

68383

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	56	1

* D4 CULVERT EXT. / REPAIR 2005-2

INDEX OF SHEETS

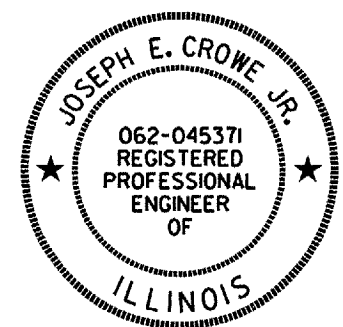
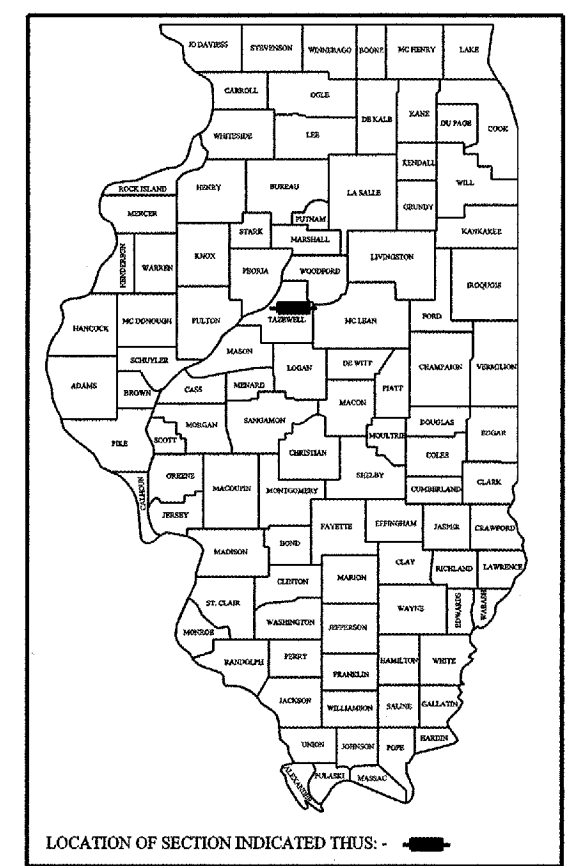
1. COVER SHEET
2. COMMITMENT & GENERAL NOTES
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 - 542001-D4
 - 630101-D4

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 693 (IL. ROUTE 9)
 D4 CULV EXT / REPAIR 2005-2
 TAZEWELL COUNTY
 C-94-024-04

D-94-016-04

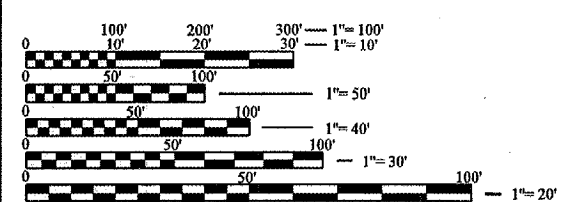


EXPIRES: 11/30/2005

LIST OF STANDARDS

- 280001-02 635006-02 701301-02
- 542301 635011-01 702001-05
- 542401 701006-02 666001
- 630001-05 701011-01
- 635001 701201-02

SCALES



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

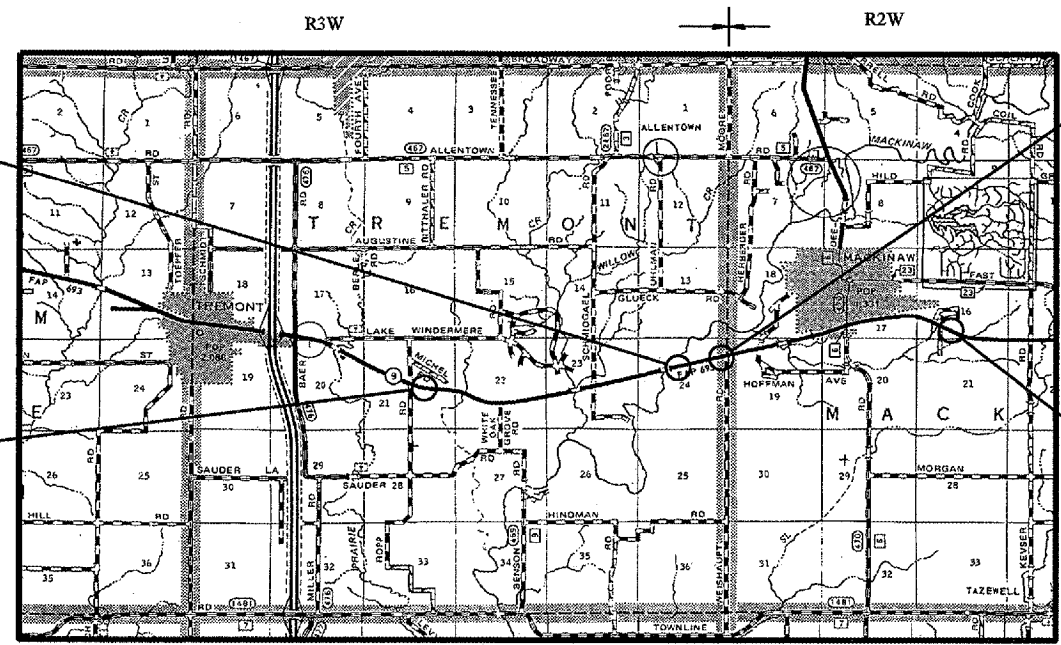
CONTRACT NO. 68383
 CATALOG NO. 032840-00D

LOCATION 2
 STA. 720+00 TO STA. 726+00

LOCATION 1
 STA. 581+00 TO STA. 587+00

LOCATION 3
 STA. 733+00 TO STA. 738+50

LOCATION 4
 STA. 857+00 TO STA. 862+50



GROSS LENGTH OF SECTION = 28,150.00 FEET = 5.331 Mi
 NET LENGTH OF SECTION = 2,300.00 FEET = 0.436 Mi

N.P.D.E.S.
 REQUIRED

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 2-8-05
Joseph E. Crowe Jr. REGIONAL ENGINEER
March 25, 05
Mike Hene ENGINEER OF DESIGN AND ENVIRONMENT
March 25, 05
Victor Modler DIRECTOR, DIVISION OF HIGHWAYS

PROJECT ENGINEER: M. ADDIS 309-671-3454

DESIGNER: LEONEL CRESPO 309-671-3459

68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

COMMITMENTS

No Commitments have been made for this project

DESIGN CRITERIA

This project was designed in accordance with Chapter 38 of the BDE Manual and the procedures and guidelines of the Culvert Design Manual.

GENERAL NOTES

ENVIRONMENTAL REVIEWS

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run-arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

Prior to any waste materials being removed from the construction site the required environmental resource surveys will need to be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

The required environmental resource documentation shall include the following:

- * BDE Form 2289 (Environmental Survey Request)
- * A location map showing the size limits and location of the use area
- * Signed property owner agreement form
- * Color photographs depicting the use area

Please note that a minimum of two weeks shall be allowed for the District to obtain the required environmental clearances.

ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS

The Contractor shall consult with the Engineer in regard to the exact length of the box/pipe culverts, storm sewers, and/or pipe drains required prior to ordering these items.

PLAN ELEVATIONS - U. S. G. S. MEAN SEA LEVEL DATUM

All elevations shown on the plans are established from U. S. G. S. mean sea level datum.

ENGINEERS FIELD OFFICE

Add the following sentence to the end of paragraph 670.02 (i) and 670.04 (e):

All of the telephone lines provided shall have unpublished numbers.

UTILITIES - LOCATIONS / INFORMATION ON PLANS

The locations of existing water mains, gas mains, sewers, electric power lines, telephone lines and other utilities as shown on the plans are based on careful field investigation and the best information available, but they are not guaranteed. Unless elevations are shown --- all utility locations shown on the cross sections are based on the approximate depth supplied by the utility company. It shall be the Contractor's responsibility to ascertain their exact location from the utility companies and by field inspection.

TREE REMOVAL - UTILITY RELOCATION

Tree removal may be necessary prior to utility companies being able to relocate their facilities outside the construction limits. The Contractor should coordinate any contract tree removal activities with the utility companies to eliminate conflicts and potential delays caused by utility tree removal activities or incomplete utility relocations.

AGGREGATE SURFACE COURSE , TYPE B & AGGREGATE SHOULDER, TYPE B

Aggregate Surface Course, Type B & Aggregated Shoulder, Type B shall be required for all granular construction of side roads, entrances, and mailbox turnouts, whether or not portions of the surfaces thus constructed are to be covered with a bituminous surface, except where noted differently on the plans.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	—	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

STATUS OF UTILITIES

Verizon

Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
Location 1	51' Rt. to 50' Rt.	582+65 to 583+70	Buried Fiber Optic	Rip Rap/Box Culvert	Relocate
Location 1	14' Rt. to 14' Rt.	585+00 to 585+75	Buried Fiber Optic	Rip Rap/Box Culvert	Caution
Location 2	40' Lt.	722+30	Aerial Telephone	Fill	Relocate
Location 2	40' Lt.	725+00	Aerial Telephone	Fill	Relocate
Location 3	33' Lt.	736+15	Aerial Telephone	Fill	Relocate

Illinois Power Company

Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
Location 2	40' Lt.	722+30	Power Pole	Fill	Relocate
Location 2	40' Lt.	725+00	Power Pole	Fill	Relocate
Location 3	33' Lt.	736+15	Power Pole	Fill	Relocate

Cornbelt Electric Coop

Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
Location 2	40' Lt.	722+30	Power Pole	Fill	Relocate
Location 2	40' Lt.	725+00	Power Pole	Fill	Relocate
Location 3	33' Lt.	736+15	Power Pole	Fill	Relocate

McLeod

Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
Location 1	43' Rt. to 44' Rt.	581+67 to 582+50	Buried Fiber Optic	Pipe Culvert	Relocate
Location 1	20' Rt. to 20' Rt.	583+30 to 583+70	Buried Fiber Optic	Box Culvert	Relocate
Location 3	33' Rt.	736+00	Buried Fiber Optic	Box Culvert	Caution

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	IAZEWELL	...	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			Y007 CONSTRUCTION TYPE CODE				
CODE NO.	ITEM	UNITS	TOTAL QUANTITY	LOCATION 1	LOCATION 2	LOCATION 3	LOCATION 4
* 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	44				44
20200100	EARTH EXCAVATION	CU YD	1,038	69	300	480	189
20201200	REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	CU YD	151	96			55
20400800	FURNISHED EXCAVATION	CU YD	9,684	901	4,835	3,160	788
* 21101615	TOPSOIL FURNISH & PLACE, 4"	SQ YD	14,424	1,778	5,791	4,655	2,200
* 25000200	SEEDING, CLASS 2	ACRE	3.13	0.37	1.25	1.00	0.51
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	271	33	107	85	46
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	271	33	107	85	46
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	271	33	107	85	46
* 25100115	MULCH, METHOD 2	ACRE	3.13	0.37	1.25	1.00	0.51
25100630	EROSION CONTROL BLANKET	SQ YD	589	208	287	67	27
* 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	602	74	238	188	102
28000300	TEMPORARY DITCH CHECKS	EACH	24	3	6	5	10
28000400	PERIMETER EROSION BARRIER	FOOT	2,355	629	645	621	460
28100105	STONE RIPRAP, CLASS A3	SQ YD	118		60	58	

SUMMARY OF QUANTITIES			Y007 CONSTRUCTION TYPE CODE				
CODE NO.	ITEM	UNITS	TOTAL QUANTITY	LOCATION 1	LOCATION 2	LOCATION 3	LOCATION 4
28100107	STONE RIPRAP, CLAS A4	SQ YD	125	16			109
28100125	STONE RIPRAP, CLASS B3	SQ YD	436	116		70	250
28200200	FILTER FABRIC	SQ YD	125	16			109
40200800	AGGREGATE SURFACE COURSE TYPE "B"	TON	76	76			
44000800	BITUMINOUS CONCRETE CURB REMOVAL	FOOT	101	101			
44004250	PAVED SHOULDER REMOVAL	SQ YD	12	12			
48101200	AGGREGATE SHOULDERS TYPE B	TON	413	60	141	101	111
50102400	CONCRETE REMOVAL	CU YD	23	8			15
50105220	PIPE CULVERT REMOVAL	FOOT	51	51			
50800105	REINFORCEMENT BARS	POUND	11,050	5,919	40	40	5,051
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	254				254
54002020	EXPANSION BOLTS 3/4 INCH	EACH	70	26	8	8	28
54201285	PIPE CULVERTS, TYPE 2 RCCP 30"	FOOT	104		53	51	
54213675	PRECAST REINF. CONC. FLARED END SECTIONS 30"	EACH	4		2	2	
54215553	METAL END SECTIONS 18"	EACH	2	2			

* SPECIALTY ITEMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	...	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* D4 CULVERT EXT. / REPAIR 2005-2				

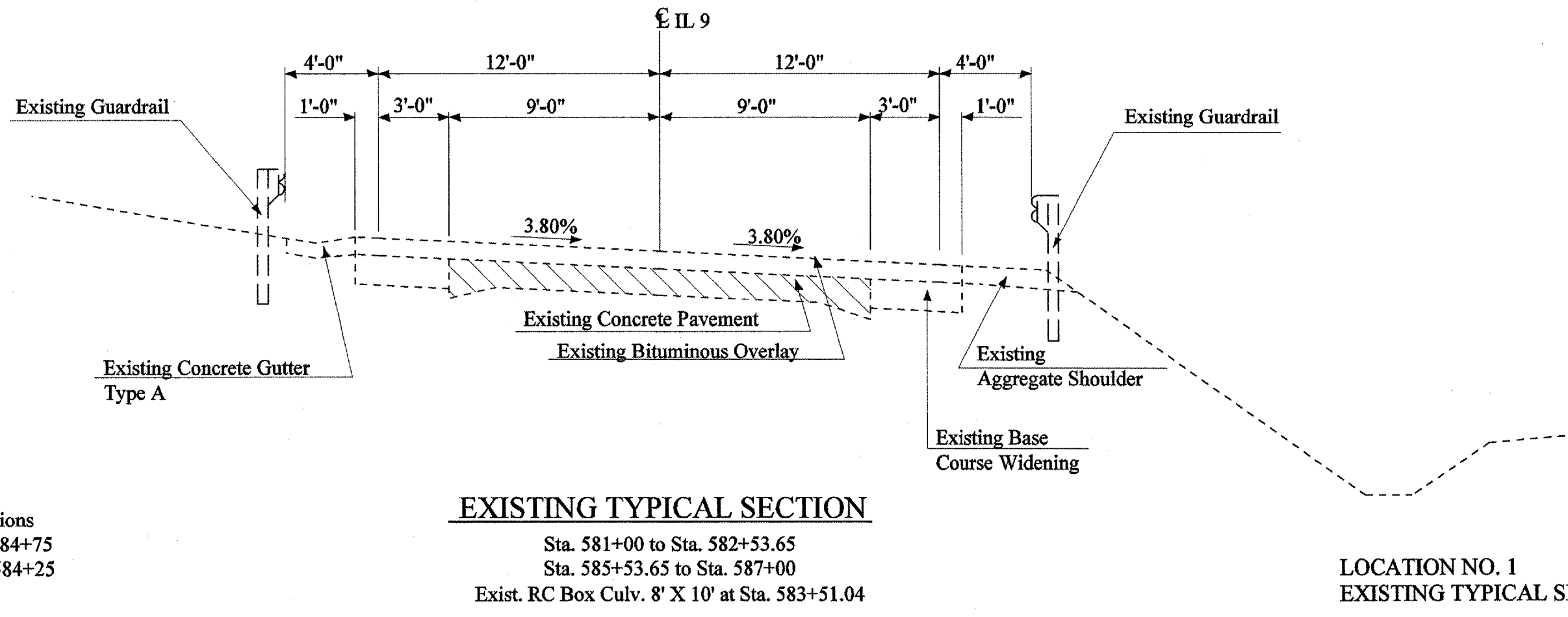
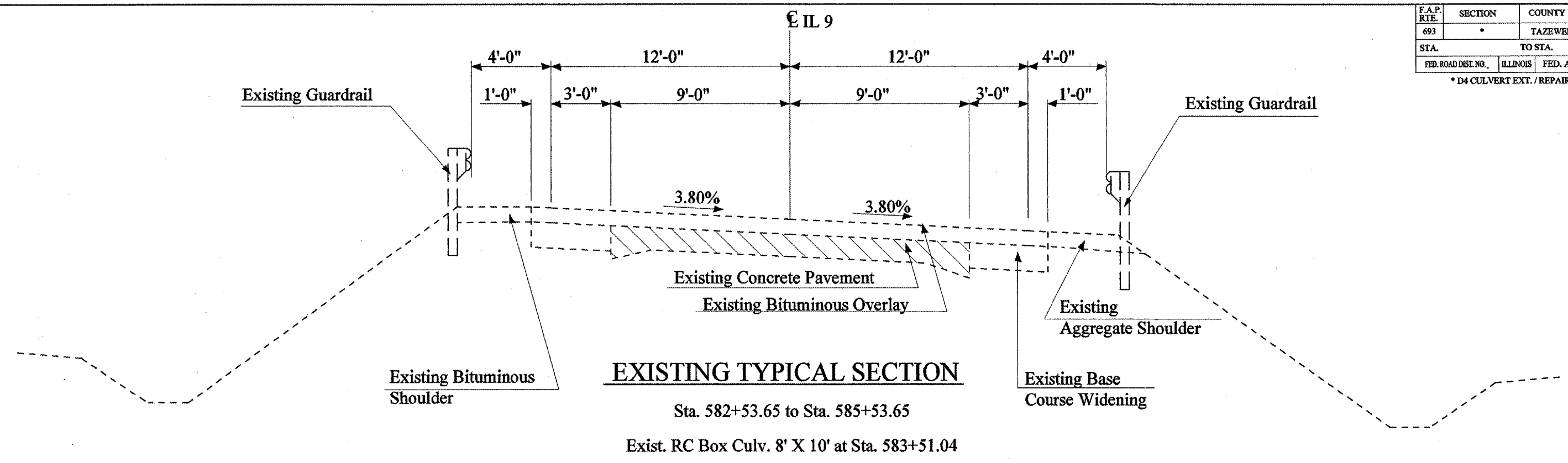
SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			Y007 CONSTRUCTION TYPE CODE				
CODE NO.	ITEM	UNITS	TOTAL QUANTITY	LOCATION 1	LOCATION 2	LOCATION 3	LOCATION 4
54248510	CONCRETE COLLAR	CU YD	4.4		0.7	0.7	3.0
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	48	48			
* 63200310	GUARDRAIL REMOVAL	FOOT	1,900	200	800	400	500
* 63301210	REMOVE AND RE-ERECT SPBG, TYPE A	FOOT	263	263			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	1	0.5	0.5	1
67100100	MOBILIZATION	L. SUM	1	0.25	0.25	0.25	0.25
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L.SUM	1	0.25	0.25	0.25	0.25
78200410	GUARDRAIL MARKER TYPE A	EACH	4	4			
78201000	TERMINAR MARKER - DIRECT APPLIED	EACH	2	2			
* B2001164	TREE, CERCIS CANADENSIS (EASTERN REDBUD) 5' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED	EACH	5				5
X0301512	GUARDRAIL AGGREGATE EROSION CONTROL	TON	36	36			
XX002909	CLASS SI CONCRETE	CU YD	83	37.8			45.2
Z0013798	CONSTRUCTION LAYOUT	L. SUM	1	0.25	0.25	0.25	0.25
Z0054500	ROCK FILL	TON	228	136			92
X0324936	GALVANIZED STEEL PIPE 3 1/2"	FOOT	209	209			
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	45	4	16	16	9

*SPECIALTY ITEMS

F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2



Note: Existing Guardrail Locations
Lt. Sta. 581+75 to Lt. Sta. 584+75
Rt. Sta. 581+75 to Rt. Sta. 584+25

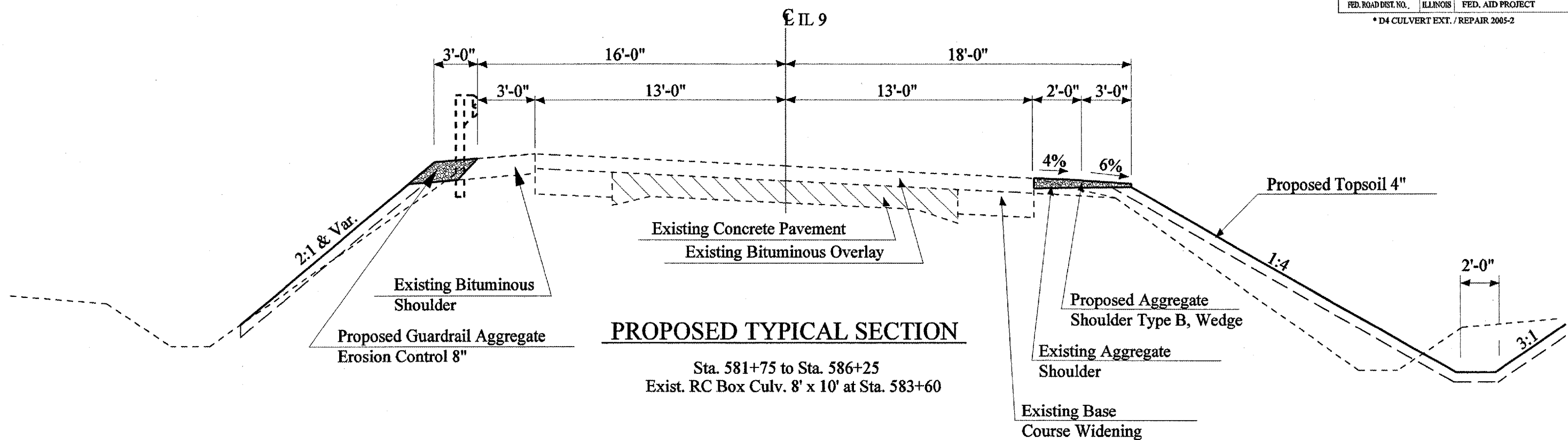
LOCATION NO. 1
EXISTING TYPICAL SECTION

STATES
STATES
STATES

68383

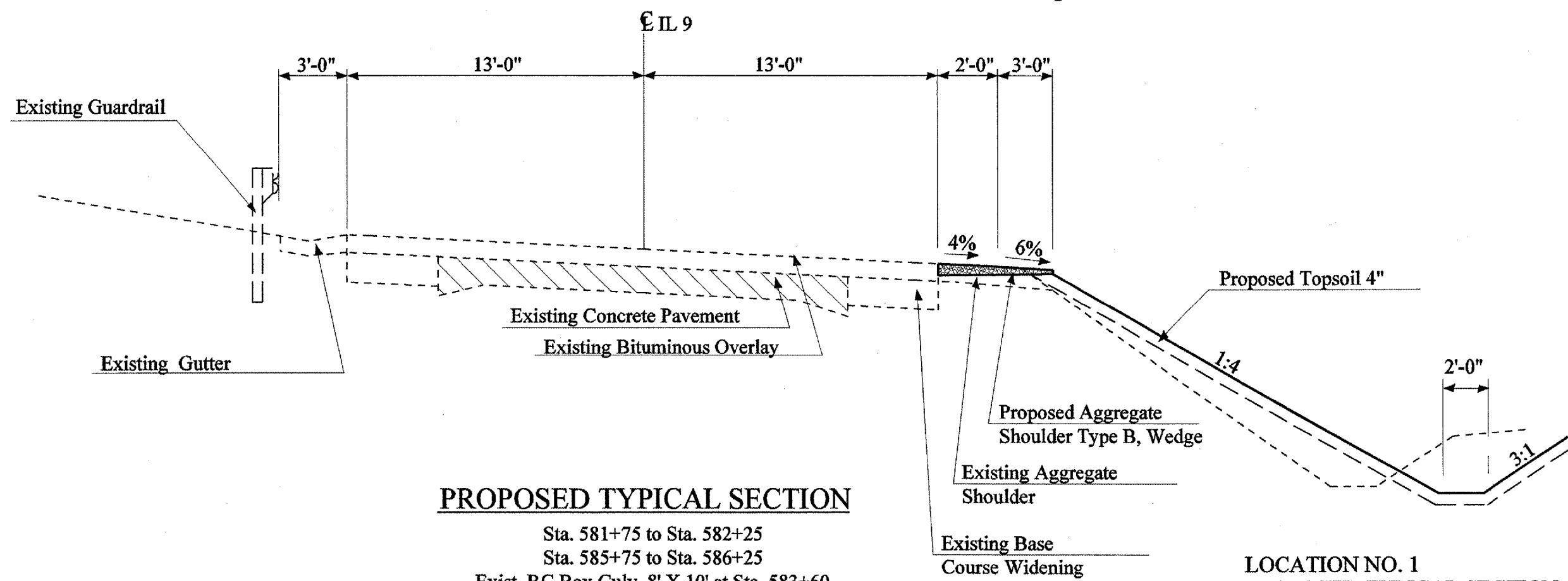
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2



PROPOSED TYPICAL SECTION

Sta. 581+75 to Sta. 586+25
Exist. RC Box Culv. 8' x 10' at Sta. 583+60



PROPOSED TYPICAL SECTION

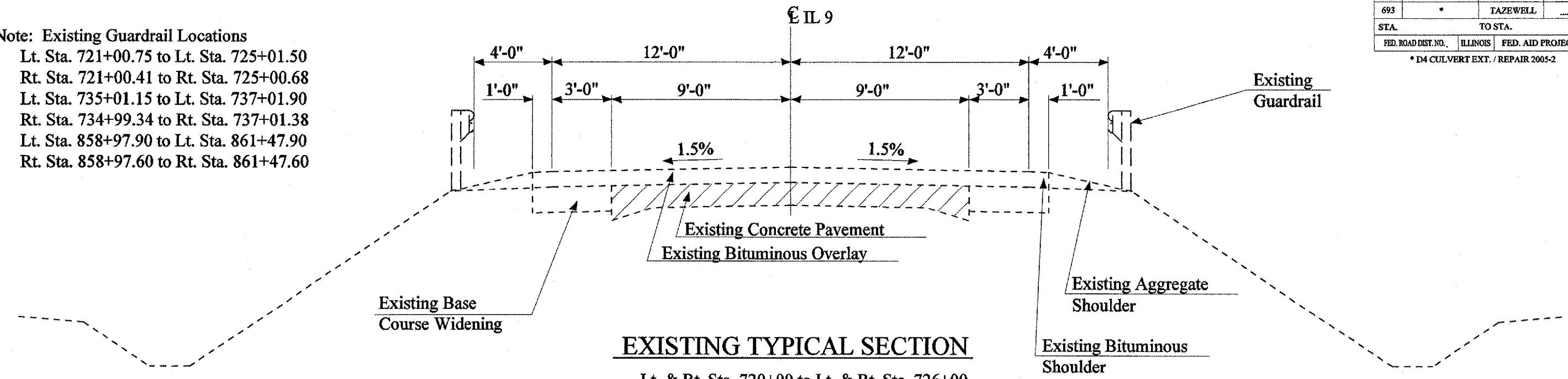
Sta. 581+75 to Sta. 582+25
Sta. 585+75 to Sta. 586+25
Exist. RC Box Culv. 8' X 10' at Sta. 583+60

LOCATION NO. 1
PROPOSED TYPICAL SECTION

STATES

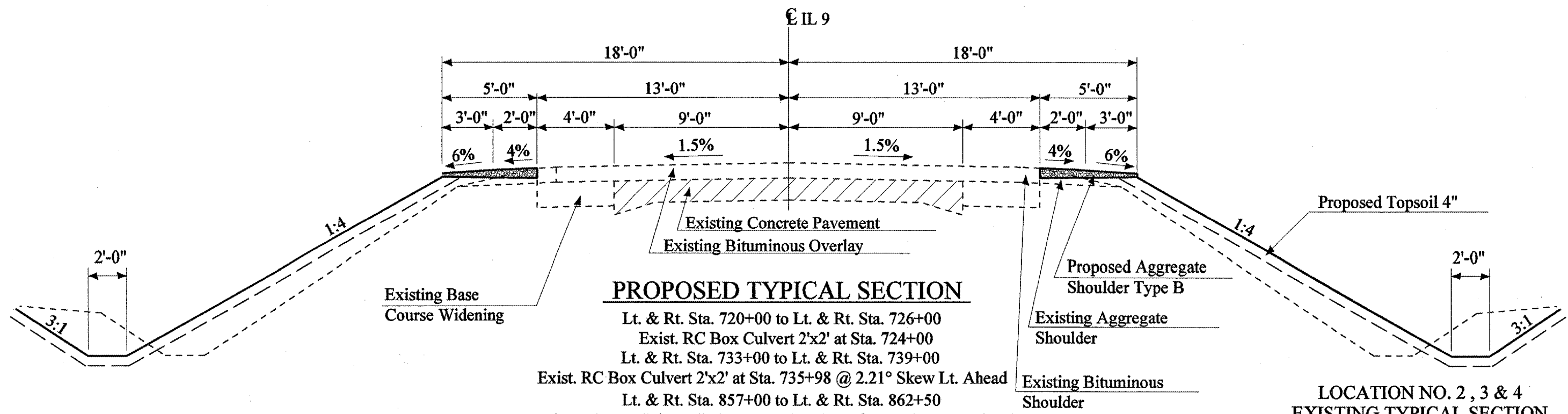
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	---	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

Note: Existing Guardrail Locations
 Lt. Sta. 721+00.75 to Lt. Sta. 725+01.50
 Rt. Sta. 721+00.41 to Rt. Sta. 725+00.68
 Lt. Sta. 735+01.15 to Lt. Sta. 737+01.90
 Rt. Sta. 734+99.34 to Rt. Sta. 737+01.38
 Lt. Sta. 858+97.90 to Lt. Sta. 861+47.90
 Rt. Sta. 858+97.60 to Rt. Sta. 861+47.60



EXISTING TYPICAL SECTION

Lt. & Rt. Sta. 720+00 to Lt. & Rt. Sta. 726+00
 Exist. RC Box Culvert 2'x2' at Sta. 724+00
 Lt. & Rt. Sta. 733+00 to Lt. & Rt. Sta. 739+00
 Exist. RC Box Culvert 2'x2' at Sta. 735+98 @ 2.21° Skew Lt. Ahead
 Lt. & Rt. Sta. 857+00 to Lt. & Rt. Sta. 862+50
 Exist. RC Box Culvert 4'x6' at Sta. 860+23.21 @ 45° Skew Rt. Ahead



PROPOSED TYPICAL SECTION

Lt. & Rt. Sta. 720+00 to Lt. & Rt. Sta. 726+00
 Exist. RC Box Culvert 2'x2' at Sta. 724+00
 Lt. & Rt. Sta. 733+00 to Lt. & Rt. Sta. 739+00
 Exist. RC Box Culvert 2'x2' at Sta. 735+98 @ 2.21° Skew Lt. Ahead
 Lt. & Rt. Sta. 857+00 to Lt. & Rt. Sta. 862+50
 Exist. RC Box Culvert 4'x6' at Sta. 860+23.21 @ 45° Skew Rt. Ahead

LOCATION NO. 2, 3 & 4
 EXISTING TYPICAL SECTION
 &
 PROPOSED TYPICAL SECTION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	---	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

CODE NO. 20100110

TREE REMOVAL (6 TO 15 UNITS DIAMETER)	
LOCATION 4	UNITS
Sta. 860+04.20, 34.60 Lt	8
Sta. 860+05.86, 43.62 Lt	8
Sta. 860+16.36, 32.02 Lt	8
Sta. 860+73, 36.48 Lt	8
Sta. 860+73, 51.10 Lt	12
TOTAL = 44	

CODE NO. 20200100

EARTH EXCAVATION	
LOCATION	UNIT CU YD
LOCATION 1	
Sta. 580+50 to Sta. 586+00	69
LOCATION 2	
Sta. 720+00 to Sta. 726+00	300
LOCATION 3	
Sta. 733+00 to Sta. 739+00	480
LOCATION 4	
Sta. 857+00 to Sta. 862+50	189
TOTAL = 1,038	

CODE NO. 20400800

FURNISHED EXCAVATION	
LOCATION	UNIT CU YD
LOCATION 1	
Sta. 581+00 to Sta. 586+00	901
LOCATION 2	
Sta. 720+00 to Sta. 726+00	4,835
LOCATION 3	
Sta. 733+00 to Sta. 739+00	3,160
LOCATION 4	
Sta. 857+00 to Sta. 862+50	788
TOTAL = 9,684	

CODE NO. 20201200

REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	
LOCATION	UNIT CU YD
LOCATION 1	
Rt. Sta. 583+51.04	96
LOCATION 4	
Lt. Sta. 860+23.21	30
Rt. Sta. 860+23.21	25
TOTAL = 151	

CODE NO. Z0054500

ROCK FILL	
LOCATION	UNIT TON
LOCATION 1	
Rt. Sta. 583+51.04	136
LOCATION 4	
Lt. Sta. 860+23.21	51
Rt. Sta. 860+23.21	41
TOTAL = 228	

CODE NO. 21101615

TOP SOIL FURNISHED AND PLACE 4"	
LOCATION	UNIT SQ YD
LOCATION 1	
Rt. Sta. 581+00 to Sta. 586+00	1,570
Lt. Sta. 582+53.65 to Sta. 583+28.65	47
Lt. Sta. 583+66.15 to Sta. 585+54.10	161
LOCATION 2	
Lt. & Rt. Sta. 720+00 to Sta. 726+00	5,791
LOCATION 3	
Lt. & Rt. Sta. 733+50 to Sta. 739+00	4,655
LOCATION 4	
Lt & Rt. Sta. 857+00 to Sta. 862+50	2,200
TOTAL = 14,424	

