

DESIGN BY: MICHAEL HUDELSON (309) 671-3477 PROJECT ENGINEER: MAUREEN ADDIS (309) 671-3454

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6758	7-BR	TAZEWELL	21	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 68784	

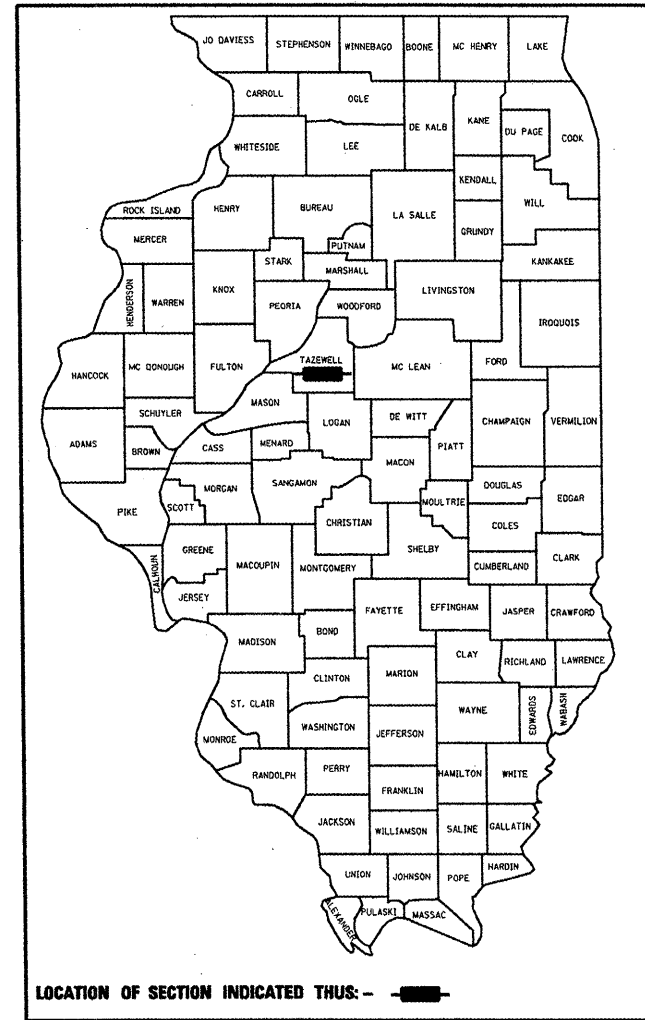
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE PAGE 2

PROPOSED HIGHWAY PLANS

FAU ROUTE 6758 (IL 98)
SECTION 7-BR
TAZEWELL COUNTY
C-94-023-08
 PROJECT ACM-6758(002)

D-94-022-08



LIST OF STANDARDS

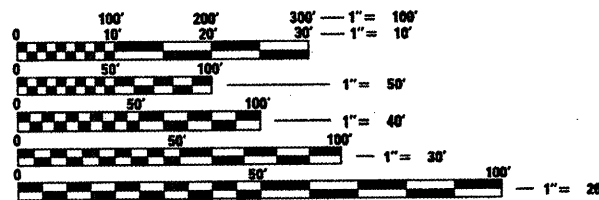
- 280001-04
- 442201-03
- 482001-02
- 630001-07
- 630101-07
- 630301-04
- 635006-02
- 635011-01
- 701001-01
- 701006-02
- 701011-01
- 701301-02
- 701311-02
- BLR-21-7

R 4 W | R 3 W



PROJECT BEGINS
STA 142+05

PROJECT ENDS
STA 146+83



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

JOB DESCRIPTION

This project consists of a removing a double box culvert carrying IL 98 over Dillon Creek and replacing it with a double 10' x 6.5' cast-in-place box culvert (existing S.N. 090-2501, proposed S.N. 090-2018), Class D patch, 8" bituminous shoulder, guardrail, and some earthwork.

404/401 PERMIT REQUIRED

CONTRACT NO. 68784 CATALOG NO. 031263-03D

GROSS LENGTH OF IMPROVEMENT = 478 FEET = 0.09 MILES
NET LENGTH OF IMPROVEMENT = 478 FEET = 0.09 MILES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED *Monica J. [Signature]*

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

 20
 ENGINEER OF DESIGN AND ENVIRONMENT

 20
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

INDEX OF SHEETS

- 1 Cover Sheet
- 2 Index of Sheets, General Notes, Commitments, Status of Utilities & Job Specific Notes
- 3 Summary of Quantities
- 4 Typical Sections
- 5 Schedule of Quantities
- 6 Proposed Plan and Profile
- 7 Erosion Control and Alignment Ties
- 8-10 Culvert Plans
- 11 Detail of Excavation and Backfill for Box Culverts
- 12-14 District Standards
- 15-21 Cross Sections

PAVEMENT STATIONING NUMBERS & PLACEMENT

The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of the pavement and/or overlay. The numbers shall be approximately 3/4 inch (20mm) wide, 5 inches (125 mm) high and 5/8 inch (15 mm) deep.

The pavement station numbers shall be installed as specified herein:

Interval – 200 feet (English stationing) or 100 meters (metric stationing)

Bottom of Numbers – 6 inches (150 mm) from the inside edge of the pavement marking

Location:

- * 2,3, & 5 Lane Pavements – right edge of pavement in direction of increasing stations
- * Multi-Lane Divided Roadways – outside edge of pavement in both directions
- * Ramps – along baseline edge of pavement

Position – stations shall be placed so they can be read from the adjacent shoulder

Format – English (Metric) pavement stations shall use this format "XXX (XX+X00)" where X represents the pavement station

This work will not be paid for separately, but will be considered included in the cost of the associated pavement and/or overlay pay items.

AVAILABILITY OF ELECTRONIC FILES

Micro Station and GEOPAK files of this project will be made available to the Contractor. If there is a conflict between the electronic files and the printed contract plans and documents, the printed contract plans and documents shall take precedence over the electronic files. The Contractor shall accept all risk associated with using the electronic files and shall hold the Department harmless for any errors or omissions in the electronic files and the data contained therein. Errors or delays resulting from the use of the electronic files by the Contractor shall not result in an extension of time for any interim or final completion date or shall not be considered cause for additional compensation. The Contractor shall not use, share, or distribute these electronic files except for the purpose of constructing this contract. Any claims by third parties due to use or errors shall be the responsibility of the Contractor. The Contractor shall include this disclaimer with the transfer of these electronic files to any other parties and shall include appropriate language binding them to similar responsibilities.

GENERAL NOTES

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

Mixture Use(s):	BITUMINOUS SHOULDER (SURFACE LIFT)	BITUMINOUS SHOULDER (LOWER LIFTS)	CLASS D PATCH (SURFACE LIFT)	CLASS D PATCH (LOWER LIFTS)
RAP % (Max)**:	30%	30%	15%	25%
ACPC:	PG 64-22	PG 64-22	PG 64-22	PG 64-22
Design Air Voids:	3.0% @ N=30	4.0% @ N=30	4.0% @ N=50	4.0% @ N=50
Mixture Composition: (Gradation Mixture)	IL 9.5L	IL 19.0L	IL 9.5 OR 12.5	IL 19.0
Friction Aggregate	MIXTURE C	N/A	MIXTURE D	N/A

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

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-D4 P10100
- * Color photographs depicting the use area
- * Borrow Area Entry Agreement form-D4 P10101

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

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.

STATUS OF UTILITIES

AmerenIP

Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
IL 98	30' RT	Sta. 144+75 +/-	Electric Pole	Ditch Cut	Relocate

COMMITMENTS

Commitments are not to be altered without the written approval of all parties to which the commitment was made.

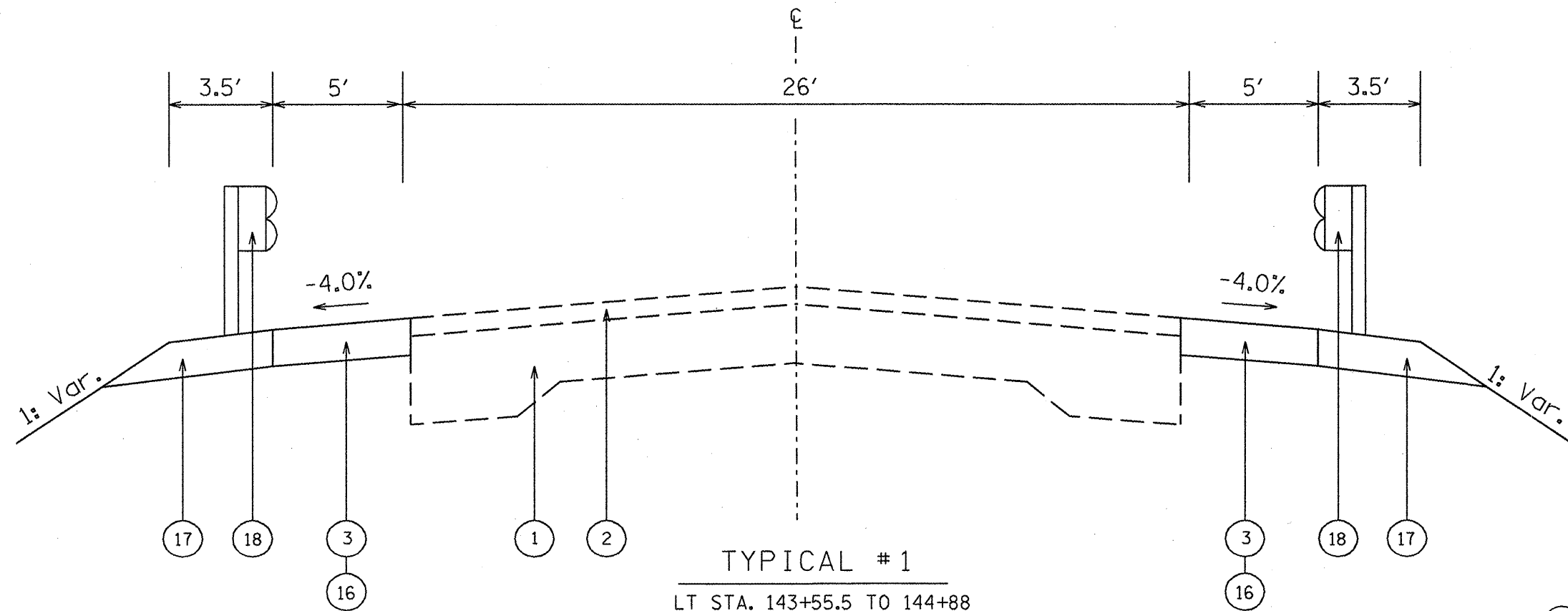
No commitments have been made for this project.

