.87	580.81	580.81

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+20.27	-3.00	580.67	580.67
CL S. Abut.	1517+21.53	-3.00	580.68	580.68
A	1517+31.56	-3.00	580.74	580.74
B	1517+41.59	-3.00	580.79	580.79
CL Pier 1	1517+49.10	-3.00	580.83	580.83
C	1517+59.12	-3.00	580.86	580.89
D	1517+69.13	-3.00	580.88	580.94
E	1517+79.14	-3.00	580.90	580.97
F	1517+89.15	-3.00	580.91	580.96
G	1517+99.16	-3.00	580.90	580.93
CL Pier 2	1518+09.16	-3.00	580.89	580.89
H	1518+19.16	-3.00	580.87	580.86
I	1518+29.16	-3.00	580.84	580.84
CL N. Abut.	1518+36.65	-3.00	580.81	580.81
Bk. N. Abut.	1518+37.91	-3.00	580.80	580.80

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+20.64	0.30	580.74	580.74
CL S. Abut.	1517+21.89	0.28	580.75	580.75
A	1517+31.88	0.09	580.81	580.81
B	1517+41.88	-0.06	580.85	580.85
CL Pier 1	1517+49.38	-0.14	580.88	580.88
C	1517+59.38	-0.23	580.92	580.92
D	1517+69.38	-0.28	580.94	580.94
E	1517+79.38	-0.30	580.95	580.95
F	1517+89.38	-0.28	580.96	580.96
G	1517+99.39	-0.23	580.96	580.96
CL Pier 2	1518+09.39	-0.15	580.95	580.95
H	1518+19.39	-0.02	580.93	580.93
I	1518+29.38	0.13	580.90	580.90
CL N. Abut.	1518+36.88	0.28	580.87	580.87
Bk. N. Abut.	1518+38.13	0.30	580.87	580.87

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+21.29	6.37	580.87	580.87
CL S. Abut.	1517+22.54	6.35	580.88	580.88
A	1517+32.51	6.17	580.93	580.93
B	1517+42.49	6.02	580.98	580.97
CL Pier 1	1517+49.98	5.93	581.01	581.01
C	1517+59.96	5.85	581.04	581.07
D	1517+69.93	5.80	581.06	581.12
E	1517+79.91	5.78	581.08	581.14
F	1517+89.89	5.80	581.08	581.14
G	1517+99.87	5.85	581.08	581.11
CL Pier 2	1518+09.85	5.94	581.07	581.07
H	1518+19.83	6.07	581.05	581.04
I	1518+29.81	6.23	581.02	581.02
CL N. Abut.	1518+37.29	6.37	580.99	580.99
Bk. N. Abut.	1518+38.54	6.39	580.99	580.99

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+21.94	12.44	580.99	580.99
CL S. Abut.	1517+23.19	12.42	581.00	581.00
A	1517+33.14	12.24	581.06	581.05
B	1517+43.10	12.10	581.10	581.10
CL Pier 1	1517+50.57	12.01	581.13	581.13
C	1517+60.53	11.93	581.16	581.19
D	1517+70.49	11.88	581.19	581.24
E	1517+80.44	11.86	581.20	581.27
F	1517+90.40	11.89	581.20	581.26
G	1518+00.36	11.94	581.20	581.23
CL Pier 2	1518+10.32	12.03	581.19	581.19
H	1518+20.28	12.16	581.17	581.16
I	1518+30.23	12.32	581.14	581.14
CL N. Abut.	1518+37.70	12.46	581.11	581.11
Bk. N. Abut.	1518+38.94	12.49	581.11	581.11

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+22.59	18.52	581.12	581.12
CL S. Abut.	1517+23.84	18.49	581.13	581.13
A	1517+33.77	18.31	581.18	581.18
B	1517+43.71	18.17	581.23	581.22
CL Pier 1	1517+51.16	18.09	581.25	581.25
C	1517+61.10	18.01	581.29	581.31
D	1517+71.03	17.96	581.31	581.36
E	1517+80.97	17.95	581.32	581.39
F	1517+90.91	17.97	581.33	581.38
G	1518+00.85	18.03	581.32	581.35
CL Pier 2	1518+10.78	18.12	581.31	581.31
H	1518+20.72	18.25	581.29	581.28
I	1518+30.65	18.41	581.26	581.26
CL N. Abut.	1518+38.10	18.55	581.23	581.23
Bk. N. Abut.	1518+39.35	18.58	581.23	581.23

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+23.24	24.59	581.25	581.25
CL S. Abut.	1517+24.48	24.56	581.25	581.25
A	1517+34.39	24.39	581.31	581.30
B	1517+44.31	24.25	581.35	581.34
CL Pier 1	1517+51.75	24.17	581.38	581.38
C	1517+61.66	24.09	581.41	581.44
D	1517+71.58	24.04	581.43	581.48
E	1517+81.49	24.03	581.44	581.51
F	1517+91.41	24.06	581.45	581.50
G	1518+01.33	24.12	581.44	581.47
CL Pier 2	1518+11.24	24.21	581.43	581.43
H	1518+21.16	24.34	581.41	581.41
I	1518+31.07	24.50	581.38	581.38
CL N. Abut.	1518+38.51	24.65	581.35	581.35
Bk. N. Abut.	1518+39.75	24.67	581.35	581.35

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+23.89	30.66	581.37	581.37
CL S. Abut.	1517+25.12	30.64	581.38	581.38
A	1517+35.02	30.46	581.43	581.43
B	1517+44.91	30.32	581.47	581.47
CL Pier 1	1517+52.33	30.24	581.50	581.50
C	1517+62.23	30.17	581.53	581.56
D	1517+72.12	30.12	581.55	581.61
E	1517+82.02	30.12	581.57	581.63
F	1517+91.91	30.14	581.57	581.62
G	1518+01.81	30.20	581.57	581.59
CL Pier 2	1518+11.70	30.30	581.55	581.55
H	1518+21.60	30.43	581.53	581.53
I	1518+31.49	30.59	581.50	581.50
CL N. Abut.	1518+38.91	30.74	581.47	581.47
Bk. N. Abut.	1518+40.15	30.77	581.47	581.47

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1517+24.53	36.73	581.50	581.50
CL S. Abut.	1517+25.76	36.71	581.50	581.50
A	1517+35.63	36.54	581.56	581.55
B	1517+45.51	36.40	581.60	581.59
CL Pier 1	1517+52.91	36.32	581.63	581.63
C	1517+62.79	36.25	581.65	581.68
D	1517+72.66	36.21	581.68	581.73
E	1517+82.54	36.20	581.69	581.75
F	1517+92.41	36.23	581.69	581.75
G	1518+02.29	36.29	581.69	581.71
CL Pier 2	1518+12.16	36.39	581.67	581.67
H	1518+22.03	36.52	581.65	581.65
I	1518+31.91	36.69	581.62	581.62
CL N. Abut.	1518+39.31	36.83	581.60	581.60
Bk. N. Abut.	1518+40.54	36.86	581.59	581.59

NOTE

Work this Sheet with Sheet No. 5

TOP OF SLAB ELEVATIONS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED CMM
CHECKED JSD
DRAWN OS
CHECKED RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	154
28 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
Contract #64814 * (1HB, HB-1, VB, HB-2)R				

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+86.15	-37.00	579.72
A	1516+96.27	-37.10	579.81
B	1517+06.39	-37.17	579.89
Bk. S. Abut.	1517+16.52	-37.20	579.96
Bk. N. Abut.	1518+35.58	-37.34	580.13
C	1518+45.72	-37.26	580.08
D	1518+55.86	-37.15	580.03
End N. Appr. Pavement	1518+66.00	-37.00	579.97

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+87.36	-27.00	579.93
A	1516+97.46	-27.00	580.02
B	1517+07.56	-27.00	580.10
Bk. S. Abut.	1517+17.65	-27.00	580.18
Bk. N. Abut.	1518+36.29	-27.00	580.33
C	1518+46.38	-27.00	580.28
D	1518+56.48	-27.00	580.23
End N. Appr. Pavement	1518+66.58	-27.00	580.16

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+90.25	-3.00	580.43
A	1517+00.26	-3.00	580.52
B	1517+10.27	-3.00	580.60
Bk. S. Abut.	1517+20.28	-3.00	580.67
Bk. N. Abut.	1518+37.91	-3.00	580.80
C	1518+47.92	-3.00	580.76
D	1518+57.93	-3.00	580.70
End N. Appr. Pavement	1518+67.94	-3.00	580.63

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+90.35	-2.08	580.45
A	1517+00.33	-2.38	580.54
B	1517+10.31	-2.63	580.61
Bk. S. Abut.	1517+20.29	-2.86	580.68
Bk. N. Abut.	1518+37.92	-2.87	580.81
C	1518+47.94	-2.65	580.76
D	1518+57.97	-2.39	580.71
End N. Appr. Pavement	1518+67.99	-2.10	580.65

Q FAP ROUTE 308 (IL-92)

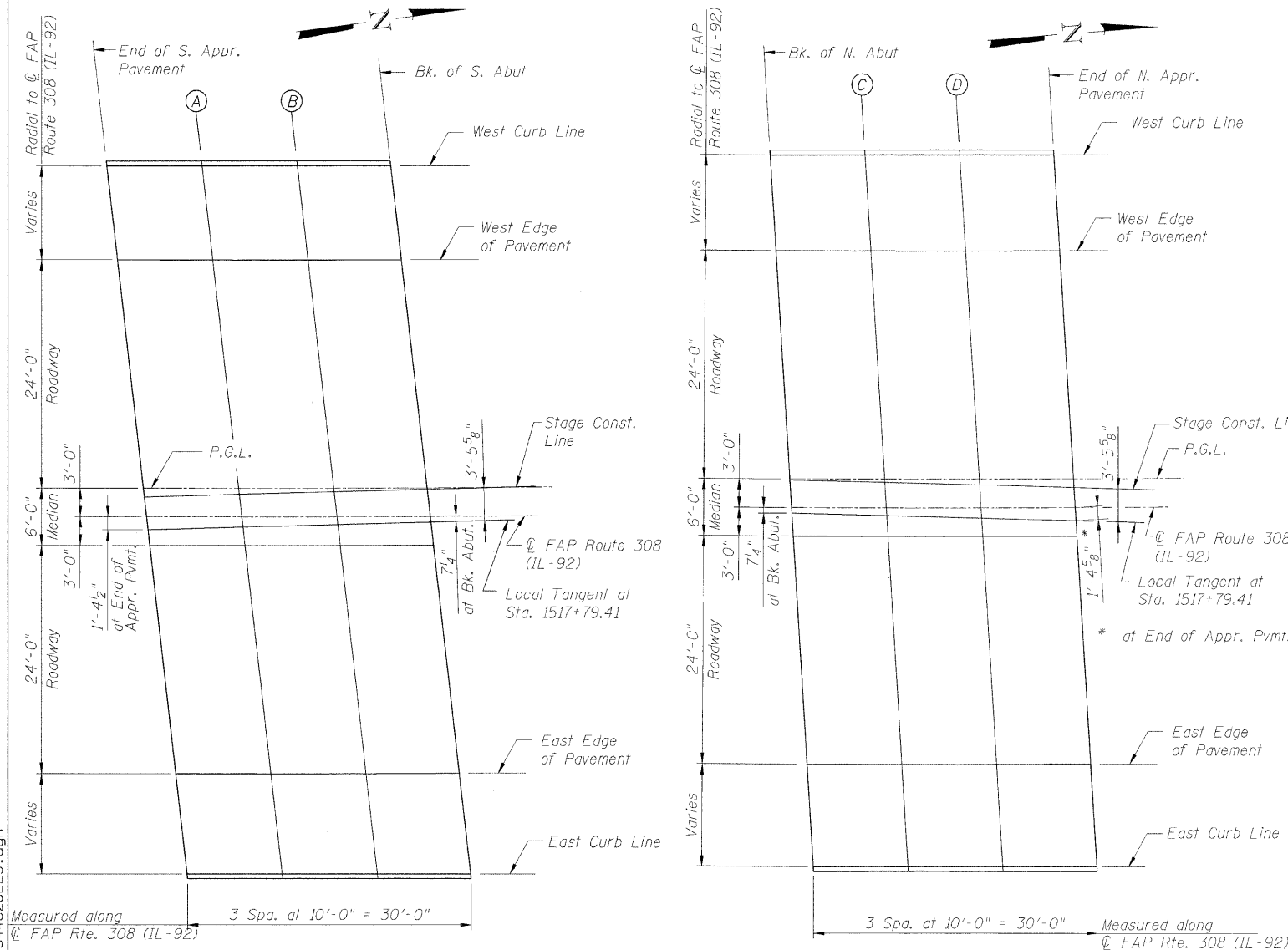
Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+90.60	0.00	580.50
A	1517+00.60	0.00	580.59
B	1517+10.60	0.00	580.67
Bk. S. Abut.	1517+20.60	0.00	580.74
Bk. N. Abut.	1518+38.11	0.00	580.86
C	1518+48.11	0.00	580.82
D	1518+58.11	0.00	580.76
End N. Appr. Pavement	1518+68.11	0.00	580.69

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+93.78	27.00	581.07
A	1517+03.69	27.00	581.15
B	1517+13.59	27.00	581.23
Bk. S. Abut.	1517+23.50	27.00	581.29
Bk. N. Abut.	1518+39.90	27.00	581.40
C	1518+49.80	27.00	581.35
D	1518+59.71	27.00	581.29
End N. Appr. Pavement	1518+69.62	27.00	581.22

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1516+94.94	37.00	581.28
A	1517+04.84	37.24	581.37
B	1517+14.74	37.51	581.45
Bk. S. Abut.	1517+24.64	37.81	581.52
Bk. N. Abut.	1518+40.61	37.94	581.61
C	1518+50.46	37.60	581.55
D	1518+60.31	37.28	581.49
End N. Appr. Pavement	1518+70.17	37.00	581.42



PLAN

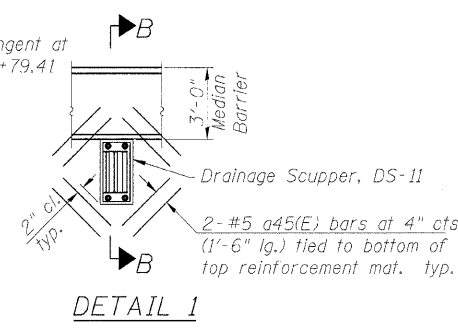
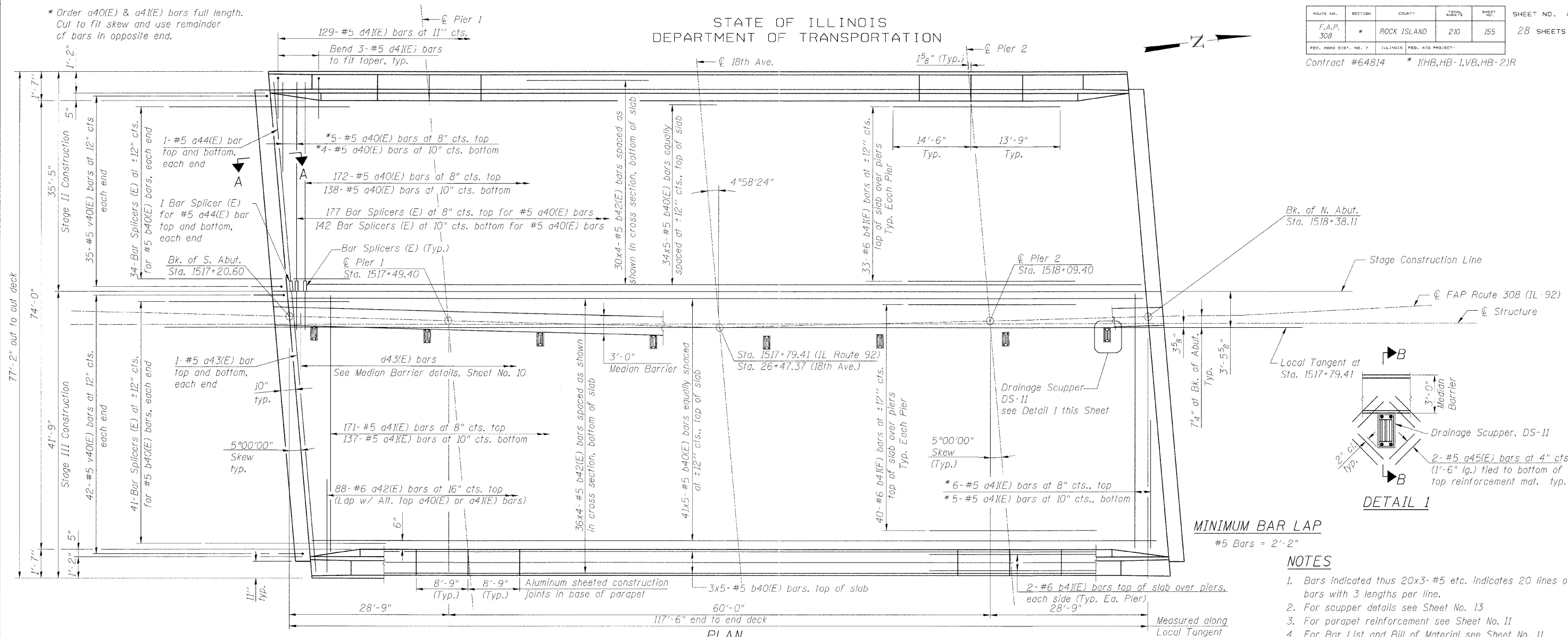
DESIGNED	CMM
CHECKED	AMK
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

TOP OF APPROACH SLAB ELEVATIONS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

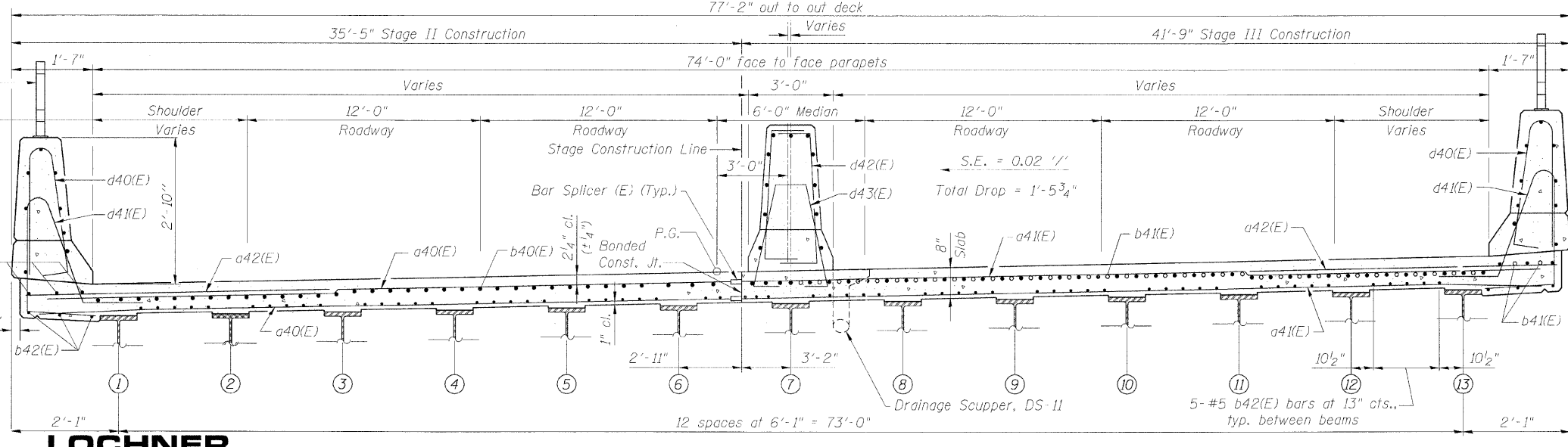
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	155	28 SHEETS
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					
Contract #64814 * (1HB,HB-1,VB,HB-2)R					



MINIMUM BAR LAP
 #5 Bars = 2'-2"

- NOTES**
1. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 2. For scupper details see Sheet No. 13
 3. For parapet reinforcement see Sheet No. 11
 4. For Bar List and Bill of Material see Sheet No. 11
 5. For Section A-A see Sheet No. 9
 6. All edges shall have a 3/4" chamfer except as noted.
 7. For median barrier reinforcement, see Sheet No. 10
 8. Cut longitudinal reinforcement to clear drainage scuppers.
 9. Protective coat shall be applied to the deck and top and inside faces of parapet and median barrier.
 10. For spacing of partial depth parapet joints see Sheet No. 11
 11. For spacing of partial depth median barrier joints see Sheet No. 10
 12. For Bar Splicer details see Sheet No. 22
 13. For Section B-B see Sheet No. 10
 14. For scupper layout details see Sheet No. 14



DESIGNED	CMM
CHECKED	JSD
DRAWN	EF
CHECKED	RWC

LOCHNER
 H.W. LOCHNER, INC., CHICAGO, ILLINOIS

NEAR MIDSPAN

CROSS SECTION
 (Looking North)

NEAR PIER

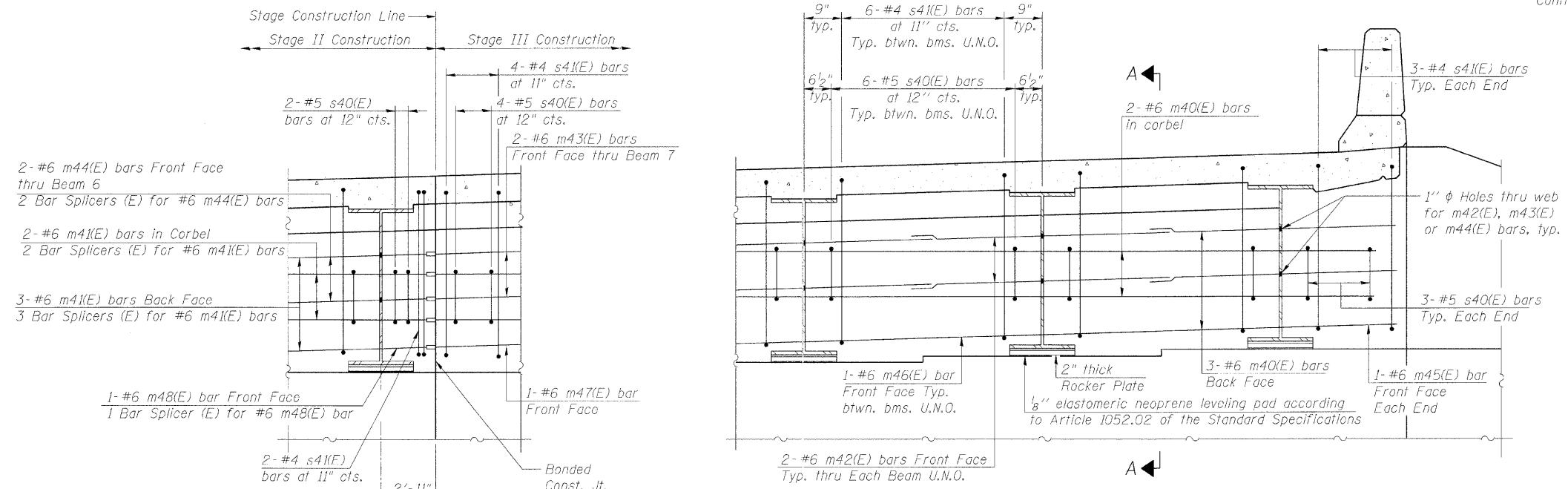
DECK PLAN
 IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
 OVER 18th AVENUE
 FAP ROUTE 308 SEC. 1(HB-1)R
 ROCK ISLAND COUNTY
 STATION 1517+79.41
 STRUCTURE NO. 081-0171

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 9
F.A.P. 308	*	ROCK ISLAND	210	156	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64814 * (IHB, HB-1, VB, HB-2)R

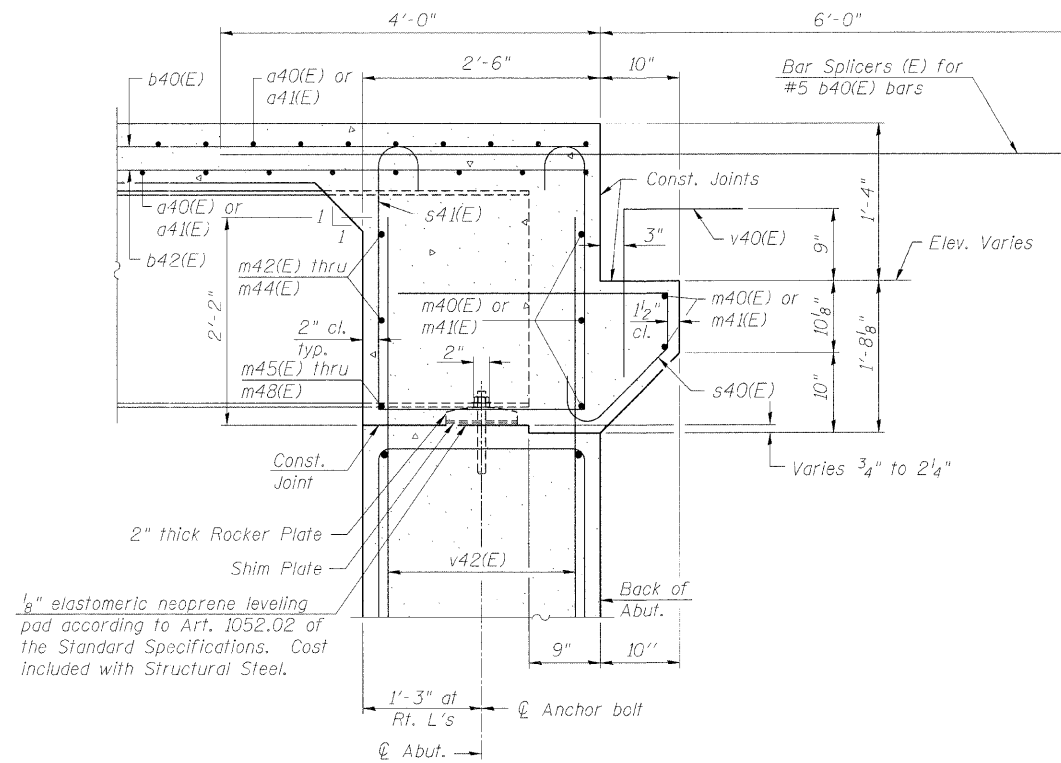


DIAPHRAGM ELEVATION AT ABUTMENT

(Looking North)
(North Abutment Shown, South Abutment Similar, Opposite Hand)

MINIMUM BAR LAP

#6 bar = 2'-9"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

NOTES

1. Reinforcement bars in diaphragm are billed with superstructure on Sheet No. 11
2. Concrete in diaphragm is included with Concrete Superstructure on Sheet No. 11
3. For details of bars s40(E) & s41(E) see Sheet No. 11
4. The s40(E) and s41(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
5. For rocker plate detail, see Sheet No. 17
6. For Bar Splicer details, see Sheet No. 22

INTEGRAL ABUTMENT DIAPHRAGM DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

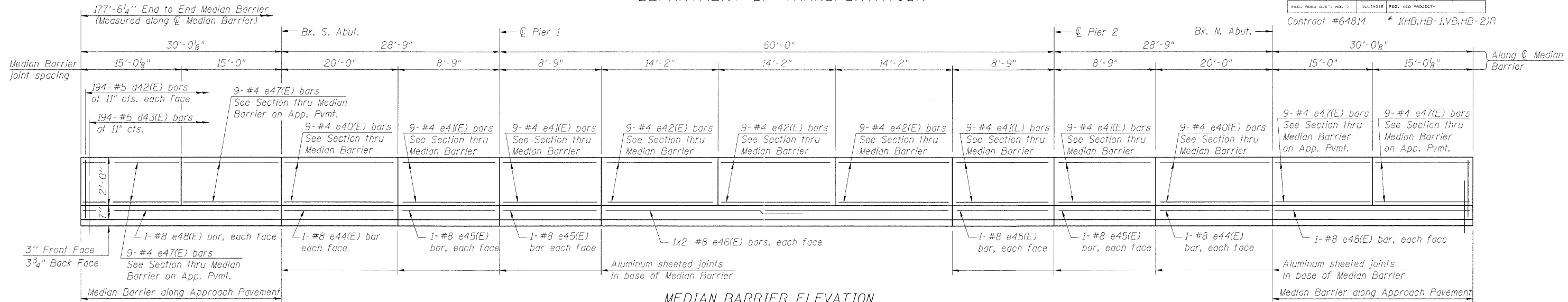
DESIGNED	CMM
CHECKED	AMK
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

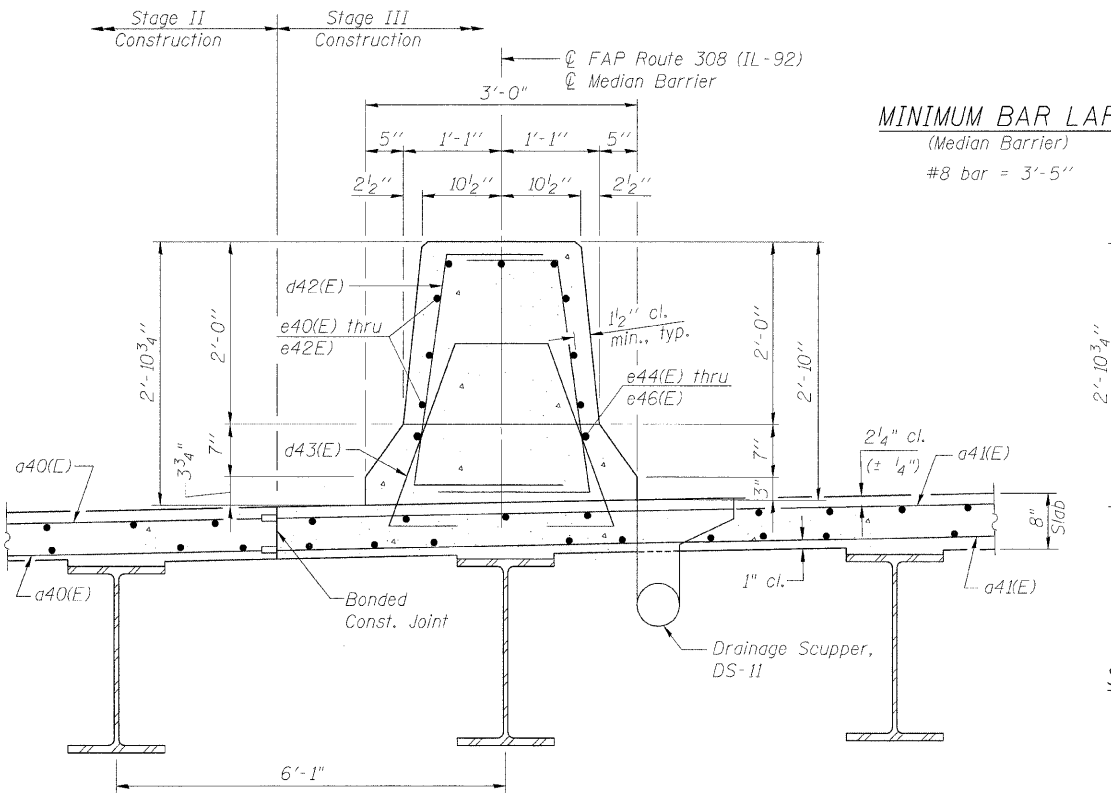
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

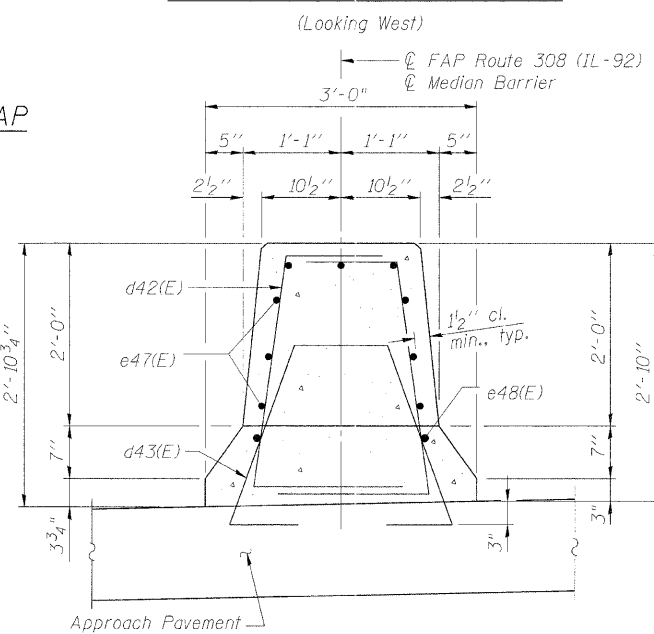
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
F.A.P. 308	*	ROCK ISLAND	210	157	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (1HB, HB-1, VB, HB-2)R		



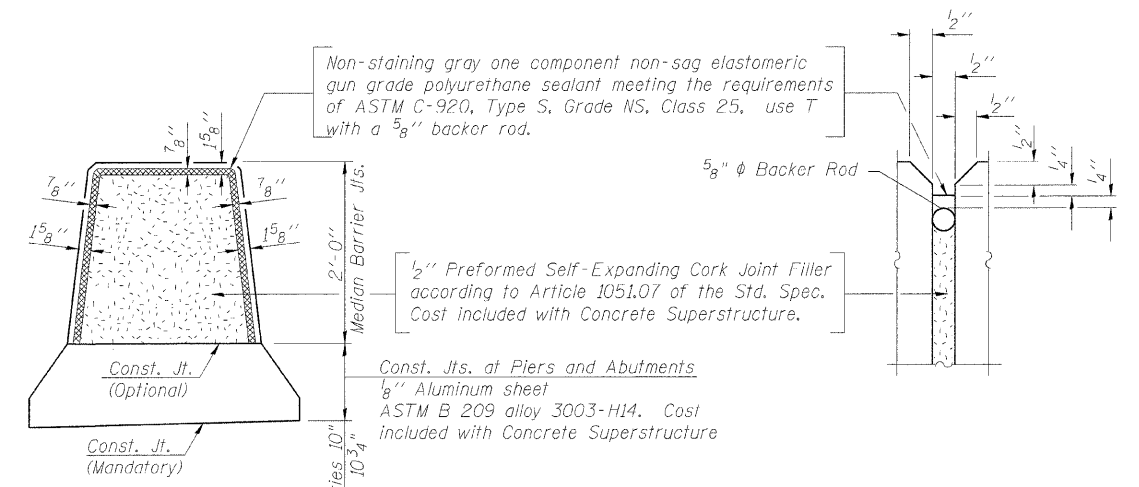
MEDIAN BARRIER ELEVATION
(Looking West)



SECTION THRU MEDIAN BARRIER ON BRIDGE
(Looking North)



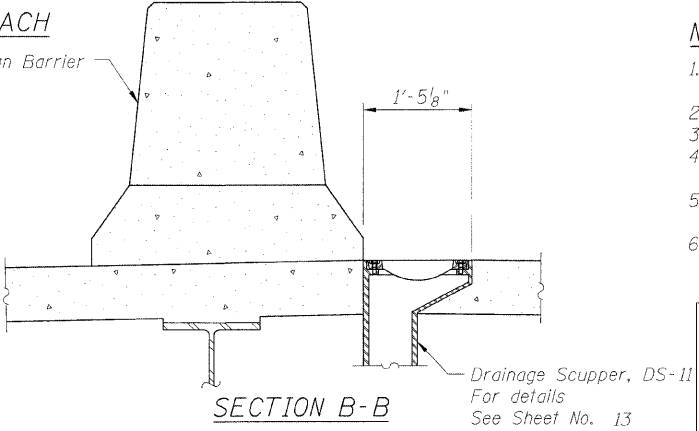
SECTION THRU MEDIAN BARRIER ON APPROACH
(Looking North)
(See Note 5)



MEDIAN BARRIER JOINT DETAILS

NOTES

1. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
2. For Bar List and Bill of Material see Sheet No. 11
3. All edges shall have a 3/4" chamfer except as noted.
4. Cost of median concrete on approach pavement included with Concrete Superstructure.
5. For Approach Pavement reinforcement and details see IDOT Standard Drawings.
6. For location of Section B-B, see Sheet No. 8



SECTION B-B

Notes:
For location of Drainage Scuppers see Sheet No. 14
Cut longitudinal reinforcement to clear drainage scuppers.
For drainage system details see Sheet No. 14

MEDIAN BARRIER DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	CMM
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

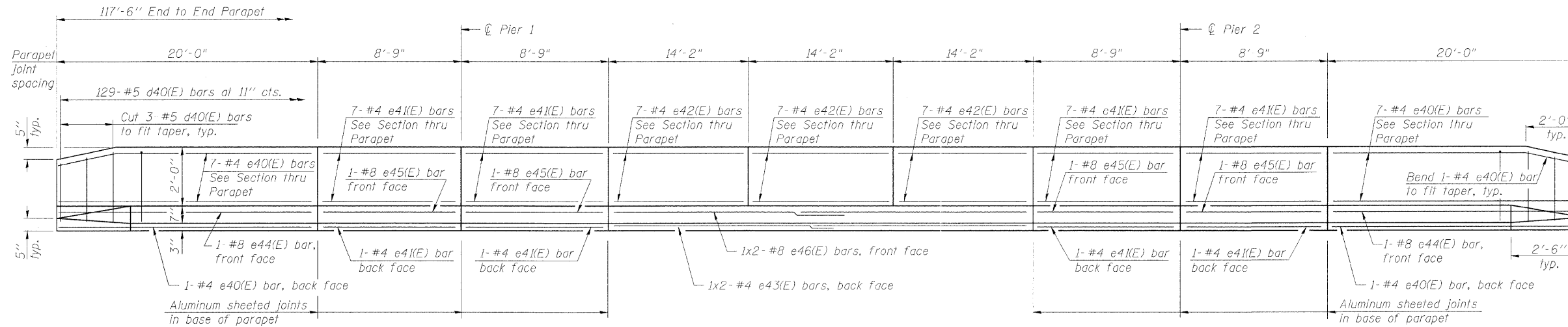
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
F.A.P. 308	#	ROCK ISLAND	210	158	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

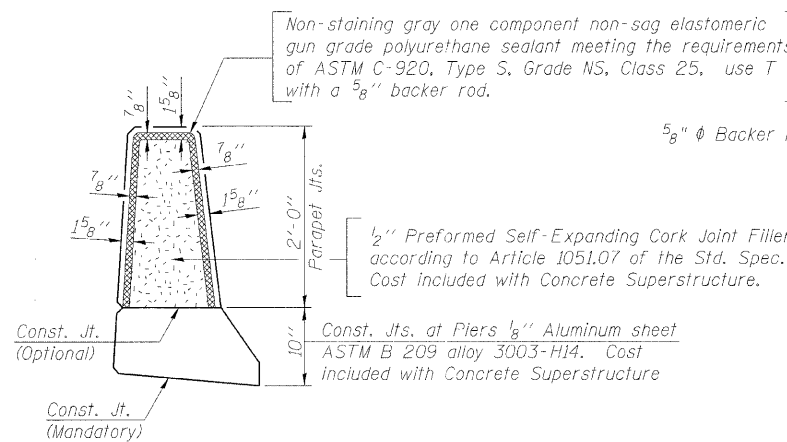
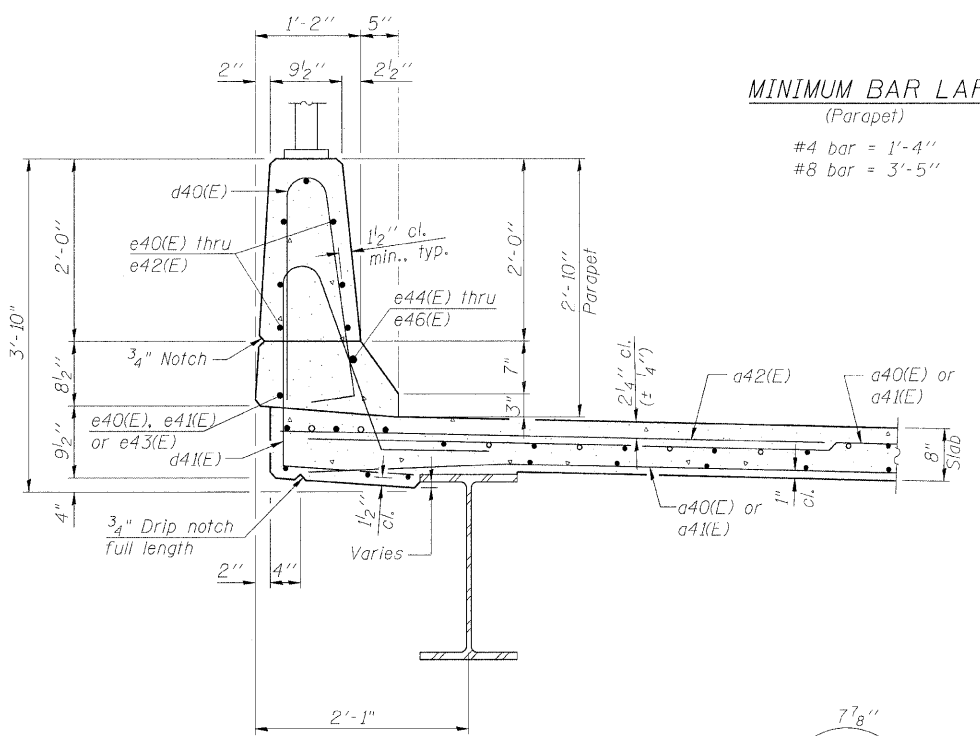
Contract #64814 * (1HB, HB-1, VB, HB-2)R



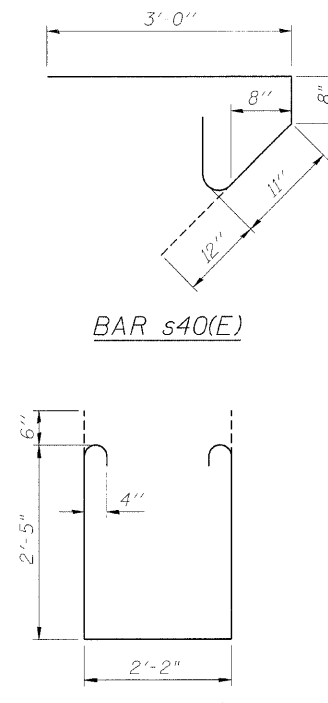
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a40(E)	319	#5	35'-0"	—
a41(E)	319	#5	41'-4"	—
a42(E)	176	#6	6'-0"	—
a43(E)	4	#5	41'-5"	—
a44(E)	4	#5	35'-1"	—
a45(E)	64	#5	1'-6"	—
b40(E)	405	#5	25'-2"	—
b41(E)	154	#6	28'-3"	—
b42(E)	264	#5	30'-11"	—
d40(E)	258	#5	5'-7"	⌞
d41(E)	258	#5	6'-9"	⌞
d42(E)	388	#5	6'-3"	⌞
d43(E)	194	#5	7'-8"	⌞
e40(E)	50	#4	19'-8"	—
e41(E)	100	#4	8'-5"	—
e42(E)	69	#4	13'-10"	—
e43(E)	4	#4	21'-9"	—
e44(E)	8	#8	19'-8"	—
e45(E)	16	#8	8'-5"	—
e46(E)	8	#8	22'-10"	—
e47(E)	36	#4	14'-8"	—
e48(E)	4	#8	29'-8"	—
m40(E)	10	#6	41'-5"	—
m41(E)	10	#6	35'-0"	—
m42(E)	44	#6	8'-11"	—
m43(E)	4	#6	7'-6"	—
m44(E)	4	#6	7'-3"	—
m45(E)	4	#6	1'-9"	—
m46(E)	22	#6	5'-10"	—
m47(E)	2	#6	2'-10"	—
m48(E)	2	#6	2'-6"	—
s40(E)	156	#5	5'-7"	⌞
s41(E)	156	#4	8'-0"	⌞
v40(E)	154	#5	3'-4"	⌞
Reinforcement Bars, Epoxy Coated		Pound	68,650	
Concrete Superstructure		Cu. Yd.	341.0	

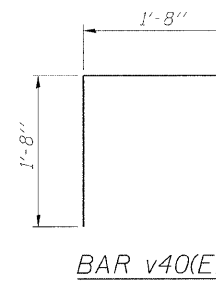
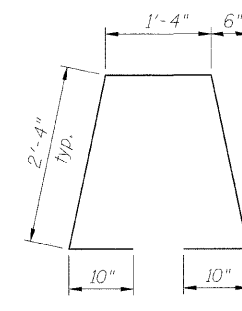
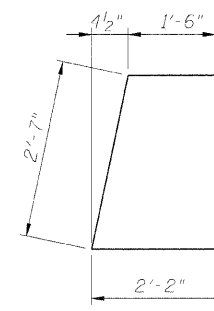
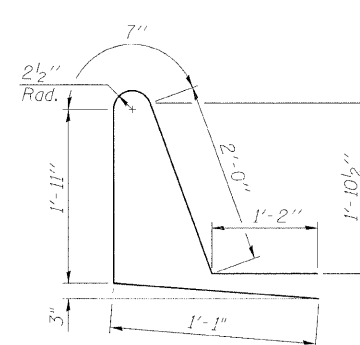
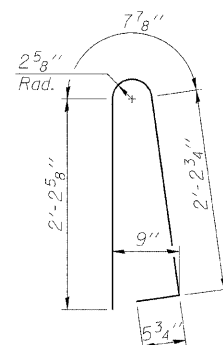
INSIDE ELEVATION OF PARAPET



PARAPET JOINT DETAILS



SECTION THRU PARAPET



NOTES

1. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
2. All edges shall have a 3/4" chamfer except as noted.