CODE NO.	28000250	25000200	25100115	25000400	25000500	25000600
	TEMPORARY EROSION CONTROL SEEDING *	SEEDING CLASS 2	MULCH METHOD 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHOROUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT
	POUND	ACRE	ACRE	POUND	POUND	POUND
LOCATION 1						
Rt. Sta. 581+00 to Sta. 586+00	66	0.33	0.33	29.5	29.5	29.5
Lt. Sta. 582+53.65 to Sta. 583+28.65	2	0.01	0.01	0.9	0.9	0.9
Lt. Sta. 583+66.15 to Sta. 585+54.10	6	0.03	0.03	2.6	2.6	2.6
LOCATION 2						
Lt. Sta. 720+00 to Sta. 726+00	116	0.60	0.60	52.0	52.0	52.0
Rt. Sta. 720+00 to Sta. 726+00	122	0.65	0.65	55.0	55.0	55.0
LOCATION 3						
Lt. Sta. 733+85 to Sta. 739+00	84	0.45	0.45	38.0	38.0	38.0
Rt. Sta. 733+00 to Sta. 739+00	104	0.55	0.55	47.0	47.0	47.0
LOCATION 4						
Lt. Sta. 857+00 to Sta. 862+50	50	0.25	0.25	23.0	23.0	23.0
Rt. Sta. 858+00 to Sta. 862+50	52	0.26	0.26	23.0	23.0	23.0
TOTAL =						
	602	3.13	3.13	271	271	271

* 2 Applications

SCHEDULE OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	...	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

* D4 CULVERT EXT. / REPAIR 2005-2

CODE NO.25100630

EROSION CONTROL BLANKET	
	UNIT SQ YD
LOCATION 1	
Lt. Sta. 582+53.65 to Sta. 583+28.65	47
Lt. Sta. 583+66.15 to Sta. 585+54.10	161
LOCATION 2	
Lt. Sta. 721+00 to Sta. 723+93.26	196
Lt. Sta. 724+13.24 to Sta. 725+50	91
LOCATION 3	
Lt. Sta. 736+50 to Sta. 737+50	67
LOCATION 4	
Lt. Sta. 860+10 to Sta. 860+50	27
TOTAL = 589	

CODE NO.28000400

PERIMETER EROSION BARRIER	
	UNIT FOOT
LOCATION 1	
Rt. Sta. 581+00 to Sta. 586+00	409
Lt. Sta. 582+80 to Sta. 583+28	50
Lt. Sta. 583+66.15 to Sta. 585+32	170
LOCATION 2	
Rt. Sta. 720+00 to Sta. 726+00	645
LOCATION 3	
Rt. Sta. 733+00 to Sta. 739+00	621
LOCATION 4	
Lt. Sta. 857+50 to Sta. 859+00	150
Lt. Sta. 861+50 to Sta. 862+25	75
Rt. Sta. 858+50 to Sta. 859+50	100
Rt. Sta. 860+90 to Sta. 862+50	135
TOTAL = 2,355	

CODE NO.44004250

PAVED SHOULDER REMOVAL	
	UNIT SQ YD
LOCATION 1	
Rt. Sta. 581+75.60 to Sta. 582+11.79	12
TOTAL = 12	

CODE NO.28000300

TEMPORARY DITCH CHECK		
	Spacing	UNIT EACH
LOCATION 1		
Rt. Sta. 582+25 to Sta. 583+45	40 ft	3
LOCATION 2		
Lt. Sta. 720+50 to Sta. 723+00	200 ft	1
Lt. Sta. 723+00 to Sta. 724+00	100 ft	2
Lt. Sta. 724+00 to Sta. 726+00	200 ft	3
LOCATION 3		
Lt. Sta. 735+50 to Sta. 736+00	50 ft	1
Lt. Sta. 736+00 to Sta. 736+50	26 ft	2
Lt. Sta. 736+50 to Sta. 738+00	100 ft	2
LOCATION 4		
Lt. Sta. 859+00 to Sta. 859+70	30 ft	3
Lt. Sta. 859+83 to Sta. 860+50	30 ft	3
Rt. Sta. 859+50 to Sta. 860+50	30 ft	4
TOTAL = 24		

CODE NO.40200800

AGGREGATE SURFACE COURSE TYPE "B"	
Note: 8" deep	
	UNIT TON
LOCATION 1	
Rt. Sta. 581+95	76
TOTAL = 76	

CODE NO.48101200

AGGREGATE SHOULDER TYPE B	
	UNIT TON
LOCATION 1	
Rt. Sta. 581+00 to Sta. 585+75	60
LOCATION 2	
Lt. Sta. 720+30 to Sta. 725+70	68.5
Rt. Sta. 720+30 to Sta. 726+00	72.5
LOCATION 3	
Lt. Sta. 734+00 to Sta. 738+00	50.5
Rt. Sta. 734+00 to Sta. 738+00	50.5
LOCATION 4	
Lt. Sta. 857+30 to Sta. 862+11.40	60.3
Rt. Sta. 858+30.08 to Sta. 862+33.99	50.7
TOTAL = 413	

CODE NO.44000800

BITUMINOUS CONCRETE CURB REMOVAL	
	UNIT FOOT
LOCATION 1	
Rt. Sta. 583+15 to Sta. 584+16	101
TOTAL = 101	

CODE NO.50105220

PIPE CULVERT REMOVAL	
	UNIT FOOT
LOCATION 1	
Rt. Sta. 581+95	32
Rt. Sta. 583+33	19
TOTAL = 51	

SCHEDULE OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	•	TAZEWELL	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

CODE NO.	XX002909	54248510	50800105	50800205	54002020
	CLASS SI CONCRETE	CONCRETE COLLAR	REINFORCEMENT BARS	REINFORCEMENT BARS, EPOXY COATED	EXPANSION BOLTS 3/4 INCH
	CU YD	CU YD	LBS	LBS	EACH
LOCATION 1					
Lt. Sta. 583+51.04	37.8		5,919		26
LOCATION 2					
Rt. Sta. 723+98.29		0.35	20		4
Rt. Sta. 723+98.29		0.35	20		4
LOCATION 3					
Rt. Sta. 735+97.11		0.35	20		4
Lt. Sta. 735+99.45		0.35	20		4
LOCATION 4					
Lt. Sta. 860+23	22.6	1.50	2,525.5	127	14
Rt. Sta. 860+23	22.6	1.50	2,525.5	127	14
TOTAL =	83.0	4.40	11,050	254	70

CODE NO.54213675

PRCF END SECTIONS 30"	
	UNIT EACH
LOCATION 2	
Rt. Sta. 723+98.24	1
Lt. Sta. 724+02.72	1
LOCATION 3	
Rt. Sta. 735+98	1
Lt. Sta. 735+98	1
TOTAL = 4	

CODE NO.542D0223

PIPE CULVERTS, CLASS D, TYPE I, 18"	
	UNIT FOOT
LOCATION 1	
Rt. Sta. 581+95	48
TOTAL = 48	

CODE NO.50102400

CONCRETE REMOVAL	
	UNIT CU YD
LOCATION 1	
Lt. Sta. 582+53.65 to Sta. 583+28.65	8
LOCATION 4	
Lt. Sta. 860+23.21	7
Rt. Sta. 860+23.21	8
TOTAL = 23	

CODE NO.54201285

PIPE CULVERTS, TYPE 2 RCCP 30"	
	UNIT FOOT
LOCATION 2	
Rt. Sta. 724+00	26.5
Lt. Sta. 724+00	26
LOCATION 3	
Rt. Sta. 735+98	26.1
Lt. Sta. 735+98	25.2
TOTAL = 104	

CODE NO.63200310

GUARDRAIL REMOVAL	
	UNIT FOOT
LOCATION 1	
Rt. Sta. 583+27.48 to Sta. 584+29.83	200
LOCATION 2	
Rt. Sta. 721+00.41 to Sta. 725+00.68	400
Lt. Sta. 721+00.75 to Sta. 725+01.50	400
LOCATION 3	
Rt. Sta. 734+99.34 to Sta. 737+01.38	200
Lt. Sta. 735+01.15 to Sta. 737+01.90	200
LOCATION 4	
Lt. Sta. 858+97.90 to Sta. 861+47.90	250
Rt. Sta. 858+97.60 to Sta. 861+47.60	250
TOTAL = 1,900	

CODE NO.#4001595

GALVANIZED STEEL PIPE, 3 1/2"	
	UNIT L. FOOT
LOCATION 1	
Rt. Sta. 583+51.04	209
TOTAL = 209	

CODE NO.54215553

METAL END SECTIONS 18"	
	UNIT EACH
LOCATION 1	
Rt. Sta. 581+95	2
TOTAL = 2	

68383

F.A.P. RTE. 693	SECTION •	COUNTY TAZEWELL	TOTAL SHEETS ---	SHEET NO. 12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

SCHEDULE OF QUANTITIES

CODE NO.66600105

FURNISHING AND ERECTING RIGHT OF WAY MARKERS			
LOCATION 1	UNIT EACH	LOCATION 3	UNIT EACH
Sta. 582+50, 51.01' Rt	1	Sta. 733+00, 40.00' Rt	1
Sta. 583+40, 90.00' Rt	1	Sta. 734+00, 70.00' Rt	1
Sta. 583+65, 90.00' Rt	1	Sta. 735+50, 70.00' Rt	1
Sta. 584+00, 55.78' Rt	1	Sta. 735+75, 80.00' Rt	1
LOCATION 2		Sta. 736+25, 80.00' Rt	1
Sta. 720+00, 40.00' Rt	1	Sta. 736+50, 70.00' Rt	1
Sta. 720+50, 75.00' Rt	1	Sta. 738+00, 70.00' Rt	1
Sta. 723+50, 67.00' Rt	1	Sta. 739+00, 33.00' Rt	1
Sta. 723+79, 85.00' Rt	1	Sta. 734+00, 43.481' Lt	1
Sta. 724+10, 85.00' Rt	1	Sta. 735+00, 70.00' Lt	1
Sta. 724+50, 65.00' Rt	1	Sta. 735+50, 70.00' Lt	1
Sta. 725+50, 60.00' Rt	1	Sta. 735+75, 90.00' Lt	1
Sta. 726+00, 40.00' Rt	1	Sta. 736+25, 90.00' Lt	1
Sta. 720+00, 48.52' Lt	1	Sta. 736+50, 60.00' Lt	1
Sta. 721+00, 65.00' Lt	1	Sta. 738+00, 60.00' Lt	1
Sta. 723+50, 65.00' Lt	1	Sta. 738+50, 40.82' Lt	1
Sta. 723+90, 95.00' Lt	1	LOCATION 4	
Sta. 724+17, 95.00' Lt	1	Sta. 858+50, 33.00' Rt	1
Sta. 724+50, 70.00' Lt	1	Sta. 860+50, 75.00' Rt	1
Sta. 725+50, 65.00' Lt	1	Sta. 861+00, 75.00' Rt	1
Sta. 726+00, 48.20' Lt	1	Sta. 862+50, 33.00' Rt	1
		Sta. 858+50, 33.00' Lt	1
		Sta. 859+35, 79.00' Lt	1
		Sta. 859+75, 79.00' Lt	1
		Sta. 860+00, 67.00' Lt	1
		Sta. 861+50, 33.00' Lt	1
SUB-TOTAL	20	SUB-TOTAL	25
TOTAL = 45			

CODE NO.63301210

REMOVE & RE-ERECT SPBG, TYPE A	
LOCATION 1	UNIT FOOT
Lt. Sta. 582+53.65 to Sta. 583+28.65	75
Lt. Sta. 583+66.15 to Sta. 585+53.65	188
TOTAL = 263	

CODE NO.70100450

TRAFFIC CONTROL AND PROTECTION STANDARD 701201	
LOCATION 1	UNIT L.SUM
Sta. 581+00 to Sta. 587+00	0.25
LOCATION 2	
Sta. 720+00 to Sta. 726+00	0.25
LOCATION 3	
Sta. 733+00 to Sta. 739+00	0.25
LOCATION 4	
Sta. 856+50 to Sta. 862+50	0.25
TOTAL = 1.0	

CODE NO.78200410

GUARDRAIL MARKER TYPE A	
LOCATION 1	UNIT EACH
Lt. Sta. 581+78.65 to Sta. 586+29.10	4
TOTAL = 4	

CODE NO.78201000

TERMINAR MARKER - DIRECT APPLIED	
LOCATION 1	UNIT EACH
Lt. Sta. 581+78.65	1
Lt. Sta. 586+29.10	1
TOTAL = 2	

CODE NO.X0301512

GUARDRAIL AGGREGATE EROSION CONTROL	
LOCATION 1	UNIT TON
Lt. Sta. 582+53.65 to Sta. 583+28.65	10
Lt. Sta. 583+66.15 to Sta. 585+53.65	26
TOTAL = 36	

CODE NO.67000400

ENGINEER'S FIELD OFFICE, TYPE A	
LOCATION	UNIT CAL MO
JOBSITE	3
TOTAL = 3	

CODE NO.67100100

MOBILIZATION	
LOCATION	UNIT L SUM
JOBSITE	1
TOTAL = 1	

CODE NO. B2001164

TREE, CERCIS CANADENSIS (EASTERN REDBUD) 5' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED	
LOCATION	UNIT EACH
JOBSITE	5
TOTAL = 5	

CODE NO. Z0013798

CONSTRUCTION LAYOUT	
LOCATION	UNIT L SUM
JOBSITE	1
TOTAL = 1	

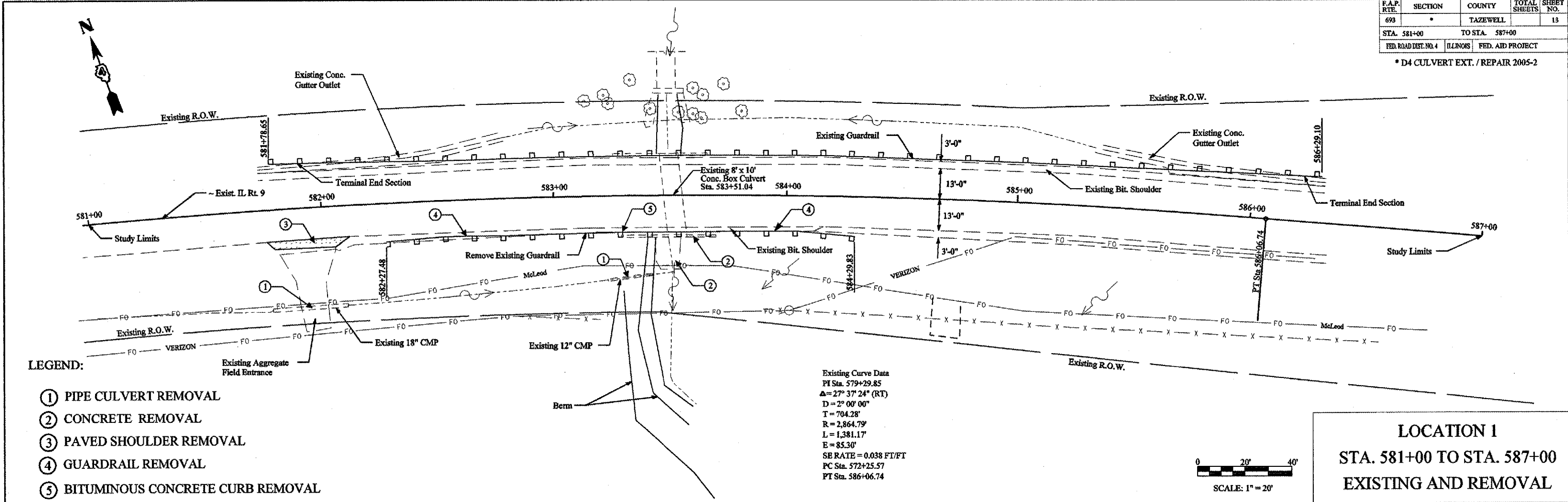
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	13	13
STA. 581+00		TO STA. 587+00		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

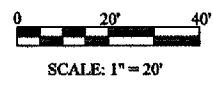
DATE	BY

DATE	BY

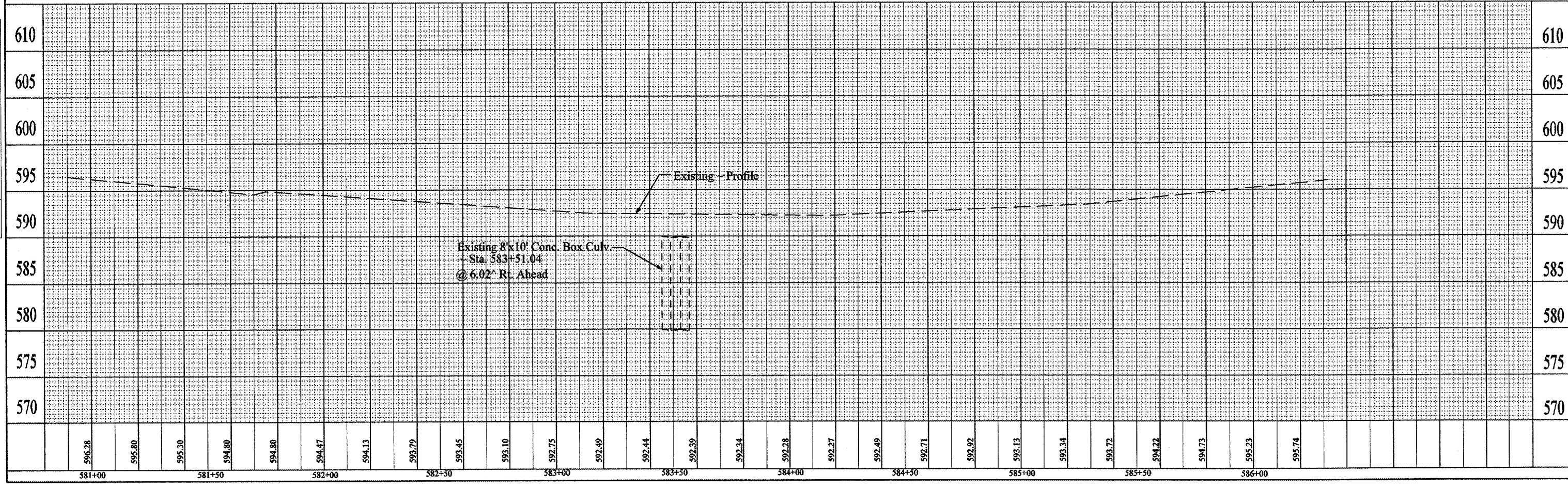


- LEGEND:**
- ① PIPE CULVERT REMOVAL
 - ② CONCRETE REMOVAL
 - ③ PAVED SHOULDER REMOVAL
 - ④ GUARDRAIL REMOVAL
 - ⑤ BITUMINOUS CONCRETE CURB REMOVAL

Existing Curve Data
 PI Sta. 579+29.85
 $\Delta = 27^\circ 37' 24''$ (RT)
 $D = 2^\circ 00' 00''$
 $T = 704.28'$
 $R = 2,864.79'$
 $L = 1,381.17'$
 $E = 85.30'$
 $SE\ RATE = 0.038\ FT/FT$
 PC Sta. 572+25.57
 PT Sta. 586+06.74



LOCATION 1
STA. 581+00 TO STA. 587+00
EXISTING AND REMOVAL

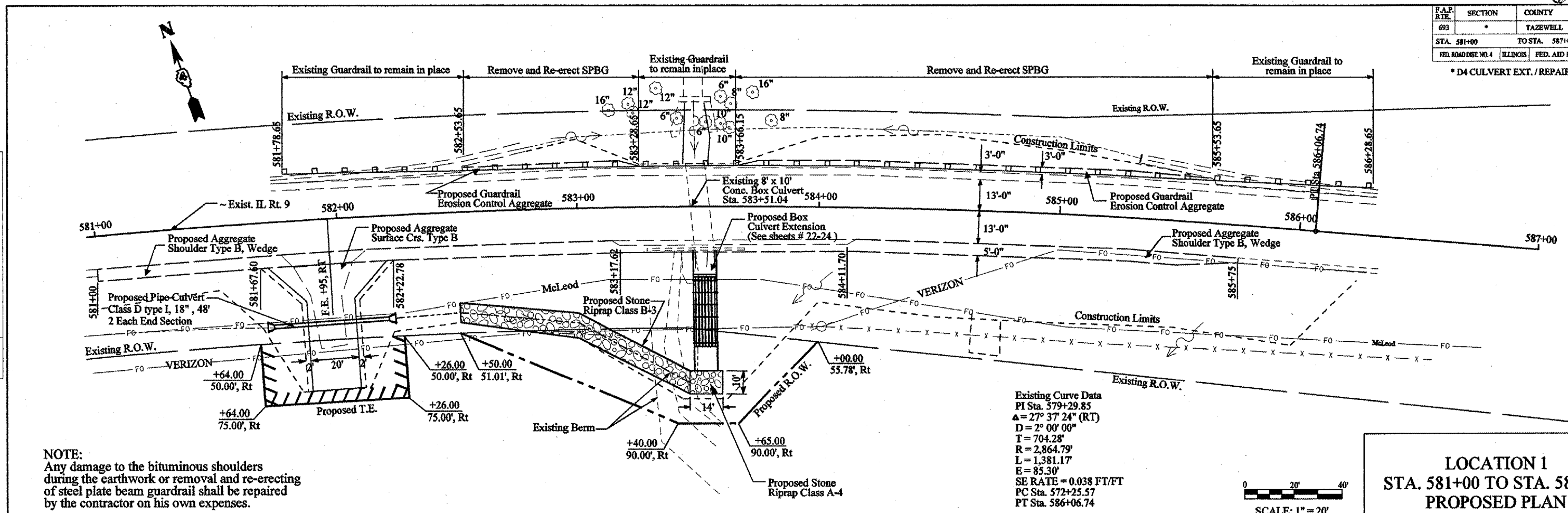


\$DATES \$TIMES \$FILES

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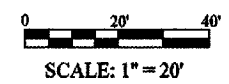
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	14	14
STA. 581+00		TO STA. 587+00		
FDL ROAD DIST. NO. 4		ILLINOIS		FED. AID PROJECT

* D4 CULVERT EXT. / REPAIR 2005-2

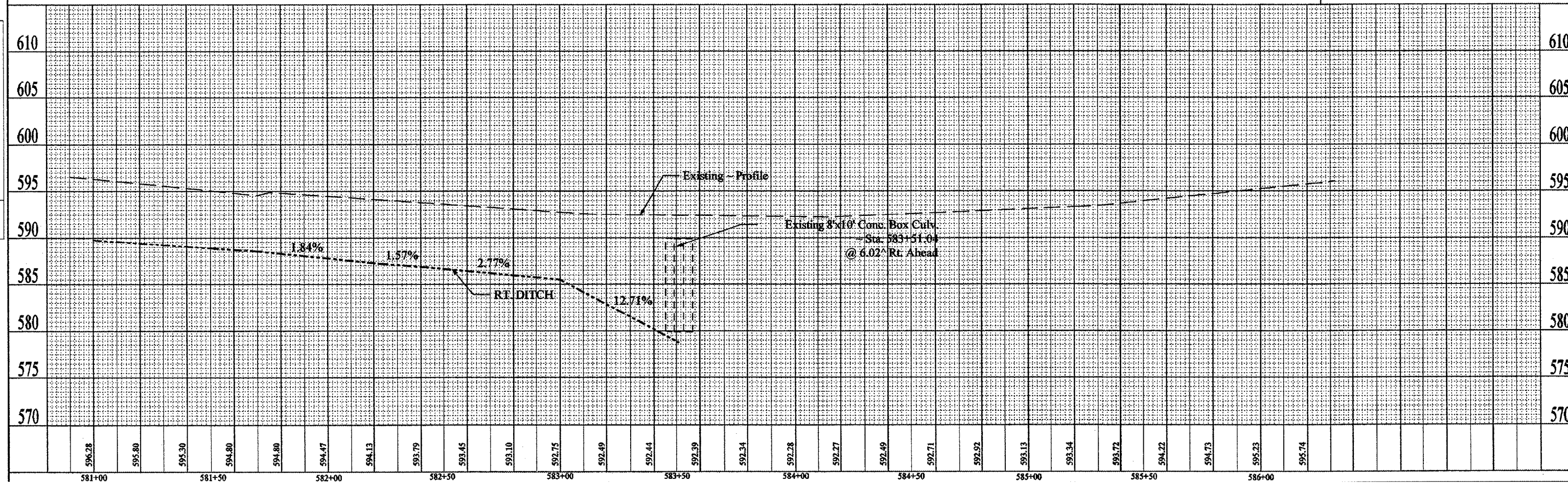


NOTE:
Any damage to the bituminous shoulders during the earthwork or removal and re-erecting of steel plate beam guardrail shall be repaired by the contractor on his own expenses.

Existing Curve Data
 PI Sta. 579+29.85
 $\Delta = 27^{\circ} 37' 24''$ (RT)
 $D = 2^{\circ} 00' 00''$
 $T = 704.28'$
 $R = 2,864.79'$
 $L = 1,381.17'$
 $E = 85.30'$
 $SE \text{ RATE} = 0.038 \text{ FT/FT}$
 $PC \text{ Sta. } 572+25.57$
 $PT \text{ Sta. } 586+06.74$



LOCATION 1
STA. 581+00 TO STA. 587+00
PROPOSED PLAN

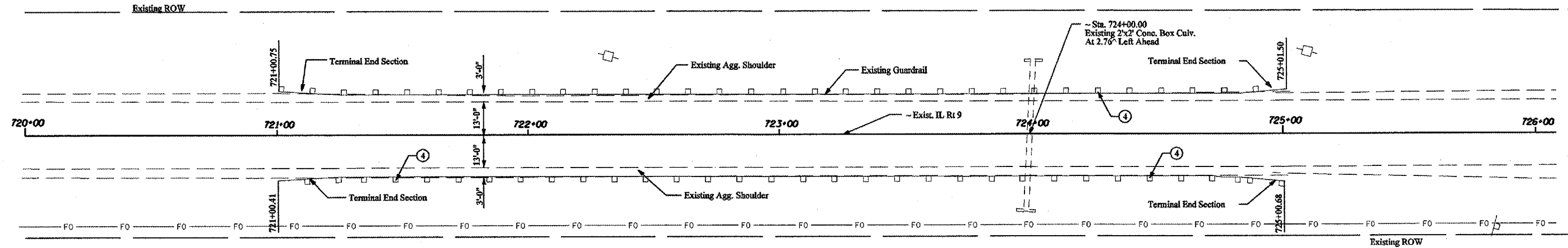


PLAN	DATE

PROFILE	DATE

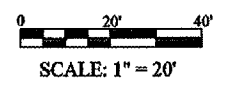
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	13
STA. 720+00		TO STA. 726+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				



LEGEND:

- ① PIPE CULVERT REMOVAL
- ② CONCRETE REMOVAL
- ③ PAVED SHOULDER REMOVAL
- ④ GUARDRAIL REMOVAL
- ⑤ BITUMINOUS CONCRETE CURB REMOVAL



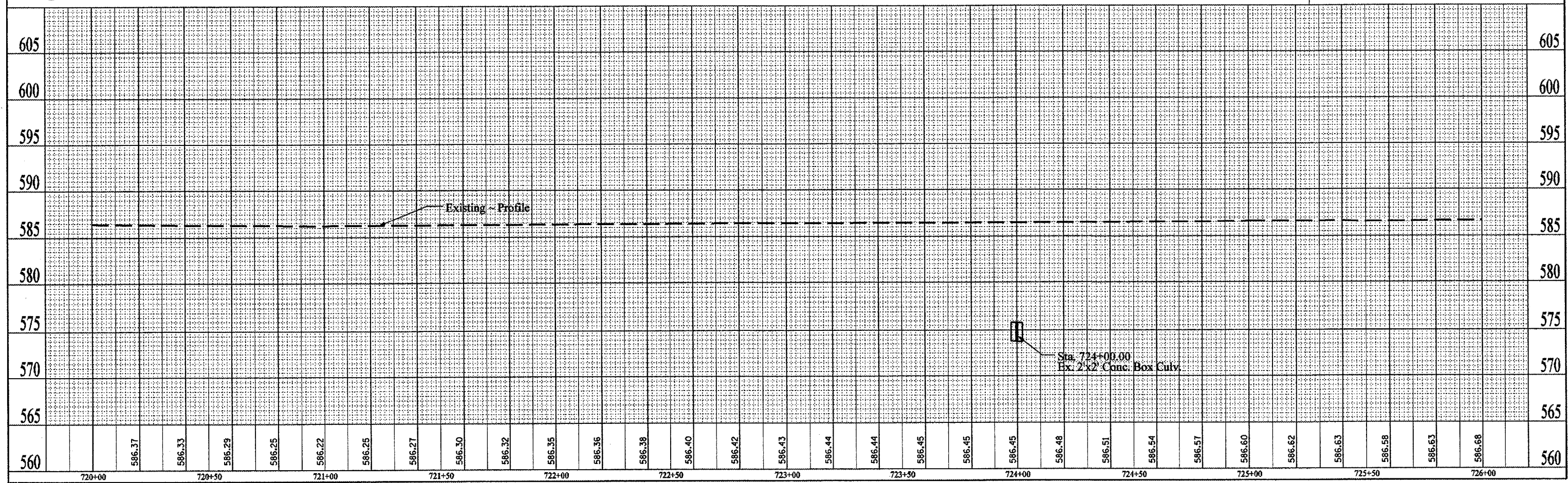
LOCATION 2
STA. 720+00 to STA. 726+00
EXISTING & REMOVAL

DATE	BY

REVISIONS:
 1. DATE
 2. BY
 3. DESCRIPTION
 4. DRAWING NO.
 5. SHEET NO.

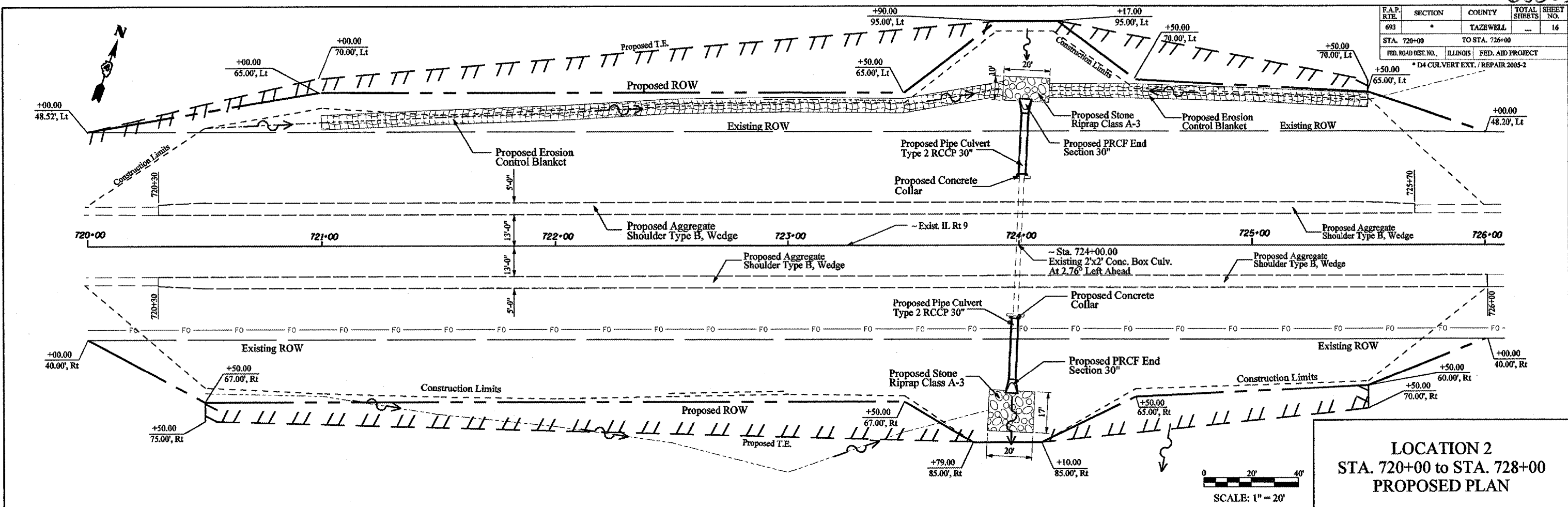
DATE	BY

REVISIONS:
 1. DATE
 2. BY
 3. DESCRIPTION
 4. DRAWING NO.
 5. SHEET NO.

