

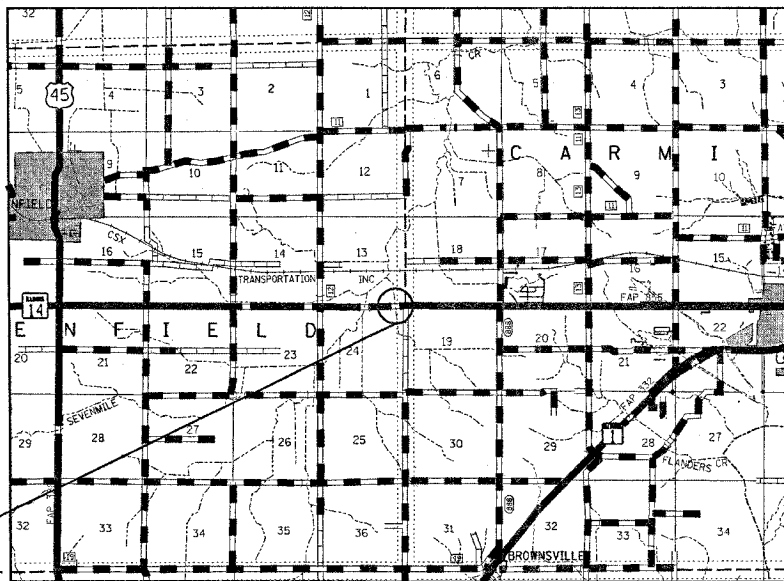
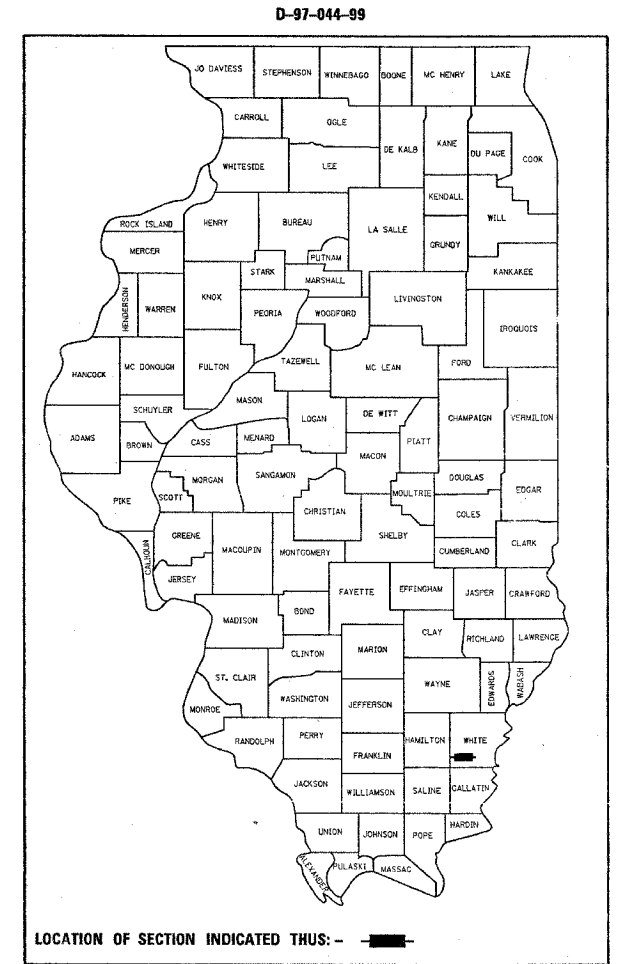
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	1

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PROPOSED
 HIGHWAY PLANS**

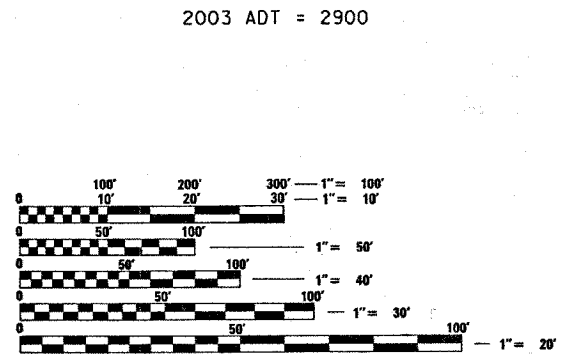
FOR INDEX OF SHEETS, SEE SHEET NO. 2

FAP ROUTE 855 (ILL 14)
 SECTION 11B-1
 PROJECT NO. BR-855-(005)
 WHITE COUNTY

C-97-034-05



PROJECT LOCATION
 SECTION 11B-1
 STRUCTURE # 097-2013
 STATION 283+14.49



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

GROSS LENGTH = 89.34 FEET = .017 MILES
 NET LENGTH = 89.34 FEET = .017 MILES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED Oct. 24, 2005
Christ H. Reed
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 9, 2005
Mike Wine
 ENGINEER OF DESIGN AND ENVIRONMENT

December 9, 2005
Eric Horn
 DEPUTY DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

district
 10/26/2005
 c:\projects\94771\d04499pa.e.dgn
 PROJECT ENGINEER : BILL STANLEY
 SQUAD LEADER : JENNIFER WENTHE
 DESIGNER : JENNIFER WENTHE
 TELEPHONE : 217/342-3951 EX 361

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2002; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE WORK INCLUDED IN SECTION 11B-1 CONSISTS OF THE COMPLETE REMOVAL AND REPLACEMENT OF THE EXISTING STRUCTURE WITH A NEW TRIPLE BOX CULVERT, BITUMINOUS CONCRETE PAVEMENT, GUARDRAIL, AND ANY OTHER WORK NECESSARY TO COMPLETE THIS SECTION. THE WORK SHALL BE COMPLETED USING STAGED CONSTRUCTION AND TRAFFIC SIGNALS.

PRIOR TO THE PLACEMENT OF THE TEMPORARY BRIDGE RAIL, THE REINFORCED CONCRETE HANDRAIL ON THE SOUTH SIDE OF THE BRIDGE SHALL BE REMOVED AS NOTED IN THE PLANS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PAY ITEMS INVOLVED.

PRIOR TO THE PLACEMENT OF TRAFFIC CONTROL STANDARD 701321, TEMPORARY BRIDGE RAIL SHALL BE PLACED ON STAGE I TRAFFIC SIDE OF THE STRUCTURE WITH TRAFFIC BARRIER TERMINAL TYPE 5A AND TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT). DURING STAGE II CONSTRUCTION, ONE END SECTION SHALL BE REMOVED AND RE-ERECTED AT A NEW LOCATION AS NOTED IN THE PLANS.

A FOG COAT OF BITUMINOUS MATERIALS PRIME COAT SHALL BE APPLIED TO ALL BINDER LIFTS ON THE PROPOSED FULL DEPTH MAINLINE PAVEMENT. THE CONTRACTOR SHALL USE AN EMULSIFIED POLYMER PRIME PRODUCT CLASSIFIED AS SS-1HP.

A UNIFORMLY STRAIGHT SAW CUT SHALL BE MADE AT LOCATIONS WHERE PROPOSED NEW CONSTRUCTION WILL ABUT EXISTING BITUMINOUS CONCRETE SURFACES. THE SAW CUT SHALL BE MADE FULL DEPTH THROUGH THE EXISTING PAVEMENT. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT ITEMS INVOLVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SECTION 780 OF THE STANDARD SPECIFICATIONS. SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE BITUMINOUS SURFACE COURSE AS SPECIFIED IN SECTION 703 OF THE STANDARD SPECIFICATIONS. TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSE.

THE TOTAL QUANTITY OF PAINT PAVEMENT MARKING - LINE 4" CONSISTS OF 190 FEET OF YELLOW AND 1,546 FEET OF WHITE.

TEMPORARY CONCRETE BARRIERS ARE LOCATED AT THE MCLEANSBORO IDOT MAINTENANCE YARD LOCATED 7 MILES WEST OF MCLEANSBORO ON ILLINOIS ROUTE 14. A MINIMUM OF 48 HOURS NOTICE WILL BE REQUIRED TO ARRANGE PICKUP AND RETURN OF THE BARRIERS. STATE MAINTENANCE FORCES WILL NOT LOAD OR UNLOAD THE BARRIERS.

BASE COURSE WIDENING SHALL REMAIN IN PLACE. THE WIDENING SHALL, AT THE CONTRACTOR'S OPTION BE CONSTRUCTED OF EITHER PORTLAND CEMENT CONCRETE 8" THICK, OR BITUMINOUS CONCRETE, 10" THICK. TO CONSTRUCT STAGE 2 PORTION OF THE BOX CULVERT, A PORTION OF THE BASE COURSE WIDENING WILL BE REMOVED. AT THE COMPLETION OF THE CONSTRUCTION OF THE BOX CULVERT, THE PORTION OF THE BASE COURSE WIDENING REMOVED WILL BE RECONSTRUCTED.

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

MIXTURE USE:	SURFACE COURSE	BINDER
PG GRADE:	PG 64-22	PG 64-22
RAP%:	15%	25%
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 70	4.0% @ NDESIGN = 70
MIXTURE COMPOSITION:	IL-9.5	IL-19.0
FRICTION AGGREGATE:	MIXTURE C	N/A

MIXTURE USE:	BASE COURSE WIDENING	INCIDENTAL
PG GRADE:	PG 64-22	PG 64-22
RAP%:	25%	15%
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 70	4.0% @ NDESIGN = 50
MIXTURE COMPOSITION:	IL-19.0	IL-9.5
FRICTION AGGREGATE:	N/A	MIXTURE C

THE FOLLOWING APPLICATION RATES HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

BITUMINOUS CONCRETE	112 LBS/SQ YD/IN
AGGREGATE SHOULDERS	2.05 TONS/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.05 GALLON/SQ YD
SUB-BASE GRANULAR MATERIAL	2.05 TONS/CU YD

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5	DETAILS & TIES
6	QUANTITY SCHEDULES & TURN DETECTOR LOOP
7	GUARDRAIL DETAILS AND SCHEDULES
8	PLAN & PROFILE
9-10	STAGE CONSTRUCTION
11-18	BRIDGE PLANS
19	EROSION CONTROL DETAILS
20-24	CROSS SECTIONS
25	TEMPORARY BRIDGE RAIL STANDARD

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 25:

STD. NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
515001-02	NAME PLATE FOR BRIDGES
630001-05	STEEL PLATE BEAM GUARDRAIL
630101-05	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-RD OPERATIONS, 2L, 2W MORE THAN 15' AWAY
701006-02	OFF-RD OPERATIONS, 2L, 2W 15' TO 24" FROM PAVEMENT EDGE
701301-02	LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
702001-05	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS
BLR 21-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES
&
INDEX OF SHEETS**

SCALE: VERT. _____
HORIZ. _____
DATE _____

DRAWN BY _____
CHECKED BY _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		097-2013 X028-2A	SFTY-3N
20200100	EARTH EXCAVATION	CU YD	349	349	
31101000	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	81	81	
20400800	FURNISHED EXCAVATION	CU YD	243	243	
25000200	SEEDING, CLASS 2	ACRE	0.3	0.3	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23	23	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23	23	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23	23	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.5	0.5	
25100115	MULCH, METHOD 2	ACRE	0.3	0.3	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	26	26	
28000300	TEMPORARY DITCH CHECKS	EACH	4	4	
28100107	STONE RIPRAP, CLASS A4	SQ YD	369	369	
28200200	FILTER FABRIC	SQ YD	369	369	
35650700	BASE COURSE WIDENING	SQ YD	257	257	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	49	49	
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	65	65	
44000100	PAVEMENT REMOVAL	SQ YD	124	124	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	130	130	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	
50800105	REINFORCEMENT BARS	POUND	37490	37490	
51205200	TEMPORARY SHEET PILING	SQ FT	565	565	
51401600	TEMPORARY BRIDGE RAIL	FOOT	50	50	
51500100	NAME PLATES	EACH	1	1	
54003000	CONCRETE BOX CULVERTS	CU YD	241.2	241.2	
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	462.5	462.5	
* 63000005	STEEL PLATE BEAM GUARD RAIL, TYPE B	FOOT	12.5	12.5	
* 63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	79	79	
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1	
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2	2	
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	76	76	
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6	6	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		097-2013 X028-2A	SFTY-3N
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	4	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	76	76	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	713	713	
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	360	360	
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	340	340	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1736	1736	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	10	10	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	193	193	
X0348700	AGGREGATE DITCH CHECK	EACH	1	1	
X4066416	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N70	TON	5	5	
X4073161	BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH), SUPERPAVE, 14"	SQ YD	225	225	
X4080020	INCIDENTAL BITUMINOUS SURFACING, SUPERPAVE, N50	TON	7	7	
X6330103	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	EACH	1	1	
Z0002600	BAR SPLICERS	EACH	216	216	
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2		2
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2		2

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

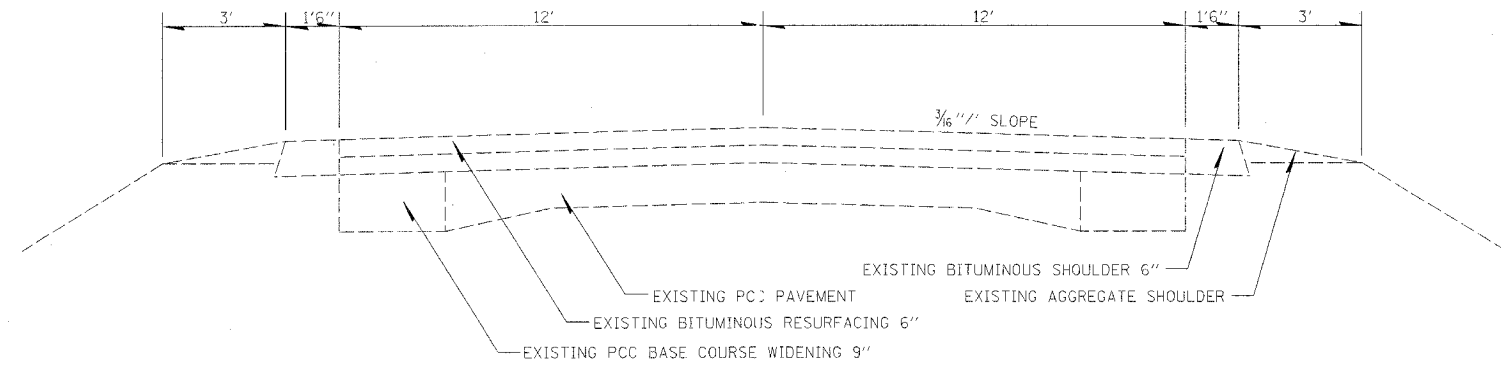
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DATE _____ DRAWN BY _____ CHECKED BY _____

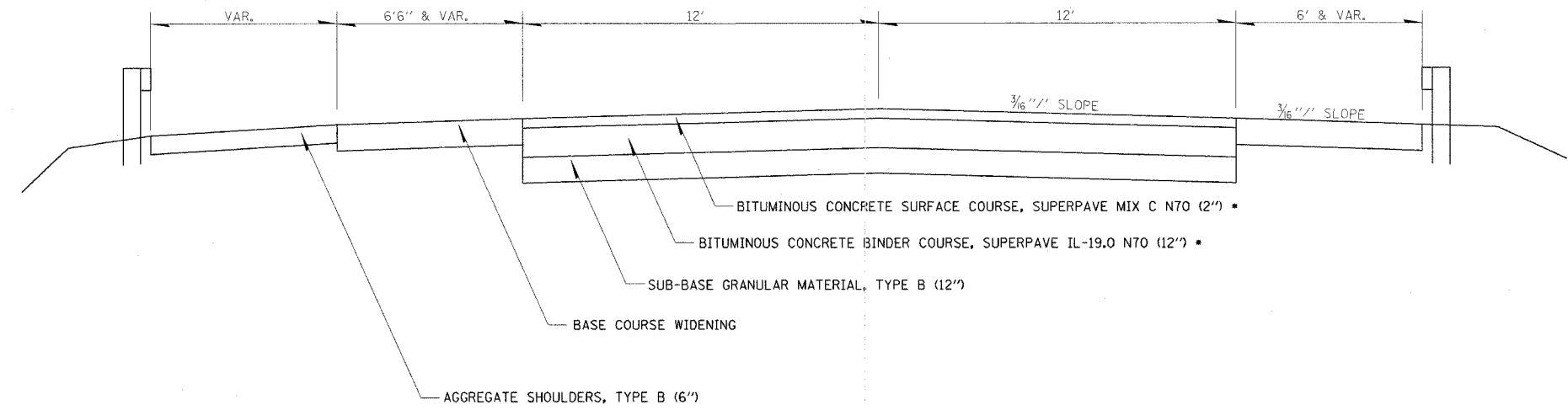
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TYP

