

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-00087 -00-BR	CHRISTIAN	12	1
ROAD DIST.	ILLINOIS	PROJ. NO. BRS-639(104)		

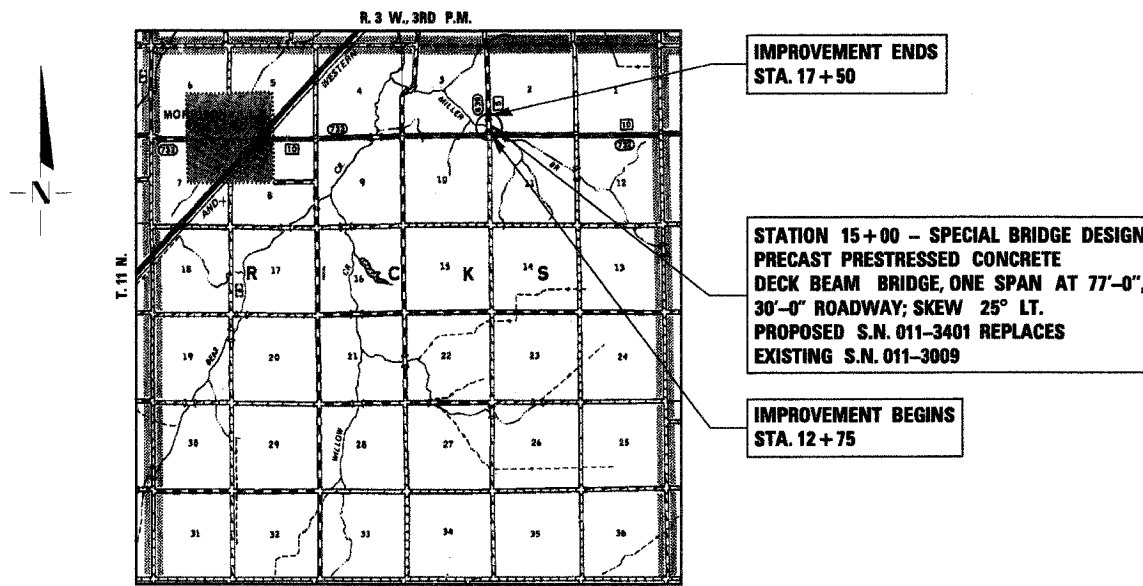
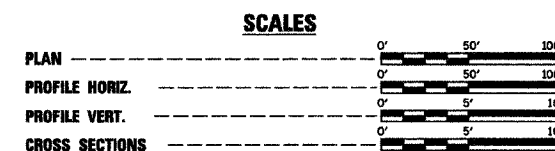
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

**COUNTY HIGHWAY 5 (F.A.S. RTE. 639)
SECTION 03-00087-00-BR
CHRISTIAN COUNTY
PROJ. NO. BRS-639(104)
JOB NUMBER C-96-218-04**

INDEX OF SHEETS	
SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, GENERAL NOTES & TYPICAL SECTIONS
3.	PLAN AND PROFILE SHEET
4.	SHOULDER AND GUARDRAIL WIDENING DETAILS
5.-9.	BRIDGE PLANS
10.-12.	STATION CROSS SECTIONS

STANDARDS

- 280001-02
- 515001-02
- 630001-06
- 630301-03
- 631026-02
- 635006-02
- 702001-06
- BLR 21-6



Fred J. Stone, Jr. (12-1-05)
ILLINOIS PROFESSIONAL NO. 26065

EXPIRES 11-30-07

TOLL FREE JOINT UTILITY LOCATING
INFORMATION FOR EXCAVATORS (J.U.L.I.E.)
TELEPHONE NUMBER 1-800-892-0123

APPROVED	12-08 2005 <i>Craig D. Feys</i> COUNTY ENGINEER
PASSED	JANUARY 4 2006 <i>Jim Felt</i> DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS
PASSED	JAN 5 2006 <i>W. J. [Signature]</i> DISTRICT SIX ENGINEER OF CONSTRUCTION
RELEASING FOR BID BASED ON LIMITED REVIEW	JANUARY 4 2006 <i>Christine M. Reed</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

CONTRACT NO. 93402

4440 ASH GROVE
SPRINGFIELD, IL 62707
(217) 793-8800
casinc@famvid.com

OZYURT AND STONE, INC.
CONSULTING ENGINEERS

SUMMARY OF QUANTITIES

NUMBER	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	90
20300100	CHANNEL EXCAVATION	CU YD	110
20400800	FURNISHED EXCAVATION	CU YD	591
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.6
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	60
28000300	TEMPORARY DITCH CHECKS	EACH	2
28000400	PERIMETER EROSION BARRIER	FOOT	800
28100207	STONE RIPRAP, CLASS A4	TON	282
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	55
28200200	FILTER FABRIC	SQ YD	385
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	18
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	339
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	618
40300500	COVER COAT AGGREGATE	TON	11
40300600	SEAL COAT AGGREGATE	TON	11
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	222
48100100	AGGREGATE SHOULDERS, TYPE A	TON	147
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	32.2
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2310
50800105	REINFORCEMENT BARS	POUND	3480
50900205	STEEL RAILING, TYPE S1	FOOT	154
51201600	FURNISHING STEEL PILES, HP12X53	FOOT	420
51202700	DRIVING STEEL PILES	FOOT	420
51203600	TEST PILE STEEL, HP12X53	EACH	2
51500100	NAME PLATES	EACH	1
51204315	CONCRETE ENCASMENT	CU YD	5.6
54200223	PIPE CULVERTS, CLASS D, TYPE 1, 18"	FOOT	34
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	257
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	200
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	2
63200310	GUARDRAIL REMOVAL	FOOT	220
67100100	MOBILIZATION	L SUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	4
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	30
LR355175	BITUMINOUS STABILIZED BASE COURSE	TON	261

*SEE SPECIAL PROVISIONS

CONSTRUCTION TYPE CODE: X081-1A

GENERAL NOTES

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE AREA TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 0.6 ACRE

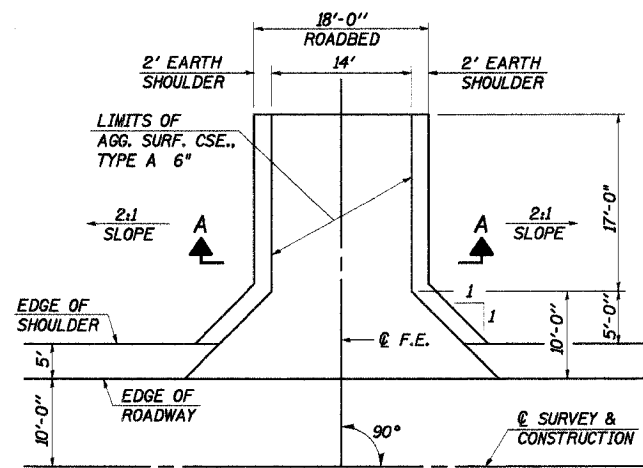
TEMPORARY EROSION CONTROL

THE FOLLOWING QUANTITIES ARE ESTIMATES ONLY. ACTUAL QUANTITIES FOR EROSION CONTROL WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND THERE WILL BE NO ADJUSTMENT IN ANY PRICE DUE TO A CHANGE IN PLAN QUANTITY.

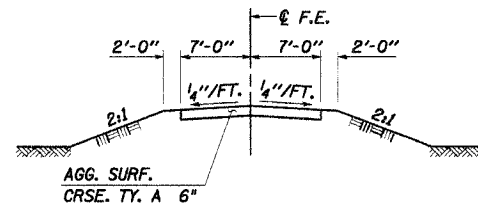
- PERIMETER EROSION BARRIER = 800 FOOT
- TEMPORARY EROSION CONTROL SEEDINGS = 60 POUND
- TEMPORARY DITCH CHECKS = 2 EACH

BITUMINOUS MIXTURE REQUIREMENTS

ITEM	AGGREGATE COMPOSITION	ASPHALT GRADE	ALLOWABLE RAP	VOIDS
SURFACE, MIX C, N50	IL-9.5 OR 12.5	P.G. 64-22	15%	4.0%



FIELD ENTRANCE DETAIL
F.E. LT. STA. 17+33



SECTION A-A

APPLICATION RATES USED IN QUANTITY CALCULATIONS

STONE RIPRAP, CLASS A4	1.65 TON/CU YD
AGGREGATE BASE	2.05 TON/CU YD
AGGREGATE SURFACE AND AGGREGATE SHOULDERS	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.35 GAL/SQ YD
BITUMINOUS MIXTURES	112#/SQ YD/IN
COVER AND SEAL COAT AGGREGATE	25#/SQ YD/IN
GRANULAR MATERIALS	2.05 TON/CU YD

PAVEMENT DESIGN

STRUCTURAL DESIGN TRAFFIC (S.D.T.): YEAR 2014; P.V. = 297, S.U. = 24, M.U. = 17
CLASS IV ROAD; 73,280 POUND LOAD LIMIT

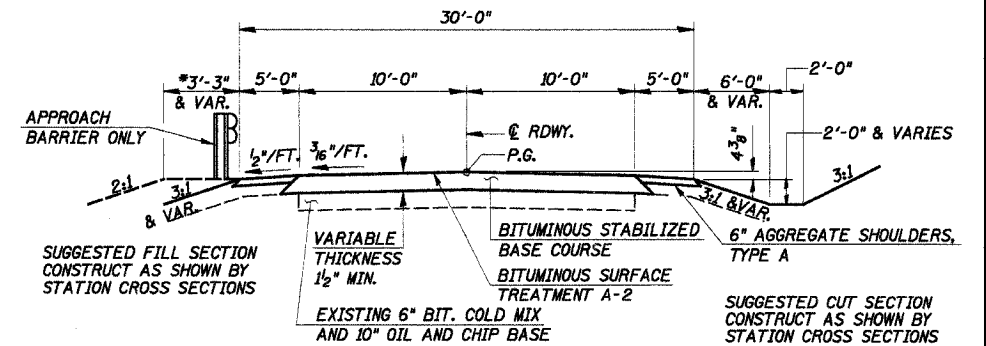
MINIMUM SOIL SUPPORT: I.B.R. = 3.0 (ASSUMED)

