

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	1
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK		

CONTRACT NO. 87312

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED

BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

SECTION 03-00295-00-BR
IROQUOIS COUNTY

SECTION 97-00005-00-BR
VILLAGE OF CISSNA PARK
PROJECT NO. CBROS-075(93)

T.R. ROUTE 146
JOB NO. C-93-034-98

INDEX OF SHEETS

SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, GENERAL NOTES & TYPICAL SECTIONS
3.	PLAN AND PROFILE SHEET
4.-10.	BRIDGE PLANS
11	FOUNDATION BORINGS
12.-15.	STATION CROSS SECTIONS
16.	EROSION CONTROL PLAN

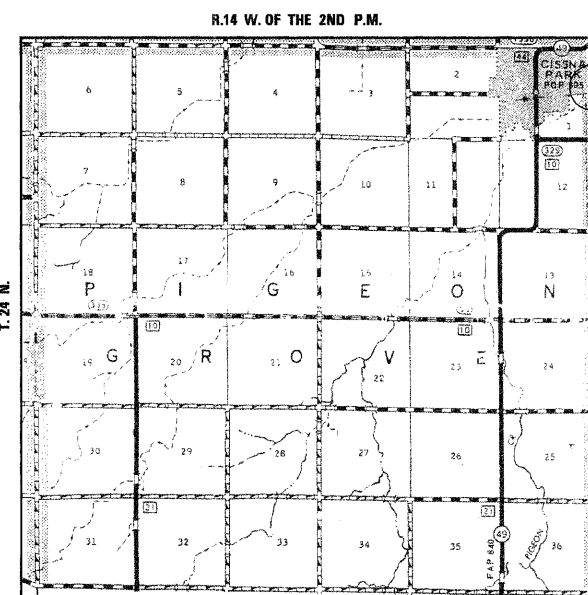
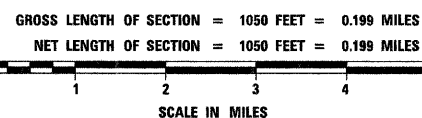
STANDARDS:

- 280001-02
- 515001-02
- 630001-06
- 631011-02
- 631026-02
- 702001-06
- BLR 21-6

SCALES



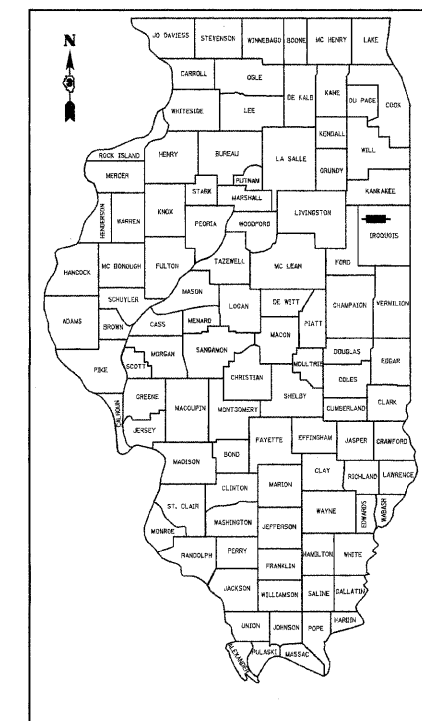
LOCATION PLAN



IMPROVEMENT BEGINS
STA. 12+50

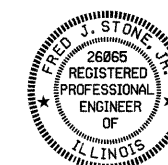
STA. 19+11 - SPECIAL BRIDGE DESIGN
PRECAST PRESTRESSED CONCRETE DECK
BEAM, 3 SPANS @ 36'-0", 53'-0", 36'-0"
30'-0" ROADWAY, 20° SKEW
EXISTING S.N. 038-4137
PROPOSED S.N. 038-6401

IMPROVEMENT ENDS
STA. 23+00



CLASSIFICATION: LOCAL ROAD (RURAL)
 DESIGN VOLUME: ADT 0-250
 CURRENT ADT: 52 (2005)
 DESIGN SPEED: 30 MPH

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



Fred J. Stone, Jr. 9-22-06
 ILLINOIS PROFESSIONAL NO. 26065
 EXPIRES 11-30-07

PASSED: 9-25 2006
 VILLAGE PRESIDENT: [Signature]

APPROVED: September 25, 2006
 COUNTY ENGINEER: [Signature]

PASSED: September 26 2006
 DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS: [Signature]

RELEASING FOR BID
 BASED ON LIMITED REVIEW: September 26 2006
 DEPUTY DIRECTOR OF HIGHWAYS, REGION TWO ENGINEER: [Signature]

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

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

FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 FREDERICK S. ROCKFORD, L. ROBERT L. WOODS, III SPRINGFIELD, IL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	2
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK		

CONTRACT NO. 87312

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY	CONSTRUCTION TYPE CODE X080-2A
20200100	EARTH EXCAVATION	CU YD	1796	
20300100	CHANNEL EXCAVATION	CU YD	380	
* 20400800	FURNISHED EXCAVATION	CU YD	262	
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1.2	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	160	
* 28000300	TEMPORARY DITCH CHECKS	EACH	5	
28000400	PERIMETER EROSION BARRIER	FOOT	1860	
28100209	STONE RIPRAP, CLASS A5	TON	945	
28200200	FILTER FABRIC	SQ YD	998	
* 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	1604	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	
50300225	CONCRETE STRUCTURES	CU YD	49.4	
* 50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	3750	
50800105	REINFORCEMENT BARS	POUND	5560	
50900205	STEEL RAILING, TYPE S1	FOOT	251	
51201600	FURNISHING STEEL PILES HP12X53	FOOT	955	
51202700	DRIVING STEEL PILES	FOOT	955	
51203600	TEST PILE STEEL HP12X53	EACH	2	
51204315	CONCRETE ENCASEMENT	CU YD	43.1	
51500100	NAME PLATES	EACH	1	
* 54200223	PIPE CULVERTS, CLASS D, TYPE 1, 18"	FOOT	40	
* 63100175	TRAFFIC BARRIER TERMINAL, TYPE 2 (SPECIAL)	EACH	1	
* 63100205	TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)	EACH	1	
67100100	MOBILIZATION	L SUM	1	
* 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	
* X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1	
* X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1	

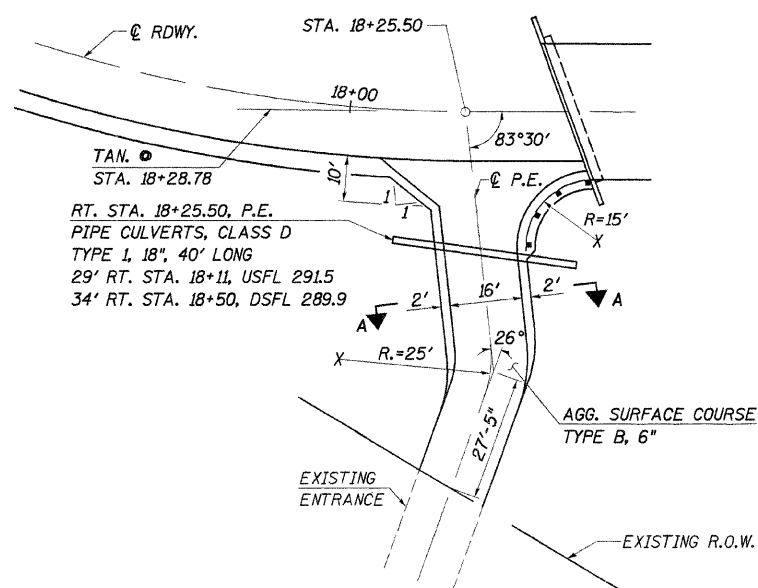
*SEE SPECIAL PROVISIONS

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.

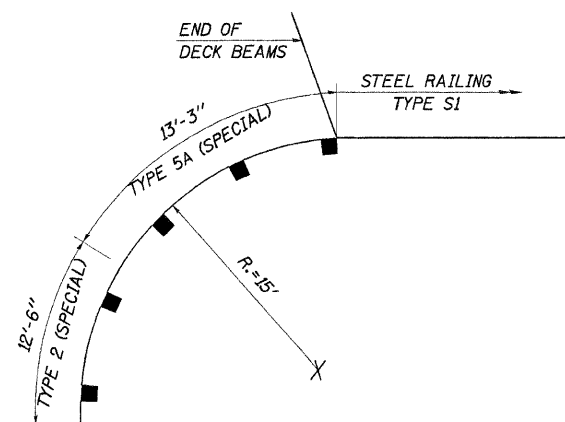
THE AREA TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY, AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 1.2 ACRE



PRIVATE ENTRANCE DETAIL

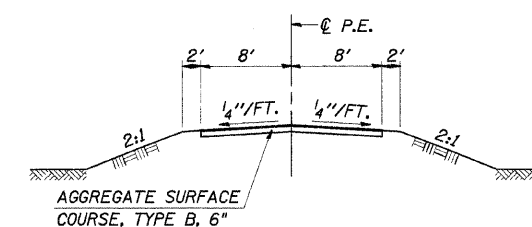
RT. STA. 18+25.50



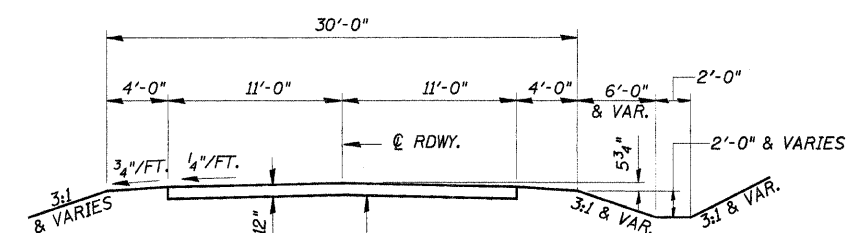
TRAFFIC BARRIER TERMINAL DETAIL

NORTHWEST CORNER

NOTE: BARRIER TERMINALS TO BE FABRICATED TO SPECIFIED RADIUS.



SECTION A-A

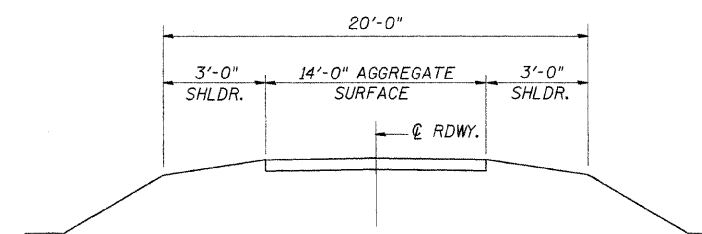


TYPICAL PROPOSED CROSS SECTION

STA. 13+50 TO STA. 22+00

ROAD CLASSIFICATION: LOCAL ROAD ADT 0-250
CURRENT ADT LESS THAN 150

TRANSITION FROM EXISTING ROADWAY TO PROPOSED ROADWAY TO BE CONSTRUCTED FROM STA. 12+50 TO STA. 13+50 AND FROM STA. 22+00 TO STA. 23+00.



EXISTING TYPICAL CROSS SECTION

SUMMARY OF QUANTITIES, GENERAL NOTES AND TYPICAL CROSS SECTION
SECTION 03-00295-00-BR
VILLAGE OF CISSNA PARK
IROQUOIS COUNTY
STATION 19+11

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

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PREPARED BY: ROBERTA E. ROSELLI, LICENSED PROFESSIONAL ENGINEER

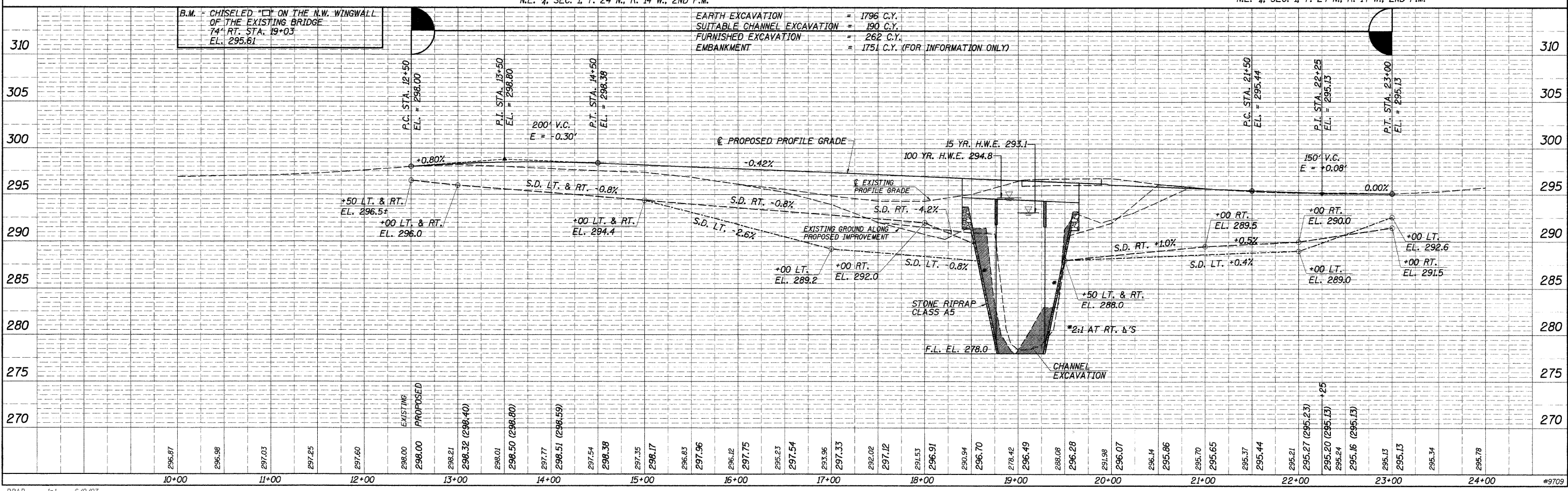
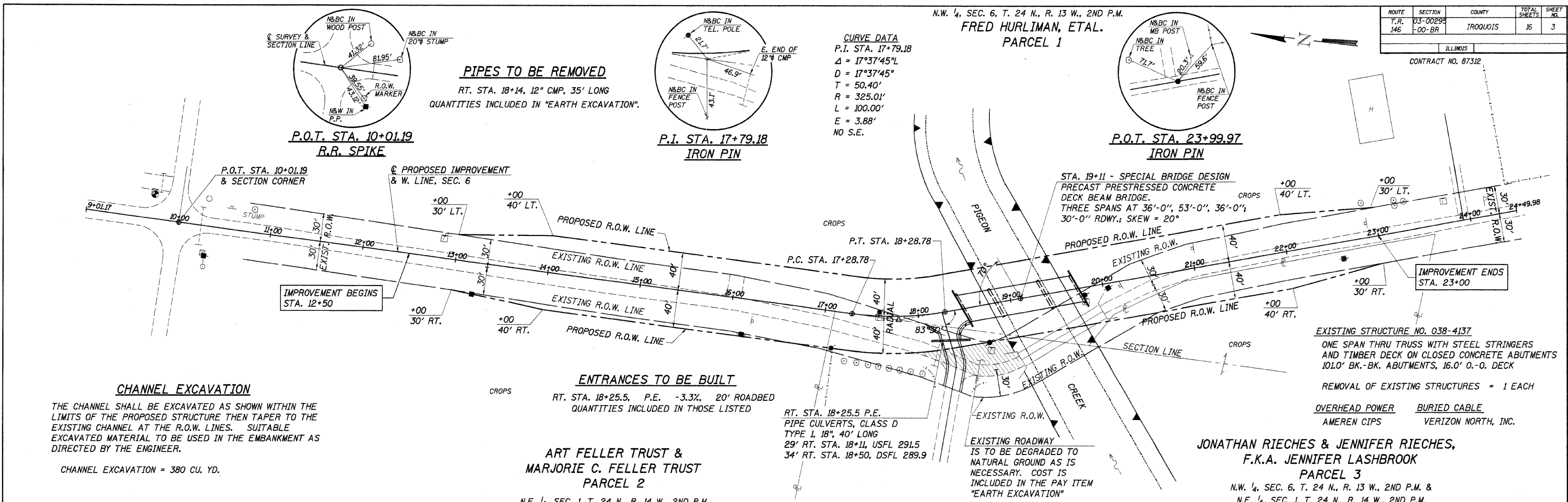
JOB NO.: 9709
FILE: SUMTYP.DGN
DATE: 03/29/05

