GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$" ϕ. holes $\frac{15}{16}$" ϕ. unless otherwise noted.

Calculated weight of Structural Steel = 2,174,090 lbs (M 270 Gr. 50).

Calculated weight of Structural Steel = 97,080 lbs (M 270 Gr. 36).

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior 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 girder at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the 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 abutment seat areas, front faces of backwalls and hatchblocks.

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 of the exterior surface and the bottom of the bottom flange of fascia beams, 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.

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

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1) At least 72 hours shall have elapsed from the end of the previous pour.
2) The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

Seal coat thickness design is based on the Cofferdam Design Water Elevation (CDWE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design. 1

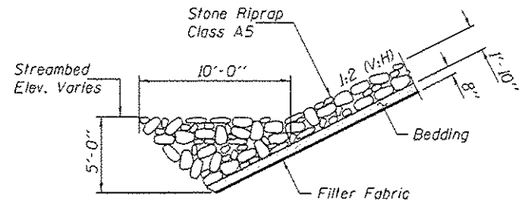
Slipforming of parapet is not allowed.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, ect. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

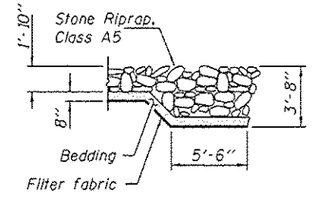
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Granular Backfill for Structures	Cu. Yd.		645	645
Stone Riprap, Class A5	Sq. Yd.		1640	1640
Filter Fabric	Sq. Yd.		1640	1640
Removal of Existing Structures No. 1	Each			1
Removal of Existing Structures No. 2	Each			1
Structure Excavation	Cu. Yd.		666	666
Cofferdam (Type 2), Location 1	Each		1	1
Cofferdam Excavation	Cu. Yd.		1231	1231
Concrete Structures	Cu. Yd.		1247.1	1247.1
Concrete Superstructure	Cu. Yd.	1452.5		1452.5
Bridge Deck Grooving	Sq. Yd.	4138.2		4138.2
Seal Coat Concrete	Cu. Yd.		395.2	395.2
Concrete Encasement	Cu. Yd.		33.8	33.8
Protective Coat	Sq. Yd.	5259		5259
Furnishing and Erecting Structural Steel	L. Sum	.46		.46
Stud Shear Connectors	Each	10512		10512
Reinforcement Bars, Epoxy Coated	Pound	378630	164440	543070
Bar Splicers	Each		192	192
Furnishing Metal Shell Piles 14"x .312"	Foot		6846	6846
Furnishing Steel Piles HP14x117	Foot		3600	3600
Test Pile Metal Shells	Each		4	4
Test Pile Steel HP14x117	Each		2	2
Driving Piles	Foot		10446	10446
Pile Shoes	Each		268	268
Temporary Soil Retention System	Sq. Ft.		1624	1624
Name Plates	Each	2		2
Preformed Joint Strip Seal	Foot	197		197
Elastomeric Bearing Assembly, Type II	Each	24		24
Anchor Bolts, 1"	Each	48		48
Anchor Bolts, 1½"	Each	24		24
Concrete Sealer	Sq. Ft.		4022	4022
Geocomposite Wall Drain	Sq. Yd.		248	248
Pipe Underdrains for Structures, 4"	Foot		320	320
Drainage Scuppers, DS-11	Each	8		8
Form Liner Textured Surface	Sq. Ft.	5970	4572	10542
Staining Concrete Structures	Sq. Ft.	5970	4572	10542

INDEX OF SHEETS



SECTION B-B



SECTION A-A

WATERWAY INFORMATION

Drainage Area = 6532.87 sq. mi.

Existing Low Grade Elev. = 708.59 ft @ Sta. 491+52
Proposed Low Grade Elev. = 710.4 ft @ Sta. 930+62

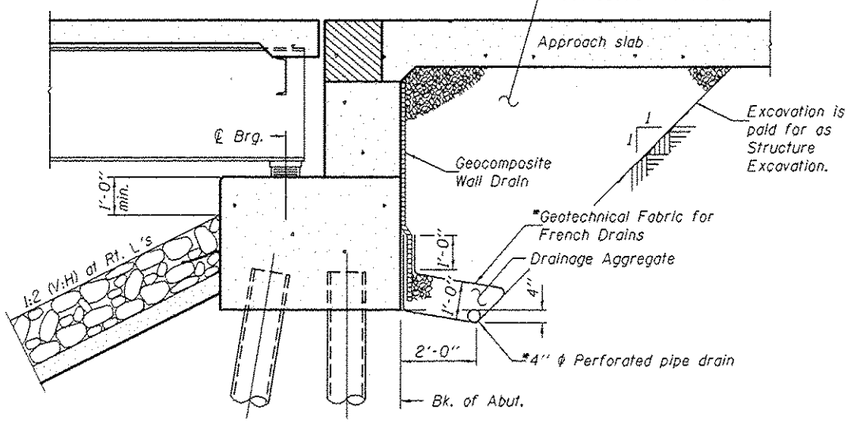
Flood		Discharge (cfs)		Waterway Opening (Sq.Ft.)		Natural H.W.E.	Head (ft.)		Headwater Elev.	
		Existing	Proposed	Existing	Proposed		Existing	Proposed	Existing	Proposed
10-YR	Main Channel	18052	15916	4353	4720					
	Relief Struc.	7473	9609	2143	2852					
	Total	25525	25525			696.3	0.2	0.1	696.5	696.4
50-YR (Design)	Main Channel	23661	20859	5060	5513					
	Relief Struc.	10464	13266	2629	3505					
	Total	34125	34125			698.2	0.3	0.2	698.5	698.4
100-YR	Main Channel	25971	22895	5335	5822					
	Relief Struc.	11719	14795	2819	3760					
	Total	37690	37690			699.0	0.3	0.2	699.3	699.2
Overtopping	Main Channel									
	Relief Struc.									
	Total									
500-YR	Main Channel	30162	27412	5911	6465					
	Relief Struc.	15463	18213	3220	4292					
	Total	45625	45625			700.5	0.4	0.2	700.9	700.7

10 Year Velocity through Existing Bridge = 3.49 fps

10 Year Velocity through Proposed Bridge = 3.37 fps

DESIGN SCOUR ELEVATION TABLE

	Design Scour Elevations (ft.)			
	W. Abut.	Pier (WB)	Pier (EB)	E. Abut.
0500	702.00	669.50	674.40	699.40



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

SECTION THRU PILE SUPPORTED STUB ABUTMENT

(Horizontal dimensions are at Rt. L's)

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).

Geocomposite wall drains and 4" ϕ pipe underdrains shall be extended behind the entire abutment cap.

DESIGNED	-	Nick R. Barnett	
CHECKED	-	Al-Barrao R. Shabib	
DRAWN	-	h.t. duong	
CHECKED	-	NRB/GRA	

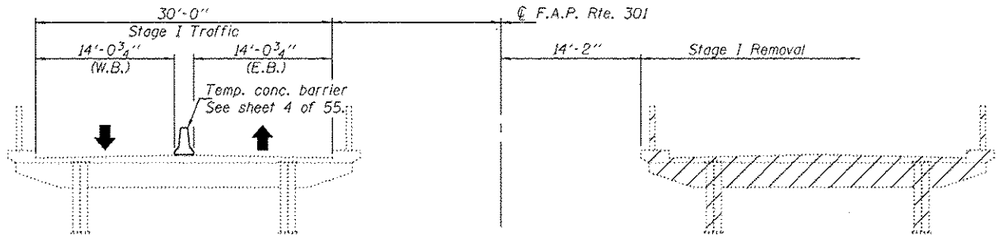
EXAMINED — Joyce F. Dahl, ACTING ENGINEER OF BRIDGE DESIGN
PASSED — Carl Puzey, ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 4, 2013
REVISED 1 10/21/2013 NRB
REVISED

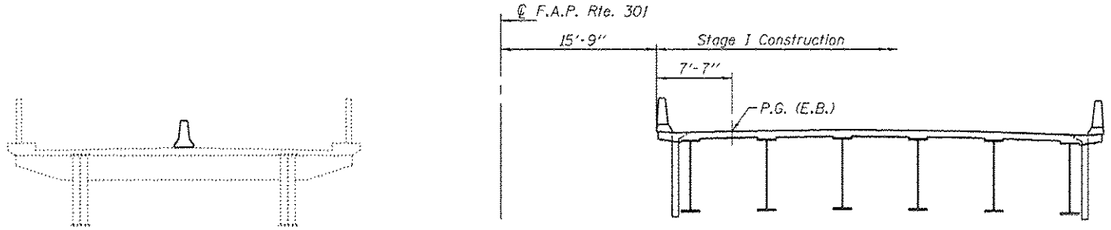
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 2 OF 55 SHEETS

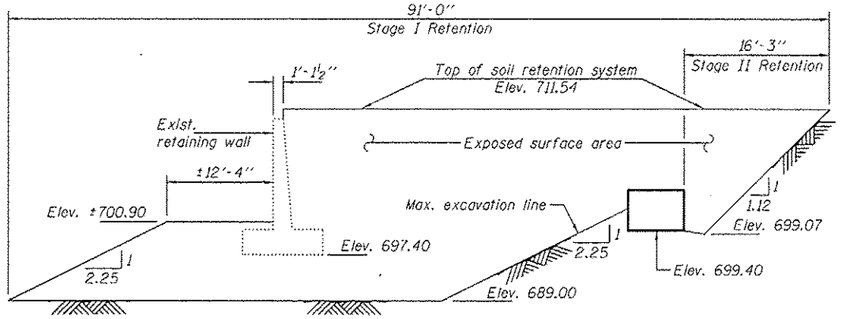
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	101
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



STAGE I REMOVAL

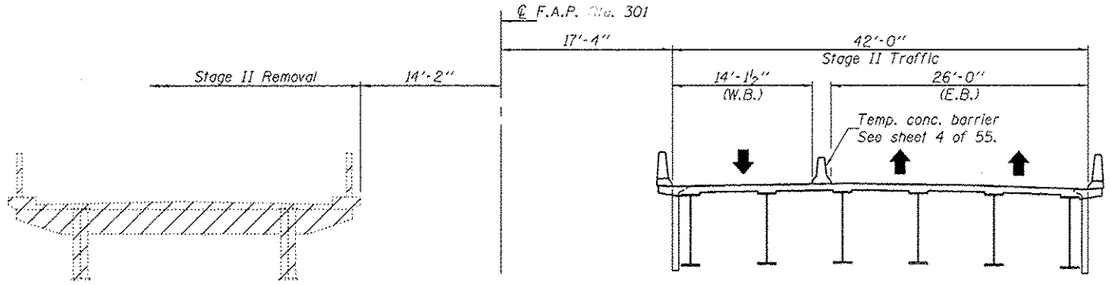


STAGE I CONSTRUCTION

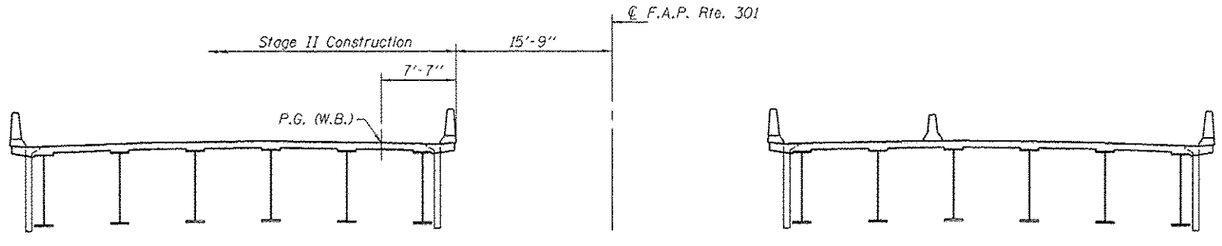


TEMPORARY SOIL RETENTION SYSTEM AT EAST ABUTMENT

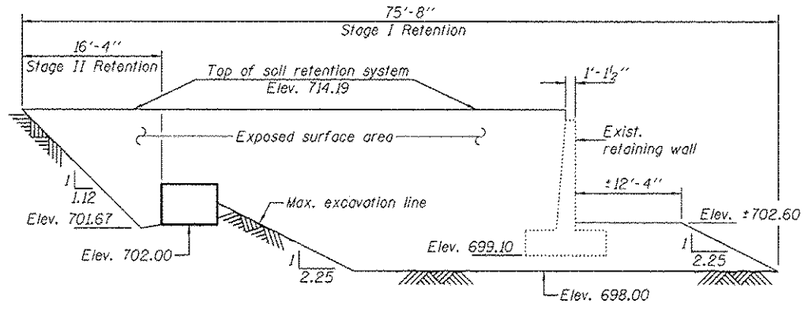
Dimensions are taken along ℄ F.A.P. 301



STAGE II REMOVAL



STAGE II CONSTRUCTION



TEMPORARY SOIL RETENTION SYSTEM AT WEST ABUTMENT

Dimensions are taken along ℄ F.A.P. 301

Note: A cantilevered sheet piling design does not appear feasible and additional members or other retention systems 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.

Notes: All sections are looking east.
Hatched area indicates removal of existing superstructure.
For quantity of temporary concrete barrier, see Roadway Plans.

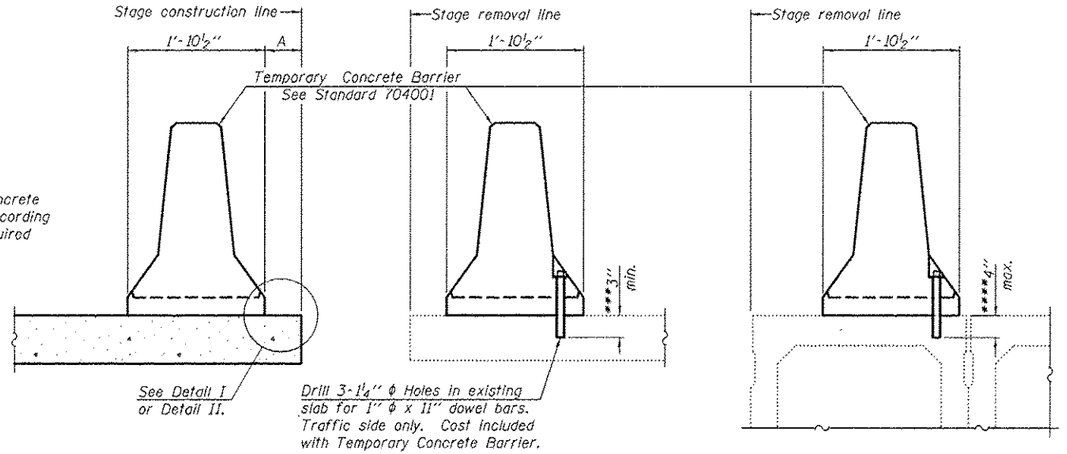
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Al-Barrae R. Sheblb			
DRAWN - h.t. duong	PASSED	REVISED	
CHECKED - NRB/GRA		REVISED	

Joyce F. Duffy
ACTING ENGINEER OF BRIDGE DESIGN
R. Carl Peppy
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STAGE CONSTRUCTION & TEMP. SOIL RETENTION SYSTEM DETAILS
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 3 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	102
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

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".



NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

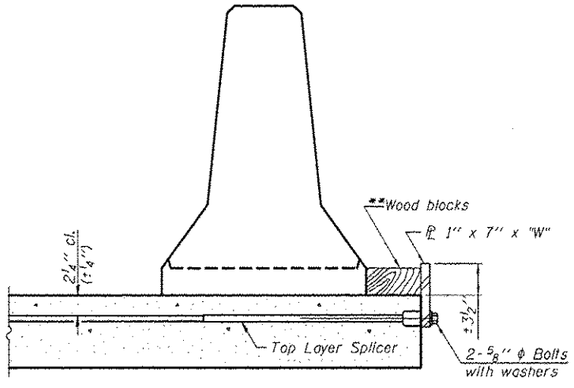
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x "W" 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.

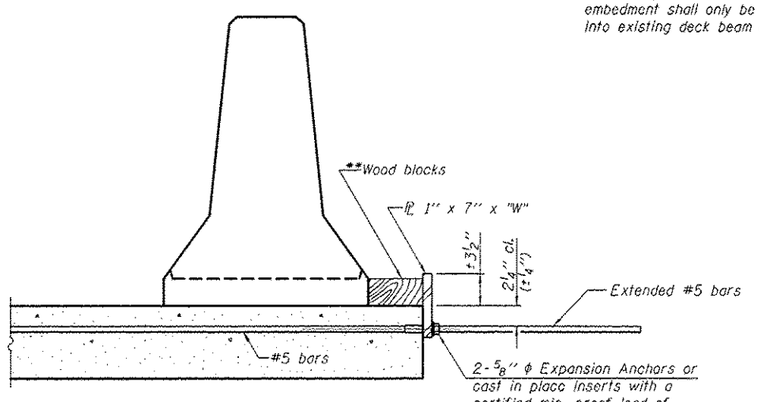
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



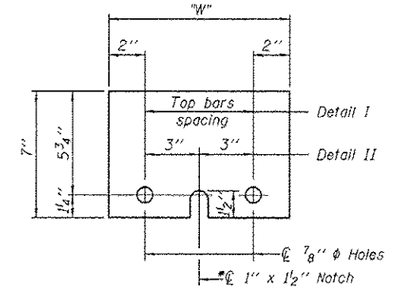
DETAIL I



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.

"W" = Top bars spacing + 4"



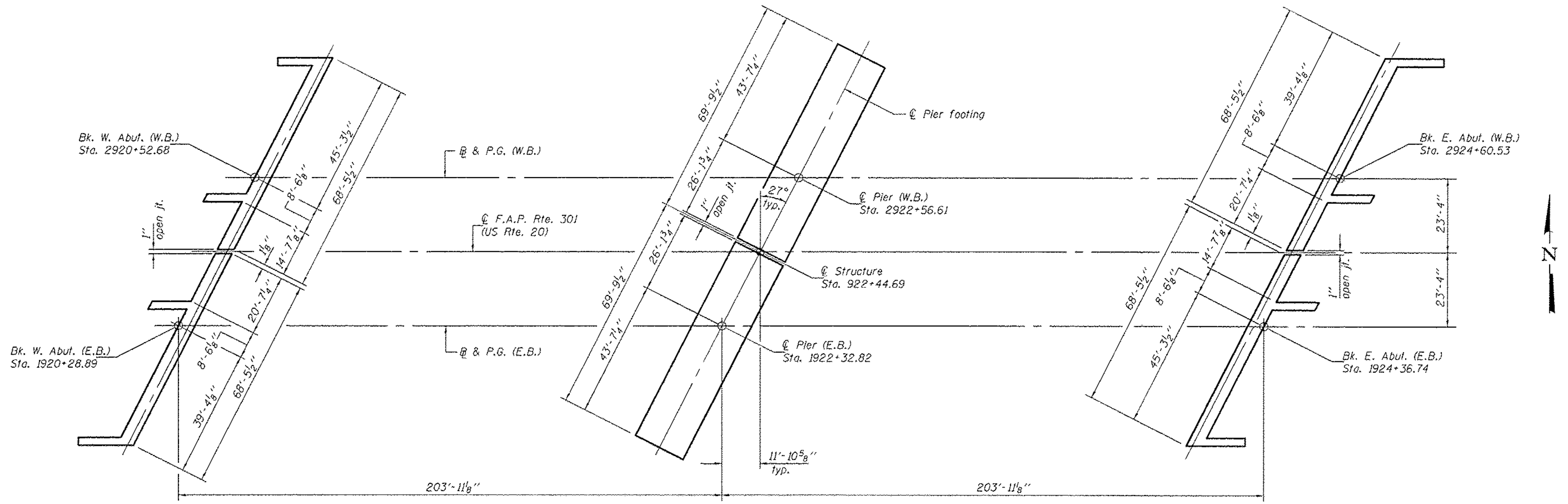
STEEL RETAINER ℄ 1" x 7" x "W"

* Required only with Detail II

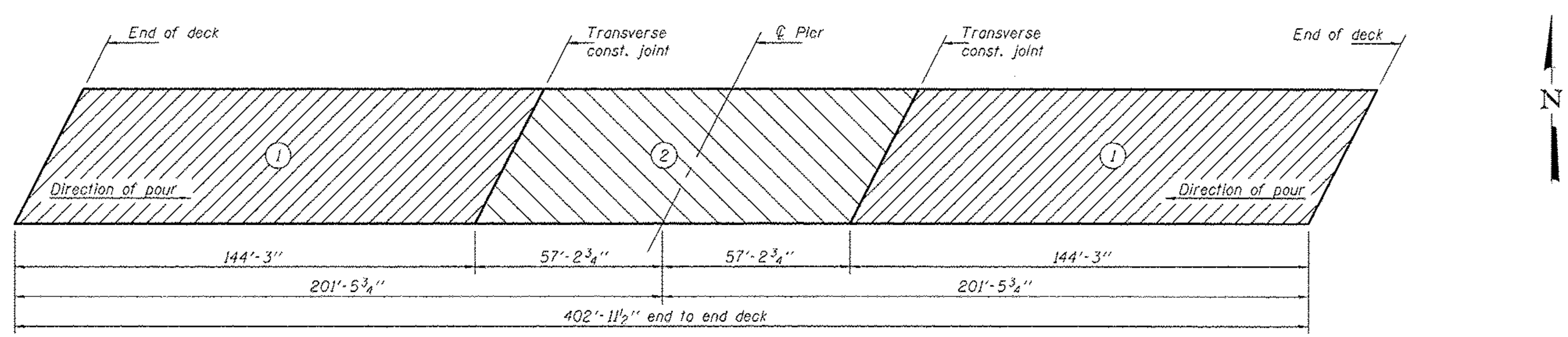
R-27 7-1-10

DESIGNED - Nick R. Barnett	EXAMINED	Wayne F. Anderson ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
CHECKED - Al-Barrae R. Shebib	PASSED	R. Carl Peterson ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 4 OF 55 SHEETS
DRAWN - h.t. duong			REVISED		
CHECKED - NRB/GRA					

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	103
		CONTRACT NO. 64D19		
	ILLINOIS	FED. AID PROJECT		

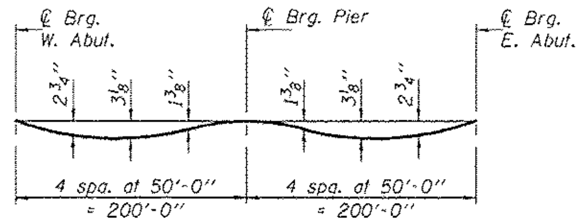


FOOTING LAYOUT



DECK POURING SEQUENCE

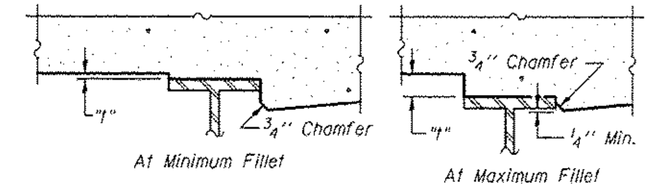
DESIGNED - Nick R. Barnett	EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FOOTING LAYOUT STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE. 301
CHECKED - Al-Barrae R. Shebib					SECTION 3BR & 3BR-1
DRAWN - h.t. duong	PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			COUNTY WINNEBAGO; TOTAL SHEETS 290; SHEET NO. 104
CHECKED - NRB/GRA		REVISED		SHEET NO. 5 OF 55 SHEETS	CONTRACT NO. 64D19
					ILLINOIS FED. AID PROJECT



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

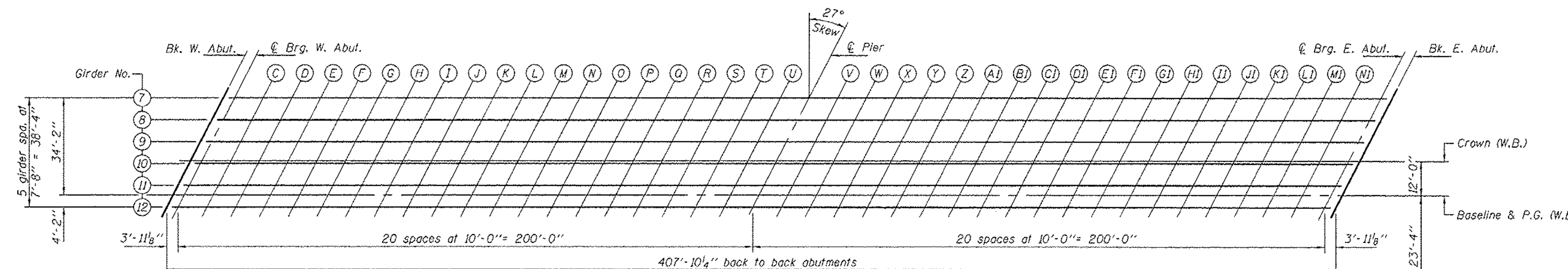
Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 7 thru 12 of 55.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 7 thru 12 of 55, minus slab thickness, equals the fillet heights "t" above top flange of beams.

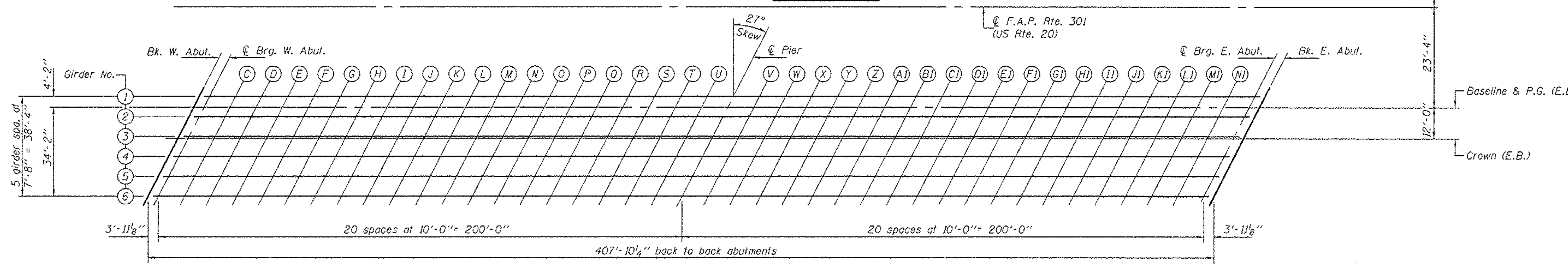
FILLET HEIGHTS

N



PLAN (W.B.)

℄ F.A.P. Rte. 301 (US Rte. 20)



PLAN (E.B.)

DESIGNED - Nick R. Barnett	EXAMINED [signature] ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Shebib	PASSED [signature] ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	
DRAWN - h.t. duong		REVISED	
CHECKED - NRB/GRA			

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 6 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	105
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192031.01	-4.17	714.10	714.10
℄ Brg. W. Abut.	192034.94	-4.17	714.07	714.07
C	192044.94	-4.17	714.01	714.05
D	192054.94	-4.17	713.94	714.03
E	192064.94	-4.17	713.88	714.01
F	192074.94	-4.17	713.81	713.99
G	192084.94	-4.17	713.75	713.97
H	192094.94	-4.17	713.68	713.92
I	192104.94	-4.17	713.62	713.86
J	192114.94	-4.17	713.55	713.80
K	192124.94	-4.17	713.49	713.74
L	192134.94	-4.17	713.42	713.68
M	192144.94	-4.17	713.36	713.59
N	192154.94	-4.17	713.29	713.49
O	192164.94	-4.17	713.23	713.40
P	192174.94	-4.17	713.16	713.30
Q	192184.94	-4.17	713.10	713.21
R	192194.94	-4.17	713.03	713.12
S	192204.94	-4.17	712.97	713.03
T	192214.94	-4.17	712.90	712.95
U	192224.94	-4.17	712.84	712.86
℄ Brg. Pier	192234.94	-4.17	712.77	712.77
V	192244.94	-4.17	712.71	712.73
W	192254.94	-4.17	712.64	712.69
X	192264.94	-4.17	712.58	712.64
Y	192274.94	-4.17	712.51	712.60
Z	192284.94	-4.17	712.45	712.56
A1	192294.94	-4.17	712.38	712.52
B1	192304.94	-4.17	712.32	712.49
C1	192314.94	-4.17	712.25	712.45
D1	192324.94	-4.17	712.19	712.42
E1	192334.94	-4.17	712.12	712.38
F1	192344.94	-4.17	712.06	712.31
G1	192354.94	-4.17	711.99	712.24
H1	192364.94	-4.17	711.93	712.17
I1	192374.94	-4.17	711.86	712.10
J1	192384.94	-4.17	711.80	712.02
K1	192394.94	-4.17	711.73	711.91
L1	192404.94	-4.17	711.67	711.80
M1	192414.94	-4.17	711.60	711.69
N1	192424.94	-4.17	711.54	711.58
℄ Brg. E. Abut.	192434.94	-4.17	711.47	711.47
Bk. E. Abut.	192438.87	-4.17	711.45	711.45

BASELINE & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192028.89	0.00	714.20	714.20
℄ Brg. W. Abut.	192032.82	0.00	714.17	714.17
C	192042.82	0.00	714.11	714.15
D	192052.82	0.00	714.04	714.13
E	192062.82	0.00	713.98	714.11
F	192072.82	0.00	713.91	714.09
G	192082.82	0.00	713.85	714.07
H	192092.82	0.00	713.78	714.02
I	192102.82	0.00	713.72	713.96
J	192112.82	0.00	713.65	713.90
K	192122.82	0.00	713.59	713.84
L	192132.82	0.00	713.52	713.78
M	192142.82	0.00	713.46	713.69
N	192152.82	0.00	713.39	713.59
O	192162.82	0.00	713.33	713.50
P	192172.82	0.00	713.26	713.40
Q	192182.82	0.00	713.20	713.31
R	192192.82	0.00	713.13	713.22
S	192202.82	0.00	713.07	713.13
T	192212.82	0.00	713.00	713.05
U	192222.82	0.00	712.94	712.96
℄ Brg. Pier	192232.82	0.00	712.87	712.87
V	192242.82	0.00	712.81	712.83
W	192252.82	0.00	712.74	712.79
X	192262.82	0.00	712.68	712.74
Y	192272.82	0.00	712.61	712.70
Z	192282.82	0.00	712.55	712.66
A1	192292.82	0.00	712.48	712.62
B1	192302.82	0.00	712.42	712.59
C1	192312.82	0.00	712.35	712.55
D1	192322.82	0.00	712.29	712.52
E1	192332.82	0.00	712.22	712.48
F1	192342.82	0.00	712.16	712.41
G1	192352.82	0.00	712.09	712.34
H1	192362.82	0.00	712.03	712.27
I1	192372.82	0.00	711.96	712.20
J1	192382.82	0.00	711.90	712.12
K1	192392.82	0.00	711.83	712.01
L1	192402.82	0.00	711.77	711.90
M1	192412.82	0.00	711.70	711.79
N1	192422.82	0.00	711.64	711.68
℄ Brg. E. Abut.	192432.82	0.00	711.57	711.57
Bk. E. Abut.	192436.74	0.00	711.55	711.55

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192027.11	3.50	714.26	714.26
℄ Brg. W. Abut.	192031.03	3.50	714.24	714.24
C	192041.03	3.50	714.17	714.22
D	192051.03	3.50	714.11	714.20
E	192061.03	3.50	714.04	714.18
F	192071.03	3.50	713.98	714.16
G	192081.03	3.50	713.91	714.14
H	192091.03	3.50	713.85	714.08
I	192101.03	3.50	713.78	714.02
J	192111.03	3.50	713.72	713.97
K	192121.03	3.50	713.65	713.91
L	192131.03	3.50	713.59	713.85
M	192141.03	3.50	713.52	713.75
N	192151.03	3.50	713.46	713.66
O	192161.03	3.50	713.39	713.56
P	192171.03	3.50	713.33	713.47
Q	192181.03	3.50	713.26	713.37
R	192191.03	3.50	713.2	713.29
S	192201.03	3.50	713.13	713.20
T	192211.03	3.50	713.07	713.11
U	192221.03	3.50	713.00	713.02
℄ Brg. Pier	192231.03	3.50	712.94	712.94
V	192241.03	3.50	712.87	712.90
W	192251.03	3.50	712.81	712.85
X	192261.03	3.50	712.74	712.81
Y	192271.03	3.50	712.68	712.77
Z	192281.03	3.50	712.61	712.72
A1	192291.03	3.50	712.55	712.69
B1	192301.03	3.50	712.48	712.65
C1	192311.03	3.50	712.42	712.62
D1	192321.03	3.50	712.35	712.58
E1	192331.03	3.50	712.29	712.55
F1	192341.03	3.50	712.22	712.48
G1	192351.03	3.50	712.16	712.41
H1	192361.03	3.50	712.09	712.33
I1	192371.03	3.50	712.03	712.26
J1	192381.03	3.50	711.96	712.19
K1	192391.03	3.50	711.90	712.08
L1	192401.03	3.50	711.83	711.97
M1	192411.03	3.50	711.77	711.86
N1	192421.03	3.50	711.70	711.75
℄ Brg. E. Abut.	192431.03	3.50	711.64	711.64
Bk. E. Abut.	192434.96	3.50	711.61	711.61

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS (E.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barrae R. Shebib	PASSED	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	106
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		SHEET NO. 7 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192023.2	11.17	714.41	714.41
℄ Brg. W. Abut.	192027.13	11.17	714.38	714.38
C	192037.13	11.17	714.32	714.36
D	192047.13	11.17	714.25	714.34
E	192057.13	11.17	714.19	714.32
F	192067.13	11.17	714.12	714.30
G	192077.13	11.17	714.06	714.29
H	192087.13	11.17	713.99	714.23
I	192097.13	11.17	713.93	714.17
J	192107.13	11.17	713.86	714.11
K	192117.13	11.17	713.80	714.05
L	192127.13	11.17	713.73	713.99
M	192137.13	11.17	713.67	713.90
N	192147.13	11.17	713.60	713.80
O	192157.13	11.17	713.54	713.71
P	192167.13	11.17	713.47	713.61
Q	192177.13	11.17	713.41	713.52
R	192187.13	11.17	713.34	713.43
S	192197.13	11.17	713.28	713.34
T	192207.13	11.17	713.21	713.26
U	192217.13	11.17	713.15	713.17
℄ Brg. Pier	192227.13	11.17	713.08	713.08
V	192237.13	11.17	713.02	713.04
W	192247.13	11.17	712.95	713.00
X	192257.13	11.17	712.89	712.95
Y	192267.13	11.17	712.82	712.91
Z	192277.13	11.17	712.76	712.87
A1	192287.13	11.17	712.69	712.83
B1	192297.13	11.17	712.63	712.80
C1	192307.13	11.17	712.56	712.76
D1	192317.13	11.17	712.50	712.73
E1	192327.13	11.17	712.43	712.69
F1	192337.13	11.17	712.37	712.62
G1	192347.13	11.17	712.30	712.55
H1	192357.13	11.17	712.24	712.48
I1	192367.13	11.17	712.17	712.41
J1	192377.13	11.17	712.11	712.34
K1	192387.13	11.17	712.04	712.22
L1	192397.13	11.17	711.98	712.11
M1	192407.13	11.17	711.91	712.00
N1	192417.13	11.17	711.85	711.89
℄ Brg. E. Abut.	192427.13	11.17	711.78	711.78
Bk. E. Abut.	192431.05	11.17	711.76	711.76

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192022.78	12.00	714.42	714.42
℄ Brg. W. Abut.	192026.70	12.00	714.40	714.40
C	192036.70	12.00	714.33	714.38
D	192046.70	12.00	714.27	714.36
E	192056.70	12.00	714.20	714.34
F	192066.70	12.00	714.14	714.32
G	192076.70	12.00	714.07	714.30
H	192086.70	12.00	714.01	714.24
I	192096.70	12.00	713.94	714.18
J	192106.70	12.00	713.88	714.13
K	192116.70	12.00	713.81	714.07
L	192126.70	12.00	713.75	714.01
M	192136.70	12.00	713.68	713.91
N	192146.70	12.00	713.62	713.82
O	192156.70	12.00	713.55	713.72
P	192166.70	12.00	713.49	713.63
Q	192176.70	12.00	713.42	713.53
R	192186.70	12.00	713.36	713.45
S	192196.70	12.00	713.29	713.36
T	192206.70	12.00	713.23	713.27
U	192216.70	12.00	713.16	713.19
℄ Brg. Pier	192226.70	12.00	713.10	713.10
V	192236.70	12.00	713.03	713.06
W	192246.70	12.00	712.97	713.01
X	192256.70	12.00	712.90	712.97
Y	192266.70	12.00	712.84	712.93
Z	192276.70	12.00	712.77	712.88
A1	192286.70	12.00	712.71	712.85
B1	192296.70	12.00	712.64	712.81
C1	192306.70	12.00	712.58	712.78
D1	192316.70	12.00	712.51	712.74
E1	192326.70	12.00	712.45	712.71
F1	192336.70	12.00	712.38	712.64
G1	192346.70	12.00	712.32	712.57
H1	192356.70	12.00	712.25	712.49
I1	192366.70	12.00	712.19	712.42
J1	192376.70	12.00	712.12	712.35
K1	192386.70	12.00	712.06	712.24
L1	192396.70	12.00	711.99	712.13
M1	192406.70	12.00	711.93	712.02
N1	192416.70	12.00	711.86	711.91
℄ Brg. E. Abut.	192426.70	12.00	711.80	711.80
Bk. E. Abut.	192430.63	12.00	711.77	711.77

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192019.29	18.83	714.34	714.34
℄ Brg. W. Abut.	192023.22	18.83	714.31	714.31
C	192033.22	18.83	714.25	714.30
D	192043.22	18.83	714.18	714.28
E	192053.22	18.83	714.12	714.26
F	192063.22	18.83	714.05	714.24
G	192073.22	18.83	713.99	714.22
H	192083.22	18.83	713.92	714.16
I	192093.22	18.83	713.86	714.10
J	192103.22	18.83	713.79	714.04
K	192113.22	18.83	713.73	713.98
L	192123.22	18.83	713.66	713.93
M	192133.22	18.83	713.60	713.83
N	192143.22	18.83	713.53	713.74
O	192153.22	18.83	713.47	713.64
P	192163.22	18.83	713.40	713.54
Q	192173.22	18.83	713.34	713.45
R	192183.22	18.83	713.27	713.36
S	192193.22	18.83	713.21	713.28
T	192203.22	18.83	713.14	713.19
U	192213.22	18.83	713.08	713.10
℄ Brg. Pier	192223.22	18.83	713.01	713.01
V	192233.22	18.83	712.95	712.97
W	192243.22	18.83	712.88	712.93
X	192253.22	18.83	712.82	712.89
Y	192263.22	18.83	712.75	712.84
Z	192273.22	18.83	712.69	712.80
A1	192283.22	18.83	712.62	712.77
B1	192293.22	18.83	712.56	712.73
C1	192303.22	18.83	712.49	712.70
D1	192313.22	18.83	712.43	712.66
E1	192323.22	18.83	712.36	712.63
F1	192333.22	18.83	712.30	712.55
G1	192343.22	18.83	712.23	712.48
H1	192353.22	18.83	712.17	712.41
I1	192363.22	18.83	712.10	712.34
J1	192373.22	18.83	712.04	712.27
K1	192383.22	18.83	711.97	712.16
L1	192393.22	18.83	711.91	712.05
M1	192403.22	18.83	711.84	711.94
N1	192413.22	18.83	711.78	711.83
℄ Brg. E. Abut.	192423.22	18.83	711.71	711.71
Bk. E. Abut.	192427.15	18.83	711.69	711.69

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Shebib	PASSED	REVISED	TOP OF SLAB ELEVATIONS (E.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.) SHEET NO. 8 OF 55 SHEETS
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	107
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192015.39	26.50	714.23	714.23
℄ Brg. W. Abut.	192019.31	26.50	714.21	714.21
C	192029.31	26.50	714.14	714.19
D	192039.31	26.50	714.08	714.17
E	192049.31	26.50	714.01	714.15
F	192059.31	26.50	713.95	714.13
G	192069.31	26.50	713.88	714.11
H	192079.31	26.50	713.82	714.05
I	192089.31	26.50	713.75	713.99
J	192099.31	26.50	713.69	713.93
K	192109.31	26.50	713.62	713.88
L	192119.31	26.50	713.56	713.82
M	192129.31	26.50	713.49	713.72
N	192139.31	26.50	713.43	713.63
O	192149.31	26.50	713.36	713.53
P	192159.31	26.50	713.30	713.44
Q	192169.31	26.50	713.23	713.34
R	192179.31	26.50	713.17	713.26
S	192189.31	26.50	713.10	713.17
T	192199.31	26.50	713.04	713.08
U	192209.31	26.50	712.97	712.99
℄ Brg. Pier	192219.31	26.50	712.91	712.91
V	192229.31	26.50	712.84	712.86
W	192239.31	26.50	712.78	712.82
X	192249.31	26.50	712.71	712.78
Y	192259.31	26.50	712.65	712.74
Z	192269.31	26.50	712.58	712.69
A1	192279.31	26.50	712.52	712.66
B1	192289.31	26.50	712.45	712.62
C1	192299.31	26.50	712.39	712.59
D1	192309.31	26.50	712.32	712.55
E1	192319.31	26.50	712.26	712.52
F1	192329.31	26.50	712.19	712.45
G1	192339.31	26.50	712.13	712.37
H1	192349.31	26.50	712.06	712.30
I1	192359.31	26.50	712.00	712.23
J1	192369.31	26.50	711.93	712.16
K1	192379.31	26.50	711.87	712.05
L1	192389.31	26.50	711.80	711.94
M1	192399.31	26.50	711.74	711.83
N1	192409.31	26.50	711.67	711.72
℄ Brg. E. Abut.	192419.31	26.50	711.61	711.61
Bk. E. Abut.	192423.24	26.50	711.58	711.58

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192011.48	34.17	714.10	714.10
℄ Brg. W. Abut.	192015.41	34.17	714.07	714.07
C	192025.41	34.17	714.01	714.05
D	192035.41	34.17	713.94	714.03
E	192045.41	34.17	713.88	714.01
F	192055.41	34.17	713.81	714.00
G	192065.41	34.17	713.75	713.98
H	192075.41	34.17	713.68	713.92
I	192085.41	34.17	713.62	713.86
J	192095.41	34.17	713.55	713.80
K	192105.41	34.17	713.49	713.74
L	192115.41	34.17	713.42	713.68
M	192125.41	34.17	713.36	713.59
N	192135.41	34.17	713.29	713.49
O	192145.41	34.17	713.23	713.40
P	192155.41	34.17	713.16	713.30
Q	192165.41	34.17	713.10	713.21
R	192175.41	34.17	713.03	713.12
S	192185.41	34.17	712.97	713.03
T	192195.41	34.17	712.90	712.95
U	192205.41	34.17	712.84	712.86
℄ Brg. Pier	192215.41	34.17	712.77	712.77
V	192225.41	34.17	712.71	712.73
W	192235.41	34.17	712.64	712.69
X	192245.41	34.17	712.58	712.64
Y	192255.41	34.17	712.51	712.60
Z	192265.41	34.17	712.45	712.56
A1	192275.41	34.17	712.38	712.52
B1	192285.41	34.17	712.32	712.49
C1	192295.41	34.17	712.25	712.45
D1	192305.41	34.17	712.19	712.42
E1	192315.41	34.17	712.12	712.38
F1	192325.41	34.17	712.06	712.31
G1	192335.41	34.17	711.99	712.24
H1	192345.41	34.17	711.93	712.17
I1	192355.41	34.17	711.86	712.10
J1	192365.41	34.17	711.80	712.03
K1	192375.41	34.17	711.73	711.92
L1	192385.41	34.17	711.67	711.80
M1	192395.41	34.17	711.60	711.69
N1	192405.41	34.17	711.54	711.58
℄ Brg. E. Abut.	192415.41	34.17	711.47	711.47
Bk. E. Abut.	192419.34	34.17	711.45	711.45

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Al-Barrae R. Shabib	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
DRAWN - h.t. duong	PASSED	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

TOP OF SLAB ELEVATIONS (E.B.)
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 9 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	108
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292070.09	-34.17	713.72	713.72
℄ Brg. W. Abut.	292074.02	-34.17	713.69	713.69
C	292084.02	-34.17	713.63	713.67
D	292094.02	-34.17	713.56	713.65
E	292104.02	-34.17	713.50	713.63
F	292114.02	-34.17	713.43	713.61
G	292124.02	-34.17	713.37	713.59
H	292134.02	-34.17	713.30	713.54
I	292144.02	-34.17	713.24	713.48
J	292154.02	-34.17	713.17	713.42
K	292164.02	-34.17	713.11	713.36
L	292174.02	-34.17	713.04	713.30
M	292184.02	-34.17	712.98	713.21
N	292194.02	-34.17	712.91	713.11
O	292204.02	-34.17	712.85	713.02
P	292214.02	-34.17	712.78	712.92
Q	292224.02	-34.17	712.72	712.83
R	292234.02	-34.17	712.65	712.74
S	292244.02	-34.17	712.59	712.65
T	292254.02	-34.17	712.52	712.57
U	292264.02	-34.17	712.46	712.48
℄ Brg. Pier	292274.02	-34.17	712.39	712.39
V	292284.02	-34.17	712.33	712.35
W	292294.02	-34.17	712.26	712.31
X	292304.02	-34.17	712.20	712.26
Y	292314.02	-34.17	712.13	712.22
Z	292324.02	-34.17	712.07	712.18
A1	292334.02	-34.17	712.00	712.14
B1	292344.02	-34.17	711.94	712.11
C1	292354.02	-34.17	711.87	712.07
D1	292364.02	-34.17	711.81	712.04
E1	292374.02	-34.17	711.74	712.00
F1	292384.02	-34.17	711.68	711.93
G1	292394.02	-34.17	711.61	711.86
H1	292404.02	-34.17	711.55	711.79
I1	292414.02	-34.17	711.48	711.72
J1	292424.02	-34.17	711.42	711.64
K1	292434.02	-34.17	711.35	711.53
L1	292444.02	-34.17	711.29	711.42
M1	292454.02	-34.17	711.22	711.31
N1	292464.02	-34.17	711.16	711.20
℄ Brg. E. Abut.	292474.02	-34.17	711.09	711.09
Bk. E. Abut.	292477.94	-34.17	711.07	711.07

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292066.18	-26.50	713.90	713.90
℄ Brg. W. Abut.	292070.11	-26.50	713.88	713.88
C	292080.11	-26.50	713.81	713.86
D	292090.11	-26.50	713.75	713.84
E	292100.11	-26.50	713.68	713.82
F	292110.11	-26.50	713.62	713.8
G	292120.11	-26.50	713.55	713.78
H	292130.11	-26.50	713.49	713.72
I	292140.11	-26.50	713.42	713.66
J	292150.11	-26.50	713.36	713.60
K	292160.11	-26.50	713.29	713.55
L	292170.11	-26.50	713.23	713.49
M	292180.11	-26.50	713.16	713.39
N	292190.11	-26.50	713.10	713.3
O	292200.11	-26.50	713.03	713.20
P	292210.11	-26.50	712.97	713.11
Q	292220.11	-26.50	712.90	713.01
R	292230.11	-26.50	712.84	712.92
S	292240.11	-26.50	712.77	712.84
T	292250.11	-26.50	712.71	712.75
U	292260.11	-26.50	712.64	712.66
℄ Brg. Pier	292270.11	-26.50	712.58	712.58
V	292280.11	-26.50	712.51	712.53
W	292290.11	-26.50	712.45	712.49
X	292300.11	-26.50	712.38	712.45
Y	292310.11	-26.50	712.32	712.41
Z	292320.11	-26.50	712.25	712.36
A1	292330.11	-26.50	712.19	712.33
B1	292340.11	-26.50	712.12	712.29
C1	292350.11	-26.50	712.06	712.26
D1	292360.11	-26.50	711.99	712.22
E1	292370.11	-26.50	711.93	712.19
F1	292380.11	-26.50	711.86	712.12
G1	292390.11	-26.50	711.80	712.04
H1	292400.11	-26.50	711.73	711.97
I1	292410.11	-26.50	711.67	711.90
J1	292420.11	-26.50	711.60	711.83
K1	292430.11	-26.50	711.54	711.72
L1	292440.11	-26.50	711.47	711.61
M1	292450.11	-26.50	711.41	711.50
N1	292460.11	-26.50	711.34	711.39
℄ Brg. E. Abut.	292470.11	-26.50	711.28	711.28
Bk. E. Abut.	292474.04	-26.50	711.25	711.25

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292062.28	-18.83	714.06	714.06
℄ Brg. W. Abut.	292066.20	-18.83	714.04	714.04
C	292076.20	-18.83	713.97	714.02
D	292086.20	-18.83	713.91	714.00
E	292096.20	-18.83	713.84	713.98
F	292106.20	-18.83	713.78	713.96
G	292116.20	-18.83	713.71	713.94
H	292126.20	-18.83	713.65	713.88
I	292136.20	-18.83	713.58	713.82
J	292146.20	-18.83	713.52	713.76
K	292156.20	-18.83	713.45	713.70
L	292166.20	-18.83	713.39	713.65
M	292176.20	-18.83	713.32	713.55
N	292186.20	-18.83	713.26	713.46
O	292196.20	-18.83	713.19	713.36
P	292206.20	-18.83	713.13	713.27
Q	292216.20	-18.83	713.06	713.17
R	292226.20	-18.83	713.00	713.08
S	292236.20	-18.83	712.93	713.00
T	292246.20	-18.83	712.87	712.91
U	292256.20	-18.83	712.80	712.82
℄ Brg. Pier	292266.20	-18.83	712.74	712.74
V	292276.20	-18.83	712.67	712.69
W	292286.20	-18.83	712.61	712.65
X	292296.20	-18.83	712.54	712.61
Y	292306.20	-18.83	712.48	712.56
Z	292316.20	-18.83	712.41	712.52
A1	292326.20	-18.83	712.35	712.49
B1	292336.20	-18.83	712.28	712.45
C1	292346.20	-18.83	712.22	712.42
D1	292356.20	-18.83	712.15	712.38
E1	292366.20	-18.83	712.09	712.35
F1	292376.20	-18.83	712.02	712.27
G1	292386.20	-18.83	711.96	712.20
H1	292396.20	-18.83	711.89	712.13
I1	292406.20	-18.83	711.83	712.06
J1	292416.20	-18.83	711.76	711.99
K1	292426.20	-18.83	711.70	711.88
L1	292436.20	-18.83	711.63	711.77
M1	292446.20	-18.83	711.57	711.66
N1	292456.20	-18.83	711.5	711.55
℄ Brg. E. Abut.	292466.20	-18.83	711.44	711.44
Bk. E. Abut.	292470.13	-18.83	711.41	711.41

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Al-Barrae R. Shabib	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
DRAWN - n.t. duong	PASSED	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

TOP OF SLAB ELEVATIONS (W.B.)
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 10 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	38R & 38R-1	WINNEBAGO	290	109
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292058.79	-12.00	714.19	714.19
℄ Brg. W. Abut.	292062.72	-12.00	714.16	714.16
C	292072.72	-12.00	714.10	714.15
D	292082.72	-12.00	714.03	714.13
E	292092.72	-12.00	713.97	714.11
F	292102.72	-12.00	713.90	714.09
G	292112.72	-12.00	713.84	714.07
H	292122.72	-12.00	713.77	714.01
I	292132.72	-12.00	713.71	713.95
J	292142.72	-12.00	713.64	713.89
K	292152.72	-12.00	713.58	713.83
L	292162.72	-12.00	713.51	713.78
M	292172.72	-12.00	713.45	713.68
N	292182.72	-12.00	713.38	713.58
O	292192.72	-12.00	713.32	713.49
P	292202.72	-12.00	713.25	713.39
Q	292212.72	-12.00	713.19	713.30
R	292222.72	-12.00	713.12	713.21
S	292232.72	-12.00	713.06	713.13
T	292242.72	-12.00	712.99	713.04
U	292252.72	-12.00	712.93	712.95
℄ Brg. Pier	292262.72	-12.00	712.86	712.86
V	292272.72	-12.00	712.80	712.82
W	292282.72	-12.00	712.73	712.78
X	292292.72	-12.00	712.67	712.74
Y	292302.72	-12.00	712.60	712.69
Z	292312.72	-12.00	712.54	712.65
A1	292322.72	-12.00	712.47	712.61
B1	292332.72	-12.00	712.41	712.58
C1	292342.72	-12.00	712.34	712.55
D1	292352.72	-12.00	712.28	712.51
E1	292362.72	-12.00	712.21	712.48
F1	292372.72	-12.00	712.15	712.40
G1	292382.72	-12.00	712.08	712.33
H1	292392.72	-12.00	712.02	712.26
I1	292402.72	-12.00	711.95	712.19
J1	292412.72	-12.00	711.89	712.12
K1	292422.72	-12.00	711.82	712.01
L1	292432.72	-12.00	711.76	711.90
M1	292442.72	-12.00	711.69	711.79
N1	292452.72	-12.00	711.63	711.68
℄ Brg. E. Abut.	292462.72	-12.00	711.56	711.56
Bk. E. Abut.	292466.65	-12.00	711.54	711.54

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292058.37	-11.17	714.18	714.18
℄ Brg. W. Abut.	292062.30	-11.17	714.15	714.15
C	292072.30	-11.17	714.09	714.13
D	292082.30	-11.17	714.02	714.12
E	292092.30	-11.17	713.96	714.10
F	292102.30	-11.17	713.89	714.08
G	292112.30	-11.17	713.83	714.06
H	292122.30	-11.17	713.76	714.00
I	292132.30	-11.17	713.70	713.94
J	292142.30	-11.17	713.63	713.88
K	292152.30	-11.17	713.57	713.82
L	292162.30	-11.17	713.50	713.77
M	292172.30	-11.17	713.44	713.67
N	292182.30	-11.17	713.37	713.57
O	292192.30	-11.17	713.31	713.48
P	292202.30	-11.17	713.24	713.38
Q	292212.30	-11.17	713.18	713.29
R	292222.30	-11.17	713.11	713.20
S	292232.30	-11.17	713.05	713.12
T	292242.30	-11.17	712.98	713.03
U	292252.30	-11.17	712.92	712.94
℄ Brg. Pier	292262.30	-11.17	712.85	712.85
V	292272.30	-11.17	712.79	712.81
W	292282.30	-11.17	712.72	712.77
X	292292.30	-11.17	712.66	712.73
Y	292302.30	-11.17	712.59	712.68
Z	292312.30	-11.17	712.53	712.64
A1	292322.30	-11.17	712.46	712.60
B1	292332.30	-11.17	712.40	712.57
C1	292342.30	-11.17	712.33	712.53
D1	292352.30	-11.17	712.27	712.50
E1	292362.30	-11.17	712.20	712.47
F1	292372.30	-11.17	712.14	712.39
G1	292382.30	-11.17	712.07	712.32
H1	292392.30	-11.17	712.01	712.25
I1	292402.30	-11.17	711.94	712.18
J1	292412.30	-11.17	711.88	712.11
K1	292422.30	-11.17	711.81	712.00
L1	292432.30	-11.17	711.75	711.89
M1	292442.30	-11.17	711.68	711.78
N1	292452.30	-11.17	711.62	711.66
℄ Brg. E. Abut.	292462.30	-11.17	711.55	711.55
Bk. E. Abut.	292466.22	-11.17	711.53	711.53

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292054.46	-3.50	714.09	714.09
℄ Brg. W. Abut.	292058.39	-3.50	714.06	714.06
C	292068.39	-3.50	714.00	714.04
D	292078.39	-3.50	713.93	714.02
E	292088.39	-3.50	713.87	714.00
F	292098.39	-3.50	713.80	713.98
G	292108.39	-3.50	713.74	713.96
H	292118.39	-3.50	713.67	713.90
I	292128.39	-3.50	713.61	713.85
J	292138.39	-3.50	713.54	713.79
K	292148.39	-3.50	713.48	713.73
L	292158.39	-3.50	713.41	713.67
M	292168.39	-3.50	713.35	713.58
N	292178.39	-3.50	713.28	713.48
O	292188.39	-3.50	713.22	713.39
P	292198.39	-3.50	713.15	713.29
Q	292208.39	-3.50	713.09	713.19
R	292218.39	-3.50	713.02	713.11
S	292228.39	-3.50	712.96	713.02
T	292238.39	-3.50	712.89	712.93
U	292248.39	-3.50	712.83	712.85
℄ Brg. Pier	292258.39	-3.50	712.76	712.76
V	292268.39	-3.50	712.70	712.72
W	292278.39	-3.50	712.63	712.67
X	292288.39	-3.50	712.57	712.63
Y	292298.39	-3.50	712.50	712.59
Z	292308.39	-3.50	712.44	712.55
A1	292318.39	-3.50	712.37	712.51
B1	292328.39	-3.50	712.31	712.48
C1	292338.39	-3.50	712.24	712.44
D1	292348.39	-3.50	712.18	712.41
E1	292358.39	-3.50	712.11	712.37
F1	292368.39	-3.50	712.05	712.30
G1	292378.39	-3.50	711.98	712.23
H1	292388.39	-3.50	711.92	712.16
I1	292398.39	-3.50	711.85	712.08
J1	292408.39	-3.50	711.79	712.01
K1	292418.39	-3.50	711.72	711.90
L1	292428.39	-3.50	711.66	711.79
M1	292438.39	-3.50	711.59	711.68
N1	292448.39	-3.50	711.53	711.57
℄ Brg. E. Abut.	292458.39	-3.50	711.46	711.46
Bk. E. Abut.	292462.32	-3.50	711.43	711.43

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Al-Barrae R. Sheblb	PASSED	REVISED	**TOP OF SLAB ELEVATIONS (W.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)**
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 11 OF 55 SHEETS
CHECKED - NAB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	110
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

BASELINE & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292052.68	0.00	714.04	714.04
℄ Brg. W. Abut.	292056.61	0.00	714.02	714.02
C	292066.61	0.00	713.95	714.00
D	292076.61	0.00	713.89	713.98
E	292086.61	0.00	713.82	713.96
F	292096.61	0.00	713.76	713.94
G	292106.61	0.00	713.69	713.92
H	292116.61	0.00	713.63	713.86
I	292126.61	0.00	713.56	713.80
J	292136.61	0.00	713.50	713.74
K	292146.61	0.00	713.43	713.69
L	292156.61	0.00	713.37	713.63
M	292166.61	0.00	713.3	713.53
N	292176.61	0.00	713.24	713.44
O	292186.61	0.00	713.17	713.34
P	292196.61	0.00	713.11	713.25
Q	292206.61	0.00	713.04	713.15
R	292216.61	0.00	712.98	713.06
S	292226.61	0.00	712.91	712.98
T	292236.61	0.00	712.85	712.89
U	292246.61	0.00	712.78	712.80
℄ Brg. Pier	292256.61	0.00	712.72	712.72
V	292266.61	0.00	712.65	712.67
W	292276.61	0.00	712.59	712.63
X	292286.61	0.00	712.52	712.59
Y	292296.61	0.00	712.46	712.55
Z	292306.61	0.00	712.39	712.50
A1	292316.61	0.00	712.33	712.47
B1	292326.61	0.00	712.26	712.43
C1	292336.61	0.00	712.20	712.40
D1	292346.61	0.00	712.13	712.36
E1	292356.61	0.00	712.07	712.33
F1	292366.61	0.00	712.00	712.26
G1	292376.61	0.00	711.94	712.18
H1	292386.61	0.00	711.87	712.11
I1	292396.61	0.00	711.81	712.04
J1	292406.61	0.00	711.74	711.97
K1	292416.61	0.00	711.68	711.86
L1	292426.61	0.00	711.61	711.75
M1	292436.61	0.00	711.55	711.64
N1	292446.61	0.00	711.48	711.53
℄ Brg. E. Abut.	292456.61	0.00	711.42	711.42
Bk. E. Abut.	292460.53	0.00	711.39	711.39

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292050.56	4.17	713.97	713.97
℄ Brg. W. Abut.	292054.48	4.17	713.94	713.94
C	292064.48	4.17	713.88	713.92
D	292074.48	4.17	713.81	713.91
E	292084.48	4.17	713.75	713.89
F	292094.48	4.17	713.68	713.87
G	292104.48	4.17	713.62	713.85
H	292114.48	4.17	713.55	713.79
I	292124.48	4.17	713.49	713.73
J	292134.48	4.17	713.42	713.67
K	292144.48	4.17	713.36	713.61
L	292154.48	4.17	713.29	713.56
M	292164.48	4.17	713.23	713.46
N	292174.48	4.17	713.16	713.36
O	292184.48	4.17	713.10	713.27
P	292194.48	4.17	713.03	713.17
Q	292204.48	4.17	712.97	713.08
R	292214.48	4.17	712.90	712.99
S	292224.48	4.17	712.84	712.90
T	292234.48	4.17	712.77	712.82
U	292244.48	4.17	712.71	712.73
℄ Brg. Pier	292254.48	4.17	712.64	712.64
V	292264.48	4.17	712.58	712.60
W	292274.48	4.17	712.51	712.56
X	292284.48	4.17	712.45	712.52
Y	292294.48	4.17	712.38	712.47
Z	292304.48	4.17	712.32	712.43
A1	292314.48	4.17	712.25	712.39
B1	292324.48	4.17	712.19	712.36
C1	292334.48	4.17	712.12	712.32
D1	292344.48	4.17	712.06	712.29
E1	292354.48	4.17	711.99	712.26
F1	292364.48	4.17	711.93	712.18
G1	292374.48	4.17	711.86	712.11
H1	292384.48	4.17	711.80	712.04
I1	292394.48	4.17	711.73	711.97
J1	292404.48	4.17	711.67	711.90
K1	292414.48	4.17	711.60	711.79
L1	292424.48	4.17	711.54	711.68
M1	292434.48	4.17	711.47	711.57
N1	292444.48	4.17	711.41	711.45
℄ Brg. E. Abut.	292454.48	4.17	711.34	711.34
Bk. E. Abut.	292458.41	4.17	711.32	711.32

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Al-Barrae R. Sheblb	PASSED	REVISED	**TOP OF SLAB ELEVATIONS (W.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)**
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 12 OF 55 SHEETS
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	111
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

NORTH CURB LINE

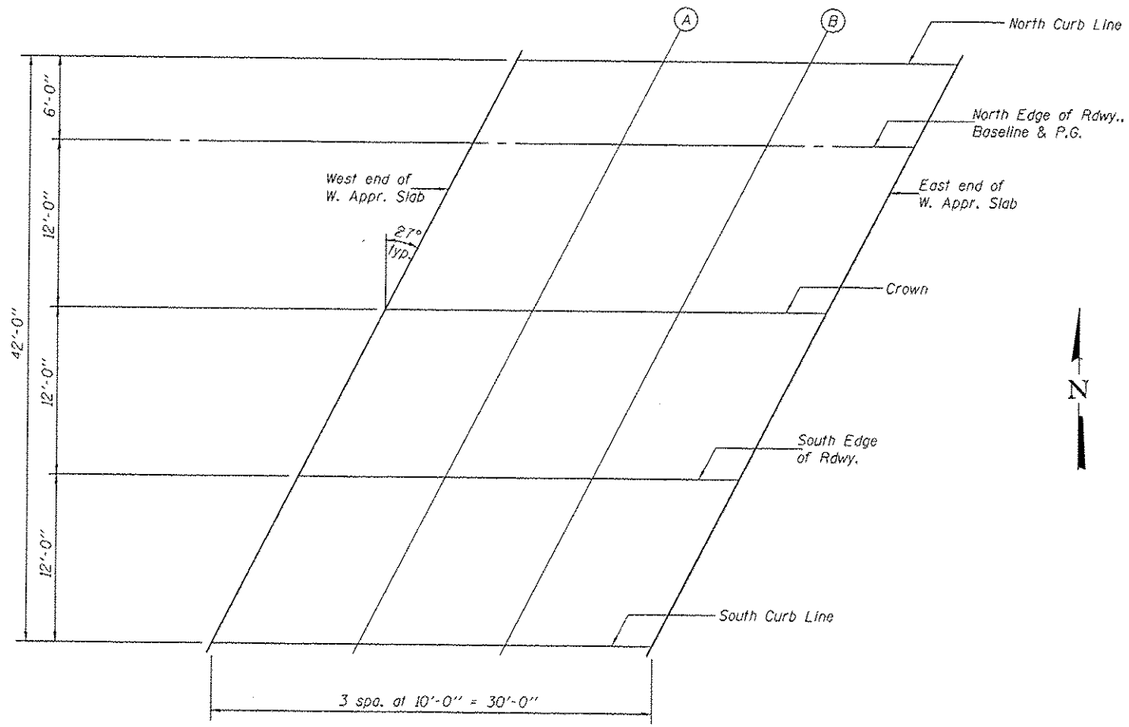
Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	192002.51	-6.00	714.24
A	192012.51	-6.00	714.18
B	192022.51	-6.00	714.11
East end of W. Appr. Slab	192032.51	-6.00	714.05

NORTH EDGE OF RDWY., BASELINE & P.G.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	191999.45	0.00	714.39
A	192009.45	0.00	714.32
B	192019.45	0.00	714.26
East end of W. Appr. Slab	192029.45	0.00	714.19

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	191993.34	12.00	714.62
A	192003.34	12.00	714.55
B	192013.34	12.00	714.49
East end of W. Appr. Slab	192023.34	12.00	714.42



PLAN

SOUTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	191987.22	24.00	714.47
A	191997.22	24.00	714.40
B	192007.22	24.00	714.34
East end of W. Appr. Slab	192017.22	24.00	714.27

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	191981.11	36.00	714.26
A	191991.11	36.00	714.19
B	192001.11	36.00	714.13
East end of W. Appr. Slab	192011.11	36.00	714.06

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barroe R. Sheblb	PASSED	REVISED	TOP OF WEST APPROACH SLAB ELEVATION (E.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 13 OF 55 SHEETS
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	112
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

NORTH CURB LINE

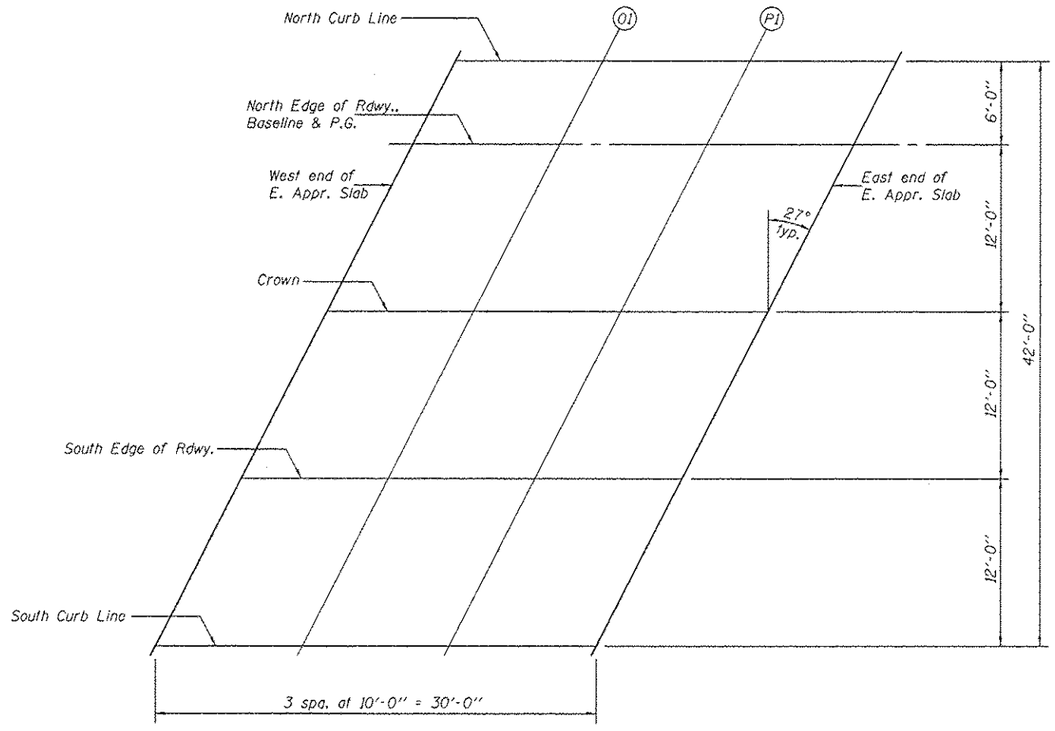
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	192439.24	-6.00	711.41
01	192449.24	-6.00	711.34
P1	192459.24	-6.00	711.28
East end of E. Appr. Slab	192469.24	-6.00	711.21

NORTH EDGE OF RDWY., BASELINE & P.G.

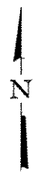
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	192436.18	0.00	711.55
01	192446.18	0.00	711.48
P1	192456.18	0.00	711.42
East end of E. Appr. Slab	192466.18	0.00	711.35

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	192430.07	12.00	711.78
01	192440.07	12.00	711.71
P1	192450.07	12.00	711.65
East end of E. Appr. Slab	192460.07	12.00	711.58



PLAN



SOUTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	192423.95	24.00	711.63
01	192433.95	24.00	711.56
P1	192443.95	24.00	711.50
East end of E. Appr. Slab	192453.95	24.00	711.43

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	192417.84	36.00	711.42
01	192427.84	36.00	711.35
P1	192437.84	36.00	711.29
East end of E. Appr. Slab	192447.84	36.00	711.22

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrao R. Sheib	PASSED	REVISED	TOP OF EAST APPROACH SLAB ELEVATION (E.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 14 OF 55 SHEETS
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	113
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

NORTH CURB LINE

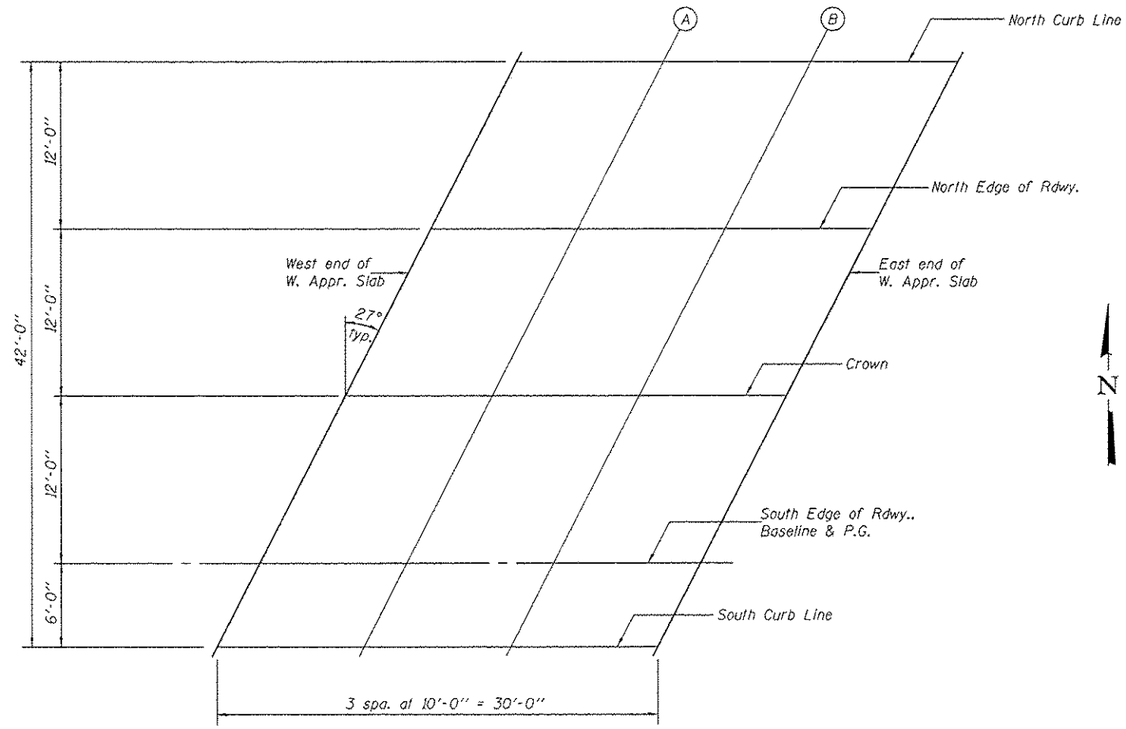
Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292041.58	-36.00	713.87
A	292051.58	-36.00	713.80
B	292061.58	-36.00	713.74
East end of W. Appr. Slab	292071.58	-36.00	713.67

NORTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292035.47	-24.00	714.15
A	292045.47	-24.00	714.09
B	292055.47	-24.00	714.02
East end of W. Appr. Slab	292065.47	-24.00	713.96

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292029.35	-12.00	714.38
A	292039.35	-12.00	714.32
B	292049.35	-12.00	714.25
East end of W. Appr. Slab	292059.35	-12.00	714.19



PLAN

SOUTH EDGE OF RDWY., BASELINE & P.G.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292023.24	0.00	714.23
A	292033.24	0.00	714.17
B	292043.24	0.00	714.10
East end of W. Appr. Slab	292053.24	0.00	714.04

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292020.18	6.00	714.13
A	292030.18	6.00	714.06
B	292040.18	6.00	714.00
East end of W. Appr. Slab	292050.18	6.00	713.93

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Shebib	PASSED	REVISED	TOP OF WEST APPROACH SLAB ELEVATIONS (W.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 15 OF 55 SHEETS
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	114
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

NORTH CURB LINE

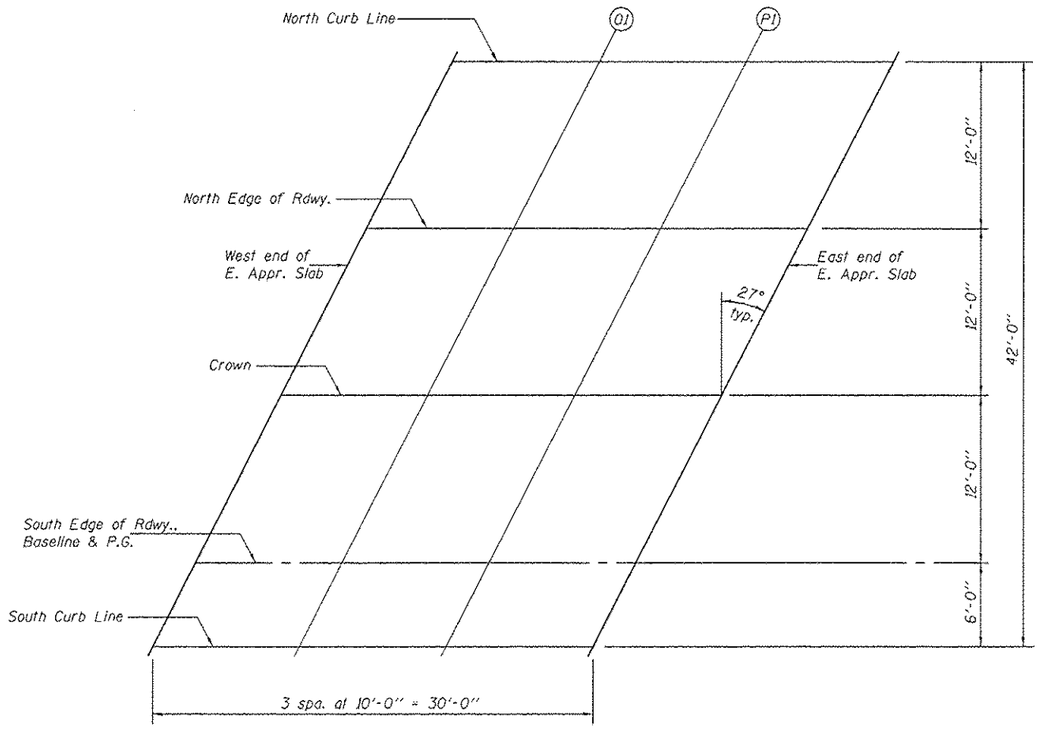
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	292478.31	-36.00	711.03
01	292488.31	-36.00	710.96
P1	292498.31	-36.00	710.90
East end of E. Appr. Slab	292508.31	-36.00	710.83

NORTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	292472.2	-24.00	711.32
01	292482.2	-24.00	711.25
P1	292492.2	-24.00	711.19
East end of E. Appr. Slab	292502.2	-24.00	711.12

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	292466.08	-12.00	711.54
01	292476.08	-12.00	711.48
P1	292486.08	-12.00	711.41
East end of E. Appr. Slab	292496.08	-12.00	711.35



PLAN

SOUTH EDGE OF RDWY., BASELINE & P.G.

