

PLANS FOR PROPOSED FEDERAL-AID BRIDGE REPLACEMENT & REHABILITATION PROGRAM

SCALES: PLAN 1 INCH = 50 FEET
 PROFILE (HOR.) 1 INCH = 50 FEET
 PROFILE (VERT.) 1 INCH = 5 FEET
 CROSS SECTIONS 1 INCH = 5/10 FEET

SUMMARY OF QUANTITIES

ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD 352
20300100	CHANNEL EXCAVATION	CU YD 171
20700220	POROUS GRANULAR EMBANKMENT	CU YD 53
21001000	GEOTECHNICAL FABRIC FOR GROUND STAB.	SQ. YD. 1,530
20400800	FURNISHED EXCAVATION	CU YD 140
X2501000	SEEDING CLASS 2. SPECIAL	ACRE 0.25
28100709	STONE DUMPED RIPRAP, CLASS A5	SQ. YD. 292
28200200	FILTER FABRIC	SQ. YD. 292
35101400	AGGREGATE BASE CSE, TY B	TON 1,005
50100100	REMOVAL OF EXISTING STRUCTURE	EA. 1
50200100	STRUCTURE EXCAVATION	CU. YD. 93
50300225	CONCRETE STRUCTURES	CU. YD. 27.7
50300300	PROTECTIVE COAT	SQ. YD. 265
50400505	PRECAST PRESTRESSED CONC. DECK BEAMS, 27"	SO. FT. 2,073
50800205	REINFORCEMENT BARS, EPOXY COATED	LB. 3,600
* 50901050	STEEL RAIL, TY SM	FT. 142
51201400	FURNISHING STEEL PILES, HP 10 X 42	FT. 468
51202305	DRIVING PILE	FT. 468
51203400	TEST PILE, STEEL HP 10 X 42	EACH 2
51204650	PILE SHOES	EACH 10
51500100	NAME PLATES	EACH 1
54200220	PIPE CULVERTS, CLASS D, TY-1, 15"	FOOT 50
* 63000001	SPBGR TYA 6FT POSTS	FOOT 100
* 63100075	TRAF BAR TERM T5A	EACH 2
* 63100167	TR BAR TRM T1 SPL TAN	EACH 2
67100100	MOBILIZATION	L SUM 1
X7010216	TRAFFIC CONTROL & PROTECTION, SPL	L SUM 1

INDEX OF SHEETS

- INDEX OF SHEETS, SUMMARY OF QUANTITIES
- TYPICAL SECTIONS
- PLAN AND PROFILE
- CROSS SECTIONS
- GENERAL PLAN AND ELEVATION
- SUPERSTRUCTURE
- SUBSTRUCTURE
- STEEL BRIDGE RAIL, TY SM
- PILE SHEET

- STANDARDS:
- 280001-05 TEMPORARY EROSION CONTROL SYSTEMS
 - 515001-03 NAME PLATE FOR BRIDGE
 - 630301-05 SHLDR WIDENING FOR TY-1 GR TERM.
 - 701006-03 OFF-RD OPERATIONS, 2L, 2W 15' TO 24"
 - 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
 - 701901-01 TRAFFIC CONTROL DEVICES
 - 728001-01 TELESCOPING STEEL SIGN SUPPORT
 - 729001-01 APPLS. OF TYPES A & B METAL POSTS
 - BLR 21-8 TYP. APPLICATION OF TRAFFIC CONTROL DEVICES
 - BLR 22-6 TYP. APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
 - BLR 26-2 STEEL PLATE BEAM GUARDRAIL 27 1/2" HEIGHT
 - BLR 27-1 TRAFFIC BARRIER TERMINAL TYPE 5A

COUNTY HIGHWAY #11
 OIL VALLEY SCHOOL ROAD
 SECTION 09-00088-00-BR
 CARROLL COUNTY

PROJECT NO. BROS - 0015(043)
 CONTRACT NO. 85527
 JOB NO. C - 92-108-10

SECTION 09-00088-00-BR
 BEGINS AT STA. 0+00

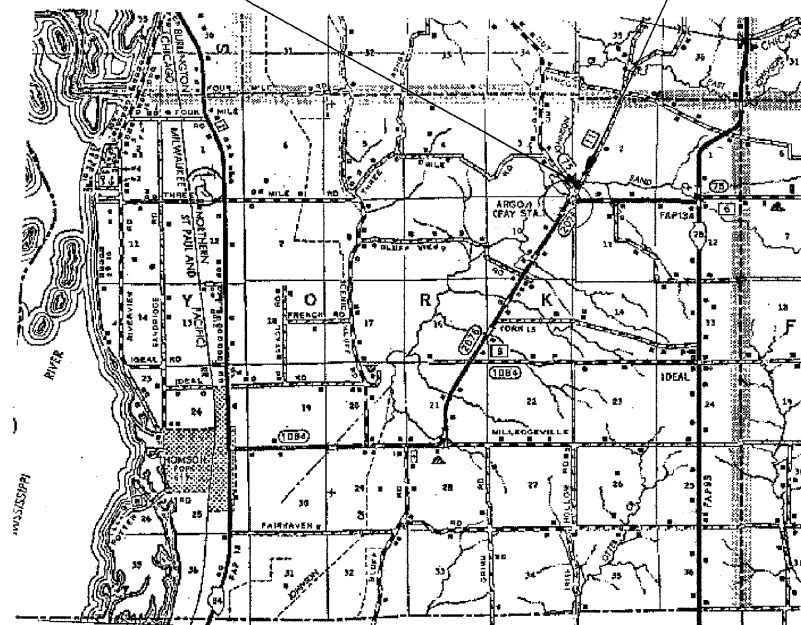
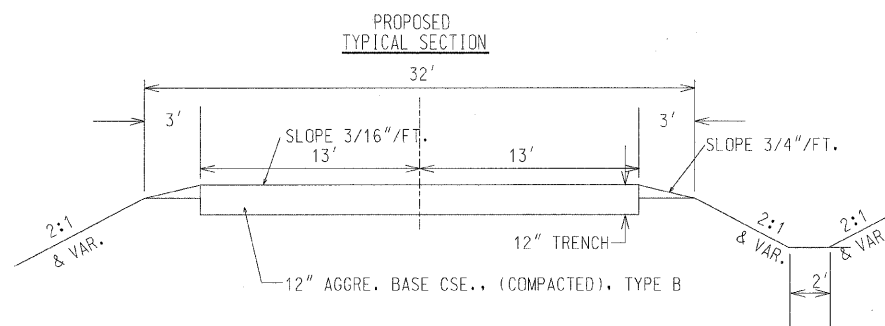
R 4 E OF THE 4TH P.M.

SECTION 09-00088-00-BR
 ENDS AT STA. 6+00

SECTION 09-00088-00-BR

INCLUDES THE REMOVAL OF A 2 SPAN BRIDGE AND CONSTRUCTION OF A NEW SINGLE SPAN PCDB BRIDGE ON PILE BENT SPILL THRU ABUTMENTS. ALSO INCLUDED IS APPROACH ROADWAY CONSTRUCTION.

(70' - 6" BK - BK ABUTMENTS, 20° SKEW RT. AHD.)



LOCATION MAP

NET LENGTH OF SECTION = 600 FT. = 0.114 MILE



Kevin E. Boudreau
 12/16/2010
 EXP. 11/30/2011

CONSTRUCTION TYPE CODE 0011

* SPECIALTY ITEMS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED <u>Dec 16</u> 20 <u>10</u>	<i>Kevin E. Boudreau</i> CARROLL COUNTY ENGINEER
PASSED <u>January 4</u> 20 <u>11</u>	<i>Kevin E. Boudreau</i> DISTRICT 2 ENGINEER OF LOCAL ROADS AND STREETS
Releasing for Bid Based on Limited Review <u>January 4</u> 20 <u>11</u>	
<i>Kevin E. Boudreau</i> Deputy director of Highways, Region 2 Engineer	