DATE	
BY	
SUBMITTED	
ALIGNED	
CHECKED	
DATE	
BY	
NO.	

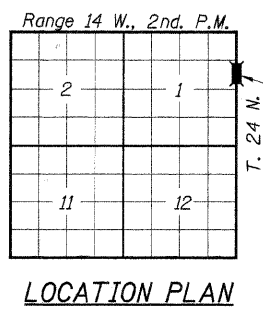
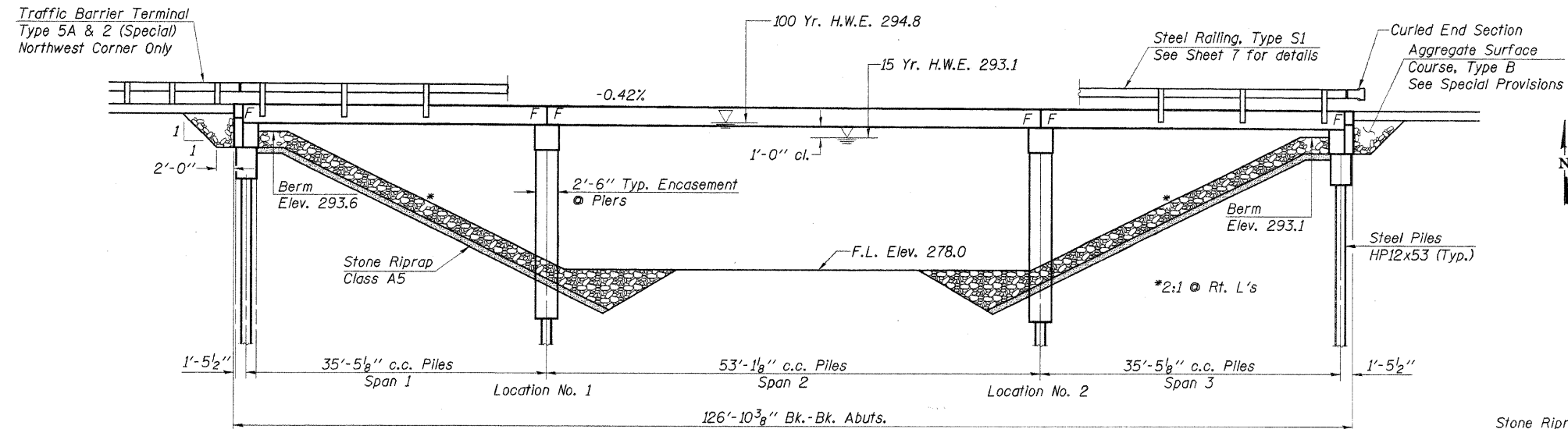
DATE	
BY	
SUBMITTED	
GRADES CHECKED	
DATE	
BY	
NO.	

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00299	IRROQUOIS	16	3

CONTRACT NO. 87312



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	4
ROAD DIST.		ILLINOIS	VILLAGE OF CISSNA PARK	
CONTRACT NO. 87312				



GENERAL NOTES

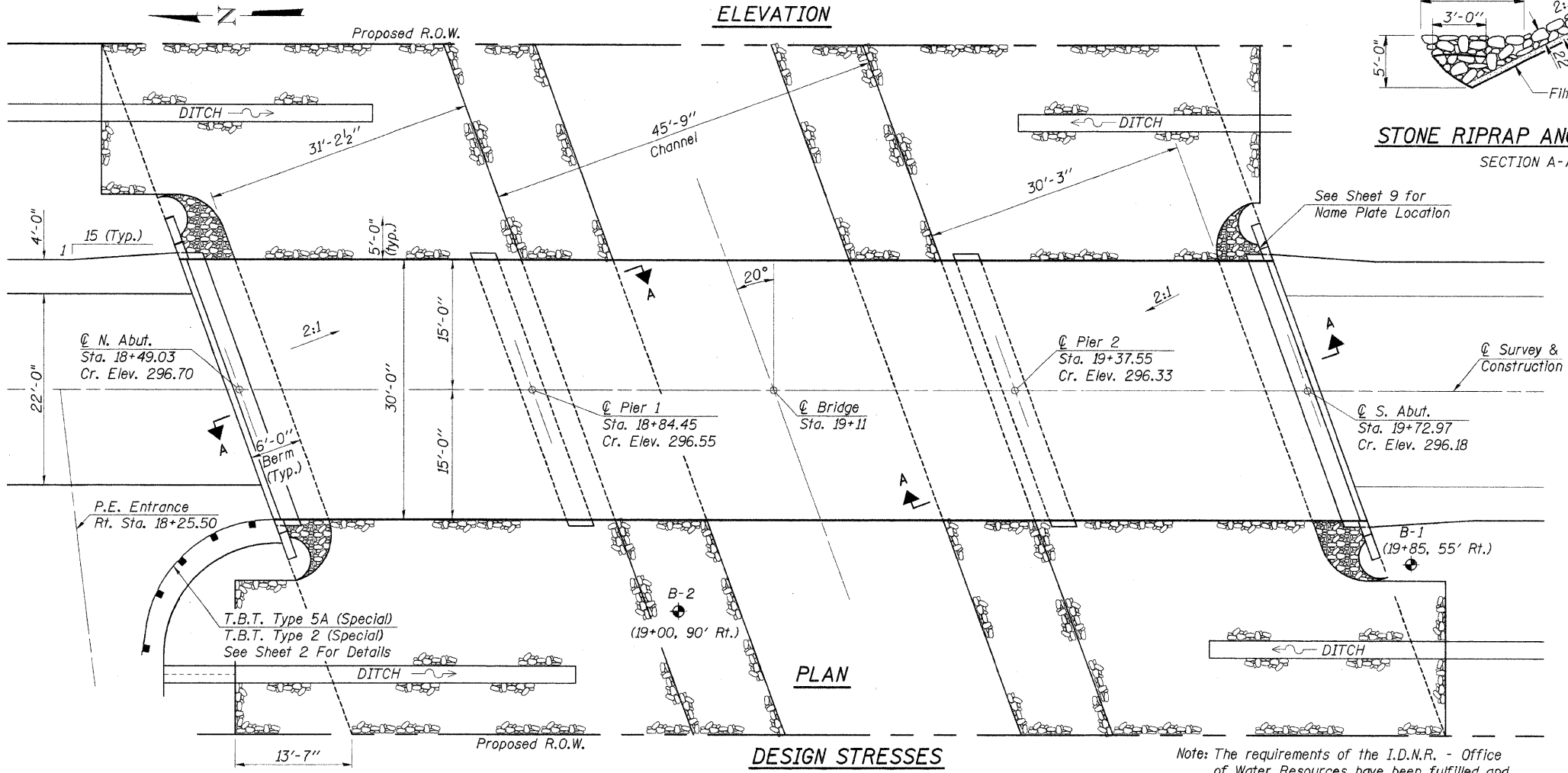
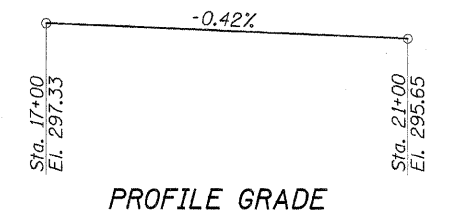
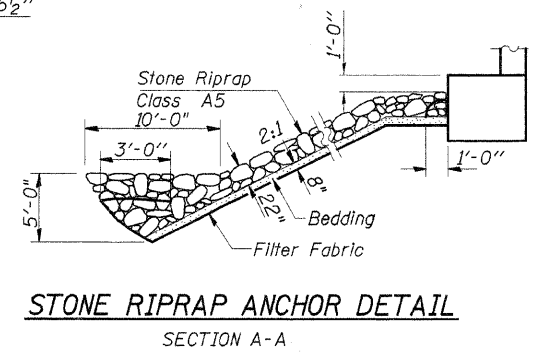
See sheet 11 for Boring data.

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

The Contractor shall drive one steel "H" test pile in a permanent location at the North abutment and at Pier #2 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.

Aggregate Surface Course, Ty. B shall be used to backfill behind each abutment as indicated by the Engineer. The additional quantity of CA-10 is included in the total quantity for Aggregate Surface Course, Ty. B. (See Special Provisions).



**PIGEON CREEK
BUILT 200_ BY
VILLAGE OF CISSNA PARK
IROQUOIS COUNTY
SEC. 03-00295-00-BR
F.A. PROJ. BROS-075(93)
STR. NO. 038-6401 LOADING HS20**

LETTERING FOR NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3750		3750
Concrete Structures	Cu. Yd.		49.4	49.4
Reinforcement Bars	Pound		5560	5560
Steel Railing, Type S1	Foot		251	251
Name Plates	Each		1	1
Steel Piles HP12x53	Foot		955	955
Test Pile Steel HP12x53	Each		2	2
Stone Riprap, Class A5	Ton		945	945
Filter Fabric	Sq. Yd.		998	998
Concrete Encasement	Cu. Yd.		43.1	43.1
Aggregate Surface Course, Type B	Ton		74	74
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1

WATERWAY INFORMATION

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

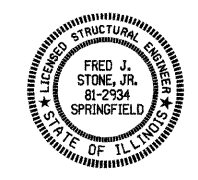
Drainage Area	53.2 Sq. Mi.
Existing Opening (15 Yr.)	945 Sq. Ft.
Required Opening (15 Yr.)	1063 Sq. Ft.
Proposed Opening (15 Yr.)	1063 Sq. Ft.
Design Discharge (15 Yr.)	3027 C.F.S.
Created Head (15 Yr.)	0.0 Ft.
100 Year Discharge	4606 C.F.S.
100 Yr. Created Head	0.3 Ft.

DESIGN STRESSES

$f'_c = 5,000$ p.s.i. (Prestressed Beams)
 $f_{el} = 4,000$ p.s.i. (Prestressed Beams)
 $f_c = 1,400$ p.s.i. (Concrete)
 $f'_s = 270,000$ p.s.i. (Prestressed Strands)
 $f_{sl} = 201,960$ 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.

Note: The requirements of the I.D.N.R. - Office of Water Resources have been fulfilled and they have issued Permit No. DS2005007 for the construction of this project.

"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'."