PARAPET DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

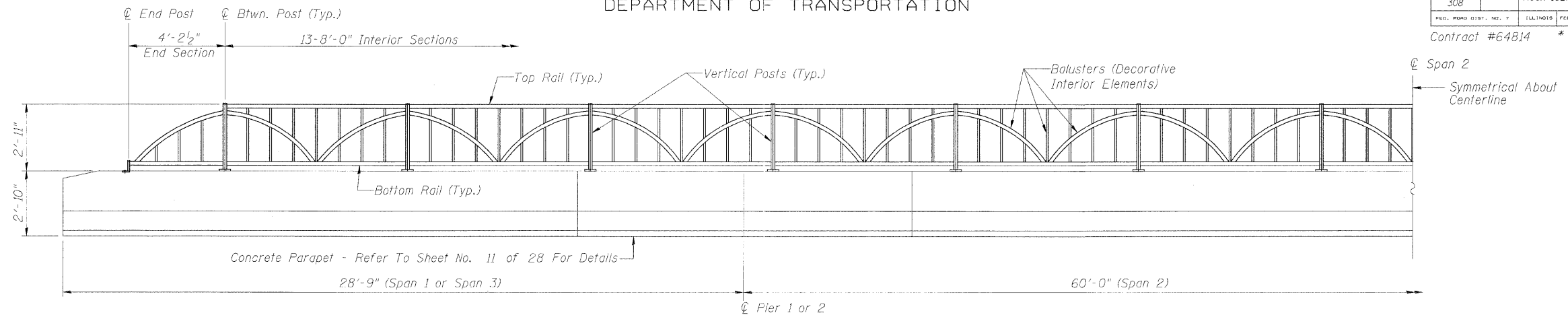
DESIGNED	CMM
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

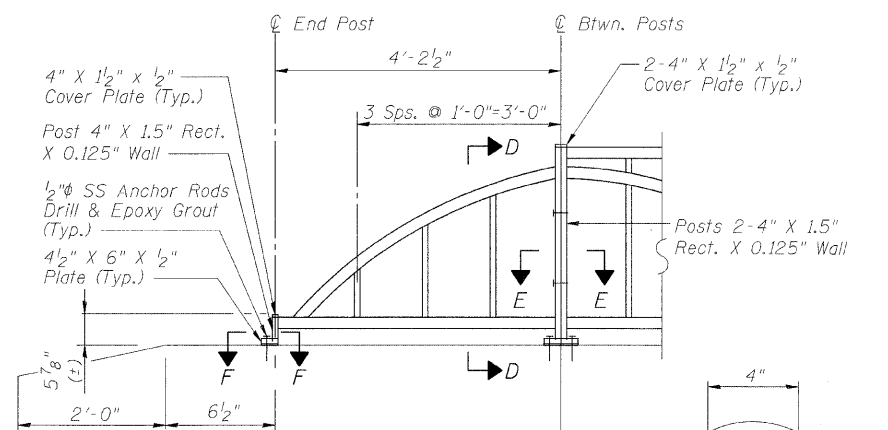
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

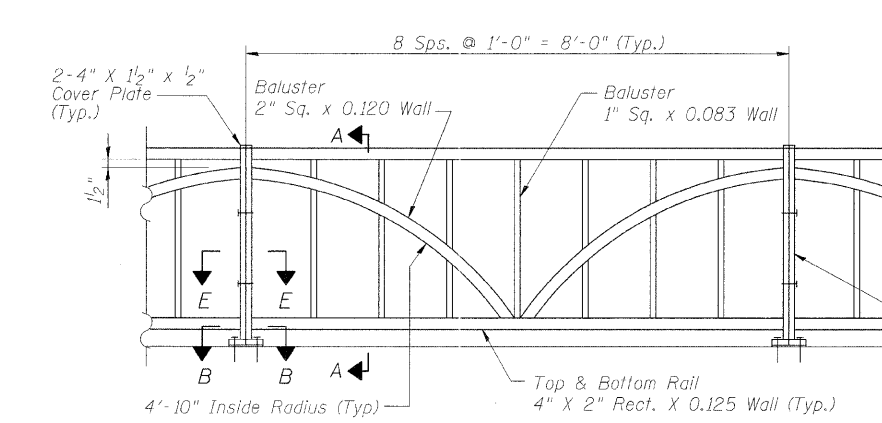
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F.A.P. 308	#	ROCK ISLAND	210	159	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		Contract #64814 * 1(HB,HB-1,VB,HB-2)R



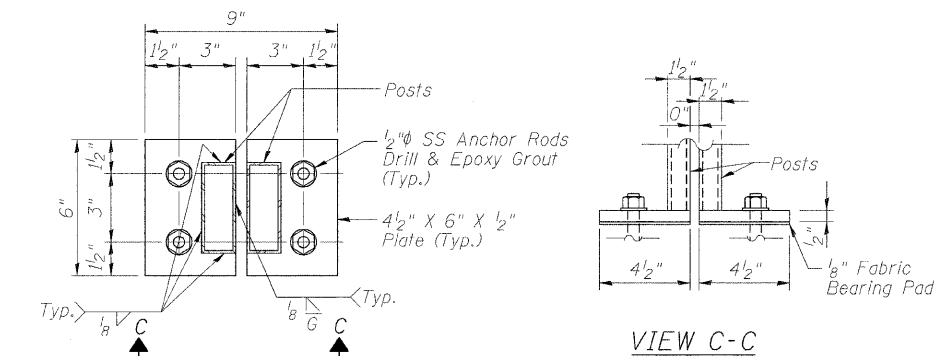
AESTHETIC BRIDGE RAIL ELEVATION
(Exterior Elevation)



TYPICAL END SECTION



TYPICAL INTERIOR SECTION



SECTION B-B

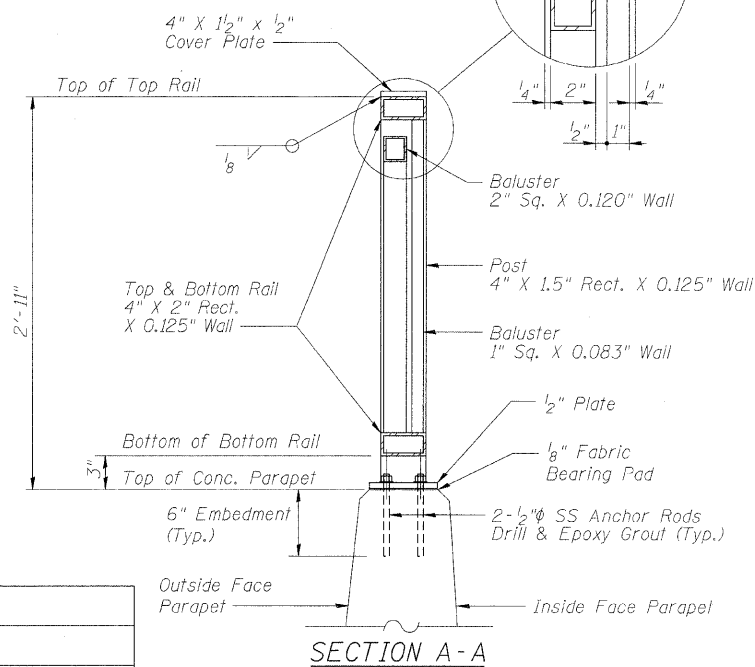
VIEW C-C

BILL OF MATERIAL

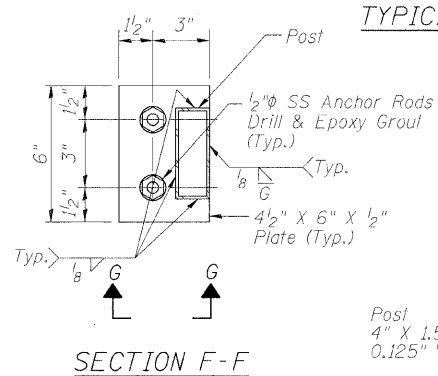
Item	Unit	Quantity
Ornamental Railing	Foot	225

NOTES:

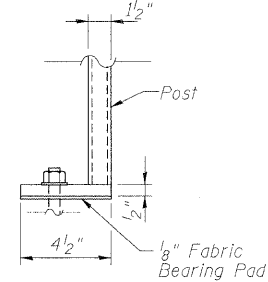
- Ornamental Rail. Ornamental-Aluminum alloy rail shall conform to the requirements of Alloy 6061-T6 with a minimum yield of 35,000 psi, a minimum tensile strength of 38,000 psi, and an elongation of 10 percent in 2 in.
- Stainless Steel Carriage Bolts. Stainless steel nuts, washers, lock washers, carriage bolts shall conform to the requirements of Article 1006.29(d) of the Standard Specifications.
- Stainless Steel Bars. Stainless steel bars shall conform to the requirements of ASTM A 276, Type No. 302 or 304, Condition B. Threads, when required, shall be Class 2B.
- Three stainless steel shims per post (1 at 1/8 in. and 2 at 1/16 in.) shall be provided for 25 percent of the posts. Shims shall be similar to base plate in size and holes. Shims shall be installed as req'd. between base plate and fabric bearing pad.
- The pay item Ornamental Railing shall include all costs associated with the fabrication and erection of aluminum rail shown. The cost of anchor rods, plates, bolts and fabric bearing pads shall be included with Ornamental Railing.



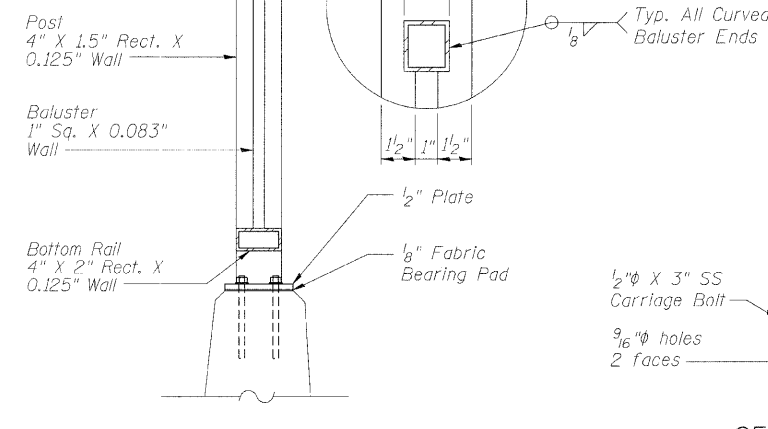
SECTION A-A



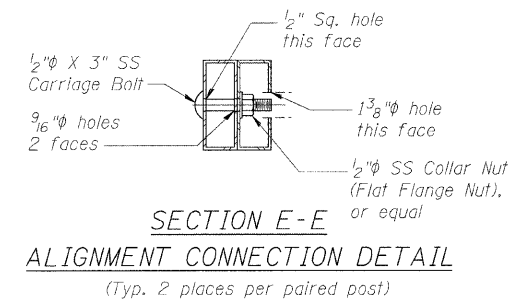
SECTION F-F



VIEW G-G



SECTION D-D



SECTION E-E
ALIGNMENT CONNECTION DETAIL
(Typ. 2 places per paired post)

DESIGNED	CMM
CHECKED	AMK
DRAWN	
CHECKED	RWC

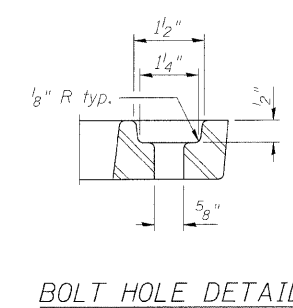
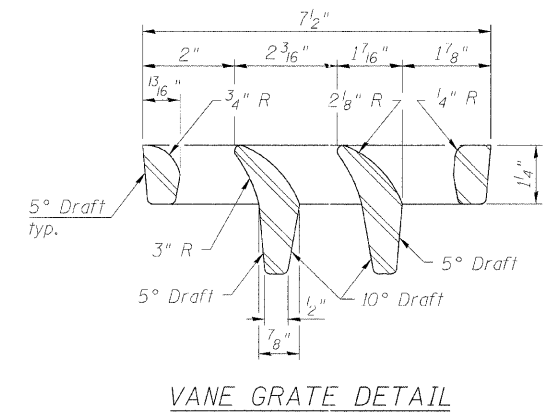
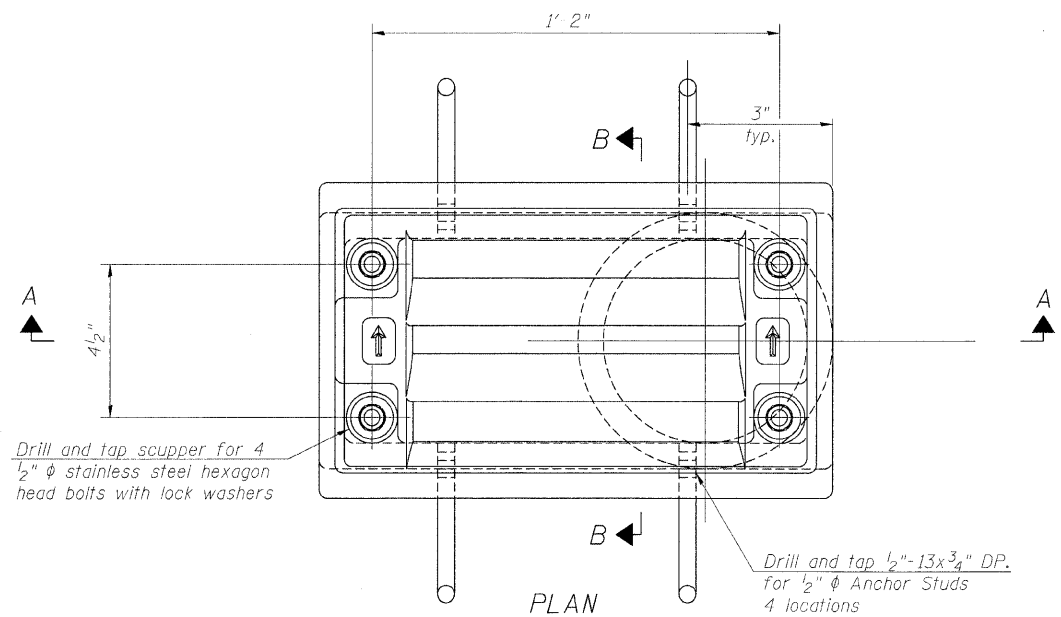
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

ORNAMENTAL RAILING DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
F.A.P. 308	*	ROCK ISLAND	210	160	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64814 * (1HB,HB-1,VB,HB-2)R



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

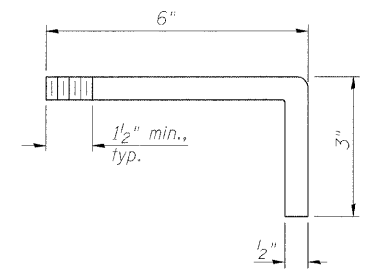
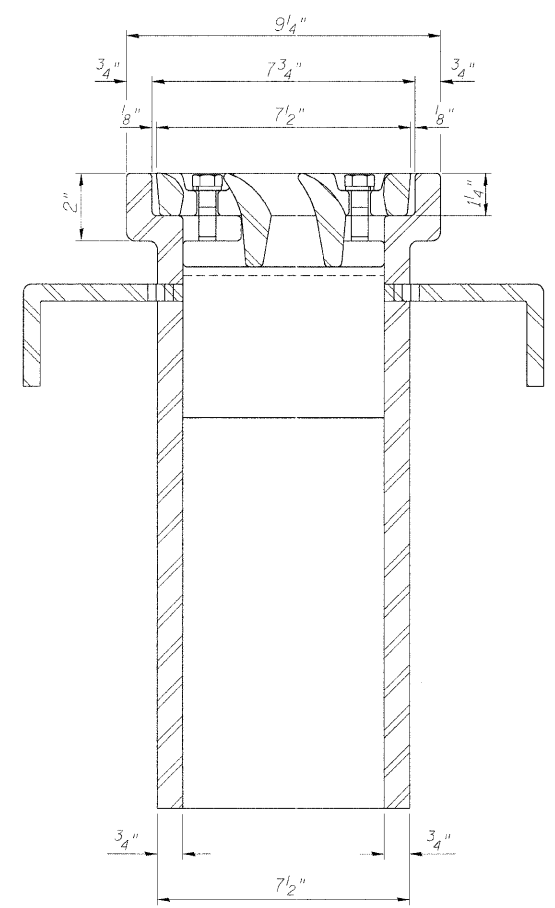
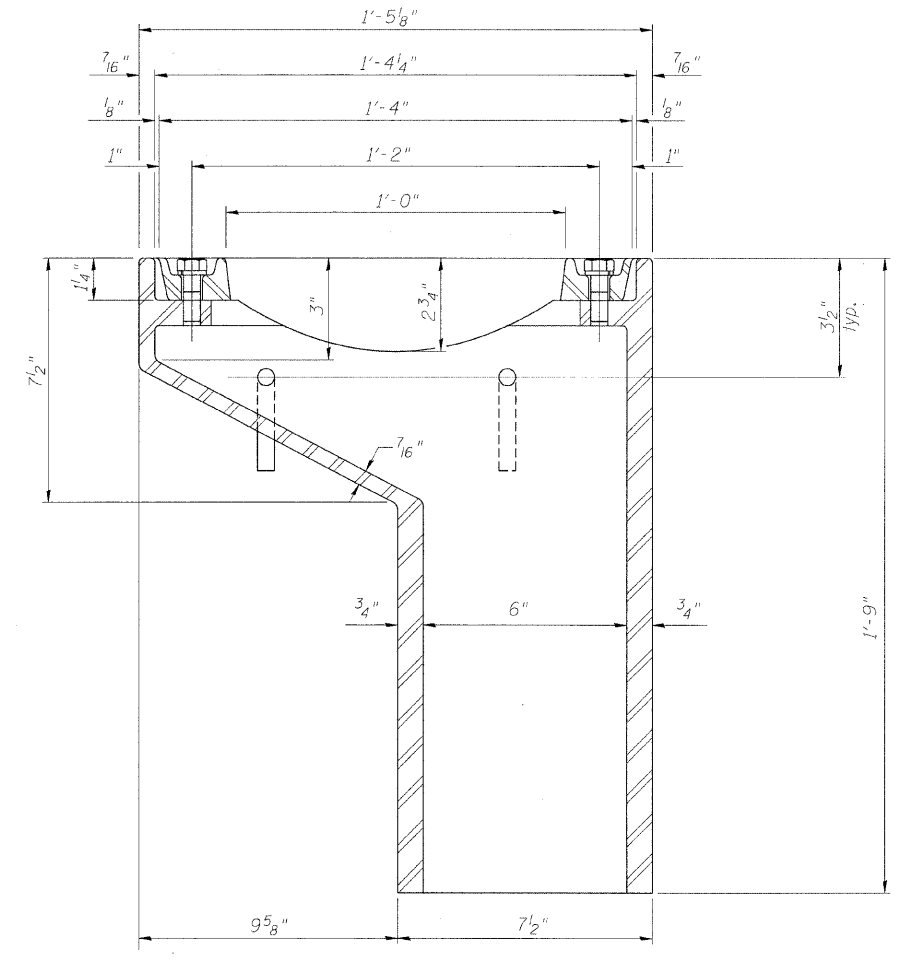
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames shall be galvanized according to AASHTO M11.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Work this sheet with Sheet No. 14



ANCHOR STUD DETAIL

BILL OF MATERIAL

Item	Unit	Total
Drainage Scupper, DS-11	Each	8

See Sheet No. 10 for scupper location relative to the Median Barrier

DESIGNED
CHECKED
DRAWN
CHECKED

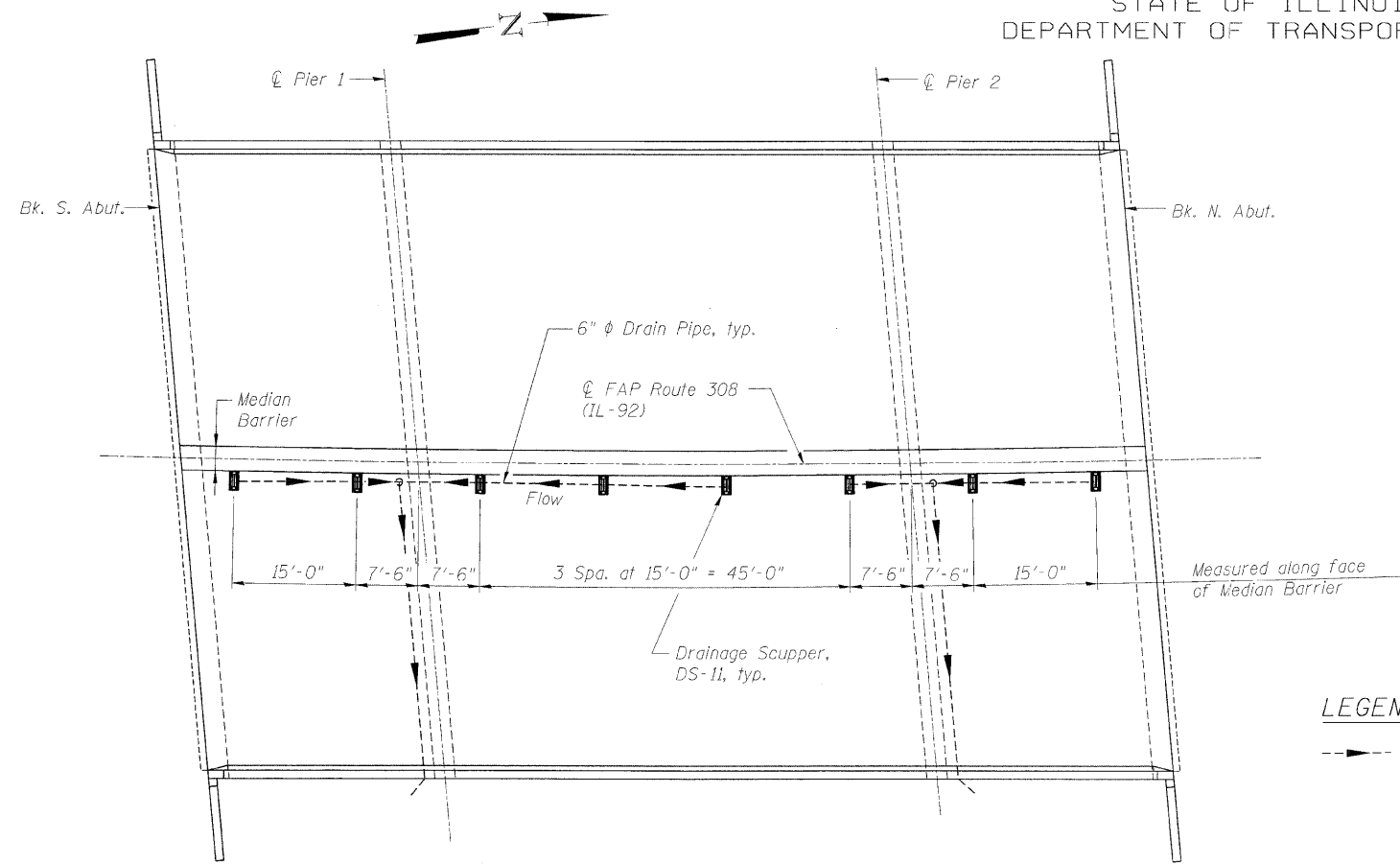
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

DRAINAGE SCUPPER, DS-11
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

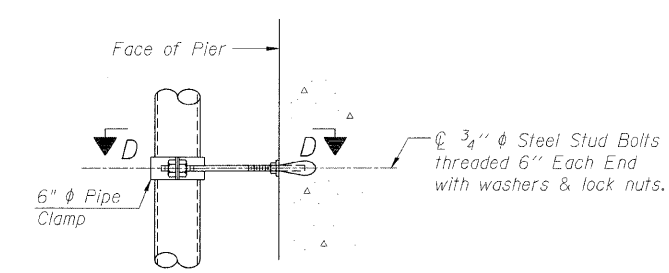
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

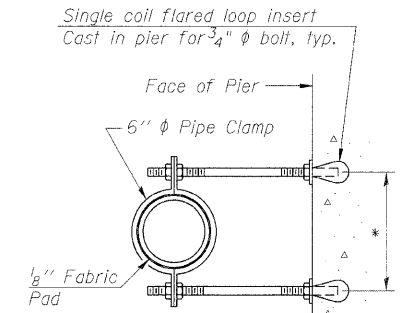
ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	SHEET NO. 210	SHEET NO. 161	SHEET NO. 14 28 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		Contract #64814 * (HB,HB-1,VB,HB-2)R	



DECK DRAINAGE PLAN



PIPE BRACKET DETAIL

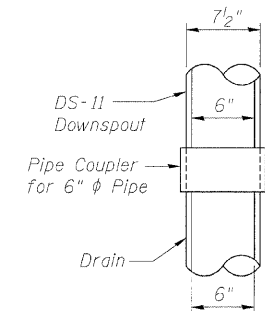


SECTION D-D

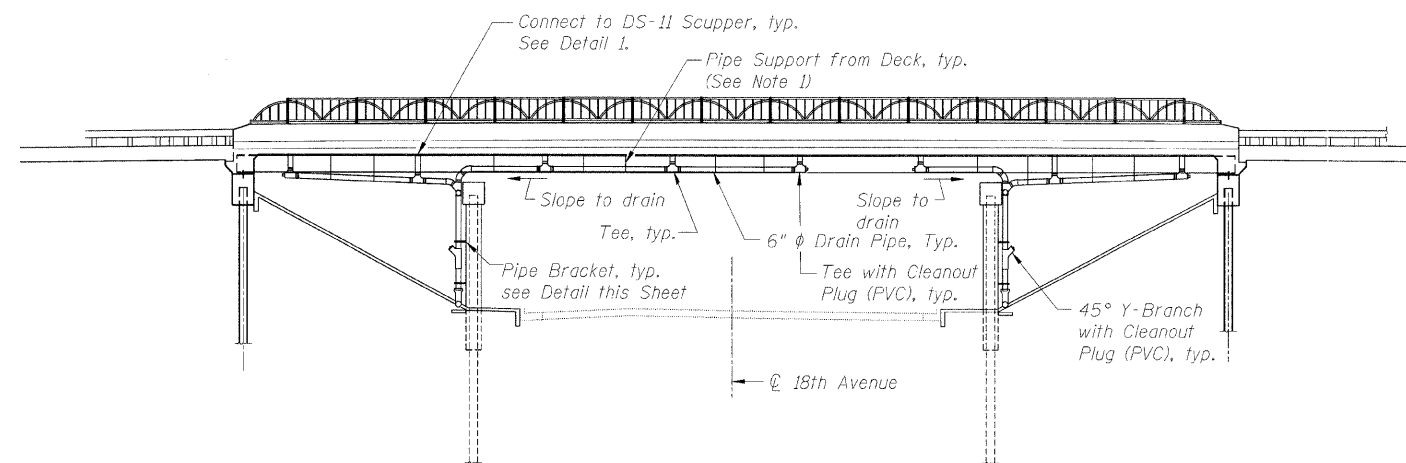
* Dimension as required by Pipe Clamp

LEGEND

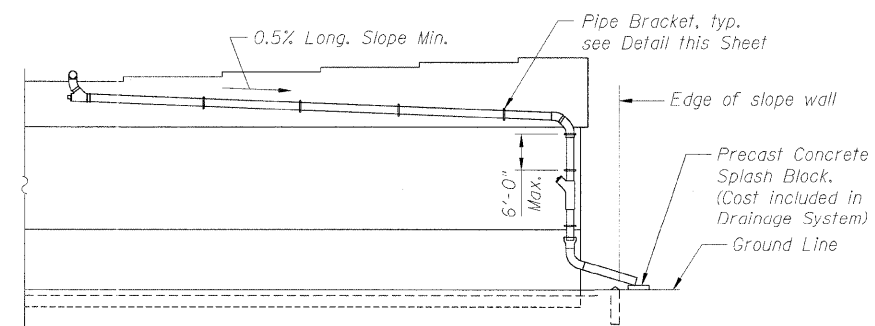
--- Indicates Direction of Flow



DETAIL 1



DECK DRAINAGE ELEVATION



ELEVATION AT PIER

Pier 1 shown. Pier 2 similar, opposite hand

BILL OF MATERIAL

Item	Unit	Total
Drainage System	L. Sum	0.3

NOTES

1. Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendation, not to exceed 6' cts. Cost included with "Drainage System."
2. No part of the Drainage System shall extend below the bottom flange of Beam 8 at any point in the center span.

CLOSED DRAINAGE SYSTEM
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

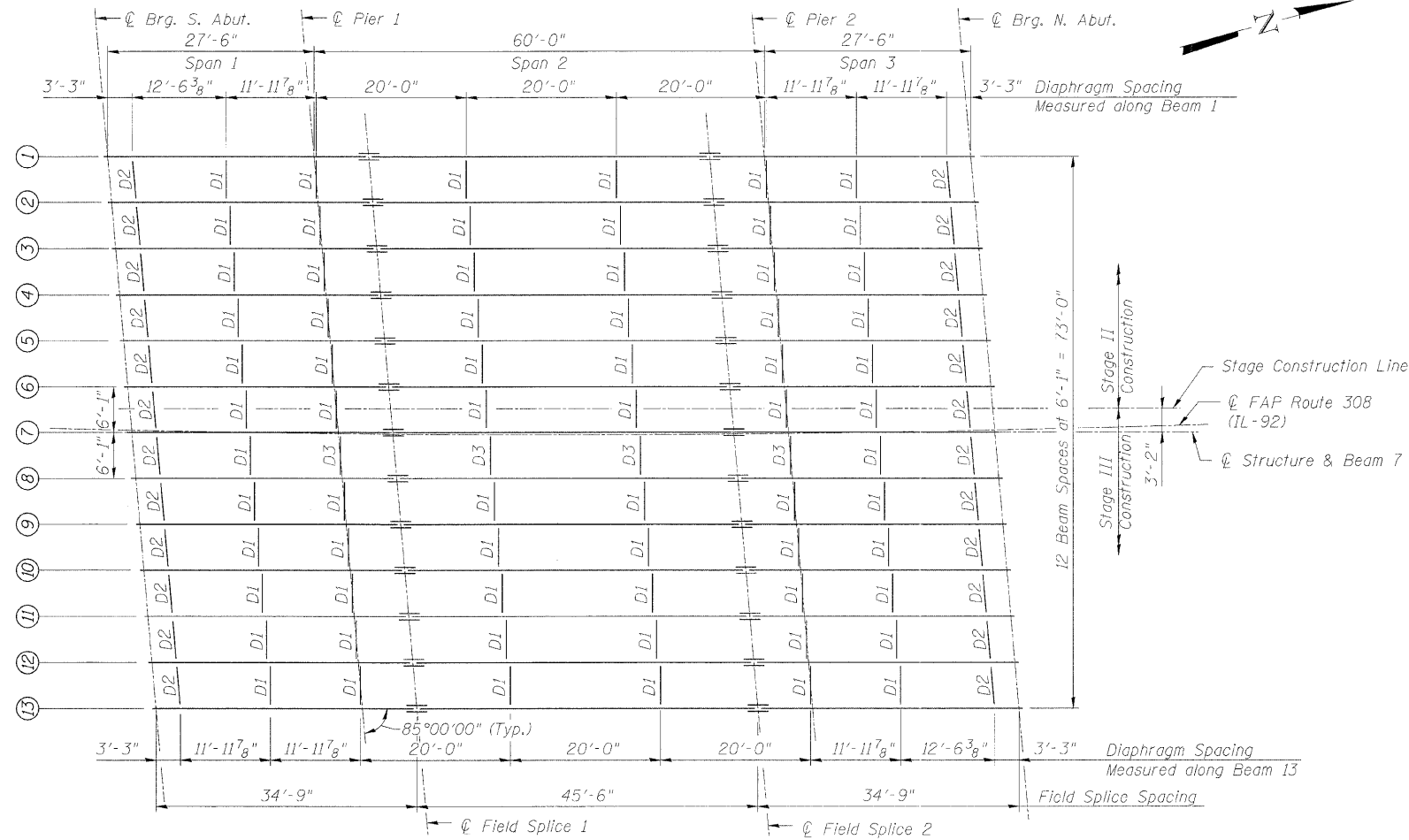
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CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

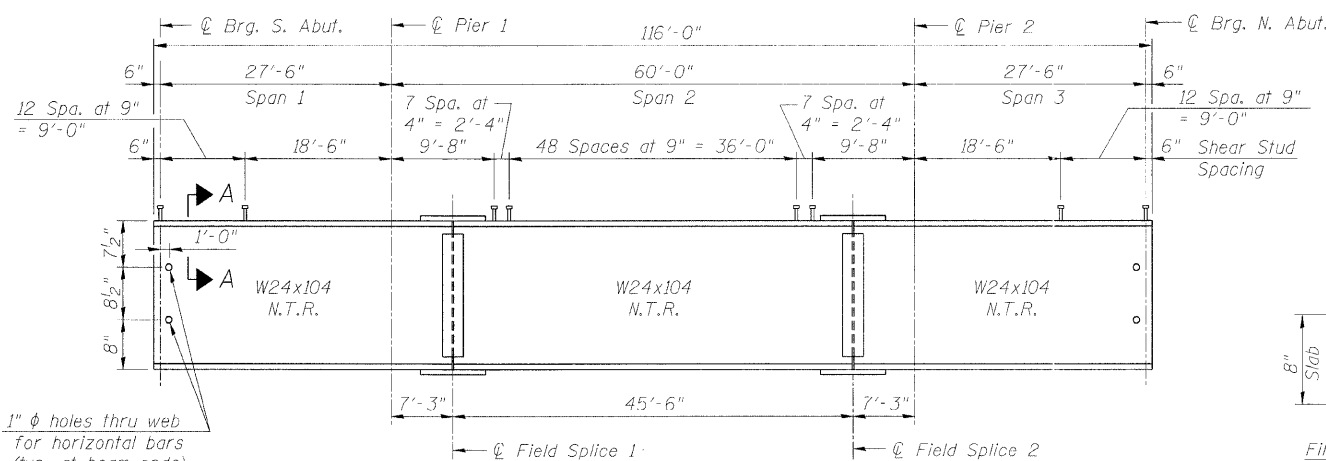
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

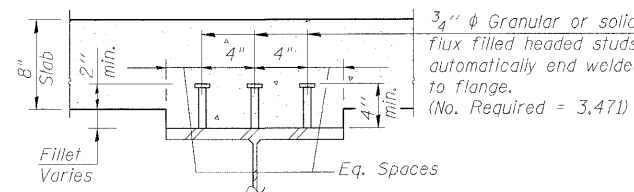
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15 28 SHEETS
F.A.P. 308	*	ROCK ISLAND	210	162	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (1HB, HB-1, VB, HB-2)R		



FRAMING PLAN



BEAM ELEVATION



SECTION A-A

NOTES

1. For Top of Beam Elevations and Moment and Reaction Table see Sheet No. 17
2. For splice and diaphragm details see Sheet No. 16
3. For bearing details see Sheet No. 17
4. All steel for the steel beams, including splice plates, shall conform to the requirements of AASHTO M270 Grade 50. All diaphragms, including connection angles and plates, shall conform to the requirements of AASHTO M270 Grade 36.
5. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

FRAMING PLAN
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	JSD
CHECKED	RH
DRAWN	JSD
CHECKED	RH

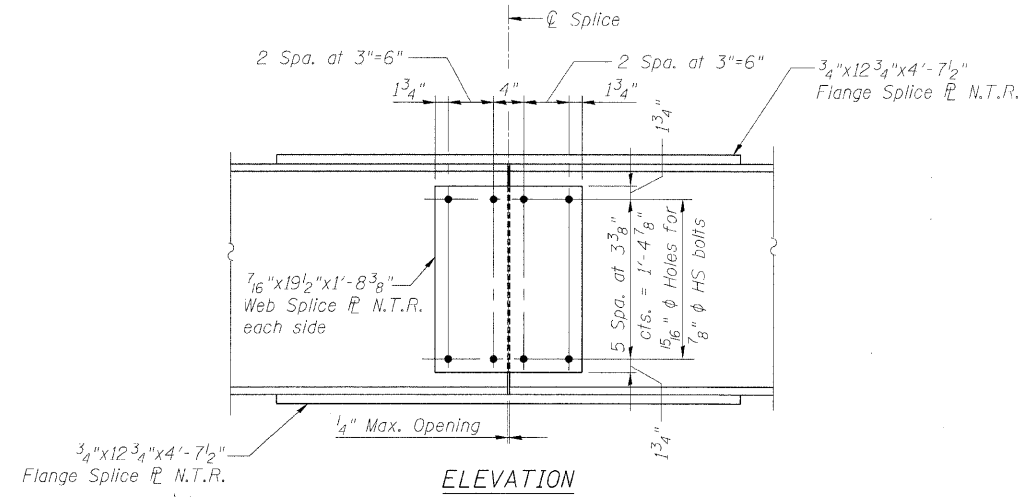
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

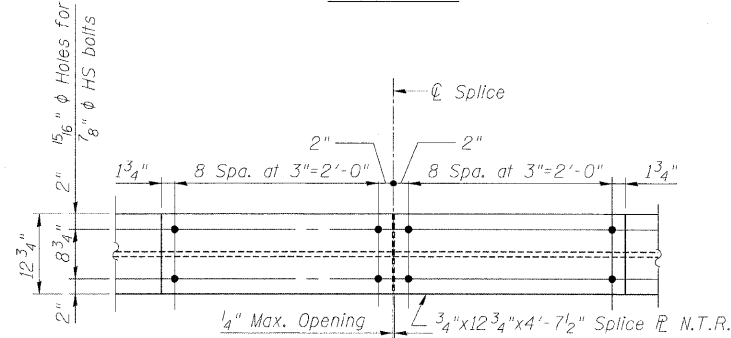
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 16
F.A.P. 308	*	ROCK ISLAND	210	153	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB,HB-1,VB,HB-2)R



ELEVATION

3/4"x12 3/4"x4'-7 1/2"
Flange Splice N.T.R.

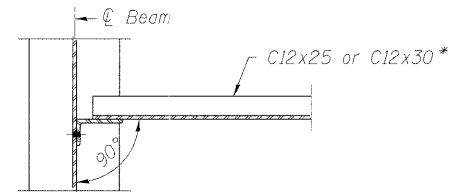


FLANGE SPLICE

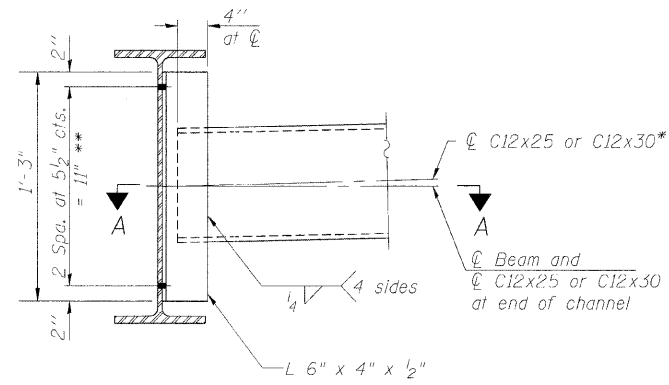
(Top & Bottom Flange Splice Similar)

SPLICE DETAIL

(26 Required)



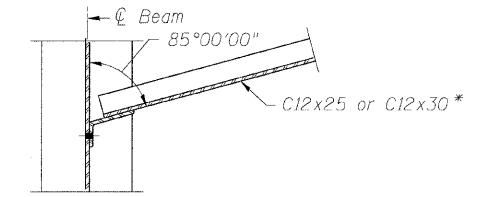
SECTION A-A



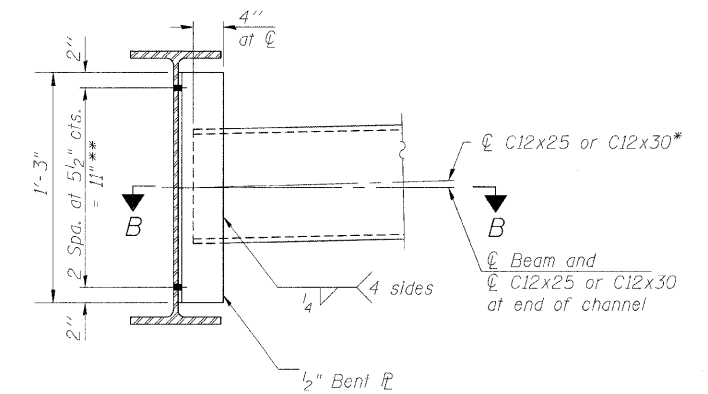
INTERIOR DIAPHRAGM - "D1"

Note:
Two hardened washers required for each set of oversized holes.

