

FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	SECTION (101)I-1	FULTON	24	1
		ILLINOIS	CONTRACT NO. 68C44	

1. COVER SHEET & SIGNATURE
2. GENERAL NOTES
- 3-5. SUMMARY OF QUANTITIES
6. TYPICAL SECTIONS
- 7-8. SCHEDULE OF QUANTITIES
9. ALIGNMENT TIES AND BENCH MARKS
10. PLAN/PROFILE SHEETS
11. EROSION CONTROL SHEET
12. R.O.W SHEET
- 13-15. CULVERT DETAILS SHEETS
- 16-20. CADD STANDARDS SHEETS
- 21-24. CROSS-SECTIONS

DEPARTMENT OF TRANSPORTATION

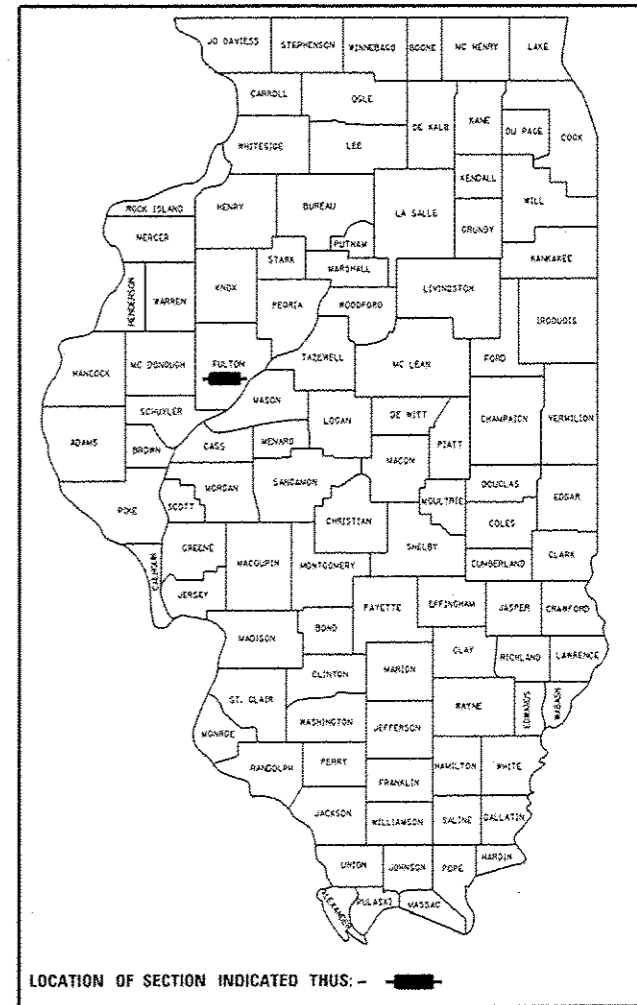
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

US 24 ROUTE (FAP317)
SECTION (101)I-1
CULVERT EXTENSION
FULTON COUNTY

C-94-043-15

D-94-025-15



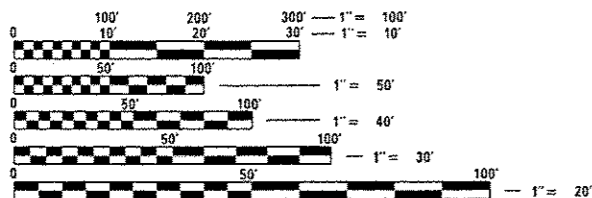
LOCATION OF SECTION INDICATED THUS: - [thick black line] -

**Extend Culvert & Stabilize
Side Slope along US 24,
Approx. (1/4) Mile North
of Rice Lake Entrance**

HIGHWAY STANDARDS	
280001-07	630001-10
630106-01	701001-02
701006-05	701201-04
701901-05	

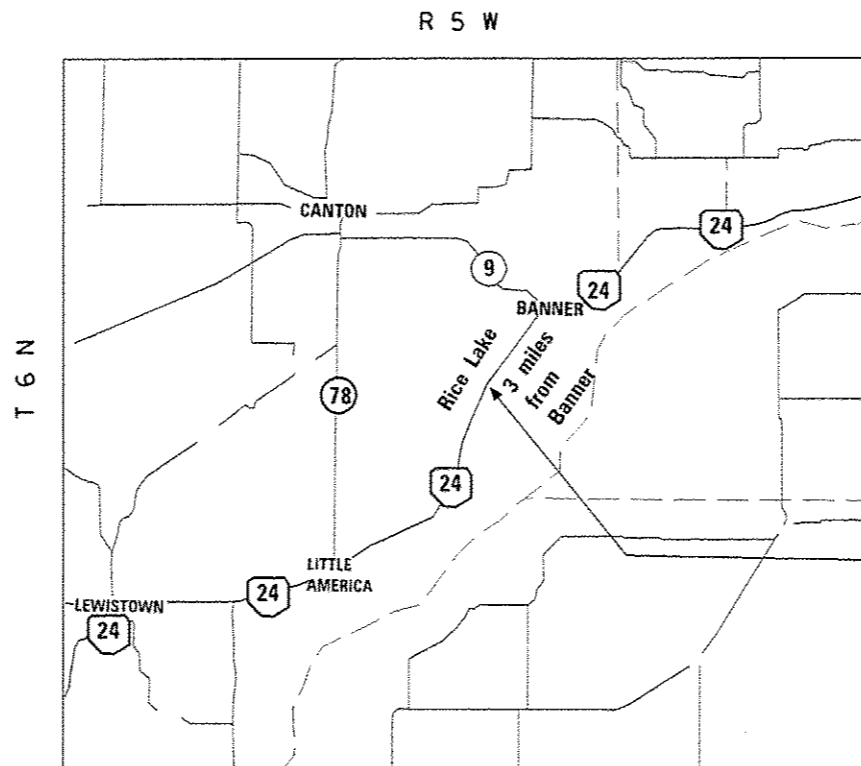
CAAD STANDARDS	
205001	281001
630101	

ADT = 2,650
PV = 2,430 (91.70%)
SU = 80 (3.02%)
MU = 140 (5.28%)



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
OR 811



**PROJECT
LOCATION
STA 154+00**

GROSS LENGTH = NET LENGTH = 500 FT (0.095 MILES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 17, 2016

[Signature]
REGION THREE ENGINEER

May 16, 2016
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 16, 2016
[Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

PROJECT ENGINEER: GEORGE RAMIA (309)671-3467
PROJECT MANAGER: CHRISTOPHER MAUSHARD (309)671-3453
CONTRACT NO. 68C44
CATALOG NO. 035079-00D

COMMITMENTS

Commitments are not to be altered without the written approval of all parties to which the commitment was made. No Commitment were made.

REMOVAL AND REPLACEMENT OF GUARDRAIL:

The Contractor shall not remove the Guardrail until he is able to place the proposed Guardrail in the same Calendar day

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.

The required environmental resource documentation shall include the following:

- * BDE Form 2289 (Cultural and Natural Resources Review of Borrow Areas)
- * BDE Form 2290 (Waste/Use Area Review)
- * A location map showing the size limits and location of the use area
- * Color photographs depicting the use area
- * Borrow Area Entry Agreement form * D4 PI0101

Prior to any waste materials being removed from the construction site the required environmental resource surveys shall 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. Please note that a minimum of four weeks shall be allowed for the District to obtain the required waste site environmental clearances and six weeks for the required borrow site environmental clearances.

SEEDING – SIDESLOPE RIPPING

All slopes steeper than 3 to 1 and over 15 ft. (4.5 m) in height shall be ripped. This shall consist of ripping between 18 inches to 24 inches (450 mm to 600 mm) deep normal to the slope. The interval of ripping along the slope shall be 12 ft. (3.6 m). This work shall be done after the seed bed has been prepared but before any fertilizer or seed has been applied. The fertilizer and seed shall be applied within a 24-hour period after the ripping has been done. This work will not be paid for separately but will be included in the cost of the various items of seeding involved

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.

MIX DESIGN FOR HMA SOULDERS 8"		
	SURFACE LIFT	LOWER LIFT
AC/PG	64-22	64-22
Voids	4.0% @ N=50	4.0% @ N=50
MIX COMP.	IL 9.5	IL 19.0
FRICITION AGGREGATE	MIX "C"	N/A
QUALITY MANAGEMENT PROGRAM	QCOA	QCOA

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				0040 FULTON COUNTY 100% STATE
20100500	TREE REMOVAL, ACRES	ACRE	0.33	0.33
20200100	EARTH EXCAVATION	CU YD	947	947
20700110	POROUS GRANULAR EMBANKMENT	TON	30	30
21101615	TOPSOIL FURNISH & PLACE, 4"	SO YD	1149	1149
25000305	SEEDING, CLASS 3A	ACRE	0.33	0.33
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	30	30
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	30	30
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	30	30
25100630	EROSION CONTROL BLANKET	SO YD	1149	1149
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	300	300
28000305	TEMPORARY DITCH CHECKS	FOOT	20	20
28000315	AGGREGATE DITCH CHECKS	TON	10	10
28000400	PERIMETER EROSION BARRIER	FOOT	400	400
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	64	64

FILE NAME :
I-US 24 RICE LAKE CUL EXT 168C441.dgn
Default

USER NAME : aubrugg
PLOT SCALE * 100.0000 * / 1"
PLOT DATE * 3/19/2016

DESIGNED - _____	REVISED - _____
DRAWN - _____	REVISED - _____
CHECKED - _____	REVISED - _____
DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	(1011)-1	FULTON	24	3
CONTRACT NO. 68C44			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				0040 FULTON COUNTY 100% STATE
28200200	FILTER FABRIC	SQ YD	101	101
44004250	PAVED SHOULDER REMOVAL	SQ YD	53	53
48203029	HOT - MIX ASPHALT SHOULDERS, 8"	SQ YD	53	53
50102400	CONCRETE REMOVAL	CU YD	2.8	2.8
50800105	REINFORCEMENT BARS	POUND	1905	1905
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	300	300
54003000	CONCRETE BOX CULVERTS	CU YD	13.1	13.1
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100
* 63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	162.5	162.5
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2
63200310	GUARDRAIL REMOVAL	FOOT	362.5	362.5
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1

19

* SPECIALTY ITEM

FILE NAME : I-55 24 RICE LAKE CUL EXT 168C441.dgn	USER NAME : eubraygn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			US 24	(10111-1)	FULTON	24	4	
		CHECKED -	REVISED -			CONTRACT NO. 68C44					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
		PLOT SCALE = 100,0000' = 1" = 1/4"									
		PLOT DATE = 3/18/2018									

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				0040 FULTON COUNTY 100% STATE
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8	8
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	74	74
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1

* SPECIALTY ITEM

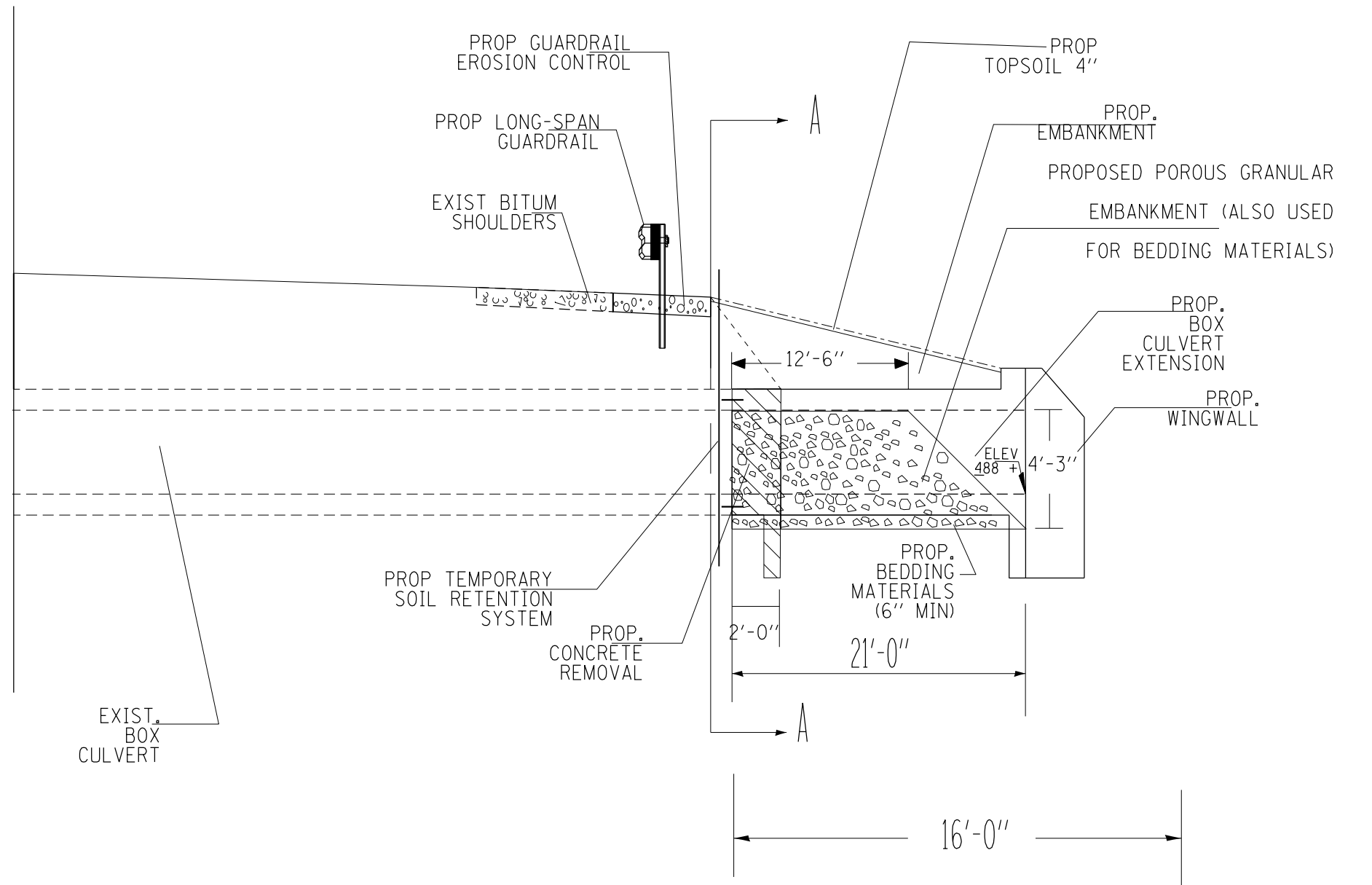
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		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

