

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM**
SARATOGA – MILO ROAD DISTRICTS
SECTION 05-10116-00-BR AND SECTION 08-16114-00-BR
MARSHALL – BUREAU COUNTIES
PROJECT NO. BROS-123(022)
T.R. 3
JOB NO. C94-080-06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3	*	MARSHALL/ BUREAU	14	1
ROAD DIST.		ILLINOIS	SARATOGA/MILO	

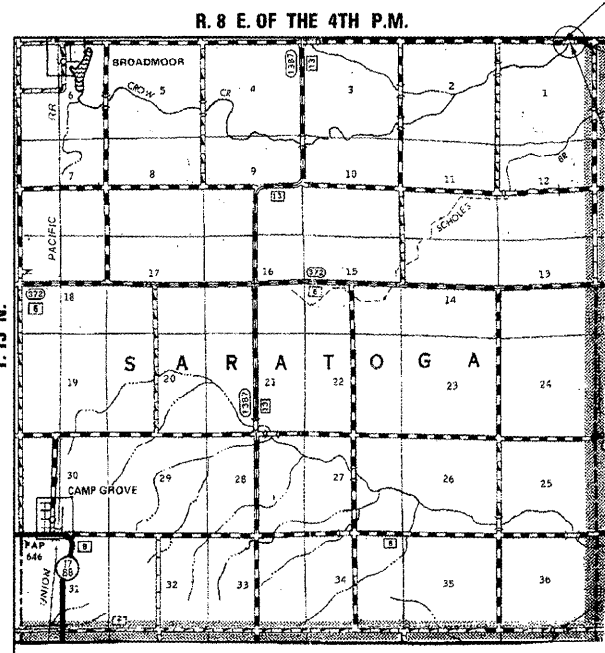
*05-10116-00-BR
08-16114-00-BR
CONTRACT NO. 89398

SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, GENERAL NOTES & TYPICAL SECTIONS
3.	PLAN AND PROFILE SHEET
4.-9.	BRIDGE PLANS
10.-14.	STATION CROSS SECTIONS

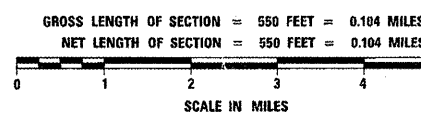
STANDARDS:

- 280001-04
- 515001-03
- 635006-03
- 701301-03
- 701901-01
- BLR 21-8

SCALES



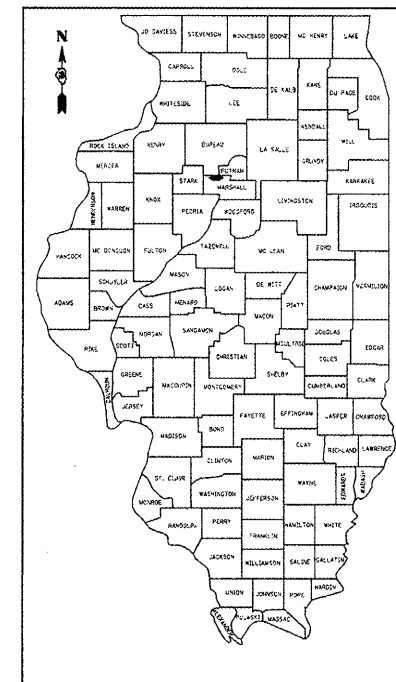
LOCATION PLAN



IMPROVEMENT BEGINS
STA. 11 + 50

IMPROVEMENT ENDS
STA. 17 + 00

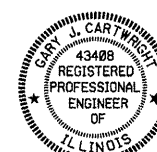
STA. 15 + 05 - SPECIAL BRIDGE DESIGN
PRECAST PRESTRESSED CONCRETE
DECK BEAM BRIDGE, SINGLE SPAN @
80'-0"; 27'-0" ROADWAY; 0° SKEW
EXISTING S.N. 062-3008
PROPOSED S.N. 006-4234



LOCATION OF SECTION INDICATED THIS: —

CLASSIFICATION: LOCAL ROAD NON-URBAN
DESIGN VOLUME: UNDER 250 ADT
CURRENT ADT: 125 ADT (2008)
DESIGN SPEED: 30 MPH

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



Gary J. Cartwright 12-5-08
ILLINOIS PROFESSIONAL NO. 43408
EXPIRES 11-30-09

PASSED *December 3* 2008
[Signature]
ROAD DISTRICT COMMISSIONER

APPROVED *December 2* 2008
[Signature]
COUNTY ENGINEER

PASSED *Dec 17* 2008
[Signature]
DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID
BASED ON LIMITED
REVIEW *Dec 13* 2008
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3	*	MARSHALL/BUREAU	14	2
ROAD DIST.		ILLINOIS	SARATOGA/MILO	
*05-10116-00-BR 08-16114-00-BR			CONTRACT NO. 89398	

SUMMARY OF QUANTITIES

X081-2A

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	496
20300100	CHANNEL EXCAVATION	CU YD	100
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	42
28000300	TEMPORARY DITCH CHECKS	EACH	14
28000400	PERIMETER EROSION BARRIER	FOOT	1,040
28000500	INLET AND PIPE PROTECTION	EACH	2
28101700	RIPRAP, SPECIAL	TON	159
28102600	STONE RIPRAP DITCH	TON	228
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	515
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	261
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	1,044
40300500	COVER COAT, AGGREGATE	TON	19
40300600	SEAL COAT, AGGREGATE	TON	13
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	19.4
50300280	CONCRETE ENCASEMENT	CU YD	2.8
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2,161
50800105	REINFORCEMENT BARS	POUND	2,480
50900205	STEEL RAILING, TYPE S1	FOOT	160
51201600	FURNISHING STEEL PILES HP12X53	FOOT	285
51202305	DRIVING PILES	FOOT	285
51203600	TEST PILE STEEL HP12X53	EACH	2
51500100	NAME PLATES	EACH	1
54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	76
67100100	MOBILIZATION	L SUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

*SEE SPECIAL PROVISIONS

Δ SPECIALTY ITEMS

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 SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 0.4 ACRE

TEMPORARY EROSION CONTROL

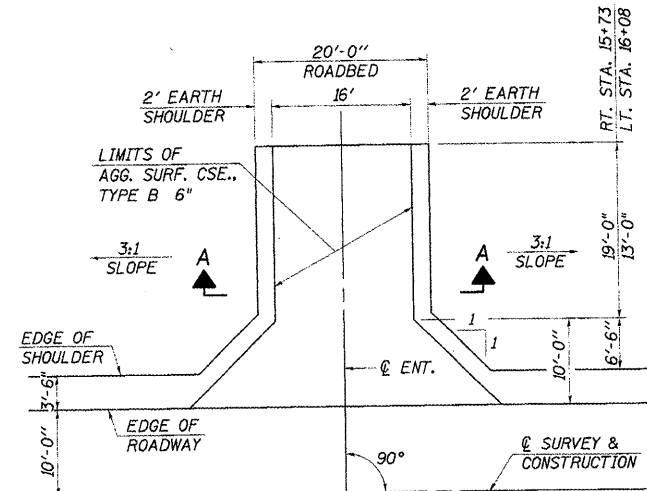
THE FOLLOWING QUANTITIES ARE ESTIMATES ONLY. ACTUAL QUANTITIES FOR EROSION CONTROL WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND THERE WILL BE NO ADJUSTMENT IN ANY UNIT PRICE DUE TO A CHANGE IN PLAN QUANTITY.

- PERIMETER EROSION BARRIER = 1,040 FOOT
- TEMPORARY EROSION CONTROL SEEDING = 42 POUND
- TEMPORARY DITCH CHECKS = 14 EACH
- INLET AND PIPE PROTECTION = 2 EACH

APPLICATION RATES USED IN QUANTITY CALCULATIONS

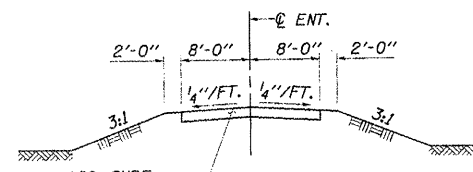
BITUMINOUS MATERIALS (PRIME COAT)	0.25 GAL./SQ. YD.
(COVER COAT)	0.35 GAL./SQ. YD.
(SEAL COAT)	0.30 GAL./SQ. YD.
COVER COAT AGGREGATE	18 LB./SQ. YD.
SEAL COAT AGGREGATE	25 LB./SQ. YD.
AGGREGATE BASE AND SURFACE COURSE	2.05 TON/CU. YD.
RIPRAP, SPECIAL & STONE RIPRAP DITCH	1.65 TON/CU. YD.

NOTE: THE ABOVE NOTED APPLICATION RATE FOR BITUMINOUS MATERIALS (PRIME COAT) ARE FOR QUANTITY CALCULATIONS ONLY. THE APPLICATION RATE TO BE APPLIED WILL BE DETERMINED BY THE ENGINEER AT THE TIME OF PLACEMENT.



FIELD ENTRANCE DETAIL

F.E. RT. STA. 15+73
F.E. LT. STA. 16+08



SECTION A-A

EROSION CONTROL

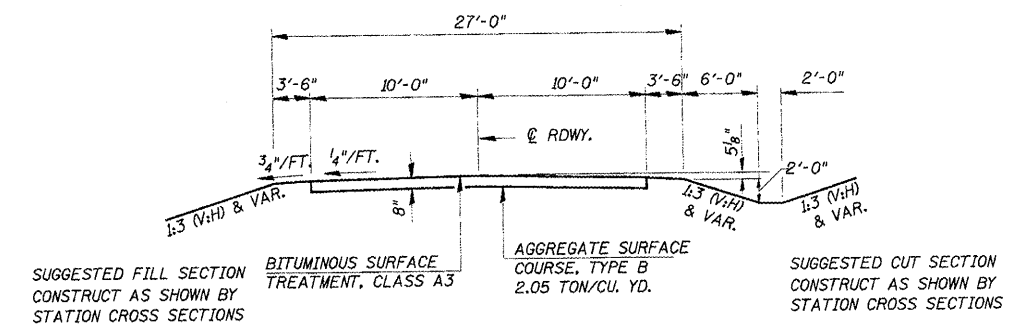
LOCATION	SEEDING, CLASS 2 (SPECIAL)	TEMPORARY EROSION CONTROL SEEDING	PERIMETER EROSION BARRIER
	ACRE	POUND	FOOT
LT. STA. 11+50 TO LT. STA. 14+65	0.13	13	344
RT. STA. 11+50 TO RT. STA. 14+65	0.14	14	344
LT. STA. 15+45 TO LT. STA. 17+00	0.06	7	173
RT. STA. 15+45 TO RT. STA. 17+00	0.07	8	179
TOTAL	0.4	42	1040