PERCENT OF S.D.T. IN DESIGN LANE: P = 50%, S = 50%, M = 50%
T.F. = 0.016; DT = 2.18

PAVEMENT STRUCTURAL MATERIAL:
 BITUMINOUS STABILIZING MIX ----- 1.5" x 0.20 = 0.30
 EXISTING BITUMINOUS BASE ----- 6.0" x 0.15 = 0.90
 BITUMINOUS TREATED AGGREGATE ----- 10.0" x 0.10 = 1.00
 TOTAL = 2.20"

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-00087 -00-BR	CHRISTIAN	12	2

ILLINOIS
CONTRACT NO. 93402

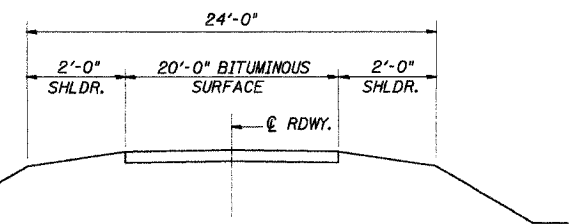


TYPICAL PROPOSED CROSS SECTION

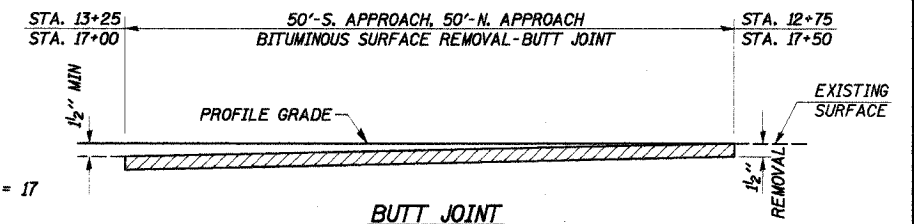
STA. 13+25 TO STA. 17+00
ROAD CLASSIFICATION: LOCAL ROAD ADT 250-400
CURRENT ADT 298

TRANSITION FROM EXISTING ROADWAY TO PROPOSED ROADWAY TO BE CONSTRUCTED FROM STA. 12+75 TO STA. 13+25 AND FROM STA. 17+00 TO STA. 17+50.

*SEE SHEET 4 FOR SHOULDER WIDENING DETAILS.



EXISTING TYPICAL CROSS SECTION

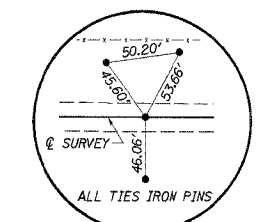


BUTT JOINT

SUMMARY OF QUANTITIES, GENERAL NOTES AND TYPICAL CROSS SECTION
 COUNTY HIGHWAY 5
 SECTION 03-00087-00-BR
 CHRISTIAN COUNTY
 STATION 15+00

4440 ASH GROVE SPRINGFIELD, IL 62707 (217) 783-8600 oasinc@famvid.com	OZYURT AND STONE, INC. CONSULTING ENGINEERS	JOB NO.: 0305 FILE: SUMTYP.DGN DATE: 03-15-04
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ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5	03-0008	CHRISTIAN	12	3
F.A.S. 639	-00-BR			
STA. 10+00		TO STA. 20+00		
ILLINOIS			CONTRACT NO. 93402	

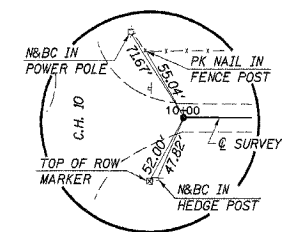


P.O.T. STA. 19+97.79
IRON PIN (FLUSH)

EXISTING S.N. 011-3009
3 SPAN STEEL I-BEAM BRIDGE WITH CONCRETE SLAB AT 21'-0", 26'-3", 21'-0" ON PRECAST CONCRETE PILE BENT PIERS AND SPILL THRU CONCRETE ABUTMENTS; 24'-0" ROADWAY; 26'-0" O.-O. DECK; 72'-5" BK.-BK. ABUTS.; 25° LT. SKEW
REMOVAL OF EXISTING STRUCTURES = 1 EACH

BURIED CABLE
ILLINOIS CONSOLIDATED TELEPHONE CO. MATTOON, IL.

SE 1/4, SE 1/4, SEC. 3, T. 11 N., R. 3 W., 3RD P.M.
JENNIE McWARD



P.O.T. STA. 10+00.00
IRON PIN (FLUSH)

STA. 15+00 - SPECIAL BRIDGE DESIGN
PRECAST PRESTRESSED CONCRETE
DECK BEAM BRIDGE, ONE SPAN AT 77'-0",
30'-0" ROADWAY, SKEW = 25° LT.

F.E. LT. STA. 17+33
PIPE CULVERTS, CLASS D,
TYPE 1, 18" X 34' LONG

IMPROVEMENT BEGINS
STA. 12+75

IMPROVEMENT ENDS
STA. 17+50

CHANNEL EXCAVATION

THE CHANNEL SHALL BE EXCAVATED AS SHOWN WITHIN THE LIMITS OF THE PROPOSED STRUCTURE THEN TAPER TO THE EXISTING CHANNEL AT THE R.O.W. LINES. SUITABLE EXCAVATED MATERIAL TO BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.

CHANNEL EXCAVATION = 110 CU. YD.

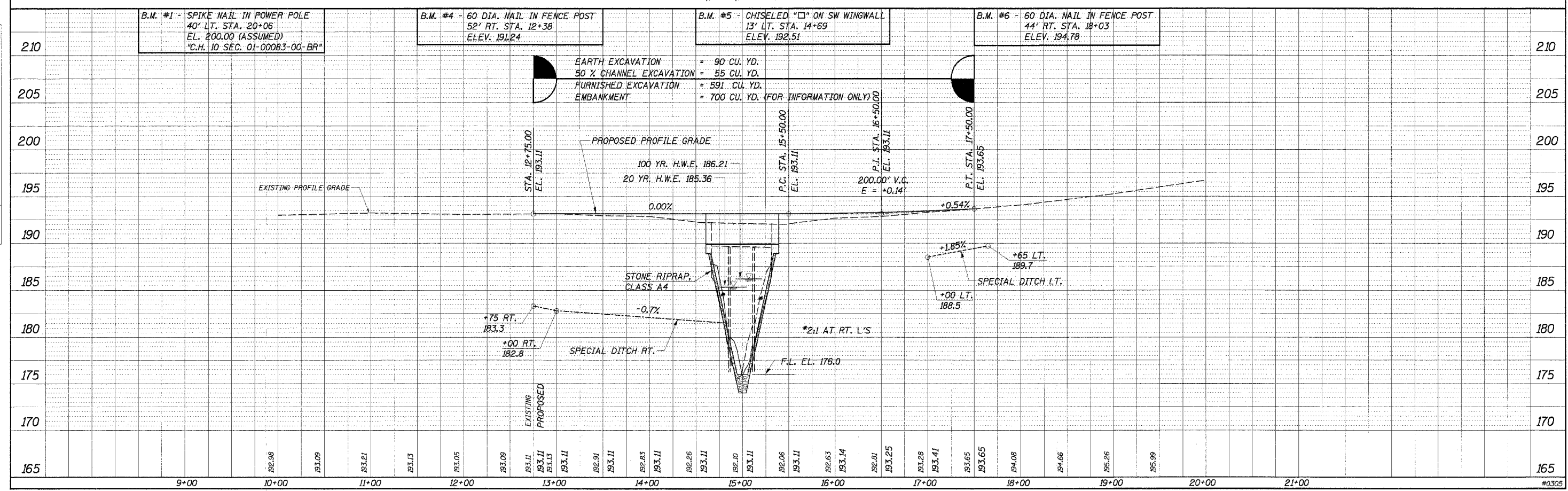
PIPES TO BE REMOVED
(INCIDENTAL TO "EARTH EXCAVATION")
LT. STA. 17+33, 18" CMP, 30' LONG

ENTRANCES TO BE BUILT
LT. STA. 17+33, F.E. -6.3%, 18' ROADBED

EARL D. CHRISMAN
SW 1/4, SW 1/4, SEC. 2, T. 11 N., R. 3 W., 3RD P.M.