FAP 317	SECTION 11011-1	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 5
US 24	CONTRACT NO. 68C44			
ILLINOIS FED. AID PROJECT				

C



EXIST. BOX CULVERT

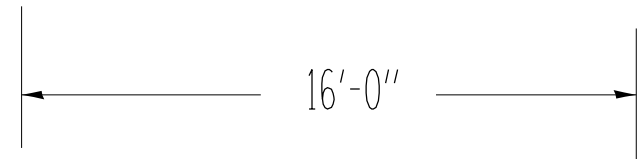
PROP. TEMPORARY SOIL RETENTION SYSTEM

PROP. CONCRETE REMOVAL

PROP. BEDDING MATERIALS (6" MIN)

PROP. BOX CULVERT EXTENSION

PROP. WINGWALL



PROP. EMBANKMENT

2' x 2' x 2' DEPOSIT OF CA 5, 7, OR 11 IN FABRIC ENVELOPE IN ACCORDANCE WITH ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS (TYPICAL)

POROUS GRANULAR EMBANKMENT

SECTION A-A

FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn	USER NAME = aubreys	DESIGNED - _____	REVISED - _____
Default	PLOT SCALE = 100.0000' / 1" =	DRAWN - _____	REVISED - _____
	PLOT DATE = 3/18/2016	CHECKED - _____	REVISED - _____
		DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION SHEET

FAP 317	SECTION (101)1-1	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 6
US 24	ILLINOIS	CONTRACT NO. 68C44		

LOCATION	EARTH EXCAVATION	FOR INFORMATION ONLY	
		EARTH EXCAV ADJUST FOR 25% SHRINKAGE	EMBANKMENT
		CU YD	CU YD
153+50 TO 153+75	5.5	4.1	15.9
153+75 TO 153+96	12.9	9.7	28.3
153+96 TO 154+25	109.6	82.2	82.2
154+25 TO 154+50	220.8	165.6	141.4
154+50 TO 154+75	271.2	203.4	167.4
154+75 TO 155+00	231.0	173.3	133.7
155+00 TO 155+25	96.0	72.0	54.6
TOTAL	947	710	624

LOCATION	TREE REMOVAL ACRES
153+75 TO 155+25	0.33
TOTAL	0.33

STATION	TEMPORARY DITCH CHECKS	AGGREGATE DITCH CHECKS
	FOOT	TON
154+00	10	
154+00	10	
154+25		5
154+50		5
TOTAL	20	10

STATION TO STATION	TOPSOIL FURNISH & PLACE 4"	SEEDING CLASS 3A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	EROSION CONTROL BLANKET
	SQ YD	ACRE	POUND	POUND	POUND	SQ YD
153+50 TO 153+75	37.62	0.008	0.70	0.70	0.70	37.62
153+75 TO 153+96	62.82	0.013	1.17	1.17	1.17	62.82
153+96 TO 154+25	149.40	0.031	2.78	2.78	2.78	149.40
154+25 TO 154+50	207.46	0.043	3.86	3.86	3.86	207.46
154+50 TO 154+75	266.81	0.055	4.96	4.96	4.96	266.81
154+75 TO 155+00	288.05	0.060	5.36	5.36	5.36	288.05
155+00 TO 155+25	137.07	0.028	2.55	2.55	2.55	137.07
TOTAL	1,149	0.33	30	30	30	1,149

ENGINEER FIELD OFFICE TYPE A	CAL MO
JOBSITE	3
TOTAL	3

MOBILIZATION	L SUM
JOBSITE	1
TOTAL	1

TRAF CONT & PROT STD 701201	L. SUM
JOBSITE	1
TOTAL	1

CONSTRUCTION LAYOUT	L. SUM
JOBSITE	1
TOTAL	1

STATION TO STATION	STEEL PLATE BEAM GUARD RAIL TYPE A 6 FOOT POSTS	LONG-SPAN GUARDRAIL OVER CULVERT 12FT 6 IN SPAN	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	GUARDRAIL REFLECTORS TYPE A	TERMINAL MARKER DIRECT-APPLIIED
	FOOT	FOOT	EACH	EACH	EACH
152+48.75 TO 152+98.75			1	1	1
152+98.75 TO 153+80.00		81.25		2	
153+80.00 TO 154+61.25		81.25		2	
154+61.25 TO 155+61.25	100			2	
155+61.25 TO 156+11.25			1	1	1
TOTAL	100	162.50	2	8	2

STATION TO STATION	PAVED SHOULDER REMOVAL	HOT-MIX ASPHALT SHOULDERS 8"
	SQ YD	SQ YD
154+00.00 TO 154+80.00	53	53
TOTAL	53	53

STATION TO STATION	STONE DUMPED RIPRAP, CLASS A4	FILTER FABRIC
	TON	SQ YD
154+00 at culvert	64	101
TOTAL	64	101

location	CONCRETE REMOVAL	REINFORCEMENT BARS	CONCRETE BOX CULVERT
	CU YD	POUND	POUND
154+00 at culvert	2.80	1,905	13.10
TOTAL	2.80	1,905	13.10

POROUS GRANULAR EMBANKMENT	TON
154+00 @ THE CULVERT	30
TOTAL	30

GUARD-RAIL AGGREGATE EROSION CONTROL	TON
152+48.75 TO 156+11.25	74
TOTAL	74

GUARDRAIL REMOVAL	TON
152+48.75 TO 156+11.25	362.50
TOTAL	362.50

TEMPORARY SOIL RETENTION SYSTEM @ THE CULVERT	SQ FT
	300
TOTAL	300

STATION TO STATION	TEMPORARY EROSION CONTROL SEEDING	PERIMETER EROSION BARRIER
	POUND	FOOT
153+75 TO 155+25	300	400
TOTAL	300	400

FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn	USER NAME = aubreys	DESIGNED - _____	REVISED - _____
Default	PLOT SCALE = 100.0000' / 1".	DRAWN - _____	REVISED - _____
	PLOT DATE = 3/18/2016	CHECKED - _____	REVISED - _____
		DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

FAP 317	SECTION (101)I-1	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 8
US 24			CONTRACT NO. 68C44	
ILLINOIS FED. AID PROJECT				

LINE 51-54 USED

B.M. 901 ELEV
494.45 -CHIS '□'
ON SO. END OF
HDW OF 5'X3'BOX
CULV. 27' RT OF
PVMT STA 153+36

5'X3' BOX
CULVERT

140+00
54

130+00
53

120+00
52

110+00
51

P.T. 160+80
58

P.I. (calc)
26

P.C. 152+85
55

130+00
53

120+00
52

110+00
51

GROUND
1391062.867
2358459.908

RECOVERY TIES PT 10 (10" NAIL)

TIES TO #10 SPIKE, FLUSH

CHIS '+'
IN CONC APRON

REVE. MAT

36.78'

22.06'

38.90'

98.33'

PK IN '+'

PVMT STA

154+00

U.S. 24

#10

CHIS '+'
IN G.R. POST

PK IN FIRST
GUARDRAIL POST

GROUND
1390879.568
2358334.781

RECOVERY TIES PT 11 (10" NAIL)

PT 11 10" SPIKE, FLUSH

CHIS '+'
IN E. EDGE
OF GUTTER

CHIS '+'
IN E. EDGE
OF PVMT

PCC GUTTER

BIT SHOULDER

U.S. 24

10.31'

9.78'

67.50'

11.50'

156+00

PK '+'

IN PVMT

U.S. 24

#11

P.K./WASHER
IN END G RAIL
POST

FILE NAME =
1-US 24 RICE LAKE CUL EXT (68C44).dgn

USER NAME = aubreys
DESIGNED -
DRAWN -
PLOT SCALE = 100.0000' / 1"
CHECKED -
PLOT DATE = 3/18/2016
DATE -

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RECOVERY TIES AND BENCH MARK