FILE NAME =	USER NAME = hudelsonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Index of Sheets, General Notes, Commitments & Job Specific Notes	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\1198\illinois\reek\profile.dgn	DRAWN -	REVISED -	6758			7-BR	TAZEWELL	21	2	
PLOT SCALE = 100.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 68784							
PLOT DATE = 4/15/2008	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
						SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	

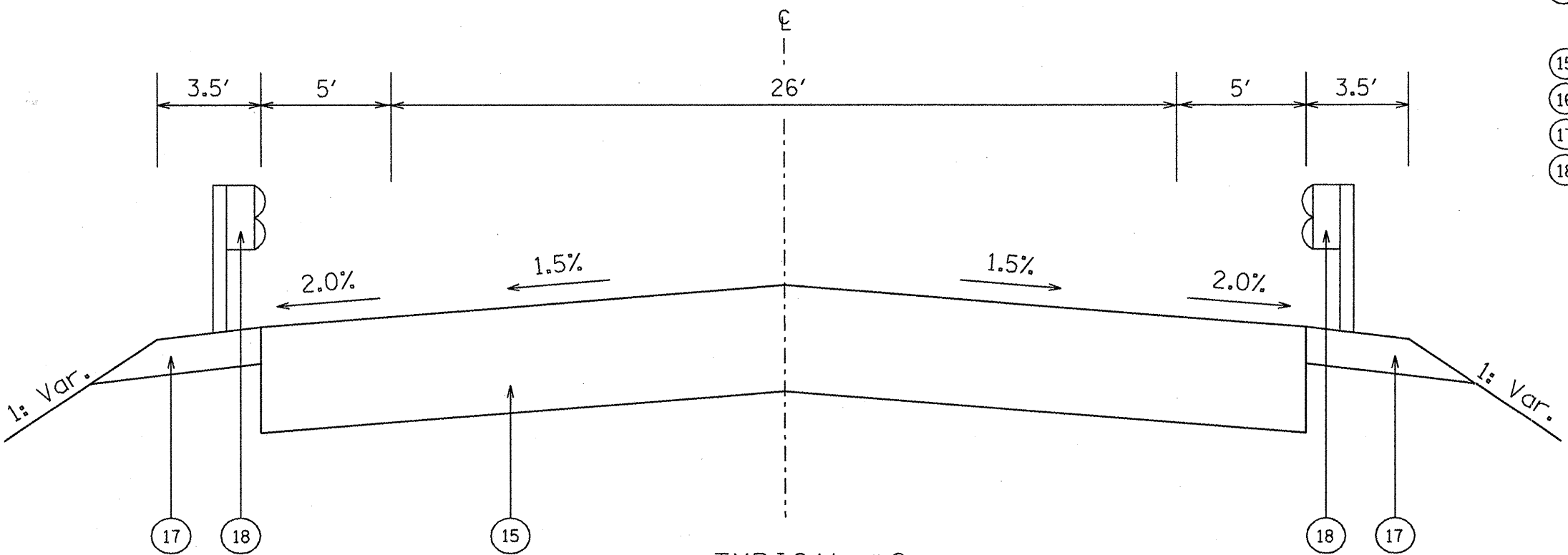
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE			SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		TAZEWELL CO. 80%-20% FED-STA Y007			CODE NO	ITEM	UNIT		TAZEWELL CO. 80%-20% FED-STA Y007		
20200100	EARTH EXCAVATION	CU YD	452	452			70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1		
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	95.2	95.2			70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1	1		
20300100	CHANNEL EXCAVATION	CU YD	52	52			*78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	46.6	46.6			*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
20800150	TRENCH BACKFILL	CU YD	35.6	35.6			Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	126.9	126.9			Z0054400	ROCK FILL	CU YD	74	74		
21101615	TOP SOIL FURNISH AND PLACE, 4"	SQ YD	1519	1519			X0301512	GUARDRAIL AGGREGATE EROSION CONTROL	TON	135.8	135.8		
25000210	SEEDING, CLASS 2A	ACRE	0.31	0.31									
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	27.9	27.9									
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	27.9	27.9									
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	27.9	27.9									
25100115	MULCH, METHOD 2	ACRE	0.31	0.31									
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	62	62									
28000300	TEMPORARY DITCH CHECKS	EACH	18	18									
28000310	AGGRGATE DITCH CHECKS	EACH	1	1									
28000400	PERIMETER EROSION BARRIER	FOOT	392	392									
28100107	STONE RIPRAP, CLASS A4	SQ YD	83	83									
28100725	STONE DUMPED RIPRAP, CLASS B3	SQ YD	127.3	127.3									
28200200	FILTER FABRIC	SQ YD	210.3	210.3									
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	256	256									
48203029	HOT - MIX ASPHALT SHOULDERS, 8"	SQ YD	333.1	333.1									
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1									
50800105	REINFORCEMENT BARS	POUND	17530	17530									
51500100	NAME PLATES	EACH	1	1									
54003000	CONCRETE BOX CULVERTS	CU YD	104.7	104.7									
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	462.5	462.5									
* 63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	75	75									
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4									
63200310	GUARD RAIL REMOVAL	FOOT	200	200									
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2	2									
67100100	MOBILIZATION	L SUM	1	1									

* SPECIALTY ITEM

FILE NAME c:\projects\198\dillonraek\prof11e.dgn	USER NAME = hudelaorne	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			6758	7-BR	TAZEWELL	21	3	
		CHECKED -	REVISED -			CONTRACT NO. 68784					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



TYPICAL #1
 LT STA. 143+55.5 TO 144+88
 LT STA. 145+52 TO 146+43
 RT STA. 142+45 TO 144+88
 RT STA. 145+52 TO 146+45



TYPICAL #2
 STA. 144+88 TO 145+52

LEGEND

- ① EXISTING 9-6-9 PAVEMENT
- ② EXISTING BITUMINOUS OVERLAY
- ③ EXISTING AGGREGATE SHOULDER

- ⑮ PROPOSED CLASS D PATCH, 13 INCH
- ⑯ PROPOSED HOT-MIX ASPHALT SHOULDER 8"
- ⑰ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL
- ⑱ PROPOSED STEEL PLATE BEAM GUARDRAIL & TRAFFIC BARRIER TERMINALS

NOT TO SCALE

FILE NAME = c:\projects\1198\dilloncreek\prof11e.dgn	USER NAME = hudelsonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Typical Sections			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 20.0000' / IN.	DRAWN -	REVISED -					6758	7-BR	TAZEWELL	21	4
	PLOT DATE = 4/15/2008	CHECKED -	REVISED -					CONTRACT NO. 68784				
	DATE -	REVISED -	FED. ROAD DIST. NO.					ILLINOIS FED. AID PROJECT				

LANDSCAPING TABLE						
LOCATION	TOPSOIL FURNISH & PLACE 4"	SEEDING CLASS 2A	MULCH METHOD 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT
	SQ YD	ACRE	ACRE	POUND	POUND	POUND
IL 98	1519	0.31	0.31	27.9	27.9	27.9
TOTAL	1519	0.31	0.31	27.9	27.9	27.9

TEMPORARY EROSION CONTROL SEEDING		
LOCATION	AREA ACRE	TOTAL POUND
JOBSITE	0.31	31
X 2 APPLICATIONS		62
TOTAL		62

EARTHWORK TABLE				
LOCATION	CHANNEL EXCAVATION	EARTH EXCAVATION	FOR INFORMATION ONLY	
			EARTH EXCAVATION (W/SHRINKAGE)	EMBANKMENT
			CU YD	CU YD
IL 98	52	452	339	327
TOTAL	52	452	339	327

SHRINKAGE FACTOR 25%

GUARDRAIL REMOVAL	
LOCATION	FOOT
LT 144+77 TO 145+77	100
RT 144+77 TO 145+77	100
TOTAL	200

CLASS D PATCHES, TYPE IV, 13 INCH	
LOCATION	SQ YD
144+88 TO 145+52	256
TOTAL	256

GUARDRAIL MARKERS TYPE A	
LOCATION	EACH
LT 143+55.5 TO 146+43	4
RT 142+45 TO 146+45	4
TOTAL	8

GUARDRAIL AGGREGATE EROSION CONTROL	
LOCATION	TON
LT 143+55.5 TO 146+43	56.8
RT 142+45 TO 146+45	79
TOTAL	135.8

PERIMETER EROSION BARRIER	
LOCATION	FOOT
LT 143+15 TO 144+65	153
LT 146+50 TO 146+83	43
SUBTOTAL	196
X 2 APPLICATIONS	
TOTAL	392

GUARDRAIL TABLE				
LOCATION	STEEL PLATE BEAM GUARDRAIL TYPE A	STEEL PLATE BEAM GUARDRAIL ATTACHED TO STRUCTURES	TRAFFIC BARRIER TERMINAL TYPE 1 TANGENT SPECIAL	TERMINAL MARKER DIRECT APPLIED
	FOOT	FOOT	EACH	EACH
LT 143+55.5 TO 143+93			1	1
LT 143+93 TO 146+05.5	175	37.5		
LT 146+05.5 TO 146+43			1	1
RT 142+45 TO 142+82.5			1	1
RT 142+82.5 TO 146+07.5	287.5	37.5		
RT 146+07.5 TO 146+45			1	1
TOTALS	462.5	75	4	4

BOX CULVERT BACKFILL TABLE					
LOCATION	REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	TRENCH BACKFILL	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	ROCKFILL	POROUS GRANULAR EMBANKMENT SPECIAL
	CU YD	CU YD	SQ YD	CU YD	CU YD
145+20	95.2	35.6	126.9	74	46.6
TOTAL	95.2	35.6	126.9	74	46.6

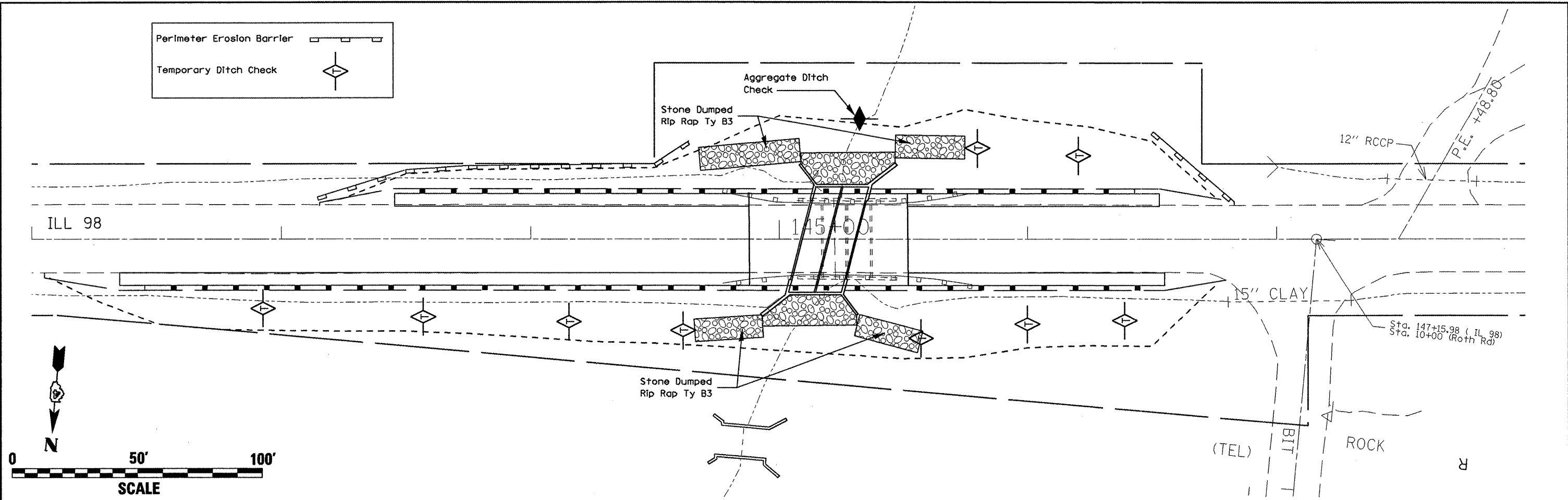
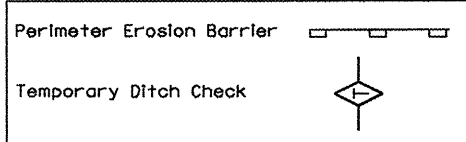
TEMPORARY DITCH CHECKS	
LOCATION	EACH
LT 145+75	1
LT 146+25	1
RT 143+00	1
RT 143+55	1
RT 144+10	1
RT 144+66	1
RT 145+57	1
RT 146+00	1
RT 146+40	1
SUBTOTAL	9
X 2 APPLICATIONS	
TOTAL	18

