

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
566	09-00119-00-BR	LOGAN	17	1
FED. ROAD DIST. NO. 7		ILLINOIS	CONTRACT NO. 93525	

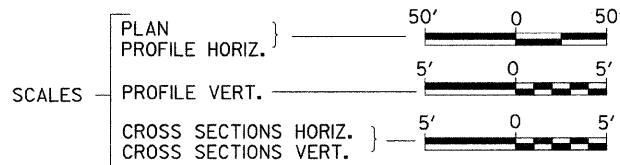
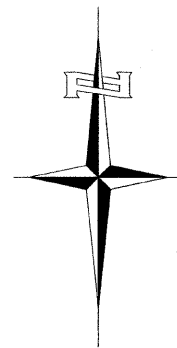
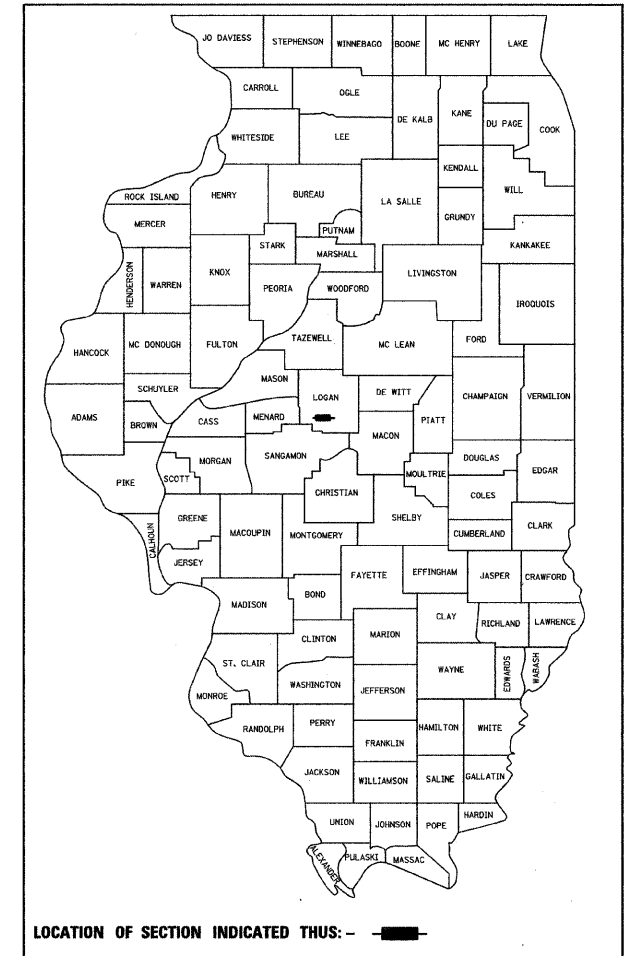
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
LOGAN COUNTY
SECTION 09-00119-00-BR
F.A.S. 566 (CH 10) OVER
LAKE FORK CREEK TRIBUTARY
PROJECT NO. BRS-0566(107)
JOB NUMBER C-96-205-10

INDEX OF SHEETS

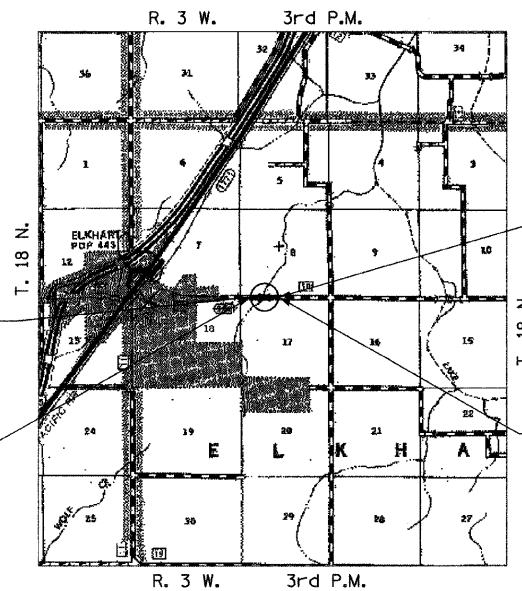
SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, DETAILS, TYPICAL SECTIONS
3.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL PLAN
5.	EROSION CONTROL PLAN
6.	PLAN AND PROFILE
7.-10.	STRUCTURE PLANS
11.-17.	CROSS SECTIONS

REQUIRED HIGHWAY STANDARDS

- 000001-05
- 280001-05
- 515001-03
- 630301-05
- 631032-05
- 635006-03
- 701901-01
- BLR 21-8



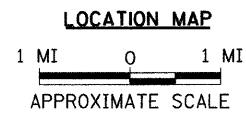
PROPOSED STRUCTURE NO. 054-3922
 TRIPLE 11'x5' CAST-IN-PLACE REINFORCED
 CONCRETE BOX CULVERT, 39'-6" O. TO O.
 HEADWALLS, 15° SKEW LT AH



SECTION 09-00119-00-BR
 ENDS
 STATION 71+00.00

EXISTING STRUCTURE 054-3903
 TRIPLE 8'x3.5' REINFORCED CONCRETE
 BOX CULVERT, 31'-3" O. TO O. HEADWALLS,
 NO SKEW (TO BE REMOVED)

SECTION 09-00119-00-BR
 BEGINS
 STATION 66+50.00



NET LENGTH OF PROJECT = 450.00 FEET = 0.085 MILES
 DESIGN CLASSIFICATION: MAJOR-COLLECTOR (NON-URBAN)
 DESIGN ADT = 1,450 (2030)
 DESIGN SPEED = 50 MPH

UTILITY COMPANIES

MENARD ELECTRIC COOPERATIVE
 PETERSBURG, ILLINOIS

VERIZON NORTH
 JACKSONVILLE, ILLINOIS

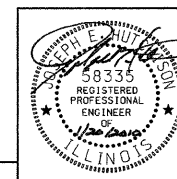
J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

CONTRACT NO. 93525

Hutchison Engineering, Inc.
 JACKSONVILLE ILLINOIS

2010

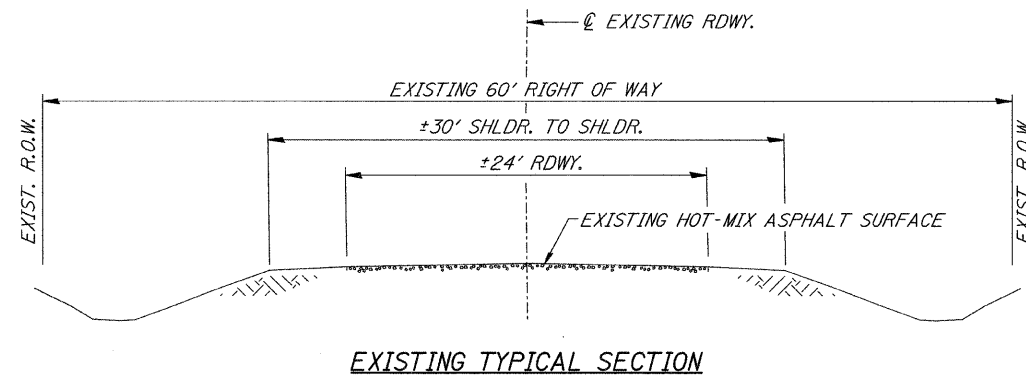
JOB#2755



License Expires 11/30/2011
 SIGNATURE

ENGINEERS SEAL

APPROVED	<u>Jan 20</u>	2010
	<i>[Signature]</i>	
	LOGAN COUNTY ENGINEER	
PASSED	<u>FEBRUARY 4</u>	2010
	<i>[Signature]</i>	
	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS	
PASSED	<u>February 2</u>	2010
	<i>[Signature]</i>	
	DISTRICT SIX ENGINEER OF CONSTRUCTION	
Released For Bid Based on Limited Review	<u>FEBRUARY 4</u>	2010
	<i>[Signature]</i>	
	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER	
	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	



EXISTING TYPICAL SECTION

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE	BINDER	SURFACE (MIX "C")
AC/PG	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4% @ N50	4% @ N50
MIX COMPOSITION	IL-19.0	IL-12.5 OR IL-9.5

If RAP option is selected, the asphalt cement grade may need to be adjusted. This will be determined by the Engineer.

**STRUCTURAL DESIGN INFORMATION
COUNTY HIGHWAY 10**

ROAD CLASSIFICATION: CLASS III 73,280 lb./20 YEAR DESIGN
 STRUCTURAL DESIGN TRAFFIC:
 PV = 924 SU = 73 MU = 53
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
 P = 88% S = 7% M = 5%
 MINIMUM SUBGRADE SUPPORT RATING: GRANULAR
 FLEXIBLE PAVEMENT DESIGN: MINIMUM TF = 0.230
 ASPHALT PAVEMENT THICKNESS: 5 1/4"
 AGGREGATE BASE COURSE, TYPE A: 8"

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.

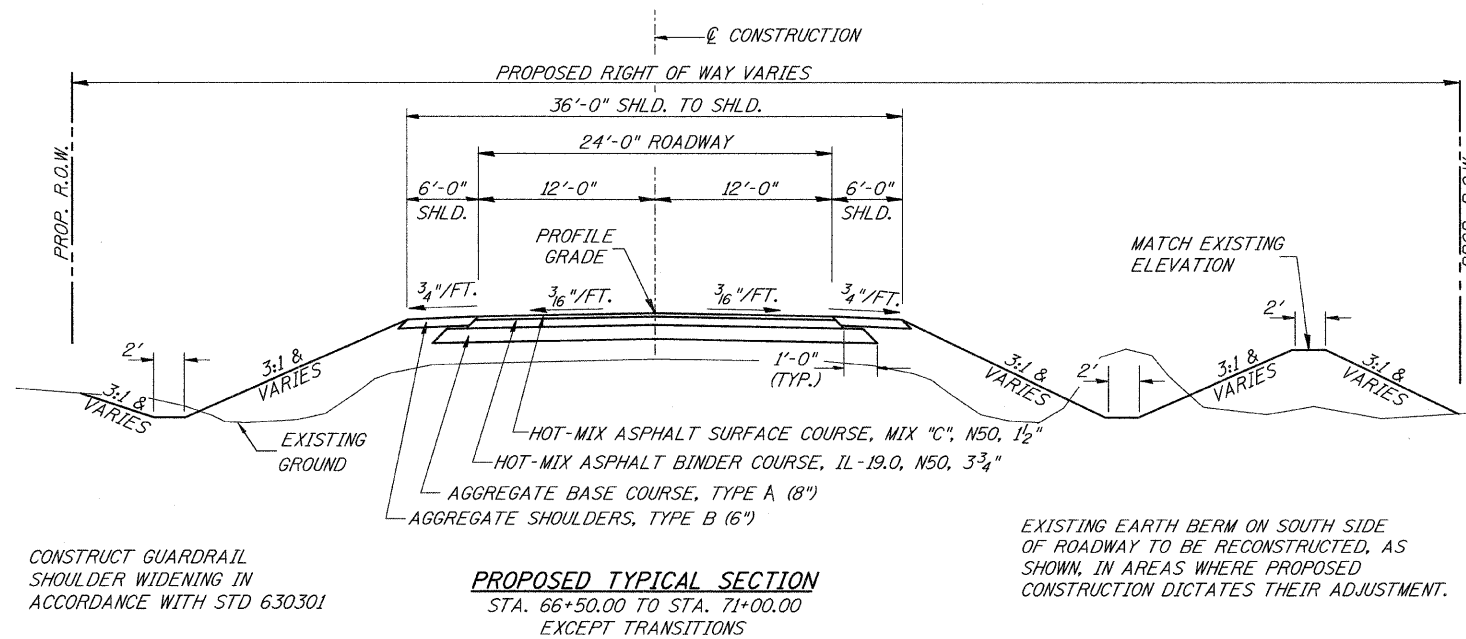
ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION

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.