FAP
317
US 24

SECTION
(10)11-1

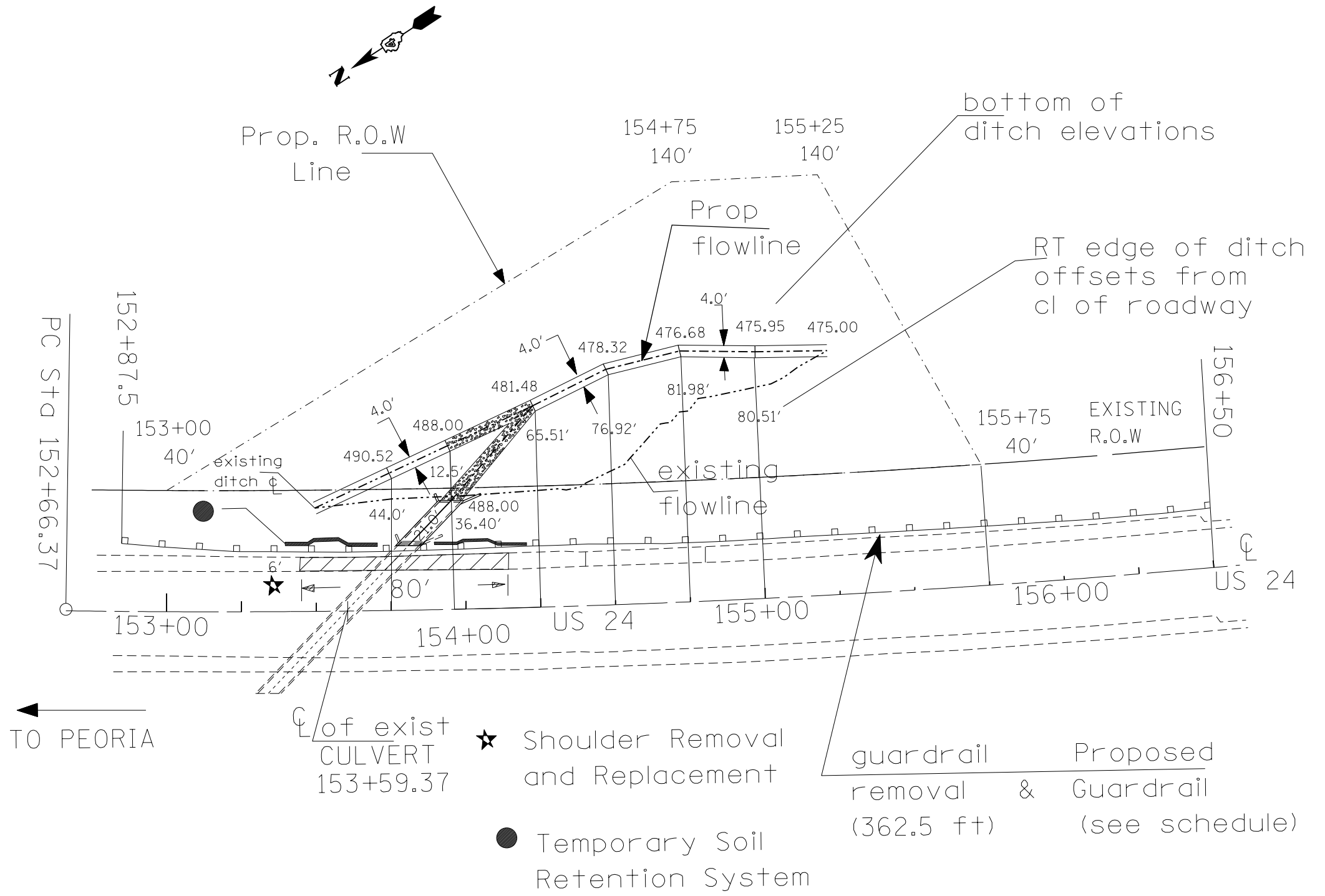
COUNTY
FULTON

TOTAL SHEETS
24

SHEET NO.
9

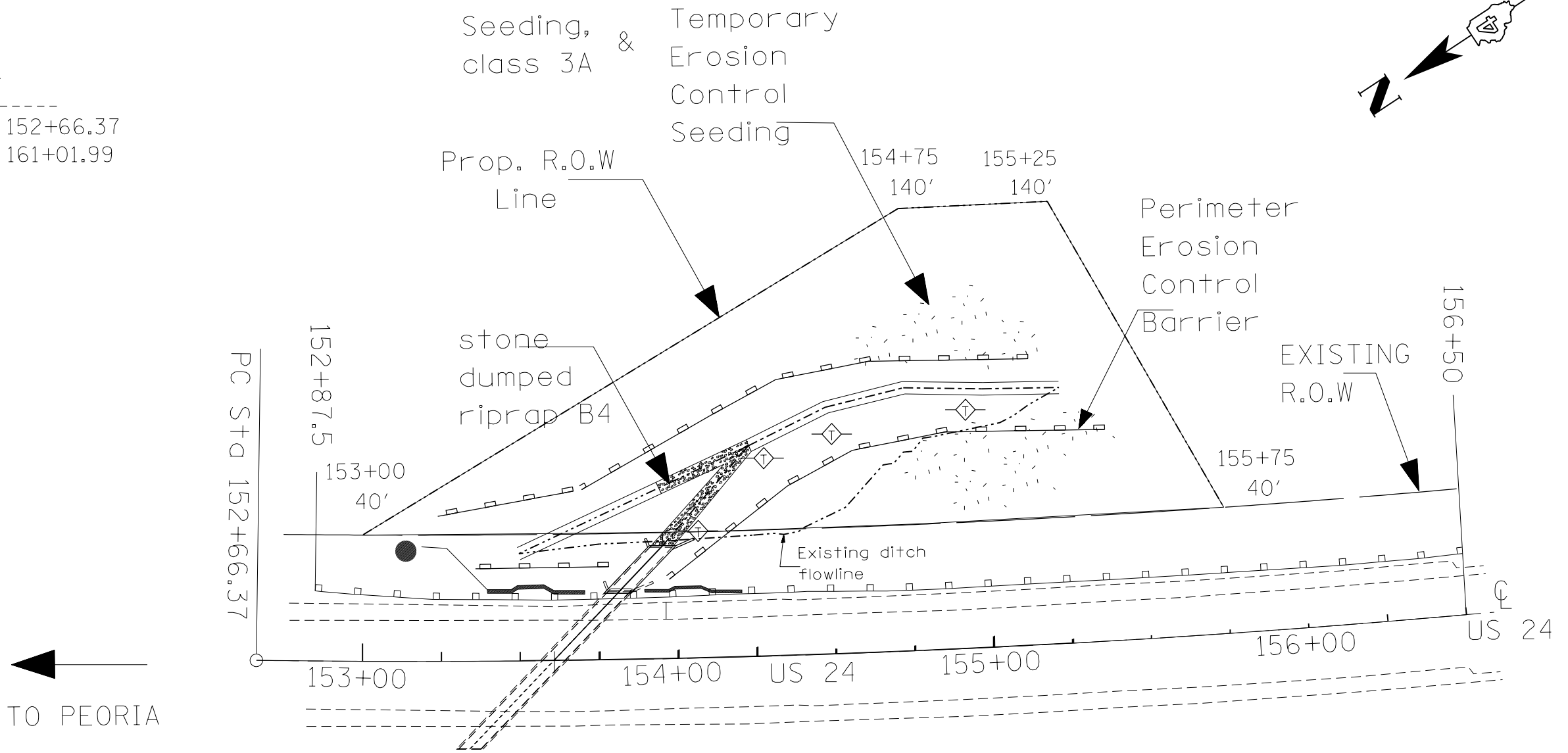
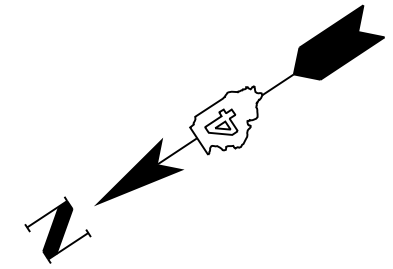
ILLINOIS CONTRACT NO. 68C44

PI STA. = 156+85.92
 $\Delta = 12^\circ 45' 55''$ (LT)
 $D = 1^\circ 31' 39''$
 $R = 3,750.62'$
 $T = 419.55'$
 $L = 835.62'$
 $E = 23.39'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. \text{ RUN} = \text{-----}$
 P.C. STA. = 152+66.37
 P.T. STA. = 161+01.99



FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn	USER NAME = aubreygs	DESIGNED - _____	REVISD - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROP. PLAN AND PROFILE SHEET	FAP 317 US 24	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISD - _____	(10)1-1				FULTON	24	10	
PLOT DATE = 3/18/2016	DATE - _____	REVISD - _____	ILLINOIS				CONTRACT NO. 68C44			
Default										

PI STA. = 156+85.92
 Δ = 12° 45' 55" (LT)
 D = 1° 31' 39"
 R = 3,750.62'
 T = 419.55'
 L = 835.62'
 E = 23.39'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 152+66.37
 P.T. STA. = 161+01.99

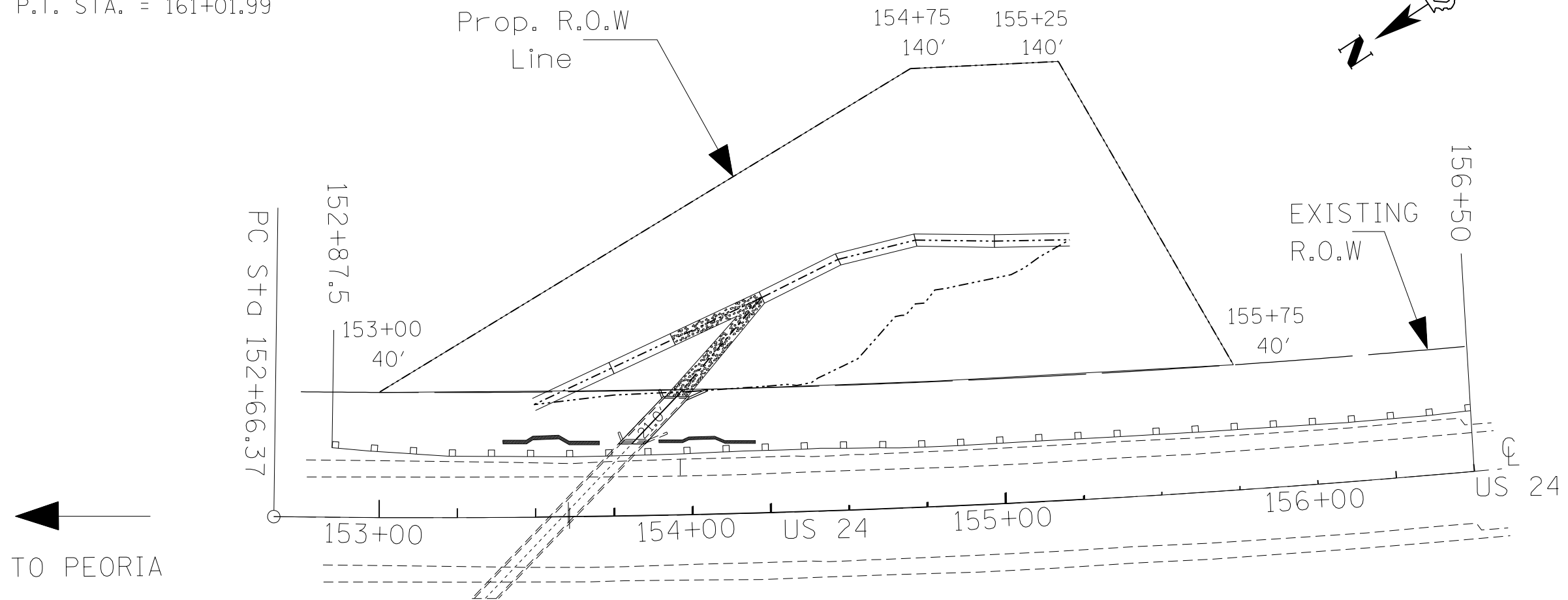


TO PEORIA

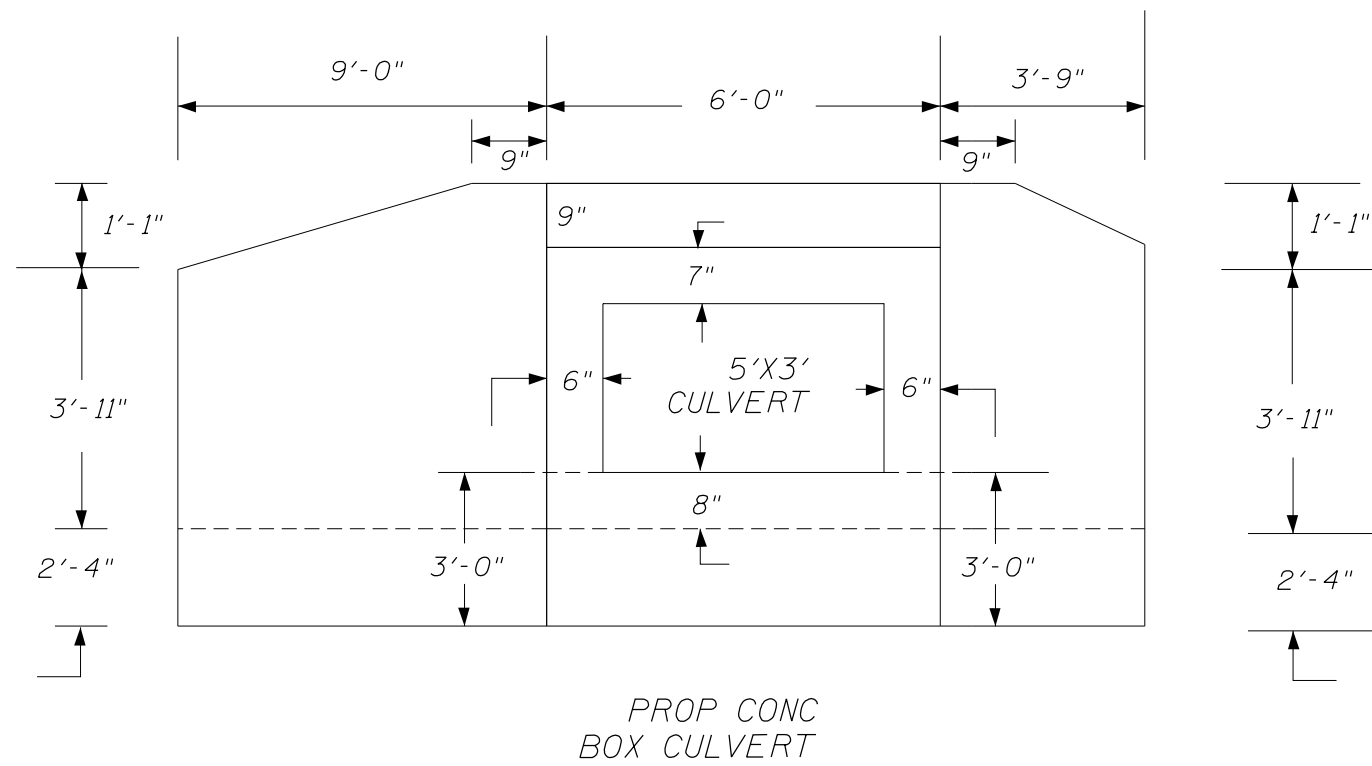
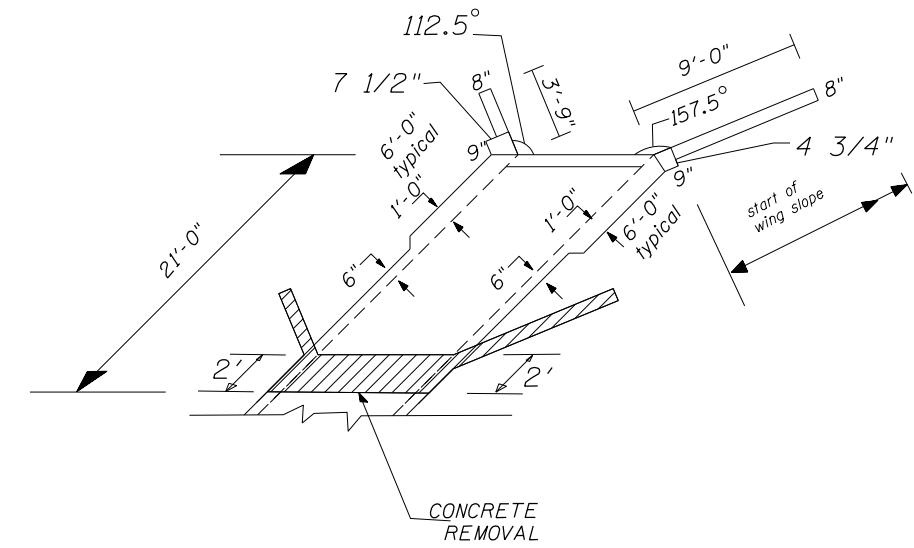
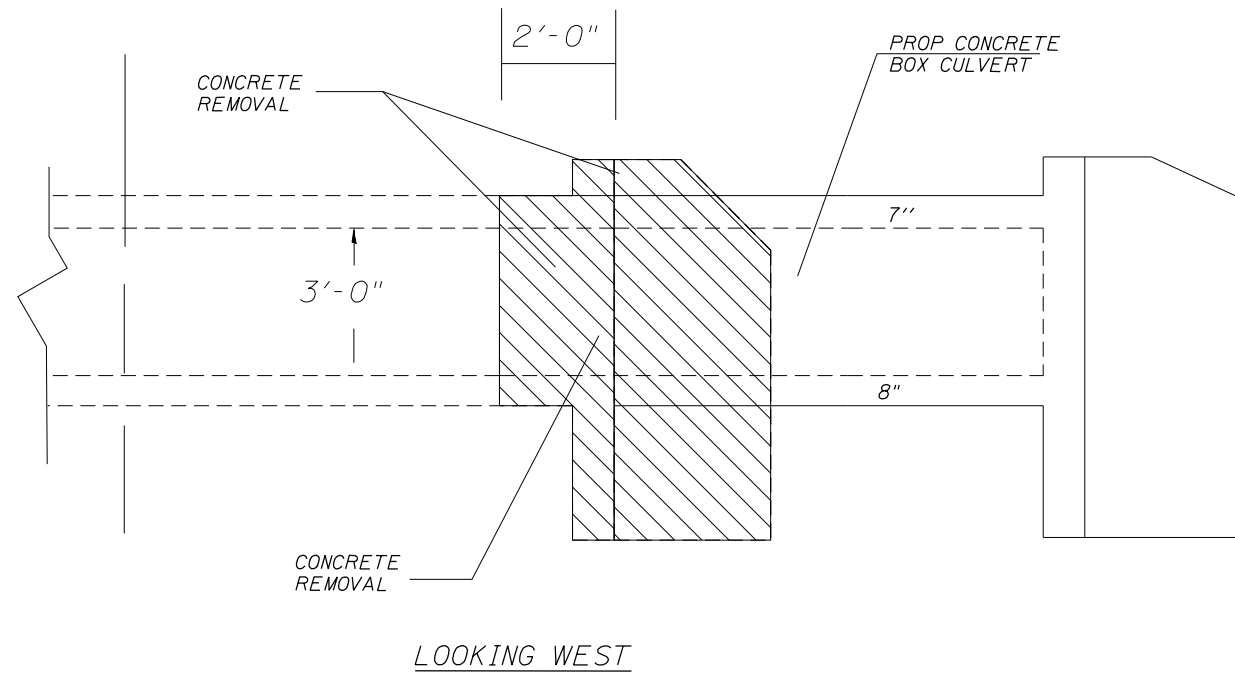
● Temporary Soil Retention System
 ◇ Temporary erosion control

FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn Default	USER NAME = aubreys	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL SHEET	FAP 317 US 24	SECTION	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 11
	PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____				(1011)-1			
	PLOT DATE = 3/18/2016	DATE - _____	REVISED - _____				CONTRACT NO. 68C44			

PI STA. = 156+85.92
 Δ = 12° 45' 55" (LT)
 D = 1° 31' 39"
 R = 3,750.62'
 T = 419.55'
 L = 835.62'
 E = 23.39'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 152+66.37
 P.T. STA. = 161+01.99



FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn Default	USER NAME = aubreys	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROP. R.O.W. SHEET	FAP 317	SECTION (101)1-1	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 12
	PLOT SCALE = 100.0000' / 1"	CHECKED - _____	REVISED - _____			ILLINOIS	CONTRACT NO. 68C44			
	PLOT DATE = 3/18/2016	DATE - _____	REVISED - _____							

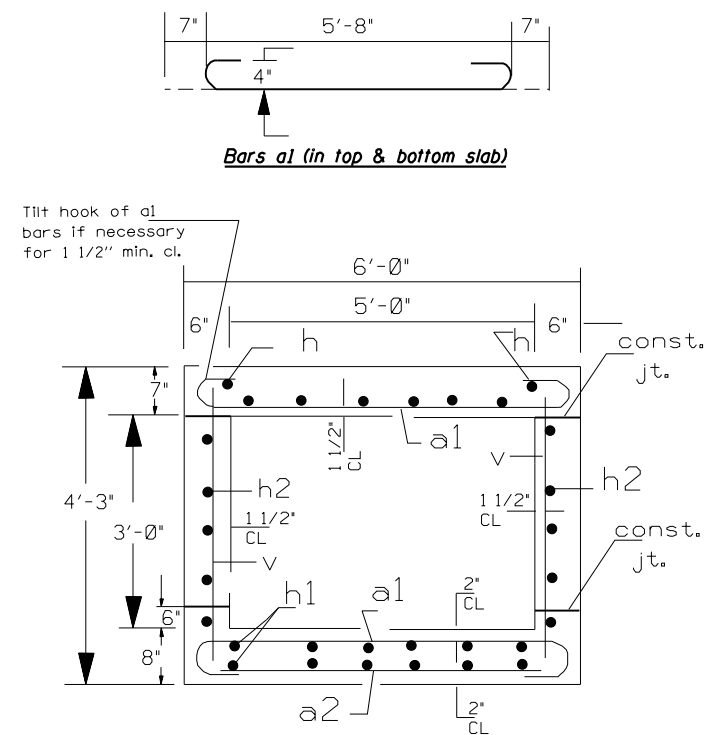
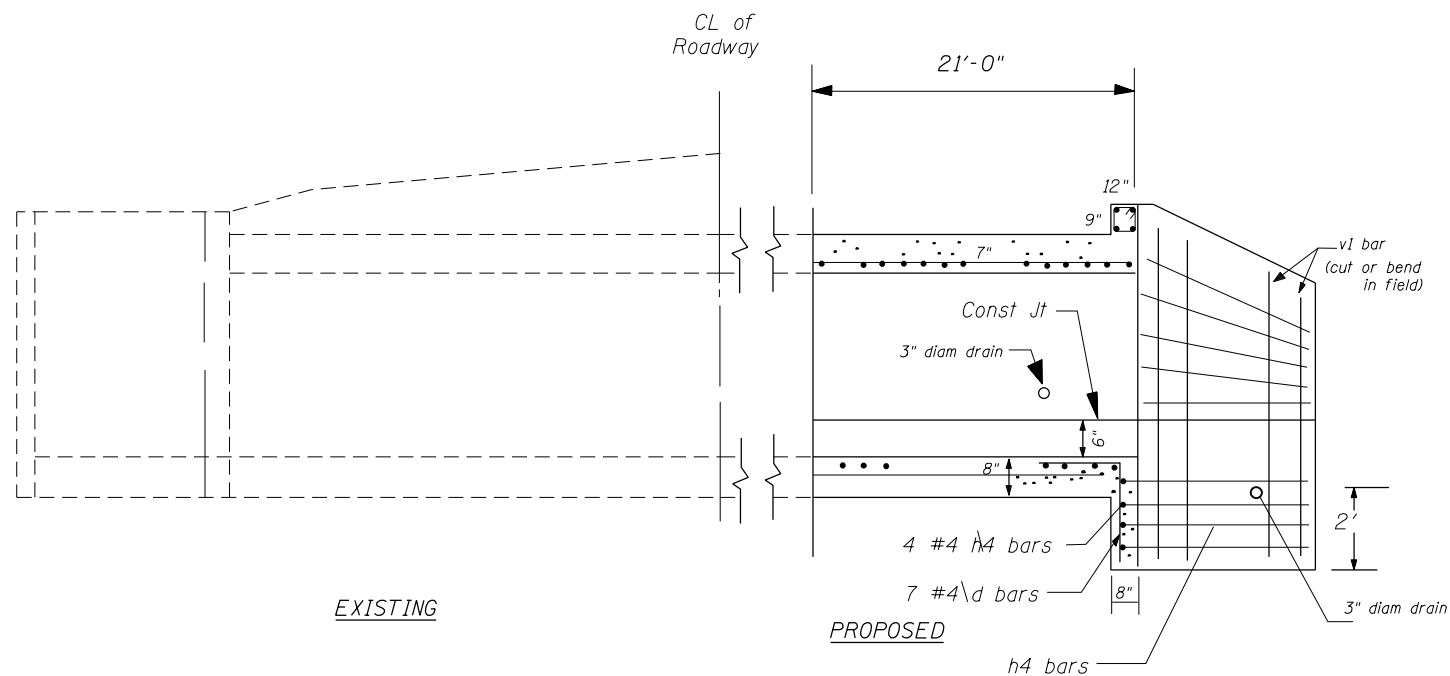


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Default	PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____
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		DATE - _____	REVISED - _____

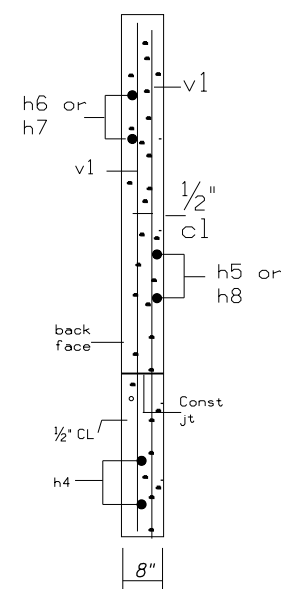
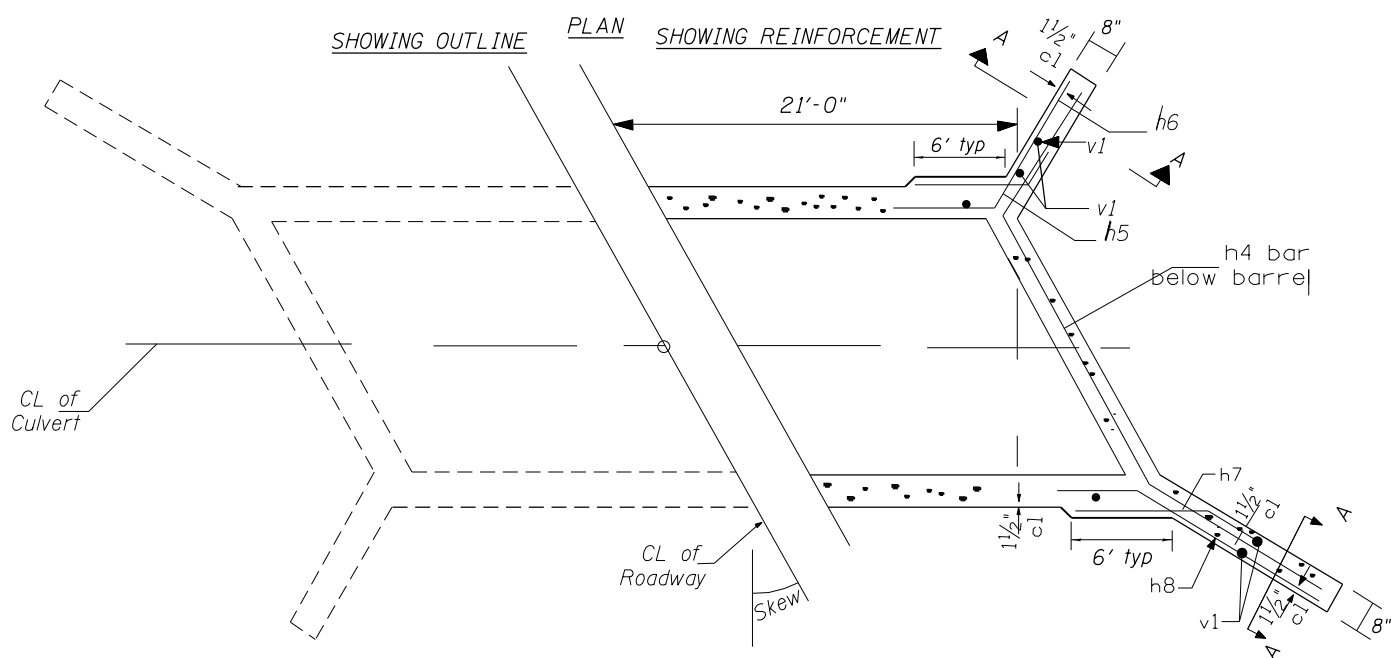
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
CONCRETE REMOVAL & REPLACEMENT

FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	(101)1-1	FULTON	24	13
	ILLINOIS	CONTRACT NO. 68C44		



SECTION THRU BARREL



SECTION A-A

DESIGN STRESSES

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

LOADING HS 20-44 & ALT.

