11-18-11 LETTING ITEM 059

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	1
	ILLINOIS	CONTRACT NO. 70618		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 749 (IL 133)
SECTION 14BR,14CR,123CR
PROJECT ACBRF-ACF-0749(025)
EDGAR COUNTY

C-95-149-06

BRIDGE REPLACEMENT & CULVERT REPLACEMENTS

DITCH 5.0 MI W OF PARIS; DITCH E OF BORTON

STREAMS 0.3 MI E OF REDMON & 2.5 MI W OF PARIS

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-8

STRUCTURE INFORMATION

S.N.	SCOPE OF WORK
023-0016	BRIDGE REPLACEMENT
023-8039	CULVERT REPLACEMENT
023-2011	CULVERT REPLACEMENT
023-8306	CULVERT REPLACEMENT

CURRENT ADT:(2010)
ADT IS FOR ALL FOUR STRUCTURES

CURRENT ADT =	2,050 (2010)
20 YR ADT =	2,450 (2030)
PU & PC % =	80.6
SU % =	5.3
MU% =	14.1

DESIGN DESIGNATION
MINOR ARTERIAL

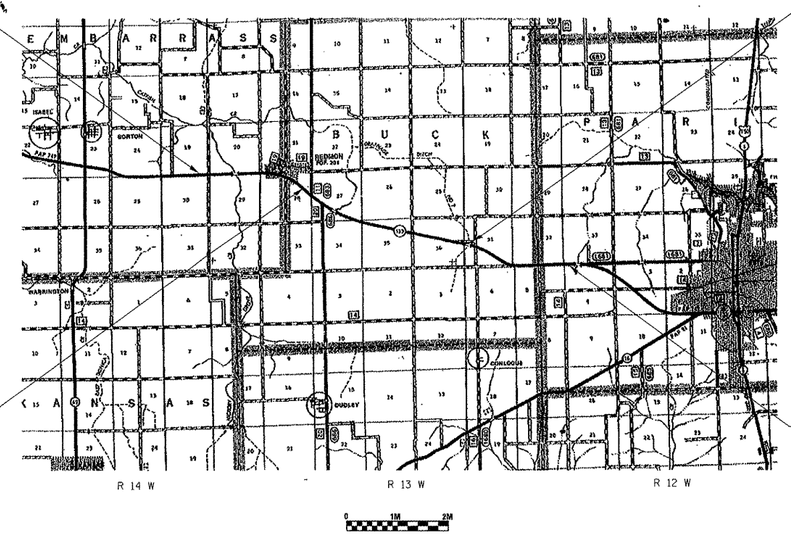
0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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 EMBARRASS, BUCK & PARIS TOWNSHIPS

EXIST. S.N. 023-8039
PROP. S.N. 023-8064
CULVERT NO. 1
STATION 126+55.00
PROP. PC BOX CULVERT
1 @ 12' X 4' X 41'- 0"
W /CIP END SECTIONS

EXIST. S.N. 023-2011
PROP. S.N. 023-2018
CULVERT NO. 2
STATION 232+00.00
PROP. PC BOX CULVERT
2 @ 12' X 4' X 48'- 6"
W /CIP END SECTIONS



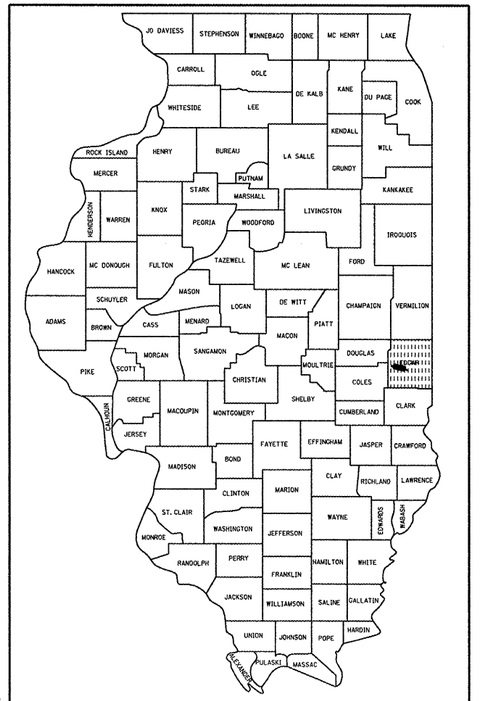
EXIST. S.N. 023-0016
PROP. S.N. 023-0034
STEEL WF BRIDGE W R.C. DECK & INTEGRAL ABUT.
STATION 418+15.00
70'-0" BK. TO BK. ABUT
20 DEGREE LT. FWD. SKEW
CLEAR WIDTH = 32'-0"

EXIST. S.N. 023-8306
PROP. S.N. 023-8065
CULVERT NO. 3
STATION 513+80.00
PROP. PC BOX CULVERT
2 @ 8' X 3' X 48'- 6"
W /CIP END SECTIONS

N
5

GROSS & NET LENGTH OF PROJECT = 662.22 FT. = 0.125 MILE

D-95-134-06



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/25 20 11
Jason E. Craven
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 14 20 11
Scott E. Stitt P.E. by
acting
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 14 20 11
Christine M. Reed by
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: JASON STULTS (217-465-4181)
PROJECT MANAGER: RUSTIN KEYS
DESIGNER : KARY DAWSON

CONTRACT NO. 70618

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
420701-02	PAVEMENT FABRIC
442201-03	CLASS C AND D PATCHES
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-09	STEEL PLATE BEAM GUARDRAIL
630101-09	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630106	LONG-SPAN GUARDRAIL OVER CULVERT
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-09	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
667101-01	PERMANENT SURVEY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24'' (600 MM) FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEEDS >/= 45 MPH
701206-03	LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS >/= 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701316-05	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS > 45 MPH
701331-04	LANE CLOSURE, 2L, 2W, WITH RUN-AROUND, FOR SPEEDS >/= 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTOR LOOPS

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-gennote.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND HIGHWAY STANDARDS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	2
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

G.N.-100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N.-107.37
UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED (QUALITY LEVEL C &/OR QUALITY LEVEL D) AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.
UTLILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED.
J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800)892-0123 OR 811.

G.N.-280
TEMPORARY EROSION CONTROL SEEDING IS INCLUDED IN THIS CONTRACT TO SEED DISTURBED EARTH DURING TIME PERIODS WHEN PERMANENT SEEDING IS NOT ALLOWED. SOME OR ALL OF THE TEMPORARY EROSION CONTROL SEEDING WILL BE DELETED IF IT IS POSSIBLE TO PLACE PERMANENT SEEDING ON EARTH SHOULDERS AT THE TIME OF THEIR COMPLETION.

G.N.-406
THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N.-406.05B
ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

G.N.-406F
THIS JOB INCLUDES LEVELING BINDER OF 1-1/4 INCHES OR GREATER THICKNESS. LOCATIONS OF LEVELING BINDER EQUAL TO OR GREATER THAN 1-1/4 INCHES IN THICKNESS ARE AS FOLLOWS:

EAST AND WEST APPROACHES AT THE BRIDGE REPLACEMENT LOCATION
THE ABOVE LIST MAY NOT BE ALL INCLUSIVE DUE TO CONSTRUCTION VARIATIONS, VARIATIONS BETWEEN PLOTTED CROSS-SECTIONS, OR OTHER REASONS. ALL APPLICABLE REQUIREMENTS OF SECTION 406 OF THE STANDARD SPECIFICATIONS WILL BE ENFORCED FOR ALL LEVELING BINDER CONSTRUCTED 1-1/4 INCHES OR THICKER.

G.N. -406H
MIXTURE REQUIREMENTS
The following mixture requirements are applicable for

Location(s):	MAINLINE PAVEMENT	TEMPORARY RUNAROUND DETOUR
Mixture Use(s):	SURFACE COURSE, LEVEL BINDER, FLEXIBLE CONNECTOR, INCIDENTAL SURFACING	TEMP. PAVT.(HMA OPTION)
AC/PG:	PG 64-22	PG 64-22
RAP %: (Max)	15%	25%
Design Air Voids:	4.0% @ NDES=50	4.0% @ NDES=50
Mixture (Gradation	IL 9.5	IL 19.0
Friction	MIX "C"	N/A

G.N.-540
THE CONTRACTOR SHALL ASSEMBLE AND MATCH-MARK THE PRECAST BOX CULVERT SECTIONS AND END SECTIONS PRIOR TO SHIPMENT OF THESE COMPONENTS FROM THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER FIT ON EACH JOINT. ANY SECTIONS OR END SECTIONS WHICH DO NOT PROVIDE A PROPER FIT AT THE JOINT SHALL BE REJECTED BY THE ENGINEER AND REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION BEING ALLOWED.
THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED.

G.N.-542
BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G.N.-631
IF THE CONTRACTOR ELECTS TO USE THE ALTERNATE MOUNTING METHOD OF THRU DRILLING THE MOUNTING HOLES FOR THE TRAFFIC BARRIER TERMINALS, TYPE 6, THE HOLES SHALL BE DRILLED USING A CORE DRILL. A HAMMER DRILL WILL NOT BE ALLOWED.

G.N.-667
THE RESIDENT ENGINEER SHALL CONTACT THE PROGRAM DEVELOPMENT CHIEF OF SURVEYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE FOR INSTRUCTION AS TO SETTING OF TEMPORARY OR PERMANENT TIES FOR CENTERLINE ALIGNMENT CONTROL SURVEY MARKERS (PC's, PT's, AND PI's). PROJECT IMPLEMENTATION PERSONNEL WILL BE RESPONSIBLE FOR LAYOUT OF THESE MARKERS.

G.N.-703A
SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER ANY OF THE FOLLOWING: COLD MILLING AND/OR PLACING BITUMINOUS MATERIALS (PRIME COAT), LEVELING BINDER (MACHINE METHOD), BINDER AND SURFACE COURSES. SHORT TERM PAVEMENT MARKING PLACED ON THE SURFACE, SHALL COINCIDE WITH THE FINAL PAVEMENT STRIPING. SHORT TERM PAVEMENT MARKING PLACED PRIOR TO THE SURFACE SHALL COINCIDE WITH THE EXISTING PAVEMENT MARKINGS. USE 4 FEET PER 40 FEET (OR 10% PER STATION).

G.N.-781
RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

G.N.-1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

G.N.-Z0038
AN ALUMINUM TABLET OF THE TYPE SHOWN ON STANDARD 667101 SHALL BE PLACED ON THE PROPOSED STRUCTURE AS DIRECTED BY THE ENGINEER. THE BENCH MARK ELEVATION WILL BE ESTABLISHED AND MARKED BY THE DEPARTMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PERMANENT BENCH MARKS.

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT.

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-gennote.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	3
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

L1CE AcBRF

L2SE ACF

	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	0011 QUANTITY	0040 QUANTITY	0040 QUANTITY	0040 QUANTITY
		LOCATION OF WORK:		EDGAR CO. FAP 749 IL 133 RURAL 2LN	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-0034	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8064	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-2018	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8065
		FUNDING BREAKOUT:		80% FED. / 20% STATE	80% FED. / 20% STATE	80% FED. / 20% STATE	80% FED. / 20% STATE	80% FED. / 20% STATE
		CONSTRUCTION TYPE CODE:						
	20200100	EARTH EXCAVATION	CU YD	2,348.0	2,015.0	86.0	171.0	76.0
	20300100	CHANNEL EXCAVATION	CU YD	1,020.0	1,020.0			
	20400800	FURNISHED EXCAVATION	CU YD	1,521.0	1,301.0		154.0	66.0
	20700220	POROUS GRANULAR EMBANKMENT	CU YD	164.0		55.0	58.0	51.0
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	615.0	615.0			
	21301052	EXPLORATION TRENCH 52" DEPTH	FOOT	600.0		200.0	200.0	200.0
*	25000210	SEEDING, CLASS 2A	ACRE	2.25	1.25	0.25	0.50	0.25
*	25000350	SEEDING, CLASS 7	ACRE	0.5	0.5			
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	200.0	110.0	22.5	45.0	22.5
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	200.0	110.0	22.5	45.0	22.5
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	200.0	110.0	22.5	45.0	22.5
*	25100115	MULCH, METHOD 2	ACRE	0.75	0.75			
*	25100630	EROSION CONTROL BLANKET	SQ YD	6,682.0	2,355.0	1,169.0	2,109.0	1,049.0
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	225.0	125.0	25.0	50.0	25.0
	28000305	TEMPORARY DITCH CHECKS	FOOT	611.0	182.0	182.0	156.0	91.0
	28000400	PERIMETER EROSION BARRIER	FOOT	2,810.0		810.0	1,000.0	1,000.0
	28000500	INLET AND PIPE PROTECTION	EACH	2.0		1.0		1.0
	28100107	STONE RIPRAP, CLASS A4	SQ YD	936.0	936.0			
	28100201	STONE RIPRAP, CLASS A1	TON	126.0		27.0	60.0	39.0
	28200200	FILTER FABRIC	SQ YD	936.0	936.0			
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	161.0	84.0		39.0	38.0
	40600300	AGGREGATE (PRIME COAT)	TON	2.0			1.0	1.0
	40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	79.0	79.0			

*SPECIALTY ITEMS

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-SOO.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	4
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

LICE ACBRF

L25E ACF

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-0034 80% FED. / 20% STATE 0011 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8064 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-2018 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8065 80% FED. / 20% STATE 0040 QUANTITY
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	796.0	128.0		334.0	334.0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	116.0	51.0		33.0	32.0
40800010	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1.0	1.0			
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	2.0	2.0			
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	47.0	47.0			
44000100	PAVEMENT REMOVAL	SQ YD	1,343.0	1,343.0			
44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	10.0	10.0			
44004250	PAVED SHOULDER REMOVAL	SQ YD	39.0	39.0			
44201335	CLASS C PATCHES, TYPE IV, 8 INCH	SQ YD	187.0			112.0	75.0
44201347	CLASS C PATCHES, TYPE IV, 9 INCH	SQ YD	75.0		75.0		
44213100	PAVEMENT FABRIC	SQ YD	262.0		75.0	112.0	75.0
44213204	TIE BARS 3/4"	EACH	47.0		13.0	20.0	14.0
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	1,127.0	727.0	133.3	133.3	133.4
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	22.0	22.0			
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1.0	1.0			
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1.0		1.0		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1.0			1.0	
50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1.0				1.0
50102400	CONCRETE REMOVAL	CU YD	8.8	8.8			
50105220	PIPE CULVERT REMOVAL	FOOT	50.0	50.0			
50200100	STRUCTURE EXCAVATION	CU YD	216.0	216.0			
50300100	FLOOR DRAINS	EACH	8.0	8.0			
50300225	CONCRETE STRUCTURES	CU YD	55.5	55.5			

*SPECIALTY ITEMS

FILE NAME = c:\pw_work\pwidot\keysrb\d0184347\D570618-sht-S00.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 2 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	5
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

LIC E ACBRF

L 25E ACF

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN 80% FED. / 20% STATE 0011 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8064 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-2018 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8065 80% FED. / 20% STATE 0040 QUANTITY
50300255	CONCRETE SUPERSTRUCTURE	CU YD	211.3	211.3			
50300260	BRIDGE DECK GROOVING	SQ YD	433.0	433.0			
50300300	PROTECTIVE COAT	SQ YD	554.0	554.0			
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1.0	1.0			
50500505	STUD SHEAR CONNECTORS	EACH	1,062.0	1,062.0			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	52,870.0	52,870.0			
50800515	BAR SPLICERS	EACH	72.0	72.0			
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	320.0	320.0			
51202305	DRIVING PILES	FOOT	320.0	320.0			
51203200	TEST PILE METAL SHELLS	EACH	2.0	2.0			
51500100	NAME PLATES	EACH	4.0	1.0	1.0	1.0	1.0
52100520	ANCHOR BOLTS, 1"	EACH	24.0	24.0			
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2.0		2.0		
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	2.0			2.0	
54001003	BOX CULVERT END SECTIONS, CULVERT NO. 3	EACH	2.0				2.0
54020803	PRECAST CONCRETE BOX CULVERTS 8' X 3' (M273)	FOOT	91.0				91.0
54021204	PRECAST CONCRETE BOX CULVERTS 12' X 4' (M273)	FOOT	129.0		38.0	91.0	
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1.0	1.0			
5422D072	PIPE CULVERTS, CLASS D, TYPE 2 72" (TEMPORARY)	FOOT	180.0	180.0			
54248510	CONCRETE COLLAR	CU YD	0.5	0.5			
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	4.0	4.0			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	64.0	64.0			
60250200	CATCH BASINS TO BE ADJUSTED	EACH	2.0		1.0		1.0

*SPECIALTY ITEMS

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-SQQ.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	6
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

L1CE ACBRF

L25E ACF

	CODE NO.	DESCRIPTION	UNIT	LOCATION OF WORK: EDGAR CO. FAP 749 IL 133 RURAL 2LN FUNDING BREAKOUT: 80% FED. / 20% STATE CONSTRUCTION TYPE CODE: TOTAL QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-0034 80% FED. / 20% STATE 0011 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8064 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-2018 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8065 80% FED. / 20% STATE 0040 QUANTITY
	61100605	MISCELLANEOUS CONCRETE	CU YD	2.0		1.0		1.0
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,212.5	350.0	162.5	400.0	300.0
*	63000005	STEEL PLATE BEAM GUARDRAIL, TYPE B	FOOT	150.0		50.0	100.0	
*	63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	75.0		25.0	50.0	
*	63000360	LONG-SPAN GUARDRAIL OVER CULVERT, 18 FT 9 IN SPAN	FOOT	168.8		168.8		
*	63000370	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN	FOOT	350.0				350.0
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4.0	4.0			
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	16.0	4.0	4.0	4.0	4.0
	63200310	GUARDRAIL REMOVAL	FOOT	1,750.0	1,100.0	650.0		
	67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6.0	3.0	1.0	1.0	1.0
	67100100	MOBILIZATION	L SUM	1.0	0.25	0.25	0.25	0.25
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0	0.25	0.25	0.25	0.25
	70100455	TRAFFIC CONTROL AND PROTECTION, STANDARD 701206	L SUM	1.0		0.3	0.3	0.4
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1.0	1.0			
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	168.0	68.0	4.0	48.0	48.0
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,830.0	1,135.0	62.0	321.0	312.0
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	819.0	577.5	22.0	111.2	108.3
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,830.0	1,135.0	62.0	321.0	312.0
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	9.0	4.0	1.0	2.0	2.0
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2.0	2.0			
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	42.0	12.0	8.0	10.0	12.0
*	78200530	BARRIER WALL MARKERS, TYPE C	EACH	4.0	4.0			
	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	16.0	4.0	4.0	4.0	4.0

*SPECIALTY ITEMS

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-500.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	7
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

LICE ACBRF

L25E ACF

CODE NO.	DESCRIPTION	UNIT	LOCATION OF WORK: EDGAR CO. FAP 749 IL 133 RURAL 2LN FUNDING BREAKOUT: 80% FED. / 20% STATE CONSTRUCTION TYPE CODE: TOTAL QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-0034 80% FED. / 20% STATE 0011 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8064 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-2018 80% FED. / 20% STATE 0040 QUANTITY	EDGAR CO. FAP 749 IL 133 RURAL 2LN S.N. 023-8065 80% FED. / 20% STATE 0040 QUANTITY
78300100	PAVEMENT MARKING REMOVAL	SQ FT	108.0	108.0			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10.0	5.0	1.0	2.0	2.0
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	107.0	107.0			
X7010200	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316 (SPECIAL)	EACH	1.0	1.0			
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	30.0		10.0	10.0	10.0
Z0004552	APPROACH SLAB REMOVAL	SQ YD	210.0	210.0			
Z0026346	NIGHTTIME WORK ZONE LIGHTING	L SUM	1.0		0.3	0.3	0.4
Z0038700	PERMANENT BENCH MARKS	EACH	4.0	1.0	1.0	1.0	1.0
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	116.0	116.0			
Z0062456	TEMPORARY PAVEMENT	SQ YD	1,266.0	1,266.0			

*SPECIALTY ITEMS

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D5706[illegible]8-sht-S00.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 5 OF 5 SHEETS | STA. | TO STA.

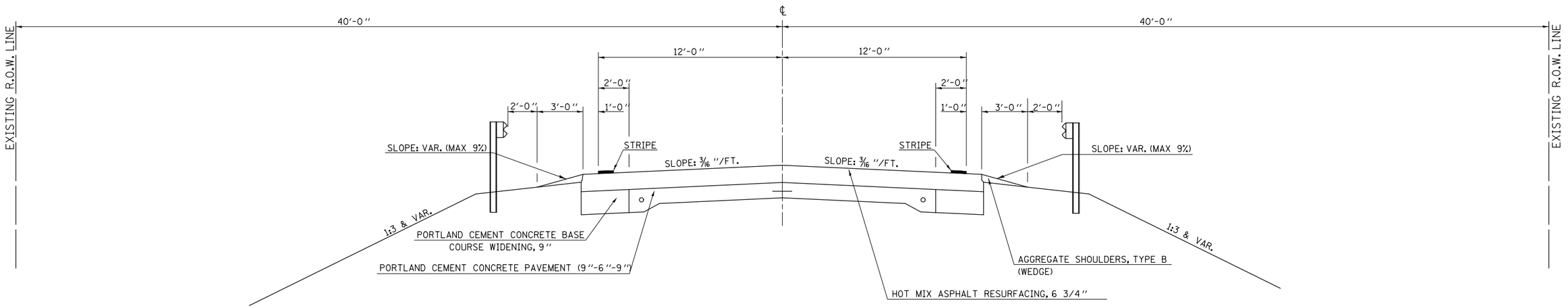
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	8
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

EXISTING BOX CULVERT NO. 1 LOCATION

STRUCTURE NO.	STA.
① 023-8039	126+54

EXISTING TYPICAL ROADWAY SECTION

STATION	TO	STATION
123+50.00		129+50.00



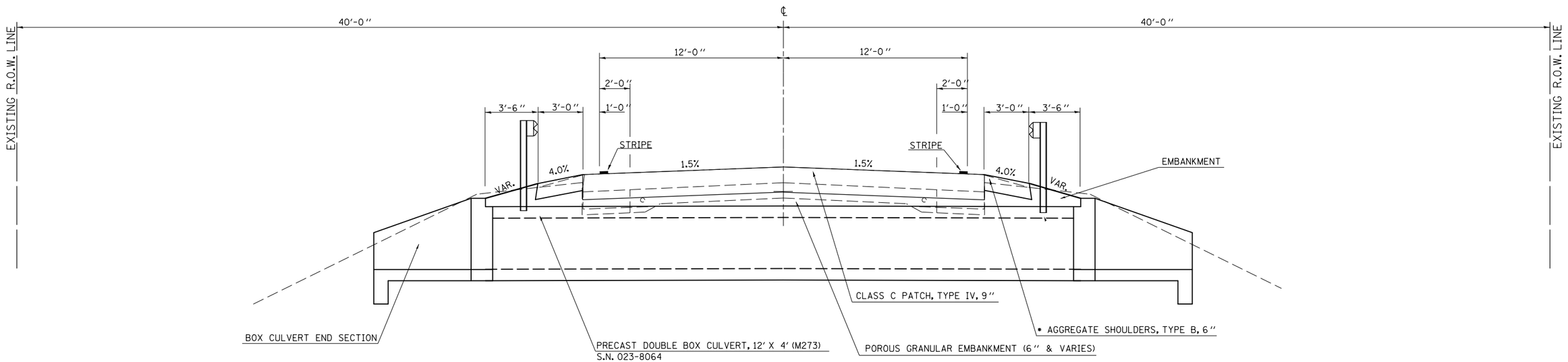
PROPOSED BOX CULVERT NO. 1 LOCATION

STRUCTURE NO.	STA.
① 023-8064	126+55

PROPOSED TYPICAL SECTION: CULVERT NO. 1

STATION	TO	STATION
126+42.04		126+67.96

• AGGREGATE SHOULDERS, TYPE B, 6" SHALL EXTEND FROM STATION 125+55.00 TO 127+55.00



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-Typicals.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING & PROPOSED TYPICAL SECTIONS

SCALE: | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	9
		CONTRACT NO. 70618		
		ILLINOIS	FED. AID PROJECT	

EXISTING BOX CULVERT LOCATIONS

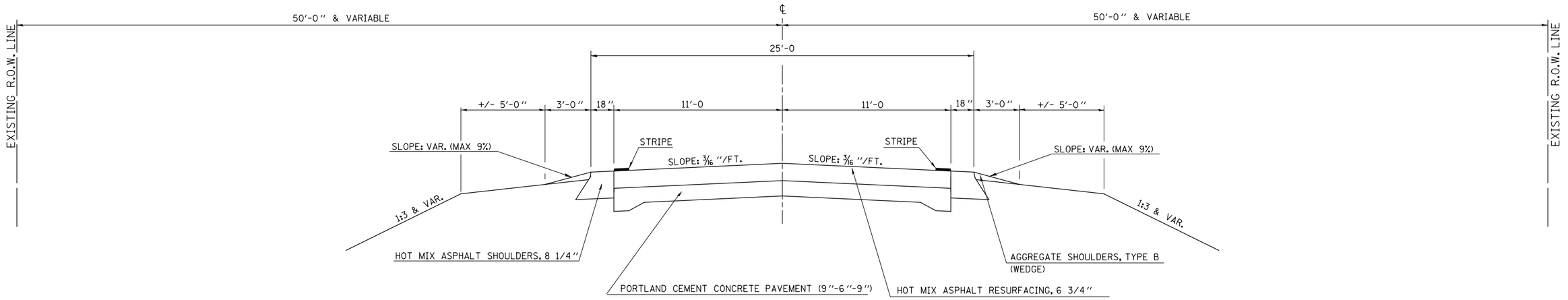
STRUCTURE NO.	STA.
② 023-2011	232+00
③ 023-8306	513+80

EXISTING BRIDGE LOCATION

STRUCTURE NO.	STA.
④ 023-2016	418+26

EXISTING TYPICAL ROADWAY SECTION

STATION	TO	STATION
229+00.00		235+00.00
412+00.00		425+00.00
510+00.00		517+00.00

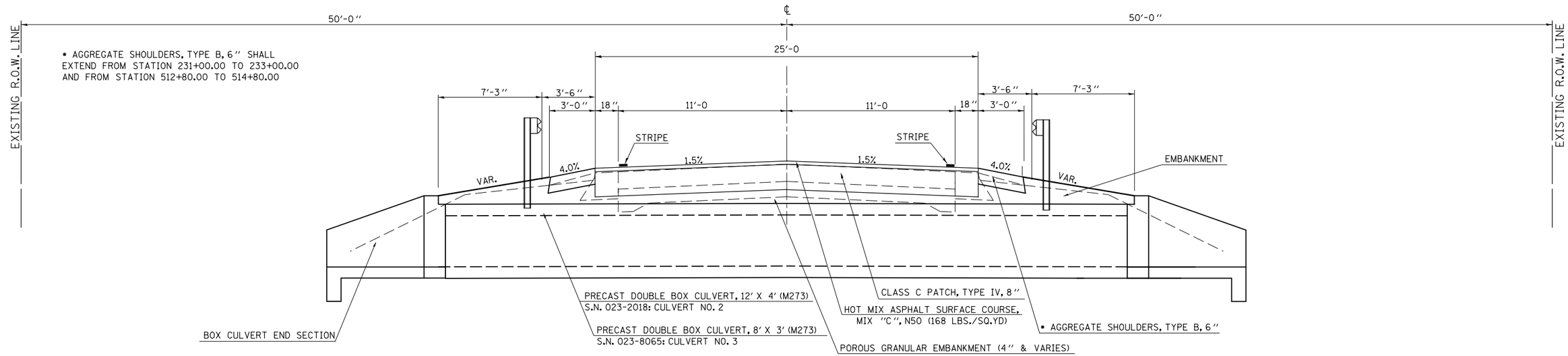


PROPOSED BOX CULVERT LOCATIONS

STRUCTURE NO.	STA.
② 023-2018	232+00
③ 023-8065	513+80

PROPOSED TYPICAL SECTION: CULVERT NO. 2 & 3

STATION	TO	STATION
231+79.91		232+20.09
513+66.54		513+93.46



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-typicals.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING & PROPOSED TYPICAL SECTIONS

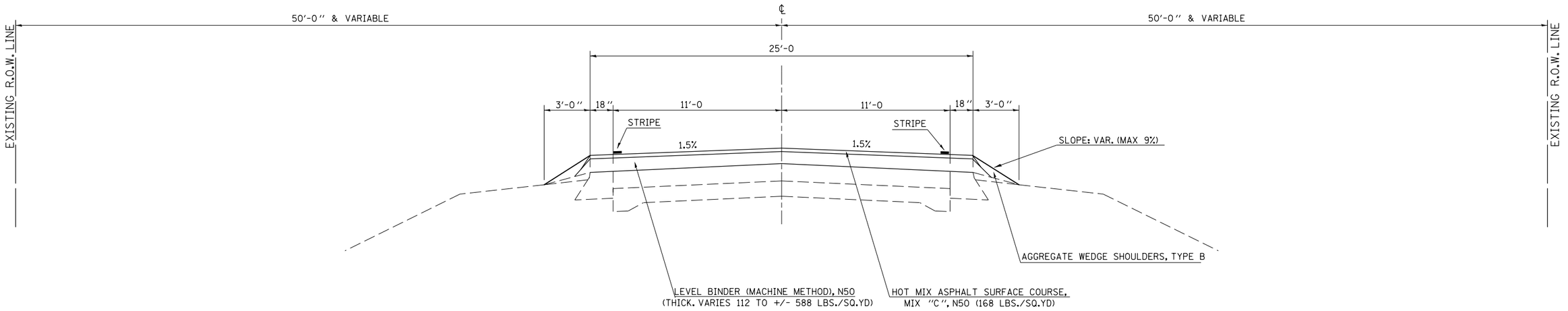
SCALE: | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	10
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

PROPOSED STRUCTURE 023-0034
STA. 417+44.00 TO 418+86.00

PROPOSED TYPICAL SECTION

STATION	TO	STATION
416+56.00		417+44.00
418+86.00		419+70.00



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-Typicals.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL ROADWAY SECTION

SCALE: | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	11
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

EARTHWORK

LOCATION	CHANNEL EXCAVATION	EARTH EXCAVATION	STRUCTURE EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	FURNISH EXCAVATION
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STAGE I: TEMPORARY DETOUR INSTALLATION		445		334	1635	-1301	1301
STAGE II: BRIDGE: SN 023-0034	1020	0	216	927	170	757	0
STAGE III: TEMPORARY DETOUR REMOVAL		1570		1178	105	1073	0
CULVERT 1: SN 023-8065, LEFT		35		26	19	7	0
CULVERT 1: SN 023-8065, RIGHT		35		26	11	15	0
CULVERT 2: SN 023-2018, LEFT		80		60	142	-82	82
CULVERT 2: SN 023-2018, RIGHT		75		56	128	-72	72
CULVERT 3: SN 023-8065, LEFT		34		26	52	-27	27
CULVERT 3: SN 023-8065, RIGHT		26		20	58	-39	39
*125+55.00 LT TO 127+55.00		8		6		6	
*125+55.00 RT TO 127+55.00		8		6		6	
*231+00.00 LT TO 233+00.00		8		6		6	
*231+00.00 RT TO 233+00.00		8		6		6	
*512+80.00 LT TO 514+80.00		8		6		6	
*512+80.00 RT TO 514+80.00		8		6		6	
TOTAL	1020	2348	216				1521

NOTES:

SHRINKAGE FACTORS

EARTH AND CHANNEL EXCAVATION --25%

81.0 CU. YDS. OF EXCAVATION FROM THE CULVERT LOCATIONS IS UNSUITABLE MATERIAL FOR EMBANKMENT AND IS INCLUDED IN THE COST OF STONE RIPRAP, CLASS A1. THIS MATERIAL IS NOT INCLUDED IN THE EARTHWORK QUANTITIES SHOWN ABOVE.

* EXCAVATION FOR AGGREGATE SHOULDERS AT THESE LOCATIONS ARE NOT CALCULATED WITH THE CROSS SECTIONS. THIS EXCAVATED EARTH WILL BE ADDED TO THE FINAL CROSS SECTION VOLUMES FOR THE EARTHWORK BALANCE/WASTE CALCULATIONS.

TOPSOIL EXCAVATION AND PLACEMENT (21101505)

O/S	STATION	TO	STATION	CU YD
LT	414+50		423+00	615.0
			TOTAL =	615.0

EXPLORATION TRENCH, 52" DEPTH (21301052)

STATION	TO	STATION	LENGTH (FT)
(CULVERT #1)			
126+00.00 (LT)		127+00.00 (LT)	100.0
126+00.00 (RT)		127+00.00 (RT)	100.0
(CULVERT #2)			
231+50.00 (LT)		232+50.00 (LT)	100.0
231+50.00 (RT)		2327+50.00 (RT	100.0
(CULVERT #3)			
513+30.00 (LT)		514+30.00 (LT)	100.0
513+30.00 (RT)		514+30.00 (RT)	100.0
		TOTAL =	600.0

BOX CULVERT SCHEDULE

STATION	(20700220) POROUS GRANULAR EMBANKMENT (CU YDS)	(28100201) STONE RIPRAP, CLASS A1 (TONS)	(50100300) REM EXIST STR. NO. 1 (EACH)	(50100400) REM EXIST STR. NO. 2 (EACH)	(50100500) REM EXIST STR. NO. 3 (EACH)	(54001001) BC END SECTIONS, CULVERT NO. 1 (EACH)	(54001002) BC END SECTIONS, CULVERT NO. 2 (EACH)	(54001003) BC END SECTIONS, CULVERT NO. 3 (EACH)	(54020803) PCBC 8'x3' (M273) (FEET)	(54021204) PCBC 12'x4' (M273) (FEET)
126+55	55.0	27.0	1.0			2.0				38.0
232+00	58.0	60.0		1.0			2.0			91.0
513+80	51.0	39.0			1.0			2.0	91.0	
TOTAL =	164.0	126.0	1.0	1.0	1.0	2.0	2.0	2.0	91.0	129.0

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-schedule.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	12
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES

SEEDING SCHEDULE

STATION	TO STATION	AREA (ACRE)	(28000250) TEMPORARY EROSION CONTROL SEEDING (POUND)	(25000210) SEEDING CLASS 2A (ACRE)	(25000350) SEEDING CLASS 7 (ACRE)	(25000400) NITROGEN FERTILIZER NUTRIENT (POUNDS)	(25000500) PHOSPHOR. FERTILIZER NUTRIENT (POUNDS)	(25000600) POTASS. FERTILIZER NUTRIENT (POUNDS)	(25100115) MULCH METHOD 2 (ACRE)	(25100630) EROSION CONTROL BLANKET (SQ YD)
CULVERT #1										
125+40.00 LT	127+70.00 LT	0.13	13.0	0.13		11.7	11.7	11.7		588.00
125+40.00 RT	127+70.00 RT	0.12	12.0	0.12		10.8	10.8	10.8		581.00
	SUBTOTAL =	0.25	25.0	0.25	0.00	22.5	22.5	22.5	0.00	1169.00
CULVERT #2										
230+00.00 LT	233+00.00 LT	0.25	25.0	0.25	0.00	22.5	22.5	22.5		1051.00
230+00.00 RT	233+00.00 RT	0.25	25.0	0.25	0.00	22.5	22.5	22.5		1058.00
	SUBTOTAL =	0.50	50.0	0.50	0.00	45.0	45.0	45.0	0.00	2109.00
CULVERT #3										
513+00.00 LT	514+50.00 LT	0.13	13.0	0.13	0.00	11.7	11.7	11.7		517.50
513+00.00 RT	514+50.00 RT	0.12	12.0	0.12	0.00	10.8	10.8	10.8		531.50
	SUBTOTAL =	0.25	25.0	0.25	0.00	22.5	22.5	22.5	0.00	1049.00
DETOUR										
10+65.00 LT	21+15.00 LT	0.36	0.0	0.00	0.36	0.0	0.0	0.0	0.00	0.00
11+80.00 RT	19+75.00 RT	0.08	0.0	0.00	0.08	0.0	0.0	0.0	0.00	0.00
	SUBTOTAL =	0.44	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00
BRIDGE										
413+30.00 LT	423+85.00 LT	1.16	116.0	1.16	0.00	104.4	104.4	104.4	0.72	2125.00
414+50.00 RT	419+60.00 RT	0.06	6.4	0.06	0.00	5.8	5.8	5.8	0.00	230.00
	SUBTOTAL =	1.22	122.40	1.22	0.00	110.16	110.16	110.16	0.72	2355.00
	TOTAL=	2.7	222.4	2.2	0.4	200.2	200.2	200.2	0.72	6682.0
	USE		225.0	2.25	0.50	200.0	200.0	200.0	0.75	6682.00

PERIMETER EROSION BARRIER (28000400)

STATION	TO STATION	LENGTH (FT)
(CULVERT #1)		
123+50.00 RT	128+50.00 RT	500.0
124+50.00 LT	127+60.00 LT	310.0
(CULVERT #2)		
229+00.00RT	234+00.00 RT	500.0
230+00.00 LT	235+00.00 LT	500.0
(CULVERT #3)		
511+00.00 RT	516+00.00 RT	500.0
512+00.00 LT	517+00.00 LT	500.0
	TOTAL =	2,810.0

INLET AND PIPE PROTECTION (28000500)

STATION	OFFSET	EACH
126+54.00	35.0' RT	1.0
513+82.00	32.0' RT	1.0
	TOTAL =	2.0

BITUMINOUS MATERIALS (PRIME COAT) (40600100)

STATION	STATION	LENGTH (FT)	WIDTH (FT)	GALLONS
231+29.85	232+70.15	140.3	25.0	39.0
513+12.00	514+48.00	136.0	25.0	38.0
416+30.00	417+44.00	114.0	25.0	32.0
417+44.00	417+50.00	6.0	35.0	11.5
418+80.00	418+86.00	6.0	35.0	11.5
418+86.00	419+90.00	104.0	25.0	29.0
			TOTAL =	161.0

AGGREGATE (PRIME COAT) (40600300)

STATION	STATION	LENGTH (FT)	WIDTH (FT)	TONS
231+29.85	232+70.15	140.3	25.0	1.0
513+12.00	514+48.00	136.0	25.0	1.0
			TOTAL =	2.0

TEMPORARY DITCH CHECKS (28000305)

STATION	FEET		FEET
(CULVERT #1)			
125+80.00 (LT)	13.0	125+75.00 (RT)	13.0
126+08.00 (LT)	13.0	126+03.00 (RT)	13.0
126+25.00 (LT)	13.0	126+25.00 (RT)	13.0
126+75.00 (LT)	13.0	126+75.00 (RT)	13.0
126+85.00 (LT)	13.0	126+85.00 (RT)	13.0
127+00.00 (LT)	13.0	127+00.00 (RT)	13.0
127+25.00 (LT)	13.0	127+25.00 (RT)	13.0
(CULVERT #2)		(CULVERT #2)	
230+37.50 (LT)	13.0	230+37.50 (RT)	13.0
230+87.50 (LT)	13.0	230+87.50 (RT)	13.0
231+25.00 (LT)	13.0	231+38.00 (RT)	13.0
231+75.00 (LT)	13.0	231+75.00 (RT)	13.0
232+25.00 (LT)	13.0	232+25.00 (RT)	13.0
232+65.00 (LT)	13.0	232+67.50 (RT)	13.0
(CULVERT #3)		(CULVERT #3)	
513+25.00 (LT)	13.0	513+25.00 (RT)	13.0
513+55.00 (LT)	13.0	513+55.00 (RT)	13.0
514+05.00 (LT)	13.0	514+05.00 (RT)	13.0
514+25.00 (LT)	13.0		
BRIDGE		SUBTOTAL =	208.0
415+55.00 (RT)	13.0		
416+00.00 (LT)	13.0		
417+43.00 (RT)	13.0		
417+76.00 (LT)	13.0		
418+60.00 (RT)	13.0		
418+78.50 (LT)	13.0		
420+48.00 (LT)	13.0		
RUNAROUND			
12+00.00 (LT)	13.0		
13+00.00 (LT)	13.0		
14+00.00 (LT)	13.0		
15+18.00 (LT)	13.0		
16+22.00 (LT)	13.0		
18+00.00 (LT)	13.0		
20+00.00 (LT)	13.0		
SUBTOTAL =	403.0	TOTAL =	611.0

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-schedule.dgn	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES		
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -				
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -		SCALE:	SHEET NO. 2 OF 5 SHEETS	STA. TO STA.
		DATE -	REVISED -				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	13
		CONTRACT NO. 70618		
		ILLINOIS	FED. AID PROJECT	

SCHEDULE OF QUANTITIES

LEVEL BINDER, MACHINE METHOD, N50 (40600625)

STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS	TONS
416+72.50		417+44.00	71.5	25.0	198.6	43.0
418+86.00		419+56.37	70.3	25.0	195.3	36.0
					TOTAL =	79.0

HMA SURFACE REMOVAL, BUTT JOINT (40600982)

STATION	TO	STATION	LENGTH (FOOT)	WIDTH (FOOT)	AREA (SQ YD)
231+29.85		231+89.85	60.0	25	167.0
232+10.15		232+70.15	60.0	25	167.0
513+12.00		513+72.00	60.0	25	167.0
513+88.00		514+48.00	60.0	25	167.0
416+30.00		416+56.00	26.0	25	72.0
419+70.00		419+90.00	20.0	25	56.0
				TOTAL =		796.0

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (40603310)

STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS	TONS
231+29.85		232+70.15	140.3	25.0	389.7	32.7
513+12.00		514+48.00	136.0	25.0	377.8	31.7
416+30.00		417+44.00	114.0	25.0	316.7	26.6
418+86.00		419+90.00	104.0	25.0	288.9	24.3
					TOTAL =	116.0

BITUMINOUS MATERIALS (PRIME COAT) (40800010)

STATION	AVG. LENGTH (FT)	WIDTH (FT)	SQ YDS	GAL
LT 413+17.7	30.0	3.0	10.0	1.0
			TOTAL =	1.0

INCIDENTAL HOT-MIX ASPHALT SURFACING (40800050)

STATION	AVG. LENGTH (FT)	WIDTH (FT)	SQ YDS	TONS
LT 413+17.7	30.0	3.0	10.0	1.7
			TOTAL =	1.7
			USE	2.0

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) (42001430)

STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS
417+44.00		417+50.00	6.0	35.0	23.3
418+80.00		418+86.00	6.0	35.0	23.3
				TOTAL =	47.0

PAVEMENT REMOVAL (44000100)

O/S	STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS
RT & LT	417+44.00		417+65.40	21.4	22.0	52.3
RT & LT	418+75.70		418+86.00	10.3	22.0	25.2
LT	11+00.00		20+43.00	943.0	VARIES	1265.4
					TOTAL =	1343.0

HMA SURFACE REMOVAL, 3" (44000161)

STATION	AVG. LENGTH (FOOT)	WIDTH (FOOT)	AREA (SQ YD)
LT 413+17.7	30.0	3.0	10.0
		TOTAL =	10.0

PAVED SHOULDER REMOVAL (44004250)

O/S	STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS
RT & LT	417+44.00		418+08.00	64.0	3.0	21.3
RT & LT	418+32.00		418+86.00	54.0	3.0	18.0
					TOTAL =	39.0

PATCHING SCHEDULE

STATION	TO	STATION	(44201335) CLASS C PATCHES, TYPE IV, 8" (SQ YDS)	(44201347) CLASS C PATCHES, TYPE IV, 9" (SQ YDS)	(44213100) PAVEMENT FABRIC (SQ YDS)	(44213204) TIE BARS 3/4" (EACH)
126+42.04		126+67.96		75.0	75.0	13.0
231+79.91		232+20.09	112.0		112.0	20.0
513+66.54		513+93.46	75.0		75.0	14.0
		TOTAL =	187.0	75.0	262.0	47.0

AGGREGATE SHOULDERS, TYPE B, 6" (48101500)

STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS
(CULVERT #1)					
125+55.00 LT		127+55.00 LT	200.0	3.0	66.7
125+55.00 RT		127+55.00 RT	200.0	3.0	66.7
(CULVERT #2)					
231+00.00 LT		233+00.00 LT	200.0	3.0	66.7
231+00.00 RT		233+00.00 RT	200.0	3.0	66.7
(CULVERT #3)					
512+80.00 LT		514+80.00 LT	200.0	3.0	66.7
512+80.00 RT		514+80.00 RT	200.0	3.0	66.7
(TEMPORARY RUN AROUND)					
10+40.00 LT		21+15.00 LT	1075.0	3.0	358.3
11+43.00 RT		20+08.00 RT	865.0	3.0	288.3
413+35.00 LT		414+55.00 LT	120.0	3.0	40.0
422+60.00 LT		423+86.00 LT	120.0	3.0	40.0
				TOTAL =	1127.0

AGGREGATE WEDGE SHOULDER, TYPE B (48102100)

STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	AVG. THICK (FT)	TONS
416+30.00 RT		417+39.53 RT	109.5	3.0	0.22	5.5
416+30.00 LT		417+50.00 LT	120.0	3.0	0.22	5.9
418+80.50 RT		419+90.25 RT	109.8	3.0	0.22	5.5
418+90.50 LT		419+90.25 LT	99.8	3.0	0.22	4.9
					TOTAL =	22.0

CONCRETE REMOVAL (50102400)

O/S	STATION	CU YD
RT	418+35	8.8
		TOTAL = 8.8

PIPE CULVERT REMOVAL (50105220)

LOCATION	LENGTH (FT)
NW QUAD AT BRIDGE	25.0
SW QUAD AT BRIDGE	25.0
	TOTAL = 50.0

NAME PLATES (51500100)

STATION	OFFSET	EACH
126+49.00	24.25' RT	1.0
231+87.00	24.25' RT	1.0
417+80.00	16.00' RT	1.0
513+72.00	24.25' RT	1.0
		TOTAL = 4.0

PRECAST REINFORCED CONCRETE FLARED END SECTION, 24" (54213669)

O/S	STATION	EACH
RT	418+35	1.0
		TOTAL = 1.0

PIPE CULVERT, CL D TYPE 2, 72" TEMP (5422D072)

LOCATION	STATION	TO	STATION	FEET
RUNAROUND	15+55.49 RT		15+70.99 LT	60.0
RUNAROUND	15+61.49 RT		15+76.99 LT	60.0
RUNAROUND	15+67.49 RT		15+82.99 LT	60.0
				TOTAL = 180.0

CONCRETE COLLAR (54248510)

O/S	STATION	CU YD
RT	418+35	0.5
		TOTAL = 0.5

PIPE CULVERT, CL A TYPE 1, 24" (542A0229)

O/S	STATION	FEET
RT	418+35	4.0
		TOTAL = 4.0

SCHEDULE OF QUANTITIES

CATCH BASINS TO BE ADJUSTED (60250200)

STATION	OFFSET	EACH
126+54.00	35.0' RT	1.0
513+82.00	32.0' RT	1.0
	TOTAL =	2.0

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (63000001)

O/S	STATION	TO	STATION	LENGTH (FT)
RT	124+20.63		125+70.63	150.0
LT	126+92.50		127+05.00	12.5
RT	229+62.50		231+62.50	200.0
LT	232+37.50		234+37.50	200.0
RT	511+42.50		512+42.50	150.0
LT	514+67.50		516+17.50	150.0
RT	415+28.02		417+15.52	187.5
LT	419+14.65		420+77.15	162.5
			TOTAL =	1212.5

STEEL PLATE BEAM GUARDRAIL, TYPE B (63000005)

O/S	STATION	TO	STATION	LENGTH (FT)
LT	126+17.50		126+42.50	25.0
LT	126+67.50		126+92.50	25.0
RT	231+62.50		231+87.50	25.0
LT	231+62.50		231+87.50	25.0
RT	232+12.50		232+37.50	25.0
LT	232+12.50		232+37.50	25.0
			TOTAL =	150.0

STEEL PLATE BEAM GUARDRAIL ATTACHED TO STRUCTURE (63000025)

O/S	STATION	TO	STATION	LENGTH (FT)
LT	126+42.50		126+67.50	25.0
LT	231+87.50		232+12.50	25.0
RT	231+87.50		232+12.50	25.0
			TOTAL =	75.0

LONG SPAN GUARDRAIL OVER CULVERT, 18FT 9IN SPAN (63000360)

O/S	STATION	TO	STATION	LENGTH (FT)
RT	125+70.63		127+39.38	168.8
			TOTAL =	168.8

LONG SPAN GUARDRAIL OVER CULVERT, 25FT SPAN (63000370)

O/S	STATION	TO	STATION	LENGTH (FT)
LT	512+92.50		514+67.50	175.0
RT	512+92.50		514+67.50	175.0
			TOTAL =	350.0

TRAFFIC BARRIER TERMINAL, TYPE 6 (63100085)

O/S	STATION	TO	STATION	EACH
RT	417+15.52		417+61.17	1.0
LT	417+27.26		417+72.91	1.0
RT	418+57.37		419+03.02	1.0
LT	418+69.00		419+14.65	1.0
			TOTAL =	4.0

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) (63100167)

O/S	STATION	TO	STATION	EACH
RT	123+70.63		124+20.63	1.0
LT	125+67.50		126+17.50	1.0
LT	127+05.00		127+55.00	1.0
RT	127+39.38		127+89.38	1.0
			SUB-TOTAL =	4.0
RT	229+12.50		229+62.50	1.0
LT	231+12.50		231+62.50	1.0
RT	232+37.50		232+87.50	1.0
LT	234+37.50		234+87.50	1.0
			SUB-TOTAL =	4.0
RT	510+92.50		511+42.50	1.0
LT	512+42.50		512+92.50	1.0
RT	514+67.50		515+17.50	1.0
LT	516+17.50		516+67.50	1.0
			SUB-TOTAL =	4.0
RT	414+78.02		415+28.02	1.0
LT	416+77.26		417+27.26	1.0
RT	419+03.02		419+53.02	1.0
LT	420+77.15		421+27.15	1.0
			SUB-TOTAL =	4.0
			TOTAL =	16.0

GUARDRAIL REMOVAL (63200310)

O/S	STATION	TO	STATION	LENGTH (FT)
RT	124+14.00		128+01.50	387.5
LT	125+06.60		127+69.10	262.5
RT	415+07.90		420+57.90	550.0
LT	415+94.10		421+44.10	550.0
			TOTAL =	1750.0

SHORT TERM PAVEMENT MARKING (70300100)

O/S	STATION	TO	STATION	# OF APPS.	LENGTH (FT)
CL-SKIP DASH	126+42.04		126+67.96	1	4.0
CL-SKIP DASH	231+29.85		232+70.15	3	48.0
CL-SKIP DASH	412+19.00		413+69.00	1	16.0
CL-SKIP DASH	416+30.00		419+90.00	1	36.0
CL-SKIP DASH	423+18.00		424+68.00	1	16.0
CL-SKIP DASH	513+12.00		514+48.00	3	48.0
			TOTAL=		168.0

TEMPORARY PAVEMENT MARKING - LINE 4" (70300220)

WHITE -

STATION	TO	STATION	LOCATION	FEET
126+42.04		126+67.96	12.0' LT	25.9
126+42.04		126+67.96	12.0' RT	25.9
231+29.85		232+70.15	11.0' LT	140.3
231+29.85		232+70.15	11.0' RT	140.3
413+00.00		414+35.00	11.0' LT	135.0
416+30.00		419+90.00	11.0' LT	360.0
416+30.00		419+90.00	11.0' RT	360.0
422+75.00		423+85.00	11.0' LT	110.0
513+12.00		514+48.00	11.0' LT	136.0
513+12.00		514+48.00	11.0' RT	136.0
			SUB-TOTAL =	1570.0

YELLOW -

STATION	TO	STATION	LOCATION	FEET
126+42.04		126+67.96	SKIP-DASH	10.0
231+29.85		232+70.15	SKIP-DASH	40.0
412+19.00		413+69.00	SKIP-DASH	40.0
423+18.00		424+68.00	SKIP-DASH	40.0
416+30.00		419+90.00	SKIP-DASH	90.0
513+12.00		514+48.00	SKIP-DASH	40.0
			SUB-TOTAL =	260.0
			TOTAL =	1830.0

WORK ZONE PAVEMENT MARKING REMOVAL (70301000)

SHORT TERM

O/S	STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ FT
CL-SKIP DASH	126+42.04		126+67.96	4.0	0.33	1.3
CL-SKIP DASH	231+29.85		232+70.15	16.0	0.33	5.3
CL-SKIP DASH	412+19.00		413+69.00	16.0	0.33	5.3
CL-SKIP DASH	416+30.00		419+90.00	36.0	0.33	12.0
CL-SKIP DASH	423+18.00		424+68.00	16.0	0.33	5.3
CL-SKIP DASH	513+12.00		514+48.00	16.0	0.33	5.3
					SUB-TOTAL=	34.5

TEMPORARY RUNAROUND

RT-STOP BAR	412+19.00		12.0	2.0	24.0
LT-STOP BAR	424+68.00		12.0	2.0	24.0
RT-EDGE LINE	10+00.00	11+50.00	150.0	0.33	49.5
LT-EDGE LINE	10+00.00	10+50.00	50.0	0.33	16.5
RT-EDGE LINE	19+89.46	21+39.46	150.0	0.33	49.5
LT-EDGE LINE	20+89.46	21+39.46	50.0	0.33	16.5
				SUB-TOTAL=	180.0

TEMPORARY PAVEMENT MARKINGS

SEE SCHEDULE FOR 70300220	1830.0	0.33	604.0
		SUB-TOTAL=	604.0
		TOTAL=	818.5
		USE =	819.0

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-schedule.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	15
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES

PAINT PAVEMENT MARKING - LINE 4" (78001110)

WHITE -

STATION	TO	STATION	LOCATION	FEET
126+42.04		126+67.96	12.0' LT	25.9
126+42.04		126+67.96	12.0' RT	25.9
231+29.85		232+70.15	11.0' LT	140.3
231+29.85		232+70.15	11.0' RT	140.3
413+00.00		414+35.00	11.0' LT	135.0
416+30.00		419+90.00	11.0' LT	360.0
416+30.00		419+90.00	11.0' RT	360.0
422+75.00		423+85.00	11.0' LT	110.0
513+12.00		514+48.00	11.0' LT	136.0
513+12.00		514+48.00	11.0' RT	136.0
			SUB-TOTAL =	1570.0

YELLOW -

STATION	TO	STATION	LOCATION	FEET
126+42.04		126+67.96	SKIP-DASH	10.0
231+29.85		232+70.15	SKIP-DASH	40.0
412+19.00		413+69.00	SKIP-DASH	40.0
423+18.00		424+68.00	SKIP-DASH	40.0
416+30.00		419+90.00	SKIP-DASH	90.0
513+12.00		514+48.00	SKIP-DASH	40.0
			SUB-TOTAL =	260.0
			TOT	1830.0

RAISED REFLECTIVE PAVEMENT MARKER (78100100)

TWO-WAY AMBER -

STATION	TO	STATION	LOCATION	EACH
126+42.04		126+67.96	CENTERLINE	1.0
231+29.85		232+70.15	CENTERLINE	2.0
513+12.00		514+48.00	CENTERLINE	2.0
416+30.00		417+50.00	CENTERLINE	2.0
418+80.00		419+90.00	CENTERLINE	2.0
			TOTAL =	9.0

RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) (78100105)

TWO-WAY AMBER -

STATION	TO	STATION	LOCATION	EACH
417+50.00		418+80.00	CENTERLINE	2.0
			TOTAL =	2.0

GUARDRAIL MARKERS, TYPE A (78200410)

O/S	STATION	TO	STATION	EACH
RT	123+70.63		127+89.83	6.0
LT	125+92.50		127+55.00	2.0
RT	229+12.50		232+75.00	5.0
LT	231+25.00		234+87.50	5.0
RT	510+92.50		515+17.50	6.0
LT	512+42.50		516+67.50	6.0
RT	414+78.02		417+61.17	4.0
LT	416+77.26		417+72.91	2.0
RT	418+57.37		419+53.02	2.0
LT	418+69.00		421+27.15	4.0
			TOTAL =	42.0

BARRIER WALL MARKERS, TYPE C (78200530)

O/S	STATION	TO	STATION	EACH
RT	417+62.00		418+62.00	2.0
LT	417+77.00		418+77.00	2.0
			TOTAL =	4.0

TERMINAL MARKER - DIRECT APPLIED (78201000)

O/S	STATION	EACH
RT	123+70.63	1.0
LT	125+92.50	1.0
LT	127+55.00	1.0
RT	127+89.38	1.0
RT	229+12.50	1.0
LT	231+25.00	1.0
RT	232+75.00	1.0
LT	234+87.50	1.0
RT	510+92.50	1.0
LT	512+42.50	1.0
RT	515+17.50	1.0
LT	516+67.50	1.0
RT	414+78.02	1.0
LT	416+77.26	1.0
RT	419+53.02	1.0
LT	421+27.15	1.0
	TOTAL =	16.0

PAVEMENT MARKING REMOVAL (78300100)

O/S	STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ FT
CL-SKIP DAS	412+19		413+69	40	0.33	13.2
LT-EDGE LIN	413+00		414+35	135	0.33	44.6
LT-EDGE LIN	422+75		423+85	110	0.33	36.3
CL-SKIP DAS	423+18		424+68	40	0.33	13.2
					TOTAL=	107.3
					USE =	108.0

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL (78300200)

STATION	TO	STATION	EACH
126+42.04		126+67.96	1.0
231+29.85		232+70.15	2.0
513+12.00		514+48.00	2.0
416+30.00		419+90.00	5.0
		TOTAL =	10.0

APPROACH SLAB REMOVAL (Z0004552)