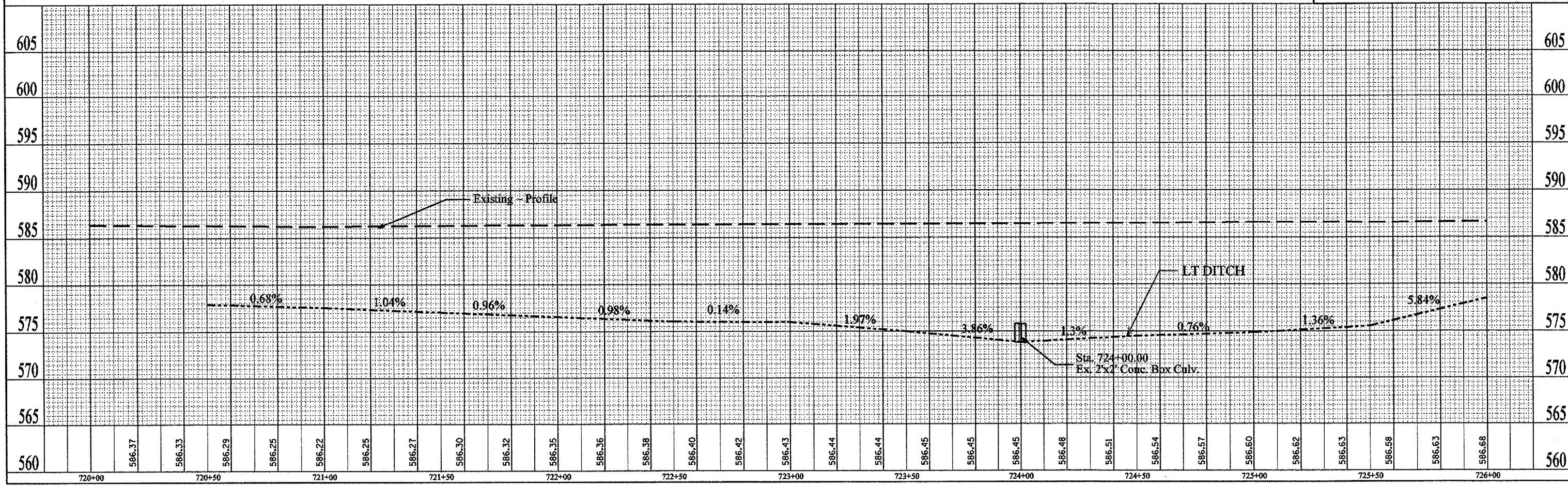


68383

E.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	16	16
STA. 720+00		TO STA. 726+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				



LOCATION 2
STA. 720+00 to STA. 728+00
PROPOSED PLAN

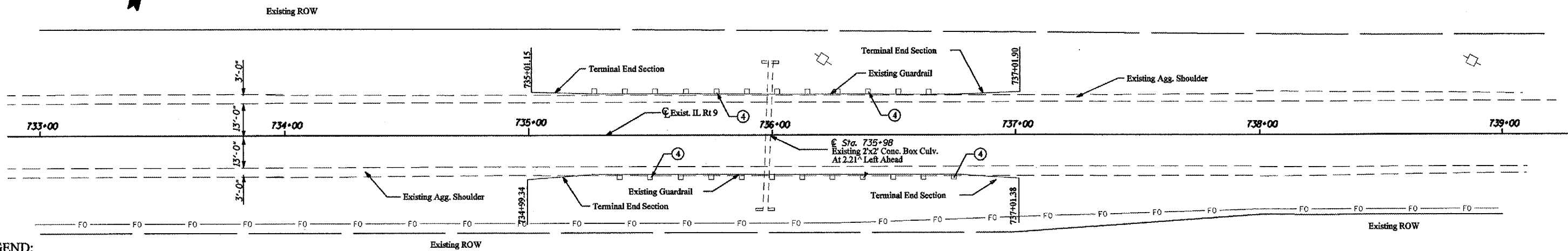


PLAN	DESIGNED	BY	DATE
	CHECKED		
	IN CHARGE		
	NO. OF WAY CHECKED		
	CONTRACT NO.		

PROFILE	DESIGNED	BY	DATE
	CHECKED		
	IN CHARGE		
	NO. OF WAY CHECKED		
	CONTRACT NO.		

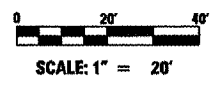
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	17
STA. 733+00		TO STA. 739+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				



LEGEND:

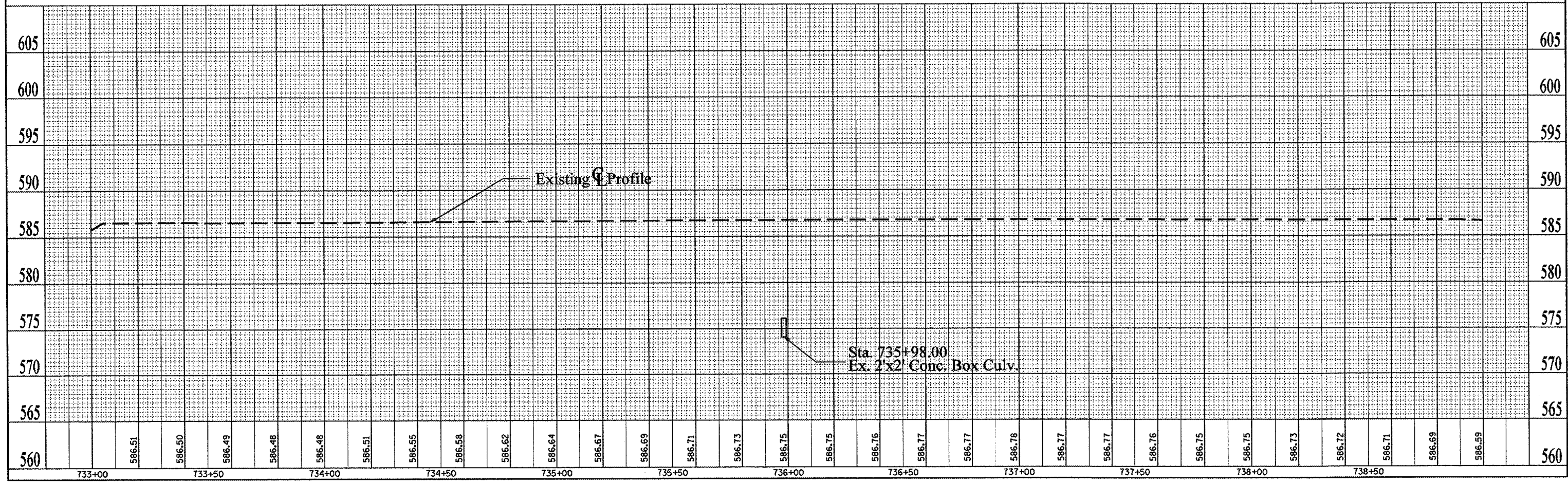
- ① PIPE CULVERT REMOVAL
- ② CONCRETE REMOVAL
- ③ PAVED SHOULDER REMOVAL
- ④ GUARDRAIL REMOVAL
- ⑤ BITUMINOUS CONCRETE CURB REMOVAL



LOCATION 3
STA. 733+00 to STA. 739+00
EXISTING AND REMOVAL

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	REVISIONS		
	NO. _____		
	DATE _____		
	BY _____		
	DATE _____		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	REVISIONS		
	NO. _____		
	DATE _____		
	BY _____		
	DATE _____		

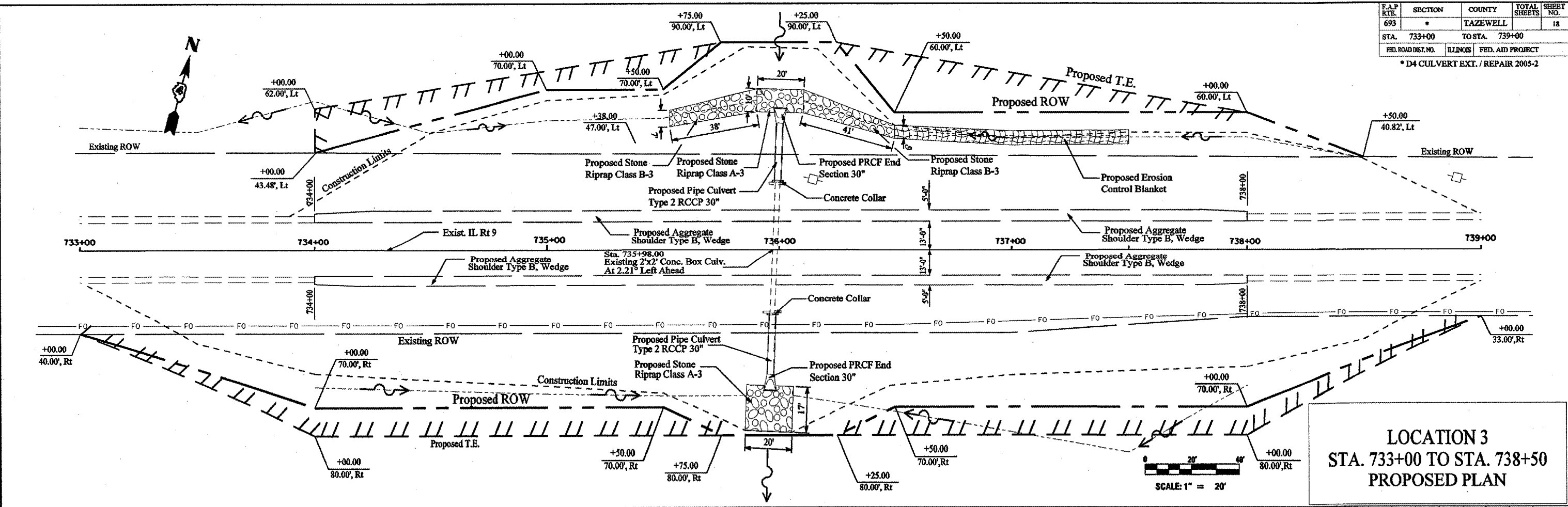


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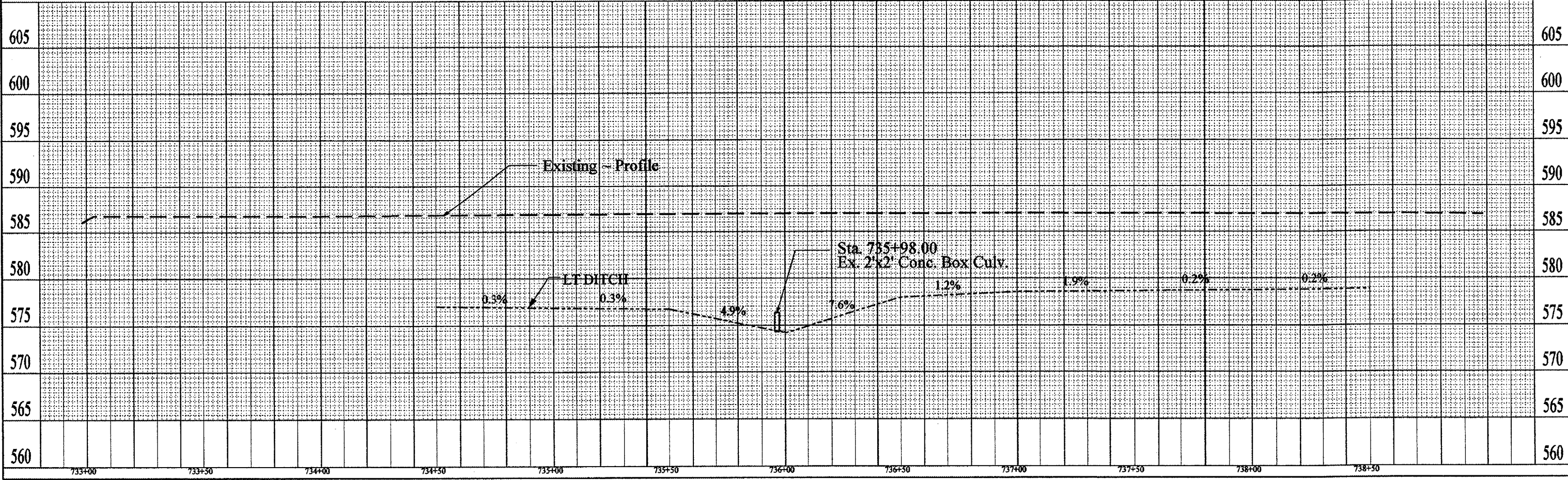
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		18
STA. 733+00	TO STA. 739+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

PLAN	DATE
BY	
CHECKED	
NO. 1	

PROFILE	DATE
BY	
CHECKED	
NO. 1	



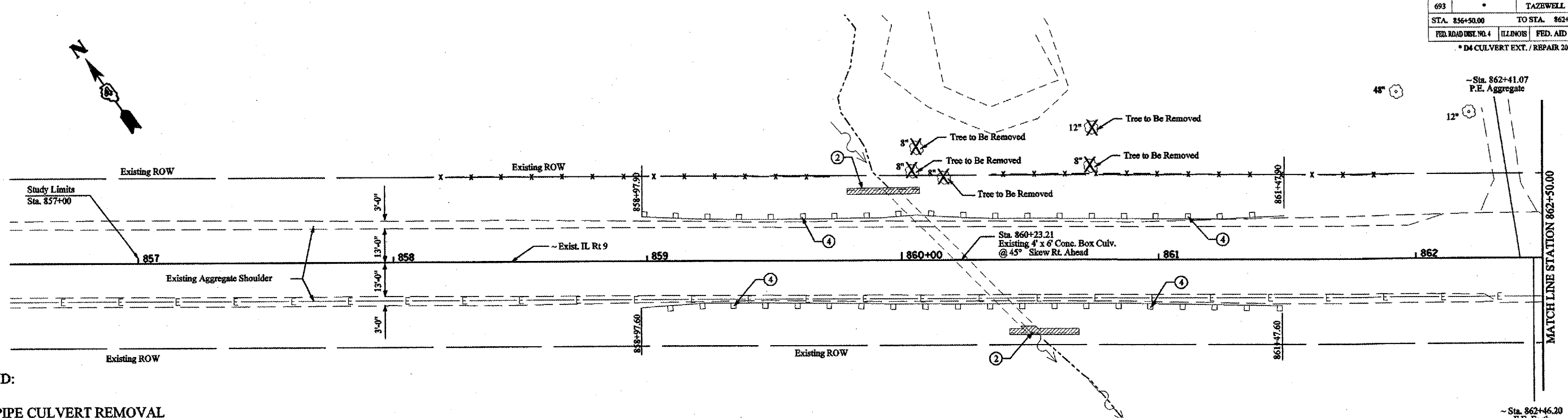
LOCATION 3
STA. 733+00 TO STA. 738+50
PROPOSED PLAN



DATE

68383

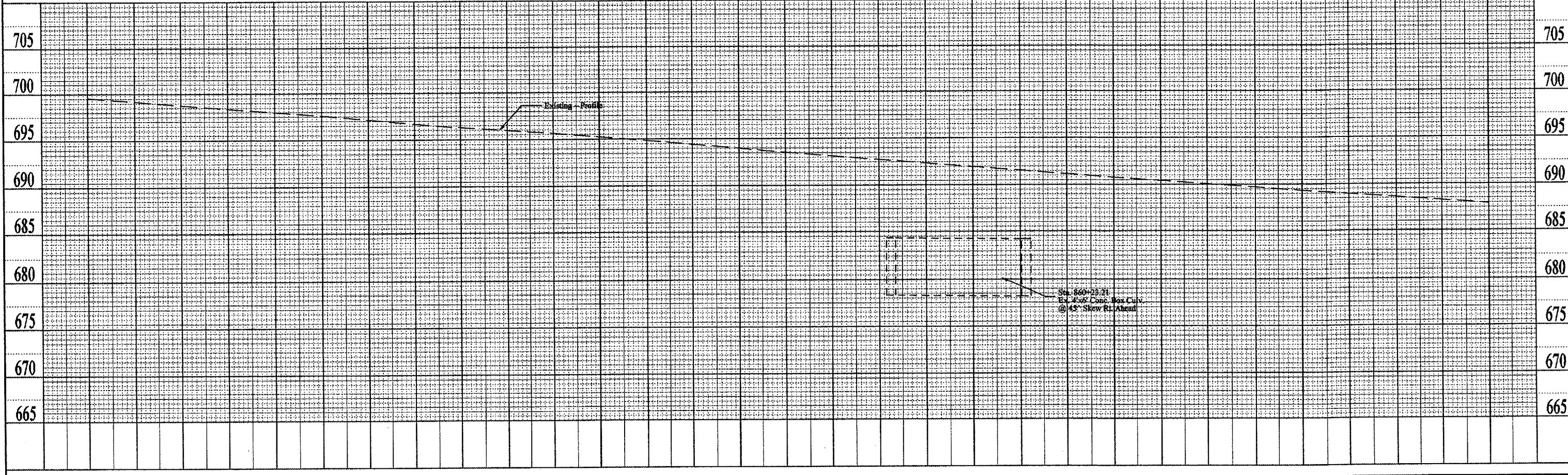
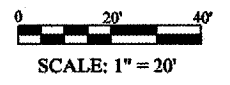
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		19
STA. 856+50.00		TO STA. 862+50.00		
FED. ROAD DIST. NO. 4		ILLINOIS		FED. AID PROJECT
* D4 CULVERT EXT. / REPAIR 2005-2				



LEGEND:

- ① PIPE CULVERT REMOVAL
- ② CONCRETE REMOVAL
- ③ PAVED SHOULDER REMOVAL
- ④ GUARDRAIL REMOVAL
- ⑤ BITUMINOUS CONCRETE CURB REMOVAL

LOCATION 4
STA. 856+50 TO STA. 862+50
EXISTING AND REMOVAL

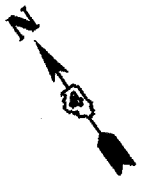


PLAN	DATE

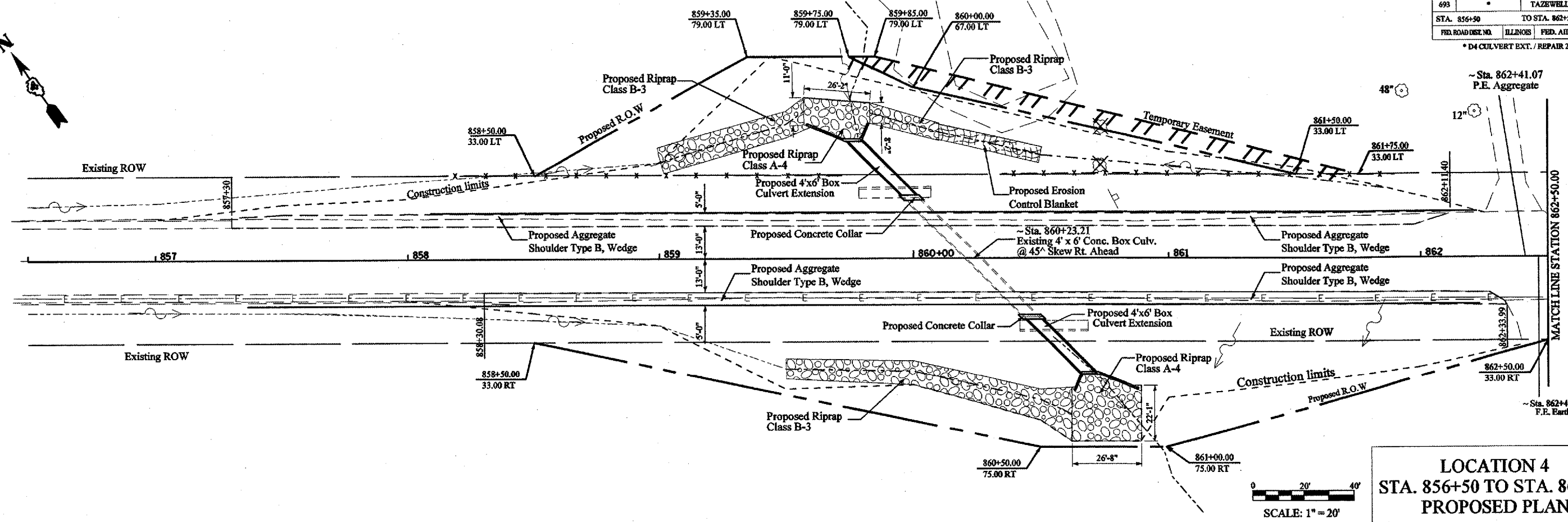
PROFILE	DATE

68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	20	20
STA. 856+50		TO STA. 862+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

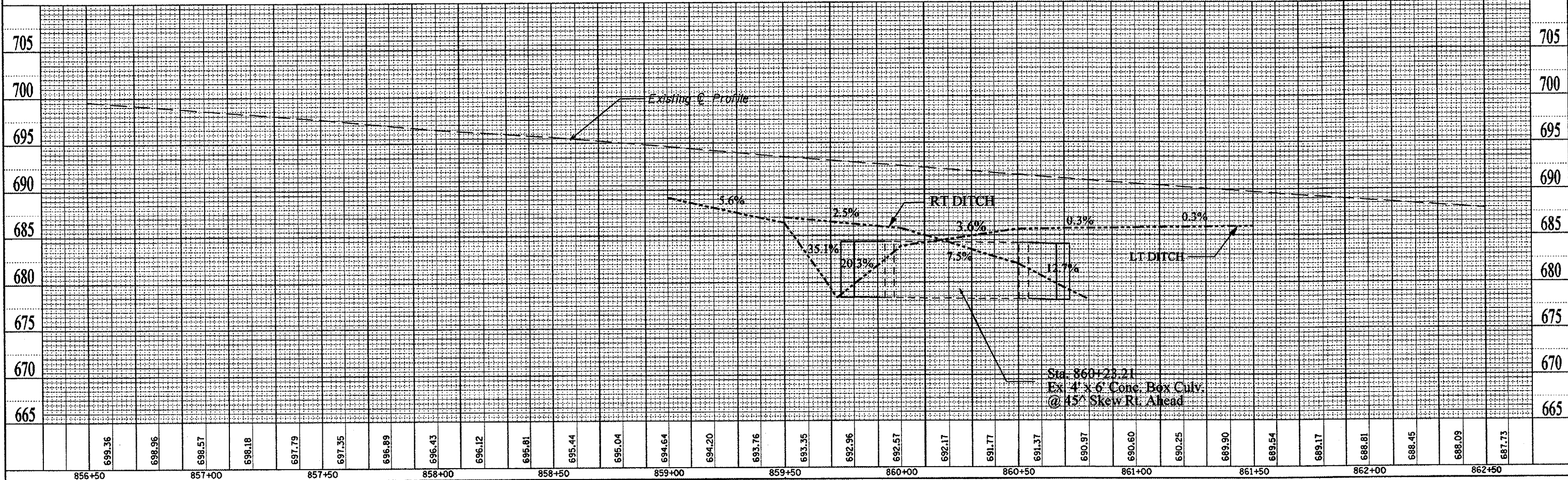


PLAN	DATE
REVISIONS	
NOTED	
NO. 1	
NO. 2	
NO. 3	



LOCATION 4
STA. 856+50 TO STA. 862+50
PROPOSED PLAN

PROFILE	DATE
REVISIONS	
NOTED	
NO. 1	
NO. 2	
NO. 3	



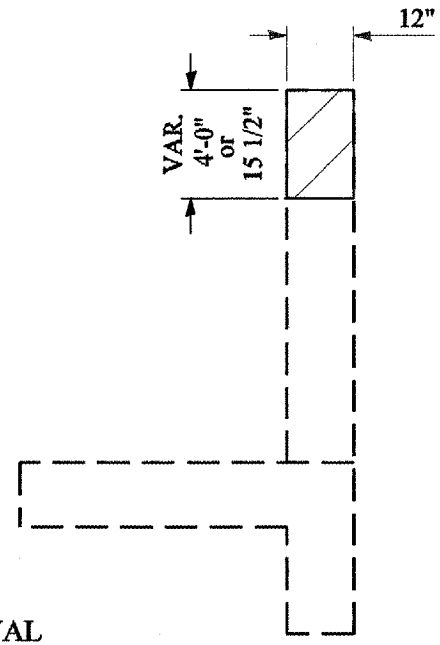
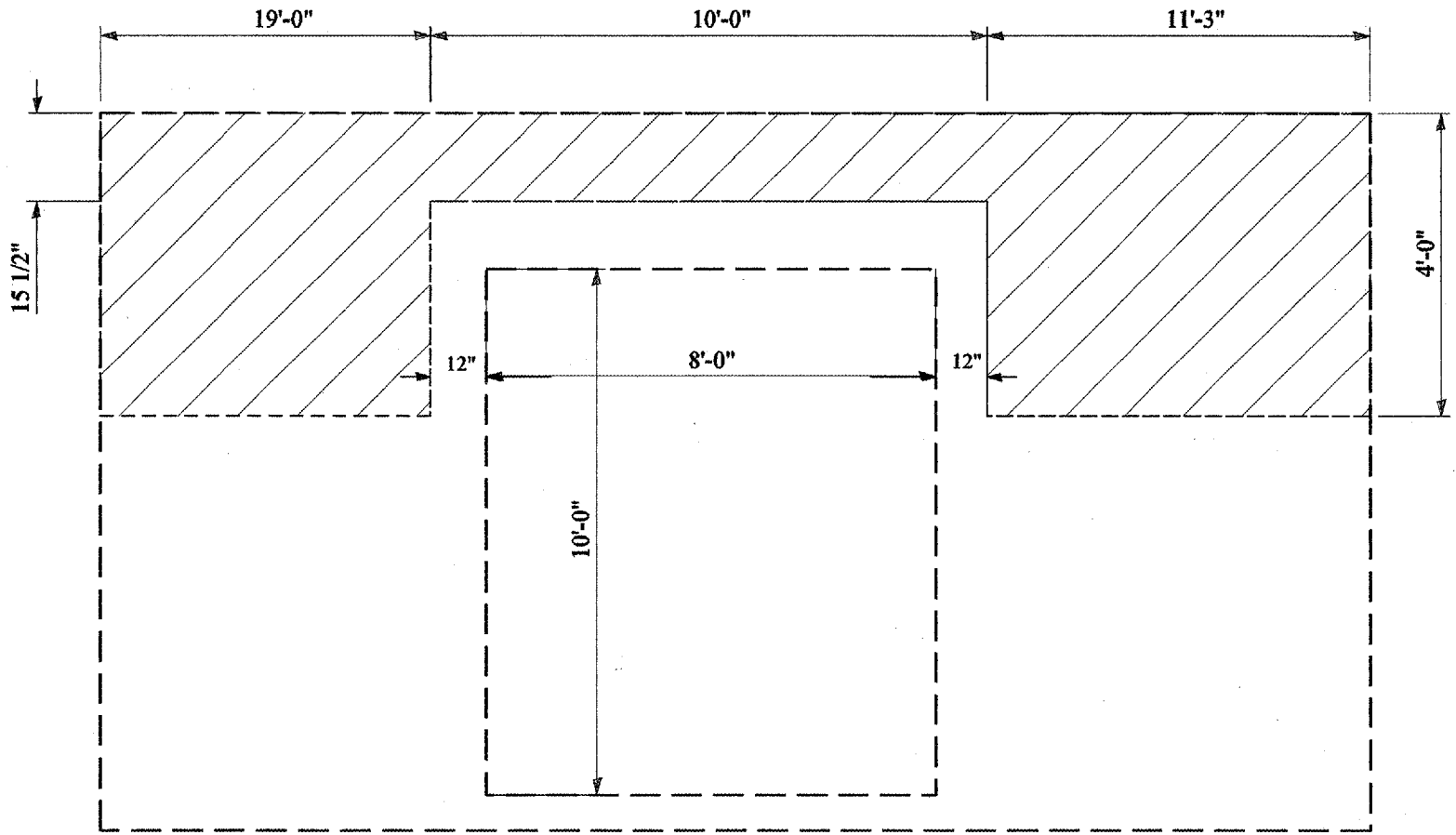
Sta. 860+23.21
Ex. 4' x 6' Conc. Box Culv.
@ 45° Skew Rt. Ahead

68383

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		21
STA. 856+50		TO STA. 862+50		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* D4 CULVERT EXT. / REPAIR 2005-2				

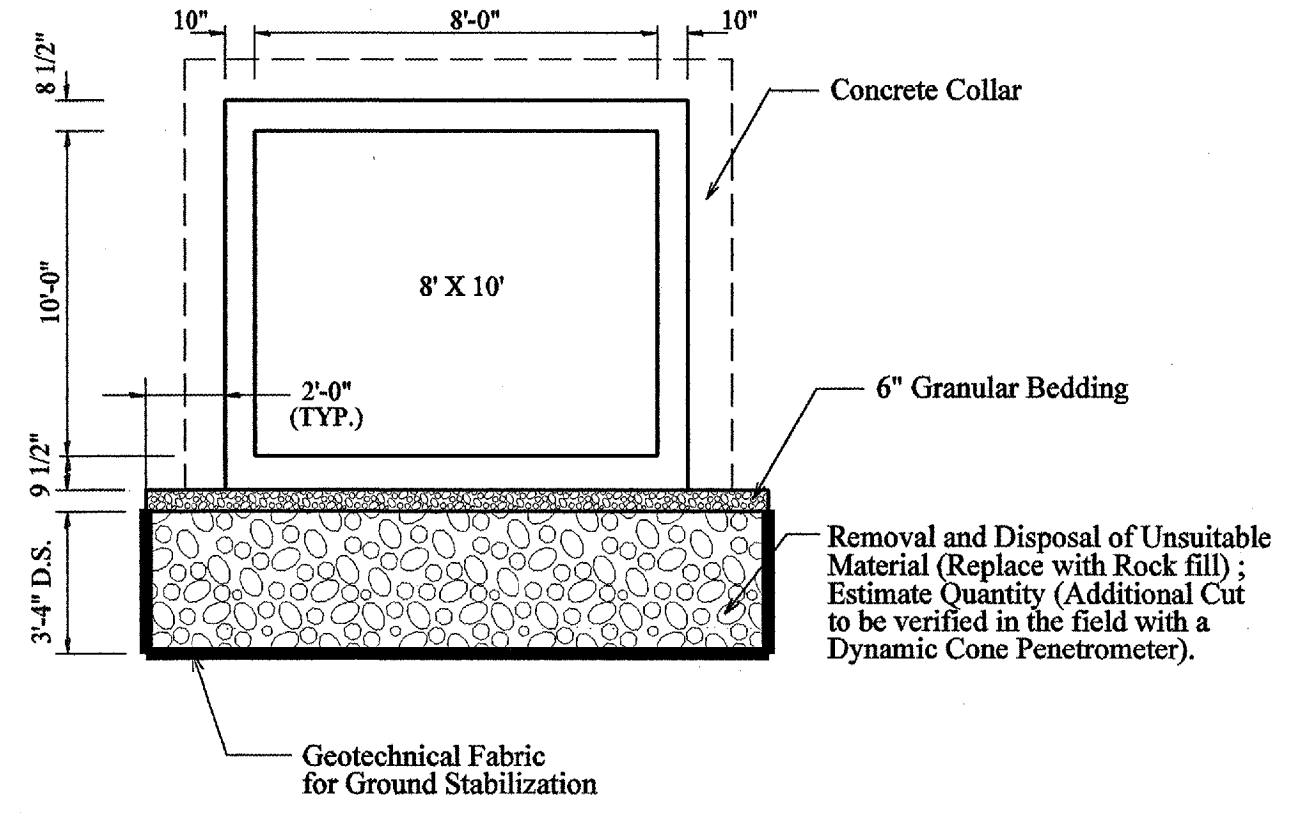
PLAN	DATE	BY
REVIEWED		
DESIGNED		
CHECKED		
DATE		

PROFILE	DATE	BY
REVIEWED		
DESIGNED		
CHECKED		
DATE		



CONCRETE REMOVAL

CONCRETE REMOVAL DETAIL DOWNSTREAM



SECTION THROUGH BARREL

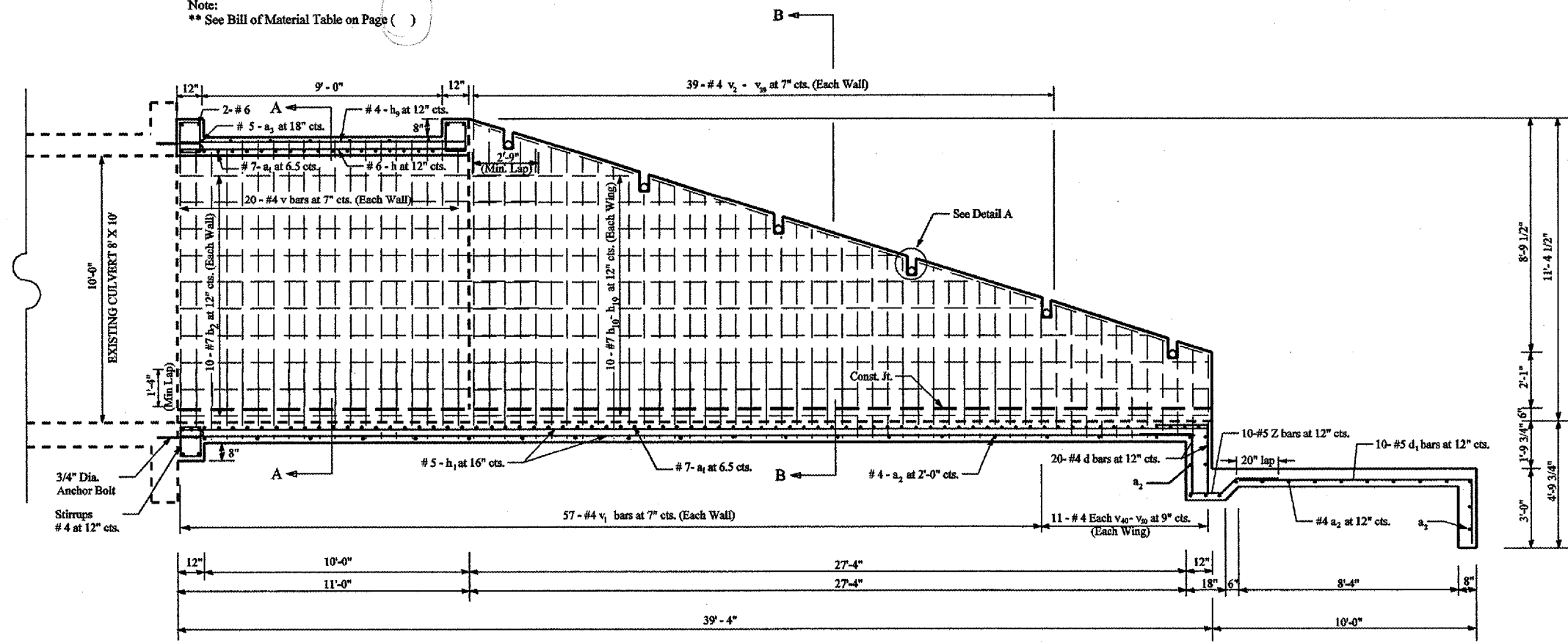
CULVERT EXTENSION DETAILS
STA. 583+51.04

