

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 FEDERAL AID PROJECT
 HIGHWAY BRIDGE PROGRAM**

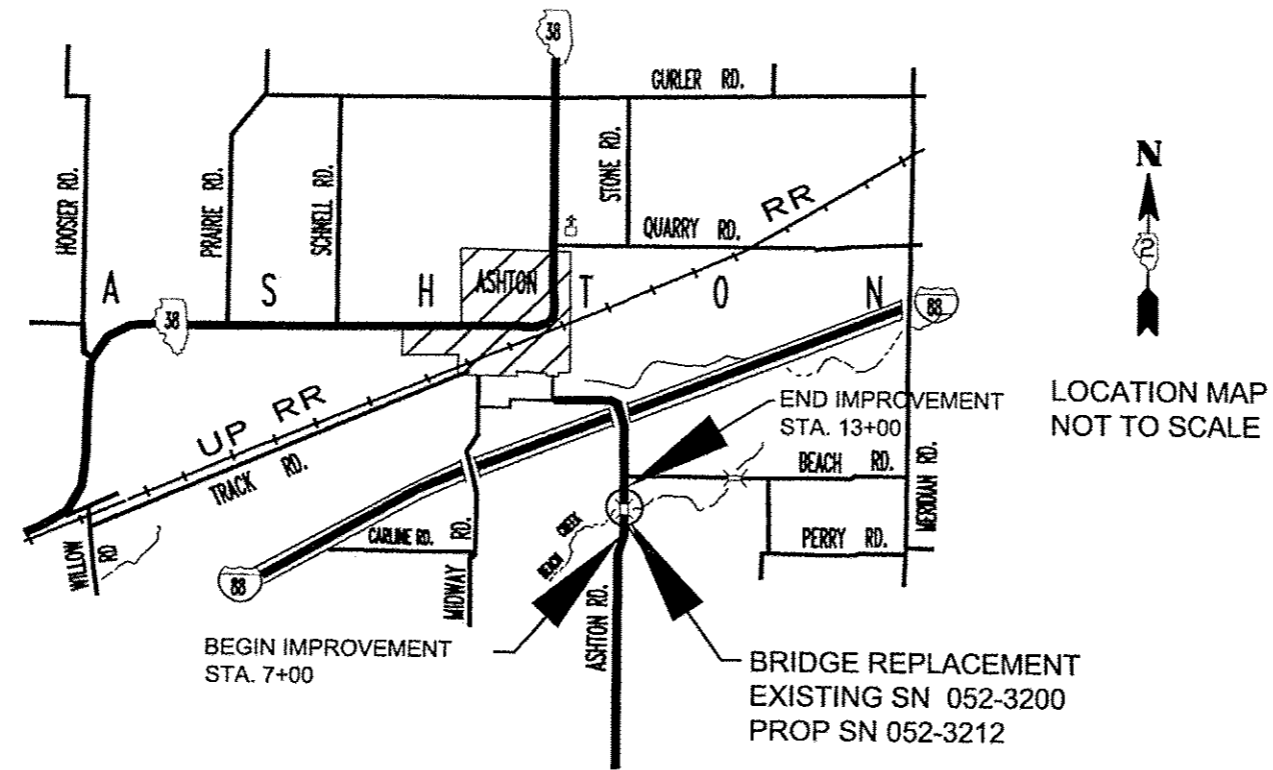
FAS ROUTE 182 (CH 23-ASHTON RD.)
 SECTION 14-00328-00-BR
 PROJECT BRS-0182(103)
 LEE COUNTY
 JOB NO. C-92-053-16



INDEX OF SHEETS

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- STANDARDS
- STD. 515001-03 NAME PLATE FOR BRIDGES
 - STD. 630001-10 STL PL BM GUARDRAIL
 - STD. 630301-06 SHLDR WIDENING FOR TY 1 GDRAIL TERM
 - STD. 631032-08 TRAFFIC BARRIER TERM TY 6A
 - STD. 701001-02 OFF-RD OPER, 2L, 2W, MORE THAN 15' AWAY
 - STD. 701006-05 OFF-RD OPER, 2L, 2W 15' TO 24' FROM PAVEMENT EDGE
 - STD. 701301-04 LANE CLOSURE, 2L,2W, SHORT TIME OPER
 - STD. 701311- 03 LANE CLOSURE 2L,2W MOV OPER- DAY ONLY
 - STD. 701901-05 TRAFFIC CONT DEVICES
 - BLR 21-9 TYP APPL OF TRAF CONT DEVICES FOR CONST ON RURAL LOCAL HIGHWAYS



GROSS/ NET LENGTH = 600 FT. = .11 MILES

FUNCTIONAL CLASSIFICATION
 RURAL MAJOR COLLECTOR
 2016 ADT = 450 2% TRUCKS

DAVID M. ANDERSON
 002-058667
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF ILLINOIS
 Exp. 11/30/17

LEE COUNTY HIGHWAY DEPARTMENT	
Approved	02/09/2016 <i>D. M. Anderson</i> Lee County Engineer
Passed	2/16/16 <i>Paul G. Feltner</i> District 2 Professional Engineer Local Jobs Engineer
Releasing For Bid Based on Limited Review	2/16/16 <i>Paul G. Feltner</i> Deputy Director of Highways, Region 2 Engineer

OPERATES
 24 Hours
 365 Days

CALL JULIE 1-800-892-0123
 WITH THE FOLLOWING:
 LEE COUNTY
 ASHTON TOWNSHIP
 SW CORNER of SW 1/4 of SEC. # 35
 (Appx. 41d50°57.8'N 89d12'23.5" W)
 48 Hours Before You Dig
 EXCLUDING SAT., SUN., & HOLIDAYS

DISTRICT 2
 CONTRACT NO. 85633

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	1
LEE COUNTY HW DEP'T		CONTRACT NO. 85633		
ILLINOIS		FED. AID PROJECT BRS-0182(103)		

SUMMARY OF QUANTITIES
CONSTRUCTION TYPE CODE 0011

PAY CODE	DESCRIPTION	UNIT	QUANTITY
20300100	CHANNEL EXCAVATION	CY	80.0
20400800	FURNISHED EXCAVATION	CY	50.0
20700110	POROUS GRANL EMBANKMENT	TONS	180.0
25100630	EROSION CONTROL BLANKET	SY	2700.0
28100809	STONE DUMPED RIP RAP, CLASS A5	TONS	120.0
35101400	AGG BASE COURSE, TYPE B	TONS	962.0
40200800	AGG SURFACE COURSE, TYPE B	TONS	80.0
40800025	BIT MATERIALS (PRIME COAT)	LBS	320.0
40800050	INCIDENTAL HOT MIX ASPHALT SURF	TONS	300.0
48101200	AGG SHOULDERS, TYPE B	TONS	180.0
50100100	REMOVAL OF EXIST STRUCTURE	EA	1.0
50105220	PIPE CULVERT REMOVAL	FT	160.0
50300225	CONCRETE STRUCTURES	CY	42.5
50300260	BRIDGE DECK GROOVING	SY	110.0
50300300	PROTECTIVE COAT	SY	135.0
50400305	PPC DECK BEAMS, 17" DP	SF	1006.0
50800205	REINFORCEMENT BARS, EPOXY COAT	LBS	5280.0
△ 50901050	STEEL RAILING, TYPE SM	FT	76.0
51201400	FURNISHING STEEL PILES HP1042	FT	540.0
51202305	DRIVING PILES	FT	540.0
51203400	TEST PILE STEEL HP10X42	EA	1.0
51500100	NAME PLATE	EA	1.0
542C0229	PIPE CULVERT, CLASS C, TYPE 1, 24"	FT	30.0
△ 63000001	STEEL PL BM GD RAIL, TY A 6 FT POSTS	FT	150.0
△ 63100087	TRAFFIC BARRIER TERM, TYPE 6A	EA	4.0
△ 63100167	TRAFF BARR TERM TY 1, SPCL TANG	EA	4.0
△ 63200310	GUARDRAIL REMOVAL	FT	288.0
67100100	MOBILIZATION	LS	1.0
△ 78200005	GUARDRAIL REFLECTORS TYPE A	EA	10.0
△ 72501000	TERM MARKER DIRECT APPLD	EA	4.0
X2020410	EARTH EXCAVATION (SPECIAL)	CY	620.0
X2501000	SEEDING CLASS 2, SPECIAL	ACRE	0.50
X5030305	CONCRETE WEAR SURFACE, 5"	SY	118.2
X7010216	TRAFFIC CONTROL & PROT, SPECIAL	LS	1.0
Z0013798	CONSTRUCTION LAYOUT STAKES	LS	1.0

△ SPECIALTY ITEMS

GENERAL NOTES:

The final top four inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils. The cost of this work shall be included in the initial prices bid and no additional compensation will be allowed.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The contractor shall seed all disturbed areas within the project limits. See the Special Provisions for Class 2A (Special). Erosion Control Blanket shall be applied over all seeded areas.

All embankment constructed of cohesive soil shall be constructed with not more than 110% of optimum moisture content, determined by the standard proctor test. Cohesive soil shall be defined as any soil which contains greater than 10% particles by weight passing the 75 µm (#200 sieve). The 100% of optimum moisture limit may be waived in free-draining granular material when approved by the Engineer.

The area to be primed shall be limited to that which can be covered with HMA on the next days productivity, but no more than five days in advance of the placement of the HMA, unless approved by the Engineer.

The new number for this structure will be 052-3212.

Culvert & Bridge flows must be maintained throughout the project. Normal flow shall be allowed to pass at the rate it enters the jobsite. High flows shall be allowed to pass without causing damage to upstream properties.

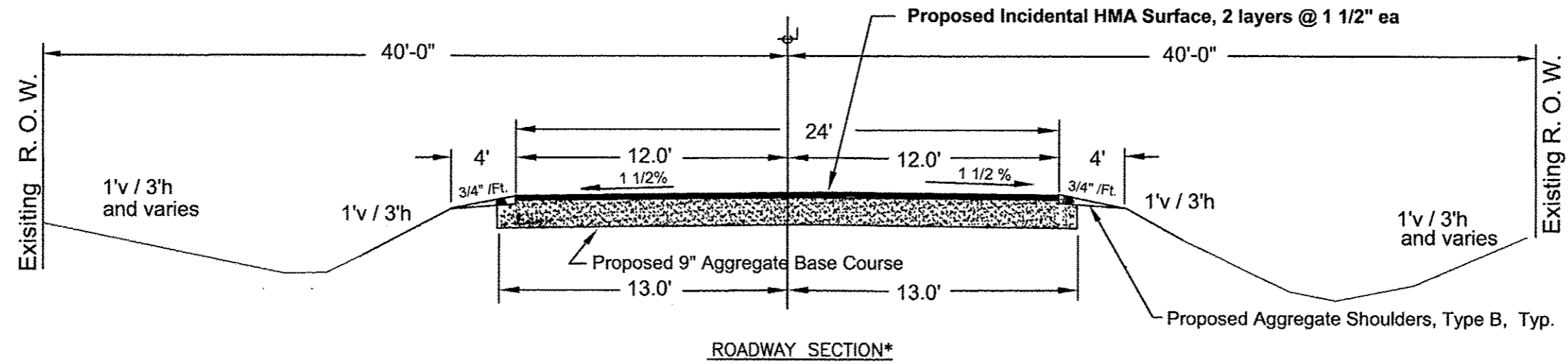
Utilities: The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.39 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The contact for Frontier Communications is Mr. Roger Kline, Sycamore Office: (815) 895-1538, Mobile: (779) 222-6077

Subcontractors:

The Contractor shall designate those Pay Items which are to be subcontracted and provide the name and address of the subcontractor, and their source/location, prior to the start of work. All material must be from an IDOT approved source.

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	2
ASHTON ROAD BRIDGE				
SUMMARY OF QUANTITIES AND GENERAL NOTES				

TYPICAL SECTION
 STATION 7+00 to 9+81,
 STATION 10+19 to 13+00



Mixture Use:	Surface
PG:	PG 64-22
Design Air Voids	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5
Friction Aggregate	C
20 Year ESAL	0.2
Mix Unit Weight	112 LBS / SY / IN.

SCHEDULE OF QUANTITIES:

TRAFFIC BARR TERMINAL, TY 1, SPCL, TANGENT

8+12, 15' RT to 8+62, 14' RT	1
10+63, 14' RT to 11+13, 15' RT	1
8+87, 15' LT to 9+37, 14' LT	1
11+38, 14' LT, to 11+88, 15' LT	1

TRAFFIC BARRIER TERMINAL, TYPE 6A

9+37, 14' RT to 9+81, 14' RT	1
10+19, 14' RT to 10+63, 14' RT	1
9+37, 14' LT to 9+81, 14' LT	1
10+19, 14' LT to 10+63, 14' LT	1

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS

8+62, 14' RT to 9+37, 14' RT:	75 FT
10+63, 14' LT to 11+38, 14' LT:	75 FT

METAL PIPE CULVERT REMOVAL, 18"

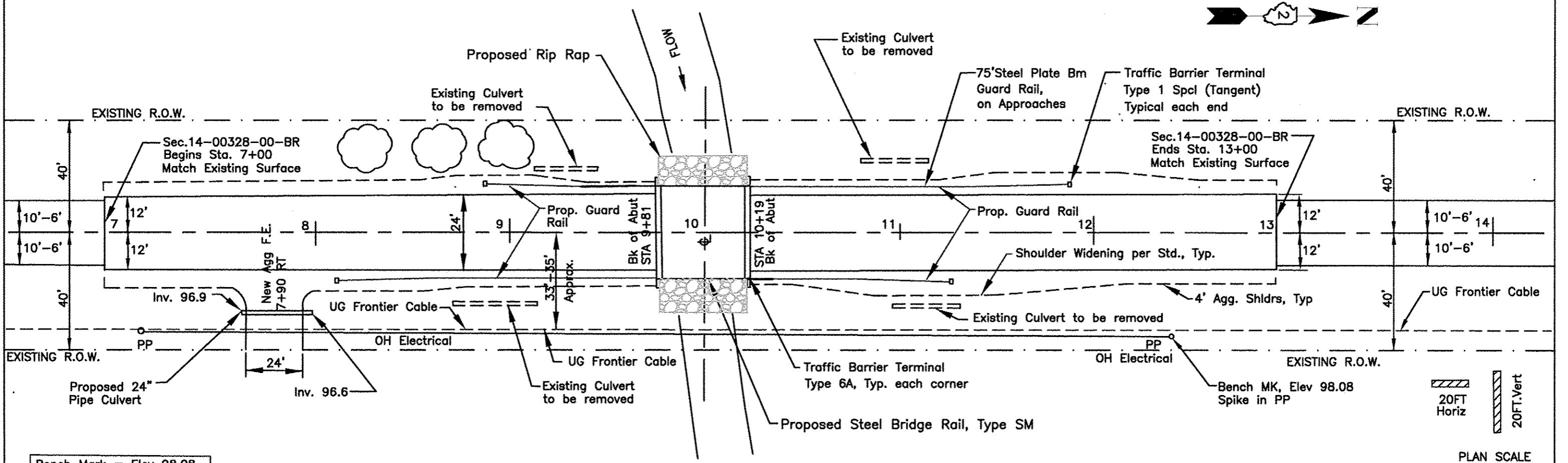
8+80 to 9+20 RT:	40 FT
9+20 to 9+60 LT:	40 FT
11+00 to 11+40 RT:	40 FT
10+ 80 to 11+20 LT:	40 FT

PIPE CULVERT, CLASS C, TYPE 1, 24'

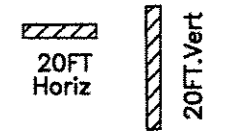
7+80, 29' RT to 8+10, 29' RT, 24":	30 FT
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* Shoulder Widening not shown. See cross sections.