TEMPORARY DITCH CHECKS

LT. & RT. STA. 11+75	= 2
LT. & RT. STA. 12+00	= 2
LT. & RT. STA. 13+00	= 2
LT. STA. 14+00	= 1
LT. STA. 15+50	= 1
LT. STA. 15+75	= 1
RT. STA. 16+25	= 1
LT. & RT. STA. 16+50	= 2
LT. & RT. STA. 16+75	= 2
TOTAL	= 14

INLET AND PIPE PROTECTION

RT. STA. 15+93	= 1
LT. STA. 16+28	= 1
TOTAL	= 2

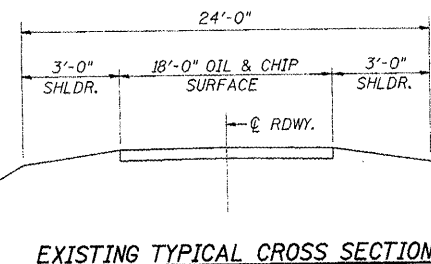


TYPICAL PROPOSED CROSS SECTION

STA. 12+00 TO STA. 16+50

ROAD CLASSIFICATION: LOCAL ROAD ADT 0-250
CURRENT ADT 125

TRANSITION FROM EXISTING ROADWAY TO PROPOSED ROADWAY TO BE CONSTRUCTED FROM STA. 11+50 TO STA. 12+00 AND FROM STA. 16+50 TO STA. 17+00.



EXISTING TYPICAL CROSS SECTION

ROADWAY SCHEDULE

LOCATION	AGG. SURF. COURSE, TYPE B	BITUMINOUS MATERIALS (PRIME COAT)	BIT. MATERIALS (COVER AND SEAL COATS)	COVER COAT AGGREGATE	SEAL COAT AGGREGATE
	TON	GALLON	GALLON	TON	TON
STA. 11+50 TO STA. 14+65	319	175	700	13	9
STA. 15+45 TO STA. 17+00	157	86	344	6	4
ENTRANCES	39				
TOTAL	515	261	1044	19	13

SUMMARY OF QUANTITIES, GENERAL NOTES AND TYPICAL CROSS SECTION
SARATOGA - MILO ROAD DISTRICTS
SECTIONS 05-10116-00-BR & 08-16114-00-BR
MARSHALL - BUREAU COUNTIES
STATION 15+05

4440 ASH GROVE
SPRINGFIELD, IL 62711
(217) 793-8600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
MEMBER, N. A. ROADWAY B. SOCIETY, N. M. SOCIETY OF PROFESSIONAL ENGINEERS

DRAWN: S.A.P.
DATE: 01/21/08

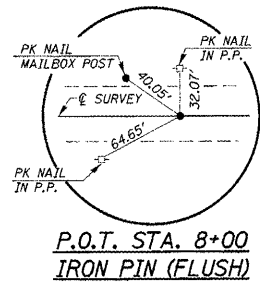
CHECKED: G.J.C.
DATE: 01/22/08

JOB NO.: 46826
FILE: 46826SUMTYP.DGN
DATE: 10/07/08

SE. 1/4 SEC. 36, T. 14 N., R. 8 E., 4TH P.M.
MILRO ROAD DISTRICT, BUREAU COUNTY
STEVEN GIBBS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3		MARSHALL/BUREAU	14	3
STA. 8+00		TO STA. 20+00		
ILLINOIS		SARATOGA/MILRO		

CONTRACT NO. 89398
05-10115-00-BR - MARSHALL
08-16114-00-BR - BUREAU

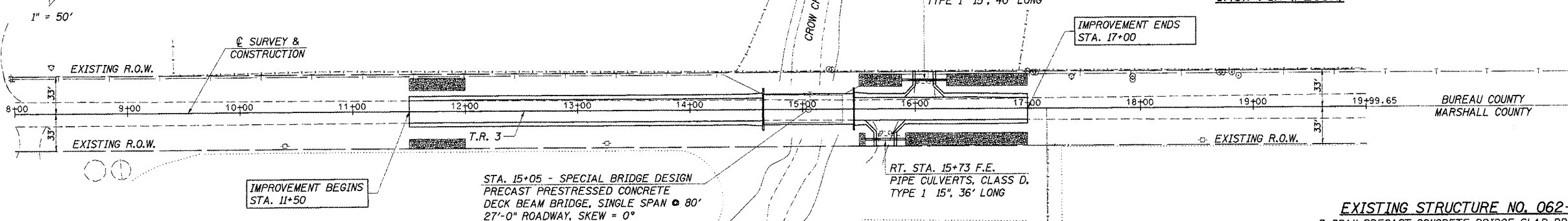
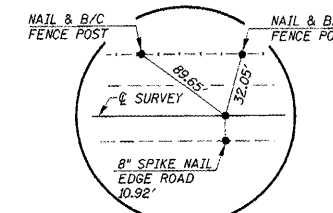


ENTRANCES TO BE BUILT

RT. STA. 15+73, F.E. -15.0%, 20' ROADBED
LT. STA. 16+08, F.E. -8.2%, 20' ROADBED
QUANTITIES INCLUDED IN THOSE LISTED

PIPES TO BE REMOVED

RT. STA. 15+73, 10" CMP, 22' LONG
LT. STA. 16+08, 12" CMP, 22' LONG
QUANTITIES INCLUDED IN "EARTH EXCAVATION".



EXISTING STRUCTURE NO. 062-3008
3-SPAN PRECAST CONCRETE BRIDGE SLAB BRIDGE ON CLOSED TIMBER ABUTMENTS & TIMBER PILE BENT PIERS
BK. -to- BK. = 72'-0"
O. -to- O. = 26'-0"
0° SKEW
REMOVAL OF EXISTING STRUCTURES = 1 EACH

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.

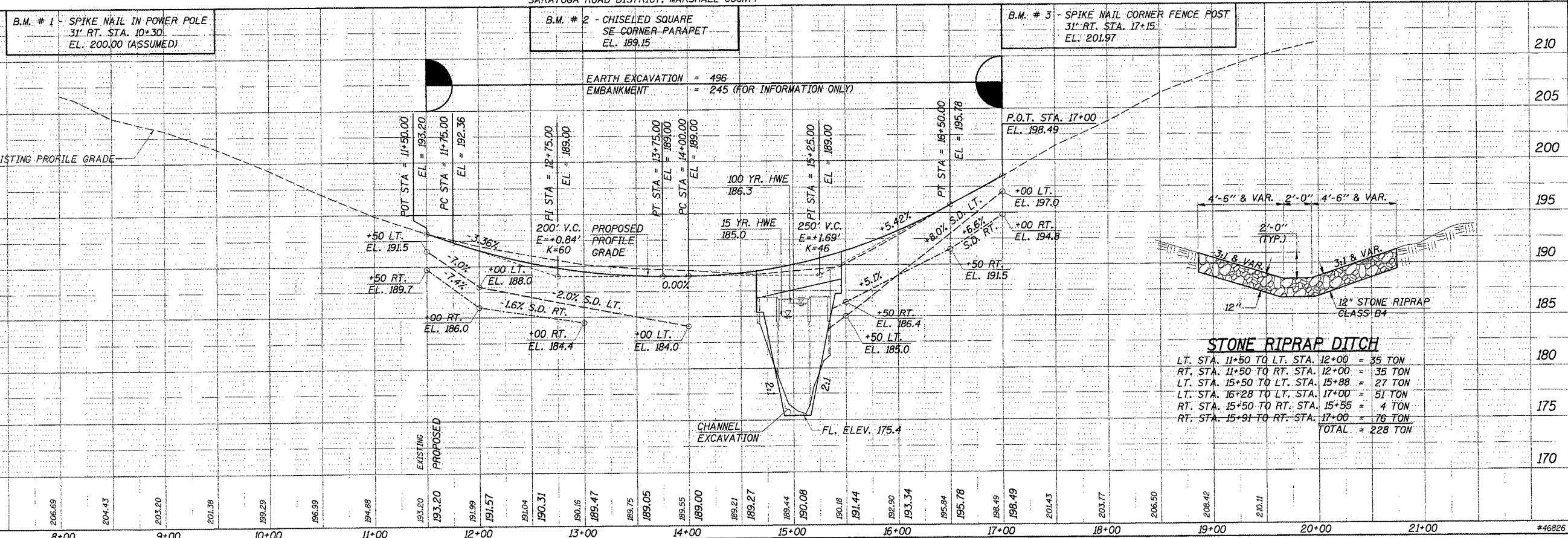
LOIS M. WILSON AND NC ILLINOIS TRUST COMPANY

CHANNEL EXCAVATION = 100 CU. YD.

UTILITIES

BURIED TELEPHONE
VERIZON NORTH 309-663-3422
OVERHEAD ELECTRIC
AMERENCILCO 309-693-4762

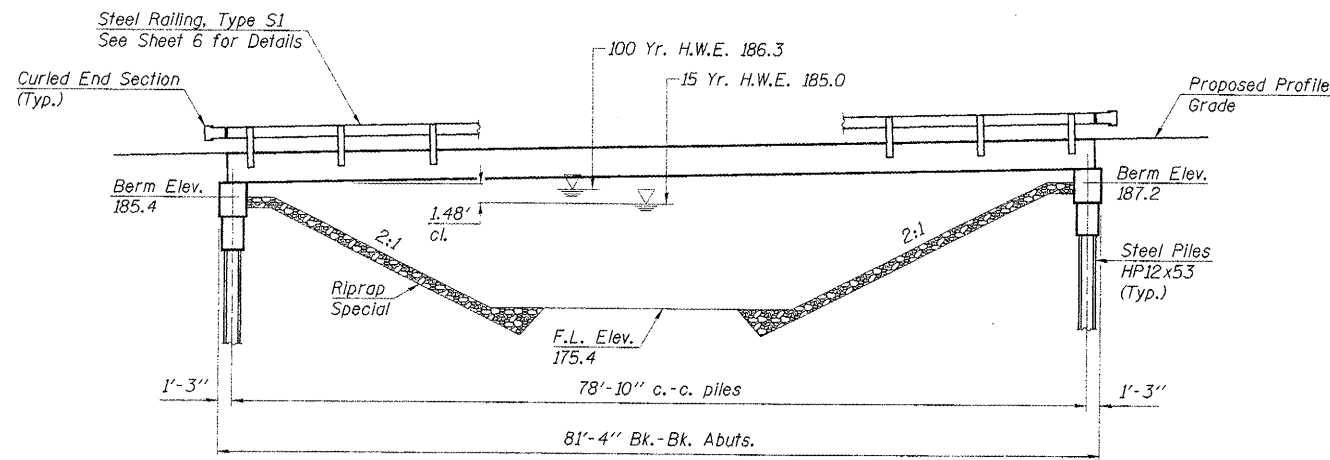
NE. 1/4 SEC. 1, T. 13 N., R. 8 E., 4TH P.M.
SARATOGA ROAD DISTRICT, MARSHALL COUNTY