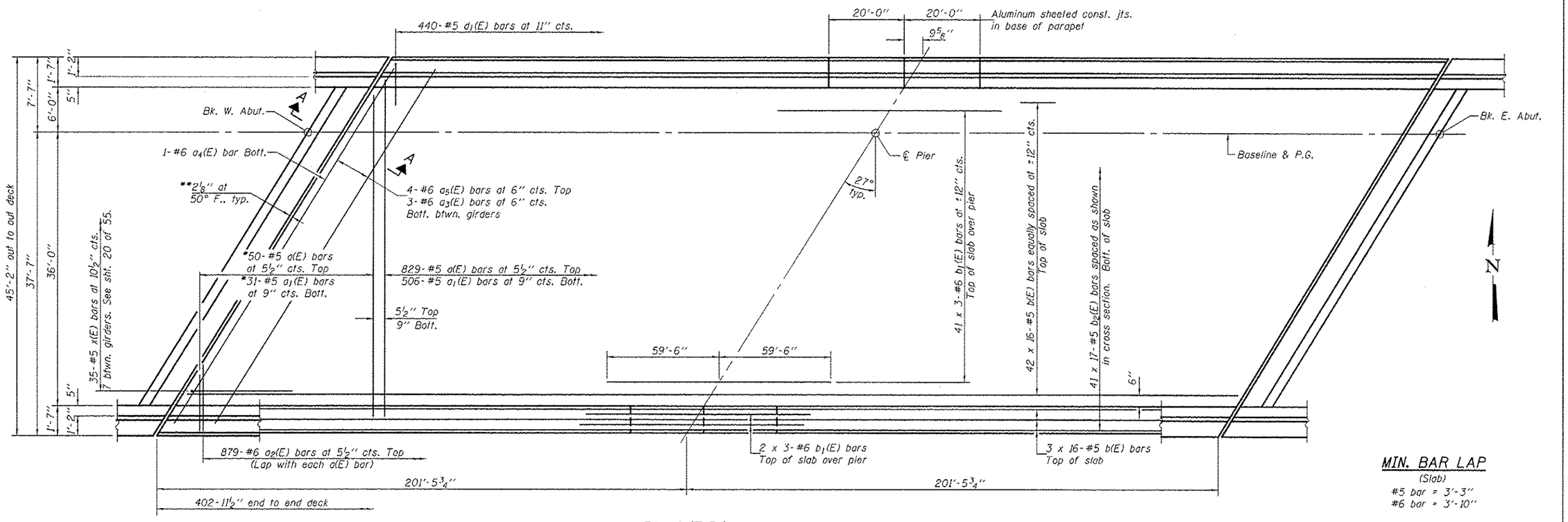
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	292459.97	0.00	711.40
01	292469.97	0.00	711.33
P1	292479.97	0.00	711.27
East end of E. Appr. Slab	292489.97	0.00	711.20

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	292456.91	6.00	711.29
01	292466.91	6.00	711.23
P1	292476.91	6.00	711.16
East end of E. Appr. Slab	292486.91	6.00	711.10

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Sheblb	PASSED	REVISED	TOP OF EAST APPROACH SLAB ELEVATION (W.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 16 OF 55 SHEETS
CHECKED - NAB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	115
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

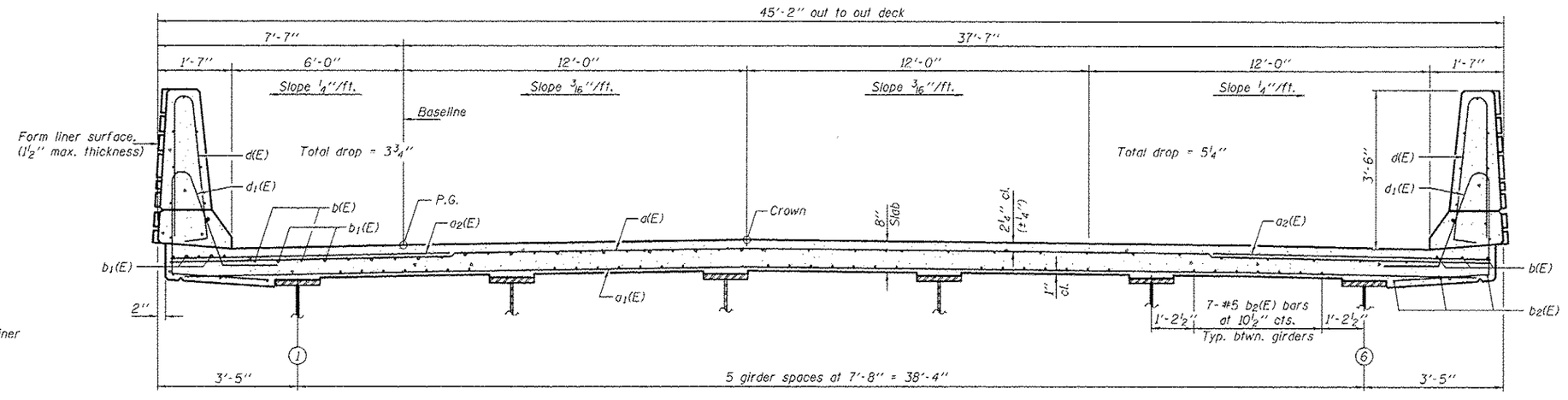


PLAN (E.B.)

MIN. BAR LAP
(Slab)
#5 bar = 3'-3"
#6 bar = 3'-10"

*Order d(E) & a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

**Dimensions are based on a rolled rail strip seal 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 sheet 25 of 55.



NEAR PIER

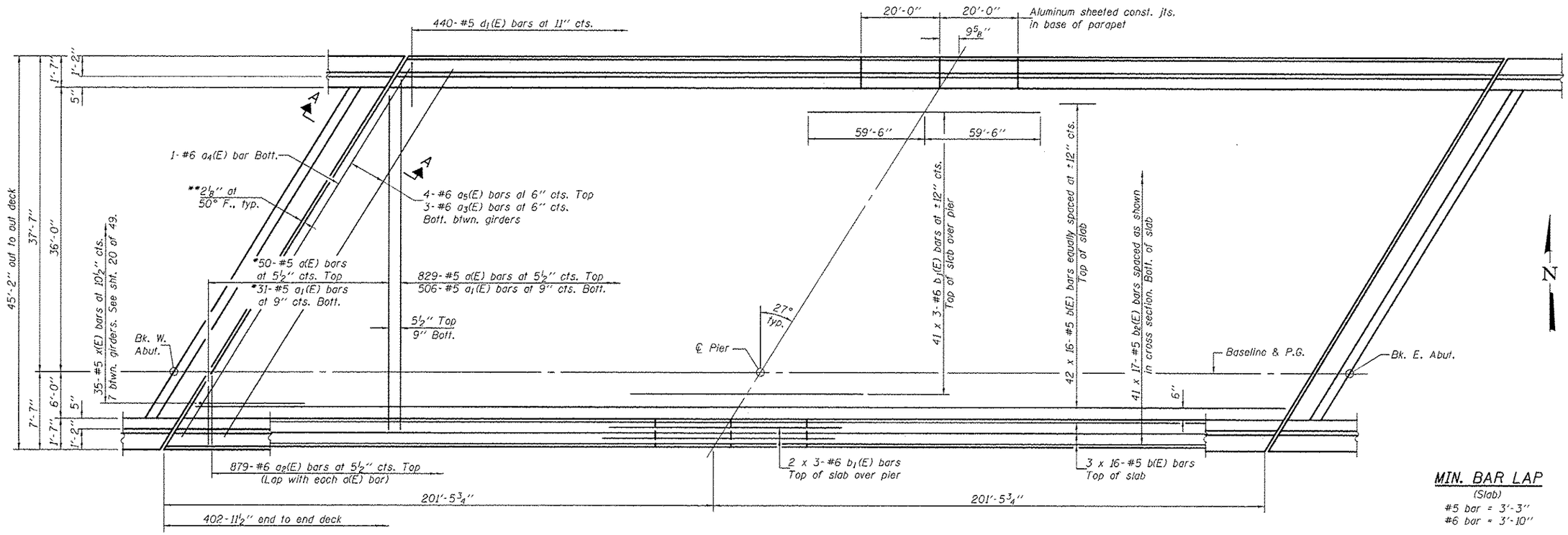
NEAR MIDSPAN

CROSS SECTION
(Looking east)

Notes:
See sheets 19 & 20 of 55 for superstructure details & Bill of Material.
Bars indicated thus 40 x 3-#5 etc. indicates 40 lines of bars with 3 lengths per line.
See sheet 19 of 55 for parapet reinforcement.
See sheets 45 & 46 of 55 for details of formliner texture surface.

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Borrae R. Sheblb	PASSED	REVISED	SUPERSTRUCTURE (E.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 17 OF 55 SHEETS
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	116
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			



PLAN (W.B.)

*Order d(E) & $a_1(E)$ bars full length. Cut to fit skew and use remainder of bars in opposite end.

**Dimensions are based on a rolled rail strip seal 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 sheet 25 of 55.

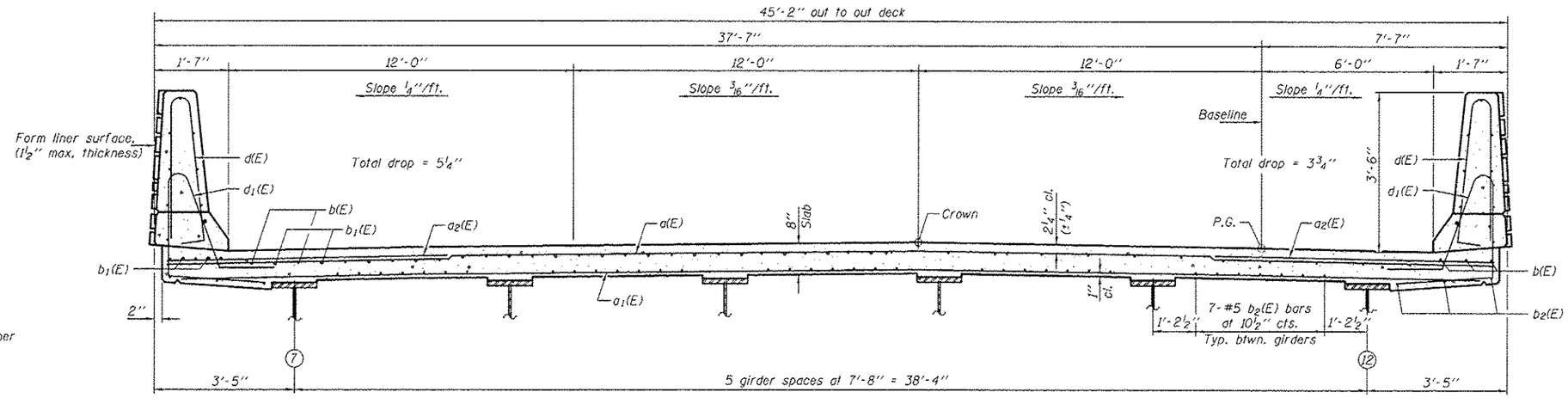
Notes:

See sheets 19 & 20 of 55 for superstructure details & Bill of Material.

Bars indicated thus 40 x 3-#5 etc. indicates 40 lines of bars with 3 lengths per line.

See sheet 19 of 55 for parapet reinforcement.

See sheets 45 & 46 of 55 for details of formliner texture surface.



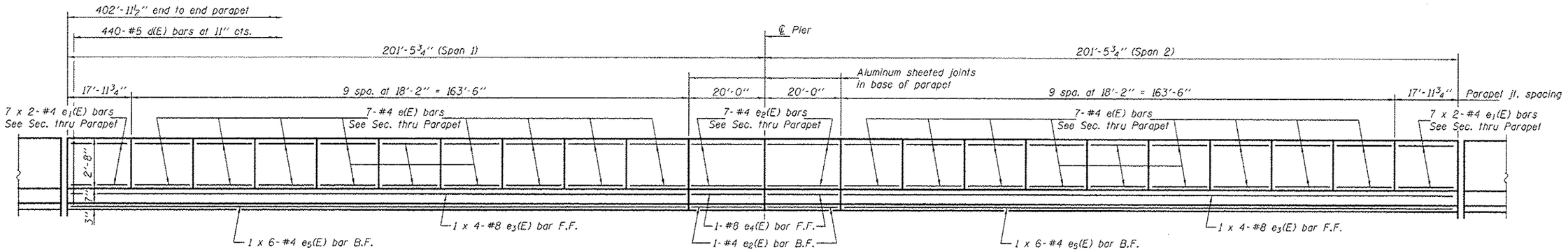
NEAR PIER — NEAR MIDSPAN

CROSS SECTION
(Looking east)

MIN. BAR LAP
(Slab)
#5 bar = 3'-3"
#6 bar = 3'-10"

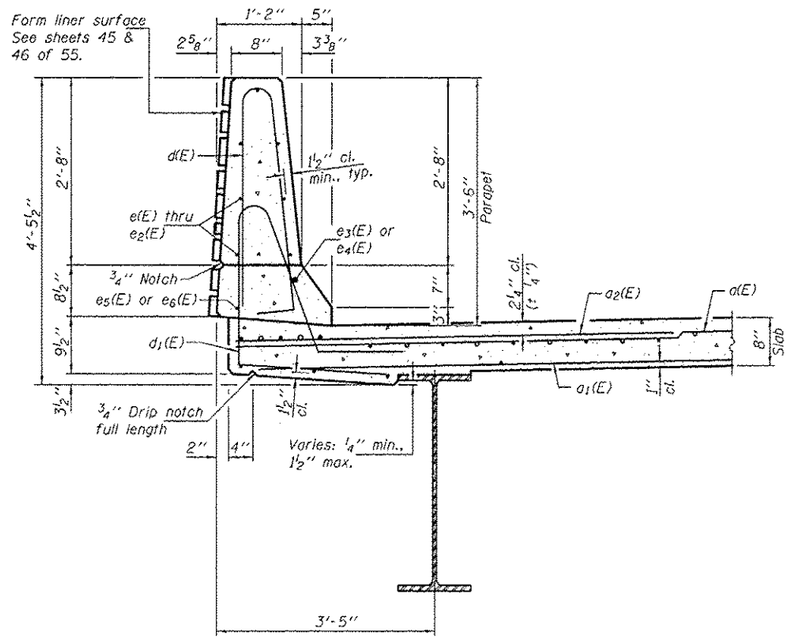
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE (W.B.) STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barrae R. Shebib					301	38R & 38R-1	WINNEBAGO	290	117
DRAWN - h.t. duong	PASSED	REVISED		SHEET NO. 18 OF 55 SHEETS				CONTRACT NO. 64D19	
CHECKED - NRB/GRA		REVISED						ILLINOIS FED. AID PROJECT	

ACTING ENGINEER OF BRIDGE DESIGN
ACTING ENGINEER OF BRIDGES AND STRUCTURES

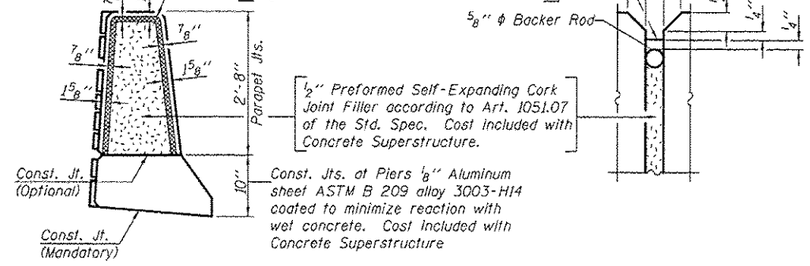


INSIDE ELEVATION OF NORTH PARAPET (E.B.)

(Looking North - South parapet similar)



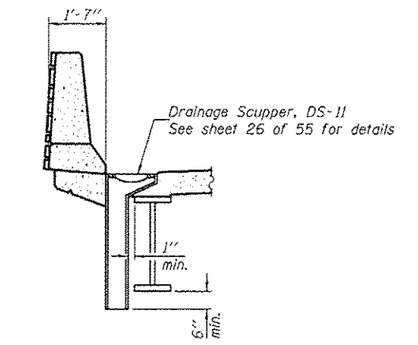
SECTION THRU PARAPET



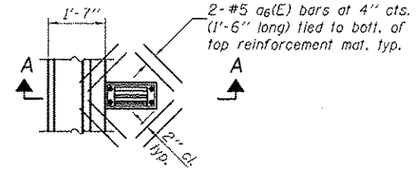
PARAPET JOINT DETAILS

MIN. BAR LAP

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



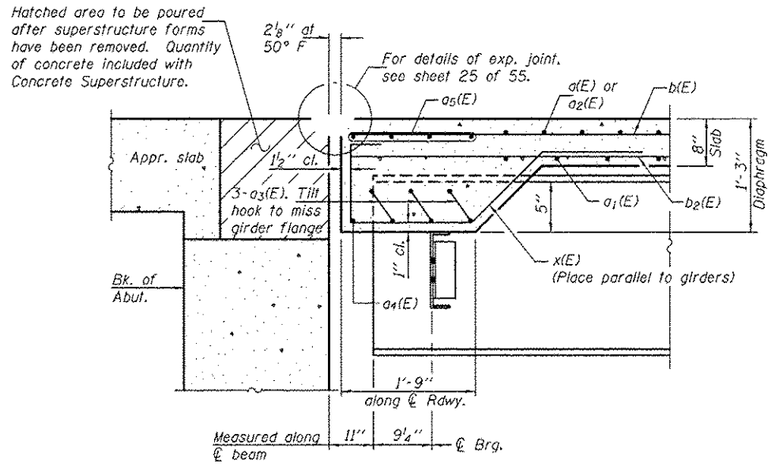
SECTION A-A



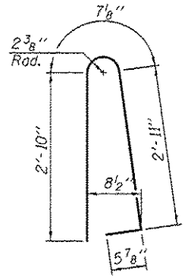
PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

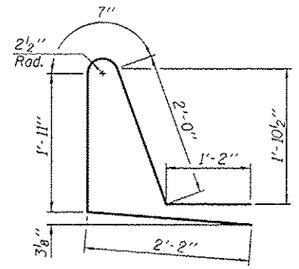
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barroo R. Sheib	PASSED	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	118
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		SHEET NO. 19 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		



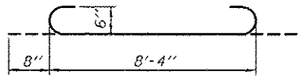
SECTION A-A



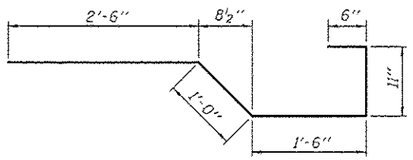
BAR d(E)



BAR d1(E)



a3(E) BAR



BAR x(E)

TWO SUPERSTRUCTURES (E.B. & W.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	1758	#5	44'-7"	
a1(E)	1074	#5	42'-10"	
a2(E)	3516	#6	6'-6"	
a3(E)	60	#6	9'-8"	
a4(E)	4	#6	42'-9"	
a5(E)	16	#6	49'-11"	
a6(E)	64	#5	1'-6"	
b(E)	1536	#5	28'-3"	
b1(E)	270	#6	42'-3"	
b2(E)	1394	#5	26'-9"	
d(E)	1760	#5	6'-10"	
d1(E)	1760	#5	7'-10"	
e(E)	504	#4	17'-11"	
e1(E)	112	#4	10'-3"	
e2(E)	64	#4	19'-9"	
e3(E)	32	#8	49'-3"	
e4(E)	8	#8	19'-9"	
e5(E)	48	#4	32'-0"	
x(E)	140	#5	6'-5"	
Reinforcement Bars, Epoxy Coated			Pound	308,930
Concrete Superstructure			Cu. Yds.	1167.5

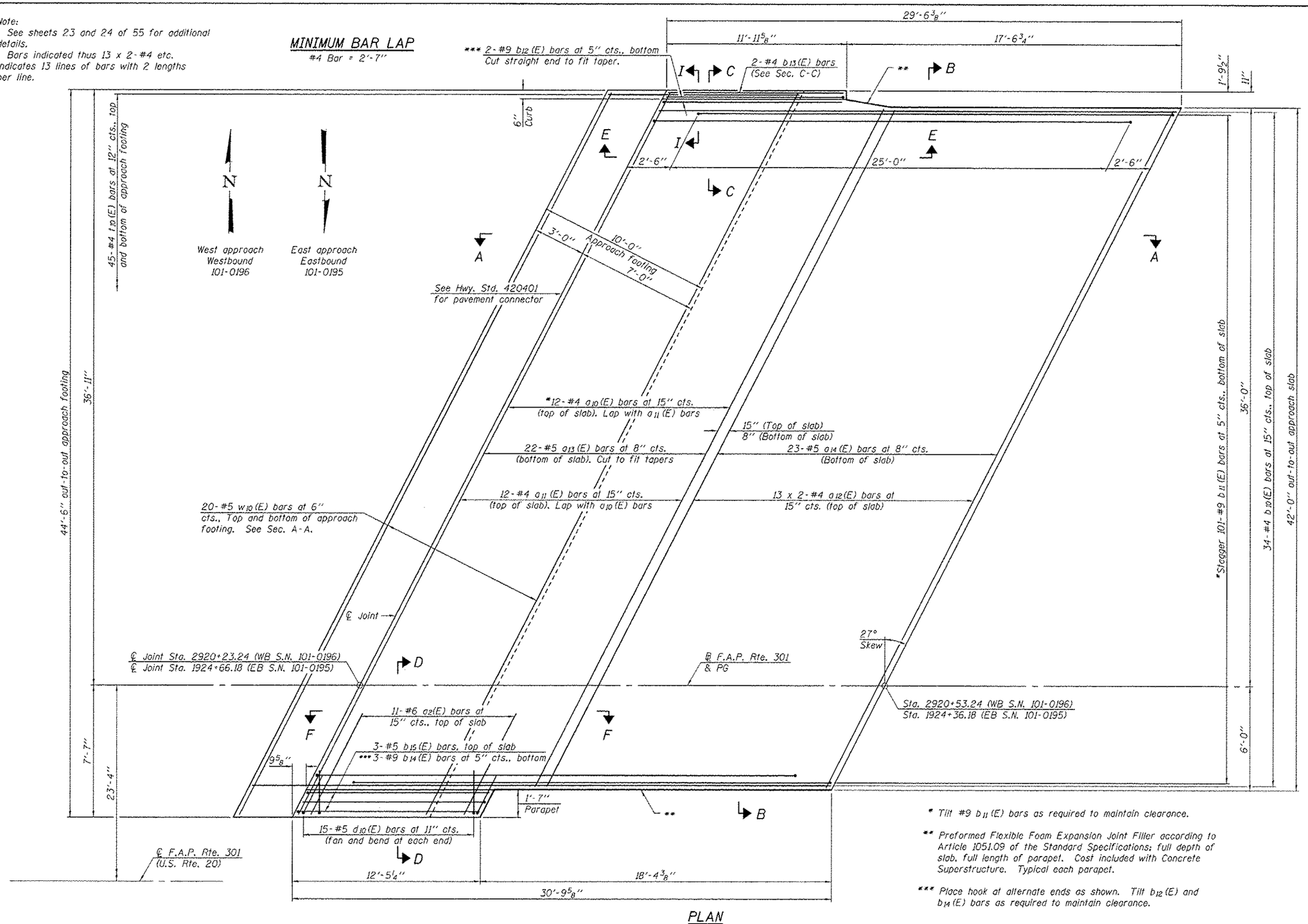
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barrae R. Shebib					301	3BR & 3BR-1	WINNEBAGO	290	119
DRAWN - h.t. duong	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 20 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		

Note:
See sheets 23 and 24 of 55 for additional details.
Bars indicated thus 13 x 2-#4 etc. indicates 13 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#4 Bar = 2'-7"



PLAN

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

** Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Cost included with Concrete Superstructure. Typical each parapet.

*** Place hook at alternate ends as shown. Tilt b_{12} (E) and b_{14} (E) bars as required to maintain clearance.

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS**
CHECKED - AL-BARRAE SHEBIB	ACTING ENGINEER OF BRIDGE DESIGN		**DEPARTMENT OF TRANSPORTATION**
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - N.R.B. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

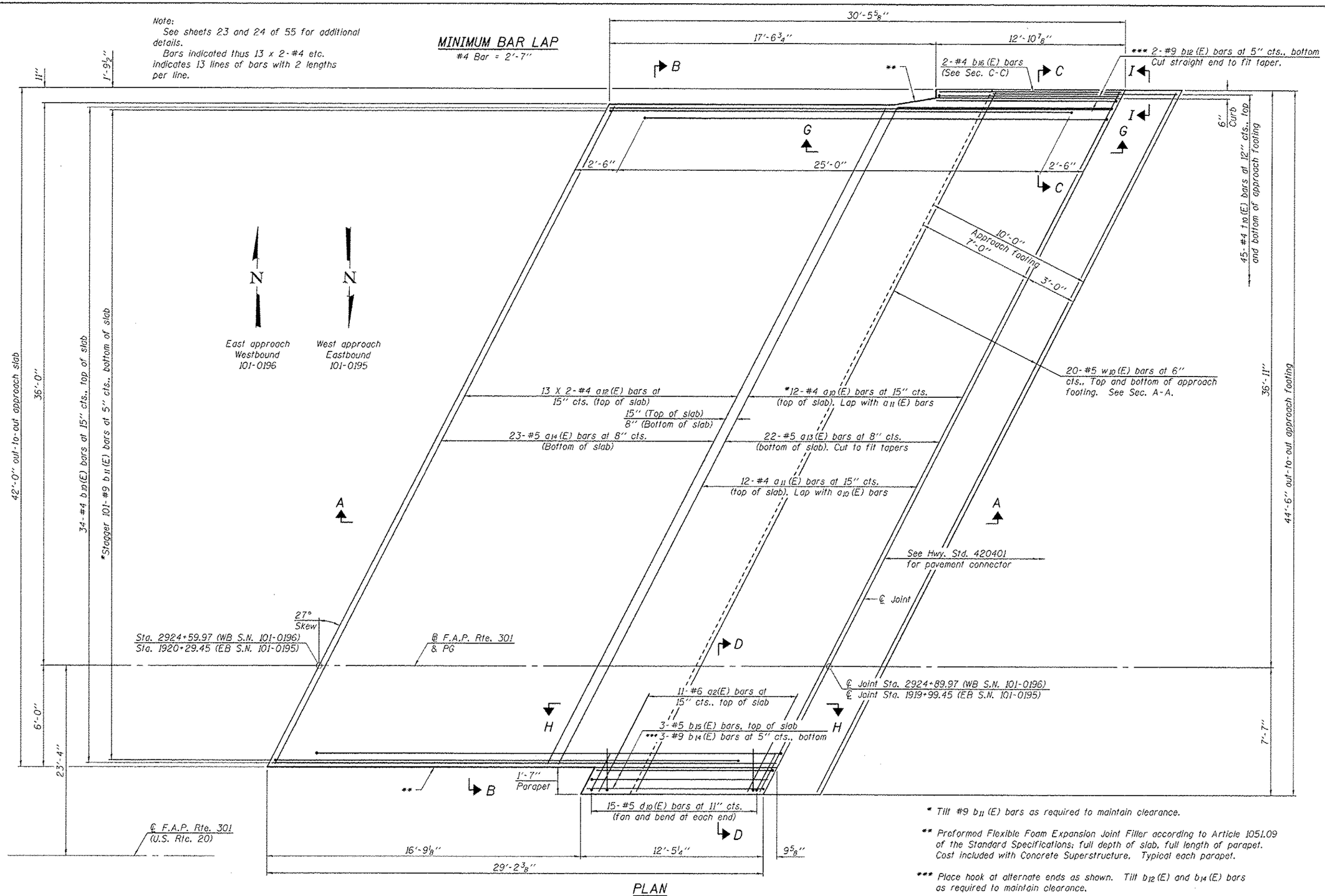
BRIDGE APPROACH SLAB DETAILS – WEST (WB) – EAST (EB)
STRUCTURE NO. 101 – 0195 (EB) & 101 – 0196 (WB)
SHEET NO. 21 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	120
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

Note:
See sheets 23 and 24 of 55 for additional details.
Bars indicated thus 13 x 2-#4 etc. indicates 13 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#4 Bar = 2'-7"



PLAN

* Tilt #9 b_{11} (E) bars as required to maintain clearance.

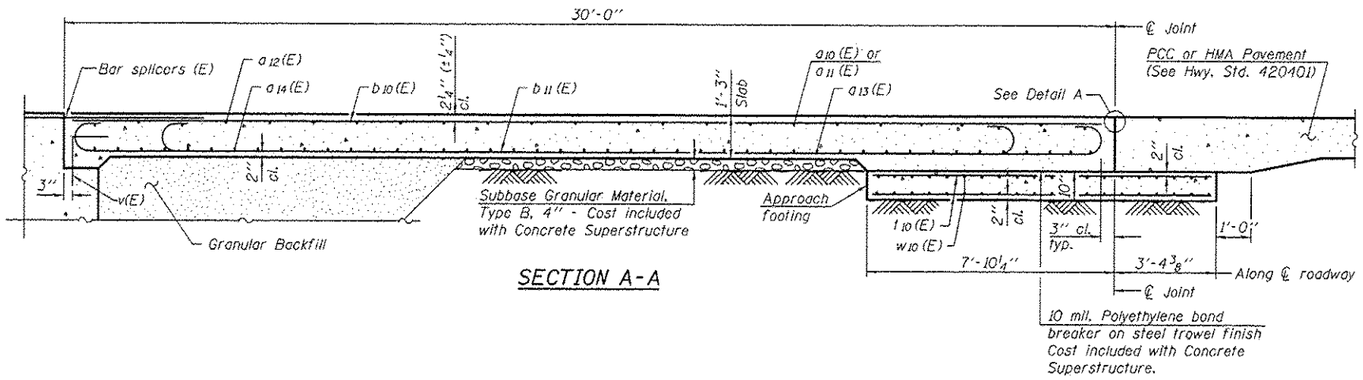
** Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Cost included with Concrete Superstructure, Typical each parapet.

*** Place hook at alternate ends as shown. Tilt b_{12} (E) and b_{14} (E) bars as required to maintain clearance.

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - AL-BARRAE SHEBIB	ACTING ENGINEER OF BRIDGE DESIGN		
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - N.R.B. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

BRIDGE APPROACH SLAB DETAILS – EAST (WB) – WEST (EB)
STRUCTURE NO. 101 – 0195 (EB) & 101 – 0196 (WB)
SHEET NO. 22 OF 55 SHEETS

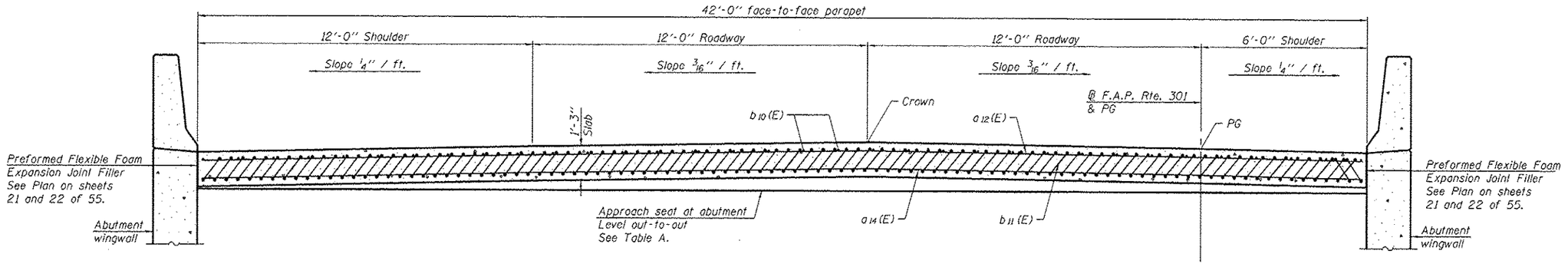
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	121
		CONTRACT NO. 64D19		
	ILLINOIS	FED. AID PROJECT		



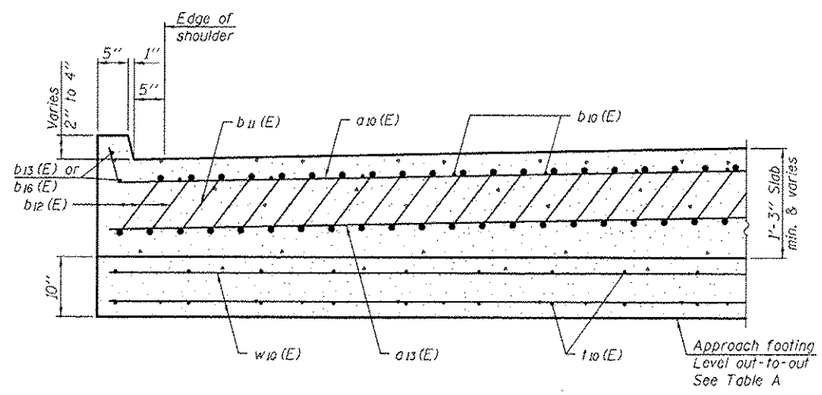
SECTION A-A

TABLE A

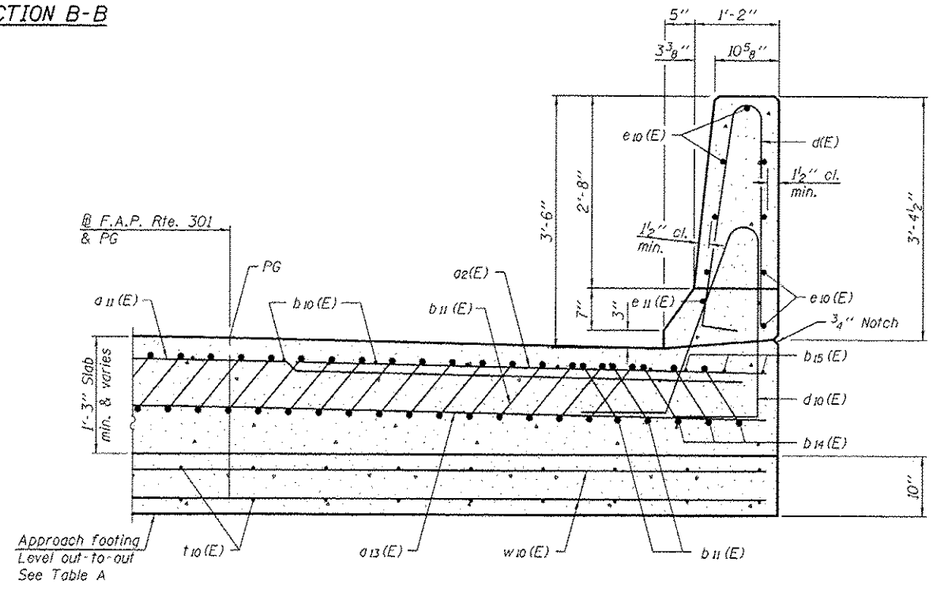
Location	Approach seat Elev. at abutment	Bottom of Footing Elev.
West Approach (Westbound)	712.33	711.77
East Approach (Westbound)	709.70	708.73
West Approach (Eastbound)	712.71	712.15
East Approach (Eastbound)	710.08	709.11



SECTION B-B



SECTION C-C

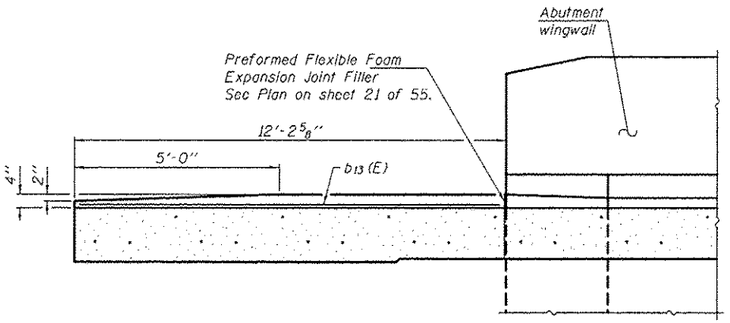


SECTION D-D

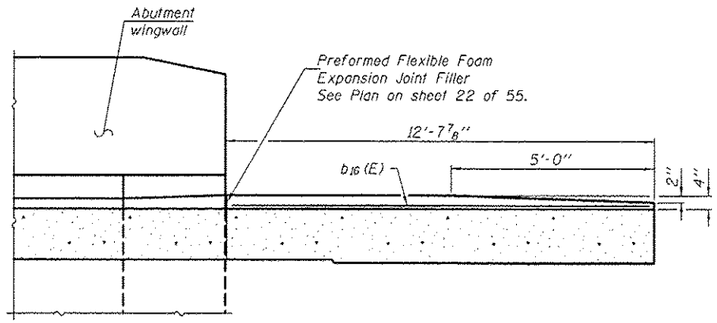
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - AL-BARRAE SHEBIB	ACTING ENGINEER OF BRIDGE DESIGN		
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - N.R.B. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 101 – 0195 (EB) & 101 – 0196 (WB)
SHEET NO. 23 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	122
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			



VIEW E-E
(Showing curb reinforcement)



VIEW G-G
(Showing curb reinforcement)

Notes:

Approach slab and parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

For v(E) bar details, see sheets 31, 34, 37 and 40 of 55.

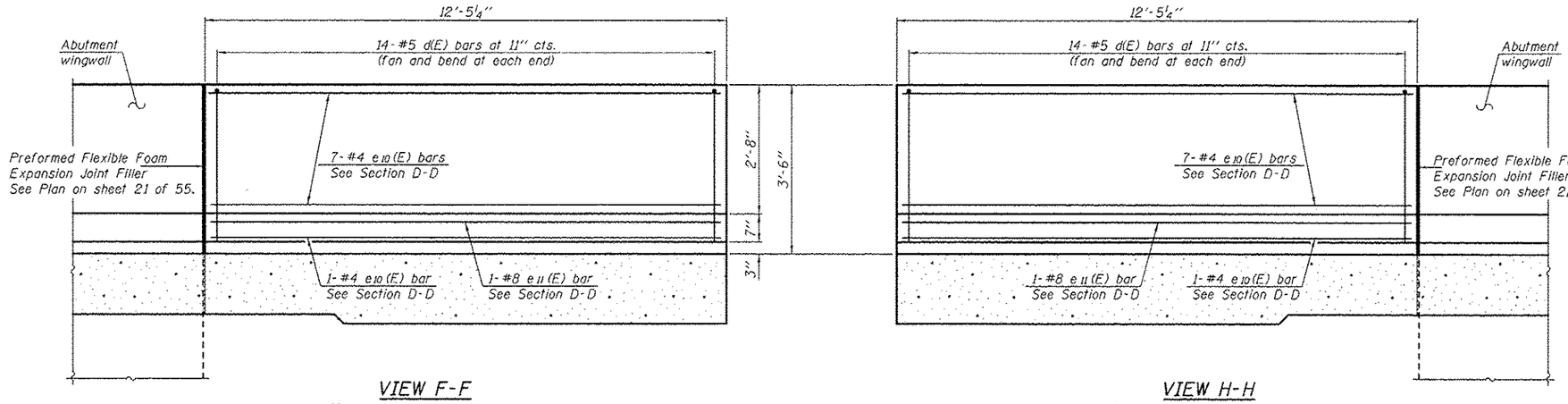
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

For bar splicer details, see sheet 49 of 55.

Cost of excavation for approach footing included with Concrete Structures.

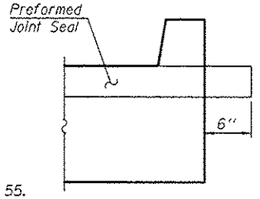
For Granular Backfill and drainage treatment details, see sheet 2 of 55.

The joint opening shall be determined per Article 520.04 The minimum dimension shall be 1½" for installation purposes.

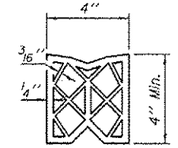


VIEW F-F
(Showing parapet reinforcement)

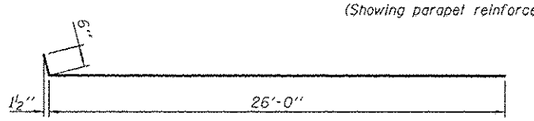
VIEW H-H
(Showing parapet reinforcement)



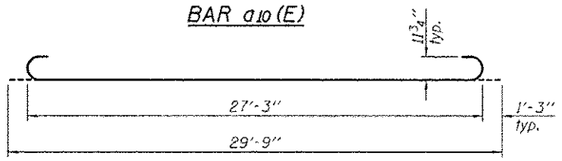
VIEW I-I
(Curb side shown. Treatment at parapet similar)



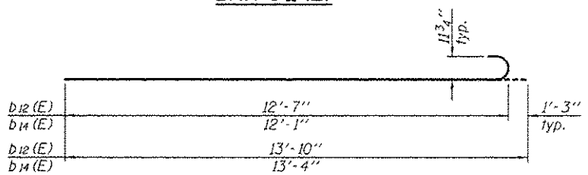
PREFORMED JOINT SEAL



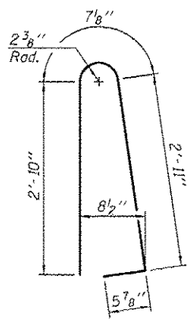
BAR a10 (E)



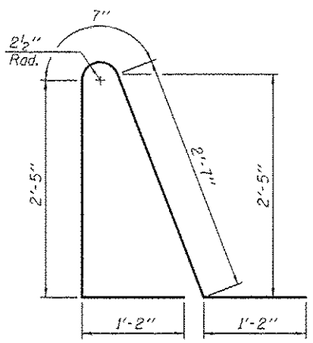
BAR b11 (E)



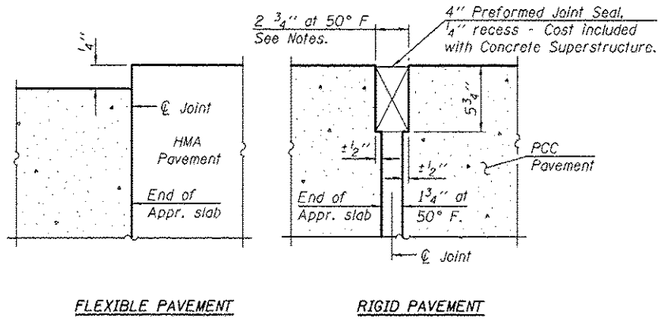
BARS b12 (E) & b14 (E)



BAR d(E)



BAR d10 (E)



FLEXIBLE PAVEMENT RIGID PAVEMENT

DETAIL A

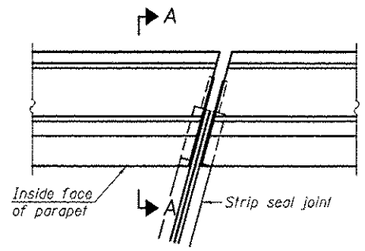
FOUR APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a12(E)	44	#6	6'-6"	
a10 (E)	48	#4	26'-6"	
a11 (E)	48	#4	26'-0"	
a12 (E)	104	#4	24'-9"	
a13 (E)	88	#5	49'-6"	
a14 (E)	92	#5	46'-8"	
b10 (E)	136	#4	29'-8"	
b11 (E)	404	#9	29'-9"	
b12 (E)	8	#9	13'-10"	
b13 (E)	4	#4	11'-7"	
b14 (E)	12	#9	13'-4"	
b15 (E)	12	#5	12'-1"	
b16 (E)	4	#4	12'-5"	
d(E)	56	#5	6'-10"	
d10 (E)	60	#5	7'-11"	
e10 (E)	32	#4	12'-2"	
e11 (E)	4	#8	12'-2"	
f10 (E)	360	#4	10'-10"	
w10 (E)	160	#5	49'-6"	
Concrete Superstructure		Cu. Yd.	285	
Concrete Structures		Cu. Yd.	61.7	
Reinforcement Bars, Epoxy Coated		Pound	69,700	

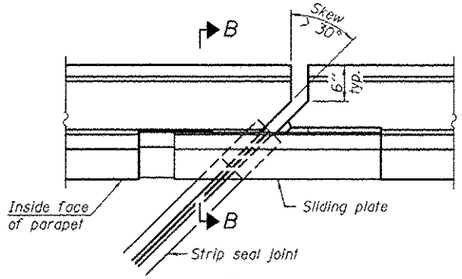
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - AL-BARRAE SHEBIB	ACTING ENGINEER OF BRIDGE DESIGN		
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - N.R.B. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 101 – 0195 (EB) & 101 – 0196 (WB)
SHEET NO. 24 OF 55 SHEETS

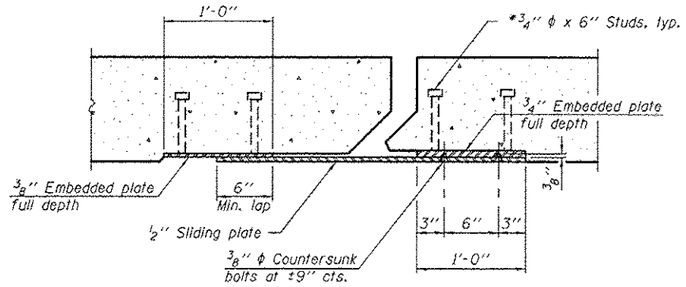
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	123
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



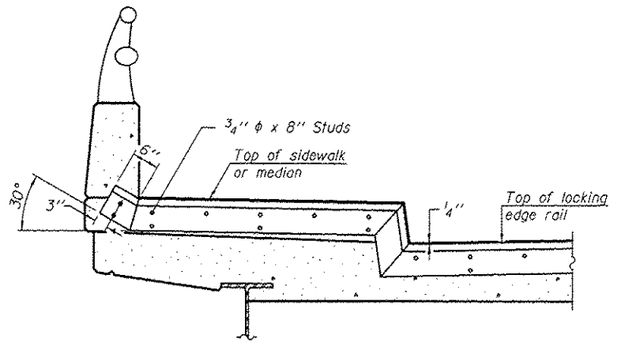
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

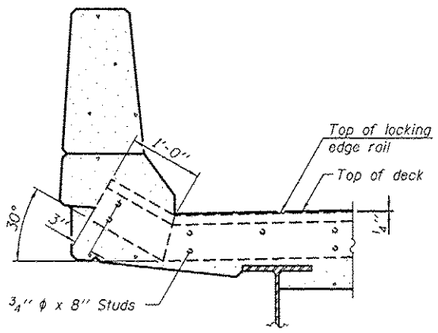


SECTION C-C

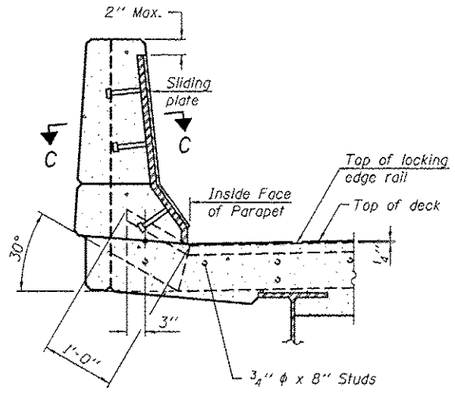


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

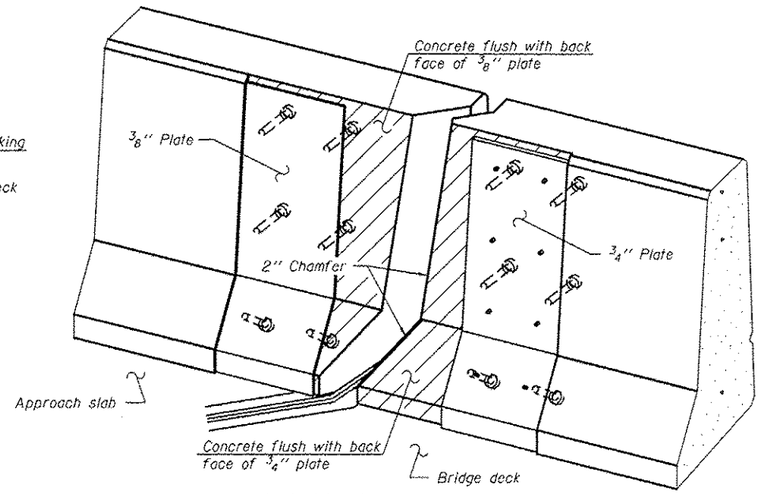
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

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.

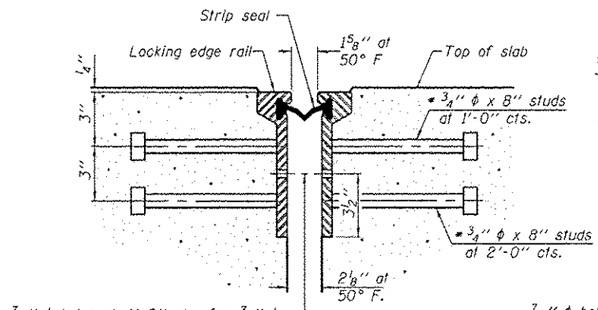
The manufacturer's recommended installation methods shall be followed.

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.

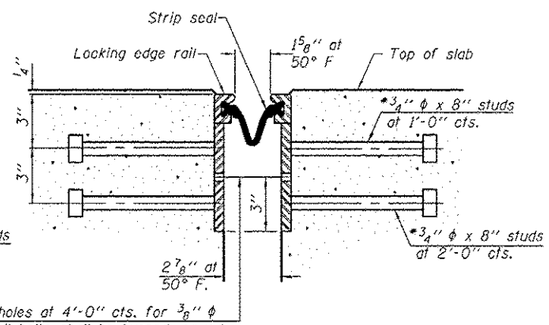
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



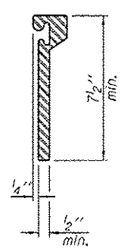
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT

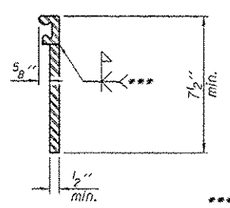


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

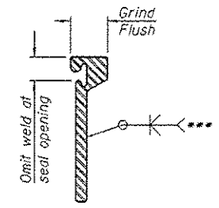
SECTION THRU WELDED RAIL JOINT



ROLLED EXTRUDED RAIL



WELDED RAIL



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

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

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

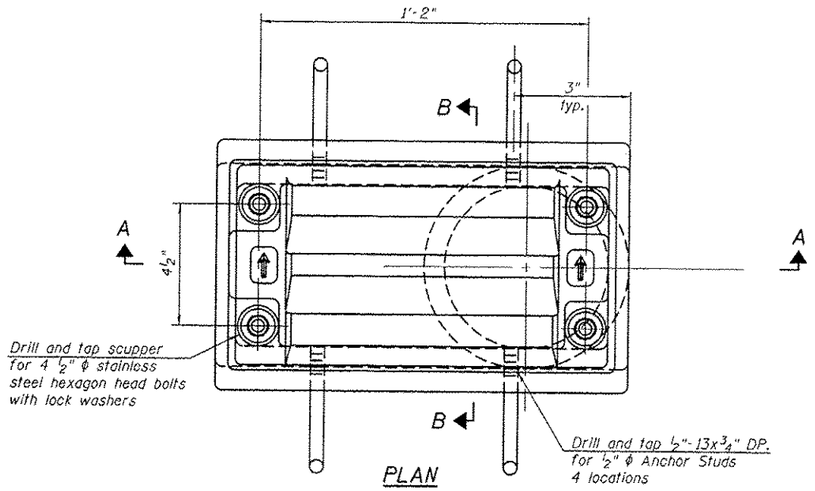
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	197

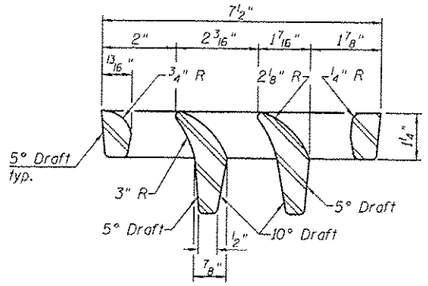
LOCKING EDGE RAILS

EJ-SSJ 1-27-12

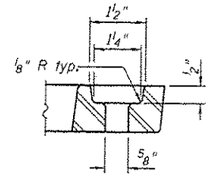
DESIGNED - Nick R. Barnett	EXAMINED	Wayne F. Anderson ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barrae R. Sheib						301	3BR & 3BR-1	WINNEBAGO	290	124
DRAWN - h.t. duong	PASSED	A. Carl Locke ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 25 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA			REVISED					ILLINOIS FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

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.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

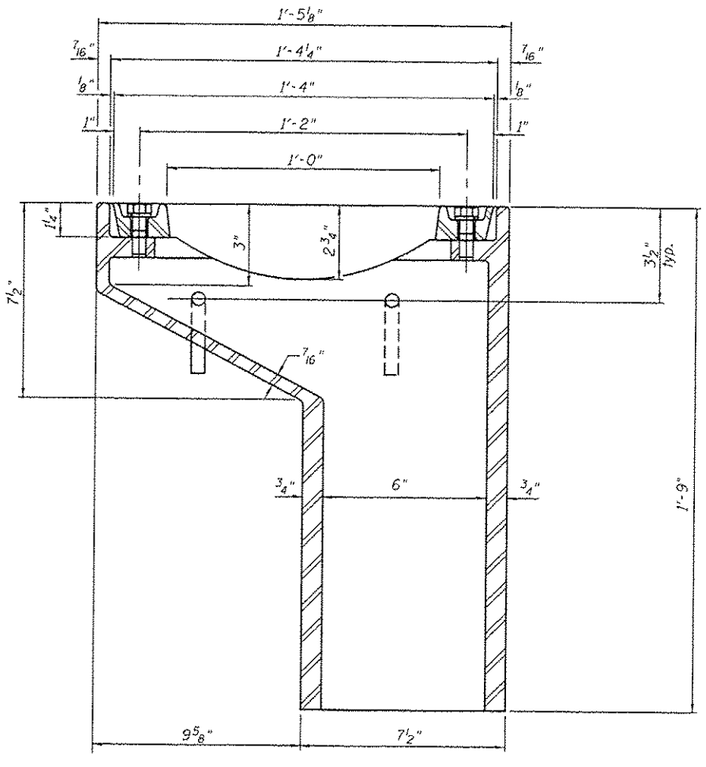
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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 and downspouts shall be galvanized according to AASHTO M111.

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

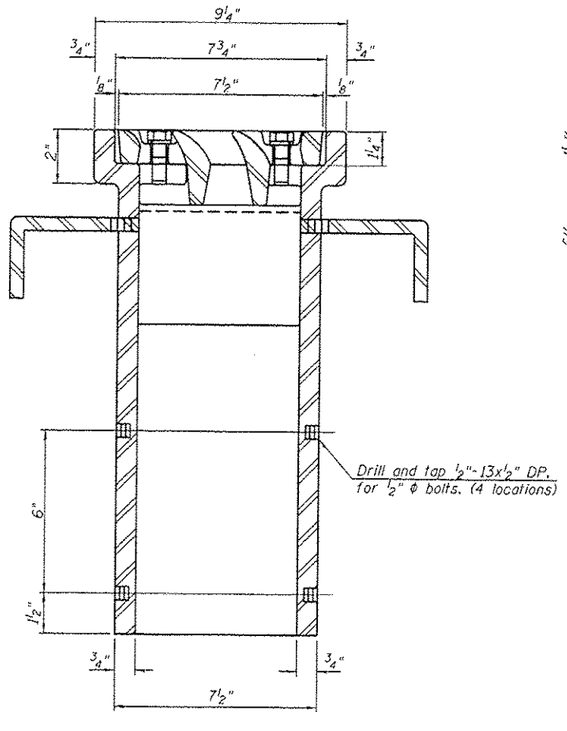
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

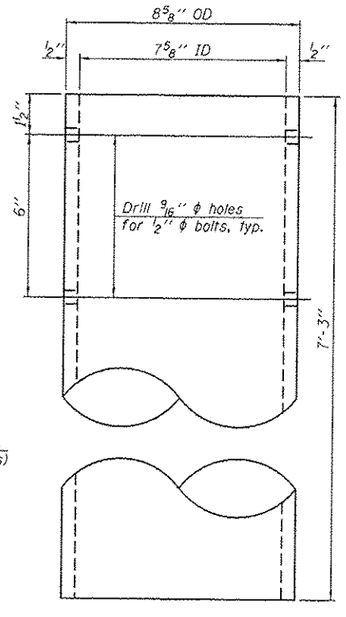


SECTION A-A

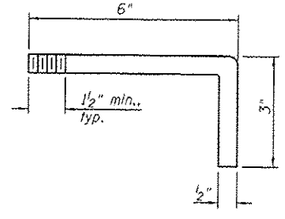
See sheet 1 of 55 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

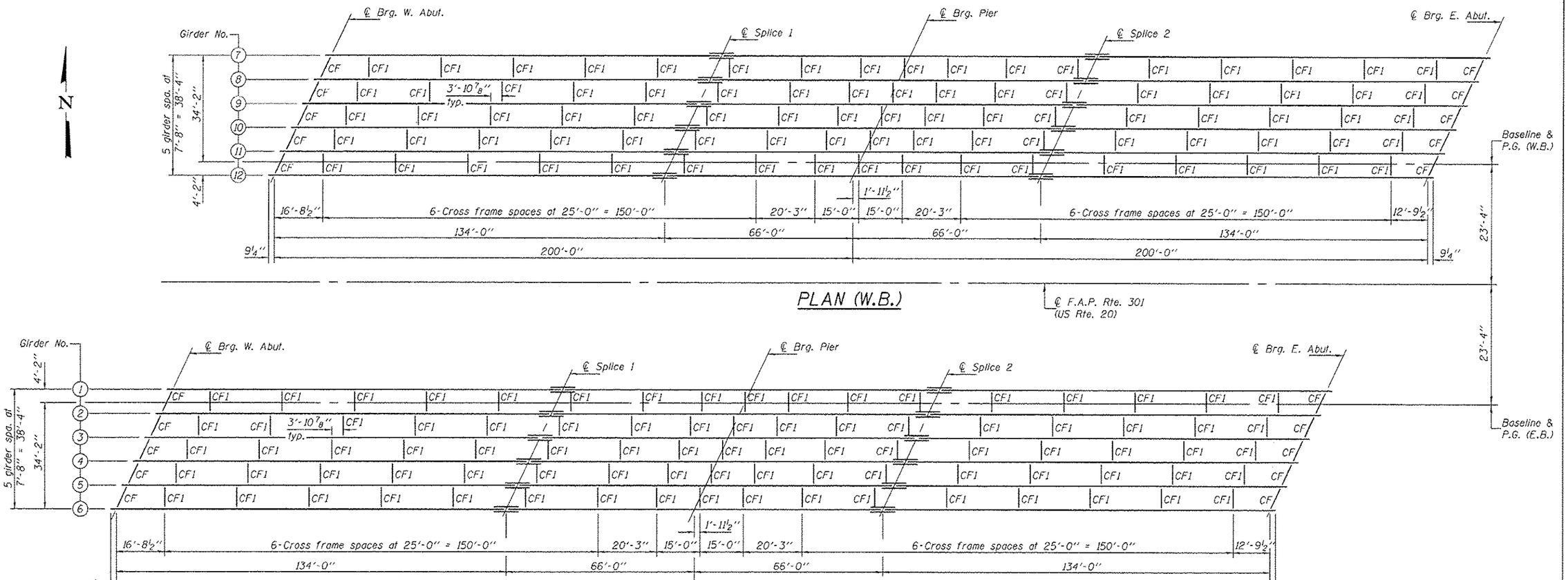
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	8

DS-11 7-1-10

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrao R. Sheblb	PASSED	REVISED	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

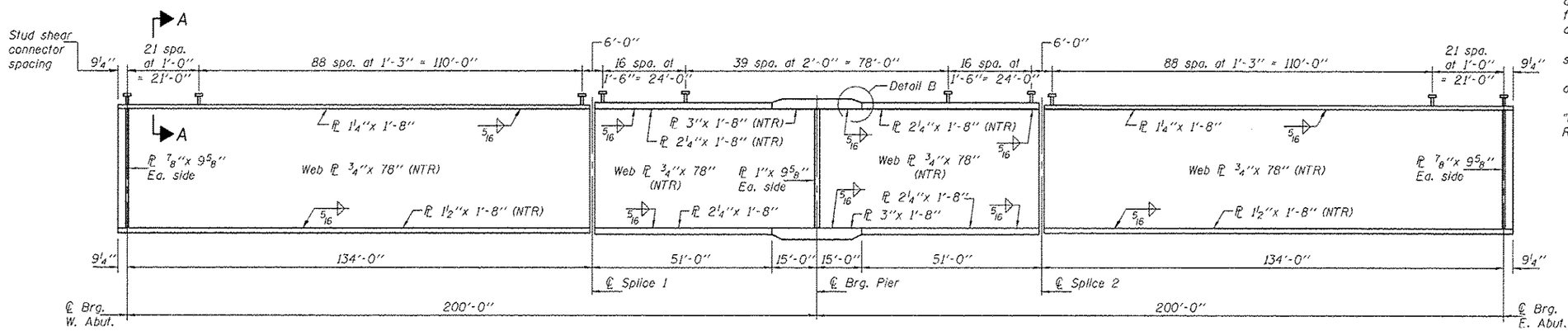
DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 26 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	125
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



PLAN (W.B.)

PLAN (E.B.)



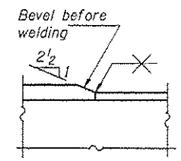
GIRDER ELEVATION

Note:
All cross frames shall be installed as steel is erected and secured with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

All girder plates, including bearing stiffeners shall be AASHTO M 270 Grade 50.

See sheet 28 of 55 for cross frame details and Section A-A.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

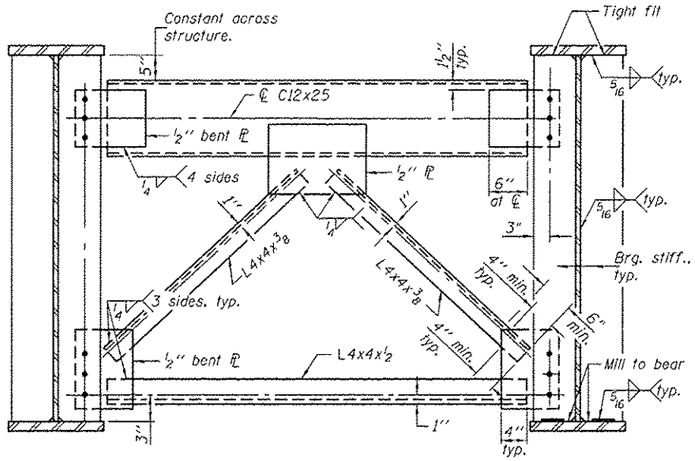


DETAIL B

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Sheblb			
DRAWN - h.t. duong	PASSED	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

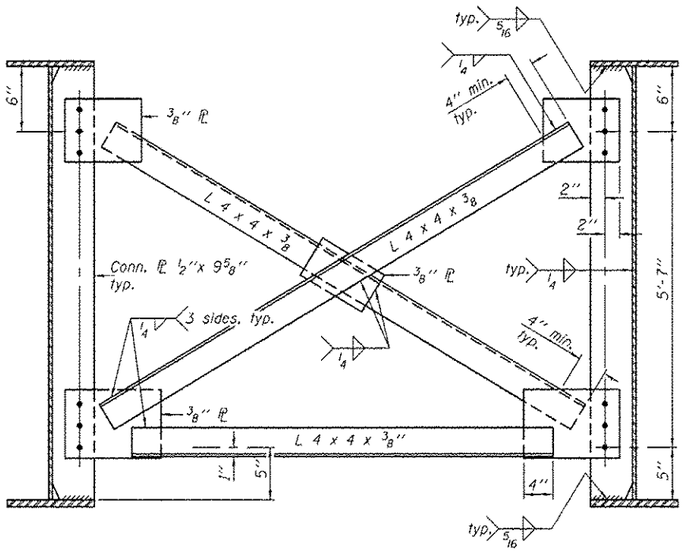
STRUCTURAL STEEL
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 27 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	126
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			



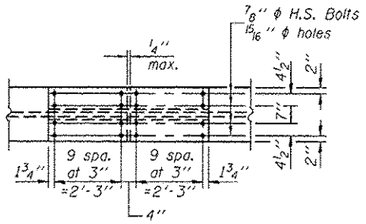
CROSS FRAME CF

(20 Required)

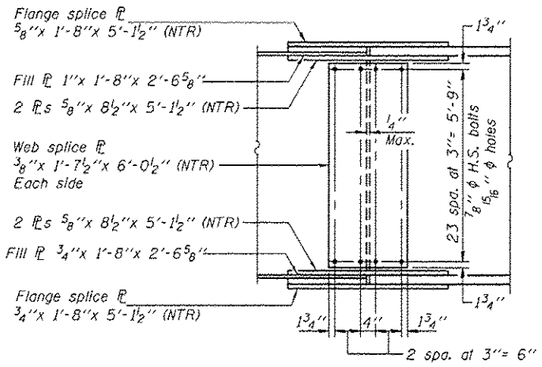


CROSS FRAME CF1

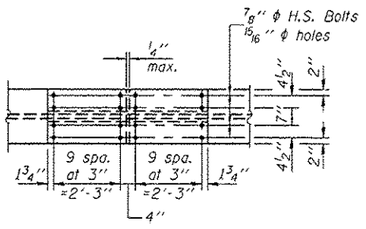
(170 Required)



PLAN - TOP FLANGE



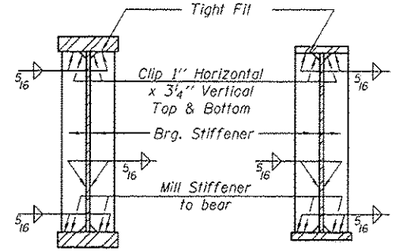
ELEVATION



PLAN - BOTTOM FLANGE

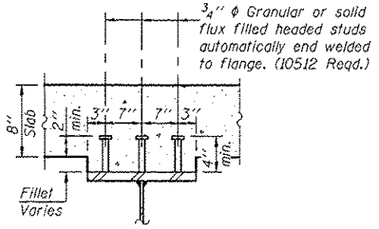
SPLICE 1 & 2 DETAILS

(24 Required)



SECTION AT PIER

SECTION AT ABUTMENT



SECTION A-A

Notes: Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

Use ¾" ϕ H.S. bolts with 15/16" ϕ holes in CF and CF1 cross frames.

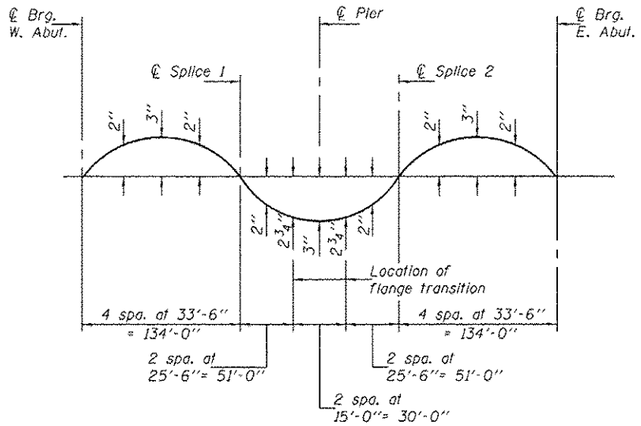
Two hardened washers required for each set of oversized holes.

Place cross frame with channel flanges and outstanding angle legs outward from abutment backwall.

Omit connecting plates on exterior side of exterior girder.

All splice plates except filler plate shall be AASHTO M 270 Gr. 50.

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barroe R. Shabib					301	3BR & 3BR-1	WINNEBAGO	290	127
DRAWN - h.t. duong	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGE DESIGN / ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 28 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		



CAMBER DIAGRAM

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in^4)	115965	226580
$I_c(n)$	(in^4)	220413	349594
$I_c(3n)$	(in^4)	164210	278411
$I_c(cr)$	(in^4)	———	243085
S_s	(in^3)	2995	5395
$S_c(n)$	(in^3)	3780	6167
$S_c(3n)$	(in^3)	3437	5777
$S_c(cr)$	(in^3)	———	6143
DC1	(k/')	1.209	1.430
M_{DC1}	('k)	3001.0	7060.0
DC2	(k/')	0.173	0.173
M_{DC2}	('k)	441.0	973.0
DW	(k/')	0.383	0.383
M_{DW}	('k)	977.0	2154.0
M_{L+IM}	('k)	3419.0	4126.0
M_u (Strength I)	('k)	11751.3	20492.8
$\phi_f M_n$	('k)	17754.3	24545.3
f_s DC1	(ksi)	12.0	15.7
f_s DC2	(ksi)	1.5	1.9
f_s DW	(ksi)	3.4	4.2
f_s (L+IM)	(ksi)	10.9	8.1
f_s (Service II)	(ksi)	31.1	32.3
$0.95R_hF_{yf}$	(ksi)	47.5	47.5
f_s (Total)(Strength I)	(ksi)	———	42.4
$\phi_f F_n$	(ksi)	———	50.0
V_r	(k)	72.0	65.2

INTERIOR GIRDER REACTION TABLE			
		Abutments	Pier
R_{DC1}	(k)	86.2	324.0
R_{DC2}	(k)	12.4	44.3
R_{DW}	(k)	27.5	98.1
R_{L+IM}	(k)	123.6	245.3
R_{Total}	(k)	249.7	711.7

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in^4 and in^3).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in^4 and in^3).

$I_c(3n)$, $S_c(3n)$: 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-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in^4 and in^3).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in^4 and in^3).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_r: Maximum factored shear range in span computed according to Article 6.10.10.

*TOP OF GIRDER WEB ELEVATIONS (E.B.)

Location	℄ Brg. W. Abut.	℄ Splice 1	℄ Brg. Pier	℄ Splice 2	℄ Brg. E. Abut.
Girder 1	713.24	712.25	711.77	711.39	710.66
Girder 2	713.41	712.42	711.94	711.56	710.83
Girder 3	713.55	712.56	712.08	711.70	710.97
Girder 4	713.48	712.49	712.01	711.64	710.90
Girder 5	713.38	712.39	711.91	711.53	710.80
Girder 6	713.24	712.25	711.77	711.39	710.66

*For fabrication use only.

*TOP OF GIRDER WEB ELEVATIONS (W.B.)

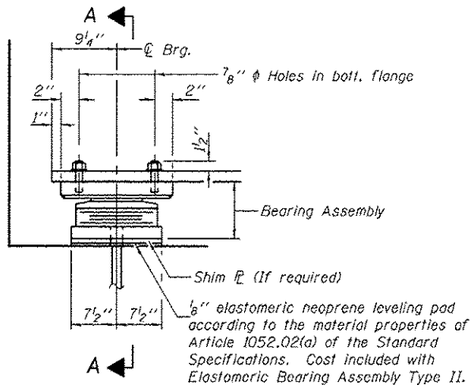
Location	℄ Brg. W. Abut.	℄ Splice 1	℄ Brg. Pier	℄ Splice 2	℄ Brg. E. Abut.
Girder 7	712.86	711.87	711.39	711.01	710.28
Girder 8	713.05	712.06	711.58	711.20	710.47
Girder 9	713.21	712.21	711.74	711.36	710.63
Girder 10	713.32	712.33	711.85	711.48	710.74
Girder 11	713.23	712.24	711.76	711.38	710.65
Girder 12	713.11	712.12	711.64	711.27	710.53

*For fabrication use only.

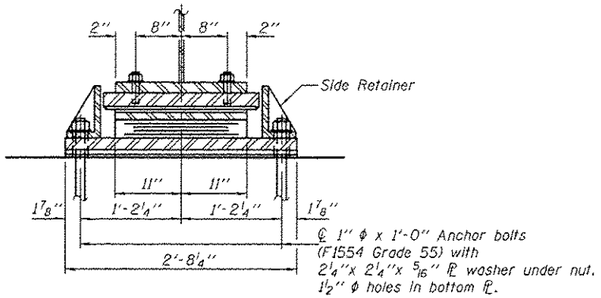
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Shabib	PASSED	REVISED	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 29 OF 55 SHEETS

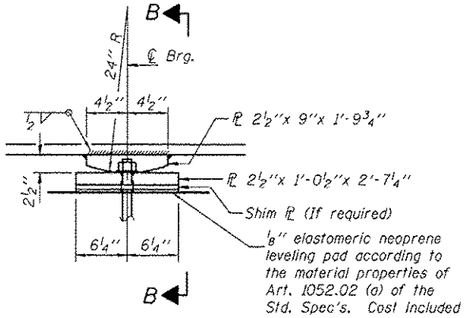
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	128
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



ELEVATION AT ABUT.

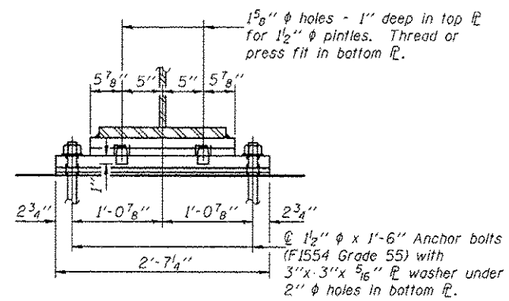


SECTION A-A



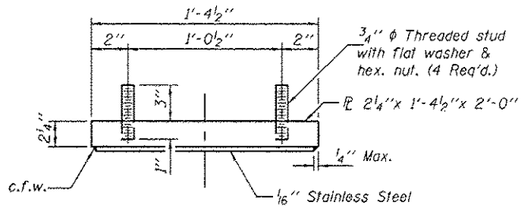
ELEVATION AT PIER

FIXED BEARING
(12 Required)

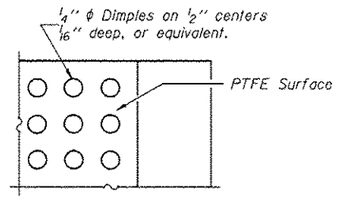


SECTION B-B

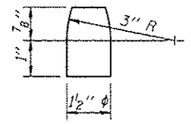
TYPE II ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY

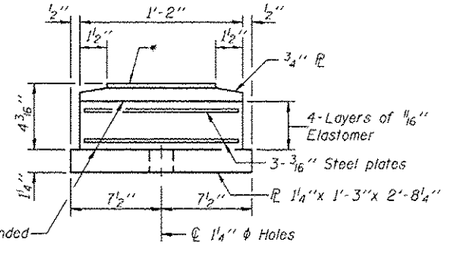


PLAN-PTFE SURFACE

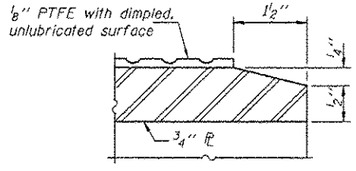


PINTLE
(M 270, Gr. 50)

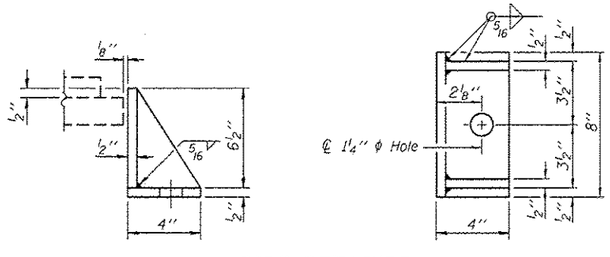
*⅛" PTFE dimpled, unlubricated



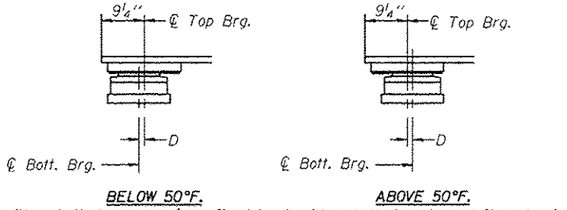
BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE



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



BELOW 50°F. (Move bott. brg. away from fixed brg.)

ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.
D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in 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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The ⅛" PTFE 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 ⅛" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

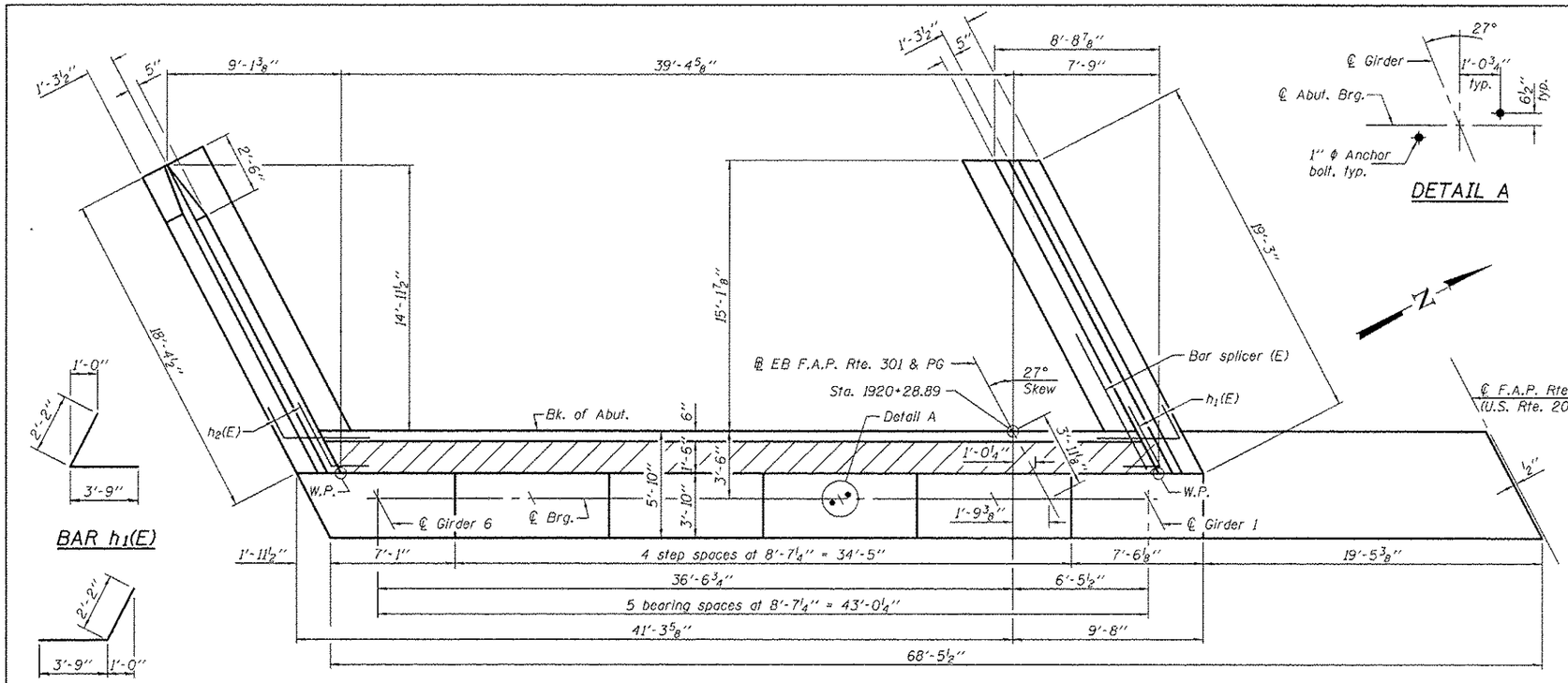
The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

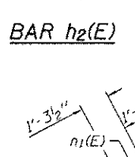
Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	24

DESIGNED - Nick R. Barnett	EXAMINED	Jayne F. Schiff, ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEARING DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Borrae R. Sheblb	PASSED	J. Carl Loos, ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	129
DRAWN - h.t. duong			REVISED		SHEET NO. 30 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA								ILLINOIS FED. AID PROJECT		



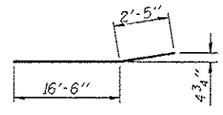
TOP VIEW

BAR h1(E)

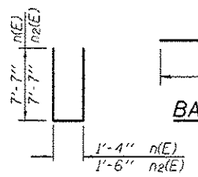


BAR h2(E)

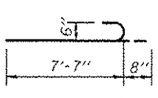
DETAIL A



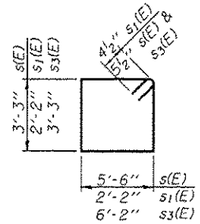
BAR h6(E)



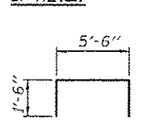
BARS n(E) & n2(E)



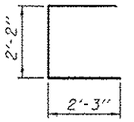
BAR n1(E)



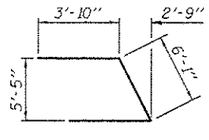
BARS s(E), s1(E) & s3(E)



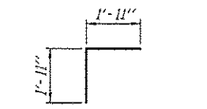
BAR s2(E)



BAR s4(E)

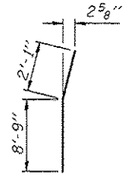


BAR u(E)

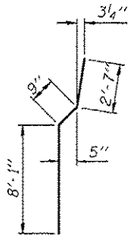


BAR v(E)

BAR v1(E)



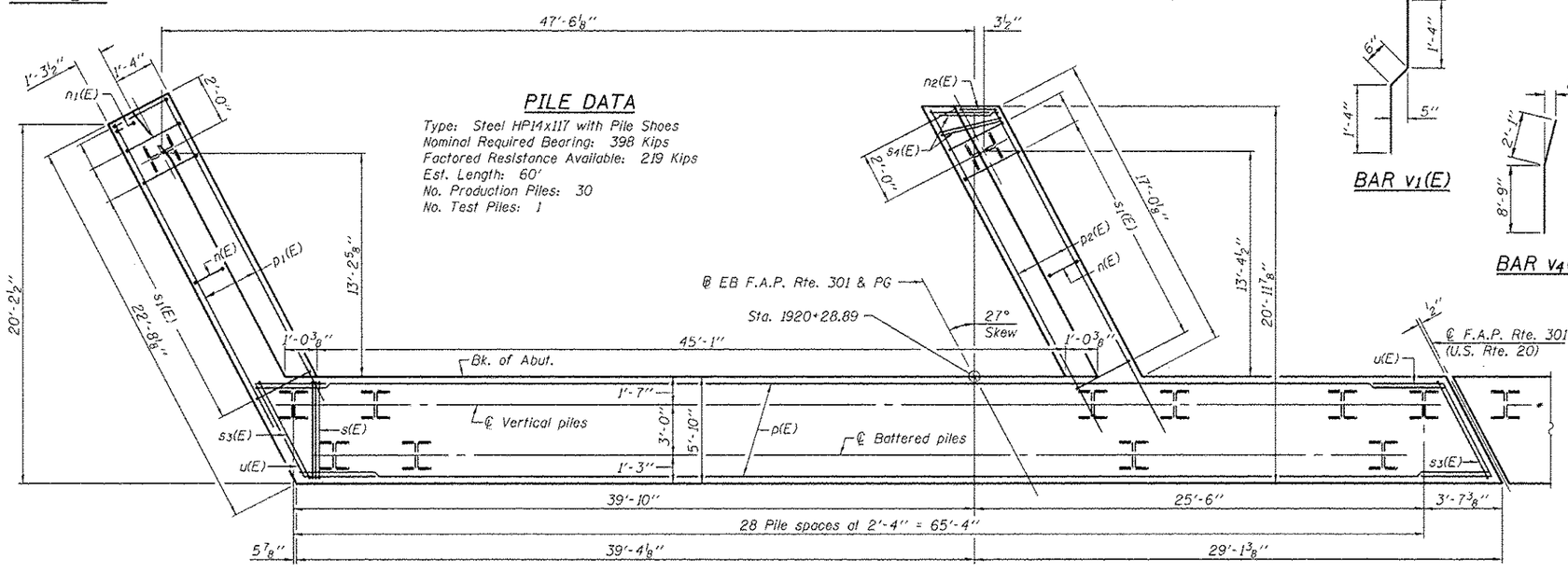
BAR v4(E)



BAR v5(E)

PILE DATA

Type: Steel HP14x117 with Pile Shoes
Nominal Required Bearing: 398 Kips
Factored Resistance Available: 219 Kips
Est. Length: 60'
No. Production Piles: 30
No. Test Piles: 1



PLAN-PILE CAP

*This pile shall be driven during Stage I Construction to avoid conflict during Stage II Construction. For location, see sheet 37 of 55. The Temp. Soil Retention System in the vicinity of this pile shall be modified to accomodate its driving.

