

SUMMARY OF QUANTITIES					CONSTRUCTION AND SAFETY TYPE CODE					
CODE NO.	ITEM	SP. PROV.	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	0005 ROADWAY	0011 STRUCTURE				
48203100	HOT-MIX ASPHALT SHOULDERS		TON	34	34					
50100100	REMOVAL OF EXISTING STRUCTURES		EACH	1		1				
50105220	PIPE CULVERT REMOVAL		FOOT	17	17					
50200100	STRUCTURE EXCAVATION		CU YD	341		341				
50300100	FLOOR DRAINS		EACH	26		26				
50300225	CONCRETE STRUCTURES		CU YD	290.6		290.6				
50300255	CONCRETE SUPERSTRUCTURE		CU YD	719.0		719.0				
50300260	BRIDGE DECK GROOVING		SQ YD	1965		1965				
50300280	CONCRETE ENCASEMENT		CU YD	11.2		11.2				
50300300	PROTECTIVE COAT		SQ YD	2569		2569				
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL		L SUM	1		1				
50500505	STUD SHEAR CONNECTORS		EACH	6588		6588				
50800105	REINFORCEMENT BARS		POUND	4940		4940				
50800205	REINFORCEMENT BARS, EPOXY COATED		POUND	250,850		250,850				
50800515	BAR SPLICERS		EACH	2356		2356				
51201600	FURNISHING STEEL PILES HP12X53		FOOT	900		900				
51202305	DRIVING PILES		FOOT	900		900				
51203600	TEST PILE STEEL HP12X53		EACH	2		2				
51204650	PILE SHOES		EACH	32		32				
51500100	NAME PLATES		EACH	1		1				
* 51603000	DRILLED SHAFT IN SOIL		CU YD	135.1		135.1				
* 51604000	DRILLED SHAFT IN ROCK		CU YD	28.8		28.8				
52000110	PREFORMED JOINT STRIP SEAL		FOOT	68		68				
52000220	FINGER PLATE EXPANSION JOINT, 6"		FOOT	64		64				
52000600	FABRIC REINFORCED ELASTOMERIC TROUGH		FOOT	76		76				
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I		EACH	18		18				
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II		EACH	18		18				
52100530	ANCHOR BOLTS, 1 1/4"		EACH	48		48				
52100510	ANCHOR BOLTS 3/4"		EACH	24		24				
52100520	ANCHOR BOLTS, 1"		EACH	12		12				
542D5479	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 24"		FOOT	40	40					
54215547	METAL END SECTIONS 12"		EACH	2	2					
54215769	METAL END SECTIONS, EQUIVALENT ROUND-SIZE 24"		EACH	2	2					

Rev. 10-20-10

* Specialty Items

Rev.

FILE NAME =	USER NAME = laughlinr1	DESIGNED -	REVISED - 8/18/10
c:\pwork\pudot\laughlinr1\0233251\06	2403-shc-S00.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = Aug-19-2010 08:51:39AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 20F 4SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
713	1208-3	SCHUYLER	75	4
CONTRACT NO. 72A03				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Bench Mark: Chiseled square on Pier #1, Sta. 557+41, right of C. Elev. 497.43

Existing Structure: Structure Number 085-0016 was built in 1928 as S.B.I. Rte. 101, Section 120B over the Lamoine River. The superstructure was replaced in 1977 with PPC deck beams under Section 120BR. The substructure was also widened during the 1977 construction and Piers 2 and 3 were added. A 5" reinforced concrete wearing surface was constructed over the deck beams in 1998 under Section (120BR)1, along with expansion joint replacement and riprap placement around the piers. In 2006, two deck beams were replaced in span 4 under Section (120BR)1-1. In 2008, three deck beams were replaced in span 3 and twelve deck beams were braced using steel wide flange beams under Section (120BR)1-2. The existing structure is an eleven span PPC deck beam bridge on closed concrete abutments and concrete piers on footings. The existing structure shall be removed and replaced.

Traffic to be maintained utilizing stage construction.

Existing structural steel to remain property of IDOT. Contact Buddy Foster at (217) 782-7416 to arrange a pick-up time.

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TSD)
Engineer of Bridges & Structures

INDEX OF SHEETS

1	General Plan and Elevation
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LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications
4th Edition with 2008 & 2009 Interims

DESIGN STRESSES

FIELD UNITS

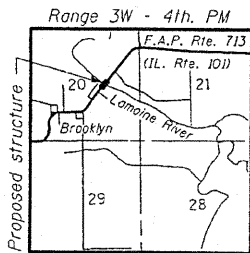
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.117g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.183g
= D



GENERAL PLAN & ELEVATION
IL 101 OVER LAMOINE RIVER
FAP ROUTE 713 SECTION 120B-3
SCHUYLER COUNTY
STATION 559+38.00
S.N. 085-0514



LOCATION SKETCH

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	21
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

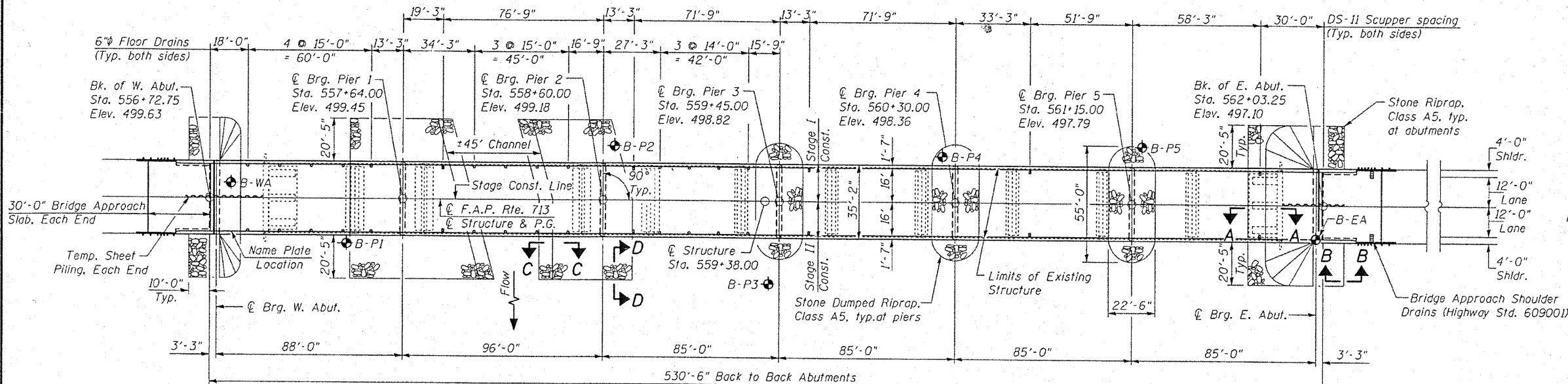
Revised 10/18/10

ADL

Klingner & Associates P.C.

ELEVATION

Note:
See sheet 2 of 45 for Sections A-A, B-B, C-C and D-D.



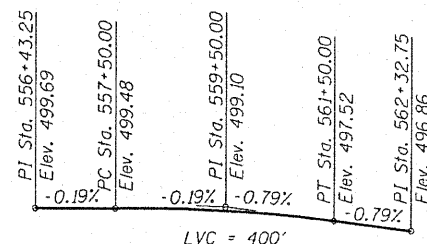
PLAN

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	E. Abut.
	491.2	471.8	468.1	474.2	475.0	473.3	488.7

WATERWAY INFORMATION

Drainage Area = 995.4 Sq. Mi.		Low Grade Elev. 495.4 @ Sta. 569+49							
Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.	Headwater El.		Headwater El.	
			Exist.	Prop.	W.W.E.	Exist.	Prop.	Exist.	Prop.
	10	24,900	4,607	5,340	492.3	3.0	4.1	495.4	496.4
Design	50	38,400	5,252	5,788	493.8	6.3	6.4	500.1	500.2
Base	100	44,500	5,514	6,097	494.4	6.2	6.4	500.6	500.8
Overtopping	-	-	12 yr.	13 yr.	-	-	-	-	-
Max. Calc.	500	59,100	6,012	6,097	495.6	5.9	6.5	501.6	502.1



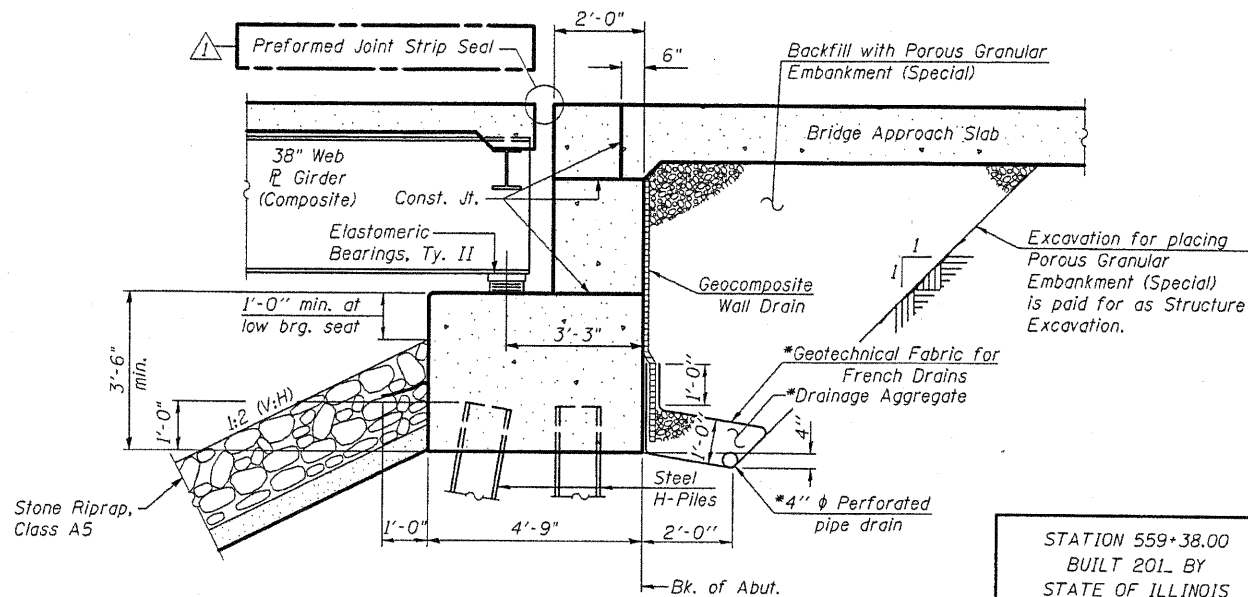
PROFILE GRADE
(along roadway)

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors

56 N. W. 2nd Street, Suite 200, Ft. Lauderdale, FL 33304
Tel: (954) 572-3333 Fax: (954) 572-3333
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STATE OF ILLINOIS DESIGN FIRM • 1842738

DESIGNED	RJP
CHECKED	ADL
DRAWN	RJP
CHECKED	ADL



**SECTION THRU PILE SUPPORTED
STUB ABUTMENT**
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

STATION 559+38.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 713 SEC. 120B-3
LOADING HL-93
STRUCTURE NO. 085-0514

NAME PLATE
See Std. 515001

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{3}{4}$ " ϕ , holes $\frac{15}{16}$ " ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 519,140 pounds.

