

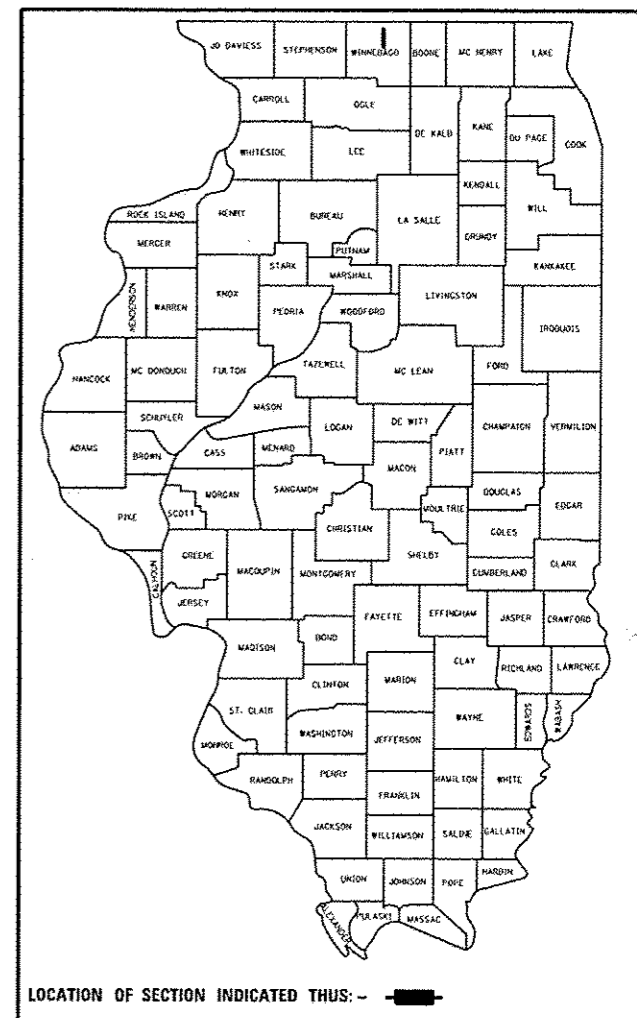
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID PROJECT
HIGHWAY BRIDGE PROGRAM

FAU ROUTE 5148 (PERRYVILLE ROAD)
SECTION 04-00359-00-BR
PROJECT BRM-5099(072)
STRUCTURE REPLACEMENT
WINNEBAGO COUNTY

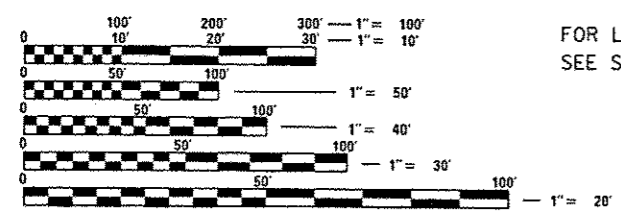
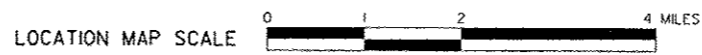
C-92-065-07

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	D4-00359-00-BR	WINNEBAGO	45	1
WHA* 1261DIO		CONTRACT NO. 85599		
ILLINOIS FED. AID PROJECT BRM-5099(072)				



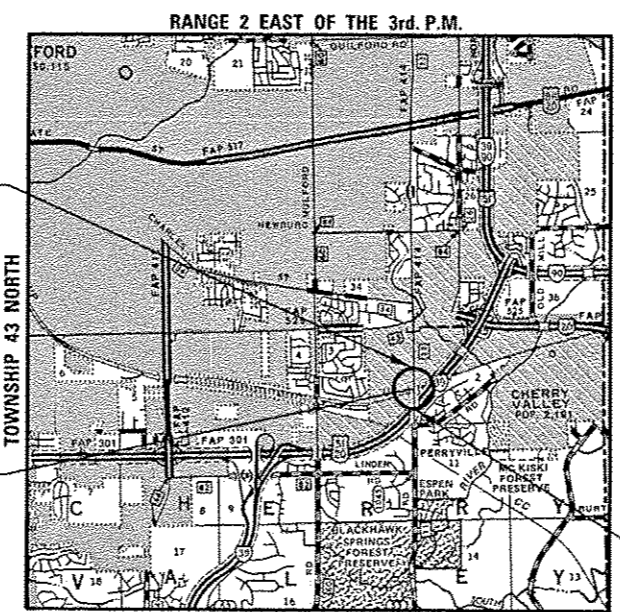
- 1 = COVER SHEET
- 2 = STANDARDS, UTILITIES, & SUMMARY OF QUANTITIES
- 3-5 = SCHEDULE OF QUANTITIES & GENERAL NOTES
- 6 = TYPICAL SECTIONS
- 7-8 = PLAN & PROFILE
- 9 = DETOUR PLAN
- 10-11 = EROSION CONTROL PLAN
- 12 = WATERMAIN RELOCATION PLAN & PROFILE
- 13 = WATERMAIN RELOCATION STANDARDS & DETAILS
- 14 = GENERAL PLAN AND ELEVATION
- 15 = GENERAL NOTES AND BILL OF MATERIAL
- 16 = SLOPEWALL AND PILE LAYOUT
- 17 = TOP OF SLAB ELEVATIONS
- 18 = TOP OF SOUTH APPROACH SLAB ELEVATIONS
- 19 = TOP OF NORTH APPROACH SLAB ELEVATIONS
- 20 = SUPERSTRUCTURE
- 21 = SUPERSTRUCTURE DETAILS
- 22 = DIAPHRAGM DETAILS
- 23 = BRIDGE APPROACH SLAB DETAILS
- 24-25 = INLET BOX, SPECIAL DETAILS
- 26 = BRIDGE FENCE RAILING, PARAPET MOUNTED
- 27 = STRUCTURAL STEEL DETAILS
- 28 = BEARING DETAILS
- 29 = SOUTH ABUTMENT DETAILS
- 30 = NORTH ABUTMENT DETAILS
- 31 = SEGMENTAL CONCRETE BLOCK WALL DETAILS
- 32 = PIER #1 DETAILS
- 33 = PIER #2 DETAILS
- 34 = METAL SHELL PILE DETAILS
- 35 = HP PILE DETAILS
- 36 = BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
- 37 = CANTILEVER FORMING BRACKETS
- 38 = BORING LOGS
- 39-44 = CROSS SECTIONS
- 45 = DISTRICT 2 TRAFFIC CONTROL STANDARD 40.1

FOR STANDARDS
SEE SHEET NO. 2



FOR LIST OF UTILITIES
SEE SHEET NO. 2

CONSTRUCTION ENDS
STATION 34+00



CONSTRUCTION BEGINS
STATION 26+00

PROPOSED STRUCTURE: S.N. 101-3103
THREE SPAN (53'-6":67'-0":53'-6") R.C. DECK
ON STEEL I-BEAMS SUPPORTED BY PILE BENT
ABUTMENTS AND R.C. PIERS ON PILES AT
STATION 29+93.30, SKEWED 18°48' RIGHT AHEAD.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER - BSK
PROJECT MANAGER - BKC

MINOR ARTERIAL (URBAN)
DESIGN SPEED 45 MPH

GROSS LENGTH = 800 FT. = 0.152 MILE
NET LENGTH = 800 FT. = 0.152 MILE

CONTRACT NO. 85599

2016 ADT = 9,197 12% TRUCKS 2036 ADT = 11,223
NEW CONSTRUCTION /RECONSTRUCTION GUIDELINES

WINNEBAGO COUNTY HIGHWAY DEPARTMENT	
APPROVED	<i>[Signature]</i> 2015 WINNEBAGO COUNTY ENGINEER
PASSED	<i>[Signature]</i> 11/6/15 2015 DISTRICT 2 LOCAL ROADS & STREETS ENGINEER
RELEASING FOR BID BASED ON LIMITED REVIEW	<i>[Signature]</i> 11/6/15 2015 DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER



Brian K. Converse
DATE: 11/3/2015
EXPIRES 11/30/2015

WILLET HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

SUMMARY OF QUANTITIES

85599

CONSTRUCTION TYPE CODE 0011

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 420401-11 BRIDGE APPROACH PAVEMENT CONNECTOR
- 515001-03 NAME PLATE FOR BRIDGES
- 542306-02 PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 606401-01 PAVED DITCH
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630301-06 SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
- 631031-13 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 666001-01 RIGHT OF WAY MARKERS
- 667101-02 PERMANENT SURVEY MARKERS
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701901-04 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-04 SIGN PANEL ERECTION DETAILS
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPE A & B METAL POSTS (FOR SIGNS & MARKERS)
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

UTILITIES

ATT/Distribution
PH: 847-420-9115
Contact: Carl Donahue
Email: cd8729@att.com

ComEd/Joliet
123 Energy Avenue
Rockford, IL 61109
PH: 815-490-2869
Contact: Mike Lenox

Comcast
688 Industrial Drive
Elmhurst, IL 60126
PH: 630-600-6352
Contact: Martha Gieras

NICOR Gas
1844 Ferry Road
Naperville, IL 60563
PH: 630-388-3830
Contact: Connie Lane, PE

Frontier Communications
2239 Newburg Road
Belvidere, IL 61008
PH: 815-544-6171
Contact: Don Belmore

Village of Cherry Valley
806 E. State Street
Cherry Valley, IL 61016
PH: 815-332-3441
Contact: Joe Caveney

Rock River Reclamation
350 Kishwaukee Street
Rockford, IL 61109
PH: 815-387-7678
Contact: Mike Weber

CODE NO.	ITEM	UNIT	TOTAL
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	69
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	108
20300100	CHANNEL EXCAVATION	CU YD	2,147
25100630	EROSION CONTROL BLANKET	SQ YD	2,890
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	360
28000305	TEMPORARY DITCH CHECKS	FOOT	35
28000400	PERIMETER EROSION BARRIER	FOOT	760
28000500	INLET AND PIPE PROTECTION	EACH	2
30300011	AGGREGATE SUBGRADE IMPROVEMENT	TON	221
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	731
35100100	AGGREGATE BASE COURSE, TYPE A	TON	490
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	5,197
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	858
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	242
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	226
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	1,017
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	76
50157300	PROTECTIVE SHIELD	SQ YD	114
50200100	STRUCTURE EXCAVATION	CU YD	1,165
50300225	CONCRETE STRUCTURES	CU YD	288.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	392.4
50300260	BRIDGE DECK GROOVING	SQ YD	989
50300300	PROTECTIVE COAT	SQ YD	1,052
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	7,290
50700305	HARDWARE	POUND	650
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	135,810
50800515	BAR SPLICERS	EACH	346
50901730	BRIDGE FENCE RAILING	FOOT	350
51100100	SLOPE WALL 4 INCH	SQ YD	70
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	245
51201610	FURNISHING STEEL PILES HP12X63	FOOT	646
51202305	DRIVING PILES	FOOT	891
51203200	TEST PILE METAL SHELLS	EACH	2
51203610	TEST PILE STEEL HP12X63	EACH	2
51500100	NAME PLATES	EACH	1
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12
52100520	ANCHOR BOLTS, 1"	EACH	48

*SEE THE CONTRACT DOCUMENTS FOR SPECIAL PROVISIONS.

CODE NO.	ITEM	UNIT	TOTAL
542A5470	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 15"	FOOT	32
54213447	END SECTIONS 12"	EACH	3
54214500	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EOS 15'	EACH	2
Δ 56103300	DUCTILE IRON WATER MAIN 12"	FOOT	241
Δ 56105200	WATER VALVES 12"	EACH	2
Δ 56400825	FIRE HYDRANT WITH AUXILIARY VALVE, VALVE BOX AND TEE	EACH	1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	76
60100945	PIPE DRAINS 12"	FOOT	64
Δ 60900515	CONCRETE THRUST BLOCKS	EACH	3
Δ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	275
Δ 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
Δ 63200310	GUARDRAIL REMOVAL	FOOT	596
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	7
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	1
67100100	MOBILIZATION	L SUM	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1
72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	1
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	28
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	3,200
Δ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	8
Δ 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2
Δ 78200410	GUARDRAIL MARKERS, TYPE A	EACH	4
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	1,085
X2501020	SEEDING, CLASS 2A (SPECIAL)	ACRE	0.75
Δ X5610752	WATER MAIN LINE STOP 12"	EACH	2
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	121
X6061460	PAVED DITCH (SPECIAL)	FOOT	156
X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
Z0013302	SEGMENTAL CONCRETE BLOCK WALL	SQ FT	936
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	153
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1
Z0065704	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ YD	772
XX008455	INLET BOX, SPECIAL	EACH	4

Δ SPECIALTY ITEMS

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DESIGNED - LGN	REVISED -
CHECKED - GFS	REVISED -
DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

STANDARDS, UTILITIES, & SUMMARY OF QUANTITIES
STRUCTURE NO. 101-3103
SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	2
WHA* 1261010		CONTRACT NO. 85599		
ILLINOIS FED. AID PROJECT BRW-5039072				

SCHEDULE OF QUANTITIES

EARTHWORK SCHEDULE

EARTH EXCAVATION (SPECIAL) X2020410*	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	CHANNEL EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
(CY)	(CY)	(CY)	(CY)	(CY)
1,082	812	1,601	1,043	1,370

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION	UNIT	REMARKS
RT. STA. 28+26.25	16	2 @ 8"
RT. STA. 28+35.07	6	6"
LT. STA. 28+37.15	15	15"
LT. STA. 28+45.67	12	12"
LT. STA. 28+49.55	8	8"
LT. STA. 28+67.77	12	12"
PROJECT TOTAL	69	

20100110

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

STATION	CU YD	REMARKS
STA. 26+00.00 TO 34+00.00	108	CONTINGENCY ITEM
PROJECT TOTAL	108	

20201200

EROSION CONTROL BLANKET

STATION	SQ YD	REMARKS
STA. 26+00.00 TO 34+00.00	2,890	
PROJECT TOTAL	2,890	

25100630

TEMPORARY EROSION CONTROL SEEDING

STATION	POUND	REMARKS
STA. 26+00.00 TO 34+00.00	360	6 APPLICATIONS @ 100 LB/ACRE
PROJECT TOTAL	360	

28000250

TEMPORARY DITCH CHECKS

STATION	FOOT	REMARKS
RT. STA. 26+00	15	
LT. STA. 34+00	10	
RT. STA. 34+00	10	
PROJECT TOTAL	35	

28000305

PERIMETER EROSION BARRIER

STATION	FOOT	REMARKS
LT. STA. 26+00 TO 27+60	160	
LT. STA. 28+00 TO 28+99	99	
LT. STA. 30+61 TO 34+00	339	
RT. STA. 30+88 TO 32+50	162	
PROJECT TOTAL	760	

28000400

INLET AND PIPE PROTECTION

STATION	EACH	REMARKS
RT. STA. 27+37	1	
RT. STA. 32+52	1	
PROJECT TOTAL	2	

28000500

AGGREGATE SUBGRADE IMPROVEMENT

STATION	TON	REMARKS
STA. 26+00.00 TO 34+00.00	221	CONTINGENCY ITEM
PROJECT TOTAL	221	

30300011*

SUBBASE GRANULAR MATERIAL, TYPE B

STATION	TON	REMARKS
STA. 26+00.00 TO 28+51.32	356	8"
STA. 31+35.28 TO 34+00.00	375	8"
PROJECT TOTAL	731	

31101000*

AGGREGATE BASE COURSE, TYPE A

STATION	TON	REMARKS
STA. 26+00.00 TO 28+51.32	178	4"
PER 27+17	37	8"
PER 27+61	46	8"
STA. 31+35.28 TO 34+00.00	188	4"
PER 32+74	41	8"
PROJECT TOTAL	490	

35100100*

BITUMINOUS MATERIALS (PRIME COAT)

STATION	POUND	REMARKS
STA. 26+00.00 TO 28+51.32	1,631	1 APP @ 0.25 LB/SF (ON AGG)
STA. 31+35.28 TO 34+00.00	1,721	1 APP @ 0.25 LB/SF (ON AGG)
STA. 26+00.00 TO 28+51.32	326	2 APP @ 0.025 LB/SF (ON BIT)
STA. 31+35.28 TO 34+00.00	344	2 APP @ 0.025 LB/SF (ON BIT)
STA. 26+00.00 TO 28+51.32	164	1 APP @ 0.025 LB/SF (ON BIT)
LT. STA. 26+00.00 TO 27+58.46	25	1 APP @ 0.025 LB/SF (ON BIT)
RT. STA. 26+00.00 TO 27+07.50	18	1 APP @ 0.025 LB/SF (ON BIT)
PER 27+17	180	1 APP @ 0.25 LB/SF (ON AGG)
RT. STA. 27+22.91 TO 29+12.68	38	1 APP @ 0.025 LB/SF (ON BIT)
PER 27+61	225	1 APP @ 0.25 LB/SF (ON AGG)
LT. STA. 27+79.11 TO 28+96.40	23	1 APP @ 0.025 LB/SF (ON BIT)
STA. 31+35.28 TO 34+00.00	173	1 APP @ 0.025 LB/SF (ON BIT)
LT. STA. 30+73.75 TO 34+00.00	74	1 APP @ 0.025 LB/SF (ON BIT)
RT. STA. 30+89.18 TO 32+60.00	34	1 APP @ 0.025 LB/SF (ON BIT)
PER 32+74	203	1 APP @ 0.25 LB/SF (ON AGG)
RT. STA. 32+88.00 TO 34+00.00	18	1 APP @ 0.025 LB/SF (ON BIT)
PROJECT TOTAL	5,197	

40600275

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50

STATION	TON	REMARKS
		BASED ON 115LB/SY/IN
STA. 26+00.00 TO 28+51.32	418	(1) 4" LIFT & (2) 3" LIFTS
STA. 31+35.28 TO 34+00.00	440	(1) 4" LIFT & (2) 3" LIFTS
PROJECT TOTAL	858	

40603080

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DESIGNED - LCN
CHECKED - GFS
DRAWN - LCN
CHECKED - GFS

REVISED -
REVISED -
REVISED -
REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

SCHEDULE OF QUANTITIES & GENERAL NOTES
STRUCTURE NO. 101-3103

SHEET NO. 1 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	J
WHA* 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-50991072				

SCHEDULE OF QUANTITIES

HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50		
STATION	TON	REMARKS
		BASED ON 115LB/SY/IN
STA. 26+00.00 TO 28+51.32	63	(1) 1 1/2" LIFT
LT. STA. 26+00.00 TO 27+58.46	10	(1) 1 1/2" LIFT
RT. STA. 26+00.00 TO 27+07.50	7	(1) 1 1/2" LIFT
PER 27+17	7	(1) 1 1/2" LIFT
RT. STA. 27+22.91 TO 29+12.68	15	(1) 1 1/2" LIFT
PEL 27+61	9	(1) 1 1/2" LIFT
LT. STA. 27+78.66 TO 28+96.40	9	(1) 1 1/2" LIFT
STA. 31+35.28 TO 34+00.00	66	(1) 1 1/2" LIFT
LT. STA. 30+73.75 TO 34+00.00	28	(1) 1 1/2" LIFT
RT. STA. 30+89.18 TO 32+60.00	13	(1) 1 1/2" LIFT
PER 32+74	8	(1) 1 1/2" LIFT
RT. STA. 32+88.00 TO 34+00.00	7	(1) 1 1/2" LIFT
PROJECT TOTAL	242	

40603335

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)		
STATION	SO YD	REMARKS
STA. 28+51.32 TO 28+75.60	113	
STA. 31+11.00 TO 31+35.28	113	
PROJECT TOTAL	226	

42001430

HOT-MIX ASPHALT SHOULDERS, 6 1/2"		
STATION	SO YD	REMARKS
LT. STA. 26+00.00 TO 27+58.46	114	
RT. STA. 26+00.00 TO 27+07.50	76	
RT. STA. 27+22.91 TO 29+12.68	171	
LT. STA. 27+78.66 TO 28+96.40	99	
LT. STA. 30+73.75 TO 34+00.00	326	
RT. STA. 30+89.18 TO 32+60.00	152	
RT. STA. 32+88.00 TO 34+00.00	79	
PROJECT TOTAL	1,017	

48203023

PIPE CULVERT REMOVAL		
STATION	FOOT	REMARKS
RT. STA. 32+56	36	
RT. STA. 30+82	40	
PROJECT TOTAL	76	

50105220

PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 15"		
STATION	FOOT	REMARKS
RT. STA. 32+58 TO 32+90	32	
PROJECT TOTAL	32	

542A5470

PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 15"		
STATION	EACH	REMARKS
RT. STA. 37.43' STA. 32+52.20	1	
RT. STA. 33.61' STA. 32+96.20	1	
PROJECT TOTAL	2	

54214500

DUCTILE IRON WATER MAIN 12"		
STATION	FOOT	REMARKS
33' LT. STA. 28+73 - 34' LT. STA. 29+00	27	
34' LT. STA. 29+00 - 20' LT. STA. 29+00	19	
20' LT. STA. 29+00 - 20' LT. STA. 30+70	170	
20' LT. STA. 30+70 - 20' LT. STA. 30+70	13	
20' LT. STA. 30+70 - 32' LT. STA. 30+70	12	
PROJECT TOTAL	241	

56103300

WATER VALVES 12"		
STATION	EACH	REMARKS
30' LT. STA. 28+69	1	
32' LT. STA. 30+70	1	
PROJECT TOTAL	2	

56105200

FIRE HYDRANT W/AUXILIARY VALVE, VALVE BOX & TEE		
STATION	EACH	REMARKS
34' LT. STA. 28+69	1	
PROJECT TOTAL	1	

56400825

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS		
STATION	FOOT	REMARKS
RT. STA. 27+93.34 TO 28+68.34	75	
LT. STA. 28+41.94 TO 28+54.44	12.5	
LT. STA. 31+18.26 TO 32+80.76	162.5	
RT. STA. 31+32.16 TO 31+57.16	25	
PROJECT TOTAL	275	

63000001

TRAFFIC BARRIER TERMINAL, TYPE 6		
STATION	EACH	REMARKS
LT. STA. 28+54.44 TO 29+00.09	1	
RT. STA. 28+68.34 TO 29+13.99	1	
LT. STA. 30+72.61 TO 31+18.26	1	
RT. STA. 30+86.51 TO 31+32.16	1	
PROJECT TOTAL	4	

63100085

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT		
STATION	EACH	REMARKS
RT. STA. 27+41.85 TO 27+93.34	1	
LT. STA. 27+90.45 TO 28+41.94	1	
RT. STA. 31+57.16 TO 32+08.65	1	
LT. STA. 32+80.76 TO 33+32.25	1	
PROJECT TOTAL	4	

63100167

GUARDRAIL REMOVAL		
STATION	FOOT	REMARKS
RT. STA. 27+83.69 TO 29+41.78	158	
LT. STA. 28+12.19 TO 29+33.36	121	
LT. STA. 30+44.44 TO 32+40.11	196	
RT. STA. 30+53.24 TO 31+73.94	121	
PROJECT TOTAL	596	

63200310

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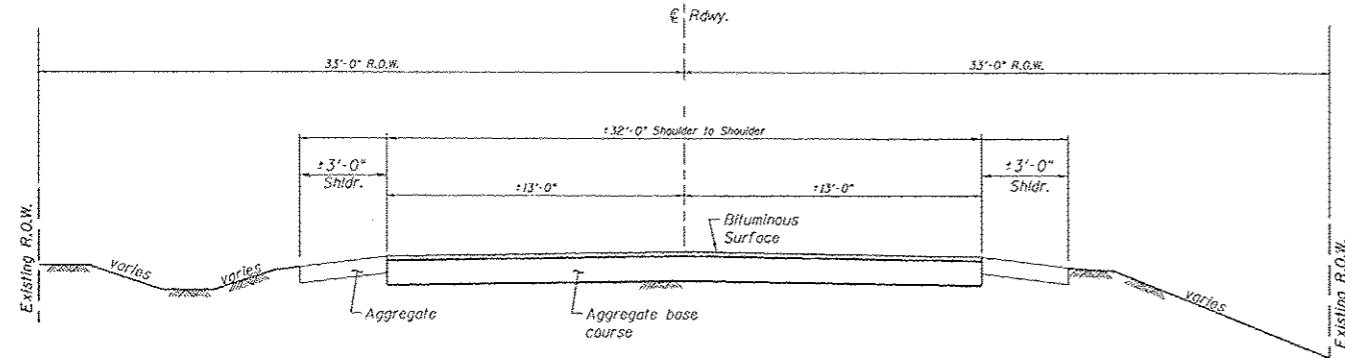


DESIGNED - LGN	REVISED -
CHECKED - GFS	REVISED -
DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

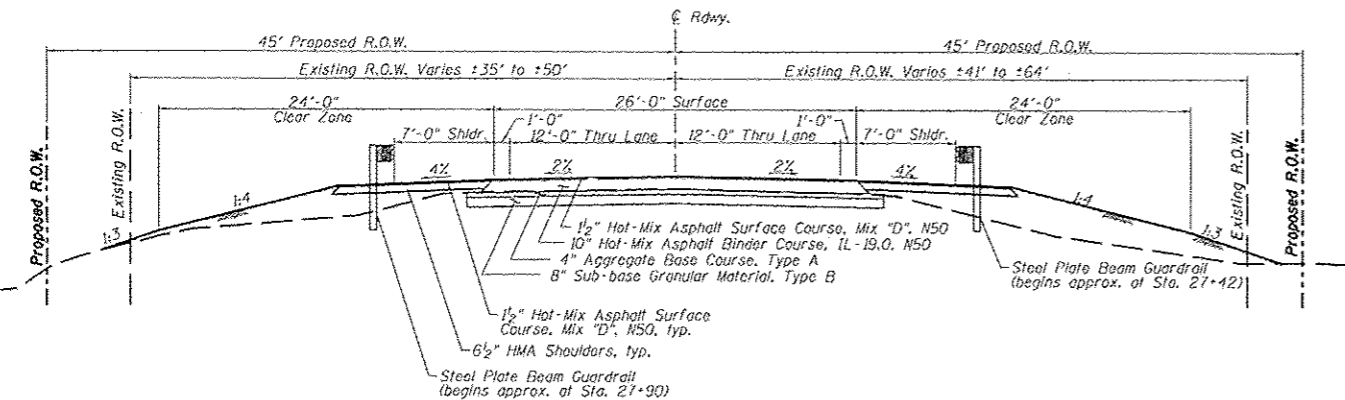
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

SCHEDULE OF QUANTITIES & GENERAL NOTES
STRUCTURE NO. 101-3103
SHEET NO. 2 OF 3 SHEETS

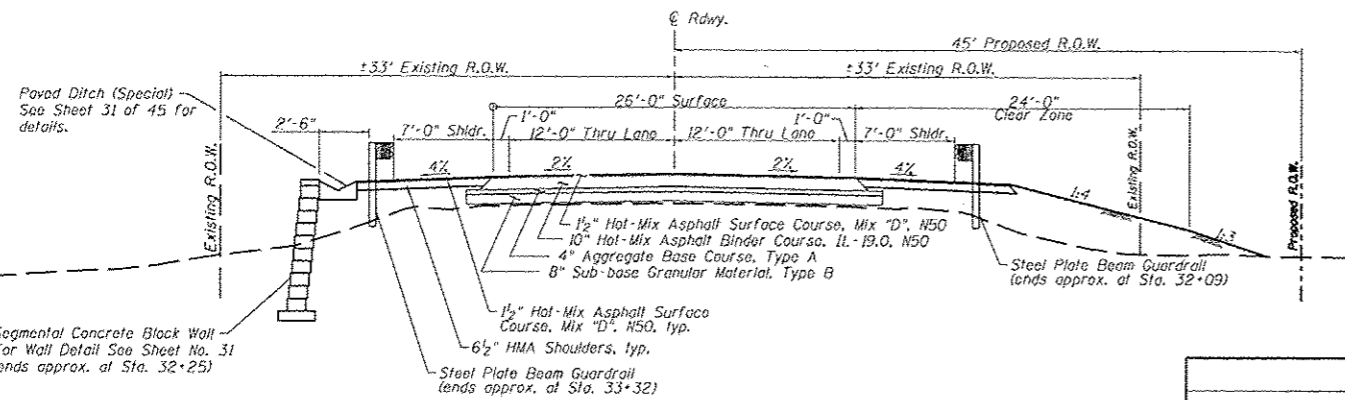
F.A.U. RTE. 5148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 4
WHA* 1261D10		CONTRACT NO. 85599		
[ILLINOIS] FED. AID PROJECT GRN-50991072				



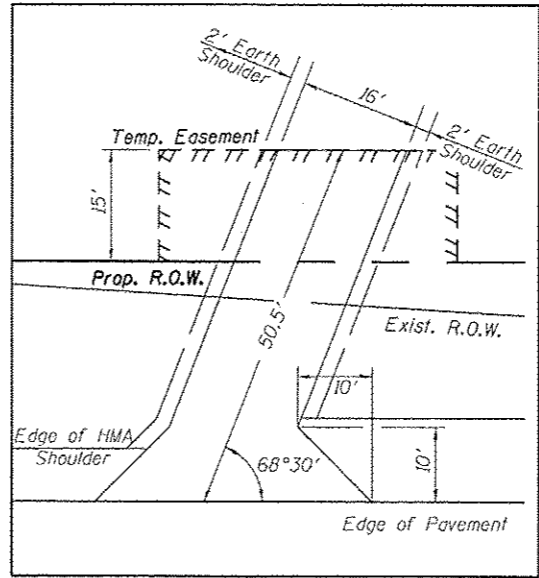
EXISTING ROADWAY TYPICAL SECTION



PROPOSED ROADWAY TYPICAL SECTION
(Sta. 26+25 - Sta. 28+50)

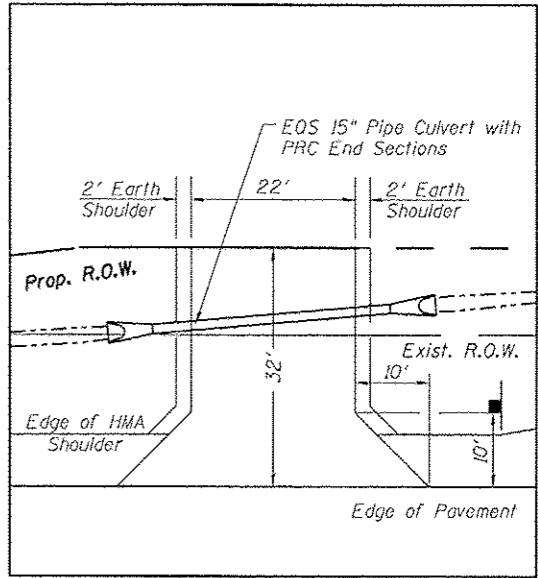


PROPOSED ROADWAY TYPICAL SECTION
(Sta. 31+36 - Sta. 33+50)

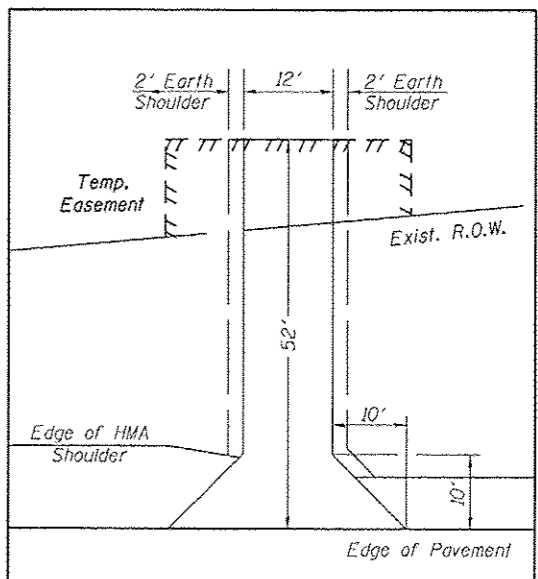


PEL 27+61

Typical Section
For All Entrances
1 1/2" HMA Surface Course,
Mix "D", N50
8" Aggregate Base
Course, Type A



PER 32+74



PER 27+17

PAVEMENT STRUCTURAL DESIGN

Structural Design Traffic (S.D.T.) = Year 2023 (New Construction/Reconstruction)
 Class II Street P.V. 8,941
 80,000# Truck Design S.U. 711
 M.U. 508 } 10,160 ADT
 ERI : (Assumed) 2 ksi
 TF = 2.74
 HMA Mix Temp. 77°F
 HMA E_{AC} = 625 ksi
 HMA Design Strain 76 microstrain
USE:
 1 1/2" Hot-Mix Asphalt Surface Course, Mix "D", N50
 10" Hot-Mix Asphalt Binder Course, IL-19.0, N50
 4" Aggregate Base Course, Type A
 8" Sub-base Granular Material, Type B

PAVEMENT MIXTURE REQUIREMENTS

	Construction		
	Binder	Surface	Shoulders
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50	2.0 @ N50
Mixture Composition (Gradation Mixture)	IL 19.0	IL 9.5	IL 19.0 or BAM
Friction Aggregate	---	D	---



DESIGNED - LGN	REVISED -
CHECKED - GFS	REVISED -
DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29+93.30

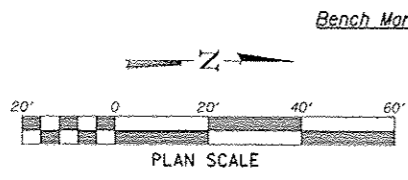
TYPICAL SECTIONS
STRUCTURE NO. 101-3103
SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	6
WHA# 1261D10			CONTRACT NO. 85599	
ILLINOIS DEP. OF TRANSPORTATION				

FILE: S:\PROJECTS\2018\1261D10\Road\DESIGN\TRENDS\1261D10_PerryvilleRoad_TypicalSections.dgn



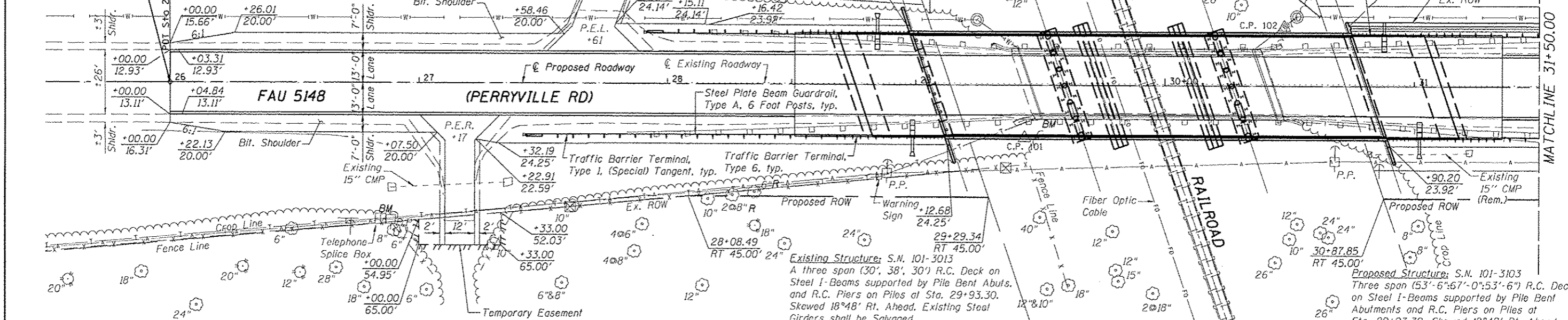
Know what's below. Call before you dig.



Bench Mark: RR Spike in the 2nd P.P. south of existing RR bridge - east side of Perryville Road +55' Rt. Sta. 26+89. El. 793.47

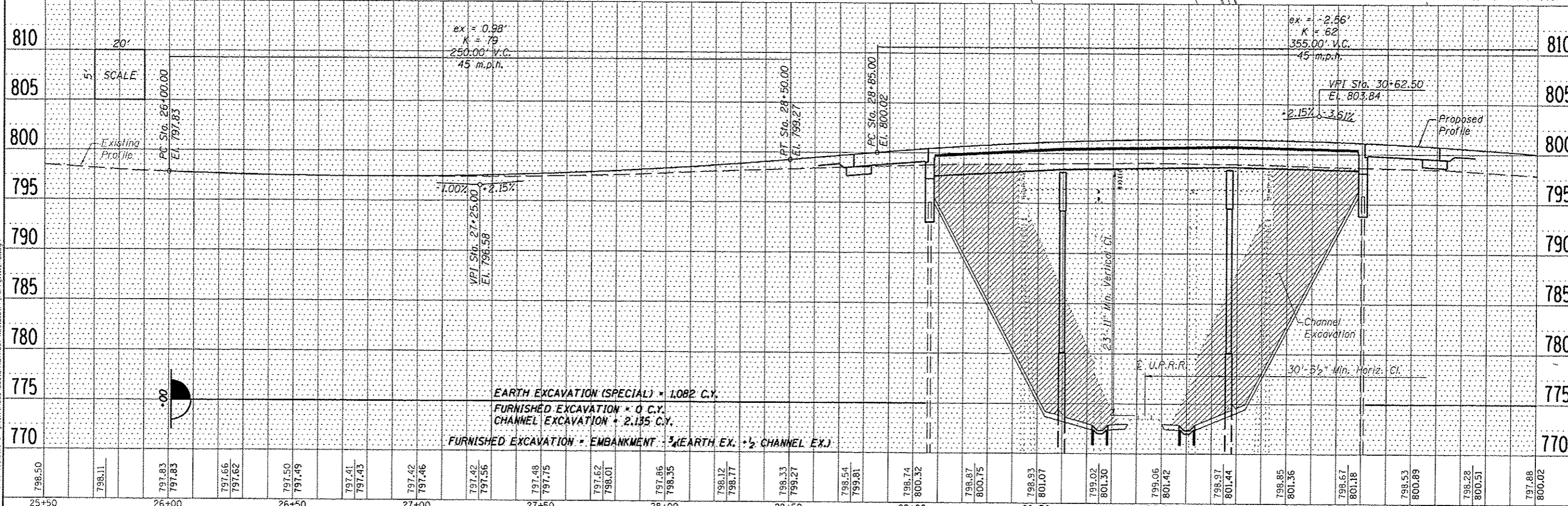
Bench Mark: Chis. "□" on the east parapet wall of existing railroad bridge - southeast corner of bridge +13' Rt. Sta. 28+49. El. 799.54

Construction Begins Sta. 26+00.00



PLAN	DATE
REVISED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	

PROFILE	DATE
REVISED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	



EARTH EXCAVATION (SPECIAL) = 1.082 C.Y.
 FURNISHED EXCAVATION = 0 C.Y.
 CHANNEL EXCAVATION = 2.135 C.Y.
 FURNISHED EXCAVATION = EMBANKMENT + 1/2 (EARTH EX. + CHANNEL EX.)