LOCATION	DEPTH	STONE DUMPED RIP RAP CLASS B3	FILTER FABRIC
	IN	SQ YD	SQ YD
RT 144+65 TO 144+93	8	28.9	28.9
LT 144+68 TO 145+08	8	42.4	42.4
RT 145+30 TO 145+56	8	26.8	26.8
LT 145+47 TO 145+75	8	29.5	29.5
TOTAL		127.6	127.6

CHANGEABLE MESSAGE SIGN	
NUM. OF SIGNS	CAL MO
2 SIGNS - 2 WEEKS EACH	1
TOTAL	1

AGGREGATE DITCH CHECKS	
LOCATION	EACH
D. S. END OF CULVERT	1
TOTAL	1

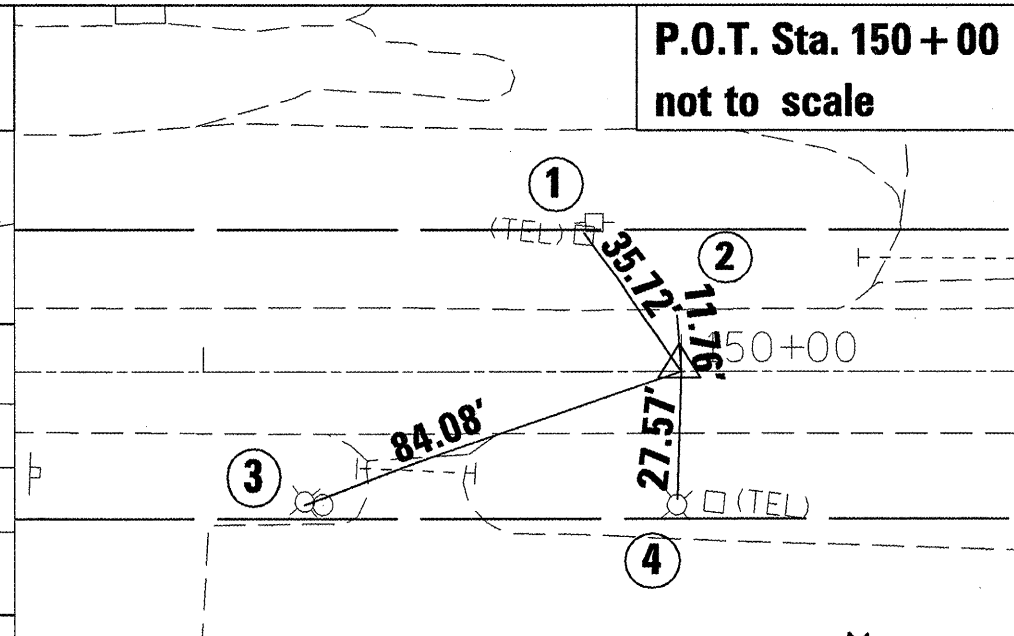
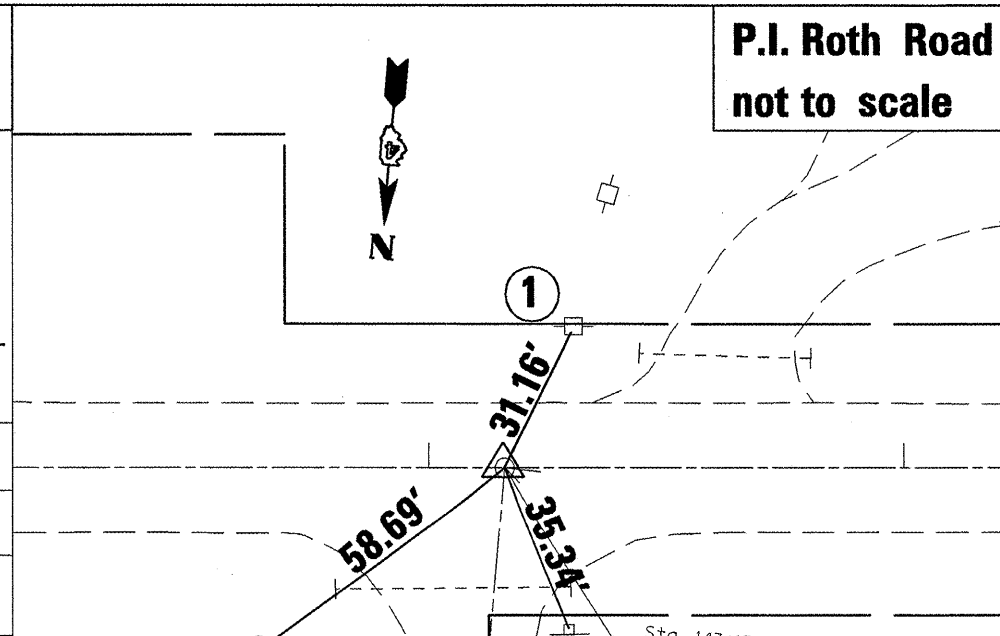
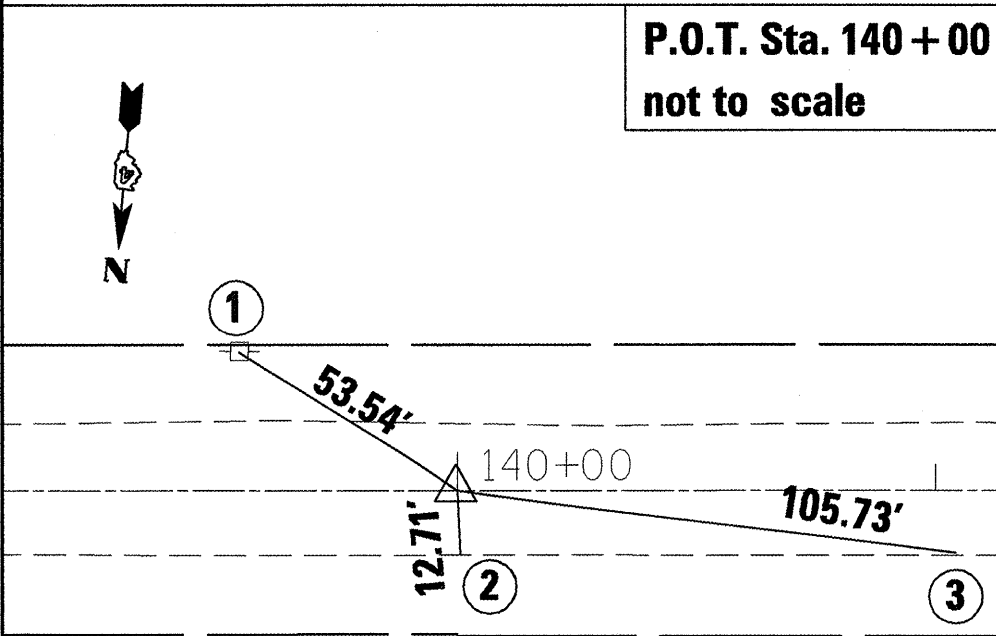
HOT-MIX ASPHALT SHOULDERS 8"	
LOCATION	SQ YD
LT 143+45.5 TO 144+88	79.2
LT 145+52 TO 146+53	56.1
RT 142+35 TO 144+88	140.6
RT 145+52 TO 146+55	57.2
TOTAL	333.1



P.O.T. Sta. 140 + 00
not to scale

P.I. Roth Road
not to scale

P.O.T. Sta. 150 + 00
not to scale



- P.K. & Wash.
- 1** P.K. & Wash. in Power Pole
- 2** P.K. in "+" of Station
- 3** P.K. in "+" of Station

- P.K. & Wash.
- 1** P.K. & Wash. in Power Pole
- 2** S.W. corner of street sign post
- 3** P.K. & Wash. in STOP sign post

- P.K. & Wash.
- 1** P.K. & Wash. in Power Pole w/Trans.
- 2** P.K. in "+" of Station
- 3** P.K. & Wash. in Light Pole
- 4** P.K. & Wash. in Light Pole

FILE NAME = c:\projects\1198\dilloncreek\prof\11e.dgn	USER NAME = hudeisorne	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -
PLOT SCALE = 40,0000' / IN.			
PLOT DATE = 4/15/2008			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Temporary Erosion Control
& Survey Ties

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE. 6758	SECTION 7-BR	COUNTY TAZEWELL	TOTAL SHEETS 21	SHEET NO. 7
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 68784				

EXISTING STRUCTURE: S.N. 090-2501, Built in 1924 under S.B.I. Rte. 9, Section 7 as a double 9'x6' cast in place box culvert. The culvert is not on a skew, and the length of both barrels is 30'. The roadway at this location is on tangent, and the culvert is located in a sag vertical curve. Existing culvert to be removed and replaced. No Salvage.

BENCH MARK: Set Chiseled "□" on N. Headwall of S.N. 090-2501. Elev.=710.08

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
FAU 6758	7-BR	TAZEWELL	21 8	3 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 68784

WATERWAY INFORMATION

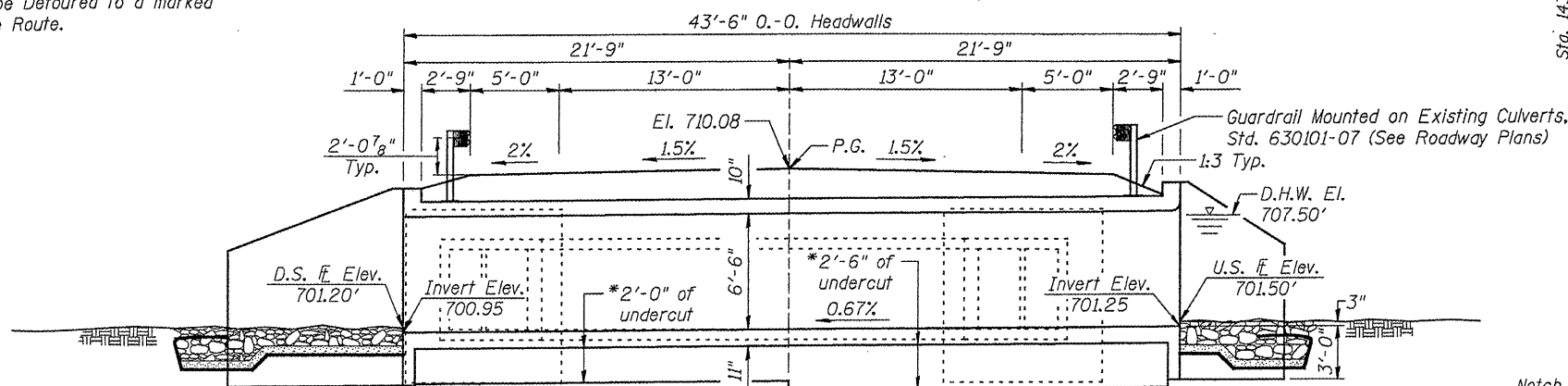
Drainage Area = 0.5 Sq. Mi. Low Grade Elev. = 710.24 (Exist.) @ Sta. 145+00
Low Grade Elev. = 710.73 (Prop.) @ Sta. 145+00

Flood	Freq. Yr.	Q C.F.S.	Opening Exist.	Sq. Ft. Prop.	Nat. H.W.E. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	467	88	116	706.80	1.30	1.00	708.10
Design	50	794	118	136	707.50	1.70	1.30	709.20
Base	100	916	118	146	707.80	2.00	1.40	709.80
Overtopping	200	900	118		707.90	2.20		710.10
Max. Calc.	500	1101		160	708.30	2.50	1.70	710.80

DESIGN SCOUR ELEVATION TABLE

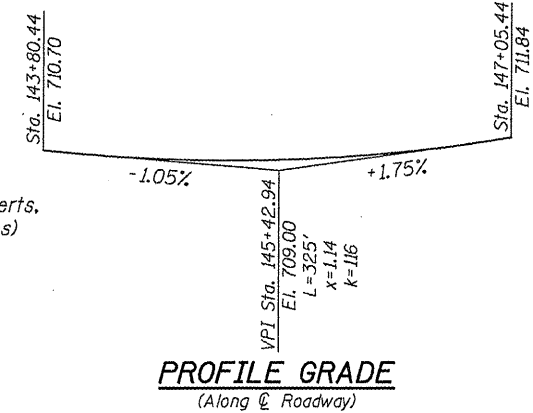
Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	698.25	697.95

DURING CONSTRUCTION: Traffic will be Detoured to a marked State Route.



