

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	1
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT

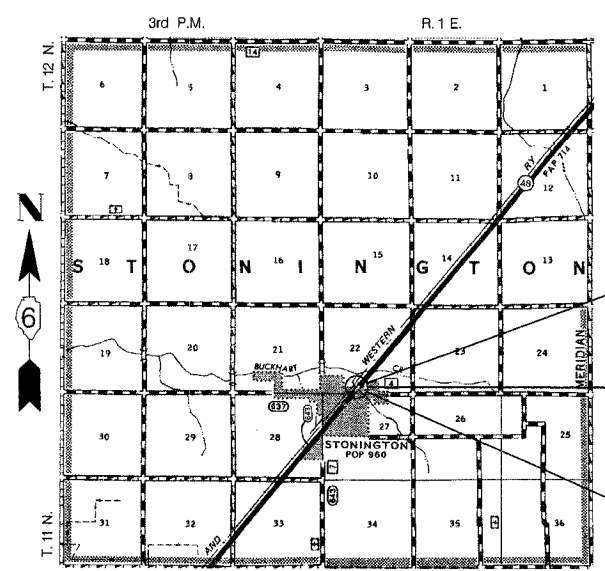
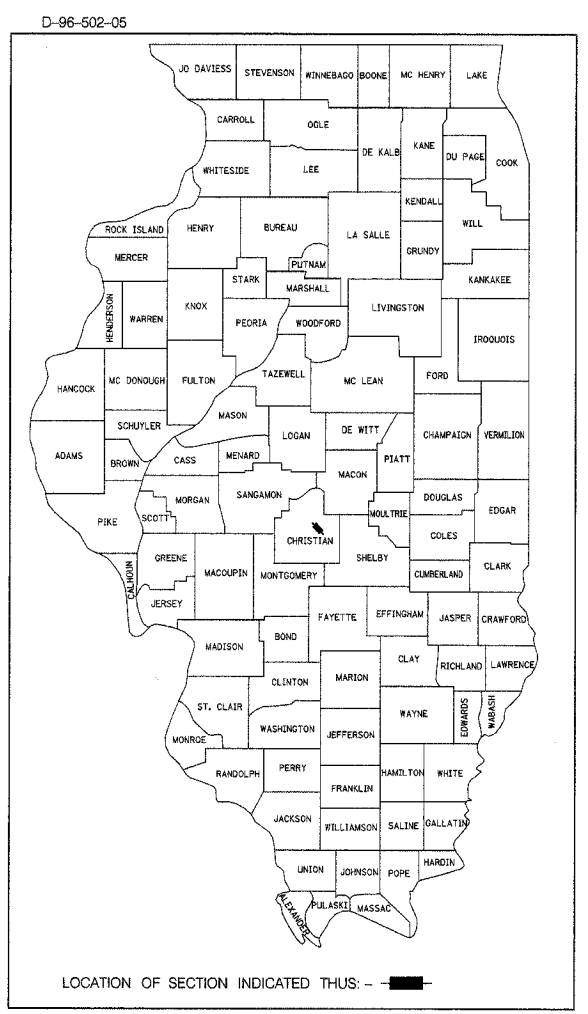
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 714 (ILLINOIS 48)
SECTION 134B
PROJECT : **BRF-0714(014)**
STRUCTURE REPLACEMENT
CHRISTIAN COUNTY
C-96-513-05

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STANDARDS	
000001-04	631011-02
280001-02	631032-01
353001-01	635006-02
420601-03	635011-01
420701-01	701301-02
482006-01	701311-02
515001-02	701321-08
602401	701501-03
602601	702001-05
604001-02	704001-02
630001-05	720011
630301-03	780001-01



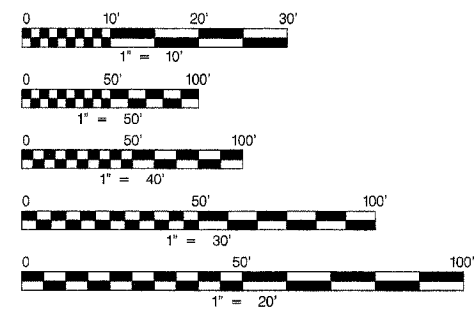
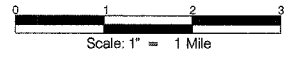
PROPOSED PROJECT ENDS
STA. 432+72

PROPOSED PRECAST THREE SIDED STRUCTURE, CLEAR SPAN 28'-0", 5'-10" (H), 40'-0" FACE TO FACE OF RAILING. 20° SKEW LT. FORWARD STATION 432+32
STRUCTURE REPLACEMENT OVER
BUCKHART CREEK
S.N. 011-2505 (PROP.) (ENST. SN 011-2000)

PROPOSED PROJECT BEGINS
STA. 431+92

LOCATION MAP

TOTAL LENGTH OF PROJECT = 80.00' = 0.015 MILES
HIGHWAY CLASSIFICATION : MINOR ARTERIAL
A.D.T. = 4625 (2003)
A.D.T. = 5346 (2023)



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

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

CONTRACT NO. 72938

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED February 7, 20 05
Christ M. Reed
DEPUTY DIRECTOR OF HIGHWAYS
REGION FOUR ENGINEER

March 25, 20 05
Mike New
ENGINEER OF DESIGN AND ENVIRONMENT

March 25, 20 05
Victor Modest
DIRECTOR, DIVISION OF HIGHWAYS



Christopher P. Korb 2/8/05
EXPIRATION DATE: 11/30/05

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PROJECT ENGINEER: SAL MADONIA (217)-782-4761
SQUAD LEADER: KIM ZUMMO (217)-782-8728

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	2
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

GENERAL NOTES

- 1.) THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- 2.) EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- 3.) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- 4.) SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. AREAS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER AND SEEDED AS SOON AS POSSIBLE.
- 5.) ALL SAW CUTTING OF THE EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE COST PER SQUARE YARD FOR PAVEMENT REMOVAL. THE MINIMUM SAW CUT DEPTH IN THE PAVEMENT SHALL BE 1/2" UNLESS OTHERWISE SPECIFIED IN A DETAIL SHOWN IN THE PLANS.
- 6.) UNLESS DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE LINE SHALL BE OFFSET A MINIMUM DISTANCE OF 2" FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" FROM THE EDGE LINE OF PAVEMENT. SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- 7.) ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8.) ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- 9.) IN ADDITION TO THE FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- 10.) THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT, AND NO COMPENSATION WILL BE ALLOWED.
- 11.) THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND IS INTENDED TO BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS.
- 12.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED.

COMMITMENTS: NONE

MIXTURE REQUIREMENTS

MIXTURE USE(S)	BIT. CONC. SURF. CSE. SUPERPAVE MIX C, N50	LEVELING BINDER (MACHINE METHOD), SUPERPAVE	BITUMINOUS CONCRETE BASE COURSE WIDENING 10" & BITUMINOUS BASE COURSE SUPERPAVE 10"
AC/PG	PG 64-22	PG 64-22	PG 58-22
MAX. RAP %	15	20	15
DESIGN AIR VOIDS	4.0% @ N DESIGN = 50	4.0% @ N DESIGN = 50	2.0% @ N DESIGN = 50
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 9.5	IL 19.0
FRICTION AGGREGATE	MIX C	N/A	N/A

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES:

BITUMINOUS MATERIALS (PRIME COAT)	0.00038 TON/SQ. YD. (ON PAVEMENT)
BITUMINOUS MATERIALS (PRIME COAT)	0.001425 TON/SQ.YD. (ON AGG)
BITUMINOUS CONCRETE SURFACE / BINDER	0.056 TON/SQ. YD. PER 1"
AGGREGATE MATERIAL	2.05 TON/CU. YD.
RIPRAP	1.75 TON/CU. YD.
MULCH METHOD	2.0 TON/ACRE
AGRICULTURE GROUND LIMESTONE	2.0 TON/ACRE
NITROGEN FERTILIZER NUTRIENT	80 LBS./ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	320 LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	160 LBS./ACRE
AGGREGATE PRIME COAT	0.002 TON/SQ. YD.

EXAMINED	January 26	2005
OPERATIONS ENGINEER		
EXAMINED	July 18	2005
PROGRAM IMPLEMENTATION ENGINEER		
EXAMINED	February 7	2005
PROGRAM DEVELOPMENT ENGINEER		

GENERAL NOTES
 IL. ROUTE 48 OVER BUCKHART CREEK
 F.A.P. ROUTE 714 - SECTION 134B
 CHRISTIAN COUNTY
 STA. 432+32
 S.N. 011-2505

72938

F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO.	714 134B CHRISTIAN 23 3
STA. 431+92 TO STA. 432+72	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES					
CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
				FAP 714 80% FEDERAL 20% STATE	S.N. 011-2505 80% FEDERAL 20% STATE
				CONSTRUCTION X028-2A	TYPE CODE X028-2A
20200100	EARTH EXCAVATION	CU. YD.	182	182	
20200500	EARTH EXCAVATION (WIDENING)	CU. YD.	26	26	
25000200	SEEDING, CLASS 2	ACRE	0.4	0.4	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	32	32	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	128	128	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	64	64	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.8	0.8	
25100115	MULCH, METHOD 2	ACRE	0.4	0.4	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	40	40	
35300400	PORTLAND CEMENT CONCRETE BASE COURSE 9"	SQ. YD.	214	214	
X3560140	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 10"	SQ. YD.	93	93	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.11	0.11	
40600300	AGGREGATE PRIME COAT	TON	0.57	0.57	
40600990	TEMPORARY RAMP	SQ. YD.	27	27	
44000100	PAVEMENT REMOVAL	SQ. YD.	267	267	
44100200	PAVEMENT REPLACEMENT - SURFACE COURSE	SQ. YD.	7	7	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	74	74	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU. YD.	392		392
50300225	CONCRETE STRUCTURES	CU. YD.	75.3		75.3
50800105	REINFORCEMENT BARS	POUND	6385		6385
50800205	REINFORCEMENT BARS (EPOXY COATED)	POUND	175		175
50901001	STEEL BRIDGE RAIL	FOOT	103.60		103.60
51201400	FURNISHING STEEL PILES HP 10 X 42	FOOT	738		738
51202700	DRIVING STEEL PILES	FOOT	738		738
51203400	TEST PILE, STEEL HP 10 X 42	EACH	2		2
51500100	NAME PLATES	EACH	1		1
54200229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	42	42	
550A0140	STORM SEWERS, CLASS A, TYPE 1 30"	FOOT	60	60	
55101300	STORM SEWER REMOVAL 27"	FOOT	66	66	
60224600	RESTRICTED DEPTH MANHOLES, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2	
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	150	150	

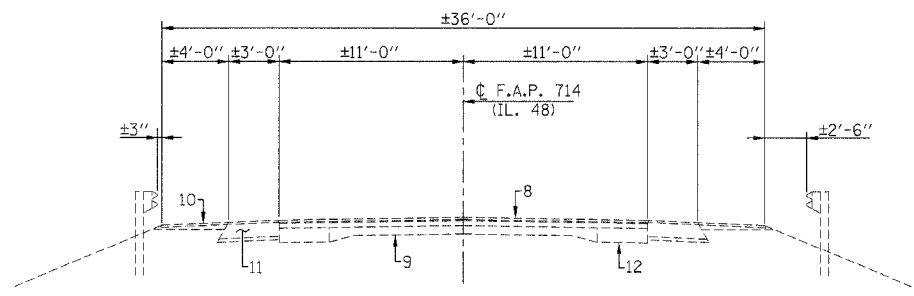
SUMMARY OF QUANTITIES					
CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
				FAP 714 80% FEDERAL 20% STATE	S.N. 011-2505 80% FEDERAL 20% STATE
				CONSTRUCTION X028-2A	TYPE CODE X028-2A
* 63100045	TRAFFIC BARRIER TERMINAL TYPE 2	EACH	1		1
* 63100087	TRAFFIC BARRIER TERMINAL TYPE 6A	EACH	3		3
* X005496	TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)	EACH	1		1
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	EACH	3		3
63200305	STEEL PLATE BEAM GUARDRAIL REMOVAL	FOOT	400	400	
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL. MO.	4	4	
67100100	MOBILIZATION	L. SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION STANDARD 701306	L. SUM	1	1	
70102620	TRAFFIC CONTROL AND PROTECTION STANDARD 701501	L. SUM	1	1	
70101205	TRAFFIC CONTROL AND PROTECTION STANDARD 701321, SPECIAL	EACH	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL. DAY	10	10	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	135	135	
70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	919	919	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	46	46	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ. FT.	449	449	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	330	330	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	330	330	
* 78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	919	919	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	9	9	
* 78201000	TERMINAL MARKER DIRECT APPLIED	EACH	3	3	
* 78202000	TERMINAL MARKER - POST MOUNTED	EACH	1	1	
78300100	PAVEMENT MARKING REMOVAL	SQ. FT.	316	316	
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.	434		434
X0324118	GRANULAR CULVERT BACKFILL	CU. YD.	234	234	
X3550700	BITUMINOUS BASE COURSE SUPERPAVE 10"	SQ. YD.	289	289	
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIXTURE C, N50	TON	24	24	
X4066765	LEVELING BINDER (MACHINE METHOD), SUPERPAVE, N50	TON	12	12	
Z0002600	BAR SPLICERS	EACH	24		24
Δ Z0030250	IMPACT ATTENUATORS TEMPORARY (NON-DIRECTIVE), TEST LEVEL 3	EACH	2	2	
Δ Z0030350	IMPACT ATTENUATORS RELOCATE (NON-DIRECTIVE), TEST LEVEL 3	EACH	2	2	
X0324944	THREE SIDED PRECAST CONCRETE STRUCTURES, 28' x 5'-10"	FOOT	45.76		45.76

Δ SFTY-3N
* SPECIALTY ITEMS

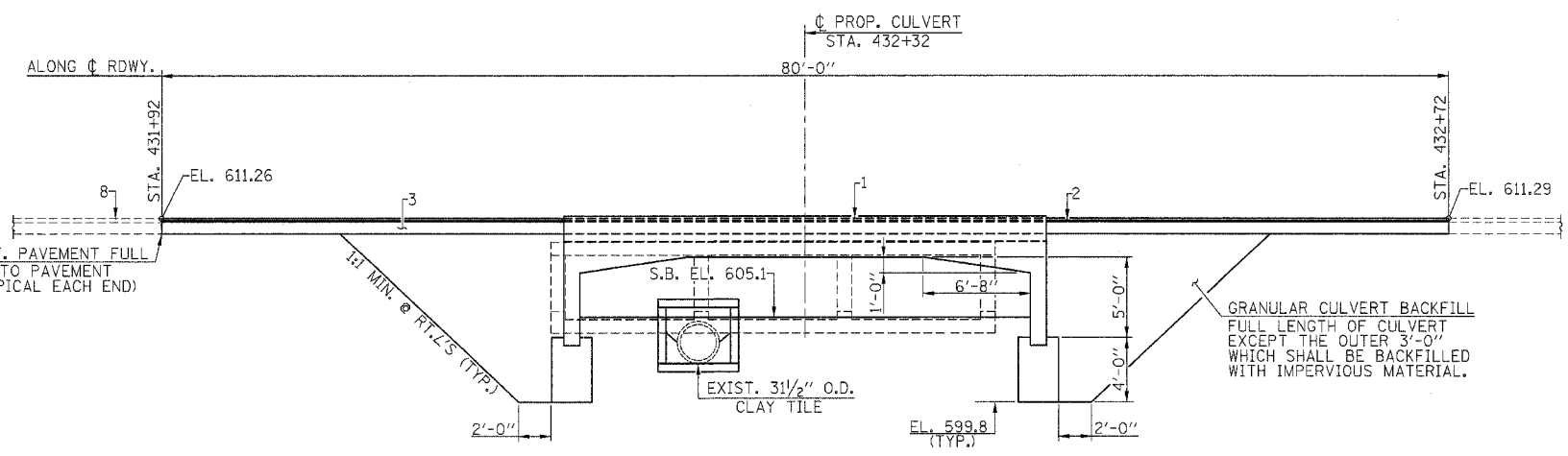
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72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	4
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

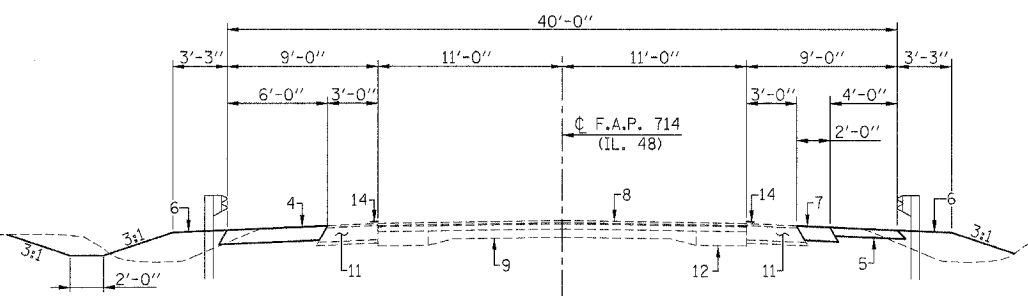


EXISTING TYPICAL SECTION
(STA. 430+00 to STA. 434+17)



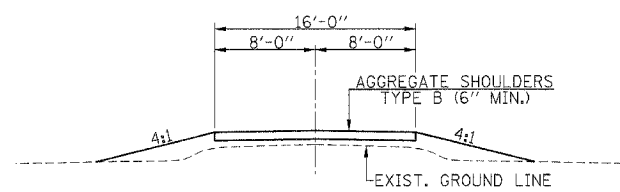
ELEVATION - BOX CULVERT

NOTE: ALL DIMENSIONS ARE AT RIGHT ANGLES EXCEPT AS NOTED.

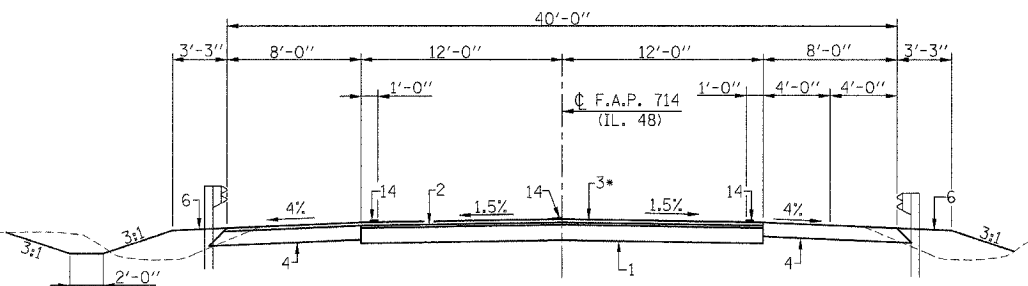


PROPOSED TYPICAL SECTION
(STA. 430+00 to STA. 431+92 RT., STA. 430+85 TO STA. 431+92 LT. & STA. 432+72 TO STA. 434+17)

* TO BE PLACED AFTER BOTH STAGES HAVE BEEN COMPLETED.



PROPOSED TYPICAL SECTION
(F.E. STA. 433+97 LT.)