WEST ABUTMENT (E.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	18	#5	5'-11"	
h2(E)	18	#5	5'-11"	
h3(E)	14	#5	46'-10"	
h4(E)	5	#6	46'-10"	
h6(E)	11	#4	18'-11"	
h7(E)	28	#4	18'-11"	
h8(E)	5	#5	34'-1"	
h9(E)	14	#4	18'-0"	
h10(E)	3	#4	18'-9"	
n(E)	35	#6	16'-6"	
n1(E)	6	#6	8'-3"	
n2(E)	1	#6	16'-8"	
p(E)	24	#7	36'-7"	
p1(E)	6	#7	20'-8"	
p2(E)	6	#7	20'-0"	
s(E)	84	#5	18'-5"	
s1(E)	35	#4	9'-5"	
s2(E)	35	#4	8'-6"	
s3(E)	2	#5	19'-9"	
s4(E)	4	#4	6'-8"	
u(E)	8	#6	13'-9"	
v(E)	48	#5	3'-10"	
v1(E)	48	#4	3'-2"	
v2(E)	48	#5	8'-10"	
v3(E)	48	#5	10'-2"	
v4(E)	3	#6	10'-10"	
v5(E)	37	#6	11'-5"	
v6(E)	39	#6	11'-2"	
Structure Excavation		Cu. Yd.	165.2	
Concrete Structures		Cu. Yd.	114.1	
Reinforcement Bars, Epoxy Coated		Pound	10230	
Furnishing Steel Piles, HP14x117		Foot	1800	
Driving Piles		Foot	1800	
Test Pile Steel, HP14x117		Each	1	
Pile Shoes		Each	31	
Concrete Encasement		Cu. Yd.	16.9	
Concrete Sealer		Sq. Ft.	1005.5	
Anchor Bolts, 1"		Each	12	

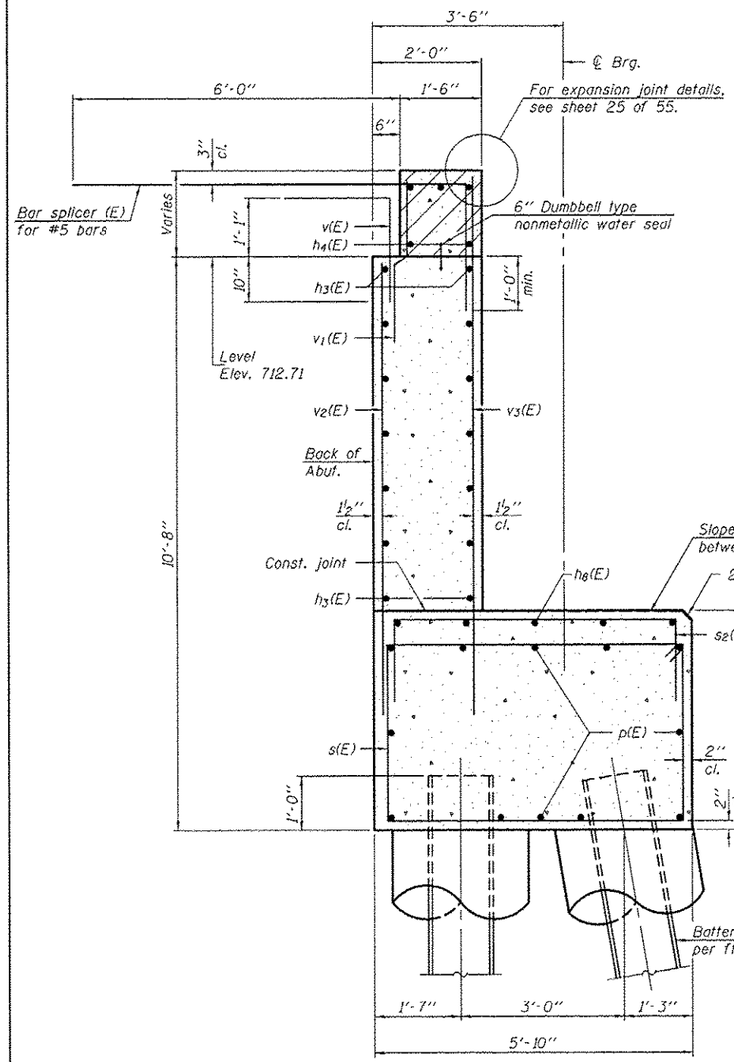
For details of bar splicers, see sheet 49 of 55.
For details of piles & concrete encasement, see sheet 47 of 55.

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - AL-BARRAE R. SHEDIB	PASSED	REVISED	
DRAWN - H.T. DUONG / M.B.M.	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

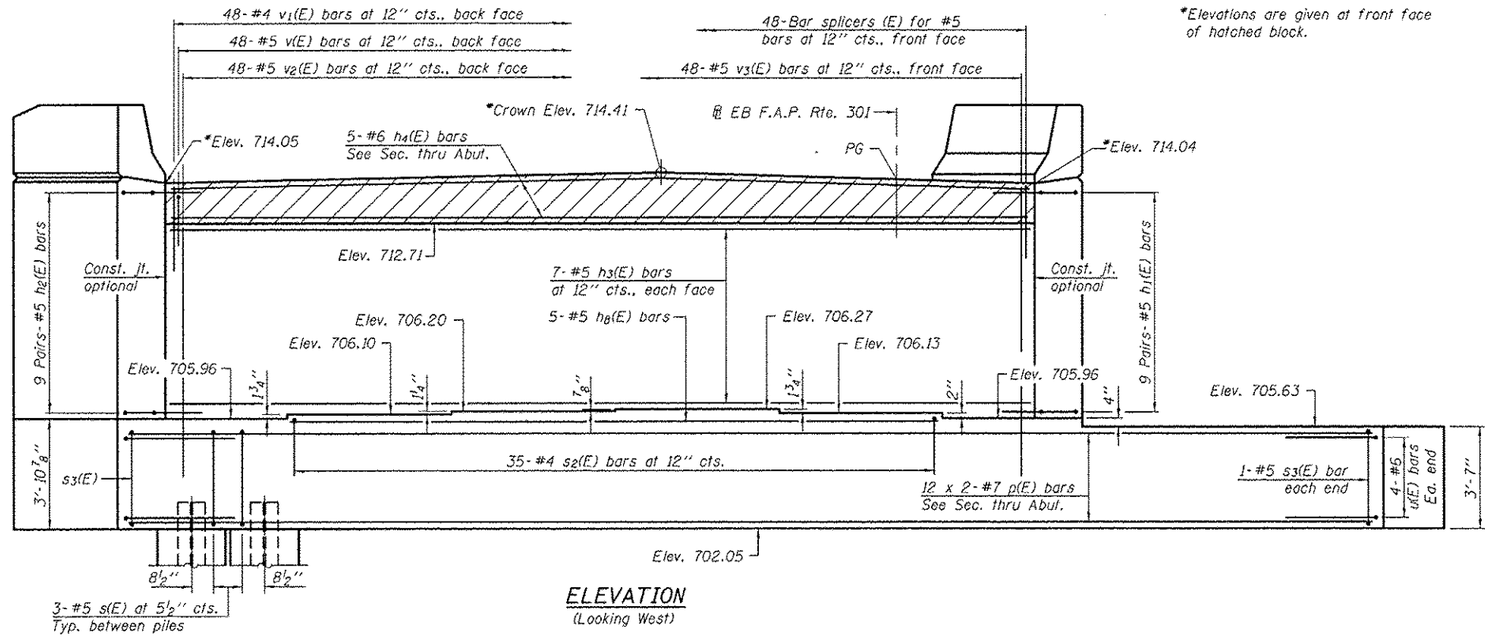
WEST ABUTMENT (E.B.) – STAGE I CONSTRUCTION
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 31 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	130
		CONTRACT NO. 64D19		
	ILLINOIS	FED. AID PROJECT		

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 20 of 55.
For Concrete Encasement details, see sheet 47 of 55.
See sheet 46 of 55 for additional form liner details. Form Liner shall be placed on outside face of wingwalls as shown in the Wingwall Elevation shown below.
For bar splicer details, see sheet 49 of 55.



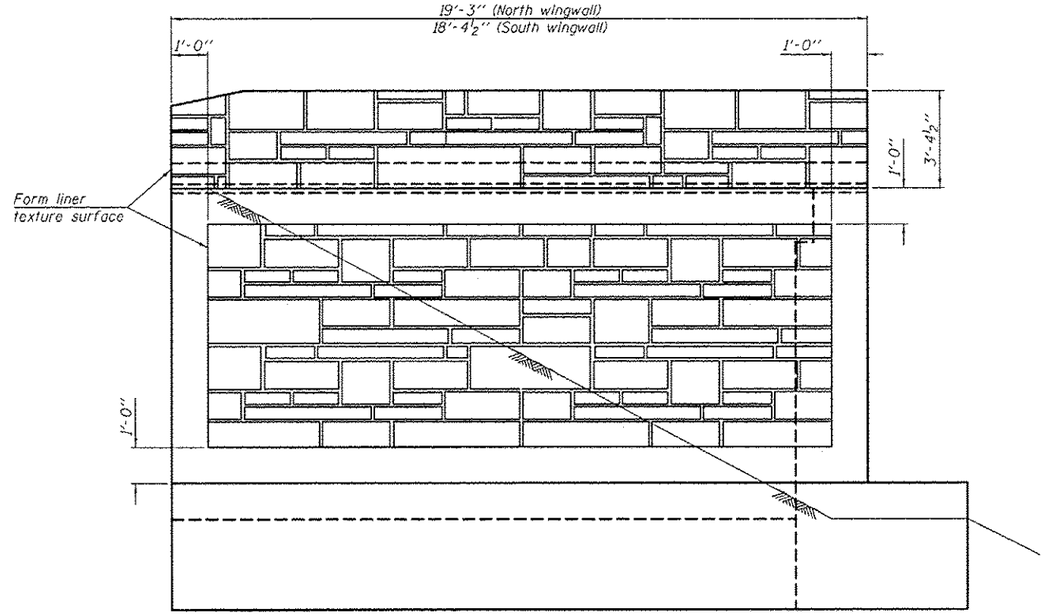
SECTION THRU
WEST ABUTMENT



*Elevations are given at front face of hatched block.

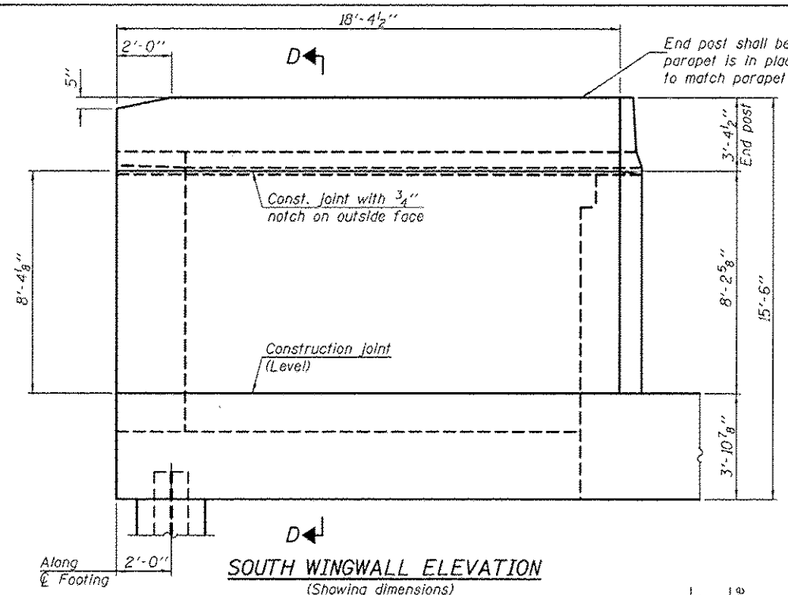
ELEVATION
(Looking West)

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

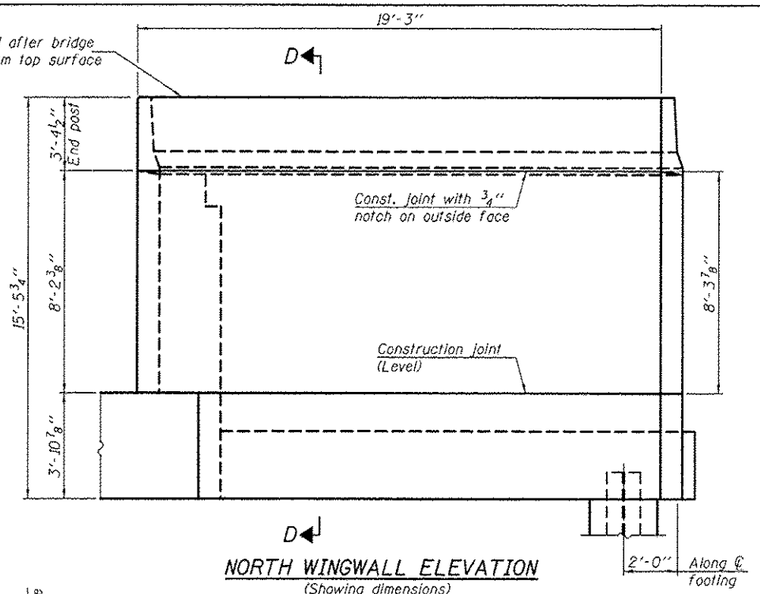


WINGWALL ELEVATION
(South wingwall shown, North wingwall similar).

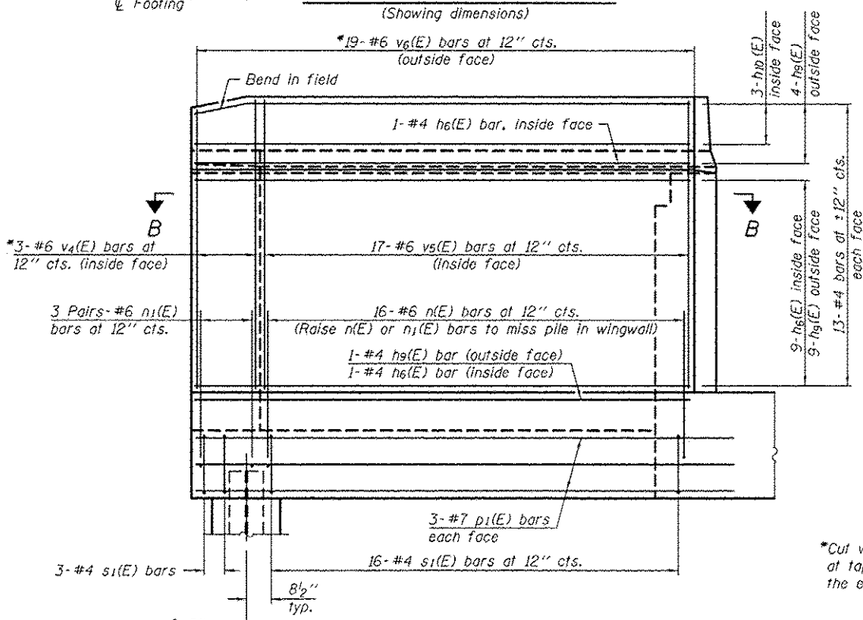
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AL-BARRAE R. SHEBIB	ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	131
DRAWN - H.T. DUONG / M.B.M.	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 32 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		



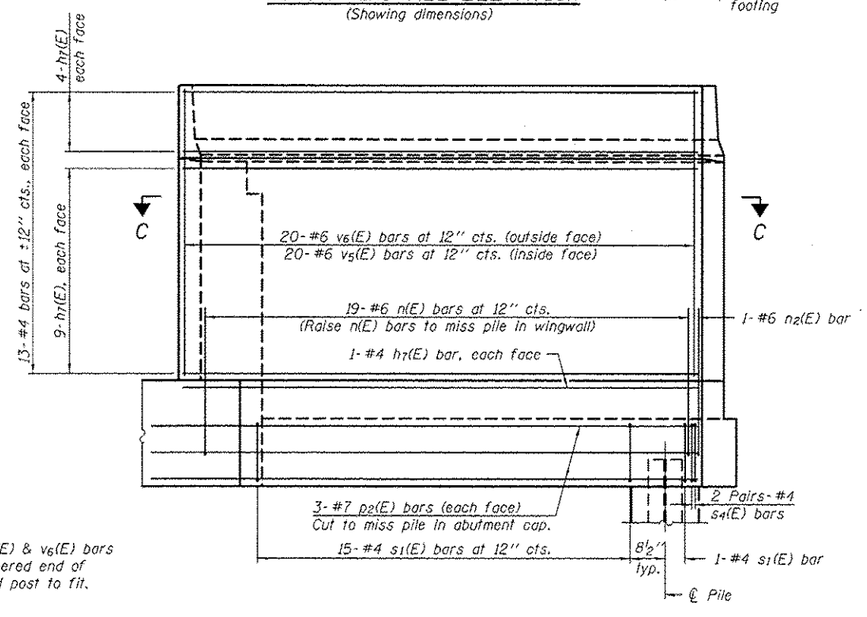
SOUTH WINGWALL ELEVATION
(Showing dimensions)



NORTH WINGWALL ELEVATION
(Showing dimensions)

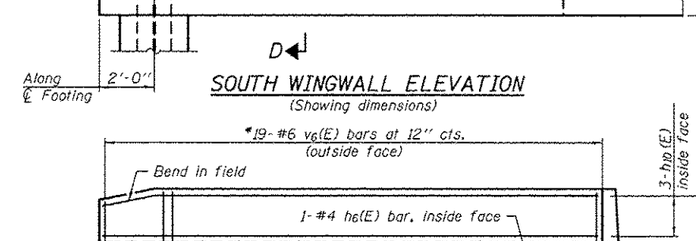


SOUTH WINGWALL ELEVATION
(Showing reinforcement)

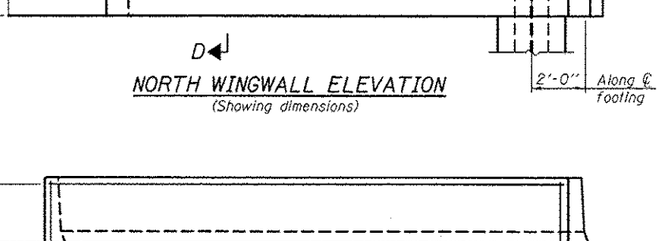


NORTH WINGWALL ELEVATION
(Showing reinforcement)

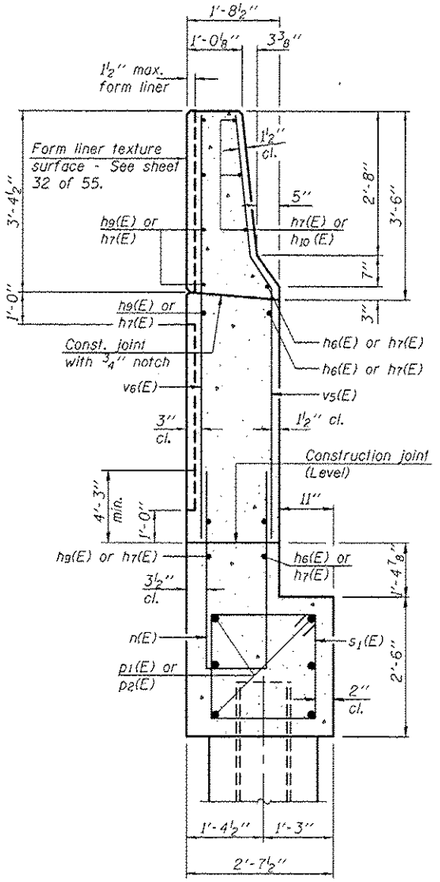
*Cut v4(E) & v6(E) bars at tappered end of the end post to fit.



SECTION B-B



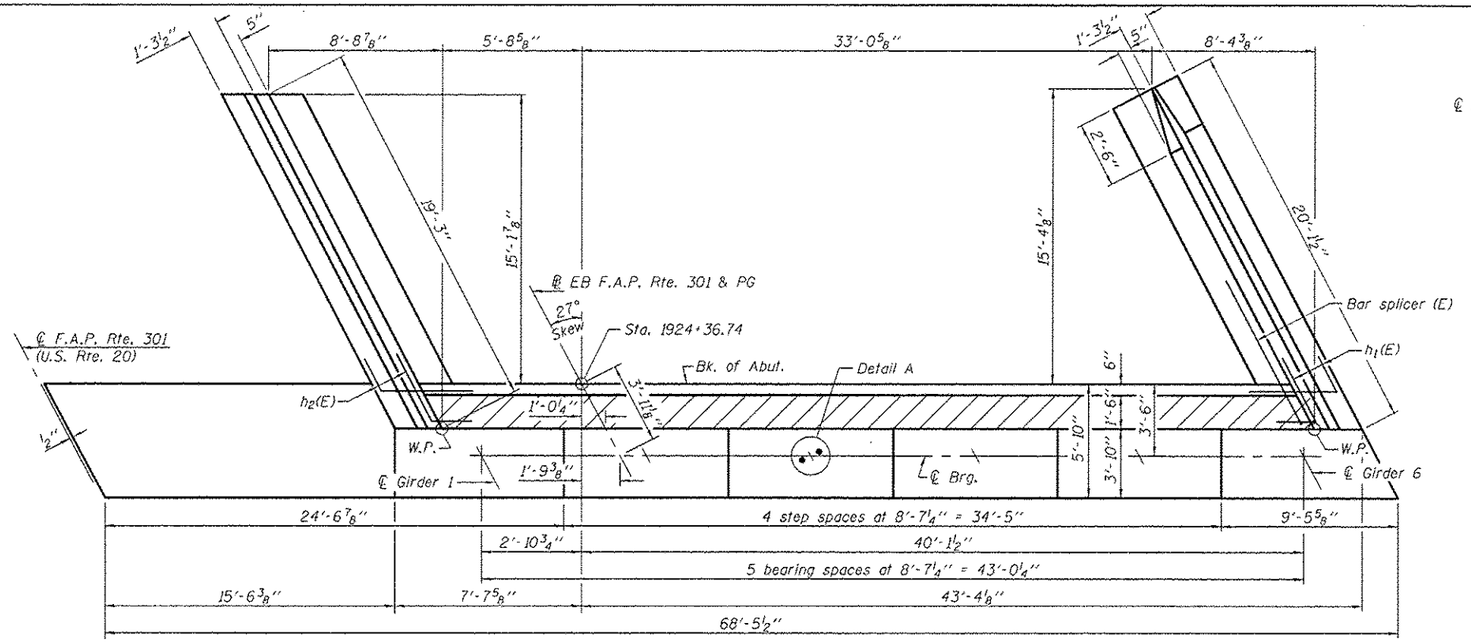
SECTION C-C



SECTION D-D

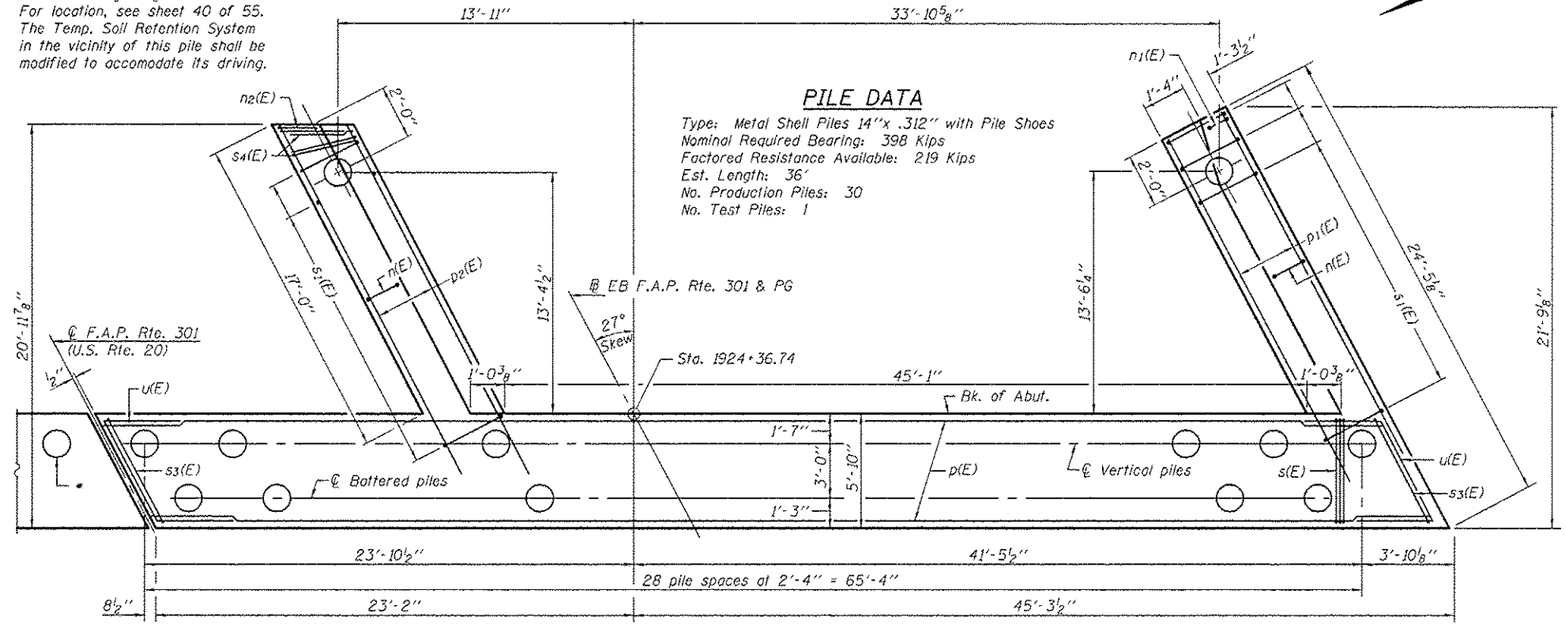
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT DETAILS (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.) SHEET NO. 33 OF 55 SHEETS
CHECKED - AL-BARRAE R. SHEBIB	PASSED	REVISED		
DRAWN - MICHAEL B. MOSSMAN	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	132
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



TOP VIEW

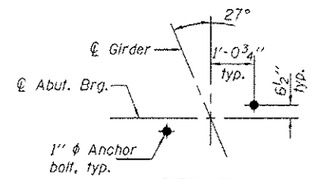
*This pile shall be driven during Stage I Construction to avoid conflict during Stage II Construction. For location, see sheet 40 of 55. The Temp. Soil Retention System in the vicinity of this pile shall be modified to accomodate its driving.



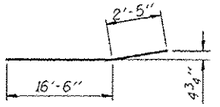
PLAN-PILE CAP

PILE DATA

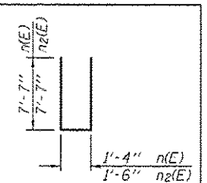
Type: Metal Shell Piles 14"x .312" with Pile Shoes
Nominal Required Bearing: 398 Kips
Factored Resistance Available: 219 Kips
Est. Length: 36'
No. Production Piles: 30
No. Test Piles: 1



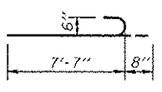
DETAIL A



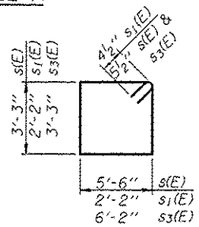
BAR h6(E)



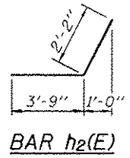
BARS n(E) & n2(E)



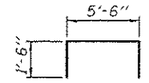
BAR n1(E)



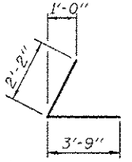
BARS s(E), s1(E) & s3(E)



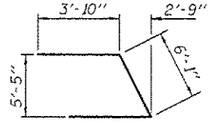
BAR h2(E)



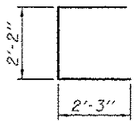
BAR s2(E)



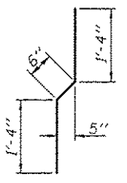
BAR h1(E)



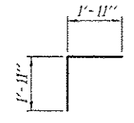
BAR u(E)



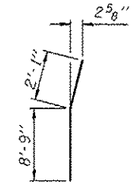
BAR s4(E)



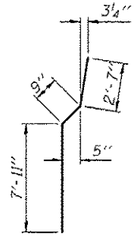
BAR v1(E)



BAR v(E)



BAR v4(E)



BAR v7(E)

EAST ABUTMENT (E.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n(E)	5	#5	25'-6"	
h1(E)	18	#5	5'-11"	
h2(E)	18	#5	5'-11"	
h3(E)	14	#5	46'-10"	
h4(E)	5	#6	46'-10"	
h5(E)	17	#4	19'-8"	
h6(E)	11	#4	18'-11"	
h7(E)	28	#4	18'-11"	
n(E)	35	#6	16'-6"	
n1(E)	6	#6	8'-3"	
n2(E)	1	#6	16'-8"	
p(E)	24	#7	36'-7"	
p1(E)	6	#7	20'-8"	
p2(E)	6	#7	20'-0"	
s(E)	84	#5	18'-5"	
s1(E)	36	#4	9'-5"	
s2(E)	26	#4	8'-6"	
s3(E)	2	#5	19'-9"	
s4(E)	4	#4	6'-8"	
u(E)	8	#6	13'-9"	
v(E)	48	#5	3'-10"	
v1(E)	48	#4	3'-2"	
v2(E)	48	#5	8'-10"	
v3(E)	48	#5	10'-2"	
v4(E)	3	#6	10'-10"	
v6(E)	41	#6	11'-2"	
v7(E)	37	#6	11'-3"	
Structure Excavation		Cu. Yd.	168.5	
Concrete Structures		Cu. Yd.	114.0	
Reinforcement Bars, Epoxy Coated		Pound	10190	
Furnishing Metal Shell Piles 14"x .312"		Foot	1080	
Driving Piles		Foot	1080	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	31	
Concrete Sealer		Sq. Ft.	1005.5	
Anchor Bolts, 1"		Each	12	

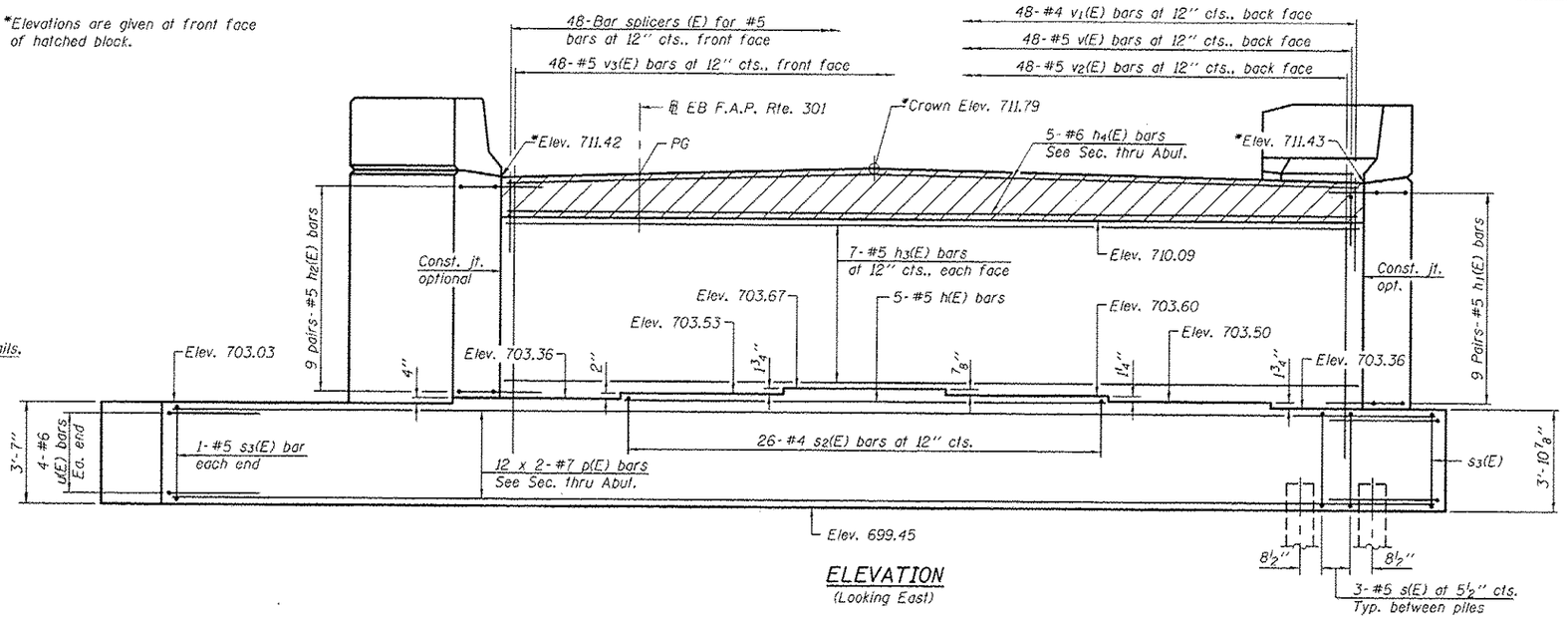
For details of bar splicers, see sheet 49 of 55.
For details of piles, see sheet 48 of 55.

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - AL-BARRAE R. SHEBIB	PASSED	REVISED	EAST ABUTMENT (E.B.) – STAGE I CONSTRUCTION
DRAWN - H.T. DUONG / M.B.M.	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		SHEET NO. 34 OF 55 SHEETS

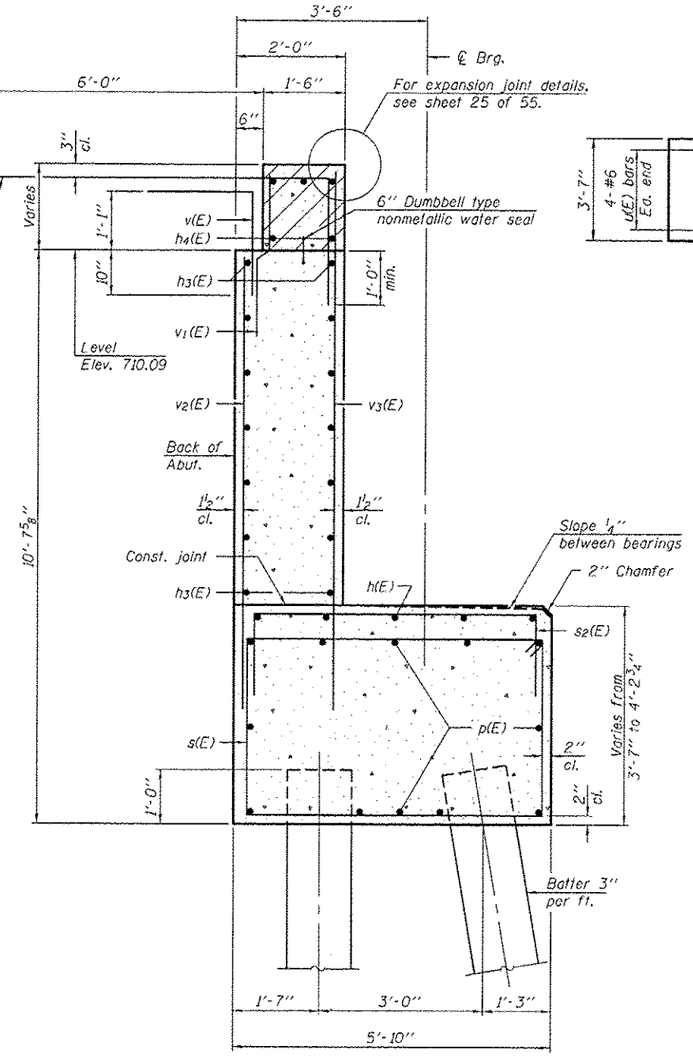
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	133
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

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 20 of 55.
See sheet 46 of 55 for additional form liner details. Form Liner shall be placed on outside face of wingwalls as shown in the Wingwall Elevation shown below.
For bar splicer details, see sheet 49 of 55.

*Elevations are given at front face of hatched block.

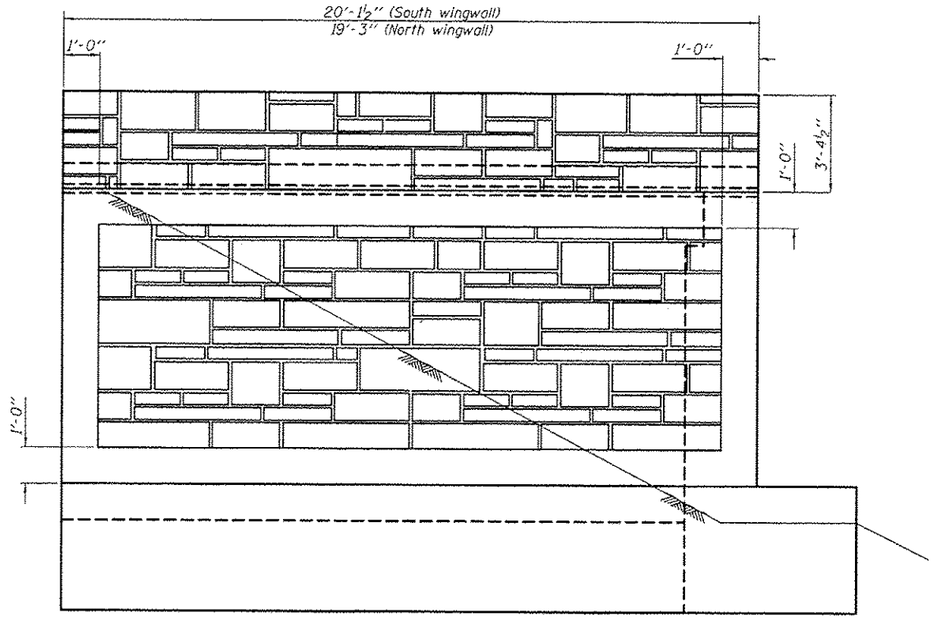


ELEVATION
(Looking East)



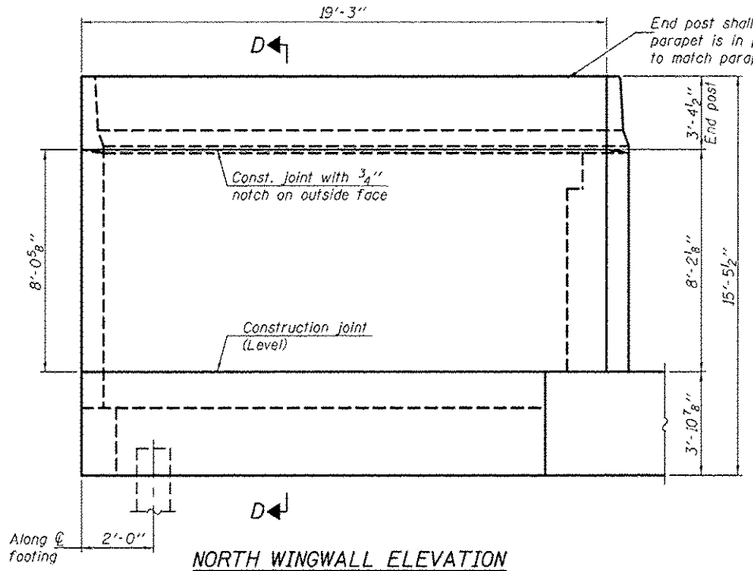
SECTION THRU
EAST ABUTMENT

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

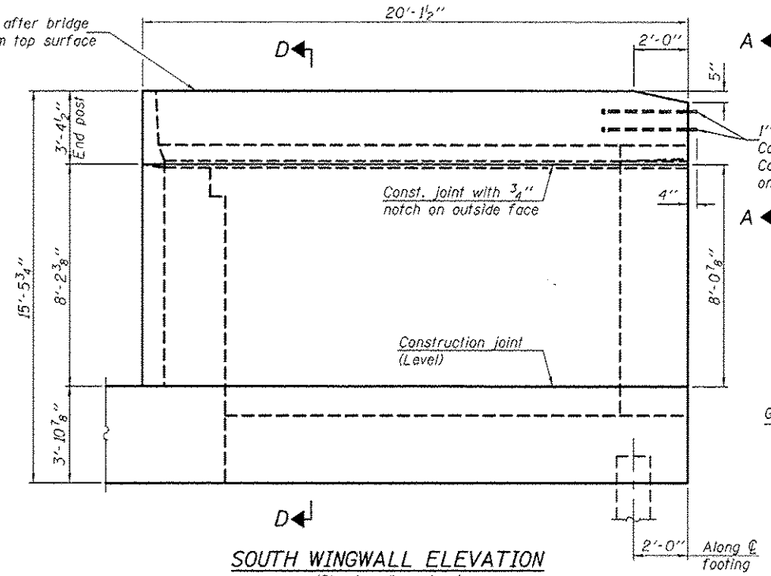


WINGWALL ELEVATION
(North wingwall shown, South wingwall similar).

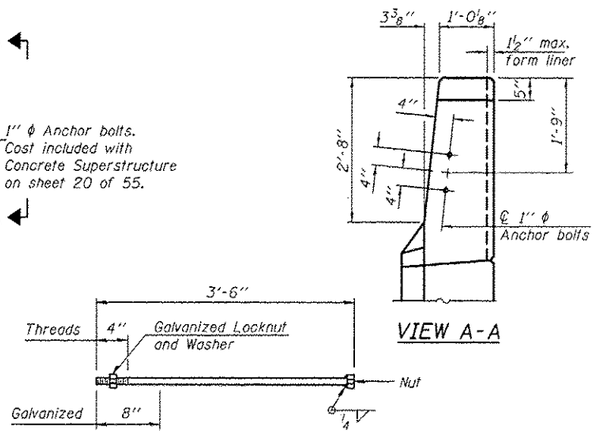
DESIGNED - NICHOLAS R. BARNETT	EXAMINED		DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AL-BARRAE R. SHEBIB		ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	134
DRAWN - H.T. DUONG / M.B.M.	PASSED		REVISED		SHEET NO. 35 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		

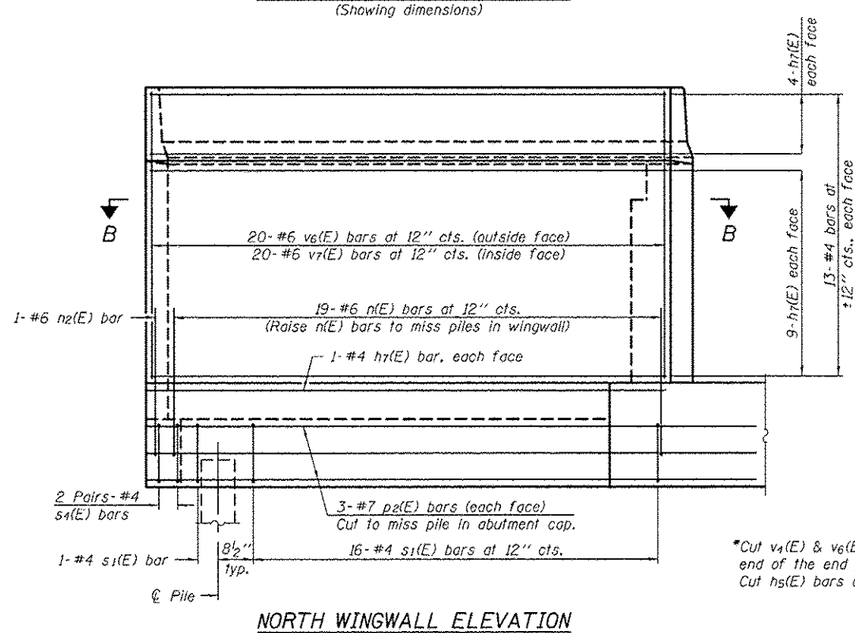


NORTH WINGWALL ELEVATION
(Showing dimensions)

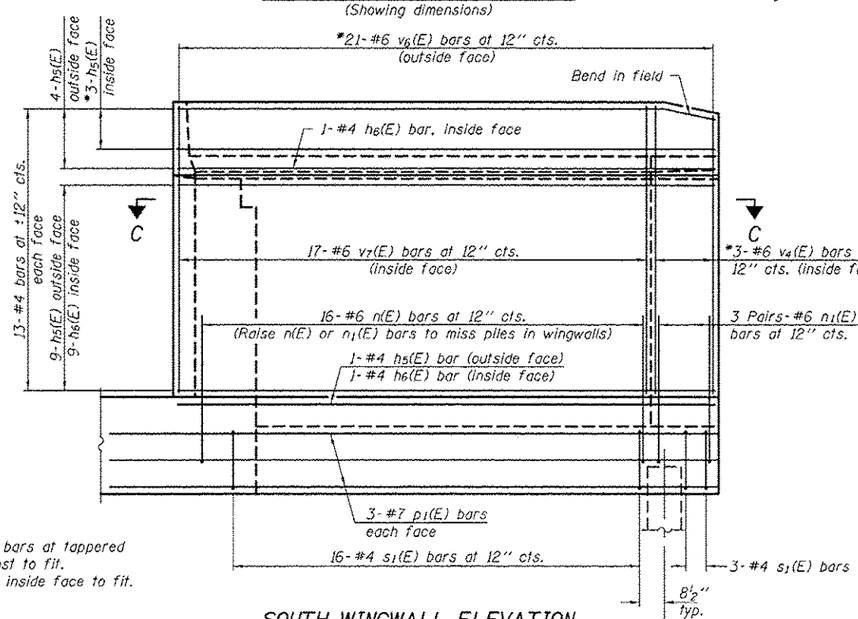


SOUTH WINGWALL ELEVATION
(Showing dimensions)



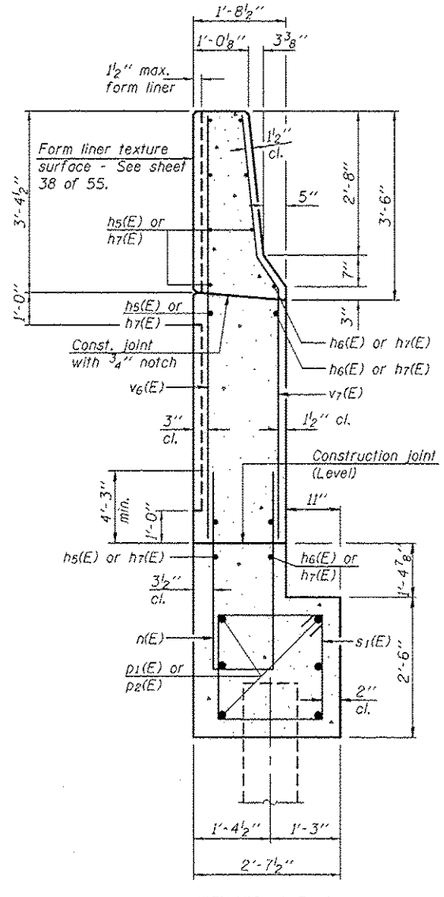


NORTH WINGWALL ELEVATION
(Showing reinforcement)

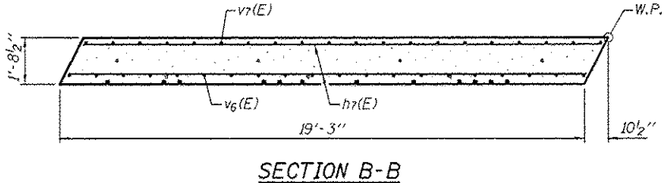


*Cut v4(E) & v6(E) bars at tappered end of the end post to fit. Cut h5(E) bars on inside face to fit.

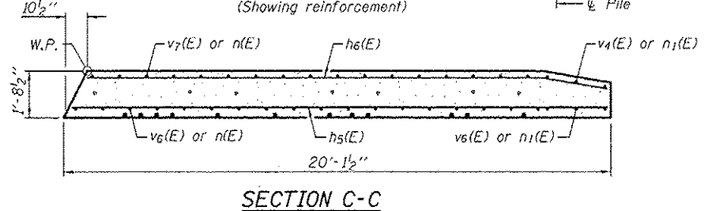
SOUTH WINGWALL ELEVATION
(Showing reinforcement)



SECTION D-D

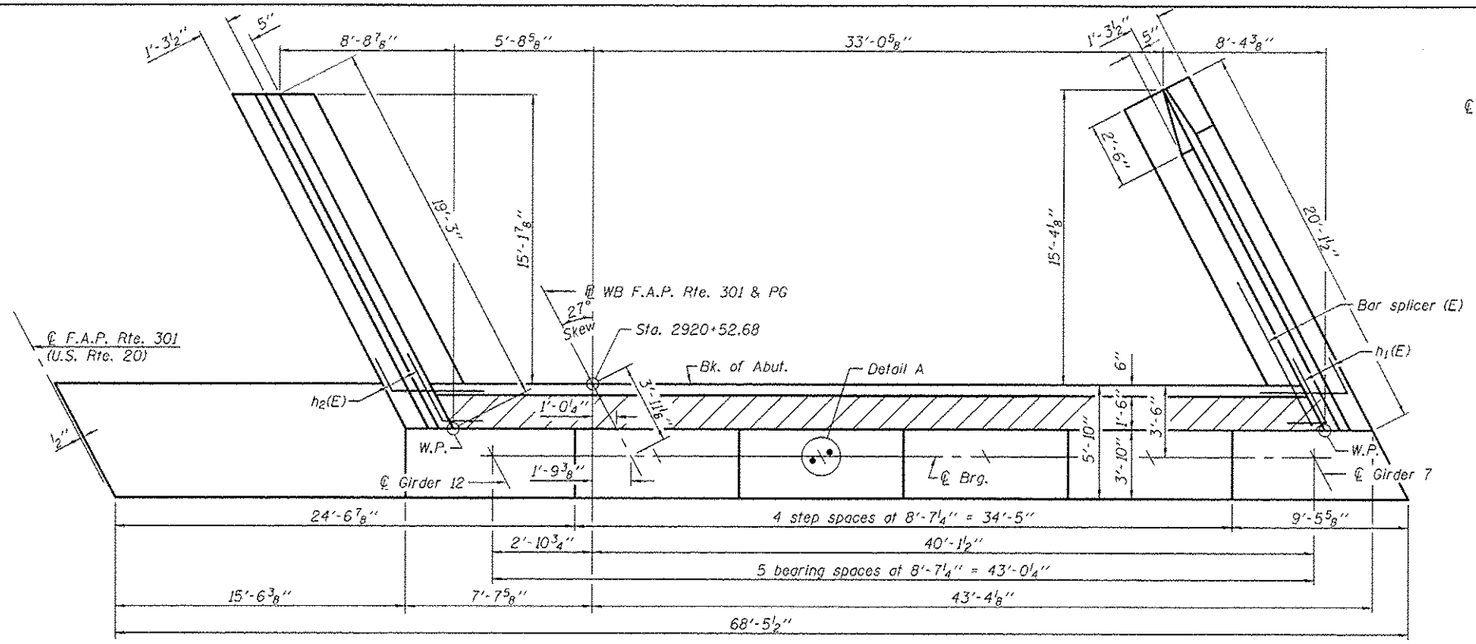


SECTION B-B

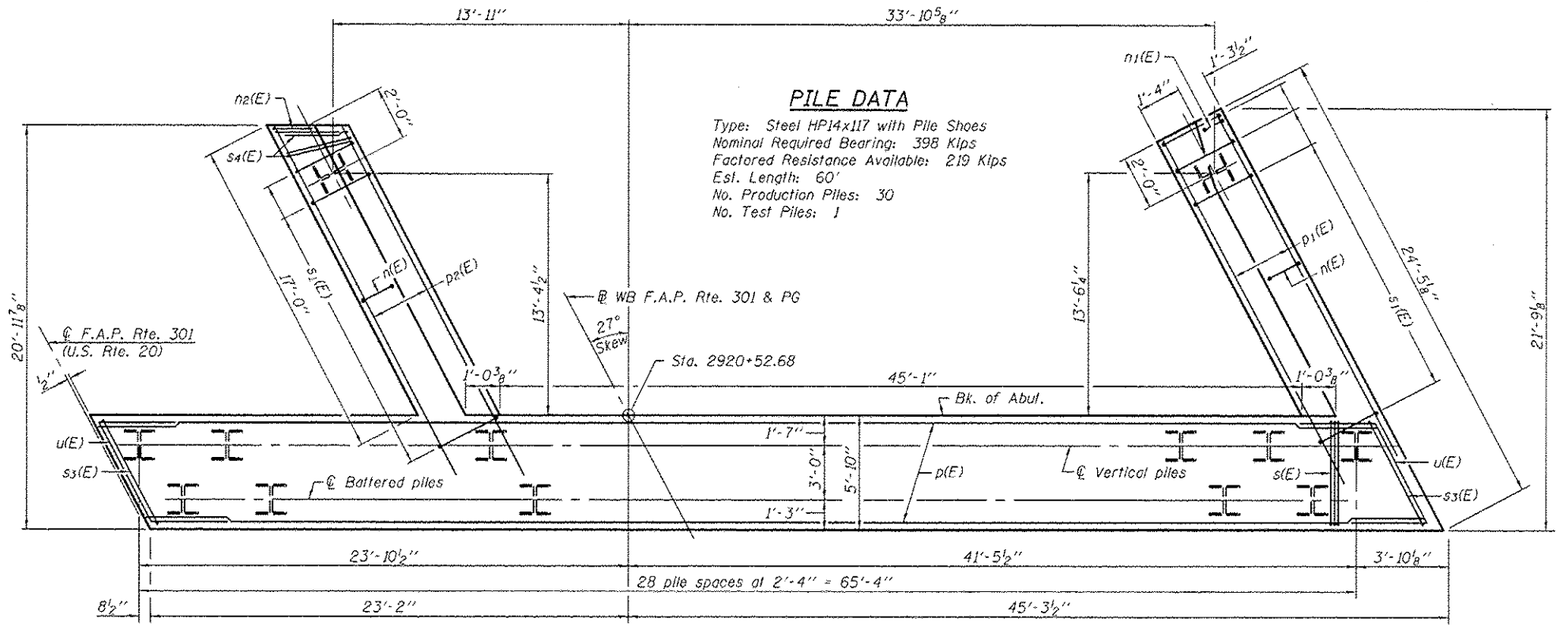


SECTION C-C

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT DETAILS (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AL-BARRAE R. SHEDIB	ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	135
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 36 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		



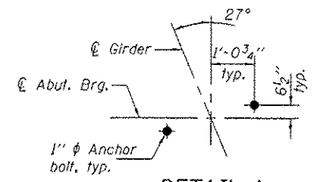
TOP VIEW



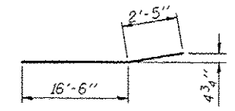
PLAN-PILE CAP

PILE DATA

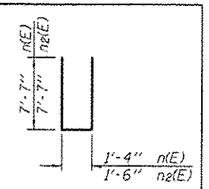
Type: Steel HP14x117 with Pile Shoes
Nominal Required Bearing: 398 Kips
Factored Resistance Available: 219 Kips
Est. Length: 60'
No. Production Piles: 30
No. Test Piles: 1



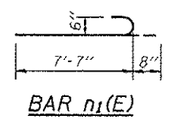
DETAIL A



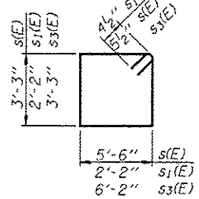
BAR h6(E)



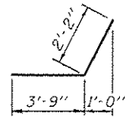
BARS n(E) & n2(E)



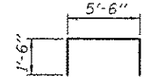
BAR n1(E)



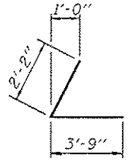
BARS s(E), s1(E) & s3(E)



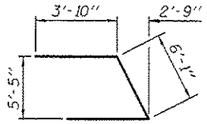
BAR h2(E)



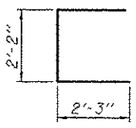
BAR s2(E)



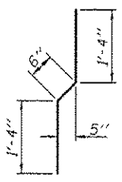
BAR h1(E)



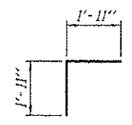
BAR u(E)



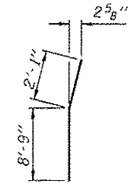
BAR s4(E)



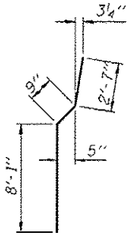
BAR v1(E)



BAR v(E)



BAR v4(E)



BAR v5(E)

WEST ABUTMENT (W.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n(E)	5	#5	25'-6"	
h1(E)	18	#5	5'-11"	
h2(E)	18	#5	5'-11"	
h3(E)	14	#5	46'-10"	
h4(E)	5	#6	46'-10"	
h5(E)	17	#4	19'-8"	
h6(E)	11	#4	18'-11"	
h7(E)	28	#4	18'-11"	
n(E)	35	#6	16'-6"	
n1(E)	6	#6	8'-3"	
n2(E)	1	#6	16'-8"	
p(E)	24	#7	36'-7"	
p1(E)	6	#7	20'-8"	
p2(E)	6	#7	20'-0"	
s(E)	84	#5	18'-5"	
s1(E)	36	#4	9'-5"	
s2(E)	26	#4	8'-6"	
s3(E)	2	#5	19'-9"	
s4(E)	4	#4	6'-8"	
u(E)	8	#6	13'-9"	
v(E)	48	#5	3'-10"	
v1(E)	48	#4	3'-2"	
v2(E)	48	#5	8'-10"	
v3(E)	48	#5	10'-2"	
v4(E)	3	#6	10'-10"	
v5(E)	37	#6	11'-5"	
v6(E)	41	#6	11'-2"	

Structure Excavation	Cu. Yd.	168.3
Concrete Structures	Cu. Yd.	111.3
Reinforcement Bars, Epoxy Coated	Pound	10190
Furnishing Steel Piles, HP14x117	Foot	1800
Driving Piles	Foot	1800
Test Pile Steel, HP14x117	Each	1
Pile Shoes	Each	31
Concrete Encasement	Cu. Yd.	16.9
Concrete Sealer	Sq. Ft.	1005.5
Anchor Bolts, 1"	Each	12

For details of bar splicers, see sheet 49 of 55.
For details of piles & concrete encasement, see sheet 47 of 55.

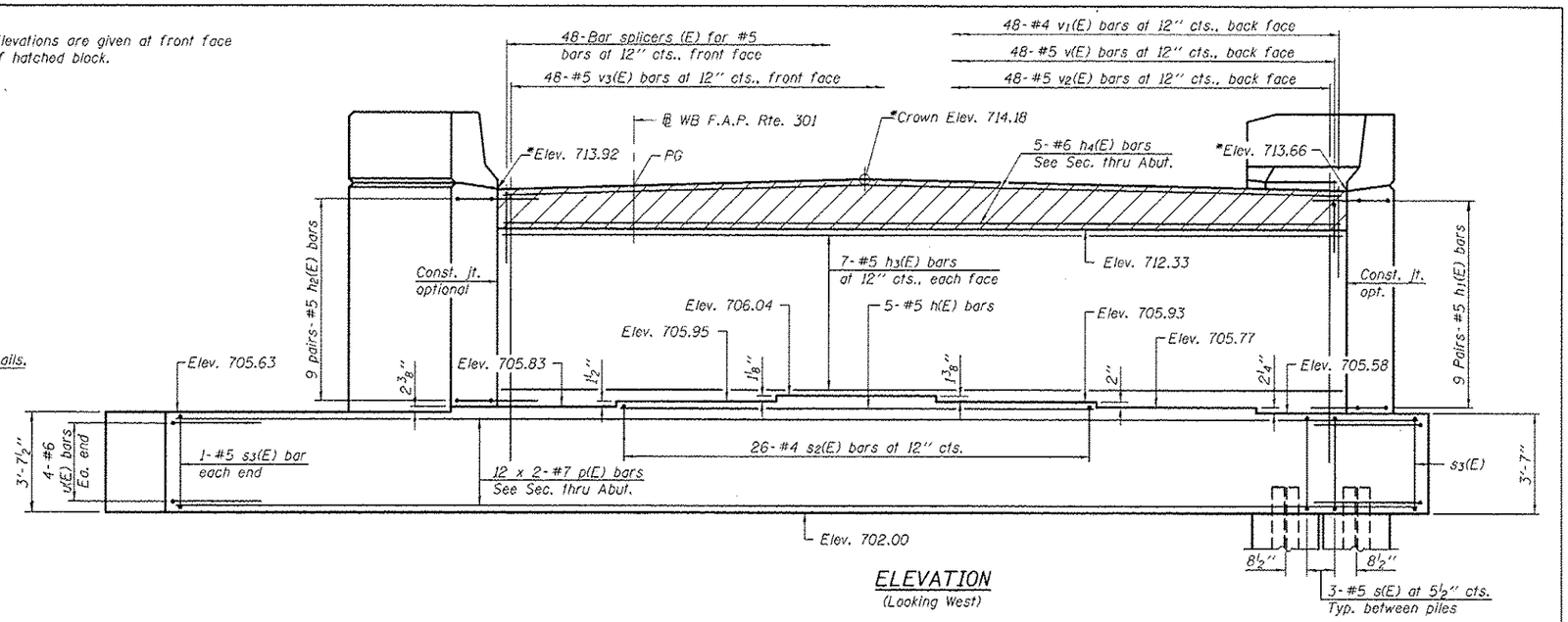
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - AL-BARRAE R. SHEBIB	PASSED	REVISED	
DRAWN - H.T. DUONG / M.B.M.	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

WEST ABUTMENT (W.B.) – STAGE II CONSTRUCTION
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 37 OF 55 SHEETS

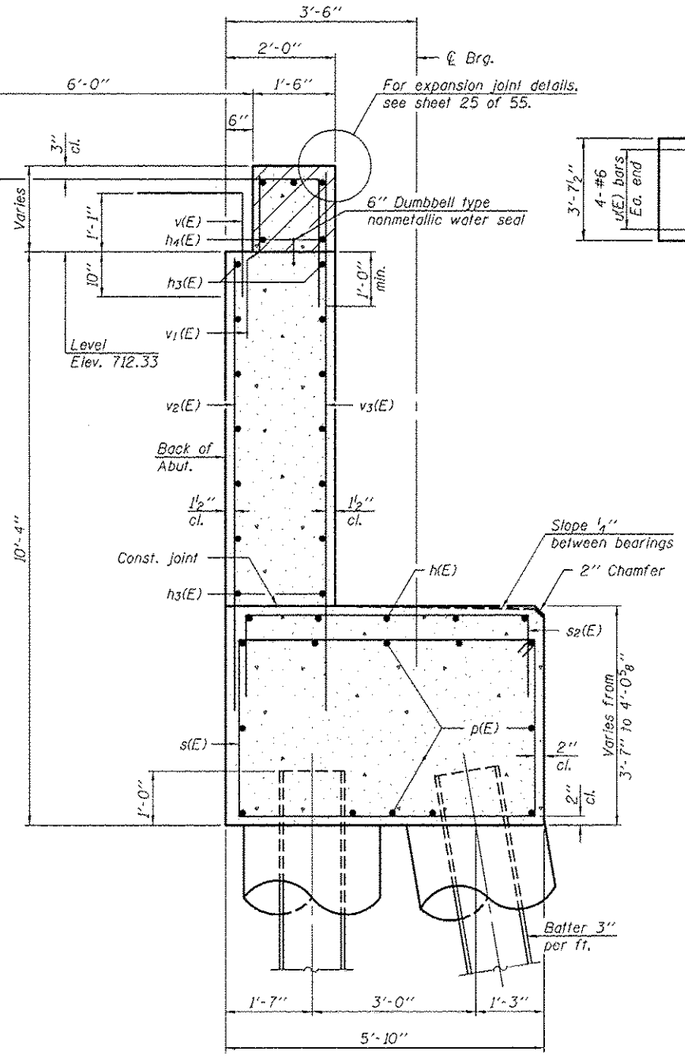
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	136
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

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 20 of 55.
For Concrete Encasement details, see sheet 47 of 55.
See sheet 46 of 55 for additional form liner details. Form Liner shall be placed on outside face of wingwalls as shown in the Wingwall Elevation shown below.
For bar splicer details, see sheet 49 of 55.

*Elevations are given at front face of hatched block.

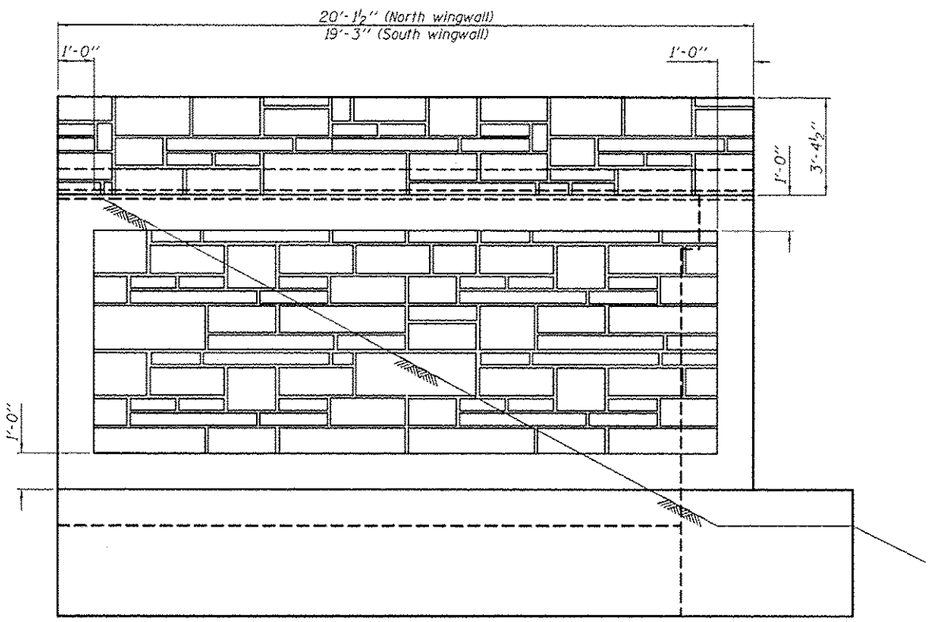


ELEVATION
(Looking West)



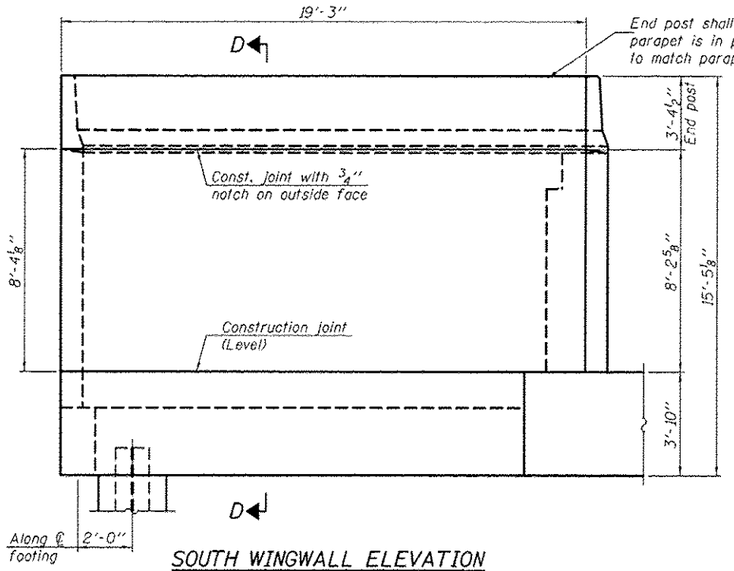
SECTION THRU WEST ABUTMENT

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

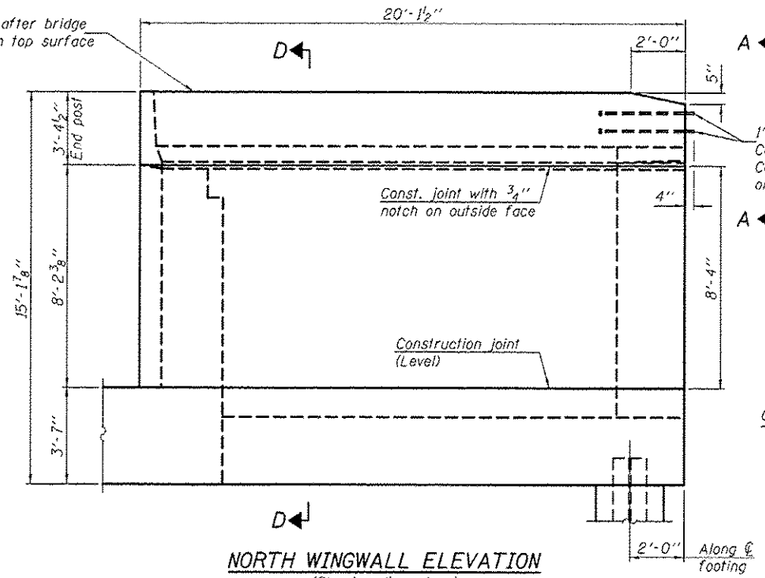


WINGWALL ELEVATION
(South wingwall shown, North wingwall similar).

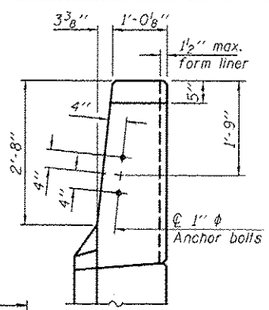
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AL-BARRAE R. SHEBIB					301	3BR & 3BR-1	WINNEBAGO	290	137
DRAWN - H.T. DUONG / M.B.M.	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 38 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		



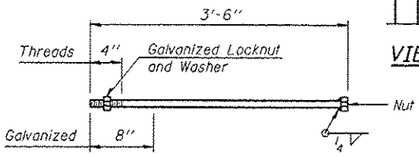
SOUTH WINGWALL ELEVATION
(Showing dimensions)



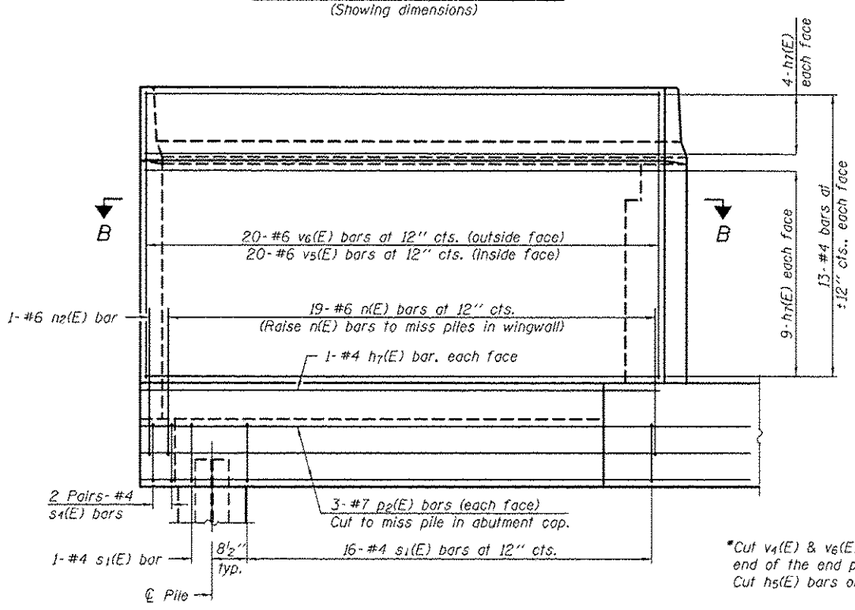
NORTH WINGWALL ELEVATION
(Showing dimensions)



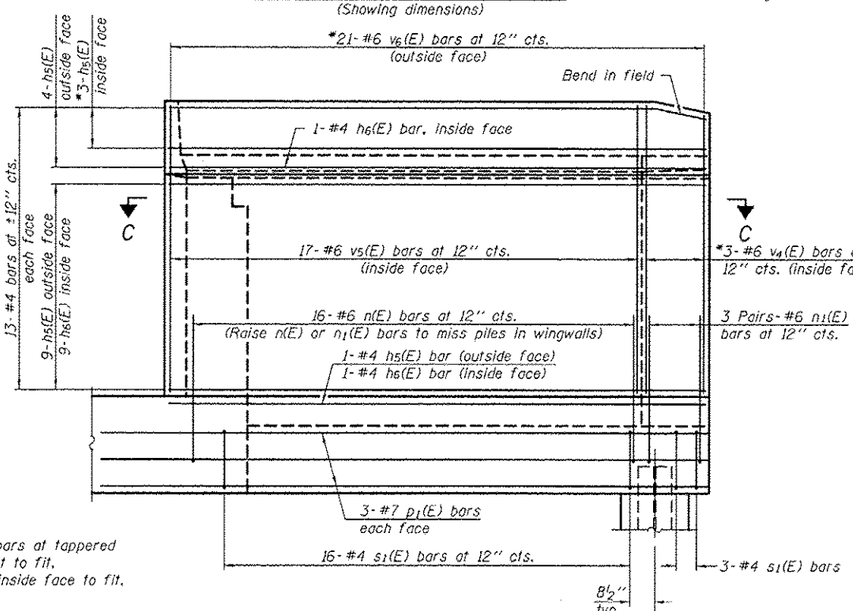
VIEW A-A



1" ϕ ANCHOR BOLT

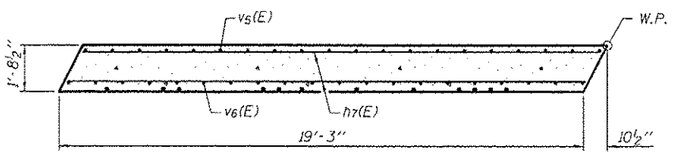


SOUTH WINGWALL ELEVATION
(Showing reinforcement)

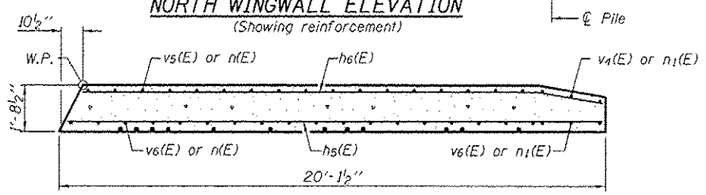


*Cut v4(E) & v6(E) bars at tappered end of the end post to fit. Cut h5(E) bars on inside face to fit.

