

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	1
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT NO. BRS-405(103)	

CONTRACT NO. 89381

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LIST OF STANDARDS

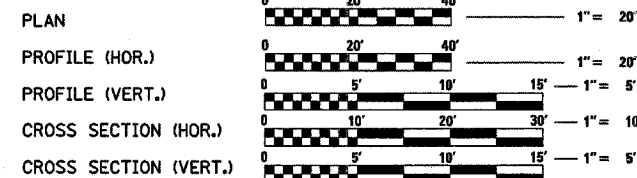
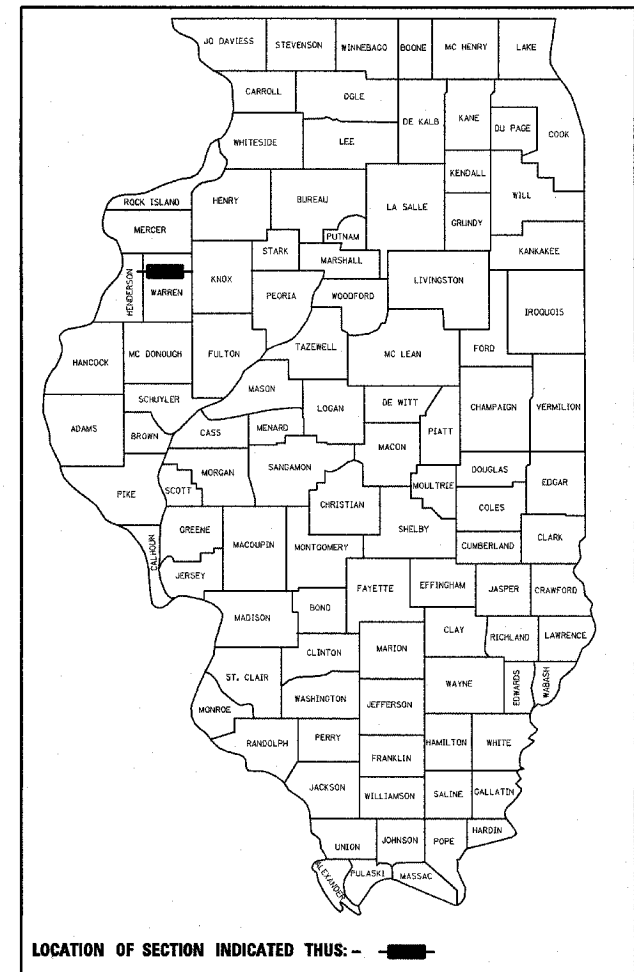
- | | |
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| 280001-02 | TEMPORARY EROSION CONTROL SYSTEMS |
| 515001-02 | NAME PLATE FOR BRIDGES |
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| B.L.R. 22-4 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC) |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**PROPOSED
HIGHWAY PLANS**

BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

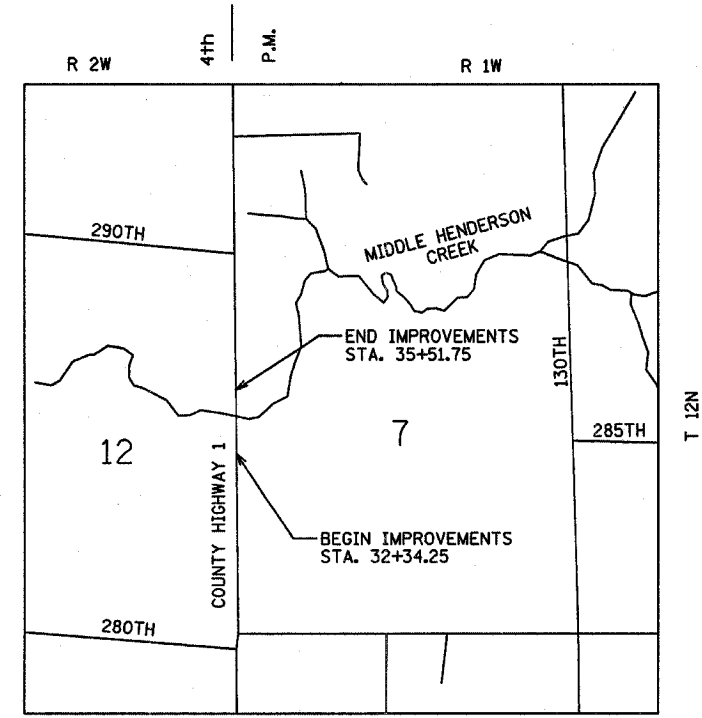
**F.A.S. ROUTE 405
SECTION 04-00035-01-BR
PROJECT COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
WARREN COUNTY
PROJECT NO. BRS-405(103)
JOB NO. C-94-097-05**



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

UTILITY NOTE

THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED AMONG THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS, ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



TOTAL AND NET LENGTH OF IMPROVEMENT: 317.50 FT = 0.060 MILES

DATE SIGNED: 2/10/06
LIC. EXP. DATE: 11/30/07

Hanson Professional Services Inc.
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Hanson Professional Services Inc.
2900 W. Willow Knolls Road
Peoria, Illinois 61614-1129

**QCQA BITUMINOUS
SUPERPAVE PROJECT**

APPROVED Feb 10, 2006
Jim Justus
COUNTY ENGINEER

APPROVED 20
~~ROAD COMMISSIONER~~

PASSED Feb 20, 2006
John Laballe
DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review J. E. Crowe WSL FEB 21, 20 06
DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADT (2000) = 1700, SU = 5%
HIGHWAY CLASS: MAJOR COLLECTOR (NON-URBAN)
DESIGN SPEED: 60 MPH
DESIGN POLICY: BLR MANUAL
VARIANCES GRANTED: NONE
COMMITMENTS: NONE

CATALOG# 033090-00

GENERAL NOTES

1. THE CONSTRUCTION SHALL BE GOVERNED BY THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", CURRENT EDITION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES ON SITE PRIOR TO ANY CONSTRUCTION AND WILL BE HELD RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THEIR FACILITIES. THE CONTRACTOR, ON SITE, SHALL DETERMINE THE EXACT LOCATIONS OF THE UTILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E. @ 1-800-892-0123 FOR UTILITY LOCATIONS.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.
4. ADJUSTMENTS OF PROPOSED GRADES TO MATCH EXISTING ENTRANCES OR OTHER FIELD CONDITIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
6. ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES DURING ALL STAGES OF CONSTRUCTION.
7. EXCESS MATERIAL, IF NOT USED FOR OTHER ON-SITE PURPOSES, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.
8. THE WORK AREA SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.
9. 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 MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
10. THE OWNER RESERVES THE RIGHT TO REDUCE ANY QUANTITY OR DELETE PAY ITEMS FROM THIS CONTRACT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
11. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
12. APPLICATION RATES:
 TEMPORARY EROSION CONTROL SEEDING: 100 LB/ACRE
 BITUMINOUS MATERIALS (PRIME COAT): 0.50 GAL/SQ YD (GRAVEL SURFACE)
 BITUMINOUS MATERIALS (PRIME COAT): 0.05 GAL/SQ YD (EXISTING PAVEMENT)
 BITUMINOUS MATERIAL (PRIME COAT): 0.1 GAL/SQ YD (MILLED SURFACE)
 BITUMINOUS MATERIAL (PRIME COAT): 0.03 GAL/SQ YD (PAVED SURFACE)
13. THE CONTRACTOR SHALL USE ANY ON SITE MATERIAL DEEMED SUITABLE BY THE ENGINEER BEFORE ANY NEW FILL IS HAULED TO THE SITE.
14. THE EXISTING GUARDRAIL ON THE SITE SHALL BE SALVAGED AND STOCK PILED FOR PICK-UP BY WARREN COUNTY.

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE X080-2#

CODE NO.	DESCRIPTION	QUANTITY	UNITS
20200100	EARTH EXCAVATION	CU YD	30
20400800	FURNISHED EXCAVATION	CU YD	325
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	358
25000210	SEEDING, CLASS 2A	ACRE	0.10
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9
25100115	MULCH, METHOD 2	ACRE	0.10
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	40
28000300	TEMPORARY DITCH CHECKS	EACH	4
28000400	PERIMETER EROSION BARRIER	FOOT	450
28100810	STONE DUMPED RIPRAP, CLASS A5 (SPECIAL)	TON	316
35100100	AGGREGATE BASE COURSE, TYPE A	TON	42
40600100	BITUMINOUS MATERIAL (PRIME COAT)	GALLON	102
40600980	BITUMINOUS SURFACE REMOVAL-BUTT JOINT	SQ YD	204
48100100	AGGREGATE SHOULDERS, TYPE A	TON	40
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	129.3
50300225	CONCRETE STRUCTURES	CU YD	36.2
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	2424
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4180
50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	155
51201400	FURNISHING STEEL PILES, HP 10x42	FOOT	513
51202700	DRIVING STEEL PILES	FOOT	513
51203400	TEST PILE, STEEL HP 10x42	EACH	1
51204315	CONCRETE ENCASEMENT	CU YD	20.9
51500100	NAME PLATE	EACH	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	276
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	163
67100100	MOBILIZATION	L SUM	1
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
78200410	GUARDRAIL MARKERS, TYPE A	EACH	8
78201000	TERMINAL MARKER DIRECT APPLIED	EACH	4
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	150
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION, LOCATION 1	EACH	1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION, LOCATION 2	EACH	1

• SEE SPECIAL PROVISIONS AND/OR DETAILS IN PLANS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	2
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT NO. BRS-405(103)	
CONTRACT NO. 89381				

EDGE OF PAVEMENT STATION, OFFSET, & ELEVATION

STATION	OFFSET LT.	ELEV. LT.	OFFSET RT.	ELEV. RT.	CL ELEV.
32+34.25	-10.15	99.76	10.35	99.72	100.00
32+50.00	-10.40	99.70	10.57	99.66	99.93
33+00.00	-11.16	99.49	11.25	99.47	99.70
33+50.00	-11.94	99.30	11.94	99.30	99.48
34+00.00	-16.00	99.10	16.00	99.10	99.34
34+50.00	-11.77	98.96	11.68	98.96	99.15
35+00.00	-11.15	98.66	10.79	98.65	98.87
35+50.00	-10.53	98.37	9.91	98.35	98.60
35+51.75	-10.51	98.36	9.88	98.34	98.59

SUGGESTED SEQUENCE OF CONSTRUCTION

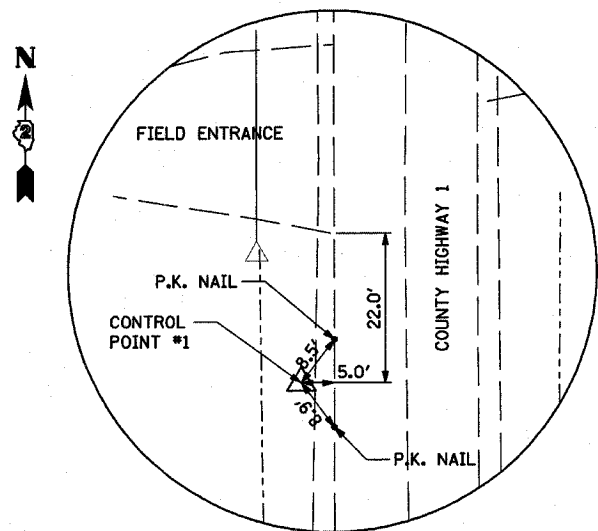
1. CONSTRUCT TEMPORARY EROSION CONTROL MEASURES.
2. INSTALL TRAFFIC CONTROL FOR ROAD CLOSURE. (NO MARKED DETOUR NEEDED)
3. REMOVE EXISTING STRUCTURE.
4. CONSTRUCT NEW BRIDGE STRUCTURE.
5. OVERLAY ROADWAY.
6. INSTALL GUARDRAIL.
7. FINAL SHAPE AND SEED PROJECT AREA AND FINISH MISCELLANEOUS ROAD WORK ITEMS.
8. OPEN ROADWAY TO TRAFFIC.

BENCHMARKS:

1. COTTON SPINDEL IN POWER POLE SOUTH OF BRIDGE AND WEST OF COUNTY HIGHWAY 1. ELEV. = 100.00
2. TOP OF BRIDGE CURB AT NORTH END OF WEST CURB. ELEV. = 99.55

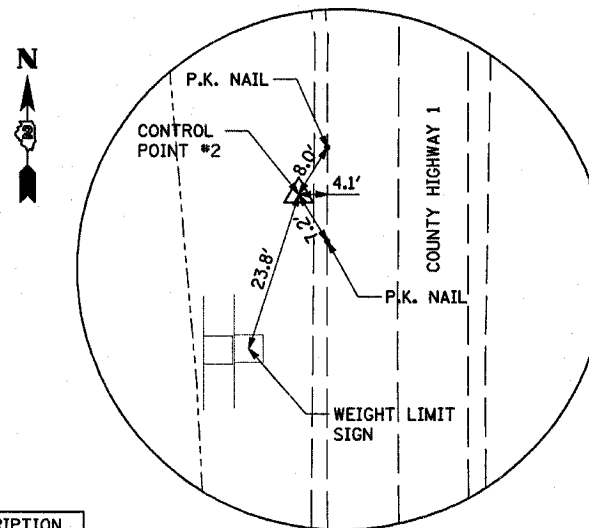
NOTE

BENCHMARK #2 WILL BE DESTROYED DURING REMOVAL OF EXISTING STRUCTURE. CONTRACTOR WILL NEED TO TRANSFER BENCHMARK TO ANOTHER LOCATION BEFORE BEGINNING CONSTRUCTION ACTIVITIES.