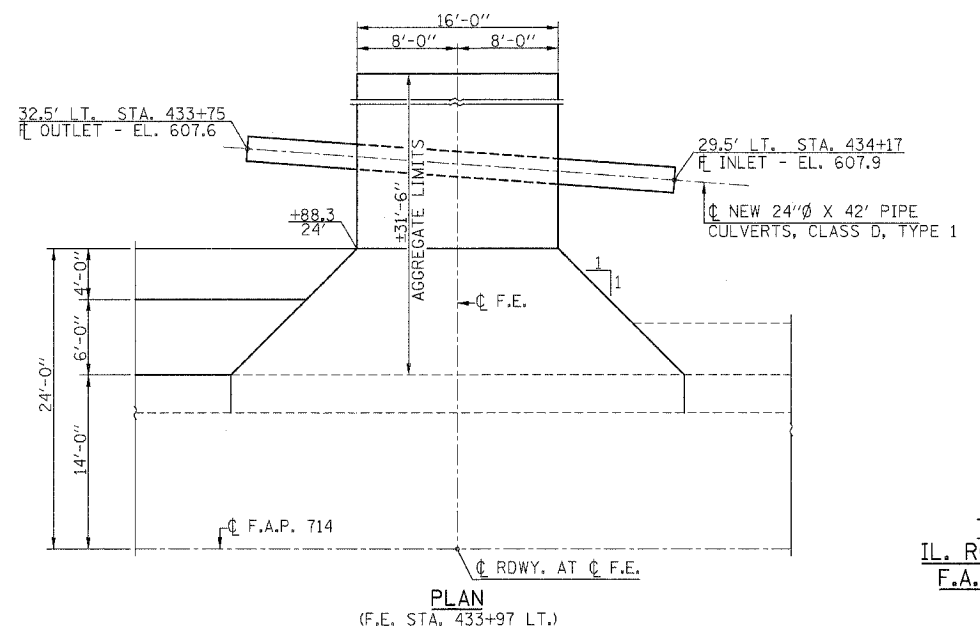


PROPOSED TYPICAL SECTION
(STA. 431+92 to STA. 432+72) **

** GEOTECHNICAL FABRIC TO BE PLACED UNDERNEATH P.C.C. BASE COURSE AND PAVEMENT FABRIC TO BE PLACED WITHIN P.C.C. BASE COURSE FROM STA. 432+11 TO STA. 432+53 (SEE STD. 420701) (COST OF GEOTECHNICAL FABRIC TO BE INCLUDED IN GRANULAR CULVERT BACKFILL AND COST OF PAVEMENT FABRIC INCLUDED IN P.C.C. BASE COURSE).
ESTIMATED QUANTITY - 112 SQ. YD. FOR BOTH GEOTECHNICAL AND PAVEMENT FABRIC.

PAVEMENT LEGEND

1. PROPOSED PORTLAND CEMENT CONCRETE BASE COURSE 9"
2. PROPOSED LEVELING BINDER (MACHINE METHOD) SUPERPAVE, N50 1"
3. PROPOSED BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIXTURE C, N50 1 1/2"
4. PROPOSED BITUMINOUS BASE COURSE SUPERPAVE (10")
5. PROPOSED AGGREGATE SHOULDER (6")
6. PROPOSED EARTH SHOULDER
7. BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE, 10" (TO REMAIN IN PLACE)
8. EXISTING BITUMINOUS OVERLAYS (±4")
9. EXISTING P.C.C. PAVEMENT (9-6-9)
10. EXISTING AGGREGATE SHOULDER (±4")
11. EXISTING BITUMINOUS SHOULDER
12. EXISTING P.C.C. WIDENING
13. TEMPORARY PAVEMENT MARKING - LINE 5"
14. PAINT PAVEMENT MARKING - LINE 5"
15. GEOTECHNICAL FABRIC AND GRANULAR BACKFILL



PLAN
(F.E. STA. 433+97 LT.)

DETAILS AND TYPICAL ROADWAY SECTIONS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

FILE NAME: D&T.RS (REV. 1/31/05)

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	5
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL REMOVAL (FOOT)	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT) (EACH)	STEEL PLATE BEAM GUARDRAIL TYPE A (FOOT)	TRAFFIC BARRIER TERMINAL TYPE 2 (EACH)	TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL) (EACH)	TRAFFIC BARRIER TERMINAL TYPE 6A (EACH)	STEEL BRIDGE RAIL (FOOT)
STAGE I							
STA. 431+74 TO STA. 433+49 LT.	175						
STA. 431+70.03 TO STA. 431+82.53 LT.				1			
STA. 431+82.53 TO STA. 431+13.93 LT.					1		
STA. 432+13.93 TO STA. 432+65.73 LT.							51.80
STA. 432+65.73 TO STA. 432+97.13 LT.						1	
STA. 432+97.13 TO STA. 433+34.63 LT.			37.50				
STA. 433+34.63 TO STA. 433+84.63 LT.		1					
STAGE II							
STA. 430+89.5 TO STA. 433+14.5 RT.	225						
STA. 430+41.87 TO STA. 430+91.87 RT.		1					
STA. 430+91.87 TO STA. 431+66.87 RT.			75				
STA. 431+66.87 TO STA. 431+98.27 RT.						1	
STA. 431+98.27 TO STA. 432+50.07 RT.							51.80
STA. 432+50.07 TO STA. 432+81.47 RT.						1	
STA. 432+81.47 TO STA. 433+18.97 RT.			37.50				
STA. 433+18.97 TO STA. 433+68.97 RT.		1					
TOTAL	400	3	150	1	1	3	103.60

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CUBIC YARD	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE CUBIC YARD	EMBANKMENT CUBIC YARD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) CUBIC YARD	EARTH EXCAVATION WIDENING CUBIC YARD
STA. 430+00 TO STA. 434+17	182	136	84	+52	26
TOTAL	182	136	84	+52	26

THERE WILL NOT BE A FURNISHED EXCAVATION QUANTITY SINCE THERE IS EXCESS EARTH EXCAVATION.

BITUMINOUS SCHEDULE

LOCATION	TEMPORARY RAMP (SQ. YD.)	BITUMINOUS BASE COURSE SUPERPAVE 10" (SQ. YD.)	BIT. CONC. SURFACE COURSE, SUPERPAVE MIXTURE C, N50 (TON)	LEVELING BINDER (MACHINE METHOD) SUPERPAVE, N50 (TON)	BITUMINOUS MATERIALS (PRIME COAT) (TON)	BIT. CONCRETE BASE COURSE WIDENING SUPERPAVE 10" (SQ. YD.)
STA. 430+00 TO STA. 434+17 RT.						93
STA. 431+92 TO STA. 431+97 LT.	13.5					
STA. 432+67 TO STA. 432+72 LT.	13.5					
STA. 431+92 TO STA. 432+72			24	12	0.11	
STA. 430+85 TO STA. 431+92 LT.		72				
STA. 431+92 TO STA. 432+72 LT.		71				
STA. 432+72 TO STA. 433+84.3 LT.		75				
STA. 431+92 TO STA. 432+72 RT.		71				
TOTAL	27	289	24	12	0.11	93

SCHEDULE PERMANENT SEEDING

LOCATION	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUT. (POUND)	PHOSPHORUS FERT. NUT. (POUND)	POTASSIUM FERT. NUT. (POUND)	MULCH METHOD 2 (ACRE)	AGRICULTURAL GROUND LIMESTONE (TON)
STA. 430+00 TO STA. 434+17 RT.	0.25	20	80	40	0.25	0.5
STA. 432+00 TO STA. 434+17 LT.	0.15	12	48	24	0.15	0.3
TOTAL	0.4	32	128	64	0.4	0.8

PAVEMENT MARKING SCHEDULE

LOCATION	LENGTH (FT.)	PAVEMENT MK. REMOVAL		TEMP. PVMT. MK. LINE - 5"		SHORT TERM PVMT. MARKING		WORK ZONE PVMT. MARKING REMOVAL		PAINT PVMT. MK. LINE - 5"		TEMPORARY PAINT PAVEMENT MARKING LINE-24"
		WHITE (SQ. FT.)	YELLOW (SQ. FT.)	WHITE (FT.)	YELLOW (FT.)	WHITE (FT.)	YELLOW (FT.)	WHITE (SQ. FT.)	YELLOW (SQ. FT.)	WHITE (SQ. FT.)	YELLOW (SQ. FT.)	
STA. 428+99 TO STA. 431+92 (C)	293		34									
STA. 432+72 TO STA. 435+74.2 (C)	302		34									
STA. 430+00 TO STA. 431+92 RT.	192	81										
STA. 432+72 TO STA. 434+17 RT.	145	61										
STA. 430+85 TO STA. 431+92 LT.	107	45										
STA. 432+72 TO STA. 434+17 LT.	145	61										
STA. 430+00 TO STA. 434+17 RT.	417			417				175		417		
STA. 428+99 TO STA. 435+74.2 (C)	674.2				170		135*	45*		170		
STA. 430+85 TO STA. 434+17 LT.	332			332				139		332		
STA. 428+99 RT. (STOP BAR)	12							24				12
STA. 435+74.2 LT. (STOP BAR)	12							24				12
NORTH ST. E.B. TRAFFIC LANE (STOP BAR)	11							22				11
NORTH ST. W.B. TRAFFIC LANE (STOP BAR)	11							22				11
TOTAL		316		919		135		449		919		46

NOTE: SHORT-TERM PAVEMENT MARKING QUANTITIES ARE FOR TWO APPLICATIONS.
* 10% OF TOTAL LENGTH FOR SHORT-TERM PAVEMENT MARKING

SCHEDULE GRANULAR CULVERT BACKFILL

LOCATION	QUANTITY (CU. YD.)
STA. 431+92 TO STA. 432+72	217
STA. 432+15.86 TO STA. 432+48.14	17
TOTAL	234

SCHEDULE AGGREGATE SHOULDERS, TYPE B

LOCATION	QUANTITY (TON)
STA. 430+00 TO STA. 431+92 RT.	29
STA. 432+72 TO STA. 434+17 RT.	22
F.E. STA. 433+97 LT.	23
TOTAL	74

SCHEDULE PIPE CULVERTS, CLASS D, TYPE 1 24"

LOCATION	QUANTITY (TON)
STA. 433+75 TO STA. 434+17 LT.	42
TOTAL	42

SCHEDULE PORTLAND CEMENT CONCRETE BASE COURSE 9"

LOCATION	QUANTITY (SQ. YD.)
STA. 431+92 TO STA. 432+72	214
TOTAL	214

SCHEDULE GUARDRAIL & TERMINAL MARKERS

LOCATION	GUARDRAIL MARKERS TYPE A (EACH)	TERMINAL MARKER DIRECT APPLIED (EACH)	TERMINAL MARKER POST MOUNTED (EACH)
STA. 432+15 LT.	1		
STA. 432+70 LT.	1		
STA. 433+25 LT.	1		
STA. 431+00 RT.	1		
STA. 431+65 RT.	1		
STA. 432+30 RT.	1		
STA. 432+95 RT.	1		
STA. 433+60 RT.	1		
STA. 434+20 RT.	1		
STA. 430+41.87 RT.		1	
STA. 431+70.03 LT.			1
STA. 433+68.97 RT.		1	
STA. 433+84.63 LT.		1	
TOTAL	9	3	1

SCHEDULE STORM SEWERS, CLASS A, TYPE 1 30"

LOCATION	QUANTITY (FOOT)
STA. 432+16.5, 31.5' RT. TO STA. 432+32, 28.5' LT.	60
TOTAL	60

SCHEDULE PAVEMENT REMOVAL

LOCATION	QUANTITY (SQ. YD.)
STA. 431+92 TO STA. 432+72	249
STA. 431+92 TO STA. 432+72 2' SHLDR. RT.	18
TOTAL	267

SCHEDULE STORM SEWER REMOVAL 27"

LOCATION	QUANTITY (FOOT)
STA. 432+16.5, 31.5' RT. TO STA. 432+32, 28.5' LT.	66
TOTAL	66

SCHEDULE PAVEMENT REPLACEMENT - SURFACE COURSE

LOCATION	QUANTITY (SQ. YD.)
STA. 431+12.5 TO STA. 431+42.5 RT.	7
TOTAL	7

SCHEDULE AGGREGATE PRIME COAT

LOCATION	QUANTITY (TON)
STA. 431+92 TO STA. 432+72	0.57
TOTAL	0.57

SCHEDULE RESTRICTED DEPTH MANHOLES, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID

LOCATION	QUANTITY (EACH)
STA. 432+16.5 31.5' RT.	1
STA. 432+32 28.5' LT.	1
TOTAL	2

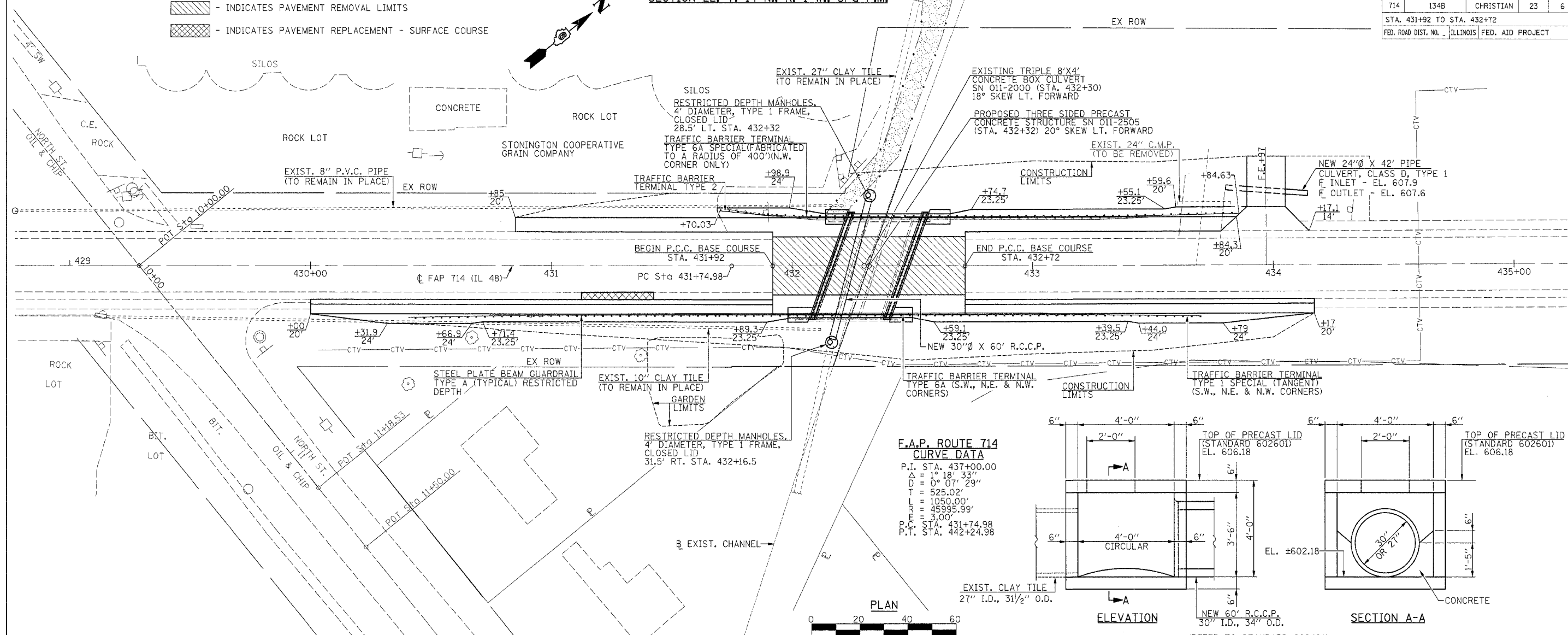
QUANTITY SCHEDULES
ILL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

12938

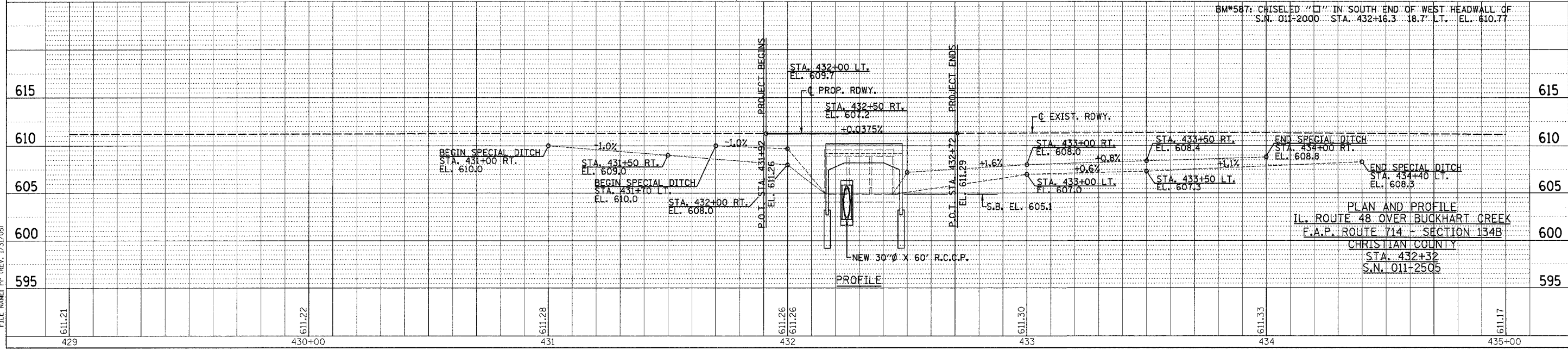
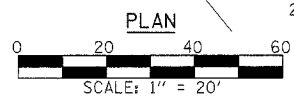
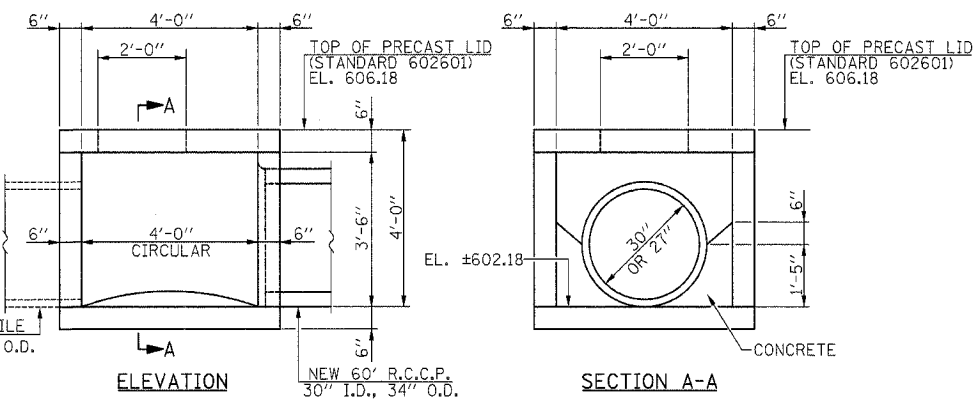
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	6
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SECTION 22, T. 14 N., R. 1 W., 3rd P.M.