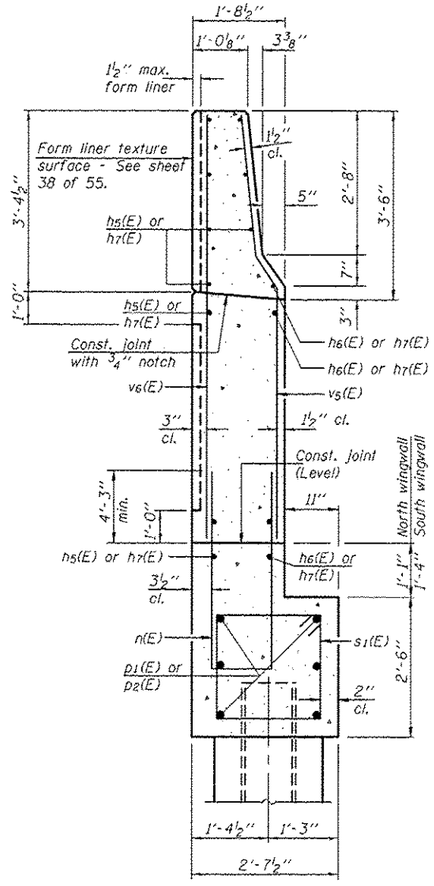
NORTH WINGWALL ELEVATION
(Showing reinforcement)



SECTION B-B

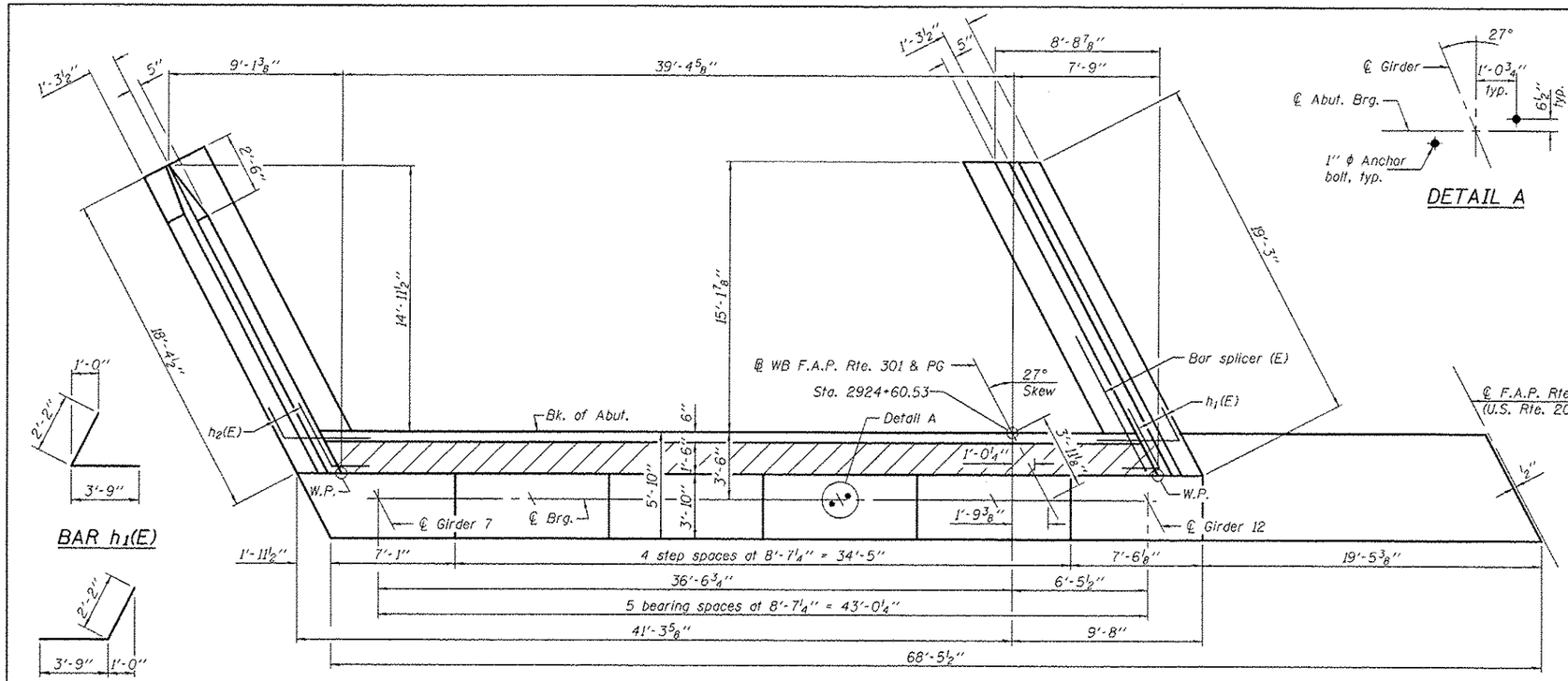


SECTION C-C

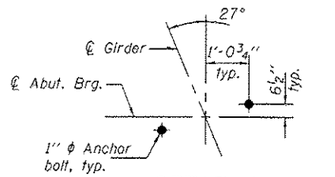


SECTION D-D

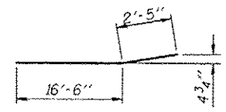
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT DETAILS (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE. 301 · SECTION 3BR & 3BR-1 · COUNTY WINNEBAGO · TOTAL SHEETS 290 · SHEET NO. 138
CHECKED - AL-BARRAE R. SHEBIB	PASSED	REVISED		SHEET NO. 39 OF 55 SHEETS	CONTRACT NO. 64D19
DRAWN - MICHAEL B. MOSSMAN	ACTING ENGINEER OF BRIDGE DESIGN	REVISED			ILLINOIS FED. AID PROJECT
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES				



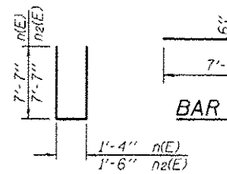
TOP VIEW



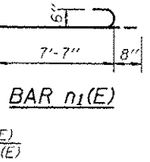
DETAIL A



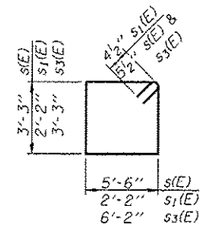
BAR h6(E)



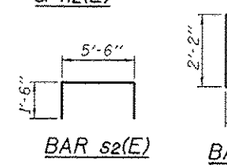
BARS n(E) & n2(E)



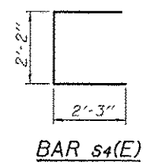
BAR n1(E)



BARS s(E), s1(E) & s3(E)

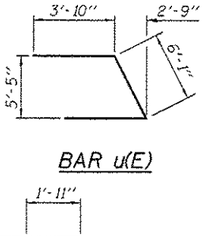


BAR s2(E)



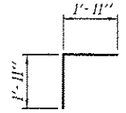
BAR s4(E)

BAR h1(E)



BAR u(E)

BAR h2(E)

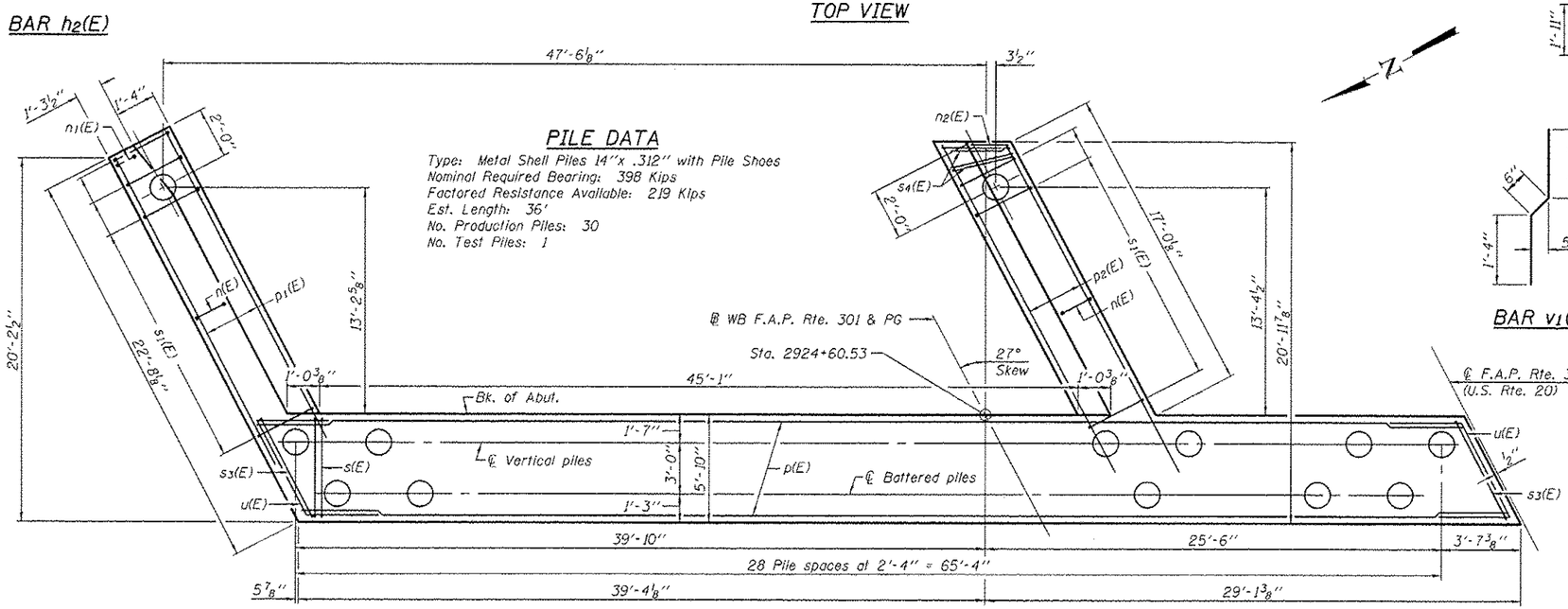


BAR v(E)

EAST ABUTMENT (W.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	18	#5	5'-11"	
h2(E)	18	#5	5'-11"	
h3(E)	14	#5	46'-10"	
h4(E)	5	#6	46'-10"	
h6(E)	11	#4	18'-11"	
h7(E)	28	#4	18'-11"	
h8(E)	5	#5	34'-1"	
h9(E)	14	#4	18'-0"	
h10(E)	3	#4	18'-9"	
n(E)	35	#6	16'-6"	
n1(E)	6	#6	8'-3"	
n2(E)	1	#6	16'-8"	
p(E)	24	#7	36'-7"	
p1(E)	6	#7	20'-8"	
p2(E)	6	#7	20'-0"	
s(E)	84	#5	18'-5"	
s1(E)	35	#4	9'-5"	
s2(E)	35	#4	8'-6"	
s3(E)	2	#5	19'-9"	
s4(E)	4	#4	6'-8"	
u(E)	8	#6	13'-9"	
v(E)	48	#5	3'-10"	
v1(E)	48	#4	3'-2"	
v2(E)	48	#5	8'-10"	
v3(E)	48	#5	10'-2"	
v4(E)	3	#6	10'-10"	
v6(E)	39	#6	11'-2"	
v7(E)	37	#6	11'-3"	
Structure Excavation		Cu. Yd.	164	
Concrete Structures		Cu. Yd.	109.3	
Reinforcement Bars, Epoxy Coated		Pound	10220	
Furnishing Metal Shell Piles 14"x .312"		Foot	1080	
Driving Piles		Foot	1080	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	31	
Concrete Sealer		Sq. Ft.	1005.5	
Anchor Bolts, 1"		Each	12	

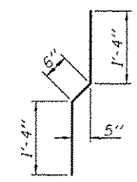
For details of bar splicers, see sheet 49 of 55.
For details of piles & concrete encasement, see sheet 47 of 55.



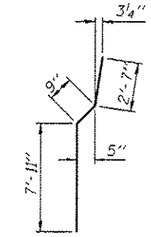
PLAN-PILE CAP

PILE DATA

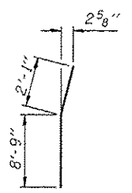
Type: Metal Shell Piles 14"x .312" with Pile Shoes
Nominal Required Bearing: 398 Kips
Factored Resistance Available: 219 Kips
Est. Length: 36'
No. Production Piles: 30
No. Test Piles: 1



BAR v1(E)



BAR v7(E)



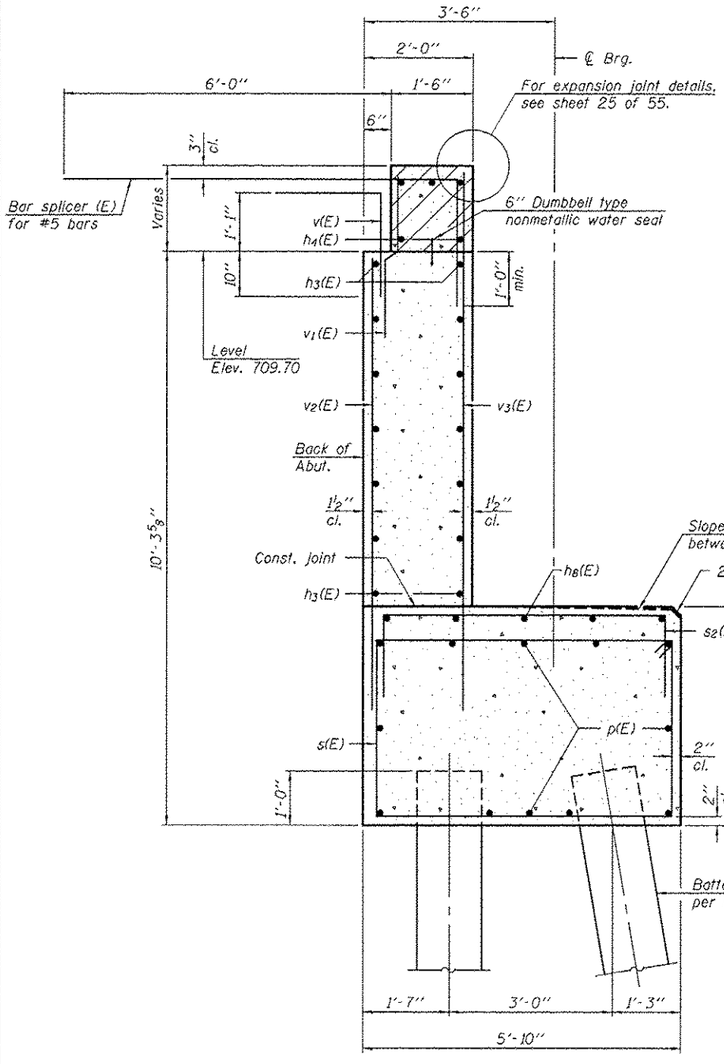
BAR v4(E)

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - AL-BARRAE R. SHEBIB	PASSED	REVISED	
DRAWN - H.T. DUONG / M.B.M.	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

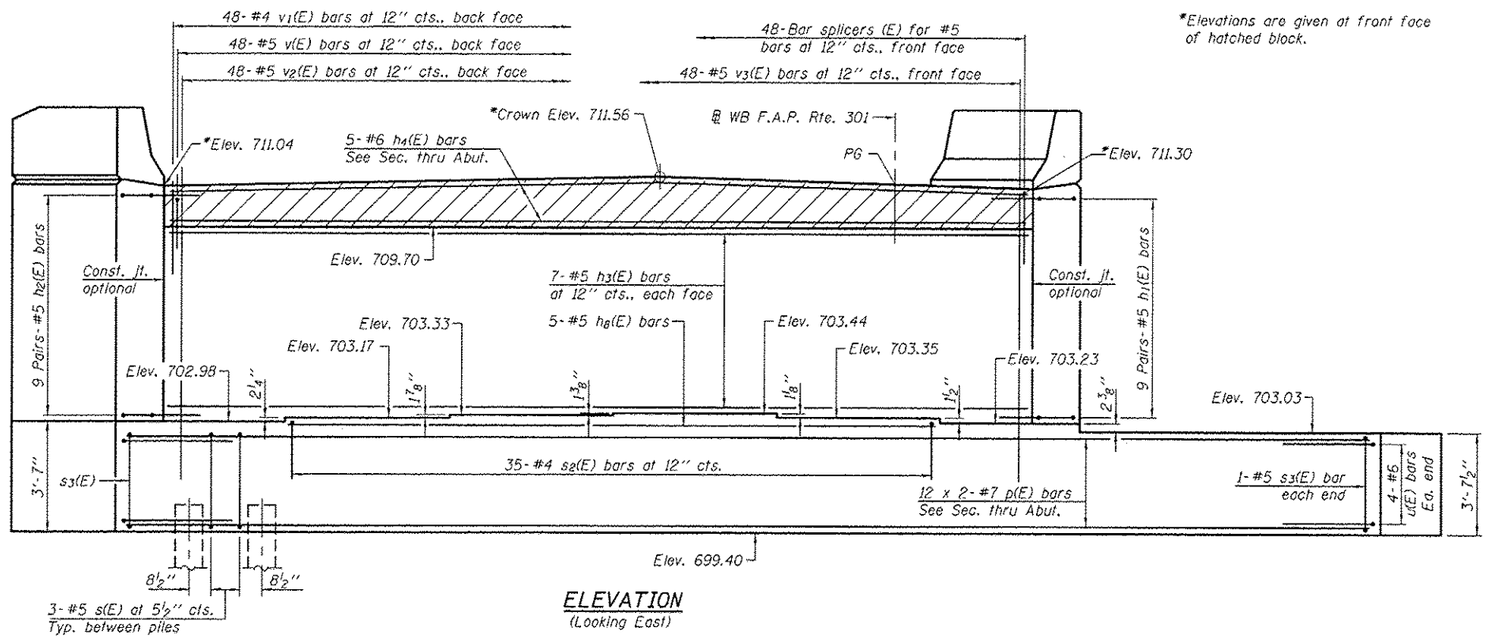
EAST ABUTMENT (W.B.) -- STAGE II CONSTRUCTION
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 40 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	38R & 38R-1	WINNEBAGO	290	139
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

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 20 of 55.
See sheet 46 of 55 for additional form liner details. Form Liner shall be placed on outside face of wingwalls as shown in the Wingwall Elevation shown below.
For bar splicer details, see sheet 49 of 55.

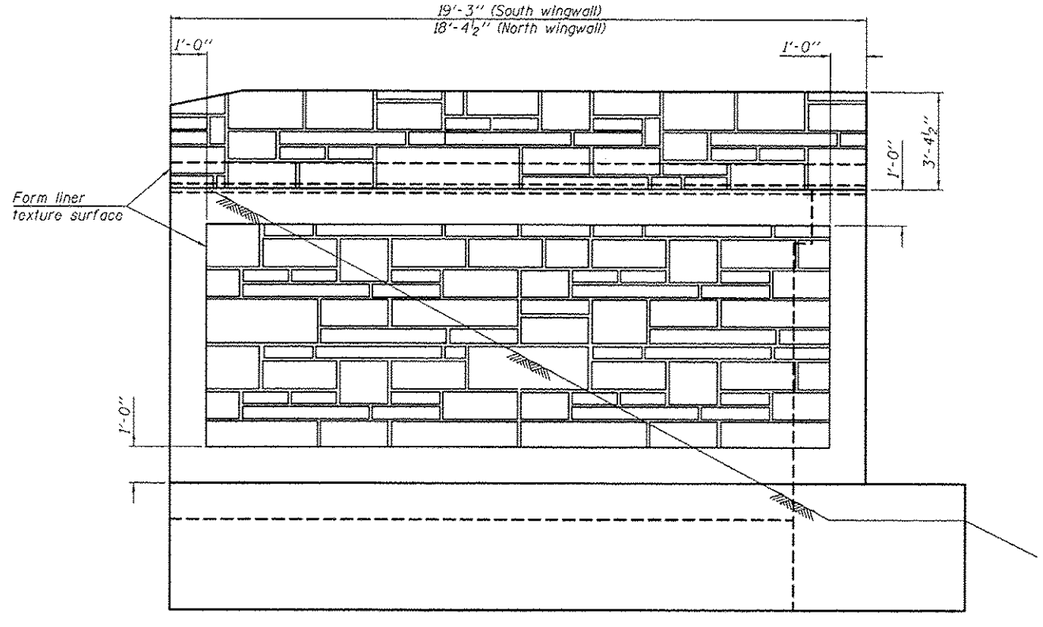


SECTION THRU
EAST ABUTMENT



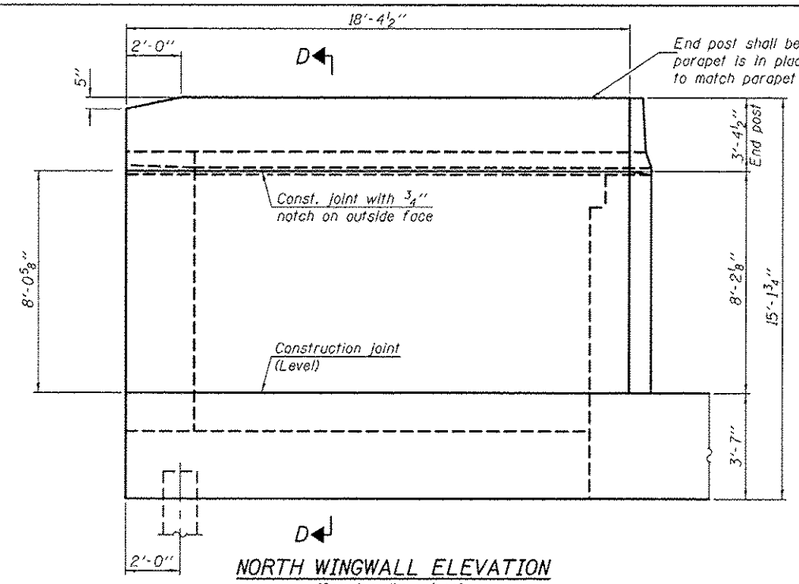
ELEVATION
(Looking East)

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

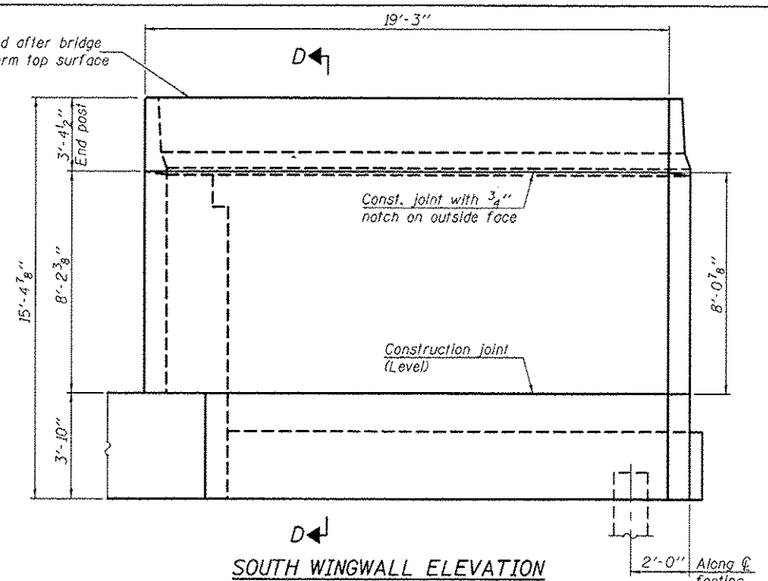


WINGWALL ELEVATION
(North wingwall shown, South wingwall similar).

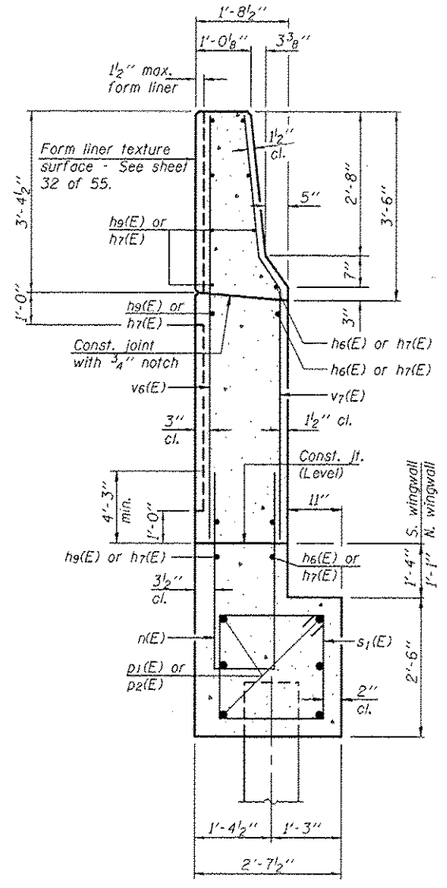
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AL-BARRAE R. SHEBIB					301	3BR & 3BR-1	WINNEBAGO	290	140
DRAWN - H.T. DUONG / M.B.M.	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 41 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		



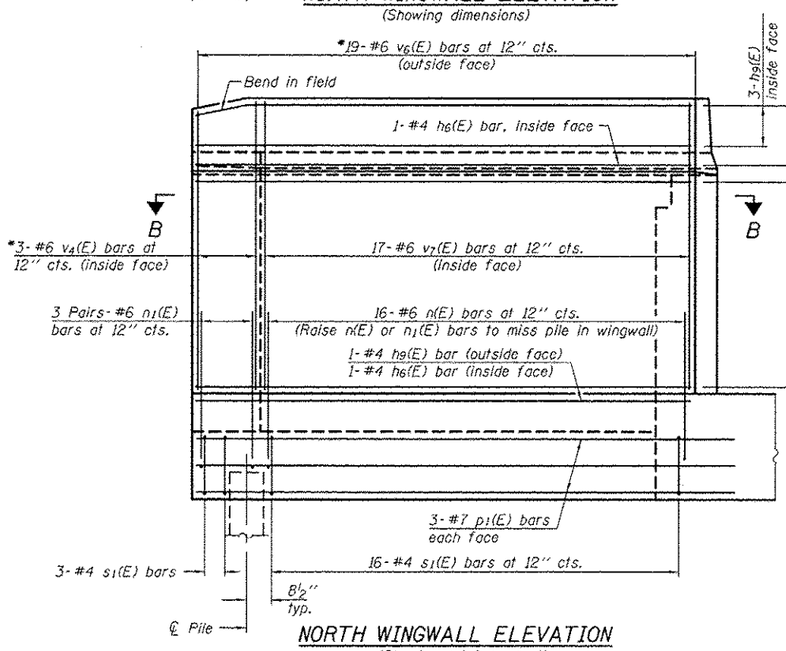
NORTH WINGWALL ELEVATION
(Showing dimensions)



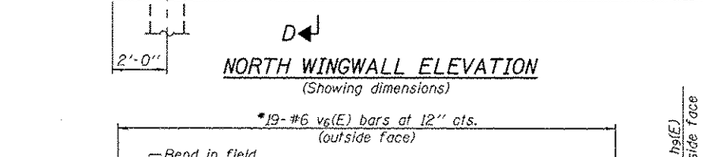
SOUTH WINGWALL ELEVATION
(Showing dimensions)



SECTION D-D

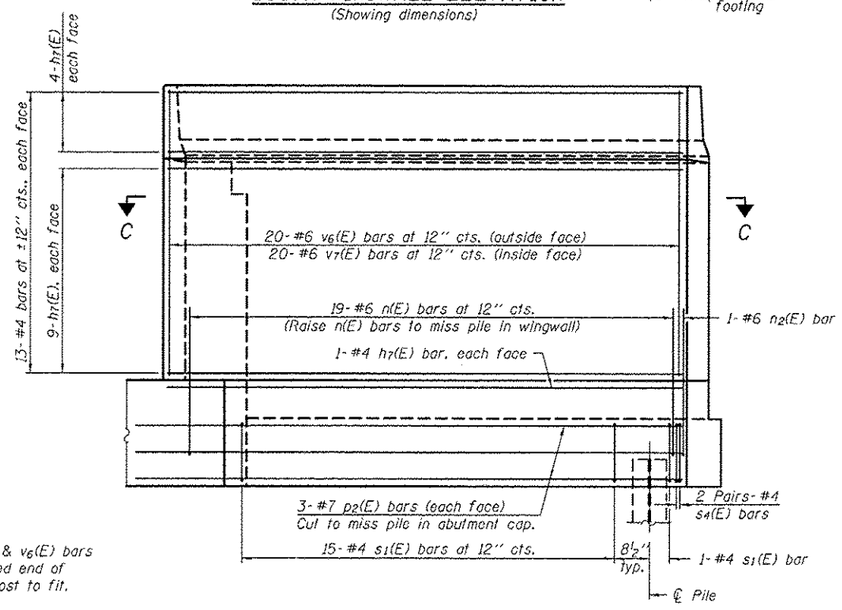


NORTH WINGWALL ELEVATION
(Showing reinforcement)

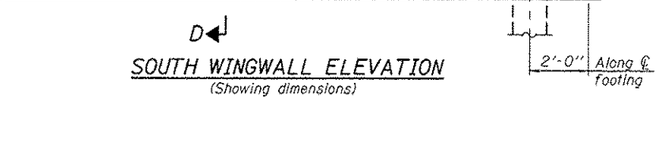


SECTION B-B

*Cut v4(E) & v6(E) bars at tappered end of the end post to fit.



SOUTH WINGWALL ELEVATION
(Showing reinforcement)

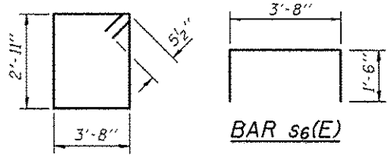


SECTION C-C

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT DETAILS (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AL-BARRAE R. SHEBIB					301	3BR & 3BR-1	WINNEBAGO	290	141
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED		SHEET NO. 42 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA		REVISED					ILLINOIS FED. AID PROJECT		

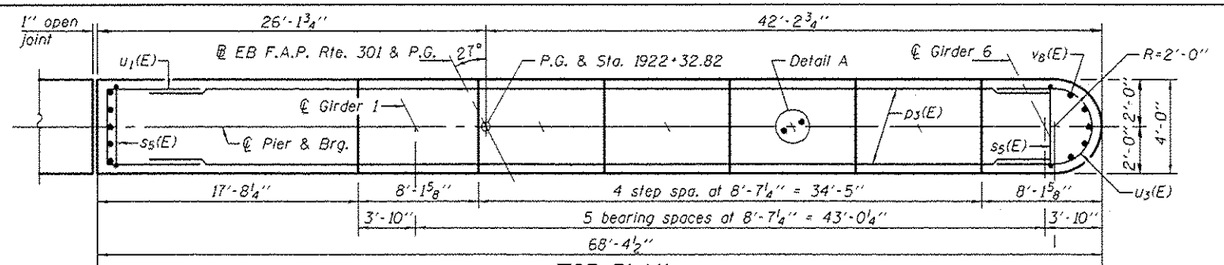
ACTING ENGINEER OF BRIDGE DESIGN
ACTING ENGINEER OF BRIDGES AND STRUCTURES

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 48 of 55.

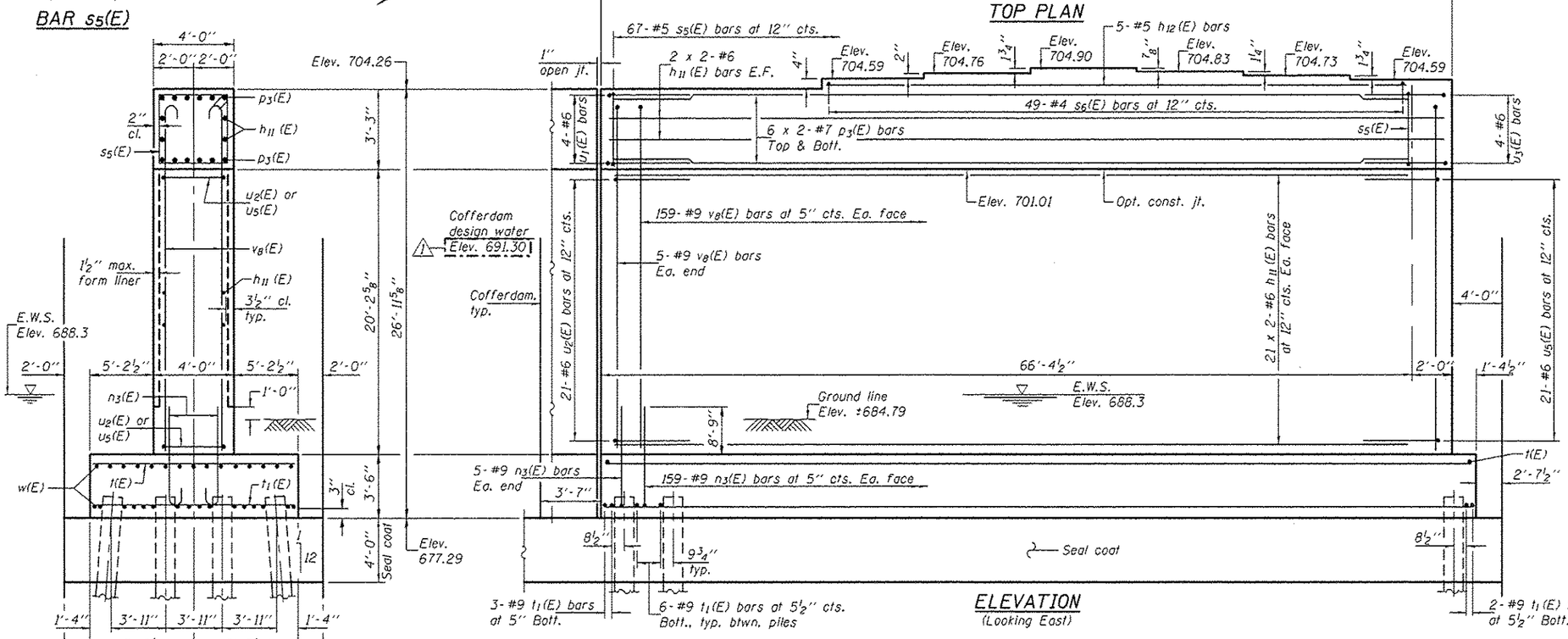


BAR $s_5(E)$

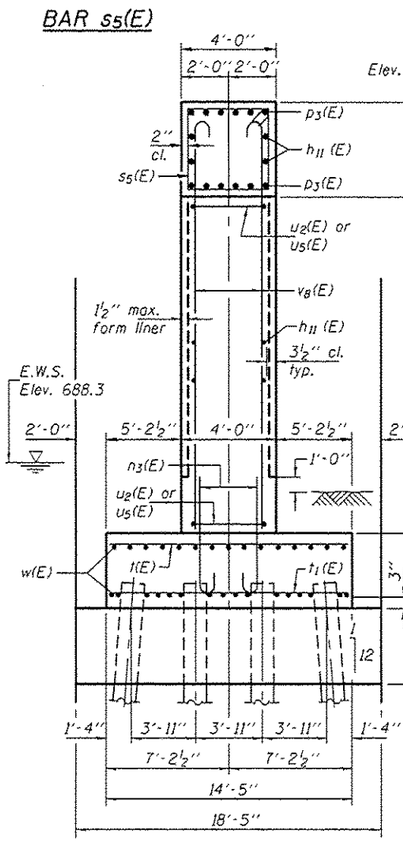
BAR $s_6(E)$



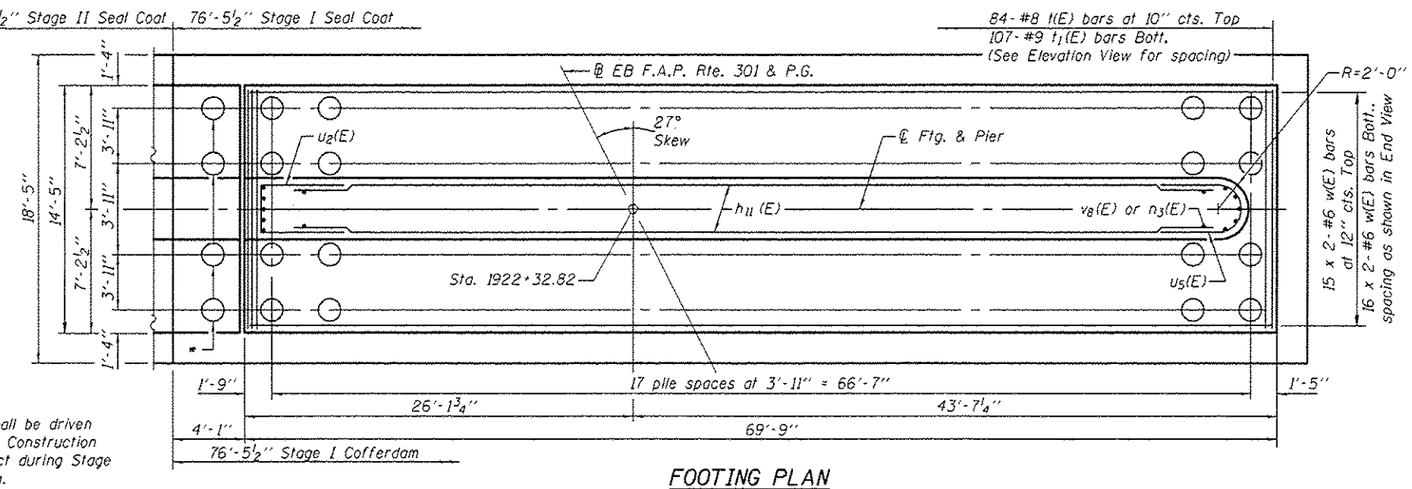
TOP PLAN



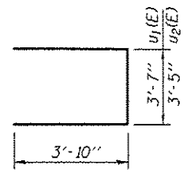
ELEVATION
(Looking East)



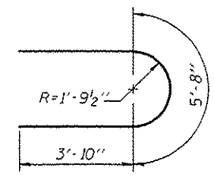
END VIEW



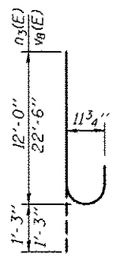
FOOTING PLAN



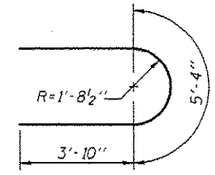
BARS $u_1(E)$ & $u_2(E)$



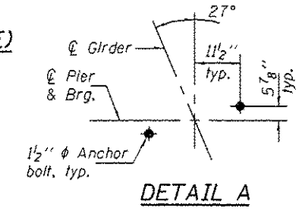
BAR $u_3(E)$



BARS $n_3(E)$ & $v_8(E)$



BAR $u_5(E)$



DETAIL A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{11}(E)$	92	#6	35'-1"	——
$h_{12}(E)$	5	#5	48'-6"	——
$n_3(E)$	328	#9	13'-3"	⊃
$p_3(E)$	24	#7	35'-9"	——
$s_5(E)$	67	#5	14'-1"	□
$s_6(E)$	49	#4	6'-8"	□
$t(E)$	84	#8	14'-1"	——
$t_1(E)$	107	#9	14'-1"	——
$u_1(E)$	4	#6	11'-3"	⊐
$u_2(E)$	21	#6	11'-1"	⊐
$u_3(E)$	4	#6	13'-4"	⊃
$u_5(E)$	21	#6	13'-0"	⊃
$v_8(E)$	328	#9	23'-9"	⊃
w(E)	62	#6	36'-8"	——
Cofferdam Excavation			Cu. Yd.	600
Concrete Structures			Cu. Yd.	370.2
Reinforcement Bars, Epoxy Coated			Pound	61920
Furnishing Metal Shell Piles 14"x .312"			Foot	2343
Driving Piles			Foot	2343
Test Pile, Metal Shells			Each	1
Pile Shoes			Each	72
Cofferdam (Type 2), Location 1			Each	0.5
Anchor Bolts 1½"			Each	12
Seal Coat Concrete			Cu. Yd.	208.6

PILE DATA

Type: Metal Shell Piles 14"x .312" with Pile Shoes
Nominal Required Bearing: 284 Kips
Factored Resistance Available: 154 Kips
Est. Length: 33'
No. Production Piles: 71
No. Test Piles: 1

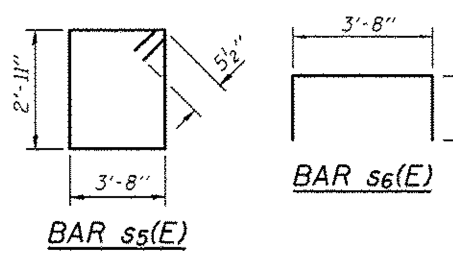
MIN. BAR LAP

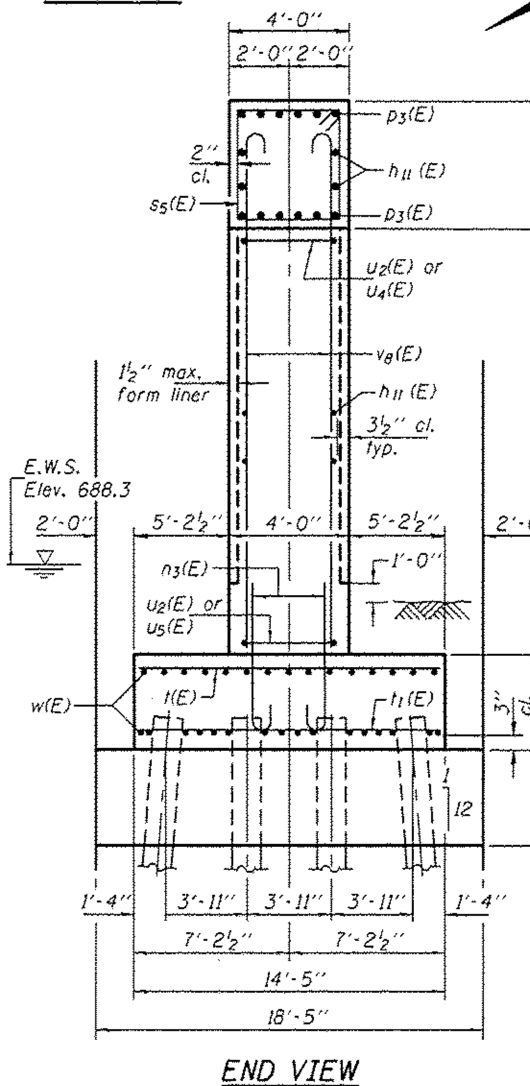
#6 bar = 3'-10"
#7 bar = 5'-2"

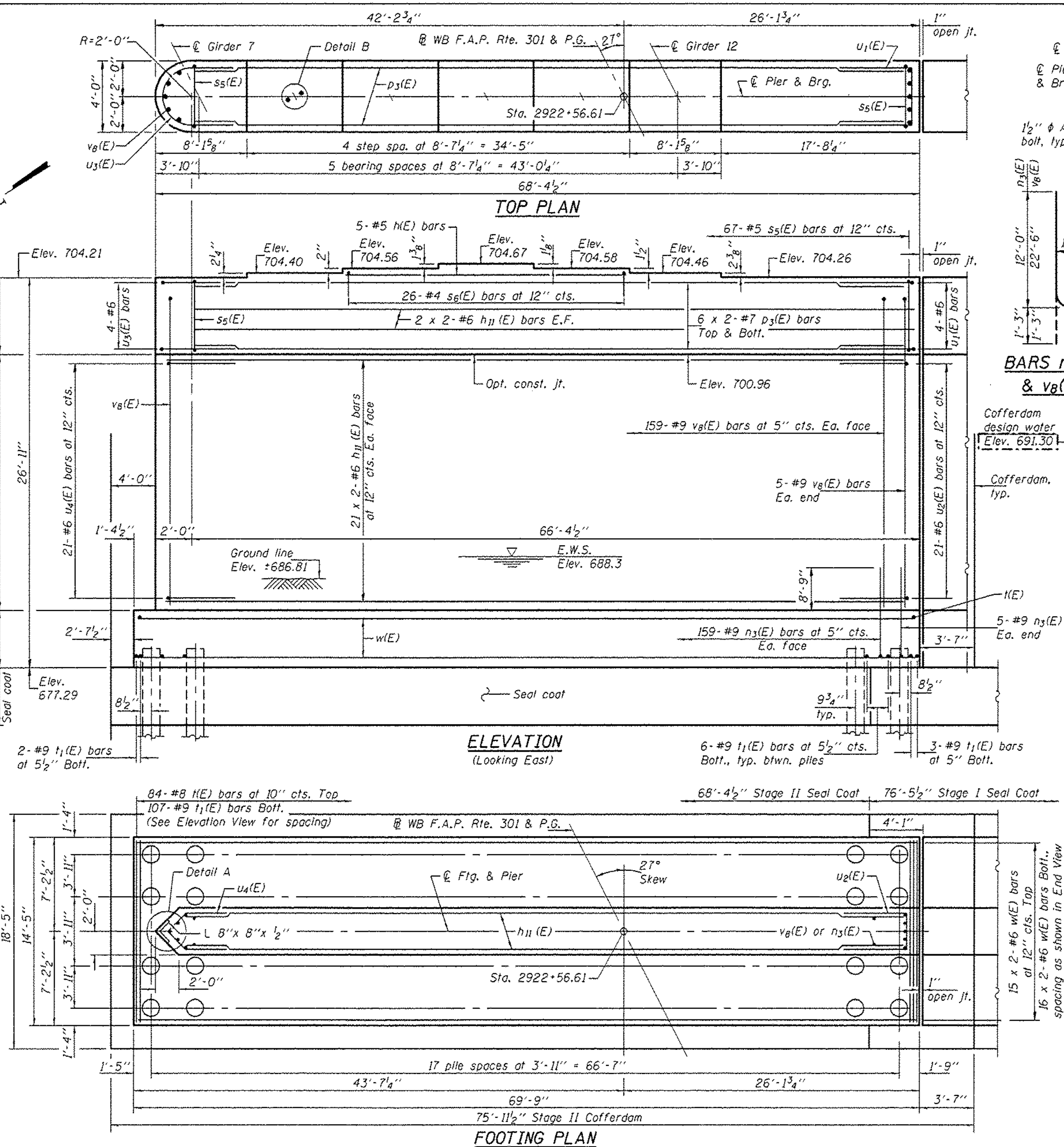
*These piles shall be driven during Stage I Construction to avoid conflict during Stage II Construction.

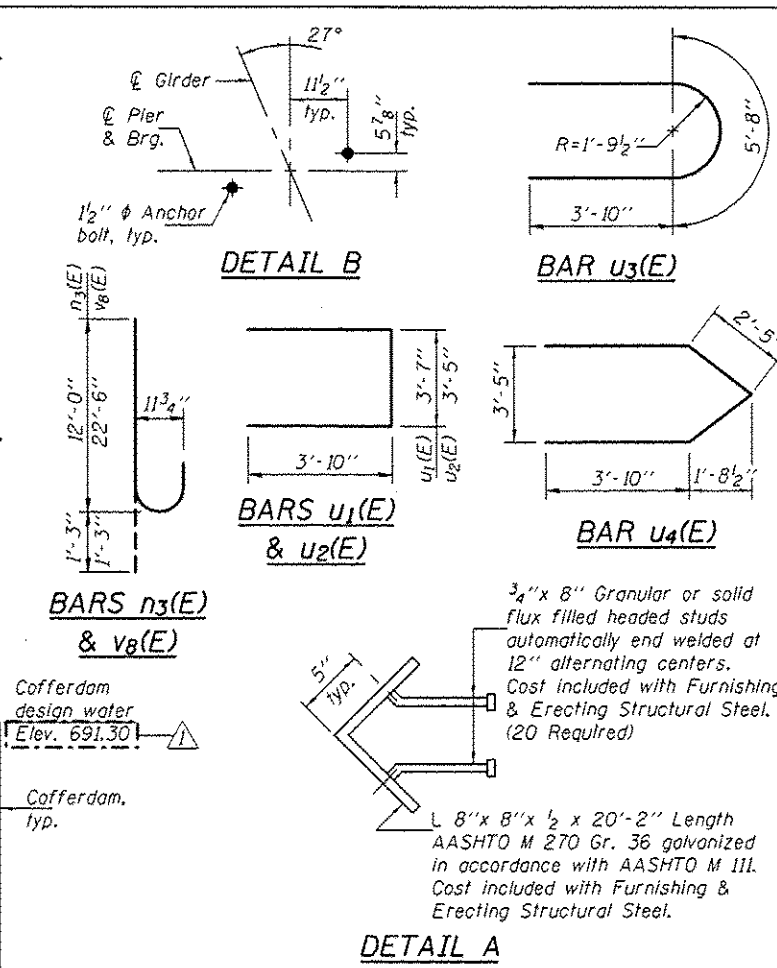
DESIGNED - Nick R. Barnett	EXAMINED	Jayne F. Schiff, ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barroo R. Shebib	PASSED	Carl Ramey, ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED 10/21/2013 NRB			301	3BR & 3BR-1	WINNEBAGO	290	142
DRAWN - h.t. duong			REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/CRA					SHEET NO. 43 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 48 of 55.









BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	5	#5	25'-6"	——
h_{11}(E)	92	#6	35'-1"	——
n_3(E)	328	#9	13'-3"	⊃
p_3(E)	24	#7	35'-9"	——
s_5(E)	67	#5	14'-1"	□
s_6(E)	26	#4	6'-8"	⊓
t(E)	84	#8	14'-1"	——
t_1(E)	107	#9	14'-1"	——
u_1(E)	4	#6	11'-3"	⊐
u_2(E)	21	#6	11'-1"	⊐
u_3(E)	4	#6	13'-4"	⊃
u_4(E)	21	#6	12'-6"	⊃
v_8(E)	328	#9	23'-9"	⊃
w(E)	62	#6	36'-8"	——
Cofferdam Excavation			Cu. Yd.	631
Concrete Structures			Cu. Yd.	366.5
Reinforcement Bars, Epoxy Coated			Pound	61690
Furnishing Metal Shell Piles 14"x .312"			Foot	2343
Driving Piles			Foot	2343
Test Pile, Metal Shells			Each	1
Pile Shoes			Each	72
Cofferdam (Type 2), Location 1			Each	0.5
Anchor Bolts 1½"			Each	12
Seal Coat Concrete			Cu. Yd.	186.6

MIN. BAR LAP

#6 bar = 3'-10"
#7 bar = 5'-2"

PILE DATA

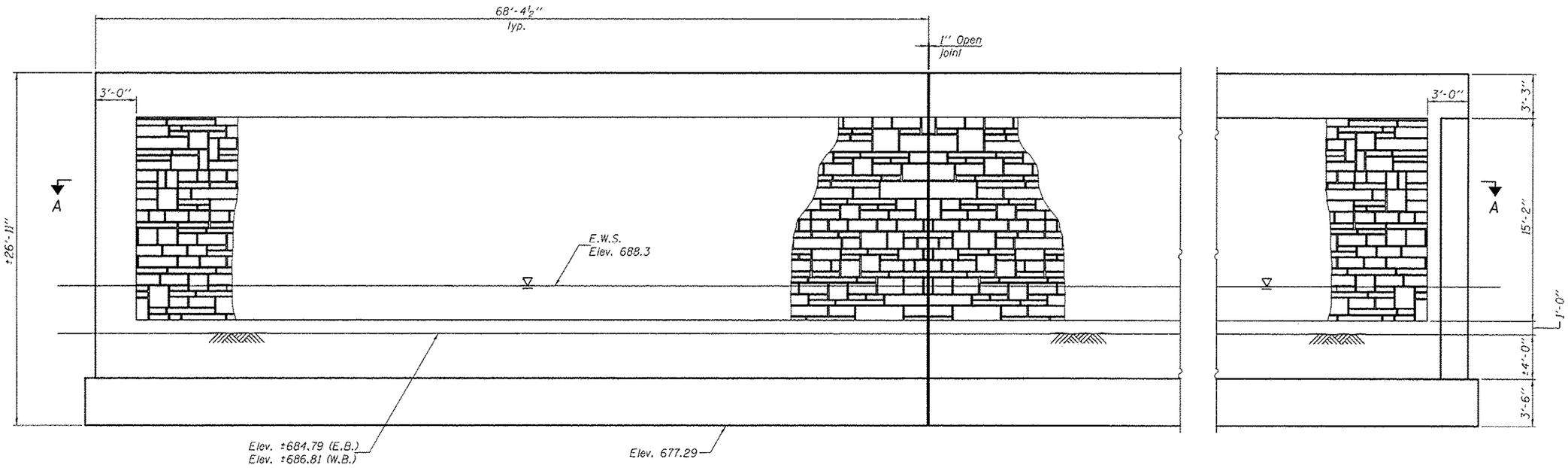
Type: Metal Shell Piles 14"x .312" with Pile Shoes
Nominal Required Bearing: 320 Kips
Factored Resistance Available: 154 Kips
Est. Length: 33'
No. Production Piles: 71
No. Test Piles: 1

DESIGNED - Nick R. Barnett	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013
CHECKED - Al-Barraa R. Shebib			REVISED 1 10/21/2013 NRB
DRAWN - h.t. duong	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED - NRB/GRA			

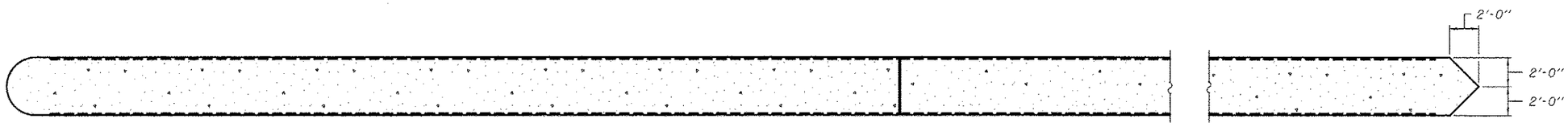
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER (W.B.) – STAGE II CONSTRUCTION
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 44 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	143
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



ELEVATION

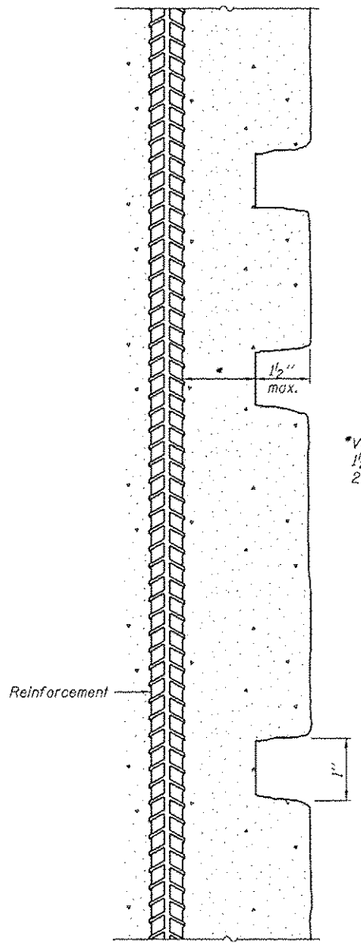


SECTION A-A

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FORM LINER DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barrae R. Shebib					301	3BR & 3BR-1	WINNEBAGO	290	144
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA		REVISED		SHEET NO. 45 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		

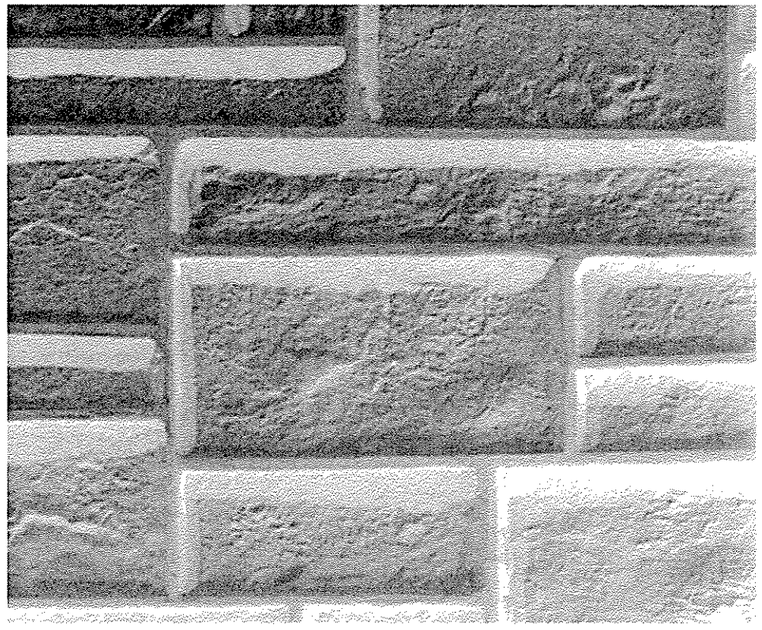
ACTING ENGINEER OF BRIDGE DESIGN

ACTING ENGINEER OF BRIDGES AND STRUCTURES



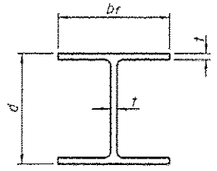
*Varies
1½" min. at Parapets & Abuts.
2" at Piers

SECTION THRU
FORM LINER



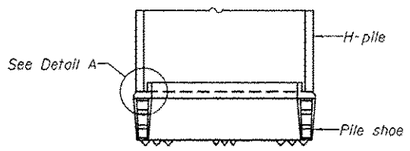
RANDOM BLOCK ASHLAR STONE
FORM LINER
(Pattern #1506)

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FORM LINER DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barroo R. Shebib						301	3BR & 3BR-1	WINNEBAGO	290	145
DRAWN - MICHAEL B. MOSSMAN	PASSED		REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/GRA		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 46 OF 55 SHEETS			ILLINOIS FED. AID PROJECT		

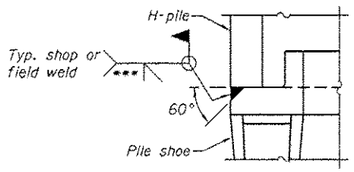


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	$14\frac{1}{4}''$	$14\frac{7}{8}''$	$\frac{13}{16}''$	30"
x102	14"	$14\frac{3}{4}''$	$\frac{11}{16}''$	30"
x89	$13\frac{7}{8}''$	$14\frac{3}{4}''$	$\frac{5}{8}''$	30"
x73	$13\frac{5}{8}''$	$14\frac{5}{8}''$	$\frac{1}{2}''$	30"
HP 12x84	$12\frac{1}{4}''$	$12\frac{1}{4}''$	$\frac{11}{16}''$	24"
x74	$12\frac{1}{8}''$	$12\frac{1}{4}''$	$\frac{5}{8}''$	24"
x63	12"	$12\frac{1}{8}''$	$\frac{1}{2}''$	24"
x53	$11\frac{3}{4}''$	12"	$\frac{7}{16}''$	24"
HP 10x57	10"	$10\frac{1}{4}''$	$\frac{9}{16}''$	24"
x42	$9\frac{3}{4}''$	$10\frac{1}{8}''$	$\frac{7}{16}''$	24"
HP 8x36	8"	$8\frac{1}{8}''$	$\frac{7}{16}''$	18"

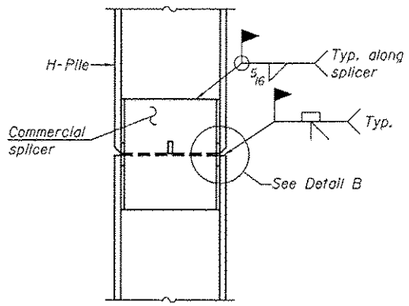


ELEVATION

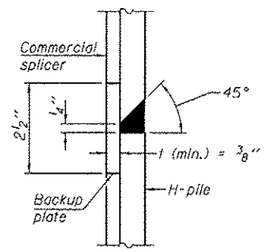


DETAIL A

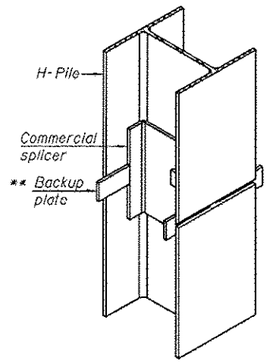
H-PILE SHOE ATTACHMENT



ELEVATION

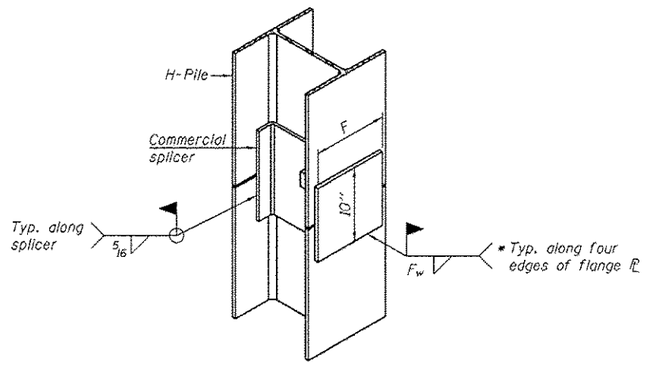


DETAIL "B"

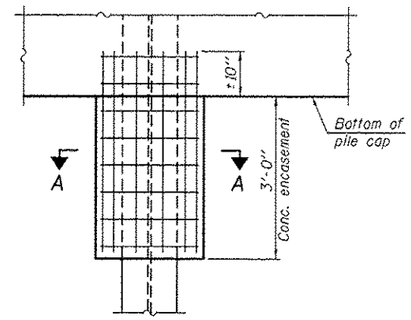


ISOMETRIC VIEW

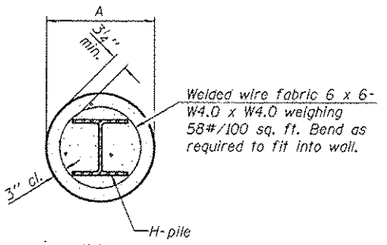
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW



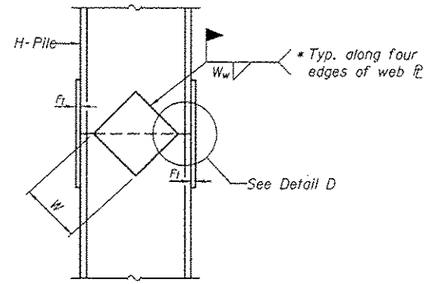
ELEVATION



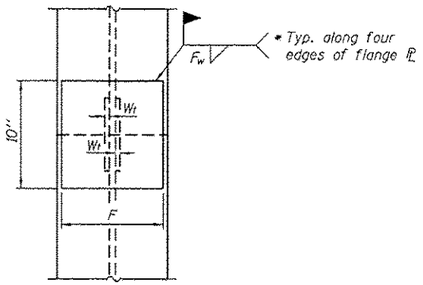
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

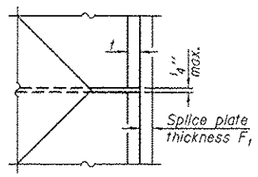
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_1	F_w	W	W_f	W_w
HP 14x117	$12\frac{1}{2}''$	1"	$\frac{7}{8}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x102	$12\frac{1}{2}''$	$\frac{7}{8}''$	$\frac{3}{4}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x89	$12\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{11}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x73	$12\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{9}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
HP 12x84	10"	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x74	10"	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x63	10"	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x53	10"	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 10x57	8"	$\frac{3}{4}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x42	8"	$\frac{5}{8}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 8x36	7"	$\frac{5}{8}''$	$\frac{7}{16}''$	$4\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$

WELDED PLATE FIELD SPLICE

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds $\frac{1}{4}''$ from end of web and/or each flange.

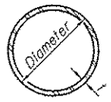
** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer ($\frac{5}{16}''$ min.).

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

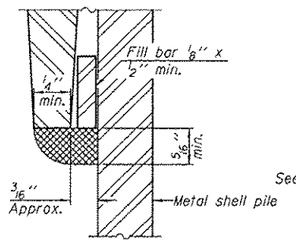
F-HP 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE. 301 | SECTION 3BR & 3BR-1 | COUNTY WINNEBAGO | TOTAL SHEETS 290 | SHEET NO. 146
CHECKED - Al-Barrae R. Sheblb	PASSED	REVISED		SHEET NO. 47 OF 55 SHEETS	CONTRACT NO. 64D19
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED			ILLINOIS FED. AID PROJECT
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES				

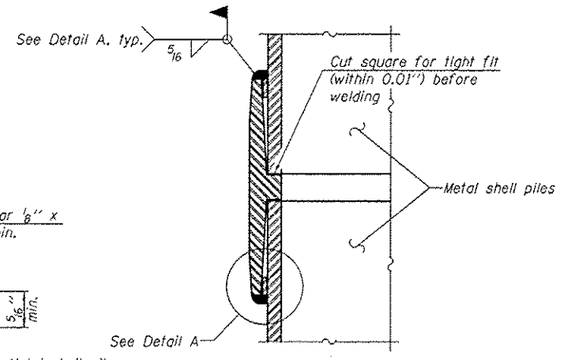


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

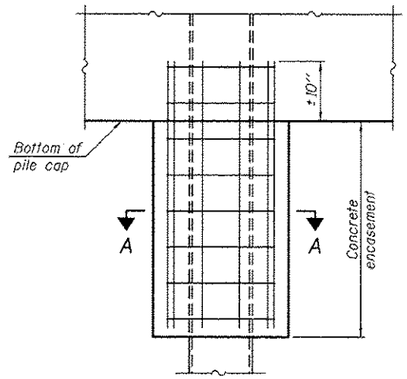


DETAIL A

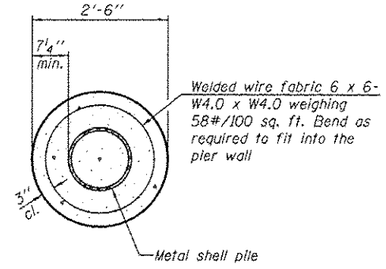


Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



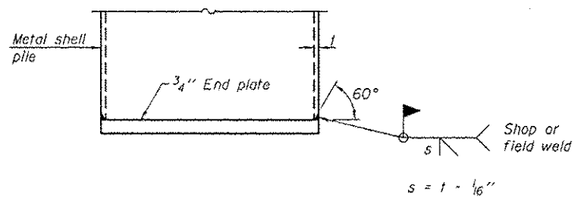
ELEVATION



SECTION A-A

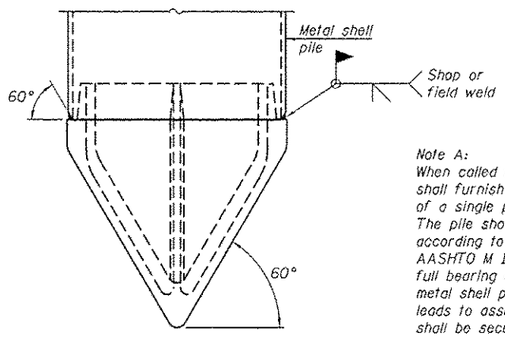
Note:
Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



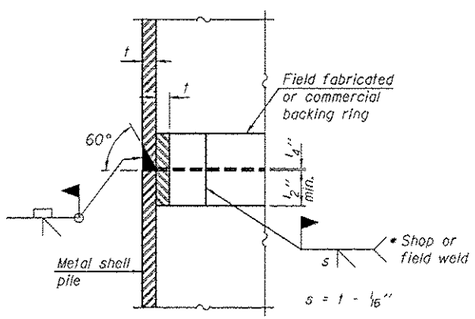
$s = t - 1/16"$

END PLATE ATTACHMENT



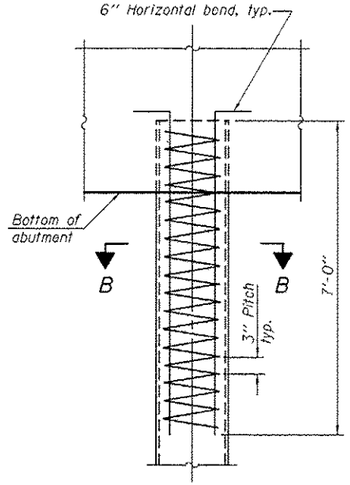
Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT
(See Note A)

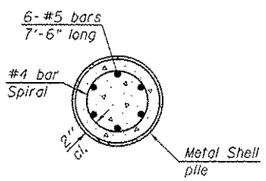


$s = t - 1/16"$

COMPLETE PENETRATION WELD SPLICE
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



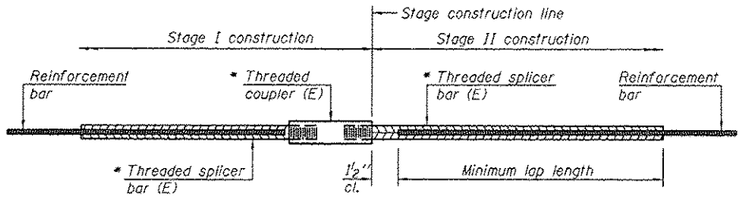
SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	Joyce F. Aldridge ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	METAL SHELL PILE DETAILS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Al-Barrae R. Sheblb	PASSED	Carl Lang ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	147
DRAWN - h.t. duong			REVISED		SHEET NO. 48 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/GRA								ILLINOIS FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

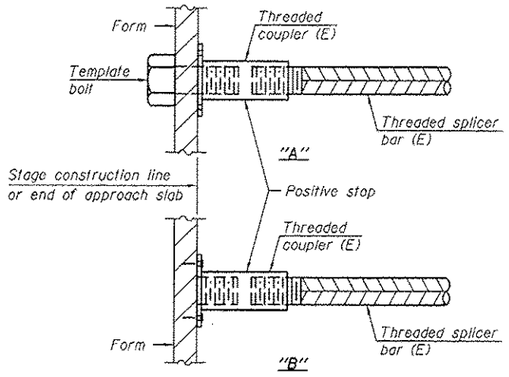
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

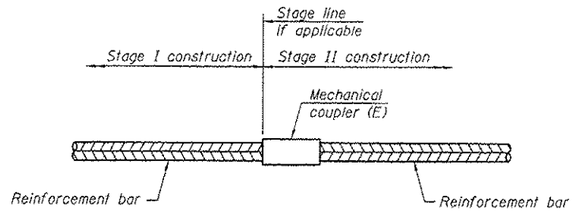
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



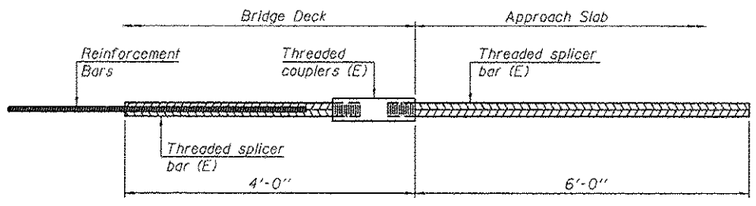
INSTALLATION AND SETTING METHODS

"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.