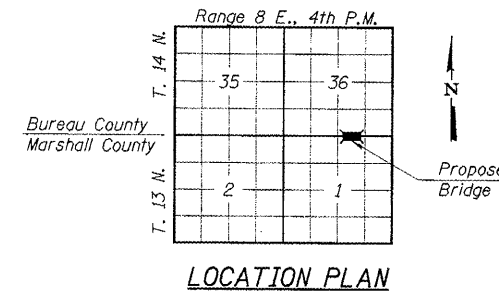
STONE RIPRAP DITCH
LT. STA. 11+50 TO LT. STA. 12+00 = 35 TON
RT. STA. 11+50 TO RT. STA. 12+00 = 35 TON
LT. STA. 15+50 TO LT. STA. 15+88 = 27 TON
LT. STA. 16+28 TO LT. STA. 17+00 = 51 TON
RT. STA. 15+50 TO RT. STA. 15+55 = 4 TON
RT. STA. 15+91 TO RT. STA. 17+00 = 76 TON
TOTAL = 228 TON

DATE	03/18/08
BY	SM
CHECKED	SM
SCALE	AS SHOWN
PROJECT	SR 100 IMP
SHEET	3 OF 14

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3		MARSHALL/BUREAU	14	4
ROAD DIST.		ILLINOIS	SARATOGA/MILO	
*05-10116-00-BR		CONTRACT NO. 89398		
08-16114-00-BR				



ELEVATION



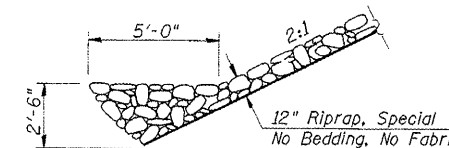
GENERAL NOTES

See Proposal for Boring data.

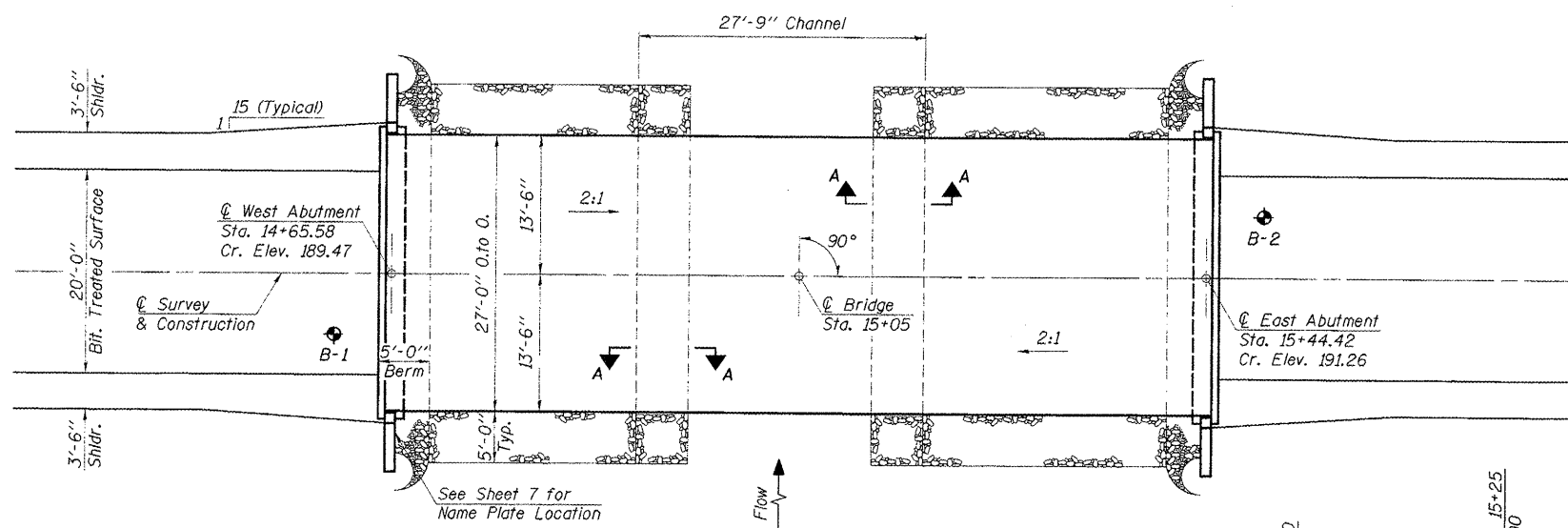
Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60. See Special Provisions.

The Contractor shall drive one steel HP12x53 test pile in a permanent location at each abutment as directed by the Engineer, before ordering the remainder of piles.

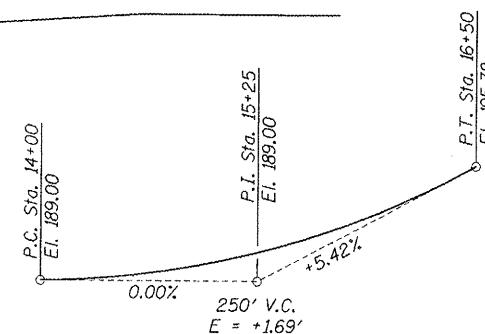
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.



RIPRAP DETAIL SECTION A-A



PLAN



DESIGN STRESSES

$f_c = 5,000$ p.s.i. (Prestressed Beams)
 $f_{ti} = 4,000$ p.s.i. (Prestressed Beams)
 $f_s = 270,000$ p.s.i. (Prestressed Strands)
 $f_{si} = 201,960$ p.s.i. (Prestressed Strands)
 $f_c = 3,500$ p.s.i. (Concrete -- Field Units)
 $f_y = 60,000$ p.s.i. (Reinf. Bars -- Field Units)
 $n = 8$ (Concrete)

LOADING HS20-44

Design Specifications: 2002 AASHTO 25#/Sq. Ft. included in dead load for future wearing surface.

WATERWAY INFORMATION

Drainage Area	15.48 Sq. Mi.
Existing Opening (15 Yr.)	398 Sq. Ft.
Required Opening (15 Yr.)	451 Sq. Ft.
Proposed Opening (15 Yr.)	451 Sq. Ft.
Design Discharge (15 Yr.)	2217 C.F.S.
Created Head (15 Yr.)	0.0 Ft.
100 Year Discharge	3536 C.F.S.
100 Yr. Created Head	0.3 Ft.

DESIGNED	F.J.S.
CHECKED	J.A.M.
DRAWN	S.A.P.
CHECKED	J.A.M.

CROW CREEK
 BUILT 200_ BY
 SARATOGA/MILO ROAD DISTRICTS
 MARSHALL/BUREAU COUNTIES
 SEC. 05-10116-00-BR
 SEC. 08-16114-00-BR
 STR. NO. 006-4234 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.	2,161		2,161
Concrete Structures	Cu. Yd.		19.4	19.4
Reinforcement Bars	Pound		2,480	2,480
Steel Railing, Type S1	Foot	160		160
Name Plates	Each		1	1
Steel Piles HP12x53	Foot		285	285
Test Piles Steel HP12x53	Each		2	2
Riprap, Special	Ton		159	159
Concrete Encasement	Cu. Yd.		2.8	2.8

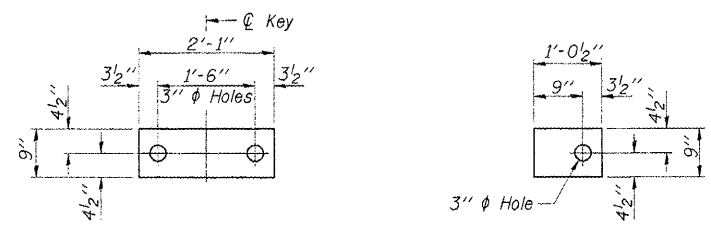
GENERAL PLAN & ELEVATION
 SARATOGA - MILO ROAD DISTRICTS
 SECTIONS 05-10116-00-BR & 08-16114-00-BR
 MARSHALL - BUREAU COUNTIES
 STATION 15+05

"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'."

J. A. Morris 12-5-08
 ILLINOIS STRUCTURAL NO. 4277 (Expires 11/30/10)

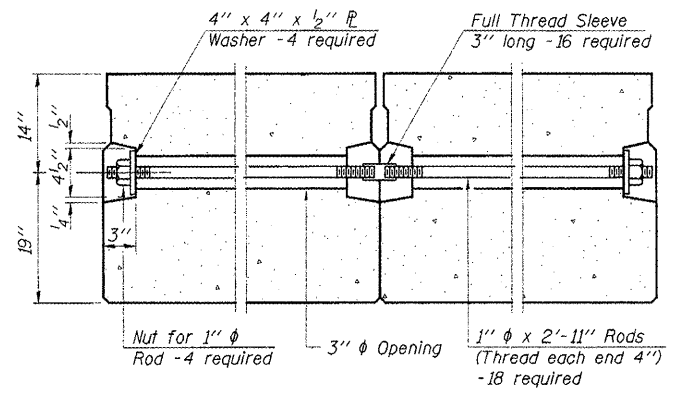
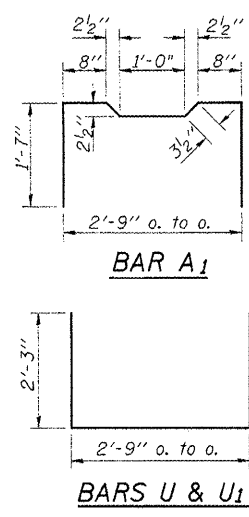


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3		MARSHALL/BUREAU	14	5
ROAD DIST.	ILLINOIS	SARATOGA/MILO		
*05-10116-00-BR		CONTRACT NO. 89398		
08-16114-00-BR				