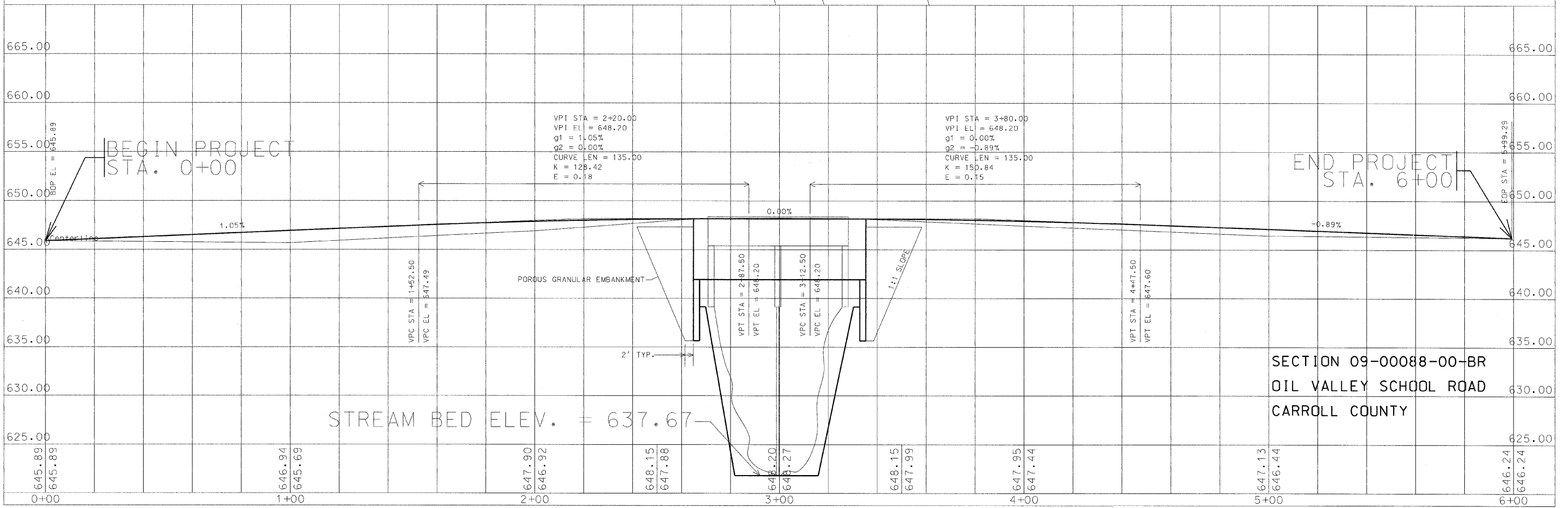
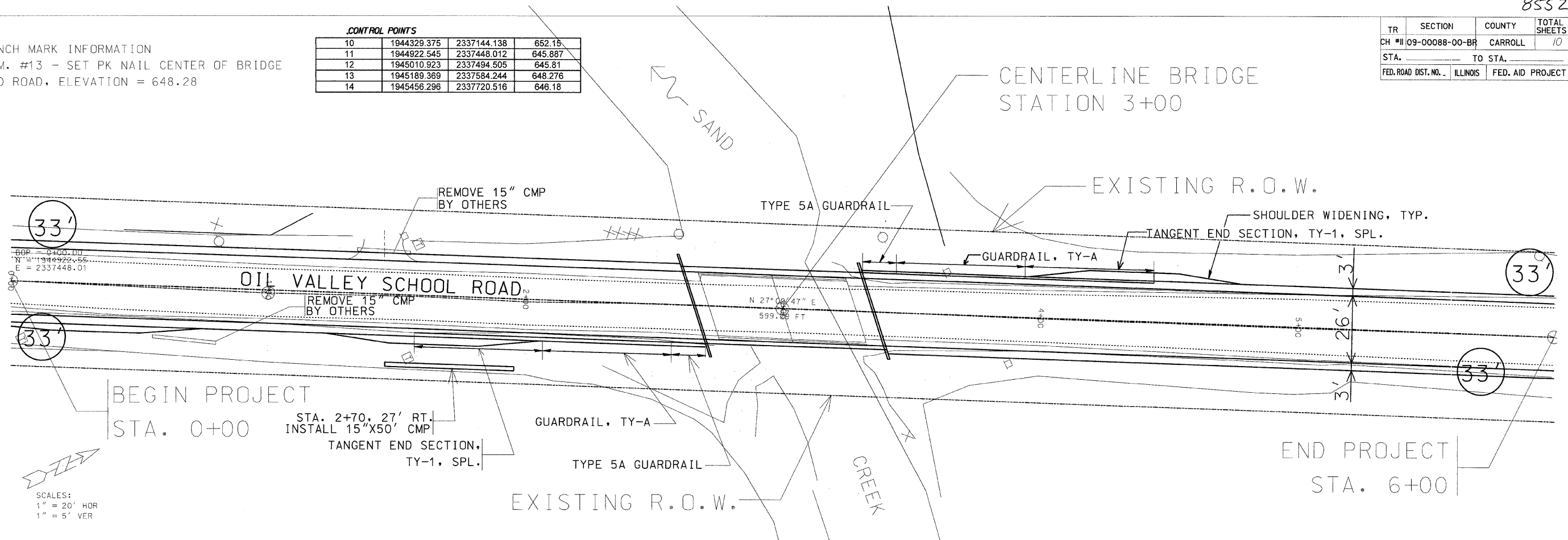
"CALL J.U.L.I.E. BEFORE YOU DIG"
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123

DESIGN: LOCAL ROAD, ADT 350 (20 YEAR), 3% TRUCKS, 50 MPH DESIGN SPEED, 3R GUIDELINES

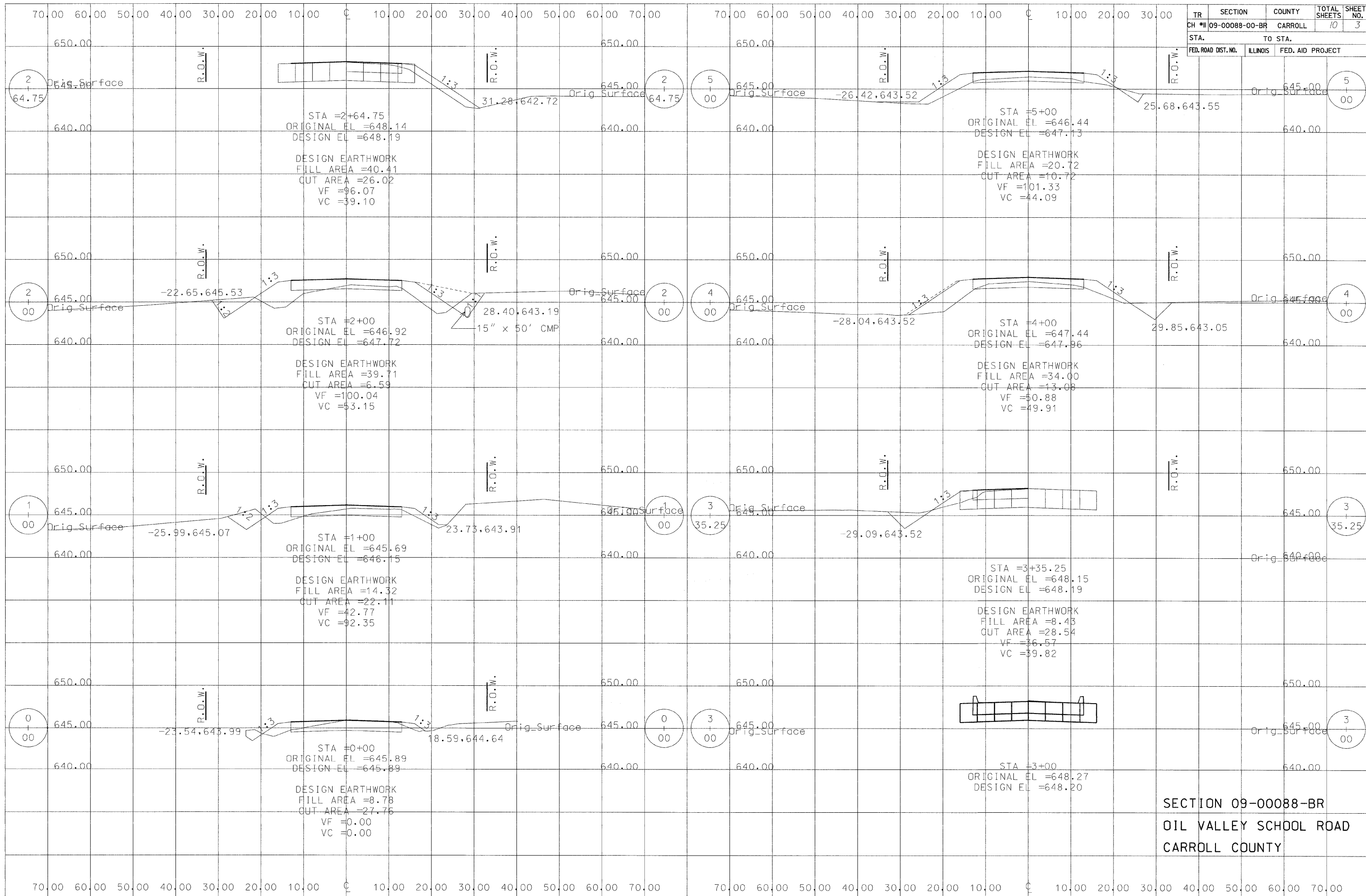
BENCH MARK INFORMATION
 B.M. #13 - SET PK NAIL CENTER OF BRIDGE
 AND ROAD, ELEVATION = 648.28

CONTROL POINTS			
10	1944329.375	2337144.138	652.15
11	1944922.545	2337448.012	645.887
12	1945010.923	2337494.505	645.81
13	1945189.369	2337584.244	648.276
14	1945456.296	2337720.516	646.18