68383

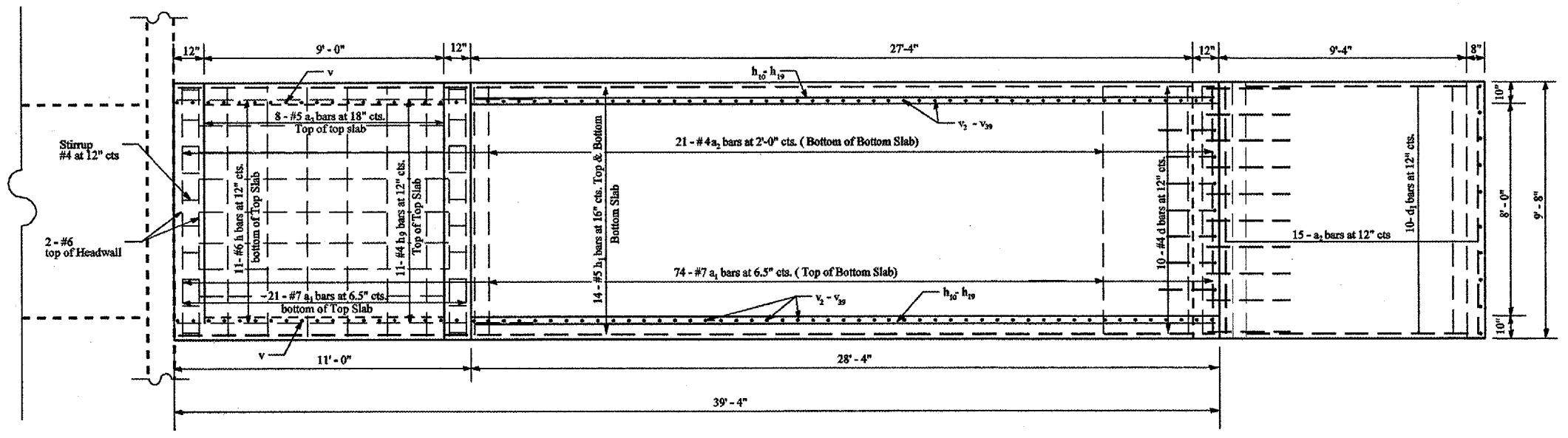
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	22	
STA. 581+00		TO STA. 587+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

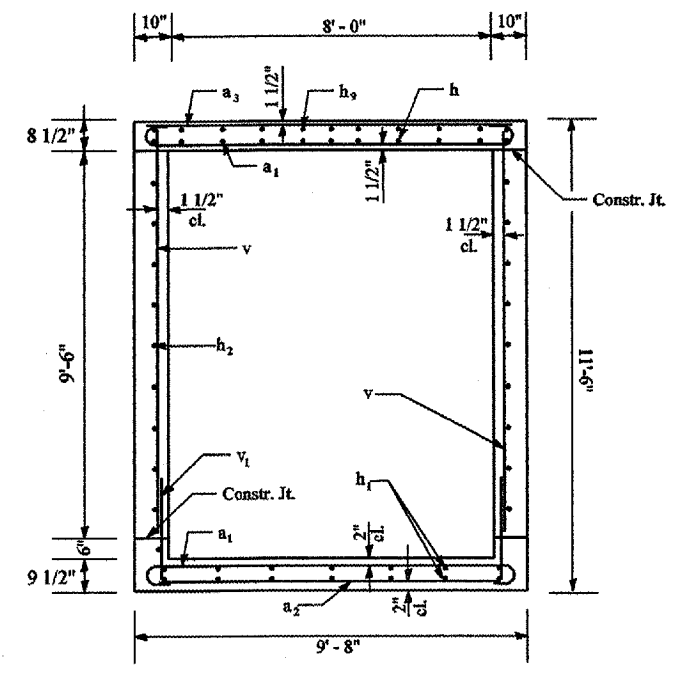
Note:
** See Bill of Material Table on Page ()



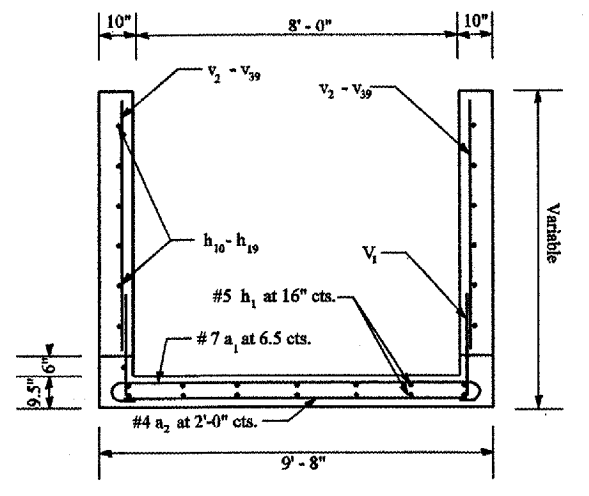
ELEVATION VIEW



PLAN VIEW



SECTION A - A



SECTION B - B

CULVERT EXTENSION DETAILS
STA. 583+51.04

DATE _____ BY _____
 PLAN REVIEWED _____
 DESIGNED _____
 CHECKED _____
 DATE _____ NO. _____

DATE _____ BY _____
 PROFILE REVIEWED _____
 DESIGNED _____
 CHECKED _____
 DATE _____ NO. _____

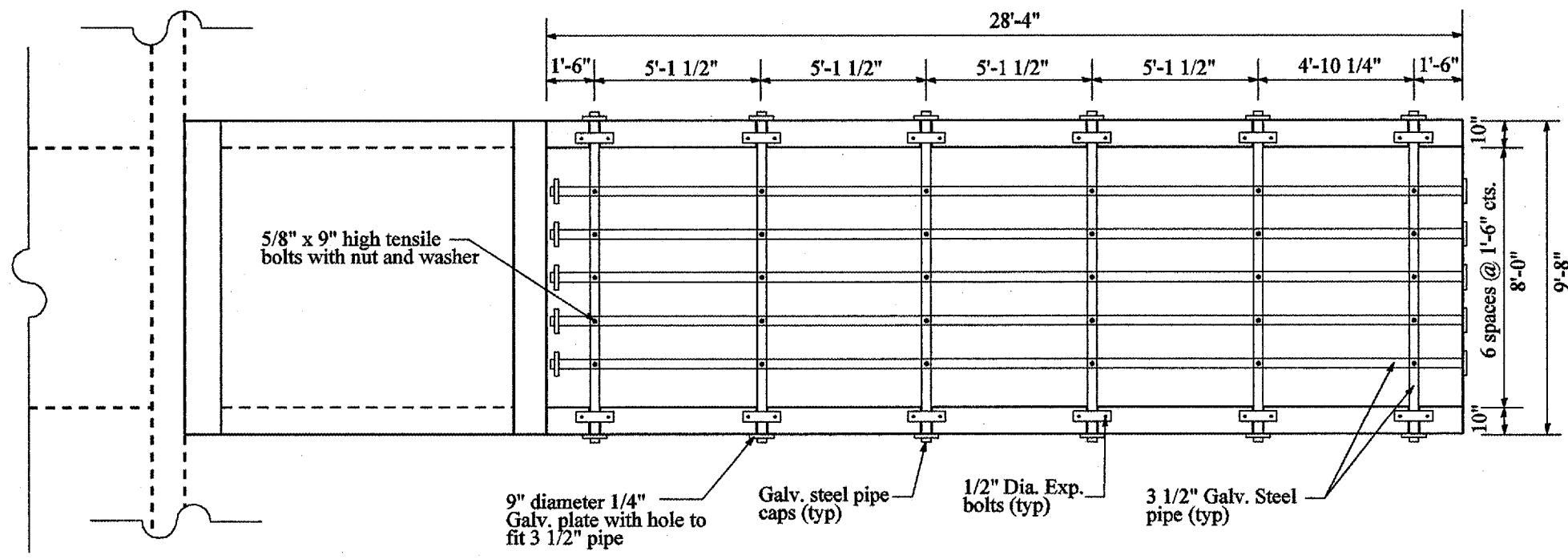
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		23
STA. 581+00		TO STA. 587+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

PLAN	DATE
BY	
CHECKED	
APPROVED	
DATE	

PROFILE	DATE
BY	
CHECKED	
APPROVED	
DATE	



GRATE DETAIL

GENERAL NOTES:

Steel pipes shall conform to A.S.T.M. A-53 (type E or S) Grade B schedule 40, and shall be galvanized conforming to A.S.T.M. A-120.

Steel plates shall conform to AASHTO M-183 & shall be galvanized conforming to AASHTO M-111.

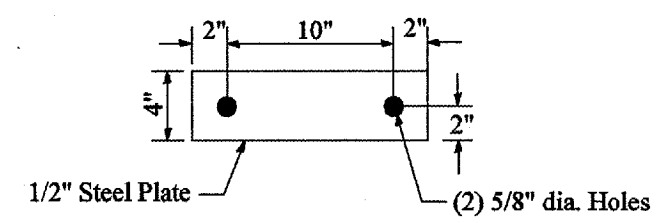
Bolts, Nuts & washers shall be in accordance with article 1006.08 of the Standard Specifications and shall be galvanized.

This work will be paid for at the contract unit price per "LINEAL FOOT" for GALV. STEEL PIPE, 3 1/2" and shall include the 1/2" Expansion bolts, Galv. Bolts with Nuts, Washers and Galv. anchor plate, Steel pipe caps, 9" Square or Round Galv. Plate and all necessary work

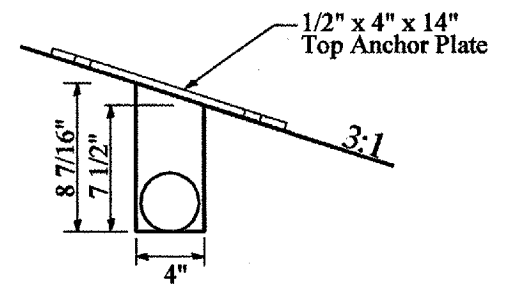
BILL OF MATERIAL

ITEMS	UNIT	QTY.
3 1/2" Galv. Steel Pipe	L. Foot	5 @ 29'-10"
		6 @ 10'-0"
**1/2" x 4" x 14" Galv. Anchor Plate	Each	12
**5/8" x 9" Galv. bolts	Each	30
**Galv. Steel Pipe Caps	Each	22
**1/2" dia. Galv. Exp. Bolts	Each	24
**9" Square or Round 1/4" Galv. Plate	Each	22

** For information only



TOP ANCHOR PLATE



DETAIL "A"

CULVERT EXTENSION DETAILS
STA. 583+51.04

6838

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		24
STA. 581+00		TO STA. 587+00		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

BILL OF MATERIAL

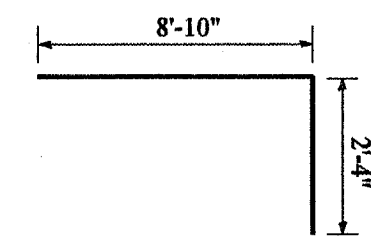
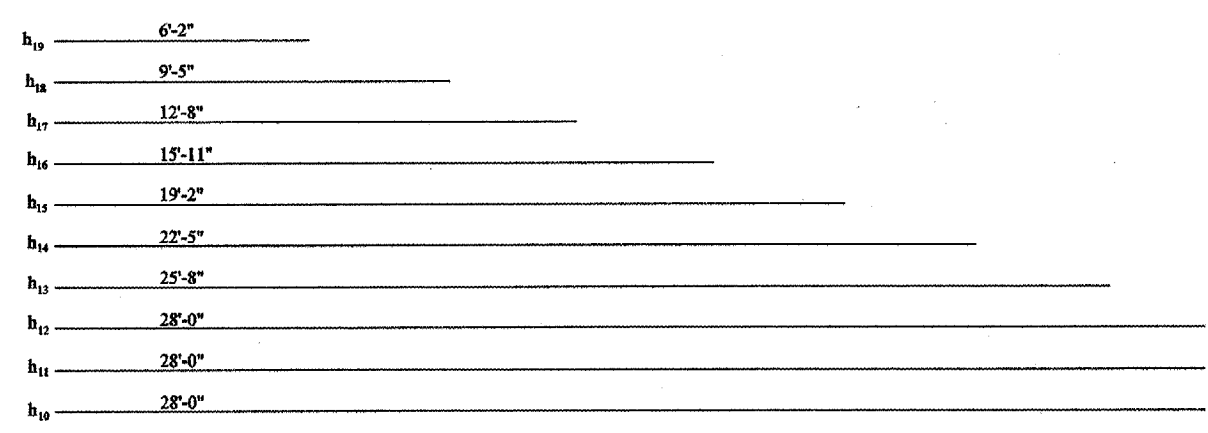
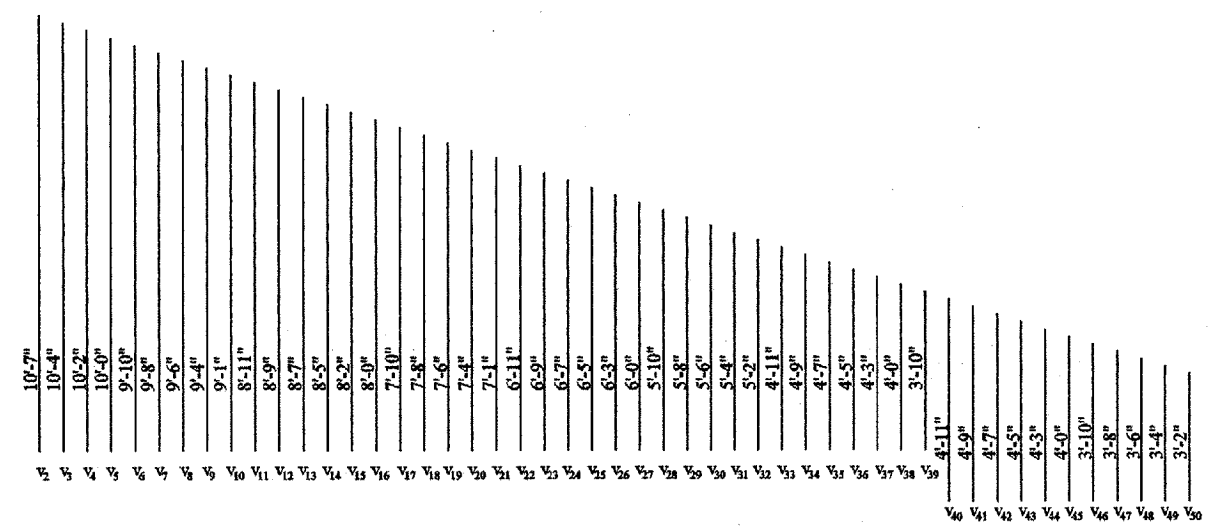
Bar	No.	Size	Length	Shape
a ₁	95	#7	11'-0"	
a ₂	41	#4	9'-4"	—————
a ₃	8	#5	9'-4"	—————
d	20	#4	4'-2"	—————
d ₁	10	#5	11'-2"	—————
h	11	#6	10'-9"	—————
h ₁	14	#5	39'-0"	—————
h ₂	20	#7	13'-6"	—————
h ₉	11	#4	10'-9"	—————
*h ₁₀₋₁₉	20	#7	variable	—————
v	40	#4	9'-11"	—————
*v ₁	114	#4	2'-7"	—————
*v ₂₋₃₉	78	#4	variable	—————
*v ₄₀₋₅₀	22	#4	variable	—————
stirrups	30	#4	4'-6"	
**	6	#6	9'-4"	—————
Z	10	#5	3'-9"	
			QTY.	
Reinforcement Bars		Pound	5,919	
Class SI Concrete		Cu. Yd.	37.8	
3/4" dia. Expansion Bolts		Each	26	

* See Reinforcement Bars Diagram for Length

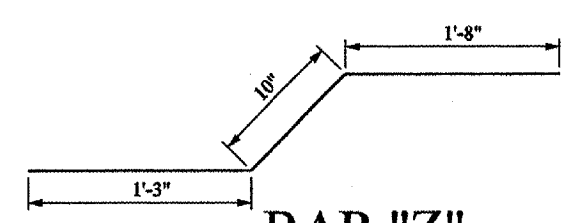
GENERAL NOTES:

The Reinforcement Bars shall conform to Section 508 of The Standard Specifications.

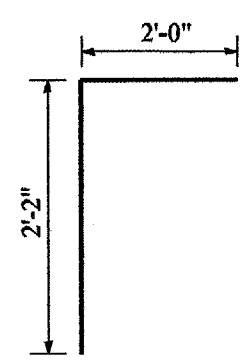
Reinforcement Bars and Class SI Concrete will be paid for separately.



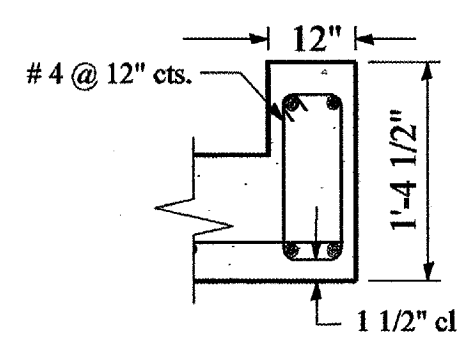
BAR "d₁"



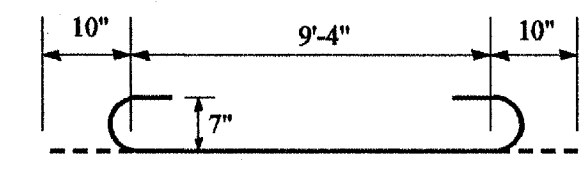
BAR "Z"



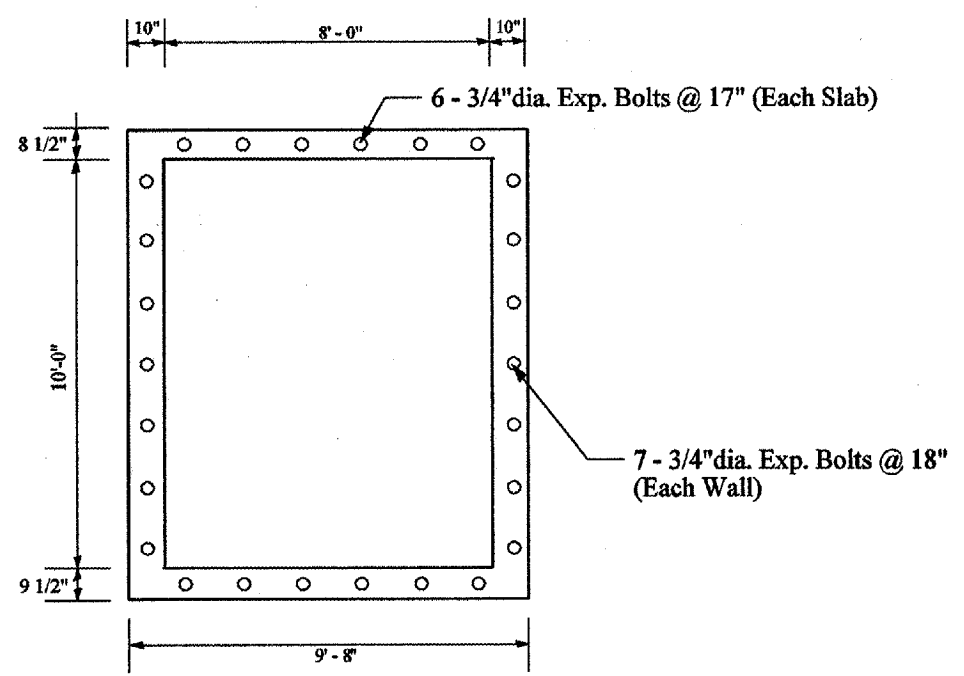
BAR "d"



STIRRUPS DETAIL



BAR "a₁"



SECTION THRU THE BARREL

CULVERT EXTENSION DETAILS
STA. 583+51.04

DATE	BY
REVISIONS	
NO.	DESCRIPTION
PLAN	
NO.	

DATE	BY
REVISIONS	
NO.	DESCRIPTION
PROFILE	
NO.	

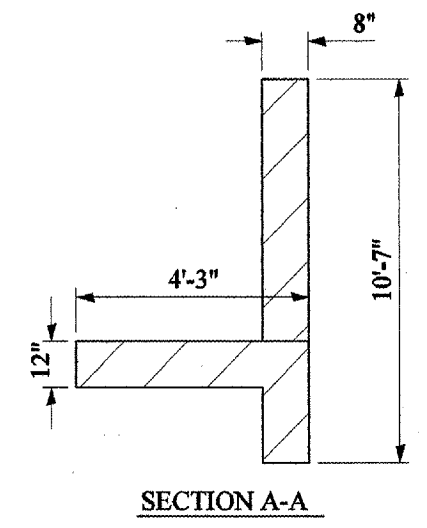
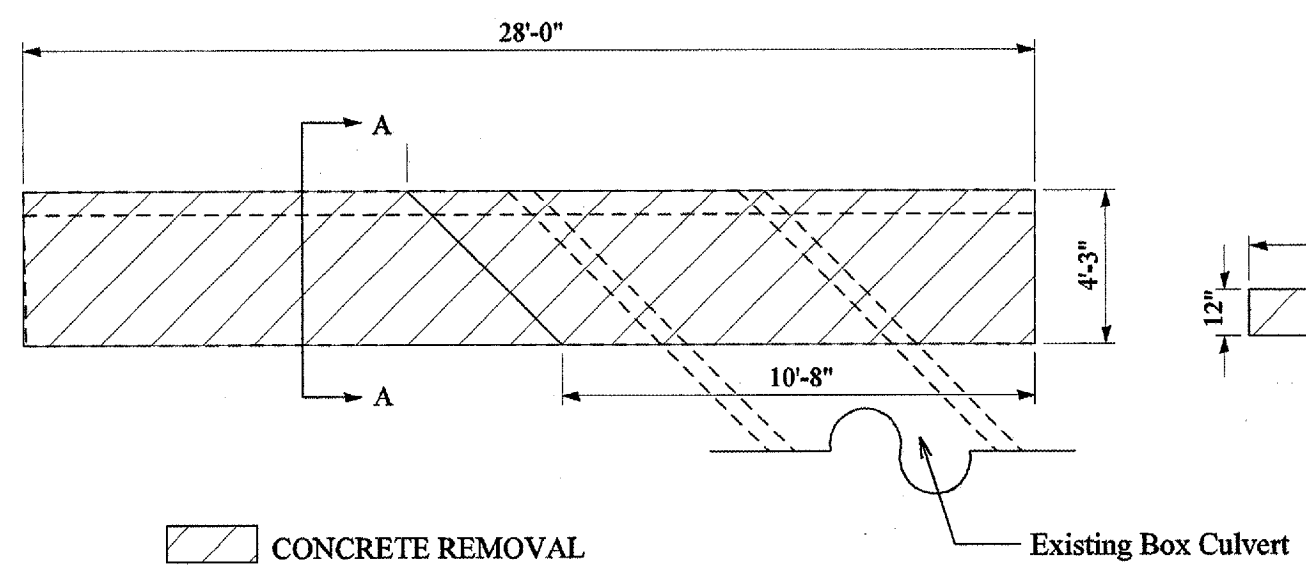
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	23
STA. 856+50		TO STA. 862+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

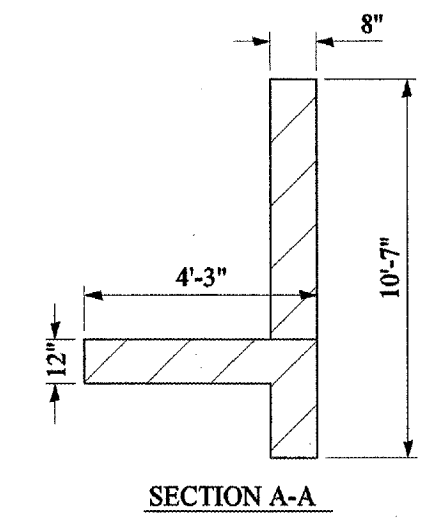
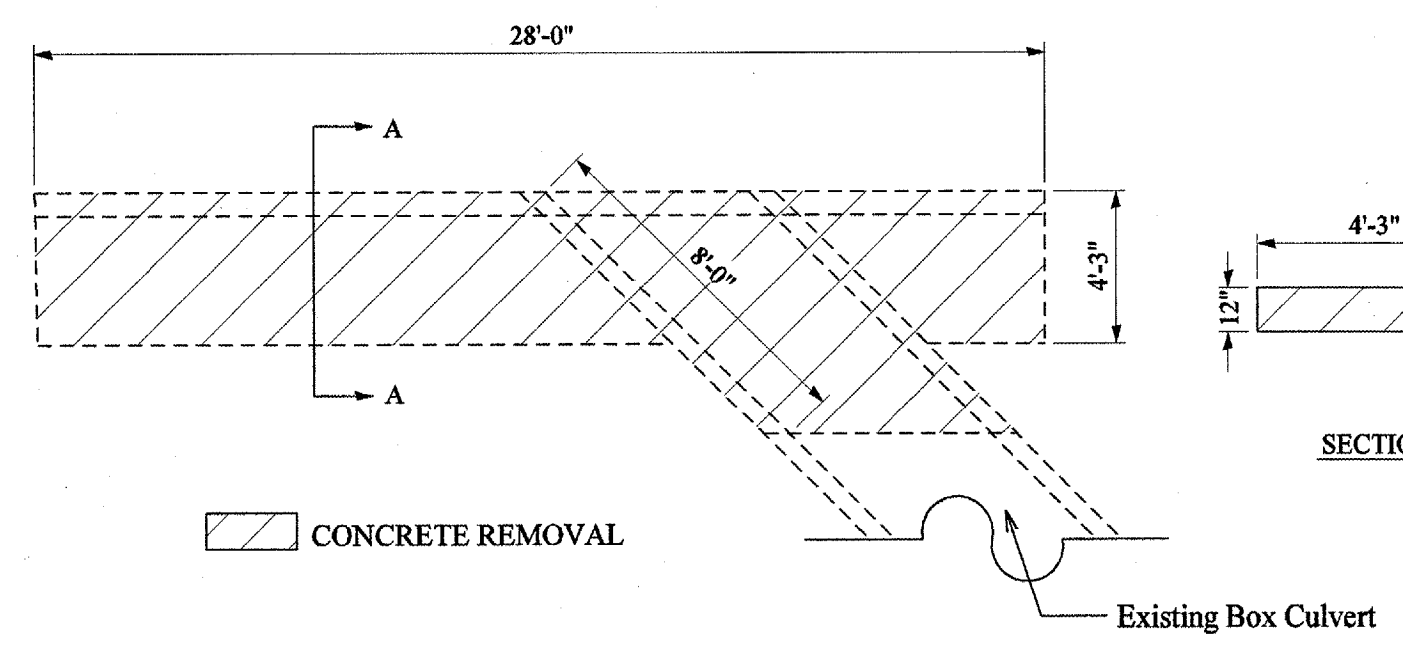
* D4 CULVERT EXT. / REPAIR 2005-2

PLAN	DATE
SUBMITTED	
DESIGNED	
CHECKED	
BY	
NO.	

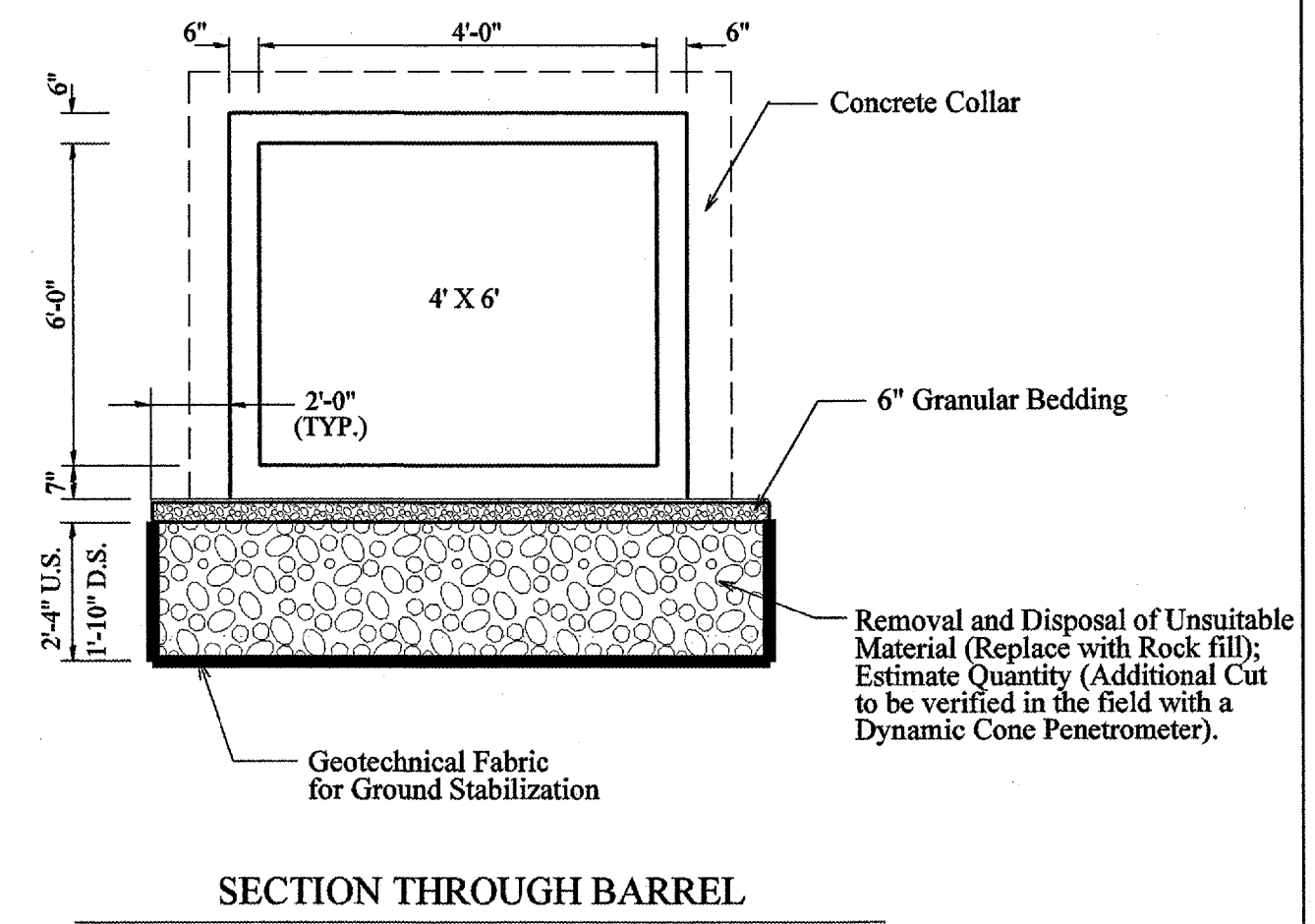
PROFILE	DATE
SUBMITTED	
DESIGNED	
CHECKED	
BY	
NO.	