ILLINOIS STRUCTURAL NO. 2934 (Expires 11/30/08)

GENERAL PLAN & ELEVATION

**SECTION 03-00295-00-BR
VILLAGE OF CISSNA PARK
IROQUOIS COUNTY
STATION 19+11**

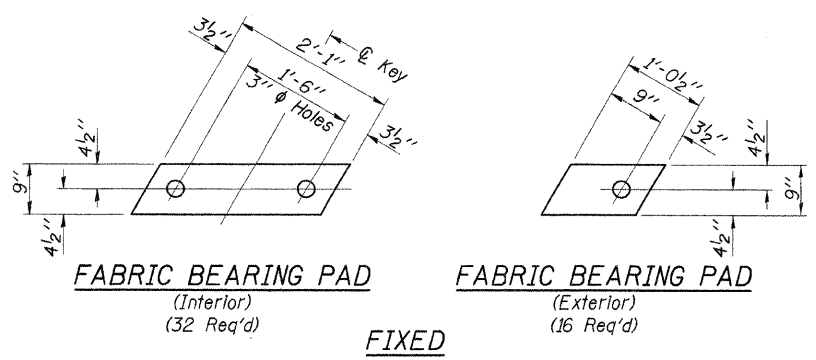
4440 ASH GROVE
SPRINGFIELD, IL 62711
(217) 793-8600
www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PROJECT: A. ROSSIGNOL, S. ROSSIGNOL, S. ROSSIGNOL, S. ROSSIGNOL, S. ROSSIGNOL

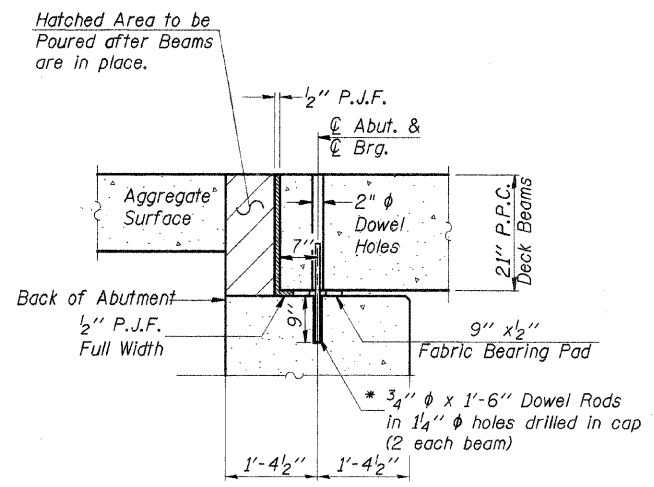
JOB NO.: 9709
FILE: GPE.DWG
DATE: 06/14/05

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	5
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK		

CONTRACT NO. 87312



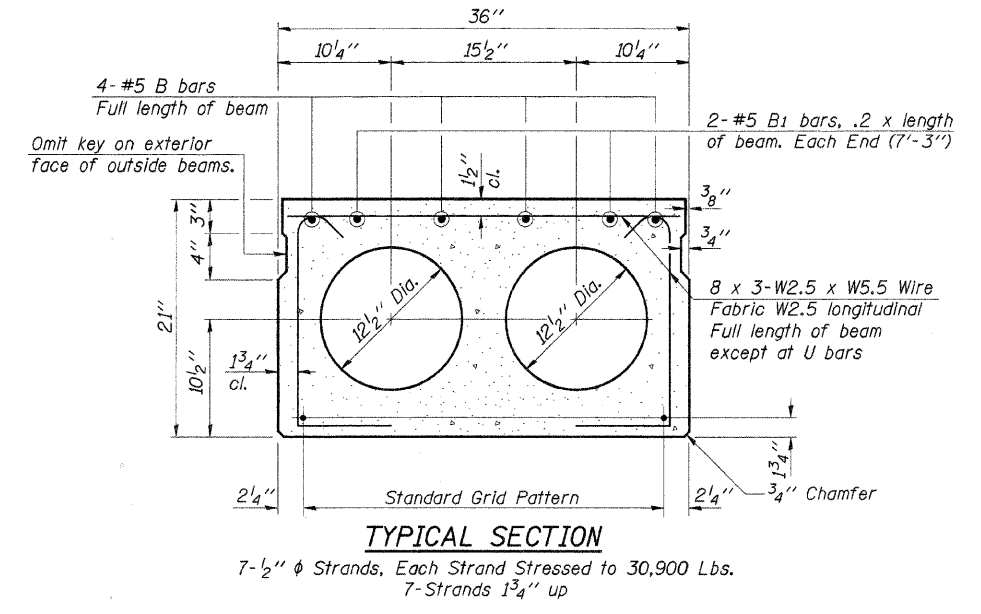
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SEC. THRU ABUT.

(Rt. L's to Abutment)

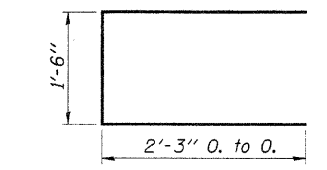
* Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys.



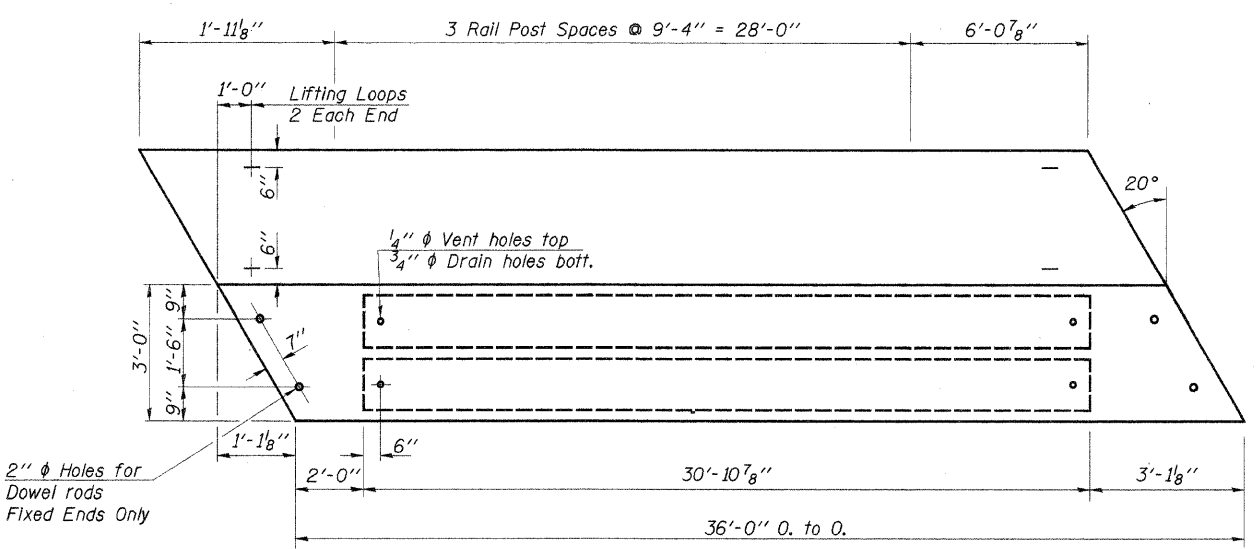
TYPICAL SECTION

7-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
7-Strands 1 3/4" up

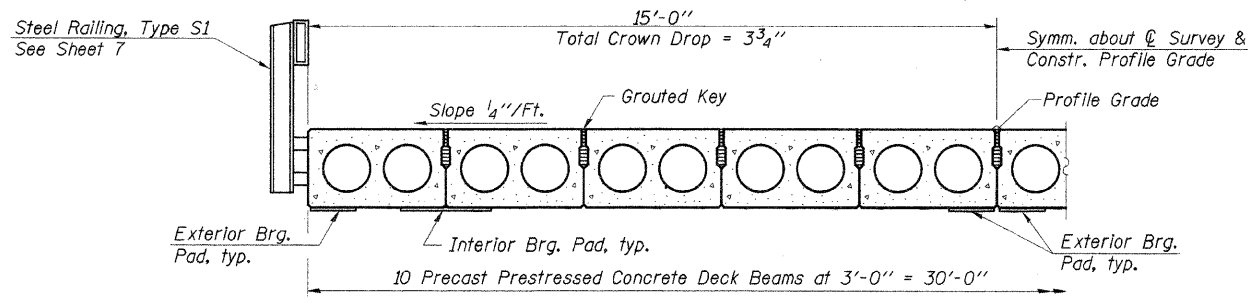
Note:
Place strands symmetrically about ϕ of beam.



BAR U1



PLAN

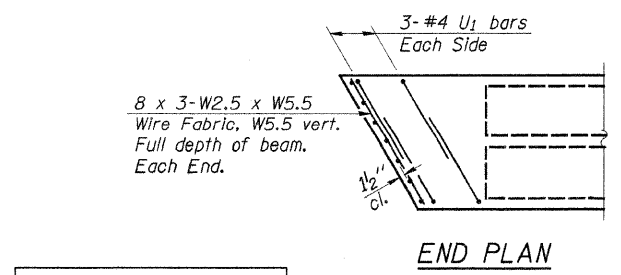


HALF CROSS SECTION

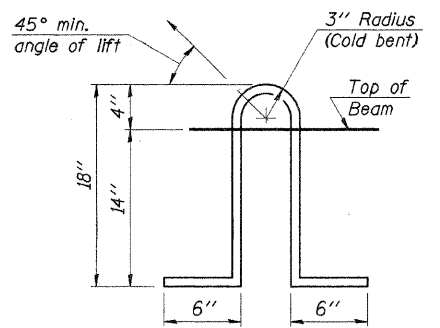
BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	2160

Estimated Total Weight (One Beam) = 21,150 Pounds



END PLAN



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 2-1/2" 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 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. (96 Req'd) 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. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'cl, shall be 4,000 p.s.i. See Special Provisions for review and distribution of shop drawings. Rail post anchor devices shall be cast into outside beam as elsewhere specified.

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

PD-3-R 9-1-03

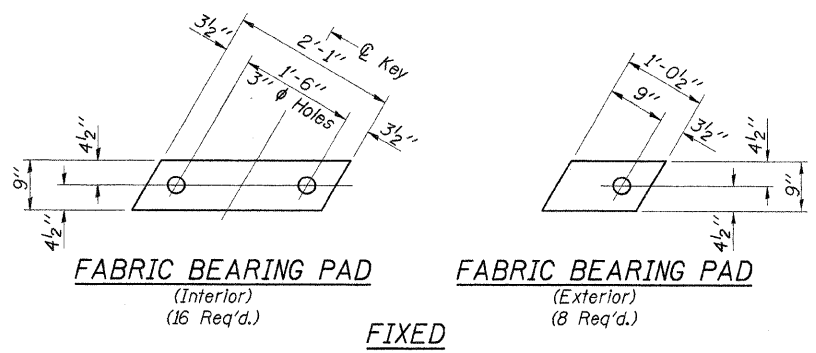
SUPERSTRUCTURE SPANS 1 & 3

SECTION 03-00295-00-BR
VILLAGE OF CISSNA PARK
IROQUOIS COUNTY
STATION 19+11

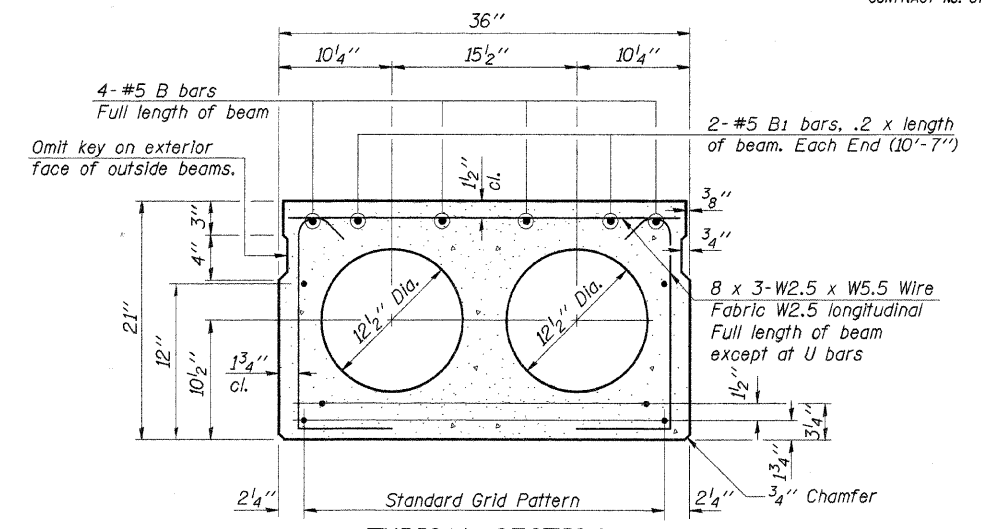
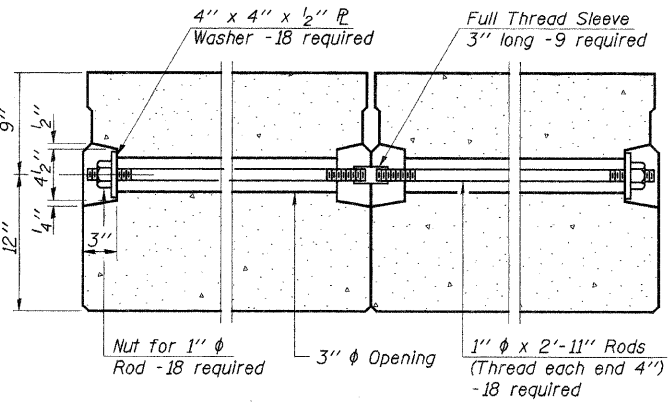
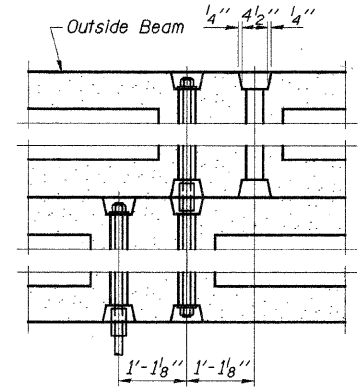
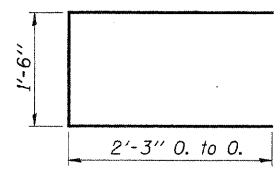
4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS PREPARED BY: ROCKFORD, IL. REGISTERED PROFESSIONAL ENGINEER	JOB NO.: 9709 FILE: SUPER.DGN DATE: 06/14/05
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	6
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK		

CONTRACT NO. 87312

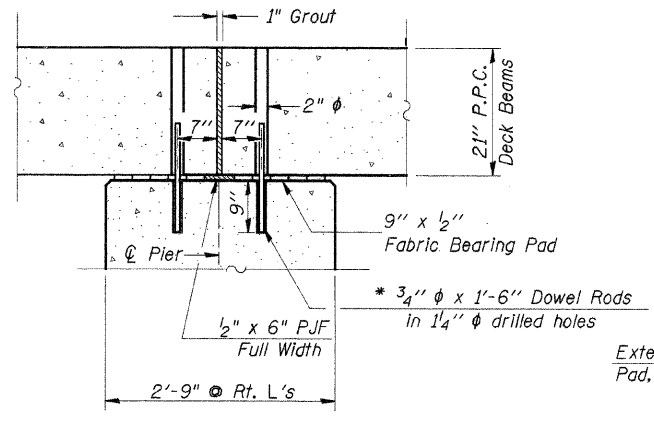
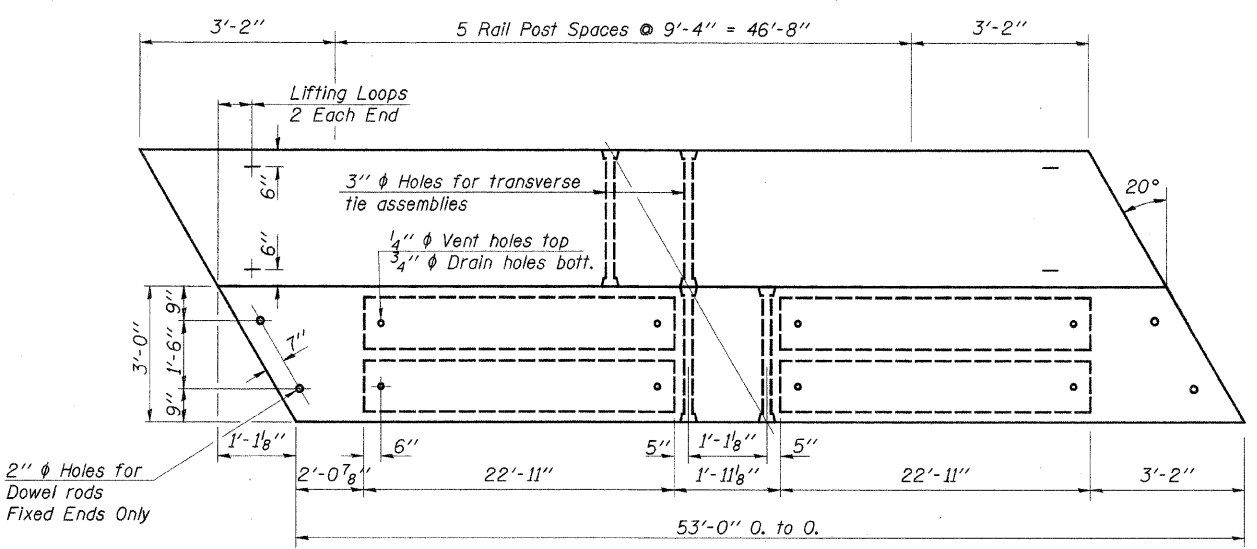


