

03-09-12 LETTING ITEM 138

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 212	08-21119-00-BR	IROQUOIS	24	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 87501		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
IROQUOIS COUNTY
PAPINEAU ROAD DISTRICT SECTION 08-21119-00-BR
TOWNSHIP ROAD 212 OVER DRAINAGE DITCH
PROJECT NO. BROS-0075(147)
JOB NUMBER C-93-003-12

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.-16.	STRUCTURE PLANS
17.-24.	CROSS SECTIONS

REQUIRED HIGHWAY STANDARDS

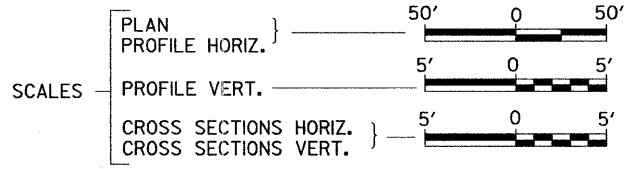
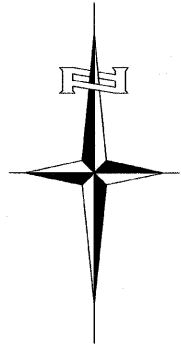
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- 280001-06
- 515001-03
- 635006-03
- 701901-02
- BLR 21-9

UTILITY COMPANIES

FRONTIER COMMUNICATIONS
BLOOMINGTON, ILLINOIS

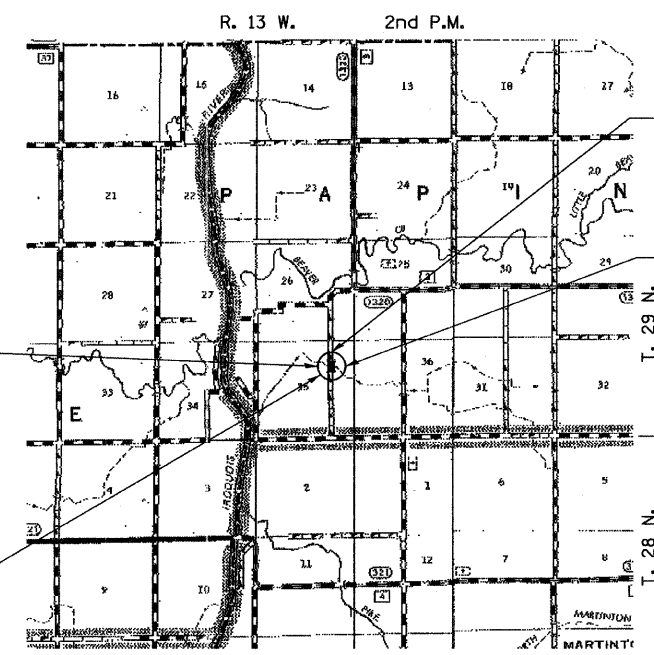
EASTERN ILLINIELECTRIC COOPERATIVE
PAXTON, ILLINOIS

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



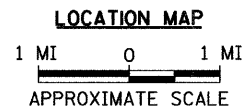
PROPOSED STRUCTURE SN 038-5040
SINGLE SPAN 17" PPC DK BM STRUCTURE ON
CONCRETE SPILL THRU PILE BENT ABUTMENTS
48'-0" BK TO BK, AND 30'-0" O TO O DECK,
NO SKEW

SECTION 08-21119-00-BR
BEGINS
STATION 17+75.00



SECTION 08-21119-00-BR
ENDS
STATION 22+25.00

EXISTING STRUCTURE 038-5028
SINGLE SPAN PONY TRUSS W/ CONCRETE
DECK ON CONCRETE CLOSED ABUTMENTS
±27'-6" BK. TO BK., ±14'-0" O. TO O.,
0° SKEW (TO BE REMOVED)



NET LENGTH OF PROJECT = 450.00 FEET = 0.085 MILES
DESIGN CLASSIFICATION: LOCAL ROAD (NON-URBAN)
DESIGN ADT = 60 (2011)
DESIGN SPEED = 30 MPH



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

APPROVED	10-17	2011
<i>Rodney Dewitt</i> PAPINEAU ROAD DISTRICT HIGHWAY COMMISSIONER		
APPROVED	10-17	2011
<i>Jim M.</i> IROQUOIS COUNTY ENGINEER		
PASSED	12-22	2011
<i>Joseph E. Hutcheson</i> PROJECT IMPLEMENTATION ENGINEER		
Released For Bid Based on Limited Review	12-22	2011
<i>Joseph E. Hutcheson</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION TWO ENGINEER		
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

Joseph E. Hutcheson
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Joseph E. Hutcheson
SIGNATURE

ENGINEER'S SEAL

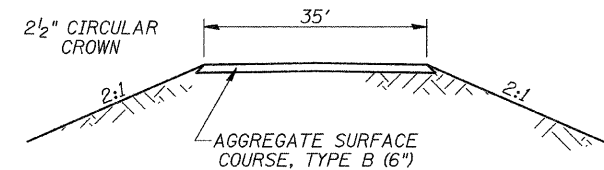
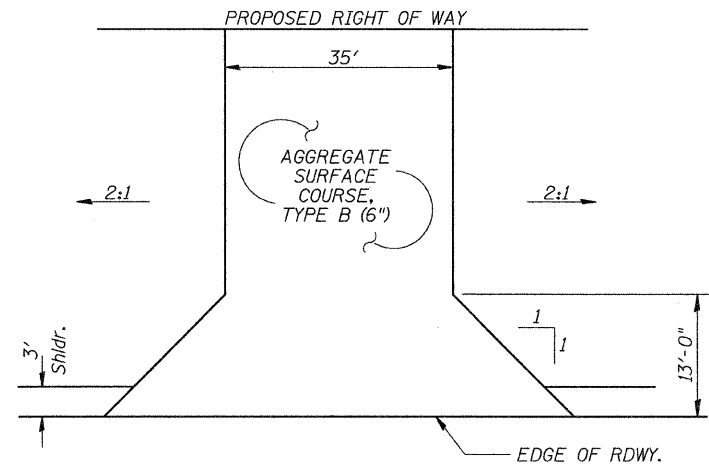
Hutcheson Engineering, Inc.
JACKSONVILLE ILLINOIS
SHOREWOOD ILLINOIS

2011 JOB#2968

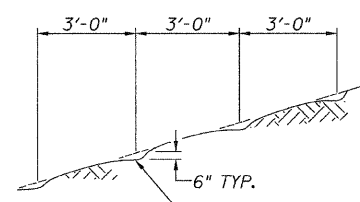
296BEO01

PAPINEAU ROAD DISTRICT

CONTRACT NO. 87501

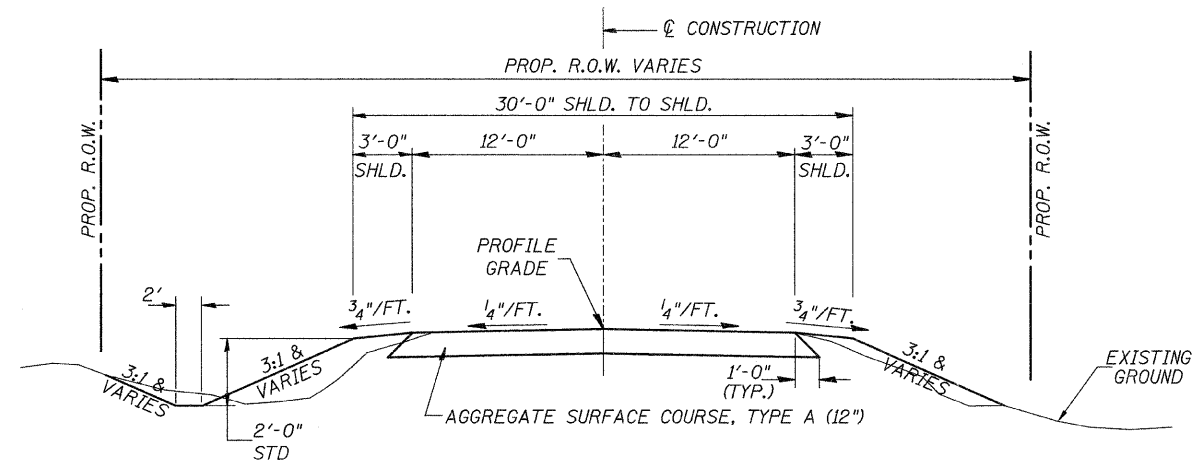


FIELD ENTRANCES
 STA 19+37 LT
 STA 19+43 RT
 STA 20+75 RT

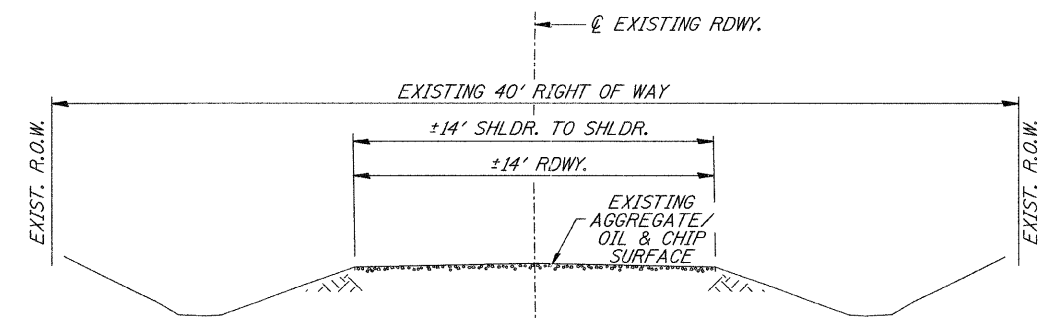


NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL, COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

DETAIL OF CONTOUR PLOWING



PROPOSED TYPICAL SECTION
 STA. 17+75.00 TO STA. 19+76.00
 STA. 20+24.00 TO STA. 22+25.00
 EXCEPT TRANSITIONS
 BRIDGE OMISSION
 STA. 19+76.00 TO STA. 20+24.00



EXISTING TYPICAL SECTION

GENERAL NOTES

PLAN QUANTITIES FOR TREE REMOVAL HAVE BEEN BASED ON ALL TREES WITHIN THE PROPOSED RIGHT OF WAY. THIS QUANTITY MAY BE REVISED DURING CONSTRUCTION, AT THE DIRECTION OF THE ENGINEER, BY DELETING FROM THE TREE REMOVAL QUANTITIES, SUCH TREES THAT DO NOT INTERFERE WITH THE PROPOSED CONSTRUCTION.

THE REMOVAL OF EXISTING OIL & CHIP OR AGGREGATE 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 OR REPAIRED 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 AN U.S.G.S. MEAN SEA LEVEL DATUM.

FILE NAME = V:\Bridge\2968-Iroquois\2968\001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -	IROQUOIS COUNTY TOWNSHIP ROAD 212 OVER DRAINAGE DITCH	GENERAL NOTES, DETAILS, TYPICAL SECTIONS	RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			TR 212	08-21119-00-BR	IROQUOIS	24	2	
		CHECKED -	REVISED -			CONTRACT NO. 87501					
		DATE -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 17+75.00 TO STA. 22+25.00	FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BR05-0075(147)	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	26
20200100	EARTH EXCAVATION	CU YD	565
20300100	CHANNEL EXCAVATION	CU YD	180
① 20400800	FURNISHED EXCAVATION	CU YD	215
① 28000305	TEMPORARY DITCH CHECKS	FOOT	84
28000400	PERIMETER EROSION BARRIER	FOOT	235
28000500	INLET AND PIPE PROTECTION	EACH	3
28100209	STONE RIPRAP, CLASS A5	TON	325
28200200	FILTER FABRIC	SQ YD	270
① 40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	693
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	140
① 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	42
50200100	STRUCTURE EXCAVATION	CU YD	65
50300225	CONCRETE STRUCTURES	CU YD	23.4
50300280	CONCRETE ENCASMENT	CU YD	3.5
① 50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	1,385
50800105	REINFORCEMENT BARS	POUND	2,720
* ① 50900205	STEEL RAILING, TYPE S1	FOOT	96
51201400	FURNISHING STEEL PILES HP10X42	FOOT	216
① 51202305	DRIVING PILES	FOOT	216
① 51203400	TEST PILE STEEL HP10X42	EACH	1
51500100	NAME PLATES	EACH	1
① 54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	108
① 54200247	PIPE CULVERTS, CLASS D, TYPE 1 42"	FOOT	64
67100100	MOBILIZATION	L SUM	1
* ① 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
① X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4
① XX004633	FIELD TILE ADJUSTMENT	EACH	3
① X0324079	EXISTING FIELD TILE REMOVAL	FOOT	140
① XX008646	RELOCATE AND REPLACE EXISTING FIELD TILE	FOOT	205

① SEE SPECIAL PROVISIONS

CONSTRUCTION CODE TYPE: X080(0011)

* SPECIALTY ITEMS

EARTHWORK SUMMARY

STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD	CU YD	CU YD	CU YD	CU YD
RDWY 17+75.00 - 19+76.00	408			442	(136)
RDWY 20+24.00 - 22+25.00	155			193	(77)
CHANNEL		180			
STRUCTURE			65		
TOTAL	563	180	65	635	(213)
USE	565	180	65	-	(215)

(@ 25% SHRINKAGE)

TREE REMOVAL

STATION	OFFSET	SIDE	6 TO 15 UNITS
19+99	33'	RIGHT	8
19+99	33'	RIGHT	8
19+99	33'	RIGHT	10
TOTAL			26

TEMPORARY DITCH CHECKS

STATION	SIDE	FOOT
18+50	RIGHT	12
18+50	LEFT	12
19+80	RIGHT	12
19+84	LEFT	12
20+16	LEFT	12
20+17	RIGHT	12
21+00	LEFT	12
TOTAL		84

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
19+12 - 19+76	RIGHT	65
19+23 - 19+79	LEFT	55
20+49 - 21+01	RIGHT	55
22+00 - 22+25	LEFT	30
22+00 - 22+25	RIGHT	30
TOTAL		235

INLET AND PIPE PROTECTION

STATION	SIDE	EACH
19+12	RIGHT	1
19+23	LEFT	1
21+01	RIGHT	1
TOTAL		3

AGGREGATE SURFACE COURSE, TYPE B

STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
ENTR. - 19+37.00 LT	0.50'	40' & VAR.	24.5'	39
ENTR. - 19+43.00 RT	0.50'	40' & VAR.	43.0'	65
ENTR. - 20+75.00 RT	0.50'	40' & VAR.	22.3'	36
TOTAL				140

AGGREGATE SURFACE COURSE, TYPE A

STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
17+75.00 - 18+25.00	1.00'	19.58' AVG.	50.00'	69
18+25.00 - 19+76.00	1.00'	25.00'	151.00'	264
ABUTMENT BACKFILL - SEE SPECIAL PROVISIONS				27
20+24.00 - 21+75.00	1.00'	25.00'	151.00'	264
21+75.00 - 22+25.00	1.00'	19.58' AVG.	50.00'	69
TOTAL				693