All structural steel shall be AASHTO M 270 Grade 50W except expansion joints which shall be AASHTO M270 Grade 50.

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. 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 $\frac{1}{8}$ 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 abutments.

Structural steel shall only be painted for a distance of 10 ft. each way from the deck joints. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

All exposed structural steel of the bearings shall be cleaned and shop painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The depth of excavation around existing piers shall not vary by more than 2 feet while they support traffic.

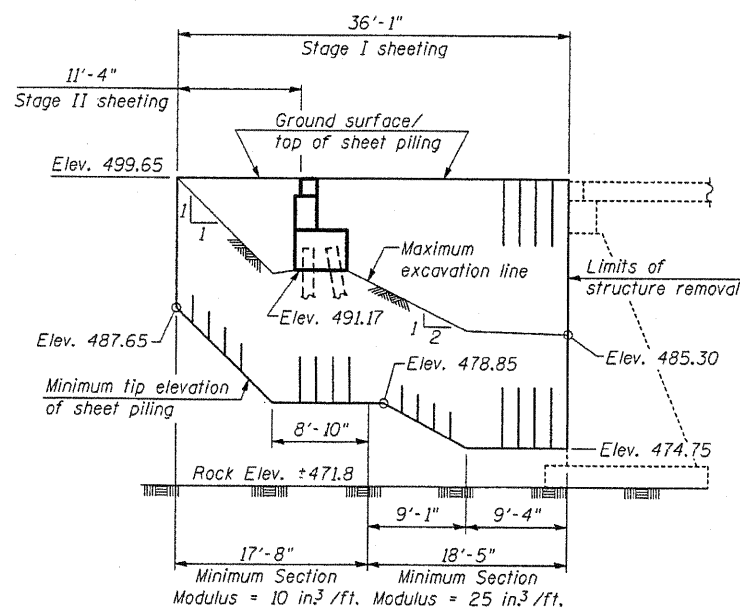
A copy of the existing bridge plans will be provided upon request.

The Contractor is advised that the existing PPC deck beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal of the superstructure.

If the Contractor's procedures for existing deck beam removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		94	94
Stone Riprap, Class A5	Sq. Yd.		451	451
Stone Dumped Riprap, Class A5	Sq. Yd.		1,293	1,293
Filter Fabric	Sq. Yd.		1,744	1,744
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		341	341
Floor Drains	Each	26		26
Concrete Structures	Cu. Yd.		290.8	290.8
Concrete Superstructure	Cu. Yd.	719.0		719.0
Bridge Deck Grooving	Sq. Yd.	1,965		1,965
Concrete Encasement	Cu. Yd.		11.2	11.2
Protective Coat	Sq. Yd.	2,569		2,569
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	6,588		6,588
Reinforcement Bars	Pound		4,940	4,940
Reinforcement Bars, Epoxy Coated	Pound	171,840	79,010	250,850
Bar Splicers	Each	1,749	607	2,356
Furnishing Steel Piles HPI2x53	Foot		900	900
Test Pile Steel HPI2x53	Each		2	2
Temporary Sheet Piling	Sq. Ft.		1,556	1,556
Driving Piles	Foot		900	900
Name Plates	Each	1		1
Anchor Bolts, $\frac{3}{4}$ "	Each	24		24
Anchor Bolts, 1"	Each	12		12
Anchor Bolts, 1 $\frac{1}{2}$ "	Each	48		48
Pile Shoes	Each		32	32
Elastomeric Bearing Assembly, Type I	Each	18		18
Elastomeric Bearing Assembly, Type II	Each	18		18
Concrete Sealer	Sq. Ft.		780	780
Geocomposite Wall Drain	Sq. Yd.		48	48
Pipe Underdrains for Structures 4"	Foot		151	151
Drainage Scuppers, DS-II	Each	10		10
Underwater Structure Excavation	Each		1	1
Protection - Location 1	Each		1	1
Underwater Structure Excavation	Each		1	1
Protection - Location 2	Each		1	1
Preformed Joint Strip Seal	Foot	68		68
Drilled Shaft in Soil	Cu. Yd.		135.1	135.1
Drilled Shaft in Rock	Cu. Yd.		28.8	28.8
Asbestos Bearing Pad Removal	Each	121		121
Temporary Shoring	Each		8	8



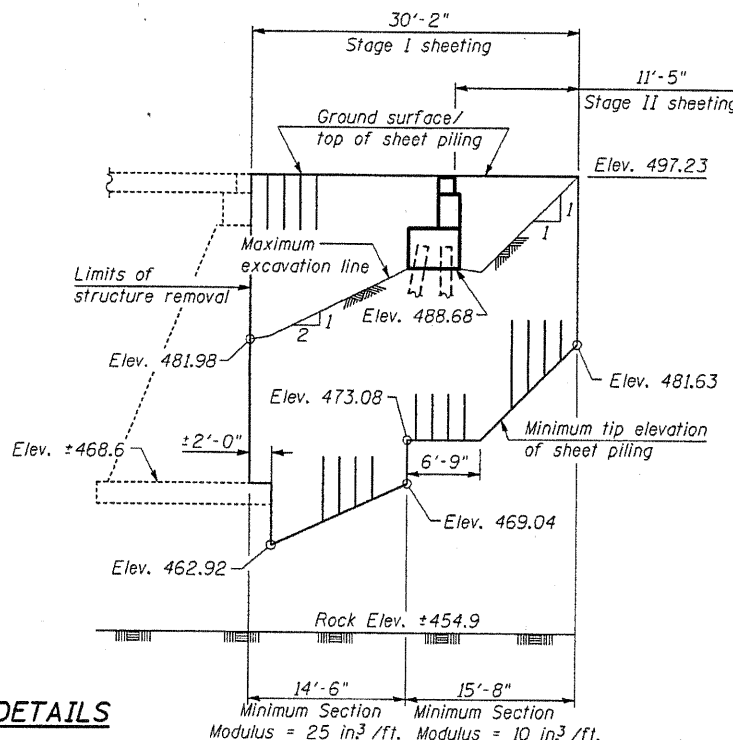
WEST ABUTMENT

TEMPORARY SHEET PILING DETAILS

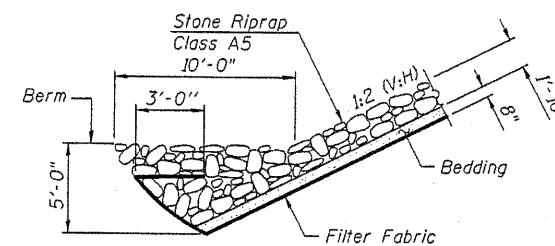
Notes:

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.

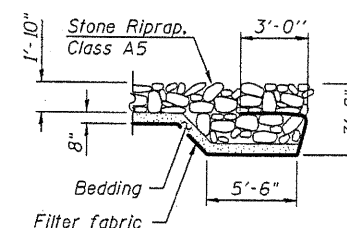
The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.



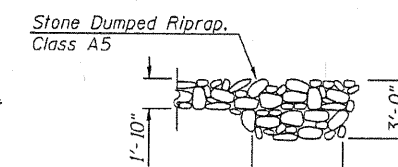
EAST ABUTMENT



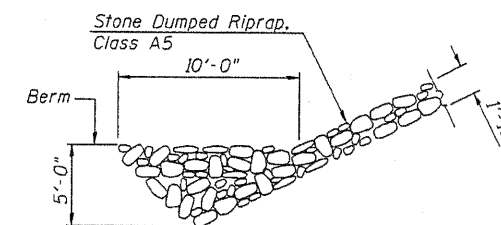
SECTION A-A



SECTION B-B



SECTION D-D



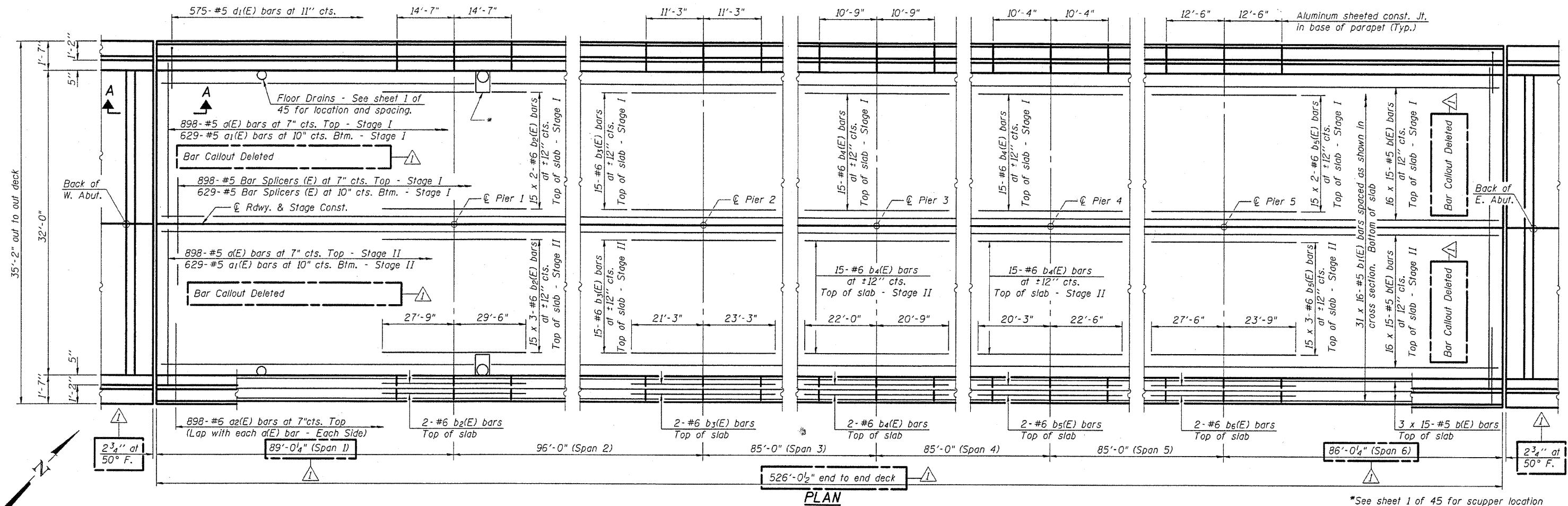
SECTION C-C

GENERAL DATA S.N. 085-0514

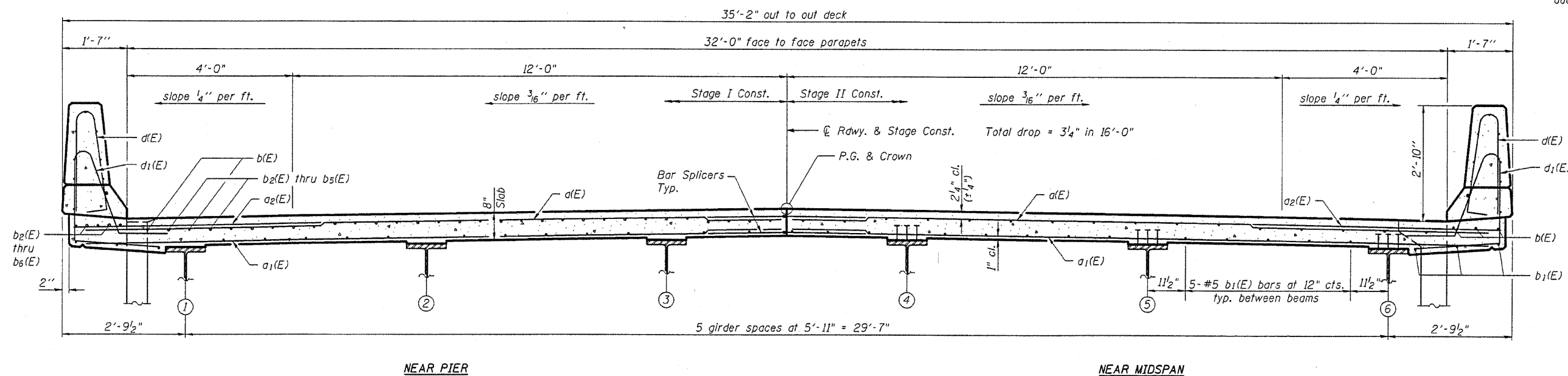
SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	22
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