CONTROL POINT #1
1/2" IRON PIN SET
STA. 30+93.91

CONTROL POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10000.000	10000.000	102.87	1/2" IRON PIN
2	10501.260	10000.000	98.28	1/2" IRON PIN



CONTROL POINT #2
1/2" IRON PIN SET
STA. 35+95.17

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 405
 SECTION 04-00035-01-BR
 WARREN COUNTY
 COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
**SUMMARY OF QUANTITIES,
 GENERAL NOTES,
 AND CONTROL POINTS**
 SCALE: VERT. _____
 HORIZ. _____
 DATE 02/06/06
 DRAWN BY RLA
 CHECKED BY JDS

HANSON
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LAYOUT RLA 09/22/05 /MS
 DRAWN RLA 02/01/06
 REVIEWED JDS 02/03/06 #FILE#

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	3
STA. 32+34.25		TO STA. 35+51.75		
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT NO. BRS-405(103)		
CONTRACT NO. 89381				

BITUMINOUS MIXTURE REQUIREMENTS	
THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:	
MIXTURE USE(S):	SURFACE COURSE
AC/PG:	PG 64-22
RAP% (MAX.): **	15%
DESIGN AIR VOIDS:	4.2% @ N-50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5 OR IL 12.5
FRICITION AGGREGATE:	MIXTURE C
MIXTURE WEIGHT:	112 LB/SQ YD/IN
THICKNESS:	3.0 IN

- MAXIMUM SURFACE COURSE LIFT SHALL BE 1 1/2".
- IF > 15% RAP IS USED, THE CONTRACTOR MAY BE REQUIRED TO USE A SOFTER GRADE OF ASPHALT AS DETERMINED BY THE MATERIALS ENGINEER.

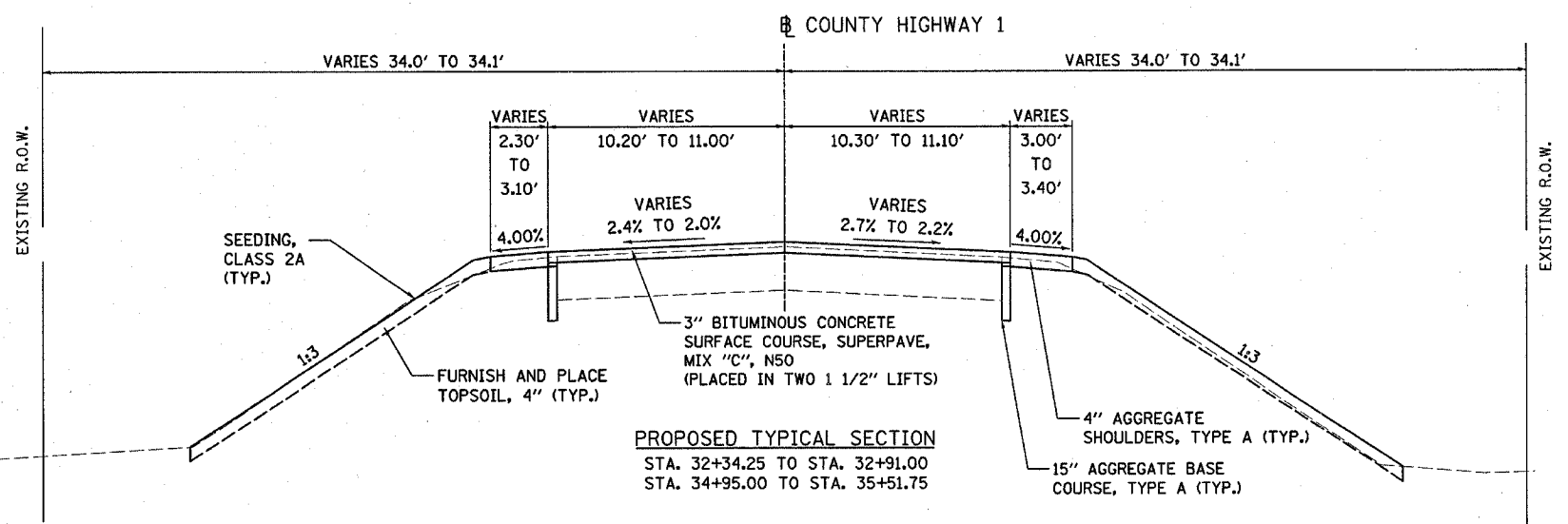
NOTES:

- FROM STA. 32+91.00 TO STA. 33+41.00 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)
- FROM STA. 33+41.00 TO STA. 33+54.25 TRAFFIC BARRIER TERMINAL TYPE 6A
- FROM STA. 34+31.75 TO STA. 34+45.00 TRAFFIC BARRIER TERMINAL TYPE 6A
- FROM STA. 34+45.00 TO STA. 34+95.00 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)
- FROM STA. 32+91.00 TO STA. 33+41.00 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)
- FROM STA. 33+41.00 TO STA. 33+54.25 TRAFFIC BARRIER TERMINAL TYPE 6A
- FROM STA. 34+31.75 TO STA. 34+45.00 TRAFFIC BARRIER TERMINAL TYPE 6A
- FROM STA. 34+45.00 TO STA. 34+95.00 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)

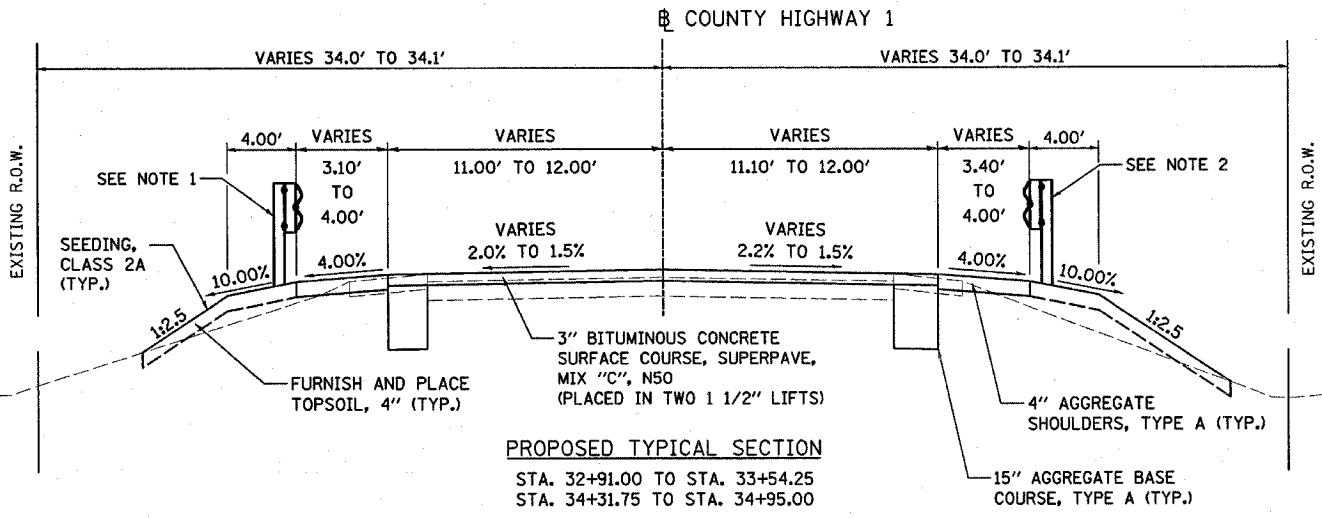
STRUCTURAL DESIGN TRAFFIC:	YEAR 2026
PV = 95%	SU = 3% MU = 2%
ROAD/STREET CLASSIFICATION:	CLASS III
P = 50%	S = 50% M = 50%
TRAFFIC FACTOR: ACTUAL TF = 0.19	AC TYPE =
MINIMUM TF =	
AC GRADE: Binder= 64-22	Surface=
SUBGRADE SUPPORT RATING:	
SSR = POOR	(STA. 32+34.25 TO 35+51.75)
SSR =	(STA. TO)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 405
 SECTION 04-00035-01-BR
 WARREN COUNTY
 COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
EXISTING AND PROPOSED TYPICAL SECTIONS
 SCALE: VERT. _____
 DATE 02/06/06
 DRAWN BY RLA
 CHECKED BY JDS

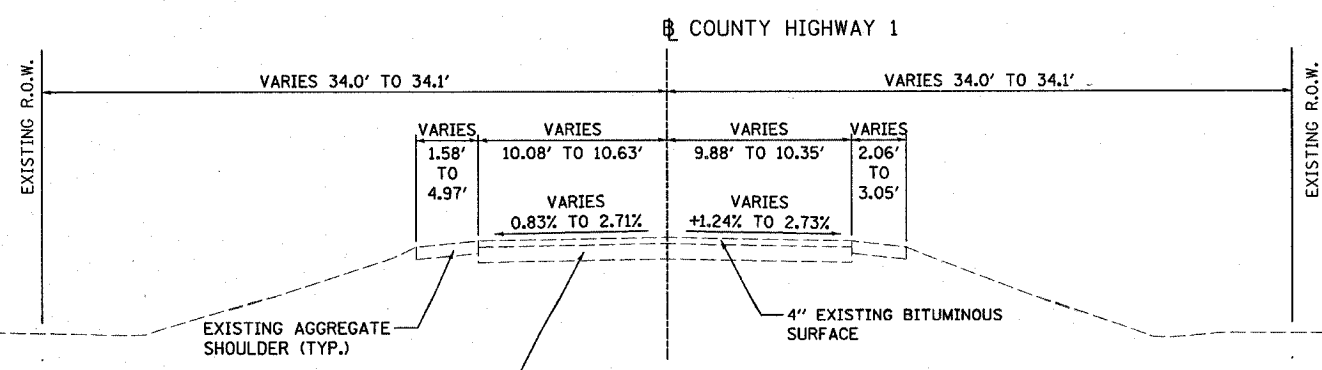


PROPOSED TYPICAL SECTION
 STA. 32+34.25 TO STA. 32+91.00
 STA. 34+95.00 TO STA. 35+51.75



PROPOSED TYPICAL SECTION
 STA. 32+91.00 TO STA. 33+54.25
 STA. 34+31.75 TO STA. 34+95.00

BRIDGE OMISSION
 STA. 33+54.25 TO STA. 34+31.75



EXISTING TYPICAL SECTION
 STA. 32+34.25 TO STA. 33+69.22
 STA. 34+31.80 TO STA. 35+51.75

BRIDGE OMISSION
 STA. 33+69.22 TO STA. 34+31.80



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 LAYOUT: RLA 09/13/05 JDS
 DRAWN: RLA 02/01/06
 REVIEWED: JDS 02/03/06

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	4
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT NO. BRS-405(103)	
CONTRACT NO. 89381				

AGGREGATE SHOULDERS, TYPE A

STA. 32+34.25 TO STA. 33+54.22, LT	42.01	SQ YD
STA. 32+34.25 TO STA. 33+54.20, RT	46.48	SQ YD
STA. 34+31.80 TO STA. 35+51.75, LT	41.65	SQ YD
STA. 34+31.78 TO STA. 35+51.75, RT	43.40	SQ YD
TOTAL	174	SQ YD
TOTAL	40	TON

TEMPORARY DITCH CHECKS

STA. 33+50.00, LT.	1	EACH
STA. 33+50.00, RT.	1	EACH
STA. 34+40.00, LT.	1	EACH
STA. 34+40.00, RT.	1	EACH
TOTAL	4	EACH

PERIMETER EROSION BARRIER

STA. 32+30.00 TO STA. 33+60.00, RT	130	FEET
STA. 33+00.00 TO STA. 33+60.00, LT	60	FEET
STA. 34+25.00 TO STA. 35+55.00, RT	130	FEET
STA. 34+25.00 TO STA. 35+55.00, LT	130	FEET
TOTAL	450	FEET

BITUMINOUS MATERIAL (PRIME COAT)

MILLED SURFACE

STA. 32+34.25 TO STA. 32+79.25	102.14	SQ YD
STA. 35+06.75 TO STA. 35+51.75	101.80	SQ YD
TOTAL	203.94	SQ YD
(1 APPLICATION @ 0.10 GAL/SY)		
SUB-TOTAL	21	GAL

BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50

TOP LIFT

STA. 32+34.25 TO STA. 33+54.25	296.69	SQ YD
STA. 34+31.75 TO STA. 35+51.75	295.90	SQ YD
TOTAL	592.59	SQ YD
SUB-TOTAL	50	TON

TEMPORARY EROSION CONTROL SEEDING

0.10 ACRES (100 LB/ACRE) x 4 APPLICATIONS = 40 LB

TOPSOIL, SEEDING & FERTILIZER NUTRIENTS

TOPSOIL FURNISH AND PLACE, 4" (SQ YD)	SEEDING, CLASS 2A (ACRE)	MULCH, METHOD 2 (ACRE)	NITROGEN FERTILIZER NUTRIENT 90 (LB/ACRE) (LB)	PHOSPHORUS FERTILIZER NUTRIENT 90 (LB/ACRE) (LB)	POTASSIUM FERTILIZER NUTRIENT 90 (LB/ACRE) (LB)
TOTAL	358	0.10	0.10	9	9

GRAVEL SURFACE

STA. 32+34.25 TO STA. 33+54.25, LT	12.49	SQ YD
STA. 32+34.25 TO STA. 33+54.25, RT	12.25	SQ YD
STA. 34+31.75 TO STA. 35+51.75, LT	11.20	SQ YD
STA. 34+31.75 TO STA. 35+51.75, RT	12.67	SQ YD
TOTAL	48.61	SQ YD
(1 APPLICATION @ 0.50 GAL/SY)		
SUB-TOTAL	25	GAL