O/S	STATION	TO	STATION	AVG LENGTH (FT)	WIDTH (FT)	SQ YDS
RT & LT	417+65.40		418+08.00	42.9	22.0	104.9
RT & LT	418+32.00		418+75.00	42.9	22.0	104.9
					TOTAL=	209.7
					USE =	210.0

PERMANENT BENCH MARKS, TYPE I (Z0038800)

STATION	OFFSET	EACH
126+48.50	20.00' RT	1.0
231+86.50	23.75' RT	1.0
417+72.50	16.79 RT	1.0
513+71.00	23.75' RT	1.0
	TOTAL =	4.0

TEMPORARY PAVEMENT (Z0062456)

O/S	STATION	TO	STATION	LENGTH (FT)	WIDTH (FT)	SQ YDS
RT	11+00.00		20+43.00	943.0	VARIES	1265.4
					USE =	1266.0

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-schedule.dgn	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -			749	14BR,14CR,123CR	EDGAR	115	16
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -					CONTRACT NO. 70618		
		DATE -	REVISED -		SCALE: SHEET NO. 5 OF 5 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

IL 133 CENTERLINE ALIGNMENT POINTS					
POINT	STATION	COORDINATE*			
POT	116+49.35	N	1,084,205.7451	E	1,107,267.3340
P.C.	122+85.90	N	1,084,226.5607	E	1,107,903.5476
P.I.	127+97.16	N	1,084,243.2789	E	1,108,414.5271
P.T.	133+08.33	N	1,084,275.3788	E	1,108,924.7713
POT	135+28.84	N	1,084,289.2238	E	1,109,144.8450
POT	226+99.48	N	1,083,422.3700	E	1,118,034.2000
POT	240+61.14	N	1,082,545.1820	E	1,119,075.6670
POT	384+54.72	N	1,077,629.2340	E	1,132,634.4750
P.C.	419+91.00	N	1,076,873.2698	E	1,136,089.0111
P.I.	430+41.07	N	1,076,648.7940	E	1,137,114.8000
P.T.	440+70.80	N	1,076,094.6457	E	1,138,006.7372
POT	506+95.90	N	1,074,816.3670	E	1,144,288.6120
POT	528+43.68	N	1,074,886.9080	E	1,146,435.2380

STR. 023-0034 STREAM BASELINE ALIGNMENT POINTS					
POINT	STATION	COORDINATE*			
POT	49+42.53	N	1,076,862.3446	E	1,135,886.3323
POT	50+00.00	N	1,076,910.8947	E	1,135,917.0762
POT	50+61.72	N	1,076,963.0411	E	1,135,950.0973

TEMPORARY DETOUR CENTERLINE ALIGNMENT POINTS					
POINT	STATION	COORDINATE*			
P.C.	10+00.00	N	1,077,029.5148	E	1,135,403.0838
P.I.	11+09.95	N	1,077,006.0111	E	1,135,510.4889
P.T.	12+18.59	N	1,077,011.6310	E	1,135,620.2919
P.C.	12+98.59	N	1,077,015.7201	E	1,135,700.1873
P.I.	14+08.54	N	1,077,021.3400	E	1,135,809.9903
P.T.	15+17.18	N	1,076,997.8363	E	1,135,917.3954
P.C.	16+28.51	N	1,076,974.0371	E	1,136,026.1509
P.I.	17+51.16	N	1,076,947.8184	E	1,136,145.9623
P.T.	18+72.00	N	1,076,887.6913	E	1,136,252.8591
P.C.	19+52.00	N	1,076,848.4715	E	1,136,322.5858
P.I.	20+46.14	N	1,076,802.3186	E	1,136,404.6385
P.T.	21+39.46	N	1,076,775.9619	E	1,136,495.0159

*GRID COORDINATE

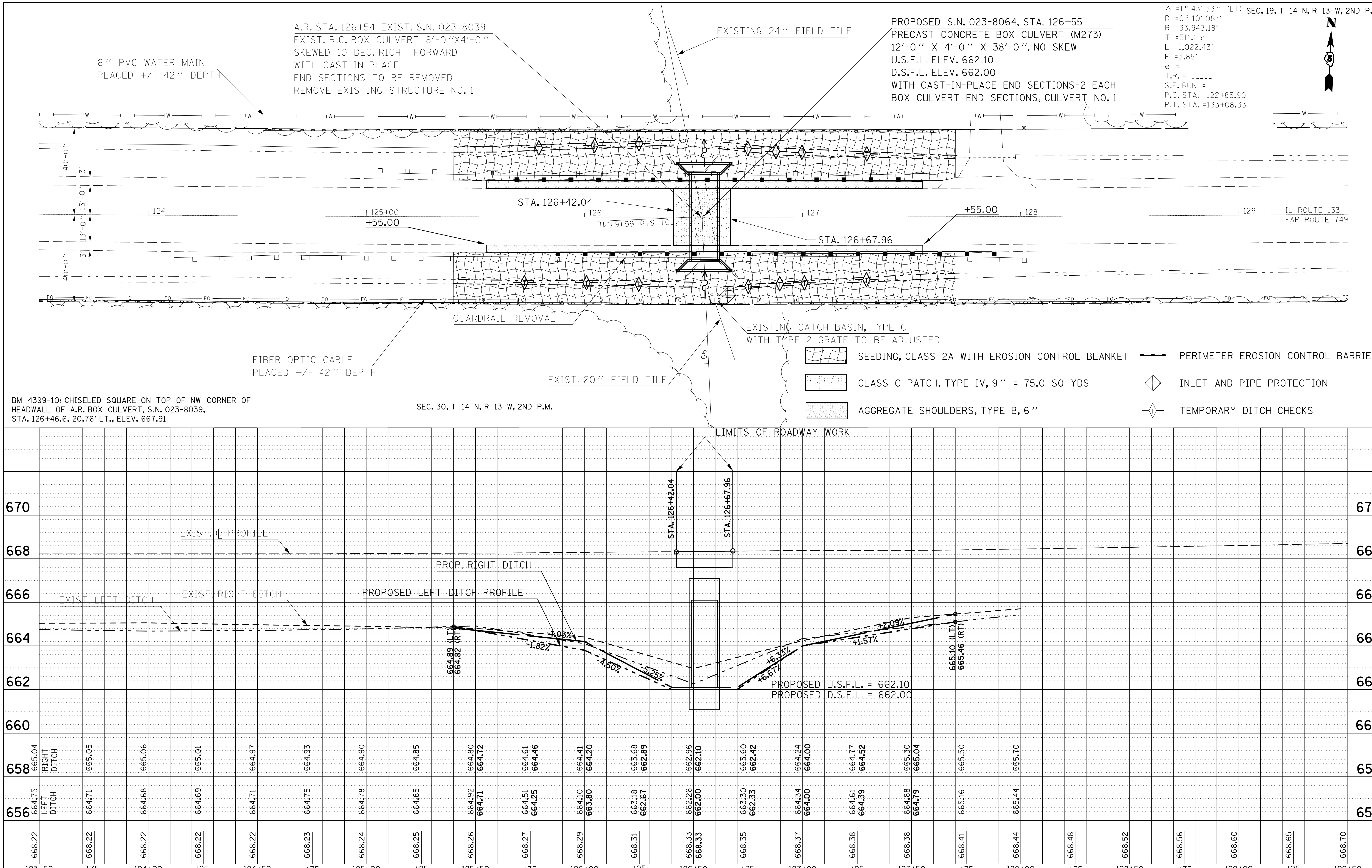
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D70618-sht-ATB-dgn.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CENTERLINE ALIGNMENT POINTS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	17
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			


A.R. STA. 126+54 EXIST. S.N. 023-8039
EXIST. R.C. BOX CULVERT 8'-0"X4'-0"
SKEWED 10 DEG. RIGHT FORWARD
WITH CAST-IN-PLACE
END SECTIONS TO BE REMOVED
REMOVE EXISTING STRUCTURE NO. 1
EXISTING 24" FIELD TILE
6" PVC WATER MAIN
PLACED +/- 42" DEPTH
PROPOSED S.N. 023-8064, STA. 126+55
PRECAST CONCRETE BOX CULVERT (M273)
12'-0" X 4'-0" X 38'-0", NO SKEW
U.S.F.L. ELEV. 662.10
D.S.F.L. ELEV. 662.00
WITH CAST-IN-PLACE END SECTIONS-2 EACH
BOX CULVERT END SECTIONS, CULVERT NO. 1
Δ =1° 43' 33" (LT)
D =0° 10' 08"
R =33,943.18'
T =511.25'
L =1,022.43'
E =3.85'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. =122+85.90
P.T. STA. =133+08.33
SEC. 19, T 14 N, R 13 W, 2ND P.M.
N
40'-0"
3'
13'-0"
13'-0"
3'
40'-0"
STA. 126+42.04
124
125+00
+55.00
126
127
+55.00
128
129
IL ROUTE 133
FAP ROUTE 749
STA. 126+67.96
GUARDRAIL REMOVAL
EXISTING CATCH BASIN, TYPE C
WITH TYPE 2 GRATE TO BE ADJUSTED
FIBER OPTIC CABLE
PLACED +/- 42" DEPTH
EXIST. 20" FIELD TILE
SEEDING, CLASS 2A WITH EROSION CONTROL BLANKET
CLASS C PATCH, TYPE IV, 9" = 75.0 SQ YDS
AGGREGATE SHOULDERS, TYPE B, 6"
PERIMETER EROSION CONTROL BARRIER
INLET AND PIPE PROTECTION
TEMPORARY DITCH CHECKS
BM 4399-10: CHISELED SQUARE ON TOP OF NW CORNER OF
HEADWALL OF A.R. BOX CULVERT, S.N. 023-8039,
STA. 126+46.6, 20.76' LT., ELEV. 667.91
SEC. 30, T 14 N, R 13 W, 2ND P.M.
LIMITS OF ROADWAY WORK
STA. 126+42.04
STA. 126+67.96
EXIST. ℄ PROFILE
PROP. RIGHT DITCH
PROPOSED LEFT DITCH PROFILE
EXIST. LEFT DITCH
EXIST. RIGHT DITCH
-1.82%
-1.03%
-4.50%
-5.25%
+6.33%
+6.67%
+1.57%
+2.09%
664.89 (LT)
664.82 (RT)
665.10 (LT)
665.46 (RT)
PROPOSED U.S.F.L. = 662.10
PROPOSED D.S.F.L. = 662.00
670
668
666
664
662
660
658
656
RIGHT DITCH
LEFT DITCH
665.04 665.05 665.06 665.01 664.97 664.93 664.90 664.85 664.80 664.72 664.61 664.46 664.41 664.20 663.68 662.89 662.96 662.10 663.60 662.42 664.24 664.00 664.77 664.52 665.30 665.04 665.50 665.70
664.75 664.71 664.68 664.69 664.71 664.75 664.78 664.85 664.92 664.71 664.51 664.25 664.10 663.80 663.18 662.67 662.26 662.00 663.30 662.33 664.34 664.00 664.61 664.39 664.88 664.79 665.16 665.44
668.22 668.22 668.22 668.22 668.22 668.23 668.24 668.25 668.26 668.27 668.29 668.31 668.33 668.33 668.35 668.37 668.38 668.38 668.41 668.44 668.48 668.52 668.56 668.60 668.65 668.70
123+50 +75 124+00 +25 124+50 +75 125+00 +25 125+50 +75 126+00 +25 126+50 +75 127+00 +25 127+50 +75 128+00 +25 128+50 +75 129+00 +25 129+50

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/T OF WAY CHECKED, CADD FILE NAME, NOTE BOOK NO. — BY — DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, BM NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK NO. — BY — DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618	USER NAME = keysrb	DESIGNED -	REVISED -
	sht-plnprf_20.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE: PROP. S.N. 023-8064 CULVERT NO. 1

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

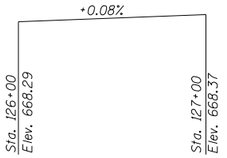
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	Edgar	115	18

CONTRACT NO. 70618

ILLINOIS FED. AID PROJECT

BENCHMARK ELEV: 667.91' Chiseled square on the northwest corner of headwall of S.N. 023-8039 at Station 126+46.60, 20.76' LT.

EXISTING STRUCTURE: S.N. 023-8039 was constructed in 1936 at station 126+54 as a single 8'x4'x41'-4" cast-in-place reinforced concrete box culvert as part of SA Route 7, Section 123NRS in Edgar County. The existing structure is to be completely removed and replaced. Staged construction with 24-hour flaggers will be utilized.



PROFILE GRADE

Along ℄ Roadway

STATION 126+55.00
BUILT 2012 BY
STATE OF ILLINOIS
F.A.P. RT. 749 SEC. 14BR,14CR,123CR
LOADING HS 20
STRUCTURE NO. 023-8064

NAME PLATE

See Std. 515001

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO

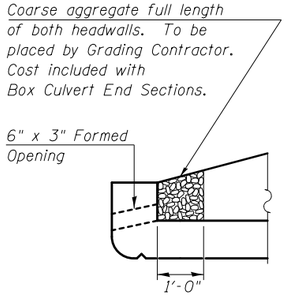
LOADING HS20-44

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

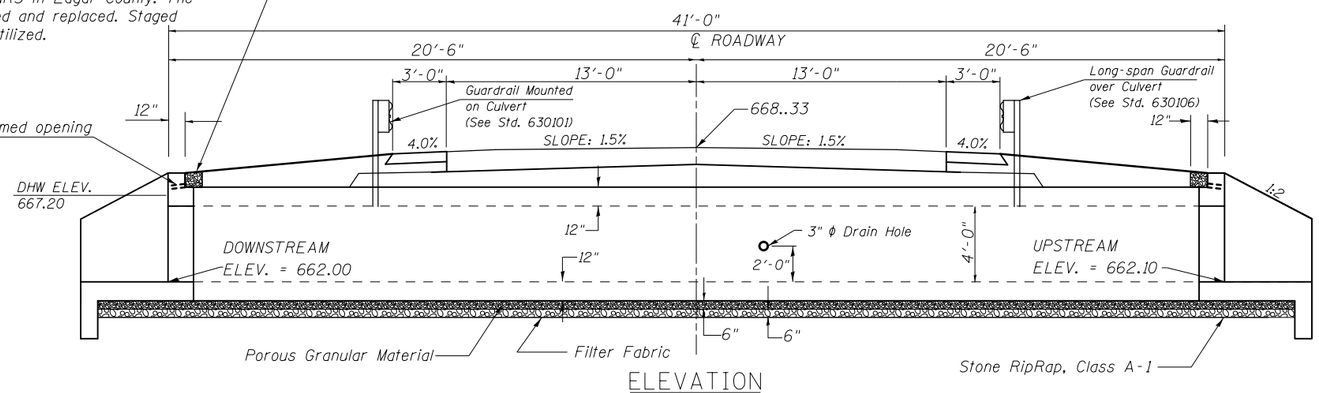
DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

PRECAST UNITS
f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)

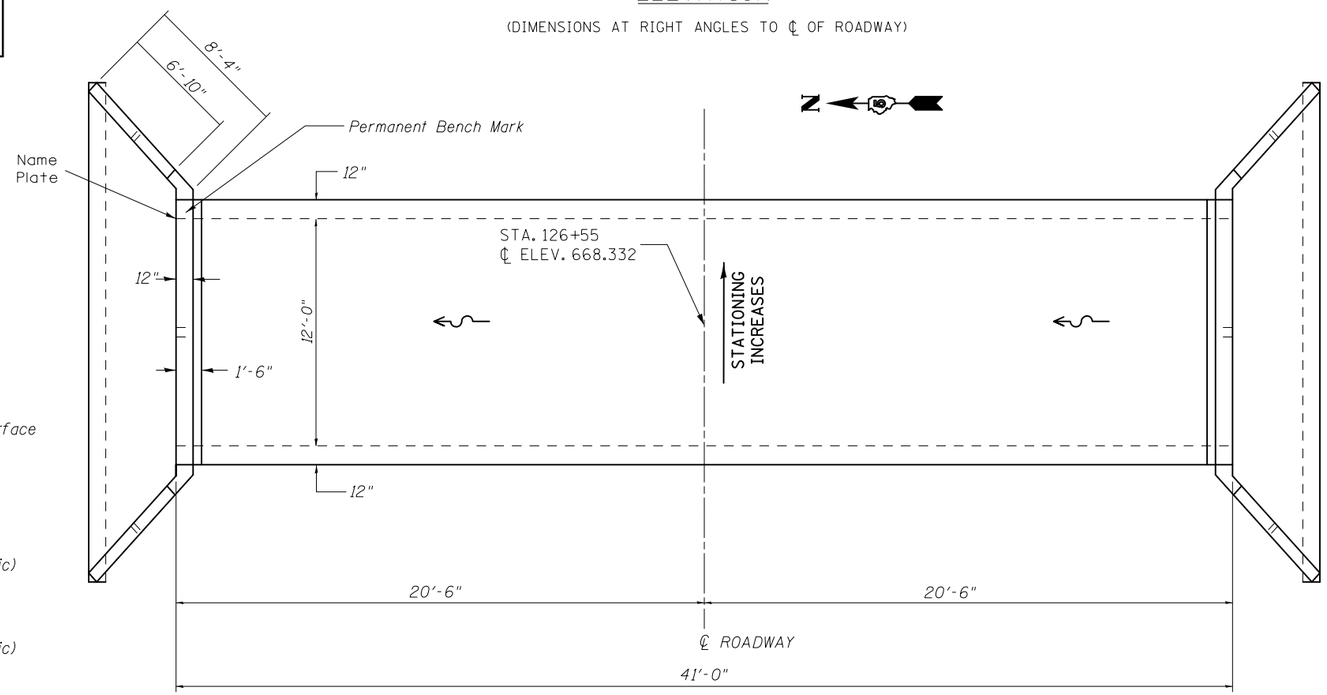


DRAIN DETAIL



ELEVATION

(DIMENSIONS AT RIGHT ANGLES TO ℄ OF ROADWAY)



PLAN

WATERWAY INFORMATION

Drainage Area = 1.00 sq. mi. Low Grade Elev. 668.33 @ Sta. 126+55

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	225	32	46				667.2	665.9
Design	50	367	32	48				Over	667.2
Base	100	430	32	48				Over	668.0
Overtopping									
Max. Calc.	500	585	32	48				Over	Over

10 year velocity through existing bridge = 8.12 fps 10 year velocity through proposed bridge = 6.02 fps

Note: Information provided utilizing USGS Streamstats Method

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	659.10	659.00

GENERAL NOTES

Build tops of headwalls parallel to the grade lines.

All construction joints shall be bonded according to Article 503.09 of the Standard Specifications.

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

The 6" Porous Granular Material required per Art. 540.06 of the Standard Specifications shall also extend beneath the Box Culvert End Sections and shall be considered included in the cost of Precast Concrete Box Culverts and Box Culvert End Sections.

When lapping sheets of welded wire fabric, the overlap measured between the outermost cross wires of each fabric sheet shall not be less than 8".

End Sections will be paid for at the contract unit price per each for BOX CULVERT END SECTIONS, as outlined in Section 540 of the Standard Specifications.

Class SI Concrete shall be used throughout.

Concrete, Rebar, and Welded Wire Fabric quantities and lengths calculated for the cast-in-place End Sections may vary based on the precast box culverts supplied.

Drain holes shall be provided in accordance with Article 503.11 of the Standard Specifications.

The design reinforcement areas shall conform to those found in Table 1 of AASHTO M273 for a 12'x4' box section except the extension of the As1 bars into the top slab shall be equal to (23 inches + 2 longitudinal wire spaces).

The box culvert end section may be built in the field or using precast construction methods. If the contractor elects to use precast construction methods, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval. See Special Provisions.

The ends of the precast box sections adjacent to the end section shall be formed without the male and female shapes specified in Article 8.1 of AASHTO M273. See Sections B-B, D-D and E-E on Sheet 2.

The design fill height for this box is less than 2 feet. The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M 273.

The joints between precast box sections shall be sealed and all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

The Contractor is advised that a Temporary Soil Retention System (TSRS) may be necessary dependent upon their construction sequence. If required, the Contractor shall be responsible for all aspects (design, furnishing, installing, removal). As a TSRS is not specified in the Contract, the cost of a TSRS shall be considered as included in the contract unit price of the work specified.

All dimensions are in FEET (') - INCHES (") unless otherwise noted.

Drawings not to scale

TOTAL BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures No. 1	Each	1
Precast Concrete Box Culvert 12'x4' (M273)	Foot	38.0
Box Culvert End Sections, Culvert No. 1	Each	2
Name Plates	Each	1
Permanent Bench Marks	Each	1
Porous Granular Embankment	Cu.Yd.	55
Stone Riprap, Class A1	Ton	26

GENERAL PLAN AND ELEVATION
SINGLE 12'x4' PRECAST BOX CULVERT
F.A.P. ROUTE 749 - SECTION 14BR,14CR,123CR
STATION 126+55.00 S.N. 023-8064
CULVERT NO. 1

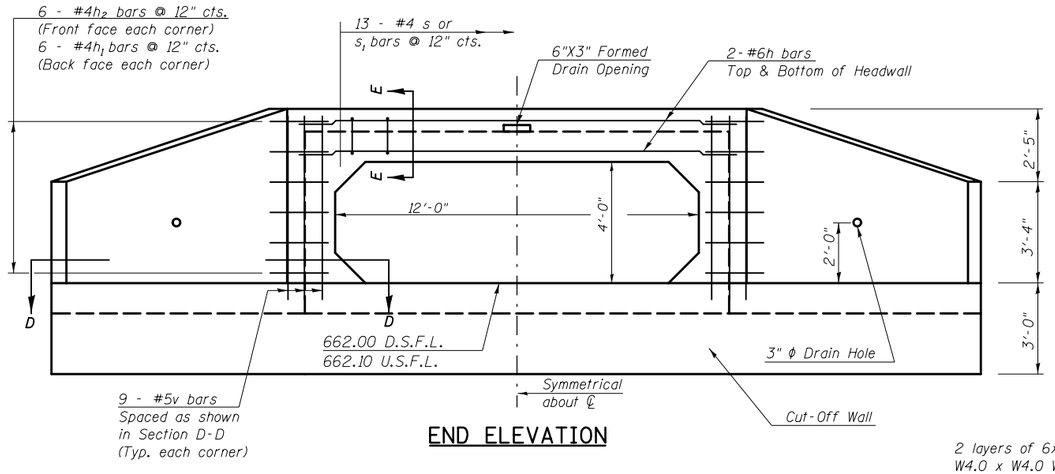
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

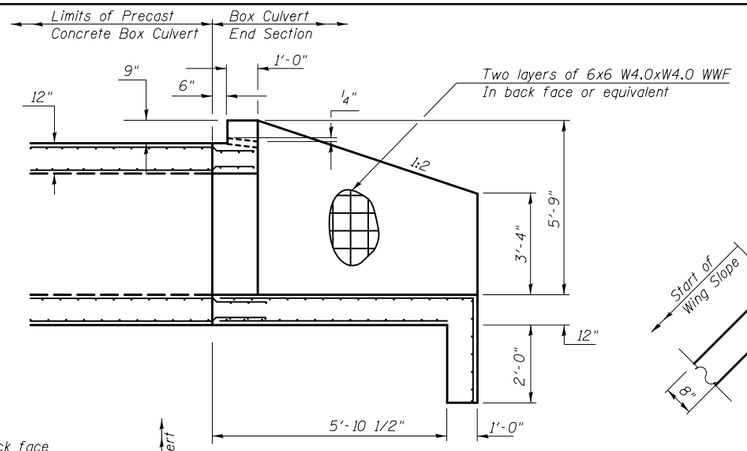
GENERAL PLAN AND ELEVATION
PROPOSED CULVERT NO. 1 – S.N. 023-8064

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	19
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

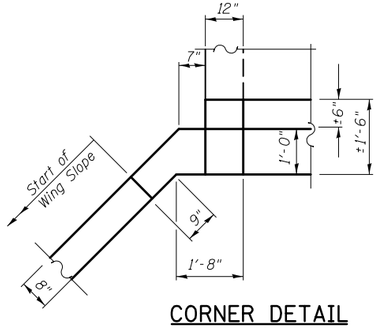


END ELEVATION



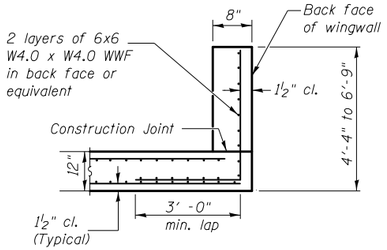
HALFSIDE ELEVATION

(DIMENSIONS AT RIGHT ANGLES TO ℄ ROADWAY)



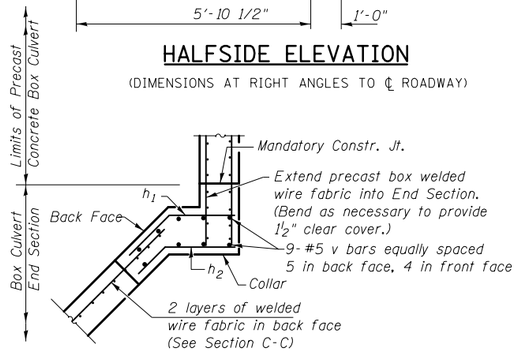
CORNER DETAIL

(Showing dimensions)

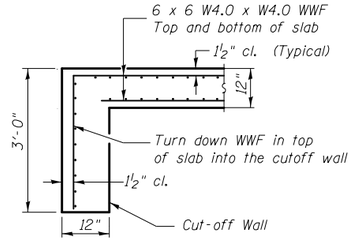


SECTION C-C

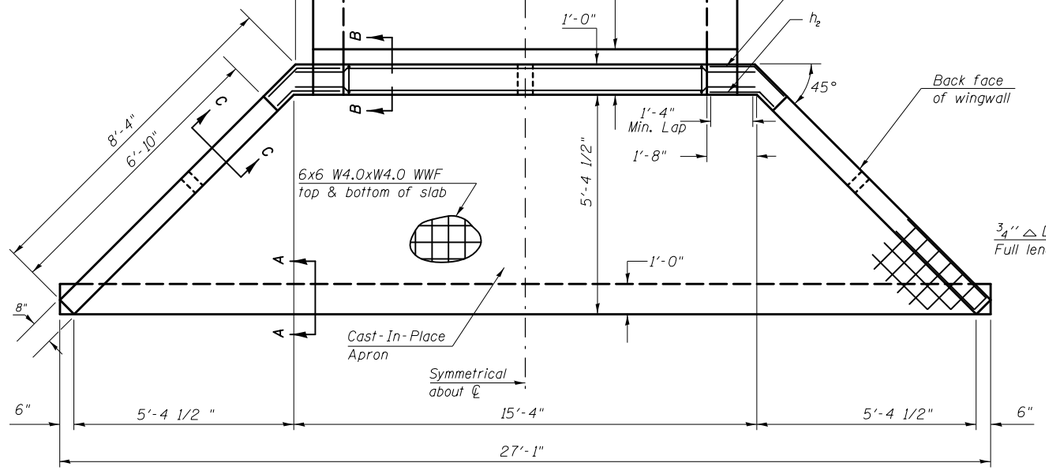
WINGWALLS



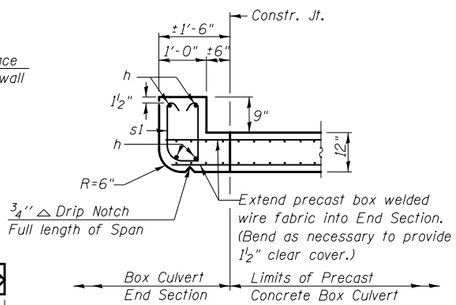
SECTION D-D



SECTION A-A

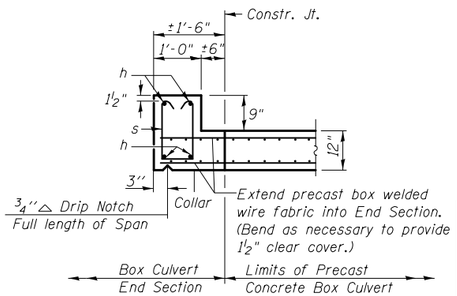


PLAN



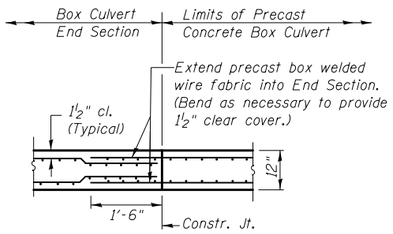
SECTION E-E

TOP SLAB / HEADWALL UPSTREAM END



SECTION E-E

TOP SLAB / HEADWALL DOWNSTREAM END



SECTION B-B

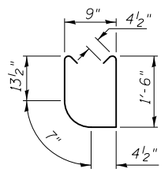
BOTTOM SLAB

BILL OF MATERIAL

For Information Only
(One End Section)

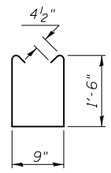
Bar	No.	Size	Length	Shape
h	4	#6	15'-1"	
h1	12	#4	2'-9"	
h2	12	#4	2'-2"	
s or s1	13	#4	4'-6"	
v	18	#5	6'-6"	

Item	Unit	Total
Concrete Box Culverts	Cu. Yd.	11.3
Reinforcement Bars	Pound	291.0
Welded Wire Fabric	Sq. Ft.	643.7



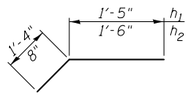
s1 BARS

UPSTREAM END



s BARS

DOWNSTREAM END



h1 & h2 BARS

END SECTION DETAILS
SINGLE 12'x4' PRECAST BOX CULVERT
F.A.P. ROUTE 749 - SECTION 14BR,14CR,123CR
STATION 126+55.00 S.N. 023-8064
CULVERT NO. 1

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

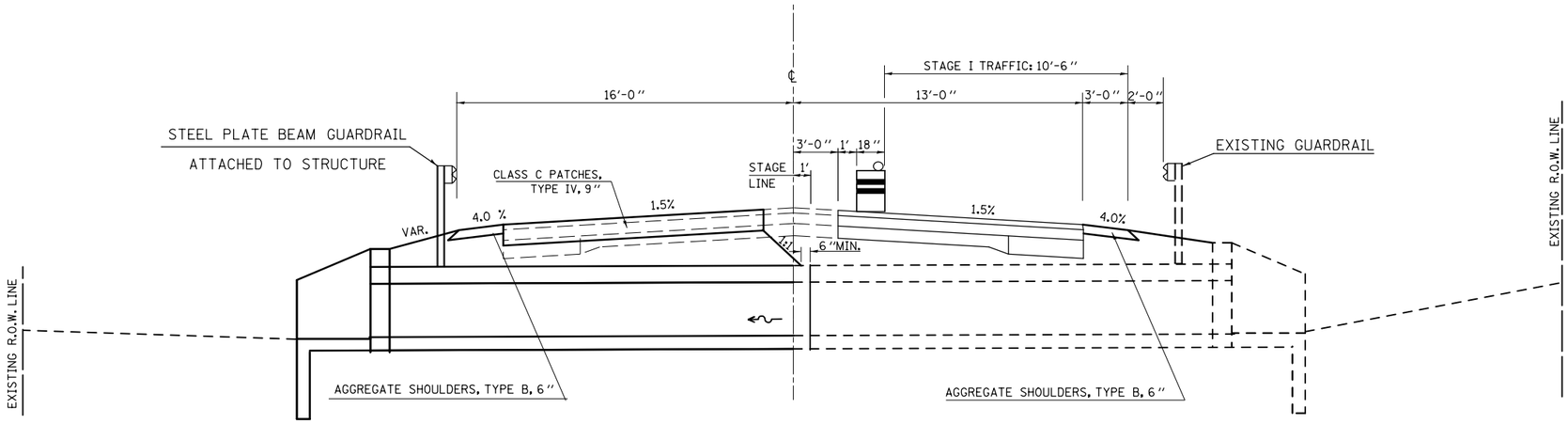
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
PROPOSED CULVERT NO. 1 – S.N. 023–8064

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	20
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

TYPICAL STAGING DETAILS CULVERT #1 PROPOSED SN 023–8064
STAGE I

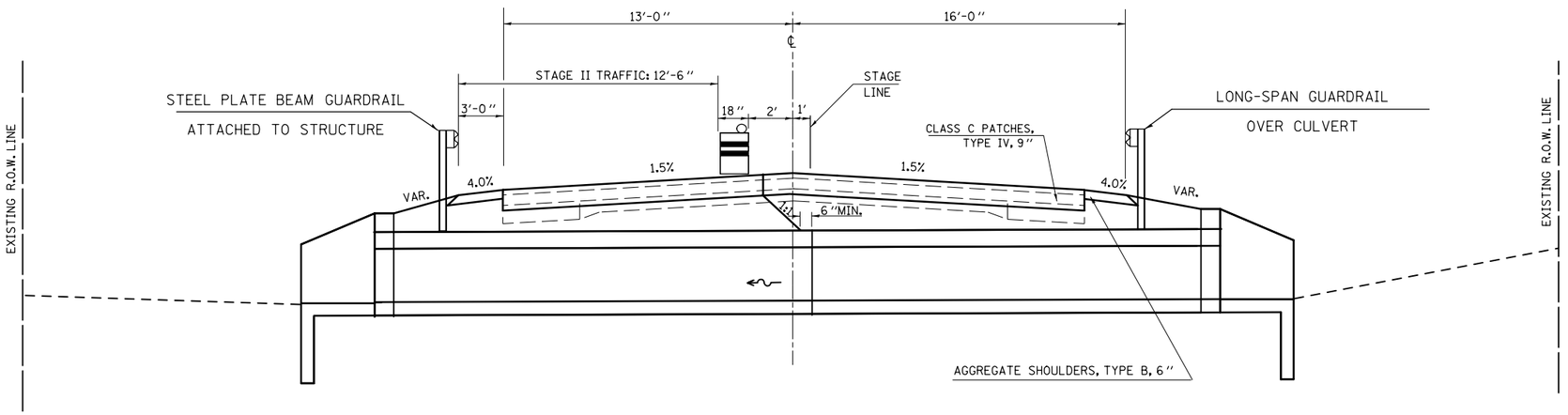


NOTES

1. Refer to Special Provisions for TRAFFIC CONTROL AND PROTECTION, STANDARD 701206 and STAGE CONSTRUCTION ACROSS ROAD STRUCTURES for additional information.
2. The Engineer may reduce or eliminate lengths or locations of Aggregate Shoulders, Type B, 6" and Earth Excavation based on field conditions.
3. Construct downstream end of A.R. culvert first.
4. Earth excavated for the construction of Aggregate Shoulders, Type B, 6" shall be deposited and graded to smooth the foreslopes. This excavated earth will be added to the final cross-section volumes for the Earthwork Balance/Waste calculations.
5. Aggregate Shoulders, Type B, 6" for stage I may be completed at any time prior to stage I. Aggregate Shoulders, Type B, 6" for stage II should not be completed until the half-width culvert from stage I has been constructed.
6. Replace previously constructed Aggregate Shoulders, Type B, 6" as needed when construction is completed.
7. CMS boards shall be placed 3 days in advance prior to work.

A.R. CULVERT LOCATION	TRAFFIC CONTROL STANDARD	ESTIMATED TIME	CHANGEABLE MESSAGE SIGNS
STA. 126+55.00	701206	2 Days - 48 hrs. - Non-Stop (2) - 12 hr. Day Shifts (2) - 12 hr. Night Shifts	2 EACH AT 5.0 CAL DAY = 10.0 CAL DAY

TYPICAL STAGING DETAILS CULVERT #1 PROPOSED SN 023–8064
STAGE II



DRAWING NOT TO SCALE

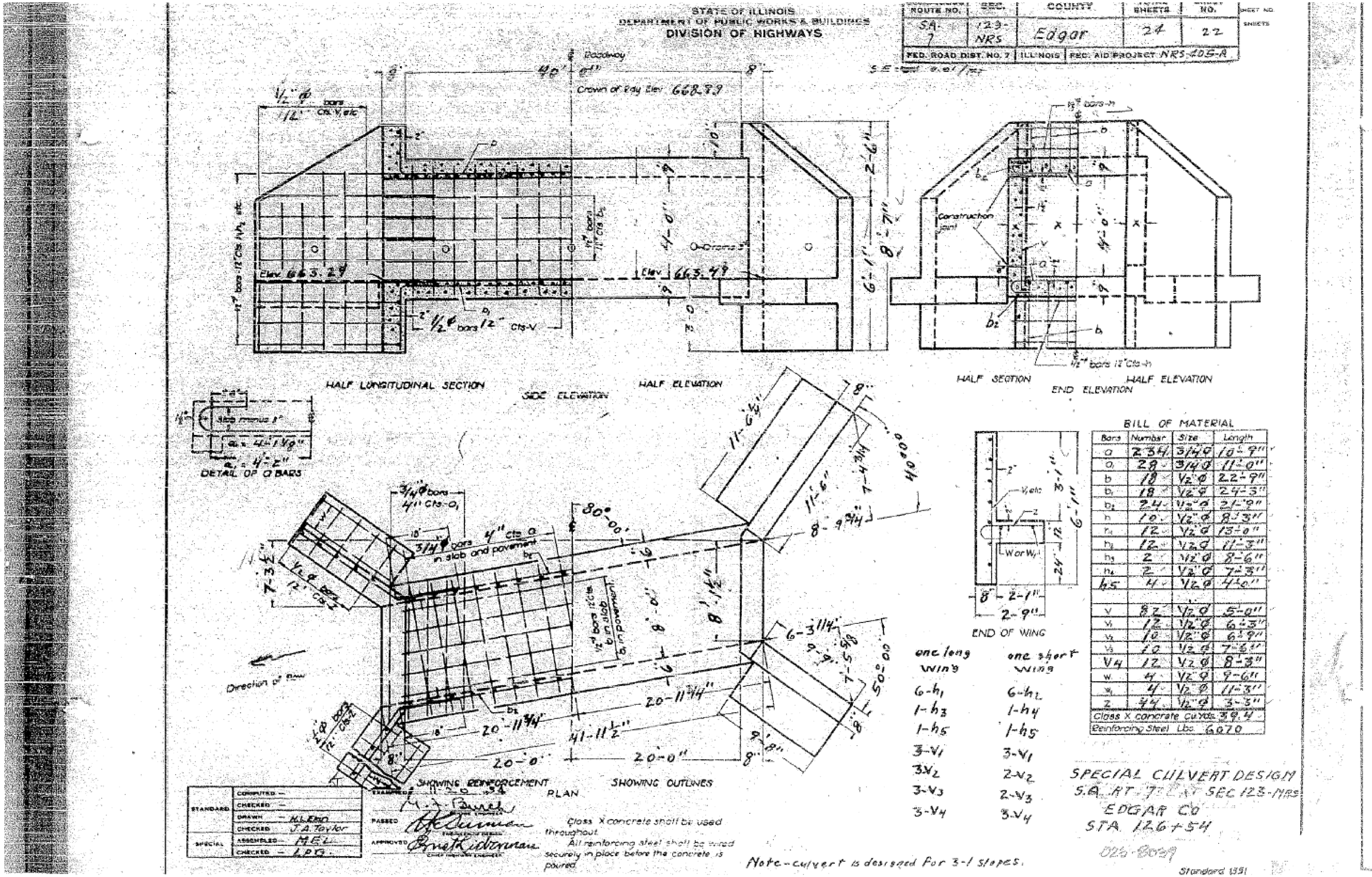
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-staging.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL STAGING DETAILS
PROPOSED CULVERT NO. 1 – S.N. 023–8064

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	21
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		



BILL OF MATERIAL

Bars	Number	Size	Length
a	234	3/4 ⌀	10'-9"
a_1	28	3/4 ⌀	11'-0"
b	18	1/2" ⌀	22'-9"
b_1	18	1/2" ⌀	24'-3"
b_2	24	1/2" ⌀	21'-9"
h	10	1/2" ⌀	8'-3"
h_1	12	1/2" ⌀	13'-0"
h_2	12	1/2 ⌀	11'-3"
h_3	2	1/2" ⌀	8'-6"
h_4	2	1/2" ⌀	7'-3"
h5	4	1/2 ⌀	4'-0"
v	82	1/2 ⌀	5'-0"
v_1	12	1/2" ⌀	6'-3"
v_2	10	1/2" ⌀	6'-9"
v_3	10	1/2 ⌀	7'-6"
V4	12	1/2 ⌀	8'-3"
w	4	1/2" ⌀	9'-6"
w_1	4	1/2" ⌀	11'-3"
z	44	1/2" ⌀	3'-3"
Class X concrete Cu.Yds. 39.4			
Reinforcing Steel Lbs. 6070			

FOR INFORMATION ONLY

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D5706	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE INFORMATION CULVERT NO. 1	F.A.P. RTE. 749	SECTION 14BR,14CR,123CR	COUNTY EDGAR	TOTAL SHEETS 115 / SHEET NO. 22
8-sht-details.dgn	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -		SCALE:	SHEET NO. 4 OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 70618
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -						ILLINOIS FED. AID PROJECT
		DATE -	REVISED -						

SEC. 28, T 14 N, R 13 W, 2ND P.M.

PROPOSED S.N. 023-2018, STA. 232+00
PRECAST CONC. BOX CULVERT (M273)
2 @ 12'-0" X 4'-0" X 45'-6", NO SKEW
U.S.F.L. ELEV. 672.10
D.S.F.L. ELEV. 672.00
WITH CAST-IN-PLACE END SECTIONS-2 EACH
BOX CULVERT END SECTIONS, CULVERT NO. 2

EXISTING 24" FIELD TILE

A.R. STA. 232+00 EXIST. S.N. 023-2011
EXISTING R.C. BOX CULVERT
3 @ 6'-0" X 3'-6"
WITH CAST-IN-PLACE
END SECTIONS TO BE REMOVED
REMOVE EXISTING STRUCTURE NO. 2

N

1:20 1:10.3 +00.00 +00.00

50'-0" 3' 12'-6" 3' 50'-0"

STA. 231+79.91 STA. 232+70.15

229 230+00 231 232 233 234 IL ROUTE 133 FAP ROUTE 749

STA. 231+29.85 STA. 232+20.09

36'-0"

1:23 1:12

EXISTING 24" FIELD TILE

HOT-MIX ASPHALT SURFACE REMOVAL, BUTT JT.
CLASS C PATCH, TYPE IV, 8" = 112.0 SQ YDS
AGGREGATE SHOULDERS, TYPE B, 6"
SEEDING, CLASS 2A WITH EROSION CONTROL BLANKET
PERIMETER EROSION CONTROL BARRIER
INLET AND PIPE PROTECTION
TEMPORARY DITCH CHECKS

BM 4399-16: CHISELED SQUARE ON TOP OF SW CORNER OF HEADWALL OF A.R. BOX CULVERT, S.N. 023-2011, STA. 231+89.9, 21.60' RT., ELEV. 677.12

SEC. 28, T 14 N, R 13 W, 2ND P.M.

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

LIMITS OF ROADWAY WORK

STA. 231+29.85 ELEV. = 678.38
STA. 232+00.00 ELEV. = 678.26
STA. 232+70.15 ELEV. = 678.30

EXIST. ℄ PROFILE PROP. ℄ PROFILE -0.17% +0.06%

EXIST. LEFT DITCH EXIST. RIGHT DITCH PROPOSED LEFT DITCH PROFILE PROP. RIGHT DITCH -1.49% -1.55% +1.53% +1.71%

PROPOSED U.S.F.L. = 672.097
PROPOSED D.S.F.L. = 672.000

	229+00	+25	229+50	+75	230+00	+25	230+50	+75	231+00	+25	231+50	+75	232+00	+25	232+50	+75	233+00	+25	233+50	+75	234+00	+25	234+50	+75	235+00
682																									
680																									
678																									
676																									
674																									
672																									
670																									
668	675.54 RIGHT DITCH	675.35	675.15	674.95	674.75 **674.75**	674.67 **674.38**	674.59 **674.00**	674.57 **673.63**	674.54 **673.26**	674.21 **672.89**	673.99 **672.51**	673.14 **672.14**	672.30 **672.14**	672.80 **672.14**	673.30 **672.52**	673.25 **672.91**	673.29 **673.29**	673.31	673.34	673.44	673.54	673.61	673.67	673.63	673.58
666	675.12 LEFT DITCH	675.01	674.89	674.77	674.66 **674.66**	674.50 **674.27**	674.34 **673.88**	674.17 **673.49**	674.01 **673.11**	673.80 **672.72**	673.60 **672.33**	672.82 **671.94**	672.04 **671.94**	672.48 **671.94**	672.93 **672.38**	673.10 **672.83**	673.27 **673.27**	673.36	673.44	673.51	673.57	673.63	673.69	673.72	673.74
	678.90	678.85	678.80	678.75	678.70	678.64	678.58	678.52	678.46	678.39	678.31 **678.35**	678.22 **678.30**	678.13 **678.26**	678.19 **678.27**	678.24 **678.29**	678.30	678.35	678.39	678.43	678.47	678.50	678.54	678.57	678.61	678.65

FILE NAME = c:\pw_work\pwidot\keysrb\d0184347\D570618	USER NAME = keysrb	DESIGNED -	REVISED -
sht-plnprf-20.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

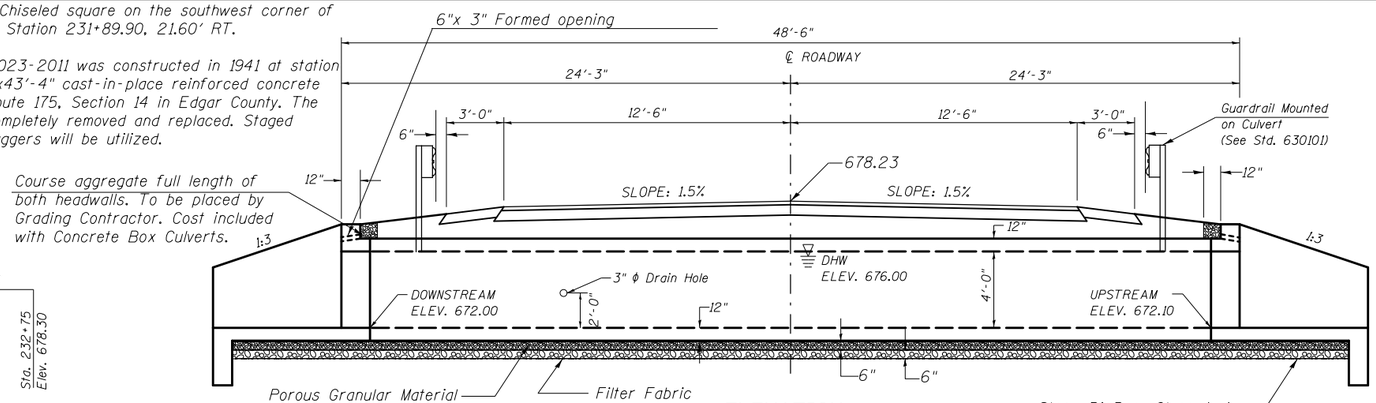
PLAN & PROFILE: PROP. S.N. 023-2018 CULVERT NO. 2

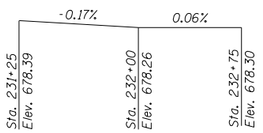
SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	Edgar	115	23
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

BENCHMARK ELEV: 677.12' Chiseled square on the southwest corner of headwall of S.N. 023-2011 at Station 231+89.90, 21.60' RT.

EXISTING STRUCTURE: S.N. 023-2011 was constructed in 1941 at station 232+00 as a triple 6'x3'-6"x43'-4" cast-in-place reinforced concrete box culvert as part of FA Route 175, Section 14 in Edgar County. The existing structure is to be completely removed and replaced. Staged construction with 24-hour flaggers will be utilized.





Profile Grade

Along ℄ Roadway

ELEVATION

(DIMENSIONS AT RIGHT ANGLES TO ℄ OF ROADWAY)

STATION 232+00.00
BUILT 2012 BY
STATE OF ILLINOIS
F.A.P. RT. 749 SEC. 14BR,14CR,123CR
LOADING HS 20
STRUCTURE NO. 023-2018

NAME PLATE

See Std. 515001

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

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

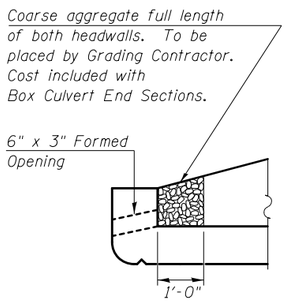
DESIGN STRESSES

FIELD UNITS

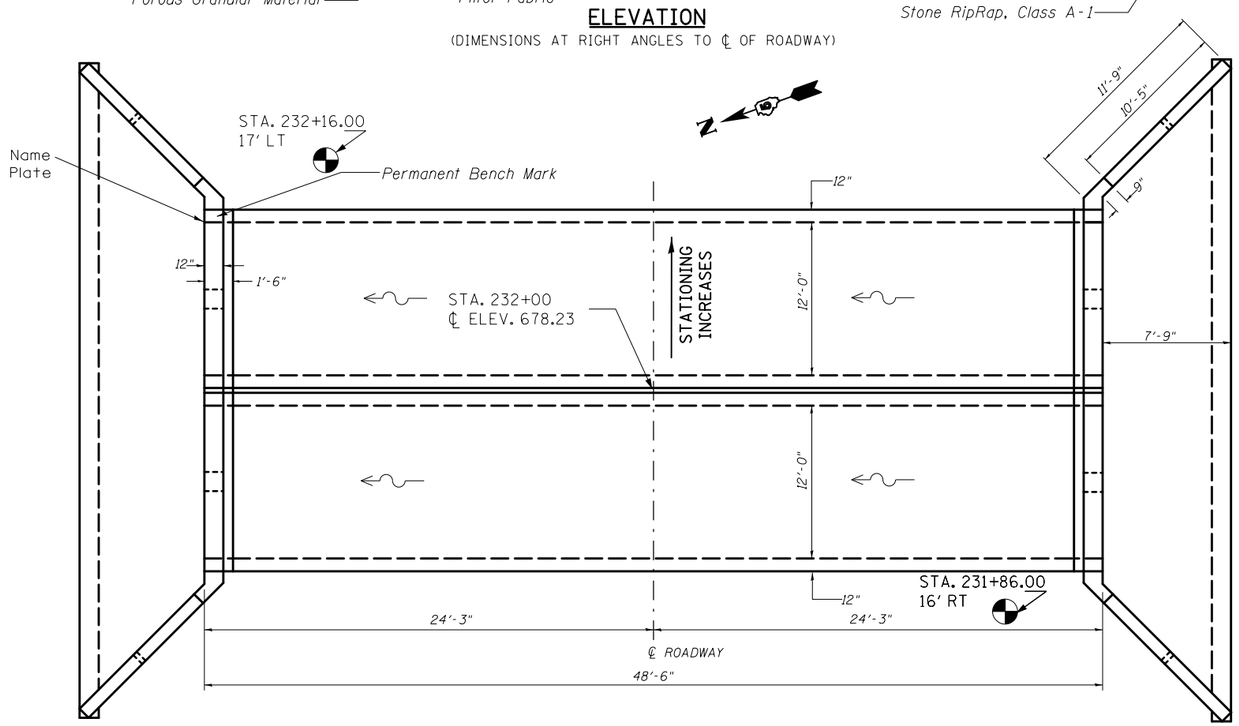
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)



DRAIN DETAIL



PLAN

Pavement Borings

WATERWAY INFORMATION

Drainage Area = 1.70 sq. mi. Low Grade Elev. 678.23 @ Sta. 232+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	289	63	76				676.3	675.3
Design	50	465	63	94				677.5	676.0
Base	100	543	63	96				678.0	676.4
Overtopping									
Max. Calc.	500	732	63	96				Over	677.2

10 year velocity through existing bridge = 5.84 fps 10 year velocity through proposed bridge = 4.26 fps

Note: Information provided utilizing USGS Streamstats Method

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	669.10	669.00

General Notes

Build tops of headwalls parallel to the grade lines.

All construction joints shall be bonded according to Article 503.09 of the Standard Specifications.

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

The 6" Porous Granular Material required per Art. 540.06 of the Standard Specifications shall also extend beneath the Box Culvert End Sections and shall be considered included in the cost of Precast Concrete Box Culverts and Box Culvert End Sections.

When lapping sheets of welded wire fabric, the overlap measured between the outermost cross wires of each fabric sheet shall not be less than 8".

End Sections will be paid for at the contract unit price per each for BOX CULVERT END SECTIONS, as outlined in Section 540 of the Standard Specifications.

Class SI Concrete shall be used throughout.

Concrete, Rebar, and Welded Wire Fabric quantities and lengths calculated for the cast-in-place End Sections may vary based on the precast box culverts supplied.

Drain holes shall be provided in accordance with Article 503.11 of the Standard Specifications. One drain hole on exterior culvert walls shall be provided for each precast box culvert section.

The design reinforcement areas shall conform to those found in Table 1 of AASHTO M273 for a 12'x4' box section except the extension of the As1 bars into the top slab shall be equal to (23 inches + 2 longitudinal wire spaces).

The box culvert end sections shall be built in the field and a precast option is not allowed except the cut-off wall may be precast. If the contractor elects to use a precast cut-off wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.

The ends of the precast box sections adjacent to the end section shall be formed without the male and female shapes specified in Article 8.1 of AASHTO M273. See Sections B-B, D-D and E-E on Sheet 2.

The design fill height for this box is less than 2 feet. The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M 273.

The joints between precast box sections shall be sealed and all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

The Contractor is advised that a Temporary Soil Retention System (TSRS) may be necessary dependent upon their construction sequence. If required, the Contractor shall be responsible for all aspects (design, furnishing, installing, removal). As a TSRS is not specified in the Contract, the cost of a TSRS shall be considered as included in the contract unit price of the work specified.

All dimensions are in FEET (') - INCHES (") unless otherwise noted.