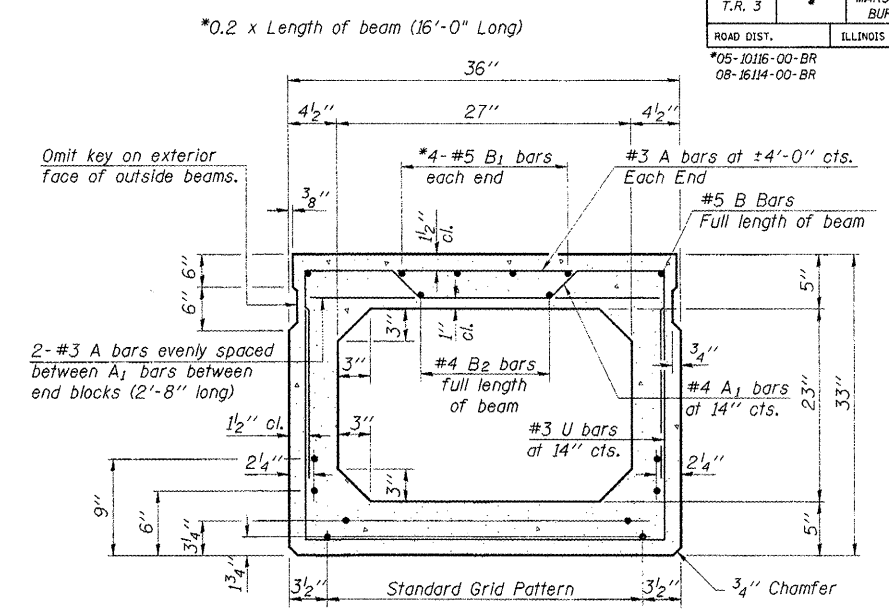


FABRIC BEARING PAD
(Interior)
(16 Req'd)

FABRIC BEARING PAD
(Exterior)
(4 Req'd)



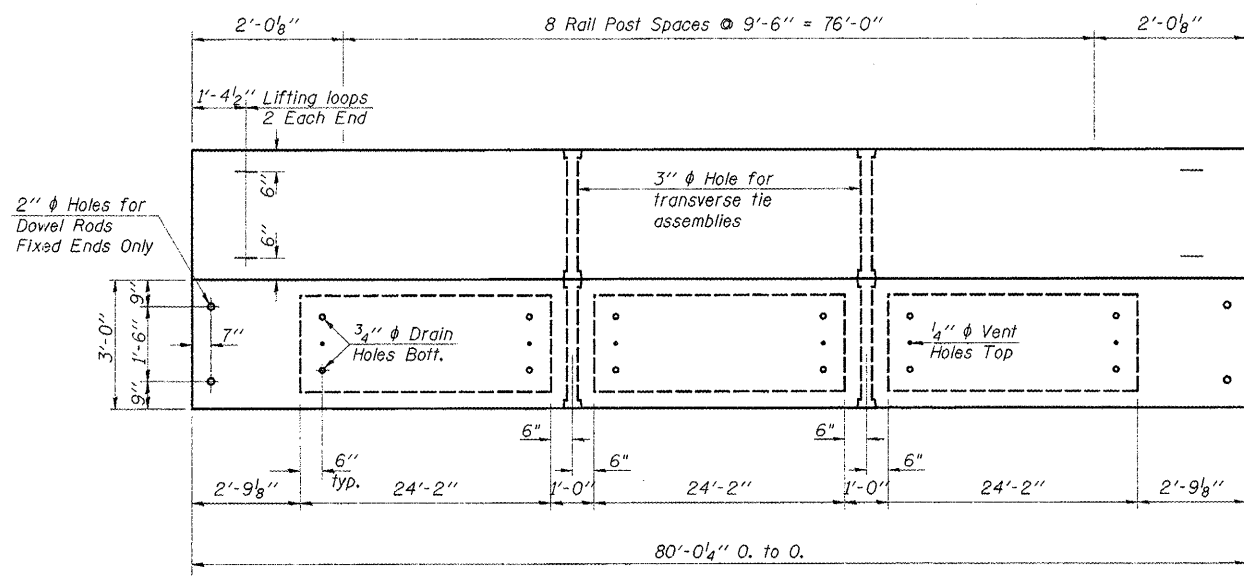
TYPICAL TRANSVERSE TIE ASSEMBLY



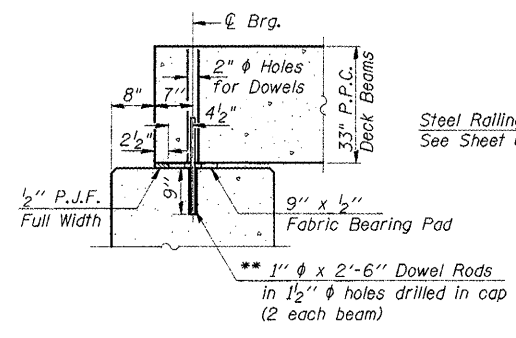
TYPICAL SECTION

Note:
Place strands symmetrically about center of beam.

17 1/2" ϕ Strands Each Strand Stressed to 30,900 Lbs.
8-Strands 1 3/4" up, 5-Strands 3/4" up, 2-Strands 6" up, 2-Strands 9" up

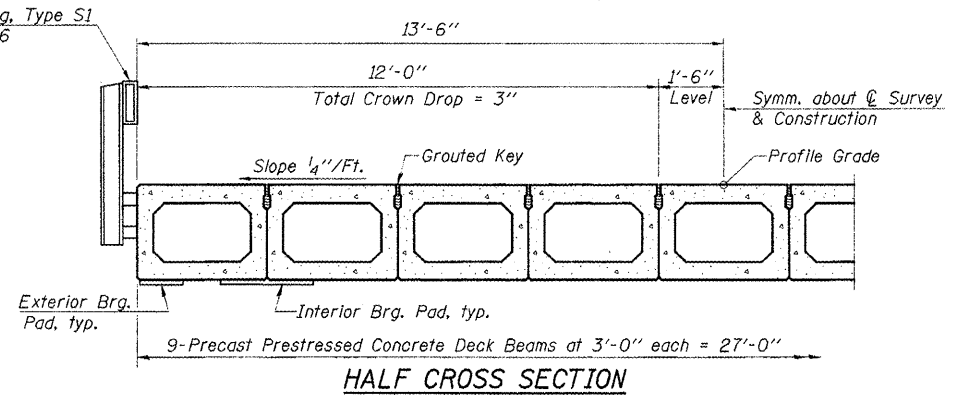


PLAN
(Beam Length Adjusted For Vertical Profile Grade)

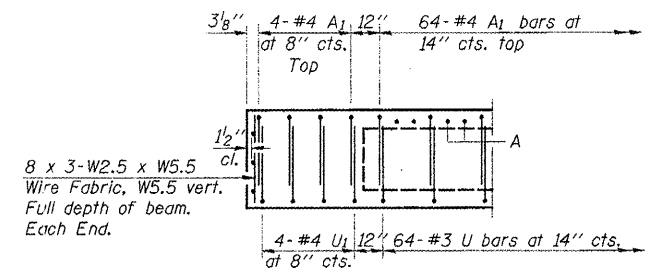


SEC. THRU ABUT.

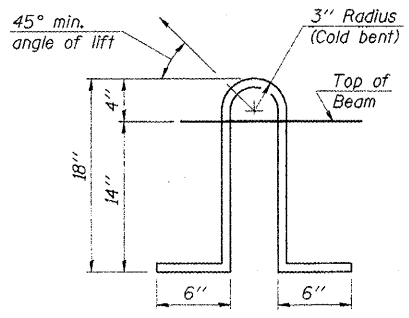
** Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys.



HALF CROSS SECTION



END ELEVATION



LIFTING LOOP DETAIL

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" ϕ -270 ksi strands, as shown.

The 1" ϕ 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 ASTM A706, 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. (40 Required)

Keyway surfaces shall be cleaned to remove form oil 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.

Required Release Strength, f'cl, shall be 4,000 p.s.i.

Rail post inserts, specified elsewhere, shall be cast into exterior face of outside beams. See Special Provisions for review and distribution of shop drawings.

BILL OF MATERIAL

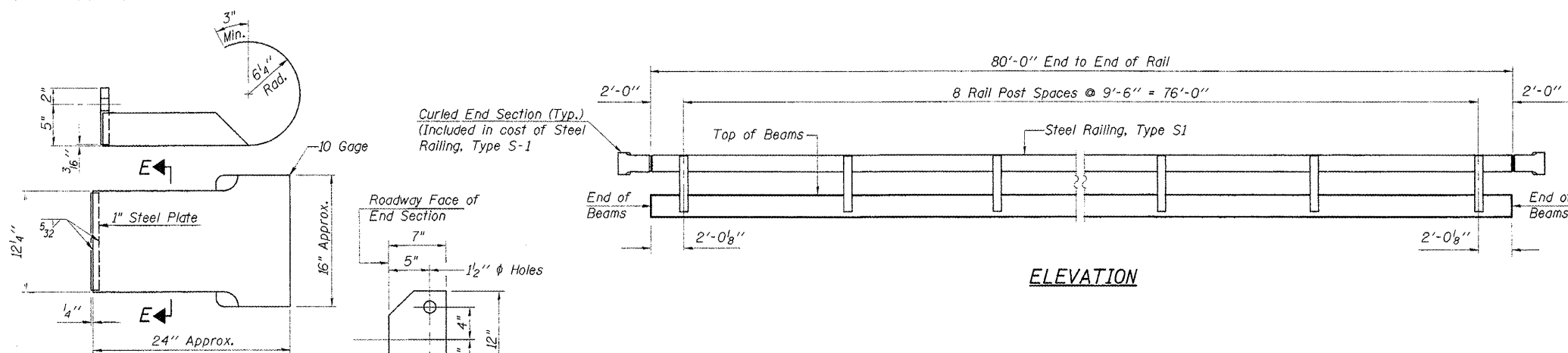
Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,161

Estimated Total Weight (One Beam) = 54,420 Pounds

SUPERSTRUCTURE
SARATOGA - MILO ROAD DISTRICTS
SECTIONS 05-10116-00-BR & 08-16114-00-BR
MARSHALL - BUREAU COUNTIES
STATION 15+05

DESIGNED	F.J.S.
CHECKED	J.A.M.
DRAWN	S.A.P.
CHECKED	J.A.M.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3		MARSHALL/BUREAU	14	6
ROAD DIST.		ILLINOIS	SARATOGA/MILO	
*05-10116-00-BR			CONTRACT NO. 89398	
08-16114-00-BR				