PIPE CULVERT REMOVAL

STATION	SIZE	SIDE	FOOT
19+43	42"	RIGHT	23
20+75	15"	RIGHT	19
TOTAL			42

EXISTING FIELD TILE REMOVAL

STATION TO STATION	SIDE	FOOT
17+75 - 19+15	RIGHT	140
TOTAL		140

RELOCATE AND REPLACE EXISTING FIELD TILE

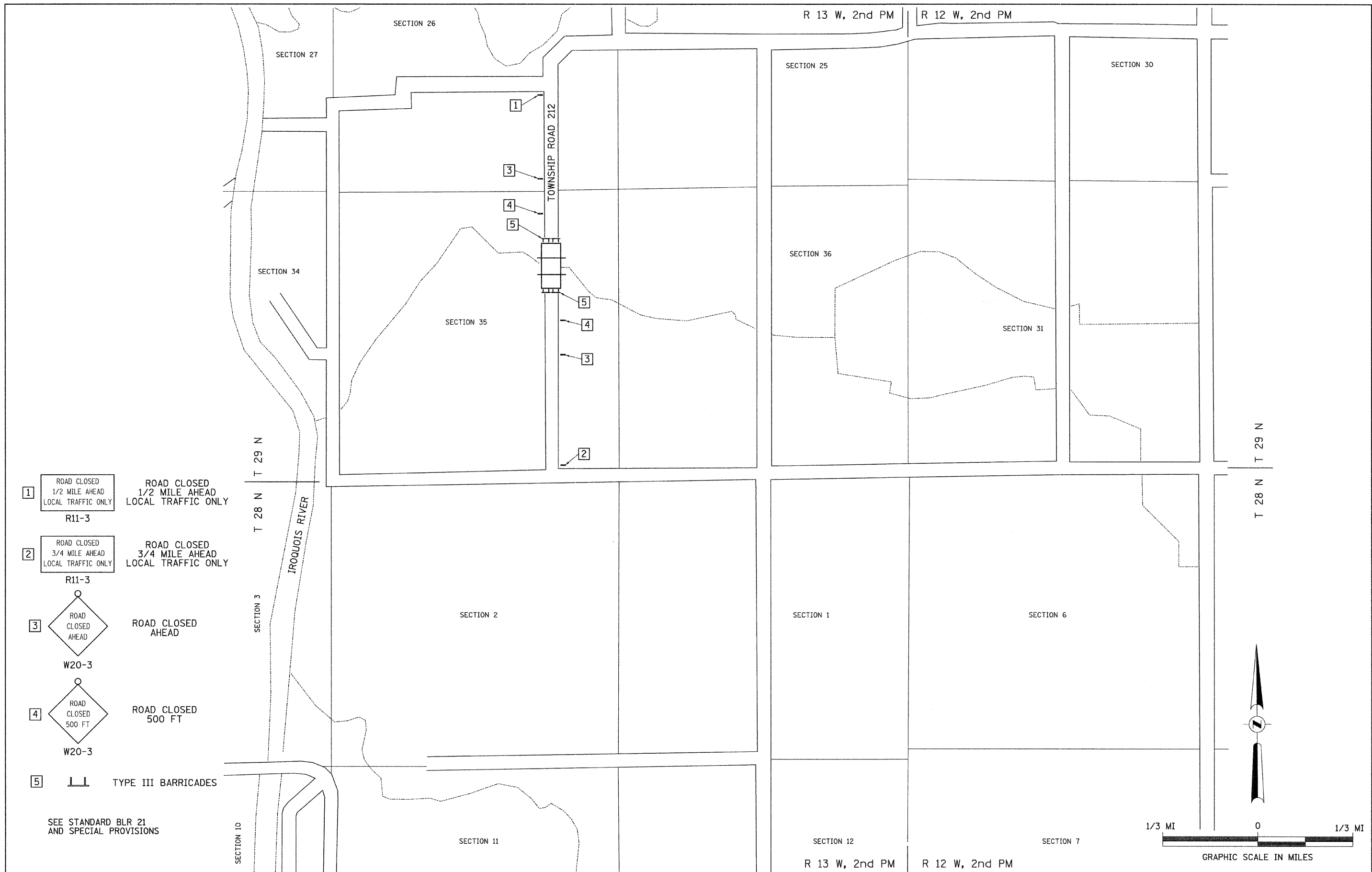
STATION TO STATION	SIZE	SIDE	FOOT
17+75 - 19+80	15"	RIGHT	205
TOTAL			205

PIPE CULVERTS, CLASS D, TYPE 1 15"

STATION	SIDE	FOOT
19+37	LEFT	56
20+75	RIGHT	52
TOTAL		108

PIPE CULVERTS, CLASS D, TYPE 1 42"

STATION	SIDE	FOOT
19+43	RIGHT	64
TOTAL		64



- 1

ROAD CLOSED 1/2 MILE AHEAD LOCAL TRAFFIC ONLY	ROAD CLOSED 1/2 MILE AHEAD LOCAL TRAFFIC ONLY
R11-3	

- 2

ROAD CLOSED 3/4 MILE AHEAD LOCAL TRAFFIC ONLY	ROAD CLOSED 3/4 MILE AHEAD LOCAL TRAFFIC ONLY
R11-3	

- 3

ROAD CLOSED AHEAD	ROAD CLOSED AHEAD
W20-3	

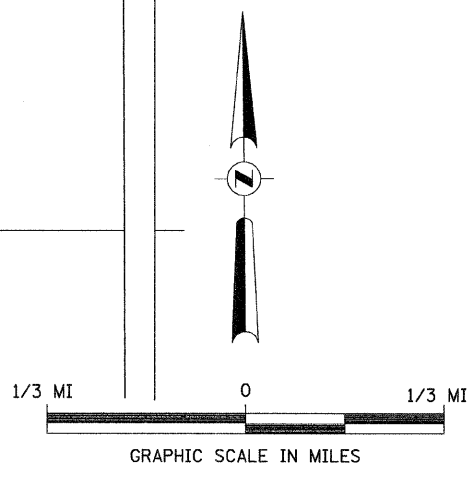
- 4

ROAD CLOSED 500 FT	ROAD CLOSED 500 FT
W20-3	

- 5

	TYPE III BARRICADES
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SEE STANDARD BLR 21
AND SPECIAL PROVISIONS



FILE NAME = V:\Bridge\2968-Iroquois\2968h001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

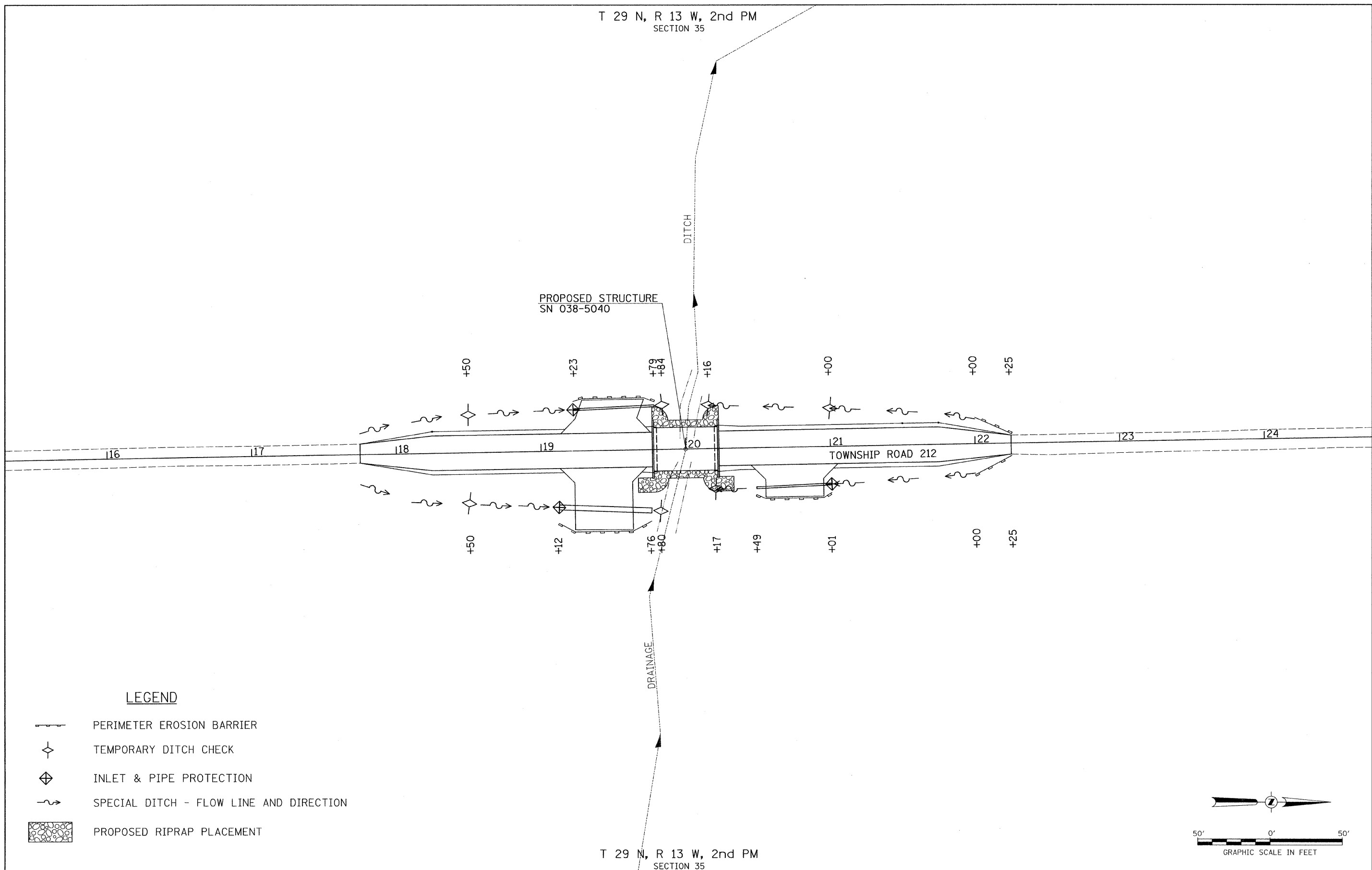
**IROQUOIS COUNTY
TOWNSHIP ROAD 212 OVER
DRAINAGE DITCH**

TRAFFIC CONTROL PLAN






SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 17+75.00 TO STA. 22+25.00

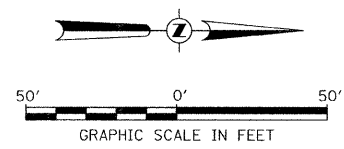
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 212	08-21119-00-BR	IROQUOIS	24	4
CONTRACT NO. 87501				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-0075147				

T 29 N, R 13 W, 2nd PM
SECTION 35



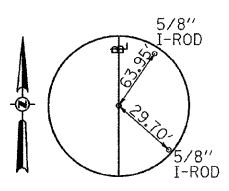
LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  INLET & PIPE PROTECTION
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  PROPOSED RIPRAP PLACEMENT

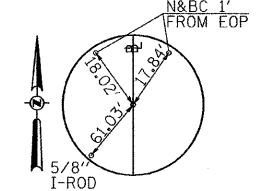


T 29 N, R 13 W, 2nd PM
SECTION 35

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		DRAWN -	REVISED -			TR 212	08-21119-00-BR	IROQUOIS	24	5	
	PLOT SCALE = 30,0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 87501					
	PLOT DATE = 9/29/2011	DATE -	REVISED -		SCALE: 1" = 30'	SHEET NO. 1 OF 1 SHEETS		STA. 17+75.00 TO STA. 22+25.00		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BROS-0075(147)



POT STA 15+00.00
RR-SPIKE



POT STA 25+00.09
RR-SPIKE

T 29 N, R 13 W, 2nd PM
SECTION 35

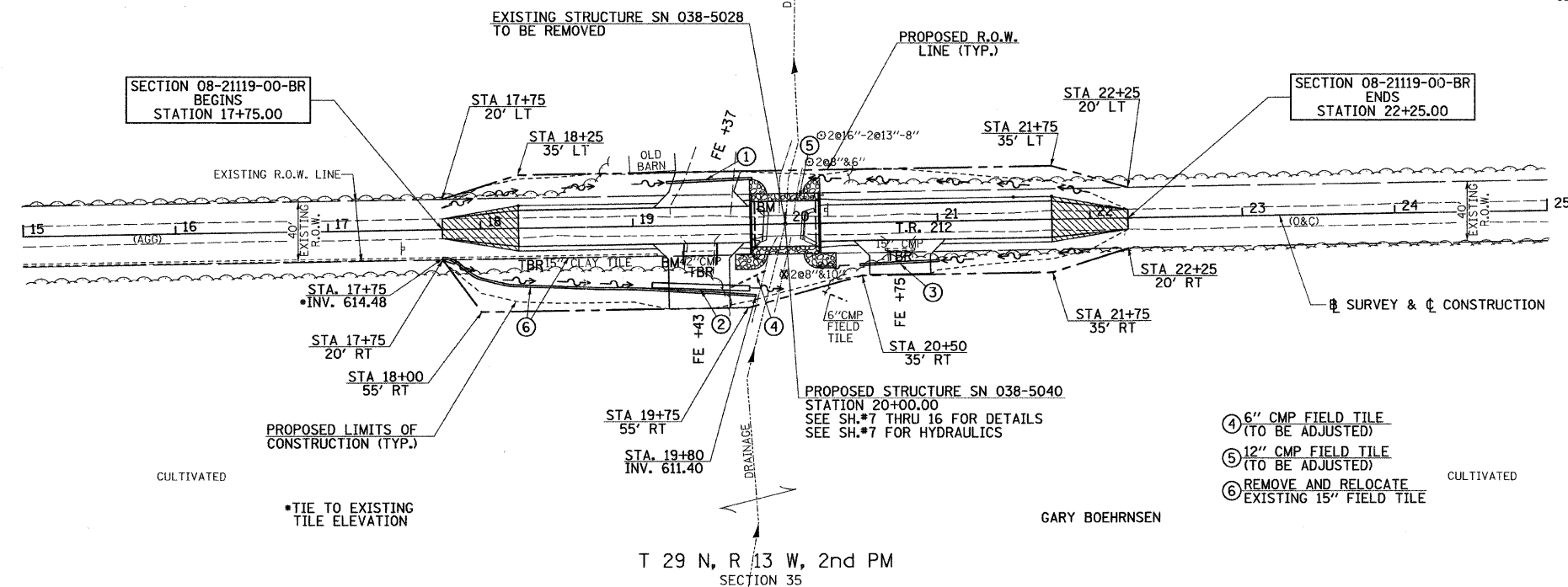
MAUE INVESTMENTS, LLC

GARY BOEHRNSEN

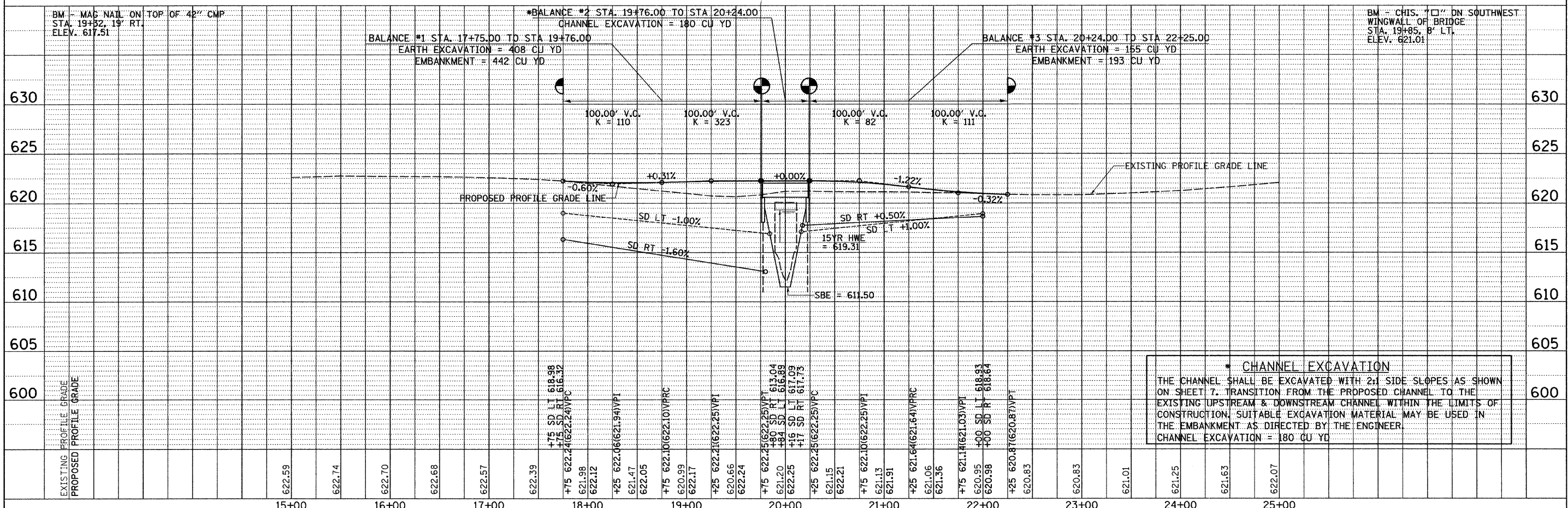
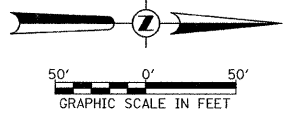
- 1 PROPOSED PIPE CULVERT
CLASS D, TYPE 1, 15"x56"
USFL 617.50, STA 19+22.55, 28.5' LT
DSFL 616.94, STA 19+78.53, 30.3' LT
- 2 PROPOSED PIPE CULVERT
CLASS D, TYPE 1, 42"x64"
USFL 614.13, STA 19+12.05, 38.9' RT
DSFL 613.10, STA 19+75.97, 42.2' RT
- 3 PROPOSED PIPE CULVERT
CLASS D, TYPE 1, 15"x52"
USFL 618.14, STA 21+00.73, 26.0' RT
DSFL 617.88, STA 20+48.76, 27.7' RT

LEGEND

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



T 29 N, R 13 W, 2nd PM
SECTION 35



CHANNEL EXCAVATION
THE CHANNEL SHALL BE EXCAVATED WITH 2:1 SIDE SLOPES AS SHOWN ON SHEET 7. TRANSITION FROM THE PROPOSED CHANNEL TO THE EXISTING UPSTREAM & DOWNSTREAM CHANNEL WITHIN THE LIMITS OF CONSTRUCTION. SUITABLE EXCAVATION MATERIAL MAY BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.
CHANNEL EXCAVATION = 180 CU YD

DATE	
BY	
PLAN	
NO.	
NO.	
NO.	
NO.	