- INDICATES PAVEMENT REMOVAL LIMITS
- INDICATES PAVEMENT REPLACEMENT - SURFACE COURSE



F.A.P. ROUTE 714 CURVE DATA
 P.I. STA. 437+00.00
 $\Delta = 1^\circ 18' 33''$
 $D = 0^\circ 07' 29''$
 $T = 525.02'$
 $L = 1050.00'$
 $M = 45935.99'$
 $P.D. = 5.00'$
 P.O.B. STA. 431+74.98
 P.T. STA. 442+24.98



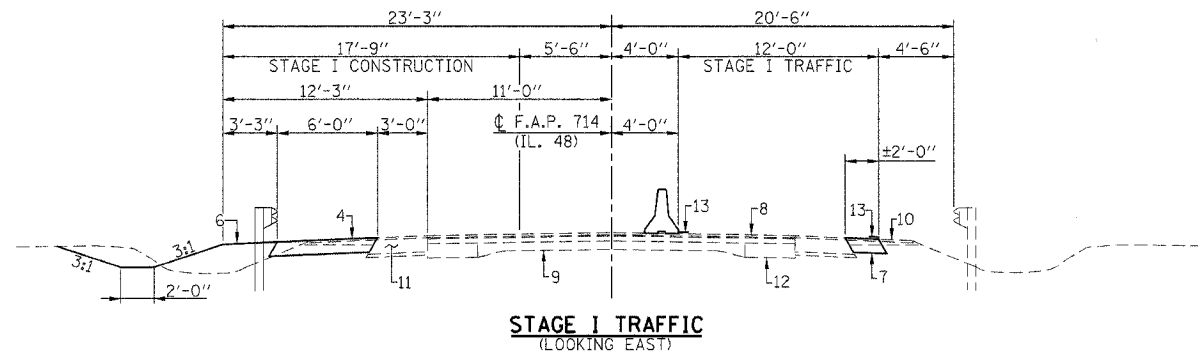
DATE	BY

DATE	BY

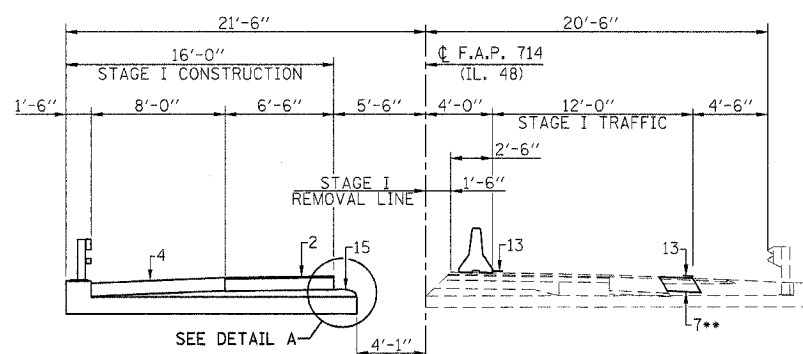
FILE NAME: PP REV. 1/31/05

72938

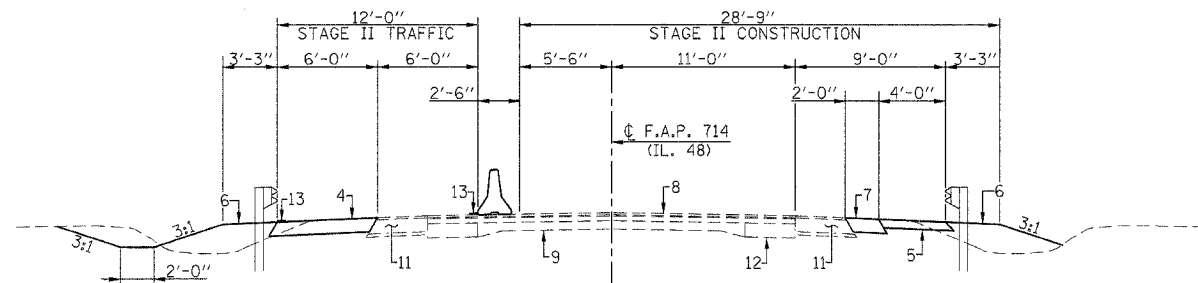
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	7
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



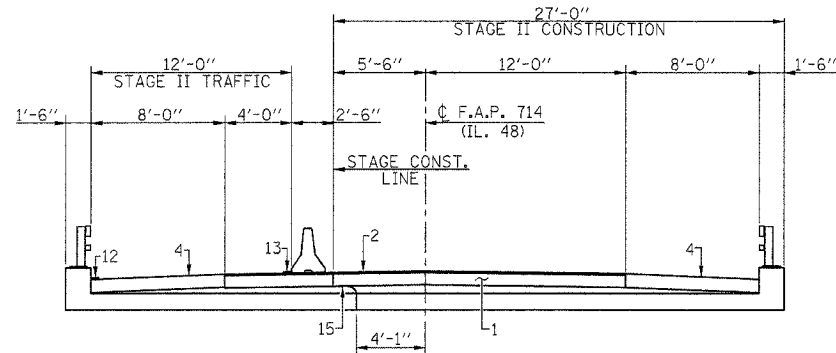
STAGE I TRAFFIC
(LOOKING EAST)



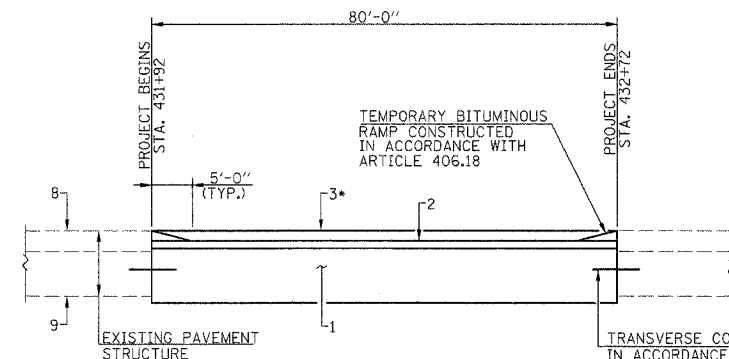
STAGE I TRAFFIC OVER CULVERT ***
(LOOKING EAST)



STAGE II TRAFFIC
(LOOKING EAST)



STAGE II TRAFFIC OVER CULVERT ***
(LOOKING EAST)

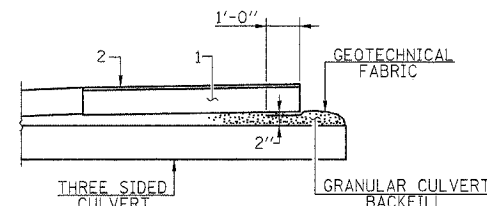


TEMPORARY RAMP DETAIL

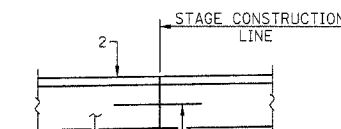
TRANSVERSE CONSTRUCTION JOINT
IN ACCORDANCE WITH ARTICLE 353.07,
NO. 6 TIE BAR, 36" LONG AT 15" CENTERS.
COST INCLUDED IN P.C.C. BASE COURSE
SEE DETAIL B

* TO BE PLACED AFTER BOTH STAGES HAVE BEEN COMPLETED.

** TO BE REMOVED AND INCLUDED IN THE COST OF "PAVEMENT REMOVAL".



DETAIL A



LONGITUDINAL CONSTRUCTION JOINT
IN ACCORDANCE WITH ARTICLE 420.10(b),
NO. 6 TIE BAR, 30" LONG AT 30" CENTERS.
COST INCLUDED IN P.C.C. BASE COURSE

DETAIL B

PAVEMENT LEGEND

1. PROPOSED PORTLAND CEMENT CONCRETE BASE COURSE 9"
2. PROPOSED LEVELING BINDER (MACHINE METHOD) SUPERPAVE, N50 1"
3. PROPOSED BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIXTURE C, N 50 1/2"
4. PROPOSED BITUMINOUS BASE COURSE SUPERPAVE 10"
5. PROPOSED AGGREGATE SHOULDER (6")
6. PROPOSED EARTH SHOULDER
7. BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE, 10" (TO REMAIN IN PLACE)
8. EXISTING BITUMINOUS OVERLAYS (±4")
9. EXISTING P.C.C. PAVEMENT (9-6-9)
10. EXISTING AGGREGATE SHOULDER (±4")
11. EXISTING BITUMINOUS SHOULDER
12. EXISTING P.C.C. WIDENING
13. TEMPORARY PAVEMENT MARKING - LINE 5"
14. PAINT PAVEMENT MARKING - LINE 5"
15. GEOTECHNICAL FABRIC AND GRANULAR CULVERT BACKFILL

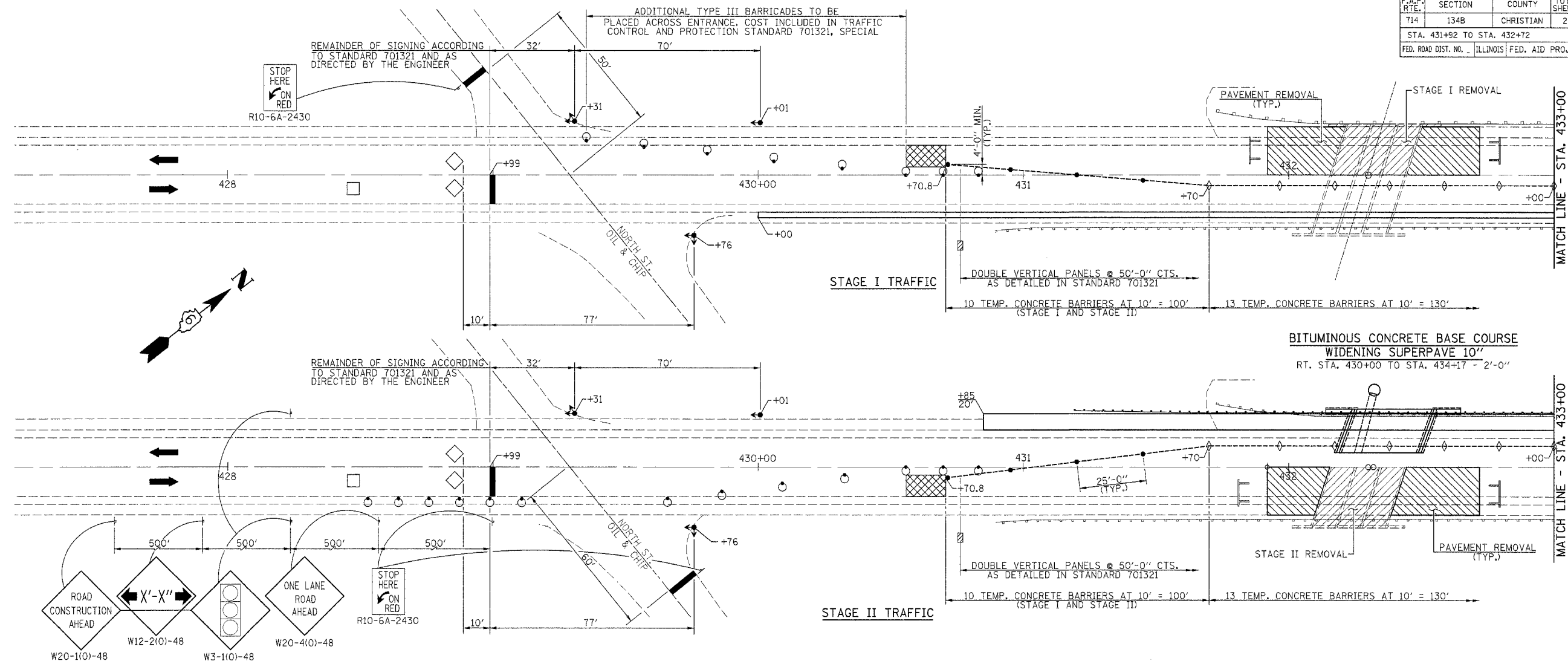
WORK THIS SHEET WITH SHEETS 8, 9 & 10 OF 23.

*** GEOTECHNICAL FABRIC TO BE PLACED UNDERNEATH P.C.C. BASE COURSE AND PAVEMENT FABRIC TO BE PLACED WITHIN P.C.C. BASE COURSE FROM STA. 432+11 TO STA. 432+53 (SEE STD. 420701) (COST OF GEOTECHNICAL FABRIC TO BE INCLUDED IN GRANULAR CULVERT BACKFILL AND COST OF PAVEMENT FABRIC INCLUDED IN P.C.C. BASE COURSE).
ESTIMATED QUANTITY - 112 SQ. YD. FOR BOTH GEOTECHNICAL AND PAVEMENT FABRIC.

STAGE CONSTRUCTION TRAFFIC DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	8
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SUGGESTED STAGE CONSTRUCTION SEQUENCE

STAGE I

1. THE CONTRACTOR SHALL PLACE MAX. WIDTH SIGNS AS SHOWN ON SHEET 10, BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL. THESE SIGNS SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL)".
2. CONSTRUCT BITUMINOUS CONCRETE BASE COURSE WIDENING SUPERPAVE 10" RT. STA. 430+00 TO STA. 434+17 - (2'-0" WIDE).
3. ERECT TRAFFIC CONTROL FOR STAGE I.
4. REMOVE EXISTING STRUCTURE LEFT, @ STA. 432+30.
5. CONSTRUCT PROPOSED STAGE I THREE SIDED 28'-0" X 5'-10" CULVERT AND WINGWALLS @ STA. 432+32.
6. CONSTRUCT PROPOSED BITUMINOUS BASE COURSE SUPERPAVE 10" LT. STA. 430+85 TO STA. 433+84.3.
7. CONSTRUCT PROPOSED GUARDRAIL & TERMINALS LT. STA. 431+70.03 TO STA. 433+84.63.
8. CONSTRUCT P.C.C. BASE COURSE, BINDER COURSE AND TEMPORARY RAMPS.

STAGE II

1. ERECT TRAFFIC CONTROL FOR STAGE II.
2. REMOVE EXISTING STRUCTURE RIGHT @ STA. 432+30.
3. CONSTRUCT PROPOSED STAGE II PRECAST THREE SIDED 28'-0" X 5'-10" CULVERT AND WINGWALLS @ STA. 432+32.
4. CONSTRUCT PROPOSED BITUMINOUS BASE COURSE SUPERPAVE 10" RT. STA. 431+92 TO STA. 432+72.
5. CONSTRUCT PROPOSED AGGREGATE SHOULDERS RT. STA. 430+00 TO STA. 431+92 & STA. 432+72 TO STA. 434+17.
6. CONSTRUCT PROPOSED GUARDRAIL & TERMINALS RT. STA. 430+41.87 TO STA. 433+68.97.
7. CONSTRUCT P.C.C. BASE COURSE, BINDER COURSE AND TEMPORARY RAMPS.

FINAL

1. INSTALL SHORT-TERM PAVEMENT MARKINGS AND REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
2. REMOVE SHORT TERM PAVEMENT MARKINGS AND COMPLETE BITUMINOUS CONCRETE SURFACE COURSE 1 1/2" UNDER TRAFFIC WITH FLAGGERS.
3. FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEANUP.

GENERAL NOTES

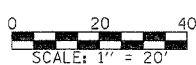
1. THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321.
2. THE CONTRACTOR SHALL NOTIFY LARRY SIMON (PH. 785-5836) IN THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS AT LEAST ONE WEEK PRIOR TO IMPLEMENTING STAGE TRAFFIC CONTROL.
3. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE REVISED STAGE TRAFFIC PATTERNS DURING ALL PHASES OF STAGE CONSTRUCTION SHALL BE REMOVED AS SPECIFIC IN SECTION 783 OF THE STANDARD SPECIFICATIONS AND PAID FOR AS "PAVEMENT MARKING REMOVAL".
4. THE CONTRACTOR SHALL MAINTAIN FULL OPERATIONAL STATUS OF ALL SIDEROADS AND ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
5. TEMPORARY CONCRETE BARRIER, THE BARRIER UNIT AT EACH END OF THE INSTALLATION SHALL BE SECURED TO THE PAVEMENT OR SHOULDER USING ALL SIX ANCHORING PINS FOR F SHAPE OR ALL SIX DOWEL BARS FOR NEW JERSEY SHAPE.
6. EACH DETECTOR LOOP SHALL BE CONNECTED TO A SEPERATE DETECTOR AMPLIFIER.
7. THE COST TO INSTALL TEMPORARY PAVEMENT MARKING AS DETAILED ON THESE SHEETS SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL & PROTECTION STANDARD 701321, SPECIAL".
8. SIGNING FOR STAGE II SAME AS STAGE I.

SYMBOLS

- ▨ WORK AREA
- ⊥ SIGN
- ⌋ TYPE III BARRICADE
- ⊙ DRUM WITH STEADY BURNING LIGHT
- ⬅ TRAFFIC SIGNAL
- ▤ TEMPORARY RUMBLE STRIP
- ◻ ◊ INDUCTION LOOP DETECTOR
- ▨ DOUBLE VERTICAL PANEL
- ◊ TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

WORK THIS SHEET WITH SHEETS 7, 9 & 10 OF 23.
SEE SHEET NO. 9 FOR TRAFFIC CONTROL & TEMPORARY PAVEMENT MARKING SCHEDULES.

