85432

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS

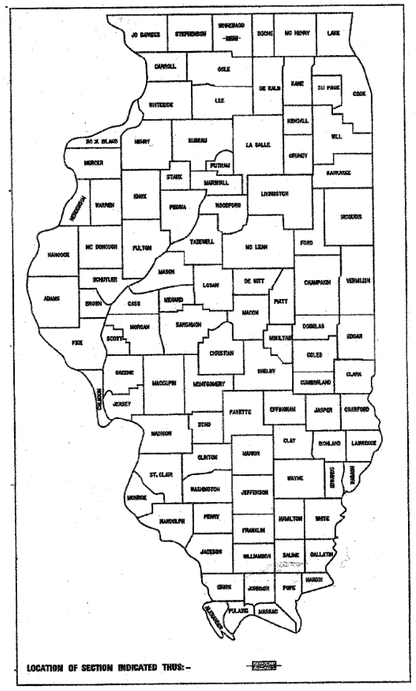
IDOT STANDARDS

280001-04	TEMPORARY EROSION CONTROL SYSTEM
420401-07	BRIDGE APPROACH PAVEMENT
515001-03	NAMEPLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
609006-04	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-08	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-07	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
667101-01	PERMANENT SURVEY MARKERS
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 4.5m(15') TO 600mm(24") FROM PAVEMENT EDGE
701101-02	OFF-ROAD OPERATIONS, MULTILANE, 4.5m(15') TO 600mm(24") FROM PAVEMENT EDGE
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-02	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701326-03	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEDS > 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	SIGN PANEL MOUNTING DETAILS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS

NAME AND ADDRESS OF UTILITY	TYPE
SBC 2404 8TH AVENUE ROCKFORD,IL 61108 (618) 482-6157	TELEPHONE
AT&T ATTN: CARL DONAHUE 866 ROCK CREEK ROAD PLANO, IL 60545 (630) 552-4677	TELEPHONE
VERIZON NORTH 112 WEST ELM SYCAMORE, IL 60178 (815) 895-1515, (309) 663-3422	TELEPHONE
MCLEOD USA ATTN: MARK MILLS (217) 876-7194 X240	TELEPHONE
COMED 123 ENERGY AVENUE ROCKFORD, IL 61109 (815) 490-2360, (630) 437-2236	ELECTRIC
NICOR GAS 4651 LINDEN ROAD ROCKFORD, IL 61109 (815) 965-5415, (815) 754-3339	GAS
COMCAST 610 20TH STREET ROCKFORD, IL 61104 (815) 987-4510, (815) 962-4400 X2018	CABLE
ROCK RIVER WATER RECLAMATION DISTRICT 3333 KISHWAUKEE STREET ROCKFORD, IL 61126-7480 CONTACT: DAVID COOK (815) 387-7663	SANITARY SEWER
ILLINOIS RAILWAY, INC. (I.R) 430 W. MADISON STREET OTTAWA, IL 61350 OPERATIONS: TOM RESCH 815-431-0940	RAILROAD
JAMES PARRISH TECHNICAL OPERATIONS MANAGER 5701 FALCON RD. ROCKFORD, IL 61109 815-484-5301 815-405-6660	AIRPORT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROPOSED LOCAL AGENCY IMPROVEMENT
FEDERAL-AID BRIDGE REPLACEMENT & REHABILITATION PROGRAM

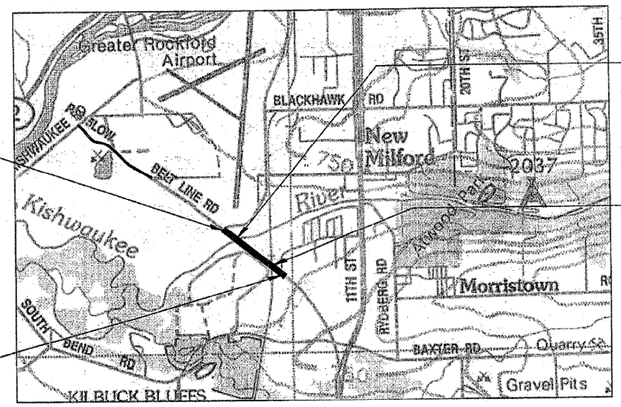
F.A.U. ROUTE 5154
SECTION 04-00343-00-BR
BELTLINE ROAD
PROJECT BRM-5099 (75)
JOB NO. C-92-047-08
CONTRACT NO. 85432
WINNEBAGO COUNTY
2008



LOCATION OF SECTION INDICATED THUS:-

SCALES:

PLAN	1" = 20'
PROFILE HORZ.	1" = 20'
PROFILE VERT.	1" = 5'
CROSS SECTIONS	1" = 5'



SECTION BEGINS
STA. 123+35.60

SECTION ENDS
STA. 154+37.00

LOCATION MAP
NET LENGTH OF SECTION = 3,101.40 FEET = 0.587 MILES

MINOR ARTERIAL TW DHV <975
DESIGN TRAFFIC YEAR 2027 IS 370 DHV 11.2% TRUCKS
DESIGN SPEED = 55 MPH

PROP. STRUCTURE OVER KISHWAUKEE RIVER (S.N. 101-0171)
THREE SPAN (131'-3";142'-2";131'-3") R.C. SLAB ON 43" STEEL PLATE GIRDERS SUPPORTED BY PILE BENT ABUTMENTS AND R.C. PIERS ON PILE

PROP. STRUCTURE OVER IL. RAILNET RAILROAD (S.N. 101-0172)
THREE SPAN (55'-1";67'-0";55'-1") R.C. DECK ON STEEL I-BEAMS SUPPORTED BY PILE BENT ABUTMENTS AND R.C. PIERS ON PILES.

APPROVED _____ 2008
LOCAL AGENCY OFFICIAL

PASSED December 10 2008
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW December 30 2008
DEPUTY DIRECTOR OF HIGHWAYS REGION 2 ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CALL J.U.L.I.E. TOLL FREE 800-892-0123

JERRY HINRICHS
033832
REGISTERED PROFESSIONAL ENGINEER
OF ILLINOIS
12-10-08
Lic. Exp. 11-30-09

S.STRUCT.1124D04.ROADWAY.COVER.DGN WHA #1124D04

WILLETT, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture
809 East Second Street Dixon, Illinois 61021
Phone 815.284.3381 Fax 815.284.3385
Design Firm #184-000918
www.willetthofmann.com

85432

SUMMARY OF QUANTITIES

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

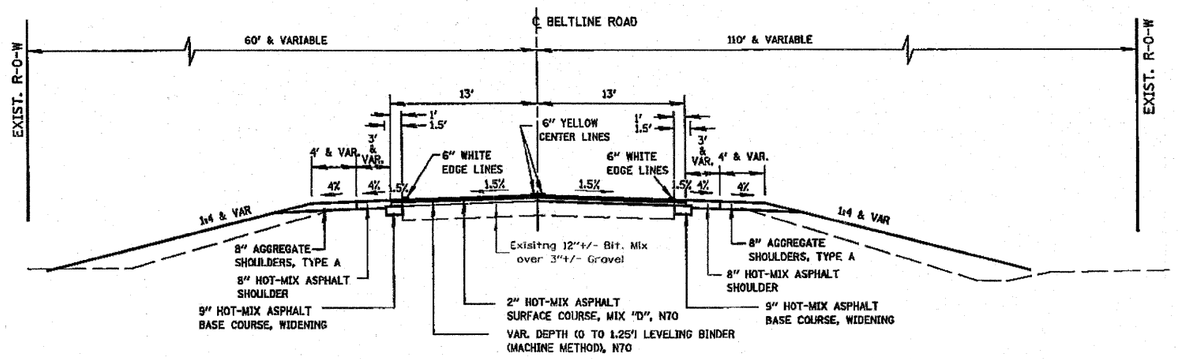
	CODE NO.	ITEM	UNIT	CONSTRUCTION - TYPE CODES: QUANT. TOTAL	1000 ROADWAY	X071-2A KISHWAUKEE BRIDGE	X171-2A R.R. BRIDGE	Y080	NON-PART. Y030-1E
1	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	51	51				
2	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	36	36				
3	20100500	TREE REMOVAL, ACRES	ACRE	2.9	2.9				
4	20200410*	EARTH EXCAVATION (SPECIAL)	CU YD	207	207				
5	20201200*	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	21	21				
6	20300100	CHANNEL EXCAVATION	CU YD	1,960		1,960			
7	20400800	FURNISHED EXCAVATION	CU YD	17,744	17,744				
8	20700220	POROUS GRANULAR EMBANKMENT	CU YD	215		115	100		
9	25000200 △	SEEDING, CLASS 2	ACRE	4.28	4.28				
10	25000312 △	SEEDING, CLASS 4A	ACRE	0.39	0.39				
11	25000320 △	SEEDING, CLASS 5	ACRE	0.39	0.39				
12	25000350 △	SEEDING, CLASS 7	ACRE	4.67	4.67				
13	25000400 △	NITROGEN FERTILIZER NUTRIENT	POUND	421	421				
14	25000500 △	PHOSPHOROUS FERTILIZER NUTPIENT	POUND	421	421				
15	25000600 △	POTASSIUM FERTILIZER NUTRIENT	POUND	421	421				
16	25100115 △	MULCH METHOD 2	ACRE	4.67	4.67				
17	25100630	EROSION CONTROL BLANKET	SQ YD	843	843				
18	28000300	TEMPORARY DITCH CHECKS	EACH	2	2				
19	28100109	STONE RIPRAP, CLASS A5	SQ YD	1,244		1,244			
20	28200200	FILTER FABRIC	SQ YD	1,244		1,244			
21	35100100	AGGREGATE BASE COURSE, TYPE A	TON	79	79				
22	35600712	HOT-MIX ASPHALT BASE COURSE WIDENING, 9"	SQ YD	494	494				
23	40200800*	AGGREGATE SURFACE COURSE, TYPE B	TON	200	200				
24	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1,426	1,426				
25	40600300	AGGREGATE (PRIME COAT)	TON	10.6	10.6				
26	40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	3,184	3,184				
27	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	431	431				
28	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	920	920				
29	42001165	BRIDGE APPROACH PAVEMENT	SQ YD	428	428				
30	44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	4,952	4,952				
31	48100100	AGGREGATE SHOULDERS, TYPE A	TON	319	319				
32	48203100	HOT-MIX ASPHALT SHOULDERS	TON	1,859	1,859				
33	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	2		1	1		
34	50200100	STRUCTURE EXCAVATION	CU YD	788		364	424		
35	50200300	COFFERDAM EXCAVATION	CU YD	584		584			
36	50200500	COFFERDAMS	EACH	2		2			
37	50300100	FLOOR DRAINS	EACH	50		44	6		
38	50300225	CONCRETE STRUCTURES	CU YD	634.3		372.2	262.1		
39	50300255	CONCRETE SUPERSTRUCTURE	CU YD	674.1		463.7	210.4		
40	50300260	BRIDGE DECK GROOVING	SQ YD	1,955		1,357	598		
41	50300265	SEAL COAT CONCRETE	CU YD	326.7		326.7			
42	50300300	PROTECTIVE COAT	SQ YD	3,054		2,030	1,024		
43	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		0.8	0.2		
44	50500505	STUD SHEAR CONNECTORS	EACH	10,548		6,840	3,708		
45	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	218,210		143,330	74,880		

	CODE NO.	ITEM	UNIT	CONSTRUCTION - TYPE CODES: QUANT. TOTAL	1000 ROADWAY	X071-2A KISHWAUKEE BRIDGE	X171-2A R.R. BRIDGE	Y080	NON-PART. Y030-1E (07N)
46	50800515	BAR SPLICERS	EACH	132		66	66		
47	51100500*	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ YD	516			516		
48	51200457	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	4,312		3,488	824		
49	51202305	DRIVING PILES	FOOT	4,312		3,488	824		
50	51203200	TEST PILE METAL SHELLS	EACH	8		4	4		
51	51500100	NAME PLATES	EACH	2		1	1		
52	52000110	PREFORMED JOINT STRIP SEAL	FOOT	168.0		82.5	85.5		
53	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18		6	12		
54	52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12		6	6		
55	52100520	ANCHOR BOLTS, 1"	EACH	24			24		
56	52100530	ANCHOR BOLTS, 1 1/4"	EACH	96		72	24		
57	542D0220*	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	40	40				
58	58700300	CONCRETE SEALER	SQ FT	486		238	248		
59	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	110		64	46		
60	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	8		4	4		
61	60109580*	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	307		160	147		
62	63000000 △	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	1,942	1,942				
63	63100085 △	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	8				
64	63100167 △	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	8	8				
65	66700095*	PERMANENT SURVEY MARKERS	EACH	2		1	1		
66	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18				
67	67100100	MOBILIZATION	L SUM	1	0.50	0.25	0.25		
68	70101700*	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1				
69	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	564	564				
70	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	188	188				
71	78000400 △	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	10,502	10,502				
72	78201000 △	TERMINAL MARKER - DIRECT APPLIED	EACH	8	8				
73	78200410* △	GUARDRAIL MARKERS, TYPE A	EACH	37	37				
74	78200420* △	GUARDRAIL MARKERS, TYPE B	EACH	18	18				
75	A2000810* △	TREE, ACER PLATANOIDES CRIMSON KING (CRIMSON KING NORWAY MAPLE), 1-1/4" CALIPER, BALLED AND BURLAPPED	EACH	3	3				
76	A2001710* △	TREE, ACER SACCHARUM (SUGAR MAPLE) 1-1/4" CALIPER, BALLED AND BURLAPPED	EACH	8	8				
77	X0323017*	TEMPORARY INFORMATIONAL SIGNS	EACH	4	2	1	1		
78	X0323082*	DRAINAGE SCUPPERS, DS-33	EACH	2			2		
79	X0323630*	DRAINAGE SCUPPERS, DS-11	EACH	6		6			
80	X0326171	FLOATING BEARINGS, GUIDED EXPANSION - 250K	EACH	6		6			
81	X6320100*	GUARDRAIL REMOVAL SPECIAL	FOOT	3,423	3,423				
82	XX006285*	PERIMETER EROSION BARRIER, SPECIAL	FOOT	5,024	5,024				
83	Z0004800*	BITUMINOUS MIXTURE FOR PATCHING	TON	25	25				
84	Z0005400*	BREAKER-RUN CRUSHED STONE	TON	43	43				
85	Z0013798*	CONSTRUCTION LAYOUT	L SUM	1	0.20	0.40	0.40		
86	Z0041500*	PLUG EXISTING CULVERTS	EACH	2	2				
87	Z0048665*	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1			1		
88	Z0076600*	TRAINEES	HOURS	1,000				1,000	
89	XX007779 △	M LSR CABLE RELOCATION	L SUM	1					1

△ SPECIALTY ITEMS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	3
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BELTLINE ROAD TYPICAL SECTIONS



① STA. 123+35.60 TO 123+91.81
⑦ STA. 135+36.20 TO 139+78.26
⑫ STA. 151+63.99 TO 154+37.00

PAVEMENT STRUCTURAL DESIGN

STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2017
P.V. 2,056
S.U. 348 } 3,065
M.U. 661

CLASS II ROAD
120,000# TRUCK DESIGN

MINIMUM SOIL SUPPORT: IBR=3.0
T.F.=5.12 ; D_t= 5.12 REQUIRED

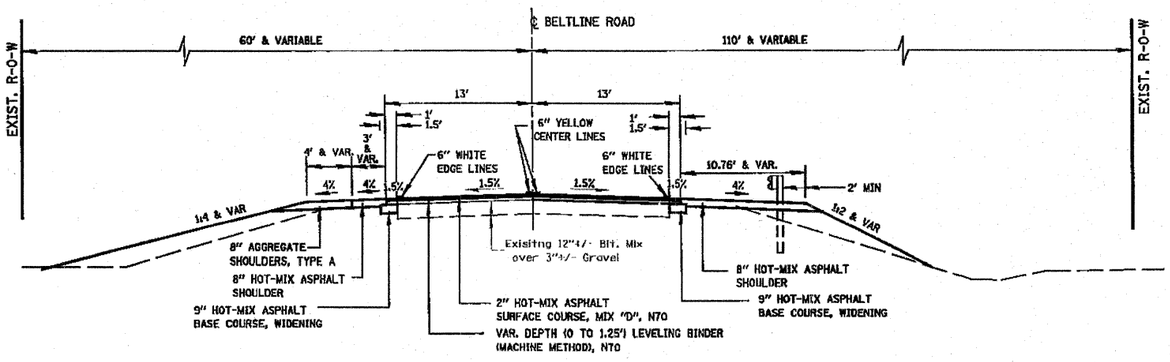
PAVEMENT STRUCTURE MATERIALS:

PROPOSED PAVEMENT OVERLAY

HOT-MIX ASPHALT SURF CSE, MIX D, N70	a_1= 0.4 (2")	=0.8
HOT-MIX ASPHALT LEV. BINDER, N70	a_2= 0.413-3/4")	=1.5
	D_t	2.30

EXISTING PAVEMENT

3" BITUMINOUS SURFACE	a_1= 0.25(3")	=0.75
9" BITUMINOUS BASE	a_2= 0.20(9")	=1.80
3" SUBBASE GRAVEL	a_3= 0.09(3")	=0.27
	D_t	2.82
	TOTAL D_t	=5.12 OK



② STA. 123+91.81 TO 125+39.21

PAVEMENT MIXTURE REQUIREMENTS

RE-CONSTRUCTION

	LEVELING BINDER	SURFACE
PGs	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 @ N70	4.0 @ N70
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 9.5 OR 12.5
FRICTION AGGREGATE	N/A	D

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7154	04-00343-00-BR	WINNEBAGO	92	4
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BELTLINE ROAD TYPICAL SECTIONS

GENERAL NOTES

THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS ENCOUNTERED, UNTIL AN OWNER OR AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL REMOVE ALL STRUCTURES WITHIN THE EXISTING AND NEW RIGHT OF WAY AS DIRECTED BY THE ENGINEER AND AS SHOWN ON PLANS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ALL EXISTING DRAINAGE PIPES AND END SECTIONS SHALL BE CAREFULLY REMOVED DURING CONSTRUCTION AND STACKED ALONG THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER. THIS SALVAGE AND STORAGE OF EXISTING DRAINAGE PIPES AND END SECTIONS SHALL BE CONSIDERED AN INCIDENTAL ITEM TO THE CONTRACT. ALL SALVAGED PIPES SHALL REMAIN THE PROPERTY OF THE COUNTY.

ALL TELEPHONE AND ELECTRIC POLES, GAS PIPES, ETC. IN THE WAY OF THE IMPROVEMENT SHALL BE MOVED BY THE UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOT BE INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITIES TO MAKE THE NECESSARY ADUSTMENTS PRIOR TO THIS CONSTRUCTION.

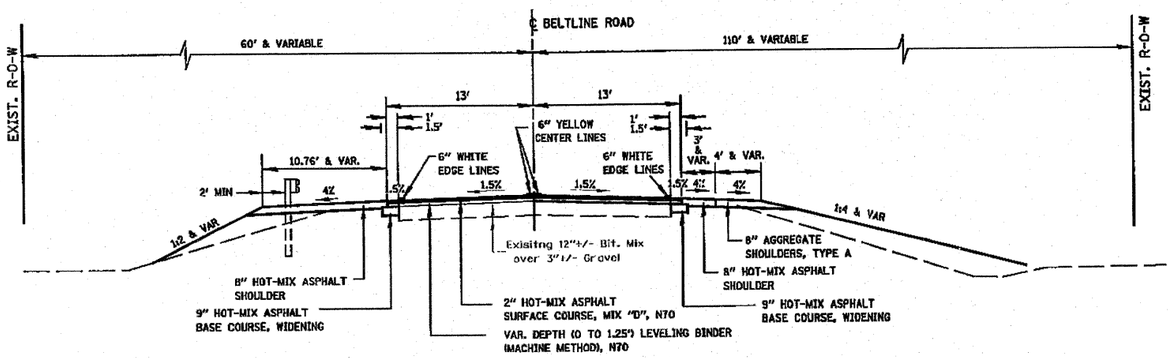
THE LOCATION AND ELEVATION OF THE VARIOUS UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.

ALL TREES LESS THAN 6" DIAMETER WITHIN THE CONSTRUCTION LINES AND SHOWN ON THE PLANS TO BE REMOVED WILL NOT BE PAID FOR UNDER THE BID ITEM OF "TREE REMOVAL". THE COST OF REMOVING THESE TREES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

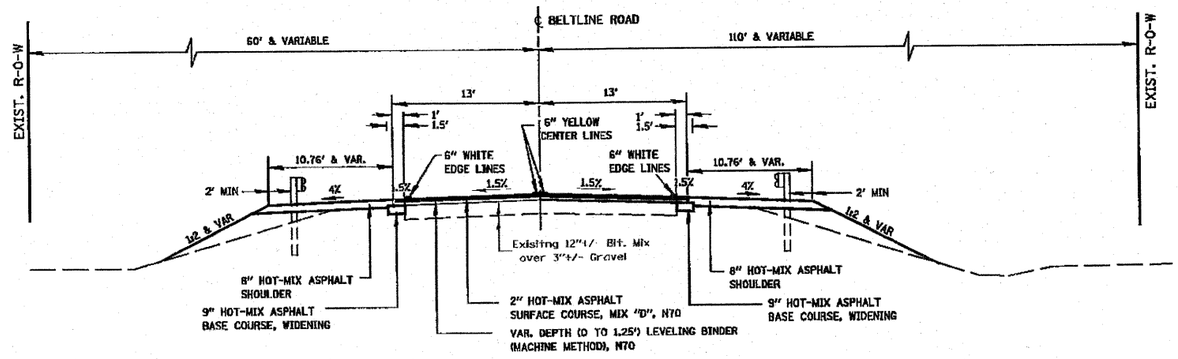
THE FINAL TOP 4" OF SOIL IN ANY AREA DISTURBED BY THE CONTRACTOR MUST BE ABLE TO SUPPORT VEGETATION.

EXISTING MAIL BOXES, STREET SIGNS AND TRAFFIC SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET BY THE CONTRACTOR. COST OF REMOVING AND RESETTING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL)

WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS SURFACE, OR WHERE SAWING IS STATED ON THE PLANS, THE EXISTING SURFACE SHALL BE SAWED IN A NEAT, STRAIGHT LINE. COST OF SAWING TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).



⑥ STA. 134+26.28 TO 135+36.20
⑧ STA. 139+78.26 TO 144+09.57



③ STA. 125+39.21 TO 127+52.75
④ OMISSION RIVER BRIDGE 127+52.75 TO 132+25.25
⑤ STA. 132+25.25 TO 134+26.28
⑨ STA. 144+09.57 TO 146+99.42
⑩ OMISSION RR BRIDGE 146+99.42 TO 149+40.43
⑪ STA 149+40.43 TO 151+63.99

DATE-TIME PLOTTED

S.STRUCT.1124D04.ROADWAY.TYPICALS.DGN

WHA 1124D04

85432

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULES

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (SPECIAL) 20200100*	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) FURNISHED EXCAVATION 20400800
BELTLINE ROAD				
STA. 123+35.60 TO 154+37.00	207	155	16,952	-16,797
ILLINOIS RAILNET BRIDGE				
WEST ABUT. - STA. 147+25.59			532	-532
EAST ABUT. - STA. 149+10.41			415	-415
TOTALS	**207**	**155**	**17,899**	**-17,744**

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION	UNIT	REMARKS
29' R 125+65	6	
32' R 126+13	6	
31' R 127+13	14	
18' L 128+33	7	
25' R 130+98	6	
26' R 131+28	12	
PROJECT TOTAL	51	

20100110

TREE REMOVAL (OVER 15 UNITS DIAMETER)

STATION	UNIT	REMARKS
68' R 136+12	36	
PROJECT TOTAL	36	

20100110

TREE REMOVAL, ACRES

STATION	ACRES	REMARKS
L 131+93 - 136+94	0.39	
L 138+76 - 147+71	0.70	
L 148+07 - 152+78	0.45	
R 137+83 - 147+96	1.09	
R 149+17 - 151+91	0.27	
PROJECT TOTAL	2.90	

20100500

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

STATION	CU YD	REMARKS
CONTINGENCY ITEM	21	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	21	

20201200*

SEEDING, CLASS 2

STATION	ACRE	REMARKS
L 123+35.60 - 154+50.00	2.05	TO CONST. LIMITS - SEE CROSS SECTIONS
R 123+35.60 - 148+45.77	2.00	TO CONST. LIMITS - SEE CROSS SECTIONS
R 152+55.88 - 154+50.00	0.23	TO CONST. LIMITS - SEE CROSS SECTIONS
PROJECT TOTAL	4.28	

25000200

SEEDING, CLASS 4A

STATION	ACRE	REMARKS
R 148+45.77 - 152+55.88	0.39	TO CONST. LIMITS - SEE CROSS SECTIONS
PROJECT TOTAL	0.39	

25000312

SEEDING, CLASS 5

STATION	ACRE	REMARKS
R 148+45.77 - 152+55.88	0.39	TO CONST. LIMITS - SEE CROSS SECTIONS
PROJECT TOTAL	0.39	

25000320

SEEDING, CLASS 7

STATION	ACRE	REMARKS
L 123+35.60 - 154+50.00	2.05	TO CONST. LIMITS - SEE CROSS SECTIONS
R 123+35.60 - 154+50.00	2.62	TO CONST. LIMITS - SEE CROSS SECTIONS
PROJECT TOTAL	4.67	

25000350

NITROGEN FERTILIZER NUTRIENT

STATION	POUND	REMARKS
L 123+35.60 - 154+50.00	185	90# / ACRE
R 123+35.60 - 154+50.00	236	90# / ACRE
PROJECT TOTAL	421	

25000400

PHOSPHUROUS FERTILIZER NUTRIENT

STATION	POUND	REMARKS
L 123+35.60 - 154+50.00	185	90# / ACRE
R 123+35.60 - 154+50.00	236	90# / ACRE
PROJECT TOTAL	421	

25000500

POTASSIUM FERTILIZER NUTRIENT

STATION	POUND	REMARKS
L 123+35.60 - 154+50.00	185	90# / ACRE
R 123+35.60 - 154+50.00	236	90# / ACRE
PROJECT TOTAL	421	

25000600

MULCH METHOD 2

STATION	ACRE	REMARKS
L 123+35.60 - 154+50.00	2.05	TO CONST. LIMITS - SEE CROSS SECTIONS
R 123+35.60 - 154+50.00	2.62	TO CONST. LIMITS - SEE CROSS SECTIONS
PROJECT TOTAL	4.67	

25100115

EROSION CONTROL BLANKET

STATION	SQ YD	REMARKS
L 141+50 - 146+50	333	6' WIDE
L 146+50 - 147+00	67	12' WIDE
R 134+90 - 137+10	293	12' WIDE
R 149+25 - 151+50	150	6' WIDE
PROJECT TOTAL	843	

25100630

TEMPORARY DITCH CHECKS

STATION	EACH	REMARKS
R 123+50	1	
R 125+00	1	
PROJECT TOTAL	2	

28000300

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULES

AGGREGATE BASE COURSE, TYPE A

STATION	TON	REMARKS
FER 122+77	79	10" (CA6)
PROJECT TOTAL	79	

35100100

HOT-MIX ASPHALT BASE COURSE

WIDENING, 9"

STATION	SQ YD	REMARKS
L 123+68 - 127+62.81	66	
L 132+59 - 137+50	91	INCL. NW R. @ CAMP ELMWOOD DRIVE
L 137+68 - 138+19	7	NE R. @ CAMP ELMWOOD DRIVE
L 149+29 - 152+89	62	INCL. NW R. @ SOUTH BEND ROAD
L 153+11 - 154+37	24	INCL. NE R. @ SOUTH BEND ROAD
R 123+35.60 - 127+45	68	
R 132+25 - 136+90	78	
R 137+44 - 137+47	3	SW R. @ CAMP ELMWOOD DRIVE
R 137+69 - 137+84	8	SE R. @ CAMP ELMWOOD DRIVE
R 138+00 - 138+37	6	
R 149+50 - 154+37	81	
PROJECT TOTAL	494	

35600712

AGGREGATE SURFACE COURSE, TYPE B

STATION	TON	REMARKS
CONTINGENCY ITEM	200	AS DIRECTED BY ENGINEER
PROJECT TOTAL	200	

40200800*

BITUMINOUS MATERIALS (PRIME COAT)

STATION	GALLON	REMARKS
123+35.60 - 127+60.34	114	.1 GAL. / S.Y. OVER BIT.
132+17.89 - 137+06.04	128	.1 GAL. / S.Y. OVER BIT.
137+06.04 - 138+10.03	69	.1 GAL. / S.Y. OVER BIT.
138+10.03 - 147+05.74	237	.1 GAL. / S.Y. OVER BIT.
149+30.31 - 152+39.16	80	.1 GAL. / S.Y. OVER BIT.
152+39.16 - 153+65.91	66	.1 GAL. / S.Y. OVER BIT.
153+65.91 - 154+37.00	19	.1 GAL. / S.Y. OVER BIT.
123+35.60 - 127+60.34	114	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
132+17.89 - 137+06.04	128	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
137+06.04 - 138+10.03	69	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
138+10.03 - 147+05.74	237	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
149+30.31 - 152+39.16	80	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
152+39.16 - 153+65.91	66	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
153+65.91 - 154+37.00	19	.1 GAL. / S.Y. OVER BIT. (CONTINGENCY)
PROJECT TOTAL	1,426	

40600100

AGGREGATE (PRIME COAT)

STATION	TON	REMARKS
123+35.60 - 127+60.34	1.7	3 LBS. / S.Y.
132+17.89 - 137+06.04	1.9	3 LBS. / S.Y.
137+06.04 - 138+10.03	1.0	3 LBS. / S.Y.
138+10.03 - 147+05.74	3.5	3 LBS. / S.Y.
149+30.31 - 152+39.16	1.2	3 LBS. / S.Y.
152+39.16 - 153+65.91	1.0	3 LBS. / S.Y.
153+65.91 - 154+37.00	0.3	3 LBS. / S.Y.
PROJECT TOTAL	10.6	

40600300

LEVELING BINDER

(MACHINE METHOD), N70

STATION	TON	REMARKS
123+35.60 - 127+60.34	535	3 3/4" & VAR.
132+17.89 - 137+06.04	607	3 3/4" & VAR.
137+06.04 - 138+10.03	176	3 3/4" & VAR. - INT. @ CAMP ELMWOOD DR.
138+10.03 - 147+05.74	1,119	3 3/4" & VAR.
149+30.31 - 152+39.16	377	3 3/4" & VAR.
152+39.16 - 153+65.91	280	3 3/4" & VAR. - INT. @ SOUTH BEND RD.
153+65.91 - 154+37.00	90	3 3/4" & VAR.
PROJECT TOTAL	3,184	

40600635

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

STATION	SQ YD	REMARKS
123+35.60 - 123+75.60	133	BEGINNING OF PROJECT
R 137+58.04	67	CAMP ELMWOOD DR. (WEST OF BELTLINE)
L 137+58.98	23	CAMP ELMWOOD DR. (EAST OF BELTLINE)
L 153+15.66	101	SOUTH BEND ROAD (EAST OF BELTLINE)
153+97.00 - 154+37.00	107	END OF PROJECT
PROJECT TOTAL	431	

40600982

HOT-MIX ASPHALT SURFACE COURSE,

MIX "D", N70

STATION	TON	REMARKS
123+35.60 - 127+60.34	147	2"
132+17.89 - 137+06.04	167	2"
137+06.04 - 138+10.03	86	2" - INTERSECTION @ CAMP ELMWOOD DRIVE
138+10.03 - 147+05.74	308	2"
149+30.31 - 152+39.16	104	2"
152+39.16 - 153+65.91	83	2" - INTERSECTION @ SOUTH BEND ROAD
153+65.91 - 154+37.00	25	2"
PROJECT TOTAL	920	

40603340

BRIDGE APPROACH PAVEMENT

STATION	SQ YD	REMARKS
127+53.25 - 127+83.25	107	WEST SIDE OF KISHWAUKEE RIVER
131+94.75 - 132+24.75	107	EAST SIDE OF KISHWAUKEE RIVER
146+96.46 - 147+26.46	107	WEST SIDE OF RR
149+09.55 - 149+39.55	107	EAST SIDE OF RR
PROJECT TOTAL	428	

42001165

STRIP REFLECTIVE CRACK

CONTROL TREATMENT

STATION	FOOT	REMARKS
L 123+35.60 - 127+60.93	425	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 132+31.62 - 137+10.12	479	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 137+10.12 - 137+50.63 (RAD.)	78	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 137+67.79 - 138+8.12 (RAD.)	78	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 138+08.12 - 146+87.18	879	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 149+29.54 - 152+39.16	310	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 152+39.16 - 152+89.16 (RAD.)	94	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 153+10.81 - 153+65.91 (RAD.)	99	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
L 153+65.91 - 154+37.00	71	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
R 123+35.60 - 127+46.16	411	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
R 132+17.32 - 137+06.04	489	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
R 137+06.04 - 137+47.16 (RAD.)	78	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
R 137+70.04 - 138+10.04 (RAD.)	78	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
R 138+10.04 - 147+06.51	897	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
R 149+48.79 - 154+37.00	488	2' WIDE - FROM OUTSIDE EDGE OF BIT. SHLD.
PROJECT TOTAL	4,952	

44300200

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULES

AGGREGATE SHOULDERS, TYPE A

STATION	TON	REMARKS
L 123+55.75 - 125+05.21	27	8" - 4' & VAR W.
L 135+70.20 - 137+26.71	28	8" - 4' & VAR W.
L 137+91.63 - 139+44.26	27	8" - 4' & VAR W.
L 151+97.93 - 152+57.92	8	8" - 4' & VAR W.
L 153+47.15 - 154+37	17	8" - 4' & VAR W.
R 123+35.60 - 123+57.72	2	8" - 4' & VAR W.
R 134+60.28 - 137+22.45	50	8" - 4' & VAR W.
R 137+93.55 - 143+75.57	114	8" - 4' & VAR W.
R 151+97.99 - 154+37	46	8" - 4' & VAR W.
PROJECT TOTAL	319	

48100100

PIPE CULVERTS, CLASS D, TYPE 1 15"

STATION	FOOT	REMARKS
FER 122+77	40	
PROJECT TOTAL	40	

542D0220*

STEEL PLATE GUARD RAIL, TYPE A

STATION	FOOT	REMARKS
L 125+89.21 - 127+39.14	150	
L 132+61.20 - 134+85.89	225	
L 140+28.26 - 146+59.44	631	
L 149+51.50 - 151+13.93	162	
R 124+41.81 - 127+16.73	275	
R 132+38.86 - 133+76.29	137	
R 144+59.57 - 146+84.50	225	
R 149+76.56 - 151+13.99	137	
PROJECT TOTAL	1,942	

63000000

TRAFFIC BARRIER TERMINAL, TYPE 6

STATION	EACH	REMARKS
L 127+39.14 - 127+82.28	1	
L 132+18.12 - 132+61.20	1	
L 146+59.44 - 147+02.58	1	
L 149+08.36 - 149+51.50	1	
R 127+16.73 - 127+59.88	1	
R 131+95.72 - 132+38.86	1	
R 146+84.50 - 147+27.64	1	
R 149+33.42 - 149+76.56	1	
PROJECT TOTAL	8	

63100085

HOT-MIX ASPHALT SHOULDERS

STATION	TON	REMARKS
L 123+35.60 - 124+80.64	23	8" - 3' W
L 124+80.64 - 125+29.21	18	8" - 11' & VAR W.
L 125+29.21 - 126+33.03	60	8" - 11' & VAR W.
L 126+33.03 - 127+39.20	49	8" - 10.76' & VAR W.
L 127+39.20 - 127+78.76	12	8" - 6.76' & VAR W.
L 127+78.76 - 127+90.29	1	8" - 6.76' & VAR W.
L 132+10.12 - 132+21.65	1	8" - 6.76' & VAR W.
L 132+21.65 - 132+61.20	12	8" - 6.76' & VAR W.
L 132+61.20 - 133+67.37	49	8" - 10.76' & VAR W.
L 133+67.37 - 135+46.20	103	8" - 11' & VAR W.
L 135+46.20 - 135+93.76	18	8" - 11' & VAR W.
L 135+93.76 - 137+49.63	31	8" - 3' W
L 137+68.79 - 139+20.26	30	8" - 3' W
L 139+20.26 - 139+68.26	18	8" - 11' & VAR W.
L 139+68.26 - 145+53.33	337	8" - 11' & VAR W.
L 145+53.33 - 146+59.51	50	8" - 10.76' & VAR W.
L 146+59.51 - 147+01.71	11	8" - 6.76' & VAR W.
L 147+01.71 - 147+13.12	1	8" - 6.76' & VAR W.
L 148+97.82 - 149+09.23	1	8" - 6.76' & VAR W.
L 149+09.23 - 149+51.43	12	8" - 6.76' & VAR W.
L 149+51.43 - 150+57.61	49	8" - 10.76' & VAR W.
L 150+57.61 - 151+73.93	67	8" - 11' & VAR W.
L 151+73.93 - 152+21.93	18	8" - 11' & VAR W.
L 152+21.93 - 152+88.00	17	8" - 3' W
L 153+12.00 - 154+37.00	27	8" - 3' W
R 123+35.60 - 123+81.81	18	8" - 11' & VAR W.
R 123+81.81 - 126+10.63	131	8" - 11' & VAR W.
R 126+10.63 - 127+16.80	49	8" - 10.76' & VAR W.
R 127+16.80 - 127+56.35	12	8" - 6.76' & VAR W.
R 127+56.35 - 126+67.88	1	8" - 6.76' & VAR W.
R 131+87.63 - 131+99.24	1	8" - 6.76' & VAR W.
R 131+99.24 - 132+38.79	12	8" - 6.76' & VAR W.
R 132+38.79 - 133+44.97	50	8" - 10.76' & VAR W.
R 133+44.97 - 134+36.28	53	8" - 11' & VAR W.
R 134+36.28 - 134+85.31	18	8" - 11' & VAR W.
R 134+85.31 - 137+46.16	46	8" - 3' W
R 137+71.90 - 143+51.57	99	8" - 3' W
R 143+51.57 - 143+99.57	18	8" - 11' & VAR W.
R 143+99.57 - 145+78.39	103	8" - 11' & VAR W.
R 145+78.39 - 146+84.57	49	8" - 10.76' & VAR W.
R 146+84.57 - 147+26.77	12	8" - 6.76' & VAR W.
R 147+26.77 - 147+38.18	1	8" - 6.76' & VAR W.
R 149+22.88 - 149+34.25	1	8" - 6.76' & VAR W.
R 149+34.25 - 149+76.49	12	8" - 6.76' & VAR W.
R 149+76.49 - 150+82.67	49	8" - 10.76' & VAR W.
R 150+82.67 - 151+73.99	53	8" - 11' & VAR W.
R 151+73.99 - 152+21.99	18	8" - 11' & VAR W.
R 152+21.99 - 154+37.00	35	8" - 3' W
PROJECT TOTAL	1,859	

48203100

TRAFFIC BARRIER TERMINAL

TYPE 1, SPECIAL (TANGENT)

STATION	EACH	REMARKS
L 125+39.21 - 125+89.21	1	
L 134+85.89 - 135+36.20	1	
L 139+78.26 - 140+28.26	1	
L 151+13.93 - 151+63.93	1	
R 123+91.81 - 124+41.81	1	
R 133+76.29 - 134+26.28	1	
R 144+09.57 - 144+59.57	1	
R 151+13.99 - 151+63.99	1	
PROJECT TOTAL	8	

63100167

SHORT-TERM PAVEMENT MARKING

STATION	FOOT	REMARKS
123+35.60 - 154+37.00	564	4-40 CL MARKING (YELLOW) - 2 LIFTS
PROJECT TOTAL	564	

70300100

WORK ZONE PAVEMENT MARKING REMOVAL

STATION	SQ FT	REMARKS
123+35.60 - 154+37.00	188	
PROJECT TOTAL	188	

70301000

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULES

THERMOPLASTIC PAVEMENT MARKING - LINE 6"

STATION	FOOT	REMARKS
L 123+35.60 - 135+00	1,164	L OF C/L NPZ (YELLOW)
L 138+10 - 146+10	200	L OF C/L 10/30 SKIP DASH (YELLOW)
L 146+10 - 152+60	650	L OF C/L NPZ (YELLOW)
L 153+60 - 154+37	77	L OF C/L NPZ (YELLOW)
R 123+35.60 - 125+50	214	R OF C/L NPZ (YELLOW)
R 125+50 - 137+10	290	R OF C/L 10/30 SKIP DASH (YELLOW)
R 138+10 - 152+60	1,450	R OF C/L NPZ (YELLOW)
R 153+60 - 154+37	77	R OF C/L NPZ (YELLOW)
L 123+35.60 - 137+10.12	1,375	LEFT EDGE (WHITE)
L 137+10.12 - 137+50.63	78	LEFT EDGE - RAD. (WHITE)
L 137+67.79 - 138+08.12	78	LEFT EDGE - RAD. (WHITE)
L 138+08.12 - 152+39.16	1,431	LEFT EDGE (WHITE)
L 152+39.16 - 152+89.16	94	LEFT EDGE - RAD. (WHITE)
L 153+10.81 - 153+65.91	99	LEFT EDGE - RAD. (WHITE)
L 153+65.91 - 154+37.00	71	LEFT EDGE (WHITE)
R 123+35.60 - 137+06.04	1,370	RIGHT EDGE (WHITE)
R 137+06.04 - 137+47.16	78	RIGHT EDGE - RAD. (WHITE)
R 137+70.04 - 138+10.04	78	RIGHT EDGE - RAD. (WHITE)
R 138+10.04 - 154+37.00	1,627	RIGHT EDGE (WHITE)
PROJECT TOTAL	10,502	

78000400

TERMINAL MARKER - DIRECT APPLIED

STATION	EACH	REMARKS
L 125+39.21	1	
L 135+36.20	1	
L 139+78.26	1	
L 151+63.93	1	
R 123+91.81	1	
R 134+26.28	1	
R 144+09.57	1	
R 151+63.99	1	
PROJECT TOTAL	8	

78201000

GUARDRAIL MARKERS, TYPE A

STATION	EACH	REMARKS
L 125+74.64	1	FACES NORTHWEST BOUND TRAFFIC
L 126+54.64	1	FACES NORTHWEST BOUND TRAFFIC
L 127+34.64	1	FACES NORTHWEST BOUND TRAFFIC
L 132+63.27	1	FACES NORTHWEST BOUND TRAFFIC
L 133+43.27	1	FACES NORTHWEST BOUND TRAFFIC
L 134+23.27	1	FACES NORTHWEST BOUND TRAFFIC
L 135+03.27	1	FACES NORTHWEST BOUND TRAFFIC
L 135+83.27	1	FACES NORTHWEST BOUND TRAFFIC
L 136+63.27	1	FACES NORTHWEST BOUND TRAFFIC
L 138+84.97	1	FACES NORTHWEST BOUND TRAFFIC
L 139+64.97	1	FACES NORTHWEST BOUND TRAFFIC
L 140+44.97	1	FACES NORTHWEST BOUND TRAFFIC
L 141+24.97	1	FACES NORTHWEST BOUND TRAFFIC
L 142+04.97	1	FACES NORTHWEST BOUND TRAFFIC
L 146+04.97	1	FACES NORTHWEST BOUND TRAFFIC
L 149+48.47	1	FACES NORTHWEST BOUND TRAFFIC
L 150+28.47	1	FACES NORTHWEST BOUND TRAFFIC
L 151+08.47	1	FACES NORTHWEST BOUND TRAFFIC
L 151+88.47	1	FACES NORTHWEST BOUND TRAFFIC
R 124+39.73	1	FACES SOUTHEAST BOUND TRAFFIC
R 125+19.73	1	FACES SOUTHEAST BOUND TRAFFIC
R 125+99.73	1	FACES SOUTHEAST BOUND TRAFFIC
R 126+79.73	1	FACES SOUTHEAST BOUND TRAFFIC
R 132+43.36	1	FACES SOUTHEAST BOUND TRAFFIC
R 133+23.36	1	FACES SOUTHEAST BOUND TRAFFIC
R 134+03.36	1	FACES SOUTHEAST BOUND TRAFFIC
R 138+60.03	1	FACES SOUTHEAST BOUND TRAFFIC
R 139+40.03	1	FACES SOUTHEAST BOUND TRAFFIC
R 140+20.03	1	FACES SOUTHEAST BOUND TRAFFIC
R 141+00.03	1	FACES SOUTHEAST BOUND TRAFFIC
R 141+80.03	1	FACES SOUTHEAST BOUND TRAFFIC
R 145+80.03	1	FACES SOUTHEAST BOUND TRAFFIC
R 151+43.53	1	FACES SOUTHEAST BOUND TRAFFIC
R 152+23.53	1	FACES SOUTHEAST BOUND TRAFFIC
R 153+03.53	1	FACES SOUTHEAST BOUND TRAFFIC
R 153+83.53	1	FACES SOUTHEAST BOUND TRAFFIC
R 154+63.53	1	FACES SOUTHEAST BOUND TRAFFIC
PROJECT TOTAL	37	

78200410*

GUARDRAIL MARKERS, TYPE B

STATION	EACH	REMARKS
L 128+29	1	FACES NORTHWEST BOUND TRAFFIC
L 129+09	1	FACES NORTHWEST BOUND TRAFFIC
L 129+89	1	FACES NORTHWEST BOUND TRAFFIC
L 130+69	1	FACES NORTHWEST BOUND TRAFFIC
L 131+49	1	FACES NORTHWEST BOUND TRAFFIC
L 147+08.47	1	FACES NORTHWEST BOUND TRAFFIC
L 147+88.47	1	FACES NORTHWEST BOUND TRAFFIC
L 148+68.47	1	FACES NORTHWEST BOUND TRAFFIC
L 149+48.47	1	FACES NORTHWEST BOUND TRAFFIC
R 128+29	1	FACES SOUTHEAST BOUND TRAFFIC
R 129+09	1	FACES SOUTHEAST BOUND TRAFFIC
R 129+89	1	FACES SOUTHEAST BOUND TRAFFIC
R 130+69	1	FACES SOUTHEAST BOUND TRAFFIC
R 131+49	1	FACES SOUTHEAST BOUND TRAFFIC
R 147+08.47	1	FACES SOUTHEAST BOUND TRAFFIC
R 147+88.47	1	FACES SOUTHEAST BOUND TRAFFIC
R 148+68.47	1	FACES SOUTHEAST BOUND TRAFFIC
R 149+48.47	1	FACES SOUTHEAST BOUND TRAFFIC
PROJECT TOTAL	18	

78200420*

TREE, ACER PLATANOIDES CRIMSON KING (CRIMSON KING NORWAY MAPLE), 1-1/4" CALIPER, BALLED AND BURLAPPED

STATION	EACH	REMARKS
AS DIRECTED BY ENGINEER	3	
PROJECT TOTAL	3	

A2000810*

TREE, ACER SACCHARUM (SUGAR MAPLE) 1-1/4" CALIPER, BALLED AND BURLAPPED

STATION	EACH	REMARKS
AS DIRECTED BY ENGINEER	8	
PROJECT TOTAL	8	

A2001710*

85432

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULES

GUARDRAIL REMOVAL SPECIAL

STATION	FOOT	REMARKS
L 127+14 - 128+13	99	
L 131+72 - 137+09	537	
L 139+81 - 147+17	736	
L 148+94 - 152+07	313	
R 126+97 - 127+95	98	
R 131+54 - 132+54	100	
R 140+03 - 147+41	738	
R 149+17 - 157+19	802	
PROJECT TOTAL	3,423	

X6320100*

PERIMETER EROSION BARRIER, SPECIAL

STATION	FOOT	REMARKS
L 124+00 - 128+00	400	ALONG EXIST. R.O.W.
L 132+25 - 137+00	475	
L 137+00 - 137+30	35	
L 138+00	20	ALONG EXIST. R.O.W.
L 138+00 - 147+50	850	ALONG EXIST. R.O.W.
L148+20 - 152+58	444	ALONG EXIST. R.O.W.
L 152+58	20	ALONG EXIST. R.O.W.
L 153+38	25	ALONG EXIST. R.O.W.
L 153+38 - 153+50	20	
L 153+50 - 154+37	87	
R 122+30 - 122+70	77	
R 122+70 - 126+50	381	
R 126+50 - 127+00	50	
R 127+00 - 127+50	50	
R 131+50 - 137+30	580	
R 137+90 - 138+00	27	
R 138+00 - 139+00	100	
R 139+00 - 144+00	500	
R 144+00 - 148+00	400	
R 149+50 - 151+00	150	
R 151+00 - 154+37	333	
PROJECT TOTAL	5,024	

XX006285*

BITUMINOUS MIXTURE FOR PATCHING

STATION	TON	REMARKS
CONTINGENCY ITEM	25	ON DETOUR ROUTE AS REQUIRED
PROJECT TOTAL	25	

Z0004800*

BREAKER-RUN CRUSHED STONE

STATION	TON	REMARKS
CONTINGENCY ITEM	43	AS DIRECTED BY THE ENGINEER
PROJECT TOTAL	43	

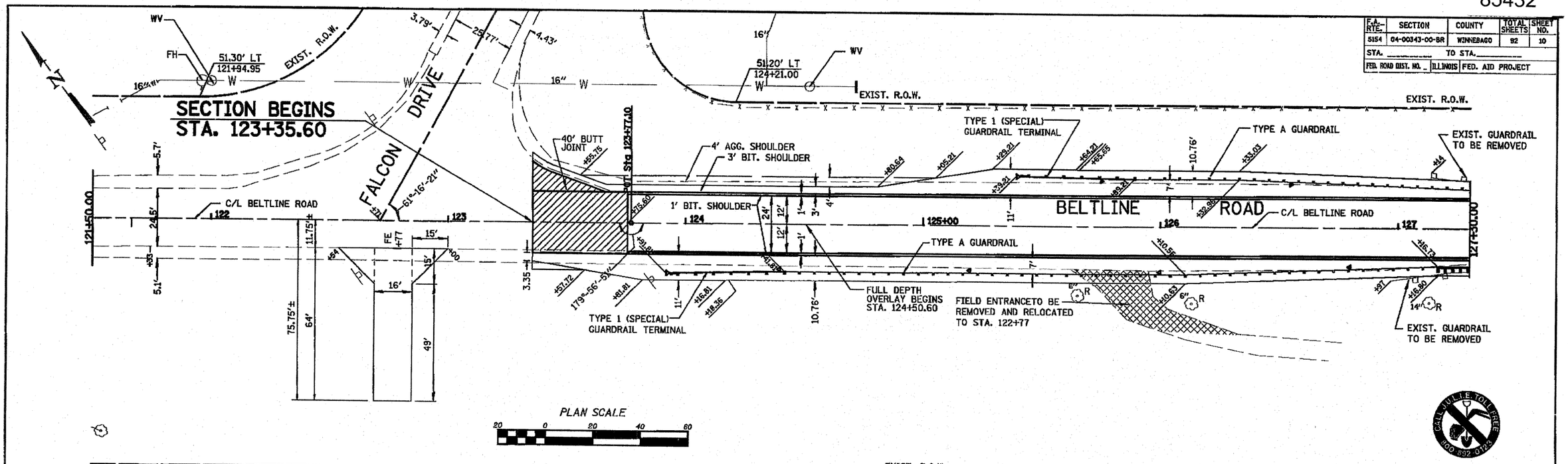
Z0005400*

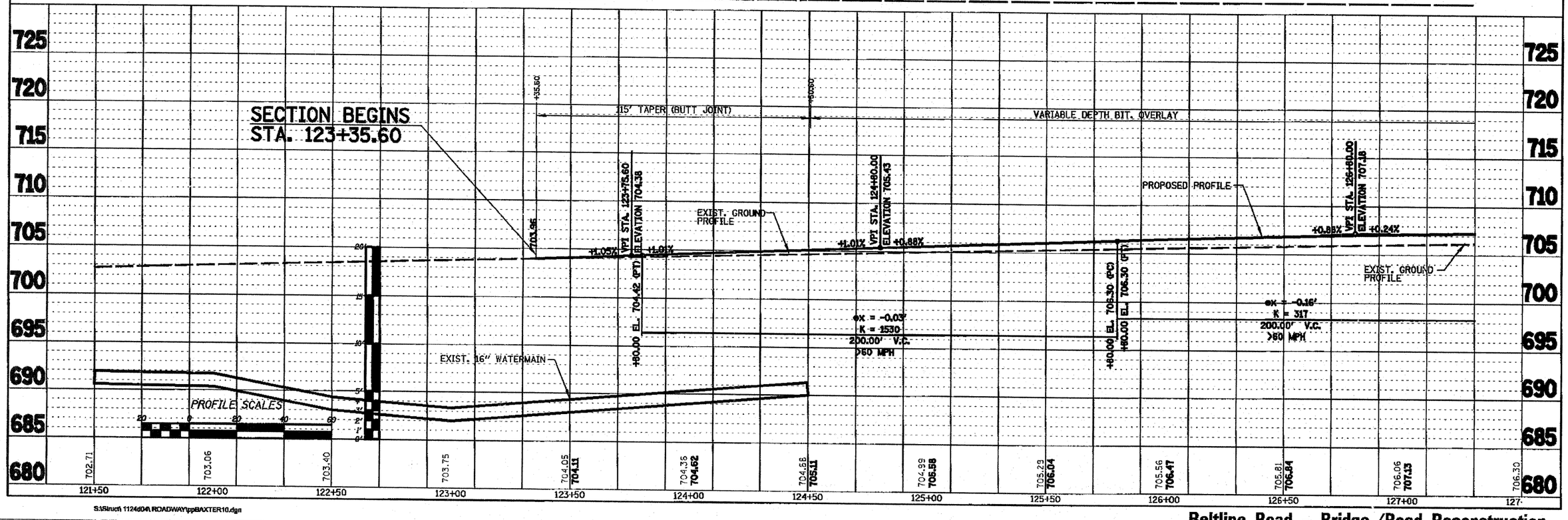
PLUG EXISTING CULVERTS

STATION	EACH	REMARKS
L & R 141+73.98	2	12" CONC.
PROJECT TOTAL	2	

Z0041500*

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	10
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		





S:\Struct\1124d04\ROADWAY\ppBAXTER10.dgn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BENCHMARK:
CUT SQUARE ON S.E. BRIDGE HEADWALL, ELEV.=707.58

EXIST. 20" WATERMAIN
EXIST. POWER AND CONTROL CABLES (RUNWAY LIGHTING)
50.69' LT 128+55.40
WATER'S EDGE
EXIST. R.O.W.
65.34' LT 131+26.87
PERM. EASEMENT
50.33' LT 131+55.43
EXIST. R.O.W.
TREE REMOVAL
REMOVE EXIST. INLET
TRAFFIC BARRIER TERMINAL, TYPE 6
TREE/BRUSH LINE
BIT. SHOULDER
EXIST. GUARDRAIL TO BE REMOVED
TRAFFIC BARRIER TERMINAL, TYPE 6
BIT. SHOULDER
REMOVE EX. INLETS
126+80.00
132+80.00
RIVER
BELTLINE ROAD
C/L BELTLINE ROAD
C/L PROPOSED STRUCTURE - 129+89.00
APP. PAVEMENT FOR BRIDGE
EXIST. GUARDRAIL TO BE REMOVED
EXIST. POWER AND CONTROL CABLES FOR RUNWAY LIGHTING IN RIGID STEEL CONDUIT. (1-3" CONDUIT AND 1-2" CONDUIT) ATTACHED TO BRIDGE, ACROSS RIVER. REMOVAL INCLUDED IN PAY ITEM "REMOVAL OF EXISTING STRUCTURES". SEE SPECIAL PROVISIONS FOR MALSR CABLE RELOCATION.
KISHWAUKEE
±110'
EXIST. POWER AND CONTROL CABLES (RUNWAY LIGHTING)
WATER'S EDGE
ELECT. M.H.
99.30' RT 129+03.51
EXIST. R.O.W.
EXIST. 20" WATERMAIN
ELECT. M.H.
TRAFFIC BARRIER TERMINAL, TYPE 6
BIT. SHOULDER
REMOVE EXIST. INLET
EXIST. GUARDRAIL TO BE REMOVED
APP. PAVEMENT FOR BRIDGE
EXIST. 20" WATERMAIN
PLAN SCALE 20 0 20 40 60

EX. STRUCTURE:
S.N. 101-0026 BUILT IN 1943 AS A FOUR SPAN, STEEL BEAM AND RC DECK BRIDGE. THE STRUCTURE IS 356.12' B-B ABUTMENT, AND 26' F-F CURB, WITH CONCRETE STUB ABUTMENTS

PROPOSED STRUCTURE (S.N. 101-0171):
THREE SPAN (131'-3"+142'-2"+131'-3") R.C. SLAB ON 43" STEEL PLATE GIRDERS SUPPORTED BY PILE BENT ABUTMENTS AND R.C. PIERS ON PILE

CALL JULIE TOLL FREE 800-892-0123

VARIABLE DEPTH BIT. OVERLAY
BRIDGE APPROACH PAVEMENT
STRUCTURE LIMITS
PROPOSED PROFILE
EXISTING GROUND PROFILE
ELEVATION 707.18
+0.24%
ex = -0.16'
K = 317
200.00' V.C.
>60 MPH
+60.00 EL. 707.42 (PVI)
+00.00 EL. 708.45 (PVC)
ex = -0.13'
K = 395
200.00' V.C.
>60 MPH
PROFILE SCALES 20 0 20 40 60; 20' 15' 10' 5' 4' 3' 2' 1' 0'

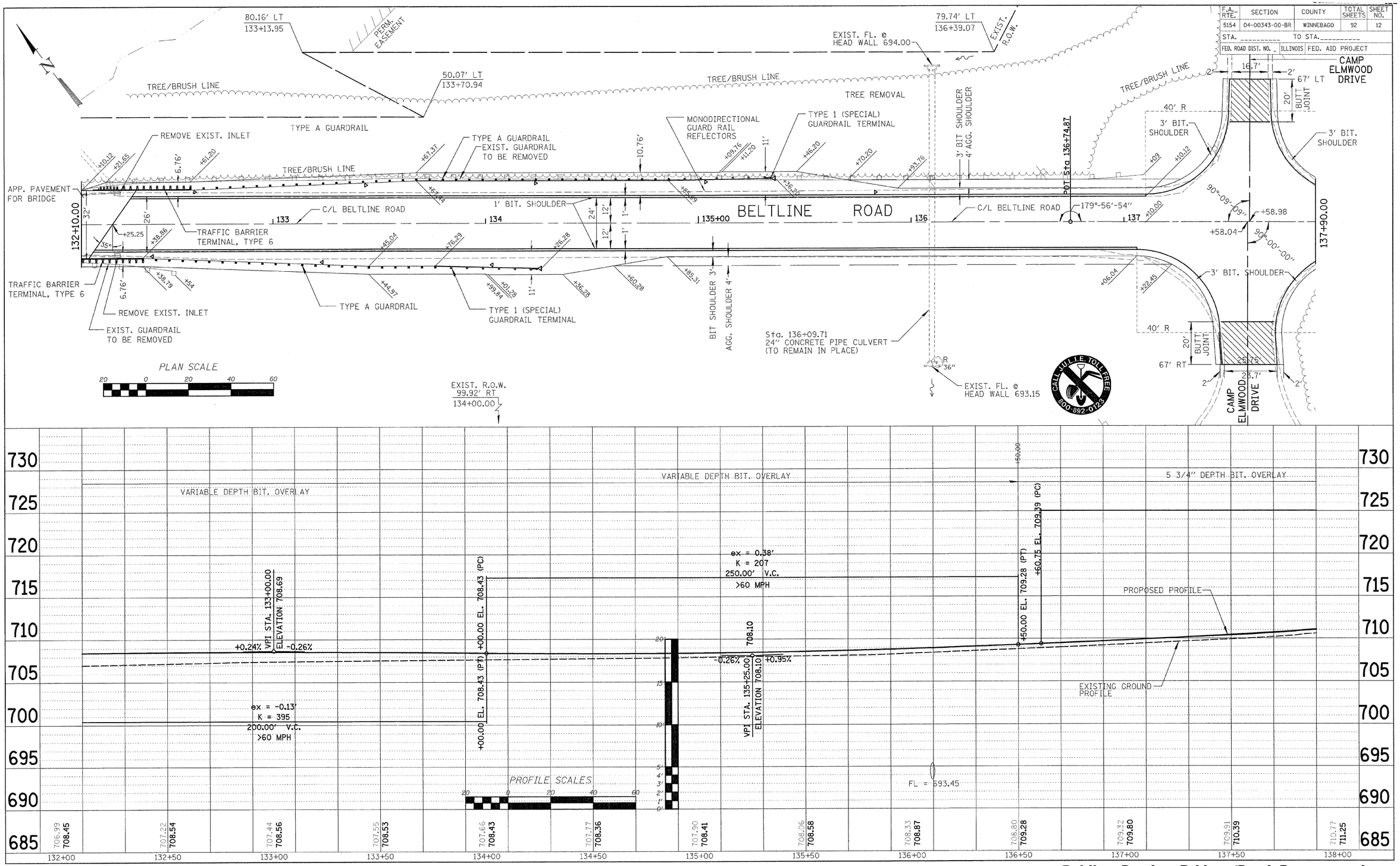
127+00	127+50	128+00	128+50	129+00	129+50	130+00	130+50	131+00	131+50	132+00	132+50
706.05 707.13	706.30 707.34	699.60 707.47	687.15 707.59	681.14 707.72	681.12 707.84	681.11 707.96	681.13 708.08	690.51 708.20	696.18 708.32	706.99 708.45	707.22 708.54