DATE	
BY	
PROFILE	
NO.	
NO.	
NO.	
NO.	

FILE NAME = V:\Brdge\2968-Iroquois\2968P001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -	IROQUOIS COUNTY TOWNSHIP ROAD 212 OVER DRAINAGE DITCH	PLAN AND PROFILE			RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 5/8" = 1' IN.	CHECKED -	REVISED -	REVISED -		TR 212	08-21119-00-BR	IROQUOIS	24	6			
PLOT DATE = 9/29/2011	DATE -	REVISED -	REVISED -		SCALE: 1"=50'			SHEET NO. 1 OF 1 SHEETS			STA. 17+75.00 TO STA. 22+25.00	
					FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BROS-0075147		CONTRACT NO. 87501		

B.M.: Mag Nail on Top of 42" CMP
Sta. 19+32, 19' Rt.
Elev. 617.51

Chiseled "□" on S.W. Wing Wall of Bridge
Sta. 19+85, 8' Lt.
Elev. 621.01

Existing Structure:

Single span pony truss with concrete deck on concrete closed abutments. The structure is ±27'-6" back to back of abutments, ±14'-0" out to out of deck and is not skewed. Str. No. 038-5028

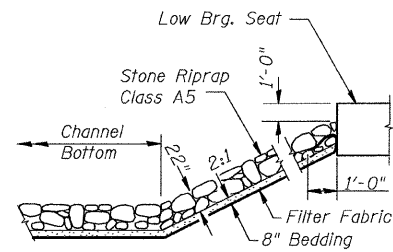
Salvage: None

Road to be closed to traffic during construction.

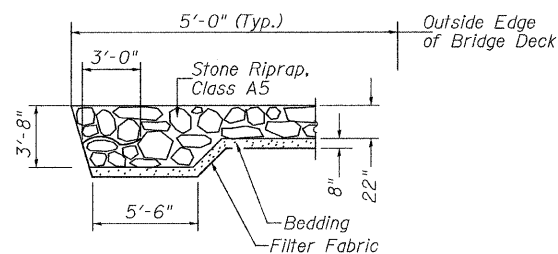
**DRAINAGE DITCH
BUILT 201 BY
PAPINEAU ROAD DISTRICT
IROQUOIS COUNTY
SEC. 08-21119-00-BR
T.R. 212 STATION 20+00.00
F.A. PROJ. BROS-0075(147)
STR. NO. 038-5040 LOADING HL-93**

NAME PLATE

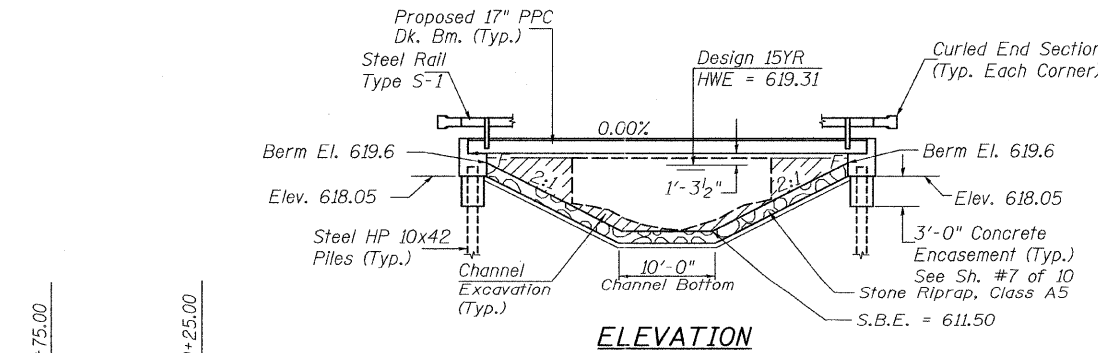
Locate Name Plate at S.E. Wingwall
Corner of Bridge (See Std. 515001)



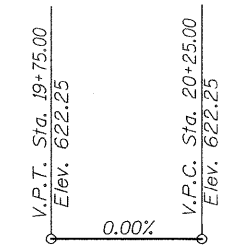
STONE RIPRAP DETAIL



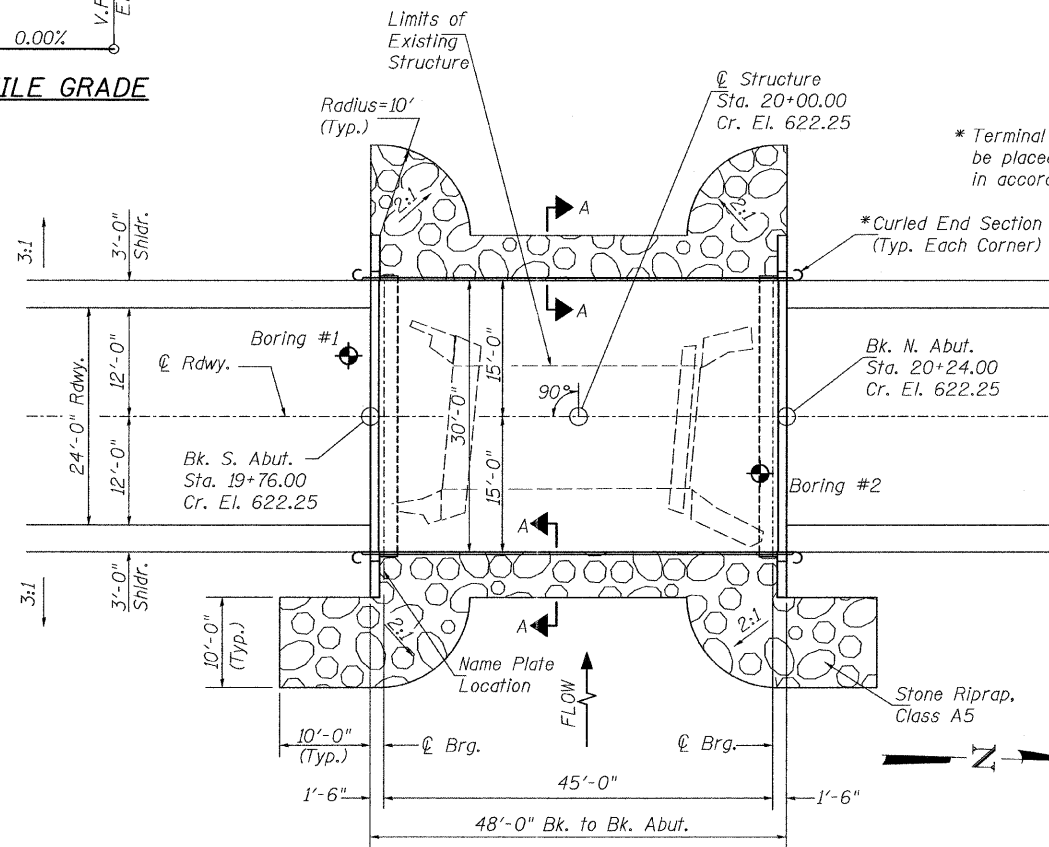
SECTION A-A



ELEVATION



PROFILE GRADE



PLAN

DESIGN SCOUR TABLE

Location	S. Abut.	N. Abut.
Design Scour Elevation	618.05	618.05

WATERWAY INFORMATION

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	15	425	124	200	619.31	0.06	0.00	619.37	619.31
Base	100	677	138	224	619.91	0.17	0.06	620.08	619.97

DESIGNED	N.P.H.
CHECKED	J.E.H.
DRAWN	N.P.H.
CHECKED	J.E.H.

DESIGN SPECIFICATIONS

2007 AASHTO (LRFD) & Interims

DESIGN STRESSES

(FIELD UNITS) $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (Rein.)

(PRECAST PRESTRESSED UNITS)
 $f'_c = 6,000$ p.s.i.
 $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " Strands)
 $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " Strands)

LOADING HL-93

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

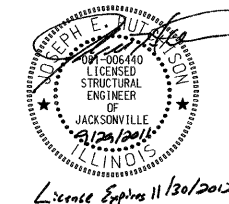
GENERAL NOTES

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles. For Soil Boring Logs, See Sheets 8-10 of 10. A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications. Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated. Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer. Excavation behind existing abutment walls shall be done before removing existing Superstructure. The existing structural steel coating may contain lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

TOTAL BILL OF MATERIAL

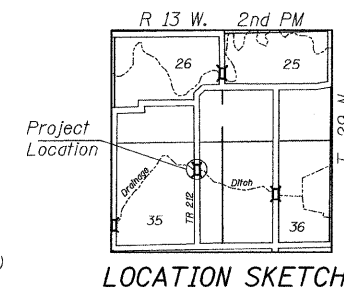
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	180	180
Stone Riprap, Class A5	TON	—	325	325
Filter Fabric	SQ YD	—	270	270
① Removal of Existing Structures	EACH	—	—	1
Structure Excavation	CU YD	—	65	65
Concrete Structures	CU YD	—	23.4	23.4
① Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	1,385	—	1,385
Reinforcement Bars	POUND	—	2,720	2,720
① Steel Railing, Type S1	FOOT	96	—	96
Furnishing Steel Piles HP10x42	FOOT	—	216	216
① Driving Piles	FOOT	—	216	216
① Test Pile Steel HP10x42	EACH	—	1	1
Concrete Encasement	CU YD	—	3.5	3.5
Name Plates	EACH	—	1	1

① See Special Provisions



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.

[Signature] 9/29/2011
Illinois Structural No. 6440
Expires 11/30/2012

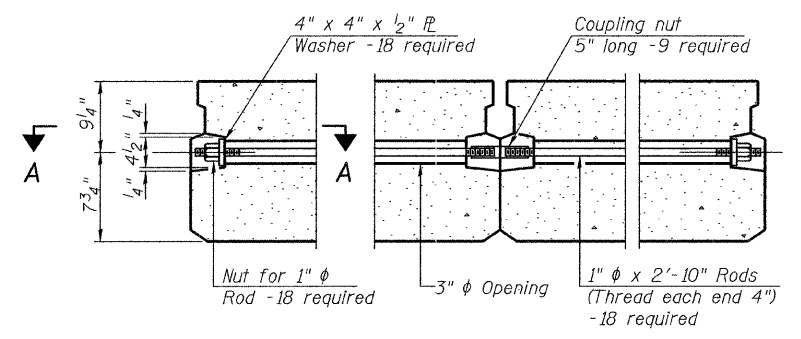
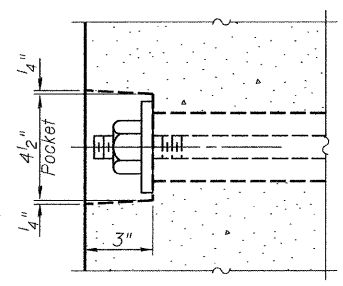
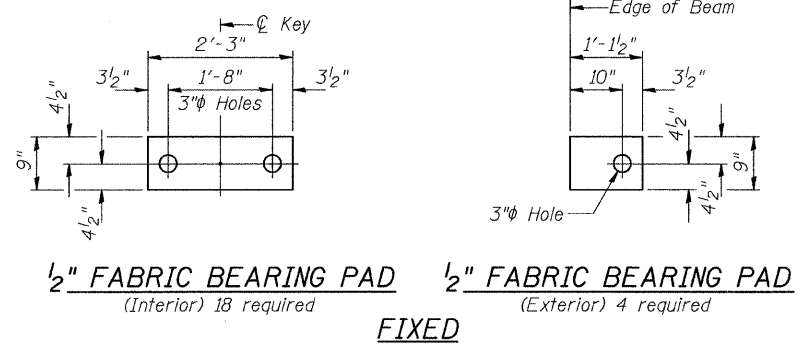


LOCATION SKETCH

**GENERAL PLAN & ELEVATION
IROQUOIS COUNTY**

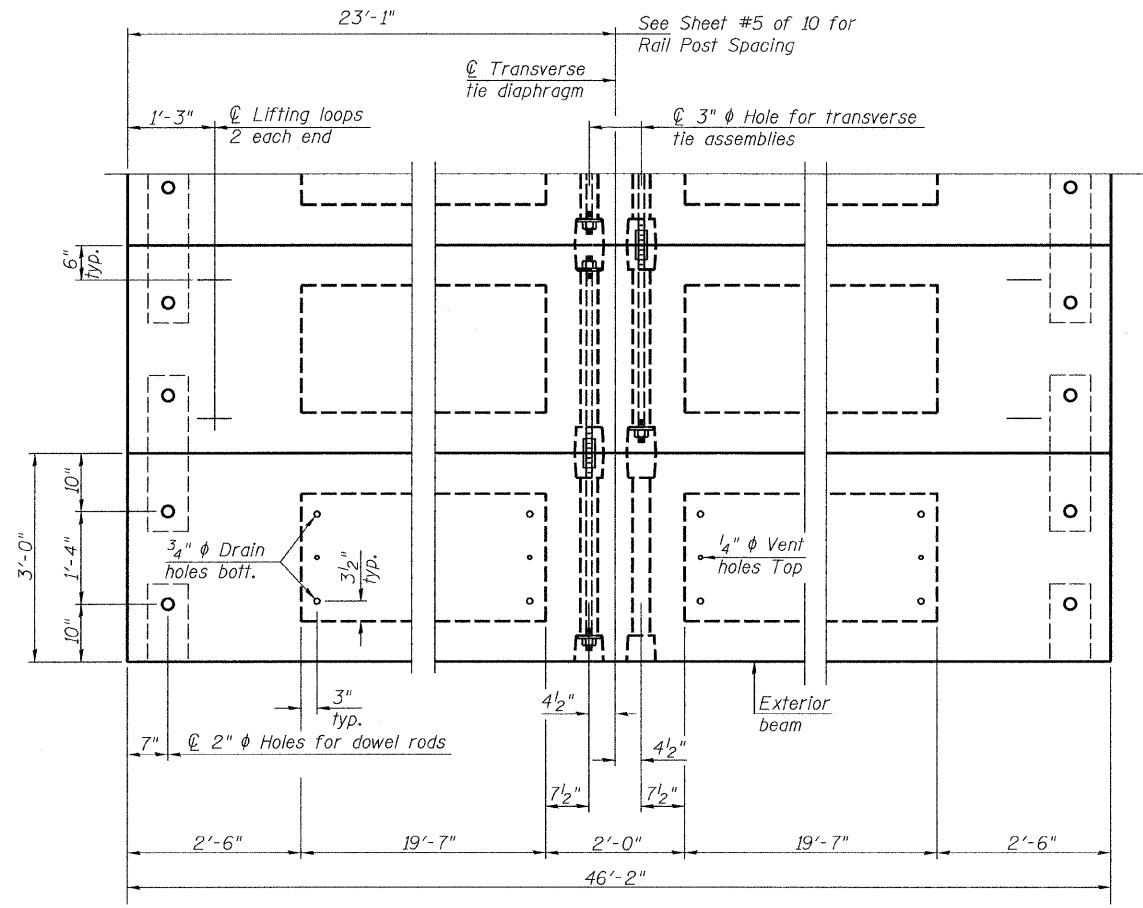
**SECTION 08-21119-00-BR
T.R. 212 OVER DRAINAGE DITCH**