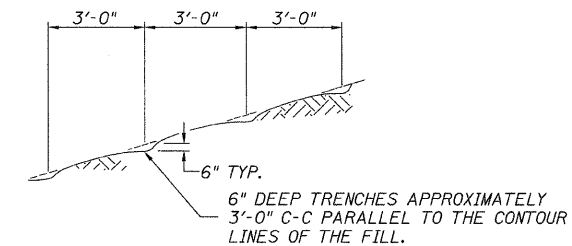
ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.



CONSTRUCT GUARDRAIL SHOULDER WIDENING IN ACCORDANCE WITH STD 630301

PROPOSED TYPICAL SECTION
STA. 66+50.00 TO STA. 71+00.00 EXCEPT TRANSITIONS

EXISTING EARTH BERM ON SOUTH SIDE OF ROADWAY TO BE RECONSTRUCTED, AS SHOWN, IN AREAS WHERE PROPOSED CONSTRUCTION DICTATES THEIR ADJUSTMENT.



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

FILE NAME =	USER NAME = cthomas	DESIGNED -	REVISED -	LOGAN COUNTY COUNTY HIGHWAY 10 OVER LAKE FORK CREEK TRIBUTARY	GENERAL NOTES, DETAILS, TYPICAL SECTIONS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
V:\Bridge\2755-Logan\2755t001.dgn		DRAWN -	REVISED -			566	09-00119-00-BR	LOGAN	17	2	
		CHECKED -	REVISED -			CONTRACT NO. 93525					
		DATE -	REVISED -			FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BRS-0566(107)					
				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 66+50.00	TO STA. 71+00.00				

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	740
① 28000305	TEMPORARY DITCH CHECKS	FOOT	40
28000400	PERIMETER EROSION BARRIER	FOOT	215
① 28101700	RIPRAP, SPECIAL	TON	200
① 28200200	FILTER FABRIC	SQ YD	250
35100100	AGGREGATE BASE COURSE, TYPE A	TON	602
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	670
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	259
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	101
48101200	AGGREGATE SHOULDERS, TYPE B	TON	177
① 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
① 50800105	REINFORCEMENT BARS	POUND	25,250
△ 50901050	STEEL RAILING, TYPE SM	FOOT	73
51500100	NAME PLATES	EACH	1
54003000	CONCRETE BOX CULVERTS	CU YD	107.7
△ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
△ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
① 63200310	GUARDRAIL REMOVAL	FOOT	433
67100100	MOBILIZATION	L SUM	1
① 70103700	TRAFFIC CONTROL COMPLETE	L SUM	1
① 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
① XX004633	FIELD TILE ADJUSTMENT	EACH	4

① SEE SPECIAL PROVISIONS △ SPECIALTY ITEMS CONSTRUCTION CODE TYPE: X028-2A

NOTE: SEEDING BY OTHERS.
PAVEMENT MARKING BY OTHERS.

EARTHWORK SUMMARY

STATION TO STATION	EARTH EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD	CU YD	CU YD
RDWY 66+50.00 - 68+48.38	266	168	32
FILL OVER CULVERT SHALL BE AGGREGATE BASE COURSE			
RDWY 68+84.62 - 71+00.00	474	275	81
TOTAL	740	443	113
USE	740	-	115

(© 25% SHRINKAGE)

AGGREGATE SHOULDERS, TYPE B

STATION TO STATION	SIDE	WIDTH	LENGTH	TON
66+50.00 - 67+00.00	LEFT	4.43' AVG.	50.00'	8
66+50.00 - 67+00.00	RIGHT	4.53' AVG.	50.00'	8
67+00.00 - 70+50.00	LEFT	6.00'	350.00'	74
67+00.00 - 70+50.00	RIGHT	6.00'	350.00'	74
70+50.00 - 71+00.00	LEFT	3.36' AVG.	50.00'	6
70+50.00 - 71+00.00	RIGHT	4.21' AVG.	50.00'	7
TOTAL				177

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
67+25 - 68+00	RIGHT	75
68+85 - 70+25	RIGHT	140
TOTAL		215

PAVEMENT SCHEDULE

STATION TO STATION	WIDTH	LENGTH	AGGREGATE BASE COURSE, TYPE A	PRIME COAT GALLON 0.50 GAL/SQ YD	HOT-MIX ASPHALT BINDER CSE TON 112#/SQ YD/IN	HOT-MIX ASPHALT SURF CSE TON 112#/SQ YD/IN
66+50.00 - 67+00.00	27.34' AVG.	50.00'	64			
67+00.00 - 68+48.38	27.54'	148.38'	192			
68+48.38 - 68+84.62	36.17'	36.24'	68			
68+84.62 - 70+50.00	27.54'	165.38'	214			
70+50.00 - 71+00.00	27.48' AVG.	50.00'	64			
66+50.00 - 67+00.00	26.67' AVG.	50.00'		74		
67+00.00 - 70+50.00	26.87'	350.00'		522		
70+50.00 - 71+00.00	26.81' AVG.	50.00'		74		
66+50.00 - 67+00.00	24.36' AVG.	50.00'			29	
67+00.00 - 70+50.00	24.56'	350.00'			201	
70+50.00 - 71+00.00	24.50' AVG.	50.00'			29	
66+50.00 - 67+00.00	23.93' AVG.	50.00'				11
67+00.00 - 70+50.00	24.13'	350.00'				79
70+50.00 - 71+00.00	24.06' AVG.	50.00'				11
TOTAL			602	670	259	101

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

SIDE	STATION TO STATION	EACH
RIGHT	67+49.60 - 67+99.60	1
LEFT	67+59.65 - 68+09.65	1
RIGHT	69+23.35 - 69+73.35	1
LEFT	69+33.40 - 69+83.40	1
TOTAL		4

TRAFFIC BARRIER TERMINAL, TYPE 6A

SIDE	STATION TO STATION	EACH
RIGHT	67+99.60 - 68+43.35	1
LEFT	68+09.65 - 68+53.40	1
RIGHT	68+79.60 - 69+23.35	1
LEFT	68+89.65 - 69+33.40	1
TOTAL		4