CONCRETE REMOVAL DETAIL UPSTREAM



CONCRETE REMOVAL DETAIL DOWNSTREAM



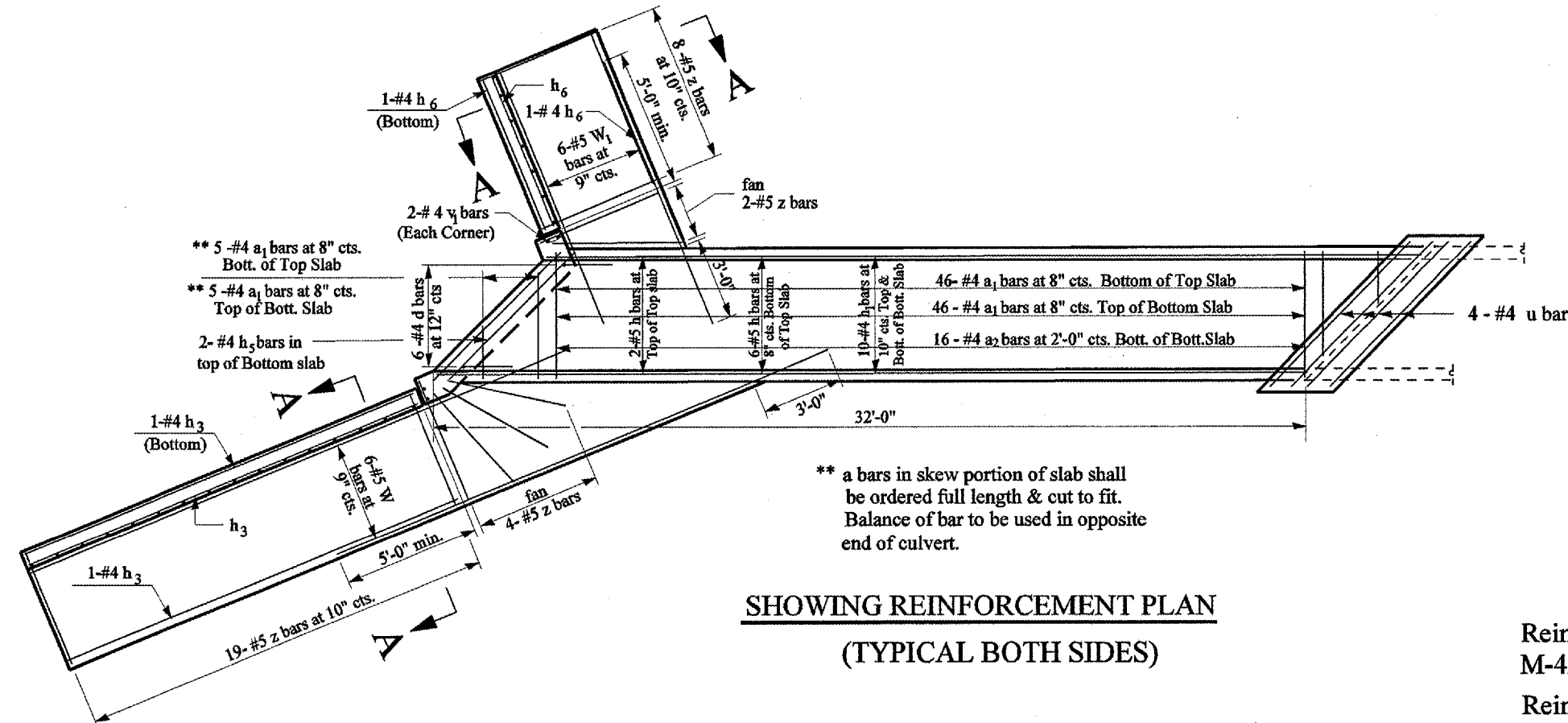
CULVERT EXTENSION DETAILS
 STA. 860+23
 LOCATION #4

68383

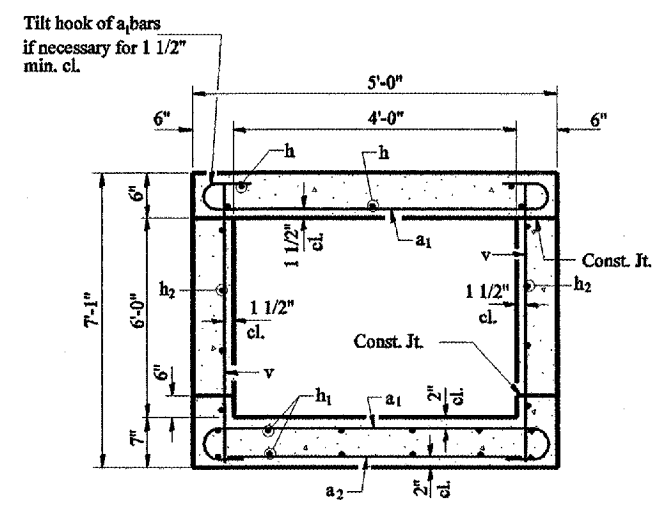
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	—	26
STA. 856+50	TO STA. 862+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

BY	DATE
REVISIONS	

BY	DATE
REVISIONS	



SHOWING REINFORCEMENT PLAN (TYPICAL BOTH SIDES)

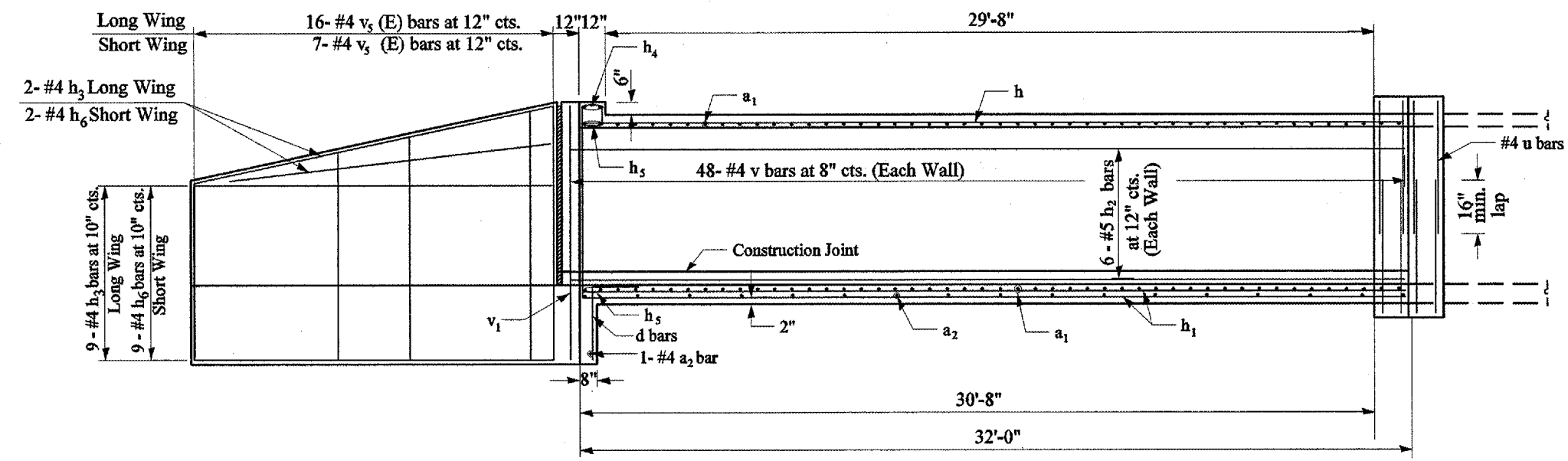


SECTION THRU BARREL

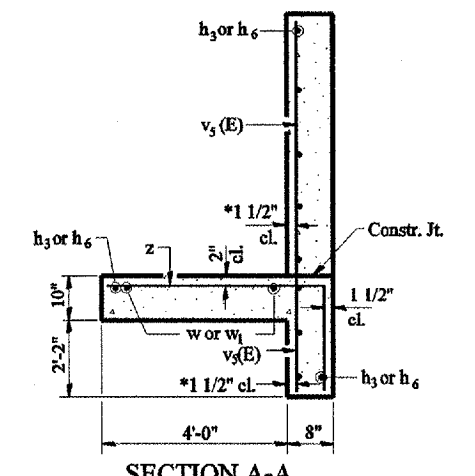
NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.
All construction joints shall be bonded.



LONGITUDINAL SECTION (TYPICAL BOTH SIDES)



SECTION A-A

*v bars shall not be placed more than 1 1/2" cl. from back face of wingwall.

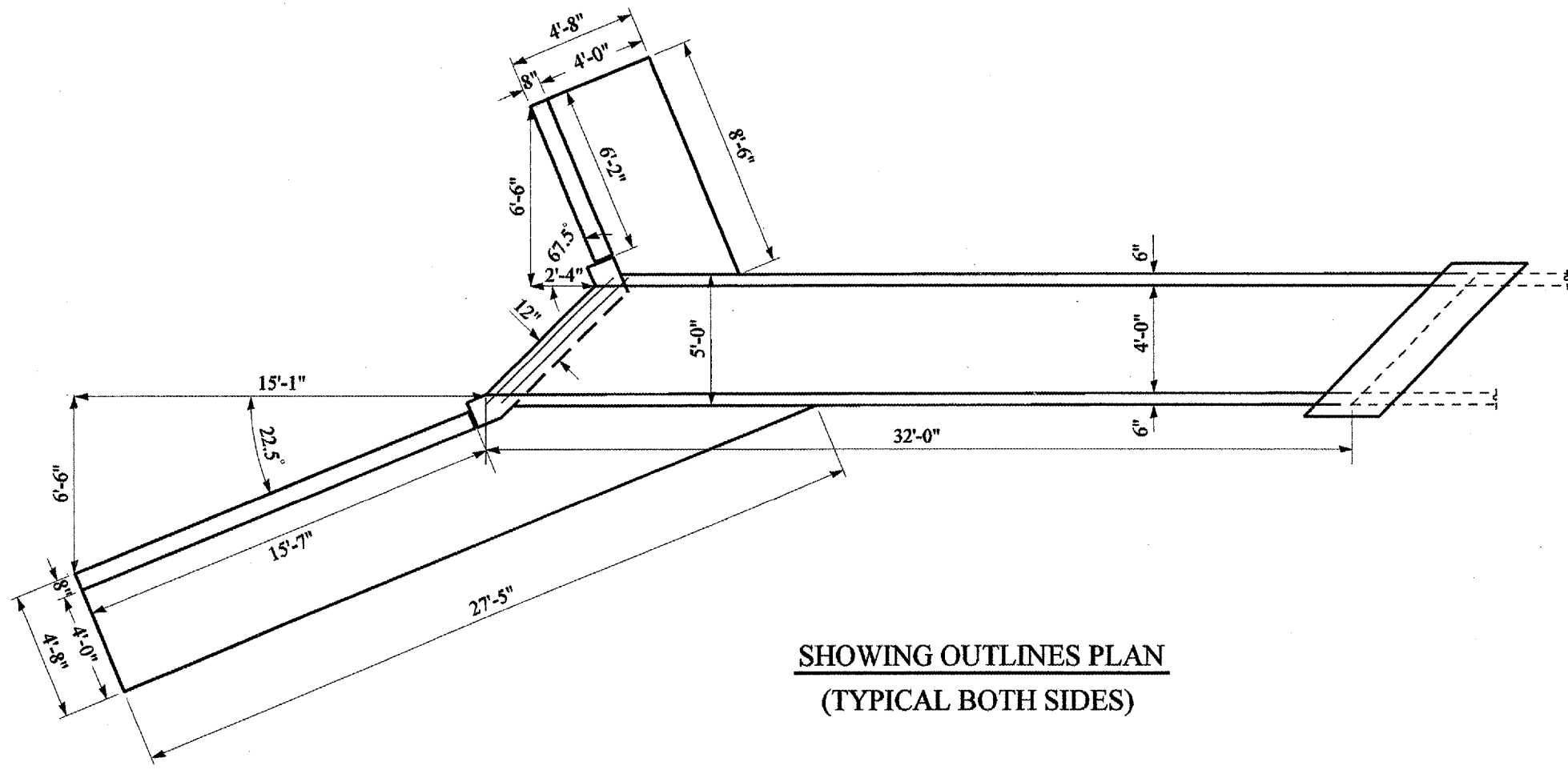
CULVERT EXTENSION DETAILS
STA. 860+23
LOCATION #4

68383

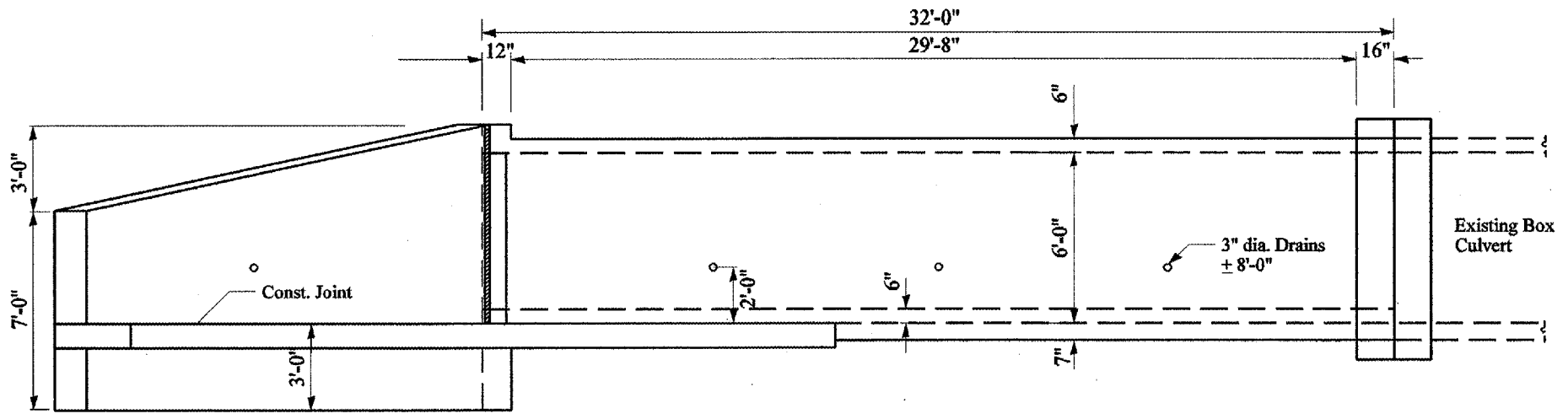
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	27
STA. 856+50		TO STA. 862+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

PLAN	DATE
BY	
CHECKED	
DATE	

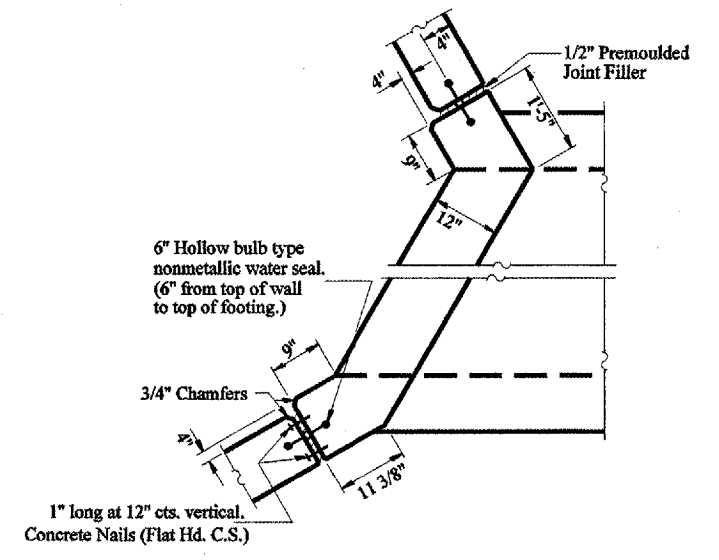
PROFILE	DATE
BY	
CHECKED	
DATE	



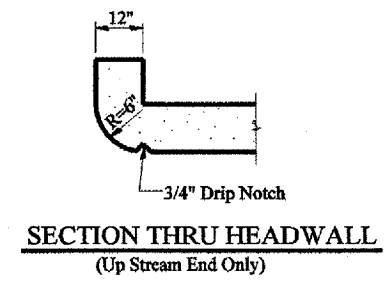
**SHOWING OUTLINES PLAN
(TYPICAL BOTH SIDES)**



ELEVATION (TYPICAL BOTH SIDES)



CORNER DETAIL

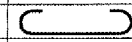
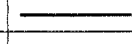
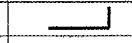
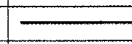
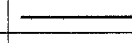
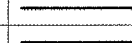
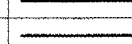

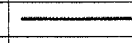

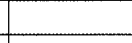
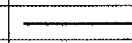
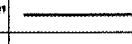
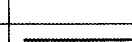
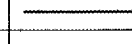

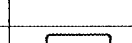
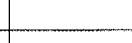


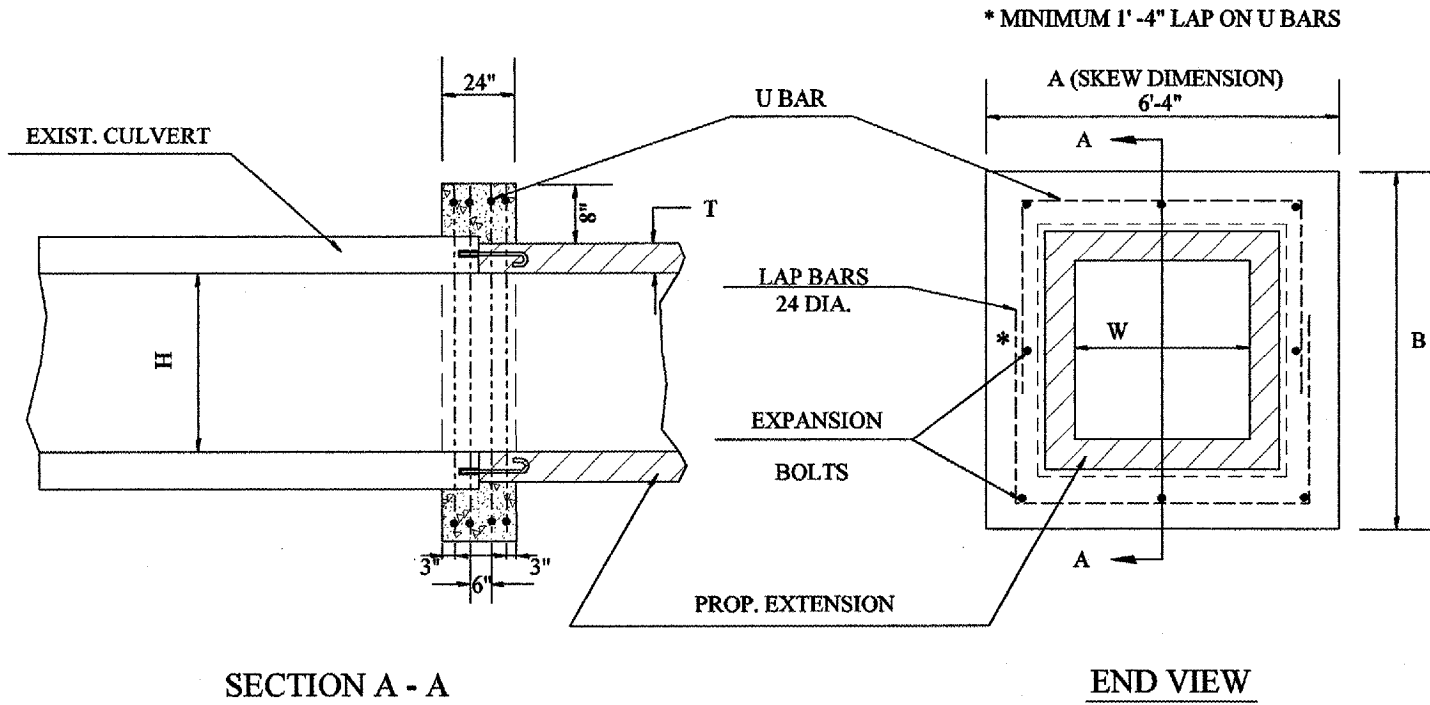
**SECTION THRU HEADWALL
(Up Stream End Only)**

**CULVERT EXTENSION DETAILS
STA. 860+23
LOCATION #4**

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	-	28
STA. 856+50		TO STA. 862+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

BILL OF MATERIAL FOR CULVERT EXTENSION

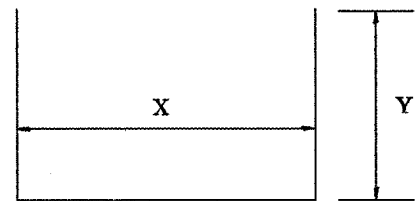
Bar	No.	Size	Length	Shape
a ₁	204	#4	5'-9"	
a ₂	34	#4	4'-9"	
d	12	#4	4'-6"	
h	16	#5	31'-9"	
h ₁	20	#4	31'-9"	
h ₂	24	#5	31'-9"	
h ₃	28	#4	15'-5"	
h ₄	4	#6	15'-5"	
h ₅	8	#4	6'-6"	
h ₆	28	#4	5'-11"	
u	16	#4	18'-8"	
v	192	#4	6'-9"	
v ₁	8	#4	9'-9"	
vs(E)	46	#4	6'-9" to 9'-9"	
w	12	#5	15'-4"	
w ₁	12	#5	5'-11"	
z	66	#5	7'-1"	
stirrup	12	#4	3'-9"	
Class SI Concrete		Cu. Yd.	45.2	
Reinforcement Bars, Epoxy Coated		Pound	254	
Reinforcement Bars		Pound	5,051	



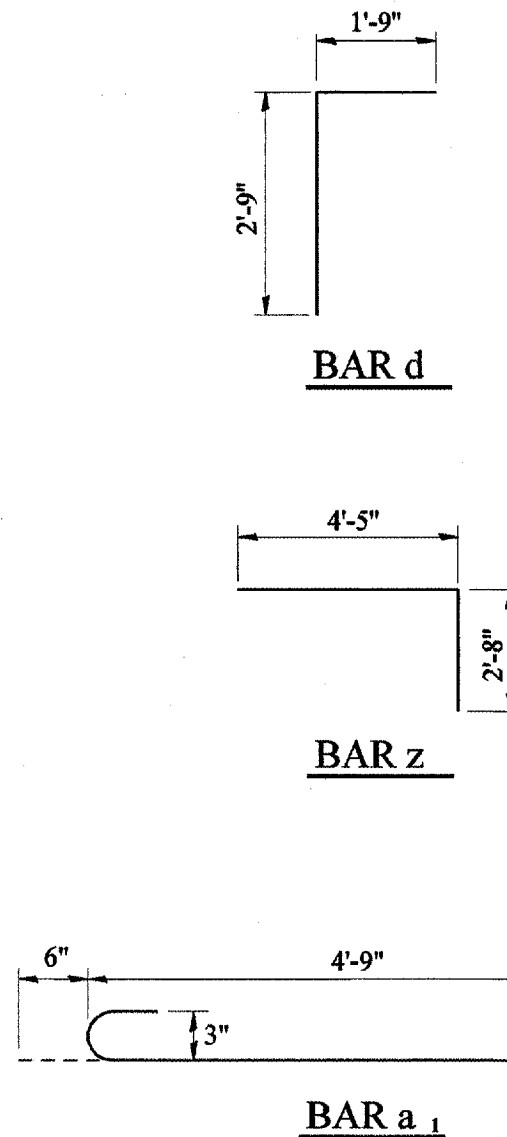
GENERAL NOTES

- The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. REINFORCEMENT BARS shall conform to section 508.
- Expansion bolts shall consist of approved expansions anchors, and M20 (3/4") hook bolts which conform to Section 1006.09. These bolts shall extend at least 200(8") into the new concrete.

* Dimensions for ASTM C789.



#4 U BAR
FOUR REQUIRED
PER COLLAR



BILL OF MATERIAL FOR CONCRETE COLLAR

EXISTING BOX		A	B	T *	EACH COLLAR				
W (ft)	H (ft)				Conc. Collar (CU YD)	REINFORCEMENT BARS POUNDS		EXPANSION BOLTS NO.	
					X	Y			
4'-0"	6'-0"	8'-0" (SKEW) 6'-4"	8'-5"	6"	1.50	7'-8"	5'-6"	100	14

DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

Max. Soil Pressure under footing = 2,508 psf

CULVERT EXTENSION DETAILS
STA. 860+23
LOCATION #4

PLAN SURVEYED, PLOTTED, AND CHECKED BY DATE
NOTEBOOK NO. DATE

PROFILE SURVEYED, PLOTTED, AND CHECKED BY DATE
NOTEBOOK NO. DATE
STRUCTURE NOTATION CHECKED

68383

BORING LOG TABLES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		30
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				



Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 7/2/04

ROUTE FAP 693 (IL9) DESCRIPTION 4'x6' Box Culv. Ext@ the east edge of Mackinaw LOGGED BY JAR

SECTION D4 Culv. Ext./ Repair 2005-2 LOCATION SEC. TWP. RNG.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO.	DEPT H	BLOWS	UCS	MOIST	Surface Water Elev.	DEPT H	BLOWS	UCS	MOIST
Station	(ft)	(/ft)	(tsf)	(%)	ft	(ft)	(/ft)	(tsf)	(%)
BORING NO. 66085					677.82				
Station 860+85					977.37				
Offset 40.00 ft RL CL					Groundwater Elev.:				
Ground Surface Elev. 681.8 ft					First Encounter 660.3 ft				
					Upon Completion none ft				
					After 24 Hrs. none ft				
Brown SILTY CLAY LOAM					Brown Med.-Cse. SAND & GRAVEL (continued)				
	2					16			
	3	2.5	24.5			8			
	3	P				14			16.9
	3					18			
DS Invert Elev. = 678.14						7			19.9
678.14	2					10			
677.80	2	1.65	24.2			14			15.1
	4	B			gray sand from 24.75'-26.5'				
	1					4			
	2	1.15	25		Gray CLAY LOAM TILL	8	5.36	12.4	
	3	B				12	B		
	3					4			
672.80	7	4.53	14			8	3.5	12.8	
	9	B				12	B		
	3				End of Boring				
	6	2.89	13.1						
	8	B							
	3								
	5	3.5	13.1						
	9	B							
	3								
	5	3.09	13.1						
	8	B							
	8								
662.30	14		5.1						
	14								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 2

Date 7/6/04

ROUTE FAP 693 (IL9) DESCRIPTION 4'x6' Box Culv. Ext@ the east edge of Mackinaw LOGGED BY JAR

SECTION D4 Culv. Ext./ Repair 2005-2 LOCATION SEC. TWP. RNG.

COUNTY Tazewell DRILLING METHOD HAS HAMMER TYPE AUTO

STRUCT. NO.	DEPT H	BLOWS	UCS	MOIST	Surface Water Elev.	DEPT H	BLOWS	UCS	MOIST
Station	(ft)	(/ft)	(tsf)	(%)	ft	(ft)	(/ft)	(tsf)	(%)
BORING NO. 85980									
Station 859+80									
Offset 12.00 ft Lt CL					Groundwater Elev.:				
Ground Surface Elev. 692.75 ft					First Encounter 658.8 ft				
					Upon Completion None ft				
					After Hrs. None ft				
Dk Brown, Brown, Grey CLAY LOAM					Brown, Dk Grey, CLAY LOAM TILL (continued)				
	1					11	B		
	2	1.75	18.9			5			
	3	P				6	3.5	13.4	
	2					8	B		
	2					4			
	2	2.89	24.5			6	3.09	12.5	
	4	S				8	B		
	1					4			
	2	.66	31.2			6	3.3	7.2	
	1	B				6	B		
	1					5	1.57	14.8	
683.75	1					25	B	5.8	
	2	1.40	21.7		Brown, Dk Grey, Lt Brown, Grey Med-Cse SAND & GRAVEL	32			
	4	B				13			
	2				lightly cemented	17		10.9	
	3	1.24	26.4			13			
	4	B				10			
	2					9		16.1	
	3	1.48	17			6			
	4	B				4			
	3					6	2.27	13.9	
	4	1.48	15.1			9	B		
	5	B				5			
	3					5			
	7	3.09	14.3			9	3.5	12.6	
	7								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				

BORING LOG TABLES



Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 2 of 2

Date 7/6/04

ROUTE FAP 693 (IL9) DESCRIPTION 4'x6' Box Culv. Ext@ the east edge of Mackinaw LOGGED BY JAR
 SECTION D4 Culv. Ext./ Repair 2005-2 LOCATION SEC. TWP. RNG.
 COUNTY Tazewell DRILLING METHOD HAS HAMMER TYPE AUTO

STRUCT. NO.	DEPTH	BL	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:
Station	(ft)	(/ft)	(tsf)	(%)	ft	ft	First Encounter
BORING NO. <u>85980</u>							<u>658.8</u> ft
Station <u>859+80</u>							Upon Completion <u>None</u> ft
Offset <u>12.00ft L L CL</u>							After <u>None</u> Hrs. <u>None</u> ft
Ground Surface Elev. <u>692.75</u> ft							
DK Brown, Grey CLAY LOAM TILL (continued)	13	B					
	4						
	8	3.92	11.5				
	12	B					
	4						
	8	3.09	12.2				
	12	B					
	6						
	9	4.33	12.1				
	13	B					
	5						
	8	2.27	12.6				
End of Boring	10	B					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

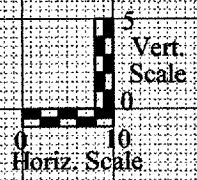
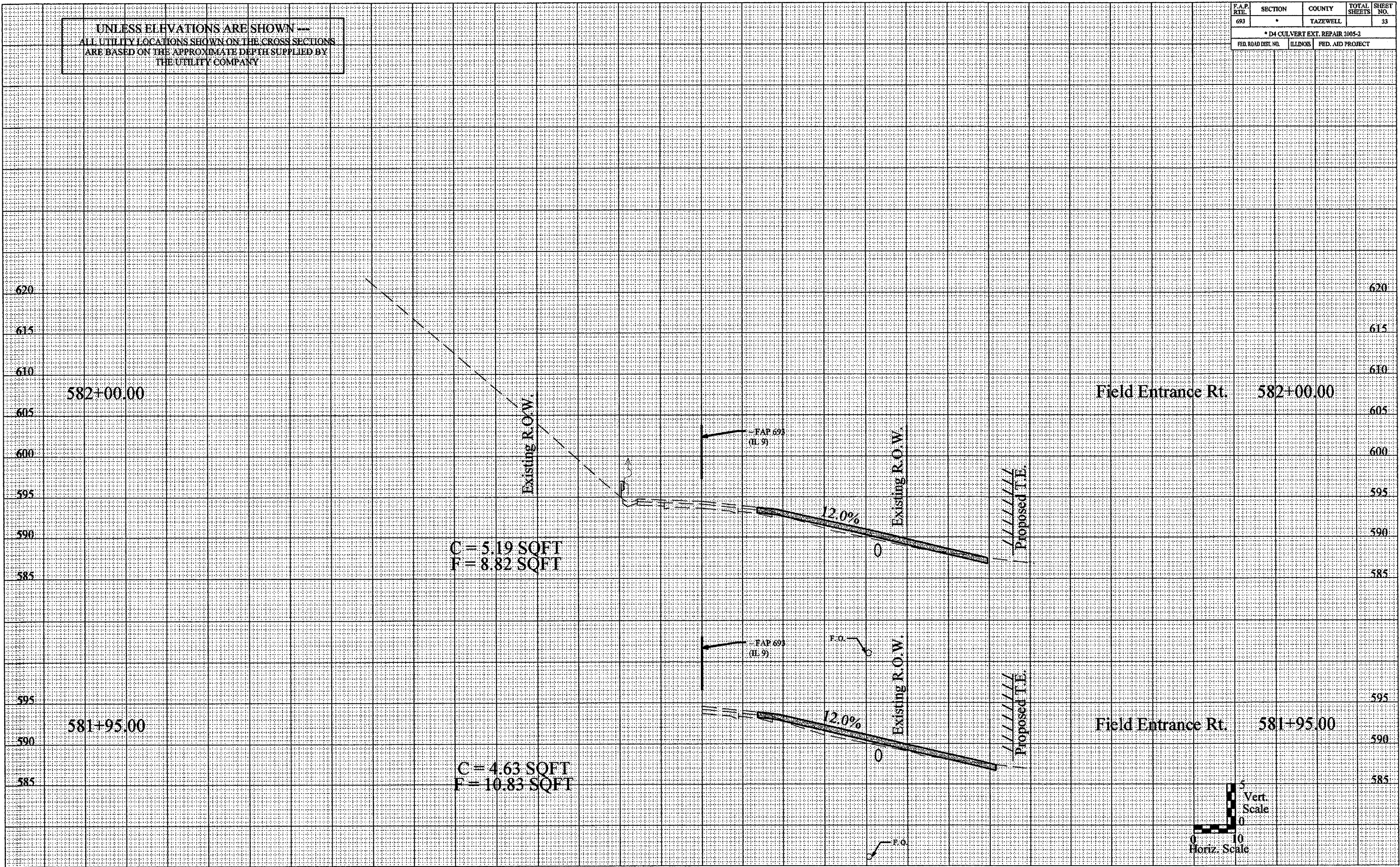
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	33	
* D4 CULVERT EXT. REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DATE	
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11/16/2004

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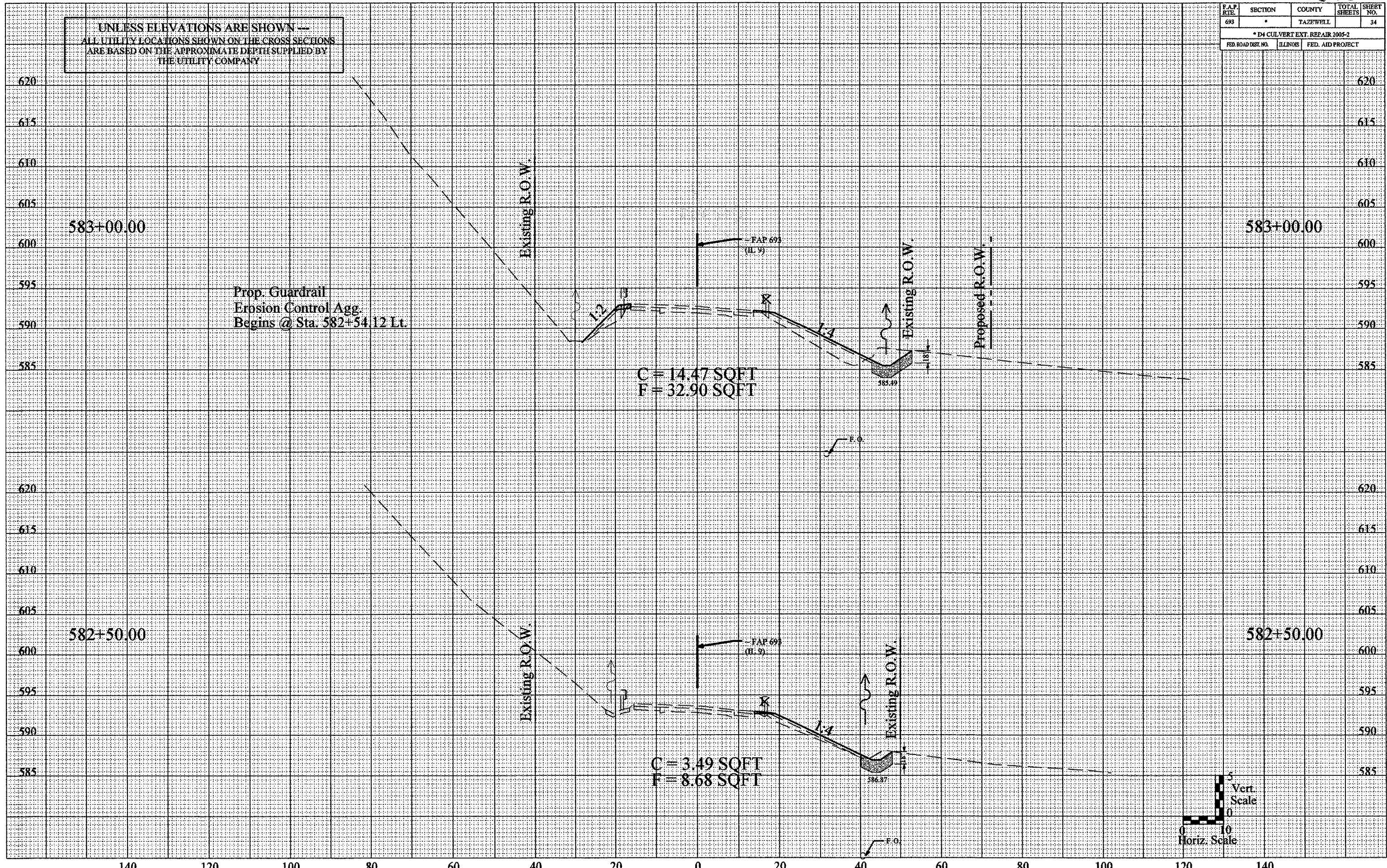
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		34
* D4 CULVERT EXT. REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