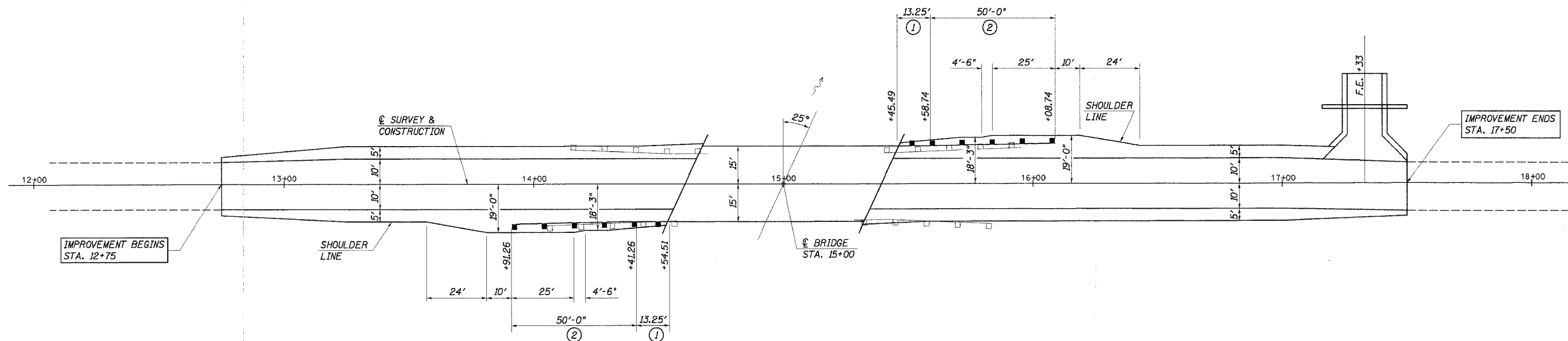
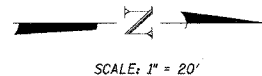
DATE	BY	REVISION

DATE	BY	REVISION



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-00087 -00-BR	CHRISTIAN	12	4

ILLINOIS
CONTRACT NO. 99402



SHOULDER WIDENING AND GUARDRAIL PLAN

TRAFFIC BARRIER TERMINAL, TYPE 5A

15' RT. STA. 14+41.26 TO 15' RT. STA. 14+54.51	= 1 EACH
15' LT. STA. 15+45.49 TO 15' LT. STA. 15+58.74	= 1
TOTAL	= 2 EACH

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

16' RT. STA. 13+91.26 TO 15' RT. STA. 14+41.26	= 1 EACH
15' LT. STA. 15+58.74 TO 16' LT. STA. 16+08.74	= 1
TOTAL	= 2 EACH

GUARDRAIL REMOVAL

RT. STA. 14+03 TO STA. 14+58	= 55 FOOT
LT. STA. 14+15 TO STA. 14+70	= 55
RT. STA. 15+28 TO STA. 15+83	= 55
LT. STA. 15+41 TO STA. 15+95	= 55
TOTAL	= 220 FOOT

LEGEND

NOTE: ALL DIMENSIONS REFER TO FRONT FACE OF PROPOSED RAILING.

- ① TRAFFIC BARRIER TERMINAL, TYPE 5A
- ② TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

SHOULDER AND GUARDRAIL DETAILS

COUNTY HIGHWAY 5
SECTION 03-00087-00-BR
CHRISTIAN COUNTY
STATION 15+00

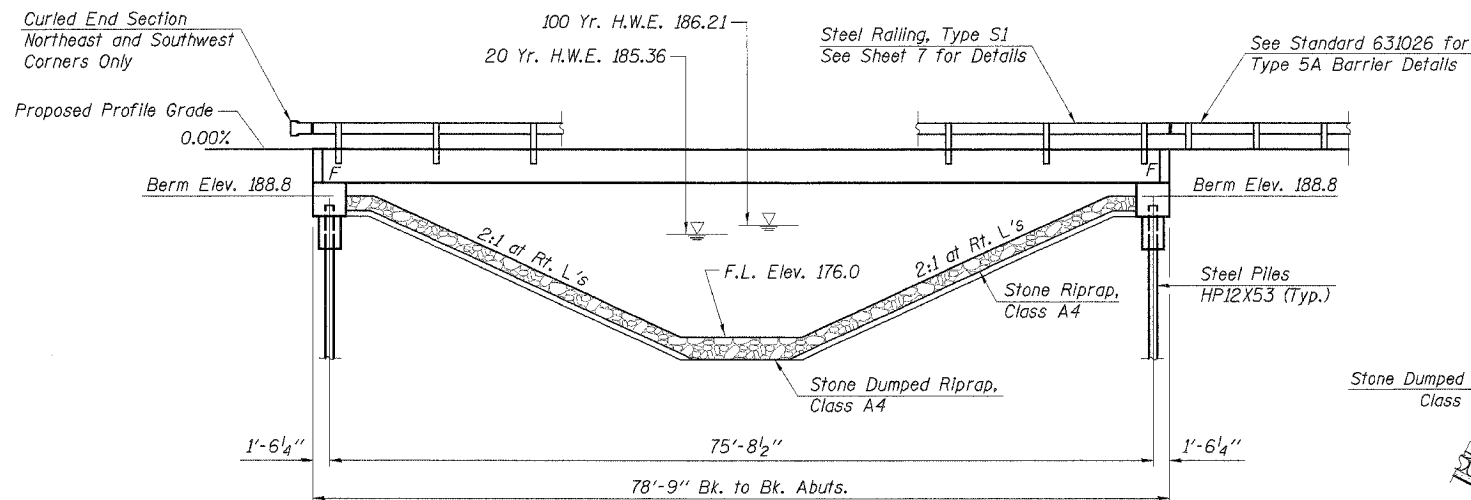
4440 ASH GROVE
SPRINGFIELD, IL 62707
(217) 793-8600
oasinc@tamvid.com

OZYURT AND STONE, INC.
CONSULTING ENGINEERS

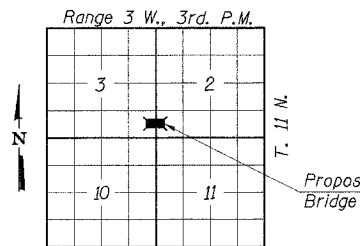
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FILE: SHLDR.DGN
DATE: 03-15-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-0087 -00-BR	CHRISTIAN	12	5

ILLINOIS
CONTRACT NO. 93402



ELEVATION



LOCATION PLAN

GENERAL NOTES

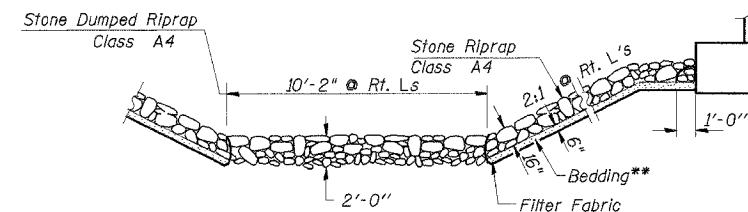
See Special Provisions for Boring data.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

The Contractor shall drive one steel test pile in a permanent location at each abutment as directed by the Engineer, before ordering the remainder of piles.

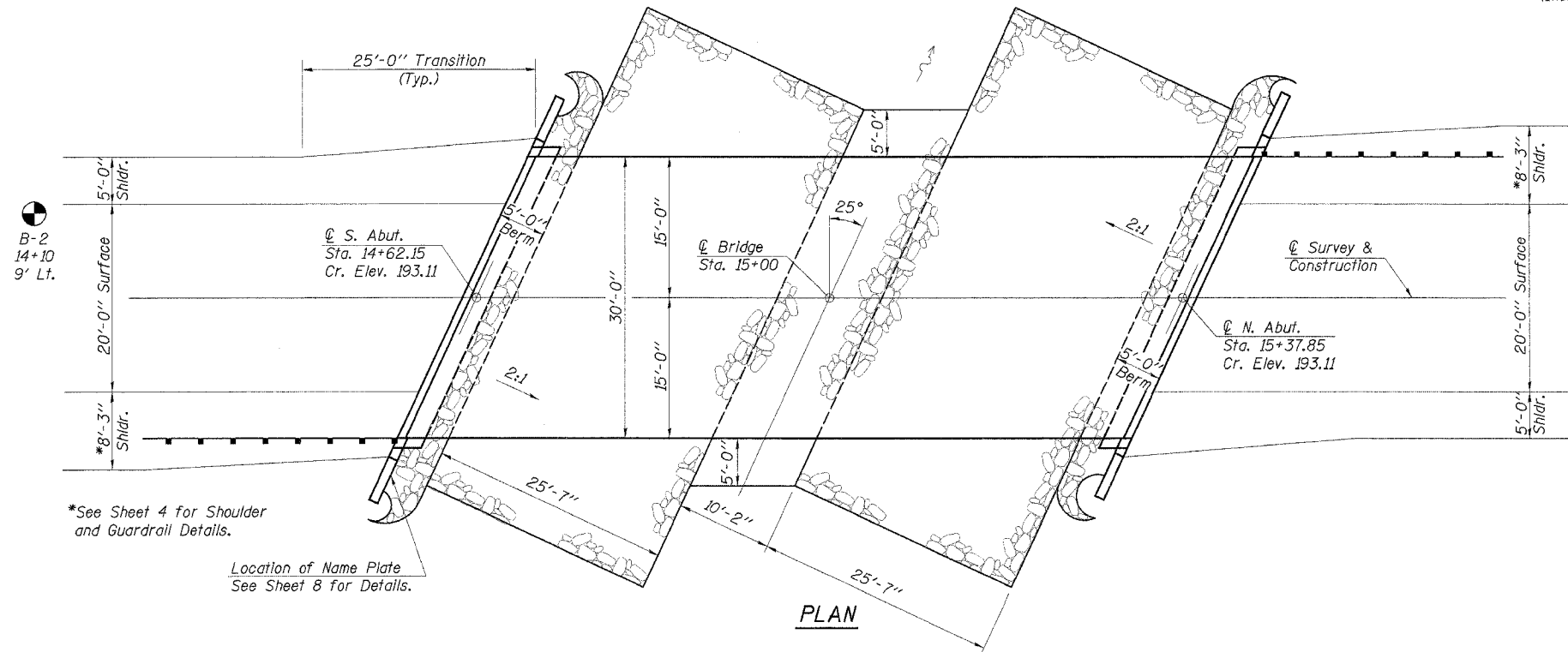
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Structure excavation will not be paid for as a separate item but shall be considered as included in the contract unit price for the class of concrete involved.