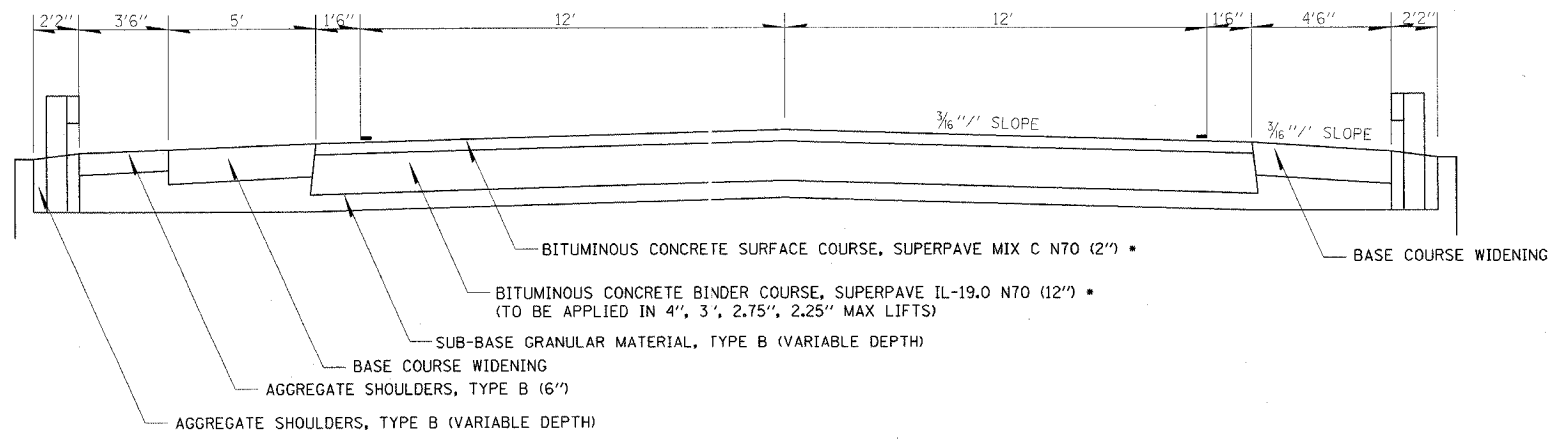


ADJACENT ROADWAY TYPICAL SECTION



PROPOSED ADJACENT ROADWAY TYPICAL SECTION

STA 282+74.82 TO STA 282+94.82
STA 283+34.16 TO STA 283+54.16



TYPICAL SECTION

STA 232+94.82 TO STA 283+34.16

• BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH) SUPERPAVE 14"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

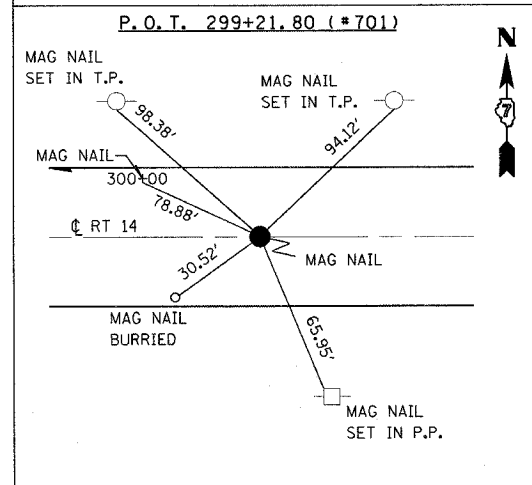
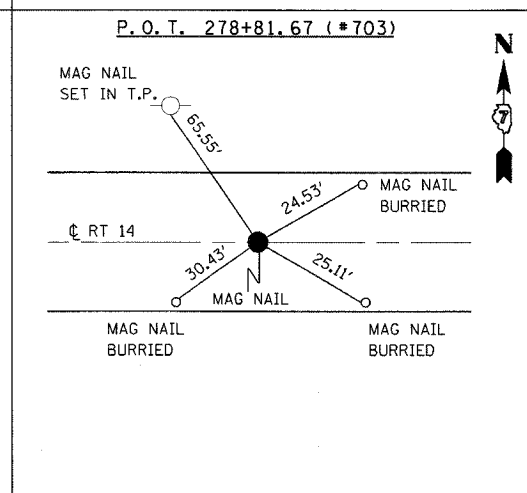
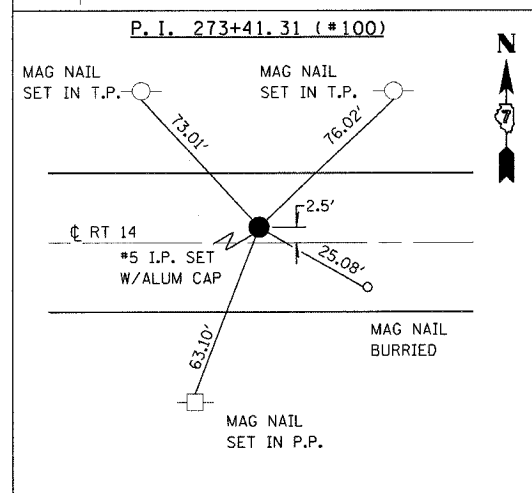
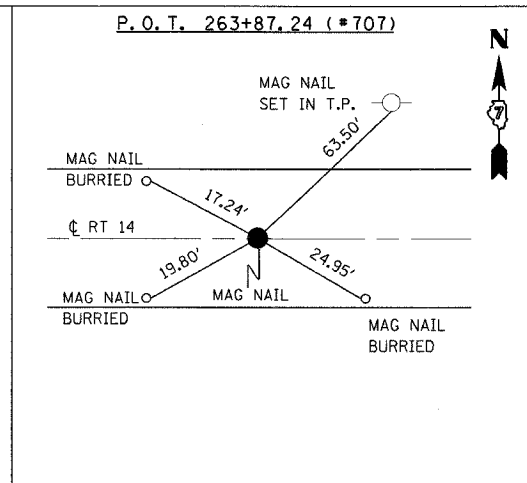
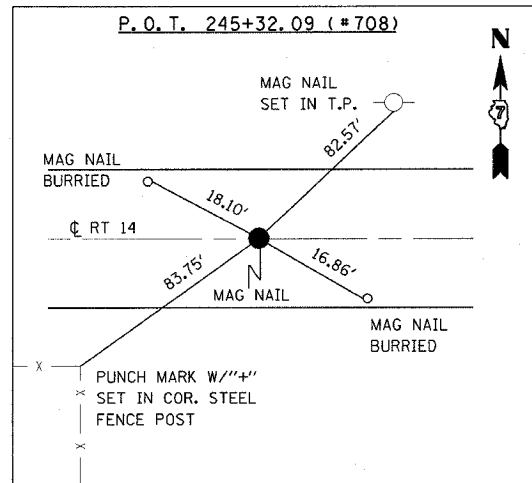
TYPICAL SECTIONS

SCALE: VERT. HORIZ. DATE

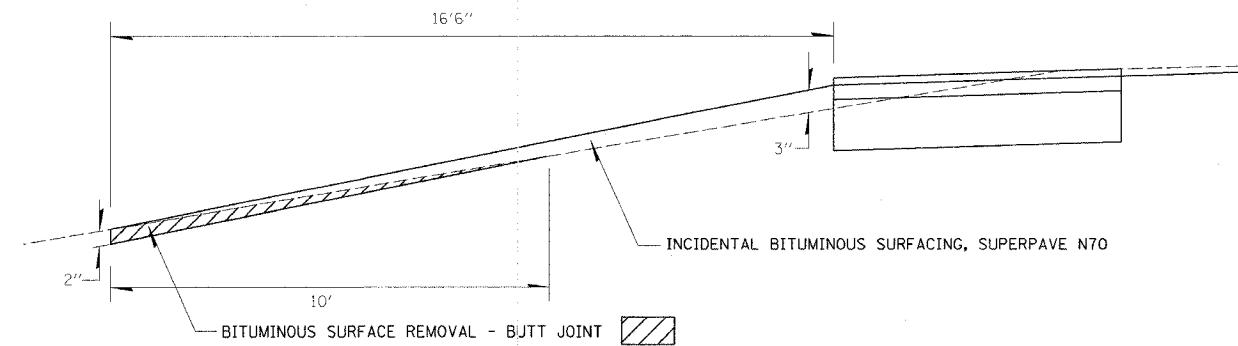
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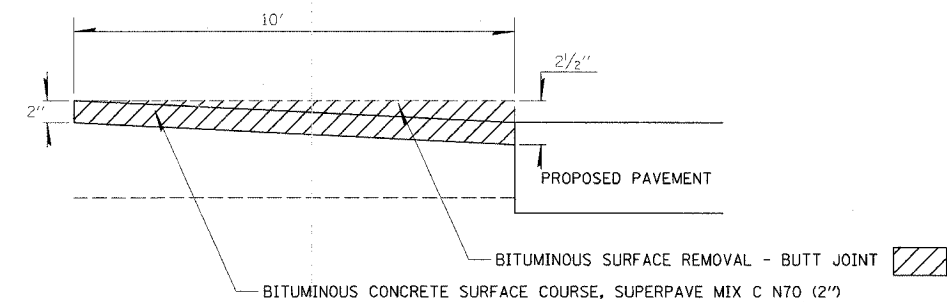
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- BM 509 EL. = 402.701 CHISELED SQUARE ON TOP OF W. END OF S. ABUTMENT OF BRIDGE TO HOUSE. STA. 374+12/35' RT.
- BM 510 EL. = 401.210 CHISELED SQUARE ON TOP OF S. END OF W. ABUTMENT OF BRIDGE. (BRIDGE STRUCTURE #0970068) STA. 340+51/20' LT.
- BM 511 EL. = 401.359 BRASS MONUMENT ON TOP OF S. END OF W. ABUTMENT OF BRIDGE. (BRIDGE STRUCTURE #0970066) STA. 307+15/19' LT.
- BM 512 EL. = 394.233 RR SPIKE IN POWER POLE. STA. 289+55/60' RT.
- BM 513 EL. = 398.305 CHISELED SQUARE IN CENTER OF E. HEADWALL OF 4' x 4' BOX CULVERT, SE QUAD. OF RT. 14 AND TOWNSHIP ROAD 600E STA. 282+70/78' LT.
- BM 514 EL. = 398.686 CHISELED SQUARE IN CENTER OF S. HEADWALL OF 2' x 4' BOX CULVERT. STA. 272+18/23' LT.



SIDE ROAD DETAIL



BUTT JOINT DETAIL
STA 282+64.82 TO STA 282+74.82

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS & TIES

SCALE: VERT. HORIZ.

DATE: DRAWN BY: CHECKED BY:

PLOT DATE = 10/26/2005
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	118-1	WHITE	25	6
STA.			TO STA.	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PAVEMENT MARKING SCHEDULE

LOCATION	PAINT PAVEMENT MARKING REMOVAL SQ FT	WORK ZONE PAVEMENT MARKING REMOVAL SQ FT	SHORT TERM PAVEMENT MARKING FOOT	PAINT PAVEMENT MARKING LINE - 4" (WHITE) FOOT	PAINT PAVEMENT MARKING LINE - 4" (YELLOW) FOOT
SN 097-2013 STAGE I					
279+29.0 TO 282+02.0	22.8	91.0			
282+02.0 TO 284+24.0	92.5	148.0			
284+04.0 TO 287+02.0	23.2	92.7			
STAGE I TOTALS	138.0	332.0	0.0	0.0	0.0
SN 097-2013 STAGE II					
279+29.0 TO 282+09.0		120.3	28.0	560.0	70.0
282+09.0 TO 284+18.0	55.3	139.3	20.0	418.0	50.0
284+18.0 TO 287+02.0		121.7	28.0	568.0	70.0
STAGE II TOTALS	55.0	381.0	76.0	1546.0	190.0
TOTAL =	193.0	713.0	76.0	1546.0	190.0

SEEDING SCHEDULE

STATION TO STATION	SEEDING, CLASS 2 ACRE	TEMPORARY EROSION CONTROL SEEDING POUND	NITROGEN FERTILIZER NURTIENT POUND	PHOSPHORUS FERTILIZER NURTIENT POUND	POTASSIUM FERTILIZER NURTIENT POUND	MULCH, METHOD 2 ACRE	AGRICULTURAL GROUND LIMESTONE TON
STAGE I							
280+00.0 TO 280+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
280+50.0 TO 281+00.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
281+00.0 TO 281+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
281+50.0 TO 282+00.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+00.0 TO 282+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+50.0 TO 282+84.2	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+84.2 TO 282+94.8	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+94.8 TO 283+34.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
283+34.2 TO 283+43.5	0.01	1.00	0.90	0.90	0.90	0.01	0.02
283+43.5 TO 283+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
283+50.0 TO 284+00.0	0.03	3.00	2.70	2.70	2.70	0.03	0.06
284+00.0 TO 284+50.0	0.03	3.00	2.70	2.70	2.70	0.03	0.06
284+50.0 TO 285+00.0	0.02	2.00	1.80	1.80	1.80	0.02	0.04
285+00.0 TO 285+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
STAGE II							
280+00.0 TO 280+50.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
280+50.0 TO 281+00.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
281+00.0 TO 281+50.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
281+50.0 TO 282+00.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
282+00.0 TO 282+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+50.0 TO 282+84.2	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+84.2 TO 282+94.8	0.01	1.00	0.90	0.90	0.90	0.01	0.02
282+94.8 TO 283+34.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
283+34.2 TO 283+43.5	0.01	1.00	0.90	0.90	0.90	0.01	0.02
283+43.5 TO 283+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
283+50.0 TO 284+00.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
284+00.0 TO 284+50.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
284+50.0 TO 285+00.0	0.01	1.00	0.90	0.90	0.90	0.01	0.02
285+00.0 TO 285+50.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL =	0.30	26.00	23.00	23.00	23.00	0.30	0.50

EARTHWORK SCHEDULE

STATION TO STATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EARTH FILL	EARTHWORK BALANCE, WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
STAGE I				
280+00.00 TO 280+50.00	1.1	0.8	3.4	-2.5
280+50.00 TO 281+00.00	2.1	1.6	7.4	-5.9
281+00.00 TO 281+50.00	2.0	1.5	8.2	-6.7
281+50.00 TO 282+00.00	2.0	1.5	7.4	-5.9
282+00.00 TO 282+50.00	4.3	3.2	5.7	-2.5
282+50.00 TO 282+84.19	5.4	4.0	2.3	1.7
282+84.19 TO 282+94.82	2.0	1.5	0.4	1.0
EAST ABUTMENT	79.3	59.5	80.5	-21.0
BRIDGE OMISSION				
WEST ABUTMENT	79.3	59.5	80.5	-21.0
283+34.16 TO 283+43.5	1.5	1.1	3.4	-2.3
283+43.47 TO 283+50.0	1.0	0.8	2.9	-2.1
283+50.00 TO 284+00.0	6.2	4.6	29.8	-25.2
284+00.00 TO 284+50.0	3.9	2.9	24.6	-21.7
284+50.00 TO 285+00.0	2.2	1.6	23.1	-21.5
285+00.00 TO 285+50.0	0.8	0.6	15.5	-14.9
STAGE II				
280+00.00 TO 280+50.0	0.0	0.0	0.0	0.0
280+50.00 TO 281+00.0	0.0	0.0	0.0	0.0
281+00.00 TO 281+50.0	0.0	0.0	0.0	0.0
281+50.00 TO 282+00.0	0.0	0.0	0.0	0.0
282+00.00 TO 282+50.0	3.9	3.0	1.9	1.1
282+50.00 TO 282+84.2	5.5	4.1	7.0	-2.8
282+84.19 TO 282+94.8	1.7	1.3	3.5	-2.2
EAST ABUTMENT	65.6	49.2	66.6	-17.4
BRIDGE OMISSION				
WEST ABUTMENT	65.6	49.2	66.6	-17.4
283+34.16 TO 283+43.5	1.5	1.1	2.4	-1.3
283+43.47 TO 283+50.0	1.0	0.8	2.9	-2.1
283+50.00 TO 284+00.0	4.8	3.6	20.1	-16.5
284+00.00 TO 284+50.0	2.3	1.7	10.3	-8.6
284+50.00 TO 285+00.0	2.8	2.1	17.0	-14.9
285+00.00 TO 285+50.0	1.3	1.0	11.4	-10.4
TOTALS =	349.0	262.0	505.0	-243.0

NUMBER OF TURNS REQUIRED IN DETECTOR LOOPS														
5 X 5		6 X 6		6 X 15		6 X 30		6 X 35		6 X 40		6 X 50		LOOP SIZE
FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	
				0	545	0	491	0	559	0	627	0	764	2 TURNS
0	681	0	545	574	955	492	982	560	1118	628	1255	765	1527	3 TURNS
682	954	819	1145	1433	2005	983	1636	1119	1864	1256	2091	1528	2545	4 TURNS
955	1272	1146	1527	2006	2673	1637	2455	1865	2795	2092	3136	2546	3818	5 TURNS
1273	1636	1528	1964	2674	3436	2456	3436	2796	3914					6 TURNS
1637	2045	1965	2455											7 TURNS
2046	2499	2456	3000											8 TURNS
														9 TURNS
														10 TURNS

THE NUMBERS IN THE TABLE REPRESENT THE DISTANCE FROM THE CABINET TO THE DETECTOR LOOP IN FEET

REVISIONS	
NAME	DATE

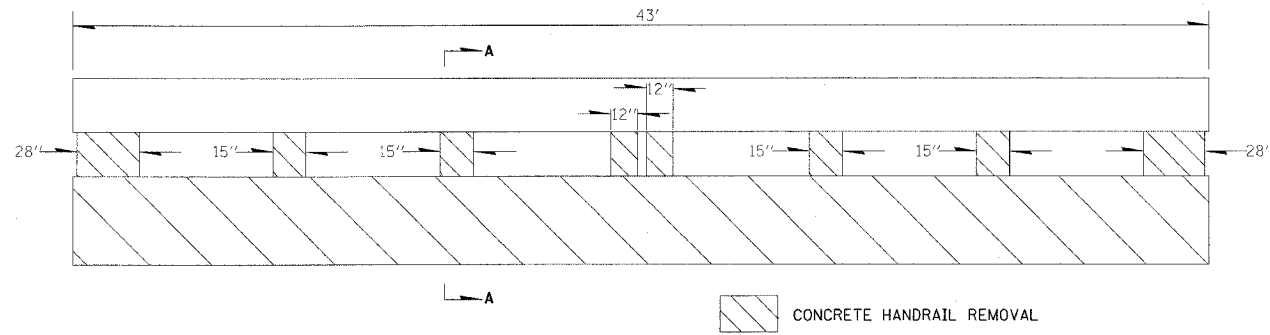
ILLINOIS DEPARTMENT OF TRANSPORTATION
QUANTITY SCHEDULES
&
TURN LOOP

SCALE: VERT. HORIZ. DATE

DRAWN BY CHECKED BY

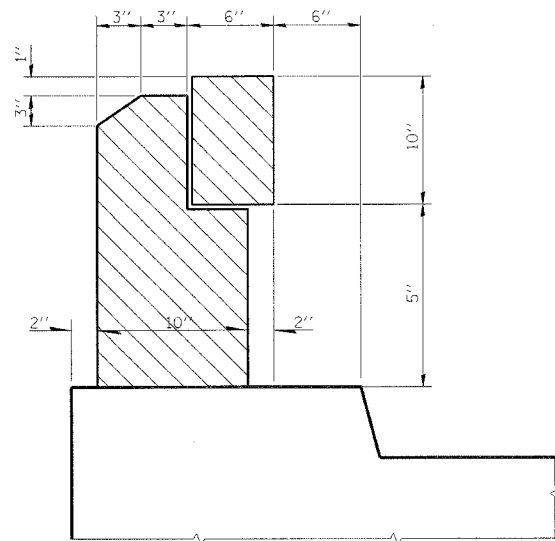
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	118-1	WHITE	25	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GDAS