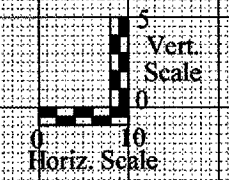
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C = 14.47 SQFT
F = 32.90 SQFT

C = 3.49 SQFT
F = 8.68 SQFT



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11/16/2004 STILES

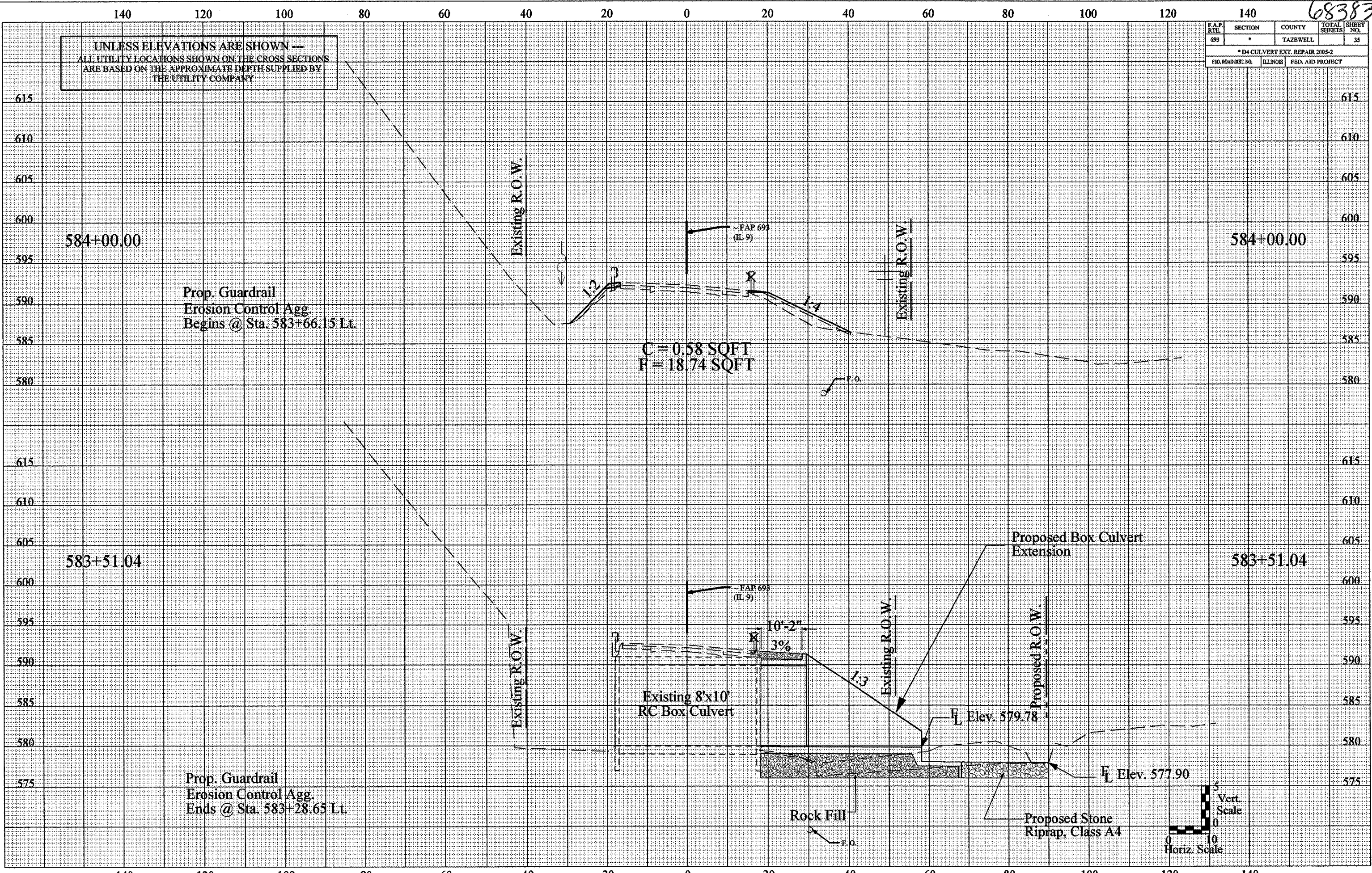
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		35
* D4 CULVERT EXT. REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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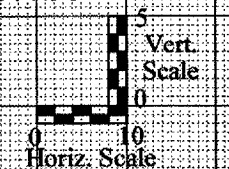
C = 0.58 SQFT
F = 18.74 SQFT

Proposed Box Culvert
Extension

Existing 8'x10'
RC Box Culvert

Rock Fill

Proposed Stone
Riprap, Class A4



Prop. Guardrail
Erosion Control Agg.
Ends @ Sta. 583+28.65 Lt.

Prop. Guardrail
Erosion Control Agg.
Begins @ Sta. 583+66.15 Lt.

584+00.00

584+00.00

583+51.04

583+51.04

Elev. 579.78

Elev. 577.90

FAP 693
(R.L. 9)

FAP 693
(R.L. 9)

Existing R.O.W.

Existing R.O.W.

Existing R.O.W.

Proposed R.O.W.

11/16/04 STILES

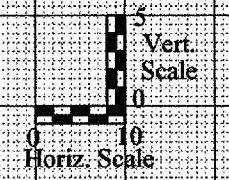
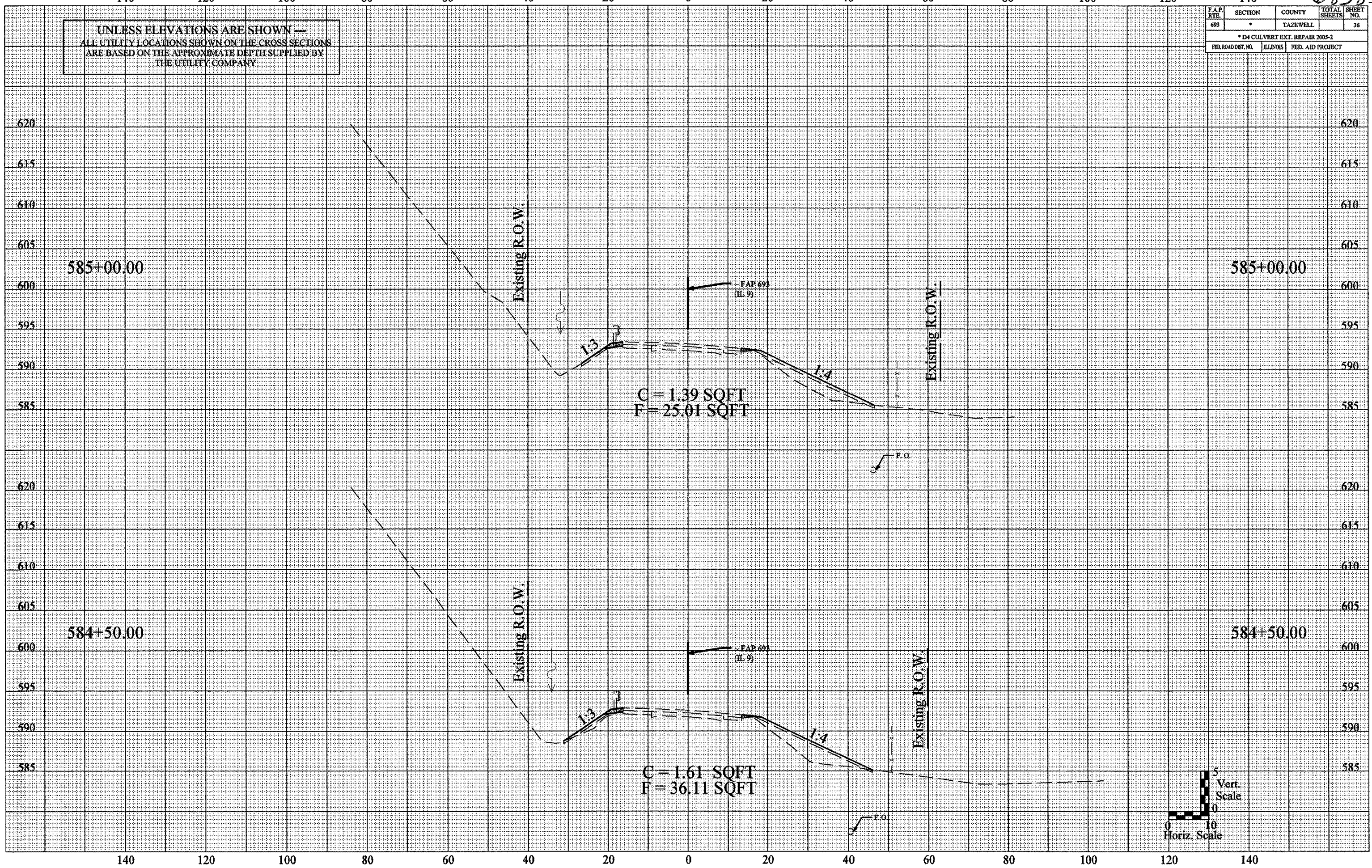
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		36
* D4 CULVERT EXT. REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

FINAL SURVEY	DATE
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ORIGINAL SURVEY	DATE
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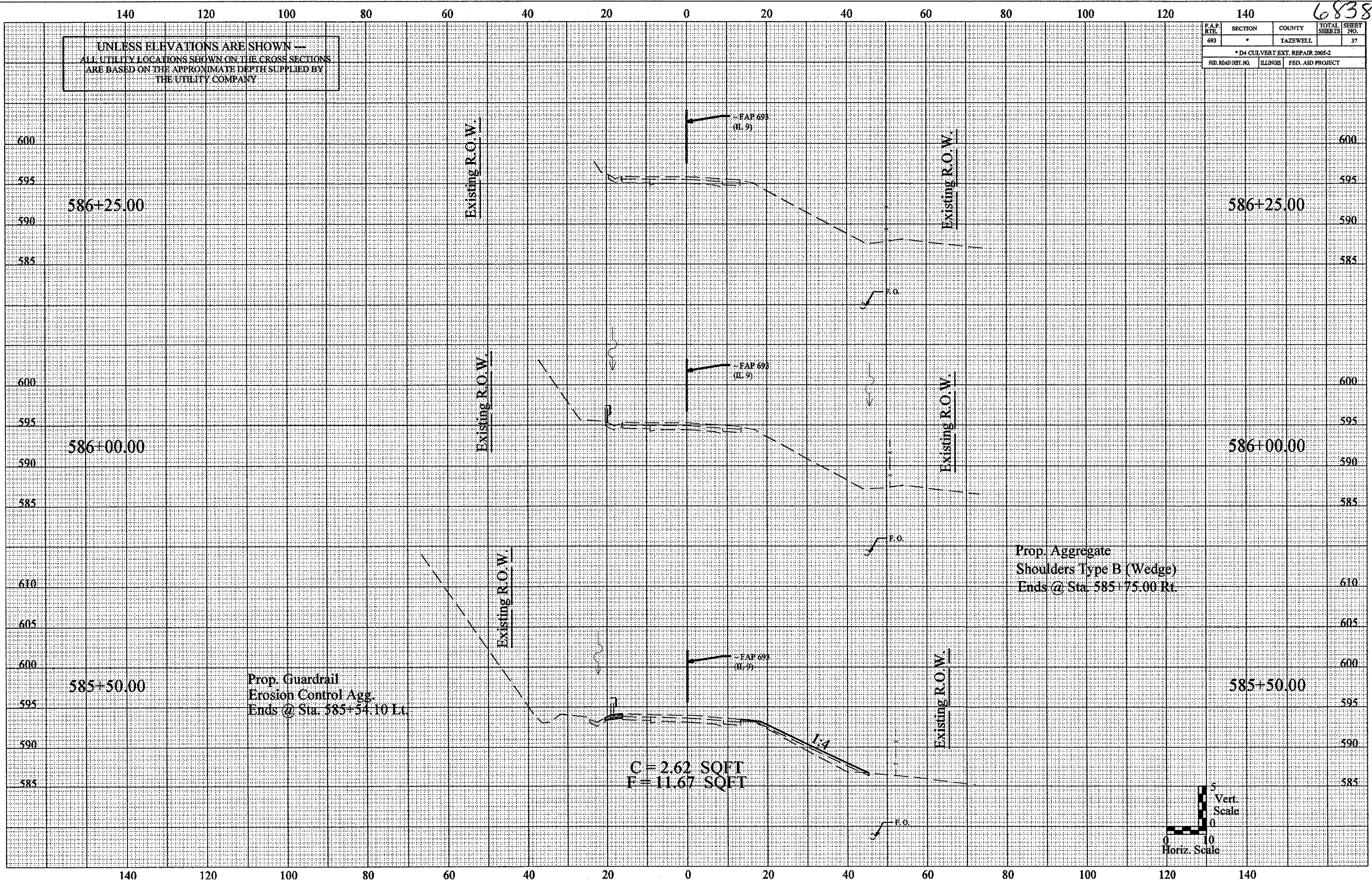
68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	IAZEWELL		37
* D4 CULVERT EXT. REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN --
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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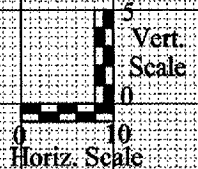
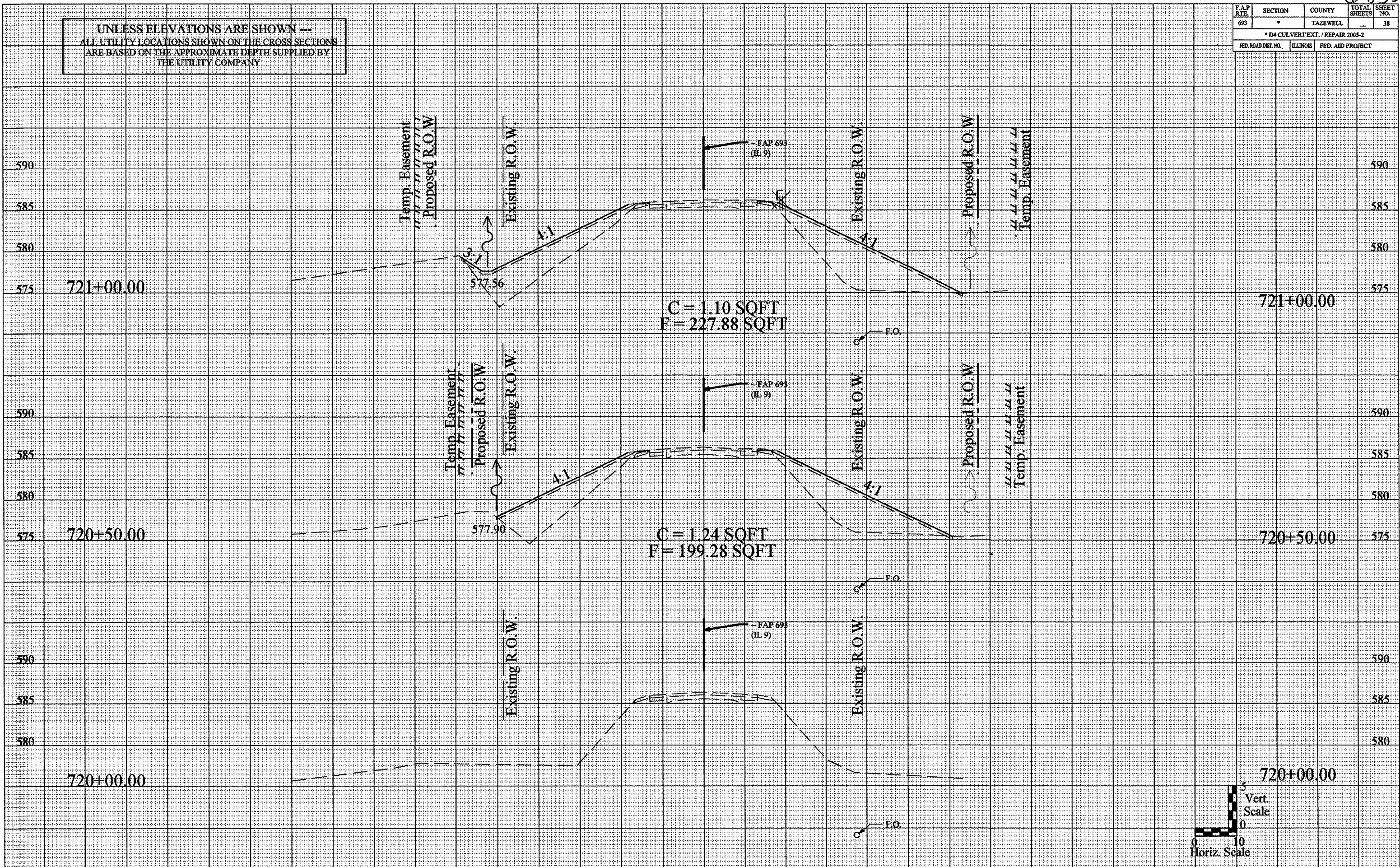
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
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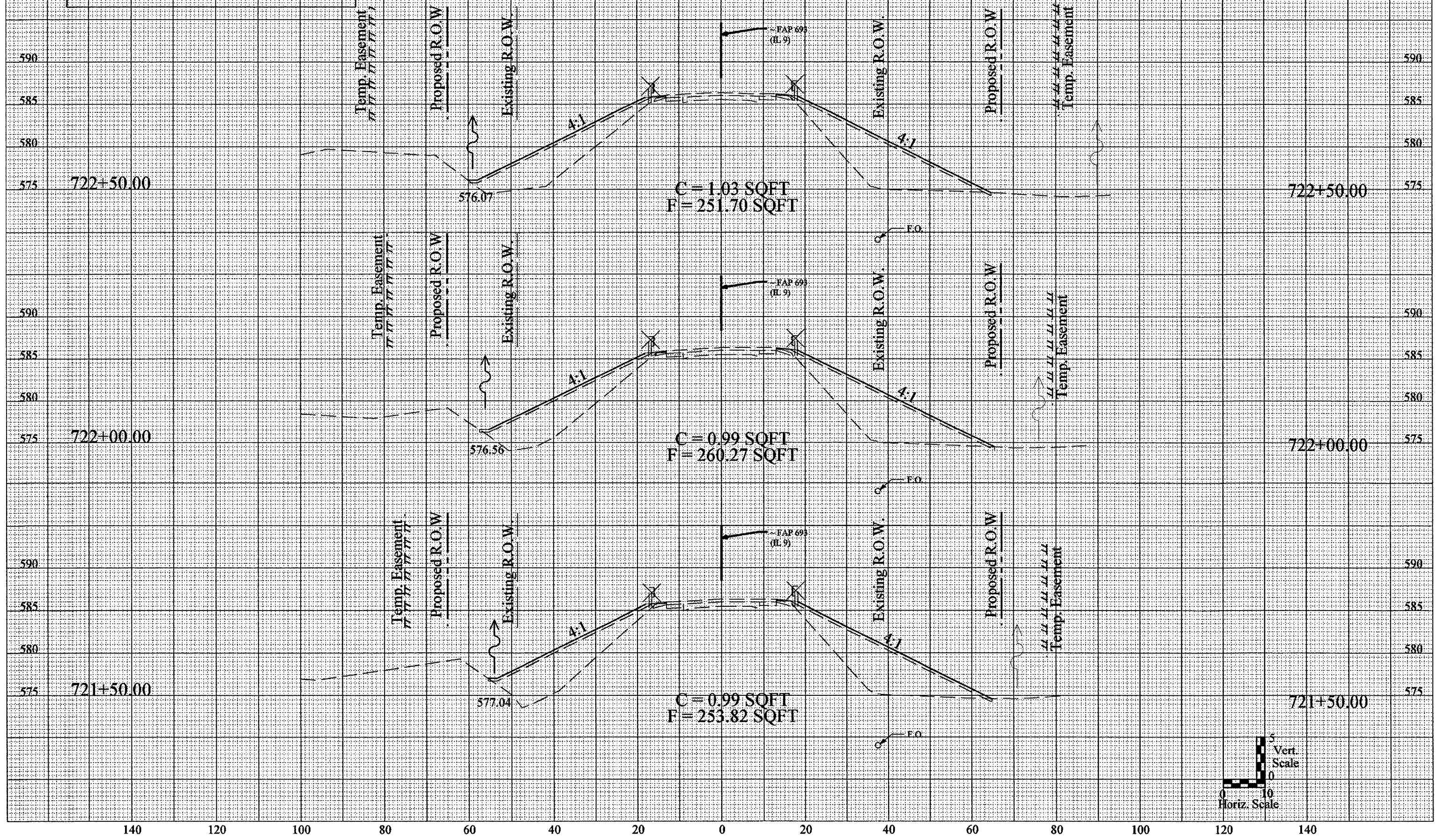
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693		TAZEWELL		39
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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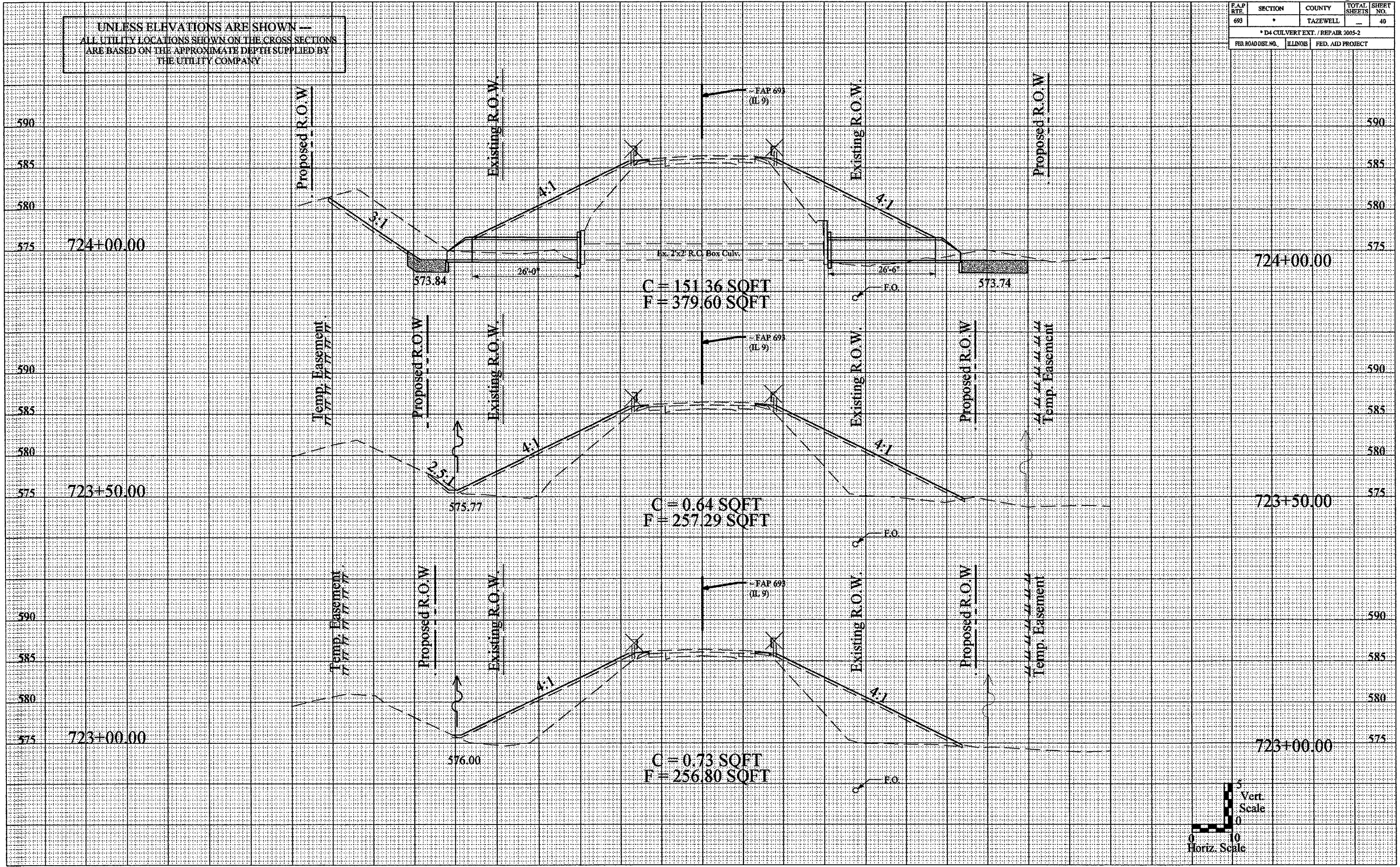
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* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

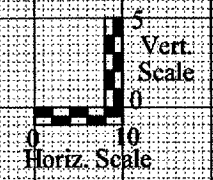
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ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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11/16/2004 ETIMES

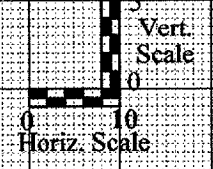
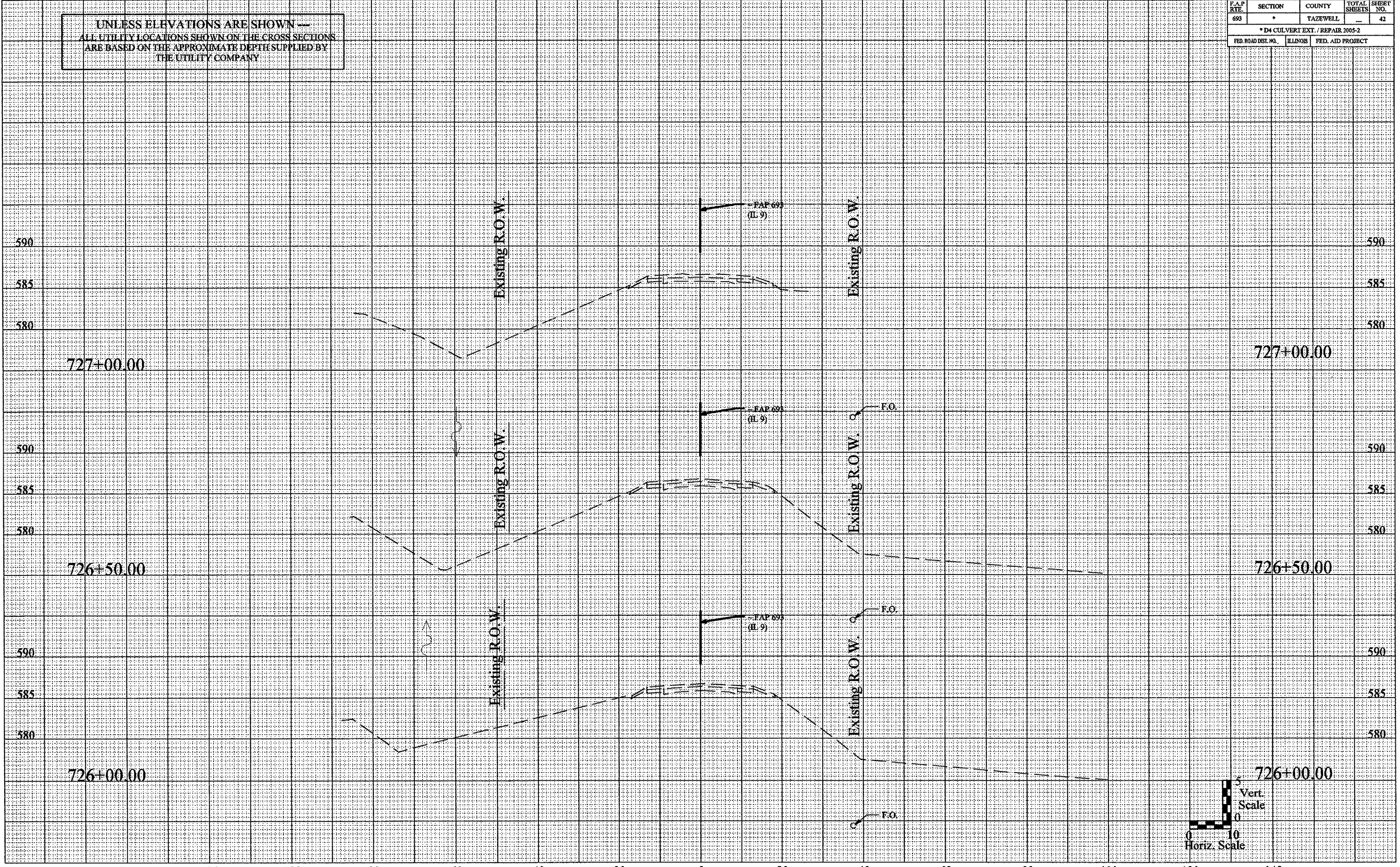
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	—	42
*D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN —
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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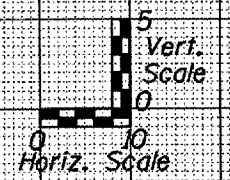
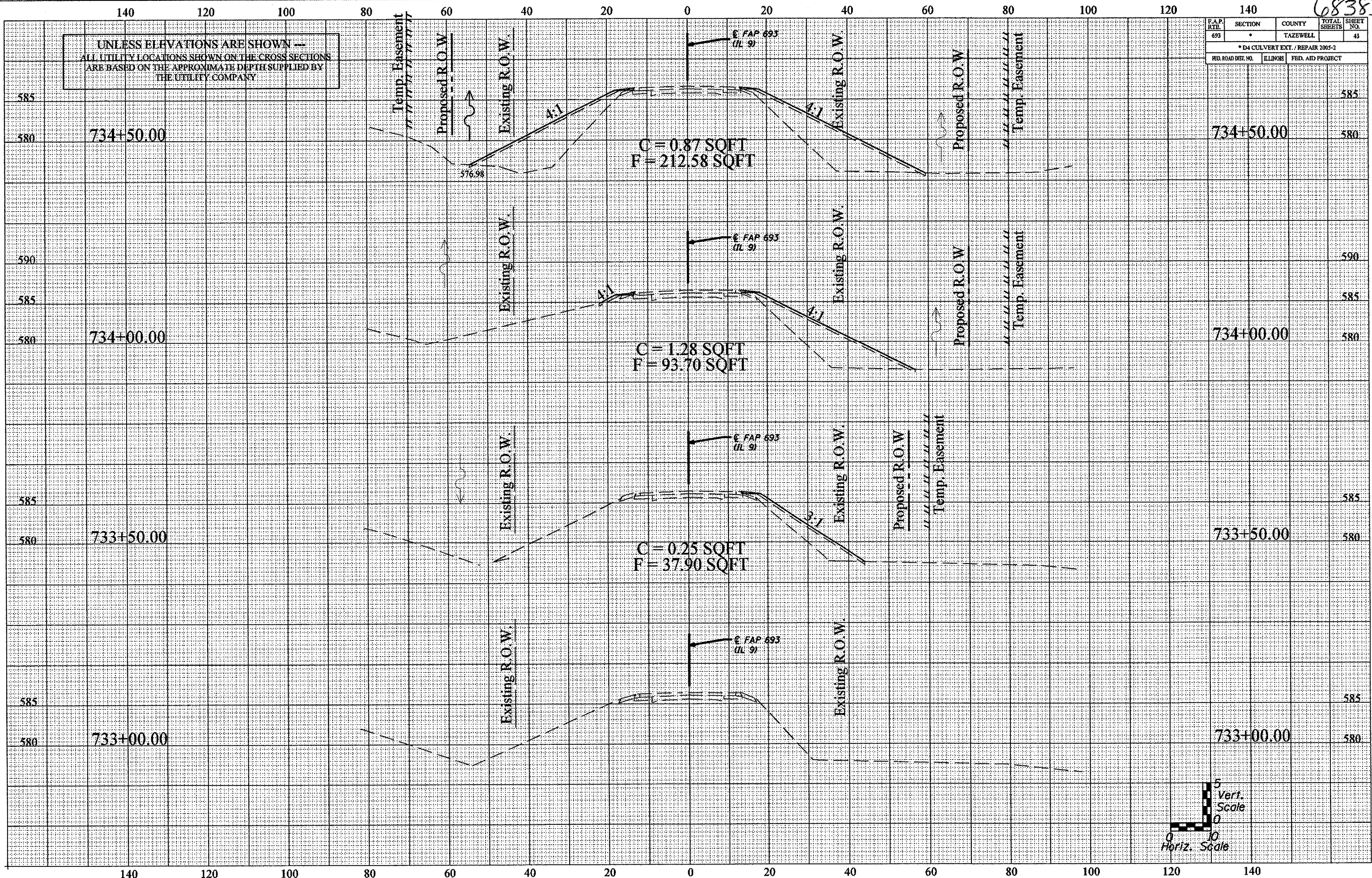
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F.A.P. RTD.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	43	43
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DATE	BY
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FINAL SURVEY	NO. 1
NOTE BOOK	NO. 2
AREAS CHECKED	NO. 3