730 725 720 715 710 705 700 695 690 685

S:\Struct\1124d04\ROADWAY\ppBAXTER10.dgn

Beltline Road – Bridge /Road Reconstruction

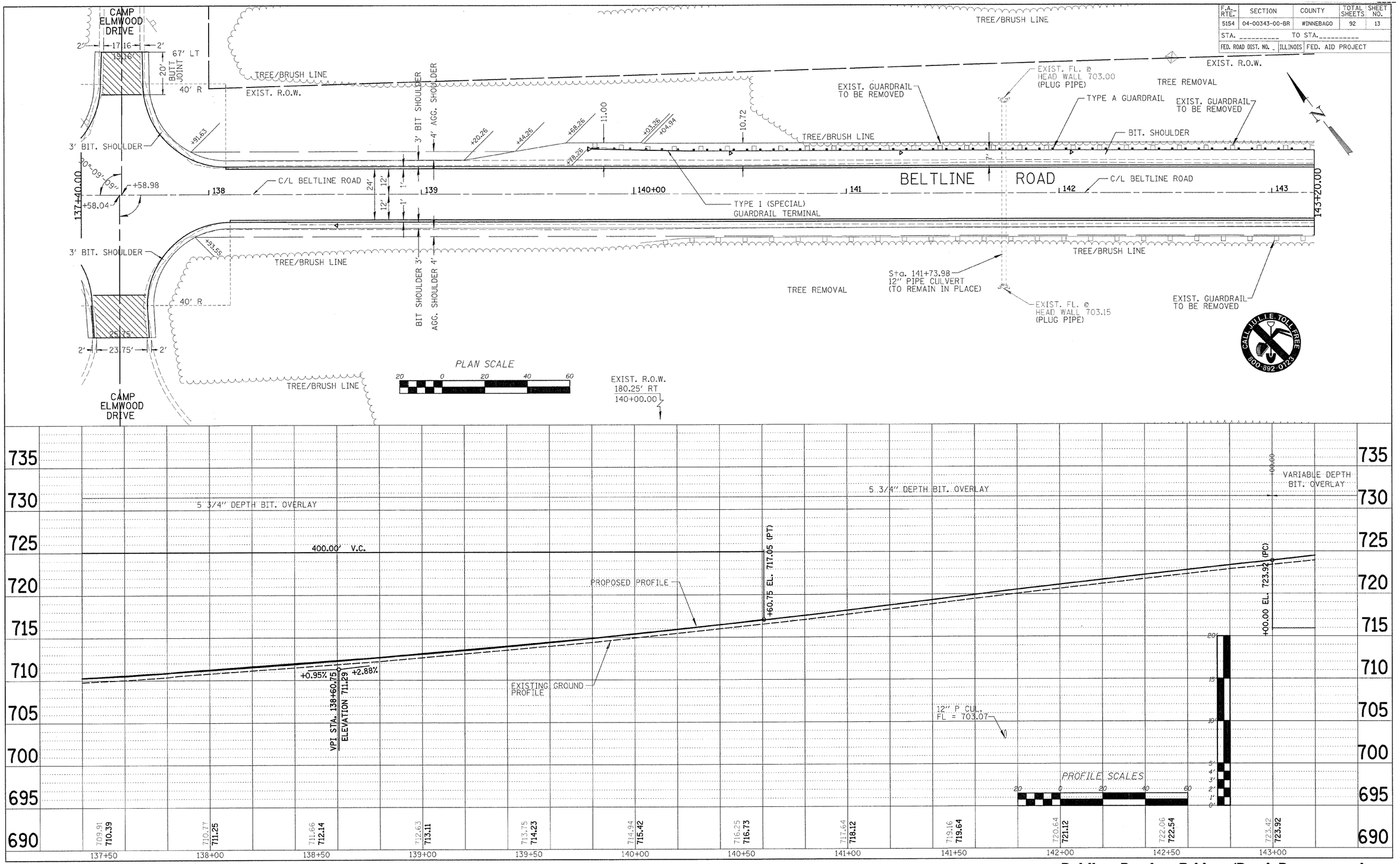
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	12
STA. _____	TO STA._____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



S:\Struct\ 1124d04\ ROADWAY\ppBAXTER10.dgn

Beltline Road – Bridge /Road Reconstruction

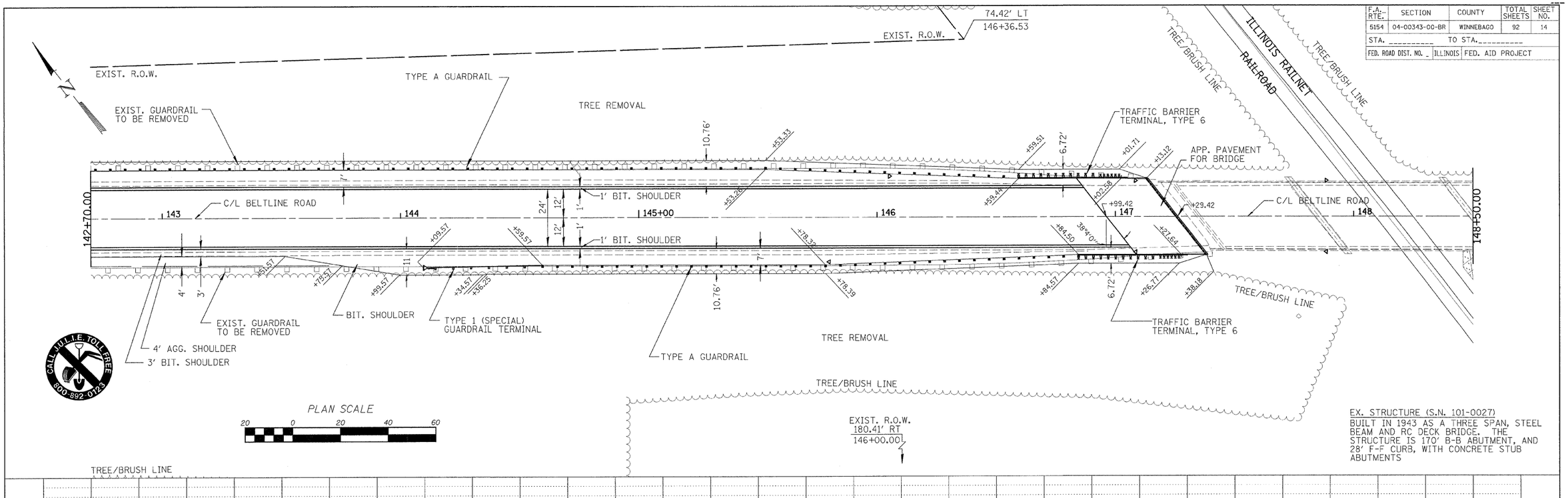
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	13
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



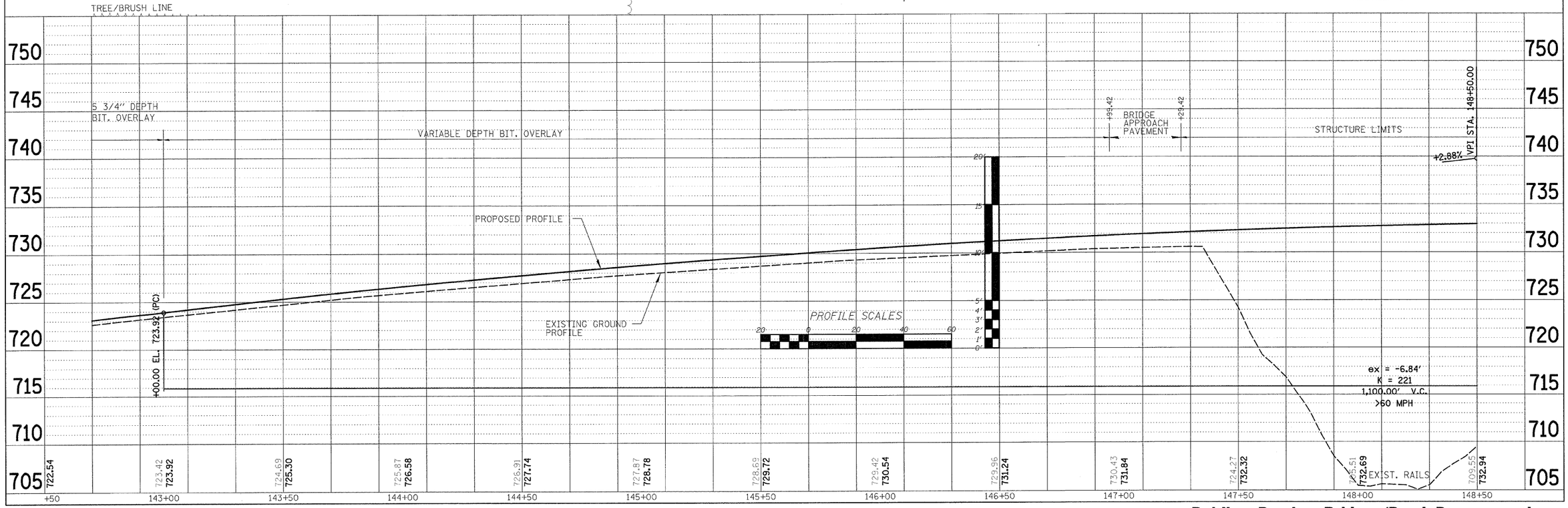
S:\Struct\ 1124d04\ ROADWAY\ppBAXTER10.dgn

Beltline Road – Bridge /Road Reconstruction

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	14
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



EX. STRUCTURE (S.N. 101-0027)
BUILT IN 1943 AS A THREE SPAN, STEEL BEAM AND RC DECK BRIDGE. THE STRUCTURE IS 170' B-B ABUTMENT, AND 28' F-F CURB, WITH CONCRETE STUB ABUTMENTS

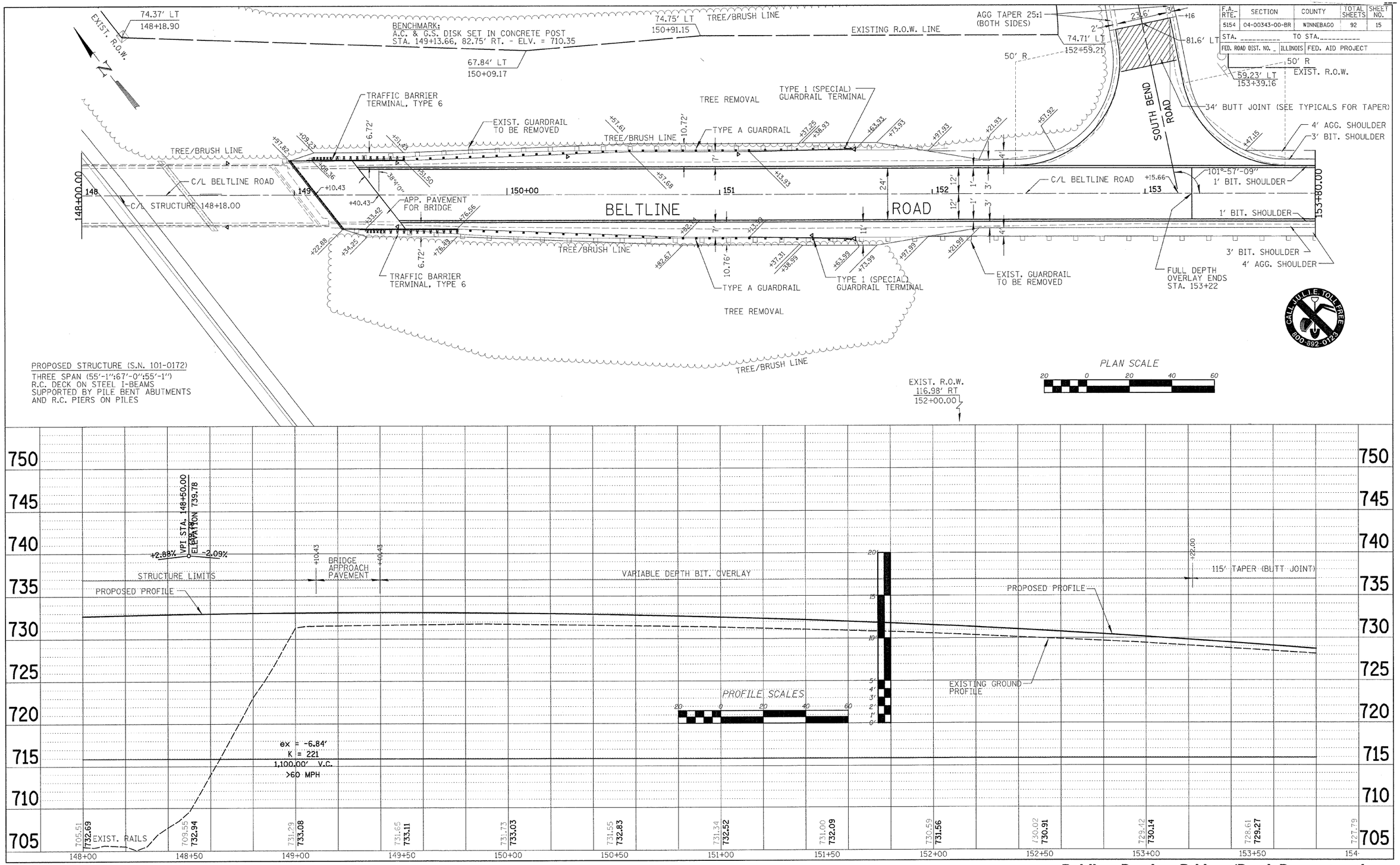


S:\Struct\ 1124d04\ ROADWAY\ppBAXTER10.dgn

Beltline Road – Bridge /Road Reconstruction

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	15
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PROPOSED STRUCTURE (S.N. 101-0172)
THREE SPAN (55'-1";67'-0";55'-1")
R.C. DECK ON STEEL I-BEAMS
SUPPORTED BY PILE BENT ABUTMENTS
AND R.C. PIERS ON PILES

EXIST. R.O.W.
116.98' RT
152+00.00

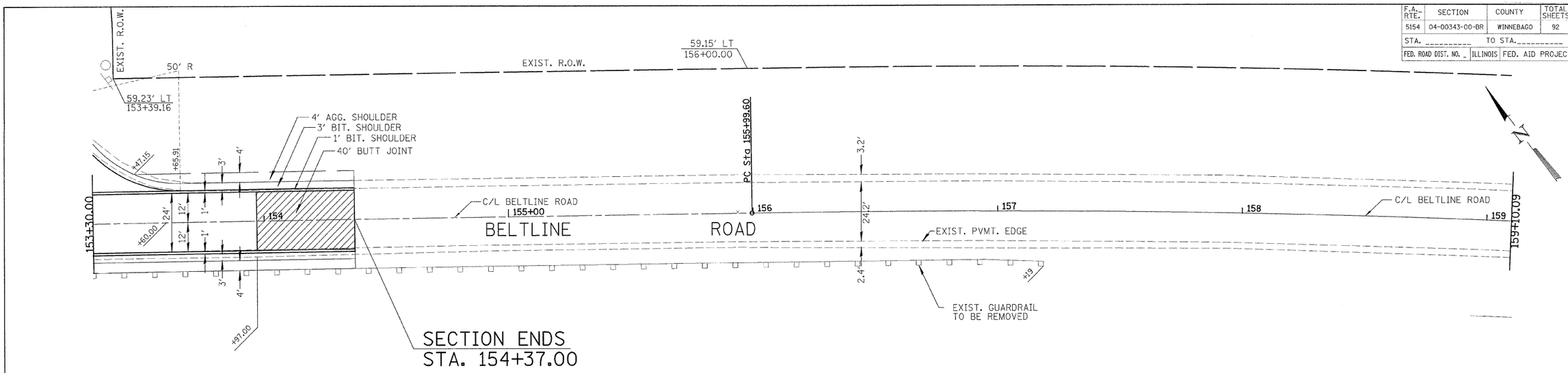
PLAN SCALE
20 0 20 40 60

S:\Struct\ 1124d04\ ROADWAY\ppBAXTER10.dgn

Beltline Road – Bridge /Road Reconstruction

85432

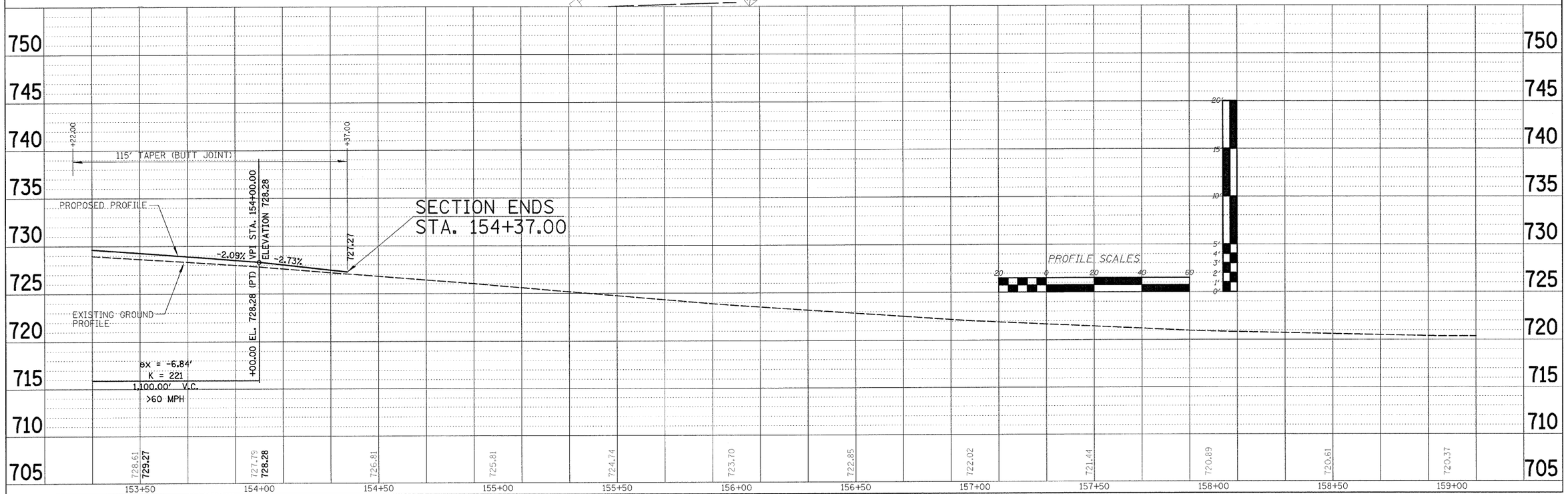
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	16
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PLAN SCALE

20 0 20 40 60

EXIST. R.O.W.
110.71' RT
156+00.00



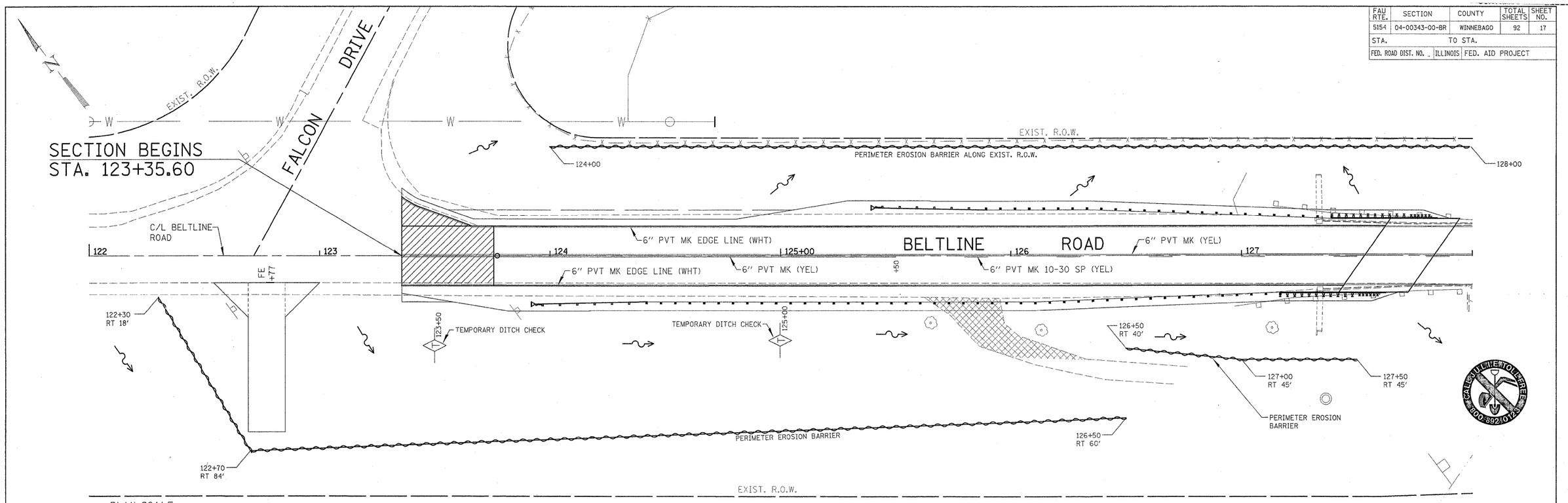
S:\Struct\ 1124d04\ ROADWAY\ppBAXTER10.dgn

Beltline Road – Bridge /Road Reconstruction

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	17
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED
ALIGNMENT CHECKED
GRADES CHECKED
STRUCTURE
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
ALIGNMENT CHECKED
GRADES CHECKED
STRUCTURE
NOTE BOOK
NO.
BY
DATE



PLAN SCALE
0 50' 100'

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
REFERENCE = REF

STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM SEWER WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SECTION 280, TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

SITE DESCRIPTION
DESCRIPTION OF CONSTRUCTION ACTIVITY:

1. *THE PROJECT CONSISTS OF REPLACING THE EXISTING FOUR SPAN BRIDGE OVER THE KISWAUKEE RIVER AND THE EXISTING THREE SPAN BEAM BRIDGE OVER THE ILLINOIS RAILNET RAILROAD (FORMERLY BNSF). THE STRUCTURE OVER THE RAILROAD WILL BE RAISED TO ACCOMMODATE THE REQUIRED 23-FOOT CLEARANCE OVER THE RAILS. IN ADDITION, THE ROADWAY BETWEEN THE STRUCTURES WILL BE RESURFACED AND GUARDRAIL WILL BE INSTALLED TO MEET CURRENT DESIGN POLICIES. A FIELD ENTRANCE WILL BE RELOCATED DUE TO GUARDRAIL INSTALLATION. BENDWAY WEIRS WILL BE INSTALLED ON THE UPSTREAM EAST BANK ON THE RIVER TO PREVENT EROSION AT THE EAST ABUTMENT.*
2. *CONSTRUCTION INCLUDES EARTH EXCAVATION (SPECIAL), DRIVEWAYS, PIPE CULVERTS, VARIOUS PAVEMENT ITEMS AND OTHER MISCELLANEOUS ITEMS OF CONSTRUCTION.*

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. *REMOVAL OF EXISTING BRIDGES.*
2. *CONSTRUCTING ABUTMENTS*
3. *TREE AND BRUSH REMOVAL*
4. *EARTHWORK ON APPROACHES*

AREA OF CONSTRUCTION SITE:

THE TOTAL AREA OF THE CONSTRUCTION IS ESTIMATED TO BE 5.30 ACRES OF WHICH 5.30 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM SEWER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. *INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.*
2. *PROJECT PLANS, DOCUMENTS, SPECIFICATIONS AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.*

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

1. *DITCH OUTLETS AND CULVERT FLOWS INTO THE KISHWAUKEE RIVER*

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL
DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION

1. *THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PERIMETER EROSION BARRIER, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.*
   - *(a) AREAS OF EXISTING VEGETATION (WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.*
   - *(b) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.*
   - *(c) AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.*
   - *(d) BARE AND SPARSELY VEGETATED GROUND IN HIGH ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.*
   - *(e) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED, AREAS WHICH ARE HIGHLY ERODABLE AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.*
   - *(f) AT LOCATIONS WHERE A SIGNIFICANT AMOUNT OF WATER DRAINS INTO THE CONSTRUCTION ZONE FROM OUTSIDE AREAS (ADJACENT LANDOWNERS), TEMPORARY DITCH CHECKS WILL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES, AND COLLECT OUTSIDE SILTATION INSIDE THAT RIGHT-OF-WAY LINE.*
2. *ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVERSEEDING CAN BE COMPLETED.*

CONTINUED NEXT SHEET

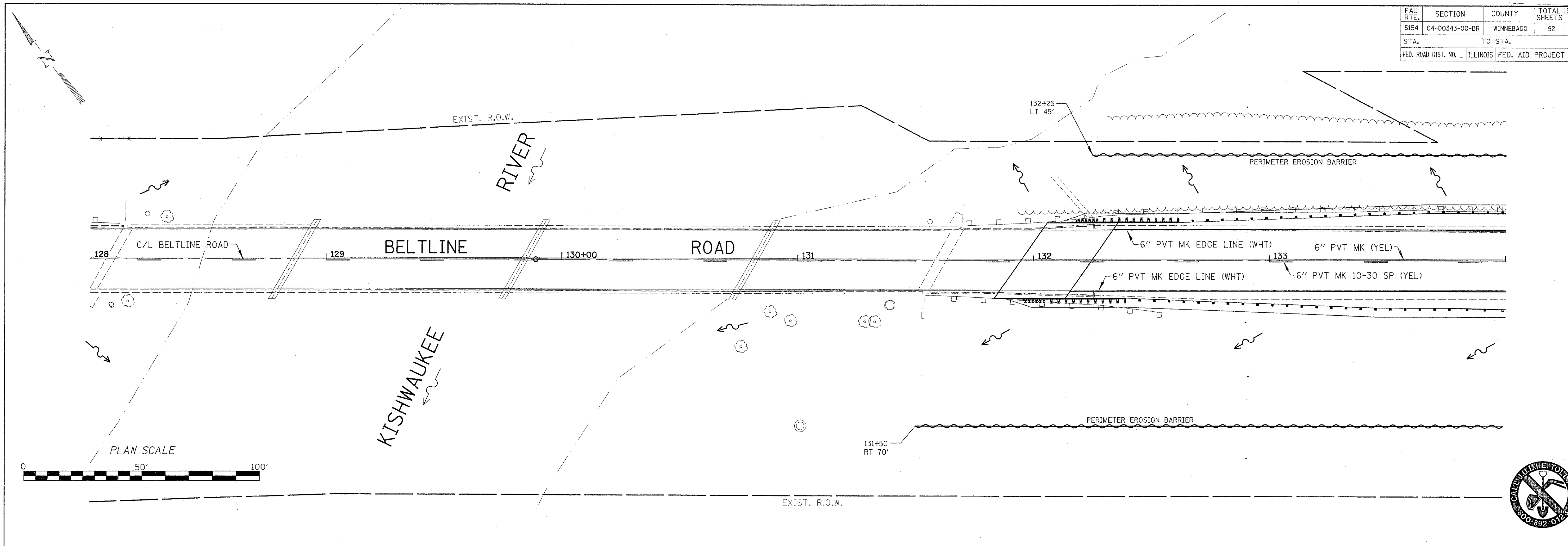
LEGEND

- *TEMPORARY DITCH CHECK*
- *EROSION CONTROL BLANKET*
- *PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER*

NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	18
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST FO MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

[signature] March 13, 2008

COUNTY ENGINEER — DATE

LEGEND

- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

(a) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.

(b) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IT THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

(c) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:

I. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.

II. TEMPORARILY SEED ERODABLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODABLE SURFACE AREA WITHIN THE CONTRACT LIMITS.

III. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.

IV. TEMPORARILY DIVERT WATER AROUND PROPOSED CULVERT LOCATIONS.

V. BUILD NECESSARY EMBANKMENT AT CULVERT LOCATIONS AND THEN EXCAVATE AND PLACE CULVERT.

VI. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME, PLACING PERMANENT EROSION CONTROL SUCH AS RIPRAP DITCH LINING AND CONDUCTING FINAL SHAPING TO THE SLOPES.

(d) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN DAYS.

(e) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

(f) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF ½ INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

(g) SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EARTH EXCAVATION FOR EROSION CONTROL.

(h) THE TEMPORARY EROSION CONTROL SYSTEM SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDED.

MAINTENANCE AFTER CONSTRUCTION:

1. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE BY I.D.O.T. FINAL INSPECTION. MAINTENANCE UP TO THIS DATE WILL BE BY THE CONTRACTOR.

MISCELLANEOUS:

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 1.5 FT. FALL/RISE IN DITCH GRADE
2. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLED AT A RATE OF 100 LBS/ACRES.
3. STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCES WILL BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS MAY BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM/GEOTEXTILE (SILT SEDGES), AND/OR ANY OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
4. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BY DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCIDENTAL TO EARTH EXCAVATION (SPECIAL).
5. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

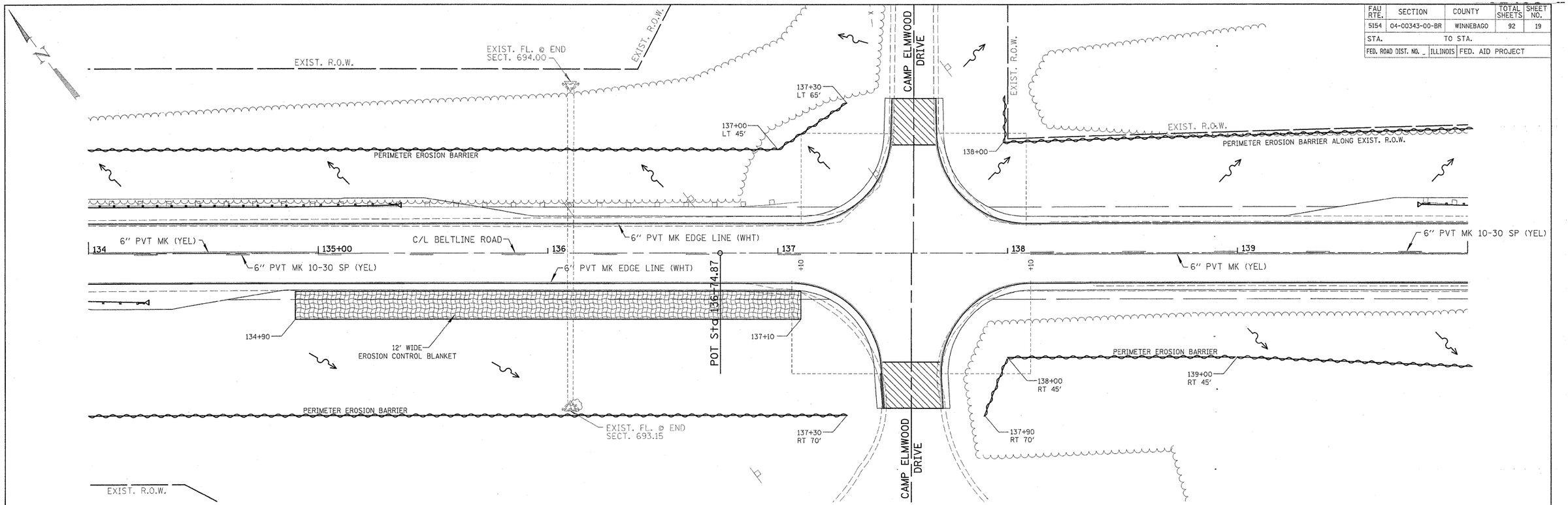
STORM WATER POLLUTION PREVENTION PLAN

PLAN — NOTE BOOK — NO. — SURVEYED — PLOTTED — ALIGNMENT CHECKED — R.T. OF WAY CHECKED — CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK — NO. — SURVEYED — PLOTTED — GRADES CHECKED — B.M. NOTED — STRUCTURE NOTATIONS CHKD — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
REFERENCE = REF

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	19
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PLAN SCALE

0 50' 100'

CALL JULIE TOLL FREE 800-892-0123

COMMITMENTS
THE FOLLOWING ARE COMMITMENTS REQUIRED TO BE FULFILLED BY THE CONTRACTOR OR SUBCONTRACTOR

1. *DAMAGE TO GRAVEL PRAIRIE REMNANT, LOCATED ON THE SOUTHEAST SIDE OF THE BRIDGE OVER IL. RAILROAD INC. RR BETWEEN THE RAILROAD TRACKS AND BELTLINE ROAD, WILL BE MINIMIZED BY NOT EXCEEDING THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. THIS PRAIRIE IS LOCATED FROM RIGHT STATION 148+45.77 TO 152+55.88*
2. *AFTER COMPLETION OF PROJECT, THE PRAIRIE AREA WILL BE MANAGED WITH CONTROLLED BURNING, BRUSH REMOVAL, AND REMOVAL OF EXOTICS. THIS WAY REQUIRE COORDINATION WITH ADJACENT LANDOWNERS. (BY OWNER).*
3. *THE TWO ILLINOIS NATURAL AREAS NEAR THE PROJECTED LIMITS; 1) BELL BOWL PRAIRIE LOCATED NORTHWEST OF THE PROJECT ON AIRPORT PROPERTY, AND 2) KISHWAUKEE CROSSING PRAIRIE LOCATED NORTHEAST OF PROJECT ALONG IL RAILROAD INC. RR, AND BEYOND PROJECT LIMITS AND WILL NOT BE IMPACTED BY PROJECT CONSTRUCTION.*
4. *THE KISHWAUKEE RIVER IS A CLASS I STREAM LISTED ON THE ILLINOIS NATURAL AREAS INVENTORY, IS LISTED IN THE NATIONAL PARK SERVICE'S NATIONWIDE RIVERS INVENTORY, AND IS ON THE INHS LIST OF BIOLOGICAL SIGNIFICANT STREAMS. THEREFORE, INSTREAM WORK MUST BE MINIMIZED WHENEVER POSSIBLE.*
5. *THE PIERS FOR THE KISHWAUKEE RIVER BRIDGE WILL BE BUILT WITH COFFERDAMS TO MINIMIZE SILTATION AND DRILLING SHAFTS WILL NOT BE USED.*
6. *THE EXISTING BRIDGE WILL BE DISMANTLED BY SAW-CUTTING THE STRUCTURE AND REMOVING IT A PIECE AT A TIME WITHOUT DROPPING IT INTO THE WATER. THIS WILL MINIMIZE ANY DEBRIS FROM FALLING INTO THE RIVER DURING THE REMOVAL PROCESS. NO EXPLOSIVES WILL BE USED DURING THE DEMOLITION PROCESS.*
7. *ANY ASPHALT BASE ON THE BRIDGE SHALL BE REMOVED BY A TECHNIQUE THAT WOULD PREVENT THIS MATERIAL FROM DISCHARGE INTO THE RIVER.*
8. *A CAUSEWAY WILL NOT BE PERMITTED. A TRAMWAY MAY BE USED TO PROVIDE ACCESS TO THE NEW STRUCTURE.*
9. *TIME AND WORK IN THE STREAM SHALL BE MINIMIZED.*
10. *CONSTRUCTION EQUIPMENT SHALL BE KEPT AWAY FROM THE RIPARIAN ZONE WHEN NOT IN USE.*
11. *THE NUMBER OF PIERS IN THE RIVER HAS BEEN REDUCED AND WILL BE NO MORE THAN TWO PIERS.*
12. *AFTER CONSTRUCTION IS COMPLETED, ALL TRACE OF EXISTING BRIDGE, EQUIPMENT, AND CONSTRUCTION MATERIALS SHALL BE REMOVED FROM THE RIVER AND THE BRIDGE SITE.*
13. *STANDARD EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED AND PROPERLY INSTALLED. THESE EROSION CONTROL MEASURES WILL BE MONITORED ON A DAILY BASIS BY THE CONTRACTOR AND THE RESIDENT ENGINEER.*
14. *AS MITIGATION AND TO IMPROVE THE SCENIC VALUES OF THE RIVER, THE CONTRACTOR WILL PLANT NATIVE SHRUBS AND/OR TREES ON THE BANKS WITHIN THE PROJECT'S RIGHT-OF-WAY AND PERMANENT EASEMENT AREAS. THIS WILL BE CONTINGENT ON OUR AGREEMENT WITH THE GREATER ROCKFORD AIRPORT AUTHORITY AND THEIR REQUIRED SAFETY ZONES (WITHIN CONTRACT).*
15. *AFTER COMPLETION, THE PROJECT AREA SHALL BE RESTORED TO IT'S ORIGINAL CONFIGURATION.*

LEGEND

- *TEMPORARY DITCH CHECK*
- *EROSION CONTROL BLANKET*
- *PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER*

NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

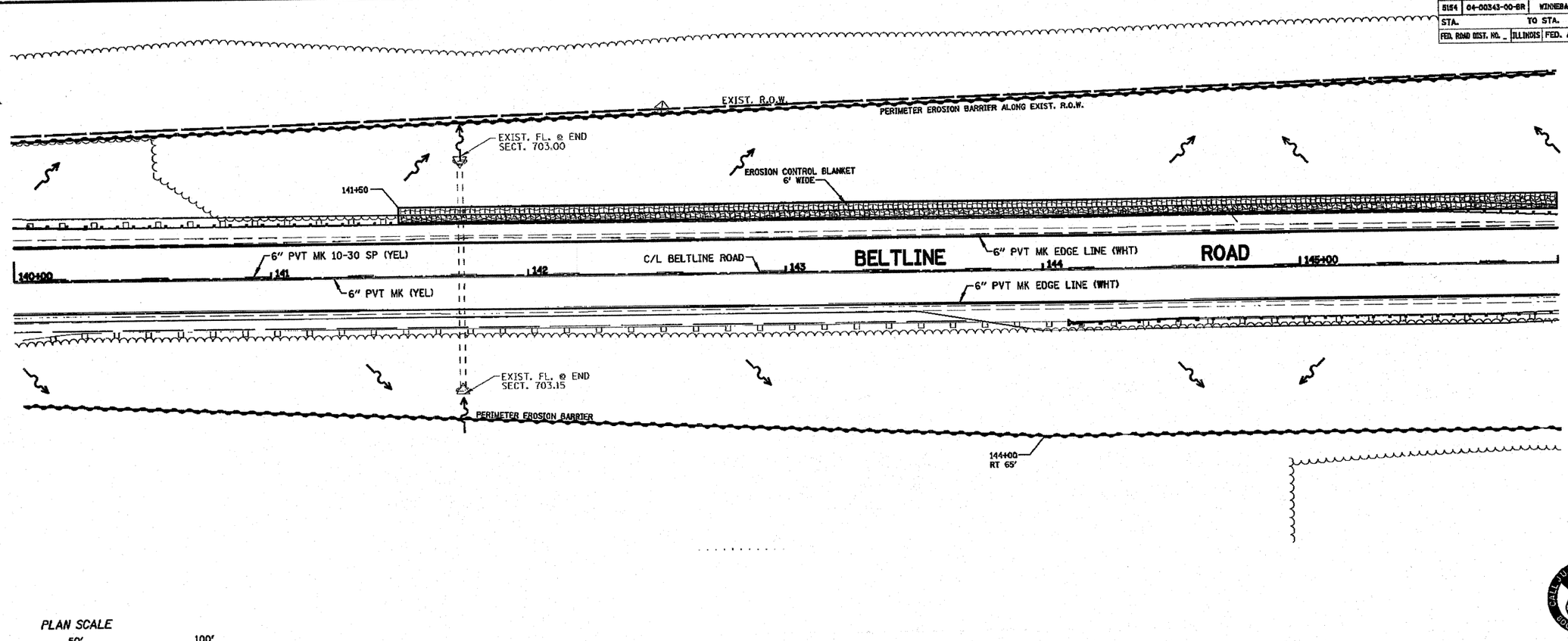
STORM WATER POLLUTION PREVENTION PLAN

PLAN: SURVEYED, ALIGNMENT CHECKED, NOTE BOOK, CADD FILE NAME, BY, DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, NOTE BOOK, STRUCTURE NO(S)/FHWA CHKD, BY, DATE

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
REFERENCE = REF

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	20
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PLAN SCALE
0 50' 100'

CALL J.U.L.I.E. TOLL FREE 800-892-0123

LEGEND

- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

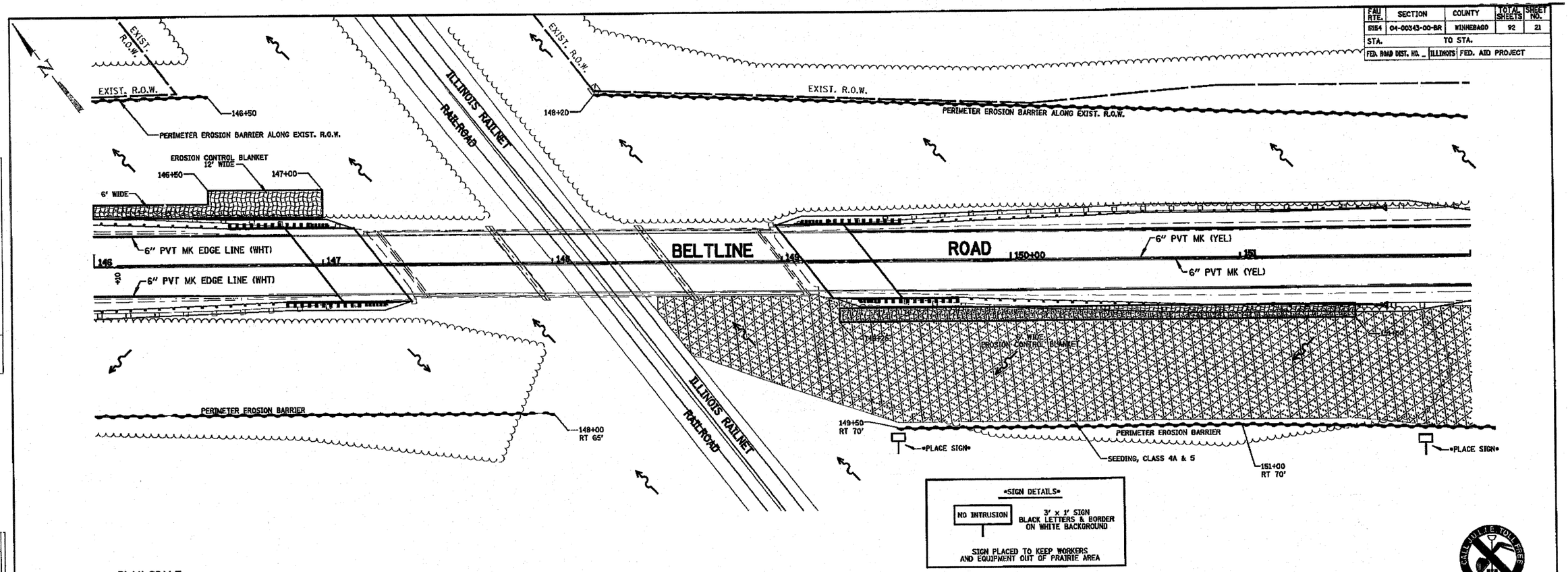
NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN

PLOT DATE = $DATE$
PLOT NAME = $FILENAME$
PLOT SCALE = $SCALE$
REFERENCE = REF

S:STRUCT.1124D04.ROADWAY.EROSIONCONTR.DGN WHA *1124D04

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6154	04-00343-00-BR	WINNEBAGO	92	21
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



PLAN SCALE
0 50' 100'

LEGEND

- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

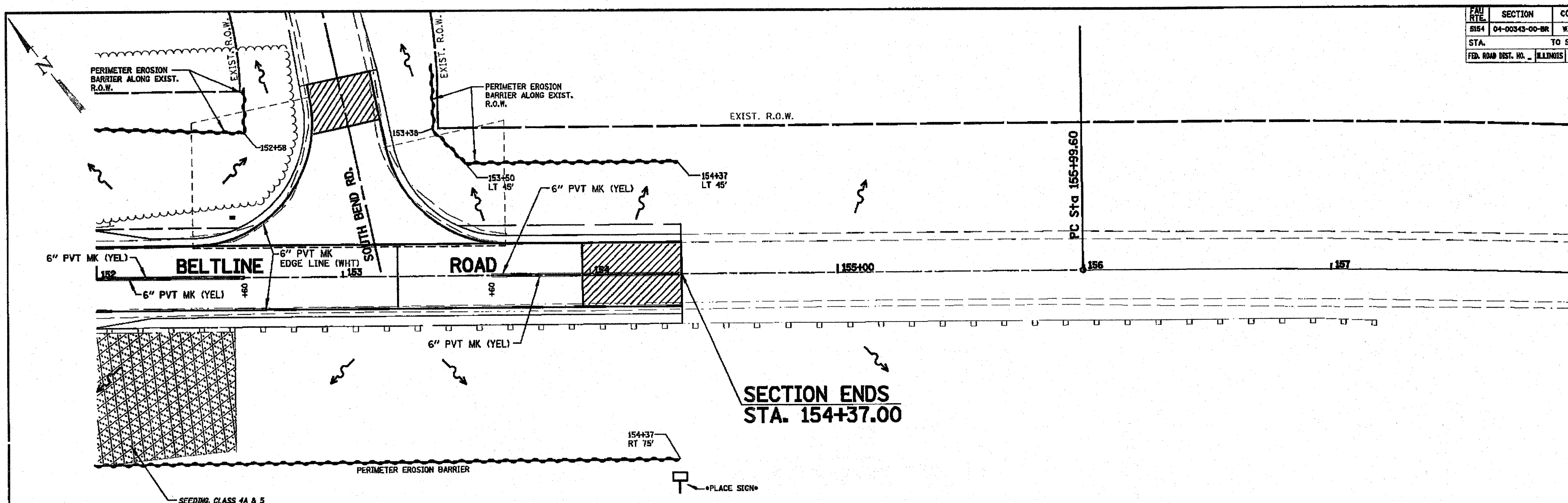
NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN

PLOT DATE = <DATE>
FILE NAME = <FILE NAME>
USER NAME = <DESIGNER>
REFERENCE = <REF>

S.STRUCT.1124D04.ROADWAY.EROSIONCONTR.DGN WHA #1124D04

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	22
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



•SIGN DETAILS•

NO INTRUSION — 3' x 1' SIGN BLACK LETTERS & BORDER ON WHITE BACKGROUND

SIGN PLACED TO KEEP WORKERS AND EQUIPMENT OUT OF PRAIRIE AREA

PLAN SCALE

0 50' 100'

LEGEND

- TEMPORARY DITCH CHECK
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER

NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

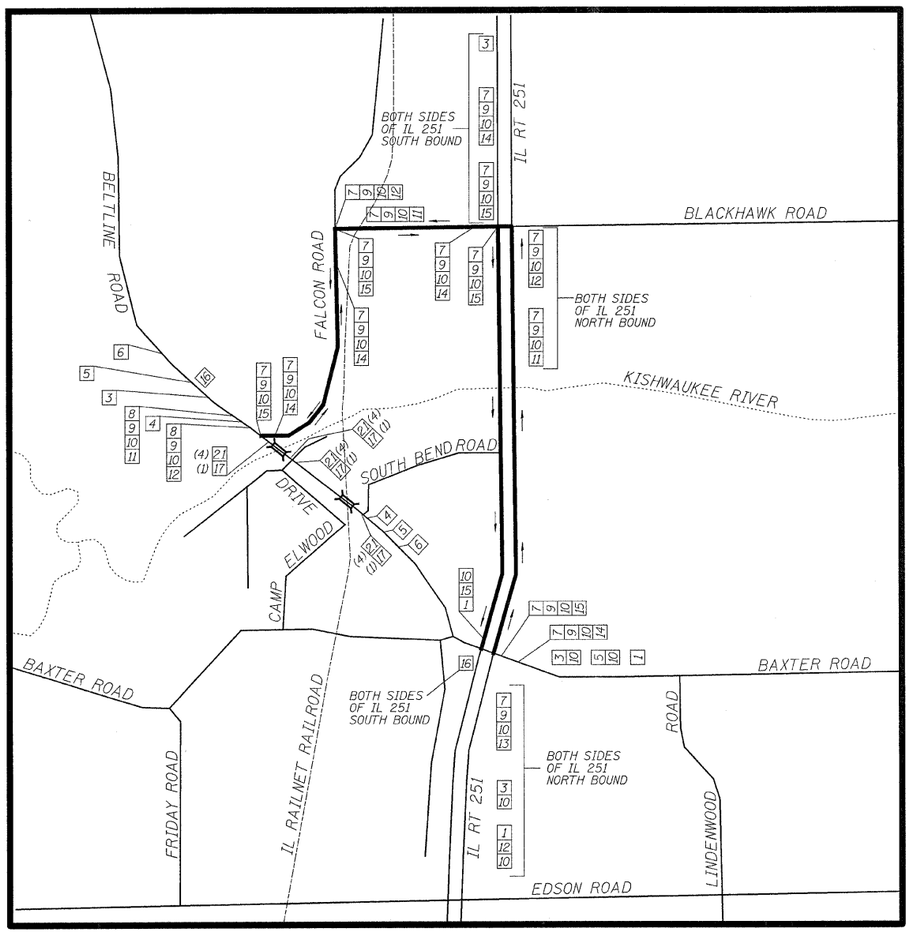
STORM WATER POLLUTION PREVENTION PLAN

S.STRUCT.1124D04.ROADWAY.EROSIONCONTR.DGN WHA *1124D04

Beltline Road – Bridge /Road Reconstruction – SWPPP & Striping

FAS RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL INTERSECTION AT POINT OF DETOUR



LEGEND

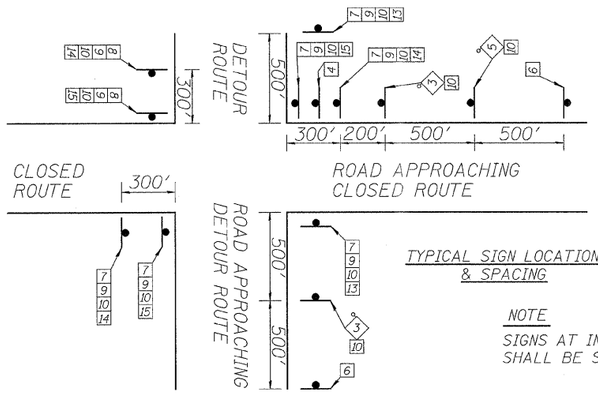
- DETOUR ROUTE
- ROAD OPEN TO LOCAL TRAFFIC ONLY
- 3 — 48" X 48" CONSTRUCTION SIGN WITH AMBER FLASHING LIGHT NUMBER DENOTES SIGN TYPE
- M4-9 SERIES DETOUR SIGN WITH DIRECTION AND ROAD NAME PLATES NUMBER DENOTES TYPE
- OTHER DETOUR SIGNS, NUMBER DENOTES TYPE

SPECIAL DETOUR NOTES

1. THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO THE DETOUR GENERAL NOTES, SEE SHEET 24 FOR THE DETOUR GENERAL NOTES.
2. SEE SHEET 24 FOR INFORMATION ON THE DESIGN AND LOCATION OF THE DETOUR INFORMATION SIGNS.
3. THE TOTAL LENGTH OF THE DETOUR IS 6 MILES.
4. ALL DETOUR SIGNS, SHALL BE COMPLETELY COVERED AT ALL TIMES THE ROADWAY IS NOT CLOSED TO TRAFFIC

SIGN LEGEND

1	ROAD CLOSED 1 MILE	W20-3, 48" X 48" WITH AMBER FLASHING LIGHT. (4 REQ'D)	11		M5-1 L (3 REQ'D)
3	DETOUR AHEAD	W20-2, 48" X 48" WITH AMBER FLASHING LIGHT. (6 REQ'D)	12		M6-1 (6 REQ'D)
4	BARRICADE AHEAD	W21-1100, 48" X 48" WITH AMBER FLASHING LIGHT. (2 REQ'D)	13		M6-3 (2 REQ'D)
5	ROAD CLOSED 1000 FT	W20-3, 48" X 48" WITH AMBER FLASHING LIGHT. (3 REQ'D)	14		M5-1 R (6 REQ'D)
6	ROAD CLOSED AHEAD	W20-3, 48" X 48" WITH AMBER FLASHING LIGHT. (2 REQ'D)	15		M6-1 (7 REQ'D)
7	WEST	M3-2 (20 REQ'D)	16	END DETOUR	M4-8A (3 REQ'D)
8	EAST	M4-8 (2 REQ'D)	17	ROAD CLOSED	R11-2 (4 REQ'D)
9	DETOUR	M4-8 (20 REQ'D)	21		TYPE III BARRICADES WITH TWO FLASHING LIGHTS EACH. (16 REQ'D)
10	BELTLINE ROAD	M1-1100 (28 REQ'D)			



TYPICAL SIGN LOCATION & SPACING

NOTE

SIGNS AT INTERSECTIONS SHALL BE SET BACK 50'

S.STRUCT.1124D04.ROADWAY.DETOURMAP.DGN

FAS RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETOUR GENERAL NOTES

1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTIONS ADOPTED JAN. 1, 2007", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 1990", THE DETAILS IN THESE PLANS, AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

2. THE CONTRACTOR SHALL SCHEDULE ALL WORK IN AN EXPEDIENT MANNER TO REDUCE THE LENGTH OF TIME THAT THE DETOUR NEEDS TO BE IN EFFECT.

3. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES FOR APPROVAL OF SUCH DATE.

4. IF DEEMED NECESSARY BY THE ENGINEER, A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR SHALL BE HELD AT LEAST TWO WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT.

5. THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF HIS REPRESENTATIVES ON THE CONSTRUCTION SITE AND HIS REPRESENTATIVES FOR THE DETOUR SIGNING PRIOR TO THE START OF WORK.
THE WINNEBAGO COUNTY HIGHWAY DEPARTMENT REPRESENTATIVE FOR THE DETOUR IS:

MR. JOSEPH A. VANDERWERFF, SR.
WINNEBAGO COUNTY ENGINEER
424 N. SPRINGFIELD AVE.
ROCKFORD, IL. 61101
(815) 987-3113

6. IF REQUESTED BY THE CONTRACTOR IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT, THE ENGINEER WILL FIELD LOCATE THE POSITIONS OF ANY SIGNS.

7. LONGITUDINAL DIMENSIONS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

8. THE ROAD SHALL NOT BE CLOSED UNTIL ALL SIGNING IS ERECTED IN ACCORDANCE WITH THE DETOUR PLAN AND INSPECTED AND APPROVED BY THE ENGINEER.

9. THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.

10. ALL DETOUR SIGNING EXCEPT REGULATORY SIGNS SHALL HAVE BLACK LEGENDS ON FLUORESCENT ORANGE SHEETING AND STANDARD BLACK BORDERS. THE FLUORESCENT ORANGE REFLECTIVE SHEETING SHALL MEET THE REQUIREMENTS OF SECTION 1091 OF THE STANDARD SPECIFICATIONS. ALL DETOUR SIGNING SHALL BE NEW OR LIKE NEW CONDITION. THE ENGINEER SHALL BE THE SOLE JUDGE OF THE CONDITION AND ACCEPTANCE OF THE SIGNS.

11. THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

12. THE ROAD NAME SIGN SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE REFLECTIVE SHEETING. THE SIGN BLANK SHALL BE A 9" BY VARIABLE OR A 12" BY VARIABLE WITH DESIGN SERIES C LETTERS. THE CAPITAL LETTERS SHALL BE 6" WITH 5" LOWER CASE.

13. CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED IMMEDIATELY BEHIND THE TYPE III BARRICADES DURING NON-WORKING HOURS.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VISIBILITY OF ALL DETOUR AND CONSTRUCTION SIGNING. BRUSHING BACK VEGETATION IF DEEMED BY THE ENGINEER.

15. THE FOLLOWING ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD IS APPLICABLE FOR THIS WORK: STANDARD 701901

16. THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES.

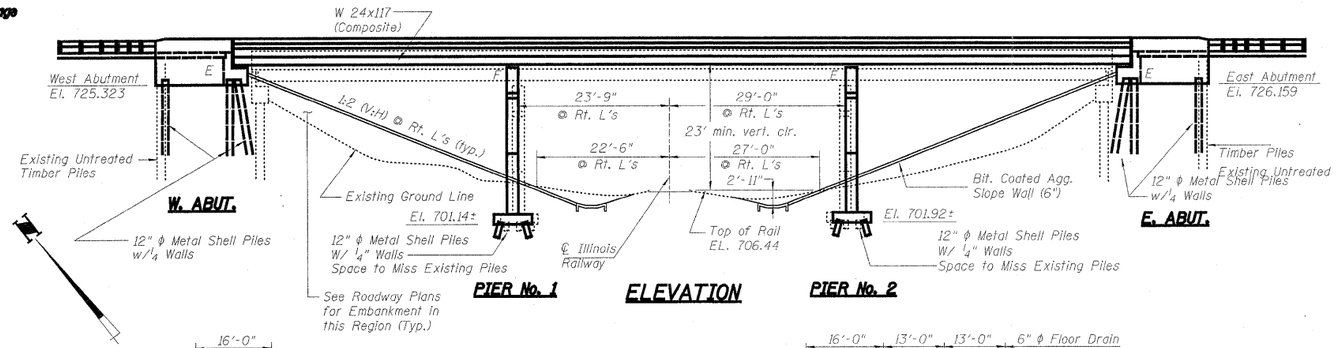
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 5154	04-00343-00-BR	WINNEBAGO	92	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 1A of 22A

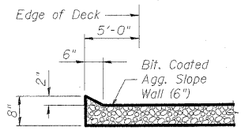
Existing Structure: S.N. 101-0027. Constructed as F.A. Rte. 179, Sec. I.V.B.F., in 1943. The structure consists of a three span steel beam and reinforced concrete deck bridge, 170'-0" bk. to bk. of abutments and 26'-0" face to face of curbs, supported on concrete stub abutments and concrete piers. The bridge is skewed 38°04' right ahead. The road shall be closed during construction, with traffic maintained utilizing a detour.

Bench Mark: B.M. 104 - A.C. & G.S. disc set in concrete post, Sta 4+545.694, 82.74' Rt., Elevation 710.35.

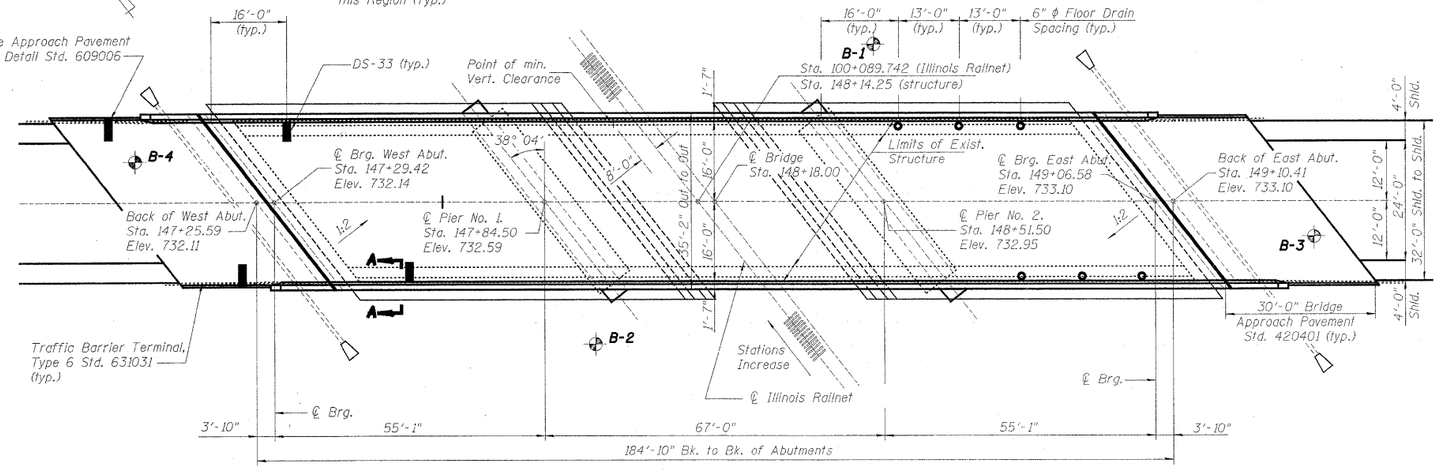
No Salvage



ELEVATION



SECTION A-A



PLAN

Note: No deck drains will be permitted in the span over tracks or within 10' of cross arms of a railroad pole line.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB	SUPER	TOTAL
Porous Granular Embankment	Cu. Yd.	100		100
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.	424		424
Floor Drains	Each		6	6
Concrete Structures	Cu. Yd.	262.1		262.1
Concrete Superstructure	Cu. Yd.		210.4	210.4
Bridge Deck Grooving	Sq. Yd.		598	598
Protective Coat	Sq. Yd.		1,024	1,024
Furnishing and Erecting Structural Steel	L. Sum		0.2	0.2
Stud Shear Connectors	Each		3,708	3,708
Reinforcement Bars, Epoxy Coated	Pound	29,120	45,760	74,880
Bar Splicers	Each		66	66
Bituminous Coated Aggregate Slopewall 6"	Sq. Yd.	516		516
Furnishing Metal Shell Piles 12" x 0.250"	Foot	824		824
Driving Piles	Foot	824		824
Test Pile Metal Shells	Each	4		4
Name Plates	Each		1	1
Preformed Joint Strip Seal	Foot		85.5	85.5
Elastomeric Bearing Assembly, Type I	Each		12	12
Elastomeric Bearing Assembly, Type II	Each		6	6
Anchor Bolts, 1"	Each		24	24
Anchor Bolts, 1 1/4"	Each		24	24
Concrete Sealer	Sq. Ft.	248		248
Geocomposite Wall Drain	Sq. Yd.	46		46
Concrete Headwalls for Pipe Drains	Each	4		4
Pipe Underdrains for Structures 4"	Foot	147		147
Permanent Survey Markers	Each		1	1
Drainage Scuppers, DS-33	Each		2	2
Railroad Protective Liability Insurance	L. Sum			1

GENERAL NOTES

*Includes Deck, Approach Pavement and Top & Inside Face of Parapet Only.

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8" ϕ, holes 15/16" ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 161,080 Pounds

Field welding of construction accessories will not be permitted to beams or girders.

Reinforcement bars designated (E) shall be epoxy coated.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. 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 gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

Anchor bolts shall be set before bolting diaphragms over supports.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60 (IL. Modified). See Special Provisions.

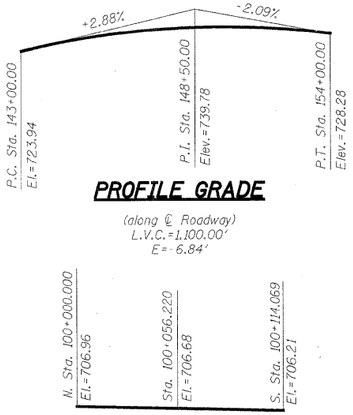
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8 " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. (For Type I Elastomeric Bearings, two 1/8 " adjusting shims shall be provided for each bearing and placed as detailed).

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Concrete Sealer shall be applied to the seat area of the East and West Abutments.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All construction joints shall be bonded.

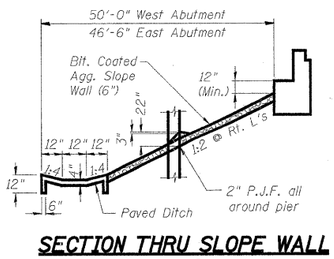


PROFILE GRADE

(along ℄ Roadway)
L.V.C. = 1,100.00'
E = -6.84'

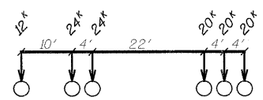
TOP OF RAIL ELEVATION

Illinois Railway



SECTION THRU SLOPE WALL

All Dimensions @ Rt. L's.