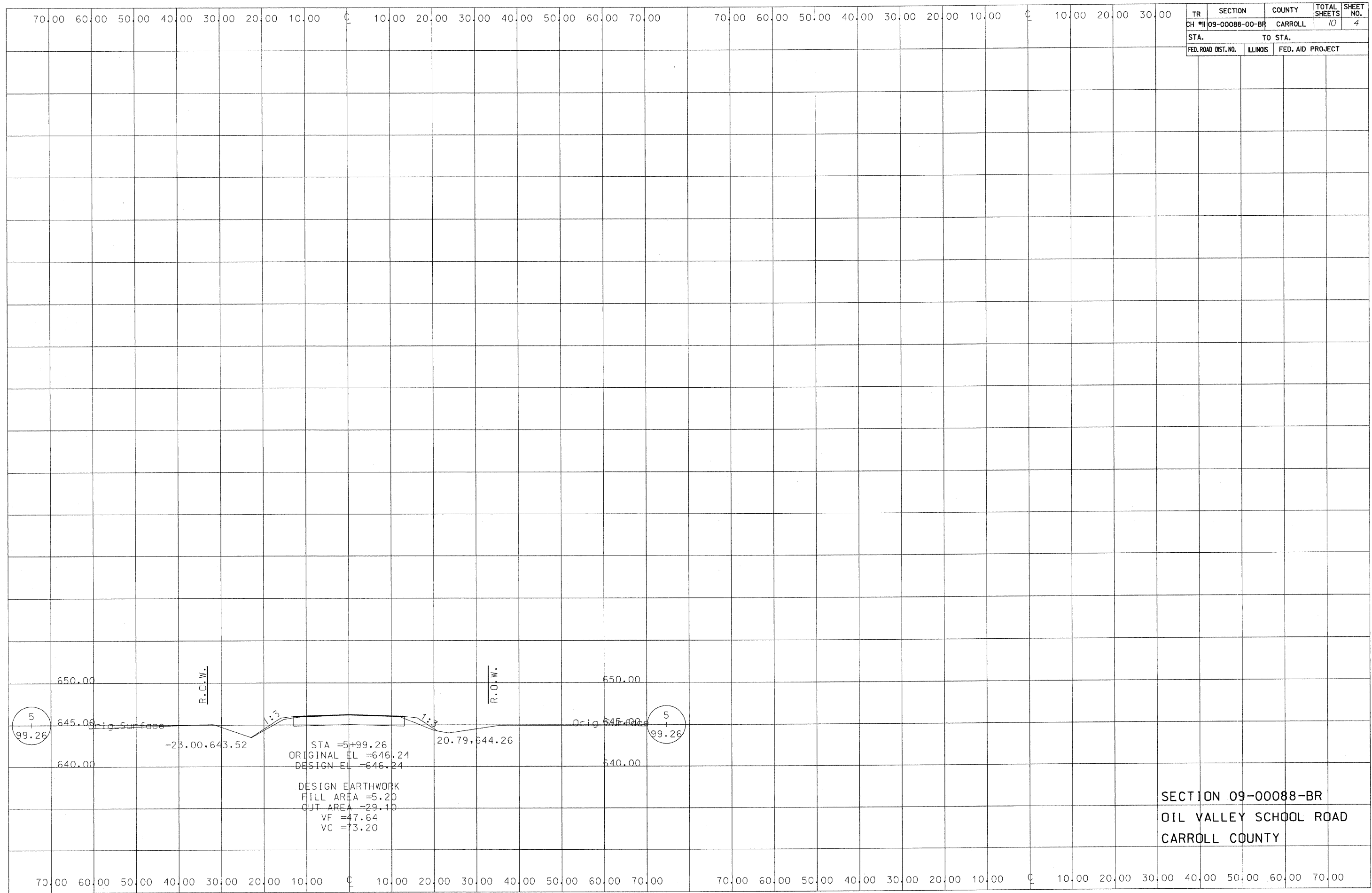
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH #11	09-00088-00-BR	CARROLL	10	2
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		



SECTION 09-00088-00-BR
 OIL VALLEY SCHOOL ROAD
 CARROLL COUNTY



SECTION 09-00088-BR
 OIL VALLEY SCHOOL ROAD
 CARROLL COUNTY



TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH #11	09-00088-00-BR	CARROLL	10	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA = 5+99.26
 ORIGINAL EL = 646.24
 DESIGN EL = 646.24

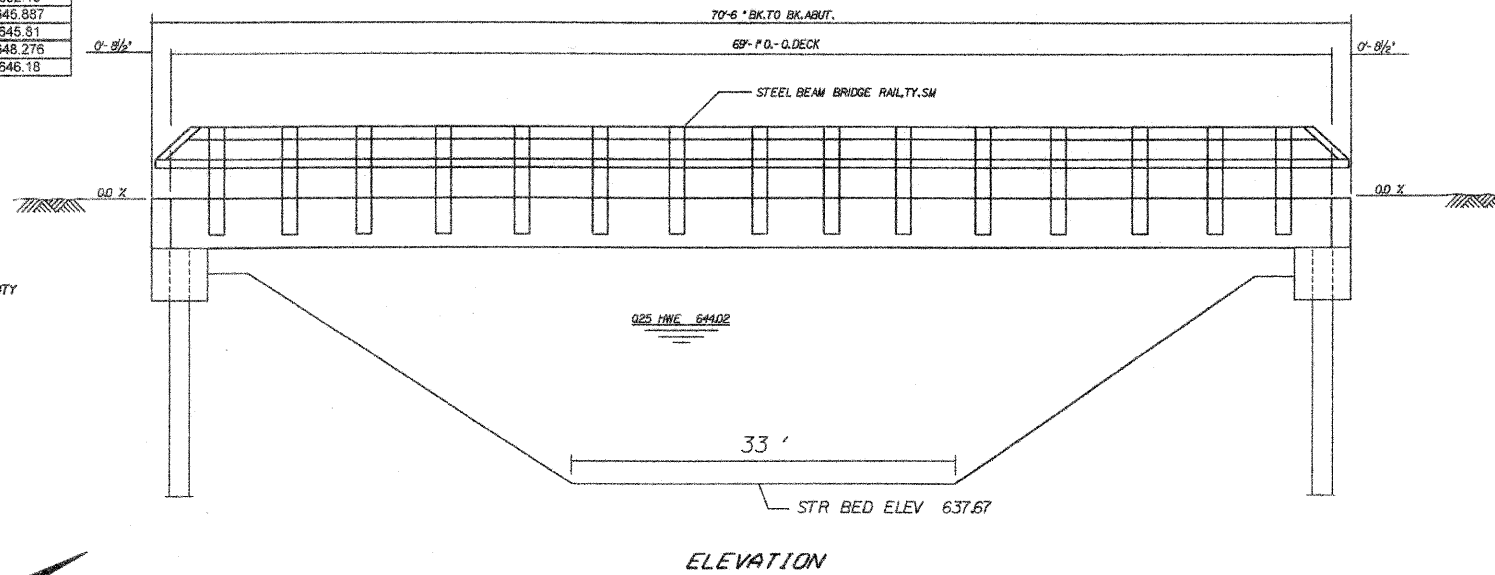
DESIGN EARTHWORK
 FILL AREA = 5.20
 CUT AREA = 29.10
 VF = 47.64
 VC = 13.20

SECTION 09-00088-BR
 OIL VALLEY SCHOOL ROAD
 CARROLL COUNTY

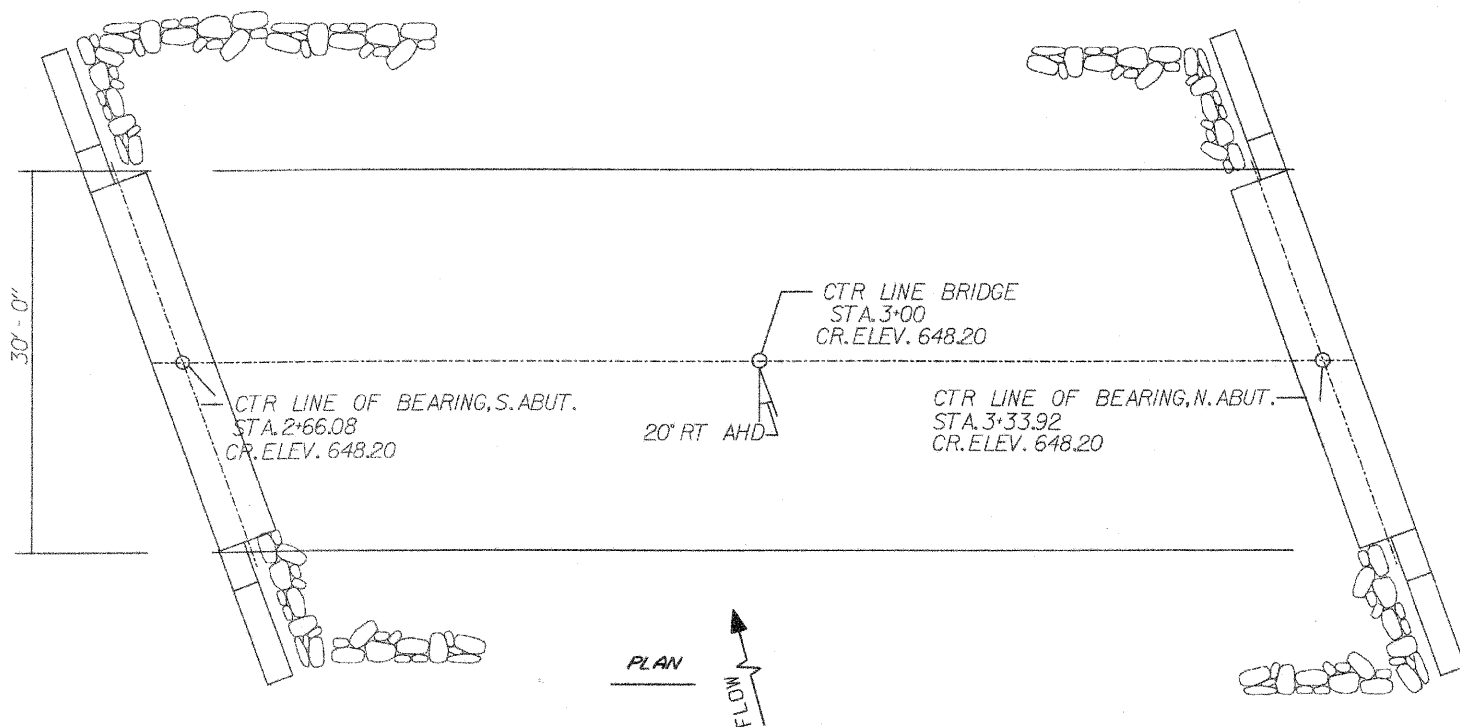
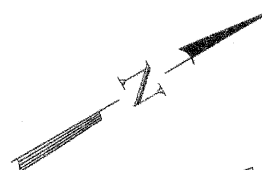
CONTROL POINTS			
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11	1944922.545	2337448.012	646.887
12	1945010.923	2337494.505	645.81
13	1945189.369	2337584.244	648.276
14	1945466.296	2337720.516	646.18