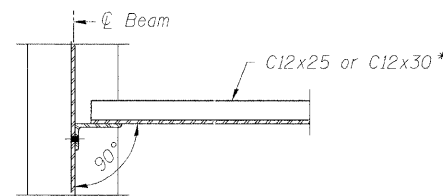
* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
** 3/4" ϕ HS bolts, 15/16" ϕ holes



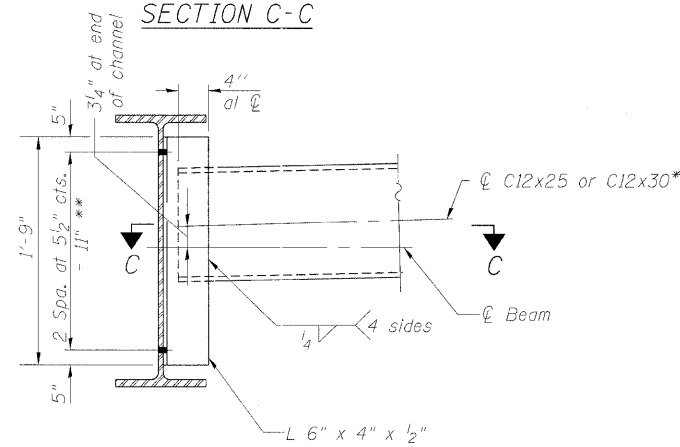
SECTION B-B



INTERIOR DIAPHRAGM - "D2"



SECTION C-C



INTERIOR DIAPHRAGM - "D3"

(Note: "D3" diaphragm placed to accommodate drainage pipe)

NOTES

1. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
2. For bearing details see Sheet No. 17.
3. All steel for the steel beams, including splice plates, shall conform to the requirements of AASHTO M270 Grade 50. All diaphragms, including connection angles and plates, shall conform to the requirements of AASHTO M270 Grade 36.
4. For framing plan and beam elevation see Sheet No. 15.
5. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

STEEL DETAILS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	CMM
CHECKED	AMK
DRAWN	EF
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 17
F.A.P. 308	*	ROCK ISLAND	210	164	28 SHEETS
FED. ROAD DIST. NO. /	TITLE/NO.	FED. AID PROJECT-			

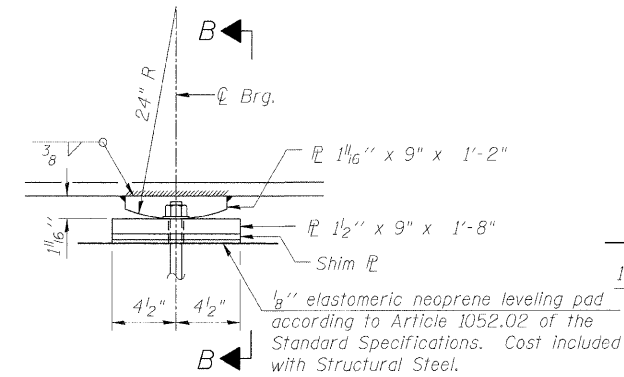
Contract #64814 * (1HB,HB-1,VB,HB-2)R

		0.3 Sp. 1 or 0.7 Sp. 3	Pier 1 or Pier 2	0.5 Span 2
I_s	(in ⁴)	3100	3100	3100
$I_c(n)$	(in ⁴)	-	-	8314
$I_c(3n)$	(in ⁴)	-	-	6182
S_s	(in ³)	258	258	258
$S_c(n)$	(in ³)	-	-	370
$S_c(3n)$	(in ³)	-	-	336
Z	(in ³)	289	289	-
ρ	(k/')	1.18	1.18	0.77
$M \rho$	(k)	11	277	154
$s \rho$	(k/')	-	-	0.41
$M_s \rho$	(k)	-	-	100
M_L	(k)	112	145	310
M_{Imp}	(k)	34	43	84
$\rho_3 [M_L + M_{Imp}]$	(k)	243	313	657
M_a	(k)	330	767	1184
M_u	(k)	1204	1204	1762
$f_s \rho$ (nc)	(ksi)	0.5	12.9	7.2
$f_s \rho$ (c)	(ksi)	-	-	3.6
f_s (Overload)	(ksi)	11.8	27.4	32.1
f_s (Total)	(ksi)	-	-	-
VR	(k)	44.6	-	39.5

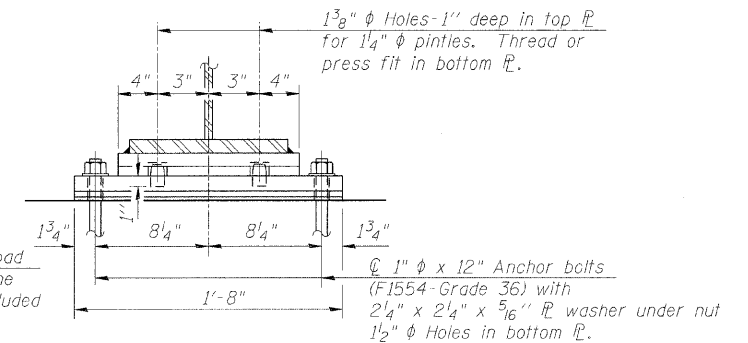
		S. Abut.	Pier 1	Pier 2	N. Abut.
$R \rho$	(k)	6.9	61.7	61.7	6.9
R_L	(k)	29.0	41.3	41.3	29.0
Imp.	(k)	8.7	9.7	9.7	8.7
R_{Total}	(k)	44.6	112.7	112.7	44.6

- * Compact section
- ** Braced non-compact and partially braced section
- *** Values listed are for critical case interior beam

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z: Plastic Section Modulus of the steel section in non-composite areas (in³).
- ρ : Un-factored non-composite dead load (kips/ft.).
- $M \rho$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s \rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s \rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_L : Un-factored live load moment (kip-ft.).
- M_{Imp} : Un-factored moment due to impact (kip-ft.).
- M_a : Factored design moment (kip-ft.).
 $1.3 [M \rho + M_s \rho + \frac{5}{8} (M_L + M_{Imp})]$
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M \rho + M_s \rho + \frac{5}{8} (M_L + M_{Imp})$
- f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M \rho + M_s \rho + \frac{5}{8} (M_L + M_{Imp})]$
- VR: Maximum \pm impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

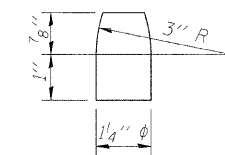


ELEVATION AT PIERS



SECTION B-B

FIXED BEARING
(26 Required)

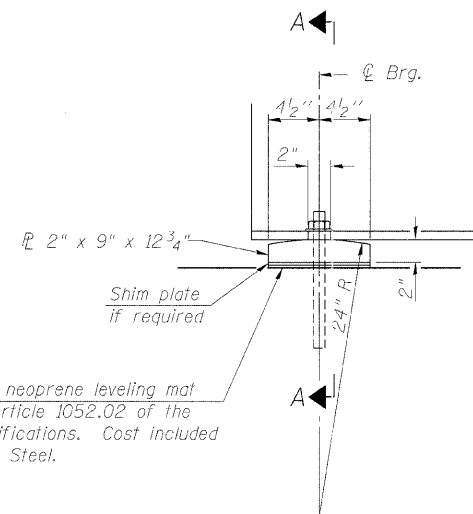


PINTLE

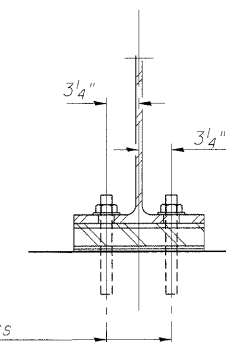
- Notes:
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 - Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 - Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

TOP OF BEAM ELEVATIONS
(For Fabrication only)

BEAM	☉ S. Abut.	☉ Pier 1	Splice 1	Splice 2	☉ Pier 2	☉ N. Abut.
1	579.29	579.37	579.40	579.46	579.46	579.45
2	579.41	579.50	579.52	579.58	579.58	579.57
3	579.54	579.62	579.64	579.70	579.70	579.69
4	579.66	579.75	579.77	579.82	579.82	579.81
5	579.79	579.87	579.89	579.94	579.94	579.93
6	579.92	579.99	580.01	580.06	580.06	580.05
7	580.04	580.12	580.14	580.19	580.18	580.17
8	580.17	580.24	580.26	580.31	580.30	580.29
9	580.29	580.36	580.38	580.43	580.42	580.41
10	580.42	580.49	580.51	580.55	580.54	580.53
11	580.54	580.61	580.63	580.67	580.67	580.65
12	580.67	580.74	580.75	580.79	580.79	580.77
13	580.79	580.86	580.88	580.91	580.91	580.89



INTEGRAL ABUTMENT BEARINGS
(26 Required)



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	104

NOTES

- For framing plan and beam elevation see Sheet No. 15
- All steel for the bearings, except for anchor bolts or as noted otherwise, shall conform to the requirements of AASHTO M270 Grade 36.
- Two 1/2 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

STEEL DETAILS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

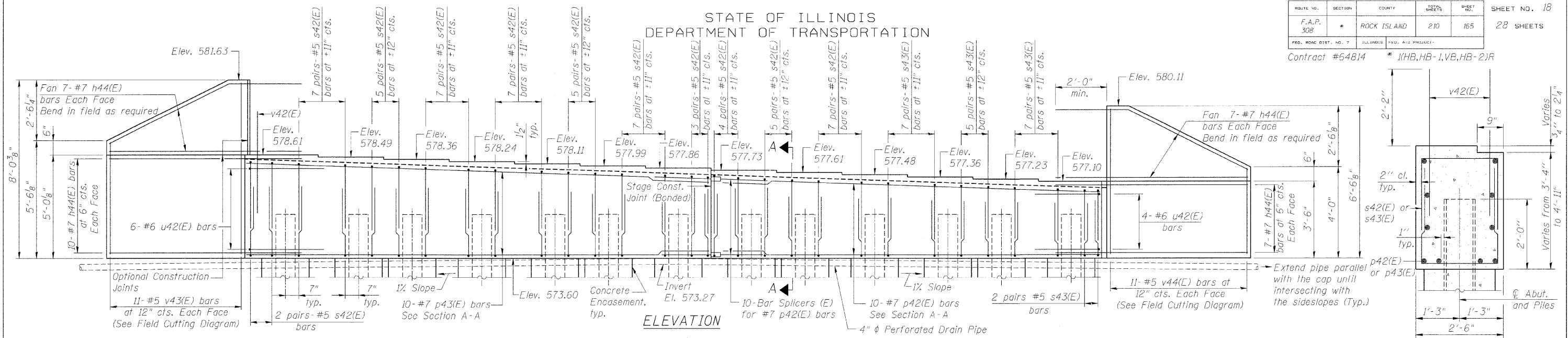
DESIGNED	JSD
CHECKED	AMK
DRAWN	OS
CHECKED	AMK

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	165
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT NO.		

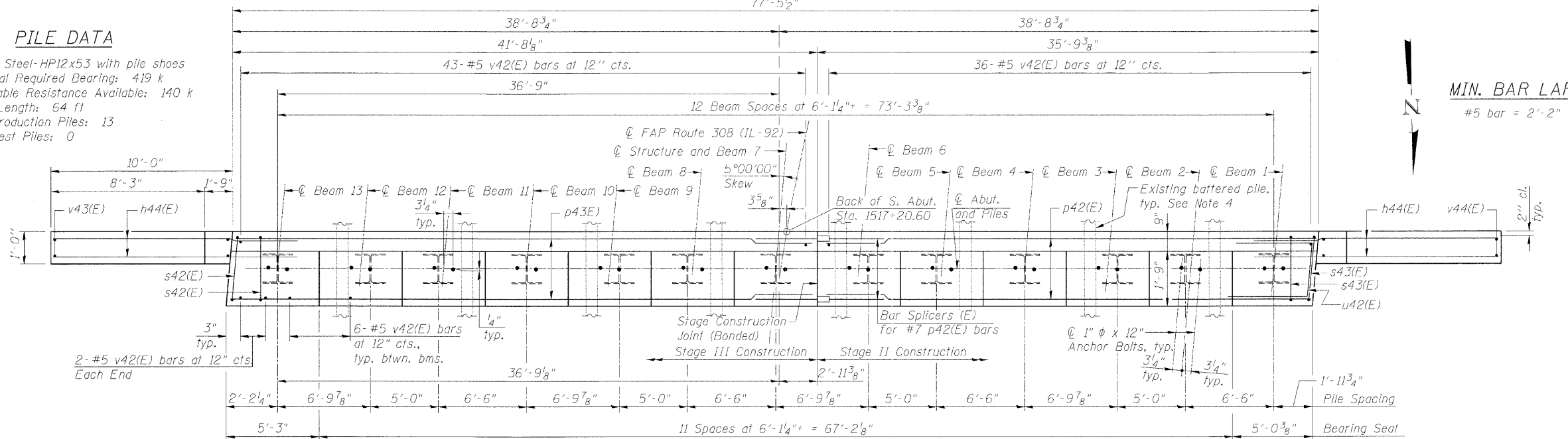
Contract #64814 * (1HB, HB-1, VB, HB-2)R



SECTION A-A

PILE DATA

Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 64 ft
No. Production Piles: 13
No. Test Piles: 0



PLAN

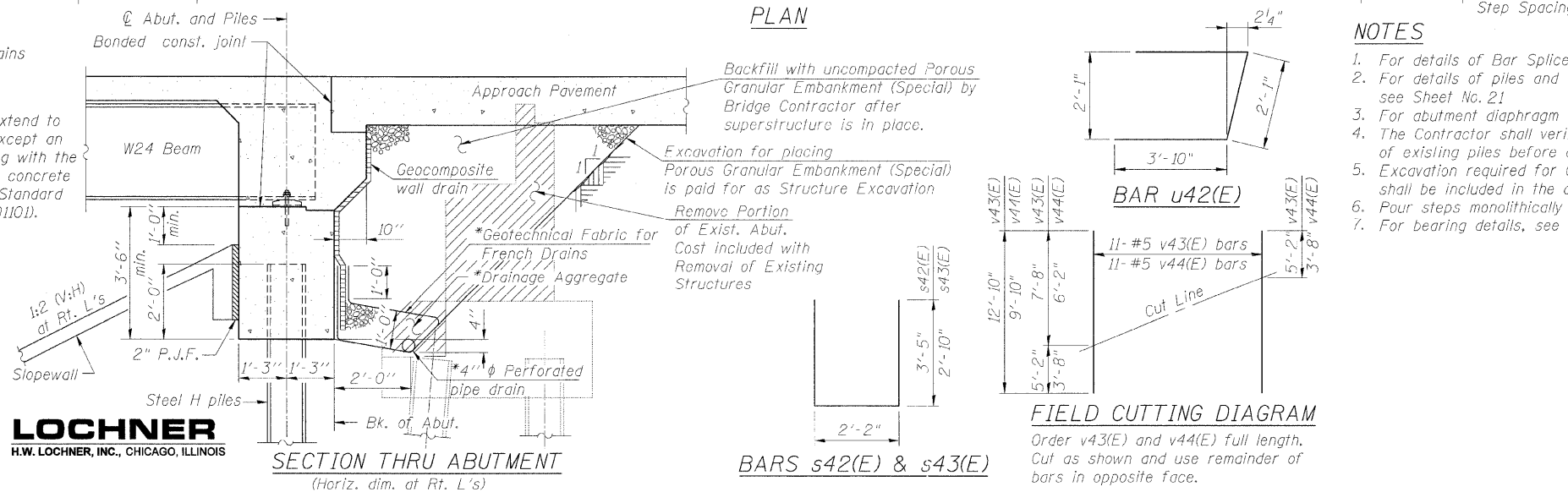
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h44(E)	62	#7	12'-0"	
p42(E)	10	#7	35'-2"	
p43(E)	10	#7	41'-4"	
s42(E)	118	#5	9'-0"	L
s43(E)	42	#5	7'-10"	L
u42(E)	10	#6	9'-9"	J
v42(E)	155	#5	4'-4"	
v43(E)	11	#5	12'-10"	
v44(E)	11	#5	9'-10"	
Porous Granular Embankment (Special)	Cu. Yd.		160	
Structure Excavation	Cu. Yd.		66	
Concrete Structures	Cu. Yd.		35.2	
Reinforcement Bars, Epoxy Coated	Pound		5,640	
Furnishing Steel Piles HP12x53	Foot		832	
Driving Piles	Foot		832	
Pile Shoes	Each		13	
Concrete Encasement	Cu. Yd.		4.6	
Geocomposite Wall Drain	Sq. Yd.		69	
Pipe Underdrains for Structures 4"	Foot		112	

MIN. BAR LAP
#5 bar = 2'-2"

* Included in the cost of Pipe Underdrains for Structures, 4"

Note:
All Drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601.101).



SECTION THRU ABUTMENT
(Horiz. dim. at Rt. L's)

NOTES

1. For details of Bar Splicers, see Sheet No. 22
2. For details of piles and Concrete Encasement, see Sheet No. 21
3. For abutment diaphragm details, see Sheet No. 9
4. The Contractor shall verify the locations of existing piles before driving new piles.
5. Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
6. Pour steps monolithically with cap.
7. For bearing details, see Sheet No. 17

FIELD CUTTING DIAGRAM

Order v43(E) and v44(E) full length. Cut as shown and use remainder of bars in opposite face.

SOUTH ABUTMENT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

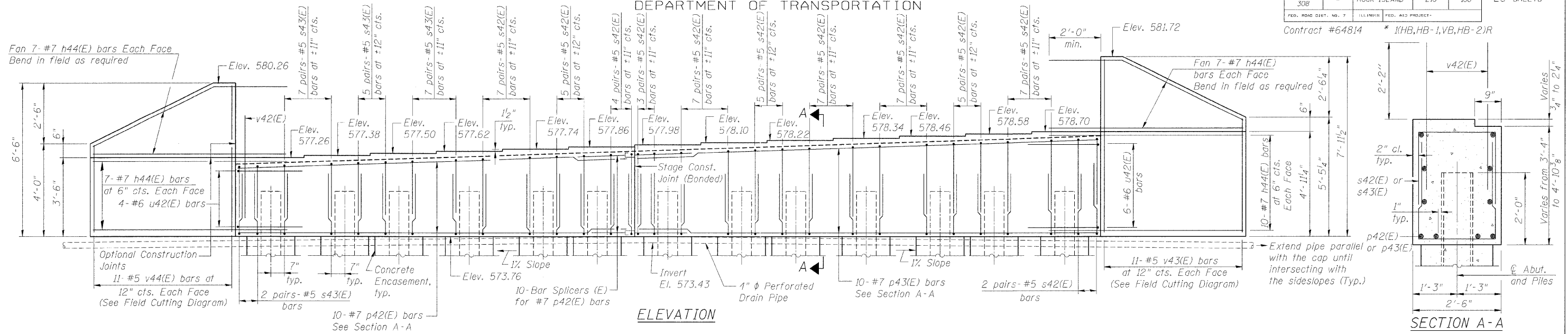


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	MILES	SHEET NO.	SHEET NO. 19
F.A.P. 308	*	ROCK ISLAND	210	166	28 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #64814 * 1(HB,HB-1,VB,HB-2)R

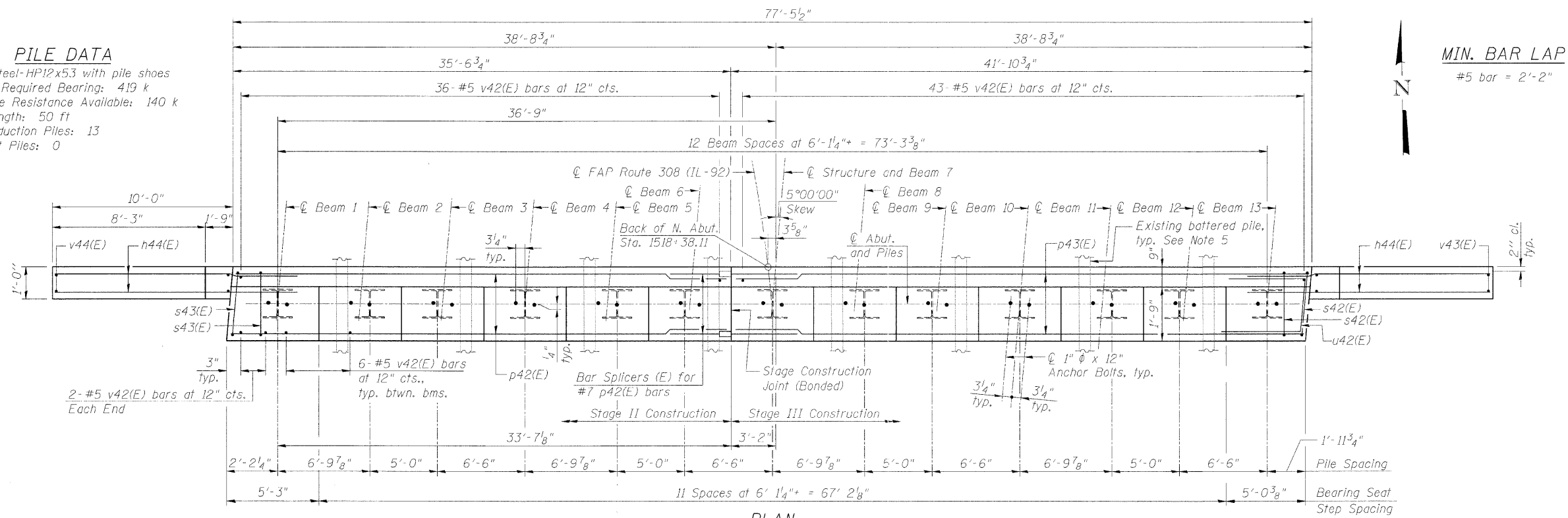


BILL OF MATERIAL

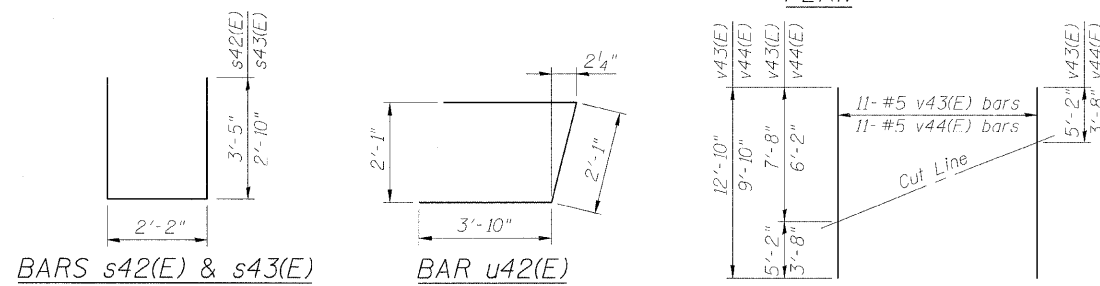
Bar	No.	Size	Length	Shape
h44(E)	62	#7	12'-0"	---
p42(E)	10	#7	35'-2"	---
p43(E)	10	#7	41'-4"	---
s42(E)	118	#5	9'-0"	□
s43(E)	42	#5	7'-10"	□
u42(E)	10	#6	9'-9"	┘
v42(E)	155	#5	4'-4"	---
v43(E)	11	#5	12'-10"	---
v44(E)	11	#5	9'-10"	---

PILE DATA

Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 50 ft
No. Production Piles: 13
No. Test Piles: 0



DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	RWC



NOTES

- For details of Bar Splicers, see Sheet No. 22
- For details of piles and Concrete Encasement, see Sheet No. 21
- For abutment diaphragm details, see Sheet No. 9
- For Section thru Abutment, see Sheet No. 18
- The Contractor shall verify the locations of existing piles before driving new piles.
- Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
- Pour steps monolithically with cap.
- For bearing details, see Sheet No. 17

NORTH ABUTMENT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
76'-0"

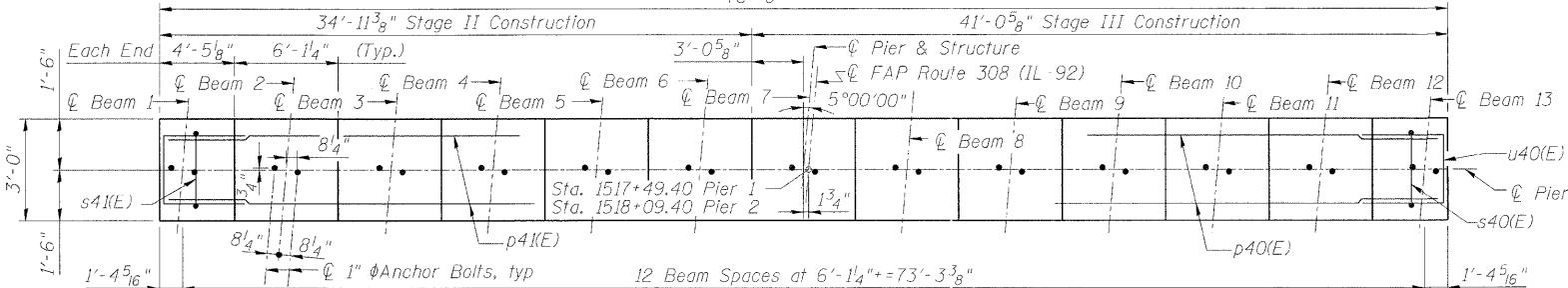
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	167
SHEET NO. 20				
28 SHEETS				

Contract #64814 * I(HB,HB-1,VB,HB-2)R

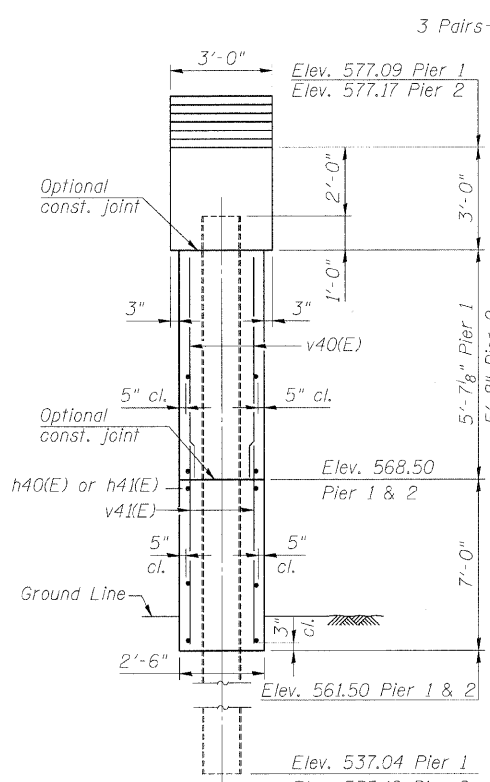
- NOTES:**
1. Space reinforcement in cap to miss anchor bolts.
 2. Pour steps monolithically with cap.
 3. For details of piles, see Sheet No. 21
 4. For Pier enhancements see Sheet No. 24
 5. Concrete sealer shall be applied to all exposed surfaces of piers
 6. For details of bar splicers see Sheet No. 22

PILE DATA

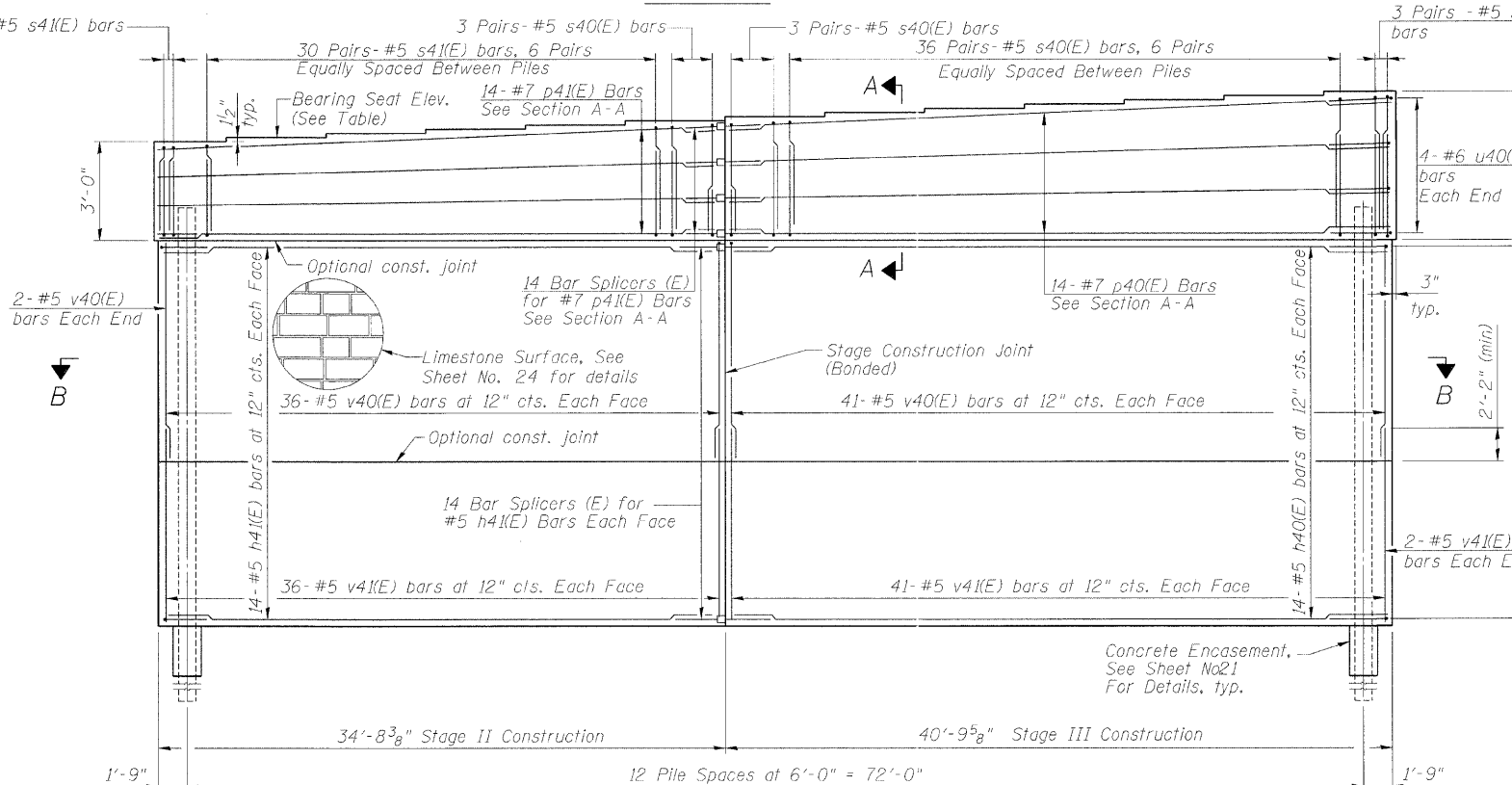
Type: HP14 X 89 with pile shoes
Nominal Required Bearing: 705k
Allowable Resistance Available: 235k
Est. Length: 38 ft. (Pier 1), 40 ft. (Pier 2)
No. Production Piles: 13 (Pier 1), 13 (Pier 2)
No. Test Piles: 0



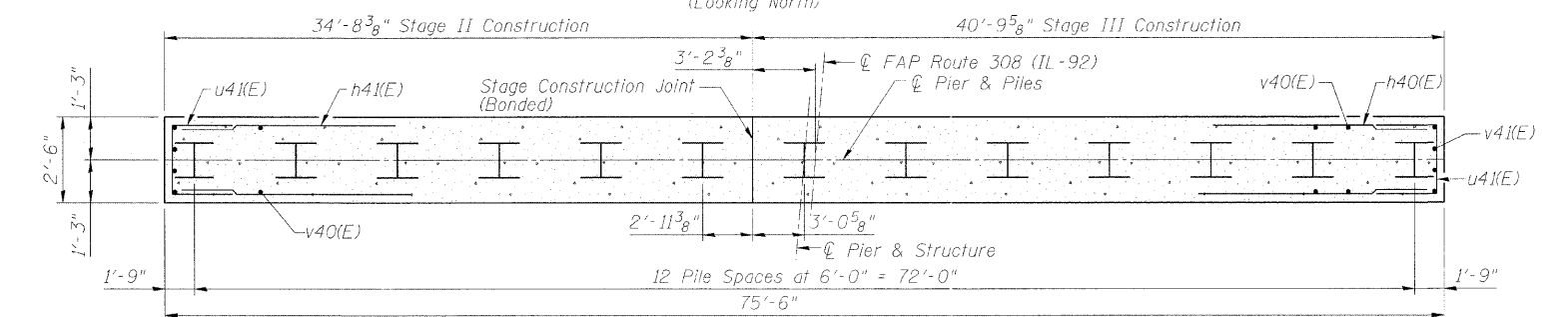
TOP PLAN



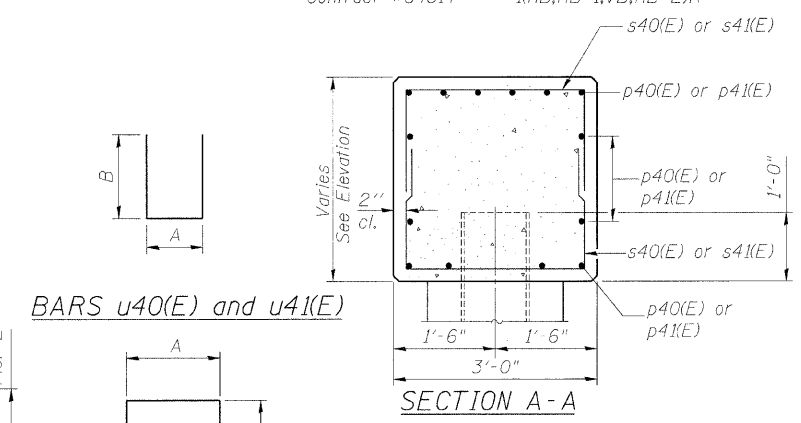
END VIEW



ELEVATION
(Looking North)



SECTION B-B



SECTION A-A

BARS u40(E) and u41(E)

BARS s40(E) and s41(E)

BILL OF MATERIAL FOR PIER 1

Bar	No.	Size	Length	Shape
h40(E)	28	#5	40'-3"	—
h41(E)	28	#5	34'-2"	—
p40(E)	14	#7	40'-8"	—
p41(E)	14	#7	34'-7"	—
s40(E)	90	#5	9'-0"	U
s41(E)	66	#5	8'-0"	U
u40(E)	8	#6	8'-1"	—
u41(E)	28	#5	6'-6"	—
v40(E)	158	#5	5'-4"	—
v41(E)	158	#5	9'-2"	—

BILL OF MATERIAL FOR PIER 2

Bar	No.	Size	Length	Shape
h40(E)	28	#5	40'-3"	—
h41(E)	28	#5	34'-2"	—
p40(E)	14	#7	40'-8"	—
p41(E)	14	#7	34'-7"	—
s40(E)	90	#5	9'-0"	U
s41(E)	66	#5	8'-0"	U
u40(E)	8	#6	8'-1"	—
u41(E)	28	#5	6'-6"	—
v40(E)	158	#5	5'-4"	—
v41(E)	158	#5	9'-2"	—

BEARING SEAT ELEVATIONS

BEAM	PIER 1	PIER 2
1	577.09	577.17
2	577.22	577.30
3	577.34	577.42
4	577.46	577.54
5	577.59	577.66
6	577.71	577.78
7	577.84	577.90
8	577.96	578.02
9	578.08	578.14
10	578.21	578.26
11	578.33	578.38
12	578.46	578.51
13	578.58	578.63

A & B DIMENSIONS

Bar	A	B
s40(E)	2'-8"	3'-2"
s41(E)	2'-8"	2'-8"
u40(E)	2'-7"	2'-9"
u41(E)	1'-8"	2'-5"

PIERS 1 AND 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18TH AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	JDG
CHECKED	WPK
DRAWN	DCS
CHECKED	JDG



DB STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2000
CHICAGO, ILLINOIS 60606
TEL. 312/857-1006 FAX. 312/857-1056

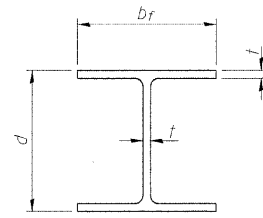
SIZES
STILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	168
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

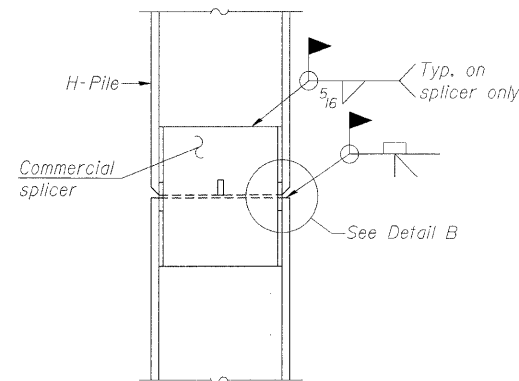
SHEET NO. 21
28 SHEETS

Contract #64814 * (HB, HB-1, VB, HB-2)R

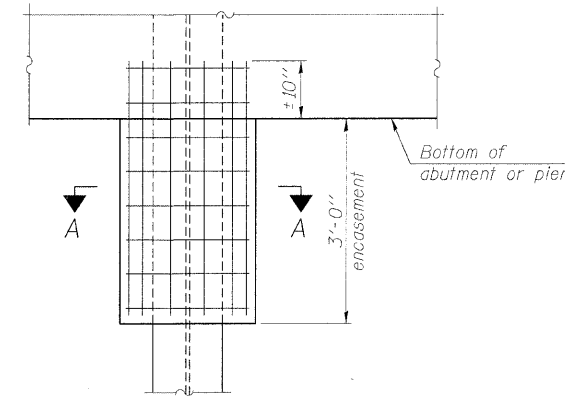


STEEL PILE TABLE

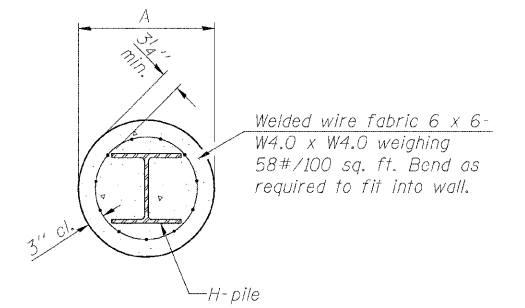
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 5/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



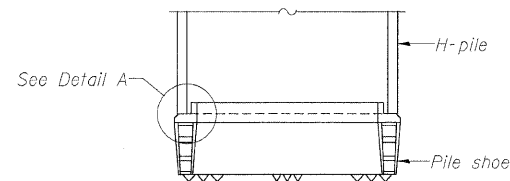
ELEVATION



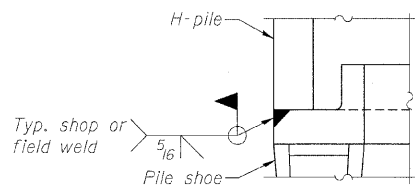
SECTION A-A

PILE ENCASEMENT

Note:
Forms for encasement may be omitted when soil conditions permit.

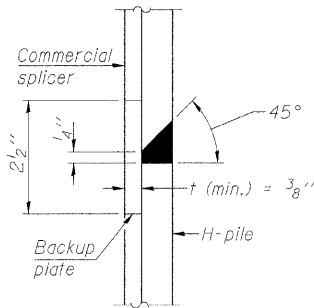


ELEVATION



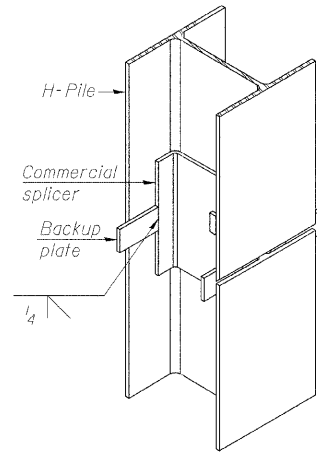
DETAIL A

H-PILE SHOE ATTACHMENT

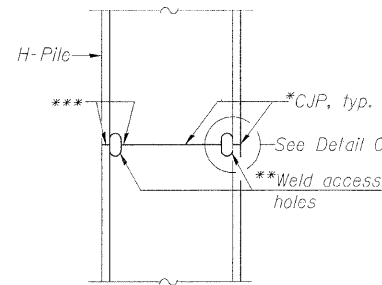


DETAIL "B"

WELDED COMMERCIAL SPLICE

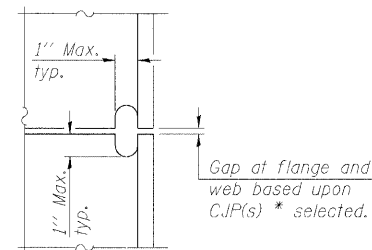


ISOMETRIC VIEW

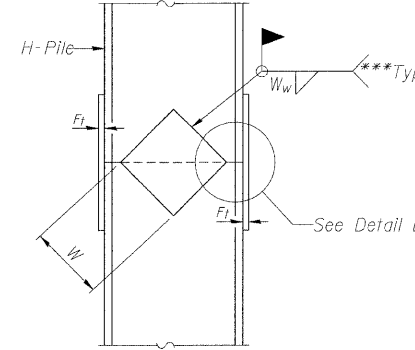


ELEVATION

COMPLETE PENETRATION WELD SPLICE

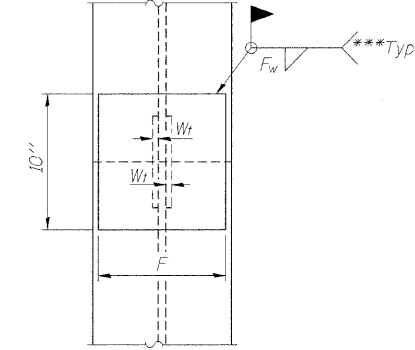


DETAIL C

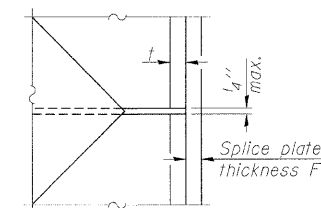


ELEVATION

WELDED PLATE FIELD SPLICE



END VIEW



DETAIL D

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	13/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
***Interrupt welds 1/4" from end of each pile.

STEEL PILE DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18TH AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED JDG	<p>DB STERLIN CONSULTANTS, INC. 123 N. WACKER DRIVE SUITE 2000 CHICAGO, ILLINOIS 60606 TEL. 312/857-1006 FAX. 312/857-1056</p>
CHECKED WPK	
DRAWN DCS	
CHECKED JDG	

F-HP 9-3-07

REVISED DATES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 22
F.A.P. 308	*	ROCK ISLAND	210	169	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract #64814 * (IHB,HB-1,VB,HB-2)R		

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 = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

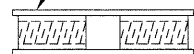
The diameter of this part is equal or larger than the diameter of bar spliced.
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

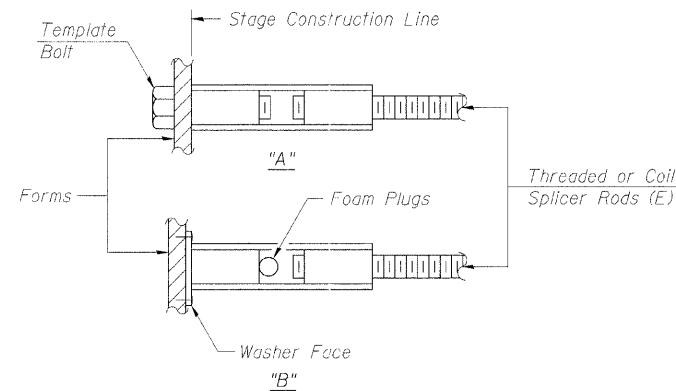
Wire Connector



WELDED SECTIONS

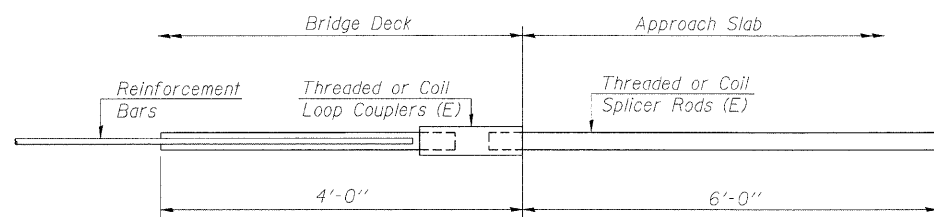
BAR SPLICER ASSEMBLY ALTERNATIVES

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



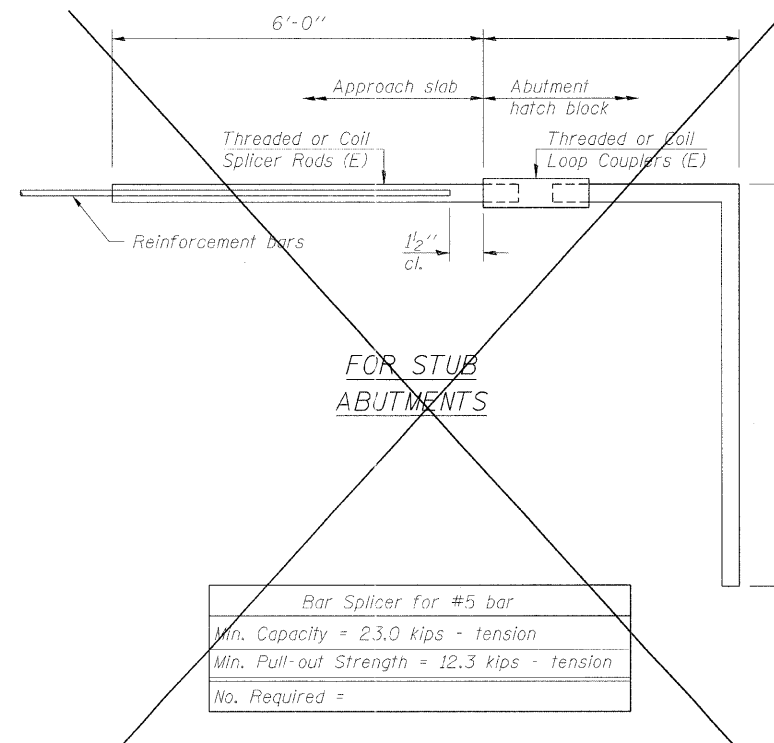
INSTALLATION AND SETTING METHODS

"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.