Drawings not to scale

TOTAL BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures No. 2	Each	1
Precast Concrete Box Culverts 12'x4' (M273)	Foot	91
Box Culvert End Section, Culvert No. 2	Each	2
Name Plates	Each	1
Permanent Bench Marks	Each	1
Porous Granular Embankment	Cu. Yd.	58
Stone Riprap, Class A1	Ton	58

GENERAL PLAN AND ELEVATION
DOUBLE 12'x4' PRECAST BOX CULVERT
F.A.P. ROUTE 749 - SECTION 14BR,14CR,123CR
STATION 232+00.00 S.N. 023-2018
CULVERT NO. 2

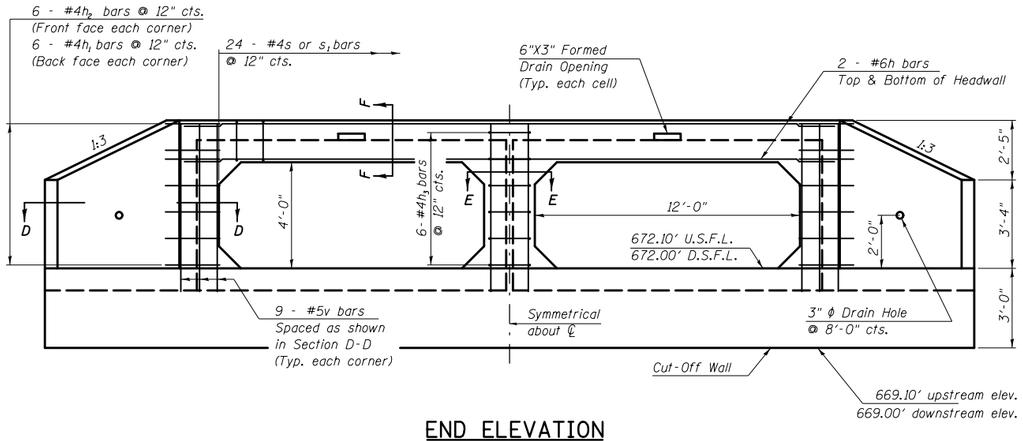
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

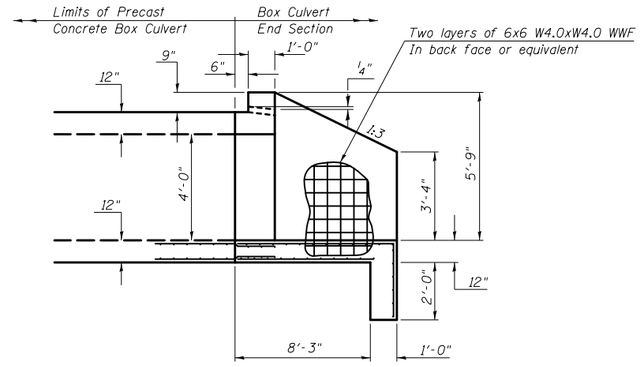
GENERAL PLAN AND ELEVATION
PROPOSED CULVERT NO. 2 – S.N. 023–2018

SCALE: | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	24
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

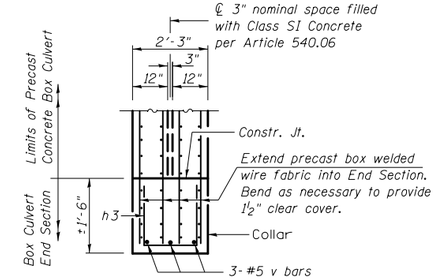


END ELEVATION



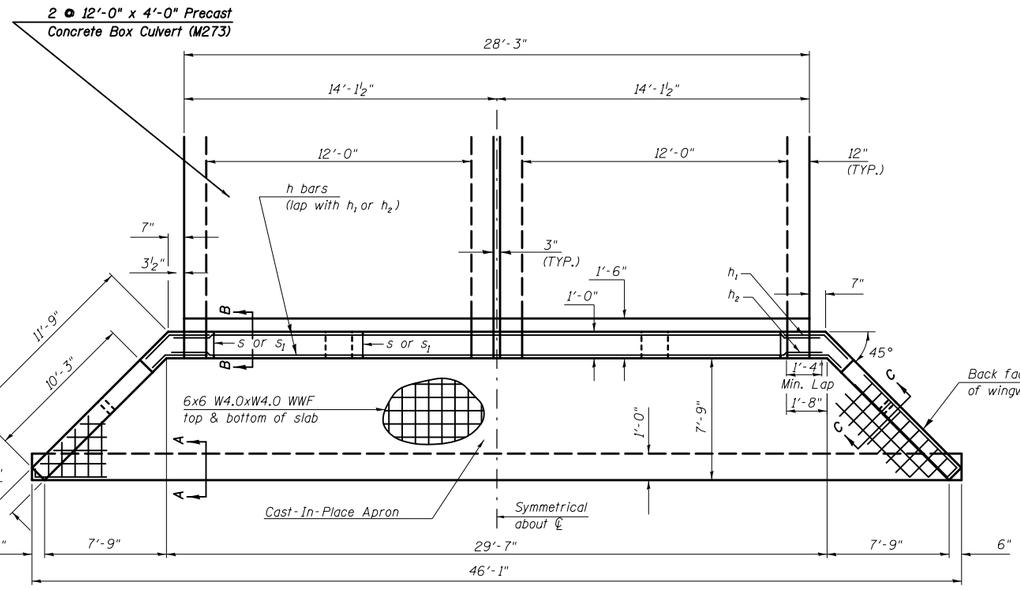
HALF SIDE ELEVATION

(DIMENSIONS AT RIGHT ANGLES TO ℄ OF ROADWAY)

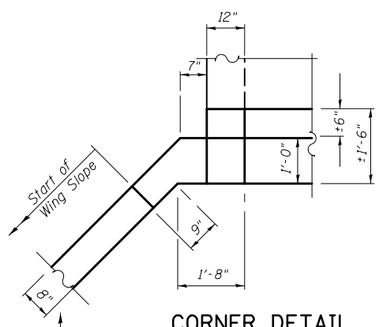


SECTION E-E

Tilt or adjust h_3 bar as necessary to fit

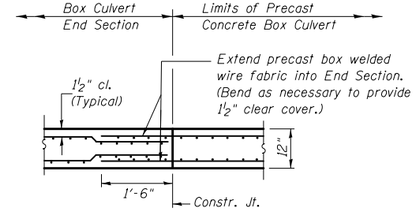


PLAN



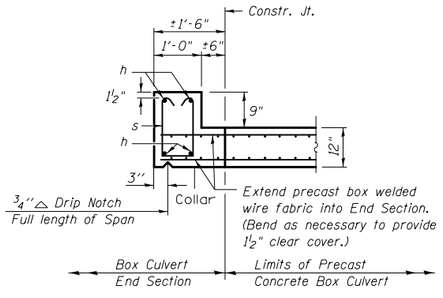
CORNER DETAIL

(Showing dimensions)



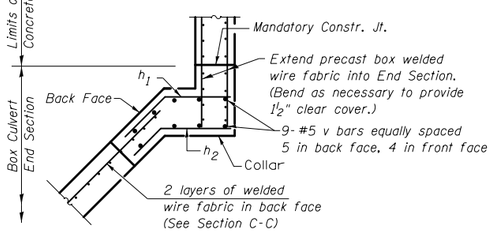
SECTION B-B

BOTTOM SLAB



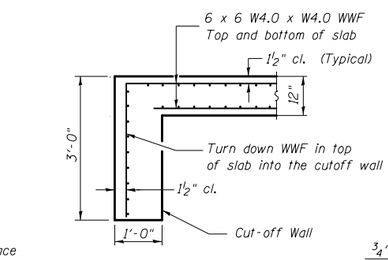
SECTION F-F

TOP SLAB / HEADWALL DOWNSTREAM END

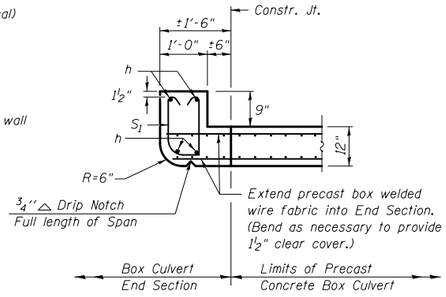


SECTION D-D

(Showing reinforcement)

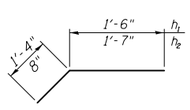


SECTION A-A

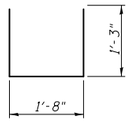


SECTION F-F

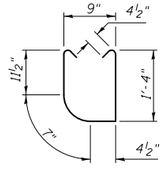
TOP SLAB / HEADWALL UPSTREAM END



h1 & h2 BARS

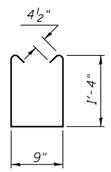


h3 BARS



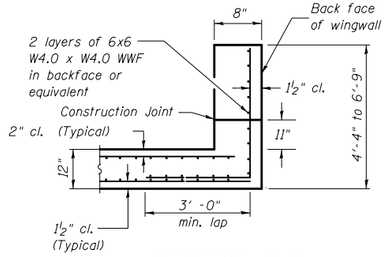
s1 BARS

UPSTREAM END



s BARS

DOWNSTREAM END



SECTION C-C

BILL OF MATERIAL

For Information Only
(One End Section)

Bar	No.	Size	Length	Shape
h	4	#6	28'-11"	
h1	12	#4	2'-10"	
h2	12	#4	2'-3"	
h3	6	#4	4'-2"	
s or s1	24	#4	4'-2"	
v	21	#5	6'-2"	

Item	Unit	Total
Class SI Concrete	Cu. Yd.	23.0
Reinforcement Bars	Pound	433.0
Welded Wire Fabric	Sq. Ft.	1,225.2

END SECTION DETAILS
DOUBLE 12'x4' PRECAST BOX CULVERT
F.A.P. ROUTE 749 - SECTION 14BR,14CR,123CR
STATION 232+00.00 S.N. 023-2018
CULVERT NO. 2

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

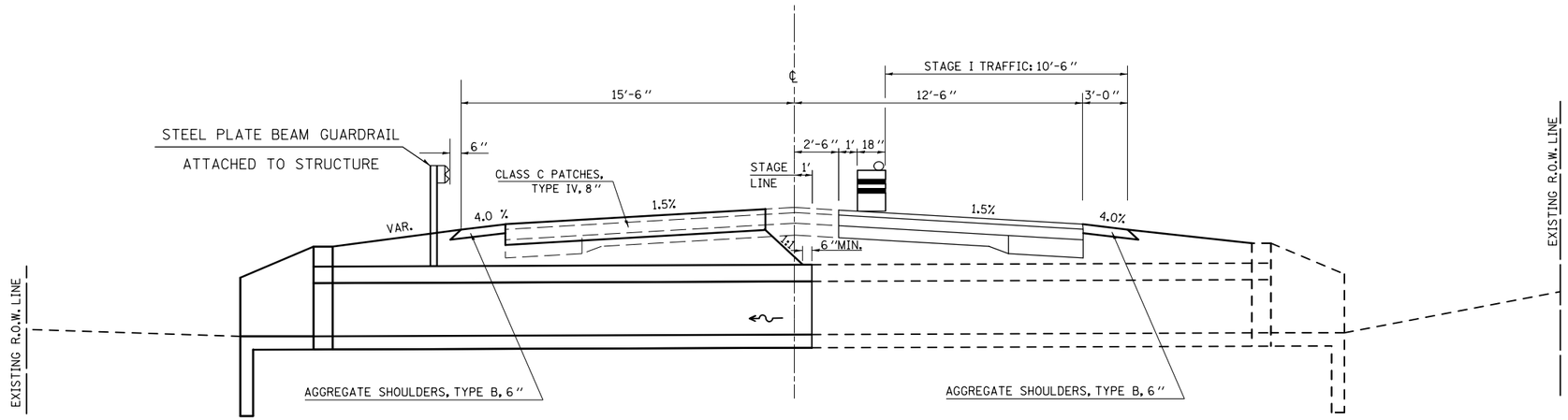
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
PROPOSED CULVERT NO. 2 – S.N. 023-2018

SCALE: | SHEET NO. 2 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	25
		CONTRACT NO. 70618		
		ILLINOIS	FED. AID PROJECT	

TYPICAL STAGING DETAILS CULVERT #2 PROPOSED SN 023–2018
STAGE I

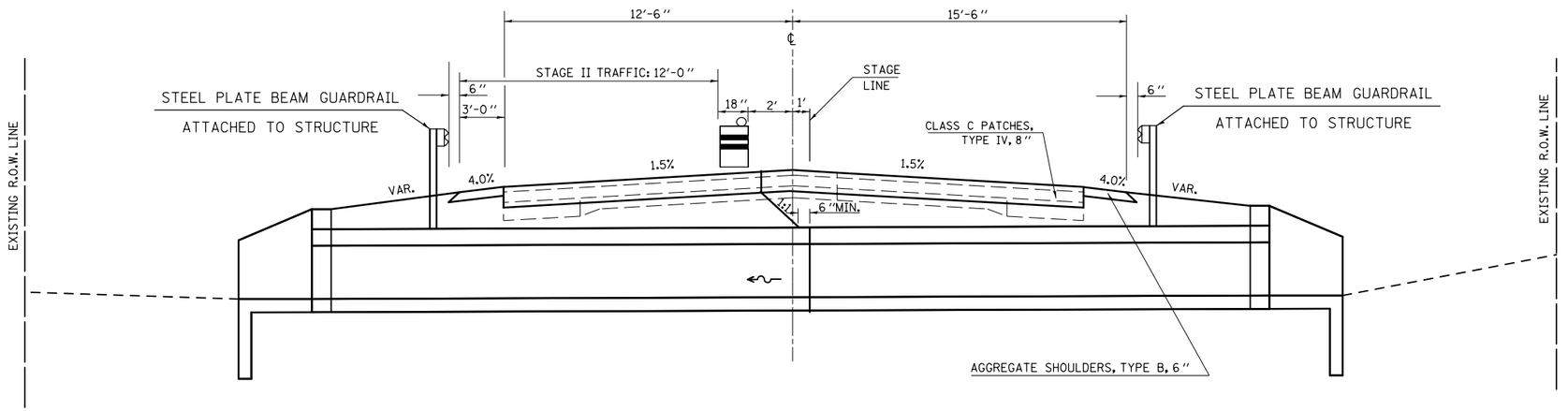


NOTES

1. Refer to Special Provisions for TRAFFIC CONTROL AND PROTECTION, STANDARD 701206 and STAGE CONSTRUCTION ACROSS ROAD STRUCTURES for additional information.
2. The Engineer may reduce or eliminate lengths or locations of Aggregate Shoulders, Type B, 6″ and Earth Excavation based on field conditions.
3. Construct downstream end of A.R. culvert first.
4. Earth excavated for the construction of Aggregate Shoulders, Type B, 6″ shall be deposited and graded to smooth the foreslopes. This excavated earth will be added to the final cross-section volumes for the Earthwork Balance/Waste calculations.
5. Aggregate Shoulders, Type B, 6″ for stage I may be completed at any time prior to stage I. Aggregate Shoulders, Type B, 6″ for stage II should not be completed until the half-width culvert from stage I has been constructed.
6. Replace previously constructed Aggregate Shoulders, Type B, 6″ as needed when construction is completed.
7. CMS boards shall be placed 3 days in advance prior to work.

A.R. CULVERT LOCATION	TRAFFIC CONTROL STANDARD	ESTIMATED TIME	CHANGEABLE MESSAGE SIGNS
STA. 232+00.00	701206	2 Days - 48 hrs. - Non-Stop (2) - 12 hr. Day Shifts (2) - 12 hr. Night Shifts	2 EACH AT 5.0 CAL DAY = 10.0 CAL DAY

TYPICAL STAGING DETAILS CULVERT #2 PROPOSED SN 023–2018
STAGE II



DRAWING NOT TO SCALE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-staging.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL STAGING DETAILS
PROPOSED CULVERT NO. 2 – S.N. 023–2018

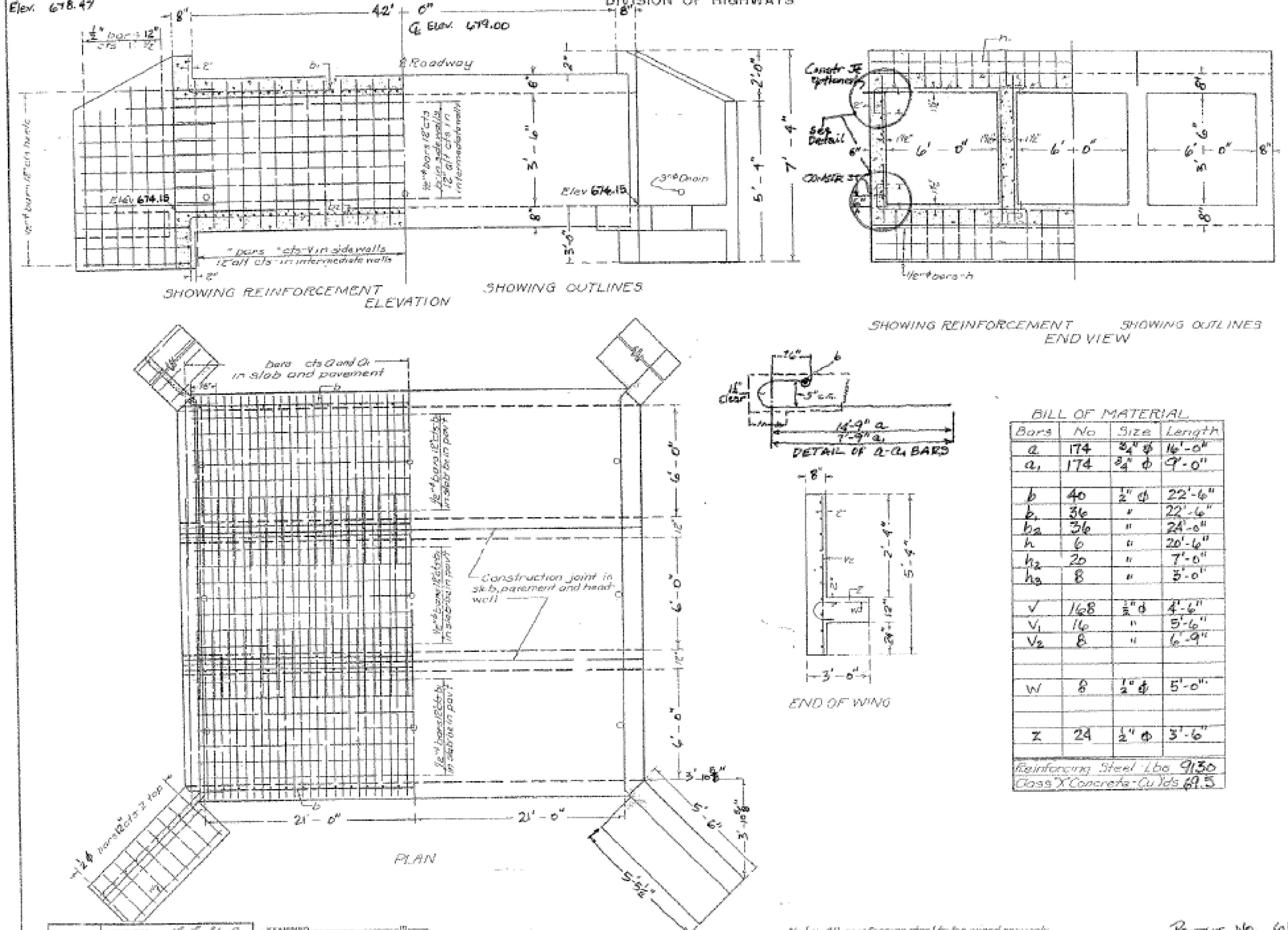
SCALE: | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	26
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

No Existing Structure
B.M. N&W in Fence Post Lt Sta 237+55
Elev. 678.47



BILL OF MATERIAL

Bars	No	Size	Length
a	174	¾" ɸ	16'-0"
a₁	174	¾" ɸ	9'-0"
b	40	½" ɸ	22'-6"
b₁	36	"	22'-6"
b₂	36	"	24'-0"
h	6	"	20'-6"
h₂	20	"	7'-0"
h₃	8	"	3'-0"
V	168	½" ɸ	4'-6"
V₁	16	"	5'-6"
V₂	8	"	6'-9"
W	8	½" ɸ	5'-0"
Z	24	½" ɸ	3'-6"

Reinforcing Steel Lbs 9130
Class "X" Concrete-Cu Yds 69.5

Note:- All reinforcing steel to be wired securely in place before concrete is poured. Class "X" concrete shall be used throughout.

Project No. 614-A
F.A. Rt. 175 Section 14
Edgar County
Sta 232+00

STANDARD	COMPUTED	E. L. Stoyles
	CHECKED	W. L. Bdmo
	DRAWN	E.L.S.
	CHECKED	W.L.B.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED ... 19 ...
PASSED ... BRIDGE ENGINEER
APPROVED ... ENGINEER OF DESIGN
CHIEF HIGHWAY ENGINEER

FOR INFORMATION ONLY

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D57061	USER NAME = keysrb 8-sht-details.dgn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE INFORMATION CULVERT NO. 2	F.A.P. RTE. 749	SECTION 14BR,14CR,123CR	COUNTY EDGAR	TOTAL SHEETS 115 / SHEET NO. 27
	PLOT SCALE = 40.0000 ' / in.	DRAWN - / CHECKED -	REVISED - / REVISED -		SCALE: / SHEET NO. 4 OF 5 SHEETS / STA. TO STA.	CONTRACT NO. 70618			
	PLOT DATE = 8/25/2011	DATE -	REVISED -			ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Page 1 of 1

Date 12/17/09

ROUTE FAP 749 (IL 133) DESCRIPTION S.N. 023-2011 on IL 133 just SE of Redmon LOGGED BY CNA

SECTION 14BR LOCATION SW, SEC. 31, TWP. 14N, RNG. 13W, 3rd PM GPS:

COUNTY Edgar DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 023-2011E 023-2018P
Station 232+00

BORING NO. 1 NE
Station 232+16
Offset 17.0 ft Lt.
Ground Surface Elev. 678.0 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 672.0 ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. Dry ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Aggregate (Shoulder Stone) 677.0				
Black Silty Clay		4		
	-5	5 5	1.6 B	28
672.0				
Gray/Brown Sandy Clay Loam Till		3		
		2 3	1.0 B	28
		2		
	-10	2 3	0.6 P	24
667.5				
Gray Clay Loam Till		3		
		6 8	1.2 B	14
665.0				
Gray Sandy Clay Loam Till		5		
		8 8	4.3 B	11
663.0	-15			
End of Boring				
	-20			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
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)

12/21/2009 8:39:47 AM S:\SOIL S\BORING LOGS\EDGAR\023-2011EXIST.GPJ

Illinois Department of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Page 1 of 1

Date 12/17/09

ROUTE FAP 749 (IL 133) DESCRIPTION S.N. 023-2011 on IL 133 just SE of Redmon LOGGED BY CNA

SECTION 14BR LOCATION SW, SEC. 31, TWP. 14N, RNG. 13W, 3rd PM GPS:

COUNTY Edgar DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 023-2011E 023-2018P
Station 232+00

BORING NO. 2 SW
Station 231+86
Offset 16.0 ft Rt.
Ground Surface Elev. 678.1 ft

Surface Water Elev. Dry ft
Stream Bed Elev. 672.0 ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. Dry ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Aggregate (Shoulder Stone) 677.1				
Black to Brown Silty Clay		3		
	-5	4 5	0.9 B	32
672.1				
Gray/Brown Soft Sandy Clay Loam Till		2		
		3 3	0.5 P	
		2		
		2 3	0.8 B	17
668.1	-10			
End of Boring				
	-15			
	-20			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
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)

12/21/2009 8:39:48 AM S:\SOIL S\BORING LOGS\EDGAR\023-2011EXIST.GPJ

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
PROPOSED CULVERT NO. 2 – S.N. 023–2018

SCALE: SHEET NO. 5 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	28
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

▨	HOT-MIX ASPHALT SURFACE REMOVAL, BUTT JT.
▨	CLASS C PATCH, TYPE IV, 8" = 75.0 SQ YDS
▨	AGGREGATE SHOULDERS, TYPE B, 6"
▨	SEEDING, CLASS 2A WITH EROSION CONTROL BLANKET
—▫—	PERIMETER EROSION CONTROL BARRIER
◈	INLET AND PIPE PROTECTION
◇	TEMPORARY DITCH CHECKS

	RIGHT DITCH	LEFT DITCH	
511+00	701.48	701.89	705.91
+25	701.40	701.83	705.85
511+50	701.33	701.77	705.79
+75	701.32	701.75	705.74
512+00	701.31	701.73	705.68
+25	701.34	701.73	705.63
512+50	701.37	701.73	705.58
+75	701.40	701.72	705.53
513+00	701.43 **701.43**	701.70 **701.70**	705.48
+25	701.24 **701.08**	701.76 **701.17**	705.41 **705.45**
513+50	701.06 **700.72**	701.82 **700.63**	705.33 **705.42**
+75	701.19 **700.58**	701.37 **700.42**	705.26 **705.37**
514+00	701.24 **700.58**	701.41 **700.42**	705.26 **705.35**
+25	701.08 **700.80**	701.38 **701.24**	705.28 **705.32**
514+50	700.92 **700.92**	701.36 **701.36**	705.29
+75	700.94	701.39	705.30
515+00	700.96	701.42	705.31
+25	700.98	701.41	705.32
515+50	701.00	701.41	705.33
	701.03	701.42	705.34
516+00	701.06	701.43	705.36
+25	701.10	701.44	705.37
516+50	701.14	701.45	705.39
+75	701.13	701.46	705.41
517+00	701.11	701.46	705.43

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618	USER NAME = keysrb	DESIGNED -	REVISED -
	sht-plnprf_20.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE: PROP. S.N. 023-8065 CULVERT NO. 3

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

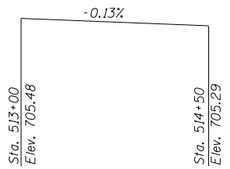
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	Edgar	115	29

CONTRACT NO. 70618

ILLINOIS FED. AID PROJECT

BENCHMARK ELEV: 704.42' Chiseled square on the southeast corner of headwall of S.N. 023-8306 at Station 513+87.40, 21.49' RT.

EXISTING STRUCTURE: S.N. 023-8306 was constructed in 1941 at station 513+80 as a double 7'x2'x43'-4" cast-in-place reinforced concrete box culvert as part of FA Route 175, Section 14-S in Edgar County. The existing structure is to be completely removed and replaced. Staged construction with 24-hour flaggers will be utilized.



Profile Grade

Along ℄ Roadway

STATION 513+80.00
BUILT 2012 BY
STATE OF ILLINOIS
F.A.P. RT. 749 SEC. 14BR,14CR,123CR
LOADING HS 20
STRUCTURE NO. 023-8065

NAME PLATE
See Std. 515001

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

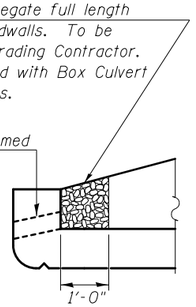
Allow 50#/sq.ft. for future wearing surface

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

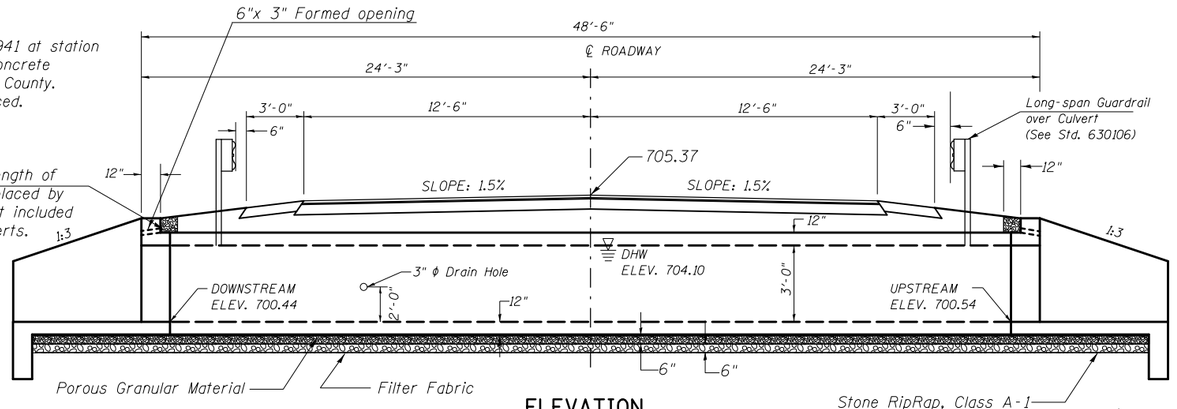
PRECAST UNITS
f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Box Culvert End Sections.

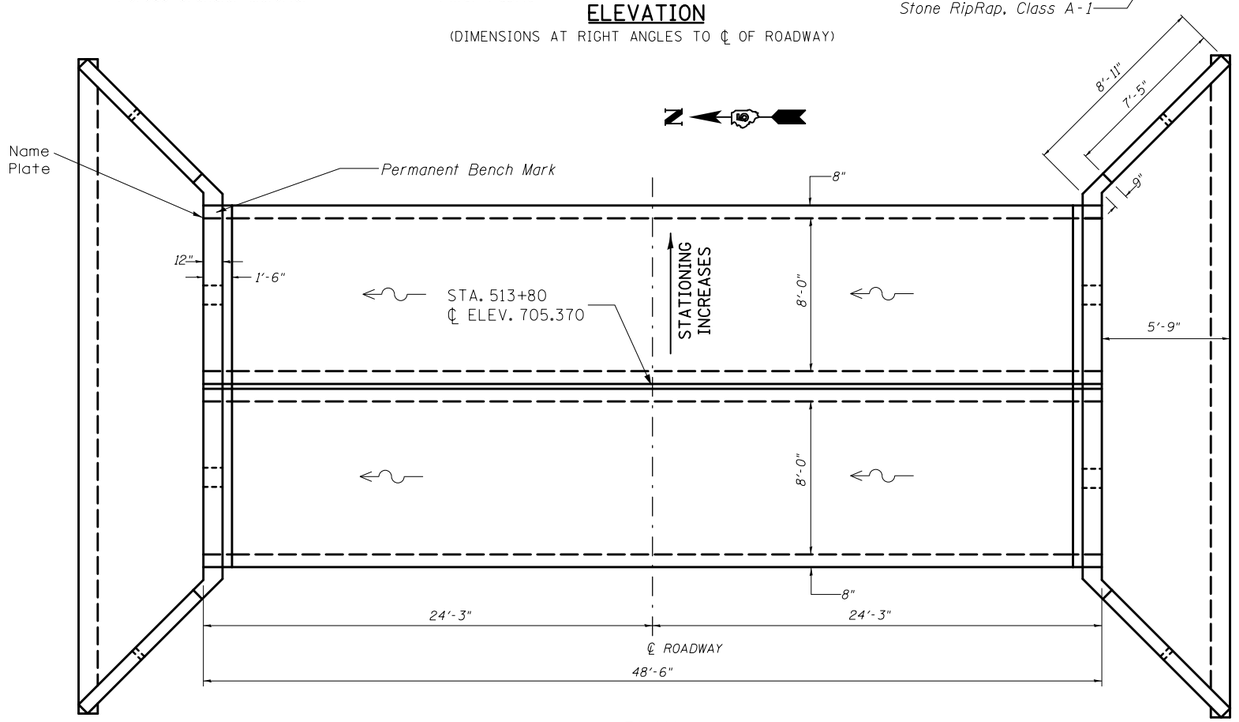


DRAIN DETAIL

Course aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.



ELEVATION
(DIMENSIONS AT RIGHT ANGLES TO ℄ OF ROADWAY)



PLAN

WATERWAY INFORMATION

Drainage Area = 0.4 sq. mi. Low Grade Elev. 705.37 @ Sta. 513+80

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	171	28	43				704.0	703.2
Design	50	280	28	48				Over	704.1
Base	100	329	28	48				Over	704.5
Overtopping									
Max. Calc.	500	451	28	48				Over	Over

10 year velocity through existing bridge = 7.51 fps 10 year velocity through proposed bridge = 4.71 fps
Note: Information provided utilizing USGS Streamstats Method

Design Scour Elevation Table

Design Scour Elevation (ft.)	Upstream	Downstream
	697.54	697.44

General Notes

Build tops of headwalls parallel to the grade lines.

All construction joints shall be bonded according to Article 503.09 of the Standard Specifications.

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

The 6" Porous Granular Material required per Art. 540.06 of the Standard Specifications shall also extend beneath the Box Culvert End Sections and shall be considered included in the cost of Precast Concrete Box Culverts and Box Culvert End Sections.

When lapping sheets of welded wire fabric, the overlap measured between the outermost cross wires of each fabric sheet shall not be less than 8".

End Sections will be paid for at the contract unit price per each for BOX CULVERT END SECTIONS, as outlined in Section 540 of the Standard Specifications.

Class SI Concrete shall be used throughout.

Concrete, Rebar, and Welded Wire Fabric quantities and lengths calculated for the cast-in-place End Sections may vary based on the precast box culverts supplied.

Drain holes shall be provided in accordance with Article 503.11 of the Standard Specifications. One drain hole on exterior culvert walls shall be provided for each precast box culvert section.

The design reinforcement areas shall conform to those found in Table 1 of AASHTO M273 for a 8'x4' box section except the extension of the As1 bars into the top slab shall be equal to (23 inches + 2 longitudinal wire spaces).

The box culvert end sections shall be built in the field and a precast option is not allowed except the cut-off wall may be precast. If the contractor elects to use a precast cut-off wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.

The ends of the precast box sections adjacent to the end section shall be formed without the male and female shapes specified in Article 8.1 of AASHTO M273. See Sections B-B, D-D and E-E on Sheet 2.

The design fill height for this box is less than 2 feet. The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M 273.

The joints between precast box sections shall be sealed and all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

The Contractor is advised that a Temporary Soil Retention System (TSRS) may be necessary dependent upon their construction sequence. If required, the Contractor shall be responsible for all aspects (design, furnishing, installing, removal). As a TSRS is not specified in the Contract, the cost of a TSRS shall be considered as included in the contract unit price of the work specified.

All dimensions are in FEET (') - INCHES (") unless otherwise noted.

Drawings not to scale

TOTAL BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures No. 3	Each	1
Precast Concrete Box Culvert 8'x3' (M273)	Foot	91
Box Culvert End Sections, Culvert No. 3	Each	2
Name Plates	Each	1
Permanent Bench Marks	Each	1
Porous Granular Embankment	Cu. Yd.	51
Stone RipRap, Class A1	Ton	38

GENERAL PLAN AND ELEVATION
DOUBLE 8'x3' PRECAST BOX CULVERT
F.A.P. ROUTE 749 - SECTION 14BR,14CR,123CR
STATION 513+80.00 S.N. 023-8065
CULVERT NO. 3

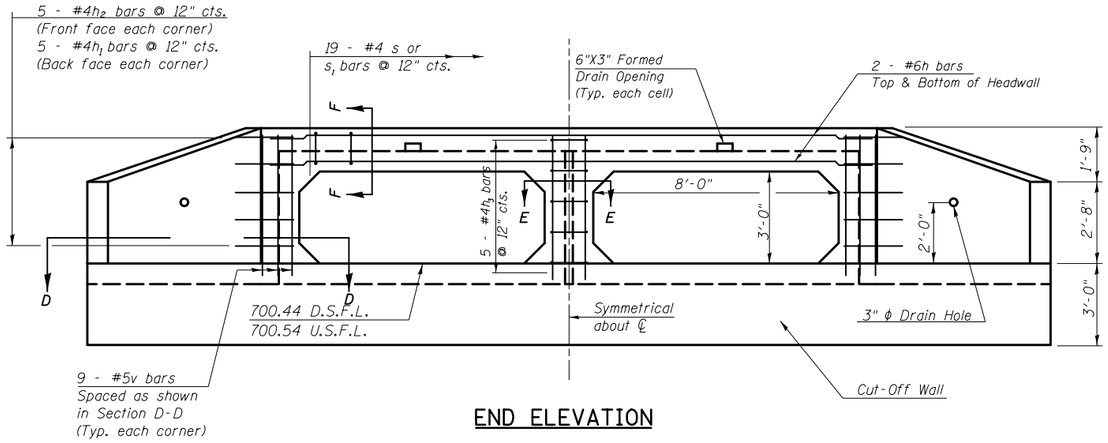
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

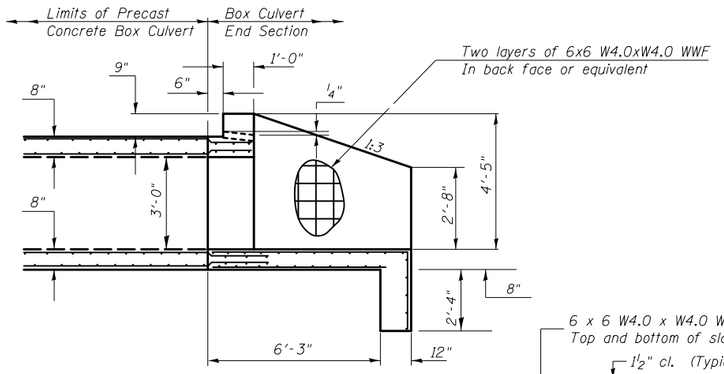
GENERAL PLAN AND ELEVATION
PROPOSED CULVERT NO. 3 - S.N. 023-8065

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	30
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

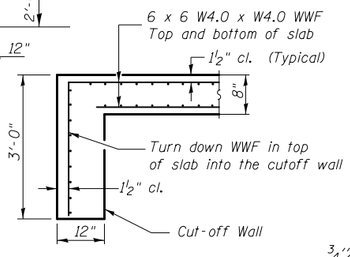


END ELEVATION

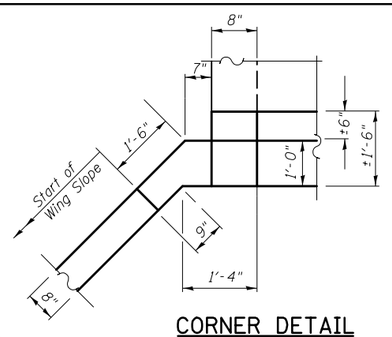


HALFSIDE ELEVATION

(DIMENSIONS AT RIGHT ANGLES TO ℄ ROADWAY)

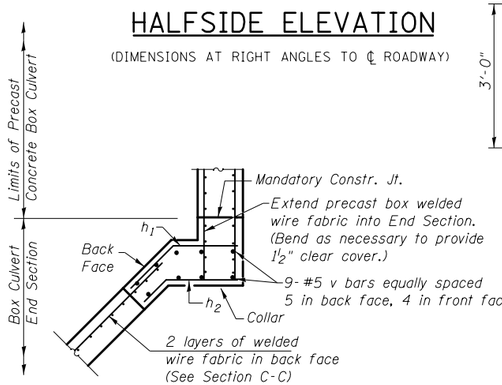


SECTION A-A



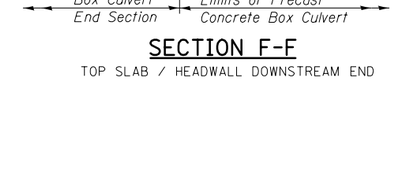
CORNER DETAIL

(Showing dimensions)



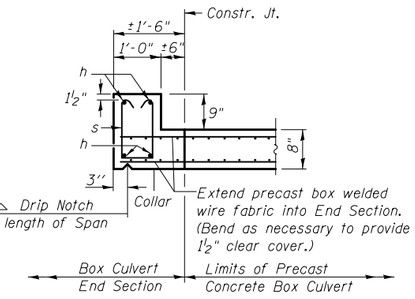
SECTION D-D

(Showing reinforcement)



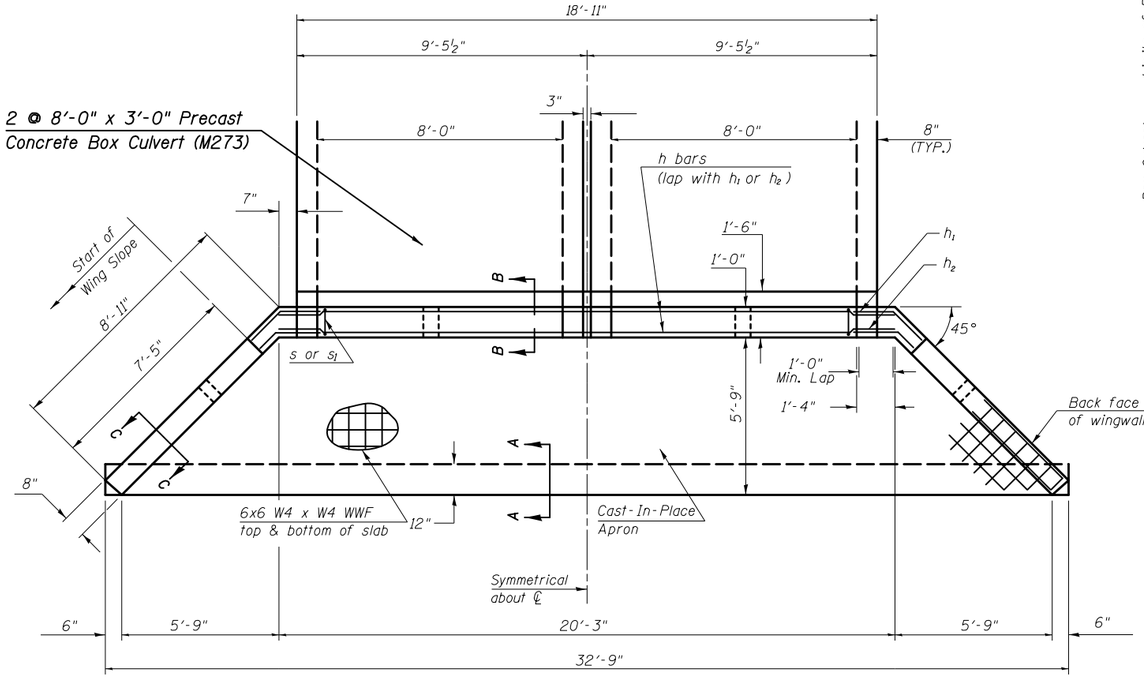
SECTION F-F

TOP SLAB / HEADWALL UPSTREAM END

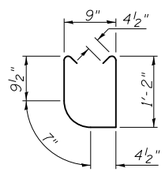


SECTION F-F

TOP SLAB / HEADWALL DOWNSTREAM END

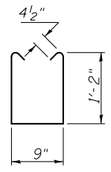


PLAN



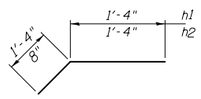
s1 BARS

UPSTREAM END

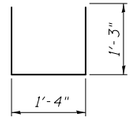


s BARS

DOWNSTREAM END

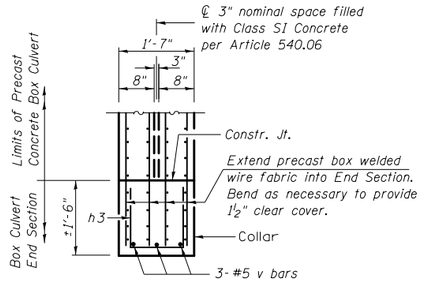


h1 & h2 BARS



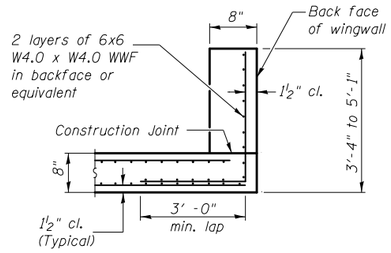
h3 BARS

DOWNSTREAM END



SECTION E-E

Tilt or adjust h_3 bar as necessary to fit



SECTION C-C

WINGWALLS

BILL OF MATERIAL

For Information Only
(One End Section)

Bar	No.	Size	Length	Shape
h	4	#6	20'-0"	
h_1	10	#4	2'-8"	
h_2	10	#4	2'-0"	
h_3	5	#4	3'-10"	
s or s_1	19	#4	3'-10"	
v	21	#5	4'-10"	

Item	Unit	Total
Class SI Concrete	Cu. Yd.	11.2
Reinforcement Bars	Pound	319.0
Welded Wire Fabric	Sq. Ft.	716.8

END SECTION DETAILS
DOUBLE 8'x3' PRECAST BOX CULVERT
F.A.P. ROUTE 749 - SECTION 14BR,14CR,123CR
STATION 513+80.00 S.N. 023-8065
CULVERT NO. 3

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

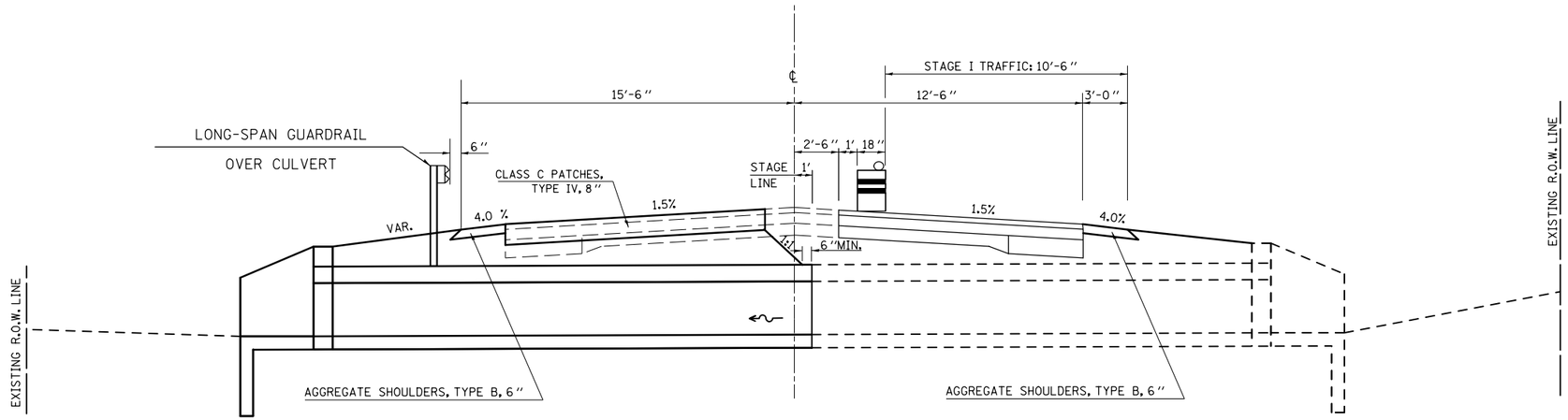
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT END SECTION DETAILS
PROPOSED CULVERT NO. 3 – S.N. 023–8065

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	31
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

TYPICAL STAGING DETAILS CULVERT #3 PROPOSED SN 023-8065
STAGE I

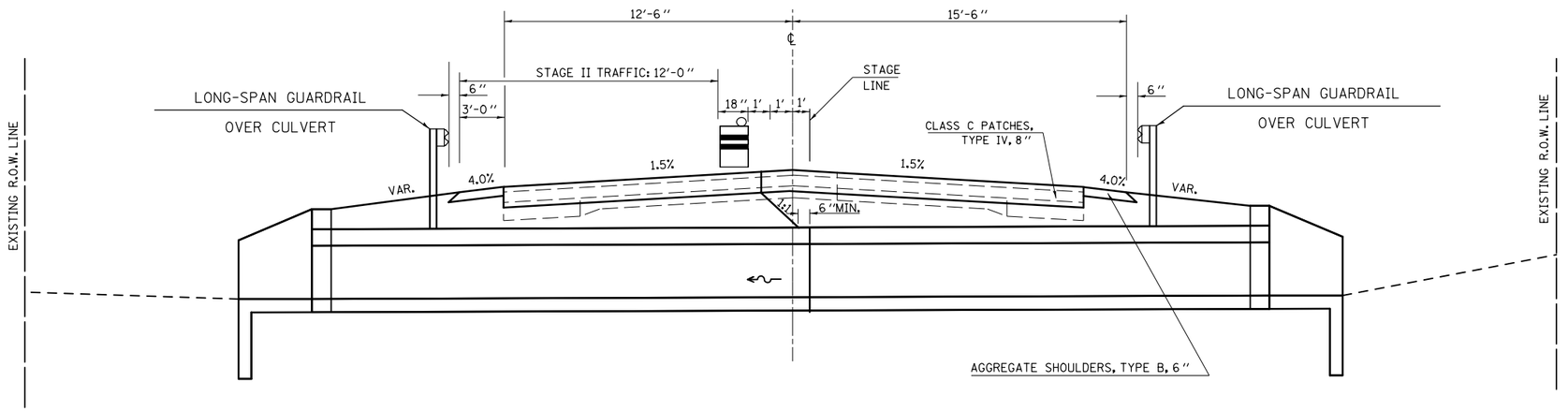


NOTES

1. Refer to Special Provisions for TRAFFIC CONTROL AND PROTECTION, STANDARD 701206 and STAGE CONSTRUCTION ACROSS ROAD STRUCTURES for additional information.
2. The Engineer may reduce or eliminate lengths or locations of Aggregate Shoulders, Type B, 6" and Earth Excavation based on field conditions.
3. Construct downstream end of A.R. culvert first.
4. Earth excavated for the construction of Aggregate Shoulders, Type B, 6" shall be deposited and graded to smooth the foreslopes. This excavated earth will be added to the final cross-section volumes for the Earthwork Balance/Waste calculations.
5. Aggregate Shoulders, Type B, 6" for stage I may be completed at any time prior to stage I. Aggregate Shoulders, Type B, 6" for stage II should not be completed until the half-width culvert from stage I has been constructed.
6. Replace previously constructed Aggregate Shoulders, Type B, 6" as needed when construction is completed.
7. CMS boards shall be placed 3 days in advance prior to work.

A.R. CULVERT LOCATION	TRAFFIC CONTROL STANDARD	ESTIMATED TIME	CHANGEABLE MESSAGE SIGNS
STA. 513+80.00	701206	2 Days - 48 hrs. - Non-Stop (2) - 12 hr. Day Shifts (2) - 12 hr. Night Shifts	2 EACH AT 5.0 CAL DAY = 10.0 CAL DAY

TYPICAL STAGING DETAILS CULVERT #3 PROPOSED SN 023-8065
STAGE II



DRAWING NOT TO SCALE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-staging.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

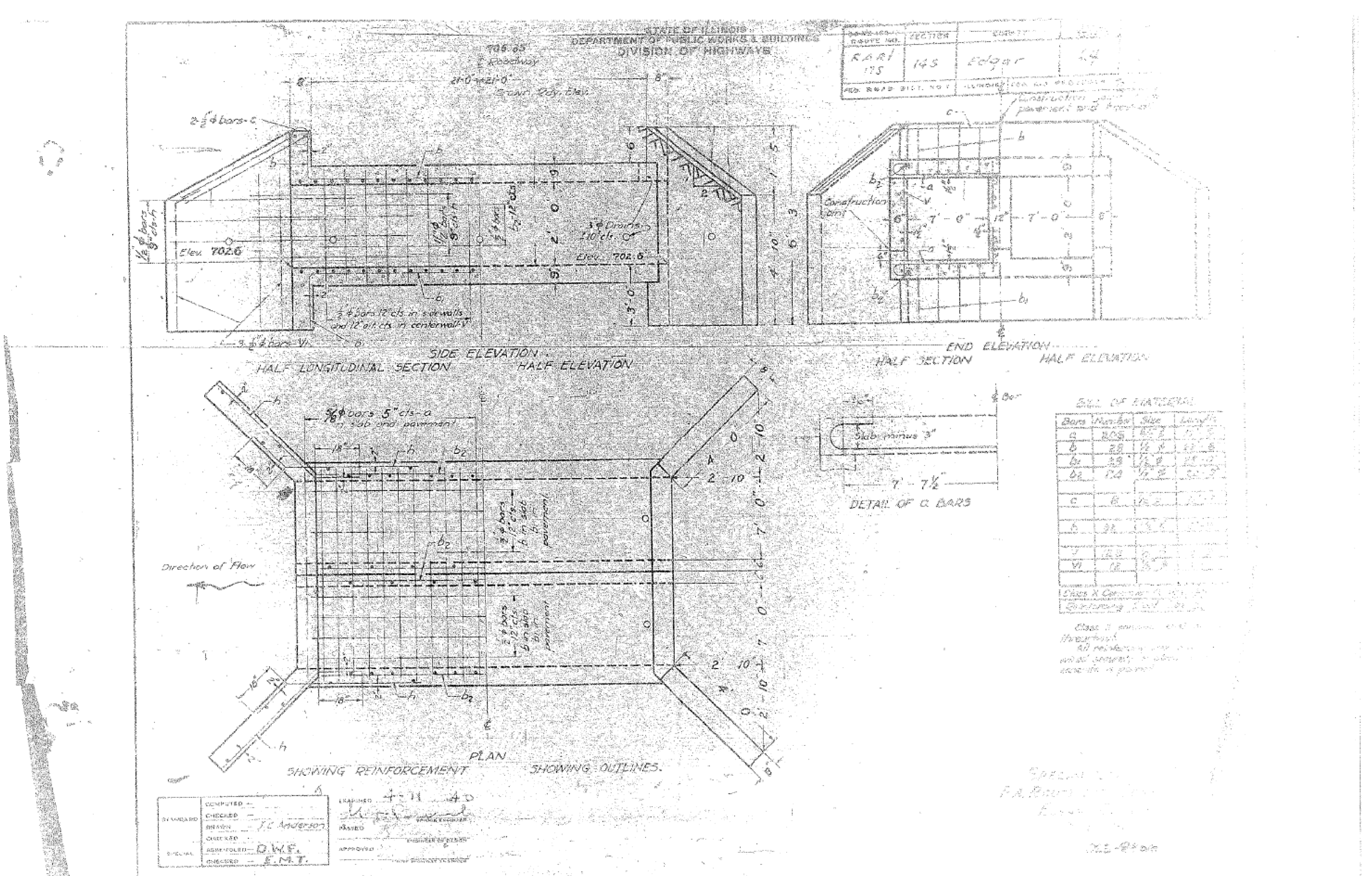
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL STAGING DETAILS
PROPOSED CULVERT NO. 3 - S.N. 023-8065

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	32
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



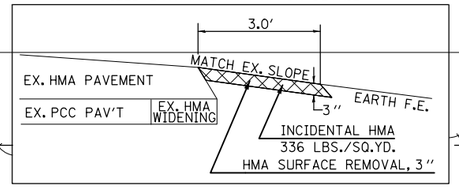
FOR INFORMATION ONLY

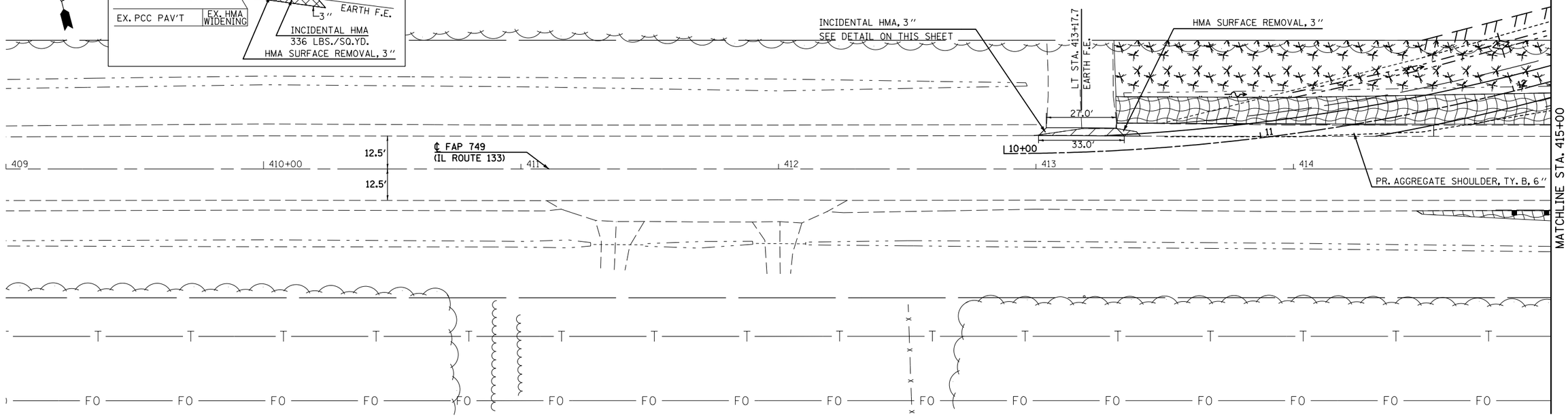
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE INFORMATION CULVERT NO. 3
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -		SCALE: SHEET NO. 4 OF 4 SHEETS STA. TO STA.
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -		
		DATE -	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	33
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

SEC. 31, T 14 N, R 12 W, 2ND P.M.

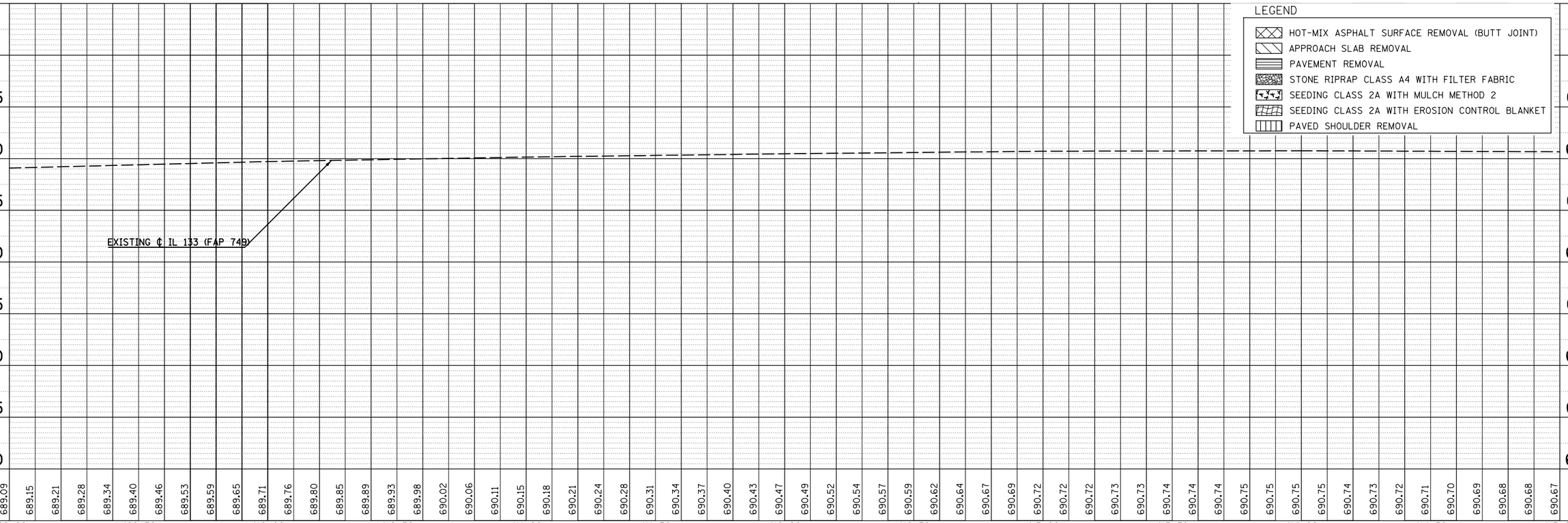
FIELD ENTRANCE HMA APRON DETAIL





LEGEND

- HOT-MIX ASPHALT SURFACE REMOVAL (BUTT JOINT)
- APPROACH SLAB REMOVAL
- PAVEMENT REMOVAL
- STONE RIPRAP CLASS A4 WITH FILTER FABRIC
- SEEDING CLASS 2A WITH MULCH METHOD 2
- SEEDING CLASS 2A WITH EROSION CONTROL BLANKET
- PAVED SHOULDER REMOVAL



PLAN — SURVEYED; PLOTTED; ALIGNMENT CHECKED; RT. OF WAY CHECKED; CADD FILE NAME; NOTE BOOK; NO.; BY; DATE

PROFILE — SURVEYED; PLOTTED; GRADES CHECKED; BM. NOTED; STRUCTURE NOTATNS CHKD; NOTE BOOK; NO.; BY; DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618	USER NAME = keysrb	DESIGNED -	REVISED -
	plan_sheets.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 133 OVER DRAINAGE DITCH NO. 7
PLAN AND PROFILE

SCALE: | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	34

CONTRACT NO. 70618

ILLINOIS FED. AID PROJECT

BENCHMARK 4399-29
CHISELED SQUARE ON THE SOUTHEAST
CORNER OF THE SOUTHWEST WINGWALL
OF STRUCTURE 023-0016
STA 418+02.91, 25.81' RT, ELEV 689.99

RIPRAP LAYOUT POINTS

POINT	STA.	O/S	ELEV.
A	418+01.1	58' LT	683.80
B	418+71.1	58' LT	681.90
C	417+60.4	54' RT	684.25
D	418+30.4	54' RT	682.00

Drainage Area = 5.8 mi.^{2} Proposed Low Grade Elev. = 689.18 ft. @ Sta. 423+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.	Head - Ft.		Headwater Elevation	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
	10	889	231	335	683.7	0.1	0.0	683.8	683.7
Design	50	1450	276	459	685.9	0.5	0.2	686.4	686.1
Base	100	1700	285	484	686.3	0.7	0.2	687.0	686.5
Overtopping									
Max. Calc.	500	2320	287	490	686.4	1.4	0.6	687.8	687.0

LEGEND

- ▨ HOT-MIX ASPHALT SURFACE REMOVAL (BUTT JOINT)
- ▨ APPROACH SLAB REMOVAL
- ▤ PAVEMENT REMOVAL
- ▩ STONE RIPRAP CLASS A4 WITH FILTER FABRIC
- ▩ SEEDING CLASS 2A WITH MULCH METHOD 2
- ▩ SEEDING CLASS 2A WITH EROSION CONTROL BLANKET
- ▥ PAVED SHOULDER REMOVAL

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/T OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO. — DATE — BY

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, BM NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO. — DATE — BY

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618	USER NAME = keysrb	DESIGNED -	REVISED -
plan_sheets.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 133 OVER DRAINAGE DITCH NO. 7
PLAN AND PROFILE

SCALE: SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	35

CONTRACT NO. 70618
ILLINOIS FED. AID PROJECT

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

MATCHLINE STA. 421+00

SEC. 31, T 14 N, R 12 W, 2ND P.M.