BOTTOM LIFT

STA. 32+79.25 TO STA. 33+54.25	190.89	SQ YD
STA. 34+31.75 TO STA. 35+06.75	190.58	SQ YD
TOTAL	381.47	SQ YD
SUB-TOTAL	51	TON
TOTAL FROM BRIDGE PLANS	49	TON
TOTAL	150	TON

EXISTING PAVEMENT

STA. 32+79.25 TO STA. 33+54.25	169.81	SQ YD
STA. 34+31.75 TO STA. 35+06.75	169.98	SQ YD
TOTAL	339.79	SQ YD
(1 APPLICATION @ 0.05 GAL/SY)		
SUB-TOTAL	17	GAL

GUARDRAIL REMOVAL

STA. 33+28.10 TO STA. 33+69.20, LT	41	FEET
STA. 33+28.75 TO STA. 33+68.93, RT	40	FEET
STA. 34+31.80 TO STA. 34+72.45, LT	41	FEET
STA. 34+31.89 TO STA. 34+72.70, RT	41	FEET
TOTAL	163	FEET

STONE DUMPED RIPRAP, CLASS A5 (SPECIAL)

BRIDGE PLANS	316	TONS
TOTAL	316	TONS

NEW PAVEMENT

STA. 32+79.25 TO STA. 33+54.25	169.81	SQ YD
STA. 34+31.75 TO STA. 35+06.75	169.98	SQ YD
TOTAL	339.79	SQ YD
(1 APPLICATION @ 0.03 GAL/SY)		
SUB-TOTAL	11	GAL

BITUMINOUS SURFACE REMOVAL-BUTT JOINT

STA. 32+34.25 TO STA. 32+79.25	102.14	SQ YD
STA. 35+06.75 TO STA. 35+51.75	101.86	SQ YD
TOTAL	204	SQ YD

EARTHWORK

A EARTH EXCAVATION (CU YD)	B EMBANKMENT (CU YD)	C ADJ. EARTH EXCAVATION (A x(1-0.25)) (CU YD)	D FURNISHED EXCAVATION (B-C) (CU YD)
TOTAL	27	341	20
			321

TOTAL FROM BRIDGE PLANS

SUB-TOTAL	28	GAL
TOTAL	102	GAL

TRAFFIC BARRIER TERMINAL, TYPE 6A

STA. 33+41.00 TO STA. 33+54.25, RT	1	EACH
STA. 33+41.00 TO STA. 33+54.25, LT	1	EACH
STA. 34+31.75 TO STA. 34+45.00, RT	1	EACH
STA. 34+31.75 TO STA. 34+45.00, LT	1	EACH
TOTAL	4	EACH

* ADJUSTED FILL IS BASED ON 25% SHRINKAGE FACTOR.

EARTH EXCAVATION AND EMBANKMENT QUANTITIES DETERMINED FROM CROSS SECTIONS USING END AREA METHOD.

AGGREGATE BASE COURSE, TYPE A

STA. 32+34.25 TO STA. 33+54.25, LT	12.49	SQ YD
STA. 32+34.25 TO STA. 33+54.25, RT	12.25	SQ YD
STA. 34+31.75 TO STA. 35+51.75, LT	11.21	SQ YD
STA. 34+31.75 TO STA. 35+51.75, RT	12.67	SQ YD
TOTAL	48.62	SQ YD
TOTAL	42	TON

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

STA. 32+91.00 TO STA. 33+41.00, RT	1	EACH
STA. 32+91.00 TO STA. 33+41.00, LT	1	EACH
STA. 34+45.00 TO STA. 34+95.00, RT	1	EACH
STA. 34+45.00 TO STA. 34+95.00, LT	1	EACH
TOTAL	4	EACH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 405
 SECTION 04-00035-01-BR
 WARREN COUNTY
 COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK

SCHEDULE OF QUANTITIES

SCALE: VERT. _____
 HORIZ. _____
 DATE 02/06/06

DRAWN BY RLA
 CHECKED BY JDS

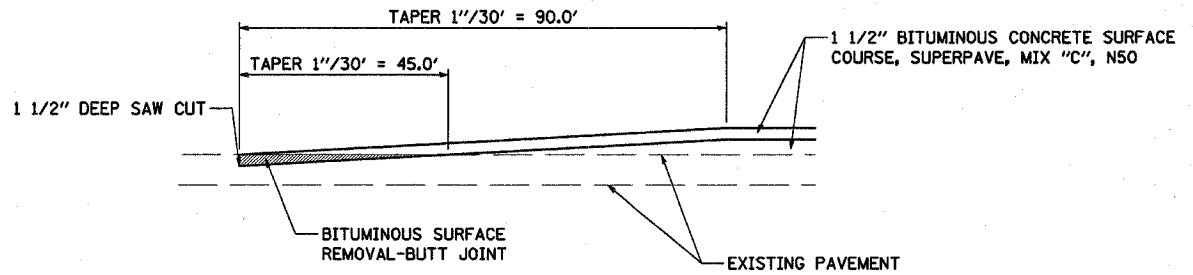
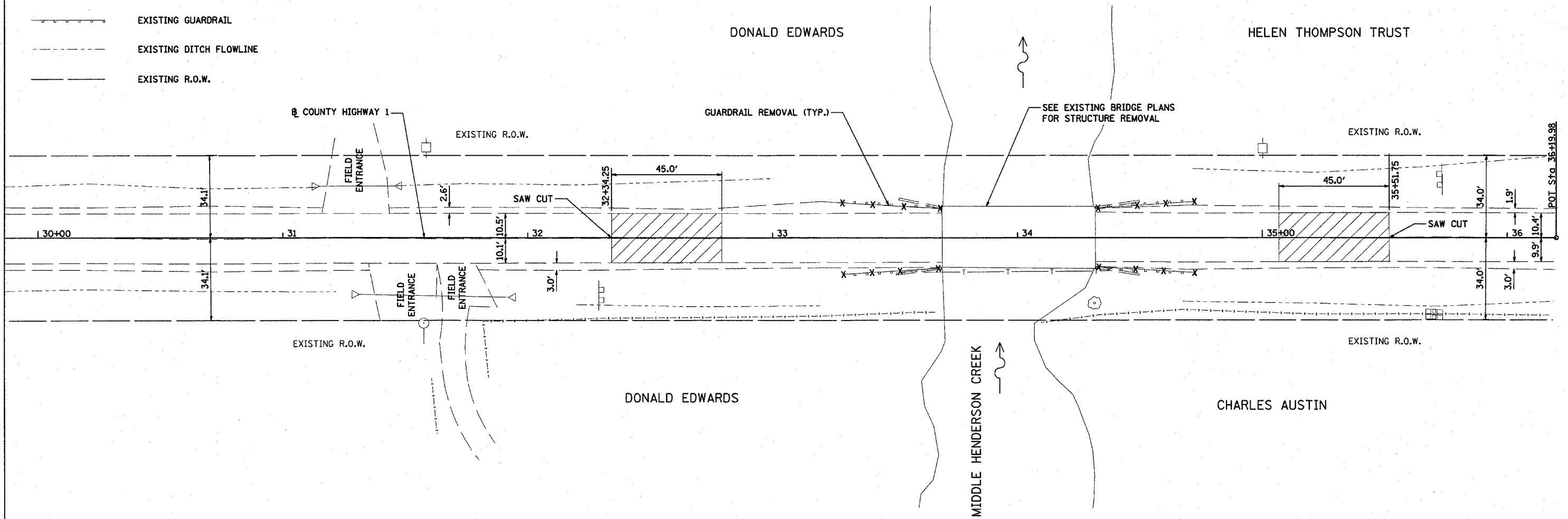
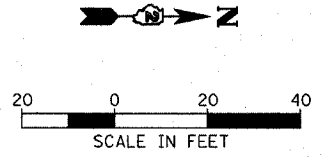
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LAYOUT: RLA 01/06/05 /168
 DRAWN: RLA 02/07/06 02:05:00/118 AM
 REVIEWED: JDS 02/03/06 #FILES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	5
STA. 32+34.25		TO STA. 35+51.75		
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT NO. BRS-405(103)		
CONTRACT NO. 89381				

LEGEND

- EXISTING CULVERT
- EXISTING POWER POLE
- EXISTING SIGN
- EXISTING TELEPHONE PEDESTAL
- EXISTING FENCE
- EXISTING TELEPHONE LINE
- EXISTING GUARDRAIL
- EXISTING DITCH FLOWLINE
- EXISTING R.O.W.



BUTT JOINT DETAIL
NOT TO SCALE

NOTE:
THE EXISTING GUARDRAIL ON THE SITE SHALL BE SALVAGED AND STOCK PILED FOR PICK-UP BY WARREN COUNTY.

REMOVAL LEGEND

- BITUMINOUS SURFACE REMOVAL-BUTT JOINT
- GUARDRAIL REMOVAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 405
SECTION 04-00035-01-BR
WARREN COUNTY
COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK

REMOVAL PLAN

SCALE: VERT. _____
HORIZ. 1"=20'
DATE 02/06/06

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CHECKED BY JDS

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 LAYOUT: RLA 09/13/05 r10#
 DRAWN: RLA 02/01/06 02:06:00C06.r10# AM
 REVIEWED: JDS 02/03/06 \$FILE\$

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	7
STA.		TO STA.		
FED. ROAD DIST. NO. 7 ILLINOIS		PROJECT NO. BRS-405(103)		
CONTRACT NO. 89381				

SHEET NO. 1
6 SHEETS

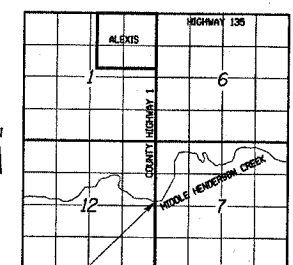
BENCHMARK:

Cotton spindle in power pole south of bridge, west of County Highway 1. Elevation 100.00.

Top of bridge curb at north end of west curb. Elevation 99.55.

EXISTING STRUCTURE:

The existing bridge is a two span steel stringer structure, with concrete deck and timber bent piers. The structure is 63.0' back to back of closed concrete abutments and is 25.0' out to out of deck.



LOCATION SKETCH

LOADING HS20

Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 (17th Edition) AASHTO Standard Specifications for Highway Bridges

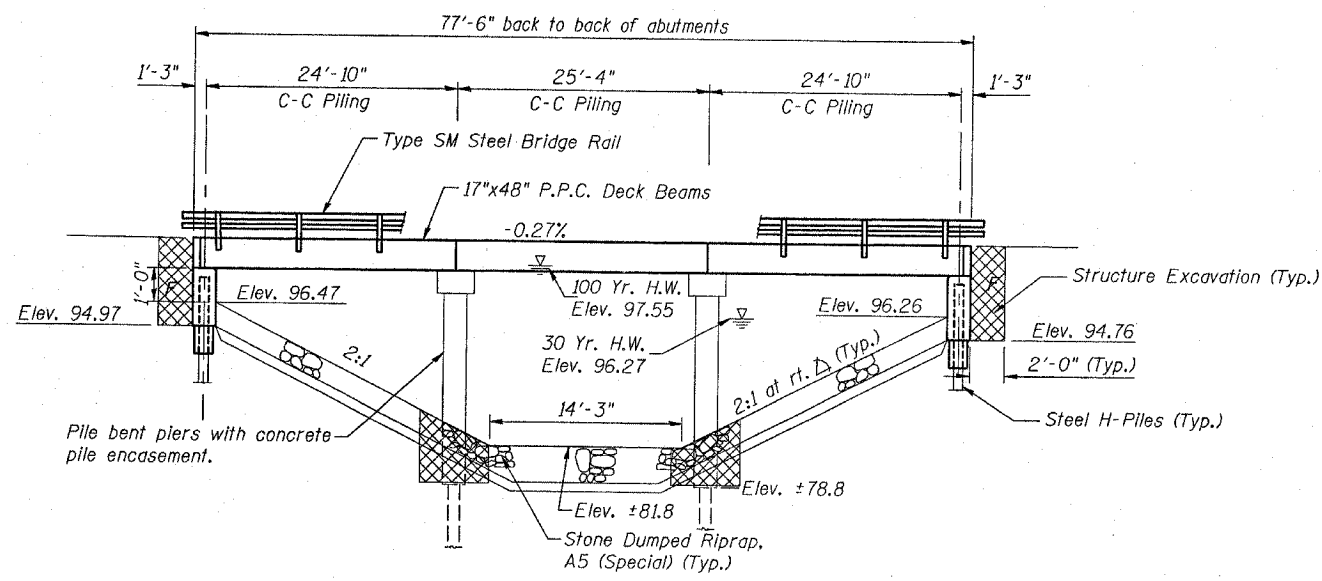
DESIGN STRESSES

Super: $f'_c = 5,000$ p.s.i.
 $f'_{ci} = 4,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " ϕ Strand)
 $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " ϕ Strand)
 $f_y = 60,000$ p.s.i.