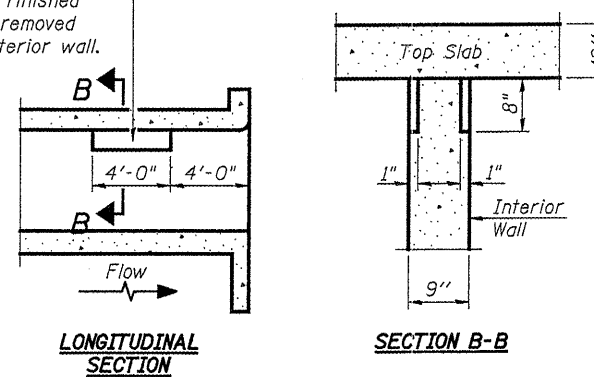
LONGITUDINAL SECTION

(Dimensions @ Rt. <'s to Roadway)
* See Structural Sheet 2 of 3 for Cross Section view of backfill limits.
@ IL Rte. 98



PROFILE GRADE
(Along @ Roadway)

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



APPROVED
For Structural Adequacy Only

Ralph E. Anderson
Engineer of Bridges & Structures

PHOEBE NESTING SITE DETAILS
(Downstream End Only)

DESIGN SPECIFICATIONS
Design in Accordance with 2002 AASHTO Standard Specifications - 17th ed.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LOADING HS-20-44

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

BILL OF MATERIAL - CULVERT

ITEM	UNIT	TOTAL
Concrete Box Culverts	Cu. Yd.	104.7
Reinforcement Bars	Pound	18,080
Name Plates	Each	1
Stone Riprap, Class A4	Sq. Yd.	83
Filter Fabric	Sq. Yd.	83
Removal of Existing Structures	Each	1

GENERAL NOTES:

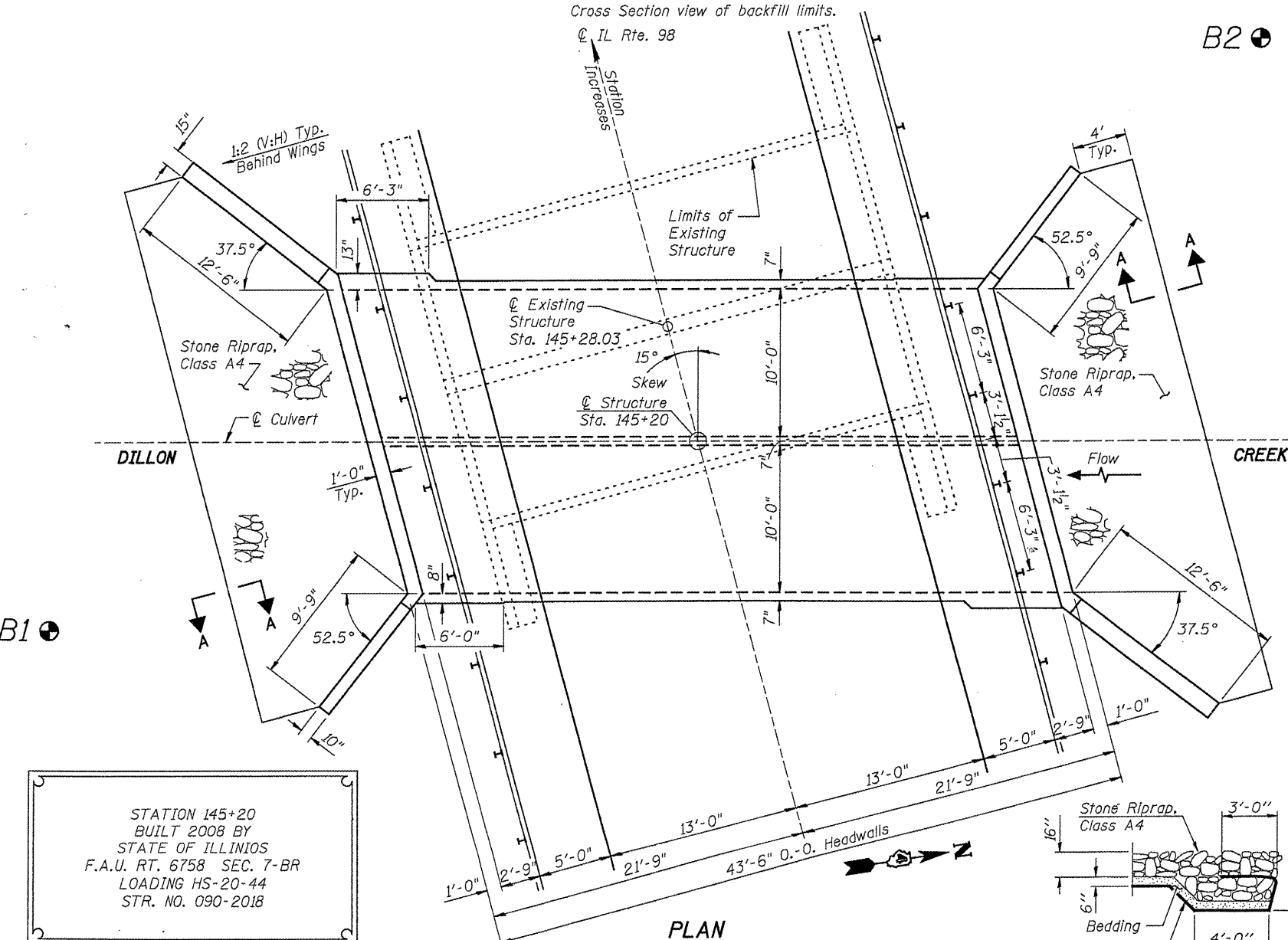
Layout of Slope Protection System may be varied to suit ground conditions in the field as directed by the Engineer.

Reinforcement Bars shall conform to the requirements of ASTM A706 Gr. 60 (IL Modified). See Special Provisions.

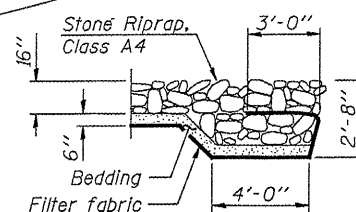
All exposed concrete edges shall be chamfered 3/4" unless otherwise noted.

Undercut Excavation & Backfill for Undercut Excavation along with Porous Granular Backfill along sides of Culvert is included in Roadway Plans.

Precast Culvert Alternate is not allowed.



PLAN



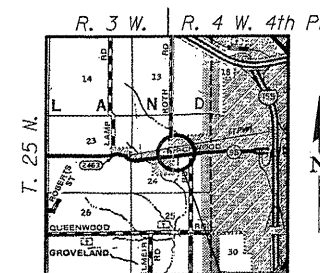
SECTION A-A

STATION 145+20
BUILT 2008 BY
STATE OF ILLINOIS
F.A.U. RT. 6758 SEC. 7-BR
LOADING HS-20-44
STR. NO. 090-2018

SECTION A-A
Refer to Sta. 2113



Brian K. Converse
DATE: 5/2/2008
EXPIRES 11/30/08



PROPOSED BRIDGE LOCATION SKETCH

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 98 OVER DILLON CREEK
F.A.U. ROUTE 6758 - SEC. 7-BR
TAZEWELL COUNTY
STATION 145+20 STRUCTURE NO. 090-2018

WILLET, HOFMANN & ASSOCIATES, INC.
CONSULTING ENGINEERS
Land Surveying - Transportation - Structural
Environmental - Architecture

909 East Second Street Dixon, Illinois 61021
Phone 815.294.3381 Fax 815.294.3385
Design Firm #164-00018
www.willetthofmann.com