N

+88.83
50' LT

+24.58
50' RT

12.5'
12.5'

PR. AGGREGATE SHOULDER, TY. B, 6"

120+00

421 422 423 424 425+00 426

T FO

LEGEND

- HOT-MIX ASPHALT SURFACE REMOVAL (BUTT JOINT)
- APPROACH SLAB REMOVAL
- PAVEMENT REMOVAL
- STONE RIPRAP CLASS A4 WITH FILTER FABRIC
- SEEDING CLASS 2A WITH MULCH METHOD 2
- SEEDING CLASS 2A WITH EROSION CONTROL BLANKET
- PAVED SHOULDER REMOVAL

PROFILE
SURVEYED
PLOTTED
CROSS SECTIONS CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

EXISTING ℄ IL 133 (FAP 749)

695 690 685 680 675 670 665 660

689.52 689.51 689.49 689.48 689.46 689.44 689.42 689.39 689.37 689.35 689.32 689.31 689.30 689.28 689.27 689.25 689.24 689.23 689.21 689.20 689.18 689.19 689.19 689.20 689.21 689.21 689.22 689.22 689.23 689.23 689.24 689.26 689.28 689.30 689.32 689.34 689.36 689.37 689.41 689.45 689.49 689.54 689.59 689.64 689.69 689.75 689.80 689.85 689.90 689.95 690.00 690.07 690.14 690.20 690.27 690.34 690.40 690.47 690.54 690.60 690.67

421+00 421+50 422+00 422+50 423+00 423+50 424+00 424+50 425+00 425+50 426+00 426+50 427+00

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618	USER NAME = keysrb	DESIGNED -	REVISED -
	plan_sheets.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

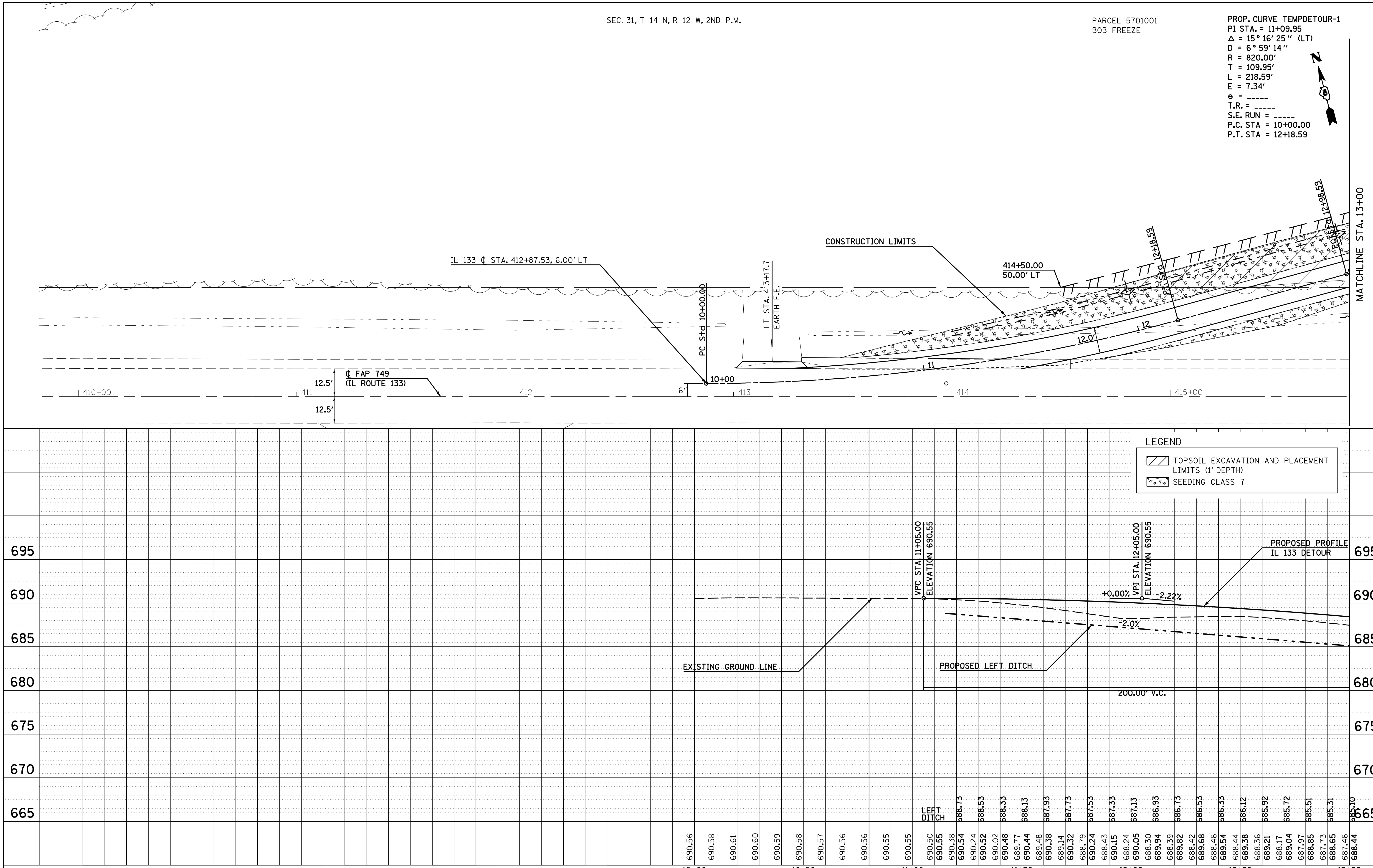
IL 133 OVER DRAINAGE DITCH NO. 7
PLAN AND PROFILE

SCALE: | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	36
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

PLAN	NOTE BOOK NO.	SURVEYED	PLOTTED	ALIGNMENT CHECKED	R.T. OF WAY CHECKED	CADD FILE NAME	BY	DATE

PROFILE	NOTE BOOK NO.	SURVEYED	PLOTTED	GRADES CHECKED	STA. NOTED	STRUCTURE NOTATIONS CHKD	BY	DATE



SEC. 31, T 14 N, R 12 W, 2ND P.M.
PARCEL 5701001
BOB FREEZE
PROP. CURVE TEMPDETOUR-1
PI STA. = 11+09.95
Δ = 15° 16′ 25″ (LT)
D = 6° 59′ 14″
R = 820.00′
T = 109.95′
L = 218.59′
E = 7.34′
e = _____
T.R. = _____
S.E. RUN = _____
P.C. STA = 10+00.00
P.T. STA = 12+18.59
N
MATCHLINE STA. 13+00
CONSTRUCTION LIMITS
IL 133 ℄ STA. 412+87.53, 6.00′ LT
414+50.00
50.00′ LT
PT Sta 12+18.59
PC Sta 10+00.00
LT STA. 413+17.7
EARTH F.E.
12.0′
12
11
10+00
℄ FAP 749
(IL ROUTE 133)
12.5′
6′
410+00
411
412
413
414
415+00
LEGEND
TOPSOIL EXCAVATION AND PLACEMENT LIMITS (1′ DEPTH)
SEEDING CLASS 7
695
690
685
680
675
670
665
VPC STA. 11+05.00
ELEVATION 690.55
VPI STA. 12+05.00
ELEVATION 690.55
+0.00%
-2.22%
-2.0%
PROPOSED PROFILE
IL 133 DETOUR
EXISTING GROUND LINE
PROPOSED LEFT DITCH
200.00′ V.C.
LEFT
DITCH
688.73 688.53 688.33 688.13 687.93 687.73 687.53 687.33 687.13 686.93 686.73 686.53 686.33 686.12 685.92 685.72 685.51 685.31 685.10
690.56 690.58 690.61 690.60 690.59 690.58 690.57 690.56 690.56 690.55 690.55 690.50 690.38 690.24 690.02 689.77 689.48 689.14 688.79 688.43 688.24 688.30 688.39 688.42 688.46 688.44 688.36 688.17 687.97 687.73 687.46
690.55 690.54 690.52 690.48 690.44 690.38 690.32 690.24 690.15 690.05 689.94 689.82 689.68 689.54 689.38 689.21 689.04 688.85 688.65 688.44
10+00
10+50
11+00
11+50
12+00
12+50
13+00

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-plan_sheets.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY DETOUR
PLAN AND PROFILE

SCALE: | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	37

CONTRACT NO. 70618

ILLINOIS | FED. AID PROJECT

PROP. CURVE TEMPDETOUR-2
PI STA. = 14+08.54
Δ = 15° 16′ 25″ (RT)
D = 6° 59′ 14″
R = 820.00′
T = 109.95′
L = 218.59′
E = 7.34′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 12+98.59
P.T. STA = 15+17.18

PARCEL 5701001
BOB FREEZE

PARCEL 5701002
LORI K. YOUNG F/K/A
LORI K MERRITT AND
SCOTT E. YOUNG

SEC. 31, T 14 N, R 12 W, 2ND P.M.

BENCHMARK 4399-29
CHISELED SQUARE ON THE SOUTHEAST CORNER OF THE SOUTHWEST WINGWALL OF STRUCTURE 023-0016
STA 418+02.91, 25.81′ RT, ELEV 689.99

PROP. CURVE TEMPDETOUR-3
PI STA. = 17+51.16
Δ = 17° 00′ 48″ (RT)
D = 6° 59′ 14″
R = 820.00′
T = 122.65′
L = 243.49′
E = 9.12′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 16+28.51
P.T. STA = 18+72.00

PIPE CULVERT, CLASS D, TYPE 2, 72″ (TEMPORARY)
℄ STA. 15+69.24
3 @ 60.0′, 15° SKEW LT. FWD.
U.S. ELEV. 672.84
D.S. ELEV. 672.64

CONSTRUCTION LIMITS

417+00.00
115.00′ LT

418+00.00
130.00′ LT

419+00.00
130.00′ LT

420+50.00
115.00′ LT

PROP STA 15+17.18

PROP STA 16+28.51

PROP STA 18+72.00

MATCHLINE STA. 13+00

MATCHLINE STA. 19+07.59

TEMPORARY PAVEMENT

AGGREGATE SHOULDERS, TY. B, 6″

PROP STA 15+00

PROP STA 16+00

PROP STA 18+00

PROP STA 419+91.00

PROP STA 13+00.00

PROP STA 418+50.00

12.5′
12.5′

LEGEND
TOPSOIL EXCAVATION AND PLACEMENT LIMITS (1′ DEPTH)
SEEDING CLASS 7

VPI STA. 13+05.00
ELEVATION 688.33

VPC STA. 13+65.08
ELEVATION 687.04

PROPOSED PROFILE
IL 133 DETOUR

500.00′ V.C.

PROPOSED LEFT DITCH

EXISTING GROUND LINE

VPI STA. 16+43.08
ELEVATION 684.49

VPC STA. 18+95.27
ELEVATION 687.70

VPI STA. 18+63.08
ELEVATION 686.99

-2.22%
-2.22%
-2.22%
-2.0%
-2.22%
+2.20%
+1.0%
+2.20%

LEFT DITCH	685.10	684.90	684.69	684.49	684.28	684.08	683.87	683.67	683.46	683.26	683.06	682.85	682.65	682.44	682.24	682.04	681.83	681.63	681.43	681.22	681.02	680.81	680.61	680.41	679.08	677.49	675.89	674.30	672.71	674.14	675.72	677.29	678.86	680.43	680.59	680.69	680.78	680.88	680.97	681.07	681.17	681.27	681.36	681.46	681.56	681.66	681.76	681.85	681.95	682.05	682.14	682.24	682.33	682.43	682.53	682.63	682.73	682.82	682.92	683.02	683.12	683.21
	687.46	687.22	686.99	686.75	686.52	686.29	686.07	685.85	685.63	685.41	685.20	684.99	684.79	684.58	684.37	684.16	683.95	683.74	683.54	683.58	683.87	684.01	684.23	684.45	684.16	684.43	675.42	684.38	673.08	676.01	680.50	684.28	682.14	682.34	684.25	682.48	684.25	682.43	682.48	684.28	682.59	684.31	682.70	684.35	682.81	684.39	682.93	684.44	683.05	684.51	683.16	684.58	683.27	684.66	683.35	684.75	683.44	684.85	683.53	684.95	683.62	685.07	683.70	685.19	683.79	685.33	683.88	685.47	683.99	685.62	684.12	685.78	684.19	685.95	684.23	686.12	684.27	686.31	684.30	686.51	684.32	686.71	684.35	686.92	684.33	687.14	684.13	687.36	683.92	687.58	683.72	687.80

13+00 13+50 14+00 14+50 15+00 15+50 16+00 16+50 17+00 17+50 18+00 18+50 19+00

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618	plan_sheets.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

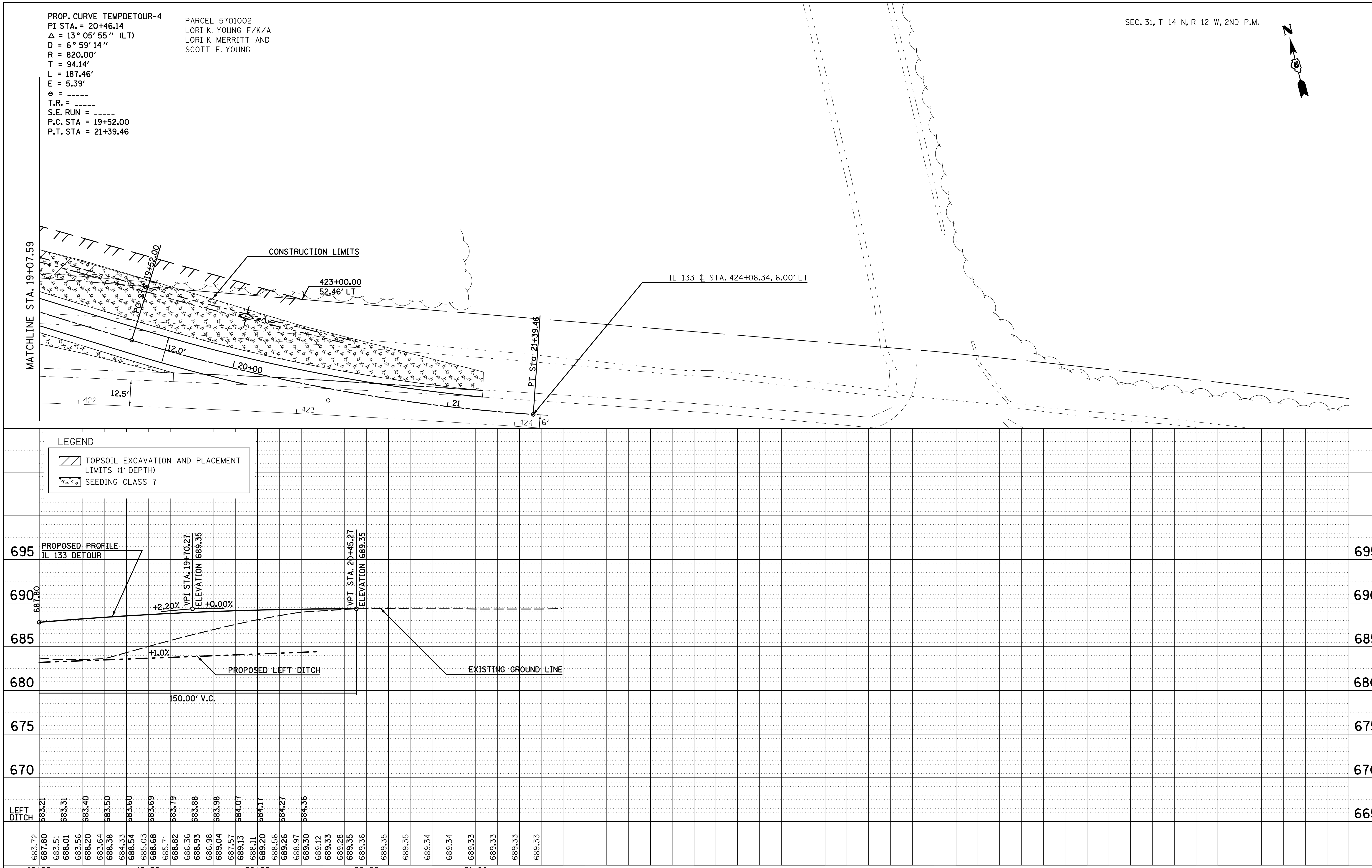
TEMPORARY DETOUR
PLAN AND PROFILE

SCALE: | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	38
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BAR NOTED STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE



PROP. CURVE TEMPDETOUR-4
PI STA. = 20+46.14
Δ = 13° 05′ 55″ (LT)
D = 6° 59′ 14″
R = 820.00′
T = 94.14′
L = 187.46′
E = 5.39′
e = _____
T.R. = _____
S.E. RUN = _____
P.C. STA = 19+52.00
P.T. STA = 21+39.46
PARCEL 5701002
LORI K. YOUNG F/K/A
LORI K MERRITT AND
SCOTT E. YOUNG
SEC. 31, T 14 N, R 12 W, 2ND P.M.
N
MATCHLINE STA. 19+07.59
CONSTRUCTION LIMITS
423+00.00
52.46′ LT
IL 133 ℄ STA. 424+08.34, 6.00′ LT
PC Sta 19+52.00
PT Sta 21+39.46
12.0′
12.5′
20+00
21
422
423
424
6′
LEGEND
TOPSOIL EXCAVATION AND PLACEMENT LIMITS (1′ DEPTH)
SEEDING CLASS 7
PROPOSED PROFILE
IL 133 DETOUR
VPI STA. 19+70.27
ELEVATION 689.35
VPT STA. 20+45.27
ELEVATION 689.35
687.80
+2.20%
+0.00%
+1.0%
PROPOSED LEFT DITCH
EXISTING GROUND LINE
150.00′ V.C.
695
690
685
680
675
670
665
LEFT DITCH
683.21 683.31 683.40 683.50 683.60 683.69 683.79 683.88 683.98 684.07 684.17 684.27 684.36
683.72 687.80 683.51 688.01 683.56 688.20 683.64 688.38 684.33 688.54 685.03 688.68 685.71 688.82 686.36 688.93 686.98 689.04 687.57 689.13 688.11 689.20 688.56 689.26 688.97 689.30 689.12 689.33 689.28 689.35 689.36 689.35 689.35 689.34 689.34 689.33 689.33 689.33 689.33
19+00
19+50
20+00
20+50
21+00

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-plan_sheets.dgn	USER NAME = keysrb	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
	PLOT SCALE = 40.0000 ′ / in.	DRAWN -	REVISED -	
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -	
		DATE -	REVISED -	

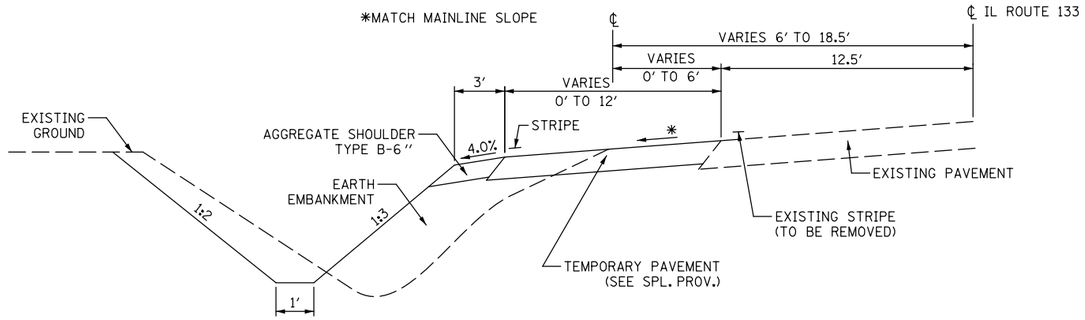
TEMPORARY DETOUR
PLAN AND PROFILE

SCALE: | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	39

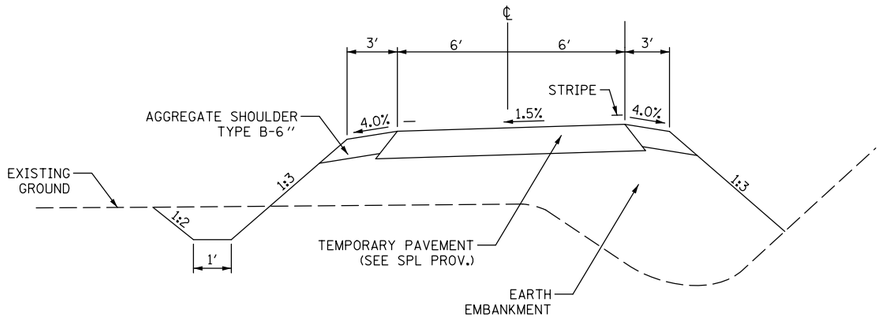
CONTRACT NO. 70618

ILLINOIS FED. AID PROJECT



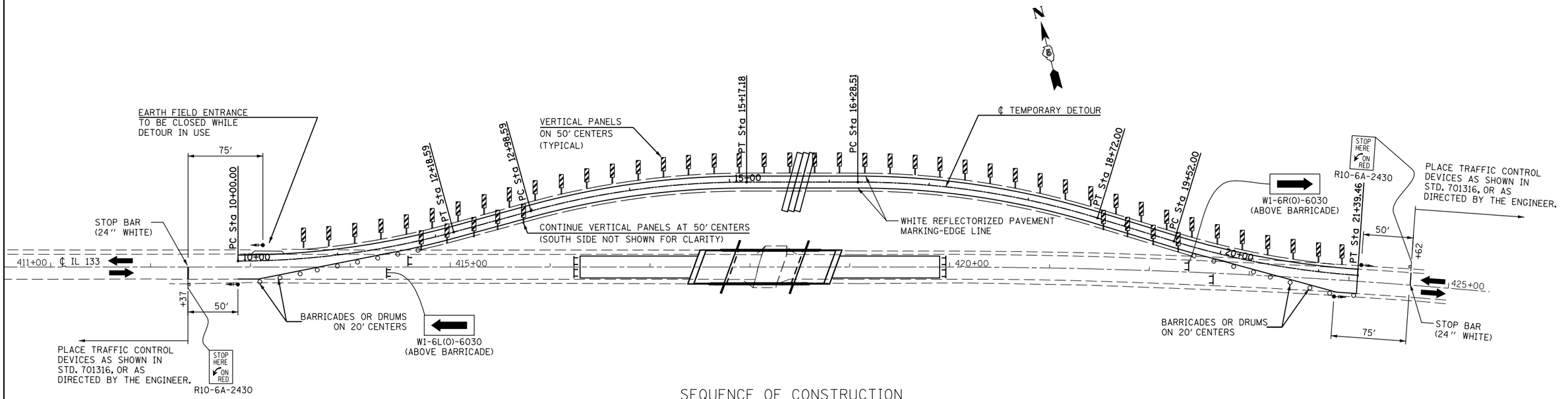
TYPICAL SECTION FOR RUNAROUND

STA. 10+00.00 TO STA. 11+50.00
STA. 19+70.00 TO STA. 21+39.46



TYPICAL SECTION FOR RUNAROUND

STA. 11+50.00 TO STA. 19+70.00



SYMBOLS

- PROPOSED SIGNAL HEAD W/ BACK PLATE
- SIGN
- TYPE III BARRICADE
- BARRICADE OR DRUM WITH MONODIRECTIONAL STEADY BURNING LIGHT
- VERTICAL PANEL

SEQUENCE OF CONSTRUCTION

1. CONSTRUCT TEMPORARY DETOUR AND SEED DETOUR EMBANKMENT WITH CLASS 7 SEEDING. INSTALL OTHER EROSION CONTROL MEASURES AS REQUIRED.
2. INSTALL TRAFFIC SIGNALS, SIGNS, DETECTOR LOOPS, STRIPING VERTICAL PANELS, ETC. ACCORDING TO THESE DETAILS AND APPLICABLE PORTIONS OF STANDARDS 701316 & 701331.
3. DIVERT TRAFFIC TO DETOUR, CONSTRUCT NEW STRUCTURE AND APPROACH ROADWAY AND INSTALL GUARDRAIL AS SHOWN ELSEWHERE IN THESE PLANS.
4. PLACE TRAFFIC BACK ONTO IL 133, REMOVE DETOUR, AND RESTORE DISTURBED AREA BACK TO ORIGINAL CONDITIONS.

NOTES:
RUNAROUND DESIGN SPEED 40MPH (POST RUNAROUND 35MPH ON ADVISORY SPEED SIGNS UNDER THE ″ONE LANE ROAD AHEAD″ SIGN ASSEMBLY).

VERTICAL PANELS TO BE INSTALLED TO PROVIDE A MINIMUM 18′ CLEAR WIDTH. WIDTH RESTRICTION SIGNS WILL NOT BE REQUIRED. PLACE VERTICAL PANELS ″BACK TO BACK″ ON SIGN POSTS.

TRAFFIC CONTROL TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, 701316 (SPECIAL).

CONTRACTOR TO MAINTAIN ACCESS TO PROPERTIES DURING CONSTRUCTION, UNLESS OTHERWISE NOTED.

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\d570618-sht-traffic_control.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 200.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION 701316 (SPECIAL)

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	40
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

Bench Mark: B.M. 4399-29 Chiseled square on the southeast corner of the southwest wing of structure 023-0016: Station 418+02.91, 25.81 ft. Rt., Elevation 689.99.

Existing Structure: S.N. 023-0016 built in 1940 as F.A.P. 175 Section 14 at Station 418+26. The single span superstructure consists of a concrete deck slab and wearing surface. The substructure consists of closed abutments supported on timber piles. The structure length is 22'-9" bk-to-bk of abutments and 45'-4" out-to-out of deck with a 15 degree skew. The existing structure is to be replaced.

Traffic to be detoured for road closure.

No Salvage

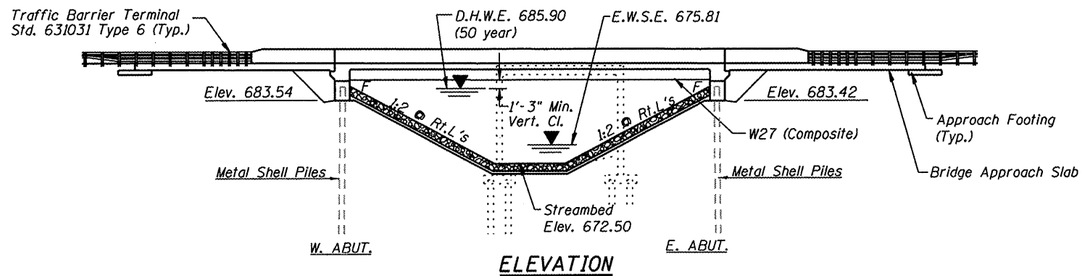
APPROVED
For Structural Adequacy Only
D. Carl Pursley (TPD)
Engineer of Bridges & Structures

WATERWAY INFORMATION

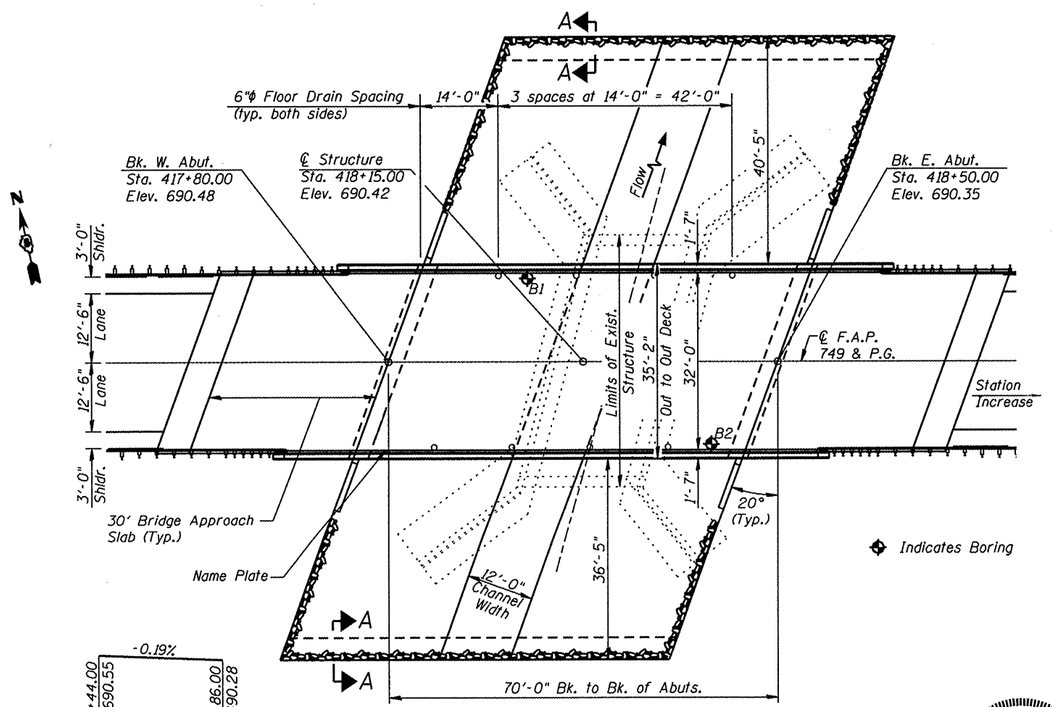
Drainage Area = 5.8 SQ. MI. Low Grade Elev. 689.18 @ Sta. 423+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	889	231	335	683.7	0.1	0.0	683.8	683.7
Design	50	1450	276	459	685.9	0.5	0.2	686.4	686.1
Base	100	1700	285	484	686.3	0.7	0.2	687.0	686.5
Max. Calc.	500	2320	287	490	686.4	1.4	0.6	687.8	687.0

10 year velocity through Existing Bridge = 4.21 ft/s
10 year velocity throught Proposed Bridge = 2.66 ft/s



ELEVATION



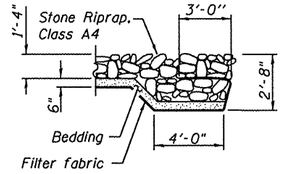
Indicates Boring

PLAN

PROFILE GRADE F.A.P. RTE. 749
Along ℄ Roadway

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	E. Abut.	W. Abut.
	683.54	683.42



SECTION A-A

STATION 418+15.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. 749 SEC. 14BR
LOADING HL-93
STR. NO. 023-0034

NAME PLATE
See Std. 515001

PETER B. BAYLES 081-006042 LICENSED STRUCTURAL ENGINEER ILLINOIS

Peter B. Bayles, P.E., S.E.
Structural Engineer License No. 081-006042
Expiration Date: 11/30/2012

INDEX OF SHEETS

LOADING HL-93

Allow 50 psf. for future wearing surface.

DESIGN SPECIFICATIONS

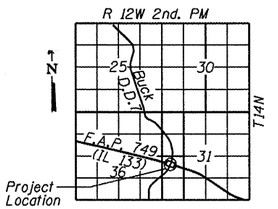
2010 AASHTO LRFD Bridge Design Specifications
5th Edition with 2010 Interims

DESIGN STRESSES

FIELD UNITS
f'c = 3.500 psi
fy = 60.000 psi (Reinforcement)
fy = 50.000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPZ)=2
Design Spectral Acceleration at 1.0 sec. (SD1)=0.160g
Design Spectral Acceleration at 0.2 sec. (SDs)=0.318g
Soil Site Class=D



LOCATION SKETCH

GENERAL PLAN
IL 133 OVER DRAINAGE DITCH NO. 7
F.A.P. 749 - SEC. 14BR
EDGAR COUNTY
STATION 418+15.00
STRUCTURE NO. 023-0034

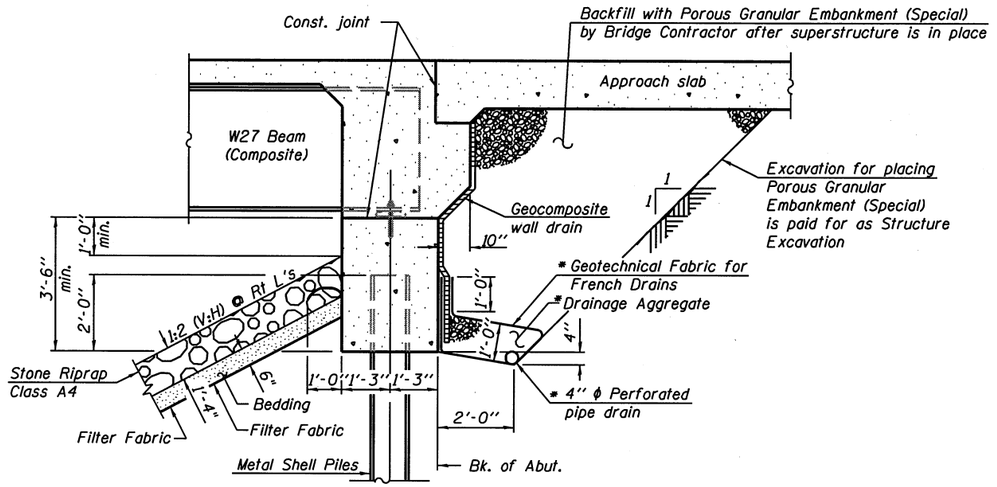
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 023-0034
SHEET NO. 1 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	41
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. ℄ Rt. L's)

* Included in the cost of Pipe Underdrains for Structure, 4".

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend past wingwall 2'-0" then turn 45° towards the channel until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{3}{4}$ in.ϕ. holes $\frac{13}{16}$ in.ϕ. unless otherwise noted.

Calculated weight of Structural Steel = 68540 lbs.

All structural steel shall be AASHTO M270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel."

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

Reinforcement bars designated (E) shall be epoxy coated.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Slipforming of parapets is not allowed.

Excavation behind existing abutment walls to balance front and back soil pressure shall be performed before removing the existing superstructure.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		107	107
Stone Riprap, Class A4	Sq. Yd.		936	936
Filter Fabric	Sq. Yd.		936	936
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		216	216
Floor Drains	Each	8		8
Concrete Structures	Cu. Yd.		55.5	55.5
Concrete Superstructure	Cu. Yd.	211.3		211.3
* Bridge Deck Grooving	Sq. Yd.	433		433
* Protective Coat	Sq. Yd.	554		554
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1062		1062
Reinforcement Bars, Epoxy Coated	Pound	48510	4360	52870
Bar Splicers	Each	72		72
Furnishing Metal Shell Piles 12"x0.250"	Foot		320	320
Driving Piles	Foot		320	320
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Anchor Bolts, 1"	Each	24		24
Geocomposite Wall Drain	Sq. Yd.		64	64
Pipe Underdrains for Structures 4"	Foot		116	116

*Includes approach slabs

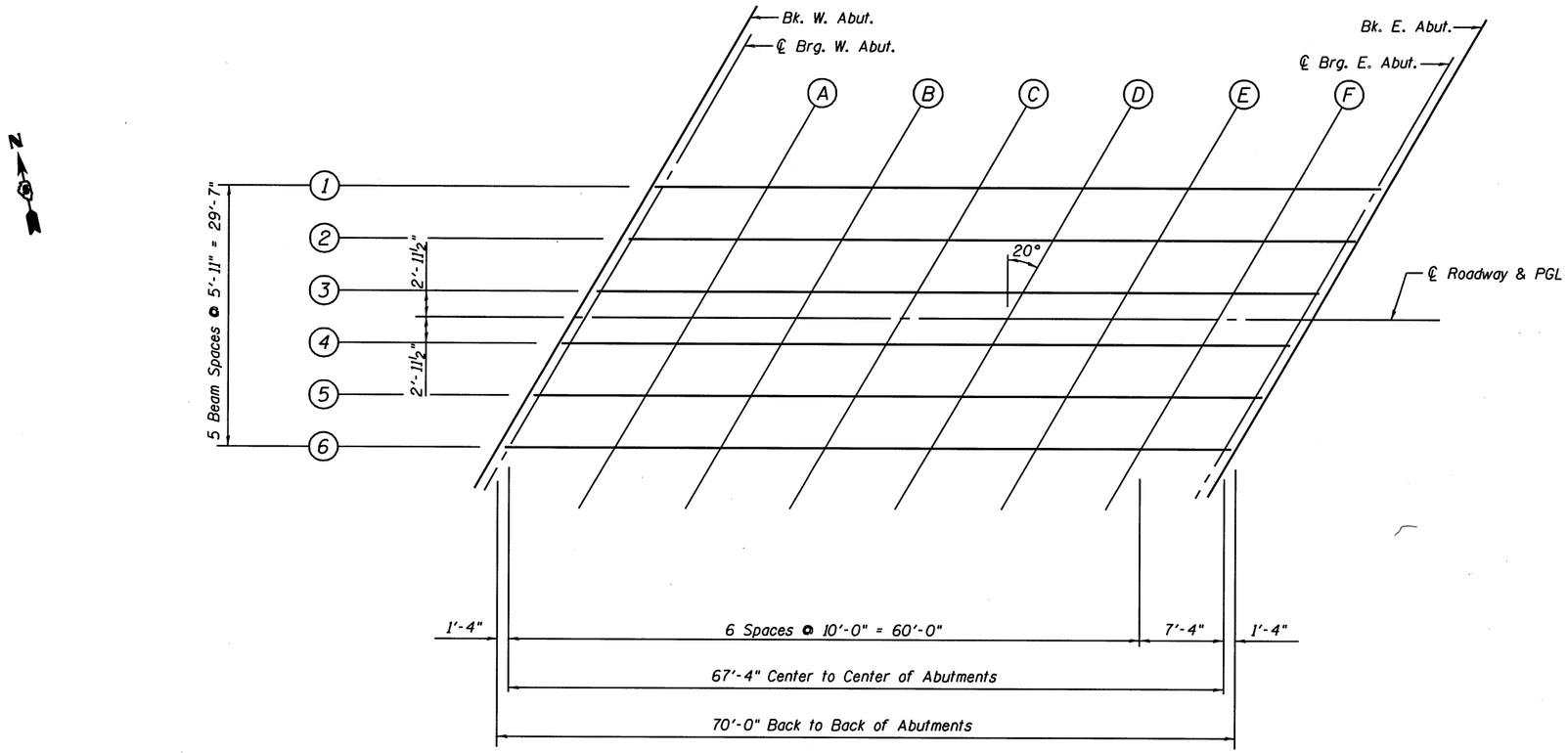
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

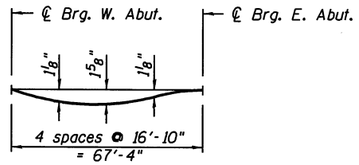
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 023-0034
SHEET NO. 2 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	42
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		



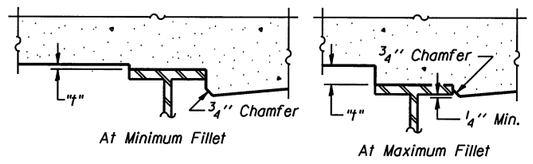
PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 4 of 21.



At Minimum Fillet

At Maximum Fillet

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 4 of 21, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS STRUCTURE NO. 023-0034	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -			749	14BR	EDGAR	115	43
	PLOT SCALE =	DRAWN - RJC	REVISED -					CONTRACT NO. 70618		
	PLOT DATE =	CHECKED -	REVISED -		SHEET NO. 3 OF 21 SHEETS			ILLINOIS FED. AID PROJECT		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+85.38	-14.79	690.22	690.22
Cl.W.Abut.	417+86.71	-14.79	690.22	690.22
A	417+96.71	-14.79	690.20	690.26
B	418+06.71	-14.79	690.18	690.29
C	418+16.71	-14.79	690.16	690.30
D	418+26.71	-14.79	690.14	690.28
E	418+36.71	-14.79	690.12	690.22
F	418+46.71	-14.79	690.11	690.17
Cl.E.Abut.	418+54.05	-14.79	690.09	690.09
Bk.E.Abut.	418+55.38	-14.79	690.09	690.09

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+83.23	-8.87	690.33	690.33
Cl.W.Abut.	417+84.56	-8.87	690.33	690.33
A	417+94.56	-8.87	690.31	690.37
B	418+04.56	-8.87	690.29	690.40
C	418+14.56	-8.87	690.27	690.41
D	418+24.56	-8.87	690.25	690.39
E	418+34.56	-8.87	690.23	690.33
F	418+44.56	-8.87	690.22	690.28
Cl.E.Abut.	418+51.90	-8.87	690.20	690.20
Bk.E.Abut.	418+53.23	-8.87	690.20	690.20

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+81.08	-2.96	690.43	690.43
Cl.W.Abut.	417+82.41	-2.96	690.43	690.43
A	417+92.41	-2.96	690.41	690.47
B	418+02.41	-2.96	690.39	690.50
C	418+12.41	-2.96	690.37	690.51
D	418+22.41	-2.96	690.35	690.49
E	418+32.41	-2.96	690.33	690.43
F	418+42.41	-2.96	690.32	690.38
Cl.E.Abut.	418+49.75	-2.96	690.30	690.30
Bk.E.Abut.	418+51.08	-2.96	690.30	690.30

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+80.00	0.00	690.48	690.48
Cl.W.Abut.	417+81.33	0.00	690.48	690.48
A	417+91.33	0.00	690.46	690.52
B	418+01.33	0.00	690.44	690.55
C	418+11.33	0.00	690.42	690.56
D	418+21.33	0.00	690.40	690.54
E	418+31.33	0.00	690.38	690.48
F	418+41.33	0.00	690.37	690.43
Cl.E.Abut.	418+48.67	0.00	690.35	690.35
Bk.E.Abut.	418+50.00	0.00	690.35	690.35

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+78.92	2.96	690.43	690.43
Cl.W.Abut.	417+80.25	2.96	690.43	690.43
A	417+90.25	2.96	690.41	690.47
B	418+00.25	2.96	690.39	690.50
C	418+10.25	2.96	690.37	690.51
D	418+20.25	2.96	690.35	690.49
E	418+30.25	2.96	690.33	690.43
F	418+40.25	2.96	690.32	690.38
Cl.E.Abut.	418+47.59	2.96	690.30	690.30
Bk.E.Abut.	418+48.92	2.96	690.30	690.30

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+76.77	8.87	690.35	690.35
Cl.W.Abut.	417+78.10	8.87	690.35	690.35
A	417+88.10	8.87	690.33	690.39
B	417+98.10	8.87	690.31	690.42
C	418+08.10	8.87	690.29	690.43
D	418+18.10	8.87	690.27	690.41
E	418+28.10	8.87	690.25	690.35
F	418+38.10	8.87	690.24	690.30
Cl.E.Abut.	418+45.44	8.87	690.22	690.22
Bk.E.Abut.	418+46.77	8.87	690.22	690.22

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.W.Abut.	417+74.62	14.79	690.24	690.24
Cl.W.Abut.	417+75.95	14.79	690.24	690.24
A	417+85.95	14.79	690.22	690.28
B	417+95.95	14.79	690.20	690.31
C	418+05.95	14.79	690.18	690.32
D	418+15.95	14.79	690.16	690.30
E	418+25.95	14.79	690.14	690.24
F	418+35.95	14.79	690.13	690.19
Cl.E.Abut.	418+43.29	14.79	690.11	690.11
Bk.E.Abut.	418+44.62	14.79	690.11	690.11

NORTH EDGE OF SHLDR.

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't	417+55.82	-16.00	690.26
A	417+65.82	-16.00	690.24
B	417+75.82	-16.00	690.22
E. End W. appr. Pav't	417+85.82	-16.00	690.20

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't	417+54.37	-12.00	690.34
A	417+64.37	-12.00	690.32
B	417+74.37	-12.00	690.30
E. End W. appr. Pav't	417+84.37	-12.00	690.28

℄ ROADWAY & PG

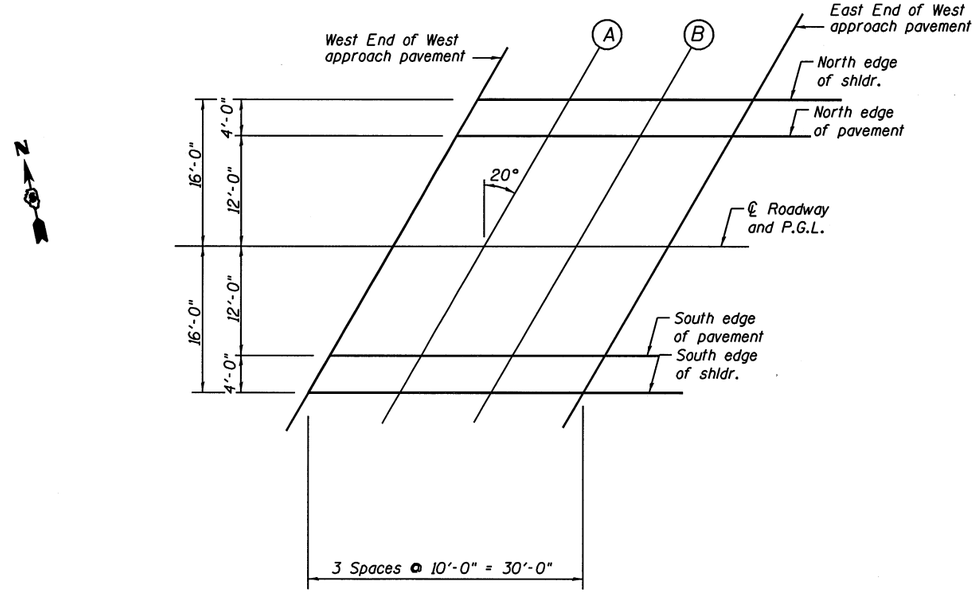
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't	417+50.00	0.000	690.54
A	417+60.00	0.000	690.52
B	417+70.00	0.000	690.50
E. End W. appr. Pav't	417+80.00	0.000	690.48

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't	417+45.63	12.00	690.36
A	417+55.63	12.00	690.34
B	417+65.63	12.00	690.32
E. End W. appr. Pav't	417+75.63	12.00	690.30

SOUTH EDGE OF SHLDR.

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't	417+44.18	16.00	690.28
A	417+54.18	16.00	690.26
B	417+64.18	16.00	690.24
E. End W. appr. Pav't	417+74.18	16.00	690.22



PLAN

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 023-0034
SHEET NO. 5 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	45
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

NORTH EDGE OF SHLDR.

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't	418+55.82	-16.00	690.07
A	418+65.82	-16.00	690.05
B	418+75.82	-16.00	690.03
E. End E. appr. Pav't	418+85.82	-16.00	690.01

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't	418+54.37	-12.00	690.15
A	418+64.37	-12.00	690.13
B	418+74.37	-12.00	690.11
E. End E. appr. Pav't	418+84.37	-12.00	690.09

℄ ROADWAY & PG

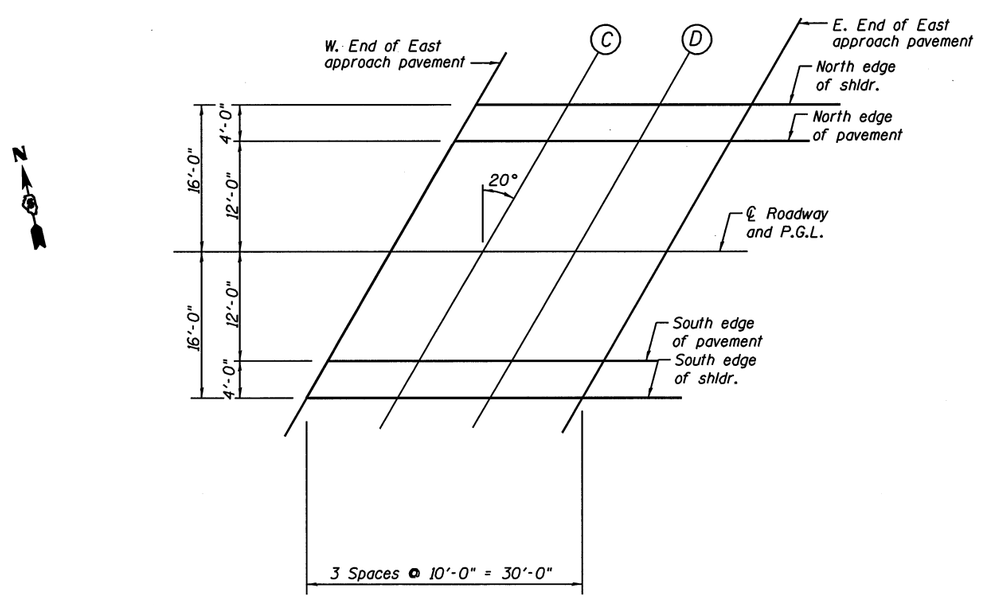
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't	418+50.00	0.000	690.35
A	418+60.00	0.000	690.33
B	418+70.00	0.000	690.31
E. End E. appr. Pav't	418+80.00	0.000	690.29

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't	418+45.63	12.00	690.17
A	418+55.63	12.00	690.15
B	418+65.63	12.00	690.13
E. End E. appr. Pav't	418+75.63	12.00	690.11

SOUTH EDGE OF SHLDR.

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't	418+44.18	16.00	690.09
A	418+54.18	16.00	690.07
B	418+64.18	16.00	690.05
E. End E. appr. Pav't	418+74.18	16.00	690.03



N

PLAN

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

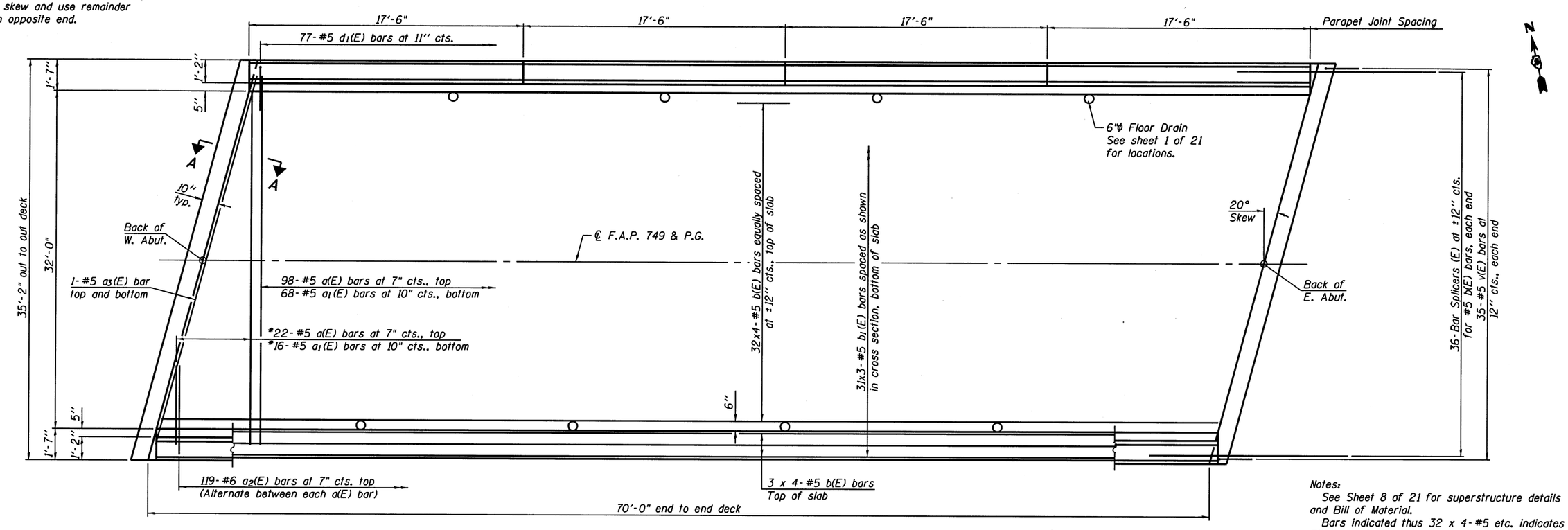
FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 023-0034
SHEET NO. 6 OF 21 SHEETS

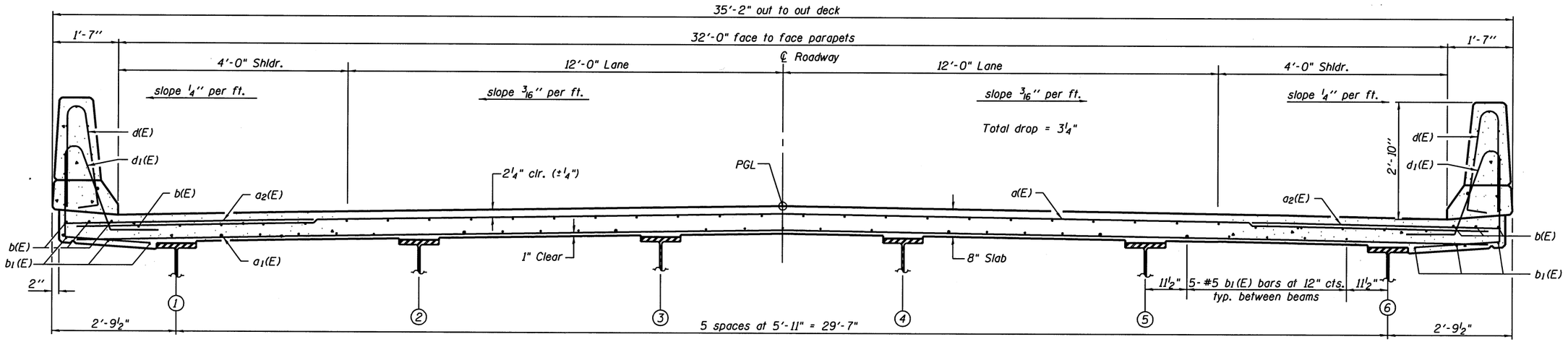
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	46
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

* Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



PLAN

Notes:
See Sheet 8 of 21 for superstructure details and Bill of Material.
Bars indicated thus 32 x 4-#5 etc. indicates 32 lines of bars with 4 lengths per line.
See Sheet 8 of 21 for parapet reinforcement.
See Sheet 9 of 21 for Section A-A.



CROSS SECTION
(Looking East)

MINIMUM BAR LAP
#5 bar = 2'-7"

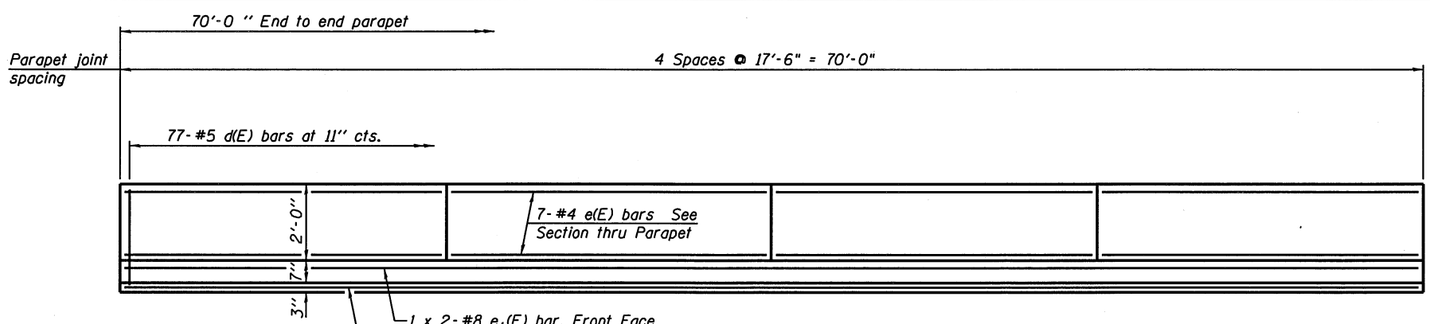
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

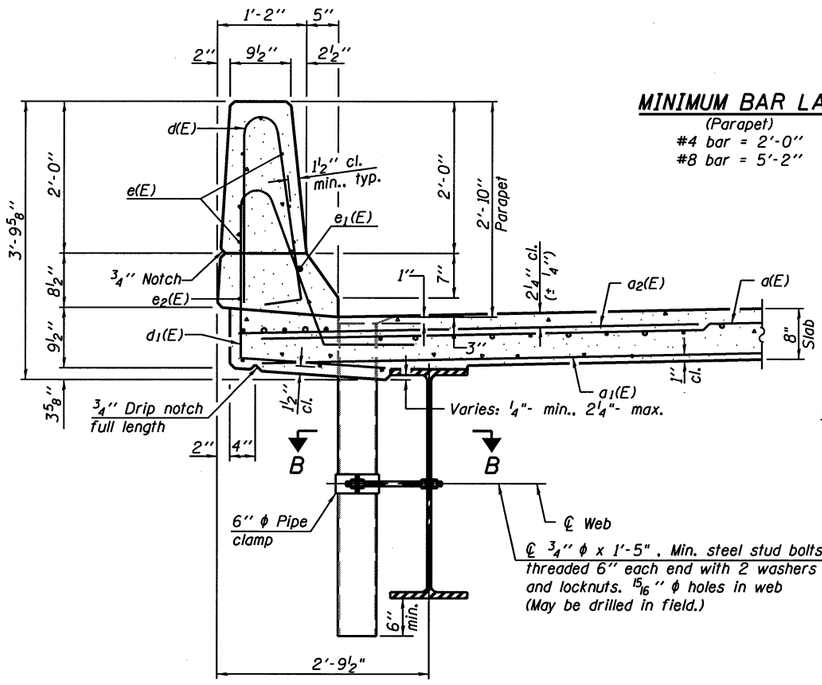
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 023-0034
SHEET NO. 7 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	47
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			



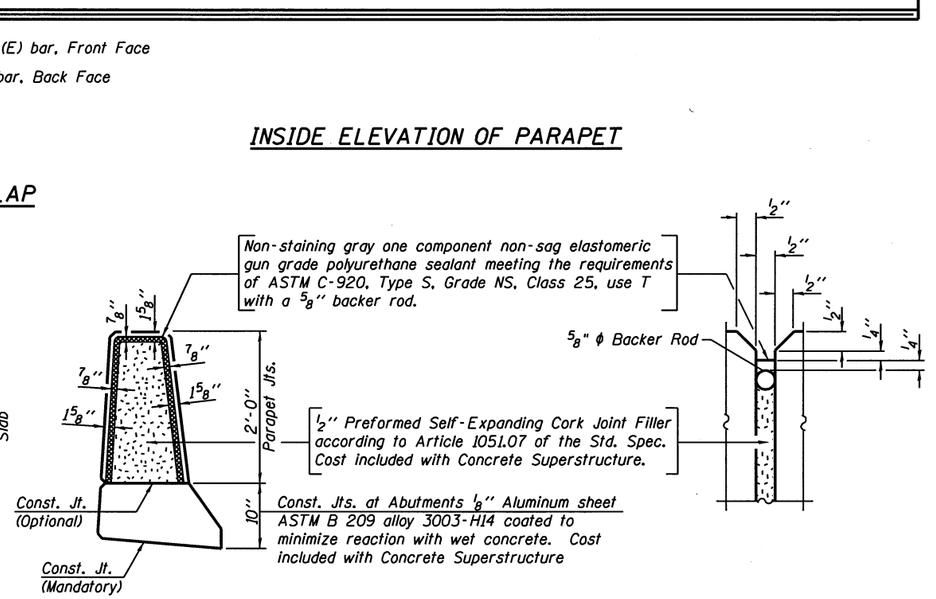
INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET

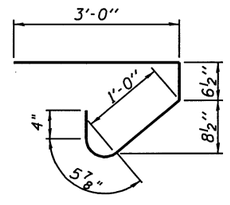
MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

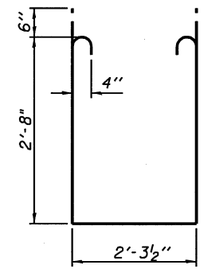


PARAPET JOINT DETAILS

Notes:
Floor drains need not be painted.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.