120K PERMIT TRUCK CONFIGURATION

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44 & IDOT 120k PERMIT LOAD

Allow 50 lbs./ft.2 for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (Reinf.)
f_y = 50,000 psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.033
Site Coefficient (s) = 1.0

ILLINOIS RAILNET
BUILT 2009 BY
WINNEBAGO COUNTY
SEC. 04-00343-00-BR
F.A.U. RTE. 5103 STATION 148+18
LOADING HS20 & IDOT 120k PERMIT LOAD
STR. NO. 101-0172

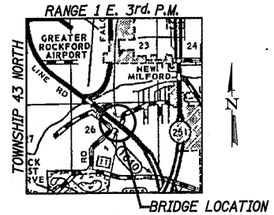
NAME PLATE LETTERING

Refer to Std. 515001

STATE OF ILLINOIS — BRIAN K. CONVERSE — 081-005213 — LICENSED STRUCTURAL ENGINEER — DIXON, IL

Brian K. Converse
DATE: 11/19/2008
EXPIRES 11/30/08

"I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge Design Is Structurally Adequate For The Design Loading Shown On The Plans, The Design Is An Economical One Complies With Requirements Of The Current 'AASHTO Standard Specifications For Highway Bridges'."



LOCATION SKETCH

GENERAL PLAN
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

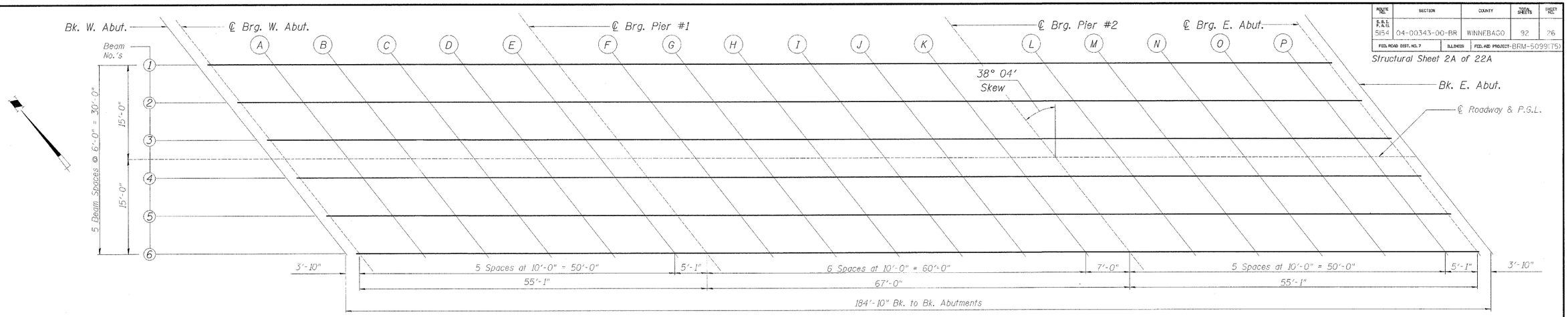
WILLETT, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture
809 East Second Street Dixon, Illinois 61021
Phone 815.284.3381 Fax 815.284.3385
Design Firm #184-000918
www.willetthofmann.com

Designed By: B. K. Converse Date: 11/04
Checked By: M. R. Leslie Date: 11/04
Drawn By: F. D. Lachat Date: 11/04

S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.GP&E.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	76
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 2A of 22A



PLAN

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+13.826	-15.000	731.749	731.749
℄ Brg. W. Abut.	147+17.670	-15.000	731.788	731.788
A	147+27.670	-15.000	731.885	731.916
B	147+37.670	-15.000	731.977	732.027
C	147+47.670	-15.000	732.065	732.112
D	147+57.670	-15.000	732.149	732.176
E	147+67.670	-15.000	732.228	732.232
℄ Brg. Pier #1	147+72.753	-15.000	732.266	732.266
F	147+82.753	-15.000	732.338	732.351
G	147+92.753	-15.000	732.406	732.442
H	148+02.753	-15.000	732.469	732.520
I	148+12.753	-15.000	732.528	732.576
J	148+22.753	-15.000	732.582	732.611
K	148+32.753	-15.000	732.631	732.638
℄ Brg. Pier #2	148+39.753	-15.000	732.663	732.663
L	148+49.753	-15.000	732.705	732.719
M	148+59.753	-15.000	732.743	732.780
N	148+69.753	-15.000	732.775	732.826
O	148+79.753	-15.000	732.804	732.847
P	148+89.753	-15.000	732.828	732.844
℄ Brg. E. Abut.	148+94.837	-15.000	732.838	732.838
Bk. E. Abut.	148+98.681	-15.000	732.845	732.845

BEAM 2

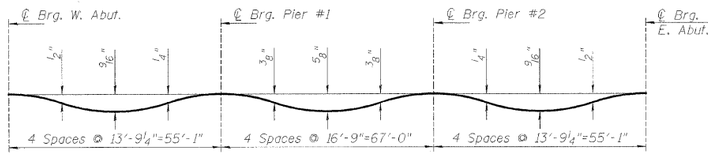
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+18.525	-9.000	731.901	731.901
℄ Brg. W. Abut.	147+22.369	-9.000	731.939	731.939
A	147+32.369	-9.000	732.034	732.065
B	147+42.369	-9.000	732.124	732.174
C	147+52.369	-9.000	732.210	732.257
D	147+62.369	-9.000	732.292	732.318
E	147+72.369	-9.000	732.368	732.373
℄ Brg. Pier #1	147+77.452	-9.000	732.406	732.406
F	147+87.452	-9.000	732.476	732.489
G	147+97.452	-9.000	732.541	732.577
H	148+07.452	-9.000	732.602	732.653
I	148+17.452	-9.000	732.659	732.707
J	148+27.452	-9.000	732.711	732.740
K	148+37.452	-9.000	732.758	732.765
℄ Brg. Pier #2	148+44.452	-9.000	732.789	732.789
L	148+54.452	-9.000	732.828	732.843
M	148+64.452	-9.000	732.864	732.901
N	148+74.452	-9.000	732.894	732.945
O	148+84.452	-9.000	732.921	732.963
P	148+94.452	-9.000	732.942	732.959
℄ Brg. E. Abut.	148+99.536	-9.000	732.951	732.951
Bk. E. Abut.	149+03.380	-9.000	732.958	732.958

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+23.224	-3.000	732.037	732.037
℄ Brg. W. Abut.	147+27.068	-3.000	732.074	732.074
A	147+37.068	-3.000	732.167	732.198
B	147+47.068	-3.000	732.255	732.305
C	147+57.068	-3.000	732.339	732.386
D	147+67.068	-3.000	732.418	732.445
E	147+77.068	-3.000	732.493	732.497
℄ Brg. Pier #1	147+82.151	-3.000	732.529	732.529
F	147+92.151	-3.000	732.597	732.610
G	148+02.151	-3.000	732.661	732.697
H	148+12.151	-3.000	732.719	732.770
I	148+22.151	-3.000	732.774	732.822
J	148+32.151	-3.000	732.824	732.853
K	148+42.151	-3.000	732.869	732.876
℄ Brg. Pier #2	148+49.151	-3.000	732.898	732.898
L	148+59.151	-3.000	732.936	732.950
M	148+69.151	-3.000	732.969	733.006
N	148+79.151	-3.000	732.997	733.048
O	148+89.151	-3.000	733.021	733.064
P	148+99.151	-3.000	733.041	733.058
℄ Brg. E. Abut.	149+04.235	-3.000	733.049	733.049
Bk. E. Abut.	149+08.079	-3.000	733.054	733.054

℄ ROADWAY & P.G.L.

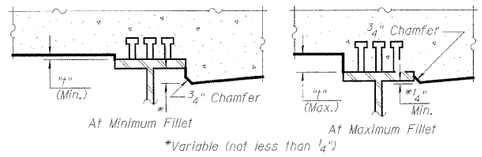
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+25.573	0.000	732.105	732.105
℄ Brg. W. Abut.	147+29.417	0.000	732.141	732.141
A	147+39.417	0.000	732.233	732.265
B	147+49.417	0.000	732.320	732.370
C	147+59.417	0.000	732.403	732.450
D	147+69.417	0.000	732.481	732.508
E	147+79.417	0.000	732.555	732.559
℄ Brg. Pier #1	147+84.500	0.000	732.591	732.591
F	147+94.500	0.000	732.657	732.670
G	148+04.500	0.000	732.720	732.756
H	148+14.500	0.000	732.778	732.828
I	148+24.500	0.000	732.831	732.879
J	148+34.500	0.000	732.880	732.909
K	148+44.500	0.000	732.924	732.931
℄ Brg. Pier #2	148+51.500	0.000	732.952	732.952
L	148+61.500	0.000	732.989	733.003
M	148+71.500	0.000	733.021	733.059
N	148+81.500	0.000	733.048	733.099
O	148+91.500	0.000	733.071	733.114
P	149+01.500	0.000	733.090	733.107
℄ Brg. E. Abut.	149+06.584	0.000	733.097	733.097
Bk. E. Abut.	149+10.428	0.000	733.102	733.102



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab 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 above.



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

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(751)		

Structural Sheet 3A of 22A

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+27.923	3.000	732.082	732.082
℄ Brg. W. Abut.	147+31.767	3.000	732.118	732.118
A	147+41.767	3.000	732.209	732.241
B	147+51.767	3.000	732.295	732.345
C	147+61.767	3.000	732.377	732.423
D	147+71.767	3.000	732.454	732.481
E	147+81.767	3.000	732.527	732.531
℄ Brg. Pier #1	147+86.850	3.000	732.562	732.562
F	147+96.850	3.000	732.627	732.640
G	148+06.850	3.000	732.689	732.725
H	148+16.850	3.000	732.745	732.796
I	148+26.850	3.000	732.798	732.845
J	148+36.850	3.000	732.845	732.875
K	148+46.850	3.000	732.889	732.895
℄ Brg. Pier #2	148+53.850	3.000	732.916	732.916
L	148+63.850	3.000	732.952	732.966
M	148+73.850	3.000	732.983	733.020
N	148+83.850	3.000	733.009	733.060
O	148+93.850	3.000	733.031	733.074
P	149+03.850	3.000	733.048	733.065
℄ Brg. E. Abut.	149+08.934	3.000	733.056	733.056
Bk. E. Abut.	149+12.778	3.000	733.060	733.060

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+32.622	9.000	732.036	732.036
℄ Brg. W. Abut.	147+36.466	9.000	732.072	732.072
A	147+46.466	9.000	732.160	732.192
B	147+56.466	9.000	732.244	732.294
C	147+66.466	9.000	732.324	732.370
D	147+76.466	9.000	732.399	732.425
E	147+86.466	9.000	732.469	732.473
℄ Brg. Pier #1	147+91.549	9.000	732.503	732.503
F	148+01.549	9.000	732.567	732.580
G	148+11.549	9.000	732.626	732.662
H	148+21.549	9.000	732.681	732.731
I	148+31.549	9.000	732.731	732.778
J	148+41.549	9.000	732.776	732.806
K	148+51.549	9.000	732.817	732.824
℄ Brg. Pier #2	148+58.549	9.000	732.843	732.843
L	148+68.549	9.000	732.877	732.891
M	148+78.549	9.000	732.906	732.943
N	148+88.549	9.000	732.930	732.981
O	148+98.549	9.000	732.950	732.993
P	149+08.549	9.000	732.965	732.982
℄ Brg. E. Abut.	149+13.633	9.000	732.971	732.971
Bk. E. Abut.	149+17.477	9.000	732.975	732.975

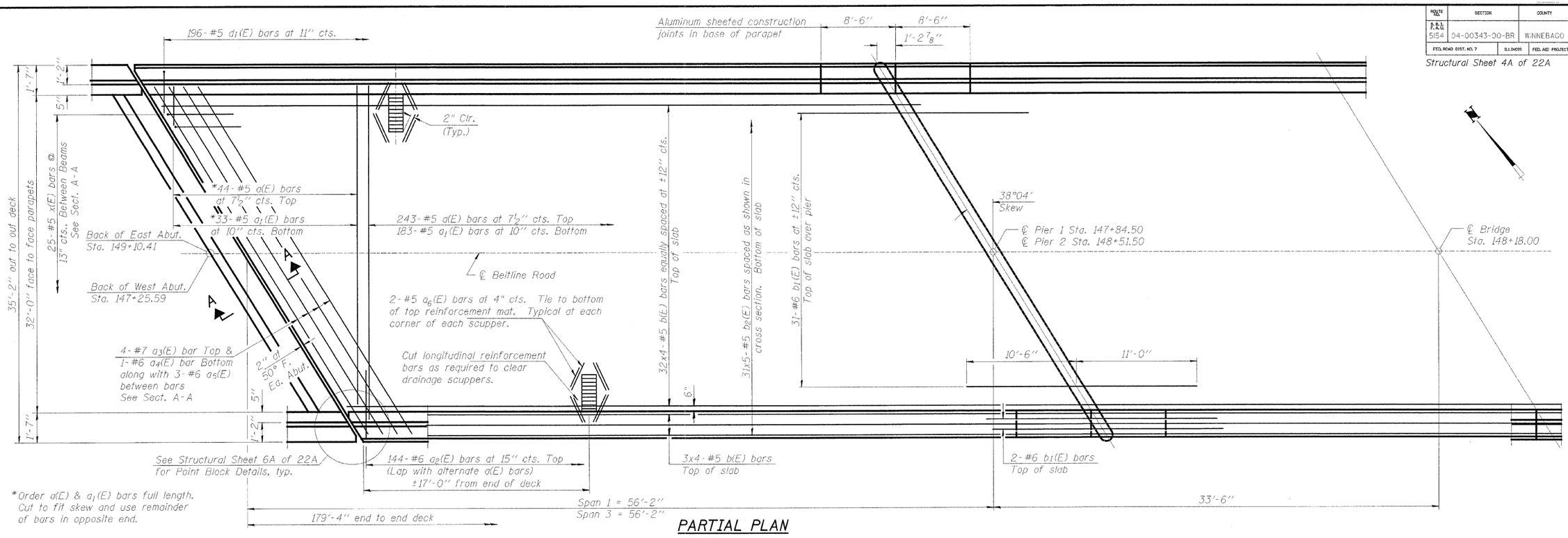
BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	147+37.321	15.000	731.974	731.974
℄ Brg. W. Abut.	147+41.165	15.000	732.009	732.009
A	147+51.165	15.000	732.095	732.127
B	147+61.165	15.000	732.177	732.226
C	147+71.165	15.000	732.254	732.301
D	147+81.165	15.000	732.327	732.354
E	147+91.165	15.000	732.396	732.400
℄ Brg. Pier #1	147+96.248	15.000	732.429	732.429
F	148+06.248	15.000	732.490	732.503
G	148+16.248	15.000	732.547	732.583
H	148+26.248	15.000	732.600	732.650
I	148+36.248	15.000	732.648	732.695
J	148+46.248	15.000	732.691	732.720
K	148+56.248	15.000	732.730	732.737
℄ Brg. Pier #2	148+63.248	15.000	732.755	732.755
L	148+73.248	15.000	732.786	732.800
M	148+83.248	15.000	732.813	732.850
N	148+93.248	15.000	732.835	732.885
O	149+03.248	15.000	732.853	732.895
P	149+13.248	15.000	732.866	732.882
℄ Brg. E. Abut.	149+18.332	15.000	732.871	732.871
Bk. E. Abut.	149+22.176	15.000	732.874	732.874

TOP OF SLAB ELEVATIONS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

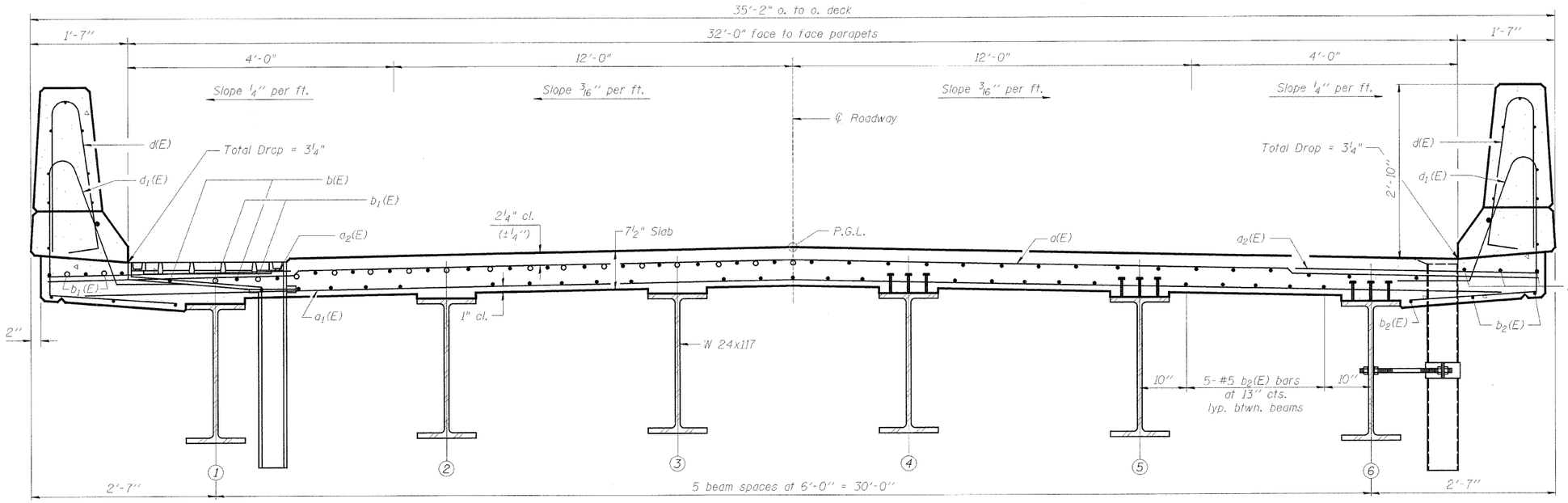
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 4A of 22A



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

PARTIAL PLAN



NEAR PIER

CROSS SECTION

(Looking East)

NEAR MIDSPAN

NOTES:

Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 33x4-#5 etc. indicates 33 lines of bars with 4 lengths per line.

See Structural Sheet 5A of 22A for Superstructure Details and Bill of Material.

See Structural Sheet 5A of 22A for parapet reinforcement.

See Structural Sheet 5A of 22A for Sect. A-A.

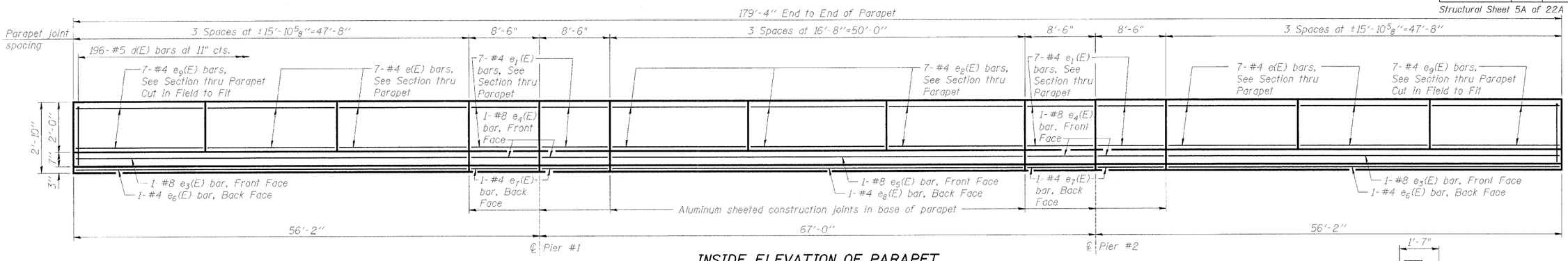
See General Plan and Elevation for location of Deck Drains in Span 3.

SUPERSTRUCTURE
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

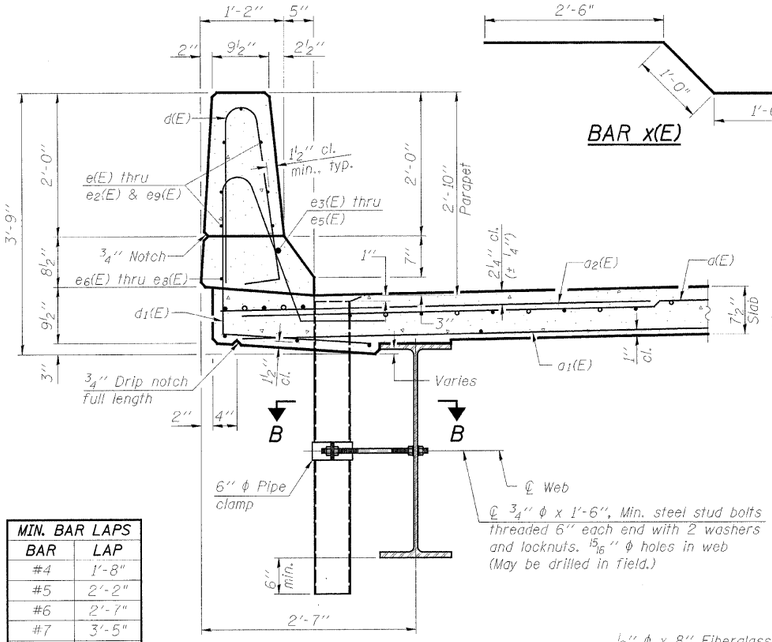
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.SUPERSTRUCTURE.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 5154	04-00343-00-BR	WINNEBAGO	92	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 5A of 22A



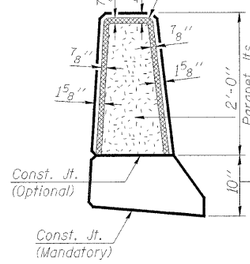
INSIDE ELEVATION OF PARAPET



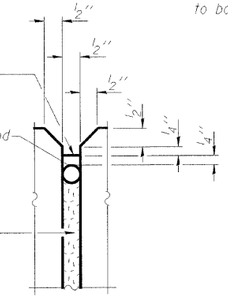
SECTION THRU PARAPET

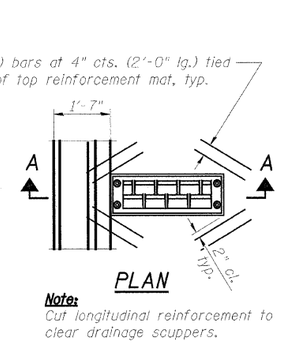
MIN. BAR LAPS	
BAR	LAP
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"

BAR x(E)



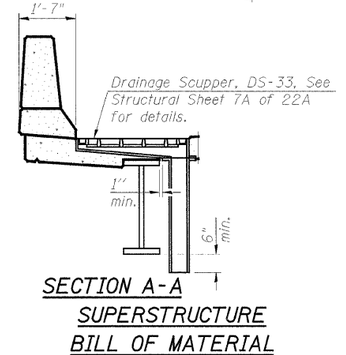
PARAPET JOINT DETAILS





PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

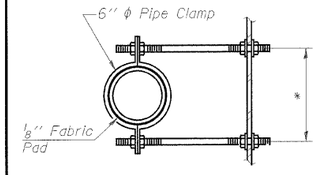


SECTION A-A SUPERSTRUCTURE

BILL OF MATERIAL

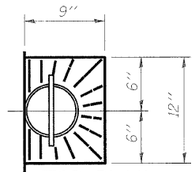
Bar	No.	Size	Length	Shape
d(E)	287	#5	34'-5"	
a1(E)	216	#5	33'-10"	
a2(E)	288	#6	6'-0"	
a3(E)	8	#7	43'-9"	
a4(E)	2	#6	37'-5"	
a5(E)	30	#6	6'-11"	
a6(E)	16	#5	2'-0"	
b(E)	152	#5	46'-5"	
b1(E)	70	#6	21'-6"	
b2(E)	155	#5	37'-7"	
d(E)	392	#5	5'-7"	
d1(E)	392	#5	7'-2"	
e(E)	56	#4	15'-7"	
e1(E)	56	#4	8'-3"	
e2(E)	42	#4	16'-5"	
e3(E)	4	#8	47'-5"	
e4(E)	8	#8	8'-3"	
e5(E)	2	#8	49'-8"	
e6(E)	4	#4	48'-7"	
e7(E)	8	#4	8'-2"	
e8(E)	2	#4	49'-8"	
e9(E)	28	#4	16'-2"	
x(E)	50	#5	5'-11"	
Reinforcement Bars, Epoxy Coated		Pound	45,760	
Concrete Superstructure		Cu. Yds.	210.4	

NOTE:
Reinforcement bars designated (E) shall be epoxy coated.

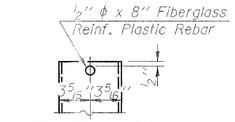


SECTION B-B

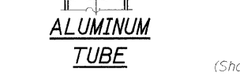
* Dimension as required by Pipe Clamp



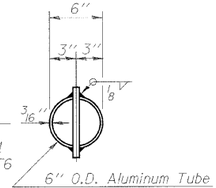
TOP PLAN



FIBERGLASS PIPE

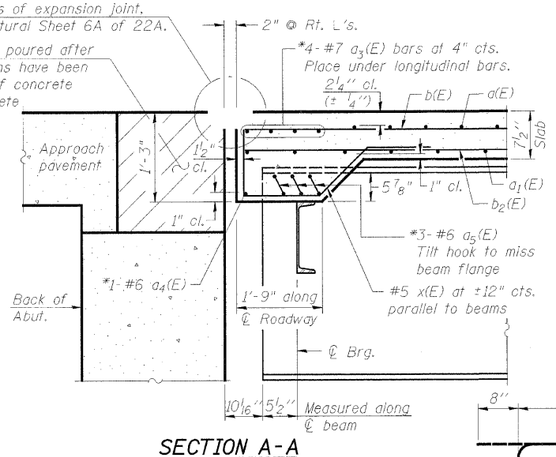


ALUMINUM TUBE



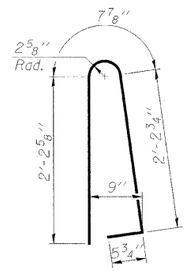
TOP PLAN

(Showing Aluminum Tube)

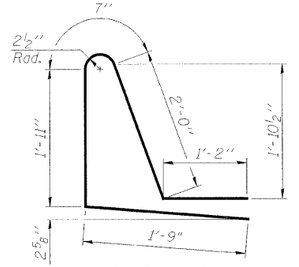


SECTION A-A

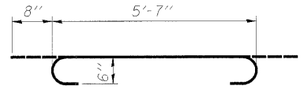
Note:
*a3(E), a4(E) and a5(E) bars placed along skew



BAR d(E)



BAR d1(E)



BAR a5(E)

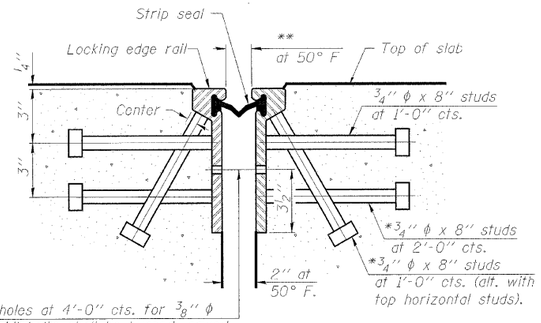
SUPERSTRUCTURE DETAILS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.SUPERSTRUCTUREDETAILS.DGN WHA # 1124D04

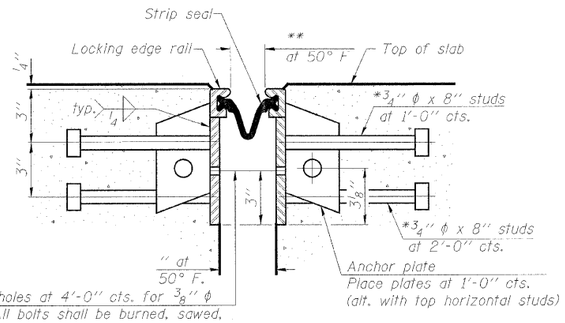
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 6A of 22A

*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.
**When joint is fixed, dimension is set at 1½".



7/16" ϕ holes at 4'-0" cts. for ⅜" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



7/16" ϕ holes at 4'-0" cts. for ⅜" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

NOTES:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

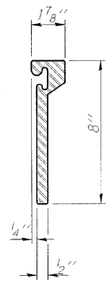
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

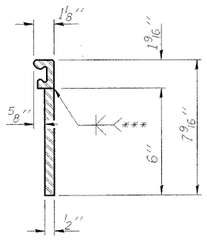
The manufacturer's recommended installation methods shall be followed.

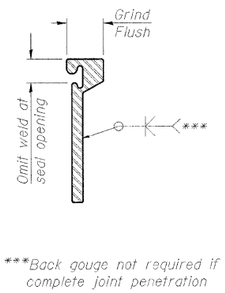
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications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

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

SECTION THRU ROLLED RAIL JOINT





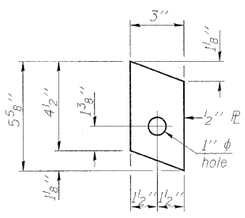


***Back gouge not required if complete joint penetration is verified by mock-up.

ROLLED (EXTRUDED) RAIL

WELDED RAIL

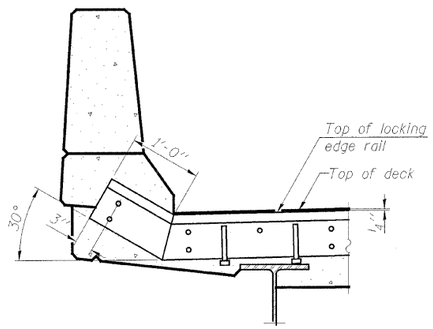
SECTION THRU WELDED RAIL JOINT



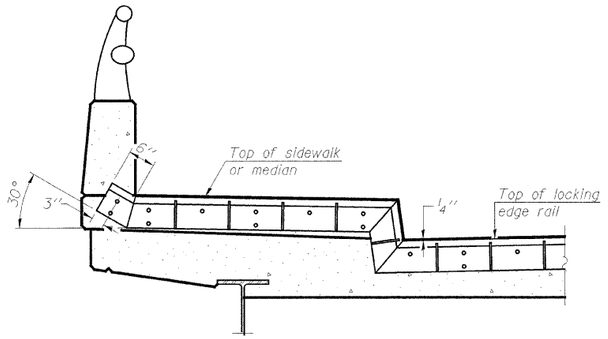
ANCHOR PL
(for welded rail)

LOCKING EDGE RAIL SPLICE

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



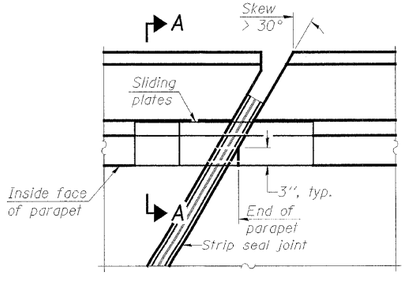
AT PARAPET



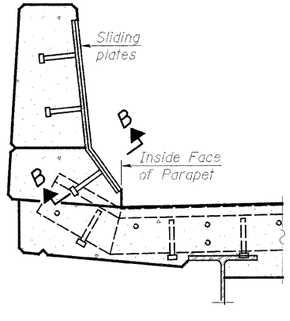
AT SIDEWALK OR MEDIAN

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.

LOCKING EDGE RAILS

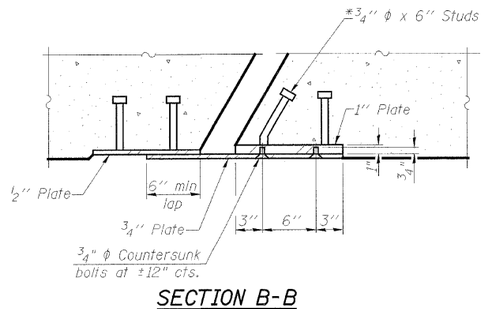


PLAN



SECTION A-A

TYPICAL END TREATMENTS



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	85.5

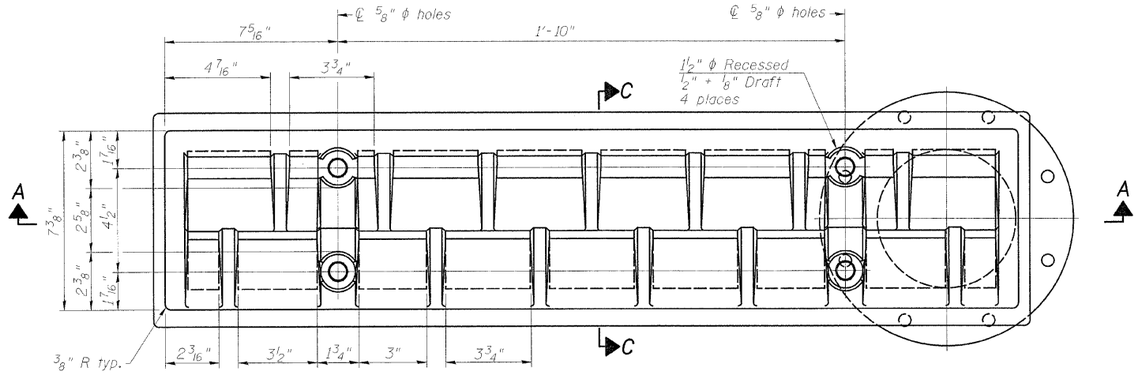
POINT BLOCK DETAILS

(for skews > 30°)

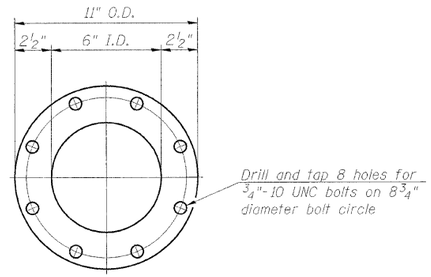
PREFORMED JOINT STRIP SEAL
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 7A of 22A



PLAN



VIEW B-B

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.

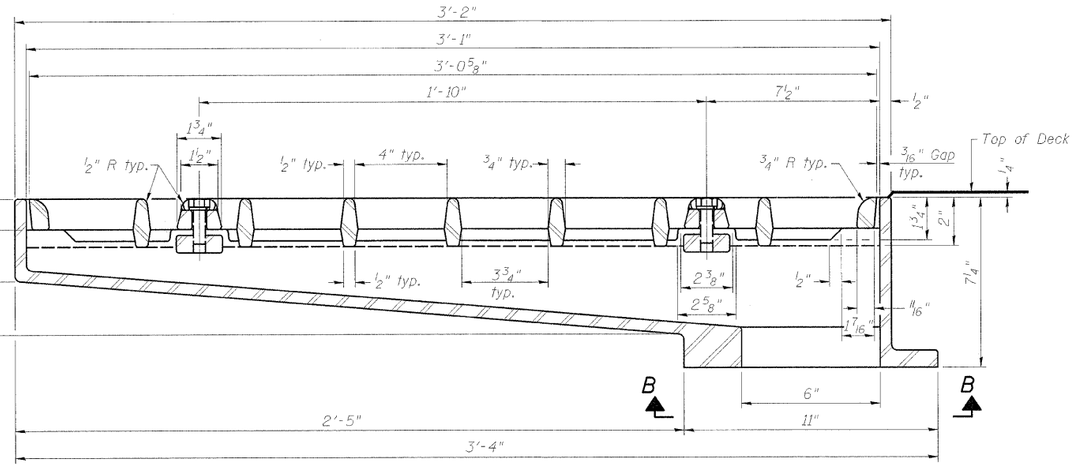
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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.

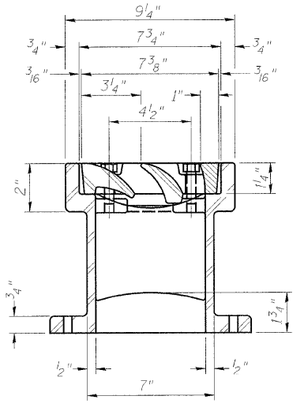
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.

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.

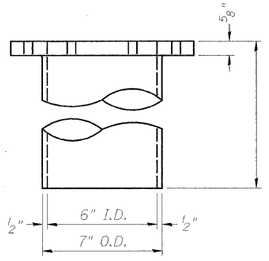


SECTION A-A

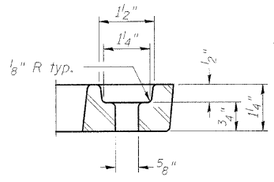
See sheet of for scupper location relative to parapet.



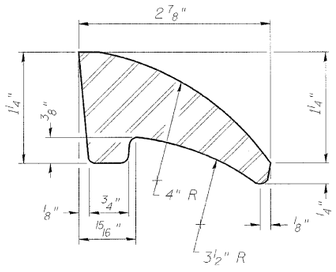
SECTION C-C



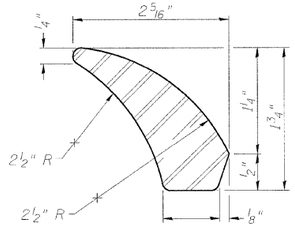
DOWNSPOUT



BOLT HOLE DETAIL



FIRST VANE DETAIL



SECOND VANE DETAIL

BILL OF MATERIAL

Item	Unit	Total
Drainage Scupper, DS-33	Each	2

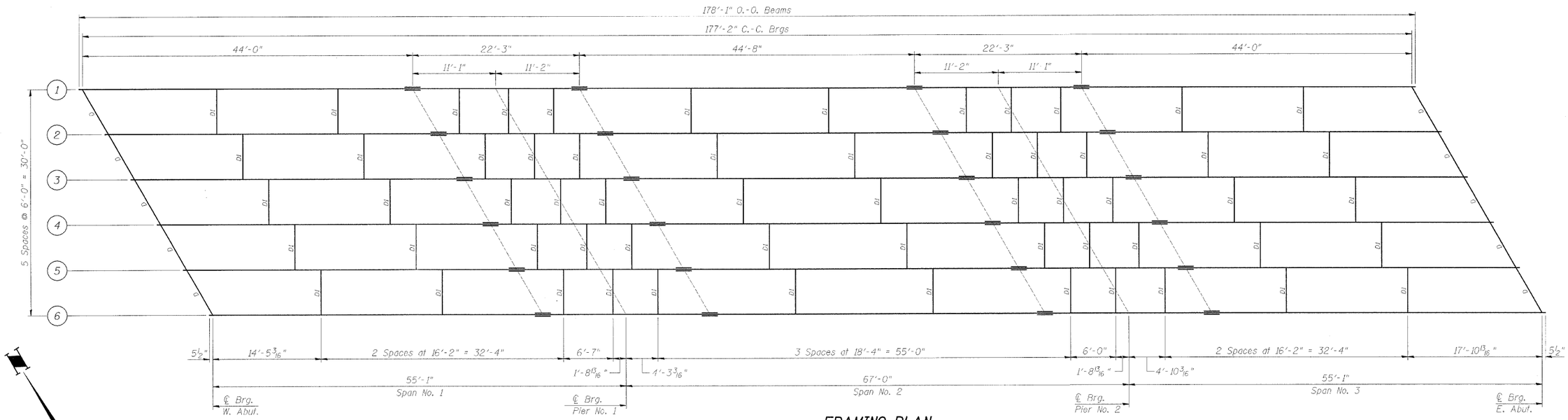
DRAINAGE SCUPPER, DS-33
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.DRAINAGESCUPPER.DGN WHA # 1124D04

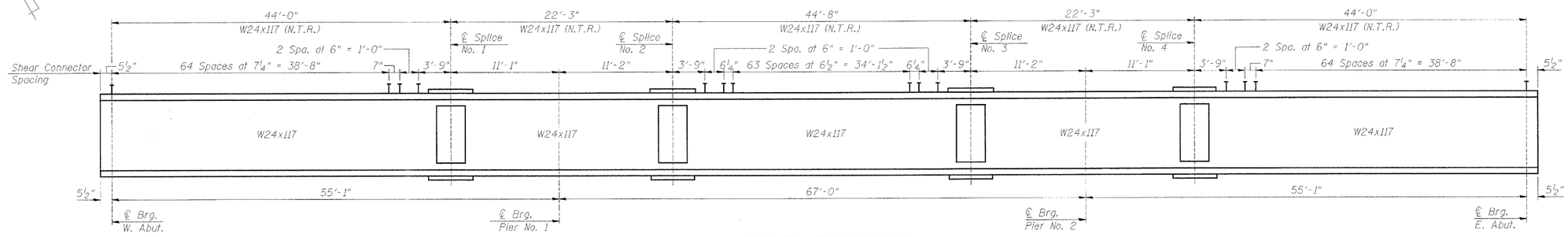
85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 8A of 22A



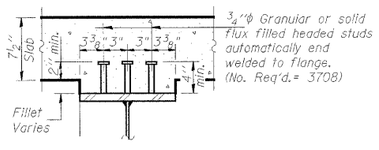
FRAMING PLAN



GIRDER ELEVATION

"N.T.R." denotes plates to which notch toughness requirements are applicable.

Note: All Structural Steel Shall Conform To AASHTO M270 Gr. 50



SECTION A-A

BILL OF MATERIAL

	Item	Unit	Total
	Stud Shear Connectors	Each	3,708
*	Furnishing & Erecting Structural Steel	L. Sum	1

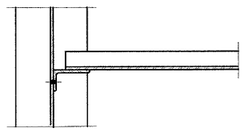
*Includes side retainers for elastomeric bearing assemblies.

FRAMING PLAN
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

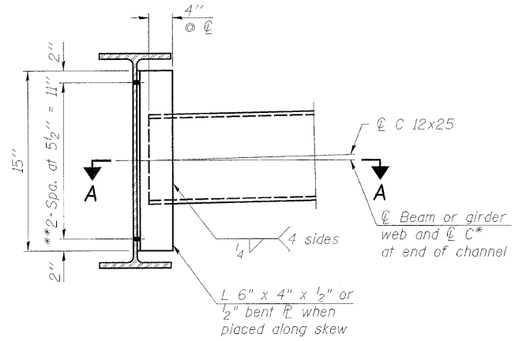
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.1124FRAMINGPLAN.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BRL FAU 5154	04-00343-00-BR	WINNEBAGO	92	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 9A of 22A



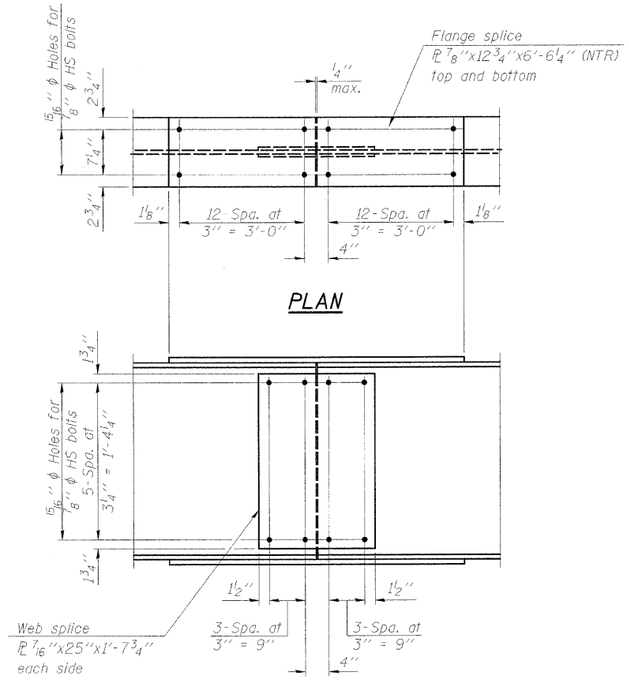
SECTION A-A



INTERIOR DIAPHRAGM-D1

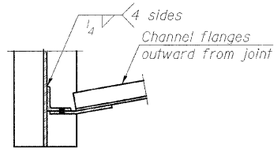
Note:
Two hardened washers required for each set of oversized holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
** ¾" ϕ HS bolts, 15/16" ϕ holes

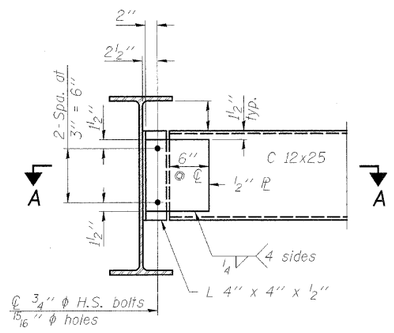


ELEVATION

SPLICE DETAIL
(24 Required)



SECTION A-A



END DIAPHRAGM-D

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

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1 0.6 Sp. 3	Pier #1 or #2	0.5 Sp. 2
Is	(in^4)	3,540	3,540	3,540
Ic (n)	(in^4)	9,321	———	9,321
Ic (3n)	(in^4)	6,815	———	6,815
Ss	(in^3)	291	291	291
Sc (n)	(in^3)	419	———	419
Sc (3n)	(in^3)	379	———	379
Z	(in^3)	———	327	———
℄	(k/ft.)	0.72	1.16	0.72
M℄	('k)	154	411	133
s℄	(k/ft.)	0.44	———	0.44
Ms℄	('k)	104	———	107
M℄	('k)	382	247	431
M (Imp)	('k)	106	66	112
5/3[M℄+M(Imp)]	('k)	813	522	905
Ma	('k)	1,392	1,213	1,489
Mu	('k)	2,057	1,353	2,057
fs℄ non-comp	(k.s.i.)	6.4	16.9	5.5
fs℄ (comp)	(k.s.i.)	3.3	———	3.4
fs 5/3(℄+Imp)	(k.s.i.)	23.3	21.5	25.9
fs (Overload)	(k.s.i.)	33.0	38.4	34.8
fs (Total)	(k.s.i.)	42.9	49.9	45.2
VR	(k)	81		92

INTERIOR GIRDER REACTION TABLE

		Abut.	Pier
R℄	(k)	24.5	78.3
R℄	(k)	40.2	56.6
Imp.	(k)	11.2	15.2
R (Total)	(k)	75.9	150.1

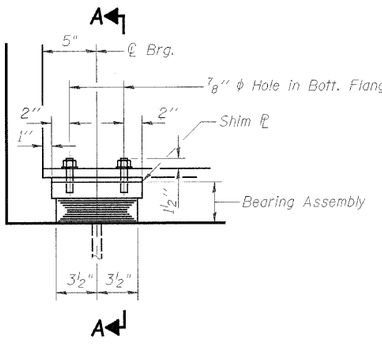
TOP OF FLANGE ELEVATIONS
(For Fabrication Use Only)

Beam \ Location	℄ Brg. W. Abut.	℄ Splice No. 1	℄ Brg. Pier #1	℄ Splice No. 2	℄ Splice No. 3	℄ Brg. Pier #2	℄ Splice No. 4	℄ Brg. E. Abut.
1	731.090	731.408	731.491	731.574	731.839	731.888	731.937	732.140
2	731.246	731.555	731.635	731.716	731.971	732.018	732.064	732.258
3	731.385	731.684	731.762	731.841	732.086	732.131	732.175	732.359
4	731.429	731.719	731.794	731.871	732.107	732.149	732.190	732.366
5	731.378	731.659	731.732	731.806	732.033	732.072	732.112	732.278
6	731.311	731.582	731.653	731.725	731.942	731.979	732.016	732.173

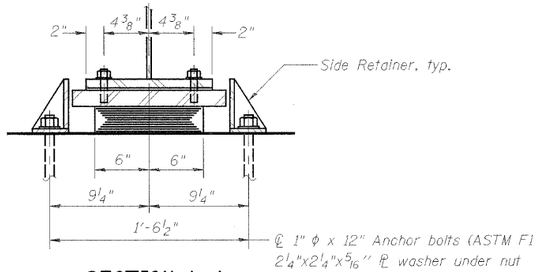
STRUCTURAL STEEL DETAILS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 10A of 22A

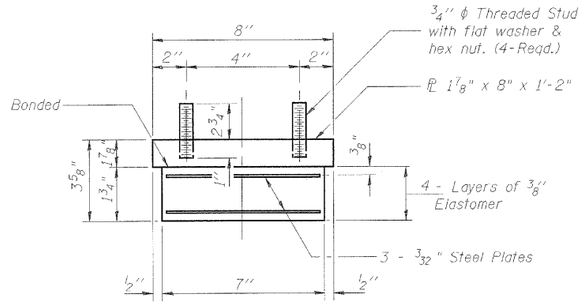


ELEVATION AT WEST ABUT.



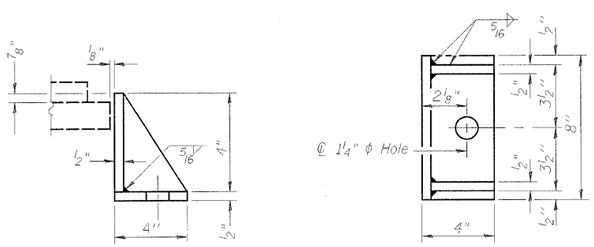
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



SIDE RETAINER (WEST ABUT.)

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

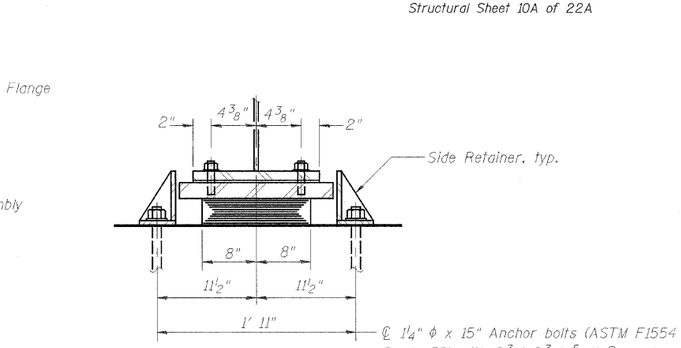
NOTES:

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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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

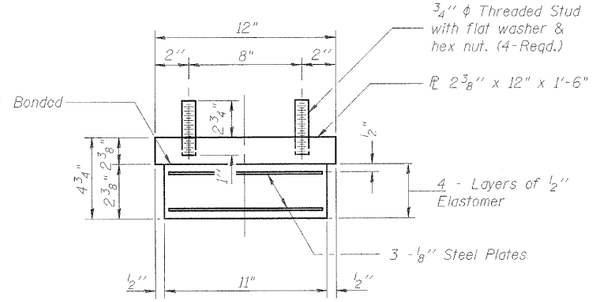
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.



ELEVATION AT PIER NO. 2

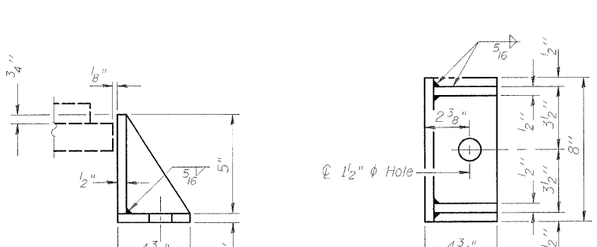
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



SIDE RETAINER (PIER NO. 2)

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

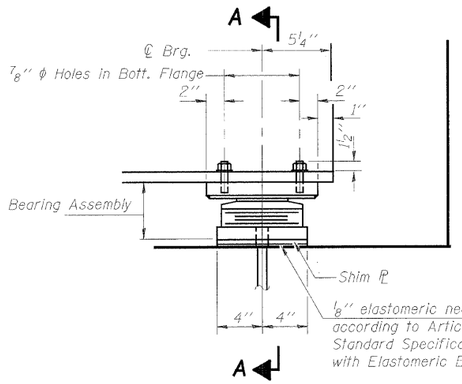
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"	Each	12
Anchor Bolts, 1 1/4"	Each	12

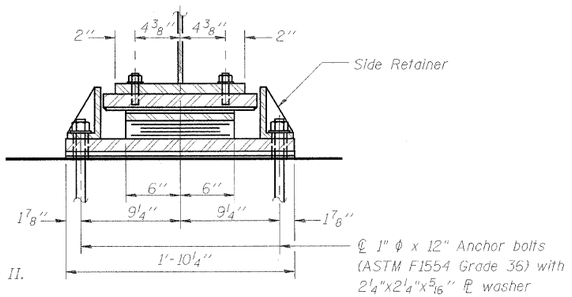
TYPE I ELASTOMERIC BEARINGS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 11A of 22A

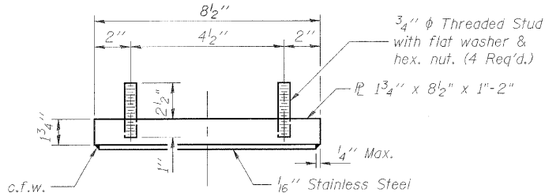


ELEVATION AT EAST ABUT.

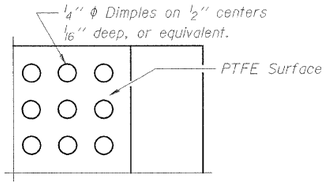


SECTION A-A

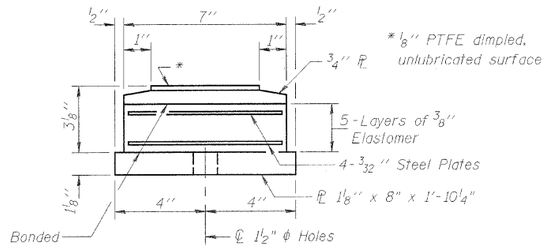
TYPE II ELASTOMERIC EXP. BRG.



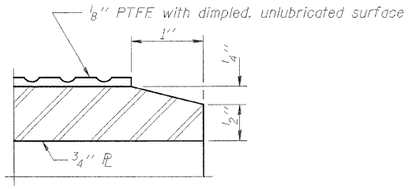
TOP BEARING ASSEMBLY



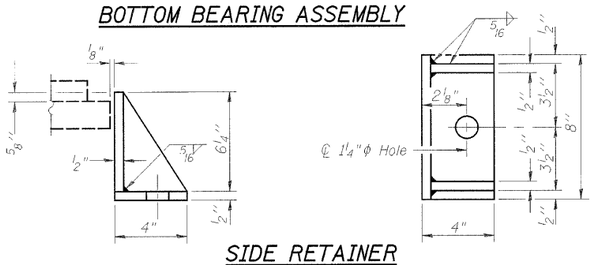
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

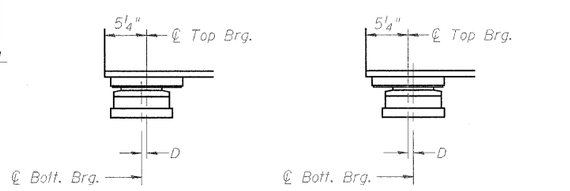


SECTION THRU TFE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

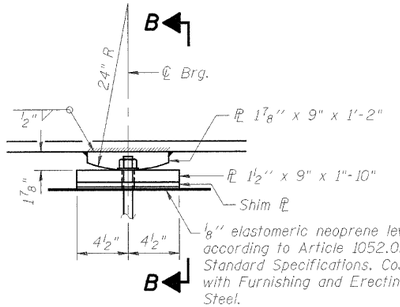


BELOW 50°F. (Move bott. brg. away from fixed brg.)

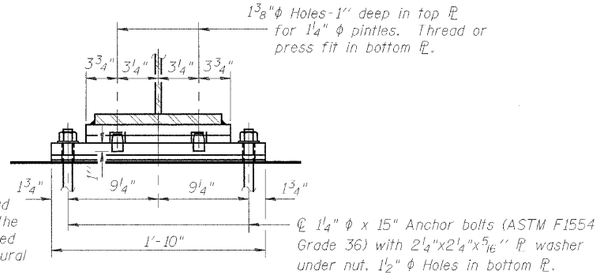
ABOVE 50°F. (Move bott. brg. toward fixed brg.)

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.

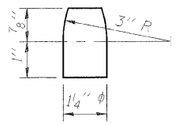


ELEVATION AT PIER NO. 1



SECTION B-B

FIXED BEARING



PINTLE

NOTES:

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

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

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

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

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

The 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.

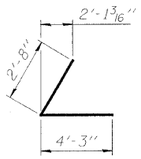
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	6
Anchor Bolts, 1"	Each	12
Anchor Bolts, 1¼"	Each	12

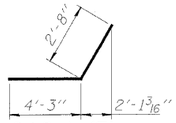
TYPE II ELASTOMERIC AND FIXED BEARINGS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

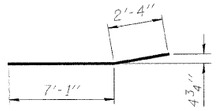
Structural Sheet 12A of 22A



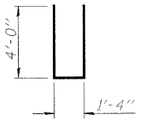
BAR h_1(E)



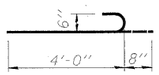
BAR h_2(E)



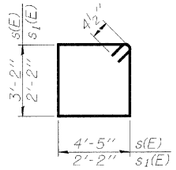
BAR h_4(E)



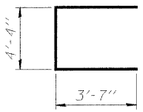
BAR n(E)



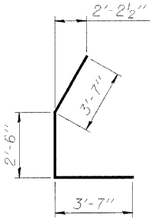
BAR n_1(E)



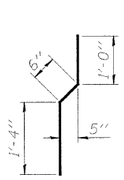
BARS s(E) & s_1(E)



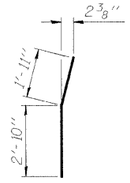
BAR u(E)



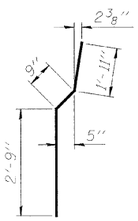
BAR u_1(E)



BAR v_1(E)



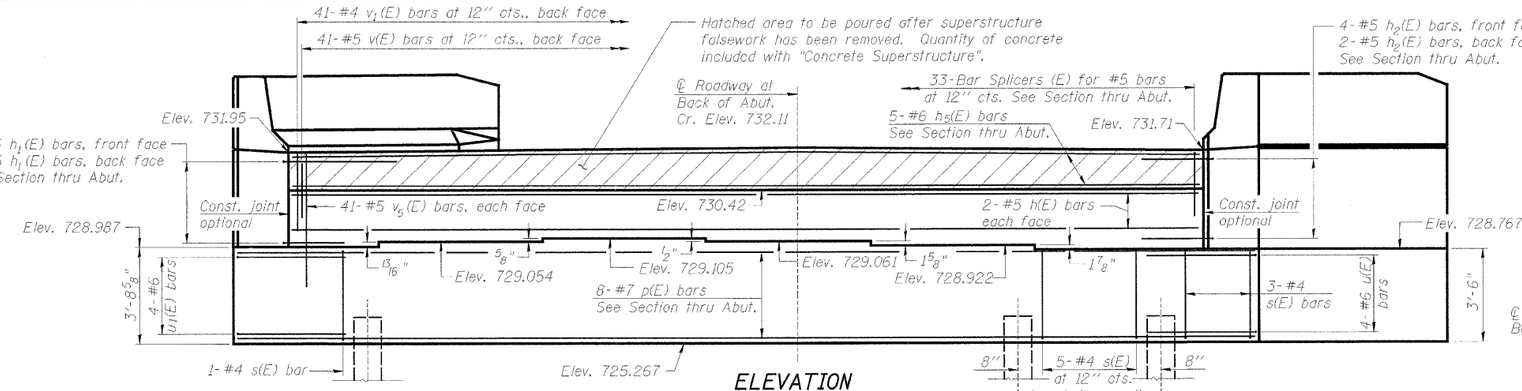
BAR v_3(E)



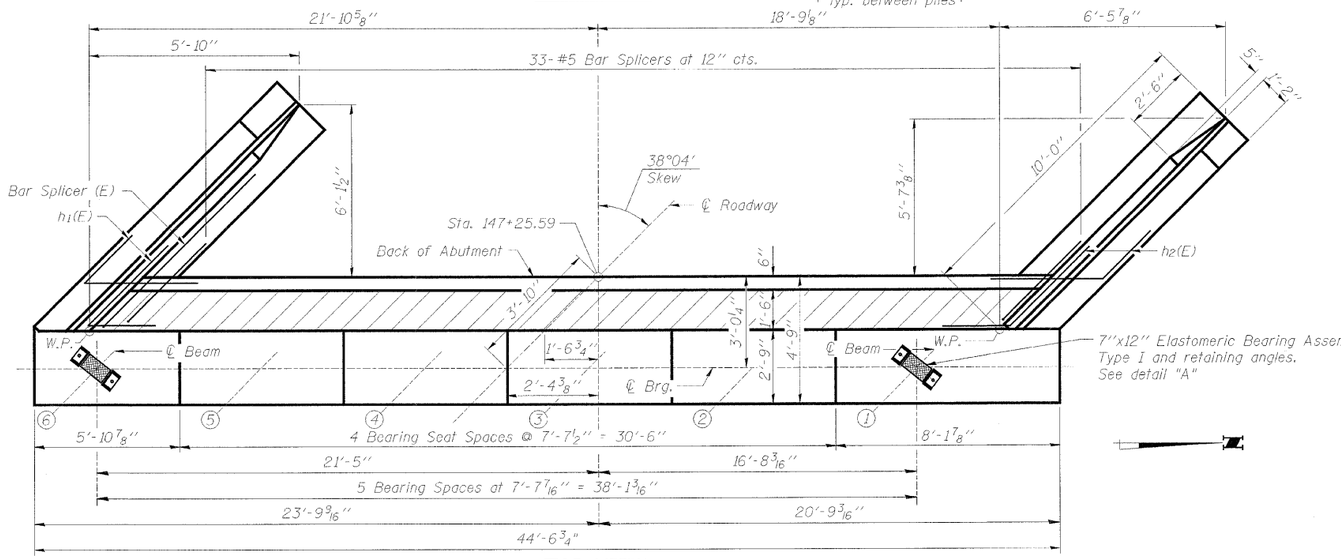
BAR v_4(E)

PILE DATA

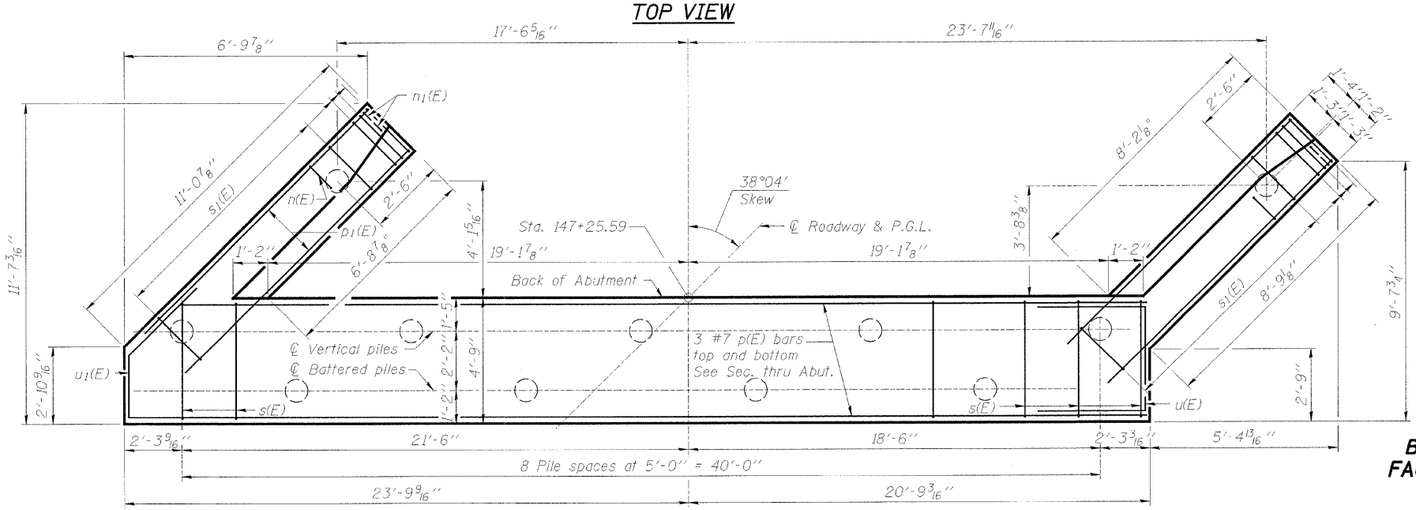
Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 23'
No. Production Piles: 10
No. Test Piles: 1



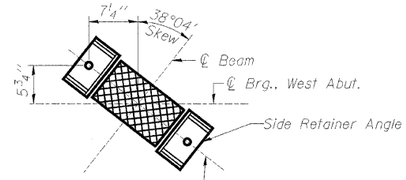
ELEVATION



TOP VIEW



PLAN-PILE CAP



DETAIL "A"

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#5	40'-6"	
h_1(E)	6	#5	6'-11"	
h_2(E)	6	#5	6'-11"	
h_3(E)	14	#4	8'-5"	
h_4(E)	14	#4	9'-5"	
h_5(E)	5	#6	40'-2"	
n(E)	16	#6	9'-4"	
n_1(E)	12	#6	4'-8"	
p(E)	8	#7	44'-2"	
p_1(E)	12	#7	10'-9"	
s(E)	44	#4	15'-11"	
s_1(E)	28	#4	9'-5"	
u(E)	4	#6	11'-6"	
u_1(E)	4	#6	9'-8"	
v(E)	41	#5	2'-6"	
v_1(E)	41	#4	2'-10"	
v_2(E)	22	#6	5'-5"	
v_3(E)	6	#6	4'-9"	
v_4(E)	16	#6	5'-5"	
v_5(E)	82	#5	4'-2"	
Porous Granular Embankment		Cu. Yd.	49	
Structure Excavation		Cu. Yd.	120	
Concrete Structures		Cu. Yd.	40.9	
Reinforcement Bars, Epoxy Coated		Pound	3,680	
Bar Splicers		Each	33	
Furnishing Metal Shell Piles, 12"		Foot	230	
Driving Piles		Foot	230	
Test Pile, Metal Shell		Each	1	
Concrete Sealer		Sq. Ft.	124	
Geocomposite Wall Drain		Sq. Yd.	23	
Pipe Underdrains for Structures 4"		Foot	73	

NOTES:

For Bar Splicer Assembly detail, see Structural Sheet 20A of 22A.