Revised 10/18/10 ADL

Klingner & Associates P.C.



*See sheet 1 of 45 for scupper location and spacing. See sheet 13 of 45 for additional reinforcing at scuppers.



MINIMUM BAR LAP

#5 bar = 3'-3"
#6 bar = 3'-10"

DESIGNED RJP
CHECKED ADL
DRAWN RJP
CHECKED ADL

S-2-0

11-1-09

Notes:

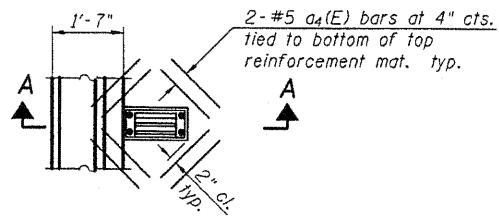
See Sheet 13 of 45 for superstructure details and Bill of Material.
Bars indicated thus 16 x 19-#5 etc. indicates 16 lines of bars with 19 lengths per line.
See Sheet 14 of 45 for parapet reinforcement.
See Sheet 18 of 45 for Section A-A.

SUPERSTRUCTURE S.N. 085-0514

SHEET NO.12	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	32
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

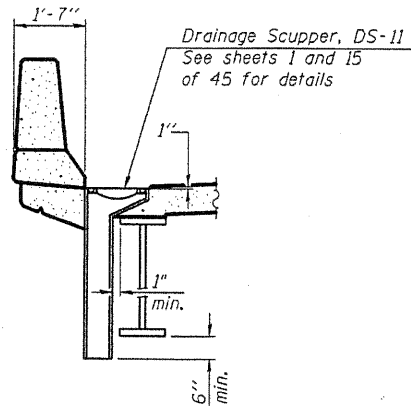
Revised 10/18/10 ADL

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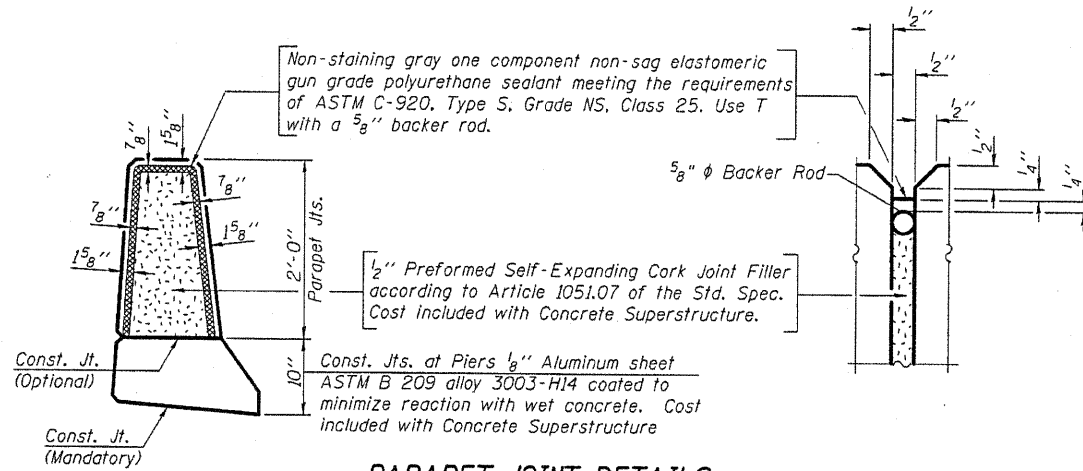
PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.



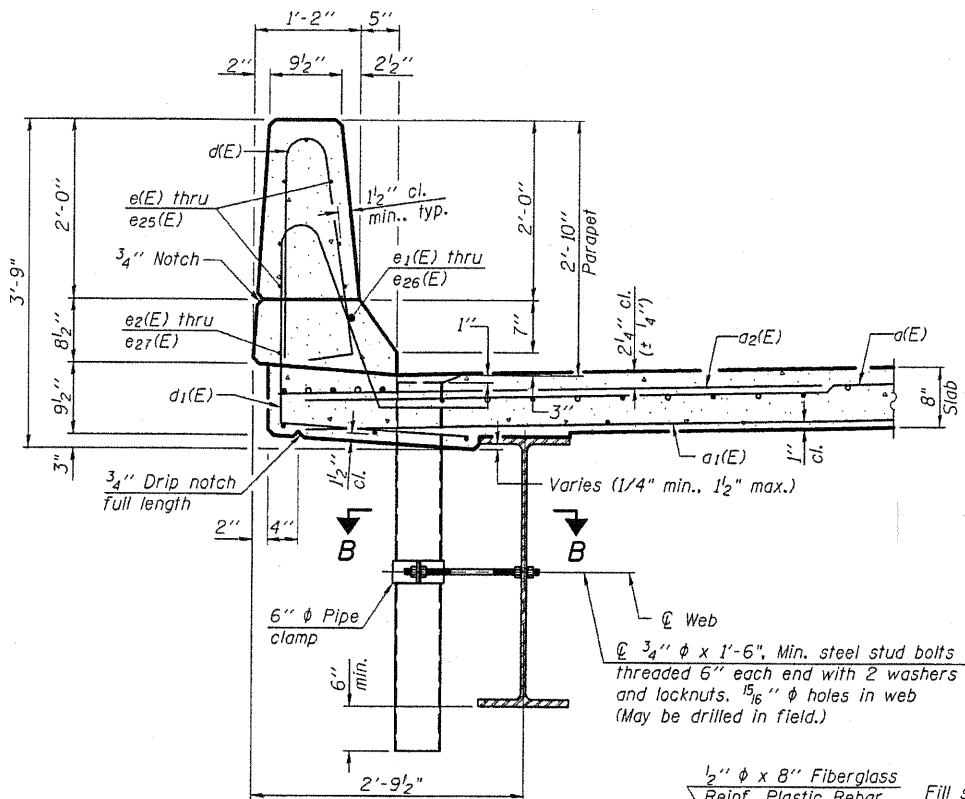
SECTION A-A

Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8 inch backer rod.

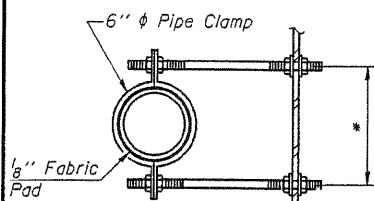


PARAPET JOINT DETAILS

Notes:
Drains shall be located clear of all diaphragms.
Floor Drains need not be painted.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and galvanizing included with Floor Drains.

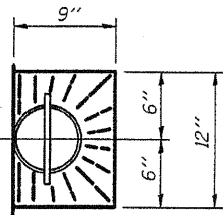


SECTION THRU PARAPET

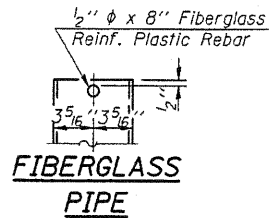


SECTION B-B

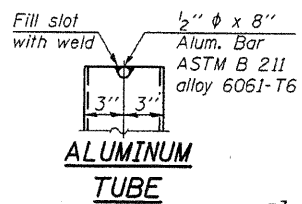
* Dimension as required by Pipe Clamp



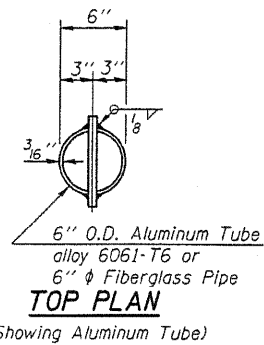
TOP PLAN



FIBERGLASS PIPE

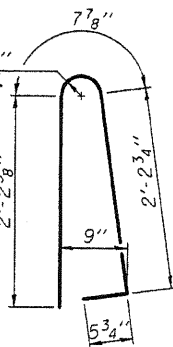


ALUMINUM TUBE

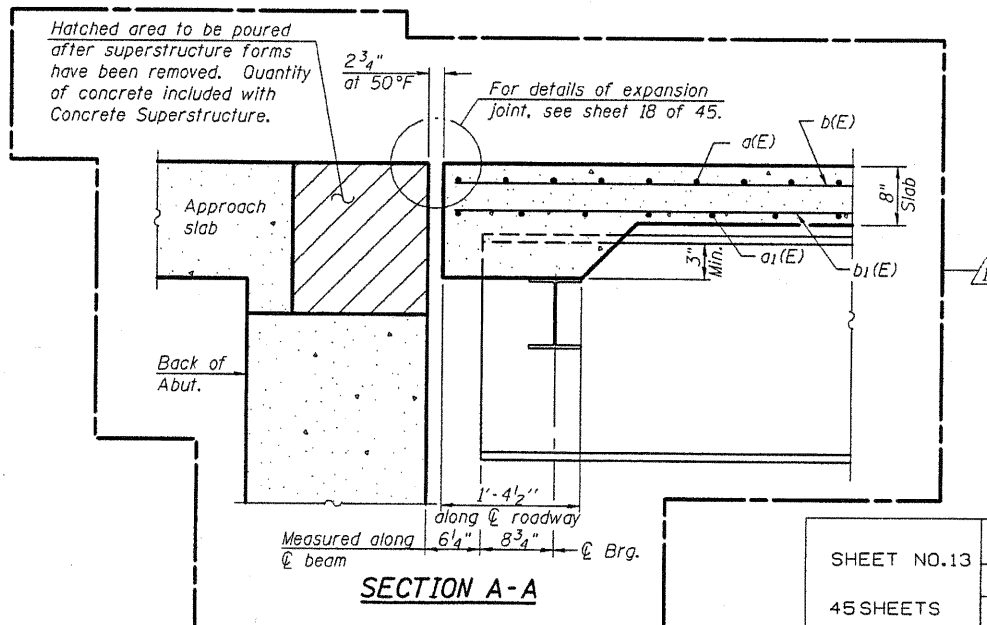


TOP PLAN

(Showing Aluminum Tube)