SHEET NO. 1 10 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 212	08-21119-00-BR	IROQUOIS	24	7
S.N. 038-5040			CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0075(147)		

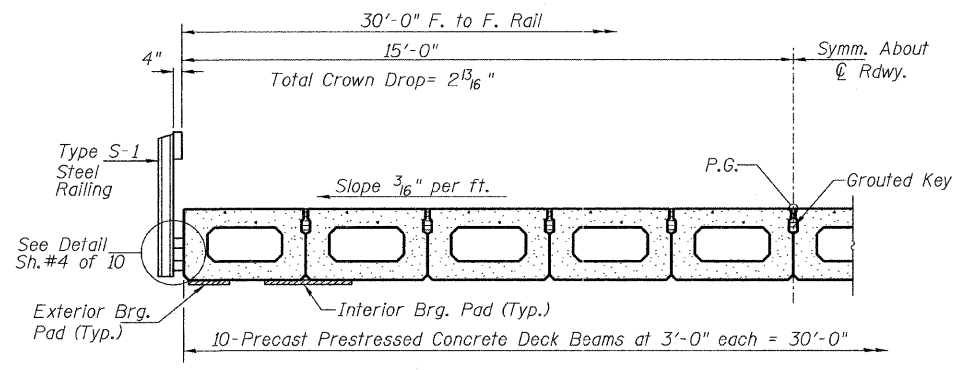


SECTION A-A

TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW



HALF CROSS SECTION

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
① Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	1,385
① See Special Provisions		

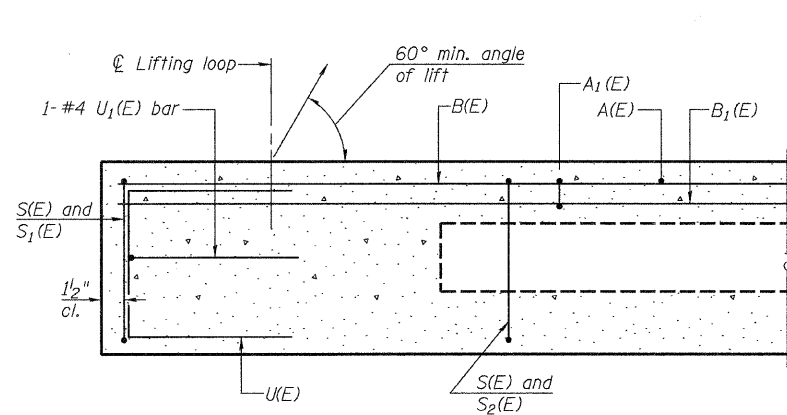
Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

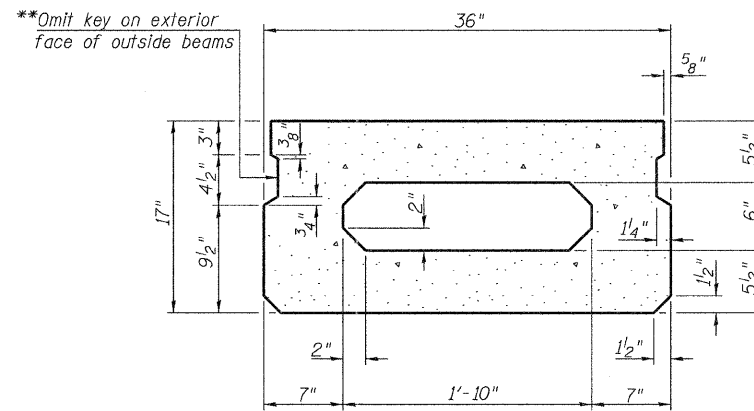
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

SUPERSTRUCTURE
IROQUOIS COUNTY
SECTION 08-2119-00-BR
T.R. 212 OVER DRAINAGE DITCH

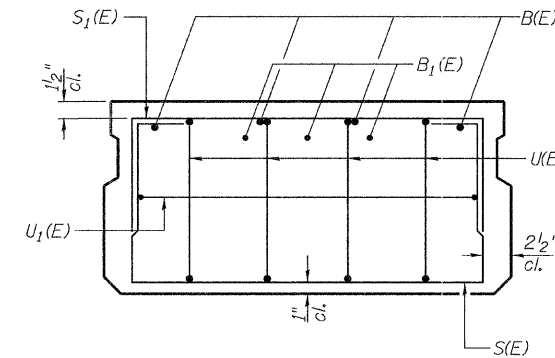
SHEET NO. 2 10 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 212	08-2119-00-BR	IROQUOIS	24	8
S.N. 038-5040			CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0075(147)			



SECTION C-C

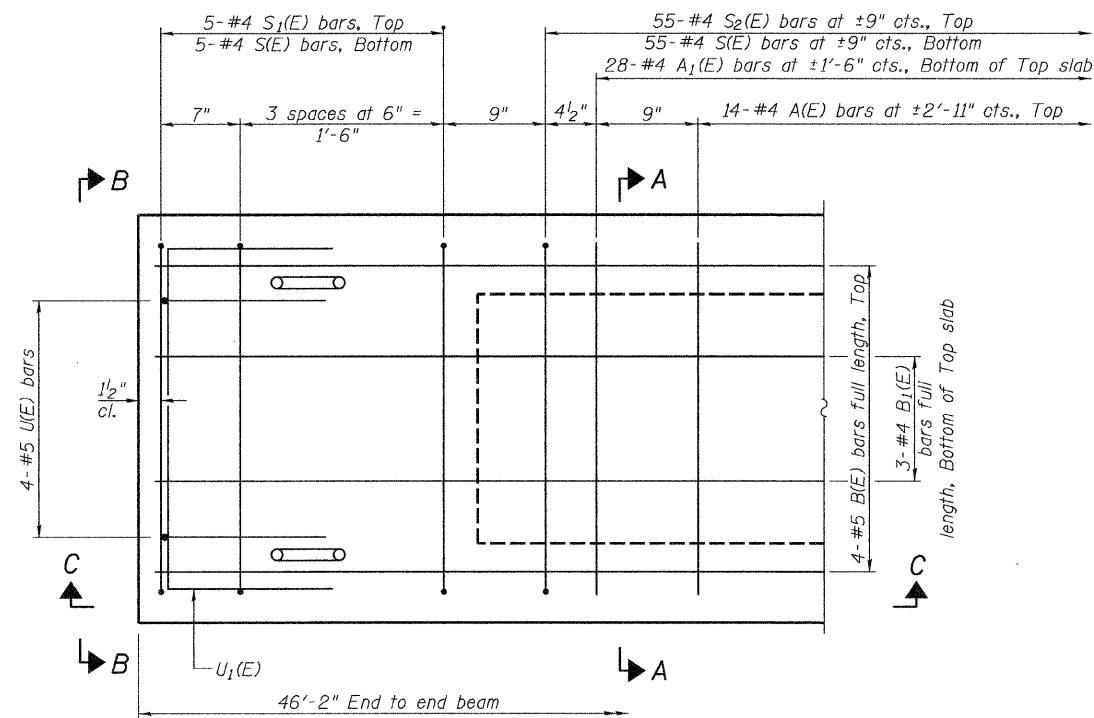


SECTION A-A
(Showing dimensions)



VIEW B-B

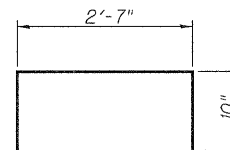
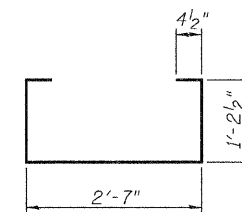
**Rail post anchor devices (Sheet 4 of 10) to be cast into exterior face of outside beams.



PLAN VIEW

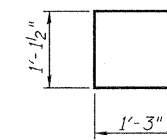
MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

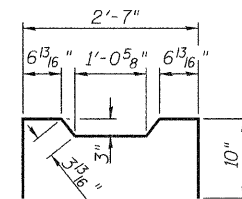


BAR S1(E)

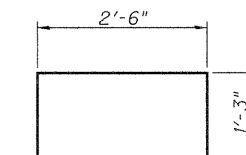
BAR S(E)



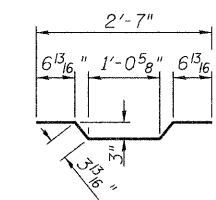
BAR U(E)



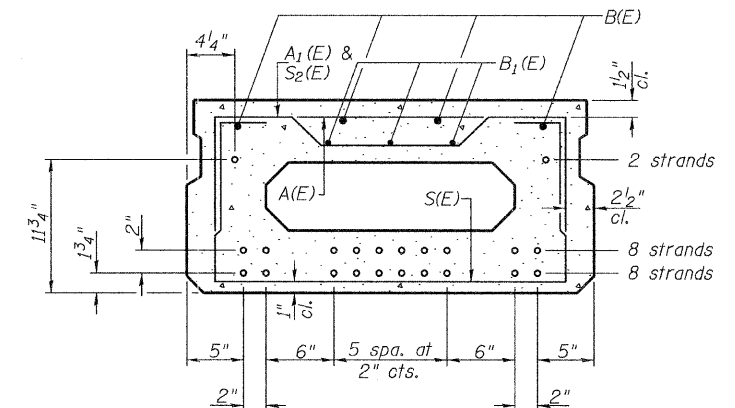
BAR S2(E)



BAR U1(E)



BAR A1(E)



SECTION A-A

18-1/2" Strands Each Strand Stressed to 30,900 Lbs.
8-Strands 1 3/4" up, 8-Strands 3 3/4" up, 2-Strands 11 3/4" up

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

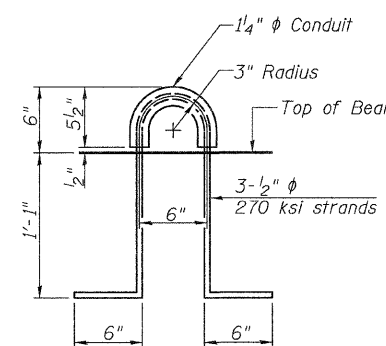
BAR LIST-ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	2'-7"	—
A1(E)	28	#4	2'-10"	—
B(E)	4	#5	*45'-11"	—
B1(E)	3	#4	*45'-11"	—
S(E)	65	#4	5'-9"	□
S1(E)	10	#4	4'-3"	□
S2(E)	55	#4	4'-6"	□
U(E)	8	#5	3'-8"	□
U1(E)	2	#4	5'-0"	□

* Total Length, Lap as necessary

Note: See sheet 2 of 10 for additional details and Bill of Material.

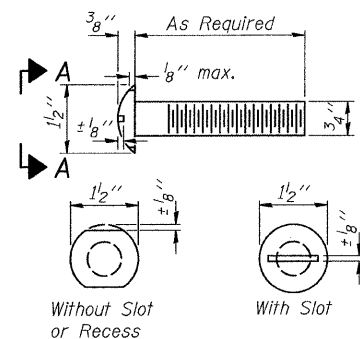


LIFTING LOOP DETAIL

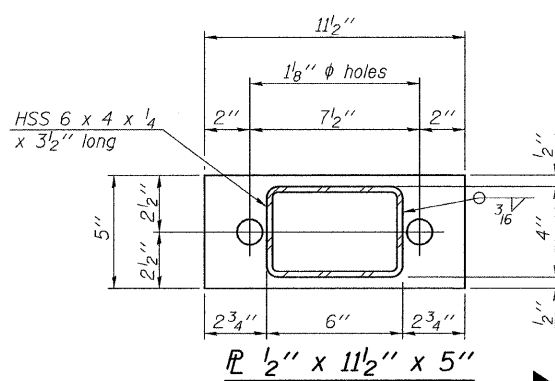
SUPERSTRUCTURE DETAILS
IROQUOIS COUNTY
SECTION 08-2119-00-BR
T.R. 212 OVER DRAINAGE DITCH

SHEET NO. 3	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 212	08-2119-00-BR	IROQUOIS	24	9
10 SHEETS	S.N. 038-5040		CONTRACT NO. 87501		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BR05-0075(147)		

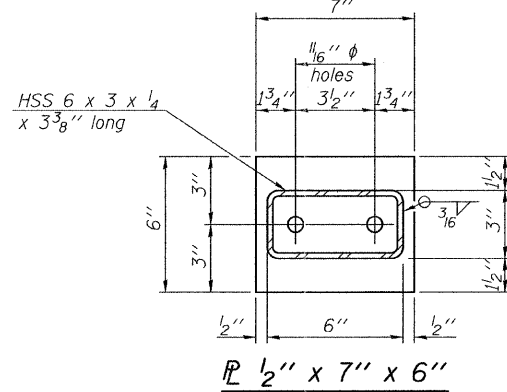
FOR RAIL POST SPACING SEE SH.#5 OF 10



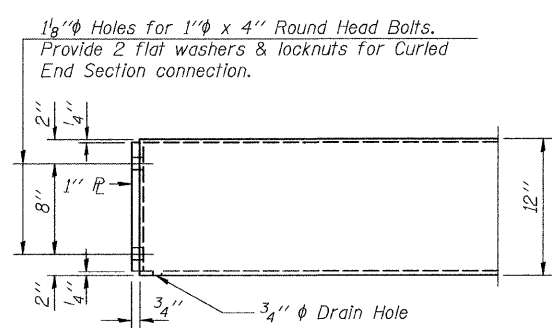
VIEW A-A
ROUND HEAD BOLT



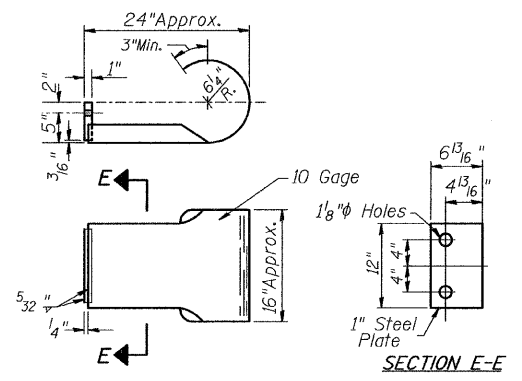
SECTION B-B
P 1/2" x 11 1/2" x 5"



SECTION AT RAILING POST
P 1/2" x 7" x 6"



END OF RAIL DETAILS



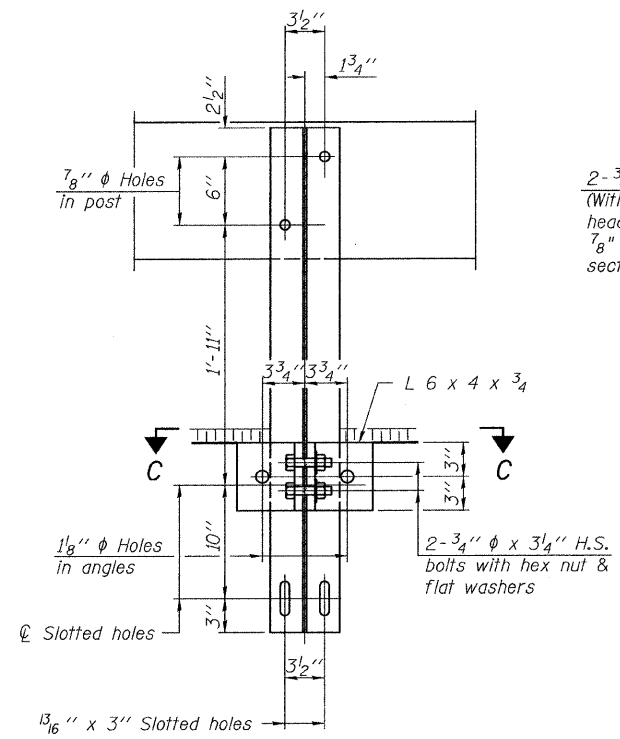
SECTION E-E
CURLLED END SECTION

(4 Req'd) Cost Included with Steel Railing, Type S-1. Terminal Markers - Direct Applied shall be placed on end of each Curled End Section. (Each Corner)