BAR s(E)

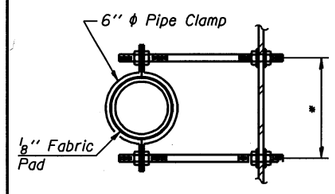


BAR s1(E)

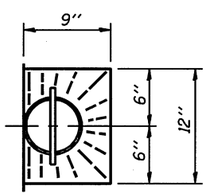
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	120	#5	34'-2"	
a1(E)	84	#5	33'-2"	
a2(E)	238	#6	6'-6"	
a3(E)	4	#5	36'-4"	
b(E)	152	#5	19'-5"	
b1(E)	93	#5	25'-0"	
d(E)	154	#5	5'-7"	
d1(E)	154	#5	7'-5"	
e(E)	56	#4	17'-3"	
e1(E)	4	#8	37'-7"	
e2(E)	6	#4	24'-8"	
m(E)	10	#6	37'-1"	
m1(E)	24	#6	9'-11"	
m2(E)	10	#6	6'-0"	
m3(E)	4	#6	2'-9"	
s(E)	72	#5	5'-5"	
s1(E)	62	#4	8'-8"	
v(E)	70	#5	3'-10"	
Reinforcement Bars, Epoxy Coated		Pound	20,470	
Concrete Superstructure		Cu. Yds.	101.3	
Bar Splicers		Each	72	

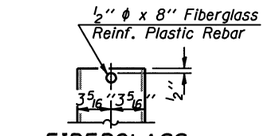
Bars indicated thus 1 x 2- #8 etc. indicates 1 line of bars with 2 lengths per line.



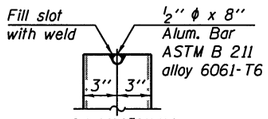
SECTION B-B
*Dimension as required by Pipe Clamp



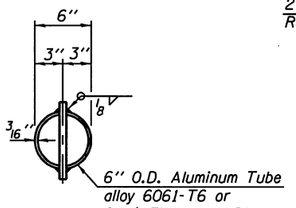
TOP PLAN



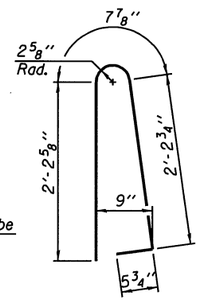
FIBERGLASS PIPE



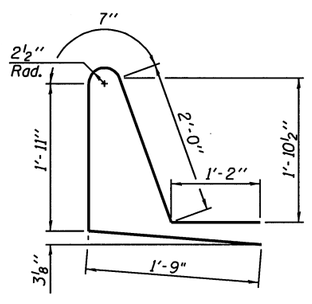
ALUMINUM TUBE



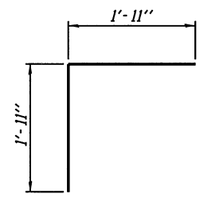
TOP PLAN
(Showing Aluminum Tube)



BAR d(E)



BAR d1(E)



BAR v(E)

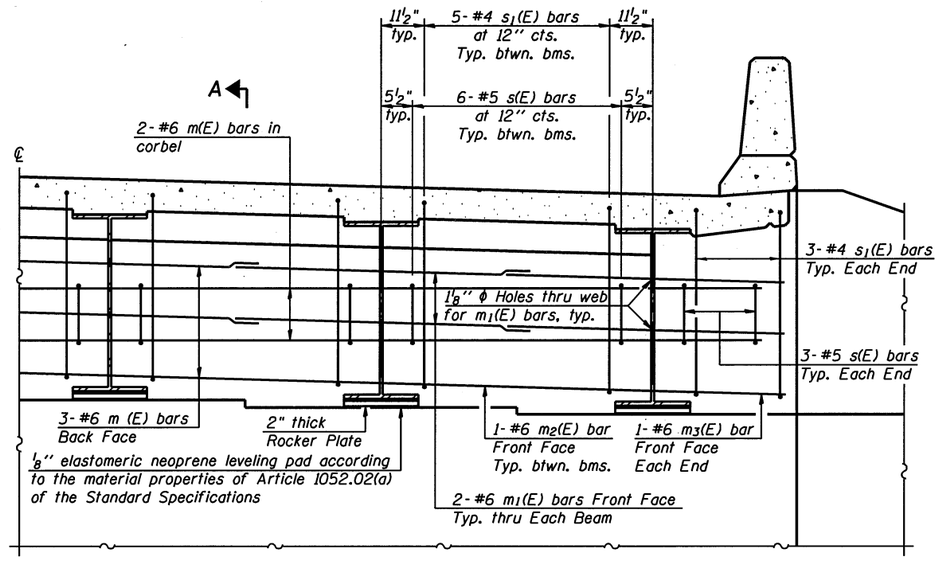
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 8 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	48
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		



DIAPHRAGM ELEVATION AT ABUTMENT

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 21.

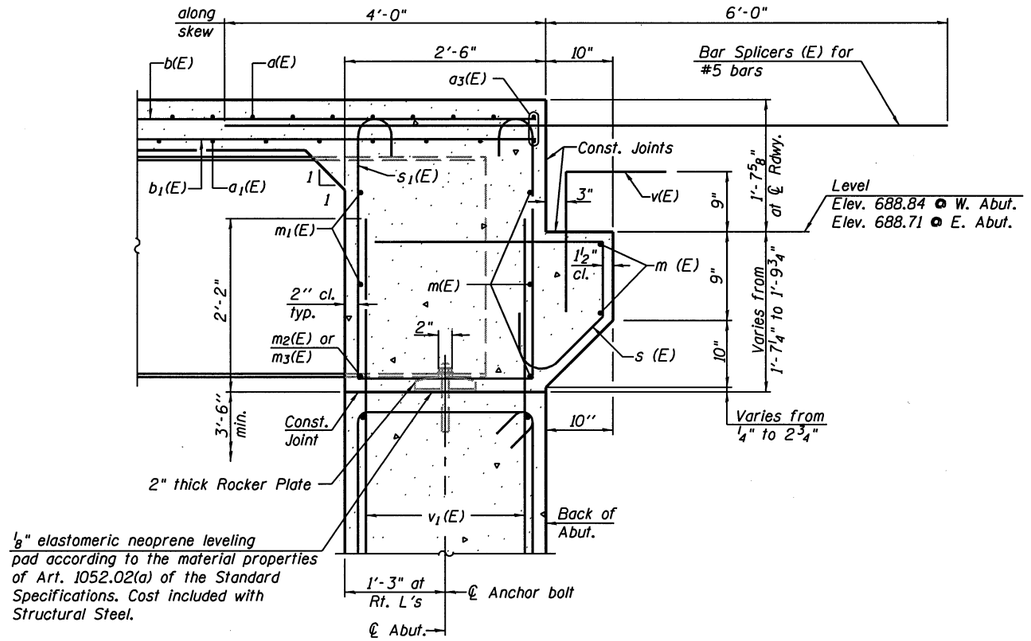
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 21.

For details of bars s(E) & s_1(E) see sheet 8 of 21.

The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP

#6 bar = 3'-4"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

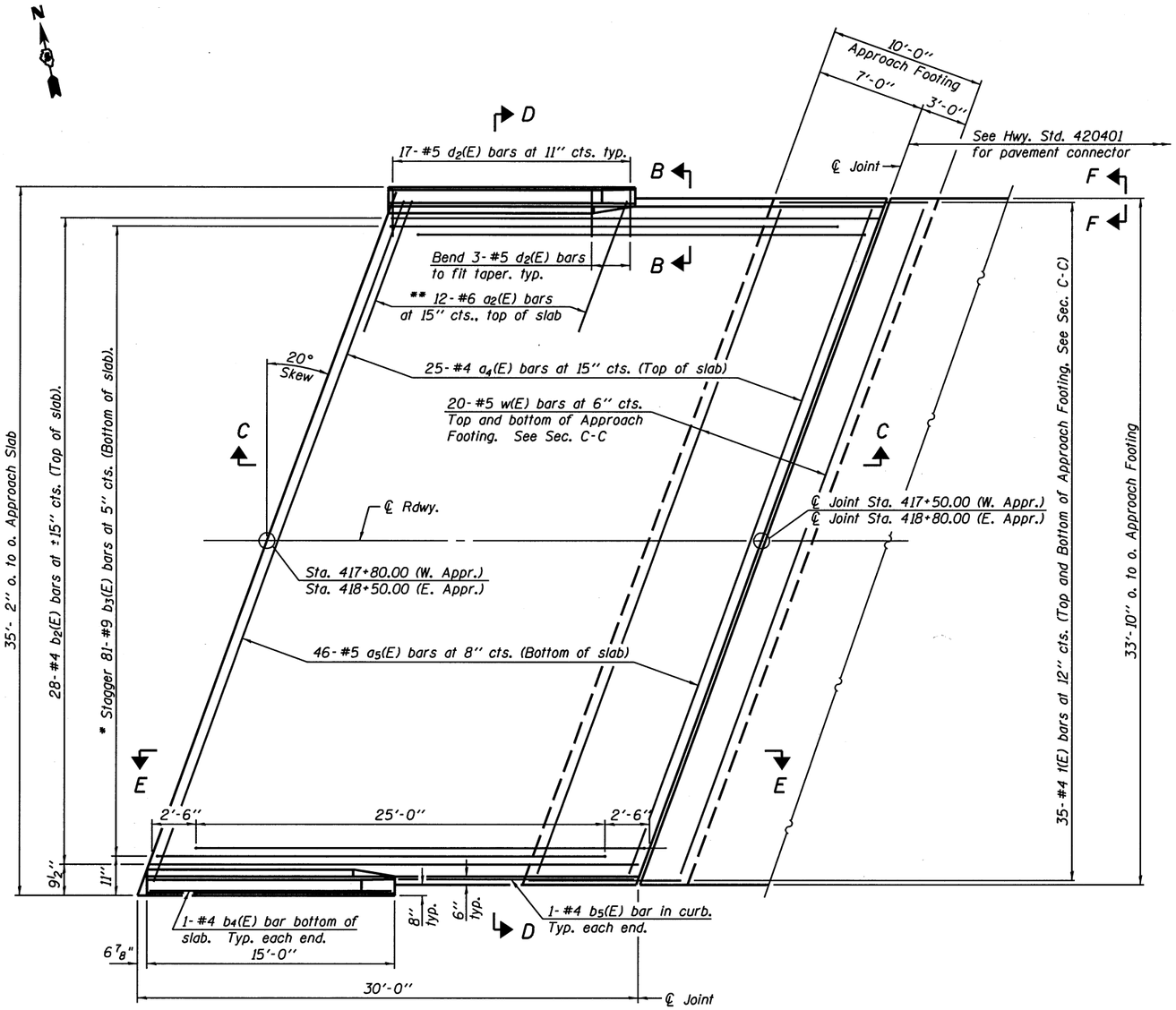
FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTEGRAL ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 9 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	49
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

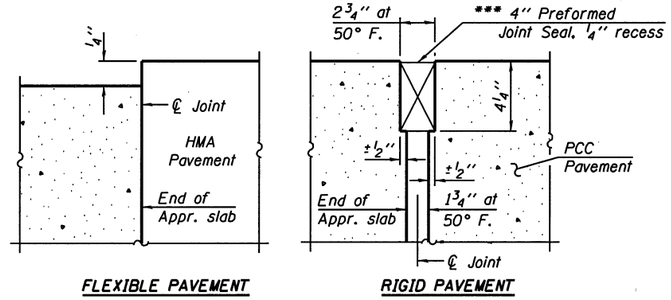
Notes:
See sheet 11 of 21 for Sections C-C & D-D and View E-E.
a_4(E) and a_5(E) bar spacings measured along ℄ Rdwy.



EAST APPROACH PLAN
(West Approach similar)

* Tilt #9 b_3(E) bars as required to maintain clearance.
** Space between a_4(E) bars, typ. each parapet.

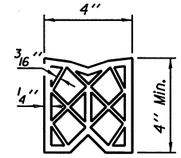
*** Cost included with Concrete Superstructure.



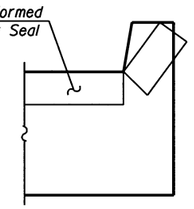
FLEXIBLE PAVEMENT

RIGID PAVEMENT

DETAIL A

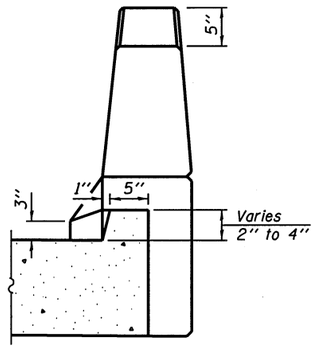


PREFORMED JOINT SEAL



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

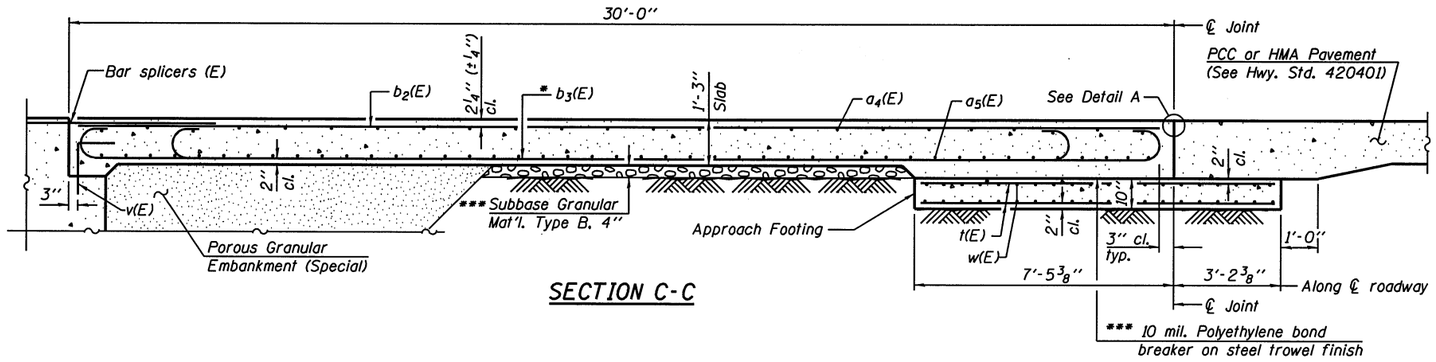


VIEW B-B

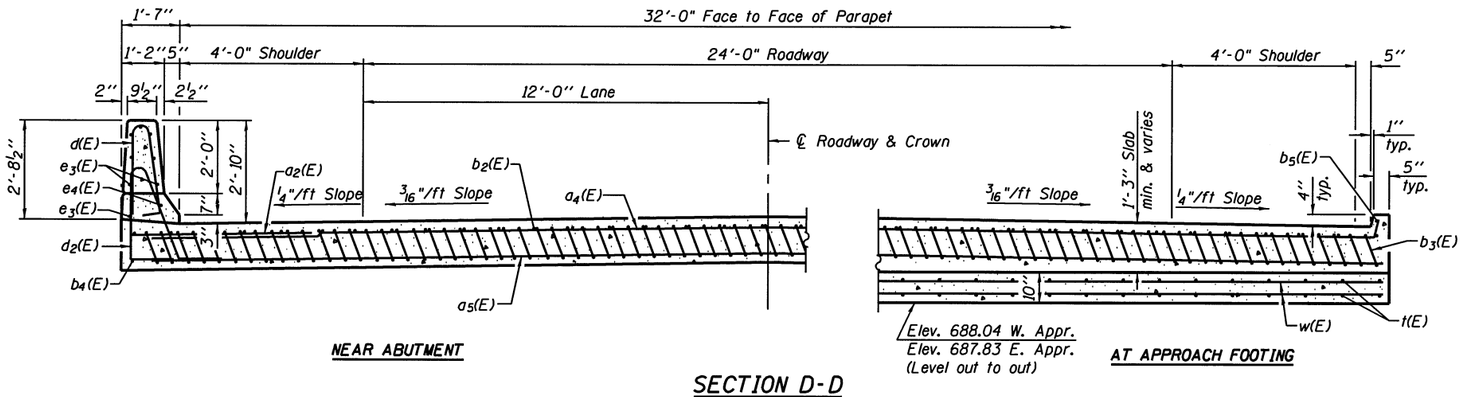
BA-L 7-1-10
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

(Sheet 1 of 2)

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 023-0034	F.A.P. RTE.	SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
		CHECKED -	REVISED -			749	14BR / EDGAR / 115 / 50
	PLOT SCALE =	DRAWN - RJC	REVISED -				CONTRACT NO. 70618
	PLOT DATE =	CHECKED -	REVISED -		SHEET NO. 10 OF 21 SHEETS		ILLINOIS FED. AID PROJECT

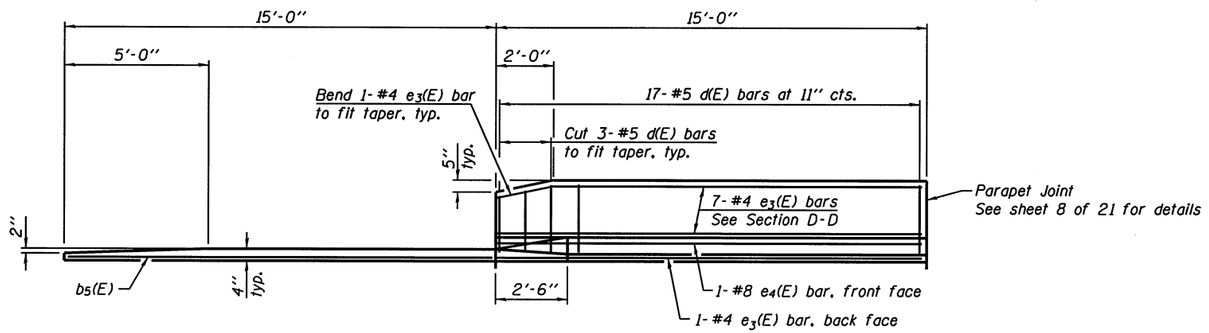


SECTION C-C

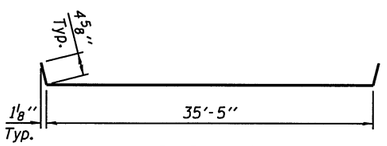


SECTION D-D

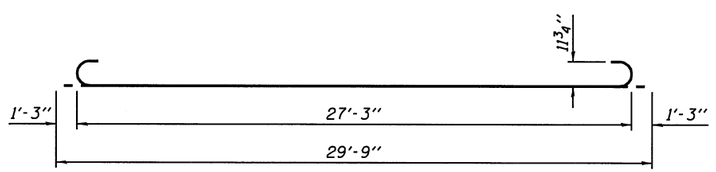
(See Plan for dimensions not shown)



VIEW E-E



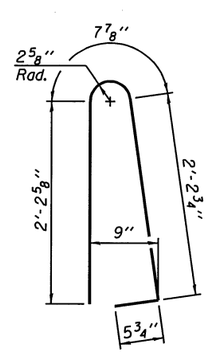
BAR a4(E)



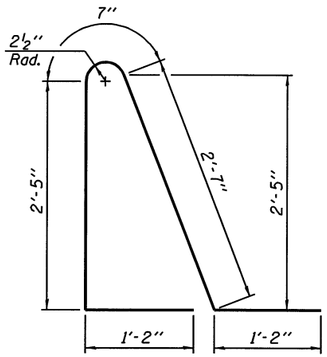
BAR b3(E)

Notes:

See sheet 10 of 21 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 8 of 21.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 16 of 21.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 21.
For additional parapet details, see sheet 10 of 21.



BAR d(E)



BAR d2(E)

* Tilt #9 b3(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	
a4(E)	50	#4	36'-3"	
a5(E)	92	#5	35'-7"	
b2(E)	56	#4	29'-8"	
b3(E)	162	#9	29'-9"	
b4(E)	4	#4	14'-8"	
b5(E)	4	#4	14'-5"	
d(E)	68	#5	5'-7"	
d2(E)	68	#5	7'-11"	
e3(E)	32	#4	14'-8"	
e4(E)	4	#8	14'-8"	
t(E)	140	#4	10'-4"	
w(E)	80	#5	35'-7"	
Concrete Superstructure			Cu. Yd.	110
Concrete Structures			Cu. Yd.	23.7
Reinforcement Bars, Epoxy Coated			Pound	28040

BA-L 7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

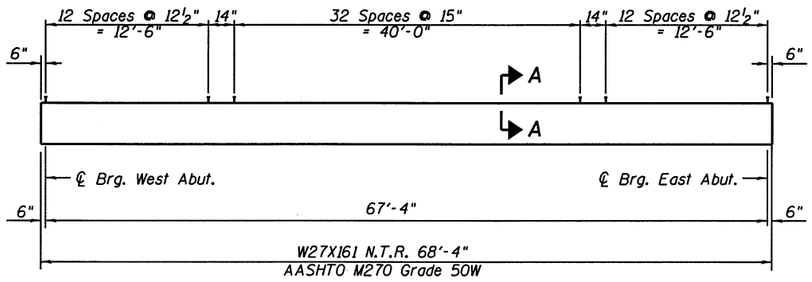
(Sheet 2 of 2)

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

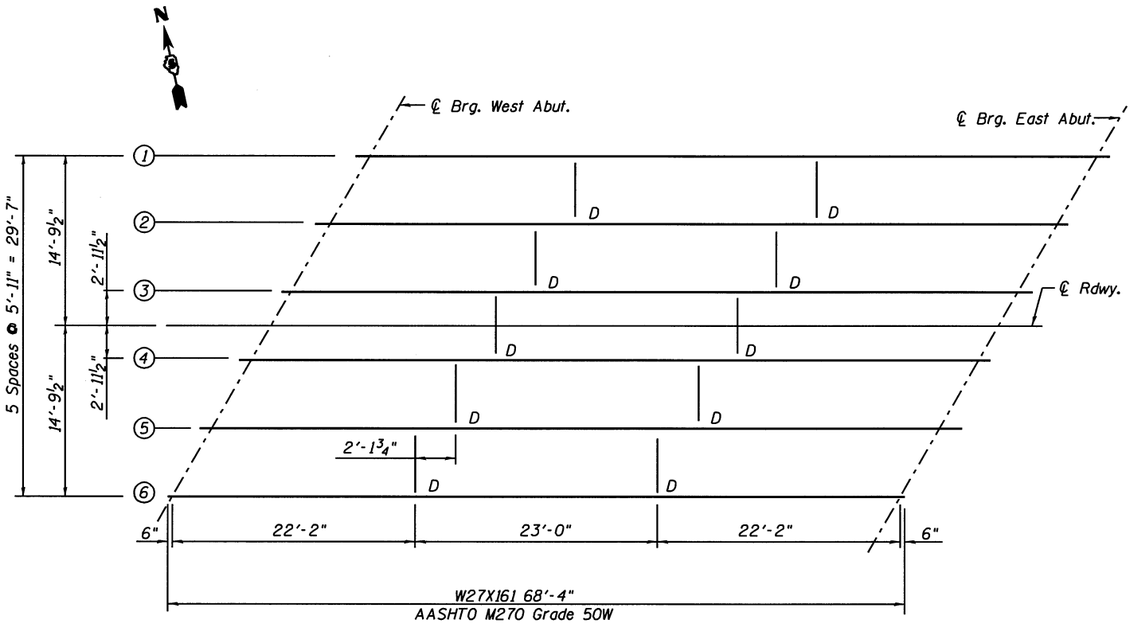
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 11 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	51
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			



ELEVATION

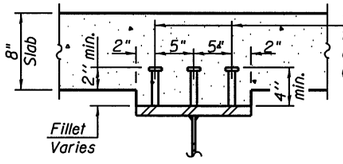


FRAMING PLAN

Note: All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor bolts.

See sheet 13 of 21 for location of 1⅛"ϕ holes at beam ends.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



¾" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (1062 Required)

SECTION A-A

	W. Abut.	E. Abut.
Beam 1	689.51	689.38
Beam 2	689.63	689.50
Beam 3	689.72	689.59
Beam 4	689.72	689.59
Beam 5	689.64	689.51
Beam 6	689.53	689.40

TOP OF BEAM ELEVATIONS

(For Fabrication use Only)

INTERIOR GIRDER MOMENT TABLE		
		0.5 Sp. 1
I_s	(in^4)	6,310
$I_c(n)$	(in^4)	16,787
$I_c(3n)$	(in^4)	11,918
S_s	(in^3)	458
$S_c(n)$	(in^3)	675
$S_c(3n)$	(in^3)	602
DC1	(k/')	0.806
M_{DC1}	('k)	471
DC2	(k/')	0.150
M_{DC2}	('k)	85
DW	(k/')	0.267
M_{DW}	('k)	151
M_{L+IM}	('k)	877
M_u (Strength I)	('k)	2,456
* $\phi_f M_n$	('k)	3,065.8
f_s DC1	(ksi)	12.3
f_s DC2	(ksi)	1.7
f_s DW	(ksi)	3.1
f_s (L+IM)	(ksi)	15.6
f_s (Service II)	(ksi)	37.5
$0.95R_hF_{yf}$	(ksi)	47.5
V_f	(k)	22.5

*Compact Section

INTERIOR GIRDER REACTION TABLE		
		Abut.
R_{DC1}	(k)	28.0
R_{DC2}	(k)	5.0
R_{DW}	(k)	9.0
R_{L+IM}	(k)	78.6
R_{Total}	(k)	120.6

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) ((kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

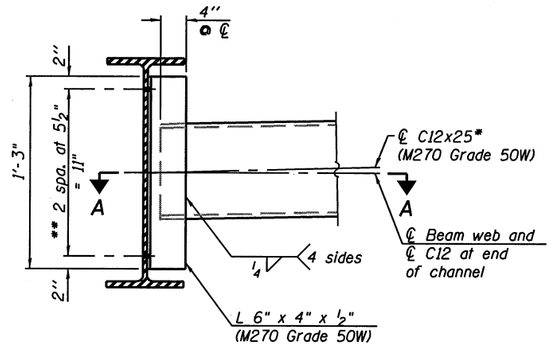
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

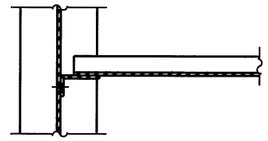
FRAMING PLAN AND BEAM DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 12 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	52
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			



INTERIOR DIAPHRAGM D

(10 Required D)

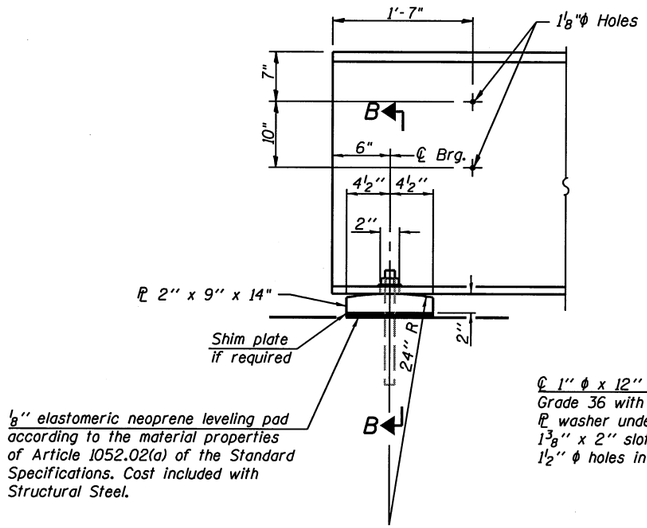


SECTION A-A

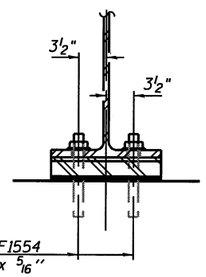
Note:
Two hardened washers required for each set of oversized holes.

* Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.

** ¾" ϕ HS bolts, 15/16" ϕ holes (Beam), 15/16" ϕ holes (Angles)



ELEVATION AT ABUTMENT



SECTION B-B

FIXED BEARING

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

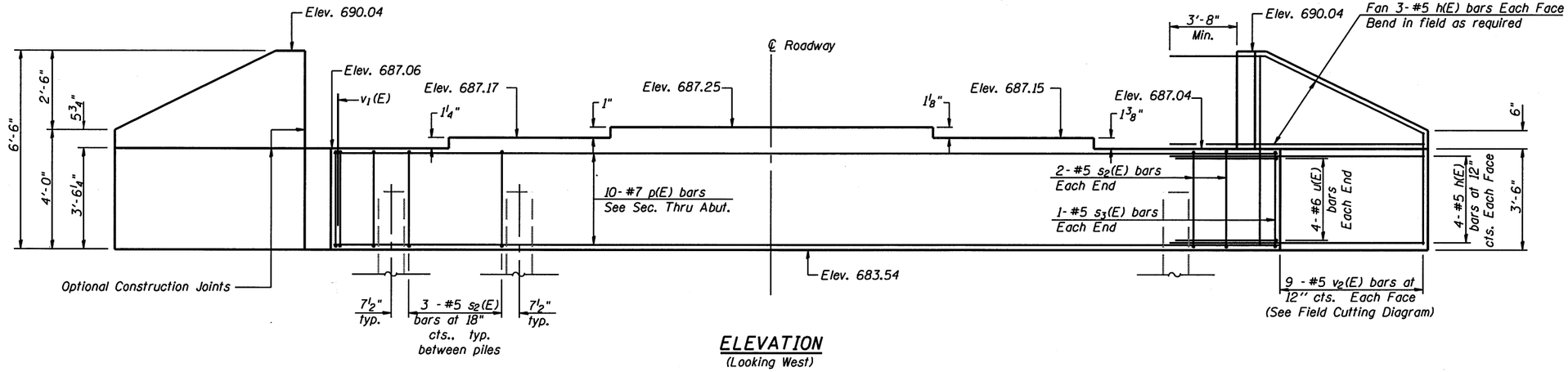
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

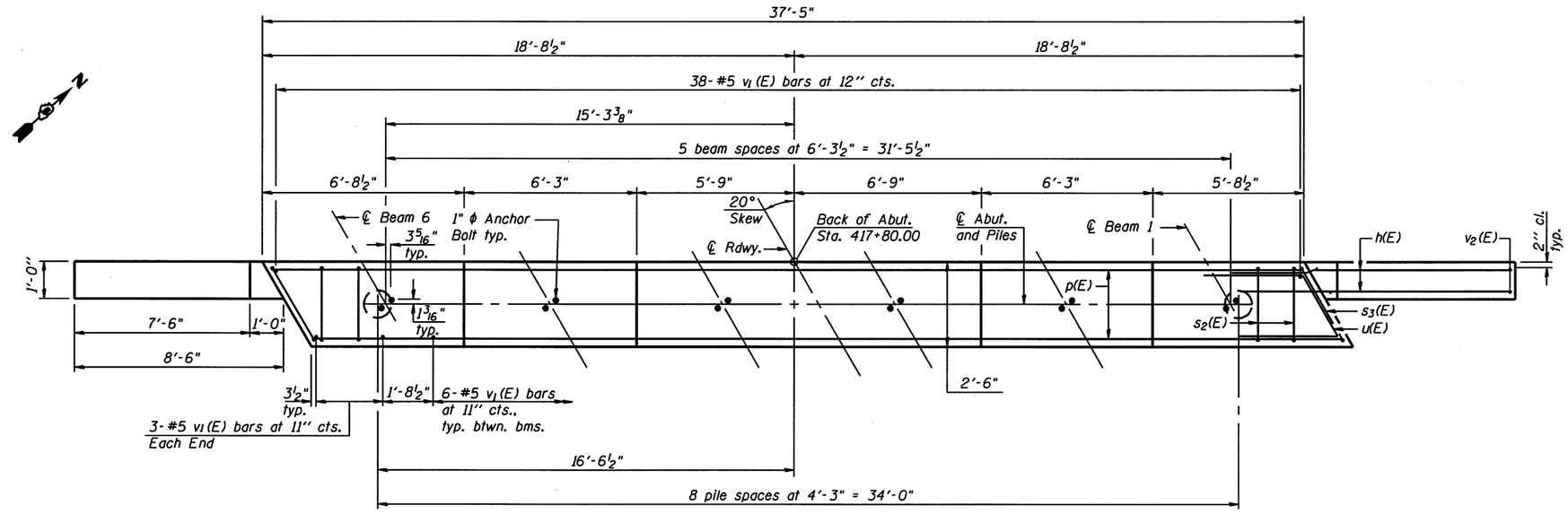
Two 3x3x5/16" plate washers are required for each slotted hole.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

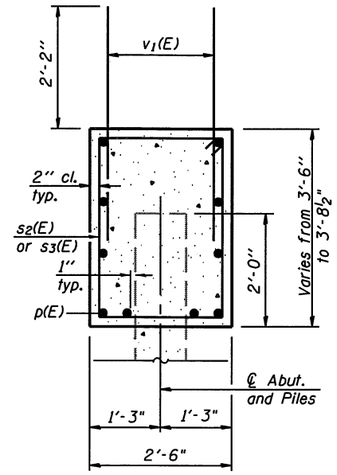
Notes:
Pour steps monolithically with cap.



ELEVATION
(Looking West)



PLAN



SEC. THRU ABUT.

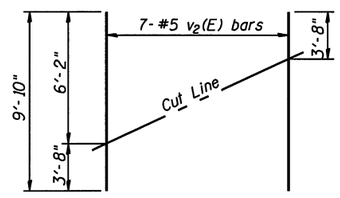
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#5	12'-5"	
p(E)	10	#7	37'-0"	
s2(E)	28	#5	11'-7"	
s3(E)	2	#5	11'-11"	
u(E)	8	#6	10'-3"	
v1(E)	74	#5	4'-4"	
v2(E)	18	#5	9'-10"	
Structure Excavation		Cu. Yd.	106	
Concrete Structures		Cu. Yd.	15.9	
Reinforcement Bars, Epoxy Coated		Pound	2,180	
Furnishing Metal Shell Piles 12" x 0.25"		Foot	192	
Driving Piles		Foot	192	
Test Pile Metal Shells		Each	1	

For details of Bar Splicers, see sheet 16 of 21.

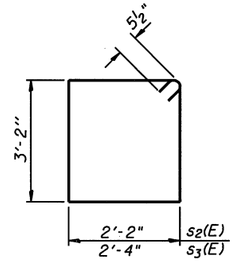
PILE DATA

Type: Metal Shell 12"ϕ w/ 0.25" walls
Nominal Required Bearing: 240k
Factored Resistance Available: 132k
Est. Length: 24 ft
No. Production Piles: 8
No. Test Piles: 1

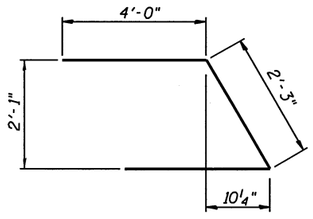


FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s2(E) & s3(E)



BAR u(E)

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

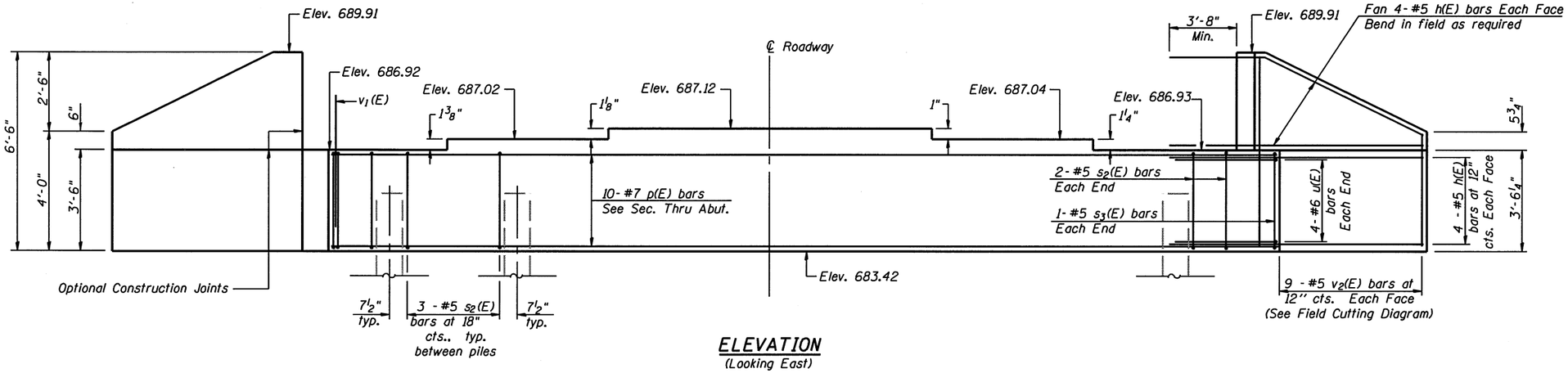
FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

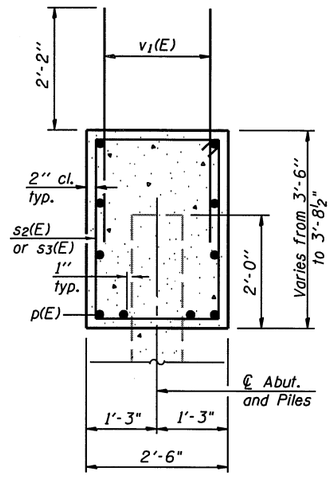
WEST ABUTMENT DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 14 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	54
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

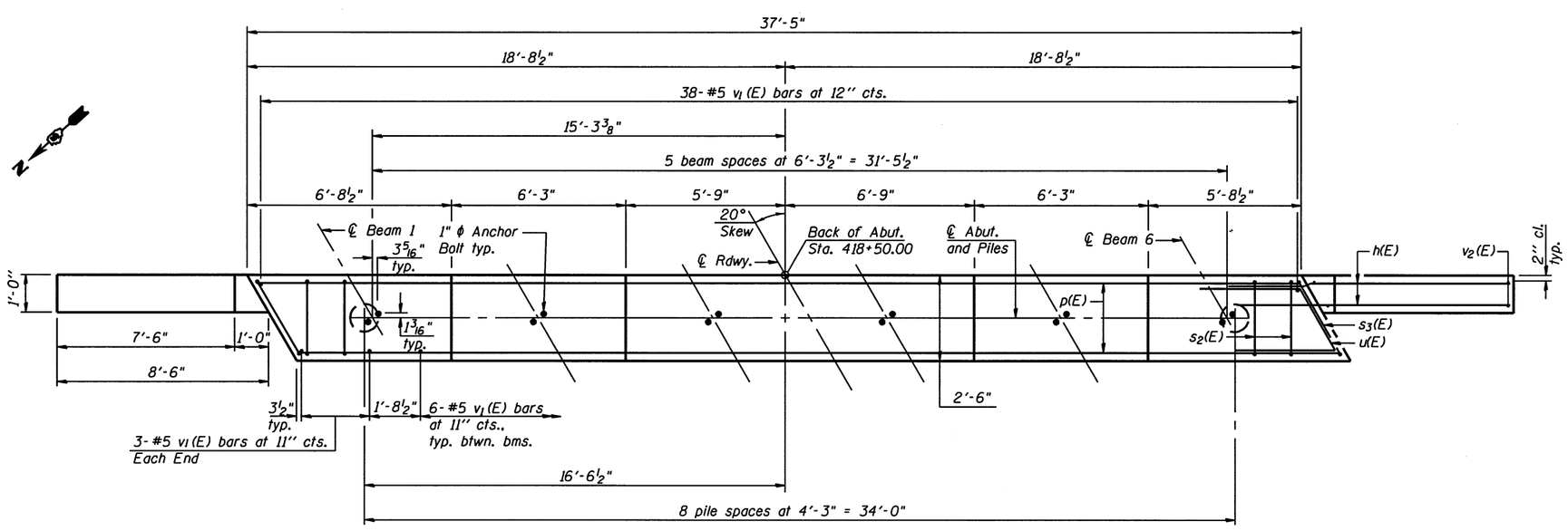
Notes:
Pour steps monolithically with cap.



ELEVATION
(Looking East)



SEC. THRU ABUT.



PLAN

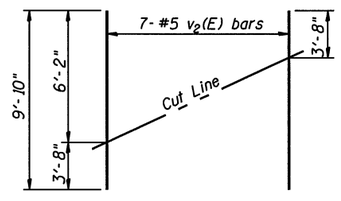
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#5	12'-5"	——
p(E)	10	#7	37'-0"	——
s_2(E)	28	#5	11'-7"	□
s_3(E)	2	#5	11'-11"	□
u(E)	8	#6	10'-3"	⌐
v_1(E)	74	#5	4'-4"	——
v_2(E)	18	#5	9'-10"	——
Structure Excavation		Cu. Yd.	110	
Concrete Structures		Cu. Yd.	15.9	
Reinforcement Bars, Epoxy Coated		Pound	2,180	
Furnishing Metal Shell Piles 12" x 0.25"		Foot	128	
Driving Piles		Foot	128	
Test Pile Metal Shells		Each	1	

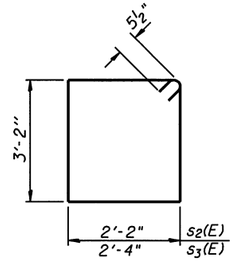
For details of Bar Splicers, see sheet 16 of 21.

PILE DATA

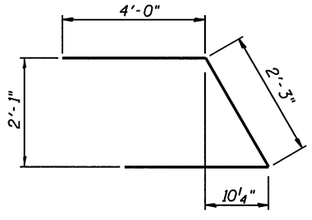
Type: Metal Shell 12" ϕ w/ 0.25" walls
Nominal Required Bearing: 240k
Factored Resistance Available: 133k
Est. Length: 16ft
No. Production Piles: 8
No. Test Piles: 1



FIELD CUTTING DIAGRAM
Order v_2(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s_2(E) & s_3(E)



BAR u(E)

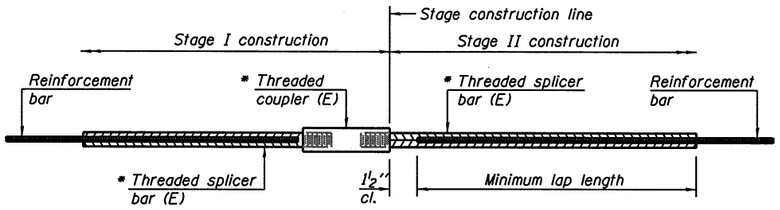
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 15 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	55
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

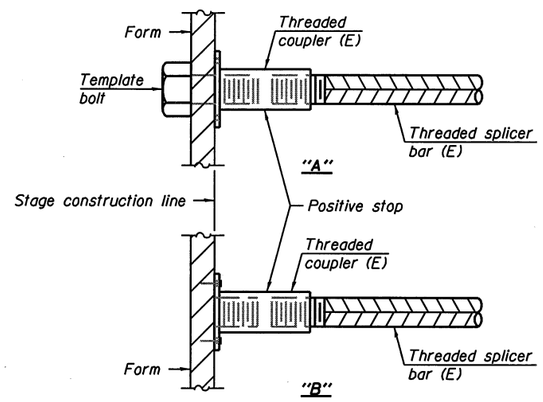
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

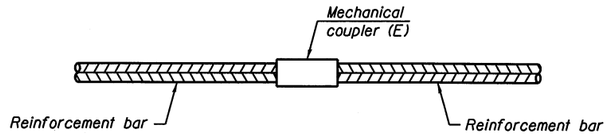
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



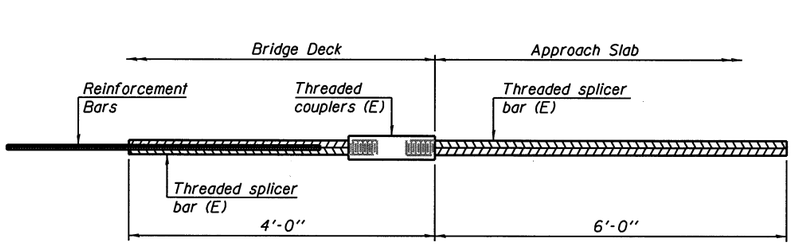
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



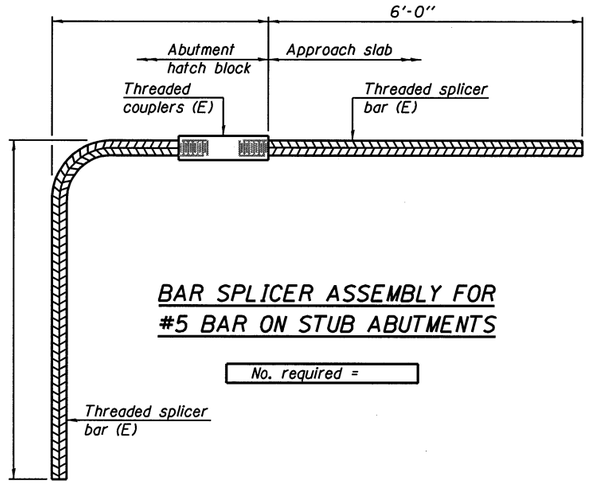
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 72



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 7-1-10

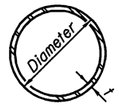
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

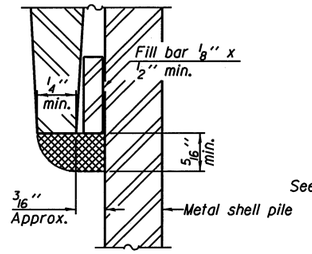
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 023-0034
SHEET NO. 16 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	56
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

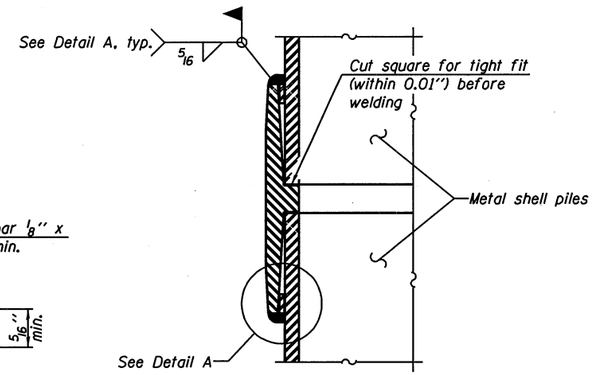


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

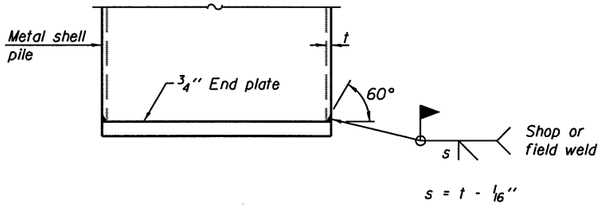


DETAIL A

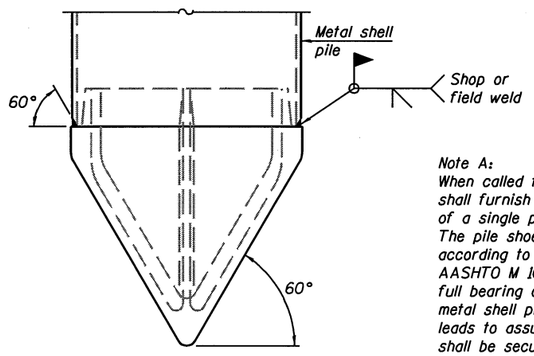


Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



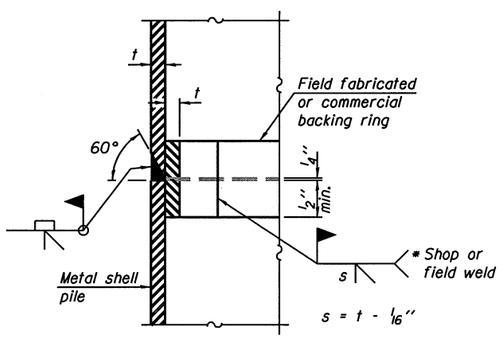
END PLATE ATTACHMENT



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

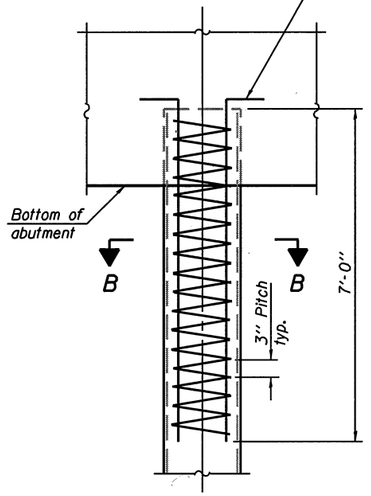
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

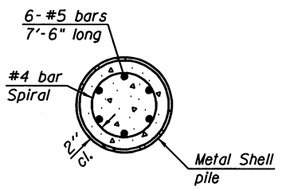


COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS 7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO.
SHEET NO. 17 OF 21 SHEETS

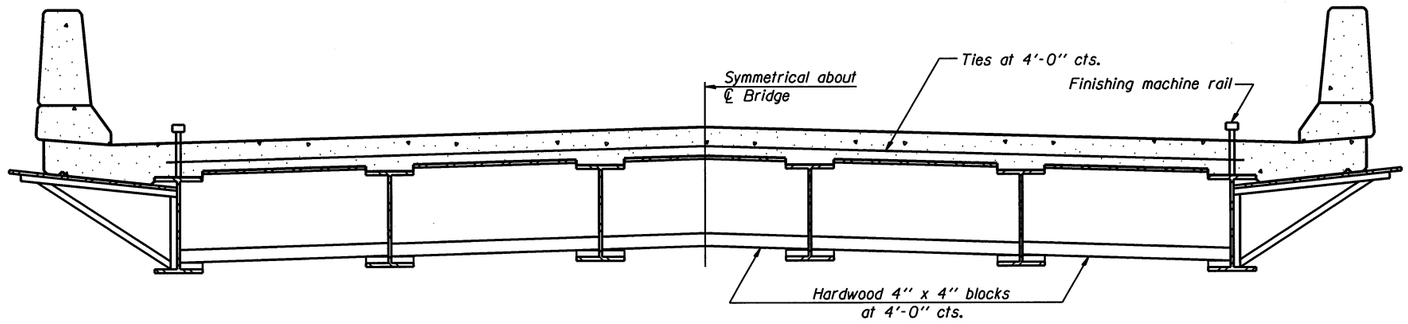
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	57
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR STANDARD CONSTRUCTION

SB-1 7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER, STRUCTURE NO. 023-0034

SHEET NO. 18 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	58
		CONTRACT NO. 70618		
ILLINOIS	FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Date 11/13/09

ROUTE FAP 749 (IL 133) DESCRIPTION 3.5 Miles East of Redmon on IL 133 over Drainage Ditch #7 LOGGED BY CNA

SECTION 14BR LOCATION SW, SEC. 31, TWP. 14N, RNG. 12W, 2nd PM GPS: 39.622617N, 87.794794W

COUNTY Edgar DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 023-0016 (Exist.)
Station 418+20.43

BORING NO. 1 NW Abut.
Station 418+05
Offset 15.0 ft Lt.
Ground Surface Elev. 689.9 ft

Surface Water Elev. 675.0 ft
Stream Bed Elev. 673.0 ft

Groundwater Elev.:
First Encounter 673.9 ft ▼
Upon Completion Wash Bored ft
After ____ Hrs. ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gravel - Shoulder Stone	689.9			
	688.9			
Black Sandy Clay Loam (Embankment)		3		
		3		16
	-5	3		
	683.9			
Black/Gray Silty Clay Loam (Embankment)		2		
		1	1.2	23
		3	B	
	681.9			
Brown Well Sorted Fine Sand		2		
		4		
	-10	3		
		4		
		2		23
		3		
	676.4			
Black Silty Clay Loam		2		
		1		30
	-15	1		
	674.4			
Black to Brown Mottled Silty Clay ▼		2		
		1	1.0	25
		3	E	
	671.9			
Gray Dirty Poorly Sorted Coarse Sand with Gravel		3		
	-20	3		
Gray Dirty Poorly Sorted Coarse Sand with Gravel *(continued)*		6		
		12		
		15		
		4		
		8		
	-25	12		
		9		
		16		
	-30	15		
	655.9	7		
Gray Sandy Clay Loam Till		6	4.9	11
	-35	15	B	
	651.9			
Gray Silt		9		
		8		26
	-40	14		

11/16/2009 8:01:39 AM S:\SOILS\BORING LOGS\EDGAR\023-0016.GPJ

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
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 - Region 3/Dist 5

SOIL BORING LOG

Date 11/13/09

ROUTE FAP 749 (IL 133) DESCRIPTION 3.5 Miles East of Redmon on IL 133 over Drainage Ditch #7 LOGGED BY CNA

SECTION 14BR LOCATION SW, SEC. 31, TWP. 14N, RNG. 12W, 2nd PM GPS: 39.622617N, 87.794794W

COUNTY Edgar DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 023-0016 (Exist.)
Station 418+20.43

BORING NO. 1 NW Abut.
Station 418+05
Offset 15.0 ft Lt.
Ground Surface Elev. 689.9 ft

Surface Water Elev. 675.0 ft
Stream Bed Elev. 673.0 ft

Groundwater Elev.:
First Encounter 673.9 ft ▼
Upon Completion Wash Bored ft
After ____ Hrs. ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silt *(continued)*				
	647.9			
Dark Gray Mottled Clay Loam Till		5		
		3	2.5	20
	-45	4	B	
	641.9			
Gray Sandy Clay Loam Till		8		
		11	8.7	8
	-50	21	S	
		21		
		35	9.6	8
	-55	44	S	
(Drilled Very Hard From 56' to 59')		6		
(Sand Seam)		37		8
	629.9 -60	50-1"		
End of Boring				

11/16/2009 8:01:40 AM S:\SOILS\BORING LOGS\EDGAR\023-0016.GPJ

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
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)

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING NO. 1 STRUCTURE NO. 023-0034	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		CHECKED -	REVISED -			749	14BR	EDGAR	115 / 59
	PLOT SCALE =	DRAWN - RJC	REVISED -					CONTRACT NO. 70618	
	PLOT DATE =	CHECKED -	REVISED -		SHEET NO. 19 OF 21 SHEETS			ILLINOIS FED. AID PROJECT	

Illinois Department of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Date 11/13/09

ROUTE FAP 749 (IL 133) DESCRIPTION 3.5 Miles East of Redmon on IL 133 over Drainage Ditch #7 LOGGED BY CNA

SECTION 14BR LOCATION SW, SEC. 31, TWP. 14N, RNG. 12W, 2nd PM GPS: 39.622528N, 87.794969W

COUNTY Edgar DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 023-0016 (Exist.)
Station 418+20.43

BORING NO. 2 SE Abut.
Station 418+38
Offset 15.0 ft Rt.
Ground Surface Elev. 689.8 ft

Surface Water Elev. 675.0 ft
Stream Bed Elev. 673.0 ft

Groundwater Elev.:
First Encounter 674.8 ft ▼
Upon Completion Wash Bored ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
689.8				Gravel - Shoulder Stone
688.8				Brown/Gray Mottled Silty Clay Loam (Embankment)
	2			
-5	2	0.4	28	
	2	B		
684.3				Black Silty Clay Loam (Embankment)
	2			
	2	1.7	23	
	3	B		
681.8				Brown/Gray Mottled Silty Clay Loam
	1			
	2	0.5	36	
-10	4	B		
	3			
	2	0.5	36	(Trace of Coarse Brown Sand)
677.3	2	B		
				Gray Dirty Coarse Sand with Gravel
	2			
	3			
▼-15	3			
	2			
	4			
	5			
	2			
	6			
-20	7			
				Gray Dirty Coarse Sand with Gravel *(continued)*
	8			
	20			
-25	20			(Gray Sand Loam Till Seam - Drilled Hard)
	10			
	9			
-30	14			
	2			
	4			
-35	8			
	8			
	16		23	
650.3	15			Gray Silt
-40				