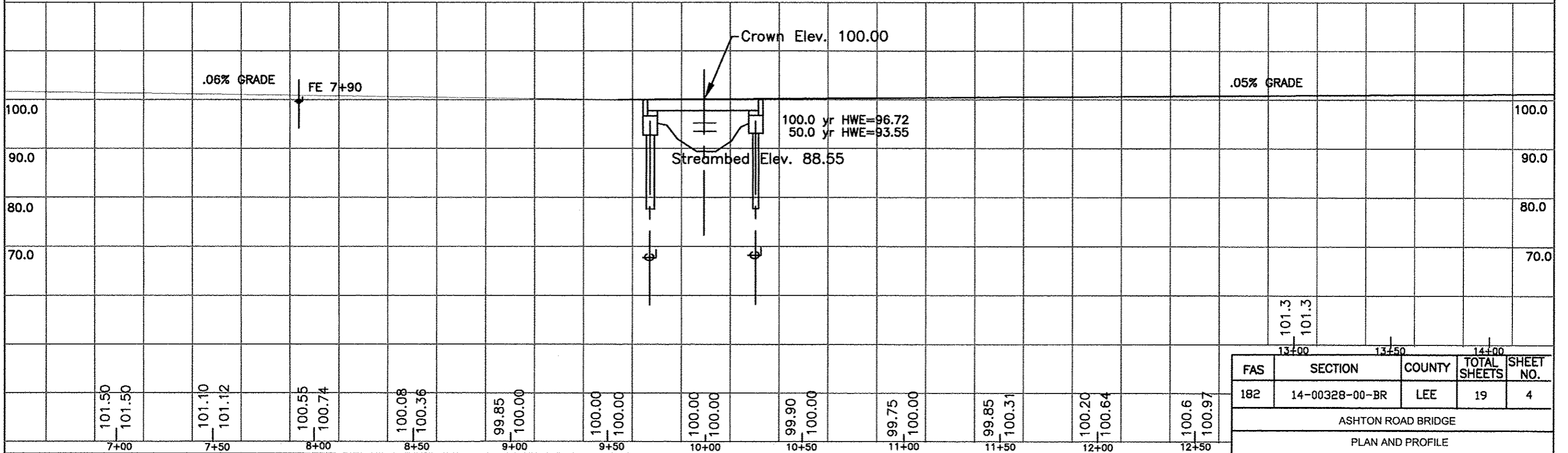
FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	3
ASHTON ROAD BRIDGE				
BRIDGE RAIL, ROAD SECTION & ENCASEMENT				



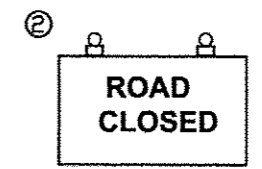
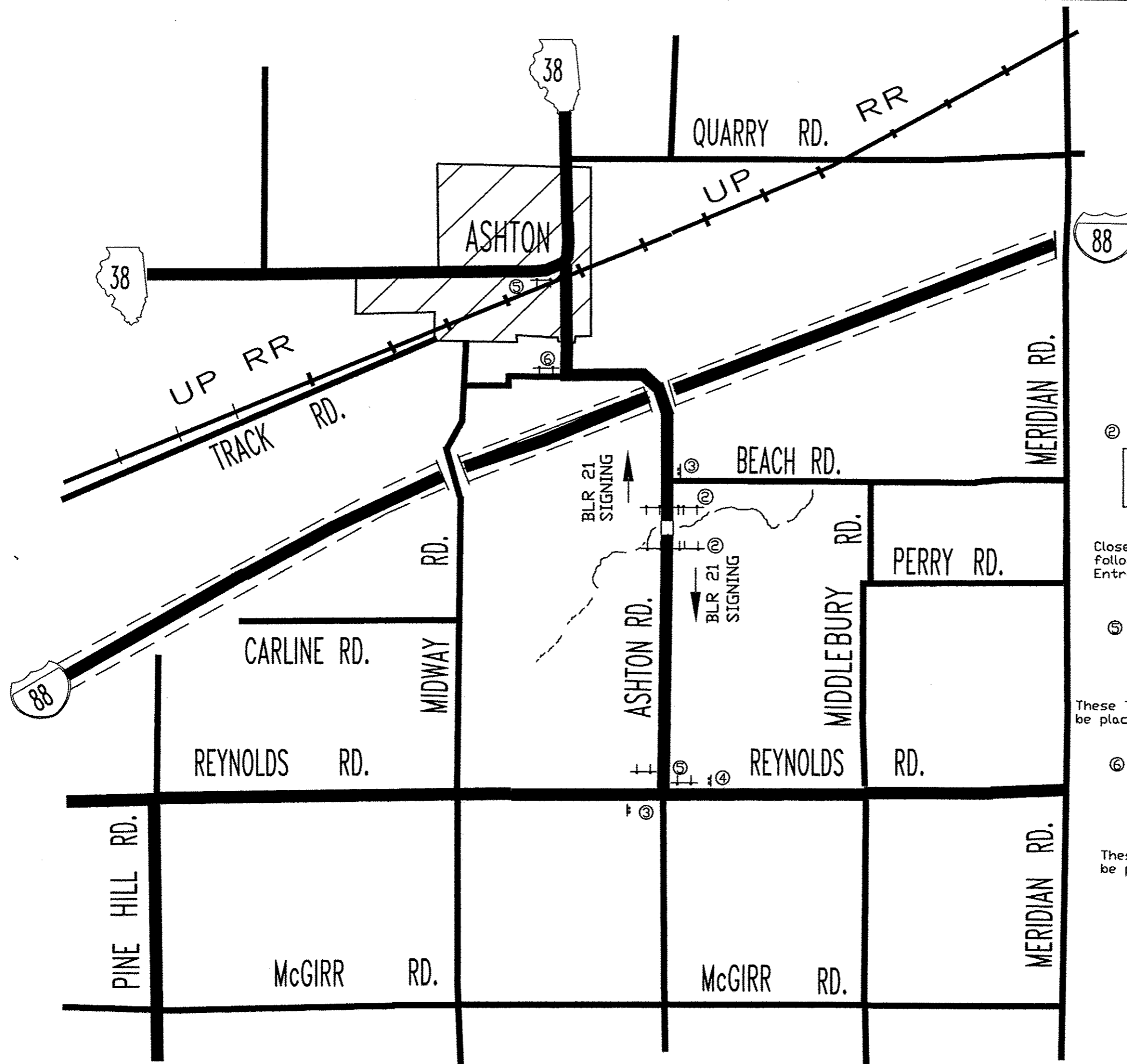
Bench Mark = Elev 98.08
Spike in Northeast PP



PLAN SCALE



FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
182	14-00328-00-BR	LEE	19	4
ASHTON ROAD BRIDGE				
PLAN AND PROFILE				

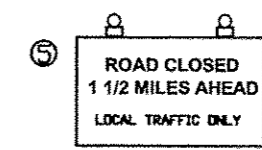


R11-2-4830

Close the road immediately following the last Private Entrance

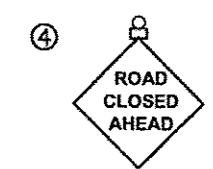


W20-3(0)48
W/ DIRECTION ARROW

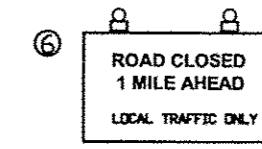


R11-3a-6030

These Type III signs are to be placed off the roadway.



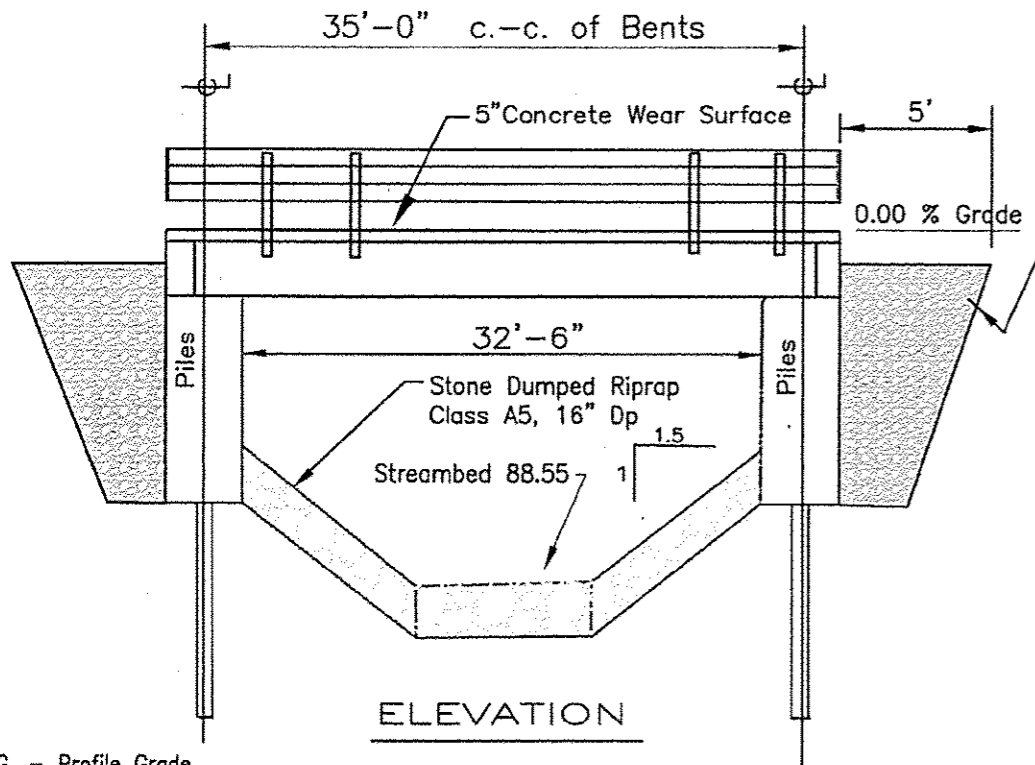
W20-3
W/ DIRECTION ARROW



R11-3a-6030

These Type III signs are to be placed off the roadway.

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
182	14-00328-00-BR	LEE	19	5
ASHTON ROAD BRIDGE				
TRAFFIC CONTROL PLAN				



ELEVATION

P.G. - Profile Grade
 T.C.E. - Top of Cap Elev. at CenterLine
 B.C.E. - Bottom of Cap Elev.

Extend the Rip Rap upstream and downstream 6 ft from the outside beam edge,

WATERWAY INFORMATION

Drainage Area= 6.29 SM		Low Grade Elev.= 100.00							
Flood	Freq. Yr.	Q CFS	Opening SF		Nat. H.W.E.	Head -Ft.		Hdwater EL	
			Exist	Prop		Exist	Prop	Exist	Prop
Design	20	469	136	131	95.75	0.10	0.11	95.85	95.86
Base	100	652	175	170	96.70	0.07	0.07	96.77	96.77

PILE DATA INFORMATION

TYPE AND SIZE: STEEL PILE HP10X42
 NOMINAL REQUIRED BEARING 335 KIPS
 ALLOWABLE RESISTANCE AVAILABLE 85 KIPS
 QTY REQUIRED: 9 + 1 TEST PILE
 ESTIMATED PILE LENGTH:
 NORTH ABUTMENT: 60 FT. EACH
 SOUTH ABUTMENT: 60 FT. EACH
 MINIMUM PENETRATION: 15 FT BELOW STREAMBED
 THE TEST PILES SHALL BE DRIVEN TO 110 PERCENT OF THE NOMINAL REQUIRED BEARING INDICATED IN THE PILE DATA INFORMATION
 THE STEEL H-PILES SHALL BE ACCORDING TO AASHTO M270 GRADE 50

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications and all applicable interims.

LOADING HL-93

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

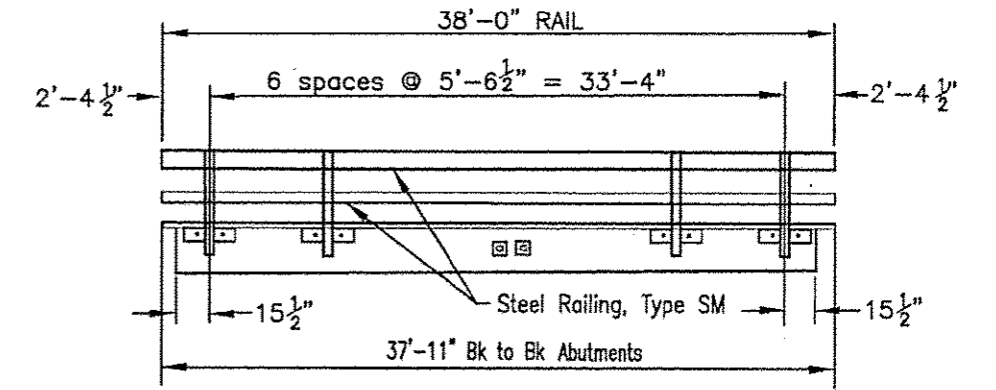
DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_{cl} = 5,000$ psi
 $f_{pu} = 270,000$ psi (1/2" dia. Low Lax Strands)
 $f_{pbt} = 201,960$ psi (1/2" dia. Low Lax Strands)

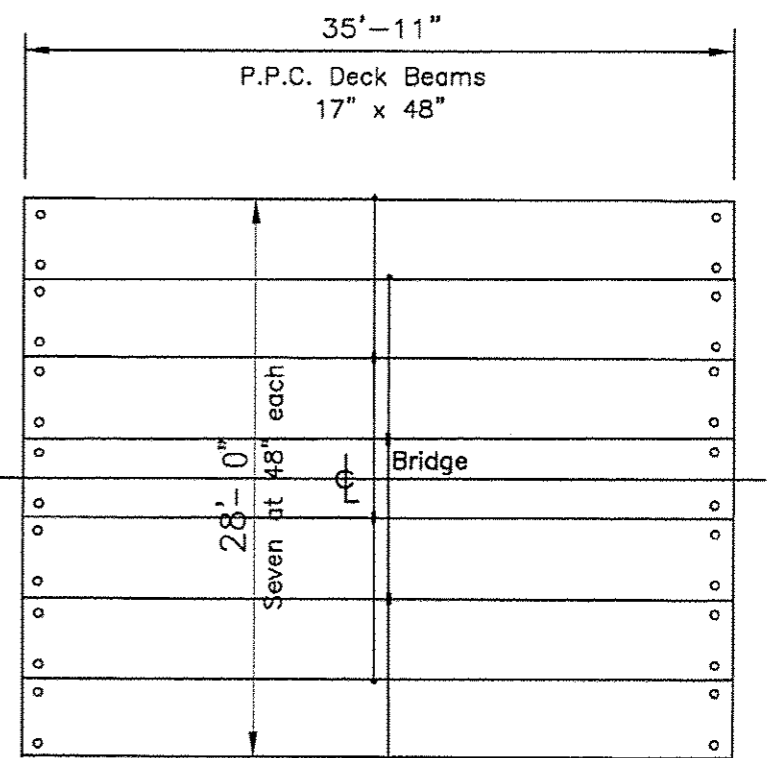
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans, the design is an economical one for the style of structure and complies with requirements of the current "AASHTO Bridge Design Specifications."