RIPRAP PLACEMENT

**Included in the cost of Riprap



PLAN

DESIGN STRESSES

$f_c = 5,000$ p.s.i. (Prestressed Beams)
 $f_{ct} = 4,000$ p.s.i. (Prestressed Beams)
 $f_c = 1,400$ p.s.i. (Concrete)
 $f_s = 270,000$ p.s.i. (Prestressed Strands)
 $f_{st} = 201,960$ p.s.i. (Prestressed Strands)
 $f_s = 24,000$ p.s.i. (Reinf. Bars -- Field Units)
 $f_y = 60,000$ p.s.i. (Reinf. Bars -- Field Units)
 $n = 9$ (Concrete)
 LOADING HS20-44
 Design Specifications: 2002 AASHTO
 25#/Sq. Ft. Included in dead load for future wearing surface.

WATERWAY INFORMATION

Drainage Area	6.68 Sq. Mi.
Existing Opening (20 Yr.)	228 Sq. Ft.
Required Opening (20 Yr.)	264 Sq. Ft.
Proposed Opening (20 Yr.)	264 Sq. Ft.
Design Discharge (20 Yr.)	1045 C.F.S.
Created Head (20 Yr.)	0.22 Ft.
100 Year Discharge	1568 C.F.S.
100 Yr. Created Head	0.42 Ft.

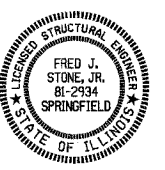
DESIGNED	FJS
CHECKED	SFM
DRAWN	SAP & KTR
CHECKED	SFM

MILLER BRANCH
 BUILT 200_ BY
 CHRISTIAN COUNTY
 SEC. 03-0087-00-BR
 F.A.S. RTE. 639 (C.H. 5)
 F.A. PROJ. BRS 639(104)
 STR. NO. 011-3401 LOADING HS20

LETTERING FOR NAME PLATE
 See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2310		2310
Concrete Structures	Cu. Yd.	32.2		32.2
Reinforcement Bars	Pound	3480		3480
Steel Railing, Type S1	Foot	154		154
Name Plates	Each		1	1
Steel Piles HP12x53	Foot		420	420
Test Pile Steel HP12x53	Each		2	2
Stone Riprap, Class A4	Ton		282	282
Filter Fabric For Use with Riprap	Sq. Yd.		385	385
Concrete Encasement	Cu. Yd.		5.6	5.6
Bit. Conc. Surf. Crse., Superpave, Mix C, N50	Ton	30		30
Portland Cement Mortar Fairing Course	Foot	200		200
Waterproofing Membrane System	Sq. Yd.	257		257
Stone Dumped Riprap, Class A4	Ton		55	55



"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 Standard Specifications for Highway Bridges'."
 Fred J. Stone, Jr. (11-29-05)
 ILLINOIS STRUCTURAL NO. 2934 (Expires 11/30/06)

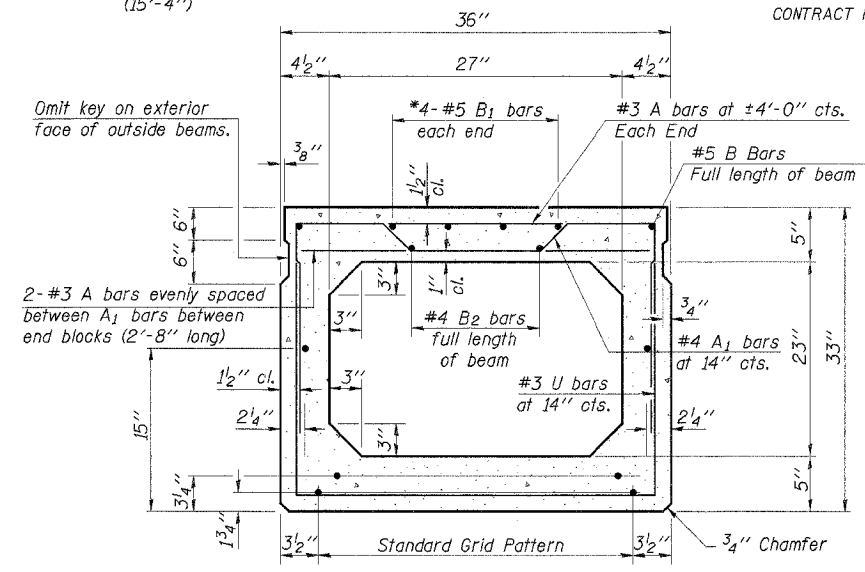
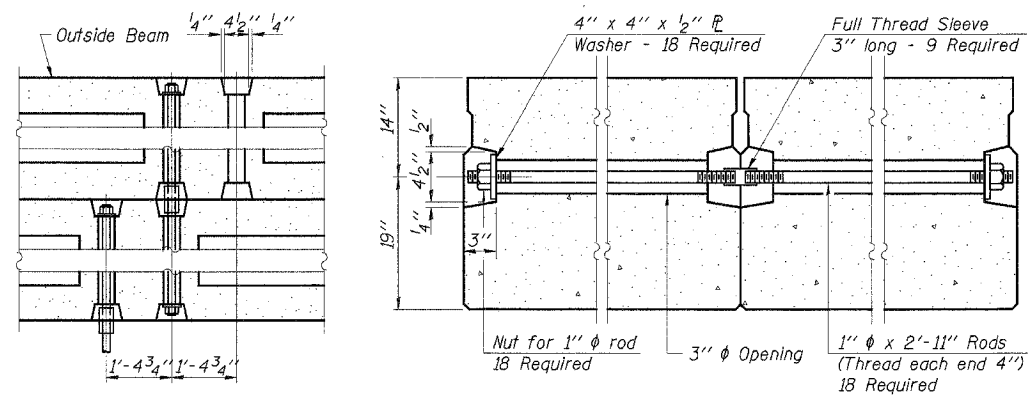
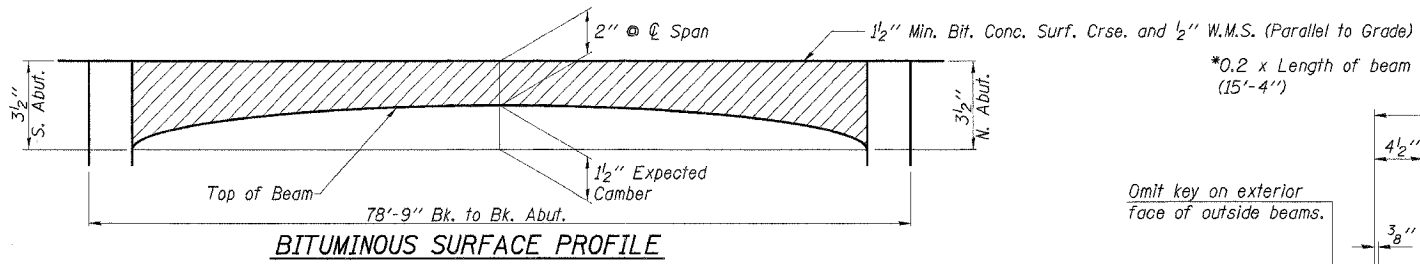
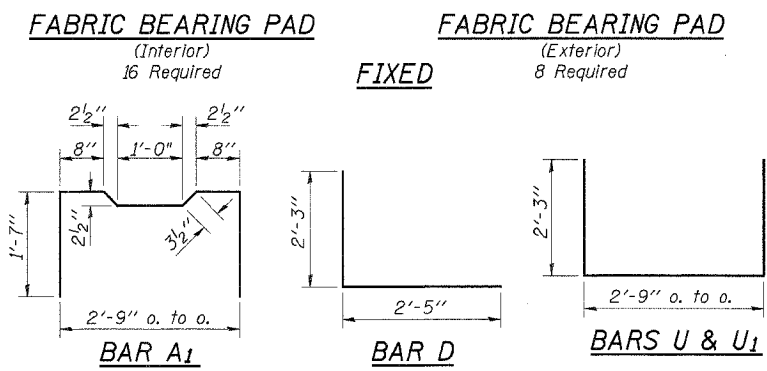
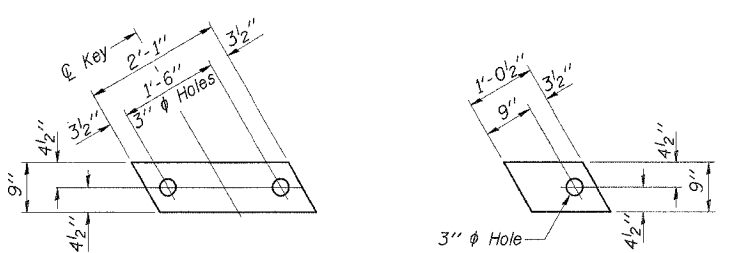
GENERAL PLAN & ELEVATION
 COUNTY HIGHWAY 5
 SECTION 03-0087-00-BR
 CHRISTIAN COUNTY
 STATION 15+00

