

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1322	07-00222-01-BR	IROQUOIS	19	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 87431		

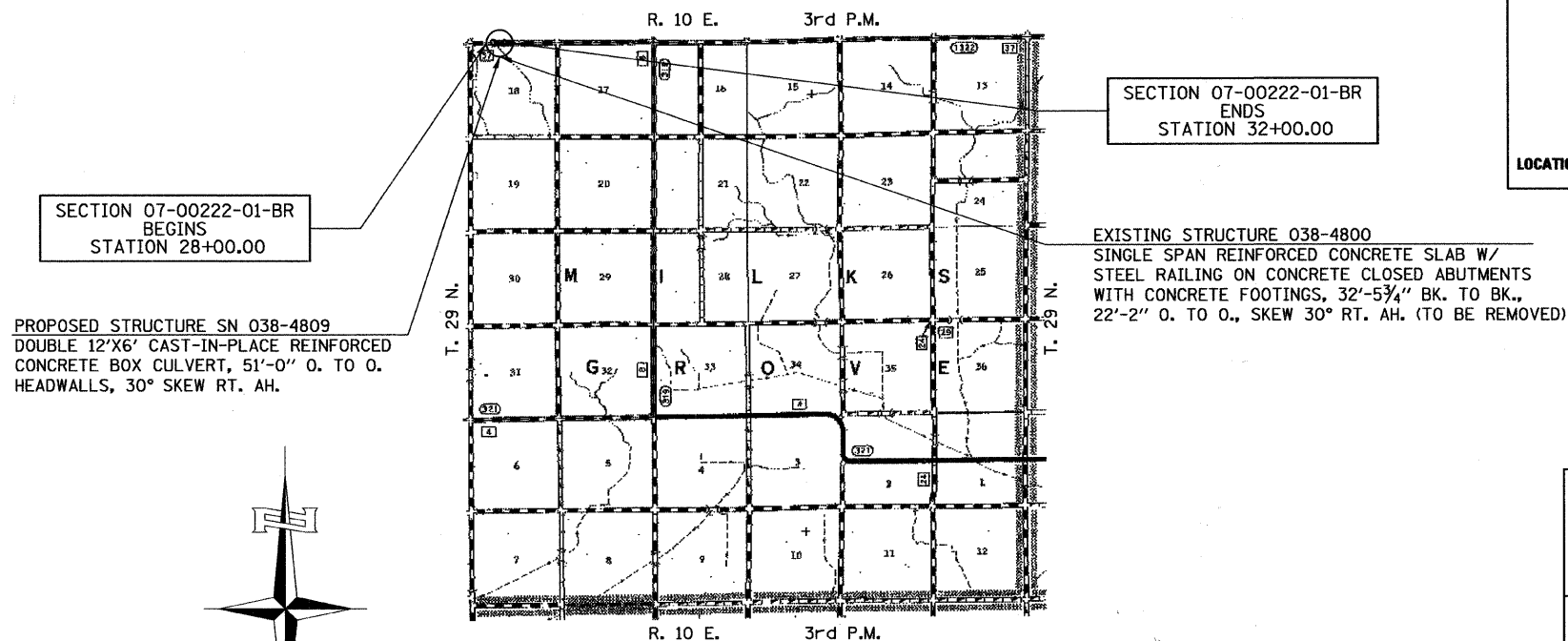
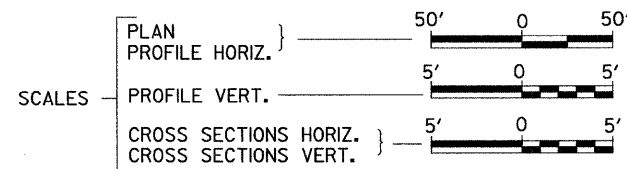
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
IROQUOIS COUNTY
SECTION 07-00222-01-BR
F.A.S. 1322 (CH 37) OVER
WEST BRANCH OF HORSE CREEK
PROJECT NO. BRS-1322(124)
JOB NUMBER C-93-165-09

INDEX OF SHEETS

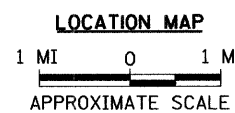
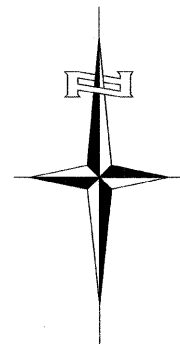
SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, DETAILS, TYPICAL SECTIONS
3.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL PLAN
5.	EROSION CONTROL PLAN
6.	PLAN AND PROFILE
7.-13.	STRUCTURE PLANS
14.-19.	CROSS SECTIONS

REQUIRED HIGHWAY STANDARDS

- 000001-05
- 280001-05
- 515001-03
- 630001-08
- 630101-08
- 630301-05
- 635006-03
- 635011-02
- 701901-01
- 780001-02
- BLR 21-8



PROPOSED STRUCTURE SN 038-4809
DOUBLE 12'X6' CAST-IN-PLACE REINFORCED
CONCRETE BOX CULVERT, 51'-0" O. TO O.
HEADWALLS, 30° SKEW RT. AH.



UTILITY COMPANIES

AT&T
JOLIET, ILLINOIS

EASTERN ILLINELECTRIC COOPERATIVE
PAXTON, ILLINOIS

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

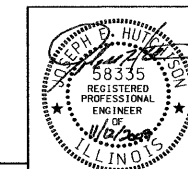
CONTRACT NO. 87431

NET LENGTH OF PROJECT = 400.00 FEET = 0.076 MILES
DESIGN CLASSIFICATION: MAJOR-COLLECTOR (NON-URBAN)
DESIGN ADT = 500 (2029)
DESIGN SPEED = 50 MPH

Hutchison Engineering, Inc.
JACKSONVILLE ILLINOIS
SHOREWOOD ILLINOIS

2009

JOB#2599



Joseph D. Hutchison
SIGNATURE

ENGINEER'S SEAL

PLANS DESIGNED IN ACCORDANCE WITH BUREAU
OF LOCAL ROADS AND STREETS MANUAL GUIDELINES
FOR TWO LANE RURAL COLLECTORS - RECONSTRUCTION

APPROVED Nov 9 2009

J. J. ...
IROQUOIS COUNTY ENGINEER

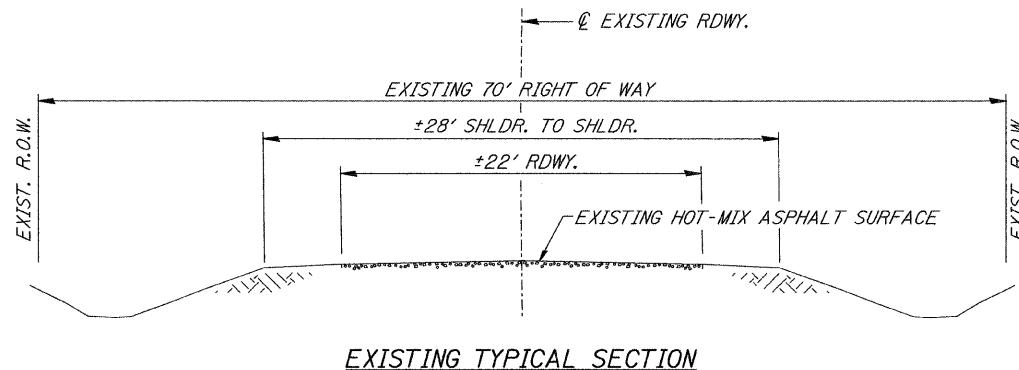
PASSED 11-25 2009

Kenneth L. ...
DISTRICT THREE ENGINEER OF
LOCAL ROADS & STREETS

Released For
Bid Based on
Limited Review 11-25 2009

George E. ...
DEPUTY DIRECTOR OF HIGHWAYS,
REGION TWO ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



HOT-MIX ASPHALT MIXTURE REQUIREMENTS

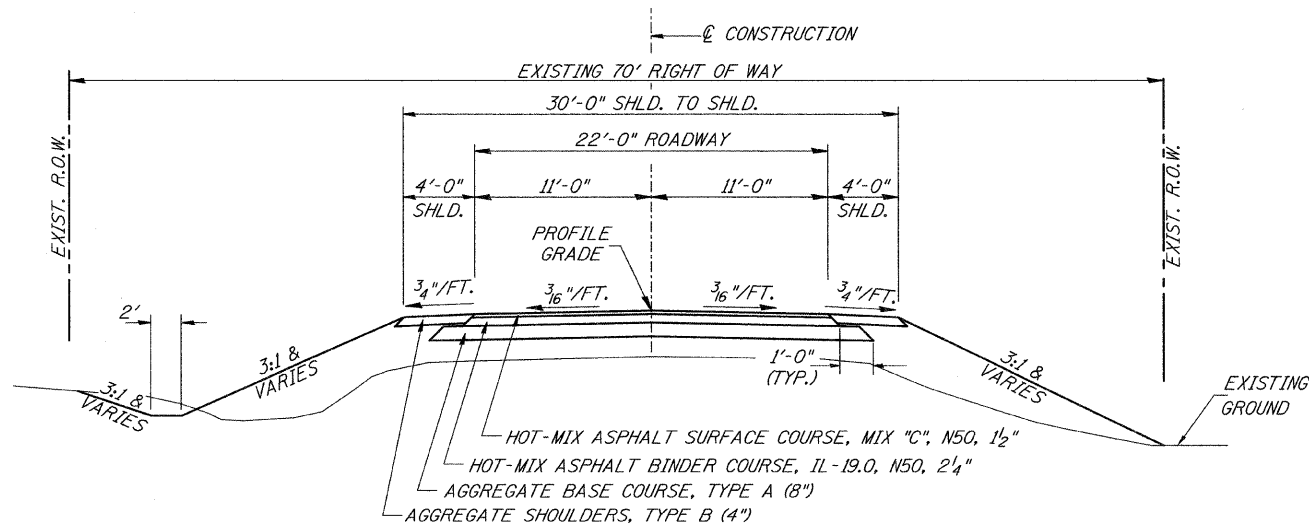
	HMA BINDER	HMA SURFACE
PG GRADE	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4% @ N50	4% @ N50
MIXTURE COMPOSITION	IL-19.0	IL-12.5 OR IL-9.5
FRICTION AGGREGATE		MIXTURE C
DENSITY TEST METHOD	CORES	CORES

• MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

WHEN MORE THAN 20% RAP IS USED, A SOFTER ASPHALT BINDER (PG 58-22) MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.

**STRUCTURAL DESIGN INFORMATION
COUNTY HIGHWAY 37**

ROAD CLASSIFICATION: CLASS III 73,280 lb./20 YEAR DESIGN
STRUCTURAL DESIGN TRAFFIC:
PV = 393 SU = 31 MU = 22
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P = 88% S = 7% M = 5%
MINIMUM SUBGRADE SUPPORT RATING: GRANULAR
FLEXIBLE PAVEMENT DESIGN: MINIMUM TF = 0.096
ASPHALT PAVEMENT THICKNESS: 3 3/4"
AGGREGATE BASE COURSE, TYPE A: 8"



• CONSTRUCT GUARDRAIL
SHOULDER WIDENING IN
ACCORDANCE WITH STD 630301

GENERAL NOTES

THE REMOVAL OF EXISTING ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE NEW BRIDGE SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED OR ADJUSTED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

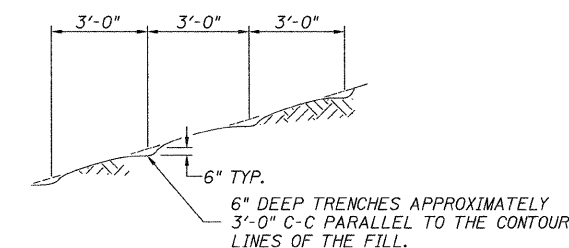
ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