EXIST. STRUCTURE
008-4002 - TWO SPAN PRECAST PRESTRESSED
CONCRETE DECK BEAM BRIDGE
SUPPORTED ON TIMBER PILE AND
CLOSED TIMBER BACKING

SALVAGE - ALL MATERIALS DEEMED SALVAGEABLE
SHALL BECOME THE PROPERTY OF CARROLL COUNTY



ELEVATION



PLAN



WATERWAY INFORMATION

Drainage Area - 7.91 SQ. MI.		Low Grade Elev. 643.51 @ Sta. 8+50									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	25	1710	187	228	644.27	643.08	0.68	0.50	644.95	643.58	
Base	100	2440	208	250	644.63	643.49	0.74	0.96	645.37	644.45	
Overlapping											
Max. Calc.	500	3370	231	277	644.95	643.97	0.83	1.29	645.78	645.26	

GENERAL NOTES

SEE SPECIAL PROVISIONS FOR BORING LOGS
NO BACKFILL MAY BE PLACED BEHIND ABUTMENTS UNTIL DECK BEAMS ARE IN PLACE AND THE DOWELS ARE GROUTED.
THE CONTRACTOR SHALL DRIVE ONE TEST PILE IN THE NORTH ABUTMENT AT A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 M 42 OR M 53 GRADE 60.
ALL REINFORCEMENT BARS SHALL BE EPOXY COATED
LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
ALL EXPOSED STEEL PILING SHALL BE PAINTED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 506 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SLUR	TOTAL
Concrete Structures	Cu. Yd.		27.7	27.7
Reinforcement Bars, Epoxy Ctd.	Pound		3,600	3,600
Precast Conc. Br. Slab, 27" dp	Sq. Ft.	2,073		2,073
Steel Railing, Type SM	Foot	142		142
Furnishing Steel Piles HPI0x42	Foot		468	468
Driving Pile	Foot		468	468
Test Pile Steel HPI0x42	Each		2	2
Removal of Existing Structures	Each			1
Name Plates	Each		1	1
Pile Shoes	Each		10	10
Stone Dumped Riprap, Class A5	Sq. Yd.		292	292
Filter Fabric	Sq. Yd.		292	292
Protective Coat	Sq. Yd.	265		265

HIGHWAY CLASSIFICATION

Co. Hwy. #11
Functional Class: Local Road
ADT: 275 - 2010 350 - 2030

LOADING HL 93

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

DESIGN SPECIFICATIONS

2007 AASHTO

SAND CREEK

BUILT 2011 BY

CARROLL COUNTY

STATION 3+00

LOADING HS:20

STR. NO. 008-4014

LETTERING NAME PLATE

See Std. 515001

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF THE STRUCTURE AND COMPLIES WITH THE REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

[Signature] 12-2-2011



DESIGN STRESSES

PRECAST UNITS
 $f'_c = 4,500$ psi
 $f'_s = 20,000$ psi, reinforcement
 $f_c = 1,800$ psi

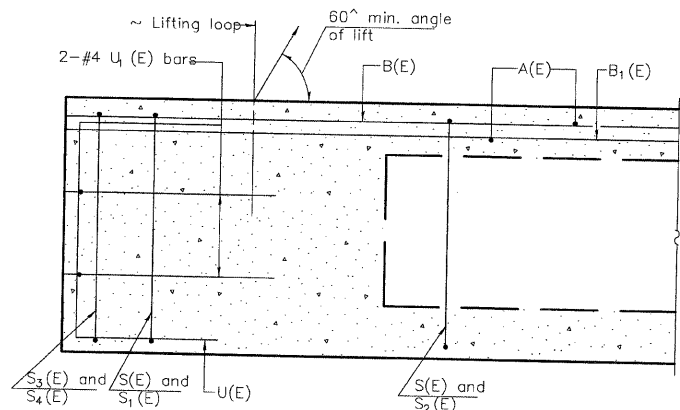
FIELD UNITS
 $f'_c = 3,500$ psi
 $f'_y = 60,000$ psi, reinforcement

REVISIONS	
NAME	DATE
K.V.	03/15/2010
K.V.	
K.V.	

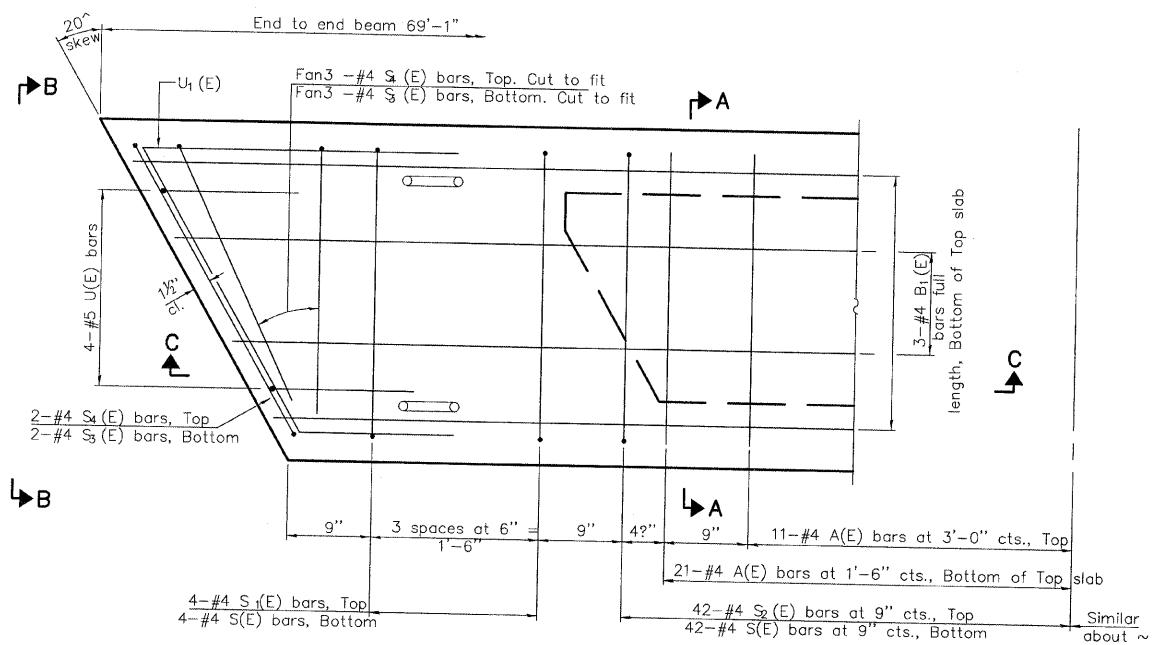
CARROLL COUNTY HIGHWAY DEPARTMENT

SECTION 09-00088-00-BR
GENERAL PLAN & ELEVATION

DRAWN BY: KV
CHECKED BY:

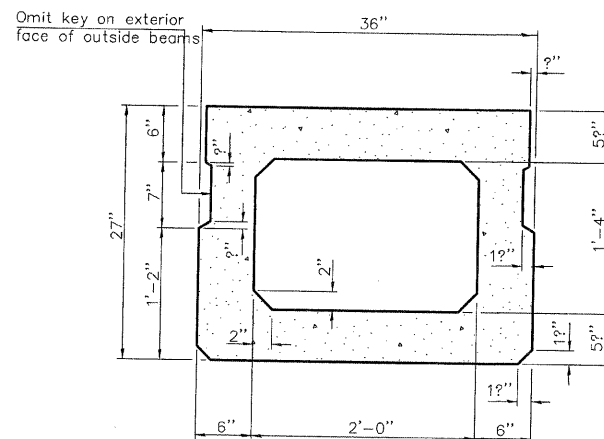


SECTION C-C

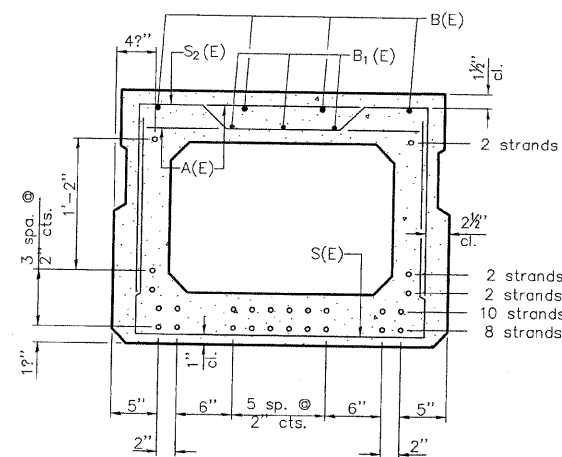


PLAN VIEW

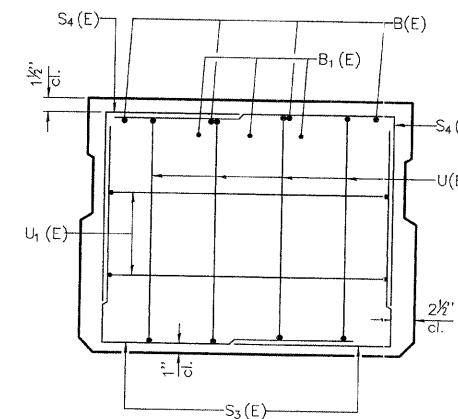
Note: Spacing of S(E) and S₁(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION A-A
(Showing dimensions)



SECTION A-A
(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

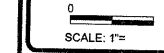


VIEW B-B

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	64	#4	2'-7"	—
B(E)	4	#5	68'-9"	—
B ₁ (E)	3	#4	68'-9"	—
S(E)	92	#4	6'-5"	—
S ₁ (E)	8	#4	5'-11"	—
S ₂ (E)	84	#4	6'-2"	—
S ₃ (E)	6	#4	4'-4"	—
S ₄ (E)	6	#4	4'-1"	—
U(E)	8	#5	4'-6"	—
U ₁ (E)	4	#4	6'-1"	—

Note: See sheet 7 of 10 for additional details and Bill of Material.