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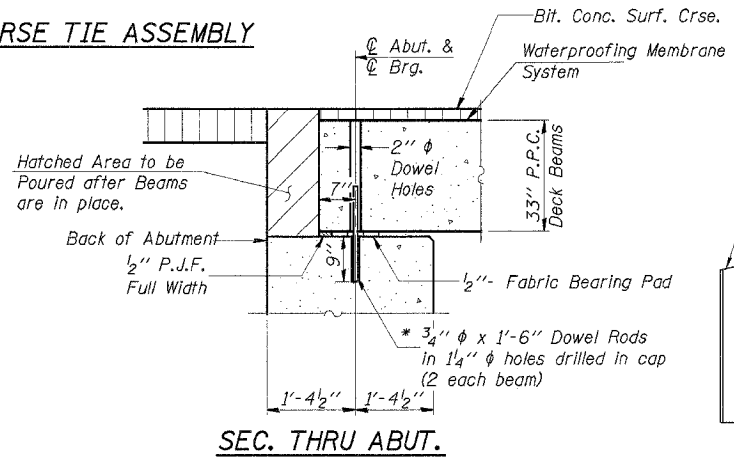
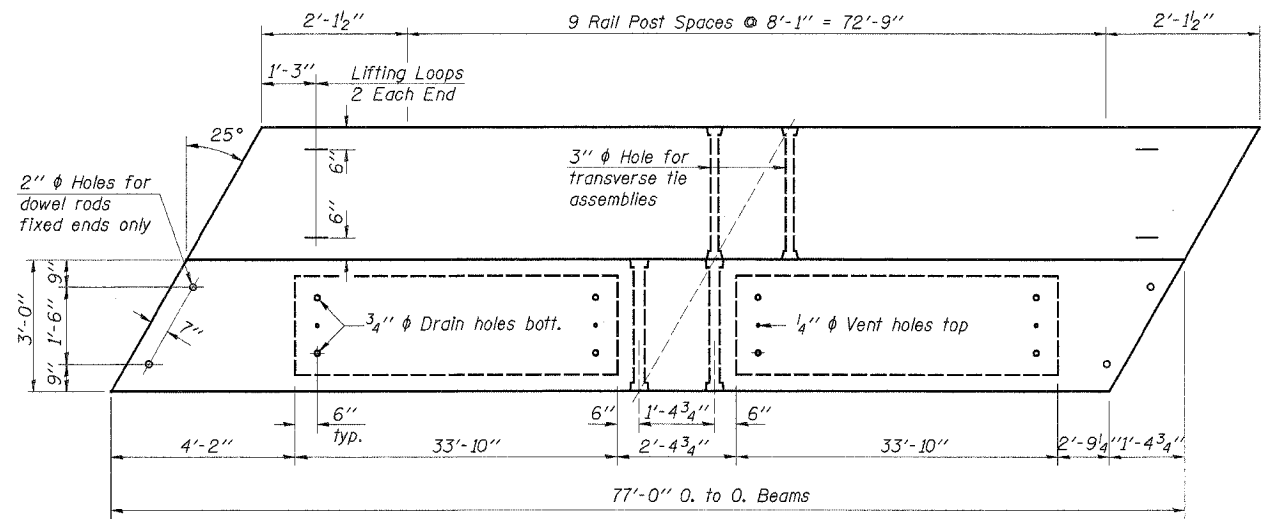
OZYURT AND STONE, INC.
 CONSULTING ENGINEERS

JOB NO.: 0305
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 DATE: 03-15-04

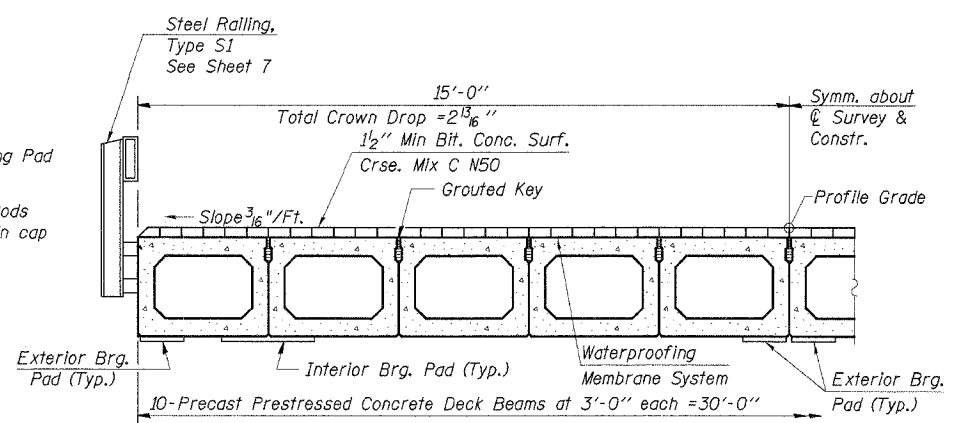
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 3402	



Note: Place strands symmetrically about @ of beam.

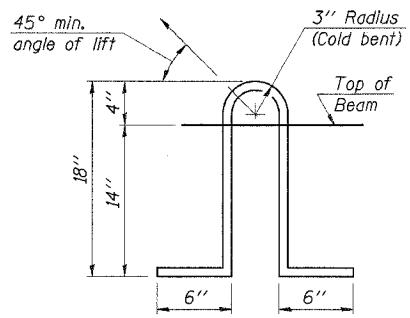
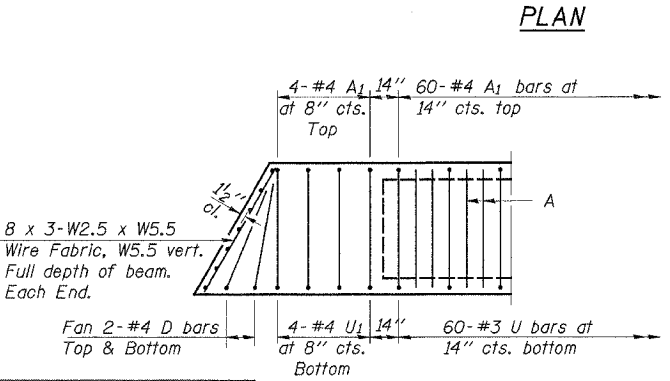


Note A: * Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys.



BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2310
Bit. Conc. Surf. Crse., Mix C, N50	Ton	30
Waterproofing Membrane System	Sq. Yd.	257
P.C. Mortar Fairing Course	Foof	200
Estimated Total Weight (One Beam) = 55,120 Pounds		



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. Lifting loops shall be 3-1/2" @-270 ksi strands, as shown. The 1" @ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to AASHTO M-31, M-42 or M-53 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form all or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4,000 p.s.i. Rail post anchor devices shall be cast into outside beam as elsewhere specified. See Special Provisions for review and distribution of shop drawings.

DESIGNED	FJS
CHECKED	SFM
DRAWN	SAP & KTR
CHECKED	SFM

PD-5-L 9-1-03

SUPERSTRUCTURE

COUNTY HIGHWAY 5

SECTION 03-00087-00-BR

CHRISTIAN COUNTY

STATION 15+00

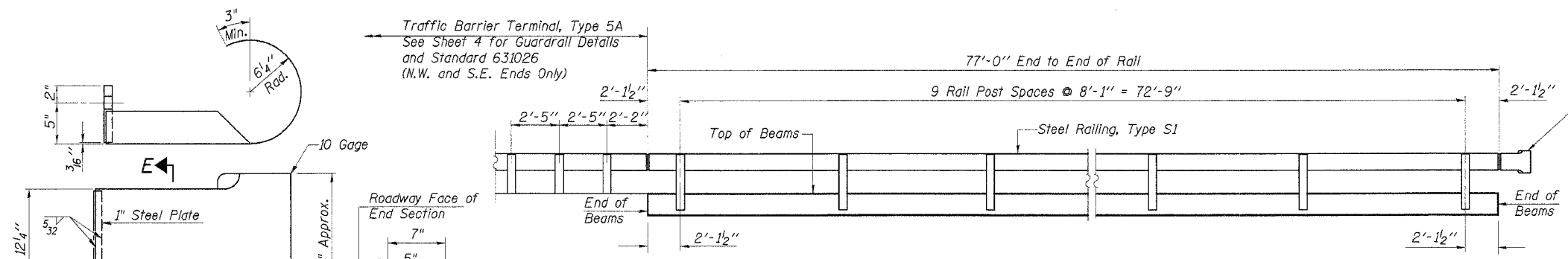
4440 ASH GROVE SPRINGFIELD, IL 62707 (217) 793-8600 casinc@famvid.com

OZYURT AND STONE, INC.
CONSULTING ENGINEERS

JOB NO.: 0305
FILE: SUPER.DGN
DATE: 03-15-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-00087 -00-BR	CHRISTIAN	12	7

ILLINOIS
CONTRACT NO. 93402



ELEVATION

Curled End Section
(N.E. and S.W. Ends only)
(Incidental)

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, angles and spacers 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 RAILING, TYPE S1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

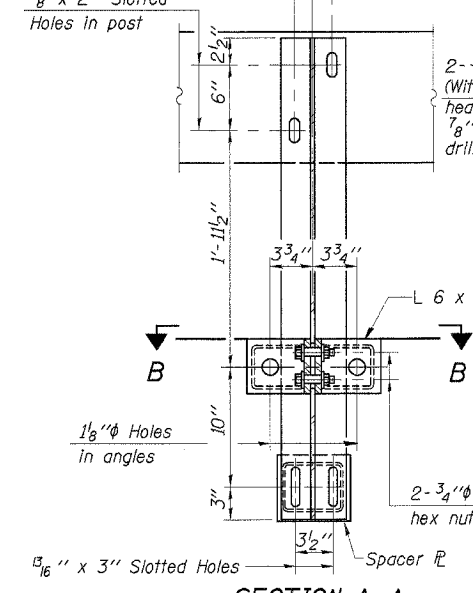
The lower plate of the post spacer in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/2" fabric bearing pad between the post spacer and concrete.

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(FX2) 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 1/2 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.