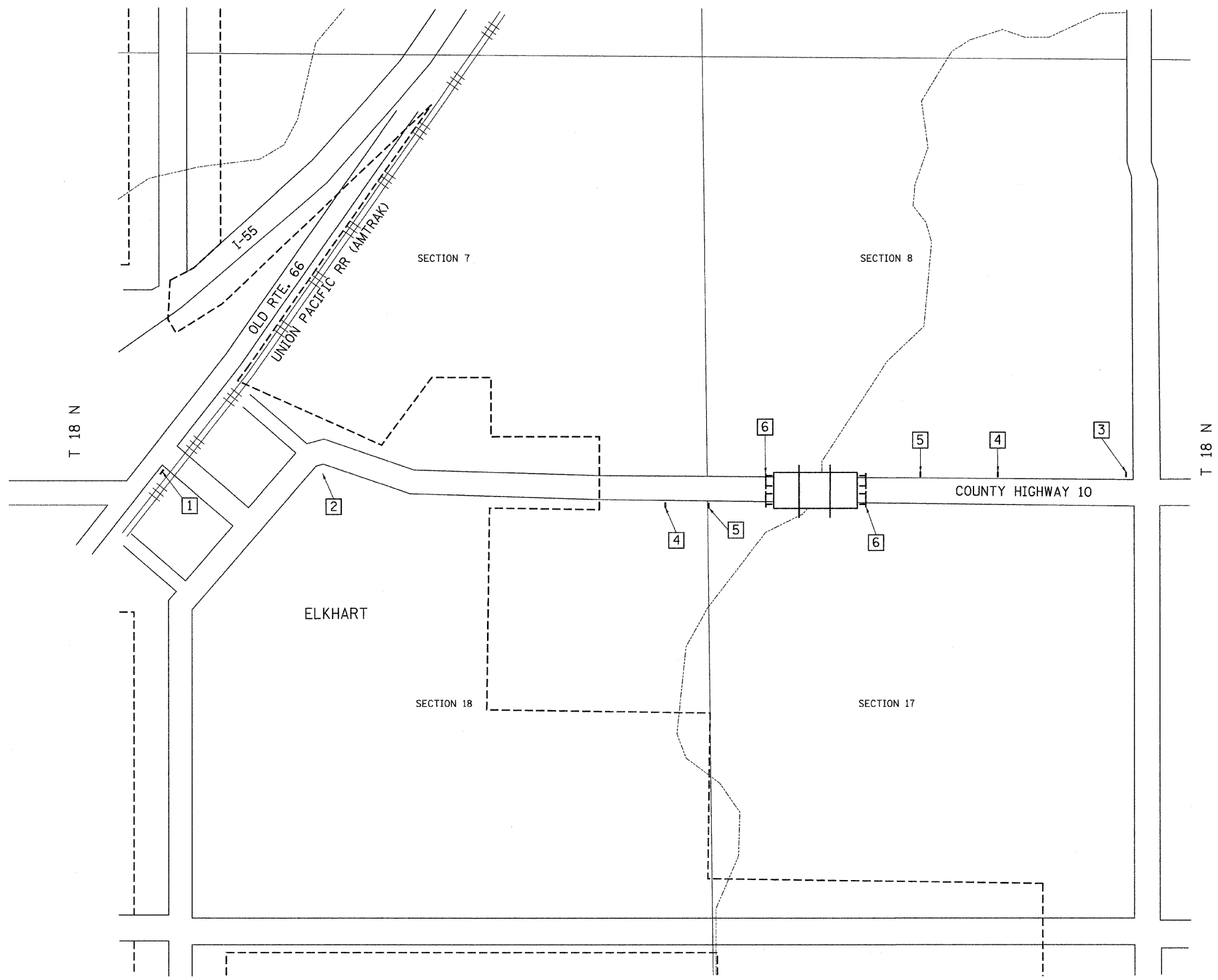
TEMPORARY DITCH CHECKS

STATION	SIDE	FOOT
68+35	RIGHT	10
68+48	LEFT	10
68+85	RIGHT	10
68+98	LEFT	10
TOTAL		40

GUARDRAIL REMOVAL

STATION TO STATION	SIDE	FOOT
67+32 - 69+48	RIGHT	216
67+82 - 69+99	LEFT	217
TOTAL		433

R 3 W, 3rd PM



- 1

ROAD CLOSED
1 1/4 MILE AHEAD
LOCAL TRAFFIC ONLY
R11-3

ROAD CLOSED
1 1/4 MILE AHEAD
LOCAL TRAFFIC ONLY
R11-3
- 2

ROAD CLOSED
1 MILE AHEAD
LOCAL TRAFFIC ONLY
R11-3

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

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

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

ROAD CLOSED
AHEAD
W20-3

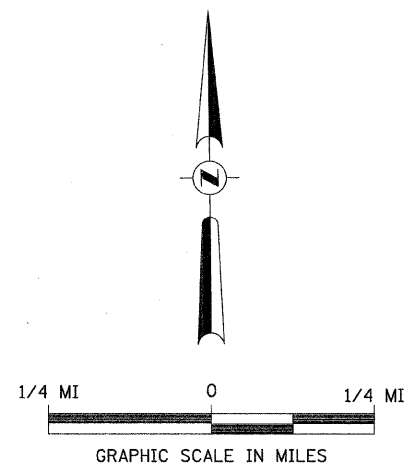
ROAD CLOSED
AHEAD
W20-3
- 5

ROAD CLOSED
500 FT
W20-3

ROAD CLOSED
500 FT
W20-3
- 6

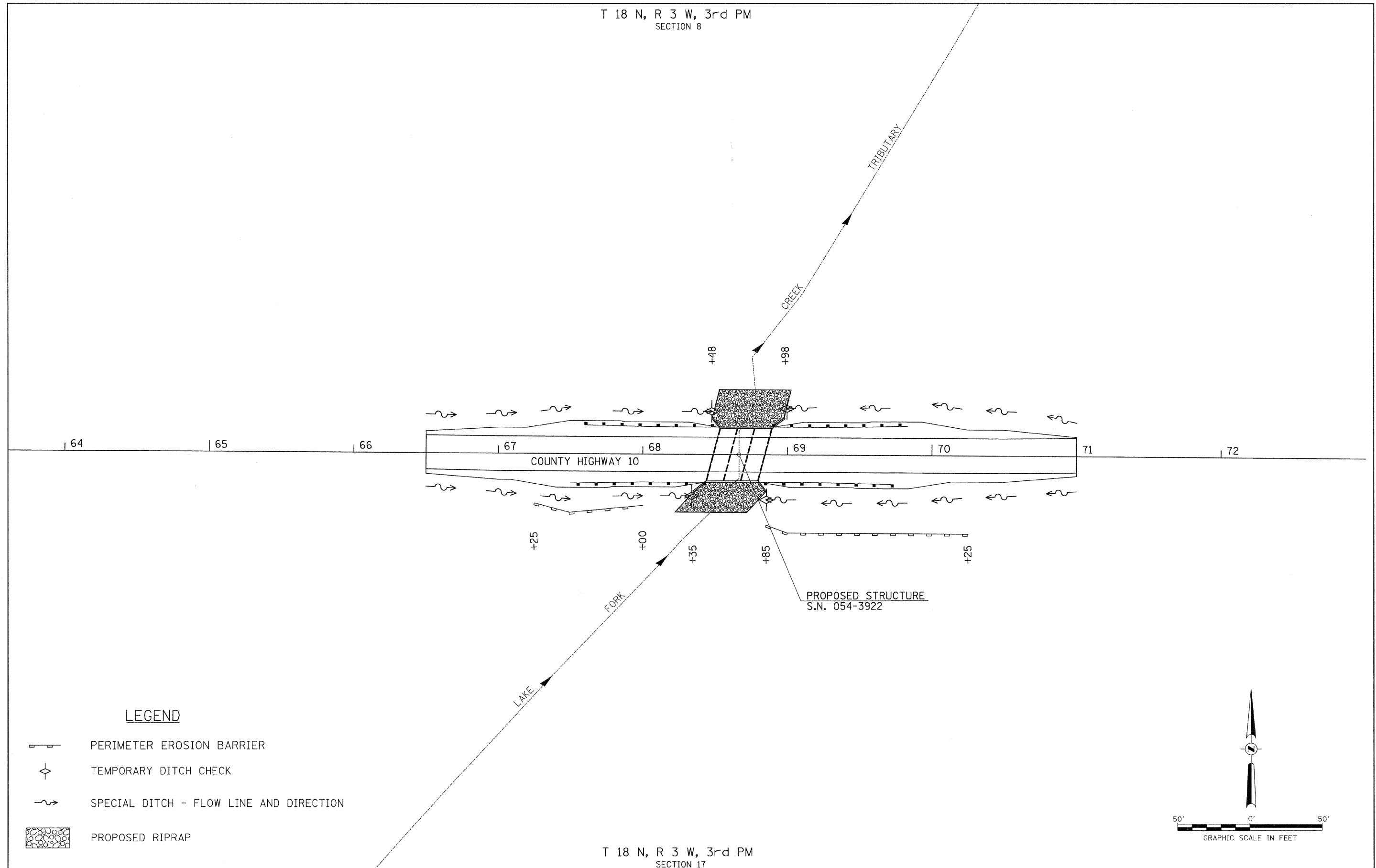
TYPE III BARRICADES

SEE STANDARD BLR 21
AND SPECIAL PROVISIONS







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PLOT SCALE = 1:8000' / IN.		CHECKED -	REVISED -	SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 66+50.00 TO STA. 71+00.00		CONTRACT NO. 93525		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0566107		
PLOT DATE = 1/19/2010		DATE -	REVISED -							

T 18 N, R 3 W, 3rd PM
SECTION 8

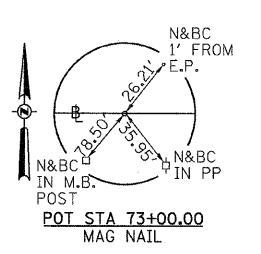
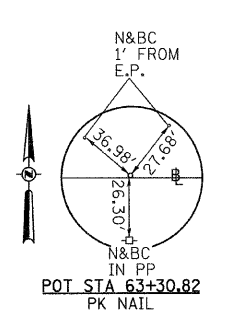


LEGEND

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

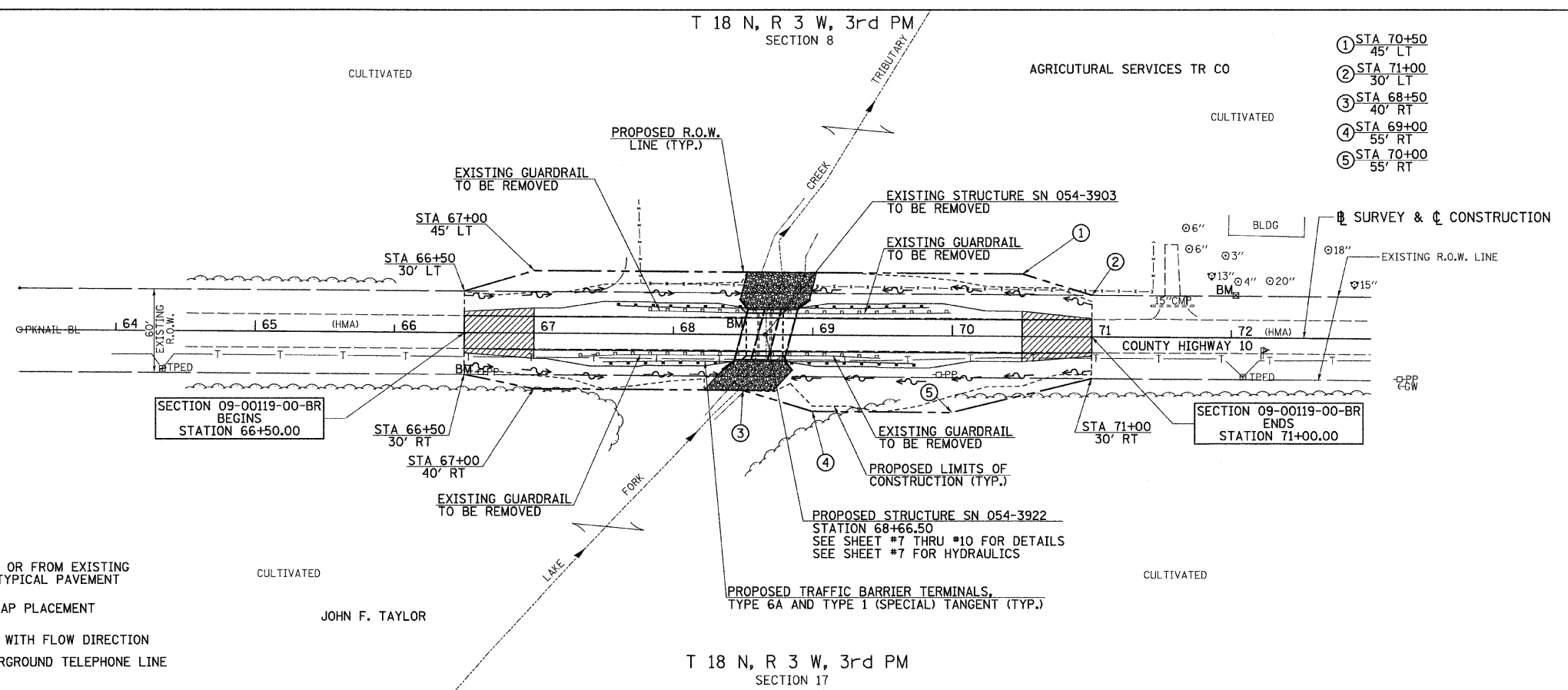
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SECTION 17

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		DRAWN -	REVISED -	COUNTY HIGHWAY 10 OVER	SCALE: 1" = 30'-0" SHEET NO. 1 OF 1 SHEETS STA. 66+50.00 TO STA. 71+00.00	CONTRACT NO. 93525		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0566(107)		
		PLOT SCALE = 30.0000' / IN.	REVISED -	LAKE FORK CREEK TRIBUTARY						
		PLOT DATE = 1/19/2010	REVISED -							