DESIGNED	- LGN	REVISED	-
CHECKED	- GFS	REVISED	-
DRAWN	- FDL	REVISED	-
CHECKED	- GFS	REVISED	-

WINNEBAGO COUNTY
 PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
 STATION 29+93.30

PLAN & PROFILE
 STRUCTURE NO. 101-3103
 SCALE: 1" = 20' SHEET NO. 1 OF 2 SHEETS STA. 25+50.00 TO STA. 31+50.00

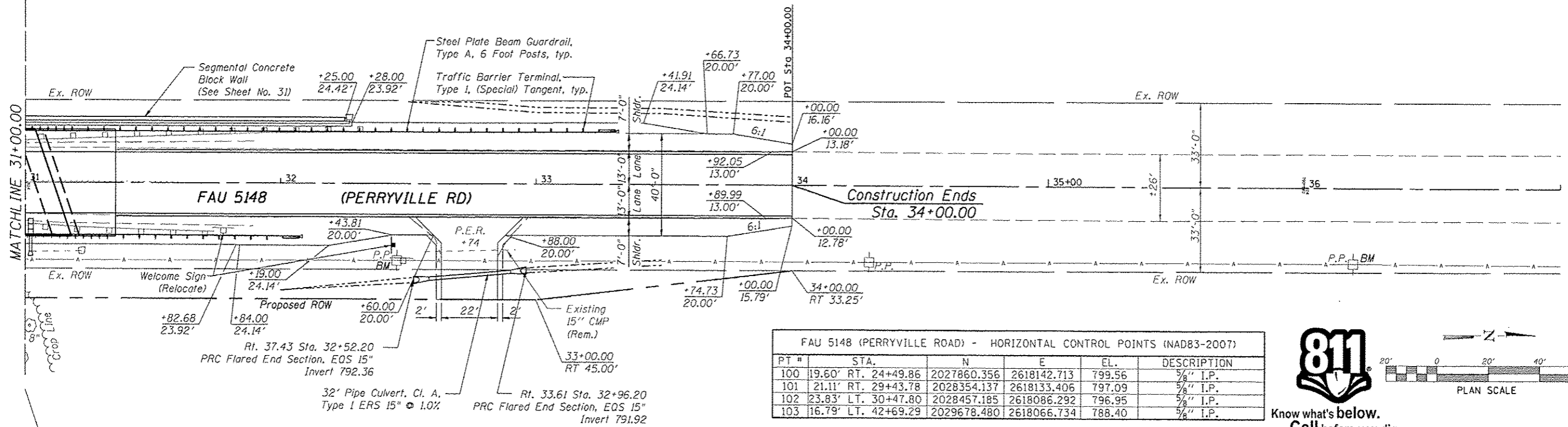
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	7
WHA# 1261010		CONTRACT NO. 85599		
ILLINOIS (FED. AID PROJECT BRW-50991072)				

FILE = S:\PROJECTS\2818\1261010_Perryville_PlanProfile\STRUCT\A28182.PP PerryvillePlanProfile.dwg

Bench Mark: RR Spike in the 2nd P.P. north of existing RR bridge - east side of Perryville Road ±30' Rt. Sta. 32+46, El. 794.57

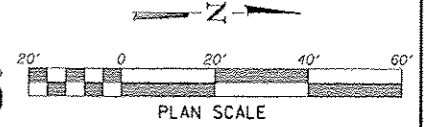
Bench Mark: RR Spike in the 4th P.P. north of existing RR bridge - east side of Perryville Road ±29' Rt. Sta. 36+19, El. 787.37

DATE: _____
BY: _____
CHECKED: _____
DATE: _____
BY: _____
NO. _____
DATE: _____
BY: _____

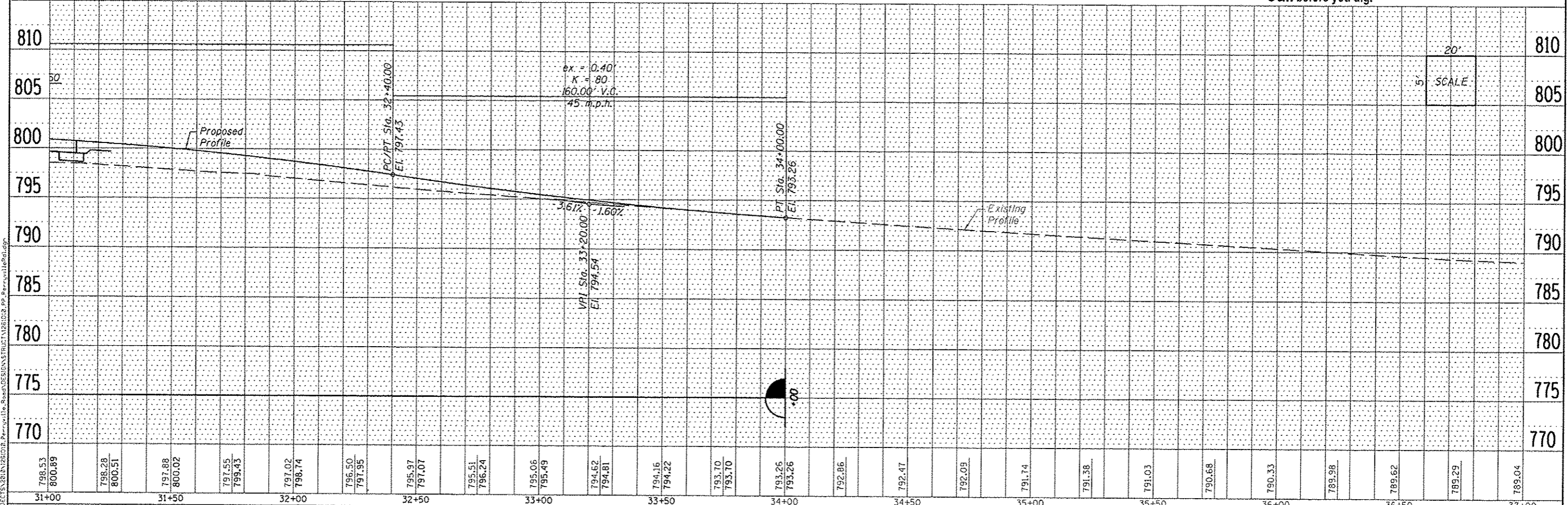


FAU 5148 (PERRYVILLE ROAD) - HORIZONTAL CONTROL POINTS (NAD83-2007)

PT #	STA.	N	E	EL.	DESCRIPTION
100	19.60' RT. 24+49.86	2027860.356	2618142.713	799.56	3/8" I.P.
101	21.11' RT. 29+43.78	2028354.137	2618133.406	797.09	3/8" I.P.
102	23.83' LT. 30+47.80	2028457.185	2618086.292	796.95	3/8" I.P.
103	16.79' LT. 42+69.29	2029678.480	2618066.734	788.40	3/8" I.P.



DATE: _____
BY: _____
CHECKED: _____
DATE: _____
BY: _____
NO. _____
DATE: _____
BY: _____

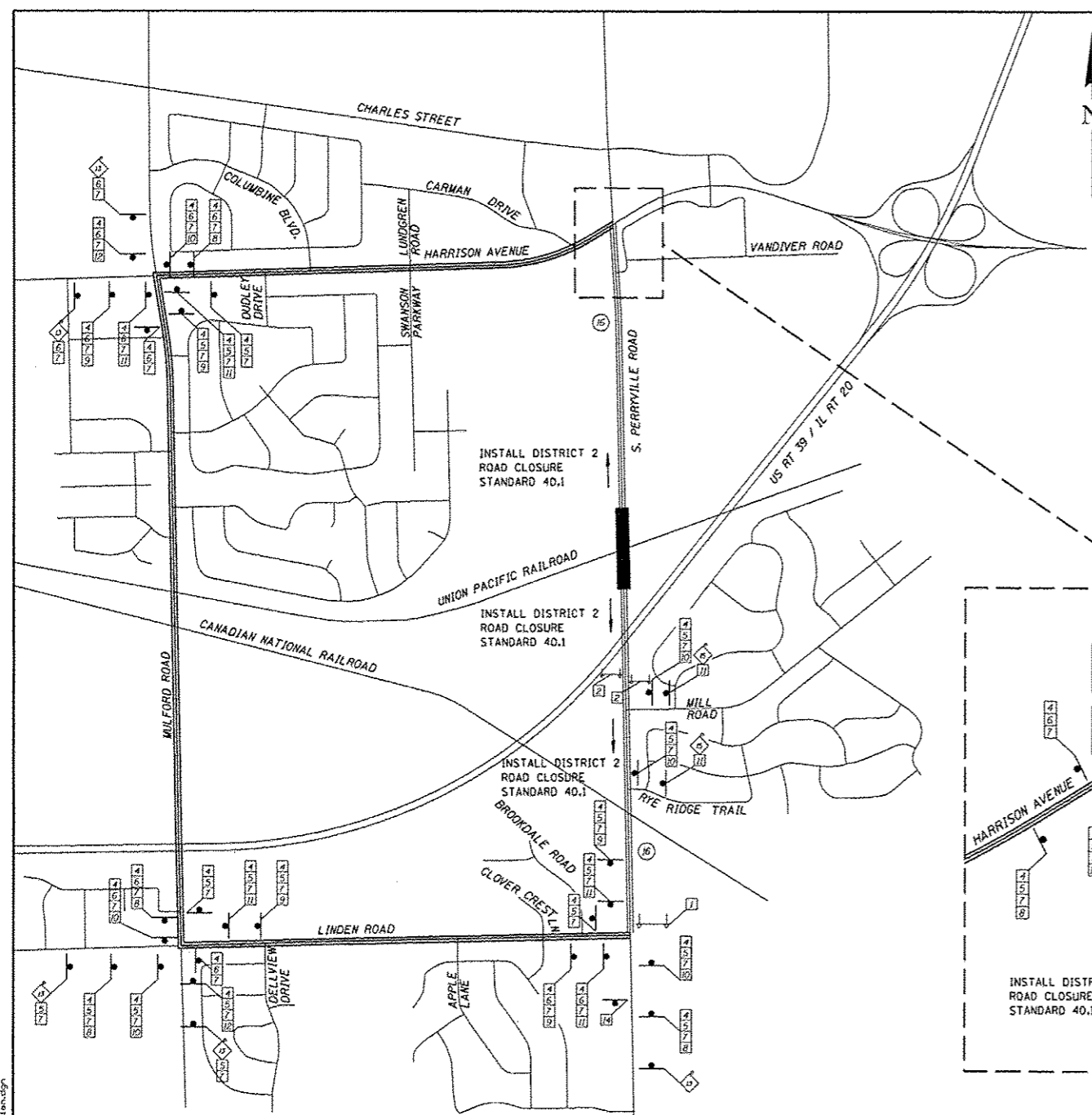


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DRAWN - FDL	REVISED -
CHECKED - GFS	REVISED -

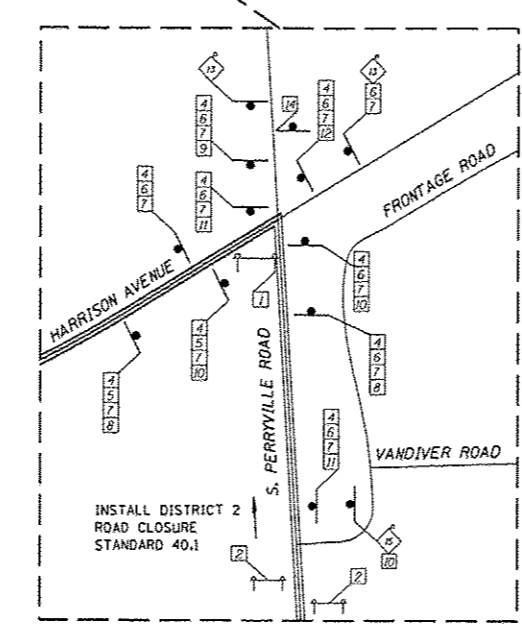
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29+93.30

PLAN & PROFILE
STRUCTURE NO. 101-3103
SCALE: 1" = 20'
SHEET NO. 2 OF 2 SHEETS
STA. 31+00.00 TO STA. 37+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	8
WHA* 1261D10		CONTRACT NO. 85599		
ILLINOISIFIED, A10 PROJECT BRM-50931072				

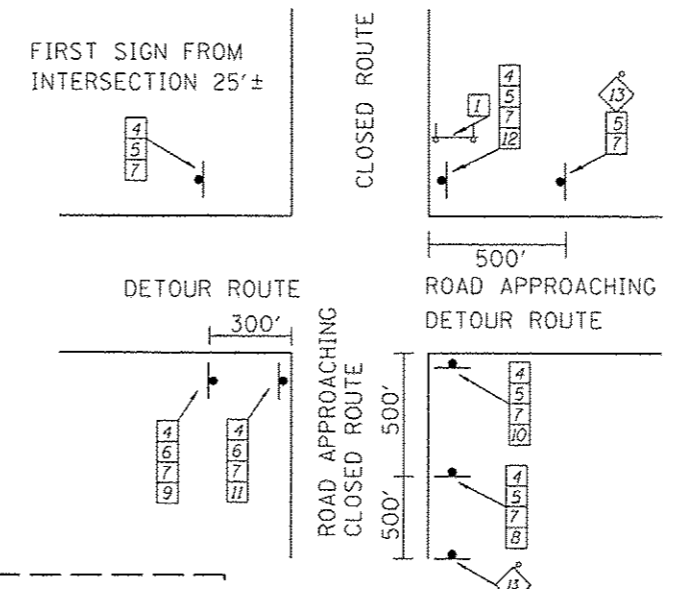


DETOUR SIGN LAYOUT



ROAD CLOSURE AREA BARRICADE LAYOUT

TYPICAL INTERSECTION SIGN SPACING AT POINT OF DETOUR



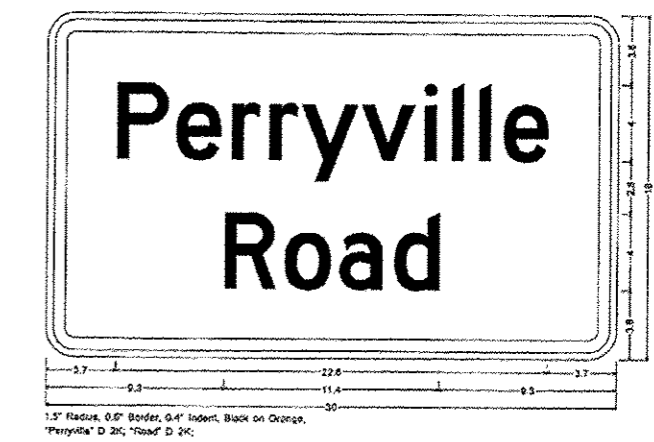
SIGN LEGEND

- ① ROAD CLOSED 1/2 MILE AHEAD LOCAL TRAFFIC ONLY R11-3a, 60" X 30" M6-1 L, 21" X 15"
- ② ROAD CLOSED TO THRU TRAFFIC R11-4, 60" X 30" M6-1 R, 21" X 15"
- ③ ROAD CLOSED R11-2, 48" X 30" M6-3, 21" X 15"
- ④ DETOUR M4-8, 24" X 12" W20-2, 48" X 48" WITH AMBER FLASHING LIGHTS.
- ⑤ NORTH M3-1, 24" X 12" M4-8a, 24" X 18"
- ⑥ SOUTH M3-3, 24" X 12"
- ⑦ Perryville Road Special, 30" X 18" See Sign Design Below W20-3, 48" X 48" WITH AMBER FLASHING LIGHTS.
- ⑧ M5-1 L, 21" X 15" CHANGEABLE MESSAGE SIGN
- ⑨ M5-1 R, 21" X 15"

LEGEND

- DETOUR ROUTE
- ROAD CLOSURE OPEN TO LOCAL TRAFFIC ONLY (NOT THRU)
- PROJECT LOCATION
- 48" X 48" CONSTRUCTION SIGN WITH AMBER FLASHING LIGHT NUMBER DENOTES SIGN TYPE
- TYPE III BARRICADE W/ FLASHING LIGHTS
- OTHER DETOUR SIGNS, NUMBER DENOTES TYPE

PERRYVILLE ROAD SIGN DESIGN



DETOUR GENERAL NOTES

- TOTAL LENGTH OF THE DETOUR IS 3.5 MILES.
- CHANGEABLE MESSAGE SIGNS ONLY REQUIRED 2 WEEKS PRIOR TO ROAD CLOSURE. SIGNS CAN BE REMOVED ONCE THE DETOUR IS IN PLACE.
- ALL DETOUR SIGNS, SHALL BE COMPLETELY COVERED AT ALL TIMES THE ROADWAY IS NOT CLOSED TO TRAFFIC
- LONGITUDINAL DIMENSIONS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
- THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED BY HIM ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.
- THE CONTRACTOR SHALL SCHEDULE ALL WORK IN AN EXPEDIENT MANNER TO REDUCE THE LENGTH OF TIME THAT THE DETOUR NEEDS TO BE IN EFFECT.

FILE: S:\PROJECTS\2012\121810_Perryville_Road\DESIGN\TRANS\121810_Perryville_Road_Detour_Plan.dgn

WILLET HOFMANN ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 7th STREET, DIXON, IL 61021-0367
 T: 815-254-3381 DESIGN FAX: 815-254-3382

DESIGNED - LGN	REVISED -
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DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

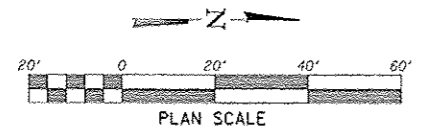
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
 STATION 29 + 93.30

DETOUR PLAN
STRUCTURE NO. 101-3103
 SHEET NO. 1 OF 1 SHEETS

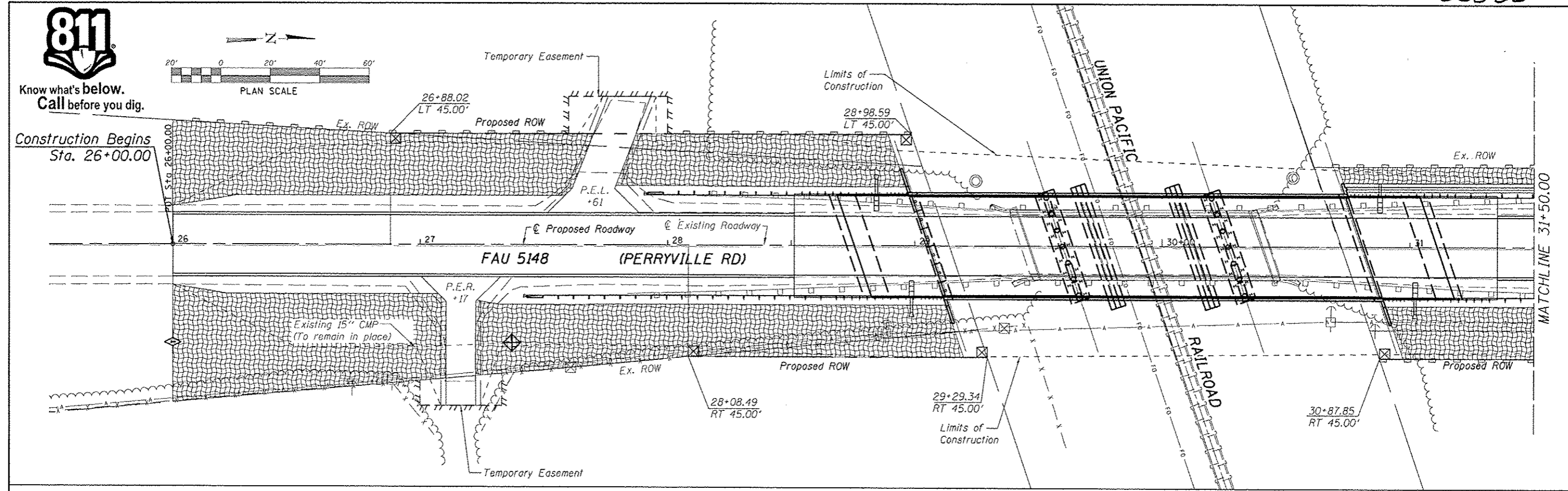
F.A.J. RTE. 5148	SECTION 04-00359-DO-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 9
WHA# 1261010			CONTRACT NO. 85599	
ILLINOIS/FED. AID PROJECT BRM-50991072				



Know what's below.
Call before you dig.



Construction Begins
Sta. 26+00.00



EROSION CONTROL NOTES

The soil erosion and sediment control practices will be inspected weekly and after 1/2" of rain or more by the individual on site in charge of soil erosion and sediment control during the construction of the project.

Perimeter erosion barrier shall comply with Section 280 of the Standard Specifications and shall be placed as shown on the Erosion Control Plan and in accordance with stations shown on the Schedule of Quantities sheet or as directed by the Engineer.

Silt fence shall be installed following the completion and stabilization of all areas adjacent to the on-site drainages. The silt fence will remain in place until the contributing area is stabilized.

For Seeding, Class 2 (Special) see Special Provisions.

Erosion control blanket shall be placed in ditches and to all disturbed areas as shown on this Erosion Control Plan sheet and in accordance with Section 251 of the Standard Specifications for Road and Bridge Construction.

The use of green dye in the erosion control blanket is not acceptable.

Temporary ditch checks shall comply with Section 280 of the Standard Specifications for Road and Bridge Construction and Standard 280001.

Temporary ditch checks shall be placed at stations called out in the Schedule of Quantities or as directed by the Engineer.

Stockpiles of soil and other building materials to remain in place more than 3 days shall be furnished with erosion and sediment control measures (i.e. perimeter silt fence). Stockpiles to remain in place for 14 days or more shall receive temporary seeding.

All adjacent streets must be kept clear of debris, inspected daily, and cleaned when necessary.

LEGEND

- Seeding, Class 2 (Special) & Erosion Control Blanket
- Temporary Aggregate Ditch Checks
- Perimeter Erosion Barrier
- Inlet & Pipe Protection
- Drainage Flow

BILL OF MATERIAL

Item	Unit	Quantity
Erosion Control Blanket	Sq. Yd.	2,890
Temporary Erosion Control Seeding	Pound	360
Temporary Ditch Checks	Foot	35
Perimeter Erosion Barrier	Foot	760
Inlet and Pipe Protection	Each	2
Seeding, Class 2 (Special)	Acre	0.60

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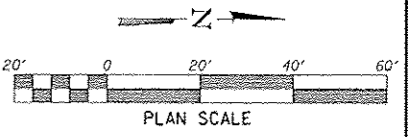
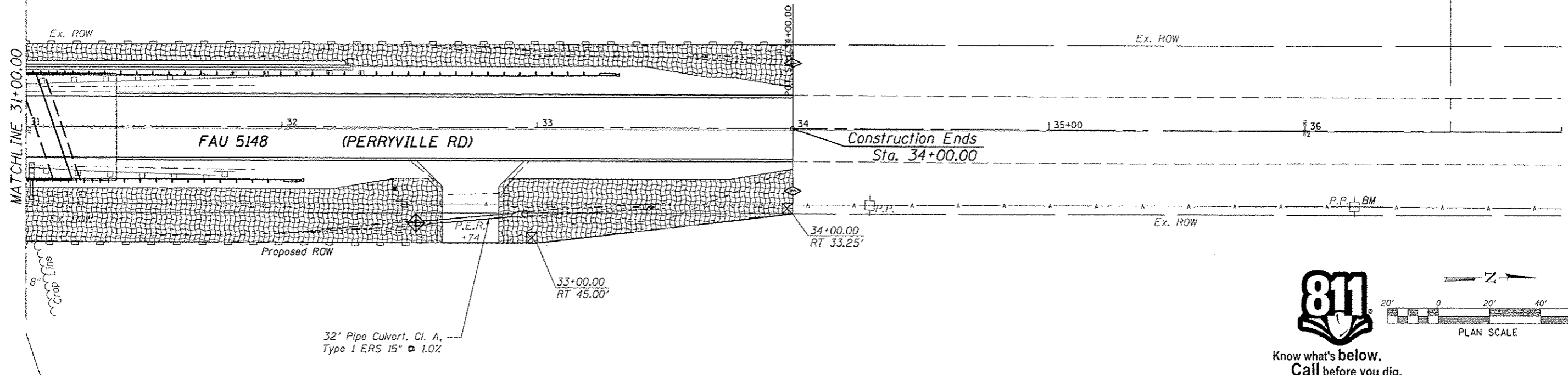


DESIGNED - LGN	REVISIED -
CHECKED - GFS	REVISIED -
DRAWN - LGN	REVISIED -
CHECKED - GFS	REVISIED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29+93.30

EROSION CONTROL PLAN
STRUCTURE NO. 101-3103
SCALE: 1" = 20' SHEET NO. 1 OF 2 SHEETS STA. 25+50.00 TO STA. 31+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	10
WHA* 1261010			CONTRACT NO. 85599	
ILLINOIS DEP. OF TRANSPORTATION PROJECT BRM-5093012				



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:

- The project consists of bridge replacement on FAU Rte. 5148 (Perryville Rd.) over Union Pacific Railroad & approach roadway work thereto.
- Construction includes pavement removal, earth excavation, entrances, channel excavation, various pavement items, bridge 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:

- Pavement removal and earth excavation
- Channel excavation
- Bridge construction
- Furnished excavation
- Aggregate base, bituminous surface and related appurtenances
- Placement of permanent erosion control, including seeding

AREA OF CONSTRUCTION SITE:

The total area of the construction site is estimated to be 1.55 acres of which 1.40 acres will be disturbed by excavation, grading, and other activities.

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

- Information of the soils and terrain within the site was obtained from soil borings that were utilized for the development of the proposed temporary erosion control systems.
- Project plan documents, specifications and special provisions, and plan drawings indicating drainage patterns and appropriate slopes anticipated after grading activities were utilized for the proposed placement of the temporary erosion control systems.

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

- 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, 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.
 - 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.
 - Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the Engineer, along with required tree removal.
 - 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.
 - Bare and sparsely vegetated ground in highly erodible areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are expected within 7 days.
 - 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 the right-of-way line.
- 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 over seeding can be completed.

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

- 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.
 - 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.
 - Earth stockpiles shall be temporarily seeded if they are to remain unused for more than 14 days.
 - As construction proceeds, the Contractor shall institute the following as directed by the Engineer:
 - Place temporary erosion control facilities at locations shown on the plans.
 - Temporarily seed erodible bare earth on a weekly basis to minimize the amount of erodible surface area within the contract limits.
 - 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 7 days.
 - Construction equipment shall be stored and fueled only at designated 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.
 - The Resident Engineer shall inspect the project daily during construction activities. Inspection shall also be done weekly and after rains of 1/2 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 (Spot).

(h) The temporary erosion control systems 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:

- 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.
- 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:

- Construction is complete after acceptance by IDOT final inspection. Maintenance up to this date will be by the Contractor.

MISCELLANEOUS:

- Temporary erosion control seeding shall be applied at a rate of 100 lbs. /acres.
- Temporary ditch checks shall comply with section 280 of the Standard Specifications for Road and Bridge Construction and Standard 280001.
- 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.

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.



DESIGNED - LGN	REVISED -
CHECKED - GFS	REVISED -
DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

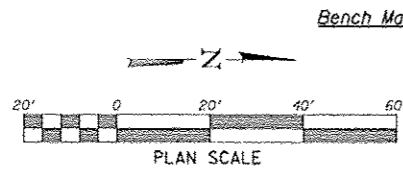
EROSION CONTROL PLAN
STRUCTURE NO. 101-3103
SCALE: 1" = 20'
SHEET NO. 2 OF 2 SHEETS
STA. 31+00.00 TO STA. 37+00.00

F.A.U. RTE. 5148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 11
WHA# 1261D10			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT DRW-5099(072)				

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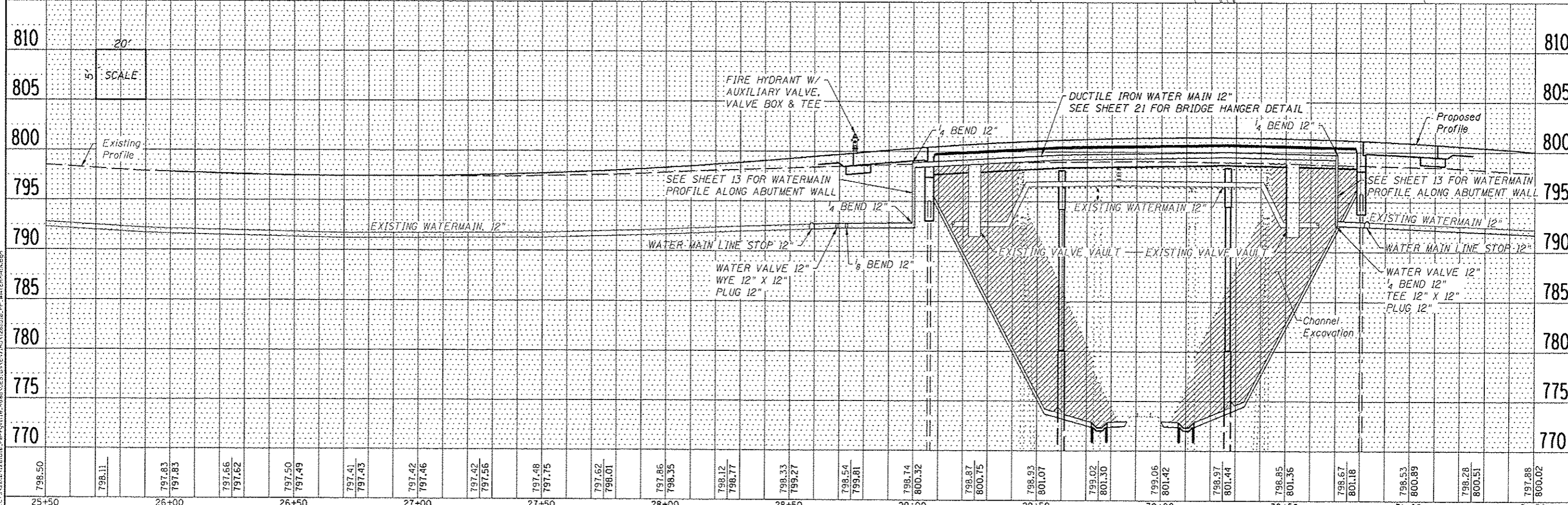
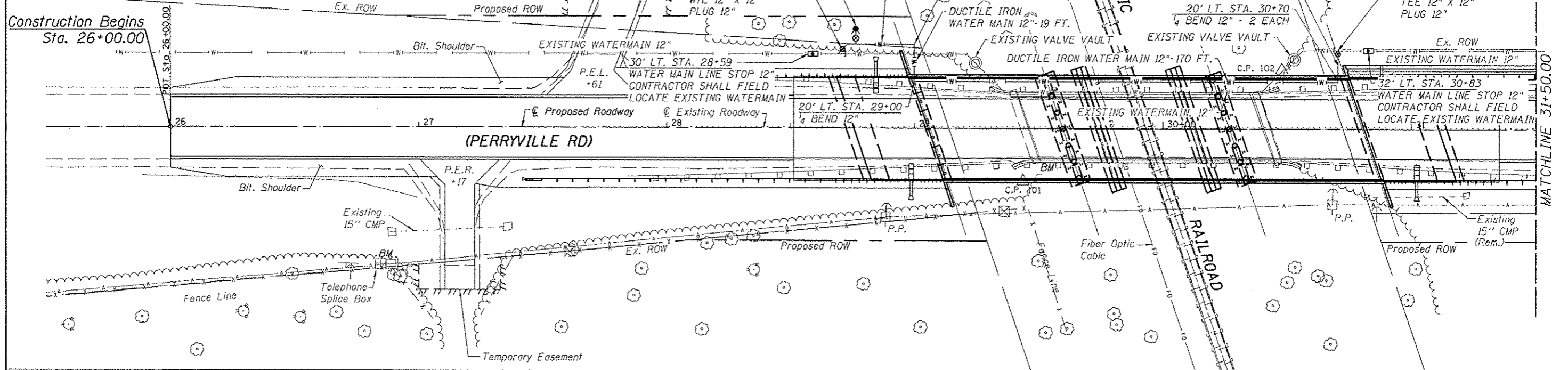
Know what's below.
Call before you dig.



Bench Mark: RR Spike in the 2nd P.P. south of existing RR bridge - east side of Perryville Road +55' Rt. Sta. 26+89, El. 793.47

Bench Mark: Chis. "□" on the east parapet wall of existing railroad bridge - southeast corner of bridge +13' Rt. Sta. 28+49, El. 799.54

Construction Begins Sta. 26+00.00



DATE	
BY	
DESIGNED	MPL
CHECKED	GMH
DRAWN	MPL
NOTED	GMH
FILE NO.	

DATE	
BY	
DESIGNED	MPL
CHECKED	GMH
DRAWN	MPL
NOTED	GMH
FILE NO.	

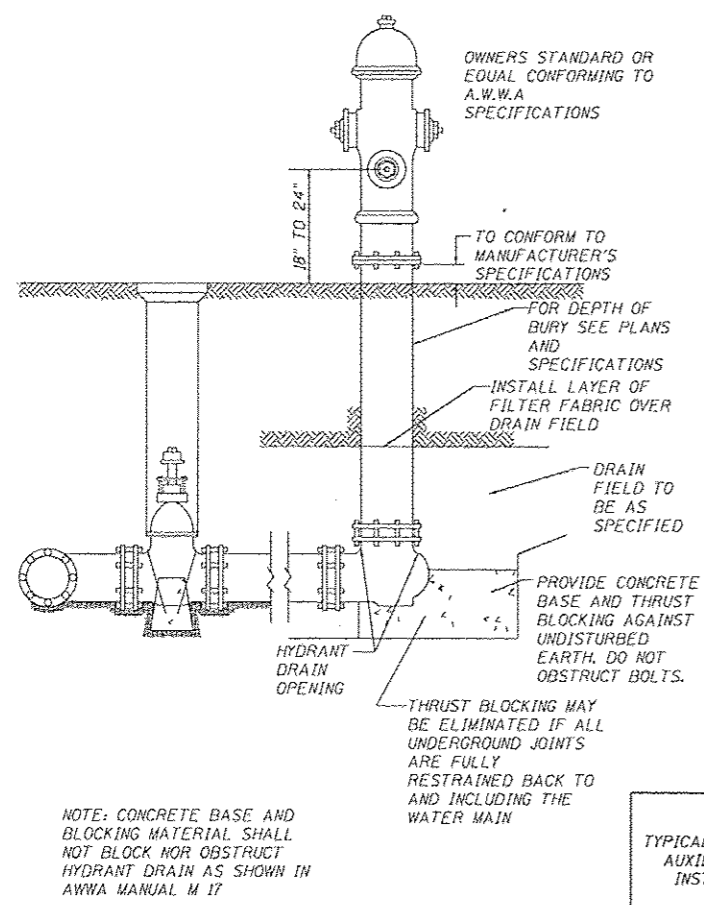
WILLET HOFMANN
ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, OAKVILLE, IL 61021-0367
TEL: 815-284-3381 FAX: 815-284-0099

DESIGNED - MPL	REVISED -
CHECKED - GMH	REVISED -
DRAWN - MPL	REVISED -
CHECKED - GMH	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29+93.30

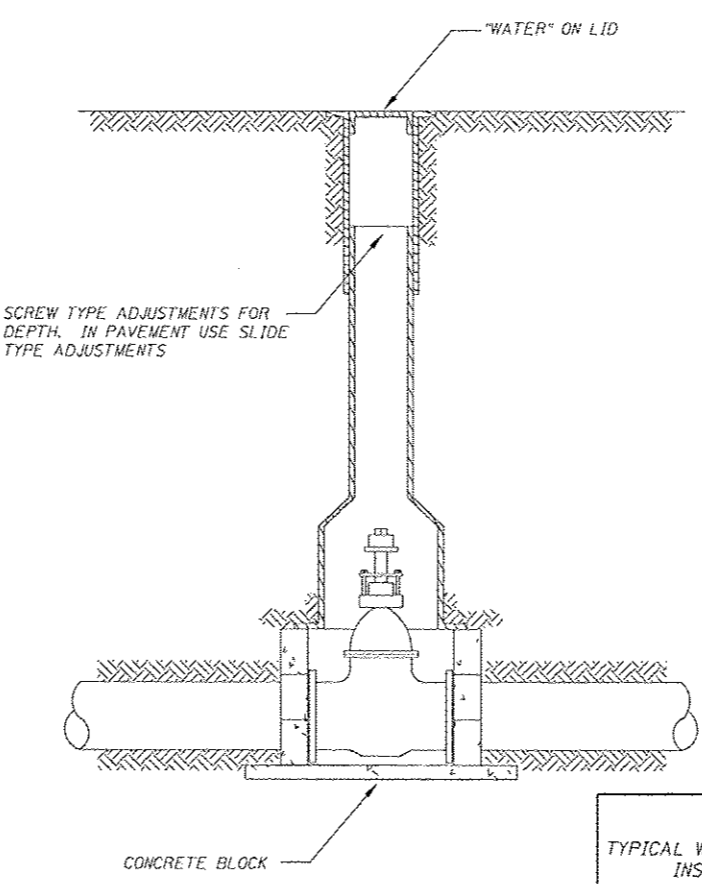
WATERMAIN RELOCATION - PLAN & PROFILE
STRUCTURE NO. 101-3103
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 25+50.00 TO STA. 31+50.00

F.A.U. RTE. S148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 12
WHA# 1261010			CONTRACT NO. 85599	
ILLINOIS/FED. AID PROJECT BRN-S0991072				

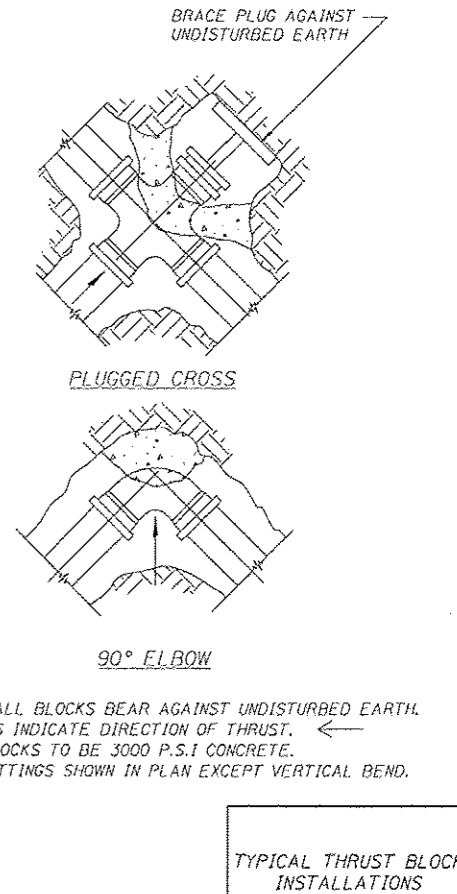
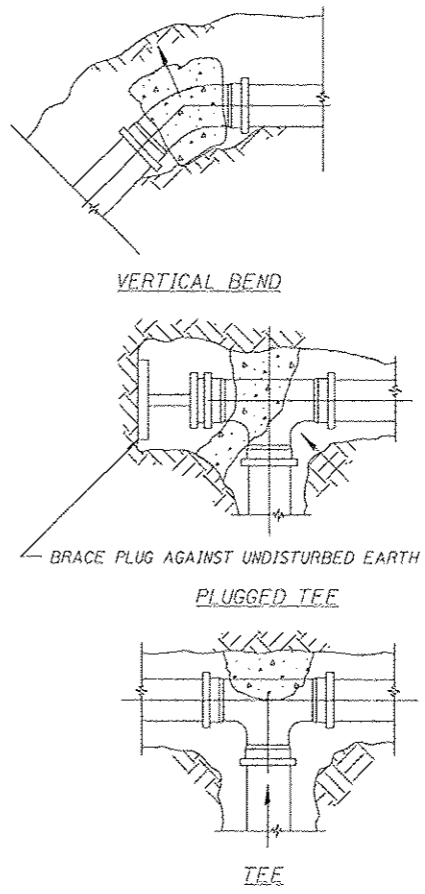


NOTE: CONCRETE BASE AND BLOCKING MATERIAL SHALL NOT BLOCK NOR OBSTRUCT HYDRANT DRAIN AS SHOWN IN AWWA MANUAL M 17

TYPICAL HYDRANT W/ AUXILIARY VALVE INSTALLATION

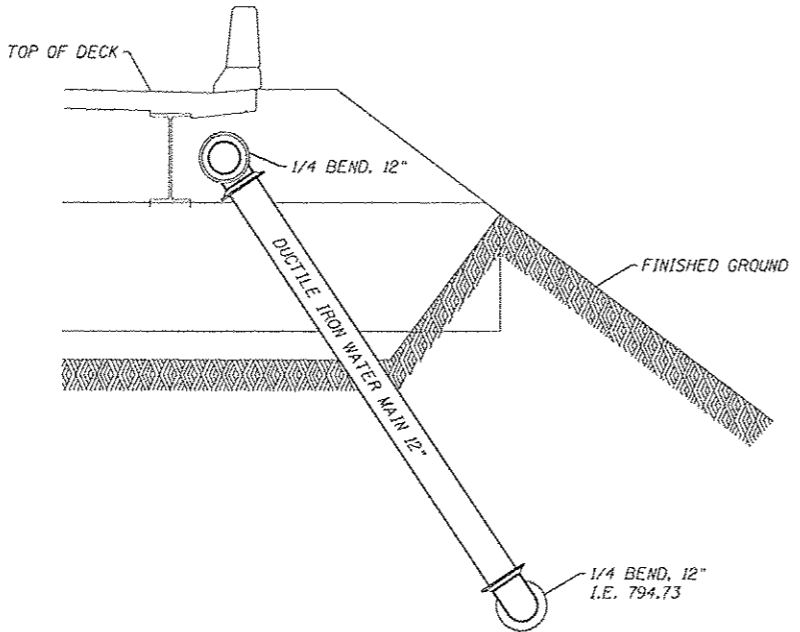


TYPICAL WATER VALVE BOX INSTALLATION

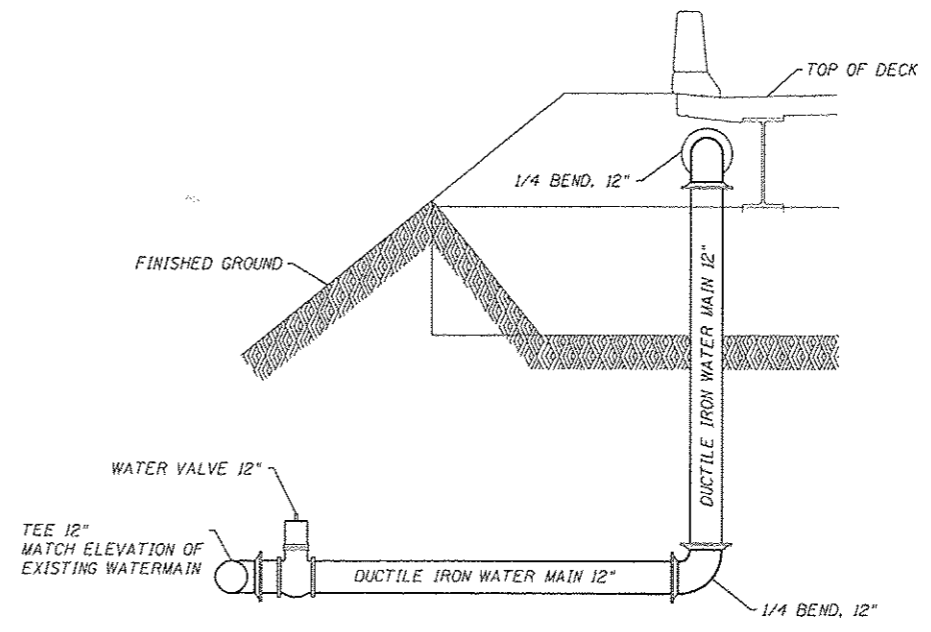


NOTE: ALL BLOCKS BEAR AGAINST UNDISTURBED EARTH. ARROWS INDICATE DIRECTION OF THRUST. ALL BLOCKS TO BE 3000 P.S.I CONCRETE. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

TYPICAL THRUST BLOCK INSTALLATIONS



WATERMAIN ALONG SOUTH ABUTMENT WALL DETAIL
NO SCALE



WATERMAIN ALONG NORTH ABUTMENT WALL DETAIL
NO SCALE

FILE: S:\PROJECTS\218126\218126.dwg Perryville Road Over Union Pacific Railroad - WM Ontosis.dgn

WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
609 EAST 26TH STREET, PRYOR, IL 61971-0367
T. 815-254-3381 DESIGN: 11/84 602918

DESIGNED - MPL	REVISED -
CHECKED - GMH	REVISED -
DRAWN - MPL	REVISED -
CHECKED - GMH	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

WATERMAIN RELOCATION CONSTRUCTION STANDARDS AND DETAILS
STRUCTURE NO. 101-3103
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 25+50.00 TO STA. 31+50.00

F.A.U. RTE. 5148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 13
WHA# 1261D10		CONTRACT NO. 85599		
ILLINOIS FED. AID PROJECT BRM-6091072				

EXISTING STRUCTURE: S.N. 101-3013

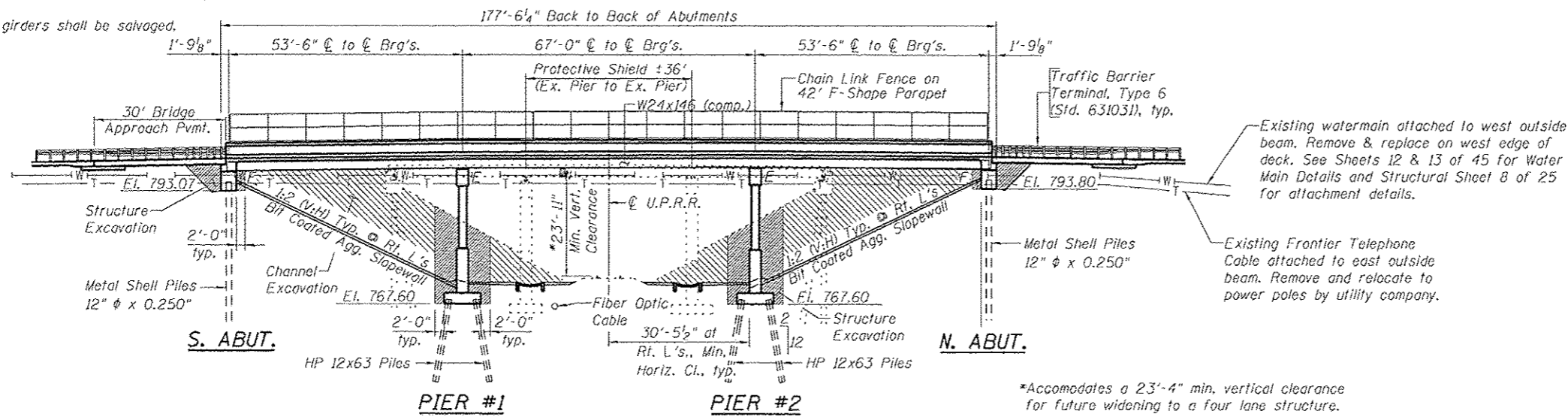
Originally built in 1954 as F.A.S. 1045 under Section 93B. The existing structure consists of three continuous spans (30'-0", 38'-0", 30'-0") with steel I-Beams and a reinforced concrete deck. The structure is 102'-2 3/4" back to back of abutments and 28'-4" out to out bridge width. The structure is on open concrete abutments on precast piles and multi-column piers on spread footings. Structure is skewed 18°-48' right ahead. The structure is to be removed and replaced. Road shall be closed to traffic during construction.