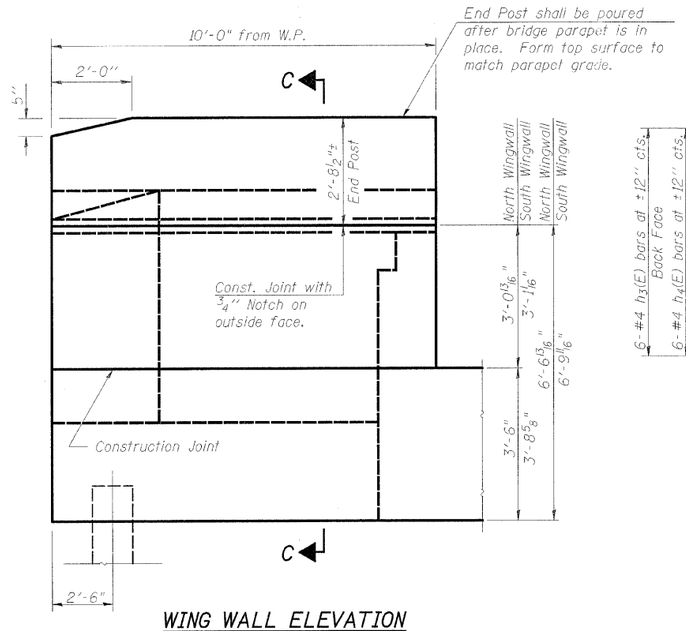
For pile detail see Structural Sheet 18A of 22A.

Reinforcement Bars Designated (E) shall be epoxy coated.

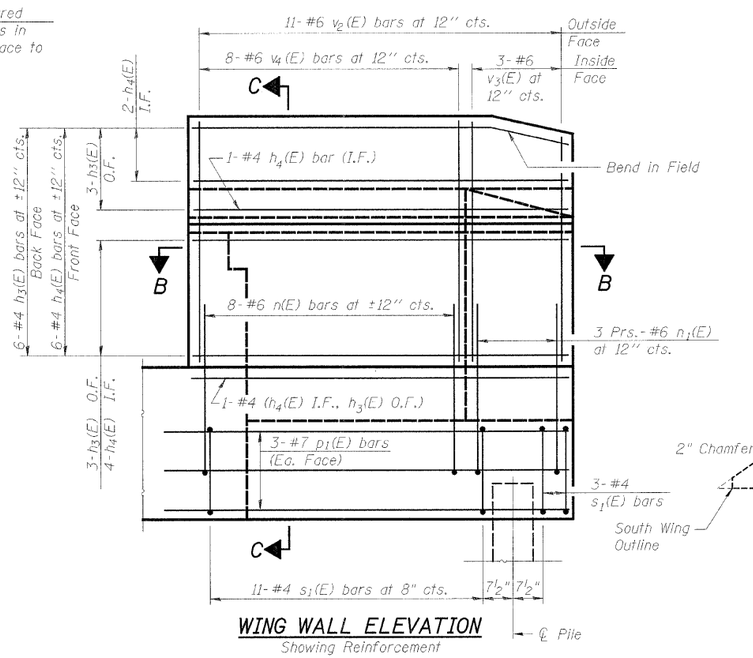
WEST ABUTMENT
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B.R.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

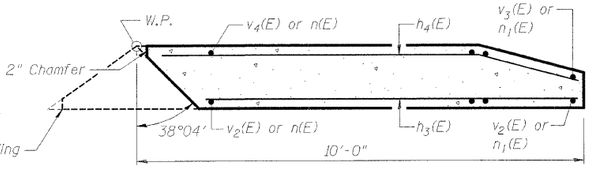
Structural Sheet 13A of 22A



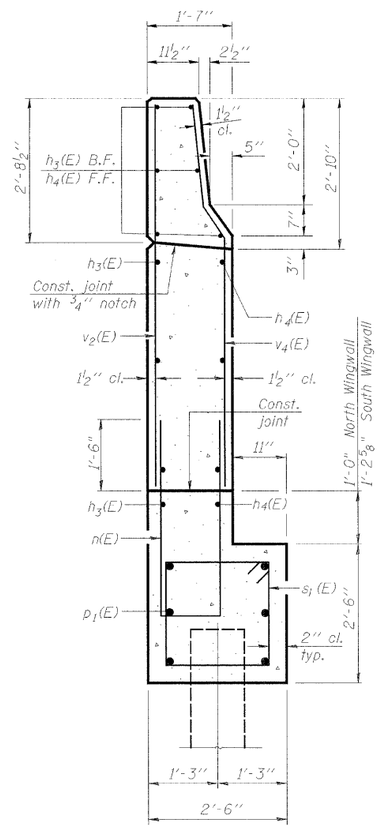
WING WALL ELEVATION
Showing Dimensions



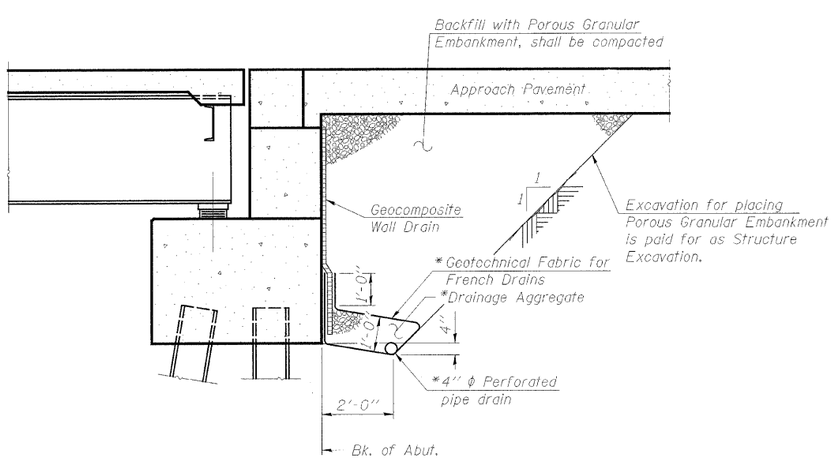
WING WALL ELEVATION
Showing Reinforcement



SECTION B-B
North Wing Shown



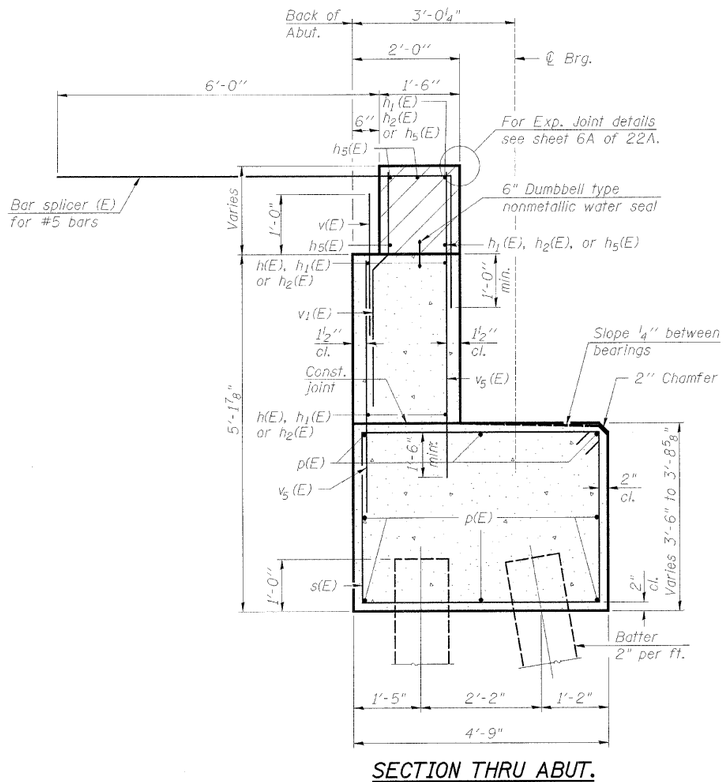
SECTION C-C



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

* Included in the cost of Pipe Underdrains for Structures.

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



SECTION THRU ABUT.

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.

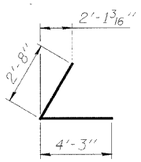
Quantity of concrete in end post included with Concrete Superstructure on Structural Sheet 5A of 22A.

WEST ABUTMENT DETAILS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

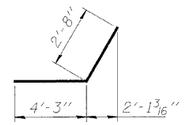
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.WABUTDETAILS.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 5154	04-00343-00-BR	WINNEBAGO	92	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

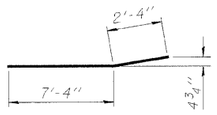
Structural Sheet 14A of 22A



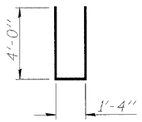
BAR h_1(E)



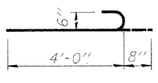
BAR h_2(E)



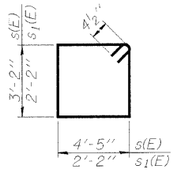
BAR h_4(E)



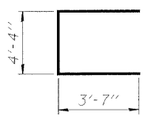
BAR n(E)



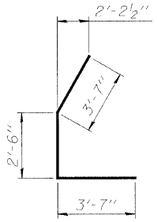
BAR n_1(E)



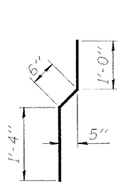
BARS s(E) & s_1(E)



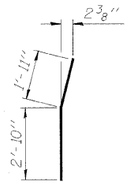
BAR u(E)



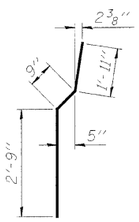
BAR u_1(E)



BAR v_1(E)



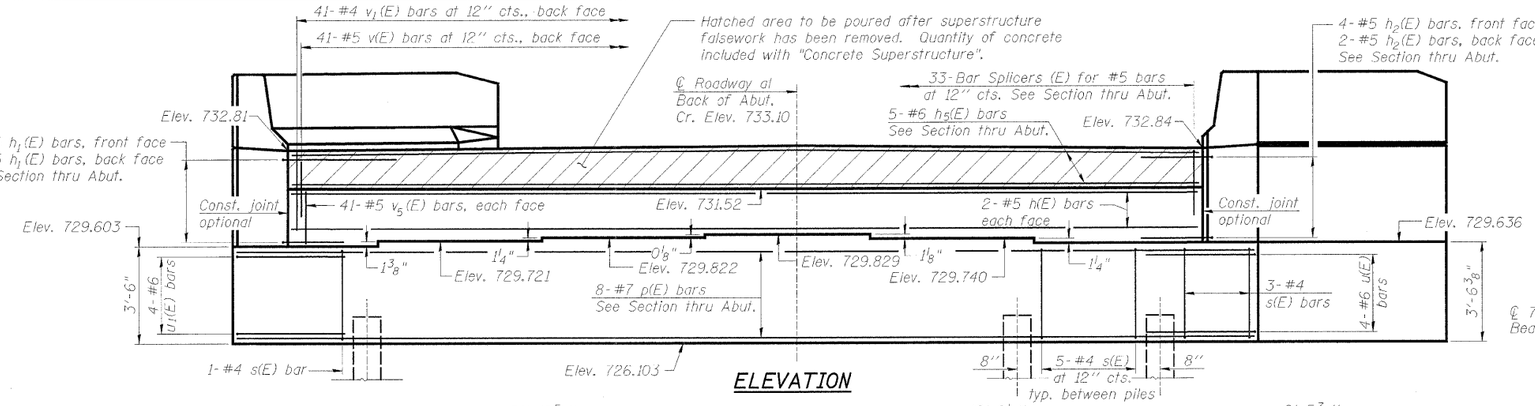
BAR v_3(E)



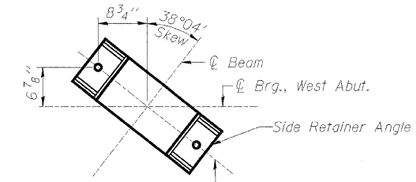
BAR v_4(E)

PILE DATA

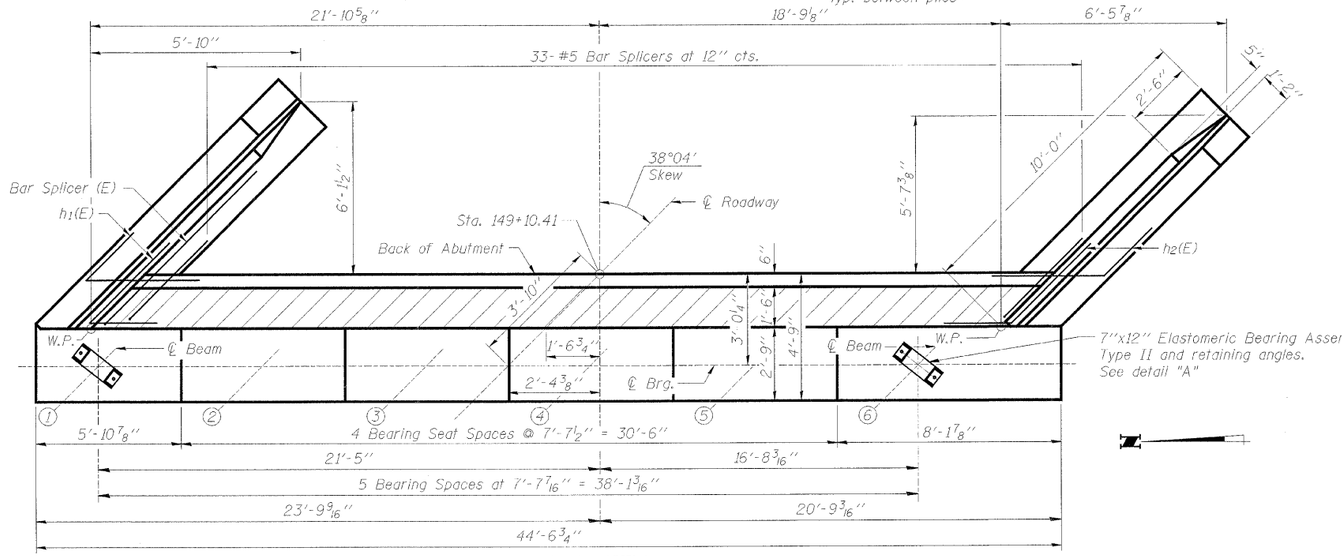
Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 23'
No. Production Piles: 10
No. Test Piles: 1



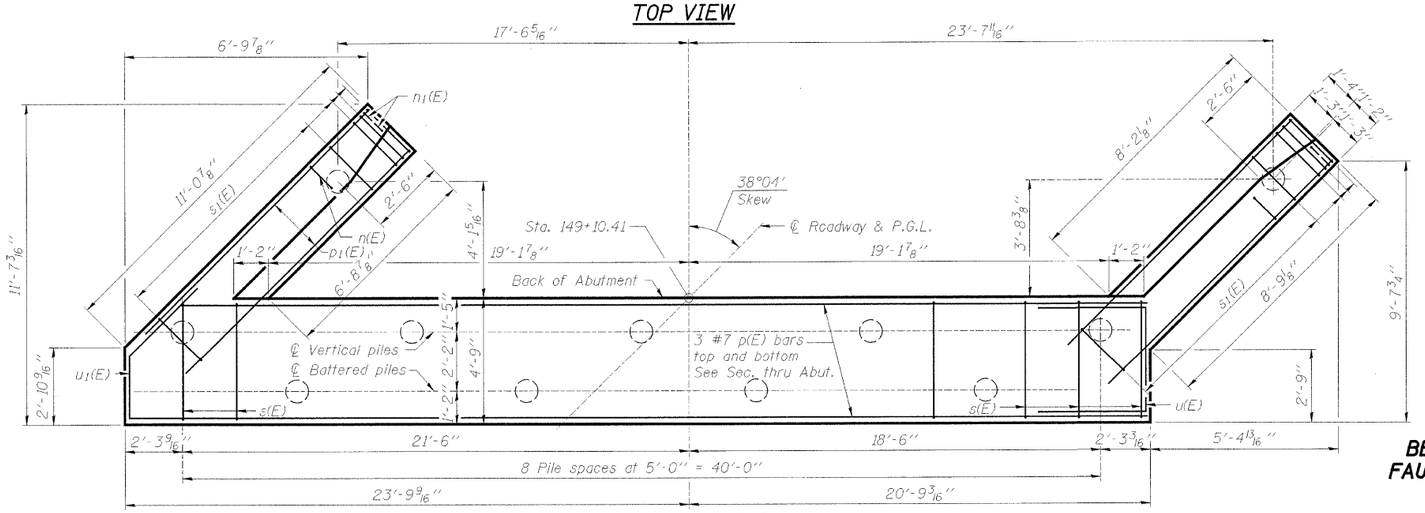
ELEVATION



DETAIL "A"



TOP VIEW



PLAN-PILE CAP

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#5	40'-6"	
h_1(E)	6	#5	6'-11"	
h_2(E)	6	#5	6'-11"	
h_3(E)	14	#4	8'-5"	
h_4(E)	14	#4	9'-5"	
h_5(E)	5	#6	40'-2"	
n(E)	16	#6	9'-4"	
n_1(E)	12	#6	4'-8"	
p(E)	8	#7	44'-2"	
p_1(E)	12	#7	10'-9"	
s(E)	44	#4	15'-11"	
s_1(E)	28	#4	9'-5"	
u(E)	4	#6	11'-6"	
u_1(E)	4	#6	9'-8"	
v(E)	41	#5	2'-6"	
v_1(E)	41	#4	2'-10"	
v_2(E)	22	#6	5'-5"	
v_3(E)	6	#6	4'-9"	
v_4(E)	16	#6	5'-5"	
v_5(E)	82	#5	4'-2"	
Porous Granular Embankment		Cu. Yd.	51	
Structure Excavation		Cu. Yd.	100	
Concrete Structures		Cu. Yd.	41.7	
Reinforcement Bars, Epoxy Coated		Pound	3,680	
Bar Splicers		Each	33	
Furnishing Metal Shell Piles, 12"		Foot	230	
Driving Piles		Foot	230	
Test Pile, Metal Shell		Each	1	
Concrete Sealer		Sq. Ft.	124	
Geocomposite Wall Drain		Sq. Yd.	23	
Pipe Underdrains for Structures 4"		Foot	74	

NOTES:

For Bar Splicer Assembly detail, see Structural Sheet 20A of 22A.

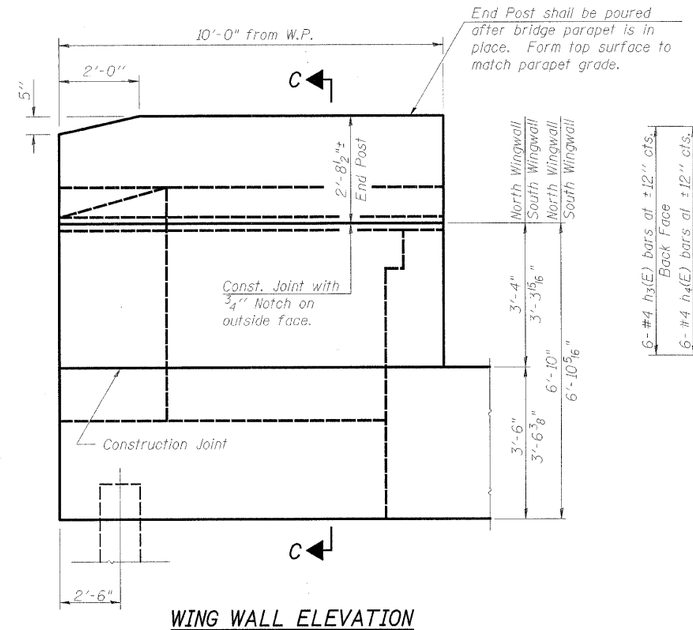
For pile detail see Structural Sheet 18A of 22A.

Reinforcement Bars Designated (E) shall be epoxy coated.

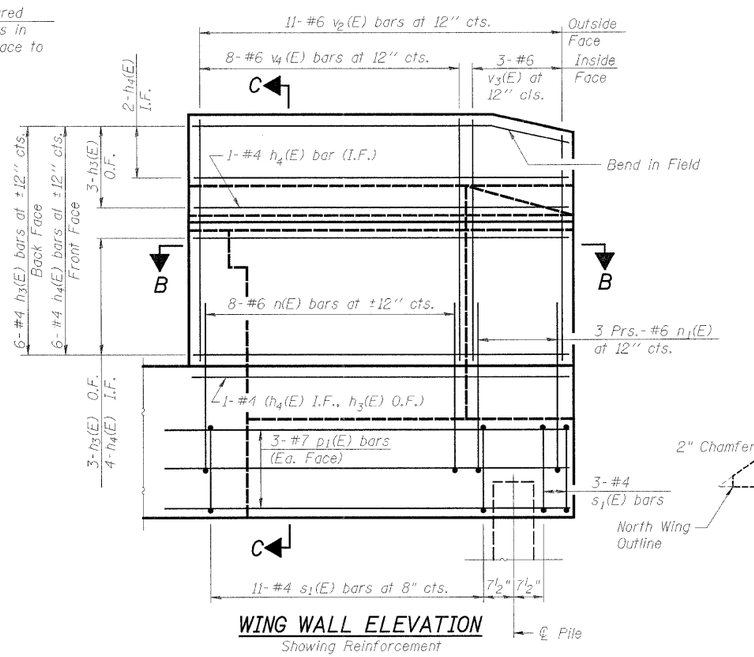
EAST ABUTMENT
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

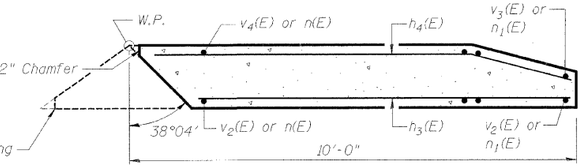
Structural Sheet 15A of 22A



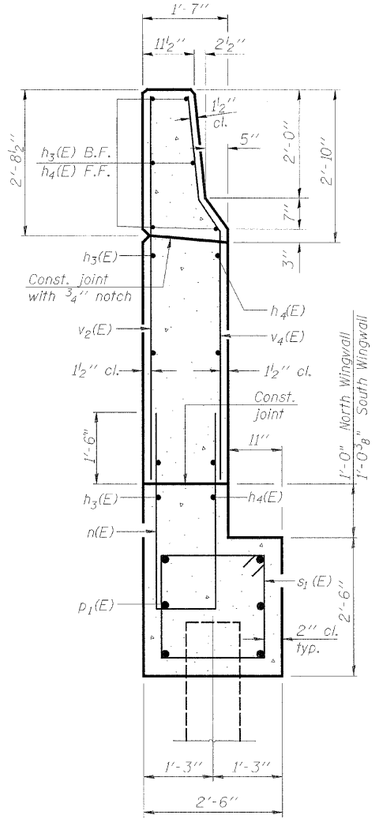
WING WALL ELEVATION
Showing Dimensions



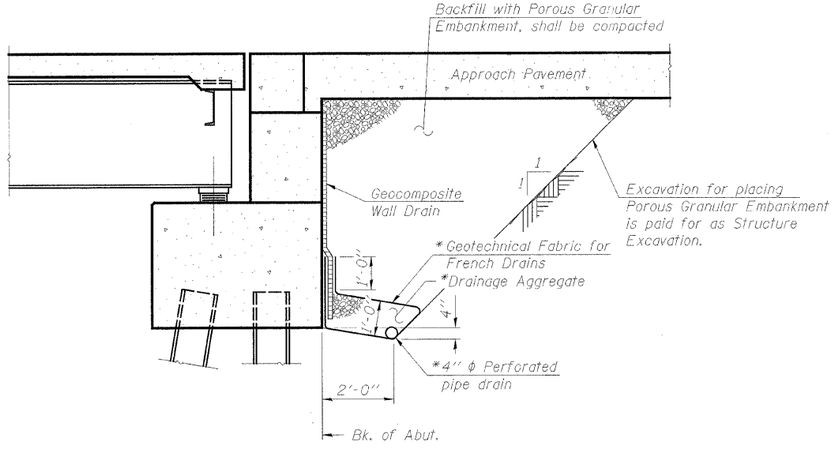
WING WALL ELEVATION
Showing Reinforcement



SECTION B-B
South Wing Shown



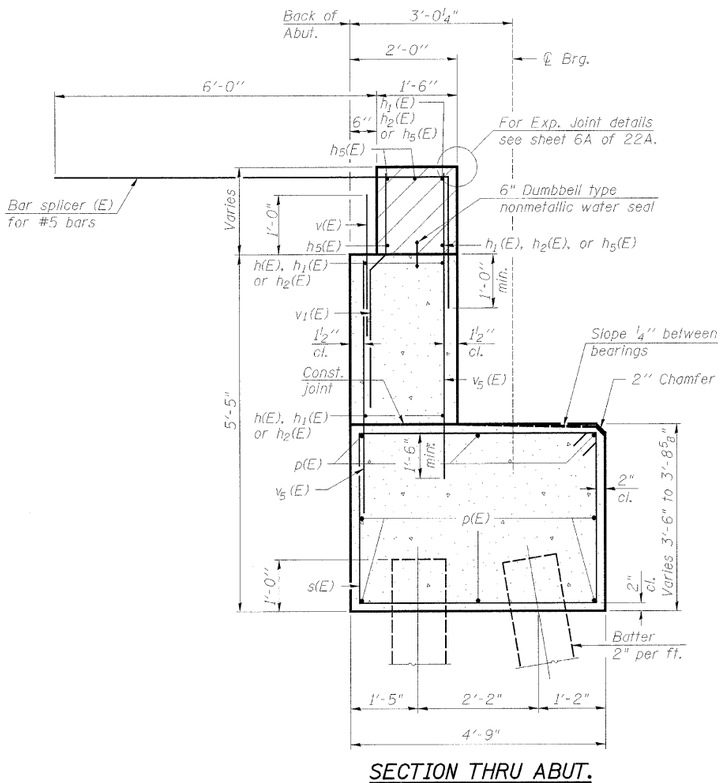
SECTION C-C



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

* Included in the cost of Pipe Underdrains for Structures.

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



SECTION THRU ABUT.

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.

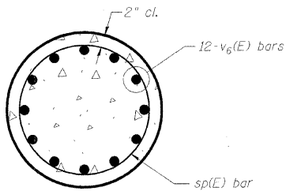
Quantity of concrete in end post included with Concrete Superstructure on Structural Sheet 5A of 22A.

EAST ABUTMENT DETAILS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

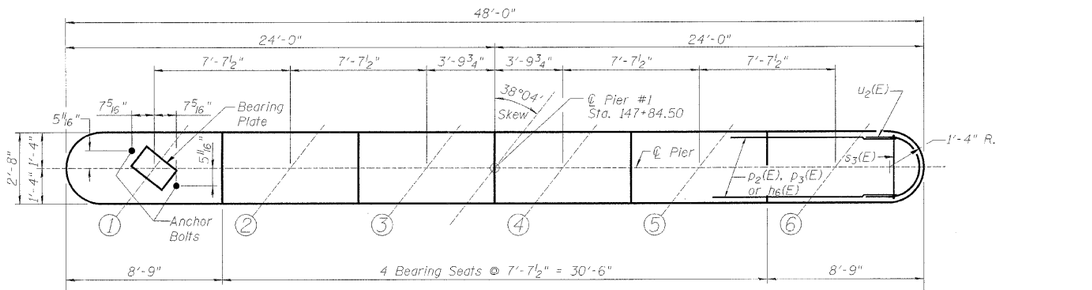
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.EABUTDETAILS.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B.R.& I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

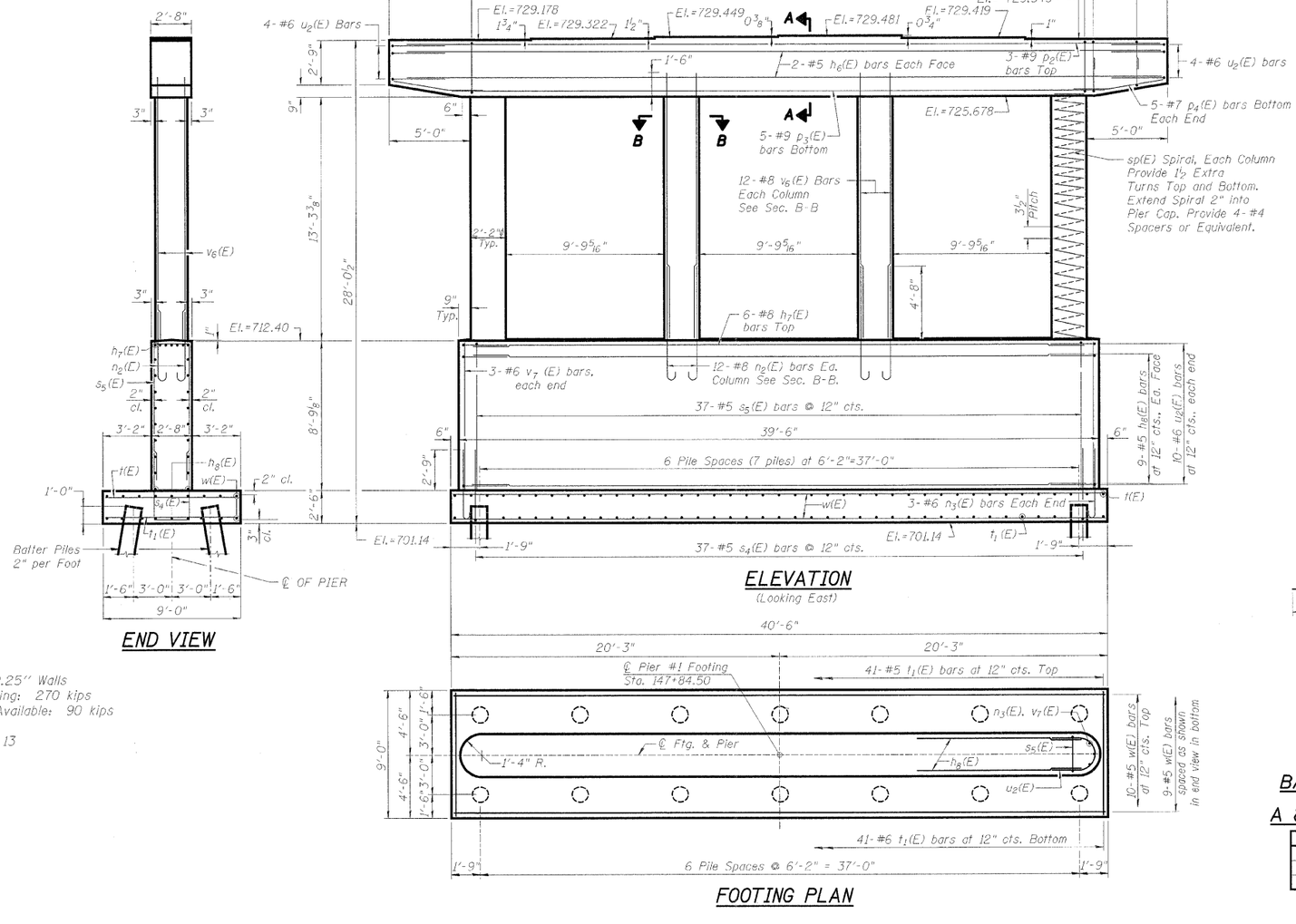
Structural Sheet 16A of 22A



SEC. B-B

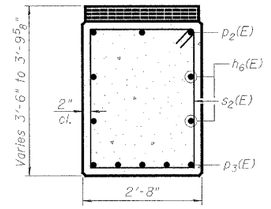


TOP PLAN

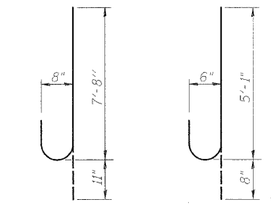


ELEVATION
(Looking East)

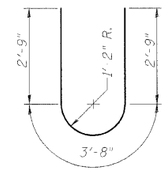
FOOTING PLAN



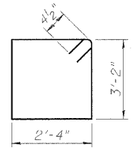
SEC. A-A



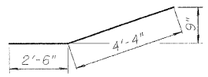
BAR n_2(E) BAR n_3(E)



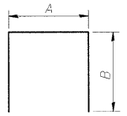
BAR u_2(E)



BAR s_2(E)



BAR p_4(E)



BARS s_3(E)-s_5(E)

A & B DIMENSIONS

Bar	A	B
s_3(E)	2'-4"	2'-5"
s_4(E)	2'-4"	5'-1"
s_5(E)	2'-4"	8'-5"

BILL OF MATERIAL-PIER #1

Bar	No.	Size	Length	Shape
h_8(E)	4	#5	45'-4"	—
h_7(E)	6	#8	36'-10"	—
h_6(E)	18	#5	36'-10"	—
n_2(E)	48	#8	8'-7"	⊃
n_3(E)	6	#6	5'-9"	⊃
p_2(E)	3	#9	45'-4"	—
p_3(E)	5	#9	39'-0"	—
p_4(E)	10	#7	6'-10"	⌒
s_2(E)	94	#4	11'-9"	⊡
s_3(E)	32	#5	7'-2"	⊔
s_4(E)	37	#5	12'-6"	⊔
s_5(E)	37	#5	13'-2"	⊔
*sp(E)	4	#4	13'-11"	∿∿∿
t(E)	41	#5	8'-8"	—
t_1(E)	41	#6	8'-8"	—
u_2(E)	28	#6	9'-2"	⊃
v_6(E)	48	#8	14'-9"	—
v_7(E)	6	#6	8'-5"	—
w(E)	19	#5	40'-2"	—
Structure Excavation		Cu. Yd.	102	
Concrete Structures		Cu. Yd.	91.3	
Reinforcement Bars, Epoxy Coated		Lbs.	10,900	
Furnishing Metal Shell Piles, 12"		Foot	169	
Driving Piles		Foot	169	
Test Pile, Metal Shell		Each	1	

NOTES:

Reinforcement Bars designated (E) shall be epoxy coated.

*Length of spiral = 285'. No allowance for lap Min. Spiral lap 1½ turns.

Space Reinforcement in cap to miss anchor bolts.

All edges shall have standard ¾" chamfer except as noted.

Pour steps monolithically with cap.

PILE DATA:

Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 13'
No. Production Piles: 13
No. Test Piles: 1

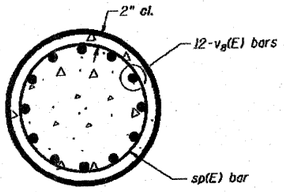
MIN. LAP	
SIZE	LAP
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"

PIER #1
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

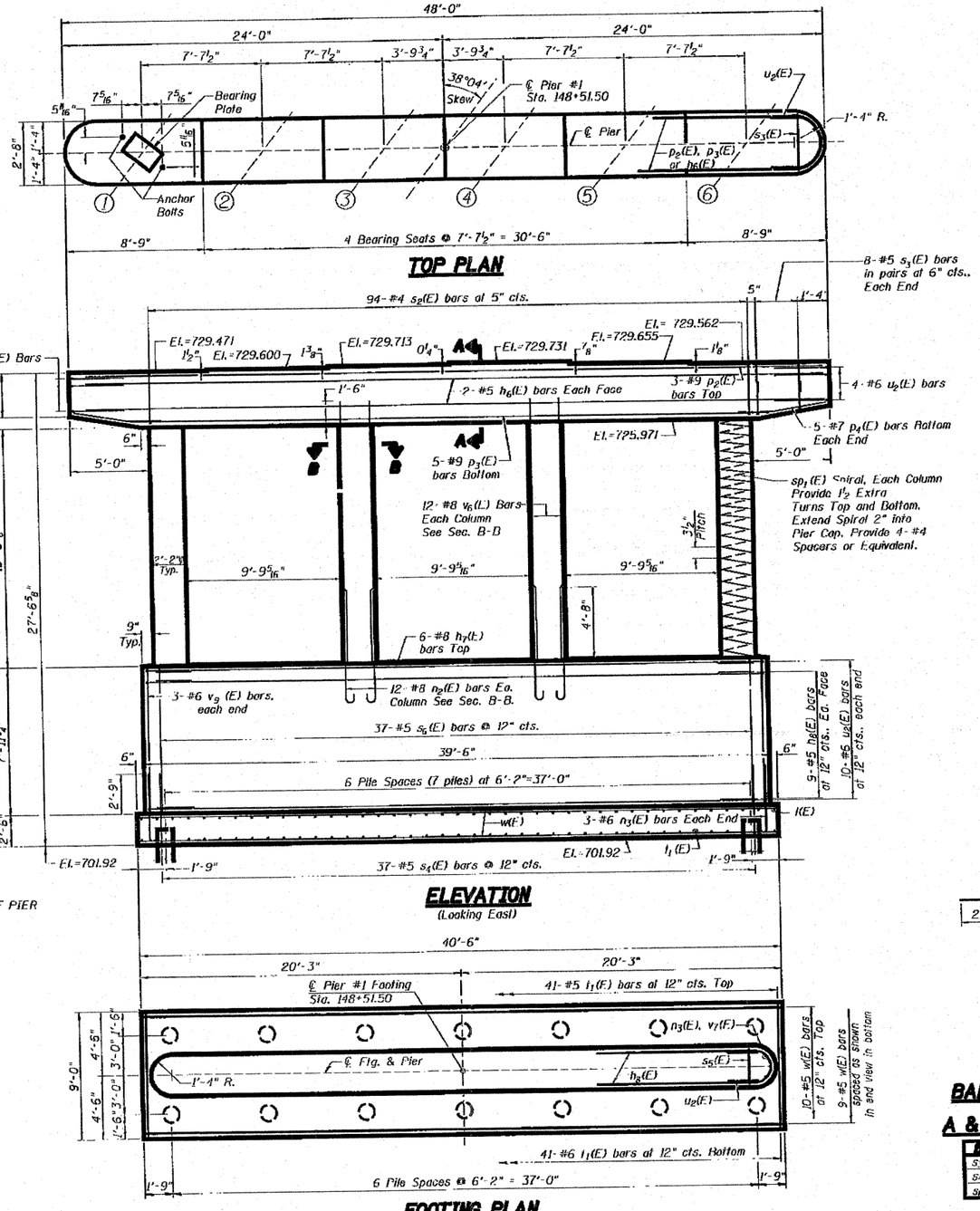
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.1124PIERS.DGN WHA # 1124D04

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(751)		

Structural Sheet 17A of 22A



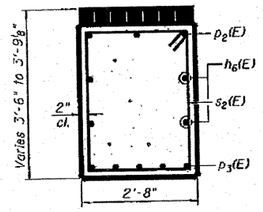
SEC. B-B



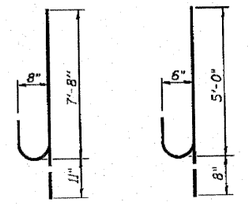
PILE DATA:

Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 15'
No. Production Piles: 13
No. Test Piles: 1

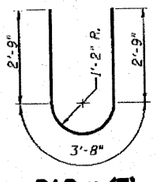
LAP	
SIZE	LAP
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"



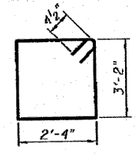
SEC. A-A



BAR h_8(E) **BAR h_9(F)**

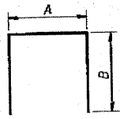


BAR u_3(E)



BAR s_8(E)

BAR D_4(E)



BARS s_9(E)-s_{11}(E)

A & B DIMENSIONS

BAR	A	B
s_9(E)	2'-4"	2'-5"
s_{10}(E)	2'-4"	5'-0"
s_{11}(E)	2'-4"	7'-7"

BILL OF MATERIAL-PIER #2

Bar	No.	Size	Length	Shape
h_6(E)	4	#5	45'-4"	
h_7(E)	6	#8	36'-10"	
h_8(E)	18	#5	36'-10"	
n_2(E)	48	#8	8'-7"	
n_3(E)	6	#6	5'-9"	
p_2(E)	3	#9	45'-4"	
p_3(E)	5	#9	39'-0"	
p_4(E)	10	#7	6'-10"	
s_2(E)	94	#4	11'-9"	
s_3(E)	32	#5	7'-2"	
s_4(E)	37	#5	12'-6"	
s_5(E)	37	#5	17'-6"	
*sp_1(E)	4	#4	13'-11"	
1(F)	41	#5	8'-8"	
f_1(F)	41	#6	8'-8"	
u_2(E)	28	#6	9'-2"	
v_8(L)	48	#8	15'-0"	
v_9(E)	6	#6	7'-7"	
w(E)	19	#5	40'-2"	
Structure Excavation			Cu. Yd.	102
Concrete Structures			Cu. Yd.	88.2
Reinforcement Bars, Epoxy Coated			Lbs.	10,860
Furnishing Metal Shell Piles, 12"			Foot	195
Driving Piles			Foot	195
Test Pile, Metal Shell			Each	1

NOTES:

Reinforcement Bars designated (E) shall be epoxy coated.
* Length of spiral = 285'. No allowance for lap Min. Spiral lap 1½ turns.
Space Reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfer except as noted.
Pour steps monolithically with cap.

PIER #2
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.1124PIERS.DGN WHA # 1124D04

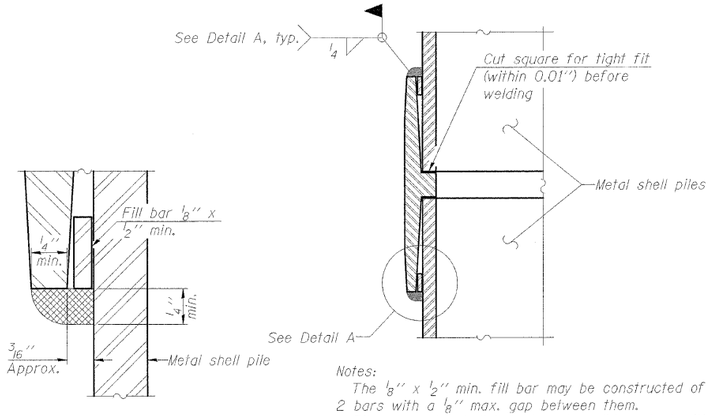
85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 18A of 22A

METAL SHELL PILE TABLE

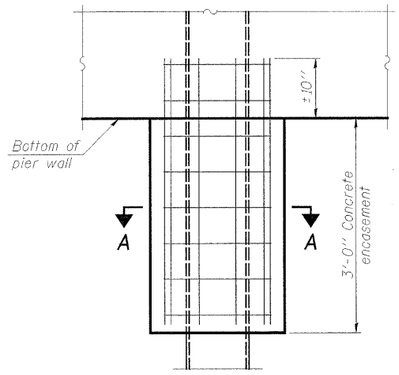
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd^3/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



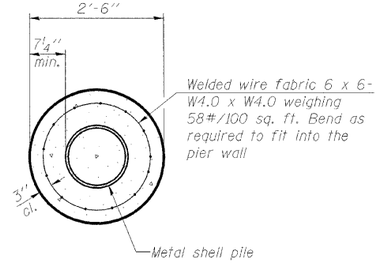
DETAIL A

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



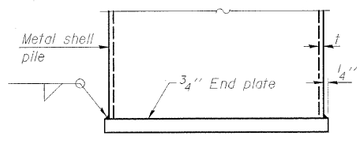
ELEVATION



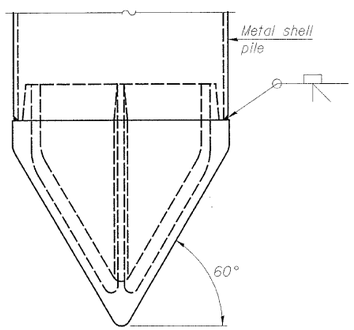
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



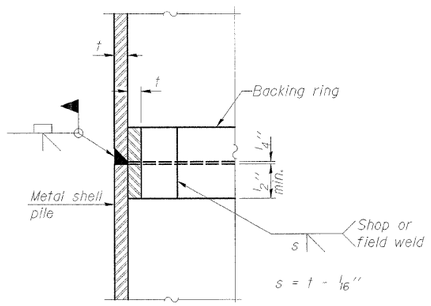
END PLATE ATTACHMENT



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.

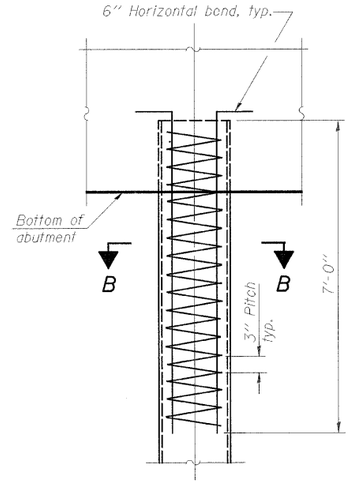
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

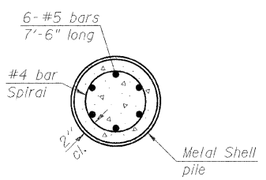


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

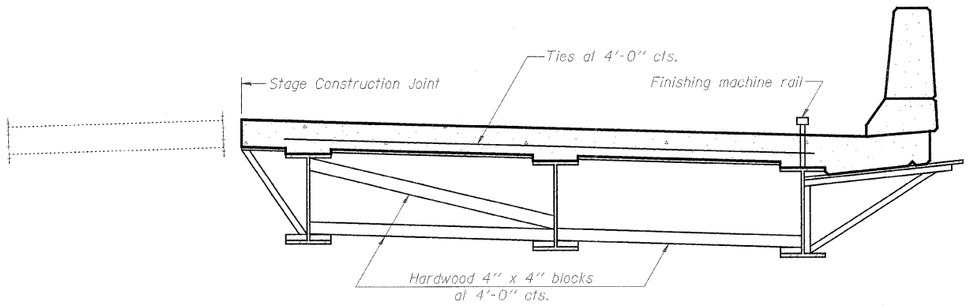
Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

METAL SHELL PILE DETAILS
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

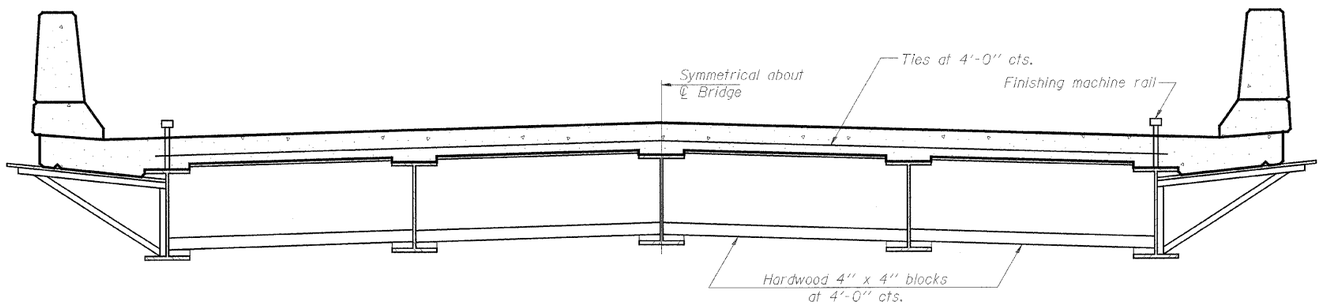
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.METALSHELLPILES.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 19A of 22A



FORM BRACES FOR STAGE CONSTRUCTION
(NOT APPLICABLE)



FORM BRACES FOR STANDARD CONSTRUCTION

NOTES:

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

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

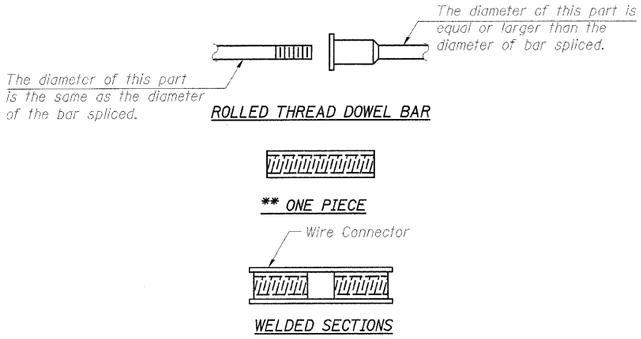
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

CANTILEVER FORMING BRACKETS
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

85432

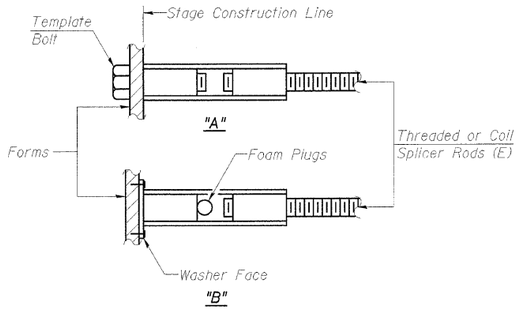
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B.R.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(757)		

Structural Sheet 20A of 22A



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

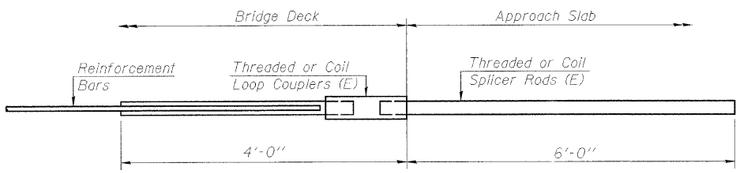
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = 1.25 x fy x A_t
② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

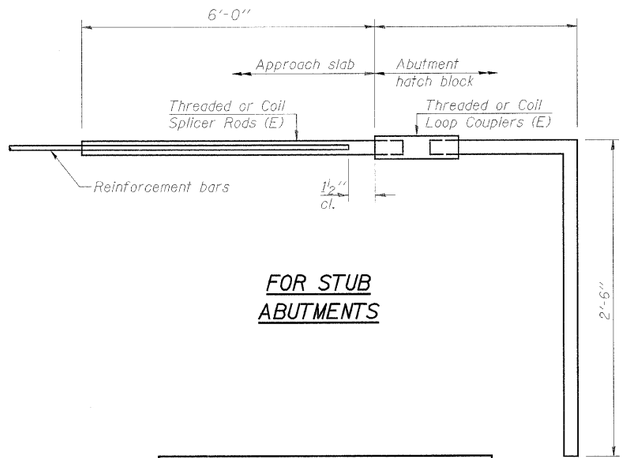
BAR SPLICER ASSEMBLIES

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



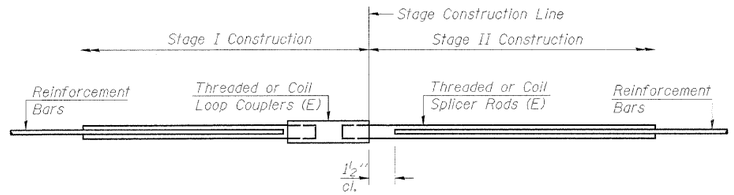
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 66



STANDARD

Bar Size	No. Assemblies Required	Location

BAR SPLICER ASSEMBLY DETAILS
BELTLINE ROAD OVER ILLINOIS RAILNET
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.BARSPLICERS.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	45

FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)

Structural Sheet 21A of 22A

…IS DEPARTMENT OF TRANSPORTATION
…rict Two Materials
S.W. Rockford - N. 1/2 Sec. 26 - T43N, R1E.
Crown Elev. @ Center of Bridge - 100.0

Bridge Foundation Boring Log
Sh. 1 of 2

PROJECT P92-097-92 BRIDGE Beltline Rd. over B. N. R. R. Date 04/22/93
ROUTE FAU 5103 Bored By C. Jenkins
SEC. 1 BR-3 & 1 VER STA. 148 + 18 Checked By T. Bratt
COUNTY Winnebago

Boring No. B-3
Sta 149+36
O/S 7' Rt. C.L.

Surf Wat El. None
Grndwater El. at Compl Wash
At ____ Hrs ____

Description	El.	N	Qu t/sf	W %
Ground Surface 100.2	0			
Asphalt & Conc. MEDIUM tan fine to medium SAND				
MEDIUM, tan/brown fine to medium SAND		10 10 10		
MEDIUM, tan fine to medium SAND	-5	8 10 11		
Same as above		9 8 7		
MEDIUM, tan/brown fine to medium SAND	-10	5 8 7		
Same as above:		8 7 8		
Same as above:	-15	15 14 15		
DENSE, tan/orange medium SAND		12 15 23		
MEDIUM, tan/brown fine to medium SAND	-20	9 12 12		
next column				

Description	El.	N	Qu t/sf	W %
MEDIUM brown medium SAND with some GRAVEL		5 6 15		
R.R. Tie Elev. - 74.6 VERY DENSE tan SAND & GRAVEL	-25	29 32 41		
DENSE tan SAND & GRAVEL		19 20 22		
Same as above:	-30	18 25 19		
First Encounter Same as above:	V	13 19 23		
	-35			
Same as above:		13 18 22		
	-40			
MEDIUM, tan SAND & GRAVEL		17 12 8		

140# Hammer, 30" Fall (Type Fail B-Bulge S-Shear E-Estimated P-Penetrometer)

Project P92-097-92
Route FAU 5103
Sec. 1 BR-3 & 1 VER
County Winnebago

Sh. 2 of 2

Boring No. B-3
Sta 149 + 36
O/S 7' Rt. C.L.

Description	El.	N	Qu t/sf	W %
	-45			
Begin Wash DENSE, tan SAND & GRAVEL		14 18 23		
	-50			
Same as above:		16 19 16		
	-55			
MEDIUM, tan SAND & GRAVEL with LIMESTONE fragments		24 10 11		
	-60			
DENSE, tan SAND & GRAVEL		15 15 19		
	-65			
Same as above:		29 16 14		
END OF BORING	-70			

El.	N	Qu t/sf
-70		
-75		
-80		
-85		
-90		

…IS DEPARTMENT OF TRANSPORTATION
…rict Two Materials
S.W. Rockford - N. 1/2 Sec. 26 - T43N, R1E.
Crown Elev. @ Center of Bridge - 100.0

Bridge Foundation Boring Log
Sh. 1 of 2

PROJECT P92-097-92 BRIDGE Beltline Rd. over B. N. R. R. Date 04/26/93
ROUTE FAU 5103 Bored By C. Jenkins
SEC. 1 BR-3 & 1 VER STA. 148 + 18 Checked By T. Bratt
COUNTY Winnebago

Boring No. B-4
Sta 147 + 93
O/S 8' LT. C.L.

Surf Wat El. None
Grndwater El. at Compl Wash
At ____ Hrs ____

Description	El.	N	Qu t/sf	W %
Ground Surface 99.1	0			
Asphalt & concrete STIFF brown SILTY CLAY			1.1 P	15
MEDIUM, brown SAND & GRAVEL		9 8 9		
MEDIUM, tan SAND & GRAVEL	-5	8 5 5		
Same as above:		11 13 12		
MEDIUM, tan SAND & GRAVEL	-10	10 9 7		
Same as above:		3 7 10		
DENSE, tan SAND & GRAVEL with SILT lense	-15	14 12 23		
DENSE, tan SAND & GRAVEL		13 21 28		
DENSE, tan SAND & GRAVEL with a SANDY LOAM lense	-20	13 21 17		
next column				

Description	El.	N	Qu t/sf	W %
MEDIUM, DIRTY brown SAND with a SANDY LOAM lense		8 11 10		
R.R. Tie Elev. - 74.6 Same as above:	-25	6 11 17		
DENSE, tan SAND & GRAVEL		20 20 22		
Same as above:	-30	17 17 19		
Same as above:		11 20 21		
	-35			
First Encounter: Same as above:	V	15 20 20		
	-40			
Same as above:		13 16 21		
	-45			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail B-Bulge S-Shear E-Estimated P-Penetrometer)

Project P92-097-92
Route FAU 5103
Sec. 1 BR-3 & 1 VER
County Winnebago

Sh. 2 of 2

Boring No. B-4
Sta 147 + 93
O/S 8' Lt. C.L.

Description	El.	N	Qu t/sf	W %
	-45			
Begin Wash MEDIUM, tan SAND & GRAVEL		14 14 10		
	-50			
VERY DENSE, tan SAND & GRAVEL		15 25 27		
	-55			
DENSE, tan SAND & GRAVEL with LIMESTONE fragments		25 20 15		
	-60			
Same as above:		14 17 28		
END OF BORING	-65			
	-70			

El.	N	Qu t/sf
-70		
-75		
-80		
-85		
-90		
-95		

SOIL BORINGS
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 22A of 22A

...S DEPARTMENT OF TRANSPORTATION
...rict Two Materials
S.W. Rockford - N. 1/2 Sec. 26 - T43N, R1E.
Crown Elev. @ Center of Bridge - 100.0

Bridge Foundation Boring Log

Sh. 1 of 2

PROJECT P92-097-92 BRIDGE Beltline Rd. over B. N. R. R. Date 04/12/93

ROUTE FAU 5103 Bored By K. Pax

SEC. 1 BR-3 & 1 VBR STA. 148 + 18 Checked By T. Bratt

COUNTY Winnebago

Boring No. B-1
Sta 148 + 49
O/S 31' Lt C.L.

Surf Wat El. None
Grndwater El. at Compl Wash
At ____ Hrs ____

Description	El.	N	Qu t/sf	W %
Ground Surface 77.5	0			
MEDIUM, black SILTY LOAM w/fine SAND.			.5 P	18
R.R. Tie Elev. - 74.6				
MEDIUM, redish, brown (rusty) dirty river SAND & GRAVEL		4 5 6		
	-5			
MEDIUM, tan river SAND & GRAVEL		10 11 12		
MEDIUM, tan river SAND & GRAVEL		12 12 11		
	-10			
DENSE, tan river SAND & GRAVEL		11 18 18		
DENSE, tan river SAND & GRAVEL		15 20 19		
	-15			
First Encounter	V			
VERY DENSE, tan river SAND & GRAVEL		16 24 30		
	-20			
MEDIUM tan river SAND & GRAVEL		6 6 6		
	-25			
DENSE, tan river SAND & GRAVEL		7 14 21		
	-30			
DENSE, tan river SAND & GRAVEL		11 15 16		
	-35			
DENSE, tan river SAND & GRAVEL		16 19 20		
	-40			
MEDIUM, tan river SAND & GRAVEL		17 14 9		
	-45			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail ...

Project P92-097-92
Route FAU 5103
Sec. 1 BR-3 & 1 VBR
County Winnebago

Sh. 2 of 2

Boring No. B-1
Sta 148 + 49
O/S 31' Lt. C.L.

Description	El.	N	Qu t/sf	W %
	-45			
VERY DENSE tan river SAND & GRAVEL		31 30 44		
END OF BORING				
	-50			
	-55			
	-60			
	-65			
	-70			
	-75			
	-80			
	-85			
	-90			
	-95			

...S DEPARTMENT OF TRANSPORTATION
...rict Two Materials
S.W. Rockford - N. 1/2 Sec. 26 - T43N, R1E.
Crown Elev. @ Center of Bridge - 100.0

Bridge Foundation Boring Log

Sh. 1 of 1

PROJECT P92-097-92 BRIDGE Beltline Rd. over B. N. R. R. Date 04/20/93

ROUTE FAU 5103 Bored By K. Pax

SEC. 1 BR-3 & 1 VBR STA. 148 + 18 Checked By T. Bratt

COUNTY Winnebago

Boring No. B-2
Sta 147 + 94
O/S 28' Rt. C.L.