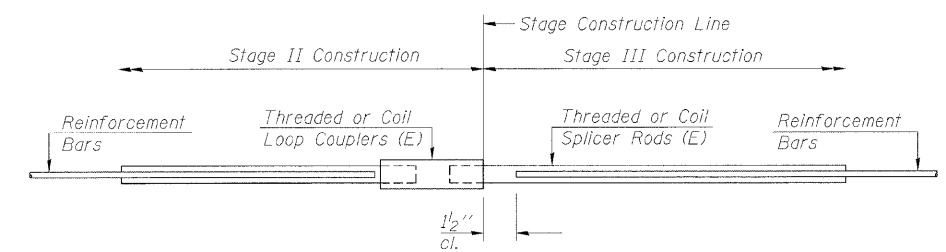
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 150



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	323	Deck
#6	16	Abut. Diaphragms
#7	20	Abutments
#7	28	Piers
#5	56	Piers

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. (IHB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	AMK

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

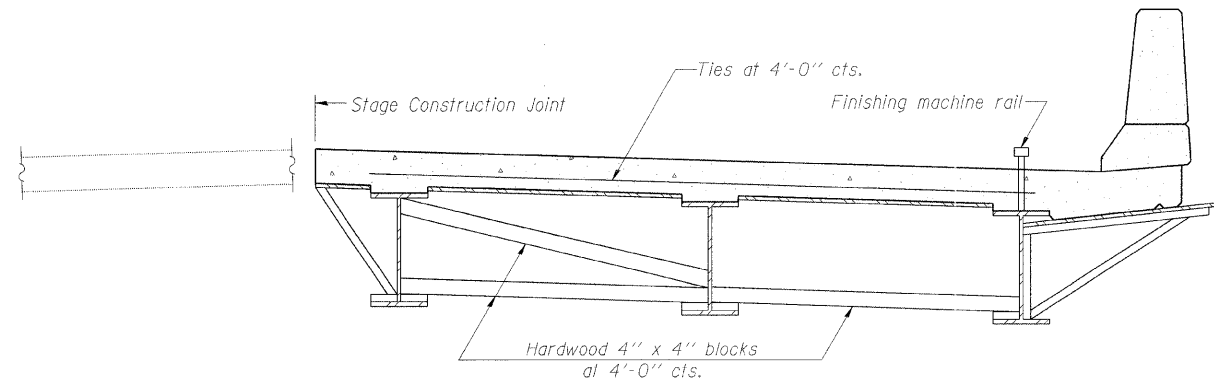
BSD-1

11-1-06

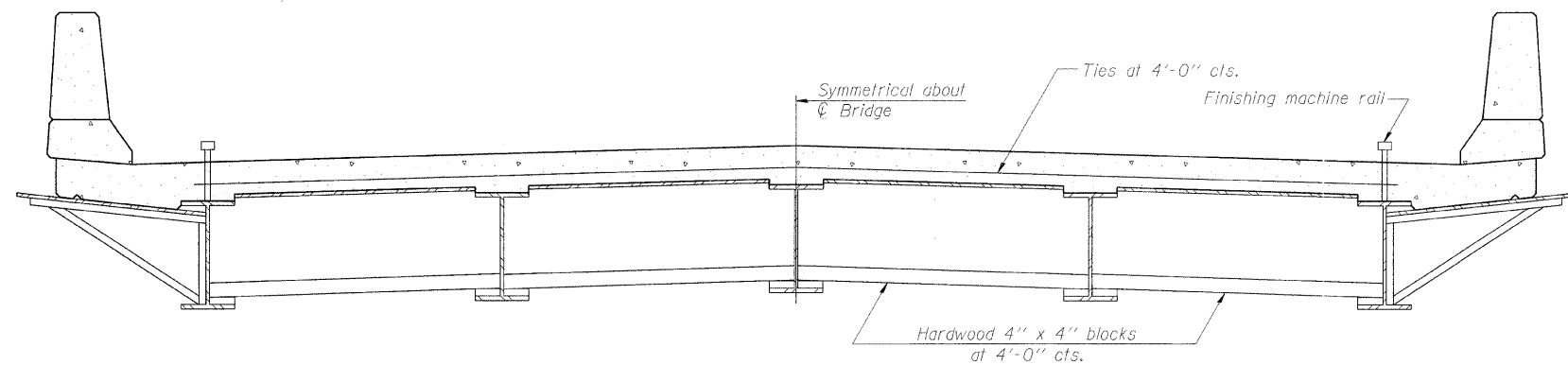
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 23
F.A.P. 308	*	ROCK ISLAND	210	170	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (1HB, HB-1, VB, HB-2)R		



FORM BRACES FOR
STAGE CONSTRUCTION



FORM BRACES FOR
STANDARD CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER

CANTILEVER FORMING BRACKETS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SB-1

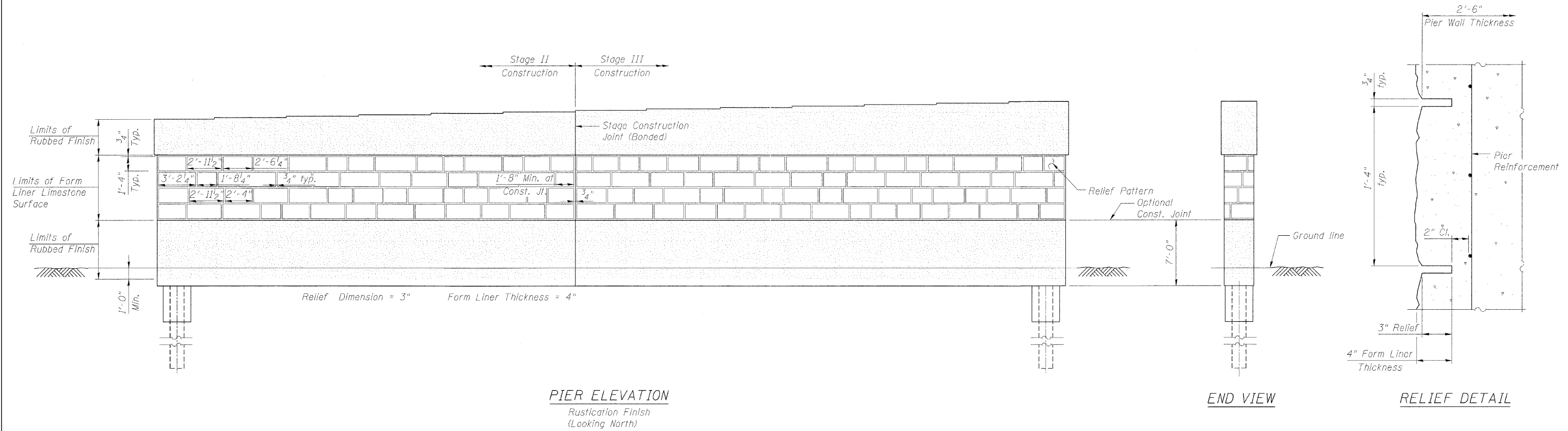
11-1-06

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 24 28 SHEETS
F.A.P. 308	#	ROCK ISLAND	210	171	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #64814 * 1(HB,HB-1,VB,HB-2)R



PIER ELEVATION
Rustication Finish
(Looking North)

END VIEW

RELIEF DETAIL

NOTES

1. Relief pattern shown is for reference only. Final relief pattern to be developed by the Contractor and submitted to the Engineer for approval.
2. For additional information on Form Liner Limestone Surface, see Special Provision.
3. Rubbed Finish shall be in accordance with Article 503.06 of the Standard Specifications and will be paid for per square foot of finished surface.
4. For pier dimensions, reinforcement details and quantities, see Sheet No.20

PIER ENHANCEMENTS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

DESIGNED	BJN
CHECKED	AMK
DRAWN	BJN
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

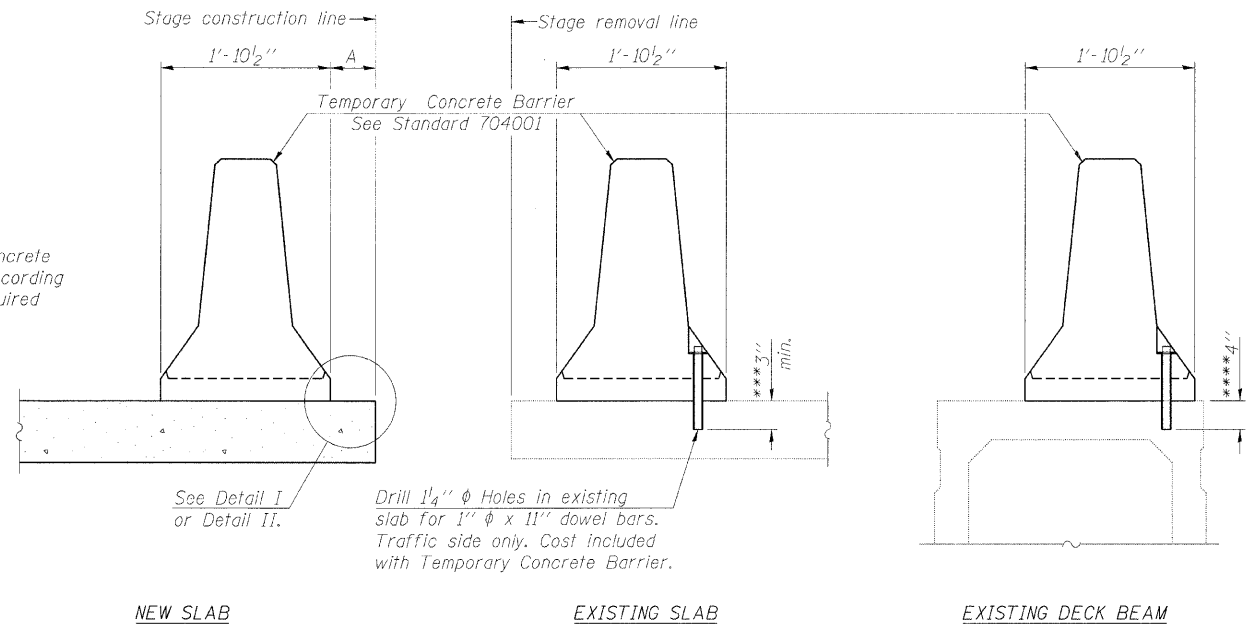
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 25
F.A.P. 308	*	ROCK ISLAND	210	172	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (HB,HB-1,VB,HB-2)R

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".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

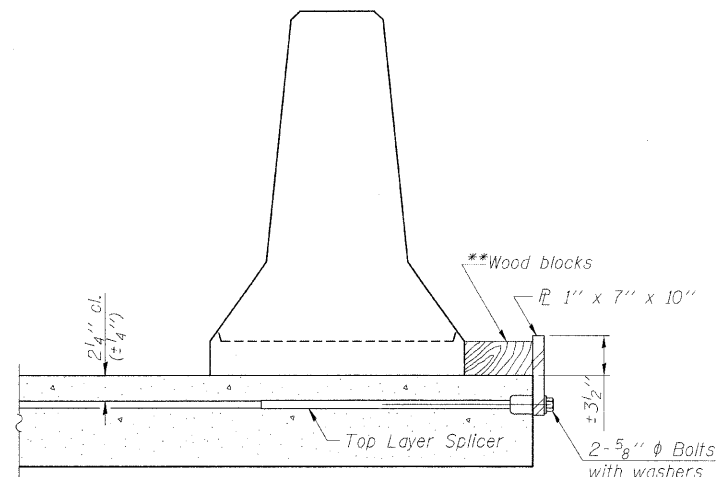
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

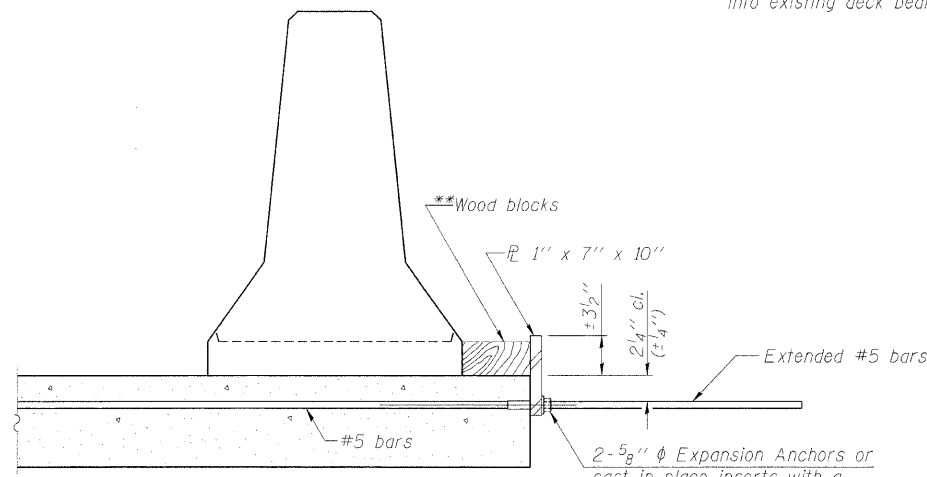
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

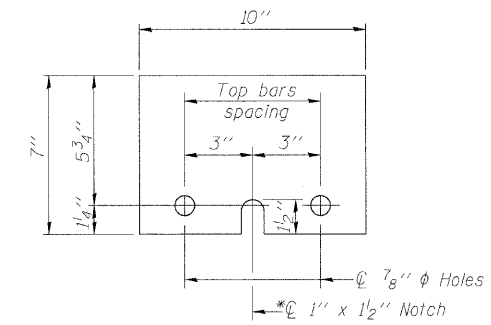
***If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with 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.

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

R-27

9-3-07

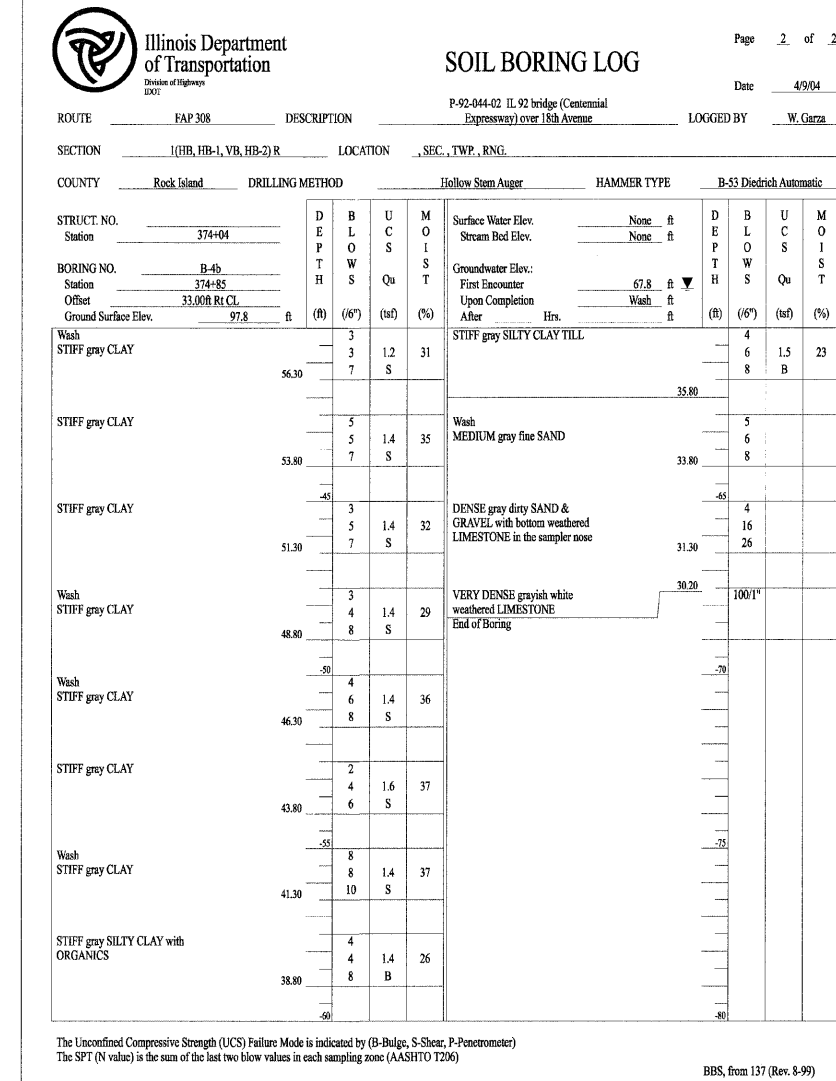
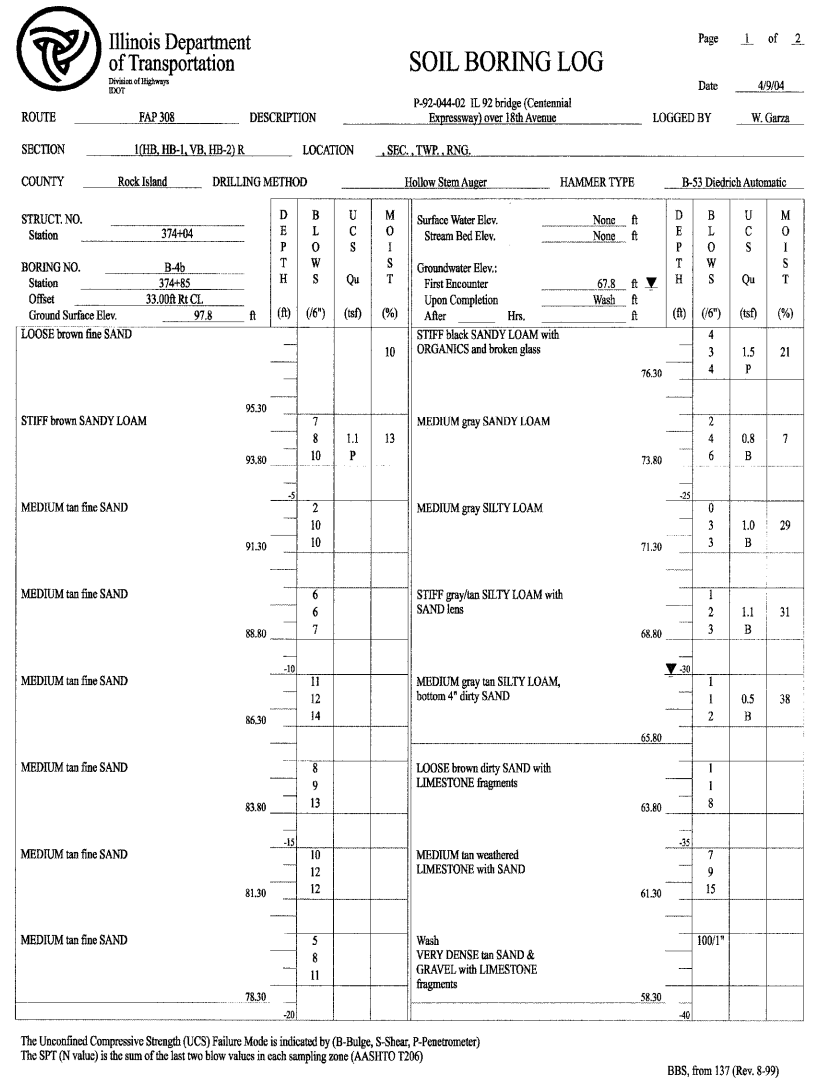
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 175	SHEET NO. 28 28 SHEETS
FED. ROAD DIST. NO. 7			ILLINOIS FED. AID PROJECT		

Contract #64814 * 1(HB,HB-1,VB,HB-2)R



DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SOIL BORINGS 3
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 18th AVENUE
FAP ROUTE 308 SEC. 1(HB-1)R
ROCK ISLAND COUNTY
STATION 1517+79.41
STRUCTURE NO. 081-0171

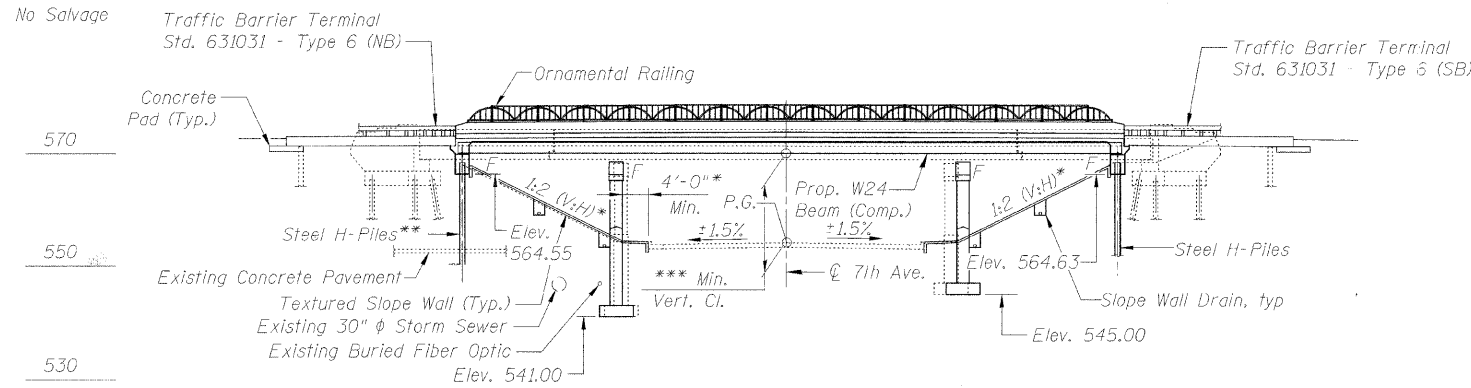
Bench Mark: B.M. #499 Chiseled square on top of Southwest wingwall Sta. 1546+48, 36' Lt. of IL-92, Elev. 574.05

Existing Structure: S.N. 081-0062, Built as F.A. Route 199, Sec. 1-HB in 1964. Three span, 132'-0" back to back of abutments, 66'-9" out to out. Superstructure consists of a R.C. deck on WF beams supported on multi-column piers and spill-through abutments. Structure to be removed and replaced. Traffic to be maintained during the reconstruction by staged construction.

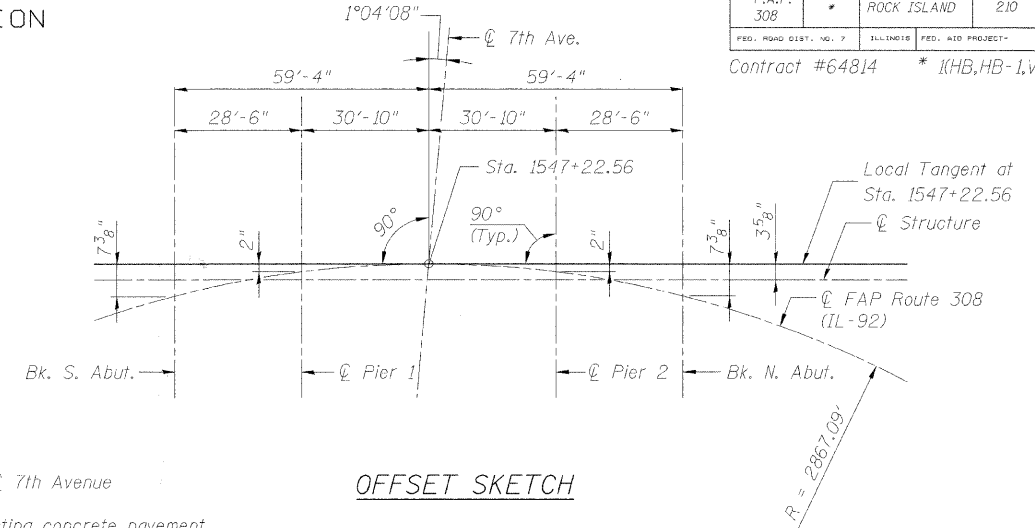
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.F. 308		ROCK ISLAND	210	176	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB, HB-1, VB, HB-2)R



ELEVATION



OFFSET SKETCH

HORIZ. CURVE DATA

∅ Exist. IL Route 92
 $\Delta = 43^\circ 55' 31''$ (RT)
 $D = 1^\circ 59' 54''$
 $R = 2,867.09'$
 $T = 1,156.20'$
 $L = 2,198.03'$
 $E = 224.35'$
 $S.E. = 2.00\%$
 $P.C. STA. = 1540+34.15$
 $P.T. STA. = 1562+32.18$
 $PI STA. = 1551+90.36$

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Rubel Arden
ENGINEER OF BRIDGES AND STRUCTURES

STATION 1547+22.56
 BUILT 20__ BY
 STATE OF ILLINOIS
 F.A. ROUTE 308 SEC. 1(HB)R
 LOADING HS20
 STRUCTURE NO. 081-0170

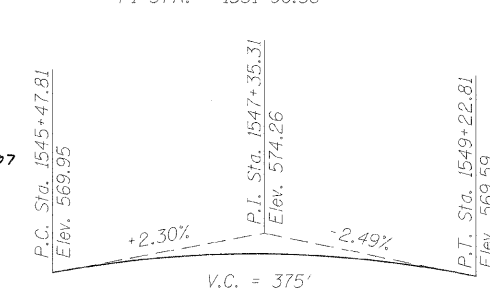
NAME PLATE
 Refer to Std. 515001



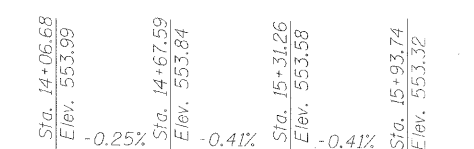
Rubel Arden 12/16/07
 SHEETS 1-19, 22-27



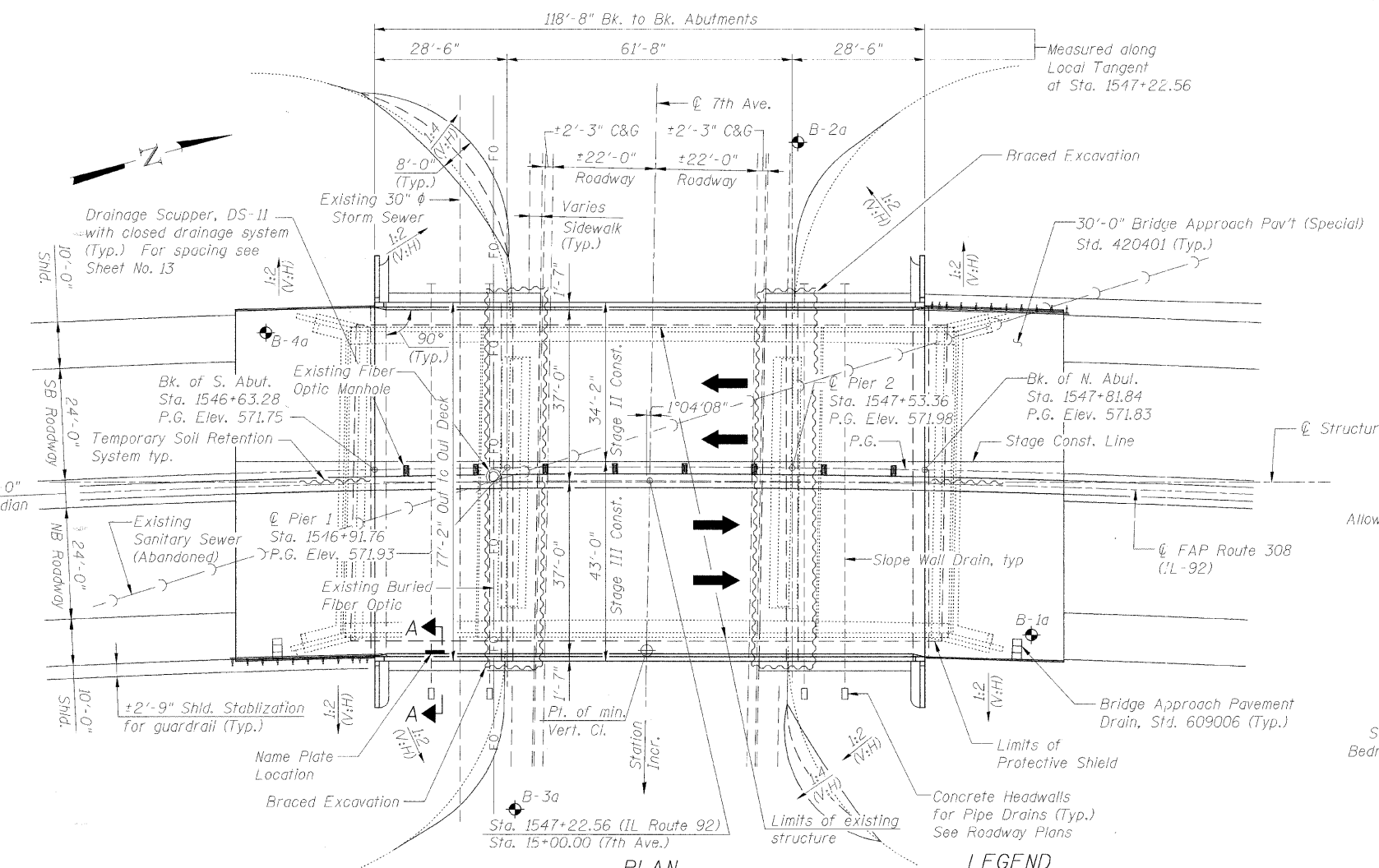
12/1/07
J.D.G.
 EXP 11/30/08
 SHEETS 20, 21



PROPOSED PROFILE GRADE
IL-ROUTE 92



EXISTING PROFILE GRADE
7th AVENUE



PLAN

LOADING HS20-44
 Allow 50#/sq. ft. for Future Wearing Surface.

DESIGN SPECIFICATIONS
 2002 AASHTO - 17th Edition

DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (Struct. Steel) (M270 Grade 50)

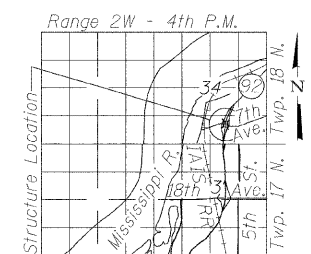
SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.034g
 Site Coefficient (S) = 1.0

LEGEND
 Indicates Soil Boring Location

NOTES

- For General Notes, Bill of Materials and Index of Sheets see Sheet No. 2
- For Section A-A and Slope Wall Drain detail, see Sheet No. 3
- For Temporary Soil Retention System, see Sheet No. 4



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
 IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
 OVER 7th AVENUE
 FAP ROUTE 308 SEC. 1(HB)R
 ROCK ISLAND COUNTY
 STATION 1547+22.56
 STRUCTURE NO. 081-0170**

DESIGNED	AMK
CHECKED	CMM
DRAWN	AMK
CHECKED	RWC

LOCHNER
 H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type I, mechanically galvanized bolts. Bolts 7/8 in. dia., holes 5/16 in. dia., unless otherwise noted.
2. Calculated weight of Structural Steel M270 Grade 36 = 23,507 lbs.
Calculated weight of Structural Steel M270 Grade 50 = 219,931 lbs.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Concrete Sealer shall be applied to the designated areas of the Piers.
8. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
9. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6. See Special Provision for "Cleaning and Painting New Metal Structures".
10. Slip forming of the Parapets and Median Barrier is not allowed.
11. See Electrical Plans for Bridge Underpass Lighting details.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	SHEET NO. 210	SHEET NO. 177	SHEET NO. 2 27 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract #64814 * (1HB,HB-1,VB,HB-2)R

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub		Total
			Piers	Abuts.	
Porous Granular Embankment, Special	Cu. Yd.			318	318
Removal of Existing Structures No. 1	Each	1			1
Protective Shield	Sq. Yd.	965			965
Structure Excavation	Cu. Yd.			138	138
Concrete Structures	Cu. Yd.		378.0	69.7	447.7
Rubbed Finish	Sq. Ft.		3,956		3,956
Concrete Superstructure	Cu. Yd.	345.3			345.3
Bridge Deck Grooving	Sq. Yd.	884			884
Concrete Encasement	Cu. Yd.			9.2	9.2
Protective Coat	Sq. Yd.	1,190			1,190
Furnishing and Erecting Structural Steel	L. Sum	0.4			0.4
Stud Shear Connectors	Each	3,471			3,471
Reinforcement Bars, Epoxy Coated	Pound	68,960	31,000	11,220	111,180
Bar Splicers	Each	488	122	20	630
Furnishing Steel Piles HP12x53	Foot			624	624
Driving Piles	Foot			624	624
Pile Shoes	Each			26	26
Name Plates	Each	1			1
Anchor Bolts, 1"	Each		52	52	104
Concrete Sealer	Sq. Ft.		4,422		4,422
Geocomposite Wall Drain	Sq. Yd.			136	136
Pipe Underdrains for Structures 4"	Foot			548*	548
Textured Slopewall	Sq. Yd.			602	602
Braced Excavation	Cu. Yd.		714		714
Drainage Scuppers, DS-11	Each	8			8
Temporary Soil Retention System	Sq. Ft.			124	124
Ornamental Railing	Foot	225			225
Drainage System	L. Sum	0.3			0.3

*Quantity includes lengths for Slope Wall Drains

INDEX OF SHEETS

SHEET NO.	TITLE
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS
3	FOOTING LAYOUT
4	STAGING DETAILS
5	TOP OF SLAB ELEVATIONS 1
6	TOP OF SLAB ELEVATIONS 2
7	TOP OF APPROACH SLAB ELEVATIONS
8	DECK PLAN
9	INTEGRAL ABUTMENT DIAPHRAGM DETAILS
10	MEDIAN BARRIER DETAILS
11	PARAPET DETAILS
12	ORNAMENTAL RAILING DETAILS
13	DRAINAGE SCUPPER, DS-11
14	CLOSED DRAINAGE SYSTEM
15	FRAMING PLAN
16	STEEL DETAILS 1
17	STEEL DETAILS 2
18	SOUTH ABUTMENT
19	NORTH ABUTMENT
20	PIER 1
21	PIER 2
22	STEEL PILE DETAILS
23	BAR SPLICER ASSEMBLY DETAILS
24	CANTILEVER FORMING BRACKETS
25	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
26	SOIL BORINGS 1
27	SOIL BORINGS 2

GENERAL NOTES, BILL OF MATERIAL &
INDEX OF SHEETS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1514+22.56
STRUCTURE NO. 081-0170

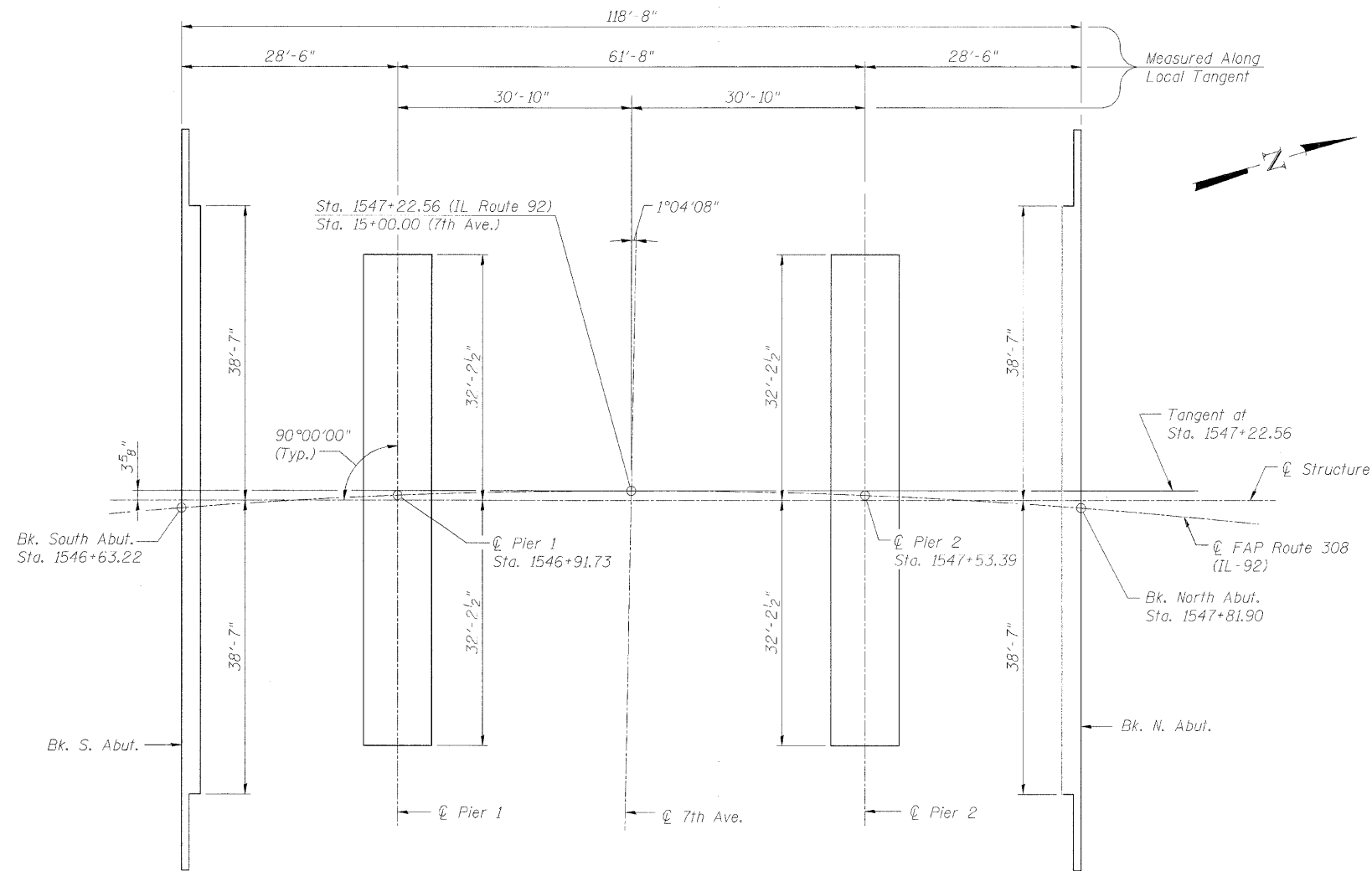
DESIGNED AMK
CHECKED CMM
DRAWN OS
CHECKED RWC



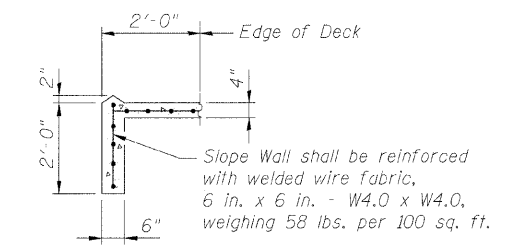
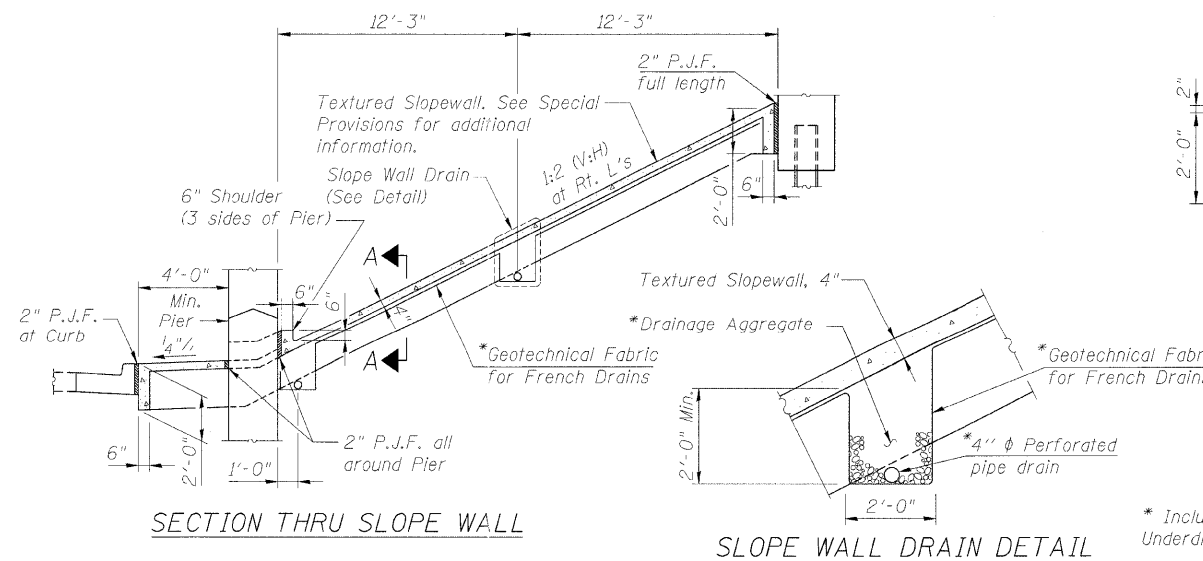
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	178
27 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		
Contract #64814 * (1HB, HB-1, VB, HB-2)R				



FOOTING LAYOUT



SECTION A-A

FOOTING LAYOUT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

* Included in the cost of Pipe Underdrains for Structures, 4"