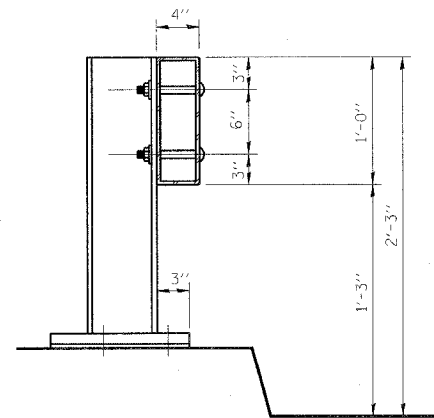


GUARDRAIL SCHEDULE

LOCATION	TEMPORARY BRIDGE RAIL	TRAFFIC BARRIER TERMINAL, TYPE 5A	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	STEEL PLATE BEAM GUARD RAIL, TYPE A	STEEL PLATE BEAM GUARD RAIL, TYPE B	TRAFFIC BARRIER TERMINAL, TYPE 2	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	GUARDRAIL REMOVAL	TERMINAL MARKERS - DIRECT APPLIED	REFLECTOR MARKERS, TYPE A
	FOOT	EACH	EACH	FOOT	FOOT	FOOT	EACH	EACH	FOOT	EACH	EACH
STAGE I											
SE CORNER OVER BRIDGE	50.0	1.0	1.0							1.0	
SW CORNER		1.0	1.0							1.0	
NE CORNER			1.0		212.5					1.0	1.0
OVER BRIDGE				39.5							1.0
NW CORNER			1.0		112.5					1.0	1.0
STAGE II											
SE CORNER OVER BRIDGE				39.5	12.5	12.5	1.0		63.0		1.0
SW CORNER					125.0			1.0	13.0		1.0
TOTALS=	50.0	2.0	4.0	79.0	462.5	12.5	1.0	1.0	76.0	4.0	6.0



SECTION A-A



TEMPORARY BRIDGE RAIL DETAIL

PLOT DATE = 10/26/2005
 FILE NAME = BRILEL
 PLOT SCALE = #SCALE#
 USER NAME = district

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**GUARDRAIL DETAILS
 AND
 SCHEDULES**

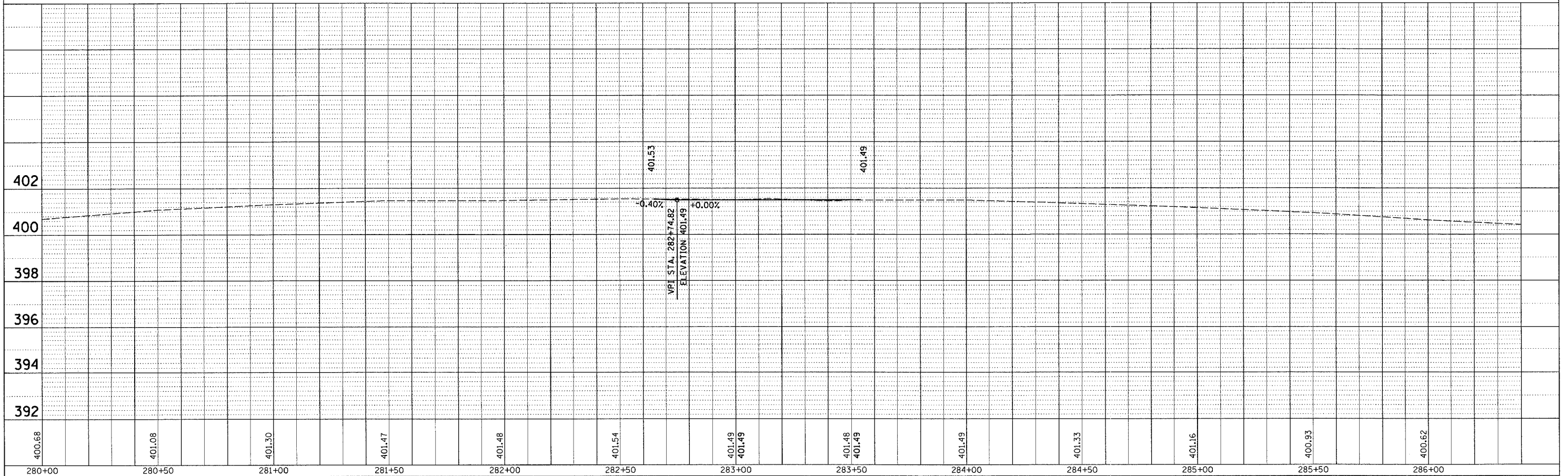
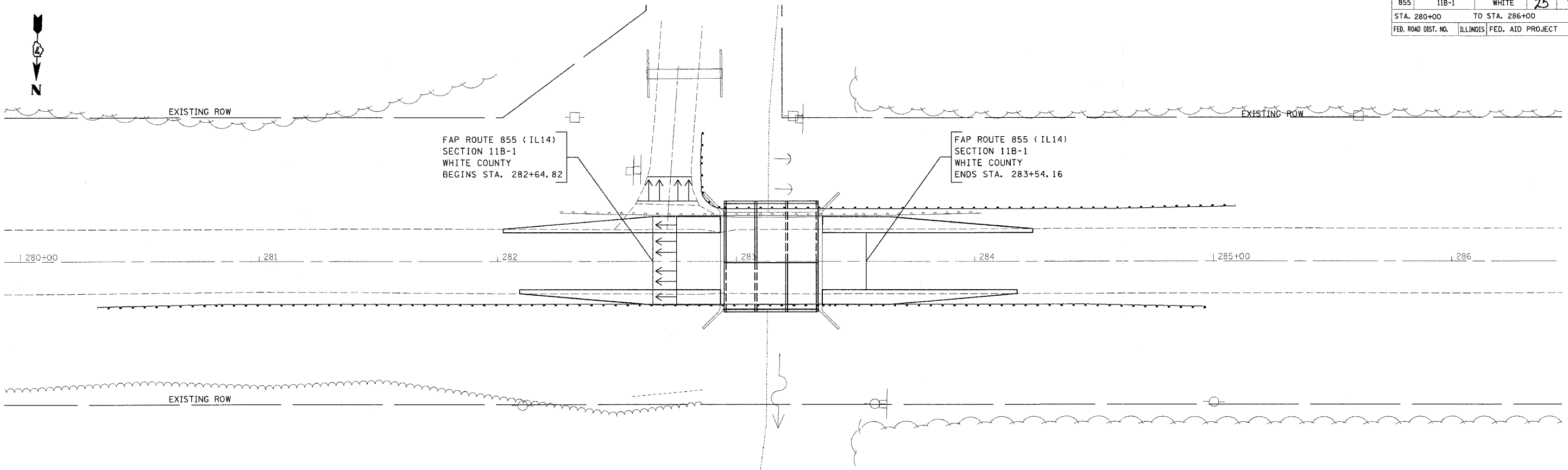
SCALE: VERT. HORIZ.
 DATE
 DRAWN BY
 CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	8
STA. 280+00		TO STA. 286+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

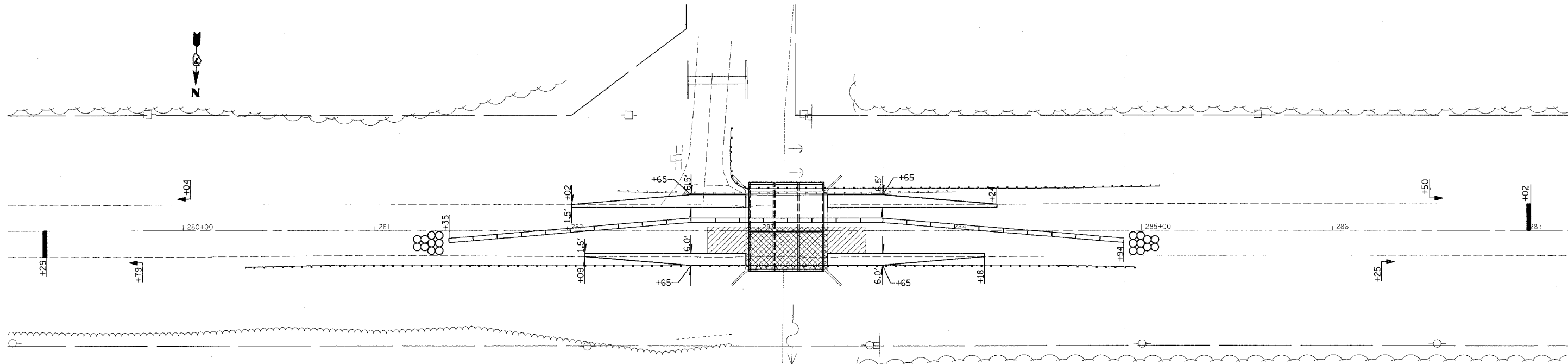
PLAN	DESIGNED	DATE
NOTED	BY	
CHECKED		
APPROVED		
DATE		

PROFILE	DESIGNED	DATE
NOTED	BY	
CHECKED		
APPROVED		
DATE		

PLOT DATE = 10/26/2005
 PLOT SCALE = 1"=40'
 REFERENCE = #REF#



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



- STAGE I
1. CONSTRUCT BASE COURSE WIDENING AND PLACE AGGREGATE WEDGE ON THE EB LANE USING TRAFFIC CONTROL STANDARD 701326.
 2. REMOVE EXISTING REINFORCED CONCRETE HANDRAIL ON THE SOUTH SIDE OF THE BRIDGE TO ALLOW FOR TEMPORARY BRIDGE RAIL.
 3. CLOSE TR 600E USING TRAFFIC CONTROL STANDARD BLR 21.
 4. ERECT TEMPORARY GUARDRAIL ON THE EB LANE FOR STAGE I TRAFFIC.
 5. ERECT SIGNS, TRAFFIC SIGNALS, TEMPORARY BARRIERS, ECT. ACCORDING TO TRAFFIC CONTROL STANDARD 701321.
 6. PLACE TEMPORARY PAVEMENT MARKING LINE TO ALLOW FOR A 12 FOOT TRAFFIC LANE.
 7. REMOVE THE STAGE I PORTION OF THE EXISTING STRUCTURE AND PAVEMENT.
 8. CONSTRUCT THE STAGE I PORTION OF THE NEW BOX CULVERT, PAVEMENT, BASE COURSE WIDENING, AND GUARDRAIL.
 9. CONSTRUCT SEEDING, MULCH, AND TEMPORARY DITCH CHECKS ON STAGE I CONSTRUCTION SIDE.

BASE COURSE WIDENING		
EB LANE		
282+02.32 TO 282+93.26	50.15	SQ YD
283+36.01 TO 284+24.32	49.15	SQ YD
WB LANE		
282+09.17 TO 282+94.82	44.89	SQ YD
282+94.82 TO 283+34.16	19.67	SQ YD
283+34.16 TO 284+17.83	42.93	SQ YD
TOTAL =	207.00	SQ YD

PAVEMENT REMOVAL		
282+74.82 TO 282+93.26	28.68	SQ YD
283+35.95 TO 283+54.16	28.33	SQ YD
TOTAL =	57.00	SQ YD

AGGREGATE SHOULDERS, TYPE B		
EB LANE		
282+02.32 TO 282+53.00	2.89	TON
283+36.01 TO 284+24.32	5.03	TON
280+32.24 TO 282+62.06	37.25	TON
WB LANE		
282+94.82 TO 283+34.16	5.59	TON
283+64.87 TO 284+96.74	18.78	TON
TOTAL =	70.00	TON

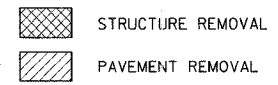
SUB-BASE GRANULAR MATERIAL, TYPE B		
282+74.82 TO 282+94.82	13.67	TON
282+94.82 TO 283+34.16	2.45	TON
283+34.16 TO 283+54.16	13.67	TON
TOTAL =	30.00	TON

BITUMINOUS CONCRETE PAVEMENT (FULL DEPTH), SUPERPAVE, 14"		
282+74.82 TO 282+94.82	20.00	SQ YD
282+94.82 TO 283+34.16	45.90	SQ YD
283+34.16 TO 283+54.16	20.00	SQ YD
TOTAL =	86.00	SQ YD

BITUMINOUS MATERIALS (PRIME COAT)		
282+64.82 TO 282+74.82	1.67	GALLON
282+74.82 TO 282+94.82	4.00	GALLON
282+94.82 TO 283+34.16	9.18	GALLON
283+34.16 TO 283+54.16	4.00	GALLON
TOTAL =	19.00	GALLON

BITUMINOUS SURFACE REMOVAL - BUTT JOINT		
282+64.82 TO 282+74.82	16.67	SQ YD
TOTAL =	17.00	SQ YD

BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N70		
282+64.82 TO 282+74.82	1.87	TON
TOTAL =	2.00	TON



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

S.N. 097-2013

STAGE 1 CONSTRUCTION

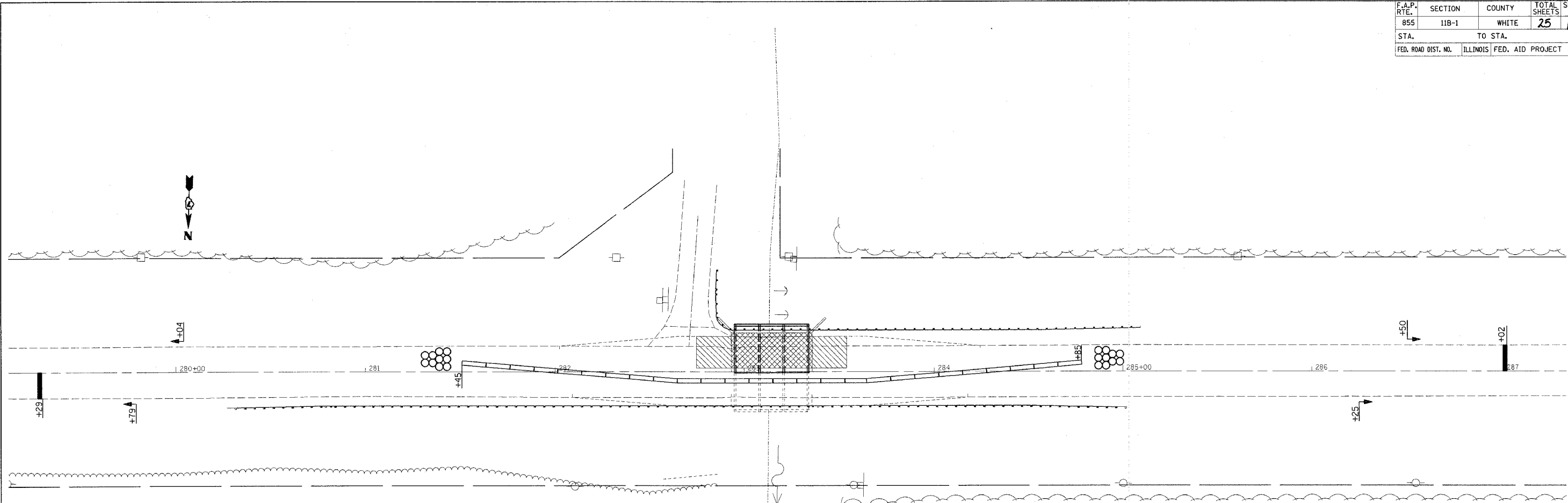
SCALE: VERT. DATE
HORIZ. CHECKED BY

DRAWN BY

STG 2

CONTRACT NO. 94771

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	118-1	WHITE	25	10
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE II

1. RELOCATE TEMPORARY CONCRETE BARRIERS, SIGNS, ECT. ACCORDING TO TRAFFIC CONTROL STANDARD 701321 AND PLACE TEMPORARY PAVEMENT MARKING TO ALLOW FOR A 12 FOOT DRIVING LANE.
2. REMOVE STAGE II PORTION OF THE EXISTING STRUCTURE, PAVEMENT, AND GUARDRAIL.
3. CONSTRUCT STAGE II PORTION OF THE NEW BOX CULVERT.
4. CONSTRUCT STAGE II PORTION OF THE NEW PAVEMENT, BASE COURSE WIDENING, AND SHOULDERS.
5. REMOVE TRAFFIC CONTROL STANDARD 701321 AND BLR 21.
6. CONSTRUCT SEEDING, MULCH, AND TEMPORARY DITCH CHECKS ON STAGE II CONSTRUCTION SIDE.