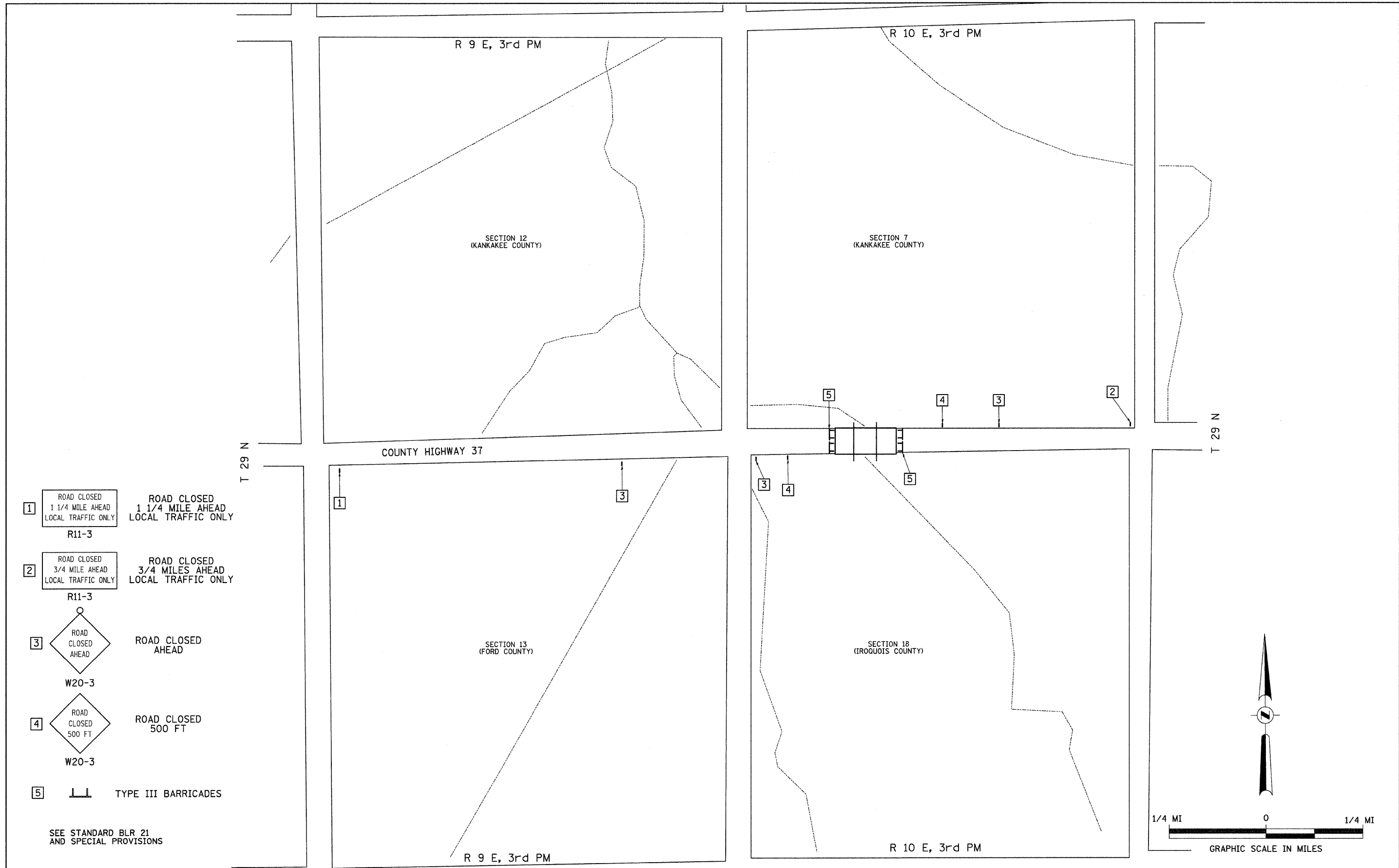
WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.



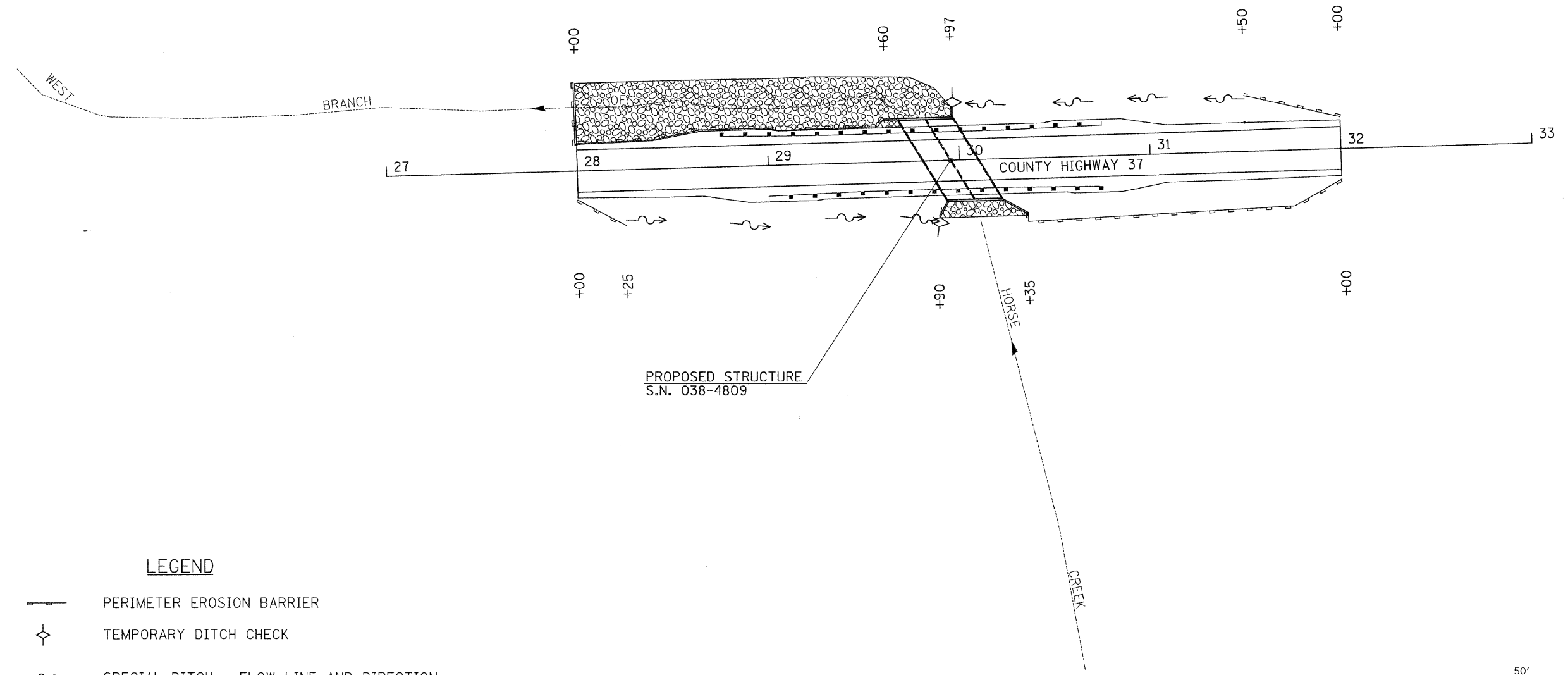
NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL, COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

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		DRAWN -	REVISED -			1322	07-00222-01-BR	IROQUOIS	19	2	
		CHECKED -	REVISED -			CONTRACT NO. 87431					
		DATE -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 28+00.00 TO STA. 32+00.00	FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-1322(124)	







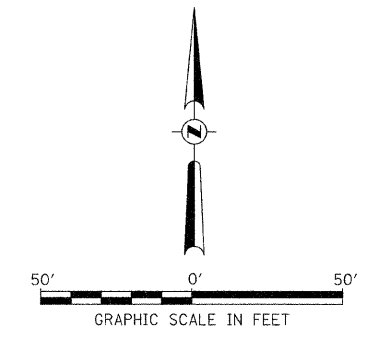
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	PLOT SCALE = 1:0000' / IN.	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 28+00.00 TO STA. 32+00.00	CONTRACT NO. 87431				
	PLOT DATE = 11/12/2009	CHECKED -	REVISED -		FED. ROAD DIST. NO. 7 (ILLINOIS) FED. AID PROJECT BRS-1322(124)							
		DATE -	REVISED -									

KANKAKEE COUNTY
T 29 N, R 10 E, 3rd PM
SECTION 7



LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  PROPOSED RIPRAP



IROQUOIS COUNTY
T 29 N, R 10 E, 3rd PM
SECTION 18

**IROQUOIS COUNTY
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK**

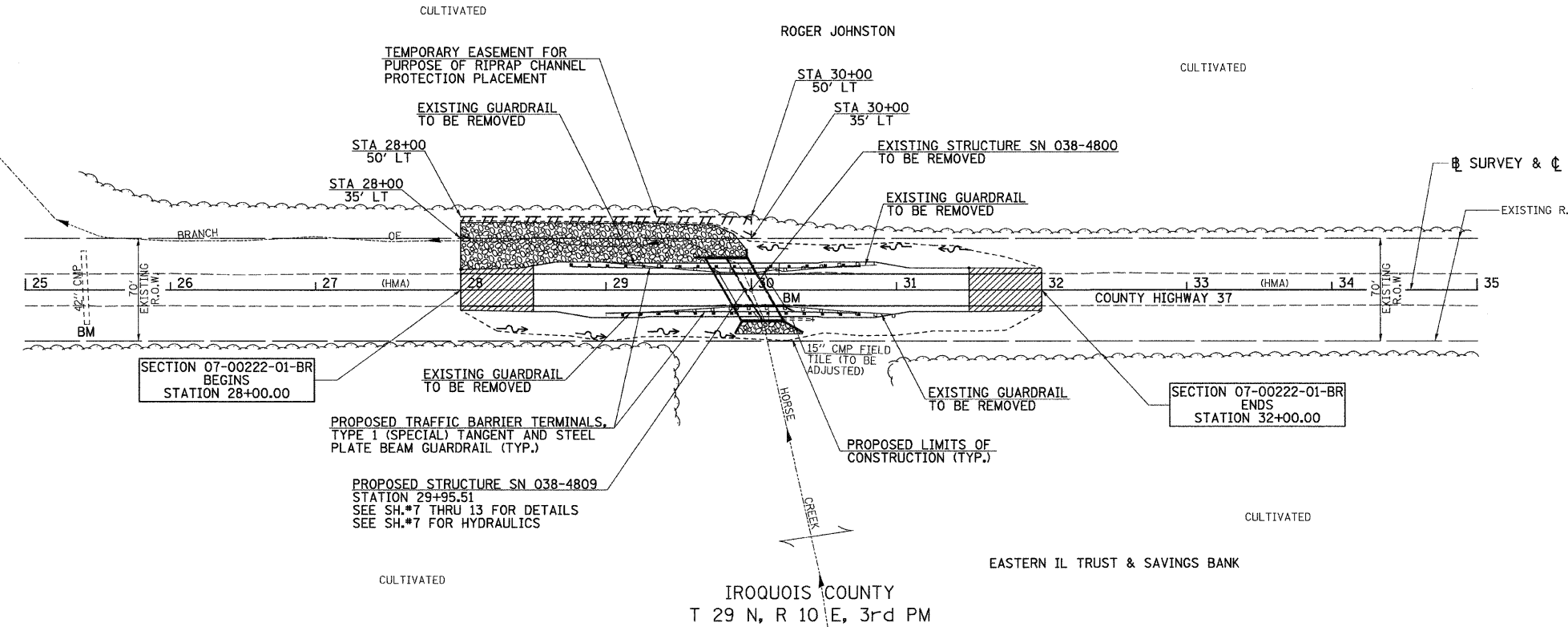
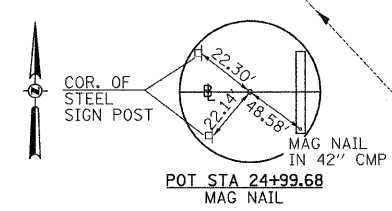
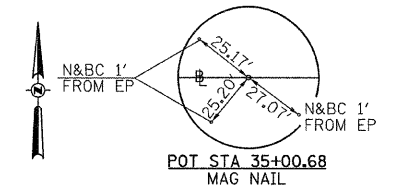
EROSION CONTROL PLAN

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		DRAWN -	REVISED -
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	PLOT DATE = 11/11/2009	DATE -	REVISED -

SCALE: 1" = 30'-0" SHEET NO. 1 OF 1 SHEETS STA. 28+00.00 TO STA. 32+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1322	07-00222-01-BR	IROQUOIS	19	5
CONTRACT NO. 87431				
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1322(24)	