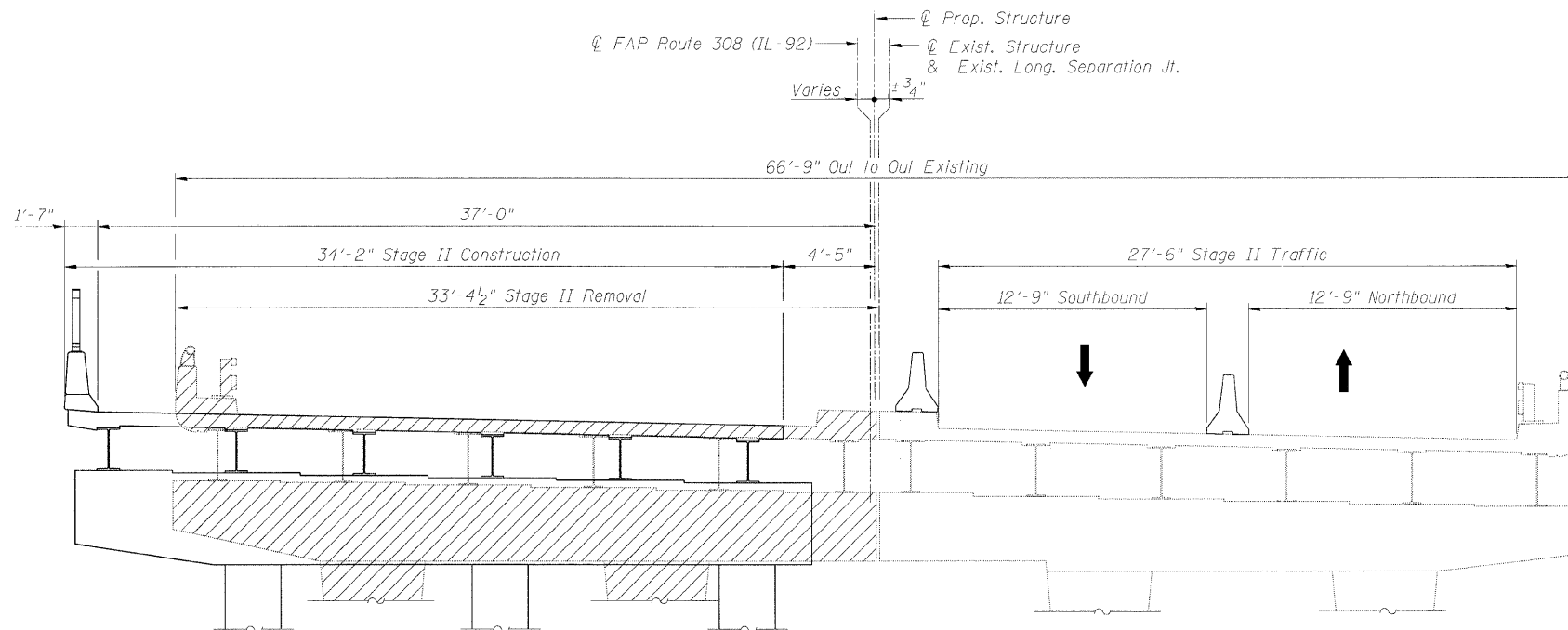
DESIGNED	AMK
CHECKED	CMM
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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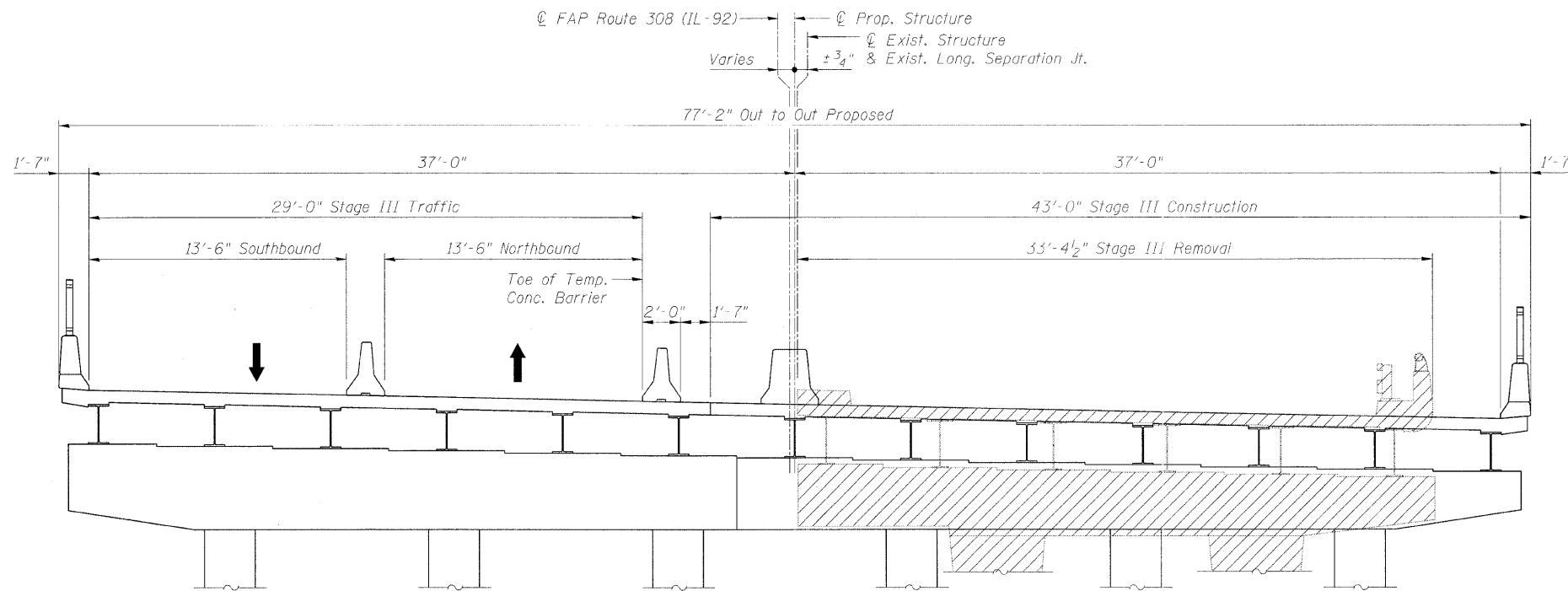
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	179
SHEET NO. 4 27 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		
Contract #64814 * I(HB,HB-1,VB,HB-2)R				



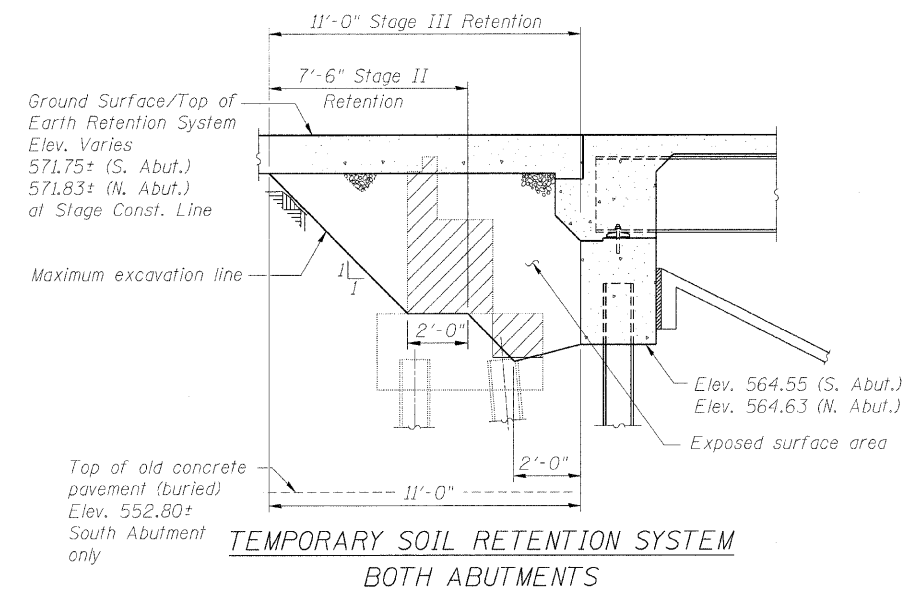
CROSS SECTION (STAGE II)

Looking North



CROSS SECTION (STAGE III)

Looking North



TEMPORARY SOIL RETENTION SYSTEM
BOTH ABUTMENTS

Note:
A cantilevered sheet piling design does not appear feasible and additional members or other retention system may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

DESIGNED	AMK
CHECKED	CMM
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

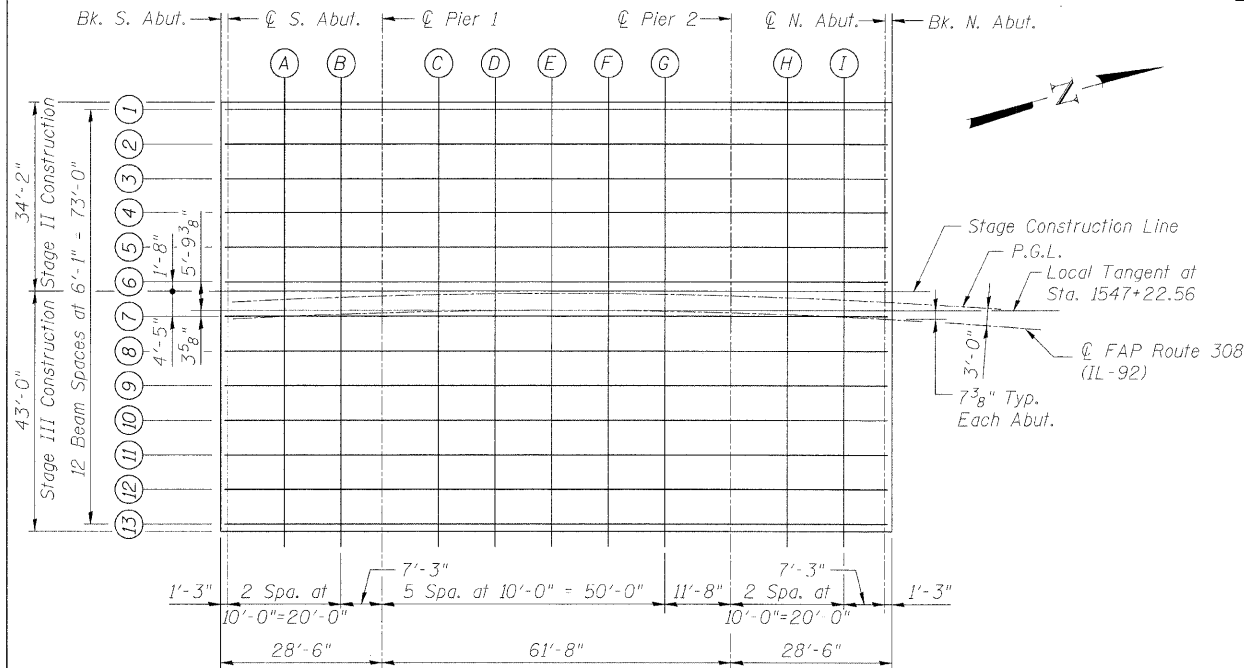
LEGEND

Indicates Removal of Existing Structures

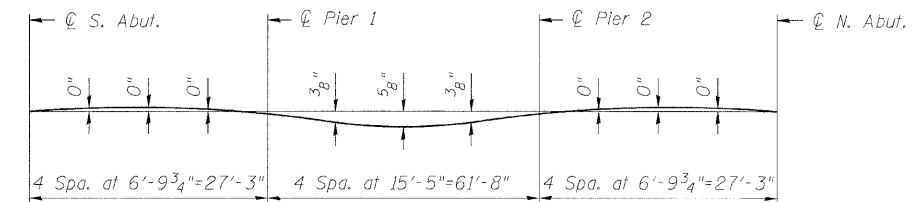
STAGING DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

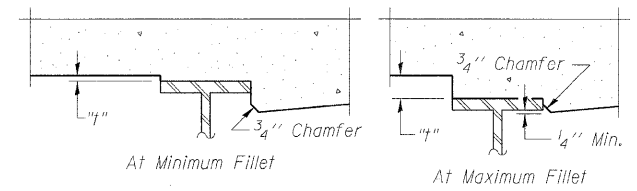


PLAN



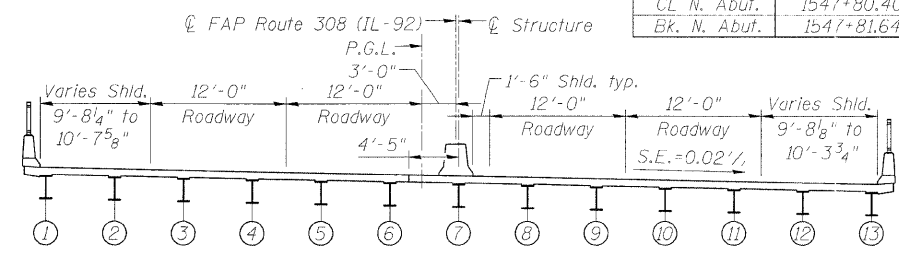
DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown herein.



FILLET HEIGHTS

To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown herein. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown herein, minus slab thickness, equals the fillet heights "f" above top flange of beams.



CROSS SECTION
Looking North

Note: Horizontal dimensions shown are radial.

DESIGNED	CMM
CHECKED	AMK
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.97	-36.80	572.43	572.43
CL S. Abut.	1546+65.21	-36.78	572.44	572.44
A	1546+75.08	-36.60	572.51	572.51
B	1546+84.95	-36.45	572.57	572.57
CL Pier 1	1546+92.11	-36.36	572.60	572.60
C	1547+01.99	-36.27	572.64	572.66
D	1547+11.86	-36.22	572.67	572.71
E	1547+21.74	-36.20	572.68	572.74
F	1547+31.61	-36.21	572.68	572.73
G	1547+41.49	-36.26	572.67	572.70
CL Pier 2	1547+53.01	-36.36	572.65	572.65
H	1547+62.88	-36.49	572.61	572.61
I	1547+72.75	-36.64	572.56	572.56
CL N. Abut.	1547+79.91	-36.78	572.52	572.52
Bk. N. Abut.	1547+81.15	-36.80	572.51	572.51

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.73	-24.64	572.19	572.19
CL S. Abut.	1546+64.97	-24.61	572.20	572.20
A	1546+74.88	-24.43	572.27	572.27
B	1546+84.80	-24.28	572.33	572.33
CL Pier 1	1546+91.98	-24.20	572.36	572.36
C	1547+01.90	-24.11	572.40	572.42
D	1547+11.82	-24.05	572.42	572.47
E	1547+21.73	-24.03	572.44	572.49
F	1547+31.65	-24.05	572.44	572.49
G	1547+41.57	-24.09	572.43	572.45
CL Pier 2	1547+53.14	-24.20	572.40	572.40
H	1547+63.05	-24.32	572.37	572.37
I	1547+72.97	-24.48	572.32	572.32
CL N. Abut.	1547+80.15	-24.61	572.28	572.28
Bk. N. Abut.	1547+81.39	-24.64	572.27	572.27

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.48	-12.48	571.94	571.94
CL S. Abut.	1546+64.72	-12.45	571.95	571.95
A	1546+74.68	-12.27	572.02	572.02
B	1546+84.64	-12.12	572.08	572.08
CL Pier 1	1546+91.85	-12.03	572.12	572.12
C	1547+01.81	-11.94	572.15	572.18
D	1547+11.77	-11.88	572.18	572.22
E	1547+21.73	-11.86	572.19	572.25
F	1547+31.69	-11.88	572.19	572.24
G	1547+41.65	-11.93	572.18	572.21
CL Pier 2	1547+53.27	-12.03	572.16	572.16
H	1547+63.22	-12.15	572.12	572.12
I	1547+73.18	-12.31	572.07	572.07
CL N. Abut.	1547+80.40	-12.45	572.03	572.03
Bk. N. Abut.	1547+81.64	-12.48	572.02	572.02

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.85	-30.72	572.31	572.31
CL S. Abut.	1546+65.09	-30.70	572.32	572.32
A	1546+74.98	-30.51	572.39	572.39
B	1546+84.87	-30.36	572.45	572.45
CL Pier 1	1546+92.05	-30.28	572.48	572.48
C	1547+01.94	-30.19	572.52	572.54
D	1547+11.84	-30.13	572.54	572.59
E	1547+21.74	-30.11	572.56	572.61
F	1547+31.63	-30.13	572.56	572.61
G	1547+41.53	-30.18	572.55	572.58
CL Pier 2	1547+53.07	-30.28	572.52	572.52
H	1547+62.97	-30.40	572.49	572.49
I	1547+72.86	-30.56	572.44	572.44
CL N. Abut.	1547+80.03	-30.70	572.40	572.40
Bk. N. Abut.	1547+81.27	-30.72	572.39	572.39

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.60	-18.56	572.07	572.07
CL S. Abut.	1546+64.85	-18.53	572.08	572.08
A	1546+74.78	-18.35	572.15	572.15
B	1546+84.72	-18.20	572.20	572.20
CL Pier 1	1546+91.92	-18.11	572.24	572.24
C	1547+01.86	-18.02	572.28	572.30
D	1547+11.79	-17.97	572.30	572.35
E	1547+21.73	-17.95	572.31	572.37
F	1547+31.67	-17.96	572.32	572.36
G	1547+41.61	-18.01	572.31	572.33
CL Pier 2	1547+53.20	-18.11	572.28	572.28
H	1547+63.14	-18.24	572.24	572.24
I	1547+73.07	-18.40	572.20	572.20
CL N. Abut.	1547+80.27	-18.53	572.15	572.15
Bk. N. Abut.	1547+81.52	-18.56	572.15	572.15

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.35	-6.39	571.82	571.82
CL S. Abut.	1546+64.60	-6.37	571.83	571.83
A	1546+74.58	-6.18	571.90	571.90
B	1546+84.56	-6.03	571.96	571.96
CL Pier 1	1546+91.79	-5.95	571.99	571.99
C	1547+01.77	-5.86	572.03	572.05
D	1547+11.75	-5.80	572.06	572.10
E	1547+21.73	-5.78	572.07	572.13
F	1547+31.71	-5.80	572.07	572.12
G	1547+41.69	-5.85	572.06	572.09
CL Pier 2	1547+53.33	-5.95	572.04	572.04
H	1547+63.31	-6.07	572.00	572.00
I	1547+73.29	-6.23	571.95	571.95
CL N. Abut.	1547+80.52	-6.37	571.91	571.91
Bk. N. Abut.	1547+81.77	-6.39	571.90	571.90

NOTE

Work this Sheet with Sheet No. 6

TOP OF SLAB ELEVATIONS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.32	-4.73	571.79	571.79
CL S. Abut.	1546+64.57	-4.70	571.80	571.80
A	1546+74.55	-4.52	571.87	571.87
B	1546+84.53	4.37	571.93	571.93
CL Pier 1	1546+91.77	-4.28	571.96	571.96
C	1547+01.76	-4.19	572.00	572.02
D	1547+11.74	-4.14	572.02	572.07
E	1547+21.73	-4.12	572.04	572.09
F	1547+31.71	-4.13	572.04	572.09
G	1547+41.70	-4.18	572.03	572.06
CL Pier 2	1547+53.35	-4.28	572.00	572.00
H	1547+63.33	-4.41	571.97	571.97
I	1547+73.32	4.56	571.92	571.92
CL N. Abut.	1547+80.55	-4.70	571.88	571.88
Bk. N. Abut.	1547+81.80	-4.73	571.87	571.87

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.28	-3.00	571.75	571.75
CL S. Abut.	1546+64.53	-3.00	571.76	571.76
A	1546+74.52	-3.00	571.84	571.84
B	1546+84.52	-3.00	571.90	571.90
CL Pier 1	1546+91.76	-3.00	571.93	571.93
C	1547+01.75	-3.00	571.97	572.00
D	1547+11.74	-3.00	572.00	572.05
E	1547+21.73	-3.00	572.02	572.07
F	1547+31.72	-3.00	572.02	572.07
G	1547+41.71	-3.00	572.01	572.03
CL Pier 2	1547+53.36	-3.00	571.98	571.98
H	1547+63.35	-3.00	571.94	571.94
I	1547+73.34	-3.00	571.89	571.89
CL N. Abut.	1547+80.59	-3.00	571.84	571.84
Bk. N. Abut.	1547+81.84	-3.00	571.83	571.83

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.23	-0.31	571.70	571.70
CL S. Abut.	1546+64.48	-0.29	571.71	571.71
A	1546+74.48	-0.10	571.78	571.78
B	1546+84.47	0.05	571.84	571.84
CL Pier 1	1546+91.72	0.14	571.87	571.87
C	1547+01.72	0.23	571.91	571.93
D	1547+11.73	0.28	571.94	571.98
E	1547+21.73	0.30	571.95	572.01
F	1547+31.73	0.29	571.95	572.00
G	1547+41.73	0.24	571.94	571.97
CL Pier 2	1547+53.40	0.14	571.91	571.91
H	1547+63.39	0.01	571.88	571.88
I	1547+73.39	-0.15	571.83	571.83
CL N. Abut.	1547+80.64	-0.29	571.79	571.79
Bk. N. Abut.	1547+81.89	-0.31	571.78	571.78

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+63.10	5.77	571.57	571.57
CL S. Abut.	1546+64.36	5.80	571.58	571.58
A	1546+74.37	5.98	571.66	571.66
B	1546+84.39	6.13	571.71	571.71
CL Pier 1	1546+91.66	6.22	571.75	571.75
C	1547+01.68	6.31	571.79	571.81
D	1547+11.70	6.36	571.81	571.86
E	1547+21.72	6.39	571.83	571.88
F	1547+31.75	6.37	571.83	571.88
G	1547+41.77	6.32	571.82	571.85
CL Pier 2	1547+53.46	6.22	571.79	571.79
H	1547+63.48	6.09	571.76	571.76
I	1547+73.50	5.93	571.71	571.71
CL N. Abut.	1547+80.76	5.80	571.66	571.66
Bk. N. Abut.	1547+82.02	5.77	571.66	571.66

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+62.98	11.85	571.45	571.45
CL S. Abut.	1546+64.23	11.88	571.46	571.46
A	1546+74.27	12.06	571.53	571.53
B	1546+84.31	12.21	571.59	571.59
CL Pier 1	1546+91.59	12.30	571.63	571.63
C	1547+01.64	12.39	571.67	571.69
D	1547+11.68	12.45	571.69	571.74
E	1547+21.72	12.47	571.71	571.76
F	1547+31.77	12.45	571.71	571.76
G	1547+41.81	12.40	571.70	571.72
CL Pier 2	1547+53.53	12.30	571.67	571.67
H	1547+63.57	12.18	571.63	571.63
I	1547+73.61	12.02	571.58	571.58
CL N. Abut.	1547+80.89	11.88	571.54	571.54
Bk. N. Abut.	1547+82.14	11.85	571.53	571.53

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+62.85	17.93	571.33	571.33
CL S. Abut.	1546+64.11	17.96	571.34	571.34
A	1546+74.17	18.15	571.41	571.41
B	1546+84.23	18.30	571.47	571.47
CL Pier 1	1546+91.53	18.39	571.51	571.51
C	1547+01.59	18.48	571.54	571.57
D	1547+11.66	18.53	571.57	571.62
E	1547+21.72	18.55	571.58	571.64
F	1547+31.79	18.54	571.59	571.63
G	1547+41.85	18.49	571.58	571.60
CL Pier 2	1547+53.59	18.39	571.55	571.55
H	1547+63.66	18.26	571.51	571.51
I	1547+73.72	18.10	571.46	571.46
CL N. Abut.	1547+81.01	17.96	571.42	571.42
Bk. N. Abut.	1547+82.27	17.93	571.41	571.41

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+62.72	24.02	571.21	571.21
CL S. Abut.	1546+63.98	24.04	571.22	571.22
A	1546+74.06	24.23	571.29	571.29
B	1546+84.15	24.38	571.35	571.35
CL Pier 1	1546+91.46	24.47	571.38	571.38
C	1547+01.55	24.56	571.42	571.45
D	1547+11.63	24.61	571.45	571.49
E	1547+21.72	24.64	571.46	571.52
F	1547+31.81	24.62	571.46	571.51
G	1547+41.89	24.57	571.45	571.48
CL Pier 2	1547+53.66	24.47	571.43	571.43
H	1547+63.74	24.34	571.39	571.39
I	1547+73.83	24.18	571.34	571.34
CL N. Abut.	1547+81.14	24.04	571.30	571.30
Bk. N. Abut.	1547+82.40	24.02	571.29	571.29

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+62.59	30.10	571.08	571.08
CL S. Abut.	1546+63.86	30.12	571.09	571.09
A	1546+73.96	30.31	571.17	571.17
B	1546+84.07	30.46	571.23	571.23
CL Pier 1	1546+91.39	30.55	571.26	571.26
C	1547+01.50	30.64	571.30	571.32
D	1547+11.61	30.70	571.33	571.37
E	1547+21.72	30.72	571.34	571.40
F	1547+31.83	30.70	571.34	571.39
G	1547+41.93	30.65	571.33	571.36
CL Pier 2	1547+53.73	30.55	571.30	571.30
H	1547+63.83	30.42	571.27	571.27
I	1547+73.94	30.26	571.22	571.22
CL N. Abut.	1547+81.26	30.12	571.17	571.17
Bk. N. Abut.	1547+82.53	30.10	571.17	571.17

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1546+62.46	36.18	570.96	570.96
CL S. Abut.	1546+63.73	36.21	570.97	570.97
A	1546+73.86	36.39	571.04	571.04
B	1546+83.98	36.55	571.10	571.10
CL Pier 1	1546+91.33	36.63	571.14	571.14
C	1547+01.46	36.73	571.18	571.20
D	1547+11.59	36.78	571.21	571.25
E	1547+21.72	36.80	571.22	571.28
F	1547+31.85	36.79	571.22	571.27
G	1547+41.98	36.74	571.21	571.24
CL Pier 2	1547+53.79	36.63	571.18	571.18
H	1547+63.92	36.51	571.15	571.15
I	1547+74.05	36.35	571.10	571.10
CL N. Abut.	1547+81.39	36.21	571.05	571.05
Bk. N. Abut.	1547+82.66	36.18	571.04	571.04

NOTE

Work this Sheet with Sheet No. 5

TOP OF SLAB ELEVATIONS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	CMM
CHECKED	AMK
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	#	ROCK ISLAND	210	182
27 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT-			
Contract #64814 * (HB,HB-1,VB,HB-2)R				

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+34.35	-37.00	572.14
A	1546+44.23	-37.26	572.26
B	1546+54.11	-37.56	572.36
Bk. S. Abut.	1546+63.99	-37.89	572.46
Bk. N. Abut.	1547+81.12	-37.89	572.53
C	1547+91.00	-37.56	572.45
D	1548+00.88	-37.26	572.36
End N. Appr. Pavement	1548+10.76	-37.00	572.26

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+34.04	-27.00	571.94
A	1546+43.95	-27.00	572.05
B	1546+53.86	-27.00	572.15
Bk. S. Abut.	1546+63.77	-27.00	572.24
Bk. N. Abut.	1547+81.34	-27.00	572.32
C	1547+91.25	-27.00	572.24
D	1548+01.16	-27.00	572.16
End N. Appr. Pavement	1548+11.07	-27.00	572.06

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+33.30	-3.00	571.45
A	1546+43.30	-3.00	571.56
B	1546+53.29	-3.00	571.66
Bk. S. Abut.	1546+63.29	-3.00	571.75
Bk. N. Abut.	1547+81.82	-3.00	571.83
C	1547+91.82	-3.00	571.76
D	1548+01.82	-3.00	571.67
End N. Appr. Pavement	1548+11.81	-3.00	571.57

STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+33.38	-5.50	571.50
A	1546+43.36	-5.21	571.61
B	1546+53.34	-4.95	571.70
Bk. S. Abut.	1546+63.32	-4.73	571.79
Bk. N. Abut.	1547+81.80	-4.73	571.87
C	1547+91.78	-4.95	571.80
D	1548+01.76	-5.21	571.71
End N. Appr. Pavement	1548+11.74	-5.50	571.62

Q FAP ROUTE 308 (IL-92)

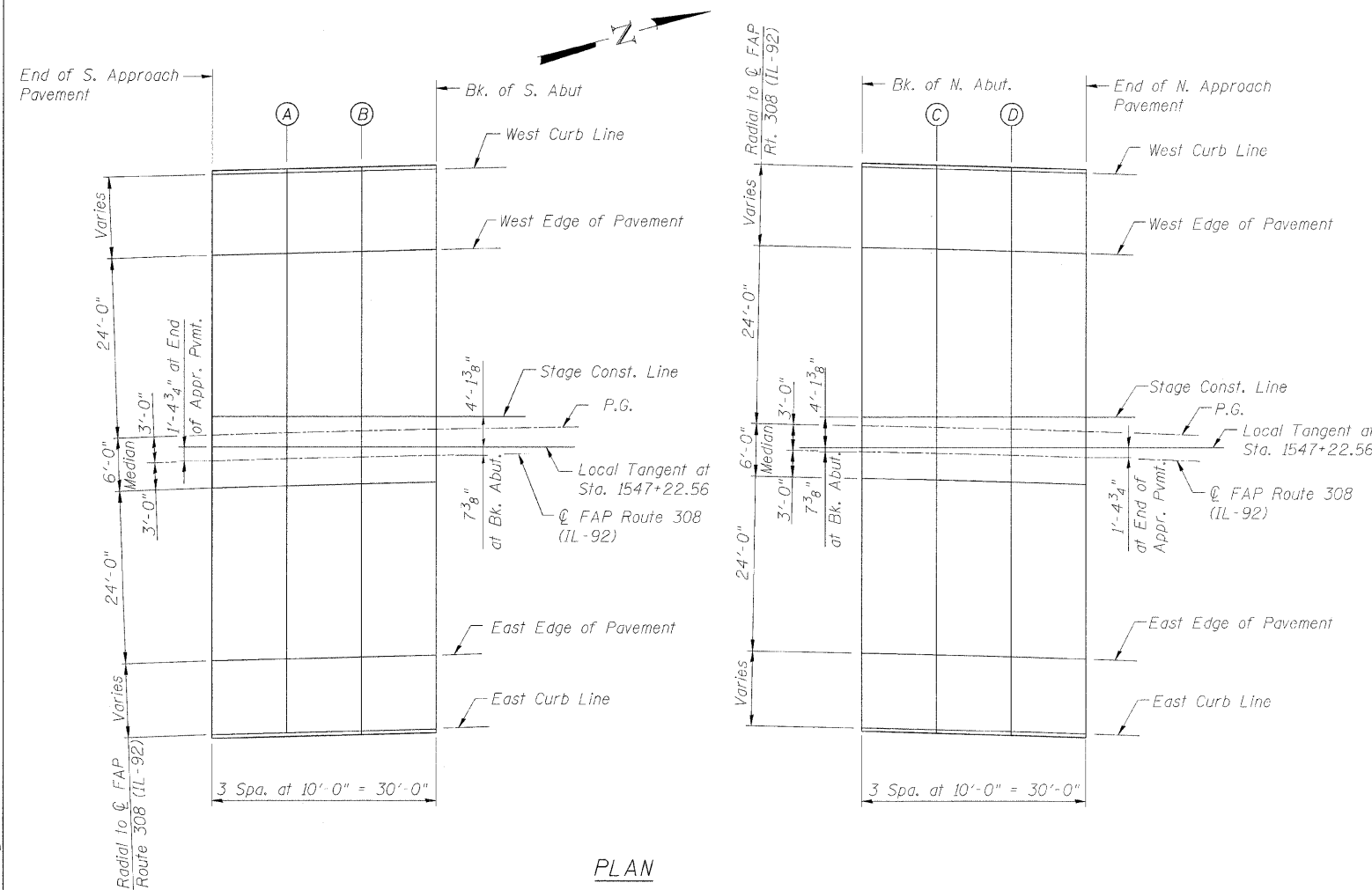
Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+33.21	0.00	571.39
A	1546+43.21	0.00	571.50
B	1546+53.22	0.00	571.60
Bk. S. Abut.	1546+63.22	0.00	571.69
Bk. N. Abut.	1547+81.90	0.00	571.77
C	1547+91.90	0.00	571.70
D	1548+01.90	0.00	571.61
End N. Appr. Pavement	1548+11.90	0.00	571.51

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+32.36	27.00	570.84
A	1546+42.46	27.00	570.95
B	1546+52.56	27.00	571.06
Bk. S. Abut.	1546+62.65	27.00	571.15
Bk. N. Abut.	1547+82.46	27.00	571.23
C	1547+92.56	27.00	571.15
D	1548+02.66	27.00	571.06
End N. Appr. Pavement	1548+12.76	27.00	570.96

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End S. Appr. Pavement	1546+32.04	37.00	570.63
A	1546+42.17	37.12	570.75
B	1546+52.30	37.21	570.85
Bk. S. Abut.	1546+62.44	37.26	570.94
Bk. N. Abut.	1547+82.67	37.26	571.02
C	1547+92.81	37.21	570.94
D	1548+02.94	37.12	570.86
End N. Appr. Pavement	1548+13.07	37.00	570.75



PLAN

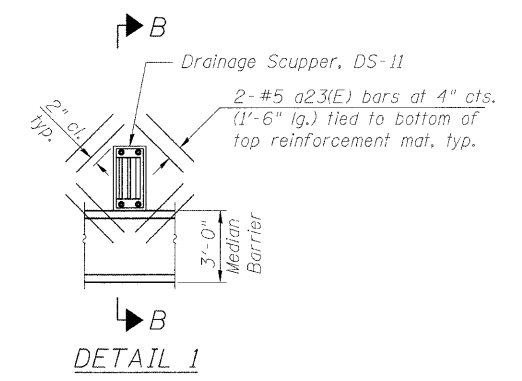
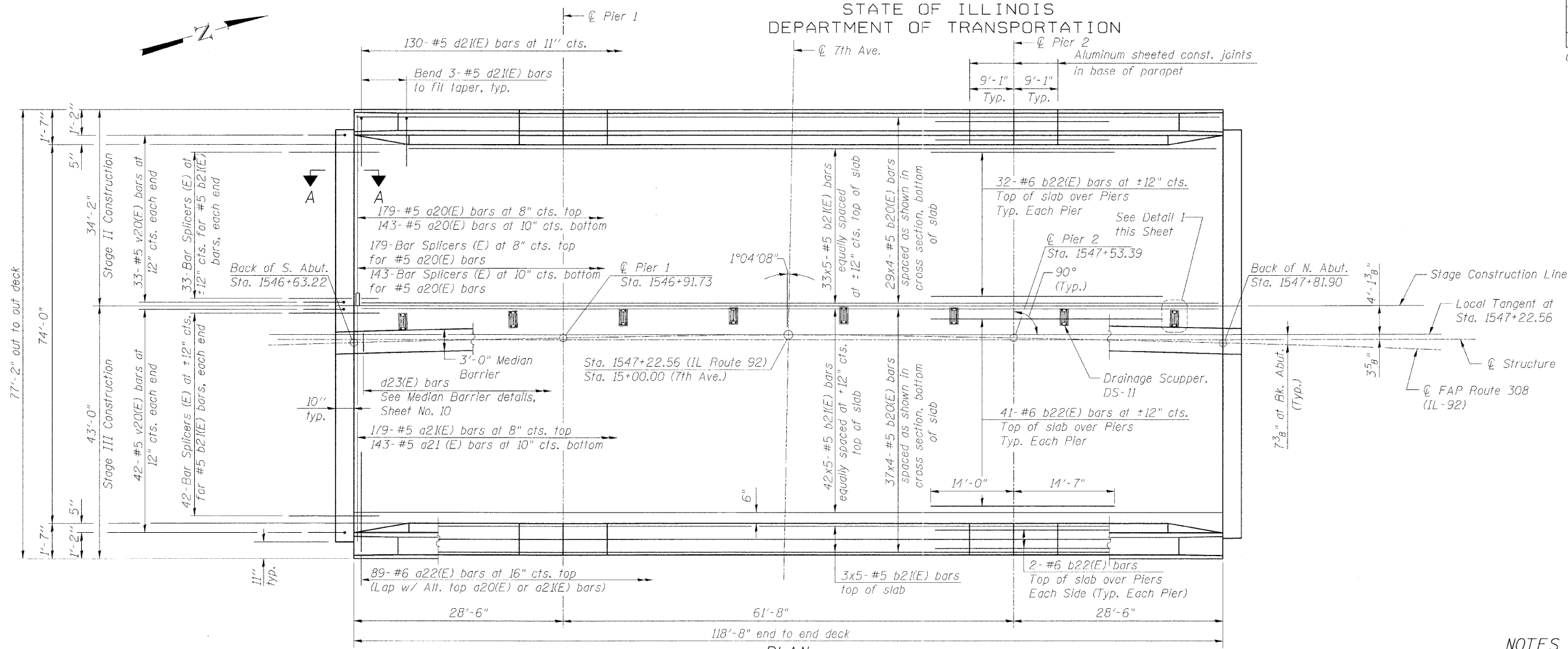
DESIGNED	CMM
CHECKED	JSD
DRAWN	EF
CHECKED	AMK

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

TOP OF APPROACH SLAB ELEVATIONS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

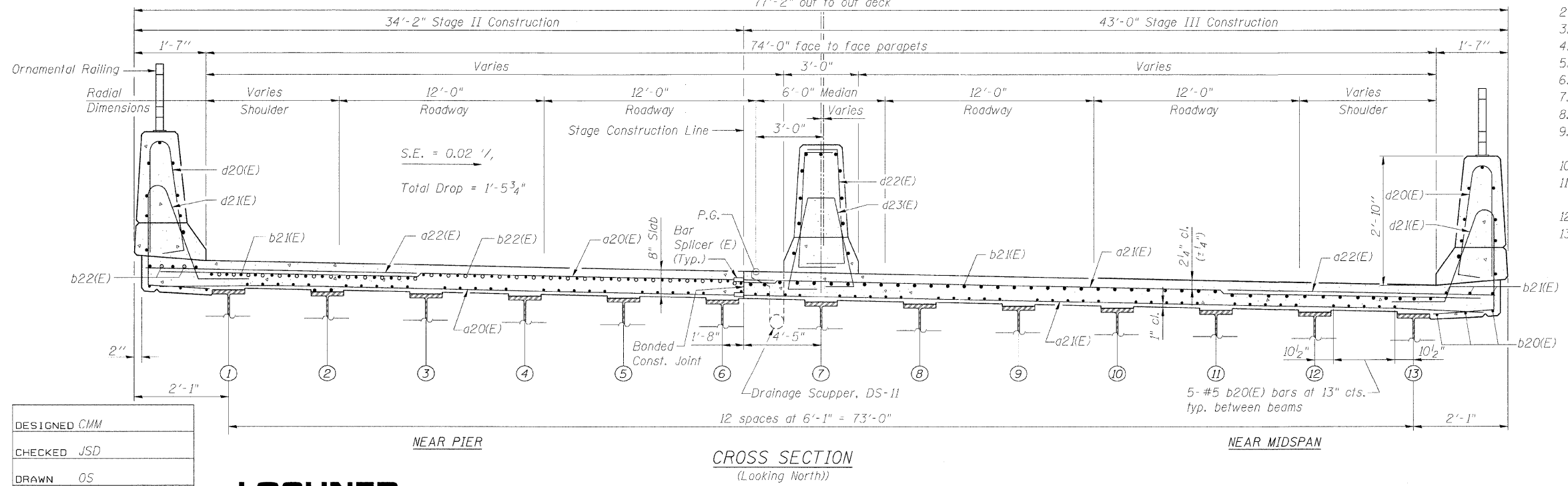
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F.A.P. 308	*	ROCK ISLAND	210	183
SHEET NO. 8 27 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
Contract #64814 * (HB, HB-1, VB, HB-2)R				



MINIMUM BAR LAP
#5 Bars = 2'-2"

NOTES

1. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
2. For scupper layout details see Sheet No. 14
3. For parapet reinforcement see Sheet No. 11
4. For median barrier reinforcement see Sheet No. 10
5. For Bar List and Bill of Material see Sheet No. 11
6. For Section A-A see Sheet No. 9
7. All edges shall have a 3/4" chamfer except as noted.
8. Cut longitudinal reinforcement to clear drainage scuppers.
9. Protective coat shall be applied to the deck and top and inside faces of parapet.
10. For spacing of partial depth parapet joints see Sheet No. 11
11. For spacing of partial depth median barrier joints see Sheet No. 10
12. For Bar Splicer details see Sheet No. 23
13. For Section B-B see Sheet No. 10



DESIGNED	CMM
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

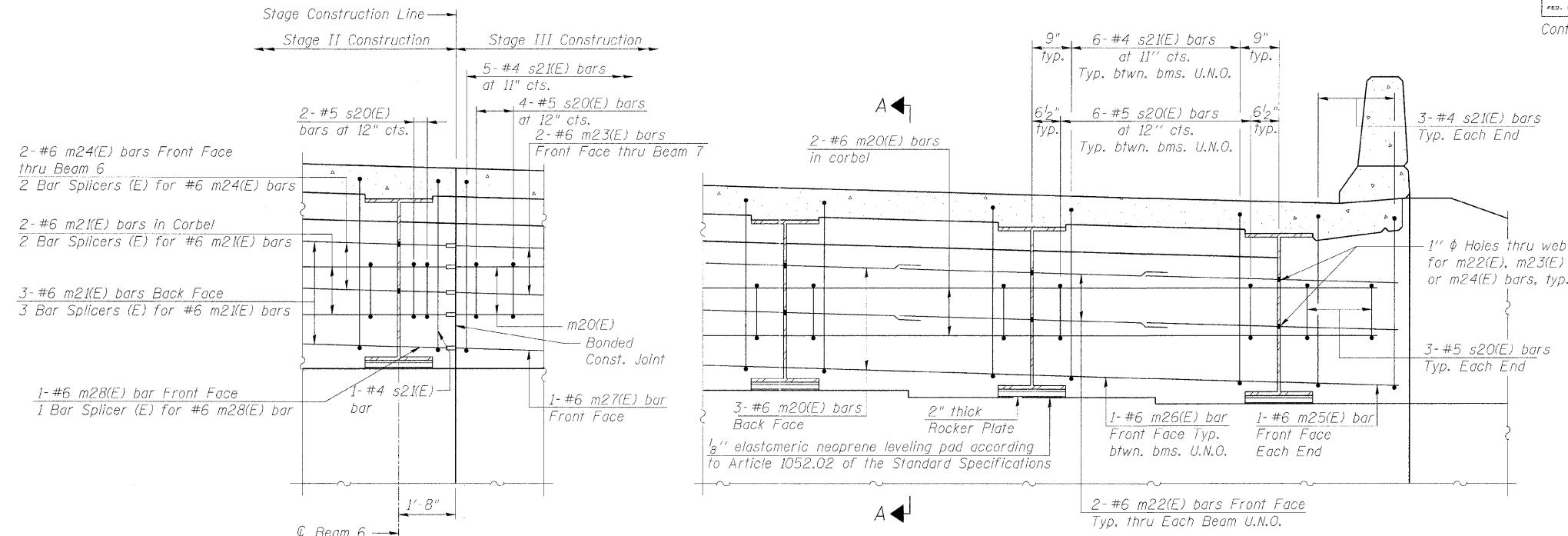
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H.W. LOCHNER, INC., CHICAGO, ILLINOIS

DECK PLAN
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

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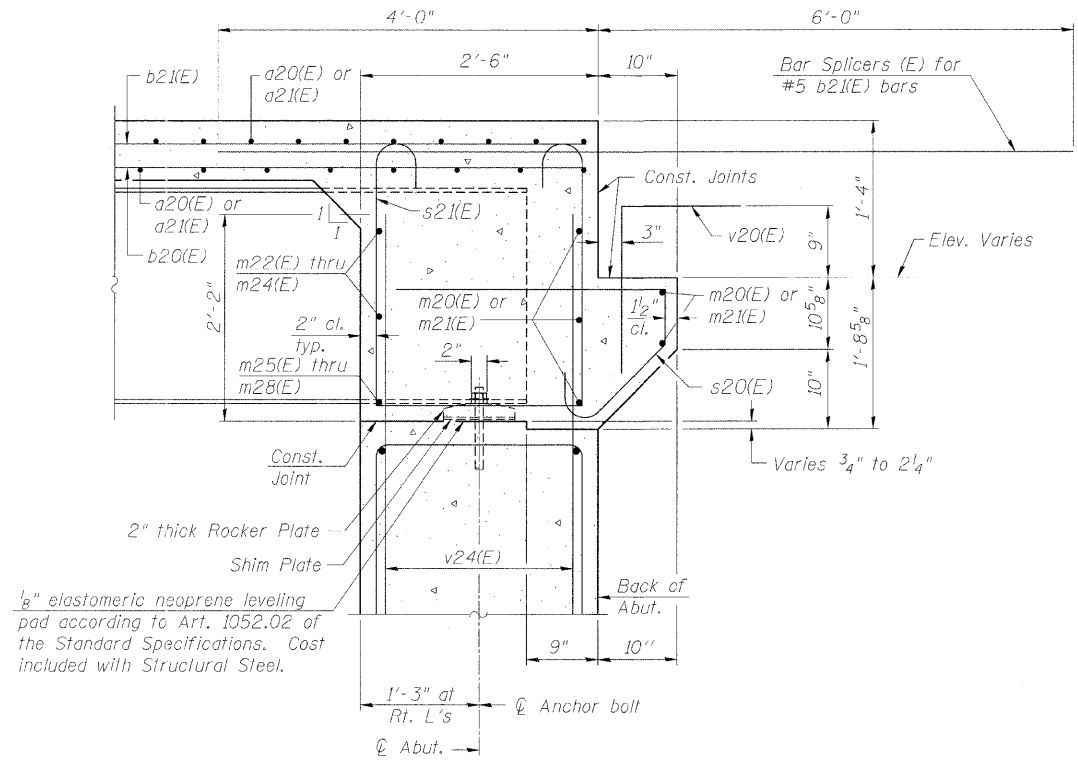
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9
F.A.P. 308	*	ROCK ISLAND	210	184	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (HB, HB-1, VB, HB-2)R		



DIAPHRAGM ELEVATION AT ABUTMENT
(Looking North)
(North Abutment Shown, South Abutment Similar, Opposite Hand)

MINIMUM BAR LAP
#6 bar = 2'-9"



SECTION A-A
Dimensions at right angles to abutment, except as shown.