BAR d1(E)



SECTION A-A

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	1,796	#5	17'-0"	
a2(E)	1,258	#5	16'-8"	
a3(E)	1,796	#6	6'-6"	
a4(E)	80	#5	1'-6"	
b1(E)	570	#5	38'-2"	
b2(E)	465	#5	35'-11"	
b3(E)	102	#6	21'-8"	
b4(E)	34	#6	44'-6"	
b5(E)	68	#6	42'-9"	
b6(E)	102	#6	19'-8"	
d1(E)	1,150	#5	5'-7"	
d2(E)	1,150	#5	7'-6"	
e1(E)	56	#4	18'-4"	
e2(E)	4	#8	39'-9"	
e3(E)	4	#4	38'-2"	
e4(E)	32	#4	14'-4"	
e5(E)	4	#8	14'-4"	
e6(E)	56	#4	17'-3"	
e7(E)	4	#8	37'-7"	
e8(E)	4	#4	36'-0"	
e9(E)	32	#4	11'-0"	
e10(E)	4	#8	11'-0"	
e11(E)	56	#4	15'-6"	
e12(E)	4	#8	34'-0"	
e13(E)	4	#4	32'-5"	
e14(E)	32	#4	10'-6"	
e15(E)	4	#8	10'-6"	
e16(E)	56	#4	15'-8"	
e17(E)	4	#8	34'-5"	
e18(E)	4	#4	32'-10"	
e19(E)	32	#4	10'-1"	
e20(E)	4	#8	10'-1"	
e21(E)	56	#4	15'-3"	
e22(E)	4	#8	33'-7"	
e23(E)	4	#4	32'-0"	
e24(E)	32	#4	12'-3"	
e25(E)	4	#8	12'-3"	
e26(E)	56	#4	18'-1"	
e27(E)	4	#8	39'-3"	
e28(E)	4	#4	37'-8"	

Reinforcement Bars, Epoxy Coated	Pound	147,300
Concrete Superstructure	Cu. Yds.	599.2
Floor Drains	Each	26
Bar Splicers	Each	1,527

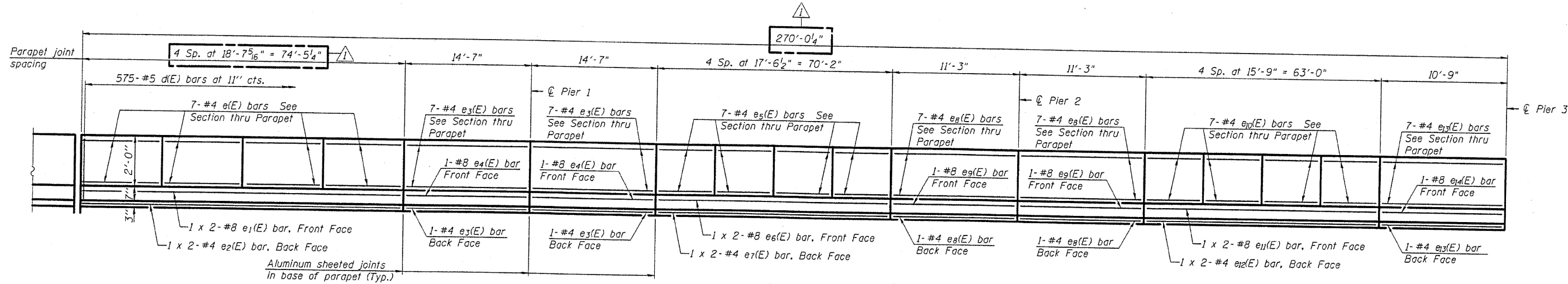
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE DETAILS S.N. 085-0514

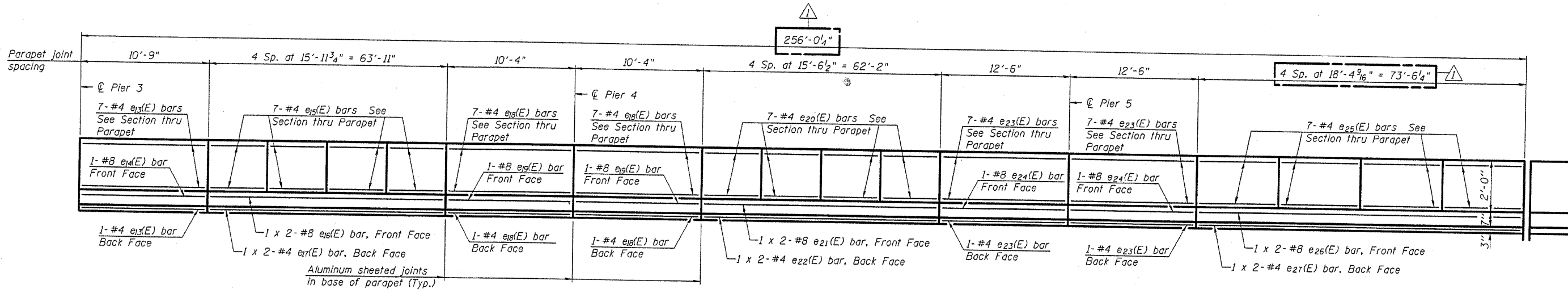
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45 SHEETS	713	120B-3	SCHUYLER	75	33
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

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INSIDE ELEVATION OF PARAPET
(West Parapet shown - East Parapet opposite hand)



INSIDE ELEVATION OF PARAPET
(West Parapet shown - East Parapet opposite hand)

MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

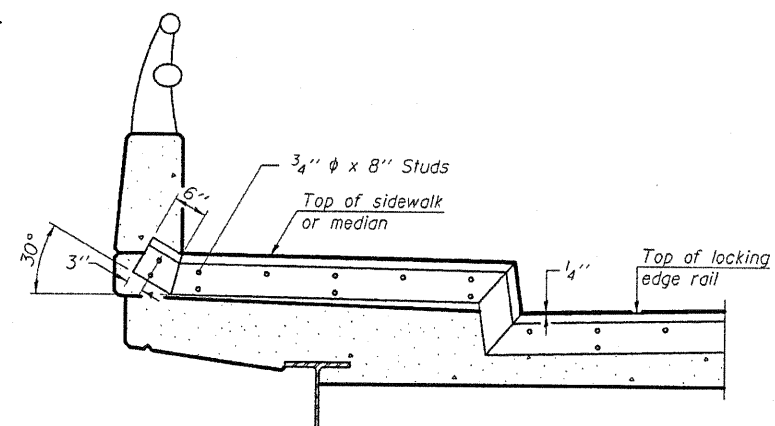
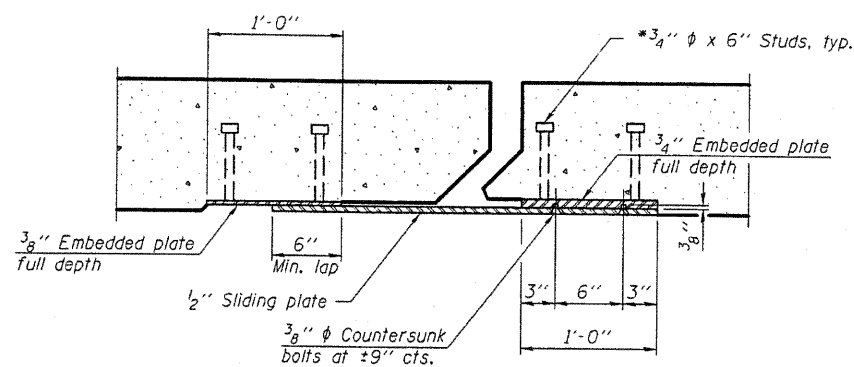
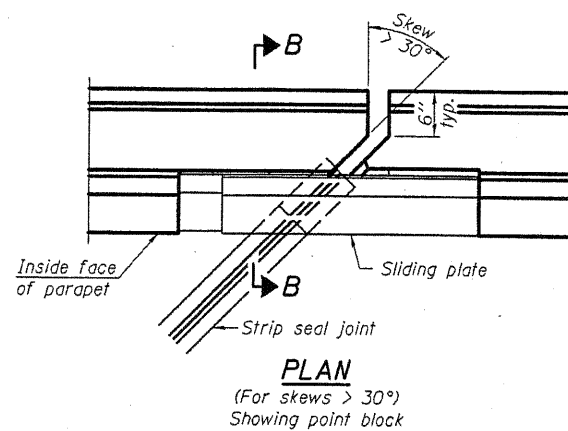
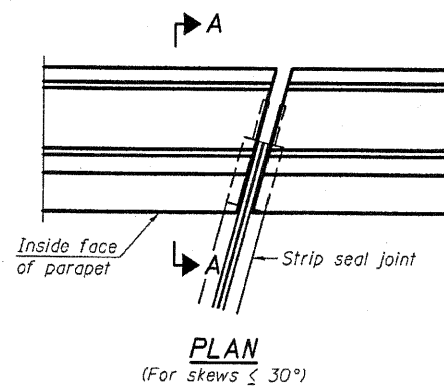
DESIGNED	RJP
CHECKED	ADL
DRAWN	RJP
CHECKED	ADL

SUPERSTRUCTURE DETAILS
S.N. 085-0514

SHEET NO.14	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	34
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