BENCH MARK: Chis. "□" on the east parapet wall of existing railroad bridge - southeast corner of bridge. El. 799.54

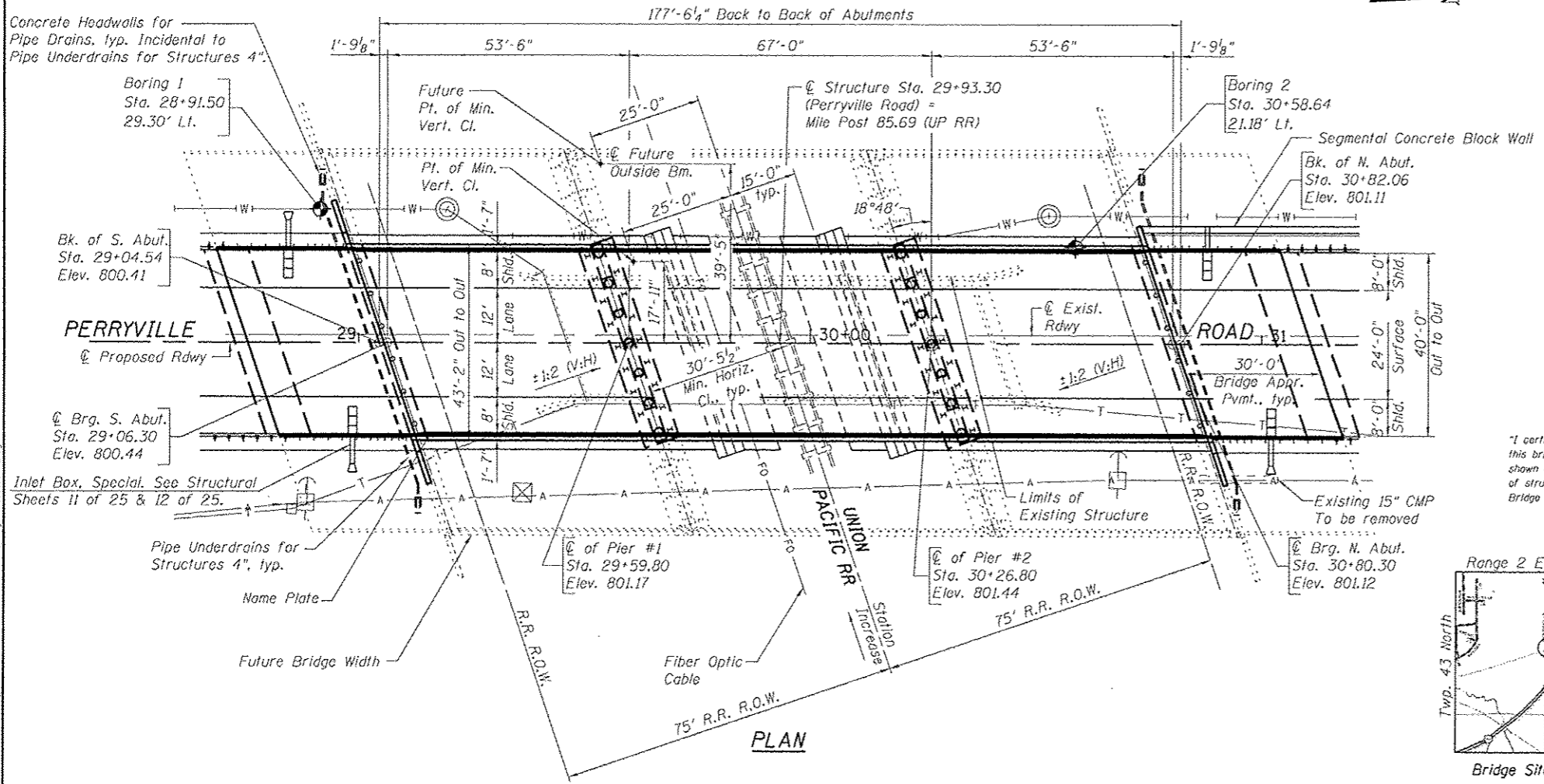
INDEX OF STRUCTURAL SHEETS

1. General Plan and Elevation
2. General Notes and Bill of Material
3. Slopewall and Pile Layout
4. Top of Slab Elevations
5. Top of South Approach Slab Elevations
6. Top of North Approach Slab Elevations
7. Superstructure
8. Superstructure Details
9. Diaphragm Details
10. Bridge Approach Slab Details
11. Inlet Box, Special Details (Sheet 1 of 2)
12. Inlet Box, Special Details (Sheet 2 of 2)
13. Bridge Fence Railing, Parapet Mounted
14. Structural Steel Details
15. Bearing Details
16. South Abutment Details
17. North Abutment Details
18. Segmental Concrete Block Wall Details
19. Pier #1 Details
20. Pier #2 Details
21. Metal Shell Pile Details
22. HP Pile Details
23. Bar Splicer Assembly and Mechanical Splicer Details
24. Cantilever Forming Brackets
25. Boring Logs

The existing steel girders shall be salvaged.



ELEVATION

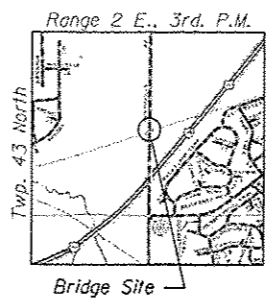


PLAN



Brian K. Conner
DATE: 11/3/2015

EXPIRES 11/30/16
"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans, the design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Bridge Design Specifications.'"

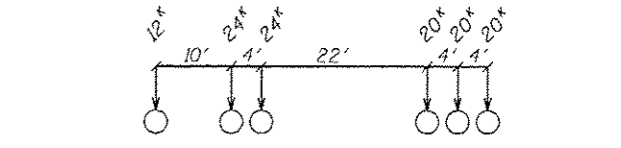


LOCATION SKETCH

LOADING HL-93 & IDOT 120K PERMIT LOAD
Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)
SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.079g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.135g
Soil Site Class = D



120K PERMIT TRUCK CONFIGURATION

UNION PACIFIC RAILROAD
BUILT 2016 BY
WINNEBAGO COUNTY
SEC. 04-00359-00-BR
FAU RTE. 5148 STA. 29+93.30
STR. NO. 101-3103 LOADING HL-93

NAME PLATE
See Std. 515001

GENERAL PLAN AND ELEVATION
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
F.A.U. RT. 5148 - SEC. 04-00359-00-BR
WINNEBAGO COUNTY
STATION 29+93.30 - MILE POST 85.68
STRUCTURE NO. 101-3103

WILETT HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
P: 815-284-3381 FAX: 815-284-3381

DESIGNED - BSK	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - BSK	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29+93.30

STRUCTURAL SHEET NO. 1 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	14
WHA* 1261010			CONTRACT NO. 85599	
ILLINOISIFIED, AID PROJECT BR5-5029(072)				

GENERAL NOTES:

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

Calculated weight of Structural Steel = 170,963 lbs.

All structural steel shall be AASHTO M 270 Grade 50.

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

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

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.

Anchor bolts shall be set before bolting diaphragms over supports.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing.

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

The proposed grade separation project shall not increase the quantity and/or characteristics of the flow in the Railroad's ditches and/or drainage structures.

The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Railroad prior to construction.

The Contractor must submit a proposed method of erosion and sediment control and have the method approved by the Railroad.

All shoring systems that impact the Railroad's operations and/or supports the Railroad's embankment shall be designed and constructed per current Railroad Guidelines for Temporary Shoring.

All demolitions within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations shall be in compliance with the Railroad's Demolition Guidelines.

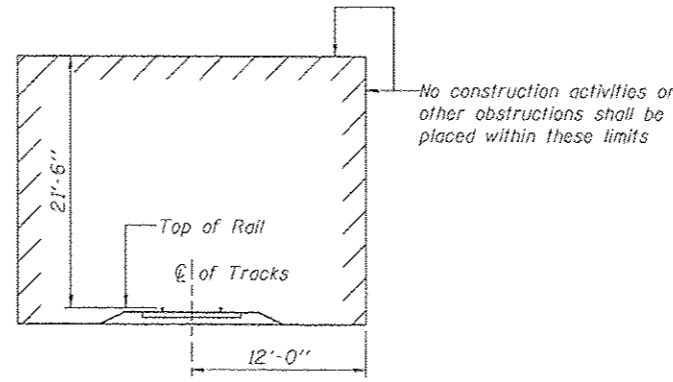
Erection over the Railroad's right-of-way shall be designed to cause no interruption to the Railroad's operation, enabling the track to remain open to traffic per the Railroad's requirements.

Railroad requirements do not allow work within 50 feet of track centerline when a train passes the work site and all personnel must clear the area within 25 feet of the track centerline and secure all equipment.

False-work clearances shall comply with minimum construction clearances.

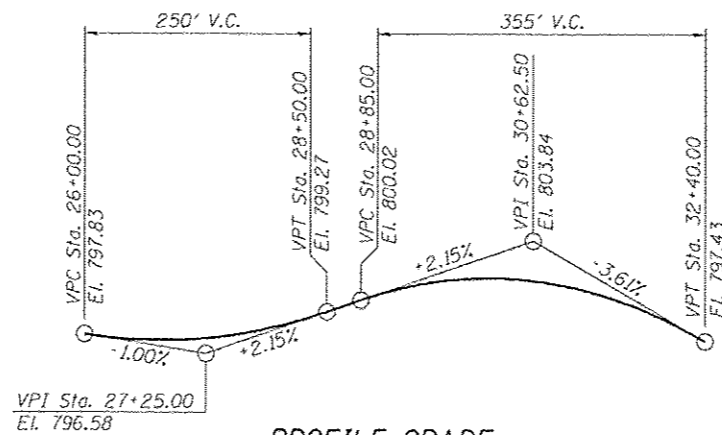
All permanent clearances shall be verified before project closing.

The barrier is a closed type, no drainage will be discharged on Railroad right-of-way.



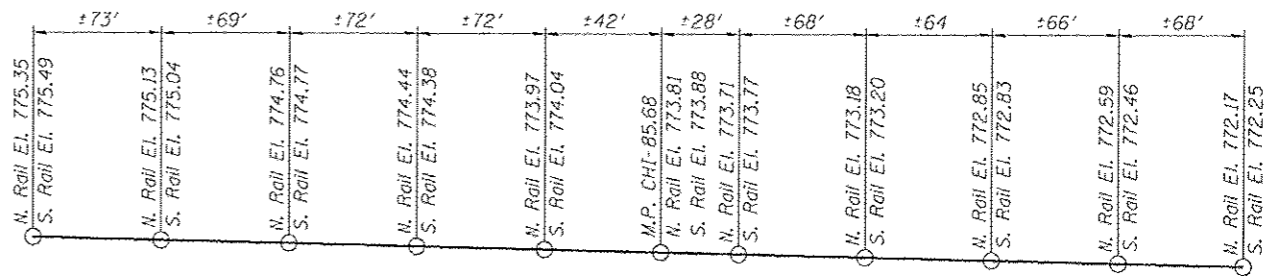
MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

(Normal to Railroad)



PROFILE GRADE

(Along Center Roadway)



PROFILE GRADE

(Looking North)
Top of Rail UP Railroad

TOTAL BILL OF MATERIAL				
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.	---	2,147	2,147
Removal of Existing Structures	Each	---	---	1
Protective Shield	Sq. Yd.	---	---	114
Structure Excavation	Cu. Yd.	---	1,165	1,165
Concrete Structures	Cu. Yd.	---	288.2	288.2
Concrete Superstructure	Cu. Yd.	392.4	---	392.4
Bridge Deck Grooving	Sq. Yd.	989	---	989
Protective Coat	Sq. Yd.	1,052	---	1,052
Furnishing and Erecting Structural Steel	L. Sum	1	---	1
Stud Shear Connectors	Each	7,290	---	7,290
Reinforcement Bars, Epoxy Coated	Pound	93,230	42,580	135,810
Hardware	Pound	651	---	651
Bar Splicers	Each	98	248	346
Bridge Fence Railing	Foot	350	---	350
Slope Wall 4 Inch	Sq. Yd.	---	70	70
Furnishing Metal Shell Piles 12"x0.250"	Foot	---	245	245
Furnishing Steel Piles HP 12x63	Foot	---	646	646
Driving Piles	Foot	---	891	891
Test Pile - Metal Shells	Each	---	2	2
Test Pile Steel HP 12x63	Each	---	2	2
Name Plates	Each	1	---	1
Elastomeric Bearing Assembly, Type 1	Each	12	---	12
Anchor Bolts, 1"	Each	48	---	48
End Sections 12"	Each	3	---	3
Geocomposite Wall Drain	Sq. Yd.	---	76	76
Pipe Drain 12"	Foot	---	64	64
Concrete Thrust Blocks	Each	---	3	3
Permanent Survey Markers, Type 1	Each	---	---	1
Granular Backfill for Structures	Cu. Yd.	---	121	121
Paved Ditch (Special)	Foot	---	156	156
Segmental Concrete Block Wall	Sq. Ft.	---	936	936
Pipe Underdrains for Structures 4"	Foot	---	153	153
Railroad Protective Liability Insurance	L. Sum	---	---	1
Bituminous Coated Aggregate Slope Wall 6"	Sq. Yd.	---	772	772
Inlet Box, Special	Each	4	---	4

*See Special Provisions

GENERAL NOTES AND BILL OF MATERIAL
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
F.A.U. RT. 5148 - SEC. 04-00359-00-BR
WINNEBAGO COUNTY
STATION 29+93.30 - MILE POST 85.68
STRUCTURE NO. 101-3103



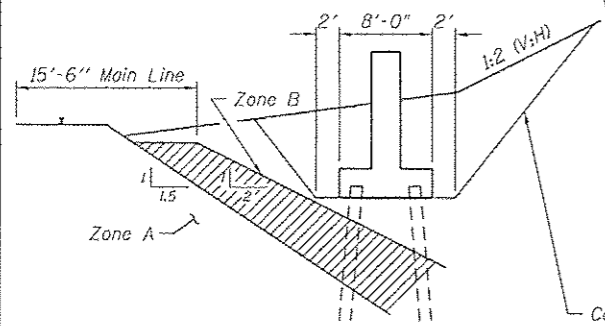
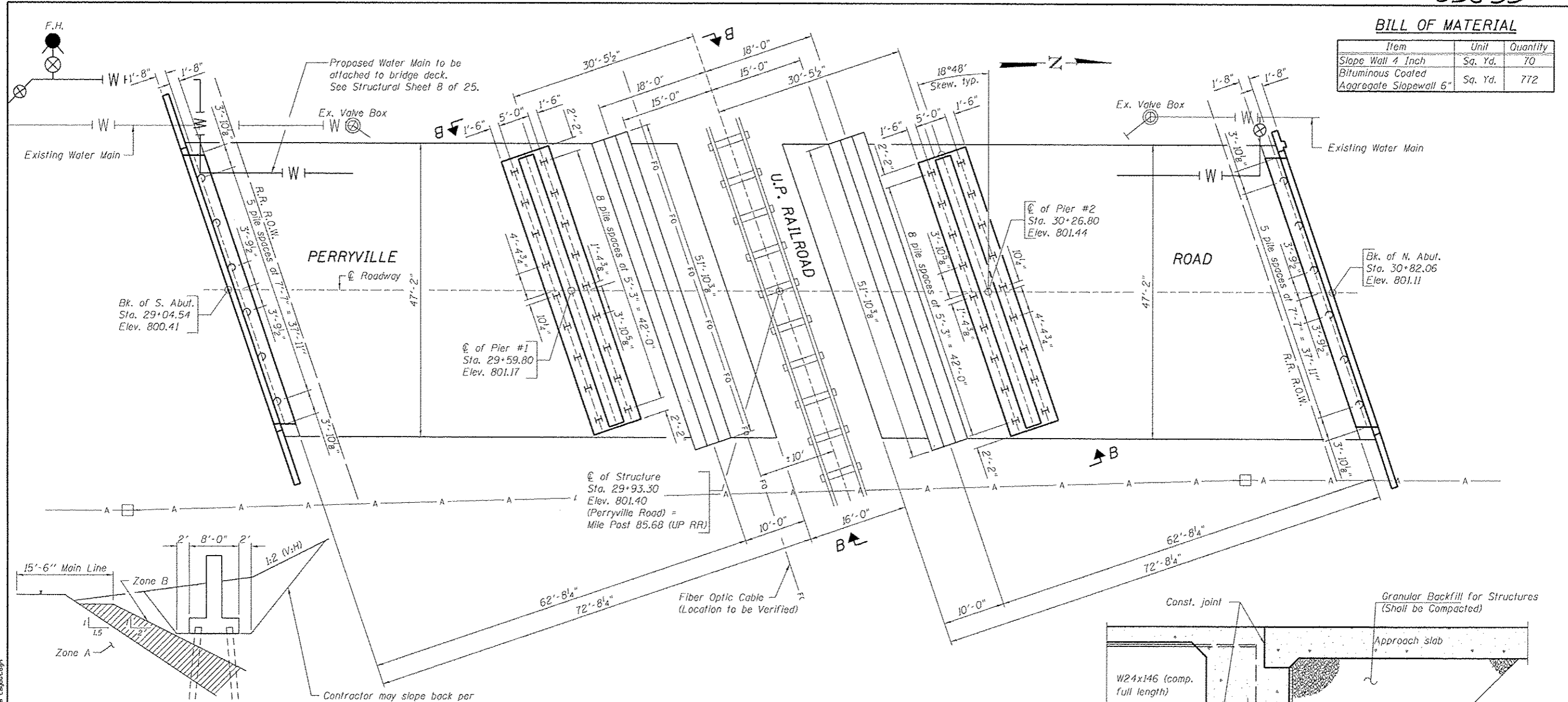
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CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - BSK	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

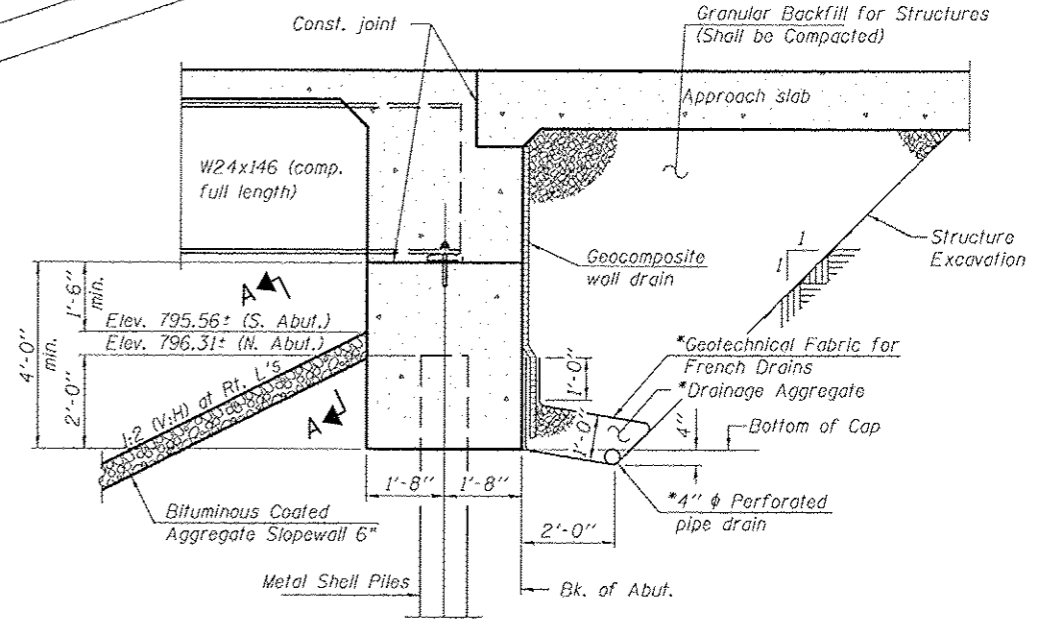
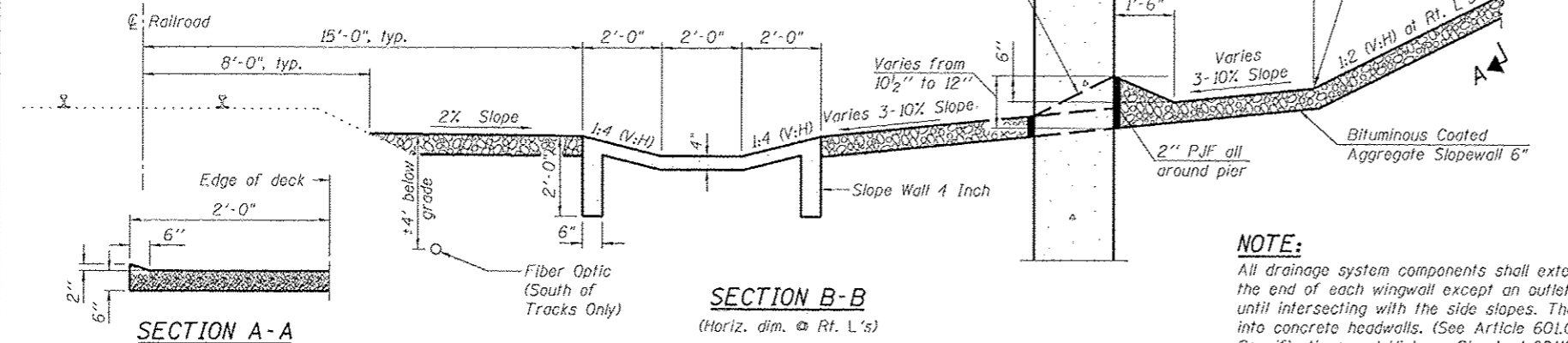
F.A.U. RTE. 5148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 15
WHA* 1261D10		CONTRACT NO. 85599		

BILL OF MATERIAL

Item	Unit	Quantity
Slope Wall 4 Inch	Sq. Yd.	70
Bituminous Coated Aggregate Slopewall 6"	Sq. Yd.	772



GENERAL EXCAVATION ZONE
 Note: If Contractor requires any excavation in Zone "A" or "B" shoring drawings shall be sealed & stamped by a Licensed Structural Engineer in the State of Illinois & submitted to the Railroad for approval at Contractor's expense.



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

*Included in the cost of Pipe Underdrains for Structures 4".
 (See Special Provisions)

NOTE:
 All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

FILE: S:\PROJECTS\152\BIB\1521018\Perryville_Road\DESIGN\FRACT\Drawings\1261018_Slope Wall & Pile Layout.dwg

WILLET HOFMANN ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, OXON, IL 61021-0367
 T. 815-284-1281 DESIGN FILE: #184-005918

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

SLOPEWALL AND PILE LAYOUT
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 3 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	16

WHA# 1261010 CONTRACT NO. 85599
 ILLINOIS FED. AID PROJECT BRM-503910721

LEFT FACE OF CURB

Location	Station	Offset	Theoretical Grade Elevations
A	28+68.65	20.42'	799.35
B	28+78.65	20.42'	799.56
C	28+88.65	20.42'	799.78
D	28+98.65	20.42'	799.98

LEFT EDGE OF TRAFFIC LANE

Location	Station	Offset	Theoretical Grade Elevations
A	28+71.51	12.00'	799.54
B	28+81.51	12.00'	799.76
C	28+91.51	12.00'	799.97
D	29+01.51	12.00'	800.17

CENTERLINE

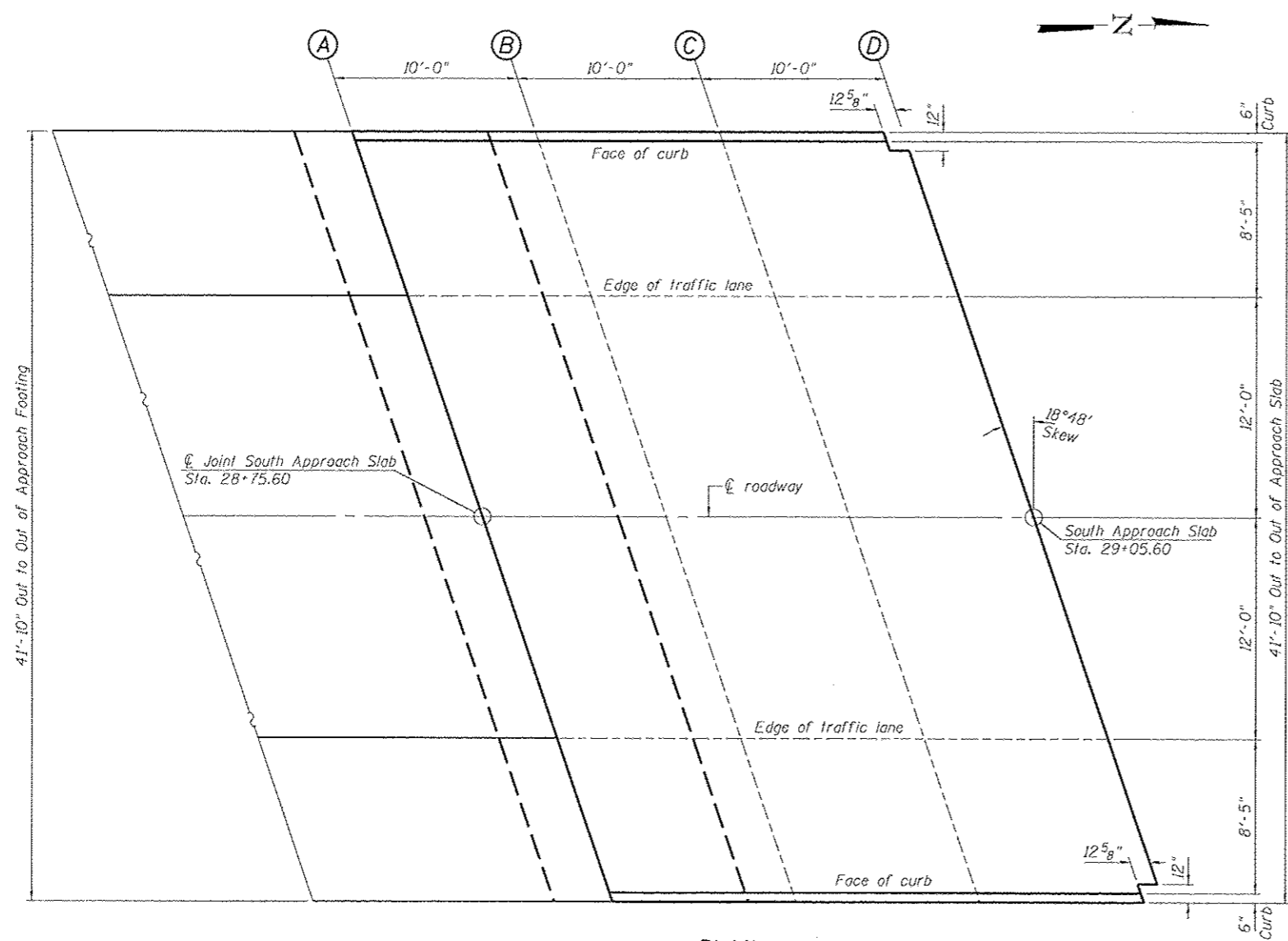
Location	Station	Offset	Theoretical Grade Elevations
A	28+75.60	0.00'	799.82
B	28+85.60	0.00'	800.03
C	28+95.60	0.00'	800.24
D	29+05.60	0.00'	800.43

RIGHT EDGE OF TRAFFIC LANE

Location	Station	Offset	Theoretical Grade Elevations
A	28+79.68	12.00'	799.72
B	28+89.68	12.00'	799.93
C	28+99.68	12.00'	800.13
D	29+09.68	12.00'	800.31

RIGHT FACE OF CURB

Location	Station	Offset	Theoretical Grade Elevations
A	28+82.55	20.42'	799.65
B	28+92.55	20.42'	799.86
C	29+02.55	20.42'	800.05
D	29+12.55	20.42'	800.23



PLAN

FILE: S:\PROJECTS\2018\1261018_Perryville_Roadway\STRUCT\Drawings\1261018_South_Approach_TOS.dgn



DESIGNED -	MAC	REVISED -	
CHECKED -	BKC	REVISED -	
DRAWN -	FDL	REVISED -	
CHECKED -	MAC	REVISED -	

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 101-3103

STRUCTURAL SHEET NO. 5 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	18
WHA* 1261010		CONTRACT NO. 85599		

ILLINOIS FED. AID PROJECT BRN-50990727

LEFT FACE OF CURB

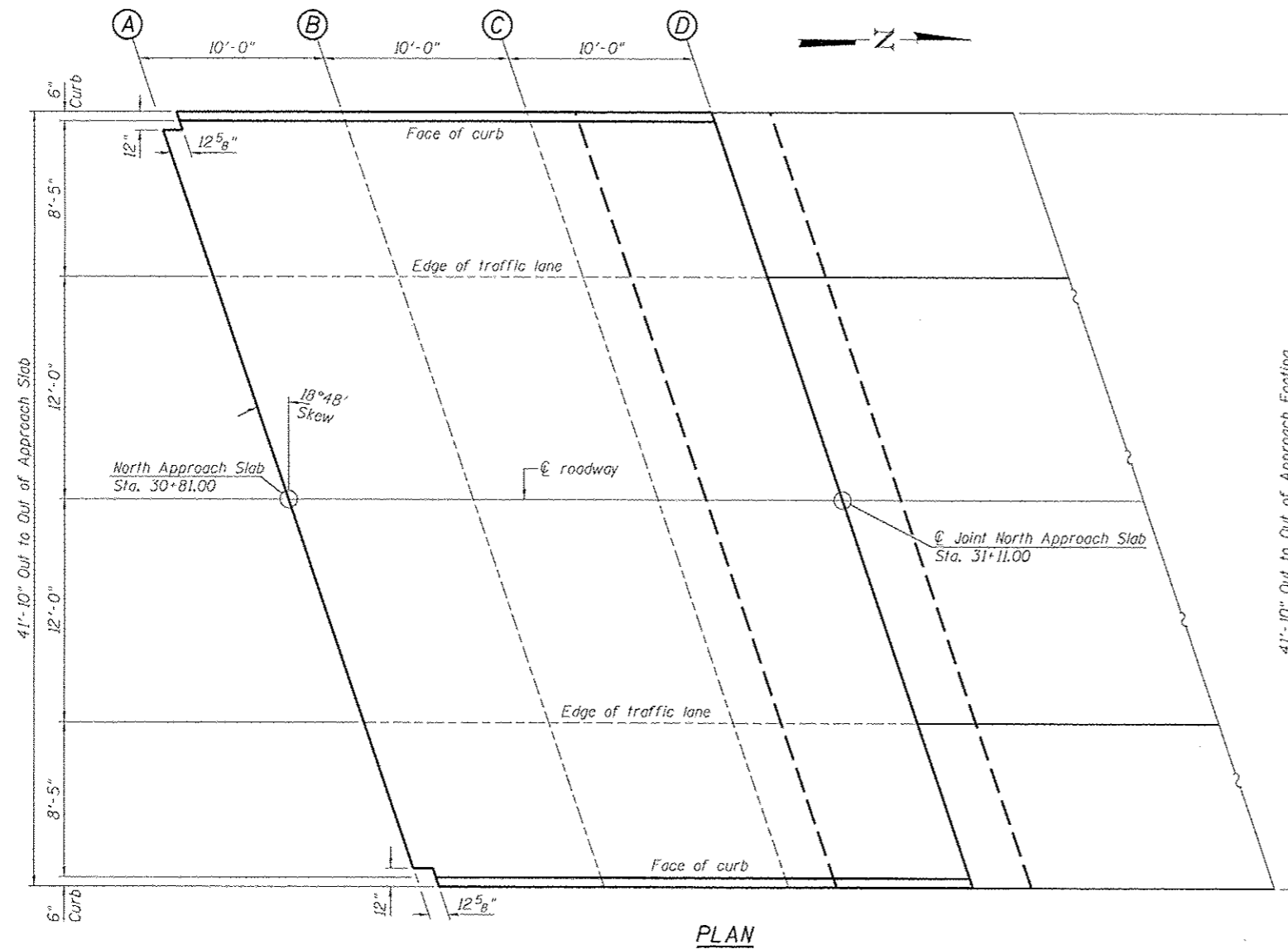
Location	Station	Offset	Theoretical Grade Elevations
A	30+74.05	20.42'	800.87
B	30+84.05	20.42'	800.77
C	30+94.05	20.42'	800.65
D	31+04.05	20.42'	800.52

LEFT EDGE OF TRAFFIC LANE

Location	Station	Offset	Theoretical Grade Elevations
A	30+76.92	12.00'	800.97
B	30+86.92	12.00'	800.87
C	30+96.92	12.00'	800.75
D	31+06.92	12.00'	800.61

CENTERLINE

Location	Station	Offset	Theoretical Grade Elevations
A	30+81.00	0.00'	801.12
B	30+91.00	0.00'	801.01
C	31+01.00	0.00'	800.88
D	31+11.00	0.00'	800.74



RIGHT EDGE OF TRAFFIC LANE

Location	Station	Offset	Theoretical Grade Elevations
A	30+85.09	12.00'	800.89
B	30+95.09	12.00'	800.77
C	31+05.09	12.00'	800.63
D	31+15.09	12.00'	800.48

RIGHT FACE OF CURB

Location	Station	Offset	Theoretical Grade Elevations
A	30+87.95	20.42'	800.72
B	30+97.95	20.42'	800.60
C	31+07.95	20.42'	800.46
D	31+17.95	20.42'	800.31

FILE: S:\PROJECTS\2018\1261010_Perryville_Roadway\STRUCT\1261010_North_Approach_TOS.dgn



DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

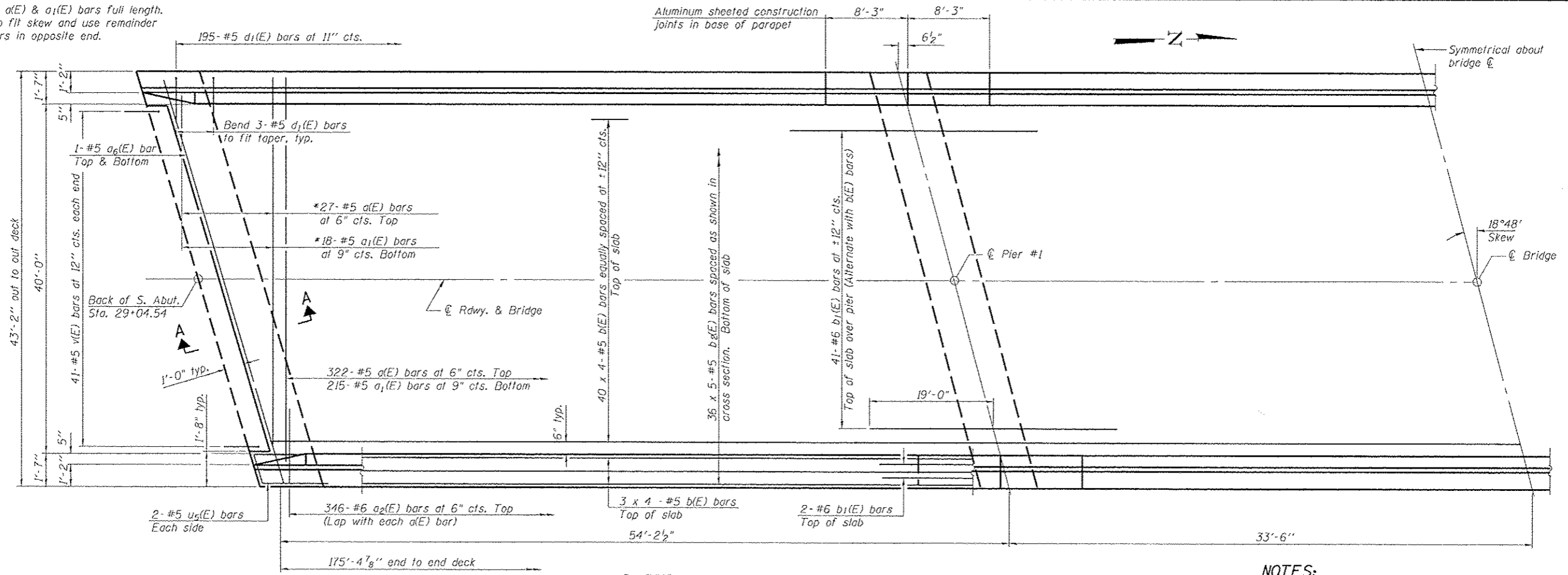
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 101-3103