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
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)

11/16/2009 9:01:41 AM S:\SOILS\BORING LOGS\EDGAR\023-0016.GPJ

Illinois Department of Transportation
Division of Highways
IDOT - Region 3/Dist 5

SOIL BORING LOG

Date 11/13/09

ROUTE FAP 749 (IL 133) DESCRIPTION 3.5 Miles East of Redmon on IL 133 over Drainage Ditch #7 LOGGED BY CNA

SECTION 14BR LOCATION SW, SEC. 31, TWP. 14N, RNG. 12W, 2nd PM GPS: 39.622528N, 87.794969W

COUNTY Edgar DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 023-0016 (Exist.)
Station 418+20.43

BORING NO. 2 SE Abut.
Station 418+38
Offset 15.0 ft Rt.
Ground Surface Elev. 689.8 ft

Surface Water Elev. 675.0 ft
Stream Bed Elev. 673.0 ft

Groundwater Elev.:
First Encounter 674.8 ft ▼
Upon Completion Wash Bored ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				Gray Silt *(continued)*
646.8				Dark Gray to Black Clay Loam Till with Interminant Gray Sand Loam Till Inclusions
	2			
	3	1.3	23	
-45	5	B		
	2			
	9	1.4	21	
-50	13	B		
	1			(Gray Sand Loam Till Seam - Drilled Hard)
635.3	2		9	
-55	8			Gray Sandy Clay Loam Till
	24			(Drilled Very Hard From 57' to 60')
629.8	42	7.9	8	
-60	34-4"	S		End of Boring

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
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)

11/16/2009 9:01:42 AM S:\SOILS\BORING LOGS\EDGAR\023-0016.GPJ

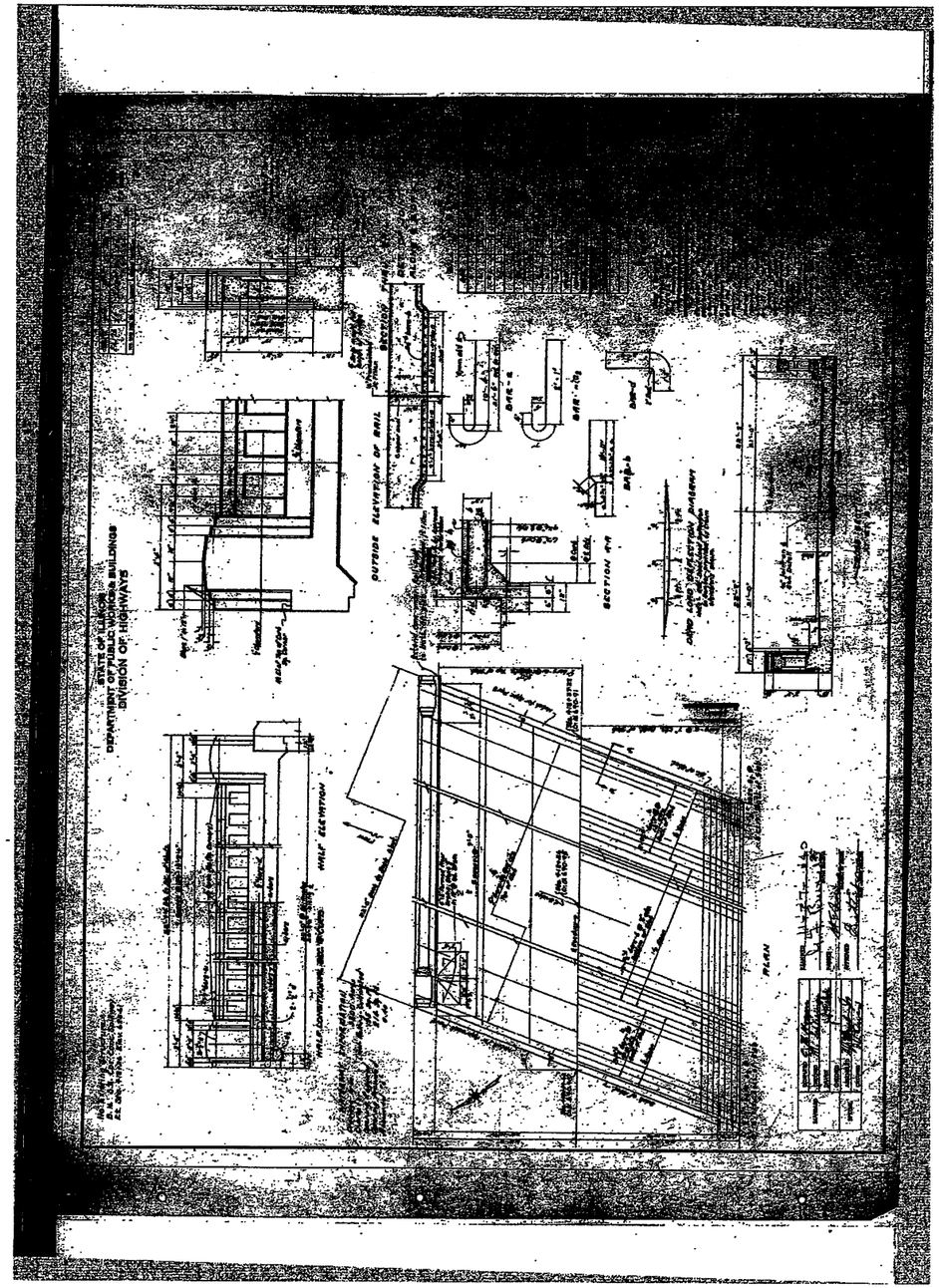
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

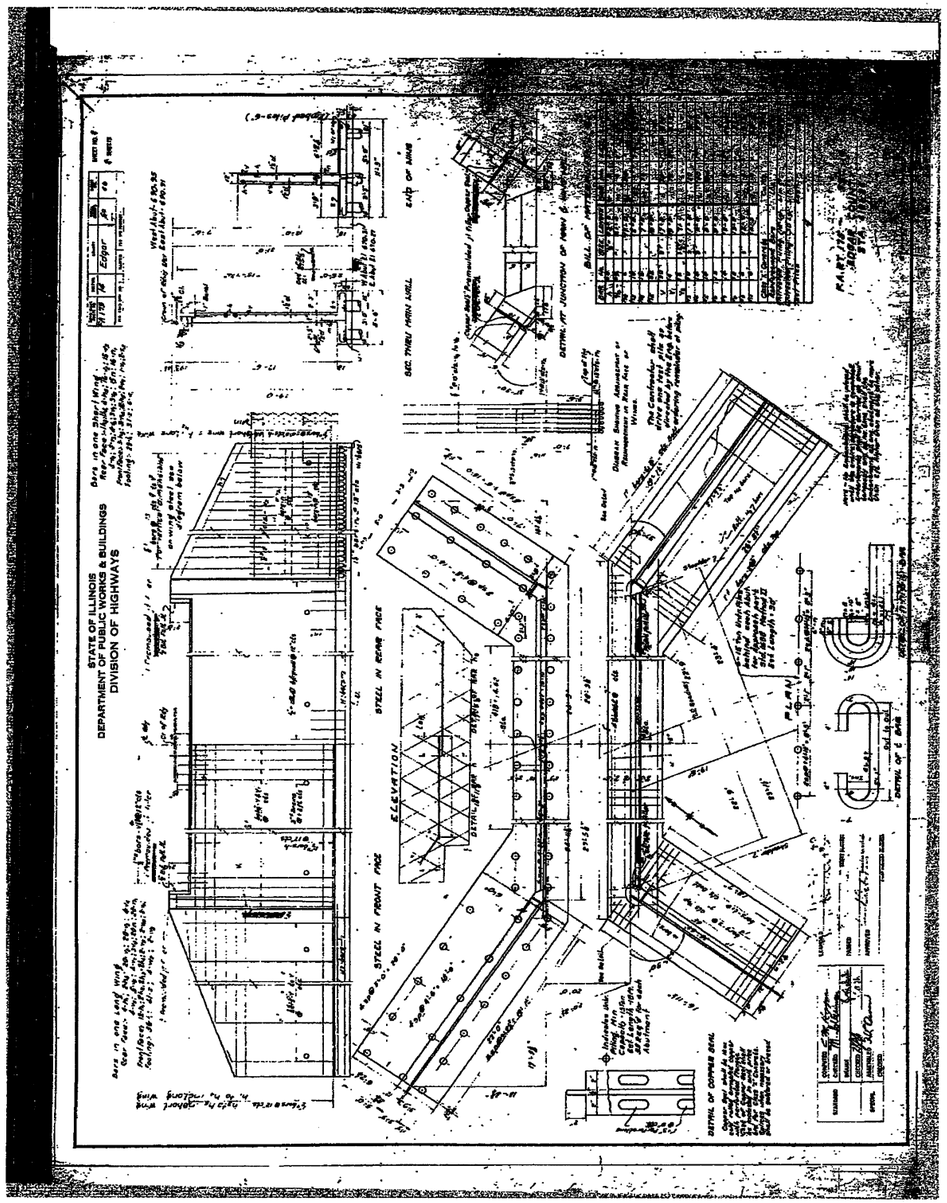
FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -
		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN - RJC	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING NO. 2
STRUCTURE NO. 023-0034
SHEET NO. 20 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR	EDGAR	115	60
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		



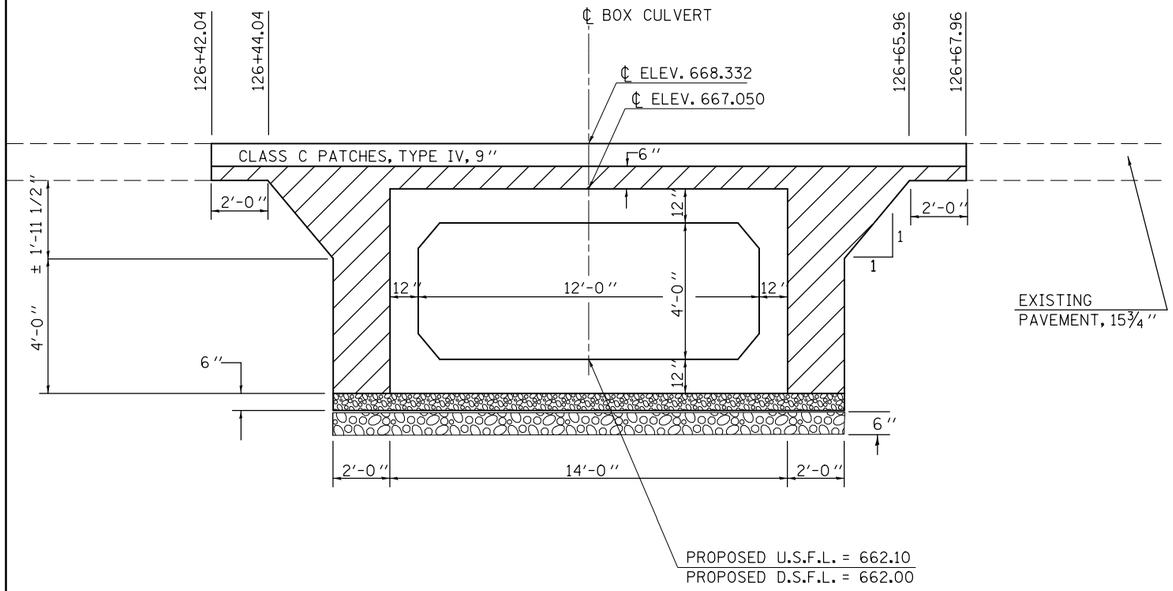


BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED - PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING BRIDGE PLANS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -	REVISED -			749	14BR	EDGAR	115	61
	PLOT SCALE =	DRAWN - RJC	REVISED -					CONTRACT NO. 70618		
	PLOT DATE =	CHECKED -	REVISED -		SHEET NO. 21 OF 21 SHEETS			ILLINOIS FED. AID PROJECT		

POROUS GRANULAR EMBANKMENT DETAILS

CULVERT NO. 1, STATION 126 + 55.00 S.N. 023–8064



GENERAL NOTES

STONE RIPRAP, CLASS A1

STONE RIPRAP, CLASS A1 SHALL BE USED WHERE A.R. CULVERTS ARE REQUIRED TO BE UNDERCUT DUE TO UNSTABLE SOIL CONDITIONS.

WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 281 AND SECTION 282 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR STONE RIPRAP, CLASS A1. FILTER FABRIC WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE, RIPRAP, CLASS A1.

THE EXCAVATION AND REMOVAL OF THE UNSUITABLE MATERIAL UNDER THE STRUCTURE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE RIPRAP, CLASS A1.

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 2 FT. BEYOND THE AGGREGATE SHOULDER.

WORK SHOWN IN DETAIL SHALL BE DONE ACCORDING TO THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE CONSIDERED AS INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS AND BOX CULVERT END SECTIONS.

LEGEND

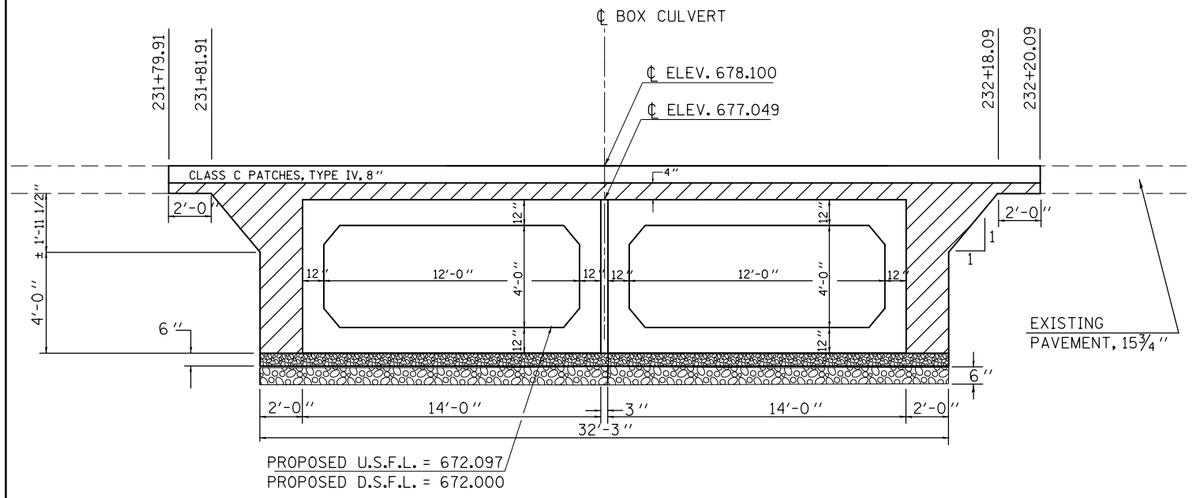
- POROUS GRANULAR EMBANKMENT (CA-6)
- POROUS GRANULAR MATERIAL (CA-7) INCLUDED WITH PRECAST BOX CULVERT ITEMS
- STONE RIPRAP, CLASS A1

BILL OF MATERIAL

ITEM	UNIT	TOTAL
POROUS GRANULAR EMBANKMENT	CU YDS	55.0
STONE RIPRAP, CLASS A1	TONS	27.0

POROUS GRANULAR EMBANKMENT DETAIL

CULVERT NO. 2, STATION 232 + 00.00 S.N. 023–2018



GENERAL NOTES

STONE RIPRAP, CLASS A1

STONE RIPRAP, CLASS A1 SHALL BE USED WHERE A.R. CULVERTS ARE REQUIRED TO BE UNDERCUT DUE TO UNSTABLE SOIL CONDITIONS.

WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 281 AND SECTION 282 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR STONE RIPRAP, CLASS A1. FILTER FABRIC WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE, RIPRAP, CLASS A1.

THE EXCAVATION AND REMOVAL OF THE UNSUITABLE MATERIAL UNDER THE STRUCTURE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE RIPRAP, CLASS A1.

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 2 FT. BEYOND THE AGGREGATE SHOULDER.

WORK SHOWN IN DETAIL SHALL BE DONE ACCORDING TO THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE CONSIDERED AS INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS AND BOX CULVERT END SECTIONS.

LEGEND

- POROUS GRANULAR EMBANKMENT (CA-6)
- POROUS GRANULAR MATERIAL (CA-7) INCLUDED WITH PRECAST BOX CULVERT ITEMS
- STONE RIPRAP, CLASS A1

BILL OF MATERIAL

ITEM	UNIT	TOTAL
POROUS GRANULAR EMBANKMENT	CU YDS	58.0
STONE RIPRAP, CLASS A1	TONS	60.0

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

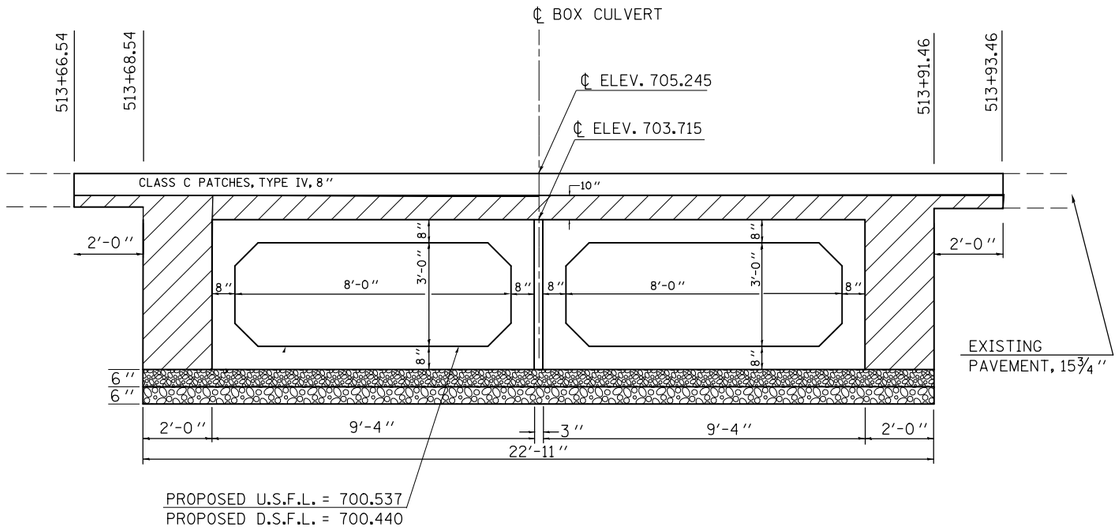
POROUS GRANULAR EMBANKMENT DETAIL FOR CULVERT NO. 1 & 2

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	62
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

POROUS GRANULAR EMBANKMENT DETAIL

CULVERT NO. 3, STATION 513+80.00 S.N. 023–8065



STONE RIPRAP, CLASS A1

STONE RIPRAP, CLASS A1 SHALL BE USED WHERE A.R. CULVERTS ARE REQUIRED TO BE UNDERCUT DUE TO UNSTABLE SOIL CONDITIONS.

WORK SHOWN IN THE DETAIL SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 281 AND SECTION 282 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR STONE RIPRAP, CLASS A1. FILTER FABRIC WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE, RIPRAP, CLASS A1.

THE EXCAVATION AND REMOVAL OF THE UNSUITABLE MATERIAL UNDER THE STRUCTURE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE PAY ITEM FOR STONE RIPRAP, CLASS A1.

LEGEND	
	POROUS GRANULAR EMBANKMENT (CA-6)
	POROUS GRANULAR MATERIAL (CA-7) INCLUDED WITH PRECAST BOX CULVERT ITEMS
	STONE RIPRAP, CLASS A1

POROUS GRANULAR EMBANKMENT

POROUS GRANULAR EMBANKMENT SHALL EXTEND 2 FT. BEYOND THE AGGREGATE SHOULDER.

WORK SHOWN IN DETAIL SHALL BE DONE ACCORDING TO THE APPLICABLE PORTIONS OF ARTICLE 207 AND ARTICLE 540 OF THE STANDARD SPECIFICATIONS.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR POROUS GRANULAR EMBANKMENT.

THE AREA TO BE EXCAVATED FOR THE PROPOSED BOX CULVERT SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF THE EXCAVATION SHALL BE CONSIDERED AS INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERTS AND BOX CULVERT END SECTIONS.

BILL OF MATERIAL		
ITEM	UNIT	TOTAL
POROUS GRANULAR EMBANKMENT	CU YDS	51.0
STONE RIPRAP, CLASS A1	TONS	39.0

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

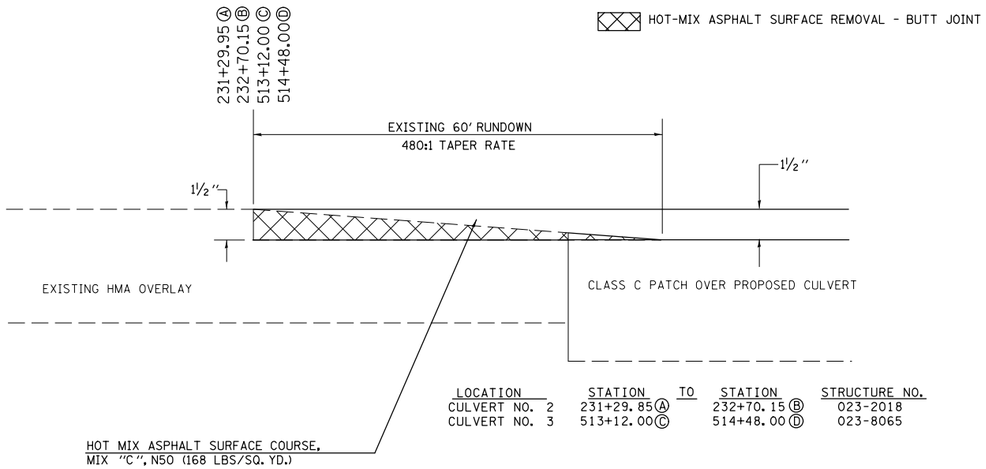
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

POROUS GRANULAR EMBANKMENT DETAIL FOR CULVERT NO. 3

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

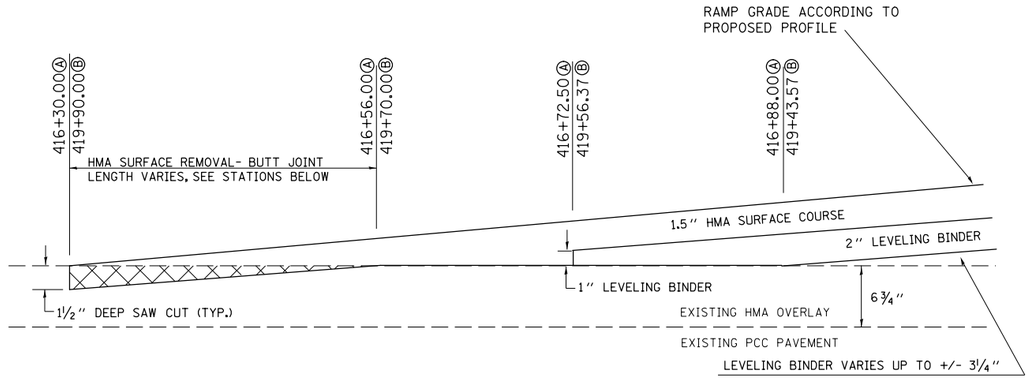
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	63
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

BUTT JOINT DETAIL FOR CULVERT NO. 2 & 3



LOCATION	STATION	TO	STATION	STRUCTURE NO.
CULVERT NO. 2	231+29.85 Ⓐ		232+70.15 Ⓑ	023-2018
CULVERT NO. 3	513+12.00 Ⓒ		514+48.00 Ⓓ	023-8065

BUTT JOINT DETAIL NEAR BRIDGE



HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

HMA SURFACE REMOVAL - BUTT JOINT

	STATION	TO	STATION	LENGTH
Ⓐ	416+30.00		416+56.00	26.0
Ⓑ	419+70.00		419+90.00	20.0

NOTE:

SAW CUT IS INCLUDED IN THE COST OF HMA SURFACE REMOVAL - BUTT JOINT

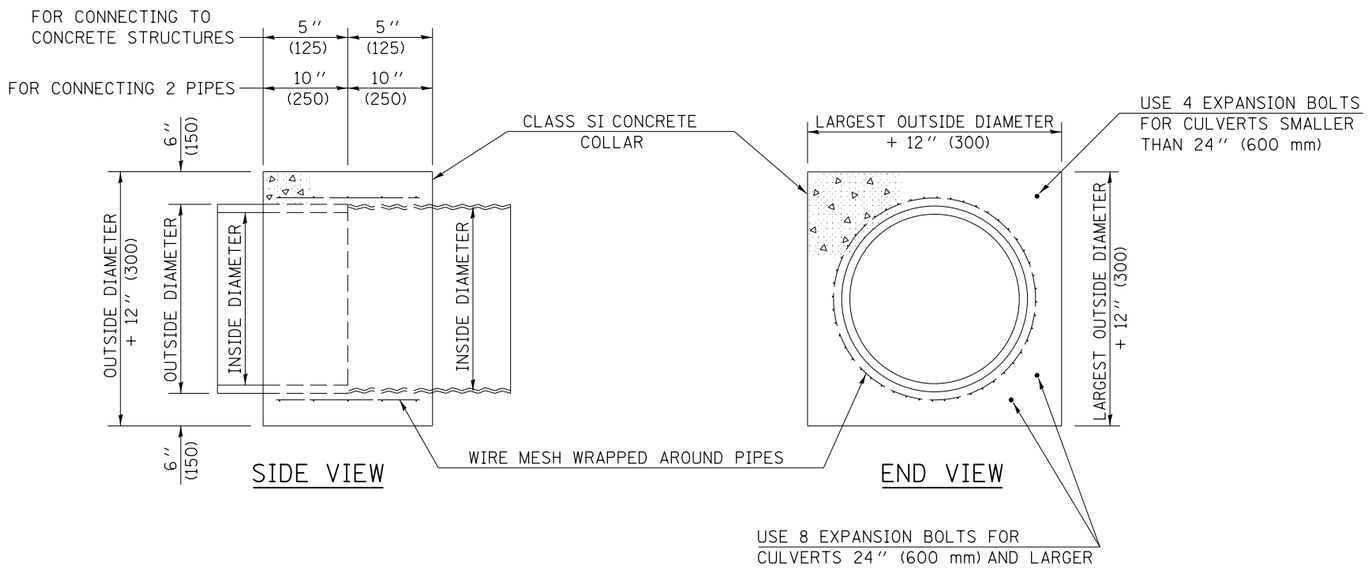
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAILS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	64
		CONTRACT NO. 70618		
		ILLINOIS	FED. AID PROJECT	



QUANTITIES FOR CONCRETE PIPES	
INSIDE DIAMETER OF PIPE INCH (mm)	ESTIMATED CLASS SI CONCRETE REQUIRED 20″ (500 mm) WIDTH CU. YD. (m^3)
4″ (100)	0.14 (0.11)
6″ (150)	0.16 (0.12)
8″ (200)	0.19 (0.14)
10″ (250)	0.22 (0.17)
12″ (300)	0.25 (0.19)
15″ (375)	0.30 (0.23)
18″ (450)	0.35 (0.27)
24″ (600)	0.45 (0.35)
30″ (750)	0.57 (0.43)
36″ (900)	0.69 (0.53)
42″ (1050)	0.83 (0.63)
48″ (1200)	0.97 (0.74)
54″ (1350)	1.12 (0.86)
60″ (1500)	1.28 (0.98)

QUANTITIES FOR METAL PIPES	
INSIDE DIAMETER OF PIPE INCH (mm)	ESTIMATED CLASS SI CONCRETE REQUIRED 20″ (500 mm) WIDTH CU. YD. (m^3)
4″ (100)	0.12 (0.09)
6″ (150)	0.14 (0.11)
8″ (200)	0.16 (0.12)
10″ (250)	0.19 (0.14)
12″ (300)	0.21 (0.16)
15″ (375)	0.25 (0.19)
18″ (450)	0.29 (0.22)
24″ (600)	0.38 (0.29)
30″ (750)	0.47 (0.36)
36″ (900)	0.59 (0.45)
42″ (1050)	0.69 (0.53)
48″ (1200)	0.81 (0.62)
54″ (1350)	0.93 (0.71)
60″ (1500)	1.05 (0.81)

GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIAMETERS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIAMETER (SEE END VIEW).
3. THE WIRE MESH SHALL WEIGH NOT LESS THAN 54#/100 SQ. FT. (2.63 kg/m^2).
4. WHEN CONCRETE COLLARS ARE CONSTRUCTED ADJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS, SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
5. CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, PER CUBIC YARD (CUBIC METER), FOR CONCRETE COLLARS INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 54248510

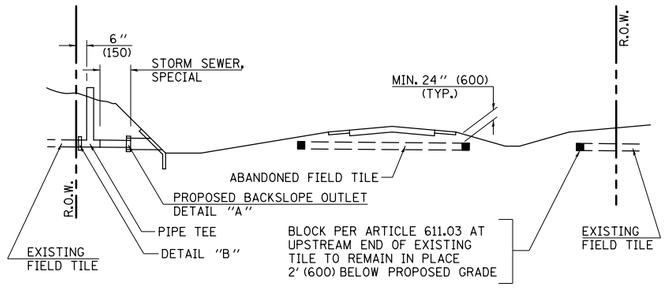
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE COLLAR

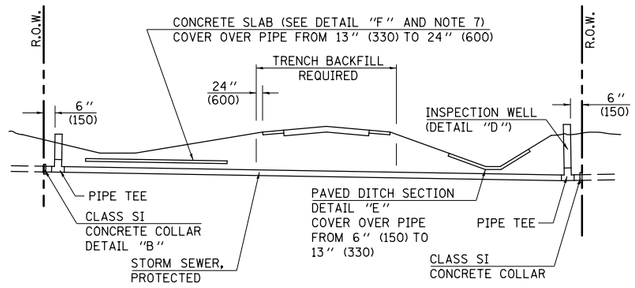
SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	65
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		



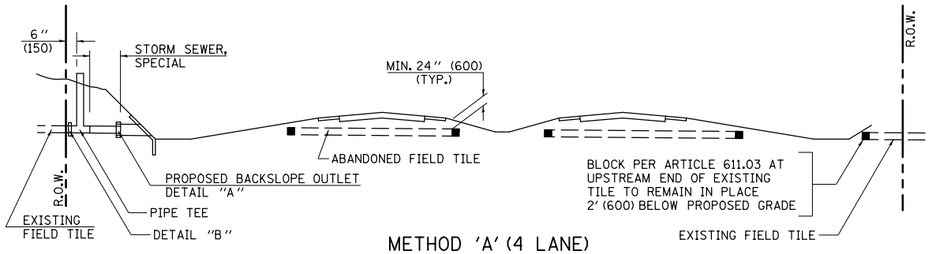
METHOD 'A' (2 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



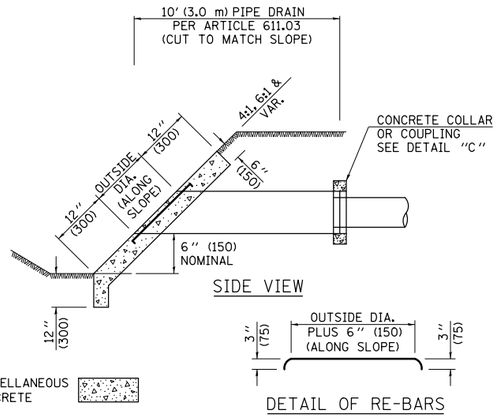
METHOD 'B' (2 LANE)

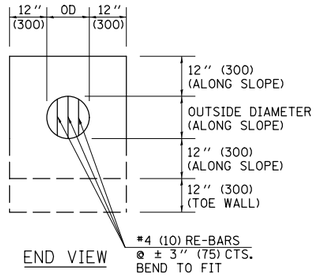
STORM SEWER LESS THAN 2′ (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENT AND PAVED DITCH



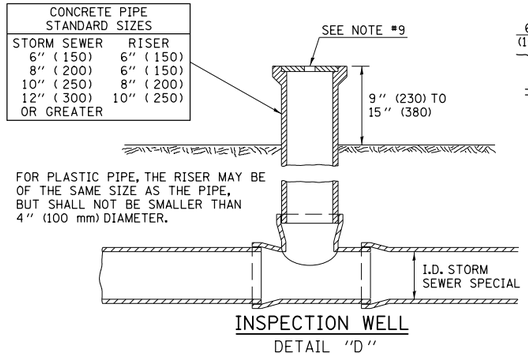
METHOD 'A' (4 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



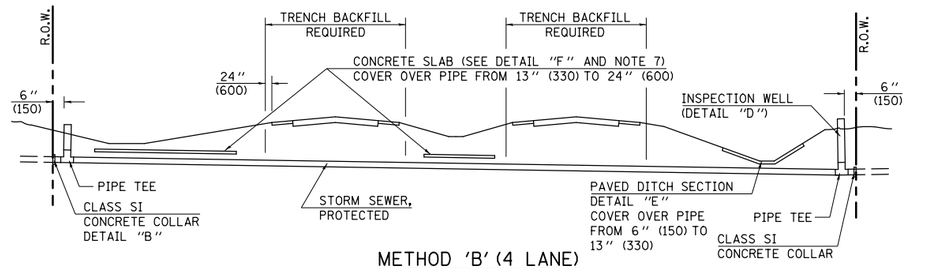


CONCRETE PIPE STANDARD SIZES	
STORM SEWER	RISER
6″ (150)	6″ (150)
8″ (200)	6″ (150)
10″ (250)	8″ (200)
12″ (300) OR GREATER	10″ (250)



INSPECTION WELL

DETAIL "D"



METHOD 'B' (4 LANE)

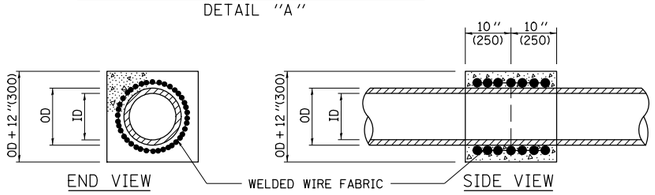
STORM SEWER LESS THAN 2′ (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENTS AND PAVED DITCHES

GENERAL NOTES

1. EXISTING FIELD TILE ENCOUNTERED BY EXPLORATION TRENCH SHALL BE INSPECTED BY THE ENGINEER FOR UNOBSTRUCTED FLOW WITHIN THE LIMITS OF THE RIGHT-OF-WAY.
2. ONLY FIELD TILE THAT DOES NOT HAVE SATISFACTORY FLOW AND OR HAS VISIBLE SIGNS OF DETERIORATION (SINK HOLES, ETC.) SHALL BE REPLACED WITHIN THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH METHOD "B".
3. INSPECTION WELLS SHALL BE CONSTRUCTED APPROXIMATELY 6″ (150 mm) INSIDE OF BOTH RIGHT-OF-WAY LINES AT ALL FIELD TILE LOCATIONS.
4. EXISTING FIELD TILE ABANDONED UNDER EXISTING PAVEMENTS OR PAVED SHOULDERS SHALL BE FILLED WITH FLOWABLE GROUT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.
5. NON-CIRCULAR FIELD TILE SHALL BE REPLACED WITH STORM SEWER, SPECIAL OF AT LEAST THE SAME CROSS SECTIONAL AREA. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR THE MINIMUM DEPTH OF COVER.
6. THE 6″ (150 mm) CONCRETE SLAB OR DITCH LINING SHALL BE POURED THE LENGTH OF THE TRENCH AT ALL DITCH FLOW LINE LOCATIONS WITHIN THE RIGHT-OF-WAY WITH LESS THAN 2′ (600 mm) OF EARTH COVER. MISCELLANEOUS CONCRETE SHALL BE USED ACCORDING TO SECTION 611.
7. ALL MISCELLANEOUS SLABS, APRONS AND DITCH LININGS SHALL BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN FOR PAVED DITCH IN STANDARD 606401.
8. HEADWALL FOR BACKSLOPE OUTLET MAY BE USED FOR PIPE DRAIN DIAMETERS UP TO 10″ (250 mm). SPECIAL DESIGNS WILL BE REQUIRED FOR LARGER SIZES.
9. THE INSPECTION WELL LID FOR P.C.C. PIPE SHALL BE CONSTRUCTED OF 3/8″ (10 mm) CAST IRON AND PROVIDED WITH A 1″ (25 mm) DIAMETER HOLE IN CENTER. THE LID FOR THE OTHER PIPE MATERIALS SHALL BE A GRATE ASSEMBLY PREFABRICATED FOR AND COMPATIBLE WITH THE PIPE SYSTEM.

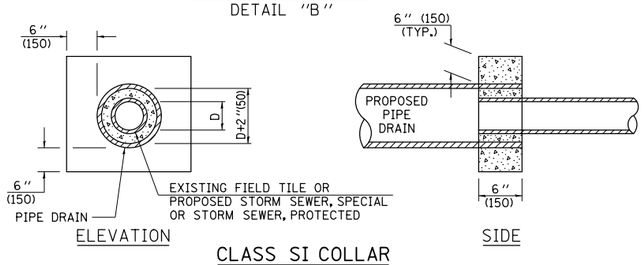
HEADWALL FOR BACKSLOPE OUTLET

DETAIL "A"



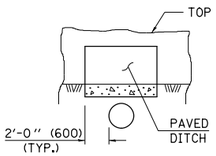
CONCRETE COLLAR

DETAIL "B"



CLASS SI COLLAR

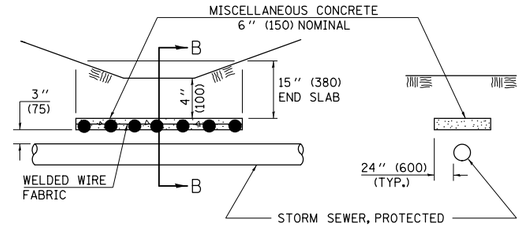
DETAIL "C"



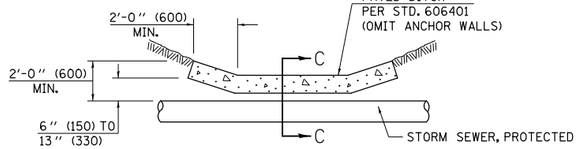
SECTION C-C

PAVED DITCH

DETAIL "E"



SLAB ELEVATION



SECTION B-B

CONCRETE SLAB

DETAIL "F"

PAVED DITCH ELEVATION

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 61101011A

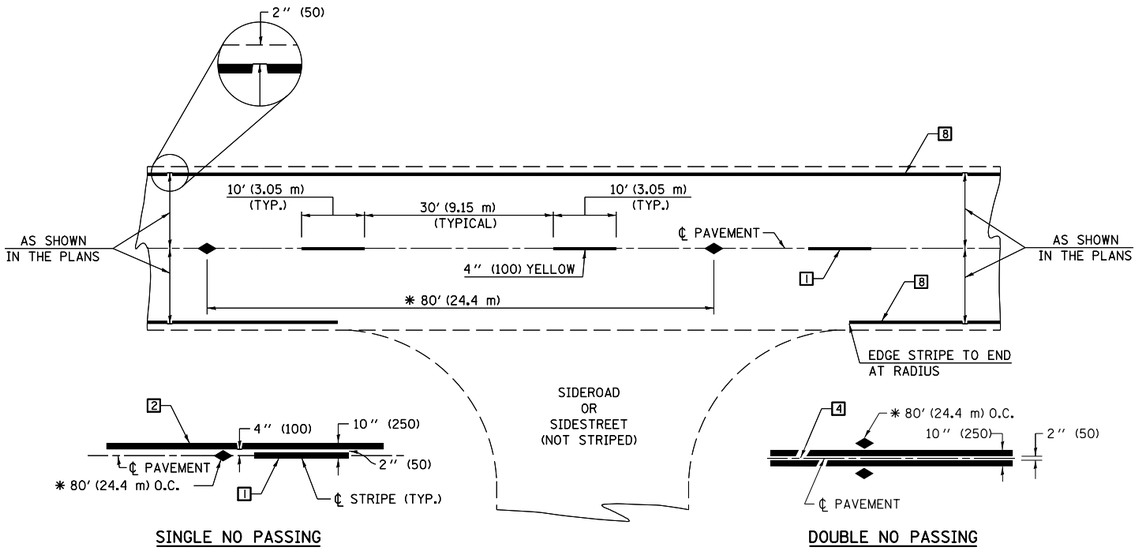
FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD TILE SYSTEMS (TREATMENT OF EXISTING)

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	66
		CONTRACT NO. 70618		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SINGLE NO PASSING

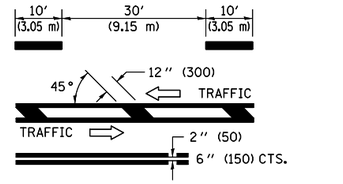
DOUBLE NO PASSING

✱ REDUCE TO 40′ (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

TWO LANE/TWO WAY

TYPICAL PAVEMENT MARKING LEGEND

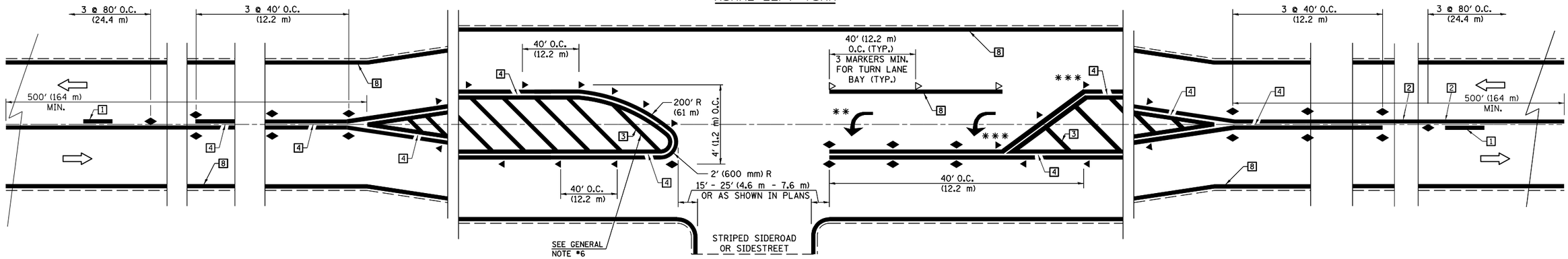
1. 4″ (100) SKIP-DASH (YELLOW)
2. 4″ (100) SOLID (YELLOW)
3. 12″ (300) DIAGONAL (YELLOW)
4. 4″ (100) DOUBLE YELLOW (NARROW)
5. RESERVED
6. RESERVED
7. 4″ (100) SKIP-DASH (WHITE)
8. 4″ (100) SOLID (WHITE)
9. 12″ (300) DIAGONAL (WHITE)
10. 6″ (150) SOLID (WHITE)
11. 24″ (600) STOP BAR (WHITE)
12. 8″ (200) SOLID (WHITE)
13. 4″ (100) LANE LINE EXTENSIONS (WHITE)
14. 4″ (100) PARKING WHITE



TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

RURAL LEFT TURN



✱✱✱ REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

✱✱ TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET ✱2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

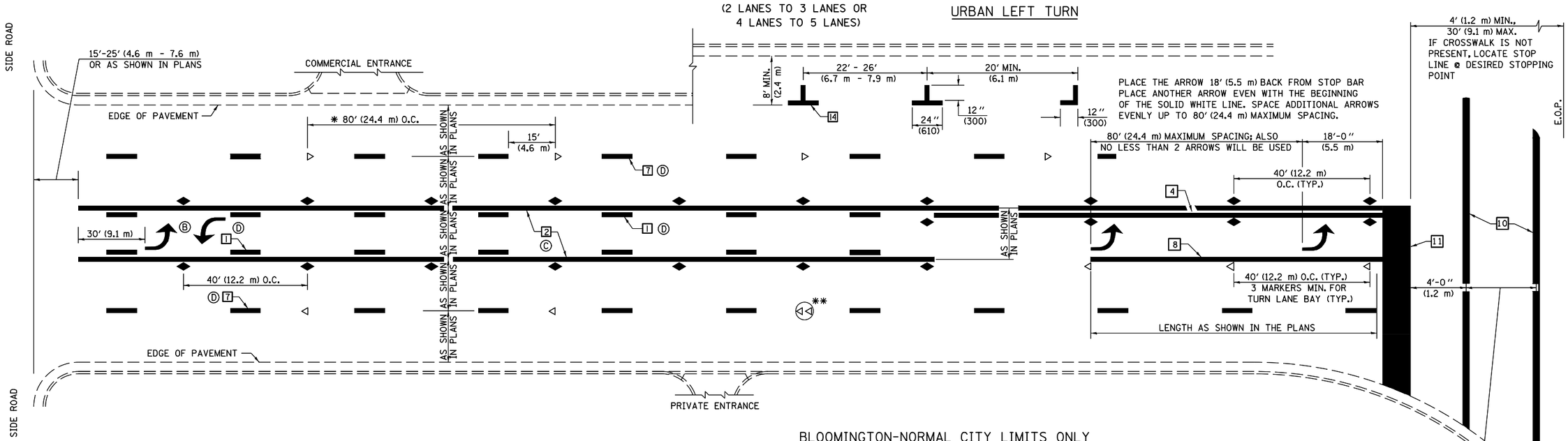
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	67
		CONTRACT NO. 70618		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

URBAN LEFT TURN



* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

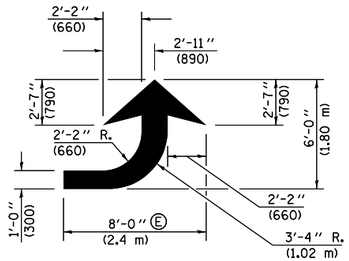
GENERAL NOTES:

Ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.

Ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.

Ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.

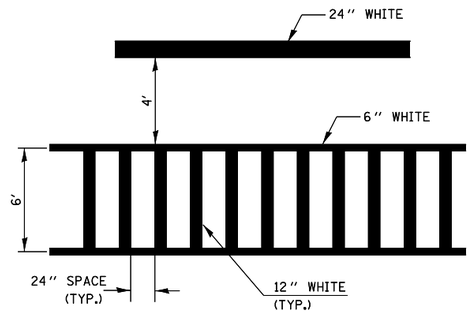
Ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



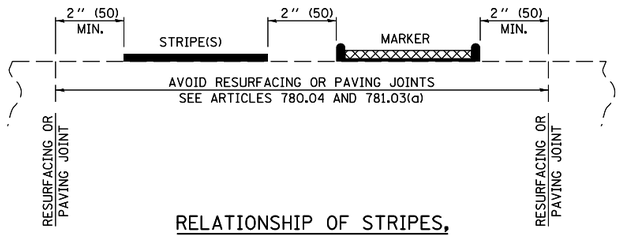
LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m 2)
(WHITE)

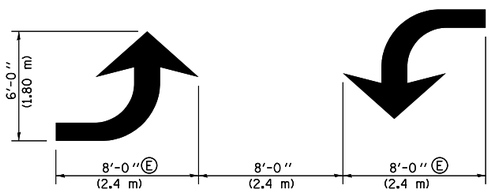
BLOOMINGTON-NORMAL CITY LIMITS ONLY



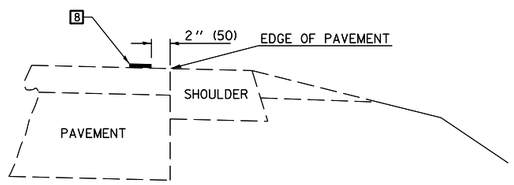
TYPICAL SPACING FOR
CROSSWALKS & STOP BARS



RELATIONSHIP OF STRIPES,
MARKERS AND JOINTS



TYPICAL DOUBLE
TURN ARROWS (WHITE)



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT

(SAFETY SHOULDER OR PAVED SURFACE)
SEE ARTICLE 780.04

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

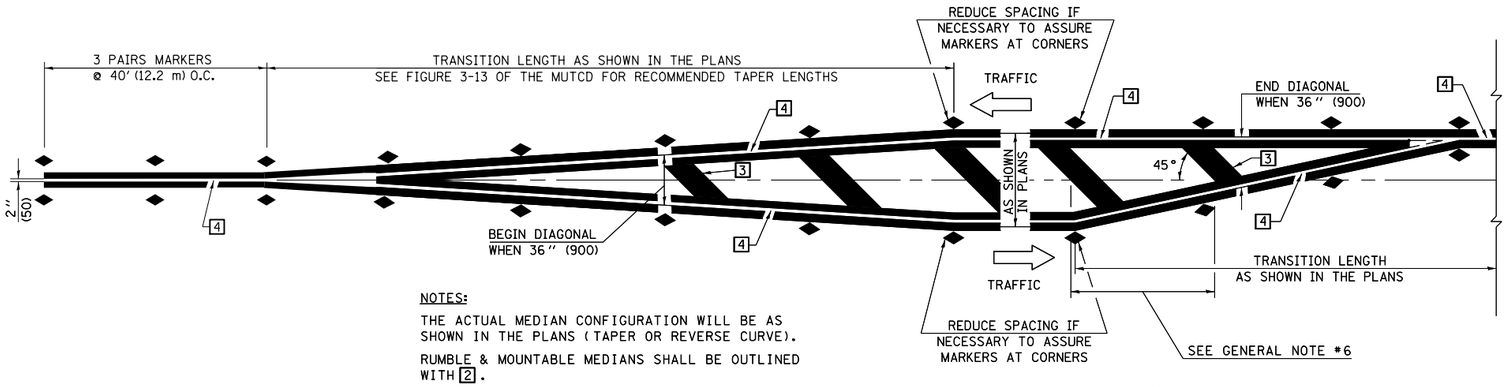
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	68
		CONTRACT NO. 70618		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

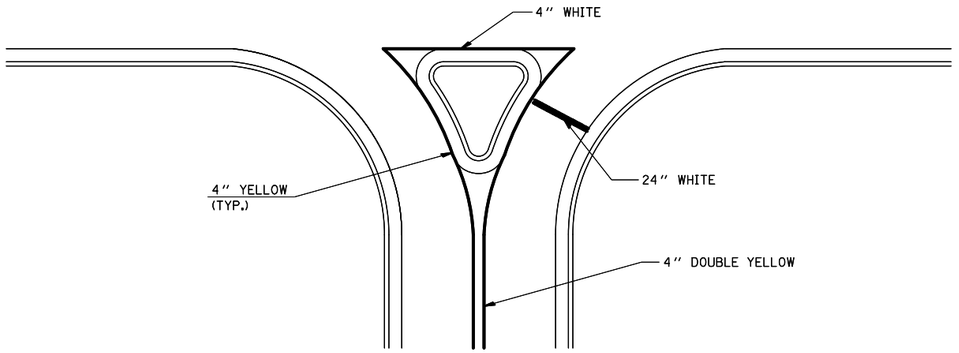
THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).

RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

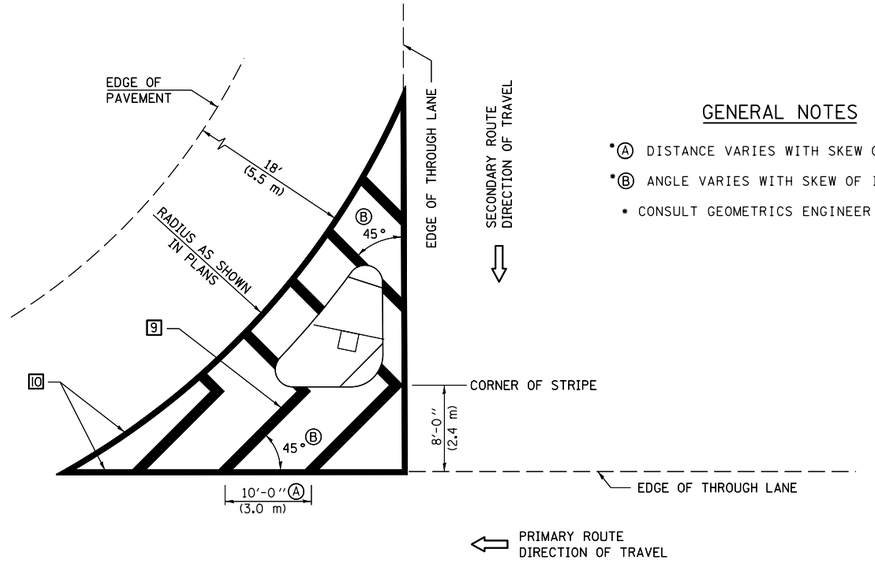
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
   <30 MPH USE 15' (<50 km/h USE 4.5 m)
   30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
   >45 MPH USE 30' (>75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



GENERAL NOTES

*Ⓐ DISTANCE VARIES WITH SKEW OF INTERSECTION.

*Ⓑ ANGLE VARIES WITH SKEW OF INTERSECTION.

• CONSULT GEOMETRICS ENGINEER

ISLAND

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

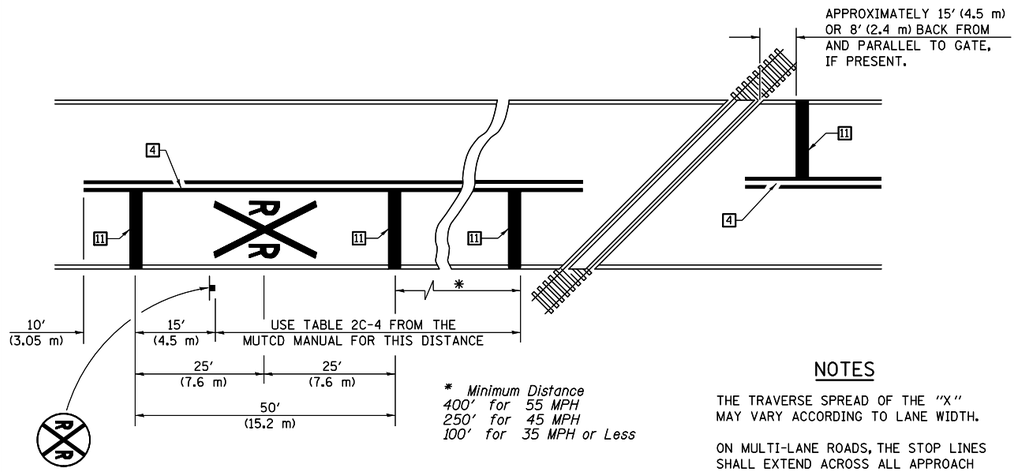
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	69
		CONTRACT NO. 70618		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

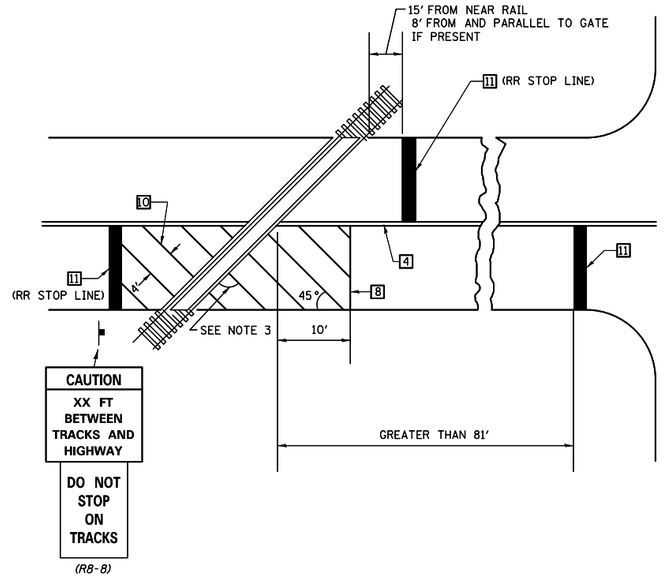
NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

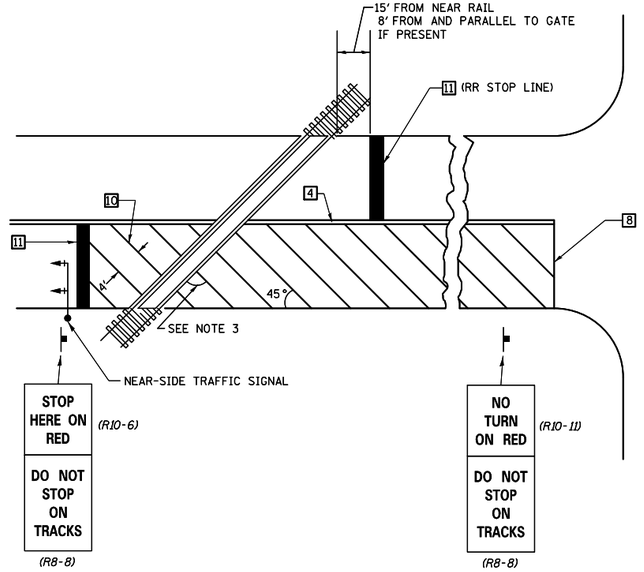
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

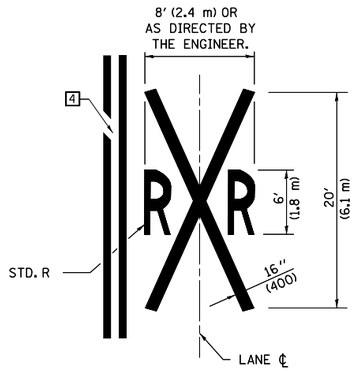
RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING



GENERAL NOTES

1. SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
2. EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
3. WHERE THE ANGLE BETWEEN THE DIAGONAL PAVEMENT MARKINGS AND THE TRACK WOULD BE LESS THAN 20°, THE PAVEMENT MARKINGS SHOULD BE PLACED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-details.dgn	USER NAME = keysrb	DESIGNED -	REVISED - 11/06
		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	EDGAR	115	70
		CONTRACT NO. 70618		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

674 672 670 668 666

EXISTING R.O.W.