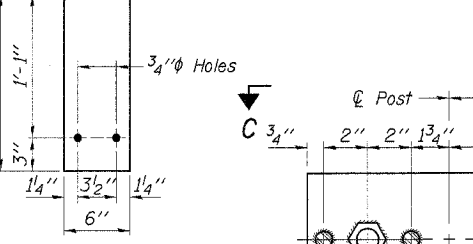
CURLED END SECTION DETAILS
(2 Required)

10 Gauge
1" Steel Plate
24" Approx.
16" Approx.

SECTION E-E



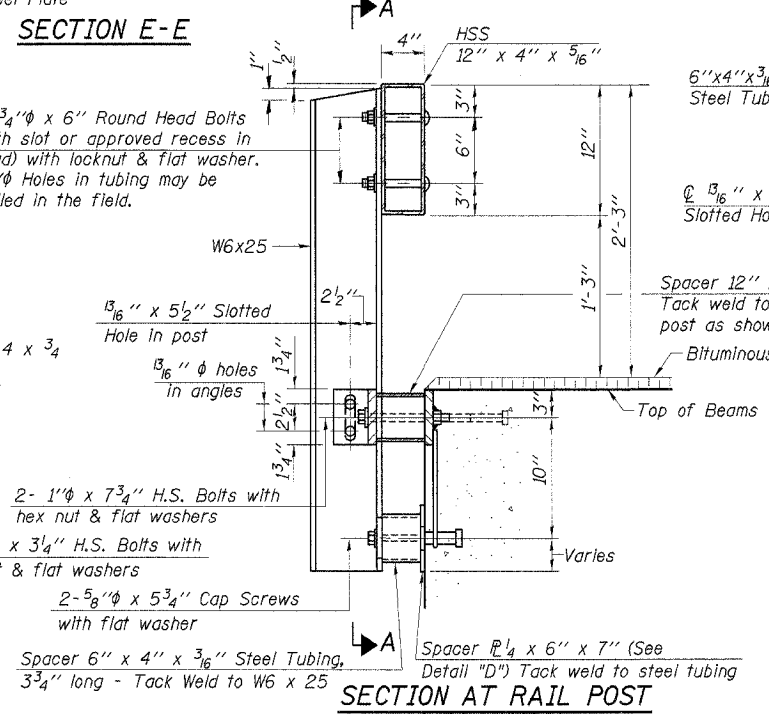
SECTION A-A



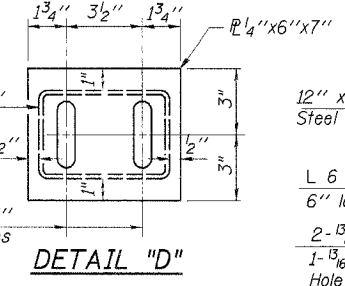
1/4" SHIM PLATE

Note: For multi-span bridges, sufficient 1/4" x 6" x 1'-4" galvanized steel shims shall be provided to align rail between adjacent spans. Cost Incidental to Steel Railing.

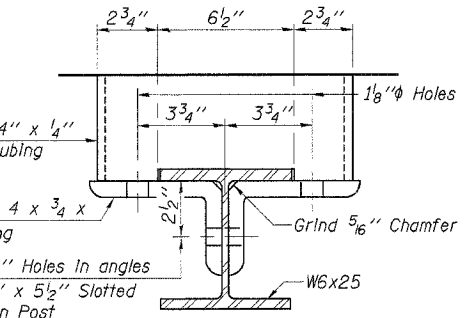
DESIGNED	FJS
CHECKED	SFM
DRAWN	SAP & KTR
CHECKED	SFM



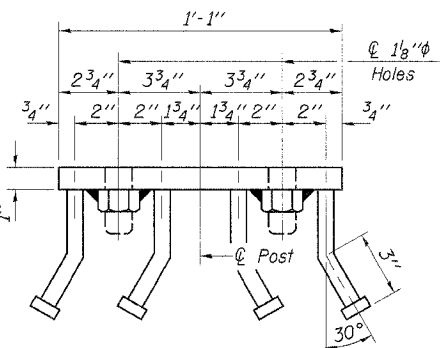
SECTION AT RAIL POST



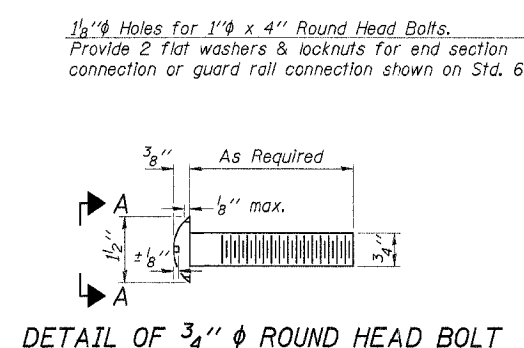
DETAIL "D"



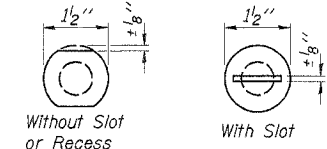
SECTION B-B



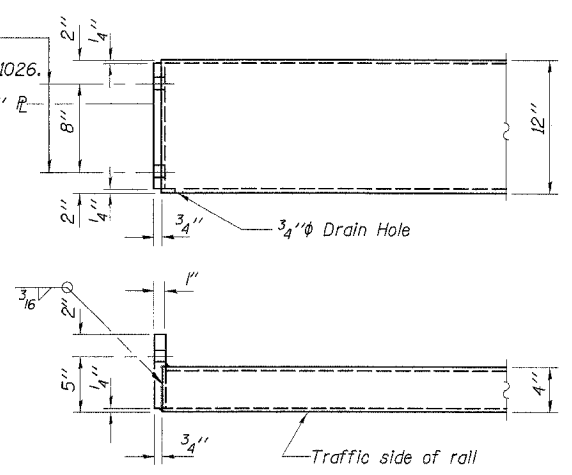
VIEW C-C



DETAIL OF 3/4" phi ROUND HEAD BOLT



VIEW A-A

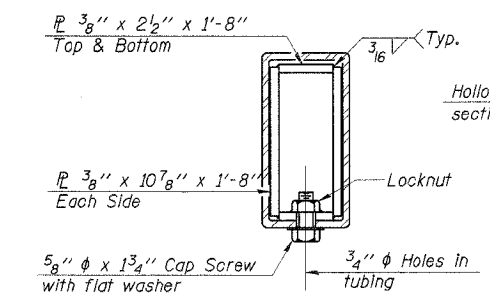


END OF RAIL DETAILS

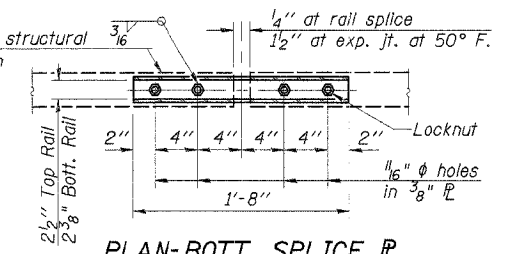
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	154

STEEL RAILING, TYPE S1
COUNTY HIGHWAY 5
SECTION 03-00087-00-BR
CHRISTIAN COUNTY
STATION 15+00



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE P TYPICAL

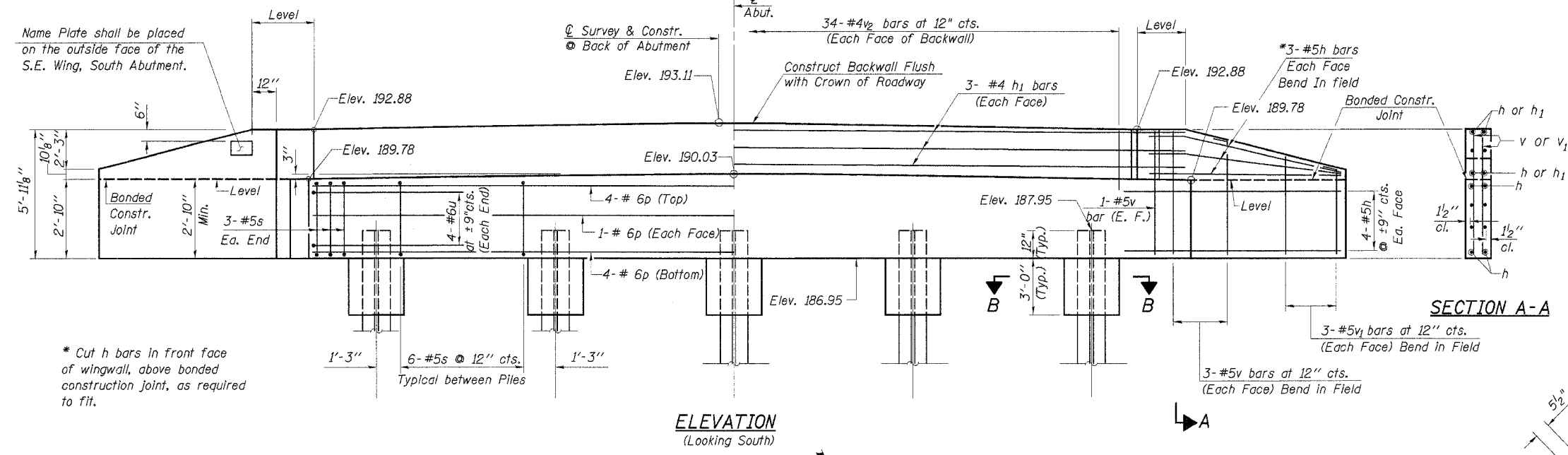
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower Inserts. Maximum adjustment not to exceed 1/2". (Precast Prestressed Concrete Deck Beam Bridges Only)

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-00087-00-BR	CHRISTIAN	12	8
ILLINOIS				

CONTRACT NO. 93402

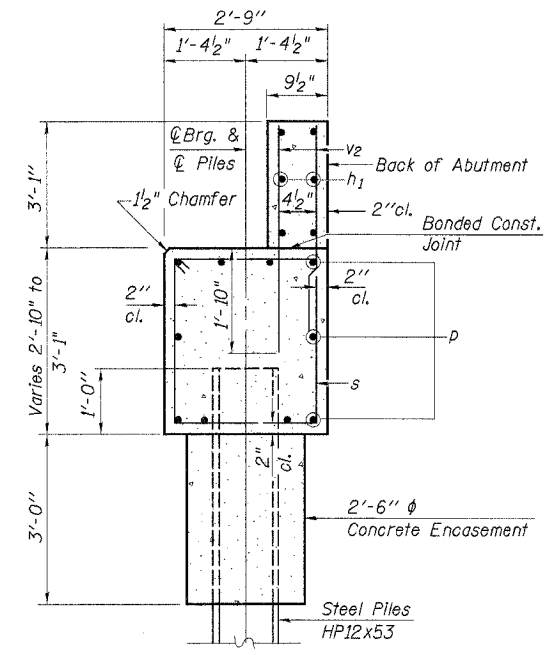
NOTE: After beams are in place and dowel rods grouted, the backwall and the portions of the wingwall above the bonded construction joint shall be poured.