CO. HWY 23
 SEC. 14-00328-00-BR
 BUILT 2016
 LEE COUNTY
 LOADING HL-93
 STR. NO. 052-3212

LETTERING FOR NAME PLATE

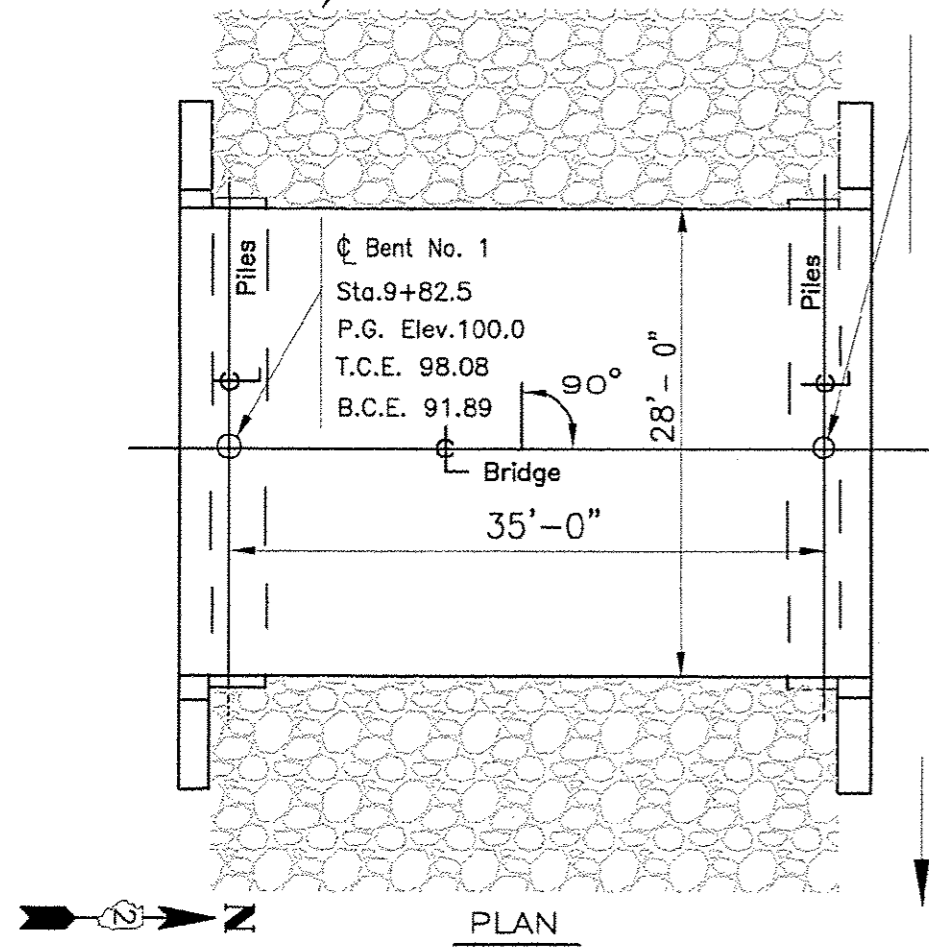


SM RAIL ELEVATION

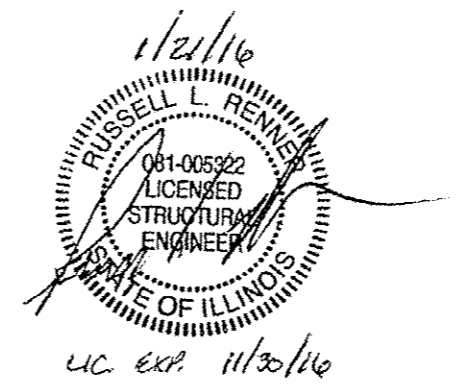


BEAM PLAN

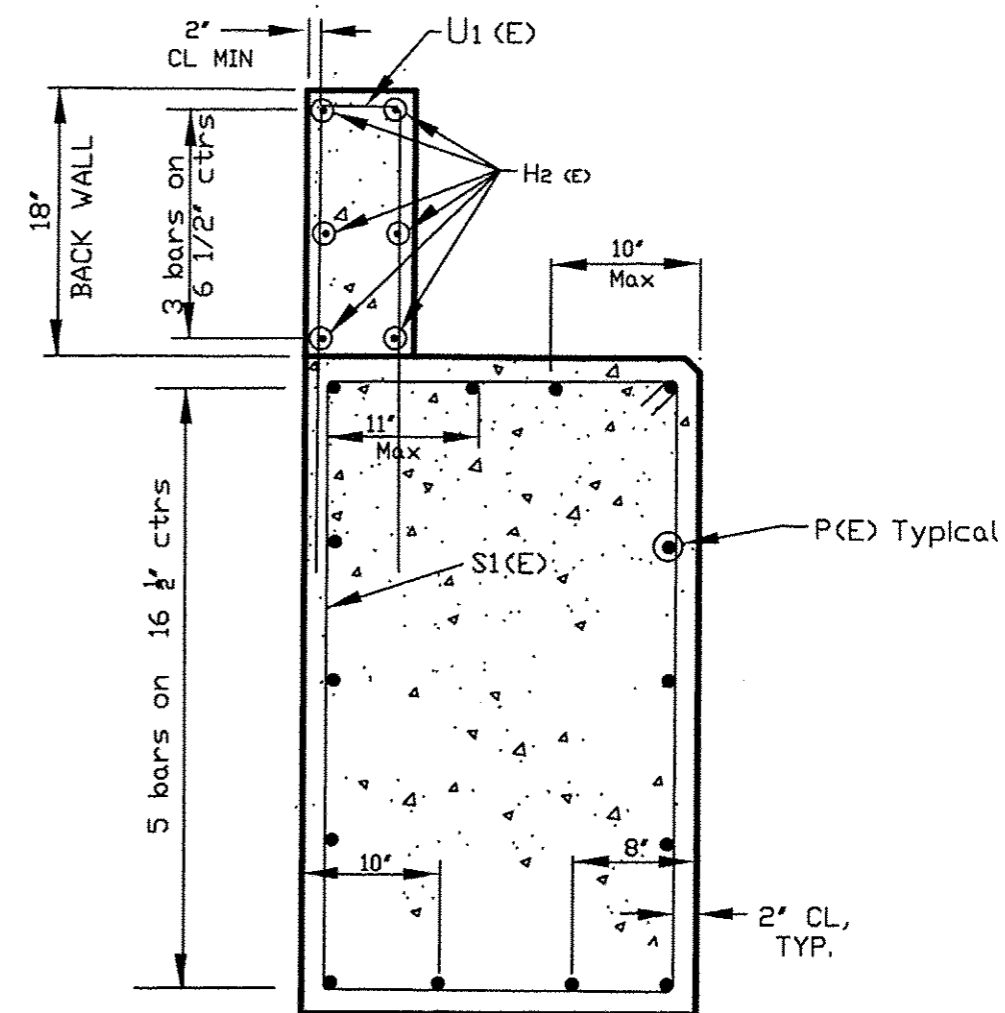
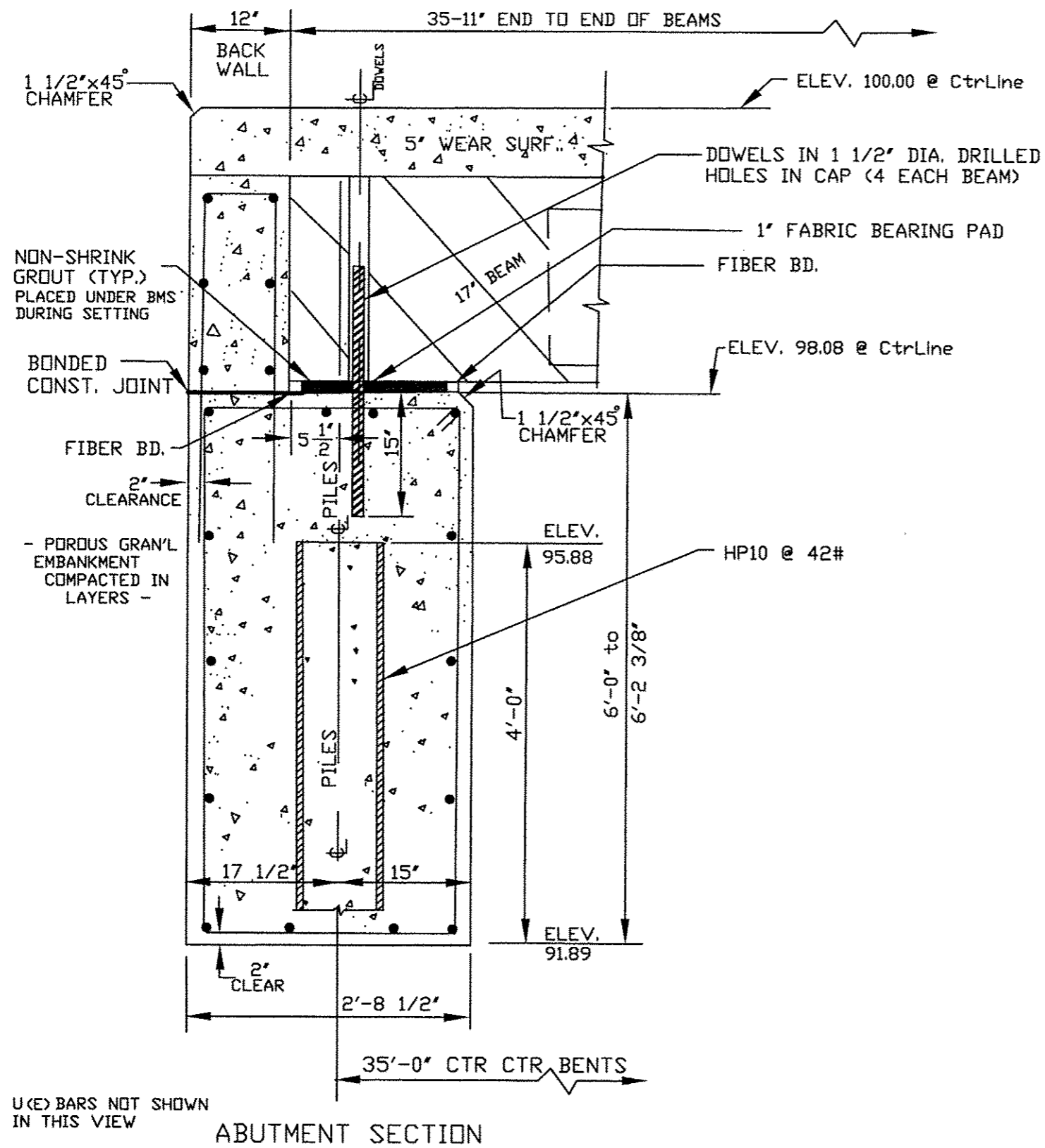
BEAM DRAIN HOLES SHALL BE FULLY OPEN PRIOR TO DELIVERY TO THE SITE.



PLAN



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	6
ASHTON ROAD BRIDGE				
GENERAL PLAN, ELEV. AND SUPERSTRUCTURE				



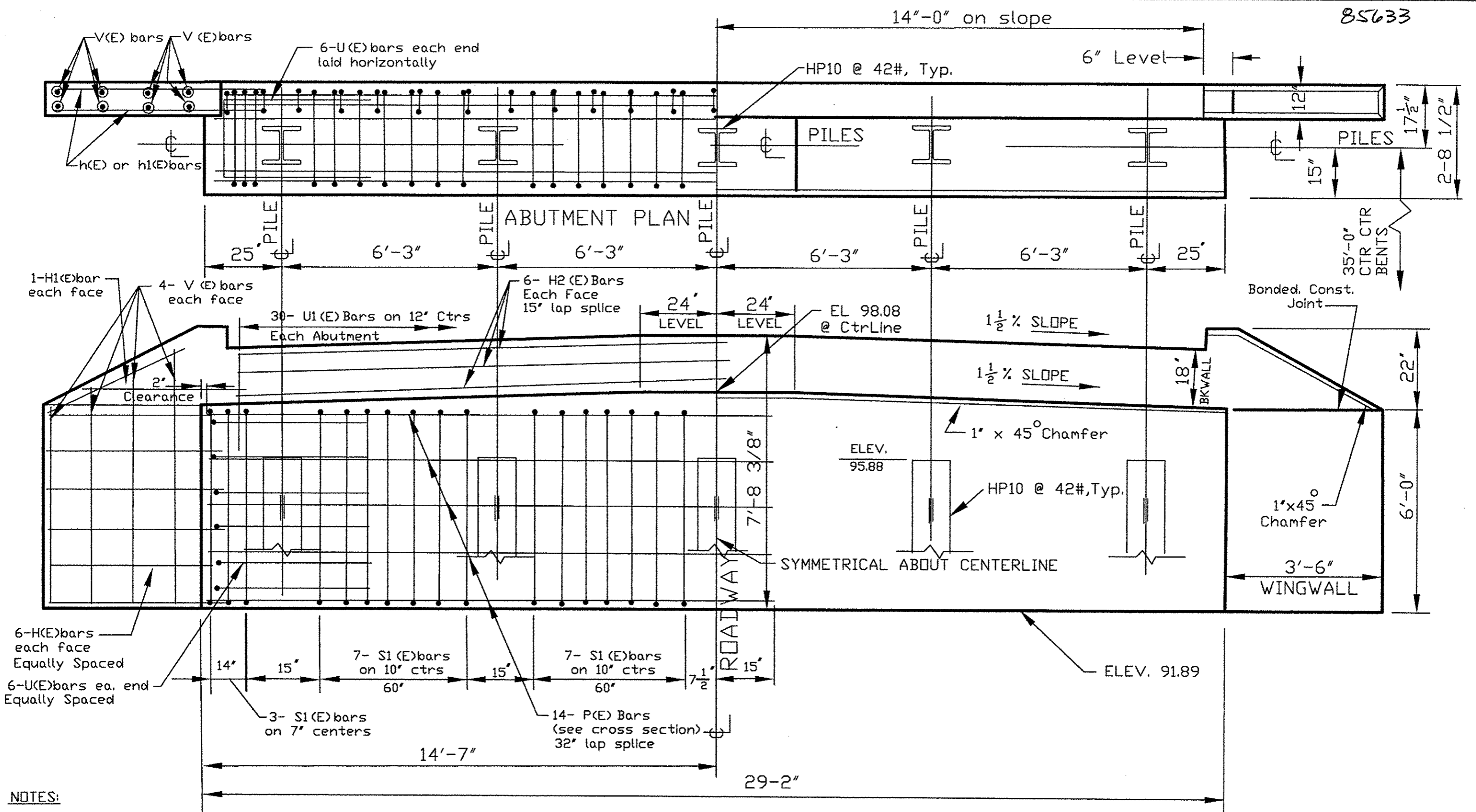
REINFORCEMENT SECTION

U BARS NOT SHOWN IN THIS VIEW
N.T.S.