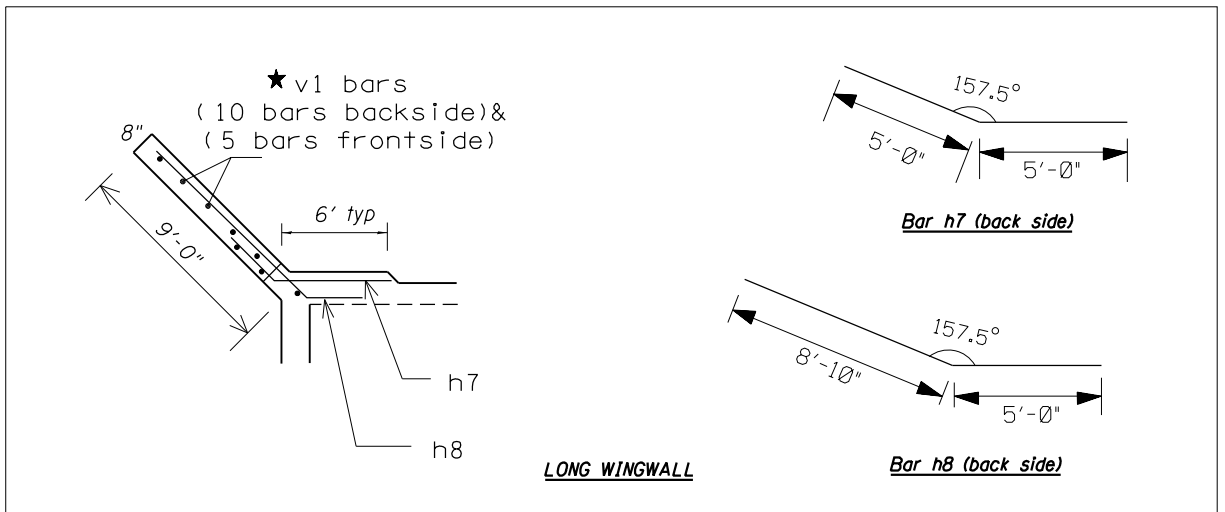
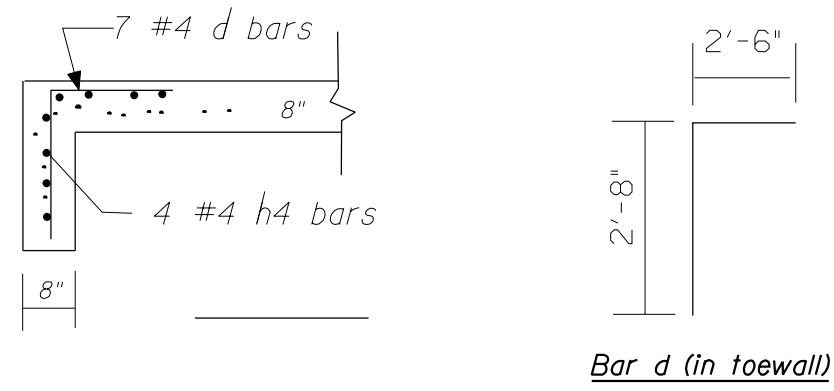
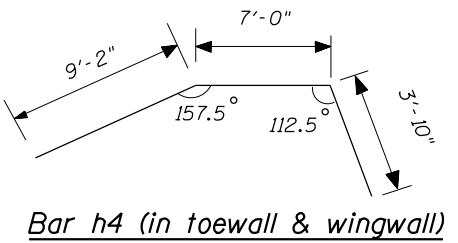
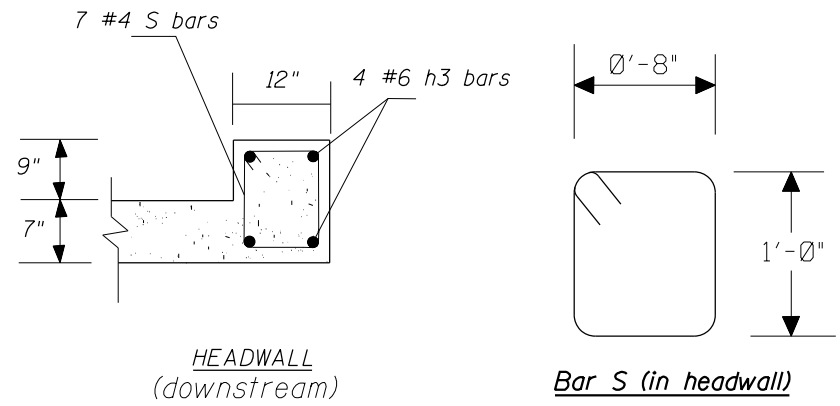
FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn	USER NAME = aubreygs	DESIGNED - _____	REVISED - _____
	PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____
Default	PLOT DATE = 3/18/2016	CHECKED - _____	REVISED - _____
		DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

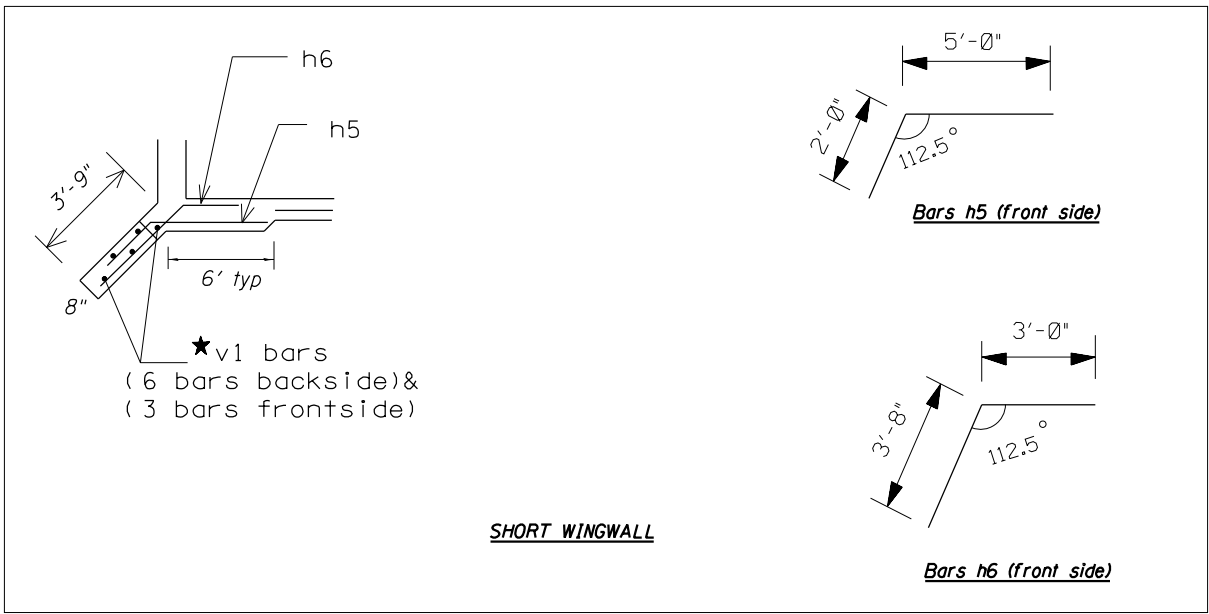
CULVERT DETAILS
REINFORCEMENT BARS

FAP 317	SECTION (101)1-1	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 14
US 24	ILLINOIS	CONTRACT NO. 68C44		

REINFORCEMENT LAP		
size	barrels	wingwall
#4	1'-4"	1'-8"
#5	1'-8"	2'-2"
#6	2'-0"	2'-7"
#7	2'-9"	3'-5"
#8	3'-8"	4'-6"
#9	4'-7"	5'-9"



★ ALL V1 BARS SHALL BE CUT OR BENT TO FIT



BILL OF MATERIALS

Bars	Quant	Size	Length	Shape
a1	84	#4	6'-8"	
a2	12	#4	5'-8"	
d	10	#4	5'-2"	
s	10	#4	3'-8"	
h	8	#5	20'-8"	
h1	12	#4	20'-8"	
h2	10	#5	20'-8"	
h3	4	#5	8'-0"	
h4	4	#4	20'-0"	
h5	8	#6	7'-0"	
h6	8	#6	6'-8"	
h7	8	#6	10'-0"	
h8	8	#6	13'-10"	
V	60	#4	3'-11"	
V1	24	#5	7'-2"	
Concrete Removal (Cu Yd)				2.8
Concrete Box Culvert (Cu Yd)				13.1
Reinforcement Bars (pound)				1,905

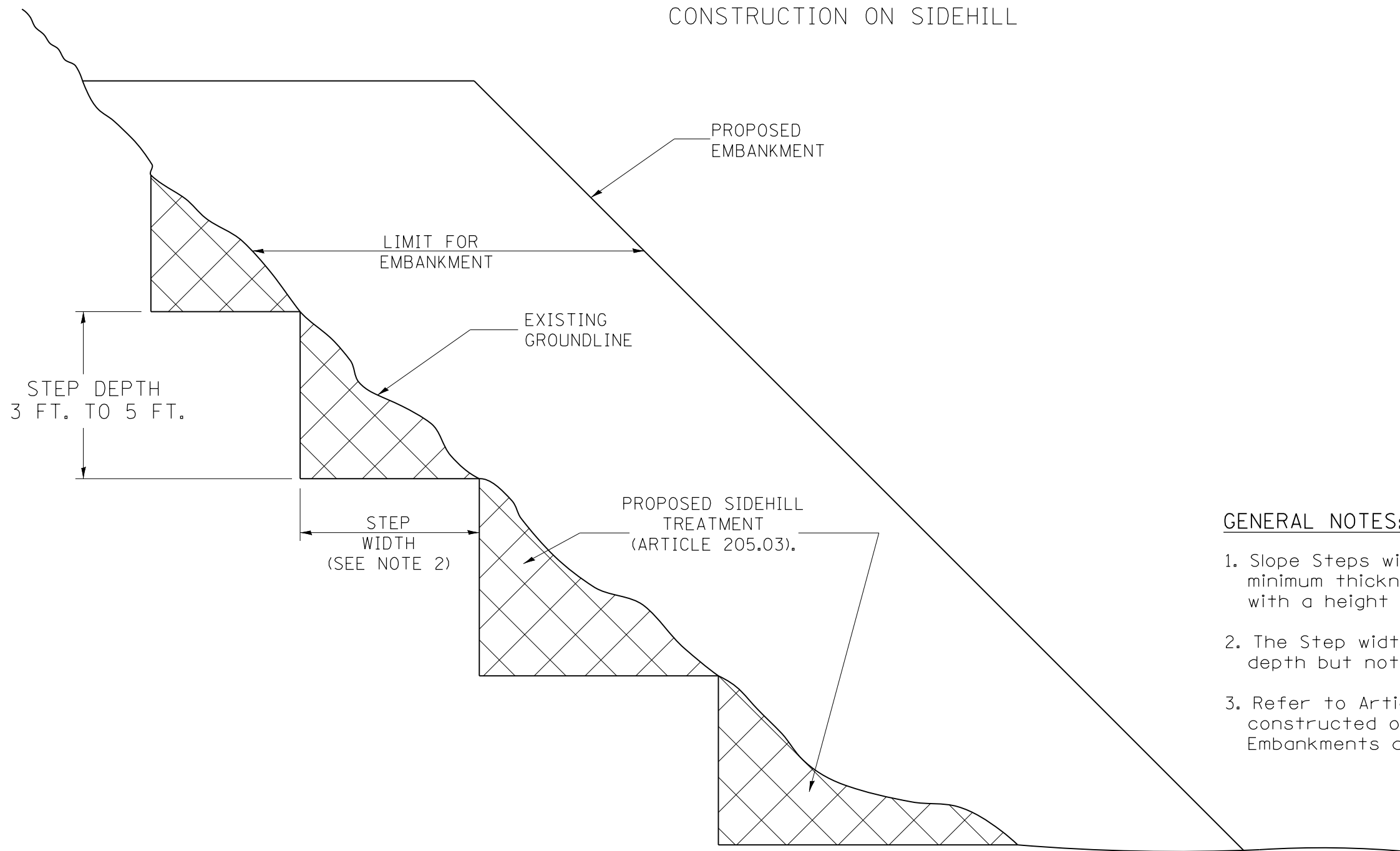
NOTES
 expose two feet of the existing bars to lap with prop horizontal bars
 IF NO UNDERCUT IS REQUIRED, A 6" MINIMUM LAYER OF POROUS GRANULAR EMBANKMENT SHALL BE PLACED BELOW THE ELEVATION OF THE BOTTOM OF BOX CULVERTS AS SPECIFIED IN ARTICLE 540.06 OF THE STANDARD SPECIFICATIONS.

 All Barrel shall be poured monolithically with the wingwalls.

DESIGN STRESSES
 $f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$
 LOADING HS 20-44 & ALT.

SLOPE STEPS DETAIL

TYPICAL CROSS-SECTION EMBANKMENT CONSTRUCTION ON SIDEHILL



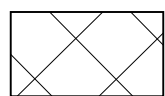
GENERAL NOTES:

1. Slope Steps will be required for all 12(300) minimum thickness "silver fills" and on a fills with a height of 10'(3.0m).
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 inches (millimeters) unless otherwise noted.

1-1-97	BENUM, 1-5.03, NEW REVISION BOX, REVISED TITLE	J.P.	
	BOX, REVISED GENERAL NOTES		
10-16-06	REVISED TO 2007 SPEC.	M.A.	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SLOPE STEPS DETAIL

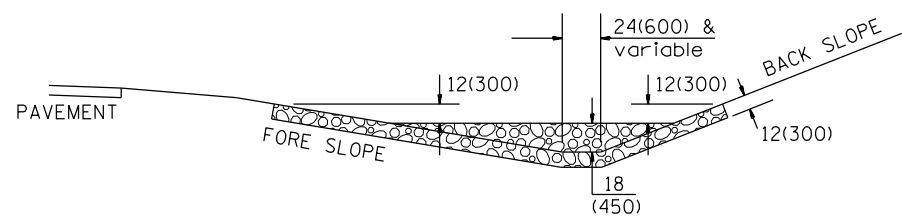
NOT TO SCALE

CADD STD. 205001-04

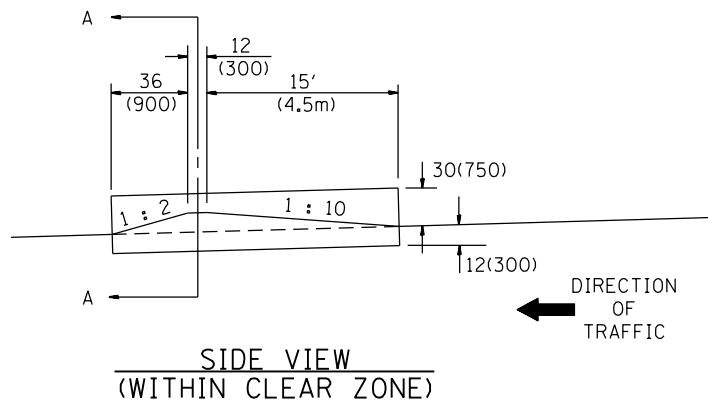
FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	(101)-1	FULTON	24	16
CONTRACT NO. 68C44				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

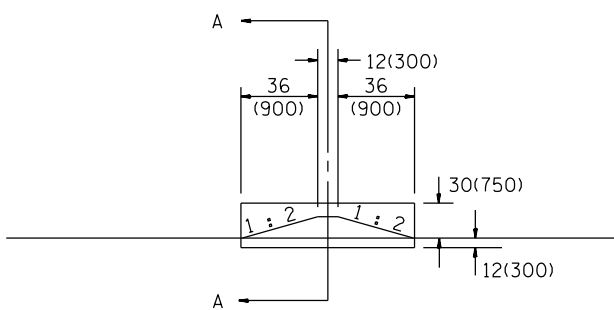
DESIGNER NOTES:
 1. Designer to modify this detail Special Detail Sheet, as needed, for inclusion in plans.
 2. Determine the required clear zone in order to select the berm slopes.
 3. Include State Standard 280001.