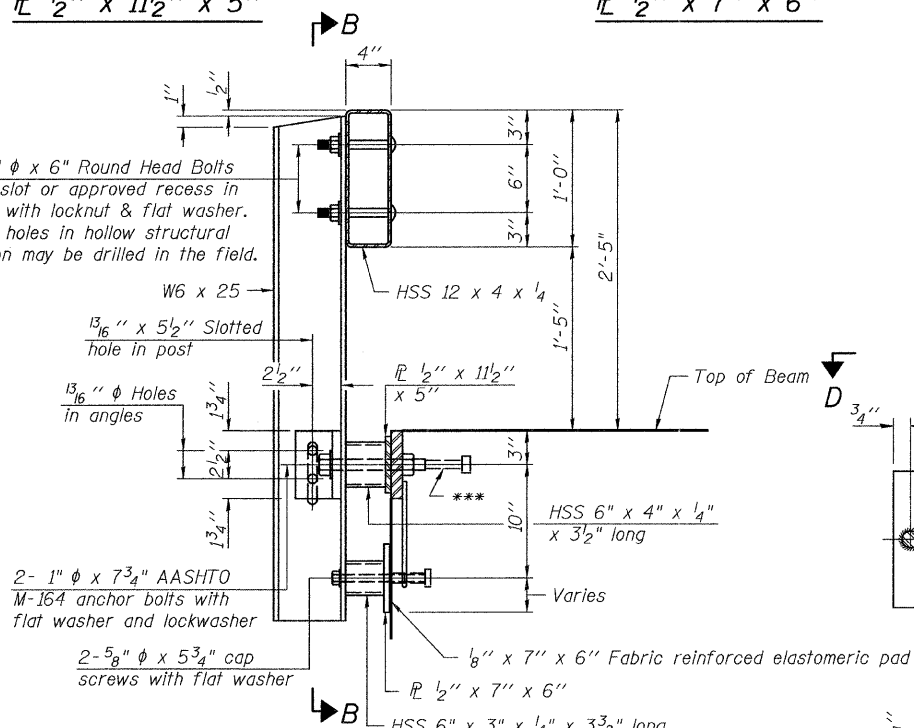
NOTES

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 Railing, Type S-1. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

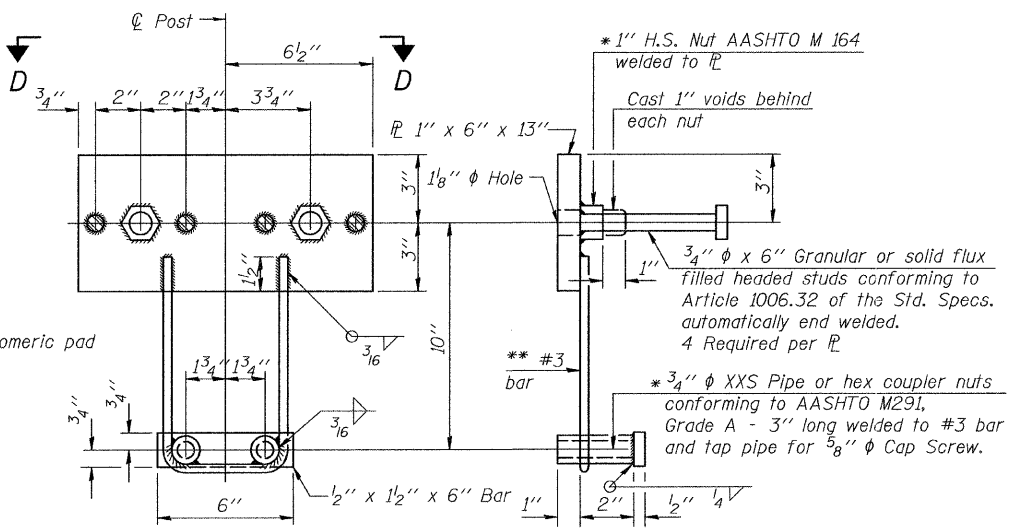
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



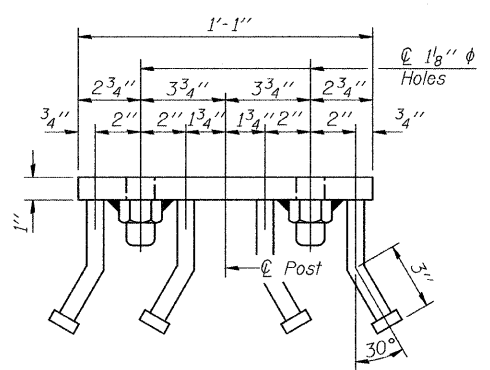
SECTION C-C



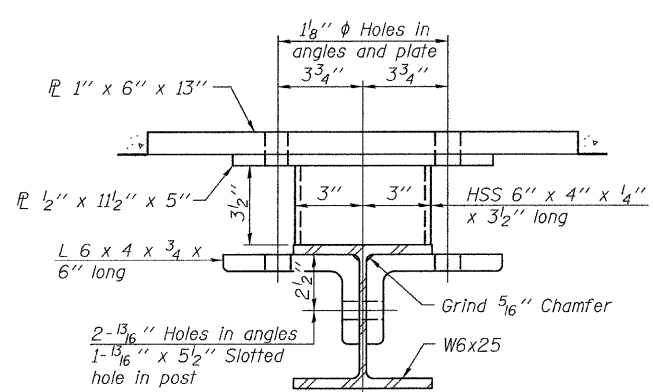
SECTION AT RAILING POST



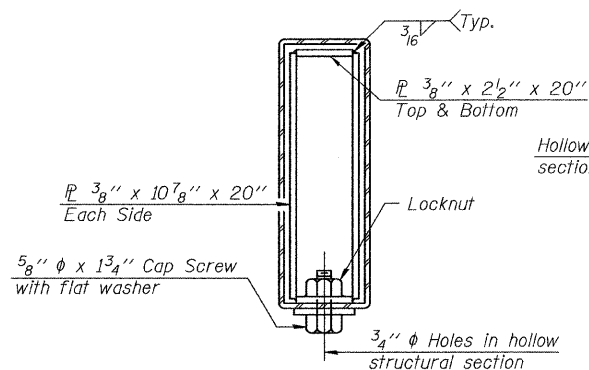
ANCHOR DEVICE



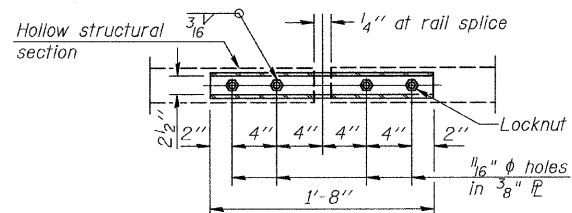
VIEW D-D



SECTION C-C



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE P TYPICAL

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.

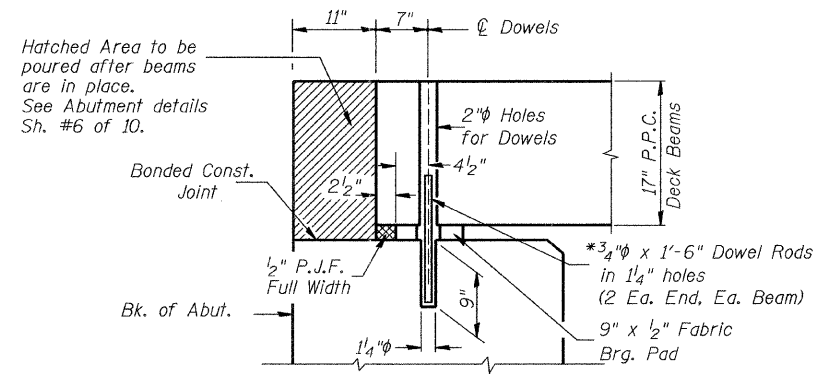
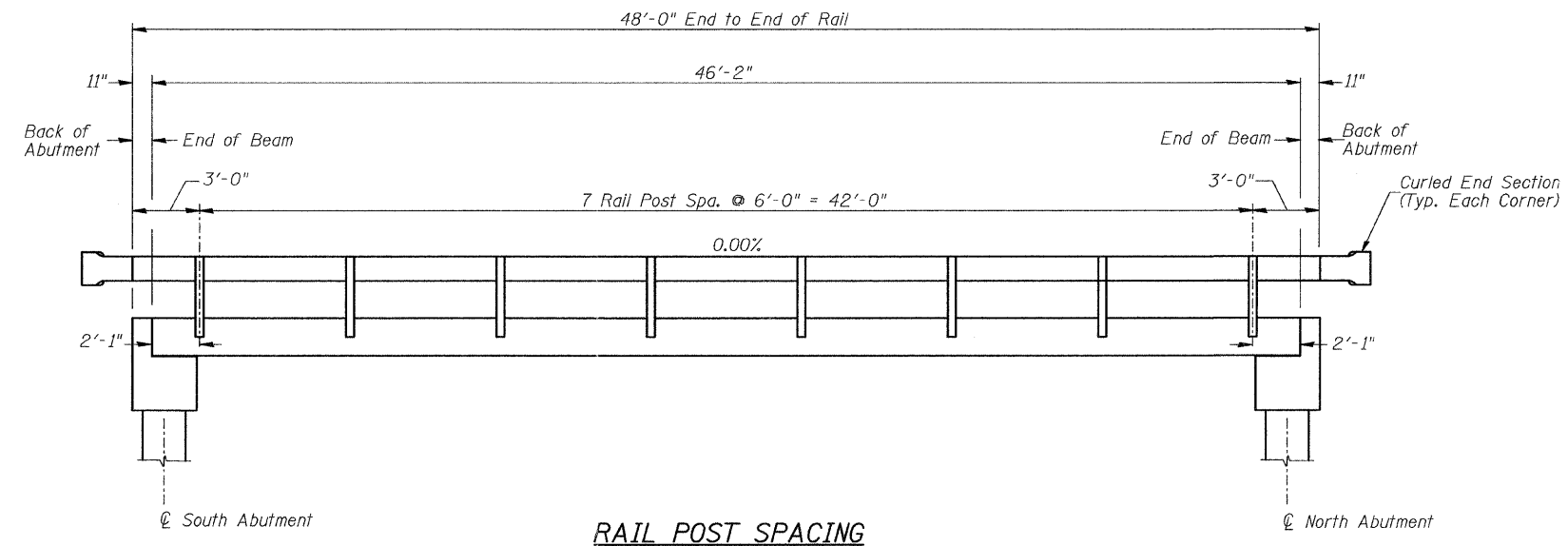
BILL OF MATERIAL

Item	Unit	Quantity
① Steel Railing, Type S-1	FOOT	96

① See Special Provisions

STEEL RAILING TYPE S-1
IROQUOIS COUNTY
SECTION 08-2119-00-BR
T.R. 212 OVER DRAINAGE DITCH

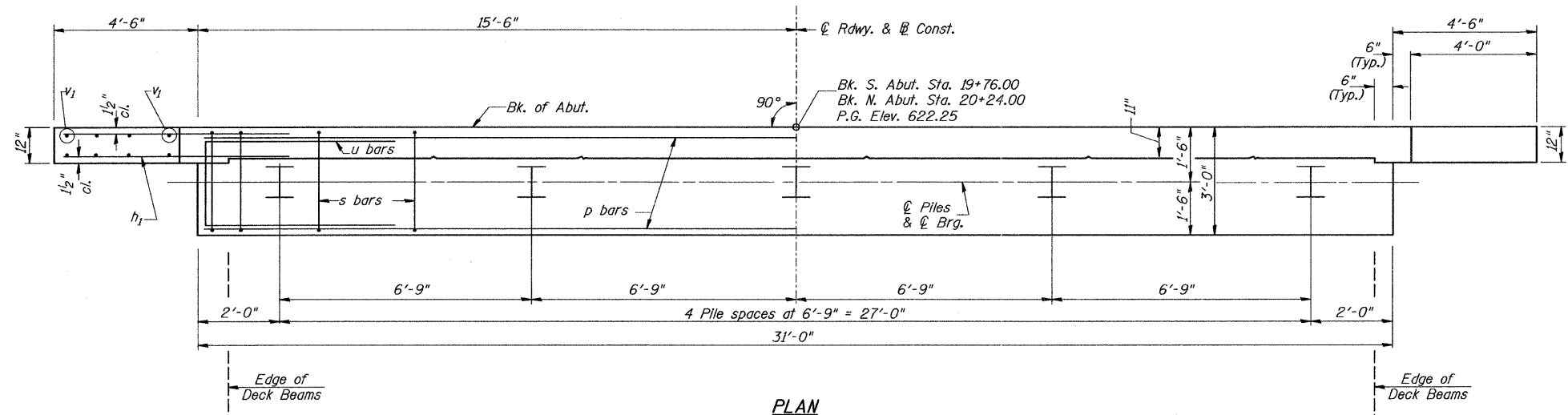
SHEET NO. 4	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 SHEETS	TR 212	08-2119-00-BR	IROQUOIS	24	10
		S.N. 038-5040		CONTRACT NO. 87501	
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BROS-0075(147)		



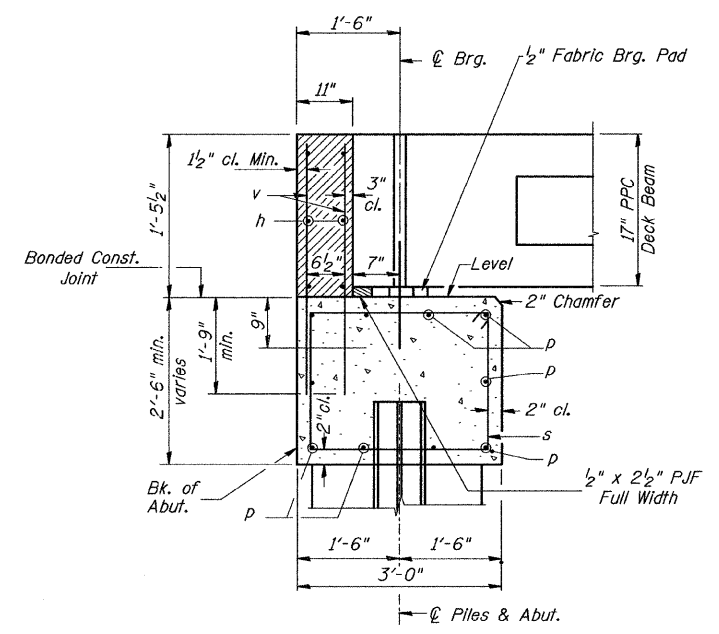
* Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

**RAIL POST SPACING AND
SUPERSTRUCTURE DETAILS
IROQUOIS COUNTY
SECTION 08-21119-00-BR
T.R. 212 OVER DRAINAGE DITCH**

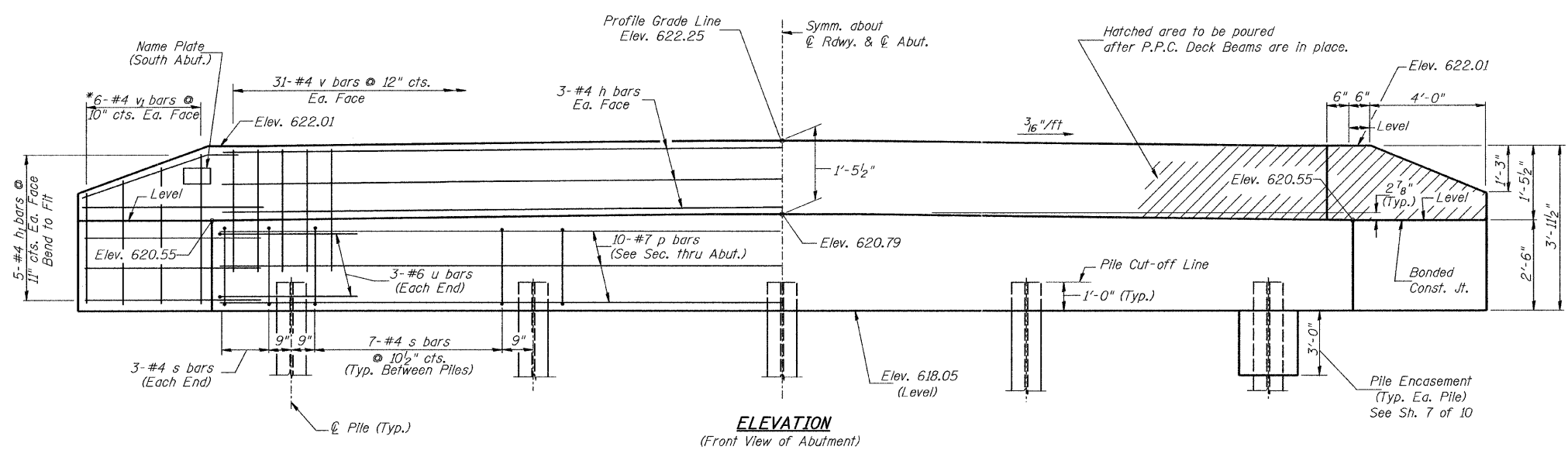
SHEET NO.	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 5	TR 212	08-21119-00-BR	IROQUOIS	24	11
10 SHEETS	S.N. 038-5040		CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BR05-0075(147)		



PLAN



SECTION THRU ABUT.