REVISIONS

REVISION	DATE

DESIGNED BY: RLR
 DRAWN BY: RLR/DEB
 CHECKED BY: RLR/DEB
 IN CHARGE: RLR/DEB
 DATE: 11/04/2010

wendler
 GROUNDING SOLUTIONS
 engineers - surveyors - scientists
 www.wendlereng.com ph: 815.288.2281
 Illinois Professional Design Firm No. 184-030848

DECK BEAM DETAILS
 OF
 OIL VALLEY SCHOOL ROAD BRIDGE
 FOR
 CARROLL COUNTY HIGHWAY

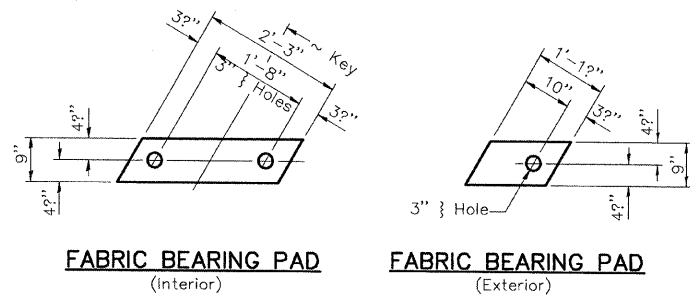
SHEET TITLE
 DECK BEAM DETAILS

JOB NUMBER
 2100119

DATE
 11/04/2010

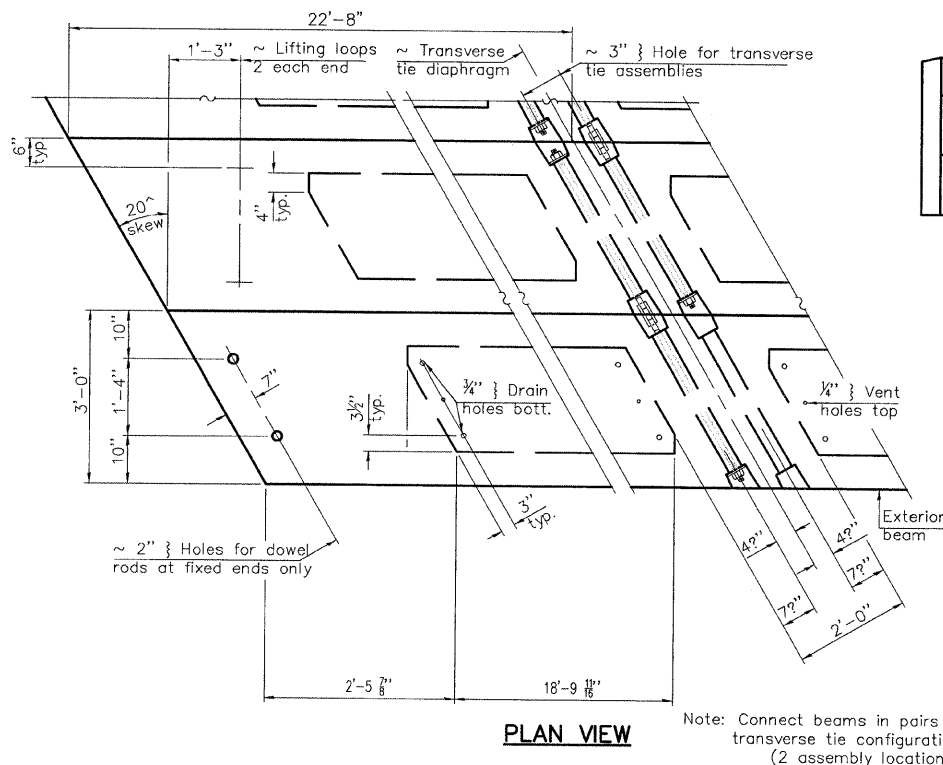
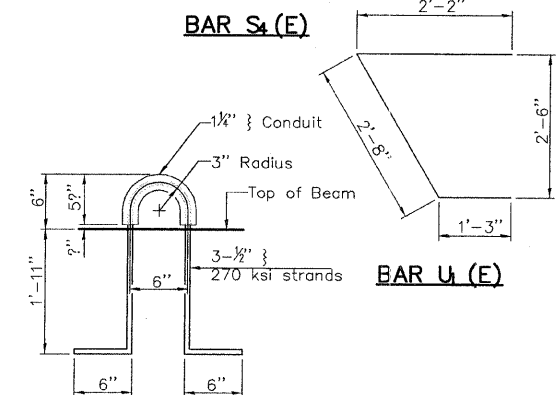
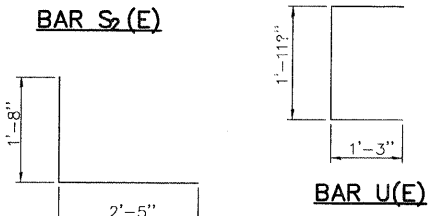
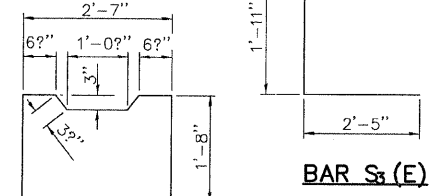
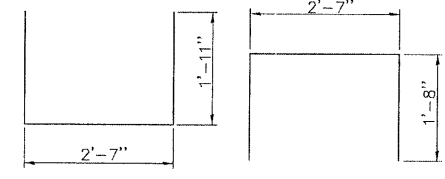
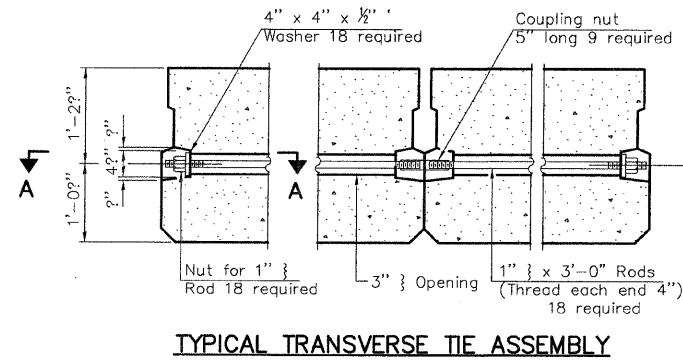
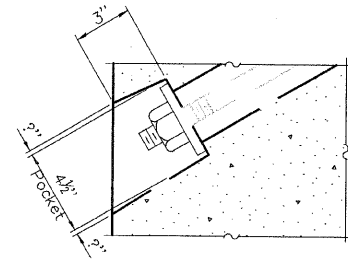
SHEET NO.
 6 of 10