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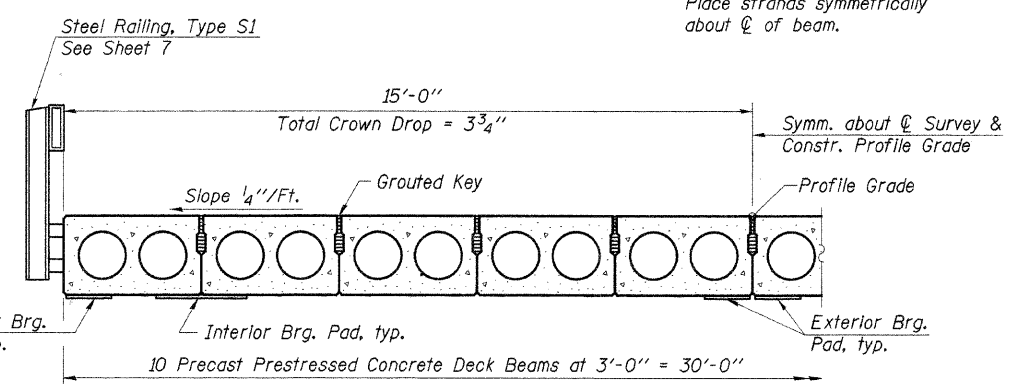


15-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
7-Strands 1 3/4" up, 6-Strands 3/4" up, 2-Strands 12" up.

Note:
Place strands symmetrically about ϕ of beam.



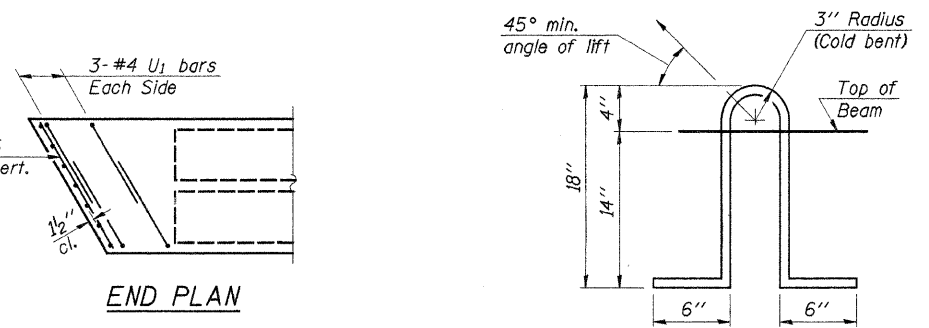
* Note: After beams are in place, 1 1/4" holes shall be drilled into the Substructure, and the dowel rods grouted in place and allowed to cure (Min. 24 Hrs.) prior to grouting shear key.



BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1590

Estimated Total Weight (One Beam) = 31,000 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 2-1/2" 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 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. (48 Req'd.) 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. Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'cl, shall be 4,000 p.s.i. See Special Provisions for review and distribution of shop drawings. Rail post anchor devices shall be cast into outside beam as elsewhere specified.

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

PD-3-R 9-1-03

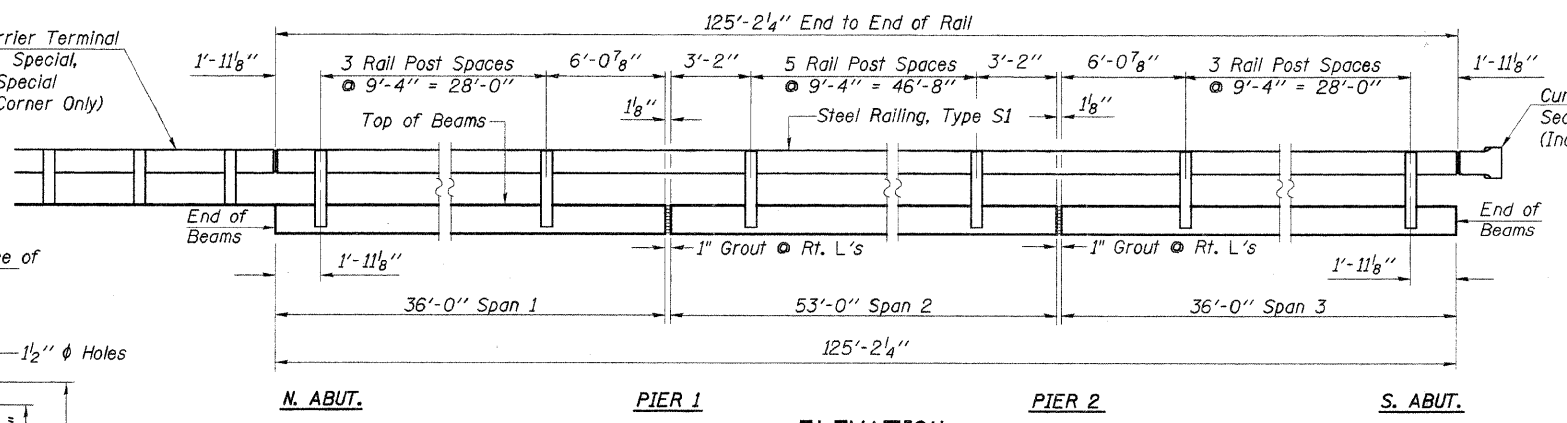
SUPERSTRUCTURE SPAN 2
SECTION 03-00295-00-BR
VILLAGE OF CISSNA PARK
IROQUOIS COUNTY
STATION 19+11

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

FEHR-GRAHAM & ASSOCIATES, LLC
ENGINEERING AND SCIENCE CONSULTANTS
PRESORTED MAIL PERMIT NO. 1000 SPRINGFIELD, IL

JOB NO.: 9709
FILE: SUPER.DGN
DATE: 06/14/05

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	7
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK	CONTRACT NO. 87312	



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.

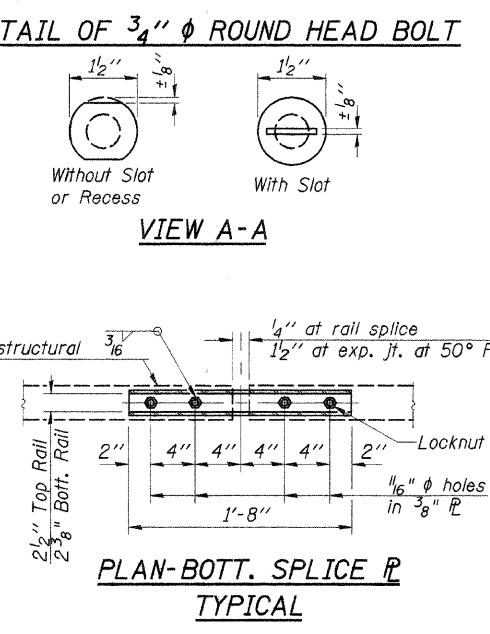
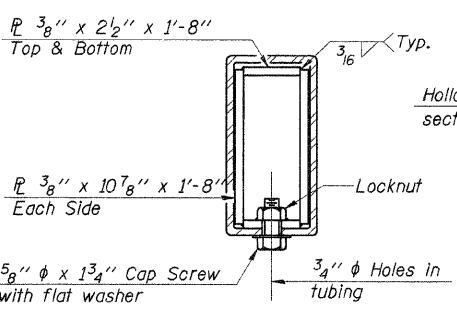
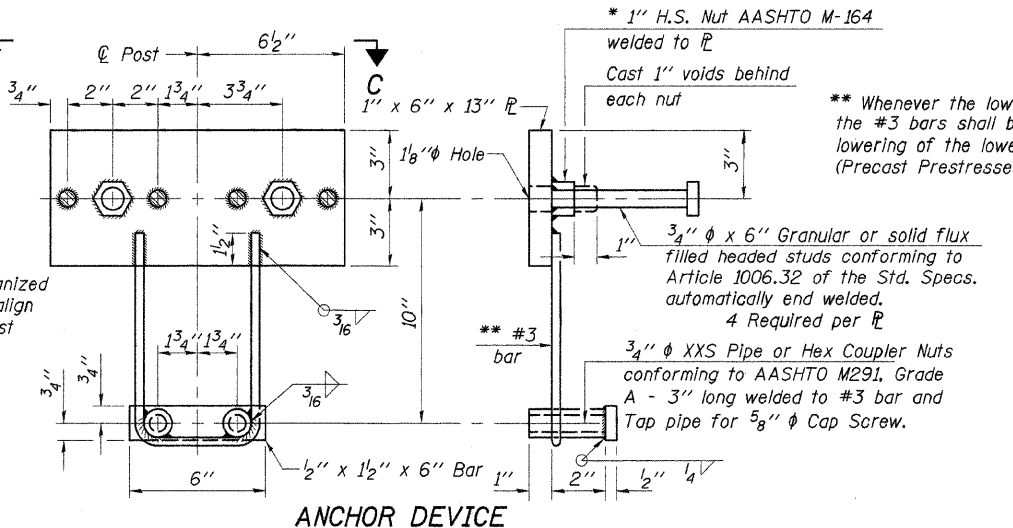
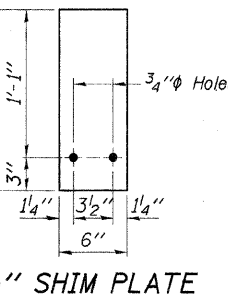
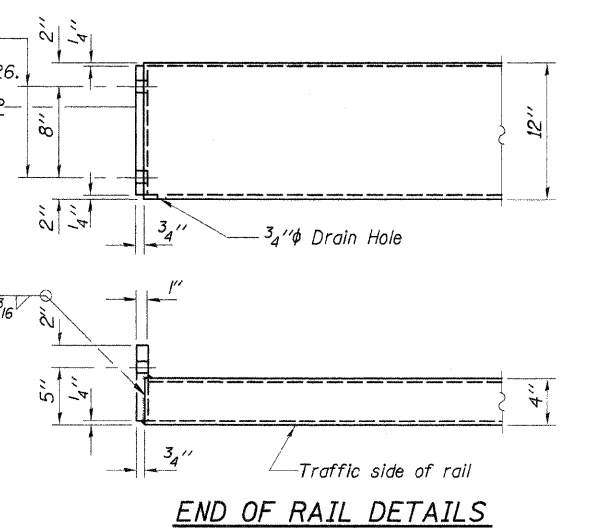
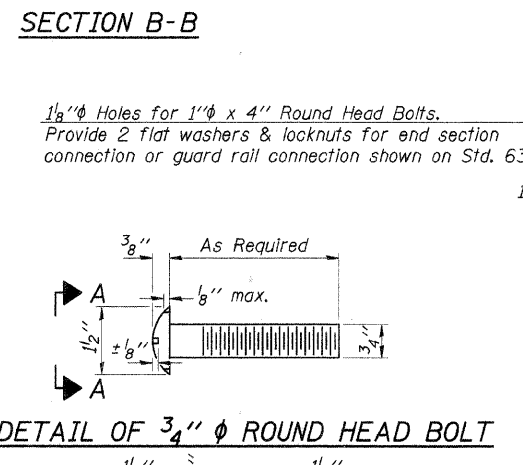
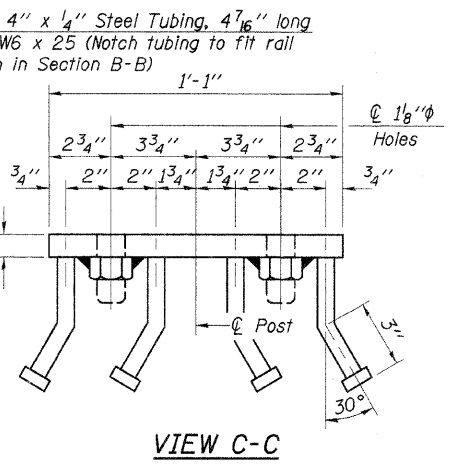
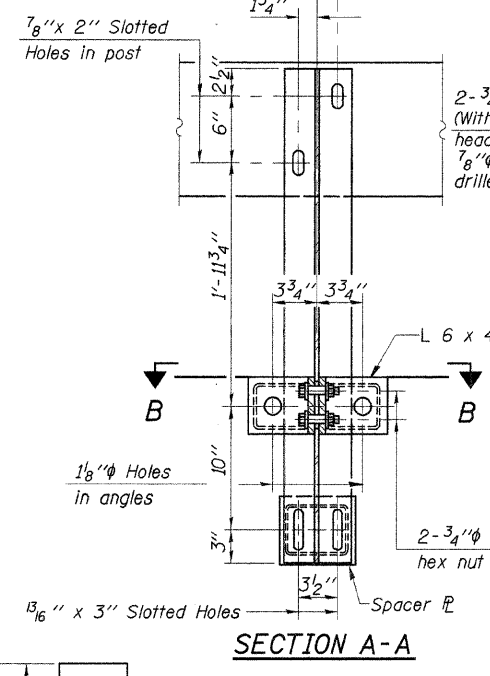
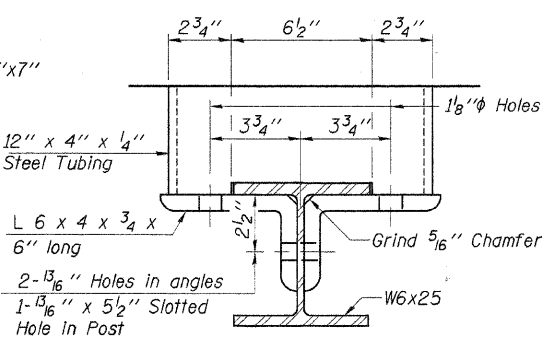
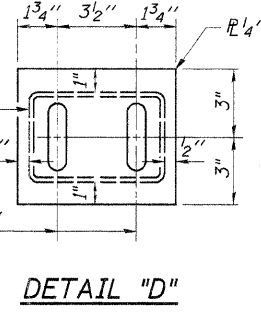
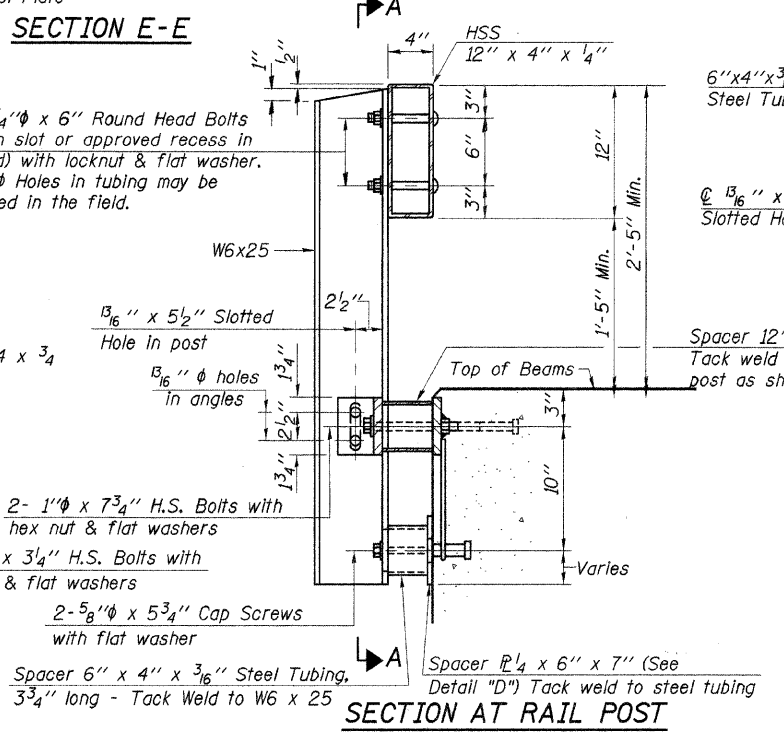
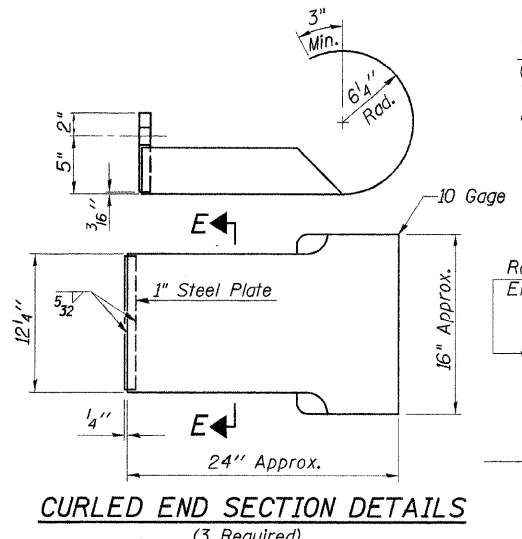
All posts, railing, rail splices, anchor devices, angles and spacers shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