668.22

EXISTING R.O.W.

124 + 50.00

674 672 670 668 666

EXISTING R.O.W.

668.22

EXISTING R.O.W.

124 + 00.00

672 670 668 666

668.22

123 + 50.00

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	71
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

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

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

674
672
670
668
666
664

EXISTING R.O.W.

668.26

664.71

C = 0.4
F = 0.0

C = 0.9
F = 0.4

1:10.0

1:3.5

664.72

EXISTING R.O.W.

125 + 50.00

EXISTING R.O.W.

668.24

C = 0.00
F = 0.00

C = 0.00
F = 0.00

EXISTING R.O.W.

125 + 00.00

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

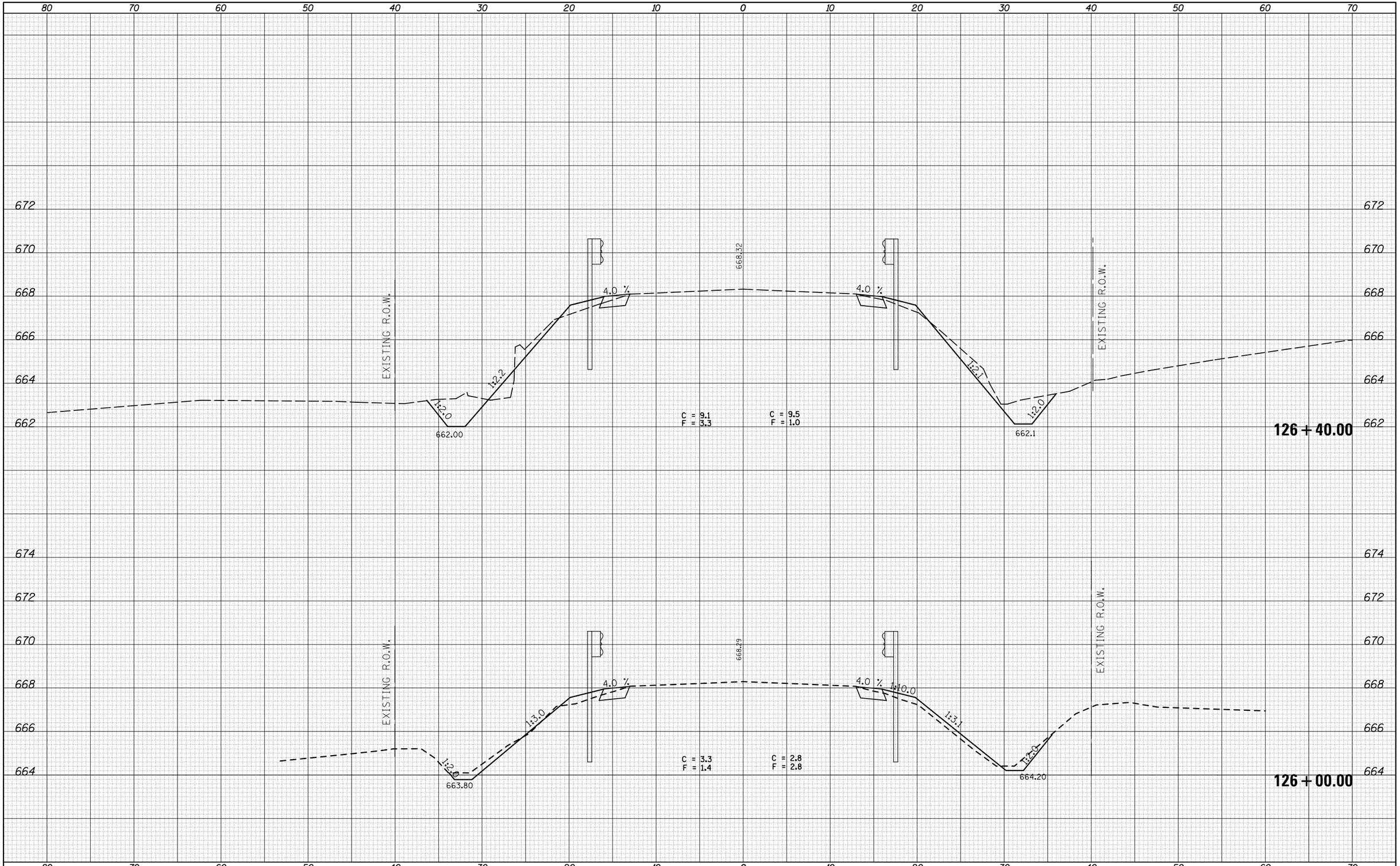
CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 2 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	72
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

BY	DATE



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

BY	DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

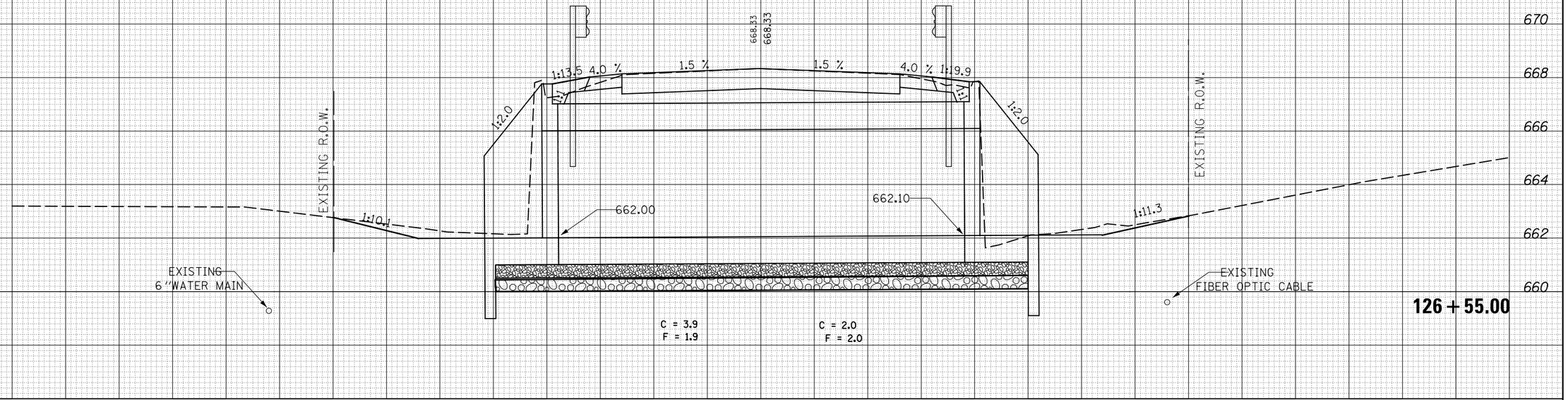
CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	73
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

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



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

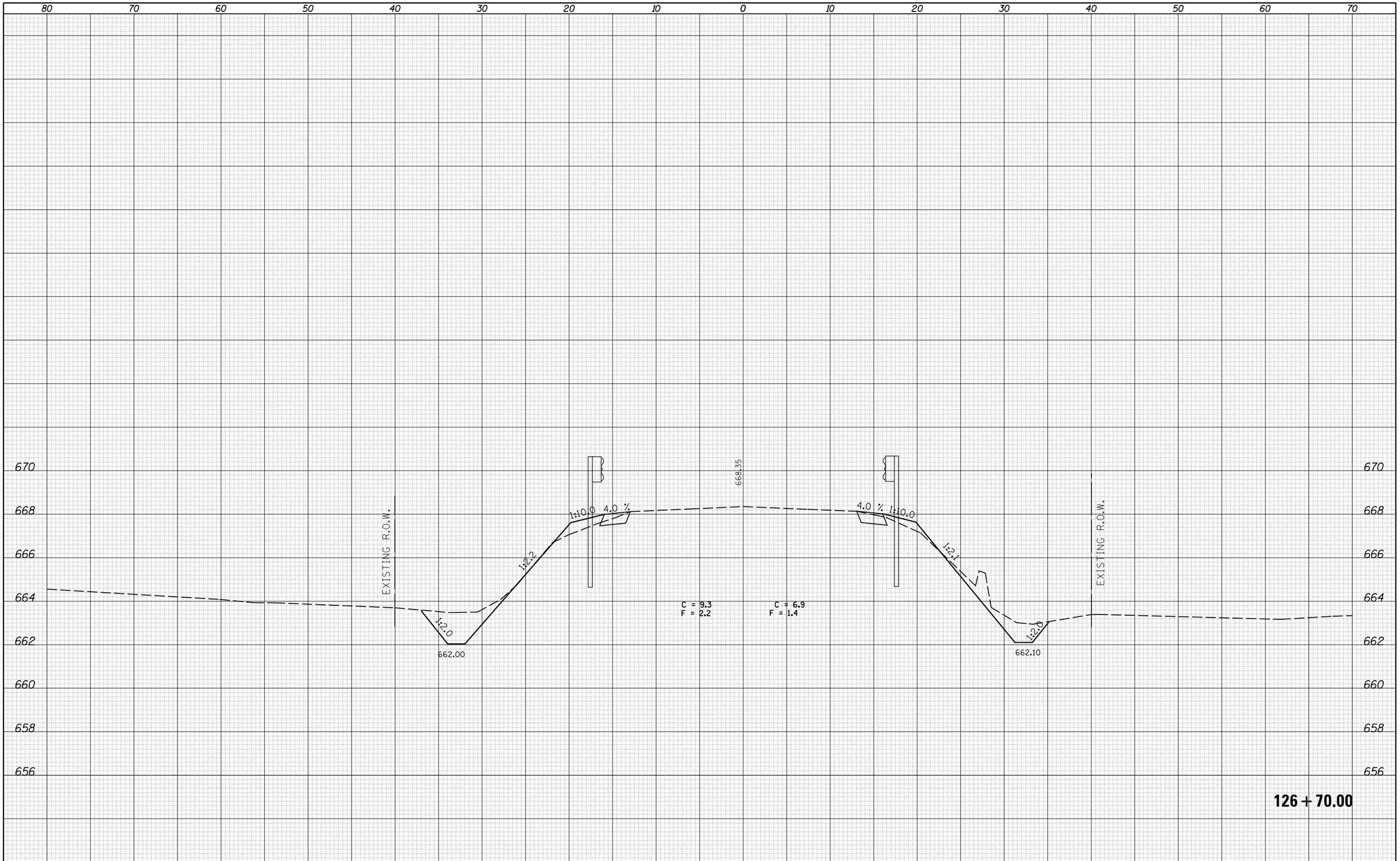
CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	74
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

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



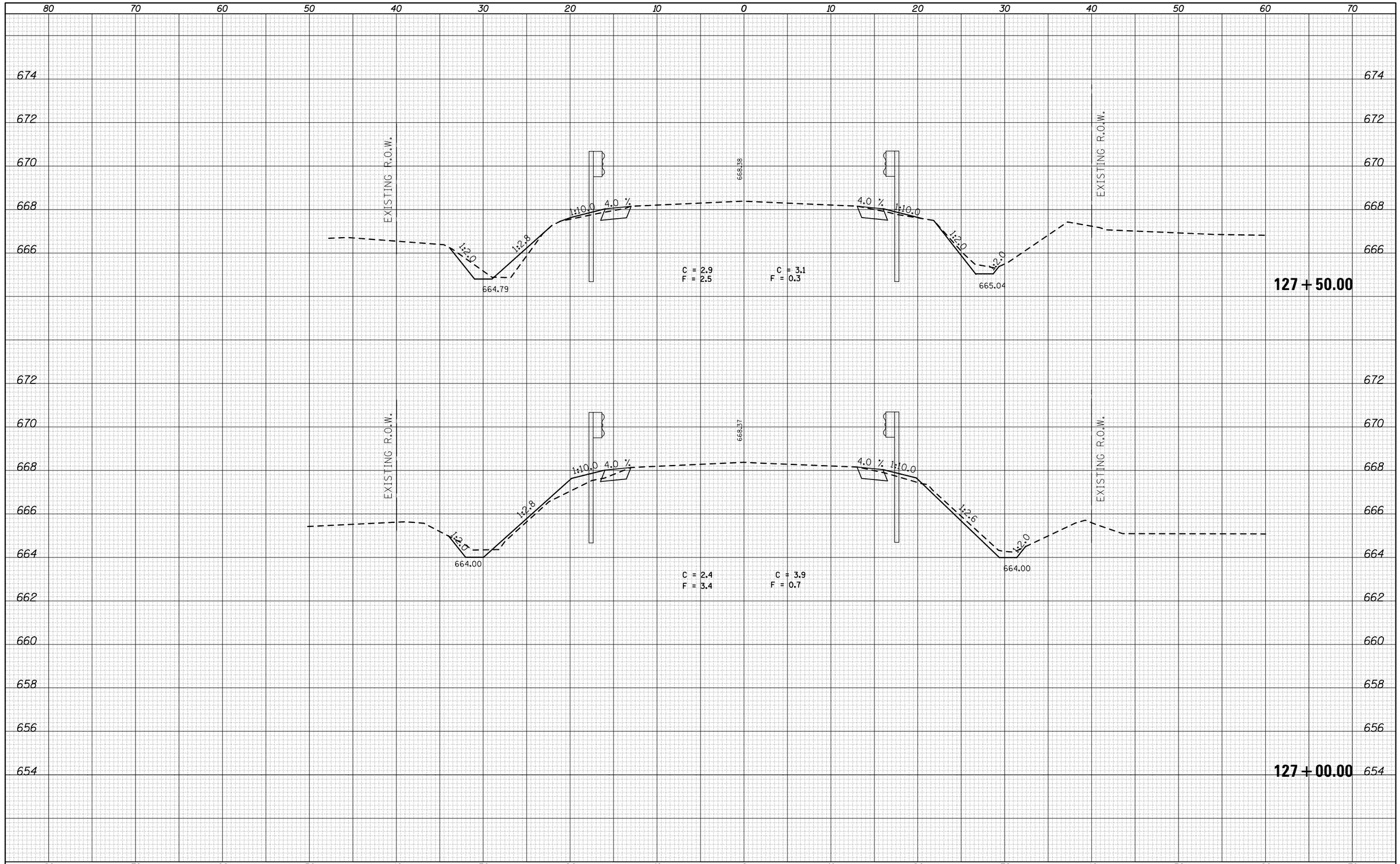
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	75
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			



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

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	76
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

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

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

676
674
672
670
668
666

EXISTING R.O.W.

668.44

C = 0.00
F = 0.00

C = 0.00
F = 0.00

EXISTING R.O.W.

128 + 00.00

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8039xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

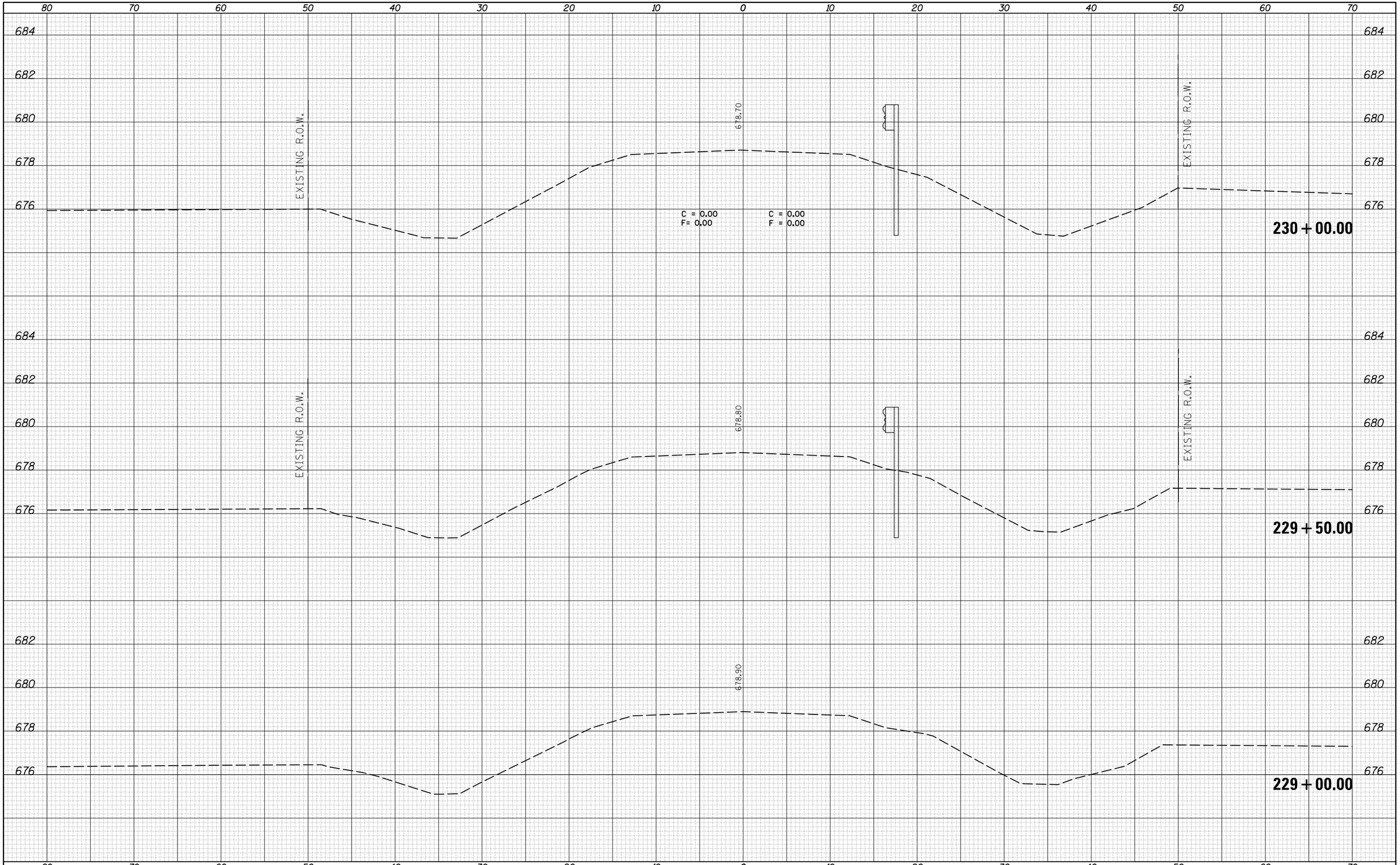
CROSS SECTIONS: CULVERT NO. 1 SN 023-8064

SCALE: | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	77
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

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



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

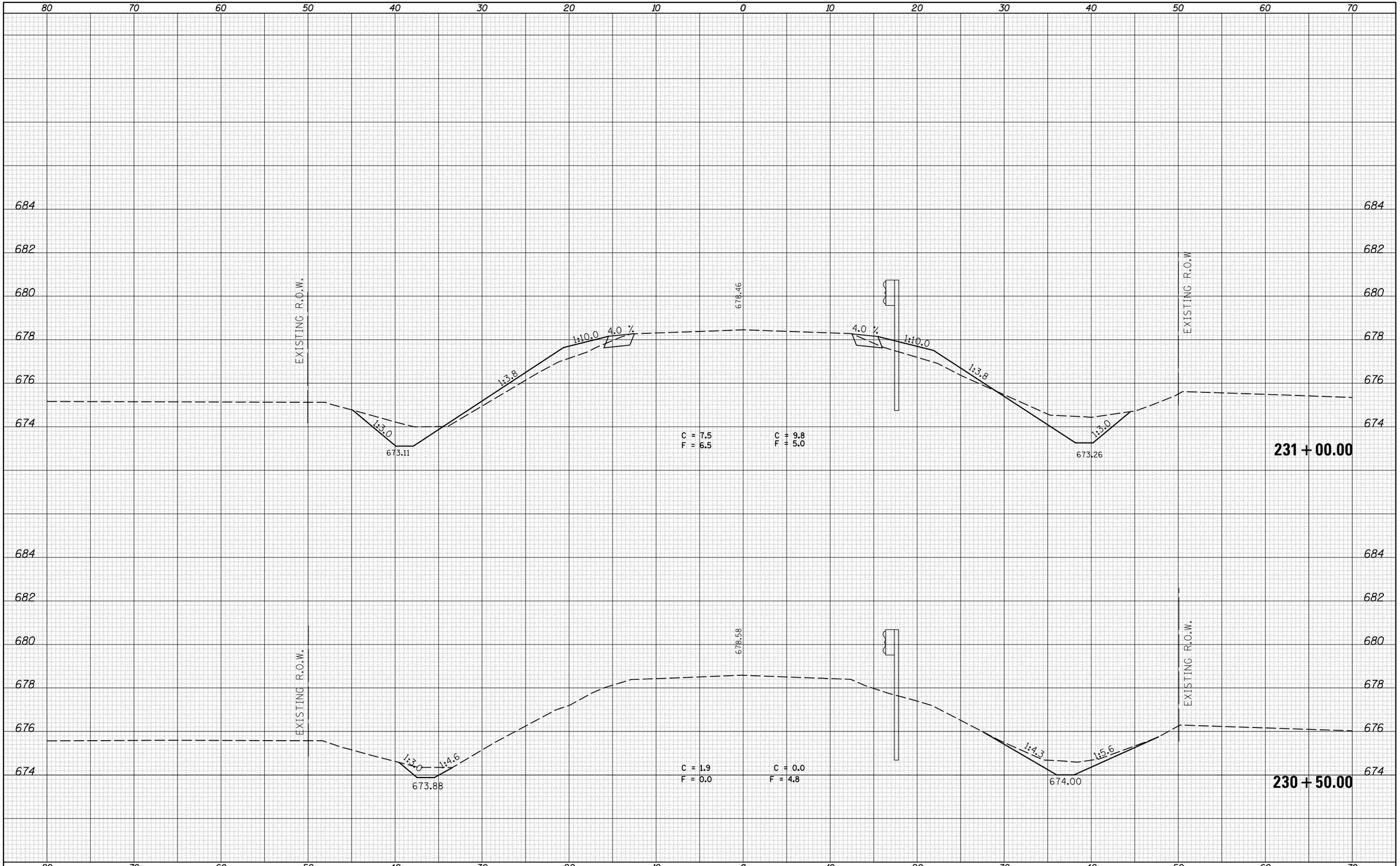
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 2 SN 023-2018

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	78
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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



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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

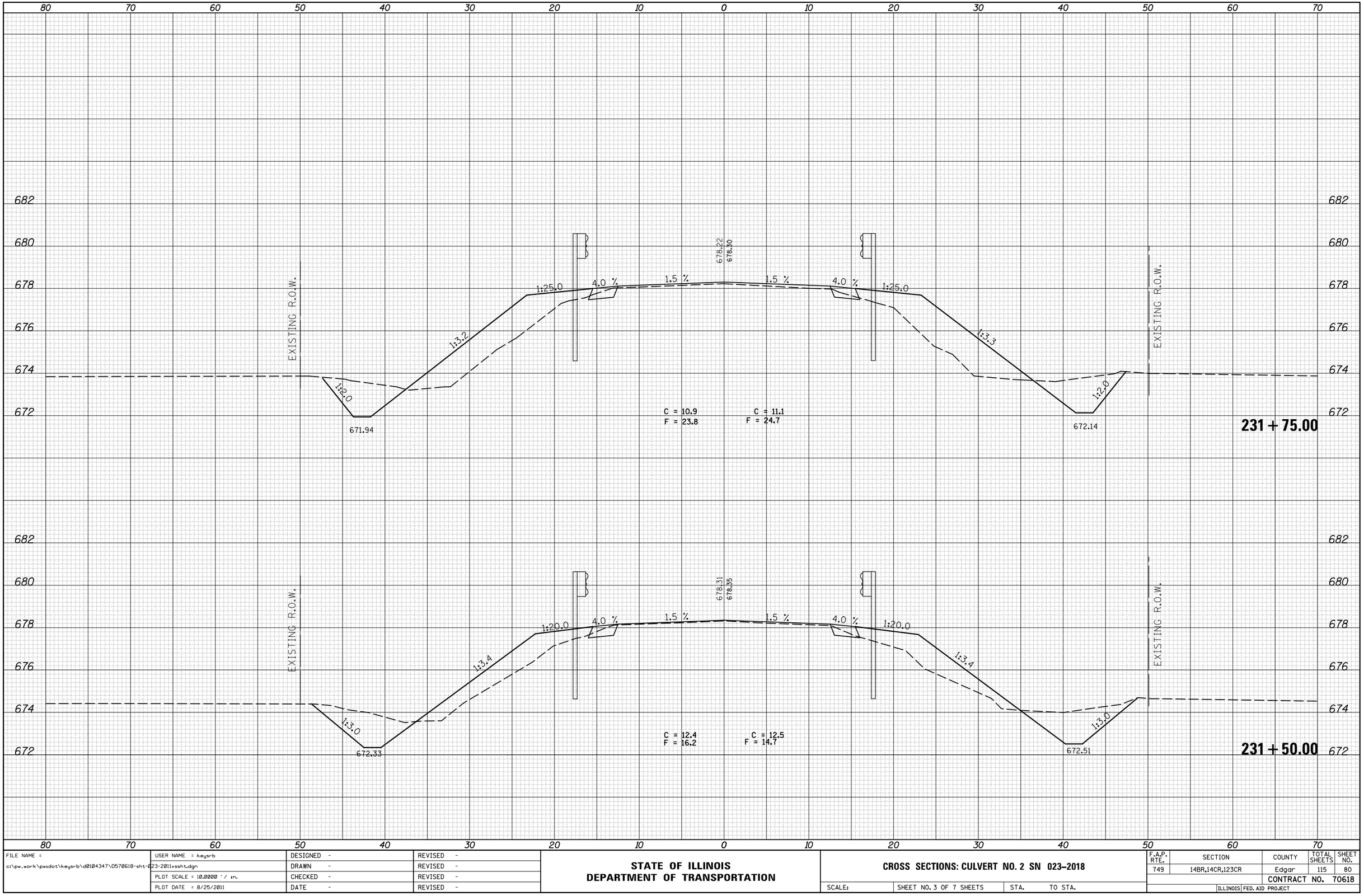
CROSS SECTIONS: CULVERT NO. 2 SN 023-2018

SCALE: | SHEET NO. 2 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	79
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

BY	DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

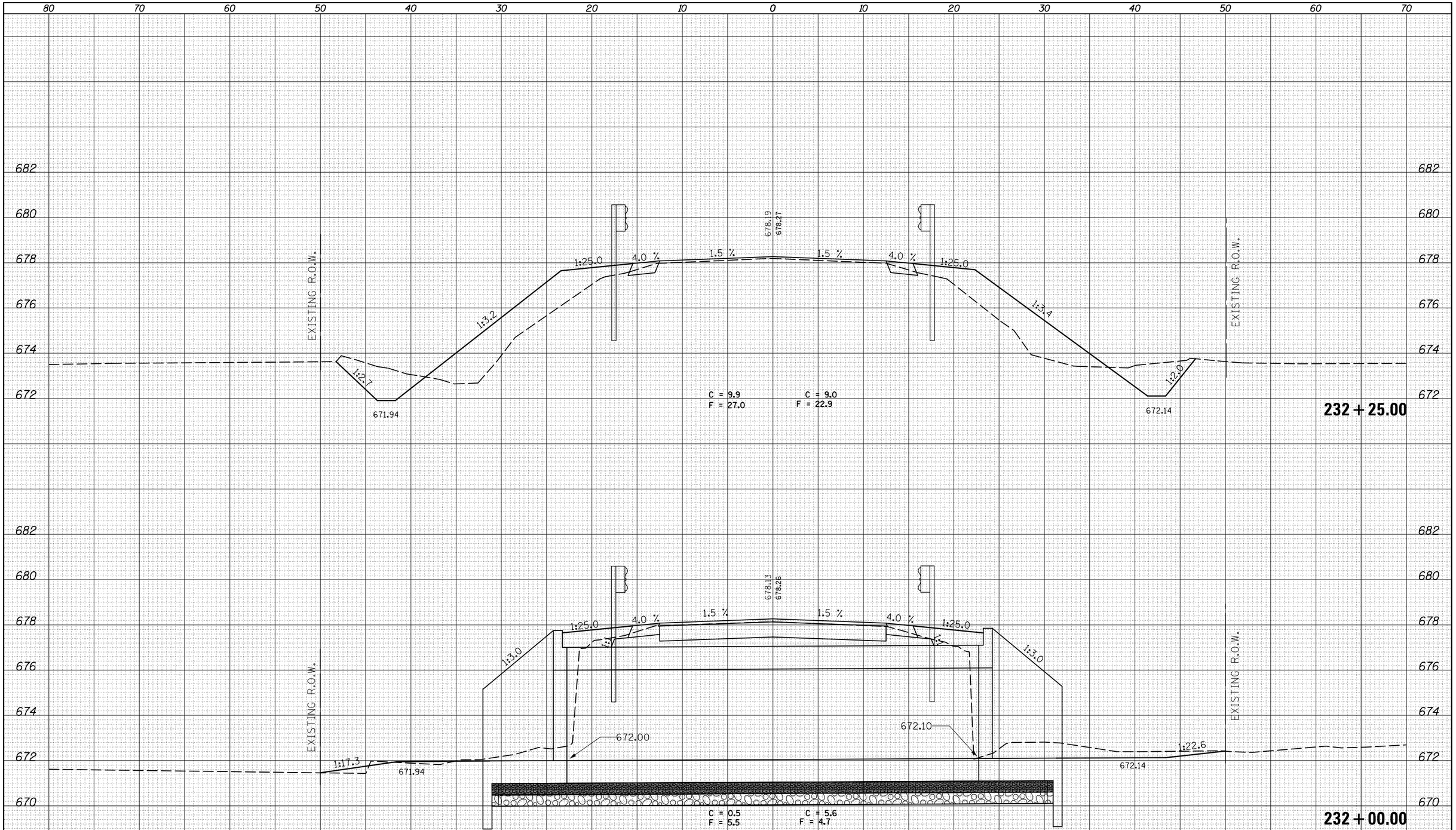
CROSS SECTIONS: CULVERT NO. 2 SN 023-2018

SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	80
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

BY	DATE



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

BY	DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

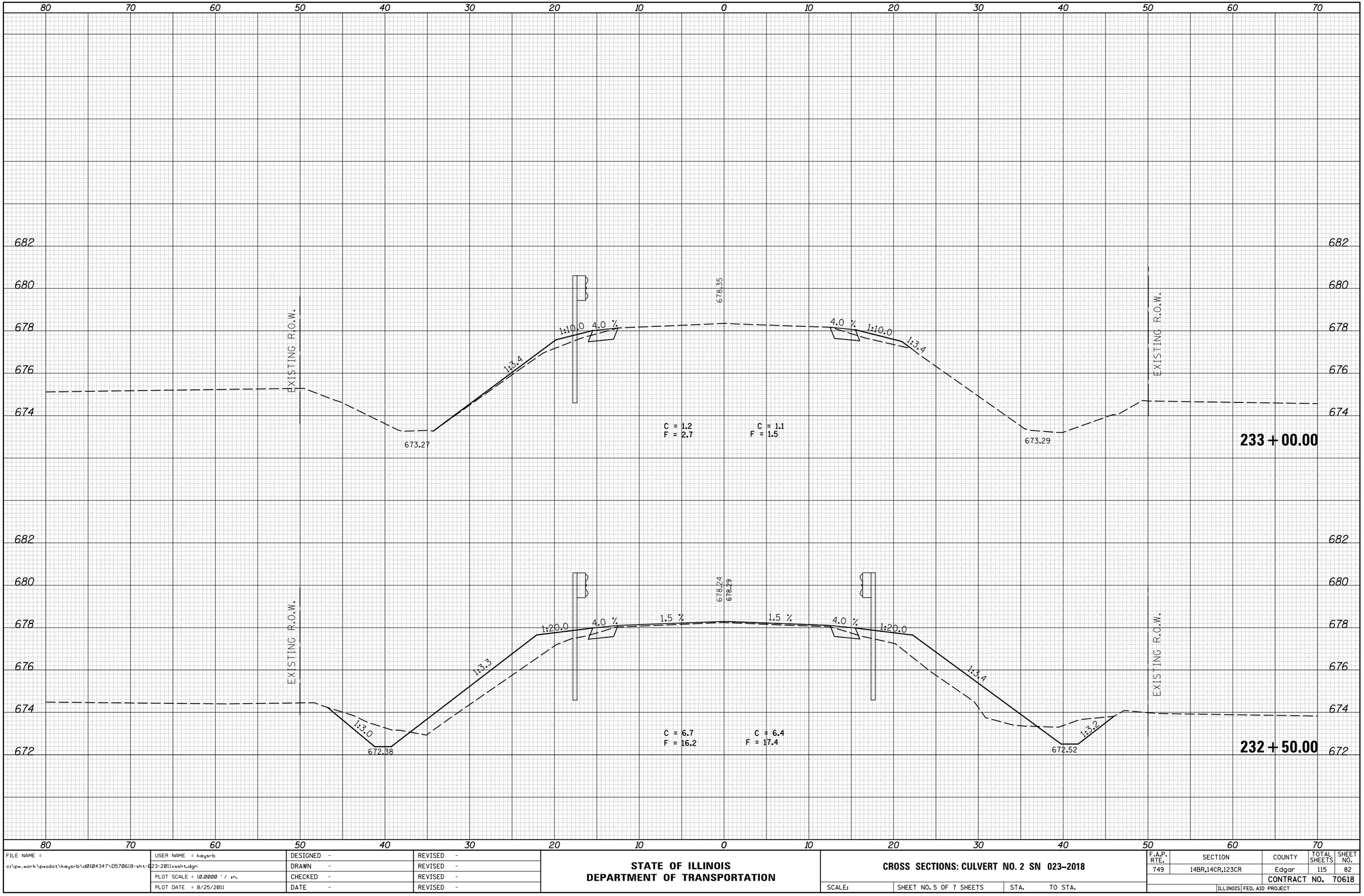
CROSS SECTIONS: CULVERT NO. 2 SN 023-2018

SCALE: | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	81
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

BY	DATE



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

BY	DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 2 SN 023-2018

SCALE: | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

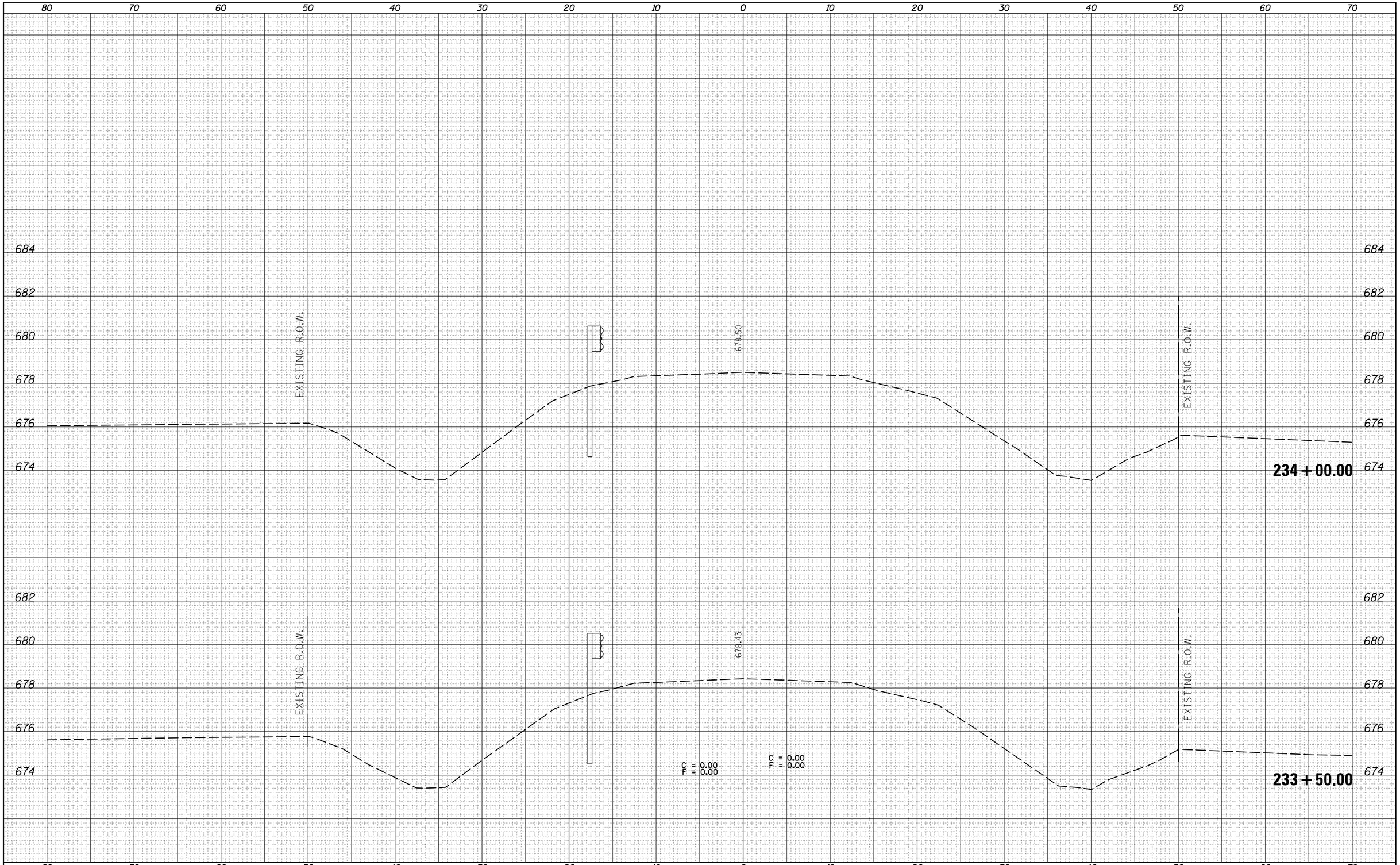
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	82
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

BY	DATE

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

BY	DATE



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 2 SN-023-2018

SCALE: | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	83
		CONTRACT NO. 70618		
		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY	
NOTE BOOK	
NO.	

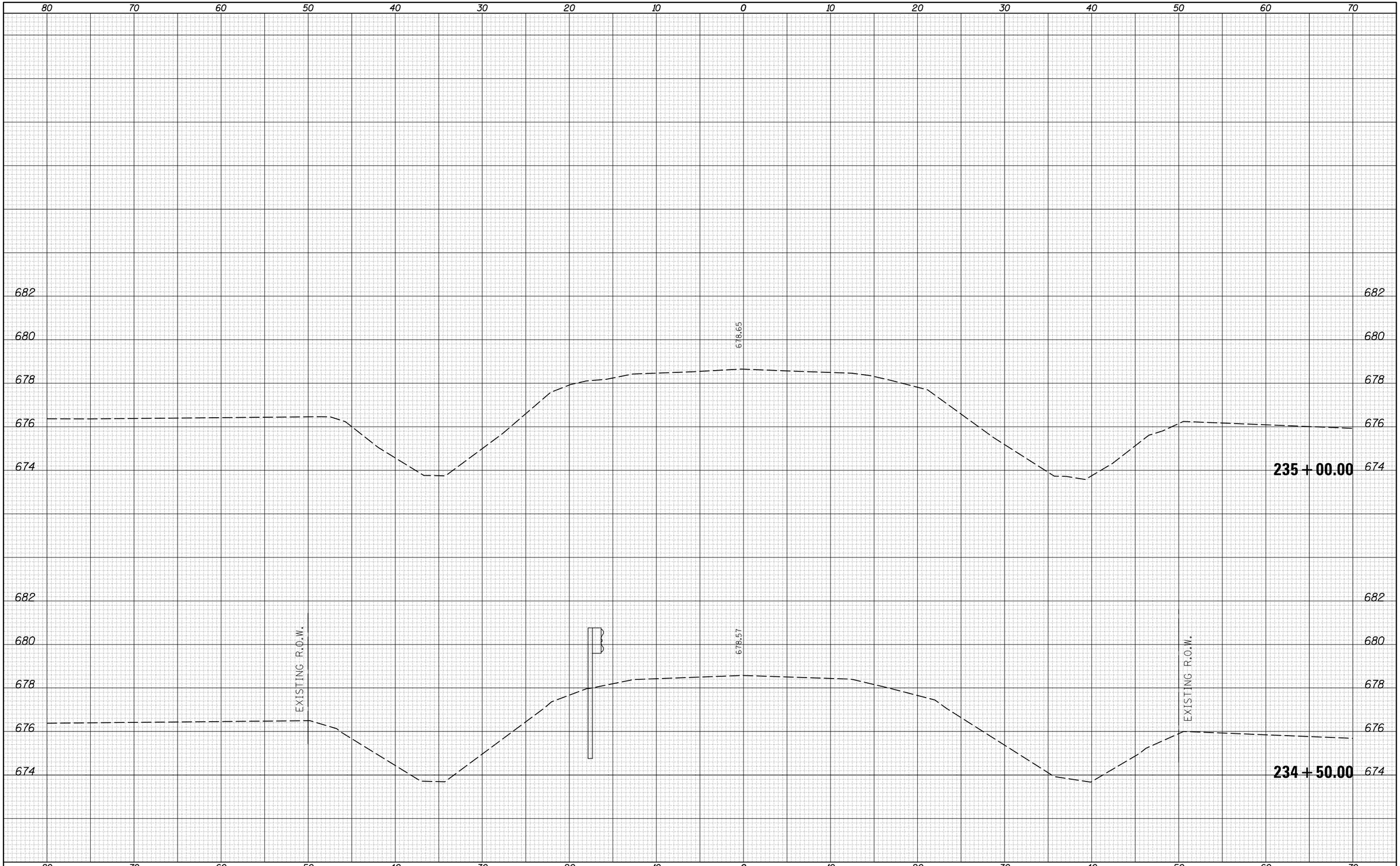
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

BY	DATE

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

BY	DATE



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-2011xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 2 SN 023-2018

SCALE: | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

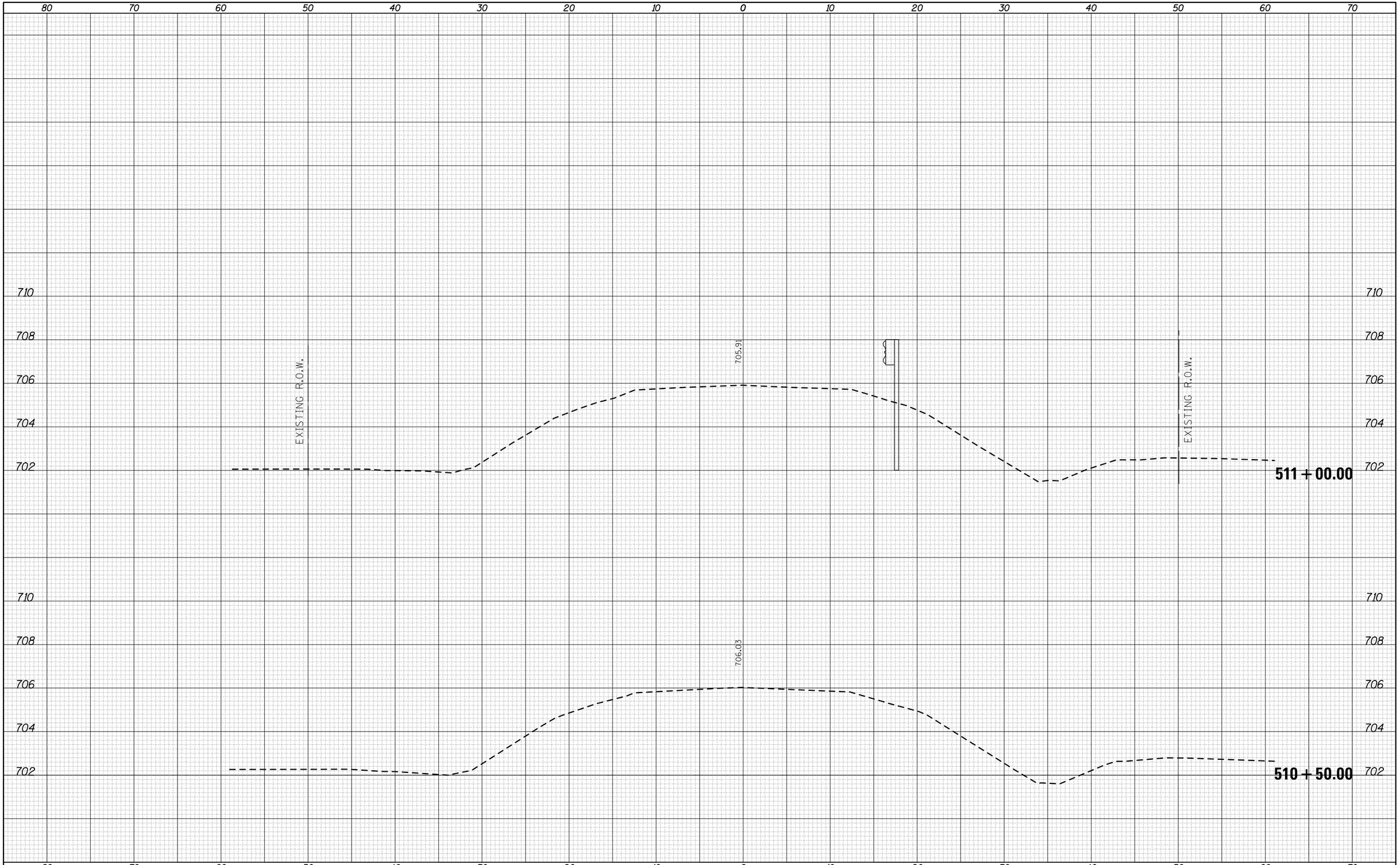
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	84
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

BY	DATE

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

BY	DATE



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8306xssht.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

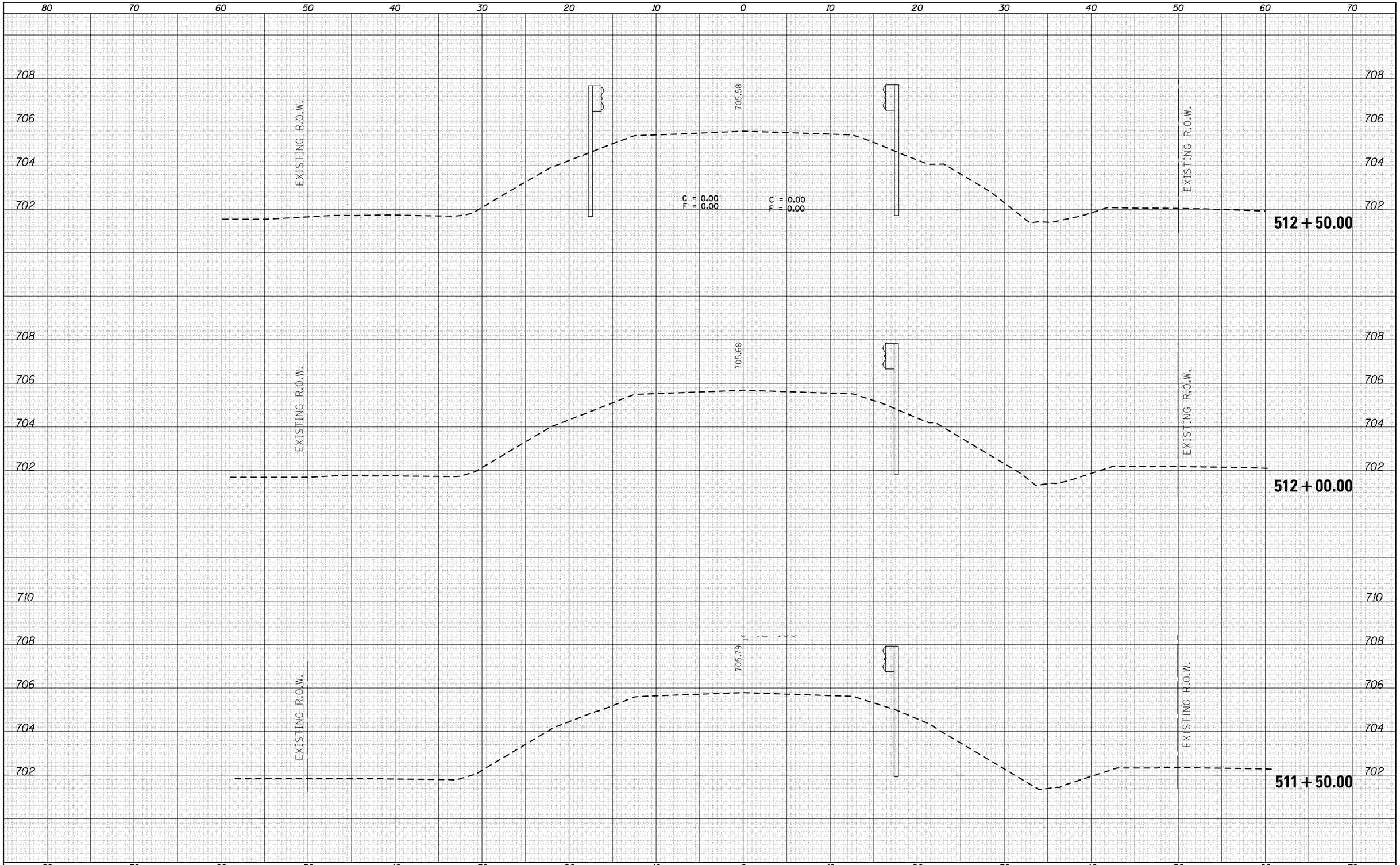
CROSS SECTIONS: CULVERT NO. 3 SN 023-8065

SCALE: | SHEET NO. 1 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	85
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

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



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8306xssht.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 3 SN 023-8065

SCALE: | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

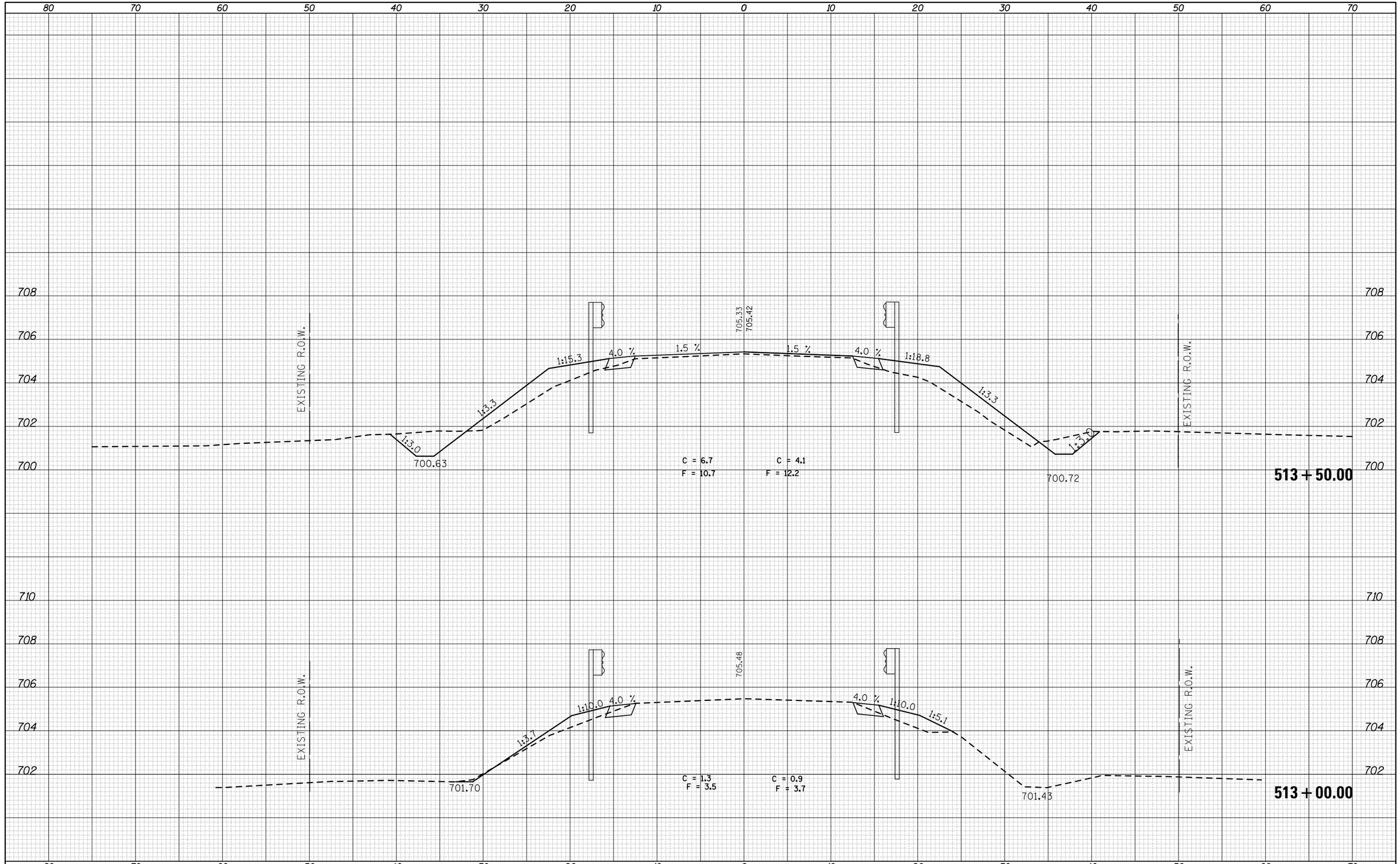
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	86
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

BY	DATE

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

BY	DATE



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8306xssht.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

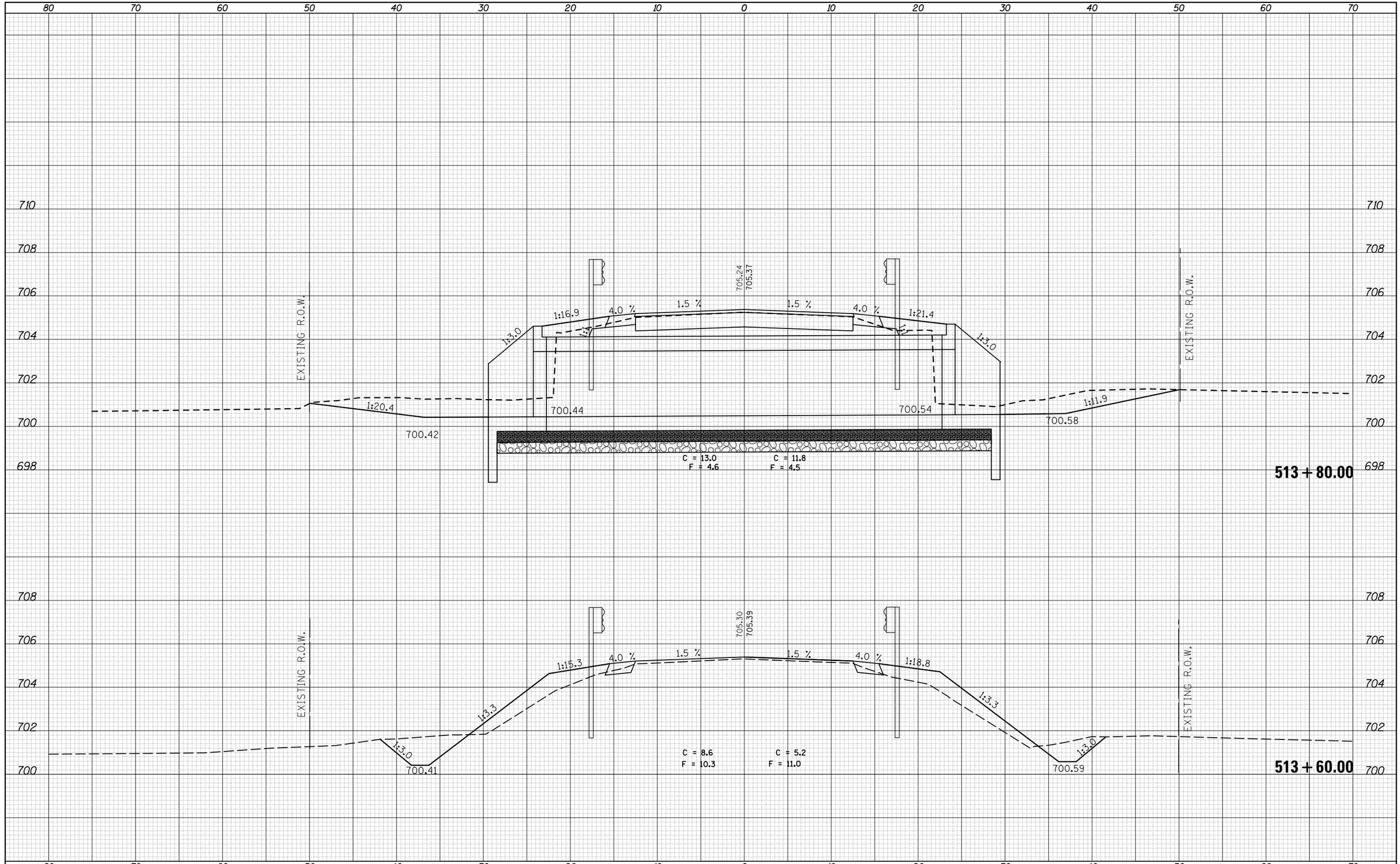
CROSS SECTIONS: CULVERT NO. 3 SN 023-8065

SCALE: | SHEET NO. 3 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	87
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

BY	DATE



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

BY	DATE

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8306xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