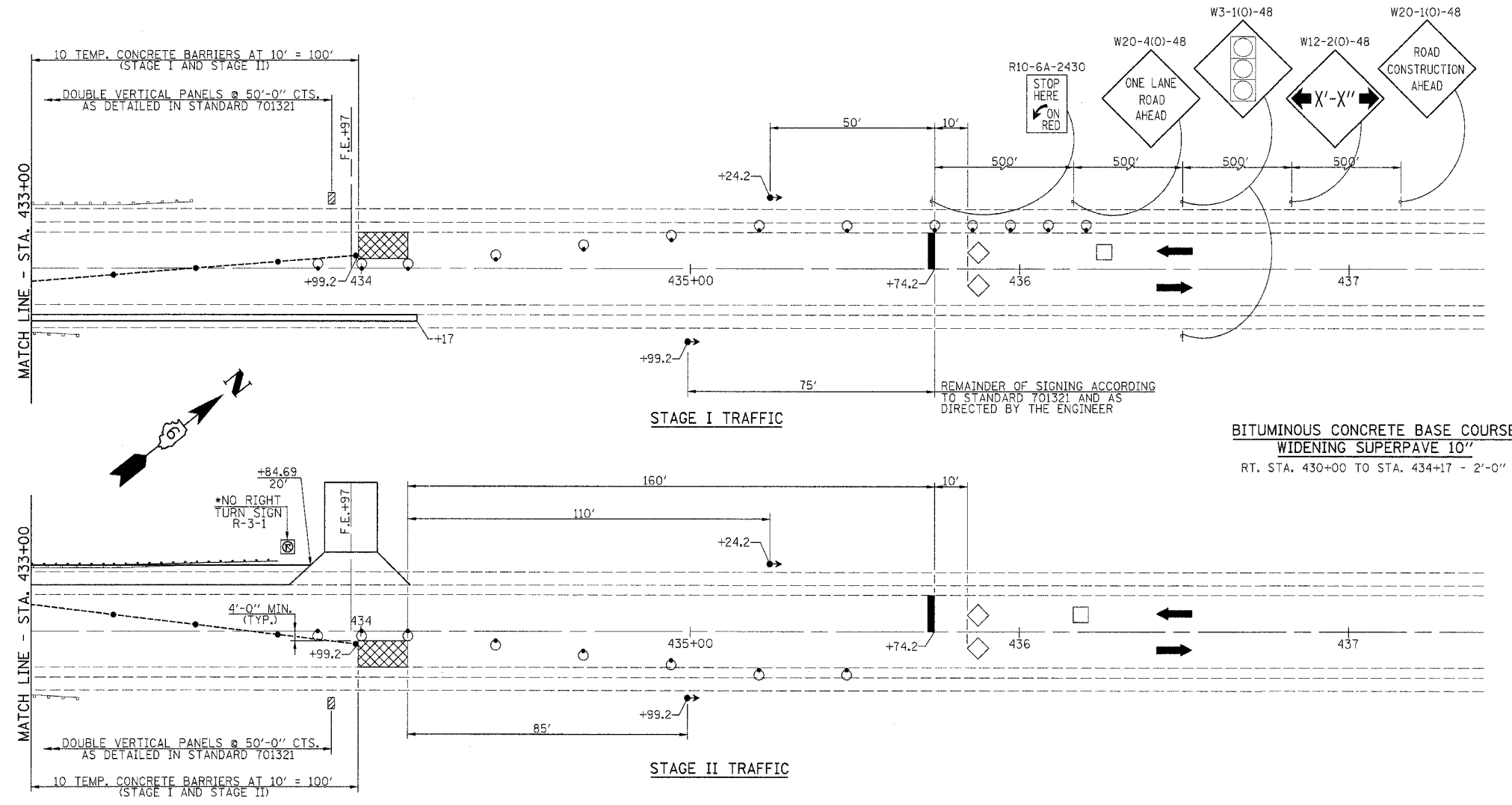
STAGE CONSTRUCTION TRAFFIC DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505



FILE NAME: 134B-SC1D2&3 (REV. 2/7/05)

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	9
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



BITUMINOUS CONCRETE BASE COURSE
WIDENING SUPERPAVE 10"
RT. STA. 430+00 TO STA. 434+17 - 2'-0"

* COST OF THIS SIGN SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321, SPECIAL

TRAFFIC CONTROL SCHEDULE

LOCATION STATION TO STATION	TEMP. CONC. BARRIER (FOOT)	RELOCATE TEMP. CONC. BARRIER (FOOT)	IMPACT ATTENUATOR TEMPORARY (EACH)	RELOCATE IMPACT ATTENUATOR (EACH)
STAGE I				
STA. 430+55.8 TO STA. 430+70.8			1	
STA. 430+70.8 TO STA. 433+99.2	330			
STA. 433+99.2 TO STA. 434+14.2			1	
STAGE II				
STA. 430+55.8 TO STA. 430+70.8				1
STA. 430+70.8 TO STA. 433+99.2		330		
STA. 433+99.2 TO STA. 434+14.2				1
TOTAL	330	330	2	2

SCHEDULE TEMPORARY PAVEMENT MARKING

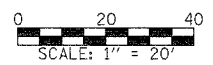
LOCATION STATION TO STATION	TEMP. PAV'T. MARKING LINE - 5" (FOOT)	TEMP. PAV'T. MARKING LINE - 24" (FOOT)
STAGE I		
STA. 428+99 RT.		12
STA. 430+00 TO STA. 434+17 RT.	417	
STA. 435+74.2 LT.		12
NORTH ST. E.B. TRAFFIC LANE		11
NORTH ST. W.B. TRAFFIC LANE		11
STAGE II		
STA. 430+85 TO STA. 434+17 LT.	317	
TOTAL	734	46

- SYMBOLS**
- WORK AREA
 - SIGN
 - TYPE III BARRICADE
 - DRUM WITH STEADY BURNING LIGHT
 - TRAFFIC SIGNAL
 - TEMPORARY RUMBLE STRIP
 - INDUCTION LOOP DETECTOR
 - DOUBLE VERTICAL PANEL
 - TYPE C BIDIRECTIONAL REFLECTOR
 - TEMPORARY CONCRETE BARRIER
 - IMPACT ATTENUATOR
 - STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

NOTE:
SIGNING FOR STAGE II SAME AS STAGE I.

FOR GENERAL NOTES SEE SHEET 8 OF 23.
WORK THIS SHEET WITH SHEETS 7, 8 & 10 OF 23.

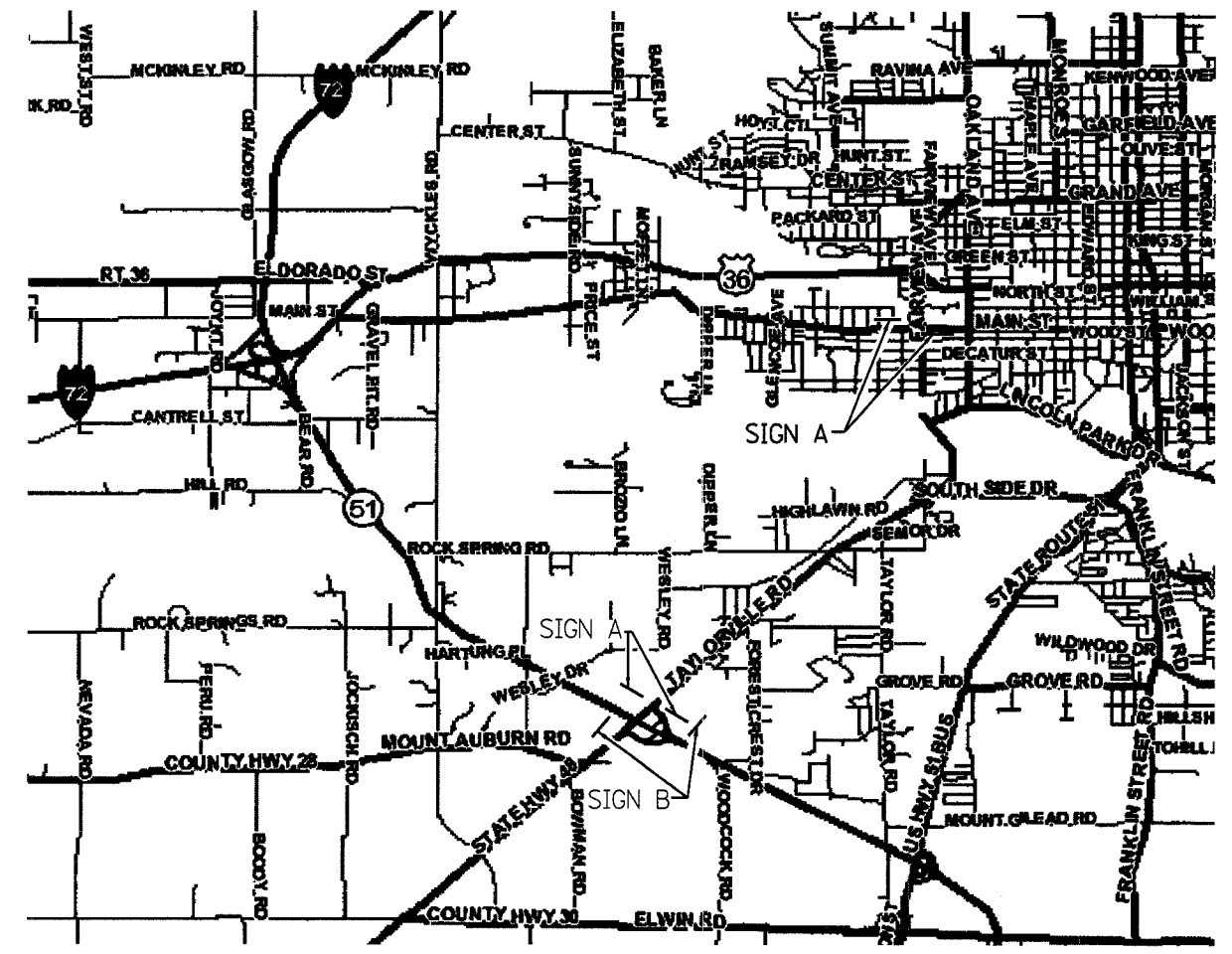
STAGE CONSTRUCTION TRAFFIC DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505



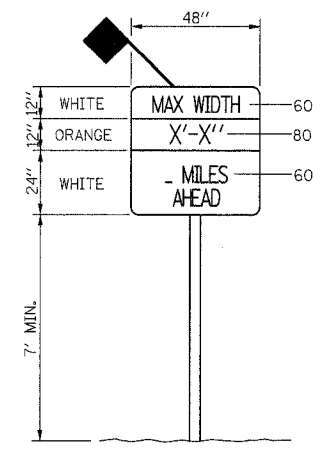
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72938

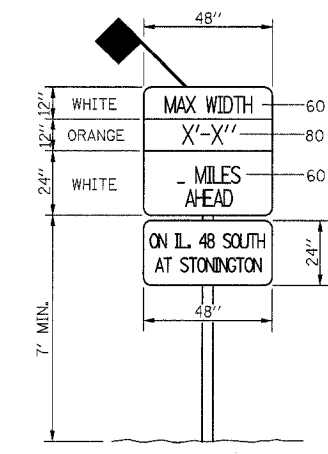
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	10
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



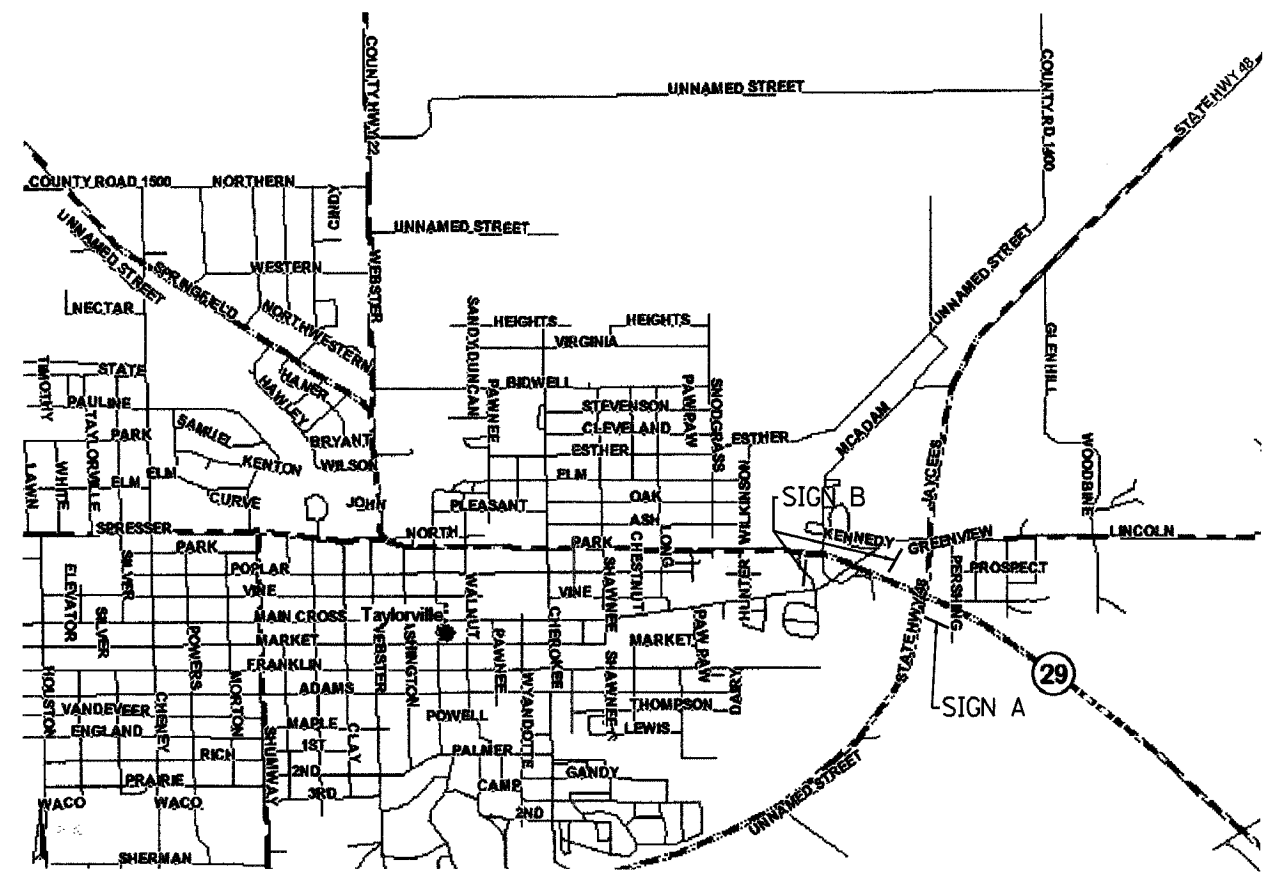
WIDTH RESTRICTION SIGNING LOCATIONS - DECATUR



SIGN A
(WIDTH RESTRICTION SIGN)



SIGN B
(WIDTH RESTRICTION SIGN)



WIDTH RESTRICTION SIGNING LOCATIONS - TAYLORVILLE

STAGE CONSTRUCTION TRAFFIC DETAILS
 IL. ROUTE 48 OVER BUCKHART CREEK
 E.A.P. ROUTE 714 - SECTION 134B
 CHRISTIAN COUNTY
 STA. 432+32
 S.N. 011-2505

72938

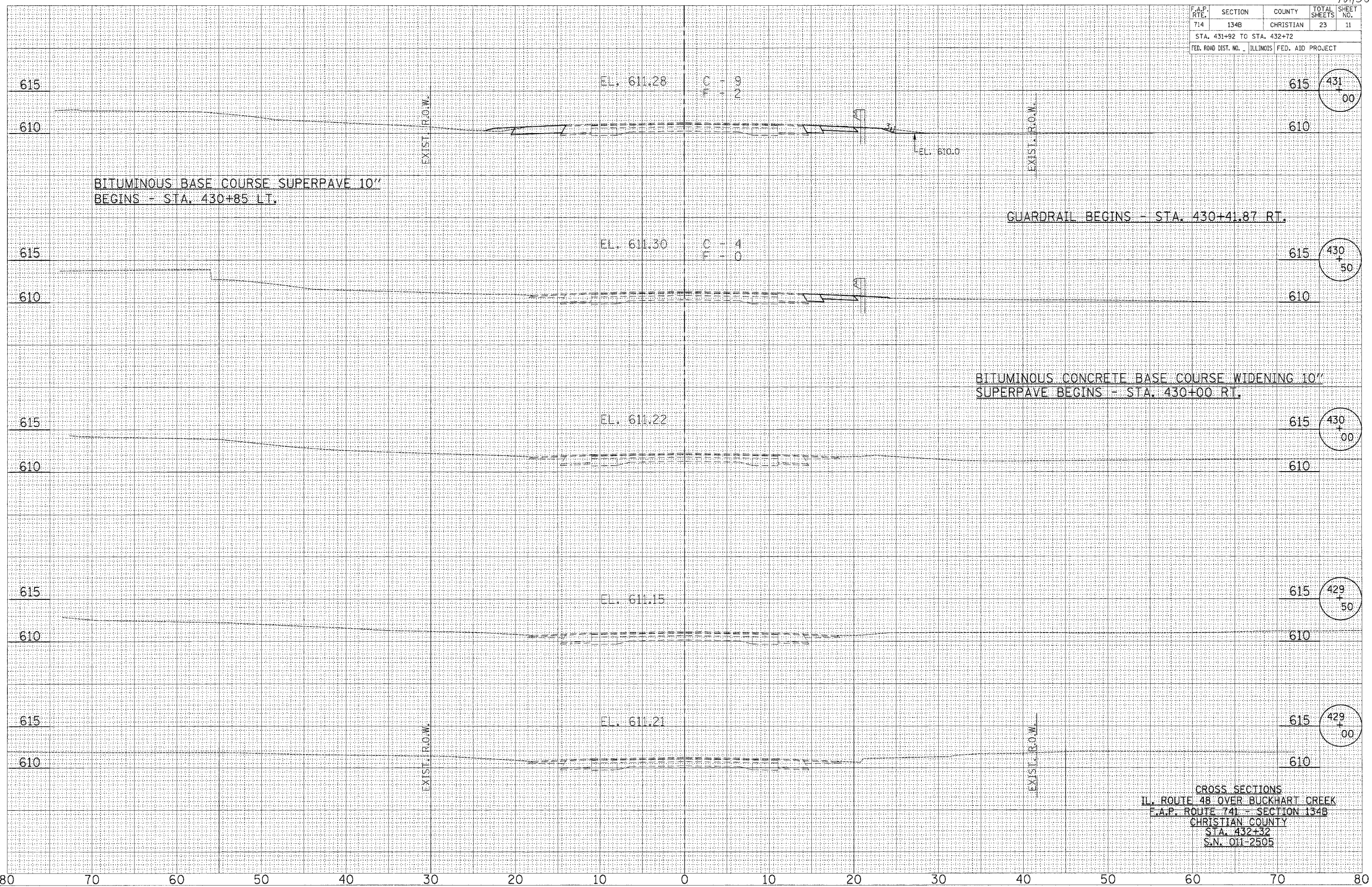
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	11
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

DATE	BY

NO.	AREAS CHECKED	NOTE BOOK	TEMPLATE	PLOTTED	BY	DATE

DATE	BY

NO.	AREAS CHECKED	NOTE BOOK	TEMPLATE	PLOTTED	BY	DATE



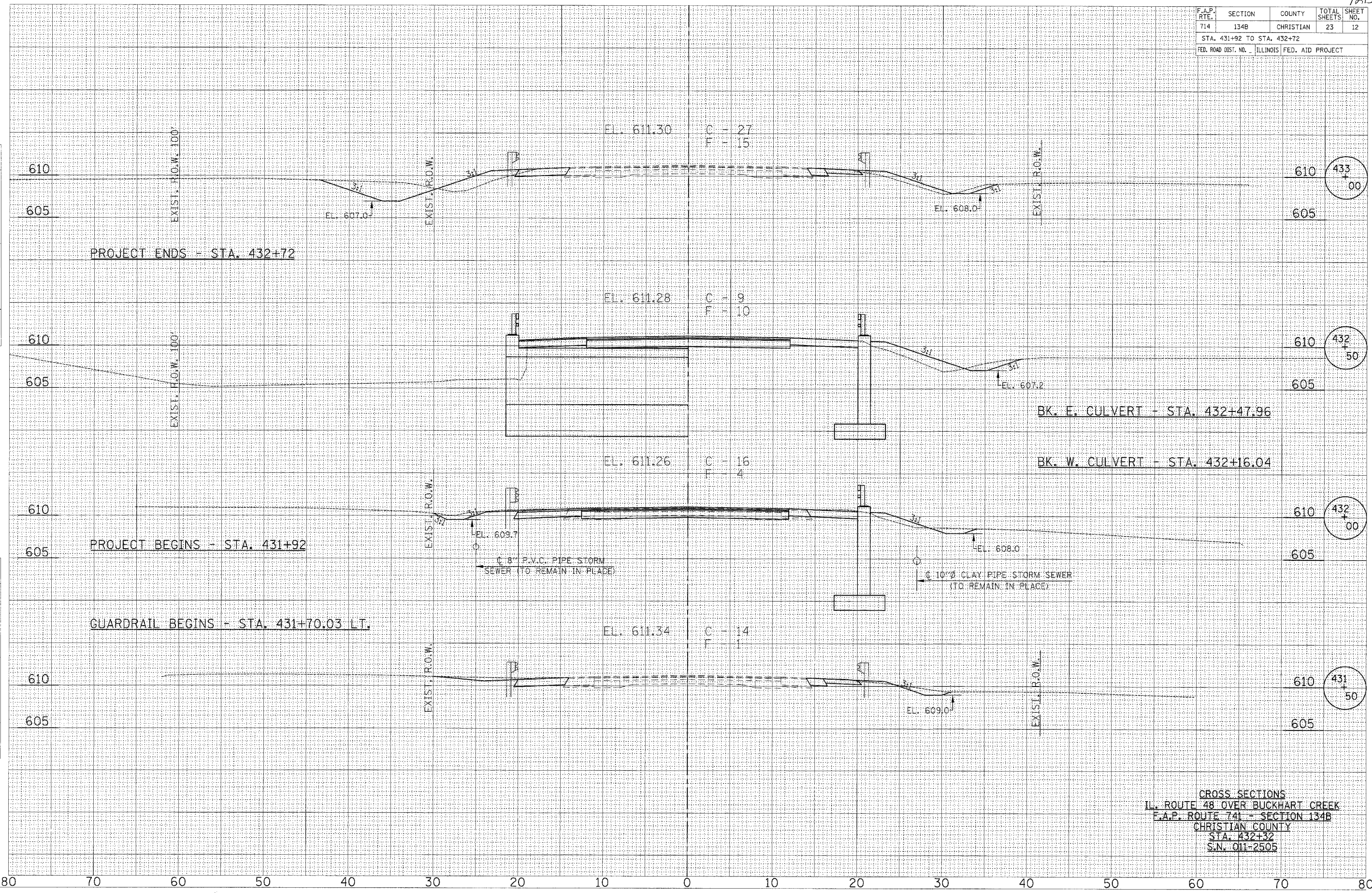
CROSS SECTIONS
 IL. ROUTE 48 OVER BUCKHART CREEK
 F.A.P. ROUTE 741 - SECTION 134B
 CHRISTIAN COUNTY
 STA. 432+32
 S.N. 011-2505

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	12
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FINAL SURVEY BY DATE
 SURVEYED SURVEY BY DATE
 TEMPLATE NO. DATE
 AREAS CHECKED
 NO.