STRUCTURAL SHEET NO. 6 OF 25 SHEETS

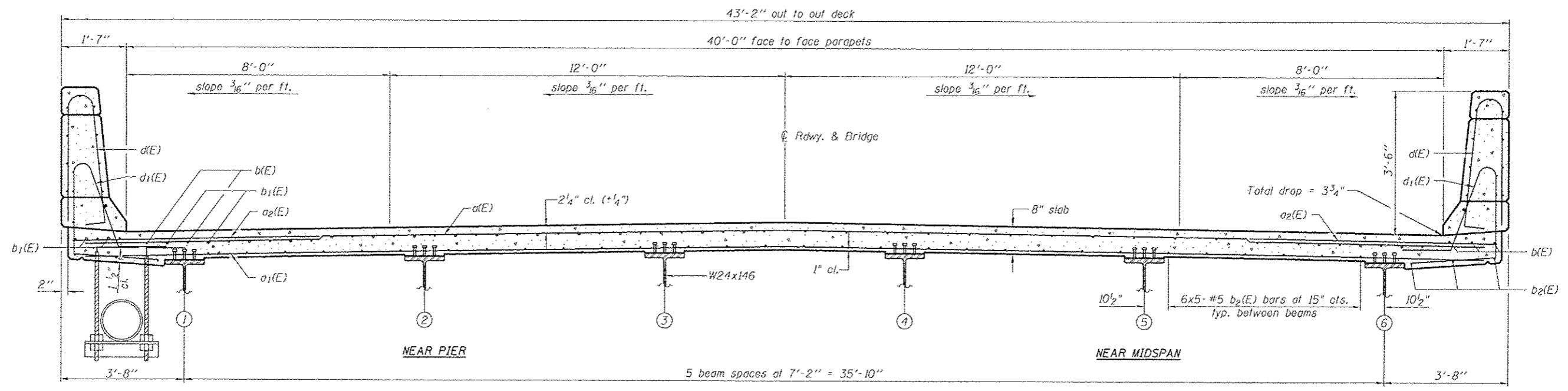
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S148	04-00359-00-BR	WINNEBAGO	45	19
WHA* 1261010			CONTRACT NO. 85599	
[ILLINOIS] FED. AID PROJECT BRM-5039(077)				

* Order a(E) & a₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



PARTIAL PLAN

NOTES:
 See Structural Sheet 8 of 25 for superstructure details, parapet reinforcement and Bill of Material.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



CROSS SECTION
(Looking North)

FILE: S:\PROJECTS\2018\180108_Perryville Road\DESIGN\STRUCT\Drawings\12610108_Superstructure.dgn

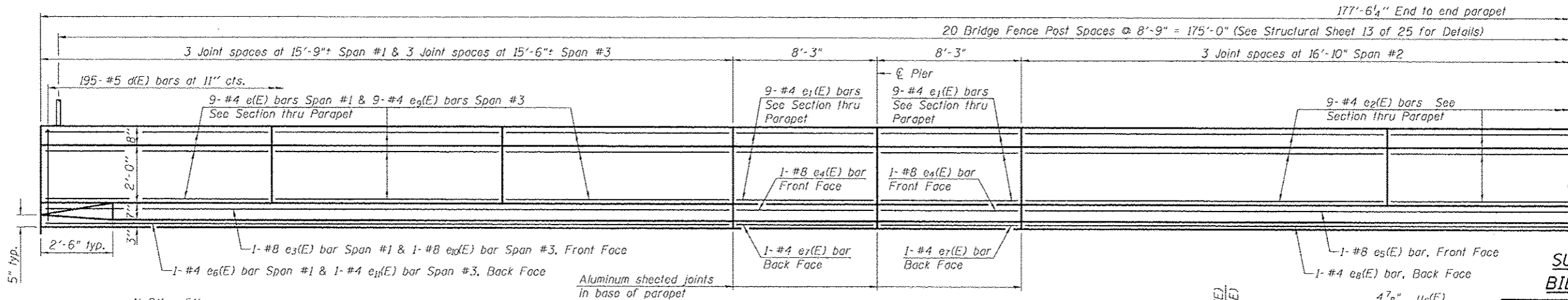
WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, DIXON, IL 61021-0367
 TEL: 815-264-3383 FAX: 815-264-3384

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

SUPERSTRUCTURE
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 7 OF 25 SHEETS

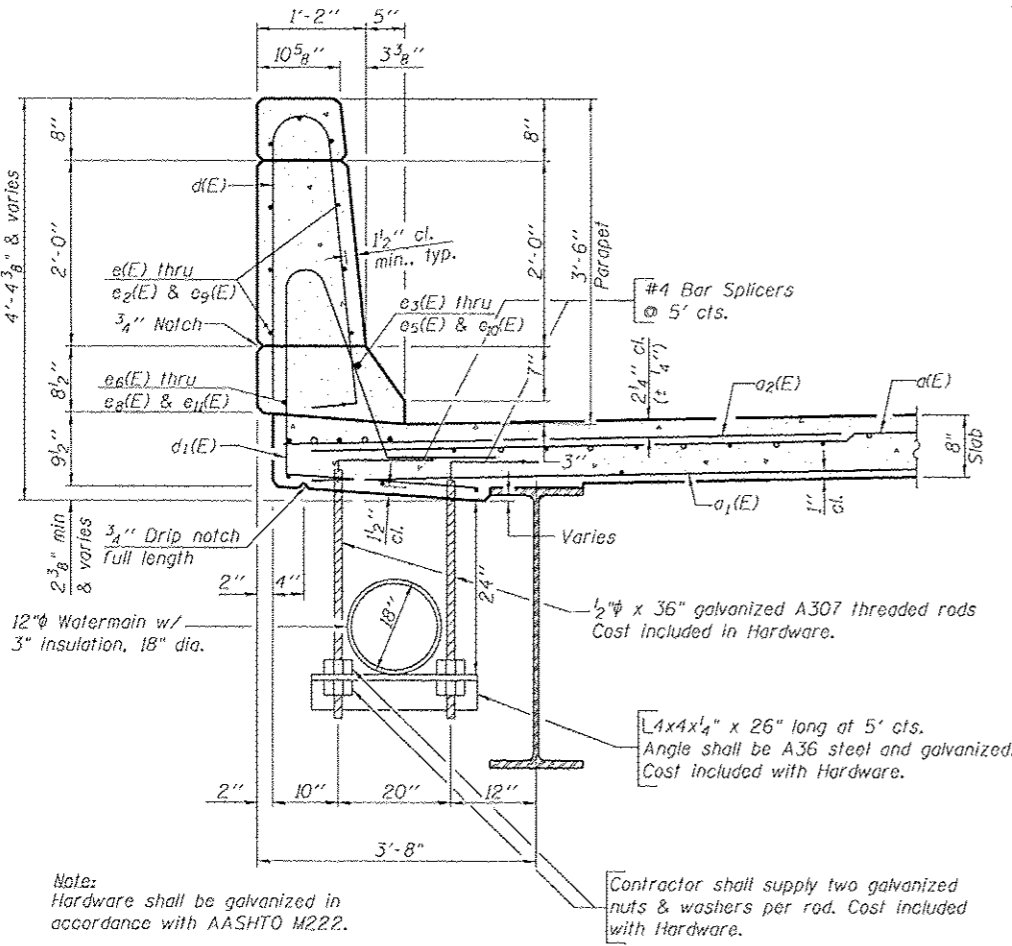
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	20
WHA* 1261010			CONTRACT NO. 85599	
[ILLINOIS] FED. AID PROJECT BRN-5099(012)				



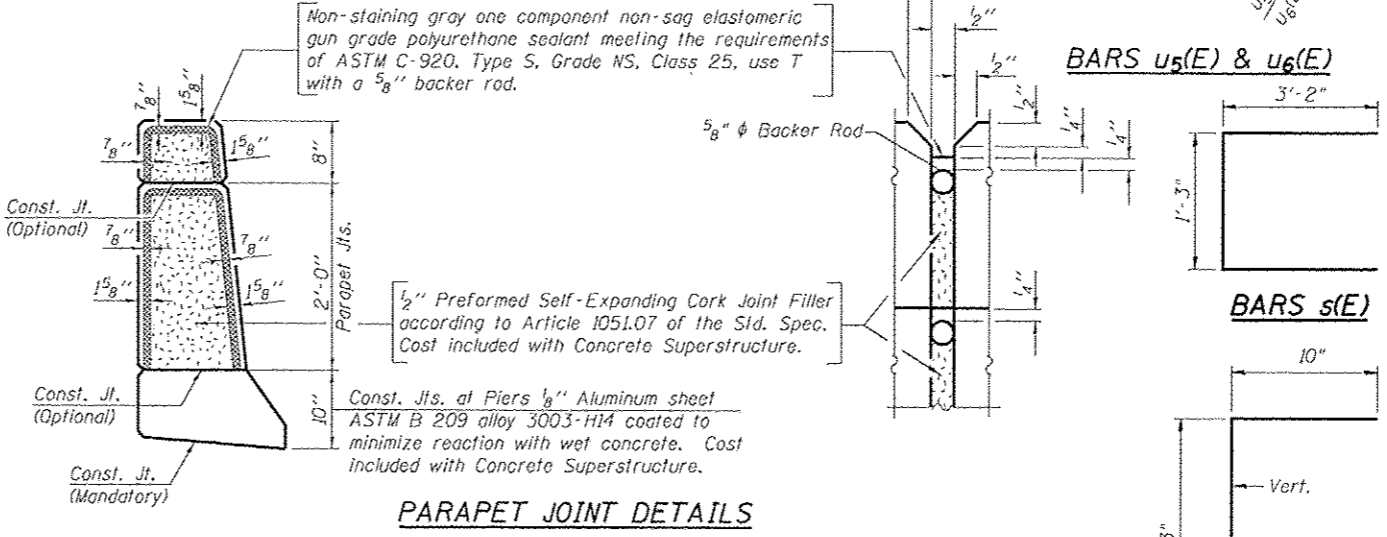
INSIDE ELEVATION OF PARAPET

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	349	#5	42'-6"	—
d ₁ (E)	233	#5	42'-6"	—
d ₂ (E)	692	#6	6'-6"	—
d ₃ (E)	4	#5	44'-10"	—
b(E)	184	#5	46'-4"	—
b ₁ (E)	90	#6	38'-0"	—
b ₂ (E)	180	#5	37'-9"	—
e(E)	390	#5	6'-10"	—
e ₁ (E)	390	#5	8'-3"	—
e ₂ (E)	54	#4	15'-5"	—
e ₃ (E)	36	#4	7'-11"	—
e ₄ (E)	54	#4	16'-6"	—
e ₅ (E)	2	#8	46'-11"	—
e ₆ (E)	4	#8	7'-11"	—
e ₇ (E)	2	#4	16'-11"	—
e ₈ (E)	4	#4	7'-11"	—
e ₉ (E)	2	#4	50'-2"	—
e ₁₀ (E)	54	#4	15'-2"	—
e ₁₁ (E)	2	#8	46'-2"	—
e ₁₂ (E)	2	#4	46'-2"	—
m(E)	8	#6	45'-3"	—
m ₁ (E)	30	#6	7'-2"	—
m ₂ (E)	12	#6	3'-6"	—
m ₃ (E)	24	#5	4'-0"	—
s(E)	86	#5	7'-7"	—
s ₁ (E)	86	#5	8'-3"	—
u ₅ (E)	8	#5	6'-3"	—
u ₆ (E)	12	#6	8'-0"	—
v(E)	82	#5	3'-1"	—
Concrete Superstructure		Cu. Yd.	270.0	
Bridge Deck Grooving		Sq. Yd.	741	
Protective Coat		Sq. Yd.	780	
Reinforcement Bars, Epoxy Coated		Pound	65,860	
Hardware		Pound	651	
Bar Splicers		Each	98	



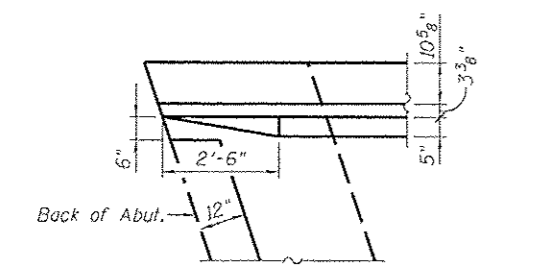
SECTION THRU PARAPET



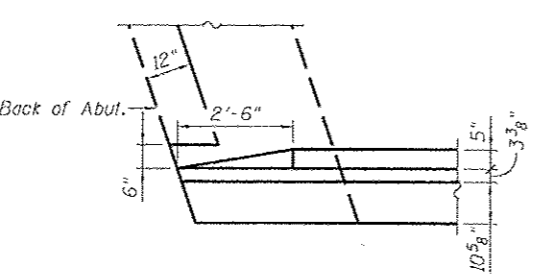
PARAPET JOINT DETAILS

MINIMUM BAR LAP

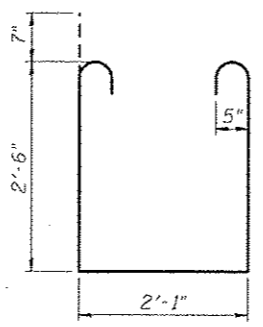
SIZE	LAP
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#8	6'-9"



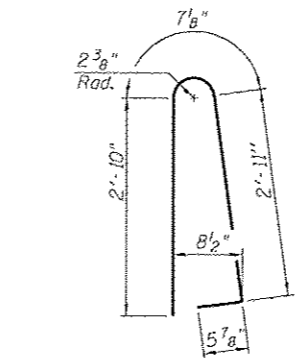
S.W. & N.E. PARAPET CORNER DETAIL



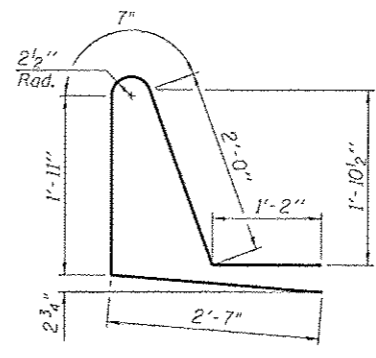
S.E. & N.W. PARAPET CORNER DETAIL



BARS s₁(E)



BAR d(E)



BAR d₁(E)

NOTES:

See Structural Sheet 23 of 25 for bar splicer assembly.
See Structural Sheet 13 of 25 for fence anchor details.
Bridge Fence Railing is detailed and billed on Structural Sheet 13 of 25.
All exposed edges shall have 3/4" chamfer, except as noted.
Slip forming of parapets will not be allowed.

FILE = S:\PROJECTS\2018\1261010_Perryville_Road\DESIGN\STRUCT\101-3101B_Superstructure_Details.rvt



DESIGNED - MAC
CHECKED - BKC
DRAWN - FDL
CHECKED - MAC

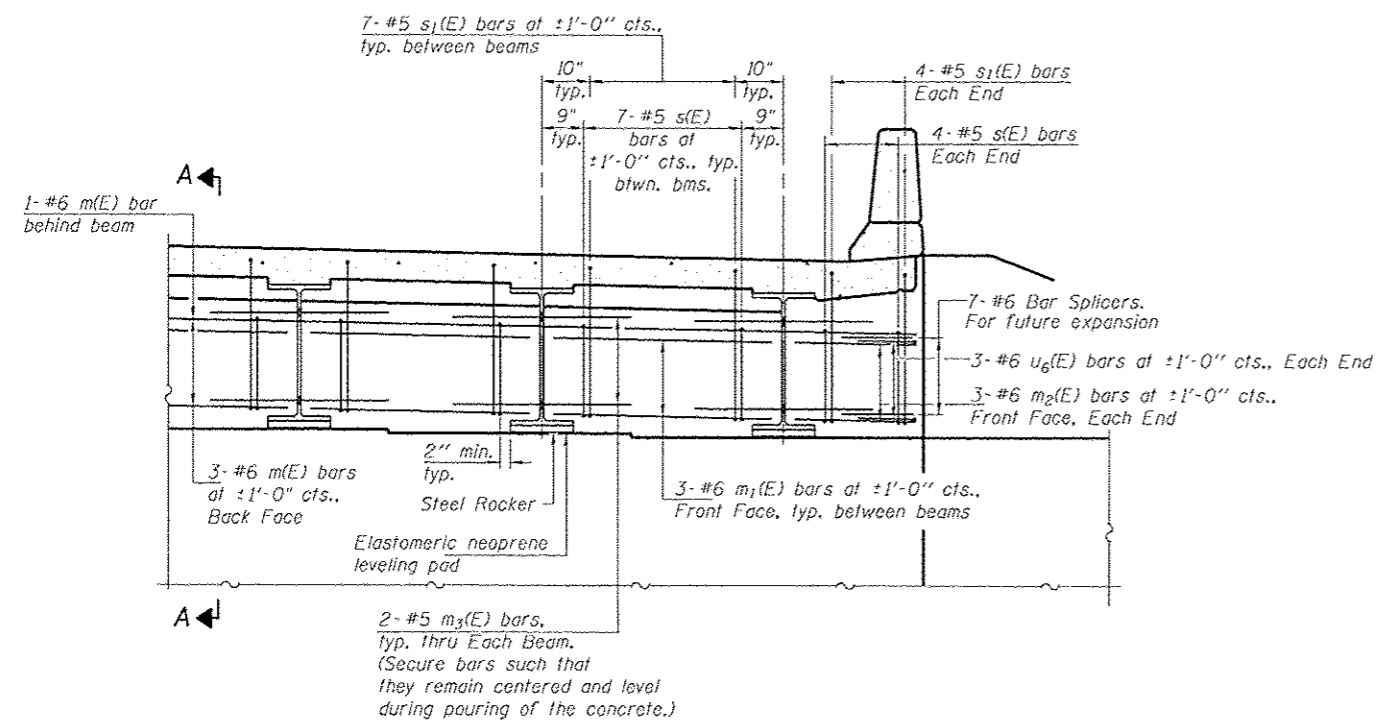
REVISED -
REVISED -
REVISED -
REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

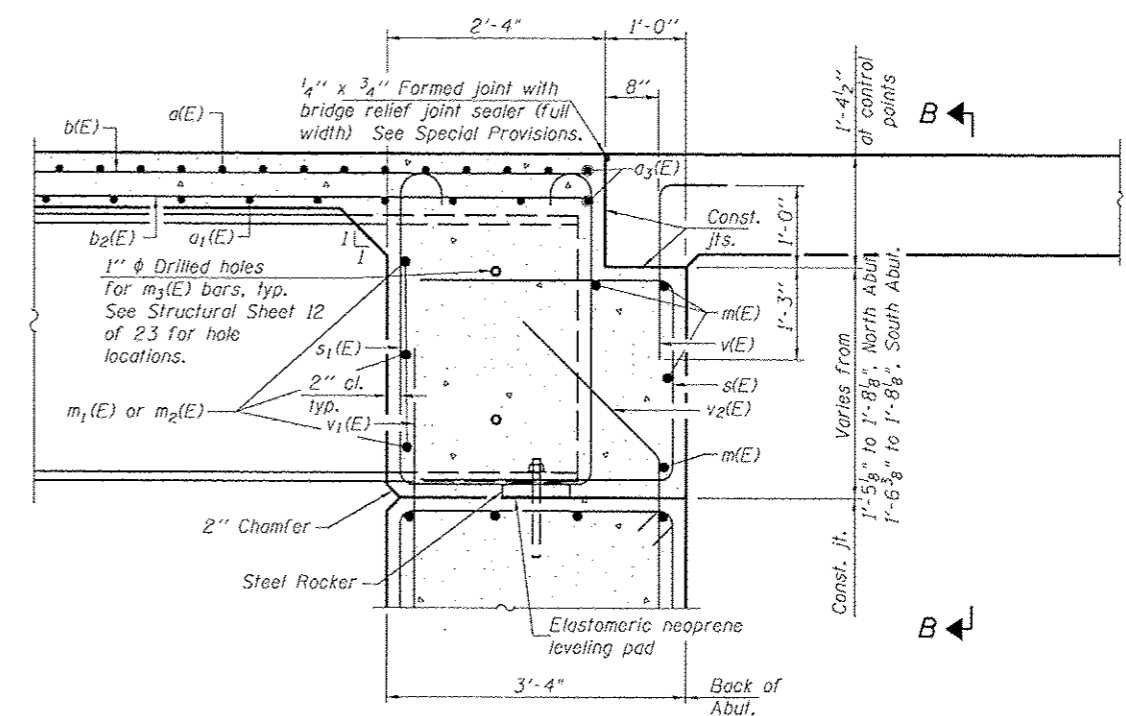
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 8 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	21
	WHA* 1261D10		CONTRACT NO. 85599	

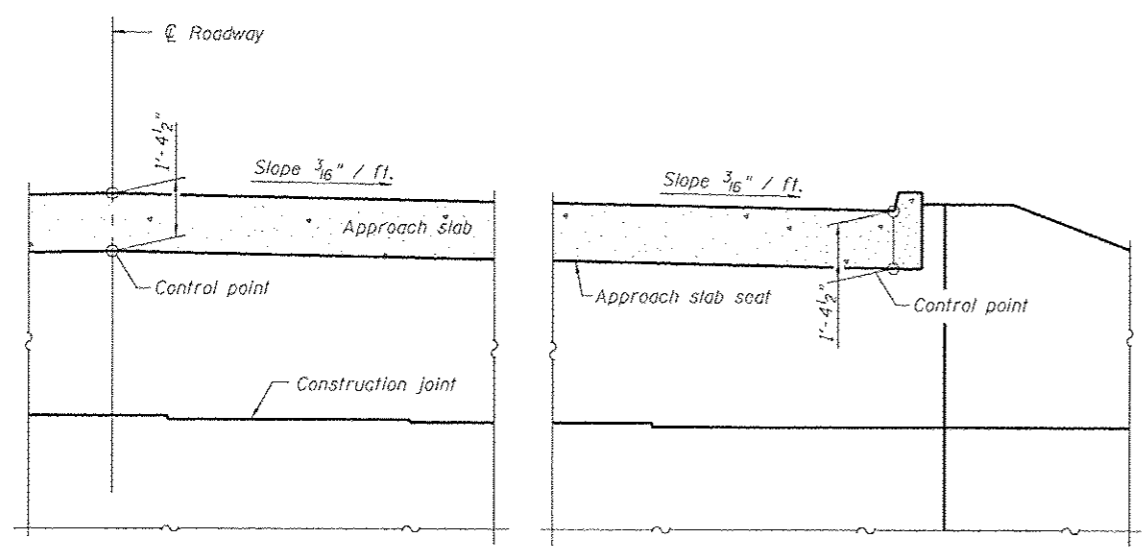
ILLINOIS FED. AID PROJECT BRW-5093072



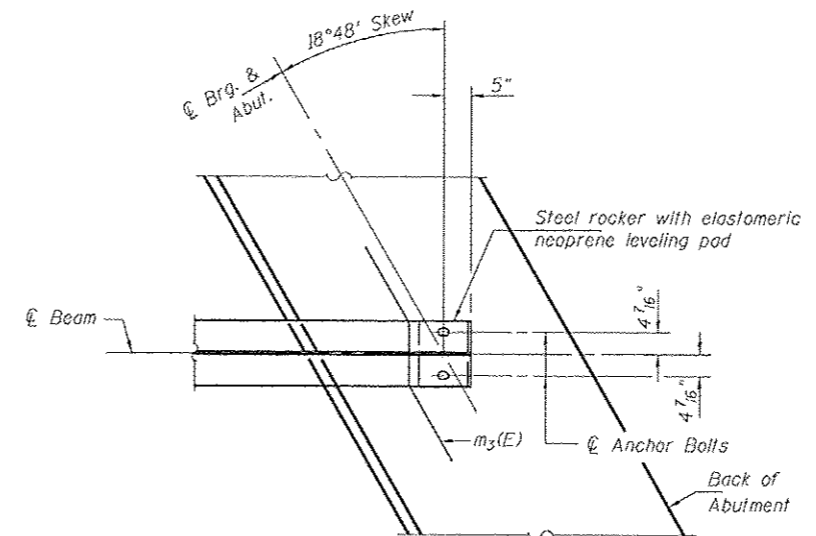
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A
(at Rt. L's)



SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

NOTES

- Reinforcement bars in diaphragm are bitted with superstructure on Structural Sheet 8 of 25.
- Concrete in diaphragm is included with Concrete Superstructure on Structural Sheet 8 of 25.
- For details of bars s(E), s1(E) and v(E) see Structural Sheet 8 of 25.
- The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- The approach slab seat shall have a constant slope determined from the control points shown.
- For bearing details see Structural Sheet 15 of 23.

FILE - S:\PROJECTS\2018\1261010_Perryville_Road\DESIGN\STRUCT\Drawings\1261010_Diaphragm_Details.dwg

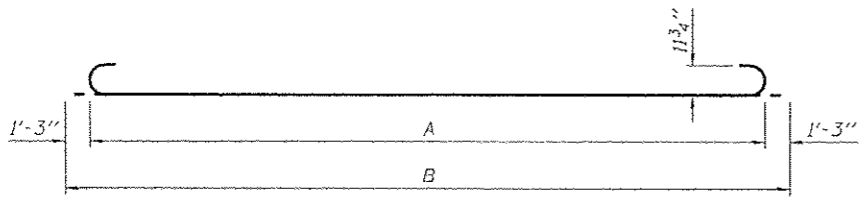
WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
899 EAST 2ND STREET, DIXON, IL 61021-0367
T. 815-284-3381 DESIGN FIRM #184-002918

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

DIAPHRAGM DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 9 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S148	04-00389-00-BR	WINNEBAGO	45	22
WHA* 1261D10		CONTRACT NO. 85599		
ILLINOIS FED. AID. PROJECT BRN-50991072				

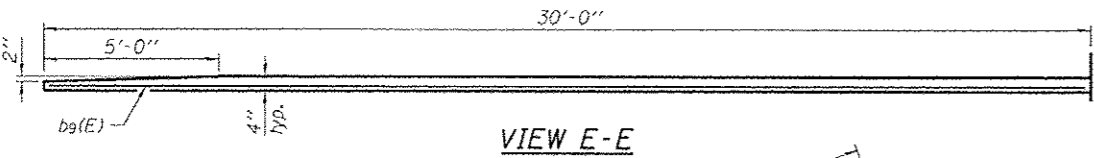


BARS $b_4(E)$, $b_5(E)$, $b_6(E)$, $b_7(E)$, & $b_8(E)$

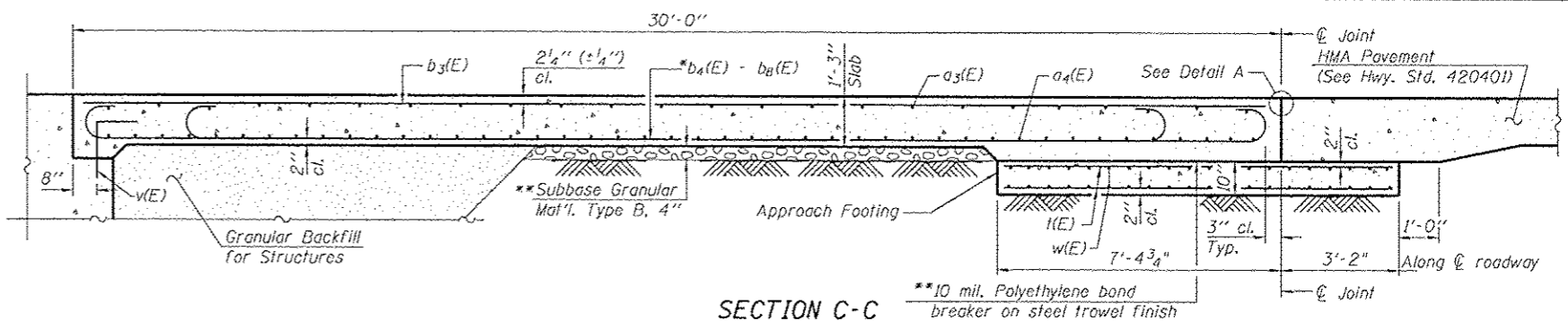
A & B DIMENSIONS

Bar	A	B
$b_4(E)$	27'-3"	29'-9"
$b_5(E)$	10'-2"	12'-8"
$b_6(E)$	14'-8"	17'-2"
$b_7(E)$	12'-2"	14'-8"
$b_8(E)$	12'-8"	15'-2"

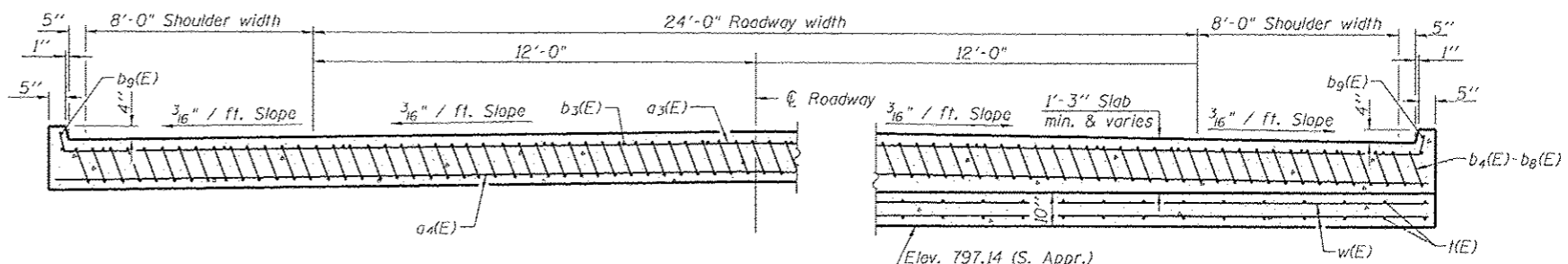
BARS $b_4(E)$, $b_5(E)$, $b_6(E)$, $b_7(E)$, & $b_8(E)$



VIEW E-E



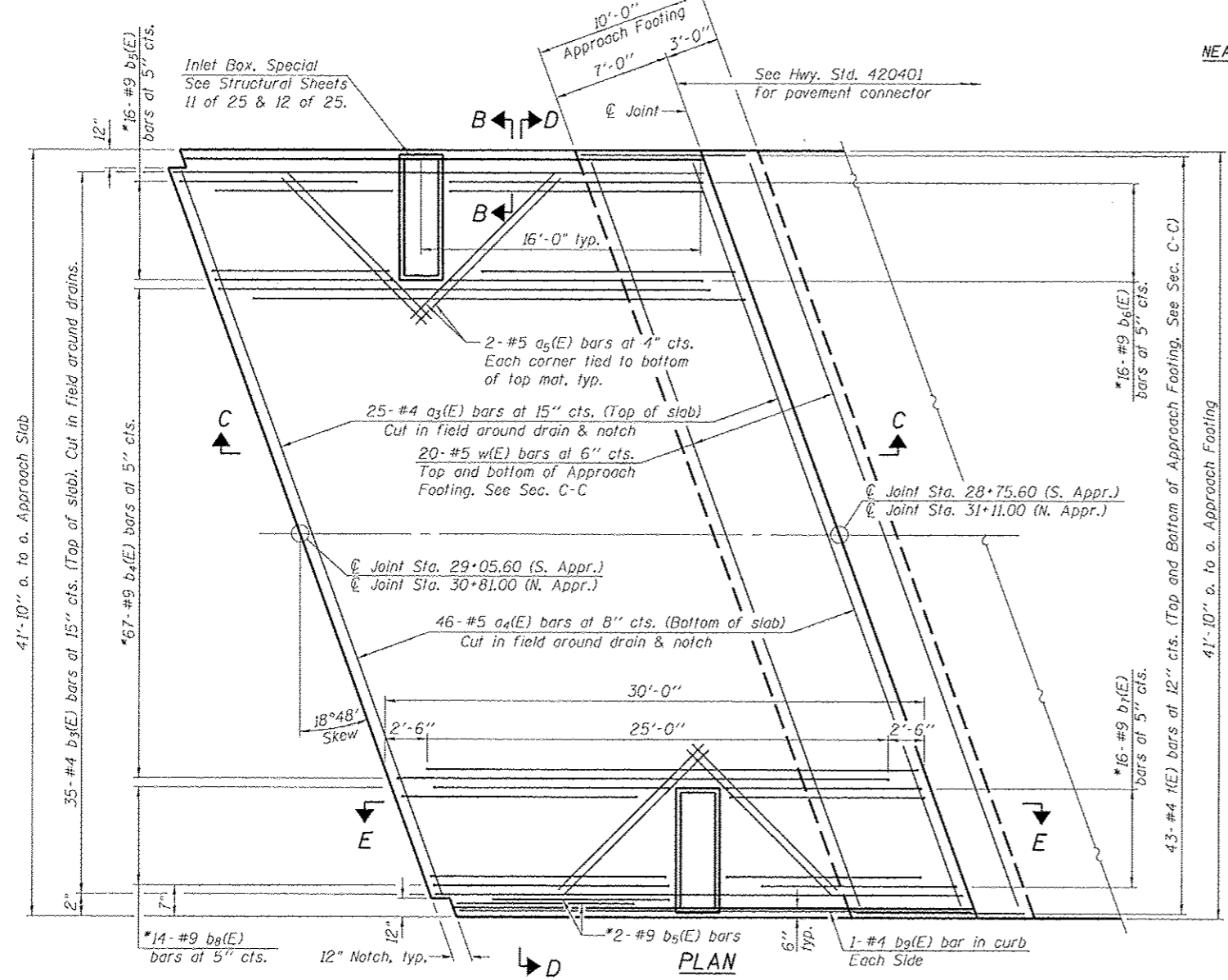
SECTION C-C



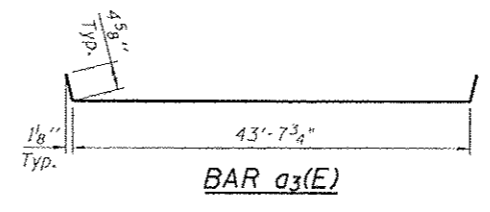
NEAR ABUTMENT

SECTION D-D

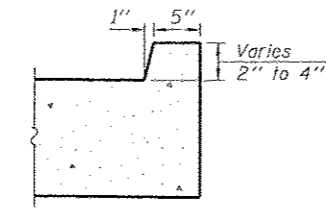
AT APPROACH FOOTING



PLAN



BAR $a_3(E)$



VIEW B-B

FLEXIBLE PAVEMENT
DETAIL A

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_3(E)$	50	#4	44'-5"	—
$a_4(E)$	92	#5	43'-10"	—
$a_5(E)$	16	#5	12'-0"	—
$b_3(E)$	70	#4	29'-8"	—
$b_4(E)$	134	#9	29'-9"	—
$b_5(E)$	36	#9	12'-8"	—
$b_6(E)$	32	#9	17'-2"	—
$b_7(E)$	32	#9	14'-8"	—
$b_8(E)$	28	#9	15'-2"	—
$b_9(E)$	4	#4	29'-8"	—
t(E)	172	#4	10'-2"	—
w(E)	80	#5	43'-10"	—
Concrete Structures		Cu. Yd.	27.2	
Concrete Superstructure		Cu. Yd.	122.4	
Bridge Deck Grooving		Sq. Yd.	248	
Protective Coat		Sq. Yd.	272	
Reinforcement Bars, Epoxy Coated		Pound	32,200	
End Section 12"		Each	3	
Pipe Drains 12"		Foot	64	
Type D Inlet Box, Standard 609006		Each	4	
Concrete Thrust Blocks		Each	3	

NOTES:

- $a_3(E)$ and $a_4(E)$ bar spacings measured along C.Rdwy.
- Approach slab concrete shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- For w(E) bar details, see Structural Sheet 8 of 25.
- The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
- For bar splicer details, see Structural Sheet 23 of 25.
- Cost of excavation for approach footing included with Concrete Structures.
- For Granular Backfill for Structures and drainage treatment details, see Structural Sheet 3 of 25.
- *Stagger #9 $b_4(E)$ - $b_8(E)$ bars in bottom of slab and till as required to maintain clearance.
- **Cost included with Concrete Superstructure.

WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3321 DESIGN FIRM: #184-00218

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - BKC	REVISED -

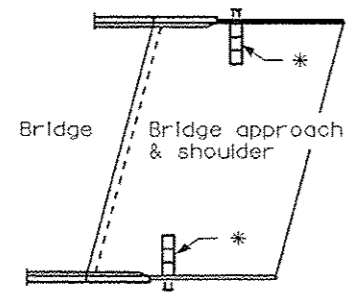
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 10 OF 25 SHEETS

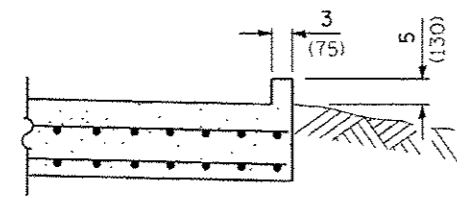
F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	23
WHIA# 1261D10			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRN-5039021				

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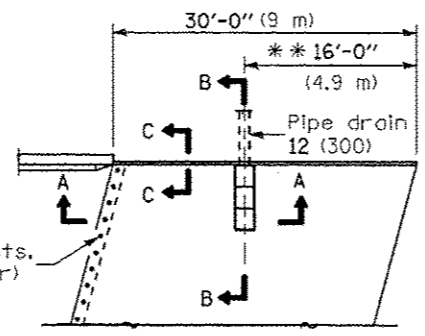
* Type B, C, or D Inlet box as required.