U (E) BARS NOT SHOWN
IN THIS VIEW

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
182	14-00328-00-BR	LEE	19	7
ASHTON ROAD BRIDGE				
ABUTMENT SECTION				

85633

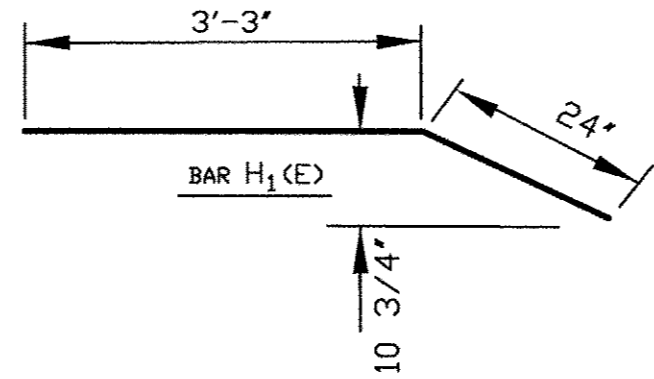
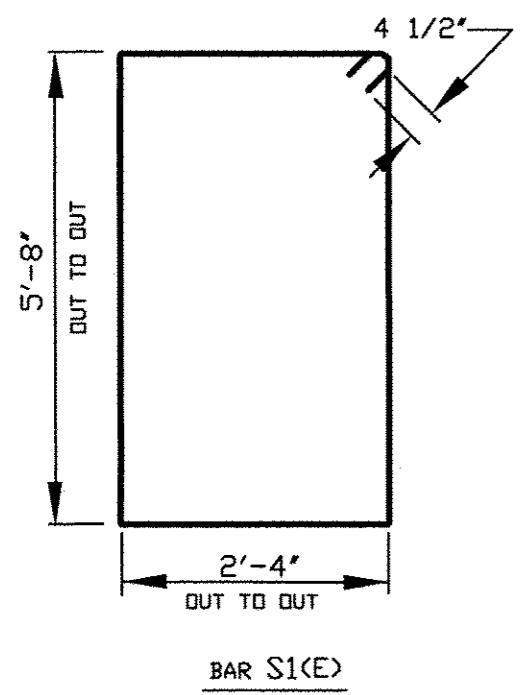
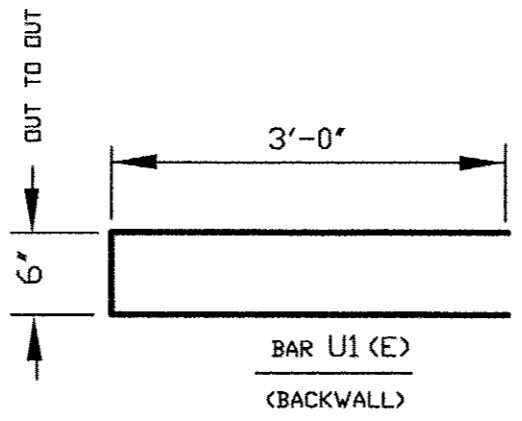
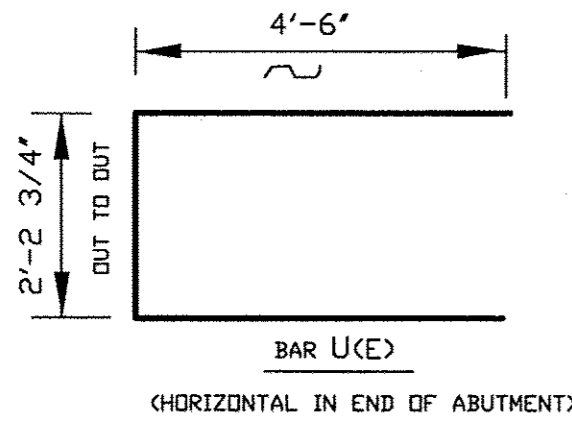


NOTES:

THE BACKWALL SHALL BE CAST AGAINST THE IN PLACE BEAMS.
TRIM THE V BARS IN THE FIELD TO SUIT.

ABUTMENT ELEVATION

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	8
ASHTON ROAD BRIDGE				
ABUTMENT ELEVATION REINFORCEMENT				

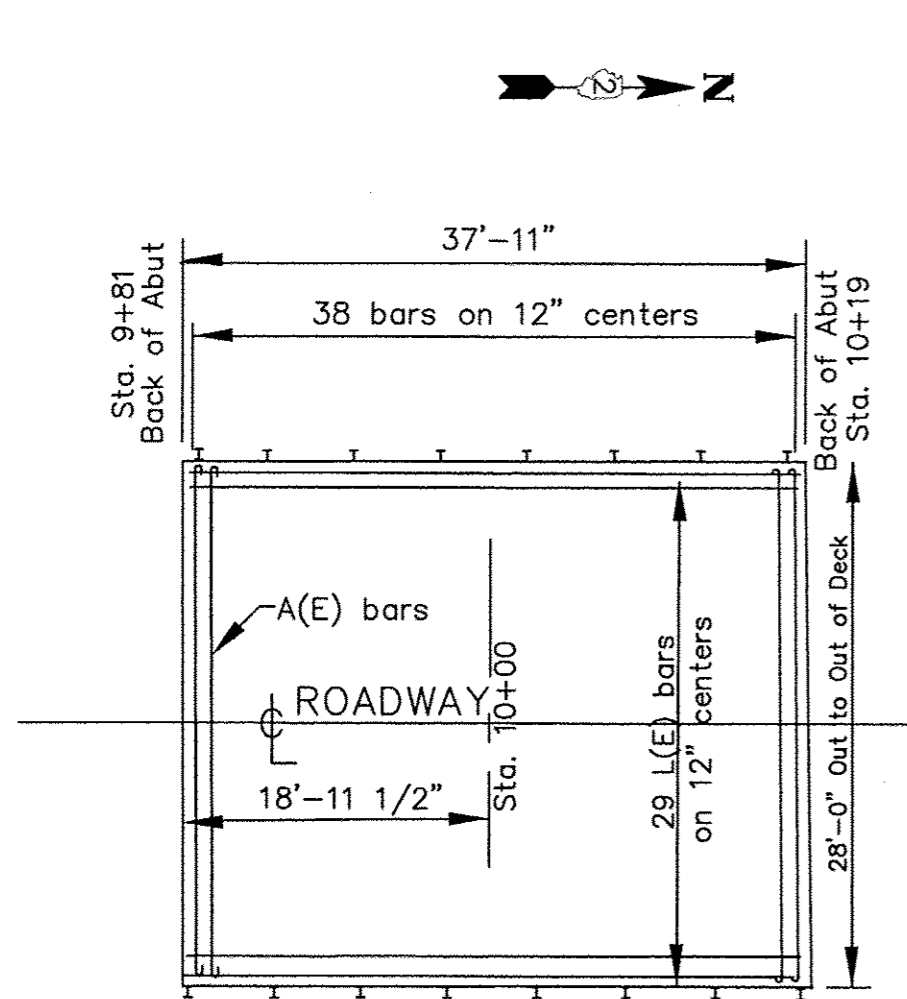


BILL OF MATERIALS FOR TWO ABUTMENTS:

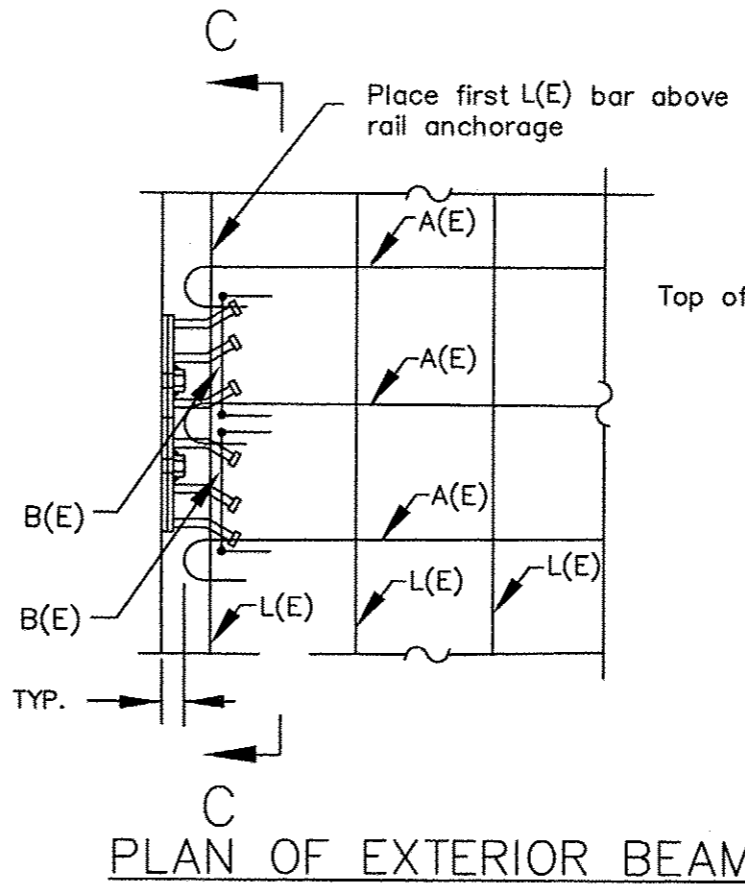
BAR	QTY	SIZE	LENGTH	SHAPE	WEIGHT
S1(E)	68	#4	16'-9"		760.8
U(E)	24	#6	11'-3"		405.5
H(E)	48	#4	5'-0"		160.3
H1(E)	8	#4	5'-3"		28.1
V(E)	32	#4	7'-6"		160.3
P(E)	56	#7	15'-9"		1802.8
U1(E)	60	#4	6'-6"		260.5
H2(E)	24	#4	15'-1"		241.8
L(E)	29	#4	37'-6"		726.4
A(E)	38	#4	28'-9"		729.8
REINFORCEMENT BARS (E) 5276.3 LBS					
CONCRETE STRUCTURES 42.5 CY					

NOTE: INCLUDE 2 EXTRA BARS OF SIZES #4, #6 & #7 FOR I.D.O.T TESTING PURPOSES.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	9
ASHTON ROAD BRIDGE				
ABUTMENT SECTION AND REINFORCEMENT				