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 Traffic Section II or place 3/8" 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(F)(2) 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.



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	251

STEEL RAILING, TYPE S1

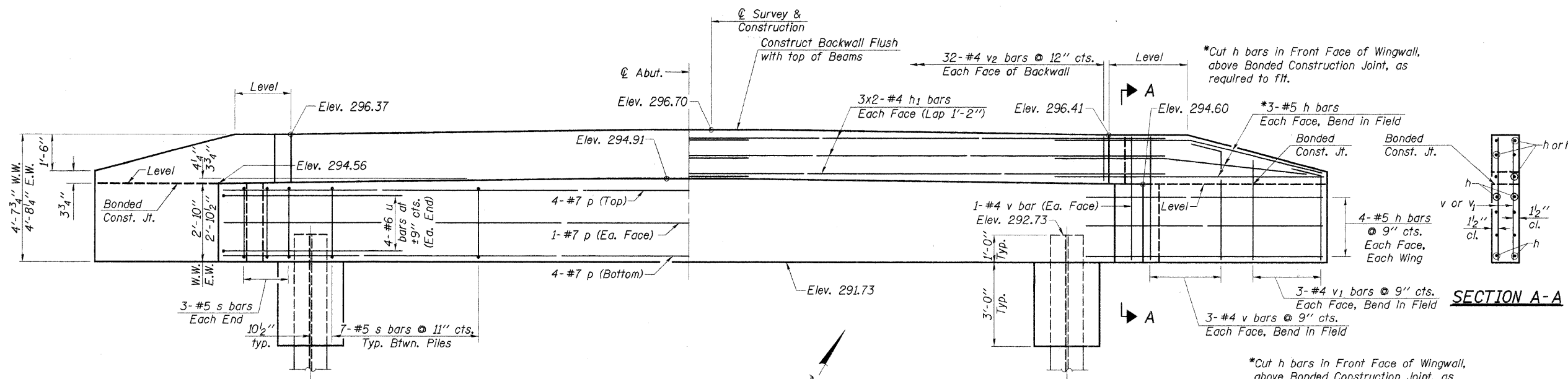
SECTION 03-00295-00-BR
VILLAGE OF CISSNA PARK
IROQUOIS COUNTY
STATION 19+11

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

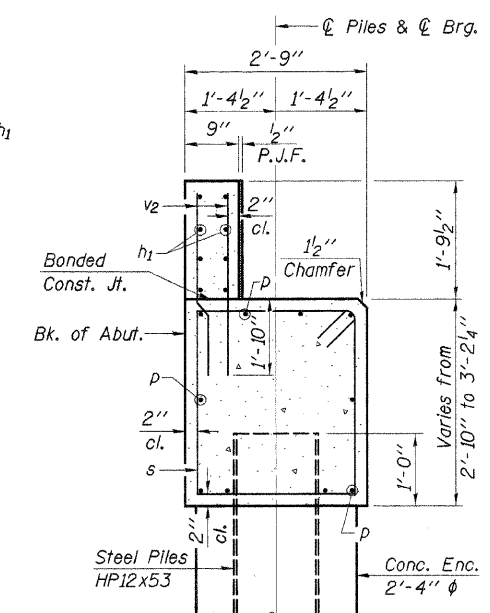
* Threaded areas shall be plugged or blocked off during casting of beam.

** 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)



Note: After beams are in place and dowel rods grouted, the backwall and the portions of the wingwalls above the Bonded Construction Joint shall be poured.

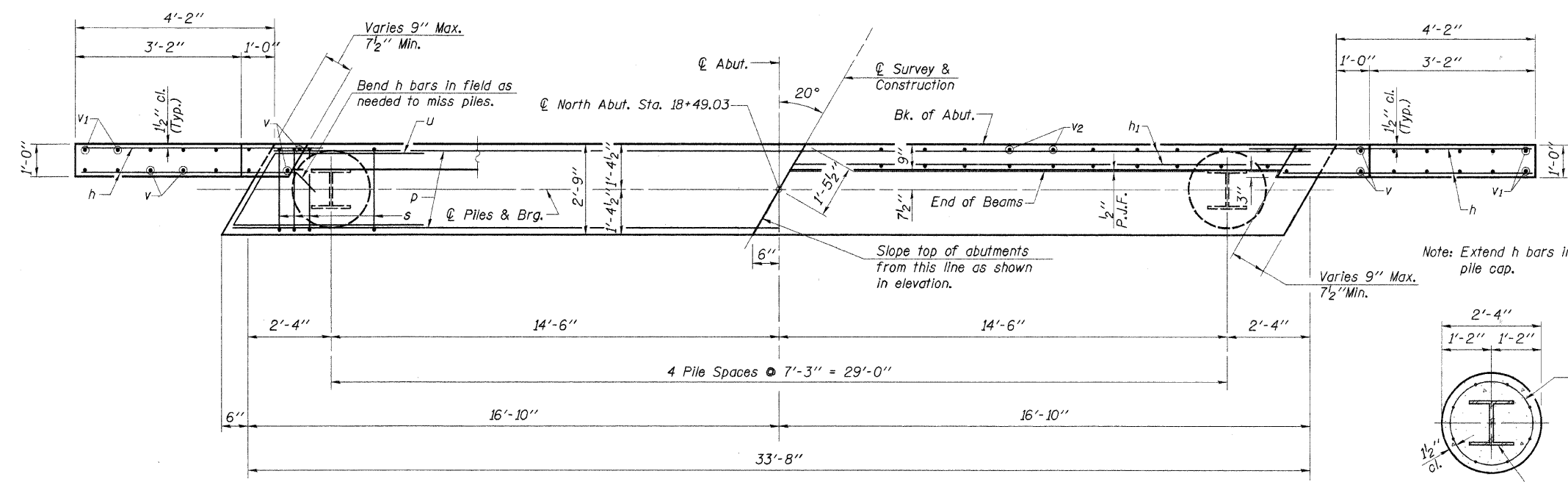
ELEVATION
(Looking North)



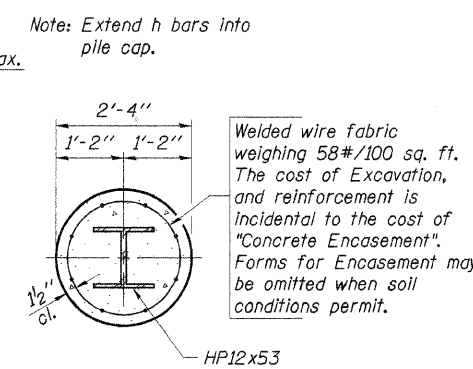
SECTION THRU ABUT.

**NORTH ABUTMENT
BILL OF MATERIAL**

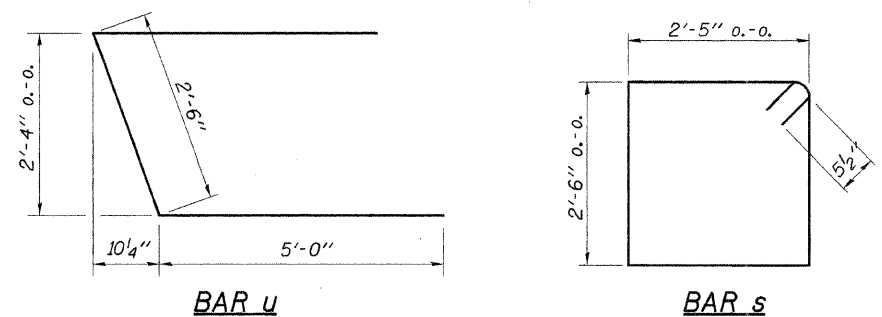
Bar	No.	Size	Length	Shape
h	28	#5	6'-3"	—
h1	12	#4	17'-9"	—
p	10	#7	33'-4"	—
s	34	#5	10'-9"	□
u	8	#6	12'-6"	▤
v	16	#4	4'-4"	—
v1	12	#4	3'-9"	—
v2	64	#4	3'-5"	—
Concrete Structures			Cu. Yd.	13.4
Reinforcement Bars			Pound	1760
Test Pile Steel HP12x53			Each	1
Steel Piles HP12x53			Foot	180
Concrete Encasement			Cu. Yd.	2.4



PLAN



PILE DATA



PILE DATA

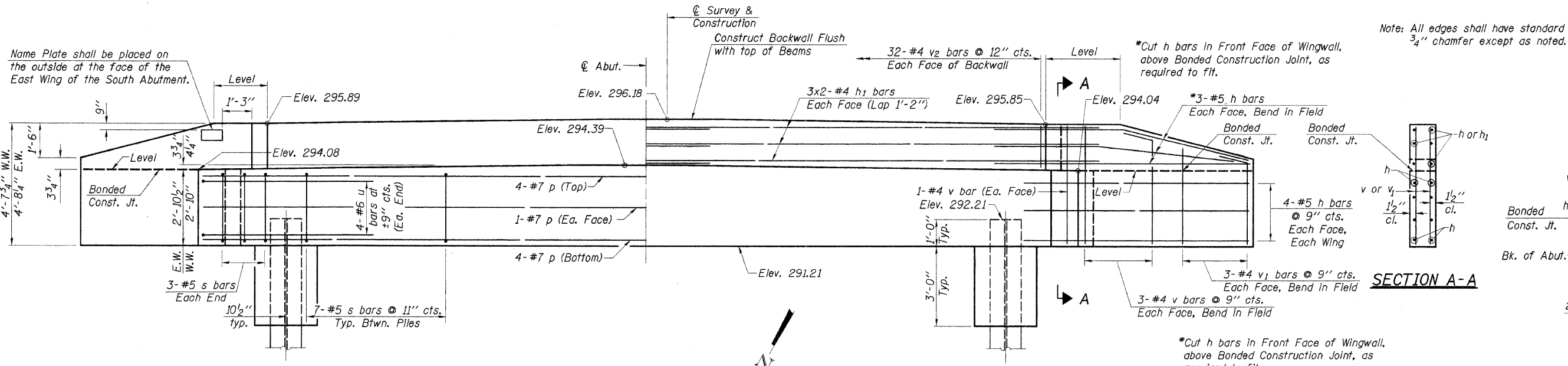
Type..... Steel Piles HP12x53
 No. Req'd..... 5**
 Design Capacity..... 40 Tons/Pile
 Drive to..... 60 Tons/Pile
 Est. Length..... 45 Feet/Pile