Name Plate shall be placed on the outside face of the S.E. Wing, South Abutment.

* Cut h bars in front face of wingwall, above bonded construction joint, as required to fit.

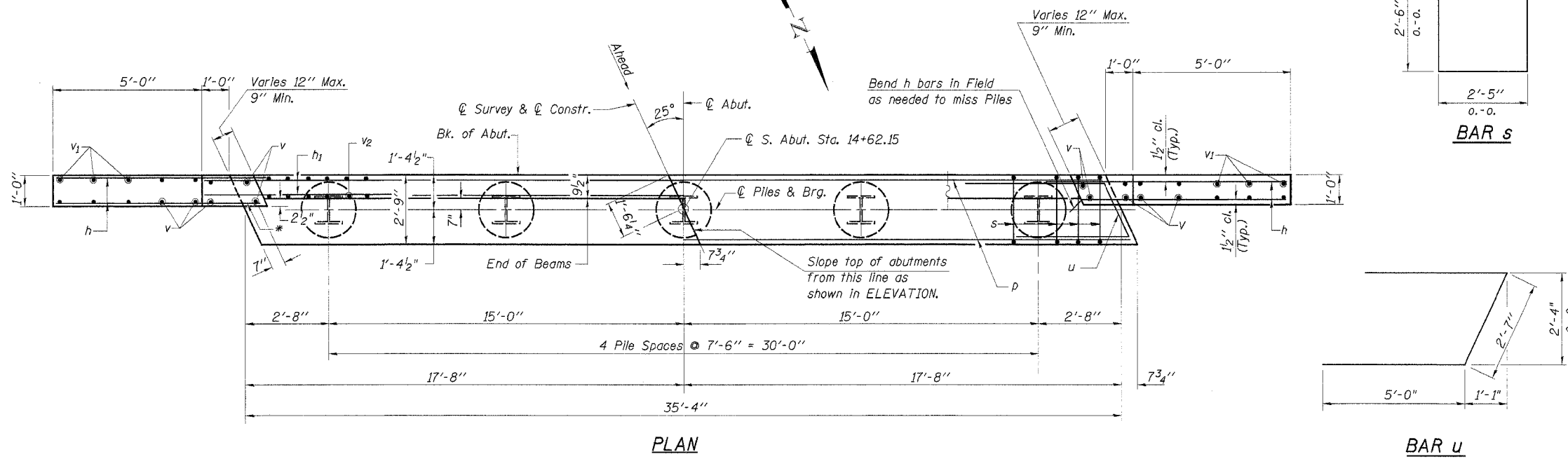
ELEVATION
(Looking South)



SECTION THRU ABUTMENT
(At Right L's)

BILL OF MATERIAL - S. ABUT.

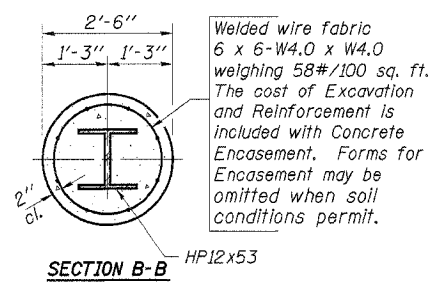
BAR	NO.	SIZE	LENGTH	SHAPE
h	28	#5	7'-6"	—
h ₁	6	#4	35'-0"	—
p	10	#6	35'-0"	—
s	30	#5	10'-9"	□
u	8	#6	12'-7"	▤
v	16	#5	5'-8"	—
v ₁	12	#5	4'-6"	—
v ₂	68	#4	4'-9"	—
Concrete Structures			Cu. Yd.	16.1
Reinforcement Bars			Pound	1740
Name Plates			Each	1
Test Pile Steel HP12x53			Each	1
Steel Piles HP12x53			Foot	220
Concrete Encasement			Cu. Yd.	2.8



PLAN

BAR s

BAR u



SECTION B-B
HP12x53

PILE DATA

Type _____ Steel HP 12x53
 No. Req'd. _____ 5**
 Capacity _____ Refusal
 Est. Length _____ 55 Feet/Pile

**Includes 1 test pile to be driven in a permanent location at the South Abutment.

DESIGNED	FJS
CHECKED	SFM
DRAWN	SAP & KTR
CHECKED	SFM

SOUTH ABUTMENT

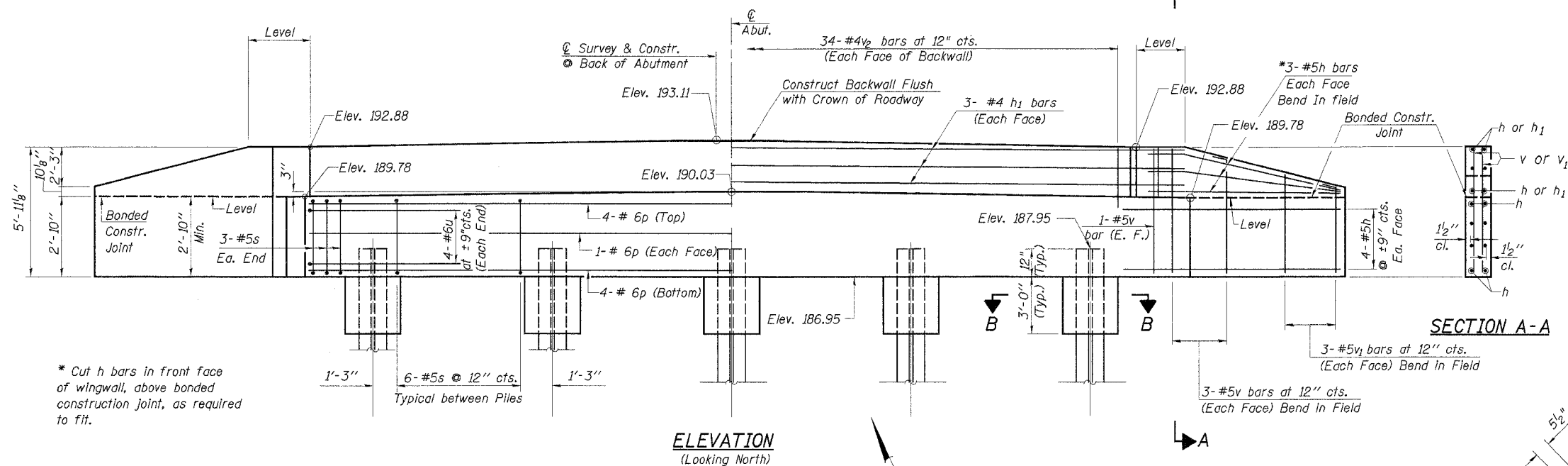
COUNTY HIGHWAY 5
SECTION 03-00087-00-BR
CHRISTIAN COUNTY
STATION 15+00

4440 ASH GROVE SPRINGFIELD, IL 62707 (217) 793-8600 oasinc@tamvid.com	OZYURT AND STONE, INC. CONSULTING ENGINEERS	JOB No.: 0305 FILE: S.ABUT.DGN DATE: 03-15-04
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 5 FAS 639	03-00087 -00-BR	CHRISTIAN	12	9
ILLINOIS				

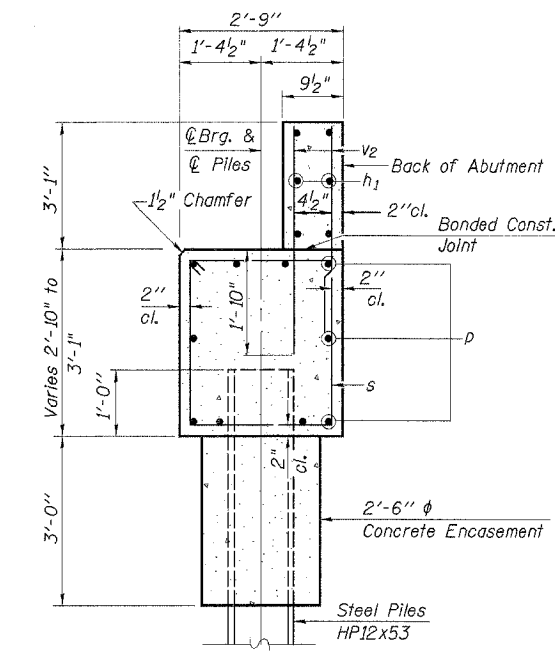
CONTRACT NO. 93402

NOTE: After beams are in place and dowel rods grouted, the backwall and the portions of the wingwall above the bonded construction joint shall be poured.



* Cut h bars in front face of wingwall, above bonded construction joint, as required to fit.