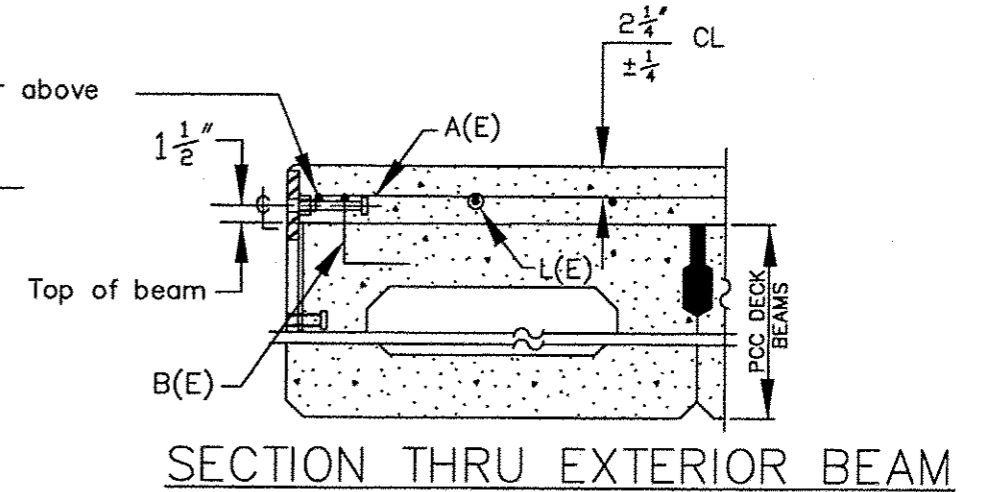


WEAR SURFACE REINFORCING PLAN

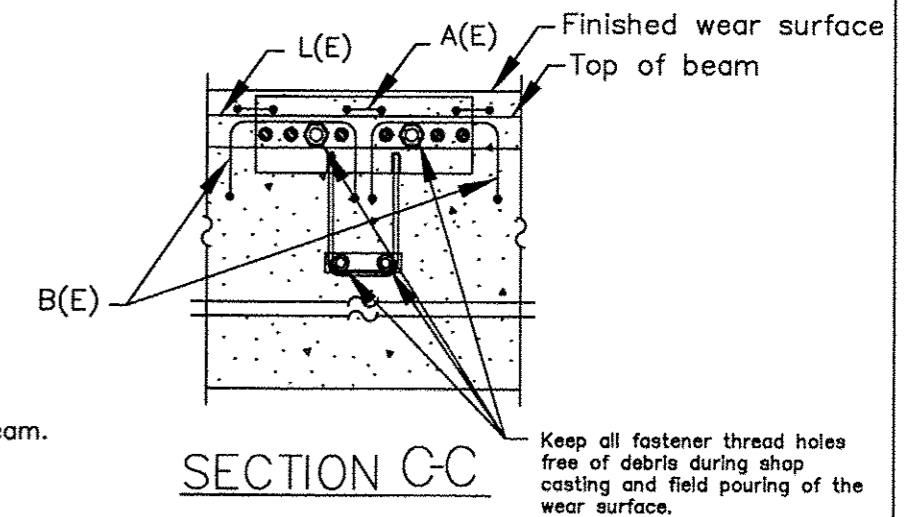


PLAN OF EXTERIOR BEAM

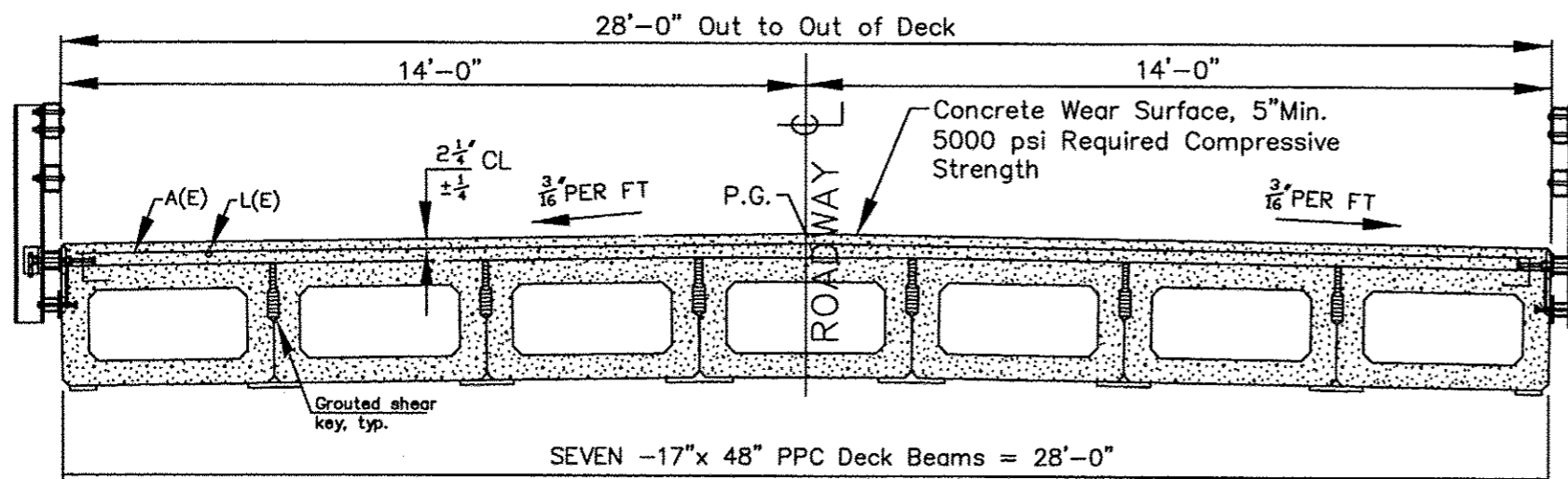
NOTE:
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



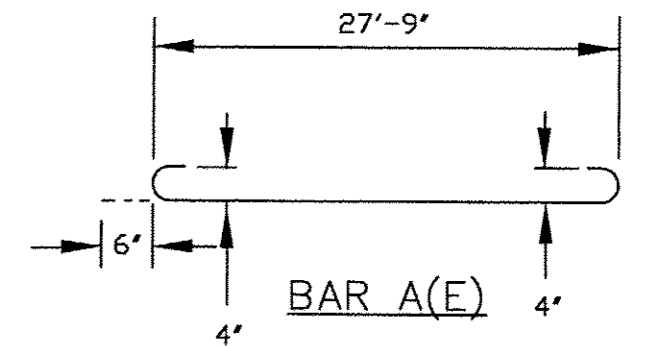
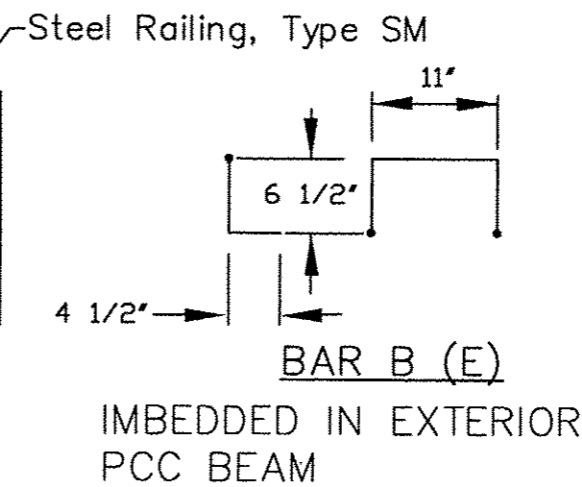
SECTION THRU EXTERIOR BEAM



SECTION C-C



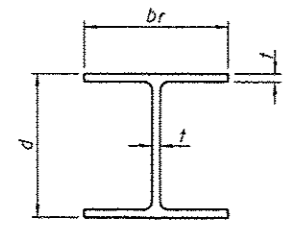
CROSS SECTION



* (E) BARS & DOWEL RODS SHALL BE EPOXY COATED TO AASHTO M 284.

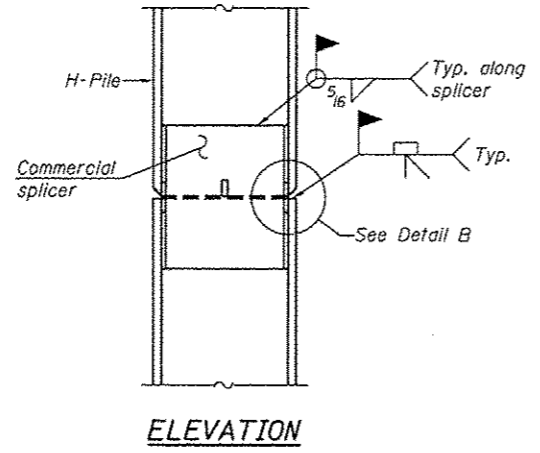
FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0182	14-00328-00-BR	LEE	19	10
ASHTON ROAD BRIDGE				
DECK SECTIONS AND WEAR SURFACE				

85633

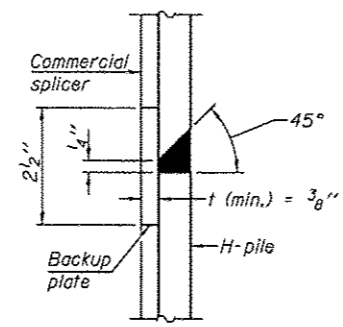


STEEL PILE TABLE

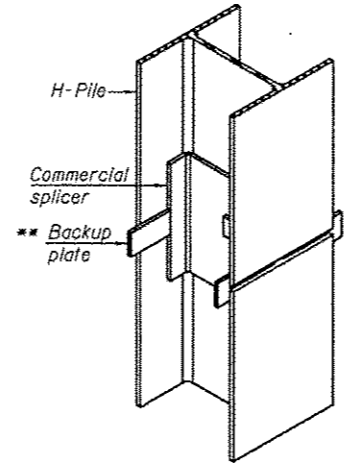
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
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

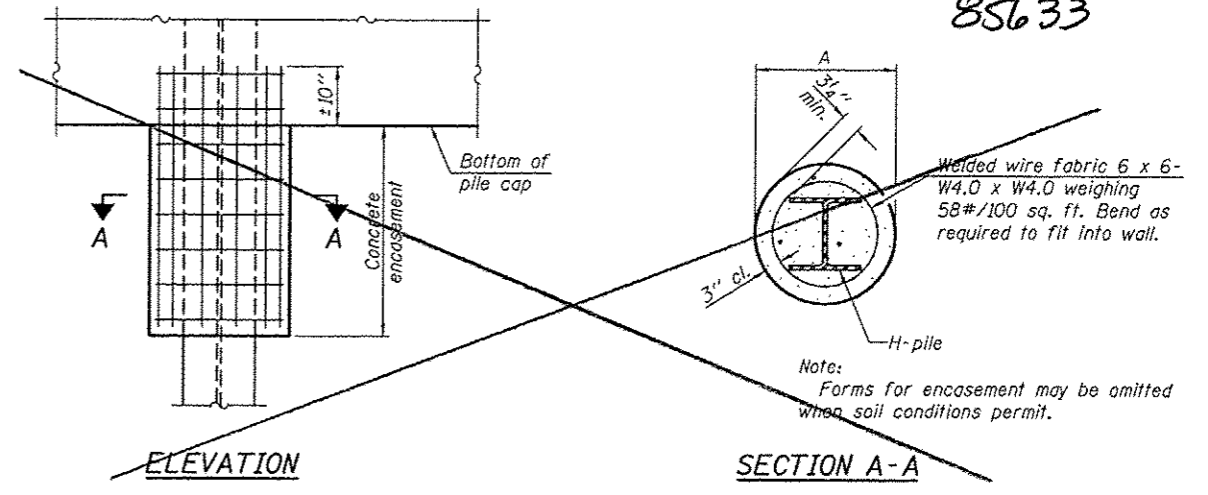


DETAIL "B"



ISOMETRIC VIEW

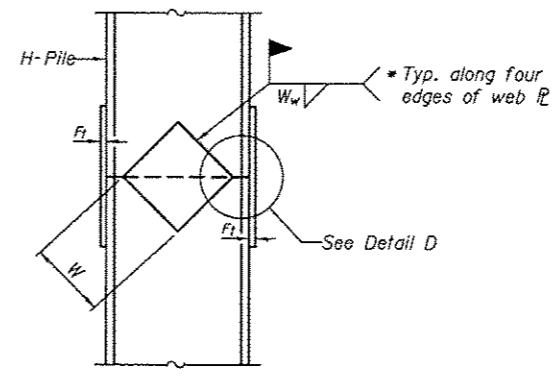
WELDED COMMERCIAL SPLICE



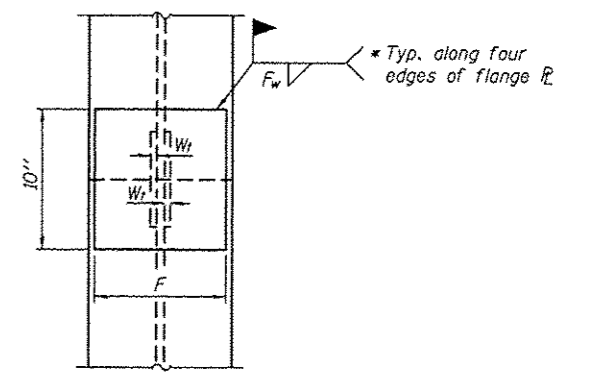
ELEVATION

SECTION A-A

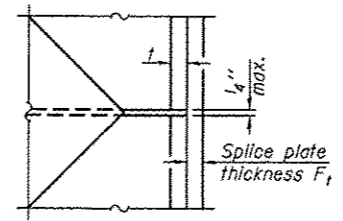
PILE ENCASEMENT



ELEVATION



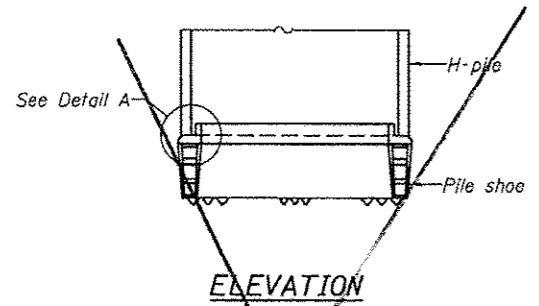
END VIEW



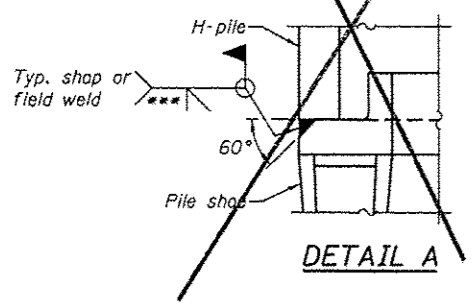
DETAIL D

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"

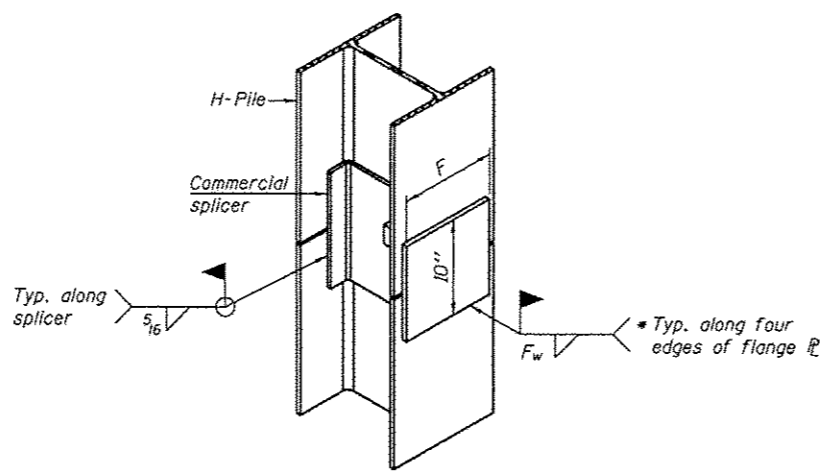


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

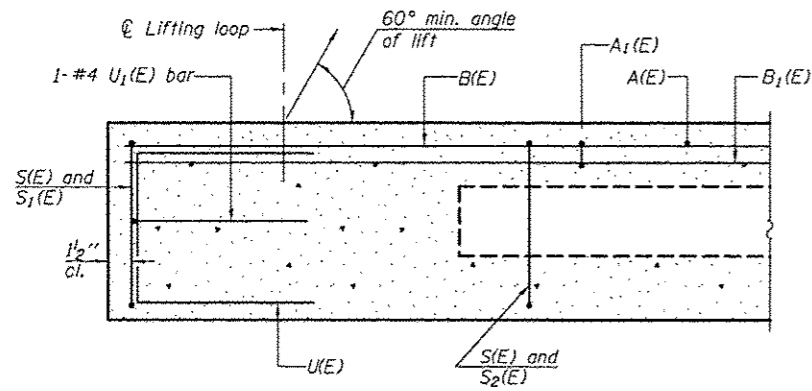
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