Surf Wat El. None
Grndwater El. at Compl Wash
At ____ Hrs ____

Description	El.	N	Qu t/sf	W %
Ground Surface 77.2	0			
MEDIUM, brownish, black SILTY LOAM w/ FINE SAND			.5 P	19
R.R. Tie Elev. - 74.8				
MEDIUM tan dirty SAND & GRAVEL		6 12 13		
	-5			
MEDIUM tan river SAND & GRAVEL		12 14 16		
MEDIUM tan river SAND & GRAVEL		12 13 15		
	-10			
VERY DENSE tan river SAND & GRAVEL		21 33 23		
	-15			
First Encounter	V			
VERY DENSE tan river SAND & GRAVEL		100 in 10"		
	-20			
MEDIUM, tan river SAND & GRAVEL		13 11 7		
	-25			
DENSE, tan river SAND & GRAVEL		18 17 18		
	-30			
DENSE, tan river SAND & GRAVEL		23 20 20		
	-35			
DENSE, tan river SAND & GRAVEL		20 23 25		
END OF BORING	-40			
	-45			

N-Std Pentr Test: 2" OD Sampler,

SOIL BORINGS
BELTLINE ROAD OVER ILLINOIS RAILNET
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 148+18.00 (S.N. 101-0172)

S.STRUCT.1124D04BNSFRAIL BRIDGE DRAWINGS.1124SOILBORINGS.DGN WHA # 1124D04

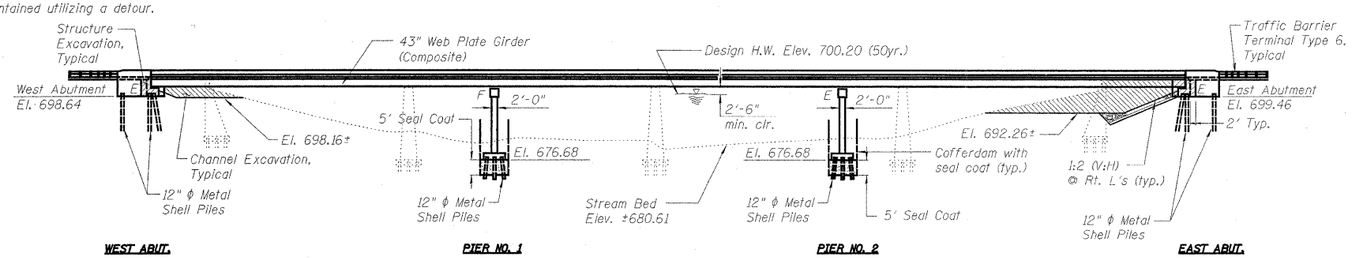
85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 5154	04-00343-00-BR	WINNEBAGO	92	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

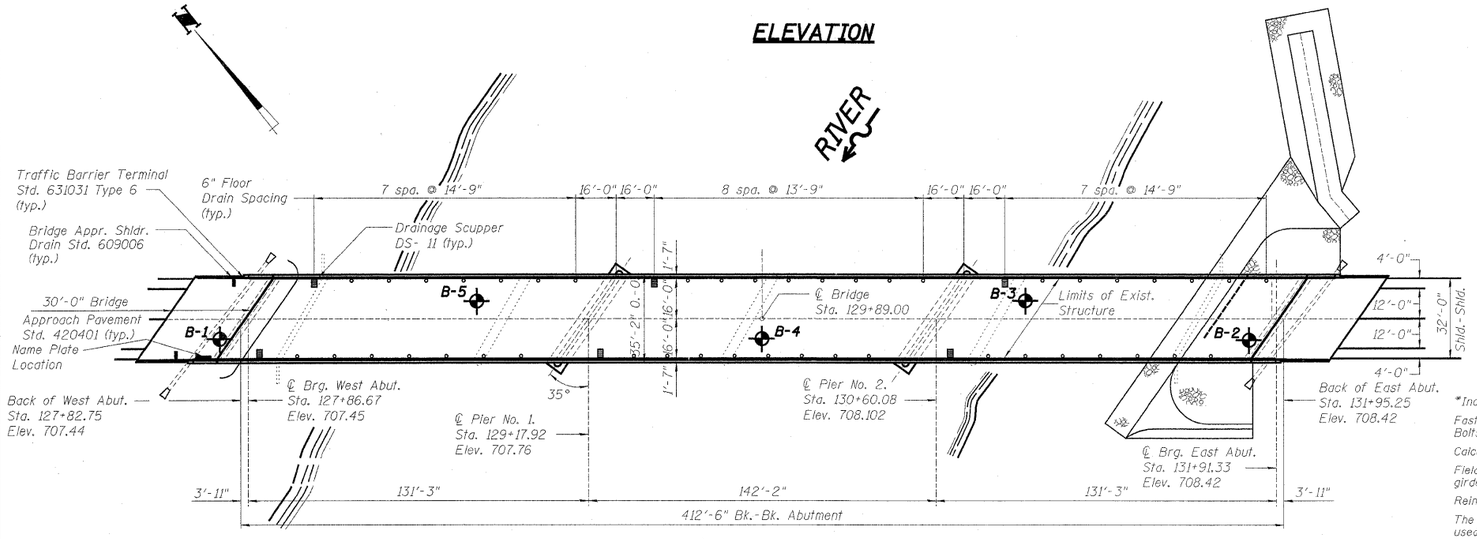
Structural Sheet 1B of 21B

EXISTING STRUCTURE: NO. 101-0026
A four span Steel Beam and RC Deck Bridge on Concrete Stub Abutments and Concrete Piers at Sta. 129+84, Skewed 35° Lt. Ahead.
Traffic to be maintained utilizing a detour.
No Salvage.

BENCH MARK: Cut square on S.E. bridge headwall, Elevation 707.58'

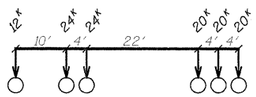


ELEVATION



PLAN

KISHWAUKEE



120ᵏ PERMIT TRUCK CONFIGURATION

BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUB	SUPER	TOTAL
Channel Excavation	Cu. Yd.	1,960	———	1,960
Porous Granular Embankment	Cu. Yd.	115	———	115
Stone Riprap, Class A5	Sq. Yd.	1,244	———	1,244
Filter Fabric	Sq. Yd.	1,244	———	1,244
Removal of Existing Structures	Each	1	———	1
Structure Excavation	Cu. Yd.	364	———	364
Cofferdam Excavation	Cu. Yd.	584	———	584
Cofferdams	Each	2	———	2
Floor Drains	Each	———	44	44
Concrete Structures	Cu. Yd.	372.2	———	372.2
Concrete Superstructure	Cu. Yd.	———	463.7	463.7
Bridge Deck Grooving	Sq. Yd.	———	1,357	1,357
Seal Coat Concrete	Cu. Yd.	326.7	———	326.7
*Protective Coat	Sq. Yd.	———	2,030	2,030
Furnishing and Erecting Structural Steel	L. Sum	———	0.8	0.8
Stud Shear Connectors	Each	———	6,840	6,840
Reinforcement Bars, Epoxy Coated	Pound	37,960	105,370	143,330
Bar Splicers	Each	66	———	66
Furnishing Metal Shell Piles 12"	Foot	3,488	———	3,488
Driving Piles	Foot	3,488	———	3,488
Test Pile Metal Shells	Each	4	———	4
Name Plates	Each	———	1	1
Preformed Joint Strip Seal	Foot	———	82.5	82.5
Elastomeric Bearing Assembly, Type I	Each	———	6	6
Elastomeric Bearing Assembly, Type II	Each	———	6	6
Anchor Bolts, 1¼"	Each	———	72	72
Concrete Sealer	Sq. Ft.	238	———	238
Geocomposite Wall Drain	Sq. Yd.	64	———	64
Concrete Headwalls for Pipe Drains	Each	4	———	4
Pipe Underdrains for Structures 4"	Foot	160	———	160
Permanent Survey Markers	Each	———	1	1
Drainage Scuppers, DS-11	Each	———	6	6
Floating Bearings, Guided Expansion - 250K	Each	———	6	6

*Includes Deck, Approach Pavement and Top & Inside Face of Parapet Only.

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts ⅞" ϕ, holes ¹⁵/₁₆" ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 633,300 Pounds

Field welding of construction accessories will not be permitted to beams or girders.

Reinforcement bars designated (E) shall be epoxy coated.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. 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 gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

Anchor bolts shall be set before bolting diaphragms over supports.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60 (IL. Modified). See Special Provisions.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8 " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. (For Type I Elastomeric Bearings, two 1/8 " adjusting shims shall be provided for each bearing and placed as detailed).

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Concrete Sealer shall be applied to the seal area of the East and West Abutments.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All construction joints shall be bonded.

Layout of the Slope Protection System may be varied in the field to suit ground conditions as directed by the engineer.

COMMITMENTS

The Kishwaukee River is a Class 1 stream listed on the Illinois Natural Areas Inventory, is listed in the National Park Service's Nationwide Rivers Inventory, and is on the INHS list of Biological Significant Streams. Therefore, instream work must be minimized whenever possible.

The piers for the Kishwaukee River bridge will be built with cofferdams to minimize siltation. Drilled shafts will not be used.

The existing bridge shall be dismantled by saw-cutting the structure and removing it a piece at a time without dropping it into the water. This will minimize any debris from falling into the river during the removal process. No explosives will be used during the demolition process.

Any asphalt base on the bridge shall be removed by a technique that would prevent this material from discharge into the river.

A causeway will not be permitted. A tramway may be used to provide access to the new structure.

Time and work in the stream shall be minimized.

After construction is completed, all trace of the existing bridge, equipment, and construction materials shall be removed from the river and the bridge site.

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

WATERWAY INFORMATION

Drainage Area = 1099 mi² Low Grade Elev.=701.6 ft. @ Sta. 119+50

Flood	Freq. Yr.	Q ft³/s	Opening ft² Exist.	Opening ft² Prop.	Nat. H.W.E. ft	Head - ft Exist.	Head - ft Prop.	Headwater Elev. - ft Exist.	Headwater Elev. - ft Prop.
Design	50	26027	3757	3929	700.2	0.1	0.03	700.3	700.2
Base	100	31112	3940	4144	700.9	0.1	0.03	701.0	701.0
Overtopping	200±	35314	4080	4306	701.5	0.2	0.03	701.7	701.5
Max. Calc.	500	44426	-	-	-	-	-	-	-

DESIGN SPECIFICATIONS

Design in Accordance with 2002 AASHTO Specifications

LOADING HS20-44 & IDOT 120k PERMIT LOAD

Allow 50 lbs./ft.² for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (Reinf.)
f_y = 50,000 psi (M270 GRADE 50)

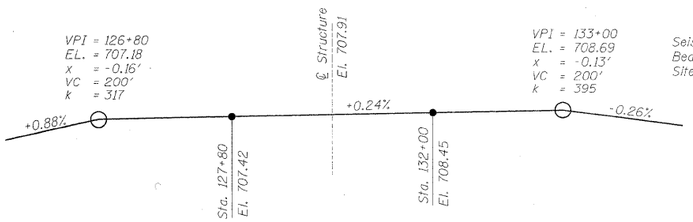
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.033
Site Coefficient (s) = 1.0

KISHWAUKEE RIVER
BUILT 2009 BY
WINNEBAGO COUNTY
SECTION 04-00343-00-BR
F.A.U. ROUTE 5154 STA. 129+89
LOADING HS20 & IDOT 120k PERMIT LOAD
STR. NO. 101-0171

NAME PLATE LETTERING

Refer To Std. 515001



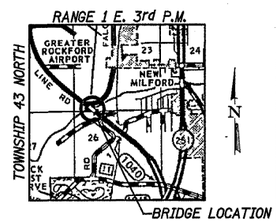
PROFILE GRADE

(along ℄ Roadway)

STATE OF ILLINOIS
BRIAN K. CONVERSE
061-005213
DIXON, IL
PROFESSIONAL STRUCTURAL ENGINEER

Brian K. Converse
DATE: 11/19/2008
EXPIRES 11/30/08

"I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge Design Is Structurally Adequate For The Design Loading Shown On The Plans, The Design Is An Economical One Complies With Requirements Of The Current 'AASHTO Standard Specifications For Highway Bridges'."



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

WILLETT, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture
809 East Second Street Dixon, Illinois 61021
Phone 815.284.3381 Fax 815.284.3385
Design Firm #184-000918
www.willetthofmann.com

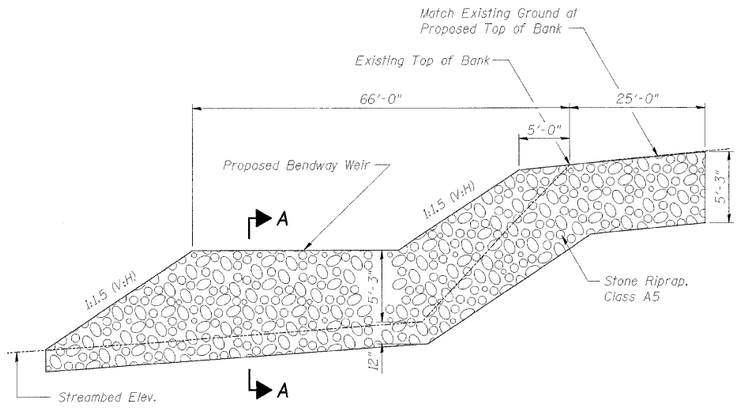
Designed By: M. R. Leslie Date: 10/05
Checked By: B. K. Converse Date: 10/05
Drawn By: R. D. Allen Date: 10/05

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124GPE.DGN WHA # 1124D04

85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 2B of 21B

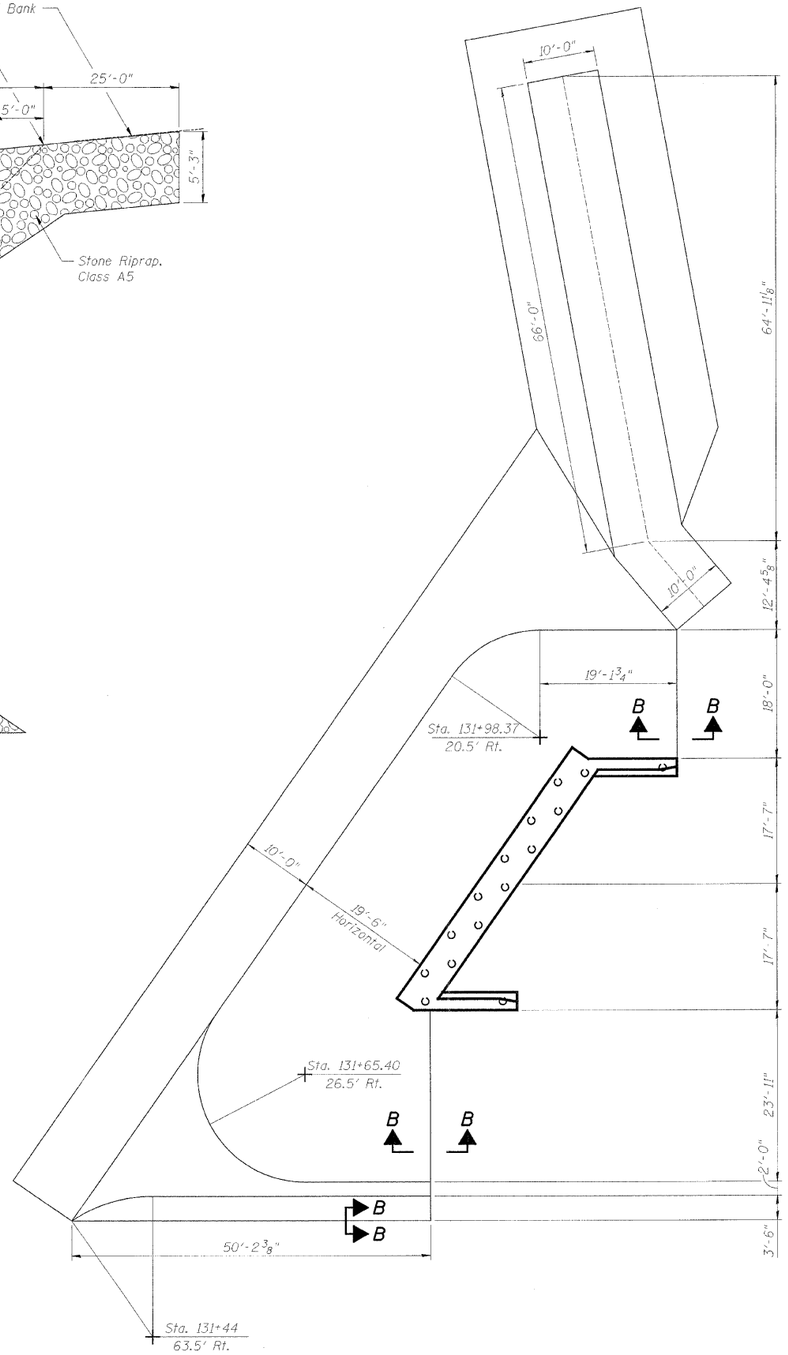


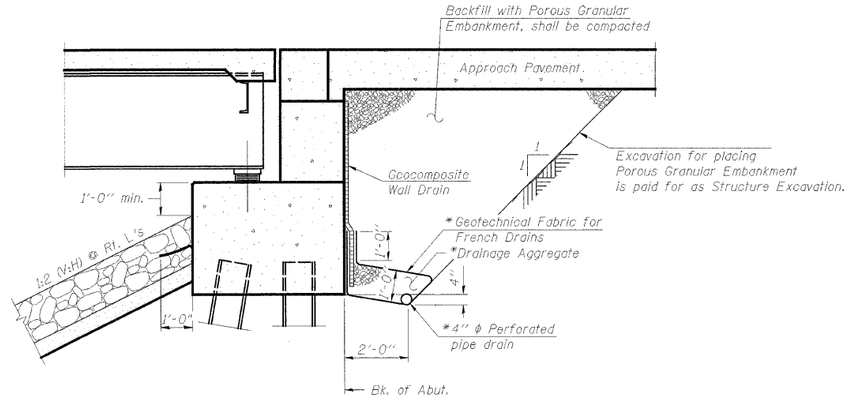
TYPICAL SECTION SOUTH BANK RIPRAP

(Dimensions at Rt. Angles)

SECTION A-A

(Dimensions at Rt. Angles)



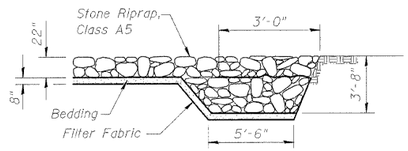


SECTION THRU PILE SUPPORTED STUB ABUTMENT

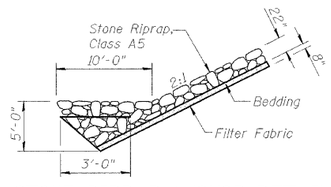
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

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



SEC B-B



STONE RIPRAP ANCHOR DETAIL

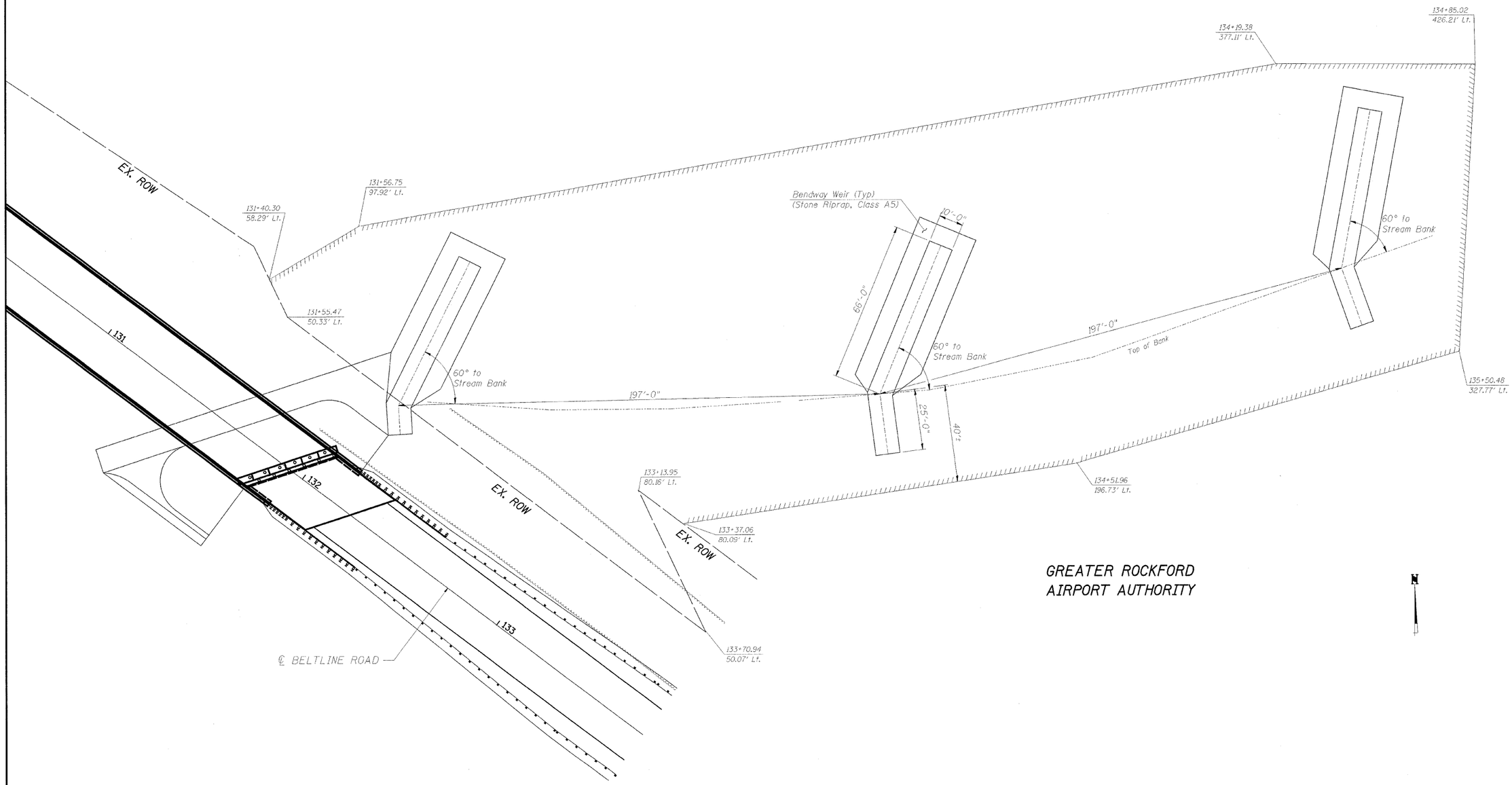
BILL OF MATERIAL

Item	Unit	Total
Stone Rip Rap Class A5	Sq. Yd.	1,244
Filter Fabric for use with Rip Rap	Sq. Yd.	1,244

SLOPEWALL LAYOUT
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

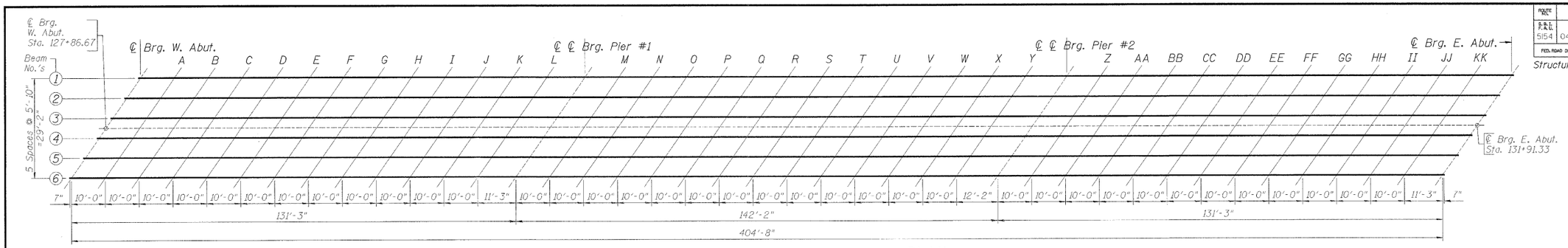
Structural Sheet 3B of 21B



SLOPEWALL LAYOUT
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 5154	04-00343-00-BR	WINNEBAGO	92	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 4B of 21B



BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	12796.881	14.583 Lt.	707.229	707.229
A	12806.881	14.583 Lt.	707.253	707.317
B	12816.881	14.583 Lt.	707.277	707.402
C	12826.881	14.583 Lt.	707.301	707.478
D	12836.881	14.583 Lt.	707.325	707.541
E	12846.881	14.583 Lt.	707.349	707.588
F	12856.881	14.583 Lt.	707.373	707.618
G	12866.881	14.583 Lt.	707.397	707.632
H	12876.881	14.583 Lt.	707.421	707.630
I	12886.881	14.583 Lt.	707.445	707.616
J	12896.881	14.583 Lt.	707.469	707.593
K	12906.881	14.583 Lt.	707.493	707.569
L	12916.881	14.583 Lt.	707.517	707.549
℄ Brg. Pier #1	12928.131	14.583 Lt.	707.544	707.544
M	12938.131	14.583 Lt.	707.568	707.565
N	12948.131	14.583 Lt.	707.592	707.603
O	12958.131	14.583 Lt.	707.616	707.651
P	12968.131	14.583 Lt.	707.640	707.701
Q	12978.131	14.583 Lt.	707.664	707.748
R	12988.131	14.583 Lt.	707.688	707.787
S	12998.131	14.583 Lt.	707.712	707.818
T	13008.131	14.583 Lt.	707.736	707.838
U	13018.131	14.583 Lt.	707.760	707.848
V	13028.131	14.583 Lt.	707.784	707.850
W	13038.131	14.583 Lt.	707.808	707.849
X	13048.131	14.583 Lt.	707.832	707.848
Y	13058.131	14.583 Lt.	707.856	707.855
℄ Brg. Pier #2	13070.291	14.583 Lt.	707.885	707.885
Z	13080.291	14.583 Lt.	707.909	707.936
AA	13090.291	14.583 Lt.	707.933	708.003
BB	13100.291	14.583 Lt.	707.957	708.075
CC	13110.291	14.583 Lt.	707.981	708.146
DD	13120.291	14.583 Lt.	708.005	708.210
EE	13130.291	14.583 Lt.	708.029	708.261
FF	13140.291	14.583 Lt.	708.053	708.298
GG	13150.291	14.583 Lt.	708.077	708.318
HH	13160.291	14.583 Lt.	708.101	708.320
II	13170.291	14.583 Lt.	708.125	708.307
JJ	13180.291	14.583 Lt.	708.149	708.281
KK	13190.291	14.583 Lt.	708.173	708.245
℄ Brg. E. Abut.	13201.541	14.583 Lt.	708.212	708.212

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	12792.796	8.75 Lt.	707.324	707.324
A	12802.796	8.75 Lt.	707.348	707.412
B	12812.796	8.75 Lt.	707.372	707.497
C	12822.796	8.75 Lt.	707.396	707.573
D	12832.796	8.75 Lt.	707.420	707.636
E	12842.796	8.75 Lt.	707.444	707.683
F	12852.796	8.75 Lt.	707.468	707.713
G	12862.796	8.75 Lt.	707.492	707.726
H	12872.796	8.75 Lt.	707.516	707.725
I	12882.796	8.75 Lt.	707.540	707.710
J	12892.796	8.75 Lt.	707.564	707.688
K	12902.796	8.75 Lt.	707.588	707.664
L	12912.796	8.75 Lt.	707.612	707.644
℄ Brg. Pier #1	12924.046	8.75 Lt.	707.639	707.639
M	12934.046	8.75 Lt.	707.663	707.660
N	12944.046	8.75 Lt.	707.687	707.698
O	12954.046	8.75 Lt.	707.711	707.746
P	12964.046	8.75 Lt.	707.735	707.796
Q	12974.046	8.75 Lt.	707.759	707.842
R	12984.046	8.75 Lt.	707.783	707.882
S	12994.046	8.75 Lt.	707.807	707.912
T	13004.046	8.75 Lt.	707.830	707.932
U	13014.046	8.75 Lt.	707.854	707.942
V	13024.046	8.75 Lt.	707.878	707.945
W	13034.046	8.75 Lt.	707.902	707.943
X	13044.046	8.75 Lt.	707.926	707.943
Y	13054.046	8.75 Lt.	707.950	707.950
℄ Brg. Pier #2	13066.206	8.75 Lt.	707.980	707.980
Z	13076.206	8.75 Lt.	708.004	708.031
AA	13086.206	8.75 Lt.	708.028	708.098
BB	13096.206	8.75 Lt.	708.052	708.170
CC	13106.206	8.75 Lt.	708.076	708.241
DD	13116.206	8.75 Lt.	708.100	708.304
EE	13126.206	8.75 Lt.	708.124	708.356
FF	13136.206	8.75 Lt.	708.148	708.393
GG	13146.206	8.75 Lt.	708.172	708.412
HH	13156.206	8.75 Lt.	708.196	708.415
II	13166.206	8.75 Lt.	708.220	708.402
JJ	13176.206	8.75 Lt.	708.244	708.376
KK	13186.206	8.75 Lt.	708.268	708.340
℄ Brg. E. Abut.	13197.456	8.75 Lt.	708.294	708.294

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	12780.543	8.75 Rt.	707.294	707.294
A	12790.543	8.75 Rt.	707.318	707.382
B	12800.543	8.75 Rt.	707.342	707.467
C	12810.543	8.75 Rt.	707.366	707.543
D	12820.543	8.75 Rt.	707.390	707.606
E	12830.543	8.75 Rt.	707.414	707.653
F	12840.543	8.75 Rt.	707.438	707.684
G	12850.543	8.75 Rt.	707.462	707.697
H	12860.543	8.75 Rt.	707.486	707.695
I	12870.543	8.75 Rt.	707.510	707.681
J	12880.543	8.75 Rt.	707.534	707.659
K	12890.543	8.75 Rt.	707.558	707.634
L	12900.543	8.75 Rt.	707.582	707.614
℄ Brg. Pier #1	12911.793	8.75 Rt.	707.609	707.609
M	12921.793	8.75 Rt.	707.633	707.630
N	12931.793	8.75 Rt.	707.657	707.669
O	12941.793	8.75 Rt.	707.681	707.716
P	12951.793	8.75 Rt.	707.705	707.766
Q	12961.793	8.75 Rt.	707.729	707.813
R	12971.793	8.75 Rt.	707.753	707.853
S	12981.793	8.75 Rt.	707.777	707.883
T	12991.793	8.75 Rt.	707.801	707.903
U	13001.793	8.75 Rt.	707.825	707.913
V	13011.793	8.75 Rt.	707.849	707.916
W	13021.793	8.75 Rt.	707.873	707.914
X	13031.793	8.75 Rt.	707.897	707.913
Y	13041.793	8.75 Rt.	707.921	707.920
℄ Brg. Pier #2	13053.953	8.75 Rt.	707.950	707.950
Z	13063.953	8.75 Rt.	707.974	708.002
AA	13073.953	8.75 Rt.	707.998	708.068
BB	13083.953	8.75 Rt.	708.022	708.140
CC	13093.953	8.75 Rt.	708.046	708.211
DD	13103.953	8.75 Rt.	708.070	708.275
EE	13113.953	8.75 Rt.	708.094	708.327
FF	13123.953	8.75 Rt.	708.118	708.363
GG	13133.953	8.75 Rt.	708.142	708.383
HH	13143.953	8.75 Rt.	708.166	708.386
II	13153.953	8.75 Rt.	708.190	708.373
JJ	13163.953	8.75 Rt.	708.214	708.346
KK	13173.953	8.75 Rt.	708.238	708.310
℄ Brg. E. Abut.	13185.203	8.75 Rt.	708.265	708.265

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	12776.458	14.583 Rt.	707.168	707.168
A	12786.458	14.583 Rt.	707.204	707.268
B	12796.458	14.583 Rt.	707.228	707.353
C	12806.458	14.583 Rt.	707.252	707.429
D	12816.458	14.583 Rt.	707.276	707.492
E	12826.458	14.583 Rt.	707.300	707.538
F	12836.458	14.583 Rt.	707.324	707.569
G	12846.458	14.583 Rt.	707.348	707.583
H	12856.458	14.583 Rt.	707.372	707.581
I	12866.458	14.583 Rt.	707.396	707.567
J	12876.458	14.583 Rt.	707.420	707.544
K	12886.458	14.583 Rt.	707.444	707.520
L	12896.458	14.583 Rt.	707.468	707.500
℄ Brg. Pier #1	12907.708	14.583 Rt.	707.495	707.495
M	12917.708	14.583 Rt.	707.519	707.516
N	12927.708	14.583 Rt.	707.543	707.554
O	12937.708	14.583 Rt.	707.567	707.602
P	12947.708	14.583 Rt.	707.591	707.652
Q	12957.708	14.583 Rt.	707.615	707.699
R	12967.708	14.583 Rt.	707.639	707.738
S	12977.708	14.583 Rt.	707.663	707.769
T	12987.708	14.583 Rt.	707.687	707.789
U	12997.708	14.583 Rt.	707.711	707.799
V	13007.708	14.583 Rt.	707.735	707.801
W	13017.708	14.583 Rt.	707.759	707.800
X	13027.708	14.583 Rt.	707.783	707.793
Y	13037.708	14.583 Rt.	707.807	707.806
℄ Brg. Pier #2	13049.868	14.583 Rt.	707.836	707.836
Z	13059.868	14.583 Rt.	707.860	707.887
AA	13069.868	14.583 Rt.	707.884	707.954
BB	13079.868	14.583 Rt.	707.908	708.026
CC	13089.868	14.583 Rt.	707.932	708.097
DD	13099.868	14.583 Rt.	707.956	708.161
EE	13109.868	14.583 Rt.	707.980	708.212
FF	13119.868	14.583 Rt.	708.004	708.249
GG	13129.868	14.583 Rt.	708.028	708.269
HH	13139.868	14.583 Rt.	708.052	708.271
II	13149.868	14.583 Rt.	708.076	708.258
JJ	13159.868	14.583 Rt.	708.100	708.232
KK	13169.868	14.583 Rt.	708.124	708.196
℄ Brg. E. Abut.	13181.118	14.583 Rt.	708.151	708.151

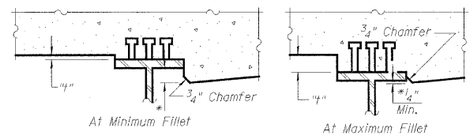
PLAN

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	12798.712	2.916 Lt.	707.405	707.405
A	12798.712	2.916 Lt.	707.429	707.493
B	12808.712	2.916 Lt.	707.453	707.578
C	12818.712	2.916 Lt.	707.477	707.654
D	12828.712	2.916 Lt.	707.501	707.717
E	12838.712	2.916 Lt.	707.525	707.764
F	12848.712	2.916 Lt.	707.549	707.794
G	12858.712	2.916 Lt.	707.573	707.808
H	12868.712	2.916 Lt.	707.597	707.806
I	12878.712	2.916 Lt.	707.621	707.792
J	12888.712	2.916 Lt.	707.645	707.769
K	12898.712	2.916 Lt.	707.669	707.745
L	12908.712	2.916 Lt.	707.693	707.725
℄ Brg. Pier #1	12919.962	2.916 Lt.	707.720	707.720
M	12929.962	2.916 Lt.	707.744	707.741
N	12939.962	2.916 Lt.	707.768	707.780
O	12949.962	2.916 Lt.	707.792	707.827
P	12959.962	2.916 Lt.	707.816	707.877
Q	12969.962	2.916 Lt.	707.840	707.924
R	12979.962	2.916 Lt.	707.864	707.963
S	12989.962	2.916 Lt.	707.888	707.994
T	12999.962	2.916 Lt.	707.912	708.014
U	13009.962	2.916 Lt.	707.936	708.024
V	13019.962	2.916 Lt.	707.960	708.026
W	13029.962	2.916 Lt.	707.984	708.025
X	13039.962	2.916 Lt.	708.008	708.024
Y	13049.962	2.916 Lt.	708.032	708.031
℄ Brg. Pier #2	13062.122	2.916 Lt.	708.061	708.061
Z	13072.122	2.916 Lt.	708.085	708.113
AA	13082.122	2.916 Lt.	708.109	708.179
BB	13092.122	2.916 Lt.	708.133	708.251
CC	13102.122	2.916 Lt.	708.157	708.322
DD	13112.122	2.916 Lt.	708.181	708.386
EE	13122.122	2.916 Lt.	708.205	708.437
FF	13132.122	2.916 Lt.	708.229	708.474
GG	13142.122	2.916 Lt.	708.253	708.494
HH	13152.122	2.916 Lt.	708.277	708.497
II	13162.122	2.916 Lt.	708.301	708.483
JJ	13172.122	2.916 Lt.	708.325	708.457
KK	13182.122	2.916 Lt.	708.349	708.421
℄ Brg. E. Abut.	13193.372	2.916 Lt.	708.376	708.376

BEAM 4

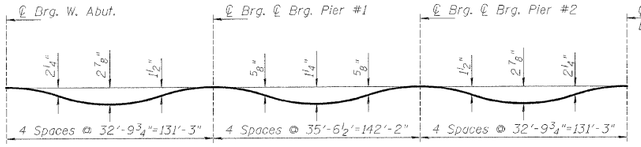
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	12784.627	2.916 Rt.	707.395	707.395
A	12794.627	2.916 Rt.	707.419	707.483
B	12804.627	2.916 Rt.	707.443	707.568
C	12814.627	2.916 Rt.	707.467	707.644
D	12824.627	2.916 Rt.	707.491	707.707
E	12834.627	2.916 Rt.	707.515	707.754
F	12844.627	2.916 Rt.	707.539	707.785
G	12854.627	2.916 Rt.	707.563	707.798
H	12864.627	2.916 Rt.	707.587	707.796
I	12874.627	2.916 Rt.	707.611	707.782
J	12884.627	2.916 Rt.	707.635	707.760
K	12894.627	2.916 Rt.	707.659	707.735
L	12904.627	2.916 Rt.	707.683	707.715
℄ Brg. Pier #1	12915.877	2.916 Rt.	707.710	707.710
M	12925.877	2.916 Rt.	707.734	707.731
N	12935.877	2.916 Rt.	707.758	707.770
O	12945.877	2.916 Rt.	707.782	707.817
P	12955.877	2.916 Rt.	707.806	707.867
Q	12965.877	2.916 Rt.	707.830	707.914
R	12975.877	2.916 Rt.	707.854	707.954
S	12985.877	2.916 Rt.	707.878	707.984
T	12995.877	2.916 Rt.	707.902	708.004
U	13005.877	2.916 Rt.	707.926	708.014
V	13015.877	2.916 Rt.	707.950	708.017
W	13025.877	2.916 Rt.	707.974	708.015
X	13035.877	2.916 Rt.	707.998	708.014
Y	13045.877	2.916 Rt.	708.022	708.021
℄ Brg. Pier #2	13058.037	2.916 Rt.	708.051	708.051
Z	13068.037	2.916 Rt.	708.075	708.103
AA	13078.037	2.916 Rt.	708.099	708.169
BB	13088.037	2.916 Rt.	708.123	708.241
CC	13098.037	2.916 Rt.	708.147	708.312
DD	13108.037	2.916 Rt.	708.171	708.376
EE	13118.037	2.916 Rt.	708.195	708.428
FF	13128.037	2.916 Rt.	708.219	708.464
GG	13138.037	2.916 Rt.	708.243	708.484
HH	13148.037	2.916 Rt.	708.267	708.487
II	13158.037	2.916 Rt.	708.291	708.474
JJ	13168.037	2.916 Rt.	708.315	708.447
KK	13178.037	2.916 Rt.	708.339	708.411
℄ Brg. E. Abut.	13189.287	2.916 Rt.	708.366	708.366



*Variable (not less than ¼")

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 below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab 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.

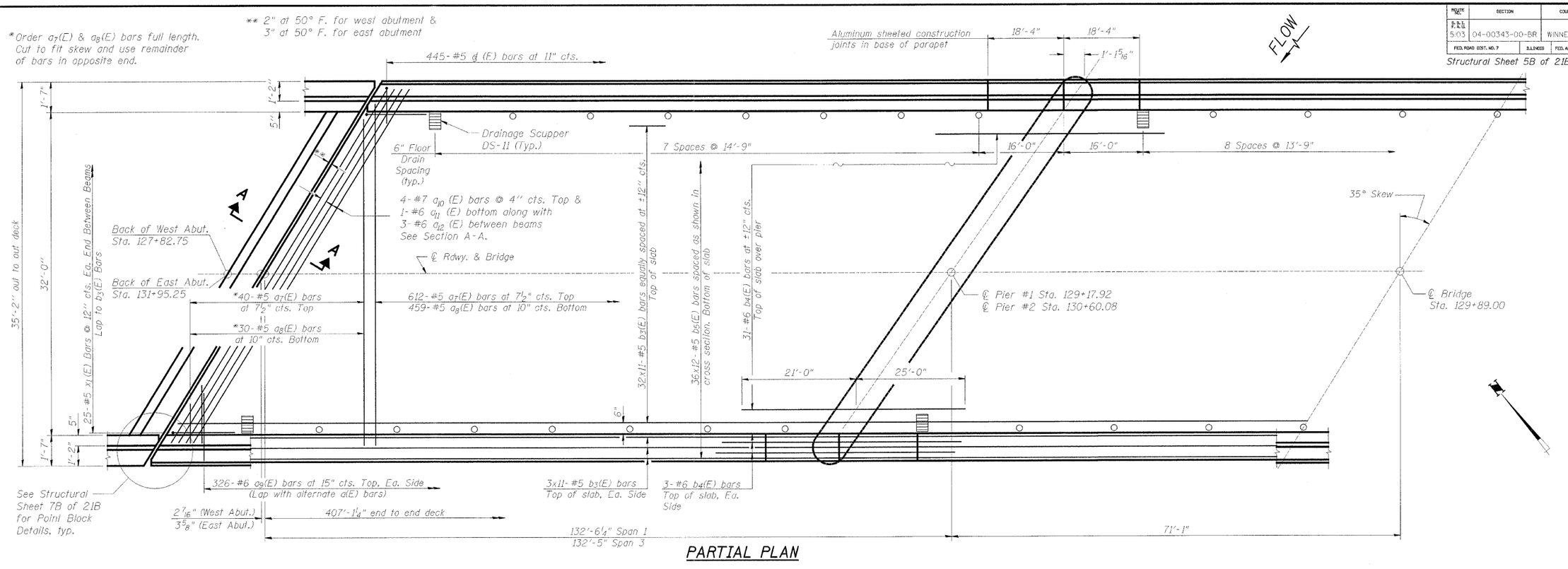
TOP OF SLAB ELEVATIONS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 5103	04-00343-00-BR	WINNEBAGO	92	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

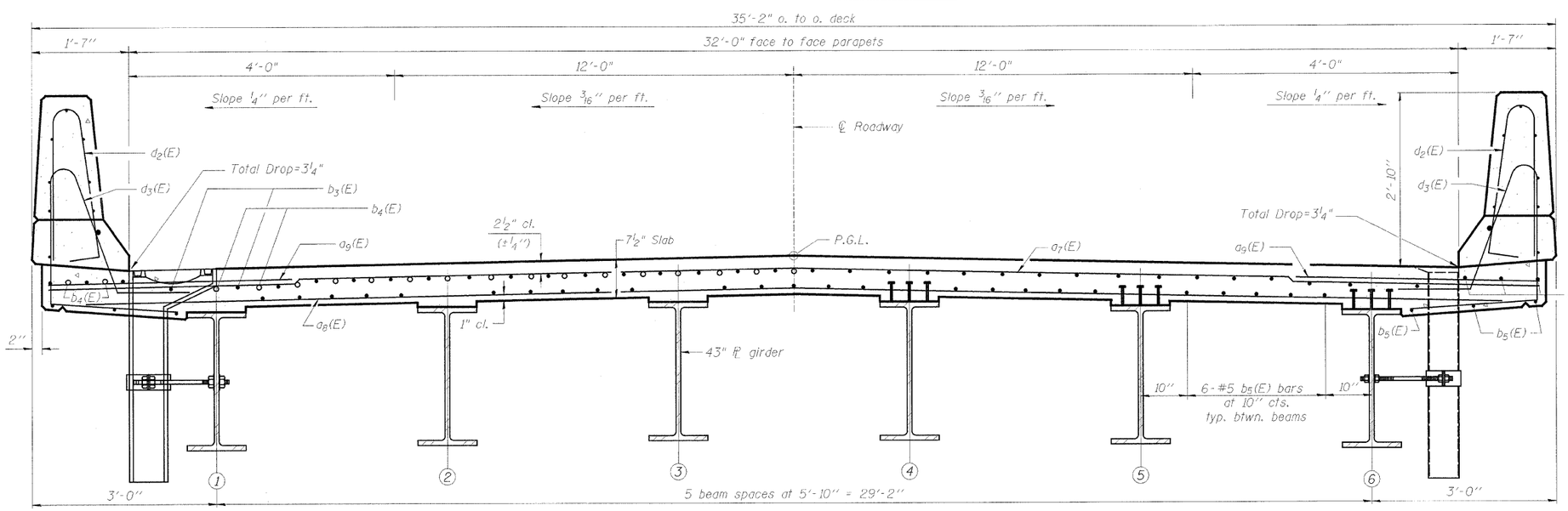
Structural Sheet 5B of 21B

*Order $a_7(E)$ & $a_8(E)$ bars full length. Cut to fit skew and use remainder of bars in opposite end.

** 2" at 50° F. for west abutment & 3" at 50° F. for east abutment



PARTIAL PLAN



NEAR PIER NEAR MIDSPAN

CROSS SECTION

(Looking East)

NOTES:

Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

See Structural Sheet 6B of 21B for Superstructure Details and Bill of Material.

See Structural Sheet 6B of 21B for parapet reinforcement.

See Structural Sheet 6B of 21B for Sect. A-A.

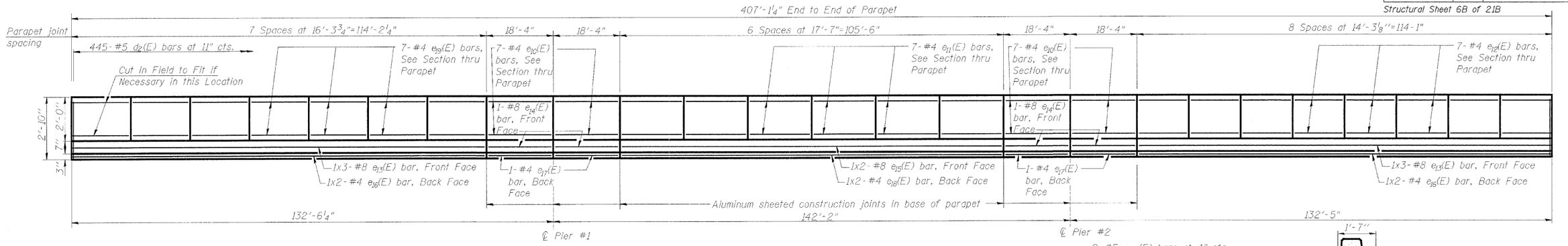
See General Plan and Elevation for location of Deck Drains in Span 3.

SUPERSTRUCTURE
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5103 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

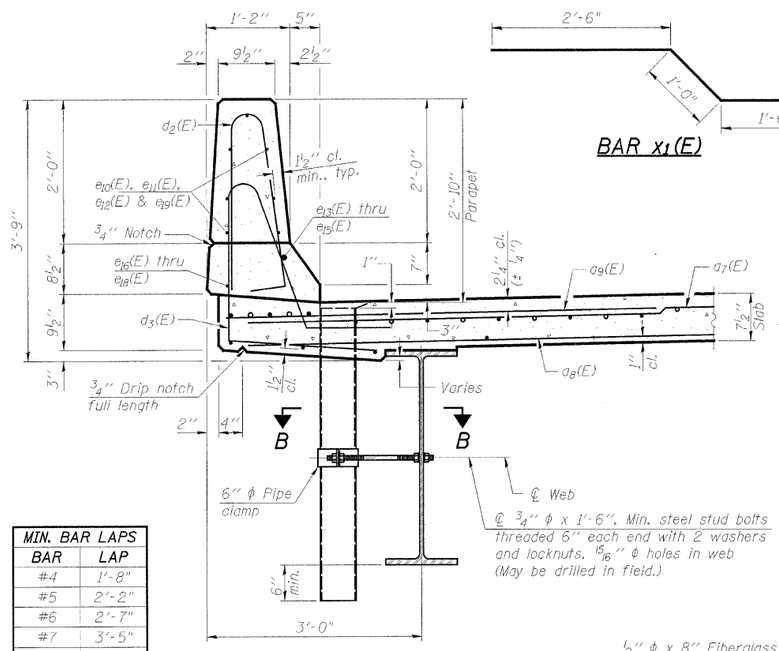
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.SUPERSTRUCTURE.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B.R.L. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	52
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 6B of 21B

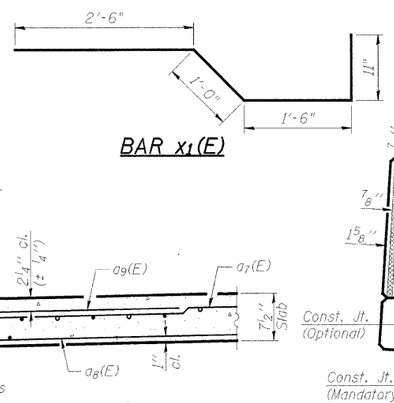


INSIDE ELEVATION OF PARAPET

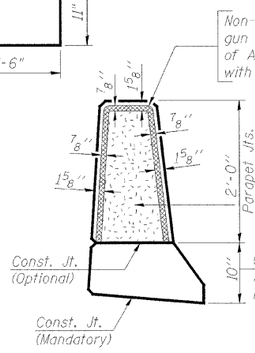


SECTION THRU PARAPET

MIN. BAR LAPS	
BAR	LAP
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"



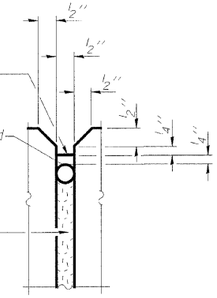
BAR x1(E)



Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a ⅝" backer rod.

½" Preformed Self-Expanding Cork Joint Filler according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

Const. Jts. at Piers ⅛" Aluminum sheet ASTM B 209 alloy 3003-H14. Cost included with Concrete Superstructure.

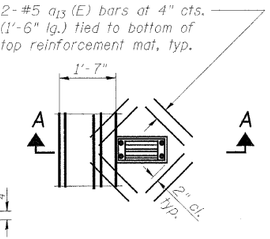


PARAPET JOINT DETAILS

Notes:

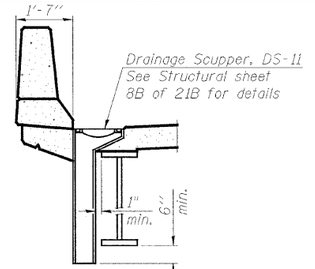
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.

Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

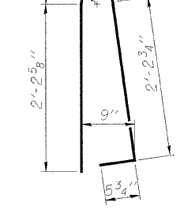


SECTION A-A

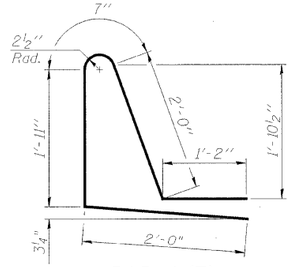
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7(E)	652	#5	34'-6"	
a8(E)	489	#5	33'-10"	
a9(E)	652	#6	6'-0"	
a10(E)	8	#7	42'-2"	
a11(E)	2	#6	42'-2"	
a12(E)	30	#6	8'-1"	
a13(E)	48	#5	1'-6"	
b3(E)	418	#5	39'-0"	
b4(E)	74	#6	46'-0"	
b5(E)	432	#5	36'-0"	
d2(E)	890	#5	5'-7"	
d3(E)	890	#5	7'-8"	
e9(E)	56	#4	18'-1"	
e11(E)	84	#4	17'-4"	
e12(E)	112	#4	14'-0"	
e13(E)	12	#8	40'-11"	
e14(E)	8	#8	18'-1"	
e15(E)	4	#8	54'-11"	
e16(E)	8	#4	57'-9"	
e17(E)	8	#4	18'-1"	
e18(E)	4	#4	53'-6"	
e19(E)	98	#4	16'-0"	
x1(E)	50	#5	5'-11"	
Reinforcement Bars, Epoxy Coated		Pound	105,370	
Concrete Superstructure		Cu. Yd.	463.7	

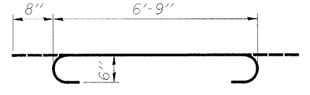
NOTE:
Reinforcement bars designated (E) shall be epoxy coated.



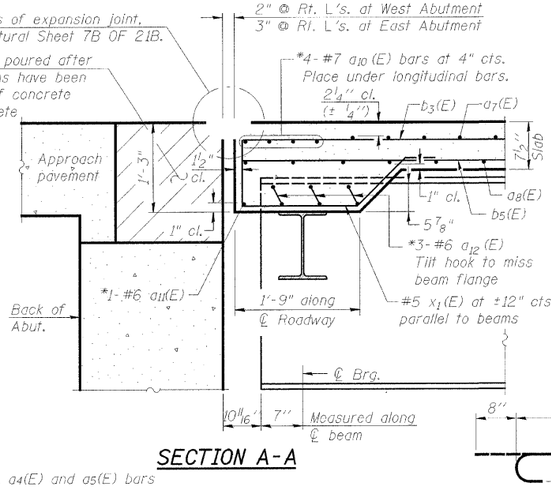
BAR d2(E)



BAR d3(E)

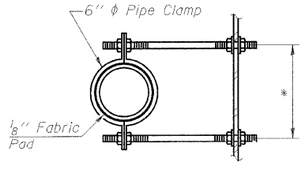


BAR a12(E)



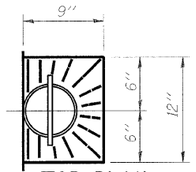
SECTION A-A

Note:
*a3(E), a4(E) and a5(E) bars placed along skew

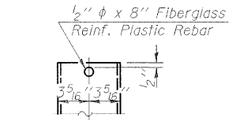


SECTION B-B

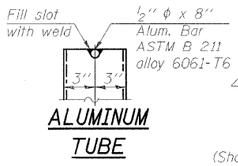
* Dimension as required by Pipe Clamp



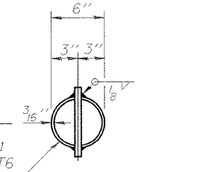
TOP PLAN



FIBERGLASS PIPE



ALUMINUM TUBE



TOP PLAN

(Showing Aluminum Tube)

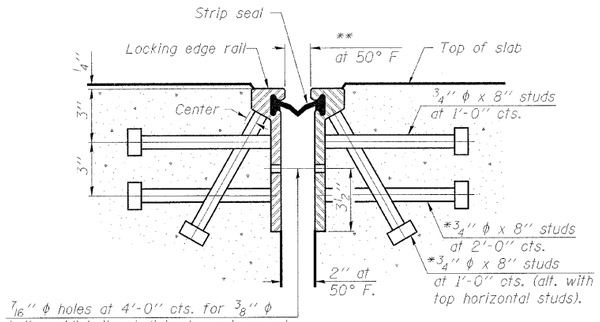
S.STRUCT.1124D04.BNSFRAIL.BRIDGE DRAWINGS.SUPERSTRUCTUREDETAILS.DGN WHA # 1124D04

SUPERSTRUCTURE DETAILS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

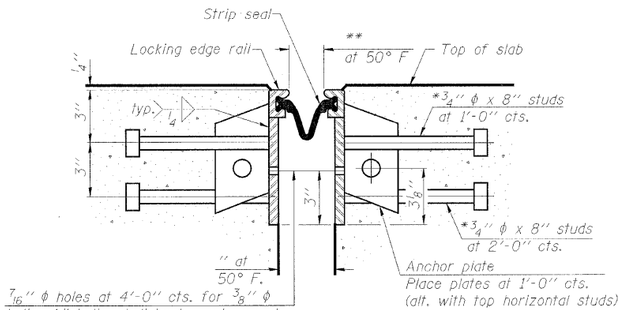
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.L. 5154	04-00343-00-BR	WINNEBAGO	92	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 7B of 21B

*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.
**When joint is fixed, dimension is set at 1½".



7/16" ϕ holes at 4'-0" cts. for ⅜" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



7/16" ϕ holes at 4'-0" cts. for ⅜" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

NOTES:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

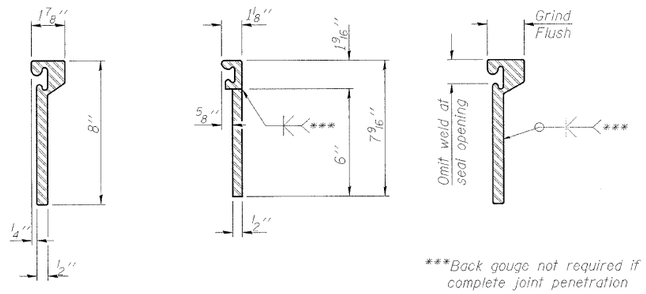
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

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

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

SECTION THRU ROLLED RAIL JOINT

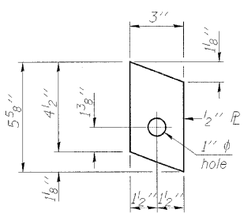


***Back gouge not required if complete joint penetration is verified by mock-up.

ROLLED (EXTRUDED) RAIL

WELDED RAIL

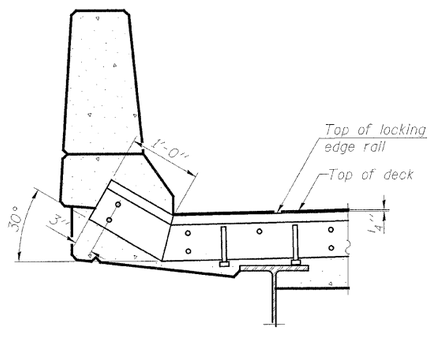
SECTION THRU WELDED RAIL JOINT



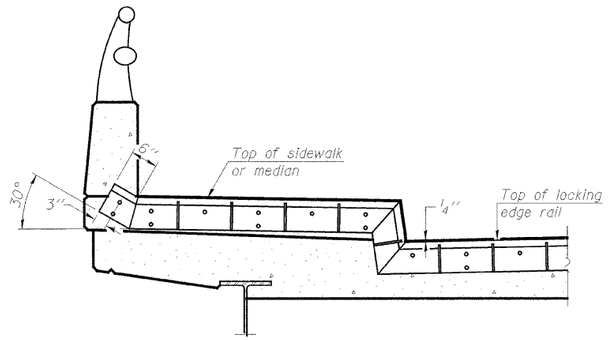
ANCHOR PL
(for welded rail)

LOCKING EDGE RAIL SPLICE

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



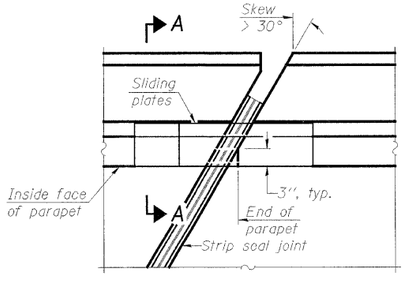
AT PARAPET



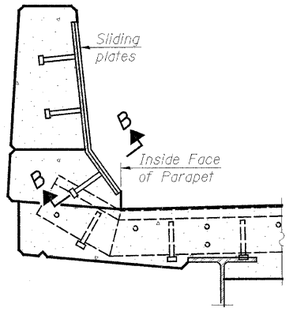
AT SIDEWALK OR MEDIAN

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.

LOCKING EDGE RAILS

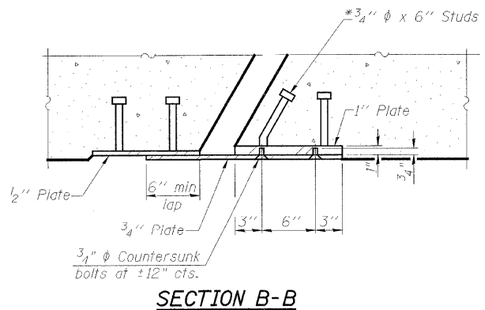


PLAN



SECTION A-A

TYPICAL END TREATMENTS



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	82.5

POINT BLOCK DETAILS

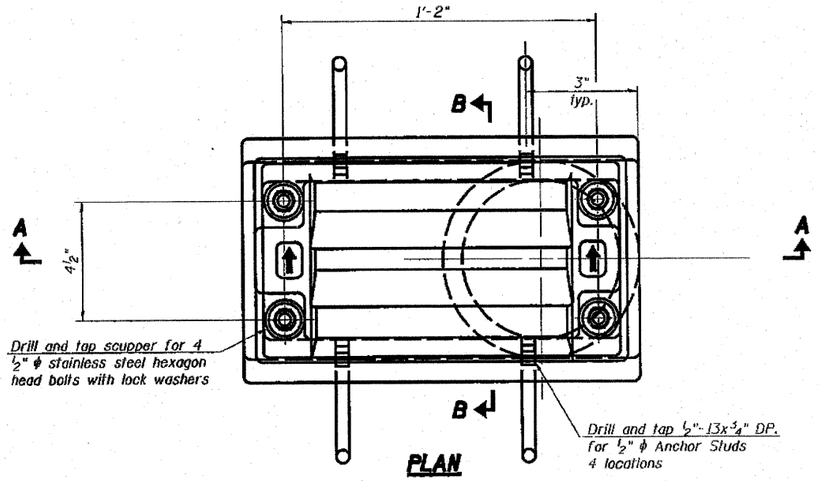
(for skews > 30°)

PREFORMED JOINT STRIP SEAL
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

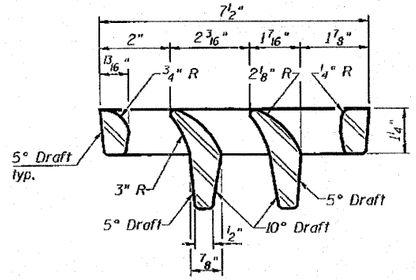
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.STRIPSEAL.DGN WHA # 1124D04

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 5154	04-00343-00-BR	WINNEBAGO	92	54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

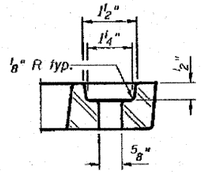
Structural Sheet 8B of 21B



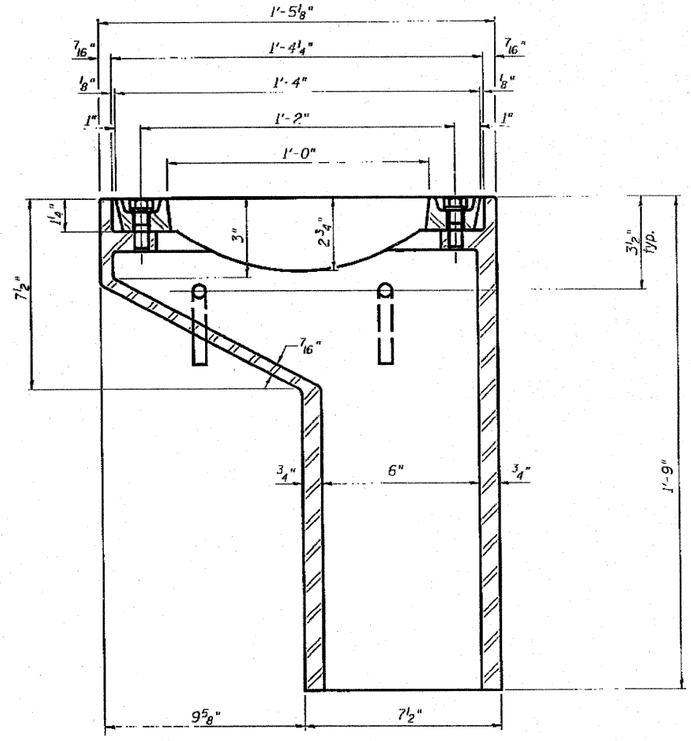
PLAN



VANE GRATE DETAIL

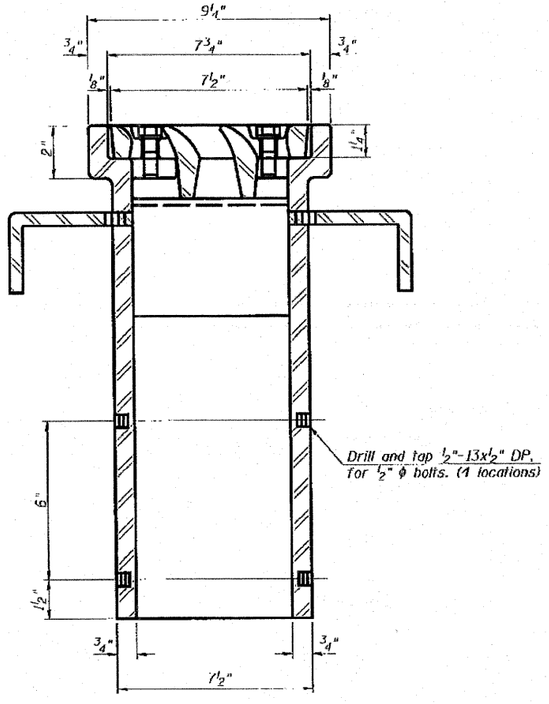


BOLT HOLE DETAIL

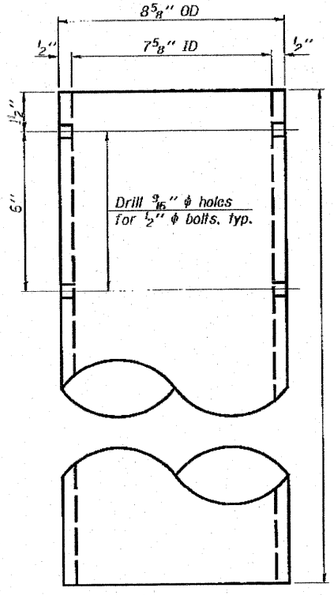


SECTION A-A

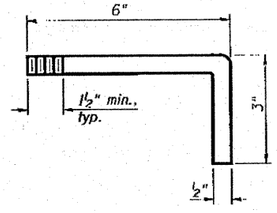
See sheet 5B & 6B of 21B for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD 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.