SECTION A - A

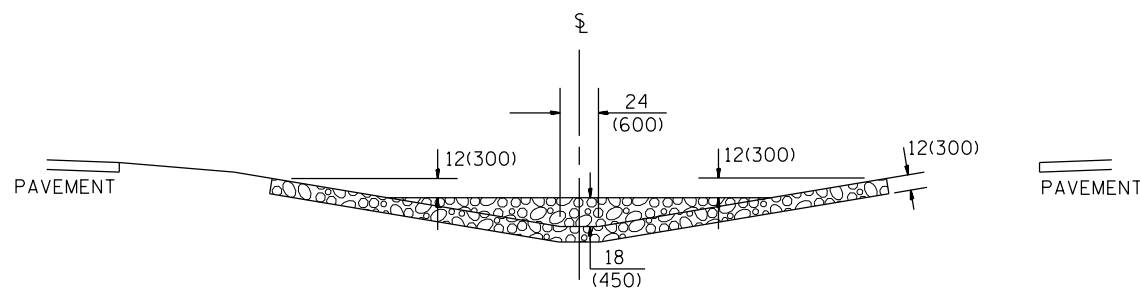


SIDE VIEW (WITHIN CLEAR ZONE)

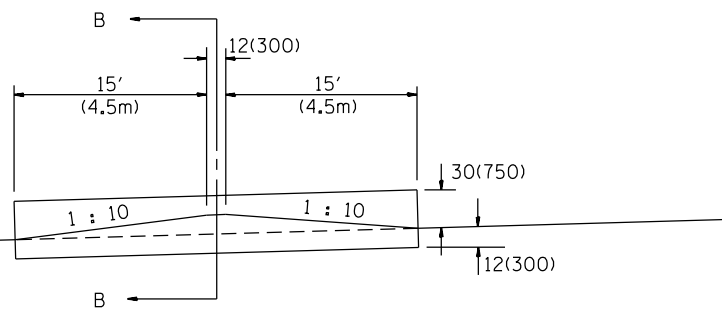


SIDE VIEW (OUTSIDE OF CLEAR ZONE)

SIDE DITCH AGGREGATE DITCH CHECK



SECTION B - B



SIDE VIEW

MEDIAN AGGREGATE DITCH CHECK

NOTES:

- FOR DITCH BOTTOM PROTECTED BY EROSION CONTROL BLANKET, USE 400'(120m) SPACING. FOR SEEDED DITCH BOTTOM, USE 200'(60m) SPACING.
- THIS WORK CONSISTS OF THE COMPLETE INSTALLTION OF EROSION CONTROL DITCH CHECK AT LOCATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. THE AGGREGATE GRADATION SHALL BE RR3 WITH A MINIMUM QUALITY OF CLASS B.

STATION	LOCATION		NUMBER OF DITCH CHECKS	FORE SLOPE	DITCH BOTTOM WIDTH	BACK SLOPE	BERM SLOPE
	MEDIAN	SIDE DITCH LEFT / RIGHT					
154+25		✓	1	2.5'	5'	2.5'	
154+50		✓	1	2.5'	5'	2.5'	

ESTIMATE QUANTITIES

	FORE SLOPE	DITCH BOTTOM	BACK SLOPE	BERM SLOPE	AGGREGATE DITCH CHECK EROSION CONTROL TON (METRIC TON)
SIDE DITCH	1 : 3	—	1 : 3		5 (ton)
SIDE DITCH	1 : 3	—	1 : 3		5 (ton)

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in inches (millimeters) unless otherwise noted.

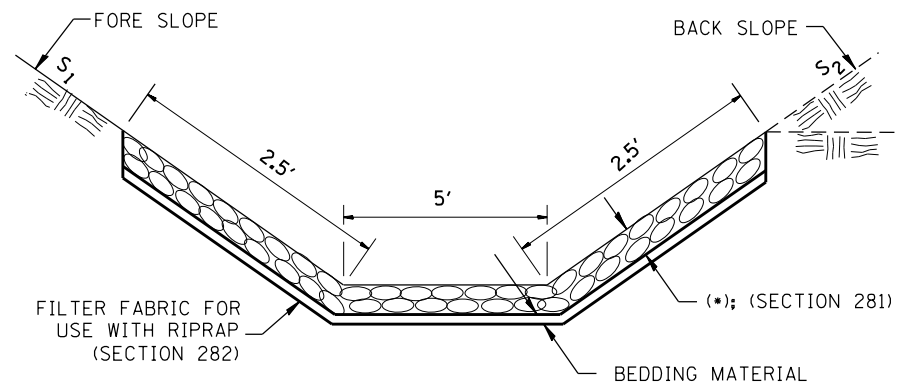
QUANTITIES

CALC. BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION

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. Include District Special Provision if needed.

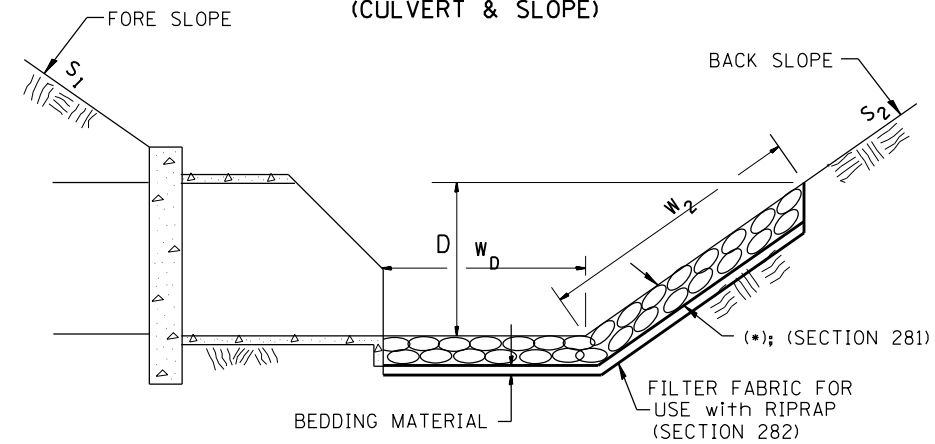
**CASE 1
(DITCH)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
154+00-154+25	10'	74'	64	101
TOTAL				

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

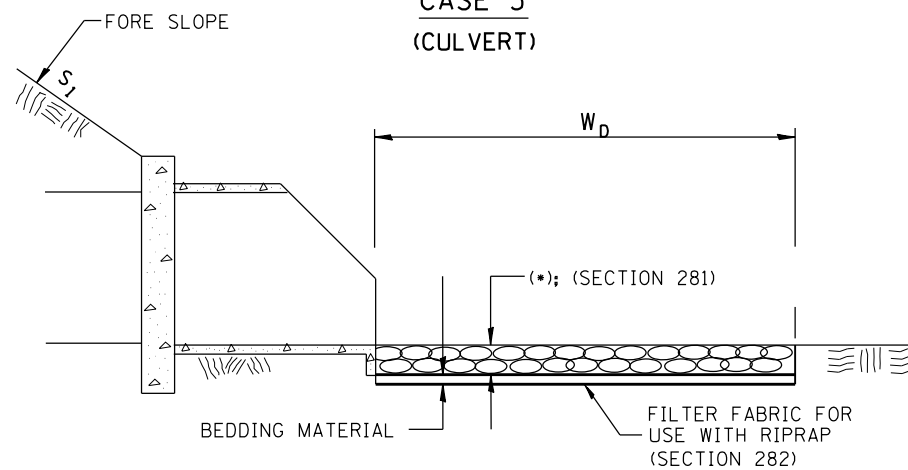
**CASE 2
(CULVERT & SLOPE)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = $W_2 + W_D$

**CASE 3
(CULVERT)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = W_D

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

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

11-1-97	BENUM, A-12.02, NEW REVISION BOX	J.P.
12-1-97	CORRECT FILTER FABRIC LEADER ARROW	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.
9-6-12	REMOVED A DESIGNER NOTE AND MADE MINOR CHANGES	R.D.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIPRAP DITCH FOR EROSION PROTECTION

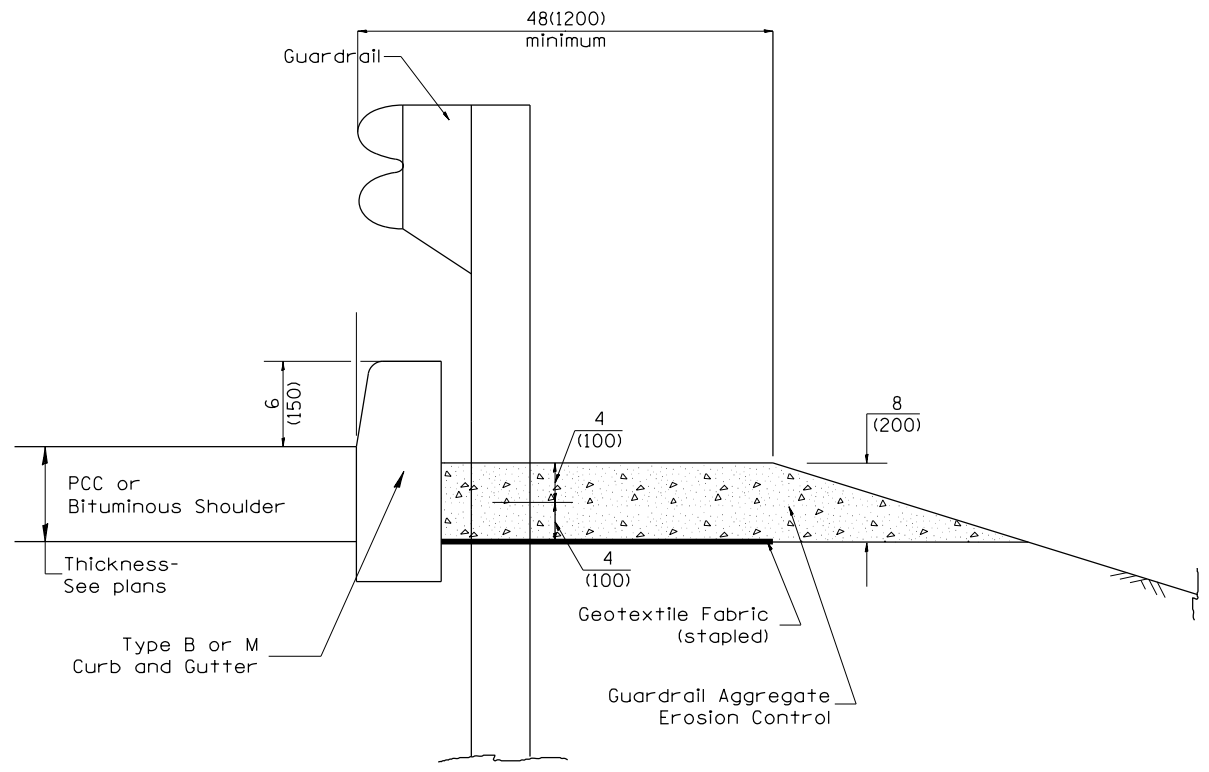
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CADD SID, 281001-04

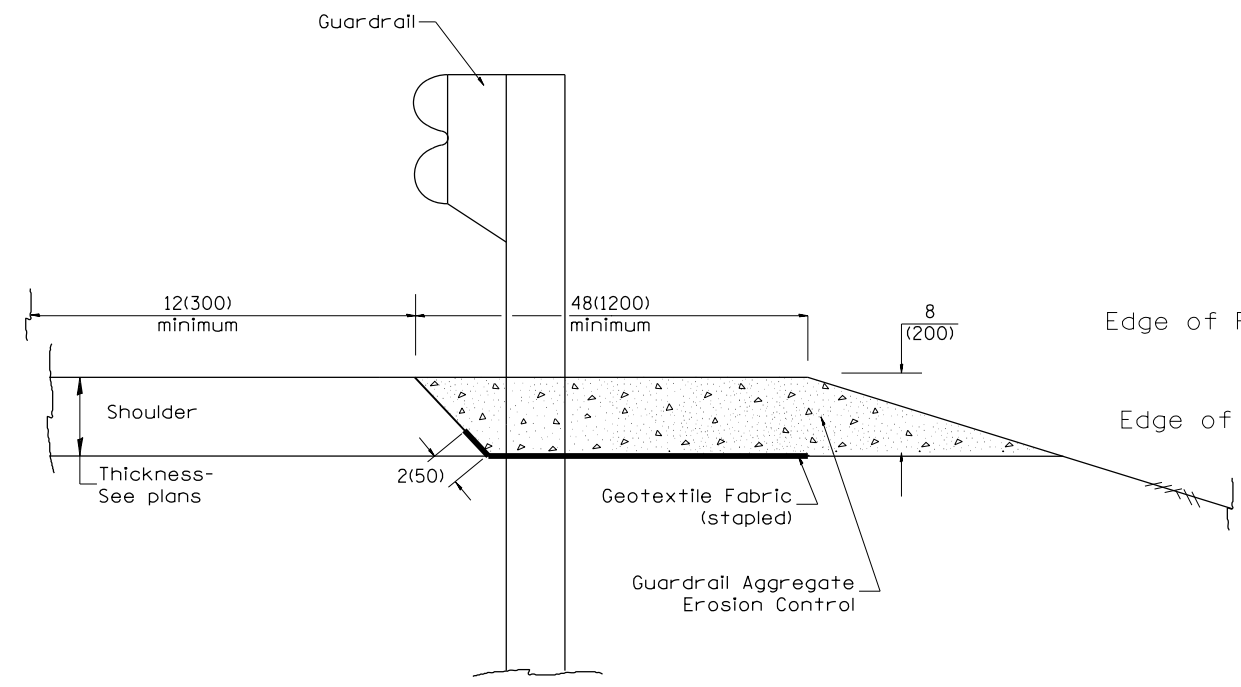
FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	(101)-1	FULTON	24	18
CONTRACT NO. 68C44				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DESIGNER NOTES:

1. CONSIDER USING A "B" CURB PAY ITEM AT GUARDRAIL INSTALLATIONS WHERE GRADES ARE EQUAL TO OR GREATER THAN 1/2" AND AT INLETS. (INCLUDE DISTRICT SPECIAL PROVISION)
2. USE "GUARDRAIL AGGREGATE EROSION CONTROL" AT GUARDRAIL INSTALLATIONS WHERE GRADES ARE LESS THAN 1/2" (INCLUDE DISTRICT SPECIAL PROVISION).
3. INCLUDE STATE STANDARD 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
5. SEEPAGE COLLARS FOR EXPOSED PIPES; CONCRETE THRUST BLOCKS AND PIPE ELBOW.
6. INCLUDE DISTRICT SPECIAL PROVISION - "AGGREGATE QUALITY" FOR PROJECTS LOCATED IN THE WESTERN AREA OF THE DISTRICT - APPROX. DIVIDING LINE IS IL 97.
7. DELETE DESIGNER NOTES WHEN INSERTING INTO PLAN FILES.
8. OPERATIONS PREFERS USE OF PIPE OUTLETTING ONTO FORESLOPE WITH RIPRAP. USE NON-METALLIC PIPE WHEN POSSIBLE BECAUSE OF FUTURE CORROSION ISSUES.



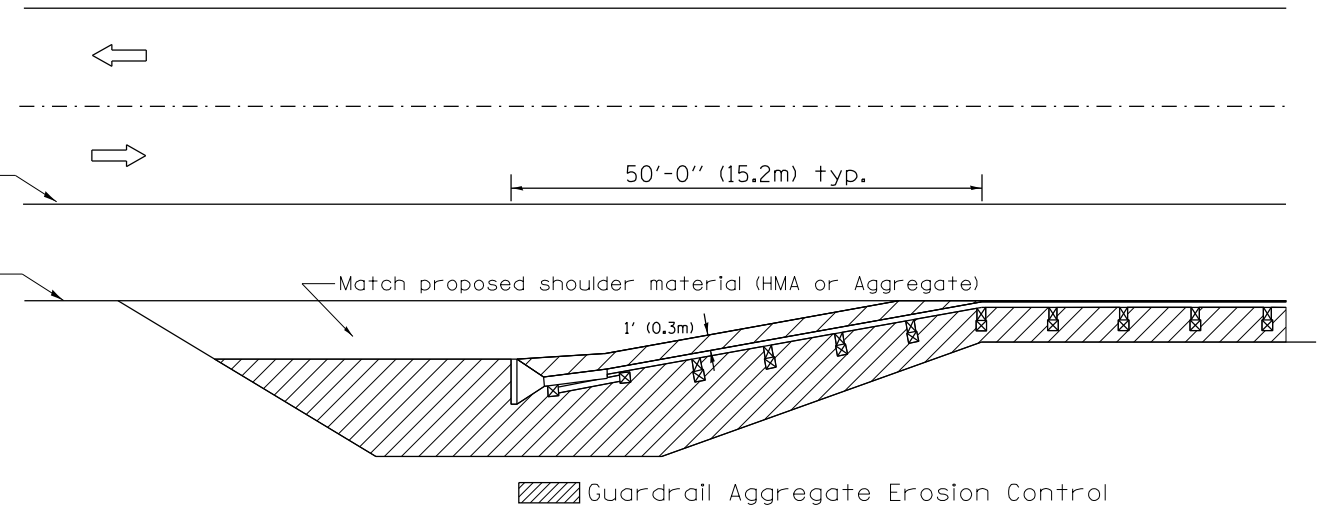
TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

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 12(300) 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.



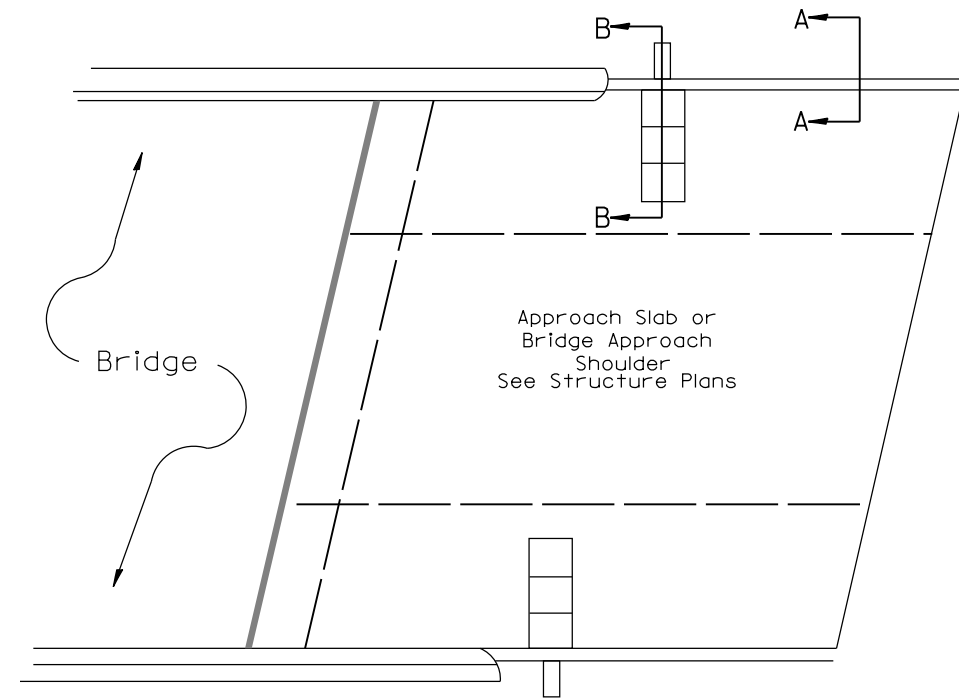
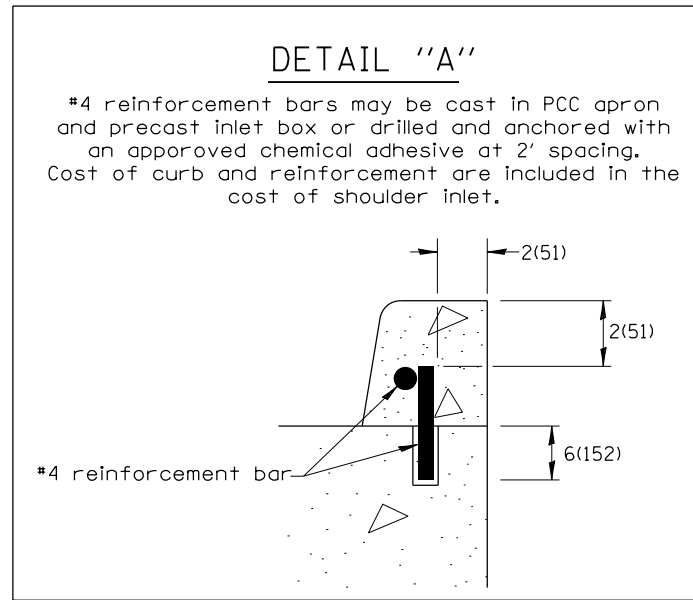
All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-22,01, NEW REVISION BOX	J.P.	3-7-11	Added Detail showing plan view	R.D.
03-01-97	CORRECT SID. NUMBERS IN NOTES PG. 2	J.A.	8-10-12	Revised curb "B" and aggregate	R.D.
11-03-00	CORRECTION TO NOTES	M.A.	7-15-15	Addressed shoulder inlet curb	R.D.
10-16-06	REVISED TO 2007 SPEC.	M.A.			

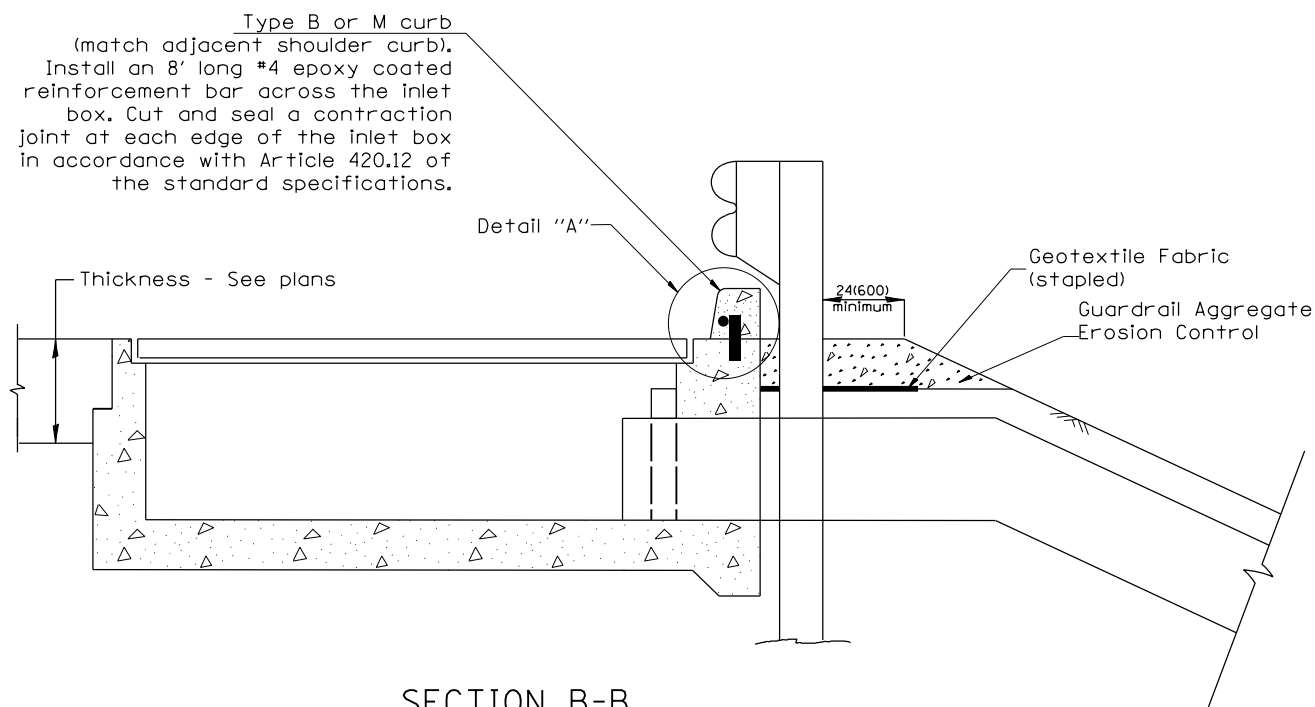
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL EROSION CONTROL TREATMENTS
NOT TO SCALE
SHI, J OF 2
CADD SID. 630101-04

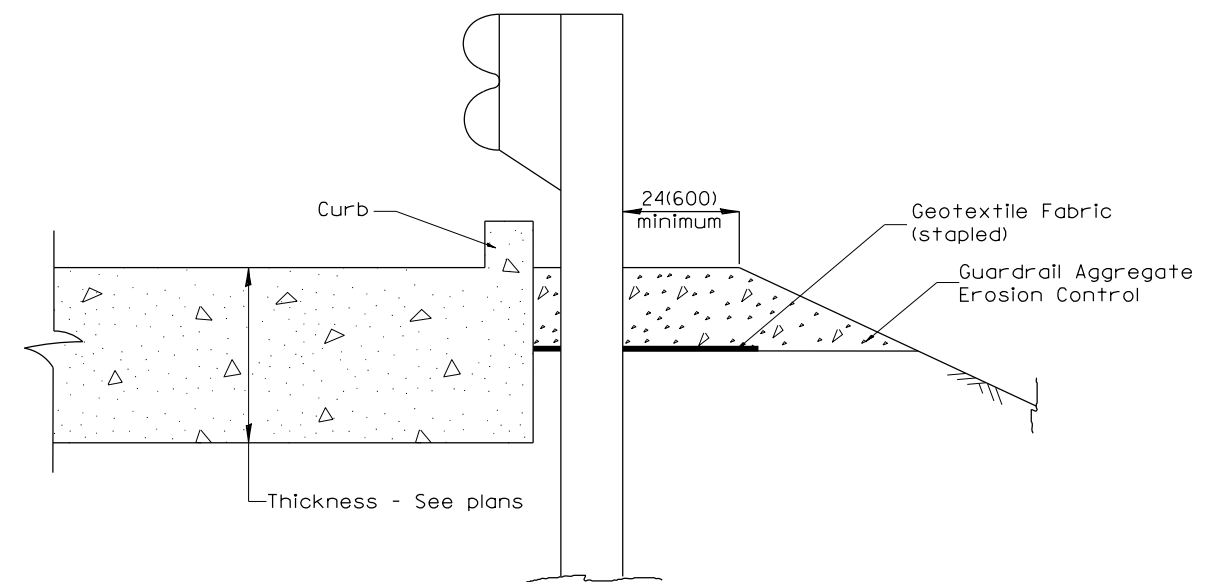
FAP 317	SECTION (101)-1	COUNTY FULTON	TOTAL SHEETS 24	SHEET NO. 19
US 24	CONTRACT NO. 68C44		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