**Includes 1 Test Pile to be driven in a permanent location at the North Abutment.

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

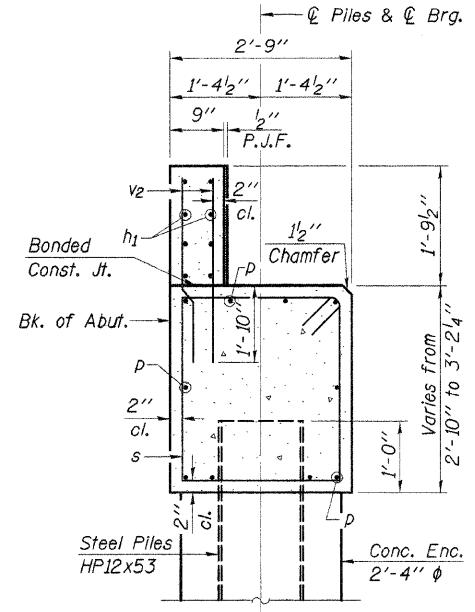
NORTH ABUTMENT
 SECTION 03-00295-00-BR
 VILLAGE OF CISSNA PARK
 IROQUOIS COUNTY
 STATION 19+11

4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8800 www.fehr-graham.com	FEHR-GRAHAM & ASSOCIATES, LLC ENGINEERING AND SCIENCE CONSULTANTS	JOB NO.: 9709 FILE: ABUT-30R-BW.DGN DATE: 06/14/05
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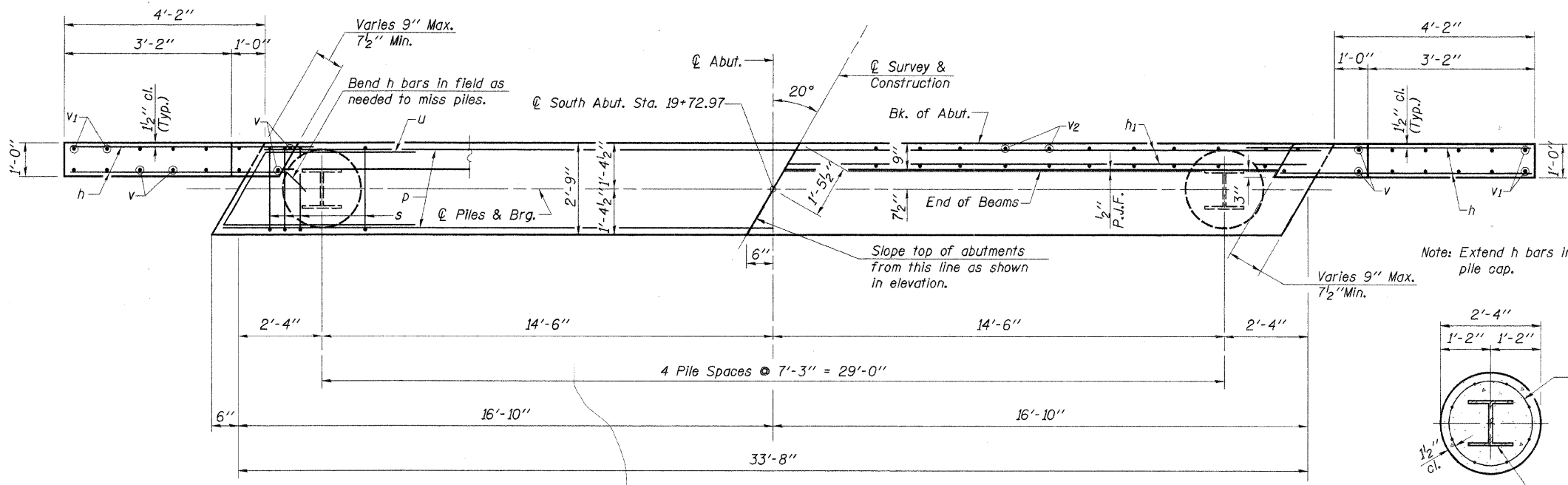


Note: After beams are in place and dowel rods grouted, the backwall and the portions of the wingwalls above the Bonded Construction Joint shall be poured.

ELEVATION
(Looking South)

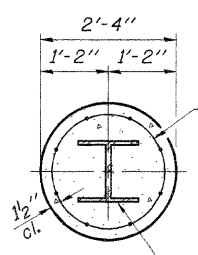


SECTION THRU ABUT.



PLAN

Note: Extend h bars into pile cap.

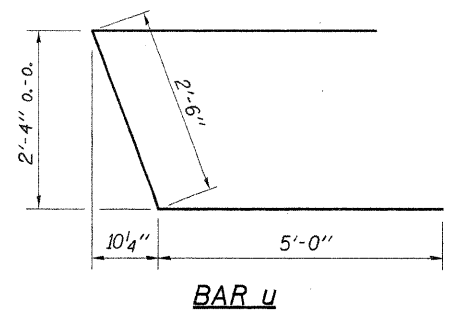


PILE DATA

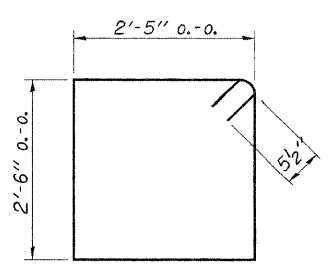
SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	28	#5	6'-3"	—
h1	12	#4	17'-9"	—
p	10	#7	33'-4"	—
s	34	#5	10'-9"	□
u	8	#6	12'-6"	▤
v	16	#4	4'-4"	—
v1	12	#4	3'-9"	—
v2	64	#4	3'-5"	—
Concrete Structures		Cu. Yd.	13.4	
Reinforcement Bars		Pound	1760	
Name Plate		Each	1	
Steel Piles HP12x53		Foot	225	
Concrete Encasement		Cu. Yd.	2.4	

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



BAR u



BAR s

PILE DATA

Type..... Steel Piles HP12x53
 No. Req'd..... 5
 Design Capacity..... 40 Tons/Pile
 Drive To..... 60 Ton/Pile
 Est. Length..... 45 Feet/Pile

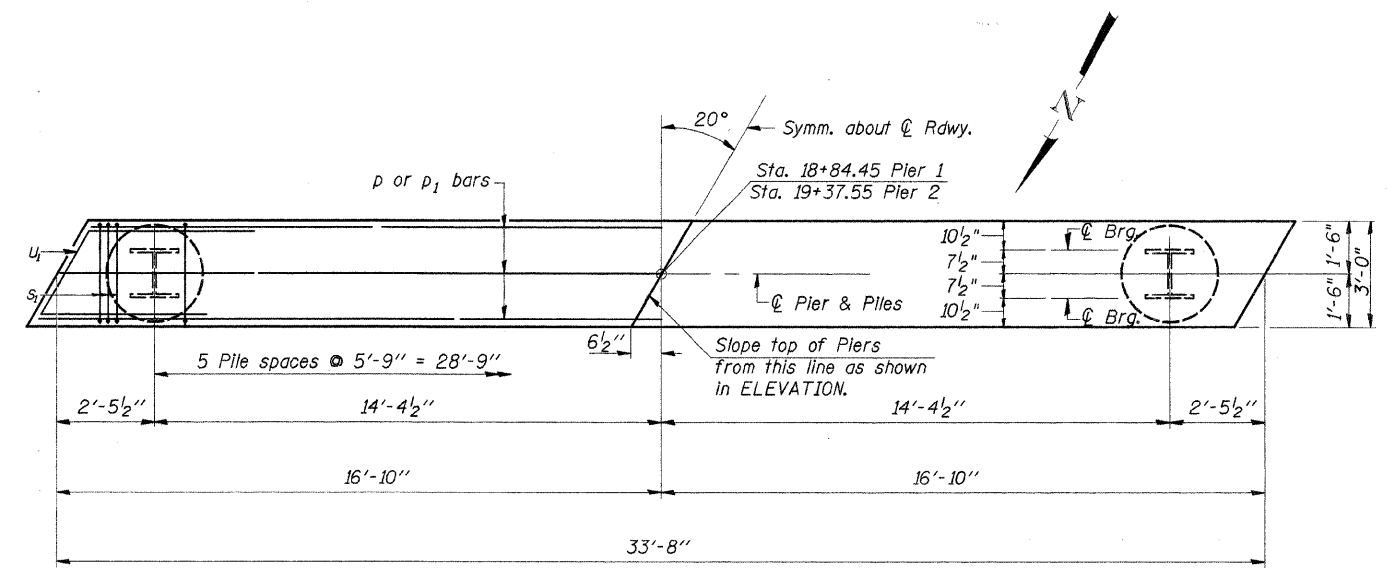
SOUTH ABUTMENT

SECTION 03-00295-00-BR
 VILLAGE OF CISSNA PARK
 IROQUOIS COUNTY
 STATION 19+11

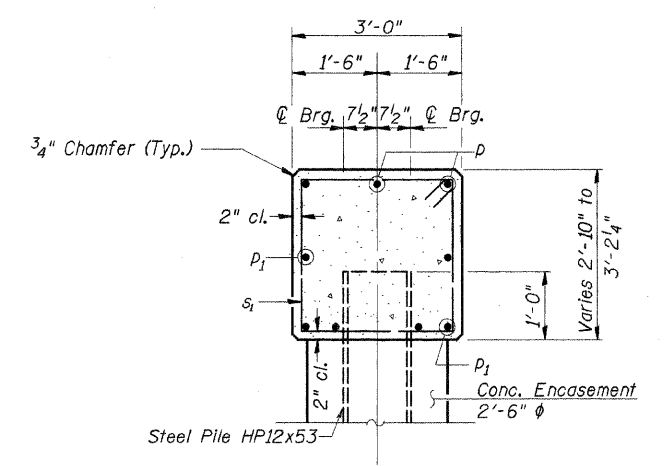
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	10
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK		

CONTRACT NO. 87312

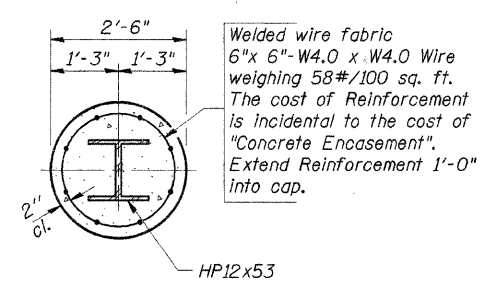
Note: All edges shall have standard 3/4" chamfer



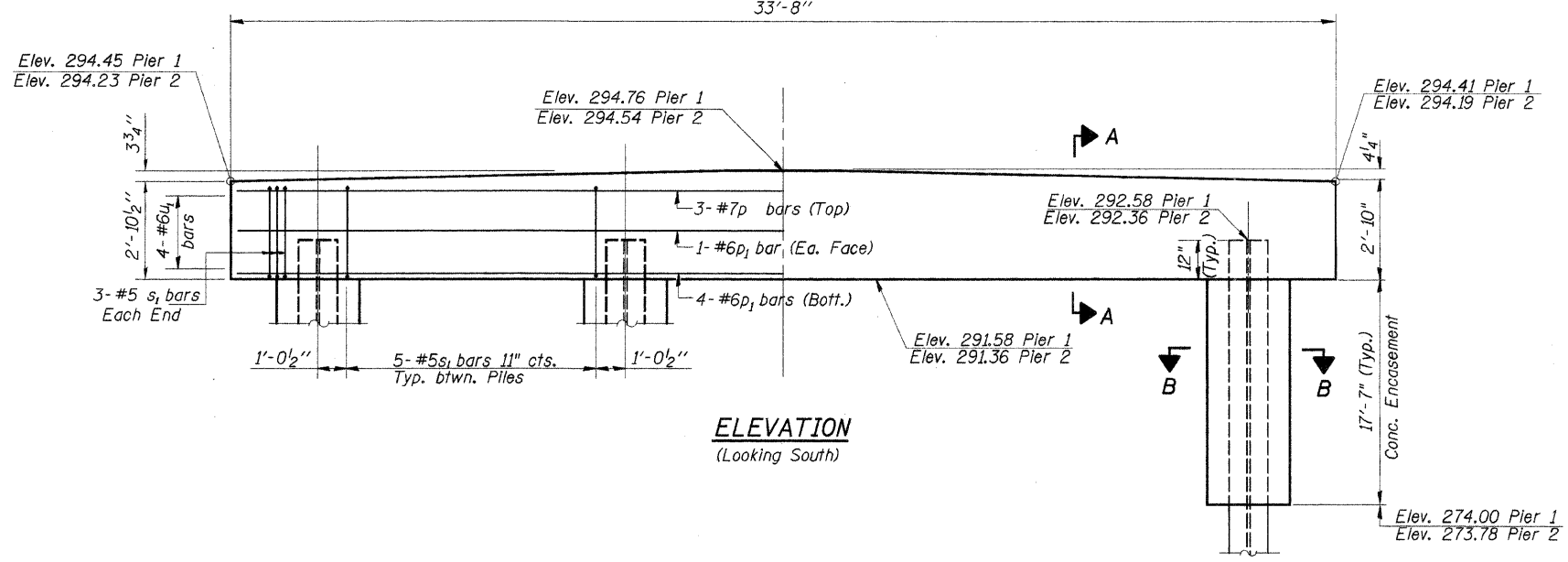
PLAN



SECTION A-A



SECTION B-B



ELEVATION
(Looking South)

BILL OF MATERIAL - 2 PIERS

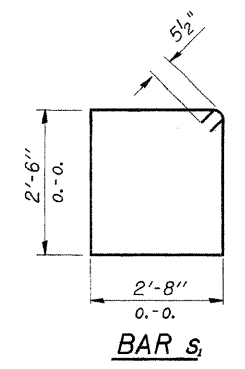
BAR	NO.	SIZE	LENGTH	SHAPE
p	6	#7	33'-4"	—
p1	12	#6	33'-4"	—
s1	62	#5	11'-3"	□
u1	16	#6	12'-9"	▤
Concrete Structures			Cu. Yd.	22.6
Reinforcement Bars			Pound	2040
Steel Piles HP12x53			Foot	550
Test Pile HP12x53			Each	1
Conc. Encasement			Cu. Yd.	38.3

PILE DATA

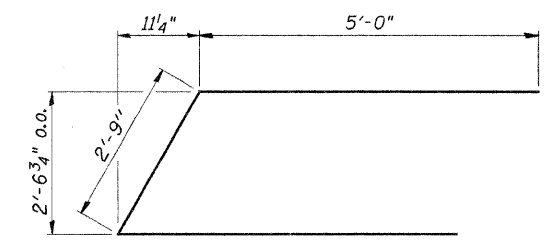
Type _____ Steel Piles HP12x53
 Design Capacity _____ 42 Tons/Pile
 Drive To _____ 63 Tons/Pile
 Est. Length _____ 50 Feet/Pile
 No. Req'd(2 Piers) _____ 12*

*Includes one Test Pile to be driven in a permanent location, at Pier 2.