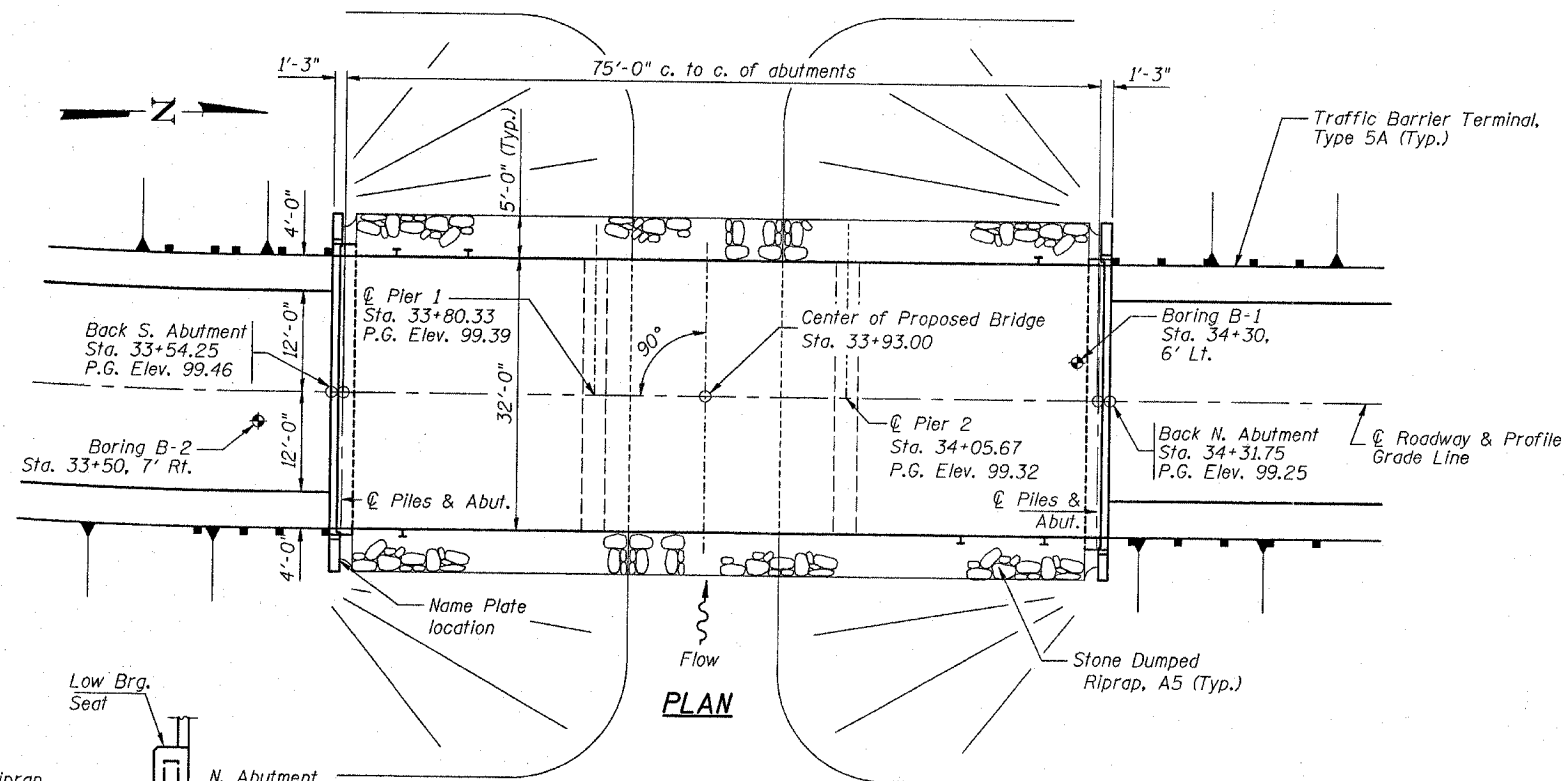
Sub: $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.

SEISMIC DATA

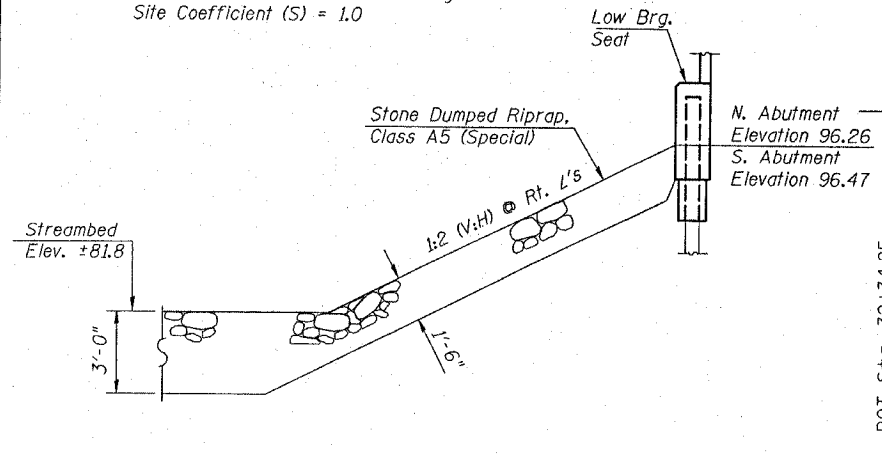
Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.04g
 Site Coefficient (S) = 1.0



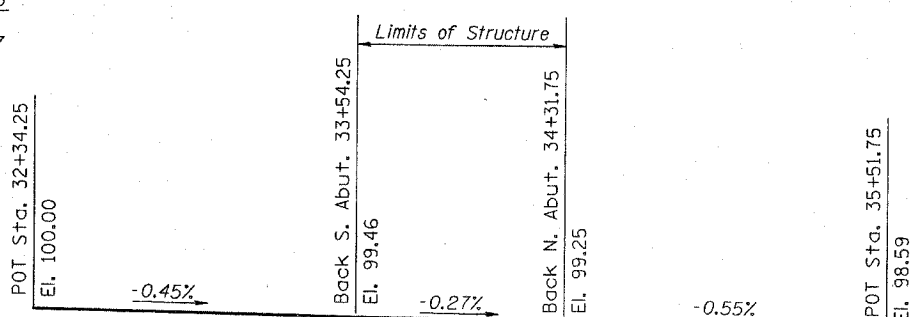
ELEVATION



PLAN



STONE RIPRAP ANCHOR DETAIL



PROPOSED PROFILE GRADE

**MIDDLE HENDERSON CREEK
 BUILT 200_ BY
 WARREN COUNTY
 SEC. 04-00035-01-BR
 F.A.S. RT. 405 STA. 33+93
 STR. NO. 094-3036 LOADING HS20**

NAME PLATE

Locate Name Plate at Southeast Corner of Bridge (See Std. 515001-02)

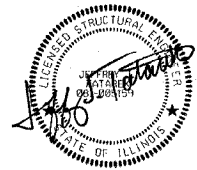
NOTES:

- The Contractor shall drive 1 test pile (at pair 1) in a permanent location as directed by the Engineer before ordering the remainder of piles.
- A Calcium Nitrite Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a min. of $\frac{1}{4}$ ".
- All construction joints shall be bonded.
- Reinforcement bars shall conform to the requirements of AASHTO M-31, M322 grade 60.
- The location of the proposed north abutment is near the existing abutment location. Care must be taken during construction to locate existing substructure elements to prevent damage or conflicts with the new pile locations. If conflicts arise and modifications are required of the pile locations or design, the Engineer should be contacted immediately for resolution and structural approval.

BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Removal of Existing Structures	Each	-	-	1
Bituminous Materials (Prime Coat)	Gal.	28	-	28
Bit. Conc. Surface Cse. Superpave, Mix C, N50	Ton	49	-	49
Waterproofing Membrane System	Sq.Yd.	276	-	276
Concrete Structures	Cu.Yd.	-	36.2	36.2
Reinforcement Bars, Epoxy Coated	Lb.	-	4180	4180
Steel Bridge Rail, Type SM	Foot	155	-	155
P.P. Conc. Deck Beams (17" Depth)	Sq.Ft.	2424	-	2424
Name Plates	Each	-	1	1
Furnishing Steel Piles HP 10 x 42	Foot	-	513	513
Driving Steel Piles	Foot	-	513	513
Test Piles, Steel HP 10 x 42	Each	-	1	1
Structure Excavation	Cu.Yd.	-	129.3	129.3
Concrete Encasement	Cu.Yd.	-	28.9	28.9
Stone Dumped Riprap, Class A5 (Special)	Ton	-	316	316
Underwater Structure Excavation Protection Location 1 (Pier 1)	Each	-	1	1
Underwater Structure Excavation Protection Location 2 (Pier 2)	Each	-	1	1

"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.'"



SIGNATURE: [Signature]
 DATE: 2/2/06
 I.L.C. EXP. DATE: 11/30/06

WATERWAY INFORMATION

Drainage Area = 18.80 Sq. Mi. Low Grade Elev. 98.56 @ Sta. 35+70

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	2867	680	601	96.10	0.13	0.17	96.23	96.27
Base	100	3832	760	692	97.36	0.18	0.19	97.54	97.55

REVISIONS	
NAME	DATE

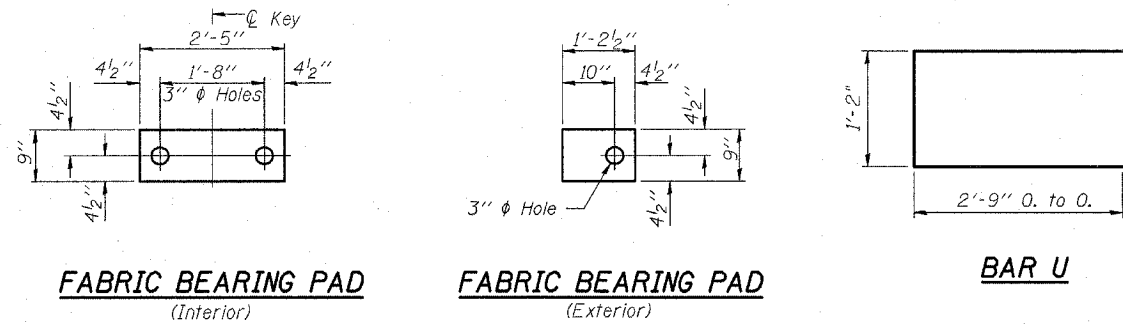
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 405
 SECTION 04-00035-01-BR
 WARREN COUNTY
 COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
GENERAL PLAN AND ELEVATION

SCALE: VERT. -
 HORIZ. -
 DATE 02/06/06

DRAWN BY RLA
 CHECKED BY JTT

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 LAYOUT: MPB 09/05/05 JDS
 DRAWN: RLA 02/02/06 02/03/2005 04:49 PM
 REVIEWED: JTT 02/02/06 1:05:08 PM 02/02/06 1:05:08 PM

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	8
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT NO. BRS-405(103)		
CONTRACT NO. 89381		SHEET NO. 2		
		6 SHEETS		

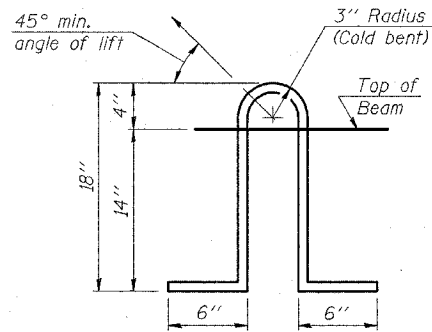


FABRIC BEARING PAD
(Interior)

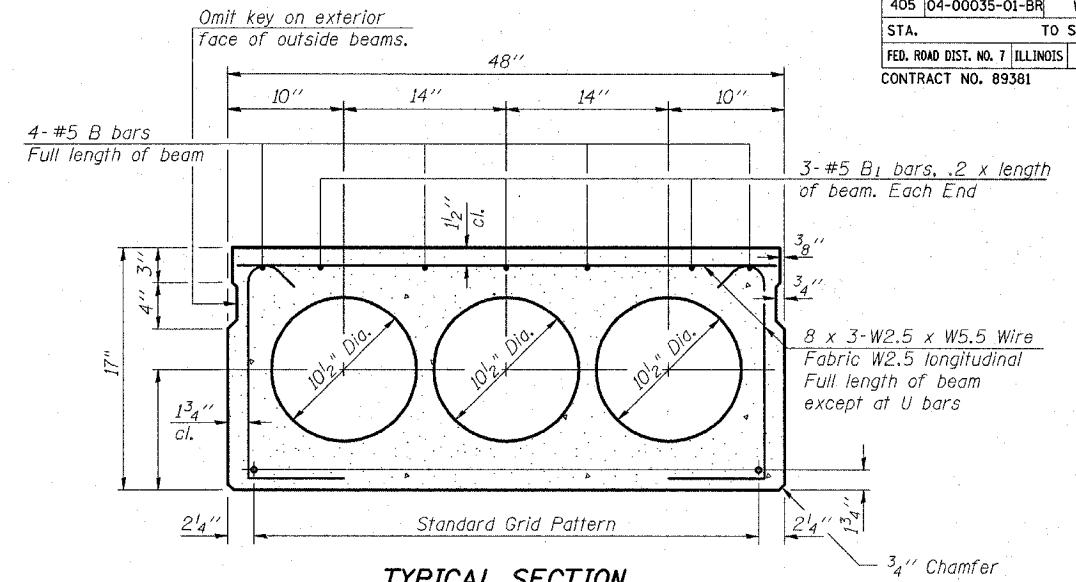
FABRIC BEARING PAD
(Exterior)