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

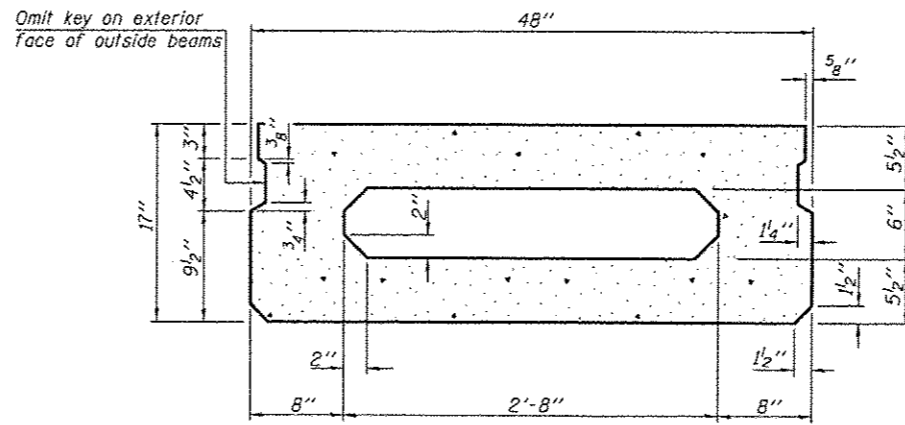
F-HP

1-27-12

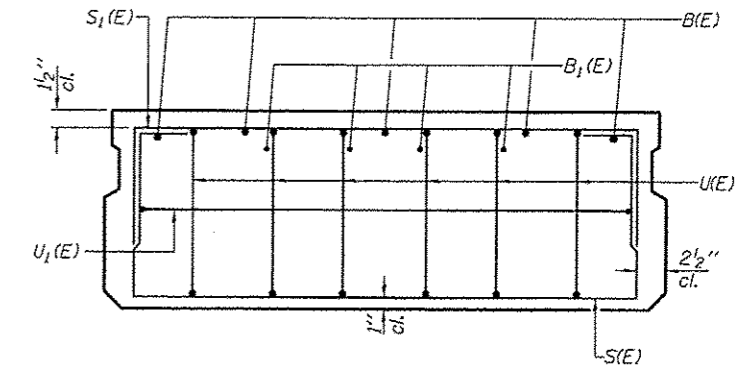
FILE NAME *	USER NAME = LCH	DESIGNED - 01-E-16	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ASHTON RD. BRIDGE	HP PILE DETAILS STRUCTURE NO. 052-3212	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -				102	14-00328-00-BR	LEE	19	11
PLOT SCALE *		DRAWN -	REVISED -				CONTRACT NO.				
PLOT DATE *		CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT				



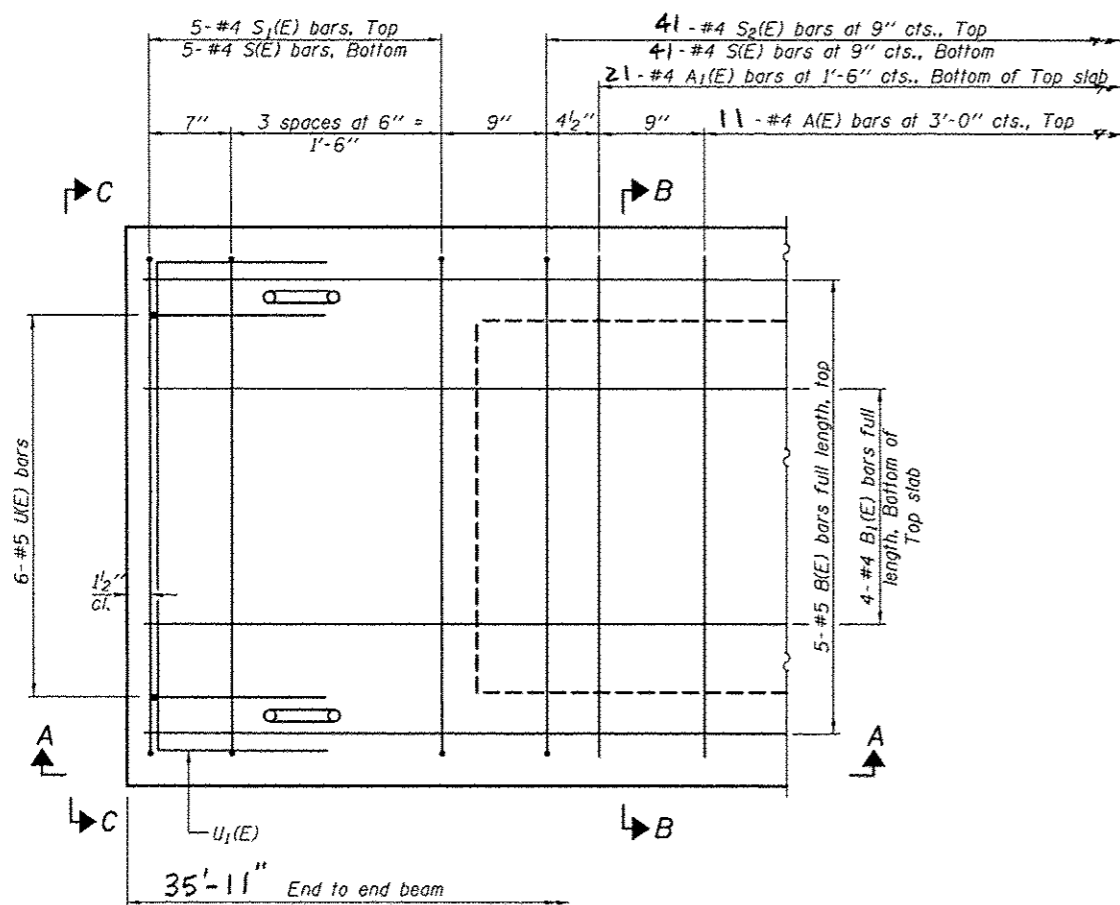
SECTION A-A



SECTION B-B
(Showing dimensions)

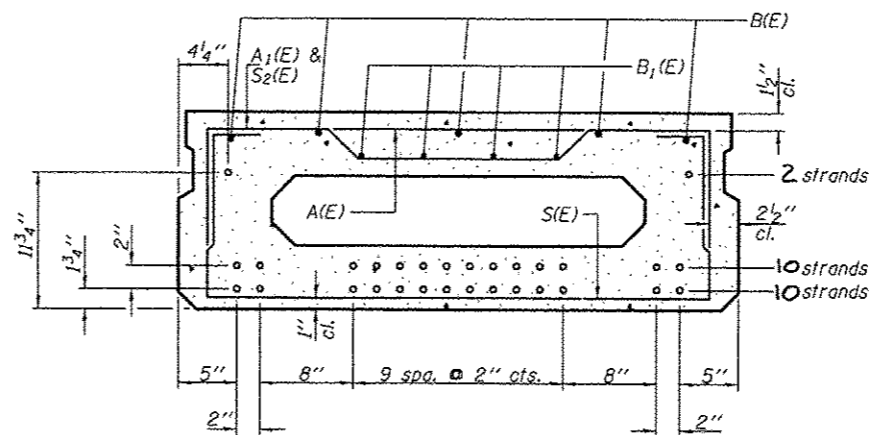


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B

(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	11	#4	3'-7"	—
A1(E)	21	#4	3'-10"	—
B(E)	5	#5	35'-8"	—
B1(E)	4	#4	35'-8"	—
S(E)	51	#4	6'-9"	□
S1(E)	10	#4	5'-3"	□
S2(E)	41	#4	5'-6"	□
U(E)	12	#5	3'-8"	□
U1(E)	2	#4	6'-0"	□

Note: See sheet 13 of 19 for additional details and Bill of Material.

MINIMUM BAR LAP

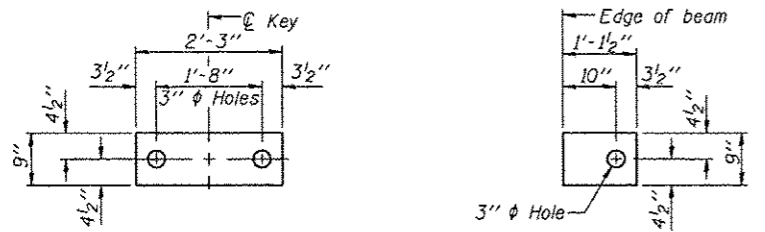
#4 bar = 1'-11"
#5 bar = 2'-6"

PD-1748-0

6-8-15

FILE NAME *	USER NAME * LCH	DESIGNED - 1-11-16	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ASHTON ROAD 17" x 48" PPC DECK BEAM 22 55 BRIDGE STRUCTURE NO. 052-3212	F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE *	DRAWN -	CHECKED -	REVISED -			18214-00328-00-AR LEE	19	12		
PLOT DATE *	CHECKED -	REVISED -	REVISED -			CONTRACT NO.				
						ILLINOIS FED. AID PROJECT				

85633



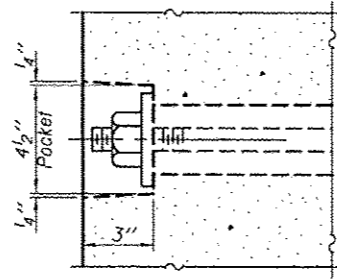
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

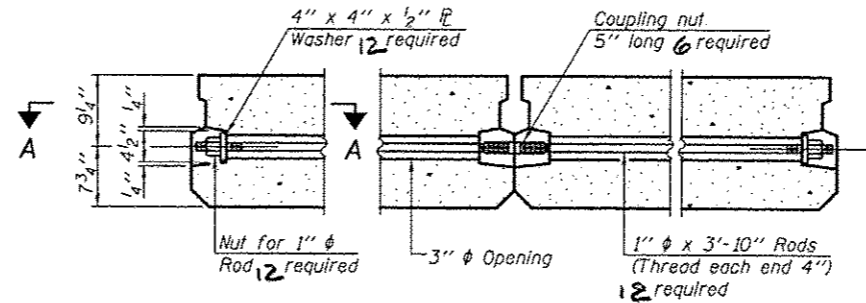
FIXED

Notes:

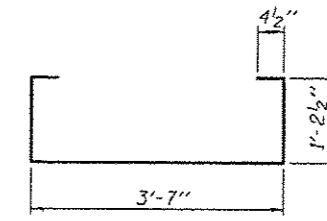
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



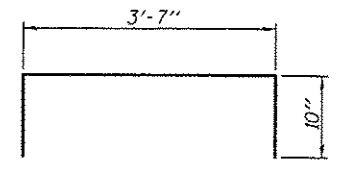
SECTION A-A



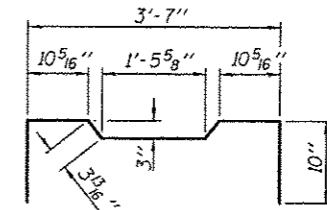
TYPICAL TRANSVERSE TIE ASSEMBLY



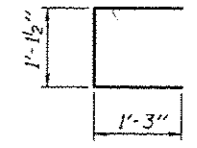
BAR S(E)



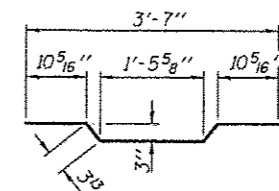
BAR S1(E)



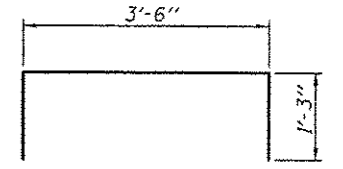
BAR S2(E)



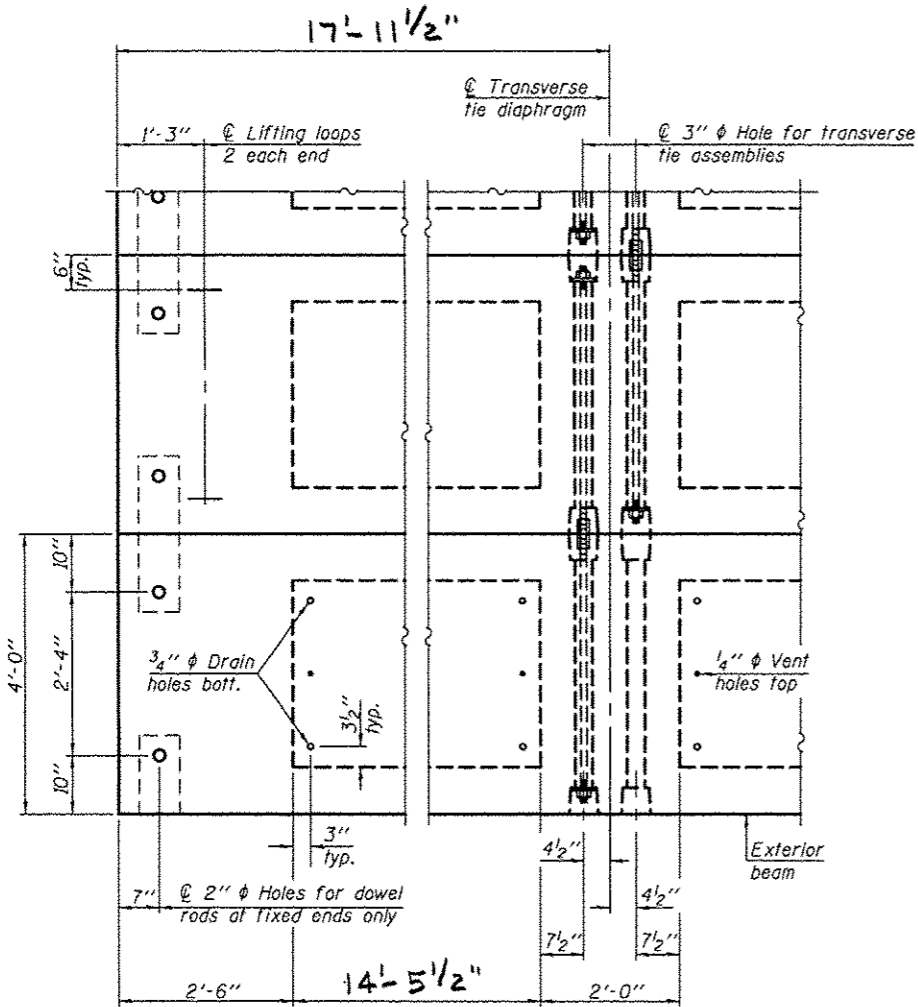
BAR U(E)



BAR A1(E)



BAR U1(E)