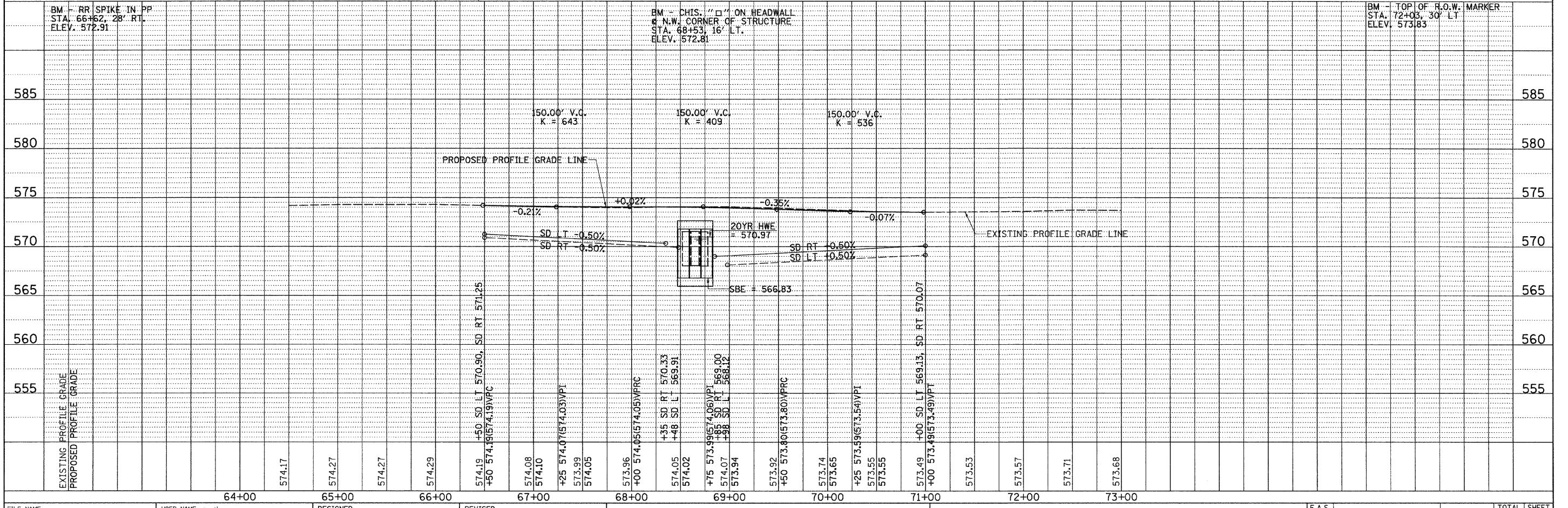
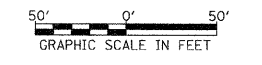


DATE	
BY	
REVIEWED	
ALIGNED	
CHECKED	
PAID FILE NAME	
PLAN	
NOTE BOOK	
NO.	

DATE	
BY	
REVIEWED	
GRADES CHECKED	
BM NOTED	
STRUCTURE NOTATIONS CHECKED	
PROFILE	
NOTE BOOK	
NO.	



- LEGEND**
- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
 - PROPOSED RIPRAP PLACEMENT
 - SPECIAL DITCH WITH FLOW DIRECTION
 - EXISTING UNDERGROUND TELEPHONE LINE



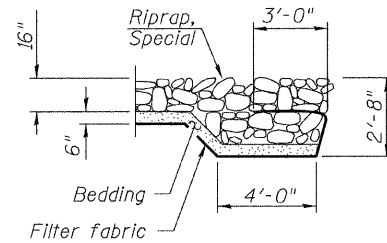
FILE NAME =	USER NAME = cthomas	DESIGNED -	REVISED -	LOGAN COUNTY COUNTY HIGHWAY 10 OVER LAKE FORK CREEK TRIBUTARY	PLAN AND PROFILE	F.A.S. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
V:\Bridges\2755-Logan\2755p001.dgn		DRAWN -	REVISED -			566	09-00119-00-BR	LOGAN	17	6	
		CHECKED -	REVISED -			CONTRACT NO. 090525					
		DATE -	REVISED -			SCALE: 1"=50'	SHEET NO. 1 OF 1 SHEETS	STA. 66+50.00 TO STA. 71+00.00	FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-0566(07)	

B.M.: RR Spike in PP Sta. 66+62, 28' Rt. Elev. 572.91
 B.M.: Top of R.O.W. Marker Sta. 72+03, 30' Lt. Elev. 573.83

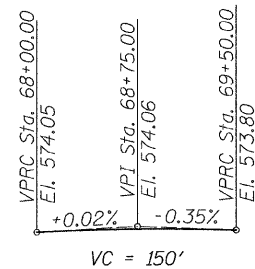
Existing Structure:
 Triple 8'x3.5' reinforced concrete box culvert.
 The structure is 31'-3" out to out, and is not skewed.
 Str. No. 054-3903

Salvage: None

Road to be closed to traffic during construction.



SECTION A-A

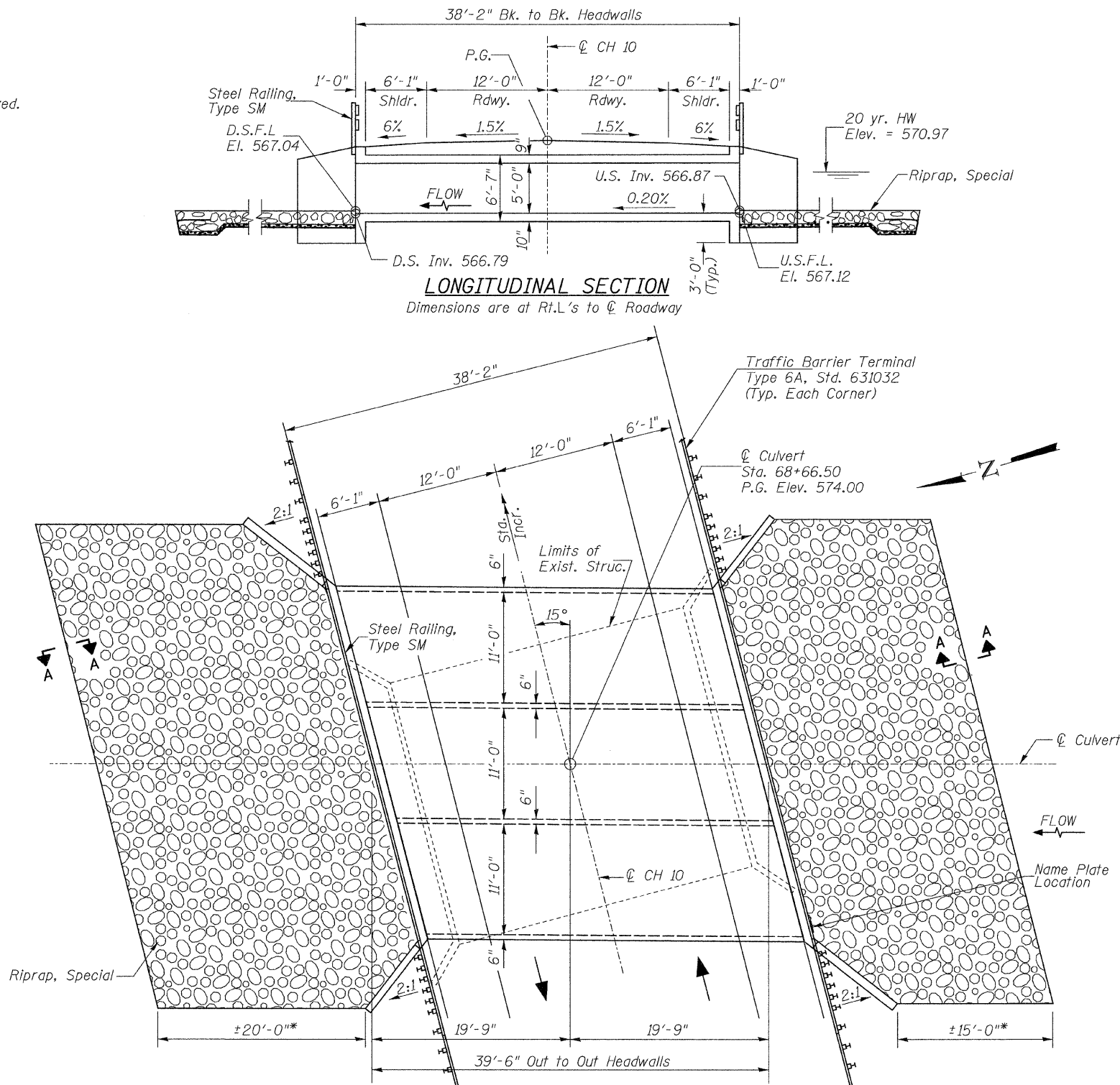


PROPOSED PROFILE GRADE

LAKE FORK CREEK TRIBUTARY
 BUILT 20 BY
 LOGAN COUNTY
 SEC. 09-00119-00-BR
 C.H. 10 STATION 68+66.50
 F.A. PROJ. BRS-0566(107)
 STR. NO. 054-3922 LOADING HS20-44

NAME PLATE

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



LONGITUDINAL SECTION

Dimensions are at Rt.L.'s to ϕ Roadway

PLAN

DESIGN SPECIFICATIONS

2002 AASHTO & Interims

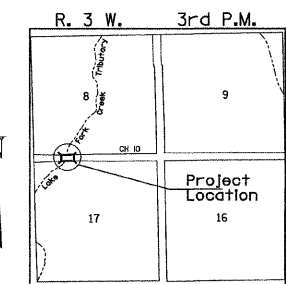
DESIGN STRESSES

FIELD UNITS

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

LOADING HS20-44

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



LOCATION SKETCH

GENERAL NOTES

Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60.
 See Special Provisions for Soil Boring Logs.
 For backfilling and embankment see Standard Specifications.
 All construction joints shall be bonded.
 Exposed concrete edges shall have a 3/4" chamfer unless otherwise noted.
 Precast culvert option will not be allowed.
 Layout of stone riprap 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.
 All excavation / backfilling required for construction of the culvert in accordance with the Standard Specifications shall be included in the cost of Concrete Box Culverts.
 Precast culvert option will not be allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	CU YD	107.7
① Reinforcement Bars	POUND	25,250
① Removal of Existing Structures	EACH	1
Name Plates	EACH	1
① Riprap, Special	TON	200
① Filter Fabric	SQ YD	250
Steel Railing, Type SM	FOOT	73