ORIGINAL SURVEY BY DATE
 SURVEYED SURVEY BY DATE
 TEMPLATE NO. DATE
 AREAS CHECKED
 NO.



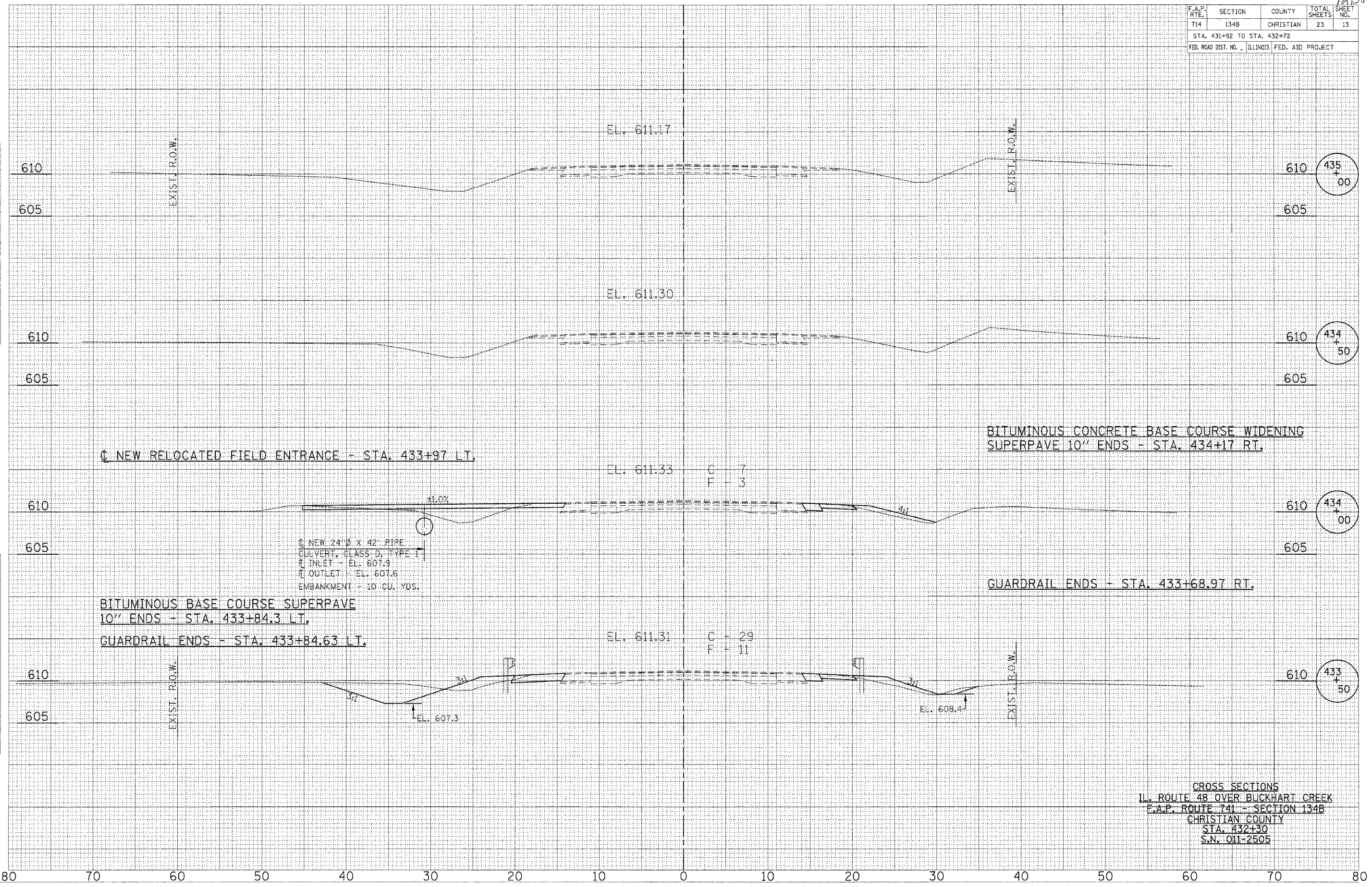
CROSS SECTIONS
 IL. ROUTE 48 OVER BUCKHART CREEK
 F.A.P. ROUTE 741 - SECTION 134B
 CHRISTIAN COUNTY
 STA. 432+32
 S.N. 011-2505

72938

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
714	134B	CHRISTIAN	23	13
STA. 431+92 TO STA. 432+72				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
TEMPERATURE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
TEMPERATURE	
NOTE BOOK	
AREAS CHECKED	
NO.	



CROSS SECTIONS
 ILL. ROUTE 48 OVER BUCKHART CREEK
 F.A.P. ROUTE 741 - SECTION 134B
 CHRISTIAN COUNTY
 STA. 432+30
 S.N. 011-2505

72938

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
OF 10 SHEETS

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal Of Existing Structures	Each	1
Structure Excavation	Cu. Yd.	392
Concrete Structures	Cu. Yd.	75.3
Reinforcement Bars	Pound	6385
Reinforcement Bars, Epoxy Coated	Pound	175
Steel Bridge Rail	Foot	103.6
Furnishing Steel Piles HP 10x42	Foot	738
Driving Steel Piles	Foot	738
Test Pile, Steel HP 10x42	Each	2
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	434
Bar Splicers	Each	24
Three Sided Precast Concrete Structures, 28' x 5'-10"	Foot	45.76

WATERWAY INFORMATION

Drainage Area = 2.84 Sq. Mi.	Ex. Low Grade Elev.	611.16 ft.	@ Sta.	433+50				
	Pr. Low Grade Elev.	611.16 ft.	@ Sta.	433+50				
Flood	Freq.	Q	Opening	Sq. Ft.	Natural	Head - ft.	Headwater	Elev.
		C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	
	10	220	78	96	609.01	0.10	0.10	609.11
Design	50	331	83	96	609.31	0.53	0.58	609.84
Base	100	376	83	96	609.51	0.67	0.74	610.18
Overtopping	-	-	-	-	-	-	-	-
Max. Calc.	500	483	83	96	609.99	1.03	1.15	611.02

10 Year Velocity through Existing Bridge = N/A
10 Year Velocity through Proposed Bridge = 2.59 fps

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
The option of using a precast footing is not allowed.
After the keyways have been grouted and cured, the joints on all three sides of the structure shall be externally sealed using 13" wide external sealing bands conforming to Article 1057.01. Cost included with Three-Sided Precast Concrete Structures.
All details shown were developed assuming the use of cast in place headwalls and wingwalls placed as shown. The Contractor has the option of using precast headwalls and wingwalls. If the precast option is used, details for the headwalls and wingwalls and revised footing details shall be submitted to the Engineer for approval.
The footing design is based on the following maximum reactions applied at the top of footing/pedestal walls:
Vertical 7.9 K/FT \pm 4.5 K/FT \pm .
Horizontal 5.4 K/FT \pm + 2.5 K/FT \pm .
The Contractor shall verify that the selected structure meets these design parameters. If the design parameters are exceeded, a complete footing design with calculations, details, and the required seals shall be submitted for review and approval.
All construction joints shall be bonded.
Excavate behind the existing culvert before Stage I Removal. Install temporary soil retention system as required. Saw cut the existing structure at the stage removal line.
The Contractor shall drive one (1) test pile in a permanent location at the East footing and the West footing as directed by the Engineer before ordering the remainder of the piles.

STA. 432+32.00
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RTE. 714 SECTION 134B
LOADING HS 20
STR. NO. 011-2505

NAME PLATE
(Standard 515001)

HIGHWAY CLASSIFICATION
F.A.P. Route 714 - IL. Route 48
Functional Class: Minor Arterial (Non-urban)
A.D.T. 4625(2003), 5346(2023)
D.H.V. 600(2021)
Design Speed: 35 mph
Posted Speed: 35 mph

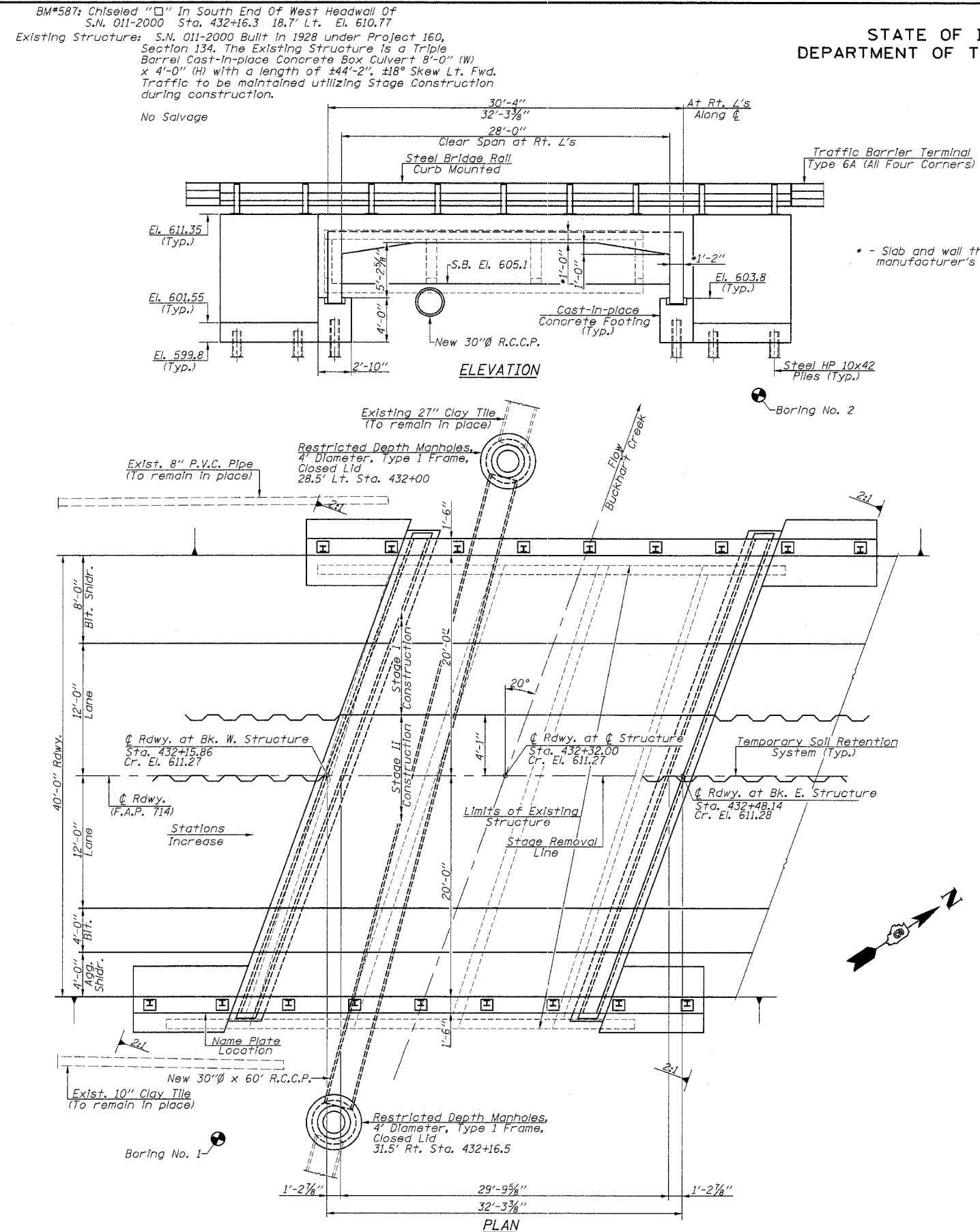
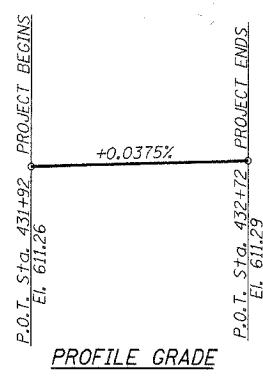
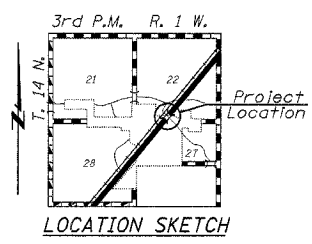
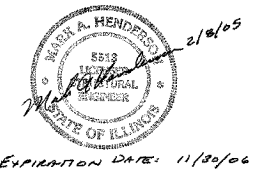
LOADING HS 20
Allow 75*/Sq. Ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 A.A.S.H.T.O. Specifications with
2003 Interim Specifications.

DESIGN STRESSES
NEW CONSTRUCTION
FIELD UNITS
 $f_c = 3500$ p.s.i.
 $f_y = 60000$ p.s.i. (reinforcement)
PRECAST PRESTRESSED UNITS
 $f_c = 5000$ p.s.i.
 $f_y = 60000$ p.s.i. (reinforcement)
 $f_y = 65000$ p.s.i. (welded wire fabric)

SEISMIC DATA
Seismic Performance Category (SPC) = A
Site Coefficient(s) = 1.2
Bedrock Acceleration Coefficient (A) = 0.05g

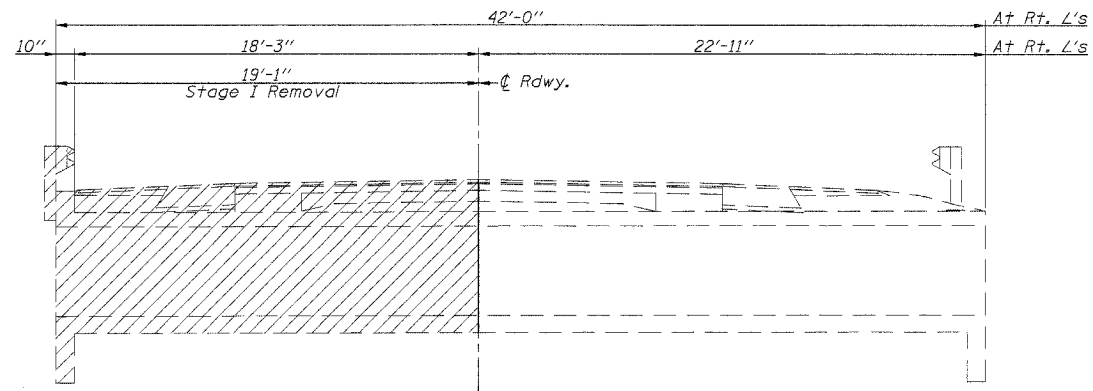
APPROVED AND SEALED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



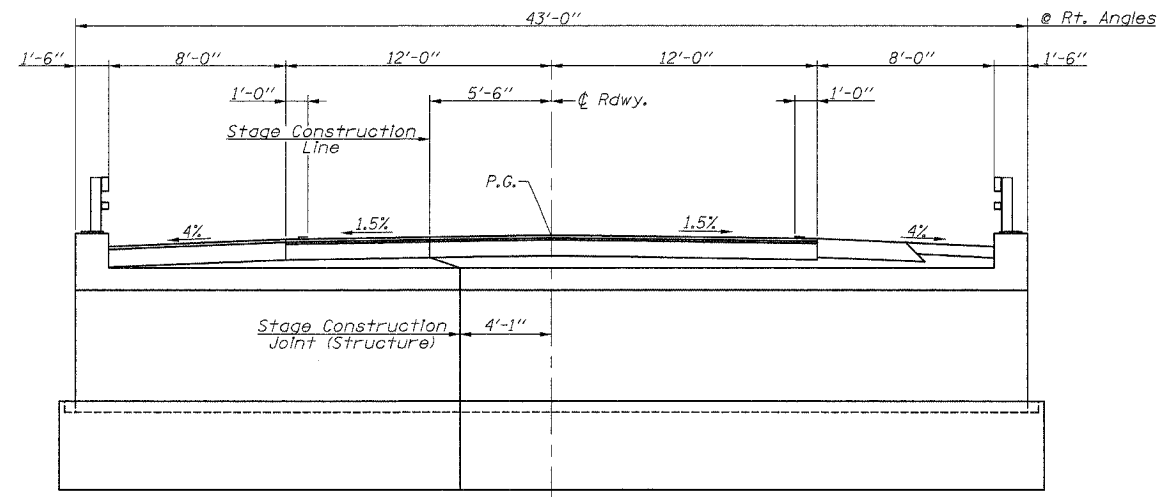
72938

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

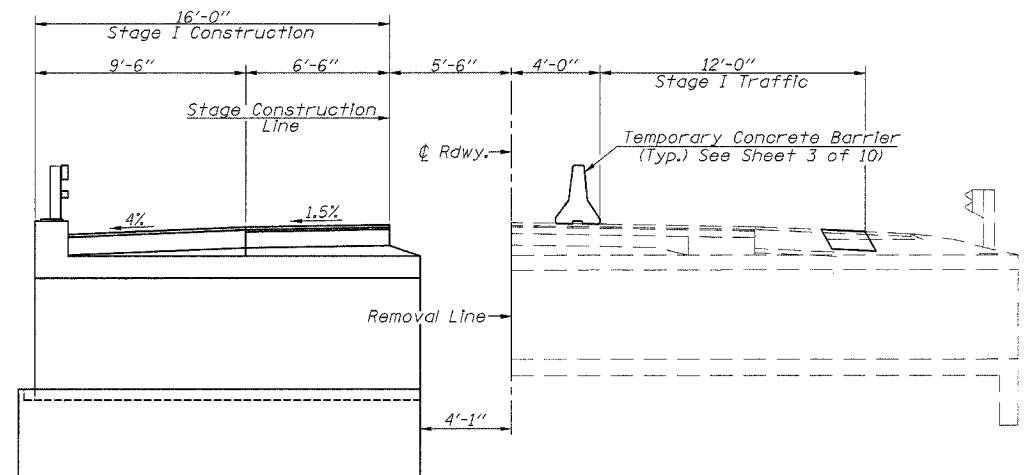
SHEET NO. 2
OF 10 SHEETS



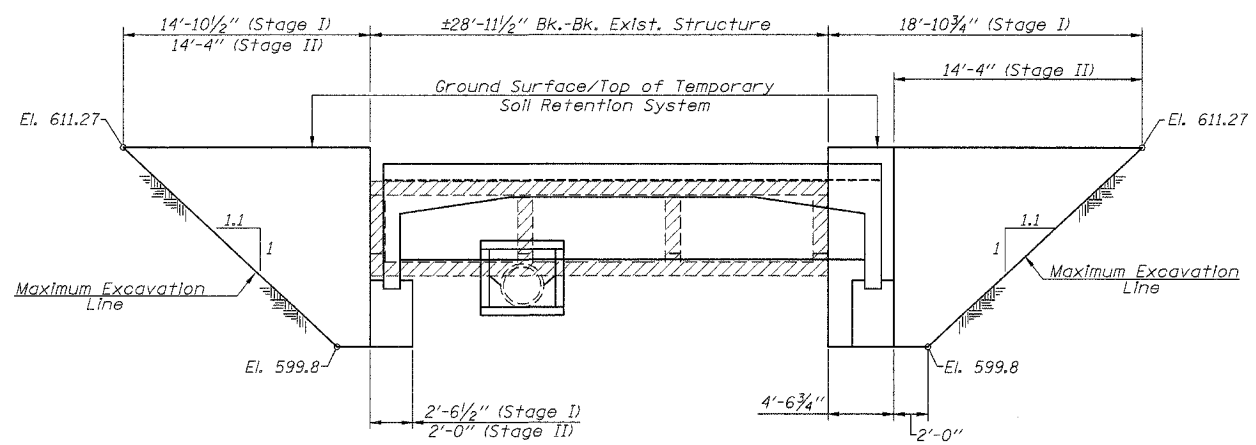
STAGE I REMOVAL
(Looking East)