BAR U

FIXED



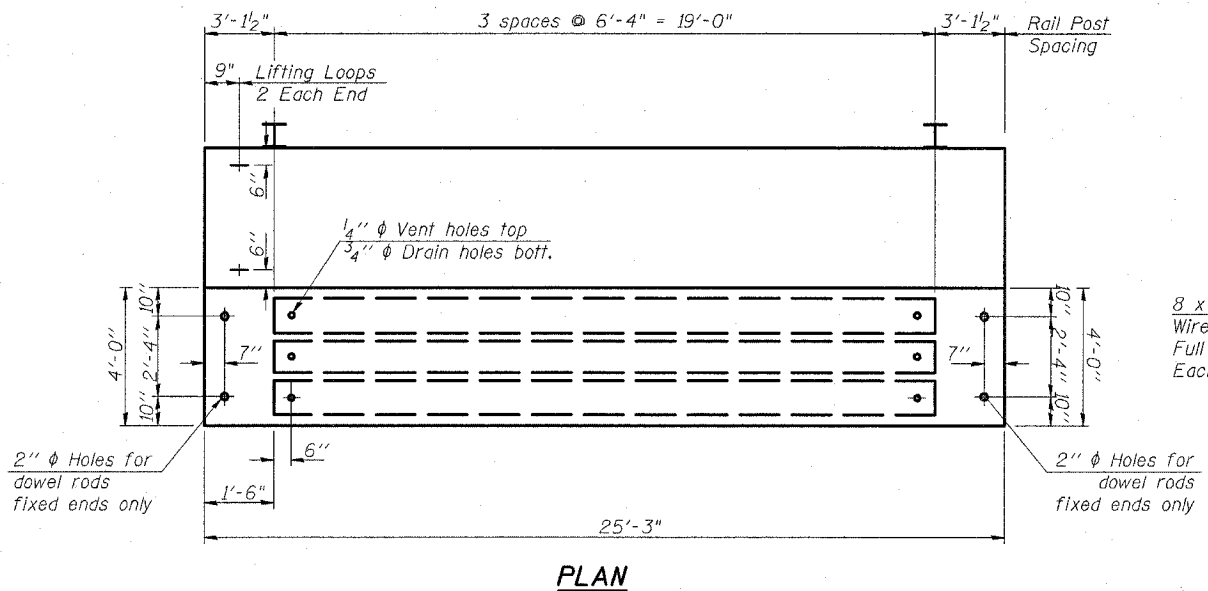
LIFTING LOOP DETAIL



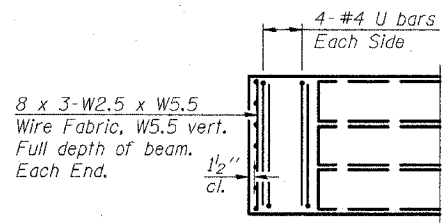
TYPICAL SECTION

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

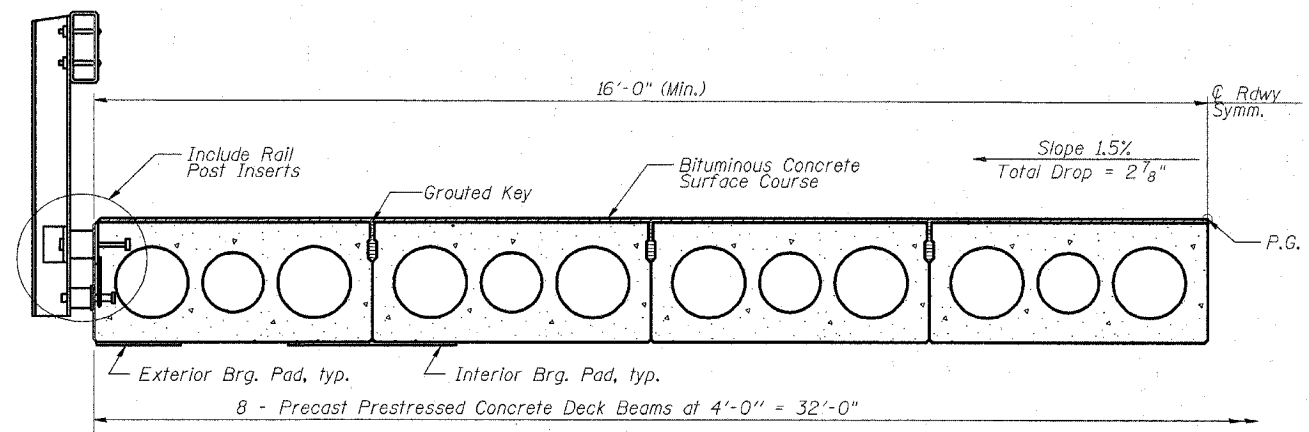
Note:
Place strands symmetrically about ϕ of beam.



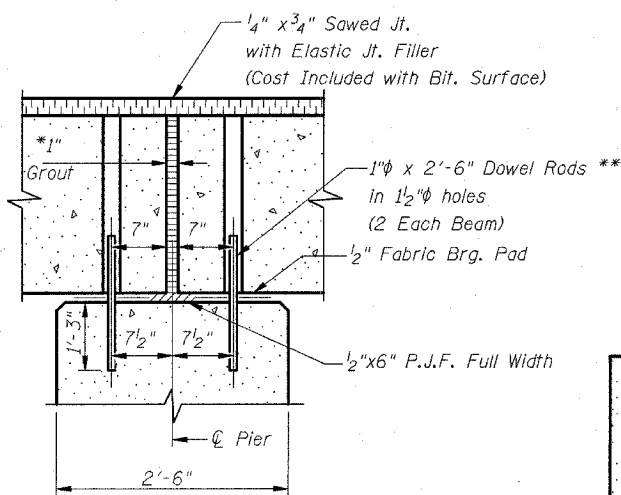
PLAN



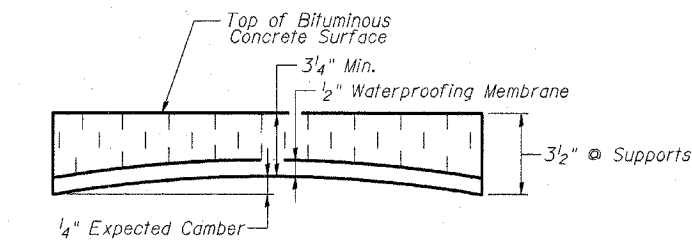
END PLAN



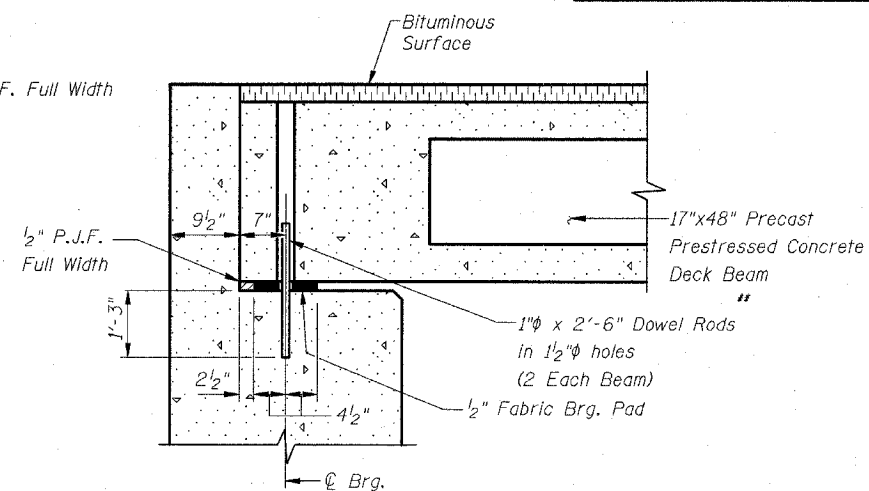
HALF CROSS SECTION



SECTION AT PIERS
(At Right Angles)



BITUMINOUS CONCRETE SURFACE PROFILE



SECTION AT ABUTMENTS
(At Right Angles)

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. 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'ci, shall be 4,000 p.s.i.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	2424

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 405
SECTION 04-00035-01-BR
WARREN COUNTY
COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
P.P.C. DECK BEAM SUPERSTRUCTURE

SCALE: VERT. DRAWN BY RLA
HORIZ. CHECKED BY JJT
DATE 02/06/06

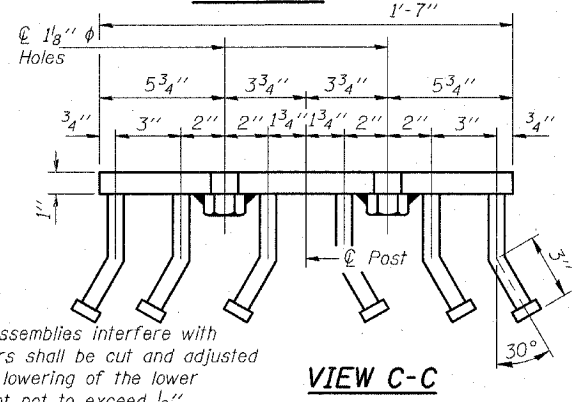
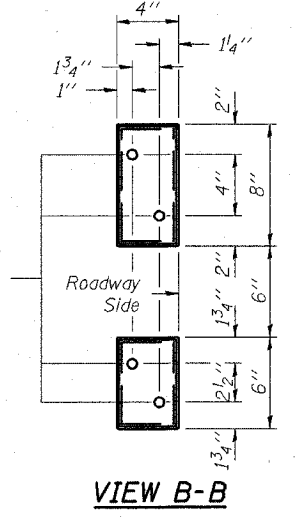
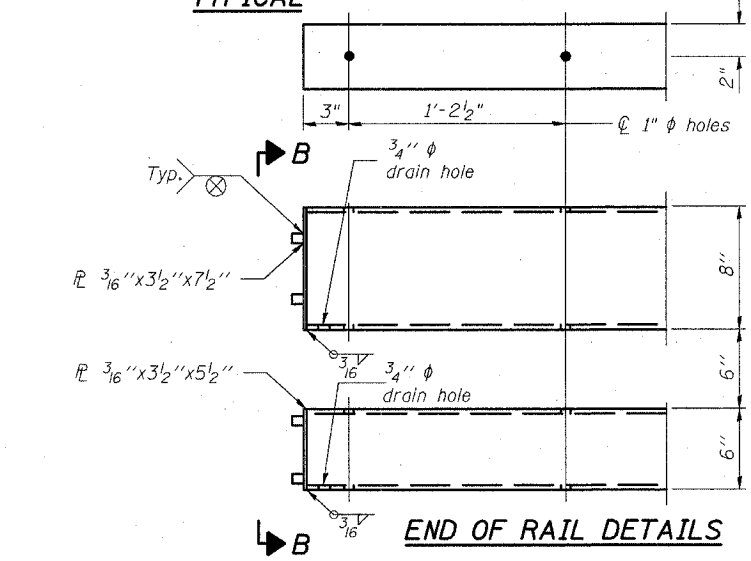
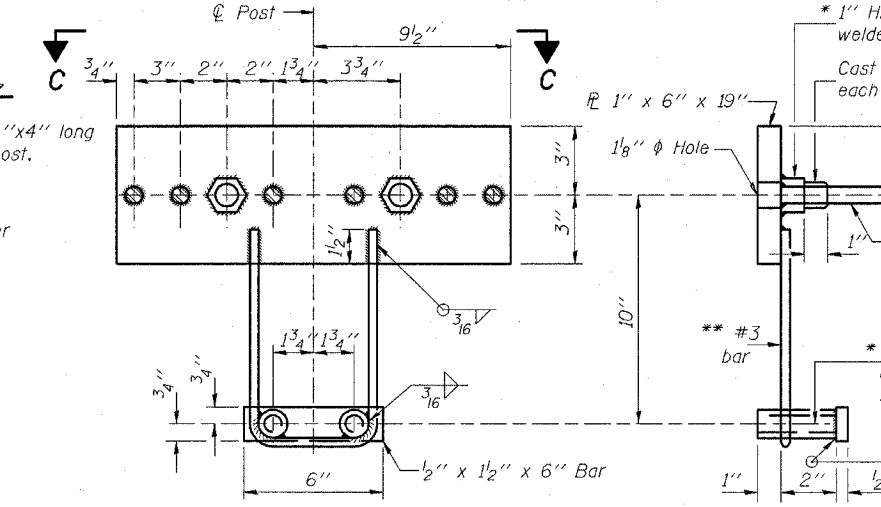
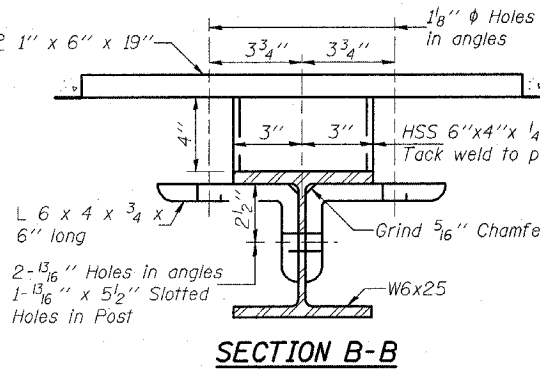
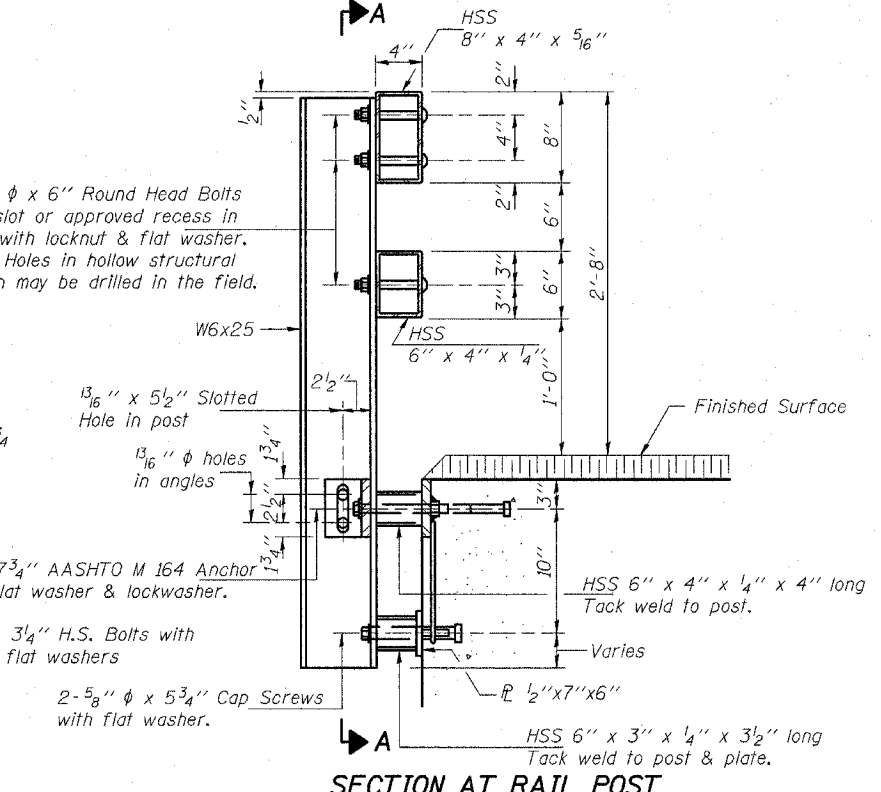
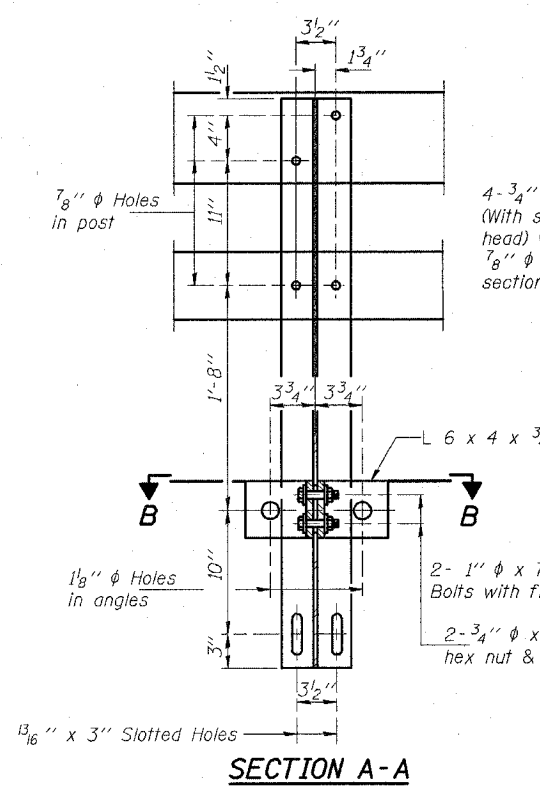
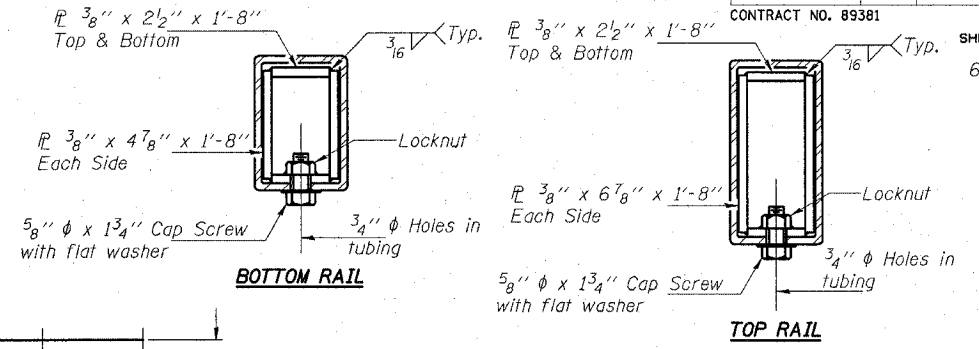
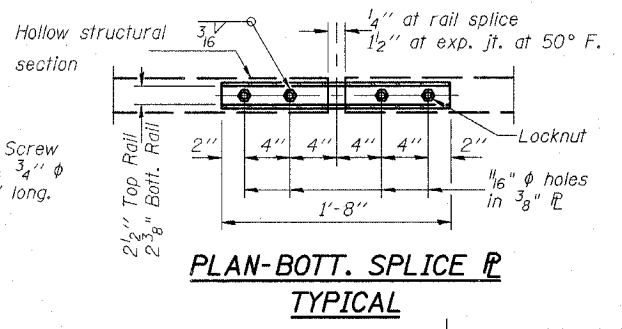
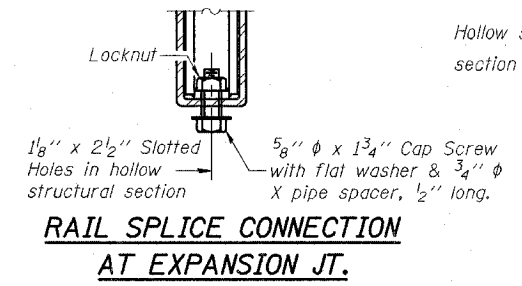
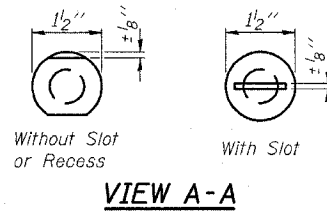
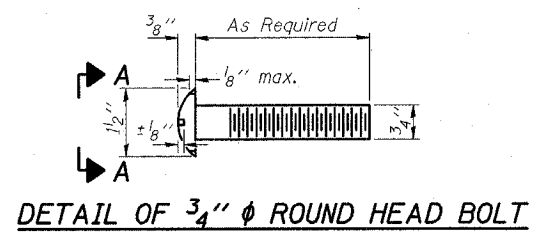
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LAYOUT: RLA 02/17/06 1:00 PM
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REVIEWED: JJT 02/20/06 09:15 AM