KANKAKEE COUNTY
T 29 N, R 10 E, 3rd PM
SECTION 7

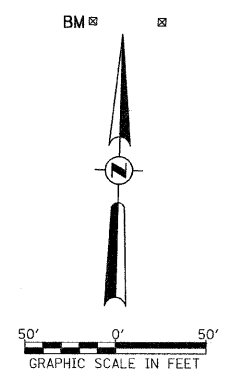


LEGEND

- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
- PROPOSED RIPRAP PLACEMENT
- SPECIAL DITCH WITH FLOW DIRECTION

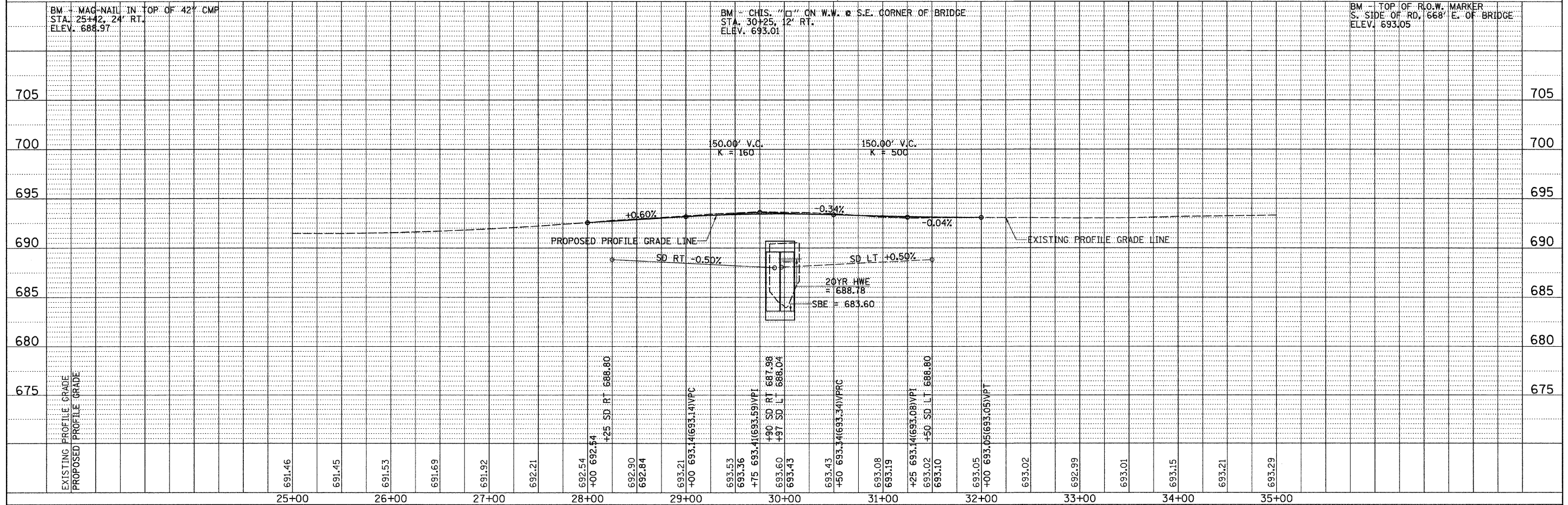
PROPOSED STRUCTURE SN 038-4809
STATION 29+95.51
SEE SH.#7 THRU 13 FOR DETAILS
SEE SH.#7 FOR HYDRAULICS

IROQUOIS COUNTY
T 29 N, R 10 E, 3rd PM
SECTION 18



DATE	
BY	
SURVEYED	
ALIGNED	
CHECKED	
BY	
NO. OF WAY CHECKED	
ADD FILE NAME	
PLAN	
NO.	

DATE	
BY	
SURVEYED	
ALIGNED	
CHECKED	
BY	
NO. OF WAY CHECKED	
ADD FILE NAME	
PROFILE	
NO.	



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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			1322	07-00222-01-BR	IROQUOIS	19	6	
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						FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1322(124)		CONTRACT NO. 87431	

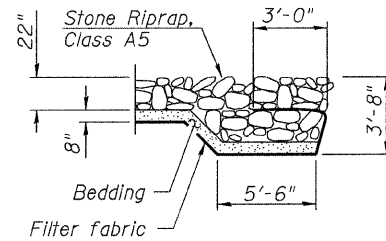
B.M.: Mag-nail in top of 42" CMP
Sta. 25+42, 24' Rt.
Elev. 688.97

Existing Structure:

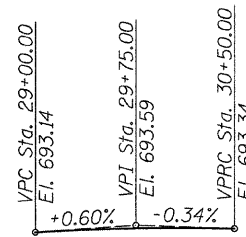
Single span reinforced concrete slab with steel rail on concrete closed abutments with concrete footings. The structure is 32'-5 3/4" back to back of abutments, 22'-2" out to out of deck, and is skewed 30° Rt. Ahd.
Str. No. 038-4800

Salvage: None

Road to be closed to traffic during construction.



SECTION A-A

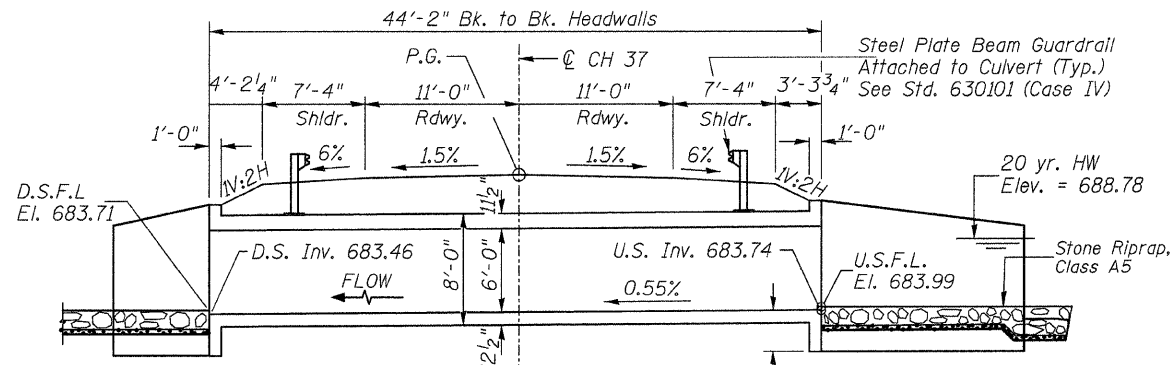


PROFILE GRADE

WEST BRANCH OF HORSE CREEK
BUILT 20 BY
IROQUOIS COUNTY
SEC. 07-00222-01-BR
C.H. 37 STATION 29+95.21
F.A. PROJ. BRS-1322(124)
STR. NO. 038-4809 LOADING HS20-44

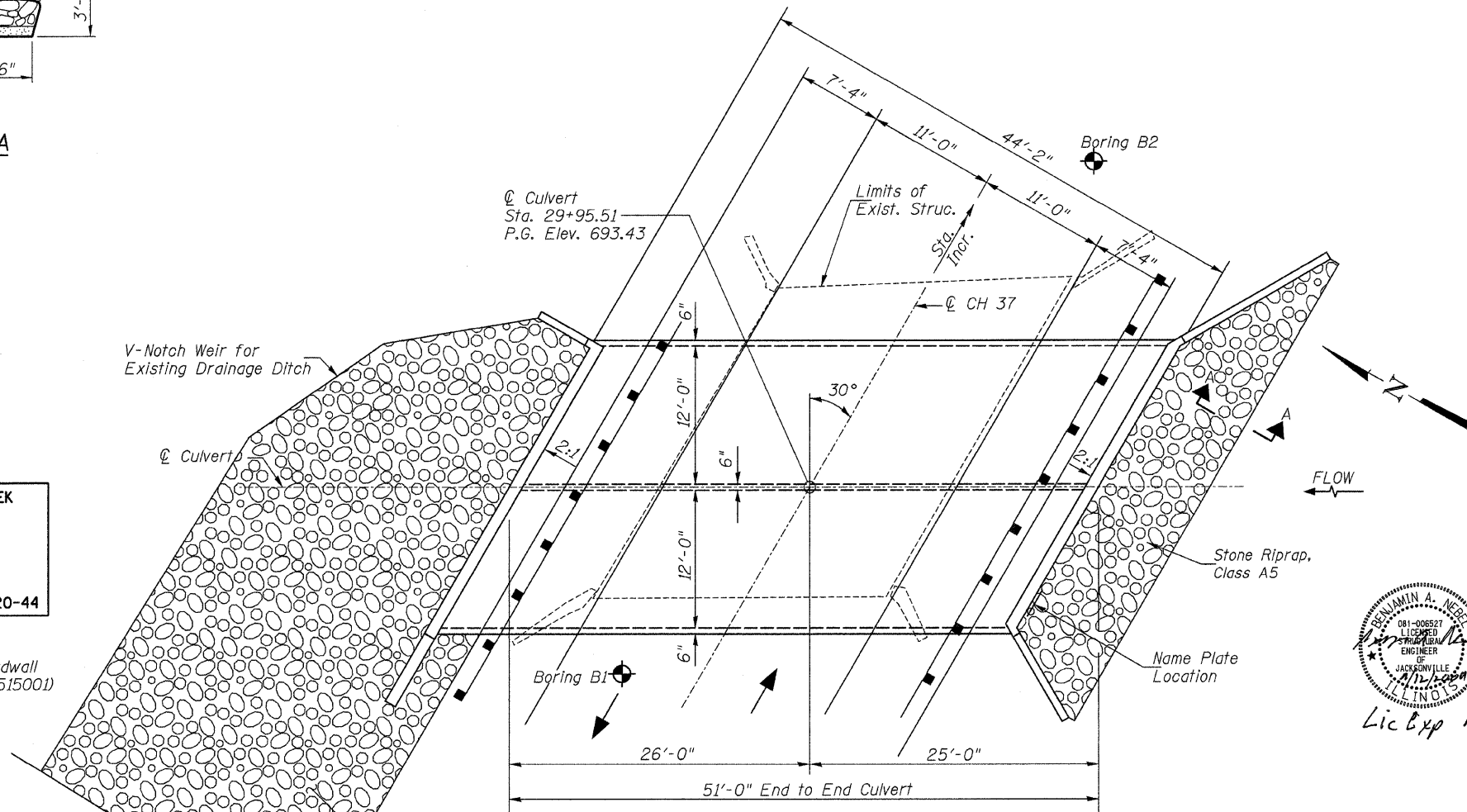
NAME PLATE

Locate Name Plate at South Headwall
S.W. Corner of Culvert (See Std. 515001)



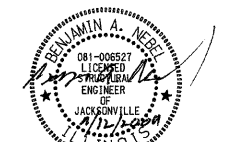
ELEVATION

Dimensions are at Rt.L's to ϕ Roadway



PLAN

See Roadway Plans for Riprap Limits



Lic Exp 11/30/2010

GENERAL NOTES

The existing abutment footings shall be removed completely within 2' of the limits of the proposed structure. Porous granular embankment shall be used to backfill the area. Cost included with Removal of Existing Structures.
Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60.
Precast culvert option will not be allowed.
All construction joints shall be bonded.
Exposed concrete edges shall have a 3/4" chamfer unless otherwise noted.
Layout of stone riprap/slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
A distance of half the length of the wingwall, but not less than 6 feet of the barrel shall be poured monolithically with the wingwall.
Areas of excavation required for removal of the existing structure or construction of the new culvert shall be backfilled with Porous Granular Embankment up to the top of slab elevation. See Special Provisions for more detailed information.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressures before removing the existing superstructure.
All excavation required for construction of the culvert as shown in these plans and in accordance with the Standard Specifications shall be included in the cost of Concrete Box Culverts.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	CU YD	131.2
① Reinforcement Bars	POUND	29,400
① Removal of Existing Structures	EACH	1
Name Plates	EACH	1
Stone Riprap, Class A5	TON	715
① Filter Fabric	SQ YD	700
① Porous Granular Embankment	CU YD	180
Steel Plate Beam Guardrail, Attached to Structures	FOOT	59

① See Special Provisions

DESIGN SCOUR TABLE

Location	Upstream	Downstream
Design Scour Elevation	683.74	683.46

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 Specification for Highway Bridges.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Benjamin A. Neebe 11/14/2009
Illinois Structural No. 6527
Expires 11/30/2010

DESIGN SPECIFICATIONS

2002 AASHTO & Interims

DESIGN STRESSES

FIELD UNITS

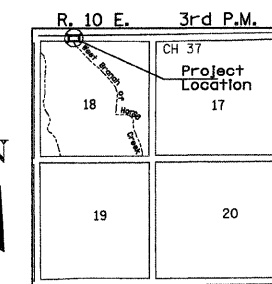
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