BILL OF MATERIAL

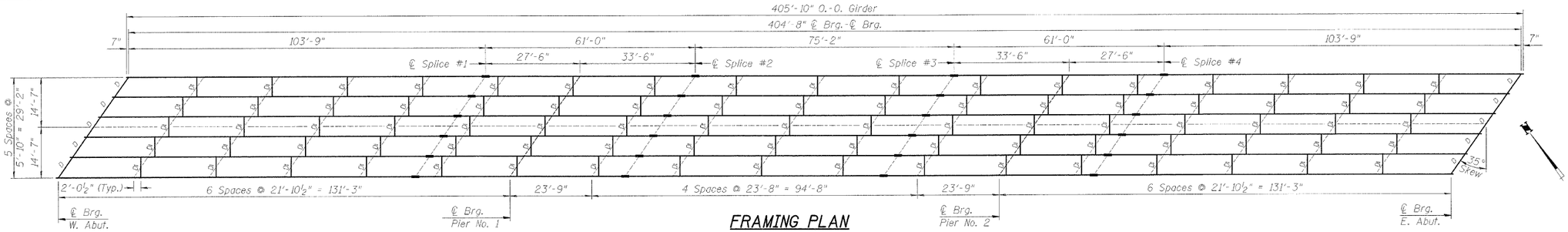
Item	Unit	Total
Drainage Scupper, DS-11	Each	6

DRAINAGE SCUPPER, DS-11
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

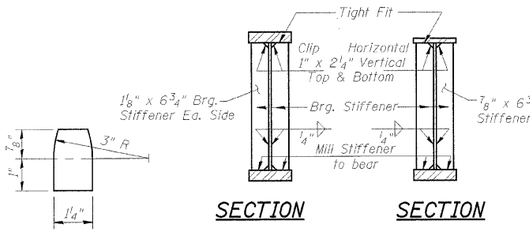
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124DRAINAGESCUPPER.DGN WHA # 1124D04

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 9B of 21B



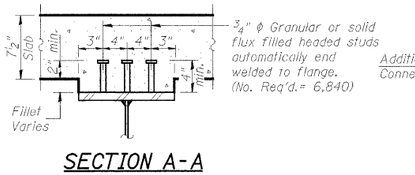
FRAMING PLAN



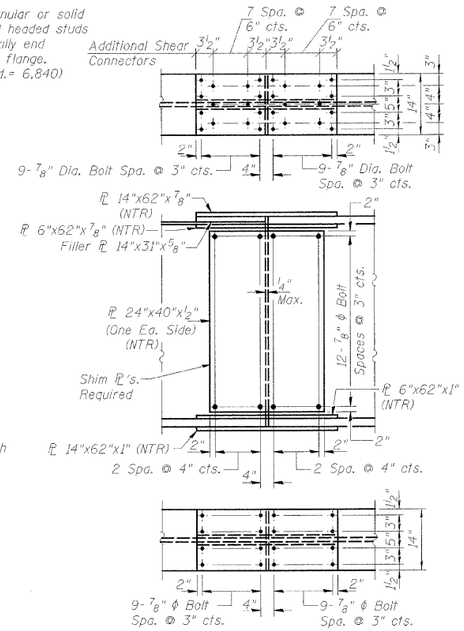
PINTLE

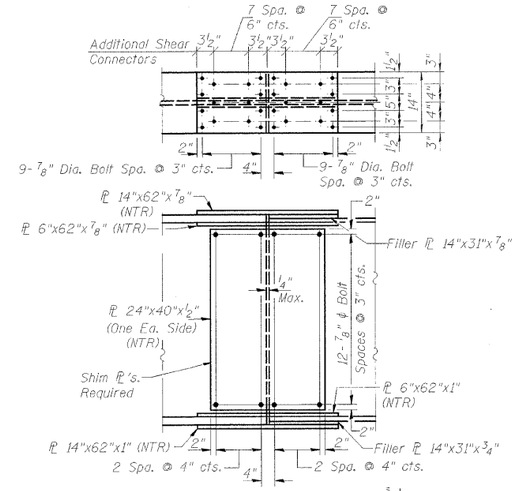
SECTION AT PIER

SECTION AT ABUTMENT

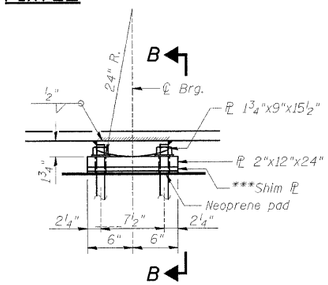


SECTION A-A

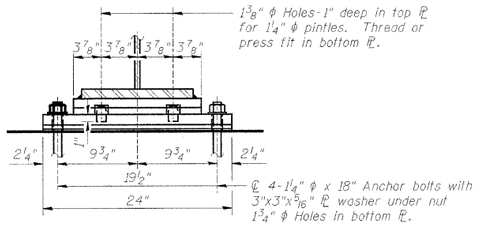




INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.5 Sp. 2
Is	(in⁴)	124452	29758	17728
Ic (n)	(in⁴)	53093		38959
Ic (3n)	(in⁴)	38554		28819
Ss	(in³)	1205	1273	811
Sc (n)	(in³)	1523		1058
Sc (3n)	(in³)	1402		970
Z	(in³)			
℄	(K/ft.)	0.856	1.297	0.856
M℄	('K)	1099	2399	483
s℄	(K/ft.)	0.441		0.441
Ms℄	('K)	624		395
M4	('K)	1378	823	1157
M (Imp)	('K)	276	165	231
½[M℄+M(Imp)]	('K)	2757	1647	2313
Ma	('K)	5824	5260	4148
Mu	('K)			
fs℄ non-comp	(k.s.i.)	10.94	22.61	7.15
fs℄ (comp)	(k.s.i.)	5.34		4.89
fs⅝(¼×Imp)	(k.s.i.)	21.72	15.53	26.23
fs (Overload)	(k.s.i.)	38.0	38.14	38.27
fs (Total)	(k.s.i.)	49.4	49.58	49.75
VR	(K)	68.9		55.4



ELEVATION AT PIER

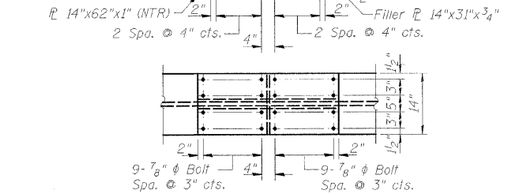


SECTION B-B

FIXED BEARING - PIER #1

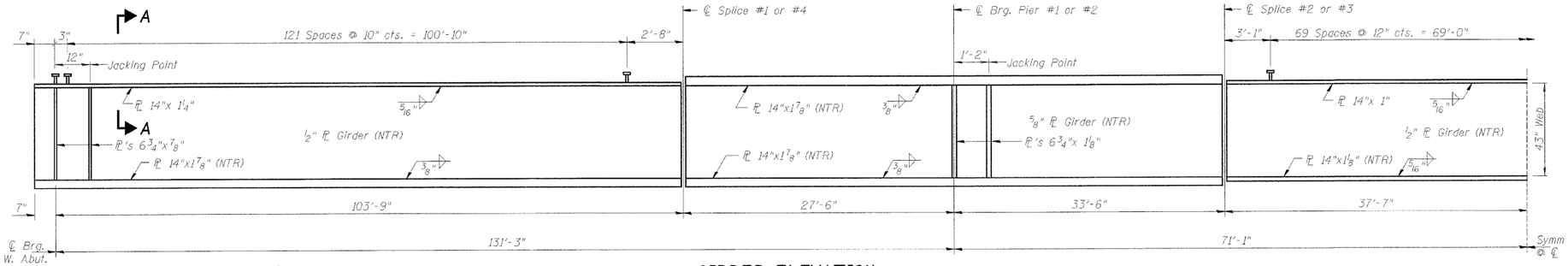
*** Additional ⅛" Shim ℄ required for Beam 3

FIELD SPLICE DETAIL- SPLICE #1 & #4



FIELD SPLICE DETAIL- SPLICE #2 & #3

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R℄	(K)	66.8	195.6
R⅛	(K)	50.8	59.5
Imp.	(K)	10.2	11.9
R (Total)	(K)	127.8	267.0



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

** See Additional Connectors Over Splice

BILL OF MATERIAL

	Item	Unit	Total
	Stud Shear Connectors	Each	6,840
*	Furnishing & Erecting Structural Steel	L. Sum	1
	Anchor Bolts, 1¼"	Each	24

*Includes Side Retainers for Elastomeric Bearing Assemblies

NOTE:

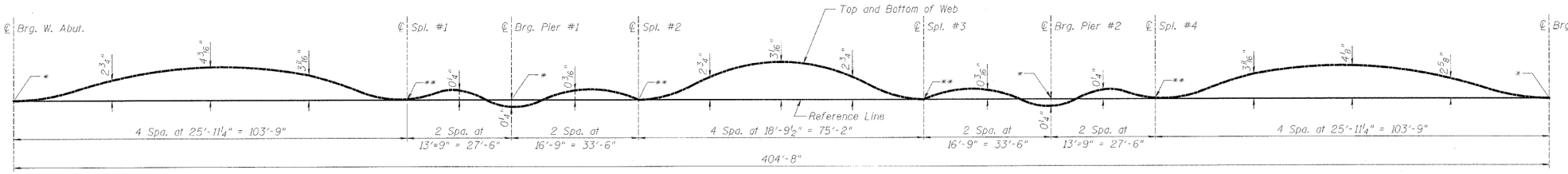
All Structural Steel shall conform to AASHTO M270 Gr. 50

FRAMING PLAN
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124FRAME.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 10B of 21B

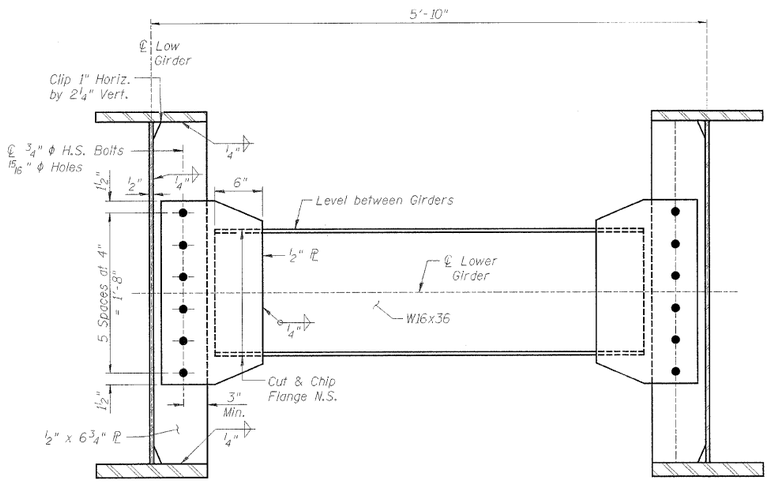


CAMBER DIAGRAM

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY)								
Girders	℄ W. Abut.	℄ Splice #1	℄ Pier #1	℄ Splice #2	℄ Splice #3	℄ Pier #2	℄ Splice #4	℄ E. Abut.
1	706.437	706.694	706.700	706.748	706.929	707.041	707.167	707.420
2	706.532	706.789	706.795	706.843	707.023	707.136	707.262	707.503
3	706.613	706.870	706.876	706.924	707.105	707.217	707.343	707.584
4	706.604	706.861	706.866	706.915	707.095	707.207	707.333	707.574
5	706.503	706.760	706.765	706.814	706.994	707.106	707.233	707.473
6	706.377	706.645	706.651	706.699	706.880	706.992	707.118	707.359

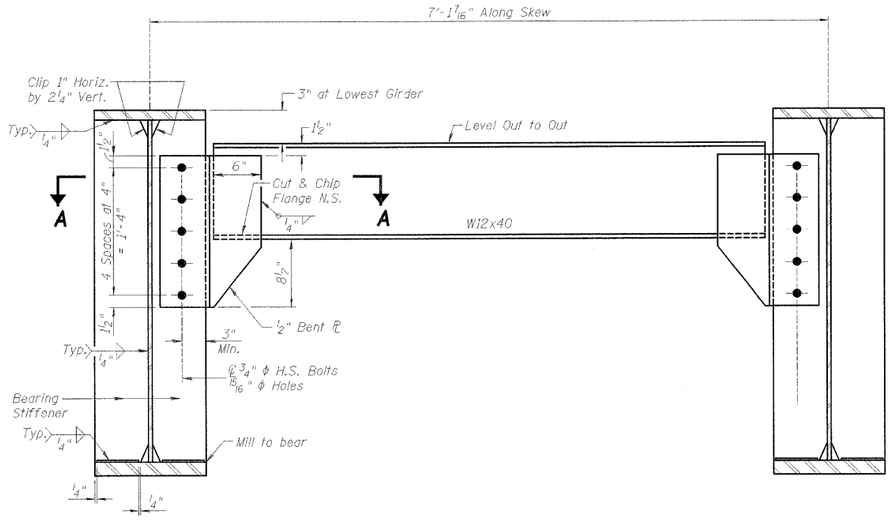
*Final Top of Web elevations to be used in computing the bearing's seat elevation.

**Theorectical elevations before Dead Load Deflection



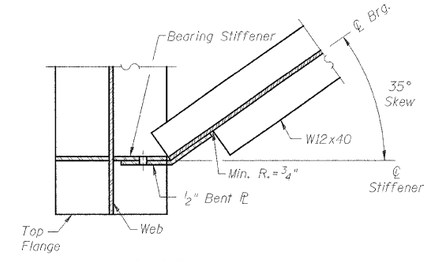
TYPICAL INTERIOR DIAPHRAGM - D_1

Note: Two hardened washers shall be required over all oversized holes.



TYPICAL END DIAPHRAGM - D

Note: Two hardened washers shall be required over all oversized holes.



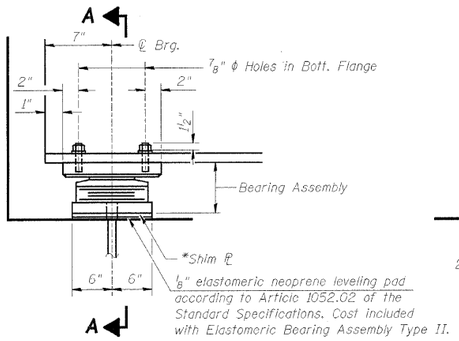
SECTION A-A

CROSS FRAME & CAMBER DIAGRAM
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

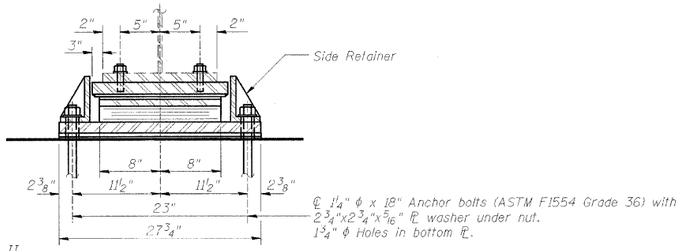
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124CROSCAMB.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B.R.R. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 11B of 21B



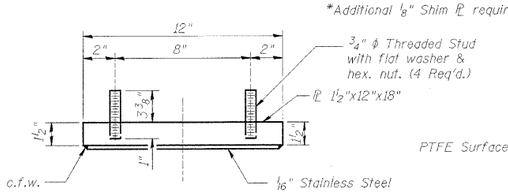
ELEVATION AT ABUT.



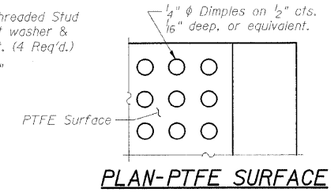
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG. (EAST ABUTMENT)

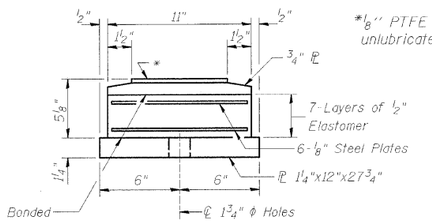
*Additional 1/8" Shim ℄ required for Beam 3



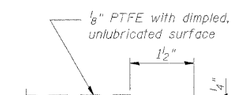
TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE

*1/8" PTFE dimpled, unlubricated

NOTES:

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

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

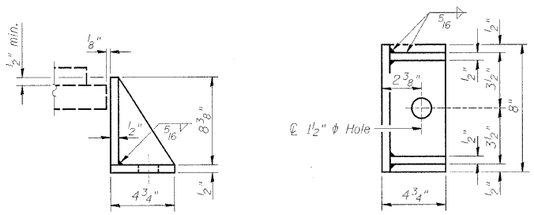
Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

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

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

The 1/8" 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.

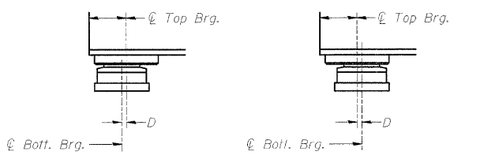
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

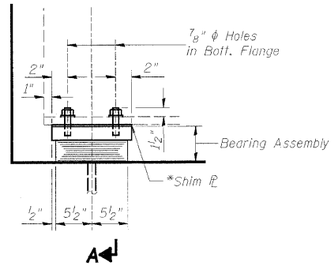
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Cost included with Elastomeric Bearing Assembly, Type II.

Reaction Table	
Load	Reaction
Dead load	62.9k
Live Load	52.7k
Impact	10.5k
Total	126.1k
Girder Slope	0.24%
Expansion Length	273'-5"

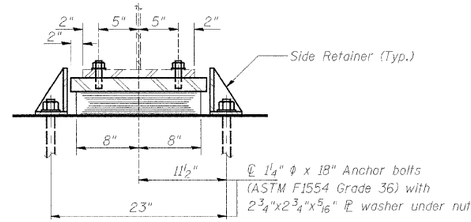


SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



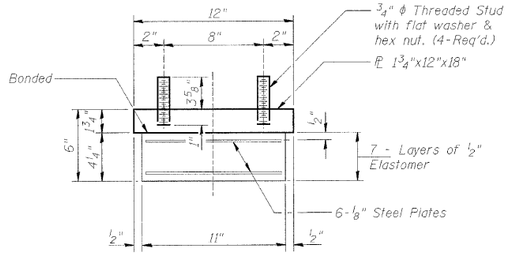
ELEVATION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. (WEST ABUTMENT)

*Additional 1/8" Shim ℄ required for Beam 3



BEARING ASSEMBLY

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

NOTES:

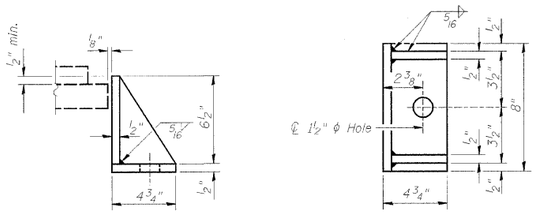
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of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

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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

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



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Cost included with Elastomeric Bearing Assembly, Type I.

Reaction Table	
Load	Reaction
Dead load	62.9k
Live Load	52.7k
Impact	10.5k
Total	126.1k
Girder Slope	0.24%
Expansion Length	131'-3"

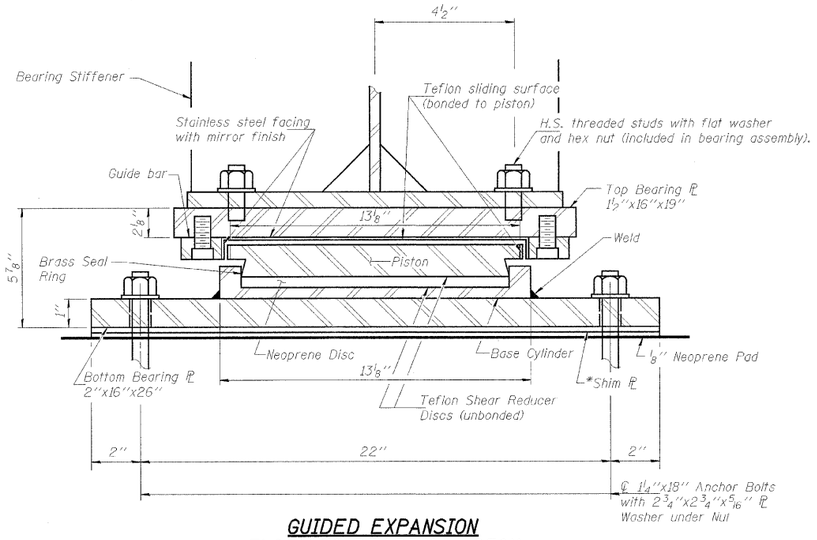
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Elastomeric Bearing Assembly Type II	Each	6
Anchor Bolts, 1¼"	Each	24

TYPE I & II ELASTOMERIC BEARINGS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

ROUTE FAU NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 12B of 21B



GUIDED EXPANSION FLOATING BEARING - 250K
(Pier #2)

* Additional ⅛" Shim ℄ required for Beam 3

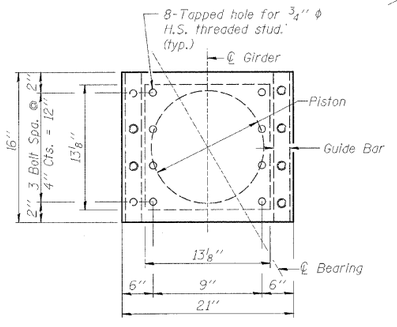
POT Bearing DATA	
	Pier #2 (Exp.)
Dead load	184.0k
Live Load	61.8k
Vert. Design Load	245.8k
Impact	12.4k
Total	504.0k
Long Load	0
Trans. Loads	
Wind	82.5k
Earthquake	37k
Expansion Length	142'-2"

NOTES:

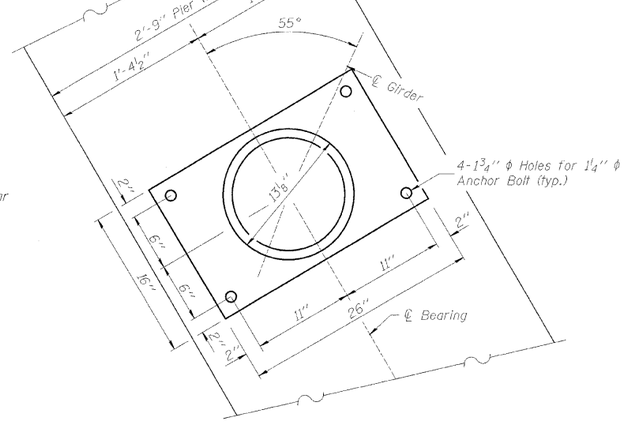
All ℄'s of the Bearing Assembly shall be AASHTO M 270M Grade 50.

Base ℄ Thickness was determined by using a Pot ϕ of 13⅛".

Cost of field drilling is included with "Furnishing & Erecting Structural Steel".



TOP BEARING ℄ AND PISTON PLAN



BOTTOM BEARING ℄ AND BASE CYLINDER PLAN

BILL OF MATERIAL

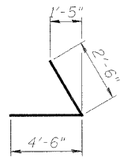
Item	Unit	Total
Floating Bearings, Guided Expansion-250k	Each	6
Anchor Bolts, 1¼"	Each	24

POT BEARINGS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

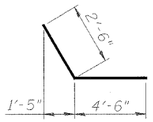
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124POT.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 5154	04-00343-00-BR	WINNEBAGO	92	59
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

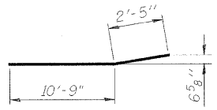
Structural Sheet 13B of 21B



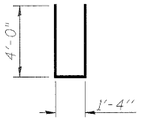
BAR h_{10} (E)



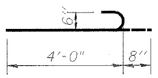
BAR h_{11} (E)



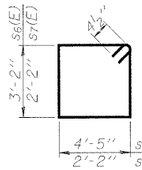
BAR h_{13} (E)



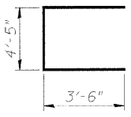
BAR n_4(E)



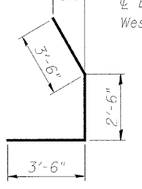
BAR n_5(E)



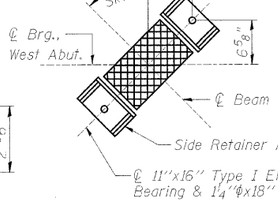
BARS s_6(E) & s_7(E)



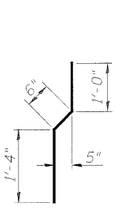
BAR u_4(E)



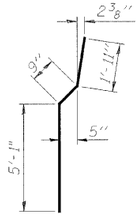
BAR u_5(E)



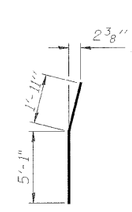
DETAIL "A"



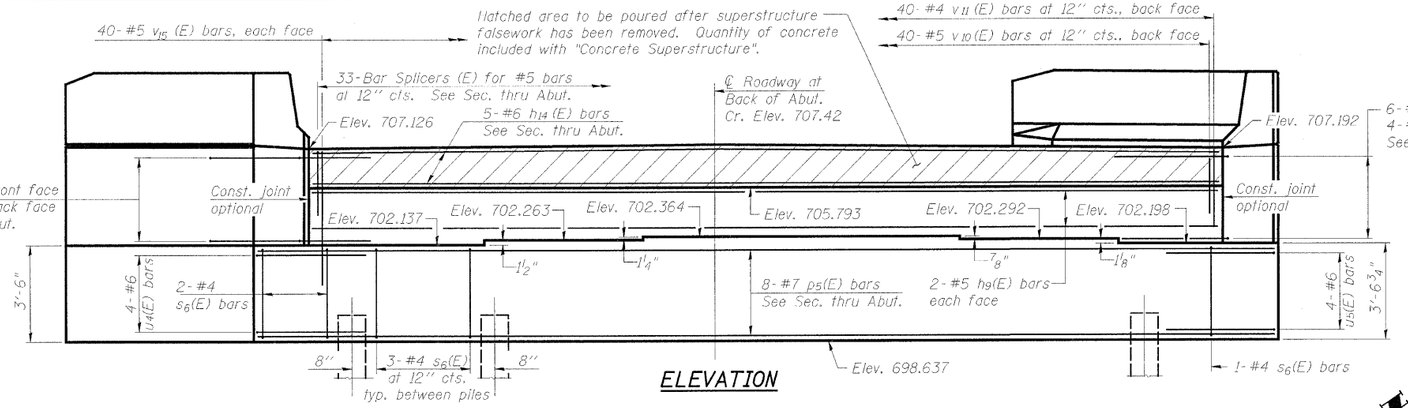
BAR v_{11} (E)



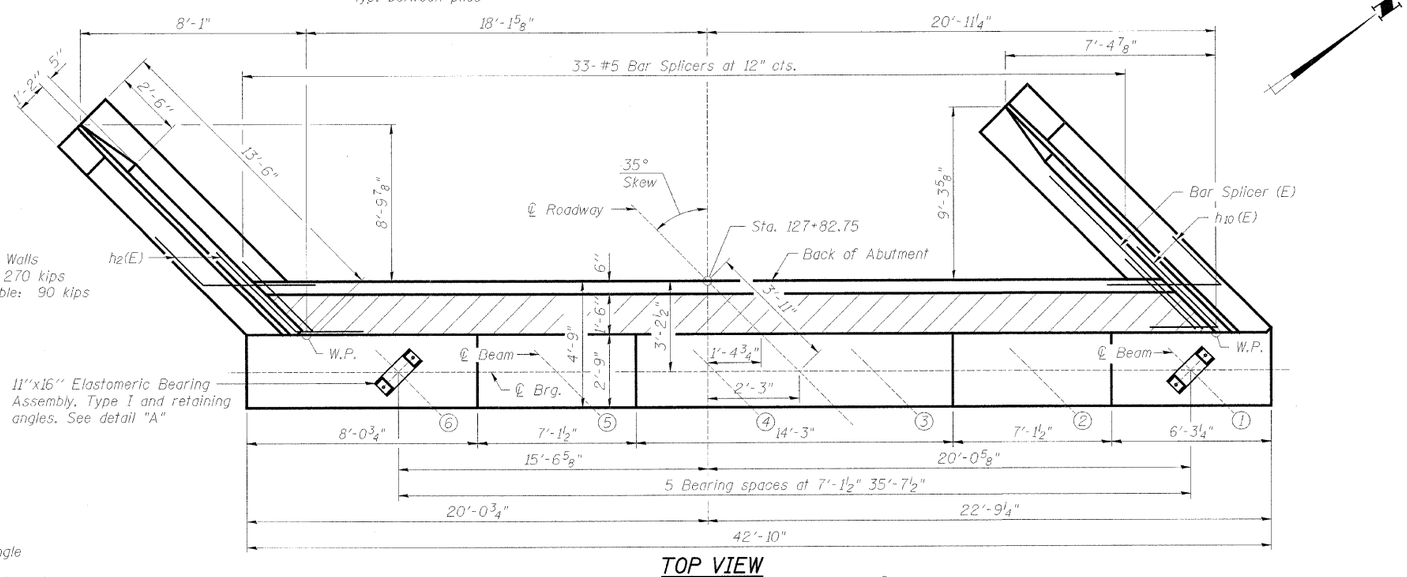
BAR v_{13} (E)



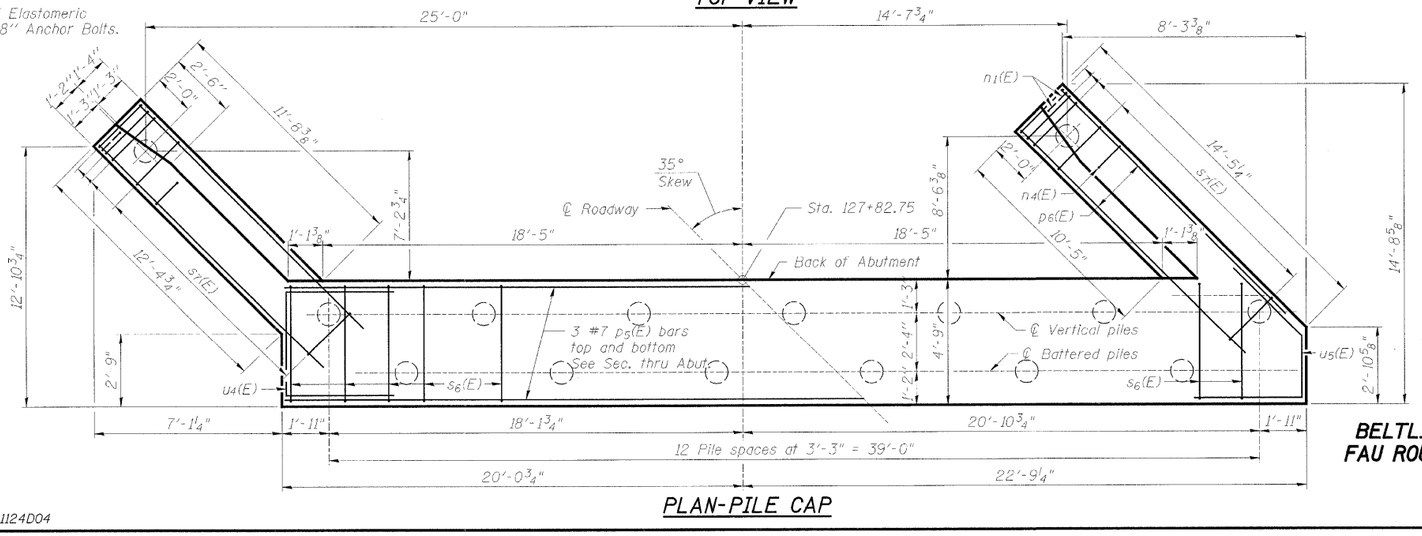
BAR v_{14} (E)



ELEVATION



TOP VIEW



PLAN-PILE CAP

PILE DATA

Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 49'
No. Production Piles: 14
No. Test Piles: 1

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_9(E)	4	#5	38'-9"	
h_{10} (E)	10	#5	7'-0"	
h_{11} (E)	10	#5	7'-0"	
h_{12} (E)	18	#4	13'-2"	
h_{13} (E)	18	#4	13'-2"	
h_{14} (E)	5	#6	38'-9"	
n_4(E)	22	#6	9'-4"	
n_5(E)	12	#6	4'-8"	
p_5(E)	8	#7	42'-6"	
p_6(E)	12	#7	13'-6"	
s_6(E)	39	#4	15'-11"	
s_7(E)	38	#4	9'-5"	
u_4(E)	4	#6	11'-5"	
u_5(E)	4	#6	9'-6"	
v_{10}(E)	40	#5	2'-6"	
v_{11} (E)	40	#4	2'-10"	
v_{12}(E)	28	#6	7'-6"	
v_{13}(E)	22	#6	7'-9"	
v_{14}(E)	6	#6	7'-0"	
v_{15}(E)	80	#5	6'-4"	

Porous Granular Embankment	Cu. Yd.	57
Structure Excavation	Cu. Yd.	184
Concrete Structures	Cu. Yd.	51.3
Reinforcement Bars, Epoxy Coated	Pound	4,460
Bar Splicers	Each	33
Furnishing Metal Shell Piles, 12"	Foot	686
Driving Piles	Foot	686
Test Pile, Metal Shell	Each	1
Concrete Sealer	Sq. Ft.	119
Geocomposite Wall Drain	Sq. Yd.	32
Pipe Underdrains for Structures 4"	Foot	80

NOTES:

For Bar Splicer Assembly Detail, see Structural Sheet 20B of 21B.

For pile detail see Structural Sheet 19B of 21B.

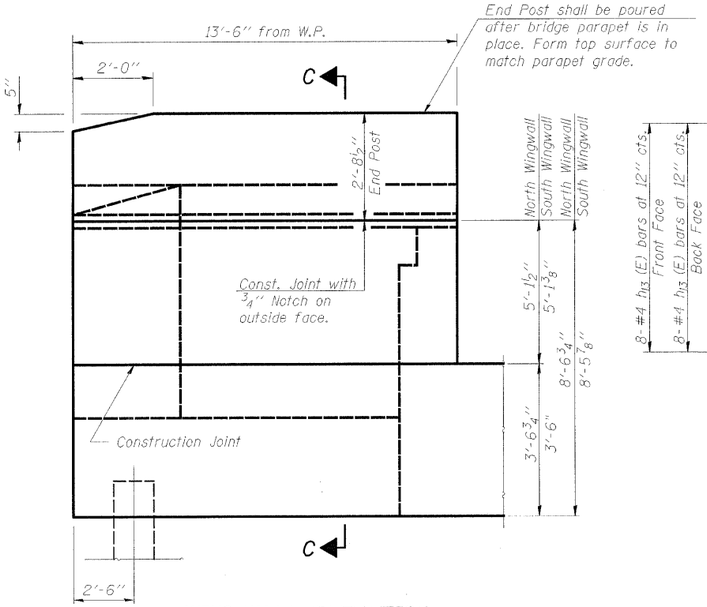
Reinforcement Bars Designated (E) shall be epoxy coated.

WEST ABUTMENT
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

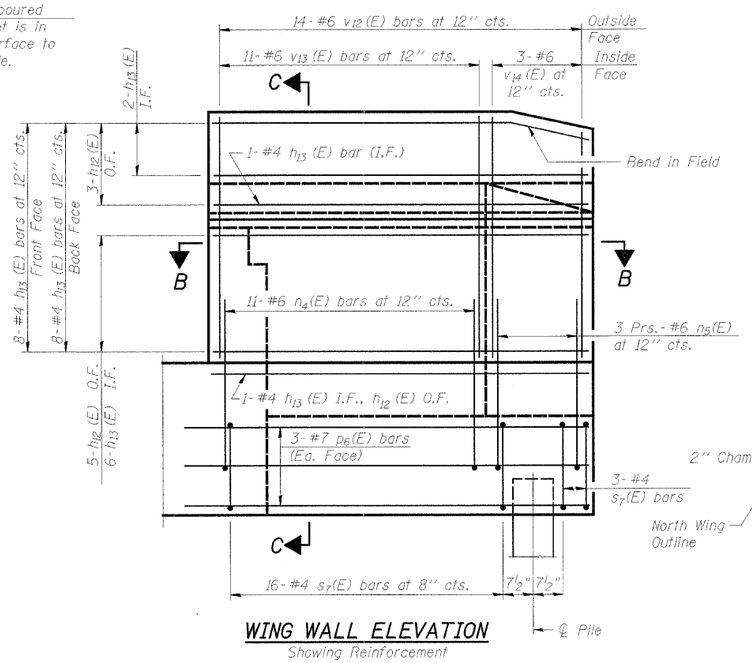
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.WABUT.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	60
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5093(75)		

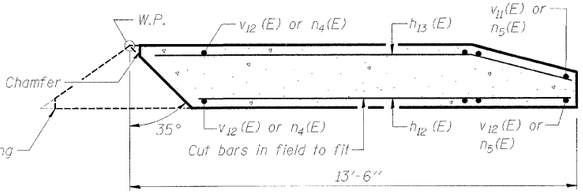
Structural Sheet 14B of 21B



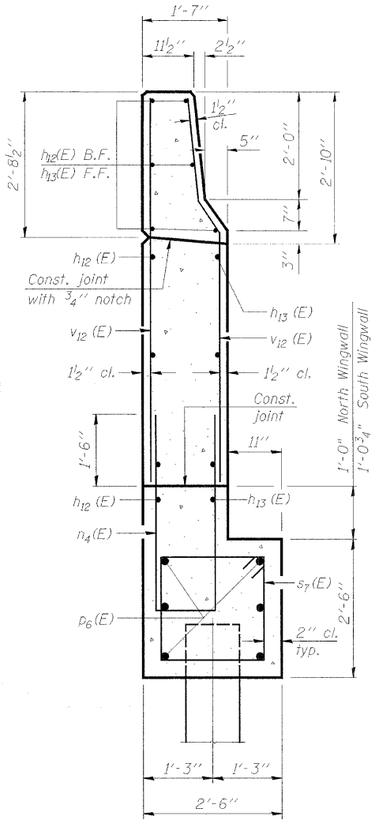
WING WALL ELEVATION
Showing Dimensions



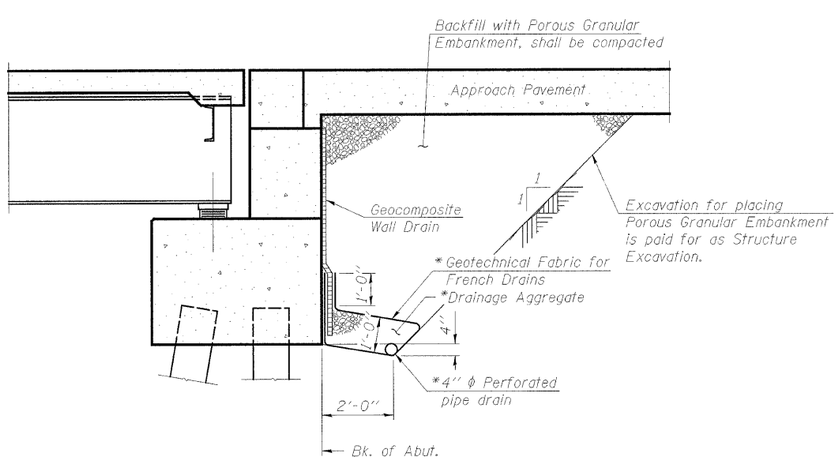
WING WALL ELEVATION
Showing Reinforcement



SECTION B-B
South Wing Shown



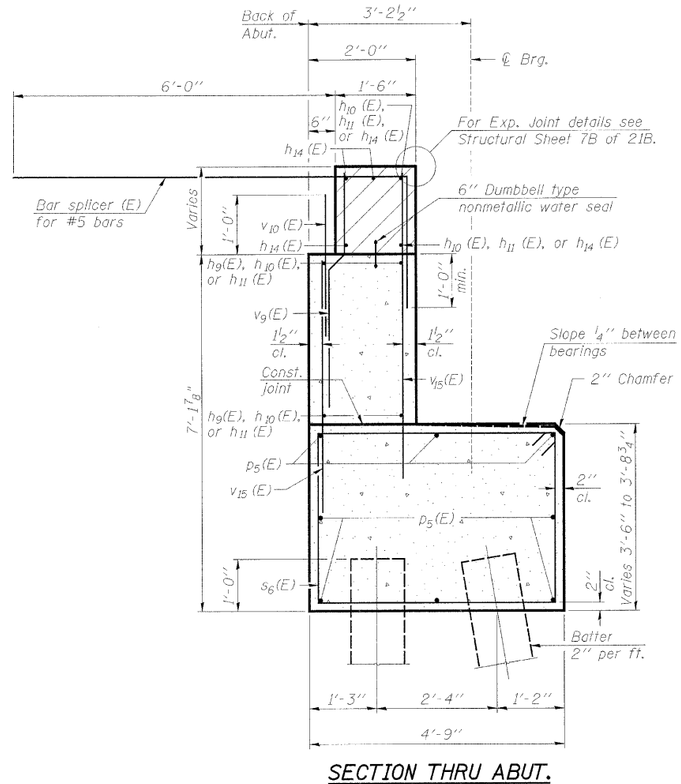
SECTION C-C



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

* Included in the cost of Pipe Underdrains for Structures.

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



SECTION THRU ABUT.

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.

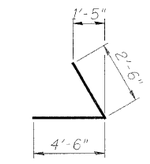
Quantity of concrete in end post included with Concrete Superstructure on Structural Sheet 6B of 21B.

WEST ABUTMENT DETAILS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

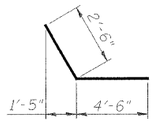
S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.WABUTDETAILS.DGN WHA # 1124D04

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 5154	04-00343-00-BR	WINNEBAGO	92	61
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

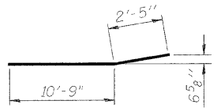
Structural Sheet 15B of 21B



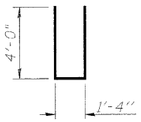
BAR h_{10} (E)



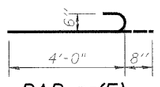
BAR h_{11} (E)



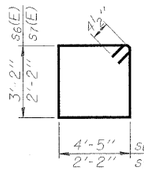
BAR h_{13} (E)



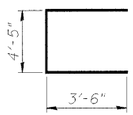
BAR n_4(E)



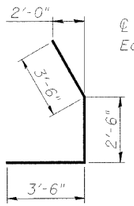
BAR n_5(E)



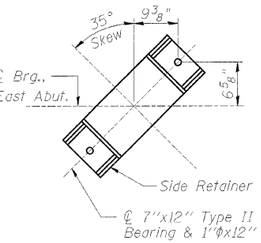
BARS s_6(E) & s_7(E)



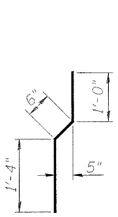
BAR u_4(E)



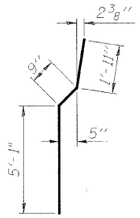
BAR u_5(E)



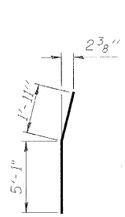
DETAIL "A"



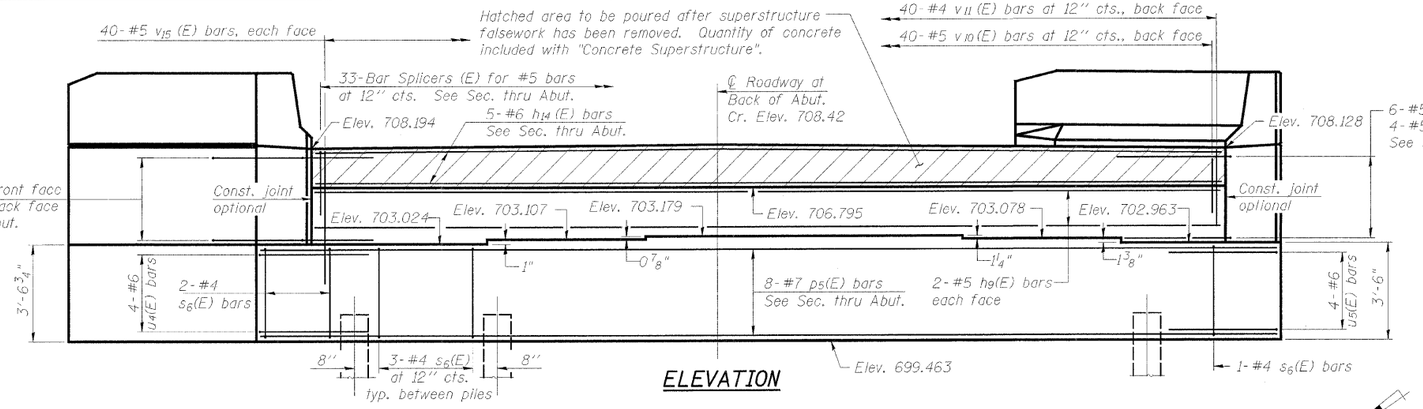
BAR v_{11} (E)



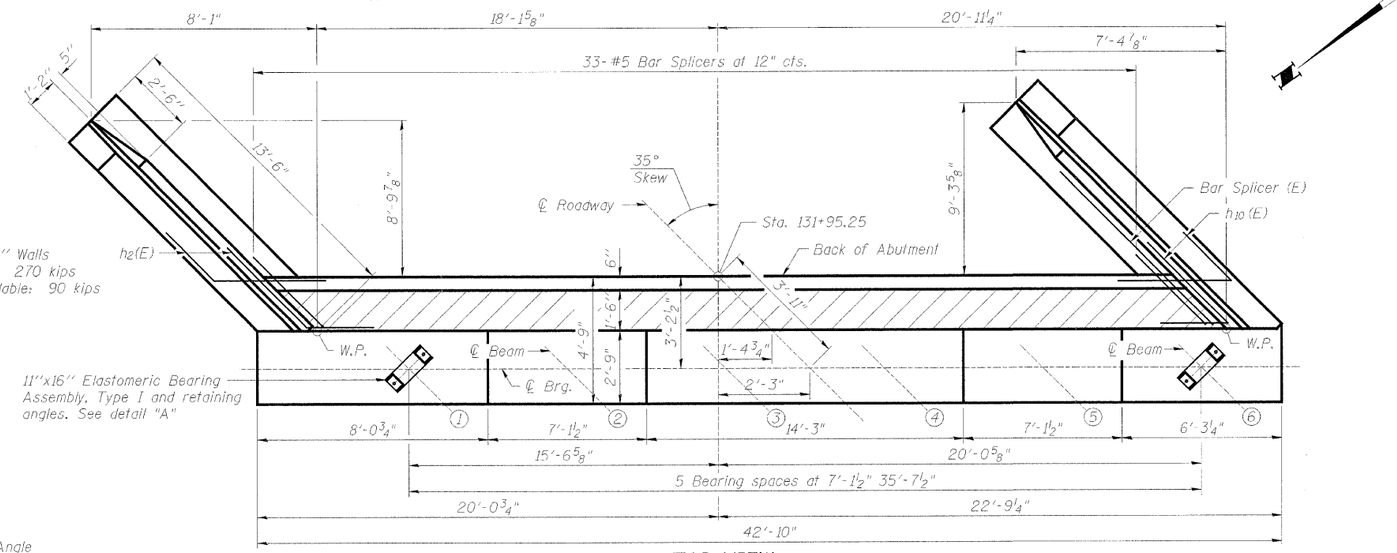
BAR v_{13} (E)



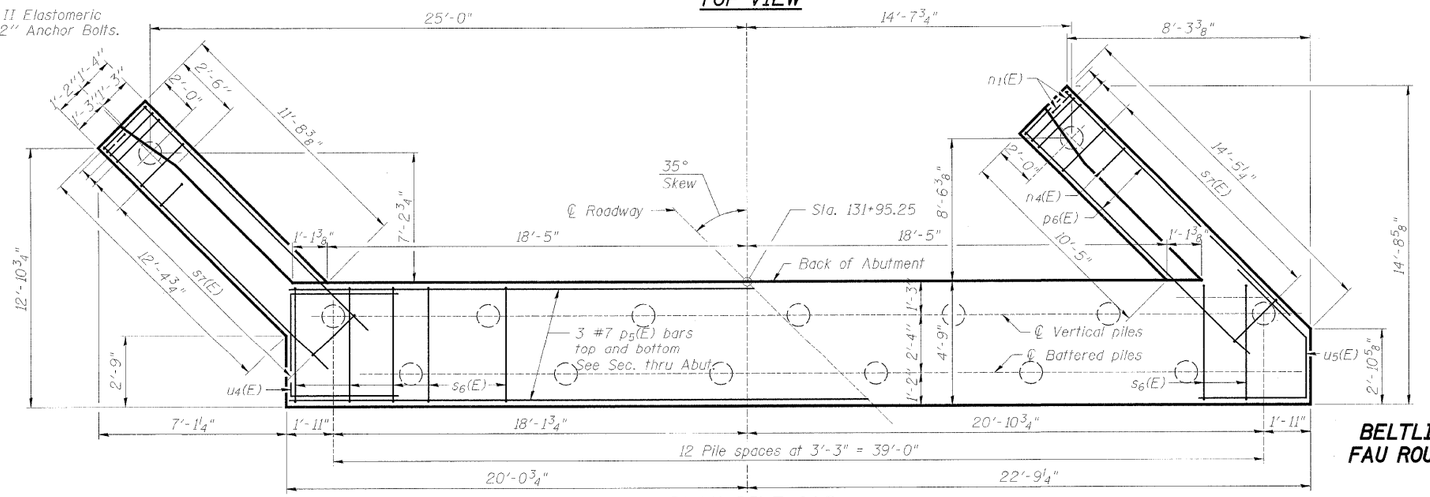
BAR v_{14} (E)



ELEVATION



TOP VIEW



PLAN-PILE CAP

PILE DATA

Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 59'
No. Production Piles: 14
No. Test Piles: 1

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_9(E)	4	#5	38'-9"	
h_{10} (E)	10	#5	7'-0"	
h_{11} (E)	10	#5	7'-0"	
h_{12} (E)	18	#4	13'-2"	
h_{13} (E)	18	#4	13'-2"	
h_{14} (E)	5	#6	38'-9"	
n_4(E)	22	#6	9'-4"	
n_5(E)	12	#6	4'-8"	
p_5(E)	8	#7	42'-6"	
p_6(E)	12	#7	13'-6"	
s_6(E)	39	#4	15'-11"	
s_7(E)	38	#4	9'-5"	
u_4(E)	4	#6	11'-5"	
u_5(E)	4	#6	9'-6"	
v_{10} (E)	40	#5	2'-6"	
v_{11} (E)	40	#4	2'-10"	
v_{12} (E)	28	#6	7'-6"	
v_{13} (E)	22	#6	7'-9"	
v_{14} (E)	6	#6	7'-0"	
v_{15} (E)	80	#5	6'-4"	
Porous Granular Embankment		Cu. Yd.	58	
Structure Excavation		Cu. Yd.	180	
Concrete Structures		Cu. Yd.	52.2	
Reinforcement Bars, Epoxy Coated		Pound	4,460	
Bar Splicers		Each	33	
Furnishing Metal Shell Piles, 12"		Foot	826	
Driving Piles		Foot	826	
Test Pile, Metal Shell		Each	1	
Concrete Sealer		Sq. Ft.	119	
Geocomposite Wall Drain		Sq. Yd.	32	
Pipe Underdrains for Structures 4"		Foot	80	

NOTES:

For Bar Splicer Assembly Detail, see Structural Sheet 20B of 21B.

For pile detail see Structural Sheet 19B of 21B.

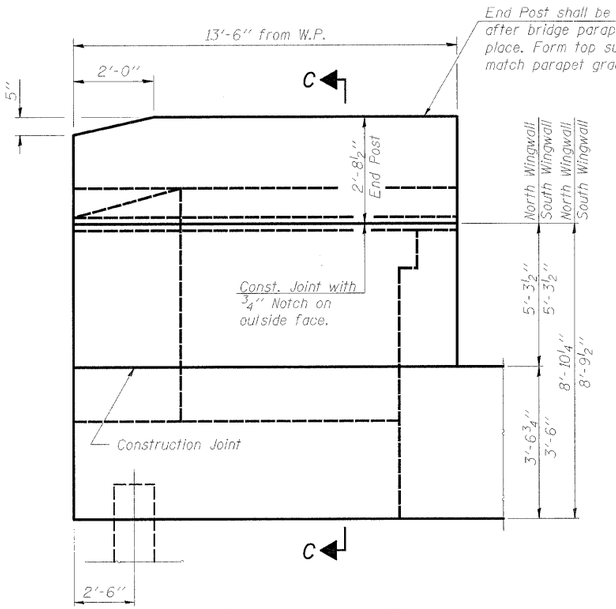
Reinforcement Bars Designated (E) shall be epoxy coated.

EAST ABUTMENT
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

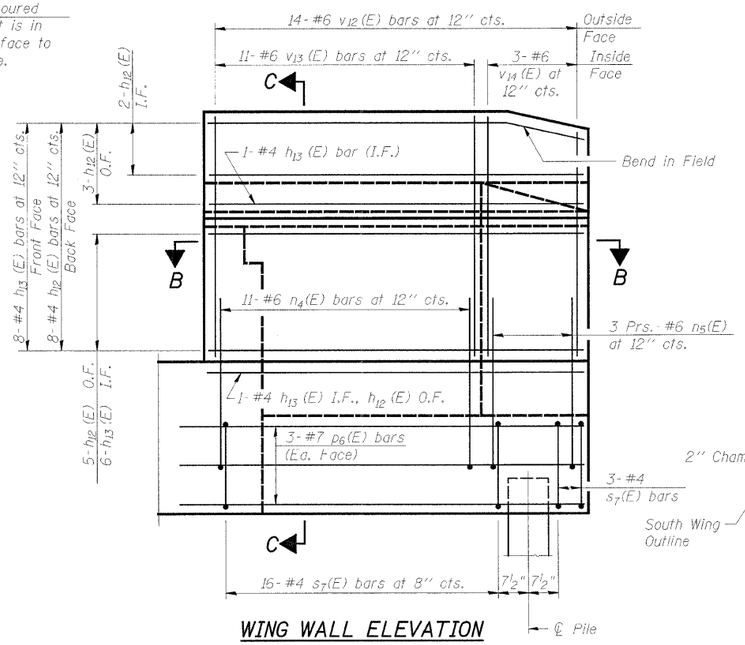
85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B.R.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	62
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

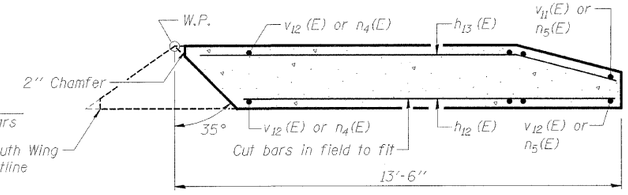
Structural Sheet 16B of 21B



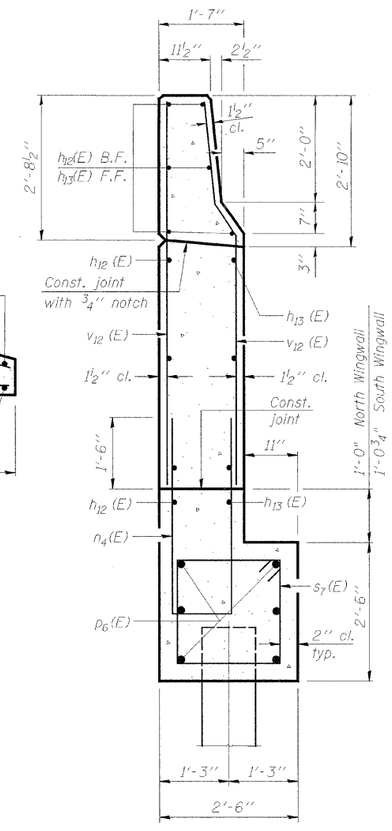
WING WALL ELEVATION
Showing Dimensions



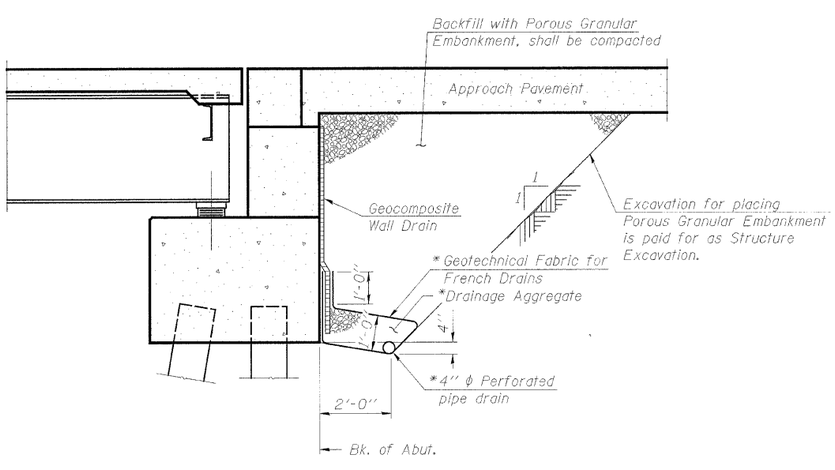
WING WALL ELEVATION
Showing Reinforcement



SECTION B-B
North Wing Shown



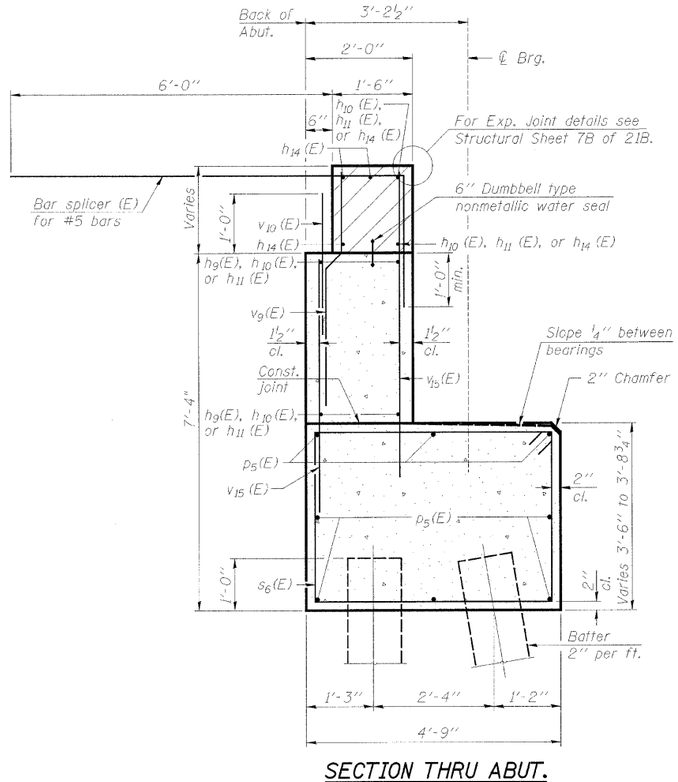
SECTION C-C



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

* Included in the cost of Pipe Underdrains for Structures.

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



SECTION THRU ABUT.

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 Structural Sheet 6B of 21B.