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FINAL SURVEY	NO. 1
NOTE BOOK	NO. 2
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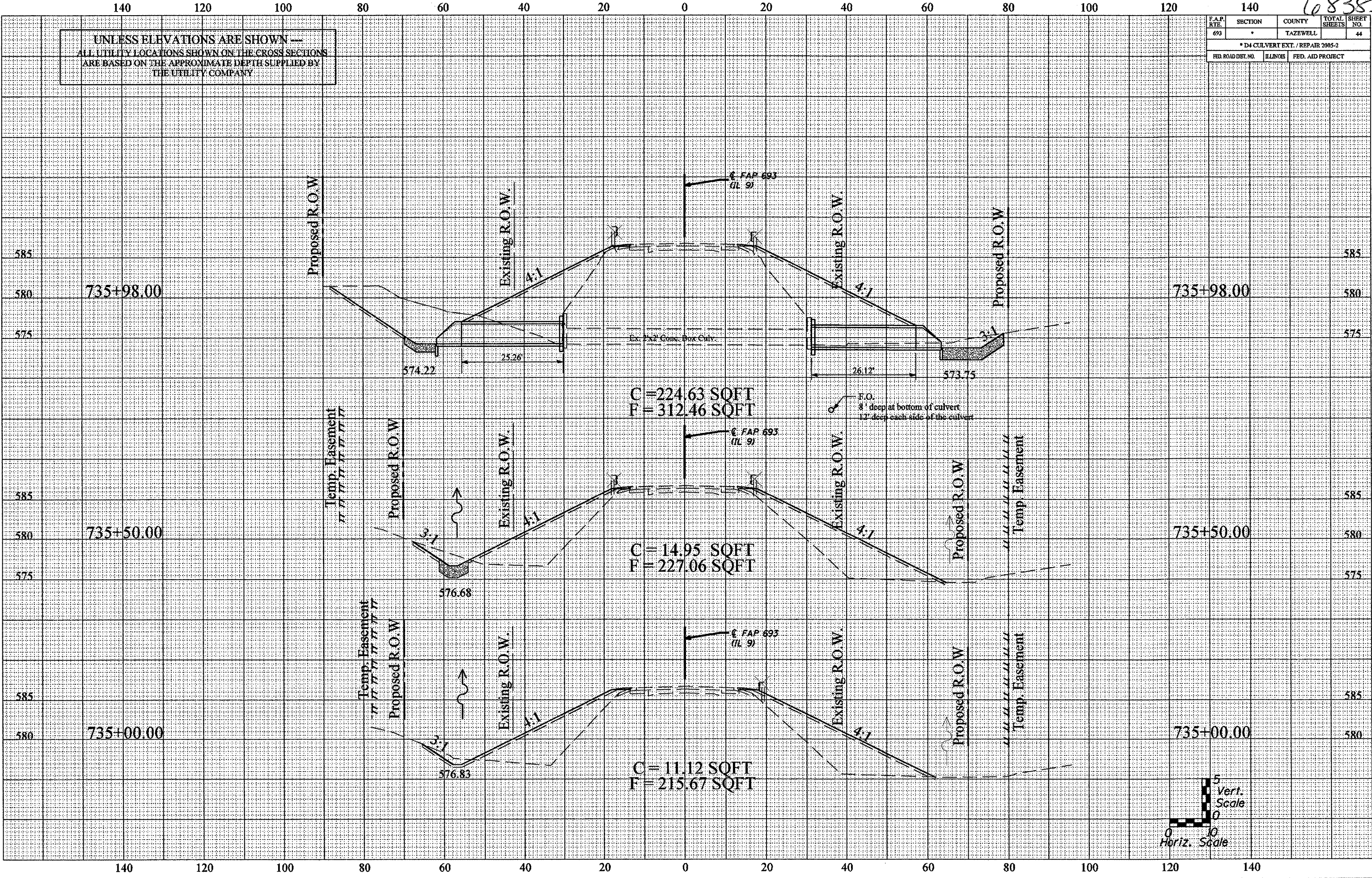
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F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693		TAZEWELL	44	44
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN ---
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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11/20/04

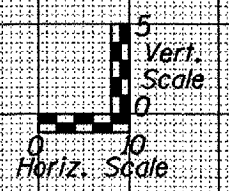
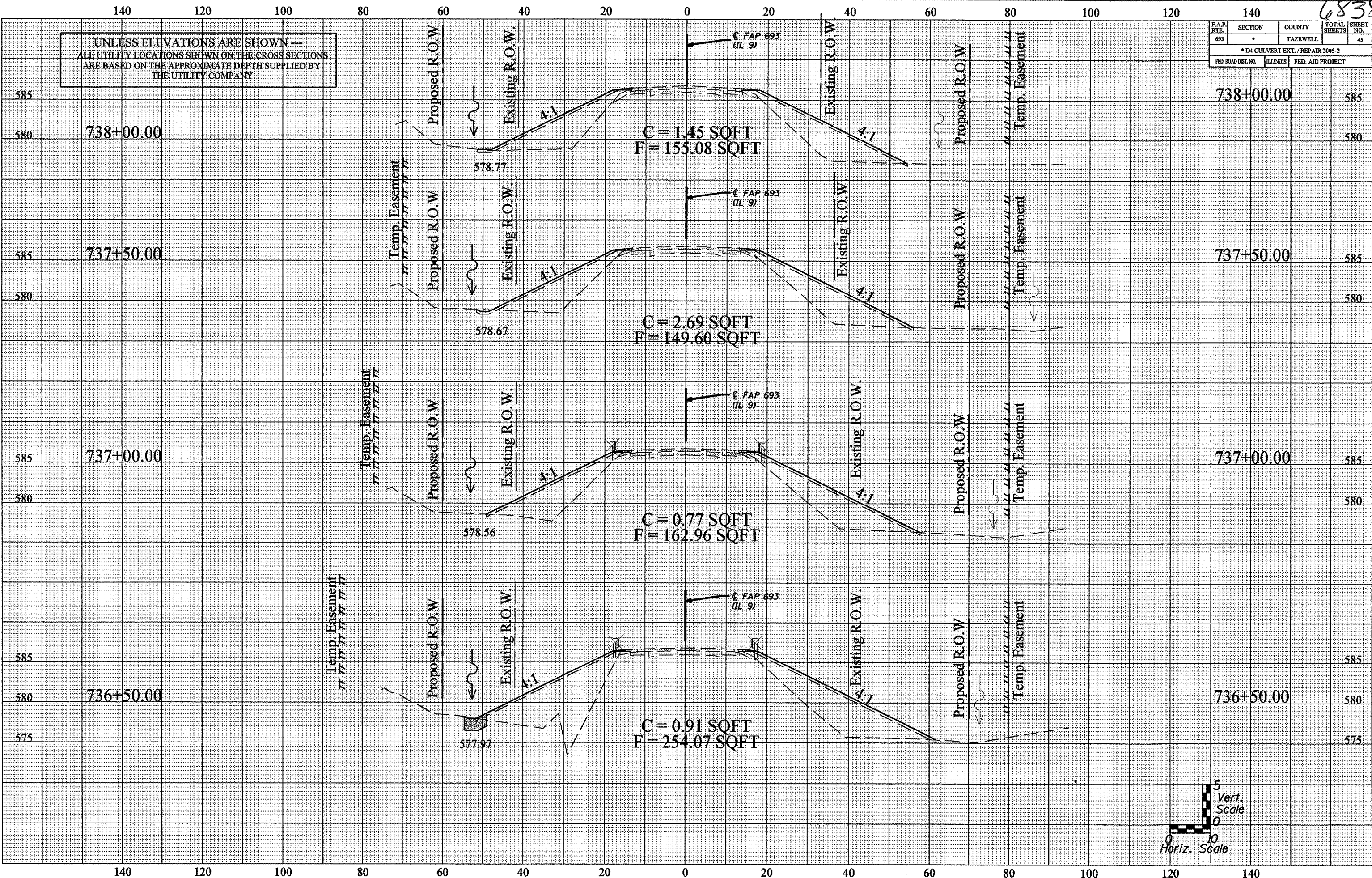
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UNLESS ELEVATIONS ARE SHOWN --
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	.	TAZEWELL	45	45
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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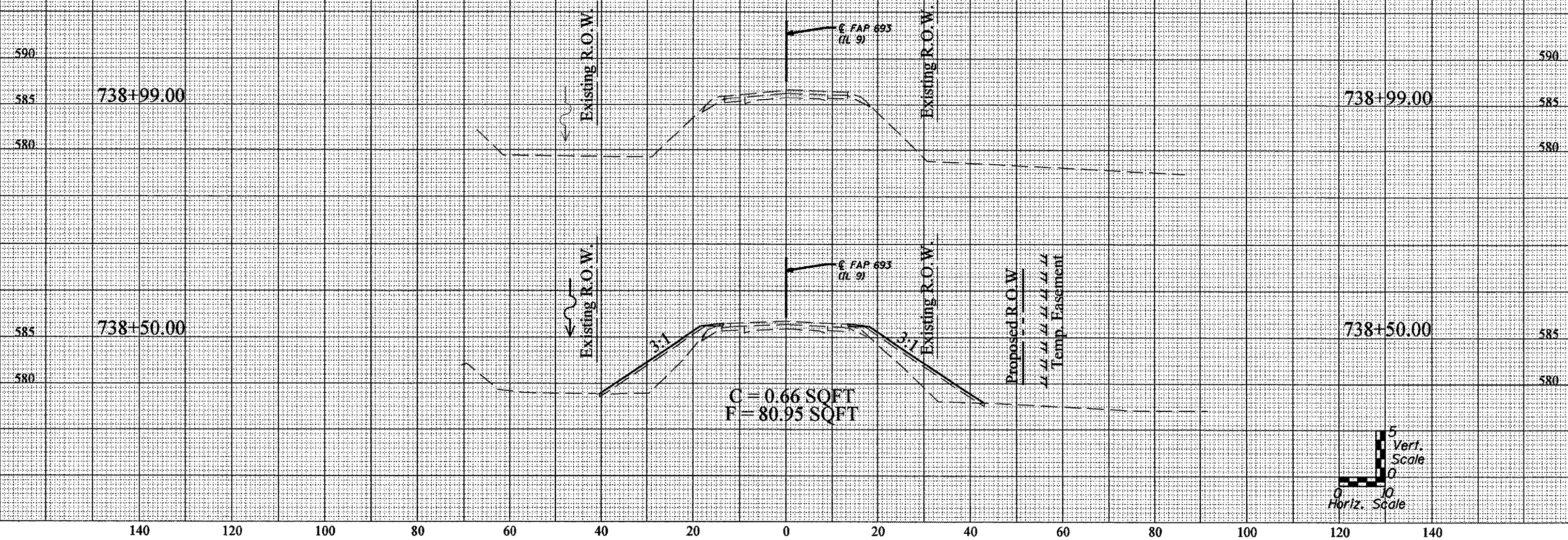
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		46
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	DLINOS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN
 ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
 ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
 THE UTILITY COMPANY

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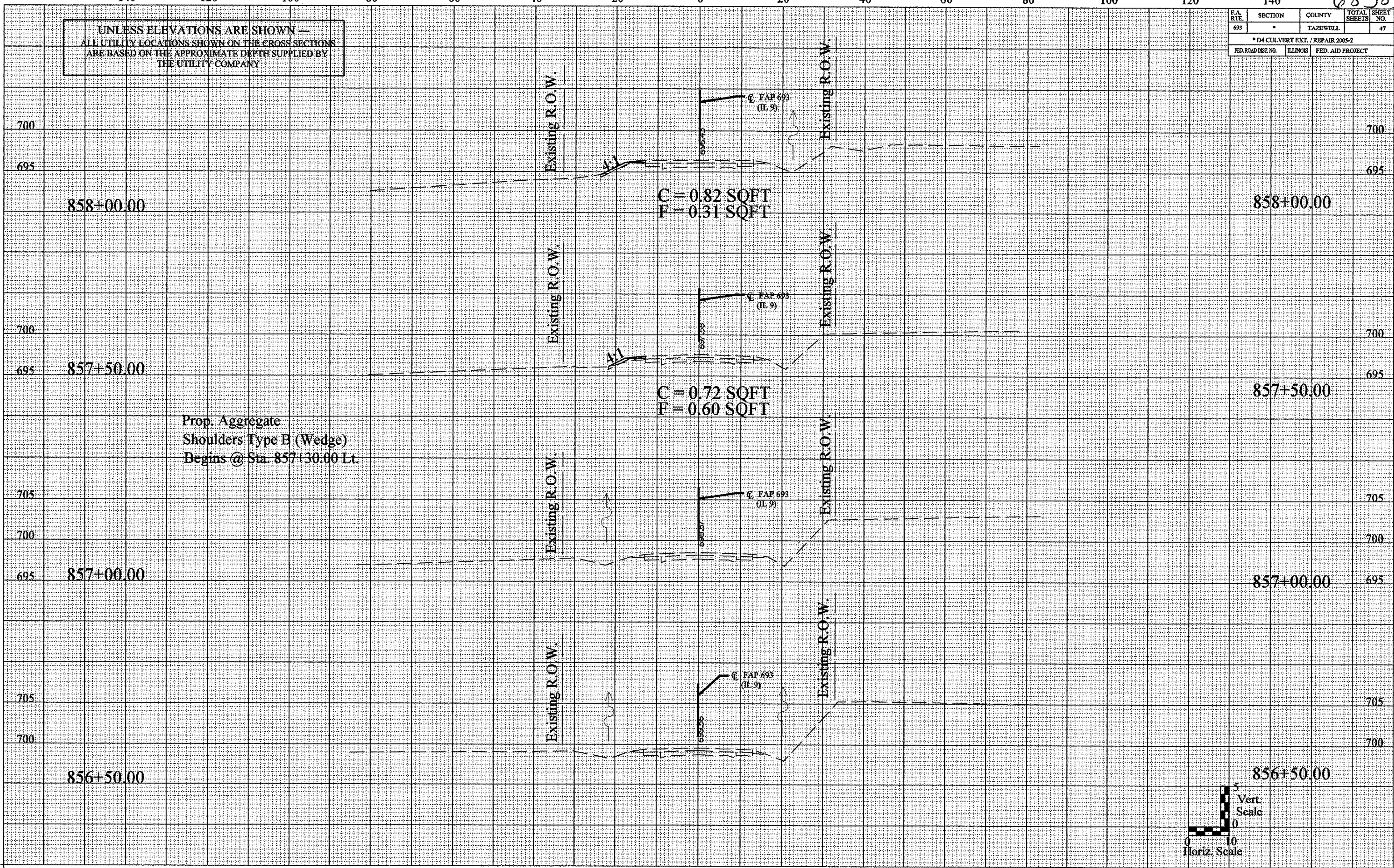
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UNLESS ELEVATIONS ARE SHOWN
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THE UTILITY COMPANY

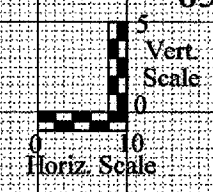
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693	*	TAZEWELL		47
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Prop. Aggregate
Shoulders Type B (Wedge)
Begins @ Sta. 857+30.00 Lt.



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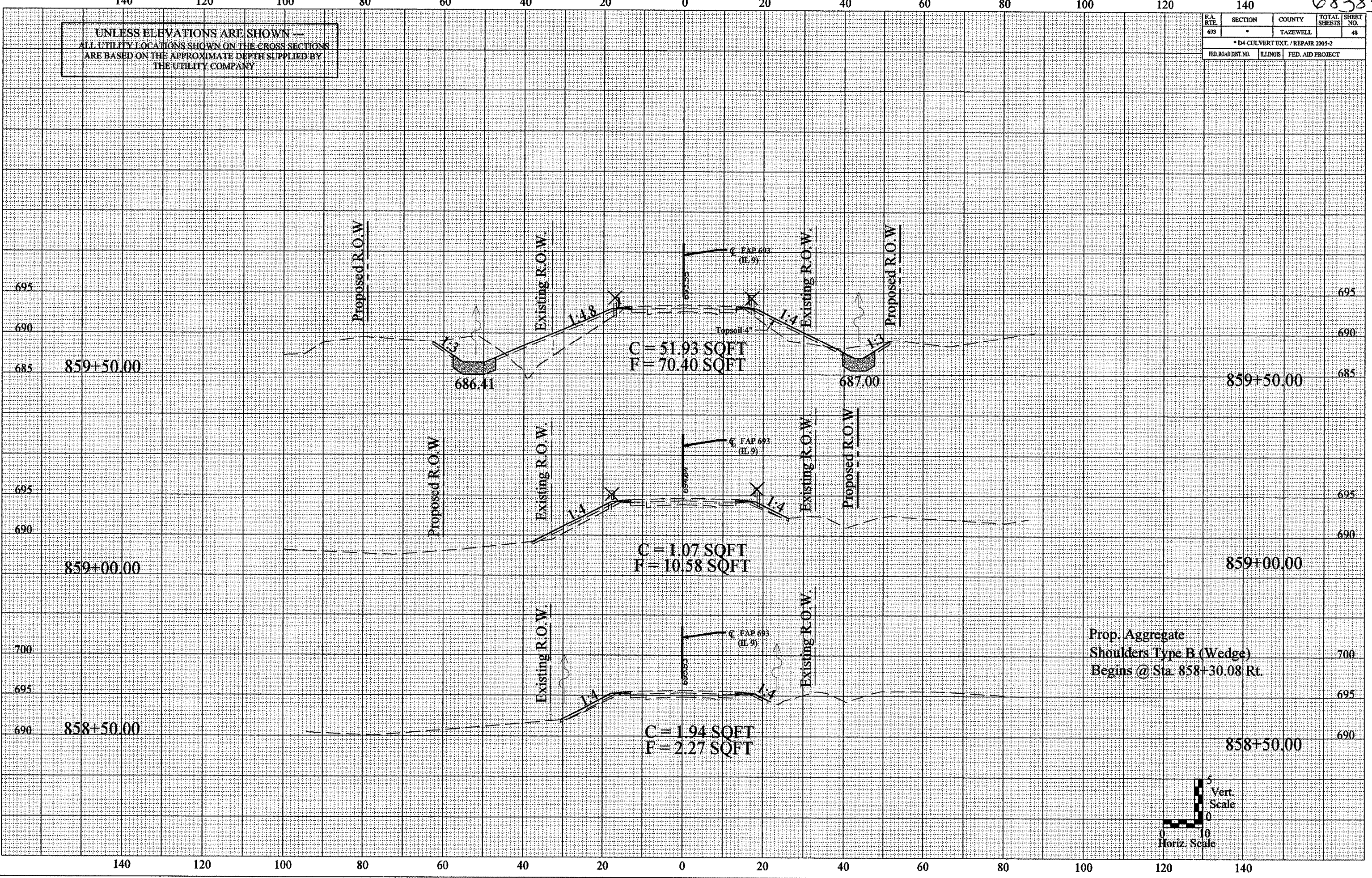
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		48
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

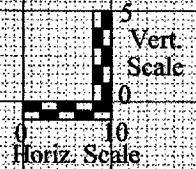
UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

DATE	BY

DATE	BY



Prop. Aggregate
Shoulders Type B (Wedge)
Begins @ Sta. 858+30.08 Rt.

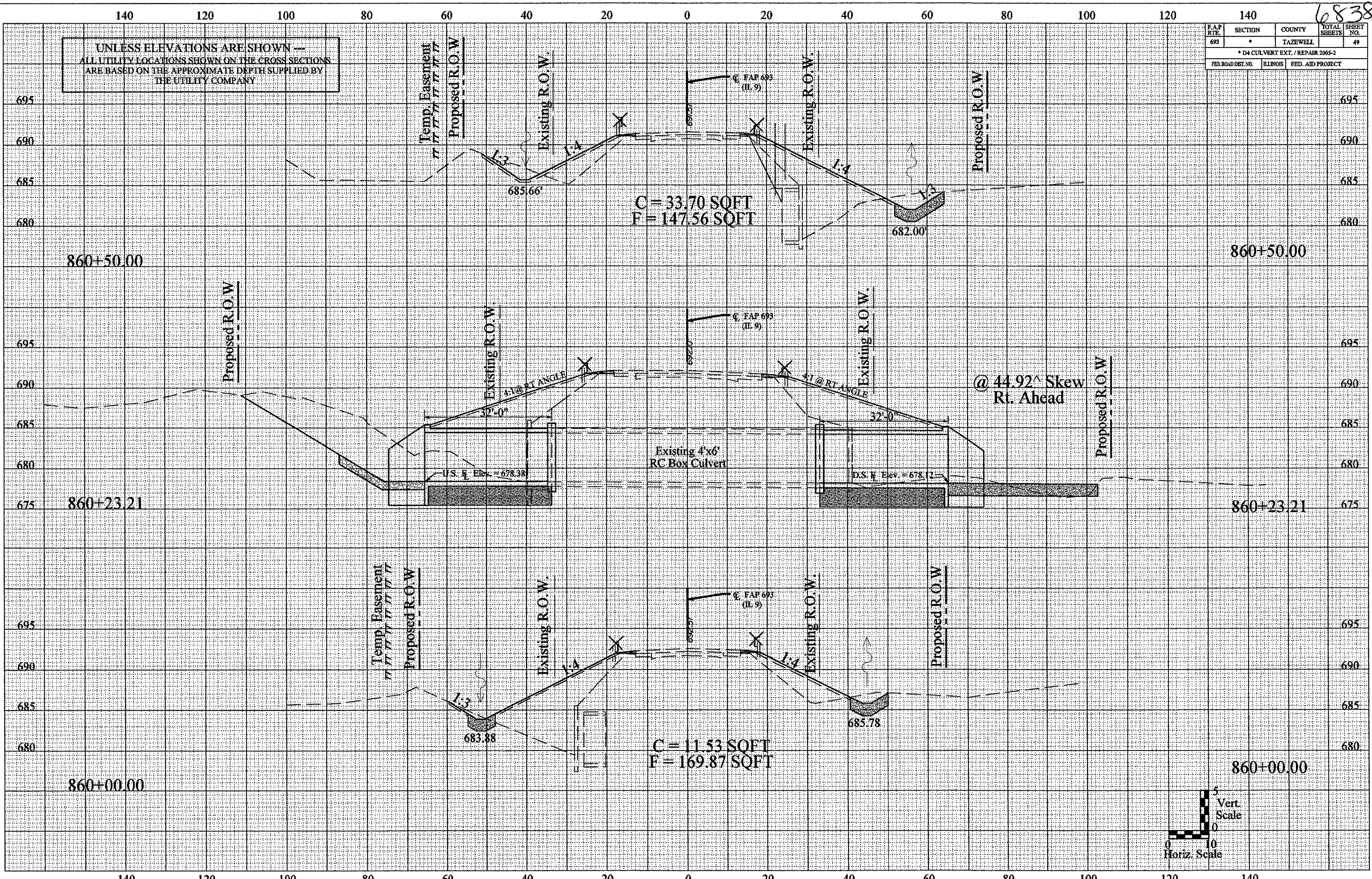


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	49	49
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		50
* D4 CULVERT EXT. / REPAIR 2005-2				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

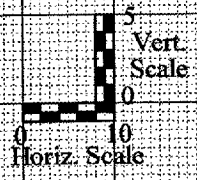
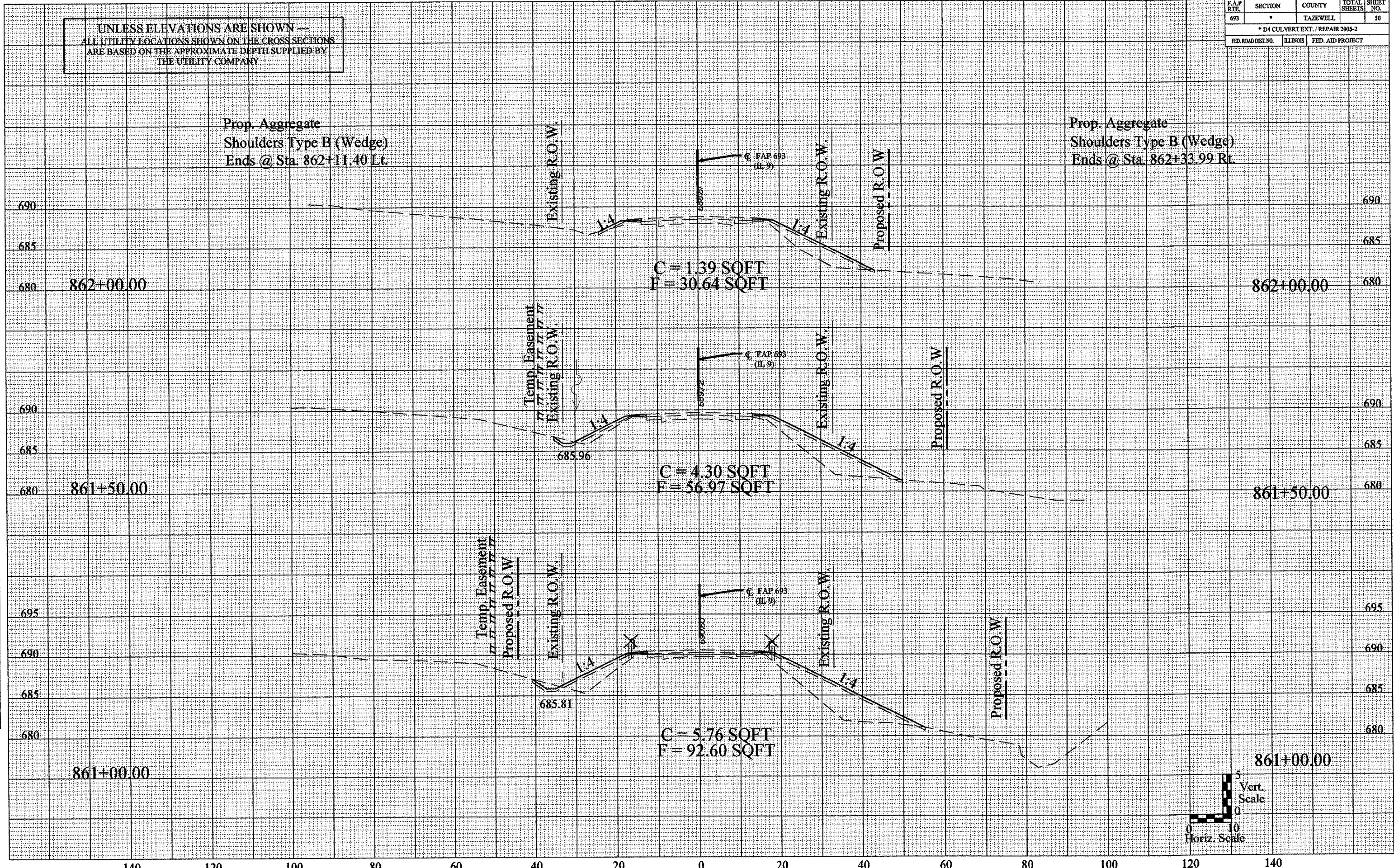
UNLESS ELEVATIONS ARE SHOWN --
ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS
ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

Prop. Aggregate
Shoulders Type B (Wedge)
Ends @ Sta. 862+11.40 Lt.

Prop. Aggregate
Shoulders Type B (Wedge)
Ends @ Sta. 862+33.99 Rt.

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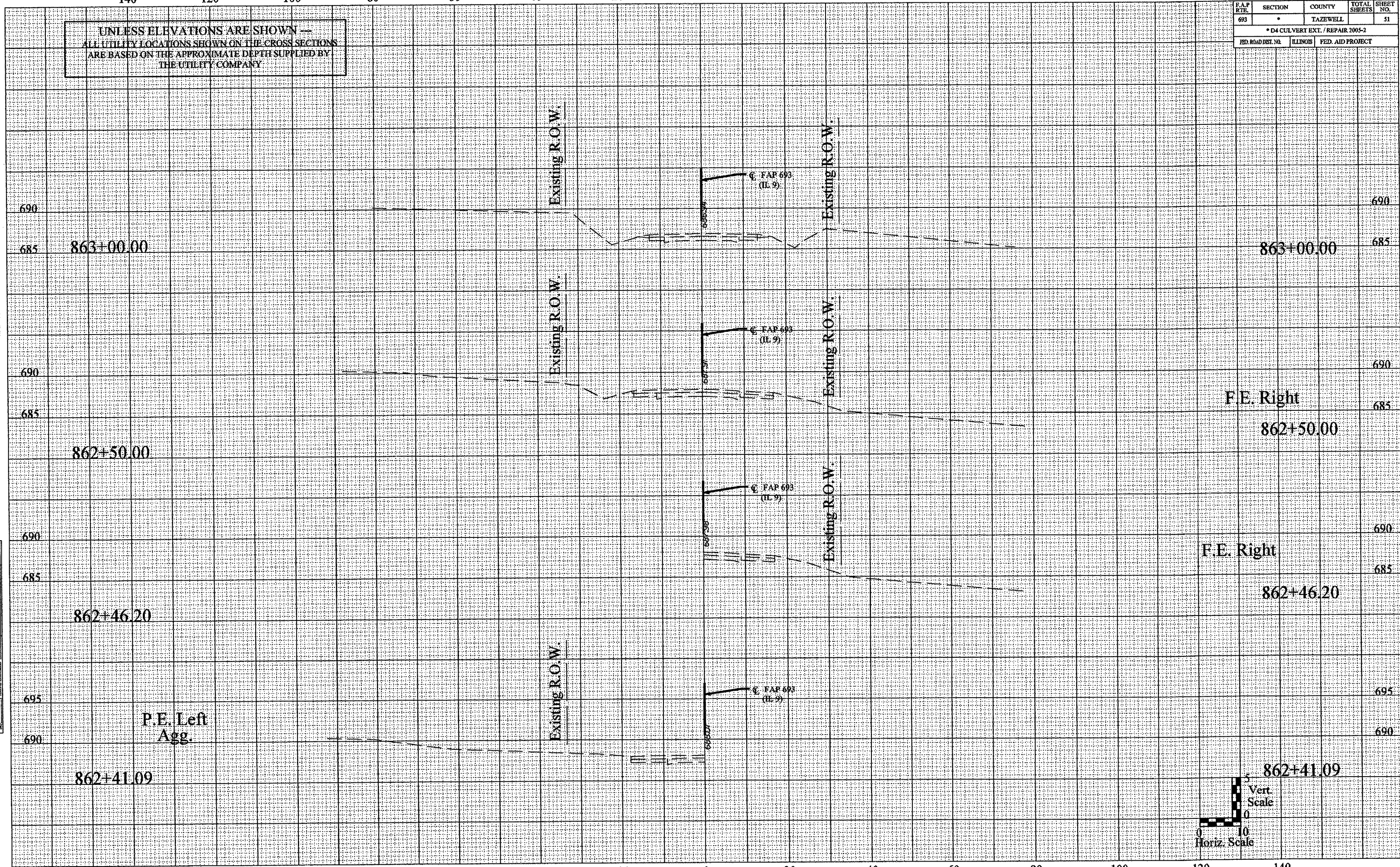
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UNLESS ELEVATIONS ARE SHOWN —
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ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY
THE UTILITY COMPANY

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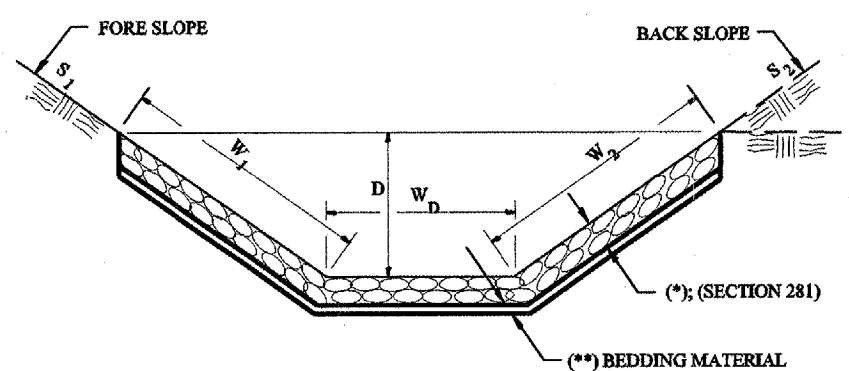


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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693		TAZEWELL		52
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

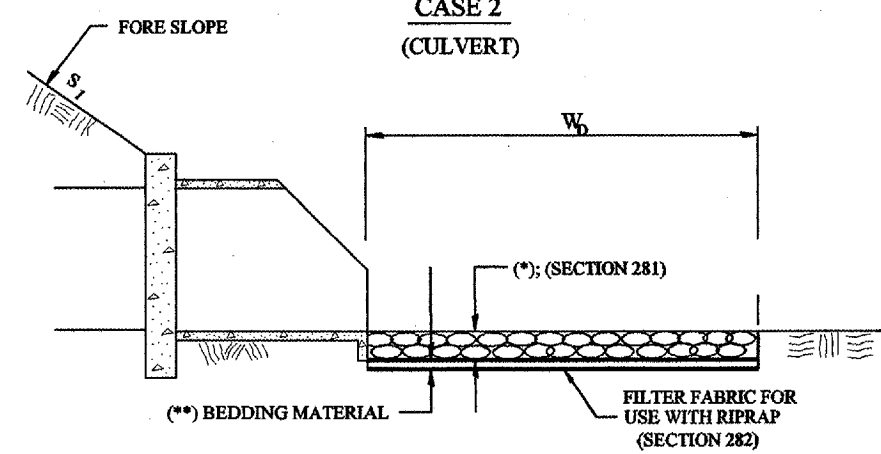
CASE 1
(DITCH)