LOADING HS20-44

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

WATERWAY INFORMATION

Drainage Area = 1.00 Sq. Mi.		Low Grade Elev. = 691.45 @ Sta. 25+50.00							
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	20	190	100	124	688.78	0.00	0.00	688.78	688.78
Base	100	271	115	138	689.37	0.00	0.00	689.37	689.37



LOCATION SKETCH

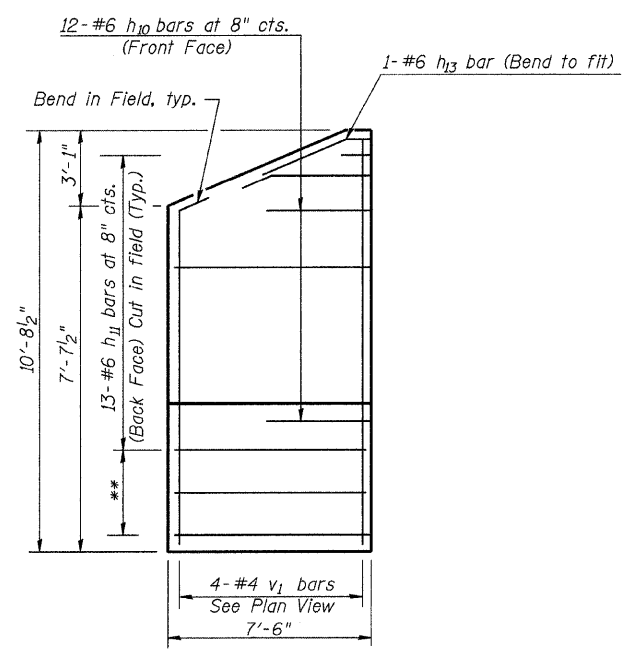
GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK
SECTION 07-00222-01-BR
IROQUOIS COUNTY
STATION 29+95.51
STRUCTURE NO. 038-4809

DESIGNED	BAN/CTM
CHECKED	BAN
DRAWN	TC/CTM
CHECKED	BAN

SHEET NO. 1	ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 37	07-00222-01-BR	IROQUOIS	19	7
7 SHEETS	S.N. 038-4809		CONTRACT NO. 87431		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1322(124)		

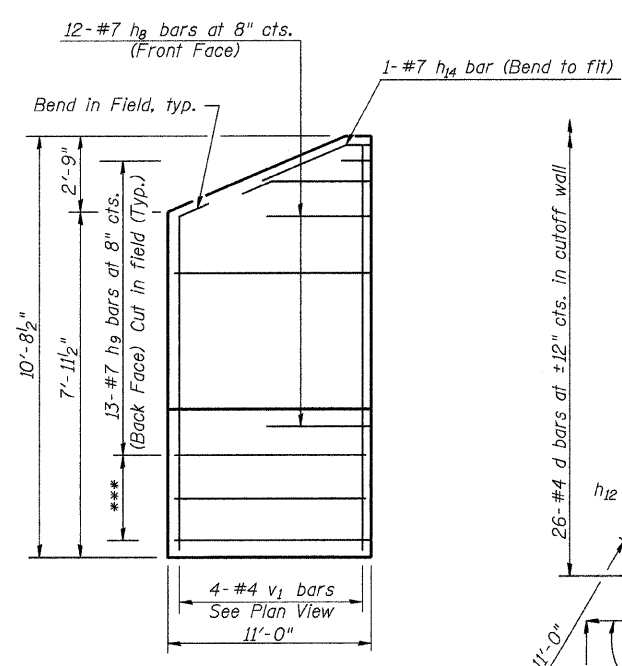
*Dimensions are at right angles to \odot Roadway

See Sheet 3 of 7 for Sections A-A, B-B, C-C, & D-D.
 Bars indicated thus 25x2-#5 etc. indicates 25 lines of bars with 2 lengths per line.



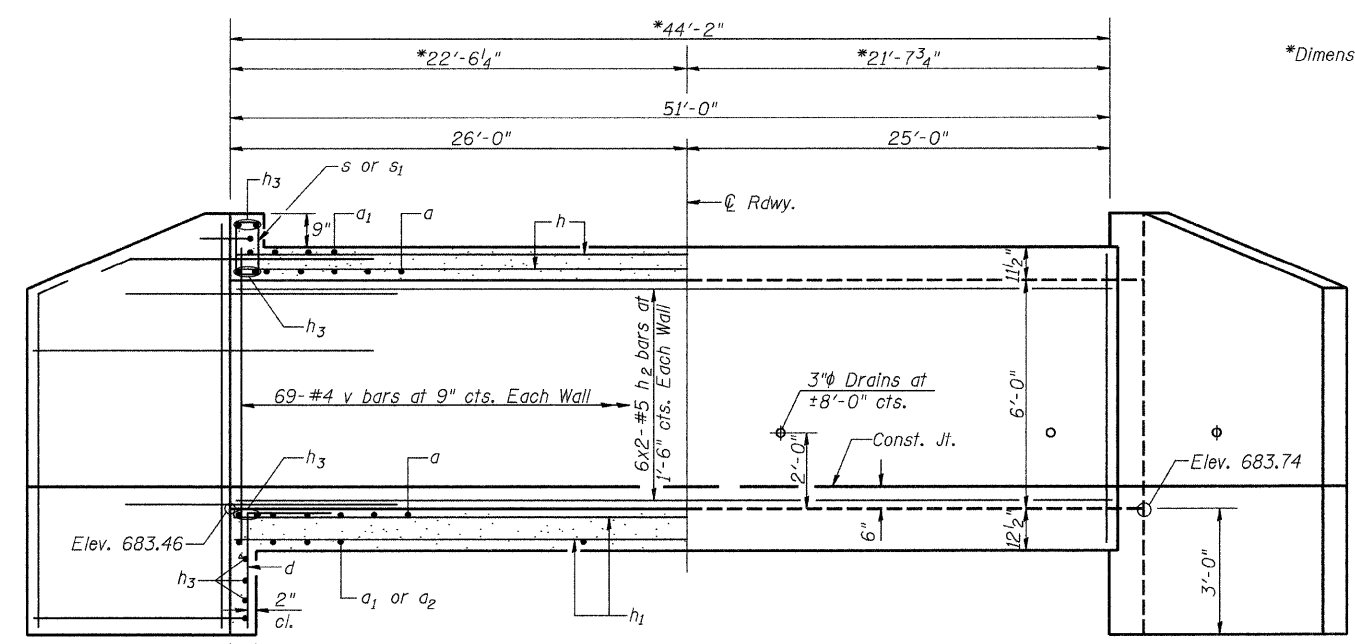
NORTHEAST WING

** 3-#6 h13 bars at 8" cts. (Back Face)

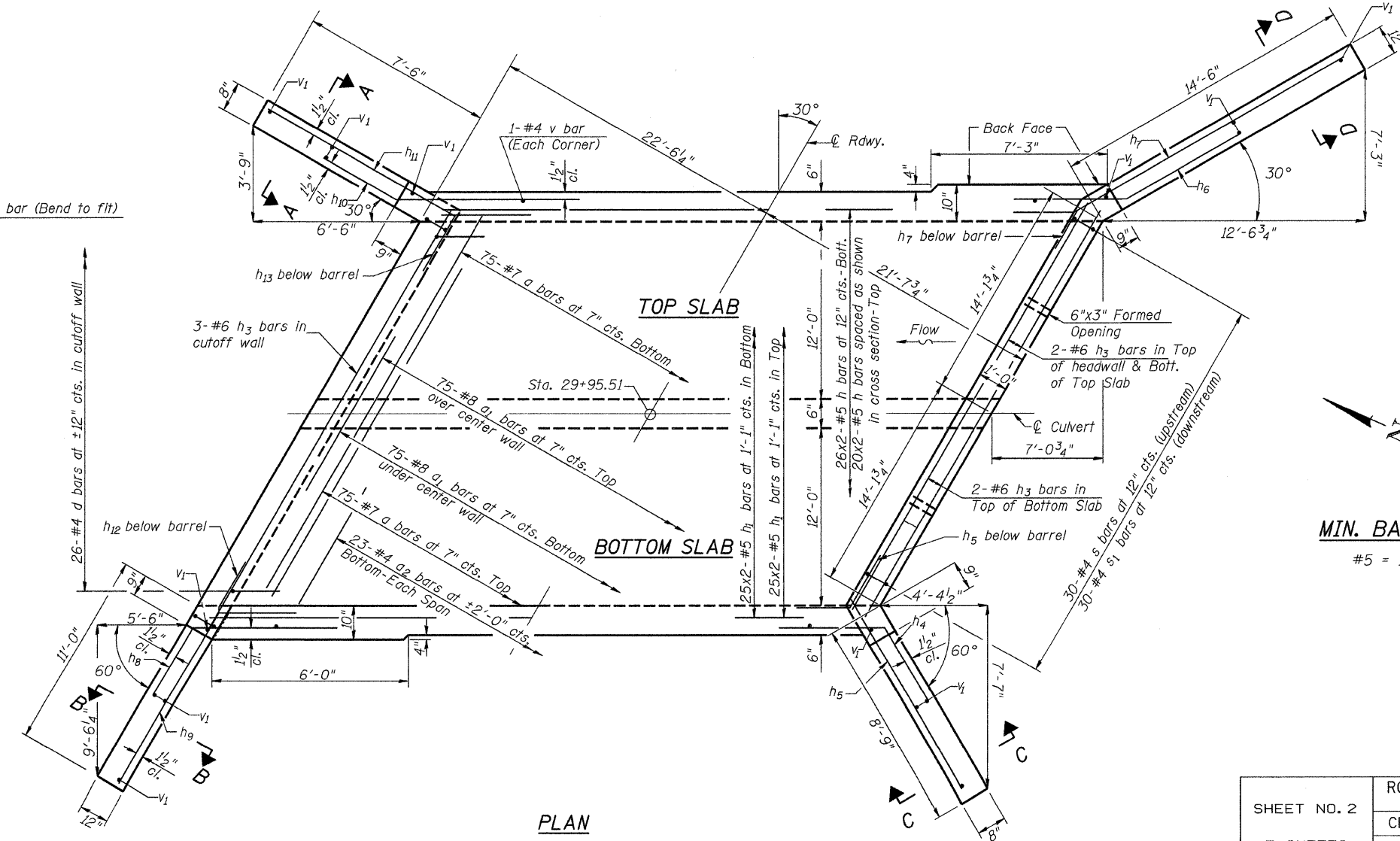


NORTHWEST WING

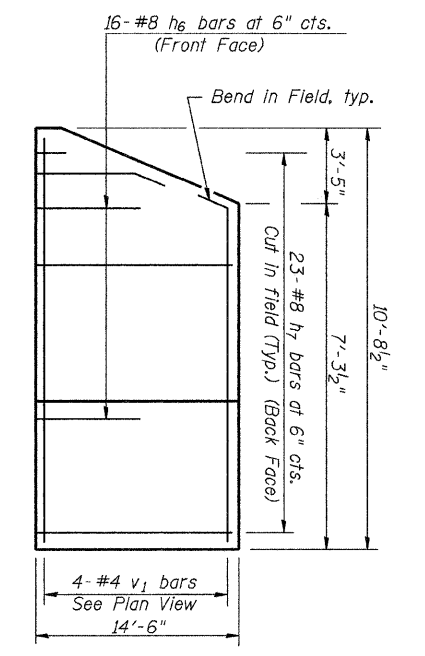
*** 3-#7 h12 bars at 8" cts. (Back Face)