ELEVATION
(Front View of Abutment)

**TWO ABUTMENTS
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	30'-9"	—
h ₁	40	#4	6'-6"	—
p	20	#7	30'-9"	—
s	68	#4	10'-5"	□
u	12	#6	11'-7"	□
v	124	#4	3'-2"	—
v ₁	24	#4	6'-1"	—
Concrete Structures		CU YD	23.4	
Reinforcement Bars		POUND	2,720	
Structure Excavation		CU YD	65	
Name Plates		EACH	1	
Furnishing Steel Piles HP10x42		FOOT	216	
Driving Piles		FOOT	216	
Test Pile Steel HP10x42		EACH	1	
Concrete Encasement		CU YD	3.5	

① See Special Provisions

DESIGN STRESSES

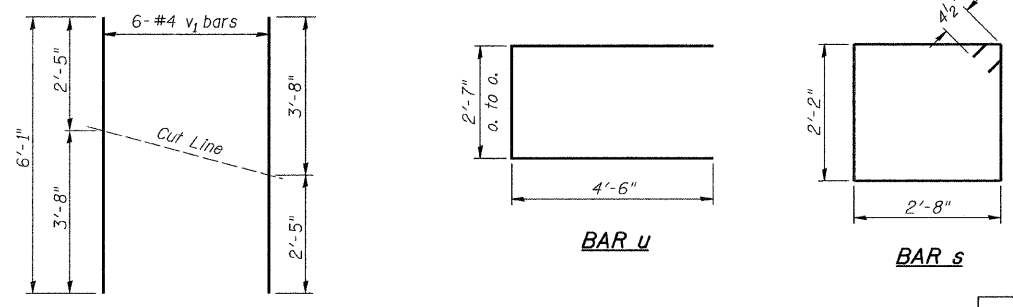
$f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.

PILE DATA

Type & Size: Steel HP10x42
Nominal Required Bearing: 195 kips
Factored Resistance Available: 105 kips
Est. Length: 24' Each Abutment
No. Req'd.: 10 (Includes 1 Test Pile at South Abut.)

NOTES

- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to ASTM A706 Grade 60.

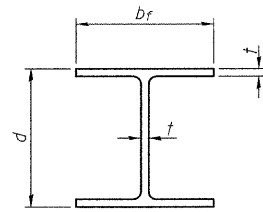


BAR CUTTING DIAGRAM

*Order v₁ bars full length. Cut as shown and use remainder of bars in opposite face.

**ABUTMENTS
IROQUOIS COUNTY
SECTION 08-21119-00-BR
T.R. 212 OVER DRAINAGE DITCH**

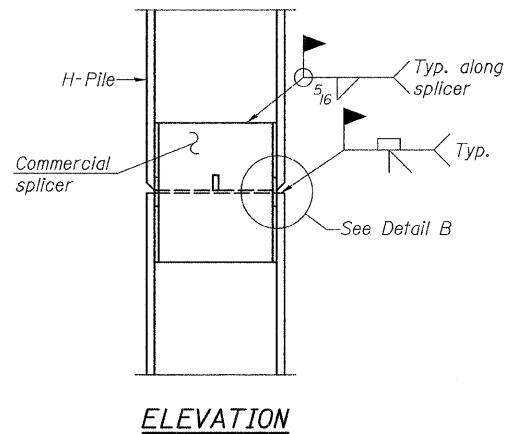
SHEET NO. 6 10 SHEETS	ROUTE NO. TR 212	SECTION 08-21119-00-BR	COUNTY IROQUOIS	TOTAL SHEETS 24	SHEET NO. 12
	S.N. 038-5040		CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0075(147)		



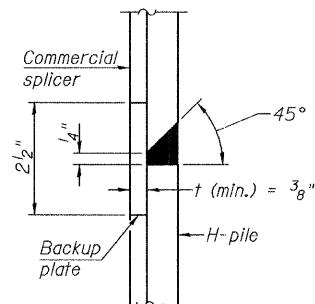
STEEL PILE TABLE

Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

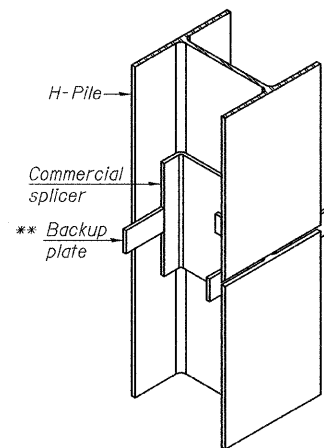
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

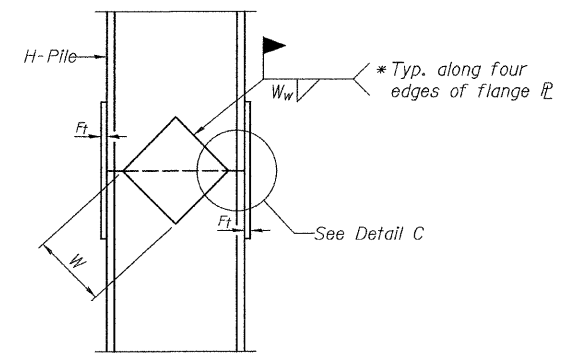


DETAIL "B"

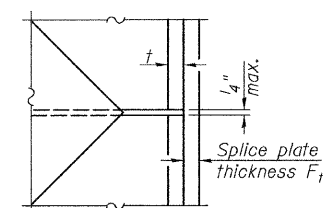


ISOMETRIC VIEW

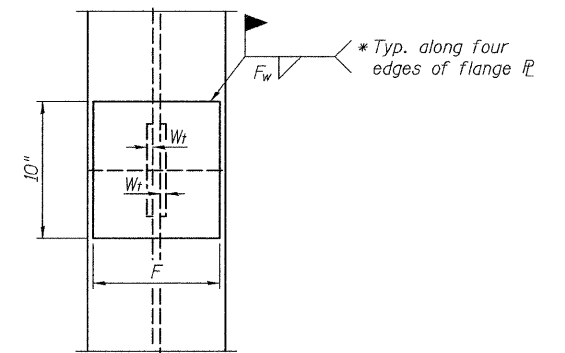
WELDED COMMERCIAL SPLICE



ELEVATION



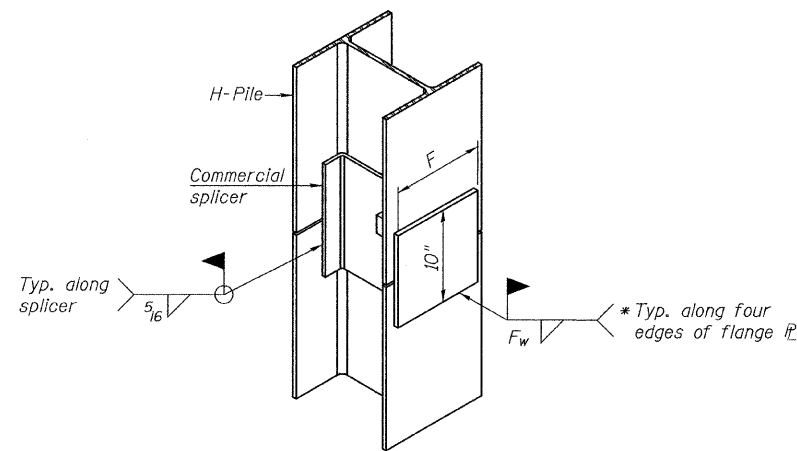
DETAIL C



END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

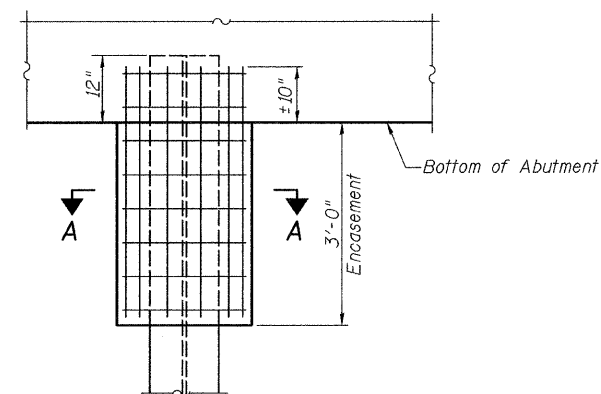
WELDED PLATE FIELD SPLICE



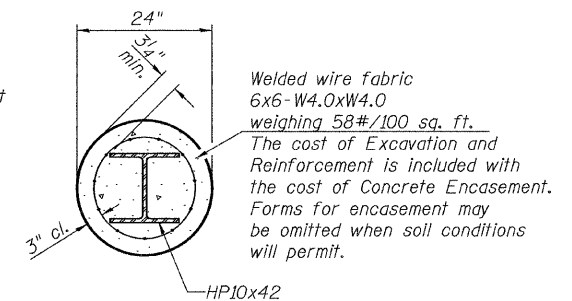
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.



ABUTMENT ELEVATION



SECTION A-A

PILE ENCASEMENT

PILE DETAILS
IROQUOIS COUNTY
SECTION 08-2119-00-BR
T.R. 212 OVER DRAINAGE DITCH

SHEET NO. 7 10 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 212	08-2119-00-BR	IROQUOIS	24	13
S.N. 038-5040			CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BROS-0075(147)		



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

BORING LOG

Sheet 1 of 3

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

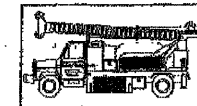
Client: Hutchison Engineering, Inc.
Project Name: Section 08-21119-00-BR
Project Site: TR-212 Over Drainage Ditch
Iroquois County, IL.

Boring No. B-1
Surface Elev. 621.00
Auger Depth 51' Rotary Depth NA
Start Date 06/10/11 Finish Date 06/10/11

Location: South abutment 7' left of station 19+78

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
621.00											Randy Safranski Diedrich D-120
620.00	Stiff Brown Sandy Clay (Fill)		1	SS	1.4	11	S	14			
619.00											
618.00	Stiff Brown Sandy Clay		2	SS	1.2	8	S	16			
617.00											
616.00	Very Stiff Brownish Gray Clay		3	SS	2.3	11	B	24			
615.00											
614.00	Hard Brownish Gray Clay		4	SS	3.1	17	B	22			
613.00											
612.00	Very Stiff Brownish Gray Clay		5	SS	4.6	19	B	21			
611.00											
610.00	Stiff Gray Clay		6	SS	3.6	21	S	22			
609.00											
608.00			7	SS	1.7	9	B	26			
607.00			8	SS	1.6	10	B	25			

Groundwater Data: Static water level after auger removal - 596.0 elevation.
Comments:



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

BORING LOG

Sheet 2 of 3

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

Client: Hutchison Engineering, Inc.
Project Name: Section 08-21119-00-BR
Project Site: TR-212 Over Drainage Ditch
Iroquois County, IL.

Boring No. B-1
Surface Elev. 621.00
Auger Depth 51' Rotary Depth NA
Start Date 06/10/11 Finish Date 06/10/11

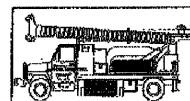
Location: South abutment 7' left of station 19+78

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
600.00											Randy Safranski Diedrich D-120
599.00	Stiff Gray Clay		9	SS	1.6	12	B	24			
598.00											
597.00	Very Stiff Gray Clay Till		10	SS	3.9	17	B	17			
596.00											
595.00	Hard Gray Clay Till		11	SS	4.6	26	S	12			
594.00											
593.00			12	SS	4.2	63	S	13			
592.00											
591.00			13	SS	5.6	48	B	12			
590.00											
589.00											
588.00											
587.00											
586.00											
585.00											
584.00											
583.00											
582.00											
581.00											
580.00											

Groundwater Data: Static water level after auger removal - 596.0 elevation.
Comments:

SOIL BORING LOGS
IROQUOIS COUNTY
SECTION 08-21119-00-BR
T.R. 212 OVER DRAINAGE DITCH

SHEET NO. 8	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 212	08-21119-00-BR	IROQUOIS	24	14
10 SHEETS	S.N. 038-5040		CONTRACT NO. 87501		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-0075(147)		



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

BORING LOG

Sheet 3 of 3

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

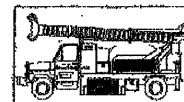
Client: Hutchison Engineering, Inc.
Project Name: Section 08-21119-00-BR
Project Site: TR-212 Over Drainage Ditch
Iroquois County, IL

Boring No. B-1
Surface Elev. 621.00
Auger Depth 51' Rotary Depth NA
Start Date 06/10/11 Finish Date 06/10/11

Location: South abutment 7' left of station 19+78

(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)			
579.00	Hard Gray Clay Till		43							Randy Safranski Diedrich D-120					
578.00			44												
577.00			45	14	SS	4.2	32	B	13						
576.00			46												
575.00			47												
574.00			48												
573.00			49												
572.00			50												
571.00			Dense Gray Fine Sand		51	15	SS	--	40			--	--		
570.00			Bottom of Boring		52										
569.00			53												
568.00			54												
567.00			55												
566.00			56												
565.00			57												
564.00			58												
563.00			59												
562.00			60												
561.00			61												
560.00			62												
559.00															

Groundwater Data: Static water level after auger removal - 596.0 elevation.
Comments:



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

BORING LOG

Sheet 1 of 3

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

Client: Hutchison Engineering, Inc.
Project Name: Section 08-21119-00-BR
Project Site: TR-212 Over Drainage Ditch
Iroquois County, IL

Boring No. B-2
Surface Elev. 620.80
Auger Depth 51' Rotary Depth NA
Start Date 06/10/11 Finish Date 06/10/11

Location: 7' Right of station 20+21

(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 (%)		
620.80	Stiff Brown Sandy Clay (Fill)		1							Randy Safranski Diedrich D-120	
619.80			2								
618.80	Stiff Brownish Gray Clay		3	1	SS	1.2	7	B	21		
617.80			4								
616.80			5	2	SS	1.4	10	B	19		
615.80			6								
614.80			7								
613.80			8	3	SS	1.8	11	B	22		
612.80			9								
611.80			10	4	SS	3.9	16	S	20		
610.80			11								
609.80			12								
608.80	13	5	SS	3.4	21	B	18				
607.80	14										
606.80	15	6	SS	4.4	19	B	20				
605.80	16										
604.80	17										
603.80	18	7	SS	1.7	11	B	21				
602.80	19										
601.80	20	8	SS	1.9	11	B	23				
600.80											

Groundwater Data: Static water level after auger removal - 601.0 elevation.
Comments:

SOIL BORING LOGS
IROQUOIS COUNTY
SECTION 08-21119-00-BR
T.R. 212 OVER DRAINAGE DITCH

SHEET NO. 9 10 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 212	08-21119-00-BR	IROQUOIS	24	15
	S.N. 038-5040		CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0075(147)		



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

BORING LOG

Sheet 2 of 3

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

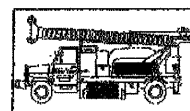
Client: Hutchison Engineering, Inc.
Project Name: Section 08-21119-00-BR
Project Site: TR-212 Over Drainage Ditch
Iroquois County, IL.