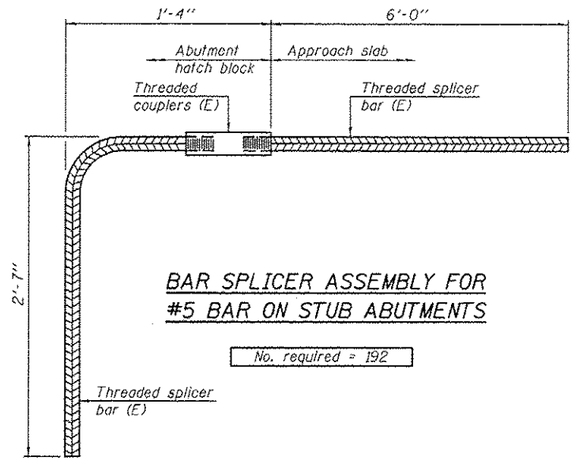
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 192

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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Al-Barrae R. Shabib	PASSED	REVISED	
DRAWN - t.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 49 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	148
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2-5-08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-1
Station 483+63
Offset 60.00ft Lt CL
Ground Surface Elev. 691.2 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encountor 684.2 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SOFT brown SILTY CLAY LOAM with ORGANICS		0.3 P	36	MEDIUM tan clean medium coarse SAND (continued) 670.20	5 9		
689.20							
VERY STIFF brown SILTY CLAY LOAM	3 4 4	2.1 P	29	MEDIUM tan clean medium coarse SAND with medium GRAVEL 667.70	3 3 9		
687.70							
MEDIUM dark gray SANDY LOAM	2 2 4	0.8 B	24	Wash MEDIUM tan clean medium coarse SAND 665.20	5 5 7		
684.70 ▼							
No Recovery	2 4 6			Wash MEDIUM tan clean medium coarse SAND with medium GRAVEL 662.70	5 6 11		
682.70							
VERY LOOSE gray SAND & GRAVEL	3 2 1			MEDIUM tan clean medium coarse SAND with GRAVEL 660.20	9 11 15		
680.20							
VERY LOOSE gray SAND & GRAVEL	3 1 3			Wash MEDIUM tan clean medium coarse SAND 657.70	4 6 10		
677.70							
MEDIUM gray SAND & GRAVEL	4 5 7			Wash MEDIUM tan clean medium coarse SAND 655.20	4 7 12		
675.20							
Wash MEDIUM tan clean medium coarse SAND	4 6 10			Wash MEDIUM tan SAND & GRAVEL 652.70	9 10 11		
672.70							
	4				7		

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2-5-08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-1
Station 483+63
Offset 60.00ft Lt CL
Ground Surface Elev. 691.2 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encountor 684.2 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash MEDIUM tan SANDY GRAVEL (continued) 650.20	10 15		
Wash MEDIUM tan clean medium coarse SAND 647.70	8 10 15		
Wash MEDIUM tan clean medium coarse SAND 645.20	4 9 16		
Wash DENSE tan clean medium coarse SAND with medium GRAVEL 642.70	13 16 20		
Wash DENSE tan clean medium coarse SAND 640.20	9 14 21		
Borehole continued 20808			
Wash DENSE tan clean medium coarse SAND with medium GRAVEL 637.70	23 22 21		
Wash VERY DENSE tan clean medium coarse SAND with medium GRAVEL 635.20	30 34 35		
Wash VERY DENSE tan SANDY GRAVEL 632.70	33 36 23		
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, form 137 (Rev. 8-99)

Existing Sta. 483+58.69 = New Sta. 922+44.69

DESIGNED -	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)**	
CHECKED -	PASSED	REVISED		SHEET NO. 50 OF 55 SHEETS	
DRAWN -	ACTING ENGINEER OF BRIDGE DESIGN	REVISED			
CHECKED -	ACTING ENGINEER OF BRIDGES AND STRUCTURES				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	149
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 2/8/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m, E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-2
Station 483+10
Offset 61.00ft Rt CL
Ground Surface Elev. 690.2 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 683.2 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
SOFT brown SILTY CLAY LOAM with 13RGANICS	688.20			0.3 P	48
MEDIUM brown SILTY LOAM with 11RGANICS	686.70		1 1 3	0.8 B	38
MEDIUM brown SILTY CLAY LOAM	683.70	-5	0 2 2	0.6 B	42
MEDIUM gray dirty SAND	681.70	▼	4 7 6		
LOOSE gray dirty SAND & GRAVEL	679.20	-10	1 1 4		
Wash LOOSE tan SANDY GRAVEL	676.70		4 2 2		
Wash LOOSE tan clean medium coarse SAND	674.20	-15	3 3 4		
Wash LOOSE tan clean medium coarse SAND	671.70		2 2 4		
		-20	2		

Description	Elev.	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
LOOSE tan clean medium coarse SAND (continued)	669.20		2 3		
LOOSE tan clean medium coarse SAND	666.70		2 3 5		
LOOSE tan SANDY GRAVEL	664.20	-25	3 3 4		
Wash LOOSE tan fine SAND with SILTY CLAY lens	661.70		2 2 6		
Wash MEDIUM tan clean medium coarse SAND	659.20	-30	5 7 10		
	656.70				
Wash MEDIUM tan clean medium coarse SAND	654.20	-35	4 5 10		
	651.70				
		-40	14		

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 2/8/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m, E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-2
Station 483+10
Offset 61.00ft Rt CL
Ground Surface Elev. 690.2 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 683.2 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Wash DENSE tan SANDY GRAVEL (continued)	649.20		22 21		
	646.70				
Wash MEDIUM tan clean medium coarse SAND	644.20	-45	6 10 15		
	641.70				
Wash DENSE tan clean medium coarse SAND	639.20	-50	7 11 22		
	636.70				
Wash VERY DENSE tan SANDY GRAVEL	634.20	-55	51 42 55		
Wash VERY DENSE tan SANDY GRAVEL	631.70		40 63 100/12"		
End of Boring		-60			

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, form 137 (Rev. 8-99)

Existing Sta. 483+58.69 = New Sta. 922+44.69

DESIGNED - ___ CHECKED - ___ DRAWN - ___ CHECKED - ___	EXAMINED [signature] ACTING ENGINEER OF BRIDGE DESIGN PASSED [signature] ACTING ENGINEER OF BRIDGES AND STRUCTURES	DATE - OCTOBER 4, 2013 REVISED ___ REVISED ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.) SHEET NO. 51 OF 55 SHEETS	F.A.P. RTE. 301 | SECTION 3BR & 3BR-1 | COUNTY WINNEBAGO | TOTAL SHEETS 290 | SHEET NO. 150 CONTRACT NO. 64D19 ILLINOIS FED. AID PROJECT

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/1408

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .6 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. – 10 NE SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-3
Station 482+77
Offset 58.00ft Lt CL
Ground Surface Elev. 690.7 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 680.7 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				SOFT brown SANDY LOAM
688.20			0.3 P	17
	5			STIFF dark grey SILTY LOAM with 11RGANICS
	6	1.0	36	
686.70	7	B		
				MEDIUM dark grey SILTY LOAM with 13RGANICS
-5	2			
	2	0.5	49	
684.20	3	B		
	1			SOFT grey SILTY LOAM with SAND with 16RGANICS
	2	0.4	62	
681.20	4	B		
				LOOSE gray dirty SANDY GRAVEL
-10	3			
	3			
679.20	4			
	3			VERY LOOSE gray SANDY GRAVEL
	3			
676.70	1			
				Wash MEDIUM tan clean medium coarse SAND
-15	2			
	5			
674.20	6			
				LOOSE tan clean medium coarse SAND
	3			
	3			
671.70	5			
-20	7			

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Wash MEDIUM tan clean medium coarse SAND (continued)
669.20			8	
			10	
666.70				
-25				MEDIUM tan clean medium coarse SAND
	2			
	5			
664.20	7			
661.70				
-30				Wash MEDIUM tan clean medium coarse SAND
	5			
	6			
659.20	10			
656.70				
-35				Wash MEDIUM tan clean medium coarse SAND with medium GRAVEL
	7			
	11			
654.20	17			
651.70				
-40	10			

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/1408

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .6 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. – 10 NE SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-3
Station 482+77
Offset 58.00ft Lt CL
Ground Surface Elev. 690.7 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 680.7 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				Wash MEDIUM tan clean medium coarse SAND (continued)
649.20	12			
	13			
646.70				
-45				Wash MEDIUM tan clean medium coarse SAND
	5			
	11			
644.20	17			
641.70				
-50	20			Wash DENSE tan SANDY GRAVEL
	17			
639.20	20			
636.70				
-55	38			Wash VERY DENSE tan clean medium coarse SAND with medium GRAVEL
	39			
634.20	37			
				End of Boring
-60				

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, form 137 (Rev. 8-99)

Existing Sta. 483+58.69 = New Sta. 922+44.69

DESIGNED -	EXAMINED	Jayne F. Duffy	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -		ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	151
DRAWN -	PASSED	J. Carl Raney	REVISED		SHEET NO. 52 OF 55 SHEETS			CONTRACT NO. 64D19		
CHECKED -		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/2208

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-4
Station 482+52
Offset 55.00ft Rt CL
Ground Surface Elev. 690.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 683.0 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION
		0.3 P	17	SOFT brown SANDY LOAM
688.00				
	4 4 6	1.4 B	29	STIFF dark gray SILTY CLAY LOAM
686.50				
-5	2 5 7	0.5 P	27	MEDIUM dark gray SANDY LOAM with GRAVEL
683.50 ▼				
	2 2 3			LOOSE tan clean medium coarse SAND
681.50				
-10	2 2 4			LOOSE tan clean medium coarse SAND
679.00				
	1 2 8			LOOSE/MEDIUM tan fine SAND
676.50				
-15	5 6 10			MEDIUM tan fine SAND
674.00				
671.50				
-20	1			MEDIUM tan SANDY GRAVEL
669.00	4 7			MEDIUM tan clean medium coarse SAND (continued)
666.50				
-25	2 6 9			MEDIUM tan clean medium coarse SAND
664.00				
	6 7 11			Wash MEDIUM tan clean medium coarse SAND with medium GRAVEL
661.50				
-30	3 6 10			Wash MEDIUM tan clean medium coarse SAND
659.00				
656.50				
-35	6 12 14			Wash MEDIUM tan clean medium coarse SAND
654.00				
651.50				
-40	7			MEDIUM tan SANDY GRAVEL

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 2/2208

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

COUNTY Winnebago DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-4
Station 482+52
Offset 55.00ft Rt CL
Ground Surface Elev. 690.0 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 683.0 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION
	7 8			MEDIUM tan SANDY GRAVEL (continued)
649.00				
646.50				
-45	19 23 27			DENSE tan SANDY GRAVEL
644.00				
641.50				
-50	10 18 26			Wash DENSE tan clean medium coarse SAND with medium GRAVEL
639.00				
636.50	15 41 60			Wash VERY DENSE tan clean medium coarse SAND with medium GRAVEL
-55	100/11"			Wash VERY DENSE tan SANDY GRAVEL
634.00				End of Boring
-60				

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, form 137 (Rev. 8-99)

Existing Sta. 483+58.69 = New Sta. 922+44.69

DESIGNED -	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
CHECKED -	PASSED	REVISED		SHEET NO. 53 OF 55 SHEETS	301	3BR & 3BR-1	WINNEBAGO	290 / 152
DRAWN -	ACTING ENGINEER OF BRIDGE DESIGN	REVISED					CONTRACT NO. 64D19	
CHECKED -	ACTING ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT	

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 31308

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 over Rock River LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-5
Station 485+30
Offset 5.00ft Rt CL
Ground Surface Elev. 710.5 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 685.5 ft
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION	ELEV.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
				LOOSE brown moist SANDY GRAVEL			3		
							4	1.2	28
					708.00		5	B	
	3			MEDIUM brown SANDY GRAVEL			1		
	6						2	0.5	27
	6				706.00		3	B	
-5						-25			
	3			MEDIUM tan SANDY GRAVEL			1		
	5						3		
	6				704.00		9		
	4			LOOSE tanbrown medium SAND			10		
	4						11		
	5				701.50		13		
-10						-30			
	2			LOOSE brown SAND			5		
	3						3		
	3				699.50		4		
	3			STIFF gray SANDY LOAM			5		
	4	1.9	15				4		
	7	P			696.50		7		
-15						-35			
	8			VERY STIFF gray LOAM with GRAVEL			7		
	11	3.5	11				7		
	14	P			694.00		10		
	9			STIFF gray LOAM			6		
	7	1.5	18				7		
	8	B			691.50		9		
-20						-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, form 137 (Rev. 8-99)

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION	ELEV.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
				STIFF gray LOAM with SILT			3		
							4	1.2	28
					689.00		5	B	
				MEDIUM gray SILTY LOAM			1		
							2	0.5	27
					686.00		3	B	
						-25			
				MEDIUM gray dirty SAND			1		
							3		
					684.00		9		
				MEDIUM tangray SANDY GRAVEL			10		
							11		
					681.50		13		
						-30			
				LOOSE tan SANDY GRAVEL			5		
							3		
					679.00		4		
				MEDIUM gray clean medium coarse SAND			5		
							4		
					676.50		7		
						-35			
				Wash MEDIUM gray clean medium coarse SAND with medium GRAVEL			7		
							7		
					674.00		10		
				MEDIUM gray clean medium coarse SAND			6		
							7		
					671.50		9		
						-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, form 137 (Rev. 8-99)

Date 31308

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 over Rock River LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-5
Station 485+30
Offset 5.00ft Rt CL
Ground Surface Elev. 710.5 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 65.0 ft

Groundwater Elev.:
First Encounter 685.5 ft
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION	ELEV.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
				MEDIUM gray clean medium coarse SAND			8		
							9		
					669.00		12		
				Wash DENSE tan fine SAND			13		
							17		
					656.50		17		
						-45			
				Wash MEDIUM tan clean medium coarse SAND			9		
							9		
					664.00		11		
					661.50				
						-50			
				Wash DENSE tan clean medium coarse SAND			3		
							14		
					659.00		19		
					656.50				
						-55			
				Wash DENSE tan clean medium coarse SAND			11		
							19		
					654.00		20		
					651.50				
						-60			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DESCRIPTION	ELEV.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
				Wash DENSE tan clean medium coarse SAND with medium GRAVEL			13		
							20		
					649.00		19		
						-65			
				Wash DENSE tan clean medium coarse SAND			13		
							19		
					644.00		27		
				Wash MEDIUM tan clean medium coarse SAND			7		
							13		
					641.50		16		
				End of Boring		-70			
						-75			
						-80			

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, form 137 (Rev. 8-99)

Existing Sta. 483+58.69 = New Sta. 922+44.69

DESIGNED - ___	EXAMINED Joyce F. Taliaferro	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
CHECKED - ___	ACTING ENGINEER OF BRIDGE DESIGN		
DRAWN - ___	PASSED Carl Puzey	REVISED ___	
CHECKED - ___	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED ___	

SOIL BORING LOGS
STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.)
SHEET NO. 54 OF 55 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	153
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 31408

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .5 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-6
Station 481+83
Offset 8.00ft Lt CL
Ground Surface Elev. 712.0 ft

Surface Water Elev. ft
Stream Bed Elev. 65.5 ft

Groundwater Elev.:
First Encountor 689.5 ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
				LOOSE brown SANDY GRAVEL
709.50				
	3			MEDIUM brown SANDY GRAVEL
	5			
708.00	7			
-5				
	4			LOOSE brown SANDY GRAVEL
	4			
705.00	4			
	2			MEDIUM gray SANDY LOAM
	2	0.6	13	
703.00	4	P		
-10				
	2			MEDIUM gray SILTY CLAY LOAM with fine SAND lens
	3	0.8	21	
700.00	5	B		
	9			DENSE tan SANDY GRAVEL
	14			
698.00	19			
-15				
	14			DENSE tan SANDY GRAVEL
	19			
695.50	24			
	15			VERY DENSE tan SANDY GRAVEL
	23			
693.00	33			
-20				
690.50	17			DENSE tan SANDY GRAVEL
	24			
	24			
	6			MEDIUM tan fine SAND
	7			
688.00	12			
-25				
	7			MEDIUM tan clean medium coarse SAND with medium GRAVEL
	11			
685.50	12			
	6			MEDIUM tan clean medium coarse SAND
	7			
683.00	7			
-30				
	10			Wash
	7			MEDIUM tan clean medium coarse SAND
680.50	8			
	3			MEDIUM tan clean medium coarse SAND
	5			
678.00	7			
-35				
	5			Wash
	7			MEDIUM tan fine SAND
675.50	8			
	9			Wash
	10			MEDIUM tan fine SAND
673.00	13			
-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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 31408

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US Bypass 20 Bridge over Rock River Channel, .6 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 10 NE, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0057 & 0058
Station 483+55

BORING NO. B-6
Station 481+83
Offset 8.00ft Lt CL
Ground Surface Elev. 712.0 ft

Surface Water Elev. ft
Stream Bed Elev. 65.5 ft

Groundwater Elev.:
First Encountor 689.5 ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
	10			MEDIUM tan clean medium coarse SAND
	11			
670.50	12			
668.00				
-45				
	10			Wash
	15			DENSE tan clean medium coarse SAND
665.50	20			
663.00				
-60				
	7			Wash
	11			MEDIUM tan clean medium coarse SAND
660.50	16			
658.00				
-55				
	12			Wash
	18			VERY DENSE tan SANDY GRAVEL
655.50	38			
653.00				
-60				
	8			DENSE tan clean medium coarse SAND
	14			
650.50	26			
648.00				
-65				
	9			Wash
	13			DENSE tan clean medium coarse SAND
645.50	20			
				End of Boring
-70				
-75				
-80				

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, form 137 (Rev. 8-99)

Existing Sta. 483+58.69 = New Sta. 922+44.69

DESIGNED -	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 101-0195 (E.B.) & 101-0196 (W.B.) SHEET NO. 55 OF 55 SHEETS	F.A.P. RTE. 301 · SECTION 3BR & 3BR-1 · COUNTY WINNEBAGO · TOTAL SHEETS 290 · SHEET NO. 154
CHECKED -	PASSED	REVISED			CONTRACT NO. 64D19
DRAWN -	ACTING ENGINEER OF BRIDGE DESIGN	REVISED			ILLINOIS FED. AID PROJECT
CHECKED -	ACTING ENGINEER OF BRIDGES AND STRUCTURES				

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$" ϕ. holes $\frac{15}{16}$" ϕ. unless otherwise noted.

Calculated weight of Structural Steel = 2,797,340 lbs (M 270 Gr. 50).

Calculated weight of Structural Steel = 101,840 lbs (M 270 Gr. 36).

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior 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 girder at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the 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 abutment seat areas, front faces of backwalls and hatchblocks.

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 of the exterior surface and the bottom of the bottom flange of fascia beams, 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.

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

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1) At least 72 hours shall have elapsed from the end of the previous pour.
2) The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

Seal coat thickness design is based on the Cofferdam Design Water Elevation (CDWE). ⚠1 Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

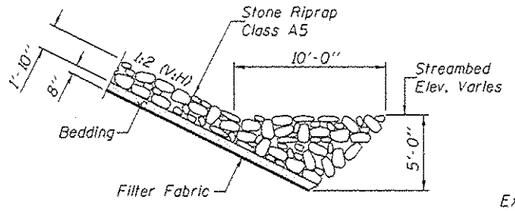
Slipforming of parapet is not allowed.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

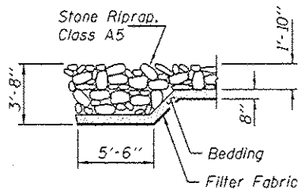
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Granular Backfill for Structures	Cu. Yd.		624	624
Stone Riprap, Class A5	Sq. Yd.		1665	1665
Filter Fabric	Sq. Yd.		1665	1665
Removal of Existing Structures No. 3	Each			1
Removal of Existing Structures No. 4	Each			1
Structure Excavation	Cu. Yd.		660	660
Cofferdam (Type 2), Location 2	Each		1	1
Cofferdam Excavation	Cu. Yd.		989	989
Concrete Structures	Cu. Yd.		1148	1148
Concrete Superstructure	Cu. Yd.	1541.9		1541.9
Bridge Deck Grooving	Sq. Yd.	4374		4374
Seal Coat Concrete	Cu. Yd.		314.2	314.2
Protective Coat	Sq. Yd.	5617		5617
Furnishing and Erecting Structural Steel	L. Sum	0.54		0.54
Stud Shear Connectors	Each	10944		10944
Reinforcement Bars, Epoxy Coated	Pound	393730	139280	533010
Bar Splicers	Each		172	172
Furnishing Metal Shell Piles 14"x .312"	Foot		10738	10738
Test Pile Metal Shells	Each		6	6
Driving Piles	Foot		10738	10738
Pile Shoes	Each		244	244
Temporary Soil Retention System	Sq. Ft.		1266	1266
Name Plates	Each	2		2
Preformed Joint Strip Seal	Foot	176		176
Elastomeric Bearing Assembly, Type II	Each	24		24
Anchor Bolts, 1"	Each		48	48
Anchor Bolts, 1½"	Each		24	24
Concrete Sealer	Sq. Ft.		3576	3576
Geocomposite Wall Drain	Sq. Yd.		242	242
Pipe Underdrains for Structures, 4"	Foot		310	310
Drainage Scupper, DS-11	Each	8		8
Form Liner Textured Surface	Sq. Ft.	6431	4602	11033
Staining Concrete Structures	Sq. Ft.	6431	4602	11033

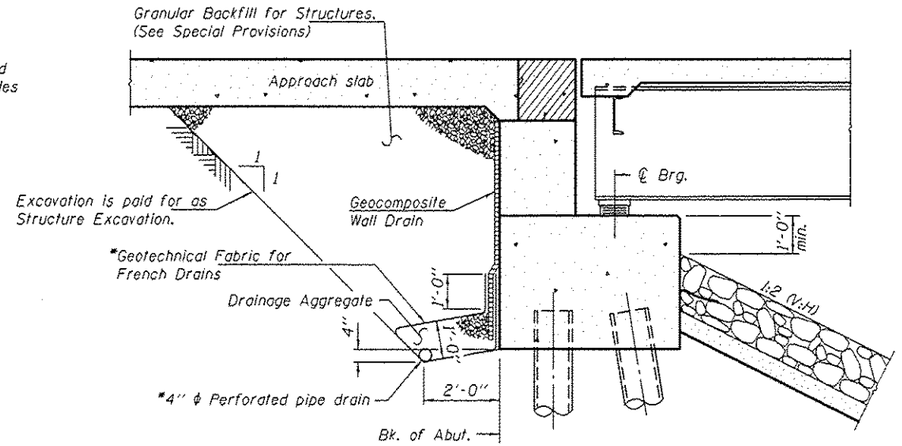
INDEX OF SHEETS



SECTION B-B



SECTION A-A



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

WATERWAY INFORMATION

Drainage Area = 6532.87 sq. mi.

Existing Low Grade Elev. = 708.59 ft @ Sta. 491+52
Proposed Low Grade Elev. = 710.4 ft @ Sta. 930+62

Flood		Discharge (cfs)		Waterway Opening (Sq.Ft.)		Natural	Head (ft.)		Headwater Elev.	
		Existing	Proposed	Existing	Proposed	H.W.E.	Existing	Proposed	Existing	Proposed
10-YR	Main Channel	18052	15916	4353	4720					
	Relief Struc.	7473	9609	2143	2850					
	Total	25525	25525			696.3	0.2	0.1	696.5	696.4
50-YR (Design)	Main Channel	23661	20859	5060	5513					
	Relief Struc.	10464	13266	2629	3507					
	Total	34125	34125			698.2	0.3	0.2	698.5	698.4
100-YR	Main Channel	25971	22895	5335	5822					
	Relief Struc.	11719	14795	2819	3764					
	Total	37690	37690			699.0	0.3	0.2	699.3	699.2
Overtopping	Main Channel									
	Relief Struc.									
	Total									
500-YR	Main Channel	30162	27412	5911	6465					
	Relief Struc.	15463	18213	3220	4299					
	Total	45625	45625			700.5	0.4	0.2	700.9	700.7

10 Year Velocity through Existing Bridge = 4.15 fps

10 Year Velocity through Proposed Bridge = 3.37 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)			
	W. Abut.	Pier	E. Abut.
0500	698.41	674.30	700.52

SECTION THRU PILE SUPPORTED STUB ABUTMENT

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).

Geocomposite wall drains and 4" ϕ pipe underdrains shall be extended behind the entire abutment cap.

DESIGNED	-	Nick R. Barnett	
CHECKED	-	Frank W. Sharpe	
DRAWN	-	h.t. duong	
CHECKED	-	NRB/FWS/GRA	

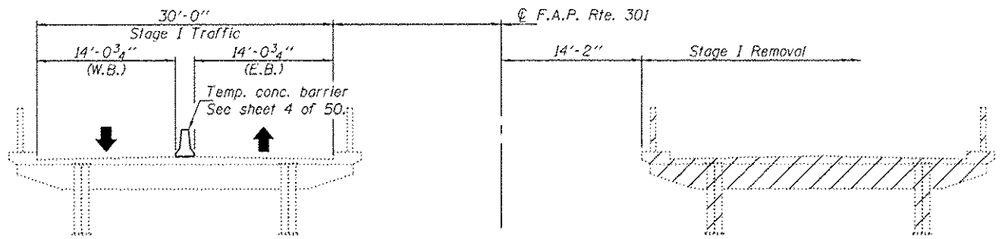
EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN
PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 4, 2013
REVISED ⚠1 10/21/2013 NRB
REVISED

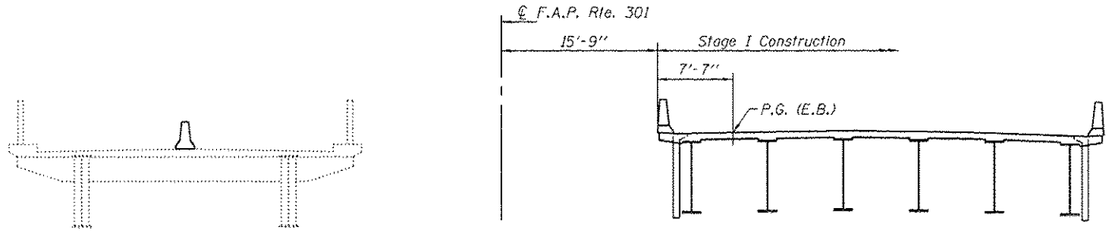
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 2 OF 50 SHEETS

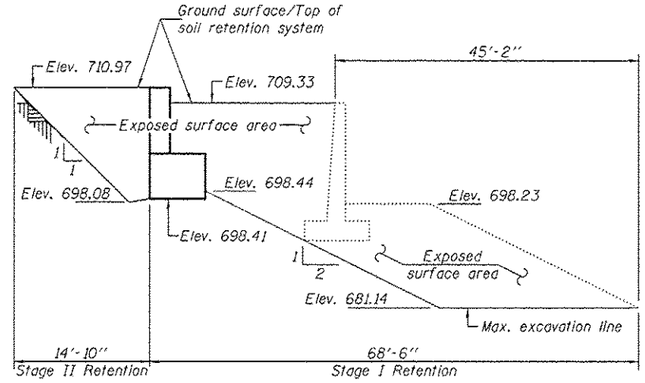
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	177
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



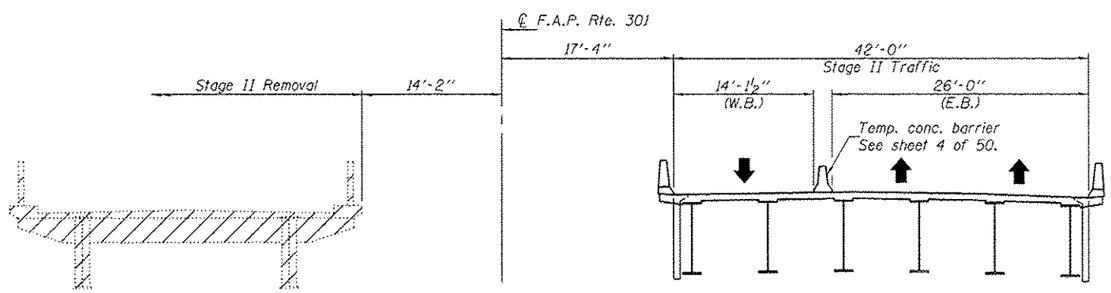
STAGE I REMOVAL



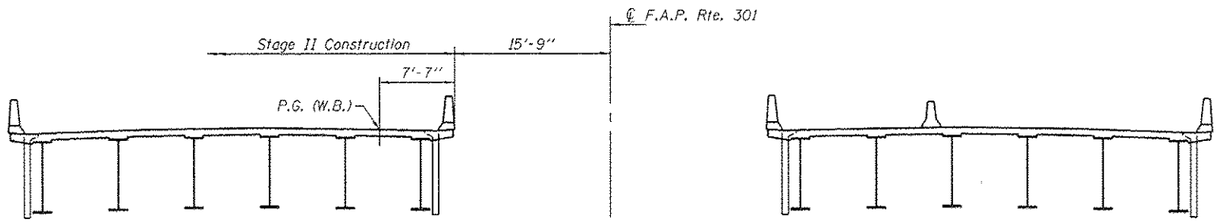
STAGE I CONSTRUCTION



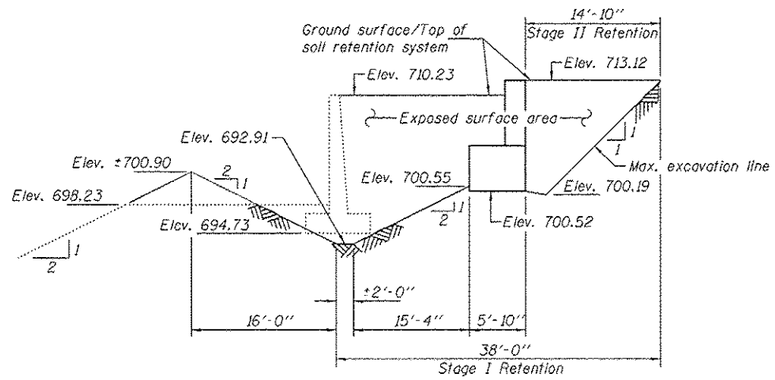
TEMPORARY SOIL RETENTION SYSTEM - WEST ABUT.



STAGE II REMOVAL



STAGE II CONSTRUCTION



TEMPORARY SOIL RETENTION SYSTEM - EAST ABUT.

Note: A cantilevered sheet piling design does not appear feasible and additional members or other retention systems 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.

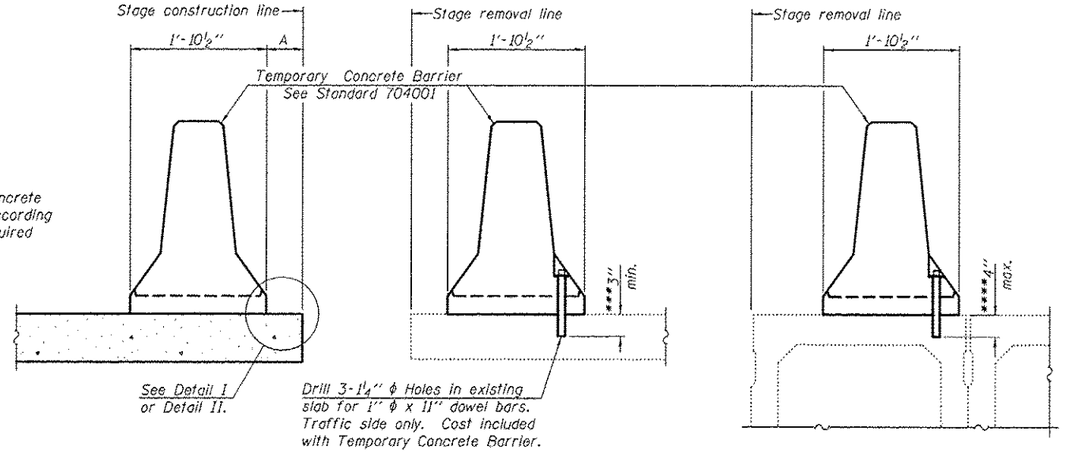
Notes: All sections are looking east.
Hatched area indicates removal of existing superstructure.
For quantity of temporary concrete barrier, see Roadway Plans.

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe			
DRAWN - h.t. duong	PASSED	REVISED —	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —	

STAGE CONSTRUCTION & TEMP. SOIL RETENTION SYSTEM DETAILS
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 3 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	178
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

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".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel ℄ to the top layer of couplers with 2-$\frac{5}{8}$" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℄ to the concrete slab or concrete wearing surface with 2-$\frac{5}{8}$" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

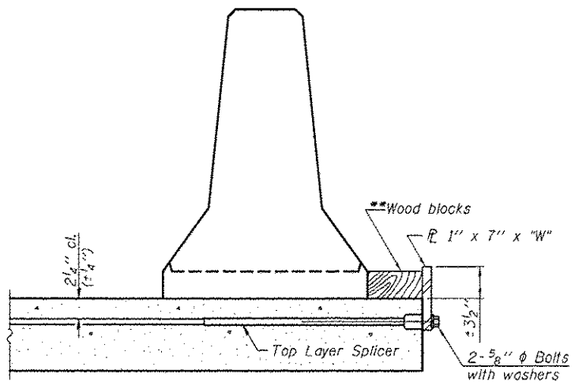
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x "W" 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.

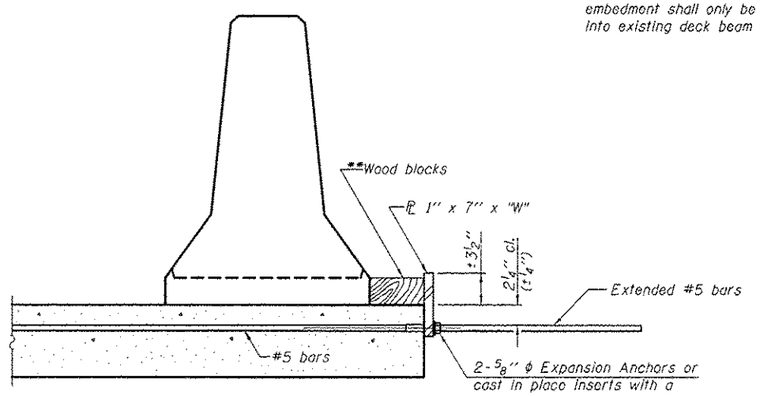
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

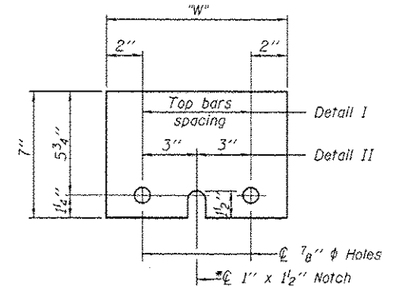
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℄ 1" x 7" x "W"

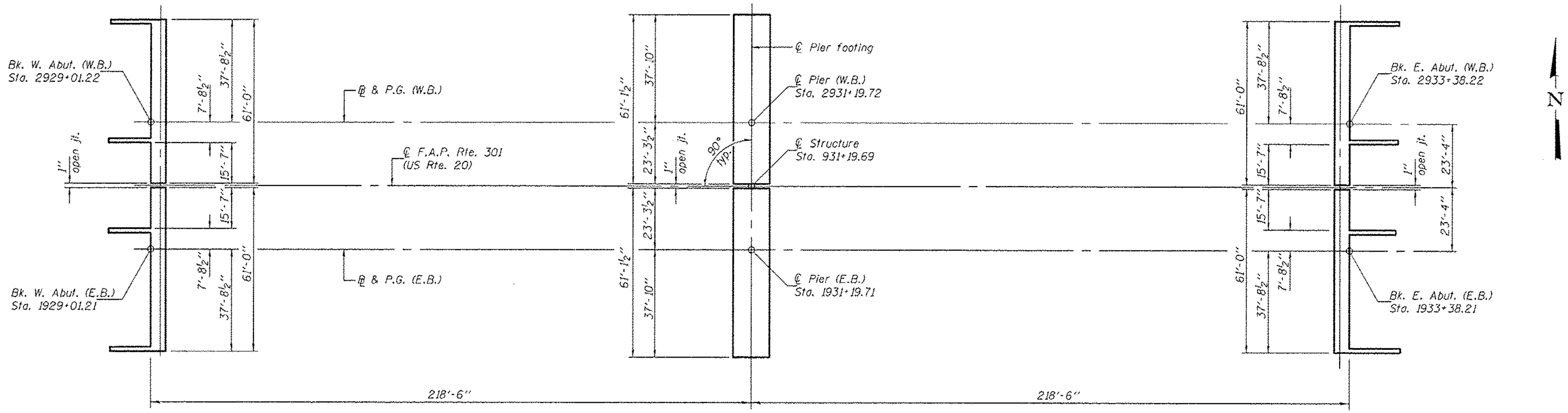
* Required only with Detail II

** 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.

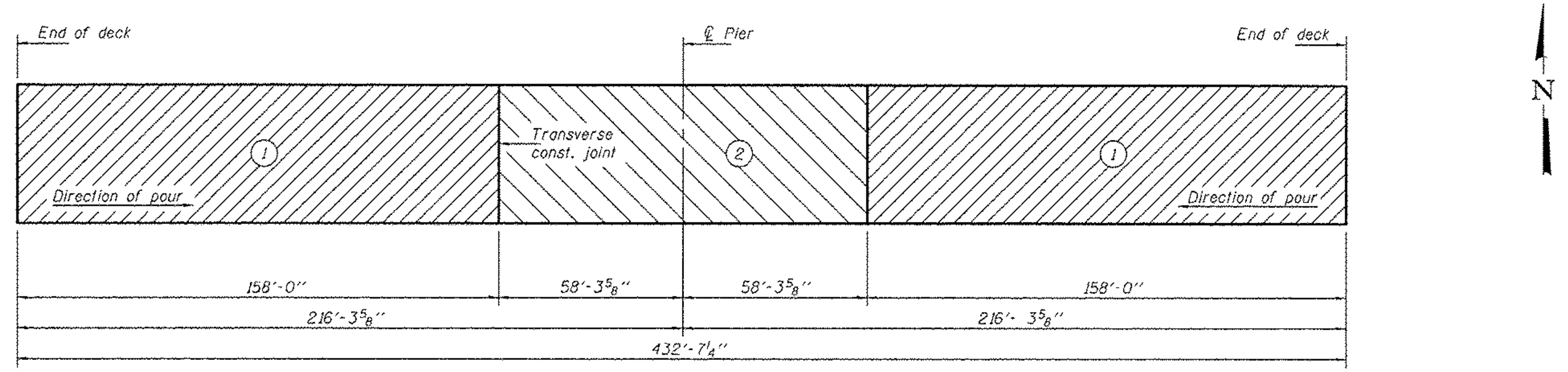
"W" = Top bars spacing + 4"

R-27 7-1-10

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe					301	3BR & 3BR-1	WINNEBAGO	290	179
DRAWN - h.t. duong	PASSED	REVISED —						CONTRACT NO. 64D19	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —		SHEET NO. 4 OF 50 SHEETS			ILLINOIS	FED. AID PROJECT	



FOOTING LAYOUT



DECK POURING SEQUENCE

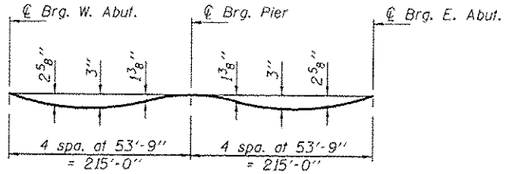
DESIGNED - Nick R. Barnett	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013
CHECKED - Frank W. Sharpe			
DRAWN - h.t. duong	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —
CHECKED - NRB/FWS/CRA			REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOOTING LAYOUT
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)

SHEET NO. 5 OF 50 SHEETS

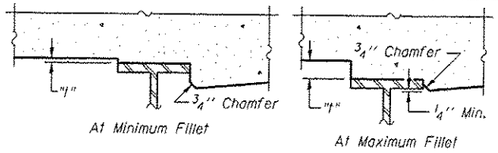
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	180
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

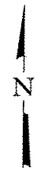
(Includes weight of concrete only.)

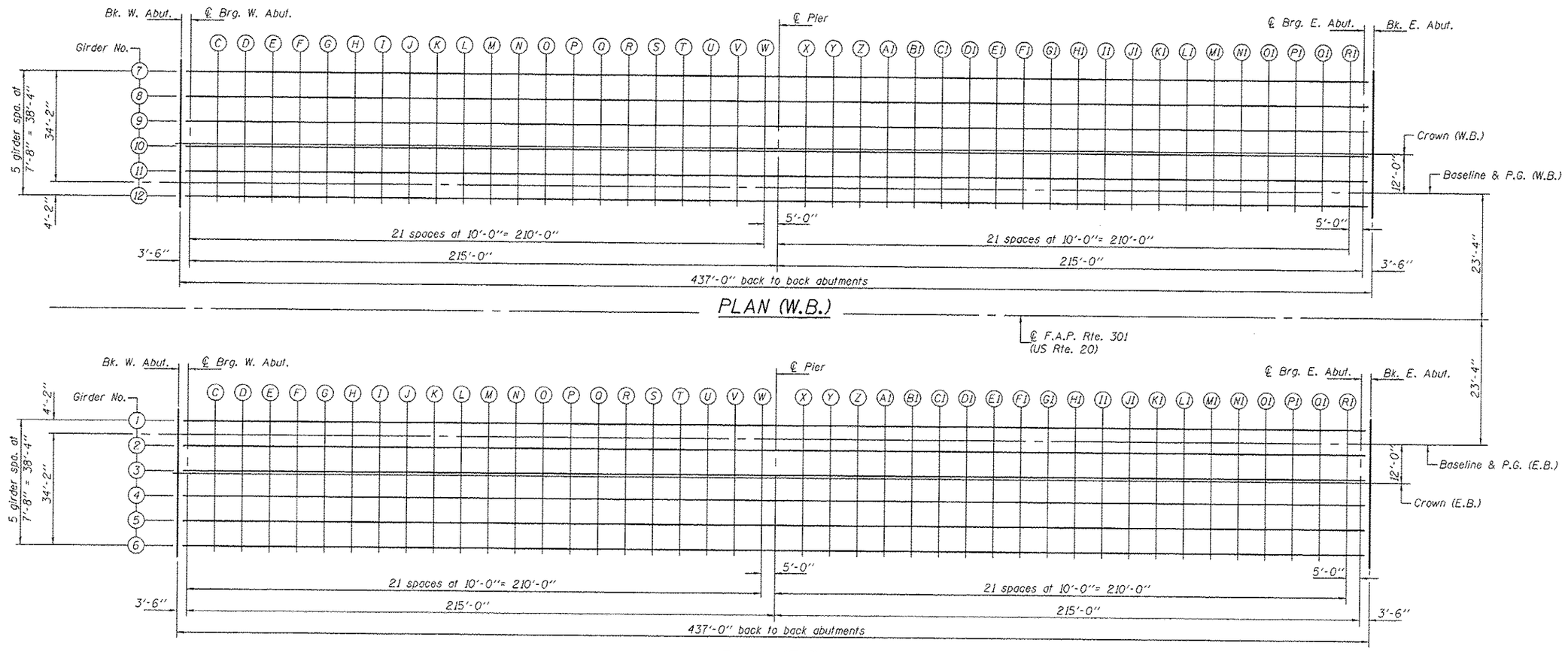
Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 7 thru 12 of 50.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 7 thru 12 of 50, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS





DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED —	TOP OF SLAB ELEVATIONS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —	SHEET NO. 6 OF 50 SHEETS
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	181
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	-4.17	710.89	710.89
℄ Brg. W. Abut.	192904.71	-4.17	710.91	710.91
C	192914.71	-4.17	710.95	711.00
D	192924.71	-4.17	711.00	711.09
E	192934.71	-4.17	711.05	711.18
F	192944.71	-4.17	711.10	711.27
G	192954.71	-4.17	711.15	711.35
H	192964.71	-4.17	711.20	711.42
I	192974.71	-4.17	711.25	711.48
J	192984.71	-4.17	711.30	711.53
K	192994.71	-4.17	711.35	711.59
L	193004.71	-4.17	711.40	711.64
M	193014.71	-4.17	711.44	711.69
N	193024.71	-4.17	711.49	711.71
O	193034.71	-4.17	711.54	711.73
P	193044.71	-4.17	711.59	711.76
Q	193054.71	-4.17	711.64	711.78
R	193064.71	-4.17	711.69	711.80
S	193074.71	-4.17	711.74	711.83
T	193084.71	-4.17	711.79	711.86
U	193094.71	-4.17	711.84	711.89
V	193104.71	-4.17	711.89	711.92
W	193114.71	-4.17	711.93	711.94
℄ Pier	193119.71	-4.17	711.96	711.96
X	193129.71	-4.17	712.01	712.03
Y	193139.71	-4.17	712.06	712.10
Z	193149.71	-4.17	712.11	712.17
A1	193159.71	-4.17	712.15	712.24
B1	193169.71	-4.17	712.20	712.31
C1	193179.71	-4.17	712.25	712.38
D1	193189.71	-4.17	712.30	712.45
E1	193199.71	-4.17	712.35	712.53
F1	193209.71	-4.17	712.40	712.60
G1	193219.71	-4.17	712.45	712.68
H1	193229.71	-4.17	712.50	712.75
I1	193239.71	-4.17	712.55	712.79
J1	193249.71	-4.17	712.60	712.83
K1	193259.71	-4.17	712.64	712.88
L1	193269.71	-4.17	712.69	712.92
M1	193279.71	-4.17	712.74	712.96
N1	193289.71	-4.17	712.79	712.98
O1	193299.71	-4.17	712.84	712.98
P1	193309.71	-4.17	712.89	712.99
Q1	193319.71	-4.17	712.94	713.00
R1	193329.71	-4.17	712.99	713.01
℄ Brg. E. Abut.	193334.71	-4.17	713.01	713.01
Bk. E. Abut.	193338.21	-4.17	713.03	713.03

BASELINE & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	0.00	710.97	710.97
℄ Brg. W. Abut.	192904.71	0.00	710.99	710.99
C	192914.71	0.00	711.04	711.08
D	192924.71	0.00	711.09	711.17
E	192934.71	0.00	711.14	711.26
F	192944.71	0.00	711.19	711.35
G	192954.71	0.00	711.24	711.44
H	192964.71	0.00	711.29	711.51
I	192974.71	0.00	711.33	711.56
J	192984.71	0.00	711.38	711.62
K	192994.71	0.00	711.43	711.67
L	193004.71	0.00	711.48	711.73
M	193014.71	0.00	711.53	711.77
N	193024.71	0.00	711.58	711.8
O	193034.71	0.00	711.63	711.82
P	193044.71	0.00	711.68	711.84
Q	193054.71	0.00	711.73	711.87
R	193064.71	0.00	711.78	711.89
S	193074.71	0.00	711.82	711.92
T	193084.71	0.00	711.87	711.95
U	193094.71	0.00	711.92	711.97
V	193104.71	0.00	711.97	712.00
W	193114.71	0.00	712.02	712.03
℄ Pier	193119.71	0.00	712.05	712.05
X	193129.71	0.00	712.09	712.11
Y	193139.71	0.00	712.14	712.18
Z	193149.71	0.00	712.19	712.25
A1	193159.71	0.00	712.24	712.32
B1	193169.71	0.00	712.29	712.39
C1	193179.71	0.00	712.34	712.47
D1	193189.71	0.00	712.39	712.54
E1	193199.71	0.00	712.44	712.62
F1	193209.71	0.00	712.49	712.69
G1	193219.71	0.00	712.54	712.77
H1	193229.71	0.00	712.58	712.83
I1	193239.71	0.00	712.63	712.88
J1	193249.71	0.00	712.68	712.92
K1	193259.71	0.00	712.73	712.96
L1	193269.71	0.00	712.78	713.01
M1	193279.71	0.00	712.83	713.05
N1	193289.71	0.00	712.88	713.06
O1	193299.71	0.00	712.93	713.07
P1	193309.71	0.00	712.98	713.08
Q1	193319.71	0.00	713.03	713.09
R1	193329.71	0.00	713.07	713.09
℄ Brg. E. Abut.	193334.71	0.00	713.10	713.10
Bk. E. Abut.	193338.21	0.00	713.12	713.12

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	3.50	711.03	711.03
℄ Brg. W. Abut.	192904.71	3.50	711.05	711.05
C	192914.71	3.50	711.10	711.14
D	192924.71	3.50	711.14	711.23
E	192934.71	3.50	711.19	711.32
F	192944.71	3.50	711.24	711.41
G	192954.71	3.50	711.29	711.50
H	192964.71	3.50	711.34	711.56
I	192974.71	3.50	711.39	711.62
J	192984.71	3.50	711.44	711.67
K	192994.71	3.50	711.49	711.73
L	193004.71	3.50	711.54	711.78
M	193014.71	3.50	711.59	711.83
N	193024.71	3.50	711.63	711.85
O	193034.71	3.50	711.68	711.87
P	193044.71	3.50	711.73	711.90
Q	193054.71	3.50	711.78	711.92
R	193064.71	3.50	711.83	711.94
S	193074.71	3.50	711.88	711.97
T	193084.71	3.50	711.93	712.00
U	193094.71	3.50	711.98	712.03
V	193104.71	3.50	712.03	712.06
W	193114.71	3.50	712.08	712.09
℄ Pier	193119.71	3.50	712.10	712.10
X	193129.71	3.50	712.15	712.17
Y	193139.71	3.50	712.20	712.24
Z	193149.71	3.50	712.25	712.31
A1	193159.71	3.50	712.30	712.38
B1	193169.71	3.50	712.35	712.45
C1	193179.71	3.50	712.39	712.52
D1	193189.71	3.50	712.44	712.59
E1	193199.71	3.50	712.49	712.67
F1	193209.71	3.50	712.54	712.75
G1	193219.71	3.50	712.59	712.82
H1	193229.71	3.50	712.64	712.89
I1	193239.71	3.50	712.69	712.93
J1	193249.71	3.50	712.74	712.97
K1	193259.71	3.50	712.79	713.02
L1	193269.71	3.50	712.84	713.06
M1	193279.71	3.50	712.88	713.10
N1	193289.71	3.50	712.93	713.12
O1	193299.71	3.50	712.98	713.13
P1	193309.71	3.50	713.03	713.13
Q1	193319.71	3.50	713.08	713.14
R1	193329.71	3.50	713.13	713.15
℄ Brg. E. Abut.	193334.71	3.50	713.15	713.15
Bk. E. Abut.	193338.21	3.50	713.17	713.17

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

TOP OF SLAB ELEVATIONS (E.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 7 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	182
		CONTRACT NO. 64D19		
	ILLINOIS	FED. AID PROJECT		

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	11.17	711.15	711.15
℄ Brg. W. Abut.	192904.71	11.17	711.17	711.17
C	192914.71	11.17	711.22	711.26
D	192924.71	11.17	711.26	711.35
E	192934.71	11.17	711.31	711.44
F	192944.71	11.17	711.36	711.53
G	192954.71	11.17	711.41	711.62
H	192964.71	11.17	711.46	711.68
I	192974.71	11.17	711.51	711.74
J	192984.71	11.17	711.56	711.79
K	192994.71	11.17	711.61	711.85
L	193004.71	11.17	711.66	711.90
M	193014.71	11.17	711.71	711.95
N	193024.71	11.17	711.75	711.97
O	193034.71	11.17	711.80	711.99
P	193044.71	11.17	711.85	712.02
Q	193054.71	11.17	711.90	712.04
R	193064.71	11.17	711.95	712.06
S	193074.71	11.17	712.00	712.09
T	193084.71	11.17	712.05	712.12
U	193094.71	11.17	712.10	712.15
V	193104.71	11.17	712.15	712.18
W	193114.71	11.17	712.20	712.21
℄ Pier	193119.71	11.17	712.22	712.22
X	193129.71	11.17	712.27	712.29
Y	193139.71	11.17	712.32	712.36
Z	193149.71	11.17	712.37	712.43
A1	193159.71	11.17	712.42	712.50
B1	193169.71	11.17	712.46	712.57
C1	193179.71	11.17	712.51	712.64
D1	193189.71	11.17	712.56	712.71
E1	193199.71	11.17	712.61	712.79
F1	193209.71	11.17	712.66	712.86
G1	193219.71	11.17	712.71	712.94
H1	193229.71	11.17	712.76	713.01
I1	193239.71	11.17	712.81	713.05
J1	193249.71	11.17	712.86	713.09
K1	193259.71	11.17	712.91	713.14
L1	193269.71	11.17	712.95	713.18
M1	193279.71	11.17	713.00	713.22
N1	193289.71	11.17	713.05	713.24
O1	193299.71	11.17	713.10	713.24
P1	193309.71	11.17	713.15	713.25
Q1	193319.71	11.17	713.20	713.26
R1	193329.71	11.17	713.25	713.27
℄ Brg. E. Abut.	193334.71	11.17	713.27	713.27
Bk. E. Abut.	193338.21	11.17	713.29	713.29

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	12.00	711.16	711.16
℄ Brg. W. Abut.	192904.71	12.00	711.18	711.18
C	192914.71	12.00	711.23	711.27
D	192924.71	12.00	711.28	711.36
E	192934.71	12.00	711.33	711.45
F	192944.71	12.00	711.38	711.54
G	192954.71	12.00	711.42	711.63
H	192964.71	12.00	711.47	711.70
I	192974.71	12.00	711.52	711.75
J	192984.71	12.00	711.57	711.81
K	192994.71	12.00	711.62	711.86
L	193004.71	12.00	711.67	711.91
M	193014.71	12.00	711.72	711.96
N	193024.71	12.00	711.77	711.98
O	193034.71	12.00	711.82	712.01
P	193044.71	12.00	711.87	712.03
Q	193054.71	12.00	711.91	712.05
R	193064.71	12.00	711.96	712.08
S	193074.71	12.00	712.01	712.10
T	193084.71	12.00	712.06	712.13
U	193094.71	12.00	712.11	712.16
V	193104.71	12.00	712.16	712.19
W	193114.71	12.00	712.21	712.22
℄ Pier	193119.71	12.00	712.23	712.23
X	193129.71	12.00	712.28	712.30
Y	193139.71	12.00	712.33	712.37
Z	193149.71	12.00	712.38	712.44
A1	193159.71	12.00	712.43	712.51
B1	193169.71	12.00	712.48	712.58
C1	193179.71	12.00	712.53	712.65
D1	193189.71	12.00	712.58	712.73
E1	193199.71	12.00	712.62	712.80
F1	193209.71	12.00	712.67	712.88
G1	193219.71	12.00	712.72	712.95
H1	193229.71	12.00	712.77	713.02
I1	193239.71	12.00	712.82	713.06
J1	193249.71	12.00	712.87	713.11
K1	193259.71	12.00	712.92	713.15
L1	193269.71	12.00	712.97	713.19
M1	193279.71	12.00	713.02	713.24
N1	193289.71	12.00	713.07	713.25
O1	193299.71	12.00	713.11	713.26
P1	193309.71	12.00	713.16	713.27
Q1	193319.71	12.00	713.21	713.27
R1	193329.71	12.00	713.26	713.28
℄ Brg. E. Abut.	193334.71	12.00	713.29	713.29
Bk. E. Abut.	193338.21	12.00	713.30	713.30

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	18.83	711.06	711.06
℄ Brg. W. Abut.	192904.71	18.83	711.07	711.07
C	192914.71	18.83	711.12	711.16
D	192924.71	18.83	711.17	711.25
E	192934.71	18.83	711.22	711.34
F	192944.71	18.83	711.27	711.43
G	192954.71	18.83	711.32	711.52
H	192964.71	18.83	711.37	711.59
I	192974.71	18.83	711.42	711.64
J	192984.71	18.83	711.46	711.70
K	192994.71	18.83	711.51	711.75
L	193004.71	18.83	711.56	711.81
M	193014.71	18.83	711.61	711.86
N	193024.71	18.83	711.66	711.88
O	193034.71	18.83	711.71	711.9
P	193044.71	18.83	711.76	711.92
Q	193054.71	18.83	711.81	711.95
R	193064.71	18.83	711.86	711.97
S	193074.71	18.83	711.91	712.00
T	193084.71	18.83	711.95	712.03
U	193094.71	18.83	712.00	712.05
V	193104.71	18.83	712.05	712.08
W	193114.71	18.83	712.10	712.11
℄ Pier	193119.71	18.83	712.13	712.13
X	193129.71	18.83	712.18	712.20
Y	193139.71	18.83	712.22	712.26
Z	193149.71	18.83	712.27	712.33
A1	193159.71	18.83	712.32	712.40
B1	193169.71	18.83	712.37	712.47
C1	193179.71	18.83	712.42	712.55
D1	193189.71	18.83	712.47	712.62
E1	193199.71	18.83	712.52	712.70
F1	193209.71	18.83	712.57	712.77
G1	193219.71	18.83	712.62	712.85
H1	193229.71	18.83	712.67	712.91
I1	193239.71	18.83	712.71	712.96
J1	193249.71	18.83	712.76	713.00
K1	193259.71	18.83	712.81	713.04
L1	193269.71	18.83	712.86	713.09
M1	193279.71	18.83	712.91	713.13
N1	193289.71	18.83	712.96	713.14
O1	193299.71	18.83	713.01	713.15
P1	193309.71	18.83	713.06	713.16
Q1	193319.71	18.83	713.11	713.17
R1	193329.71	18.83	713.16	713.18
℄ Brg. E. Abut.	193334.71	18.83	713.18	713.18
Bk. E. Abut.	193338.21	18.83	713.20	713.20

DESIGNED - Nick R. Barnett
CHECKED - Frank W. Sharpe
DRAWN - h.t. duong
CHECKED - NRB/FWS/GRA

EXAMINED
ACTING ENGINEER OF BRIDGE DESIGN
PASSED
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 4, 2013
REVISED —
REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (E.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 8 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	183
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	26.50	710.92	710.92
℄ Brg. W. Abut.	192904.71	26.50	710.94	710.94
C	192914.71	26.50	710.99	711.03
D	192924.71	26.50	711.04	711.12
E	192934.71	26.50	711.09	711.21
F	192944.71	26.50	711.14	711.30
G	192954.71	26.50	711.18	711.39
H	192964.71	26.50	711.23	711.46
I	192974.71	26.50	711.28	711.51
J	192984.71	26.50	711.33	711.57
K	192994.71	26.50	711.38	711.62
L	193004.71	26.50	711.43	711.68
M	193014.71	26.50	711.48	711.72
N	193024.71	26.50	711.53	711.75
O	193034.71	26.50	711.58	711.77
P	193044.71	26.50	711.63	711.79
Q	193054.71	26.50	711.67	711.81
R	193064.71	26.50	711.72	711.84
S	193074.71	26.50	711.77	711.86
T	193084.71	26.50	711.82	711.89
U	193094.71	26.50	711.87	711.92
V	193104.71	26.50	711.92	711.95
W	193114.71	26.50	711.97	711.98
℄ Pier	193119.71	26.50	711.99	711.99
X	193129.71	26.50	712.04	712.06
Y	193139.71	26.50	712.09	712.13
Z	193149.71	26.50	712.14	712.20
A1	193159.71	26.50	712.19	712.27
B1	193169.71	26.50	712.24	712.34
C1	193179.71	26.50	712.29	712.41
D1	193189.71	26.50	712.34	712.49
E1	193199.71	26.50	712.39	712.56
F1	193209.71	26.50	712.43	712.64
G1	193219.71	26.50	712.48	712.71
H1	193229.71	26.50	712.53	712.78
I1	193239.71	26.50	712.58	712.82
J1	193249.71	26.50	712.63	712.87
K1	193259.71	26.50	712.68	712.91
L1	193269.71	26.50	712.73	712.95
M1	193279.71	26.50	712.78	713.00
N1	193289.71	26.50	712.83	713.01
O1	193299.71	26.50	712.88	713.02
P1	193309.71	26.50	712.92	713.03
Q1	193319.71	26.50	712.97	713.03
R1	193329.71	26.50	713.02	713.04
℄ Brg. E. Abut.	193334.71	26.50	713.05	713.05
Bk. E. Abut.	193338.21	26.50	713.06	713.06

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	192901.21	34.17	710.76	710.76
℄ Brg. W. Abut.	192904.71	34.17	710.78	710.78
C	192914.71	34.17	710.83	710.87
D	192924.71	34.17	710.88	710.96
E	192934.71	34.17	710.93	711.05
F	192944.71	34.17	710.98	711.14
G	192954.71	34.17	711.03	711.23
H	192964.71	34.17	711.07	711.30
I	192974.71	34.17	711.12	711.35
J	192984.71	34.17	711.17	711.41
K	192994.71	34.17	711.22	711.46
L	193004.71	34.17	711.27	711.52
M	193014.71	34.17	711.32	711.56
N	193024.71	34.17	711.37	711.59
O	193034.71	34.17	711.42	711.61
P	193044.71	34.17	711.47	711.63
Q	193054.71	34.17	711.52	711.65
R	193064.71	34.17	711.56	711.68
S	193074.71	34.17	711.61	711.70
T	193084.71	34.17	711.66	711.73
U	193094.71	34.17	711.71	711.76
V	193104.71	34.17	711.76	711.79
W	193114.71	34.17	711.81	711.82
℄ Pier	193119.71	34.17	711.83	711.83
X	193129.71	34.17	711.88	711.90
Y	193139.71	34.17	711.93	711.97
Z	193149.71	34.17	711.98	712.04
A1	193159.71	34.17	712.03	712.11
B1	193169.71	34.17	712.08	712.18
C1	193179.71	34.17	712.13	712.25
D1	193189.71	34.17	712.18	712.33
E1	193199.71	34.17	712.23	712.40
F1	193209.71	34.17	712.28	712.48
G1	193219.71	34.17	712.32	712.55
H1	193229.71	34.17	712.37	712.62
I1	193239.71	34.17	712.42	712.67
J1	193249.71	34.17	712.47	712.71
K1	193259.71	34.17	712.52	712.75
L1	193269.71	34.17	712.57	712.80
M1	193279.71	34.17	712.62	712.84
N1	193289.71	34.17	712.67	712.85
O1	193299.71	34.17	712.72	712.86
P1	193309.71	34.17	712.77	712.87
Q1	193319.71	34.17	712.81	712.88
R1	193329.71	34.17	712.86	712.88
℄ Brg. E. Abut.	193334.71	34.17	712.89	712.89
Bk. E. Abut.	193338.21	34.17	712.90	712.90

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Frank W. Sharpe	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —	**TOP OF SLAB ELEVATIONS (E.B.) STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)**
DRAWN - h.t. duong	PASSED	REVISED —	SHEET NO. 9 OF 50 SHEETS
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	184
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	-34.17	710.76	710.76
℄ Brg. W. Abut.	292904.72	-34.17	710.78	710.78
C	292914.72	-34.17	710.83	710.87
D	292924.72	-34.17	710.88	710.96
E	292934.72	-34.17	710.93	711.05
F	292944.72	-34.17	710.98	711.14
G	292954.72	-34.17	711.03	711.23
H	292964.72	-34.17	711.07	711.30
I	292974.72	-34.17	711.12	711.35
J	292984.72	-34.17	711.17	711.41
K	292994.72	-34.17	711.22	711.46
L	293004.72	-34.17	711.27	711.52
M	293014.72	-34.17	711.32	711.56
N	293024.72	-34.17	711.37	711.59
O	293034.72	-34.17	711.42	711.61
P	293044.72	-34.17	711.47	711.63
Q	293054.72	-34.17	711.52	711.65
R	293064.72	-34.17	711.56	711.68
S	293074.72	-34.17	711.61	711.70
T	293084.72	-34.17	711.66	711.73
U	293094.72	-34.17	711.71	711.76
V	293104.72	-34.17	711.76	711.79
W	293114.72	-34.17	711.81	711.82
℄ Pier	293119.72	-34.17	711.83	711.83
X	293129.72	-34.17	711.88	711.90
Y	293139.72	-34.17	711.93	711.97
Z	293149.72	-34.17	711.98	712.04
A1	293159.72	-34.17	712.03	712.11
B1	293169.72	-34.17	712.08	712.18
C1	293179.72	-34.17	712.13	712.25
D1	293189.72	-34.17	712.18	712.33
E1	293199.72	-34.17	712.23	712.40
F1	293209.72	-34.17	712.28	712.48
G1	293219.72	-34.17	712.32	712.55
H1	293229.72	-34.17	712.37	712.62
I1	293239.72	-34.17	712.42	712.67
J1	293249.72	-34.17	712.47	712.71
K1	293259.72	-34.17	712.52	712.75
L1	293269.72	-34.17	712.57	712.80
M1	293279.72	-34.17	712.62	712.84
N1	293289.72	-34.17	712.67	712.85
O1	293299.72	-34.17	712.72	712.86
P1	293309.72	-34.17	712.77	712.87
Q1	293319.72	-34.17	712.81	712.88
R1	293329.72	-34.17	712.86	712.88
℄ Brg. E. Abut.	293334.72	-34.17	712.89	712.89
Bk. E. Abut.	293338.22	-34.17	712.90	712.90

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	-26.5	710.92	710.92
℄ Brg. W. Abut.	292904.72	-26.5	710.94	710.94
C	292914.72	-26.5	710.99	711.03
D	292924.72	-26.5	711.04	711.12
E	292934.72	-26.5	711.09	711.21
F	292944.72	-26.5	711.14	711.30
G	292954.72	-26.5	711.19	711.39
H	292964.72	-26.5	711.23	711.46
I	292974.72	-26.5	711.28	711.51
J	292984.72	-26.5	711.33	711.57
K	292994.72	-26.5	711.38	711.62
L	293004.72	-26.5	711.43	711.68
M	293014.72	-26.5	711.48	711.72
N	293024.72	-26.5	711.53	711.75
O	293034.72	-26.5	711.58	711.77
P	293044.72	-26.5	711.63	711.79
Q	293054.72	-26.5	711.68	711.81
R	293064.72	-26.5	711.72	711.84
S	293074.72	-26.5	711.77	711.86
T	293084.72	-26.5	711.82	711.89
U	293094.72	-26.5	711.87	711.92
V	293104.72	-26.5	711.92	711.95
W	293114.72	-26.5	711.97	711.98
℄ Pier	293119.72	-26.5	711.99	711.99
X	293129.72	-26.5	712.04	712.06
Y	293139.72	-26.5	712.09	712.13
Z	293149.72	-26.5	712.14	712.20
A1	293159.72	-26.5	712.19	712.27
B1	293169.72	-26.5	712.24	712.34
C1	293179.72	-26.5	712.29	712.41
D1	293189.72	-26.5	712.34	712.49
E1	293199.72	-26.5	712.39	712.56
F1	293209.72	-26.5	712.43	712.64
G1	293219.72	-26.5	712.48	712.71
H1	293229.72	-26.5	712.53	712.78
I1	293239.72	-26.5	712.58	712.82
J1	293249.72	-26.5	712.63	712.87
K1	293259.72	-26.5	712.68	712.91
L1	293269.72	-26.5	712.73	712.95
M1	293279.72	-26.5	712.78	713.00
N1	293289.72	-26.5	712.83	713.01
O1	293299.72	-26.5	712.88	713.02
P1	293309.72	-26.5	712.92	713.03
Q1	293319.72	-26.5	712.97	713.03
R1	293329.72	-26.5	713.02	713.04
℄ Brg. E. Abut.	293334.72	-26.5	713.05	713.05
Bk. E. Abut.	293338.22	-26.5	713.06	713.06

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	-18.83	711.06	711.06
℄ Brg. W. Abut.	292904.72	-18.83	711.07	711.07
C	292914.72	-18.83	711.12	711.16
D	292924.72	-18.83	711.17	711.25
E	292934.72	-18.83	711.22	711.34
F	292944.72	-18.83	711.27	711.43
G	292954.72	-18.83	711.32	711.52
H	292964.72	-18.83	711.37	711.59
I	292974.72	-18.83	711.42	711.64
J	292984.72	-18.83	711.46	711.70
K	292994.72	-18.83	711.51	711.75
L	293004.72	-18.83	711.56	711.81
M	293014.72	-18.83	711.61	711.86
N	293024.72	-18.83	711.66	711.88
O	293034.72	-18.83	711.71	711.90
P	293044.72	-18.83	711.76	711.92
Q	293054.72	-18.83	711.81	711.95
R	293064.72	-18.83	711.86	711.97
S	293074.72	-18.83	711.91	712.00
T	293084.72	-18.83	711.95	712.03
U	293094.72	-18.83	712.00	712.05
V	293104.72	-18.83	712.05	712.08
W	293114.72	-18.83	712.10	712.11
℄ Pier	293119.72	-18.83	712.13	712.13
X	293129.72	-18.83	712.18	712.20
Y	293139.72	-18.83	712.22	712.26
Z	293149.72	-18.83	712.27	712.33
A1	293159.72	-18.83	712.32	712.40
B1	293169.72	-18.83	712.37	712.47
C1	293179.72	-18.83	712.42	712.55
D1	293189.72	-18.83	712.47	712.62
E1	293199.72	-18.83	712.52	712.70
F1	293209.72	-18.83	712.57	712.77
G1	293219.72	-18.83	712.62	712.85
H1	293229.72	-18.83	712.67	712.91
I1	293239.72	-18.83	712.71	712.96
J1	293249.72	-18.83	712.76	713.00
K1	293259.72	-18.83	712.81	713.04
L1	293269.72	-18.83	712.86	713.09
M1	293279.72	-18.83	712.91	713.13
N1	293289.72	-18.83	712.96	713.14
O1	293299.72	-18.83	713.01	713.15
P1	293309.72	-18.83	713.06	713.16
Q1	293319.72	-18.83	713.11	713.17
R1	293329.72	-18.83	713.16	713.18
℄ Brg. E. Abut.	293334.72	-18.83	713.18	713.18
Bk. E. Abut.	293338.22	-18.83	713.20	713.20

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - Frank W. Sharpe	PASSED	REVISED —	**TOP OF SLAB ELEVATIONS (W.B.) STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)**
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —	SHEET NO. 10 OF 50 SHEETS
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	185
		CONTRACT NO. 64D19		
	ILLINOIS	FED. AID PROJECT		

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	-12.00	711.16	711.16
℄ Brg. W. Abut.	292904.72	-12.00	711.18	711.18
C	292914.72	-12.00	711.23	711.27
D	292924.72	-12.00	711.28	711.36
E	292934.72	-12.00	711.33	711.45
F	292944.72	-12.00	711.38	711.54
G	292954.72	-12.00	711.42	711.63
H	292964.72	-12.00	711.47	711.70
I	292974.72	-12.00	711.52	711.75
J	292984.72	-12.00	711.57	711.81
K	292994.72	-12.00	711.62	711.86
L	293004.72	-12.00	711.67	711.92
M	293014.72	-12.00	711.72	711.96
N	293024.72	-12.00	711.77	711.98
O	293034.72	-12.00	711.82	712.01
P	293044.72	-12.00	711.87	712.03
Q	293054.72	-12.00	711.91	712.05
R	293064.72	-12.00	711.96	712.08
S	293074.72	-12.00	712.01	712.10
T	293084.72	-12.00	712.06	712.13
U	293094.72	-12.00	712.11	712.16
V	293104.72	-12.00	712.16	712.19
W	293114.72	-12.00	712.21	712.22
℄ Pier	293119.72	-12.00	712.23	712.23
X	293129.72	-12.00	712.28	712.30
Y	293139.72	-12.00	712.33	712.37
Z	293149.72	-12.00	712.38	712.44
A1	293159.72	-12.00	712.43	712.51
B1	293169.72	-12.00	712.48	712.58
C1	293179.72	-12.00	712.53	712.65
D1	293189.72	-12.00	712.58	712.73
E1	293199.72	-12.00	712.62	712.80
F1	293209.72	-12.00	712.67	712.88
G1	293219.72	-12.00	712.72	712.95
H1	293229.72	-12.00	712.77	713.02
I1	293239.72	-12.00	712.82	713.06
J1	293249.72	-12.00	712.87	713.11
K1	293259.72	-12.00	712.92	713.15
L1	293269.72	-12.00	712.97	713.19
M1	293279.72	-12.00	713.02	713.24
N1	293289.72	-12.00	713.07	713.25
O1	293299.72	-12.00	713.11	713.26
P1	293309.72	-12.00	713.16	713.27
Q1	293319.72	-12.00	713.21	713.27
R1	293329.72	-12.00	713.26	713.28
℄ Brg. E. Abut.	293334.72	-12.00	713.29	713.29
Bk. E. Abut.	293338.22	-12.00	713.30	713.30

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	-11.17	711.15	711.15
℄ Brg. W. Abut.	292904.72	-11.17	711.17	711.17
C	292914.72	-11.17	711.22	711.26
D	292924.72	-11.17	711.26	711.35
E	292934.72	-11.17	711.31	711.44
F	292944.72	-11.17	711.36	711.53
G	292954.72	-11.17	711.41	711.62
H	292964.72	-11.17	711.46	711.68
I	292974.72	-11.17	711.51	711.74
J	292984.72	-11.17	711.56	711.79
K	292994.72	-11.17	711.61	711.85
L	293004.72	-11.17	711.66	711.90
M	293014.72	-11.17	711.71	711.95
N	293024.72	-11.17	711.75	711.97
O	293034.72	-11.17	711.80	711.99
P	293044.72	-11.17	711.85	712.02
Q	293054.72	-11.17	711.90	712.04
R	293064.72	-11.17	711.95	712.06
S	293074.72	-11.17	712.00	712.09
T	293084.72	-11.17	712.05	712.12
U	293094.72	-11.17	712.10	712.15
V	293104.72	-11.17	712.15	712.18
W	293114.72	-11.17	712.20	712.21
℄ Pier	293119.72	-11.17	712.22	712.22
X	293129.72	-11.17	712.27	712.29
Y	293139.72	-11.17	712.32	712.36
Z	293149.72	-11.17	712.37	712.43
A1	293159.72	-11.17	712.42	712.50
B1	293169.72	-11.17	712.46	712.57
C1	293179.72	-11.17	712.51	712.64
D1	293189.72	-11.17	712.56	712.71
E1	293199.72	-11.17	712.61	712.79
F1	293209.72	-11.17	712.66	712.86
G1	293219.72	-11.17	712.71	712.94
H1	293229.72	-11.17	712.76	713.01
I1	293239.72	-11.17	712.81	713.05
J1	293249.72	-11.17	712.86	713.09
K1	293259.72	-11.17	712.91	713.14
L1	293269.72	-11.17	712.95	713.18
M1	293279.72	-11.17	713.00	713.22
N1	293289.72	-11.17	713.05	713.24
O1	293299.72	-11.17	713.10	713.24
P1	293309.72	-11.17	713.15	713.25
Q1	293319.72	-11.17	713.20	713.26
R1	293329.72	-11.17	713.25	713.27
℄ Brg. E. Abut.	293334.72	-11.17	713.27	713.27
Bk. E. Abut.	293338.22	-11.17	713.29	713.29

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	-3.50	711.03	711.03
℄ Brg. W. Abut.	292904.72	-3.50	711.05	711.05
C	292914.72	-3.50	711.10	711.14
D	292924.72	-3.50	711.14	711.23
E	292934.72	-3.50	711.19	711.32
F	292944.72	-3.50	711.24	711.41
G	292954.72	-3.50	711.29	711.50
H	292964.72	-3.50	711.34	711.56
I	292974.72	-3.50	711.39	711.62
J	292984.72	-3.50	711.44	711.67
K	292994.72	-3.50	711.49	711.73
L	293004.72	-3.50	711.54	711.78
M	293014.72	-3.50	711.59	711.83
N	293024.72	-3.50	711.63	711.85
O	293034.72	-3.50	711.68	711.87
P	293044.72	-3.50	711.73	711.90
Q	293054.72	-3.50	711.78	711.92
R	293064.72	-3.50	711.83	711.94
S	293074.72	-3.50	711.88	711.97
T	293084.72	-3.50	711.93	712.00
U	293094.72	-3.50	711.98	712.03
V	293104.72	-3.50	712.03	712.06
W	293114.72	-3.50	712.08	712.09
℄ Pier	293119.72	-3.50	712.10	712.10
X	293129.72	-3.50	712.15	712.17
Y	293139.72	-3.50	712.20	712.24
Z	293149.72	-3.50	712.25	712.31
A1	293159.72	-3.50	712.30	712.38
B1	293169.72	-3.50	712.35	712.45
C1	293179.72	-3.50	712.39	712.52
D1	293189.72	-3.50	712.44	712.59
E1	293199.72	-3.50	712.49	712.67
F1	293209.72	-3.50	712.54	712.75
G1	293219.72	-3.50	712.59	712.82
H1	293229.72	-3.50	712.64	712.89
I1	293239.72	-3.50	712.69	712.93
J1	293249.72	-3.50	712.74	712.97
K1	293259.72	-3.50	712.79	713.02
L1	293269.72	-3.50	712.84	713.06
M1	293279.72	-3.50	712.88	713.10
N1	293289.72	-3.50	712.93	713.12
O1	293299.72	-3.50	712.98	713.13
P1	293309.72	-3.50	713.03	713.13
Q1	293319.72	-3.50	713.08	713.14
R1	293329.72	-3.50	713.13	713.15
℄ Brg. E. Abut.	293334.72	-3.50	713.15	713.15
Bk. E. Abut.	293338.22	-3.50	713.17	713.17

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

TOP OF SLAB ELEVATIONS (W.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 11 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	186
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

BASELINE & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	0.00	710.97	710.97
℄ Brg. W. Abut.	292904.72	0.00	710.99	710.99
C	292914.72	0.00	711.04	711.08
D	292924.72	0.00	711.09	711.17
E	292934.72	0.00	711.14	711.26
F	292944.72	0.00	711.19	711.35
G	292954.72	0.00	711.24	711.44
H	292964.72	0.00	711.29	711.51
I	292974.72	0.00	711.34	711.56
J	292984.72	0.00	711.38	711.62
K	292994.72	0.00	711.43	711.67
L	293004.72	0.00	711.48	711.73
M	293014.72	0.00	711.53	711.77
N	293024.72	0.00	711.58	711.80
O	293034.72	0.00	711.63	711.82
P	293044.72	0.00	711.68	711.84
Q	293054.72	0.00	711.73	711.87
R	293064.72	0.00	711.78	711.89
S	293074.72	0.00	711.83	711.92
T	293084.72	0.00	711.87	711.95
U	293094.72	0.00	711.92	711.97
V	293104.72	0.00	711.97	712.00
W	293114.72	0.00	712.02	712.03
℄ Pier	293119.72	0.00	712.05	712.05
X	293129.72	0.00	712.09	712.11
Y	293139.72	0.00	712.14	712.18
Z	293149.72	0.00	712.19	712.25
A1	293159.72	0.00	712.24	712.32
B1	293169.72	0.00	712.29	712.39
C1	293179.72	0.00	712.34	712.47
D1	293189.72	0.00	712.39	712.54
E1	293199.72	0.00	712.44	712.62
F1	293209.72	0.00	712.49	712.69
G1	293219.72	0.00	712.54	712.77
H1	293229.72	0.00	712.58	712.83
I1	293239.72	0.00	712.63	712.88
J1	293249.72	0.00	712.68	712.92
K1	293259.72	0.00	712.73	712.96
L1	293269.72	0.00	712.78	713.01
M1	293279.72	0.00	712.83	713.05
N1	293289.72	0.00	712.88	713.06
O1	293299.72	0.00	712.93	713.07
P1	293309.72	0.00	712.98	713.08
Q1	293319.72	0.00	713.03	713.09
R1	293329.72	0.00	713.07	713.09
℄ Brg. E. Abut.	293334.72	0.00	713.10	713.10
Bk. E. Abut.	293338.22	0.00	713.12	713.12

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	292901.22	4.17	710.89	710.89
℄ Brg. W. Abut.	292904.72	4.17	710.91	710.91
C	292914.72	4.17	710.95	711.00
D	292924.72	4.17	711.00	711.09
E	292934.72	4.17	711.05	711.18
F	292944.72	4.17	711.10	711.27
G	292954.72	4.17	711.15	711.36
H	292964.72	4.17	711.2	711.42
I	292974.72	4.17	711.25	711.48
J	292984.72	4.17	711.30	711.53
K	292994.72	4.17	711.35	711.59
L	293004.72	4.17	711.40	711.64
M	293014.72	4.17	711.44	711.69
N	293024.72	4.17	711.49	711.71
O	293034.72	4.17	711.54	711.73
P	293044.72	4.17	711.59	711.76
Q	293054.72	4.17	711.64	711.78
R	293064.72	4.17	711.69	711.80
S	293074.72	4.17	711.74	711.83
T	293084.72	4.17	711.79	711.86
U	293094.72	4.17	711.84	711.89
V	293104.72	4.17	711.89	711.92
W	293114.72	4.17	711.93	711.94
℄ Pier	293119.72	4.17	711.96	711.96
X	293129.72	4.17	712.01	712.03
Y	293139.72	4.17	712.06	712.10
Z	293149.72	4.17	712.11	712.17
A1	293159.72	4.17	712.15	712.24
B1	293169.72	4.17	712.20	712.31
C1	293179.72	4.17	712.25	712.38
D1	293189.72	4.17	712.30	712.45
E1	293199.72	4.17	712.35	712.53
F1	293209.72	4.17	712.40	712.60
G1	293219.72	4.17	712.45	712.68
H1	293229.72	4.17	712.50	712.75
I1	293239.72	4.17	712.55	712.79
J1	293249.72	4.17	712.60	712.83
K1	293259.72	4.17	712.64	712.88
L1	293269.72	4.17	712.69	712.92
M1	293279.72	4.17	712.74	712.96
N1	293289.72	4.17	712.79	712.98
O1	293299.72	4.17	712.84	712.98
P1	293309.72	4.17	712.89	712.99
Q1	293319.72	4.17	712.94	713.00
R1	293329.72	4.17	712.99	713.01
℄ Brg. E. Abut.	293334.72	4.17	713.01	713.01
Bk. E. Abut.	293338.22	4.17	713.03	713.03

DESIGNED - Nick R. Barnett
CHECKED - Frank W. Sharpe
DRAWN - h.t. duong
CHECKED - NRB/FWS/GRA

EXAMINED
ACTING ENGINEER OF BRIDGE DESIGN
PASSED
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - OCTOBER 4, 2013
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (W.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 12 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	187
		CONTRACT NO. 64D13		
	ILLINOIS FED. AID PROJECT			

NORTH CURB LINE

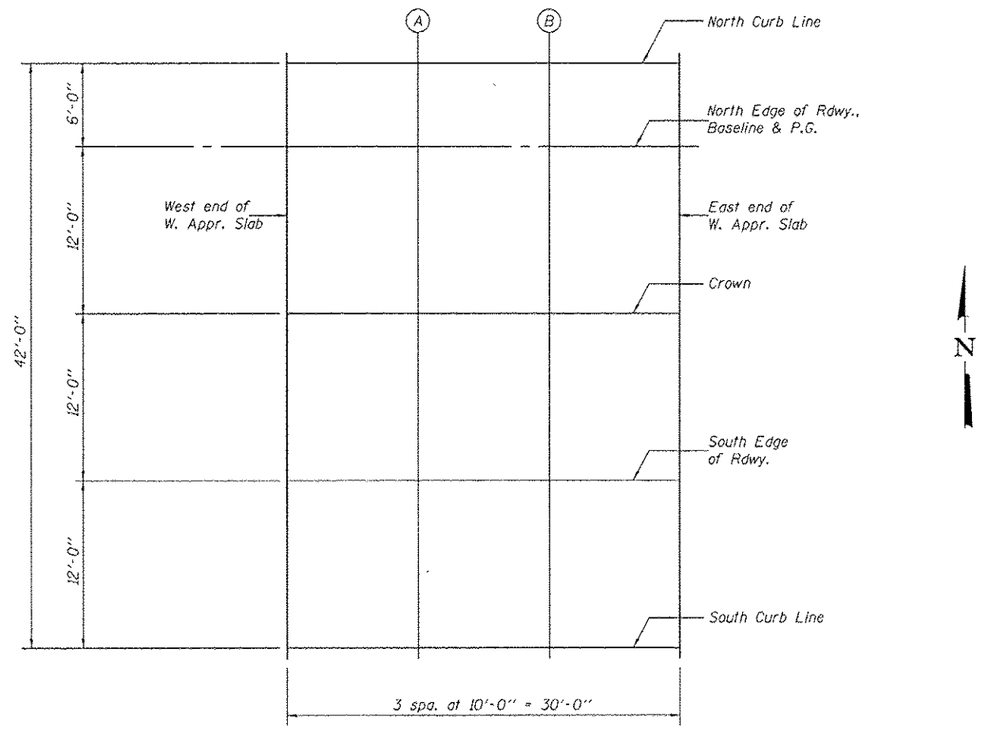
Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	192871.71	-6.00	710.71
A	192881.71	-6.00	710.75
B	192891.71	-6.00	710.80
East end of W. Appr. Slab	192901.71	-6.00	710.85

NORTH EDGE OF RDWY., BASELINE & P.G.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	192871.71	0.00	710.83
A	192881.71	0.00	710.88
B	192891.71	0.00	710.93
East end of W. Appr. Slab	192901.71	0.00	710.98

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	192871.71	12.00	711.02
A	192881.71	12.00	711.07
B	192891.71	12.00	711.12
East end of W. Appr. Slab	192901.71	12.00	711.16



PLAN

SOUTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	192871.71	24.00	710.83
A	192881.71	24.00	710.88
B	192891.71	24.00	710.93
East end of W. Appr. Slab	192901.71	24.00	710.98

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	192871.71	36.00	710.58
A	192881.71	36.00	710.63
B	192891.71	36.00	710.68
East end of W. Appr. Slab	192901.71	36.00	710.73

DESIGNED - Nick R. Barnett
CHECKED - Frank W. Sharpe
DRAWN - h.t. duong
CHECKED - NRB/FWS/GRA

EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN
PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 4, 2013
REVISED —
REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATION (E.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 13 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	188
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

NORTH CURB LINE

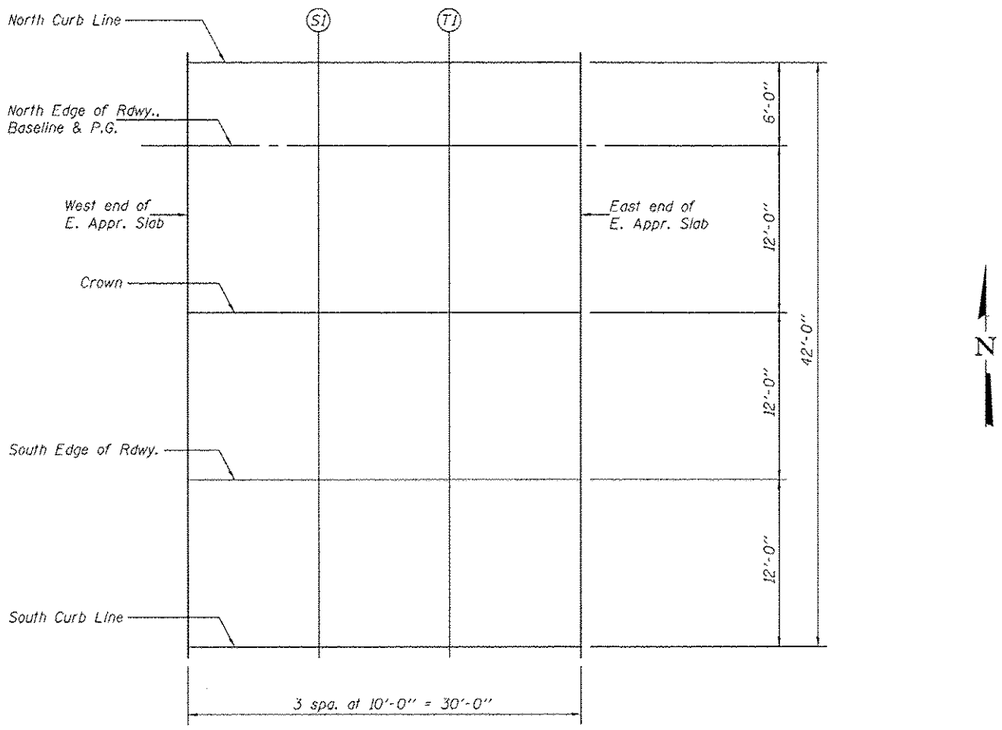
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	193337.71	-6.00	712.99
S1	193347.71	-6.00	713.04
T1	193357.71	-6.00	713.09
East end of E. Appr. Slab	193367.71	-6.00	713.14

NORTH EDGE OF RDWY., BASELINE & P.G.