① See Special Provisions

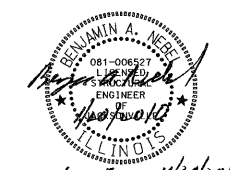
DESIGN SCOUR TABLE

Location	Upstream	Downstream
Design Scour Elevation	566.87	566.79

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. Neri 1/20/2010

Illinois Structural No. 6527
 Expires 11/30/2010



GENERAL PLAN & ELEVATION

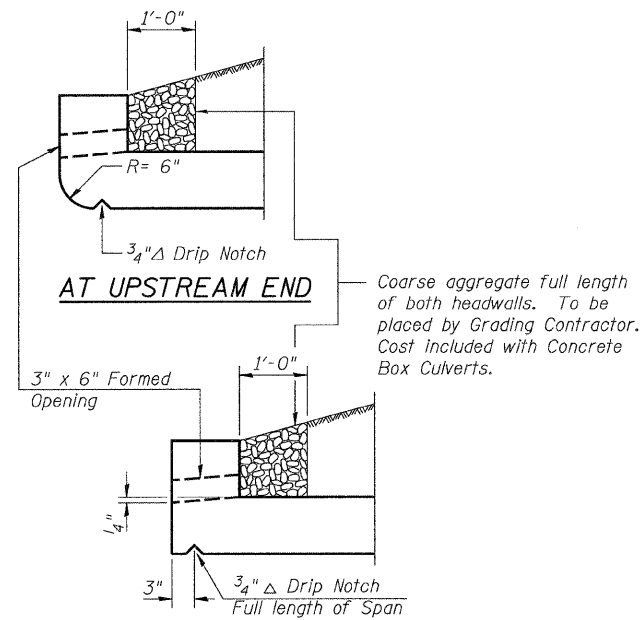
LOGAN COUNTY
 SECTION 09-00119-00-BR
 COUNTY HIGHWAY 10 OVER
 LAKE FORK CREEK TRIBUTARY
 STATION 68+66.50
 STRUCTURE NO. 054-3922

DESIGNED	CTM
CHECKED	BAN
DRAWN	CTM
CHECKED	JEH/BAN

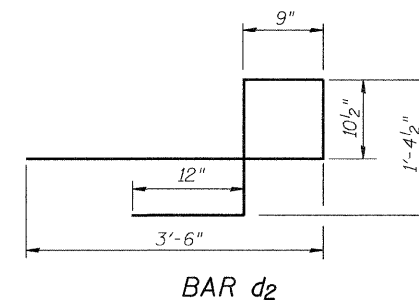
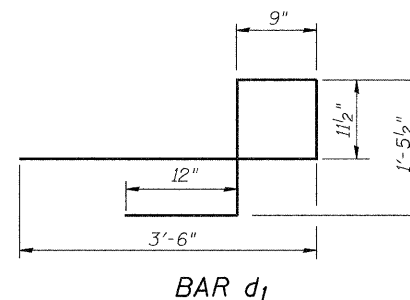
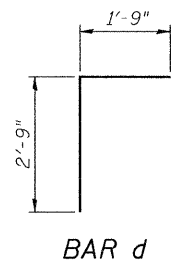
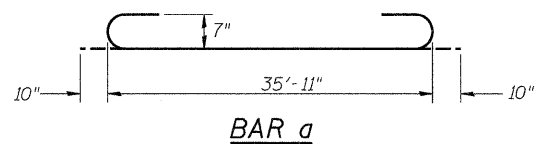
WATERWAY INFORMATION

Drainage Area = 2.77 Sq. Mi.		Low Grade Elev. = 573.49 @ Sta. 71+00.00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.			
Design	20	588	68 138	570.97	1.55 0.49	572.52 571.46			
Base	100	869	73 145	571.18	2.58 0.92	573.76 572.10			

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 10	09-00119-00-BR	LOGAN	17	7
4 SHEETS	S.N. 054-3922		CONTRACT NO. 93525		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0566(107)		

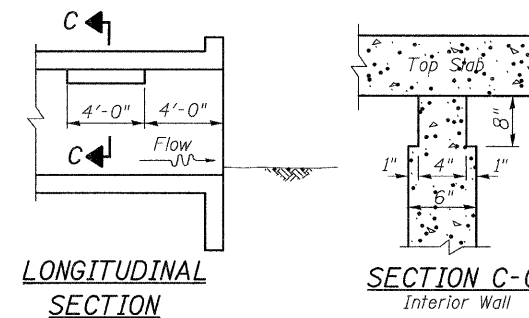


DRAIN DETAIL



Bar	a	b	c	d
h ₄	5'-0"	3'-0"	1'-10"	2'-4 1/2"
h ₅	8'-0"	3'-0"	1'-10"	2'-4 1/2"
h ₆	5'-0"	3'-0"	2'-4 1/2"	1'-10"
h ₇	10'-0"	3'-0"	2'-4 1/2"	1'-10"

BARS h₄, h₅, h₆, & h₇



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

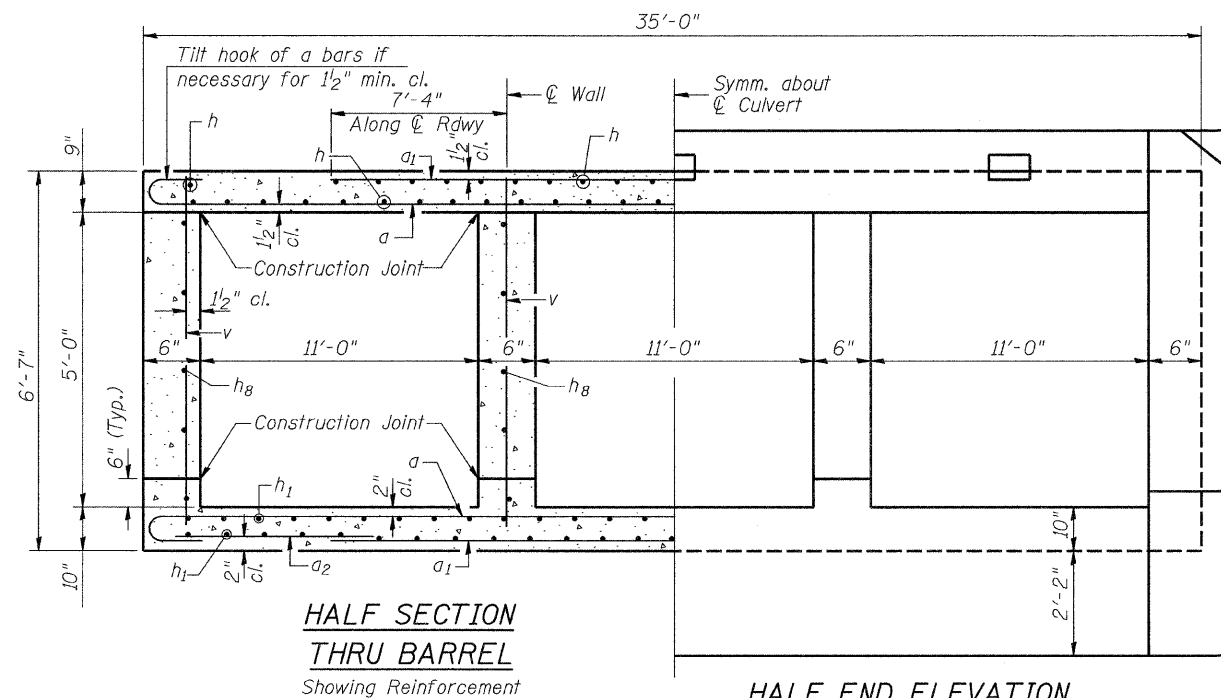
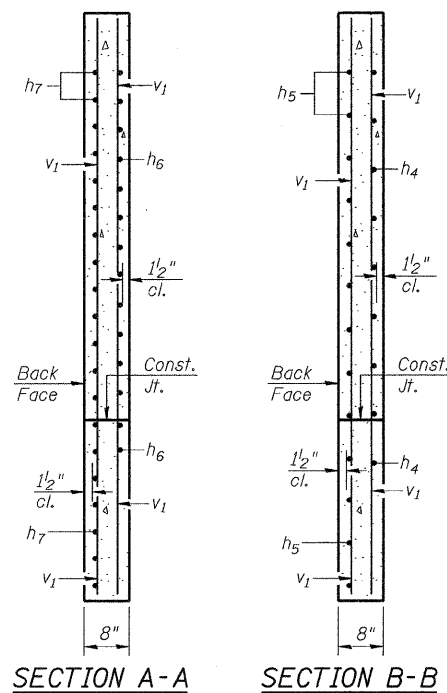
PHOEBE NESTING SITE DETAIL

(Downstream End Only - Cost included with Concrete Box Culverts)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	104	#7	37'-7"	
a ₁	104	#7	26'-8"	
a ₂	40	#4	6'-0"	
d	70	#4	4'-6"	
d ₁	66	#6	7'-8"	
d ₂	66	#6	7'-6"	
h	100	#5	20'-6"	
h ₁	110	#5	20'-6"	
h ₂	8	#6	35'-11"	
h ₃	10	#6	34'-11"	
h ₄	18	#7	8'-0"	
h ₅	26	#7	11'-0"	
h ₆	28	#7	8'-0"	
h ₇	40	#7	13'-0"	
h ₈	40	#5	20'-6"	
v	220	#4	6'-3"	
v ₁	16	#4	9'-4"	
Concrete Box Culverts			CU YD	107.7
① Reinforcement Bars			POUND	25,250

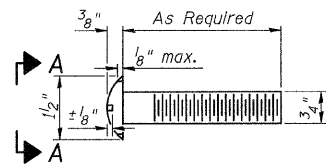
① See Special Provisions



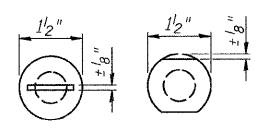
HALF END ELEVATION
Showing Dimensions

CULVERT DETAILS
LOGAN COUNTY
SECTION 09-00119-00-BR
COUNTY HIGHWAY 10 OVER
LAKE FORK CREEK TRIBUTARY

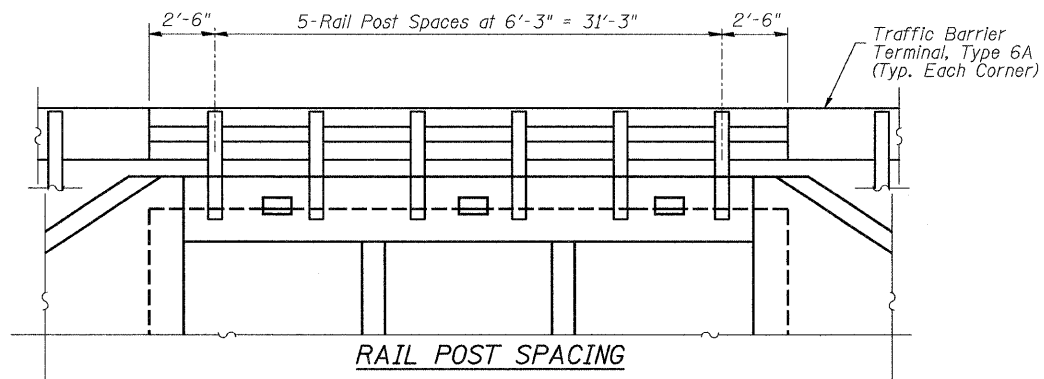
SHEET NO. 3 4 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 10	09-00119-00-BR	LOGAN	17	9
	S.N. 054-3922		CONTRACT NO. 93525		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0566107		