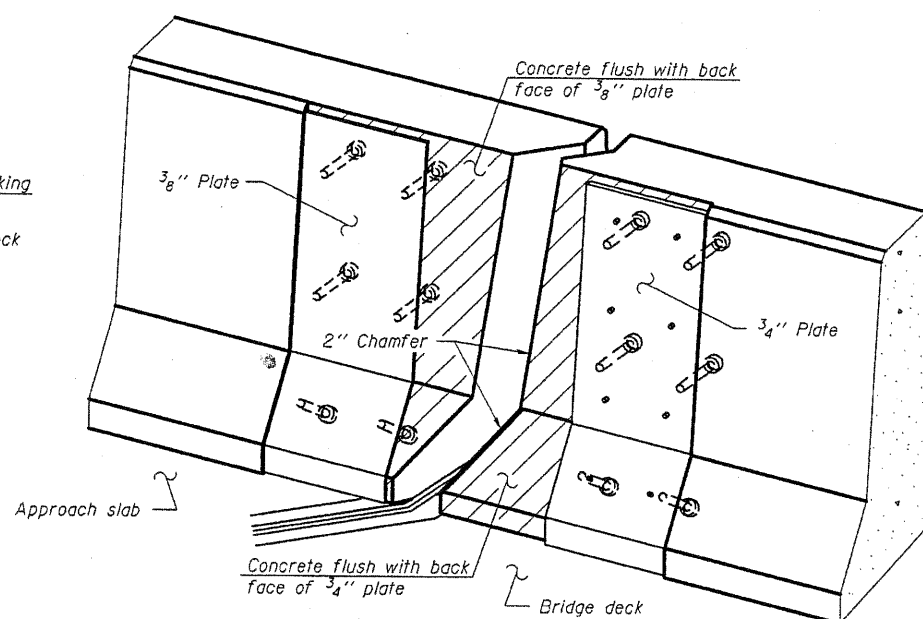
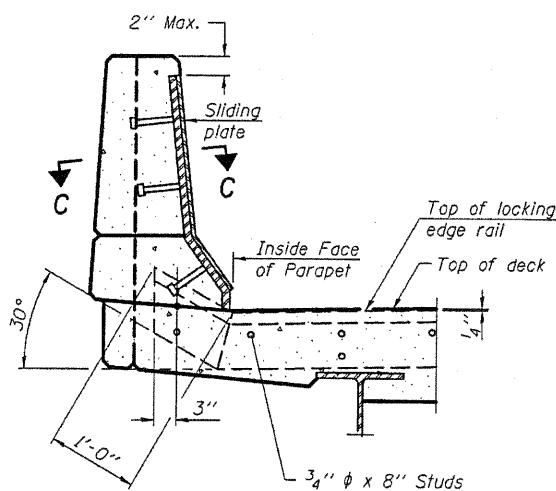
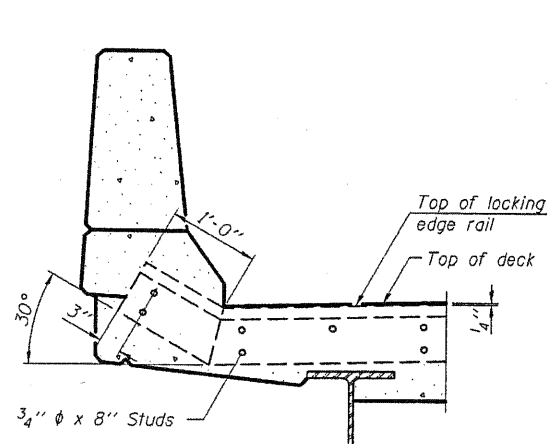
Revised 10/18/10 ADL

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TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

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



Notes:

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

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

The manufacturer's recommended installation methods shall be followed.

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

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

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

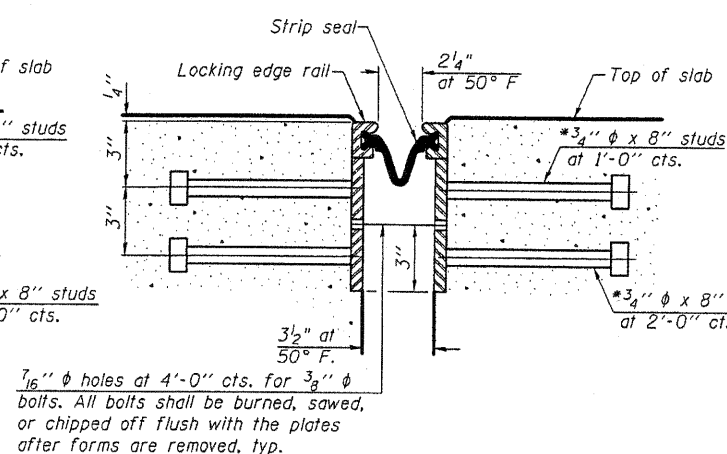
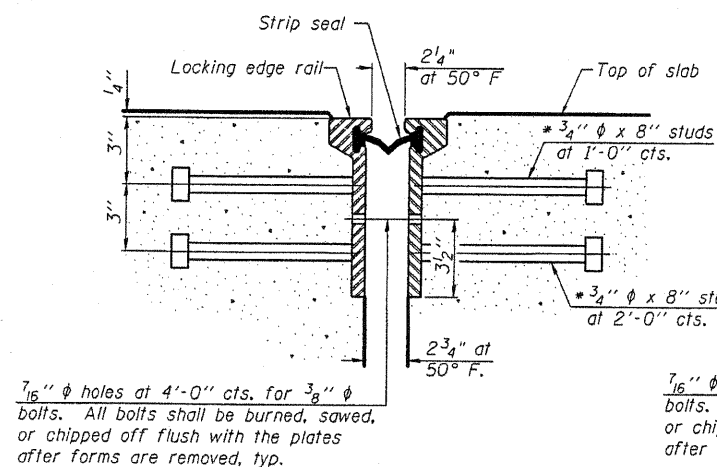
Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	68

PREFORMED JOINT STRIP SEAL S.N. 085-0514

SHEET NO.18	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	38
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				CONTRACT NO.	72A03



ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

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

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

DESIGNED RJP
CHECKED ADL
DRAWN RJP
CHECKED ADL

EJ-SSJ

7-1-10

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

THIS SHEET INTENTIONALLY LEFT BLANK

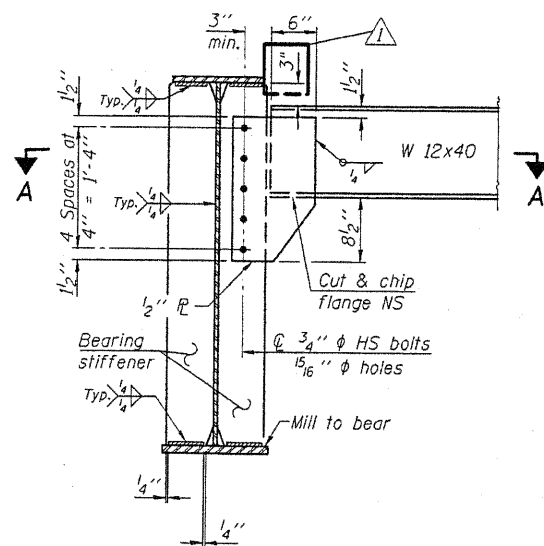
DESIGNED	RJP
CHECKED	ADL
DRAWN	RJP
CHECKED	ADL

SHEET NO.19 45 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	713	120B-3	SCHUYLER	75	39
				CONTRACT NO. 72A03	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

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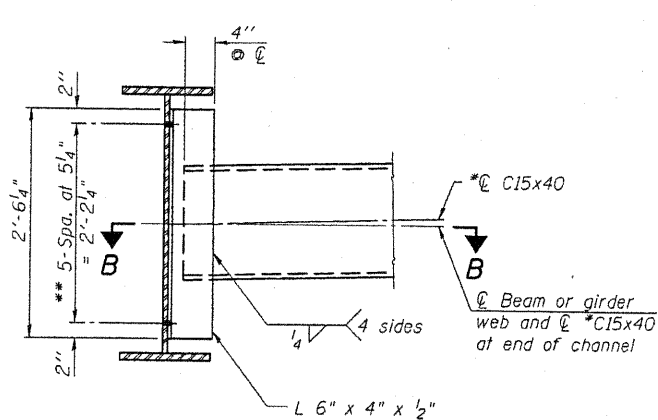
DESIGNED	RJP
CHECKED	ADL
DRAWN	RJP
CHECKED	ADL

SHEET NO.20 45 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	713	120B-3	SCHUYLER	75	40
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT CONTRACT NO. 72A03					



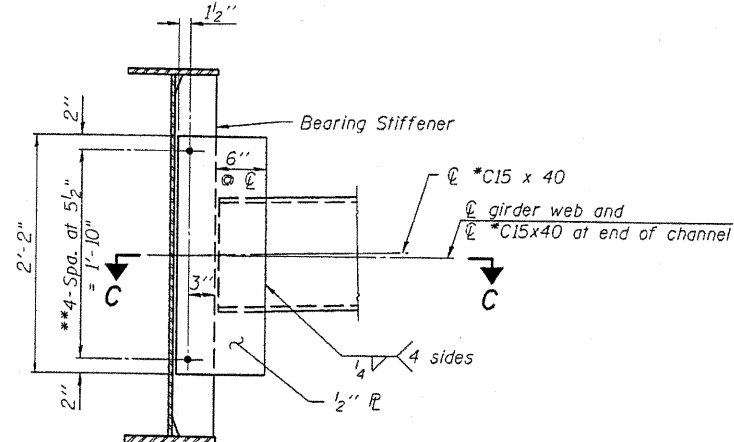
END DIAPHRAGM, D
(8 Required)

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



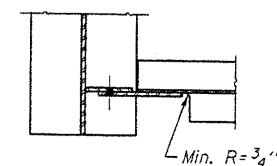
INTERIOR DIAPHRAGM, D1
(90 Required)

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

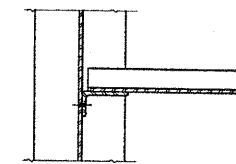


INTERIOR DIAPHRAGM, D2
(25 Required)

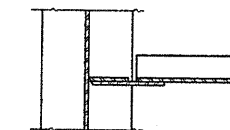
Note: Two hardened washers required for each set of oversized holes.



SECTION A-A

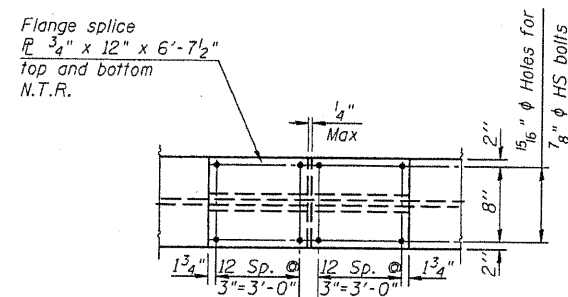


SECTION B-B

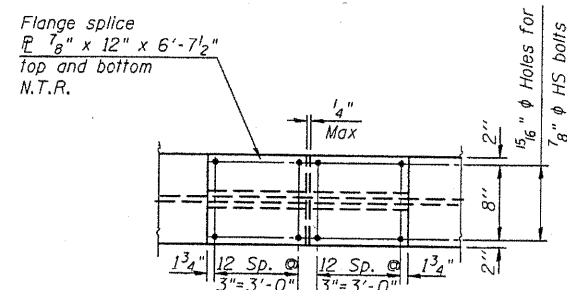


SECTION C-C

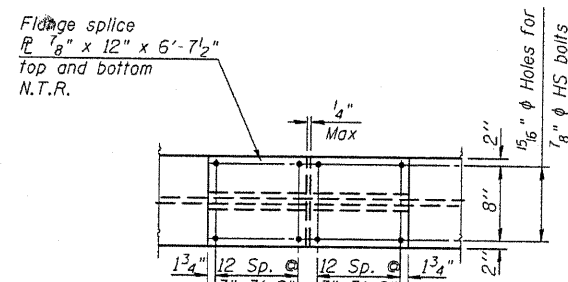
Notes:
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