- NOTES**
1. Reinforcement bars in diaphragm are billed with superstructure on Sheet No. 11
 2. Concrete in diaphragm is included with Concrete Superstructure on Sheet No. 11
 3. For details of bars s20(E) and s21(E) see Sheet No. 11
 4. The s20(E) and s21(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 5. For Bar Splicer details see Sheet No. 23
 6. For Rocker Plate details see Sheet No. 17

INTEGRAL ABUTMENT DIAPHRAGM DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	CMM
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

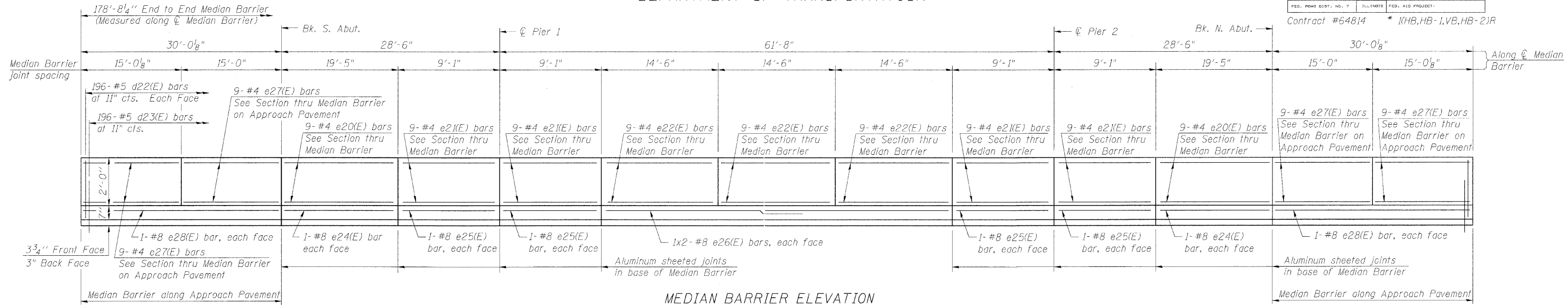
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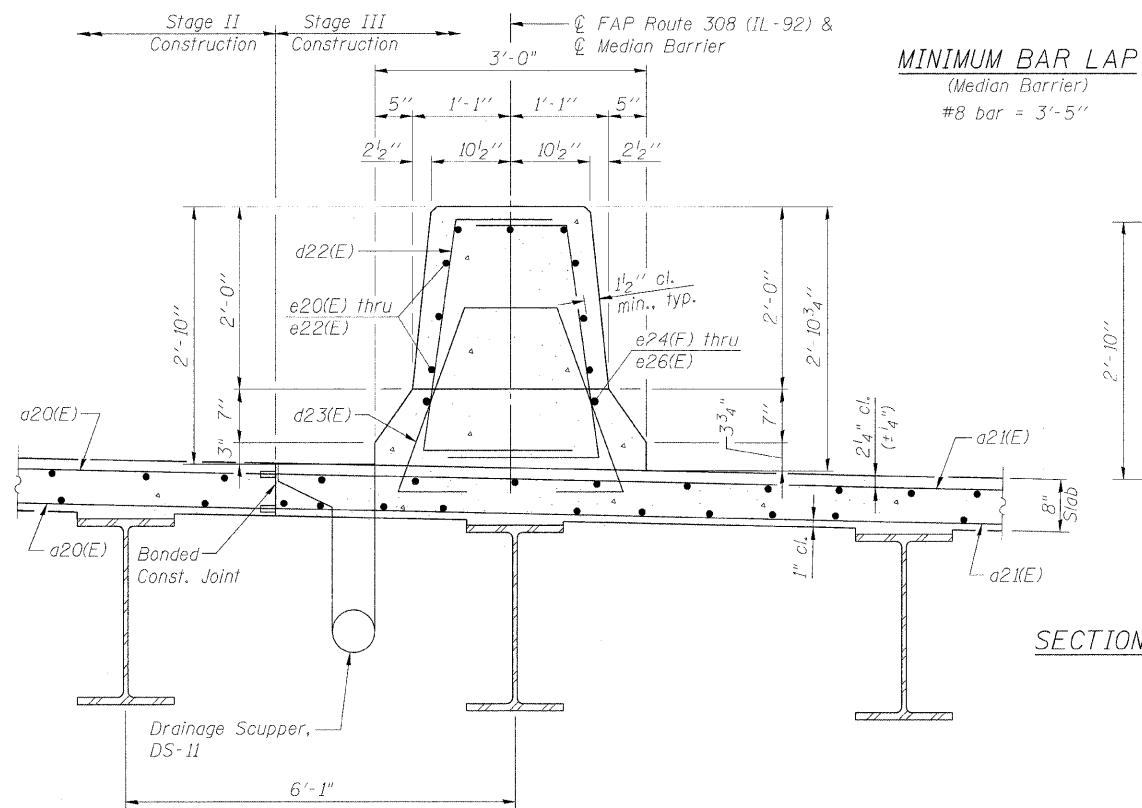
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	185
SHEET NO. 10				
27 SHEETS				

Contract #64814 * (HB, HB-1, VB, HB-2)R

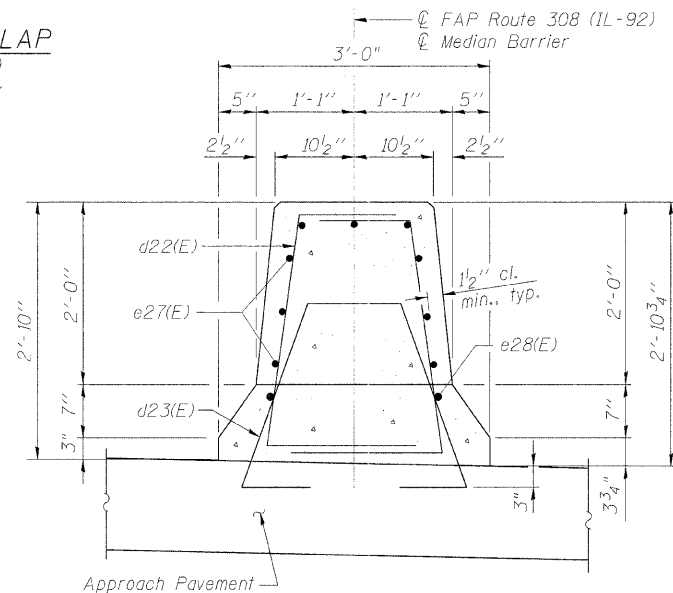


MEDIAN BARRIER ELEVATION
(Looking West)

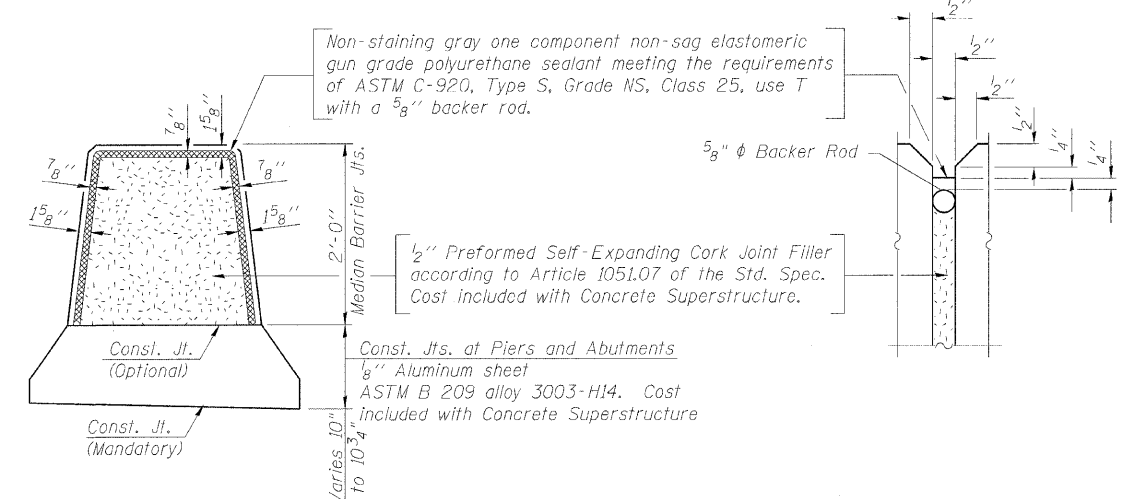


SECTION THRU MEDIAN BARRIER ON BRIDGE
(Looking North)

MINIMUM BAR LAP
(Median Barrier)
#8 bar = 3'-5"



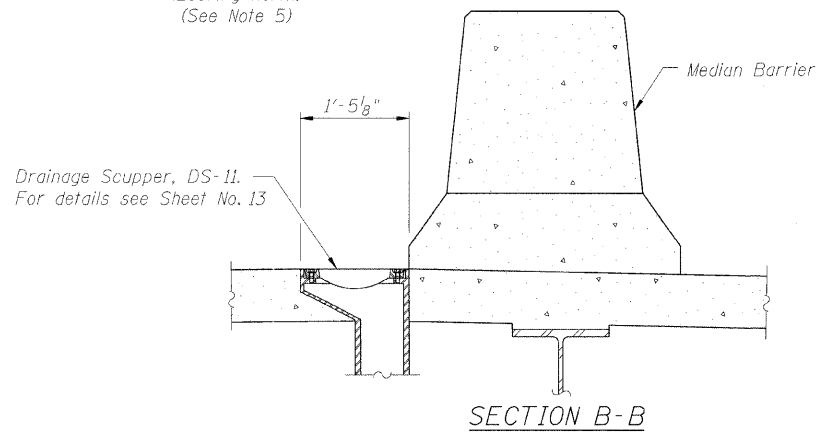
SECTION THRU MEDIAN BARRIER ON APPROACH PAVEMENT
(Looking North)
(See Note 5)



MEDIAN BARRIER JOINT DETAILS

NOTES

1. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
2. For Bar List and Bill of Material see Sheet No. 11
3. All edges shall have a 3/4 inch chamfer except as noted.
4. Cost of median concrete on approach pavement included with Concrete Superstructure.
5. For Approach Pavement reinforcement and details see IDOT Standard Drawings.
6. For location of Section B-B see Sheet No. 8



SECTION B-B

Notes:
For location of Drainage Scuppers see Sheet No. 14
Cut longitudinal reinforcement to clear drainage scuppers.
For drainage system details see Sheet No. 14

MEDIAN BARRIER DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	CMM
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

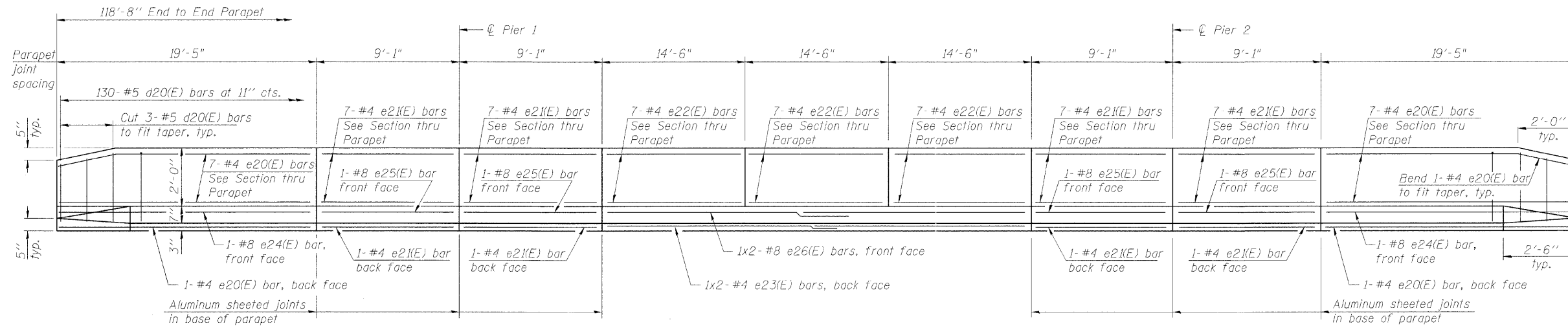
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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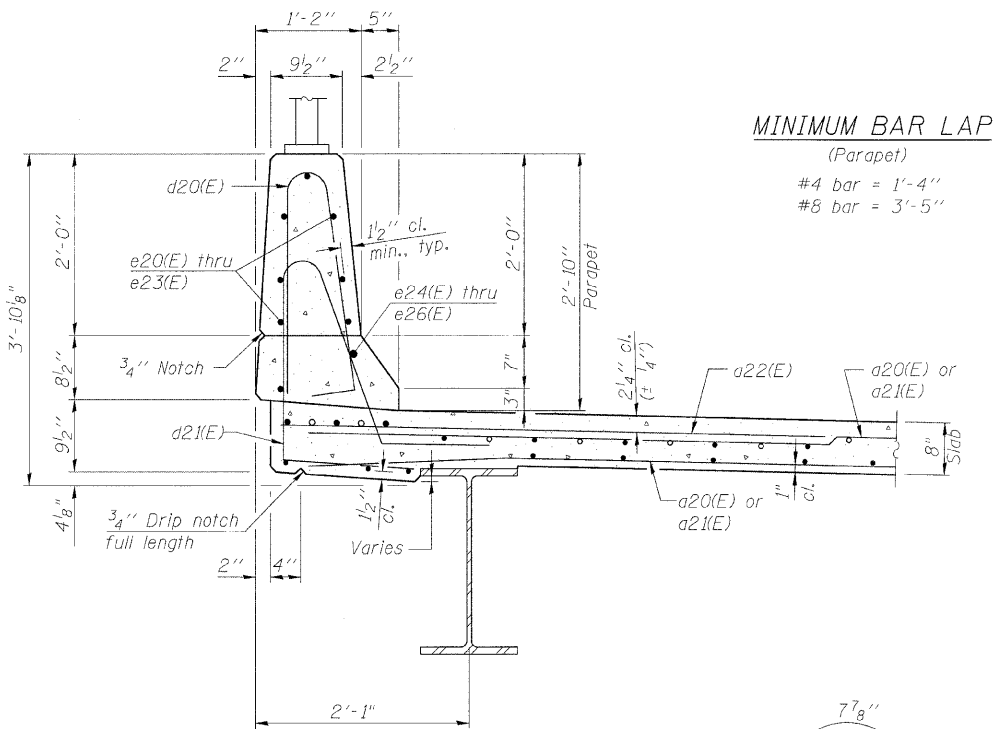
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	SHEET NO. 210	SHEET 186	SHEET NO. 11 27 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #64814 * (1HB, HB-1, VB, HB-2)R

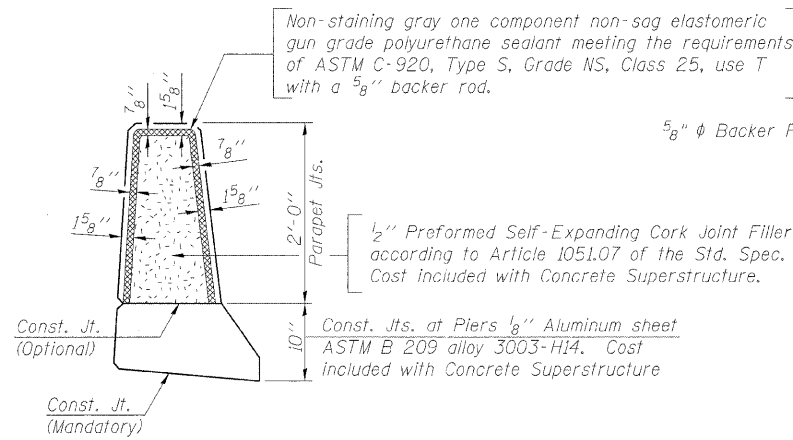


INSIDE ELEVATION OF PARAPET

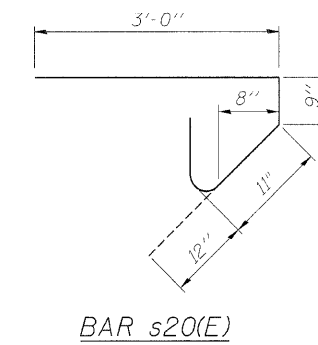


SECTION THRU PARAPET

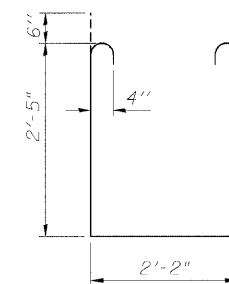
MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



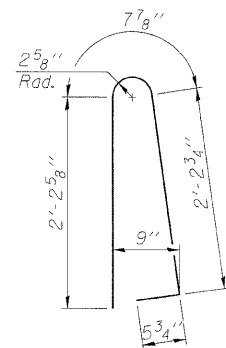
PARAPET JOINT DETAILS



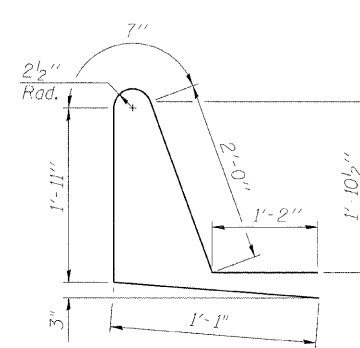
BAR s20(E)



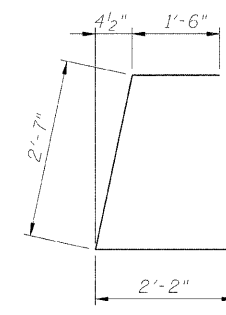
BAR s21(E)



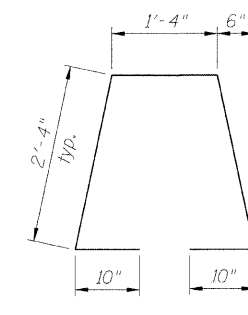
BAR d20(E)



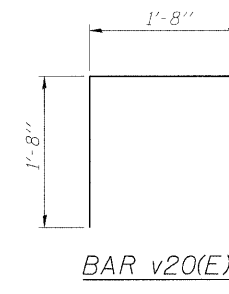
BAR d21(E)



BAR d22(E)



BAR d23(E)



BAR v20(E)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a20(E)	322	#5	33'-9"	—
a21(E)	322	#5	42'-7"	—
a22(E)	178	#6	6'-0"	—
a23(E)	64	#5	1'-6"	—
b20(E)	264	#5	31'-3"	—
b21(E)	405	#5	25'-5"	—
b22(E)	154	#6	28'-7"	—
d20(E)	260	#5	5'-7"	⌋
d21(E)	260	#5	6'-9"	⌋
d22(E)	392	#5	6'-3"	⌋
d23(E)	196	#5	7'-8"	⌋
e20(E)	50	#4	19'-1"	—
e21(E)	100	#4	8'-9"	—
e22(E)	69	#4	14'-2"	—
e23(E)	4	#4	22'-3"	—
e24(E)	8	#8	19'-1"	—
e25(E)	16	#8	8'-9"	—
e26(E)	8	#8	23'-4"	—
e27(E)	36	#4	14'-8"	—
e28(E)	4	#8	29'-8"	—
m20(E)	10	#6	42'-7"	—
m21(E)	10	#6	33'-9"	—
m22(E)	44	#6	8'-10"	—
m23(E)	4	#6	9'-9"	—
m24(E)	4	#6	5'-10"	—
m25(E)	4	#6	1'-9"	—
m26(E)	22	#6	5'-9"	—
m27(E)	2	#6	4'-1"	—
m28(E)	2	#6	1'-3"	—
s20(E)	156	#5	5'-8"	⌋
s21(E)	156	#4	8'-0"	⌋
v20(E)	150	#5	3'-4"	⌋
Reinforcement Bars, Epoxy Coated	Pound			68,960
Concrete Superstructure	Cu. Yd.			345.3

NOTES

1. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per line.
2. All edges shall have a 3/4" chamfer except as noted.

PARAPET DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

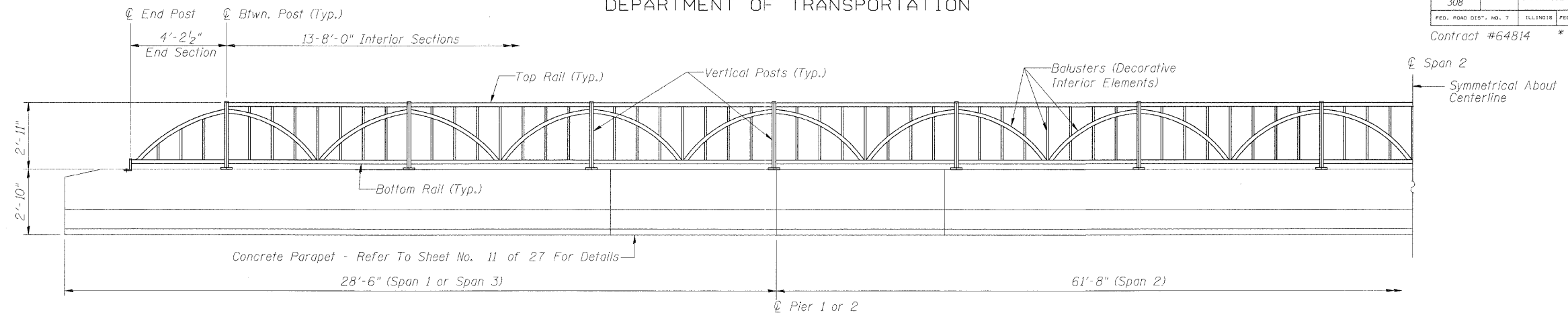
DESIGNED	CMM
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

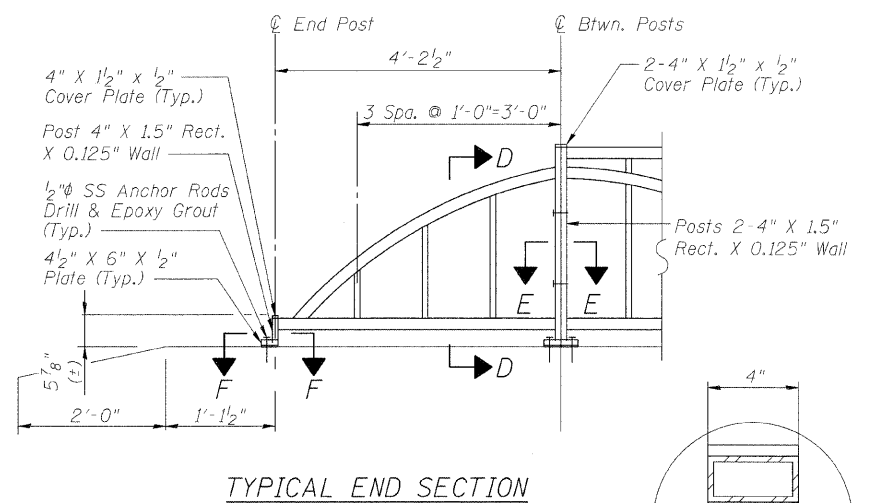
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

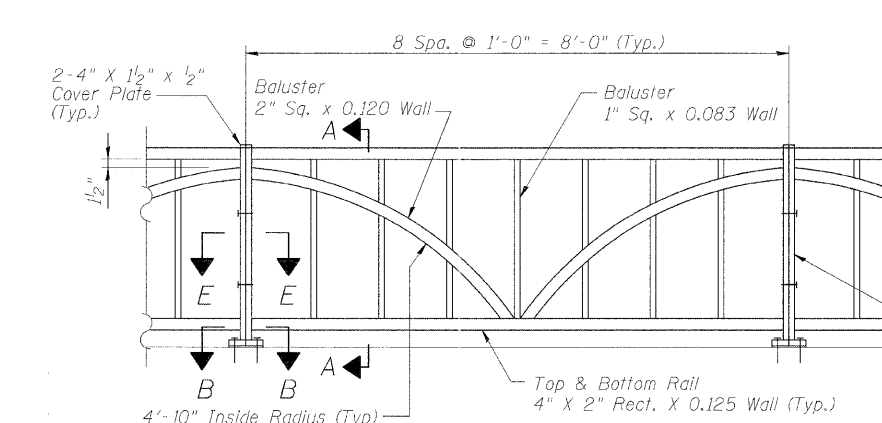
ROUTE NO. F.A.P. 308	SECTION #	COUNTY ROCK ISLAND	LENG. 210	SHEET 187	SHEET NO. 12 27 SHEETS
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					
Contract #64814 * (1HB, HB-1, VB, HB-2)R					



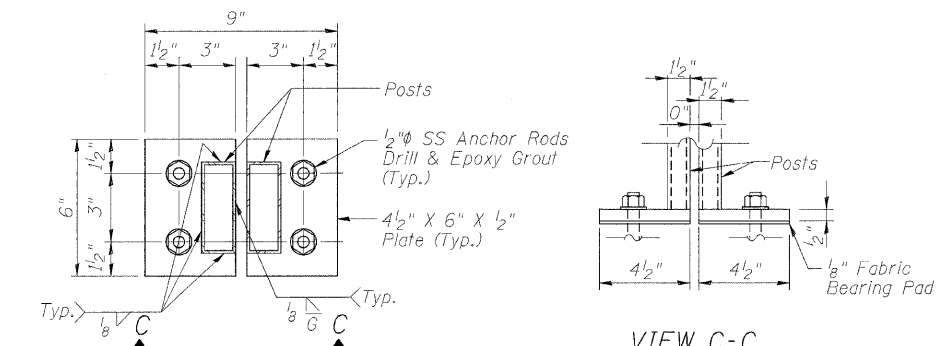
AESTHETIC BRIDGE RAIL ELEVATION
(Exterior Elevation)



TYPICAL END SECTION



TYPICAL INTERIOR SECTION



SECTION B-B

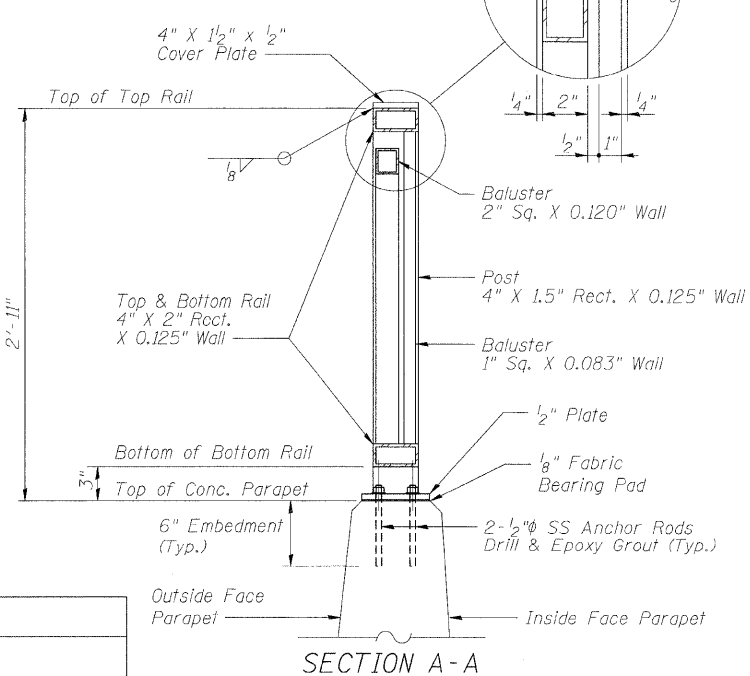
VIEW C-C

BILL OF MATERIAL

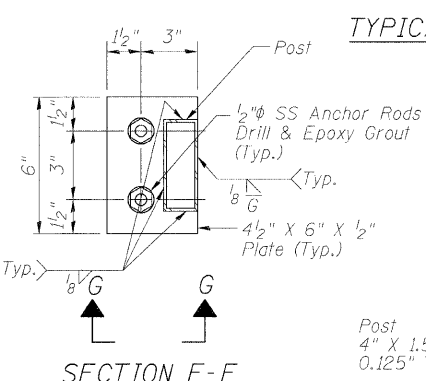
Item	Unit	Quantity
Ornamental Railing	Foot	225

NOTES:

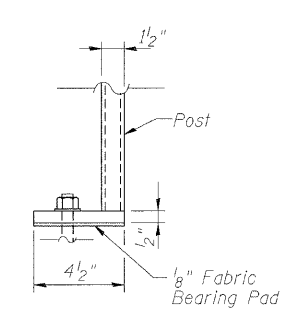
- Ornamental Rail, Ornamental-Aluminum alloy rail shall conform to the requirements of Alloy 6061-T6 with a minimum yield of 35,000 psi, a minimum tensile strength of 38,000 psi, and an elongation of 10 percent in 2 in.
- Stainless Steel Carriage Bolts, Stainless steel nuts, washers, lock washers, carriage bolts shall conform to the requirements of Article 1006.29(d) of the Standard Specifications.
- Stainless Steel Bars, Stainless steel bars shall conform to the requirements of ASTM A 276, Type No. 302 or 304, Condition B. Threads, when required, shall be Class 2B.
- Three stainless steel shims per post (1 at 1/8 in. and 2 at 1/16 in.) shall be provided for 25 percent of the posts. Shims shall be similar to base plate in size and holes. Shims shall be installed as req'd. between base plate and fabric bearing pad.
- The pay item Ornamental Railing shall include all costs associated with the fabrication and erection of aluminum rail shown. The cost of anchor rods, plates, bolts, epoxy grouting, and fabric bearing pads shall be included with Ornamental Railing.



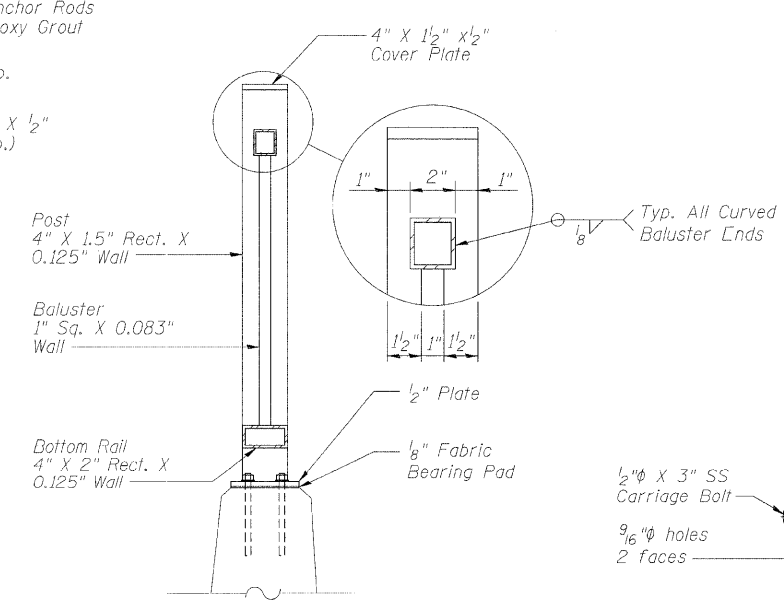
SECTION A-A



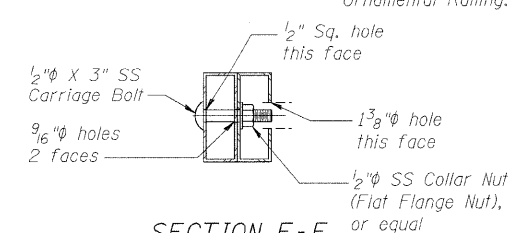
SECTION F-F



VIEW G-G



SECTION D-D



SECTION E-E
ALIGNMENT CONNECTION DETAIL
(Typ. 2 places per paired post)

DESIGNED	CMM
CHECKED	AMK
DRAWN	BJN
CHECKED	RWC

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H.W. LOCHNER, INC., CHICAGO, ILLINOIS

ORNAMENTAL RAILING DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

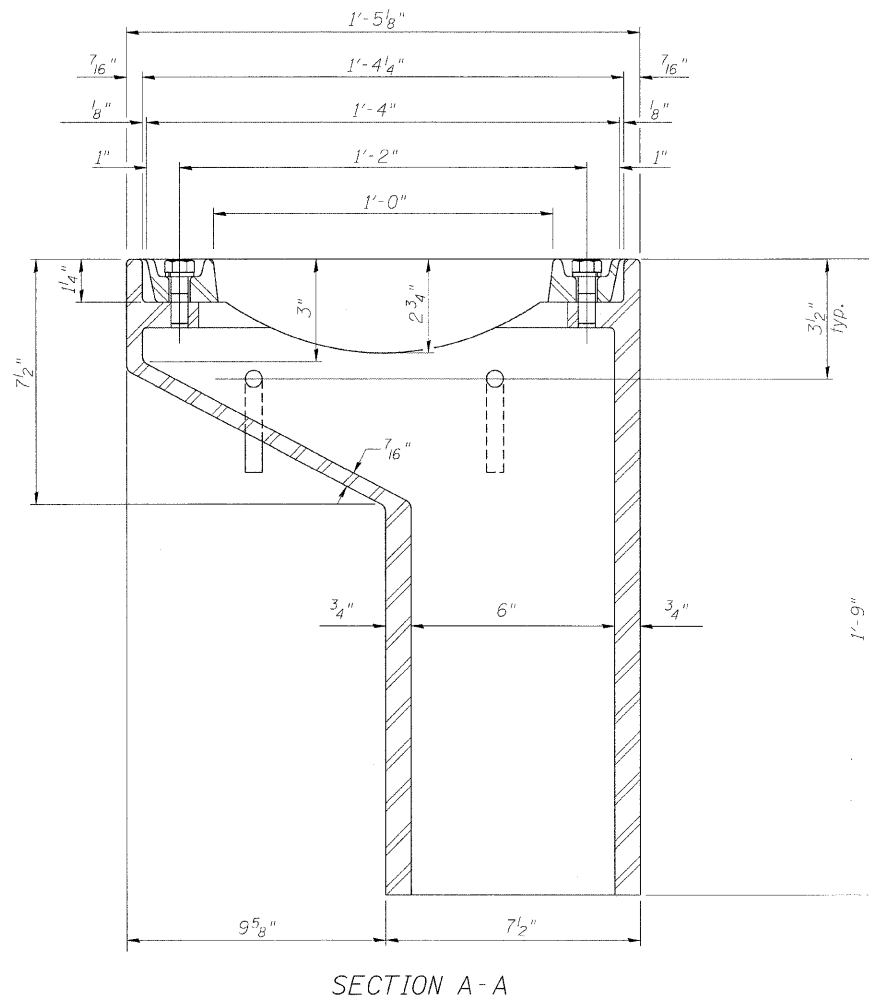
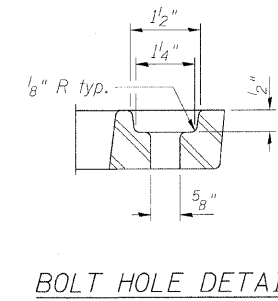
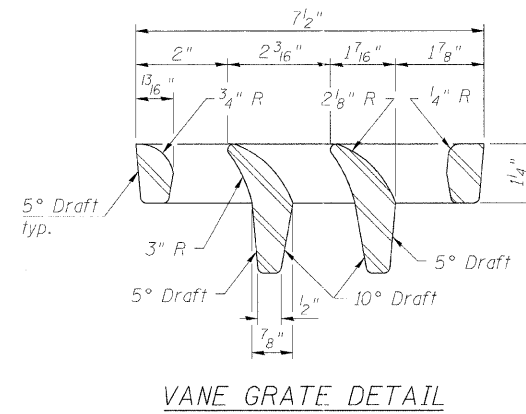
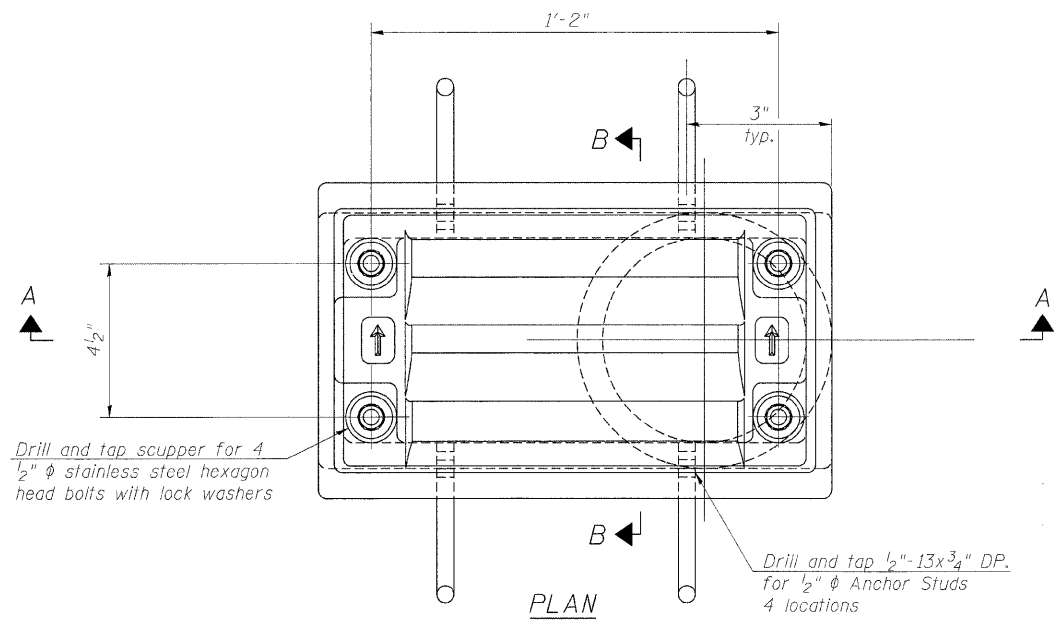
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

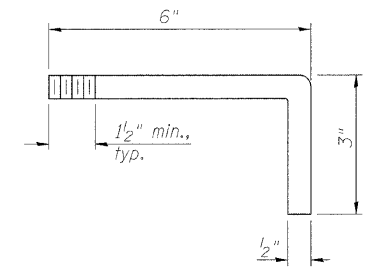
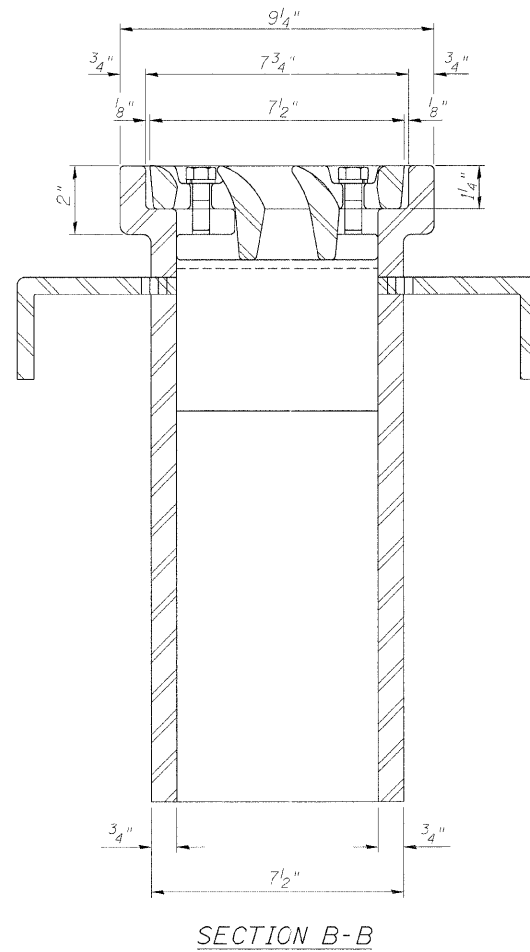
ROUTE NO. F.A.P. 308	SHEET NO. *	COUNTY ROCK ISLAND	TOTAL SHEETS 210	SHEET NO. 188	SHEET NO. 13 27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * (1HB, HB-1, VB, HB-2)R

Notes:
All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper grate frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames shall be galvanized according to AASHTO M111.
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
Cost of the Grate, Frame, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-II.
Work this sheet with Sheet No. 14