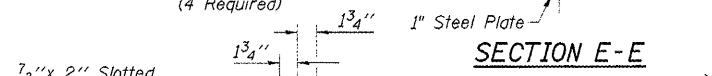


ELEVATION

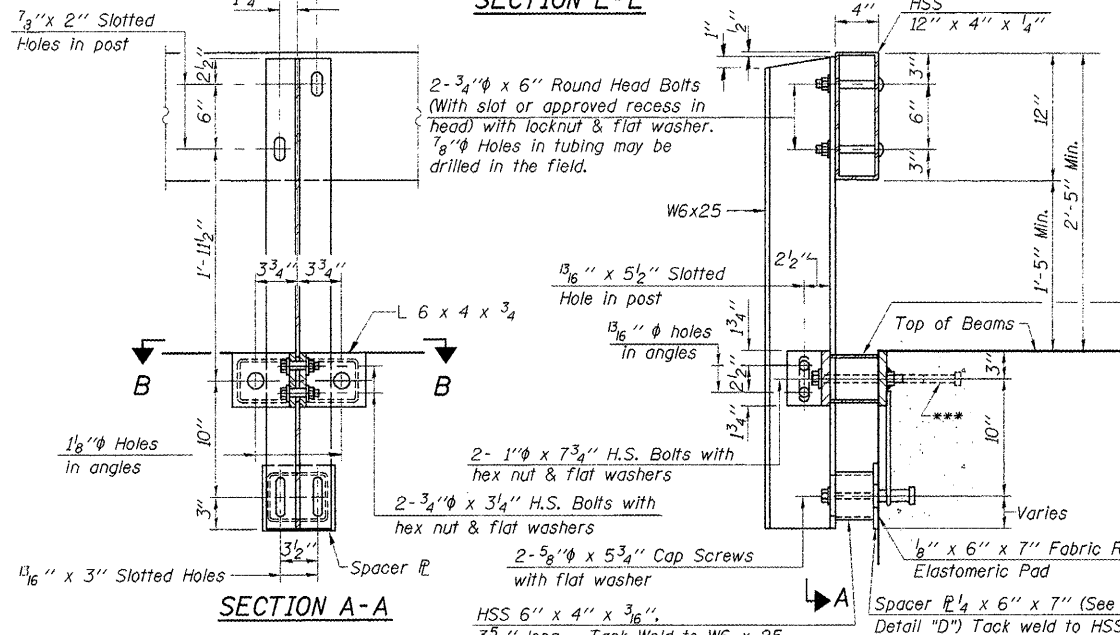
NOTES

All field drilled holes shall be coated with an approved zinc rich paint before erection.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications. In addition to the elements specified in Article 509.05, all angles and spacers are to be galvanized in accordance with AASHTO M-111, and all cap screws, washers, and lock washers are to be galvanized in accordance with AASHTO M-232.
 The 3/4" (M20) diameter high strength bolts used to connect the 6x4x3/4" angles to the post shall be tightened in accordance with Article 504.04(f)(2) of the Standard Specifications. The 1" (M24) diameter high strength bolts connecting steel to concrete shall be brought to a snug tight condition and given an additional 1/8 turn. The 5/8" (M16) cap screws in the bottom of the posts shall be brought to a snug tight condition only.
 *** The studs for the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

CURLED END SECTION DETAILS
(4 Required)

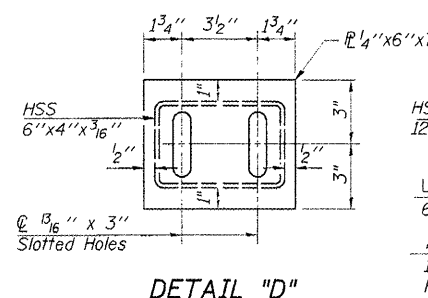


SECTION E-E

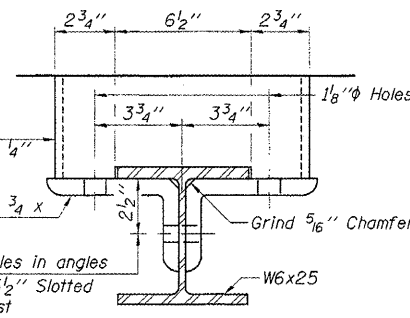


SECTION A-A

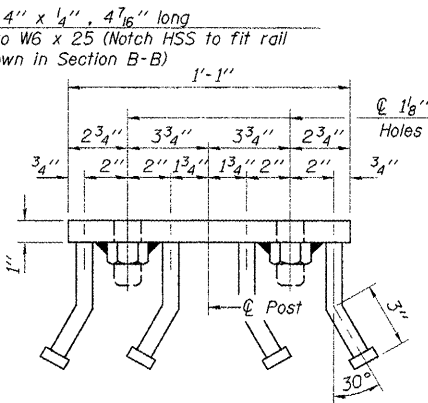
SECTION AT RAIL POST



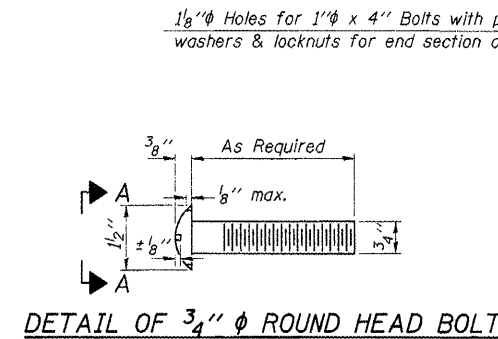
DETAIL "D"



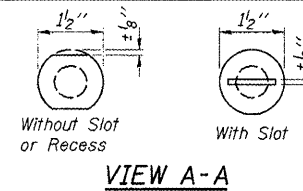
SECTION B-B



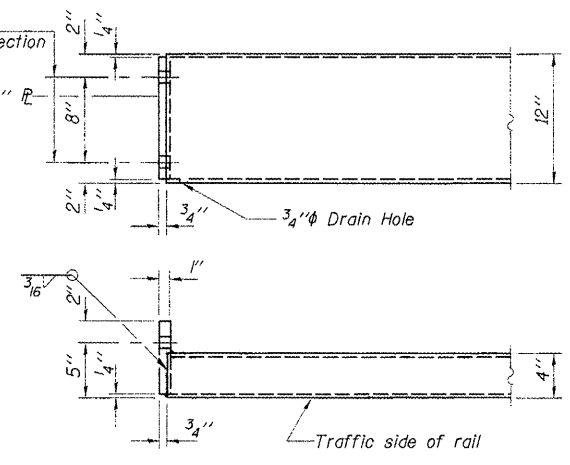
VIEW C-C



DETAIL OF 3/4" ROUND HEAD BOLT



VIEW A-A



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	160

STEEL RAILING, TYPE S1

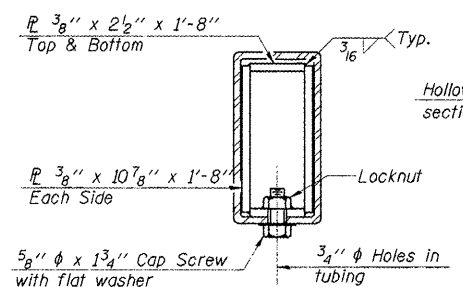
SARATOGA - MILO ROAD DISTRICTS
 SECTIONS 05-10116-00-BR & 08-16114-00-BR
 MARSHALL - BUREAU COUNTIES
 STATION 15+05

DESIGNED	F.J.S.
CHECKED	J.A.M.
DRAWN	S.A.P.
CHECKED	J.A.M.