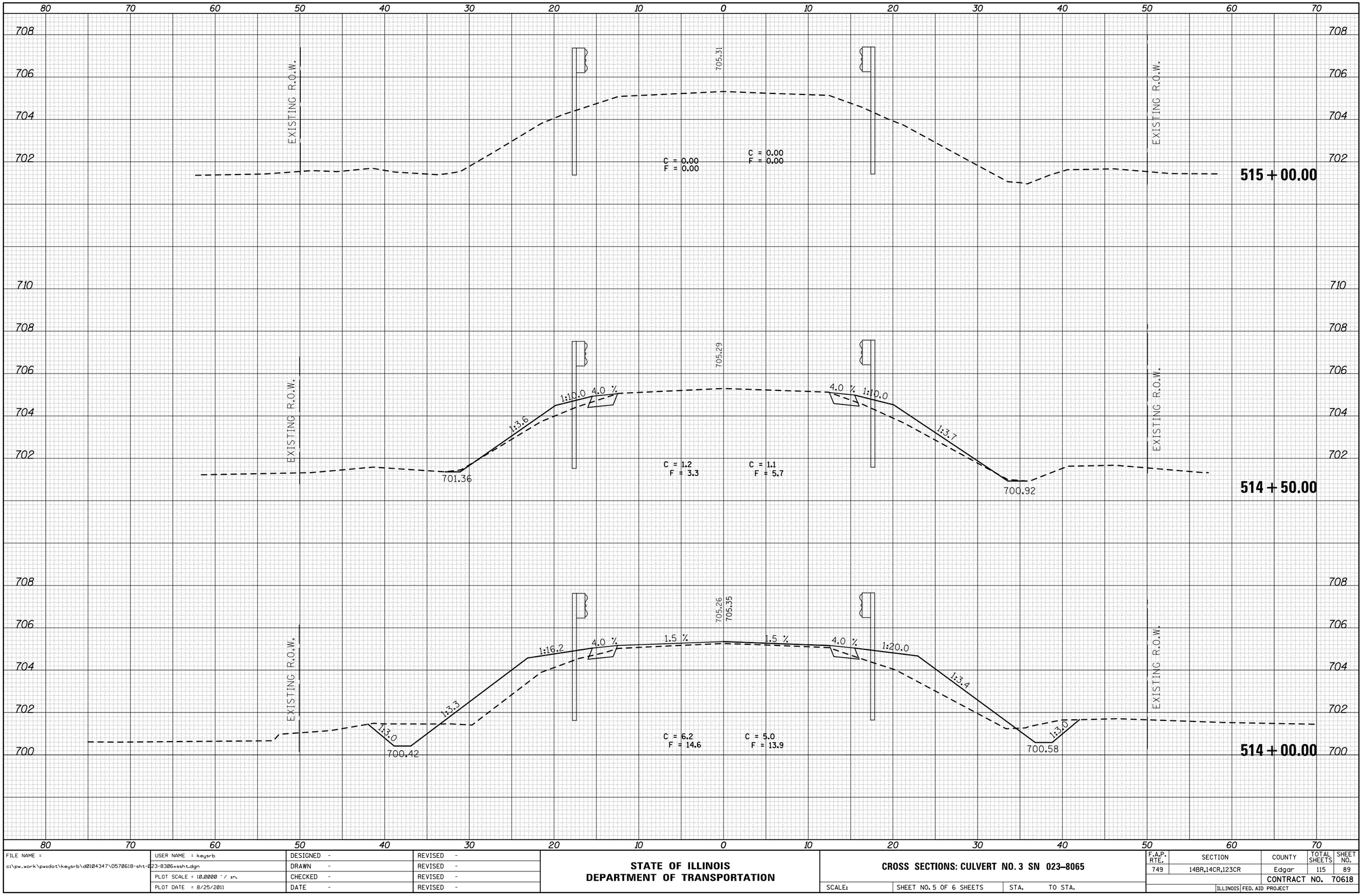
CROSS SECTIONS: CULVERT NO. 3 SN 023-8065

SCALE: | SHEET NO. 4 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	88
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

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



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8306xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 3 SN 023-8065

SCALE: | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

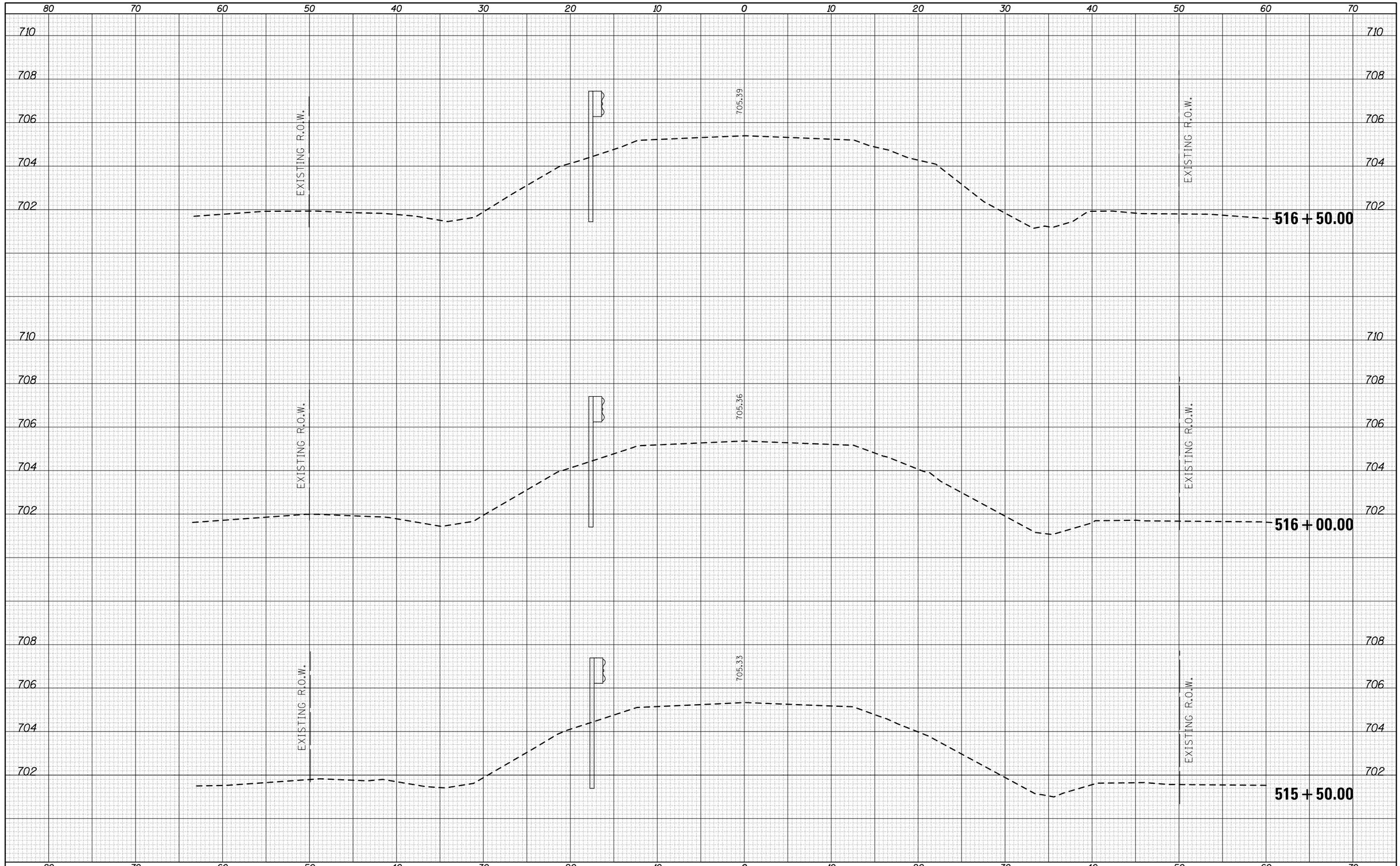
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	89
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

BY	DATE

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

BY	DATE



FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-8306xssht.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS: CULVERT NO. 3 SN 023-8065

SCALE: | SHEET NO. 6 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	90
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688

STG. I, STG. II
DETOUR
℄
690.55
690.76
1V:3H
C =3.32
F = 2.07
TSE = 0.00
C = 0.00
F = 0.00
TSE = 0.00

414 + 00.00
=11 + 12.82

696
692
688

STG. I, STG. II
DETOUR
℄
690.74
C =1.36
F = 0.00
TSE = 0.00
C = 0.00
F = 0.00
TSE = 0.00

413 + 50.00
=10 + 62.53

696
692
688
684

690.72

413 + 00.00
=10 + 12.47

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE I & II

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

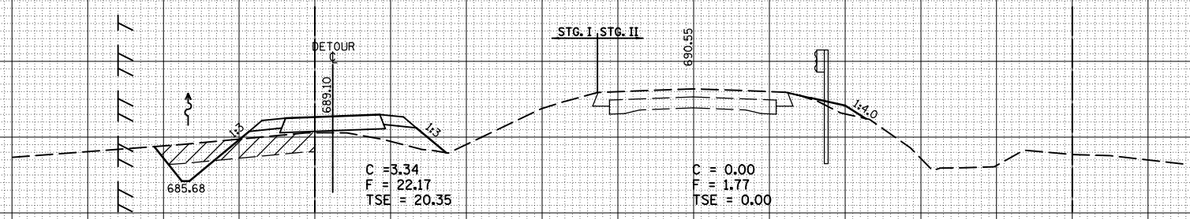
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	91
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

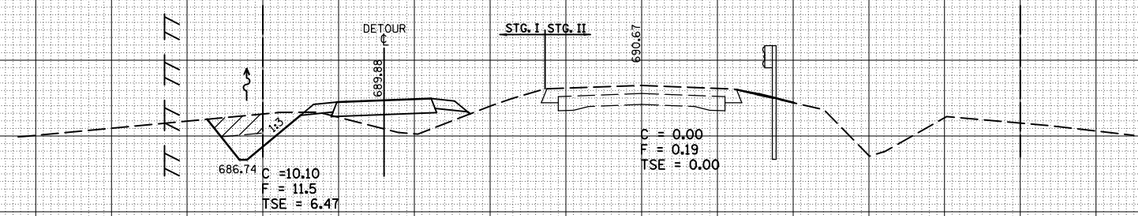
ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED	BY	DATE
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

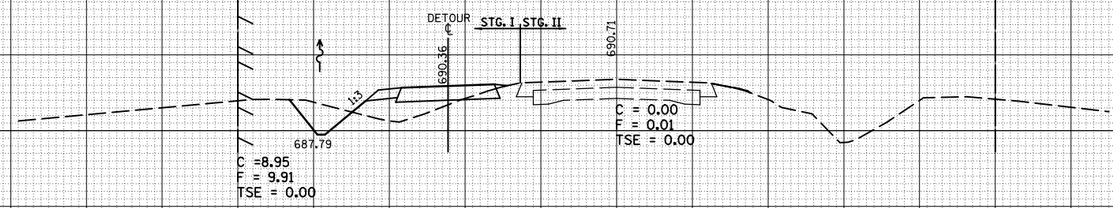
696
692
688



415 + 50.00
= 12 + 66.75



415 + 00.00
= 12 + 14.92



414 + 50.00
= 11 + 63.55

▨ TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE I & II

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

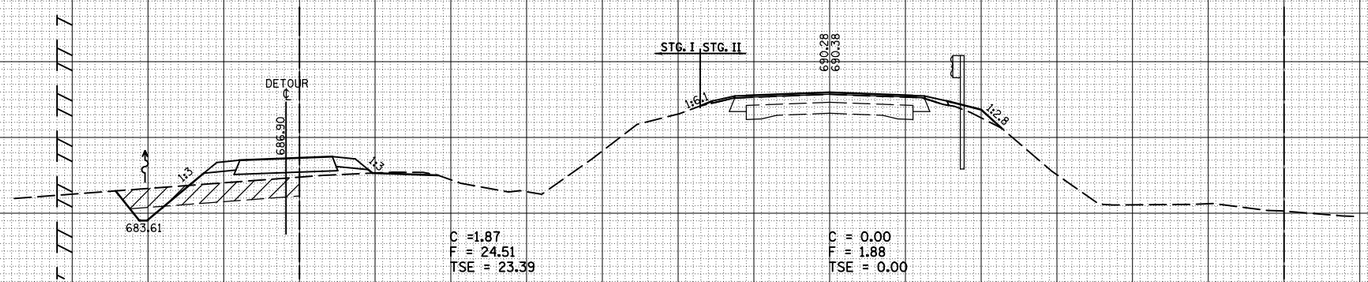
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	92
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

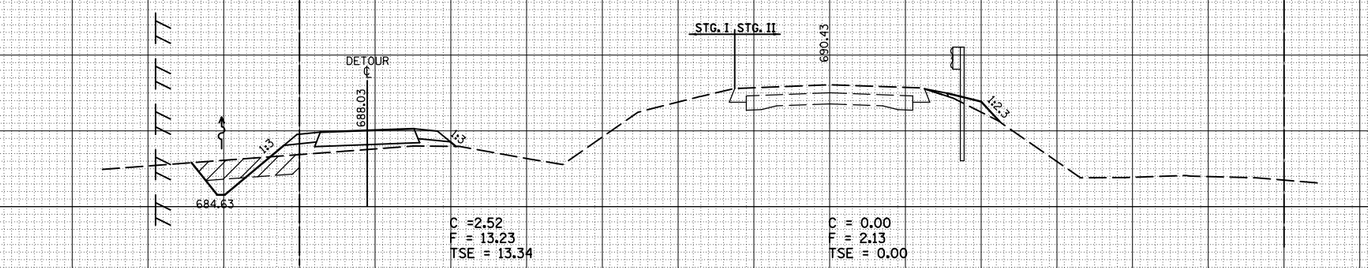
ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED	BY	
PLOTTED		
TEMPLATE		
ANGLES		
AREAS CHECKED		DATE

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

708 704 700 696 692 688 684



416 + 50.00
= 13 + 69.66



416 + 00.00
= 13 + 18.52

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE I & II

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	93
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

BY	DATE

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

BY	DATE

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696 692 688 684 680

DETOUR ℄

685.17

681.60

1:3 1:3

STG. I STG. II

689.98
690.54

1:3.0 1:2.8

C =1.61
F = 45.73
TSE = 34.76

C = 0.00
F = 7.05
TSE = 0.00

PAVEMENT/STUCTURE REMOVAL

417 + 50.00
=14 + 70.43

DETOUR ℄

685.92

682.60

1:3 1:3

STG. I STG. II

690.13
690.47

1:4.0 1:2.8

C =1.59
F = 34.95
TSE = 30.87

C = 0.00
F = 5.13
TSE = 0.00

417 + 00.00
=14 + 20.23

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE I & II

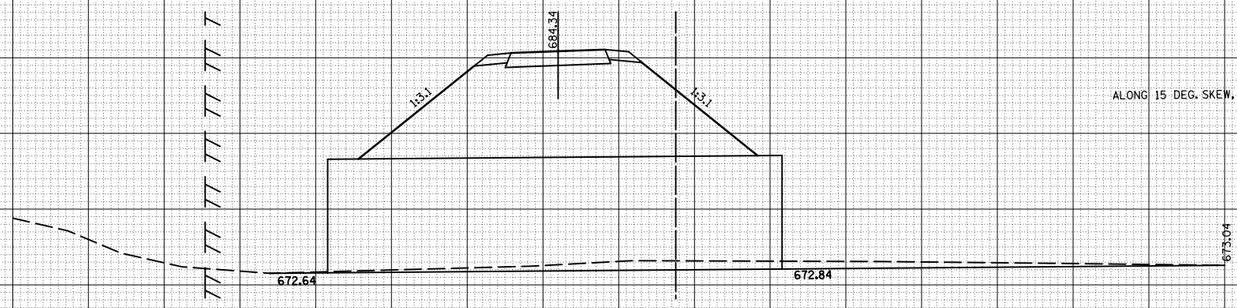
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	94
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

688 684 680 676 672

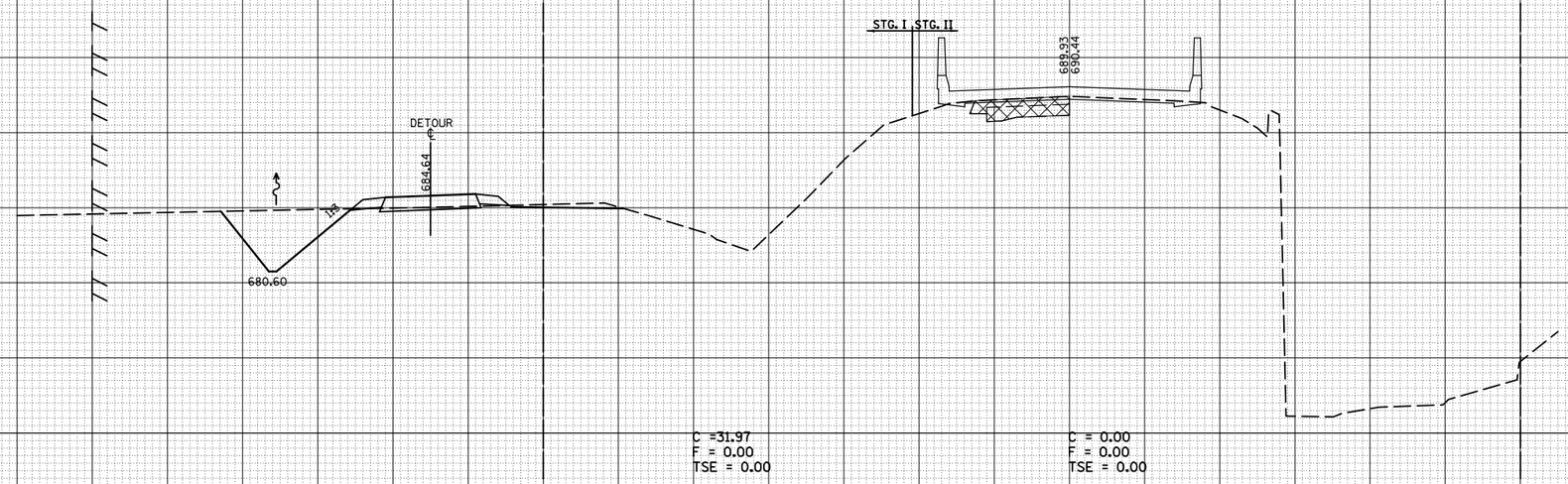


ALONG 15 DEG. SKEW, LT. FWD.

SEE CHANNEL CROSS SECTIONS FOR
PROPOSED RIPRAP PLACEMENT

418 + 26.01

696 692 688 684 680 676 672



PAVEMENT/STUCTURE REMOVAL

SEE CHANNEL CROSS SECTIONS FOR
PROPOSED RIPRAP PLACEMENT **418 + 00.00**

= 15 + 20.45

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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

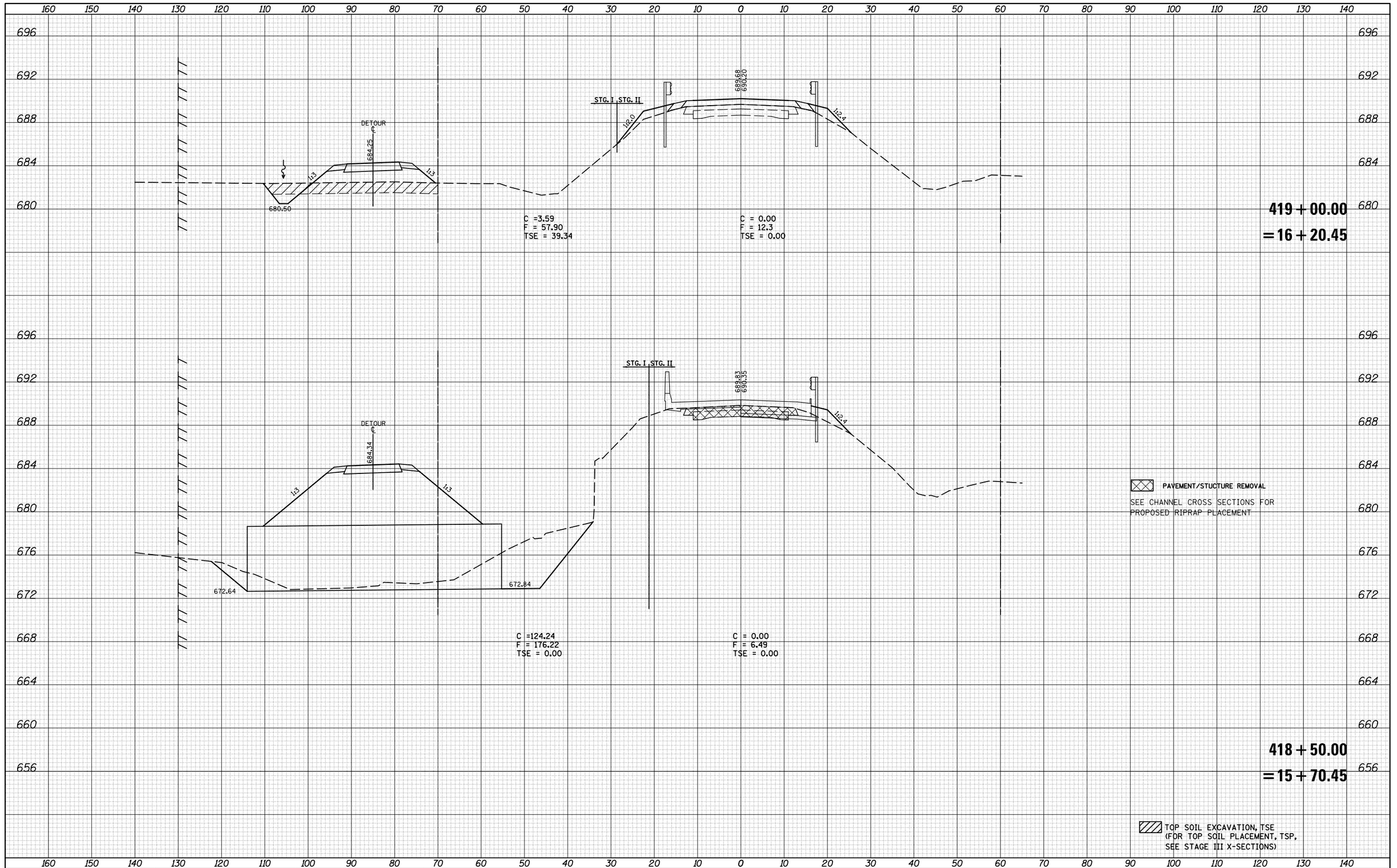
FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE I & II

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	95
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		



FINAL SURVEY

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

ORIGINAL SURVEY

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE I & II

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	96
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

700
696
692
688
684
680

DETOUR
℄
684.75
681.45
1:3
1:3
STG. I STG. II
689.70
1:3.7
C =1.45
F = 42.93
TSE = 32.54
C = 0.00
F = 1.59
TSE = 0.00

420 + 00.00
=17 + 20.77

DETOUR
℄
684.39
680.97
1:3
1:3
STG. I STG. II
689.68
689.92
1:3.7
1:3.2
C =1.76
F = 51.23
TSE = 37.59
C = 0.00
F = 4.13
TSE = 0.00

419 + 50.00
=16 + 70.47

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -
		DRAWN -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -
	PLOT DATE = 8/25/2011	DATE -
		REVISED -
		REVISED -
		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - SN023-0034
STAGE I & II

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	97
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	NOTE BOOK	PAGE NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

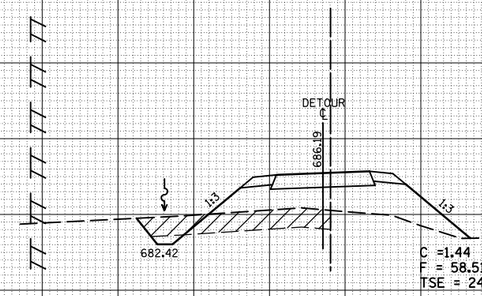
NO.	BY	DATE

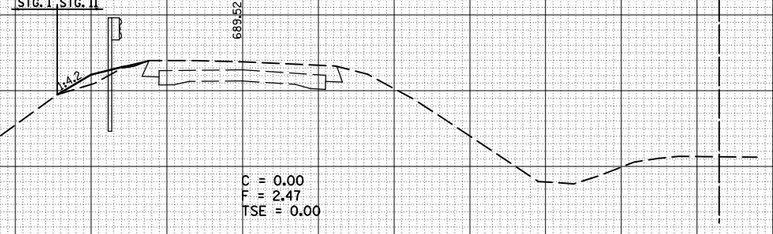
ORIGINAL SURVEY	NOTE BOOK	PAGE NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

NO.	BY	DATE

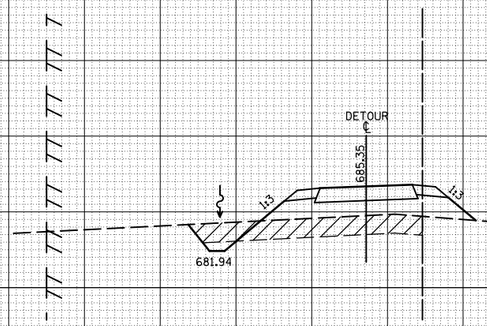
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

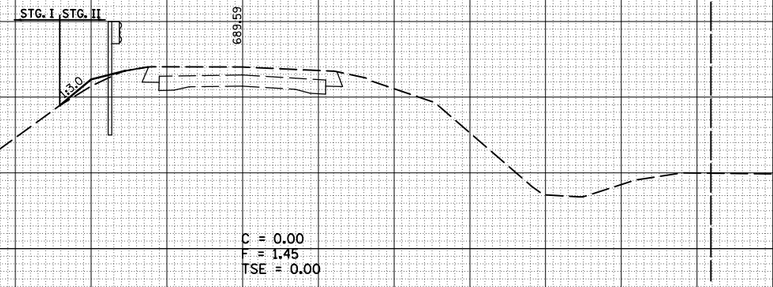
696
692
688
684
680





421 + 00.00
= 18 + 23.40





420 + 50.00
= 17 + 71.88

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE I & II

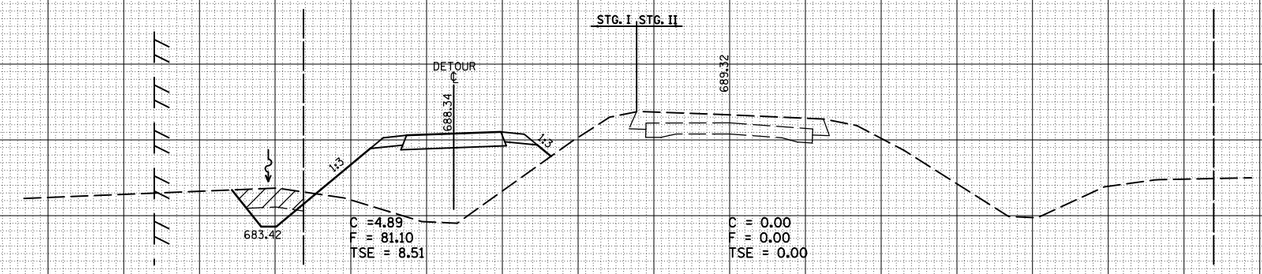
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	98
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

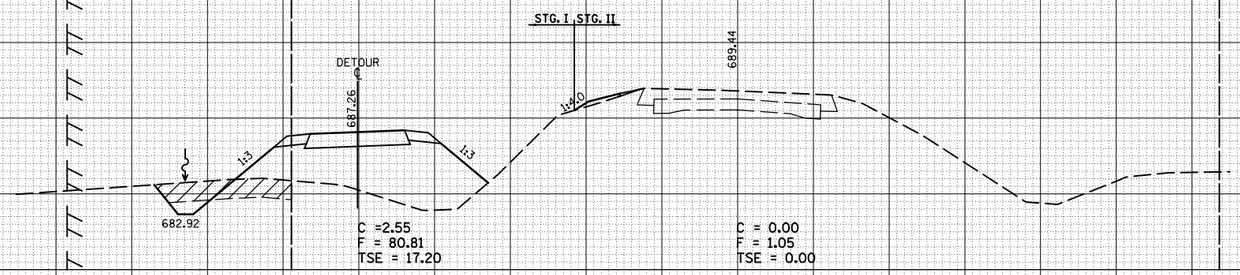
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688
684



422 + 00.00
= 19 + 27.66

700
696
692
688
684
680



421 + 50.00
= 18 + 75.46

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE I & II

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

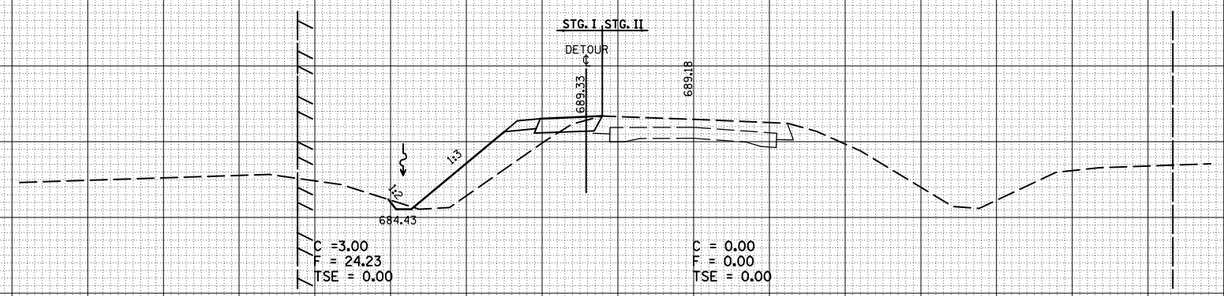
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	99
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	
NOTE BOOK	
NO.	

		BY	DATE
SURVEYED			
PLOTTED			
TEMPLATE			
AREAS			
AREAS CHECKED			

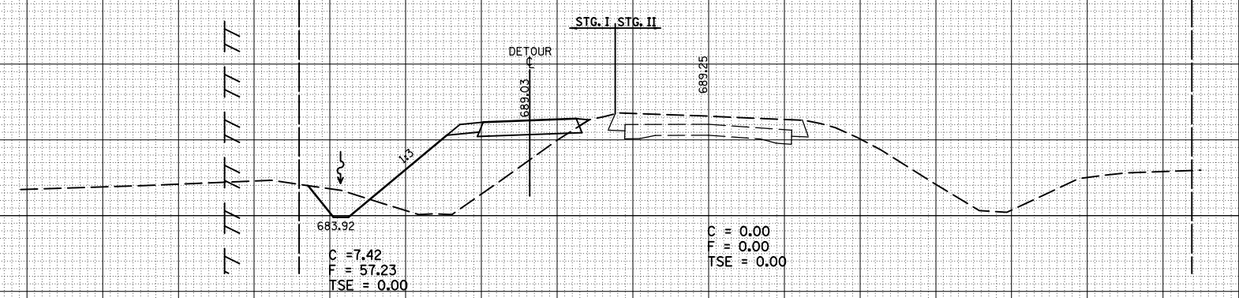
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688
684



423 + 00.00
= 20 + 30.55

700
696
692
688
684



422 + 50.00
= 19 + 79.51

▨ TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE I & II

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	100
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

		BY	DATE
SURVEYED			
PLOTTED			
TEMPLATE			
AREAS			
AREAS CHECKED			

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

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688
684

689.14

424 + 50.00

696
692
688
684

689.23

424 + 00.00

= 21 + 31.11

704
700
696
692
688
684

STG. I STG. II

DETOUR

689.21

1:3

C =1.80
F = 3.03
TSE = 0.00

C = 0.00
F = 0.00
TSE = 0.00

423 + 50.00

= 20 + 80.99

TOP SOIL EXCAVATION, TSE
(FOR TOP SOIL PLACEMENT, TSP,
SEE STAGE III X-SECTIONS)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE I & II

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	101
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

700
696
692
688

DETOUR
℄
STG. III
690.76
1:1.5
C =3.90
F = 1.71
TSP = 0.00

414 + 00.00

696
692
688

DETOUR
℄
STG. III
690.74
C =0.80
F = 0.30
TSP = 0.00

413 + 50.00

696
692
688
684

690.72

413 + 00.00

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE III

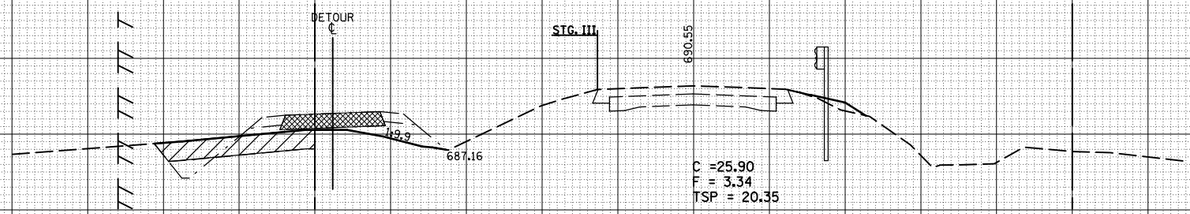
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	102
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

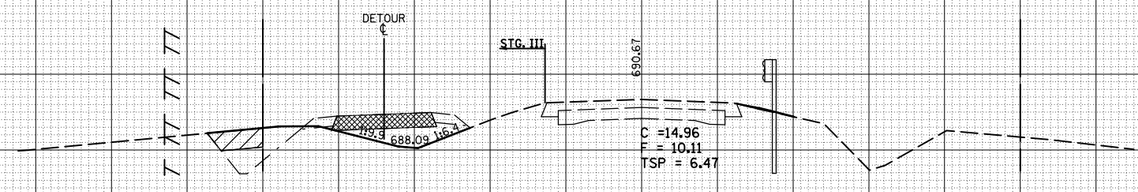
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688



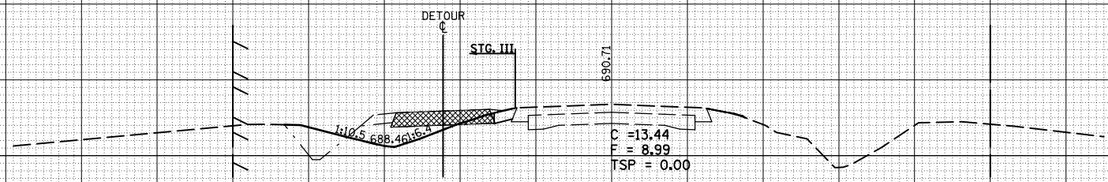
415 + 50.00
= 12 + 66.75

696
692
688



415 + 00.00
= 12 + 14.92

696
692
688



414 + 50.00
= 11 + 63.55

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -
	PLOT SCALE = 20.0000 ' / in.	DRAWN -
	PLOT DATE = 8/25/2011	CHECKED -
		DATE -
		REVISED -
		REVISED -
		REVISED -

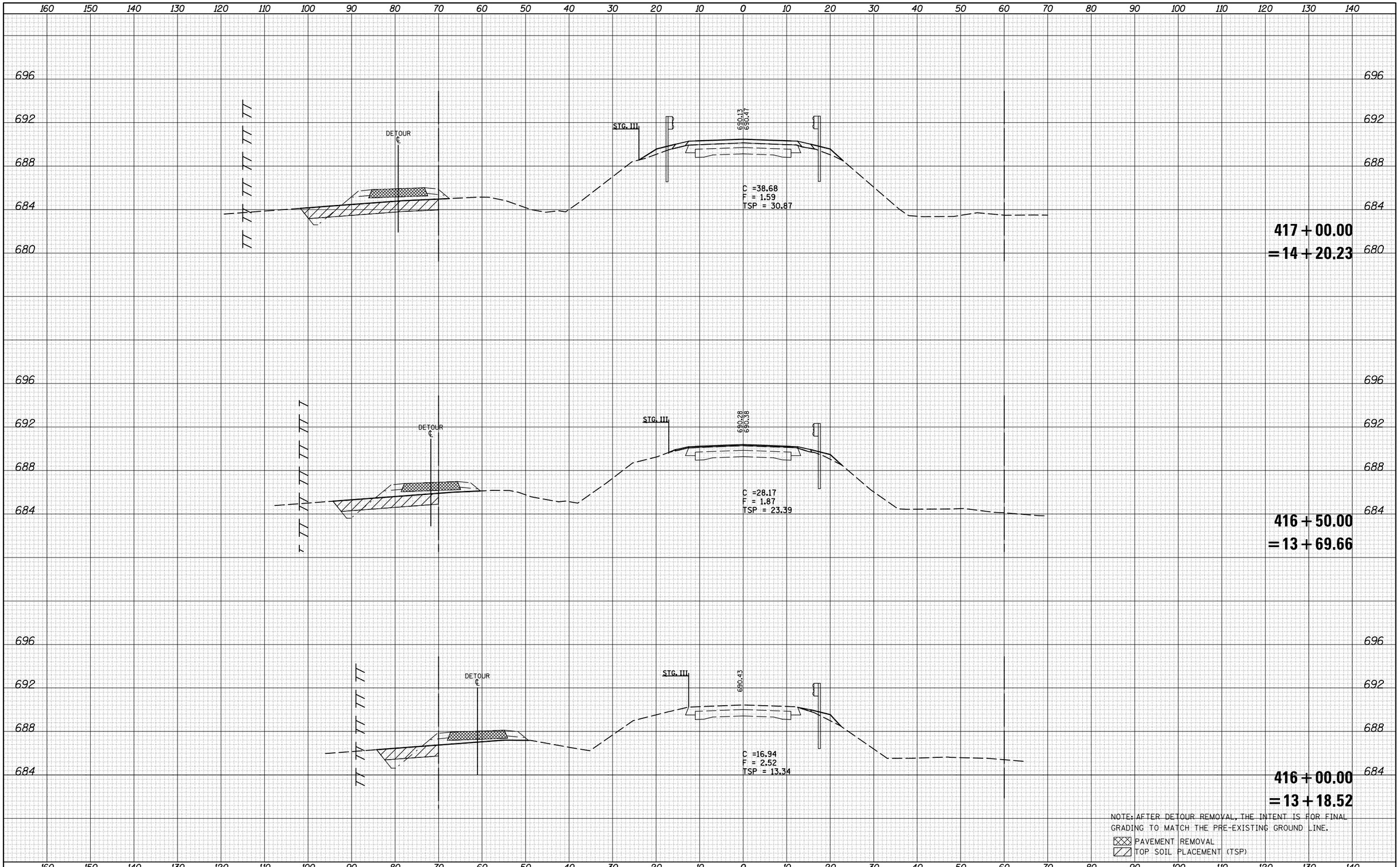
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	103
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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



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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -
		DRAWN -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -
	PLOT DATE = 8/25/2011	DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	104
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696 692 688 684 680 676 672

DETOUR
℄

STG. III

689.93
690.44

C =3.47
F = 32.02
TSP = 0.00

418 + 00.00

= 15 + 20.45

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

696 692 688 684 680

DETOUR
℄

STG. III

689.98
690.54

C =49.34
F = 1.61
TSP = 34.76

417 + 50.00

14 + 70.43

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

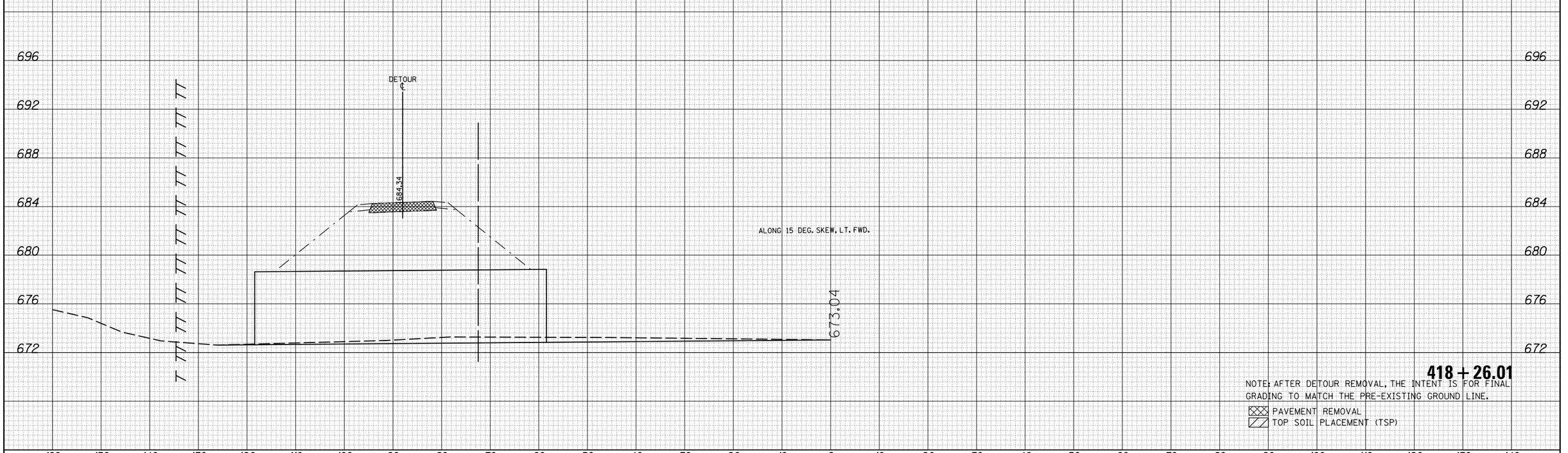
CROSS SECTIONS – SN023–0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	105
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

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

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



FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	106
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696 692 688 684 680 676 672 668 664 660 656

DETOUR
℄

STG. III

689.68
690.20

C =61.51
F = 3.59
TSP = 39.34

419 + 00.00
= 16 + 20.45

DETOUR
℄

STG. III

689.83
690.35

C =179.84
F = 0.00
TSP = 0.00

418 + 50.00
= 15 + 70.45

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

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

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 8/25/2011	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	107
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

BY	DATE

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

700
696
692
688
684
680

DETOUR
℄

STG. III

689.70

C =46.56
F = 1.45
TSP = 32.54

420 + 00.00
=17 + 20.77

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

BY	DATE

696
692
688
684
680

DETOUR
℄

684.39

STG. III

689.68
689.92

C =54.86
F = 1.76
TSP = 37.59

419 + 50.00
=16 + 70.47

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -
	PLOT SCALE = 20.0000 ' / in.	DRAWN -
	PLOT DATE = 8/25/2011	CHECKED -
		DATE -
		REVISED -
		REVISED -
		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023–0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	108
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

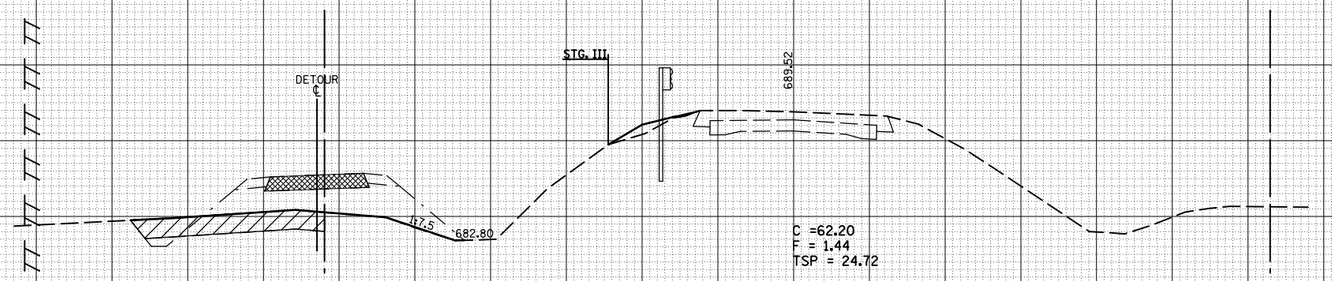
BY	DATE

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

BY	DATE

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688
684
680



421 + 00.00
= 18 + 23.40

420 + 50.00
= 17 + 71.88

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - SN023-0034
STAGE III

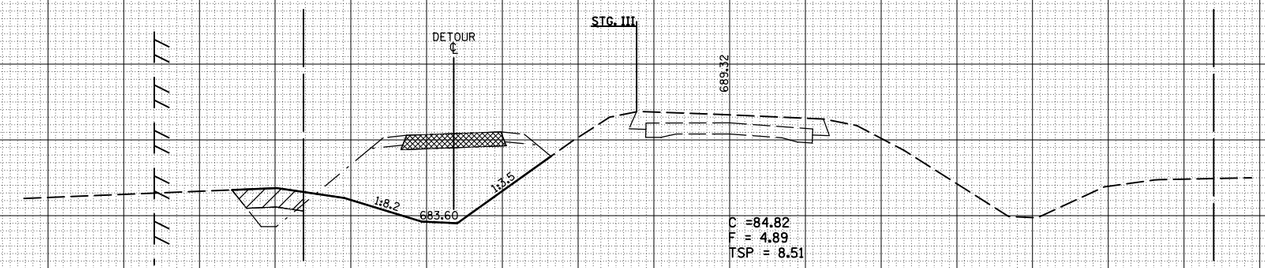
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	109
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

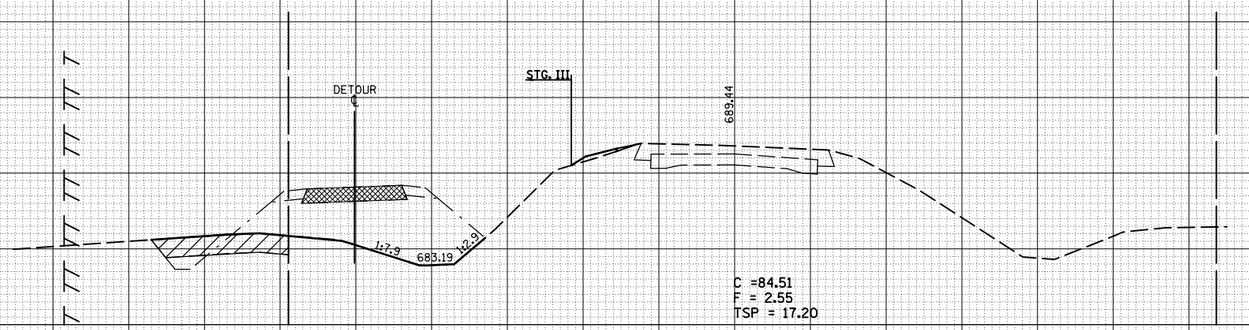
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688
684



422 + 00.00
= 19 + 27.66

700
696
692
688
684
680



421 + 50.00
= 18 + 75.46

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL
TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE III

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

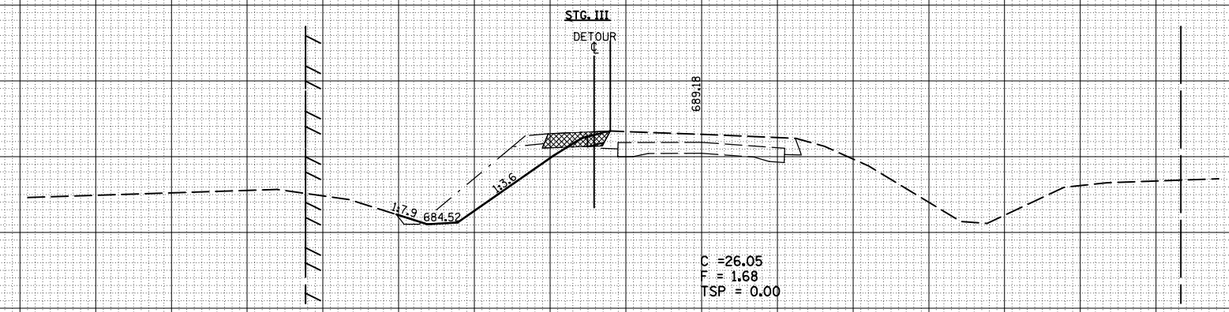
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	110
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

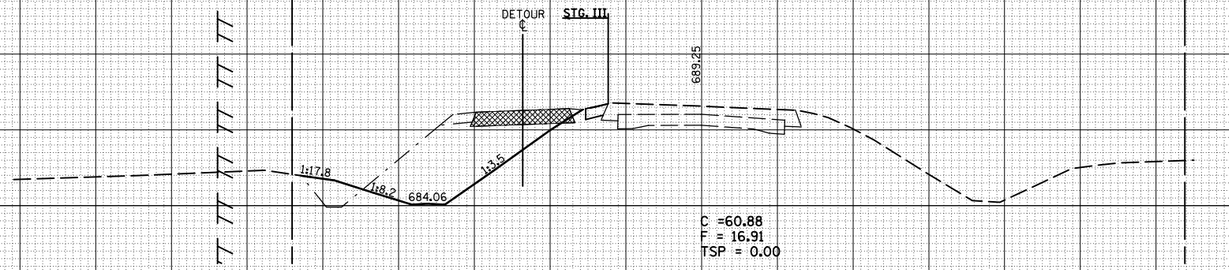
696
692
688
684



423 + 00.00
= 20 + 30.55

C =26.05
F = 1.68
TSP = 0.00

700
696
692
688
684



422 + 50.00
= 19 + 79.51

C =60.88
F = 16.91
TSP = 0.00

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – SN023-0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	111
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			

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

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

696
692
688
684

689.14

424 + 50.00

696
692
688
684

689.23

424 + 00.00
= 21 + 31.11

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

704
700
696
692
688
684

STG. III
DETOUR
℄
689.21
13.5'

C =4.50
F = 0.13
TSP = 0.00

423 + 50.00
= 20 + 80.99

NOTE: AFTER DETOUR REMOVAL, THE INTENT IS FOR FINAL GRADING TO MATCH THE PRE-EXISTING GROUND LINE.

PAVEMENT REMOVAL TOP SOIL PLACEMENT (TSP)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-XS-FG.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

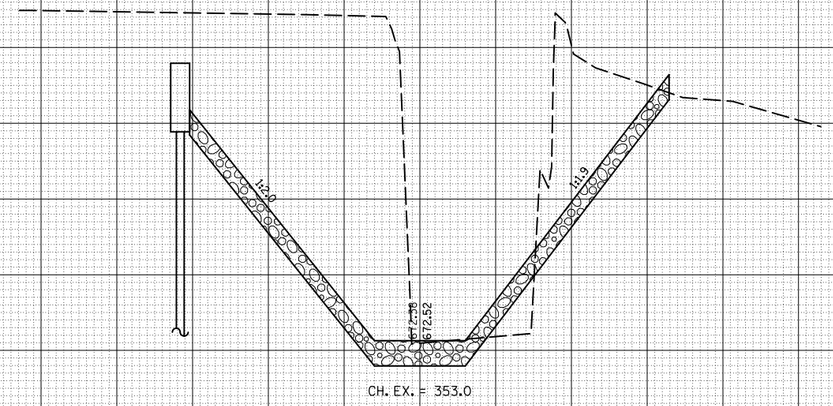
CROSS SECTIONS – SN023–0034
STAGE III

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR,14CR,123CR	Edgar	115	112
		CONTRACT NO. 70618		
	ILLINOIS	FED. AID PROJECT		

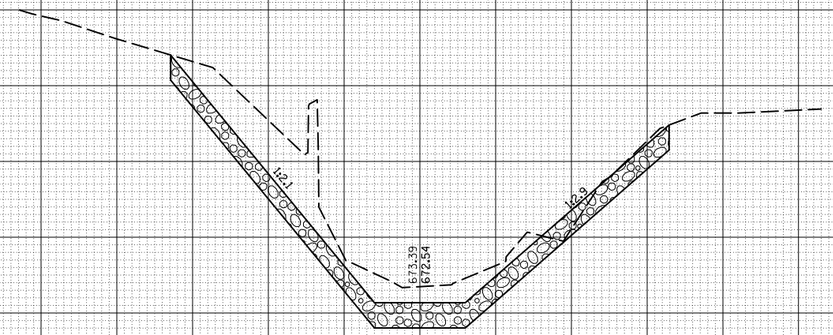
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

688 684 680 676 672



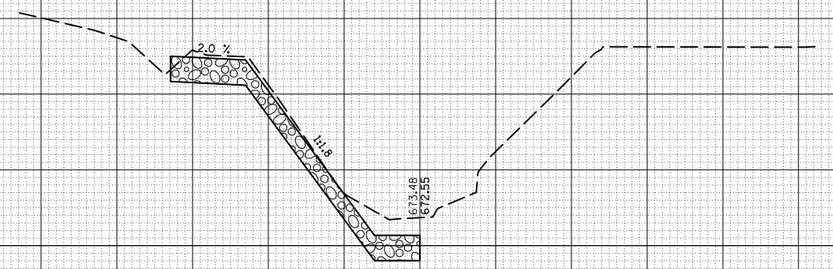
CH. EX. = 353.0

49 + 81.29



CH. EX. = 66.2

49 + 54.51



CH. EX. = 12.2

49 + 42.53

PR. RIPRAP CL. A4
(REQUIRED FILTER FABRIC AND
6" BEDDING STONE NOT SHOWN)

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

FINAL SURVEY

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

ORIGINAL SURVEY

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

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-0016Channel_xssht.dgn	USER NAME = keysrb	DESIGNED -
		DRAWN -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -
	PLOT DATE = 8/25/2011	DATE -

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS
SN 023-0034

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	113
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

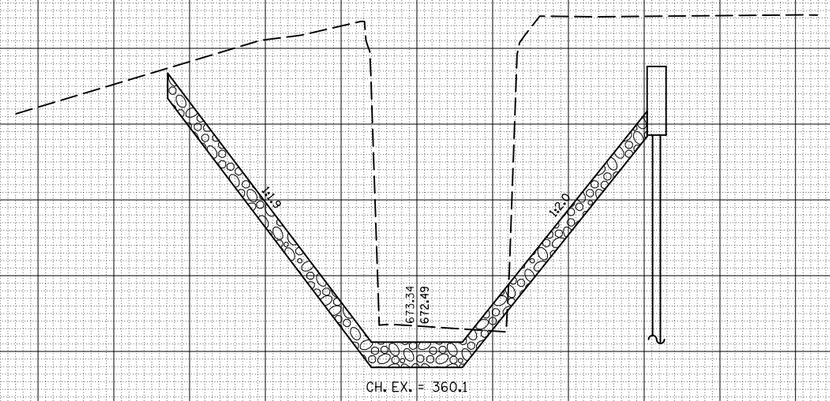
BY	DATE

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

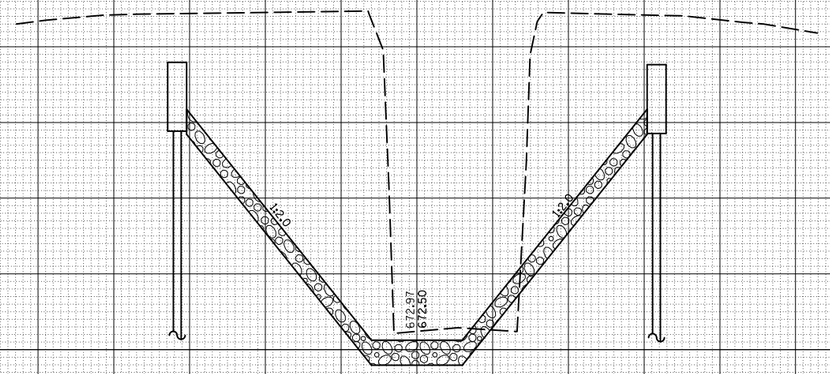
BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

692 688 684 680 676 672



50 + 18.71



50 + 00.00

PR. RIPRAP CL. A4
(REQUIRED FILTER FABRIC AND
6" BEDDING STONE NOT SHOWN)

FILE NAME =	USER NAME = keysrb	DESIGNED -	REVISED -
c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-0016Channel_xssht.dgn		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS
SN 023-0034

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	114
		CONTRACT NO. 70618		
		ILLINOIS FED. AID PROJECT		

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

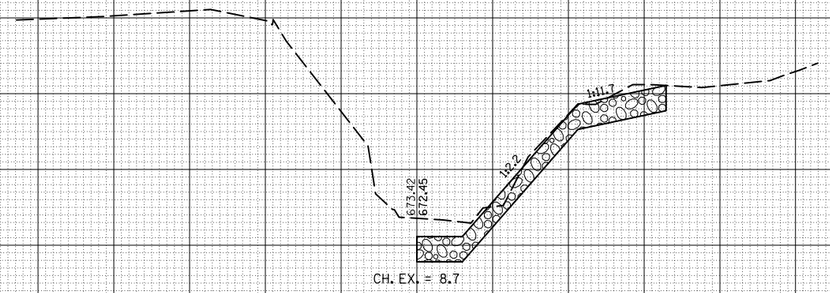
BY	DATE

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

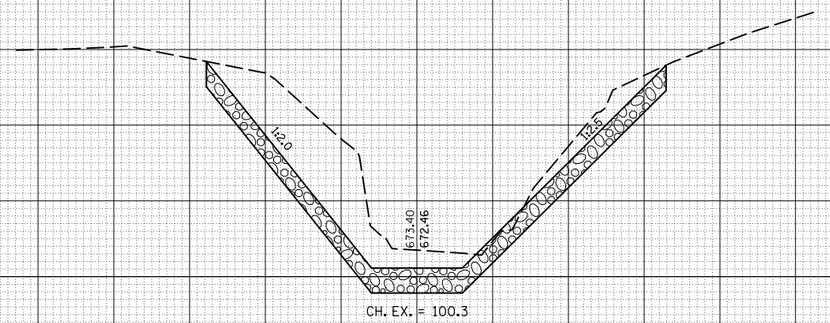
BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

684
680
676
672



50 + 61.72



50 + 49.75

PR. RIPRAP CL. A4
(REQUIRED FILTER FABRIC AND
6" BEDDING STONE NOT SHOWN)

FILE NAME = c:\pw_work\pwidot\keysrb\d0104347\D570618-sht-023-0016Channel_xssht.dgn	USER NAME = keysrb	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/25/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHANNEL CROSS SECTIONS
SN 023-0034

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	14BR, 14CR, 123CR	EDGAR	115	115
		CONTRACT NO. 70618		
	ILLINOIS FED. AID PROJECT			