Boring No. B-2
Surface Elev. 620.80
Auger Depth 51' Rotary Depth NA
Start Date 06/10/11 Finish Date 06/10/11

Location: 7' Right of station 20+21

(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 (%)		
599.80											
598.80	Very Stiff Gray Clay		22							Randy Safranski Diedrich D-120	
597.80			23	9	SS	2.3	11	B	23		
596.80			24								
595.80	Hard Gray Clay Till With Silt Seams At 30' Depth		25								
594.80			26	10	SS	4.7	19	B	16		
593.80			27								
592.80			28								
591.80			29								
590.80			30								
589.80			31		11	SS	4.3	32	S	14	
588.80			32								
587.80			33								
586.80			34								
585.80		35									
584.80		36		12	SS	4.7	69	S	12		
583.80		37									
582.80		38									
581.80		39									
580.80		40									
579.80		41		13	SS	5.2	53	S	12		

Groundwater Data: Static water level after auger removal -601.0 elevation.
Comments:



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

BORING LOG

Sheet 3 of 3

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

Client: Hutchison Engineering, Inc.
Project Name: Section 08-21119-00-BR
Project Site: TR-212 Over Drainage Ditch
Iroquois County, IL.

Boring No. B-2
Surface Elev. 620.80
Auger Depth 51' Rotary Depth NA
Start Date 06/10/11 Finish Date 06/10/11

Location: 7' Right of station 20+21

(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)
578.80												
577.80	Hard Gray Clay Till		43							Randy Safranski Diedrich D-120		
576.80			44									
575.80			45									
574.80			46		14	SS	4.5	36	B		14	
573.80			47									
572.80		48										
571.80		49										
570.80		50										
569.80		51		15	SS	5.5	68	S	11			
568.80	Bottom of Boring		52									
567.80			53									
566.80			54									
565.80			55									
564.80			56									
563.80			57									
562.80			58									
561.80			59									
560.80			60									
559.80			61									
558.80		62										

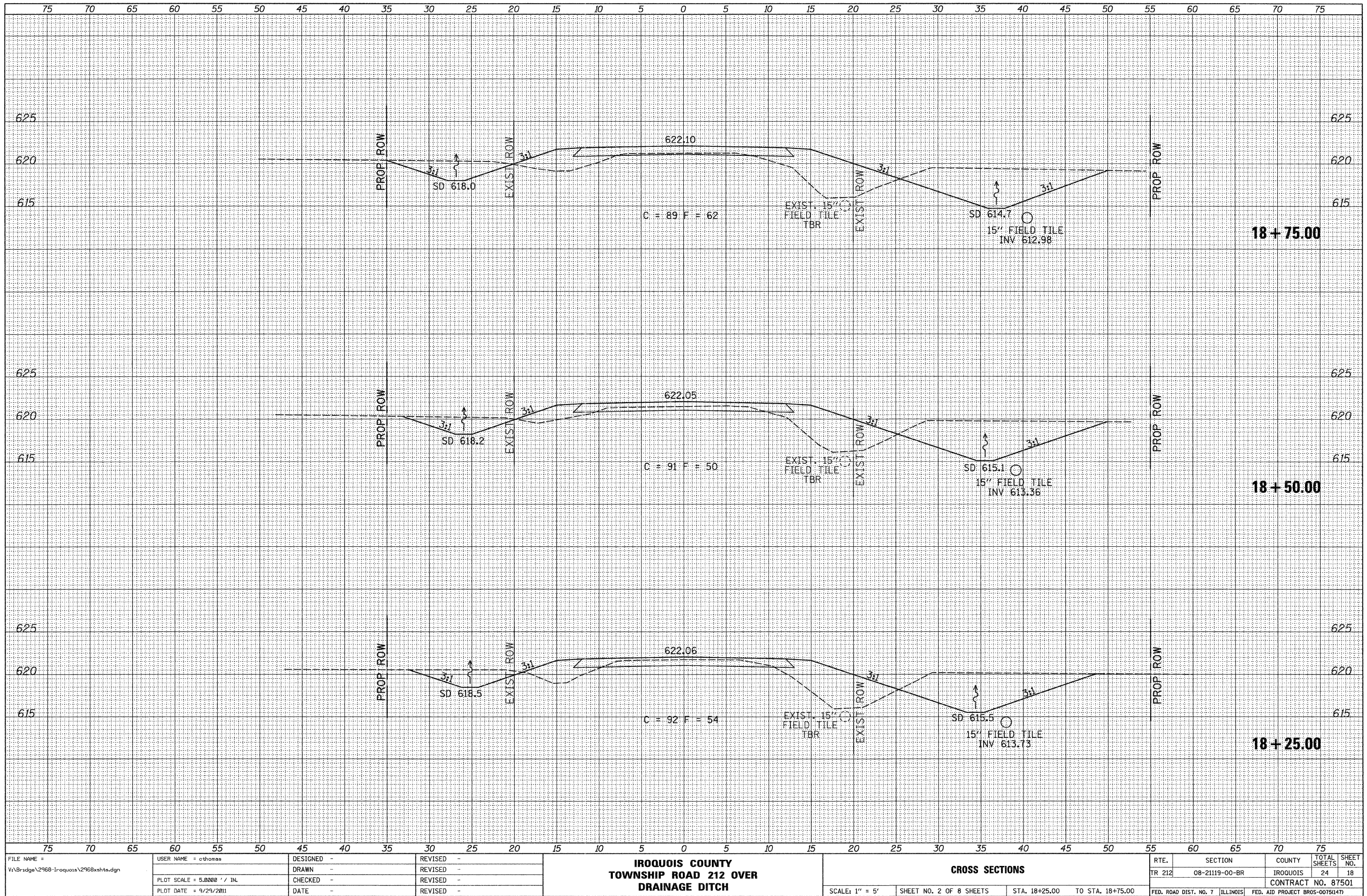
Groundwater Data: Static water level after auger removal -601.0 elevation.
Comments:

SOIL BORING LOGS
IROQUOIS COUNTY
SECTION 08-21119-00-BR
T.R. 212 OVER DRAINAGE DITCH

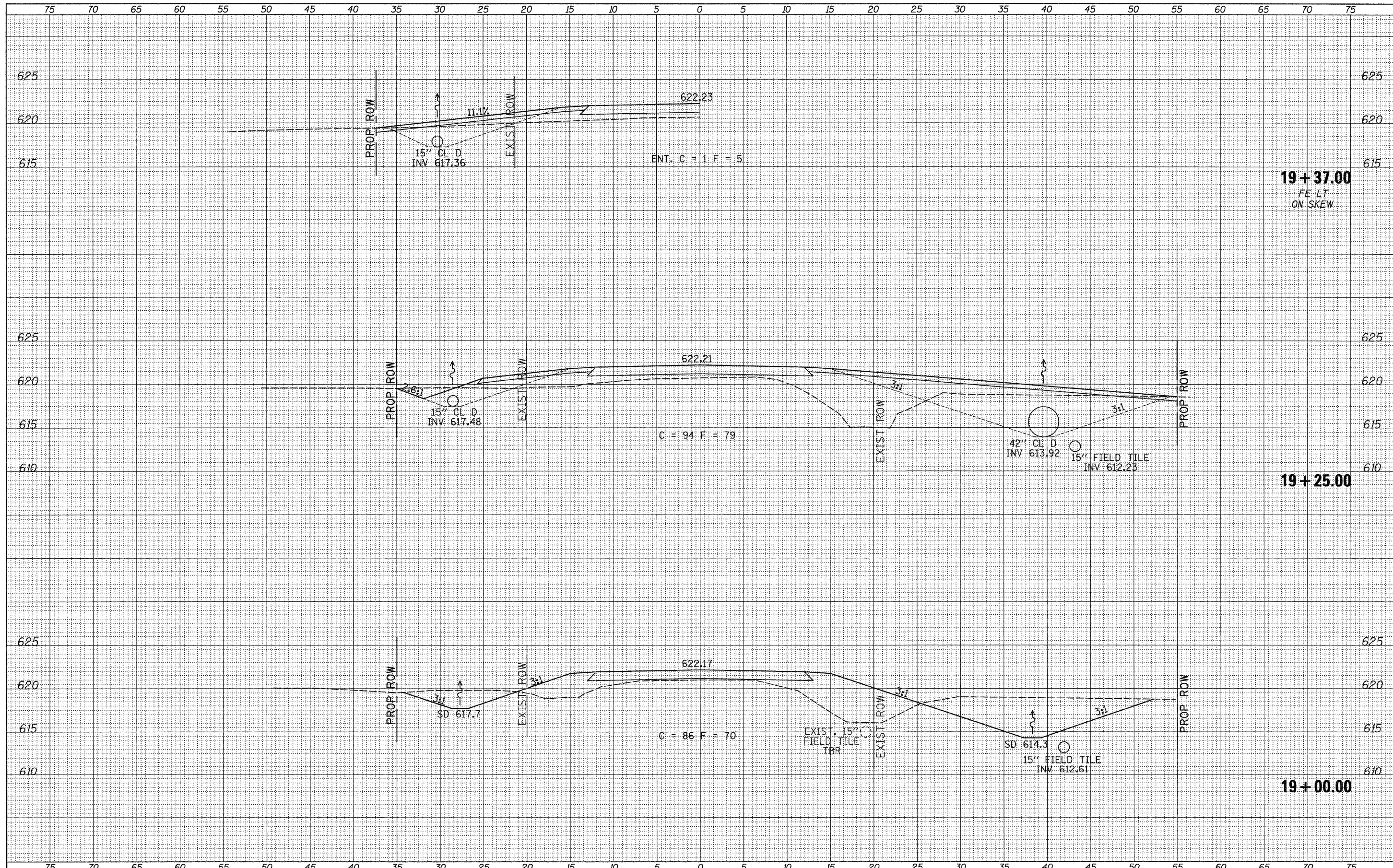
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	TR 212	08-21119-00-BR	IROQUOIS	24	16
	S.N. 038-5040		CONTRACT NO. 87501		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0075(147)			

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

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



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	PLOT SCALE = 5.0000' / IN.	DRAWN -	REVISED -		SCALE: 1" = 5'	SHEET NO. 2 OF 8 SHEETS	TRA. 212	08-21119-00-BR	IROQUOIS	24	18
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		DATE -	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-00750147						



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

DATE	
BY	
SURVEYED	
TEMPLATE	
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ORIGINAL SURVEY	
NOTE BOOK	
NO.	

19+37.00
FF LT
ON SKEW

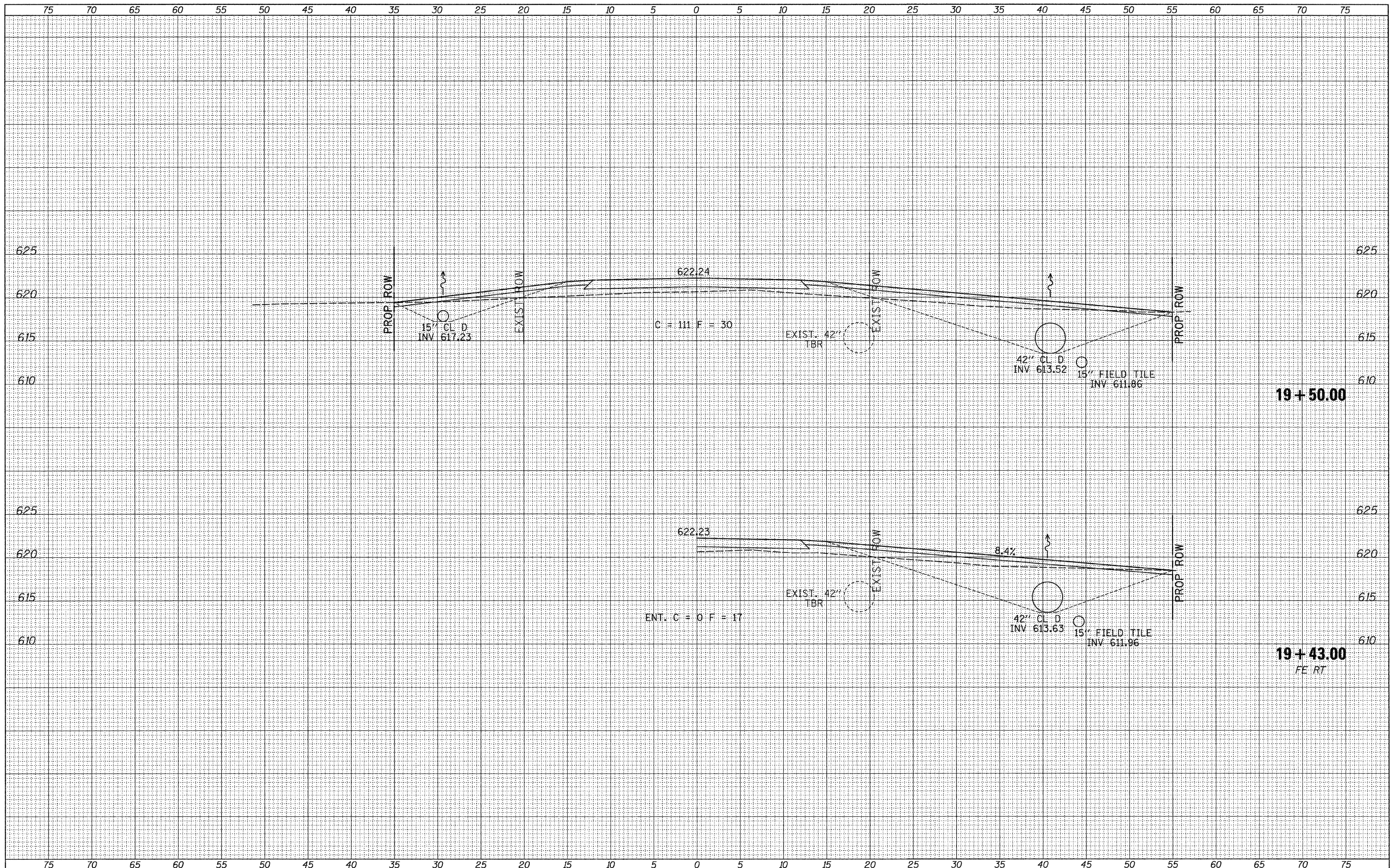
19+25.00

19+00.00

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		DRAWN -	REVISED -		TR 212	08-21119-00-BR	IROQUOIS	24	19				
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PLOT DATE = 9/29/2011		DATE -	REVISED -					FED. ROAD DIST. NO. 7			ILLINOIS FED. AID PROJECT BR05-0075(147)		