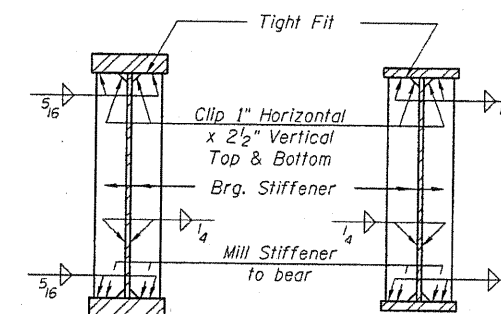
PLAN



PLAN

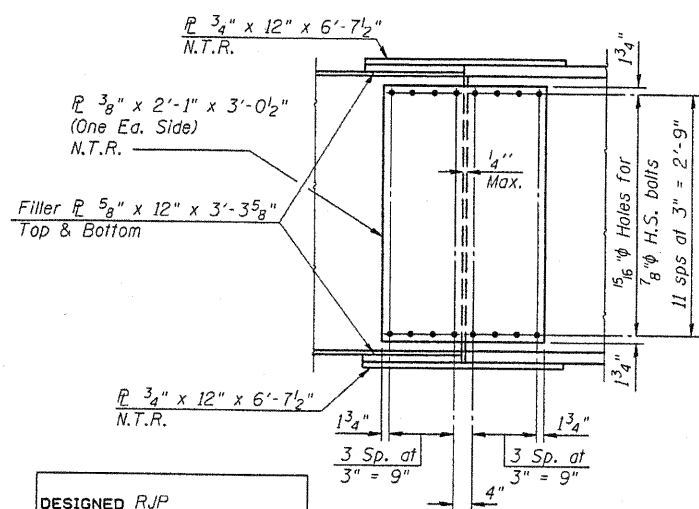


PLAN



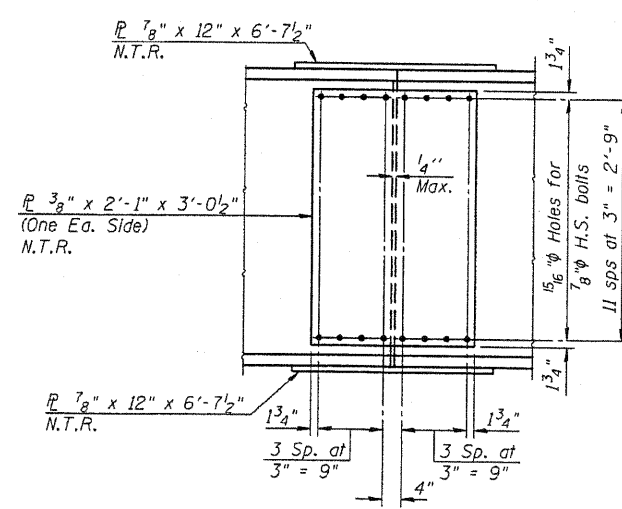
SECTION AT PIER

SECTION AT ABUTMENT



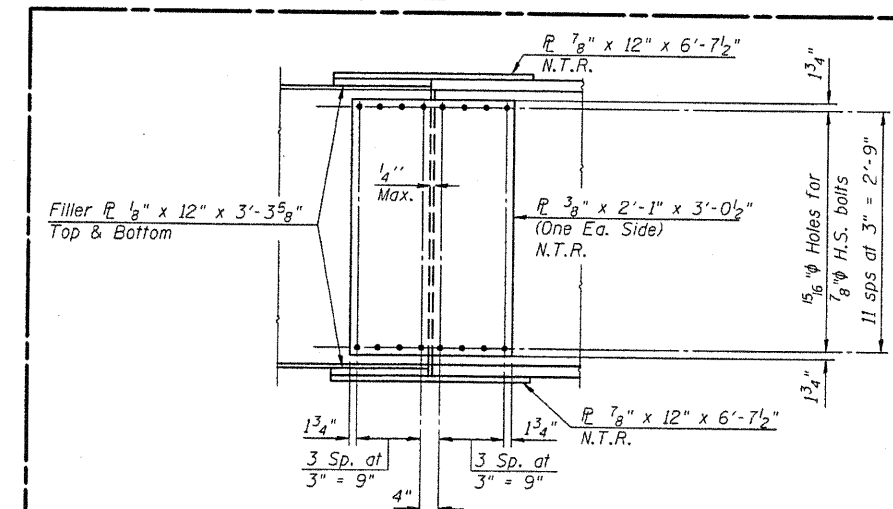
ELEVATION

SPLICE #1 DETAIL



ELEVATION

SPLICE #2, #3, & #4 DETAIL



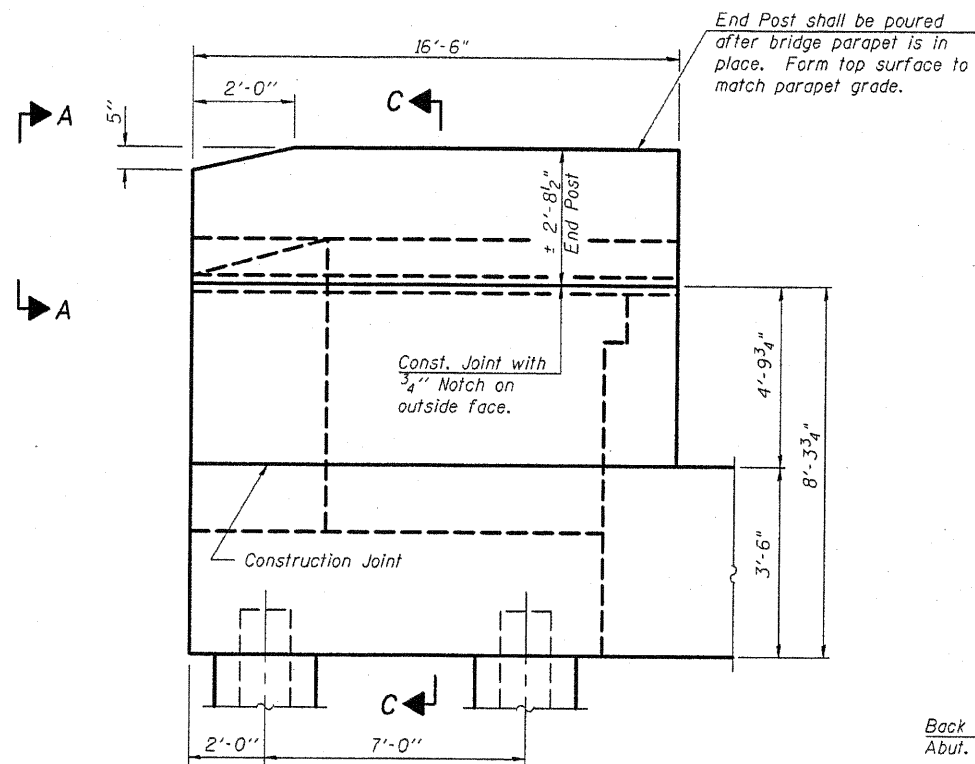
ELEVATION

SPLICE #5 DETAIL

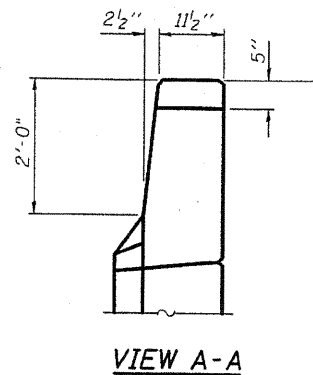
DESIGNED RJP
CHECKED ADL
DRAWN RJP
CHECKED ADL

GIRDER DETAILS
S.N. 085-0514

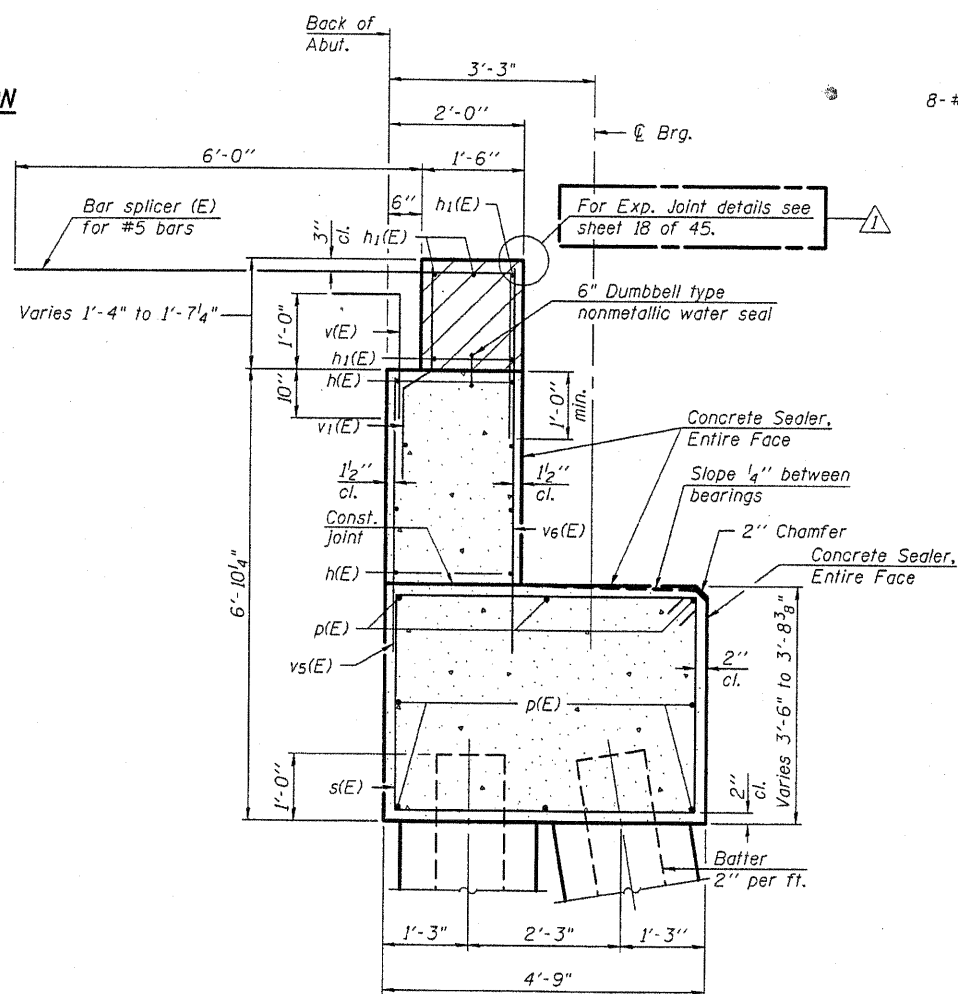
SHEET NO.23	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	43
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
CONTRACT NO. 72A03					