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



BAR s1



BAR u

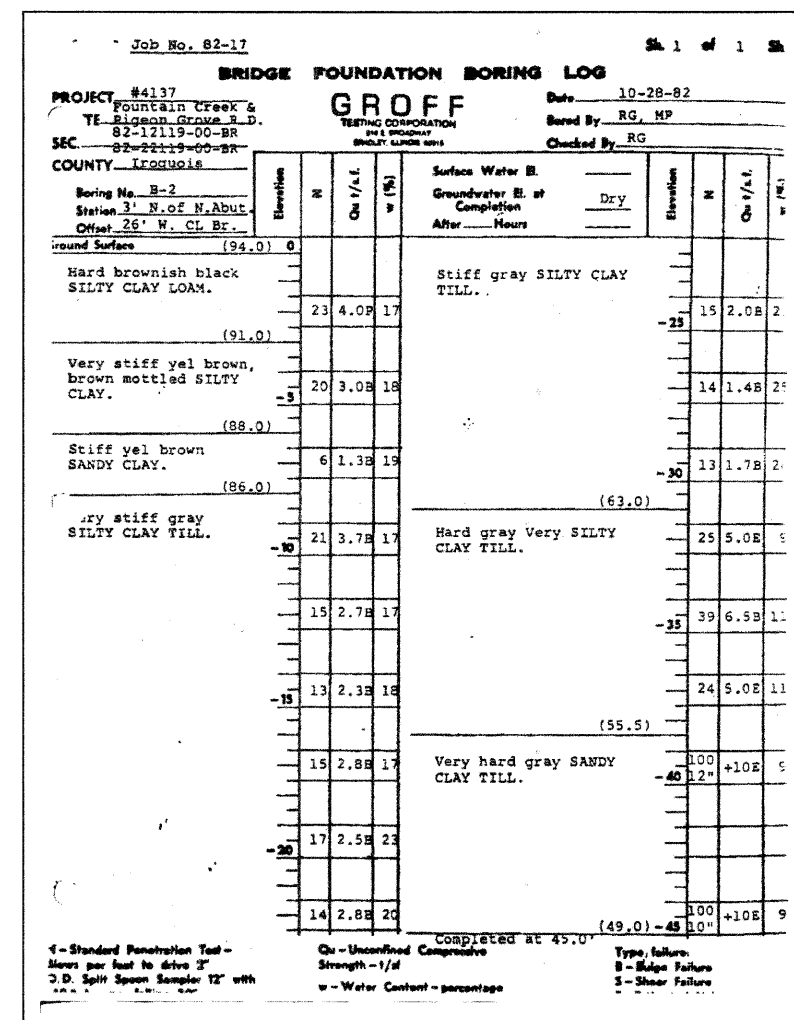
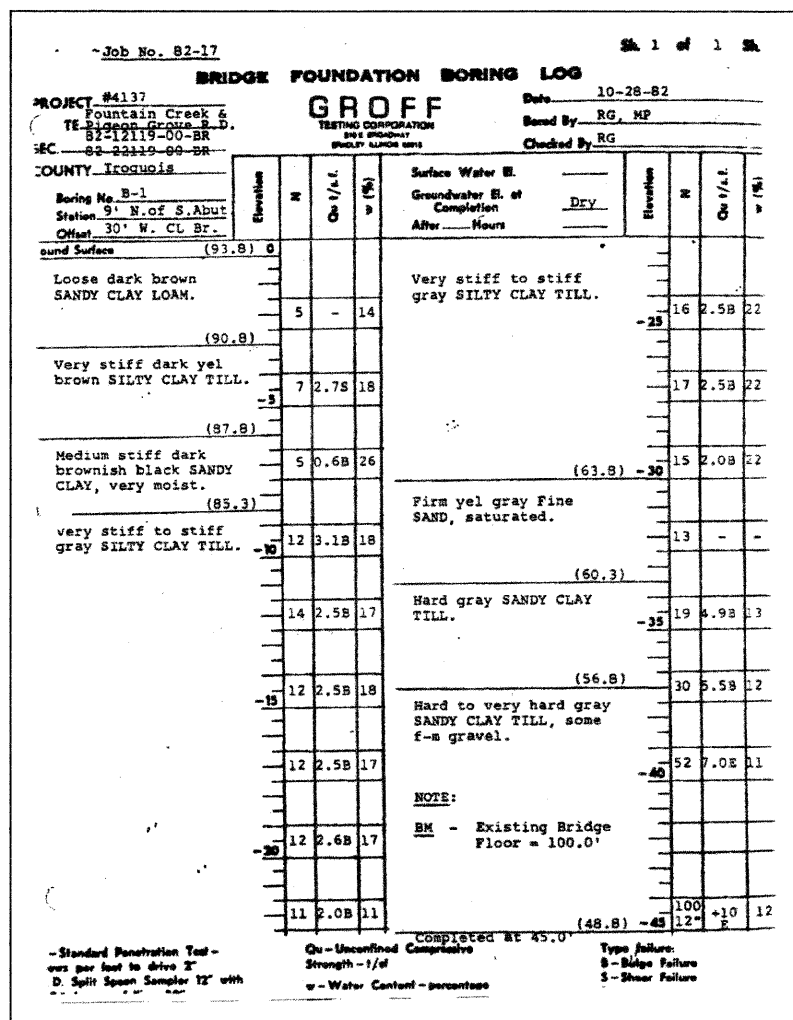
PIERS

SECTION 03-00295-00-BR
 VILLAGE OF CISSNA PARK
 IROQUOIS COUNTY
 STATION 19+11

4440 ASH GROVE
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FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS

JOB NO.: 9709
 FILE: PIER-RT.DGN
 DATE: 06/14/05



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

FOUNDATION BORINGS
 SECTION 03-00295-00-BR
 VILLAGE OF CISSNA PARK
 IROQUOIS COUNTY
 STATION 19+11

4440 ASH GROVE
 SPRINGFIELD, IL 62711
 (217) 793-8600
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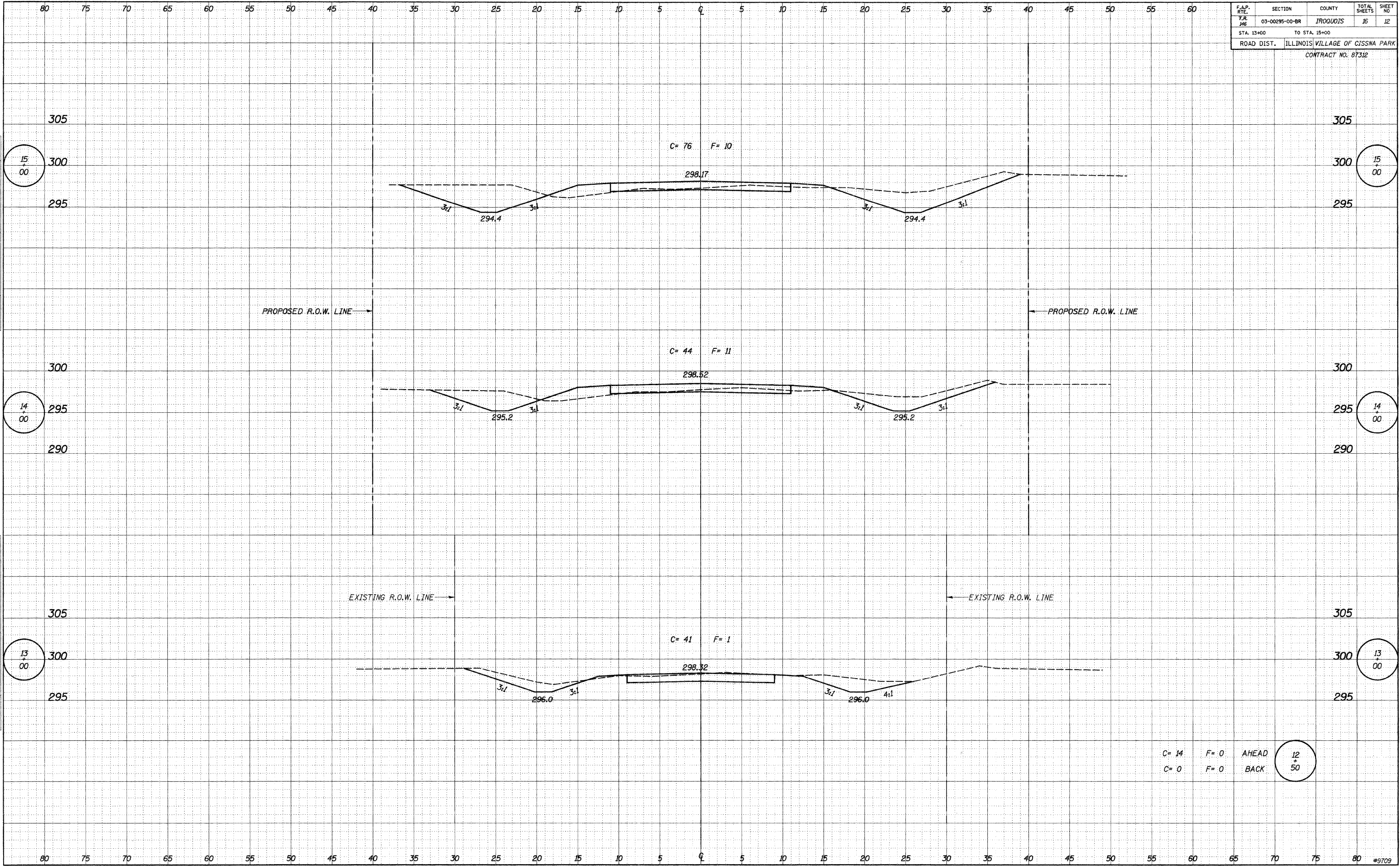
FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 FERRIS A. FERRIS, P.E., MICHAEL S. MICHAEL, P.E., ROBERT W. SPRINGFIELD, P.E.

JOB NO.: 9709
 FILE: 9709BORINGS.DWG
 DATE: 06/14/05

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7.R. 116	03-00295-00-BR	IROQUOIS	16	12
STA. 13+00		TO STA. 15+00		
ROAD DIST.		ILLINOIS VILLAGE OF CISSNA PARK		
CONTRACT NO. 87312				

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

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



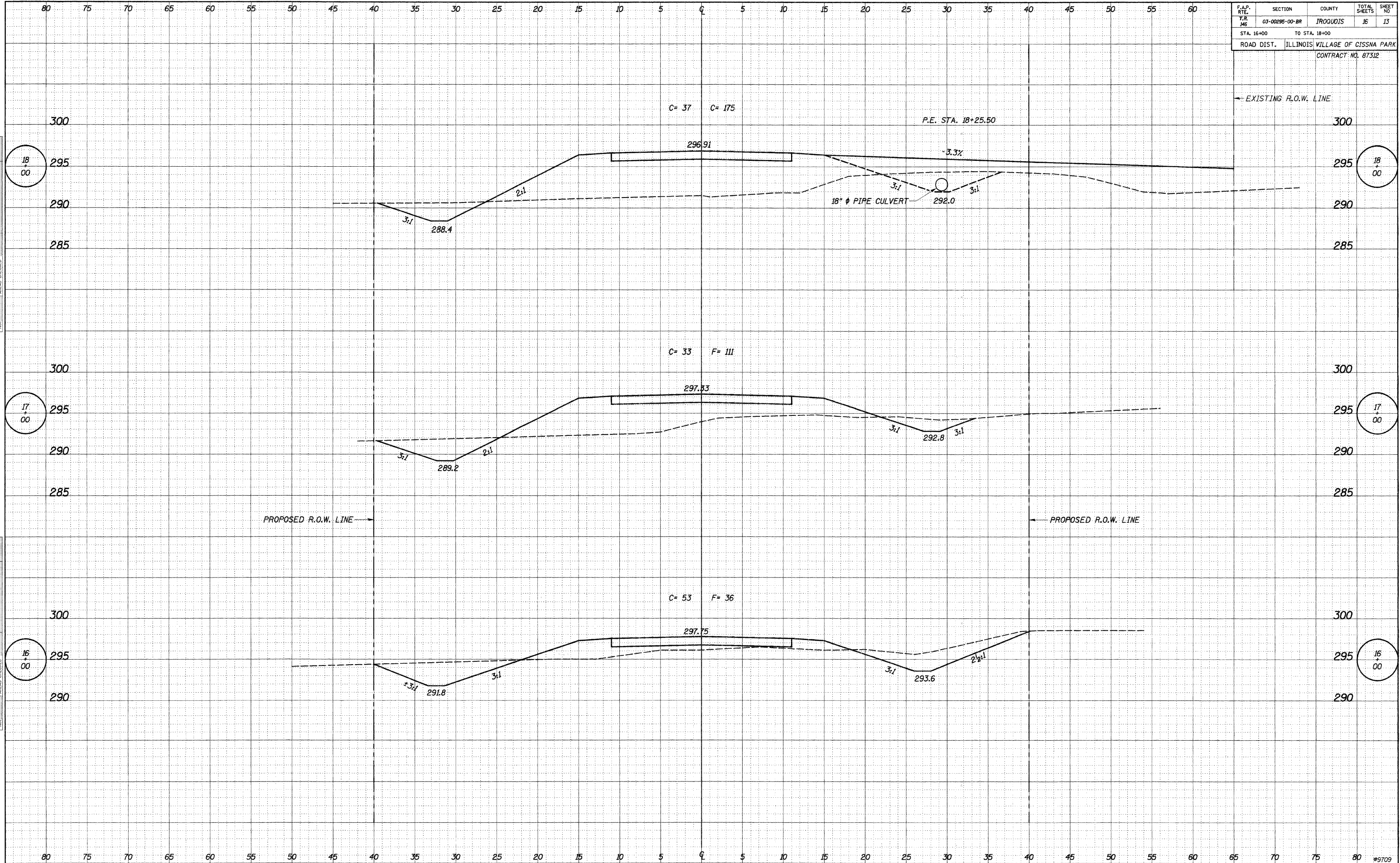
C= 14 F= 0 AHEAD
C= 0 F= 0 BACK

12
50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. MS	03-00295-00-BR	IROQUOIS	16	13
STA. 16+00		TO STA. 18+00		
ROAD DIST.		ILLINOIS VILLAGE OF CISSNA PARK		
CONTRACT NO. 87312				