SN 008-4014
 36"X27" PPC DECK BEAM
 SECTION 09-00088-00-BR
 CARROLL COUNTY

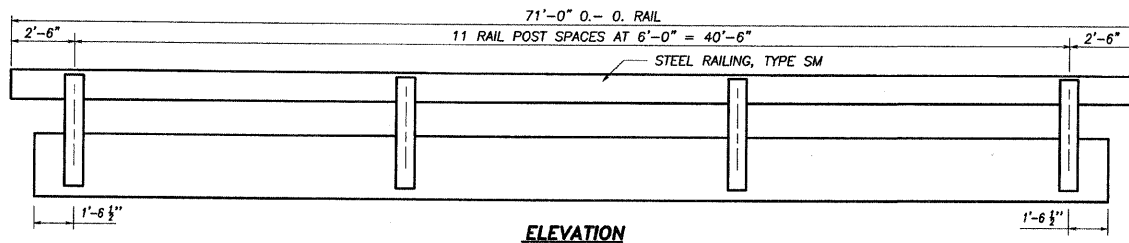
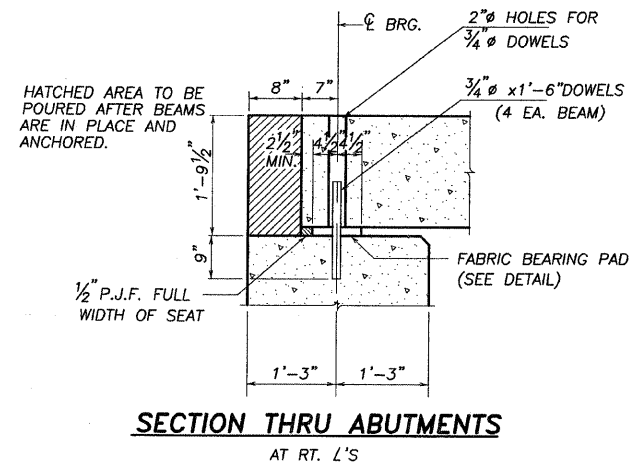
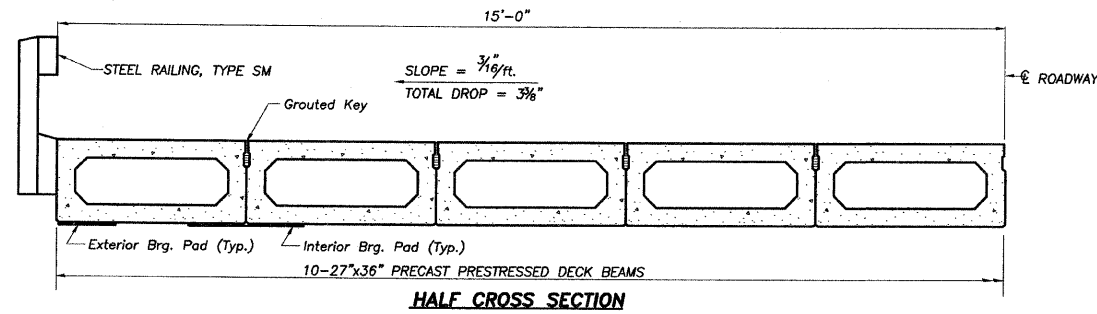


FIXED

Note: Omit holes when using expansion bearings.



Note: Connect beams in pairs with the transverse tie configuration shown. (2 assembly locations)



NOTES

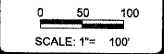
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
 Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
 Two 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
 A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
 Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
 Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
 Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	2073
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27" X 36" PPC DECK BEAM DETAILS
 STRUCTURE NO. 008-4014

SN 008-4014
 36"X27" PPC DECK BEAM
 SECTION 09-00088-00-BR
 CARROLL COUNTY



REVISIONS	DATE

DESIGNED BY:	DATE:
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	

wendler
 GROUND-BREAKING SOLUTIONS
 engineers surveyors scientists
 www.wendlerinc.com
 Illinois Professional Design Firm No. 164-000648

DECK BEAM DETAILS OF OIL VALLEY SCHOOL ROAD BRIDGE FOR CARROLL COUNTY HIGHWAY

SHEET TITLE

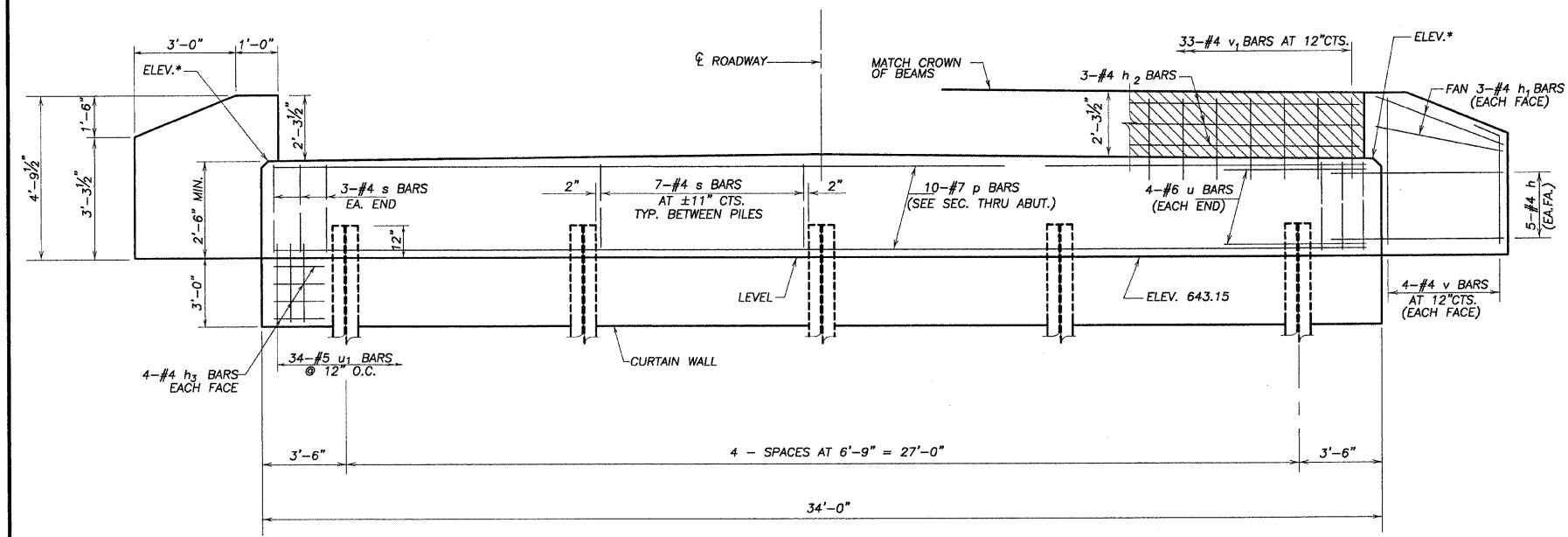
DECK BEAM DETAILS

JOB NUMBER 2100119

DATE 11/04/2010

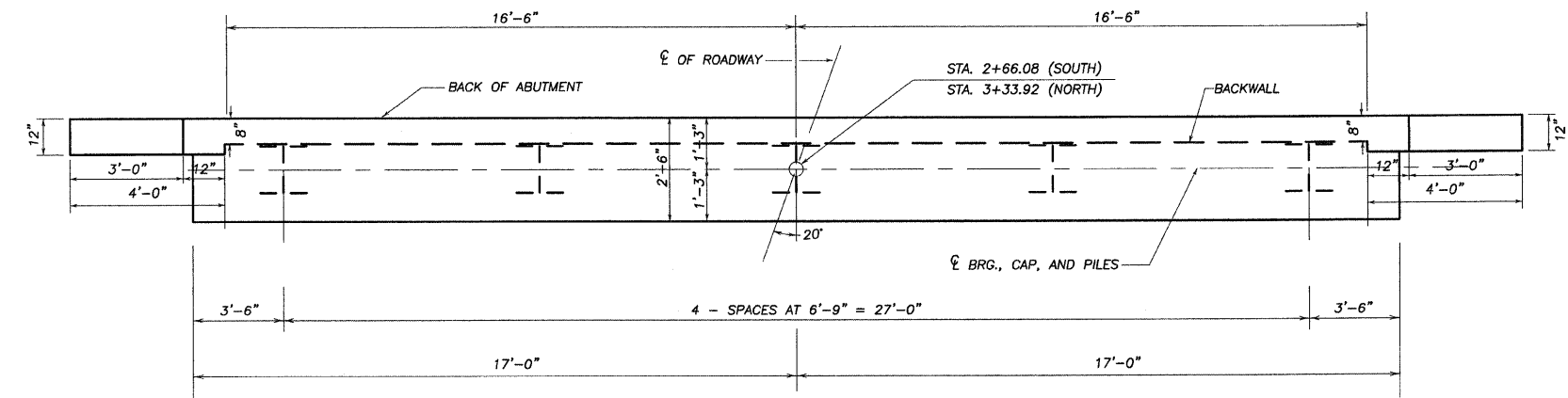
SHEET NO.

7 of 10

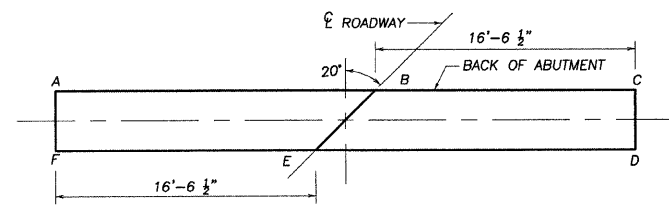


ELEVATION

* FOR CAP ELEVATIONS SEE TABLE BELOW

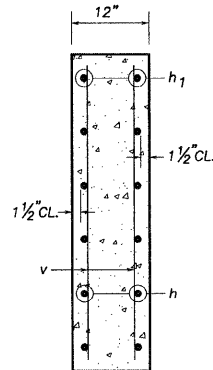


PLAN



ELEVATION TOP OF ABUTMENTS

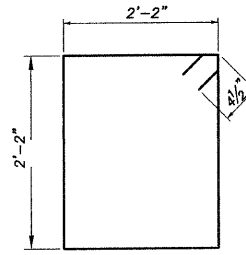
LOCATION	ELEV.	A	B	C	D	E	F
WEST ABUT.	645.65	645.91	645.67	645.65	645.91	645.67	
EAST ABUT.	645.65	645.91	645.67	645.65	645.91	645.67	



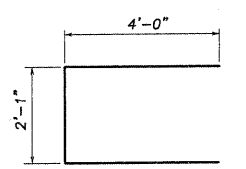
SECTION THRU WINGWALL

PILE DATA INFORMATION

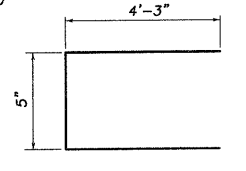
TYPE AND SIZE: STEEL HP 10X42
 NOMINAL REQUIRED BEARING: 334 KIPS
 ALLOWABLE RESISTANCE AVAILABLE: 76 KIPS
 NO. REQUIRED : 8+2 TEST PILES (1 EA. ABUT.)
 EST. LENGTH: 59' NORTH ABUT. (TO REFUSAL)
 60' SOUTH ABUT. (TO REFUSAL)
 THE STEEL H PILES SHALL BE ACCORDING TO AASHTO M270 GRADE 50
 THE TEST PILES SHALL BE DRIVEN TO 110 PERCENT OF THE NOMINAL REQUIRED BEARING INDICATED IN THE PILE DATA INFORMATION.