GENERAL PLAN



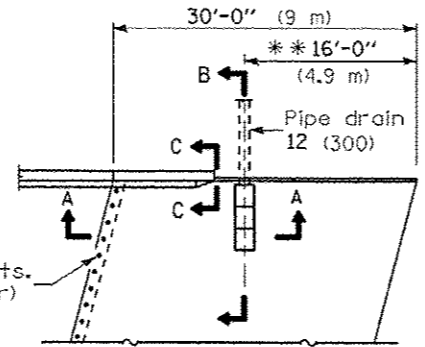
SECTION C-C



TYPICAL DETAIL PLAN
(W/O Wingwall)

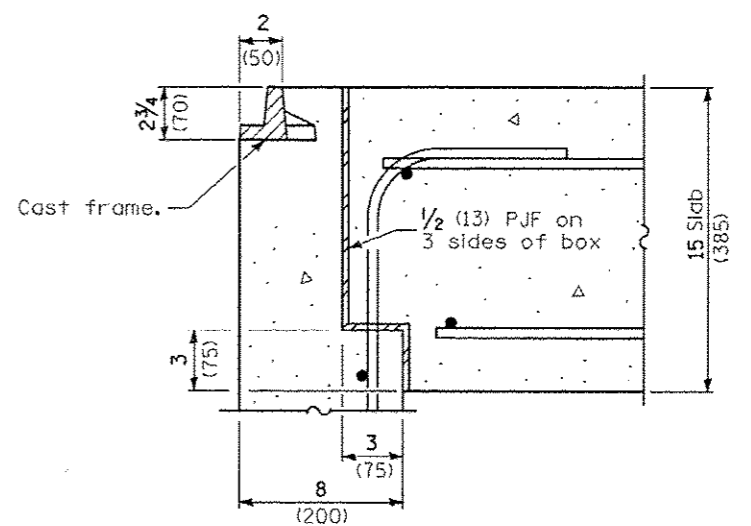
Tie bars at 12 (300) cts. (by Bridge Contractor)

** Vary this dimension as needed to position the Inlet Box and Pipe Drain between the proposed approach guardrail posts.

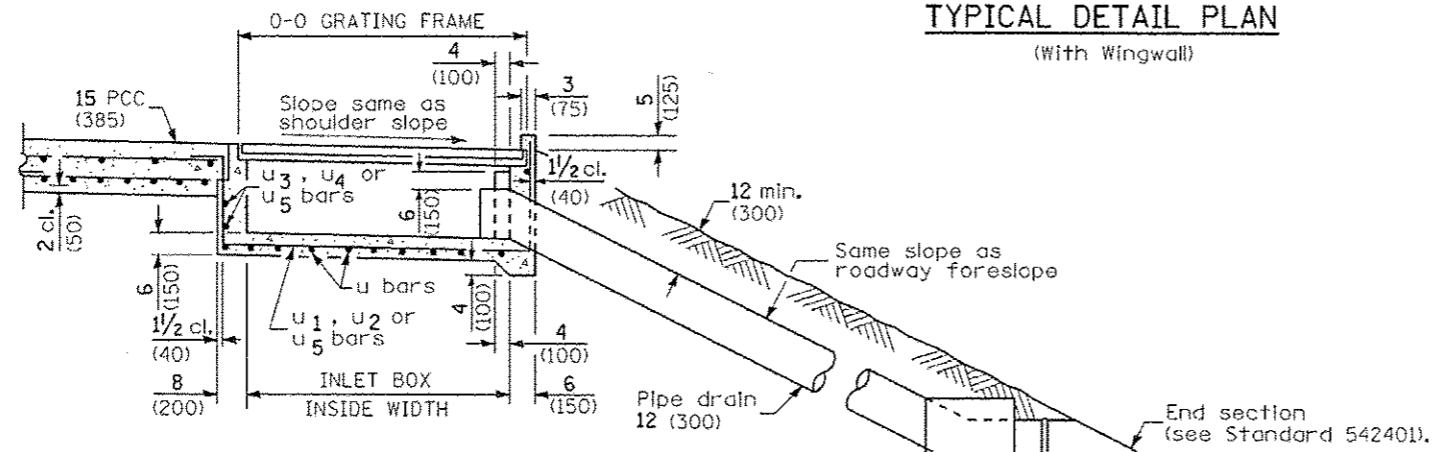


TYPICAL DETAIL PLAN
(With Wingwall)

Tie bars at 12 (300) cts. (by Bridge Contractor)

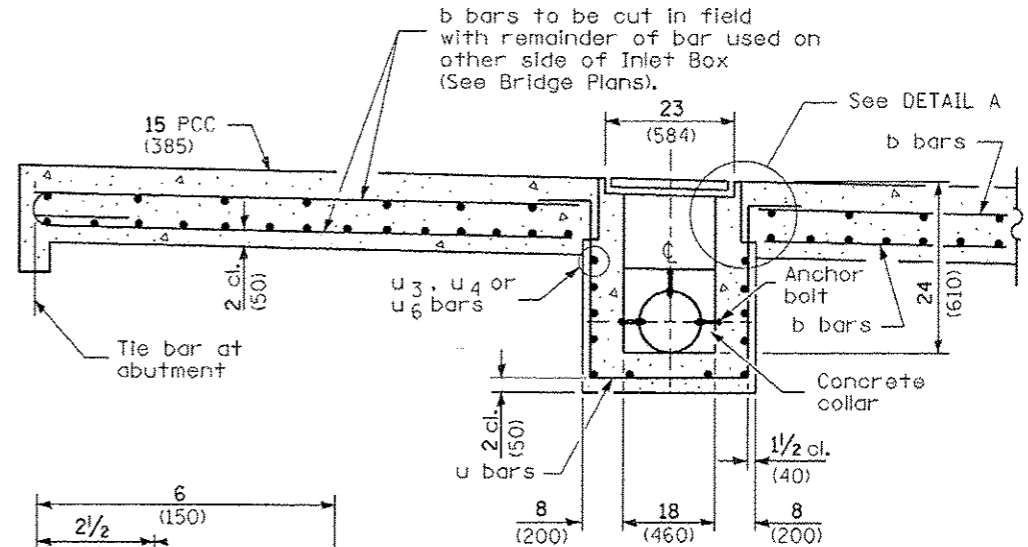


DETAIL A

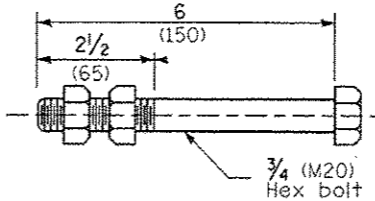


SEC. B-B

BOX OUTLET WHEN PRECAST



SECTION A-A



ANCHOR BOLT

(Used to tie pipe to concrete collar)

GENERAL NOTES

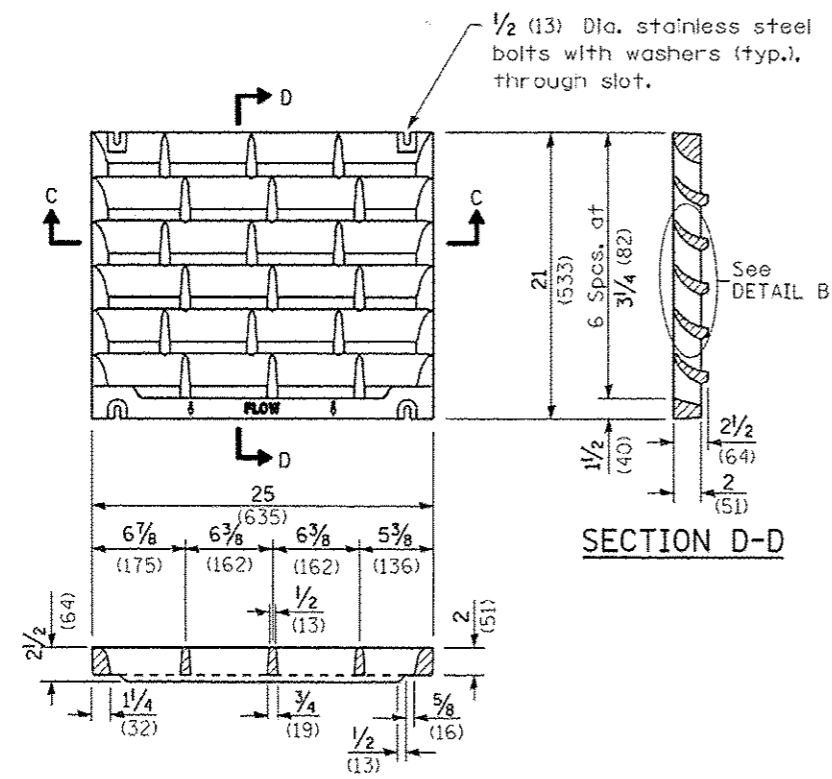
All exposed edges of the Inlet, except the upper perimeter, shall be beveled 3/4 (20).

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

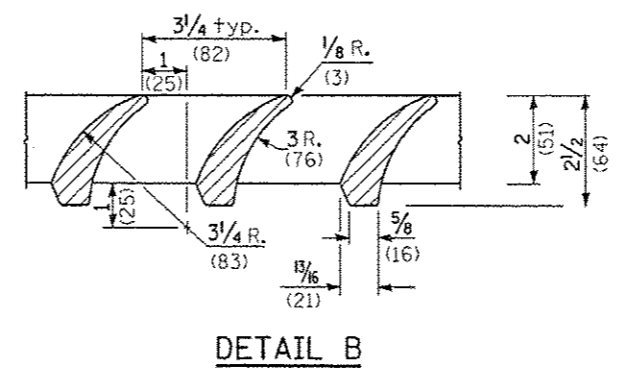
Inlet Box, Special shall be built in accordance with Section 609 of the Standard Specifications and these details.

INLET TYPE	SHOULDER WIDTH	0-0 GRATING FRAME	INLET BOX INSIDE WIDTH	INLET BOX INSIDE LENGTH
Type B	Less than 5' (1.5 m)	2'-3" (0.690 m)	1'-10" (0.560 m)	18 (460)
Type C	5' - 6' (1.5 m) (1.8 m)	4'-4" (1.325 m)	3'-11" (1.195 m)	18 (460)
Type D	Greater than 6' (1.8 m)	6'-5" (1.960 m)	6'-0" (1.830 m)	18 (460)

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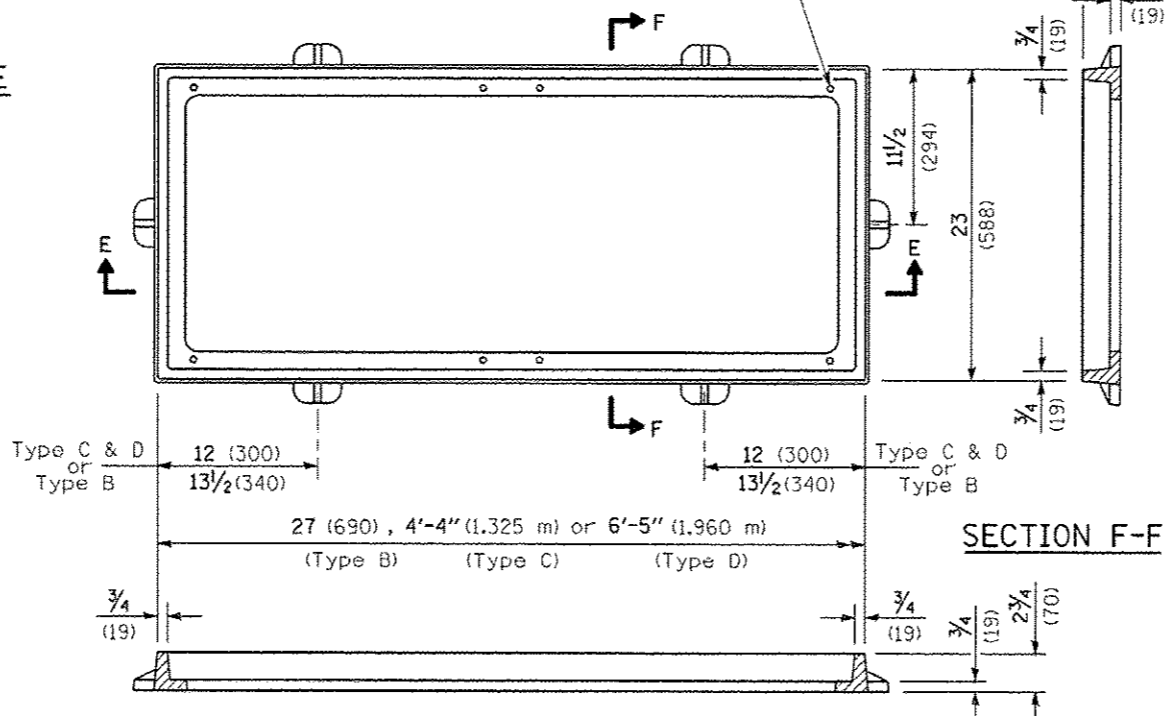


SECTION C-C
DETAIL OF CAST GRATE
 Type B requires 1 grate
 Type C requires 2 grates
 Type D requires 3 grates

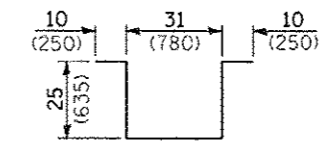


DETAIL B

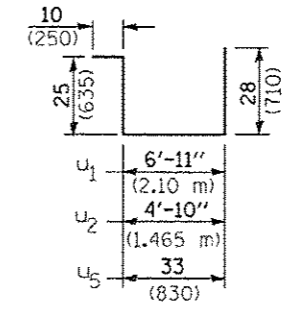
1/2 (13) Dia. tapped hole for bolting down grate, four places each grate.



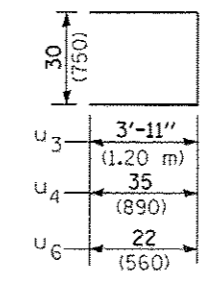
SECTION E-E
SECTION F-F
DETAIL OF CAST FRAME
 (Type C shown)



BAR U



BARS U₁, U₂ & U₅



BARS U₃, U₄ & U₆

INLET BOX

REQUIRED MATERIAL			
TYPE B			
Bar	Qty.	Size	Length
u	4	No. 4 (No.13)	8'-5" (2.550 m)
u ₅	3	No. 4 (No.13)	8'-0" (2.425 m)
u ₆	4	No. 4 (No.13)	6'-2" (1.870 m)
Concrete	cu. yds. (m ³)		0.5 (0.4)
Reinf. bars	lbs. (kg)		55.0 (25.0)
Grating	sq. ft. (m ²)		3.6 (0.34)
TYPE C			
Bar	Qty.	Size	Length
u	6	No. 4 (No.13)	8'-5" (2.550 m)
u ₂	3	No. 4 (No.13)	10'-1" (3.060 m)
u ₄	4	No. 4 (No.13)	8'-4" (2.530 m)
Concrete	cu. yds. (m ³)		0.8 (0.6)
Reinf. bars	lbs. (kg)		76 (34.5)
Grating	sq. ft. (m ²)		7.3 (0.68)
TYPE D			
Bar	Qty.	Size	Length
u	8	No. 4 (No.13)	8'-5" (2.550 m)
u ₁	3	No. 4 (No.13)	12'-2" (3.695 m)
u ₃	4	No. 4 (No.13)	10'-4" (3.150 m)
Concrete	cu. yds. (m ³)		1.1 (0.8)
Reinf. bars	lbs. (kg)		97.0 (44.0)
Grating	sq. ft. (m ²)		10.9 (1.02)

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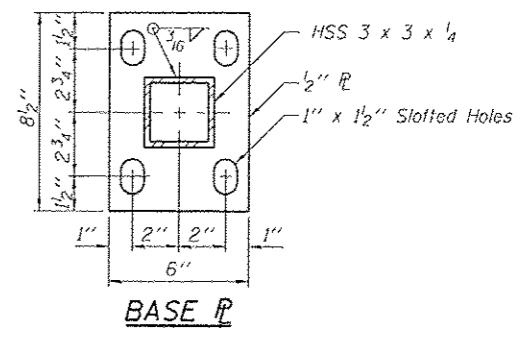
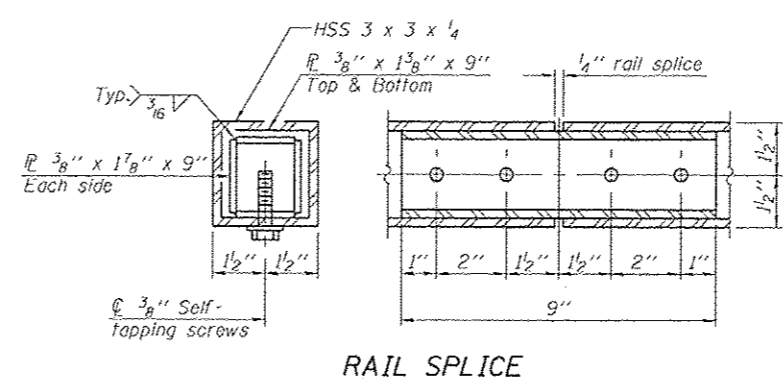
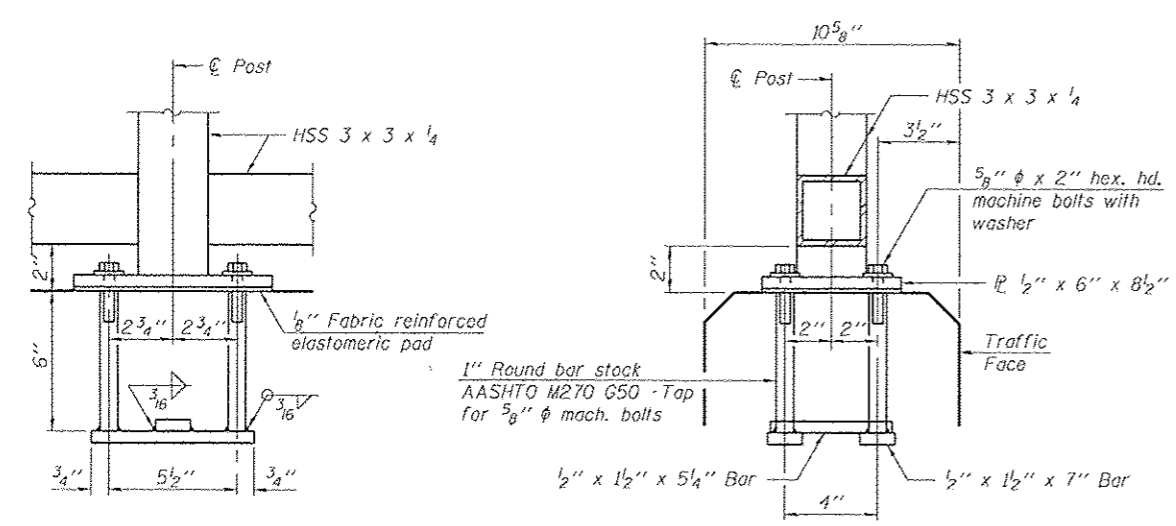
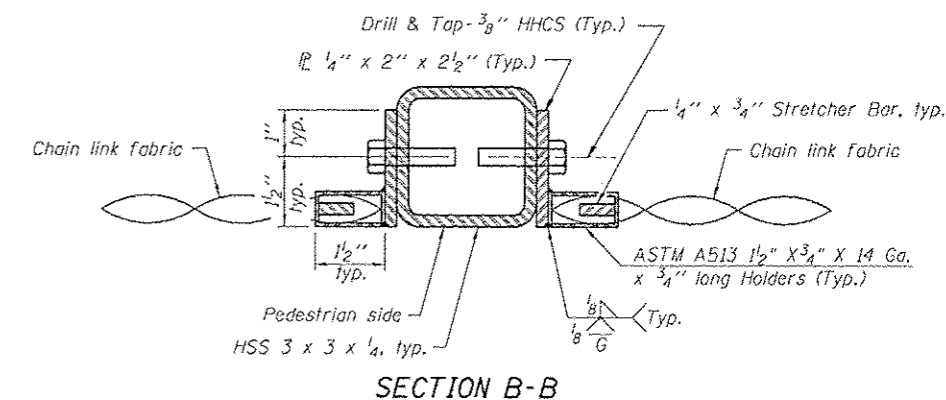
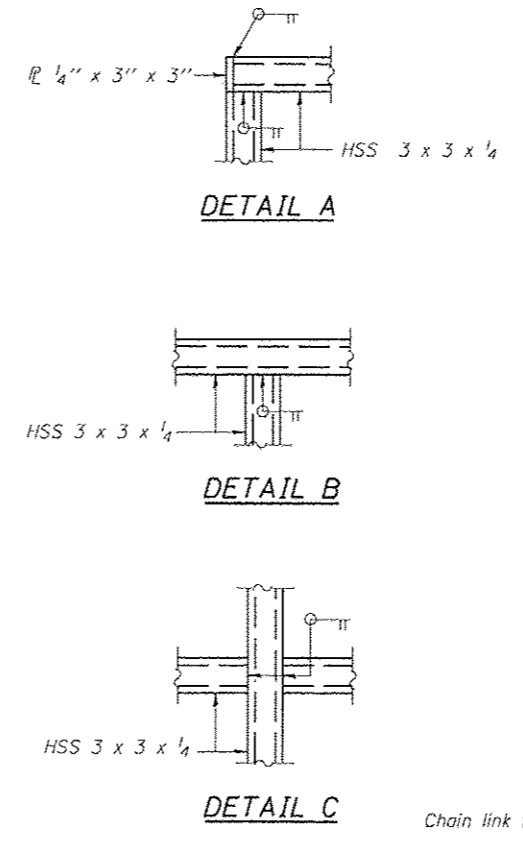
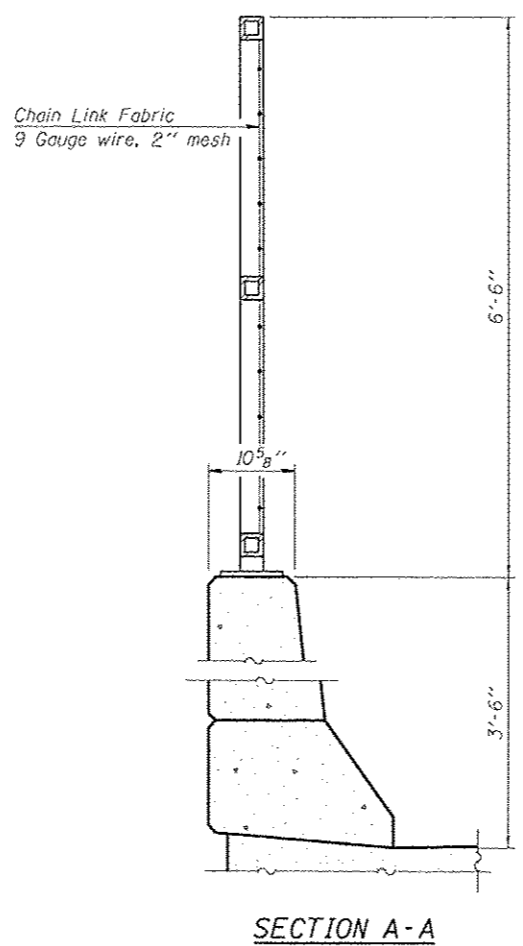
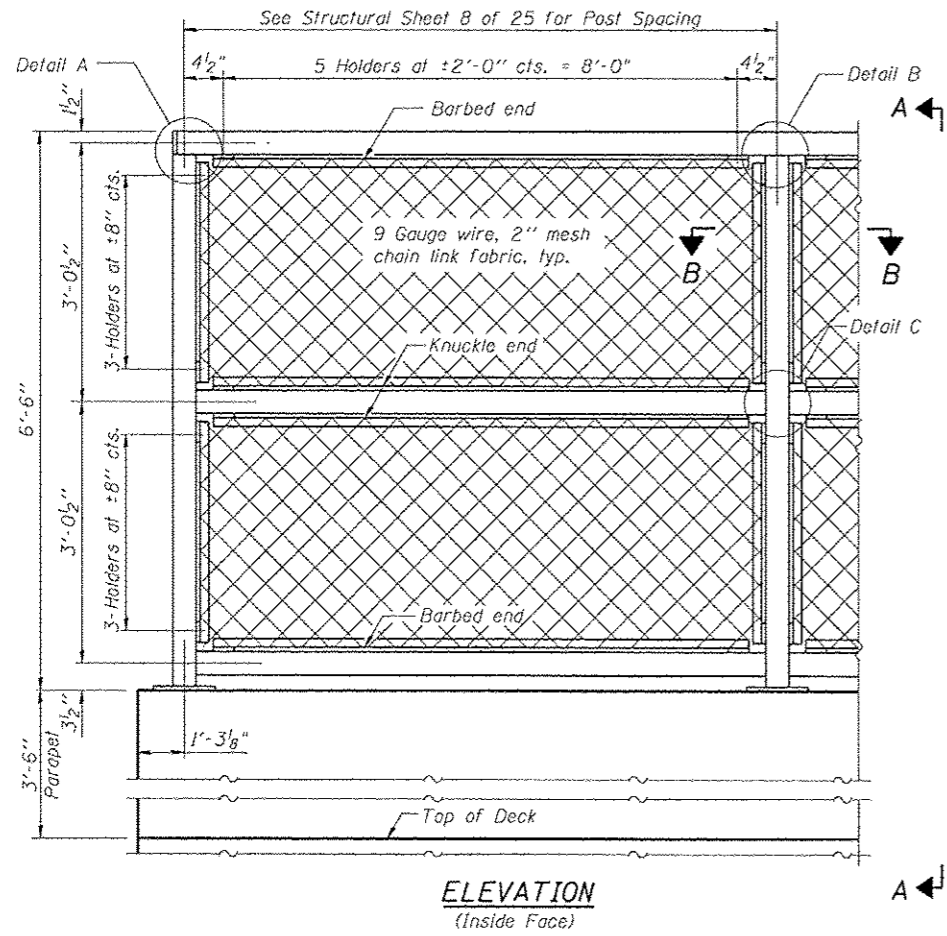


DESIGNED - LGN	REVISED -
CHECKED - GFS	REVISED -
DRAWN - DAN	REVISED -
CHECKED - GFS	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

INLET BOX, SPECIAL DETAILS
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 12 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	25
WHA# 1261D10			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-5059(072)				



In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

NOTES

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

Space reinforcement to miss anchor rods.

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	350

FILE: S:\PROJECTS\2818\1251018_Perryville_Road\DESIGN\STRUCTURE\enrgn\1251018_Parapet.dgn



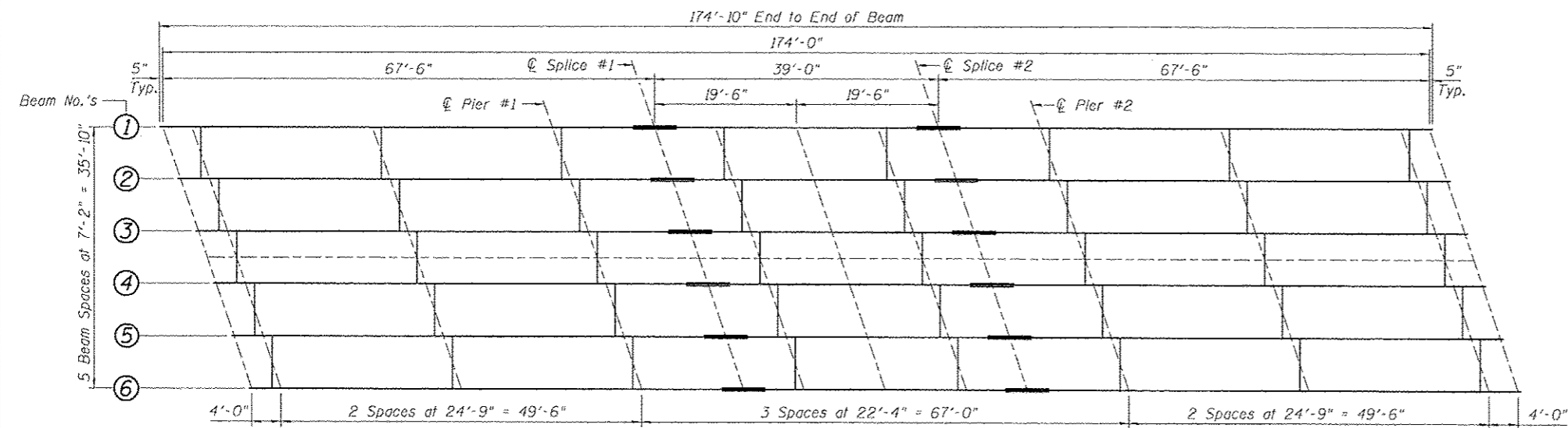
DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

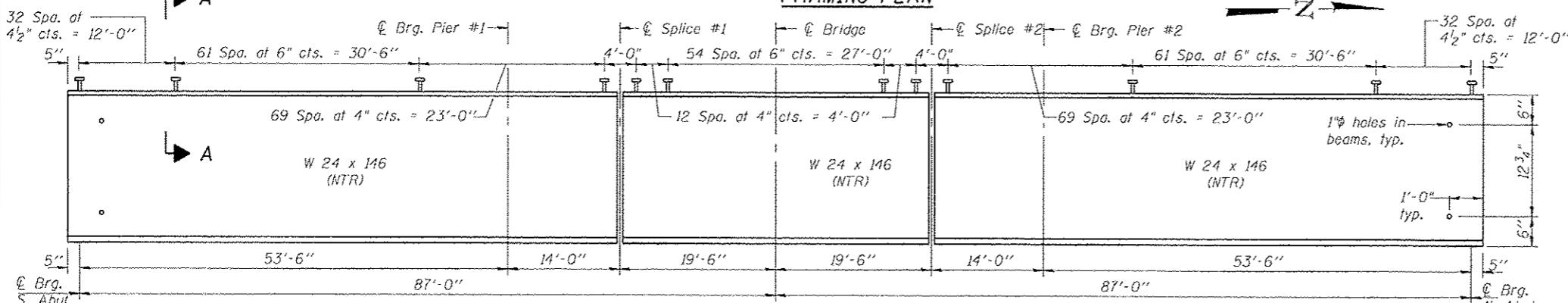
BRIDGE FENCE RAILING, PARAPET MOUNTED
STRUCTURE NO. 101-3103

STRUCTURAL SHEET NO. 13 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	26
WHA* 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-50991672				



FRAMING PLAN



GIRDER ELEVATION

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier	0.5 Sp. 2
I_s	(in ⁴)	4,580	4,580	4,580
$I_c(n)$	(in ⁴)	12,316	—	12,316
$I_c(3n)$	(in ⁴)	8,973	—	8,973
$I_c(cr)$	(in ⁴)	—	6,252	—
S_s	(in ³)	371	371	371
$S_c(n)$	(in ³)	539	—	539
$S_c(3n)$	(in ³)	486	—	486
$S_c(cr)$	(in ³)	—	426	—
DC1	(k/')	0.919	0.919	0.919
MDC1	(k)	181.3	338.6	177.1
DC2	(k/')	0.170	0.170	0.170
MDC2	(k)	33.5	62.6	32.8
DW	(k/')	0.358	0.358	0.358
Mdw	(k)	70.6	131.9	69.0
$M(k \cdot m)_1$	(k)	605.2	567.5	603.5
$M(k \cdot m)_2$	(k)	644.4	636.6	654.4
M_u (Strength I)	(k)	1,434	1,692	1,422
M_u (Strength II)	(k)	1,244	1,559	1,181
$\Phi_t M_u$	(k)	2,128	—	2,130
$\Phi_t M_{DC}$	(k)	—	2,010	—
f_s DC1	(ksi)	5.86	10.95	5.73
f_s DC2	(ksi)	0.83	1.76	0.81
f_s DW	(ksi)	1.74	3.72	1.70
f_s ($k \cdot m$) ₁	(ksi)	13.47	15.99	13.44
f_s ($k \cdot m$) ₂	(ksi)	14.35	17.93	14.57
f_s (Service II)	(ksi)	27.1	39.7	27.2
$0.95R_n F_y$	(ksi)	47.5	47.5	47.5
f_s (Total Strength I)	(ksi)	—	49.5	—
f_s (Total Strength II)	(ksi)	—	45.7	—
V_r	(k)	37.7	62.8	36.8

INTERIOR GIRDER REACTION TABLE			
	Abut.	Pier	
R_{DC1}	(k)	18.3	61.7
R_{DC2}	(k)	3.4	11.4
R_{DW}	(k)	7.1	24.0
$R(k \cdot m)_1$	(k)	73.6	104.0
$R(k \cdot m)_2$	(k)	84.2	131.0
R_{Total}	(k)	113.0	228.1

Note:
 $(k \cdot m)_1$ - Designates the HL93 design loading that was used in the STRENGTH I Limit State.
 $(k \cdot m)_2$ - Designates the 120k permit truck with lane load that was used in the STRENGTH II & SERVICE II Limit States.

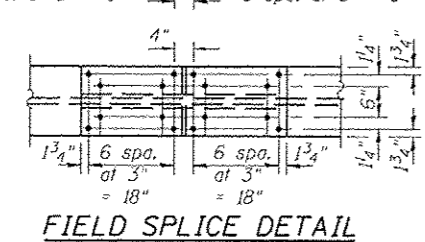
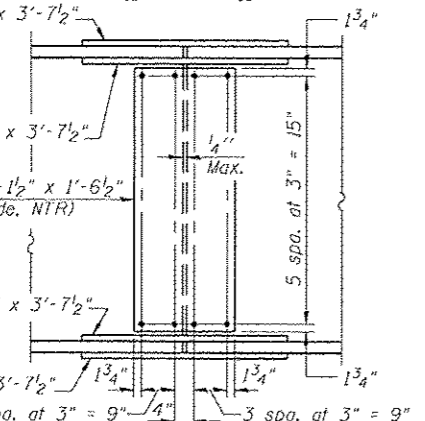
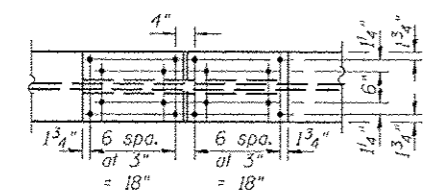
TOP OF BEAM ELEVATIONS (FOR FABRICATION ONLY)						
Beam Number	South Abutment	Pier #1	Splice #1	Splice #2	Pier #2	North Abutment
1	799.302	800.010	800.143	800.335	800.339	800.158
2	799.460	800.144	800.271	800.448	800.447	800.247
3	799.617	800.280	800.402	800.562	800.556	800.335
4	799.661	800.303	800.419	800.564	800.553	800.310
5	799.592	800.213	800.323	800.453	800.436	800.172
6	799.522	800.124	800.230	800.344	800.321	800.033

BILL OF MATERIAL

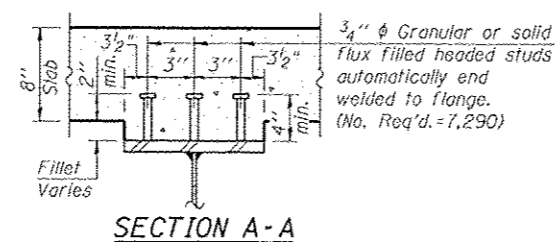
Item	Unit	Quantity
Stud Shear Connectors	Each	7,290
Furnishing & Erecting Structural Steel	L. Sum	1

NOTES:

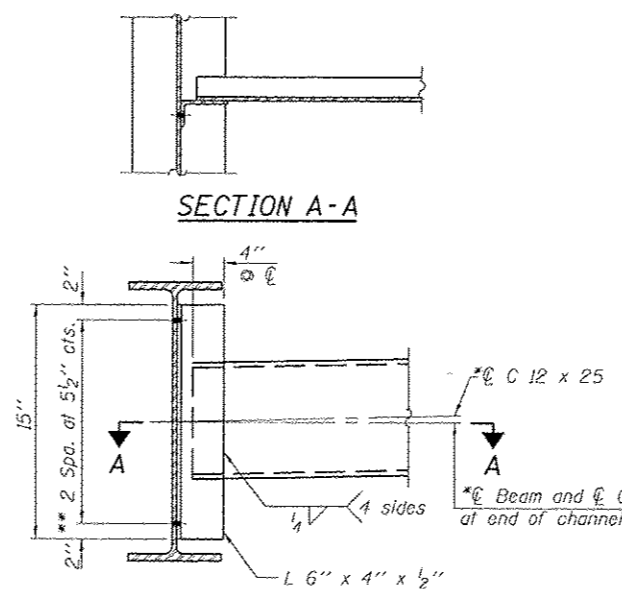
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.



FIELD SPLICE DETAIL



SECTION A-A



INTERIOR DIAPHRAGM

Note:
 Two hardened washers required for each set of oversized holes.
 * Alternate C 12 x 30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
 The alternate, if utilized, shall be provided at no additional cost to the Department.
 ** 3/4" # HS bolts, 1/16" # holes

FILE : S:\PROJECTS\22\22\IN\22\18\Per\cyr\18a_Road\DESIGN\STRUCT\04\wpa181018\Framing.dgn

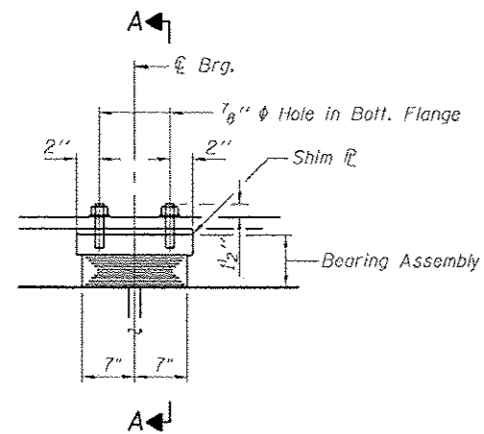
WILLET HORMANN ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 809 EAST 2ND STREET, DIXON, IL 61021-0367
 T: 815-284-3381 FAX: 815-284-3381

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

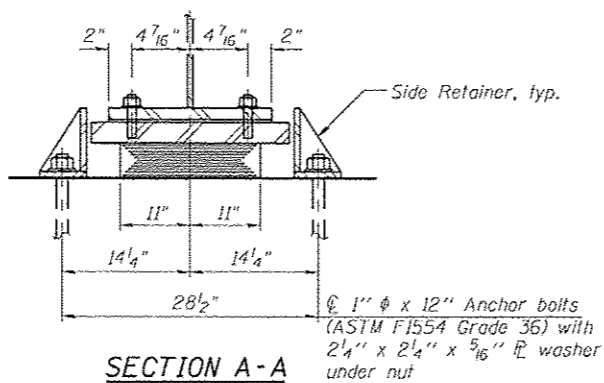
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 14 OF 25 SHEETS

F.A.U. RTE. 5148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 27
WHA* 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-5099072				

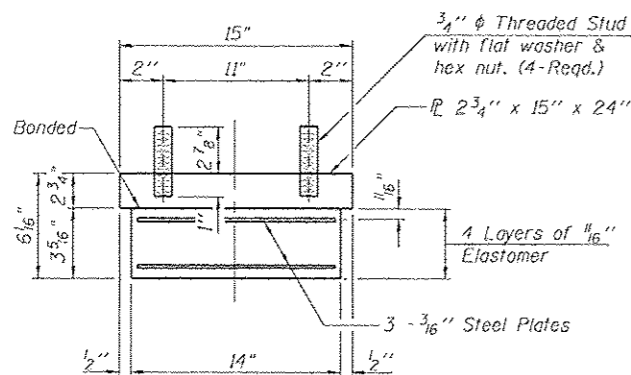


ELEVATION AT PIERS



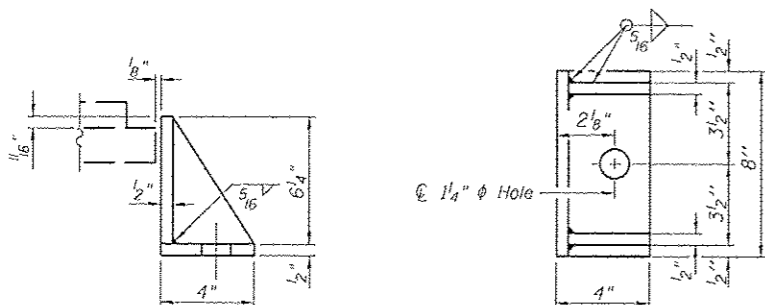
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



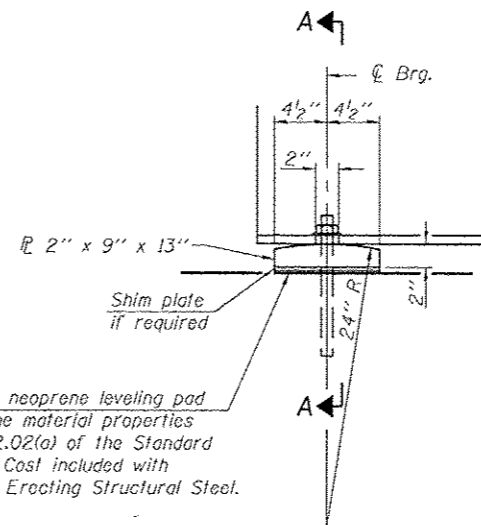
BEARING ASSEMBLY

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

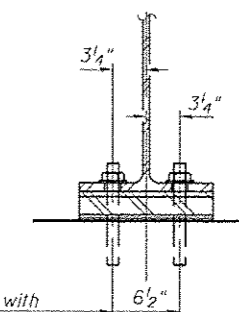


SIDE RETAINER

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



ELEVATION AT ABUTMENT



SECTION A-A

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Furnishing and Erecting Structural Steel.

FIXED BEARING

TYPE I ELASTOMERIC EXP. BRG.

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

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

Anchor bolts for 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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"	Each	48

FILE: S:\PROJECTS\2018\1261010_Perryville_Road\DESIGN\STRUCT\Drawings\1261010_Type I Elastomeric Bearing.dgn

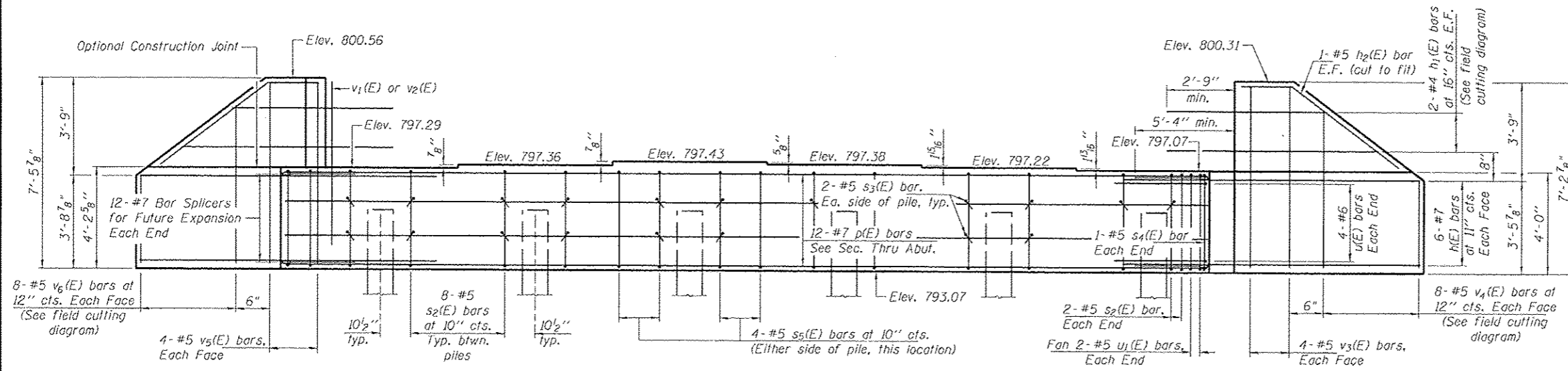
WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-002918

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

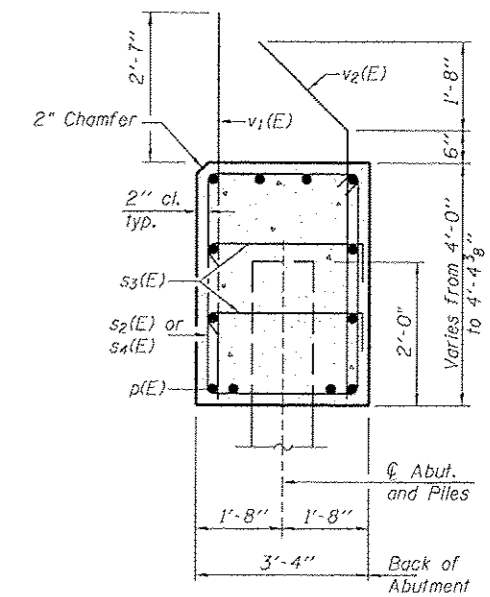
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

BEARING DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 15 OF 25 SHEETS

F.A.J. RTE. 5148	SECTION 04-00359-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 45	SHEET NO. 28
WHA# 1261010		CONTRACT NO. 85599		



ELEVATION
(Looking South)

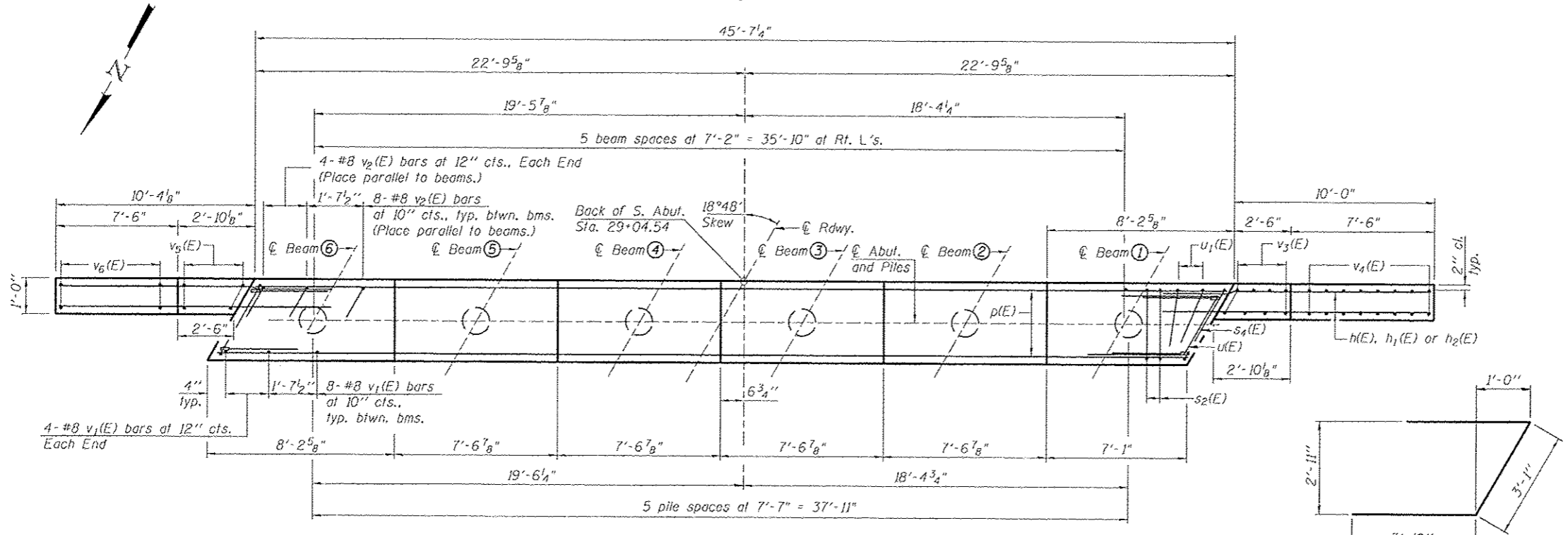


SEC. THRU ABUT.