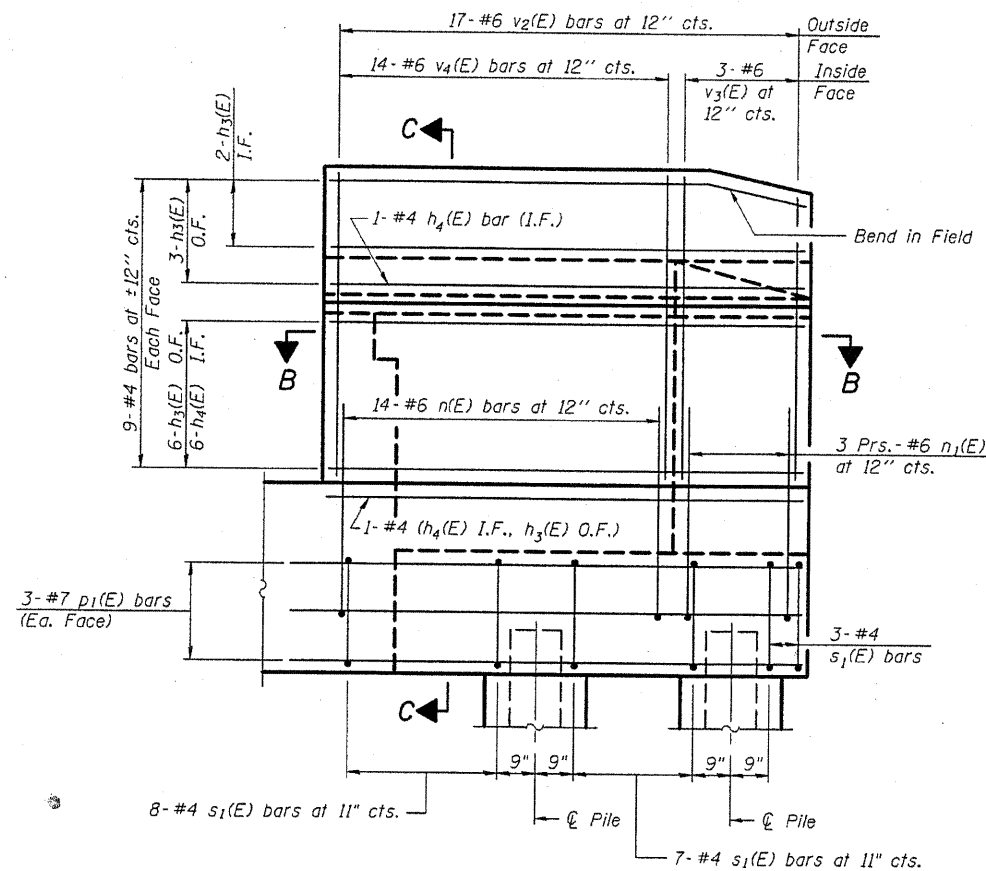
WING WALL ELEVATION
Showing Dimensions



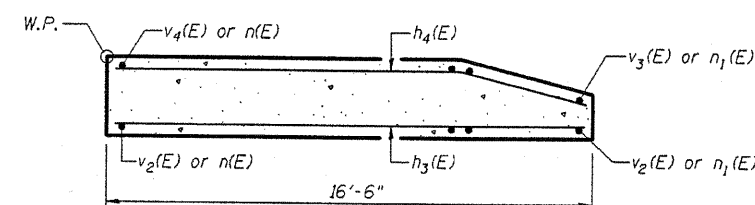
VIEW A-A



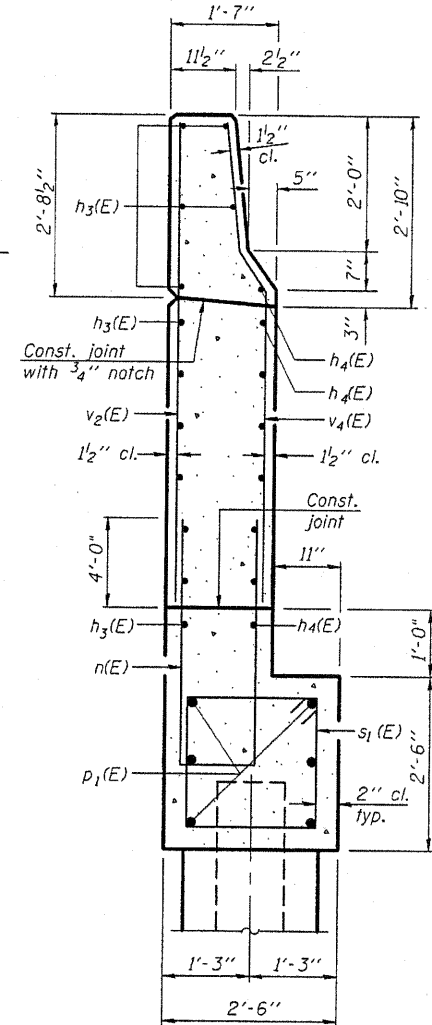
SEC. THRU ABUT.



WING WALL ELEVATION
Showing Reinforcement



SECTION B-B



SECTION C-C

Notes:

Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. Quantity of concrete in end post included with Concrete Superstructure on sheet 13 of 45. For Concrete Encasement details, see sheet 37 of 45. Apply Concrete Sealer to entire face of backwall, bridge seats, and front face of abutment cap. Place Bar Splicers parallel to approach slab reinforcement.

WEST ABUTMENT DETAILS
S.N. 085-0514

SHEET NO.28	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	48
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
CONTRACT NO. 72A03					

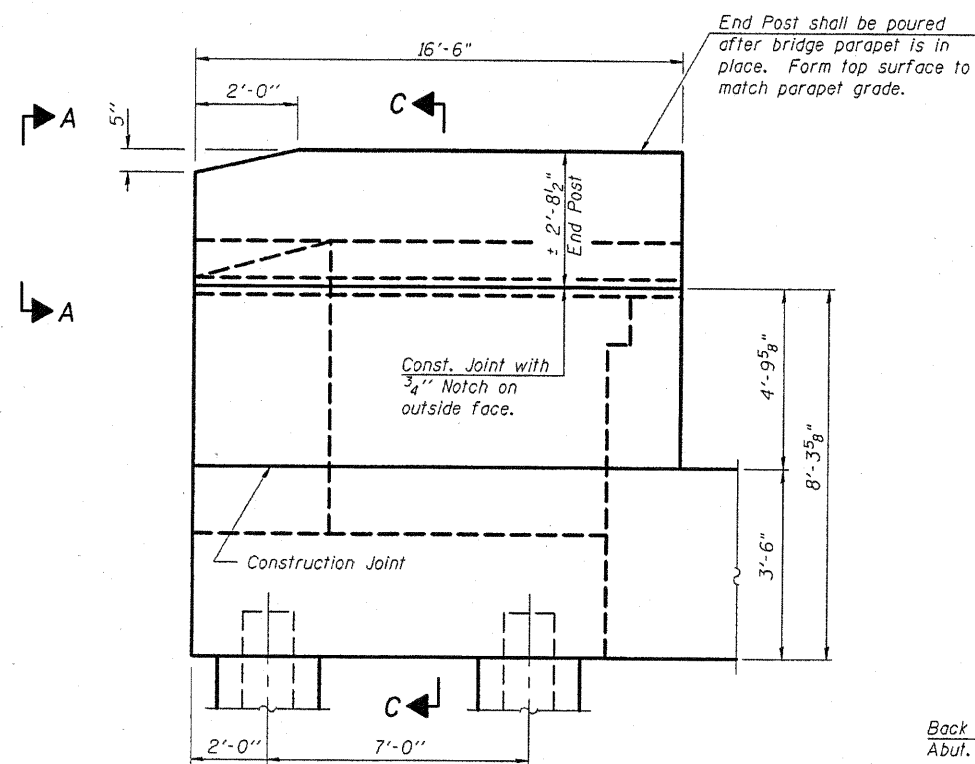
Revised 10/18/10 ADL

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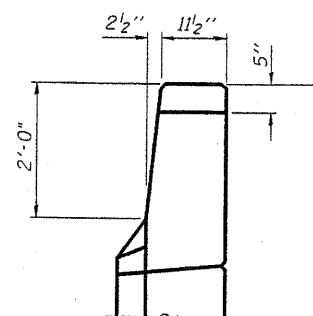
DESIGNED	RJP
CHECKED	ADL
DRAWN	RJP
CHECKED	ADL