BASE COURSE WIDENING

282+74.82 TO 282+93.26	13.32 SQ YD
282+93.26 TO 283+35.95	23.72 SQ YD
283+35.95 TO 283+54.16	13.15 SQ YD
TOTAL =	50.00 SQ YD

PAVEMENT REMOVAL

282+74.82 TO 282+93.26	33.81 SQ YD
283+35.95 TO 283+54.16	33.38 SQ YD
TOTAL =	67.00 SQ YD

AGGREGATE SHOULDERS, TYPE B

282+84.25 TO 282+94.82	5.67 TON
282+94.82 TO 283+34.16	5.23 TON
282+94.82 TO 283+34.16	5.08 TON
283+34.16 TO 285+09.24	44.18 TON
TOTAL =	60.00 TON

SUB-BASE GRANULAR MATERIAL, TYPE B

282+74.82 TO 282+94.82	22.78 TON
282+94.82 TO 283+34.16	5.53 TON
283+34.16 TO 283+54.16	22.78 TON
TOTAL =	51.00 TON

BITUMINOUS CONCRETE PAVEMENT(FULL DEPTH), SUPERPAVE, 14"

282+74.82 TO 282+94.82	33.33 SQ YD
282+94.82 TO 283+34.16	72.12 SQ YD
283+34.16 TO 283+54.16	33.33 SQ YD
TOTAL =	139.00 SQ YD

BITUMINOUS MATERIALS (PRIME COAT)

282+64.82 TO 282+74.82	2.39 GALLON
282+74.82 TO 282+94.82	6.67 GALLON
282+94.82 TO 283+34.16	14.42 GALLON
283+34.16 TO 283+54.16	6.67 GALLON
TOTAL =	30.00 GALLON

BITUMINOUS SURFACE REMOVAL - BUTT JOINT

282+64.82 TO 282+74.82	23.89 SQ YD
TR 600E	24.44 SQ YD
TOTAL =	48.00 SQ YD

BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N70

282+64.82 TO 282+74.82	2.68 TON
TOTAL =	3.00 TON

INCIDENTAL BITUMINOUS SURFACING, SUPERPAVE, N50

TR 600E	6.48 TON
TOTAL =	7.00 TON

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**S.N. 097-2013
STAGE 2 CONSTRUCTION**

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 10/05/2005
PLOT NAME = STG2
PLOT SCALE = 1/8"=1'-0"
USER NAME = dlatnot

Bench Mark: Chiseled "□" in center of East Headwall of 4'x4' Box Culvert, Southeast quadrant of IL-14 and Township Road 600E, 78' Left of Station 282+70, Elev. 398.31.

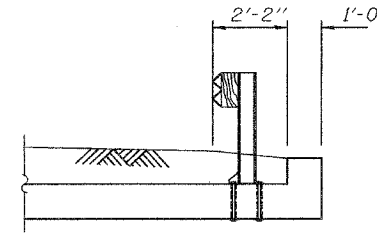
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAP 855	11B-1	WHITE	25	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #94771

Existing Structure: S.N. 097-0017 was originally built in 1923 as S.B.I. Route 14, Sec. 11B at Sta. 283+00. In 1951 the structure was widened as Sec. 11-BY. The structure is a single span CIP T Girder bridge on closed abutments supported by timber piles. The structure length and width are 43'-0" bk.-to- bk. of abutments and 40'-4" out-to-out deck. The contractor shall remove and replace the structure with a 12'x10' RC triple box culvert. Traffic shall be maintained utilizing stage construction.

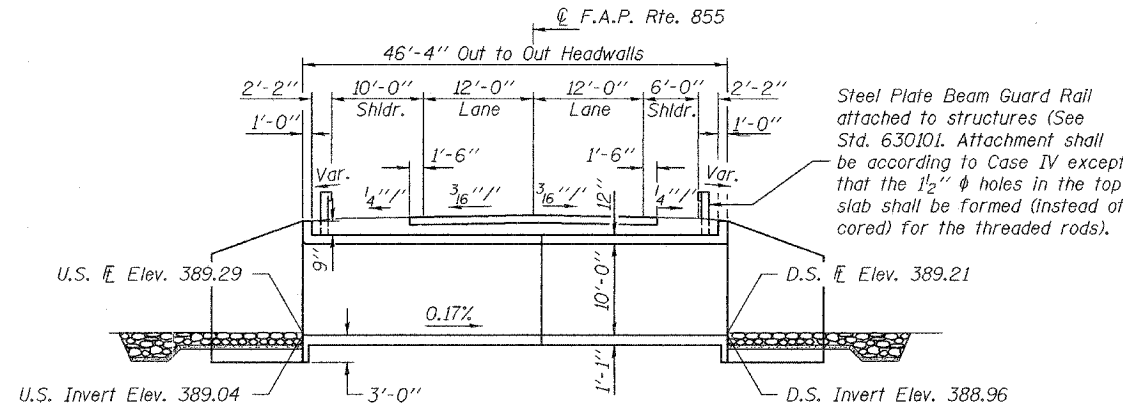
No salvage



GUARDRAIL MOUNTING DETAIL
(Std. 630101-04, Case IV)

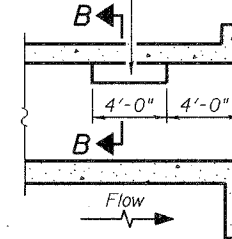
GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
Exposed edges shall be chamfered 3/4".
For backfilling and embankment see Standard Specifications.
Precast culvert alternate is not allowed.
The Contractor shall saw cut existing abutment wall at stage construction line before removing the existing abutments. The Contractor shall excavate behind existing abutments before removing superstructure. Cost included with Removal of Existing Structures.
All construction joints shall be bonded.

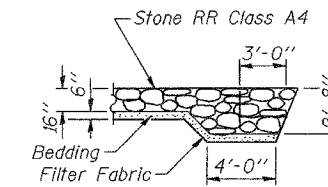


LONGITUDINAL SECTION
(Looking West)

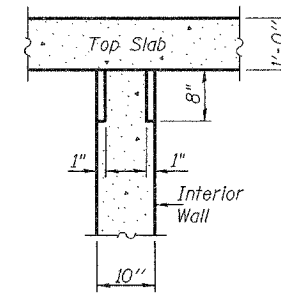
Notch formed by rough finished board attached to and removed with formwork, each interior wall. (Do not chamfer).



LONGITUDINAL SECTION



SECTION A-A



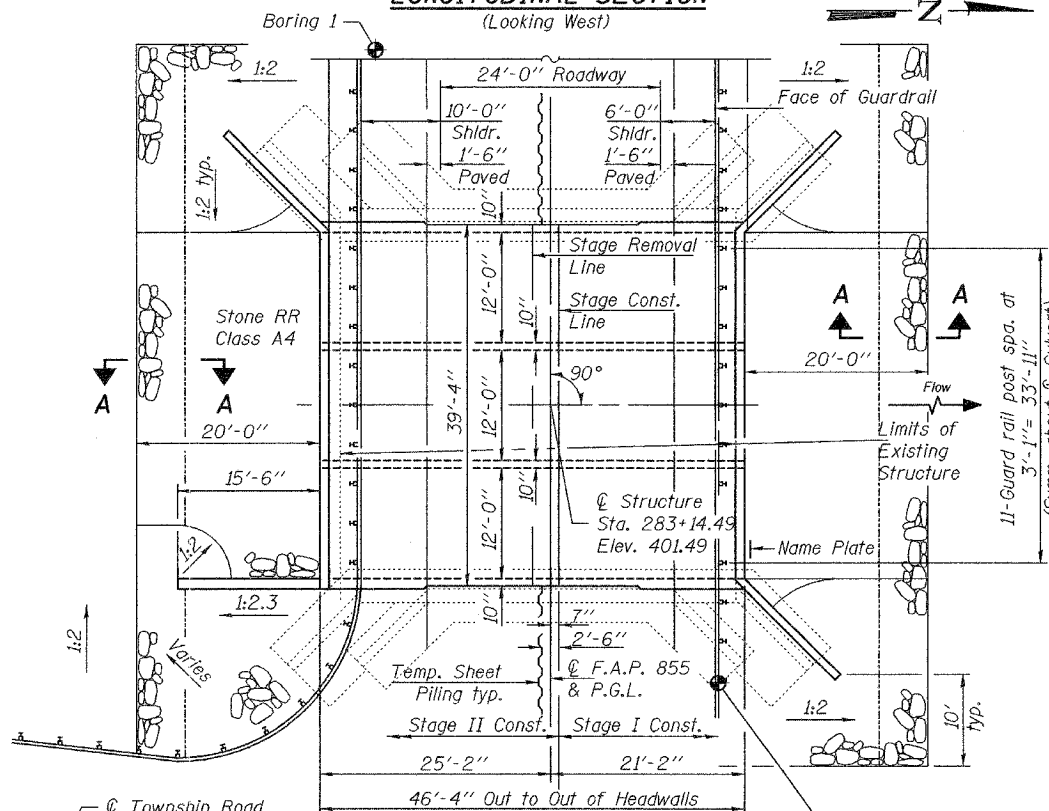
SECTION B-B

STATION 283+14.49
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 855 SEC. 11B-1
LOADING HS20
STRUCTURE NO. 097-2013

NAME PLATE
See Std. 515001

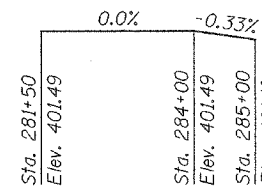
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	369
Filter Fabric	Sq. Yd.	369
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	37490
Temporary Sheet Piling	Sq. Ft.	565
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	241.2
Bar Splicers	Each	216
Steel Plate Beam Guard Rail Attached to Structures	Foot	79



PLAN

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



PROFILE GRADE
(along & roadway)

WATERWAY INFORMATION

Existing Low Grade Elev. 399.6 @ Sta. 273+00
Proposed Low Grade Elev. 399.6 @ Sta. 273+00
Drainage Area = 1.7 sq. mi.

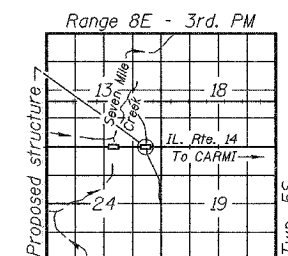
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	965	160	292	397.8	1.0	0.1	398.8	397.9	
Base	100	1070	165	299	397.9	1.0	0.2	398.9	398.1	
Max. Calc.	500	1485	180	313	398.2	1.6	0.3	399.8	398.5	
Overtopping	-	-	-	-	-	-	-	-	-	

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)



LOCATION SKETCH

GENERAL PLAN
ILLINOIS ROUTE 14 OVER
UNNAMED STREAM
F.A.P. ROUTE 855 - SECTION 11B-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013

DESIGNED	Patricia M. Peterson
CHECKED	Philip R. Anderson
DRAWN	h.t. duong
CHECKED	pmp/PRL

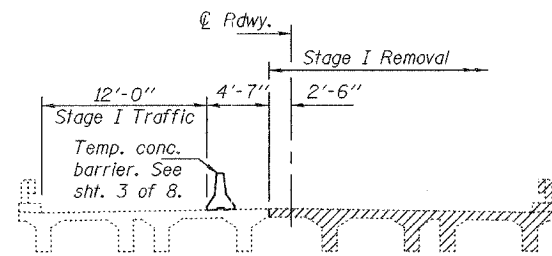
EXAMINED	November 16 2005	Thomas J. Danaher
PASSED		Ralph E. Adams



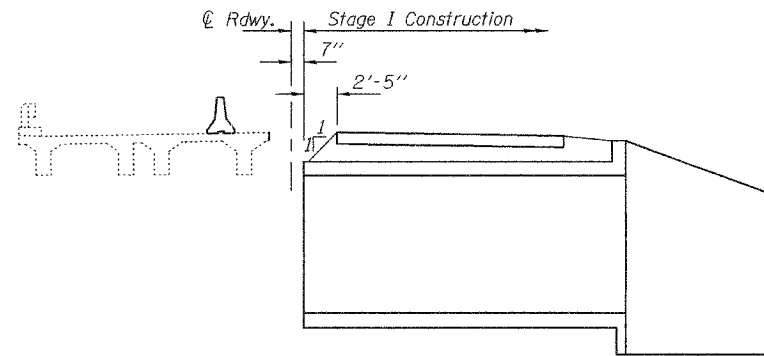
EXPIRES 11-30-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

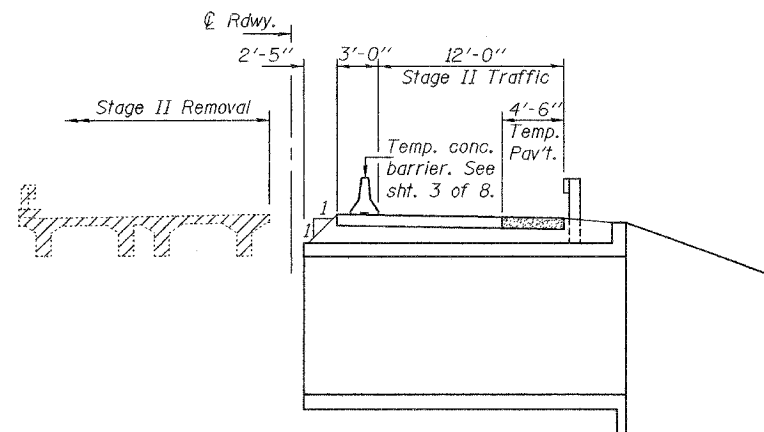
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
FAP 855	IIB-1	WHITE	25	12	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #94771		



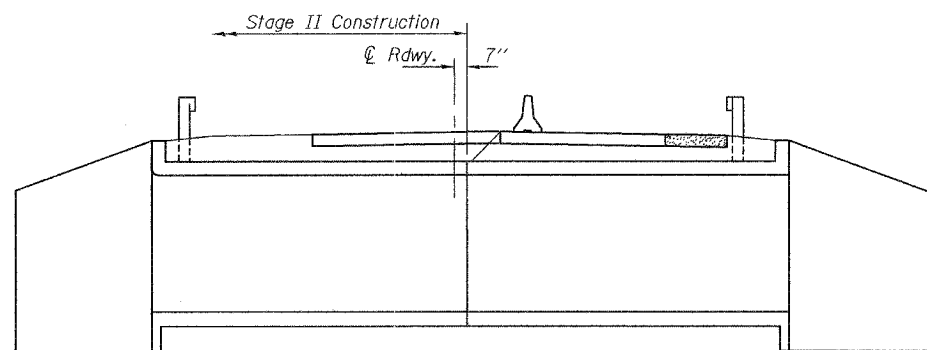
STAGE I REMOVAL



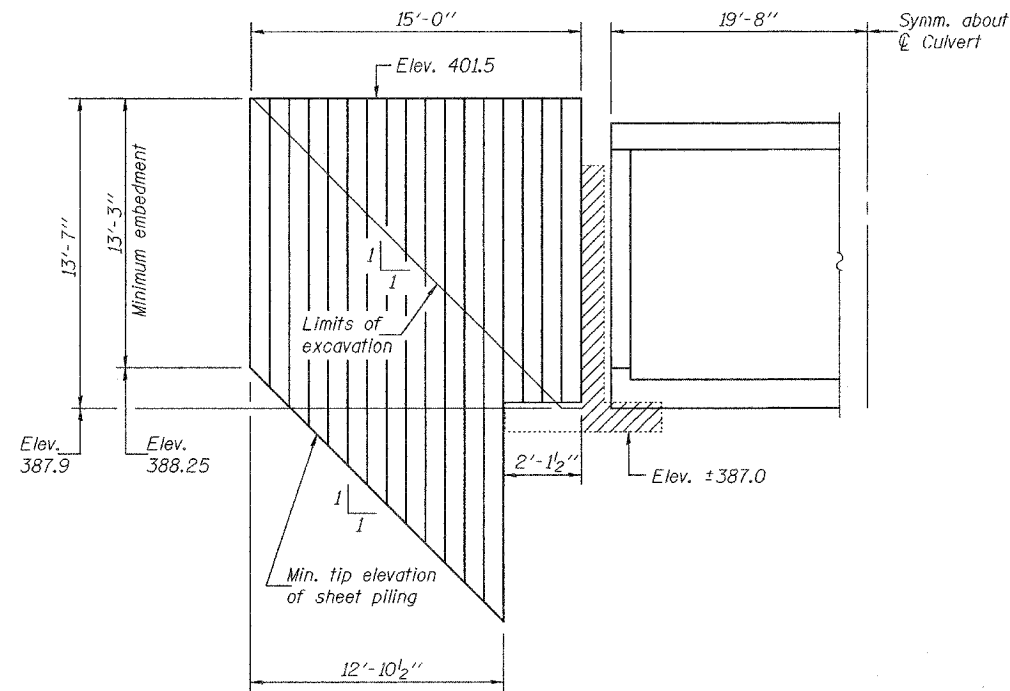
STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION



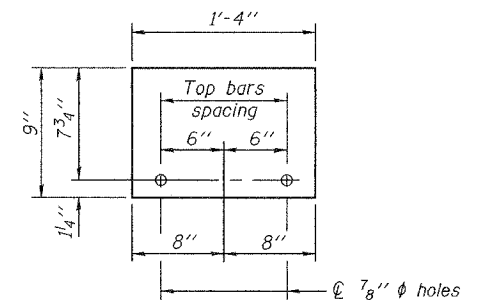
TEMPORARY SHEET PILING DETAIL

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

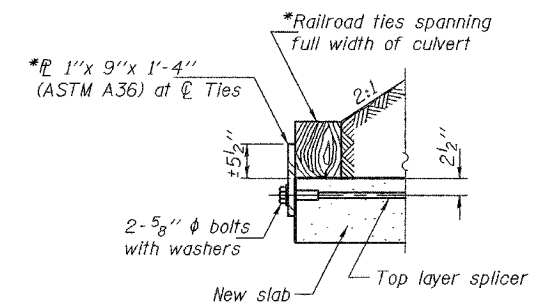
The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost of Temporary Sheet Piling.

The minimum section modulus of the sheet piling shall be 16 in³/ft.

Notes: Hatched area indicates removal of existing structures.
Quantity of Temporary Concrete Barrier is included in the roadway plans.
All cross sections are looking West.



1" x 9" x 1'-4"



DETAIL A

*Cost included with Concrete Box Culvert.