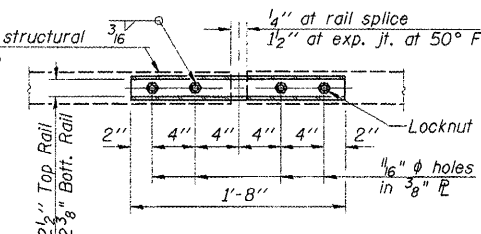
ANCHOR DEVICE

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

** 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)

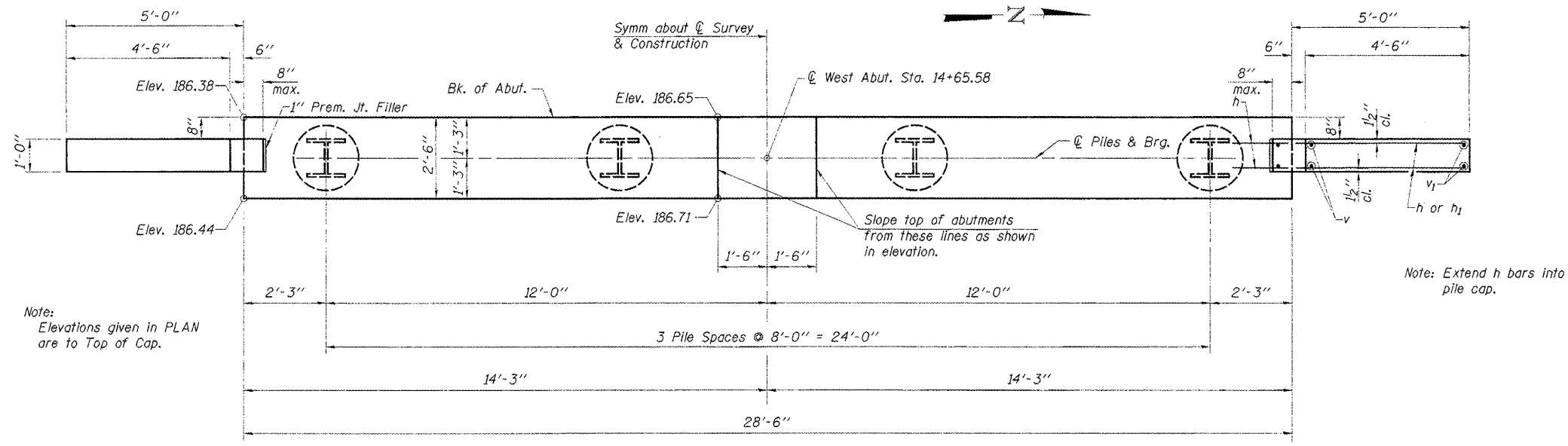


SECTIONS AT RAIL SPLICE

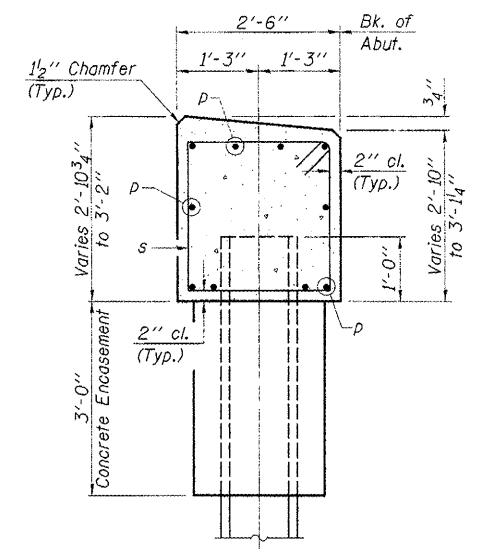


PLAN-BOTT. SPLICE TYPICAL

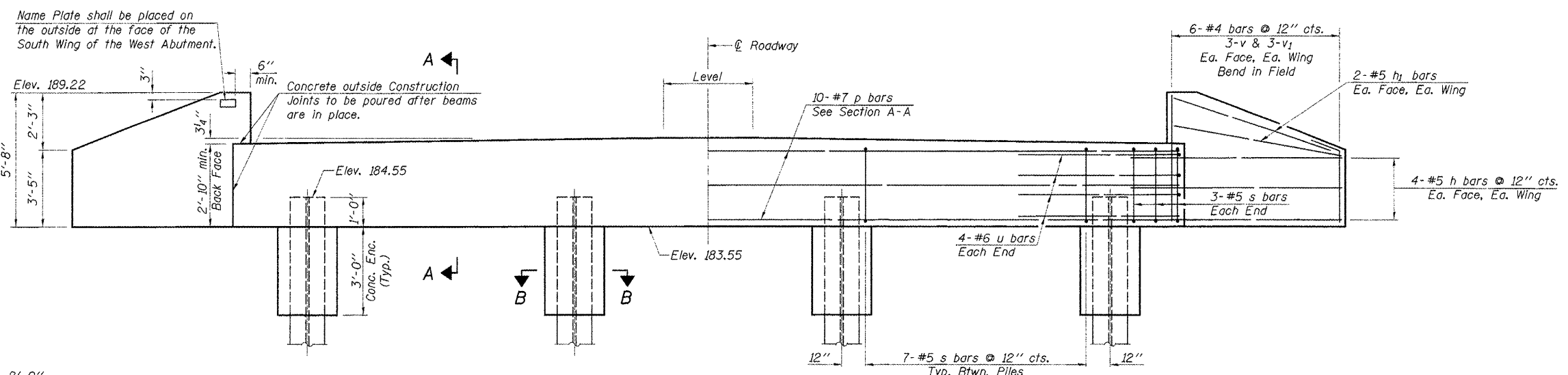
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T.R. 3		MARSHALL/BUREAU	14	7
ROAD DIST.	ILLINOIS	SARATOGA/MILO	CONTRACT NO. 89398	
*05-10116-00-BR		08-16114-00-BR		



PLAN



SECTION A-A
(Looking South)

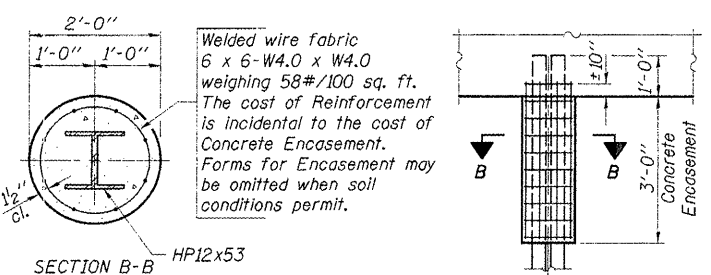


ELEVATION
(Looking West)

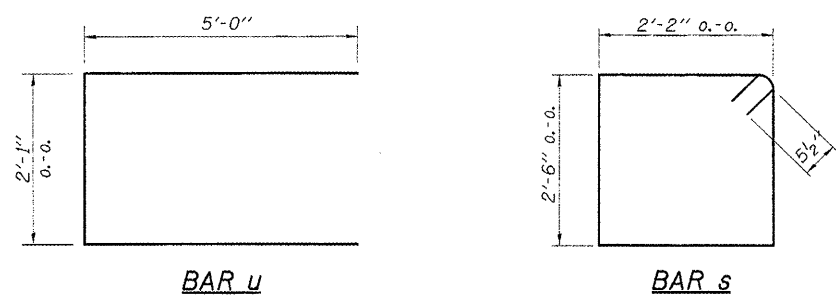
W. ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	16	#5	6'-9"	
h ₁	8	#5	5'-3"	
p	10	#7	28'-2"	
s	27	#5	10'-3"	□
u	8	#6	12'-1"	□
v	12	#4	5'-4"	
v ₁	12	#4	4'-2"	
Concrete Structures		Cu. Yd.	9.7	
Reinforcement Bars		Pound	1,240	
Name Plates		Each	1	
Test Pile HP12x53		Each	1	
Concrete Encasement		Cu. Yd.	1.4	
Steel Piles HP12x53		Foot	138	

See Sheet 9 for Pile Details.



PILE ENCASEMENT DETAIL



PILE DATA

Type	Steel HP12x53
No. Req'd. (W Abut.)	*4
Nominal Required Bearing	360 Kips
Allowable Resistance Available	120 Kips
Est. Length	46 Feet/Pile

*Includes 1 Test Pile to be driven in a permanent location at the West Abutment. The test pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

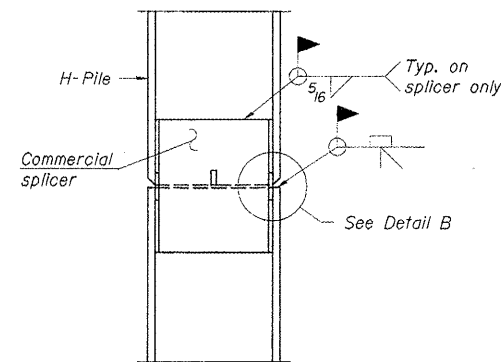
DESIGNED	F.J.S.
CHECKED	J.A.M.
DRAWN	S.A.P.
CHECKED	J.A.M.

WEST ABUTMENT

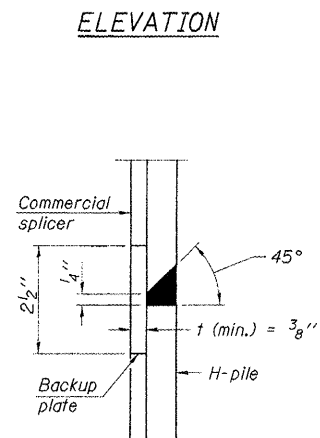
SARATOGA - MILO ROAD DISTRICTS
SECTIONS 05-10116-00-BR & 08-16114-00-BR
MARSHALL - BUREAU COUNTIES
STATION 15+05

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS	JOB NO.: 46826 FILE: 46826WABUT.DGN DATE: 10/07/08
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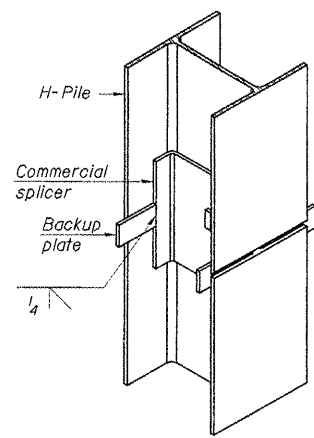
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T.R. 3		MARSHALL/BUREAU	14	9
ROAD DIST.	ILLINOIS	SARATOGA/MILO		
*05-10116-00-BR		CONTRACT NO. 89398		
08-16114-00-BR				



ELEVATION

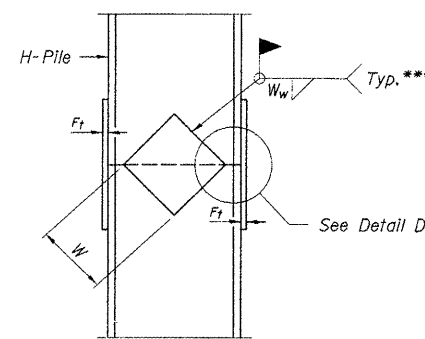


DETAIL "B"

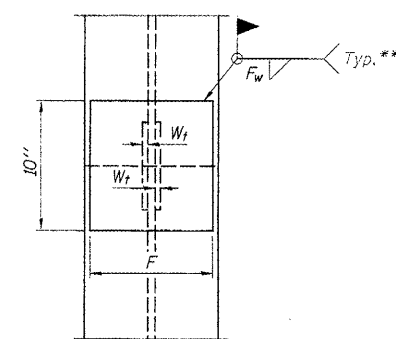


ISOMETRIC VIEW

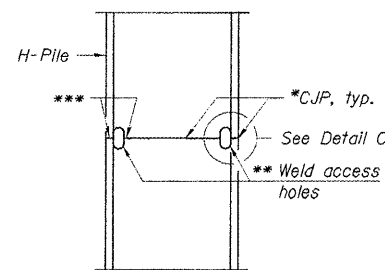
WELDED COMMERCIAL SPLICE



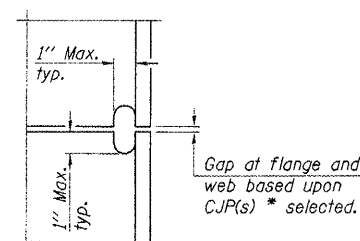
ELEVATION



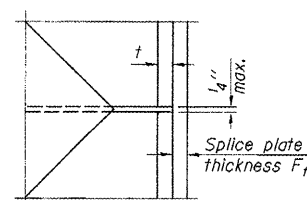
END VIEW



ELEVATION



DETAIL C



DETAIL D

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	1/2"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	1/2"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	1/2"	6 1/2"	5 8/8"	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"

COMPLETE PENETRATION WELD SPLICE

WELDED PLATE FIELD SPLICE

DESIGNED	F.J.S.
CHECKED	J.A.M.
DRAWN	S.A.P.
CHECKED	J.A.M.