Dimensions at right angles to abutment.

BILL OF MATERIAL

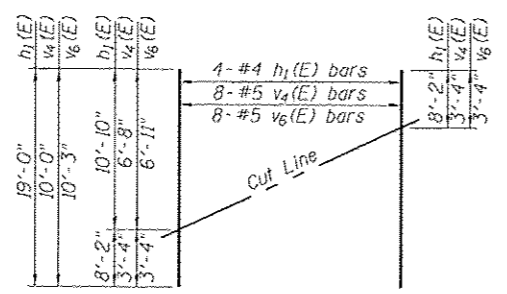
Bar	No.	Size	Length	Shape
h(E)	24	#7	15'-7"	—
h ₁ (E)	4	#4	19'-0"	—
h ₂ (E)	4	#5	9'-1"	—
p(E)	12	#7	45'-3"	—
s ₂ (E)	36	#5	14'-3"	□
s ₃ (E)	24	#5	4'-0"	□
s ₄ (E)	2	#5	14'-7"	□
s ₅ (E)	8	#5	14'-11"	□
u(E)	8	#6	10'-9"	—
u ₁ (E)	4	#5	9'-8"	—
v ₁ (E)	48	#8	6'-5"	—
v ₂ (E)	48	#8	6'-8"	—
v ₃ (E)	8	#5	6'-10"	—
v ₄ (E)	8	#5	10'-0"	—
v ₅ (E)	8	#5	7'-1"	—
v ₆ (E)	8	#5	10'-3"	—
Structure Excavation		Cu. Yd.	134	
Concrete Structures		Cu. Yd.	27.9	
Reinforcement Bars, Epoxy Coated		Pound	4,890	
Bar Splicers		Each	24	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	150	
Driving Piles		Foot	150	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		Sq. Yd.	39	
Granular Backfill for Structures		Cu. Yd.	66	
Pipe Underdrains for Structures 4"		Foot	81	



PLAN

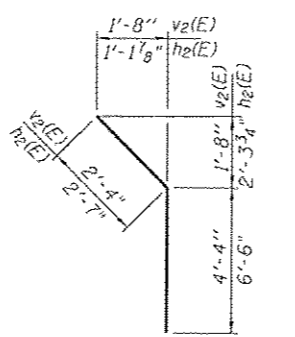
PILE DATA

Type: Metal Shell 12" φ x 0.250" Walls
 Nominal Required Bearing: 317 kips
 Factored Resistance Available: 174 kips
 Est. Length: 30'
 No. Production Piles: 5
 No. Test Piles: 1

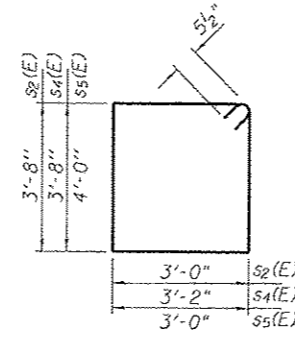


FIELD CUTTING DIAGRAM

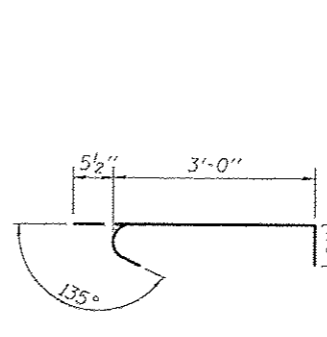
Order h₁(E), v₄(E) and v₆(E) full length.
 Cut as shown and use remainder of bars in opposite face.



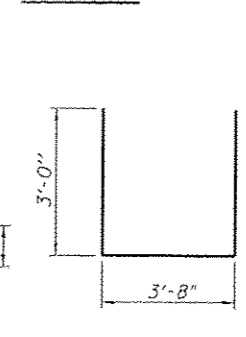
BAR v₂(E) & h₂(E)



BAR s₂(E), s₄(E) & s₅(E)



BAR s₃(E)



BAR u₁(E)

NOTES

Pour steps monolithically with cap.
 For details of piles see Structural Sheet of 21 of 25.
 For drain details see Structural Sheet of 3 of 25.
 For Bar Splicer details see Structural Sheet 23 of 25.
 All exposed edges shall have standard 3/4" chamfers, except as noted.

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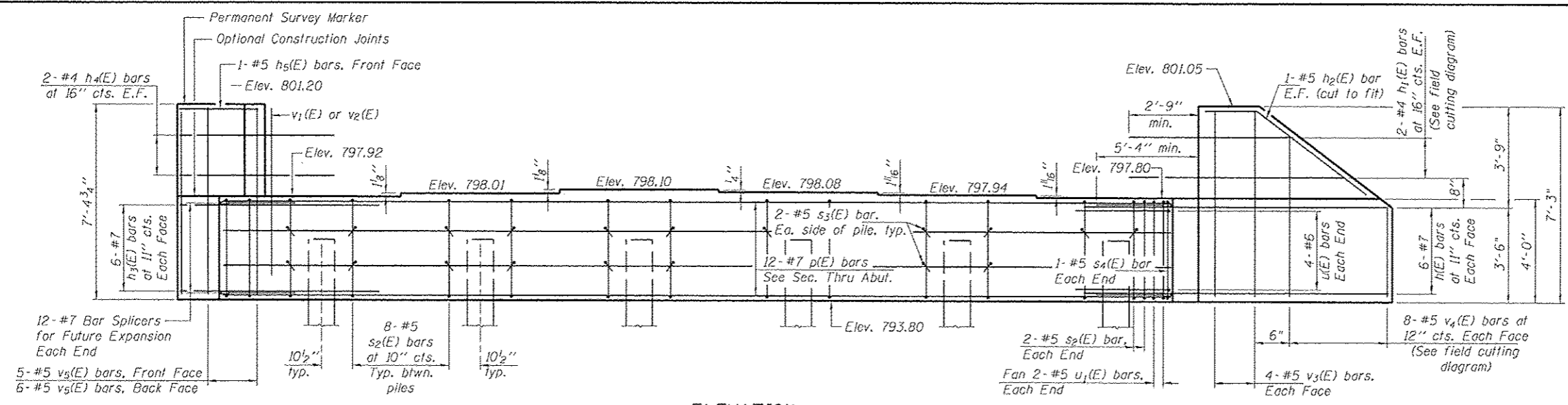


DESIGNED - MAC	REVISED -
CHECKED - BRC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

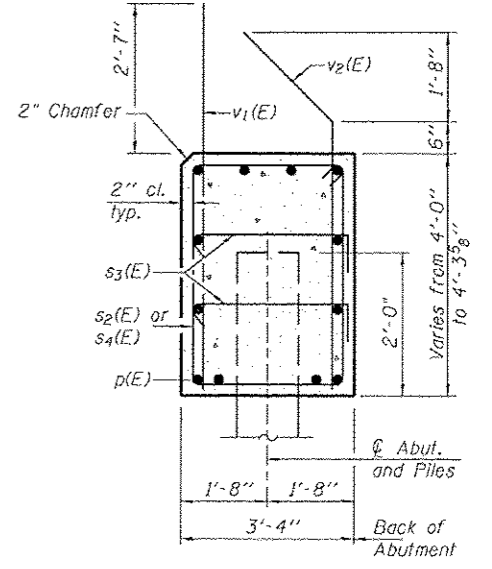
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 16 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	29
WHA* 1261D10			CONTRACT NO. 85599	
			[ILLINOIS] FED. AID PROJECT 6M-5090(02)	



ELEVATION
(Looking North)



SEC. THRU ABUT.

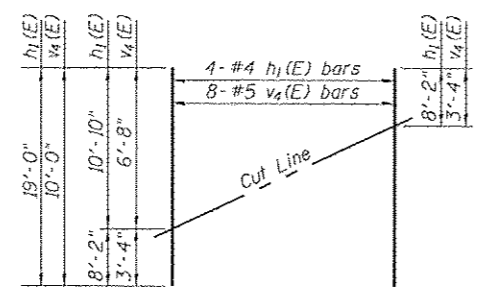
Dimensions at right angles to abutment.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#7	15'-7"	—
h1(E)	2	#4	19'-0"	—
h2(E)	2	#5	9'-1"	—
h3(E)	12	#7	9'-11"	—
h4(E)	4	#4	7'-4"	—
h5(E)	1	#5	4'-0"	—
p(E)	12	#7	45'-3"	—
s2(E)	44	#5	14'-3"	□
s3(E)	24	#5	4'-0"	□
s4(E)	2	#5	14'-7"	□
u1(E)	8	#6	10'-9"	—
u2(E)	8	#5	5'-2"	—
v1(E)	48	#8	6'-5"	—
v2(E)	48	#8	6'-8"	—
v3(E)	8	#5	6'-10"	—
v4(E)	8	#5	10'-0"	—
v5(E)	11	#5	7'-1"	—
Structure Excavation		Cu. Yd.	108	
Concrete Structures		Cu. Yd.	26.7	
Reinforcement Bars, Epoxy Coated		Pound	4,700	
Bar Splicers		Each	24	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	95	
Driving Piles		Foot	95	
Test Pile Metal Shells		Each	1	
Geocomposite Wall Drain		Sq. Yd.	37	
Permanent Survey Marker		Each	1	
Granular Backfill for Structures		Cu. Yd.	55	
Pipe Underdrains for Structures 4"		Foot	72	

PILE DATA

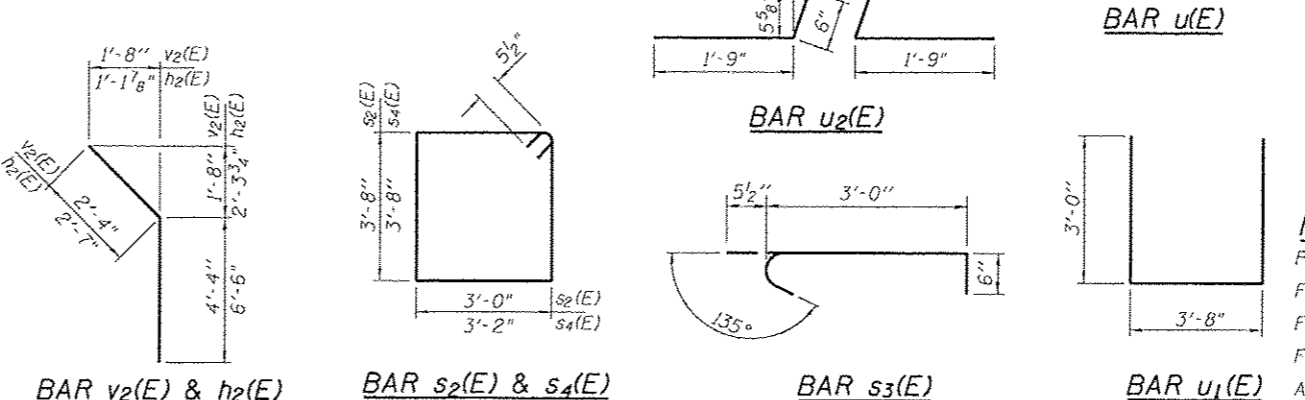
Type: Metal Shell 12" ϕ x 0.250" Walls
 Nominal Required Bearing: 317 kips
 Factored Resistance Available: 174 kips
 Est. Length: 19'
 No. Production Piles: 5
 No. Test Piles: 1



FIELD CUTTING DIAGRAM

Order h1(E) and v4(E) full length.
 Cut as shown and use remainder of bars in opposite face.

PLAN



BAR v2(E) & h2(E)

BAR s2(E) & s4(E)

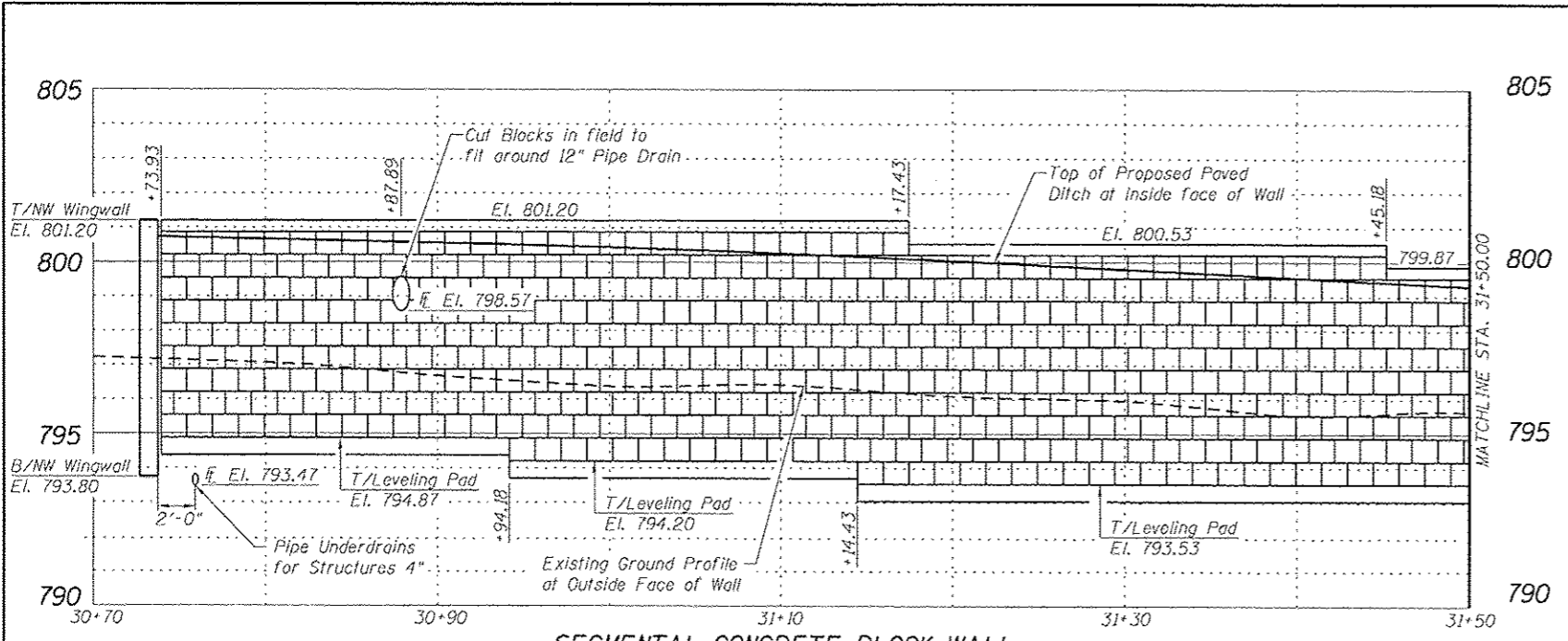
BAR s3(E)

BAR u1(E)

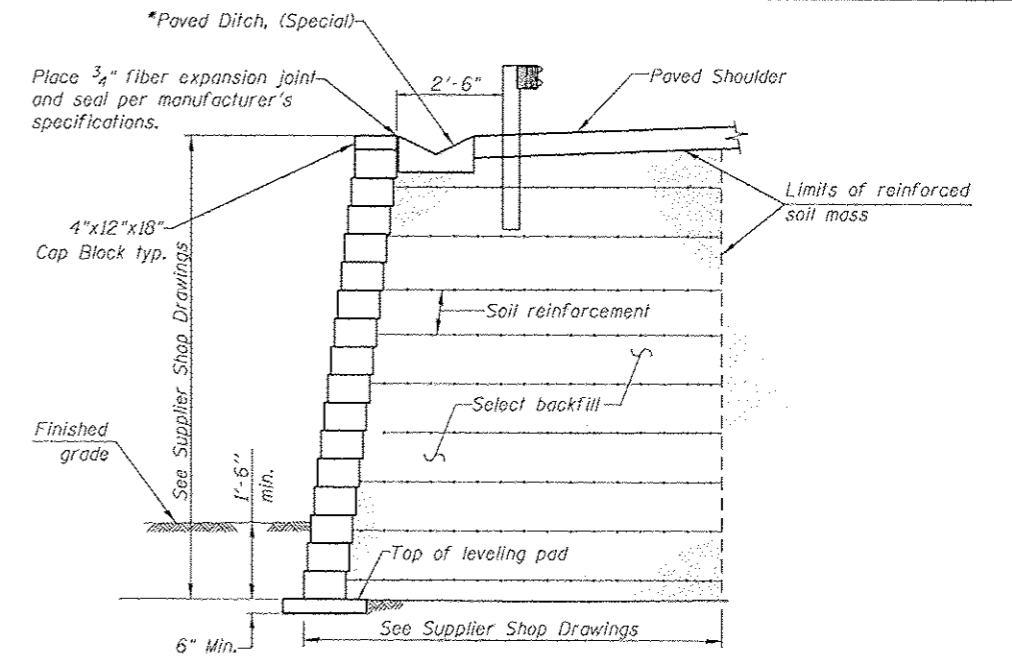
NOTES

Pour steps monolithically with cap.
 For details of piles see Structural Sheet of 21 of 25.
 For drain details see Structural Sheet of 3 of 25.
 For Bar Splicer details see Structural Sheet 23 of 25.
 All exposed edges shall have standard 3/4" chamfers, except as noted.

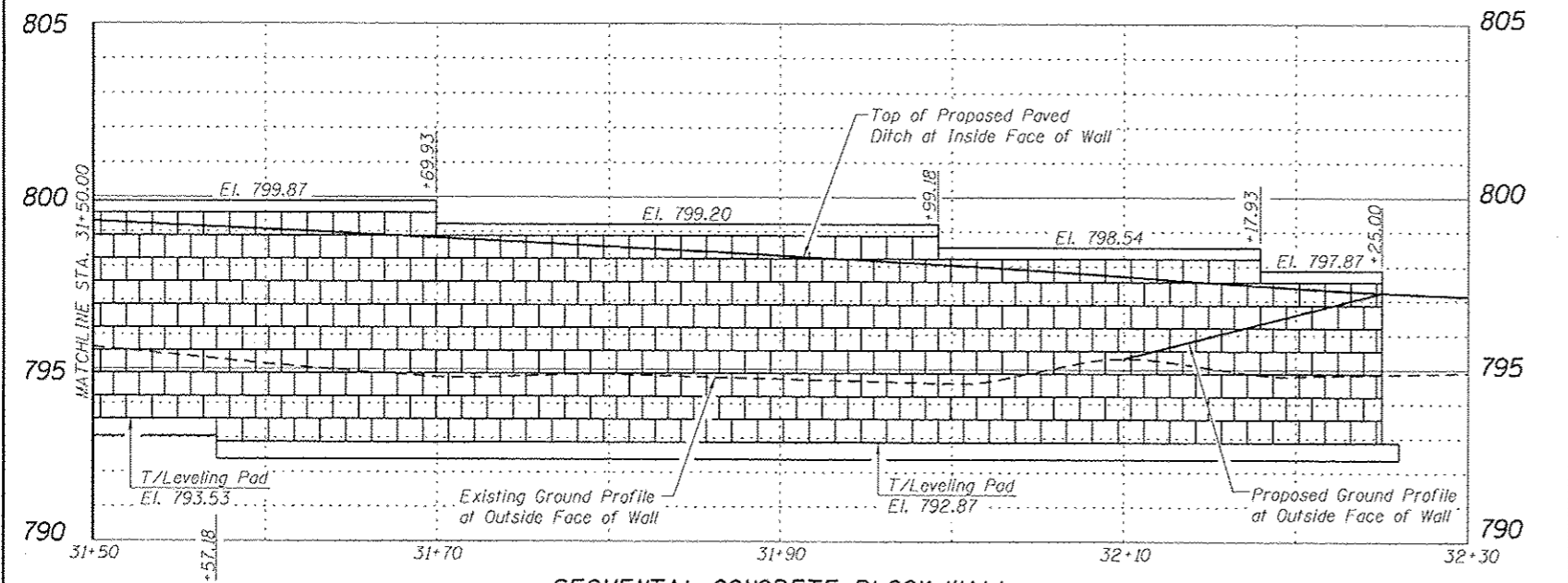
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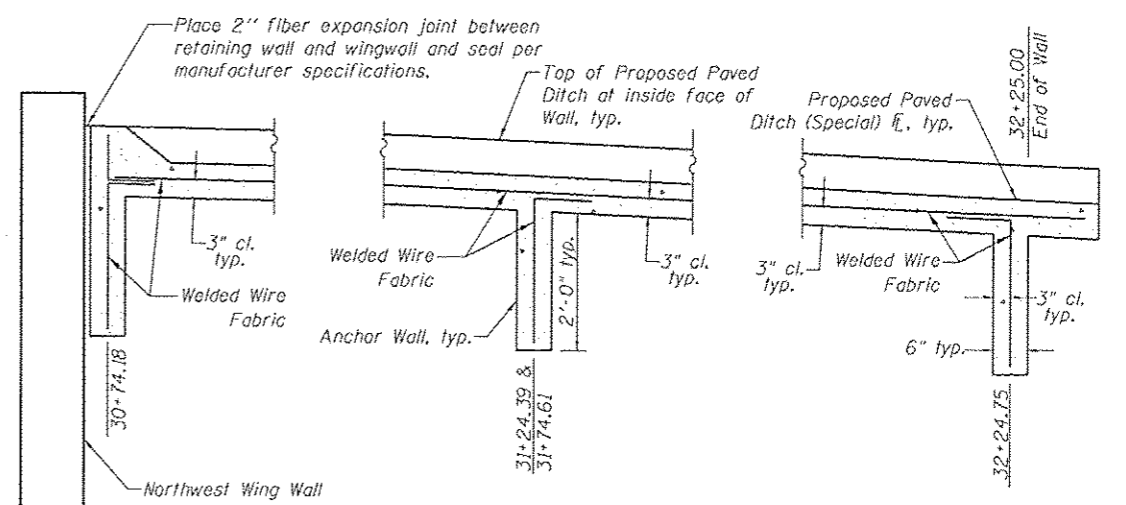
SEGMENTAL CONCRETE BLOCK WALL
STA. 30+73.93 TO 31+50.00



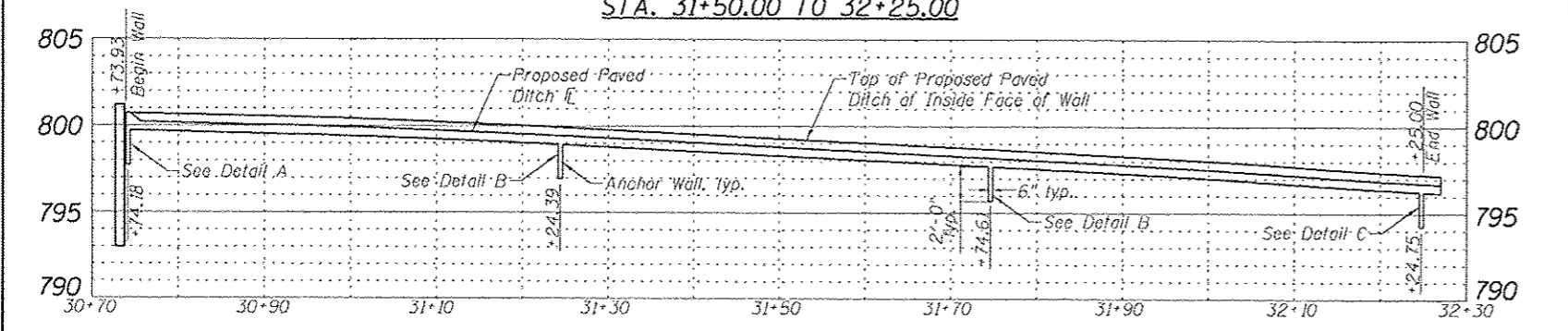
SECTION THRU BLOCK WALL



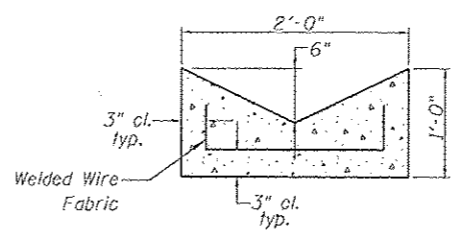
SEGMENTAL CONCRETE BLOCK WALL
STA. 31+50.00 TO 32+25.00



ANCHOR WALL DETAILS
DETAIL A STA. 30+74.18
DETAIL B STA. 31+74.61
DETAIL C STA. 32+24.75



PAVED DITCH PROFILE



PAVED DITCH (SPECIAL) DETAIL

BILL OF MATERIAL

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	84
Segmental Concrete Block Wall	Sq. Ft.	936
Paved Ditch, (Special)	Foot	156

Notes:
Contractor shall verify all elevations, dimensions and manufacturer's specifications prior to constructing wall.
The style of the Segmental Concrete Block Wall shall coordinate with the form liner and color of the bridge parapet.

WILETT HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
802 EAST 2ND STREET, DIXON, IL 61021-0362
T. 815-254-3381 DESIGN FIRM # 114-000918

DESIGNED - LGN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - LGN	REVISED -
CHECKED - BKC	REVISED -

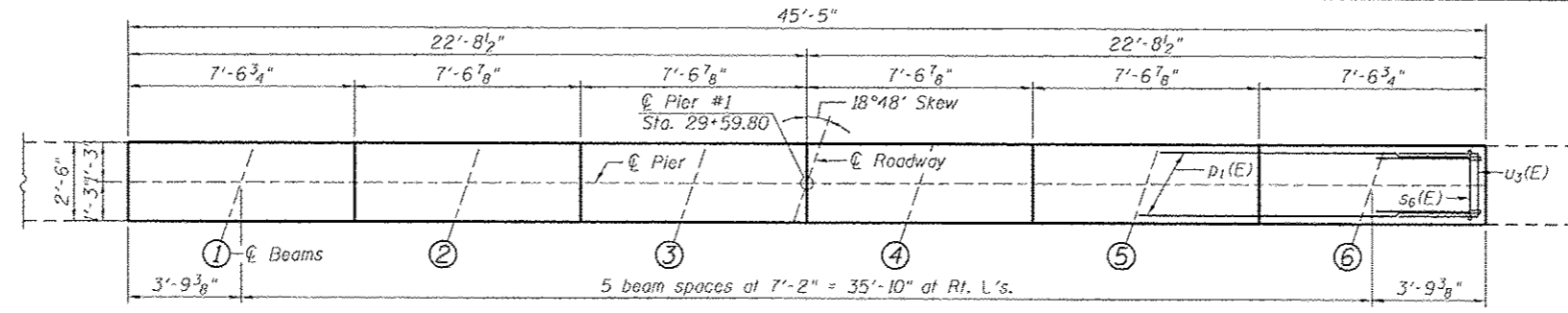
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

SEGMENTAL CONCRETE BLOCK WALL DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 18 OF 25 SHEETS

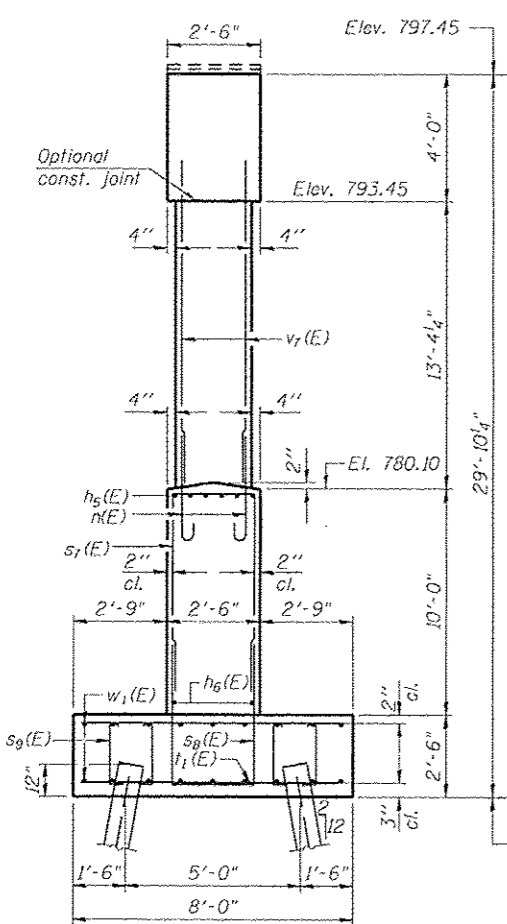
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	31
WHA* 1261D10			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRW-5099102				

PILE DATA

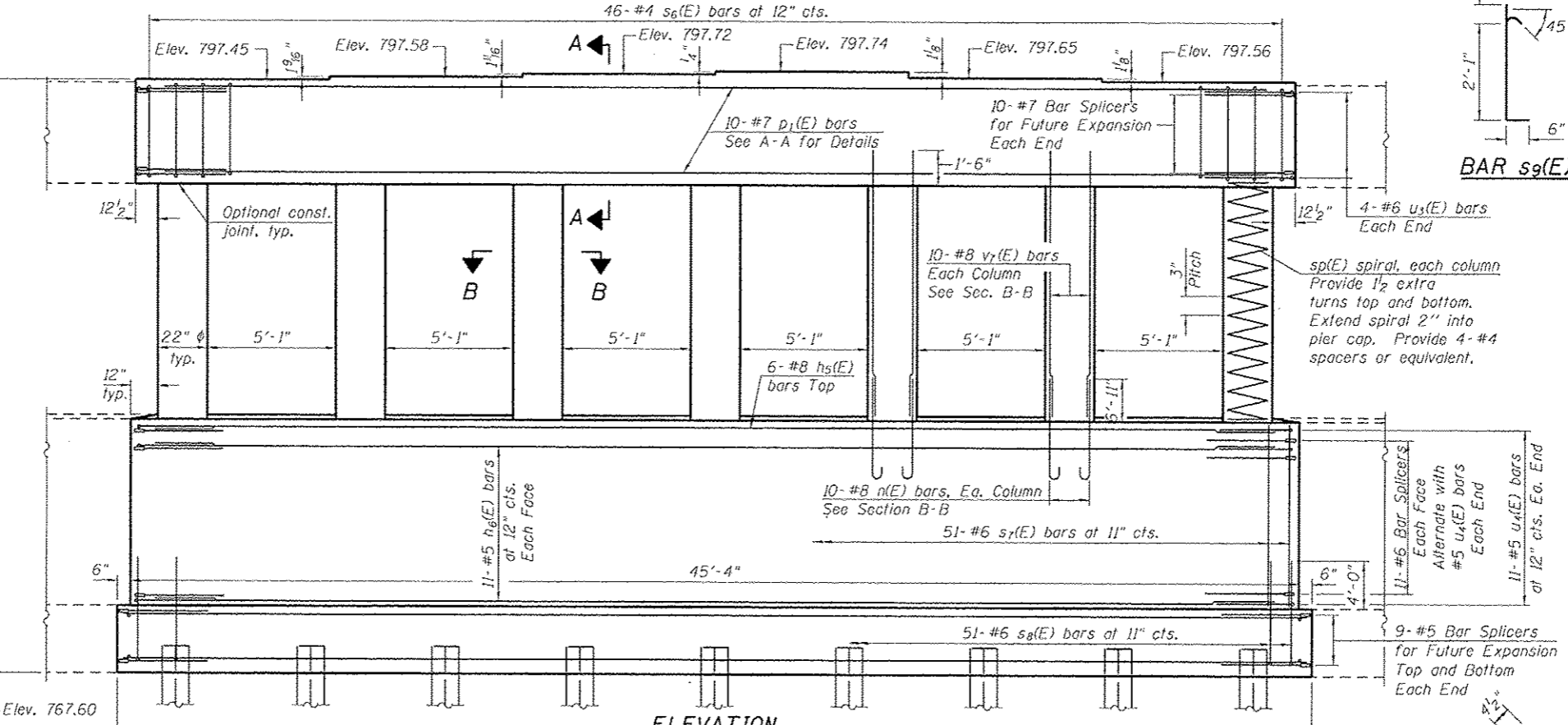
Type: Steel HP 12x63
 Nominal Required Bearing: 249 kips
 Factored Resistance Available: 137 kips
 Est. Length: 19'
 No. Production Piles: 17
 No. Test Piles: 1



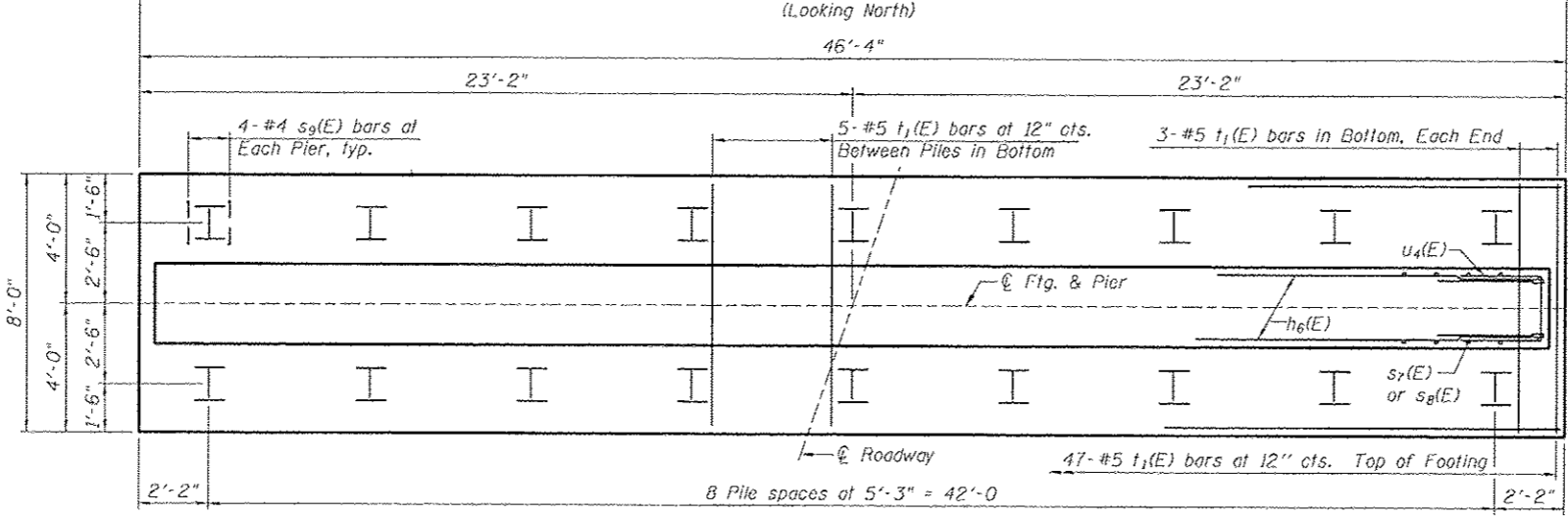
TOP PLAN



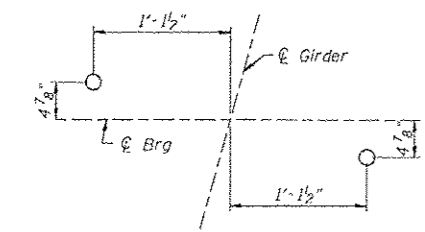
END VIEW



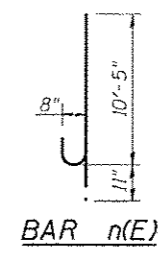
ELEVATION
(Looking North)



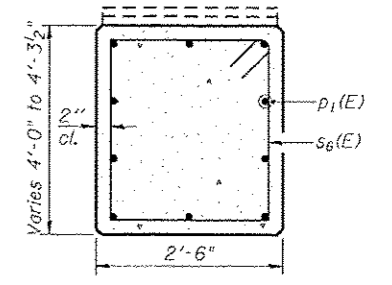
FOOTING PLAN



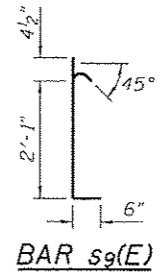
ANCHOR BOLT LAYOUT



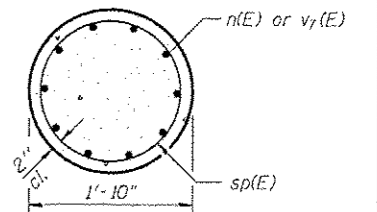
BAR n(E)



SEC. A-A



BAR s9(E)



SEC. B-B

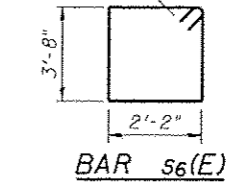
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h5(E)	6	#8	45'-0"	—	
h6(E)	22	#5	45'-0"	—	
n(E)	70	#8	11'-4"	U	
p1(E)	10	#7	45'-1"	—	
s6(E)	46	#4	12'-5"	□	
s7(E)	51	#6	21'-6"	U	
s8(E)	51	#6	14'-8"	U	
s9(E)	72	#4	3'-0"	U	
*sp(E)	7	#4	13'-6"	W	
t1(E)	93	#5	7'-8"	—	
u3(E)	8	#6	9'-9"	—	
u4(E)	22	#5	8'-7"	—	
v7(E)	70	#8	14'-10"	—	
w1(E)	18	#5	46'-0"	—	
Structure Excavation				Cu. Yd.	418
Concrete Structures				Cu. Yd.	103.2
Reinforcement Bars, Epoxy Coated				Pound	14,050
Bar Splicers				Each	100
Furnishing Steel Piles HP 12x63				Foot	323
Driving Piles				Foot	323
Test Pile Steel HP 12x63				Each	1

sp(E) spiral, each column
 Provide 1/2 extra turns top and bottom. Extend spiral 2" into pier cap. Provide 4-#4 spacers or equivalent.

11-#6 Bar Splicers Each Face Alternate with #5 u4(E) bars Each End
 11-#5 u4(E) bars at 12" cts. Ea. End

9-#5 Bar Splicers for Future Expansion Top and Bottom Each End



BAR s6(E)

BARS s7(E), s8(E), u3(E) & u4(E)

A & B DIMENSIONS

Bar	A	B
s7(E)	2'-2"	9'-8"
s8(E)	2'-2"	6'-3"
u3(E)	2'-1"	3'-10"
u4(E)	2'-1"	3'-3"

NOTES:
 All edges shall have standard 3/4" chamfer except as noted.

Pour steps monolithically with cap.
 *Length of spiral = 269'-7". No allowance for lap. Min. Spiral lap 1/2 turns.

Space reinforcement in cap to miss anchor bolts.

For pile details, see Structural Sheet 22 of 25.