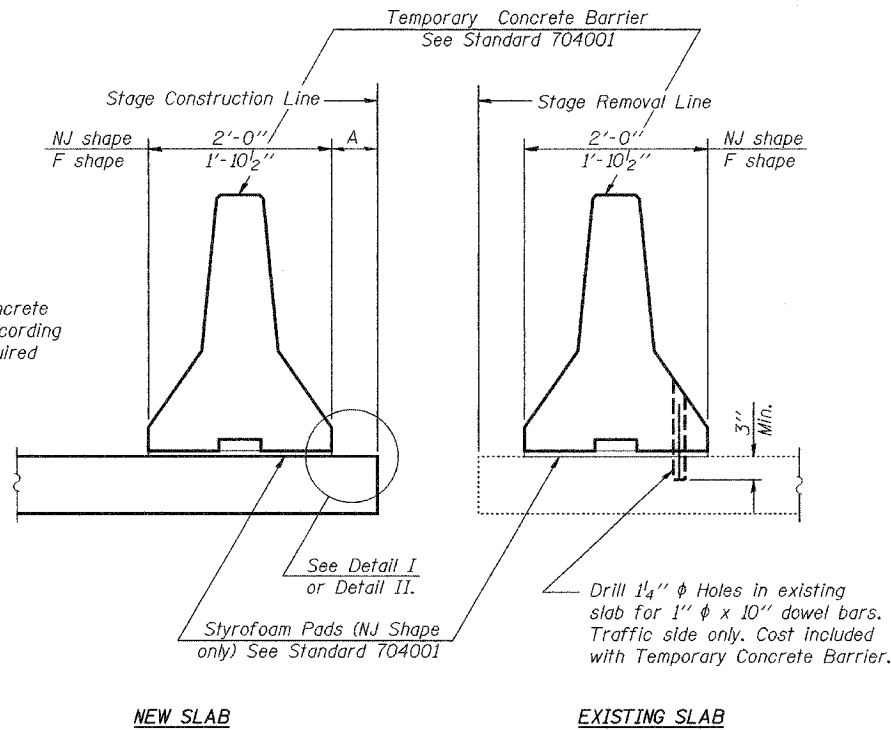
DESIGNED	PMP
CHECKED	PRL
DRAWN	h.t. duong
CHECKED	PMP/PRL

November 16 2005
 EXAMINED *Thomas J. Damagala*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Curkman*
 ENGINEER OF BRIDGES AND STRUCTURES

**GENERAL DATA &
STAGE CONSTRUCTION DETAILS
F.A.P. RT. 855 SECTION IIB-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 3
FAP 855	11B-1	WHITE	25	13	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract #94771		

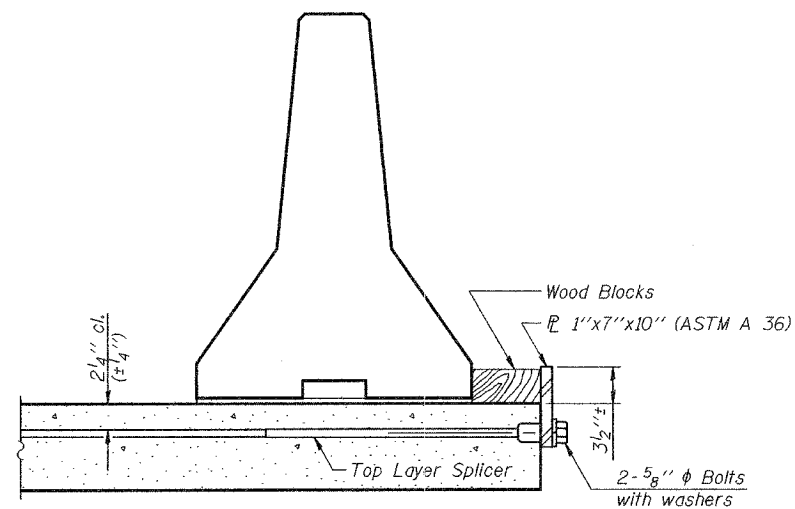


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

NOTES

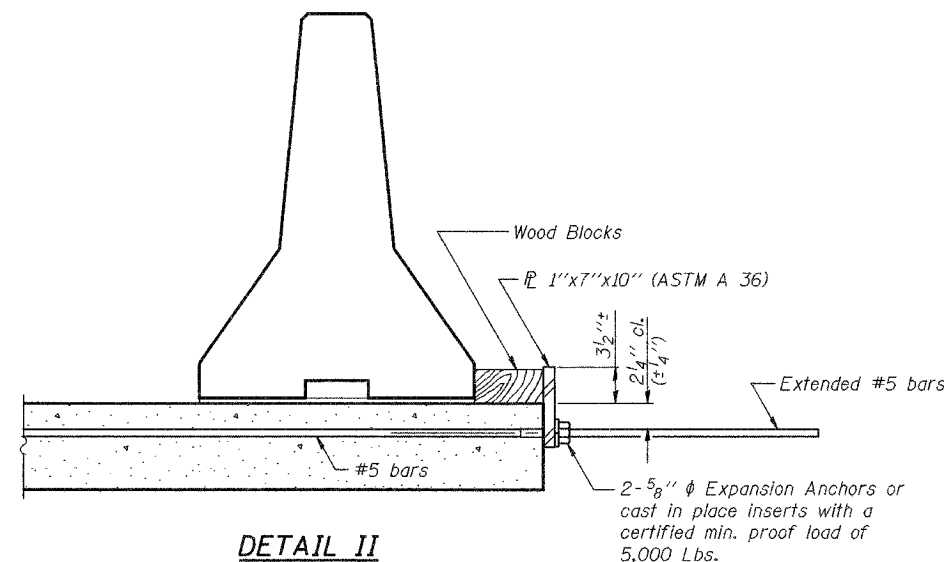
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete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

SECTIONS THRU SLAB



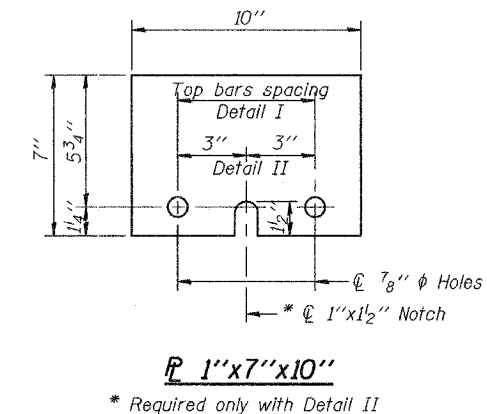
DETAIL I

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.



* Required only with Detail II

DESIGNED	PMP
CHECKED	PRL
DRAWN	h.t. duong
CHECKED	PMP/PRL

November 16, 2005
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

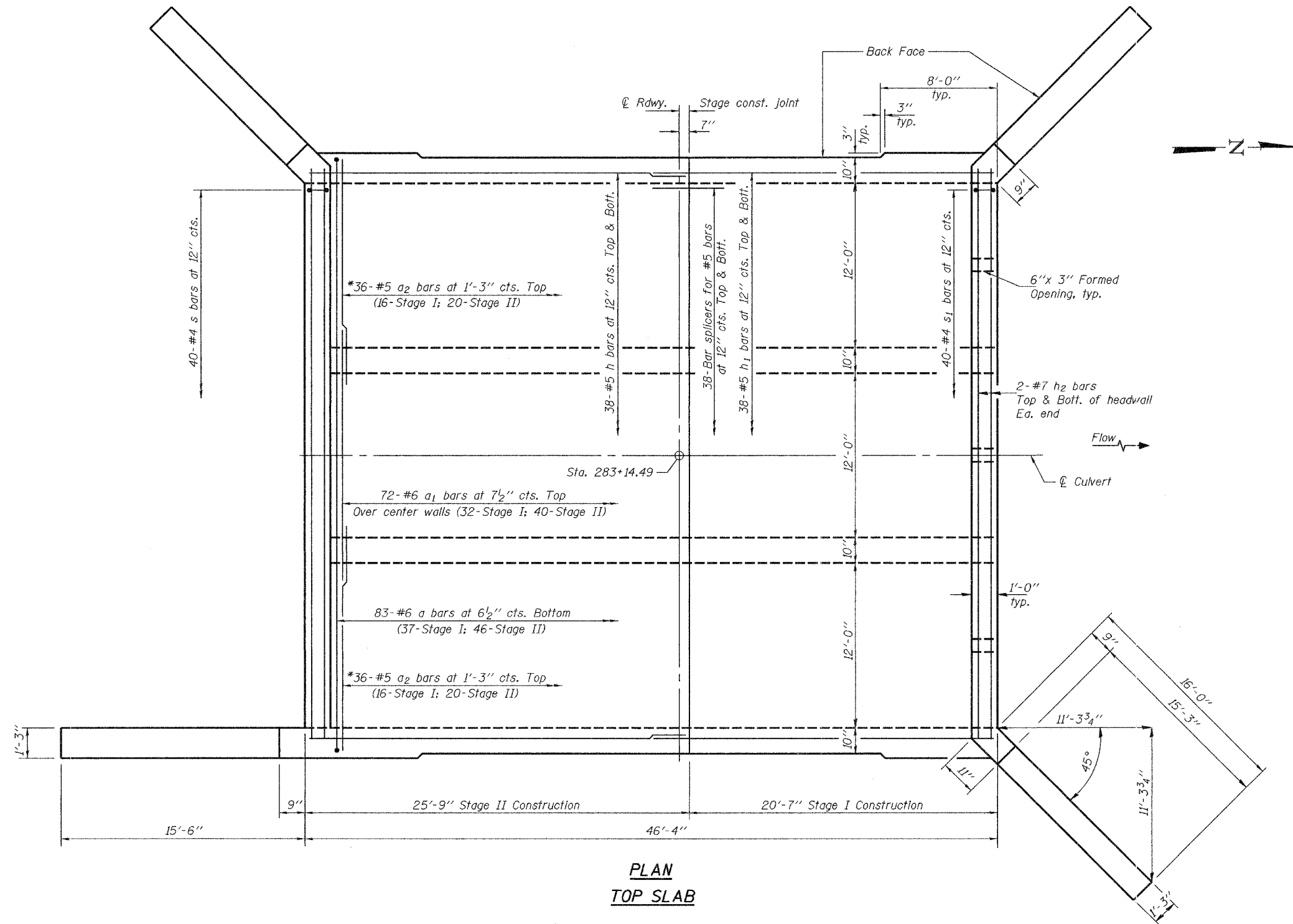
R-27 10-22-04

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. RT. 855 SECTION 11B-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
FAP 855	IIB-1	WHITE	25	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #94771



PLAN
TOP SLAB

*Lap a₂ bars with alternate a₁ bars.

Notes: For bar splicer details, see sheet 7 of 8.
Work this sheet with sheets 5 & 6 of 8.

DESIGNED	PMP
CHECKED	PRL
DRAWN	h.t. duong
CHECKED	PMP/PRL

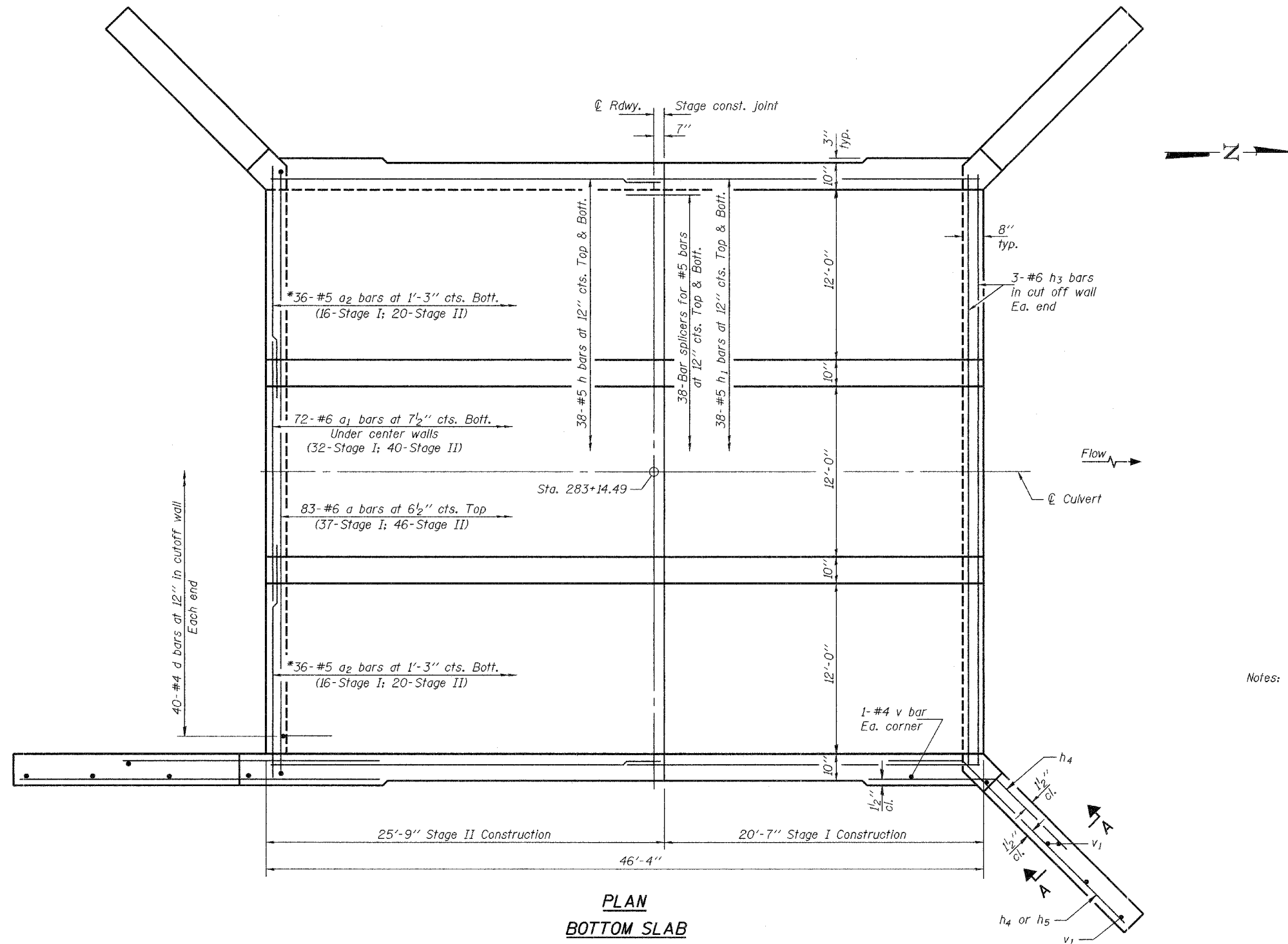
November 16 2005
EXAMINED *Thomas J. Demagala*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

CULVERT DETAILS
F.A.P. RT. 855 SECTION IIB-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 5
FAP 855	IIB-1	WHITE	25	15	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #94771



PLAN
BOTTOM SLAB

* Lap a₂ bars with alternate a₁ bars.

Notes: For Section A-A, see sheet 6 of 8.
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

DESIGNED	PMP
CHECKED	PRL
DRAWN	h.t. duong
CHECKED	PMP/PRL

November 16 2005
EXAMINED *Thomas J. Damagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

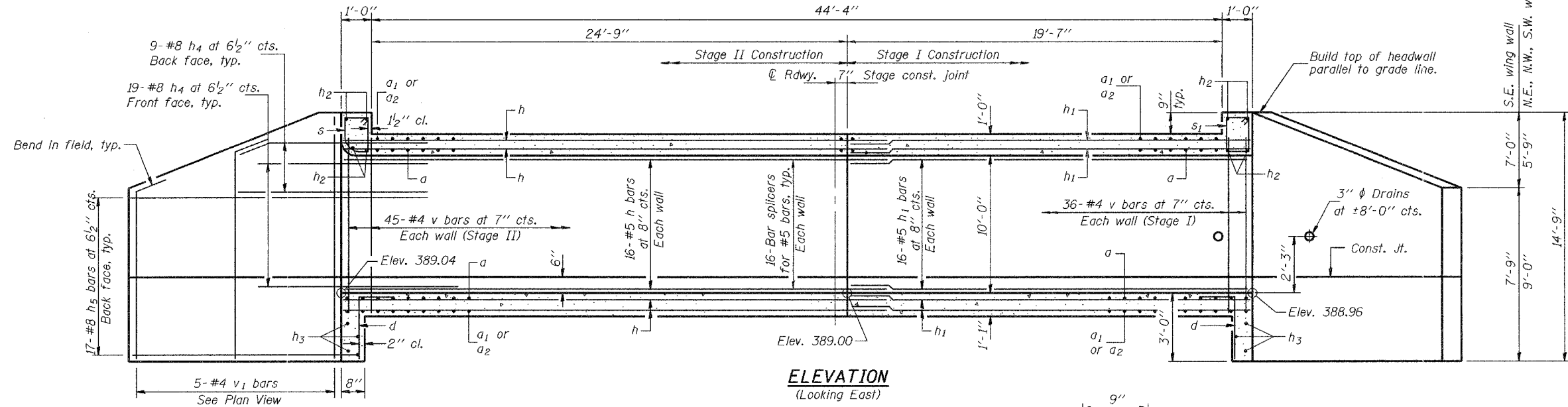
CULVERT DETAILS
F.A.P. RT. 855 SECTION IIB-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	NO.
FAP 855	IIB-1	WHITE	25	16
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

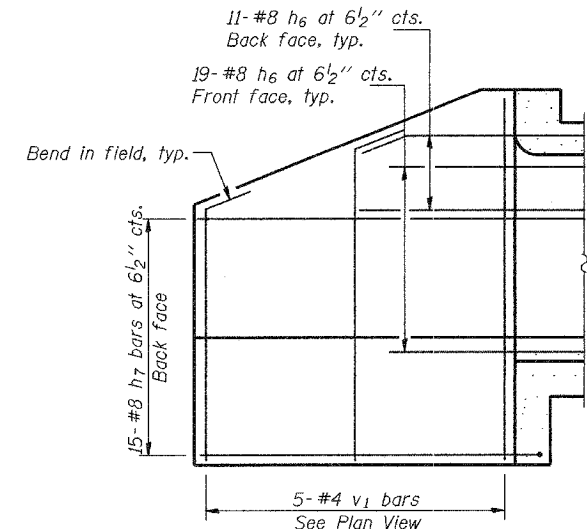
SHEET NO. 6
8 SHEETS

Contract #94771

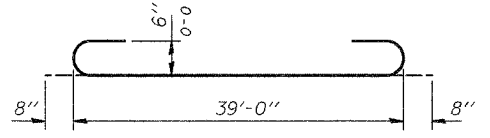


ELEVATION
(Looking East)