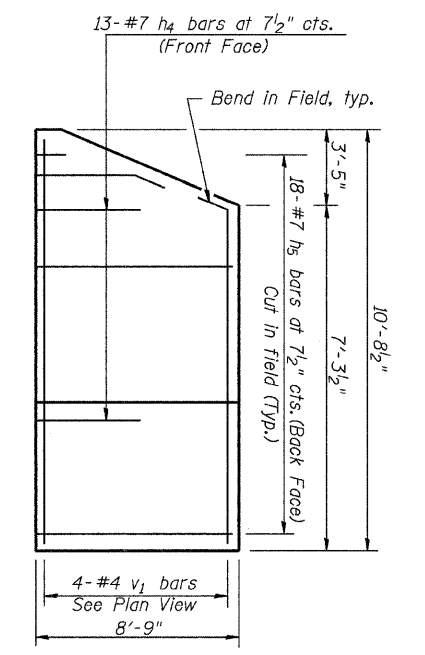
LONGITUDINAL SECTION



PLAN



SOUTHEAST WING

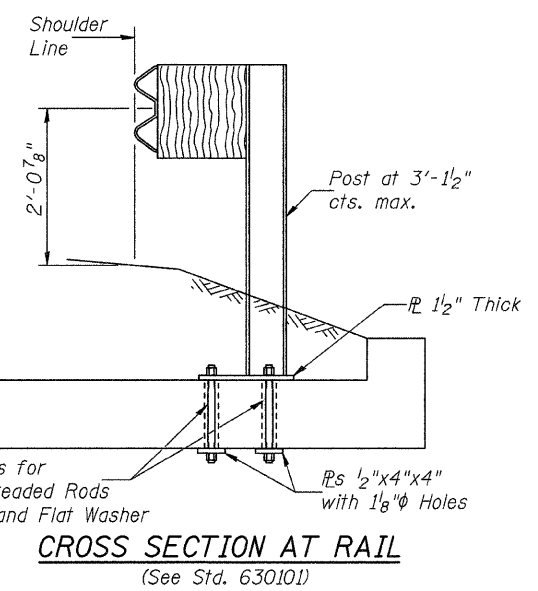
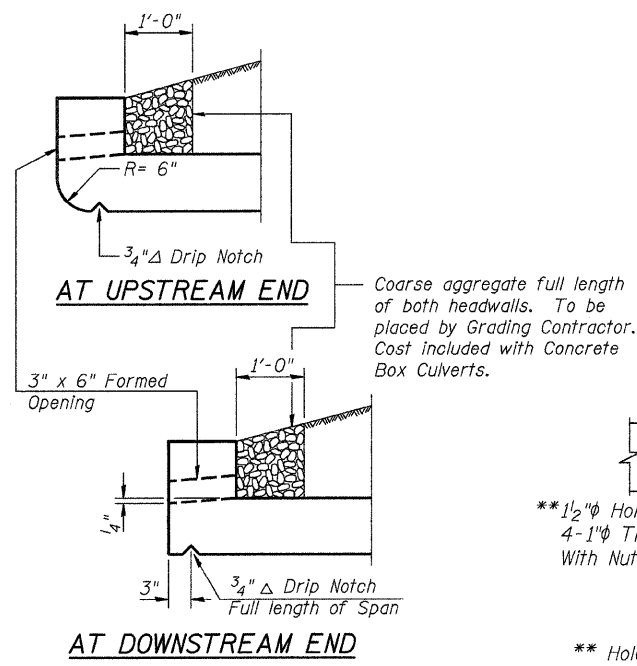


SOUTHWEST WING

MIN. BAR LAP
 #5 = 1'-8"

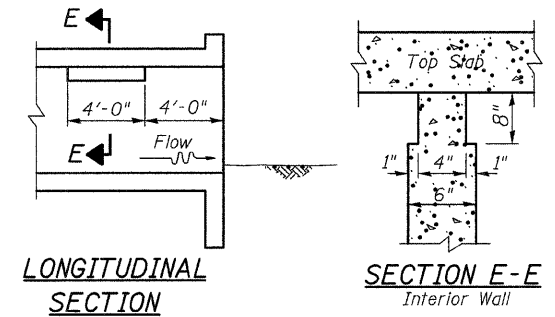
CULVERT DETAILS
 COUNTY HIGHWAY 37 OVER
 WEST BRANCH OF HORSE CREEK
 SECTION 07-00222-01-BR
 IROQUOIS COUNTY
 STATION 29+95.51

SHEET NO. 2 7 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 37	07-00222-01-BR	IROQUOIS	19	8
	S.N. 038-4809		CONTRACT NO. 87431		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1322(124)		



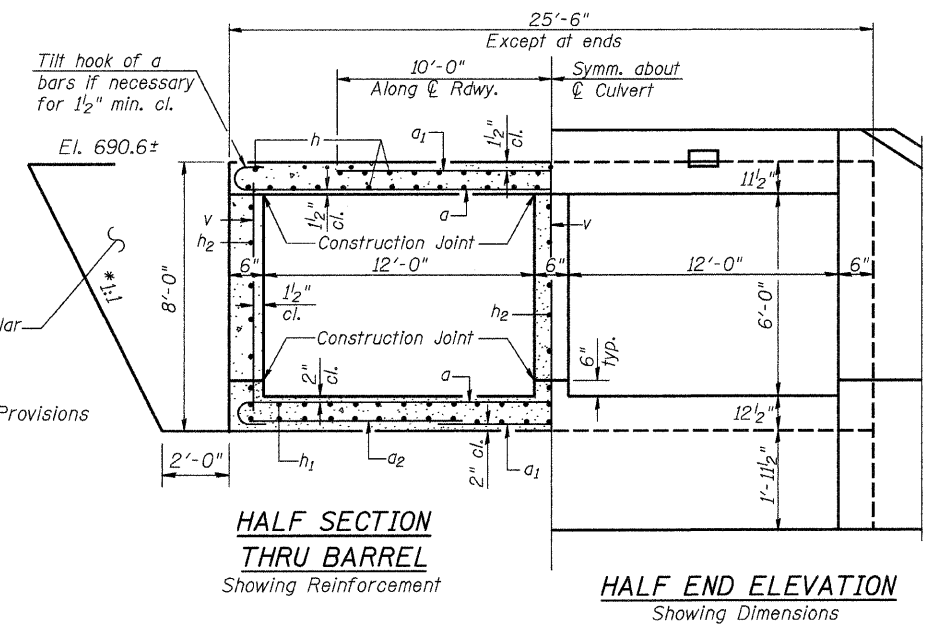
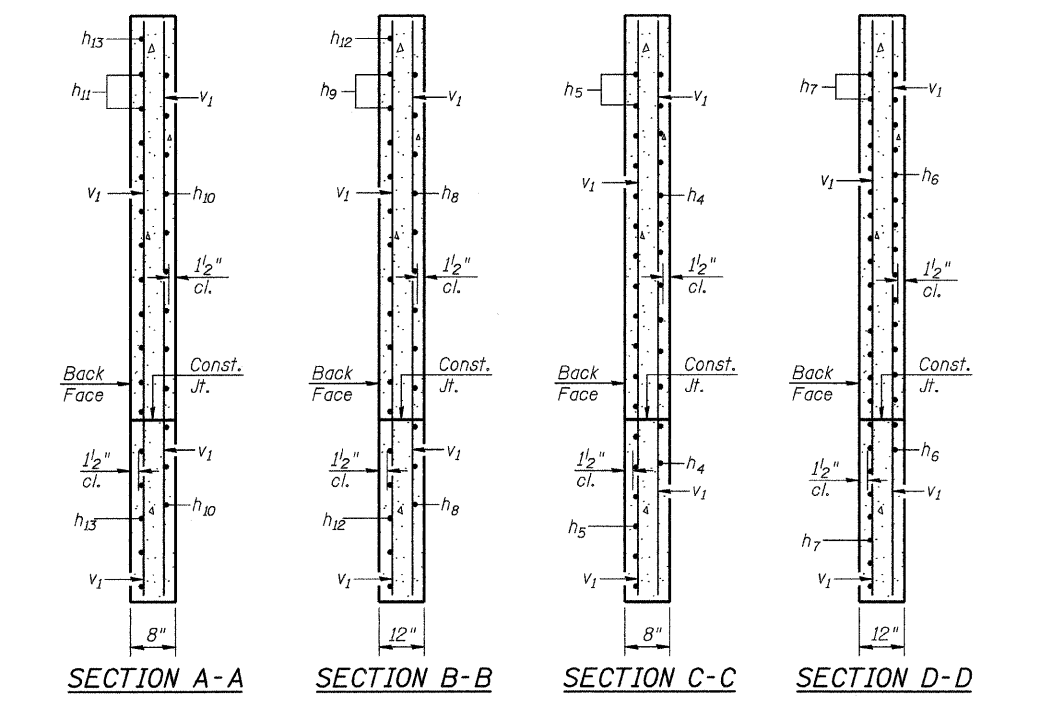
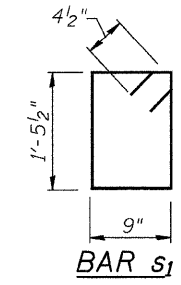
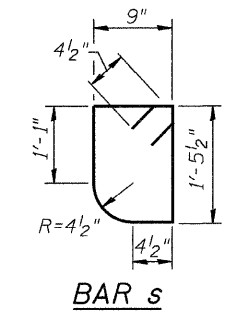
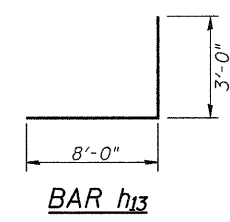
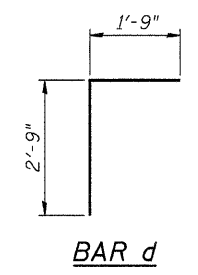
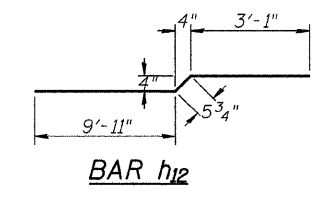
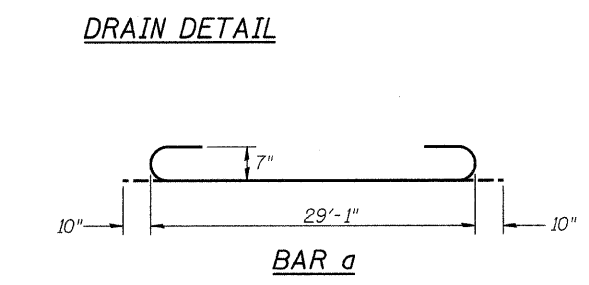
BARS h4, h5, h6, h7, h8, h9, h10, & h11

Bar	a	b	c	d
h4	6'-0"	3'-0"	1'-6"	2'-7"
h5	8'-9"	3'-0"	1'-6"	2'-7"
h6	6'-0"	3'-0"	2'-7"	1'-6"
h7	15'-7"	3'-0"	2'-7"	1'-6"
h8	6'-0"	3'-0"	1'-6"	2'-7"
h9	11'-2"	3'-0"	1'-6"	2'-7"
h10	6'-0"	3'-0"	2'-7"	1'-6"
h11	8'-0"	3'-0"	2'-7"	1'-6"



Note: Notch by rough-finished board attached to and removed with formwork, each interior wall. (Do not chamfer)

PHOEBE NESTING SITE DETAIL
(Downstream End Only)



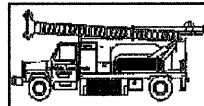
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	150	#7	30'-9"	U
a1	150	#8	20'-0"	—
a2	46	#4	7'-8"	—
d	52	#4	4'-6"	L
h	92	#5	26'-3"	—
h1	100	#5	26'-3"	—
h2	36	#5	26'-3"	—
h3	18	#6	28'-6"	—
h4	13	#7	9'-0"	—
h5	18	#7	11'-9"	—
h6	16	#8	9'-0"	—
h7	23	#8	18'-7"	—
h8	12	#7	9'-0"	—
h9	13	#7	14'-2"	—
h10	12	#6	9'-0"	—
h11	13	#6	11'-0"	—
h12	3	#7	13'-6"	—
h13	4	#6	11'-0"	—
h14	1	#7	14'-3"	—
s	30	#4	5'-0"	U
s1	30	#4	5'-2"	U
v	211	#4	6'-4"	—
v1	16	#4	10'-5"	—
Concrete Box Culverts			CU YD	131.2
Reinforcement Bars			POUND	29,400

① See Special Provisions

CULVERT DETAILS
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK
SECTION 07-00222-01-BR
IROQUOIS COUNTY
STATION 29+95.51

SHEET NO. 3 7 SHEETS	ROUTE NO. CH 37	SECTION 07-00222-01-BR	COUNTY IROQUOIS	TOTAL SHEETS 19	SHEET NO. 9
	S.N. 038-4809		CONTRACT NO. 87431		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1322(124)		



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

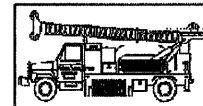
Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-1
Surface Elev. 693.68
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

Location: West Abutment
29+70 6' LT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
693.68	Bituminous over Aggregate									Randy Saffanski Diedrich D-120	
692.68			1								
691.68			2								
690.68			3	1	SS	1.2	9	B	24		
689.68	Stiff Brown/Gray/Black Silty Clay Fill		4								
688.68			5								
687.68			6	2	SS	1.1	9	B	23		
686.68			7								
685.68	Stiff Brown/Gray Silty Clay		8	3	SS	1.1	9	B	20		
684.68			9								
683.68			10								
682.68	Stiff Brown/Gray Silty Clay Till		11	4	SS	1.7	11	B	22		
681.68			12								
680.68			13	5	SS	3.3	18	B	19		
679.68			14								
678.68	Stiff/Very Stiff Gray Silty Clay Till		15	6	SS	5.0	24	B	15		
677.68			16								
676.68			17								
675.68			18	7	SS	2.8	17	B	19		
674.68			19								
673.68	Stiff Gray Silty Clay Till with Silt Layers		20	8	SS	1.7	13	B	15		

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed ± 10' below bridge deck.