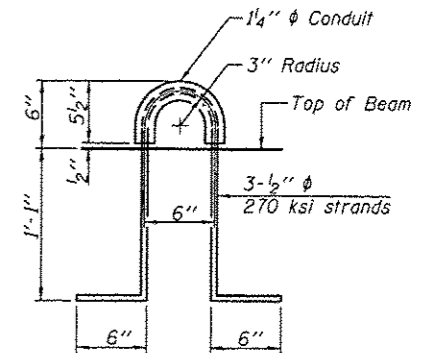


PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



LIFTING LOOP DETAIL

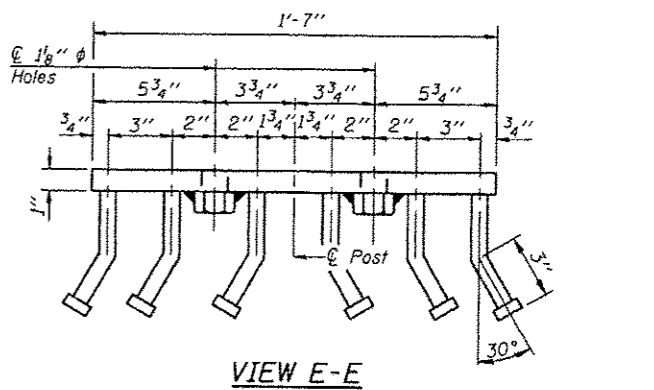
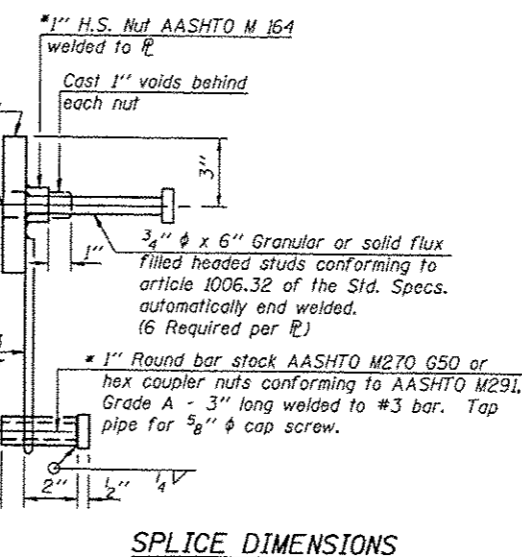
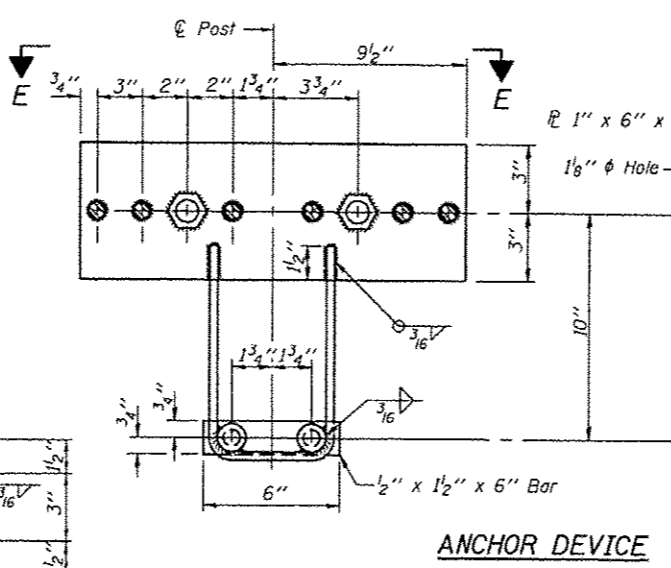
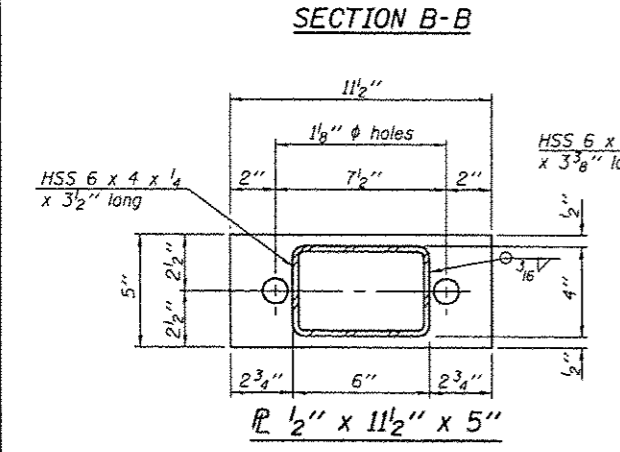
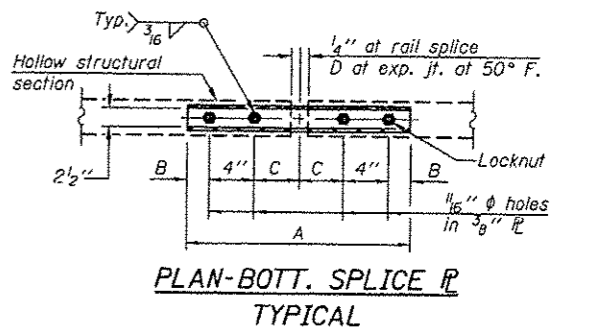
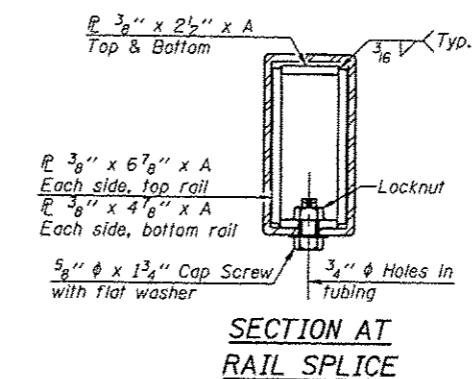
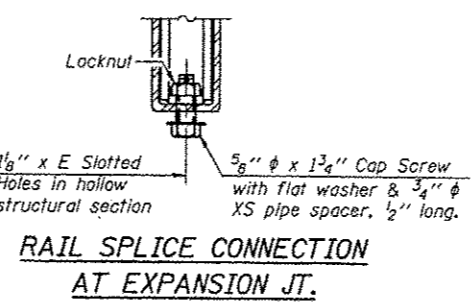
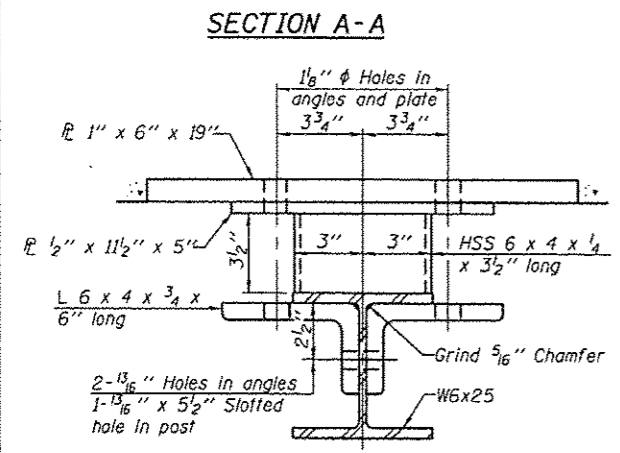
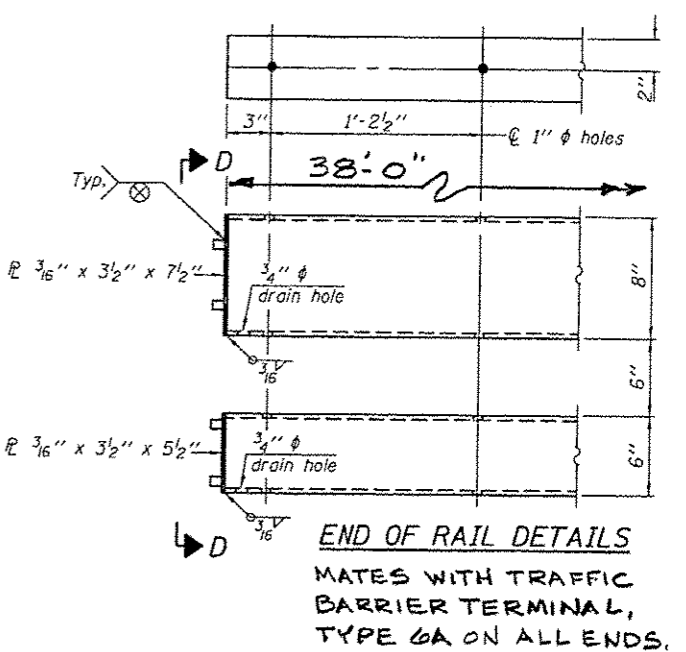
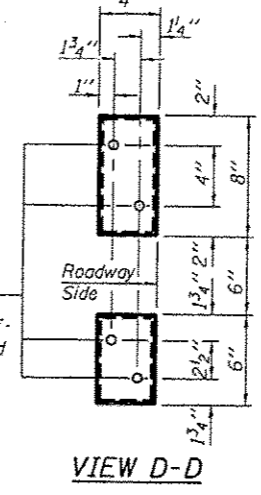
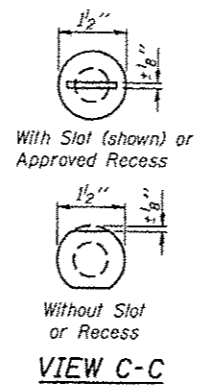
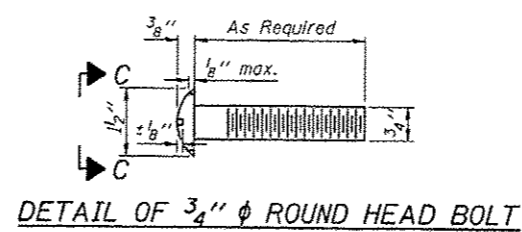
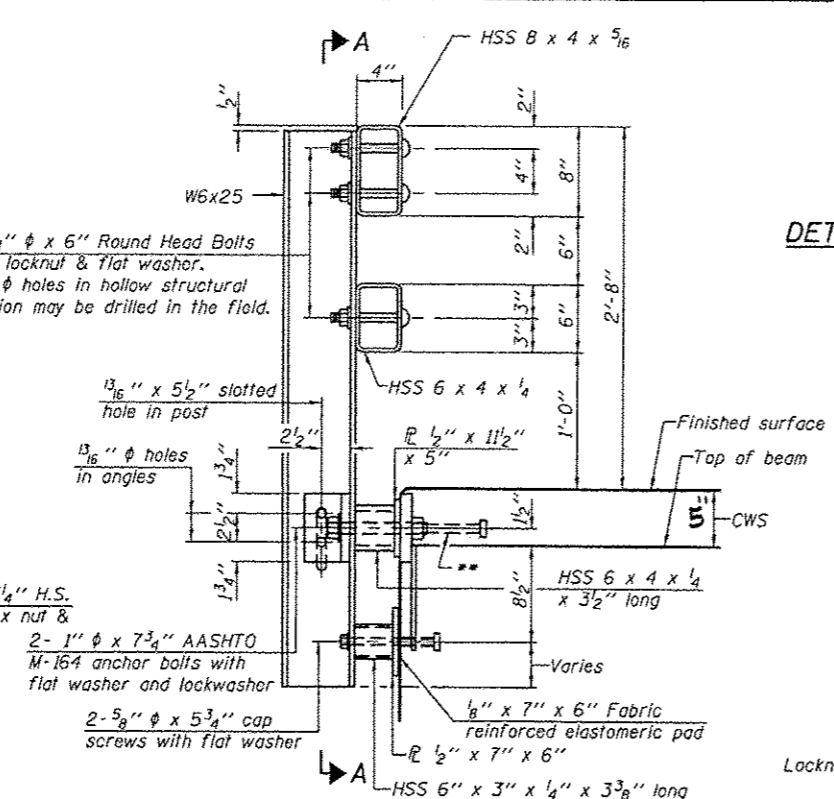
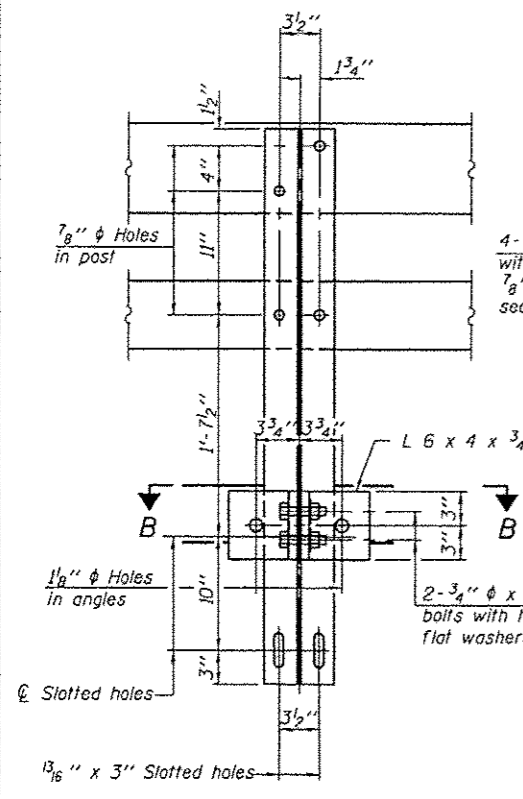
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1006
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PD-1748-0D

1-27-12

FILE NAME *	USER NAME = LCH	DESIGNED - 1-11-10	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ASHTON RD. 17" x 48" PPC DECK BEAM DETAILS 2255 BRIDGE STRUCTURE NO. 052-3212	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE *	CHECKED -	REVISED -	REVISED -			182	14-00328-00-BR	LEE	19	13	
PLOT DATE *	DRAWN -	REVISED -	REVISED -			CONTRACT NO.					
	CHECKED -	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT					



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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	76

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1 1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