See Sheet No. 10 for scupper location relative to the Median Barrier



BILL OF MATERIAL

Item	Unit	Total
Drainage Scupper, DS-II	Each	8

DRAINAGE SCUPPER, DS-II
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED
CHECKED
DRAWN
CHECKED

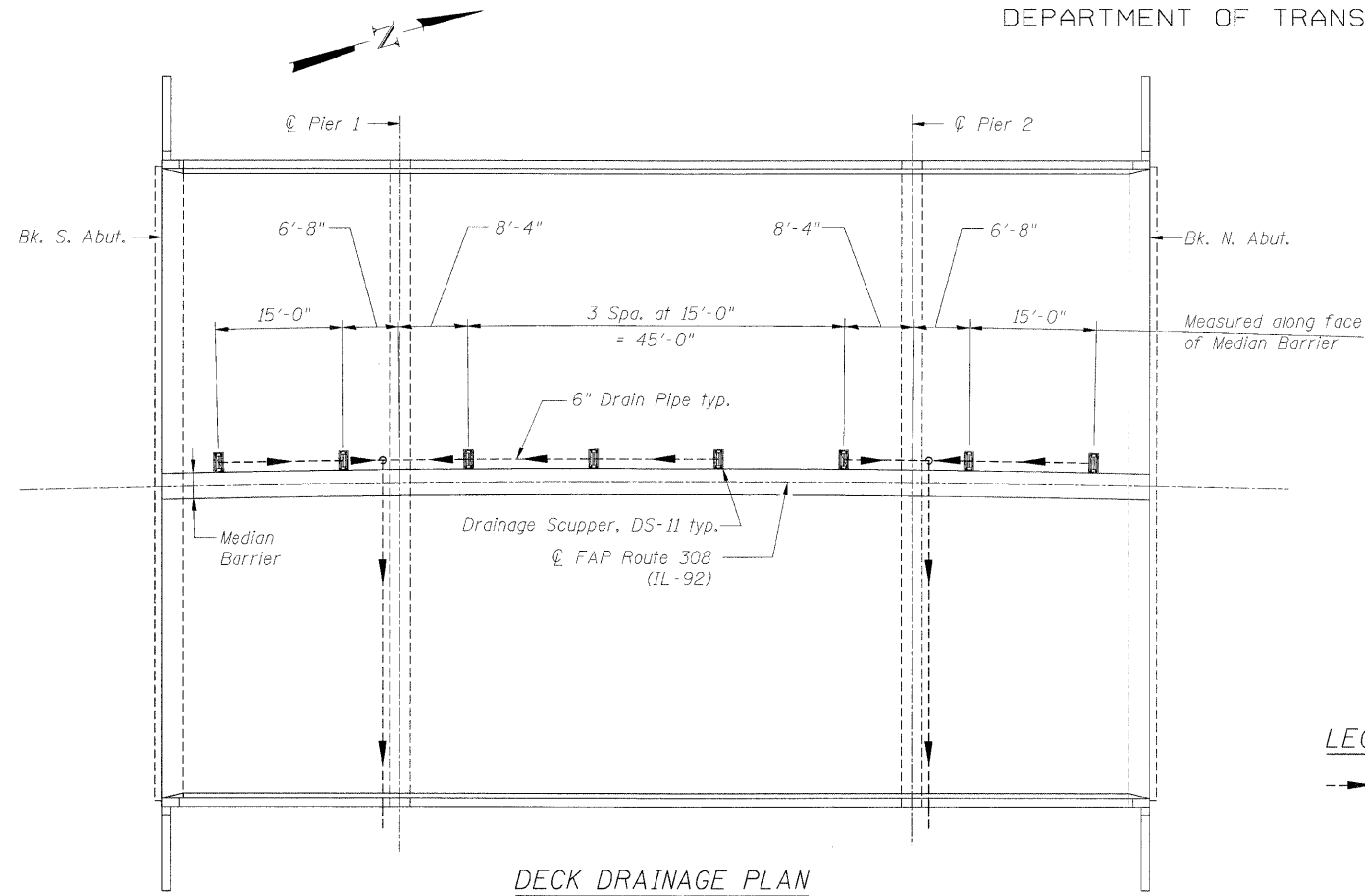
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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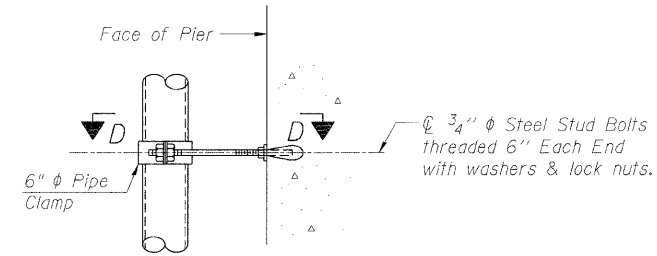
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
F.A.P. 308	*	ROCK ISLAND	210	189	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

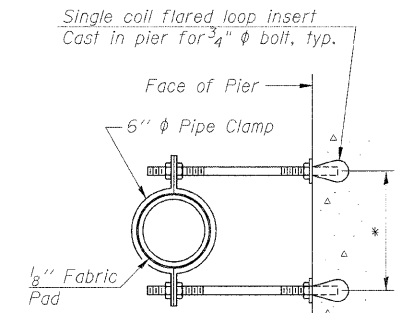
Contract #64814 * (HB,HB-1,VB,HB-2)R



DECK DRAINAGE PLAN



PIPE BRACKET DETAIL

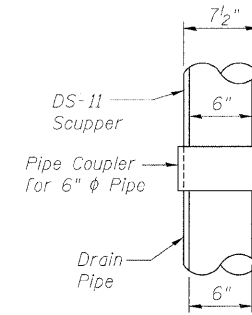


SECTION D-D

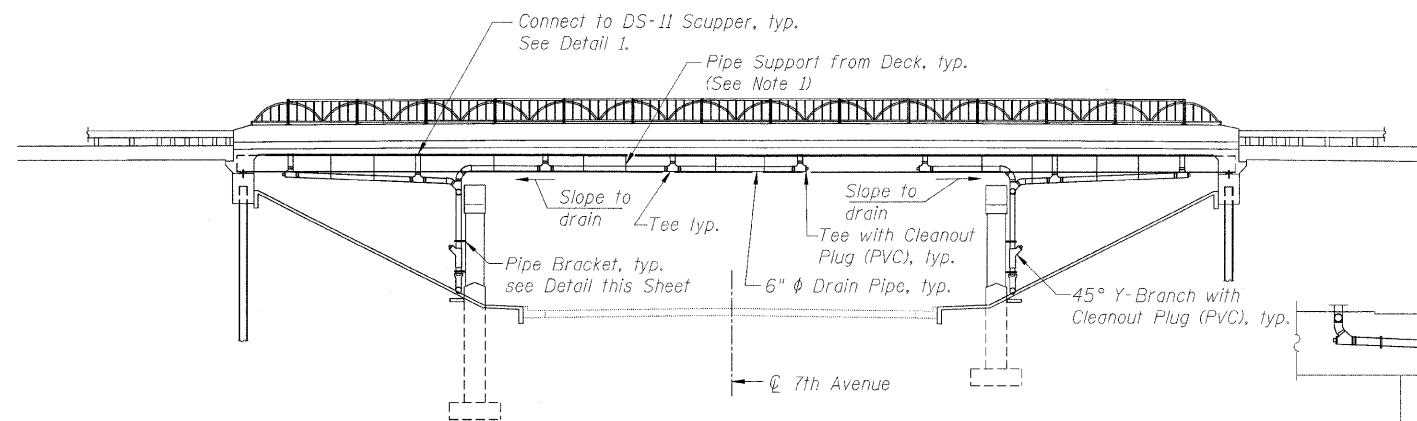
* Dimension as required by Pipe Clamp

LEGEND

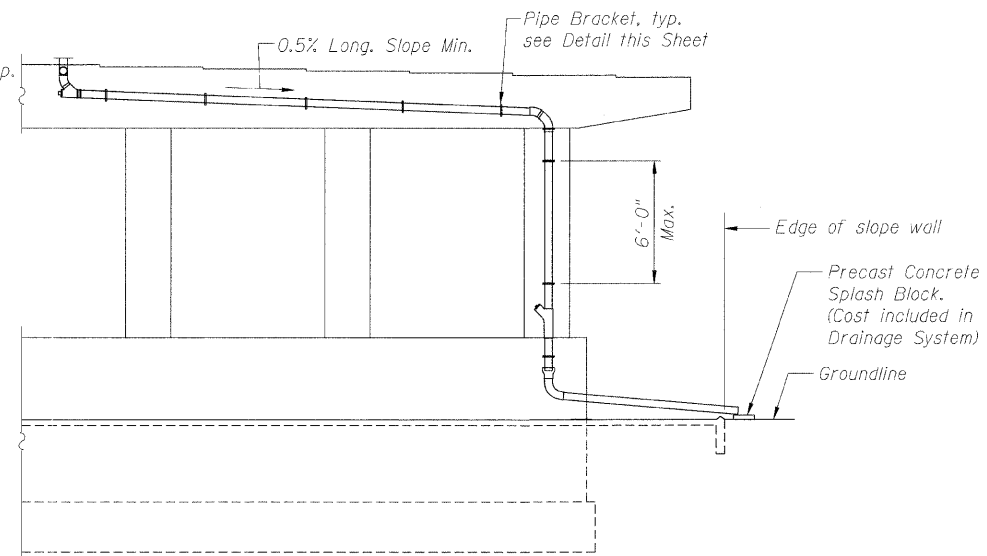
--- Indicates Direction of Flow



DETAIL 1



DECK DRAINAGE ELEVATION



ELEVATION AT PIER

Pier 1 shown. Pier 2 similar, opposite hand

BILL OF MATERIAL

Item	Unit	Total
Drainage System	L. Sum	0.3

NOTES

1. Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendation, not to exceed 6' cts. Cost included with "Drainage System."
2. No part of the Drainage System shall extend below the bottom flange of Beam 6 at any point in the center span.

CLOSED DRAINAGE SYSTEM
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	AMK
CHECKED	CMM
DRAWN	BJN
CHECKED	RWC

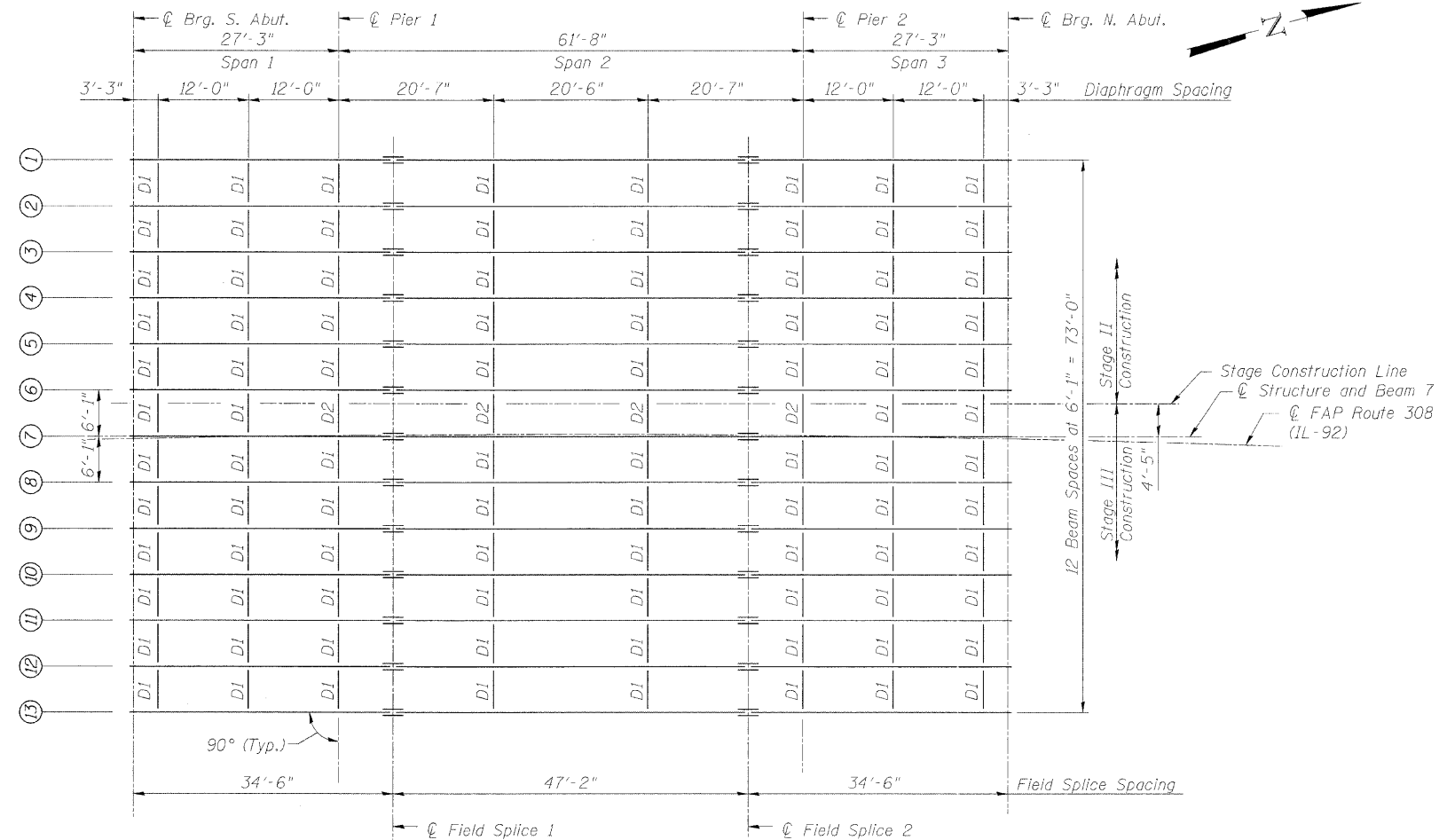
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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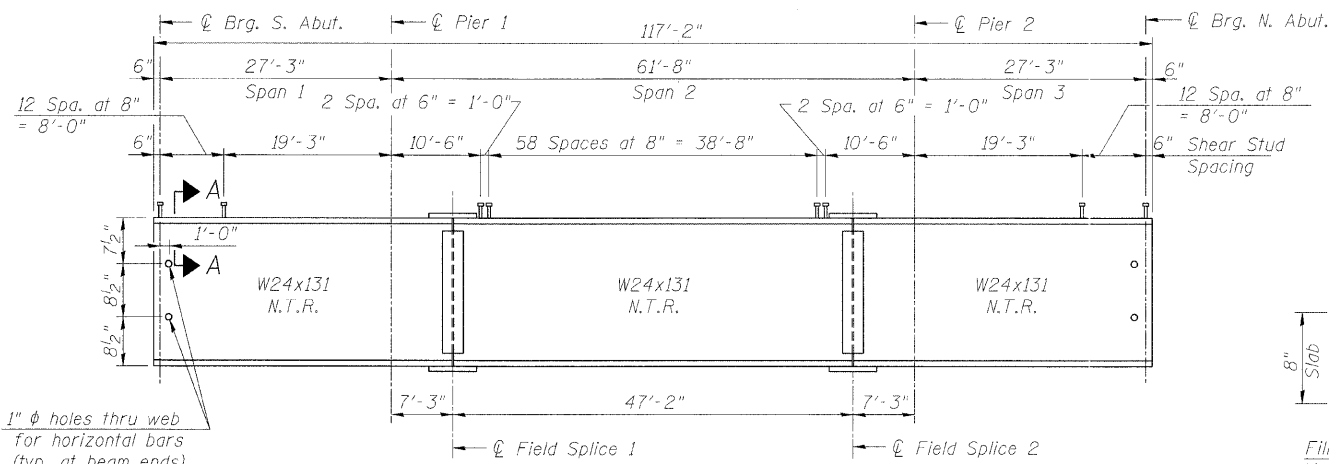
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	190
SHEET NO. 15 27 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

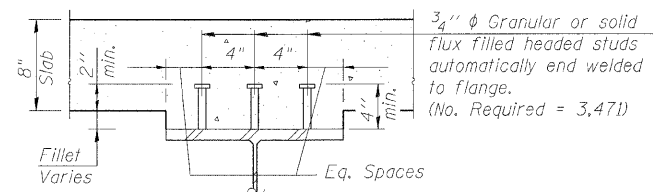
Contract #64814 * (HB,HB-1,VB,HB-2)R



FRAMING PLAN



BEAM ELEVATION



SECTION A-A

NOTES

1. For Top of Beam Elevations and Moment and Reaction Table see Sheet No. 17
2. For splice and diaphragm details see Sheet No. 16
3. For bearing details see Sheet No. 17
4. All steel for the steel beams, including splice plates, shall conform to the requirements of AASHTO M270 Grade 50. All diaphragms, including connection angles, shall conform to the requirements of AASHTO M270 Grade 36.
5. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

FRAMING PLAN
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	JSD
CHECKED	RH
DRAWN	OS
CHECKED	RH

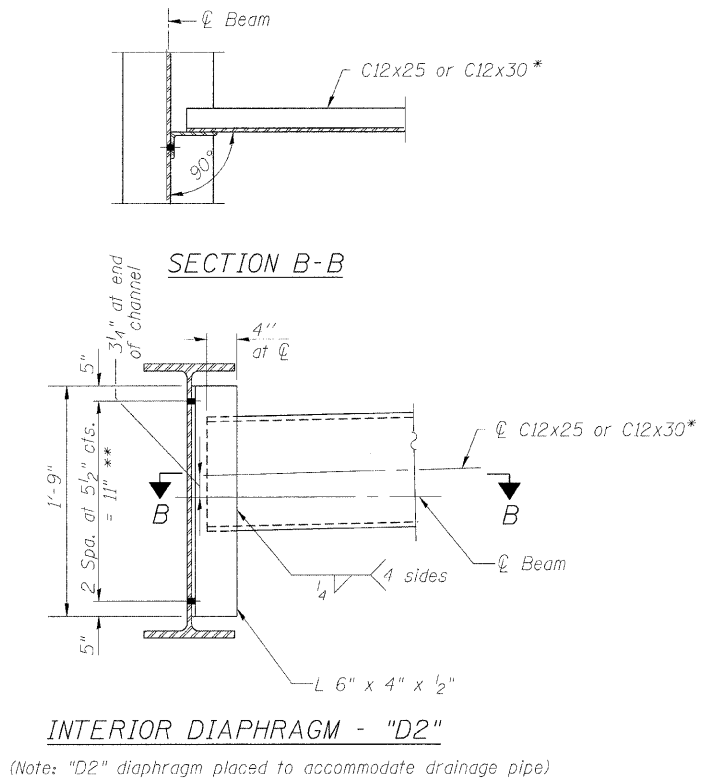
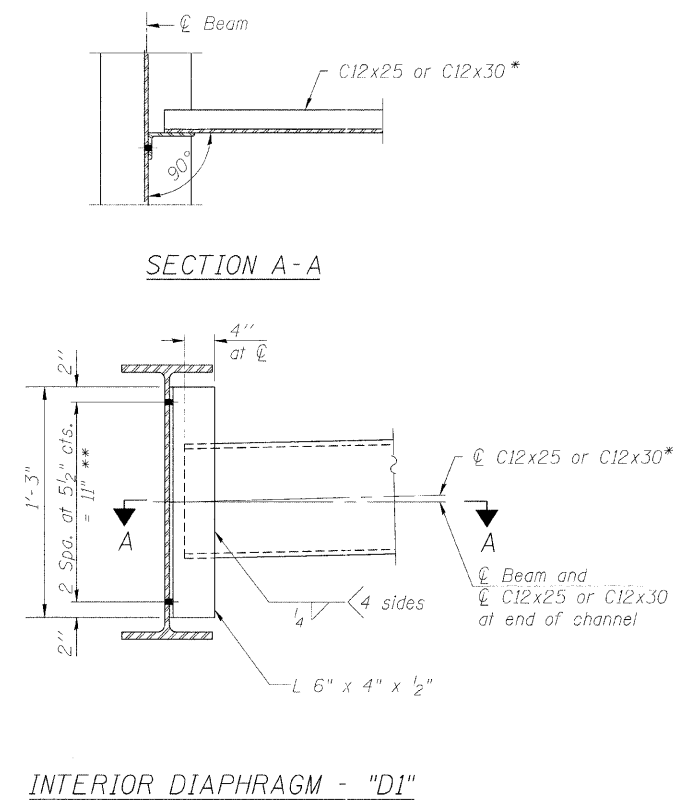
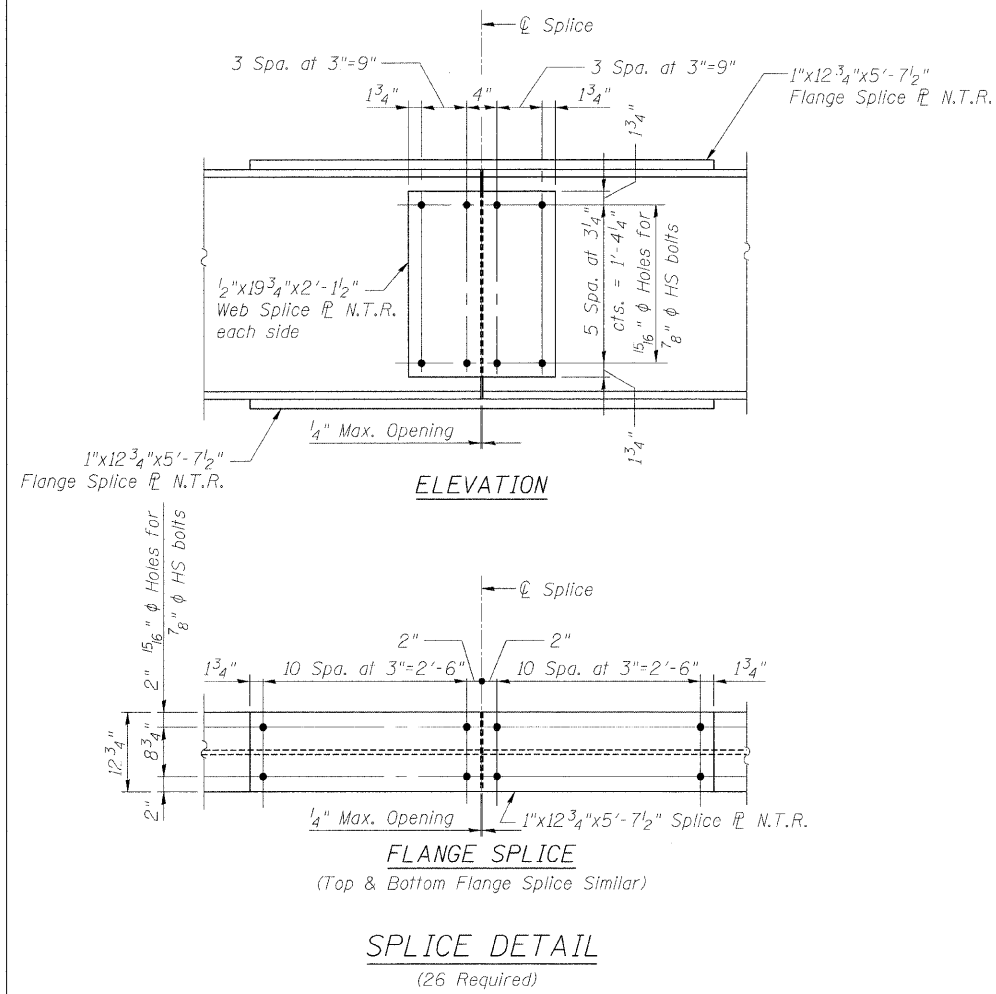
LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16
F.A.P. 308	*	ROCK ISLAND	210	191	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64814 * (HB,HB-1,VB,HB-2)R



Note:
Two hardened washers required for each set of oversized holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

** 3/4" φ HS bolts, 15/16" φ holes

(Note: "D2" diaphragm placed to accommodate drainage pipe)

NOTES

1. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
2. For bearing details see Sheet No. 17
3. All steel for the steel beams, including splice plates, shall conform to the requirements of AASHTO M270 Grade 50. All diaphragms, including connection angles, shall conform to the requirements of AASHTO M270 Grade 36.
4. For framing plan and beam elevation see Sheet No. 15
5. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

STEEL DETAILS 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	JSD
CHECKED	AMK
DRAWN	OS
CHECKED	AMK

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO. 17 27 SHEETS
F.A.P. 308	*	ROCK ISLAND	210	192	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (HB, HB-1, VB, HB-2)R		

	0.3 Sp. 1 or 0.7 Sp. 3	Pier 1 or Pier 2	0.5 Span 2
I_s	(in ⁴)	4020	4020
$I_c(n)$	(in ⁴)	-	10008
$I_c(3n)$	(in ⁴)	-	7369
S_s	(in ³)	329	329
$S_c(n)$	(in ³)	-	458
$S_c(3n)$	(in ³)	-	415
Z	(in ³)	370	-
\bar{D}	(k/')	1.33	0.92
$M\bar{D}$	(k)	4	195
$s\bar{D}$	(k/')	-	0.41
$M_s\bar{D}$	(k)	-	99
$M\bar{L}$	(k)	112	300
M_{imp}	(k)	34	81
$\bar{D}_s [M\bar{L} + M_{imp}]$	(k)	24.3	635
M_a	(k)	321	1208
M_u	(k)	1542	2116
$f_s \bar{D} (nc)$	(ksi)	0.1	7.1
$f_s \bar{D} (c)$	(ksi)	-	2.9
$f_s (Overload)$	(ksi)	9.0	26.6
$f_s (Total)$	(ksi)	-	-
VR	(k)	47.0	40.2

	S. Abut.	Pier 1	Pier 2	N. Abut.
$R\bar{D}$	(k)	5.9	71.9	5.9
$R\bar{L}$	(k)	29.0	42.5	29.0
Imp.	(k)	8.7	9.9	8.7
R_{Total}	(k)	43.6	124.3	43.6

- * Compact section
- ** Braced non-compact and partially braced section
- *** Values listed are for critical case interior beam

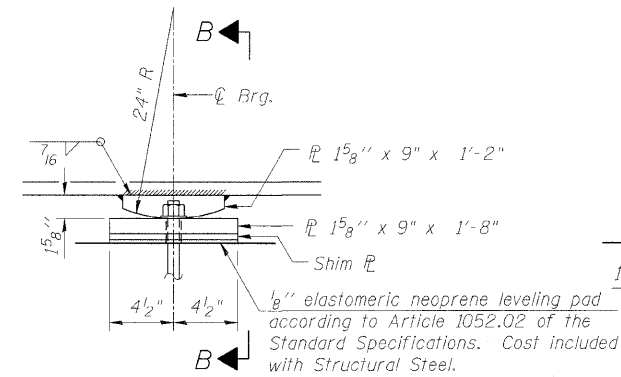
- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z: Plastic Section Modulus of the steel section in non-composite areas (in³).
- \bar{D} : Un-factored non-composite dead load (kips/ft.).
- $M\bar{D}$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s\bar{D}$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s\bar{D}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M\bar{L}$: Un-factored live load moment (kip-ft.).
- M_{imp} : Un-factored moment due to impact (kip-ft.).
- M_a : Factored design moment (kip-ft.).
 $1.3 [M\bar{D} + M_s\bar{D} + \frac{5}{8} (M\bar{L} + M_{imp})]$
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- $f_s (Overload)$: Sum of stresses as computed from the moments below (ksi).
 $M\bar{D} + M_s\bar{D} + \frac{5}{8} (M\bar{L} + M_{imp})$
- $f_s (Total)$: Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M\bar{D} + M_s\bar{D} + \frac{5}{8} (M\bar{L} + M_{imp})]$
- VR: Maximum \bar{L} + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

TOP OF BEAM ELEVATIONS
(For Fabrication only)

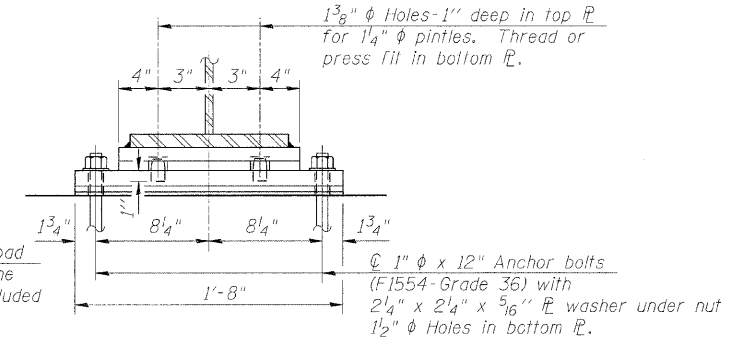
BEAM	☉ S. Abut.	☉ Pier 1	Splice 1	Splice 2	☉ Pier 2	☉ N. Abut.
1	571.73	571.82	571.84	571.87	571.86	571.81
2	571.61	571.70	571.72	571.75	571.74	571.69
3	571.49	571.57	571.60	571.63	571.62	571.57
4	571.37	571.45	571.47	571.51	571.49	571.45
5	571.24	571.33	571.35	571.38	571.37	571.32
6	571.12	571.21	571.23	571.26	571.25	571.20
7	571.00	571.09	571.11	571.14	571.13	571.08
8	570.88	570.96	570.99	571.02	571.01	570.96
9	570.75	570.84	570.87	570.90	570.88	570.83
10	570.63	570.72	570.74	570.78	570.76	570.71
11	570.51	570.60	570.62	570.65	570.64	570.59
12	570.39	570.48	570.50	570.53	570.52	570.47
13	570.26	570.35	570.38	570.41	570.40	570.34

DESIGNED	JSD
CHECKED	AMK
DRAWN	OS
CHECKED	AMK

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

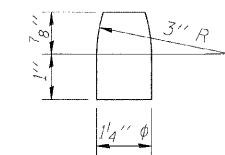


ELEVATION AT PIERS



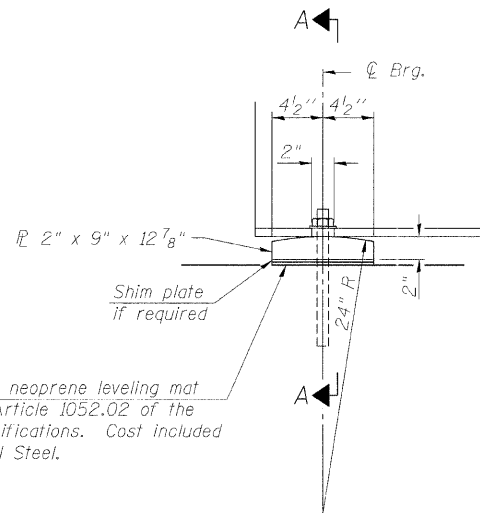
SECTION B-B

FIXED BEARING
(26 Required)

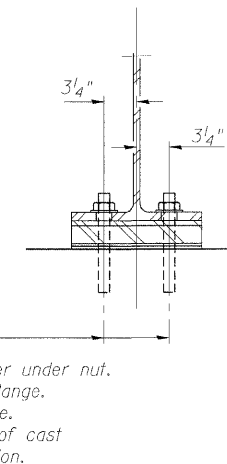


PINTLE

- Notes:
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 - Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 - Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



INTEGRAL ABUTMENT BEARINGS
(26 Required)



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	104

NOTES

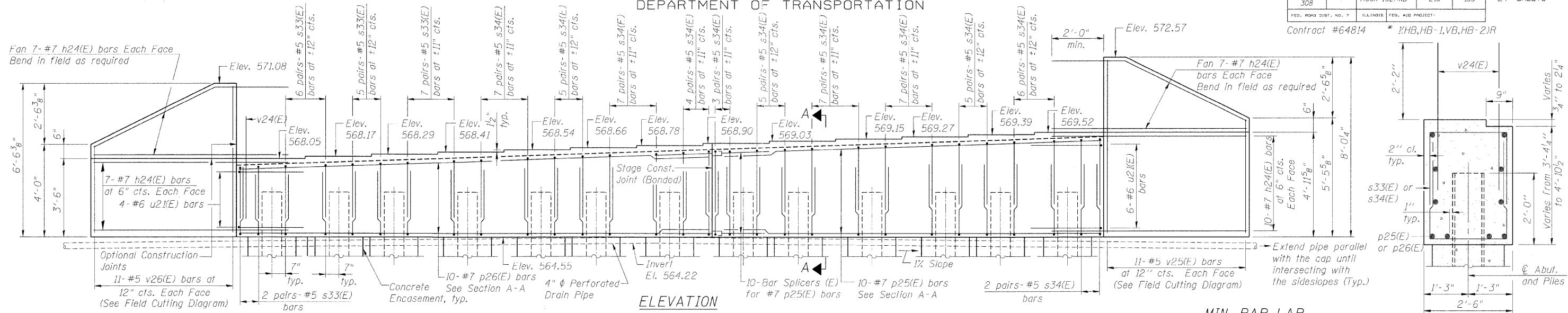
1. For framing plan and beam elevation see Sheet No. 15
2. All steel for the bearings, except for anchor bolts or as noted otherwise, shall conform to the requirements of AASHTO M270 Grade 36.
3. Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

STEEL DETAILS 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

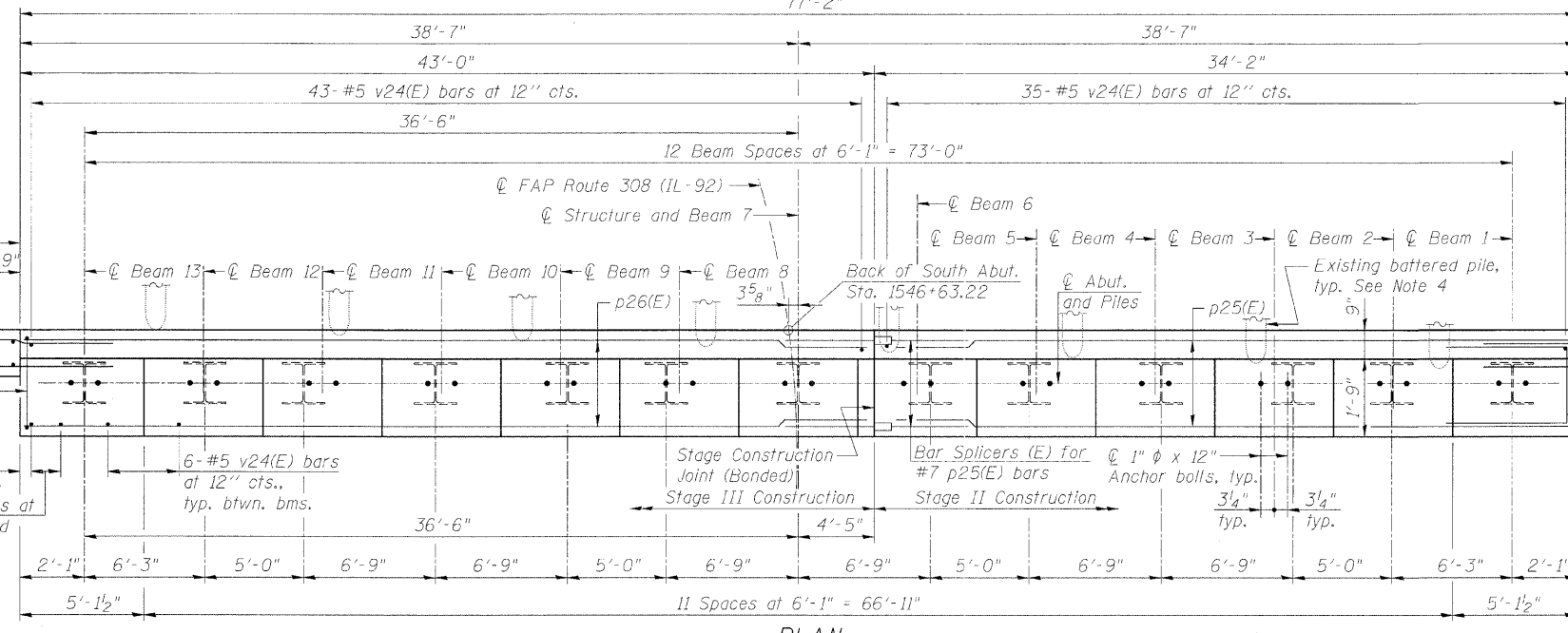
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	193
SHEET NO. 18 27 SHEETS				

Contract #64814 * (H.B., H.B.-1, V.B., H.B.-2) R



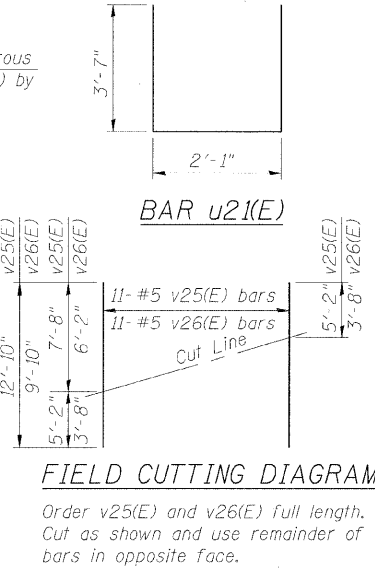
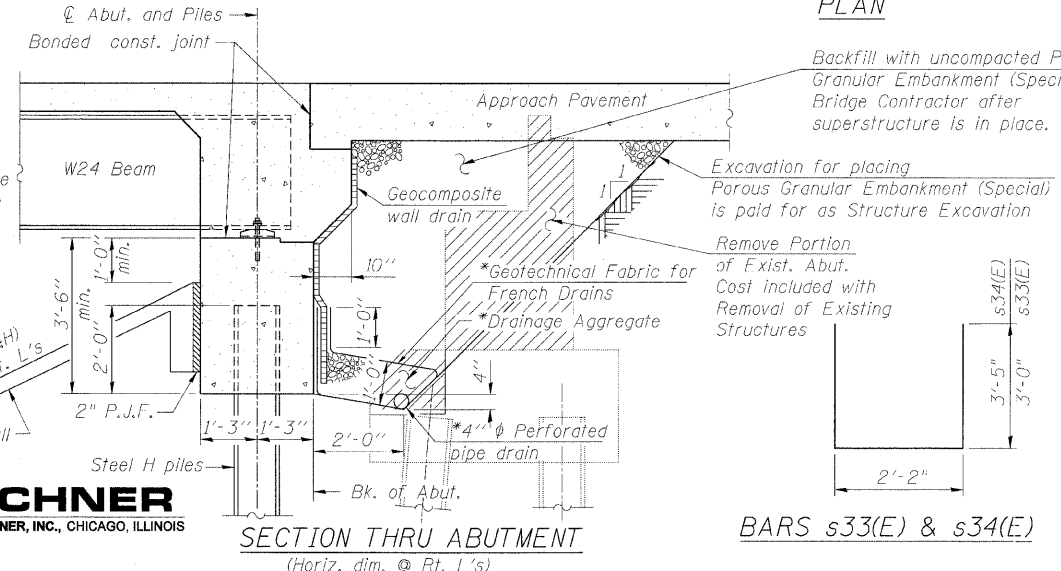
PILE DATA
Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 25 ft
No. Production Piles: 13
No. Test Piles: 0



* Included in the cost of Pipe Underdrains for Structures, 4"
Note:
All Drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS



- NOTES**
- For details of Bar Splicers, see Sheet No. 23
 - For details of piles and Concrete Encasement, see Sheet No. 22
 - For abutment diaphragm details, see Sheet No. 9
 - The Contractor shall verify the locations of existing piles before driving new piles.
 - Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
 - Pour steps monolithically with cap.
 - For bearing details, see Sheet No. 17
 - Piles shall be driven through 1'-5" diameter precored holes extending to elevation 550.00 according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

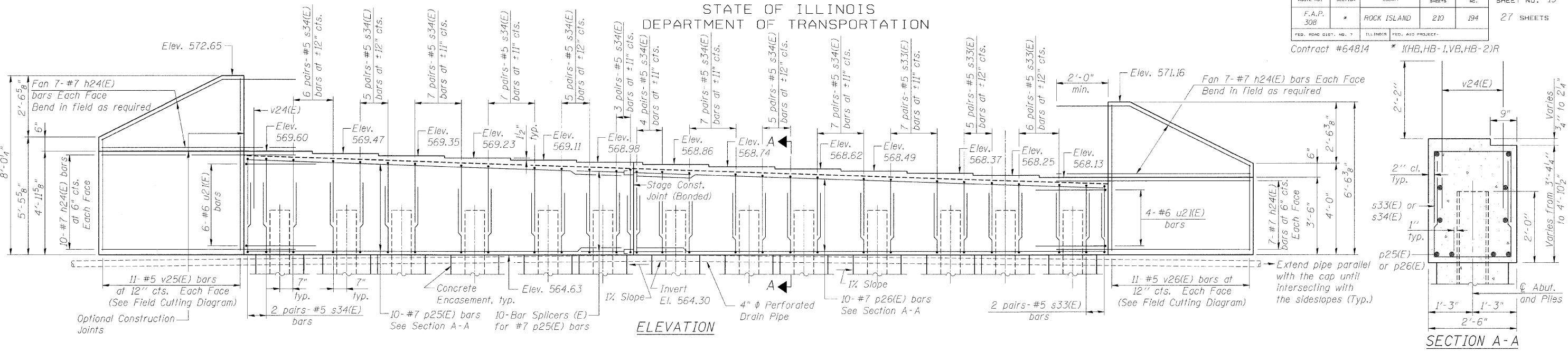
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h24(E)	62	#7	12'-0"	—
p25(E)	10	#7	33'-10"	—
p26(E)	10	#7	42'-8"	—
s33(E)	40	#5	8'-2"	□
s34(E)	116	#5	9'-0"	□
u21(E)	10	#6	9'-3"	□
v24(E)	154	#5	4'-4"	—
v25(E)	11	#5	12'-10"	—
v26(E)	11	#5	9'-10"	—
Porous Granular Embankment (Special)		Cu. Yd.	159	
Structure Excavation		Cu. Yd.	71	
Concrete Structures		Cu. Yd.	34.8	
Reinforcement Bars, Epoxy Coated		Pound	5,610	
Furnishing Steel Piles HP12x53		Foot	325	
Driving Piles		Foot	325	
Pile Shoes		Each	13	
Concrete Encasement		Cu. Yd.	4.6	
Geocomposite Wall Drain		Sq. Yd.	58	
Pipe Underdrains for Structures 4"		Foot	112	

SOUTH ABUTMENT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

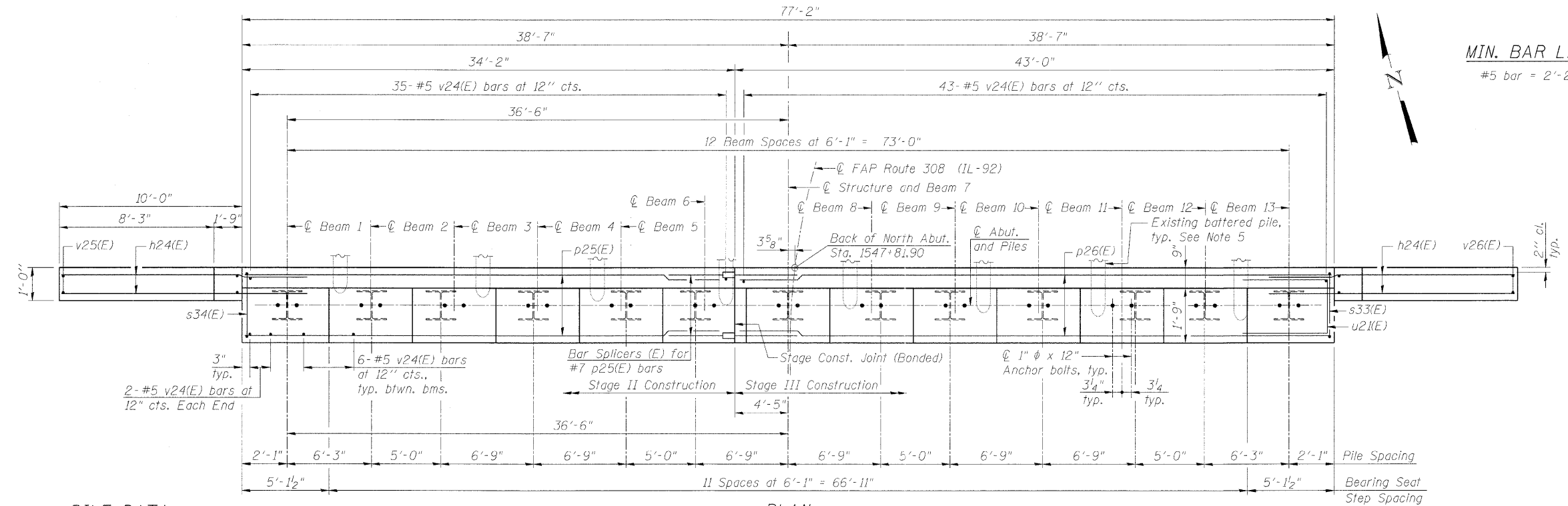
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 308	*	ROCK ISLAND	210	194
ILLINOIS FED. AID PROJECT				
Contract #64814 * (1HB, HB-1, VB, HB-2)R				