A-1-D

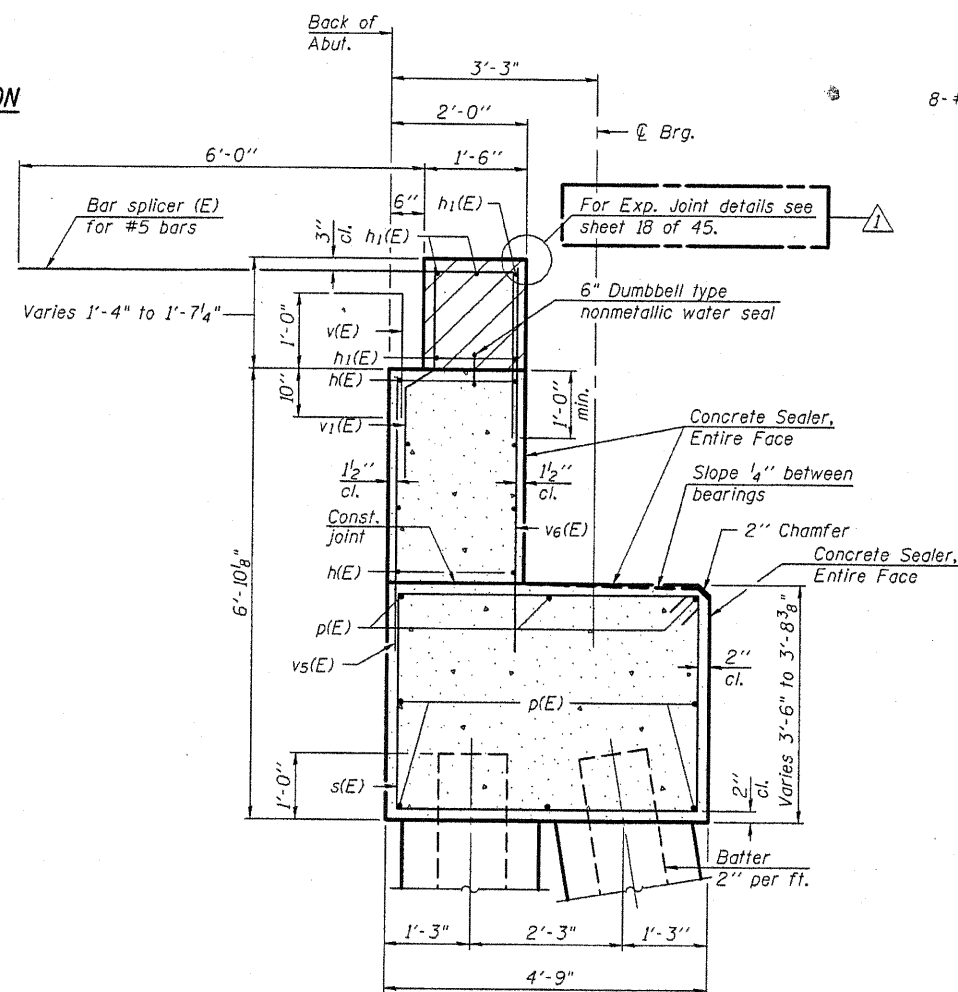
11-1-09



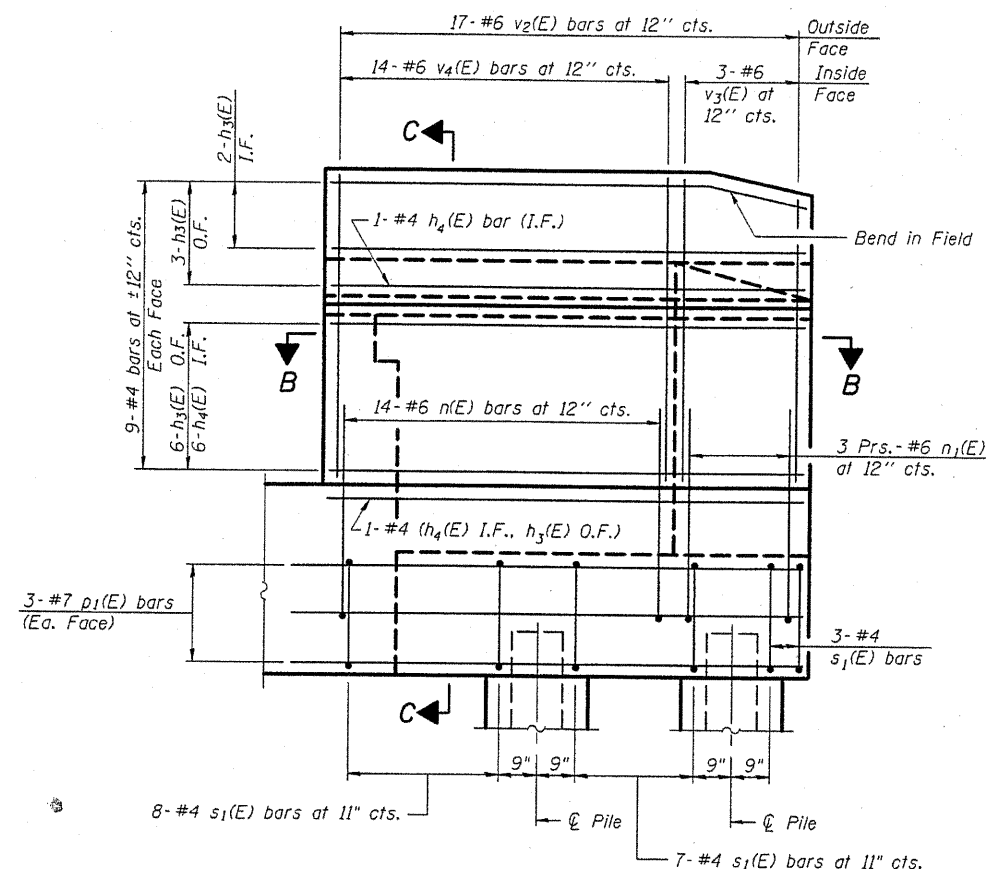
WING WALL ELEVATION
Showing Dimensions



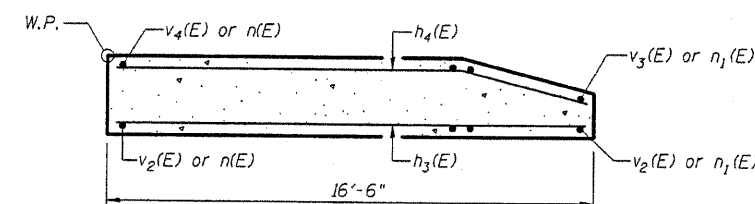
VIEW A-A



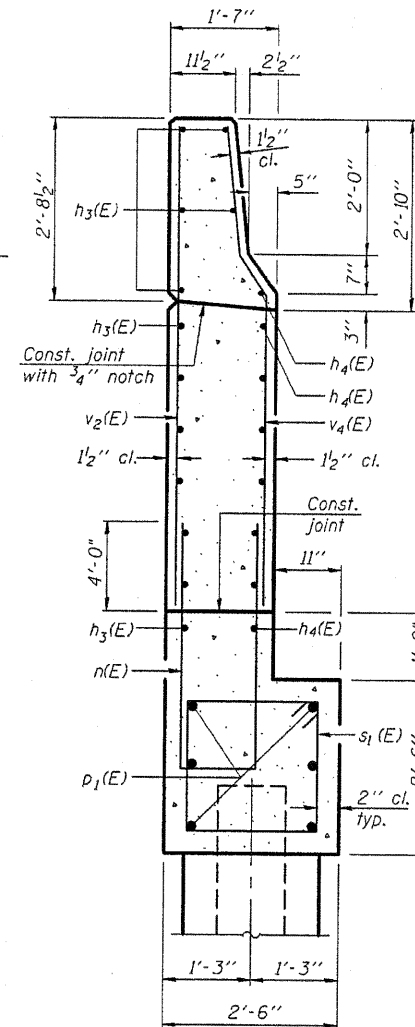
SEC. THRU ABUT.



WING WALL ELEVATION
Showing Reinforcement



SECTION B-B



SECTION C-C

Notes:

- Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- Quantity of concrete in end post included with Concrete Superstructure on sheet 13 of 45.
- For Concrete Encasement details, see sheet 37 of 45.
- Apply Concrete Sealer to entire face of backwall, bridge seats, and front face of abutment cap.
- Place Bar Splicers parallel to approach slab reinforcement.

DESIGNED	RJP
CHECKED	ADL
DRAWN	RJP
CHECKED	ADL

A-1-D

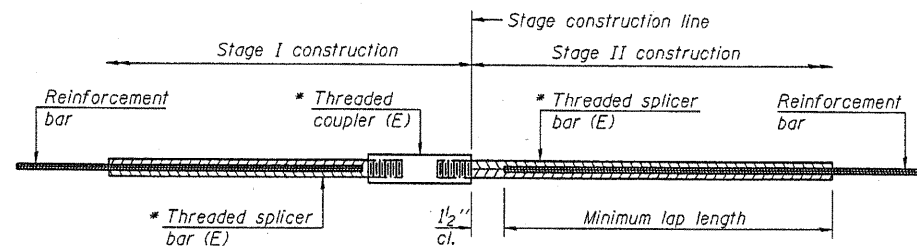
11-1-09

EAST ABUTMENT DETAILS
S.N. 085-0514

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	50
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

Revised 10/18/10 ADL

Klingner & Associates P.C.



STANDARD BAR SPLICER ASSEMBLY

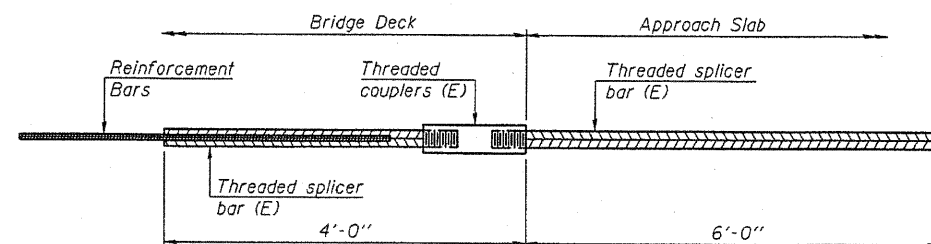
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

Threaded splicer bar length = min. lap length + 1 1/2' + thread length

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

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutments	#7	16	Table 3
Abutments	#6	10	Table 3
Abutments	#5	16	Table 3
Approaches	#4	50	Table 4
Approaches	#5	172	Table 3
Piers	#8	45	Table 3
Piers	#6	20	Table 3
Piers	#5	436	Table 3
Bridge Deck	#5	1,527	Table 3



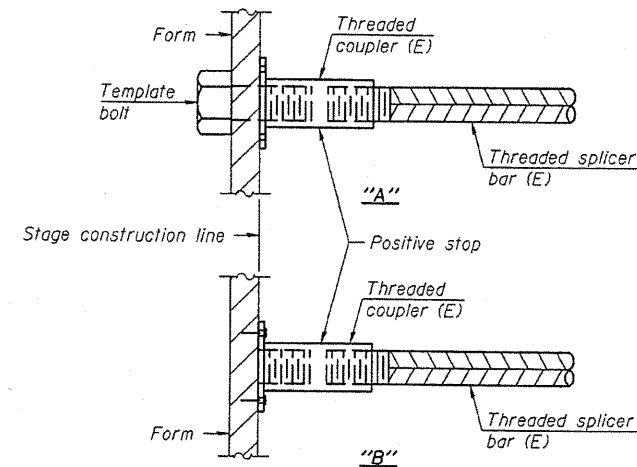
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =

DESIGNED RJP
CHECKED ADL
DRAWN RJP
CHECKED ADL

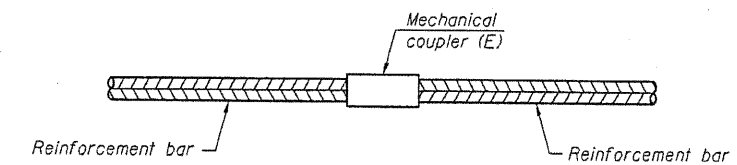
BSD-1

11-1-09



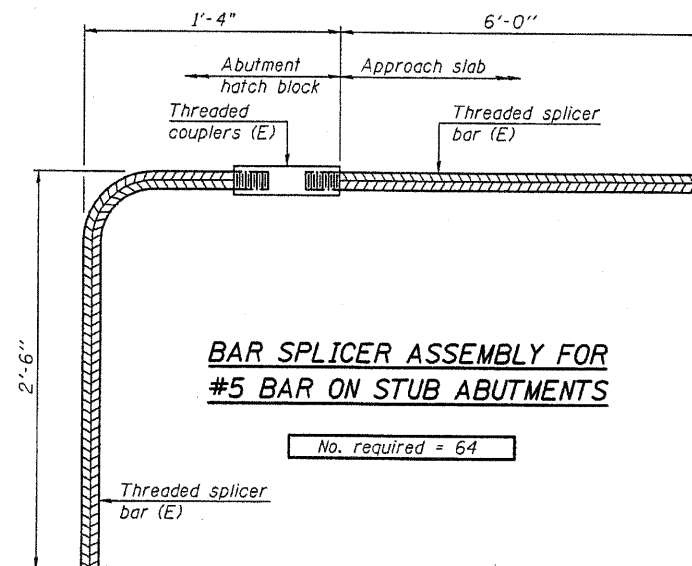
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 64

NOTES

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

BAR SPLICER ASSEMBLY DETAILS S.N. 085-0514

SHEET NO.36	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
45 SHEETS	713	120B-3	SCHUYLER	75	56
CONTRACT NO. 72A03					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					