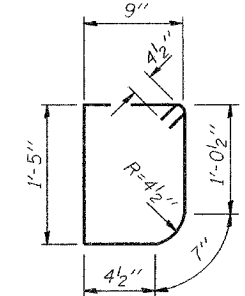
N.E., N.W., S.W. WING WALLS



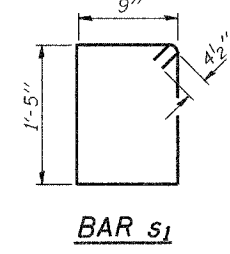
ELEVATION VIEW
S.E. WING WALL



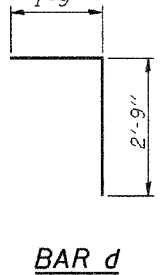
BAR a



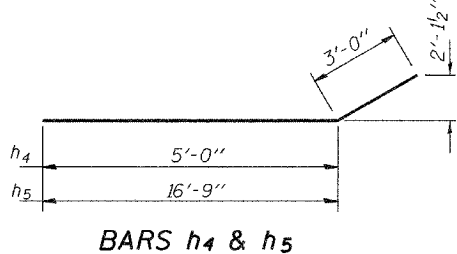
BAR s



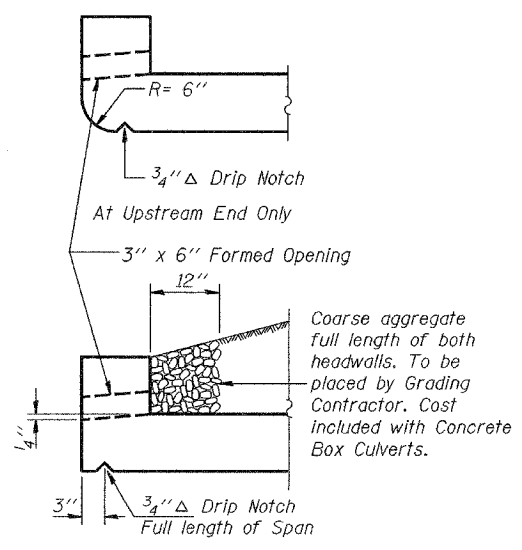
BAR s1



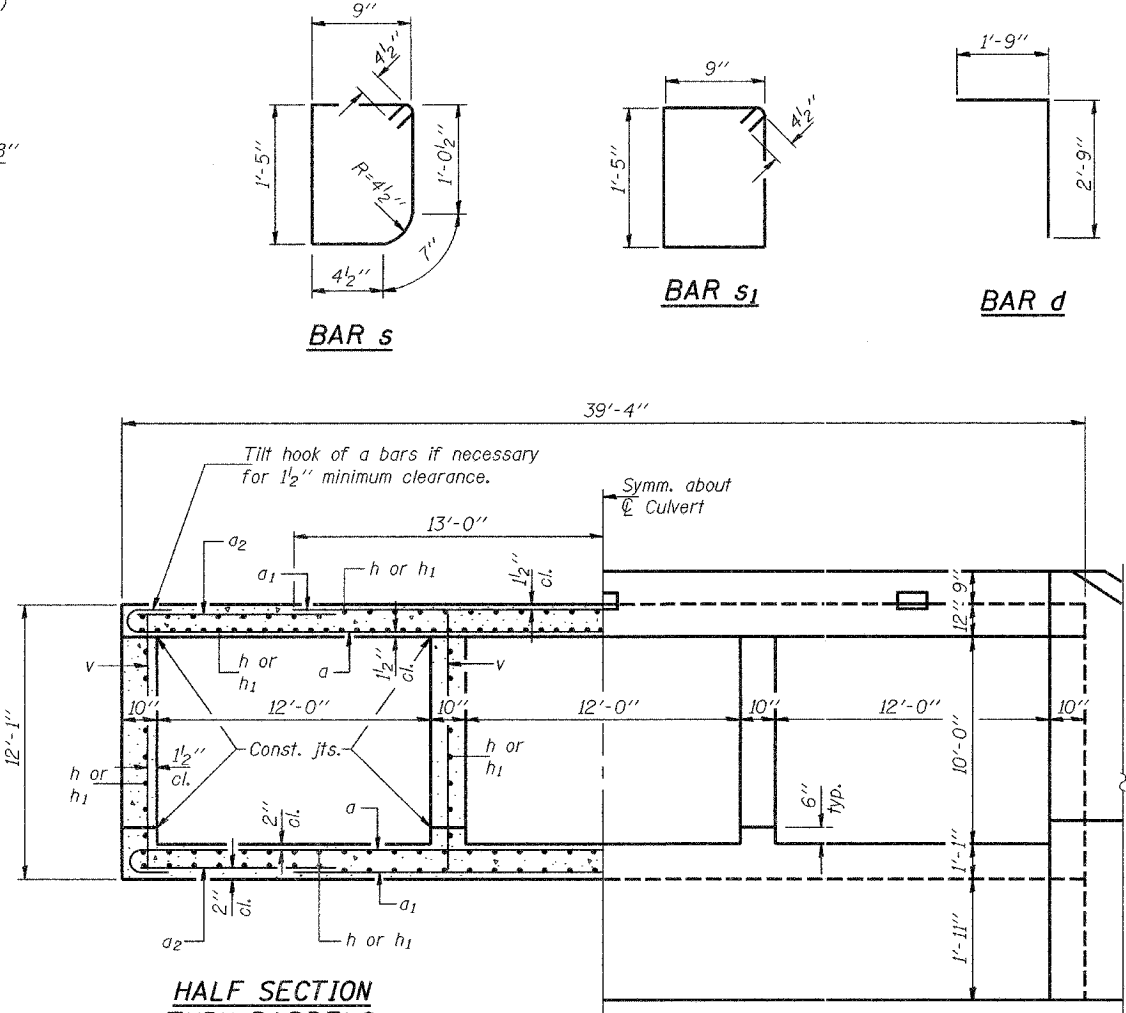
BAR d



BARS h4 & h5

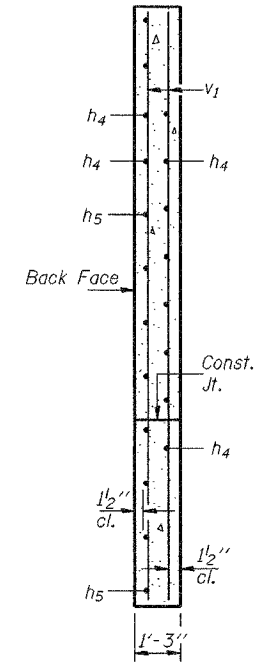


DRAIN DETAIL



HALF SECTION THRU BARRELS

HALF END ELEVATION



SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	166	#6	40'-4"	U
a1	144	#6	26'-0"	—
a2	144	#5	8'-10"	—
d	80	#4	4'-6"	—
h	216	#5	25'-6"	—
h1	216	#5	20'-4"	—
h2	8	#7	39'-0"	—
h3	6	#6	39'-0"	—
h4	84	#8	8'-0"	—
h5	51	#8	19'-9"	—
h6	30	#8	8'-0"	—
h7	15	#8	19'-3"	—
s	40	#4	4'-11"	D
s1	40	#4	5'-1"	D
v	328	#4	11'-9"	—
v1	20	#4	14'-6"	—
Concrete Box Culverts			Cu. Yd.	241.2
Reinforcement Bars			Lbs.	37490

CULVERT DETAILS
F.A.P. RT. 855 SECTION IIB-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013

DESIGNED	PMP
CHECKED	PRL
DRAWN	h.t. duong
CHECKED	PMP/PRL

November 16 2005
EXAMINED *Thomas J. Donagale*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 855	11B-1	WHITE	25	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #94771

SHEET NO. 7
8 SHEETS

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:

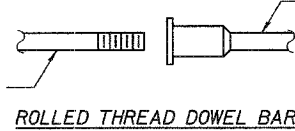
- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{s_{allow}} \times A_t$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s_{allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
* = 23 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."

The diameter of this part is equal or larger than the diameter of bar spliced.



ROLLED THREAD DOWEL BAR



** ONE PIECE

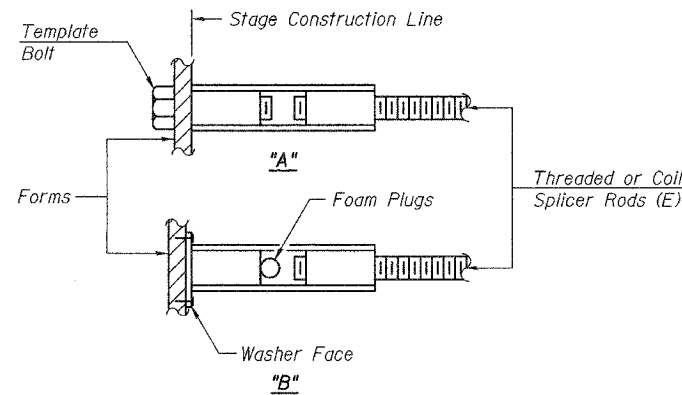
Wire Connector



WELDED SECTIONS

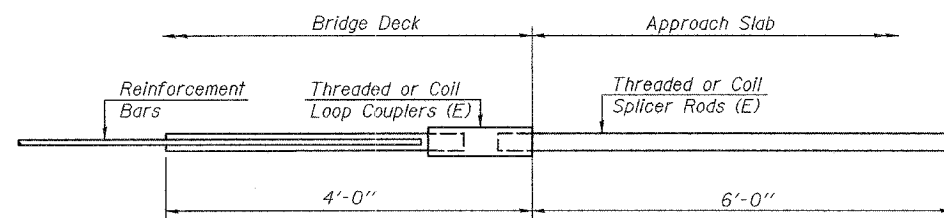
BAR SPLICER ASSEMBLY ALTERNATIVES

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



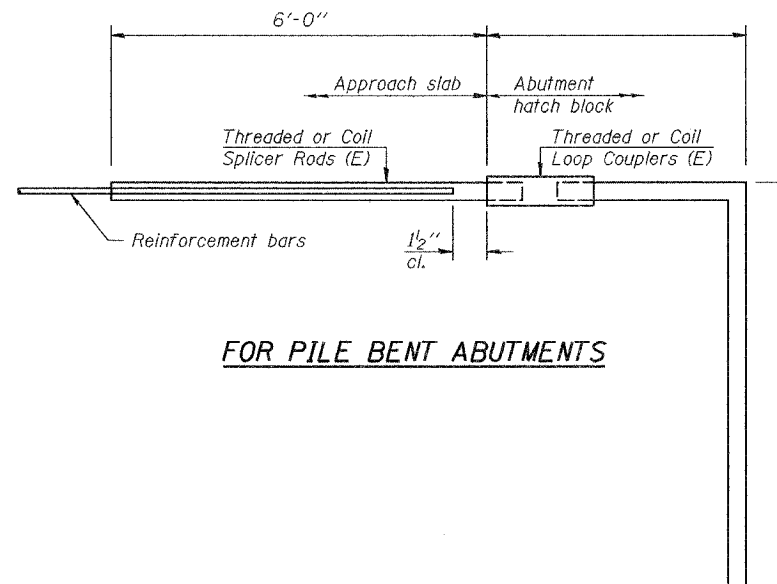
INSTALLATION AND SETTING METHODS

"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.



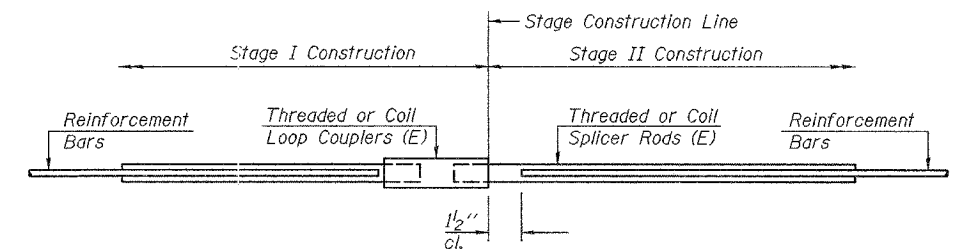
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	9.2 kips - tension
No. Required =	



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	9.2 kips - tension
No. Required =	



STANDARD

Bar Size	No. Assemblies Required	Location
#5	152	Deck
#5	64	Walls

BAR SPLICER ASSEMBLY DETAILS
F.A.P. RT. 855 SECTION 11B-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013

DESIGNED	PMP
CHECKED	PRL
DRAWN	h.t. duong
CHECKED	PMP/PRL

November 16 2005
EXAMINED *Thomas J. Demagallo*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 10-22-04

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 855	IIB-1	WHITE	25	18
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT-	

SHEET NO. 8
8 SHEETS

Contract #94771

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 1 of 3
Date 4/21/04

ROUTE FAP 855 (IL 14) DESCRIPTION Un-named Stream LOGGED BY E. Sandeschafer

SECTION 11B-1 LOCATION 13 - SE 14, 24 - NE 14, SEC. , TWP. 6 S, RING. 8 E, 3 PM

COUNTY White DRILLING METHOD Hollow Stem Auger & Split Spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station BORING NO. Station Offset Ground Surface Elev.	D E P T H (ft)	B L O W S (#)	U C S I S T I T U D E (%)	M O D E L S T R U C T U R E (%)	Description	D E P T H (ft)	B L O W S (#)	U C S I S T I T U D E (%)	M O D E L S T R U C T U R E (%)												
										Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Washed	After 24 Hrs.						
097-0017 Proposed 097-2013 1 35' W of center of exist bridge 17.00ft S of Cl 401.04					Aggregate shoulder w/some cinders. Medium, damp, grey mottled red, CLAY.	400.44															
						379.04				Stiff, damp, red mottled gray, CLAY.											
						376.54				Medium, damp, red mottled gray, CLAY LOAM.											
						373.54				Gray, fine grained, SAND.											
						371.54				Stiff, damp, gray, CLAY TILL.											
						366.54				Medium, very moist, gray, SANDY LOAM.											
						361.54				Stiff, damp, gray, SILTY CLAY.											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 2 of 3
Date 4/21/04

ROUTE FAP 855 (IL 14) DESCRIPTION Un-named Stream LOGGED BY E. Sandeschafer

SECTION 11B-1 LOCATION 13 - SE 14, 24 - NE 14, SEC. , TWP. 6 S, RING. 8 E, 3 PM

COUNTY White DRILLING METHOD Hollow Stem Auger & Split Spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station BORING NO. Station Offset Ground Surface Elev.	D E P T H (ft)	B L O W S (#)	U C S I S T I T U D E (%)	M O D E L S T R U C T U R E (%)	Description	D E P T H (ft)	B L O W S (#)	U C S I S T I T U D E (%)	M O D E L S T R U C T U R E (%)												
										Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Washed	After 24 Hrs.						
097-0017 Proposed 097-2013 1 35' W of center of exist bridge 17.00ft S of Cl 401.04					Stiff, damp, gray, SILTY CLAY. (continued)																
						356.54				Very stiff, damp, gray, SANDY CLAY LOAM w/few pebbles and sand pockets.											
						331.54				Stiff to very stiff, damp, gray, CLAY TILL. (continued)											
						331.54				Very dense, very moist, gray, SANDY CLAY SHALE.											
						321.34				Borehole continued with rock coring.											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 7 Materials

ROCK BORING LOG

Page 3 of 3
Date 4/21/04

ROUTE FAP 855 (IL 14) DESCRIPTION Un-named Stream LOGGED BY E. Sandeschafer

SECTION 11B-1 LOCATION 13 - SE 14, 24 - NE 14, SEC. , TWP. 6 S, RING. 8 E, 3 PM

COUNTY White CORING METHOD Rotary, surface set diamond bit

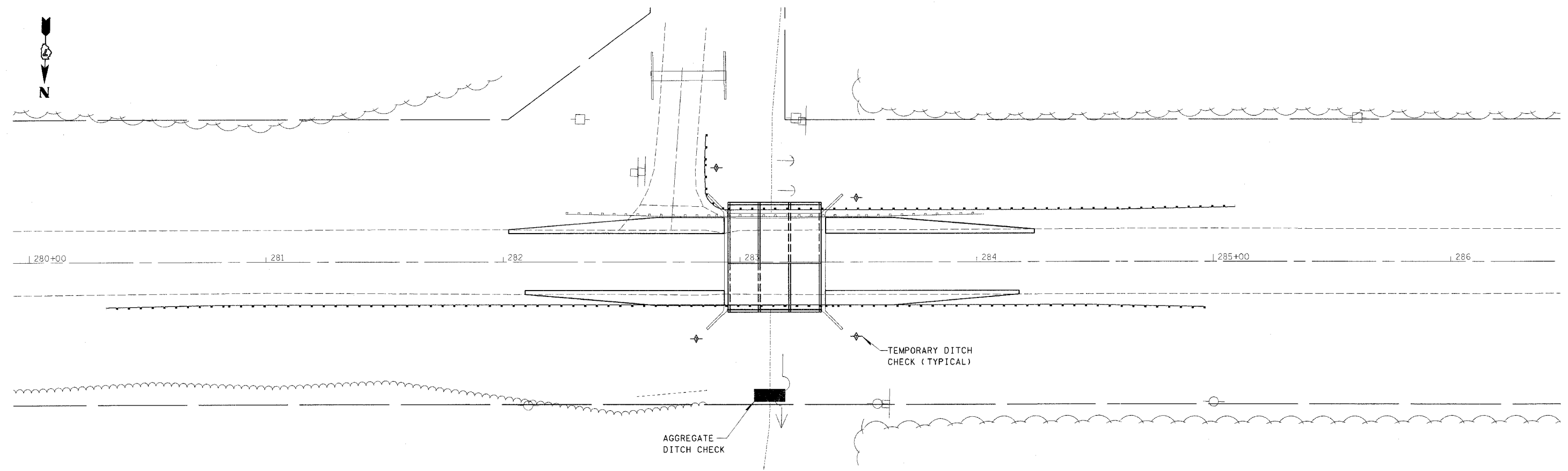
STRUCT. NO. Station BORING NO. Station Offset Ground Surface Elev.	D E P T H (ft)	C O R E D I A M E T E R (in)	R O C K T Y P E	C O R E L E N G T H (ft)	C O R E D E S C R I P T I O N	R E T R I C U L A R C O R E L E N G T H (ft)	C O R E D I A M E T E R (in)	C O R E D E S C R I P T I O N					
									Top of Rock Elev.	Begin Core Elev.			
097-0017 Proposed 097-2013 1 35' W of center of exist bridge 17.00ft S of Cl 401.04					Gray, slightly weathered, SANDY CLAY SHALE w/in black organic layering.	331.34	2.06						
						321.34							