DESIGNED - MAC	REVISED -
CHECKED - BRC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

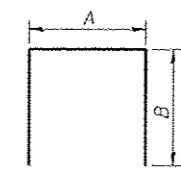
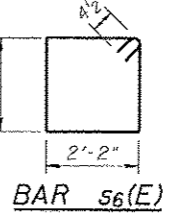
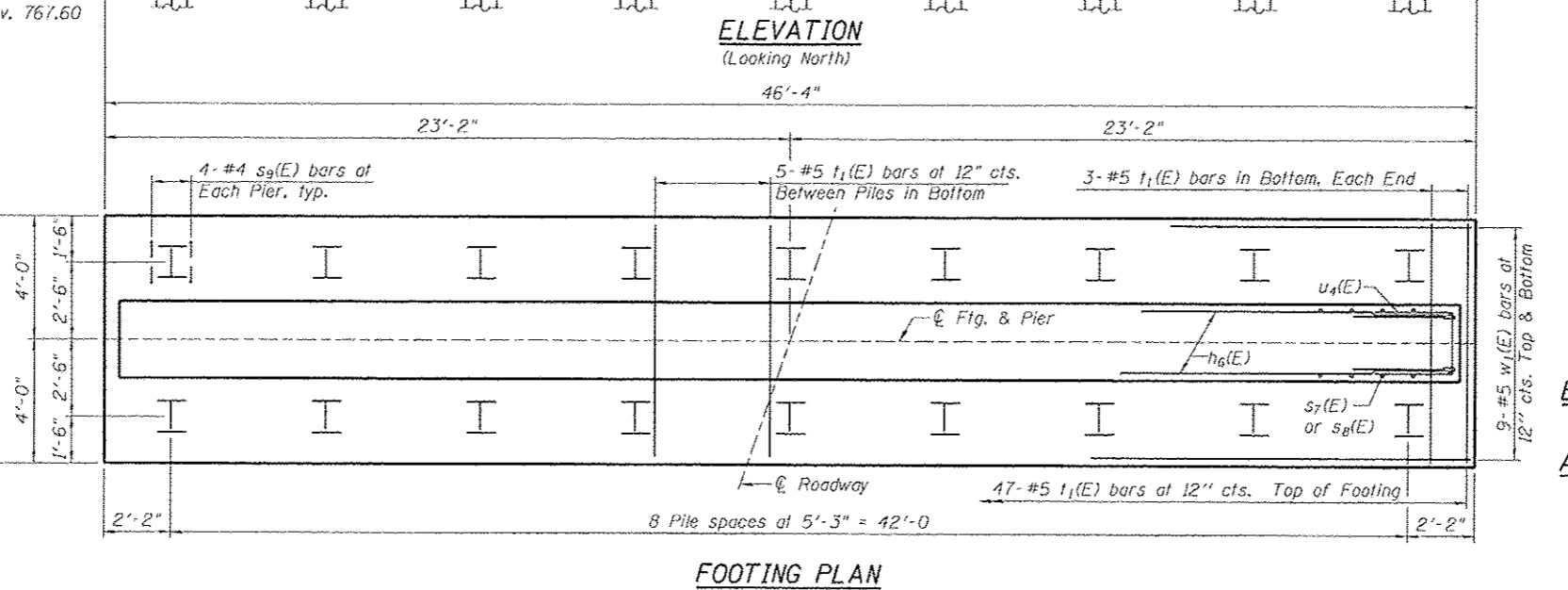
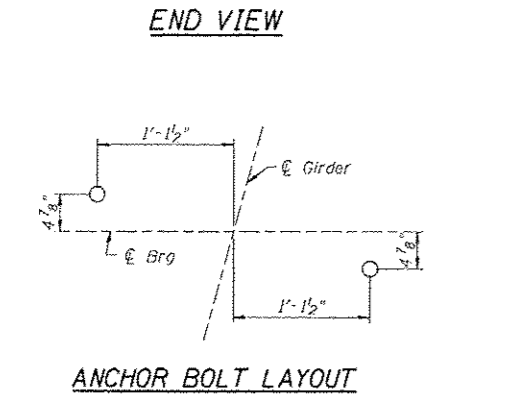
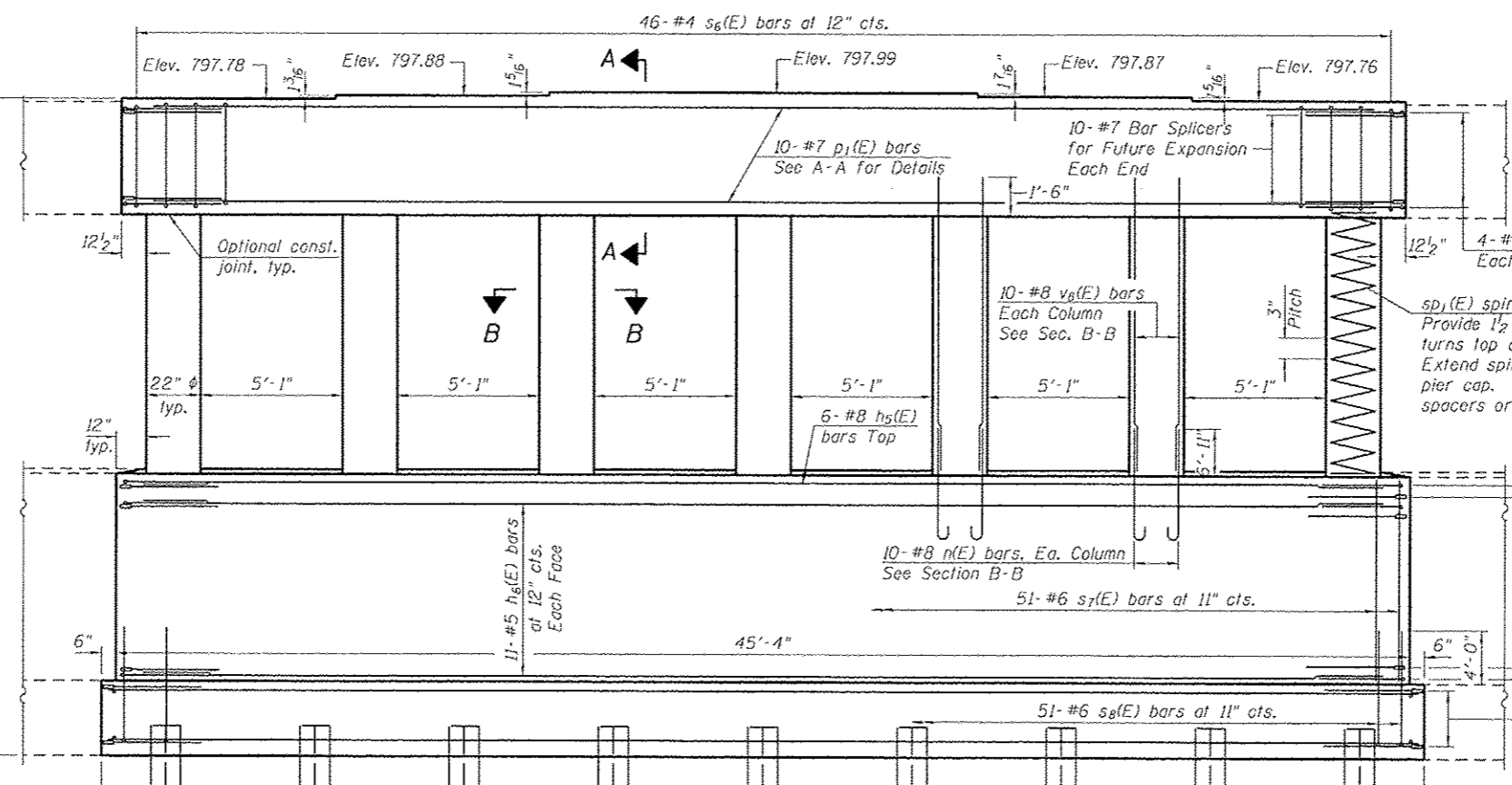
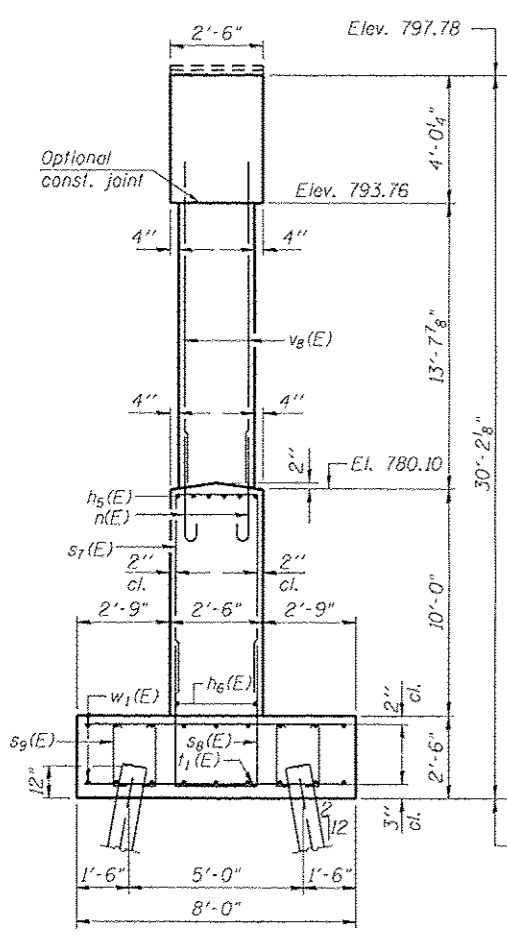
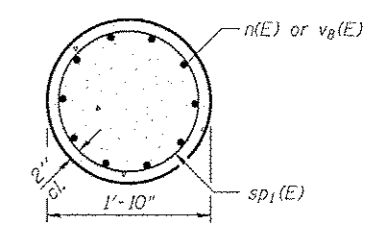
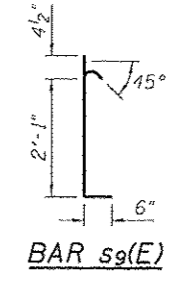
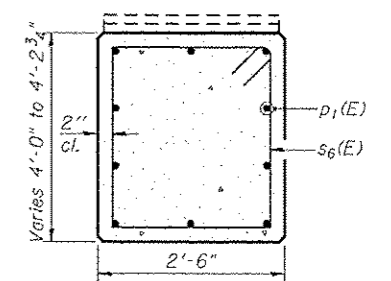
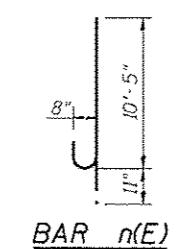
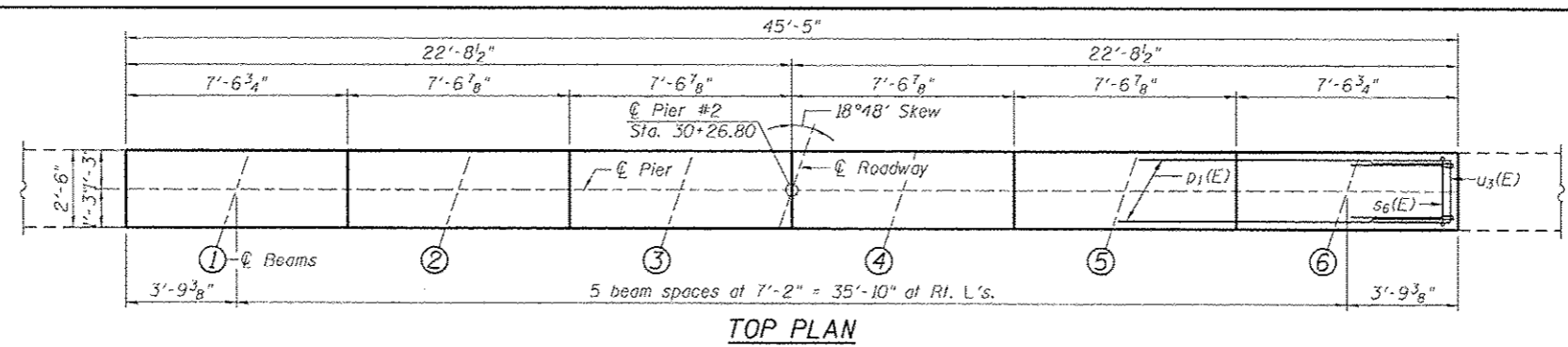
PIER #1 DETAILS
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 19 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	32
WHA* 1261D10			CONTRACT NO. 85599	
[ILLINOIS] FED. AID PROJECT BRM-5091072				

85599

PILE DATA

Type: Steel HP 12x63
 Nominal Required Bearing: 249 kips
 Factored Resistance Available: 137 kips
 Est. Length: 19'
 No. Production Piles: 17
 No. Test Piles: 1



A & B DIMENSIONS

Bar	A	B
s7(E)	2'-2"	9'-8"
s8(E)	2'-2"	6'-3"
u3(E)	2'-1"	3'-10"
u4(E)	2'-1"	3'-3"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	6	#8	45'-0"	—
h6(E)	22	#5	45'-0"	—
n(E)	70	#8	11'-4"	U
p1(E)	10	#7	45'-1"	—
s6(E)	46	#4	12'-5"	□
s7(E)	51	#6	21'-6"	□
s8(E)	51	#6	14'-8"	□
s9(E)	72	#4	3'-0"	U
*sp1(E)	7	#4	13'-10"	W
f1(E)	93	#5	7'-8"	—
u3(E)	8	#6	9'-9"	—
u4(E)	22	#5	8'-7"	—
v8(E)	70	#8	15'-0"	—
w1(E)	18	#5	46'-0"	—
Structure Excavation		Cu. Yd.	421	
Concrete Structures		Cu. Yd.	103.2	
Reinforcement Bars, Epoxy Coated		Pound	14,110	
Bar Splicers		Each	100	
Furnishing Steel Piles HP 12x63		Foot	323	
Driving Piles		Foot	323	
Test Pile		Each	1	

NOTES:
 All edges shall have standard 3/4" chamfer except as noted.
 Pour steps monolithically with cap.

*Length of spiral = 275'-8". No allowance for lap. Min. Spiral lap 1 1/2 turns.

Space reinforcement in cap to miss anchor bolts.

For pile details, see Structural Sheet 22 of 25.



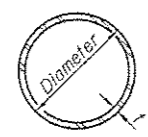
DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

PIER #2 DETAILS
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 20 OF 25 SHEETS

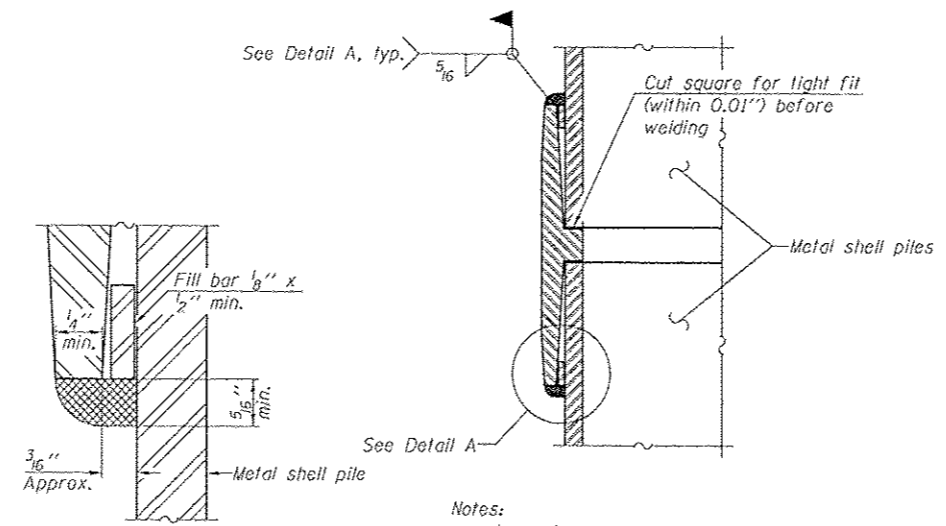
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514R	04-00359-00-BR	WINNEBAGO	45	33
	WHA* 1261010		CONTRACT NO. 85599	
[ILLINOIS] FED. AID PROJECT BRN-50990721				

FILE: S:\PROJECTS\2018\12\2018_Perryville_Road_Over_Union_Pacific_Railroad\PIER#2.dwg



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

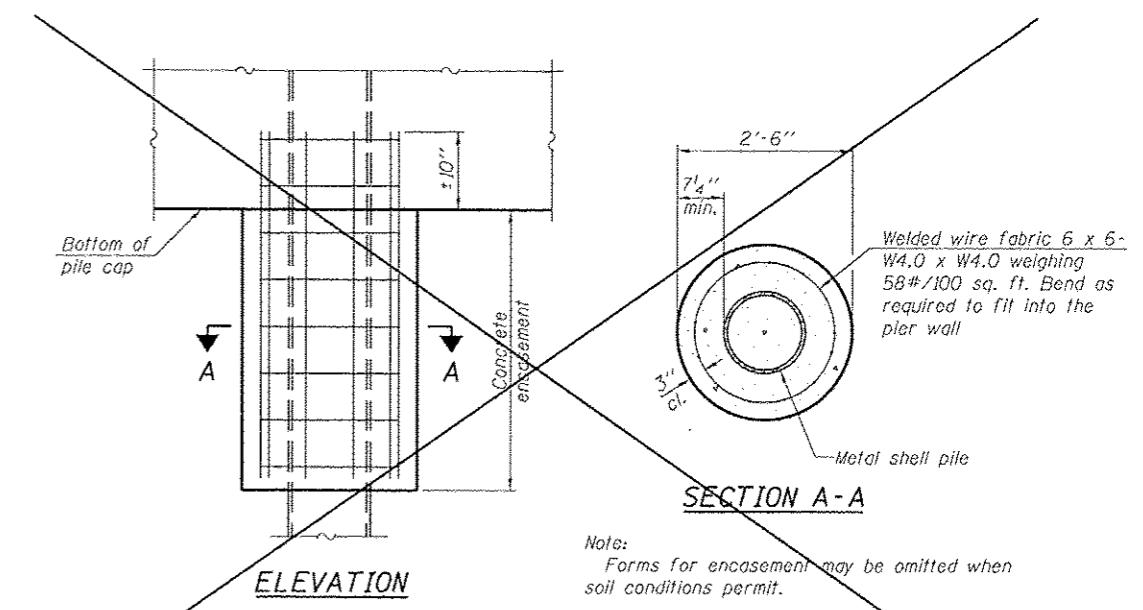


DETAIL A

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

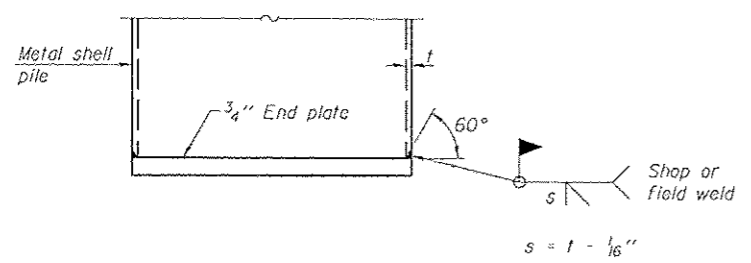


ELEVATION

SECTION A-A

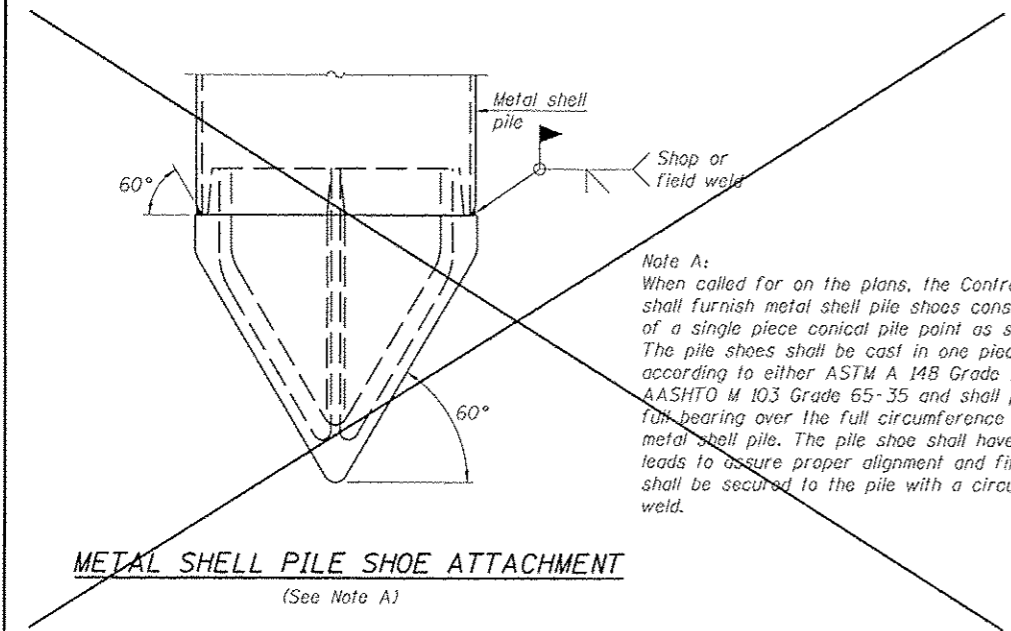
CONCRETE ENCASEMENT AT PIERS

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



END PLATE ATTACHMENT

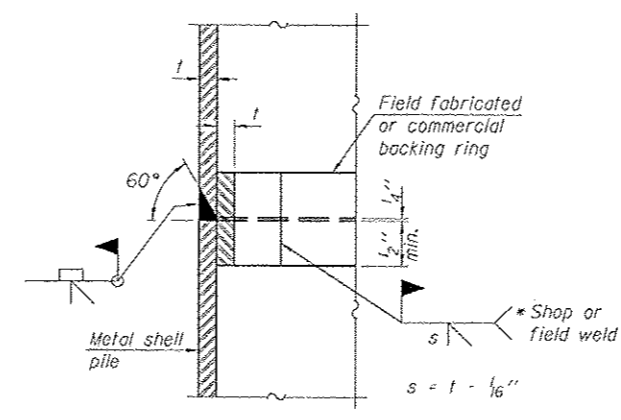
$s = t - 1/16"$



METAL SHELL PILE SHOE ATTACHMENT

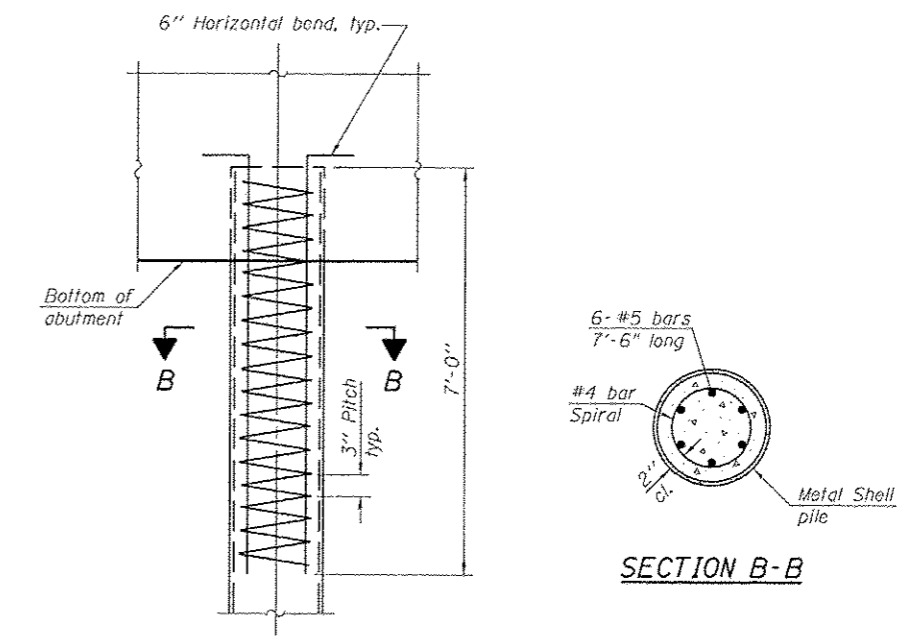
(See Note A)

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.



COMPLETE PENETRATION WELD SPLICE

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



ELEVATION

SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

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

FILE : S:\PROJECTS\2818\12818\12818_Perryville_Road\DESIGN\STRUCT\Drawings\12818.DWG, P.Lt. Drawn: hkdjg

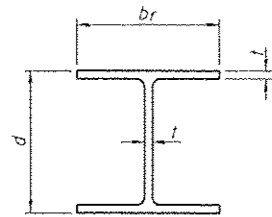
WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
899 EAST 2ND STREET, OMAHA, IA 68102-0367
P: 402-441-3311 DESIGN FAX: 402-441-3318

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

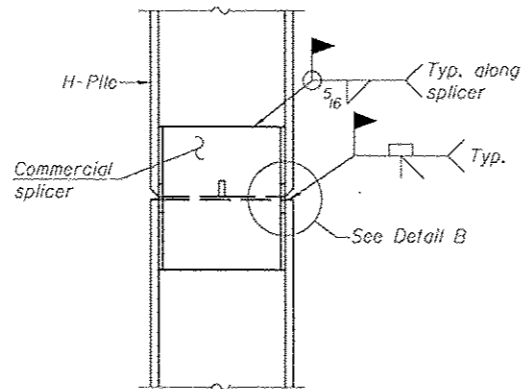
METAL SHELL PILE DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 21 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	34
WHA* 1261D10			CONTRACT NO. 85599	
[ILLINOIS] FED. AID PROJECT BRW-509910721				

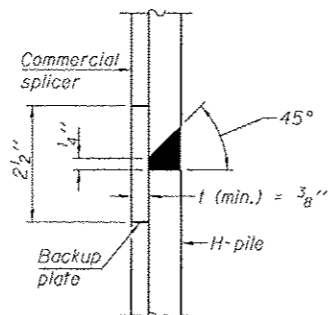


STEEL PILE TABLE

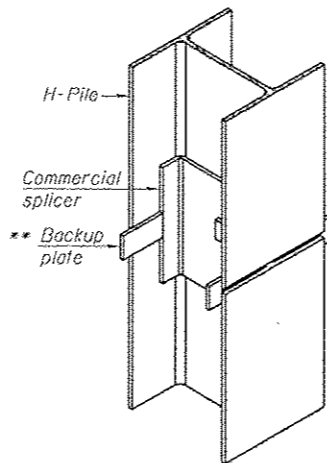
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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



ELEVATION

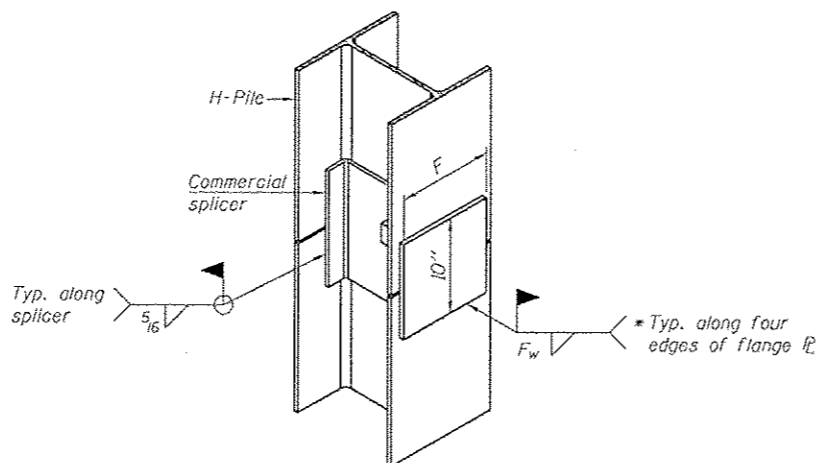


DETAIL "B"



ISOMETRIC VIEW

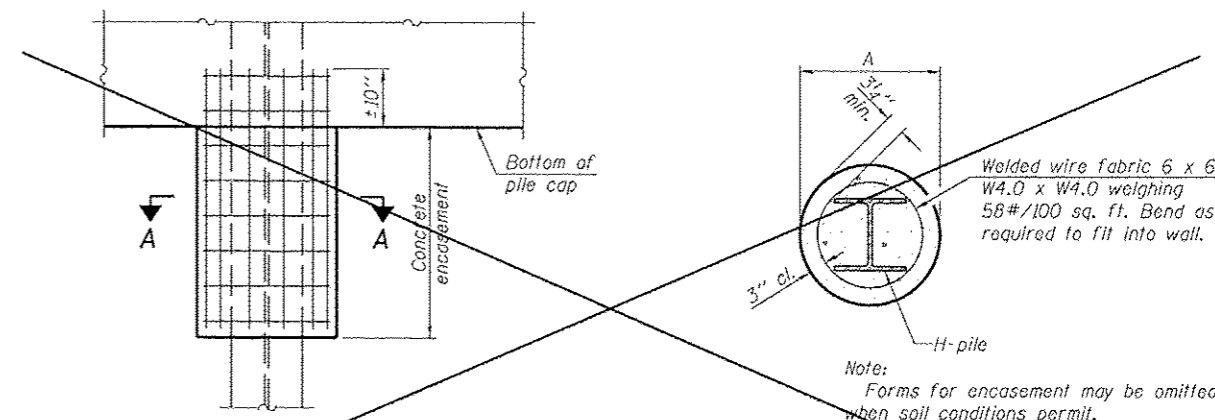
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

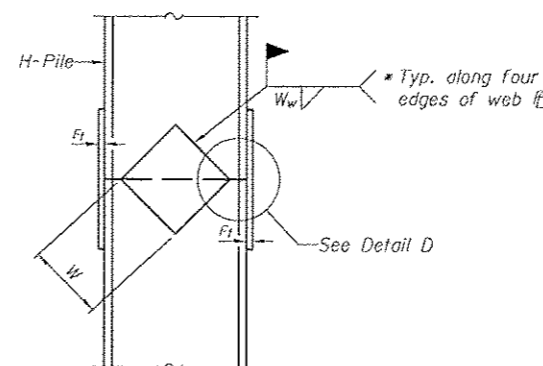
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.



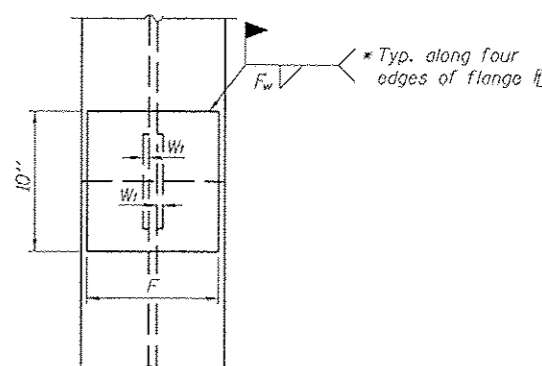
ELEVATION

SECTION A-A

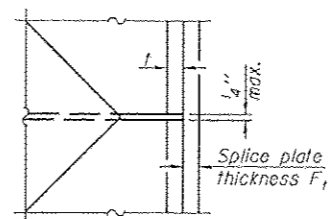
PILE ENCASEMENT



ELEVATION



END VIEW

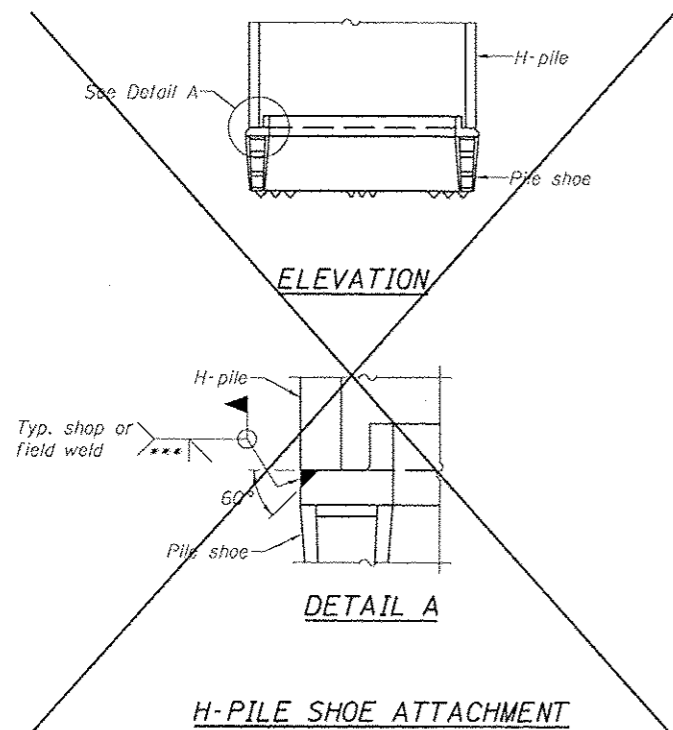


DETAIL D

WELDED PLATE FIELD SPLICE

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

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



ELEVATION

DETAIL A

H-PILE SHOE ATTACHMENT

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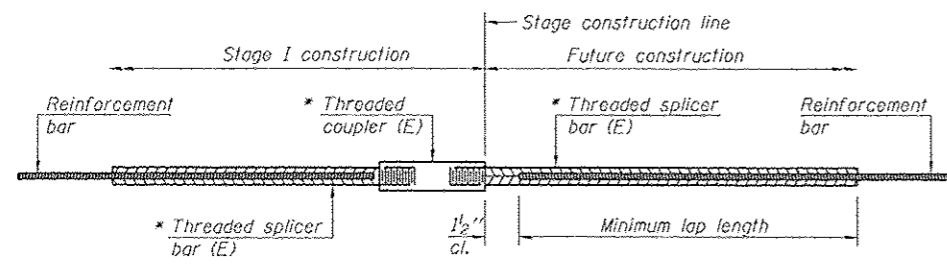
WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0347
T. 215-284-3381 DESIGN FIRM: #124-065918

DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

HP PILE DETAILS
STRUCTURE NO. 101-3103
STRUCTURAL SHEET NO. 22 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	35
WHA* 1261010			CONTRACT NO. 85599	



STANDARD BAR SPLICER ASSEMBLY

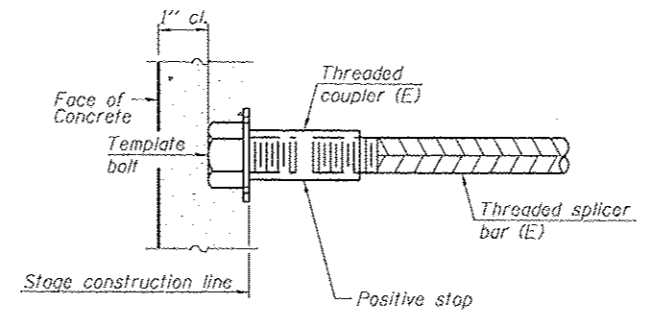
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar lap, Class C

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

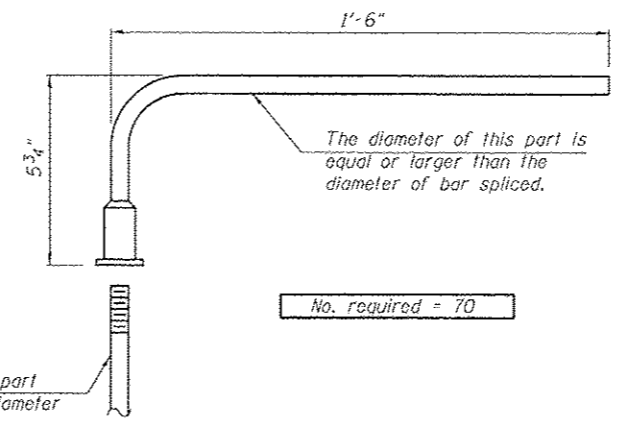
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Diaphragms	#6	28	Table 5
Abutment Caps	#7	48	Table 5
Pier Caps	#7	40	Table 5
Pier Crash Walls	#6	88	Table 5
Pier Footings	#5	72	Table 5



INSTALLATION AND SETTING METHODS

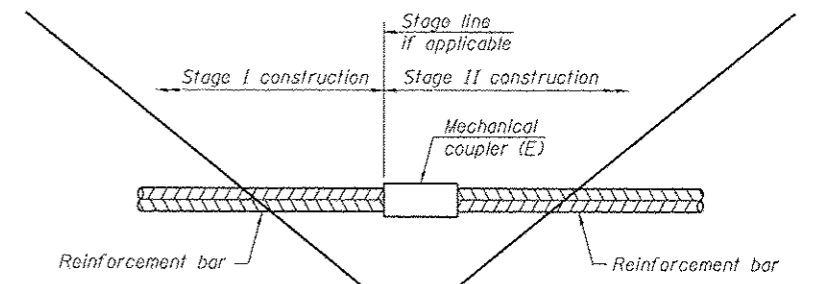
(E) : Indicates epoxy coating.