* 1" Joint shall be packed with a very dry mix of 2:1 sand & P.C. mortar. 1" Dimension may vary plus or minus to accommodate tolerance in beam lengths.
**Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 Hrs.) prior to grouting the shear keys.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	9
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT NO. BRS-405(103)		
CONTRACT NO. 89381				

SHEET NO. 3
6 SHEETS



SECTIONS AT RAIL SPLICE

NOTES

Hollow structural sections 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 requirements 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 according to AASHTO M 232.
 All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
 Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.
 The 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pads between the plates 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 according to 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 SM	Foot	155

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.S. 405
 SECTION 04-00035-01-BR
 WARREN COUNTY
 COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
 TYPE SM STEEL RAIL
 SIDE MOUNTED
 SCALE: VERT. DATE 02/06/06
 DRAWN BY RLA
 CHECKED BY JJT

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

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LAYOUT RLA 10/11/05 r/cg
 DRAWN RLA 02/02/06 02/06/06/llh/AM
 REVIEWED JJT 02/02/06 \$FILE\$



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LAYOUT: RLA 10/11/05 1/6
DRAWN: RLA 11/11/05 02/06/06 06:23 AM
REVIEWED: JLT 10/20/05 10/20/05 10/20/05 10/20/05

WHITNEY & ASSOCIATES
2408 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-01
DATE 7-12-96
W. & A. FILE NO. 8177
SHEET 4 OF 4

PROJECT MIDDLE HENDERSON CREEK BRIDGE #04-00035-01-BR LOCATION Warren County, Illinois
BORING LOCATION Station 35+40; 6' Left Of Centerline
BORING TYPE Hollow-Stem Auger
SOIL CLASSIFICATION SYSTEM U. S. S. C. WEATHER CONDITIONS Partly Cloudy & Mild
GROUND SURFACE ELEVATION 654.0 SEEPAGE WATER ENCOUNTERED AT ELEVATION 633.5
BORING DISCONTINUED AT ELEVATION 618.0 GROUND WATER ELEVATION AT COMPLETION 639.7

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
5*	BITUMINOUS CONCRETE					
15*	CRUSHED LIMESTONE					
	Soft, Brown SILTY CLAY					
04	SS	1	0.5	0.5	92	23
	1(2)					
	Medium, Brown And Dark Brown SILTY CLAY					
	SS	1	0.8	0.7	88	27
	2(4)					
	2					
08	SS	1	0.9	0.7	93	26
	2(3)					
	Medium, Dark Gray SANDY CLAY					
	SS	2	1.0	0.8	92	28
	1					
	3(4)					
12	SS	2	0.8	0.7	97	25
	1					
	2(3)					
	Stiff, Dark Gray SANDY CLAY					
	SS	3	1.5	1.3	103	19
	2					
	2(4)					
	Very Soft To Medium, Gray And Brown SANDY CLAY LOAM					
	SS	0	0.3	0.2	110	22
20	SS	1	0.6	0.5	96	25
	1					
	1(2)					
	12					
	Hard, Gray CLAY SHALE					
	SS	16	4.5	4.4	117	10
	25(42)					
	40					
24	SS	54	4.5	-	-	9

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

WHITNEY & ASSOCIATES
2408 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-01
DATE 7-12-96
W. & A. FILE NO. 8177
SHEET 2 OF 4

PROJECT Middle Henderson Creek Bridge #04-00035-01-BR LOCATION Warren County, Illinois
BORING LOCATION Station 34+60; 7' Right Of Centerline
BORING TYPE Hollow-Stem Auger
SOIL CLASSIFICATION SYSTEM U. S. S. C. WEATHER CONDITIONS Partly Cloudy & Mild
GROUND SURFACE ELEVATION 653.8 SEEPAGE WATER ENCOUNTERED AT ELEVATION 632.3
BORING DISCONTINUED AT ELEVATION 617.8 GROUND WATER ELEVATION AT COMPLETION 638.9

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
	See Sheet 1 Of 4					
	SS	29	4.5*	-	-	9
30	SS	85/2*	4.5*	-	-	10
	SS	104/3*	4.5*	-	-	9
34	SS	92/1*	4.5*	-	-	9
	EXPLORATORY BORING DISCONTINUED					
38						
42						
46						
50						
54						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

WHITNEY & ASSOCIATES
2408 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-02
DATE 7-12-96
W. & A. FILE NO. 8177
SHEET 3 OF 4

PROJECT MIDDLE HENDERSON CREEK BRIDGE #04-00035-01-BR LOCATION Warren County, Illinois
BORING LOCATION Station 34+60; 7' Right Of Centerline
BORING TYPE Hollow-Stem Auger
SOIL CLASSIFICATION SYSTEM U. S. S. C. WEATHER CONDITIONS Partly Cloudy & Mild
GROUND SURFACE ELEVATION 653.8 SEEPAGE WATER ENCOUNTERED AT ELEVATION 632.3
BORING DISCONTINUED AT ELEVATION 617.8 GROUND WATER ELEVATION AT COMPLETION 638.9

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
4*	BITUMINOUS CONCRETE					
14*	CRUSHED LIMESTONE					
	Medium, Brown Bottled Orange-Brown SILTY CLAY (Fill)					
04	SS	3	0.8	0.7	95	17
	4					
	5(9)					
	Medium, Brown SILTY CLAY With Trace Of Crushed Limestone (Fill)					
	SS	5	0.8	0.6	94	21
	7(12)					
	Stiff, Brown SILTY CLAY With A Trace Of Fine-Grained Gravel (Fill)					
	SS	1	1.1	1.0	92	30
	1(2)					
08	SS	2	0.9	0.7	78	35
	2					
	2(3)					
	Medium, Dark Gray SILTY CLAY With Some Wood Debris (Fill)					
	SS	2	1.0	0.8	76	35
	1(2)					
12	SS	2	1.2	1.1	98	31
	2					
	2(4)					
	Stiff, Dark Gray SANDY CLAY With Some Fine-Grained Gravel (Fill)					
	SS	5	0.4	0.3	86	33
	5					
	6(11)					
	Soft, Dark Gray SANDY CLAY With Considerable Wood Debris (Fill)					
	SS	5	3.0	-	-	13
	6					
	7(13)					
20	SS	10	3.5	3.2	116	11
	13(23)					
	19					
	29					
	34(63)					
24	SS	19	4.0	3.8	108	19

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

WHITNEY & ASSOCIATES
2408 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-02
DATE 7-12-96
W. & A. FILE NO. 8177
SHEET 4 OF 4

PROJECT Middle Henderson Creek Bridge #04-00035-01-BR LOCATION Warren County, Illinois
BORING LOCATION Station 34+60; 7' Right Of Centerline
BORING TYPE Hollow-Stem Auger
SOIL CLASSIFICATION SYSTEM U. S. S. C. WEATHER CONDITIONS Partly Cloudy & Mild
GROUND SURFACE ELEVATION 653.8 SEEPAGE WATER ENCOUNTERED AT ELEVATION 632.3
BORING DISCONTINUED AT ELEVATION 617.8 GROUND WATER ELEVATION AT COMPLETION 638.9

DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Dd	Mc
	See Sheet 3 Of 4					
	Hard, Gray SHALE					
	SS	40	4.5*	-	-	11
	61					
30	SS	103/4*	-	-	-	11
	SS	98/3*	-	-	-	10
34	SS	87/1*	-	-	-	10
	EXPLORATORY BORING DISCONTINUED					
38						
42						
46						
50						
54						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE

Qp - CALIBRATED PENETROMETER READING - T.S.F. FALLING 30 INCHES
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Dd - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