Midwest Testing Services, Inc.
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Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696
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Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-1
Surface Elev. 693.68
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

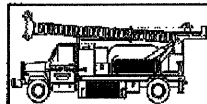
Location: West Abutment
29+70 6' LT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
672.68										Randy Saffanski Diedrich D-120	
671.68			22								
670.68	Stiff Gray Silty Clay Till with Silt Layers		23	9	SS	1.7	14	B	16		
669.68			24								
668.68			25								
667.68	Medium Dense Gray Medium Sand		26	10	SS	--	14	--	8		
666.68			27								
665.68			28	11	SS	1.7	14	B	18		
664.68	Stiff Gray Silty Clay Till		29								
663.68			30								
662.68			31	12	SS	1.7	15	B	18		
661.68			32								
660.68			33	13	SS	1.6	12	B	21		
659.68			34								
658.68	Stiff Gray Clay Till		35								
657.68			36	14	SS	1.6	9	B	27		
656.68			37								
655.68			38								
654.68			39								
653.68	Stiff/Very Stiff Gray Silty Clay Till		40								
652.68			41	15	SS	2.3	12	B	24		

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed +10' below bridge deck.

SOIL BORING LOGS
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK
SECTION 07-00222-01-BR
IROQUOIS COUNTY
STATION 29+95.51

SHEET NO. 4	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 37	07-00222-01-BR	IROQUOIS	19	10
7 SHEETS	S.N. 038-4809		CONTRACT NO. 87431		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1322(124)		



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 4

Phone: 815-223-6696
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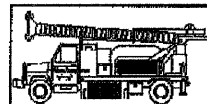
Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-1
Surface Elev. 693.68
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

Location: West Abutment
29+70 6' LT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY		REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)		
651.68												
650.68			43									
649.68			44									
648.68			45	16	SS	2.3	14	B	18			
647.68			46									
646.68			47									
645.68			48									
644.68			49									
643.68			50									
642.68	Stiff/Very Stiff Gray Silty Clay Till		51	17	SS	2.0	15	B	17			
641.68			52									
640.68			53									
639.68			54									
638.68			55	18	SS	1.6	12	B	17			
637.68			56									
636.68			57									
635.68			58									
634.68			59									
633.68	Hard Gray Silty Clay Till		60	19	SS	5.8	26	B	15			
632.68			61									
631.68			62									

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed +10' below bridge deck.



Midwest Testing Services, Inc.
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Peru, IL 61354

BORING LOG

Sheet 4 of 4

Phone: 815-223-6696
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Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-1
Surface Elev. 693.68
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

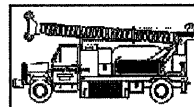
Location: West Abutment
29+70 6' LT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY		REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)		
630.68												
629.68			64									
628.68			65									
627.68			66	20	SS	5.8	30	B	14			
626.68			67									
625.68			68									
624.68			69									
623.68			70									
622.68			71									
621.68			72									
620.68			73									
619.68			74									
618.68			75									
617.68			76									
616.68			77									
615.68			78									
614.68			79									
613.68			80									
612.68			81									
611.68			82									
610.68			83									

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed +10' below bridge deck.

SOIL BORING LOGS
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK
SECTION 07-00222-01-BR
IROQUOIS COUNTY
STATION 29+95.51

SHEET NO. 5	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 37	07-00222-01-BR	IROQUOIS	19	11
7 SHEETS	S.N. 038-4809		CONTRACT NO. 87431		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-1322(124)		



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696
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e-mail: mts37@comcast.net

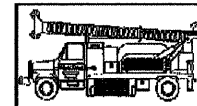
Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-2
Surface Elev. 693.43
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

Location: East Abutment
30+30 6' RT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
693.43	Bituminous over Aggregate										
692.43			1								
691.43			2								
690.43			3	1	SS	1.6	9	B	23		
689.43	Stiff Brown/Gray/Black Silty Clay Till		4								
688.43			5								
687.43			6	2	SS	1.6	9	B	22		
686.43			7								
685.43	Stiff Brown/Gray Silty Clay		8	3	SS	1.6	8	B	20		
684.43			9								
683.43			10								
682.43	Stiff Brown/Gray Silty Clay Till		11	4	SS	2.5	10	B	19		
681.43			12								
680.43			13	5	SS	3.4	13	B	17		
679.43			14								
678.43	Stiff/Very Stiff Gray Silty Clay Till		15	6	SS	5.4	20	B	15		
677.43			16								
676.43			17								
675.43			18	7	SS	4.6	20	B/S	14		
674.43			19								
673.43	Stiff/Very Stiff Gray Silty Clay Till with Silt Layers		20	8	SS	3.3	20	S	17		

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed ± 10' below bridge deck.



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-2
Surface Elev. 693.43
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

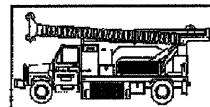
Location: East Abutment
30+30 6' RT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
672.43											
671.43			22								
670.43	Stiff/Very Stiff Gray Silty Clay Till with Silt Layers		23	9	SS	3.3	16	S	16		
669.43			24								
668.43			25								
667.43	Medium Dense Gray Medium Sand		26	10	SS	---	12	---	8		First Water
666.43			27								
665.43			28	11	SS	1.7	15	B	19		
664.43	Stiff Gray Silty Clay Till		29								
663.43			30	12	SS	1.7	15	B	20		
662.43			31								
661.43			32								
660.43			33	13	SS	1.6	12	B	21		
659.43			34								
658.43	Stiff Gray Clay Till		35								
657.43			36	14	SS	1.6	13	B	20		
656.43			37								
655.43			38								
654.43			39								
653.43	Stiff/Very Stiff Gray Silty Clay Till		40	15	SS	1.6	13	B	25		
652.43			41								

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed +10' below bridge deck.

SOIL BORING LOGS
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK
SECTION 07-00222-01-BR
IROQUOIS COUNTY
STATION 29+95.51

SHEET NO. 6	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 37	07-00222-01-BR	IROQUOIS	19	12
7 SHEETS	S.N. 038-4809		CONTRACT NO. 87431		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-1322(124)		



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

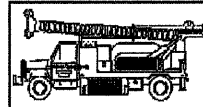
Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-2
Surface Elev. 693.43
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

Location: East Abutment
30+30 6' RT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
651.43										Randy Safiranski Diedrich D-120	
650.43			43								
649.43			44								
648.43			45	16	SS	2.3	14	B	17		
647.43			46								
646.43			47								
645.43			48								
644.43			49								
643.43			50	17	SS	2.3	17	B	16		
642.43	Stiff/Very Stiff Gray Silty Clay Till		51								
641.43			52								
640.43			53								
639.43			54								
638.43			55	18	SS	2.0	15	B	18		
637.43			56								
636.43			57								
635.43			58								
634.43			59								
633.43	Hard Gray Silty Clay Till		60	19	SS	7.8	34	S	13		
632.43			61								
631.43			62								

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed +10' below bridge deck.



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 4 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name: Bridge on C.H. 37 over the W. Branch of Horse Creek
Project Site: Milks Grove Twp. Iroquois County, IL
Section No.: 07-00222-01-BR

Boring No. B-2
Surface Elev. 693.43
Auger Depth 66.00 Rotary Depth NA
Start Date 02/07/09 Finish Date 02/07/09

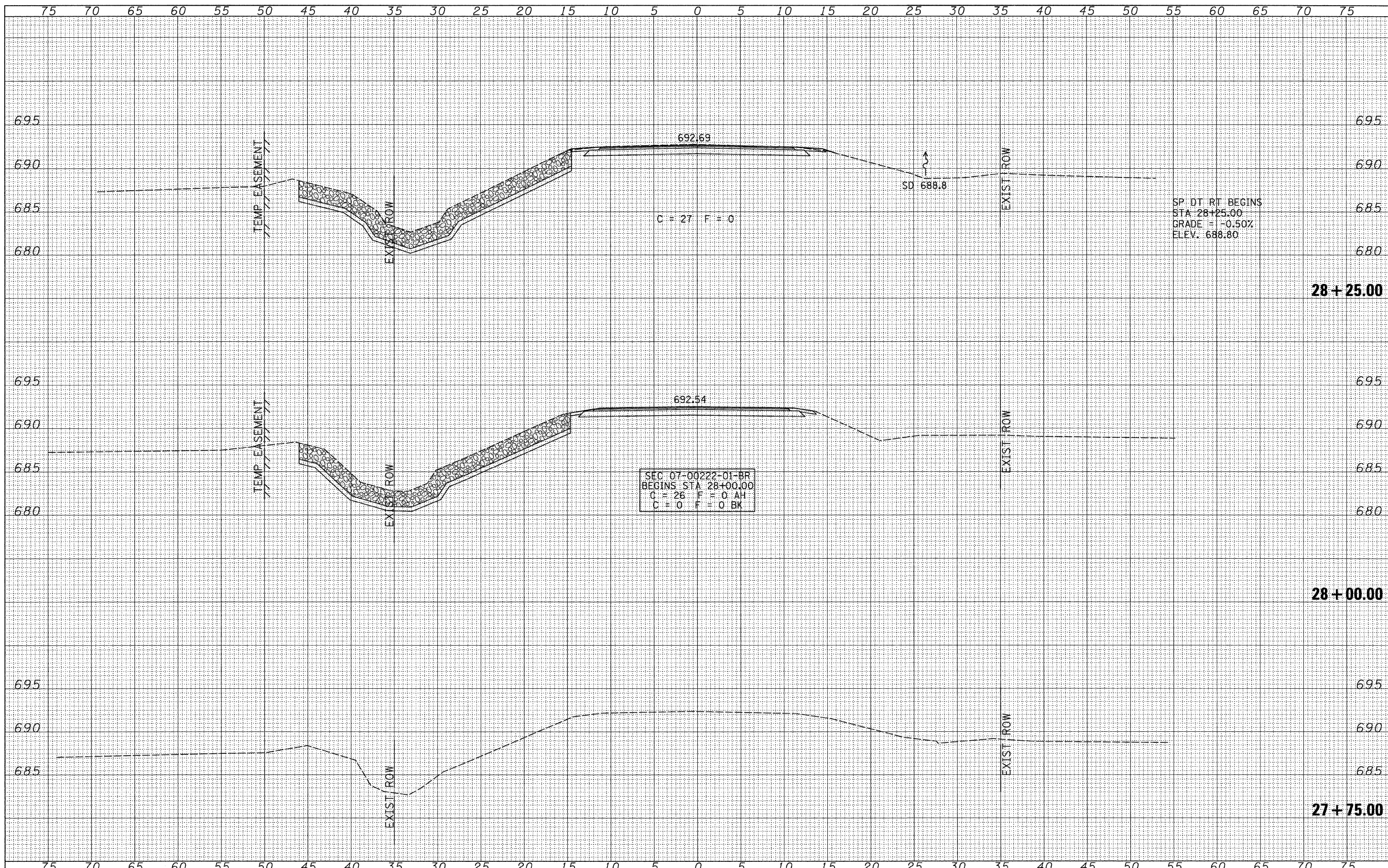
Location: East Abutment
30+30 6' RT

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
630.43										Randy Safiranski Diedrich D-120	
629.43	Hard Gray Silty Clay Till		64								
628.43			65	20	SS	5.9	34	S	16		
627.43			66								
626.43	Bottom of Boring		67								
625.43			68								
624.43			69								
623.43			70								
622.43			71								
621.43			72								
620.43			73								
619.43			74								
618.43			75								
617.43			76								
616.43			77								
615.43			78								
614.43			79								
613.43			80								
612.43			81								
611.43			82								
610.43			83								

Groundwater Data: Water 24' below top of ground after auger removal.
Comments: Creek bed +10' below bridge deck.