PROPOSED STONE RIPRAP CLASS B-3				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft	lin ft	sq yds	sq yds
Rt. Sta. 582+50 - 583+45.42	variable	95.42	116	
Lt. Sta. 735+50 - 735+88	variable	38.5	36	
Lt. Sta. 736+10 - 736+50	variable	41.5	34	
Lt. Sta. 859+00 - 859+60	variable	61.25	77	
Lt. Sta. 859+83 - 860+50	variable	27.9	24	
R t. Sta. 859+50 - 860+62	variable	114.86	149	
TOTAL			436	

(1) WIDTH = $W_1 + W_2 + W_D$

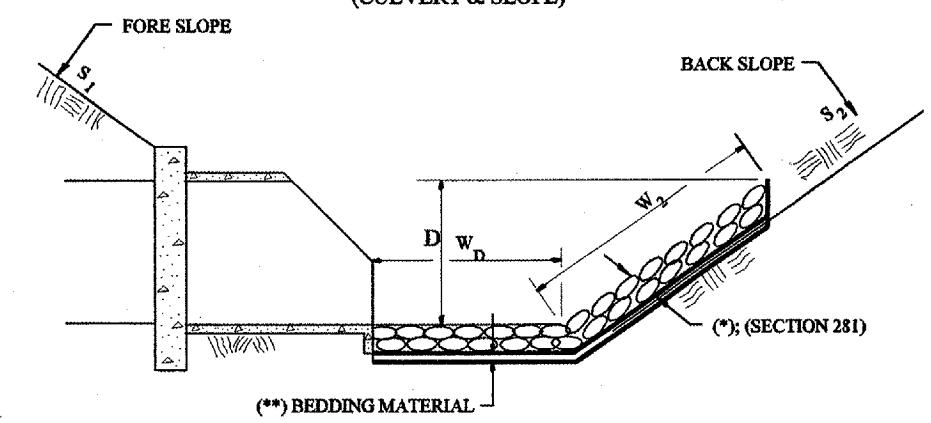
CASE 2
(CULVERT)



STONE RIPRAP CLASS A-4				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft	lin ft	sq yds	sq yds
RT STA. 583+51.04	10	14	16	16
LT STA. 860+23.21	22	26.67	72	72
TOTAL			88	88

(1) WIDTH = W_D

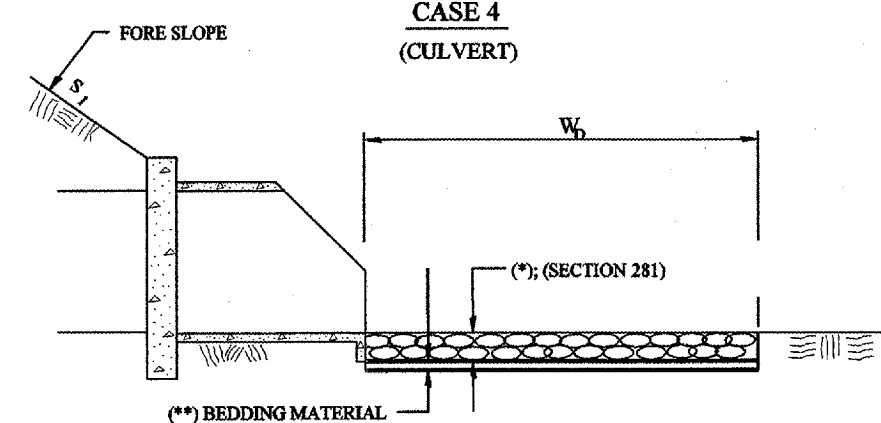
CASE 3
(CULVERT & SLOPE)



STONE RIPRAP CLASS A-4				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft	lin ft	sq yds	sq yds
RT STA. 860+23.21	VARIABLE	26.17	37	37
TOTAL			37	37

(1) WIDTH = $W_2 + W_D$

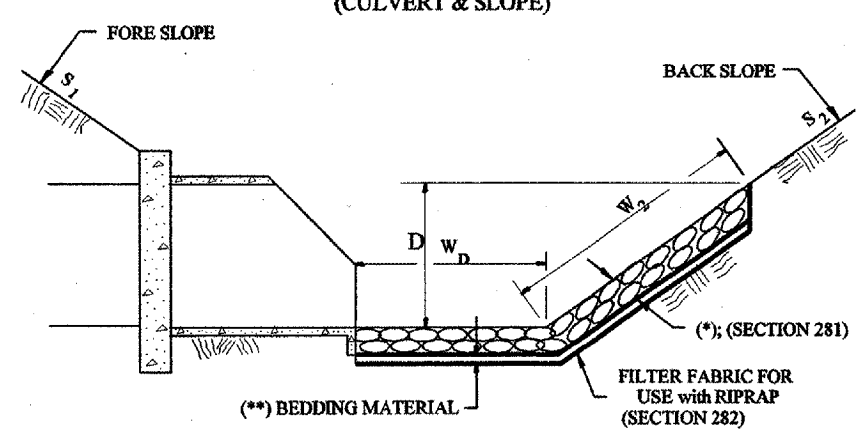
CASE 4
(CULVERT)



STONE RIPRAP CLASS A-3				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft	lin ft	sq yds	sq yds
RT STA. 723+96.29	17	20	38	
TOTAL			38	

(1) WIDTH = W_D

CASE 5
(CULVERT & SLOPE)



STONE RIPRAP CLASS A-3				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft	lin ft	sq yds	sq yds
LT STA. 724+03.25	10	20	22	
LT STA. 736+00	10	20	22	
RT STA. 735+98	17	20	36	
TOTAL			80	

(1) WIDTH = $W_2 + W_D$

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL DETAIL SHEET

RIPRAP DITCH FOR EROSION PROTECTION

SCALE: NOT DRAWN TO SCALE DRAWN BY LCE

DATE 7/14/2004 CHECKED BY

Designer NOTES:

1. Designer to modify this Special Detail Sheet, as needed for inclusion in plans.
2. (*) Designer to specify pay item including material, quality, and gradation.
3. (**) Designer to specify thickness of bedding material.
4. Include District Special Provision if needed.

2/7/2005

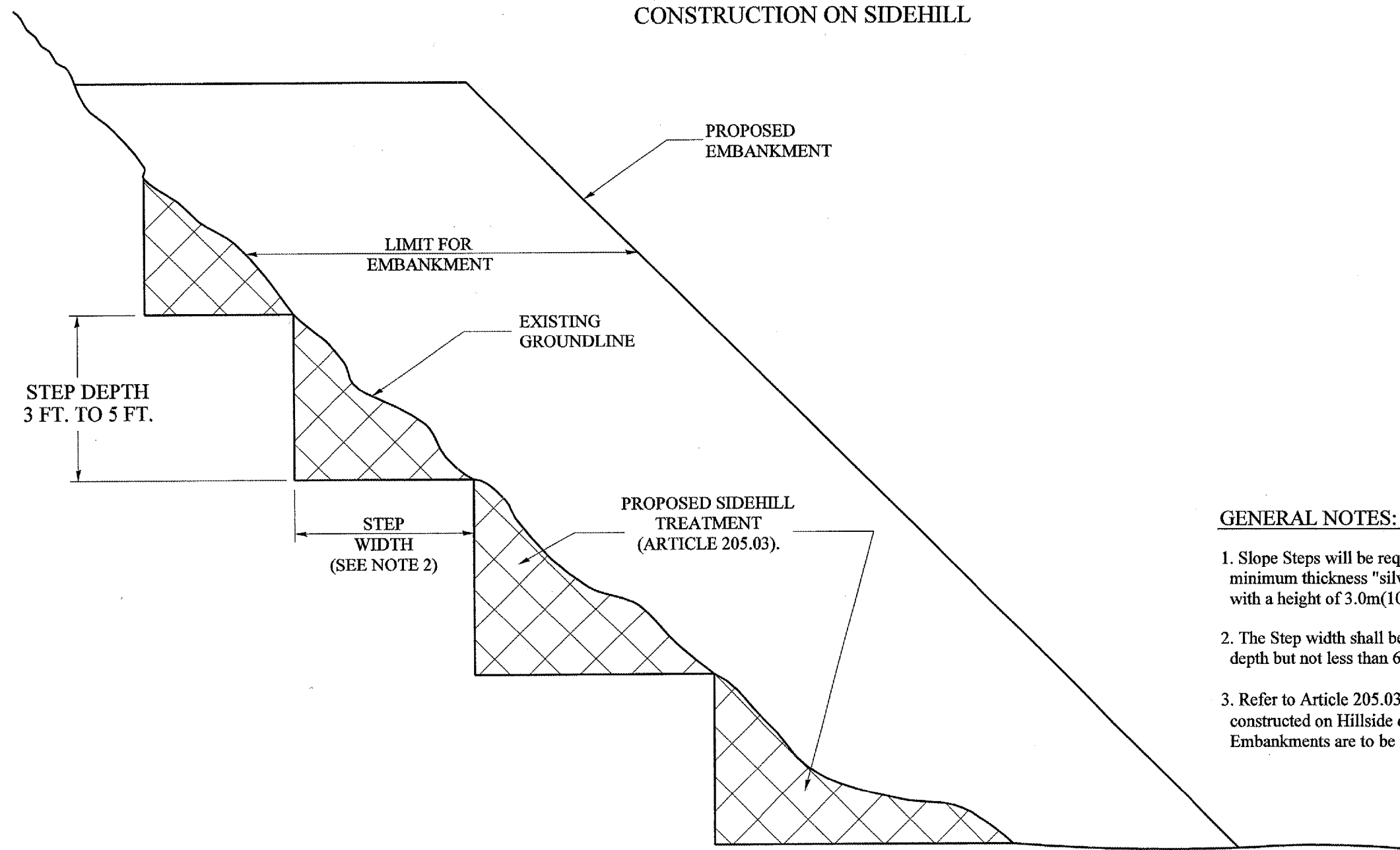
68383

F.A.P. RITE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	...	53
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

* D4 CULVERT EXT. / REPAIR 2005-2

SLOPE STEPS DETAIL

TYPICAL CROSS-SECTION EMBANKMENT CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

1. Slope Steps will be required for all 300(12) minimum thickness "silver fills" and on a fills with a height of 3.0m(10').
2. The Step width shall be twice the Step depth but not less than 6 feet.
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

DESIGNER NOTE:
 1. EACH PROJECT SHOULD BE REVIEWED INDEPENDENTLY FOR TREATMENT REQUIRED.
 2. REFER TO THIS DETAIL WITH NOTE ON APPLICABLE TYPICAL SECTIONS.

REPLACEMENT MATERIAL:

STANDARD EMBANKMENT
 (IN ACCORDANCE WITH
 205 OF THE STANDARD SPECIFICATION).

All dimensions are in millimeters
(inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.

**SLOPE STEPS
DETAIL**

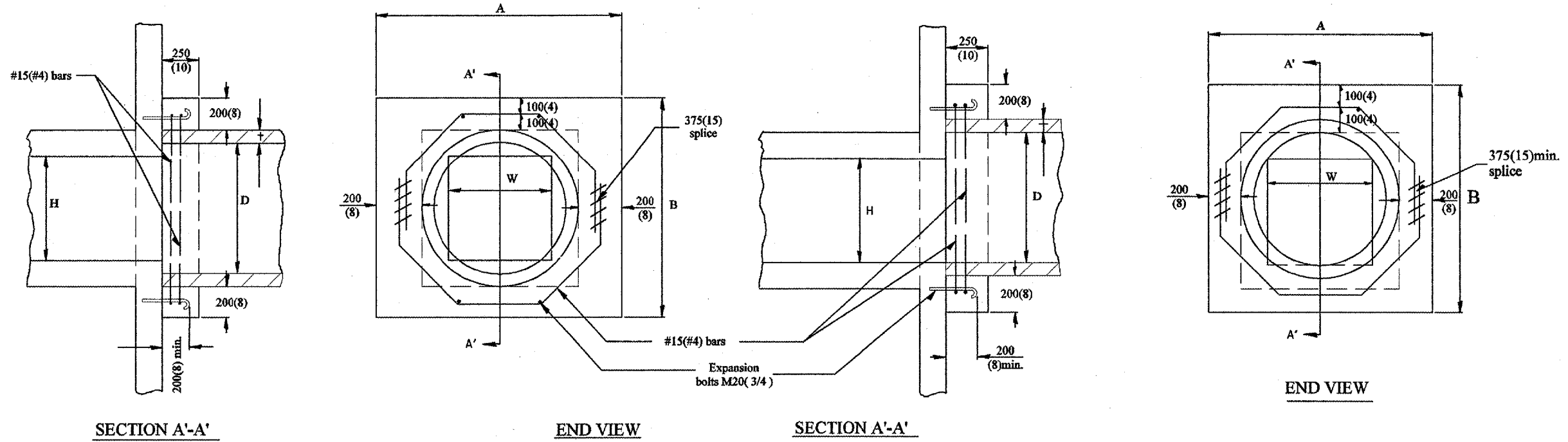
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 SCALE: NOT DRAWN TO SCALE
 DATE 11/16/2004

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 CHECKED BY

11/16/2004

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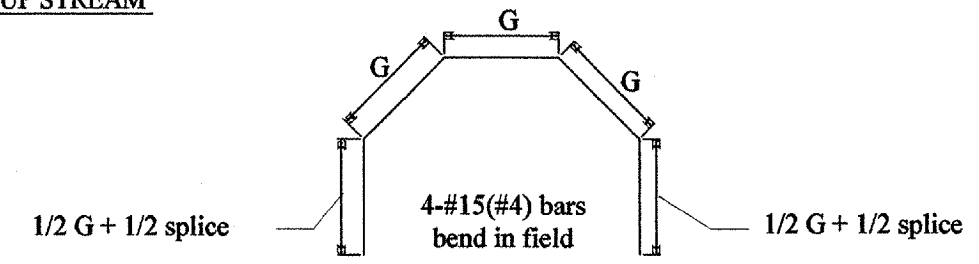
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL	—	54
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXT. / REPAIR 2005-2				



DOWN STREAM

UP STREAM

EXISTING BOX		A	B	D	t	EACH COLLAR				
W	H					CONC. COLLAR	REINFORCEMENT BARS		EXPANSION BOLT	
						m(CU. YD.)	G	L	KG(LBS.)	EACH
300(12) PIPE		810 (32)	810 (32)	300 (12)	50(2)	0.14(0.18)	254 (10)	1.40m (4'-7")	9(12)	4
450(18) PIPE		990 (39)	990 (39)	450 (18)	65(2 1/2)	0.18(0.24)	324 (12 3/4)	1.68m (5'-6")	11(15)	4
600(24) PIPE		1.17m (3'-10")	1.17m (3'-10")	600 (24)	75(3)	0.23(0.30)	400 (15 3/4)	1.98m (6'-6")	12(17)	4
600(24)	600(24)	1.35m (4'-5")	1.35m (4'-5")	750 (30)	90(3 1/2)	0.28(0.37)	416 (18 3/4)	2.29m (7'-6")	14(20)	4
750(30)	750(30)	1.52m (5'-0")	1.52m (5'-0")	900 (36)	100(4)	0.34(0.45)	546 (21 1/2)	2.57m (8'-5")	16(22)	8
900(36)	900(36)	1.7m (5'-7")	1.7m (5'-7")	1050 (42)	115(4 1/2)	0.38(0.50)	622 (24 1/2)	2.87m (9'-5")	18(25)	10
1050(42)	1050(42)	1.88m (6'-2")	1.88m (6'-2")	1200 (48)	125(5)	0.47(0.61)	692 (27 1/4)	3.15m (10'-4")	20(28)	10
1200(48)	1200(48)	2.06m (6'-9")	2.06m (6'-9")	1350 (54)	140(5 1/2)	0.61(0.80)	768 (30 1/4)	3.45m (11'-4")	22(30)	10



GENERAL NOTES

1. The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of Section 503 of the Standard Specifications. Reinforcement Bars shall conform to Section 508.
2. Expansion Bolts shall consist of approved Expansion Anchors, and M20(3/4) Hook Bolts which conform to Section 1006.09. These Bolts shall extend at least 200(8) into the new Concrete.

QUANTITIES	
CALC. BY:	DATE:
CHECKED BY:	DATE:
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION	

DATE	REVISIONS	BY
1-1-97	RENUM. I-11.02, NEW REVISION BOX, REVISED TITLE BOX, ADDED QUANTITY CALCULATION BOX.	T.P.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD
PIPE CULVERT EXTENSION COLLAR
(WITH END SECTION)

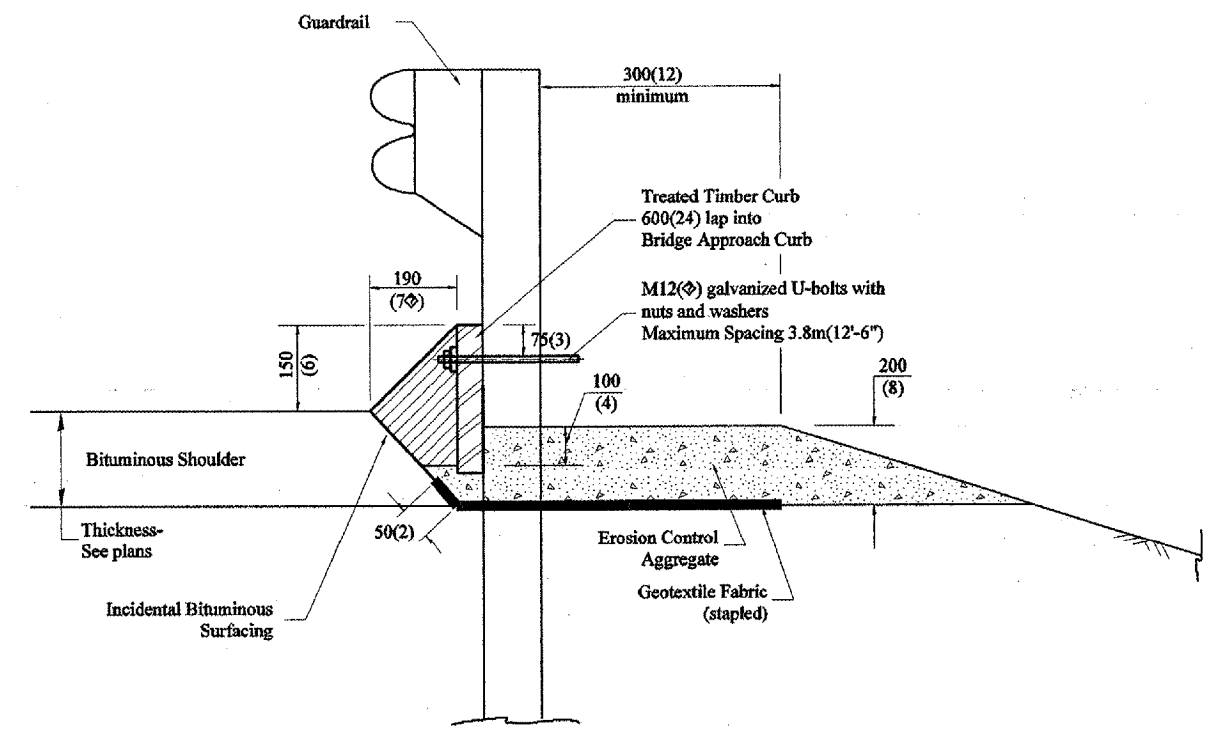
CADD STD. No. 542001-D4
SCALE: NOT DRAWN TO SCALE
DATE 11/16/2004

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CHECKED BY

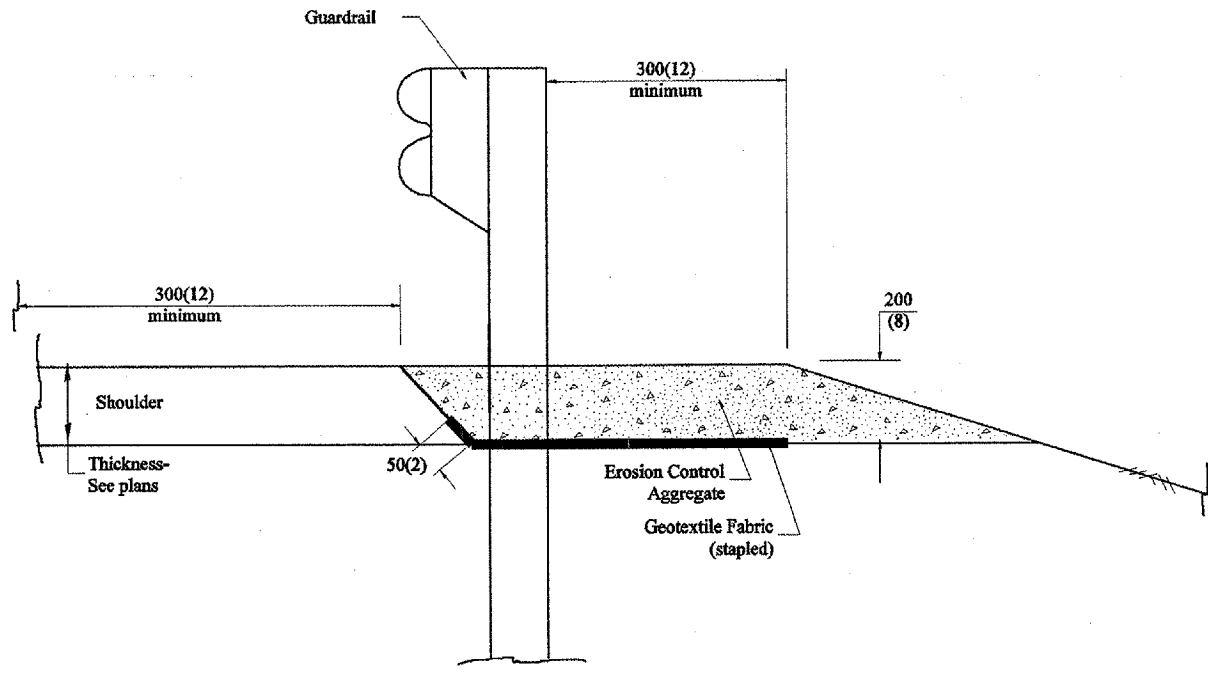
11/16/2004

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		55
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* D4 CULVERT EXTENSION / REPAIR 2005-2				



TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

GENERAL NOTES: EROSION CONTROL CURB

1. This work shall consist of grading as needed, installing hardware and treated timber boards, furnishing and placing mastic material and incidental bituminous surfacing in front of Steel Plate Beam Guardrail in accordance with Plan Details.
2. Timber shall be treated in accordance with Article 1007.12. All preservatives specified in the article will be allowed. Waterborne preservatives "asa" and "cca" shall have a minimum retention of 6.4 kg/m³ (0.40 lbs./cu. ft.)

GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 300(12) minimum overlap. A knife cut for guardrail post installation is necessary.
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
6. Materials shall meet the following requirements:
 - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
 - B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL EROSION CONTROL TREATMENTS	
CADD STD NO. 630101-D4(1)	SHEET 1 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
DATE 11/16/2004	CHECKED BY

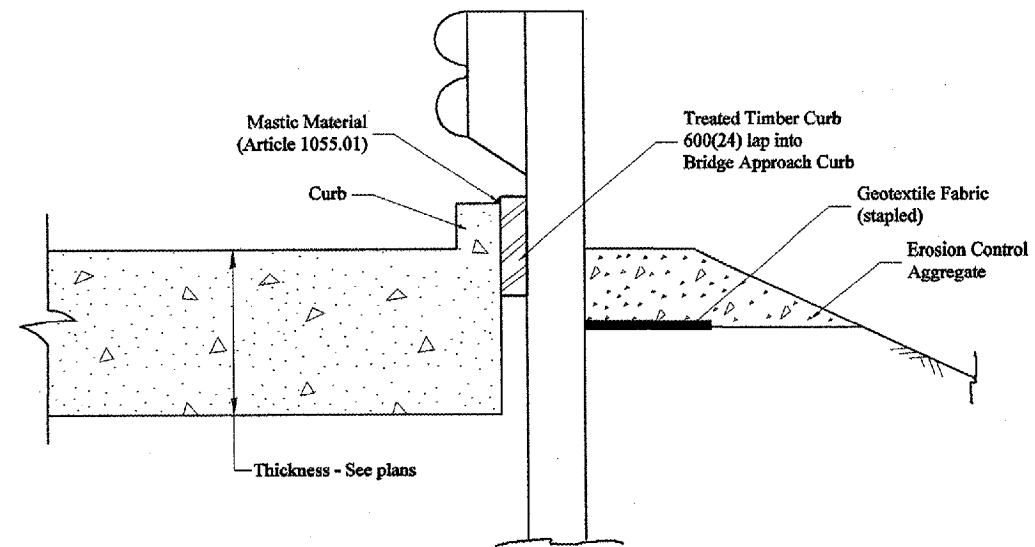
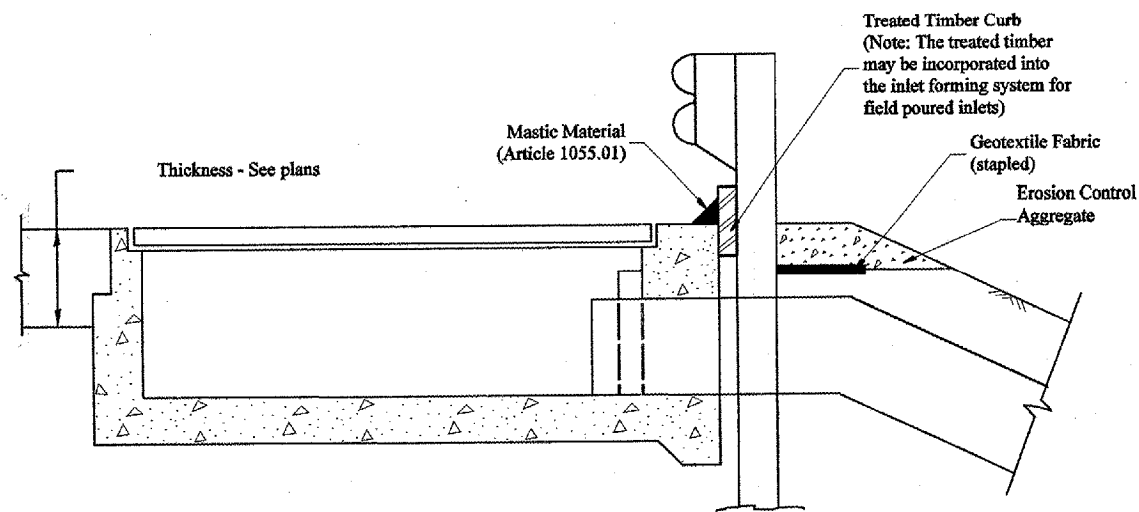
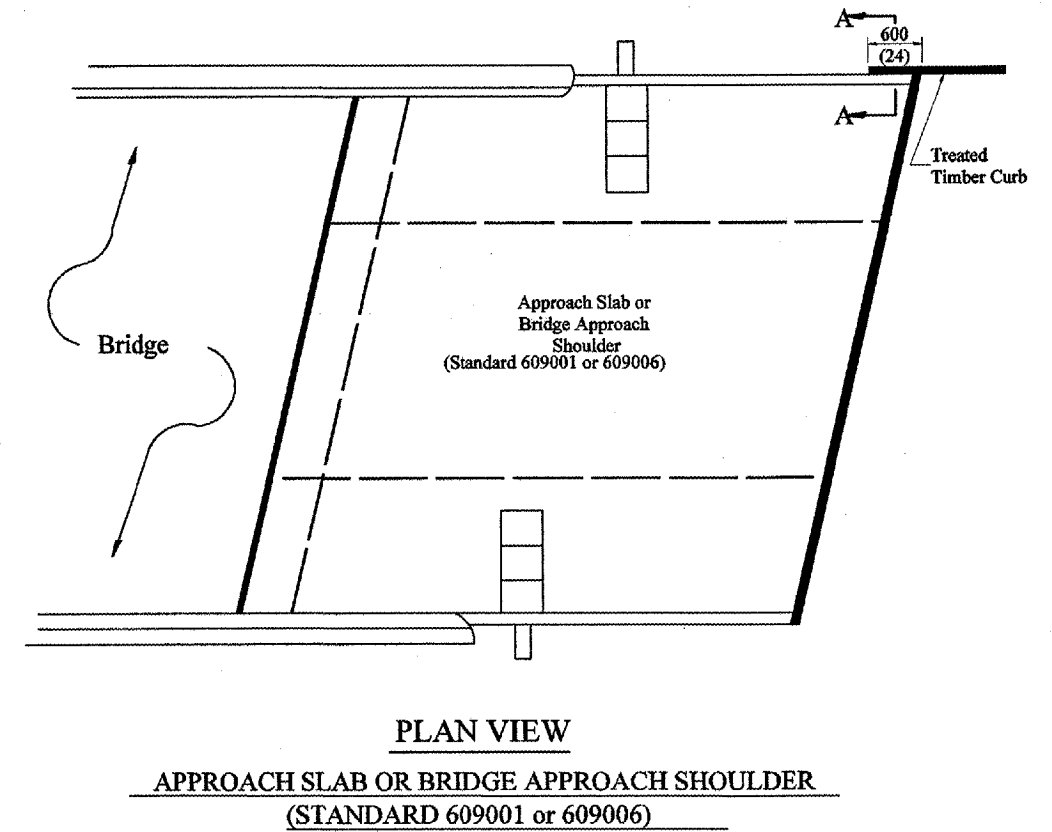
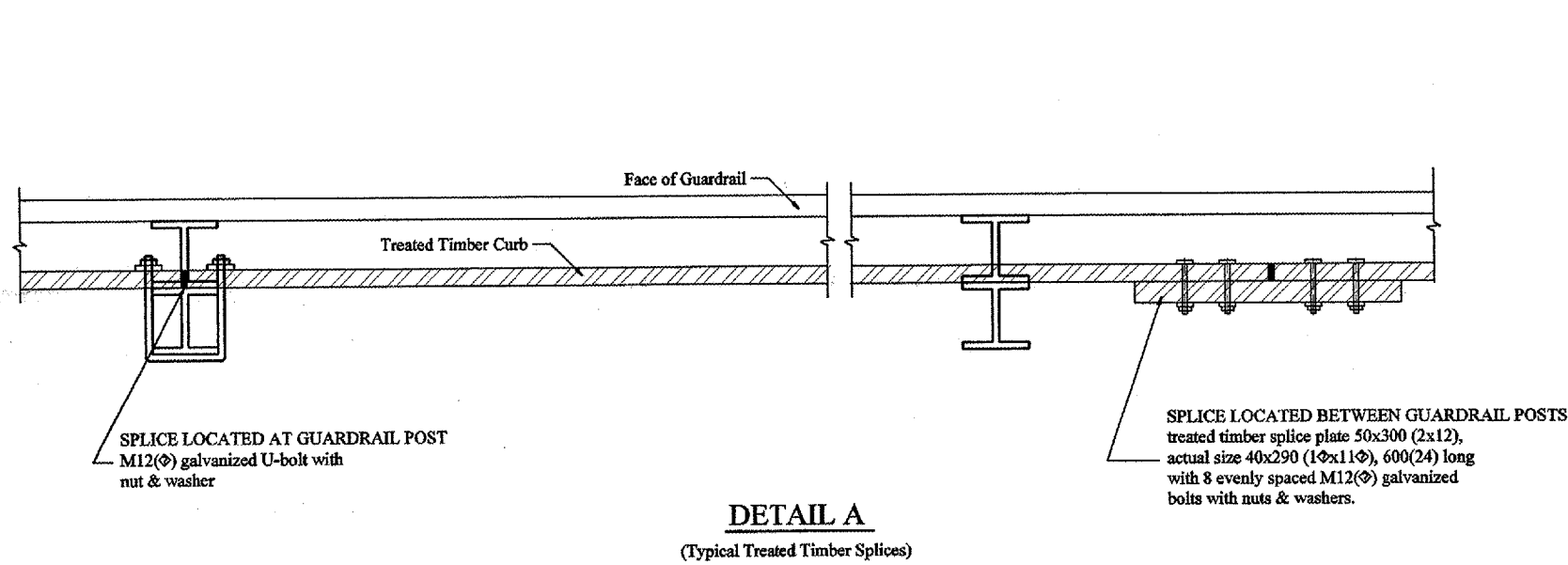
DATE	REVISIONS	BY
1-1-97	RENUM. C-22.01, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-3-00	CORRECTION TO NOTES	M.A.

DESIGNER NOTE:
 1. Use EROSION CONTROL CURB at guardrail installations where grades are equal to or greater than 1% and at inlets. [Include District Special Provision]
 2. Use GUARDRAIL AGGREGATE EROSION CONTROL at guardrail installations where grades are less than 1% [Include District Special Provision]
 3. Include State Standards 609001, 609006 or 610001 if applicable.
 4. Include the following District Cadd Standards as needed: Slope Drains for Exposed Pipes; Slope Drains for Buried Pipes; Seepage Collars for Buried Pipes; Seepage Collars for Exposed Pipes; Concrete Thrust Blocks and Pipe Elbow.
 5. Include District Special Provision - "Aggregate Quality" for projects located in the Western Area of the District - approx. dividing line is IL 97.

11/16/2004

68383

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	*	TAZEWELL		56
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*D4 CULVERT EXTENSION / REPAIR 2005-2				



All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL EROSION CONTROL TREATMENTS	
CADD STD NO. 630101-D4(2)	SHEET 2 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
DATE 11/16/2004	CHECKED BY

11/16/2004

630101 D4(2)