BAR s

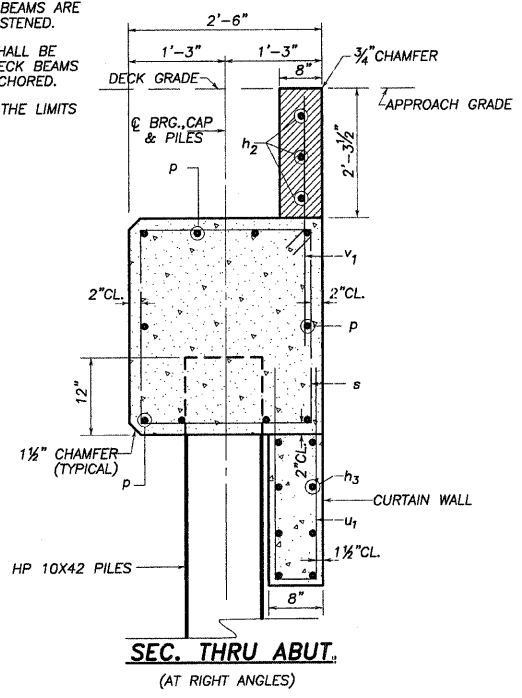


BAR u



BAR v

NOTE: WINGWALLS ABOVE TOP OF CAP SHALL NOT BE POURED UNTIL THE DECK BEAMS ARE IN PLACE AND FASTENED.
 HATCHED AREA SHALL BE POURED AFTER DECK BEAMS ARE SET AND ANCHORED.
 WIDTH SHALL BE THE LIMITS OF THE CAP.



SEC. THRU ABUT. (AT RIGHT ANGLES)

BILL OF MATERIAL 2 ABUTMENTS

BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	5'-0"	
h ₁	24	#4	3'-8"	
h ₂	6	#4	32'-8"	
h ₃	16	#4	33'-8"	
p	20	#7	33'-8"	
s	68	#4	9'-5"	
u	16	#6	10'-1"	
u ₁	68	#5	8'-11"	
v	32	#4	4'-6"	
v ₁	66	#4	4'-0"	
CONCRETE STRUCTURES			CU. YD.	27.7
REINFORCEMENT BARS			POUND	3600
FURNISHING STEEL PILES			FOOT	468
DRIVING PILES			FOOT	468
TEST PILE - STEEL HP 10X42			EACH	2

SCALE: 1"=

REVISIONS

NO.	DATE	DESCRIPTION

DESIGNED BY: RLR
 DRAWN BY: RLR
 CHECKED BY: SUBSTR
 SURVEYED BY: RLR
 BOOK NO.:

wendler
 GROUND-BREAKING SOLUTIONS
 engineers - surveyors - scientists
 www.wendlergs.com ph: 815.286.2281
 Illinois Professional Geospatial Firm No. 194-000548

ABUTMENT DETAILS OF OIL VALLEY SCHOOL ROAD BRIDGE FOR CARROLL COUNTY HIGHWAY

SHEET TITLE
ABUTMENT DETAILS

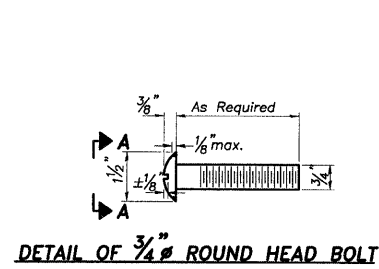
JOB NUMBER
 2100119

DATE
 11/04/2010

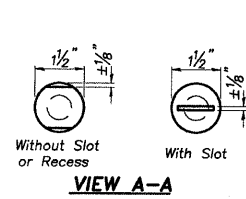
SHEET NO.

8 of 10

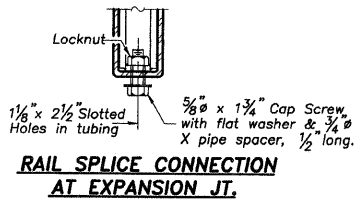
SN 008-4014
 SUBSTRUCTURE-ABUTMENTS
 SECTION 09-00088-00-BR
 CARROLL COUNTY



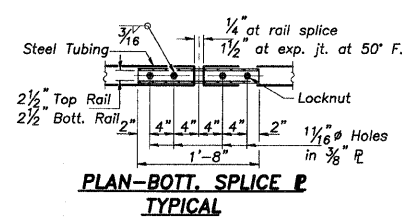
DETAIL OF 3/4" ROUND HEAD BOLT



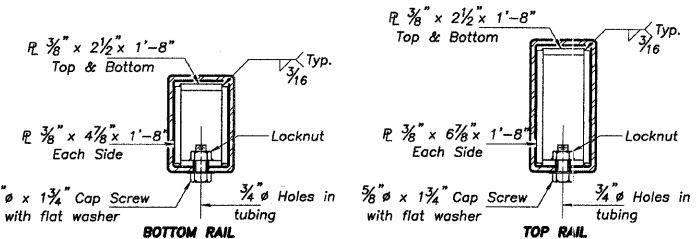
VIEW A-A



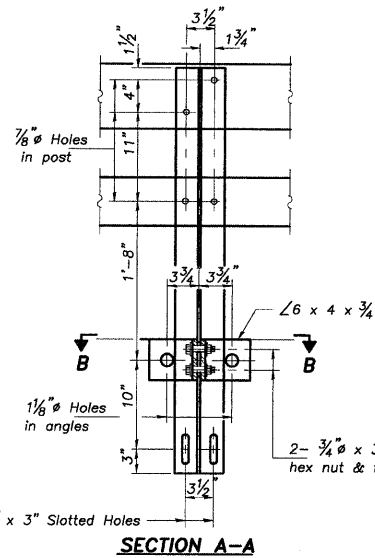
RAIL SPLICE CONNECTION AT EXPANSION JT.



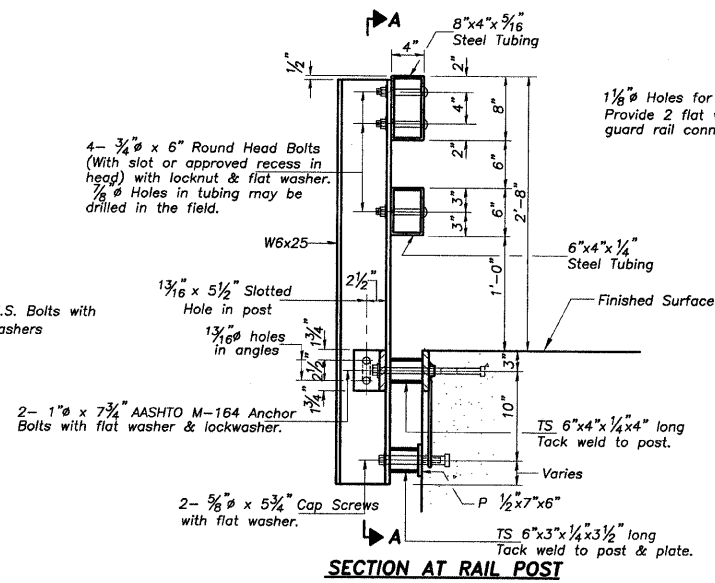
PLAN-BOTT. SPLICE P TYPICAL



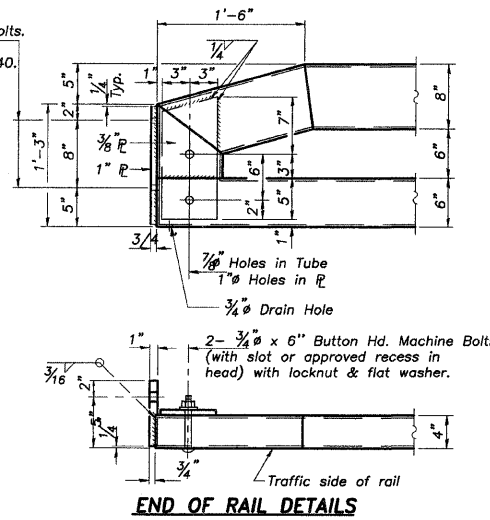
SECTIONS AT RAIL SPLICE



SECTION A-A



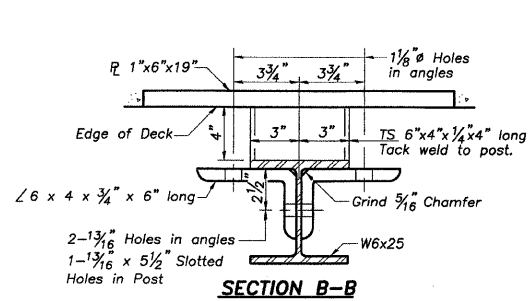
SECTION AT RAIL POST



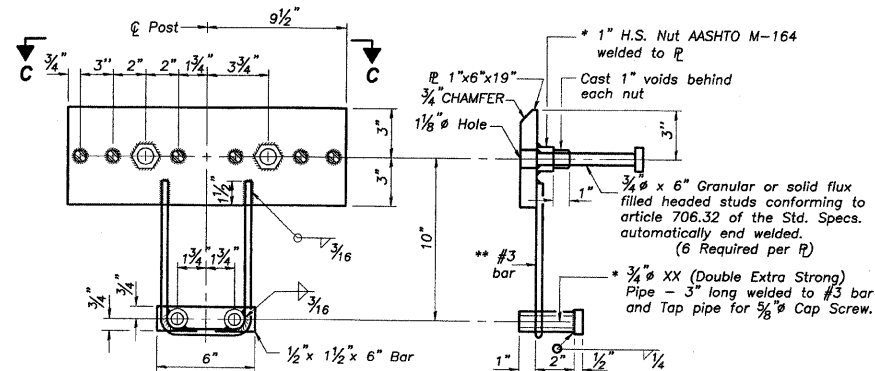
END OF RAIL DETAILS

GENERAL NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F. All other steel shapes and plates shall conform to the requirements of AASHTO M-270 Grade 36 except posts and angles shall conform to AASHTO M-270, Grade 50. Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164. All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232. All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted. Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL BRIDGE RAIL, TYPE SM. All field drilled holes shall be coated with an approved zinc rich paint before erection. For multi-span PPC Deck bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to STEEL BRIDGE RAIL, TYPE SM. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement. The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 505.04(f)(3) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.