R-34CWS 1-12-15 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

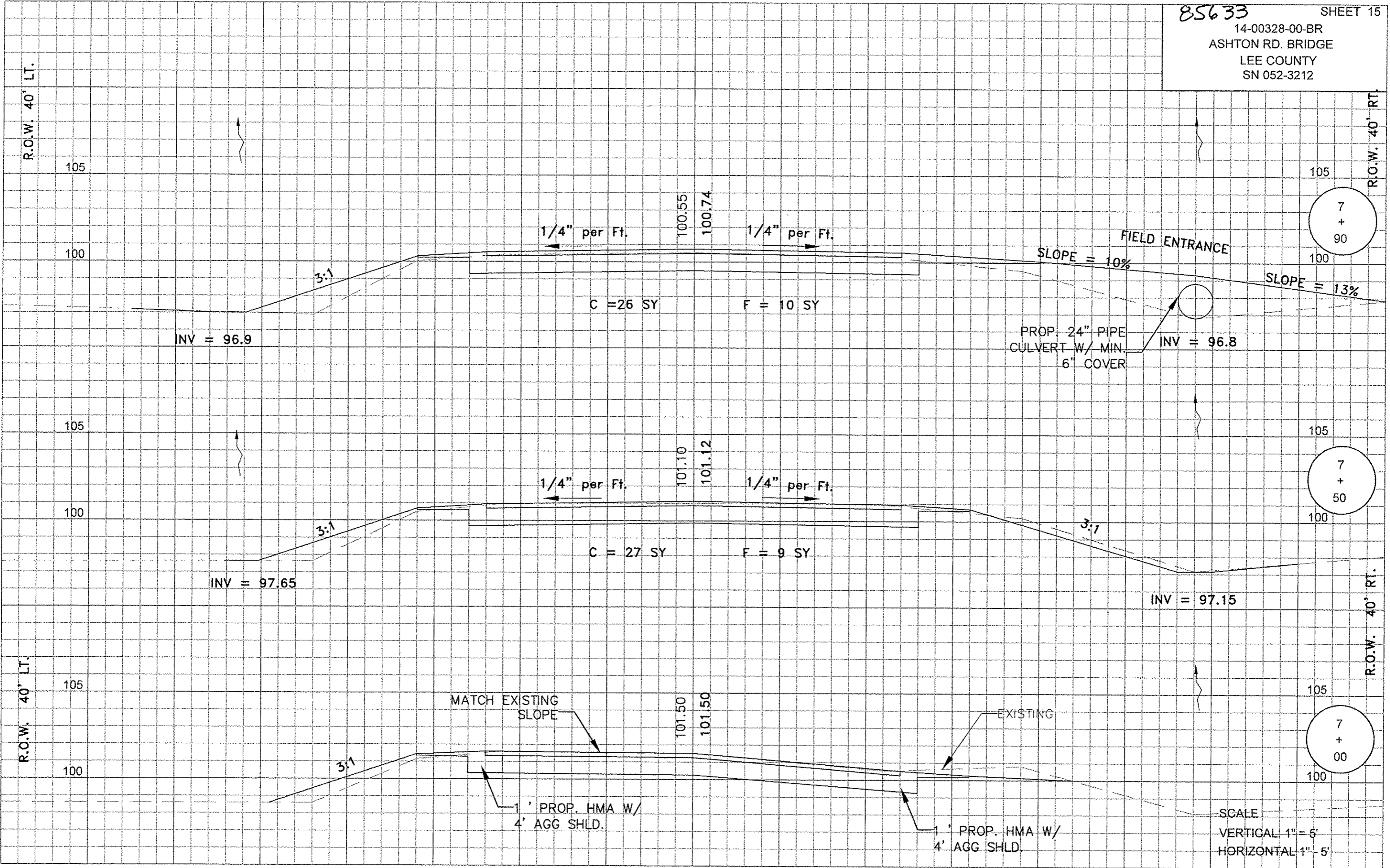
FILE NAME *	USER NAME *	DESIGNED -	REVISED -
	LCH	12-16-15	
PLOT SCALE *		CHECKED -	REVISED -
PLOT DATE *		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
ASHTON RD BRIDGE STRUCTURE NO. 052-3212

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
182	14-0032B-00-BR	LEE	19	14
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

85633 SHEET 15
14-00328-00-BR
ASHTON RD. BRIDGE
LEE COUNTY
SN 052-3212



SCALE
VERTICAL 1" = 5'
HORIZONTAL 1" = 5'

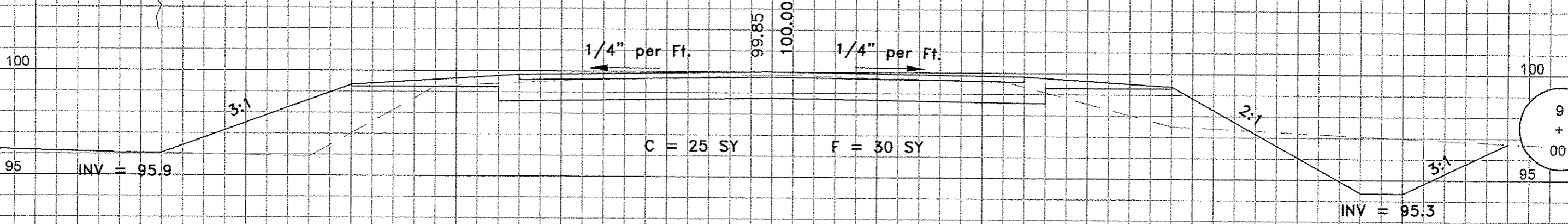
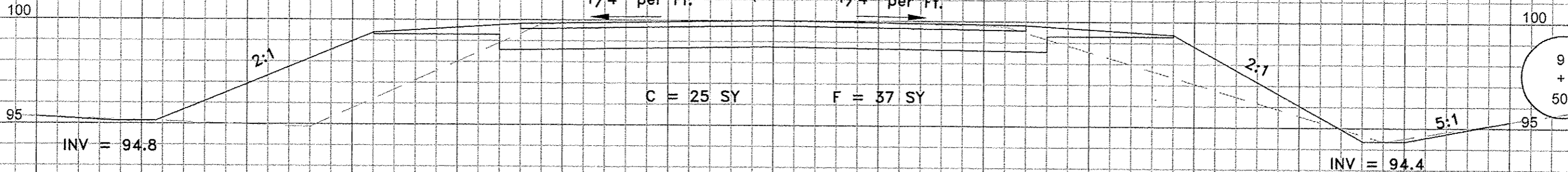
85633

SHEET 16

14-00328-00-BR
ASHTON RD. BRIDGE
LEE COUNTY
SN 052-3212

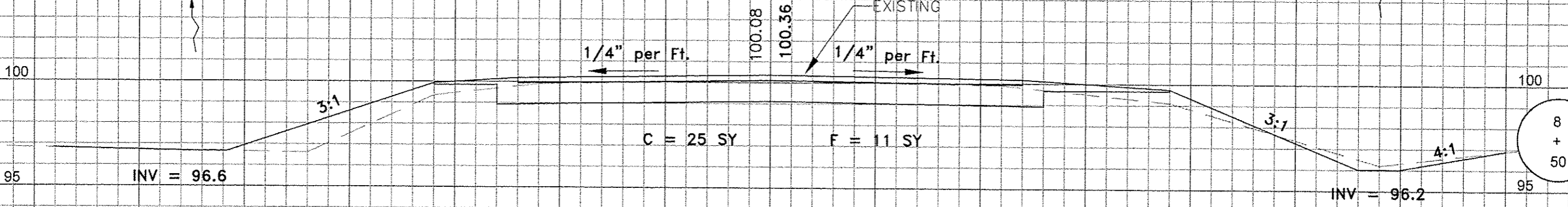
R.O.W. 40' LT.

R.O.W. 40' RT.



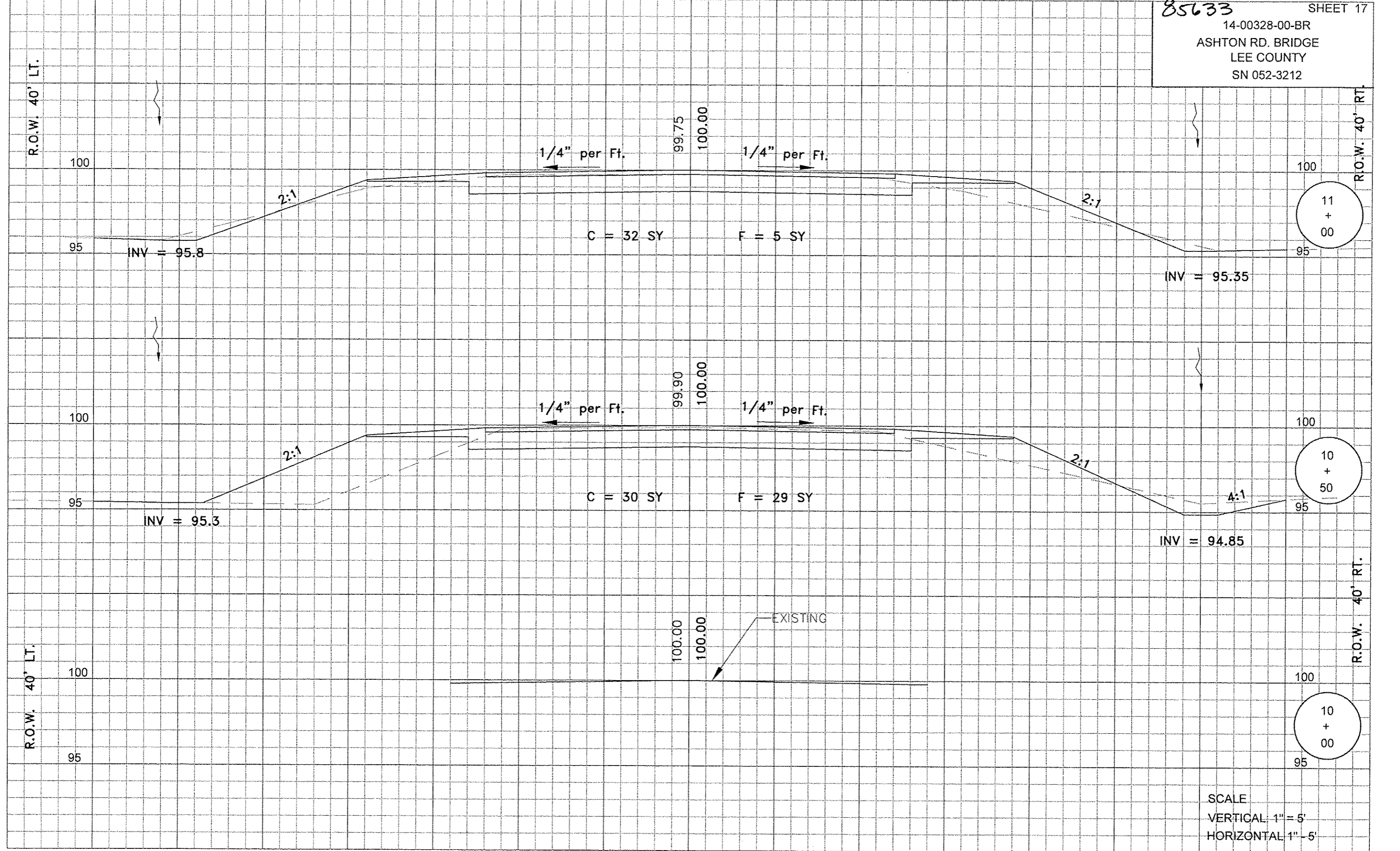
R.O.W. 40' LT.

R.O.W. 40' RT.

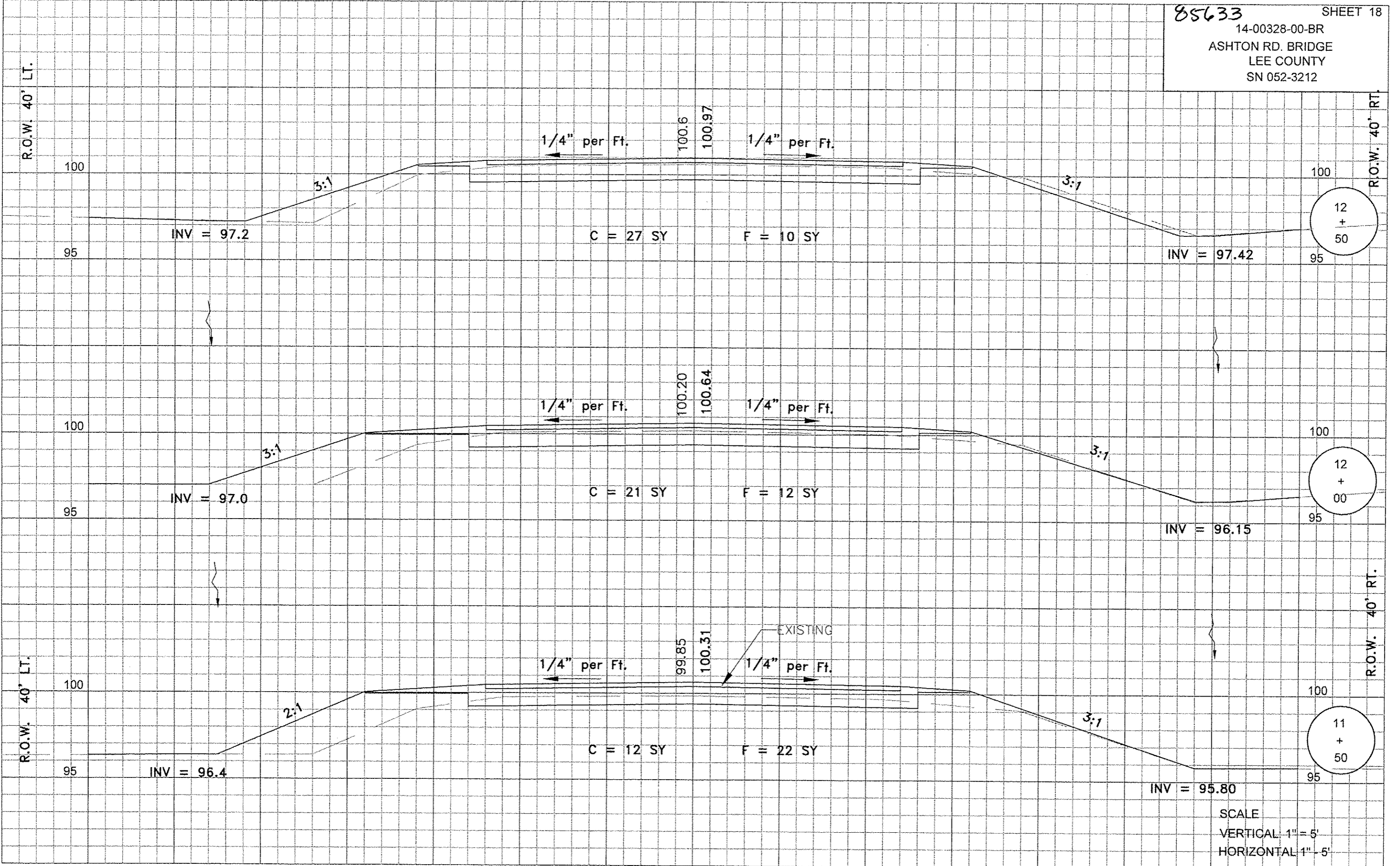


SCALE
VERTICAL 1" = 5'
HORIZONTAL 1" = 5'

85633 SHEET 17
14-00328-00-BR
ASHTON RD. BRIDGE
LEE COUNTY
SN 052-3212



85633 SHEET 18
14-00328-00-BR
ASHTON RD. BRIDGE
LEE COUNTY
SN 052-3212



SCALE
VERTICAL 1" = 5'
HORIZONTAL 1" = 5'

85633 SHEET 19
14-00328-00-BR
ASHTON RD. BRIDGE
LEE COUNTY
SN 052-3212

R.O.W. 40' LT.

R.O.W. 40' RT.

100

100

95

95

3:1

3:1

MATCH EXISTING
SLOPE

EXISTING

1' PROP. HMA W/
4' AGG SHLD.

1' PROP. HMA W/
4' AGG SHLD.

101.3

101.3

13
+
00

SCALE
VERTICAL 1" = 5'
HORIZONTAL 1" = 5'