SOIL BORING LOGS
COUNTY HIGHWAY 37 OVER
WEST BRANCH OF HORSE CREEK
SECTION 07-00222-01-BR
IROQUOIS COUNTY
STATION 29+95.51

SHEET NO. 7	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 37	07-00222-01-BR	IROQUOIS	19	13
7 SHEETS	S.N. 038-4809		CONTRACT NO. 87431		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-1322(124)		



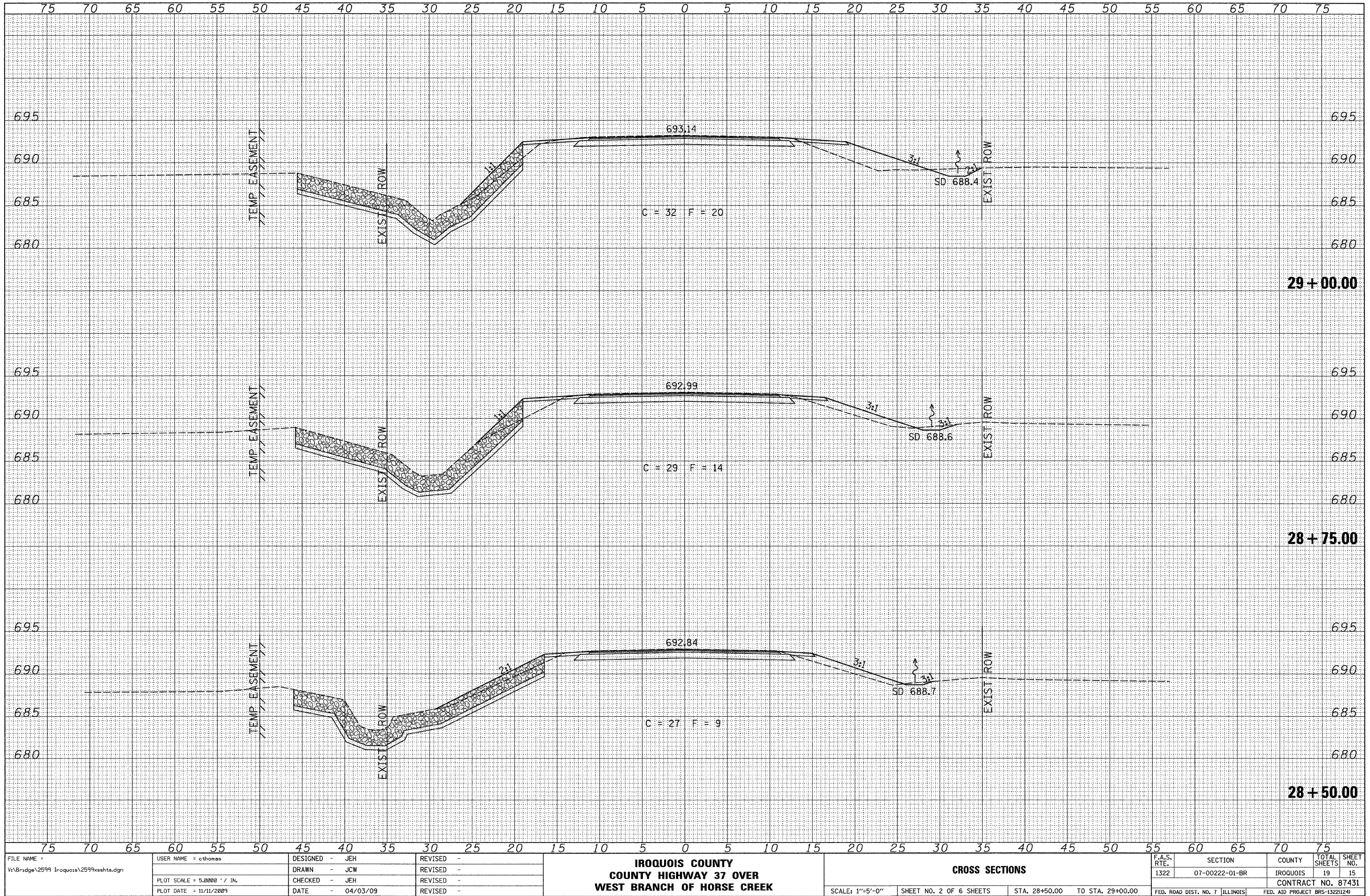
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SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

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

FILE NAME = V:\Bridge\2599 Iroquois\2599kshs.dgn	USER NAME = othomas	DESIGNED - JEH	REVISED -	IROQUOIS COUNTY COUNTY HIGHWAY 37 OVER WEST BRANCH OF HORSE CREEK	CROSS SECTIONS		F.A.S. RTE. 1322	SECTION 07-00222-01-BR	COUNTY IROQUOIS	TOTAL SHEETS 19	SHEET NO. 14	
		DRAWN - JCW	REVISED -		SCALE: 1"=5'-0"	SHEET NO. 1 OF 6 SHEETS	STA. 27+75.00 TO STA. 28+25.00	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-1322(24)		
		CHECKED - JEH	REVISED -									
		DATE - 04/03/09	REVISED -									

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

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



FILE NAME - V:\Brdge\2599 Iroquois\2599xshshts.dgn
 USER NAME - othomas
 PLOT SCALE = 5,000.0' / IN.
 PLOT DATE = 11/11/2009

DESIGNED - JEH	REVISED -
DRAWN - JCW	REVISED -
CHECKED - JEH	REVISED -
DATE - 04/03/09	REVISED -

**IROQUOIS COUNTY
 COUNTY HIGHWAY 37 OVER
 WEST BRANCH OF HORSE CREEK**

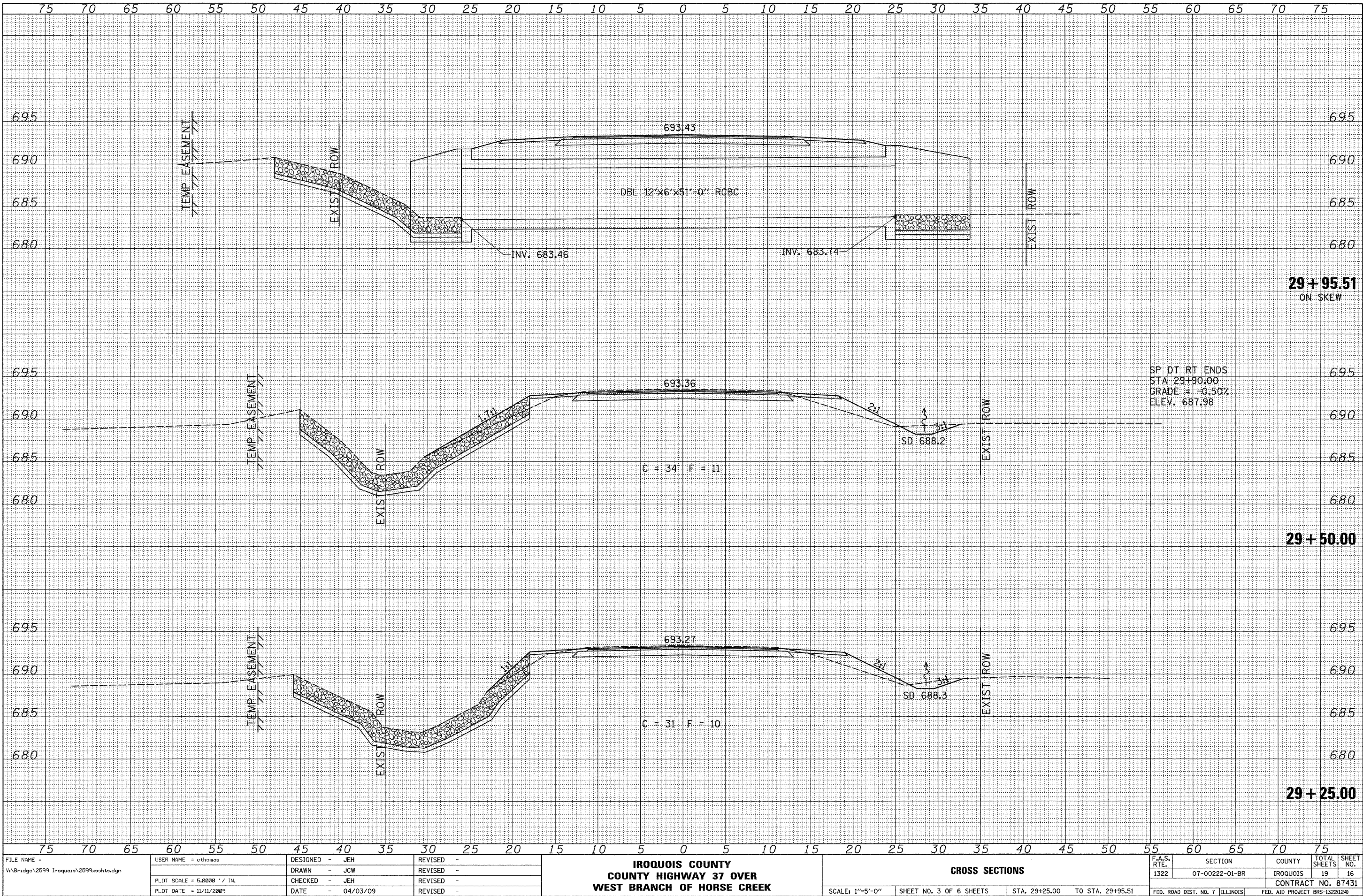
CROSS SECTIONS

SCALE: 1"=5'-0" SHEET NO. 2 OF 6 SHEETS STA. 28+50.00 TO STA. 29+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1322	07-00222-01-BR	IROQUOIS	19	15
CONTRACT NO. 87431				
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR5-1322(24)	

DATE	
BY	
FINAL SURVEY	
REVISIONS	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
REVISIONS	
NOTE BOOK	
NO.	



SP. DT. RT. ENDS
 STA 29+00.00
 GRADE = -0.50%
 ELEV. 687.98

FILE NAME =
 V:\Bridge\2599 Iroquois\2599xshta.dgn

USER NAME =	o.thomas	DESIGNED -	JEH	REVISED -	
		DRAWN -	JCW	REVISED -	
		CHECKED -	JEH	REVISED -	
		DATE -	04/03/09	REVISED -	