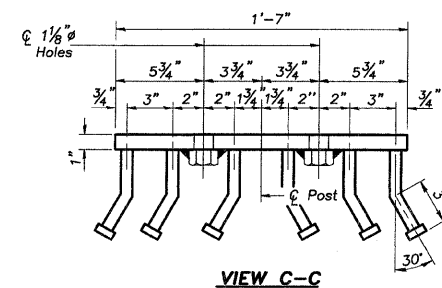


SECTION B-B



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam Galvanized after fabrication. ** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



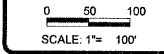
VIEW C-C

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	142

TYPE SM
STEEL BRIDGE RAIL SIDE MOUNTED
SECTION 09-0088-00-BR
CARROLL COUNTY
SN 008-4014

R-34 7-1-94 (6'-3" Maximum Post Spacing)



SCALE: 1"= 100'

REVISIONS

NO.	DATE	DESCRIPTION

DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 APPROVED BY: _____

RAIL SHEET OF OIL VALLEY SCHOOL ROAD BRIDGE FOR CARROLL COUNTY HIGHWAY

SHEET TITLE

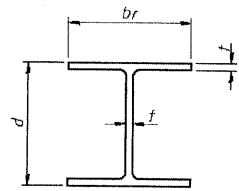
RAIL

JOB NUMBER
2100119

DATE
11/04/2010

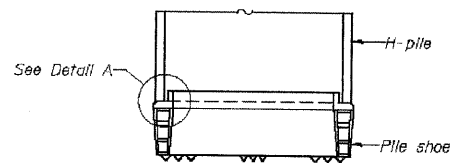
SHEET NO.

9 of 10

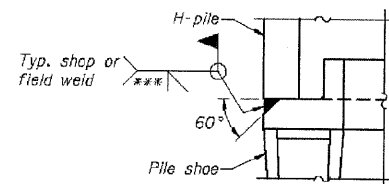


STEEL PILE TABLE

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

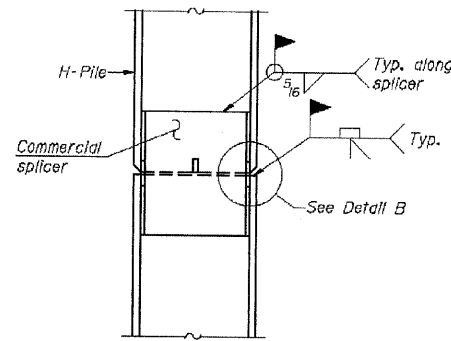


ELEVATION

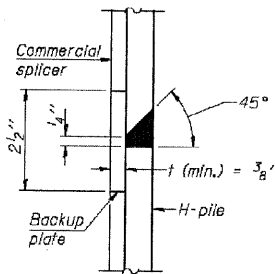


DETAIL A

H-PILE SHOE ATTACHMENT

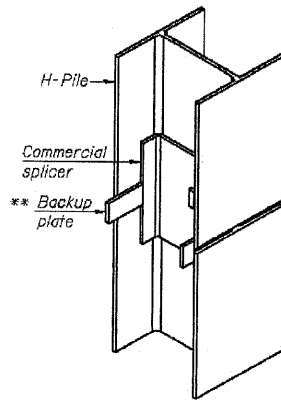


ELEVATION

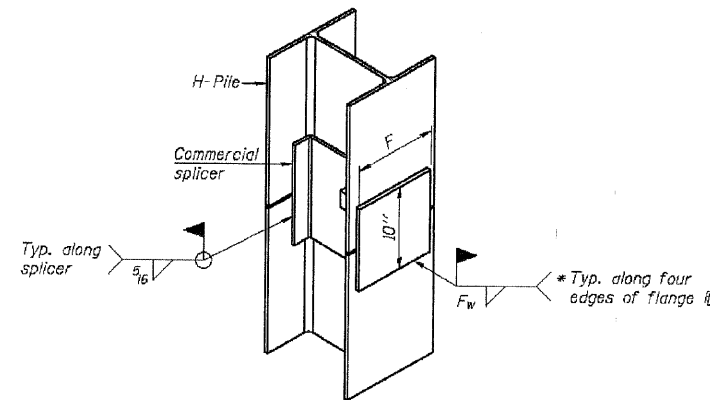


DETAIL "B"

WELDED COMMERCIAL SPLICE



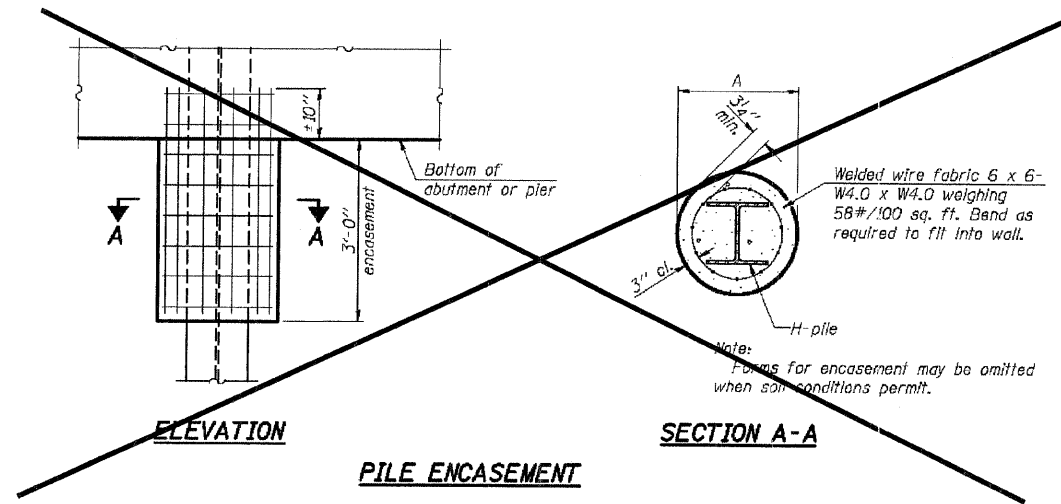
ISOMETRIC VIEW



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

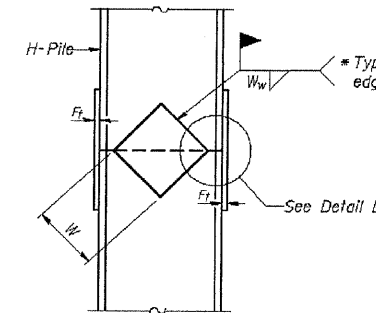
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



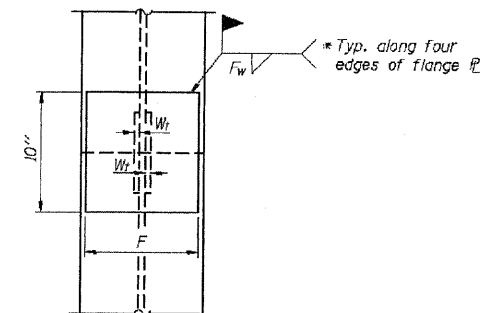
ELEVATION

SECTION A-A

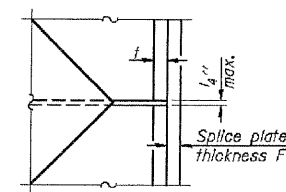
PILE ENCASEMENT



ELEVATION



END VIEW



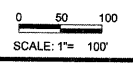
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 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 1/2"	1/2"	3/8"

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

SN 008-4014
PILING DETAILS
SECTION 09-00088-00-BR
CARROLL COUNTY



REVISIONS

REVISION	DATE

DESIGNED BY: _____
 CHECKED BY: _____
 DRAWN BY: _____
 DATE: _____

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 engineers, surveyors, scientists
 www.wendlerinc.com ph: 815.238.2261
 Illinois Professional Design Firm No. 164-008649

PILE DETAIL SHEET
 OF
 OIL VALLEY SCHOOL ROAD BRIDGE
 FOR
 CARROLL COUNTY HIGHWAY

SHEET TITLE
 PILE
 DETAILS

JOB NUMBER
 2100119
 DATE
 11/04/2010

SHEET NO.
 10 of 10