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	193337.71	0.00	713.11
S1	193347.71	0.00	713.16
T1	193357.71	0.00	713.21
East end of E. Appr. Slab	193367.71	0.00	713.26

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	193337.71	12.00	713.30
S1	193347.71	12.00	713.35
T1	193357.71	12.00	713.40
East end of E. Appr. Slab	193367.71	12.00	713.45



PLAN

SOUTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	193337.71	24.00	713.11
S1	193347.71	24.00	713.16
T1	193357.71	24.00	713.21
East end of E. Appr. Slab	193367.71	24.00	713.26

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	193337.71	36.00	712.86
S1	193347.71	36.00	712.91
T1	193357.71	36.00	712.96
East end of E. Appr. Slab	193367.71	36.00	713.01

DESIGNED - Nick R. Barnett
CHECKED - Frank W. Sharpe
DRAWN - h.t. duong
CHECKED - NBB/FWS/GRA

EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN
PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES
DATE - OCTOBER 4, 2013
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS (E.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 14 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	189
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

NORTH CURB LINE

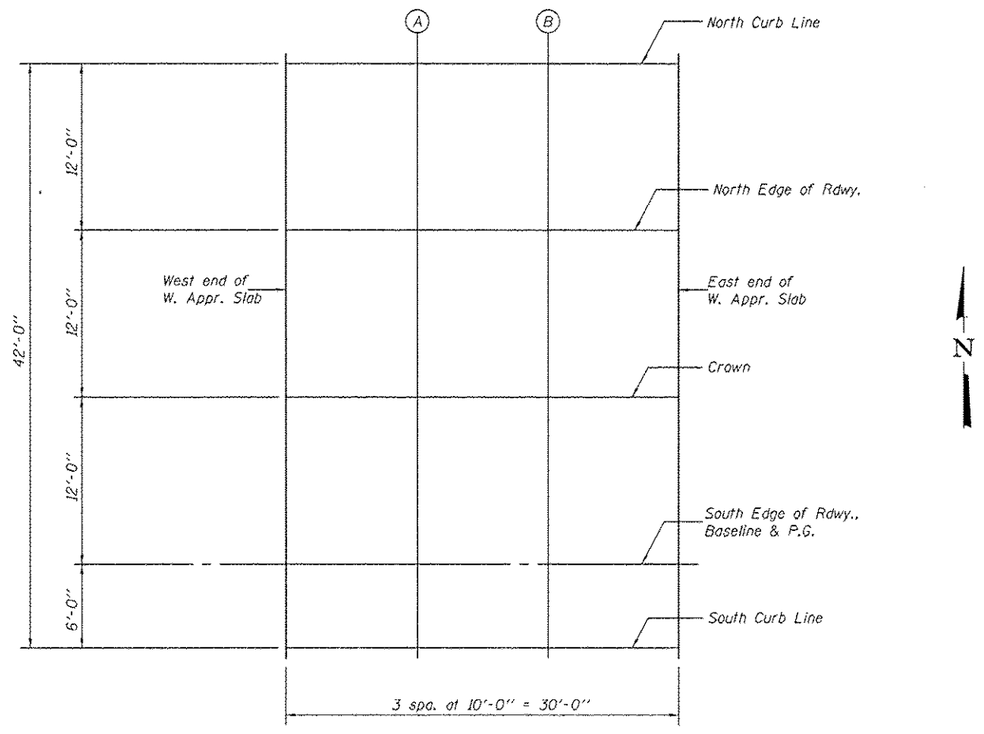
Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292871.72	-36.00	710.58
A	292881.72	-36.00	710.63
B	292891.72	-36.00	710.68
East end of W. Appr. Slab	292901.72	-36.00	710.73

NORTH EDGE OF RDWY.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292871.72	-24.00	710.83
A	292881.72	-24.00	710.88
B	292891.72	-24.00	710.93
East end of W. Appr. Slab	292901.72	-24.00	710.98

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292871.72	-12.00	711.02
A	292881.72	-12.00	711.07
B	292891.72	-12.00	711.12
East end of W. Appr. Slab	292901.72	-12.00	711.16



PLAN

SOUTH EDGE OF RDWY., BASELINE & P.G.

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292871.72	0.00	710.83
A	292881.72	0.00	710.88
B	292891.72	0.00	710.93
East end of W. Appr. Slab	292901.72	0.00	710.98

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of W. Appr. Slab	292871.72	6.00	710.71
A	292881.72	6.00	710.75
B	292891.72	6.00	710.80
East end of W. Appr. Slab	292901.72	6.00	710.85

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED ---	TOP OF WEST APPROACH SLAB ELEVATIONS (W.B.) STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED ---	SHEET NO. 15 OF 50 SHEETS
CHECKED - NBB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	190
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

NORTH CURB LINE

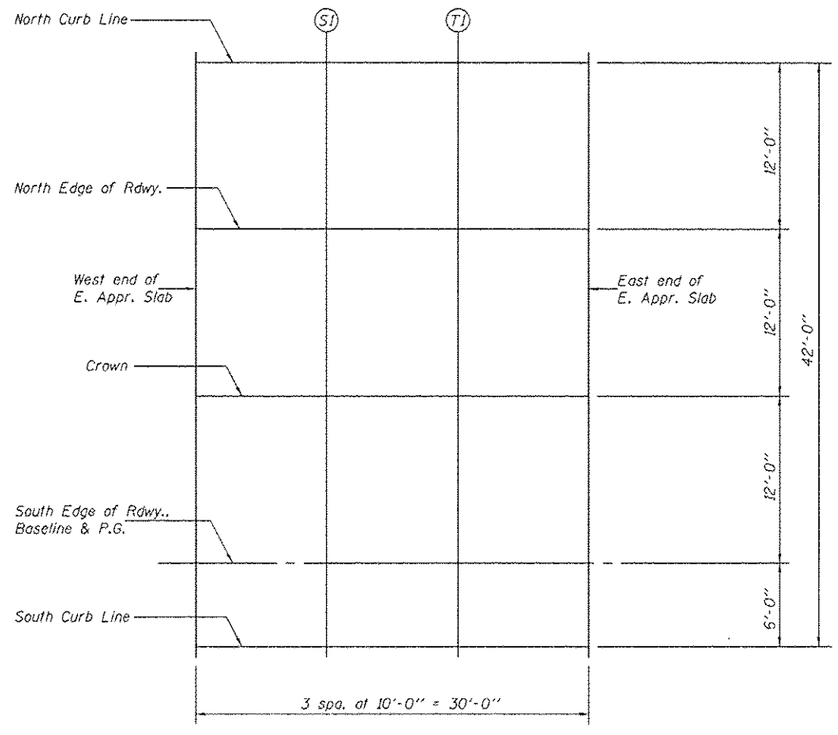
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	293337.72	-36.00	712.86
S1	293347.72	-36.00	712.91
T1	293357.72	-36.00	712.96
East end of E. Appr. Slab	293367.72	-36.00	713.01

NORTH EDGE OF RDWY.

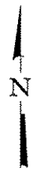
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	293337.72	-24.00	713.11
S1	293347.72	-24.00	713.16
T1	293357.72	-24.00	713.21
East end of E. Appr. Slab	293367.72	-24.00	713.26

CROWN

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	293337.72	-12.00	713.30
S1	293347.72	-12.00	713.35
T1	293357.72	-12.00	713.40
East end of E. Appr. Slab	293367.72	-12.00	713.45



PLAN



SOUTH EDGE OF RDWY., BASELINE & P.G.

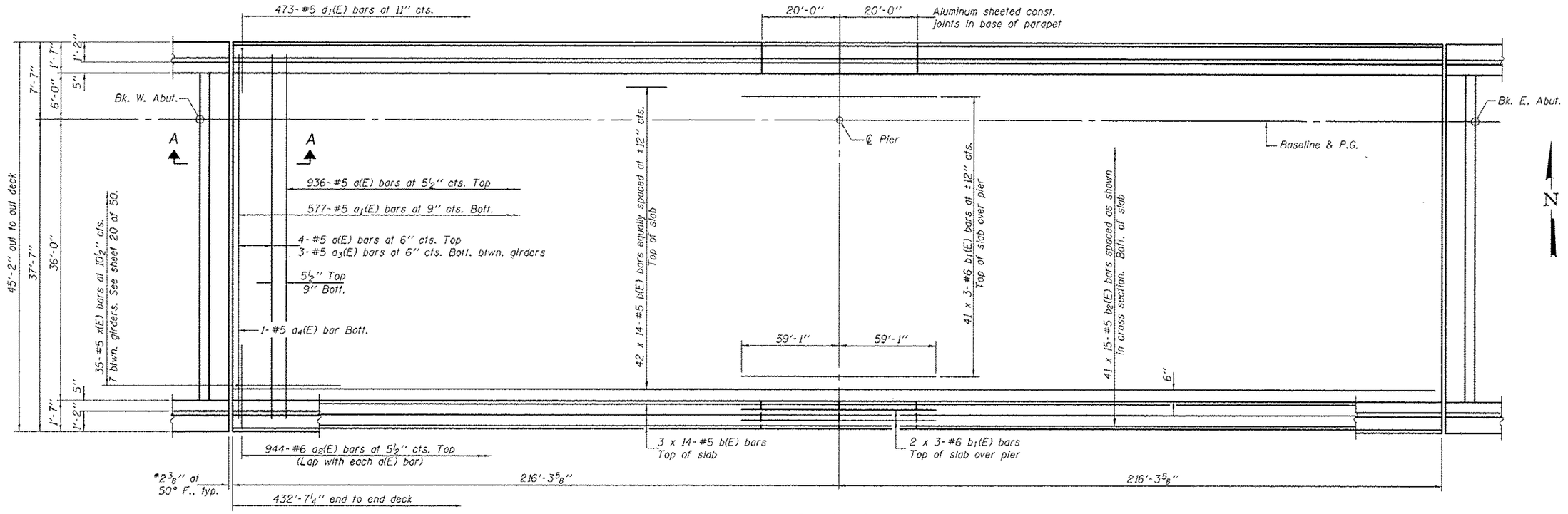
Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	293337.72	0.00	713.11
S1	293347.72	0.00	713.16
T1	293357.72	0.00	713.21
East end of E. Appr. Slab	293367.72	0.00	713.26

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
West end of E. Appr. Slab	293337.72	6.00	712.99
S1	293347.72	6.00	713.04
T1	293357.72	6.00	713.09
East end of E. Appr. Slab	293367.72	6.00	713.14

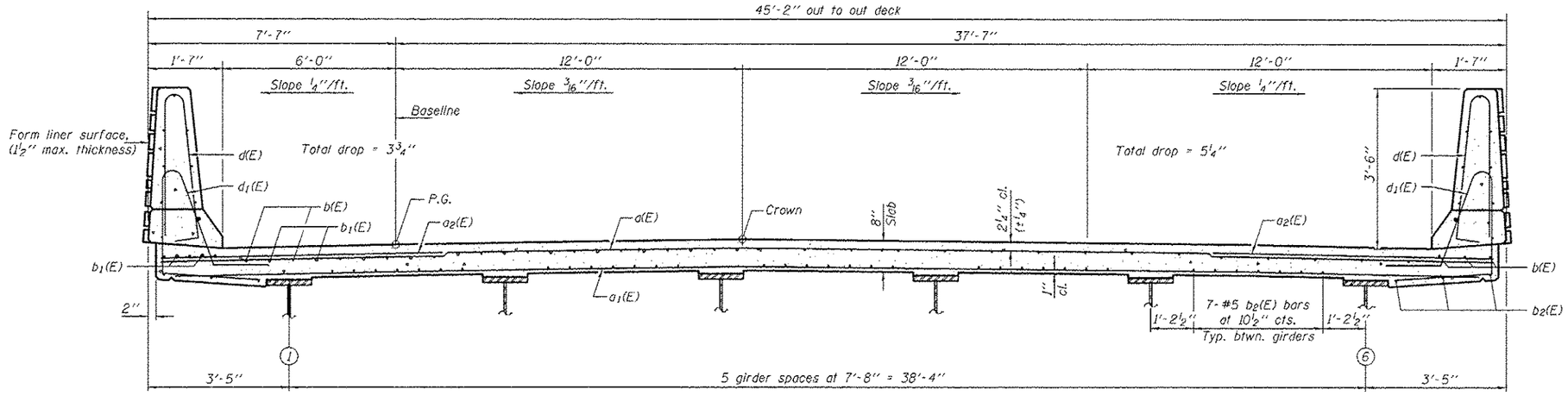
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED —	TOP OF EAST APPROACH SLAB ELEVATIONS (W.B.) STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —	SHEET NO. 16 OF 50 SHEETS
CHECKED - NBB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	191
		CONTRACT NO. 64D19		
	ILLINOIS	FED. AID PROJECT		



PLAN (E.B.)

*Dimensions are based on a rolled rail strip seal joint. If the Contractor elects to use the welded rail joint, the opening and deck dimensions shall be modified according to the dimensions detailed on sheet 25 of 50.



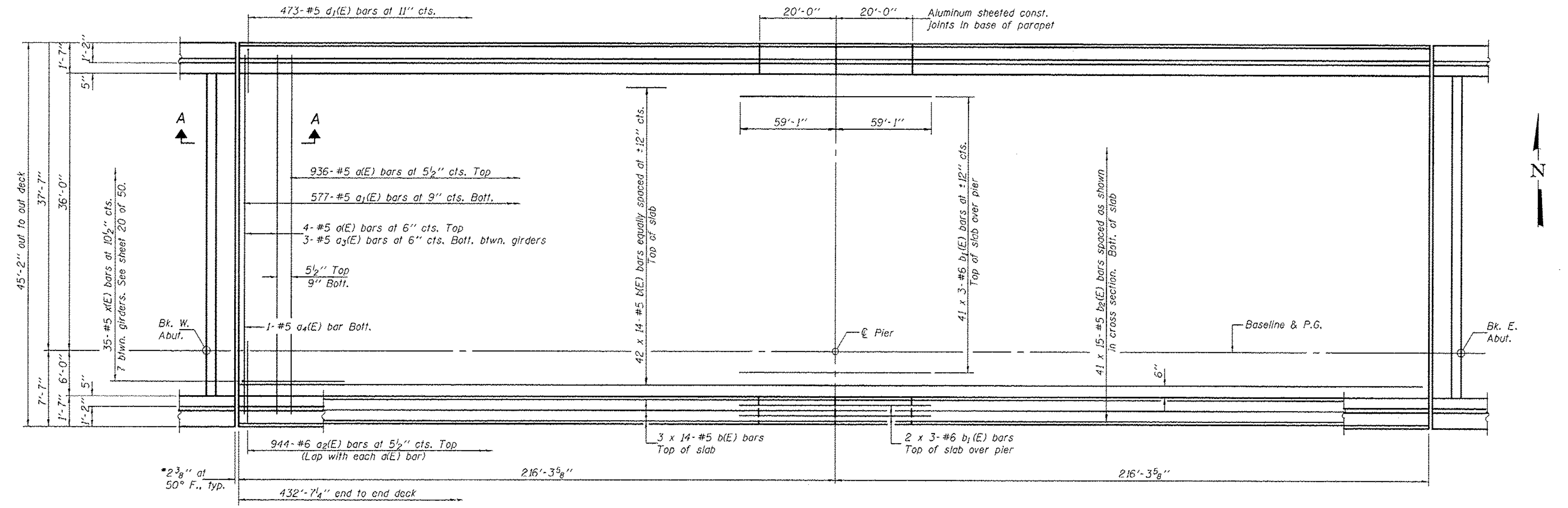
NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking east)

Notes:
See sheets 19 & 20 of 50 for superstructure details & Bill of Material.
Bars indicated thus 40 x 3-#5 etc. indicates 40 lines of bars with 3 lengths per line.
See sheet 19 of 50 for parapet reinforcement.
See sheets 43 & 44 of 50 for details of form liner texture surface.

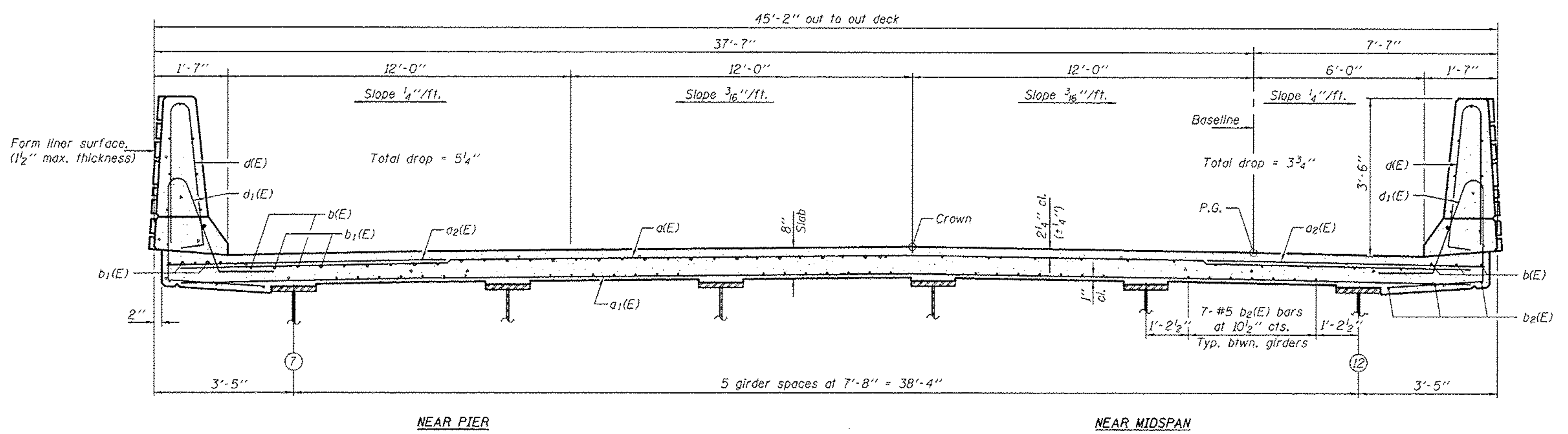
MIN. BAR LAP
(Slab)
#5 bar = 3'-3"
#6 bar = 3'-10"

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE (E.B.) STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe					301	3BR & 3BR-1	WINNEBAGO	290	192
DRAWN - h.t. duong	PASSED	REVISED —					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/CRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —		SHEET NO. 17 OF 50 SHEETS			ILLINOIS	FED. AID PROJECT	



PLAN (W.B.)

*Dimensions are based on a rolled rail strip seal joint. If the Contractor elects to use the welded rail joint, the opening and deck dimensions shall be modified according to the dimensions detailed on sheet 25 of 50.



CROSS SECTION
(Looking east)

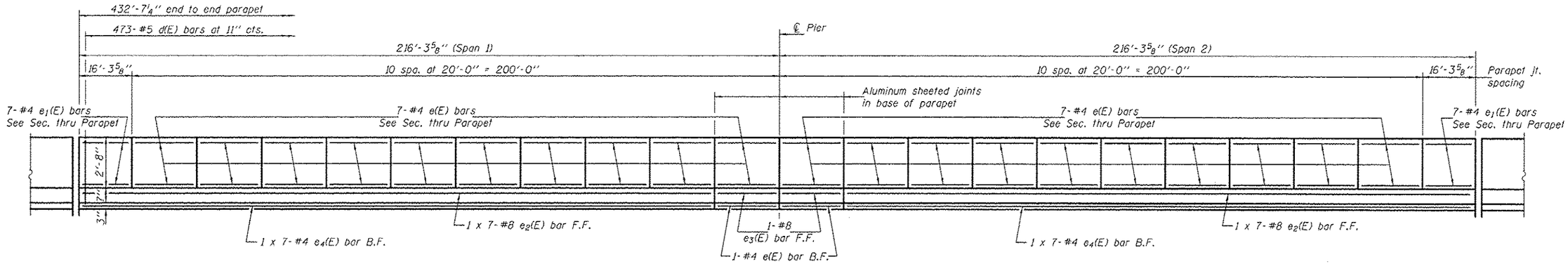
Notes:
See sheets 19 & 20 of 50 for superstructure details & Bill of Material.
Bars indicated thus 40 x 3-#5 etc. indicates 40 lines of bars with 3 lengths per line.
See sheet 19 of 50 for parapet reinforcement.
See sheets 43 & 44 of 50 for details of form liner texture surface.

MIN. BAR LAP
(Slab)
#5 bar = 3'-3"
#6 bar = 3'-10"

DESIGNED - Nick R. Barnett	EXAMINED [signature] ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe			
DRAWN - h.t. duong	PASSED [signature] ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED ___	
CHECKED - NRB/FWS/GRA		REVISED ___	

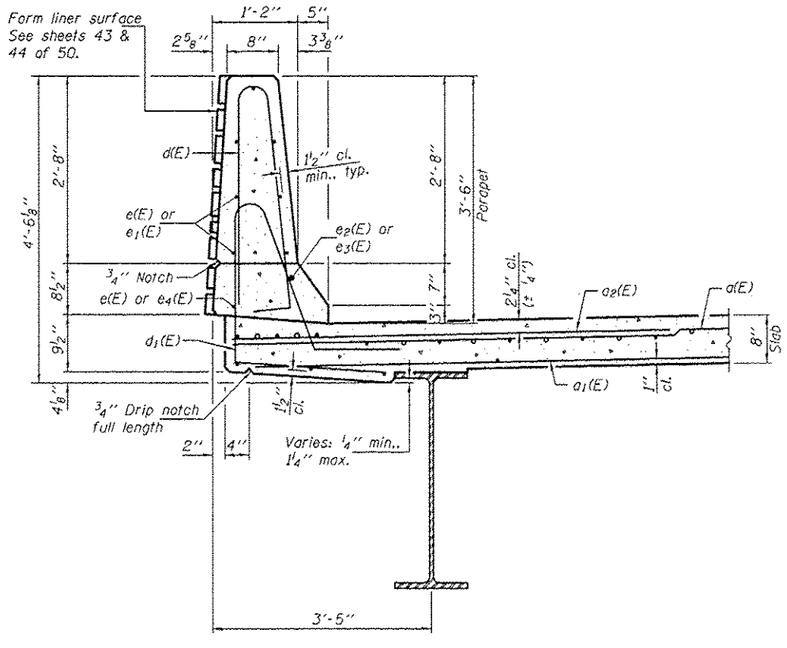
SUPERSTRUCTURE (W.B.)
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 18 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	193
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

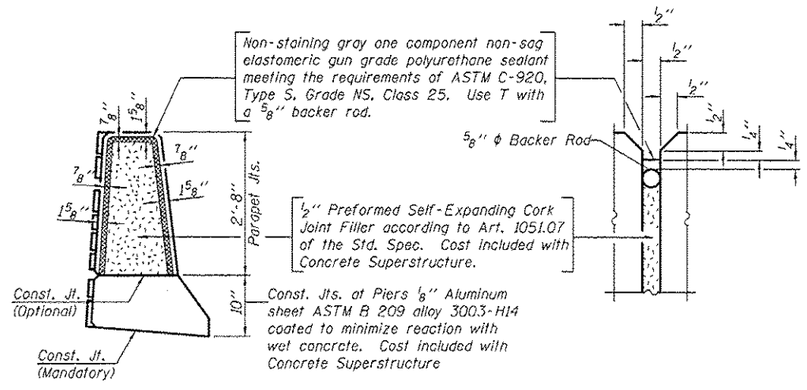


INSIDE ELEVATION OF NORTH PARAPET (E.B.)

(Looking North - South parapet similar)



SECTION THRU PARAPET



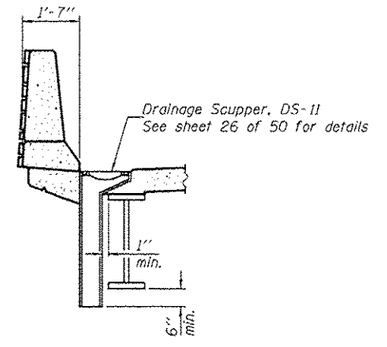
PARAPET JOINT DETAILS

MIN. BAR LAP

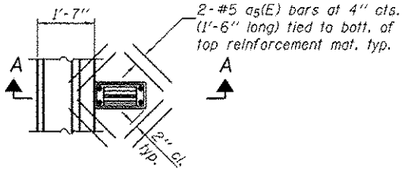
(Parapet)

#4 bar = 2'-0"

#8 bar = 5'-2"



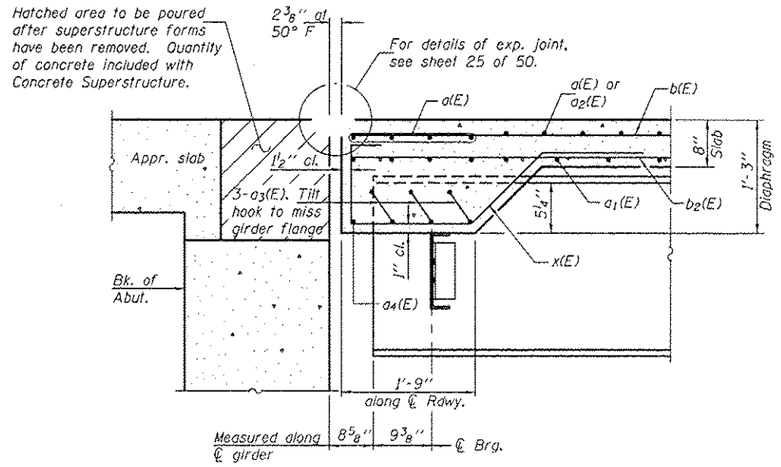
SECTION A-A



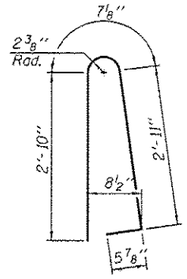
PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

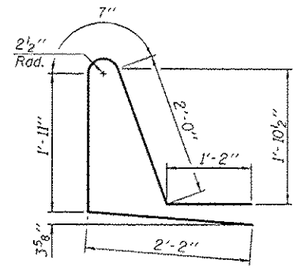
DESIGNED - Nick R. Bornett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe					301	3BR & 3BR-1	WINNEBAGO	290	194
DRAWN - h.t. duong	PASSED	REVISED						CONTRACT NO. 64D19	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 19 OF 50 SHEETS			ILLINOIS	FED. AID PROJECT	



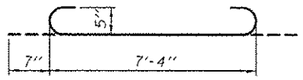
SECTION A-A



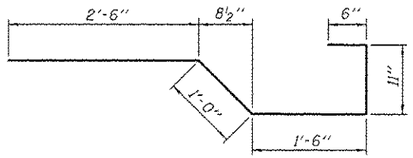
BAR d(E)



BAR d1(E)



a3(E) BAR



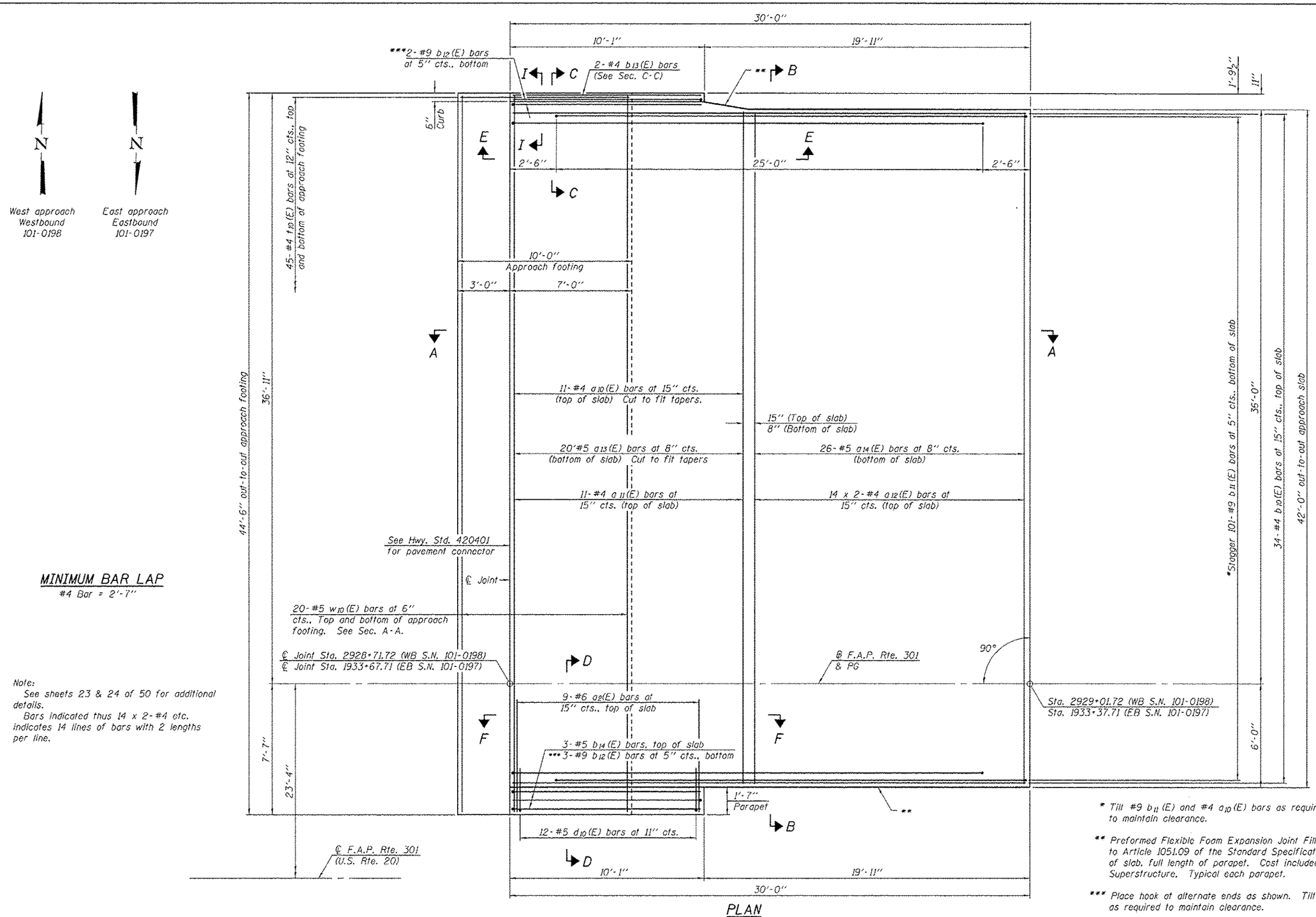
BAR x(E)

TWO SUPERSTRUCTURES (E.B. & W.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	1888	#5	44'-7"	
d1(E)	1154	#5	42'-10"	
d2(E)	3776	#6	6'-6"	
d3(E)	60	#5	8'-6"	
d4(E)	4	#5	38'-0"	
d5(E)	64	#5	1'-6"	
b(E)	1344	#5	33'-11"	
b1(E)	270	#6	42'-0"	
b2(E)	1230	#5	31'-11"	
d(E)	1892	#5	6'-10"	
d1(E)	1892	#5	7'-10"	
e(E)	568	#4	19'-9"	
e1(E)	56	#4	16'-0"	
e2(E)	56	#8	32'-6"	
e3(E)	8	#8	19'-9"	
e4(E)	56	#4	29'-9"	
x(E)	140	#5	6'-5"	
Reinforcement Bars, Epoxy Coated			Pound	326890
Concrete Superstructure			Cu. Yds.	1286.9

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

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe	PASSED	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	195
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		SHEET NO. 20 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED - NBB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES					ILLINOIS FED. AID PROJECT			



PLAN

N
West approach
Westbound
101-0198

N
East approach
Eastbound
101-0197

MINIMUM BAR LAP

#4 Bar = 2'-7"

Note:
See sheets 23 & 24 of 50 for additional details.
Bars indicated thus 14 x 2-#4 etc. indicates 14 lines of bars with 2 lengths per line.

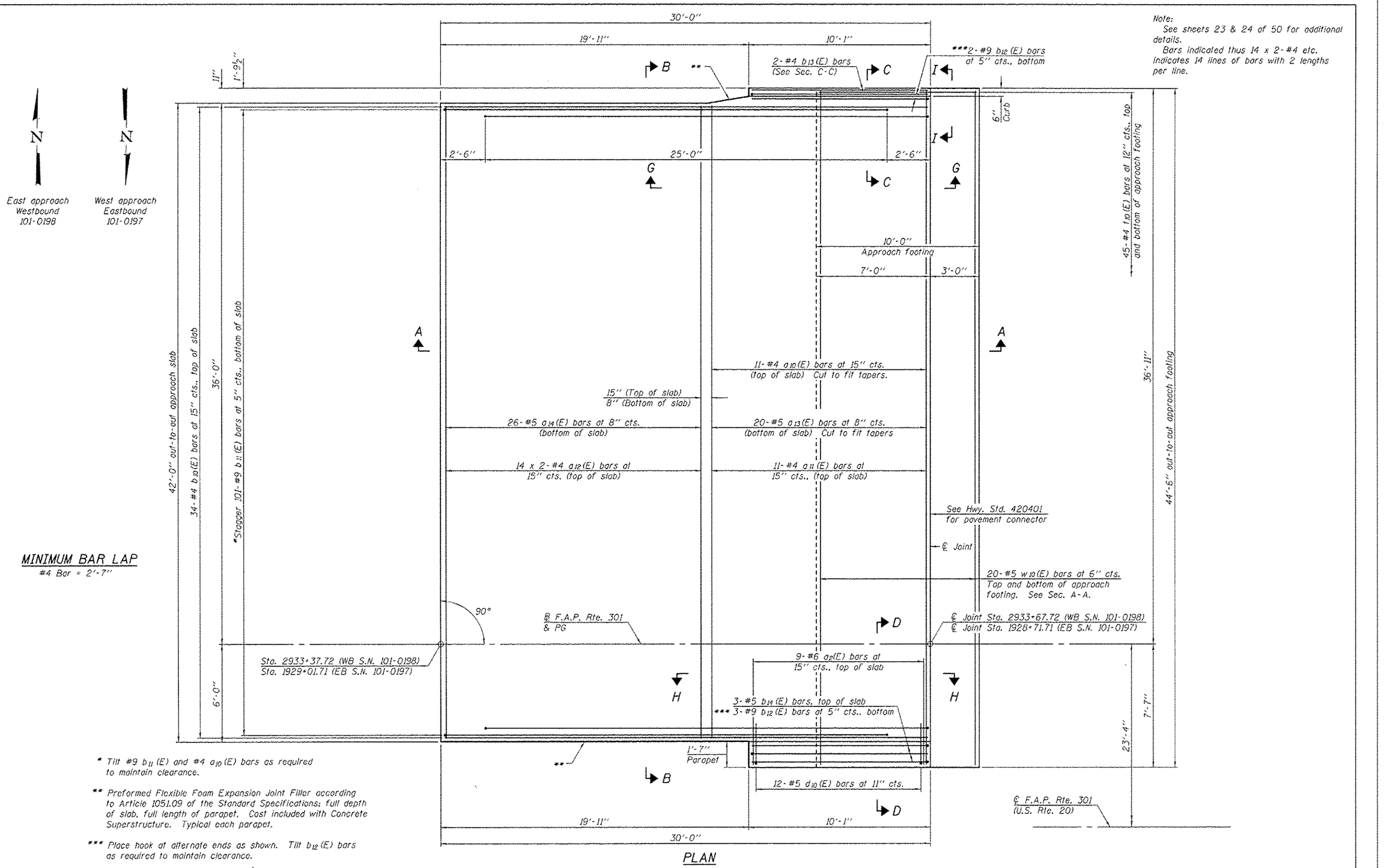
* Till #9 b_{11} (E) and #4 a_{10} (E) bars as required to maintain clearance.

** Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Cost included with Concrete Superstructure. Typical each parapet.

*** Place hook at alternate ends as shown. Till b_{12} (E) bars as required to maintain clearance.

DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS – WEST (WB) – EAST (EB) STRUCTURE NO. 101 – 0197 (EB) & 101 – 0198 (WB)	F.A.P. RTE. 301 | SECTION 3BR & 3BR-1 | COUNTY WINNEBAGO | TOTAL SHEETS 290 | SHEET NO. 196
CHECKED - FRANK W. SHARPE	Joyce F. Duffy ACTING ENGINEER OF BRIDGE DESIGN	REVISED			CONTRACT NO. 64D19
DRAWN - MICHAEL B. MOSSMAN	PASSED J. Carl Poppy ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 21 OF 50 SHEETS	ILLINOIS FED. AID PROJECT
CHECKED - NRB/FWS/GRA					

Note:
See sheets 23 & 24 of 50 for additional details.
Bars indicated thus 14 x 2-#4 etc. indicates 14 lines of bars with 2 lengths per line.



PLAN

MINIMUM BAR LAP

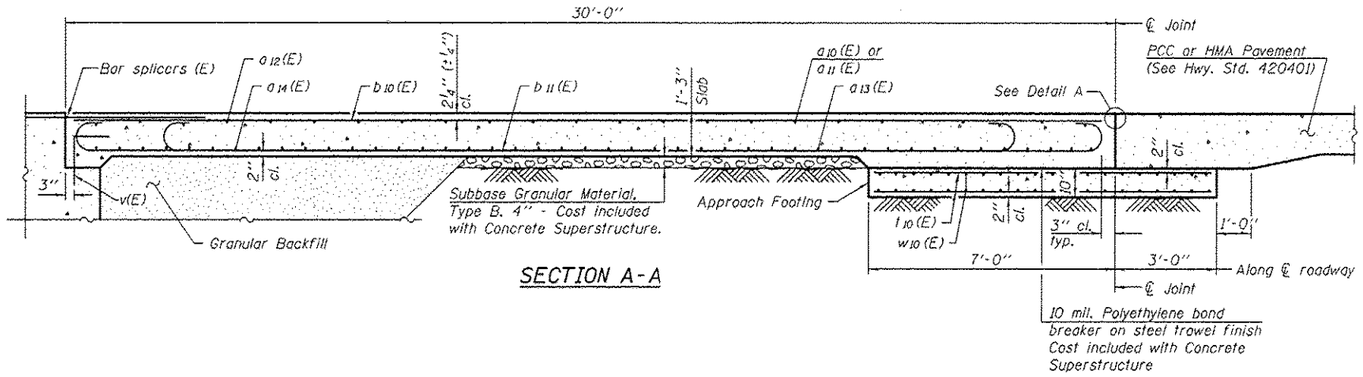
#4 Bar = 2'-7"

* Tilt #9 b_{11} (E) and #4 a_{10} (E) bars as required to maintain clearance.

** Preformed Flexible Foam Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Cost included with Concrete Superstructure. Typical each parapet.

*** Place hook at alternate ends as shown. Tilt b_{12} (E) bars as required to maintain clearance.

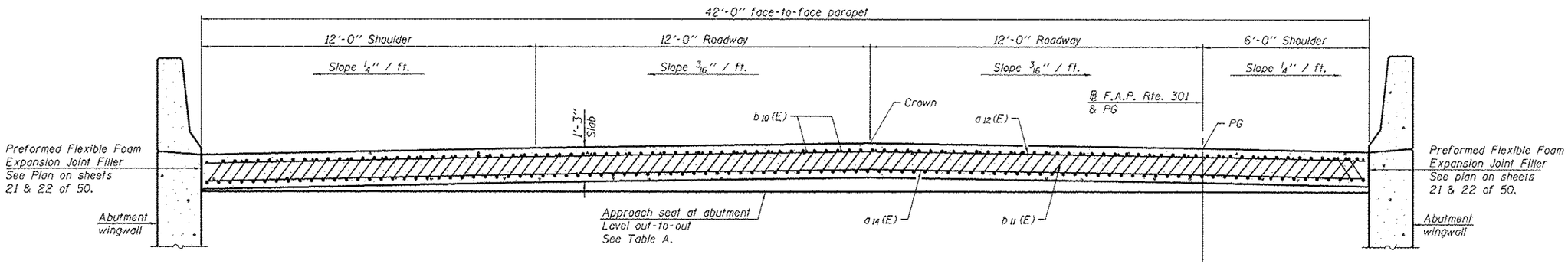
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	Jayne F. Schaffer ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS – EAST (WB) – WEST (EB) STRUCTURE NO. 101 – 0197 (EB) & 101 – 0198 (WB)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - FRANK W. SHARPE	PASSED	J. Carl Koenig ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	197
DRAWN - MICHAEL B. MOSSMAN			REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA					SHEET NO. 22 OF 50 SHEETS			ILLINOIS FED. AID PROJECT		



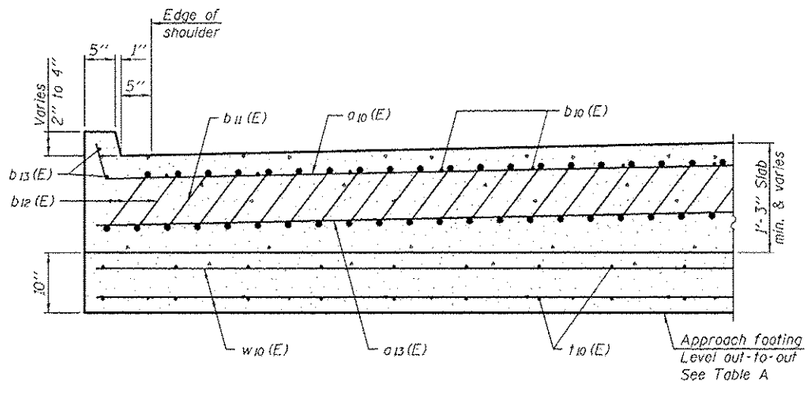
SECTION A-A

TABLE A

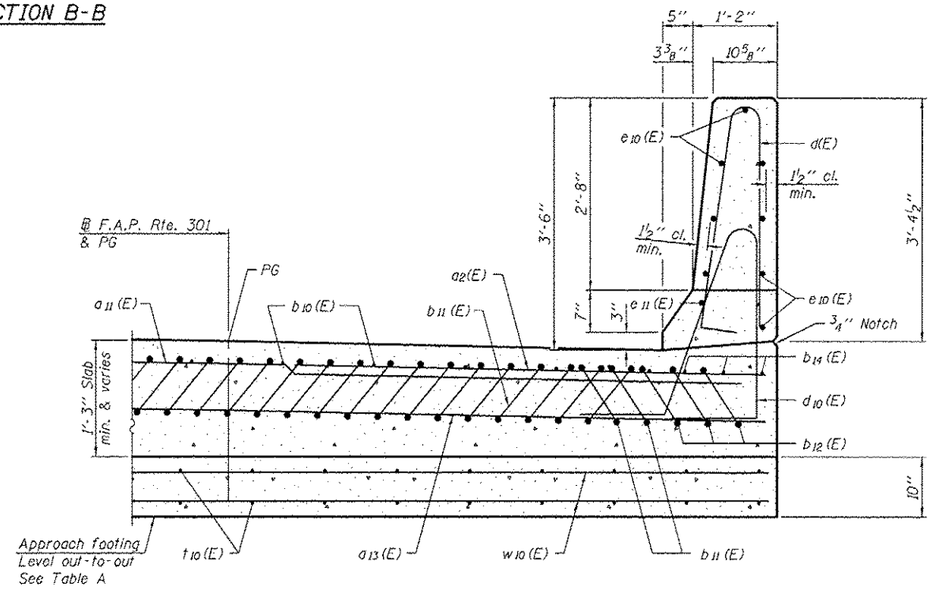
Location	Approach seat Elev. at abutment	Bottom of Footing Elev.
West Approach (Westbound)	709.40	708.47
East Approach (Westbound)	711.52	710.90
West Approach (Eastbound)	709.40	708.47
East Approach (Eastbound)	711.52	710.90



SECTION B-B

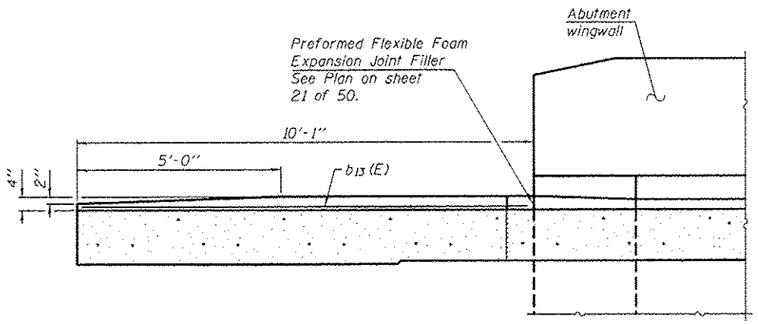


SECTION C-C

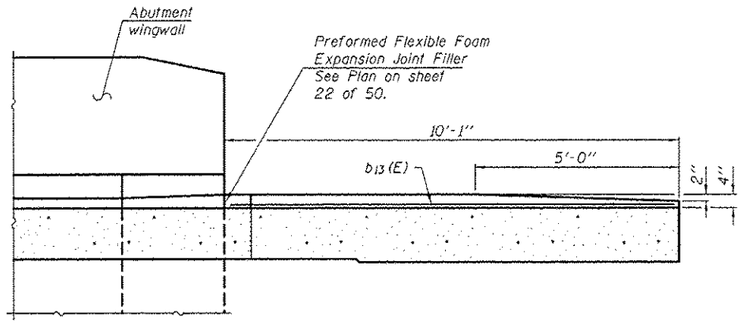


SECTION D-D

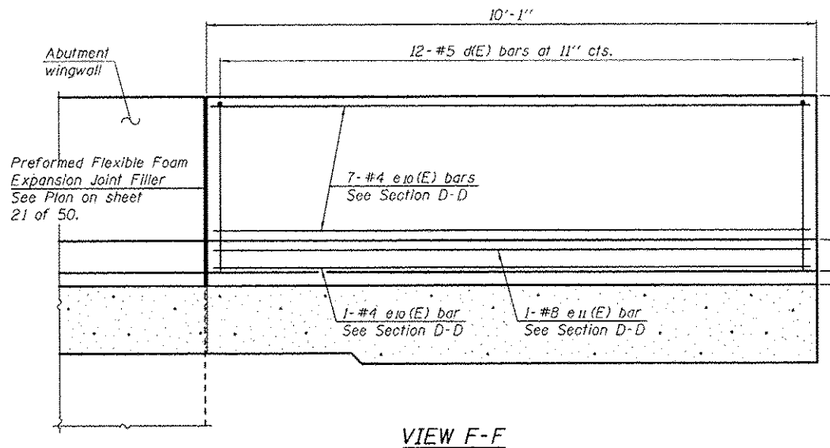
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 101 – 0197 (EB) & 101 – 0198 (WB)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - FRANK W. SHARPE	ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	198
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED		SHEET NO. 23 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



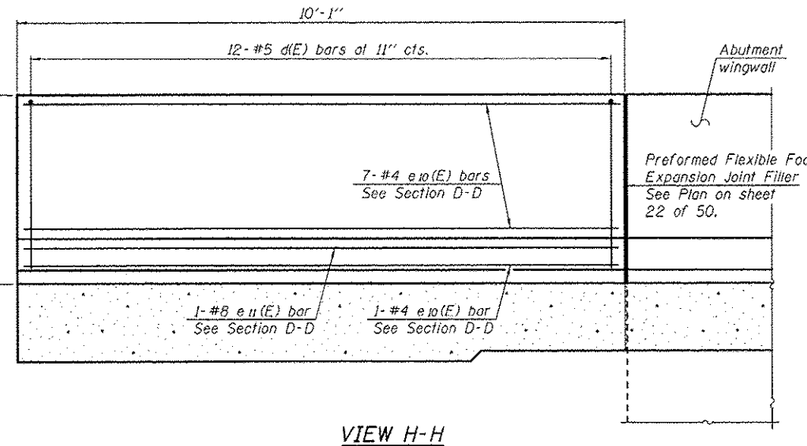
VIEW E-E
(Showing curb reinforcement)



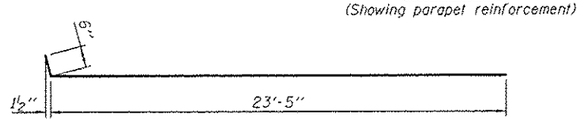
VIEW G-G
(Showing curb reinforcement)



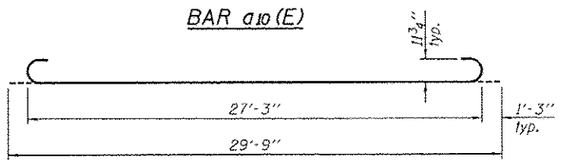
VIEW F-F
(Showing parapet reinforcement)



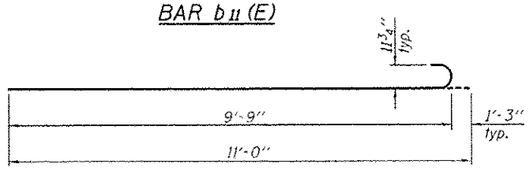
VIEW H-H
(Showing parapet reinforcement)



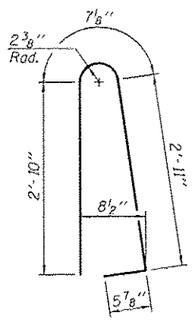
BAR a10 (E)



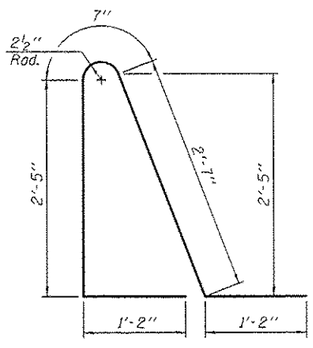
BAR b11 (E)



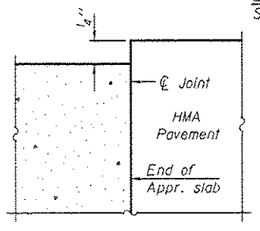
BAR b12 (E)



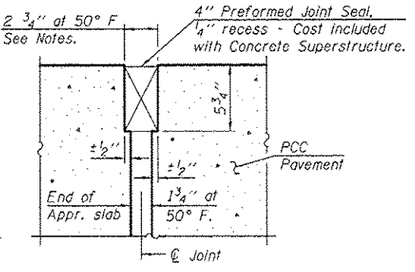
BAR d(E)



BAR d10 (E)



FLEXIBLE PAVEMENT



RIGID PAVEMENT

DETAIL A

Notes:

Approach slab and parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

For v(E) bar details, see sheets 31 & 32 of 50.

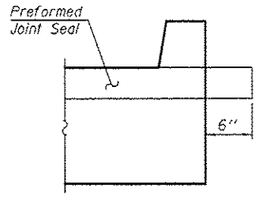
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

For bar splicer details, see sheet 16 of 50.

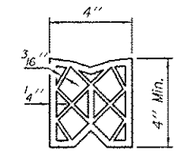
Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill and drainage treatment details, see sheet 2 of 50.

The joint opening shall be determined per Article 520.04. The minimum dimension shall be 1½" for installation purposes.



VIEW I-I
(Curb side shown. Treatment at parapet similar)



PREFORMED JOINT SEAL

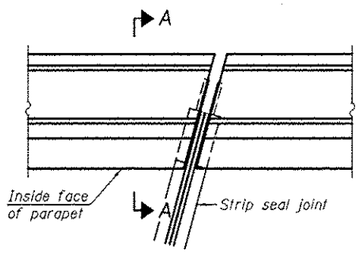
FOUR APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	36	#6	6'-6"	
a10 (E)	44	#4	23'-11"	
a11 (E)	44	#4	23'-5"	
a12 (E)	112	#4	22'-2"	
a13 (E)	80	#5	44'-2"	
a14 (E)	104	#5	41'-8"	
b10 (E)	136	#4	29'-8"	
b11 (E)	404	#9	29'-9"	
b12 (E)	20	#9	11'-0"	
b13 (E)	8	#4	9'-9"	
b14 (E)	12	#5	9'-9"	
d(E)	48	#5	6'-10"	
d10 (E)	48	#5	7'-11"	
e10 (E)	32	#4	9'-9"	
e11 (E)	4	#8	9'-9"	
f10 (E)	360	#4	9'-8"	
w10 (E)	160	#5	44'-2"	
Concrete Superstructure			Cu. Yd.	255.0
Concrete Structures			Cu. Yd.	54.7
Reinforcement Bars, Epoxy Coated			Pound	66840

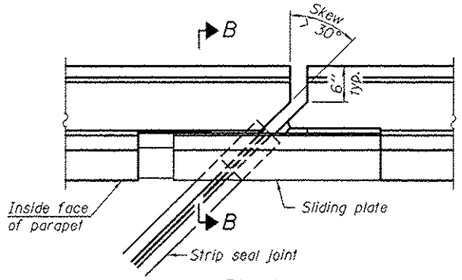
DESIGNED - NICHOLAS R. BARNETT	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - FRANK W. SHARPE			
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 101 – 0197 (EB) & 101 – 0198 (WB)
SHEET NO. 24 OF 50 SHEETS

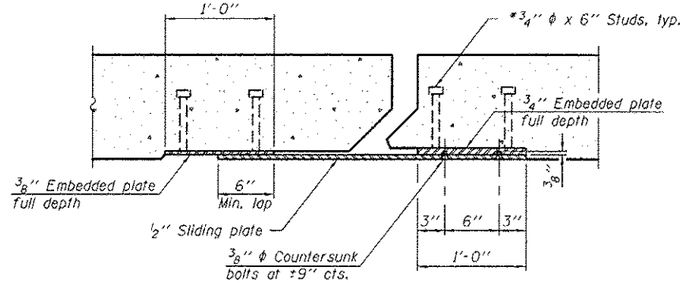
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	199
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			



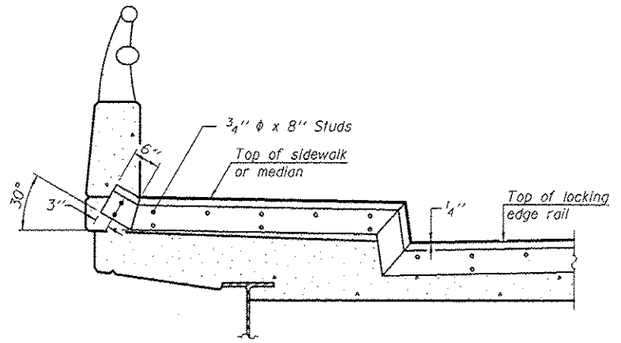
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

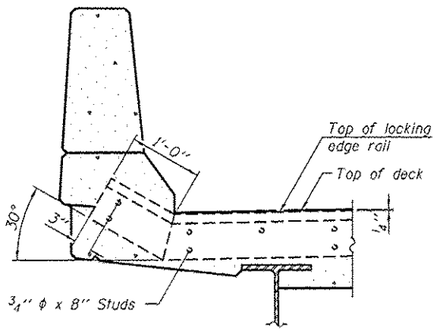


SECTION C-C

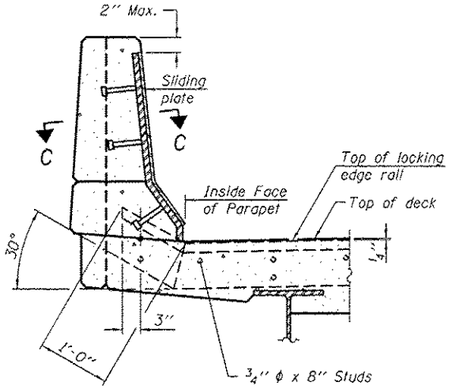


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

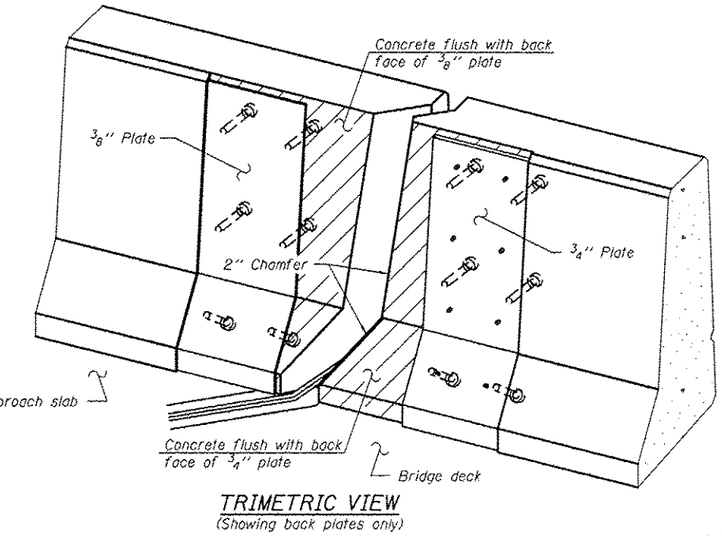
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

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.

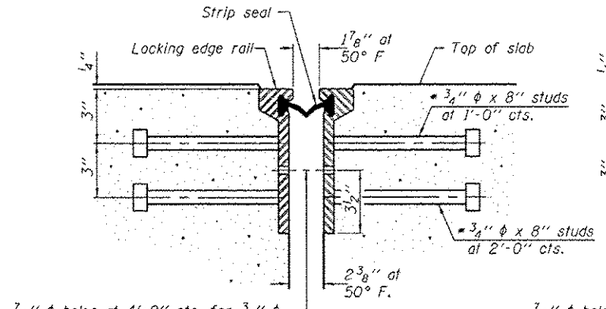
The manufacturer's recommended installation methods shall be followed.

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.

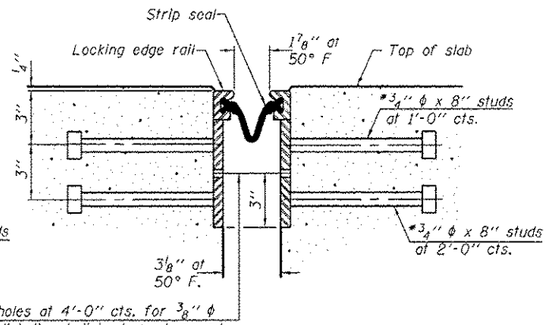
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



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.

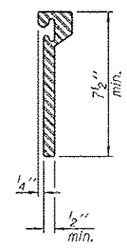
SECTION THRU ROLLED RAIL JOINT



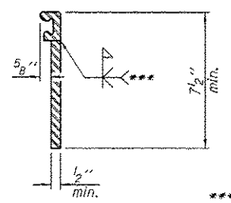
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

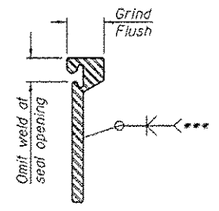
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



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

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

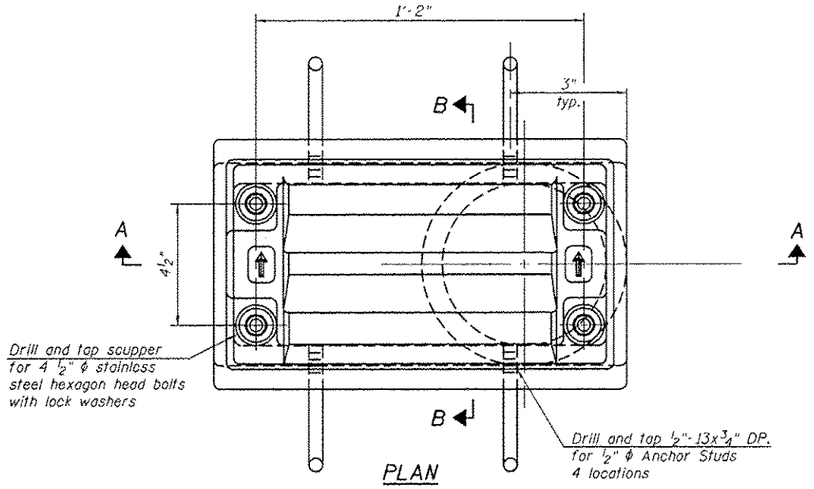
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	176

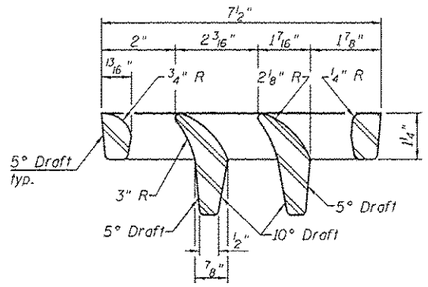
EJ-SSJ 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	SHEET NO. 25 OF 50 SHEETS
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

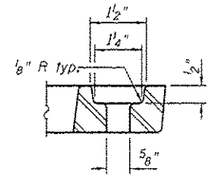
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	280	200
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

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.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

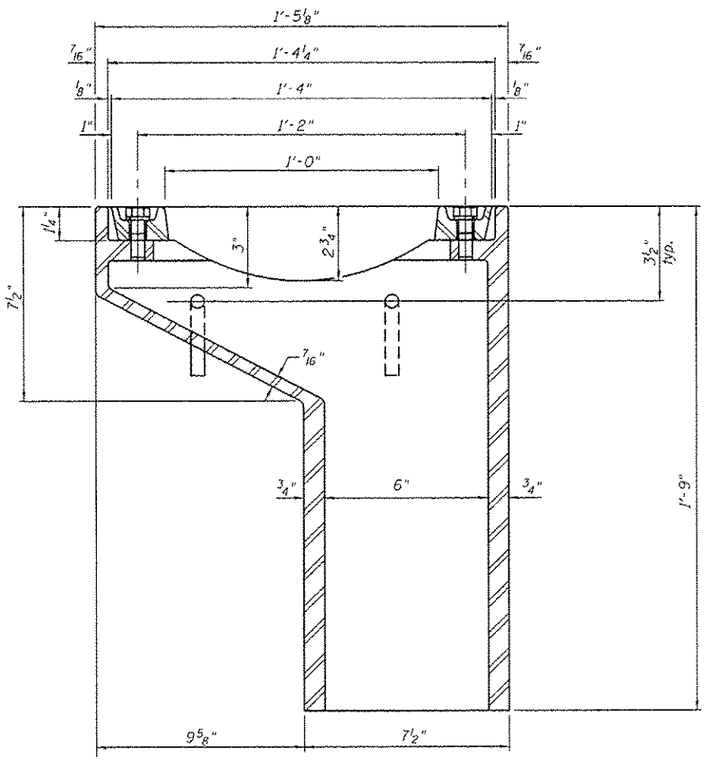
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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 and downspouts shall be galvanized according to AASHTO M111.

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

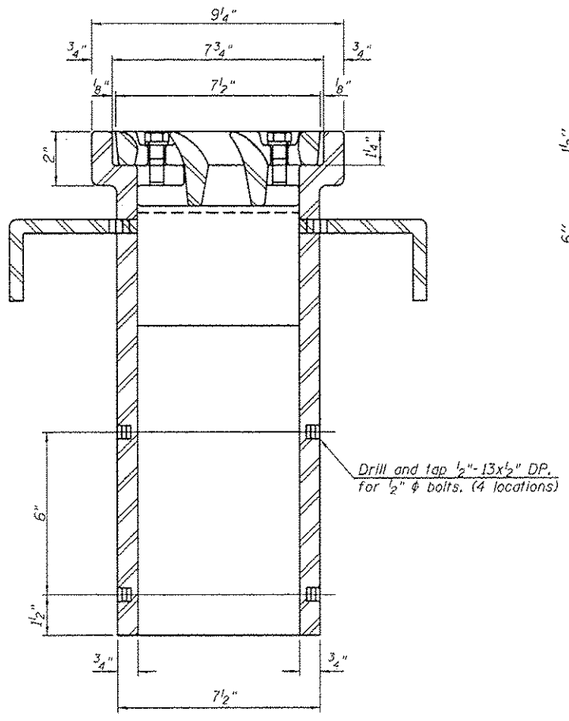
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

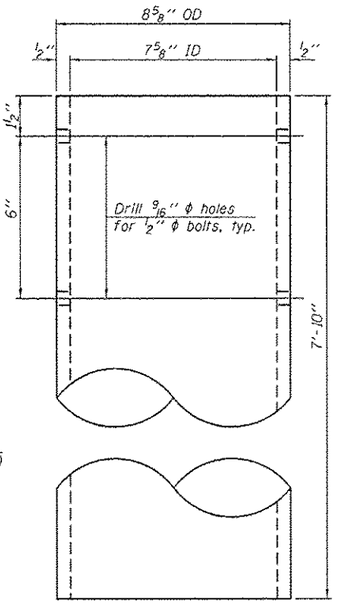


SECTION A-A

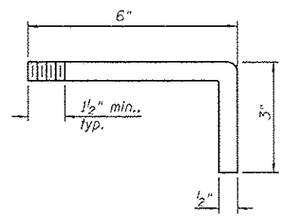
See sheet 19 of 50 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

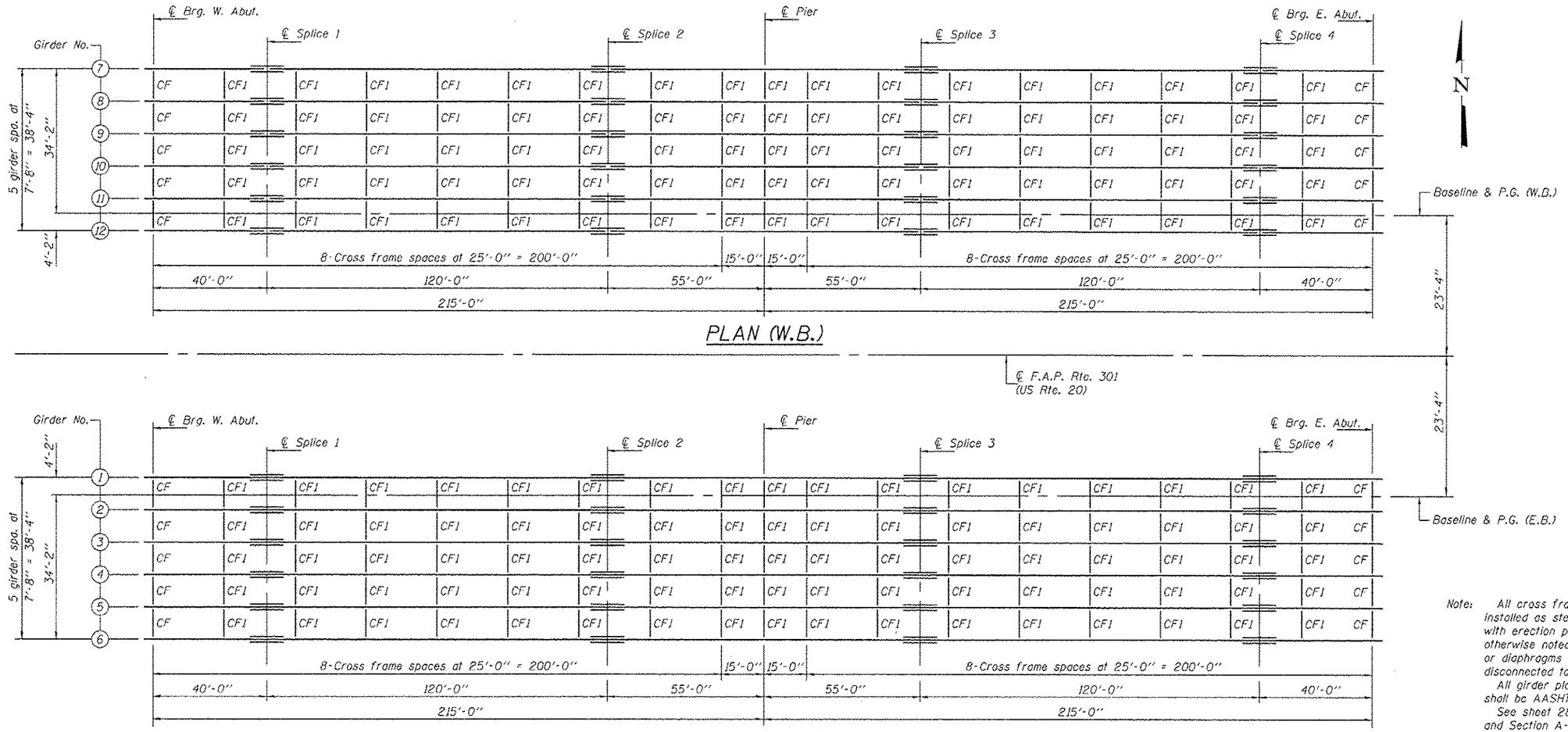
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	8

DS-11 7-1-10

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED —	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —	
CHECKED - NBB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 26 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	201
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



PLAN (W.B.)

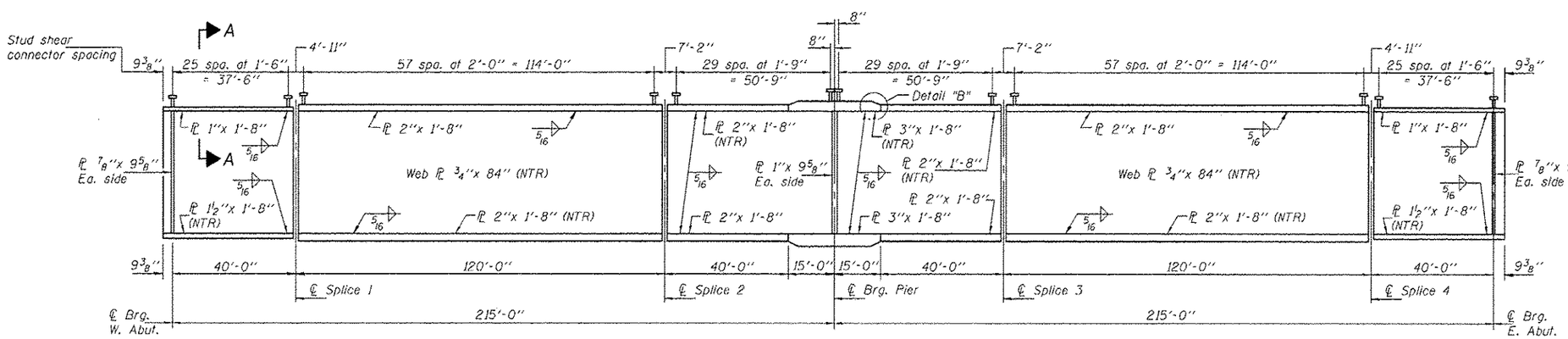
PLAN (E.B.)

Note: 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.

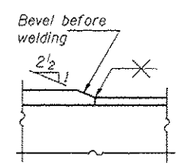
All girder plates, including bearing stiffeners shall be AASHTO M 270 Grade 50.

See sheet 28 of 50 for cross frame details and Section A-A.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

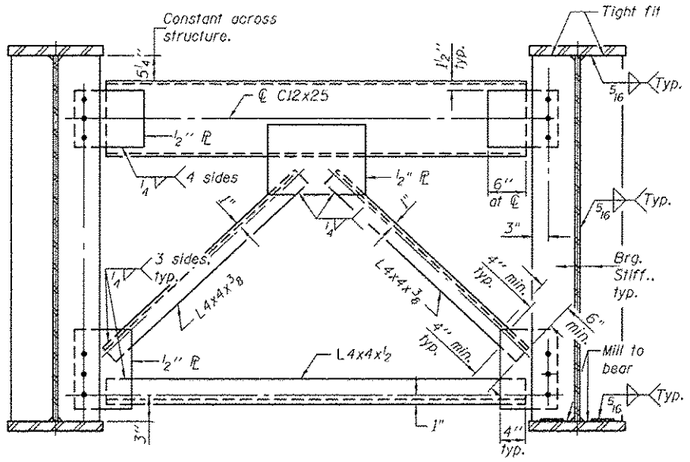


GIRDER ELEVATION



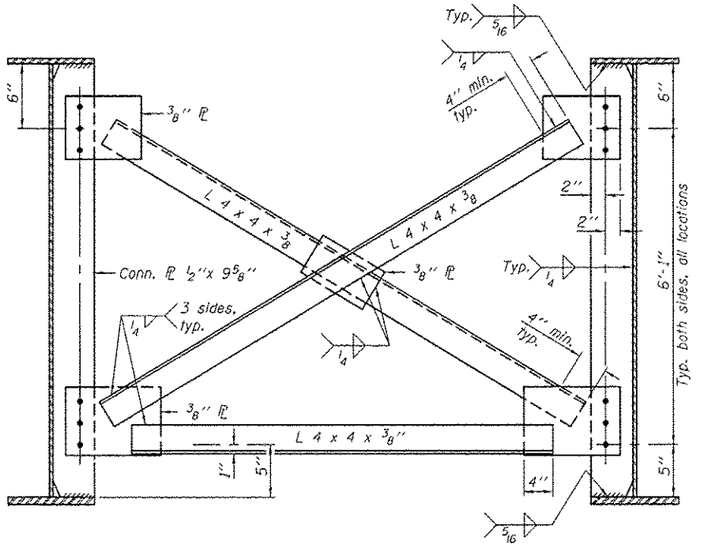
DETAIL "B"

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe	PASSED	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	202
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		SHEET NO. 27 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		



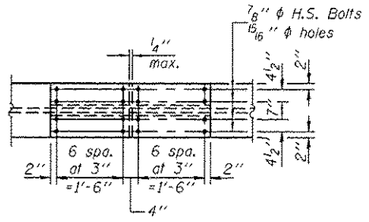
CROSS FRAME CF

(20 Required)

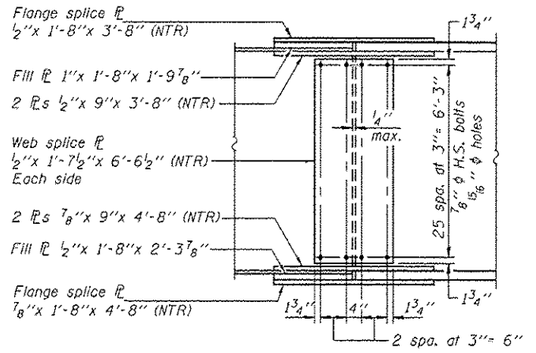


CROSS FRAME CF1

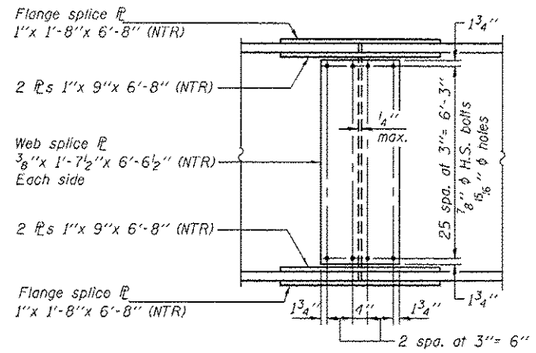
(170 Required)



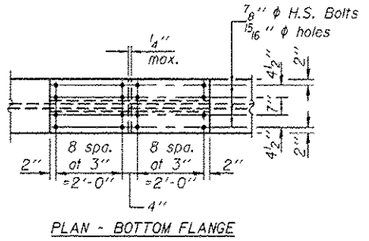
PLAN - TOP FLANGE



ELEVATION



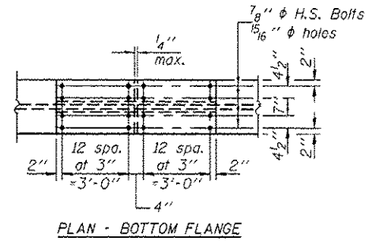
ELEVATION



PLAN - BOTTOM FLANGE

SPLICE 1 & 4 DETAILS

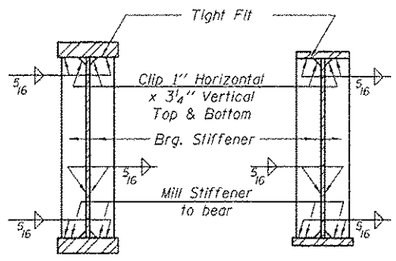
(24 (Required)



PLAN - BOTTOM FLANGE

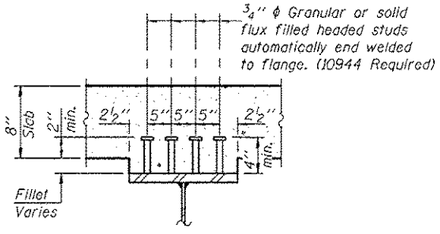
SPLICE 2 & 3 DETAILS

(24 (Required)



SECTION AT PIER

SECTION AT ABUTMENT



SECTION A-A

Notes: Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

Use 3/4" ϕ H.S. bolts with 15/16" ϕ holes in CF and CF1.

Two hardened washers required for each set of oversized holes.

Place cross frame with channel flanges and outstanding angle legs outward from abutment backwall.