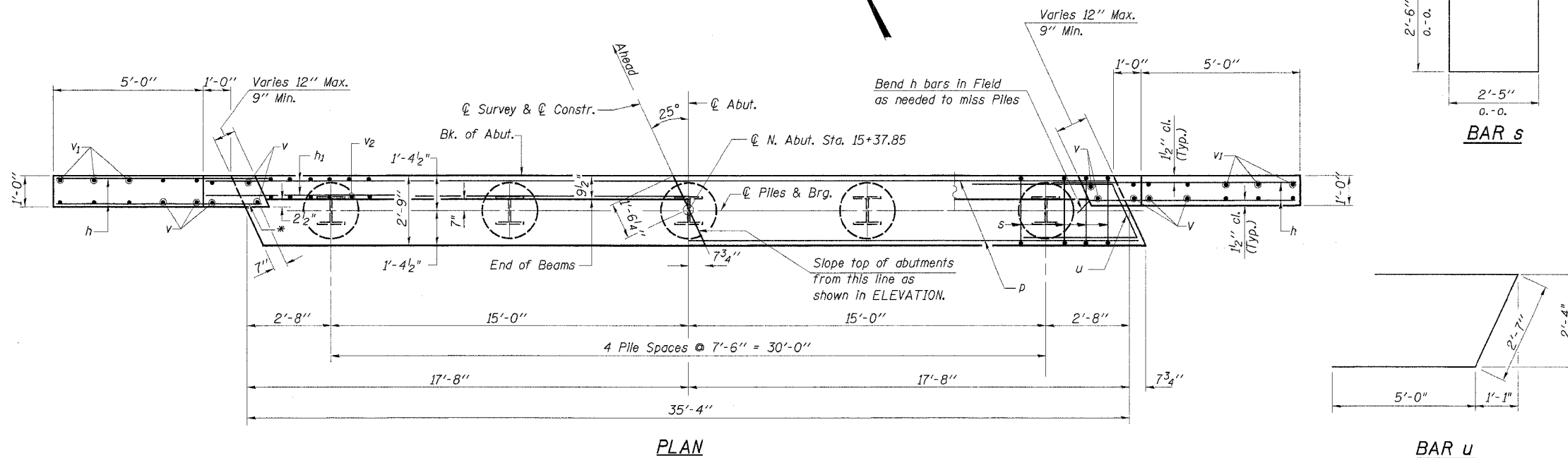
ELEVATION
(Looking North)



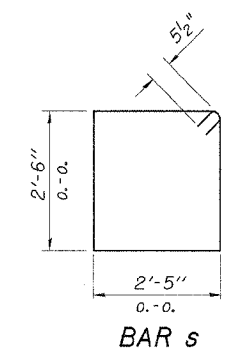
SECTION THRU ABUTMENT
(At Right L's)

BILL OF MATERIAL - N. ABUT.

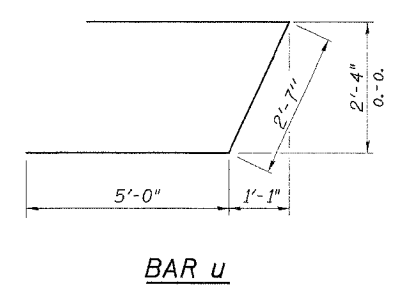
BAR	NO.	SIZE	LENGTH	SHAPE
h	28	#5	7'-6"	—
h ₁	6	#4	35'-0"	—
p	10	#6	35'-0"	—
s	30	#5	10'-9"	□
u	8	#6	12'-7"	—
v	16	#5	5'-8"	—
v ₁	12	#5	4'-6"	—
v ₂	68	#4	4'-9"	—
Concrete Structures			Cu. Yd.	16.1
Reinforcement Bars			Pound	1740
Test Pile Steel HP12x53			Each	1
Steel Piles HP12x53			Foot	200
Concrete Encasement			Cu. Yd.	2.8



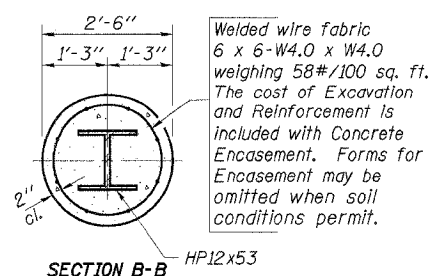
PLAN



BAR S



BAR U



SECTION B-B
HP12x53

PILE DATA

Type _____ Steel HP 12x53
 No. Req'd. _____ 5**
 Capacity _____ Refusal
 Est. Length _____ 50 Feet/Pile

**Includes 1 test pile to be driven in a permanent location at the North Abutment.

DESIGNED	FJS
CHECKED	SFM
DRAWN	SAP & KTR
CHECKED	SFM

NORTH ABUTMENT

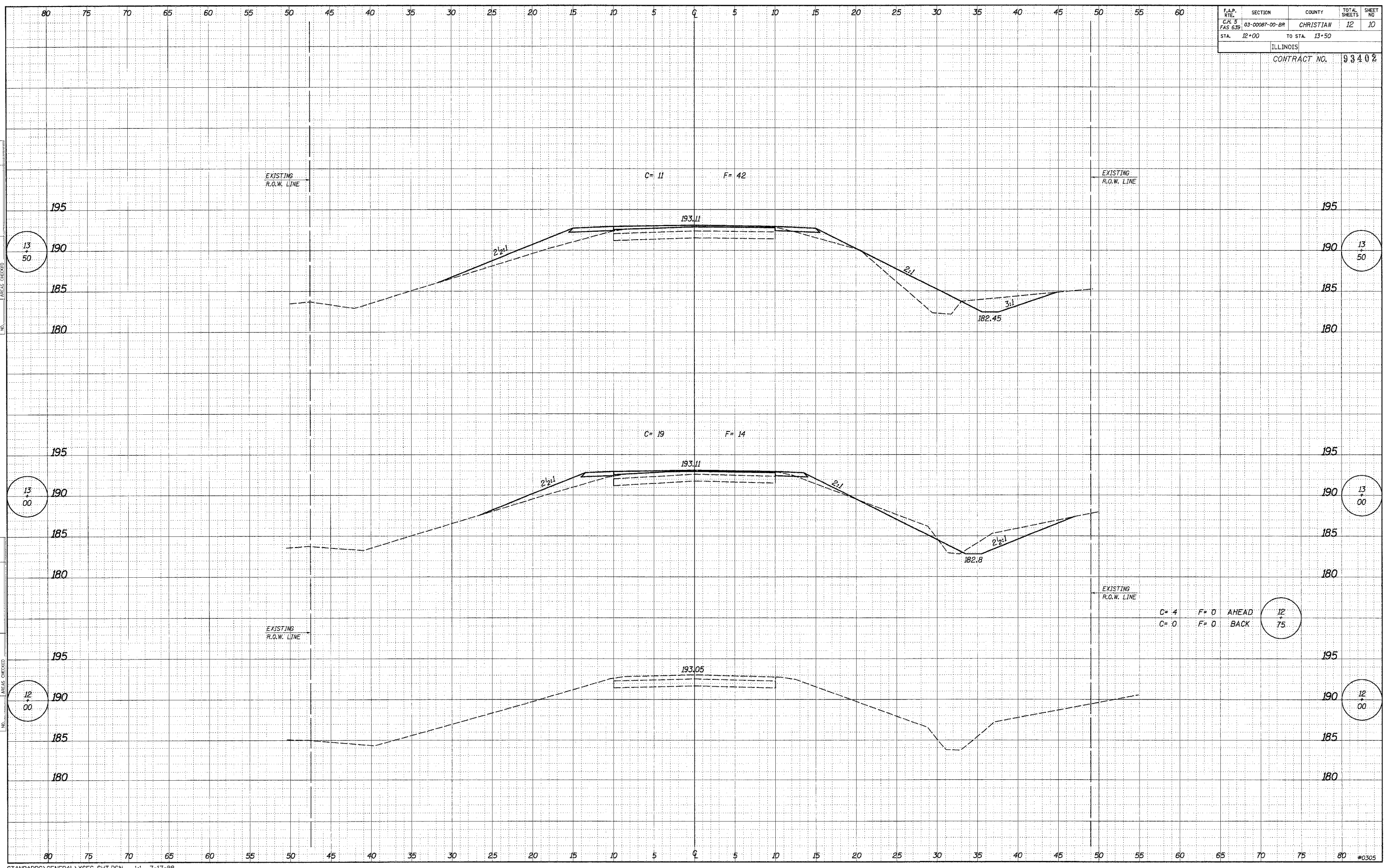
COUNTY HIGHWAY 5
SECTION 03-00087-00-BR
CHRISTIAN COUNTY
STATION 15+00

4440 ASH GROVE SPRINGFIELD, IL 62707 (217) 793-8600 oasinc@famvid.com	OZYURT AND STONE, INC. CONSULTING ENGINEERS	JOB NO.: 0305 FILE: N.ABUT.DGN DATE: 03-15-04
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.R. 5 FAS 639	03-00087-00-BR	CHRISTIAN	12	10
STA. 12+00	TO STA. 13+50		ILLINOIS	
CONTRACT NO.				93402

DATE _____
BY _____
APPROVED _____
SUPERVISOR _____
DESIGNED _____
CHECKED _____
AREA CHECKED _____
NO. _____

DATE _____
BY _____
APPROVED _____
SUPERVISOR _____
DESIGNED _____
CHECKED _____
AREA CHECKED _____
NO. _____



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH. 5	03-00087-00-BR	CHRISTIAN	12	11
FAS 639				
STA. 14+00		TO STA. 15+59		
ILLINOIS				
				CONTRACT NO. 93402

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

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