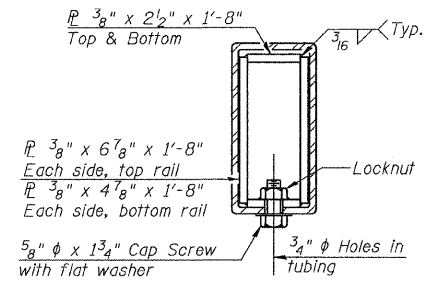
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



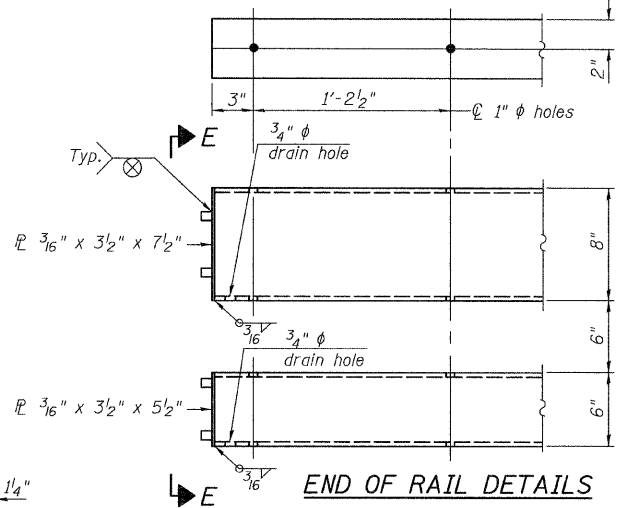
VIEW A-A



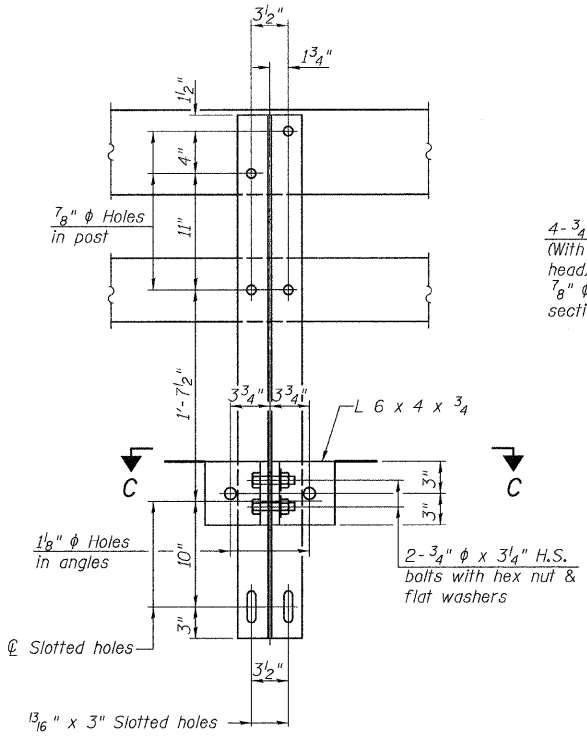
RAIL POST SPACING



SECTION AT RAIL SPLICE

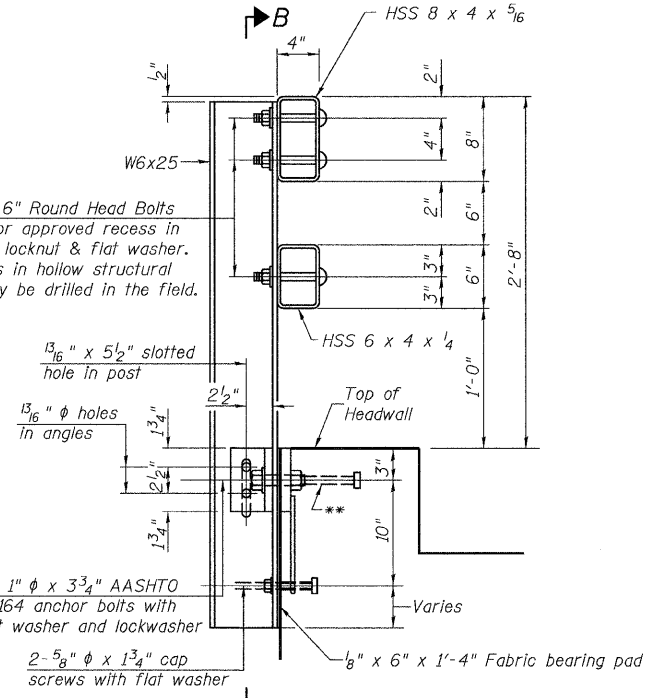


END OF RAIL DETAILS

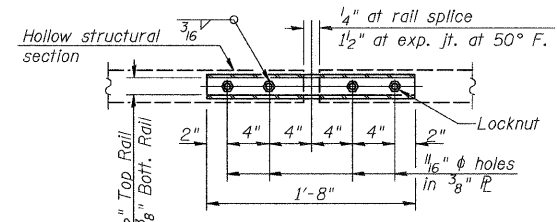


SECTION B-B

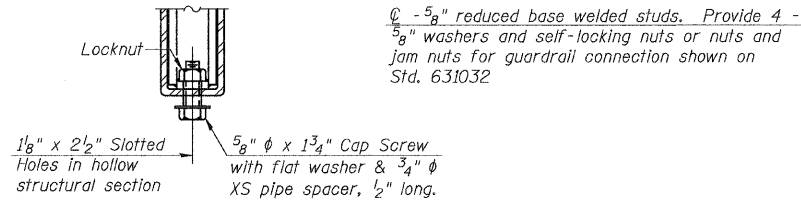
4- 3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



SECTION AT RAIL POST

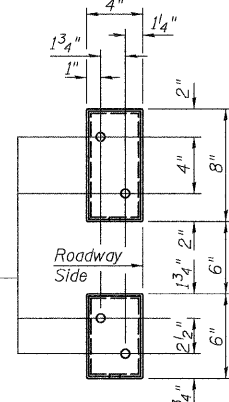


PLAN-BOTT. SPLICE R TYPICAL



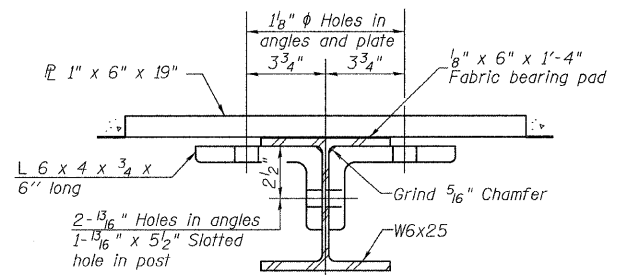
RAIL SPLICE CONNECTION AT EXPANSION JT.

5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032

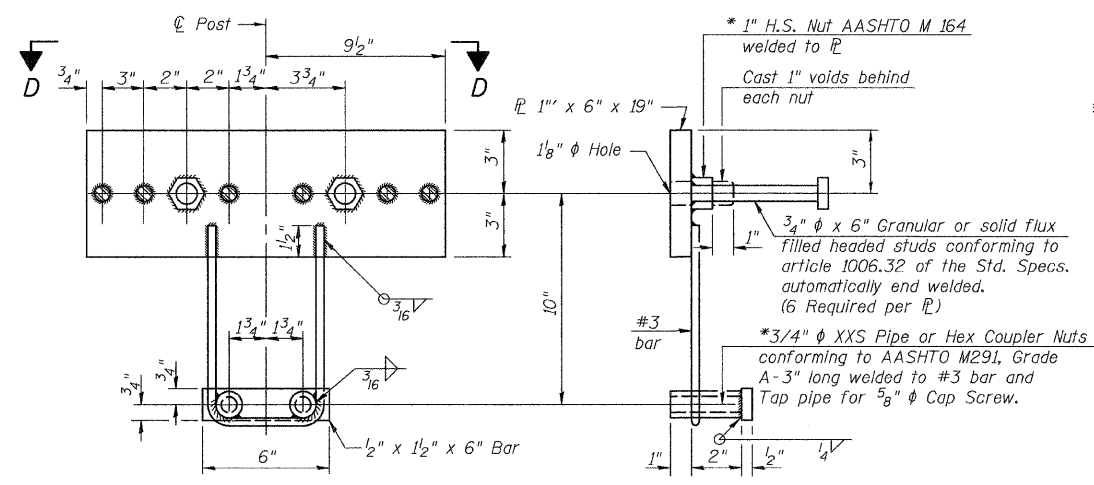


VIEW E-E

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 SM.
 All steel rail members 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.