F-HP 11-1-06

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

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

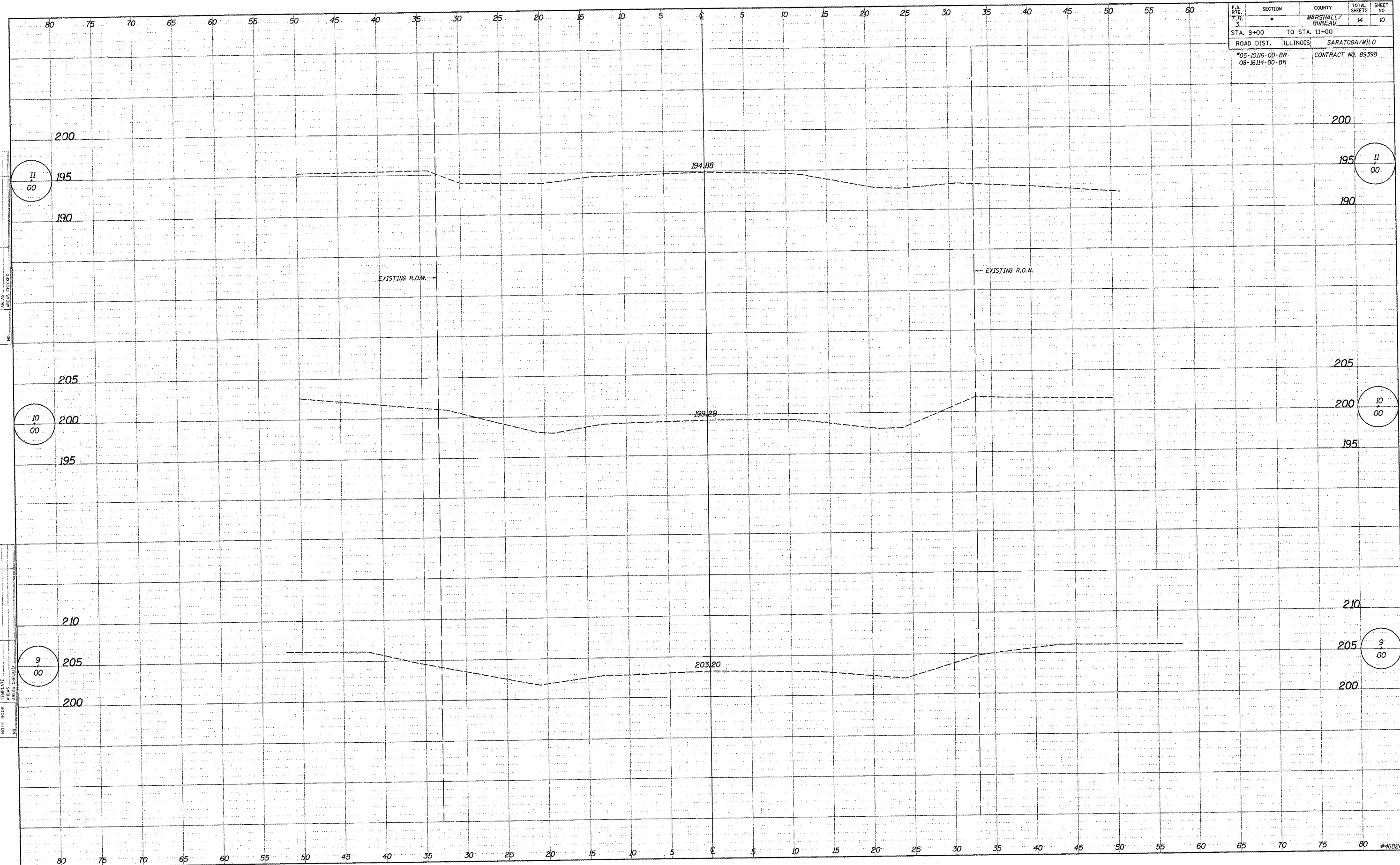
PILE DETAILS
 SARATOGA - MILO ROAD DISTRICTS
 SECTIONS 05-10116-00-BR & 08-16114-00-BR
 MARSHALL - BUREAU COUNTIES
 STATION 15+05

4440 ASH GROVE
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 FREEDOM, IL 62450

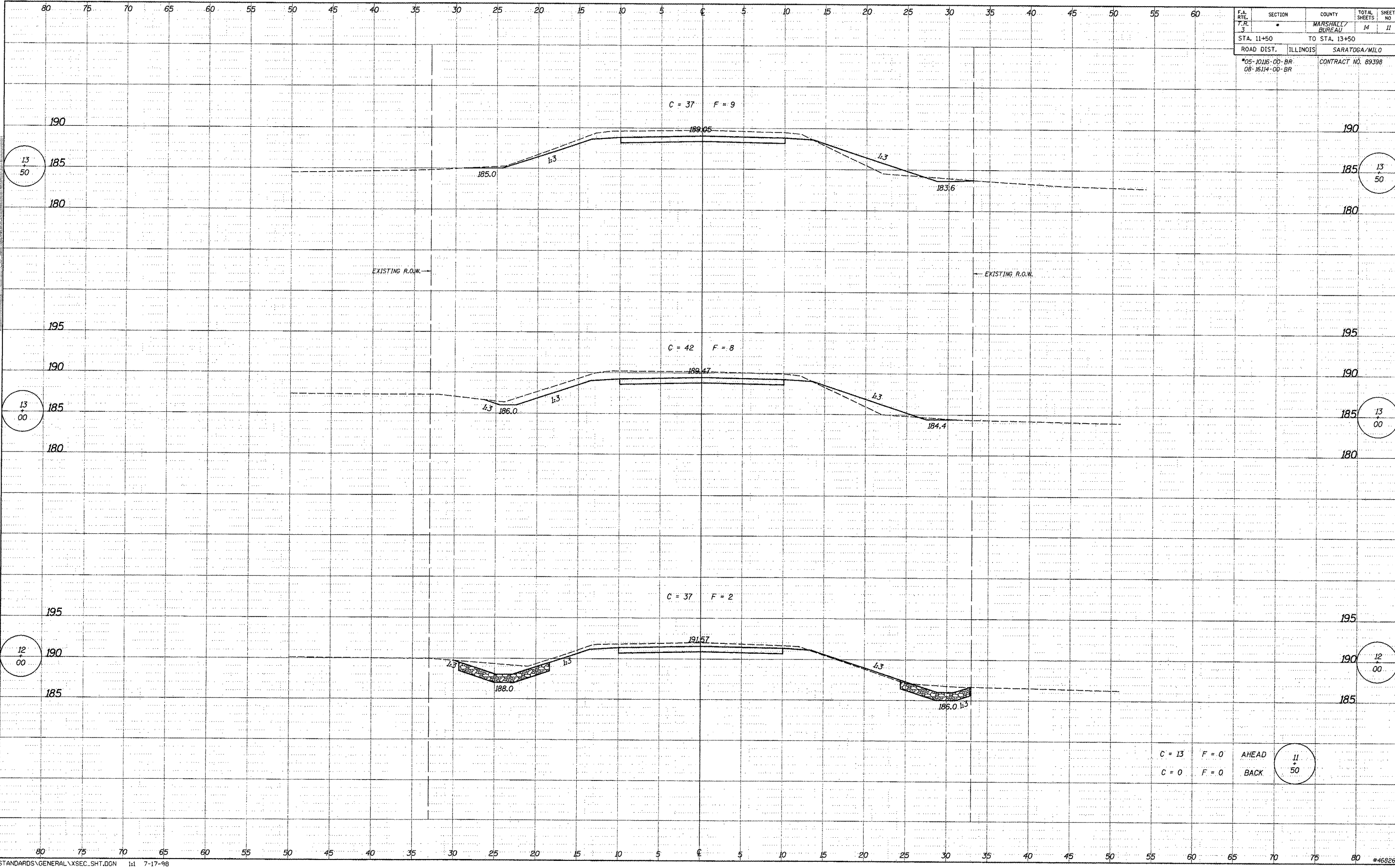
JOB NO.: 46826
 FILE: 46826SPICE.DGN
 DATE: 10/07/08

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.N.		MARSHALL/BUREAU	14	10
STA. 9+00		TO STA. 11+00		
ROAD DIST. ILLINOIS		SARATOGA/MILO		
*05-10116-00-BR		CONTRACT NO. 89398		
08-16114-00-BR				



DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY

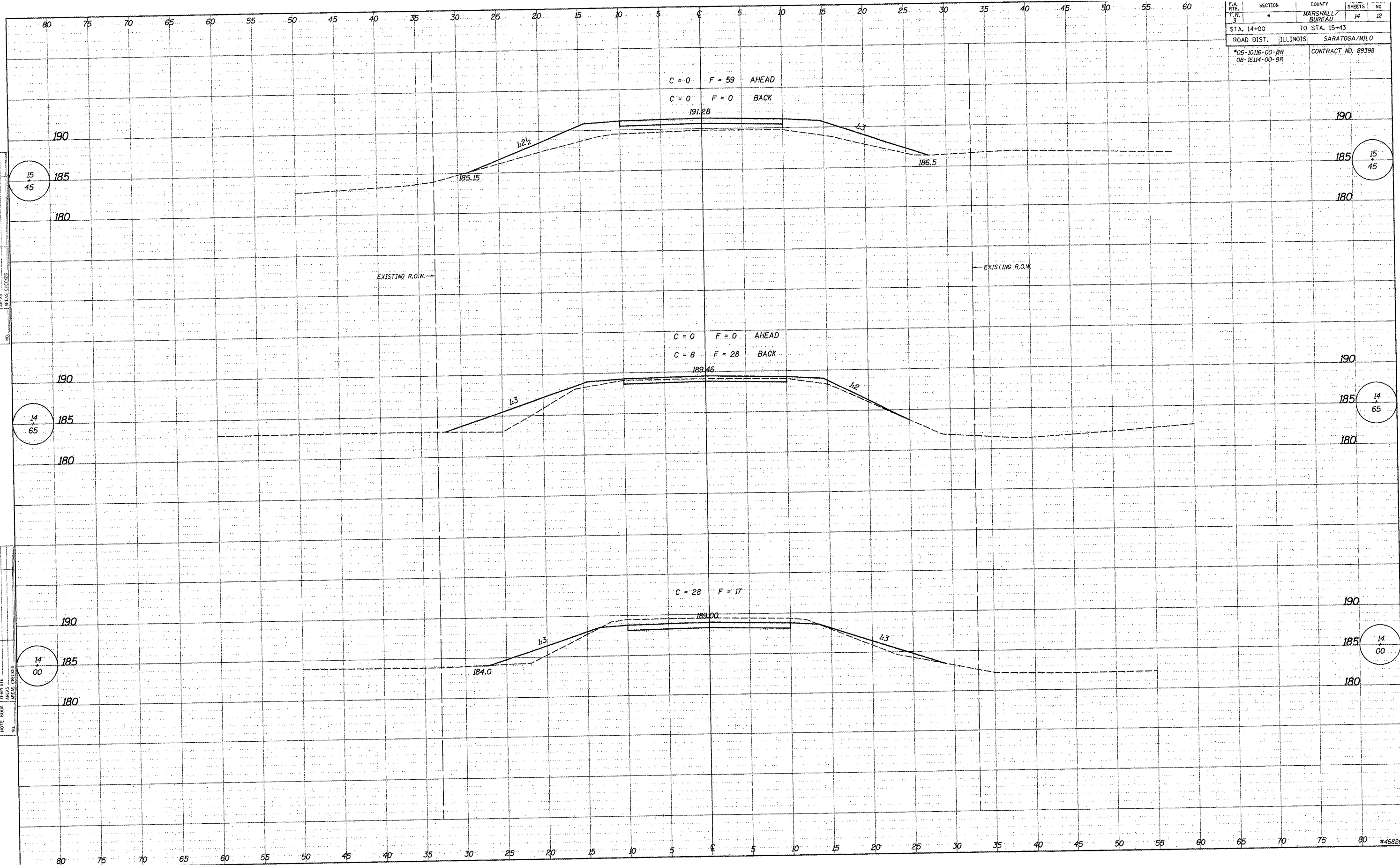


P.A. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3		MARSHALL/BUREAU	14	11
STA. 11+50	TO STA. 13+50			
ROAD DIST.	ILLINOIS	SARATOGA/MILO		
*05-1016-00-BR			CONTRACT NO. 89398	
08-1614-00-BR				