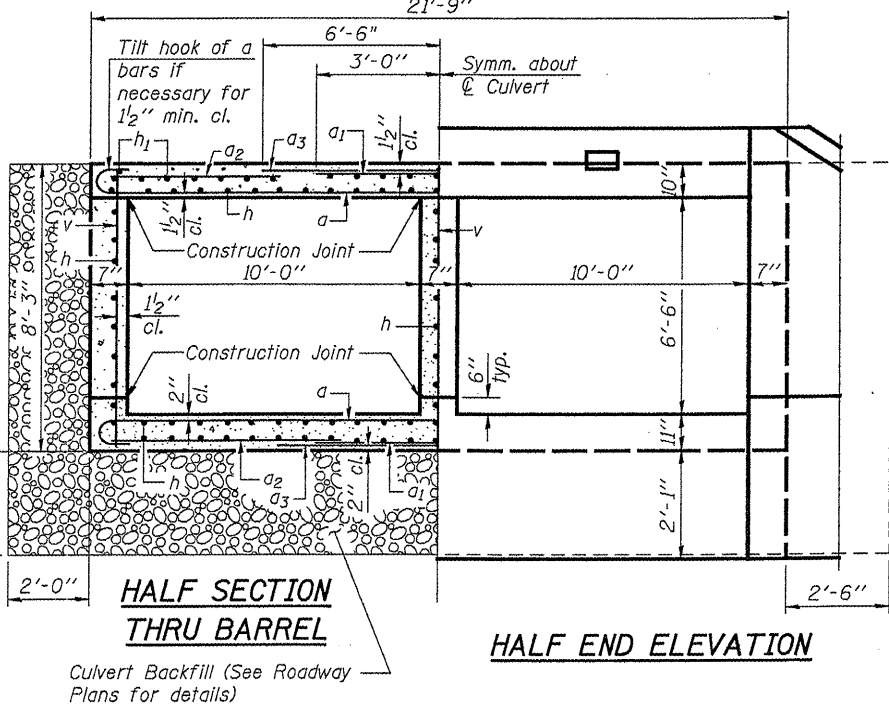
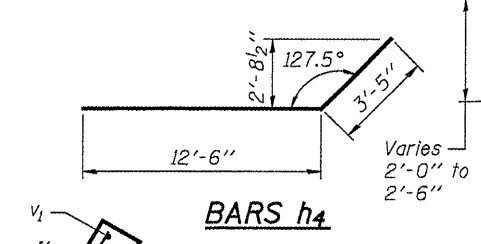
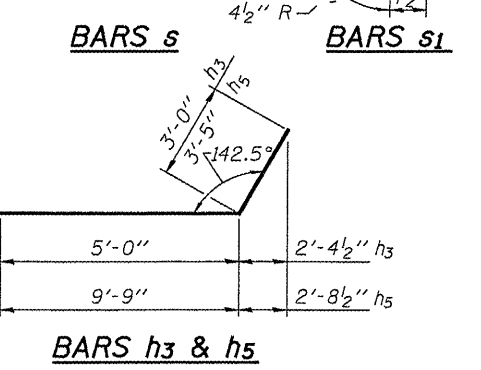
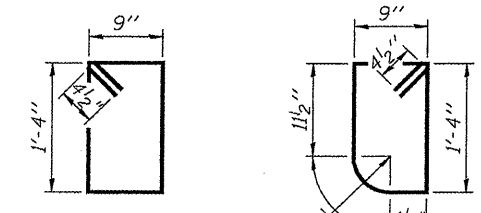
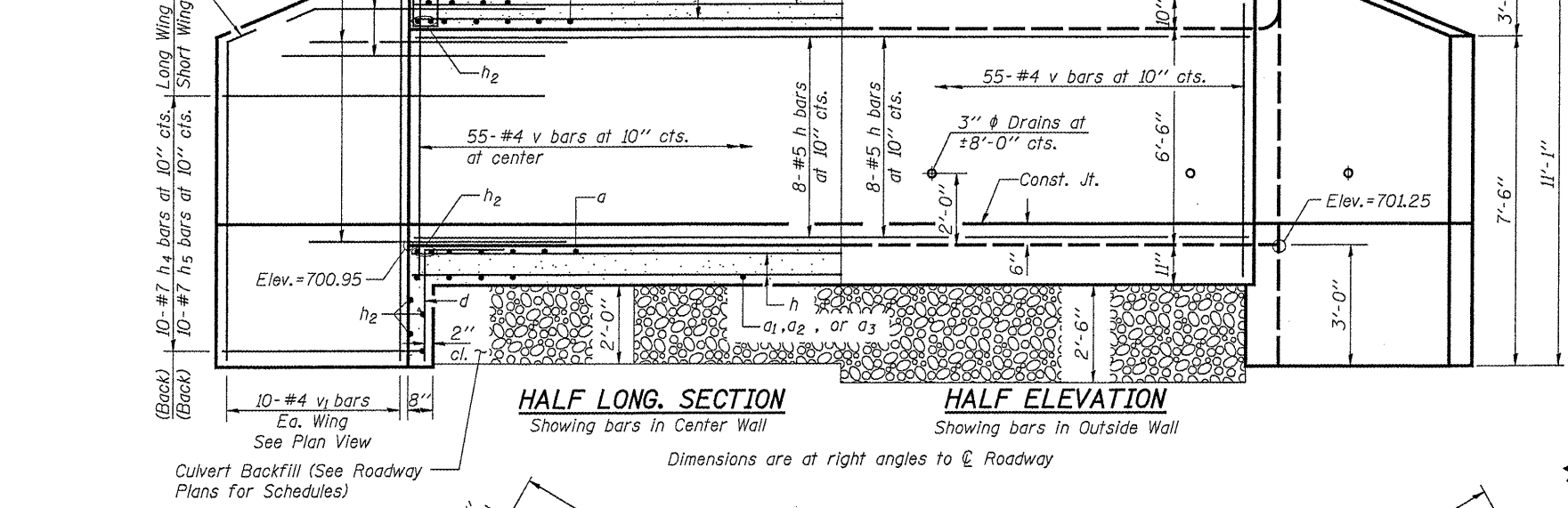
Designed By:
B. K. Converse
Date: 4/08
Checked By:
M. A. Small
Date: 4/08
Drawn By:
R. D. Allen
Date: 4/08

WHA # 1223D07

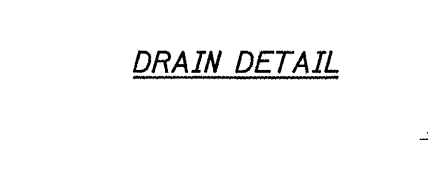
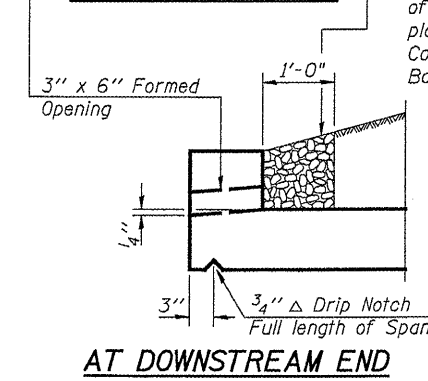
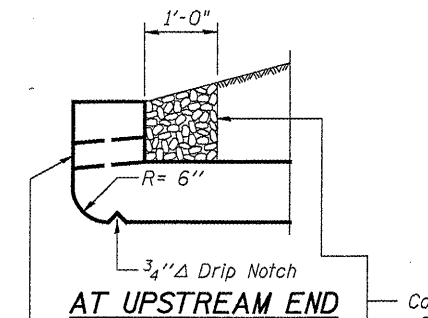
(Back)
5-#7 h₃ bars at 10" cts. Short Wing
5-#7 h₃ bars at 10" cts. Long Wing

(Front)
8-#7 h₃ bars at 10" cts. Short Wing
8-#7 h₃ bars at 10" cts. Long Wing

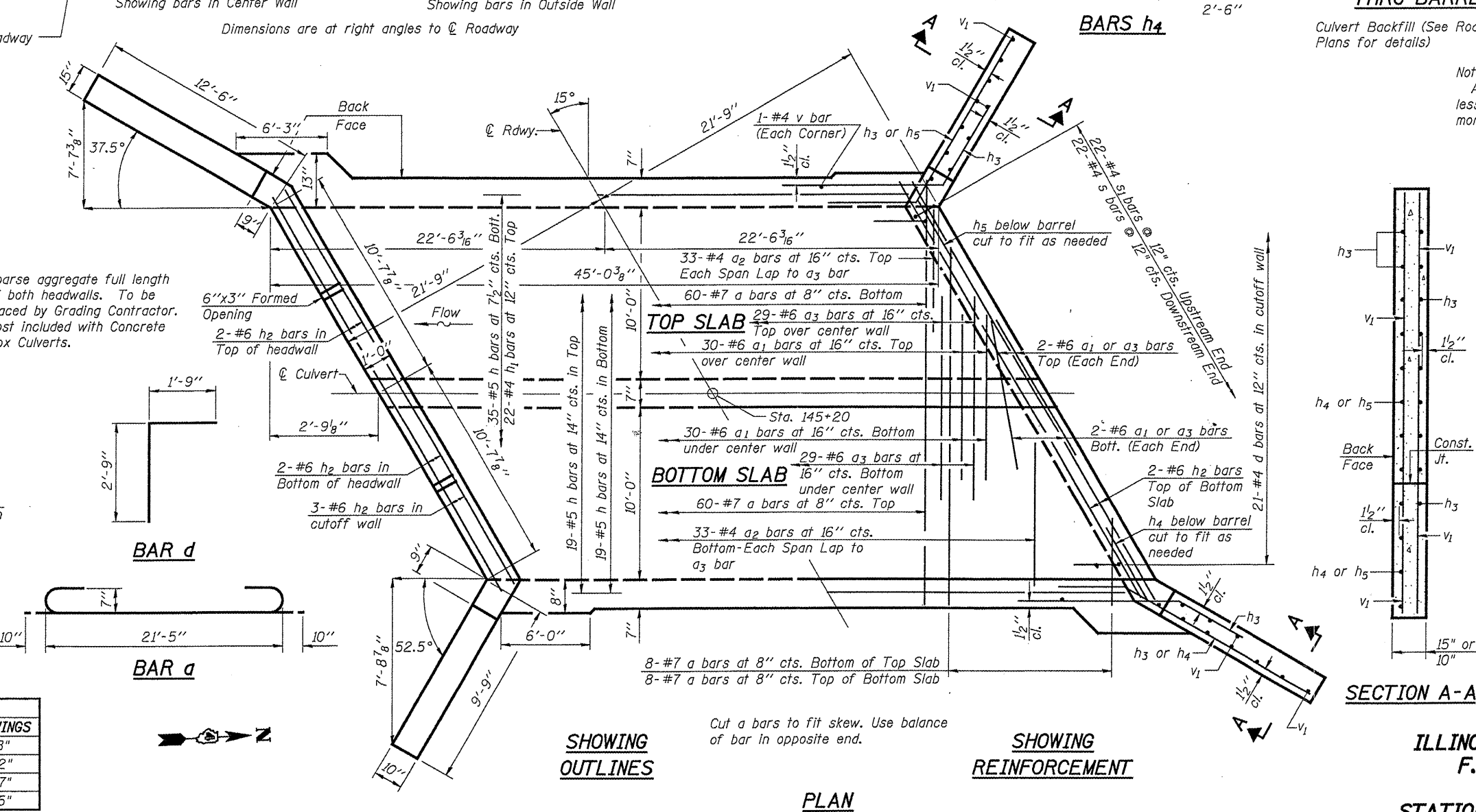
Bend in Field, typ.
s bar (s₁ bar at opposite end)



Note:
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.



MIN. BAR LAPS		
SIZE	LAP-BARRELS	LAP-WINGS
#4	1'-4"	1'-8"
#5	1'-8"	2'-2"
#6	2'-0"	2'-7"
#7	2'-9"	3'-5"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	136	#7	23'-1"	U
a ₁	68	#6	6'-0"	—
a ₂	132	#4	5'-7"	—
a ₃	66	#6	13'-0"	—
d	42	#4	4'-6"	—
h	97	#5	44'-8"	—
h ₁	22	#4	44'-8"	—
h ₂	18	#6	22'-2"	—
h ₃	52	#7	8'-0"	—
h ₄	20	#7	15'-11"	—
h ₅	20	#7	13'-2"	—
s	22	#4	4'-11"	□
s ₁	22	#4	4'-9"	□
v	169	#4	7'-11"	—
v ₁	40	#4	10'-9"	—
Concrete Box Culverts			Cu. Yd.	104.7
Reinforcement Bars			Pound	18,080

SECTION A-A

CULVERT DETAILS
ILLINOIS ROUTE 98 OVER DILLON CREEK
F.A.U. ROUTE 6758 - SEC. 7-BR
TAZEWELL COUNTY
STATION 145+20 STRUCTURE NO. 090-2018
WHA #1223D07



SOIL BORING LOG

ROUTE FAU 6758 (IL 98) DESCRIPTION Double 10x8' Culvert @ Dillon Cr. LOGGED BY DLR

SECTION 7RS-6.7-1.BRS-4 LOCATION 1.24mi. W of Morton, SEC., TWP., RNG.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for soil description, depth (ft), and blow counts (B, U, M, O, S, I). Includes soil types like Dark Brown SILTY CLAY and Grey CLAY with 1" soft SILTY LOAM seams.

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 T208) BBS, from 137 (Rev. 9-99)



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COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for soil description, depth (ft), and blow counts (B, U, M, O, S, I). Includes soil types like Grey SILTY LOAM with fine SAND and Dark Brown SILTY CLAY/CLAY.

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 T208) BBS, from 137 (Rev. 9-99)

Table with columns: ROUTE NO., SECTION, COUNTY, DISTRICT, SHEET NO. Values: FAU 6758, 7-BR, TAZEWELL, 21, 10.

SHEET NO. 3 3 SHEETS

Contract # 68784



SOIL BORING LOG

ROUTE FAU 6758 (IL 98) DESCRIPTION Double 10x8' Culvert @ Dillon Cr. LOGGED BY DLR

SECTION 7RS-6.7-1.BRS-4 LOCATION 1.24mi. W of Morton, SEC., TWP., RNG.

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Table with columns for soil description, depth (ft), and blow counts (B, U, M, O, S, I). Includes soil types like Dark Brown SILTY CLAY/CLAY and Brown, Grey CLAY LOAM TILL.