LONGITUDINAL SECTION
(Looking East)



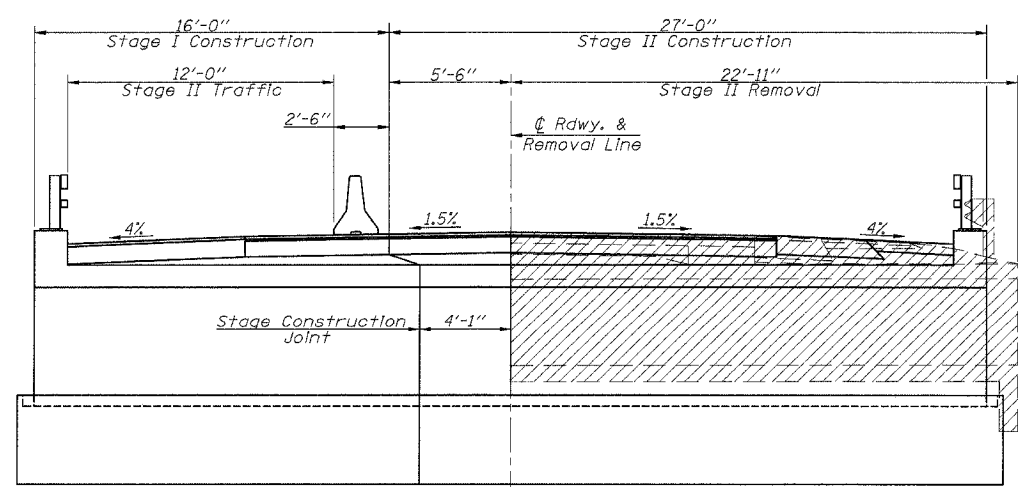
STAGE I TRAFFIC & CONSTRUCTION
(Looking East)



TEMPORARY SOIL RETENTION SYSTEM

Notes: A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

Hatched area indicates "Removal of Existing Structures".
See roadway plans for quantity of Temporary Concrete Barrier.



STAGE II TRAFFIC & CONSTRUCTION
(Looking East)

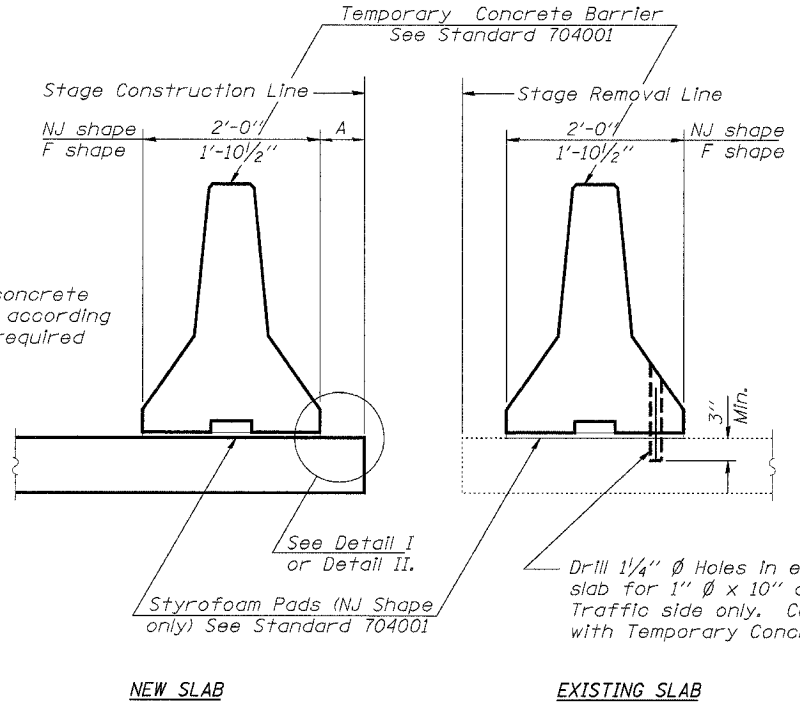
STAGING AND DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

FILE NAME: 134B-STRUCTURE (REV. 2/3/05)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
OF 10 SHEETS

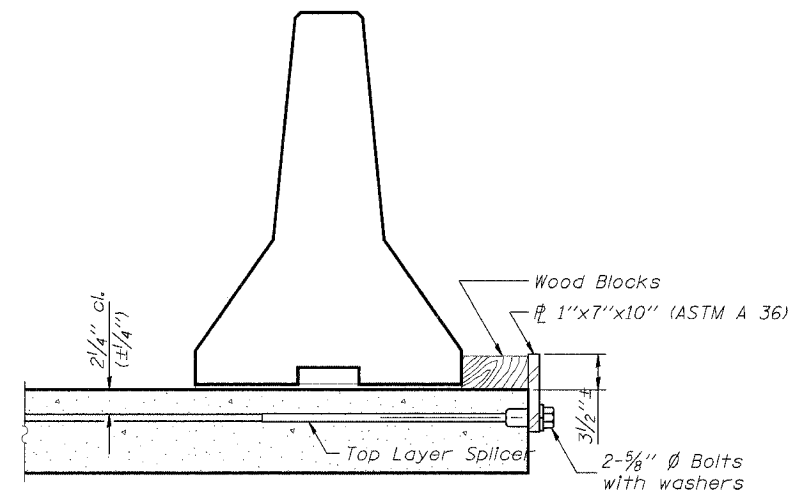


When "A" is 3'-6" or less, the temporary concrete barrier shall be Anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

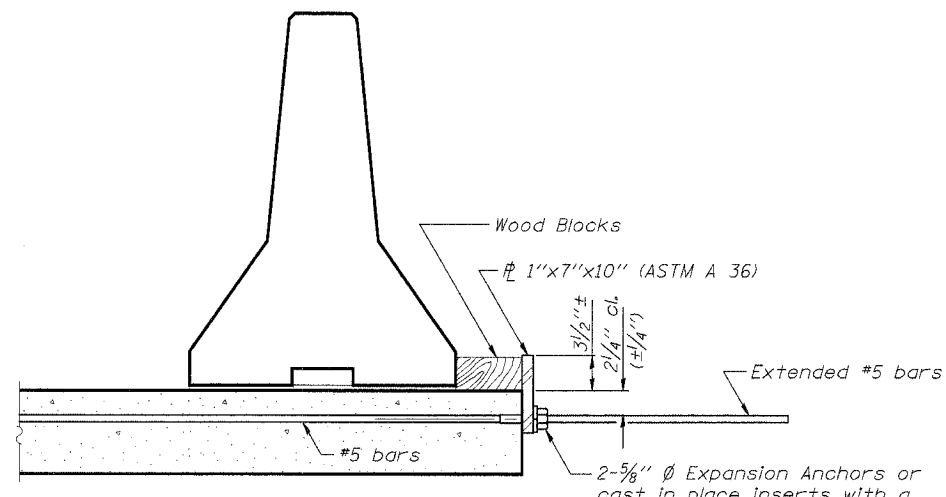
See Detail I or Detail II.
Styrofoam Pads (NJ Shape only) See Standard 704001

Drill 1/4" Ø Holes in existing slab for 1" Ø x 10" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

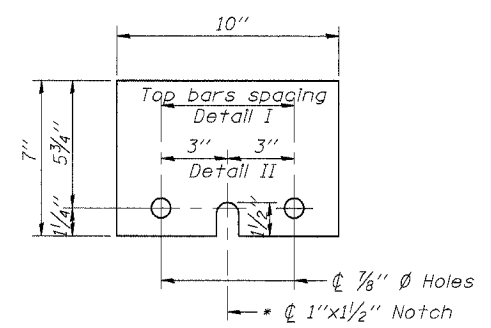
SECTIONS THRU SLAB



DETAIL I
The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II
The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



ϕ 1"x7"x10"
* Required only with Detail II

NOTES
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ϕ to the top layer of couplers with 2-5/8" Ø bolts screwed to coupler at approximate ϕ of each barrier panel.
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ϕ to the concrete slab with 2-5/8" Ø Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ϕ of each barrier panel.
Cost of anchorage is included with Temporary Concrete Barrier.

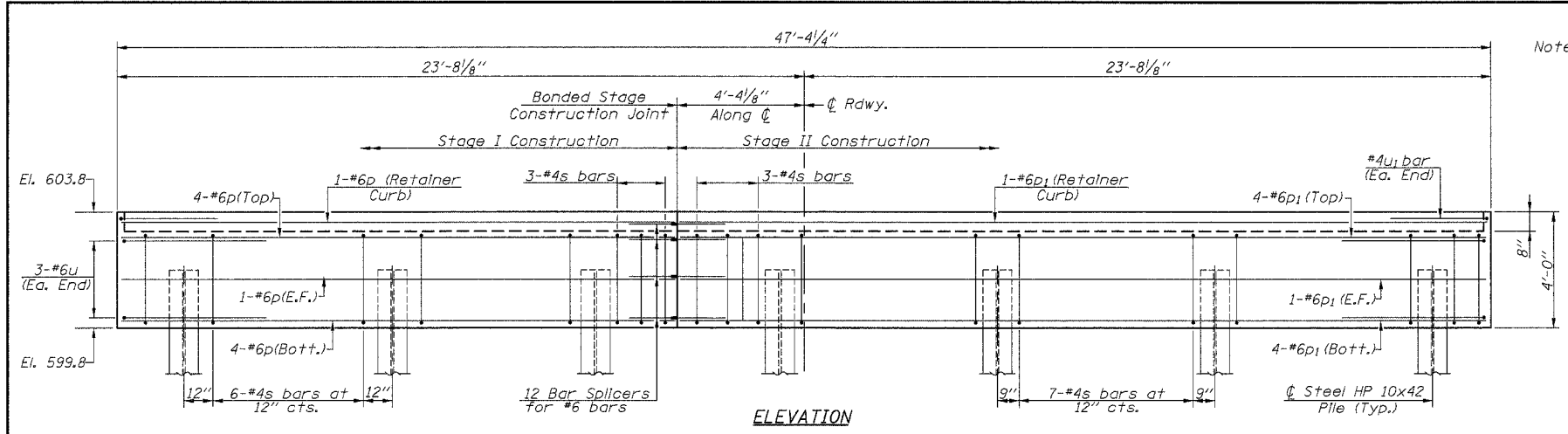
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

FILE NAME: 134B-STRUCTURE (REV. 1/12/05)

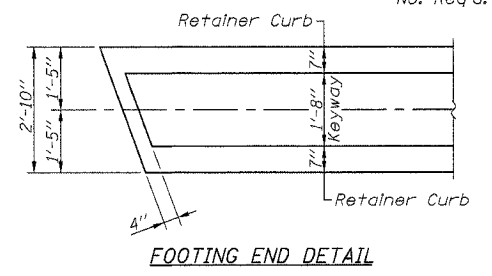
72938

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	17
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 4
OF 10 SHEETS

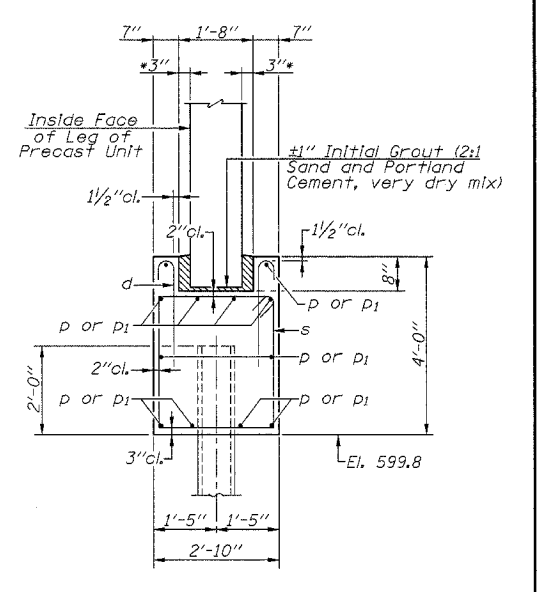
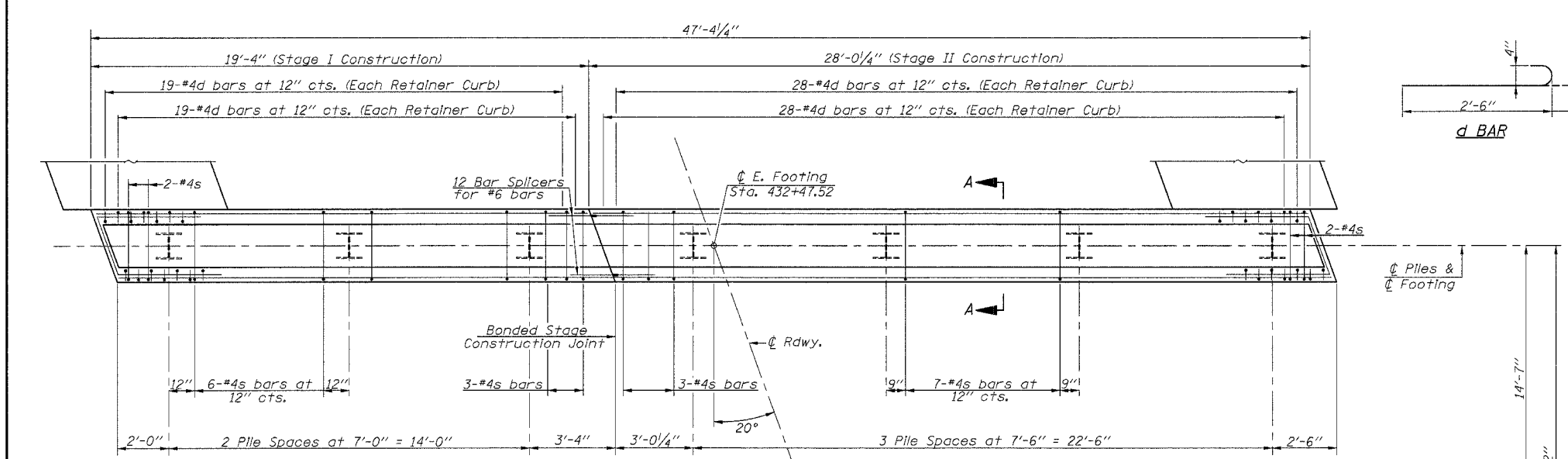


Note: Any structure excavation dewatering shall be included in the cost of "Concrete Structures".



PILE DATA

PILE DATA	EAST FOOTING	WEST FOOTING
Type:	Steel HP 10x42	Steel HP 10x42
Capacity:	55 Tons (Driven to 83 Tons)	55 Tons (Driven to 83 Tons)
Est. Length:	41'	34'
No. Req'd.	6 + 1 Test Pile	6 + 1 Test Pile



TWO FOOTINGS BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
d	376	#4	3'-0"	┌┐
p	24	#6	19'-0"	—
p1	24	#6	27'-8"	—
s	86	#4	11'-7"	□
u	12	#6	10'-7"	┌┐
u1	4	#4	6'-7"	┌┐

Concrete Structures	Cu.Yd.	35.9
Reinforcement Bars	Pound	3310
Furnishing Steel Piles HP 10x42	Foot	450
Driving Steel Piles	Foot	450
Test Pile, Steel HP 10x42	Each	2
Structure Excavation	Cu.Yd.	392

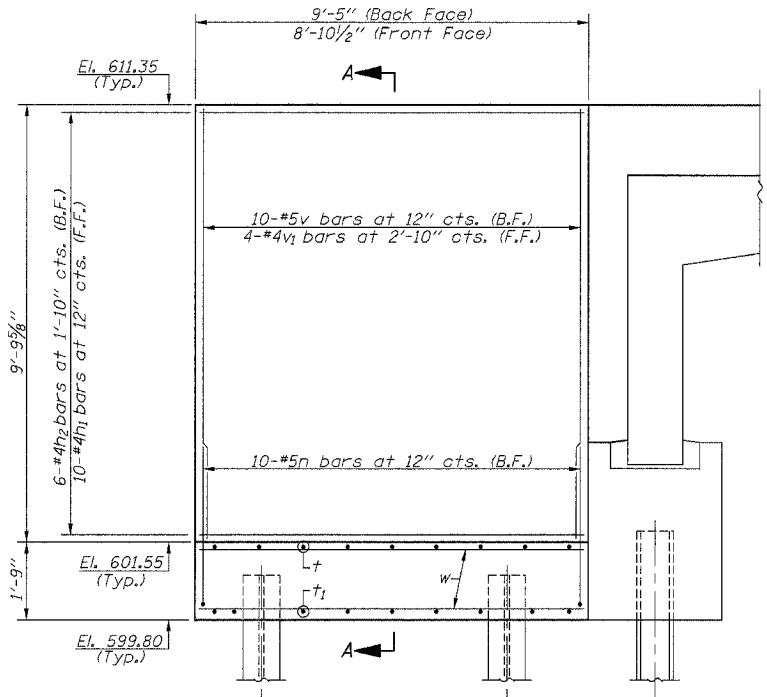
* Quantity Includes Excavation for Culvert Footings and Wingwall Footings.