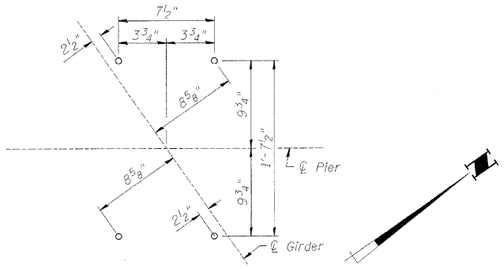
EAST ABUTMENT DETAILS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89.00 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.EABUTDETAILS.DGN WHA # 1124D04

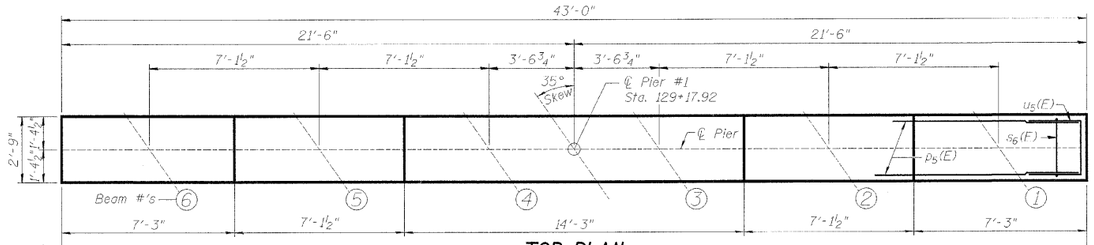
85432

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	63
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

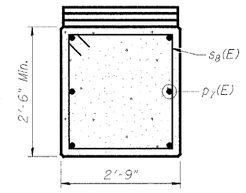
Structural Sheet 17B of 21B



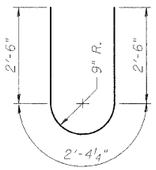
ANCHOR BOLT LAYOUT



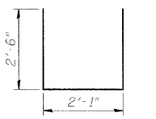
TOP PLAN



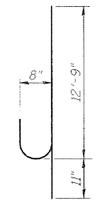
SEC. A-A



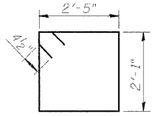
BAR $u_6(E)$



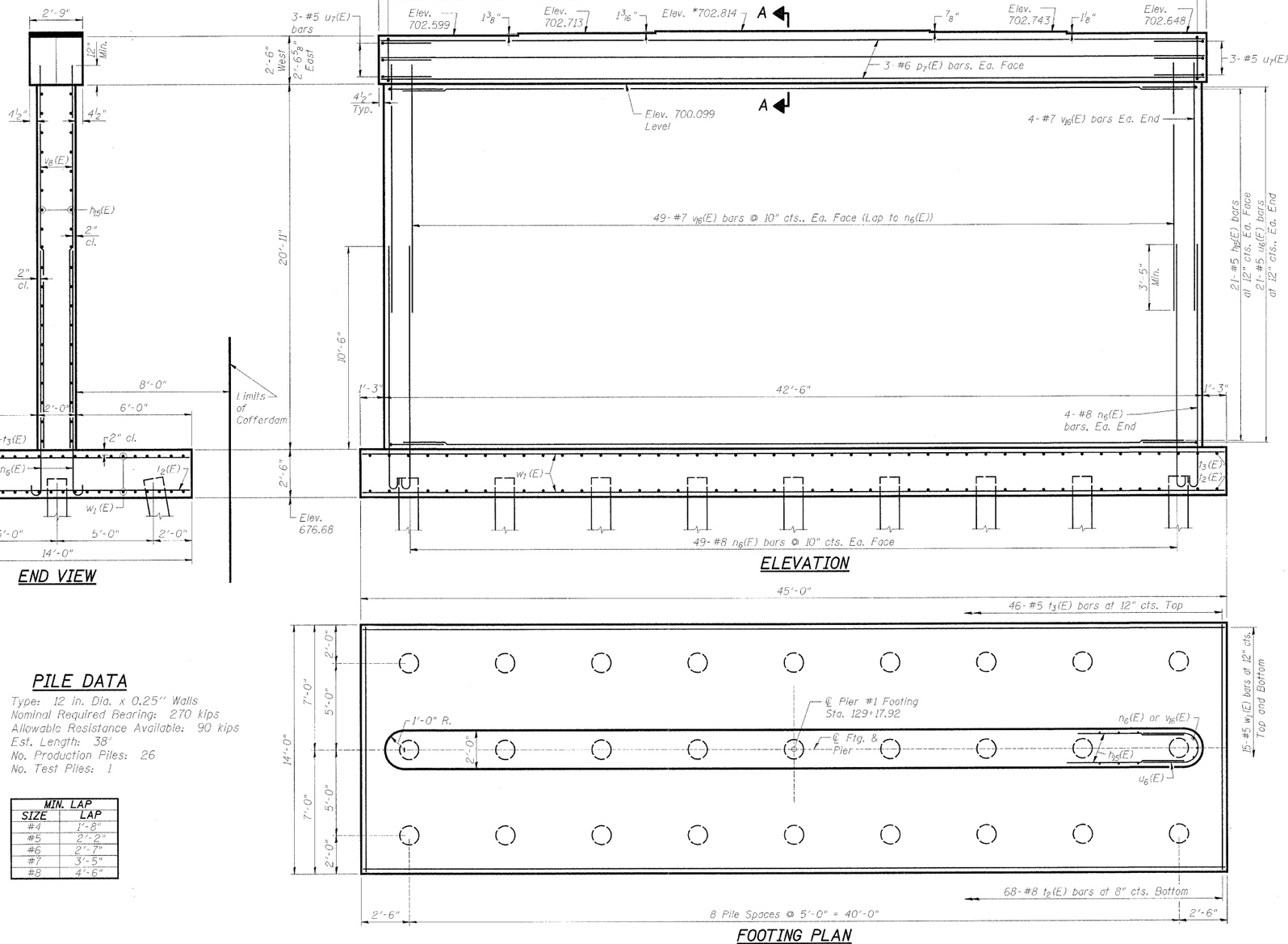
BAR $u_7(E)$



BAR $n_6(E)$



BAR $s_8(E)$



ELEVATION

END VIEW

FOOTING PLAN

PILE DATA

Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 38'
No. Production Piles: 26
No. Test Piles: 1

MIN. LAP	
SIZE	LAP
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"

BILL OF MATERIAL-PIER #1

Bar	No.	Size	Length	Shape
$h_{16}(E)$	42	#5	40'-6"	—
$n_6(E)$	106	#8	13'-8"	⊃
$p_7(E)$	6	#6	42'-8"	—
$s_8(E)$	44	#4	9'-9"	□
$t_2(E)$	68	#8	13'-8"	—
$t_3(E)$	46	#5	13'-8"	—
$u_6(E)$	42	#5	9'-4"	⊃ ⊂
$u_7(E)$	6	#5	7'-1"	⊃ ⊂
$v_{16}(E)$	106	#7	14'-10"	—
$w_1(E)$	30	#5	44'-8"	—
Cofferdam Excavation		Cu. Yd.	292	
Cofferdams		Each	1	
Concrete Structures		Cu. Yd.	134.1	
Reinforcement Bars, Epoxy Coated		Lbs.	14,520	
Furnishing Metal Shell Piles, 12"		Foot	988	
Driving Piles		Foot	988	
Test Pile-Metal Shell		Each	1	

NOTES:

Reinforcement Bars designated (E) shall be epoxy coated.

Space Reinforcement in cap to miss anchor bolts.

All edges shall have standard ¾" chamfer except as noted.

*Pour steps monolithically with cap.

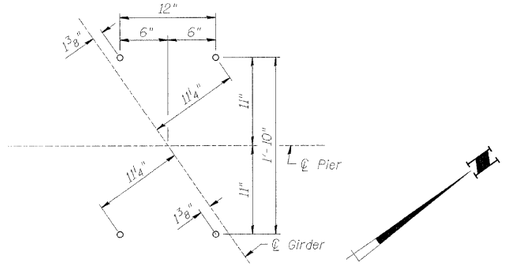
PIER #1
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124PIER#1.DGN WHA # 1124D04

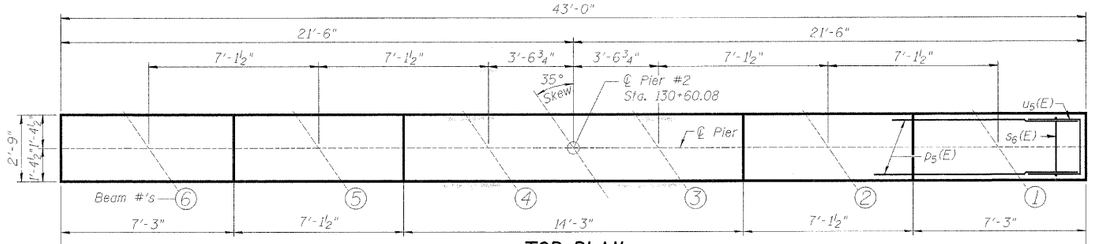
85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	64
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 18B of 21B

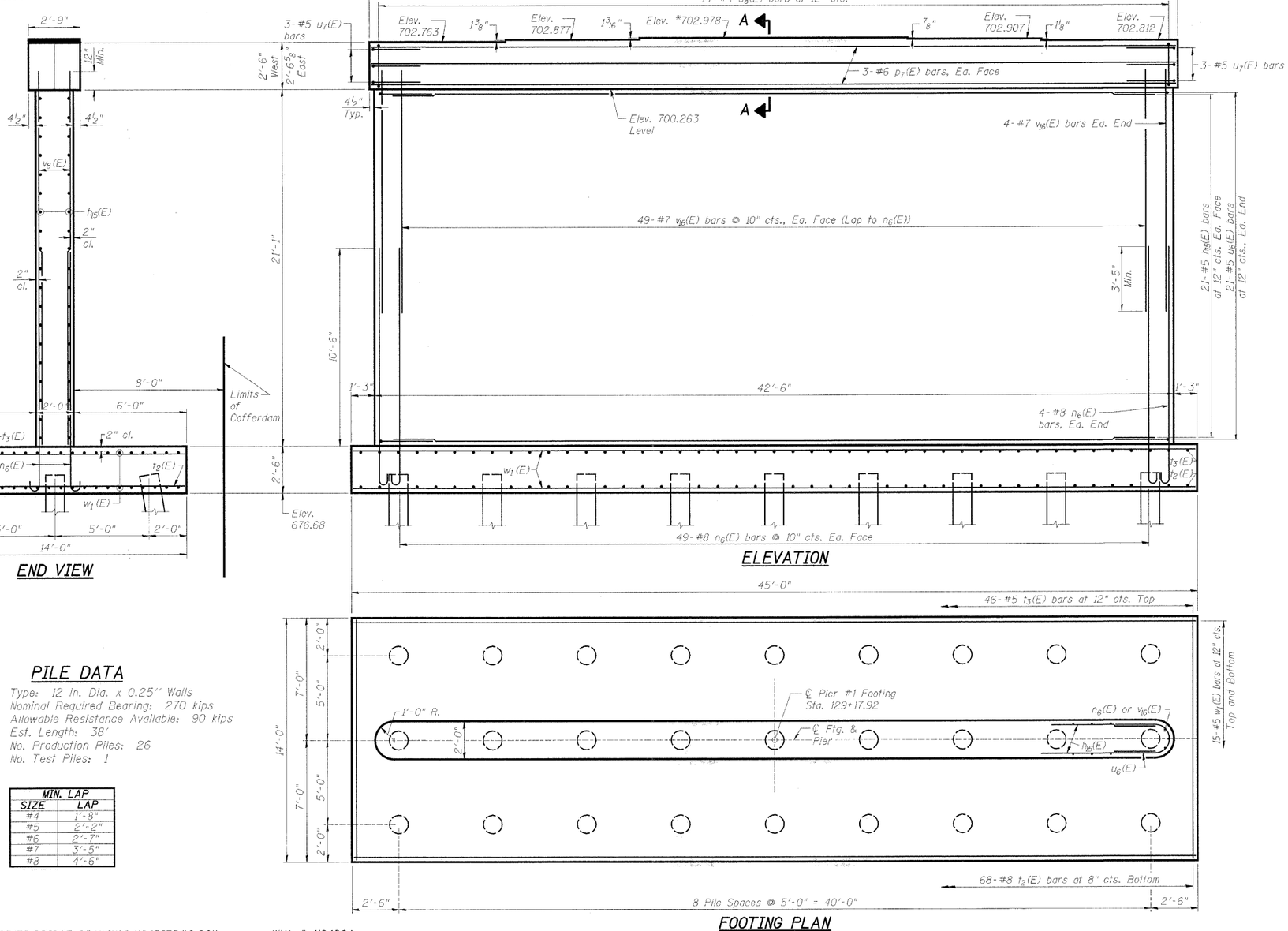


ANCHOR BOLT LAYOUT

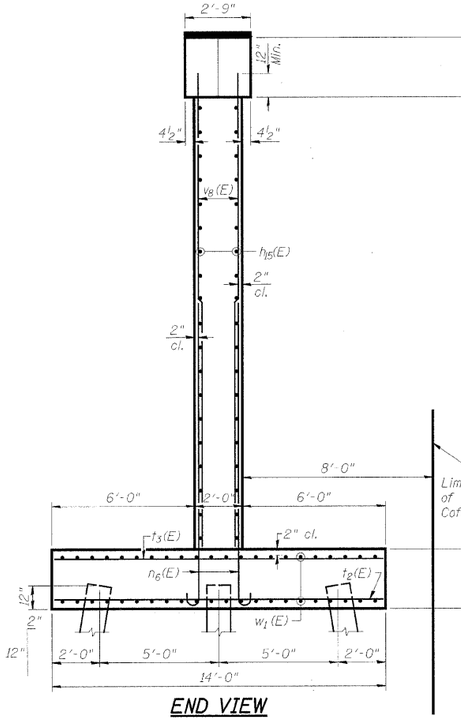


TOP PLAN

* Provide Additional ⅛" Shim at Beam 3. See Structural Sheet 9B of 21B.

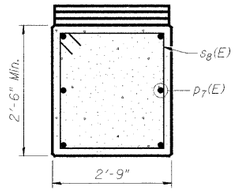


ELEVATION

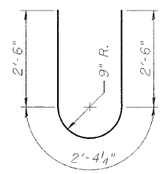


END VIEW

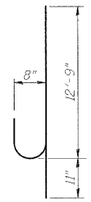
FOOTING PLAN



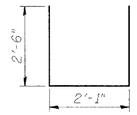
SEC. A-A



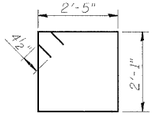
BAR $u_6(E)$



BAR $n_6(E)$



BAR $u_7(E)$



BAR $s_8(E)$

BILL OF MATERIAL-PIER #2

Bar	No.	Size	Length	Shape
$h_{15}(E)$	42	#5	40'-6"	—
$n_6(E)$	106	#8	13'-8"	⊃
$p_7(E)$	6	#6	42'-8"	—
$s_8(E)$	44	#4	9'-9"	□
$t_2(E)$	68	#8	13'-8"	—
$t_3(E)$	46	#5	13'-8"	—
$u_6(E)$	42	#5	9'-4"	⊃
$u_7(E)$	6	#5	7'-1"	⊐
$v_{16}(E)$	106	#7	14'-10"	—
$w_1(E)$	30	#5	44'-8"	—
Cofferdam Excavation			Cu. Yd.	292
Cofferdams			Each	1
Concrete Structures			Cu. Yd.	134.6
Reinforcement Bars, Epoxy Coated			Lbs.	14,520
Furnishing Metal Shell Piles, 12"			Foot	988
Driving Piles			Foot	988
Test Pile-Metal Shell			Each	1

PILE DATA

Type: 12 in. Dia. x 0.25" Walls
Nominal Required Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 38'
No. Production Piles: 26
No. Test Piles: 1

MIN. LAP	
SIZE	LAP
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-5"
#8	4'-6"

NOTES:

Reinforcement Bars designated (E) shall be epoxy coated.

Space Reinforcement in cap to miss anchor bolts.

All edges shall have standard ¾" chamfer except as noted.

*Pour steps monolithically with cap.

PIER #2
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124PIER#2.DGN WHA # 1124D04

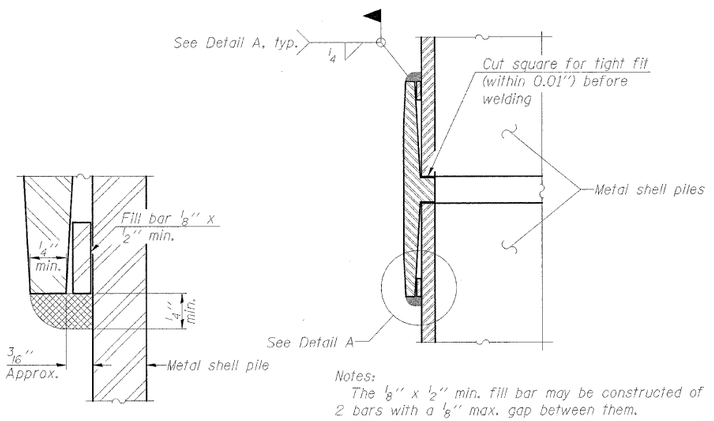
85432

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	65
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 19B of 21B

METAL SHELL PILE TABLE

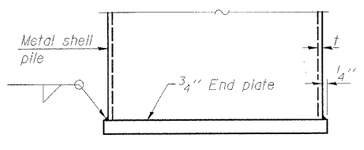
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



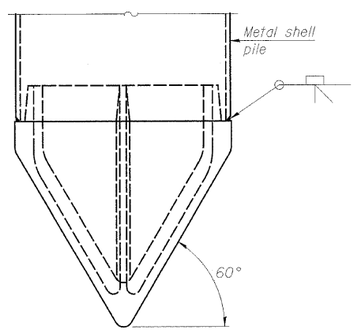
Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

DETAIL A

WELDED COMMERCIAL SPLICE



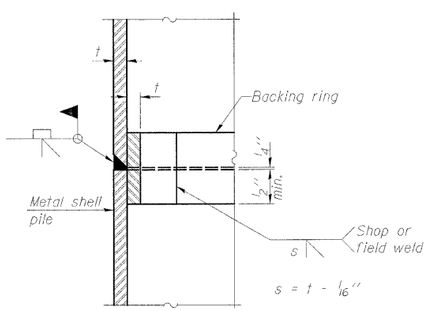
END PLATE ATTACHMENT



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.

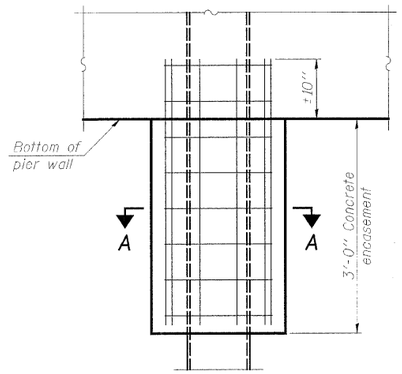
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

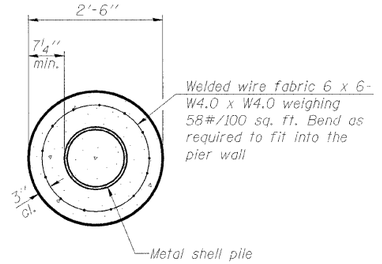


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



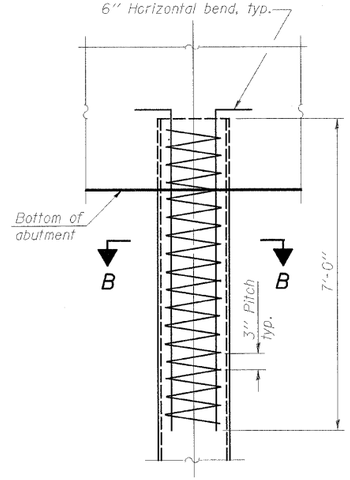
ELEVATION



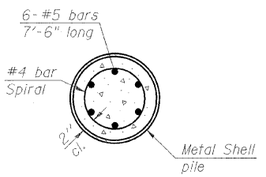
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



ELEVATION



SECTION B-B

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

METAL SHELL REINFORCEMENT AT ABUTMENTS

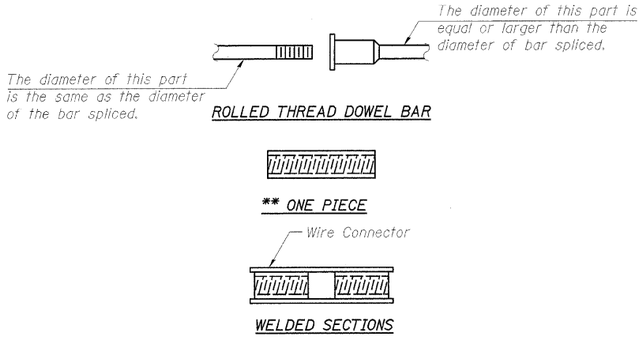
METAL SHELL PILE DETAILS
BELTLINE ROAD OVER KISHWAUKEE RIVER
F.A.U. ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.METALSHELLPILES.DGN WHA # 1124D04

85432

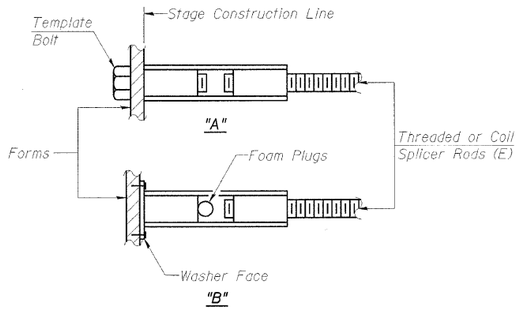
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	66
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BRM-5099(75)		

Structural Sheet 20B of 21B



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

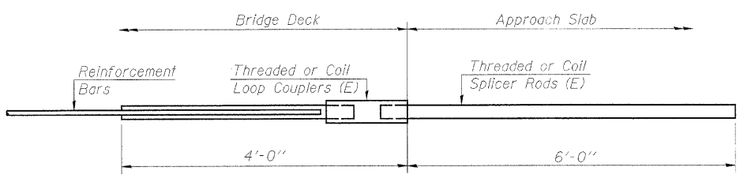
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

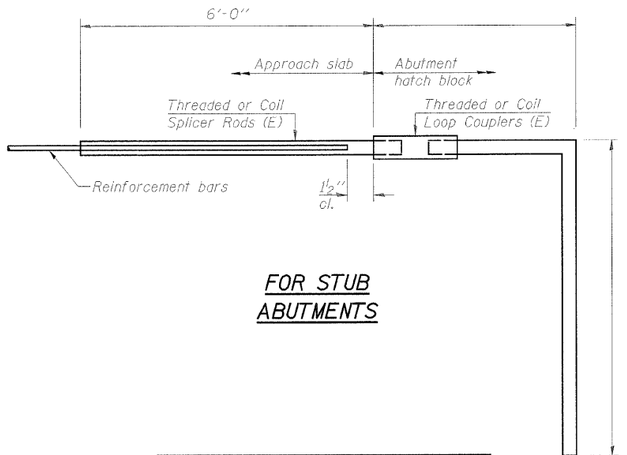
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



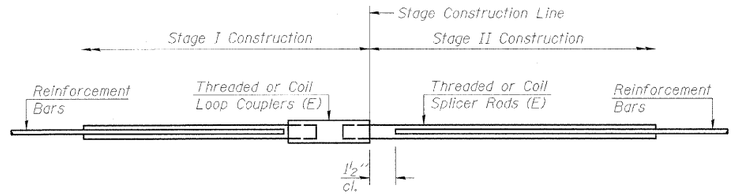
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 66



STANDARD

Bar Size	No. Assemblies Required	Location

BAR SPLICER ASSEMBLY DETAILS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124SPLC.DGN WHA # 1124D04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.U. 5154	04-00343-00-BR	WINNEBAGO	92	67
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-BRM-5099(75)		

Structural Sheet 21B of 21B

ILLINOIS DEPARTMENT OF TRANSPORTATION — District Two Materials — Bridge Foundation Boring Log
Rockford Township - S.W. 1/4 Sec. 23 - T43N, R1E
Crown Elev. @ Center of bridge - 100.0

Boring B-1 (Sh. 1 of 2)

PROJECT P-92-097-92 BRIDGE Beltline Road over the Kishwaukee River — Date 04/05/93
ROUTE FAU 5103 — Bored By K. Pax
SEC. 1BR-3 & 1VBR — STA. 129+84 — Checked By T. Bratt
COUNTY Winnebago — Boring No. B-1 — Sta 127+76 — O/S 7.6' Rt C.L.
Surf Wat El. 85.0 — Grndwater El. at Compl WASH — At ___ Hrs ___

Description	El.	N
Ground Surface 99.2	0	
VERY LOOSE, dirty brown medium coarse SAND.		
MEDIUM, dirty brownish tan medium coarse SAND.		10, 8, 9
MEDIUM, dirty black SAND.	-5	8, 8, 11
LOOSE, redish brown (rusty) fine SAND.		6, 6, 4
MEDIUM, tan sugary SAND.	-10	7, 8, 13
MEDIUM, tan SAND & GRAVEL.		9, 14, 11
First Encounter V. Same as above.	-15	9, 9, 16
Same as above		12, 15, 14
Stream Bed Elev. 79.2. DENSE. Same as above	-20	12, 15, 16
MEDIUM, tan SAND & GRAVEL.		8, 11, 14
BEGIN WASH. Medium, Same as above	-25	12, 13, 12
DENSE, Same as above.	-30	16, 12, 20
VERY DENSE. Same as above.	-35	22, 29, 28
MEDIUM, Same as above	-40	13, 9, 6
	-45	

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Boring B-1 (Sh. 2 of 2)

Project P-92-097-92 — Route FAU 5103 — Sec. 1BR-3 & 1VBR — County Winnebago
Boring No. B-1 — Sta 127+76 — O/S 7.6' Rt C.L.

Description	El.	N
	-45	
DENSE, tan SAND & GRAVEL.		26, 16, 26
END OF BORING	-50	
	-55 … -95	

Boring B-2 (Sh. 1 of 2)

PROJECT P-92-097-92 BRIDGE Beltline Road over the Kishwaukee River — Date 04/06/93
ROUTE FAU 5103 — Bored By K. Pax
SEC. 1BR-3 & 1VBR — STA. 129+84 — Checked By T. Bratt
COUNTY Winnebago — Boring No. B-2 — Sta 131+83 — O/S 8.6' Rt C.L.
Surf Wat El. 85.0 — Grndwater El. at Compl WASH — At ___ Hrs ___

Description	El.	N
Ground Surface 99.9	0	
VERY LOOSE, dirty brown medium coarse SAND.		
DENSE, redish, tan SAND & GRAVEL.		18, 20, 20
MEDIUM, dirty brown, tan SAND & GRAVEL.	-5	5, 5, 6
LOOSE. Same as above.		4, 5, 4
MEDIUM. Same as above.	-10	8, 11, 6
MEDIUM, dirty black fine SAND.		7, 7, 8
MEDIUM, dirty tan fine SAND.	-15	6, 9, 7
First Encounter V. MEDIUM. Same as above.		3, 6, 7
Streambed Elev. 79.9. MEDIUM, tan SAND & GRAVEL.	-20	6, 8, 8
MEDIUM, tan SAND & GRAVEL.		6, 5, 6
BEGIN WASH. MEDIUM, tan SAND & GRAVEL.	-25	7, 8, 9
MEDIUM, tan SAND & GRAVEL.	-30	7, 7, 9
MEDIUM, tan SAND & GRAVEL.	-35	15, 13, 11
MEDIUM, tan SAND & GRAVEL.	-40	7, 9, 14
	-45	

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Boring B-2 (Sh. 2 of 2)

Project P-92-097-92 — Route FAU 5103 — Sec. 1BR-3 & 1VBR — County Winnebago
Boring No. B-2 — Sta 131+83 — O/S 8.6' Rt C.L.

Description	El.	N
	-45	
MEDIUM, tan SAND & GRAVEL.		14, 17, 11
DENSE, tan SAND & GRAVEL.	-50	10, 16, 28
VERY DENSE, tan SAND & GRAVEL.	-55	15, 24, 31
VERY DENSE, Same as above.	-60	28, 32, 32
END BORING		
	-65 … -95	

Boring B-3 (Sh. 1 of 2)

PROJECT P-92-097-92 BRIDGE Beltline Road over the Kishwaukee River — Date 04/07/93
ROUTE FAU 5103 — Bored By K. Pax
SEC. 1BR-3 & 1VBR — STA. 129+84 — Checked By T. Bratt
COUNTY Winnebago — Boring No. B-3 — Sta 130+94 — O/S 7' Lt C.L.
Surf Wat El. 83.6 — Grndwater El. at Compl WASH — At ___ Hrs ___

Description	El.	N
Ground Surface 100.1	0	
AIR	-5 … -15	
83.6		
WATER	-20	
Steambed Elev 76.8		
LOOSE, dirty black fine SAND.	-25	1, 2, 6
MEDIUM, dirty black SAND & GRAVEL.		8, 6, 9
MEDIUM, tan SAND & GRAVEL	-30	6, 6, 6
LOOSE. Same as above.		4, 4, 5
	-35	
LOOSE, tan SAND & GRAVEL.		3, 3, 3
	-40	
MEDIUM, tan SAND & GRAVEL.		6, 6, 5
	-45	

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Boring B-3 (Sh. 2 of 2)

Project P-92-097-92 — Route FAU 5103 — Sec. 1BR-3 & 1VBR — County Winnebago
Boring No. B-3 — Sta 130+94 — O/S 7' Lt C.L.

Description	El.	N
	-45	
MEDIUM, tan SAND & GRAVEL.		9, 8, 10
DENSE. Same as above.	-50	33, 21, 21
DENSE. Same as above.	-55	10, 14, 24
VERY DENSE. Same as above.	-60	38, 40, 39
END OF BORING	-65	
Water Elevation difference due to heavy rains the past two weeks.		
	-70 … -95	

Boring B-4 (Sh. 1 of 2)

PROJECT P-92-097-92 BRIDGE Beltline Road over the Kishwaukee River — Date 04/12/93
ROUTE FAU 5103 — Bored By K. Pax
SEC. 1BR-3 & 1VBR — STA. 129+84 — Checked By T. Bratt
COUNTY Winnebago — Boring No. B-4 — Sta 129+90 — O/S 8' Rt C.L.
Surf Wat El. 83.8 — Grndwater El. at Compl WASH — At ___ Hrs ___

Description	El.	N
Ground Surface 100.0	0	
AIR	-5 … -15	
84.5		
WATER	-20	
Streambed Elev 75.0. River Mud	-25	
MEDIUM, dirty black river SAND & GRAVEL.		14, 12, 13
MEDIUM, tan river SAND & GRAVEL.	-30	10, 16, 18
MEDIUM, tan river SAND & GRAVEL.		13, 12, 11
	-35	
MEDIUM. Same as above		8, 11, 6
	-40	
MEDIUM. Same as above		10, 6, 7
	-45	

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Boring B-4 (Sh. 2 of 2)

Project P-92-097-92 — Route FAU 5103 — Sec. 1BR-3 & 1VBR — County Winnebago
Boring No. B-4 — Sta 129+90 — O/S 8' Rt C.L.

Description	El.	N
	-45	
VERY DENSE, tan river SAND & GRAVEL.		26, 27, 28
VERY DENSE, same as above.	-50	48, 23, 29
VERY DENSE, same as above.	-55	22, 38, 38
END OF BORING	-60	
	-65 … -95	

Boring B-5 (Sh. 1 of 2)

PROJECT P-92-097-92 BRIDGE Beltline Road over the Kishwaukee River — Date 04/09/93
ROUTE FAU 5103 — Bored By K. Pax
SEC. 1BR-3 & 1VBR — STA. 129+84 — Checked By T. Bratt
COUNTY Winnebago — Boring No. B-5 — Sta 128+80 — O/S 7' Lt C.L.
Surf Wat El. 83.0 — Grndwater El. at Compl WASH — At ___ Hrs ___

Description	El.	N
Ground Surface 99.6	0	
AIR	-5 … -10	
Water Surface 84.6	-15	
WATER	-20	
Streambed Elev. 76.1. River Mud		
MEDIUM, dirty black fine SAND.	-25	7, 8, 5
MEDIUM, dirty black SAND & GRAVEL.		7, 8, 5
	-30	
MEDIUM, dirty black SAND & GRAVEL.		7, 9, 8
	-35	
LOOSE, dirty black SAND & GRAVEL.		6, 5, 4
	-40	
MEDIUM, tan SAND & GRAVEL		3, :, 6
	-45	

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Boring B-5 (Sh. 2 of 2)

Project P-92-097-92 — Route FAU 5103 — Sec. 1BR-3 & 1VBR — County Winnebago
Boring No. B-5 — Sta 128+80 — O/S 7' Lt C.L.

Description	El.	N
	-45	
DENSE, tan SAND & GRAVEL.		25, 17, 19
VERY DENSE, tan SAND & GRAVEL.	-50	23, 33, 29
VERY DENSE tan SAND & GRAVEL.	-55	100 10" PEN
END OF BORING	-60	
Water elevation up due to rain the day before.		
	-65 … -95	

SOIL BORINGS
BELTLINE ROAD OVER KISHWAUKEE RIVER
FAU ROUTE 5154 SECTION 04-00343-00-BR
WINNEBAGO COUNTY
STA. 129+89 (S.N. 101-0171)

S.STRUCT.1124D04.KISHRIVER.BRIDGE DRAWINGS.1124SOILBORINGS.DGN — WHA # 1124D04

CONTRACT N

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	68

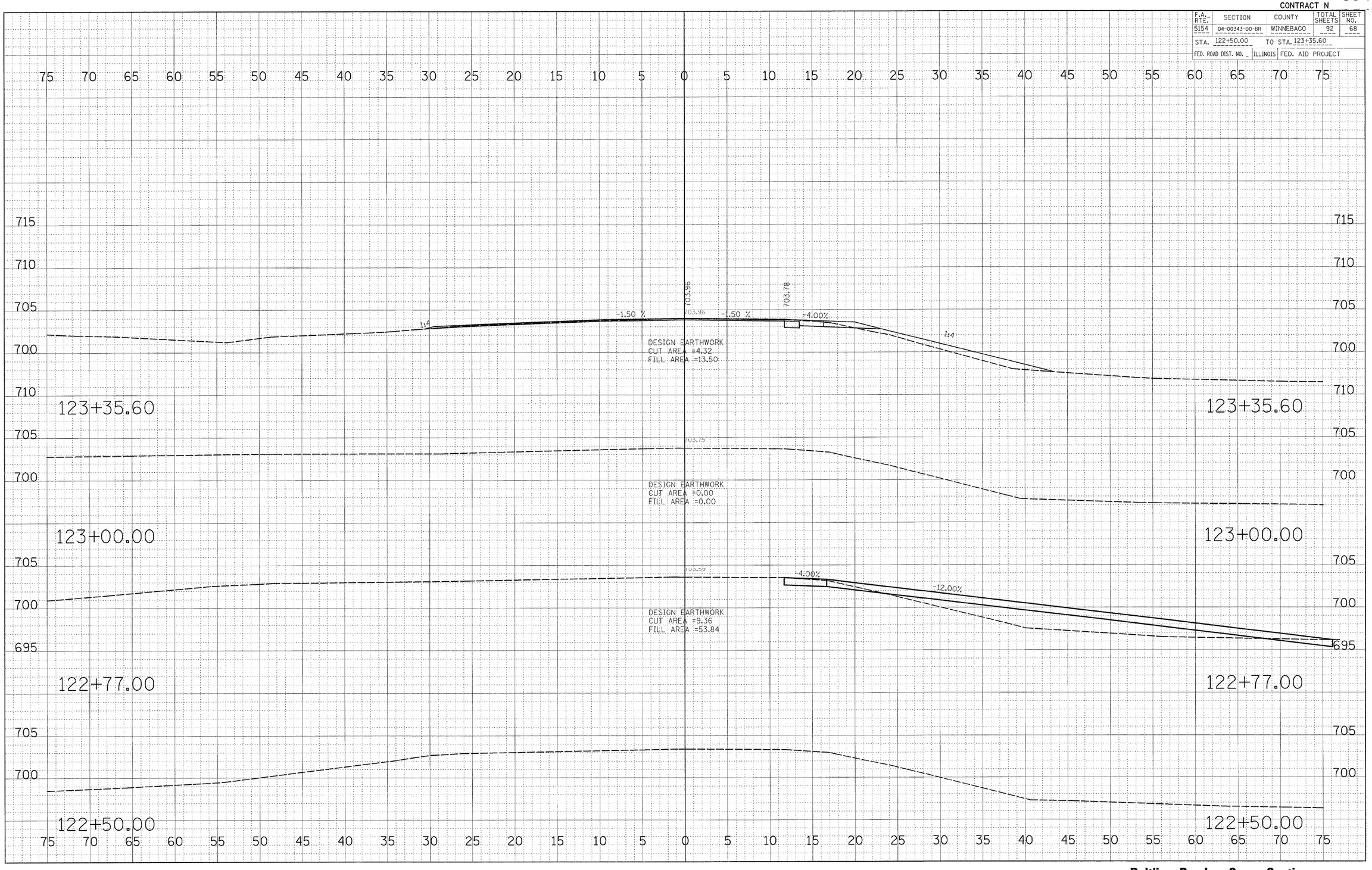
STA. 122+50.00 TO STA. 123+35.60

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED BY — PLOTTED BY — TEMPLATE — AREAS — AREAS CHECKED — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED BY — PLOTTED BY — TEMPLATE — AREAS — AREAS CHECKED — DATE

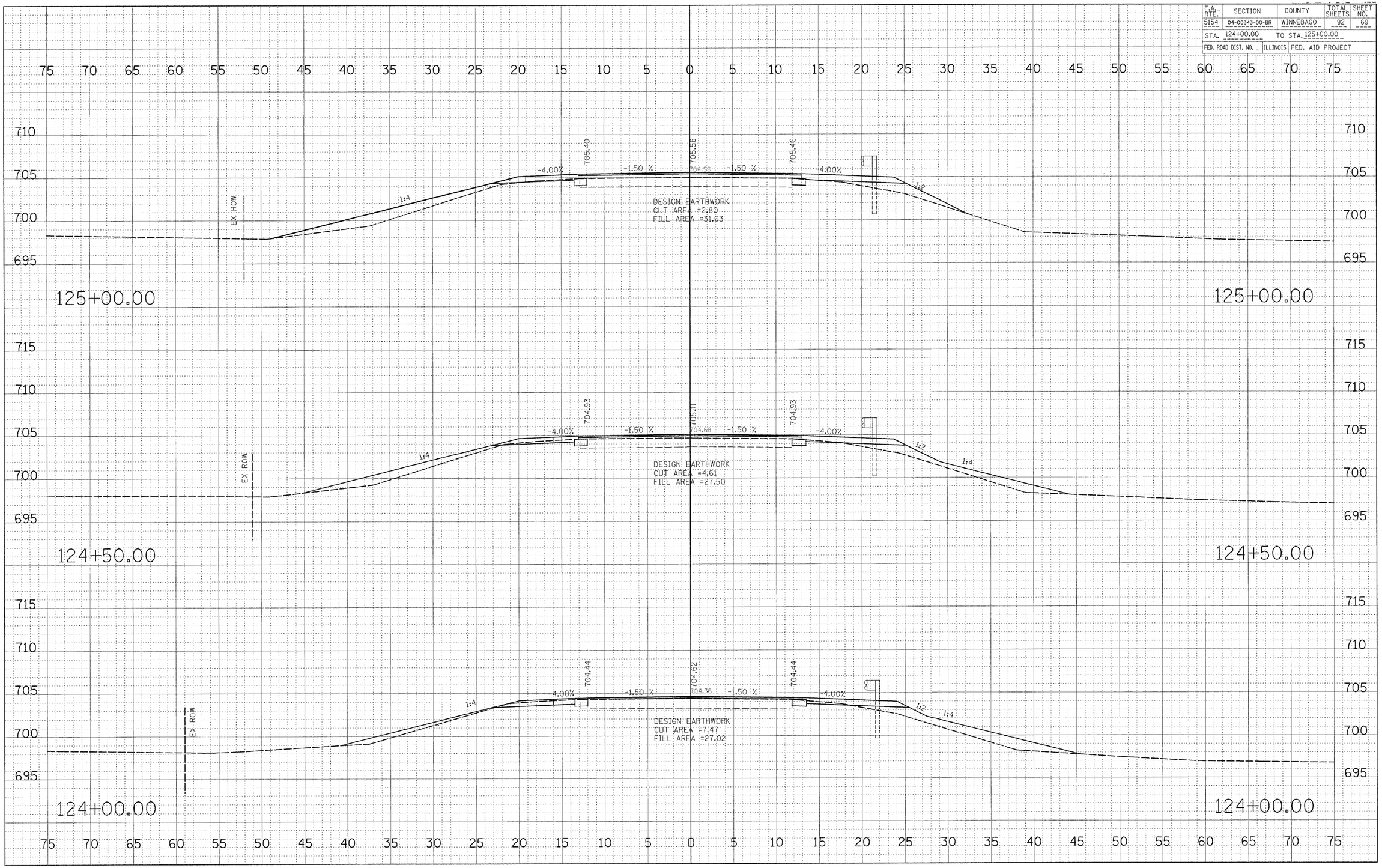
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	69
STA. 124+00.00	TO STA. 125+00.00			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



ORIGINAL SURVEY — FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

85432

CONTRACT NO. _____

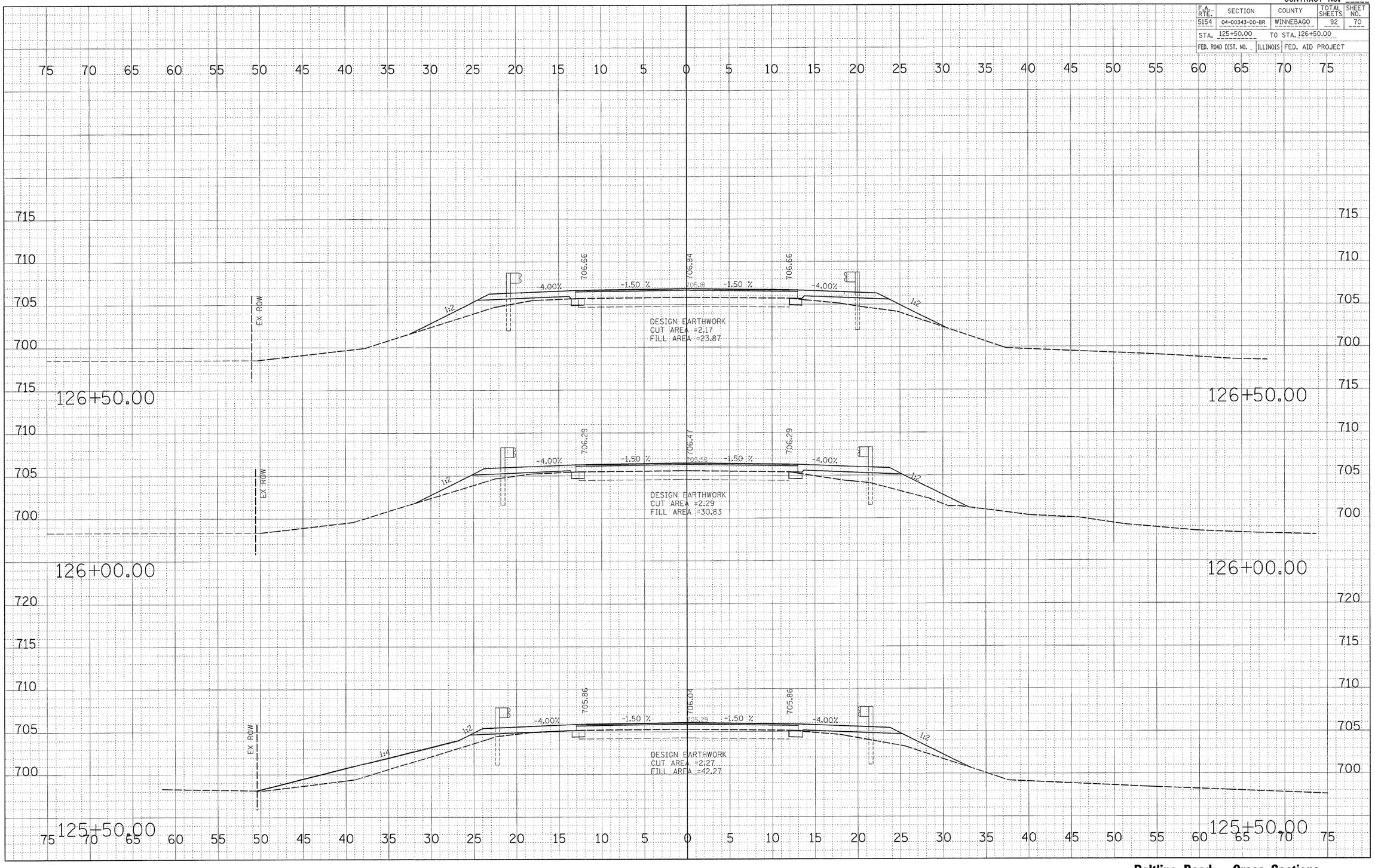
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	70

STA. 125+50.00 TO STA. 126+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY NOTE BOOK
SURVEYED BY
PLOTTED BY
TEMPLATE
AREAS
AREAS CHECKED
DATE

ORIGINAL SURVEY NOTE BOOK
SURVEYED BY
PLOTTED BY
TEMPLATE
AREAS
AREAS CHECKED
DATE



PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

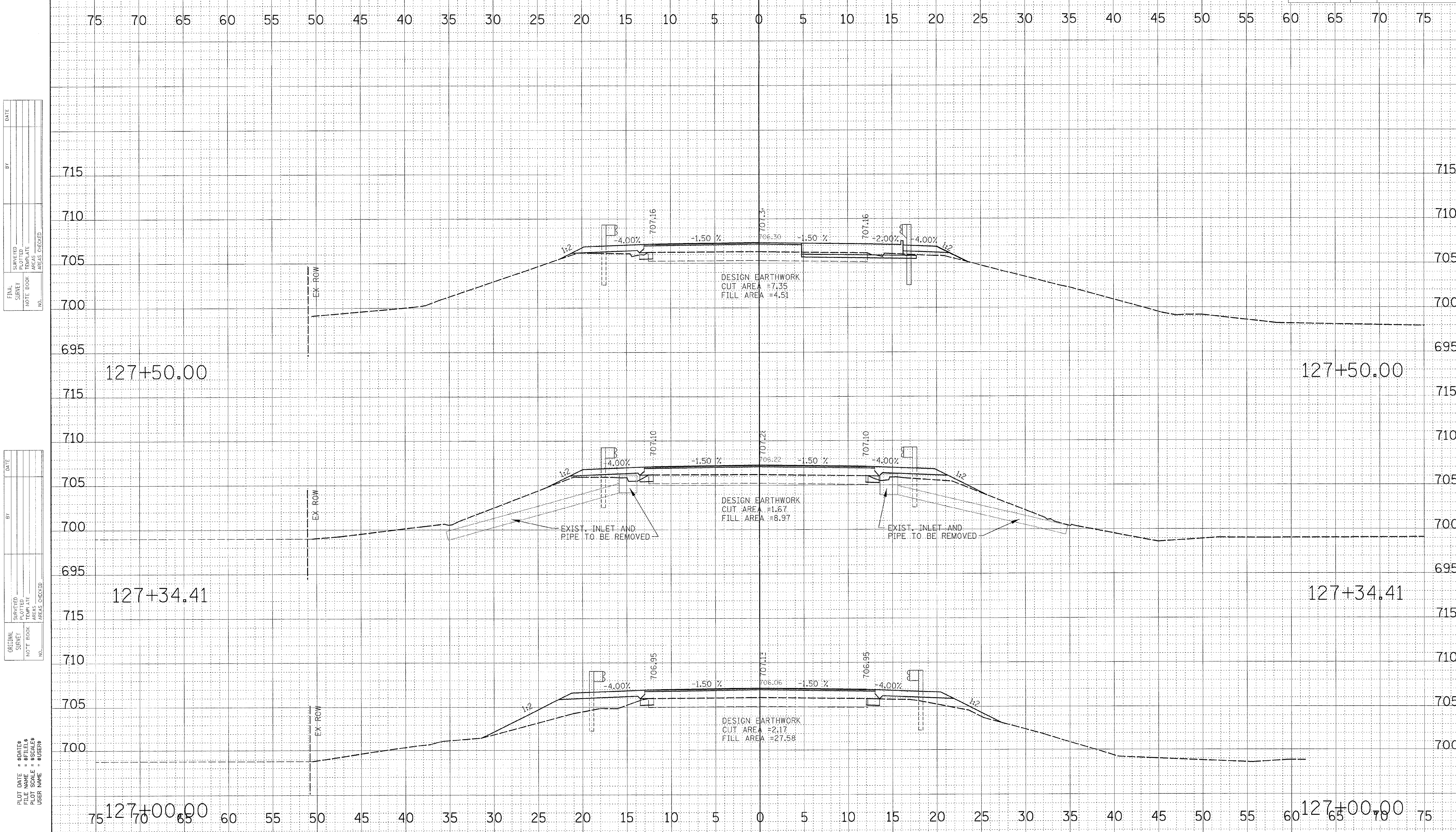
s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	71

STA. 127+00.00 TO STA. 127+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT


127+50.00
EX ROW
707.16
707.3
706.30
-4.00%
-1.50 %
-2.00%
1:2
DESIGN EARTHWORK
CUT AREA =7.35
FILL AREA =4.51
127+34.41
707.10
707.22
706.22
-4.00%
-1.50 %
EXIST. INLET AND
PIPE TO BE REMOVED
DESIGN EARTHWORK
CUT AREA =1.67
FILL AREA =8.97
127+00.00
706.95
707.11
706.06
DESIGN EARTHWORK
CUT AREA =2.17
FILL AREA =27.58
FINAL SURVEY
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	72

STA. 130+00.00 TO STA. 132+00.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

DATE	BY

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

DATE	BY

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

715 710 705 700 695 690 685

EX ROW

132+00.00

-2.00% 708.27 -1.50 % 708.45 -1.50 % 708.27 -2.00% 4.00%

706.99

1:2

DESIGN EARTHWORK
CUT AREA =1.87
FILL AREA =5.82

EX ROW

130+00.00

-2.00% 707.78 -1.50 % 707.96 -1.50 % 707.78 -2.00%

687.11

DESIGN EARTHWORK
CUT AREA =0.00
FILL AREA =0.00

132+00.00

130+00.00

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

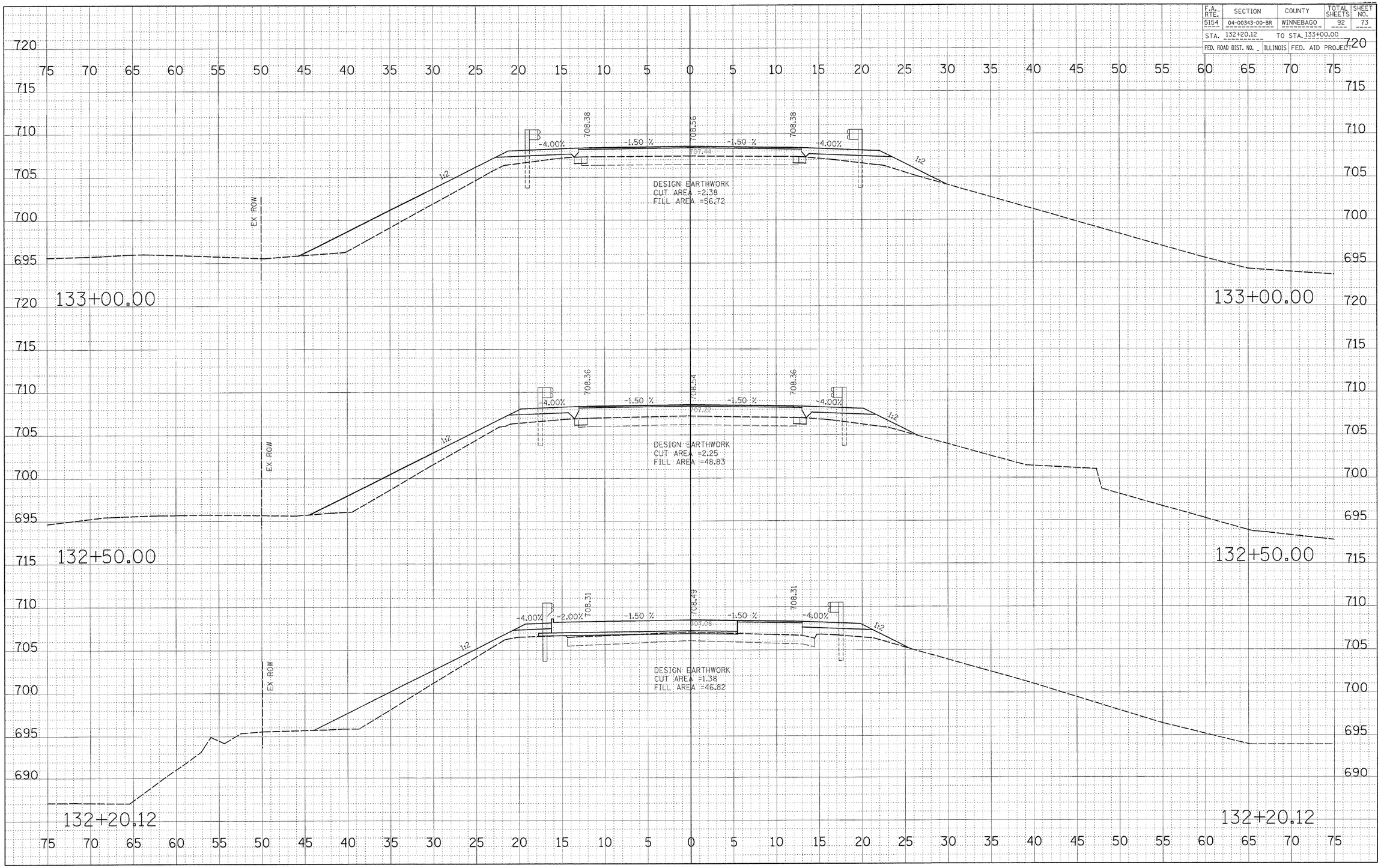
Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	73

STA. 132+20.12 TO STA. 133+00.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	74

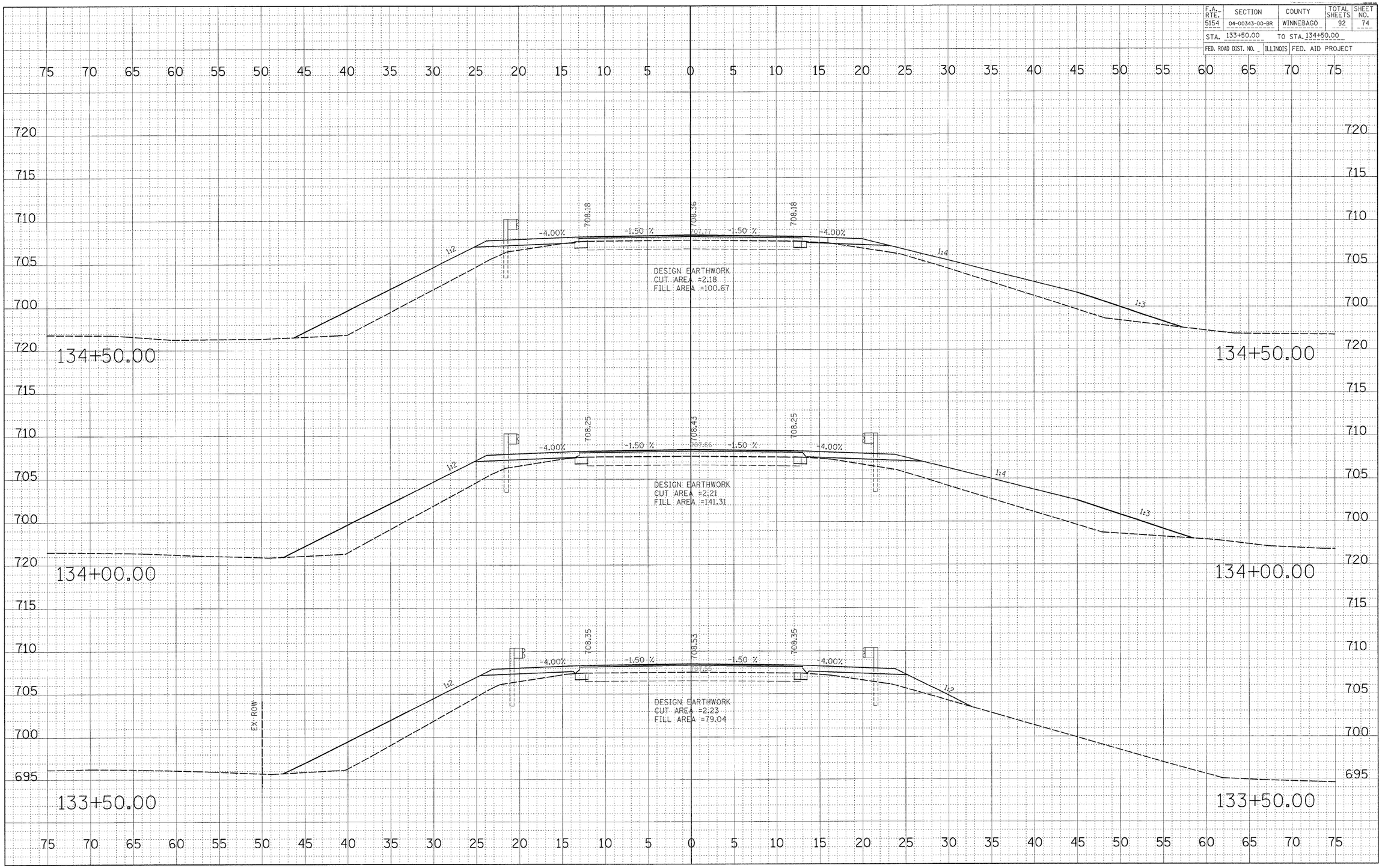
STA. 133+50.00 TO STA. 134+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	
	AREAS CHECKED	

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

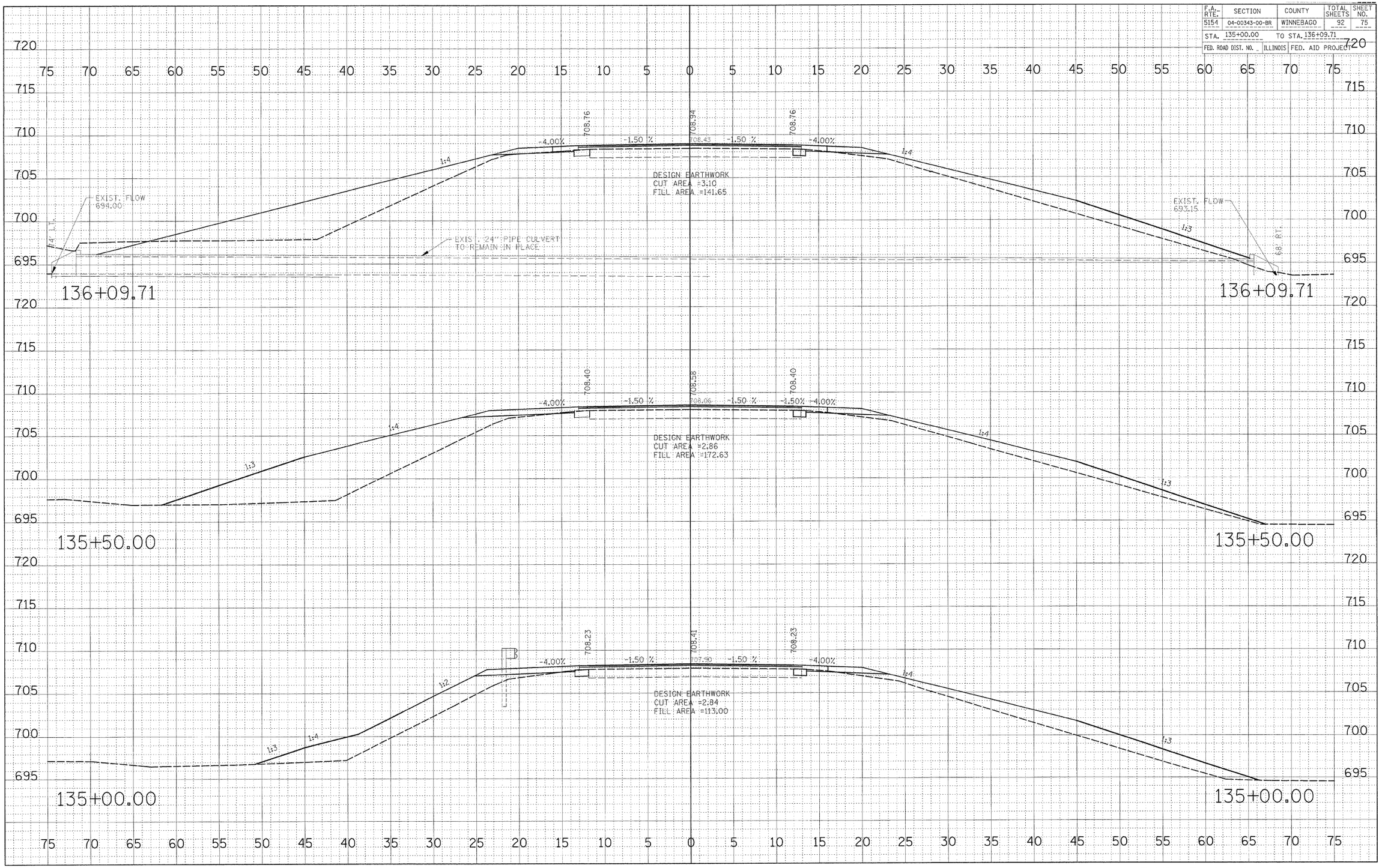
Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	75