$C = 13$ $F = 0$ AHEAD
 $C = 0$ $F = 0$ BACK

11
50

F.V.	SECTION	COUNTY	SHEETS	NO
3	*	MARSHALL	14	12
STA. 14+00		TO STA. 15+43		
ROAD DIST. ILLINOIS		SARATOGA/MILO		
*05-1018-00-BR		CONTRACT NO. 89398		
08-1614-00-BR				



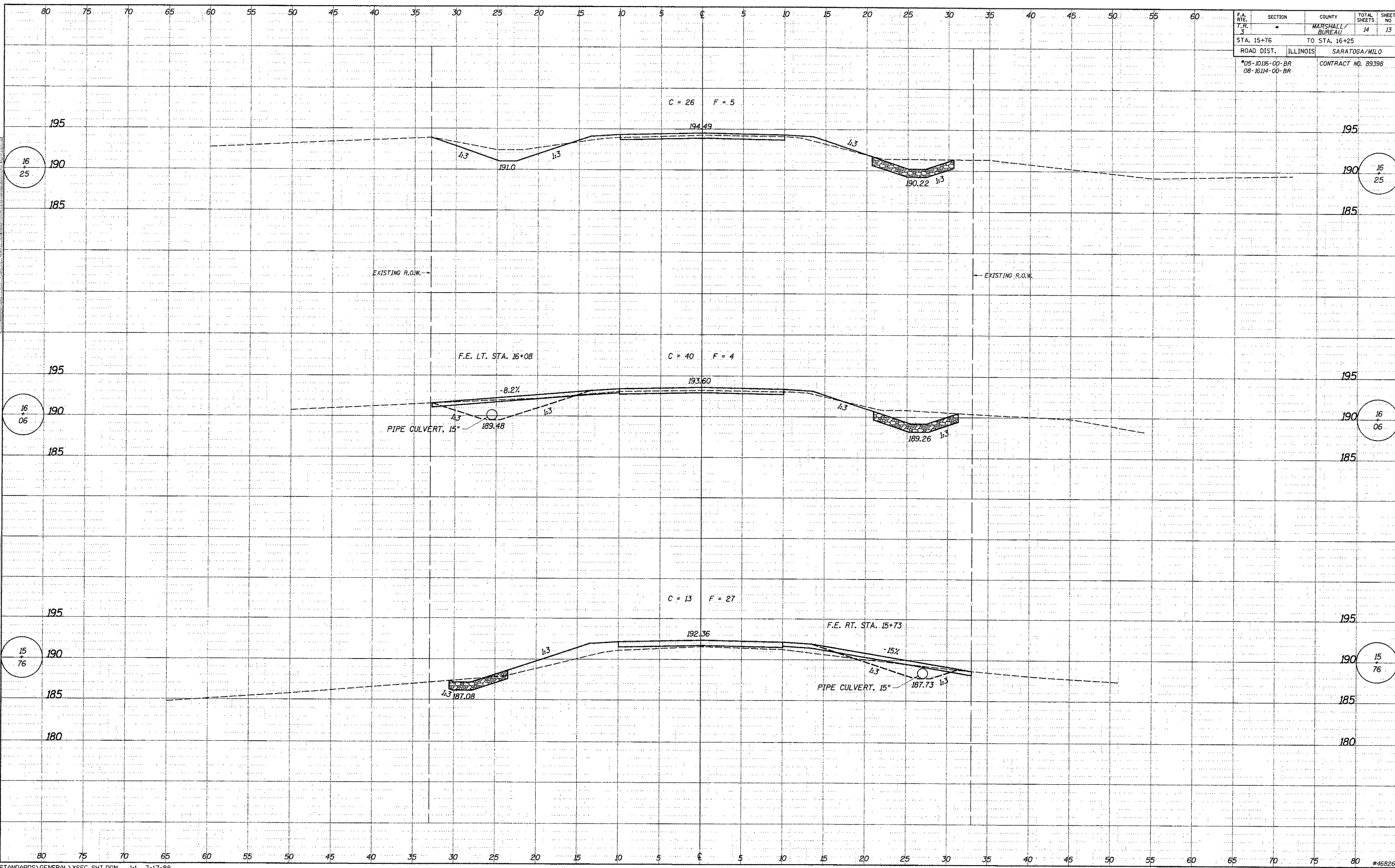
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 BY: _____
 CHECKED: _____
 APPROVED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK: _____
 NO. _____

DATE: _____
 BY: _____
 CHECKED: _____
 APPROVED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK: _____
 NO. _____

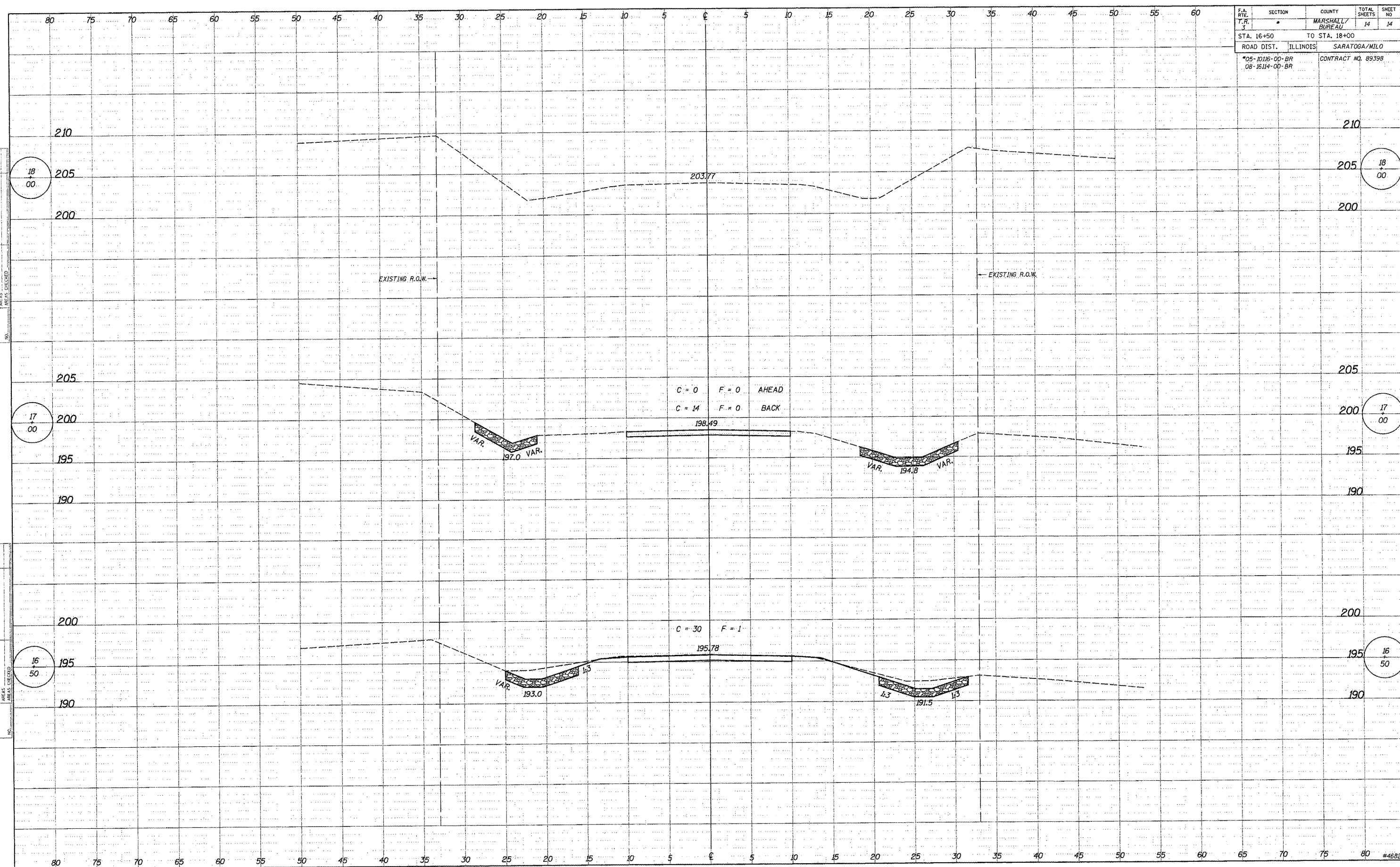
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 CHECKED: _____
 FINAL SURVEY PLOTTED
 NOTE BOOK PLUMBAT
 AREAS CHECKED

DATE: _____ BY: _____
 CHECKED: _____
 ORIGINAL SURVEY PLOTTED
 NOTE BOOK PLUMBAT
 AREAS CHECKED

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 3	*	MARSHALL/BUREAU	14	13
STA. 15+76		TO STA. 16+25		
ROAD DIST. ILLINOIS		SARATOGA/MLO		
*05-1015-00-BR		CONTRACT NO. 89398		
08-1614-00-BR				



R.A. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
3	*	MARSHALL/BUREAU	14	14
STA. 16+50		TO STA. 18+00		
ROAD DIST. ILLINOIS		SARATOGA/MILO		
*05-10116-00-BR		CONTRACT NO. 89398		
08-16114-00-BR				



DATE: _____ BY: _____
 SURVEY: _____
 NOTE BOOK: _____
 NO.: _____

DATE: _____ BY: _____
 SURVEY: _____
 NOTE BOOK: _____
 NO.: _____