No. required = 70

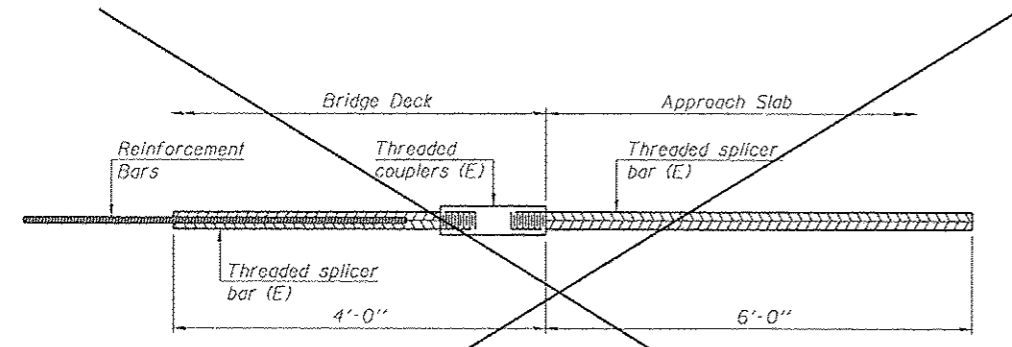
ROLLED THREAD DOWEL BAR

BAR SPLICER ASSEMBLY FOR BRIDGE DECK



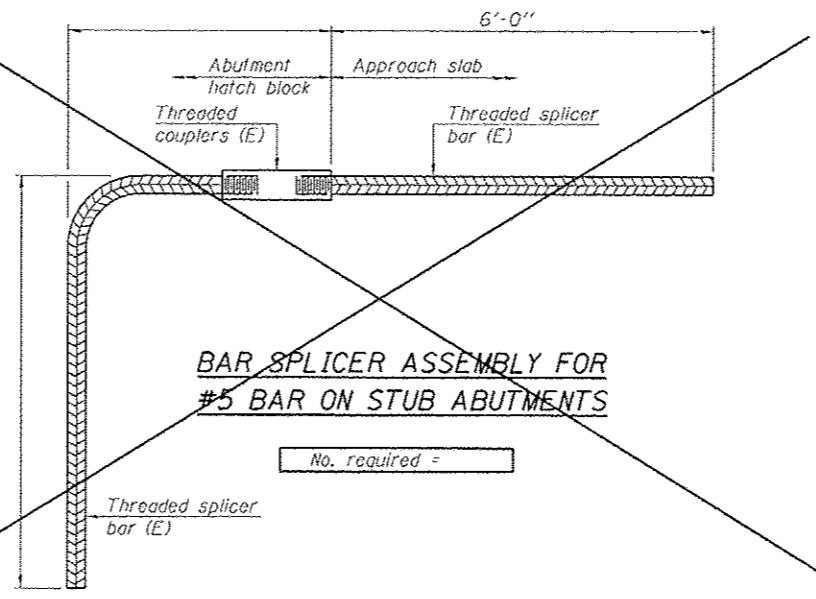
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

FILE: S:\PROJECTS\2018\1261012_Perryville_Road\DESIGN\STRUCT\Drawings\1261012_Br_Splicer_Details.dgn

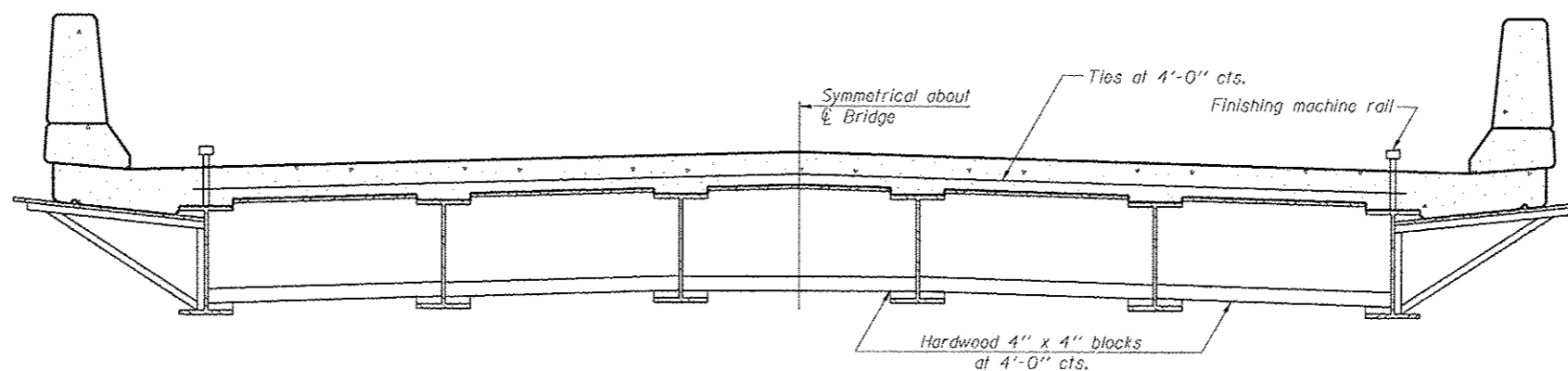


DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 23 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	36
WHA# 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRW-5099072				



**FORM BRACES FOR
STANDARD CONSTRUCTION**

NOTES:

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

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

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

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

FILE # SA PROJECTS\BRIDGE\STRUCT\Bearing\1251018\Bearing\1251018\Cantilever-Forming-Brackets.dwg

WILLET HOFMANN ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T. 815-284-3381 DESIGN FIRM #124-000145

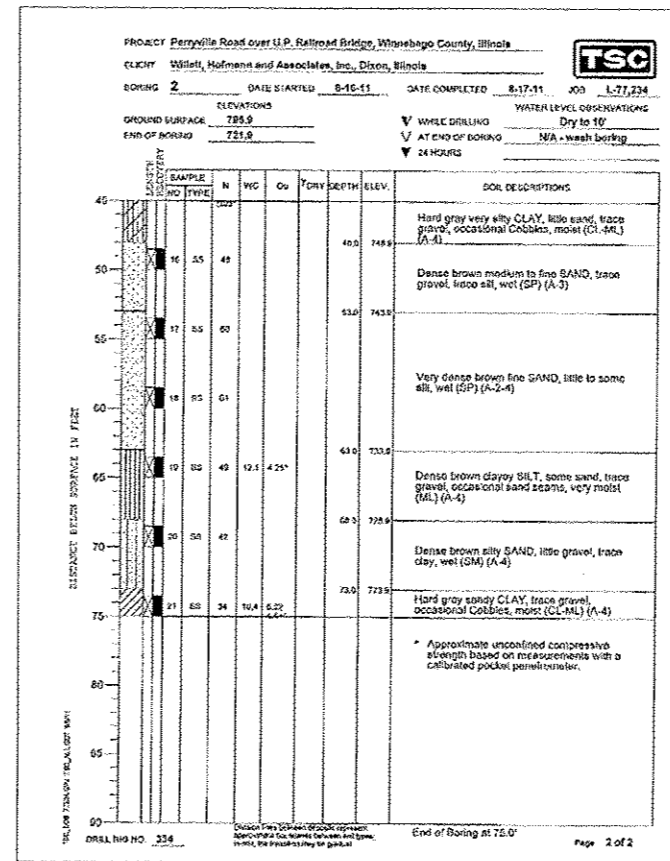
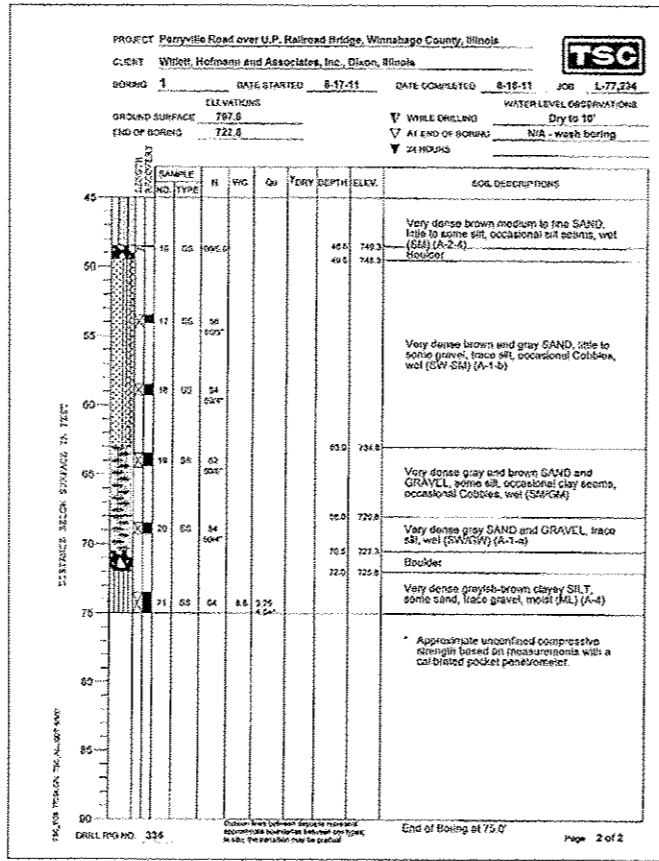
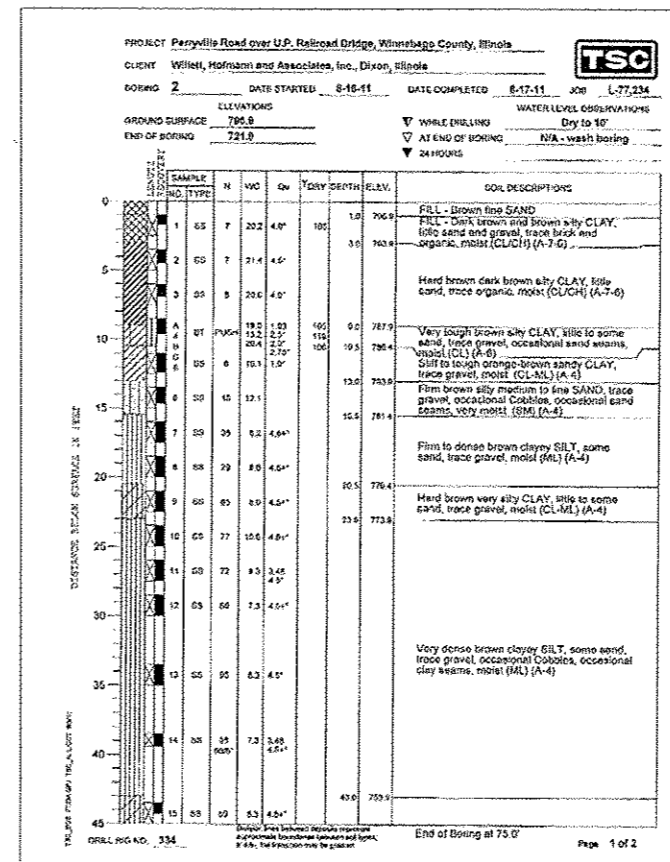
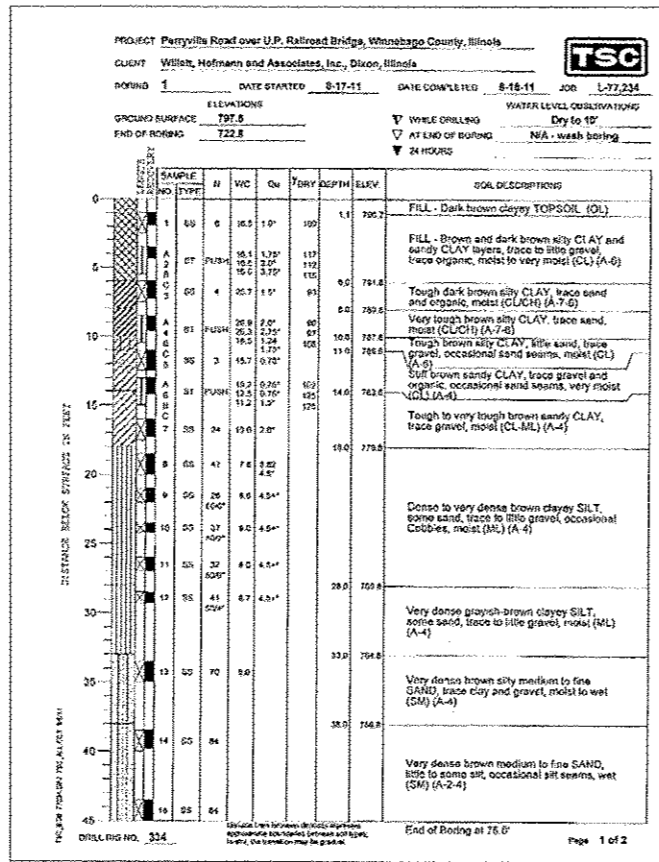
DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

**WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30**

**CANTILEVER FORMING BRACKETS
STRUCTURE NO. 101-3103**

STRUCTURAL SHEET NO. 24 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	37
WHA* 1261D10			CONTRACT NO. 85599	
[ILLINOIS] FED. AID PROJECT BRW-5099(072)				



FILE : S:\PROJECTS\2010\2510\2510 Perryville Road\DESIGN\STRUCT\Boring\Boring_Logs.dgn



DESIGNED - MAC	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - MAC	REVISED -

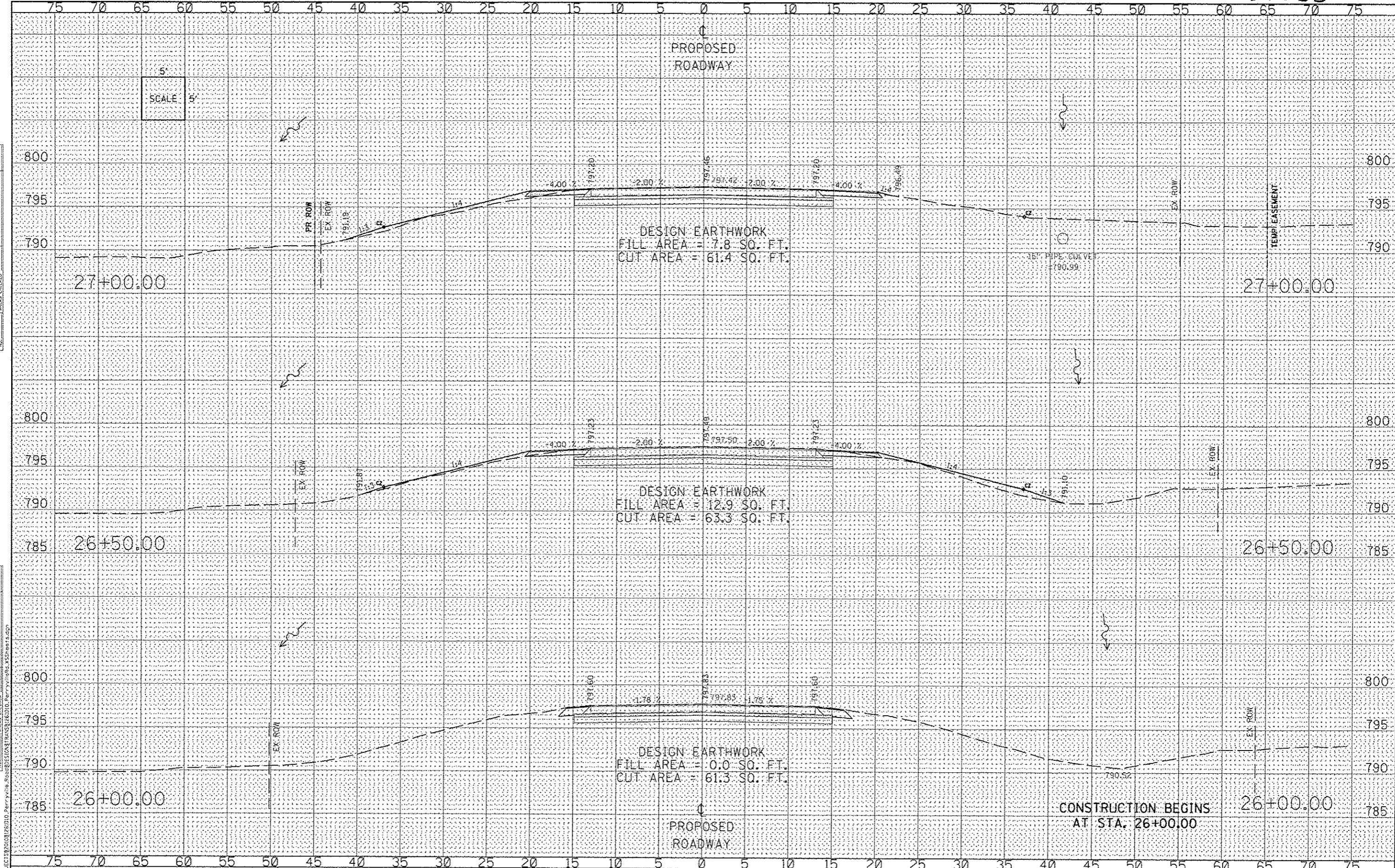
WINNEBAGO COUNTY
 PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
 STATION 29 + 93.30

BORING LOGS
 STRUCTURE NO. 101-3103
 STRUCTURAL SHEET NO. 25 OF 25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	38
WHA# 1261D10		CONTRACT NO. 85599		
ILLINOIS FED. AID PROJECT BRM-80990172				

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
NOTED	
PLOTTED	
SURVEYED	
NO. 1	

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
NOTED	
PLOTTED	
SURVEYED	
NO. 2	



WILLET HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
409 EAST 2ND STREET, DUBUQUE, IA 52001-0367
P. 319.254.3361 FAX 319.254.3362

DESIGNED	- LGN	REVISED	-
CHECKED	- OFS	REVISED	-
DRAWN	- LGN	REVISED	-
CHECKED	- OFS	REVISED	-

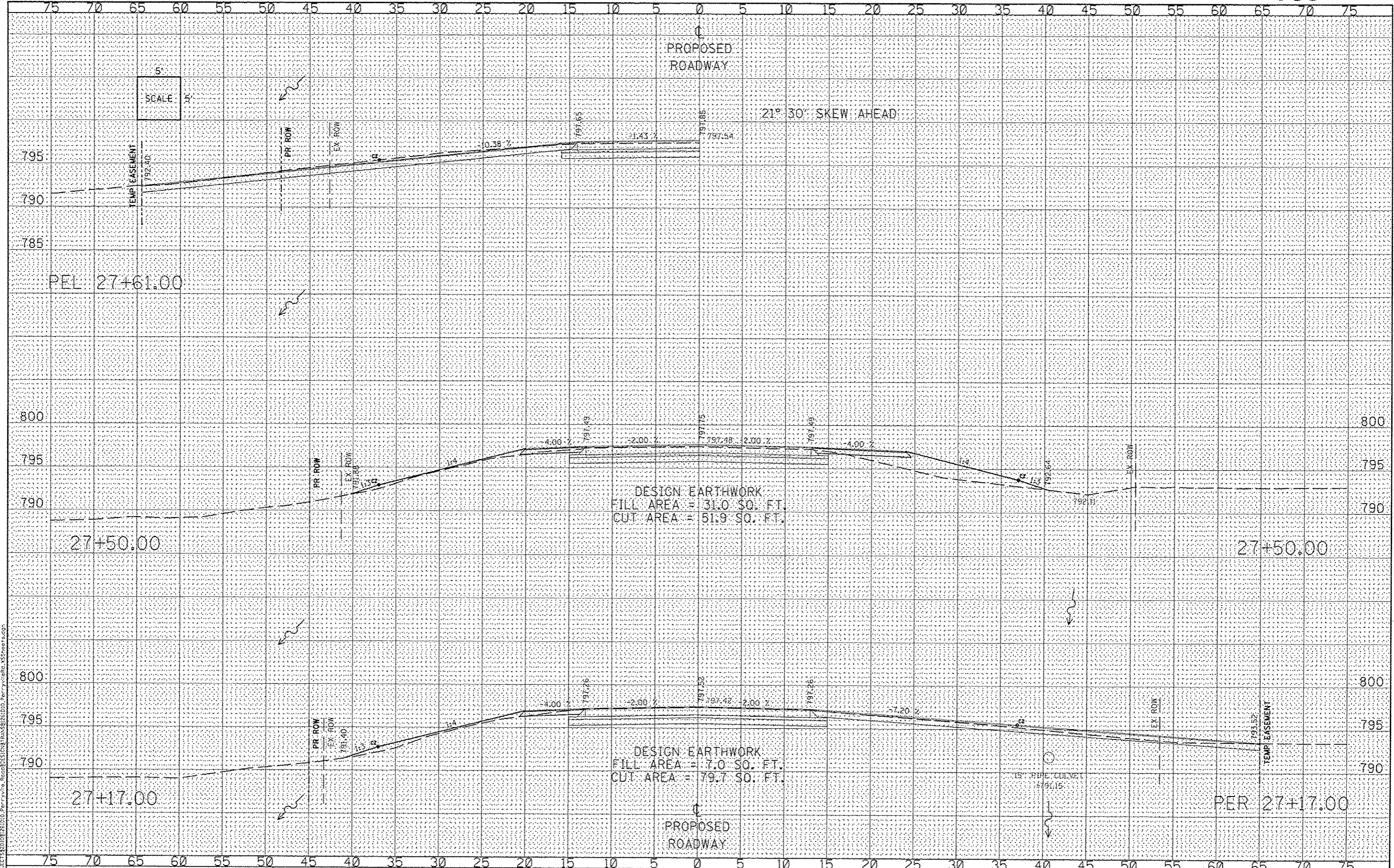
WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

CROSS SECTIONS
STRUCTURE NO. 101-3103
SCALE: 1" = 5'-0" SHEET NO. 1 OF 6 SHEETS STA. 26+00.00 TO STA. 27+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	39
WHA* 1261D10			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRN-5099(072)				

DATE	
BY	
REVISIONS	
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REVISIONS	
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DATE	
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REVISIONS	
NO.	



WILLET HOFMANN ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 509 EAST 2ND STREET, OMAHA, IOWA 51501-0367
 T: 815-264-3181 F: 515-264-3182

DESIGNED - LGN	REVISIONS -
CHECKED - GFS	REVISIONS -
DRAWN - LGN	REVISIONS -
CHECKED - GFS	REVISIONS -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29+93.30

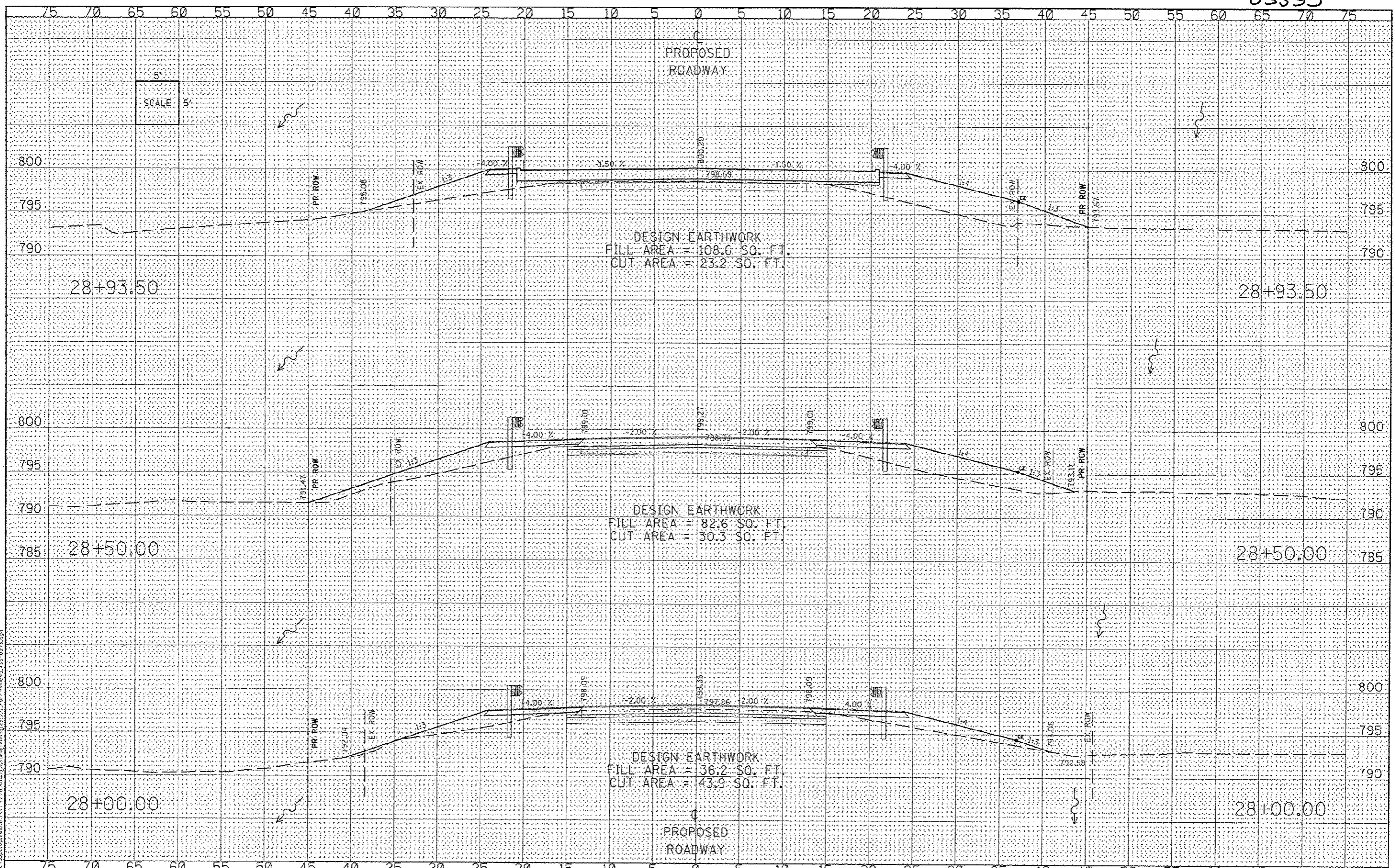
CROSS SECTIONS
STRUCTURE NO. 101-3103
 SCALE: 1" = 5'-0" SHEET NO. 2 OF 6 SHEETS STA. 27+17.00 TO STA. 27+61.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	40
WHA* 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-5099(072)				

FILE: S:\P\04-00359\04-00359-00-BR\04-00359-00-BR-27-17-00-27-61-00-01.dwg

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
NOTED	
NO.	

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
NOTED	
NO.	



WILLETT HOFMANN ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 209 EAST 2ND STREET, DUNDEE, IL 61121-0307
 T: 815-281-3381 DESIGN FIRM #174-000918

DESIGNED	- LGN	REVISED	-
CHECKED	- GFS	REVISED	-
DRAWN	- LGN	REVISED	-
CHECKED	- GFS	REVISED	-

**WINNEBAGO COUNTY
 PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
 STATION 29 + 93.30**

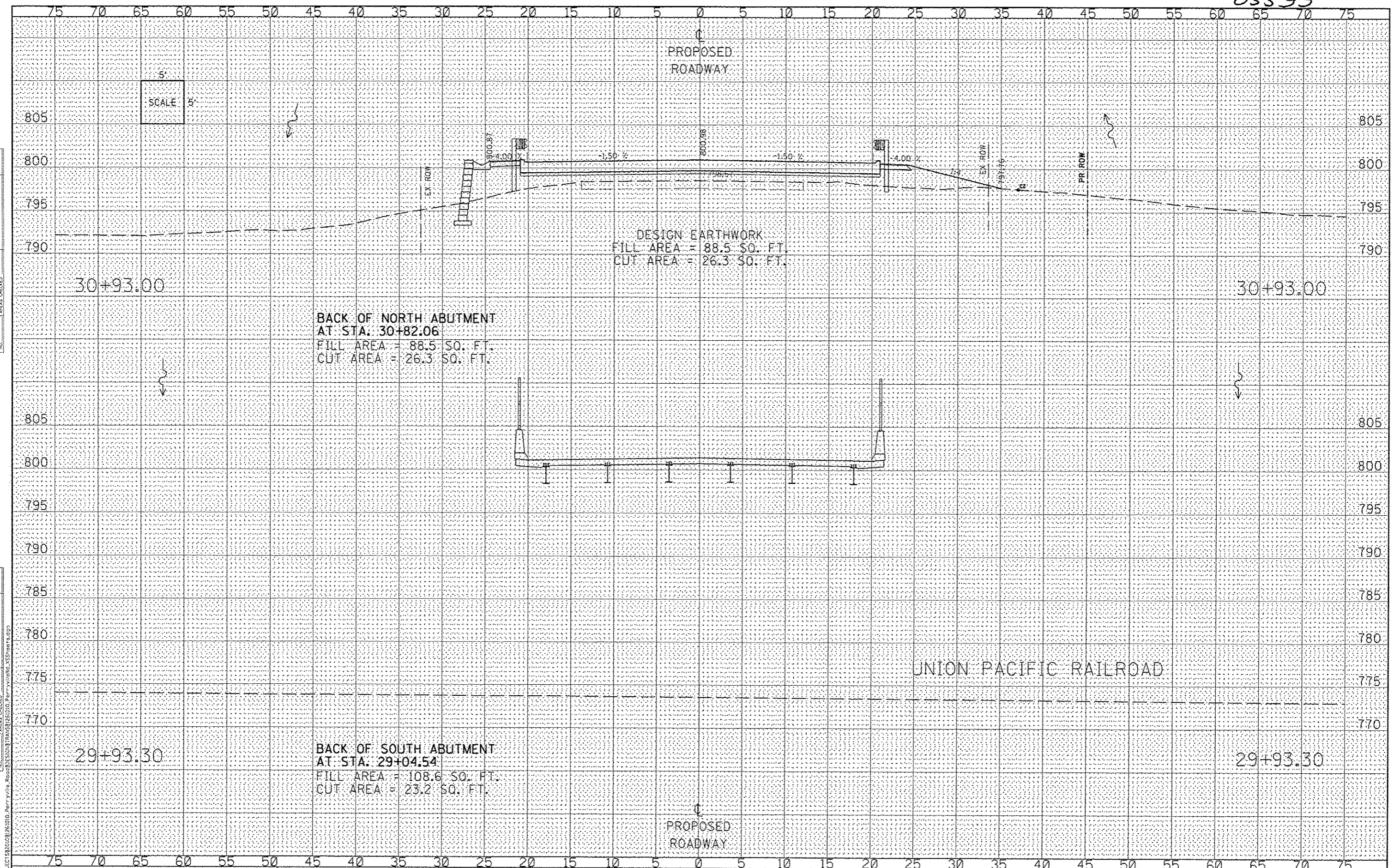
**CROSS SECTIONS
 STRUCTURE NO. 101-3103**

SCALE: 1" = 5'-0" SHEET NO. 3 OF 6 SHEETS STA. 28+00.00 TO STA. 28+93.50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	41
WHA* 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-503910721				

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
NOTED	
ASSETS	

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
NOTED	
ASSETS	



DESIGN EARTHWORK
 FILL AREA = 88.5 SQ. FT.
 CUT AREA = 26.3 SQ. FT.

BACK OF NORTH ABUTMENT
 AT STA. 30+82.06
 FILL AREA = 88.5 SQ. FT.
 CUT AREA = 26.3 SQ. FT.

BACK OF SOUTH ABUTMENT
 AT STA. 29+04.54
 FILL AREA = 108.6 SQ. FT.
 CUT AREA = 23.2 SQ. FT.

WINNEBAGO COUNTY
 PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
 STATION 29 + 93.30

CROSS SECTIONS
 STRUCTURE NO. 101-3103



DESIGNED	- LGN	REVISED	-
CHECKED	- DFS	REVISED	-
DRAWN	- LGN	REVISED	-
CHECKED	- DFS	REVISED	-

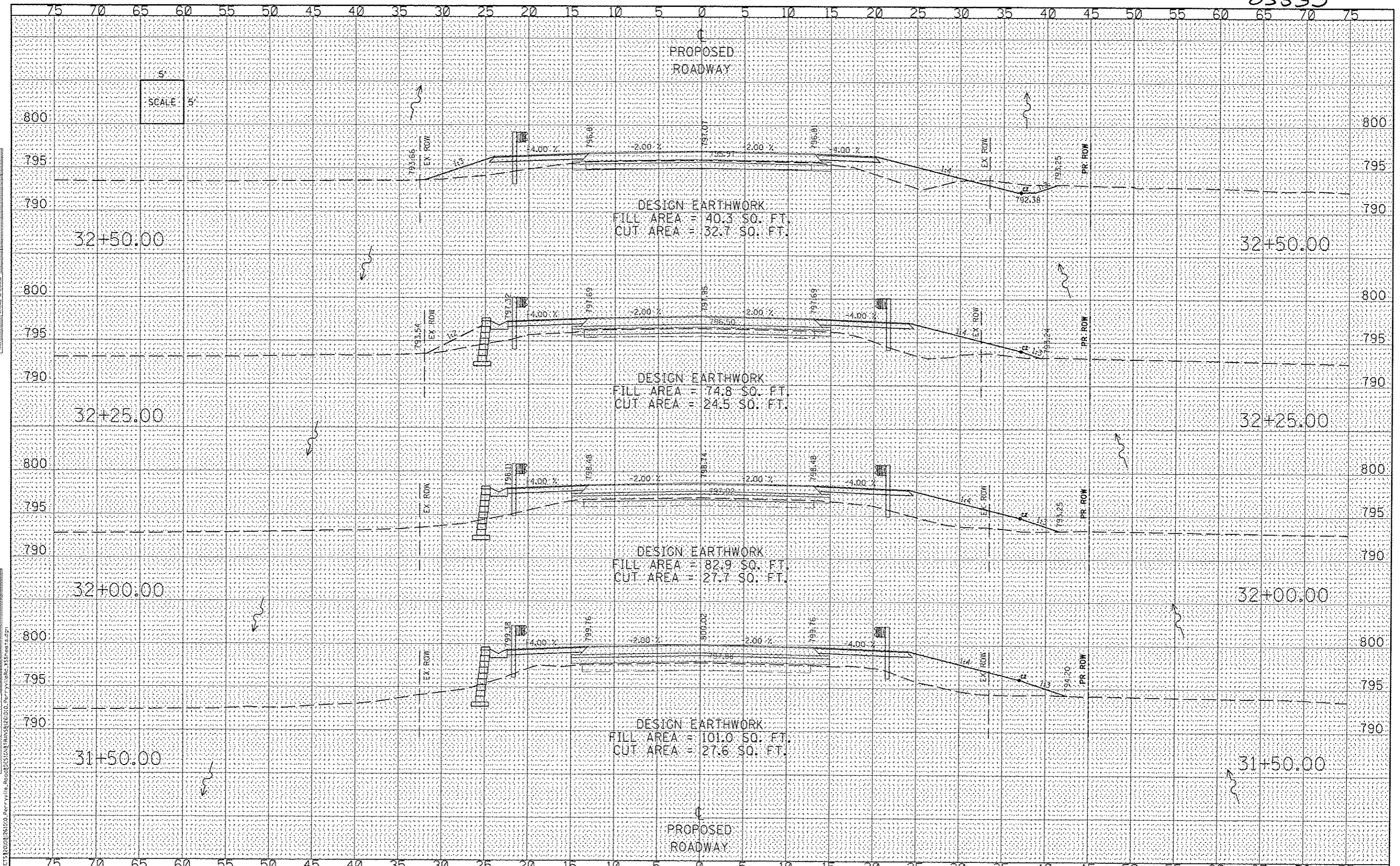
SCALE: 1" = 5'-0" SHEET NO. 4 OF 6 SHEETS STA. 29+93.30 TO STA. 30+93.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	42
WMA# 1261010			CONTRACT NO. 85599	
ILLINOIS FED. AID PROJECT BRM-5059(G72)				

FILE: S:\PROJECTS\1261010\1261010_Perryville_Road_Over_Union_Pacific_Railroad\1261010_Perryville_Road_Over_Union_Pacific_Railroad.dwg

DATE	
BY	
FINAL SURVEY	
NOTED BOOK	
AREAS CHECKED	

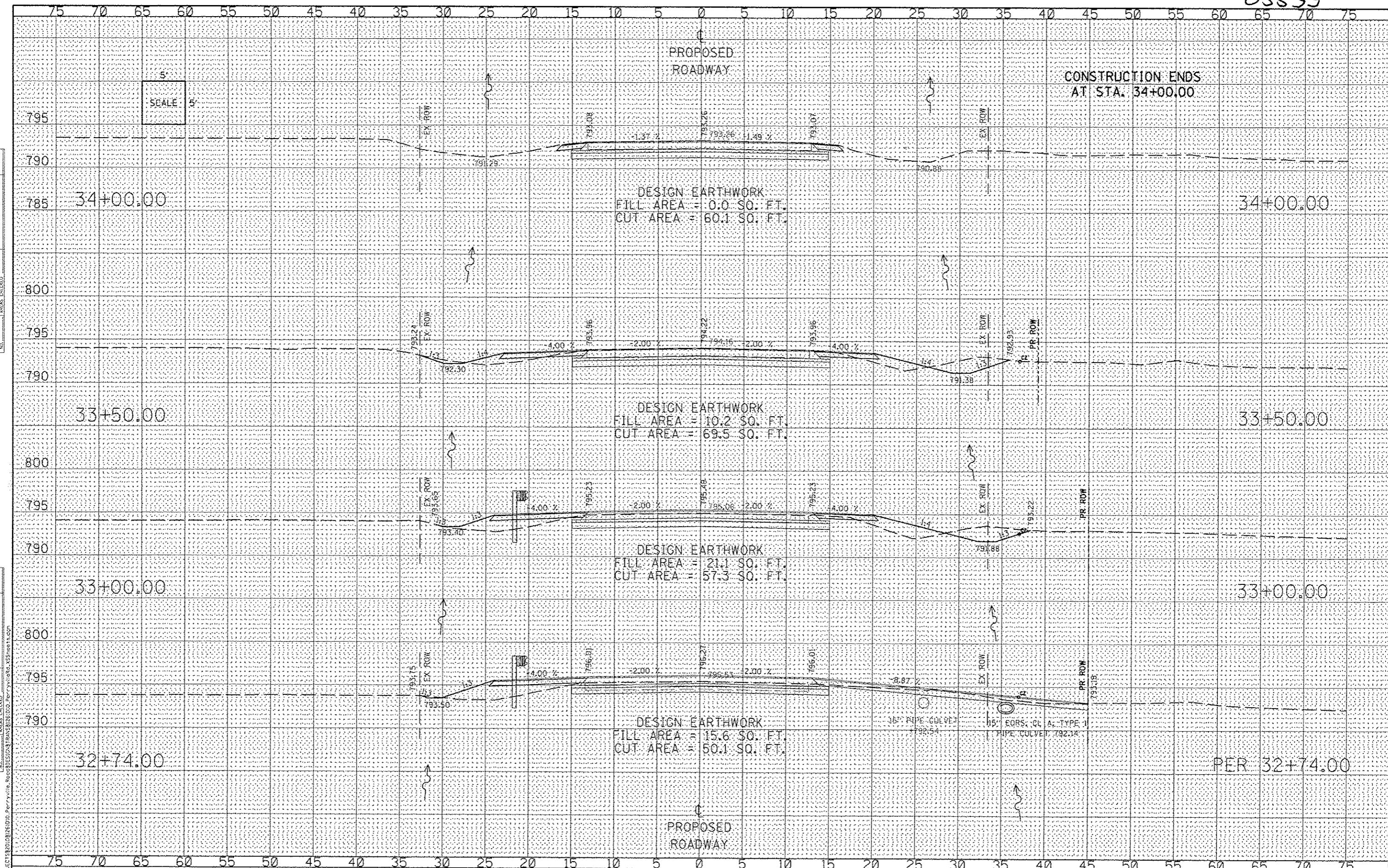
DATE	
BY	
ORIGINAL SURVEY	
NOTED BOOK	
AREAS CHECKED	



WILLET HOFMANN ASSOCIATES INC. <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> <small>609 EAST 2ND STREET, OMAHA, IA 68102-0367</small> <small>P: 414-744-3381 F: 414-669918</small>	DESIGNED - LGN CHECKED - GFS DRAWN - LGN CHECKED - GFS	REVISED - REVISED - REVISED - REVISED -	WINNEBAGO COUNTY PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD STATION 29 + 93.30	CROSS SECTIONS STRUCTURE NO. 101-3103	F.A.U. R.T.E. 5148 SECTION 04-00359-00-BR COUNTY WINNEBAGO WHA* 1261D10 ILLINOIS FED. AID PROJECT BRW-80990721	TOTAL SHEETS 45 SHEET NO. 43 CONTRACT NO. 85599
	SCALE: 1" = 5'-0" SHEET NO. 5 OF 6 SHEETS STA. 31+50.00 TO STA. 32+25.00					

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	



FILE: S:\PROJECTS\2012\261010_Perryville_Road_Over_Union_Pacific_Railroad\Drawings\AS559901.dwg



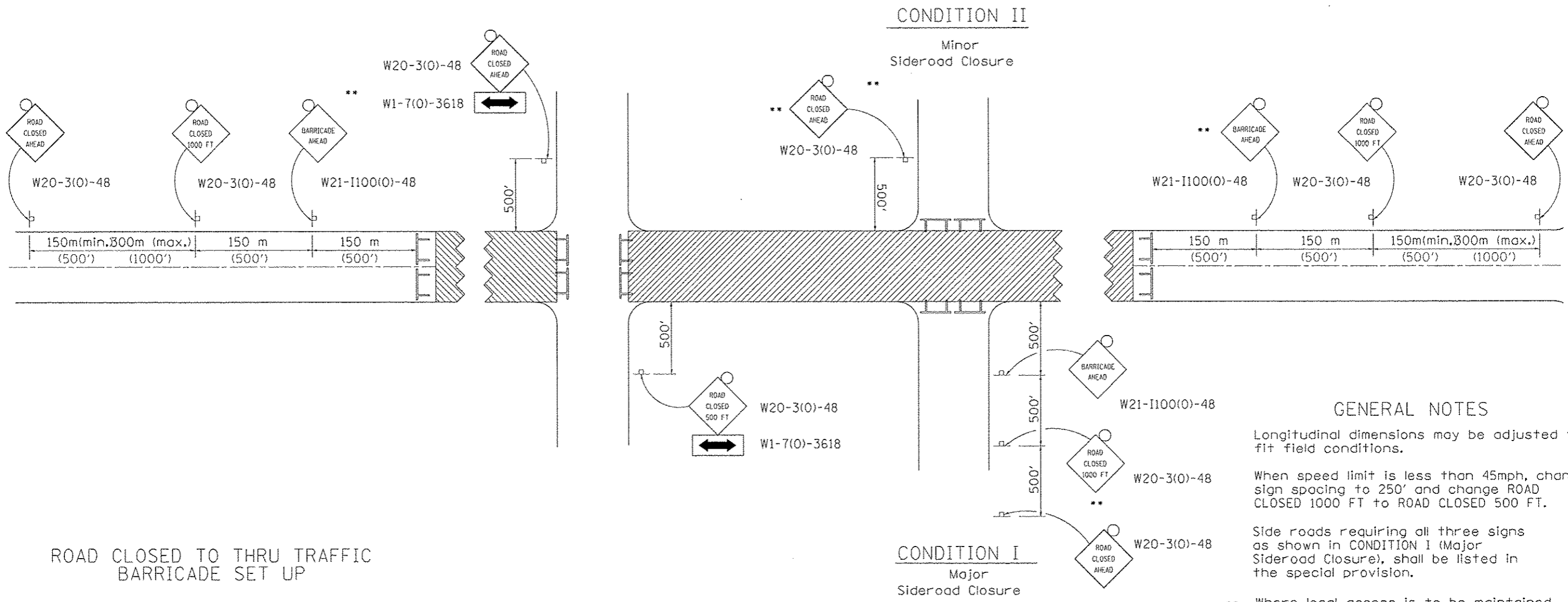
DESIGNED - LGN	REVISED -
CHECKED - GFS	REVISED -
DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

CROSS SECTIONS
STRUCTURE NO. 101-3103
 SCALE: 1" = 5'-0" SHEET NO. 6 OF 6 SHEETS STA. 32+74.00 TO STA. 34+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
514B	04-00359-00-BR	WINNEBAGO	45	44
WMA# 1261D10		CONTRACT NO. 85599		
ILLINOIS FED. AID PROJECT BRM-50591(072)				

TRAFFIC CONTROL FOR ROAD 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 Thru Traffic" detail on Highway Standard 702001.

- 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

REVISED 10-20-04

FILE - S:\PROJECTS\2013\12\01\01 - Perryville Road\SECTION TRANSMISSION\TrafficControl.dwg

WILLETT HOFMANN ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
803 EAST 28th STREET, DOWD, IL 61921-0307
T: 815-264-3361 DESIGN FAX: 815-264-0921

DESIGNED - LGN	REVISED - 08/23/2013
CHECKED - GFS	REVISED -
DRAWN - LGN	REVISED -
CHECKED - GFS	REVISED -

WINNEBAGO COUNTY
PERRYVILLE ROAD OVER UNION PACIFIC RAILROAD
STATION 29 + 93.30

DISTRICT 2 TRAFFIC CONTROL STANDARD 40.1
STRUCTURE NO. 101-3103

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5148	04-00359-00-BR	WINNEBAGO	45	45
WHA# 1261D10			CONTRACT NO. 85599	
FILE#001810 PROJECT BRM-50991072				