PLAN VIEW
APPROACH SLAB OR SHOULDER PLACEMENT



SECTION B-B
TYPICAL SECTION AT INLETS
TYPE E, F & G (HIGHWAY STANDARD 610001)



SECTION A-A
TYPICAL SECTION WITH BRIDGE APPROACH CURB

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

FILE NAME =	USER NAME = aubreys	DESIGNED =	REVISED =
1-US 24 RICE LAKE CUL EXT (68C44).dgn		DRAWN =	REVISED =
	PLOT SCALE = 100.0000' / 1" =	CHECKED =	REVISED =
Default	PLOT DATE = 3/18/2016	DATE =	REVISED =

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL EROSION CONTROL TREATMENTS

NOT TO SCALE SHEET ___ OF ___ SHEETS STA. ___

FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	(101)-1	FULTON	24	20
CONTRACT NO. 68C44				

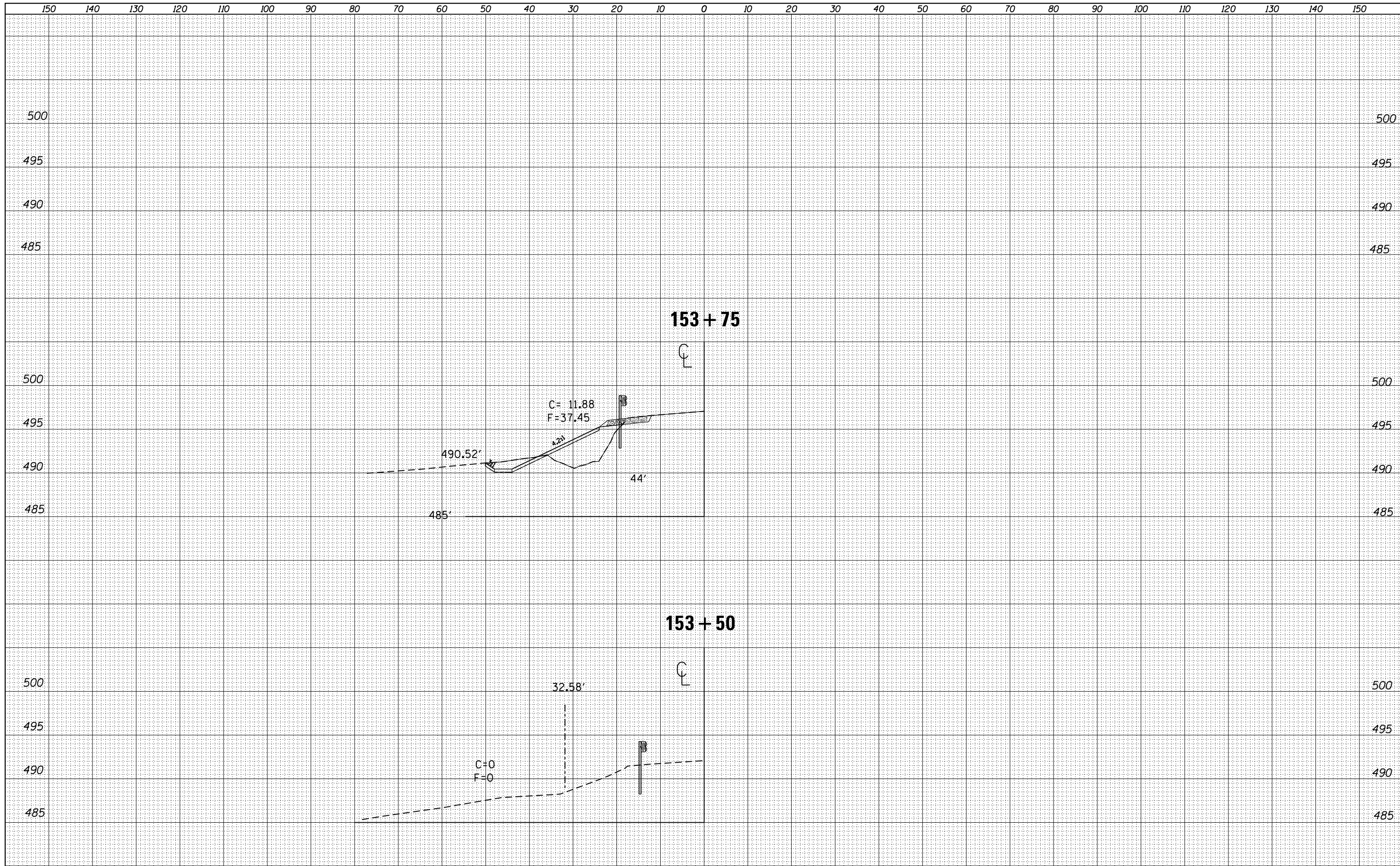
SHT. 2 OF 2

CADD SID. 630101-04

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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

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



FILE NAME = 1-US 24 RICE LAKE CUL EXT (68C44).dgn
 Default

USER NAME = aubreys	DESIGNED - _____	REVISED - _____
PLOT SCALE = 100.000% / in.	DRAWN - _____	REVISED - _____
PLOT DATE = 3/18/2016	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

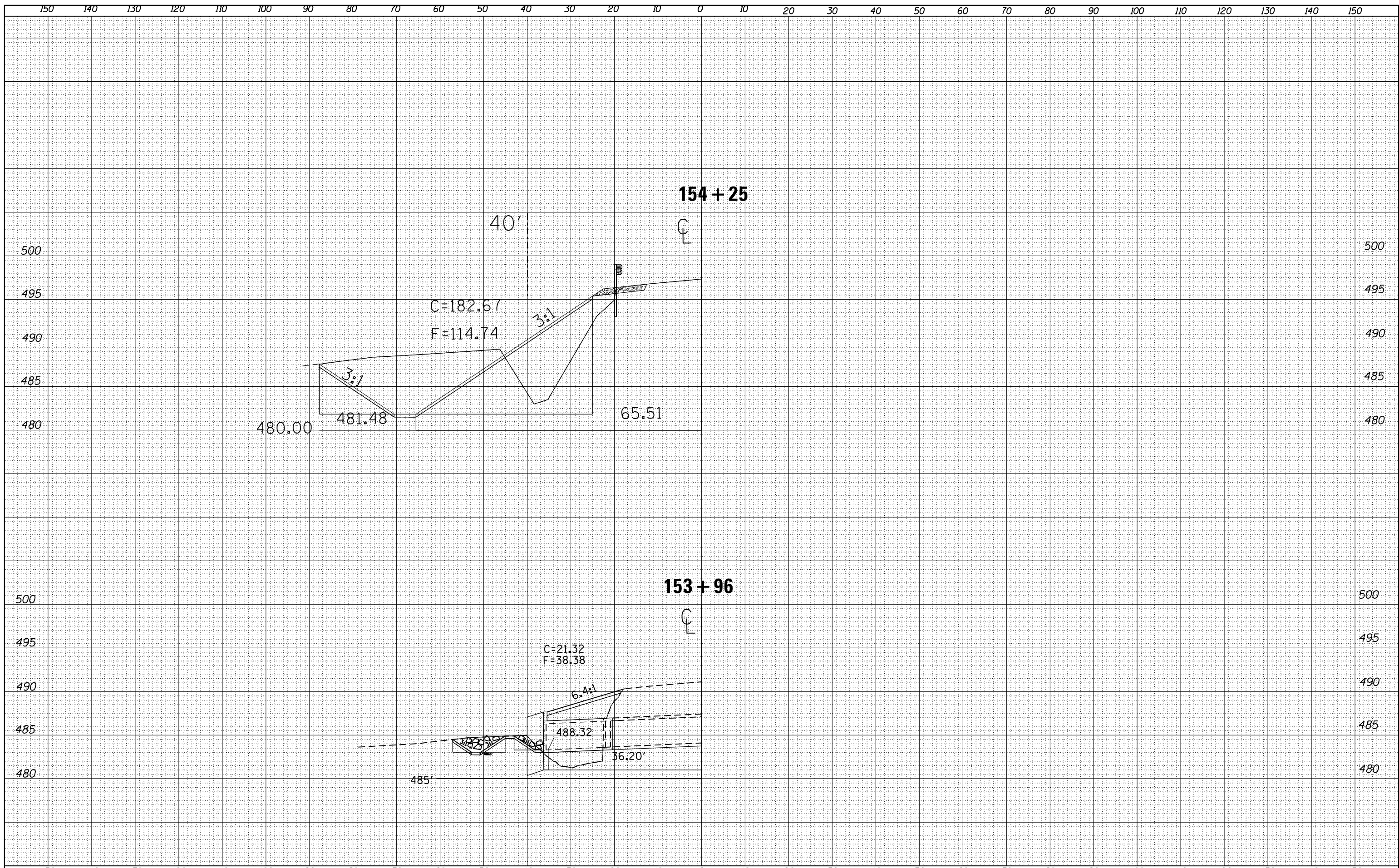
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

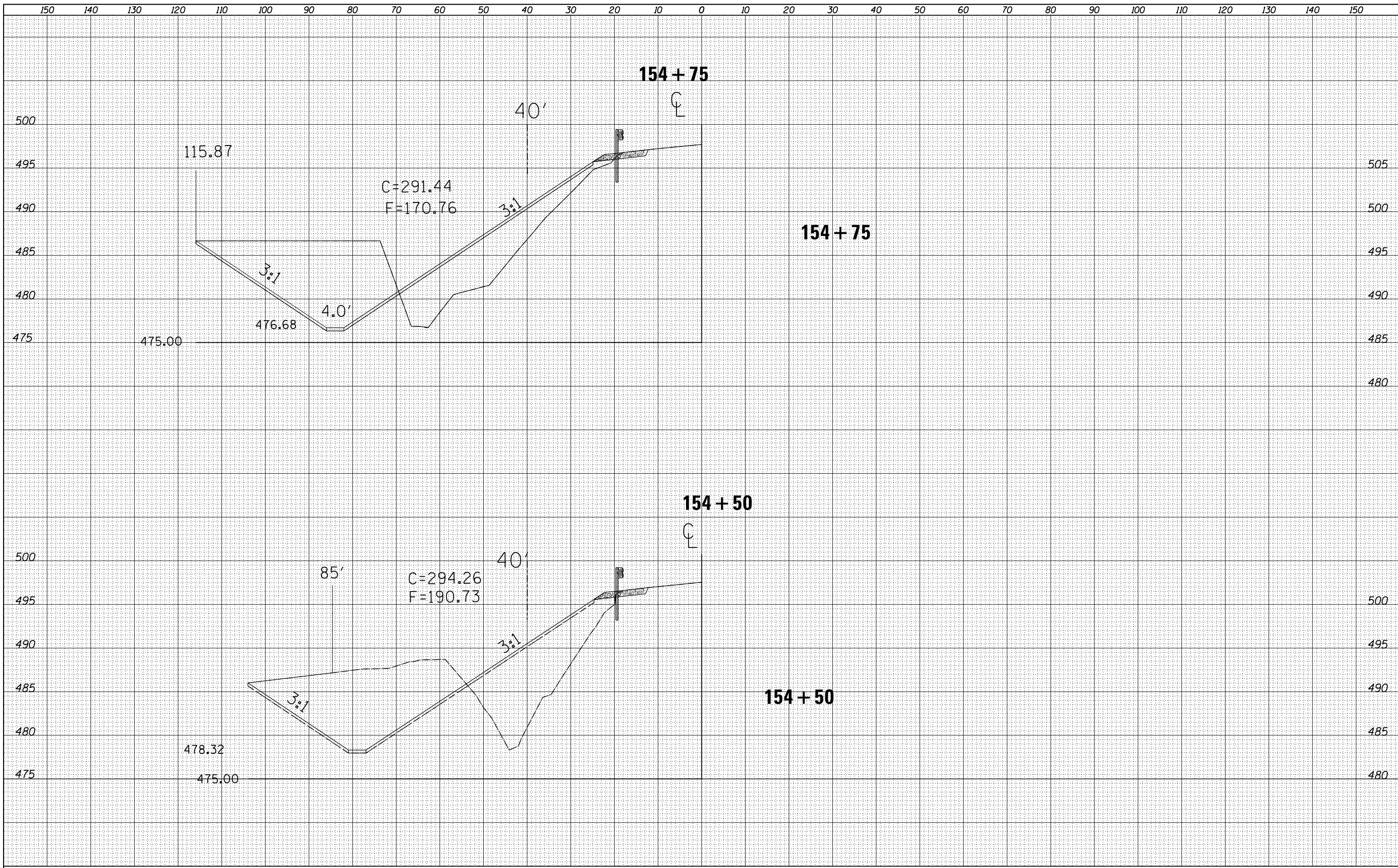
CROSS-SECTION SHEET

FAP 317	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 24	(101)-1	FULTON	24	21
	ILLINOIS	CONTRACT NO. 68C44		

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
DESIGNED	
DRAWN	
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REVISIONS	
NO.	
ORIGINAL SURVEY	
NOTE BOOK	
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BY	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