Extent of exploration: _____
Benchmark: USGS brass tablet #13W on NE wingwall of existing bridge = 401.42'

Color pictures of the cores _____
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

BORING LOGS
F.A.P. RT. 855 SECTION IIB-1
WHITE COUNTY
STATION 283+14.49
STRUCTURE NO. 097-2013

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



EROSION CONTROL GENERAL NOTES

EROSION CONTROL MEASURES AT THE START OF CONSTRUCTION:

1. THE AREAS OF EXCAVATION AND EMBANKMENT PLACEMENT SHALL BE MANAGED FOR THE PURPOSES OF CONTROLLING EROSION WITHIN THE IMPROVEMENT AREA, REDUCING WATER FLOW BY TEMPORARY DIVERSION, MINIMIZING SILTATION AT THE RIGHT-OF-WAY LINE, AND ESTABLISHING VEGETATIVE COVER WHICH WILL BECOME PERMANENT VEGETATION AND ACT AS AN EROSION CONTROL BARRIER. WORK AT THE START OF CONSTRUCTION SHALL CONSIST OF THE FOLLOWING:
 - (a) AREAS OF EXISTING VEGETATION (WOODS AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED FOR PRESERVING AND SHALL BE PROTECTED FROM MOWING, BRUSH CUTTING, TREE REMOVAL, AND OTHER ACTIVITIES THAT WOULD BE DETRIMENTAL TO THEIR MAINTENANCE AND DEVELOPMENT.
 - (b) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
 - (c) BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARY SEEDING AT THE START OF CONSTRUCTION WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN CALENDAR DAYS.

EROSION CONTROL MEASURES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED FROM DAMAGING EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
 - (a) WITHIN THE CONSTRUCTION ZONE, CRITICAL AREAS WHICH HAVE A HIGH FLOW OF WATER, AS DETERMINED BY THE ENGINEER, SHALL REMAIN UNDISTURBED UNTIL CONTINUOUS OPERATIONS CAN ENSURE TIMELY COMPLETION OF WORK IN THESE AREAS TO MINIMIZE SOIL EROSION.
 - (b) EARTH STOCKPILES SHALL BE TEMPORARY SEEDING IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN CALENDAR DAYS.

EROSION CONTROL MEASURES AFTER FINAL GRADING:

1. EXCAVATION AND EMBANKMENT AREAS SHALL BE PERMANENTLY SEEDING WHEN FINAL GRADE.
 - (a) TEMPORARY EROSION CONTROL SYSTEMS SHALL REMAIN IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY WITH ALL PROPOSED TURF AREAS SEEDING AND A PROPER STAND ESTABLISHED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

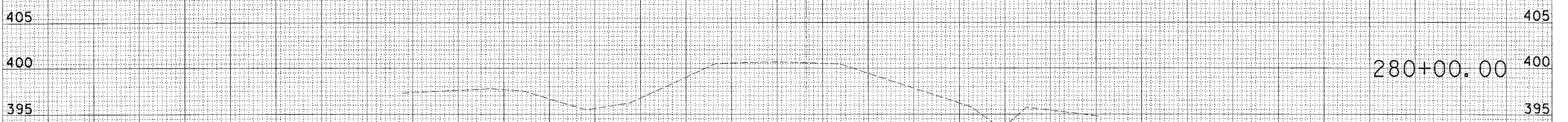
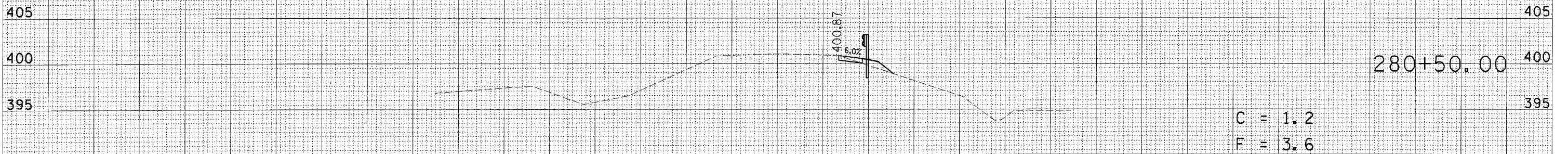
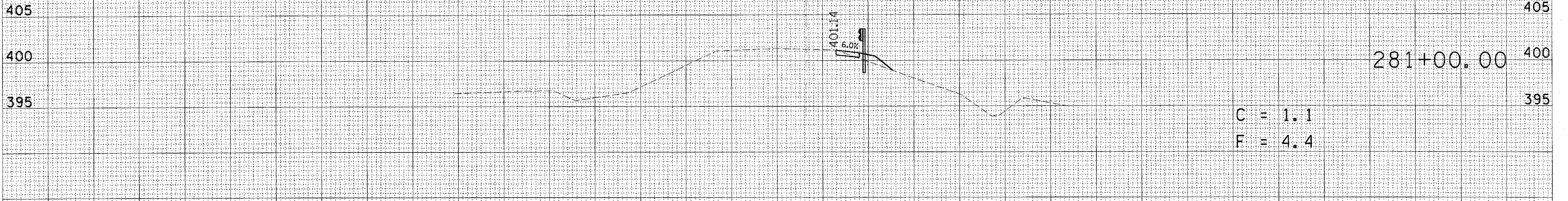
SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = 10/26/2005
FILE NAME = 811111.dwg
USER NAME = d444101

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	20
STA. 280+00.00		TO STA. 281+00.00		
FED. ROAD DIST. NO.	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 90 100 110 120 130 140 150 160



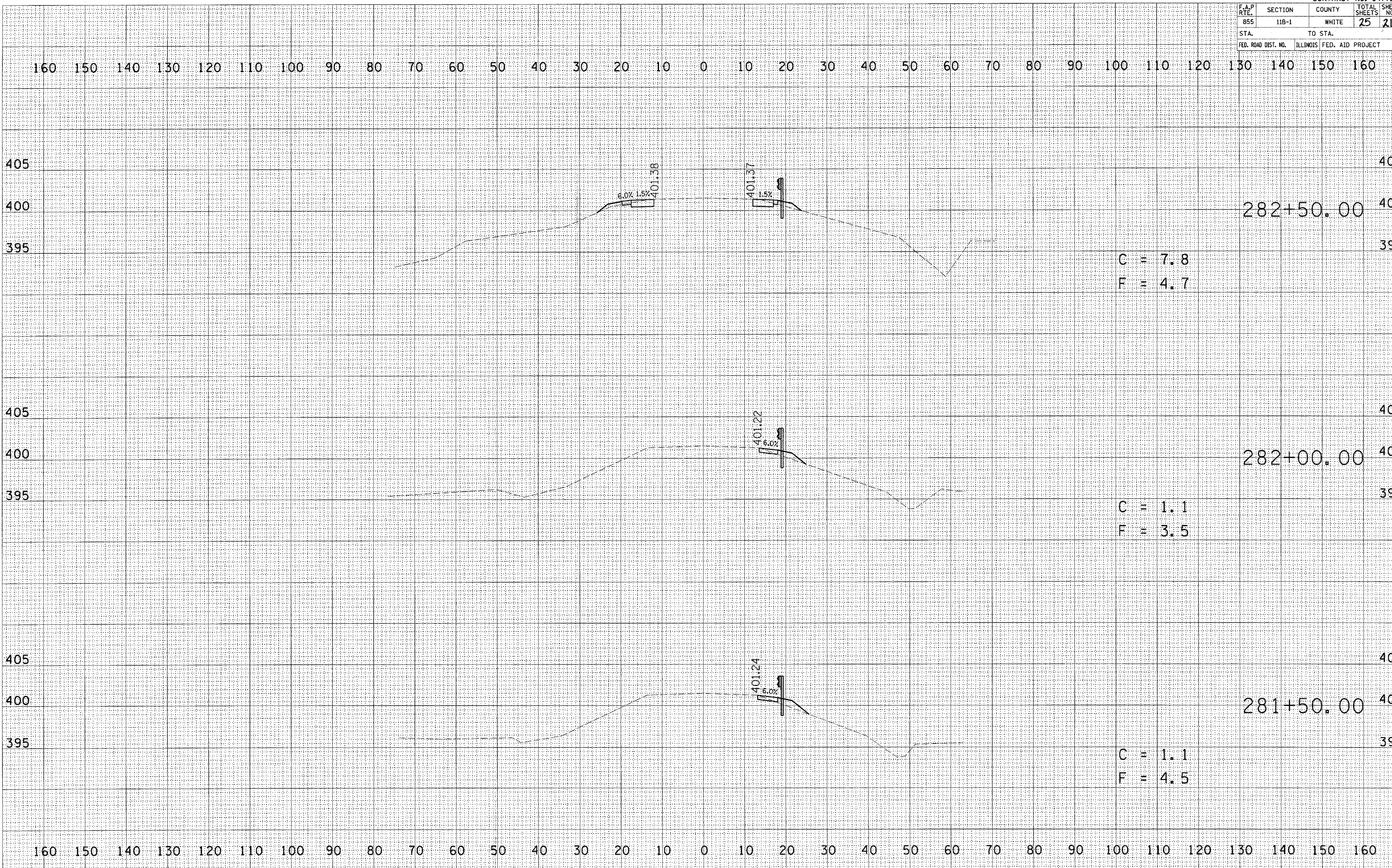
BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY _____ DATE _____
 ORIGINAL SURVEY _____
 NOTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE =
 PLOT SCALE =
 USER NAME =

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 90 100 110 120 130 140 150 160

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

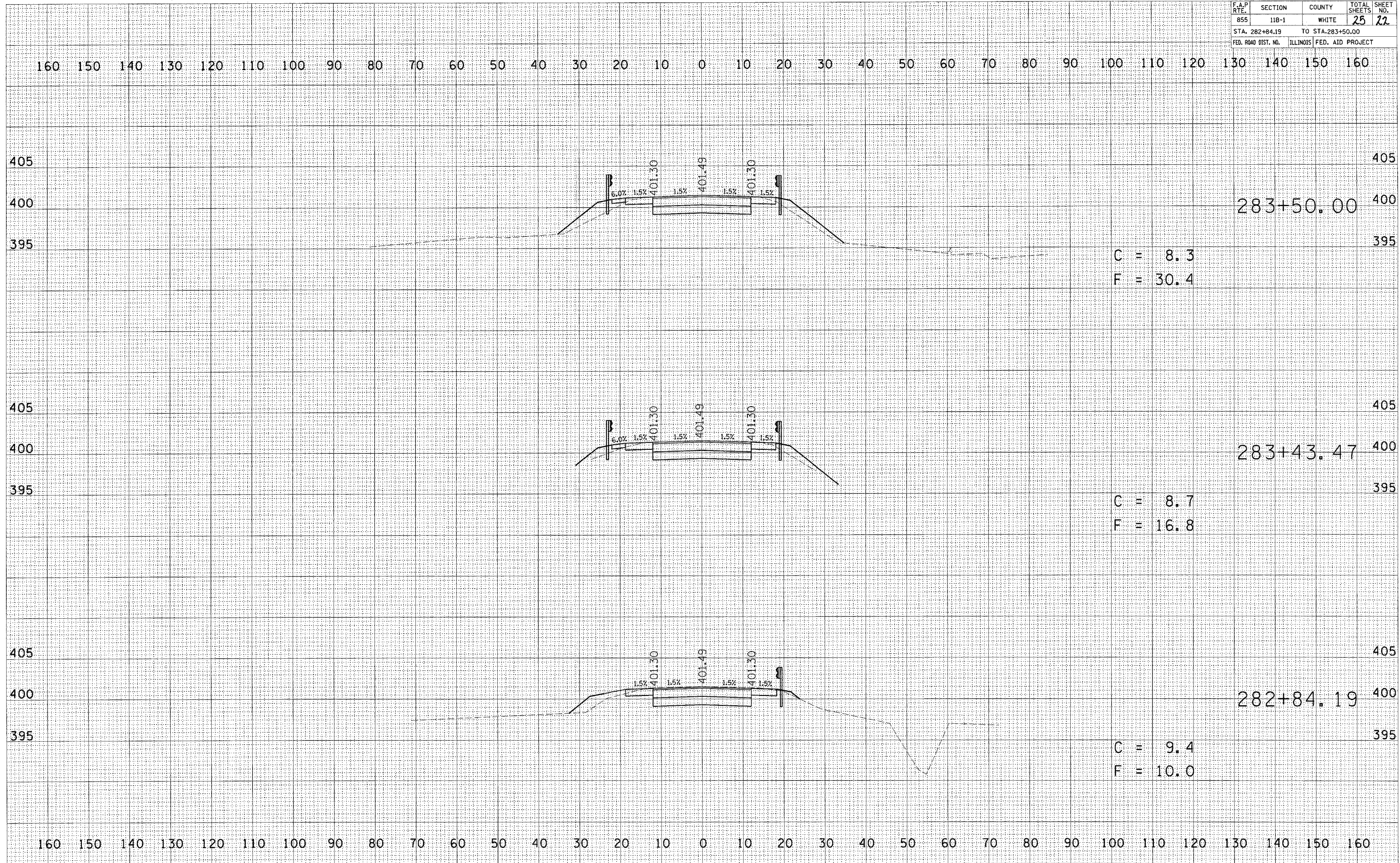


BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS _____
 AREAS CHECKED _____

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS _____
 AREAS CHECKED _____

PLT DATE = DATE
 FILE NAME = FILE
 PLOT SCALE = SCALE
 USER NAME = USER

CONTRACT NO. 94771				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	118-1	WHITE	25	22
STA. 282+84.19 TO STA. 283+50.00				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DATE _____ BY _____

FINAL SURVEY _____

NOTED _____

NOTE BOOK _____

NO. _____

AREAS CHECKED _____

DATE _____ BY _____

ORIGINAL SURVEY _____

NOTED _____

NOTE BOOK _____

NO. _____

AREAS CHECKED _____

PLOT DATE = #DATE#

PLOT SCALE = #SCALE#

PLOT USER = #USER#

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	11B-1	WHITE	25	23
STA. 284+00.00		TO STA. 285+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

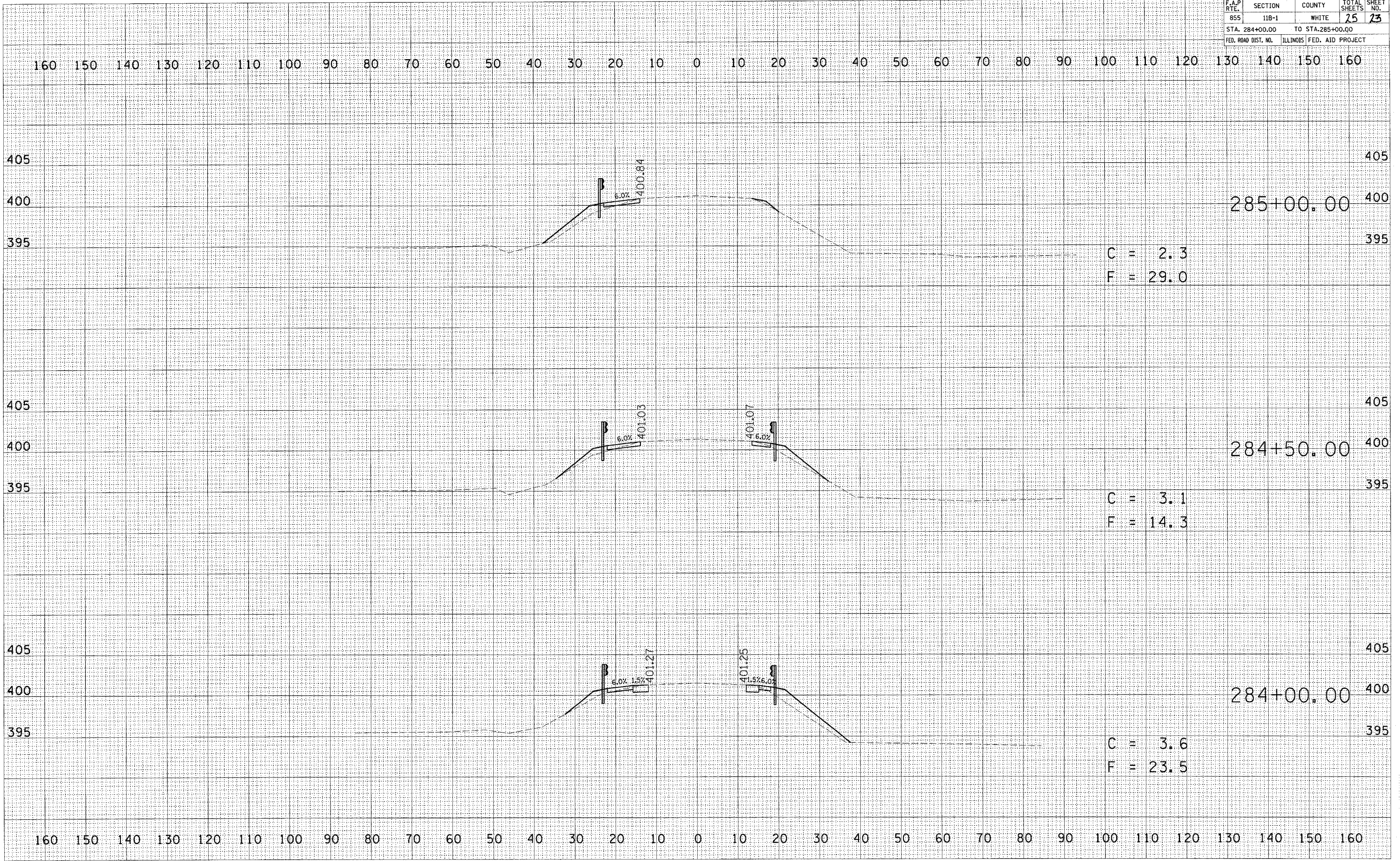
DATE: _____ BY: _____

FINAL SURVEY SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE: _____ BY: _____