REVISIONS	
NAME	DATE

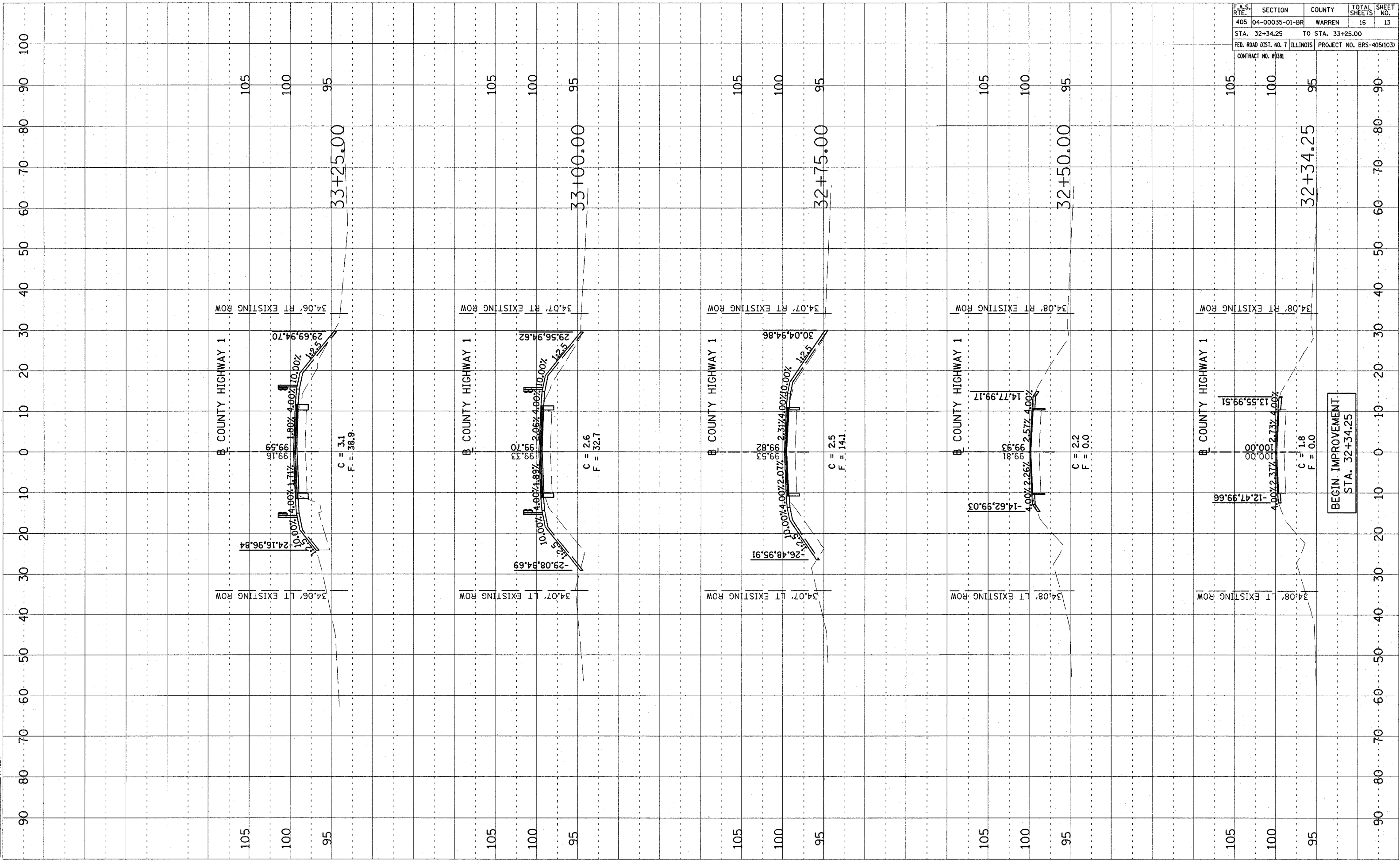
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 405
SECTION 04-00035-01-BR
WARREN COUNTY
COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK

BORING LOGS

SCALE: VERT.
HORIZ.
DATE 02/06/06

DRAWN BY RLA
CHECKED BY JLT

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	13
STA. 32+34.25		TO STA. 33+25.00		
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT NO. BRS-405(103)	
CONTRACT NO. 89381				



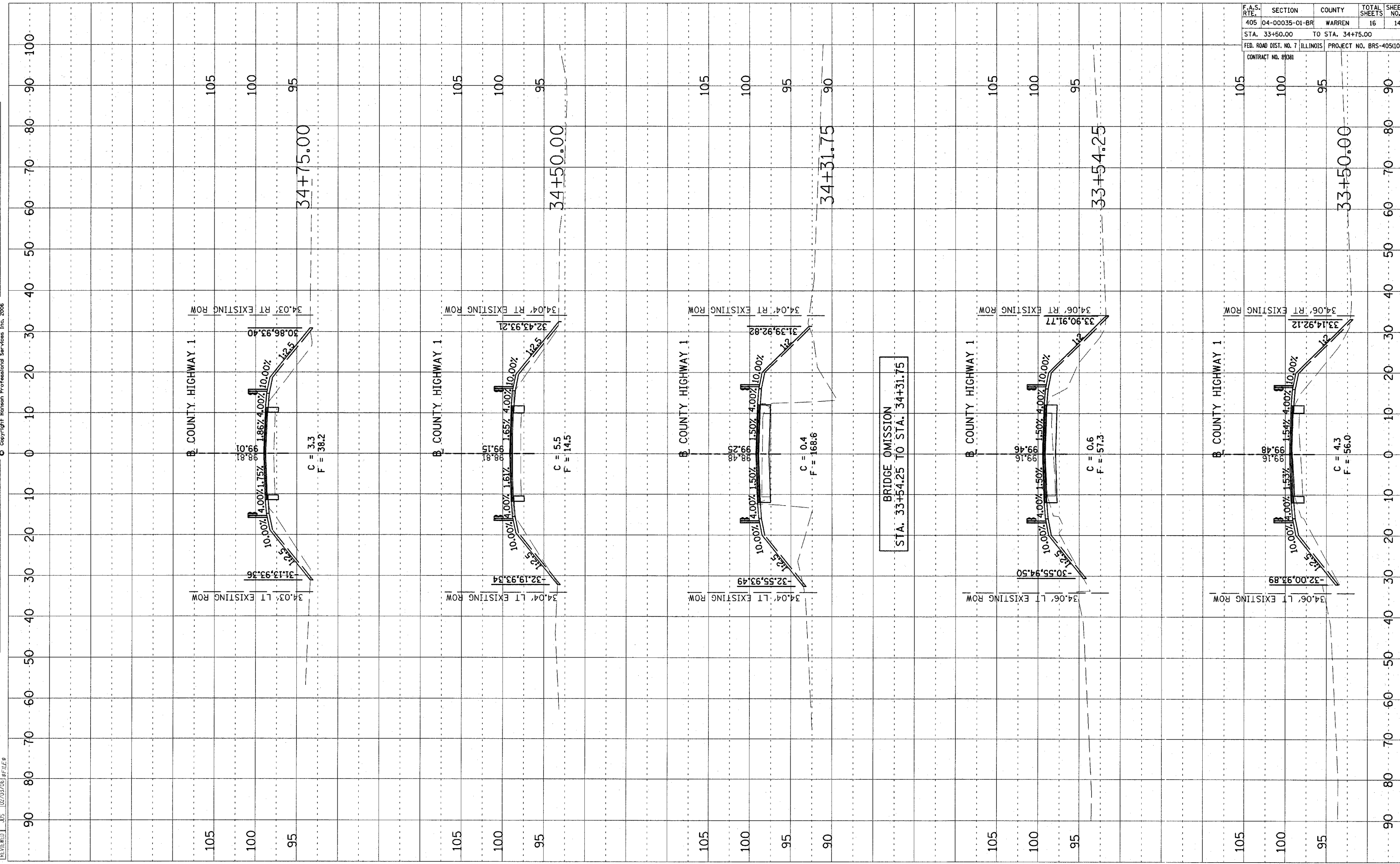
BEGIN IMPROVEMENT
 STA. 32+34.25

DATE: 11/08/05
 FILED: 11/08/05
 PLAN: 02/07/06
 REVIEWED: 05/02/07/06 \$7/LE

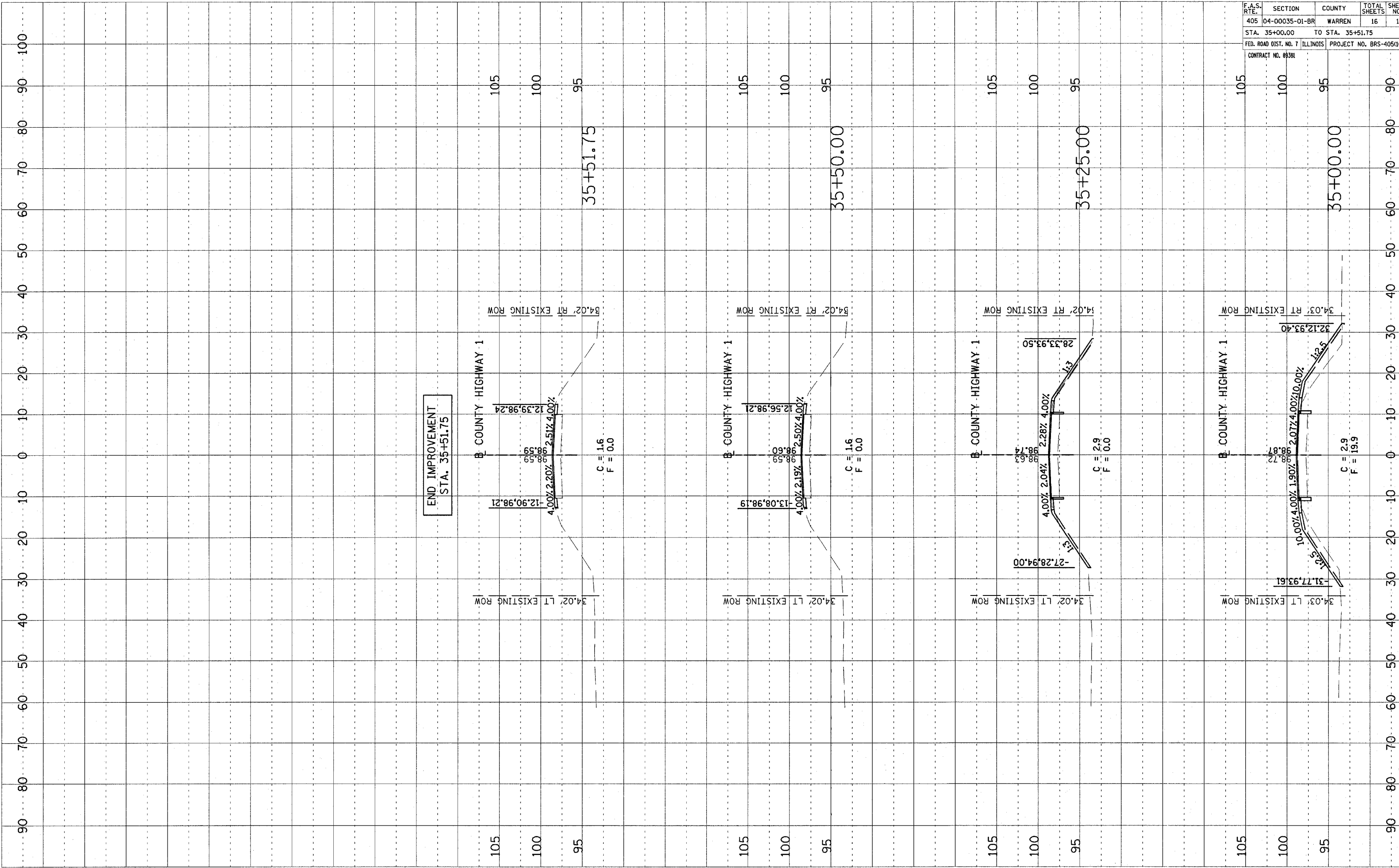
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 PLANT AREAS CHECKED

NOTE BOOK NO. _____
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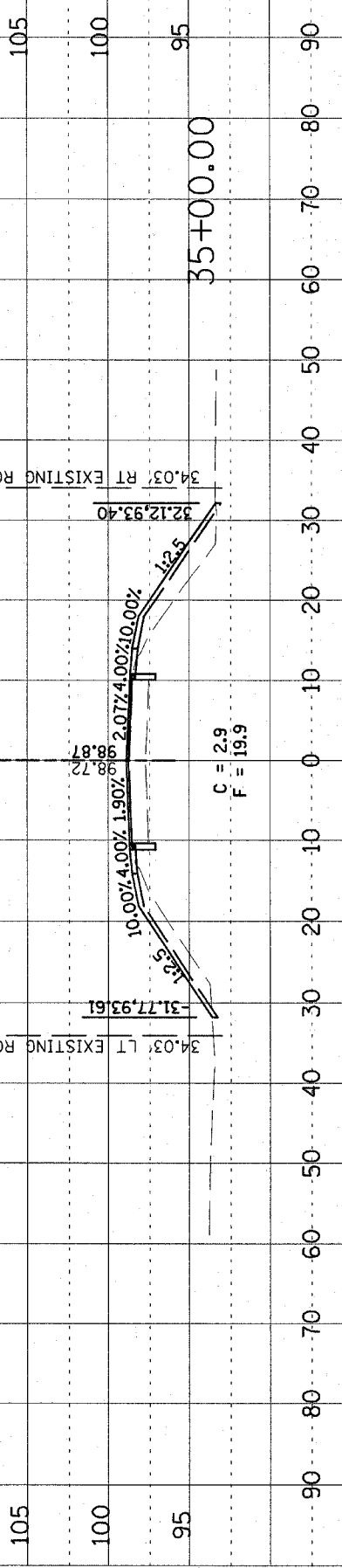
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 DRAWN: PLA 02/07/06
 CHECKED: DS 02/07/06 \$7/LE



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	14
STA. 33+50.00		TO STA. 34+75.00		
FED. ROAD DIST. NO. 7		ILLINOIS		PROJECT NO. BRS-405(103)
CONTRACT NO. 89381				