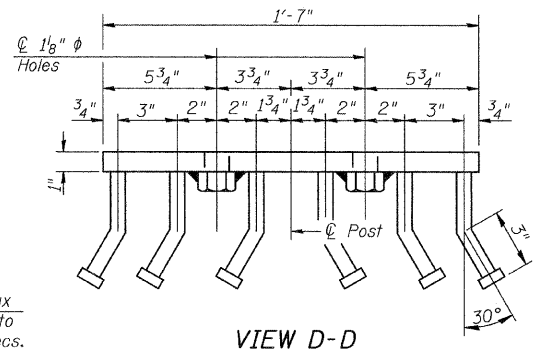


SECTION C-C



ANCHOR DEVICE

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



VIEW D-D

BILL OF MATERIAL

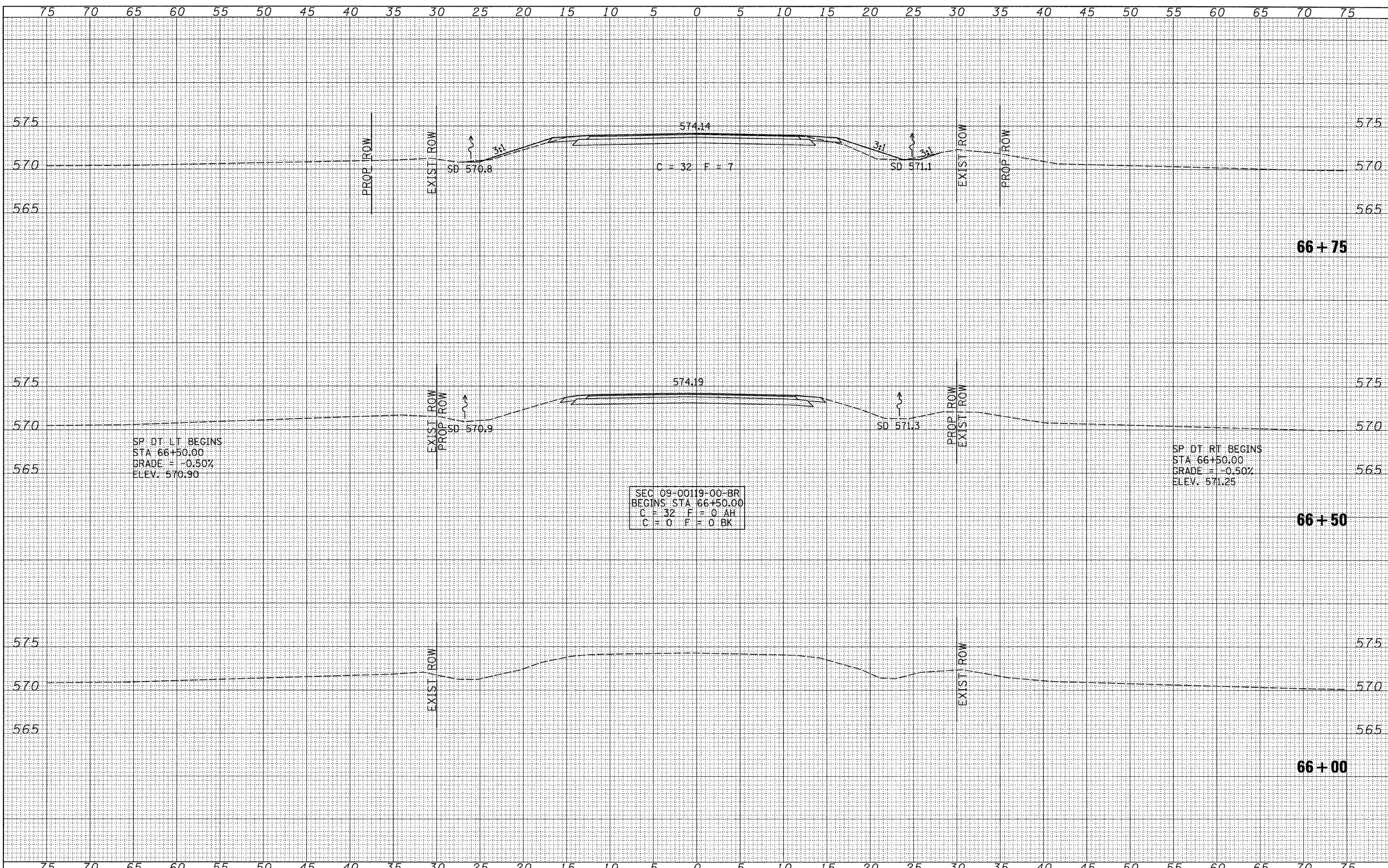
Item	Unit	Quantity
Steel Railing, Type SM	FOOT	73

STEEL RAILING, TYPE SM
 LOGAN COUNTY
 SECTION 09-00119-00-BR
 COUNTY HIGHWAY 10 OVER
 LAKE FORK CREEK TRIBUTARY

SHEET NO. 4 4 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 10	09-00119-00-BR	LOGAN	17	10
	S.N. 054-3922		CONTRACT NO. 93525		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0566(107)		

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

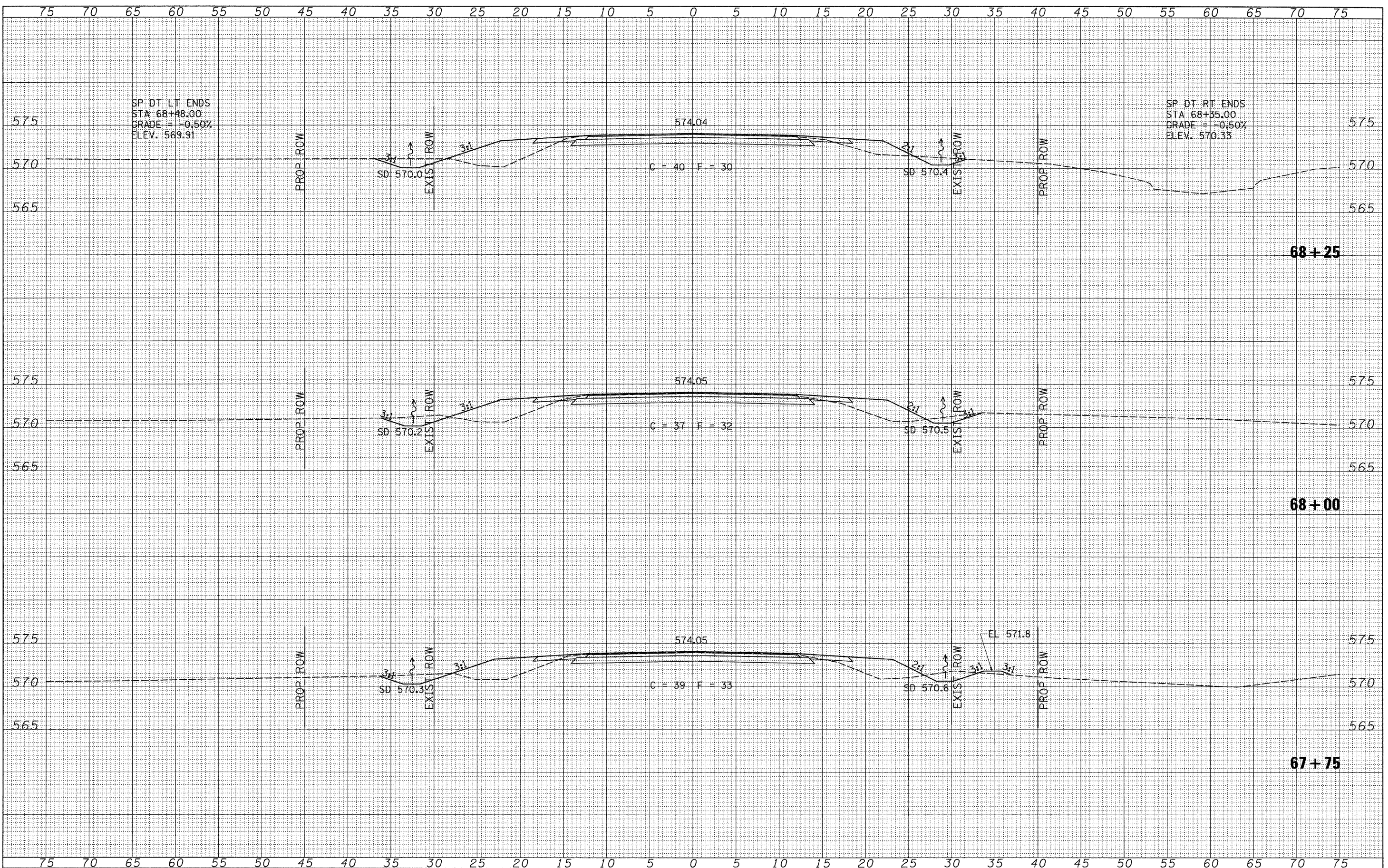
DATE	
BY	
ORIGINAL SURVEY	
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SURVEYED	
PLOTTED	
DATE	
AREAS CHECKED	



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		DRAWN -	REVISED -		566	09-00119-00-BR	LOGAN	17	11		
		CHECKED -	REVISED -		CONTRACT NO. 93525						
		DATE -	REVISED -		SCALE: 1" = 5'-0"	SHEET NO. 1 OF 7 SHEETS	STA. 66+00.00 TO STA. 66+75.00	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0566(07)	

DATE	
BY	
FINAL SURVEY	
FIELD	
NOTE BOOK	
NO.	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
FIELD	
NOTE BOOK	
NO.	
AREAS CHECKED	



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		DRAWN -	REVISED -								
		CHECKED -	REVISED -								
		DATE -	REVISED -								