CULVERT FOOTING DETAILS
 ILL. ROUTE 48 OVER BUCKHART CREEK
 F.A.P. ROUTE 714 - SECTION 134B
 CHRISTIAN COUNTY
 STA. 432+32
 S.N. 011-2505

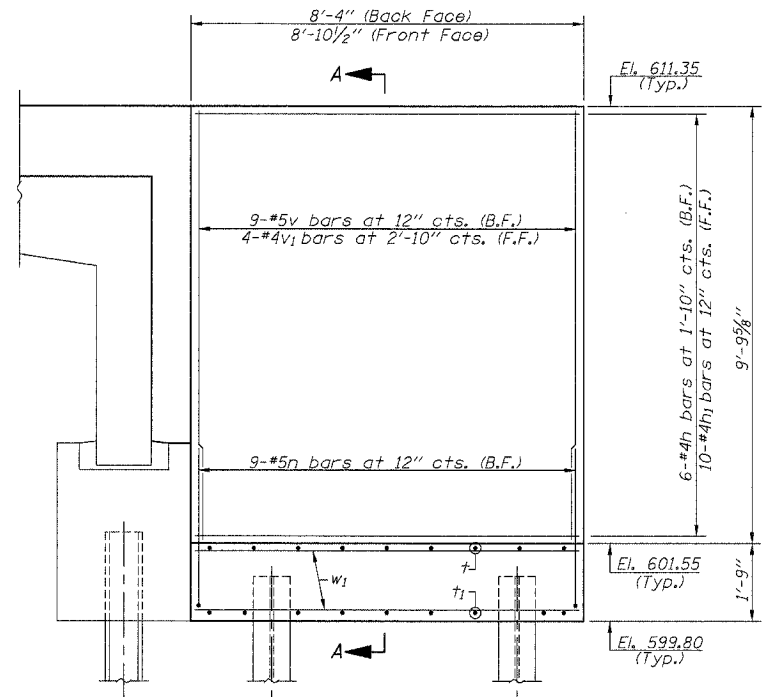
FILE NAME: 134B-STRUCTURE (REV. 2/1/05)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	18
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

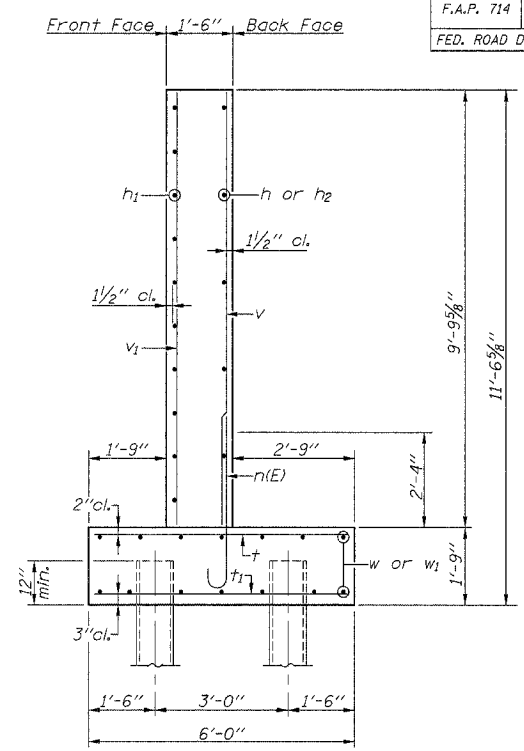
SHEET NO. 5
OF 10 SHEETS



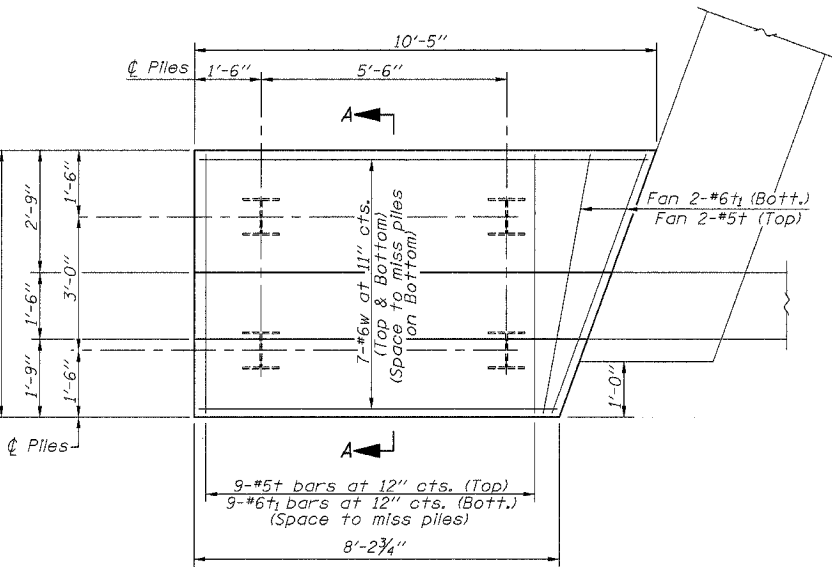
WINGWALL ELEVATION
(Southwest and Northeast Corners)



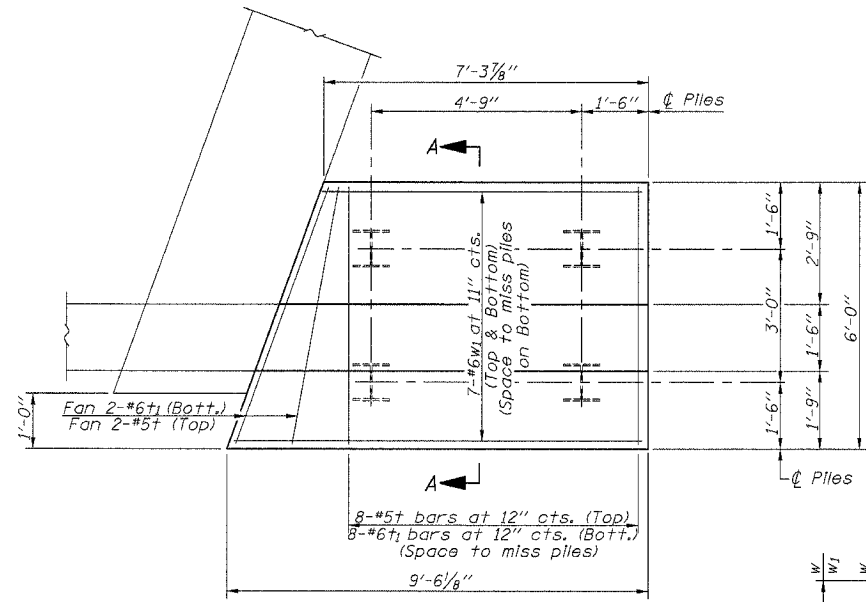
WINGWALL ELEVATION
(Southeast and Northwest Corners)



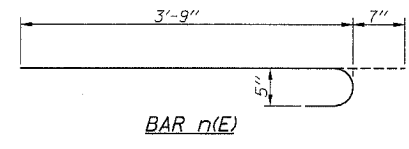
SECTION A-A



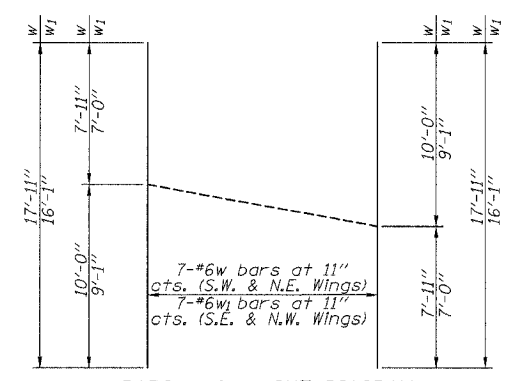
FOOTING PLAN
(Southwest and Northeast Corners)



FOOTING PLAN
(Southeast and Northwest Corners)



BAR n(E)



BARS w & w1 CUT DIAGRAM
Note: Order w and w1 bars full length. Lay out in field as shown. Cut along cut line. Use remainder of bar in opposite face of footing.

PILE DATA

	Northwest & Northeast Wings	Southwest & Southeast Wings
Type:	Steel HP 10x42	Steel HP 10x42
Capacity:	18 Tons (Driven to 27 Tons)	18 Tons (Driven to 27 Tons)
Est. Length:	15'	21'
No. Req'd.	8	8

(FOUR WINGWALLS) BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	8'-0"	—
h ₁	40	#4	8'-6"	—
h ₂	12	#4	9'-1"	—
n(E)	38	#5	4'-4"	U
t	42	#5	5'-8"	—
t ₁	42	#6	5'-8"	—
v	38	#5	9'-7"	—
v ₁	16	#4	9'-7"	—
w	14	#6	17'-11"	—
w ₁	14	#6	16'-1"	—
Concrete Structures		Cu.Yd.	33.2	
Reinforcement Bars		Pound	2340	
Reinforcement Bars (Epoxy Coated)		Pound	175	
Furnishing Steel Piles HP 10x42		Foot	288	
Driving Steel Piles		Foot	288	

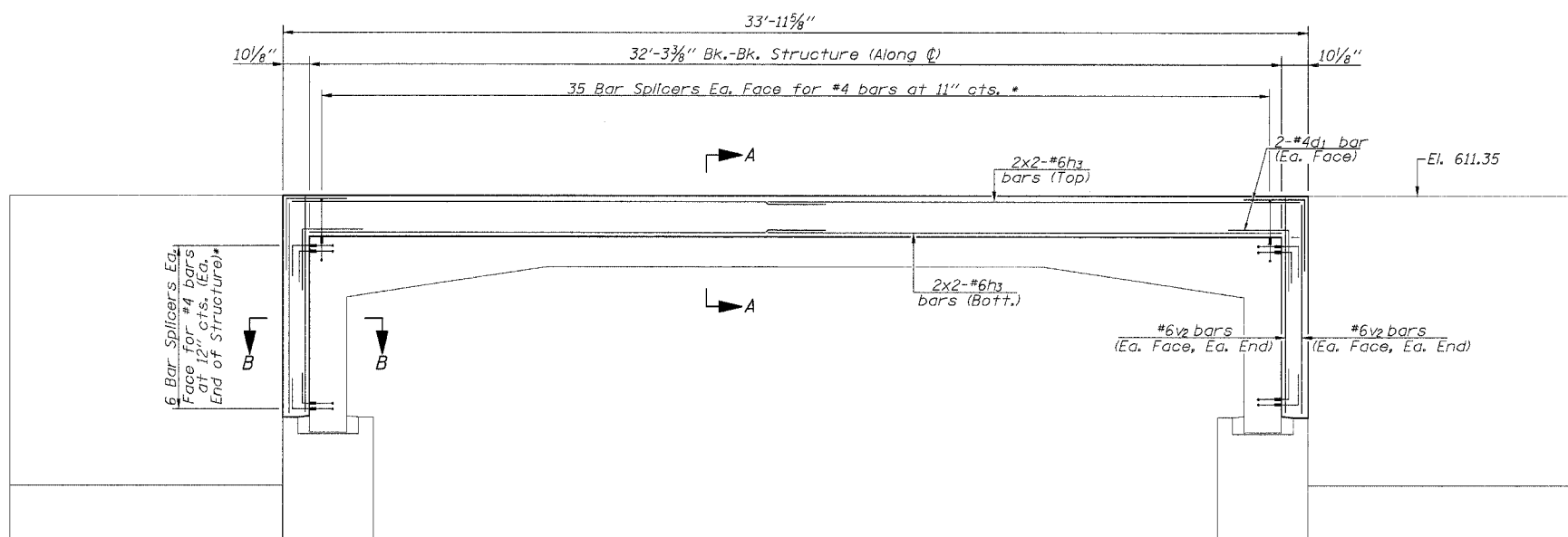
Structure Excavation for wingwalls included in quantity shown on Sheet 4 of 10. Reinforcement bars designated (E) shall be epoxy coated.

WINGWALL DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

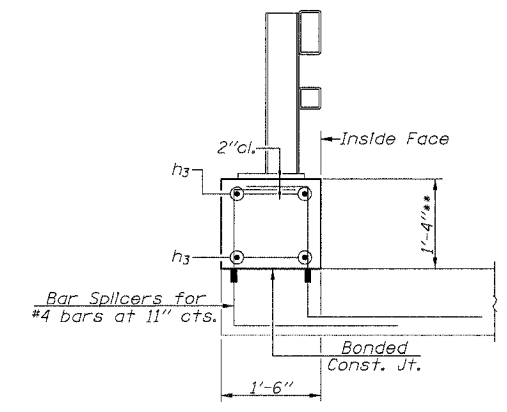
FILE NAME: 134B-STRUCTURE (REV. 2/4/05)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

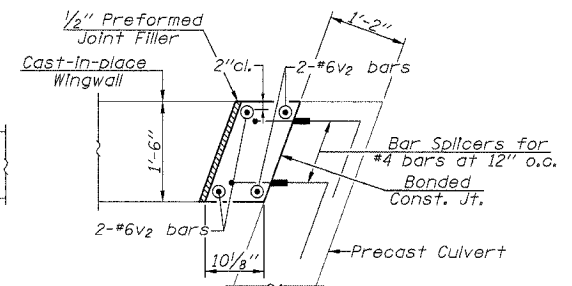
SHEET NO. 6
OF 10 SHEETS



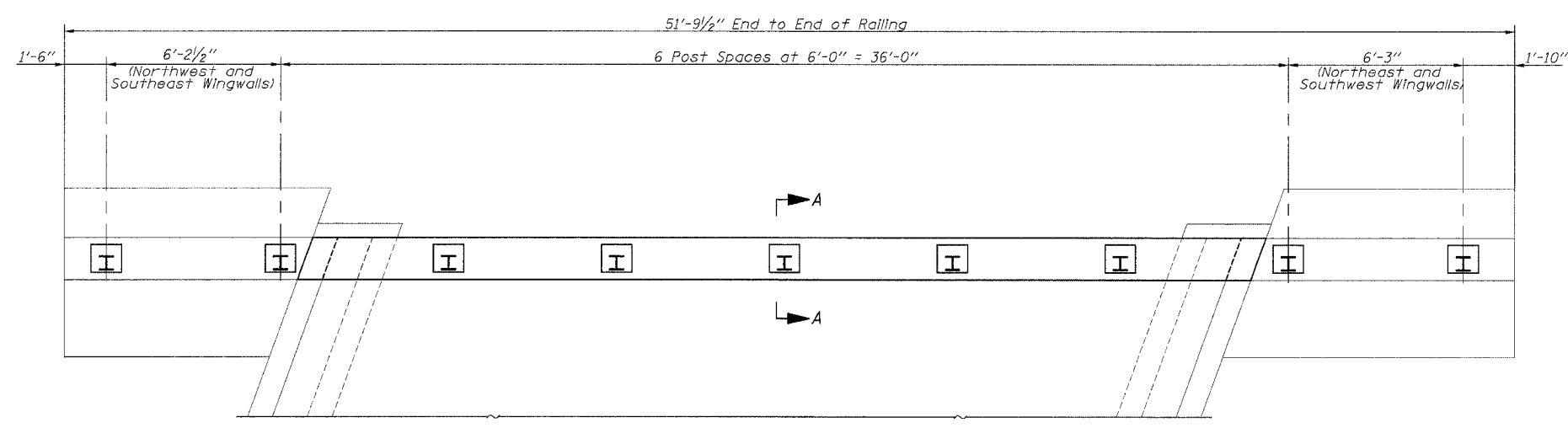
ELEVATION



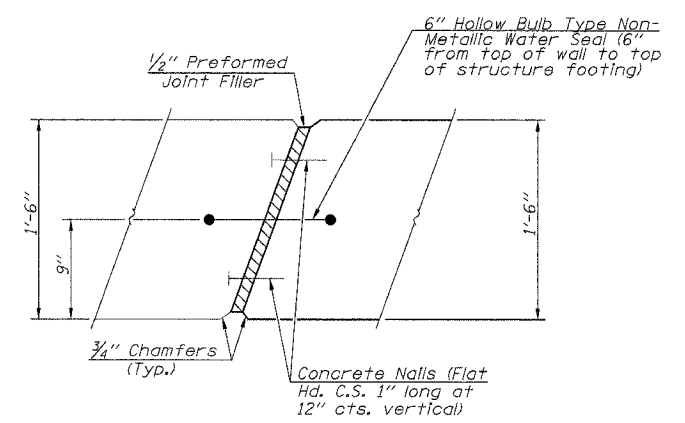
SECTION A-A
** Dimension may vary depending on top slab thickness of three-sided Precast Concrete Structure.



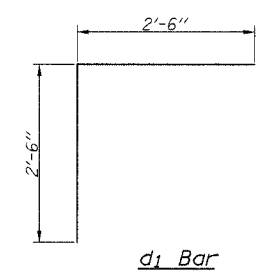
SECTION B-B



PLAN



CORNER SEAL DETAIL



MIN. BAR LAP
*6 bar = 2'-7"

**TWO HEADWALLS
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
d ₁	16	#6	5'-0"	┌
h ₃	16	#6	18'-2"	—
v ₂	16	#6	7'-4"	—
Concrete Structures			Cu. Yd.	6.2
Reinforcement Bars			Pound	735

Bars indicated thus 2x2-#6 etc. indicates 2 lines of bars with 2 lengths per line.

* Cost of Bar Splicers are included in the cost of "Three Sided Precast Concrete Structures".