DATE	BY
ORIGINAL SURVEY	DATE
NO.	11/25/94
FINAL SURVEY	DATE
NO.	
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	

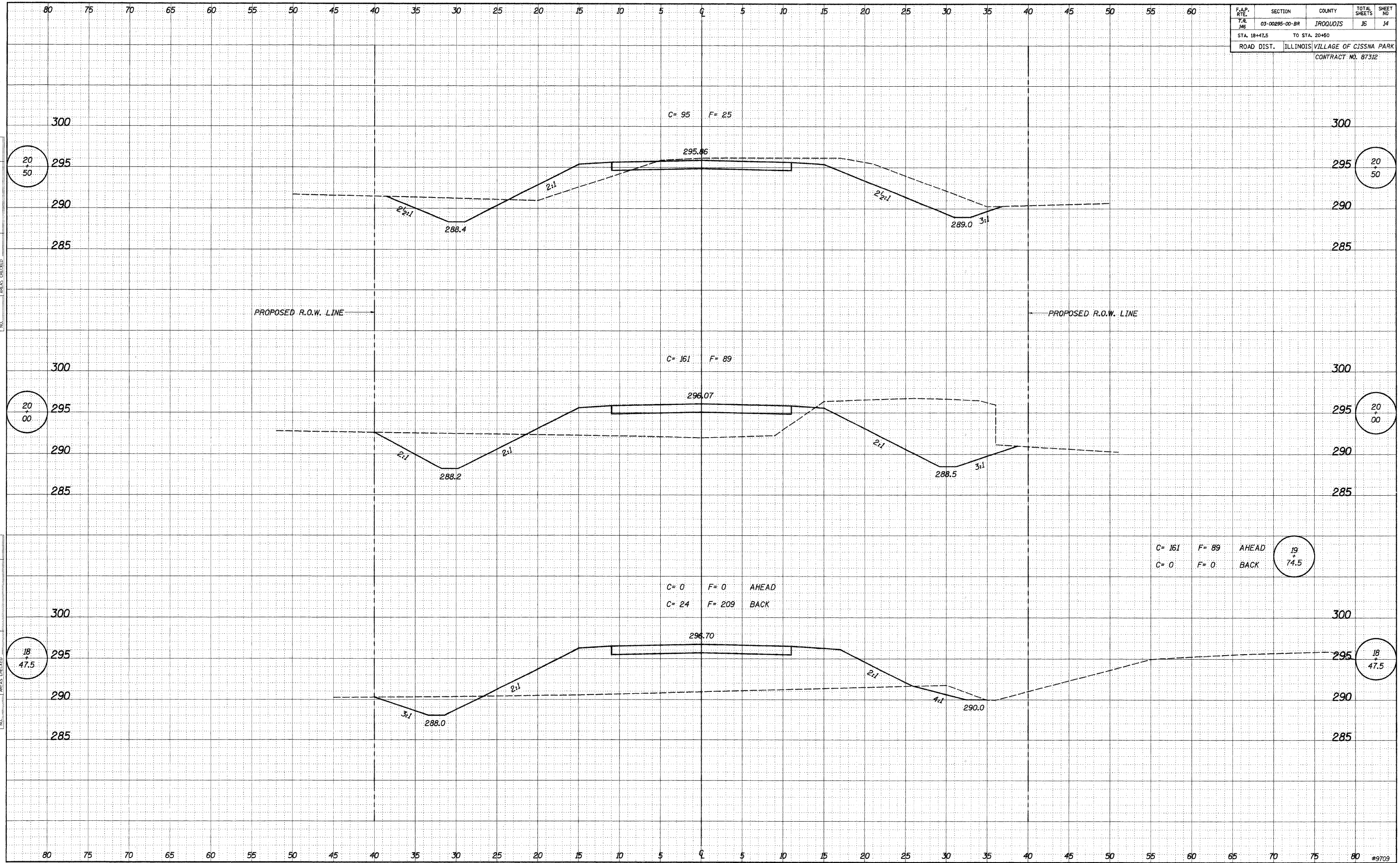
DATE	BY
ORIGINAL SURVEY	DATE
NO.	11/25/94
FINAL SURVEY	DATE
NO.	
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	



F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Y.R. #6	03-00295-00-BR	ILLINOIS	16	14
STA. 18+47.5		TO STA. 20+50		
ROAD DIST. ILLINOIS		VILLAGE OF CISSNA PARK		
CONTRACT NO. 87312				

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

DATE	BY
11/7/04	
ORIGINAL SURVEY	S.A.P.
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED



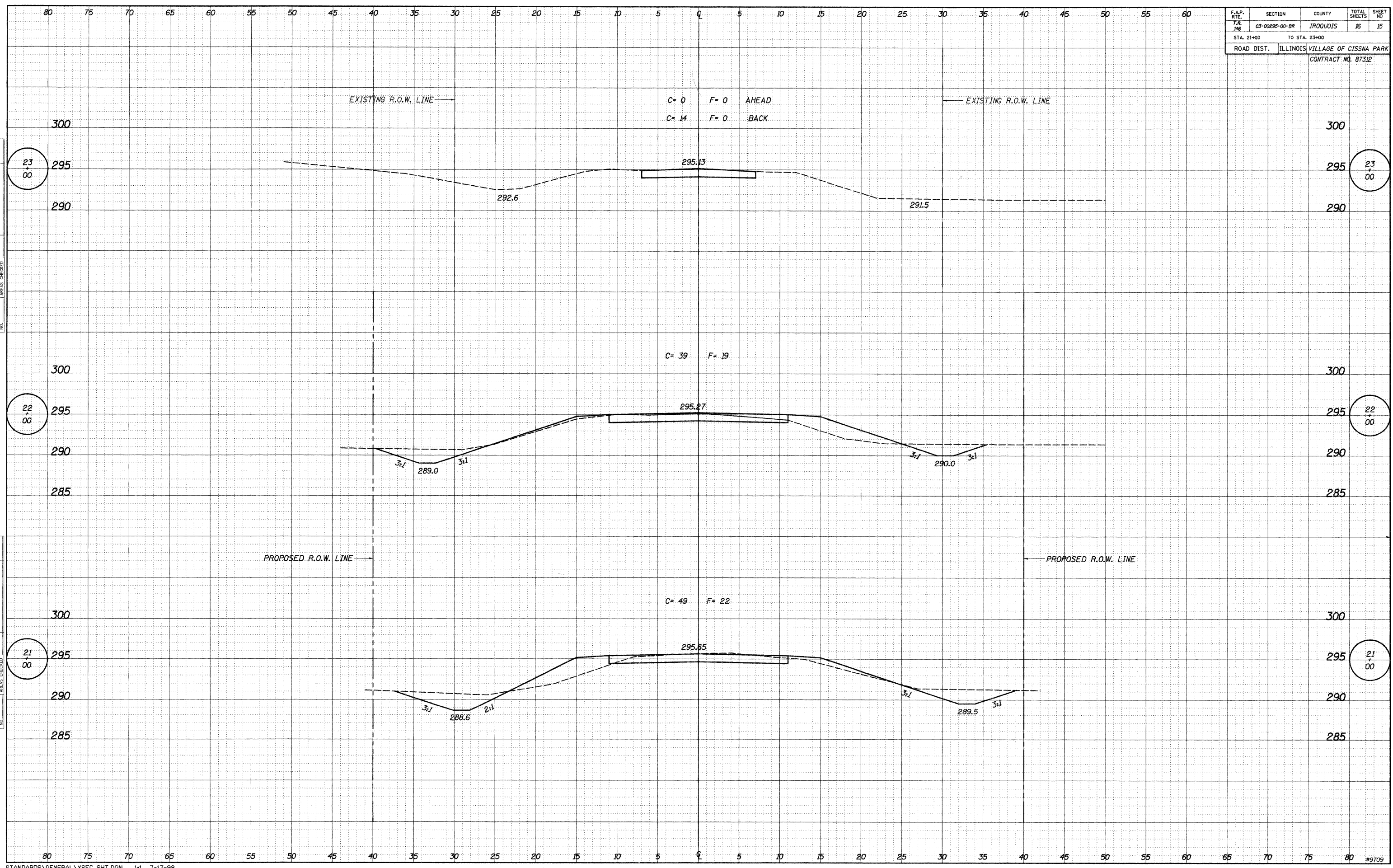
C= 161	F= 89	AHEAD	19
C= 0	F= 0	BACK	74.5

C= 0	F= 0	AHEAD
C= 24	F= 209	BACK

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00285-00-BR	IROQUOIS	16	15
STA. 21+00		TO STA. 23+00		
ROAD DIST. ILLINOIS VILLAGE OF CISSNA PARK				
CONTRACT NO. 87312				

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

DATE	BY
11/2/01	S.A.P.
NO.	NO.
AREAS CHECKED	AREAS CHECKED
TEMPLATE	TEMPLATE
PLOTTED	PLOTTED
SURVEYED	SURVEYED
ORIGINAL SURVEY	ORIGINAL SURVEY

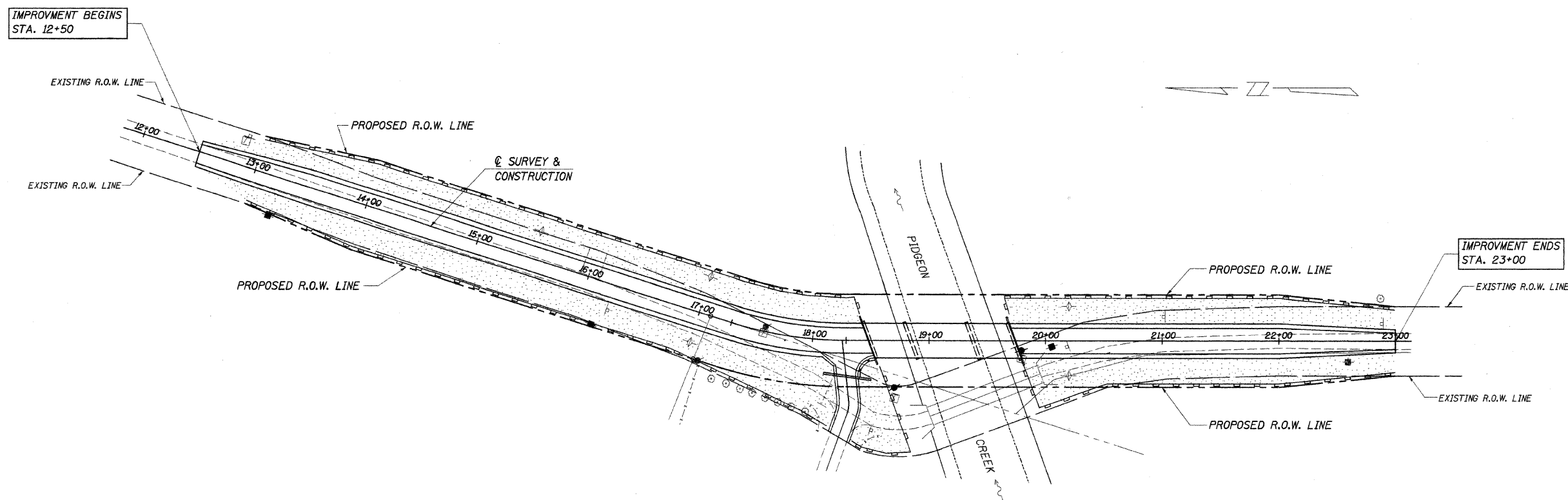


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 146	03-00295-00-BR	IROQUOIS	16	15
ROAD DIST.	ILLINOIS	VILLAGE OF CISSNA PARK		

CONTRACT NO. 87312

DESCRIPTION OF INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB EARTH AND LEAD TO POSSIBLE EROSION FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. PLACEMENT OF PERIMETER EROSION CONTROL FENCE PRIOR TO THE COMMENCEMENT OF ANY ROAD OR BRIDGE WORK. SEE STD. 280001.
2. REMOVAL OF EXISTING STRUCTURE.
3. CONSTRUCTION OF THE REPLACEMENT STRUCTURE.
4. PLACEMENT OF ROADWAY EMBANKMENT TO RAISE THE ROADWAY TO THE PROPOSED GRADE.
5. DRAINAGE STRUCTURES, INCLUDING DITCHES, WILL BE INSTALLED BEFORE AND/OR DURING THE COMPLETION OF THE EMBANKMENT.
6. PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROL.
7. PLACEMENT OF PERMANENT EROSION CONTROL.
8. REMOVAL AND PROPER CLEAN UP OF TEMPORARY EROSION CONTROL.
9. FINAL GRADING, PLACING AGGREGATE AND OTHER MISCELLANEOUS ITEMS.



TEMPORARY EROSION CONTROL:

- PERIMETER EROSION BARRIER
- ◆ TEMPORARY DITCH CHECK

PERMANENT EROSION CONTROL:

- SEEDING CLASS 2, FERTILIZERS, & MULCH, METHOD 2

TEMPORARY DITCH CHECKS

LT. STA. 15+50 = 1 EACH
 LT. & RT. STA. 17+00 = 2 EACH
 LT. & RT. STA. 20+20 = 2 EACH
 TOTAL = 5 EACH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
TEMPORARY EROSION CONTROL SEEDING	POUND	160
TEMPORARY DITCH CHECKS	EACH	5
PERIMETER EROSION BARRIER	FOOT	1860

THE ABOVE 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.

EROSION CONTROL PLAN

SECTION 03-00295-00-BR
 VILLAGE OF CISSNA PARK
 IROQUOIS COUNTY
 STATION 19+11

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

FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 PREPARED BY: ROBERT D. BOGGS, P.E., CIVIL ENGINEER

JOB NO.: 9709
 FILE: EROSION.DGN
 DATE: 03/29/05