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 T208) BBS, from 137 (Rev. 9-99)



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COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

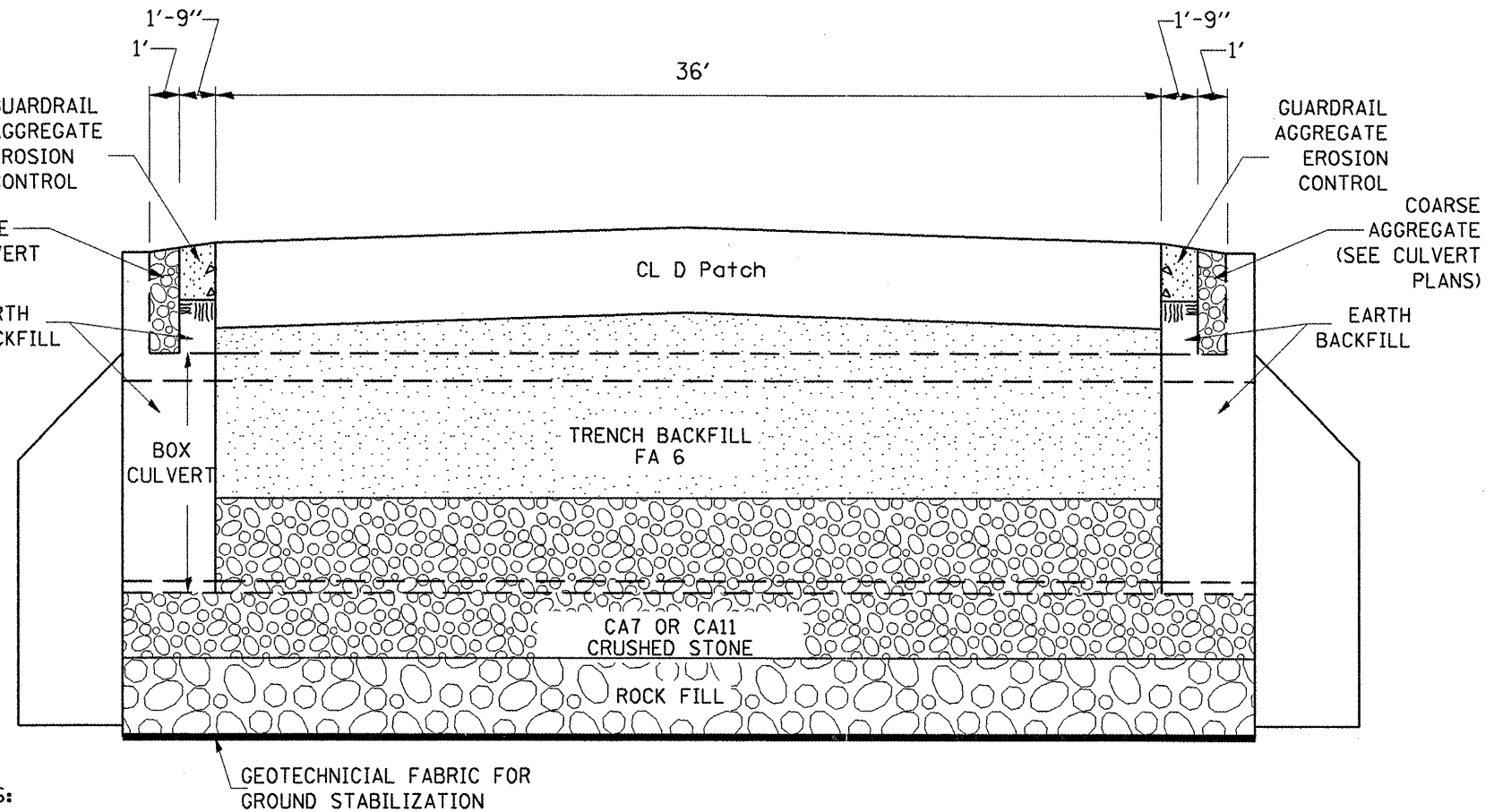
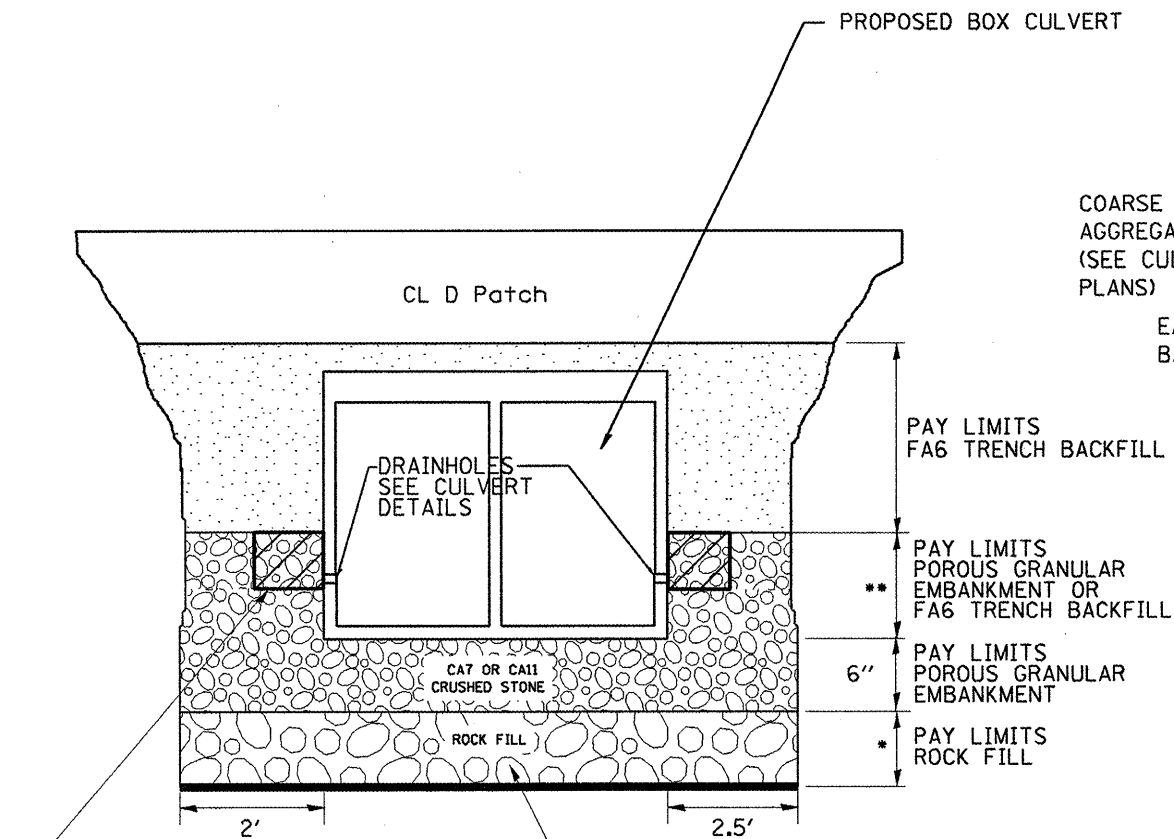
Table with columns for soil description, depth (ft), and blow counts (B, U, M, O, S, I). Includes soil types like Brown, Grey CLAY LOAM TILL and Grey CLAY TILL with SILTY seams.

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 T208) BBS, from 137 (Rev. 9-99)

BORING LOGS ILLINOIS ROUTE 98 OVER DILLON CREEK F.A.U. ROUTE 6758 - SEC. 7-BR TAZEWELL COUNTY STATION 145+20 STRUCTURE NO. 090-2018 WHA #1223D07

ROADWAY PROFILE VIEW

ROADWAY CROSS SECTION VIEW



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)

PROPOSED REMOVAL & DISPOSAL OF UNSUITABLE, AND REPLACE WITH ROCKFILL WITH GEOTECHNICAL FABRIC FOR GROUND STABILIZATION. PAID FOR BY RESPECTIVE PAY ITEMS

* VARIABLE 1'-6" LT OF CENTERLINE, 2'-0" RT OF CENTERLINE.

** EXTEND THE POROUS GRANULAR EMBANKMENT TO THE TOP OF THE DRAINHOLE FILTER FABRIC ENVELOPES.

NOTES:

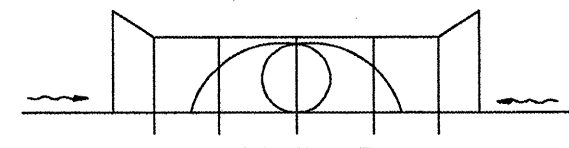
- EXCEPT AS SPECIFIED IN THIS DETAIL, THE PLACEMENT AND COMPACTION OF BACKFILL SHALL BE IN ACCORDANCE WITH ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS.
- TRENCH BACKFILL SHALL BE COMPACTED BY EITHER METHOD 2 OR METHOD 3 SPECIFIED IN ARTICLE 550.07, OR IN ACCORDANCE WITH METHOD 1 SPECIFIED IN ARTICLE 550.07, EXCEPT THAT THE COMPACTED LIFTS SHALL NOT EXCEED 8" IN THICKNESS. TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD LAB DENSITY.

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

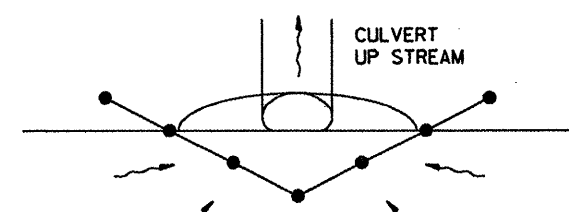
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FILE NAME =	USER NAME = hudelsonme	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Detail of Excavation and Backfill for Box Culverts	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca\projects\1198\dilloncreek\profile.dgn		DRAWN -	REVISED -			6758	7-BR	TAZEWELL	21	11	
PLOT SCALE = 48.0000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 68784					
PLOT DATE = 4/15/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.				