HEADWALL DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

FILE NAME: 134B-STRUCTURE (REV. 2/4/05)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	20
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7
OF 10 SHEETS

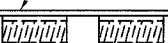
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

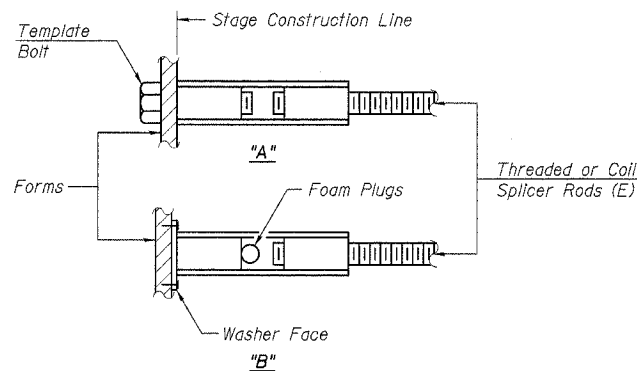
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

NOTES

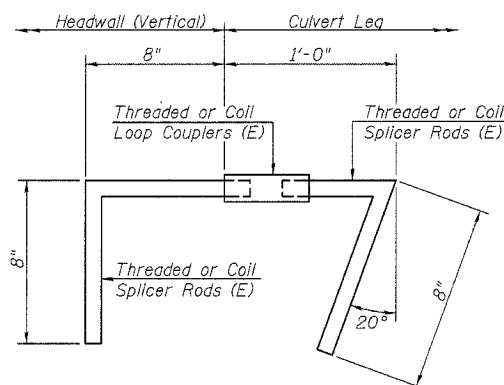
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- Minimum *Pull-out Strength = $1.25 \times f_{sallow} \times A_t$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 f_{sallow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

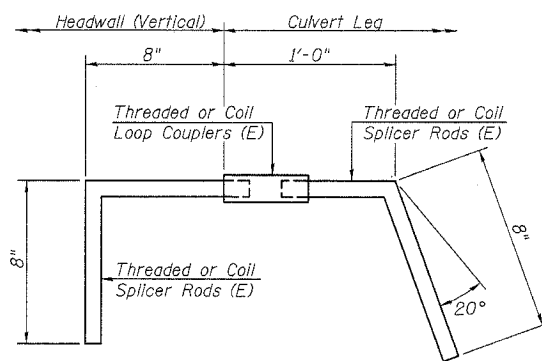
Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



FOR HEADWALL (VERTICAL)***
N.W. & S.E. WINGWALLS

(Cast into Three Sided Precast Concrete Structure)

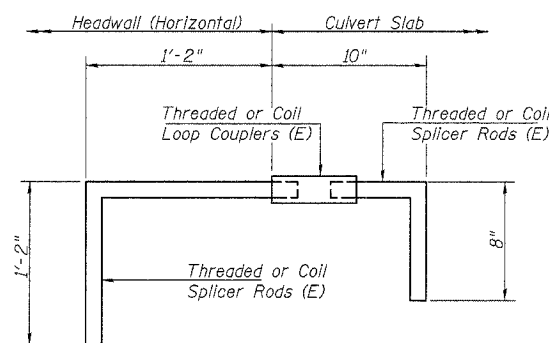
Bar Splicer for #4 bar
Min. Capacity = 14.7 kips - tension
Min. Pull-out Strength = 5.9 kips - tension
No. Required = 24



FOR HEADWALL (VERTICAL)***
N.E. & S.W. WINGWALLS

(Cast into Three Sided Precast Concrete Structure)

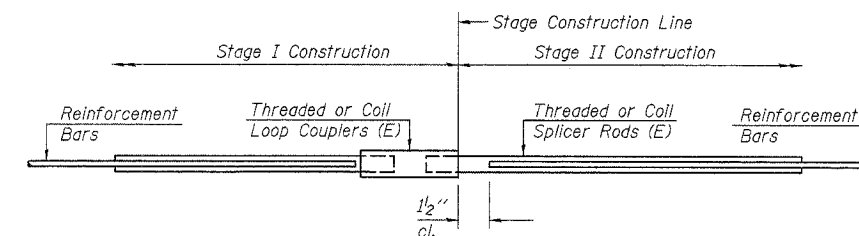
Bar Splicer for #4 bar
Min. Capacity = 14.7 kips - tension
Min. Pull-out Strength = 5.9 kips - tension
No. Required = 24



FOR HEADWALL (HORIZONTAL)***

(Cast into Three Sided Precast Concrete Structure)

Bar Splicer for #4 bar
Min. Capacity = 14.7 kips - tension
Min. Pull-out Strength = 5.9 kips - tension
No. Required = 140



STANDARD

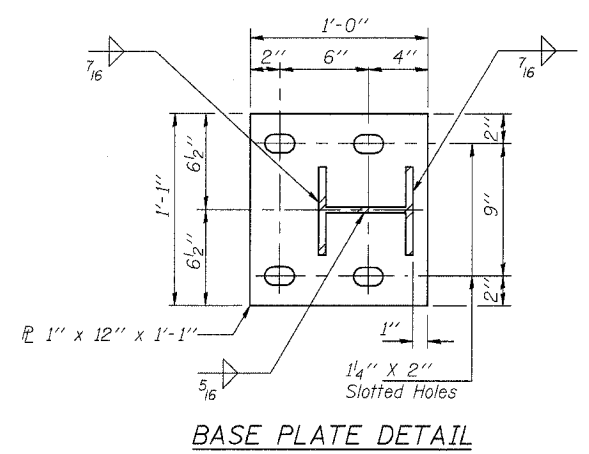
Bar Size	No. Assemblies Required	Location
#6	24	FOOTINGS
Total	24	

BAR SPLICER ASSEMBLY DETAILS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

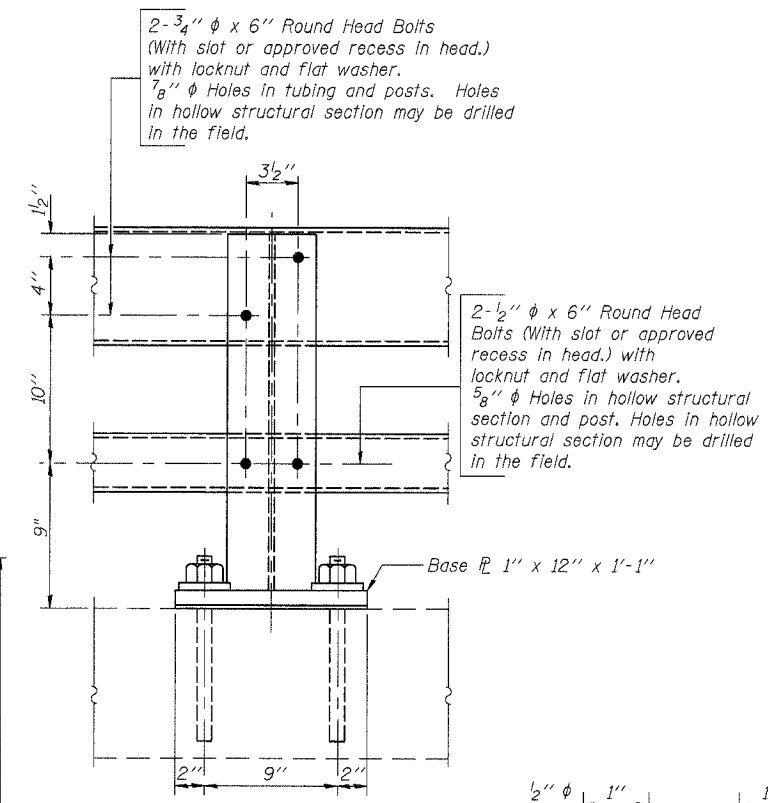
BSD-1 10-31-02

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	21
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

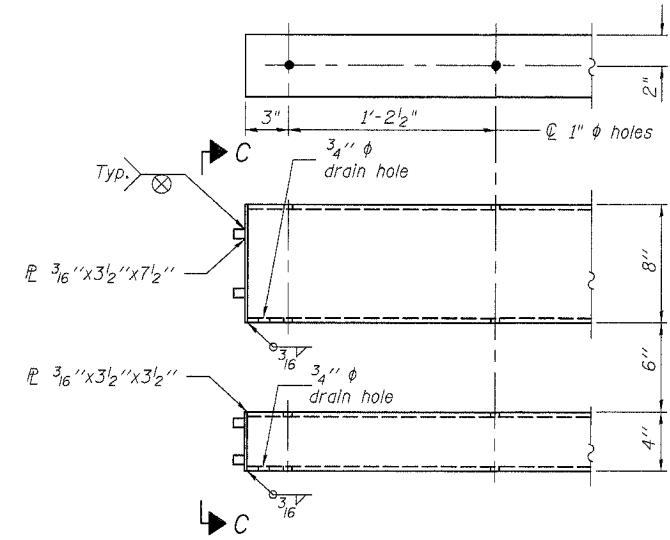
SHEET NO. 8
OF 10 SHEETS



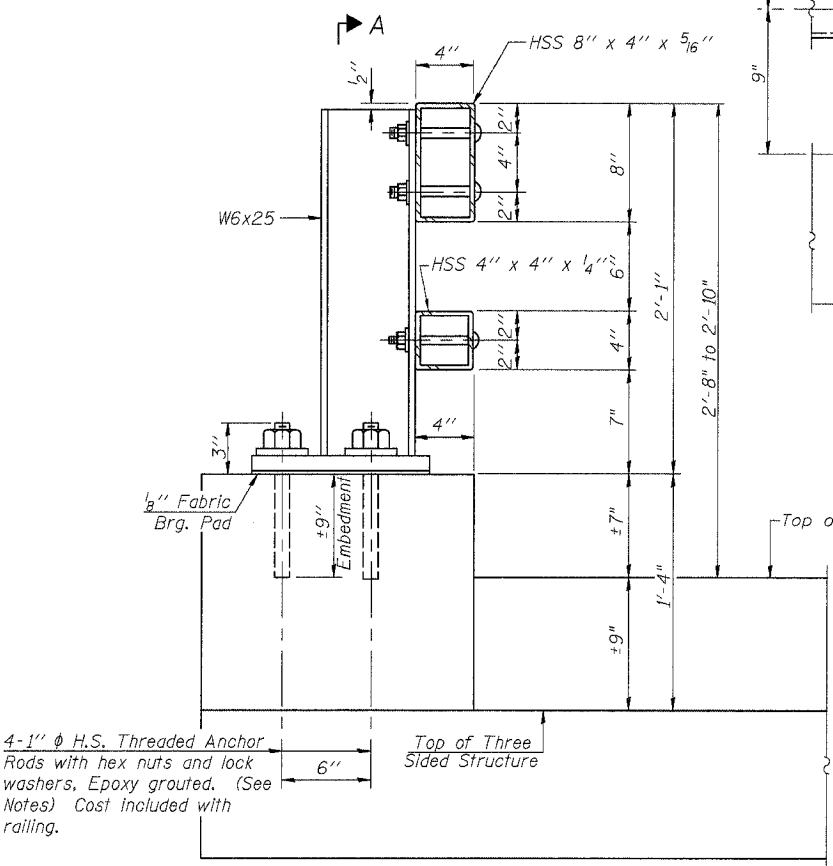
BASE PLATE DETAIL



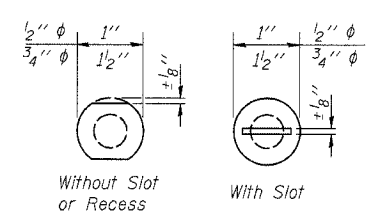
SECTION A-A



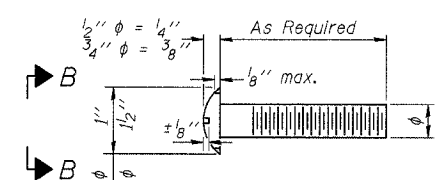
END OF RAIL DETAILS



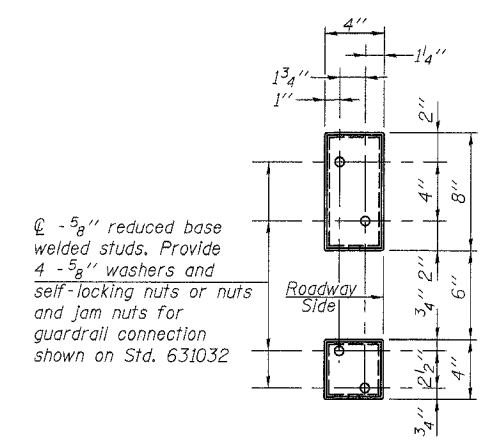
SECTION AT RAIL POST



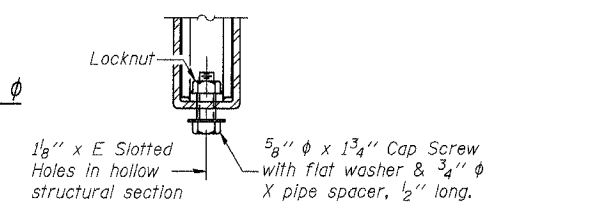
VIEW B-B



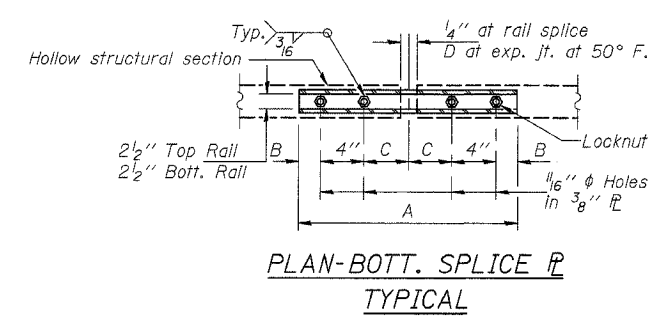
DETAIL OF 1/2" & 3/4" ROUND HEAD BOLTS



VIEW C-C



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE TYPICAL

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500, Grade B, Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0°F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws and nuts shall conform to the requirements of ASTM designation A 307 except that threaded rods, nuts and washers shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices and anchor rods shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.

Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow ralling movement.

Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.

Expansion joint width shall be "D" at 50° F and shall be adjusted for other temperatures according to Article 503.10(c) of the Standard Specifications.

The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with pre-measured amounts of the adhesive chemical.

Nuts for 1" diameter threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional 1/8 turn.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail	Foot	103.6

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 1/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

**STEEL BRIDGE RAIL
CURB MOUNTED**
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

FILE NAME: 134B-STRUCTURE (REV. 2/4/05)

72938

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	22
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SHEET NO. 9
OF 10 SHEETS



SOIL BORING LOG

Page 1 of 2

ROUTE FAP 714 (IL 48) DESCRIPTION IL 48 over Buckhart Creek LOGGED BY M. Tappan
SECTION 134B LOCATION SW 1/4, SEC. 22, TWP. 14 N, RNG. 1 W, 3 PM
COUNTY Christian DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 011-2000 Ex 011-2505 Pr Station 432+30	BORING NO. 1 SE WW Station 432+06 Offset 33.00 ft Rt Ground Surface Elev. 607.9 ft	DEPTH (ft)	B L O W S	U C S Qu	M O I S T	Surface Water Elev. 605.7 ft Stream Bed Elev. 605.7 ft	D E P T H (ft)	B L O W S	U C S Qu	M O I S T	Groundwater Elev.:	
											Upon Completion	After
						Grey Moist CLAY LOAM (Till) (continued)	55	S-12				
						595.40 Grey Medium to Coarse Grained SAND	2					
							8					
						Boring Continued 12/02/04	10					
						600.90 Brown and Grey V. Moist LOAM	0	0.2	23			
						599.40 Grey Wet SAND LOAM	1	B				
							0					
						596.90 Grey Clean Fine to Medium Grained SAND Free Water	0	0.1	21			
							1	B				
						593.90 Grey Moist CLAY LOAM (Till)	2	7.8	7			
							12					
							35	8.7	8			
						Washed	38	S-10				
							17					
							4					
							18	8.9	8			
							28	S-10				
							17					
						Washed	44	9.8	11			
							45	9.2	8			

SOIL BORING 011-2000 IL 48 OVER BUCKHART CREEK (REV. 8/13/2004) DETENPLT.DOT 11/2005
Leland S. Pappas 3148 N. Logansport Rd. P.O. Box 111371 Waukegan, IL 60087

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)



SOIL BORING LOG

Page 2 of 2

ROUTE FAP 714 (IL 48) DESCRIPTION IL 48 over Buckhart Creek LOGGED BY M. Tappan
SECTION 134B LOCATION SW 1/4, SEC. 22, TWP. 14 N, RNG. 1 W, 3 PM
COUNTY Christian DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 011-2000 Ex 011-2505 Pr Station 432+30	BORING NO. 1 SE WW Station 432+06 Offset 33.00 ft Rt Ground Surface Elev. 607.9 ft	DEPTH (ft)	B L O W S	U C S Qu	M O I S T	Surface Water Elev. 605.7 ft Stream Bed Elev. 605.7 ft	D E P T H (ft)	B L O W S	U C S Qu	M O I S T	Groundwater Elev.:	
											Upon Completion	After
						CLAY LOAM (Till) (continued)	75					
							10					
						Light Tannish Grey Washed	16	6.0	9			
							25	B				
							22	10.0	9			
							33	B				
							9					
						Washed	19	7.2	10			
							32	B				
						w/ Clayey SHALE Inclusions	17	8.6	11			
							36	B				
						566.90 Grey Fine Grained Clean SAND Washed						
							3					
							5					
						w/ Clayey SHALE Inclusions	10	6.3	12			
							24	B				
							551.90 CLAY LOAM (Till)					
							8					
						Tannish Grey Moist w/ 4" Reddish Brown Medium Grained SAND Seam, Washed	36	7.7	10			
							64	S-14				
						w/ Clayey SHALE Inclusions Boring Completed	577.90					

SOIL BORING 011-2000 IL 48 OVER BUCKHART CREEK (REV. 8/13/2004) DETENPLT.DOT 11/2005
Leland S. Pappas 3148 N. Logansport Rd. P.O. Box 111371 Waukegan, IL 60087

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BBS, from 137 (Rev. 8-99)

BORINGS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 714	134B	CHRISTIAN	23	23
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SHEET NO. 10
OF 10 SHEETS



Illinois Department of Transportation
Division of Highways
East District 6

SOIL BORING LOG

Page 1 of 2

Date 8/12/2004
12/01/04

ROUTE FAP 714 (IL 48) DESCRIPTION IL 48 over Buckhart Creek LOGGED BY M. Tappan

SECTION 134B LOCATION SW 1/4, SEC. 22, TWP. 14 N, RNG. 1 W, 3 PM

COUNTY Christian DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 011-2000 Ex
011-2505 Pr
Station 432+30

BORING NO. 2 NW W W W
Station 432+65
Offset 39.00ft Lt
Ground Surface Elev. 608.8 ft

DEPTH (ft)	B	U	M	Surface Water Elev.	DEPTH (ft)	B	U	M
ft	#"	(tsf)	(%)	ft	ft	#"	(tsf)	(%)
				605.7				
				605.7				
				597.3				
				602.8				
0					0			
2					4			
3	1.7	20			10	8.1	12	
4	B				16	S-10		
1								
1	0.5	31						
1	B							
0					9			
1					40	+10.0	8	
1					60	S-10		
0					65			
1								
3								
0					7			
1					23	9.2	9	
2					36	S-11		
3								
7	7.9	8						
17	S-12							
5					7			
15	8.5	8			17	6.2	10	
21	S-8				22	S-12		

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
East District 6

SOIL BORING LOG

Page 2 of 2

Date 8/12/2004
12/01/04

ROUTE FAP 714 (IL 48) DESCRIPTION IL 48 over Buckhart Creek LOGGED BY M. Tappan

SECTION 134B LOCATION SW 1/4, SEC. 22, TWP. 14 N, RNG. 1 W, 3 PM

COUNTY Christian DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 011-2000 Ex
011-2505 Pr
Station 432+30

BORING NO. 2 NW W W W
Station 432+65
Offset 39.00ft Lt
Ground Surface Elev. 608.8 ft

DEPTH (ft)	B	U	M	Surface Water Elev.	DEPTH (ft)	B	U	M
ft	#"	(tsf)	(%)	ft	ft	#"	(tsf)	(%)
				605.7				
				605.7				
				597.3				
				602.8				
0					0			
1					11			
2					65			
2					35			
5					72			
15								
36								
55								
11								
26	8.7	10						
32	S-13							
9								
15	7.5	10						
24	B							

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

BORINGS
IL. ROUTE 48 OVER BUCKHART CREEK
F.A.P. ROUTE 714 - SECTION 134B
CHRISTIAN COUNTY
STA. 432+32
S.N. 011-2505