STA. 135+00.00 TO STA. 136+09.71

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

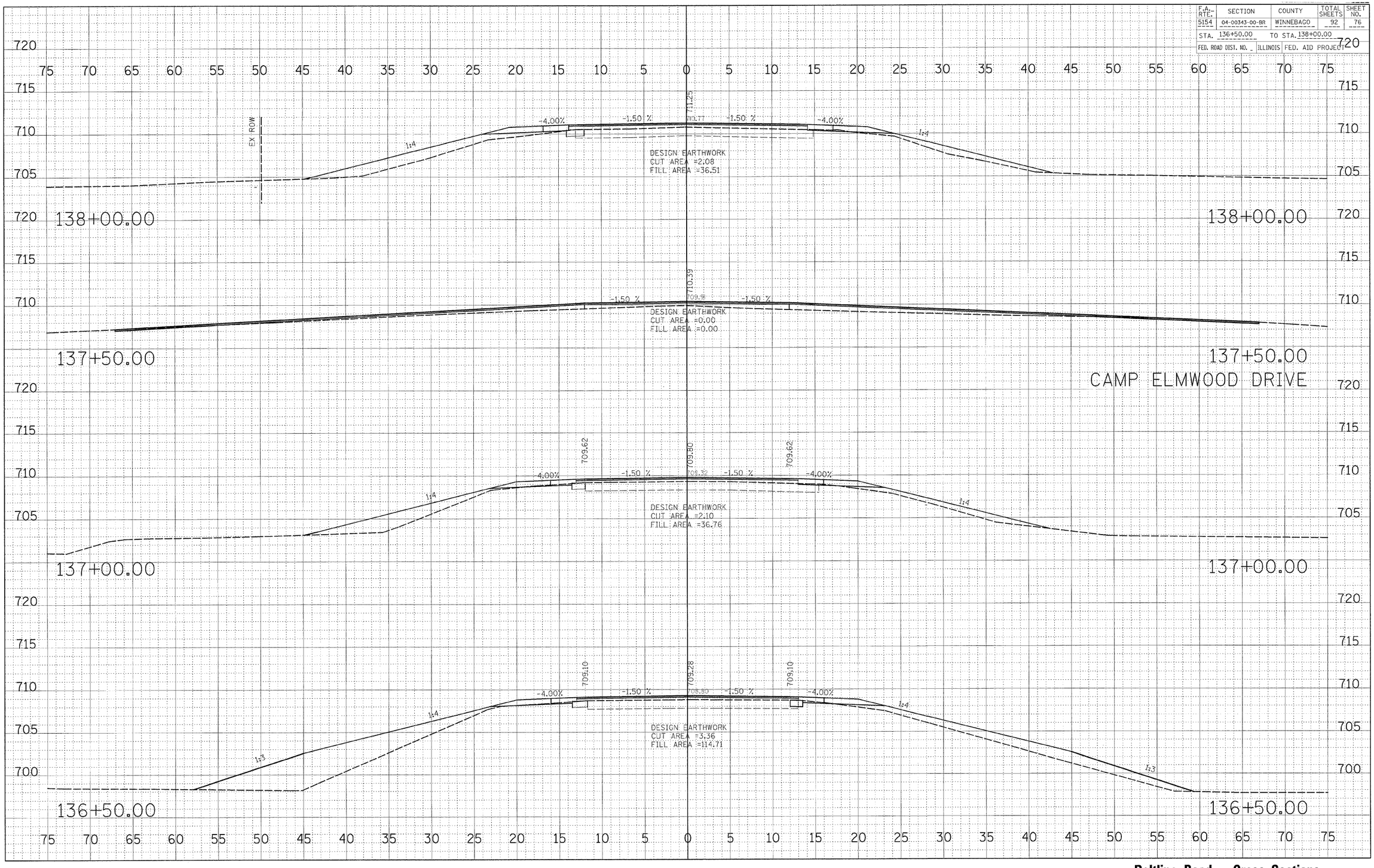
ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	76
STA. 136+50.00	TO STA. 138+00.00			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

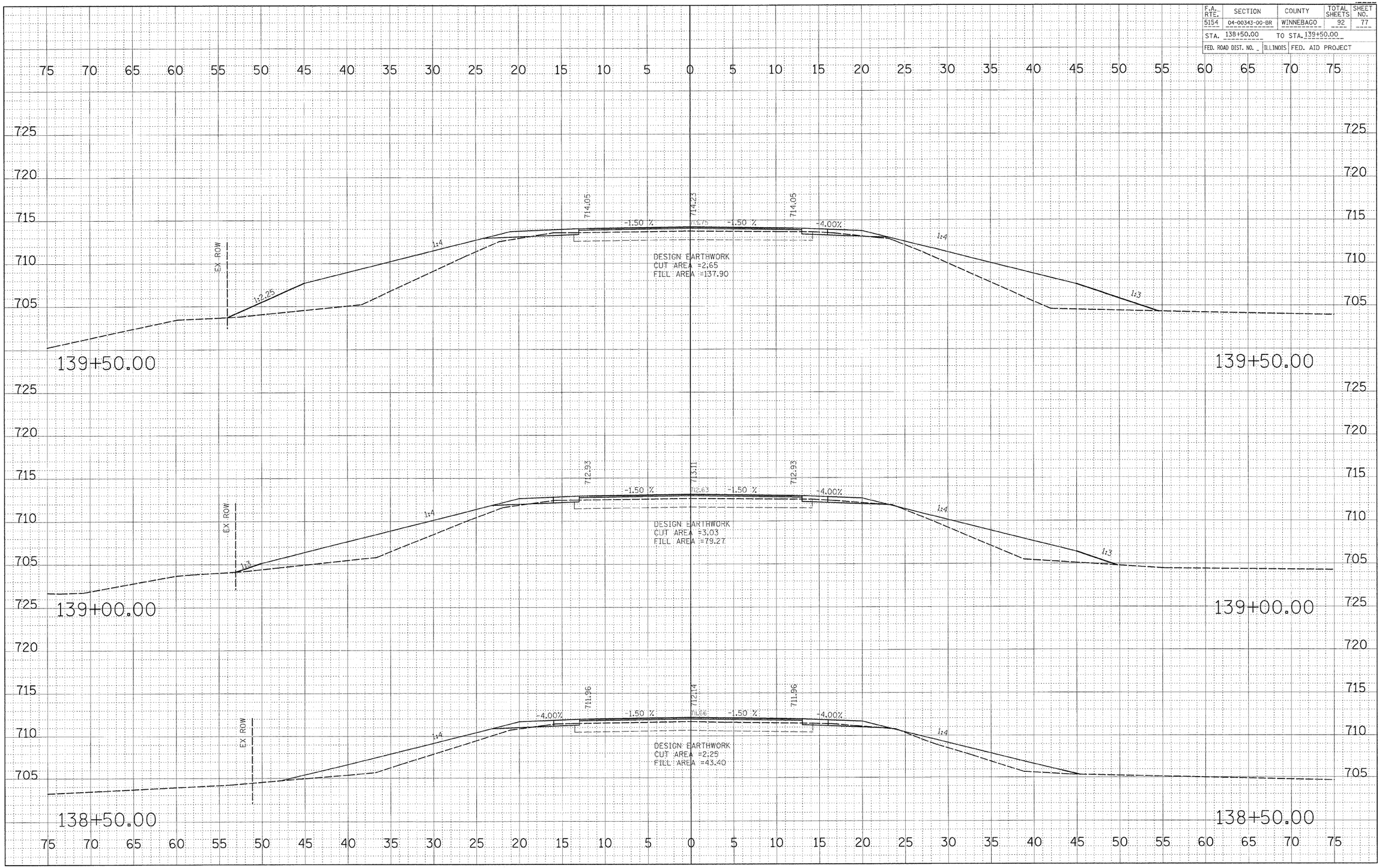
Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	77

STA. 138+50.00 TO STA. 139+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



FINAL SURVEY	NOTE BOOK	NO.	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

85432

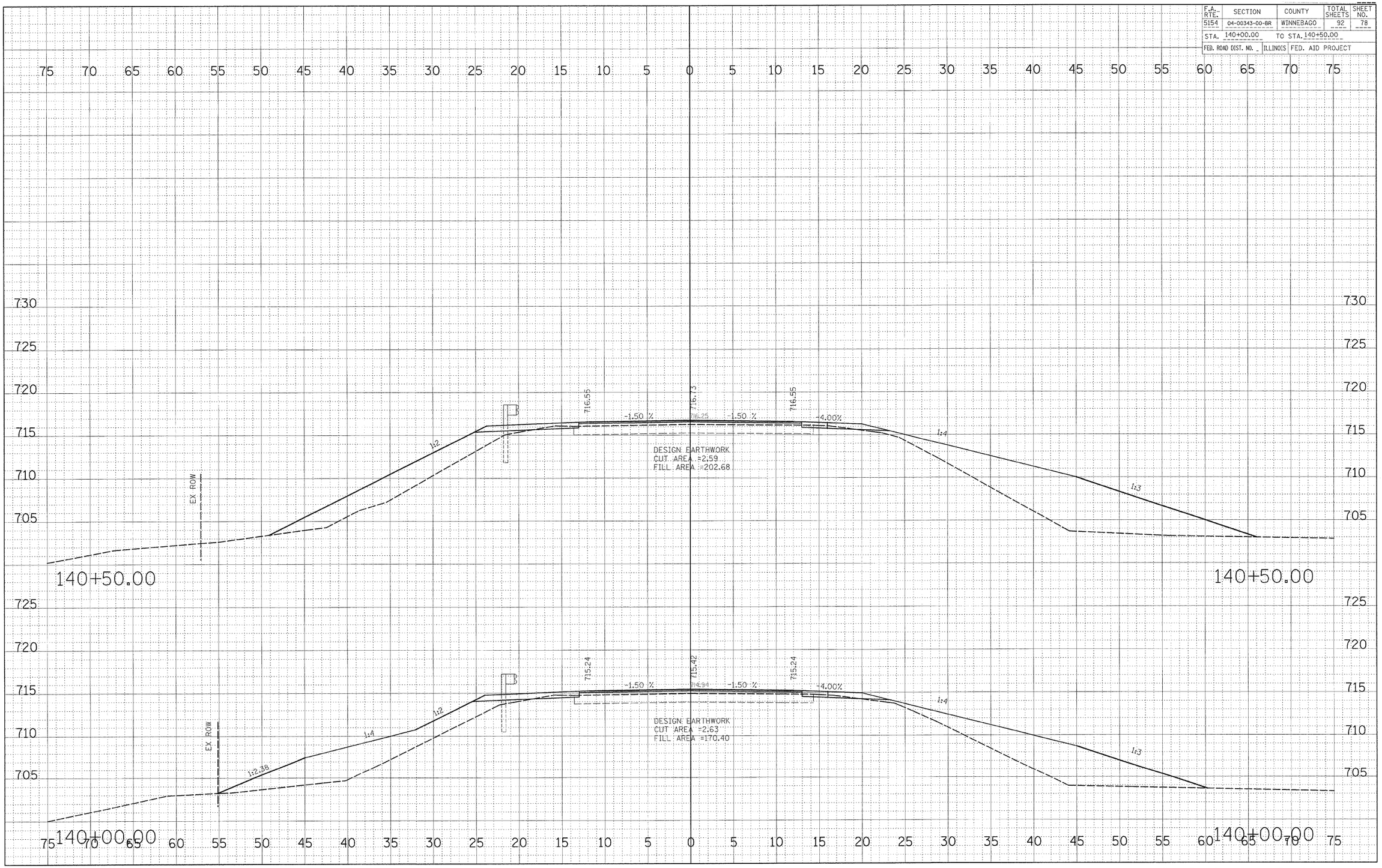
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	78

STA. 140+00.00 TO STA. 140+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY	NOTE BOOK	NO.	BY	DATE
SURVEYED				
PLOTTED				
TEMPLATE				
AREAS				
AREAS CHECKED				

ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE
SURVEYED				
PLOTTED				
TEMPLATE				
AREAS				
AREAS CHECKED				



PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
USER NAME = #USER#

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	79

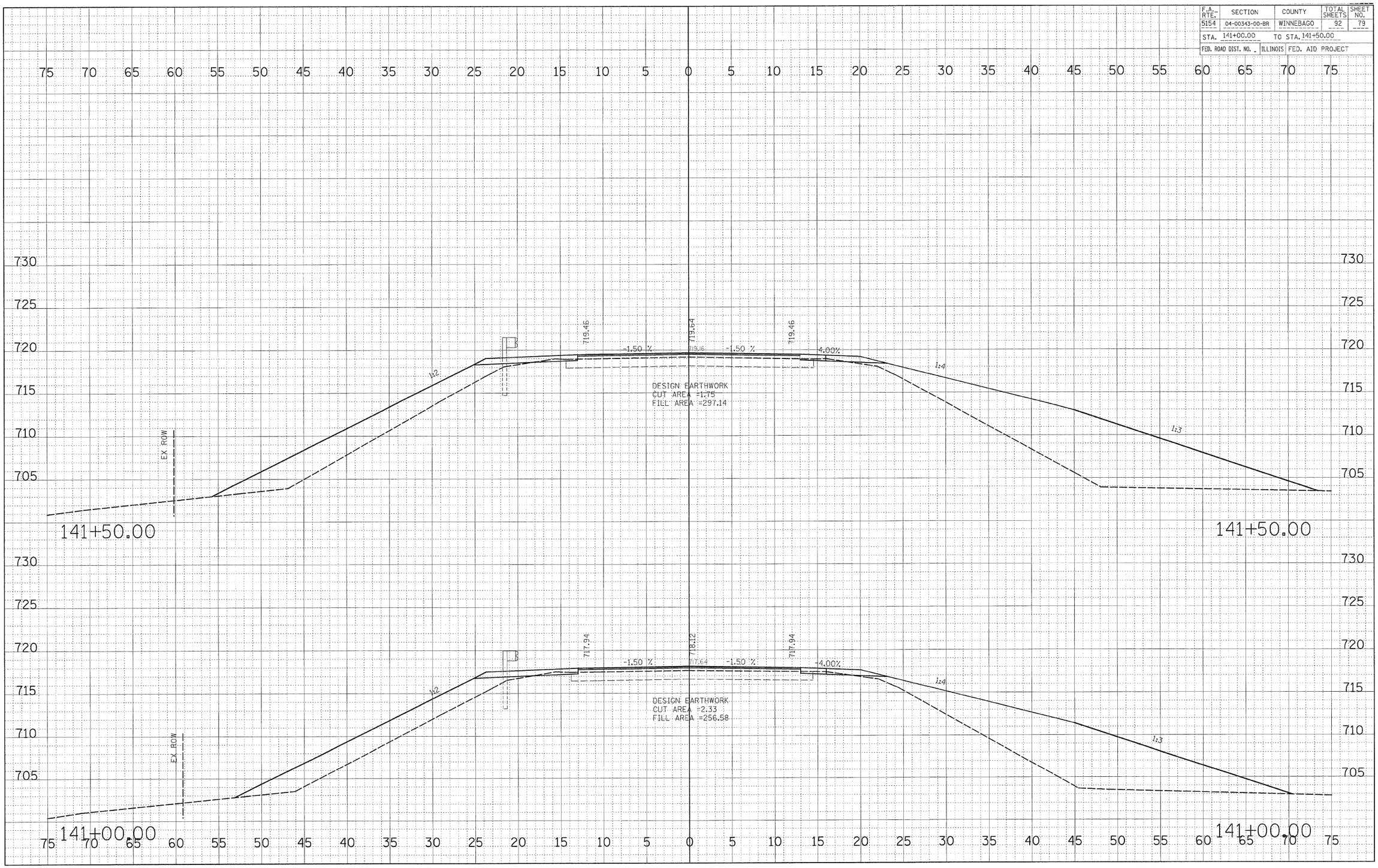
STA. 141+00.00 TO STA. 141+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

ORIGINAL SURVEY	SURVEYED	BY
NOTE BOOK	PLOTTED	DATE
NO.	TEMPLATE AREAS	
	AREAS CHECKED	

FINAL SURVEY	SURVEYED	BY
NOTE BOOK	PLOTTED	DATE
NO.	TEMPLATE AREAS	
	AREAS CHECKED	

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	80

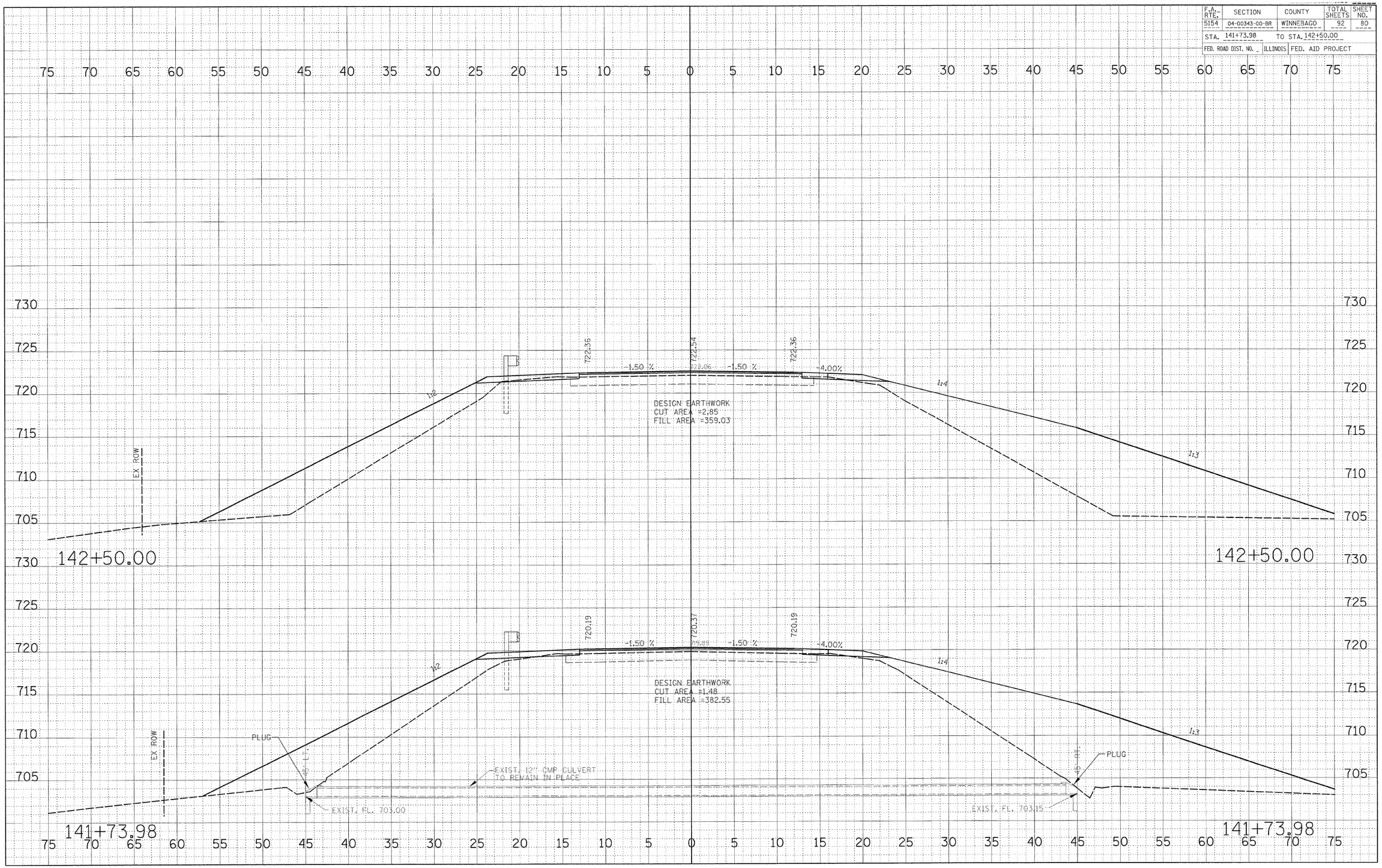
STA. 141+73.98 TO STA. 142+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	81

STA. 143+00.00 TO STA. 143+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = #DATE#
FILE NAME = #FILE1#
PLOT SCALE = #SCALE#
USER NAME = #USER#

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

735 730 725 720 715 710 705

EX. ROW

725.13 725.30 725.13

-1.50 % -1.50 % -4.00%

725.13

1:2 1:4 1:3

DESIGN EARTHWORK
CUT AREA =0.88
FILL AREA =509.27

143+50.00

723.74 723.92 723.74

-1.50 % -1.50 % -4.00%

723.42

1:2 1:4 1:3

DESIGN EARTHWORK
CUT AREA =3.06
FILL AREA =411.73

EX. ROW

143+00.00

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

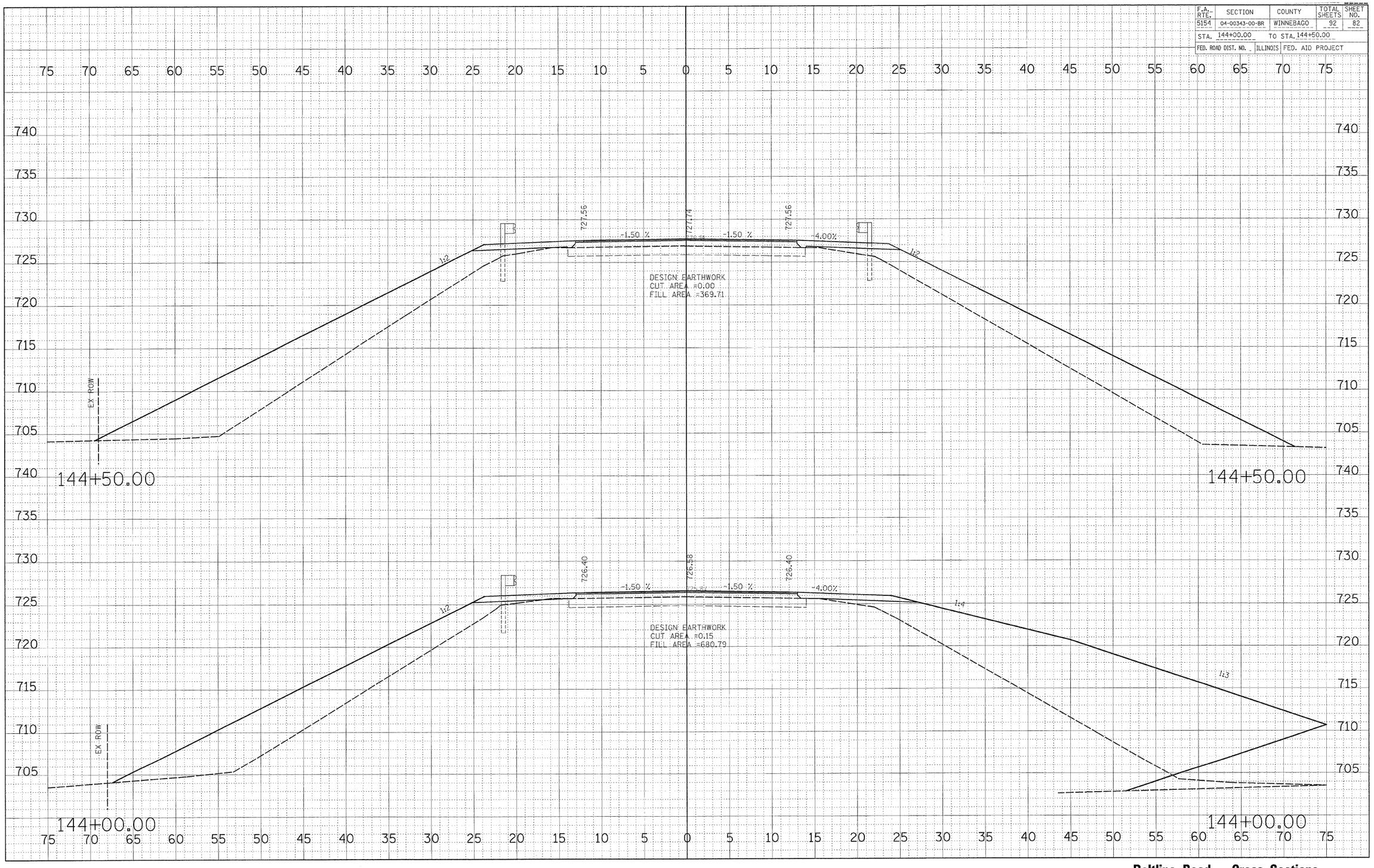
Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	82

STA. 144+00.00 TO STA. 144+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

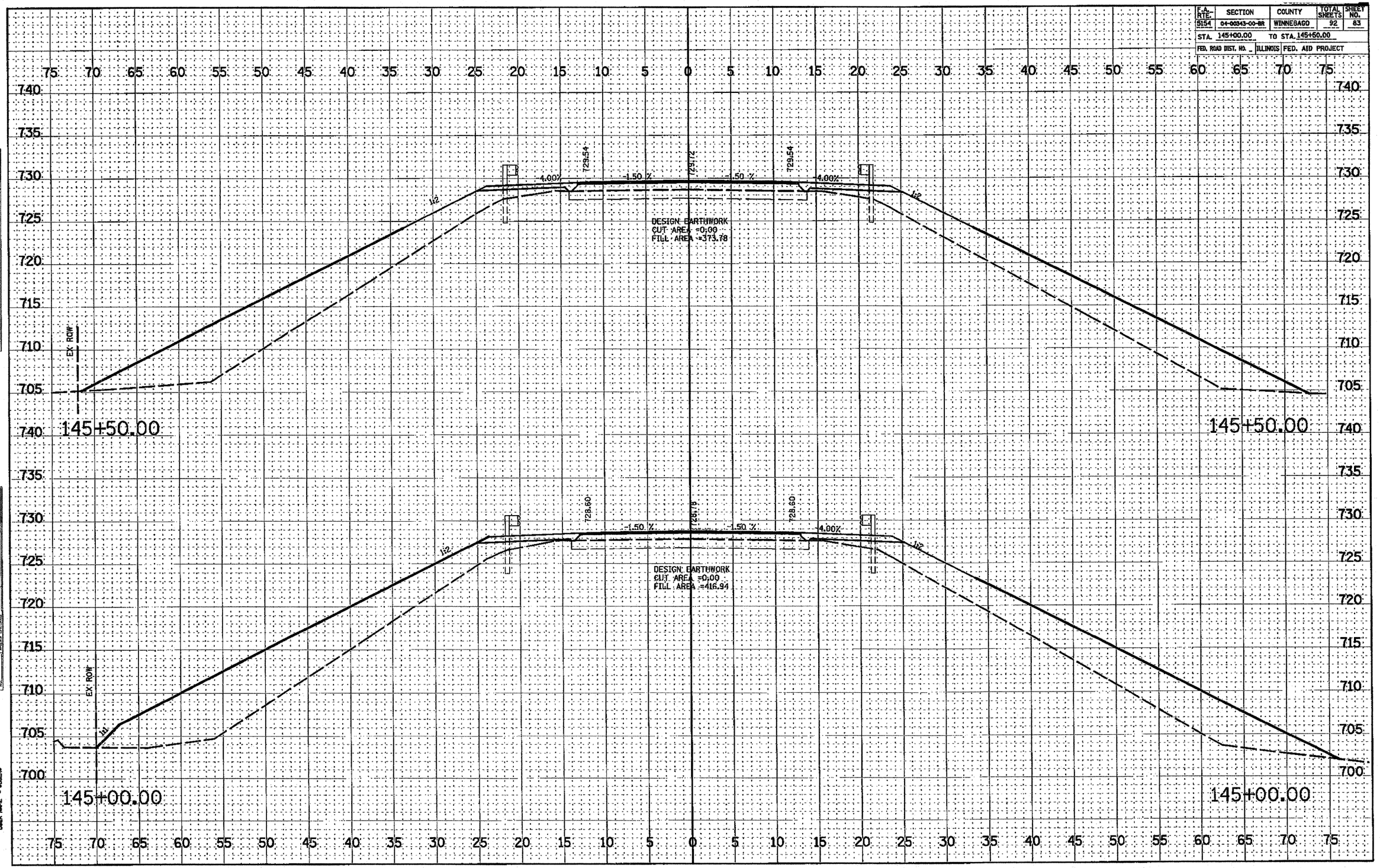
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	83

STA. 145+00.00 TO STA. 145+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

DESIGN EARTHWORK
CUT AREA =0.00
FILL AREA =373.78

DESIGN EARTHWORK
CUT AREA =0.00
FILL AREA =416.94



Beltline Road – Cross Sections

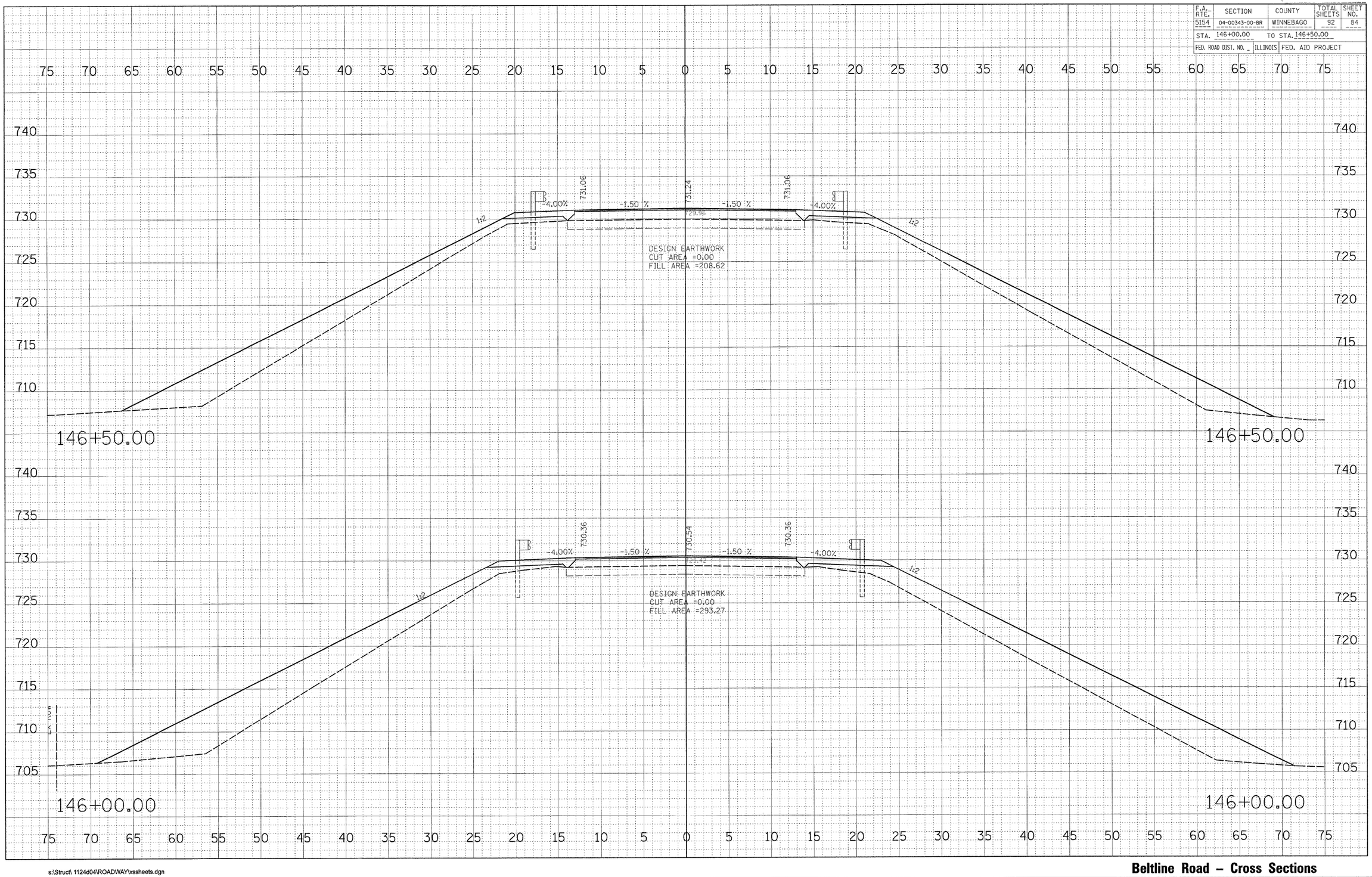
s:\Struct\1124d04\ROADWAY\xssheets.dgn

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	84

STA. 146+00.00 TO STA. 146+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE AREAS — AREAS CHECKED — BY — DATE

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

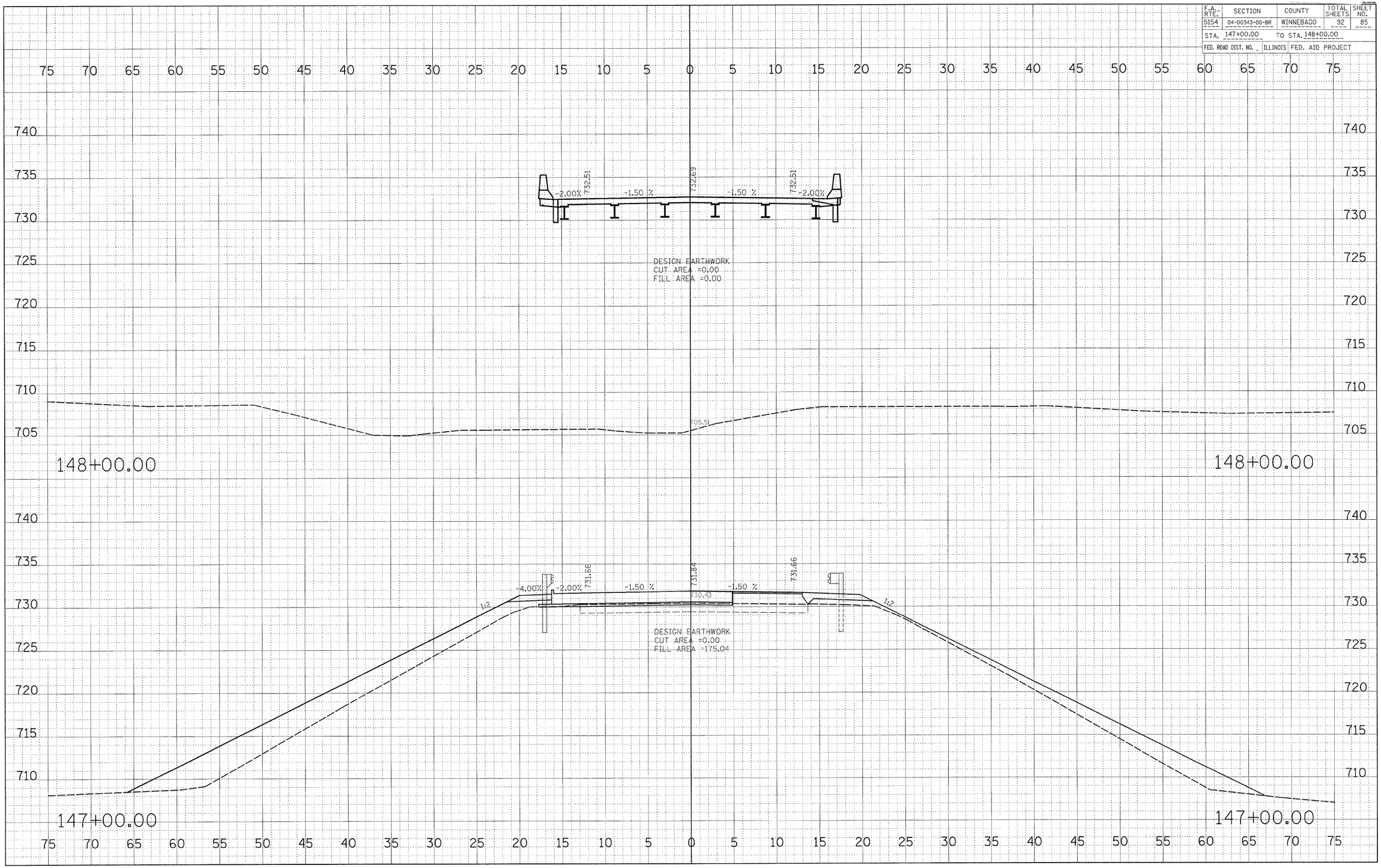
85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	85

STA. 147+00.00 TO STA. 148+00.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

DESIGN EARTHWORK
CUT AREA =0.00
FILL AREA =0.00



FINAL SURVEY NOTE BOOK NO.
SURVEYED BY
PLOTTED BY
TEMPLATE
AREAS
AREAS CHECKED
DATE

ORIGINAL SURVEY NOTE BOOK NO.
SURVEYED BY
PLOTTED BY
TEMPLATE
AREAS
AREAS CHECKED
DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

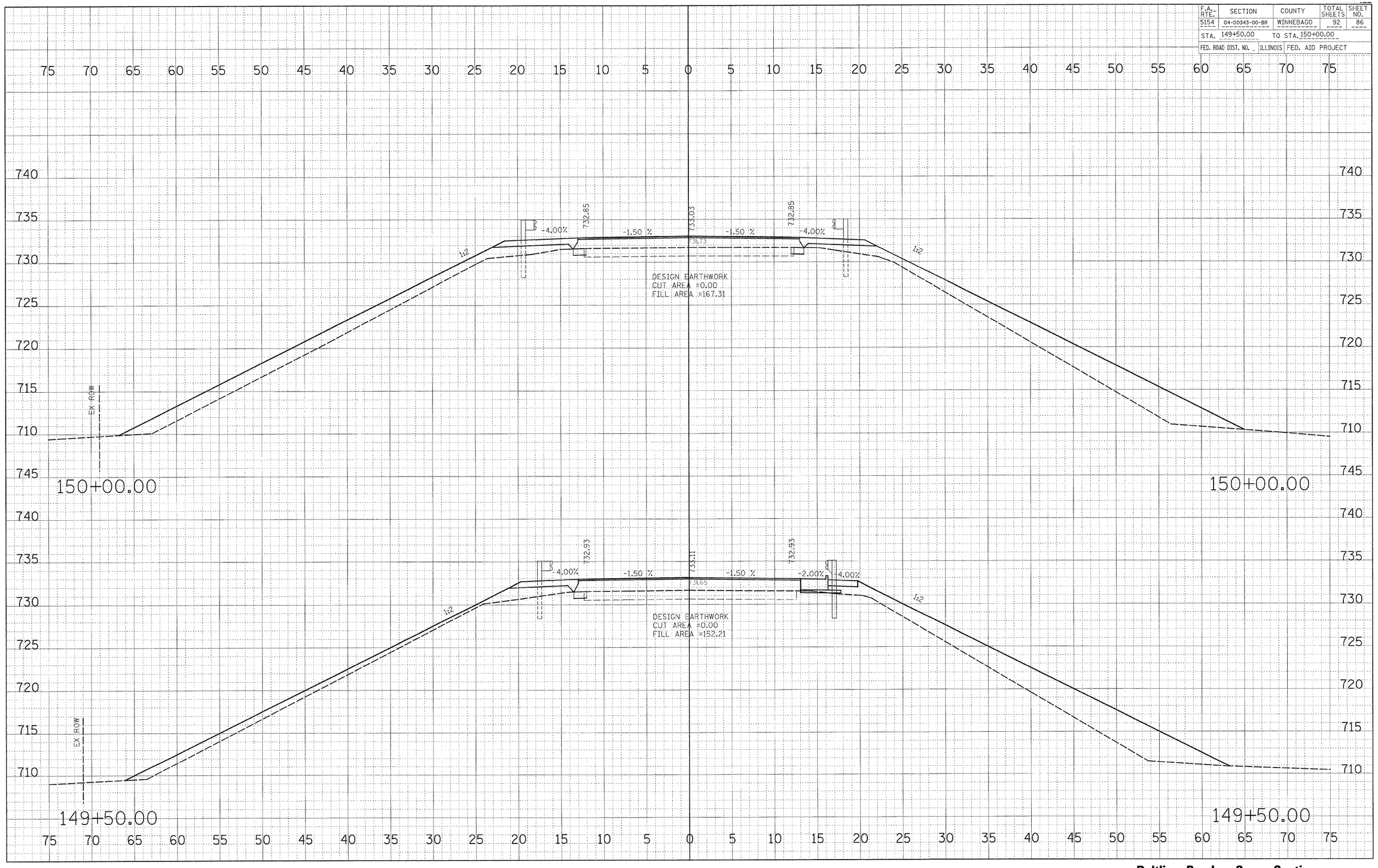
Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	86

STA. 149+50.00 TO STA. 150+00.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

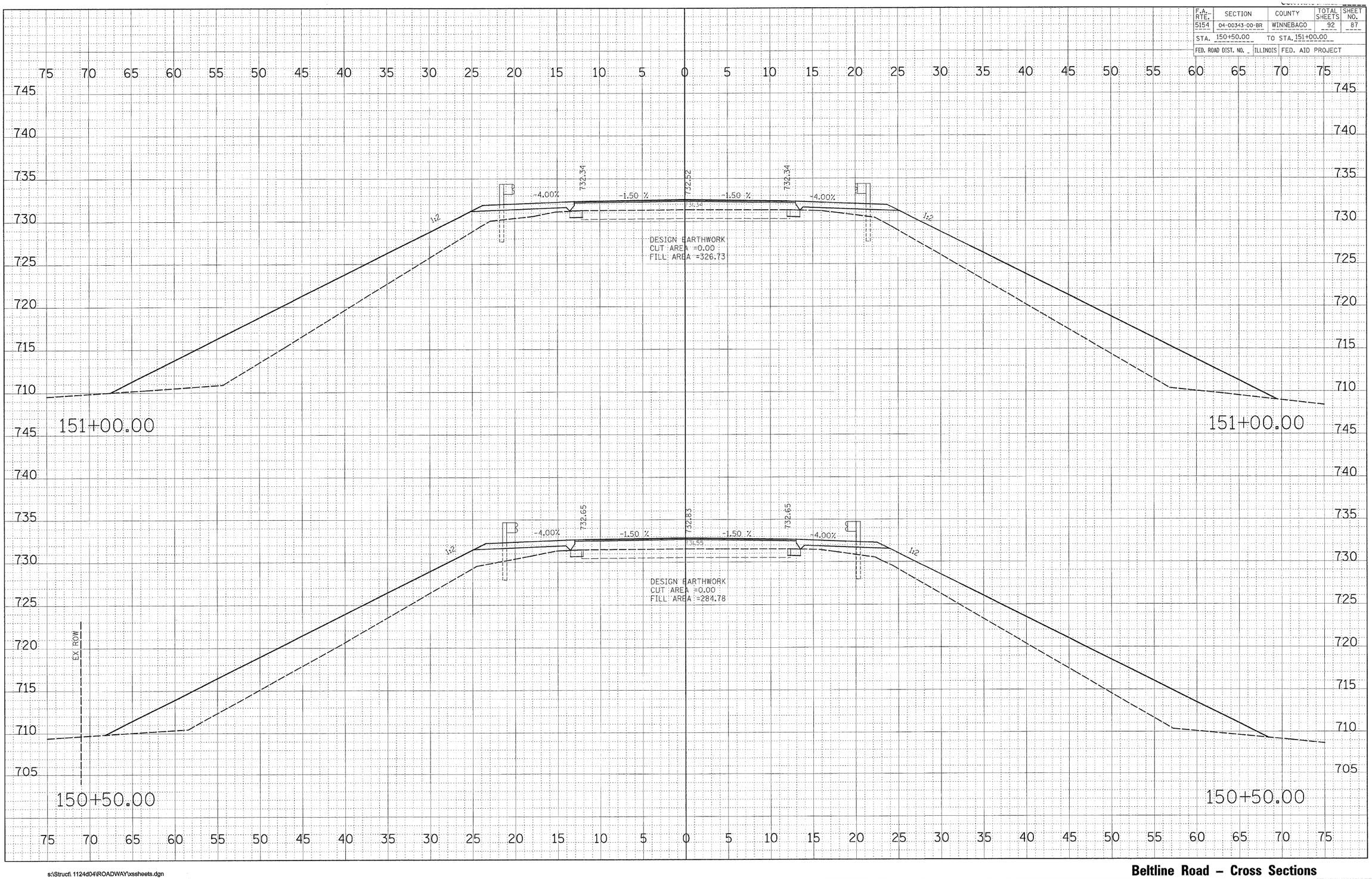
85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	87
STA. 150+50.00	TO STA. 151+00.00			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY NOTE BOOK NO.
SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED
BY / DATE

ORIGINAL SURVEY NOTE BOOK NO.
SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED
BY / DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	88

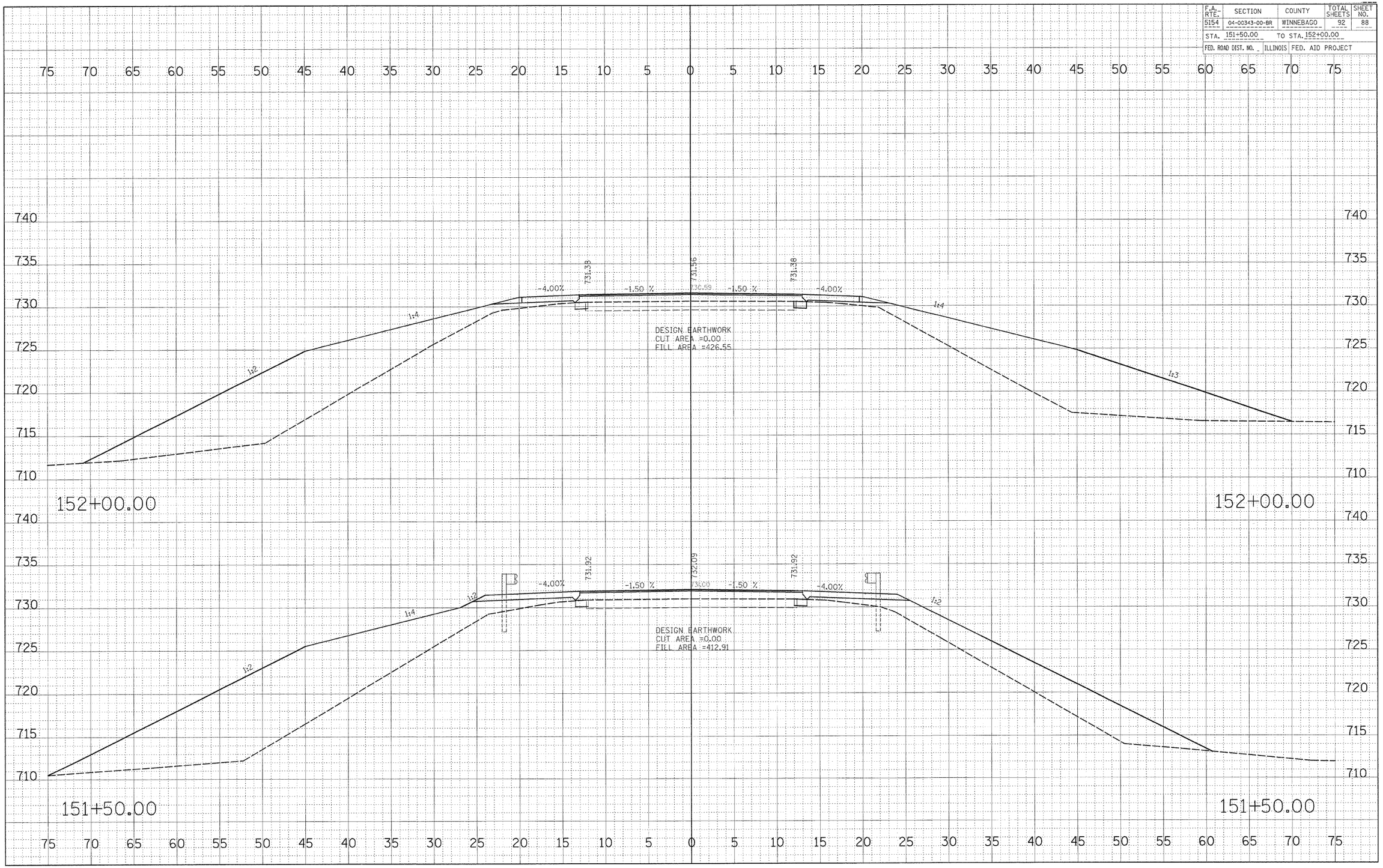
STA. 151+50.00 TO STA. 152+00.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
USER NAME = $USER$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

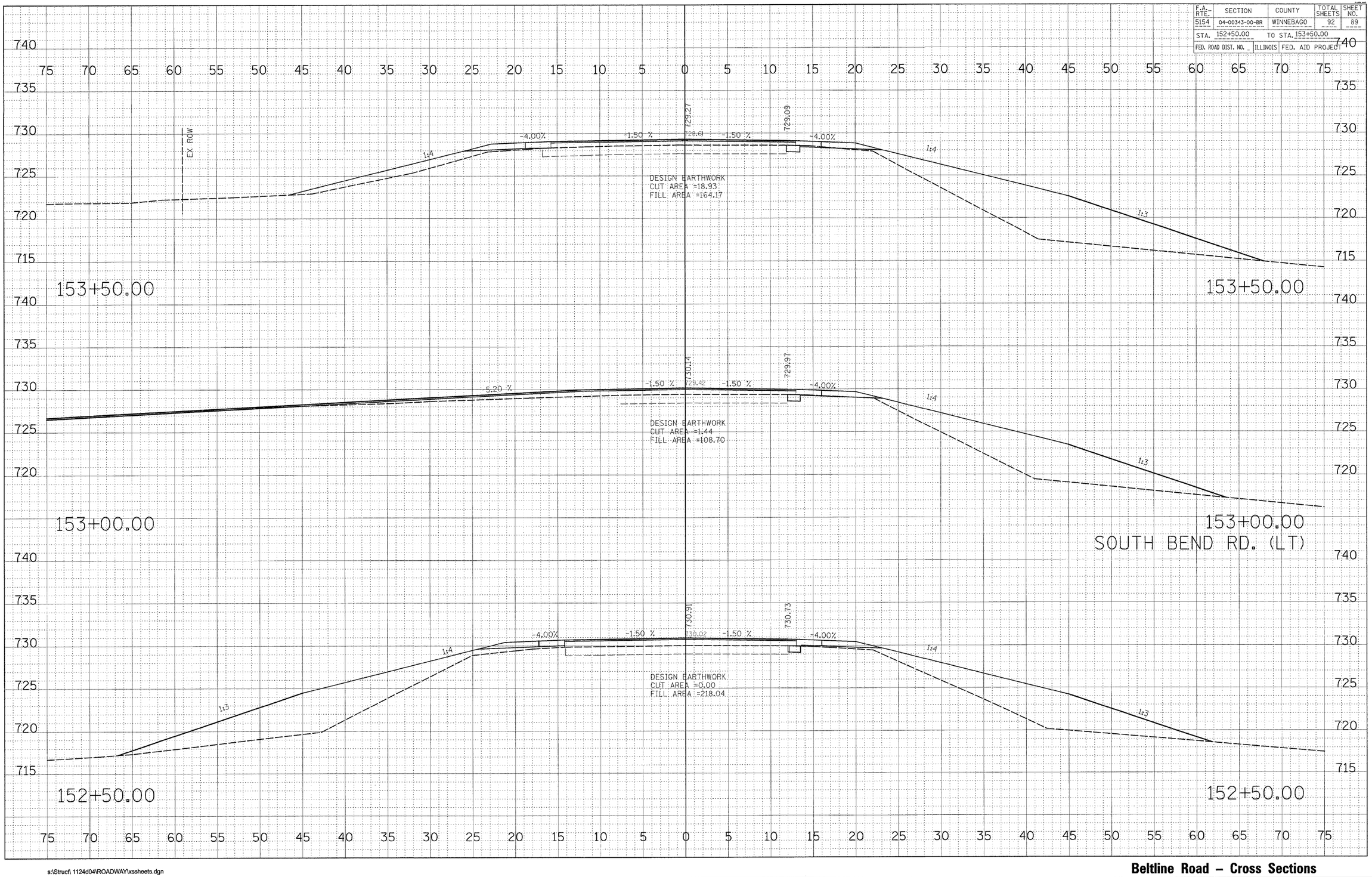
Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	89

STA. 152+50.00 TO STA. 153+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT



ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

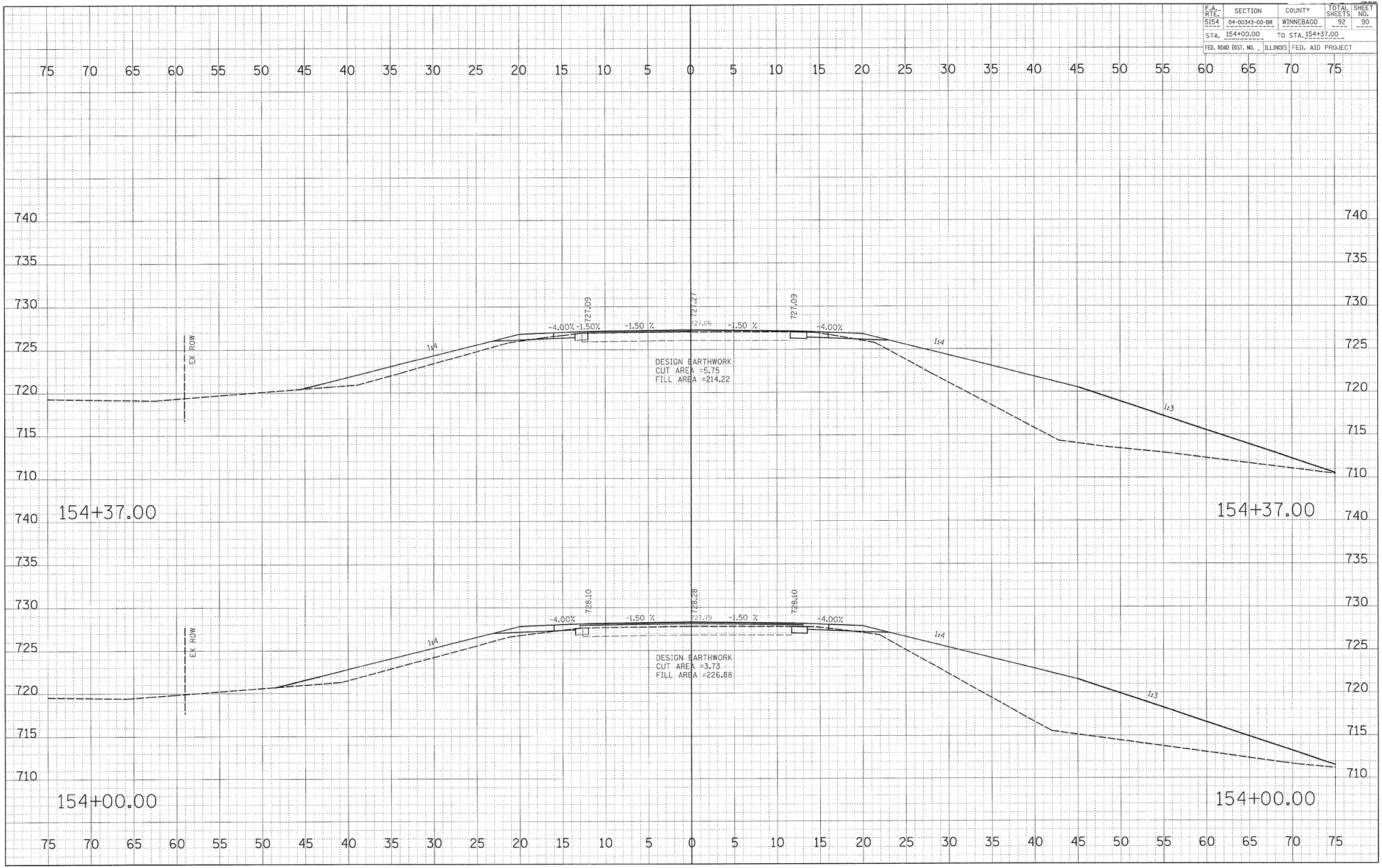
PLOT DATE = $DATE$
FILE NAME = $FILE1$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

85432

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	90
STA. 154+00.00	TO STA. 154+37.00			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = $DATE$
FILE NAME = $FILEL$
PLOT SCALE = $SCALE$
USER NAME = $USER$

s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	91

STA. 154+50.00 TO STA. 154+50.00

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

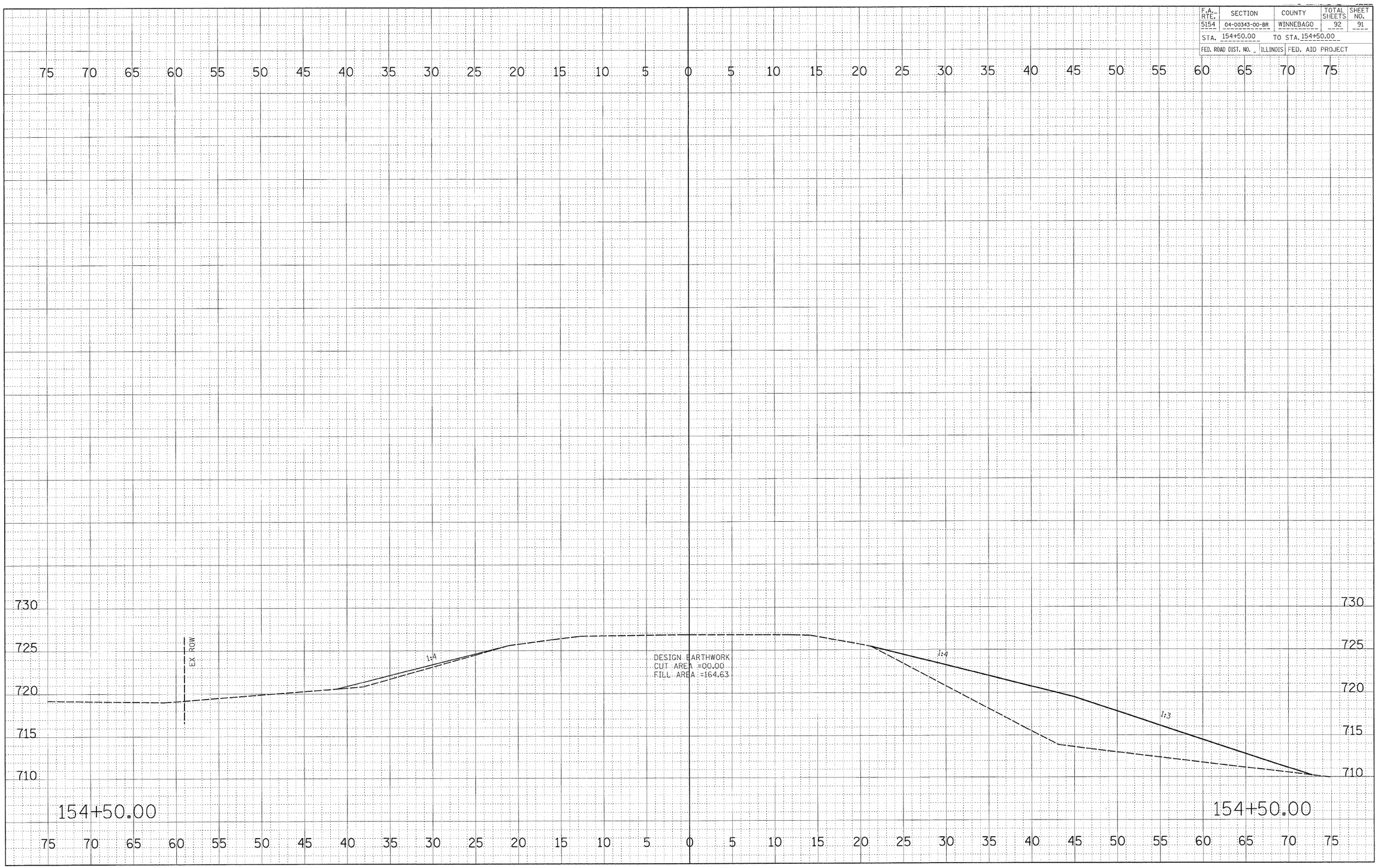
FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

PLOT DATE = $DATE$
FILE NAME = $FILE1$
PLOT SCALE = $SCALE$
USER NAME = $USER1$



s:\Struct\ 1124d04\ROADWAY\xssheets.dgn

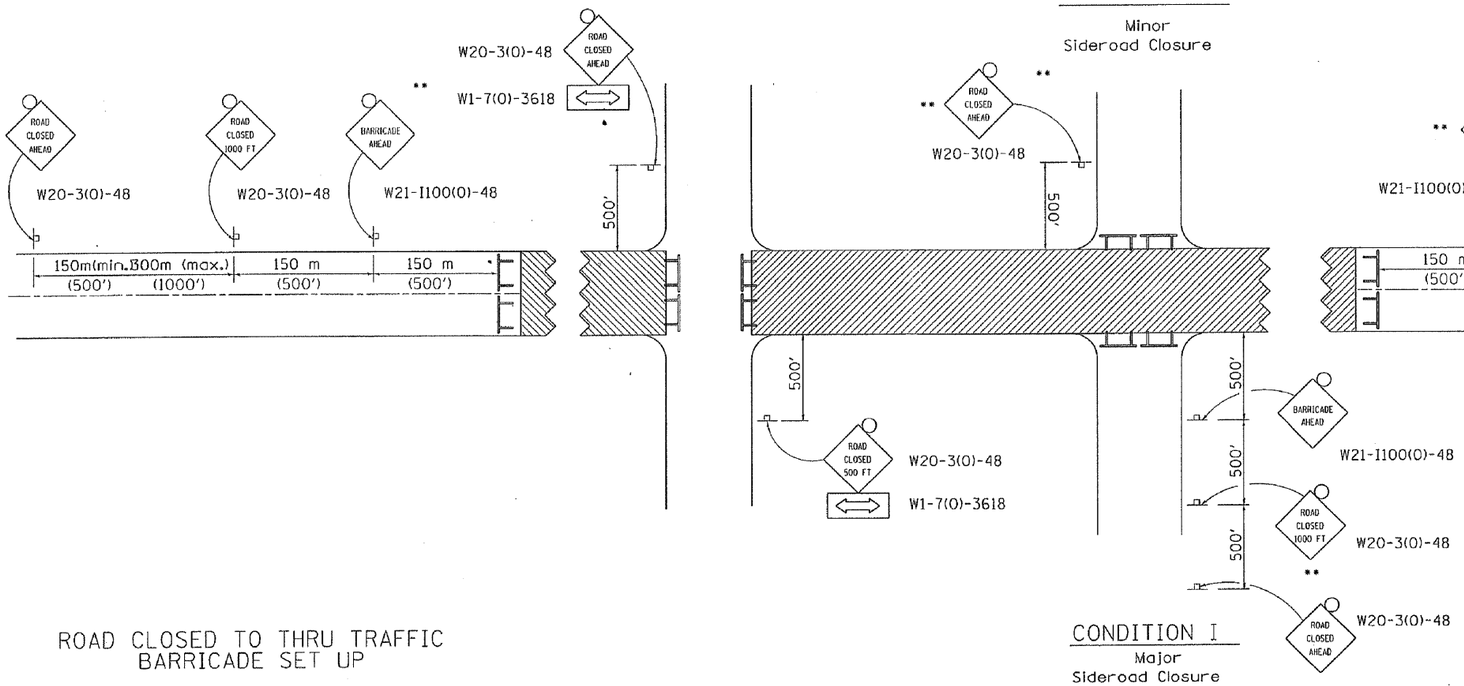
Beltline Road – Cross Sections

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5154	04-00343-00-BR	WINNEBAGO	92	92
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR ROAD CLOSURE

CONDITION II

Minor
Sideroad Closure



CONDITION I

Major
Sideroad Closure

GENERAL NOTES

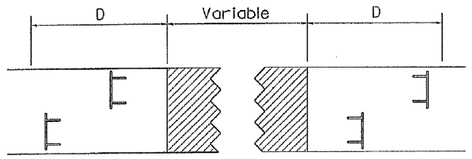
Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

** Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To All Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 600 m (2000') an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

SYMBOLS

Work area

Type III Barricade with Flashers

Sign with flashing light

All dimensions are in millimeters (inches) unless otherwise shown.

TYPICAL APPLICATION
FOR ROAD CLOSURE

FILE NAME = C:\Documents and Settings\meghlj\Desktop\D2Standards.dgn	USER NAME = #USER#	DESIGNED - ---	REVISED - 1-JJ-08
	PLOT SCALE = 1.0000 '/ IN.	DRAWN - ---	REVISED - ---
	PLOT DATE = Tue Jan 15 16:16:16 2008	CHECKED - ---	REVISED - ---
		DATE - _____	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
____	_____	_____	____	____
CONTRACT NO. _____				
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR ROAD CLOSURE 40.1