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h24(E)	62	#7	12'-0"	—
p25(E)	10	#7	33'-10"	—
p26(E)	10	#7	42'-8"	—
s33(E)	40	#5	8'-2"	□
s34(E)	116	#5	9'-0"	□
u2(E)	10	#6	9'-3"	□
v24(E)	154	#5	4'-4"	—
v25(E)	11	#5	12'-10"	—
v26(E)	11	#5	9'-10"	—
Porous Granular Embankment (Special)			Cu. Yd.	159
Structure Excavation			Cu. Yd.	67
Concrete Structures			Cu. Yd.	34.9
Reinforcement Bars, Epoxy Coated			Pound	5,610
Furnishing Steel Piles HP12x53			Foot	299
Driving Piles			Foot	299
Pile Shoes			Each	13
Concrete Encasement			Cu. Yd.	4.6
Geocomposite Wall Drain			Sq. Yd.	68
Pipe Underdrains for Structures 4"			Foot	112

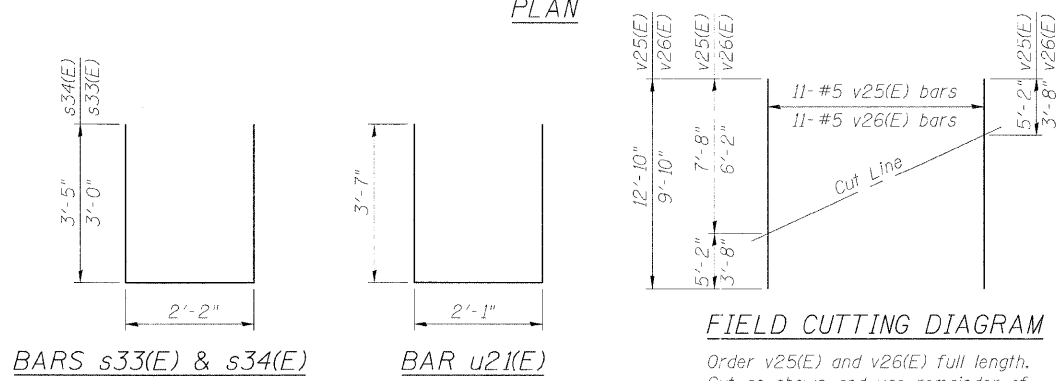


PILE DATA

Type: Steel-HP12x53 with pile shoes
Nominal Required Bearing: 419 k
Allowable Resistance Available: 140 k
Est. Length: 23 ft
No. Production Piles: 13
No. Test Piles: 0

DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	RWC

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS



- NOTES**
- For details of Bar Splicers, see Sheet No. 23
 - For details of piles and Concrete Encasement, see Sheet No. 22
 - For abutment diaphragm details, see Sheet No. 9
 - For Section thru Abutment, see Sheet No. 18
 - The Contractor shall verify the locations of existing piles before driving new piles.
 - Excavation required for Concrete Encasements shall be included in the cost of Concrete Encasement.
 - Pour steps monolithically with cap.
 - For bearing details, see Sheet No. 17

**NORTH ABUTMENT
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

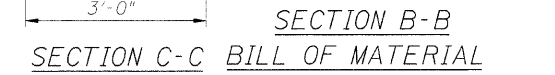
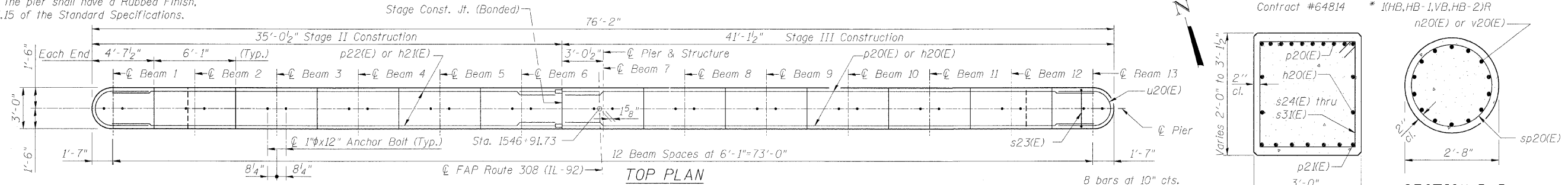
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20
F.A.P. 308	*	ROCK ISLAND	210	195	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

NOTES:

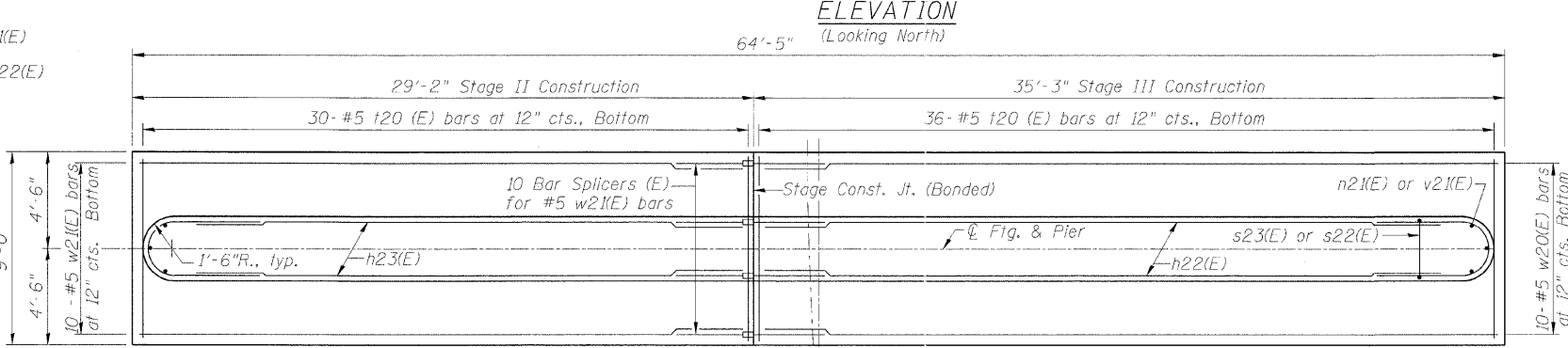
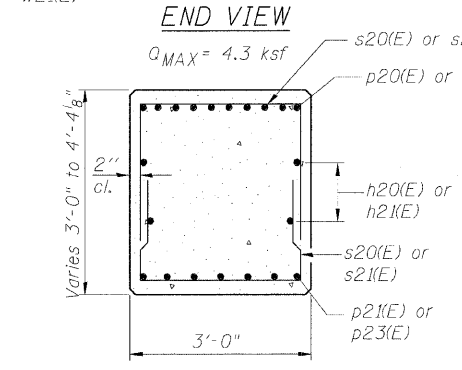
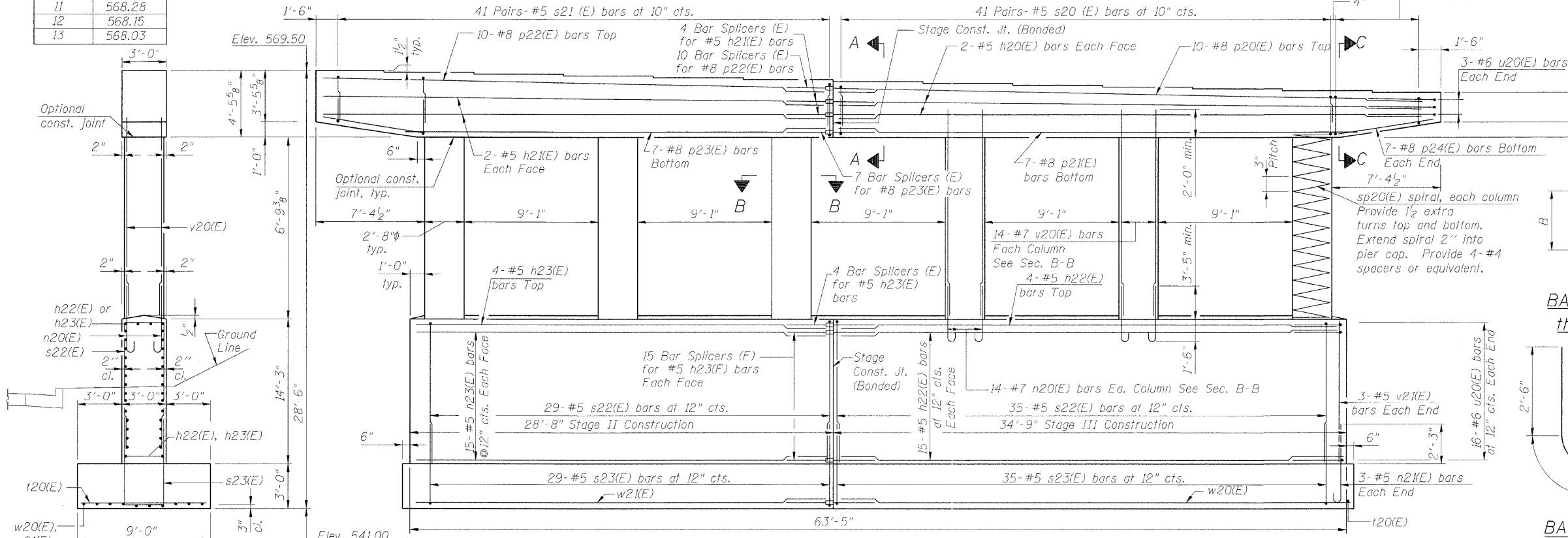
1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. Concrete sealer shall be applied to all exposed surfaces of the pier.
4. All exposed vertical surface of the pier shall have a Rubbed Finish, in accordance with Article 503.15 of the Standard Specifications.

BEARING SEAT ELEV

BEAM	ELEV.
1	569.50
2	569.37
3	569.25
4	569.13
5	569.01
6	568.89
7	568.76
8	568.64
9	568.52
10	568.40
11	568.28
12	568.15
13	568.03



Bar	No.	Size	Length	Shape
h20(E)	4	#5	39'-5"	—
h21(E)	4	#5	33'-4"	—
h22(E)	34	#5	33'-1"	—
h23(E)	34	#5	27'-1"	—
n20(E)	84	#7	5'-10"	U
n21(E)	6	#5	5'-7"	U
p20(E)	10	#8	39'-5"	—
p21(E)	7	#8	34'-1"	—
p22(E)	10	#8	33'-4"	—
p23(E)	7	#8	28'-0"	—
p24(E)	14	#8	6'-9"	—
s20(E)	82	#5	8'-5"	L
s21(E)	68	#5	8'-10"	L
s22(E)	64	#5	30'-8"	L
s23(E)	64	#5	12'-8"	L
s24(E)	1	#5	10'-0"	□
s25(E)	1	#5	10'-3"	□
s26(E)	1	#5	10'-6"	□
s27(E)	1	#5	10'-9"	□
s28(E)	1	#5	11'-0"	□
s29(E)	1	#5	11'-3"	□
s30(E)	1	#5	11'-6"	□
s31(E)	1	#5	11'-9"	□
sp20(E)	6	#5	7'-0"	W
t20(E)	66	#5	8'-8"	—
u20(E)	38	#6	8'-8"	U
v20(E)	84	#7	8'-11"	—
v21(E)	6	#5	14'-0"	—
w20(E)	10	#5	34'-11"	—
w21(F)	10	#5	28'-10"	—
Braced Excavation	Cu. Yd.		419	
Concrete Structures	Cu. Yd.		203.0	
Reinforcement Bars, Epoxy Coated	Pound		16,080	
Concrete Sealer	Sq. Ft.		2,210	
Rubbed Finish	Sq. Ft.		1,977	



DESIGNED	JDG
CHECKED	WPK
DRAWN	DCS
CHECKED	JDG

DBS DB STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2000
CHICAGO, ILLINOIS 60606
TEL. 312/857-1006 FAX. 312/857-1056

FOOTING PLAN

C, D & E DIMENSIONS

Bar	C	D	E
n20(E)	5'-0"	10"	7"
n21(E)	5'-0"	7"	5"

A & B DIMENSIONS

Bar	A	B
s20(E)	2'-8"	2'-10 1/2"
s21(E)	2'-8"	3'-1"
s22(E)	2'-8"	14'-0"
s23(E)	2'-8"	5'-0"
s24(E)	2'-8"	1'-10 1/2"
s25(E)	2'-8"	2'-0"

A & B DIMENSIONS

Bar	A	B
s26(E)	2'-8"	2'-1 1/2"
s27(E)	2'-8"	2'-3"
s28(E)	2'-8"	2'-4 1/2"
s29(E)	2'-8"	2'-6"
s30(E)	2'-8"	2'-7 1/2"
s31(E)	2'-8"	2'-8"

PIER 1
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7TH AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

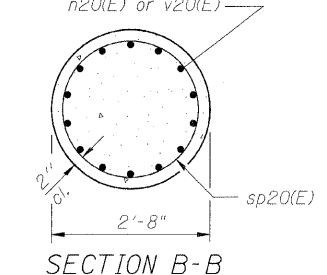
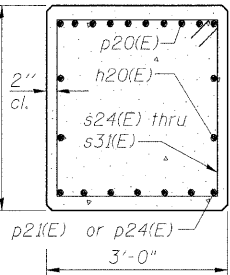
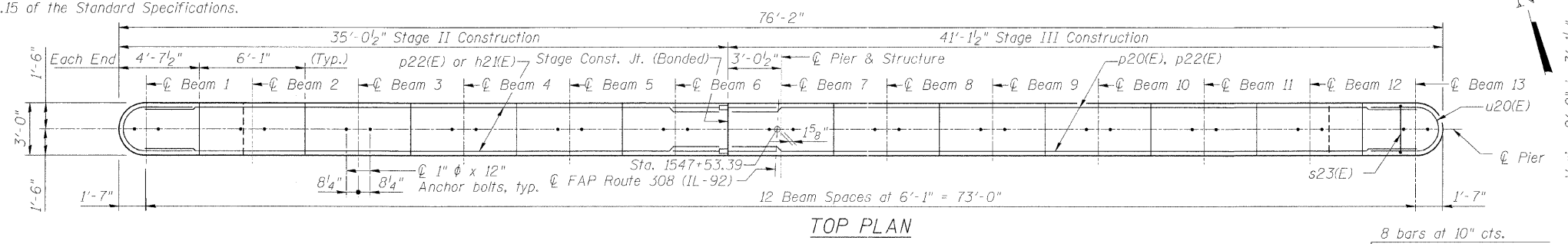
ROUTE NO. F.A.P. 308	SECTION *	COUNTY ROCK ISLAND	SHEET 210	DATE 196	SHEET NO. 21 27 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. Concrete sealer shall be applied to all exposed surfaces of the pier.
4. All exposed vertical surface of the pier shall have a Rubbed Finish, in accordance with Article 503.15 of the Standard Specifications.

BEARING SEAT ELEV

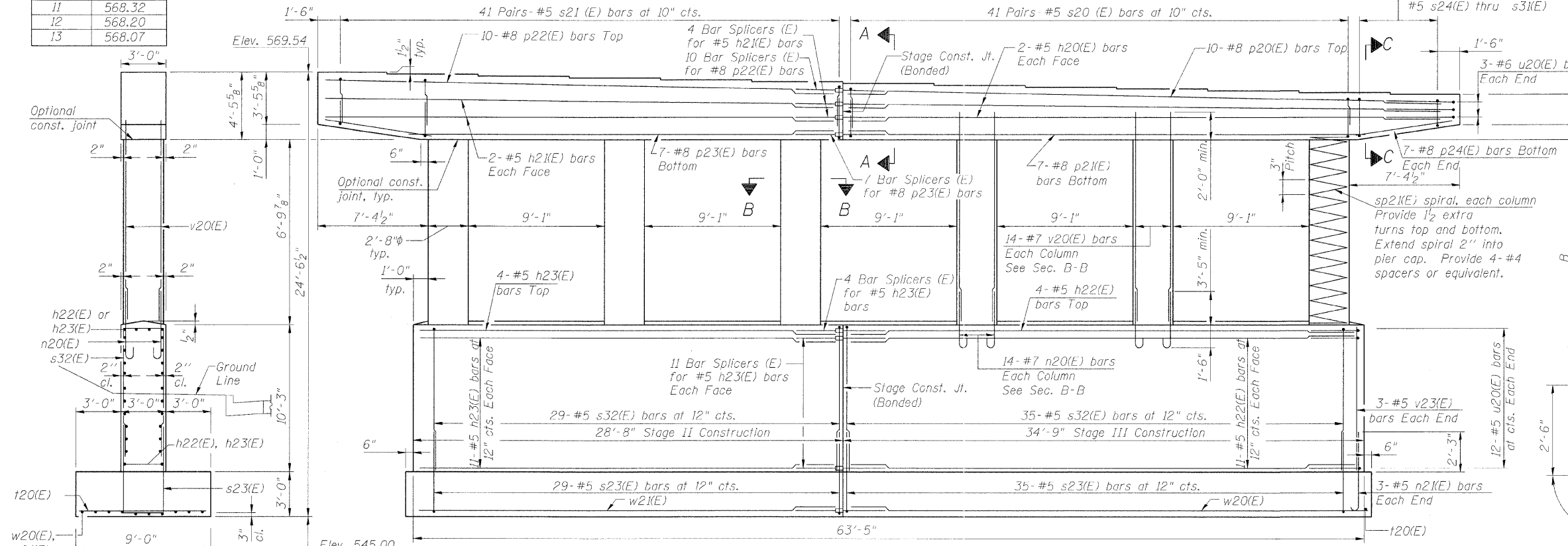
BEAM	ELEV.
1	569.54
2	569.42
3	569.29
4	569.17
5	569.05
6	568.93
7	568.81
8	568.68
9	568.56
10	568.44
11	568.32
12	568.20
13	568.07



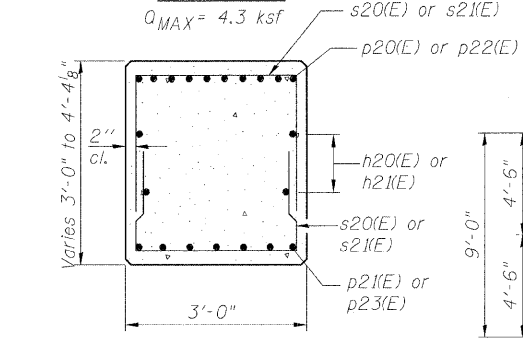
SECTION C-C BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	4	#5	39'-5"	—
h21(E)	4	#5	33'-4"	—
h22(E)	26	#5	33'-1"	—
h23(E)	26	#5	27'-1"	—
n20(E)	84	#7	5'-10"	U
n21(E)	6	#5	5'-7"	U
p20(E)	10	#8	39'-5"	—
p21(E)	7	#8	34'-1"	—
p22(E)	10	#8	33'-4"	—
p23(E)	7	#8	28'-0"	—
p24(E)	14	#8	6'-9"	—
s20(E)	82	#5	8'-5"	L
s21(E)	82	#5	8'-10"	L
s23(E)	64	#5	12'-8"	L
s24(E)	1	#5	10'-0"	□
s25(E)	1	#5	10'-3"	□
s26(E)	1	#5	10'-6"	□
s27(E)	1	#5	10'-9"	□
s28(E)	1	#5	11'-0"	□
s29(E)	1	#5	11'-3"	□
s30(E)	1	#5	11'-6"	□
s31(E)	1	#5	11'-9"	□
s32(E)	64	#5	22'-8"	L
sp20(E)	6	#5	7'-0"	W
t20(E)	66	#5	8'-8"	—
u20(E)	30	#6	8'-8"	U
v20(E)	84	#7	8'-11"	—
v23(E)	6	#5	10'-0"	—
w20(E)	10	#5	34'-11"	—
w21(E)	10	#5	28'-10"	—
Braced Excavation	Cu. Yd.		295	
Concrete Structures	Cu. Yd.		175.0	
Reinforcement Bars, Epoxy Coated	Pound		14,920	
Concrete Sealer	Sq. Ft.		2,212	
Rubbed Finish	Sq. Ft.		1,979	

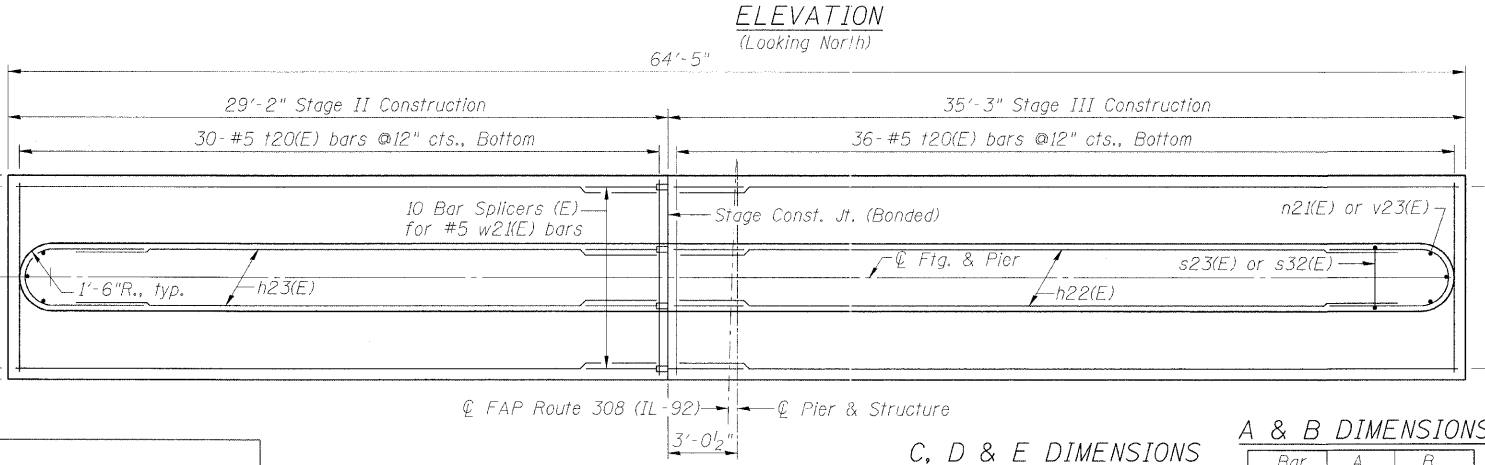
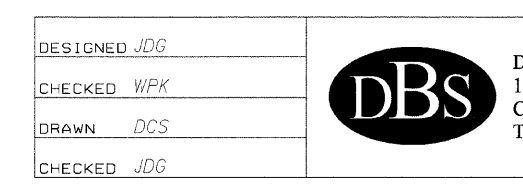
** Length is height of spiral.



END VIEW



SECTION A-A



FOOTING PLAN

C, D & E DIMENSIONS

Bar	C	D	E
h20(E)	5'-0"	10"	7"
n21(E)	5'-0"	7"	5"

A & B DIMENSIONS

Bar	A	B
s20(E)	2'-8"	2'-10 1/2"
s21(E)	2'-8"	3'-1"
s23(E)	2'-8"	5'-0"
s24(E)	2'-8"	1'-10 1/2"
s25(E)	2'-8"	2'-0"

A & B DIMENSIONS

Bar	A	B
s26(E)	2'-8"	2'-1 1/2"
s27(E)	2'-8"	2'-3"
s28(E)	2'-8"	2'-4 1/2"
s29(E)	2'-8"	2'-6"
s30(E)	2'-8"	2'-7 1/2"
s31(E)	2'-8"	2'-8"
s32(E)	2'-8"	10'-0"

PIER 2
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7TH AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	JDG
CHECKED	WPK
DRAWN	DCS
CHECKED	JDG

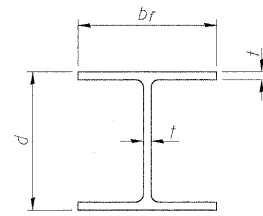


DB STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2000
CHICAGO, ILLINOIS 60606
TEL. 312/857-1006 FAX. 312/857-1056

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

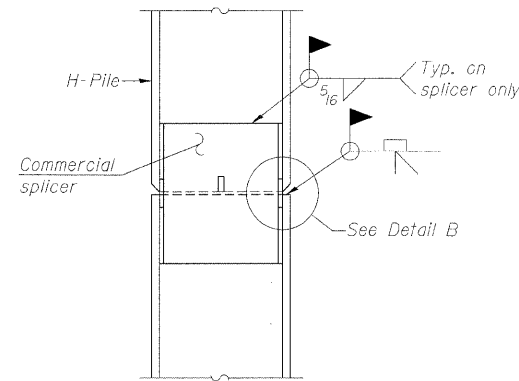
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22
F.A.P. 308	*	ROCK ISLAND	210	197	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #64814 * 1(HB,HB-1,VB,HB-2)R

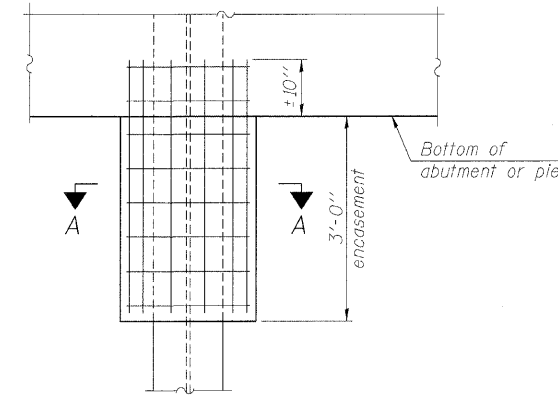


STEEL PILE TABLE

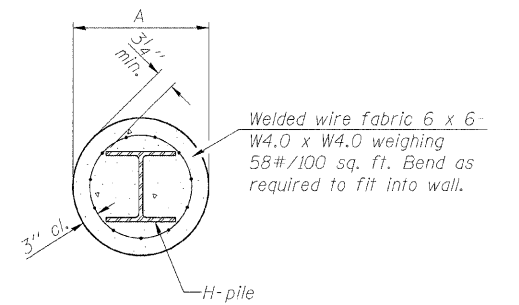
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



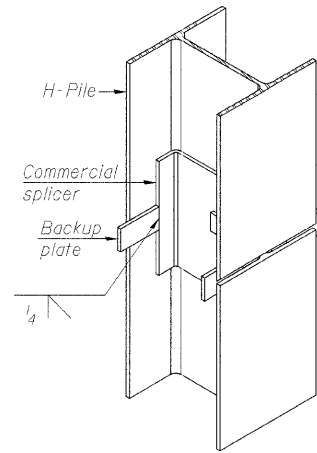
ELEVATION



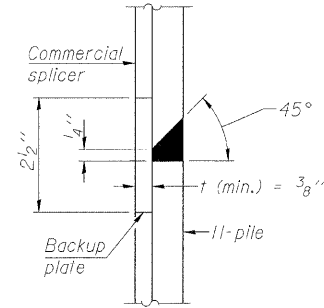
Welded wire fabric 6 x 6 - W4.0 x W4.0 weighing 58#/100 sq. ft. Bend as required to fit into wall.
Note: Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

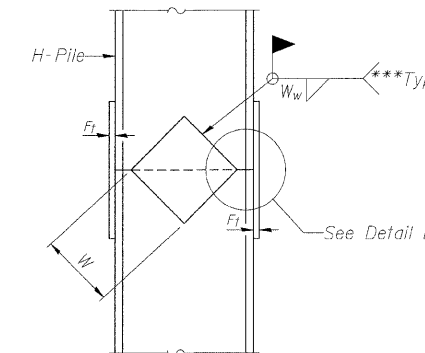
PILE ENCASEMENT



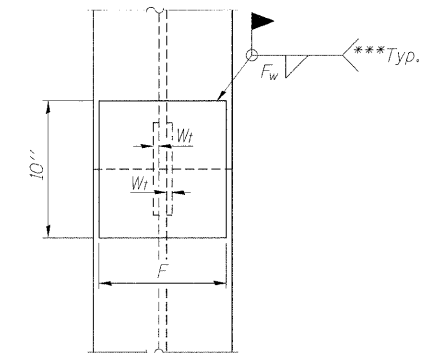
ISOMETRIC VIEW



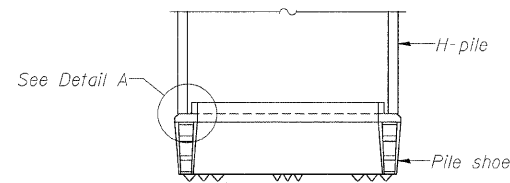
DETAIL "B"



ELEVATION

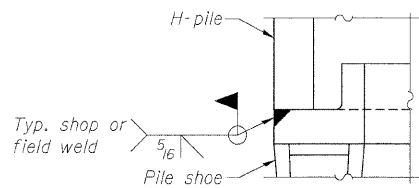


END VIEW



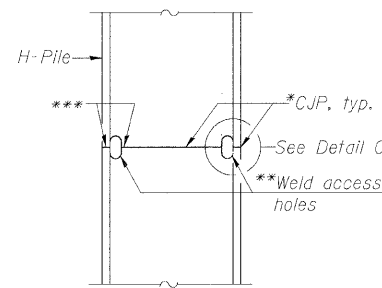
ELEVATION

WELDED COMMERCIAL SPLICE

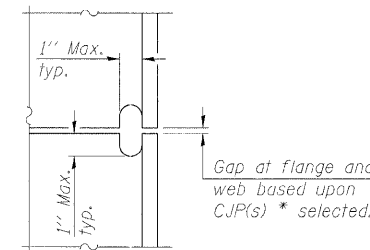


DETAIL A

H-PILE SHOE ATTACHMENT

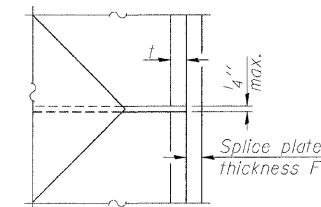


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

***Interrupt welds 1/4" from end of each pile.

Note:
The steel H piles shall be according to AASHTO M270 Grade 50.

STEEL PILE DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

9-3-07

F-HP

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 23
F.A.P. 308	*	ROCK ISLAND	210	198	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (1HB,HB-1,VB,HB-2)R		

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 = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

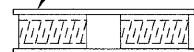
The diameter of this part is equal or larger than the diameter of bar spliced.
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

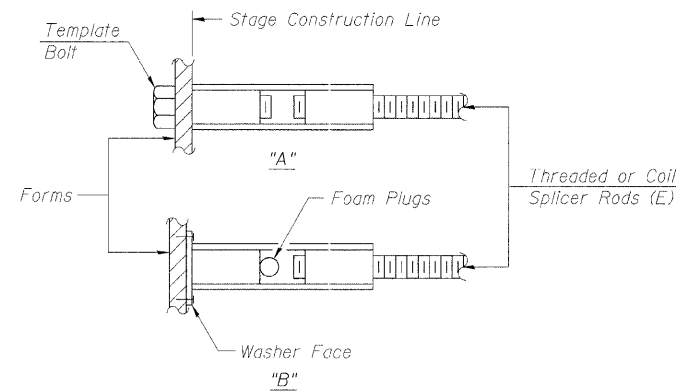
Wire Connector



WELDED SECTIONS

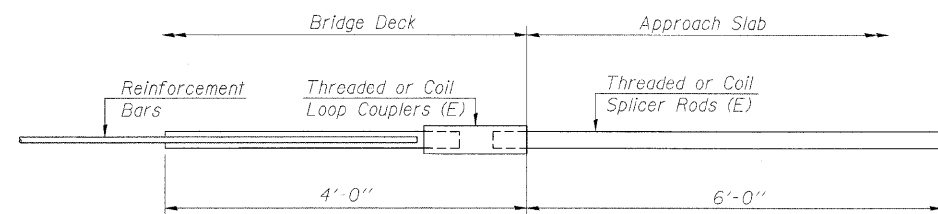
BAR SPLICER ASSEMBLY ALTERNATIVES

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



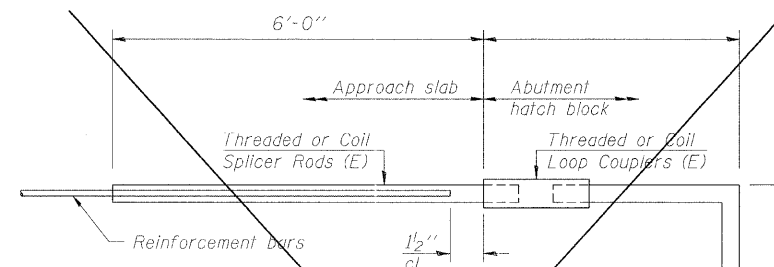
INSTALLATION AND SETTING METHODS

"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.



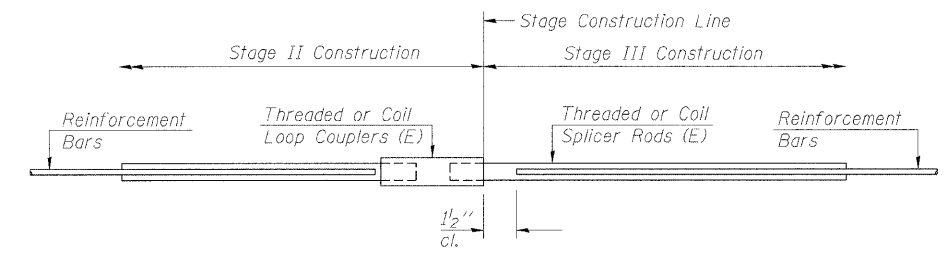
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 150



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	322	Deck
#6	16	Abut. Diaphragms
#7	20	Abutments
#5	88	Piers
#8	34	Piers

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	AMK
CHECKED	JSD
DRAWN	OS
CHECKED	AMK

LOCHNER
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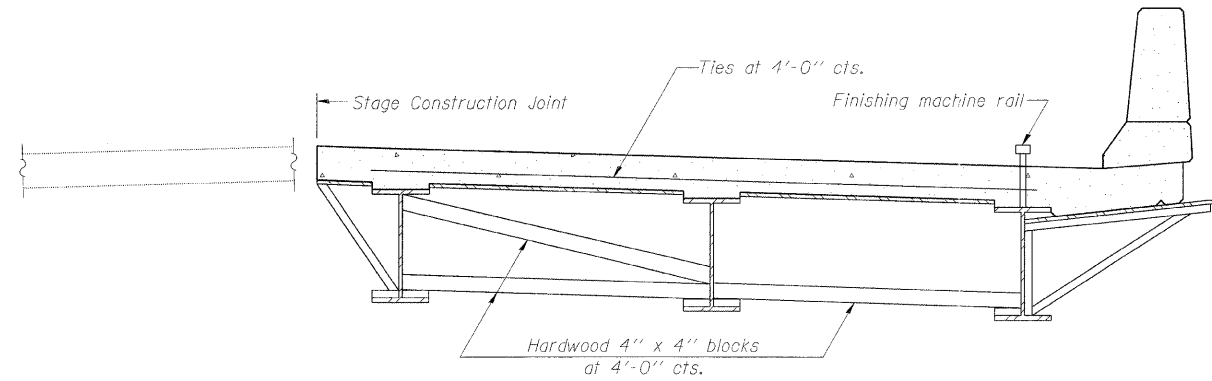
BSD-1

11-1-06

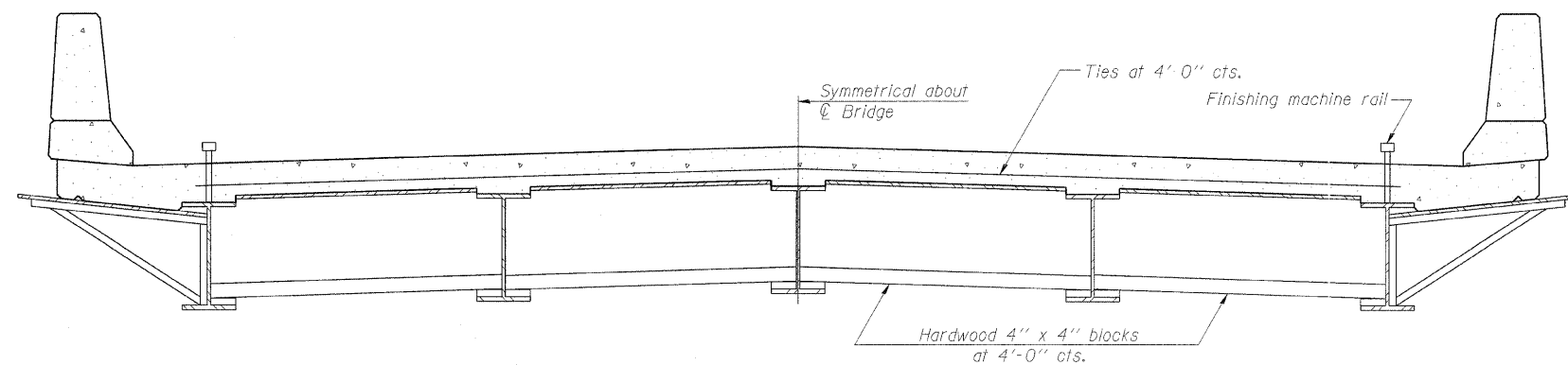
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 24
F.A.P. 308	#	ROCK ISLAND	210	199	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #64814 * (HB,HB-1,VB,HB-2)R		



FORM BRACES FOR
STAGE CONSTRUCTION



FORM BRACES FOR
STANDARD CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER

CANTILEVER FORMING BRACKETS
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SB-1

11-1-06

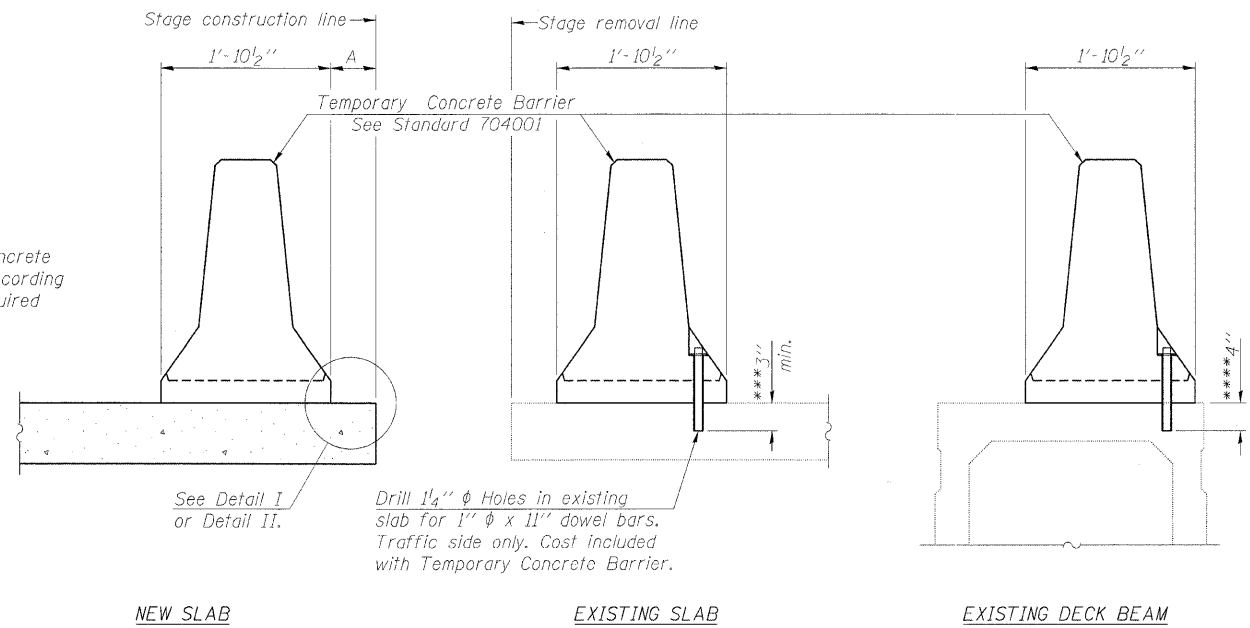
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 25
F.A.P. 308	*	ROCK ISLAND	210	200	27 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #64814 * (HB, HB-1, VB, HB-2)R

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".

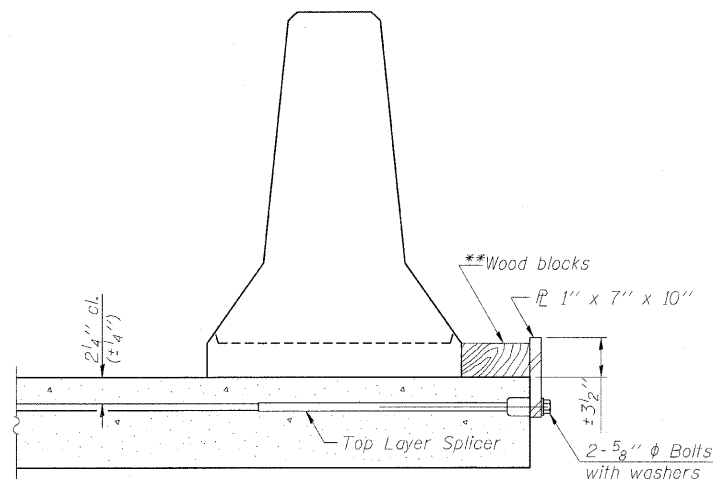


SECTIONS THRU SLAB OR DECK BEAM

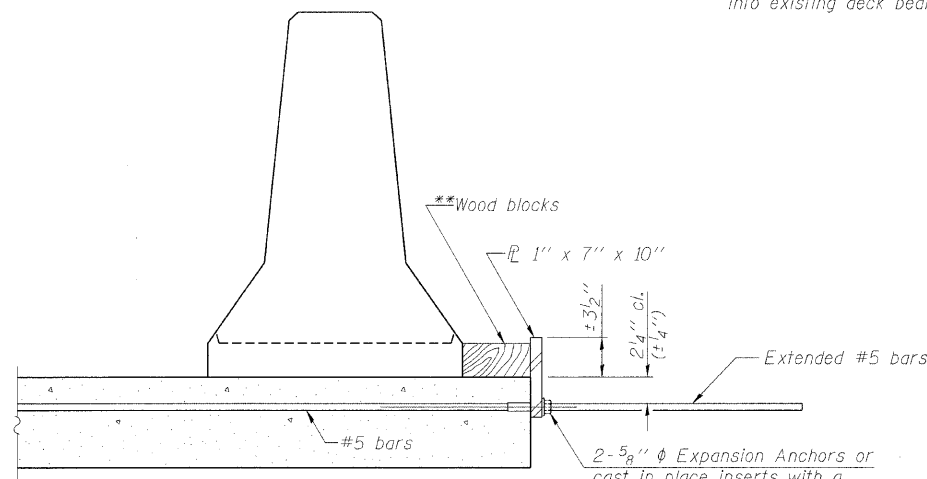
NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate 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.

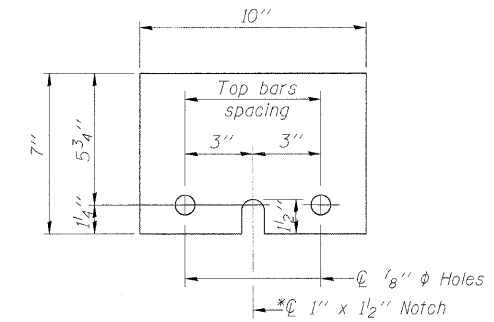
- ***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- ***If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with 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.

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL ROUTE 92 (CENTENNIAL EXPRESSWAY)
OVER 7th AVENUE
FAP ROUTE 308 SEC. 1(HB)R
ROCK ISLAND COUNTY
STATION 1547+22.56
STRUCTURE NO. 081-0170

DESIGNED
CHECKED
DRAWN
CHECKED

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

R-27

9-3-07

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