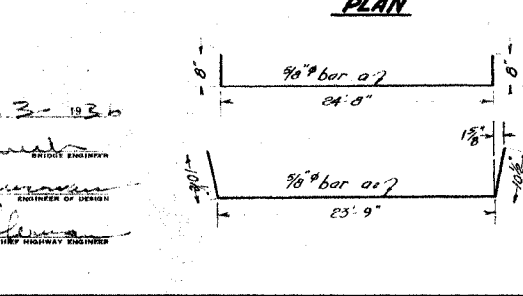
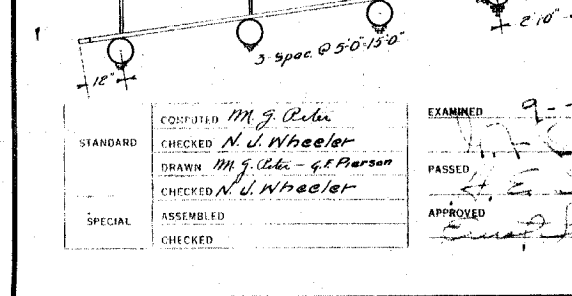
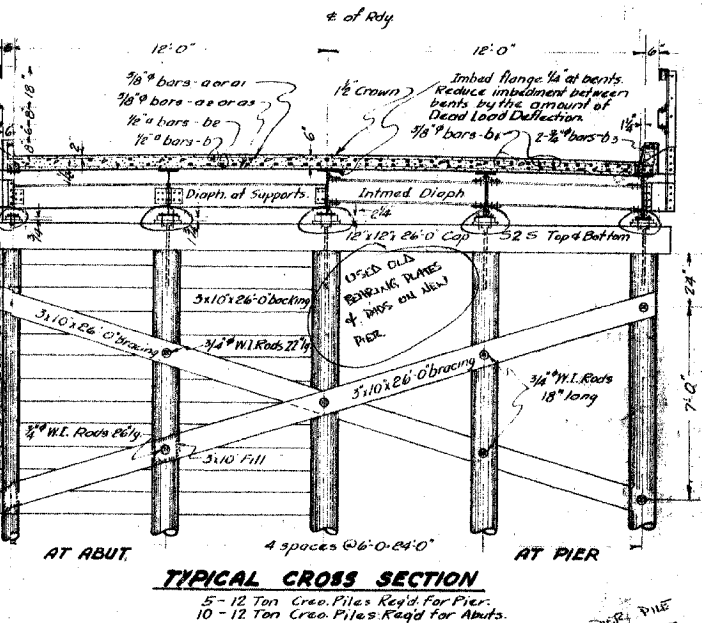
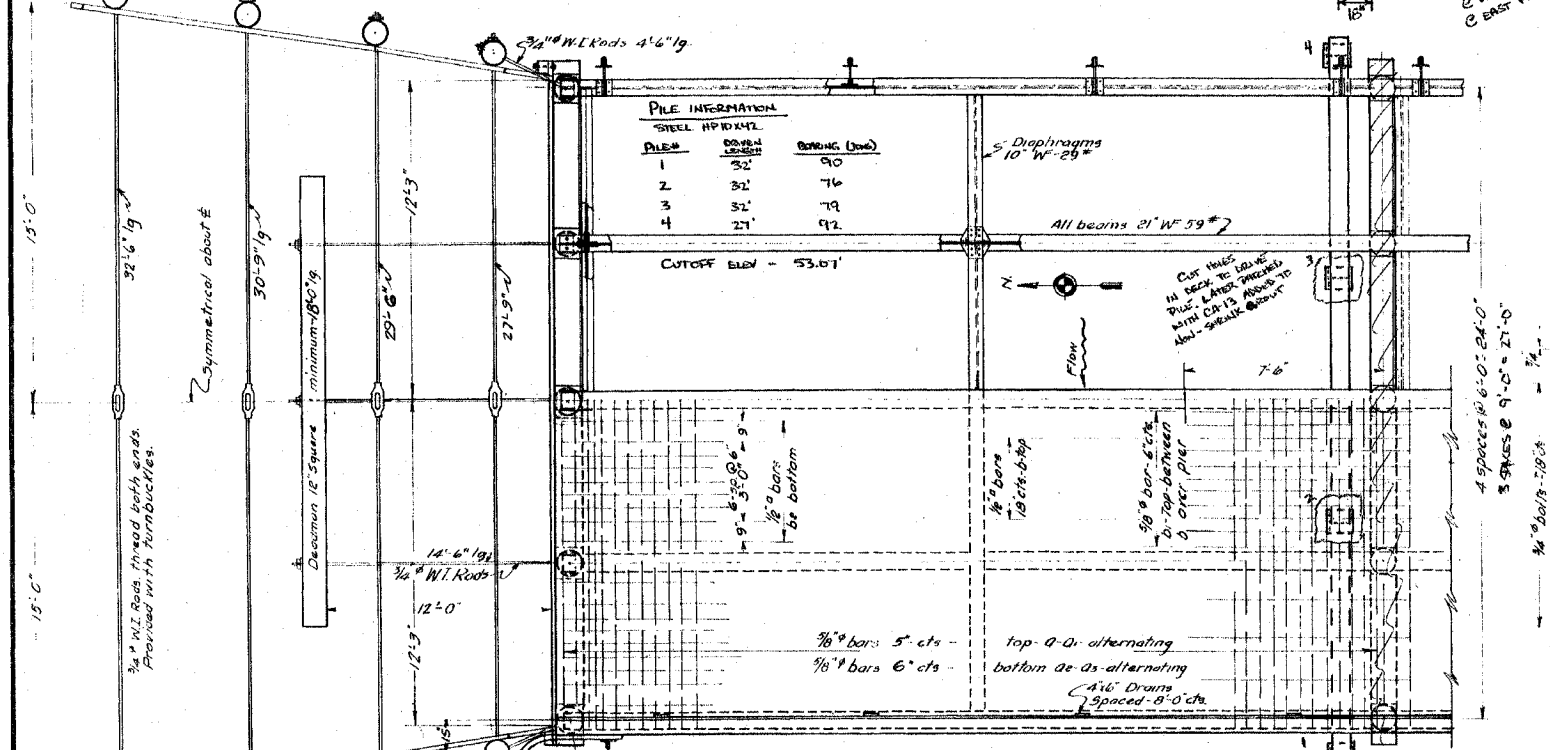
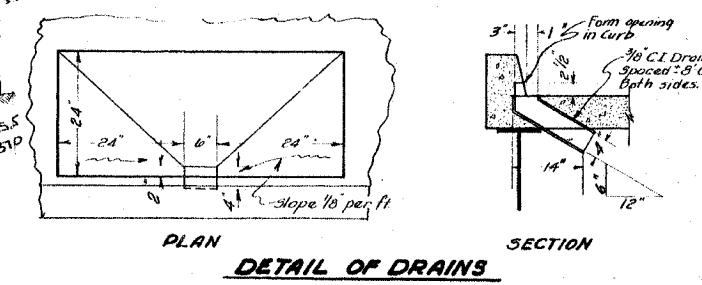
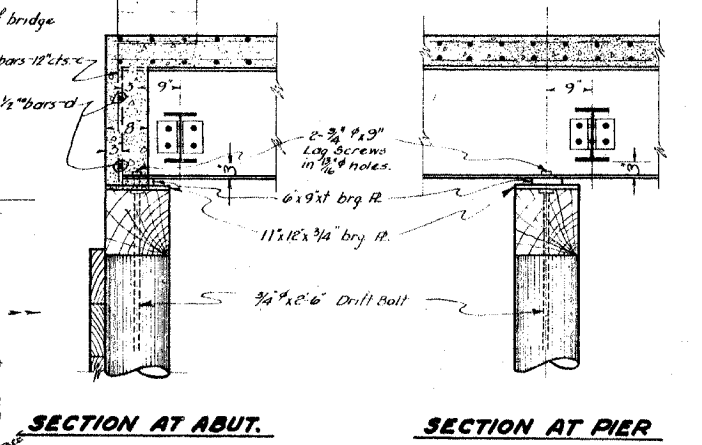
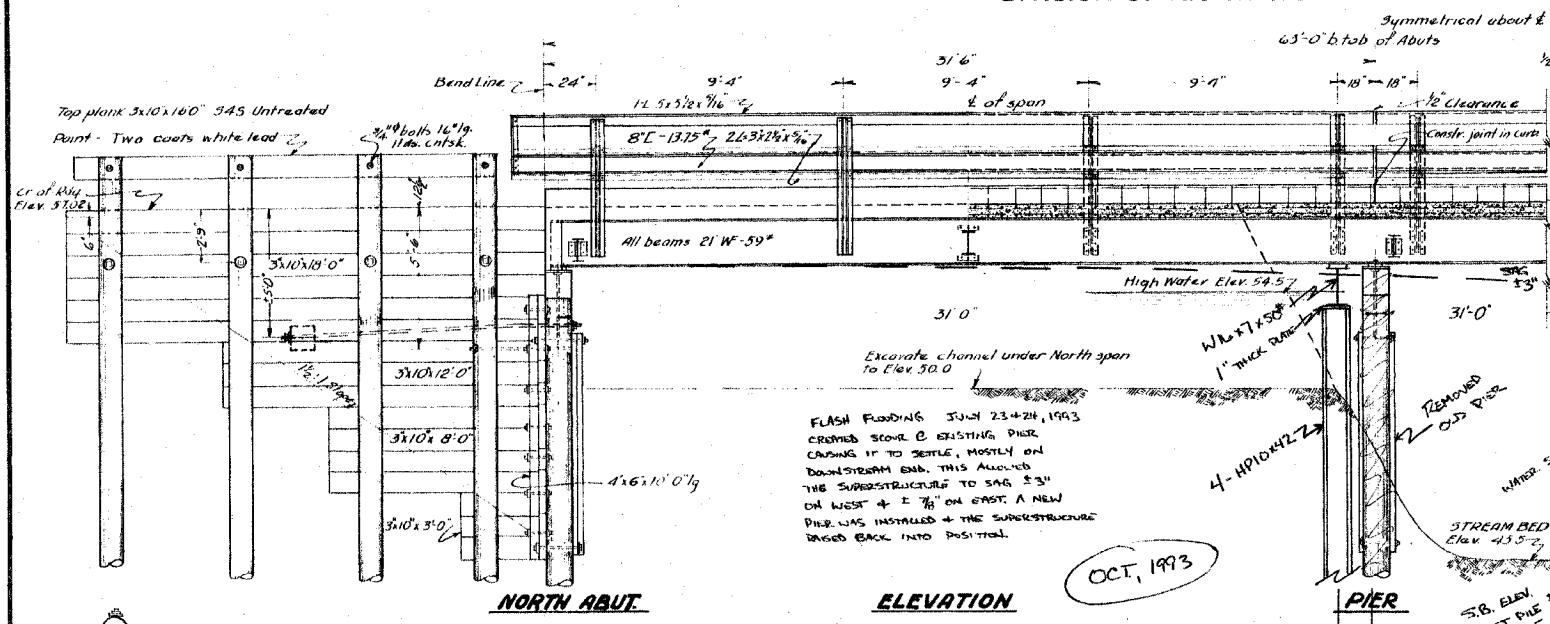
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
405	04-00035-01-BR	WARREN	16	15
STA. 35+00.00		TO STA. 35+51.75		
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT NO. BRS-405(103)		
CONTRACT NO. 8988				



STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO. 1
2 SHEETS

B.N. Spike in telephone pole left Sta. 50+31
Elev. 51.63
Existing structure, 1 beam, 2 spans @ 15', roadway 15'-0" with pile pier to be removed.



094-3003
PLAN ELEV.

60.23	Top of Railing
57.56	Top of Curb
57.02	Crown of Deck
56.89	Top of Deck Drains
59.64	Low Steel
59.52	Top of Timber Caps
53.5	D.H.W.F.
53.52	Top of Piles
43.5	Stream Bed

FIRST NOTICED SAG IN BRIDGE ON 10-8-93, PLACED 10 TON LOAD LIMIT ON STRUCTURE, CLOSED STRUCTURE FOR REPAIR (SUMMER) ON 10-21-93 @ Noon.
REOPENED BRIDGE WITH NO RESTRICTION @ 1:00 PM 10-28-93. WE BELIEVE THAT, DUE TO THE SCOUR, HEAVY LOADS ACTUALLY "DROVE" THE EXISTING PIER PILE DEEPER. A ±1" GAP EXISTED BETWEEN THE WEST PILE & THE PILE CAP (LESS GAP EXISTED ON EACH PILE GOING EAST), SHIMS WERE DRIVEN IN GAPS TO RESTORE SOME STABILITY UNTIL REPAIRS COULD BE MADE.

GENE LARKIN

SHOWN FOR INFORMATION ONLY

DESIGN NOT ORIGINALLY COMPLETED BY HANSON PROFESSIONAL SERVICES INC.

MIDDLE HENDERSON CREEK
S.A.R.T. 4 SEC. 35 M.F.T.
WARREN COUNTY
STA. 52+59

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 405
SECTION 04-00035-01-BR
WARREN COUNTY
COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
EXISTING BRIDGE PLAN

SCALE: VERT. DRAWN BY RLA
 HORIZ. CHECKED BY JDS
DATE 02/06/06



LAYOUT RLA 02/03/05
DRAWN RLA 02/03/05
REVIEWED JDS 02/03/05

STANDARD
DESIGNED M.G. Rubin
CHECKED N.J. Wheeler
DRAWN M.G. Rubin - G.P. Parson
CHECKED N.J. Wheeler
SPECIAL
ASSEMBLED
CHECKED

EXAMINED 9-23-10
PASSED
APPROVED