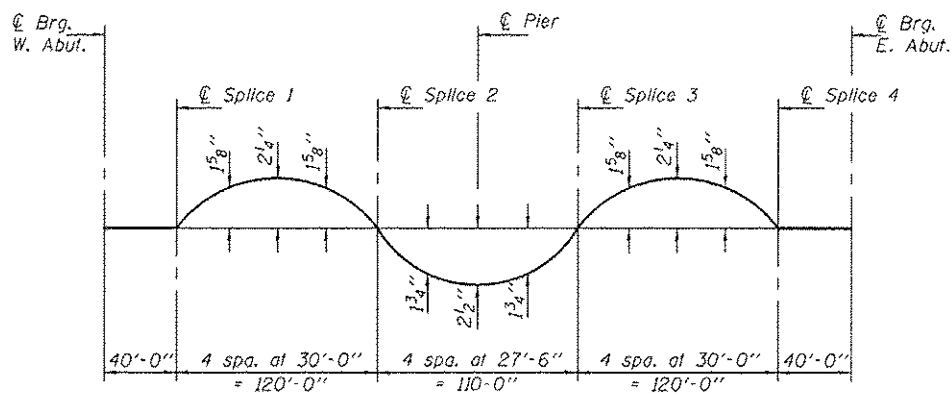
Omit connecting plates on exterior side of exterior girder.

All splice plates except filler plate shall be AASHTO M 270 Gr. 50.

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 28 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	203
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



CAMBER DIAGRAM

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in^4)	184991	264204
$I_c(n)$	(in^4)	309073	404536
$I_c(3n)$	(in^4)	239549	323073
$I_c(cr)$	(in^4)	———	282916
S_s	(in^3)	4204	5871
$S_c(n)$	(in^3)	5006	6701
$S_c(3n)$	(in^3)	4624	6279
$S_c(cr)$	(in^3)	———	6656
DC1	(k/')	1.366	1.529
M_{DC1}	('k)	4189.2	8340.7
DC2	(k/')	0.173	0.173
M_{DC2}	('k)	541.7	1044.9
DW	(k/')	0.383	0.383
M_{DW}	('k)	1199.2	2313.2
M_{LL+IM}	('k)	3902.3	4210.0
M_u (Strength I)	('k)	14541.5	22569.2
$\phi_f M_n$	('k)	24475.9	26246.9
f_s DC1	(ksi)	12.0	17.0
f_s DC2	(ksi)	1.4	1.9
f_s DW	(ksi)	3.1	4.2
f_s (LL+IM)	(ksi)	9.4	7.6
f_s (Service II)	(ksi)	28.6	33.0
$0.95R_hF_{yf}$	(ksi)	47.5	47.5
f_s (Total)(Strength I)	(ksi)	———	43.2
$\phi_f F_n$	(ksi)	———	50.0
V_f	(k)	68.4	65.5

INTERIOR GIRDER REACTION TABLE			
		Abutments	Pier
R_{DC1}	(k)	103.7	375.1
R_{DC2}	(k)	13.7	46.9
R_{DW}	(k)	30.4	103.9
R_{LL+IM}	(k)	118.9	253.9
R_{Total}	(k)	266.7	779.8

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: 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-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{LL+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(LL+IM)$

$0.95R_hF_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s(LL+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

*TOP OF GIRDER WEB ELEVATIONS (E.B.)

Location	℄ Brg. W. Abut.	℄ Splice 1	℄ Splice 2	℄ Brg. Pier	℄ Splice 3	℄ Splice 4	℄ Brg. E. Abut.
Girder 1	710.10	710.16	710.71	710.94	711.17	711.88	712.20
Girder 2	710.24	710.30	710.85	711.08	711.31	712.02	712.34
Girder 3	710.36	710.42	710.97	711.20	711.43	712.14	712.46
Girder 4	710.26	710.33	710.88	711.11	711.34	712.04	712.37
Girder 5	710.13	710.20	710.74	710.97	711.20	711.91	712.24
Girder 6	709.97	710.04	710.58	710.81	711.04	711.75	712.08

*For fabrication use only.

*TOP OF GIRDER WEB ELEVATIONS (W.B.)

Location	℄ Brg. W. Abut.	℄ Splice 1	℄ Splice 2	℄ Brg. Pier	℄ Splice 3	℄ Splice 4	℄ Brg. E. Abut.
Girder 7	709.97	710.04	710.58	710.81	711.04	711.75	712.08
Girder 8	710.13	710.20	710.74	710.97	711.20	711.91	712.24
Girder 9	710.26	710.33	710.88	711.11	711.34	712.04	712.37
Girder 10	710.36	710.42	710.97	711.20	711.43	712.14	712.46
Girder 11	710.24	710.30	710.85	711.08	711.31	712.02	712.34
Girder 12	710.10	710.16	710.71	710.94	711.17	711.88	712.20

*For fabrication use only.

DESIGNED - Nick R. Barnett
CHECKED - Frank W. Sharpe
DRAWN - h.t. duong
CHECKED - NBB/FWS/GRA

EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN
PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES

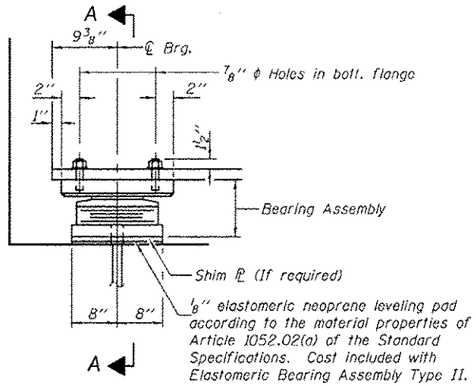
DATE - OCTOBER 4, 2013
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

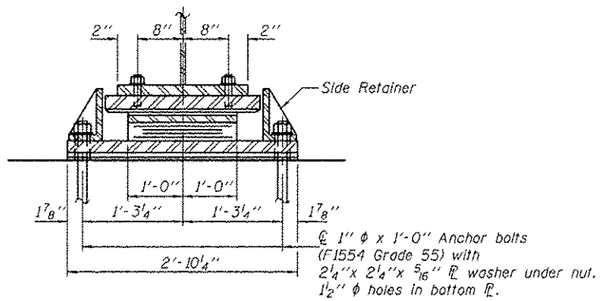
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	38R & 38R-1	WINNEBAGO	290	204

CONTRACT NO. 64D19
ILLINOIS FED. AID PROJECT

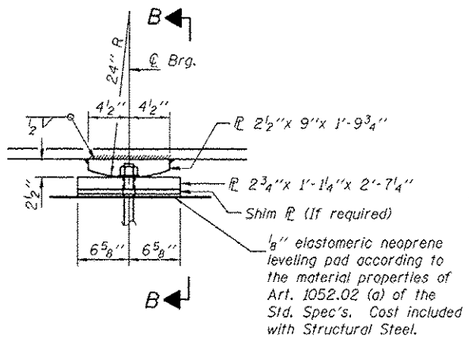


ELEVATION AT ABUT.

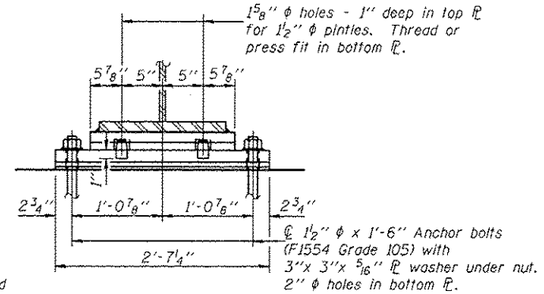


SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

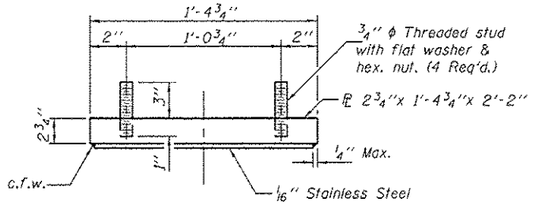


ELEVATION AT PIER

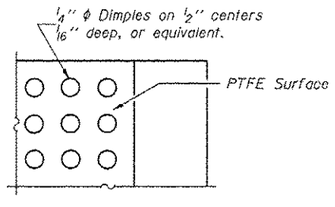


SECTION B-B

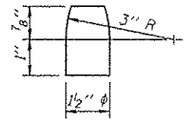
FIXED BEARING



TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE



PINTLE
(M 270, Gr. 50)

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in 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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

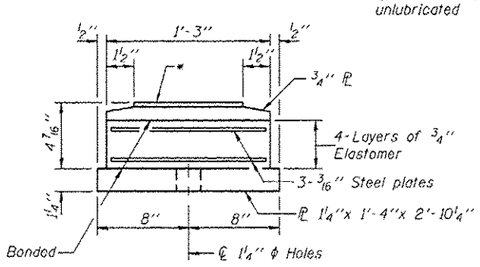
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

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

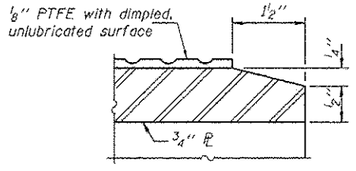
The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.

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.

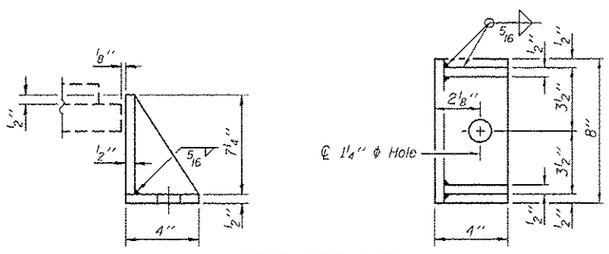
*1/8" PTFE dimpled, unlubricated



BOTTOM BEARING ASSEMBLY

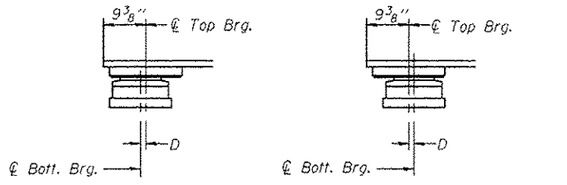


SECTION THRU PTFE



SIDE RETAINER

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



BELOW 50°F.
(Move bott. brg. away from fixed brg.)

ABOVE 50°F.
(Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

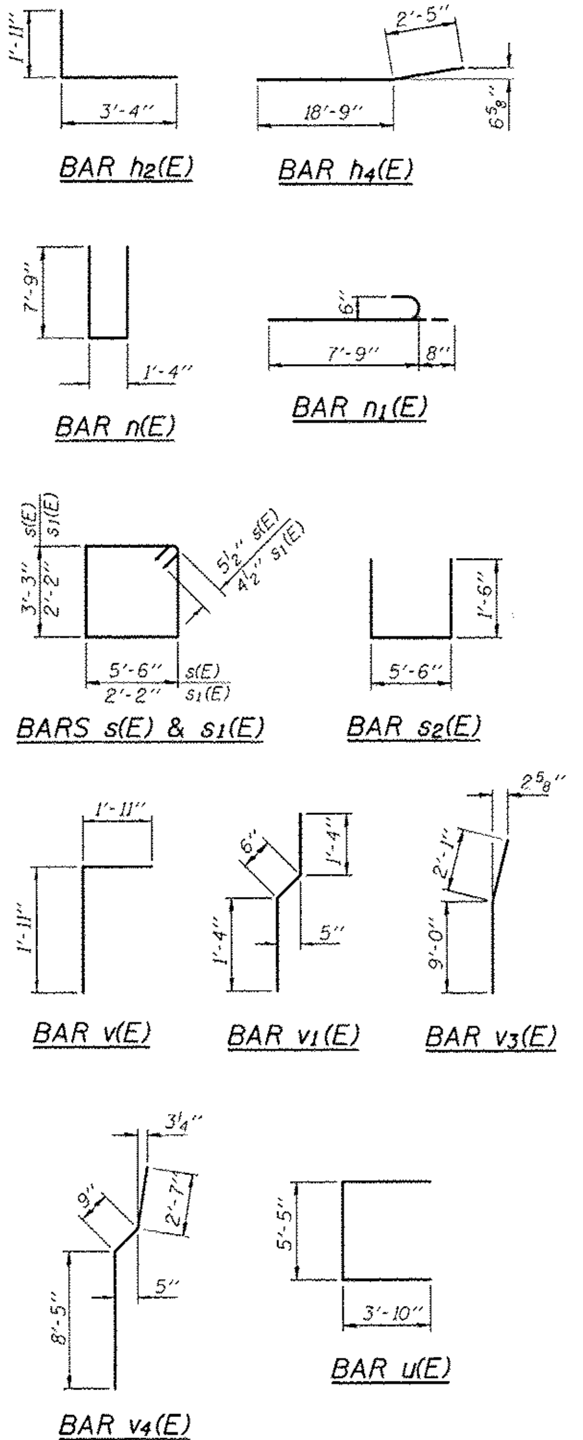
D='8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

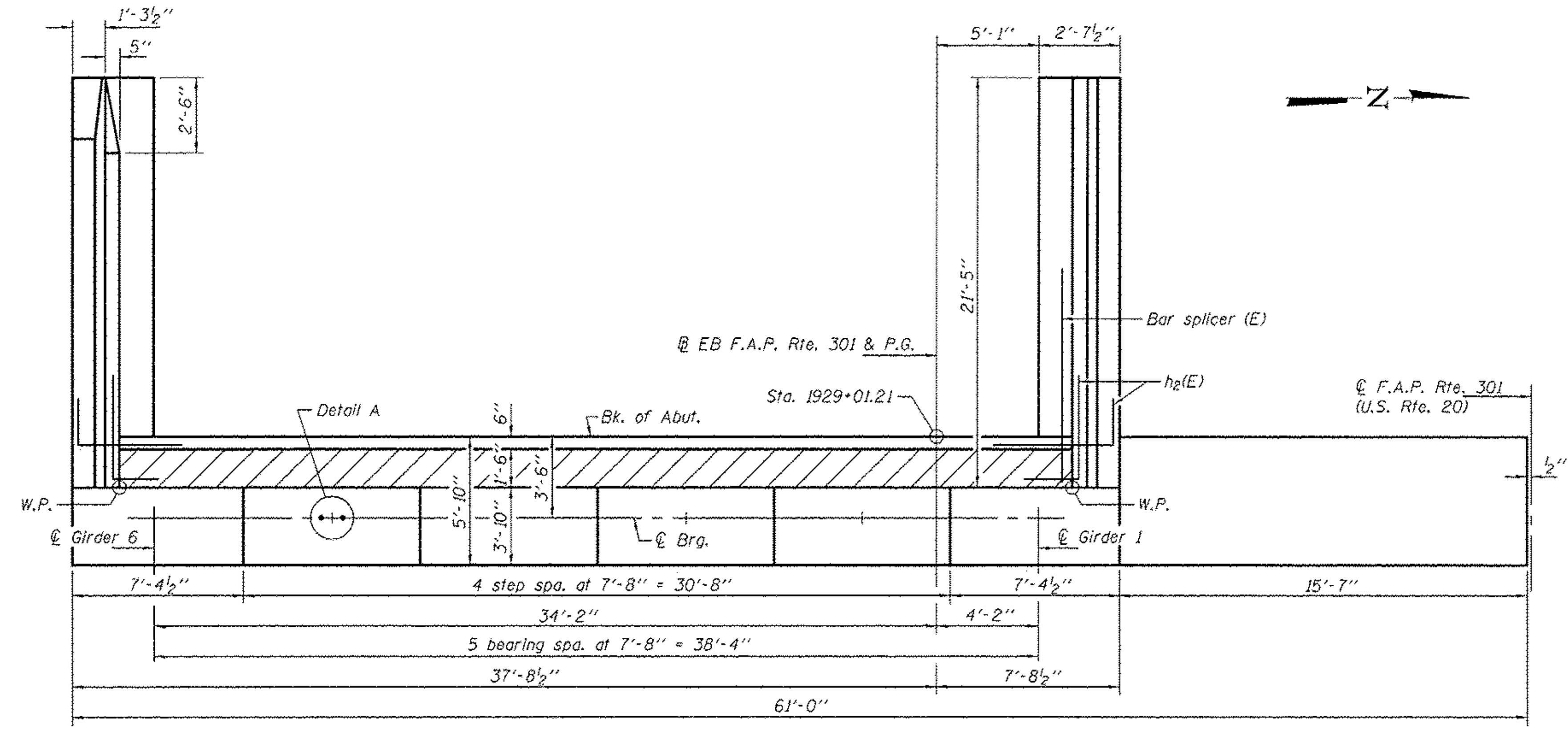
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	24

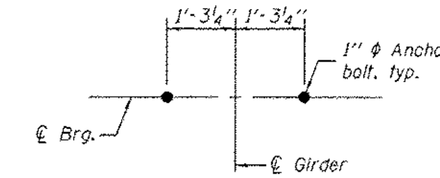
I-2E-2 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	Joyce F. Oh	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEARING DETAILS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe		ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	205
DRAWN - h.t. duong	PASSED	J. Carl Loop	REVISED —					CONTRACT NO. 64D19		
CHECKED - NBB/FWS/GRA		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —		SHEET NO. 30 OF 50 SHEETS		ILLINOIS FED. AID PROJECT			

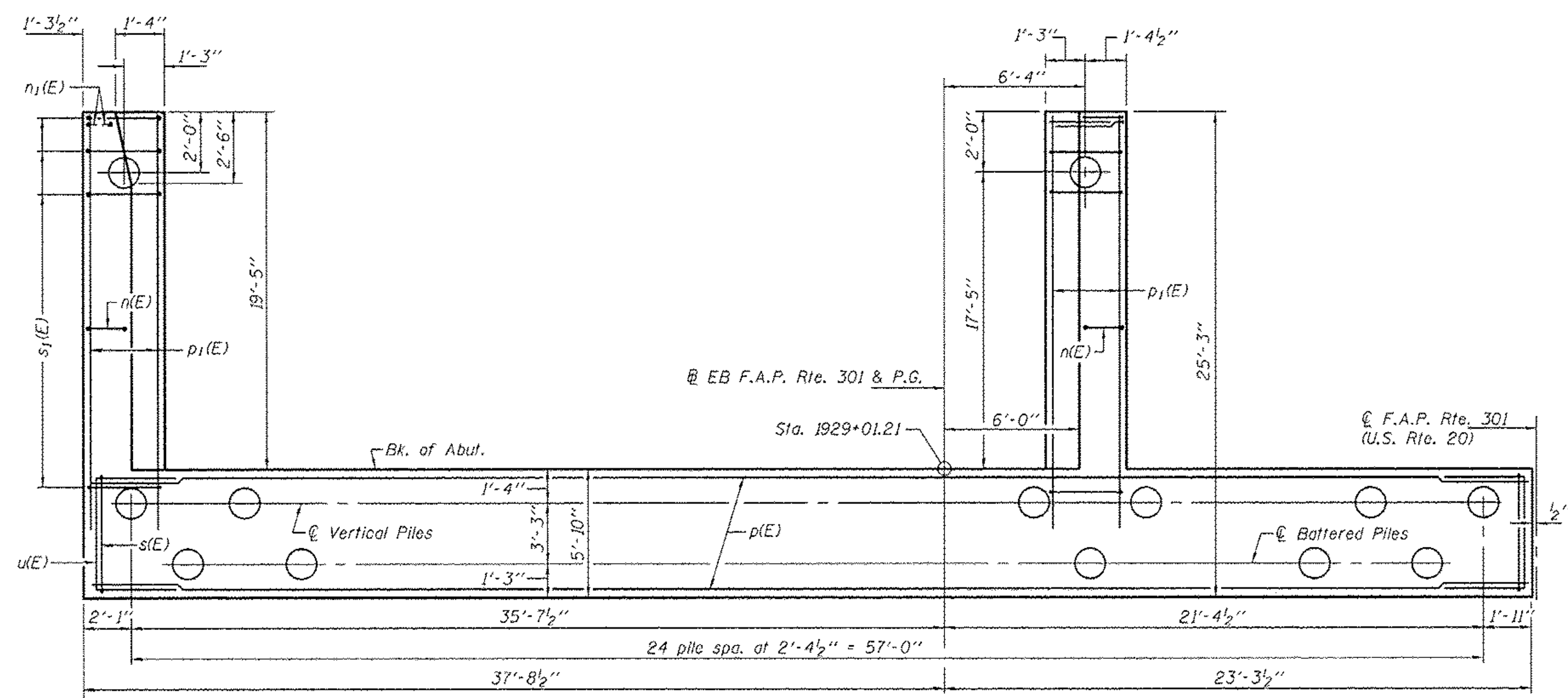




TOP VIEW



DETAIL A



PLAN-PILE CAP

WEST ABUTMENT (E.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	41'-8"	
h1(E)	5	#6	41'-8"	
h2(E)	36	#5	5'-3"	
h3(E)	42	#4	21'-1"	
h4(E)	14	#4	21'-2"	
h5(E)	5	#5	22'-8"	
n(E)	41	#6	16'-10"	
n1(E)	6	#6	8'-5"	
p(E)	28	#7	32'-11"	
p1(E)	12	#7	23'-2"	
s(E)	78	#5	18'-5"	
s1(E)	42	#4	9'-5"	
s2(E)	23	#4	8'-6"	
u(E)	8	#6	13'-1"	
v(E)	43	#5	3'-10"	
v1(E)	43	#4	3'-2"	
v2(E)	44	#6	11'-8"	
v3(E)	3	#6	11'-1"	
v4(E)	41	#6	11'-9"	
v5(E)	43	#5	9'-2"	
v6(E)	43	#5	10'-6"	
Structure Excavation			Cu. Yd.	165
Concrete Structures			Cu. Yd.	108.8
Reinforcement Bars, Epoxy Coated			Pound	10330
Furnishing Metal Shell Piles 14"x .312"			Foot	1300
Driving Piles			Foot	1300
Test Pile, Metal Shells			Each	1
Pile Shoes			Each	27
Concrete Sealer			Sq. Ft.	894
Anchor Bolts, 1"			Each	12

For details of piles, see sheet 45 of 50. See sheet 35 of 50 for reinforcement in the wingwalls.

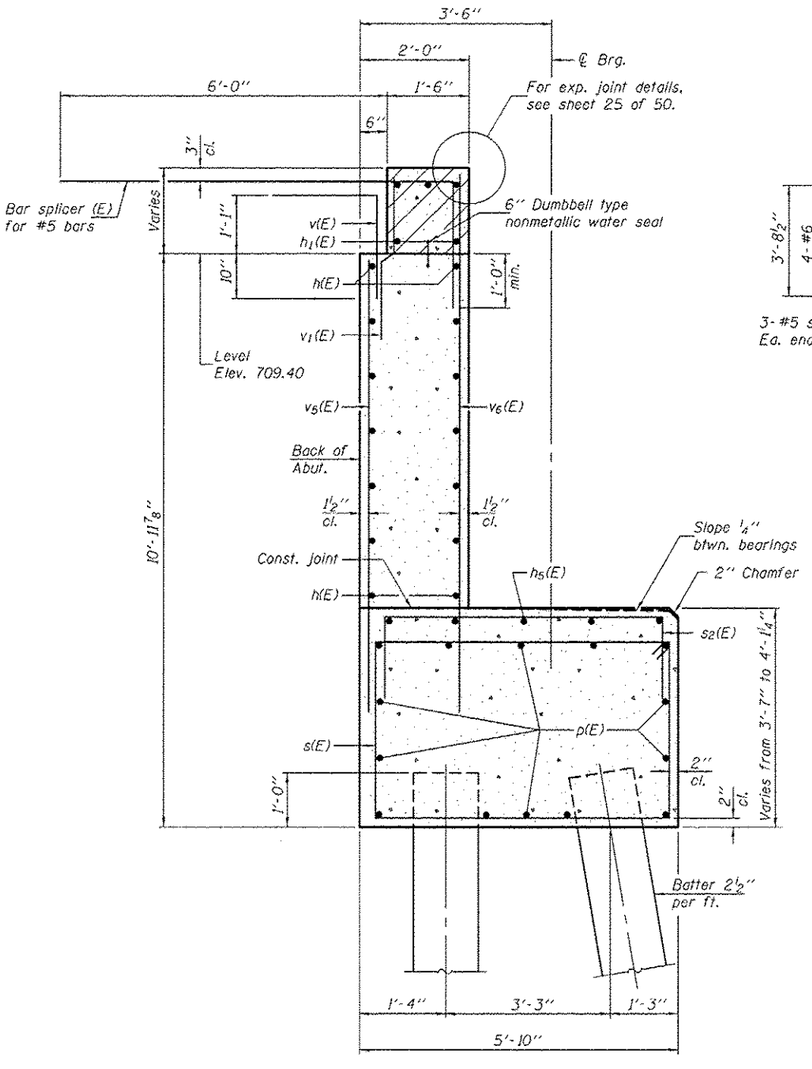
PILE DATA

Type: Metal Shells 14"x .312" with Pile Shoes
Nominal Required Bearing: 453 Kips
Factored Resistance Available: 249 Kips
Est. Length: 50'
No. Production Piles: 26
No. Test Piles: 1

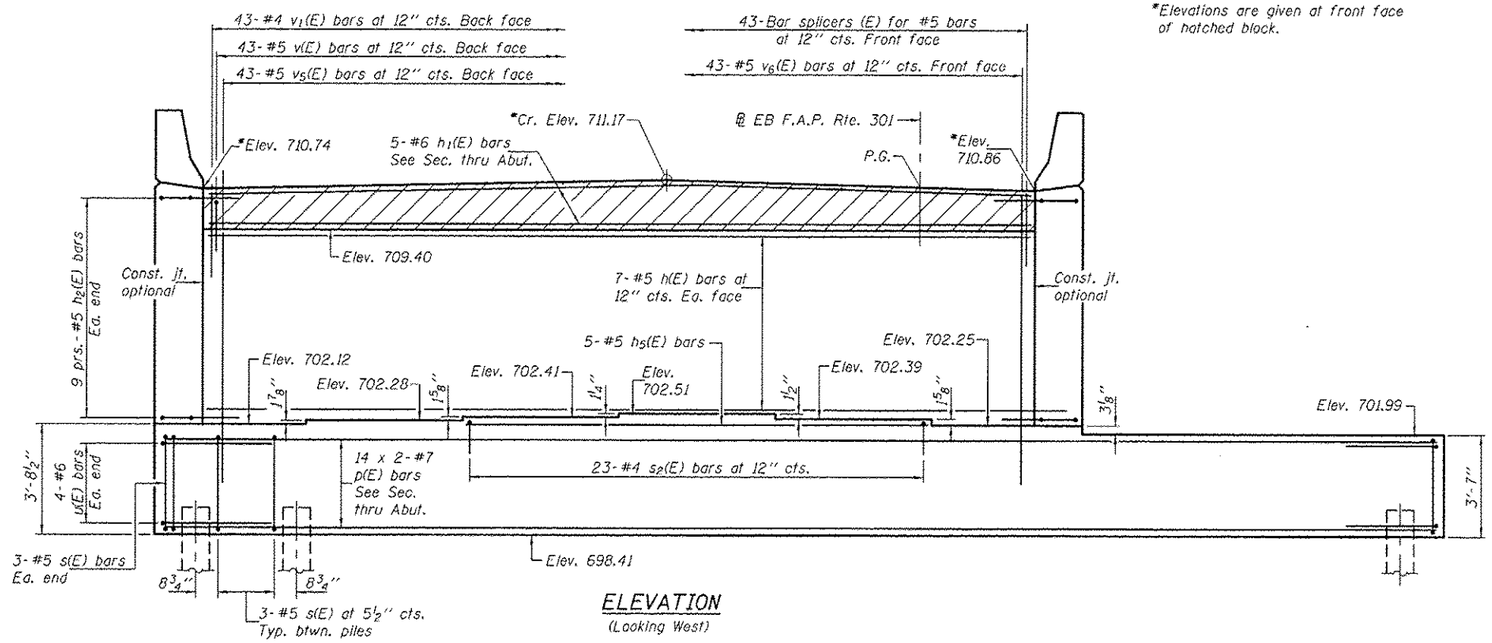
DESIGNED - Nick R. Barnett	EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —	WEST ABUTMENT (E.B.) – STAGE I CONSTRUCTION
DRAWN - h.t. duong		REVISED —	STRUCTURE NO. 101–0197 (E.B.) & 101–0198 (W.B.)
CHECKED - NRB/FWS/GRA			SHEET NO. 31 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	206
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

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 20 of 50.
See sheet 44 of 50 for additional form liner details. Form liner shall be placed on outside face of wingwalls as shown in the wingwall elevation shown below.
For bar splicer details, see sheet 46 of 50.

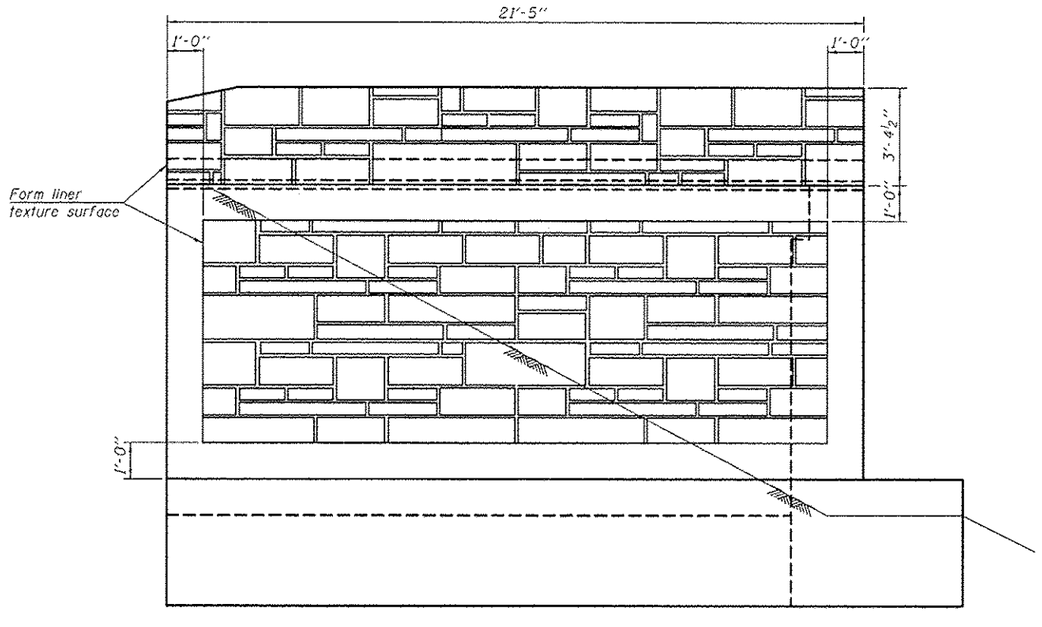


SECTION THRU
WEST ABUTMENT



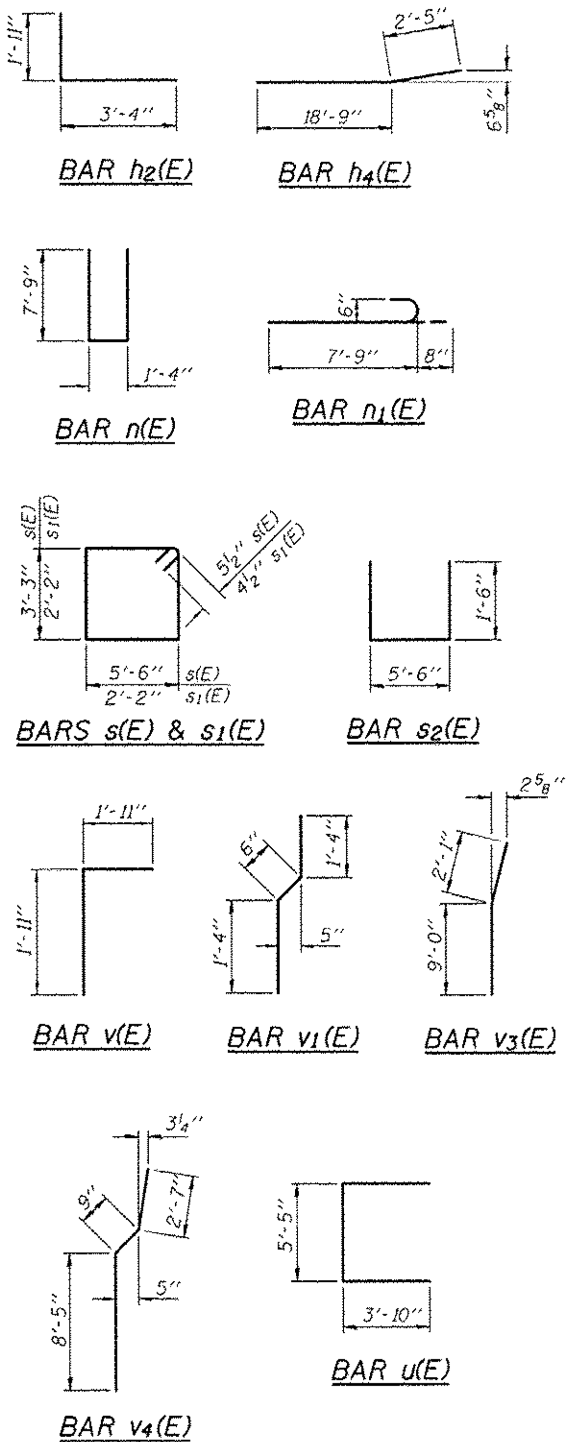
ELEVATION
(Looking West)

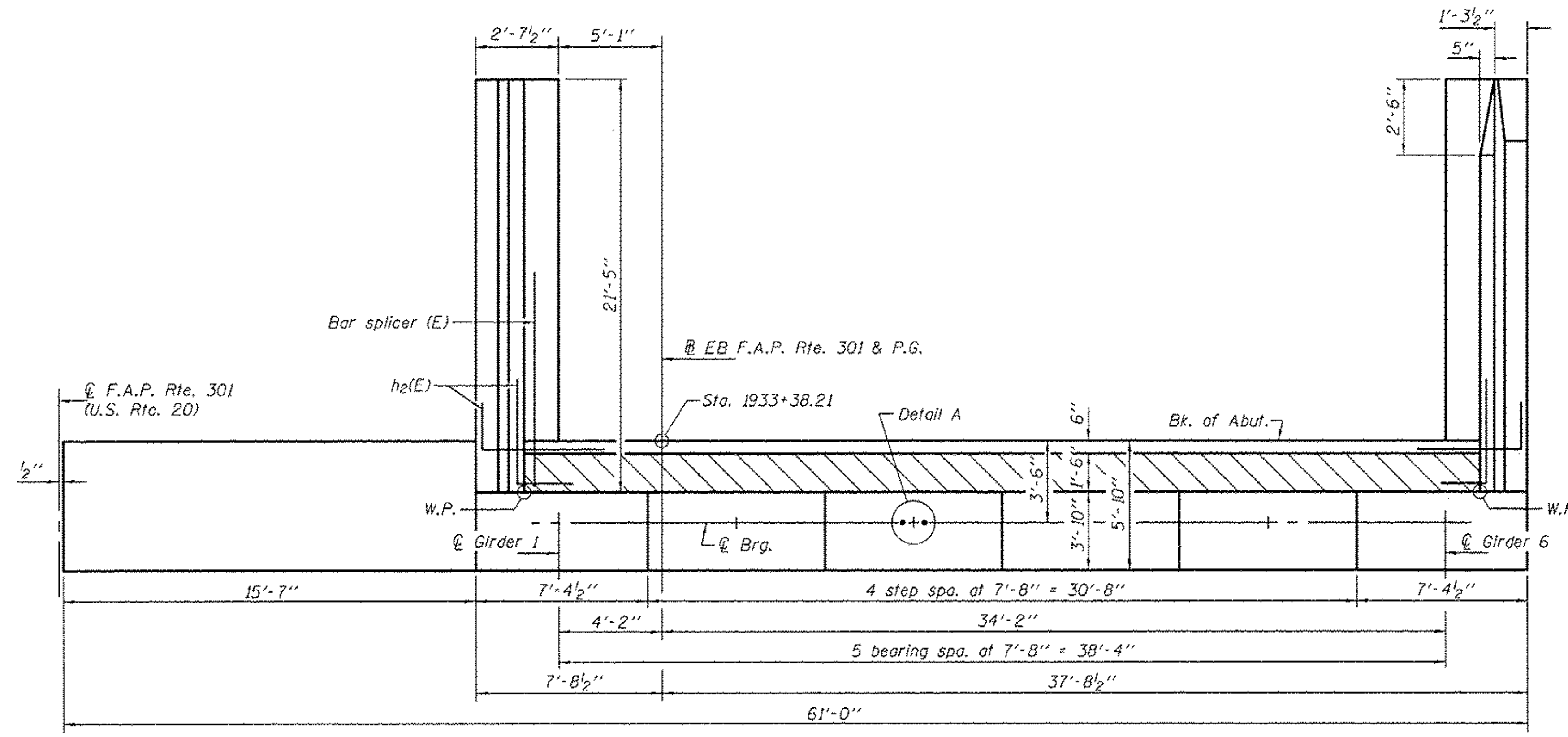
MIN. BAR LAP
#7 bar = 5'-2"



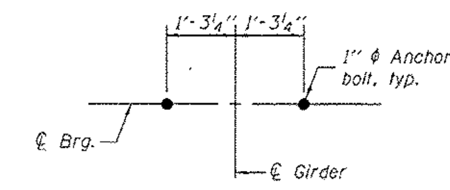
WINGWALL ELEVATION
(South wingwall shown, North wingwall similar).

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe	ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	207
DRAWN - h.t. duong	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 32 OF 50 SHEETS			ILLINOIS FED. AID PROJECT		

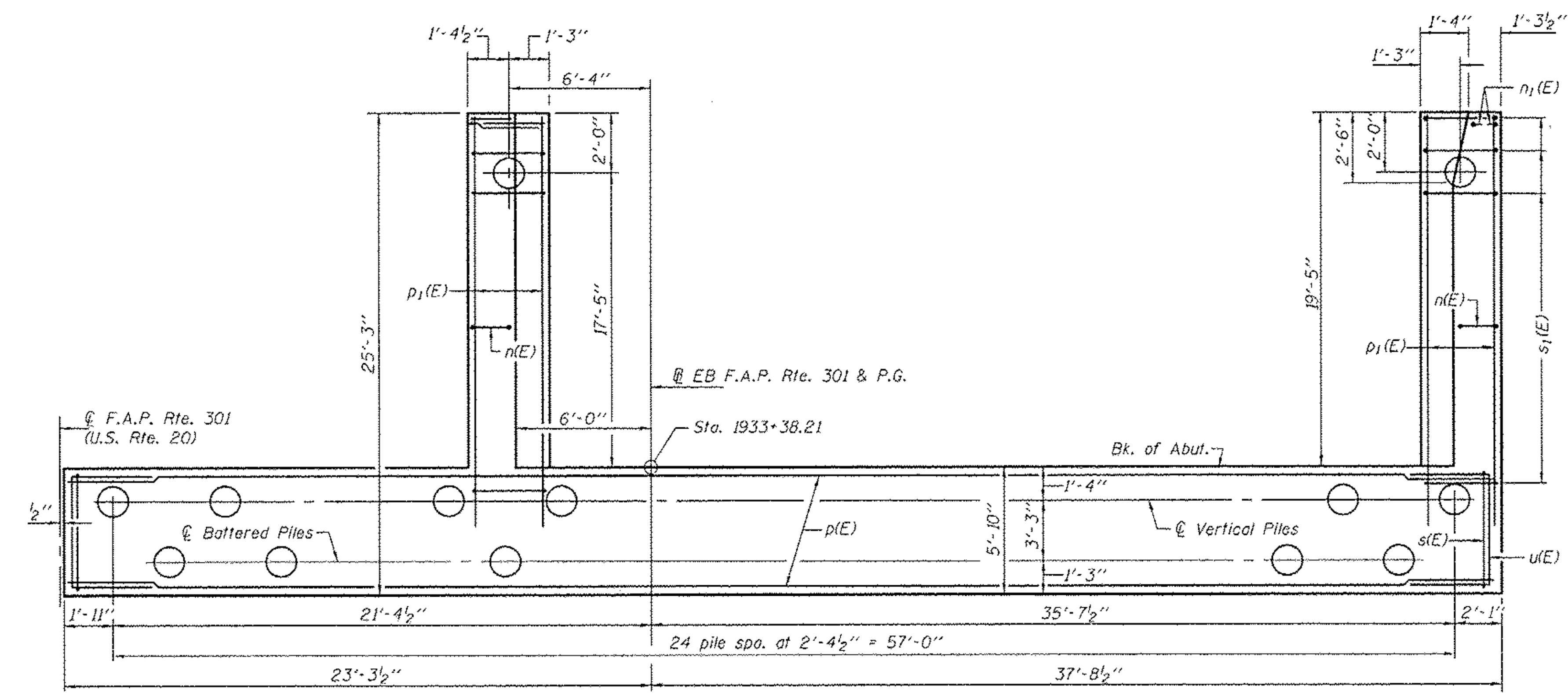




TOP VIEW



DETAIL A



PLAN-PILE CAP

PILE DATA

Type: Metal Shells 14"x .312" with Pile Shoes
Nominal Required Bearing: 452 Kips
Factored Resistance Available: 249 Kips
Est. Length: 56'
No. Production Piles: 26
No. Test Piles: 1

EAST ABUTMENT (E.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	41'-8"	
h_1(E)	5	#6	41'-8"	
h_2(E)	36	#5	5'-3"	
h_3(E)	42	#4	21'-1"	
h_4(E)	14	#4	21'-2"	
h_5(E)	5	#5	22'-8"	
n(E)	41	#6	16'-10"	
n_1(E)	6	#6	8'-5"	
p(E)	28	#7	32'-11"	
p_1(E)	12	#7	23'-2"	
s(E)	78	#5	18'-5"	
s_1(E)	42	#4	9'-5"	
s_2(E)	23	#4	6'-6"	
u(E)	8	#6	13'-1"	
v(E)	43	#5	3'-10"	
v_1(E)	43	#4	3'-2"	
v_2(E)	44	#6	11'-8"	
v_3(E)	3	#6	11'-1"	
v_4(E)	41	#6	11'-9"	
v_5(E)	43	#5	9'-2"	
v_6(E)	43	#5	10'-6"	
Structure Excavation			Cu. Yd.	165
Concrete Structures			Cu. Yd.	108.8
Reinforcement Bars, Epoxy Coated			Pound	10330
Furnishing Metal Shell Piles 14"x .312"			Foot	1456
Driving Piles			Foot	1456
Test Pile, Metal Shells			Each	1
Pile Shoes			Each	27
Concrete Sealer			Sq. Ft.	894
Anchor Bolts, 1"			Each	12

For details of piles, see sheet 45 of 50. See sheet 35 of 50 for reinforcement in the wingwalls.

DESIGNED - Nick R. Barnett	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013
CHECKED - Frank W. Sharpe			REVISED
DRAWN - h.t. duong	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED - NRB/FWS/GRA			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT (E.B.) – STAGE I CONSTRUCTION
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)

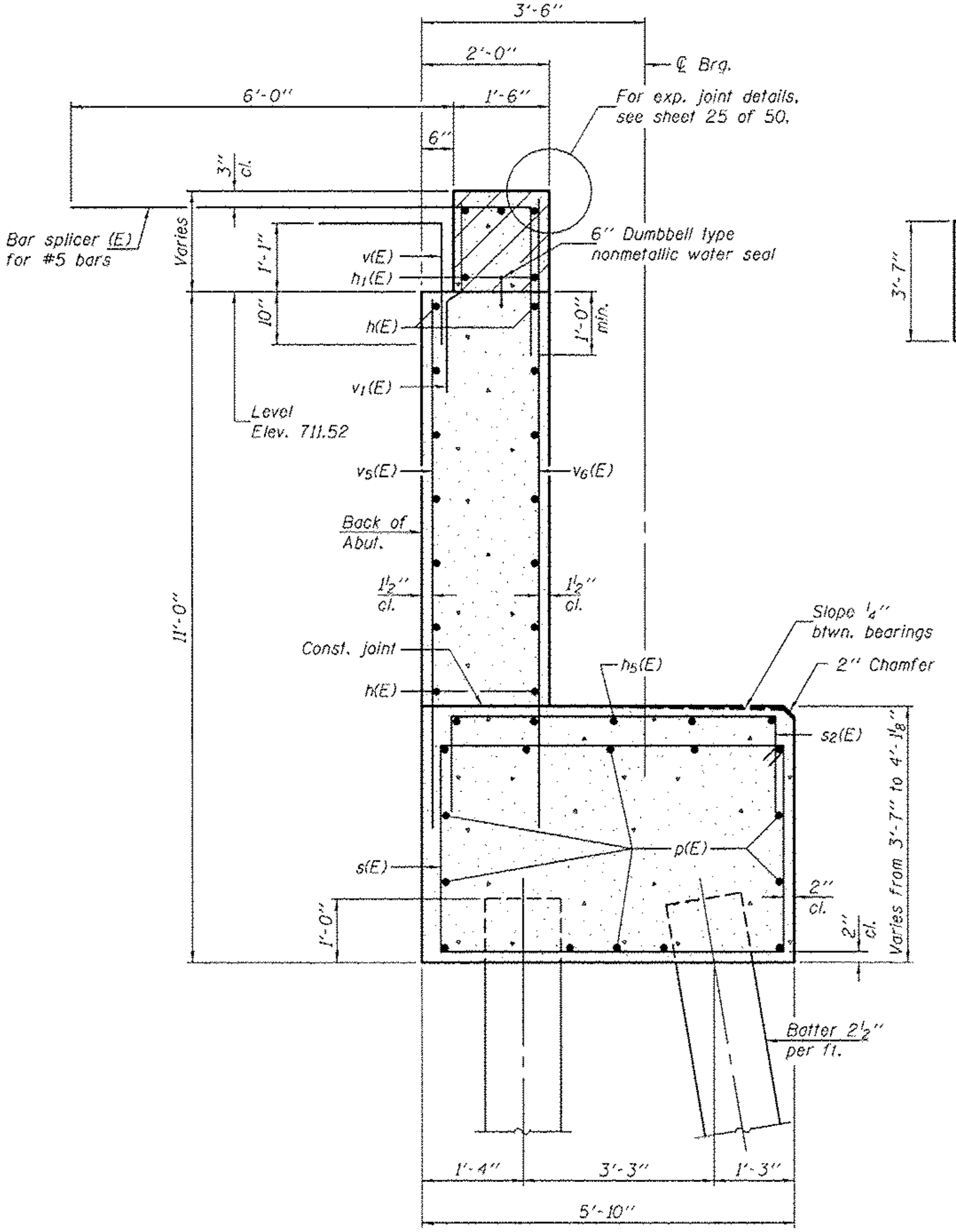
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	208

CONTRACT NO. 64D19

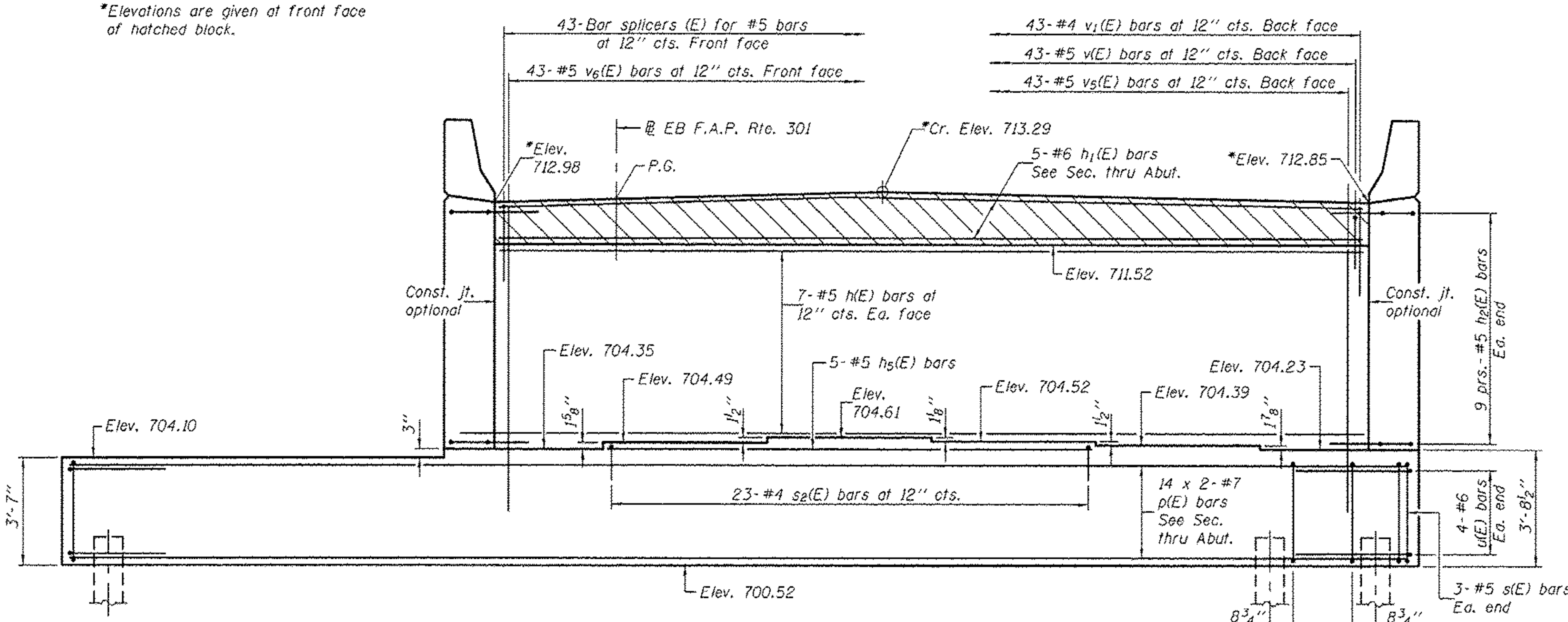
ILLINOIS FED. AID PROJECT

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 20 of 50.
See sheet 44 of 50 for additional form liner details.
Form liner shall be placed on outside face of wingwalls as shown in the wingwall elevation shown below.
For bar splicer details, see sheet 46 of 50.

*Elevations are given at front face of hatched block.

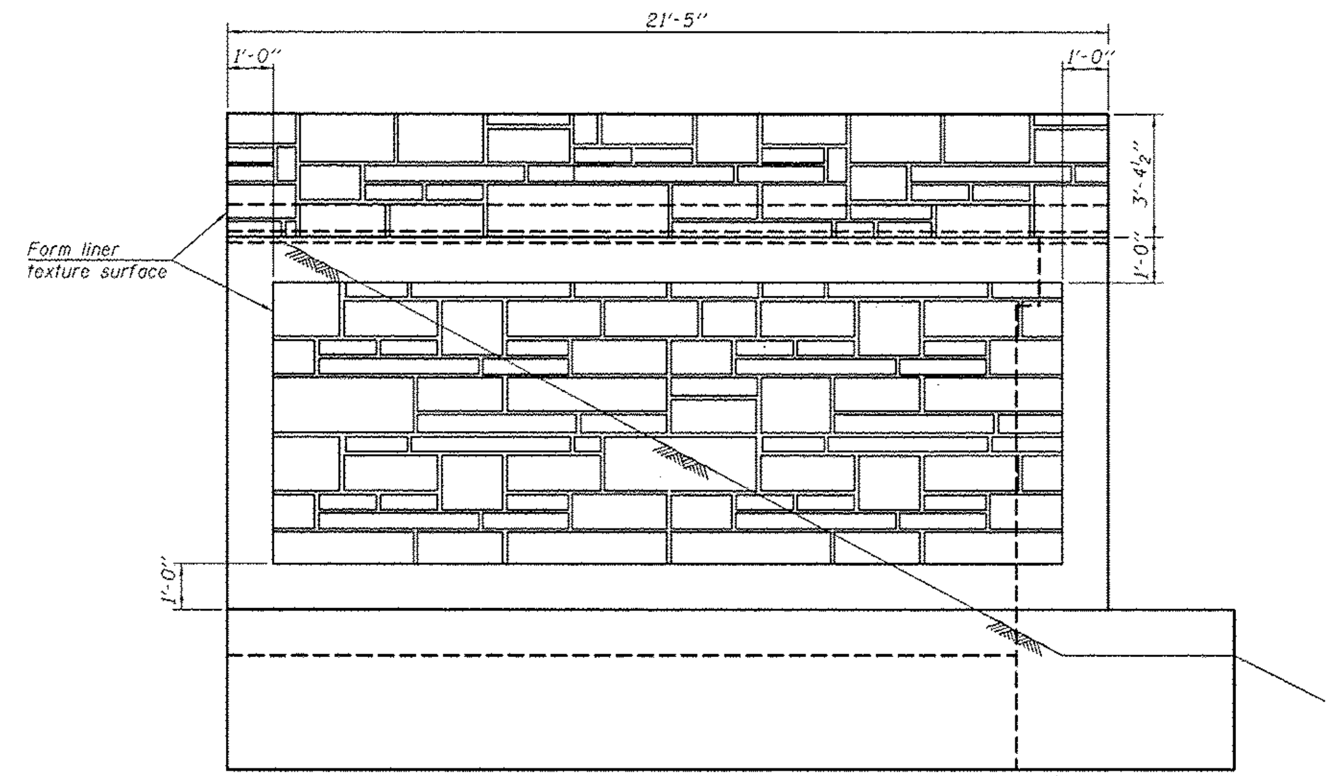


SECTION THRU EAST ABUTMENT



ELEVATION
(Looking East)

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



WINGWALL ELEVATION
(North wingwall shown, South wingwall similar).

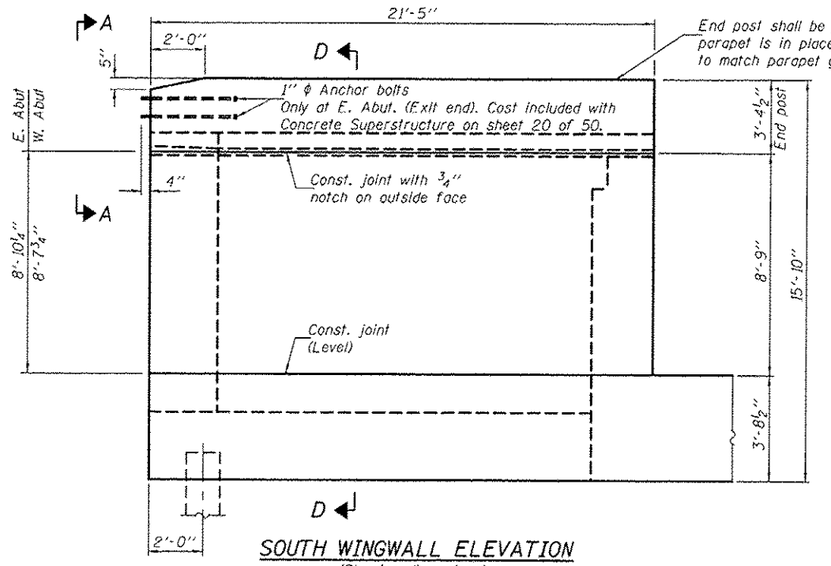
DESIGNED - Nick R. Barnett	EXAMINED — ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	
CHECKED - Frank W. Sharpe			
DRAWN - h.t. duong	PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —	
CHECKED - NRB/FWS/GRA		REVISED —	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

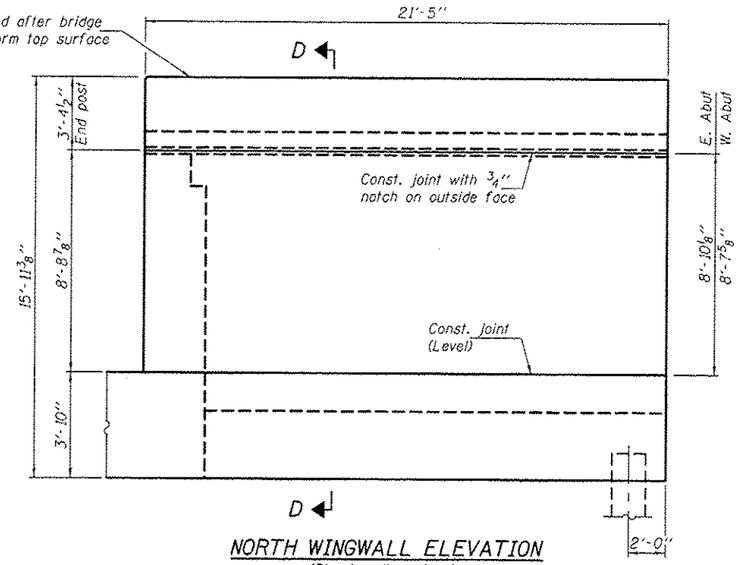
EAST ABUTMENT (E.B.) – STAGE I CONSTRUCTION
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)

SHEET NO. 34 OF 50 SHEETS

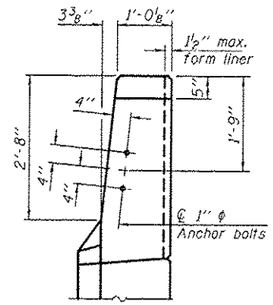
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	209
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		



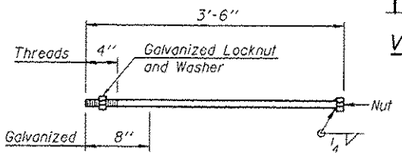
SOUTH WINGWALL ELEVATION
(Showing dimensions)



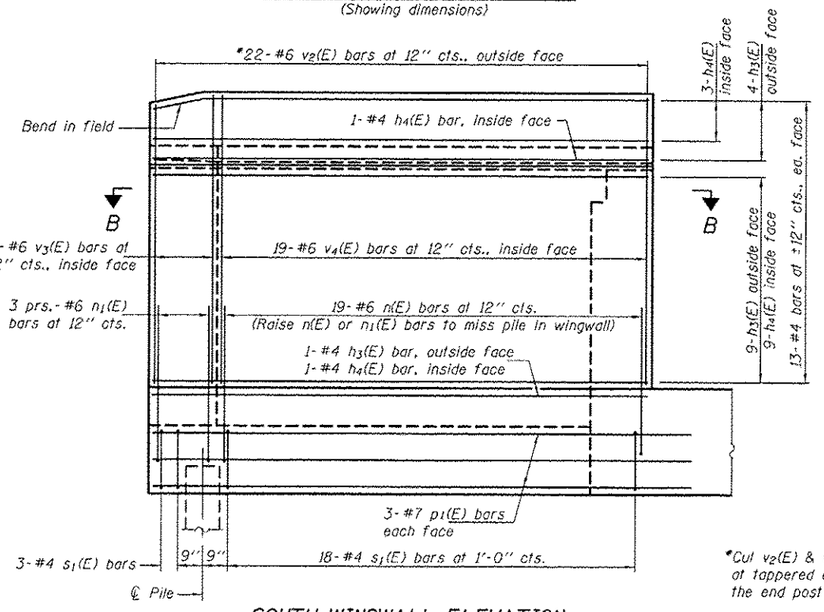
NORTH WINGWALL ELEVATION
(Showing dimensions)



VIEW A-A

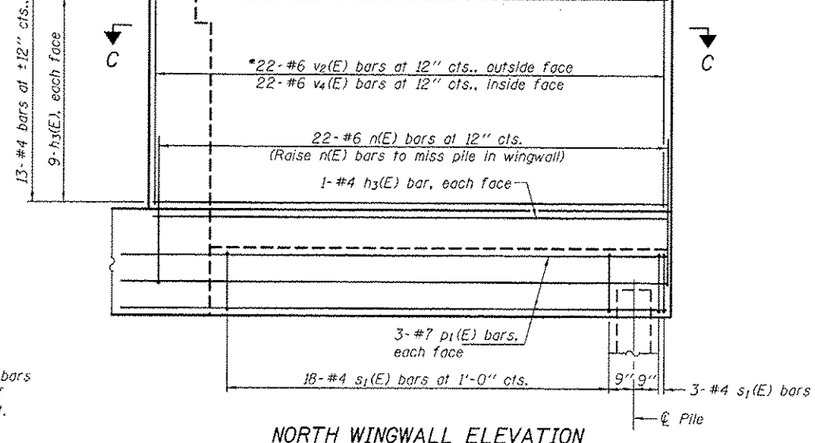


1" ϕ ANCHOR BOLT



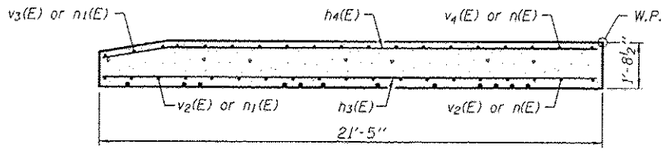
SOUTH WINGWALL ELEVATION
(Showing reinforcement)

*Cut v2(E) & v3(E) bars at tappered end of the end post to fit.

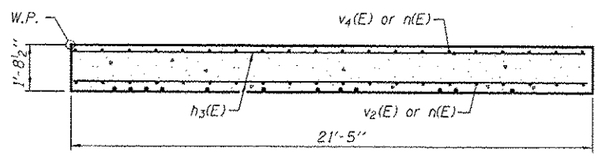


NORTH WINGWALL ELEVATION
(Showing reinforcement)

SECTION D-D

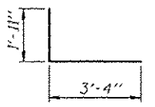


SECTION B-B

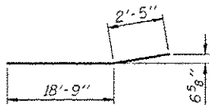


SECTION C-C

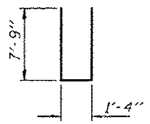
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT DETAILS (E.B.) – STAGE I CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE. 301 | SECTION 3BR & 3BR-1 | COUNTY WINNEBAGO | TOTAL SHEETS 290 | SHEET NO. 210
CHECKED - Frank W. Sharpe	PASSED	REVISED		SHEET NO. 35 OF 50 SHEETS	CONTRACT NO. 64D19
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED			ILLINOIS FED. AID PROJECT
CHECKED - NBB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES				



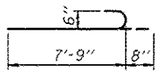
BAR $h_2(E)$



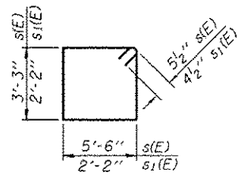
BAR $h_4(E)$



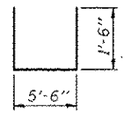
BAR $n(E)$



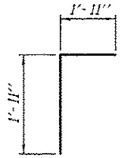
BAR $n_1(E)$

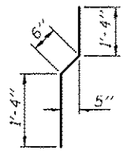


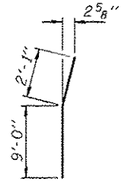
BARS $s(E)$ & $s_1(E)$



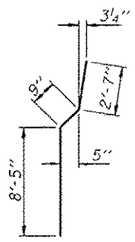
BAR $s_2(E)$



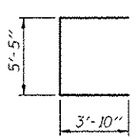




BAR $v(E)$ BAR $v_1(E)$ BAR $v_3(E)$



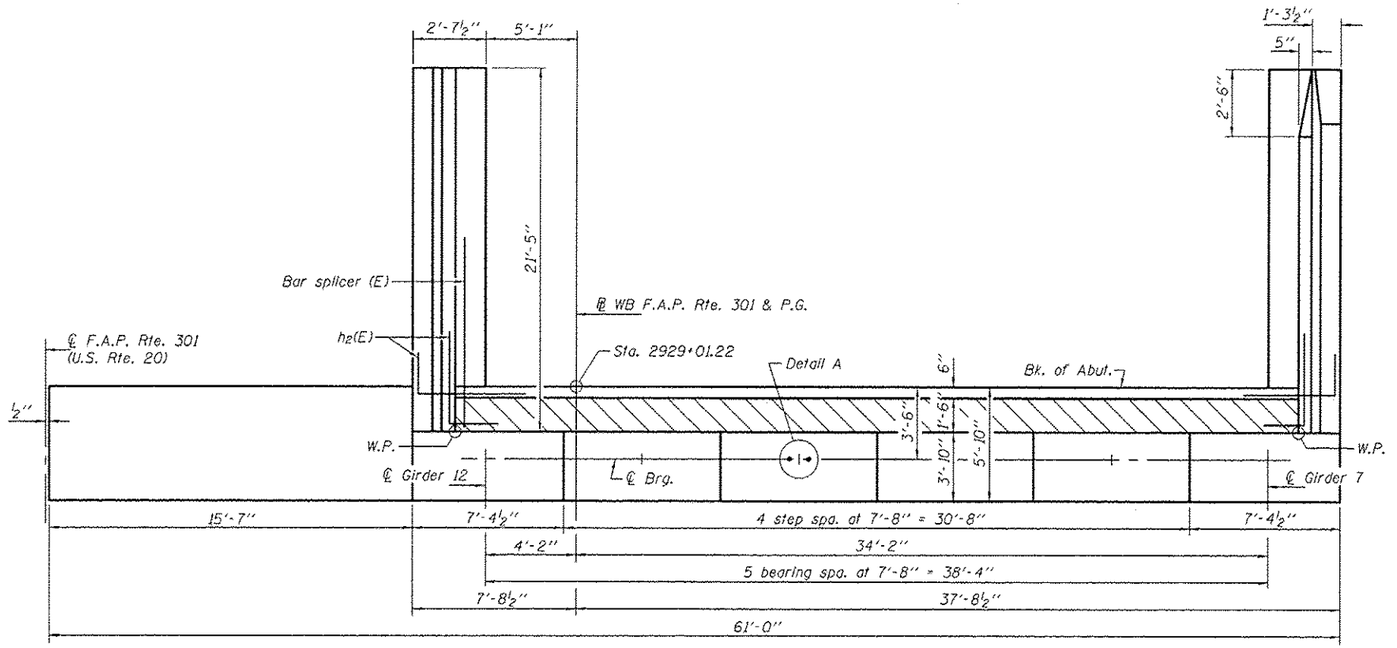
BAR $v_4(E)$



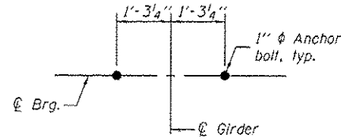
BAR $u(E)$

PILE DATA

Type: Metal Shells 14"x .312" with Pile Shoes
Nominal Required Bearing: 453 Kips
Factored Resistance Available: 249 Kips
Est. Length: 50'
No. Production Piles: 26
No. Test Piles: 1



TOP VIEW



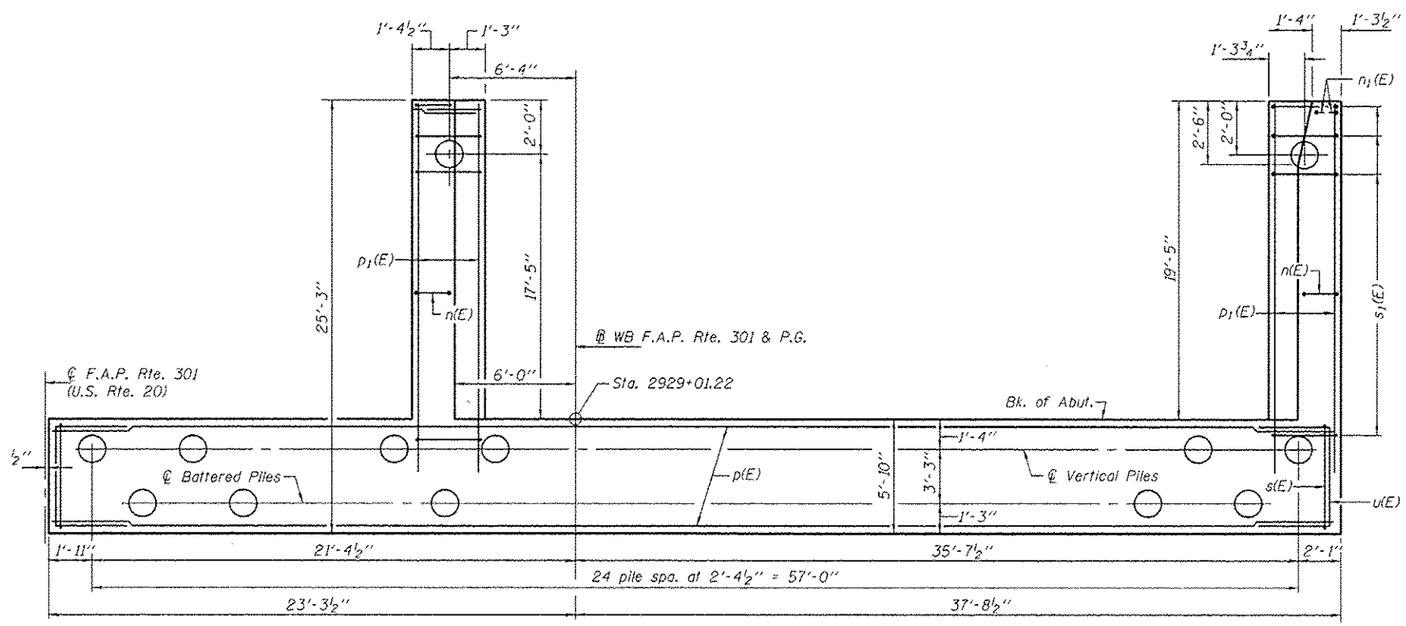
DETAIL A

WEST ABUTMENT (W.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h(E)$	14	#5	41'-8"	
$h_1(E)$	5	#6	41'-8"	
$h_2(E)$	36	#5	5'-3"	
$h_3(E)$	42	#4	21'-1"	
$h_4(E)$	14	#4	21'-2"	
$h_5(E)$	5	#5	22'-8"	
$n(E)$	41	#6	16'-10"	
$n_1(E)$	6	#6	8'-5"	
$p(E)$	28	#7	32'-11"	
$p_1(E)$	12	#7	23'-2"	
$s(E)$	78	#5	18'-5"	
$s_1(E)$	42	#4	9'-5"	
$s_2(E)$	23	#4	8'-6"	
$u(E)$	8	#6	13'-1"	
$v(E)$	43	#5	3'-10"	
$v_1(E)$	43	#4	3'-2"	
$v_2(E)$	44	#6	11'-8"	
$v_3(E)$	3	#6	11'-1"	
$v_4(E)$	41	#6	11'-9"	
$v_5(E)$	43	#5	9'-2"	
$v_6(E)$	43	#5	10'-6"	

Structure Excavation	Cu. Yd.	165
Concrete Structures	Cu. Yd.	108.8
Reinforcement Bars, Epoxy Coated	Pound	10330
Furnishing Metal Shell Piles 14"x .312"	Foot	1300
Driving Piles	Foot	1300
Test Pile, Metal Shells	Each	1
Pile Shoes	Each	27
Concrete Sealer	Sq. Ft.	894
Anchor Bolts, 1"	Each	12

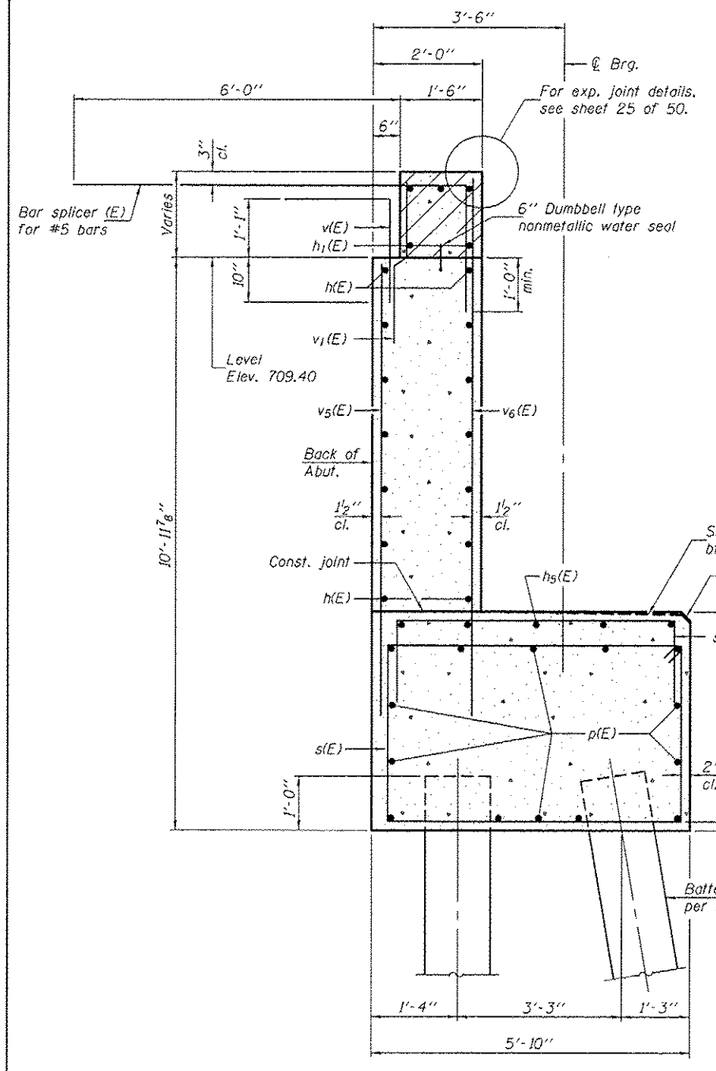
For details of piles, see sheet 45 of 50.
See sheet 40 of 50 for reinforcement in the wingwalls.



PLAN-PILE CAP

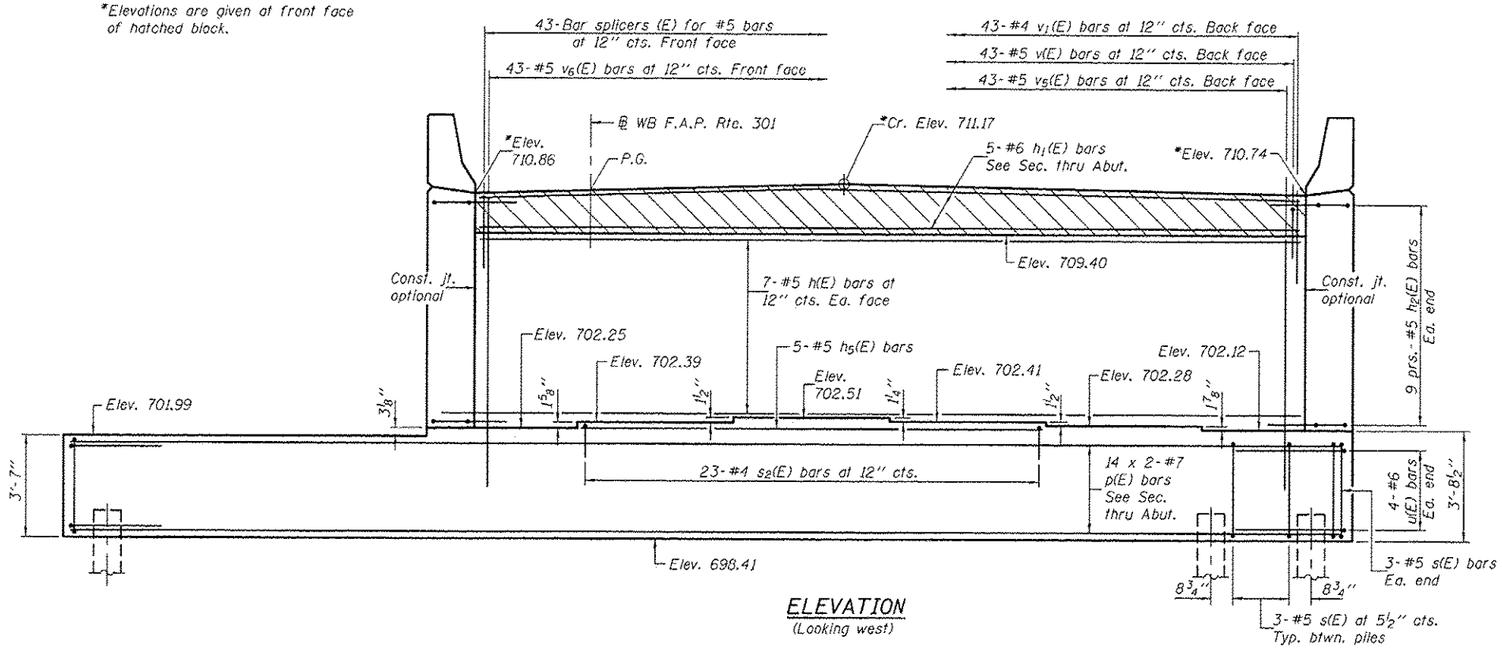
DESIGNED - Nick R. Barnett	EXAMINED	Jayne F. Schaffer ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe	PASSED	R. Carl Young ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED —			301	3BR & 3BR-1	WINNEBAGO	290	211
DRAWN - h.t. duong			REVISED —					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA					SHEET NO. 36 OF 50 SHEETS			ILLINOIS FED. AID PROJECT		

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 20 of 50.
See sheet 44 of 50 for additional form liner details. Form liner shall be placed on outside face of wingwalls as shown in the wingwall elevation shown below.
For bar splicer details, see sheet 46 of 50.



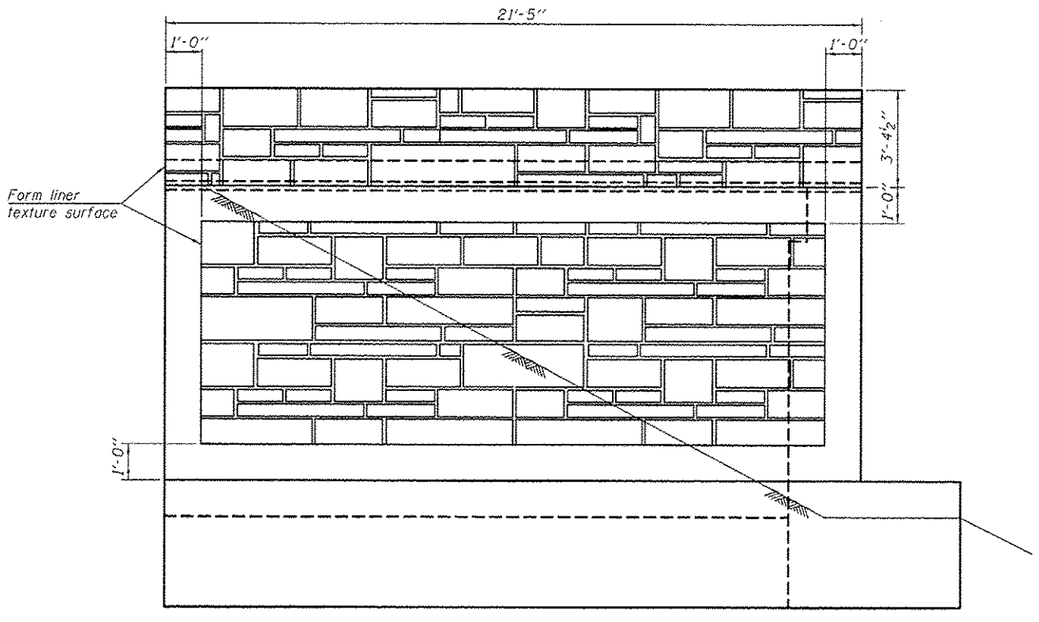
SECTION THRU
WEST ABUTMENT

*Elevations are given at front face of hatched block.