SP DT RT ENDS
 STA 68+35.00
 GRADE = -0.50%
 ELEV. 570.33

SP DT LT ENDS
 STA 68+48.00
 GRADE = -0.50%
 ELEV. 569.91

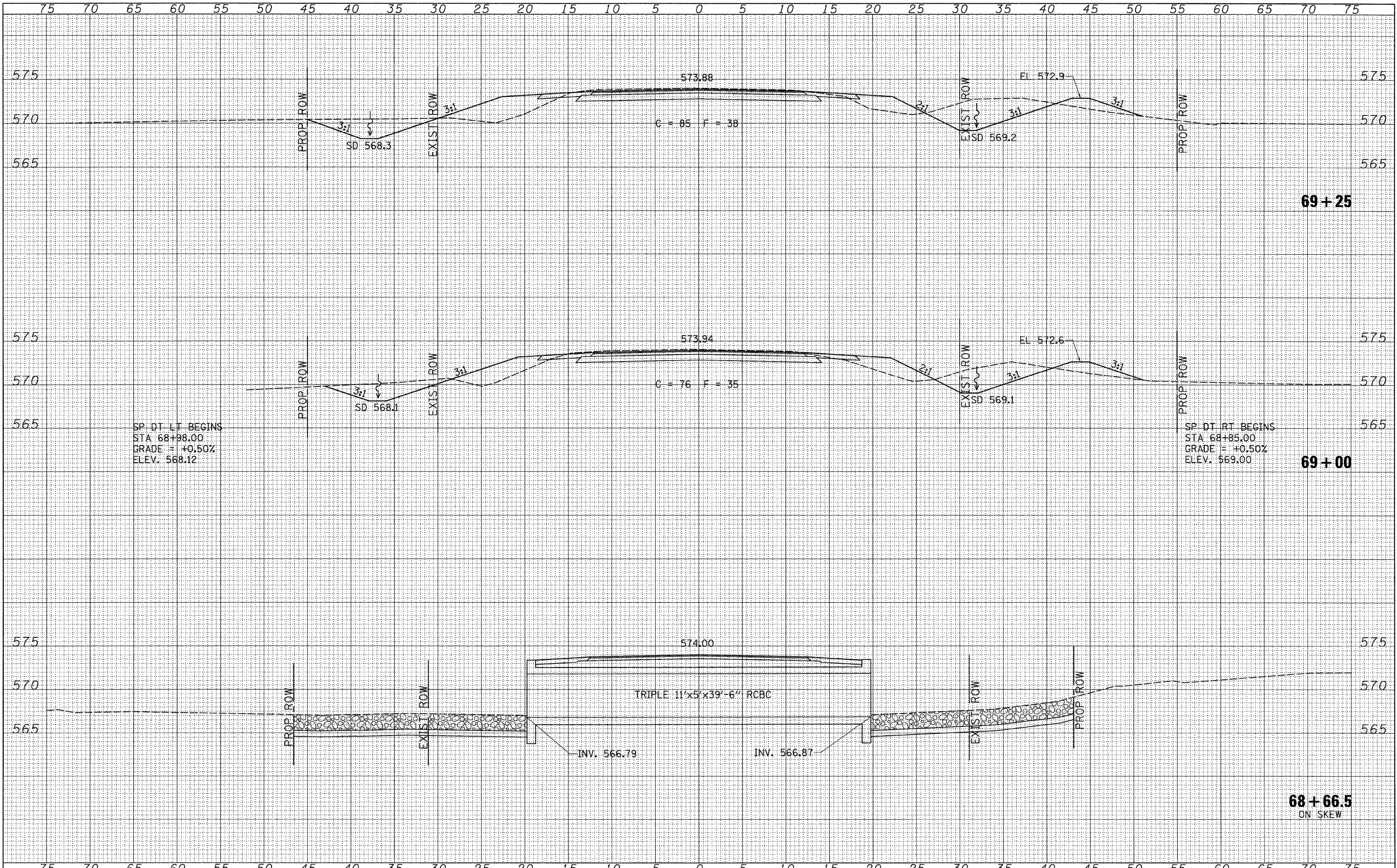
68+25

68+00

67+75

DATE	
BY	
FINAL SURVEY	
NO. OF PLATS	
NOTE BOOK NO.	
AREAS CHECKED	

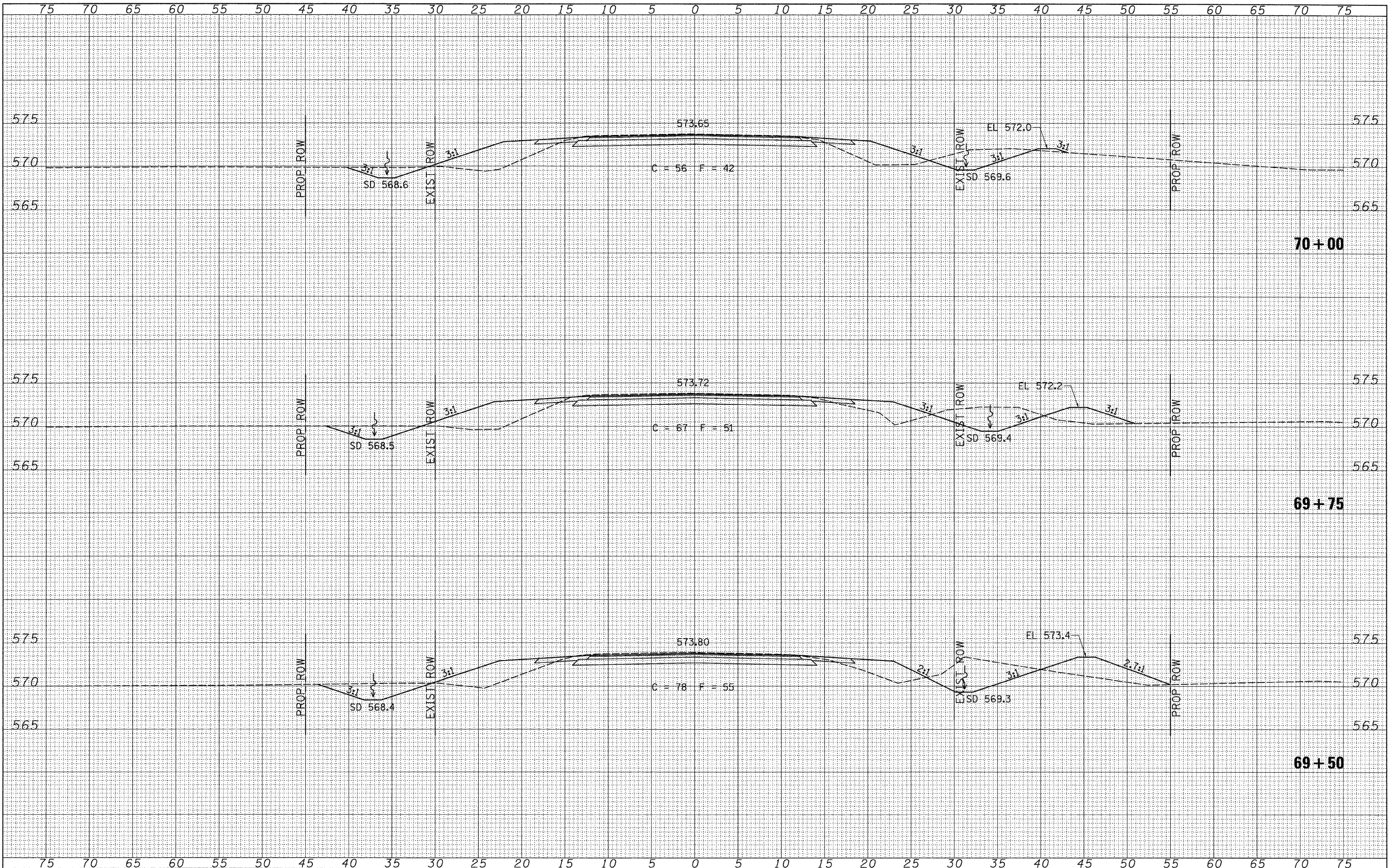
DATE	
BY	
ORIGINAL SURVEY	
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NOTE BOOK NO.	
AREAS CHECKED	



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PLOT SCALE = 5,0000' / IN.	CHECKED -	REVISED -	FED. ROAD DIST. NO. 7			ILLINOIS	FED. AID PROJECT BRS-0566(107)			
PLOT DATE = 1/19/2010	DATE -	REVISED -	CONTRACT NO. 93525							

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

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
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DATE	
AREAS CHECKED	

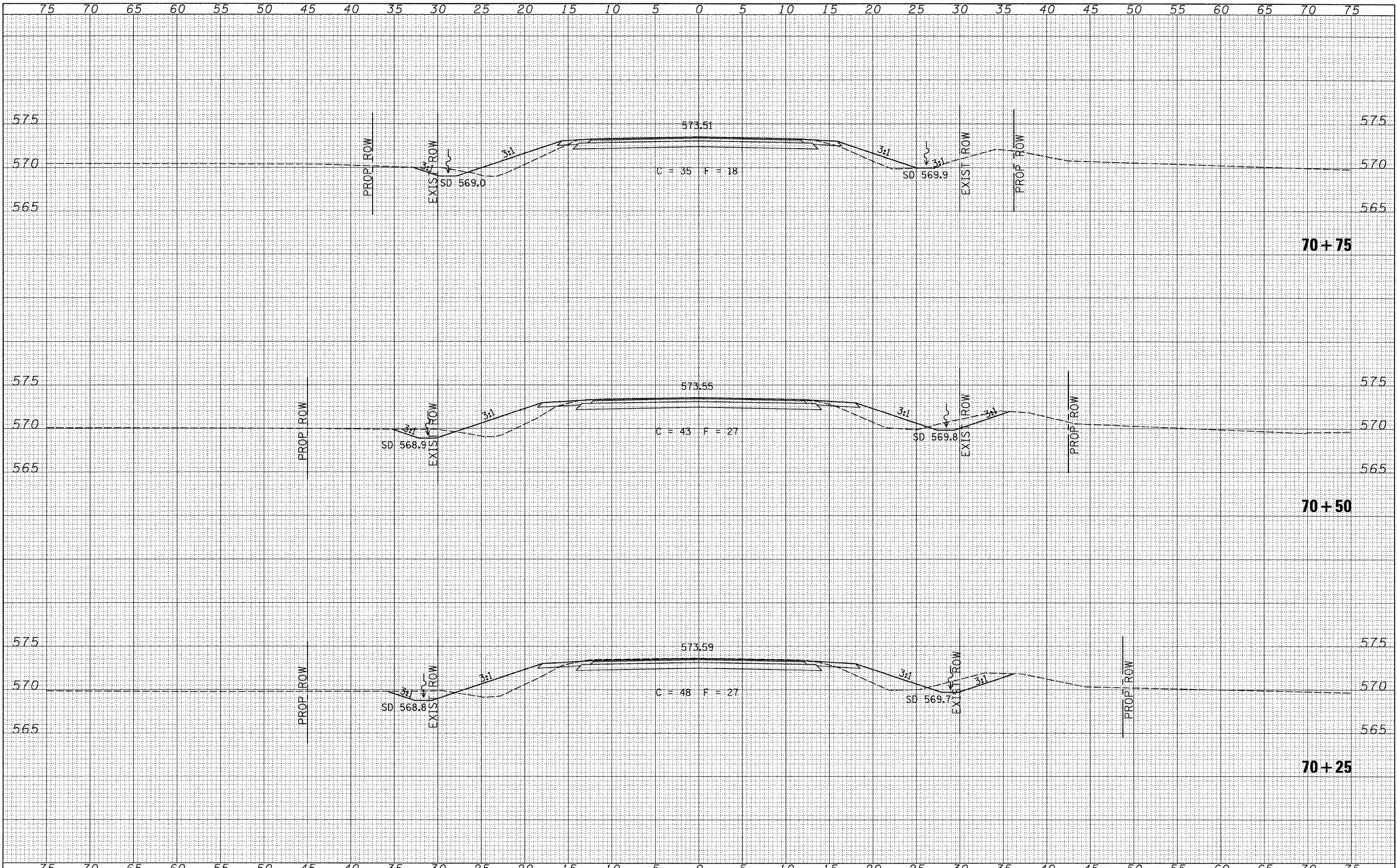


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		DATE -	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR5-0566(107)					

SCALE: 1" = 5'-0" SHEET NO. 5 OF 7 SHEETS STA. 69+50.00 TO STA. 70+00.00

DATE	
BY	
FINAL SURVEY	
PLANNED	
NOTE BOOK	
NO.	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
PLANNED	
NOTE BOOK	
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AREAS CHECKED	



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	PLOT SCALE = 5,000' / IN.	CHECKED -	REVISED -		SCALE: 1" = 5'-0"	SHEET NO. 6 OF 7 SHEETS	STA. 70+25.00 TO STA. 70+75.00	CONTRACT NO. 9 5 2 5		FED. ROAD DIST. NO. 7 ILLINOIS	
	PLOT DATE = 1/19/2010	DATE -	REVISED -		FED. AID PROJECT BRS-0566(107)						