ORIGINAL SURVEY SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

PLOT DATE: *DATE*
 PLOT SCALE: *SCALE*
 USER NAME: *USER*

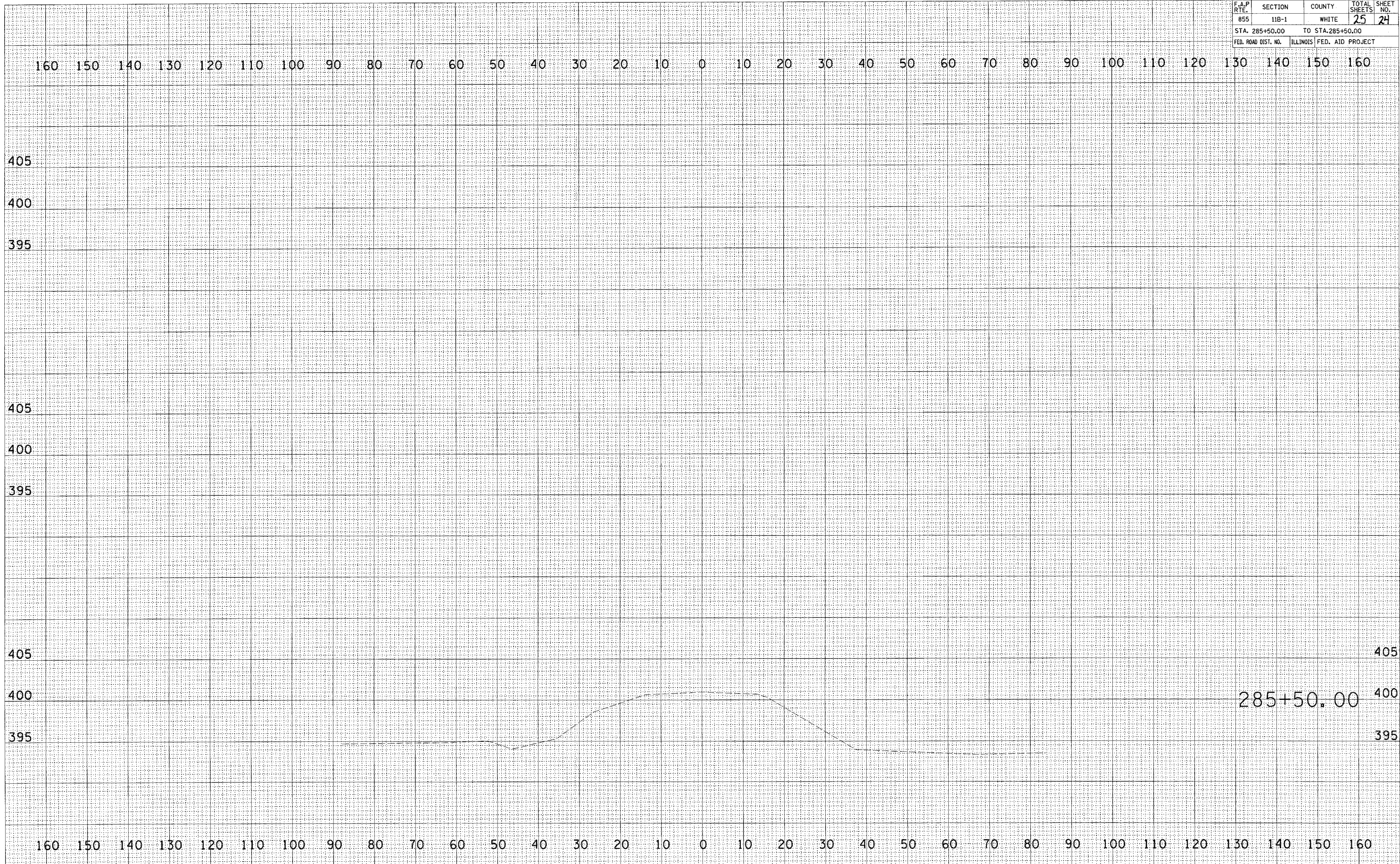


CONTRACT NO. 94771			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
855	118-1	WHITE	25 24
STA. 285+50.00		TO STA. 285+50.00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

DATE	BY	NO.	AREAS CHECKED
DATE	BY	NO.	AREAS CHECKED
DATE	BY	NO.	AREAS CHECKED

DATE	BY	NO.	AREAS CHECKED
DATE	BY	NO.	AREAS CHECKED
DATE	BY	NO.	AREAS CHECKED

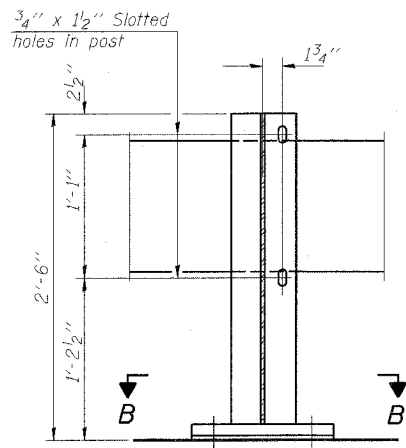
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 USER NAME = #USER*



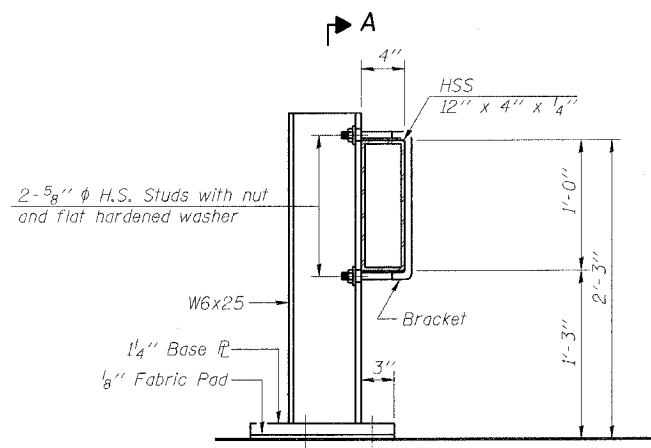
STATION 285+50.00 TO STATION 285+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	118-1	WHITE	25	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

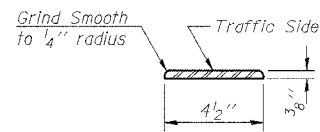
TBR



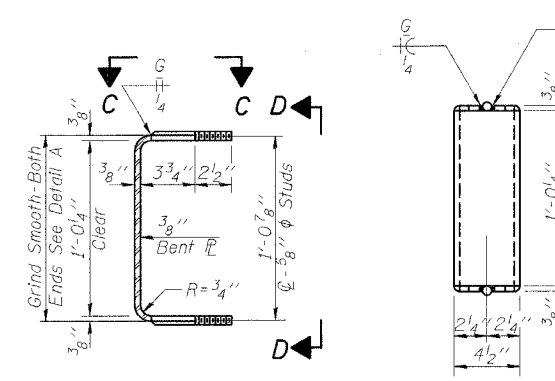
SECTION A-A



SECTION AT RAIL POST

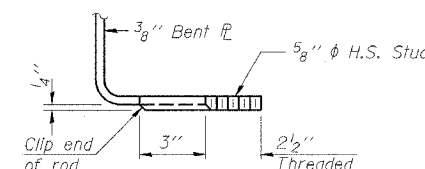


DETAIL A

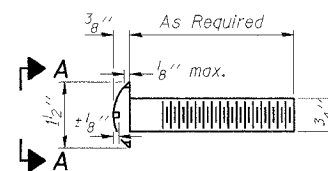


SECTION THRU BRACKET

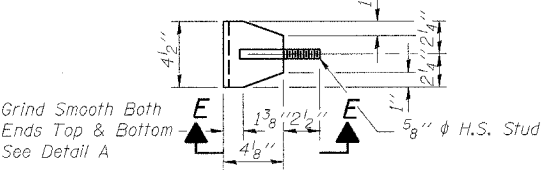
VIEW D-D



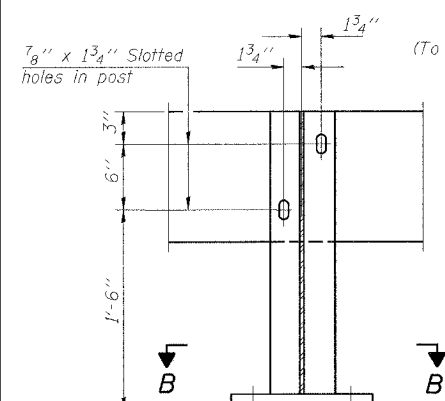
VIEW E-E



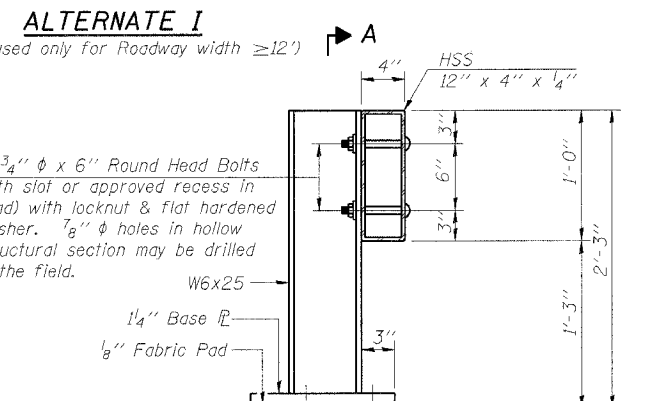
VIEW A-A ROUND HEAD BOLT



VIEW C-C



SECTION A-A

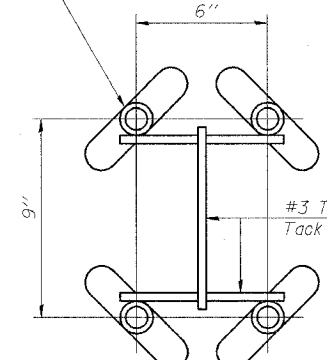


SECTION AT RAIL POST

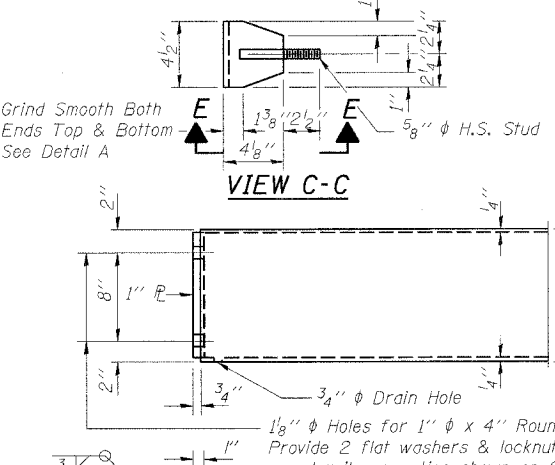
ALTERNATE I
(To be used only for Roadway width $\geq 12'$)

2-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat hardened washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.

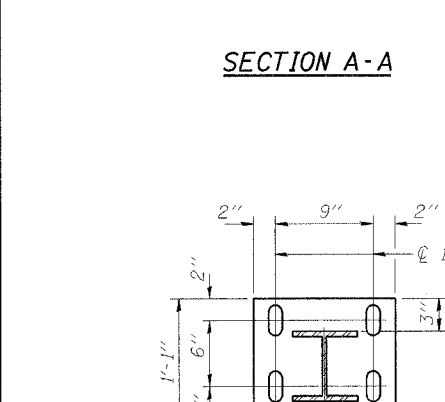
Wing type threaded inserts tapped for 1" ϕ H.S. bolts. (Insert Load Capacity = 14K min./bolt)



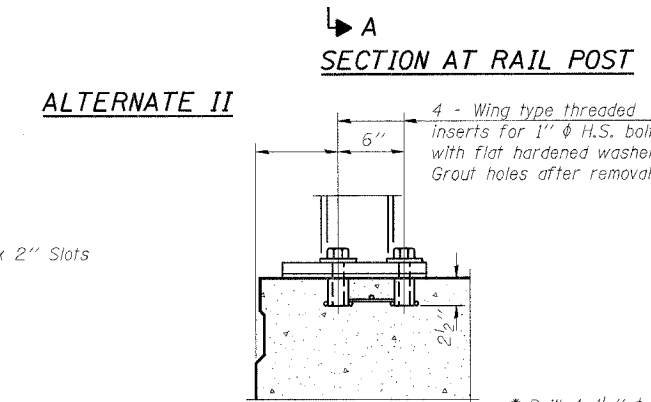
INSERT DETAIL



END OF RAIL DETAILS



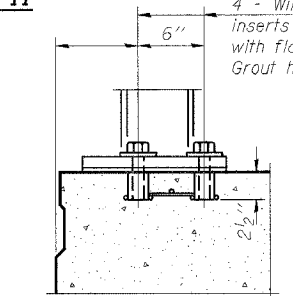
SECTION B-B



SECTION AT RAIL POST

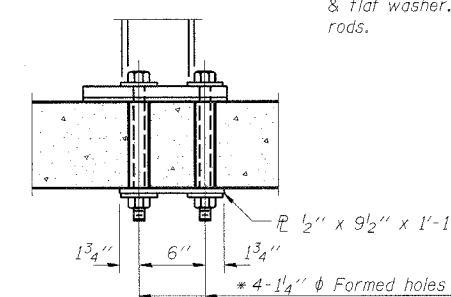
ALTERNATE II

4 - Wing type threaded inserts for 1" ϕ H.S. bolts with flat hardened washer. Grout holes after removal.

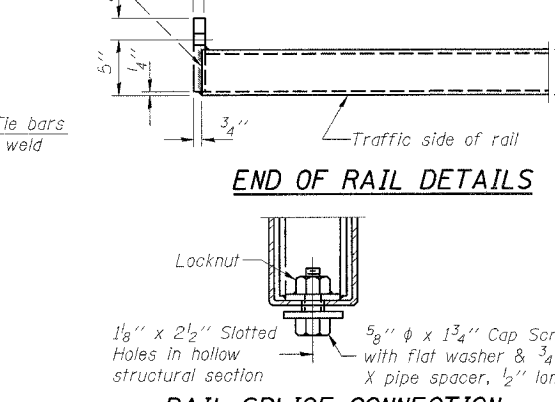


P.P.C. DECK BEAMS

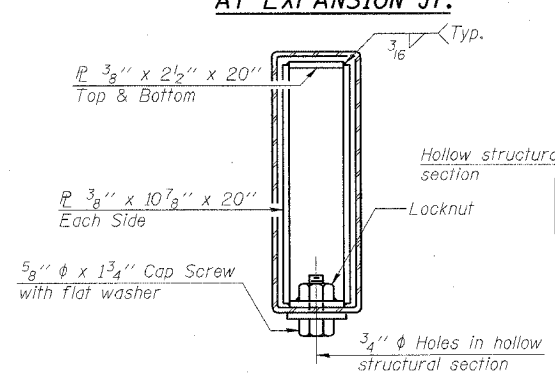
* Drill 4-1 1/4" ϕ holes for 1" ϕ threaded rods with hex nut & flat washer. Epoxy grout rods.



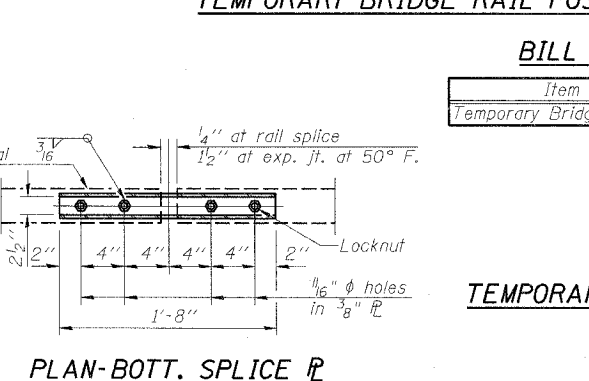
NEW & EXISTING DECKS ANCHORAGE DETAILS



RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and brackets shall conform to AASHTO M 270, Grade 50.
 Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, threaded rods, studs, nuts and washers noted which shall conform to AASHTO M 164.
 The bridge rail shall receive one shop coat of a steel prime point.
 The 1" ϕ high strength bolts or threaded rods used to connect the railposts shall be tightened according to Article 505.04(f)(2) of the Standard Specifications.
 Temporary Bridge Rail shall be according to Section 514 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Temporary Bridge Rail.
 See sheet of for Rail Post spacing.
 The contact surfaces between post flange, rail and inside face of bracket for Alternate I shall be free of all lubricants.
 The nut for 5/8" ϕ high strength studs used in Alternate I to connect bracket to post shall be tightened to a snug fit and given an additional one half turn.

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Bridge Rail	Foot	

TEMPORARY BRIDGE RAIL

PLOT DATE = 10/26/2005
 FILE NAME = #FILE#
 PLOT SCALE = #SCALE#
 USER NAME = #DISTRICT#