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

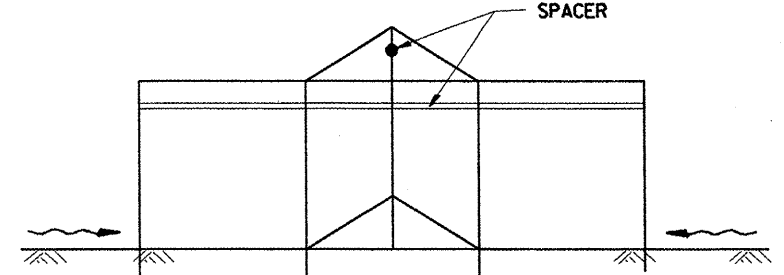


FRONT VIEW

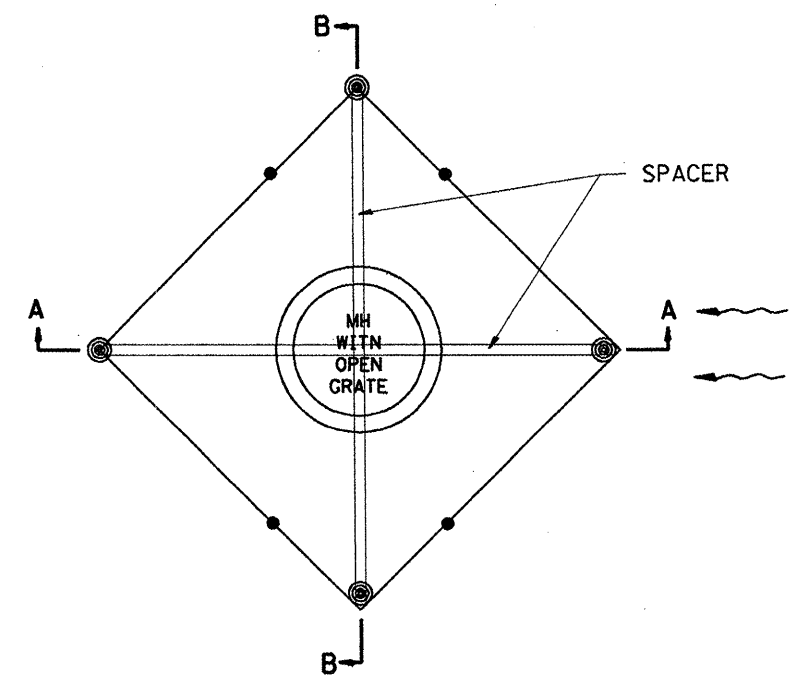


TOP VIEW

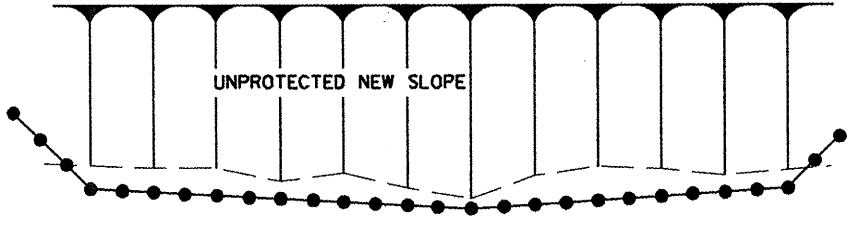
UPSTREAM PIPE CULVERT EROSION CONTROL



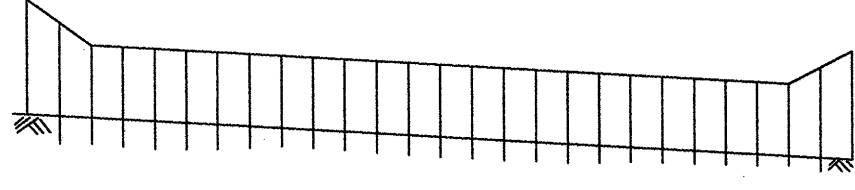
SIDE VIEW
A-A



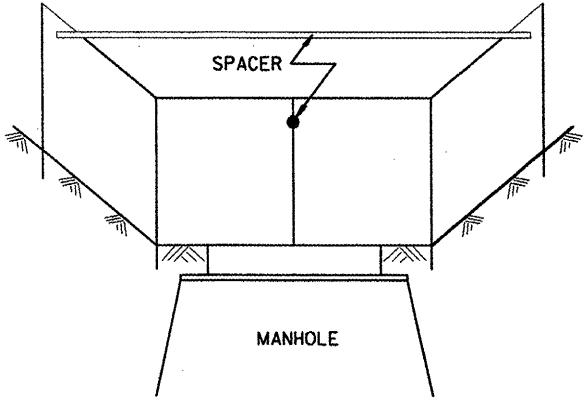
TOP VIEW



TOP VIEW



FRONT VIEW



Front View
B-B

EROSION CONTROL
AT
OPEN GRATE MAN HOLE

GENERAL NOTES:

1. This work shall be performed in accordance with Sections 280 & 1081, of the Standard Specifications.
2. Additional Timber or Metal Post shall be installed, as needed.

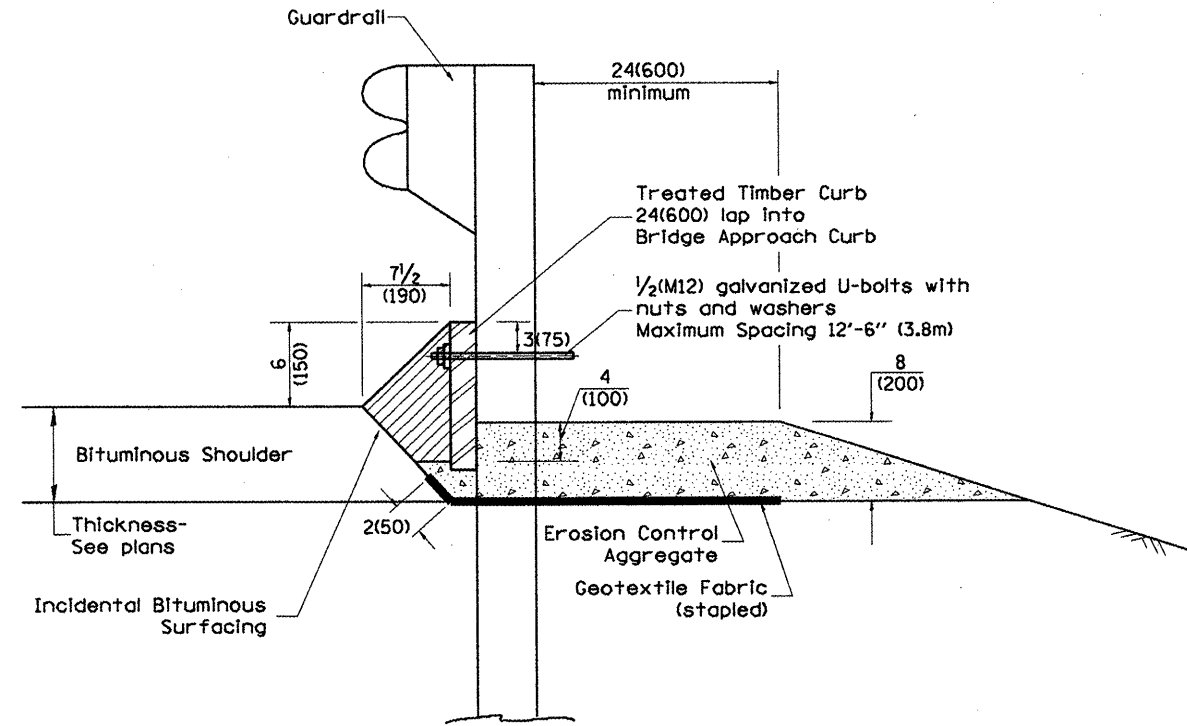
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
SPECIAL DETAIL SHEET	
TYPICAL APPLICATION OF SILT FILTER FENCE	
CADD DETAIL 280001-D4	DRAWN BY CADD
SCALE: NOT DRAWN TO SCALE	CHECKED BY

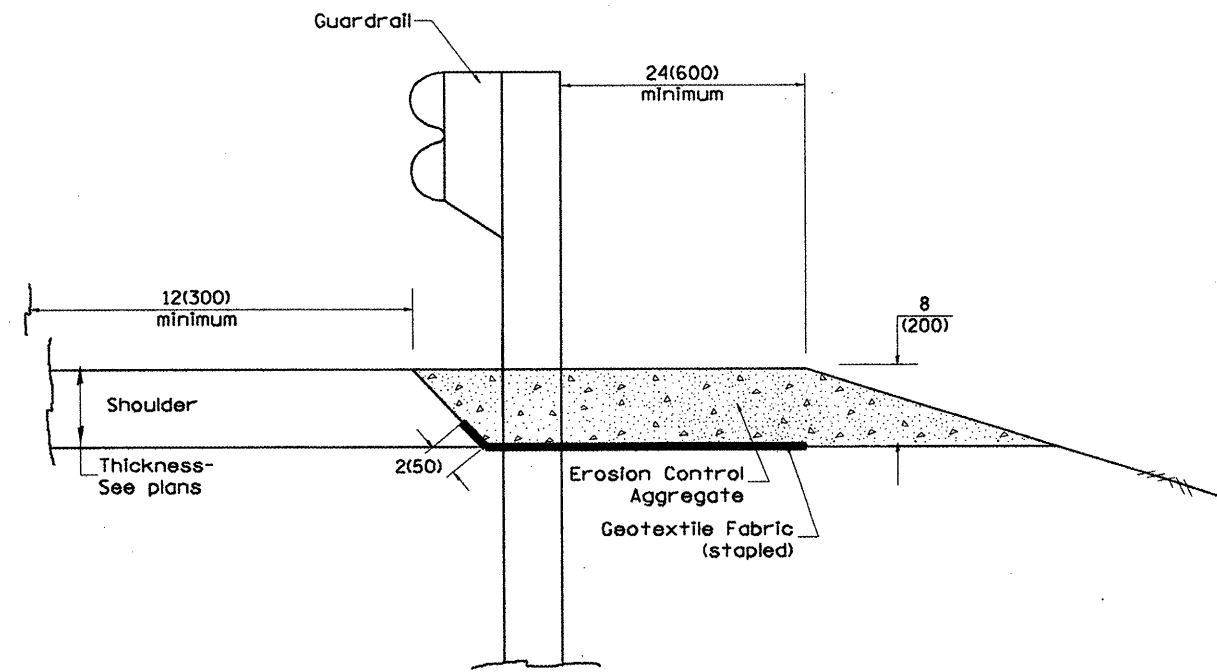
DATE	REVISIONS	BY
1-1-97	RENJ.M. A-12.05, NEW REVISION BOX	T.P.
3-11-03	ELIMINATED SILT FENCE DITCH CHECK	M.M.A.

\$\$\$DATE\$\$\$

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6758	7-BR	TAZEWELL	21	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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 0.40 lbs./cu. ft. (6.4 kg/m³)

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.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

GUARDRAIL EROSION
CONTROL TREATMENTS

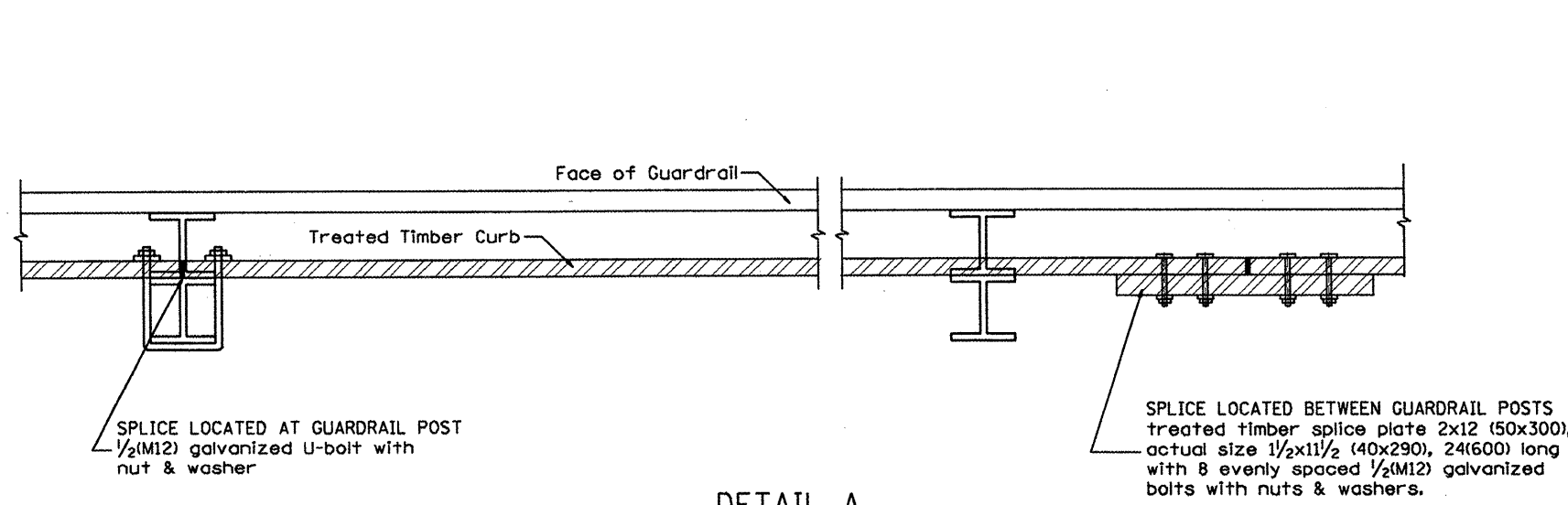
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3-1-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-3-00	CORRECTION TO NOTES	M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