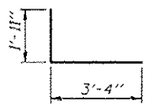
ELEVATION
(Looking west)

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

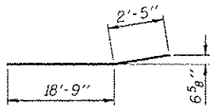


WINGWALL ELEVATION
(South wingwall shown, North wingwall similar).

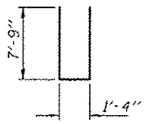
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST ABUTMENT (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe		REVISED —			301	3BR & 3BR-1	WINNEBAGO	290	212
DRAWN - h.t. duong	PASSED	REVISED —					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGE DESIGN; ACTING ENGINEER OF BRIDGES AND STRUCTURES			SHEET NO. 37 OF 50 SHEETS			[ILLINOIS] FED. AID PROJECT		



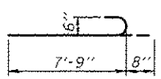
BAR h_2(E)



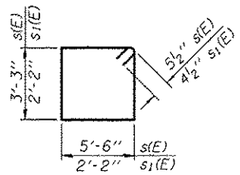
BAR h_4(E)



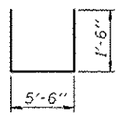
BAR n(E)



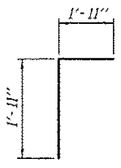
BAR n_1(E)



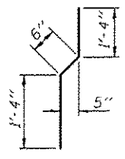
BARS s(E) & s_1(E)



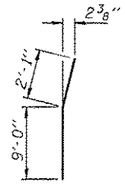
BAR s_2(E)



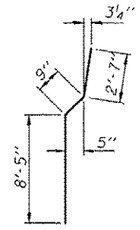
BAR v(E)



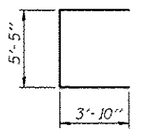
BAR v_1(E)



BAR v_3(E)



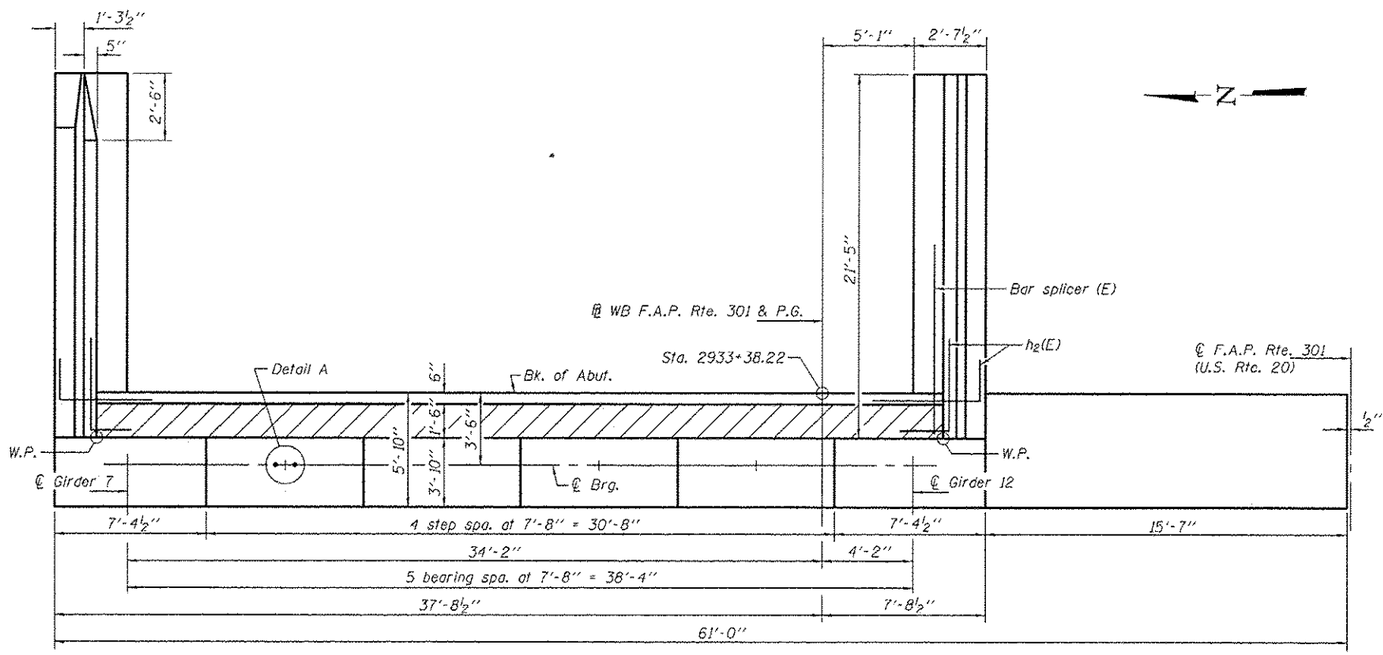
BAR v_4(E)



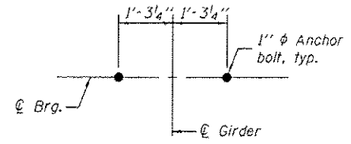
BAR u(E)

PILE DATA

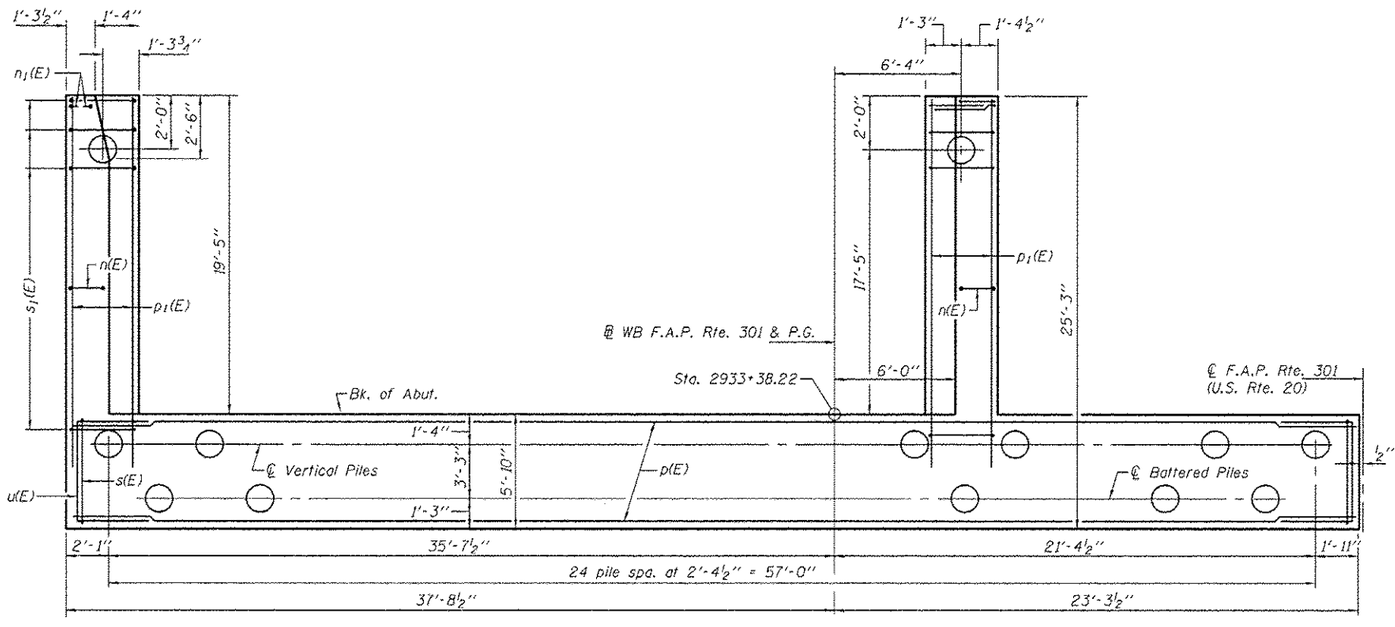
Type: Metal Shells 14"x .312" with Pile Shoes
Nominal Required Bearing: 452 Kips
Factored Resistance Available: 249 Kips
Est. Length: 56'
No. Production Piles: 26
No. Test Piles: 1



TOP VIEW



DETAIL A



PLAN-PILE CAP

EAST ABUTMENT (W.B.) BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	41'-8"	
h_1(E)	5	#6	41'-8"	
h_2(E)	36	#5	5'-3"	
h_3(E)	42	#4	21'-1"	
h_4(E)	14	#4	21'-2"	
h_5(E)	5	#5	22'-8"	
n(E)	41	#6	16'-10"	
n_1(E)	6	#6	8'-5"	
p(E)	28	#7	32'-11"	
p_1(E)	12	#7	23'-2"	
s(E)	78	#5	18'-5"	
s_1(E)	42	#4	9'-5"	
s_2(E)	23	#4	8'-6"	
u(E)	8	#6	13'-1"	
v(E)	43	#5	3'-10"	
v_1(E)	43	#4	3'-2"	
v_2(E)	44	#6	11'-8"	
v_3(E)	3	#6	11'-1"	
v_4(E)	41	#6	11'-9"	
v_5(E)	43	#5	9'-2"	
v_6(E)	43	#5	10'-6"	

Structure Excavation	Cu. Yd.	165
Concrete Structures	Cu. Yd.	108.8
Reinforcement Bars, Epoxy Coated	Pound	10330
Furnishing Metal Shell Piles 14"x .312"	Foot	1456
Driving Piles	Foot	1456
Test Pile, Metal Shells	Each	1
Pile Shoes	Each	27
Concrete Sealer	Sq. Ft.	894
Anchor Bolts, 1"	Each	12

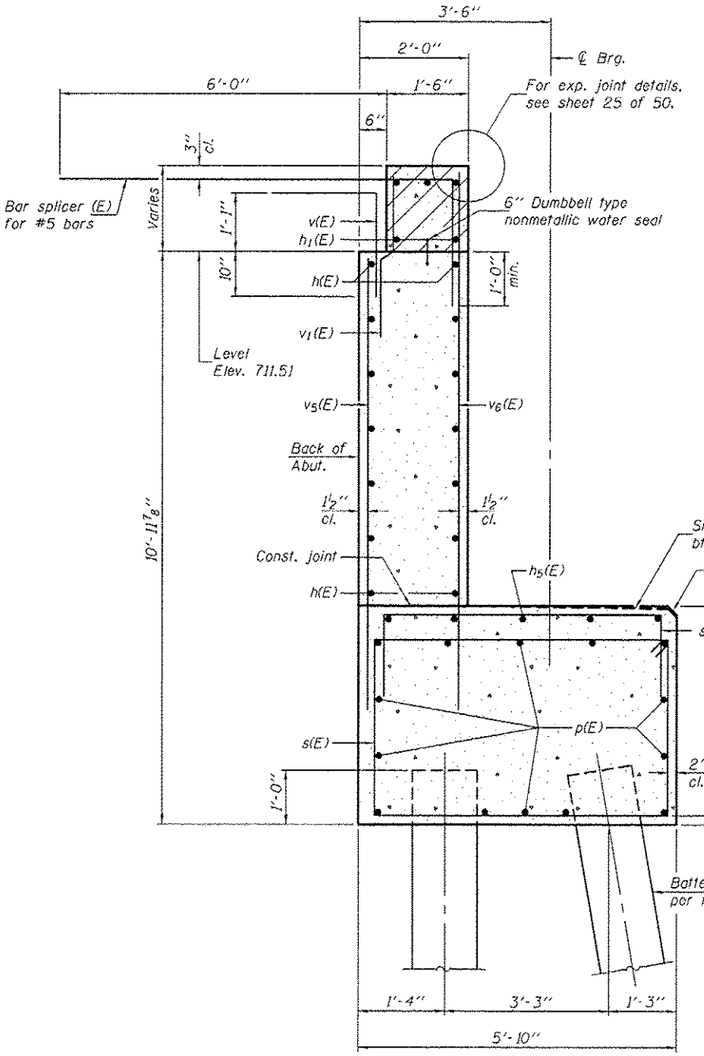
For details of piles, see sheet 45 of 50.
See sheet 40 of 50 for reinforcement in the wingwalls.

DESIGNED - Nick R. Bornett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED	
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

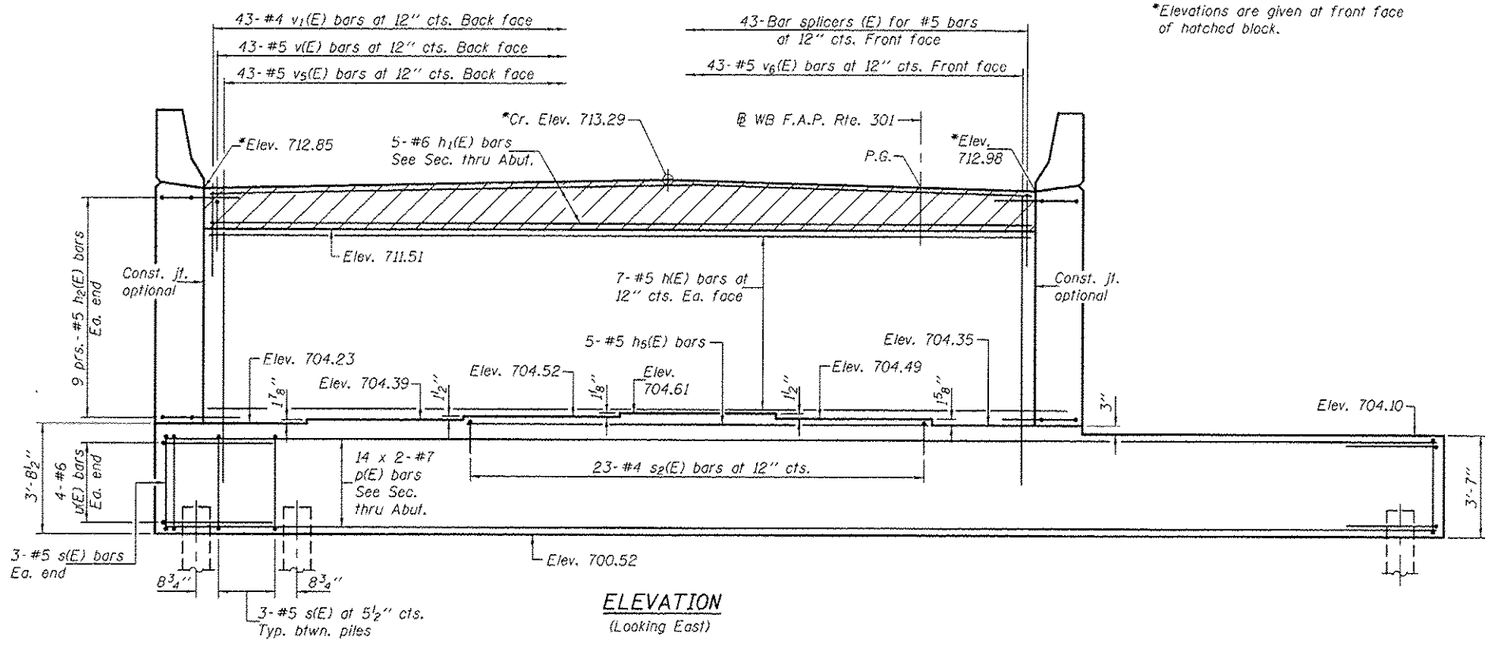
EAST ABUTMENT (W.B.) – STAGE II CONSTRUCTION
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
SHEET NO. 38 OF 50 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	213
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

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 20 of 50.
See sheet 44 of 50 for additional form liner details. Form liner shall be placed on outside face of wingwalls as shown in the wingwall elevation shown below.
For bar splicer details, see sheet 46 of 50.

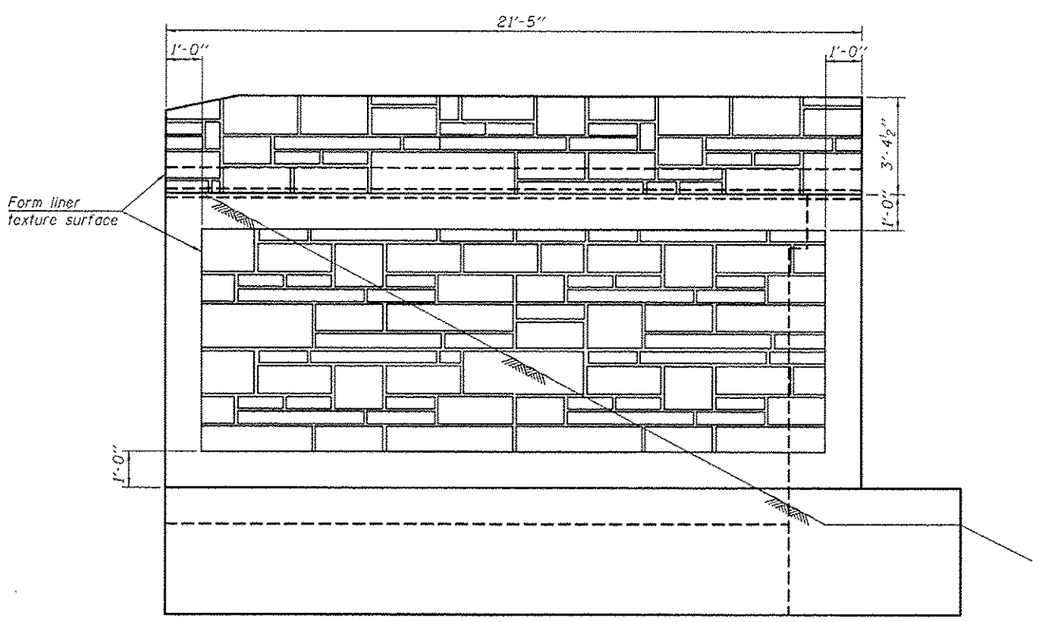


SECTION THRU
EAST ABUTMENT



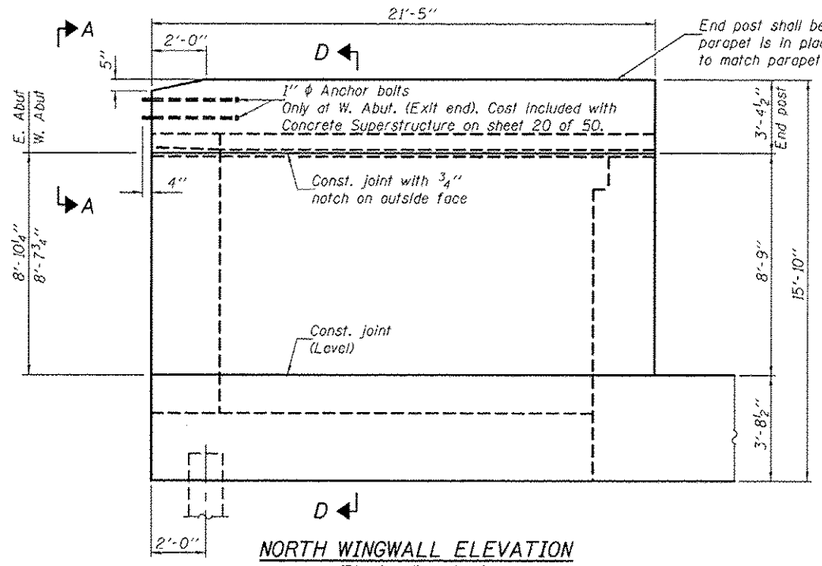
ELEVATION
(Looking East)

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

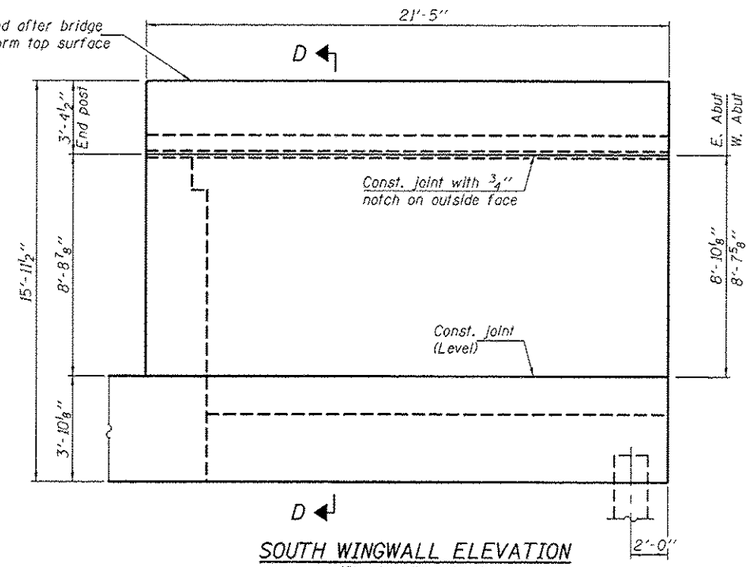


WINGWALL ELEVATION
(North wingwall shown, South wingwall similar).

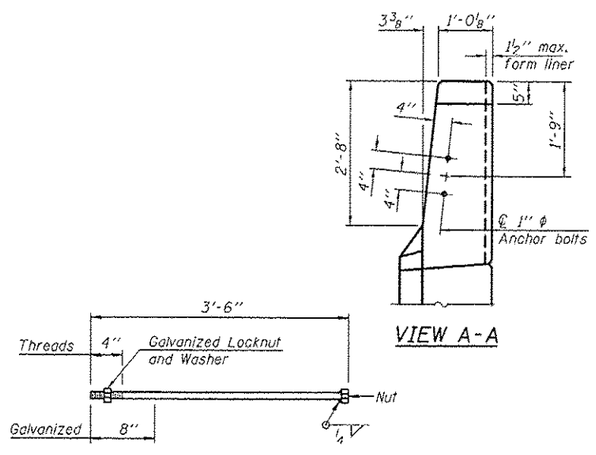
DESIGNED - Nick R. Barnett	EXAMINED	Joyce F. Aldridge ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST ABUTMENT (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe	PASSED	A. Carl Tharp ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			301	3BR & 3BR-1	WINNEBAGO	290	214
DRAWN - h.t. duong			REVISED -					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA					SHEET NO. 39 OF 50 SHEETS			ILLINOIS FED. AID PROJECT		

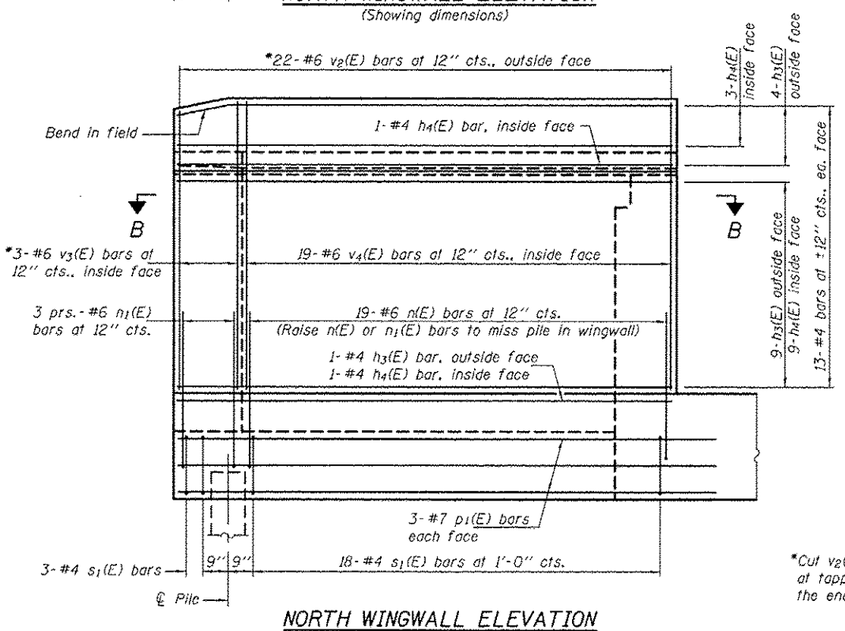


NORTH WINGWALL ELEVATION
(Showing dimensions)

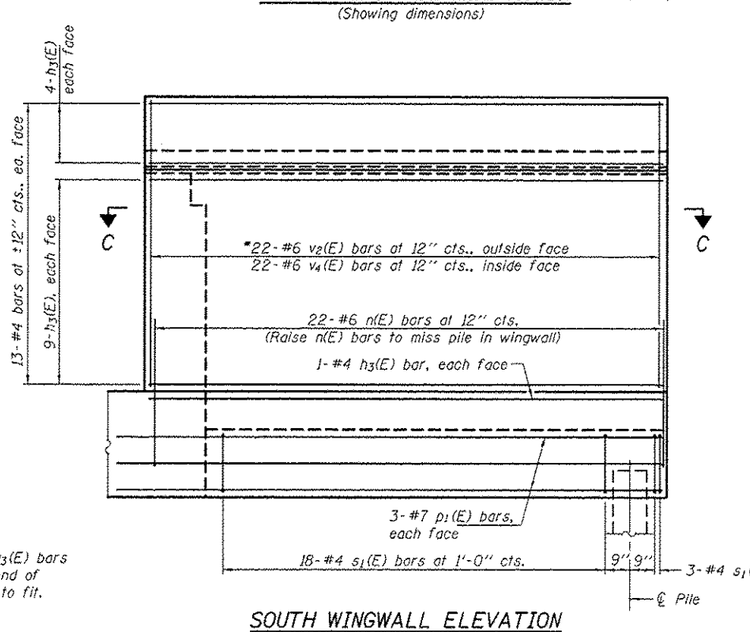


SOUTH WINGWALL ELEVATION
(Showing dimensions)



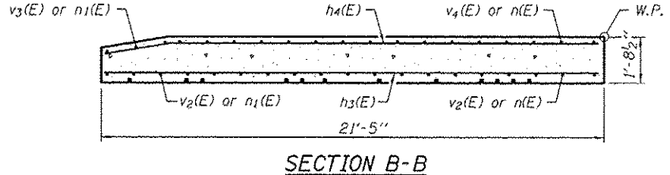


NORTH WINGWALL ELEVATION
(Showing reinforcement)

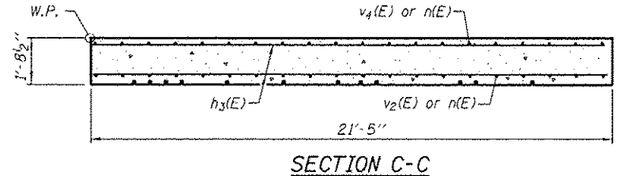


SOUTH WINGWALL ELEVATION
(Showing reinforcement)

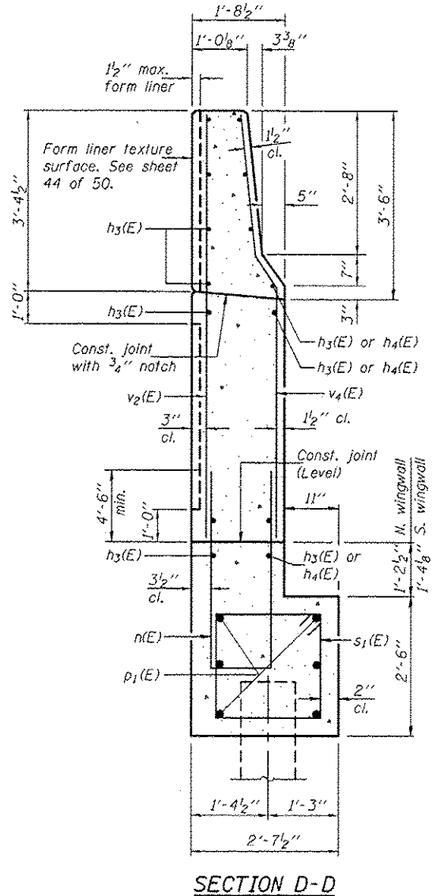
*Cut v2(E) & v3(E) bars at tappered end of the end post to fit.



SECTION B-B



SECTION C-C

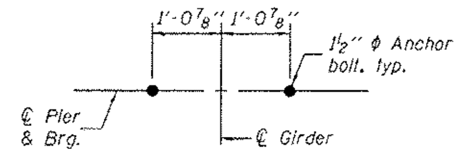


SECTION D-D

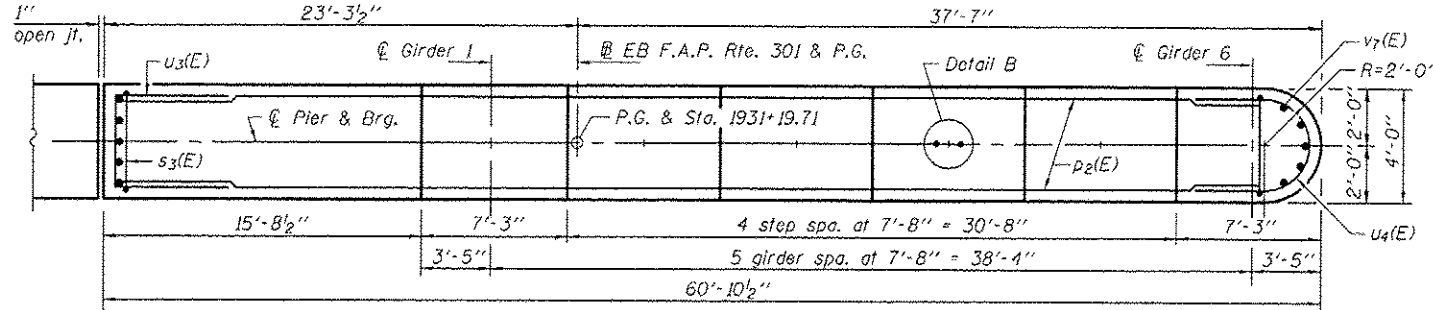
DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT DETAILS (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.) SHEET NO. 40 OF 50 SHEETS
CHECKED - Frank W. Sharpe	PASSED	REVISED —		
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —		
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES			

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	215
		CONTRACT NO. 64D19		
		ILLINOIS FED. AID PROJECT		

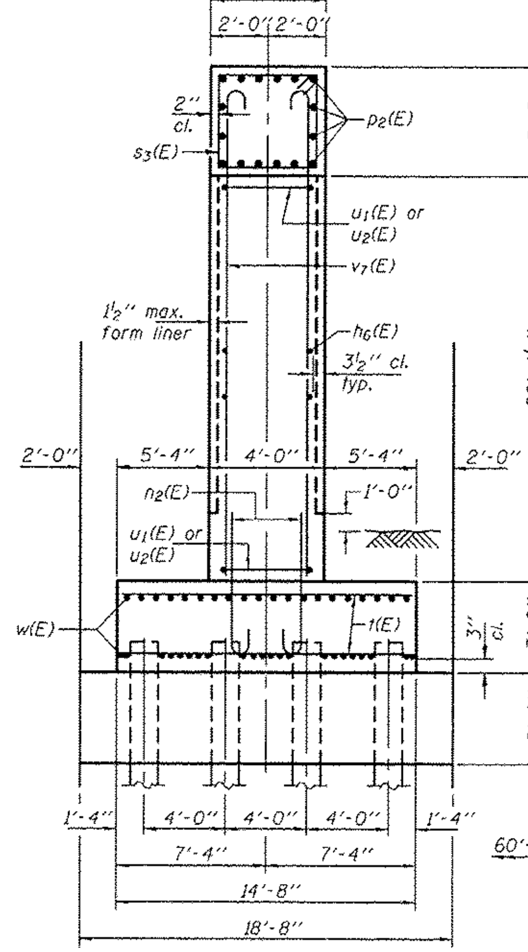
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 45 of 50.



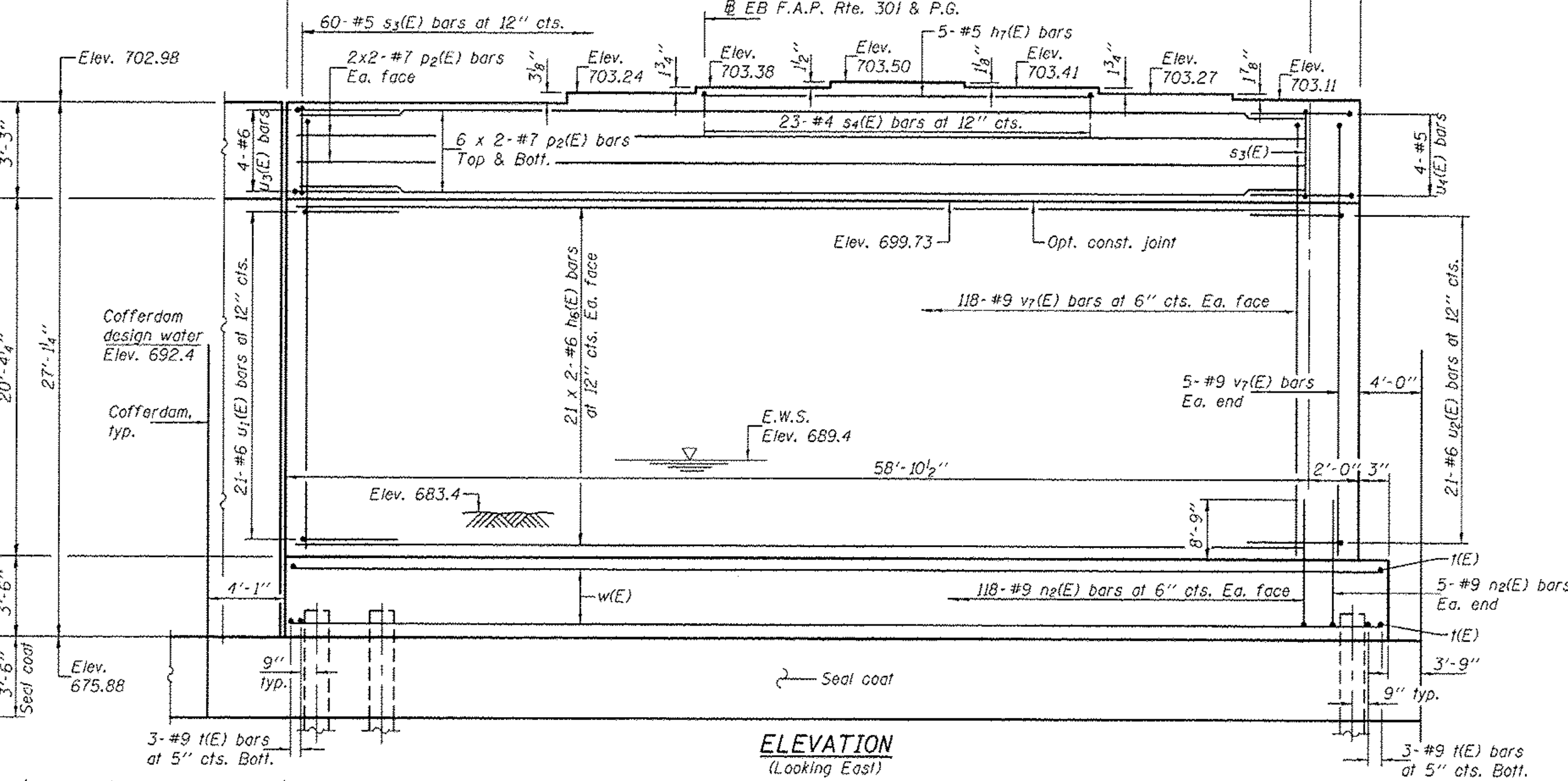
DETAIL B



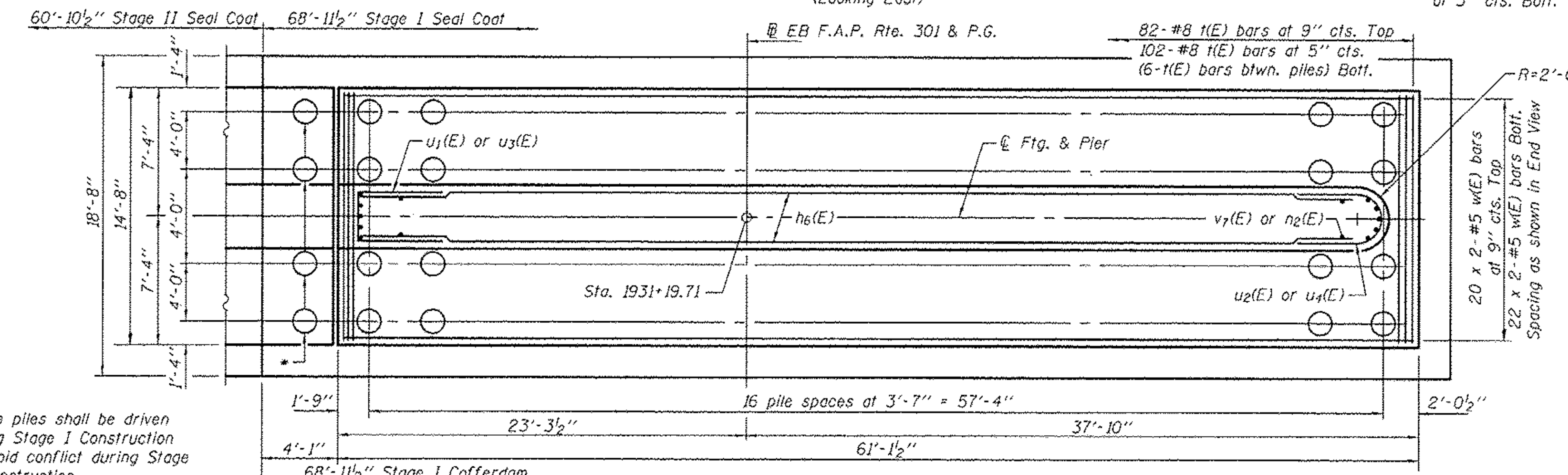
TOP PLAN



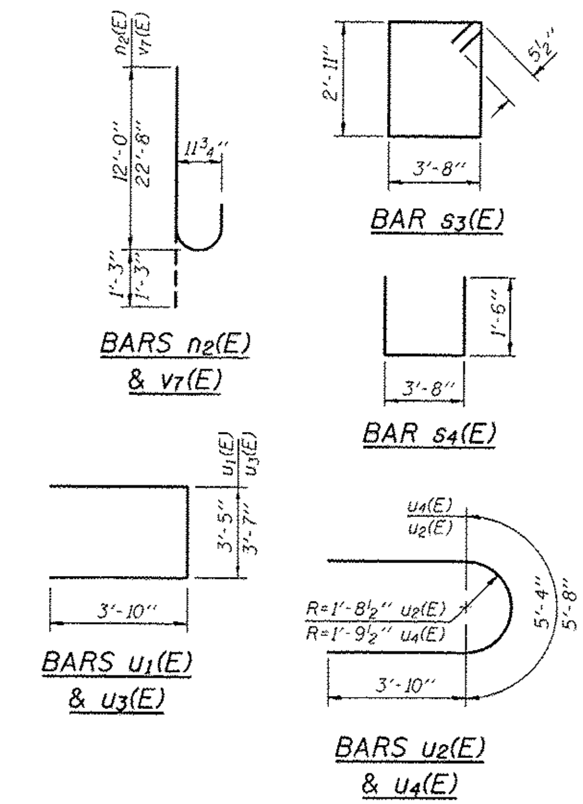
END VIEW



ELEVATION
(Looking East)



FOOTING PLAN



PILE DATA

Type: Metal Shells 14"x .312" with Pile Shoes
Nominal Required Bearing: 330 Kips
Factored Resistance Available: 166 Kips
Est. Length: 44'
No. Production Piles: 67
No. Test Piles: 1

MIN. BAR LAP

#5 bar = 3'-3"
#6 bar = 3'-10"
#7 bar = 5'-2"

*These piles shall be driven during Stage I Construction to avoid conflict during Stage II Construction.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_6(E)	84	#6	31'-4"	—
h_7(E)	5	#5	22'-8"	—
n_2(E)	246	#9	13'-3"	⊃
p_2(E)	32	#7	31'-11"	—
s_3(E)	60	#5	14'-1"	◻
s_4(E)	23	#4	6'-8"	⊔
t(E)	184	#8	14'-4"	—
u_1(E)	21	#6	11'-1"	⊐
u_2(E)	21	#6	13'-0"	⊃
u_3(E)	4	#6	11'-3"	⊐
u_4(E)	4	#6	13'-4"	⊃
v_7(E)	246	#9	23'-11"	⊃
w(E)	84	#5	32'-1"	—

Cofferdam Excavation	Cu. Yd.	525
Concrete Structures	Cu. Yd.	329.8
Reinforcement Bars, Epoxy Coated	Pound	48990
Furnishing Metal Shell Piles 14"x .312"	Foot	2948
Driving Piles	Foot	2948
Test Pile, Metal Shells	Each	1
Pile Shoes	Each	68
Cofferdam (Type 2), Location 2	Each	0.5
Anchor Bolts 1½"	Each	12
Seal Coat Concrete	Cu. Yd.	166.9

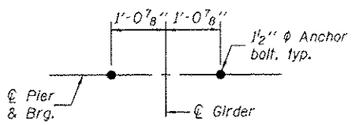
DESIGNED - Nick R. Barnett	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013
CHECKED - Frank W. Sharpe			
DRAWN - h.t. duong	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED - NRB/FWS/GRA			REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

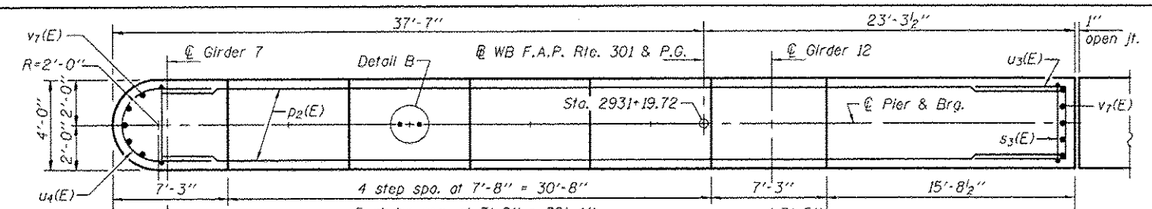
PIER (E.B.) - STAGE I CONSTRUCTION
STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	216
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			

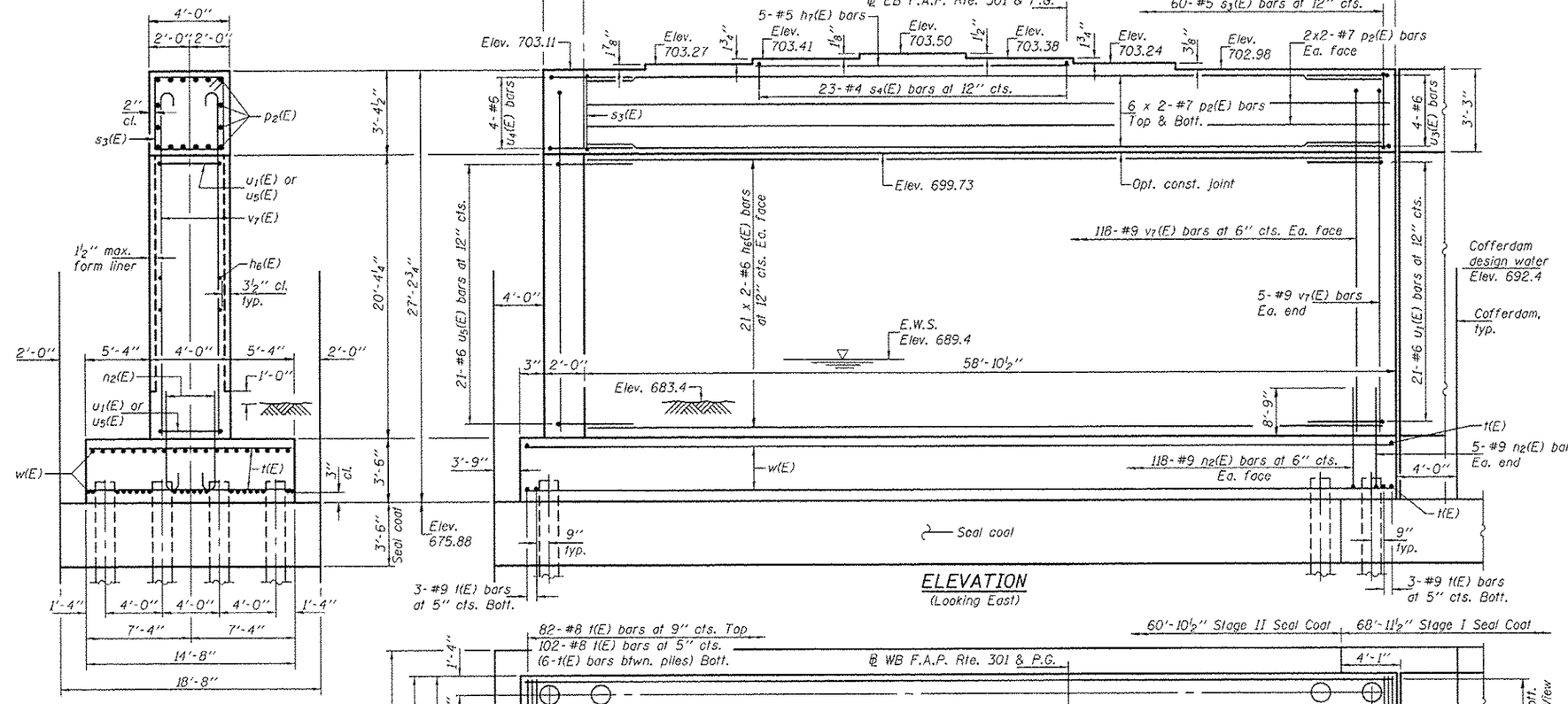
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 45 of 50.



DETAIL B

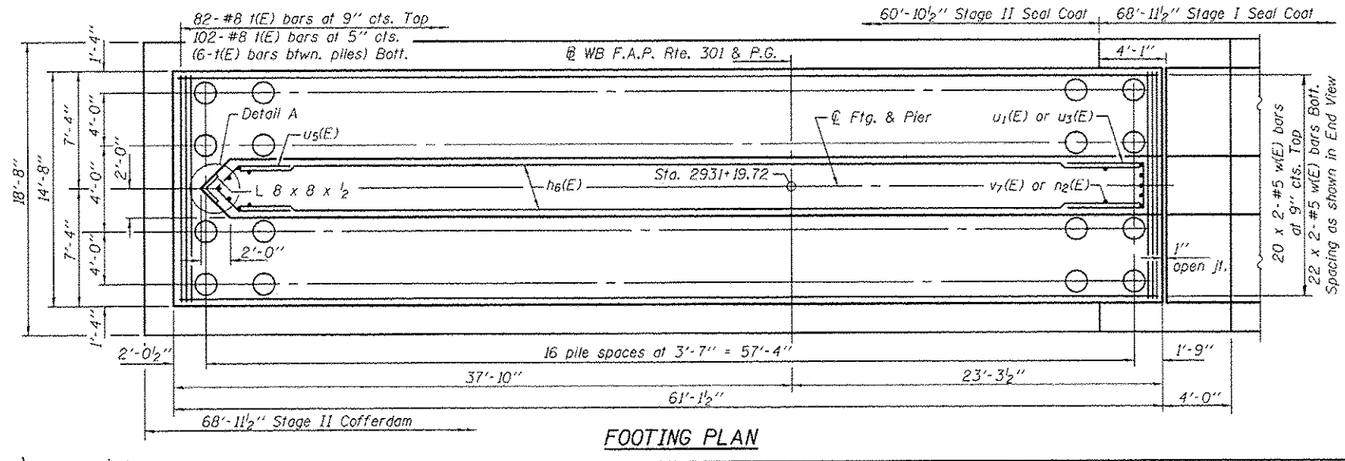


TOP PLAN

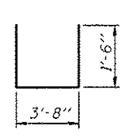


ELEVATION
(Looking East)

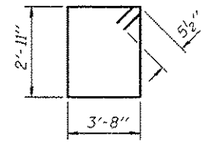
END VIEW



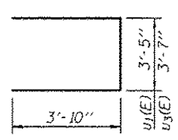
FOOTING PLAN



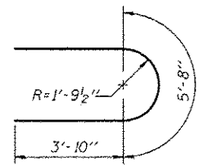
BAR s4(E)



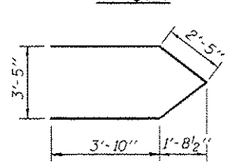
BAR s3(E)



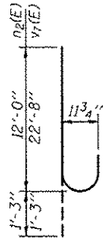
BARS u1(E) & u3(E)



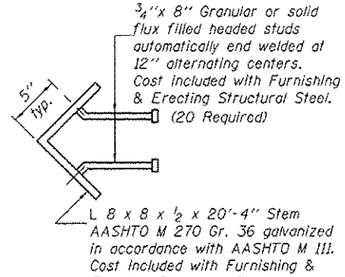
BAR u4(E)



BAR u5(E)



BARS n2(E) & v7(E)



DETAIL A

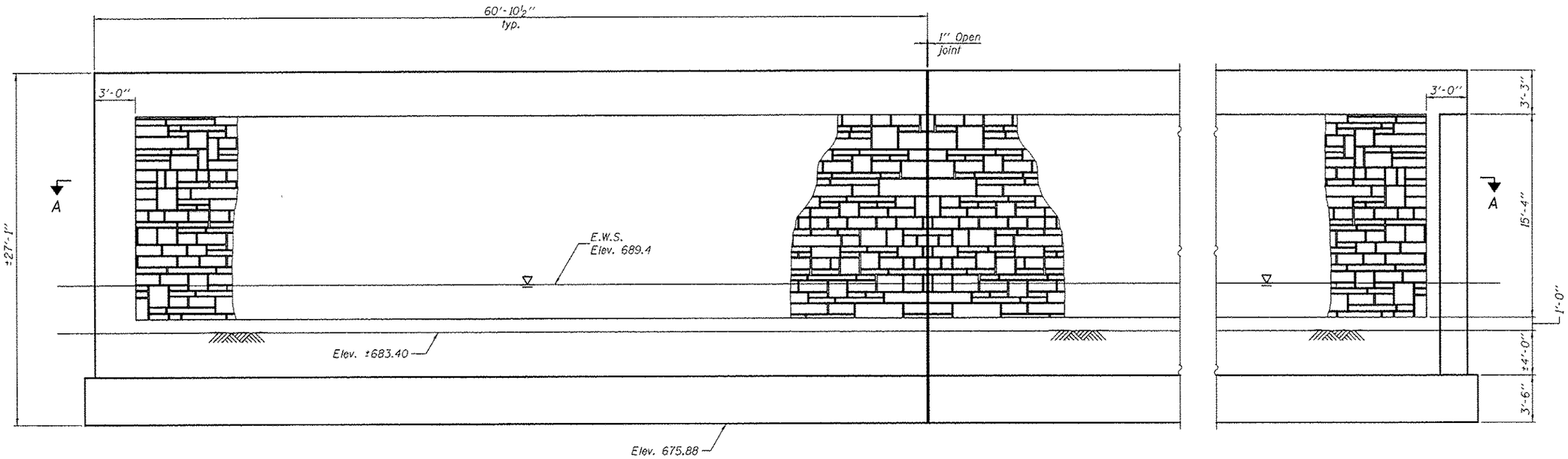
MIN. BAR LAP
#5 bar = 3'-3"
#6 bar = 3'-10"
#7 bar = 5'-2"

PILE DATA
Type: Metal Shells 14"x .312" with Pile Shoes
Nominal Required Bearing: 316 Kips
Factored Resistance Available: 166 Kips
Est. Length: 34'
No. Production Piles: 67
No. Test Piles: 1

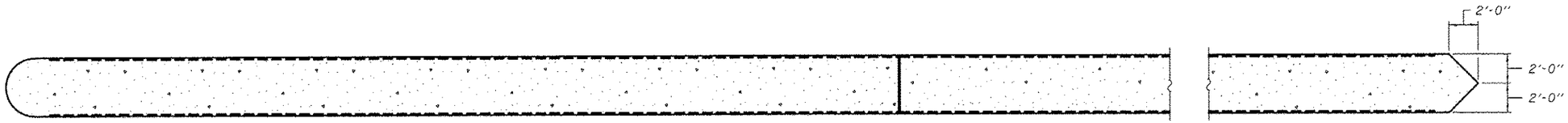
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	84	#6	31'-4"	
h7(E)	5	#5	22'-8"	
n2(E)	246	#9	13'-3"	
p2(E)	32	#7	31'-11"	
s3(E)	60	#5	14'-1"	
s4(E)	23	#4	6'-8"	
t(E)	184	#8	14'-4"	
u1(E)	21	#6	11'-1"	
u3(E)	4	#6	11'-3"	
u4(E)	4	#6	13'-4"	
u5(E)	21	#6	12'-6"	
v7(E)	246	#9	23'-11"	
w(E)	84	#5	32'-1"	
Cofferdam Excavation			Cu. Yd.	464
Concrete Structures			Cu. Yd.	328.3
Reinforcement Bars, Epoxy Coated			Pound	48970
Furnishing Metal Shell Piles 14"x .312"			Foot	2278
Driving Piles			Foot	2278
Test Pile, Metal Shells			Each	1
Pile Shoes			Each	68
Cofferdam (Type 2), Location 2			Each	0.5
Anchor Bolts 1 1/2"			Each	12
Seal Coat Concrete			Cu. Yd.	147.3

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER (W.B.) – STAGE II CONSTRUCTION STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE. 301
CHECKED - Frank W. Sharpe	PASSED	REVISED		SHEET NO. 42 OF 50 SHEETS	SECTION 3BR & 3BR-1
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED			COUNTY WINNEBAGO
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES				TOTAL SHEETS 290
					SHEET NO. 217
					CONTRACT NO. 64D19
					ILLINOIS FED. AID PROJECT



ELEVATION

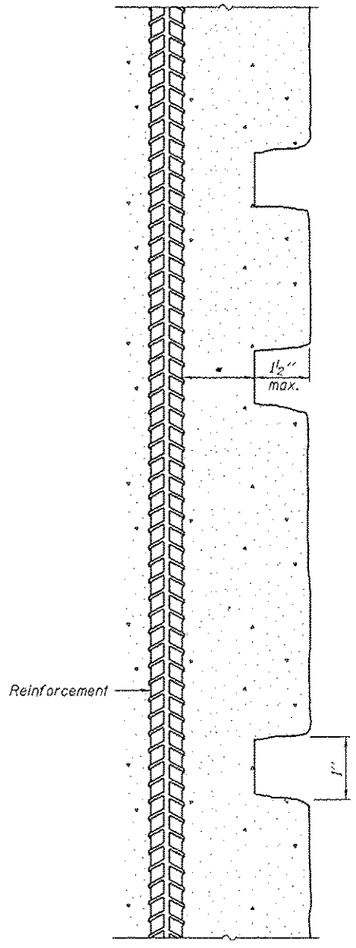


SECTION A-A

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER FORM LINER ~ OPTION A STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe					301	3BR & 3BR-1	WINNEBAGO	290	218
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED		SHEET NO. 43 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA		REVISED					ILLINOIS FED. AID PROJECT		

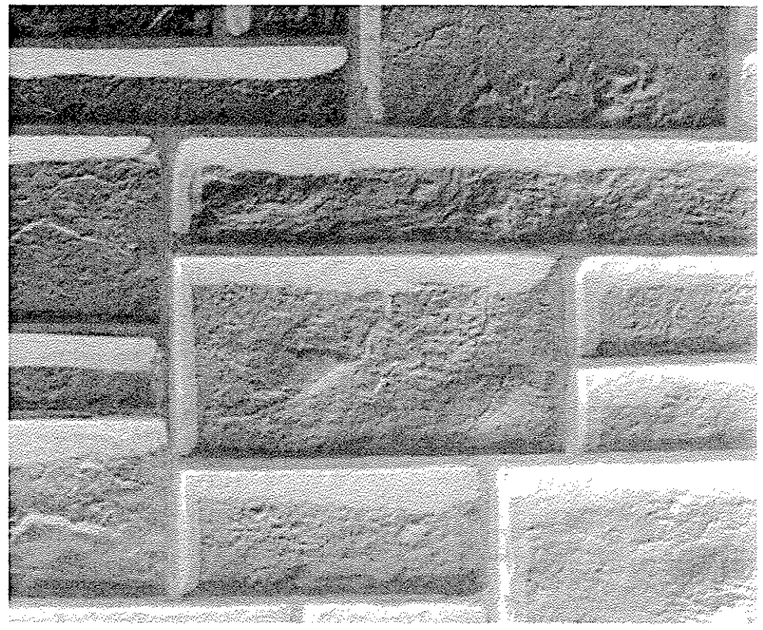
ACTING ENGINEER OF BRIDGE DESIGN

ACTING ENGINEER OF BRIDGES AND STRUCTURES



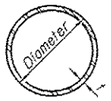
*1½" min. at Parapets & Abuts.
2" at Piers

SECTION THRU
FORM LINER



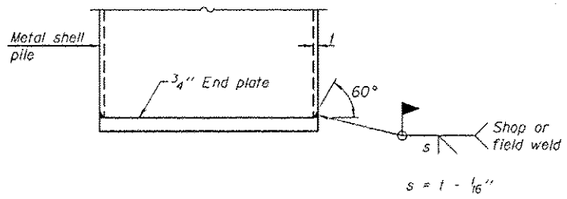
RANDOM BLOCK ASHLAR STONE
FORM LINER
(Pattern #1506)

DESIGNED - Nick R. Barnett	EXAMINED	Joyce F. Schaff, ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FORM LINER DETAILS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe	PASSED	D. Carl Lang, ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			301	3BR & 3BR-1	WINNEBAGO	290	219
DRAWN - MICHAEL B. MOSSMAN			REVISED		SHEET NO. 44 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA								ILLINOIS FED. AID PROJECT		

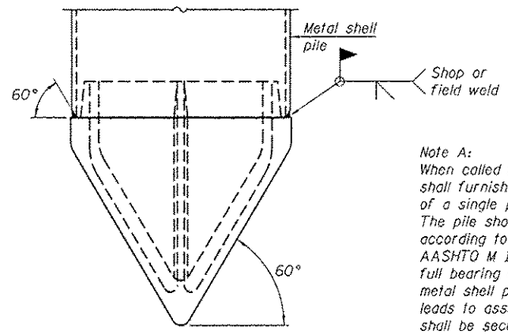


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



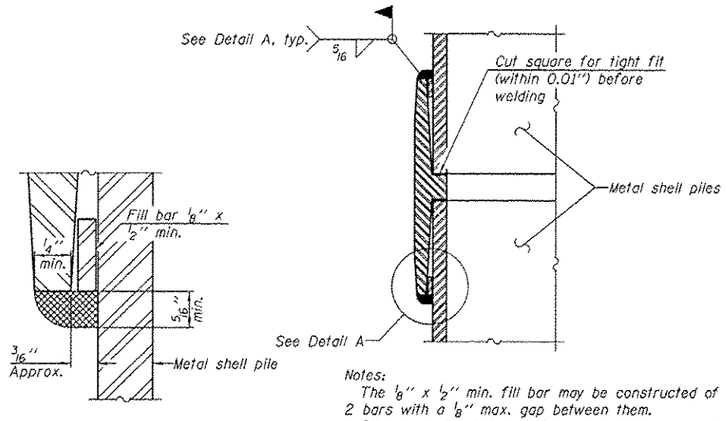
END PLATE ATTACHMENT



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

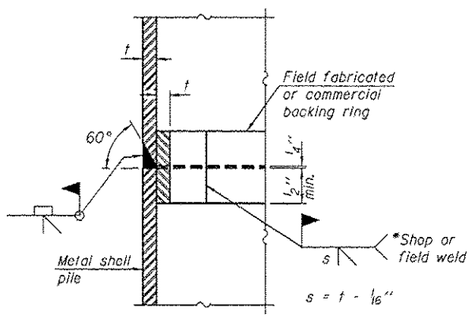
(See Note A)



DETAIL A

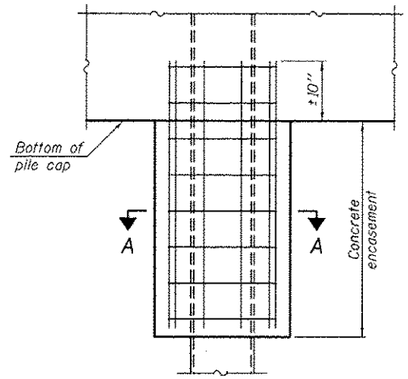
Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE

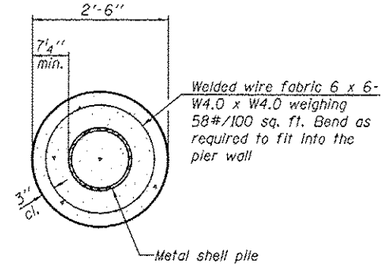


COMPLETE PENETRATION WELD SPLICE

*Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



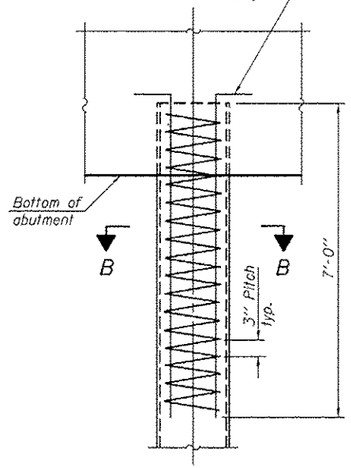
ELEVATION



SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



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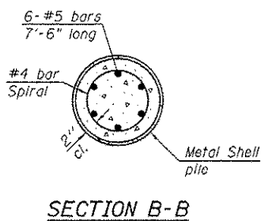


SECTION B-B

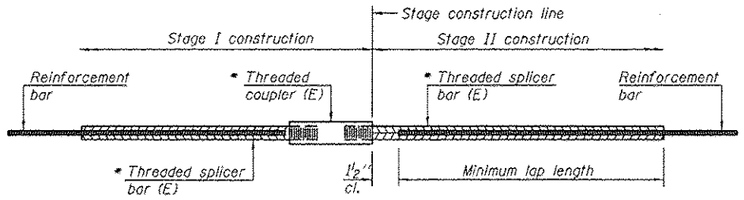
METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Frank W. Sharpe	PASSED	REVISED —	METAL SHELL PILE DETAILS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)
DRAWN - h.t. duong	ACTING ENGINEER OF BRIDGE DESIGN	REVISED —	SHEET NO. 45 OF 50 SHEETS
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGES AND STRUCTURES		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	3BR & 3BR-1	WINNEBAGO	290	220
		CONTRACT NO. 64D19		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

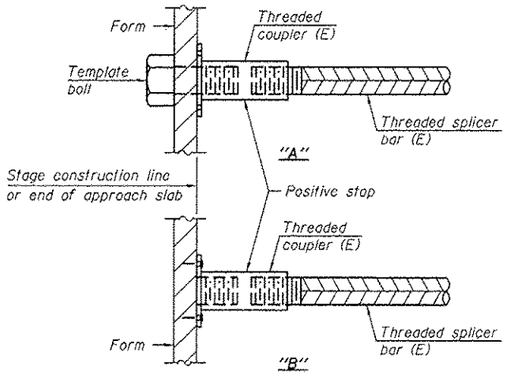
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

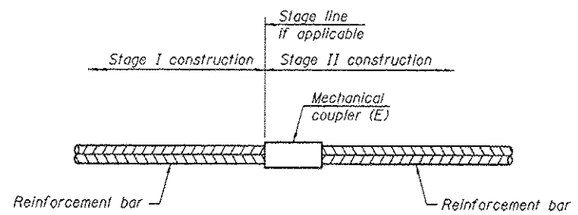
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



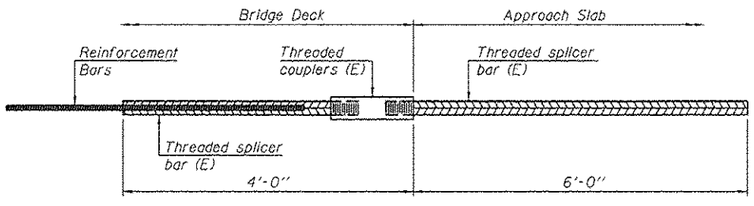
INSTALLATION AND SETTING METHODS

"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.



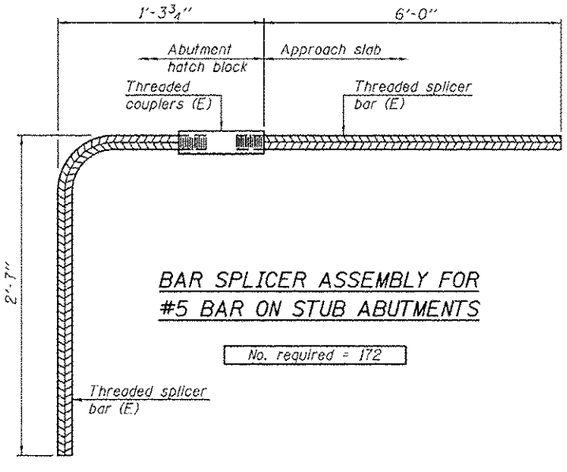
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 172

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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

DESIGNED - Nick R. Barnett	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - Frank W. Sharpe					301	3BR & 3BR-1	WINNEBAGO	290	221
DRAWN - h.t. duong	PASSED	REVISED					CONTRACT NO. 64D19		
CHECKED - NRB/FWS/GRA	ACTING ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 46 OF 50 SHEETS			ILLINOIS FED. AID PROJECT		

Page 1 of 3

Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5/14/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20 over main channel of Rock River, .7 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 492+30

BORING NO. B-1b
Station 492+96
Offset 8.00ft Rt EB CL
Ground Surface Elev. 708.9 ft

Surface Water Elev. ft
Stream Bed Elev. 76.0 ft

Groundwater Elev.:
First Encounter ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
				Water				
-5					683.90 -25			
-10				MEDIUM tan SANDY GRAVEL	678.90 -30	7 8 7		
					677.40			
Alt				MEDIUM tan SANDY GRAVEL		7 6 7		
					674.90 -35			
-15				MEDIUM tan fine SAND		4 5 7		
					672.40			
					669.90			
688.90 -20					-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, form 137 (Rev. 8-99)

Page 2 of 3

Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5/14/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20 over main channel of Rock River, .7 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 492+30

BORING NO. B-1b
Station 492+96
Offset 8.00ft Rt EB CL
Ground Surface Elev. 708.9 ft

Surface Water Elev. ft
Stream Bed Elev. 76.0 ft

Groundwater Elev.:
First Encounter ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan clean medium coarse SAND	5 7 8			Wash MEDIUM tan fine SAND		3 9 9		
667.40					647.40			
664.90 -45					644.90 -65			
MEDIUM tan clean medium coarse SAND	8 12 15			Wash MEDIUM tan clean medium coarse SAND		8 11 18		
662.40					642.40			
659.90 -50					639.90 -70			
MEDIUM tan clean medulm coarse SAND	4 7 11			Wash MEDIUM tan clean medium coarse SAND		6 7 10		
657.40					637.40			
654.90 -55					634.90 -75			
Wash MEDIUM tan clean medium coarse SAND with medium GRAVEL	5 9 12			Wash MEDIUM tan clean medium coarse SAND with medium GRAVEL		4 6 14		
652.40					632.40			
649.90 -60					629.90 -80			

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, form 137 (Rev. 8-99)

Page 3 of 3

Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5/14/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20 over main channel of Rock River, .7 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. - 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 492+30

BORING NO. B-1b
Station 492+96
Offset 8.00ft Rt EB CL
Ground Surface Elev. 708.9 ft

Surface Water Elev. ft
Stream Bed Elev. 76.0 ft

Groundwater Elev.:
First Encounter ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Wash MEDIUM/DENSE tan SANDY GRAVEL	13 14 16							
627.40								
624.90 -95								
Wash DENSE tan clean medium coarse SAND	9 17 21							
622.40								
End of Boring								
-100								

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, form 137 (Rev. 8-99)

Existing Sta. 492+33.69 = New Sta. 931+19.69

DESIGNED -	EXAMINED	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	PASSED	REVISED			301	38R & 38R-1	WINNEBAGO	290	222
DRAWN -	ACTING ENGINEER OF BRIDGE DESIGN	REVISED		SHEET NO. 47 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED -	ACTING ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5/15/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20 over main channel of Rock River, .7 m. E. of IL 2 LOGGED BY W. Garza

SECTION (3, 4) R LOCATION Rockford Twp. – 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0060 & 0060
Station 492 + 30

BORING NO. B-2b
Station 491 + 36
Offset 7.00ft Lt WB CL
Ground Surface Elev. 708.6 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 690.6 ft ▼
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Air				Water (continued)			
	5						
-5	6						
	11			-25			
				679.60 LOOSE gray SAND			
-10				678.60 -30			
				677.10			
				674.60			
-15				-35	2		
				LOOSE gray fine SAND with GRAVEL	4		
				672.10	3		
690.60 ▼							
Water				669.60			
-20				-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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5/15/08

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STRUCT. NO. 101-0060 & 0060
Station 492 + 30

BORING NO. B-2b
Station 491 + 36
Offset 7.00ft Lt WB CL
Ground Surface Elev. 708.6 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 690.6 ft ▼
Upon Completion ____ ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan clean medium coarse SAND	5			DENSE tan clean medium coarse SAND	8		
667.10	6			647.10	14		
	11				18		
664.60				644.60			
-45				-65			
Wash MEDIUM tan clean medium coarse SAND	5			Wash MEDIUM tan clean medium coarse SAND with medium GRAVEL	5		
662.10	4			642.10	13		
	6				14		
659.60				639.60			
-50				-70			
MEDIUM tan clean medium coarse SAND	3			Wash DENSE tan SANDY GRAVEL	12		
657.10	4			637.10	22		
	7				18		
654.60				634.60			
-55				-75			
Wash MEDIUM tan SANDY GRAVEL	6			Wash DENSE tan SANDY GRAVEL	23		
652.10	8			632.10	20		
	10			End of Boring	22		
649.60							
-60				-80			

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BBS, form 137 (Rev. 8-99)

Existing Sta. 492+33.69 = New Sta. 931+19.69

DESIGNED -	EXAMINED	Joyce F. Duffy	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -		ACTING ENGINEER OF BRIDGE DESIGN				301	3BR & 3BR-1	WINNEBAGO	290	223
DRAWN -	PASSED	M. Carl Toenjes	REVISED		SHEET NO. 48 OF 50 SHEETS			CONTRACT NO. 64D19		
CHECKED -		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5/16/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20, 7 m. E. of IL 2 LOGGED BY J. Strating

SECTION (3, 4) R LOCATION Rockford Twp. – 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 482 + 30

BORING NO. B-3b
Station 490 + 23
Offset ft Cl.
Ground Surface Elev. 708.4 ft

Surface Water Elev. ft
Stream Bed Elev. 71.0 ft

Groundwater Elev.:
First Encounter 686.4 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
				SOFT brown SANDY LOAM
		0.3 P		
706.40				
	5 4 3	0.8 P		MEDIUM brown SANDY LOAM
704.40				
-5	1 1 4			LOOSE tanbrown medium SAND
702.40				
	7 4 6			MEDIUM tanbrown clean medium SAND with GRAVEL
699.40				
-10	2 3 7	3.5 P	11	VERY STIFF dark gray LOAM
697.40				
	13 15 17			DENSE tangray dirty SAND & GRAVEL
694.90				
-15	7 7 9	0.5 P	12	MEDIUM dark gray SANDY LOAM
692.40				
	0 1 2	0.3 P	25	SOFT dark gray SANDY LOAM
689.90				
-20	1			SOFT gray SANDY LOAM
687.40				(continued)
-25	2 3	0.3 P	26	
	1 1 10	0.3 P	30	SOFT gray SANDY LOAM
684.40				
-26	4 6 8			MEDIUM gray dirty SANDY GRAVEL
682.40				
	4 4 5			LOOSE tan SANDY GRAVEL
679.90				
-30	5 2 5			LOOSE tangray SAND & GRAVEL
677.40				
	5 8 12			Wash MEDIUM tan SANDY GRAVEL
674.90				
-35	6 7 7			MEDIUM tan SANDY GRAVEL
672.40				
	6 7 8			MEDIUM tan SAND & GRAVEL
669.90				
-40	4			MEDIUM tan SAND & GRAVEL

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, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
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SOIL BORING LOG

Date 5/16/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20, 7 m. E. of IL 2 LOGGED BY J. Strating

SECTION (3, 4) R LOCATION Rockford Twp. – 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 482 + 30

BORING NO. B-3b
Station 490 + 23
Offset ft Cl.
Ground Surface Elev. 708.4 ft

Surface Water Elev. ft
Stream Bed Elev. 71.0 ft

Groundwater Elev.:
First Encounter 686.4 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	
	5 7			MEDIUM tan SAND & GRAVEL (continued)
667.40				
664.90				
-45	3 4 9			Wash MEDIUM tan SANDY GRAVEL
662.40				
659.90				
-50	8 12 18			Wash MEDIUM tan medium coarse SAND
657.40				
654.90				
-55	6 10 20			Wash MEDIUM tan medium coarse SAND
652.40				
649.90				
-60	6			
				Wash MEDIUM tan SAND & GRAVEL (continued)
647.40	9 12			
644.90				
-65	7 12 19			Wash DENSE tan medium coarse SAND
642.40				
639.90				
-70	11 25 33			Wash VERY DENSE tan medium-coarse SAND with GRAVEL
637.40				
634.90				
-75	25 28 29			Wash VERY DENSE tan SAND & GRAVEL
632.40				End of Boring
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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DESIGNED -	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS**	**SOIL BORING LOGS**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ACTING ENGINEER OF BRIDGE DESIGN	REVISED	**DEPARTMENT OF TRANSPORTATION**	**STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)**	301	3BR & 3BR-1	WINNEBAGO	290	224
DRAWN -	PASSED	REVISED		SHEET NO. 49 OF 50 SHEETS				CONTRACT NO. 64D19	
CHECKED -	ACTING ENGINEER OF BRIDGES AND STRUCTURES						ILLINOIS	FED. AID PROJECT	

Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 5/20/08

ROUTE Bypass 20, FAP 301 DESCRIPTION P92-075-08 US 20, .7 m. E. of IL 2 LOGGED BY J. Strating

SECTION (3, 4) R LOCATION Rockford Twp. - 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 492+30

BORING NO. B-4b
Station 494+38
Offset 5.00ft Lt CL
Ground Surface Elev. 709.7 ft

Surface Water Elev. ______ ft
Stream Bed Elev. 71.0 ft

Groundwater Elev.:
First Encounter 689.7 ft ▼
Upon Completion ______ ft
After ___ Hrs. ______ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOOSE brown dirty medium SAND with GRAVEL	707.20				
DENSE brown dirty medium SAND with GRAVEL	705.70		12, 16, 17		
		-5			
MEDIUM tan SAND & GRAVEL	703.20		6, 6, 7		
MEDIUM brown dirty SAND & GRAVEL	700.20		7, 6, 5		
		-10			
MEDIUM dark gray SANDY LOAM	698.20		4, 6, 5	1.0 P	19
LOOSE dark gray dirty medium SAND	695.70		2, 2, 2		
		-15			
MEDIUM dark gray SANDY LOAM	693.20		1, 1, 3	0.5 P	20
STIFF gray SILT with SAND lenses	690.20		0, 1, 4	1.8 P	23
		▼20			
MEDIUM tan/brown dirty SAND & GRAVEL	688.20		3, 9, 7		
LOOSE brown dirty SAND & GRAVEL	685.70		1, 2, 3		
		-25			
LOOSE tan SAND & GRAVEL	683.20		4, 4, 5		
MEDIUM brown SAND & GRAVEL	680.70		4, 5, 8		
		-30			
Wash MEDIUM tan SAND & GRAVEL	678.20		7, 6, 6		
MEDIUM tan SAND & GRAVEL	675.70		6, 8, 7		
		-35			
MEDIUM tan/gray SAND & GRAVEL	673.20		7, 4, 5		
MEDIUM tan SAND & GRAVEL	670.70		10, 8, 6		
		-40			

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BBS, form 137 (Rev. 8-99)

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SOIL BORING LOG

Page 2 of 2

Date 5/20/08

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SECTION (3, 4) R LOCATION Rockford Twp. - 11 NW, SEC., TWP. 43N, RNG. 1E

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

STRUCT. NO. 101-0059 & 0060
Station 492+30

BORING NO. B-4b
Station 494+38
Offset 5.00ft Lt CL
Ground Surface Elev. 709.7 ft

Surface Water Elev. ______ ft
Stream Bed Elev. 71.0 ft

Groundwater Elev.:
First Encounter 689.7 ft ▼
Upon Completion ______ ft
After ___ Hrs. ______ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan medium SAND with GRAVEL	668.20		4, 6, 10		
	665.70				
		-45			
Wash DENSE tan medium SAND	663.20		11, 16, 21		
	660.70				
		-50			
Wash MEDIUM tan SAND & GRAVEL	658.20		6, 11, 15		
	655.70				
		-55			
Wash MEDIUM tan SAND & GRAVEL	653.20		3, 7, 11		
	650.70				
		-60			
Wash MEDIUM tan SAND & GRAVEL	648.20		5, 5, 14		
	645.70				
		-65			
Wash MEDIUM tan SAND & GRAVEL	643.20		3, 7, 11		
	640.70				
		-70			
Wash DENSE tan medium SAND	638.20		11, 17, 31		
	635.70				
		-75			
Wash DENSE tan SAND & GRAVEL	633.20		9, 21, 24		
End of Boring					
		-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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Existing Sta. 492+33.69 = New Sta. 931+19.69

DESIGNED -	EXAMINED	ACTING ENGINEER OF BRIDGE DESIGN	DATE - OCTOBER 4, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 101-0197 (E.B.) & 101-0198 (W.B.)	F.A.P. RTE. 301	SECTION 3BR & 3BR-1	COUNTY WINNEBAGO	TOTAL SHEETS 290 / SHEET NO. 225
CHECKED -								CONTRACT NO. 64D19	
DRAWN -	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 50 OF 50 SHEETS			ILLINOIS FED. AID PROJECT	
CHECKED -			REVISED						