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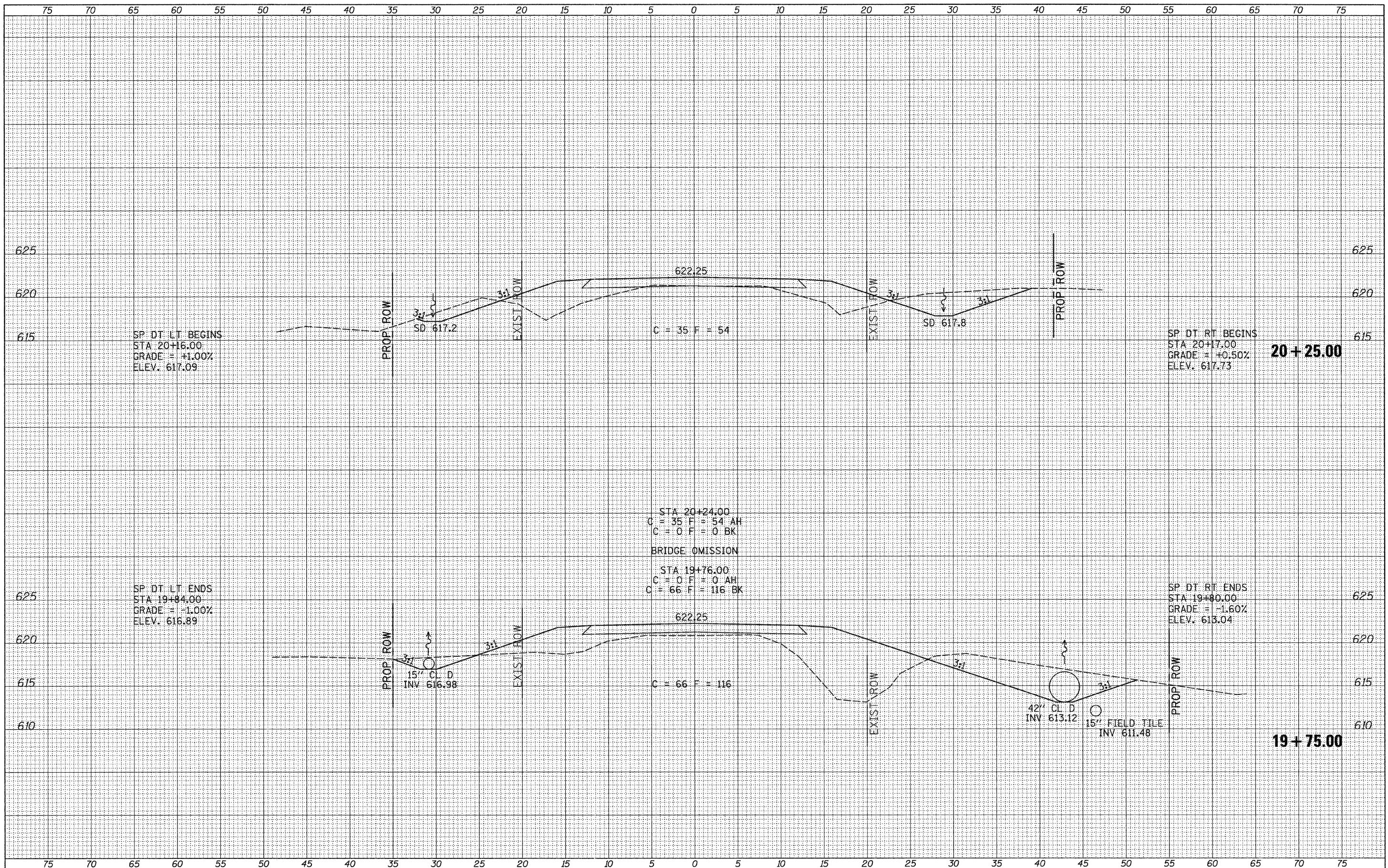
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NOTE BOOK NO.	PLOTTED TEMPLATE	
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		DRAWN -	REVISED -				TR 212	08-21119-00-BR	IROQUOIS	24	20	
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PLOT DATE = 9/29/2011		DATE -	REVISED -		FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT BROS-0075(147)			

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

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



SP DT LT BEGINS
 STA 20+16.00
 GRADE = +1.00%
 ELEV. 617.09

SP DT RT BEGINS
 STA 20+17.00
 GRADE = +0.50%
 ELEV. 617.73

SP DT LT ENDS
 STA 19+84.00
 GRADE = -1.00%
 ELEV. 616.89

SP DT RT ENDS
 STA 19+80.00
 GRADE = -1.60%
 ELEV. 613.04

STA 20+24.00
 C = 35 F = 54 AH
 C = 0 F = 0 BK

BRIDGE OMISSION

STA 19+76.00
 C = 0 F = 0 AH
 C = 66 F = 116 BK

15" CL D
 INV 616.98

42" CL D
 INV 613.12
 15" FIELD TILE
 INV 611.48

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DATE -	REVISED -

**IROQUOIS COUNTY
 TOWNSHIP ROAD 212 OVER
 DRAINAGE DITCH**

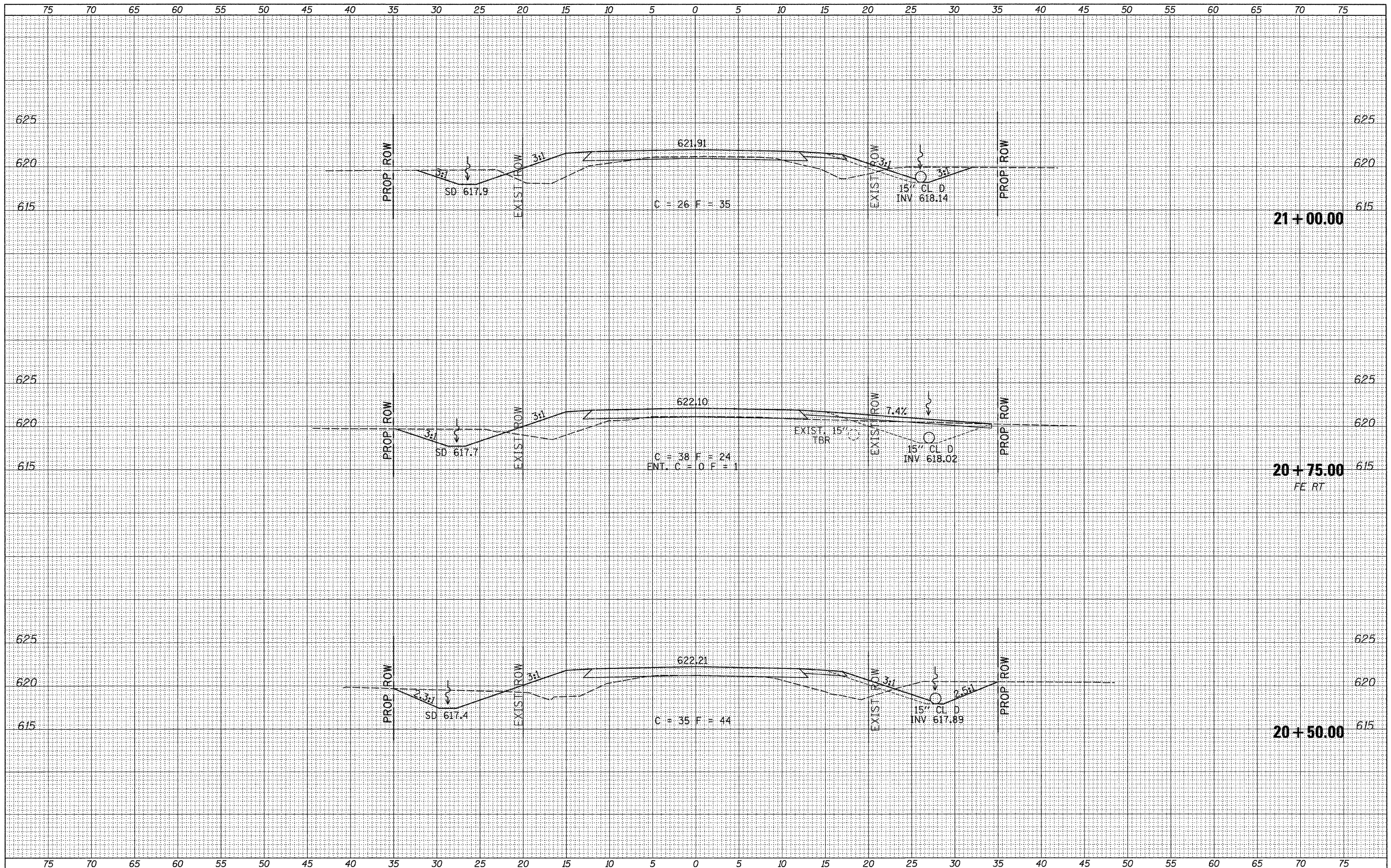
CROSS SECTIONS

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RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 212	08-21119-00-BR	IROQUOIS	24	21
CONTRACT NO. 87501			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-0075(147)	

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

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



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**IROQUOIS COUNTY
 TOWNSHIP ROAD 212 OVER
 DRAINAGE DITCH**

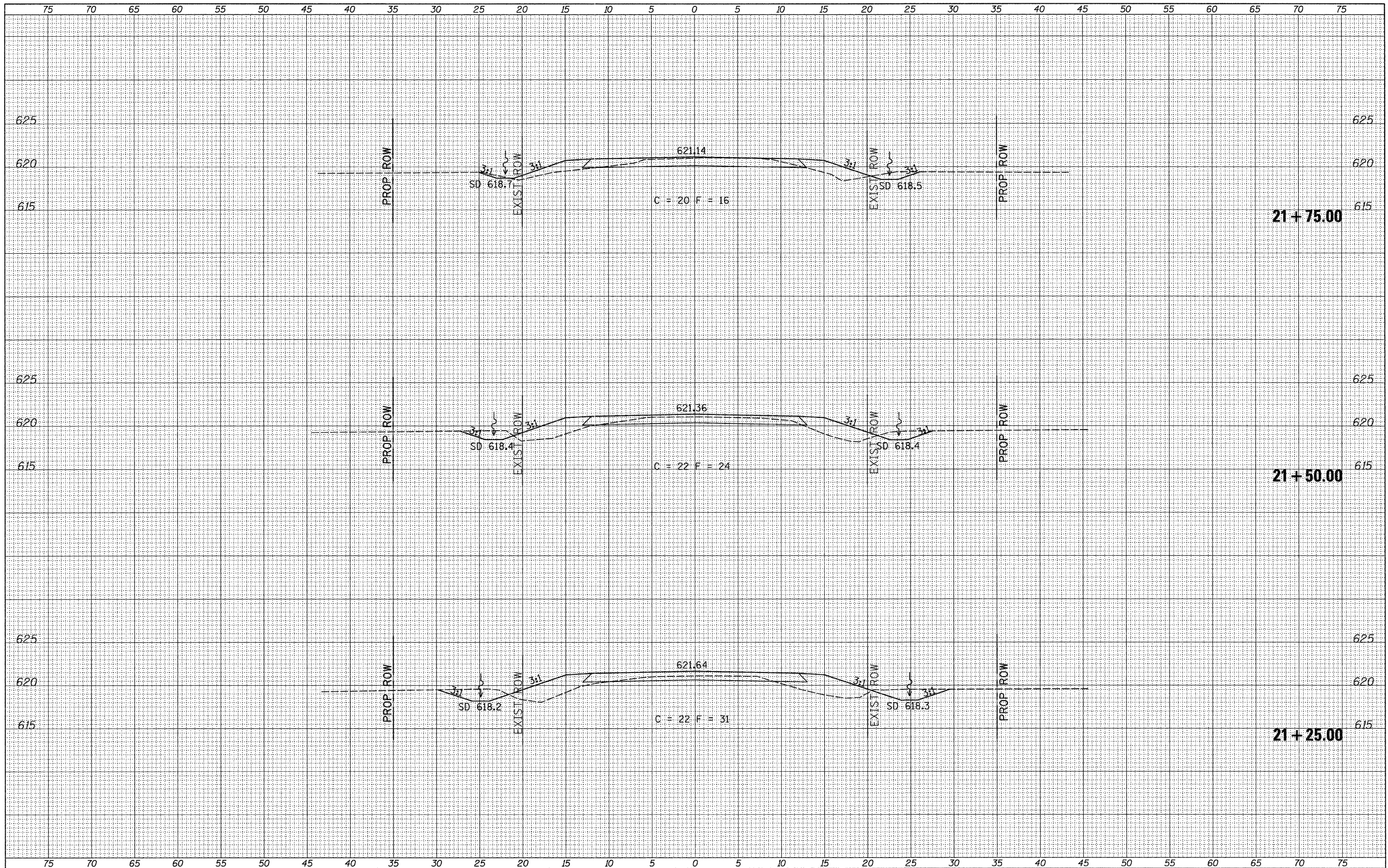
CROSS SECTIONS

SCALE: 1" = 5' SHEET NO. 6 OF 8 SHEETS STA. 20+50.00 TO STA. 21+00.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 212	08-21119-00-BR	IROQUOIS	24	22
CONTRACT NO. 87501			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-0075(147)	

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
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ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
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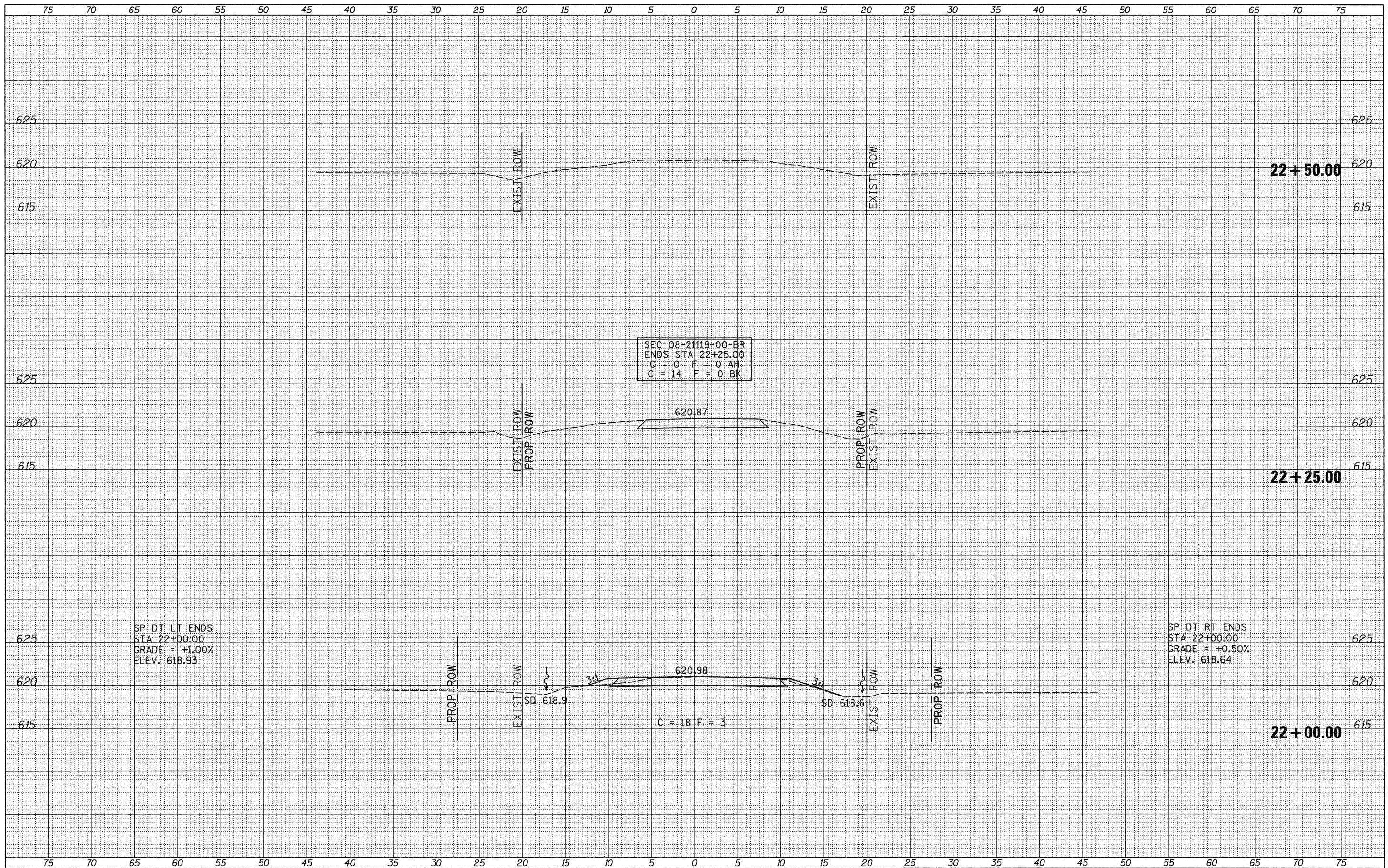
**IROQUOIS COUNTY
 TOWNSHIP ROAD 212 OVER
 DRAINAGE DITCH**

CROSS SECTIONS
 SCALE: 1" = 5'
 SHEET NO. 7 OF 8 SHEETS
 STA. 21+25.00 TO STA. 21+75.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 212	08-21119-00-BR	IROQUOIS	24	23
CONTRACT NO. 87501			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0075047	

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

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED	
PLOTTED	
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AREAS CHECKED	



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		DATE -	REVISED -									