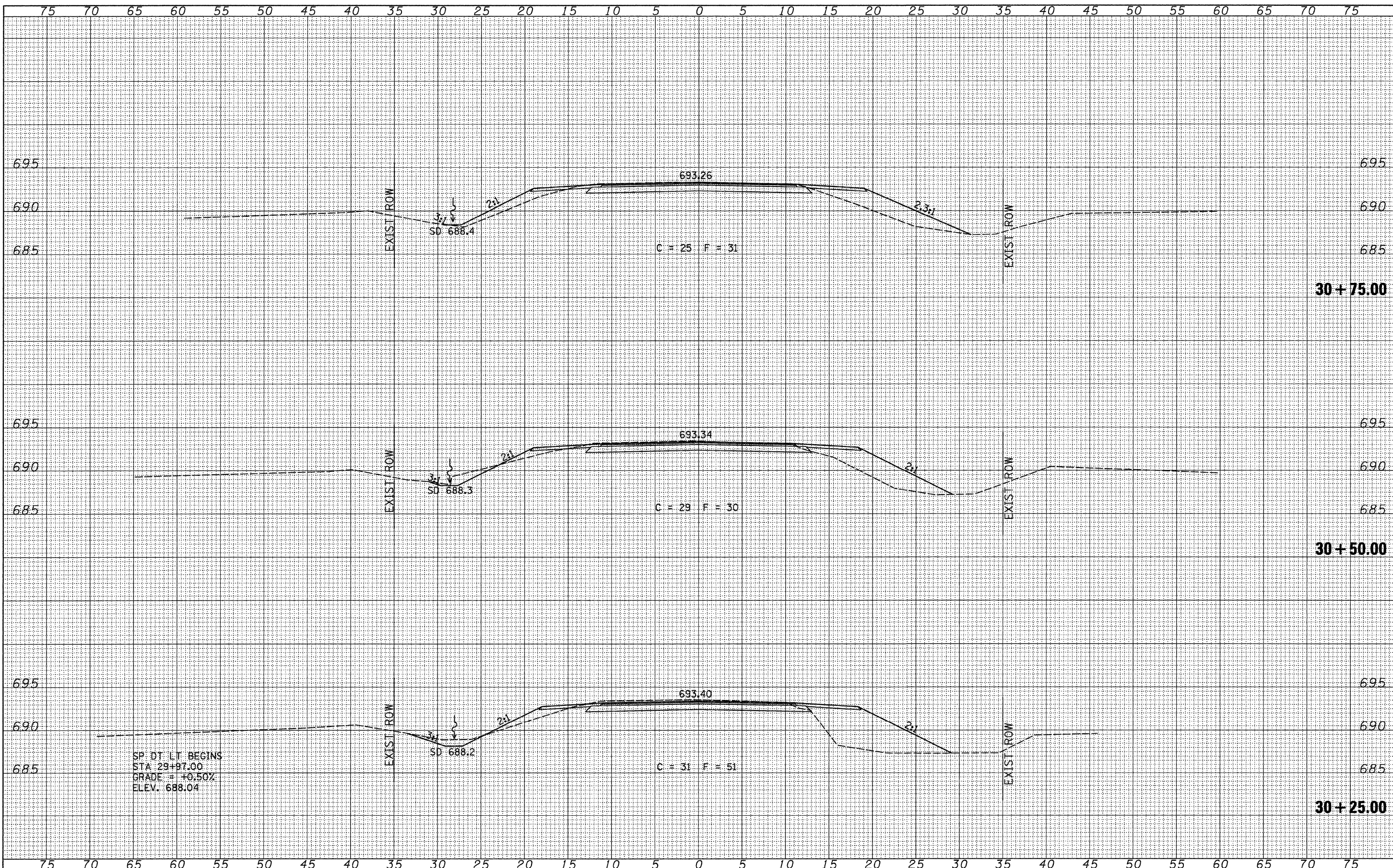
**IROQUOIS COUNTY
 COUNTY HIGHWAY 37 OVER
 WEST BRANCH OF HORSE CREEK**

SCALE: 1"=5'-0"		SHEET NO. 3 OF 6 SHEETS		STA. 29+25.00 TO STA. 29+95.51	
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1322	07-00222-01-BR	IROQUOIS	19	16
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 87431	
			FED. AID PROJECT BR5-1322(124)	

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
REVISIONS	
DATE	
BY	
DESCRIPTION	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
REVISIONS	
DATE	
BY	
DESCRIPTION	

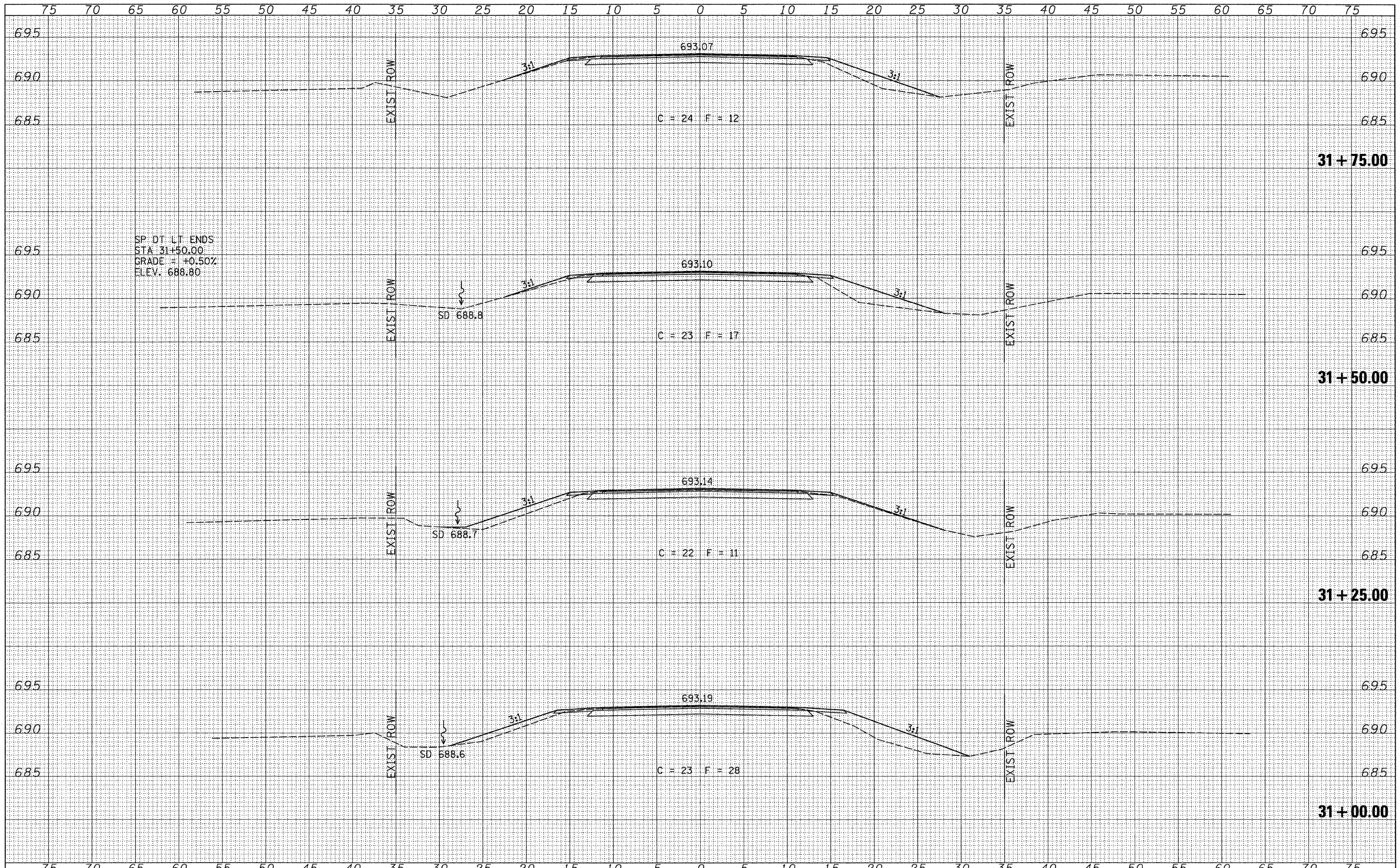


SP DT LT BEGINS
 STA 29+97.00
 GRADE = +0.50%
 ELEV. 688.04

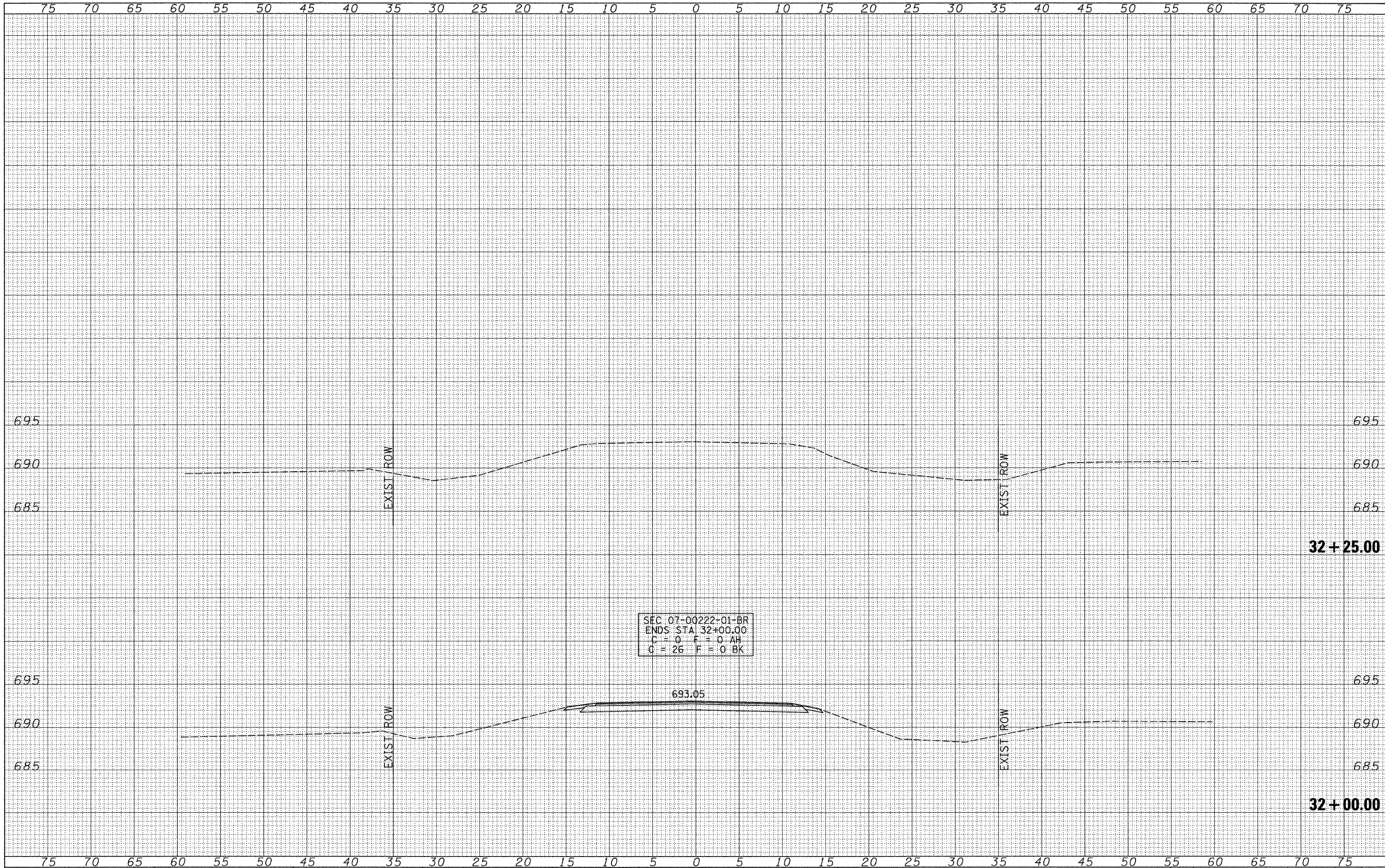
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	PLOT SCALE = 5.0000' / IN.	DRAWN - JCW	REVISED -		SCALE: 1"=5'-0"	SHEET NO. 4 OF 6 SHEETS	STA. 30+25.00 TO STA. 30+75.00	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-1322(124)	CONTRACT NO. 87431	
	PLOT DATE = 11/12/2009	CHECKED - JEH	REVISED -									
		DATE - 04/03/09	REVISED -									

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

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



FILE NAME =	USER NAME = othomas	DESIGNED - JEH	REVISED -	IROQUOIS COUNTY COUNTY HIGHWAY 37 OVER WEST BRANCH OF HORSE CREEK	CROSS SECTIONS		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V:\Bridg\2599 Iroquois\2599xshs.dgn		DRAWN - JCW	REVISED -		1322	07-00222-01-BR	IROQUOIS	19	18		
		CHECKED - JEH	REVISED -		SCALE: 1"=5'-0" SHEET NO. 5 OF 6 SHEETS STA. 31+00.00 TO STA. 31+75.00		CONTRACT NO. 87431				
		DATE - 04/03/09	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-1322(124)				



BY	DATE
SURVEYED	PLOTTED
NOTE BOOK NO.	DATE
AREAS CHECKED	AREAS CHECKED

BY	DATE
SURVEYED	PLOTTED
NOTE BOOK NO.	DATE
AREAS CHECKED	AREAS CHECKED

FILE NAME = V:\Brdge\2599 Iroquois\2599xshts.dgn
 USER NAME = othomas
 PLOT SCALE = 5.0000' / IN.
 PLOT DATE = 11/11/2009

DESIGNED - JEH	REVISED -
DRAWN - JCW	REVISED -
CHECKED - JEH	REVISED -
DATE - 04/03/09	REVISED -

**IROQUOIS COUNTY
 COUNTY HIGHWAY 37 OVER
 WEST BRANCH OF HORSE CREEK**

CROSS SECTIONS
 SCALE: 1"=5'-0" SHEET NO. 6 OF 6 SHEETS STA. 32+00.00 TO STA. 32+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1322	07-00222-01-BR	IROQUOIS	19	19
CONTRACT NO. 87431				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR5-1322(24)				