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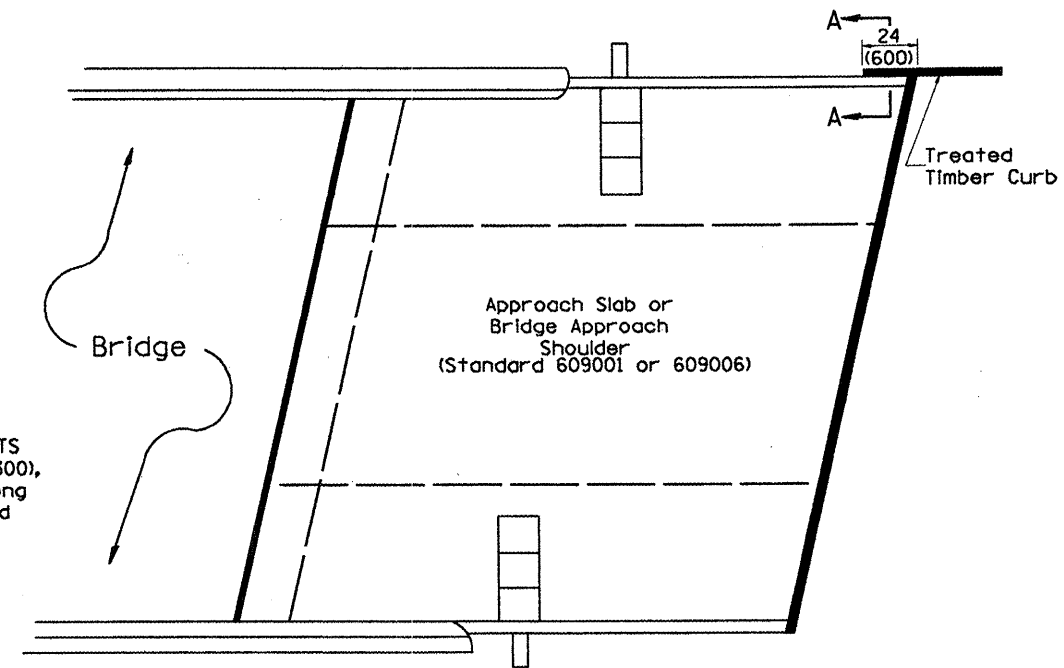
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CHECKED BY

630101-D4(1)

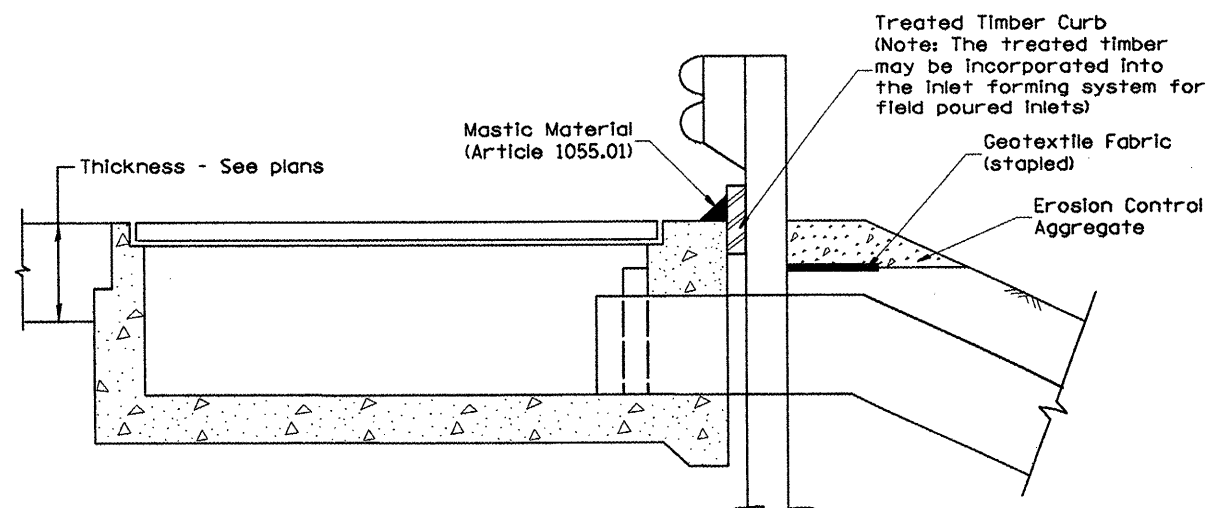
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



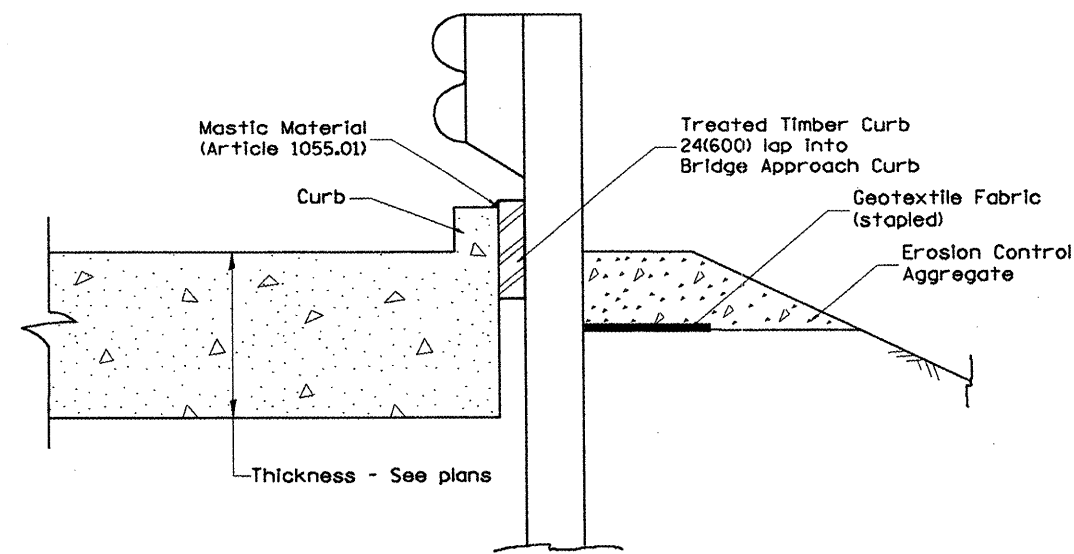
DETAIL A
(Typical Treated Timber Splices)



PLAN VIEW
APPROACH SLAB OR BRIDGE APPROACH SHOULDER
(STANDARD 609001 or 609006)



TYPICAL SECTION WITH EROSION CONTROL CURB AT INLETS TYPE E & F (STANDARD 610001)



SECTION A-A
TYPICAL SECTION WITH EROSION CONTROL CURB AT BRIDGE APPROACH CURB
(STANDARD 609001 OR 609006)

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

GUARDRAIL EROSION CONTROL TREATMENTS

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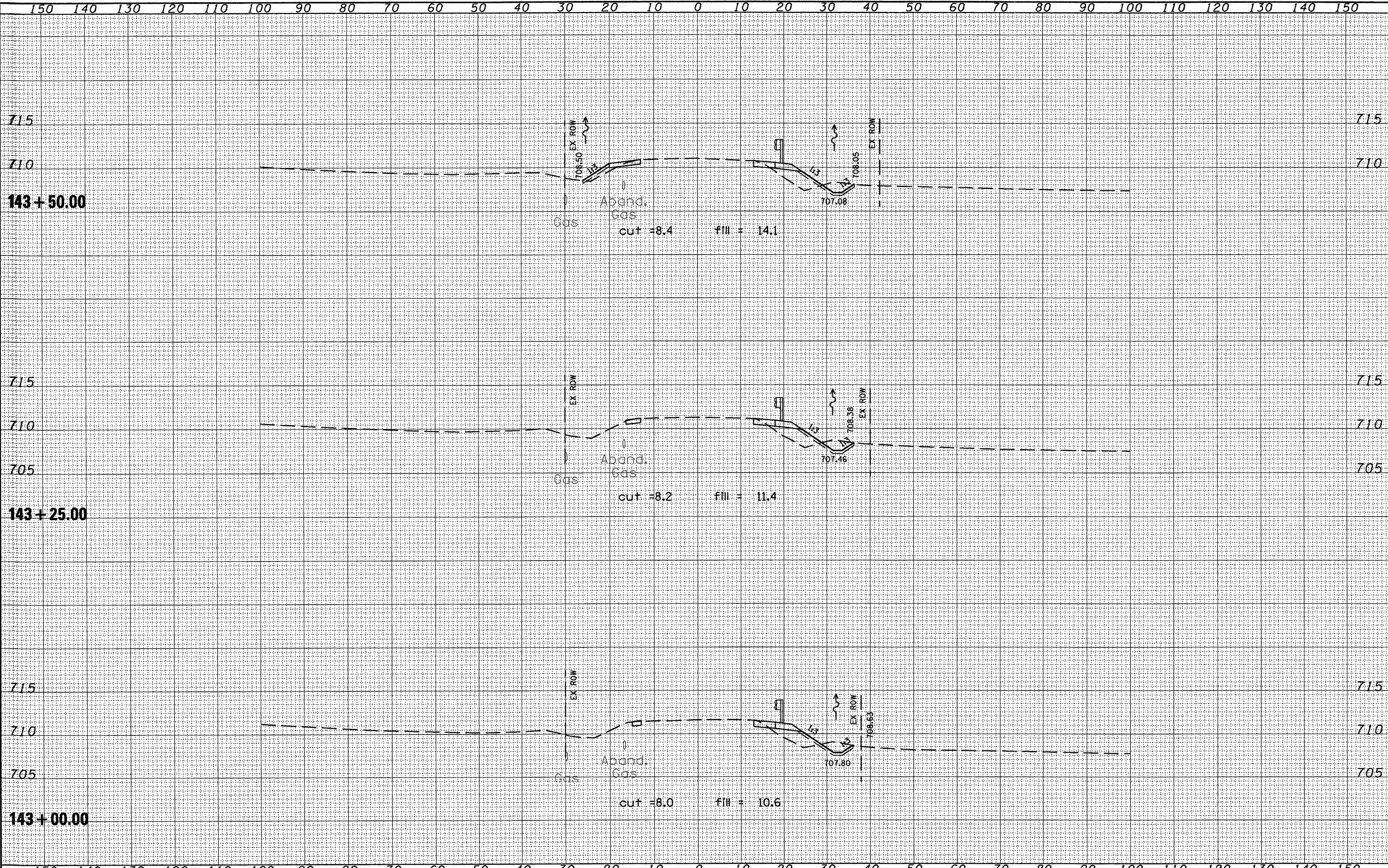
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630101-D4(2)

\$\$\$DATE\$\$\$

DATE	
BY	
FINAL SURVEY	
PLOTTED	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
NO.	



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 PLOT DATE = 4/11/2009

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

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

Cross Sections

SCALE: SHEET NO. OF SHEETS STA. 143+00.00 TO STA. 143+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6758	7-BR	TAZEWELL	21	16
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 68784	

DATE	
BY	
FINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

