CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	1

*1BR-1, 1BR-2, 1BR-3

P-99-003-06
D-99-036-07

INDEX OF SHEETS

0 20 40 60
SCALE IN FEET – PLAN & PROFILE

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.

MICROFILMED
REEL NUMBER
AWARDED
RESIDENT ENGINEER
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS

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

DISTRICT 9 NO. (217) 549-2171

PROJECT ENGINEER: DAVID PICHE
UNIT CHIEF:
TOWNSHIP: HARRISBURG & INDEPENDENCE
CONTRACT NO. 78010

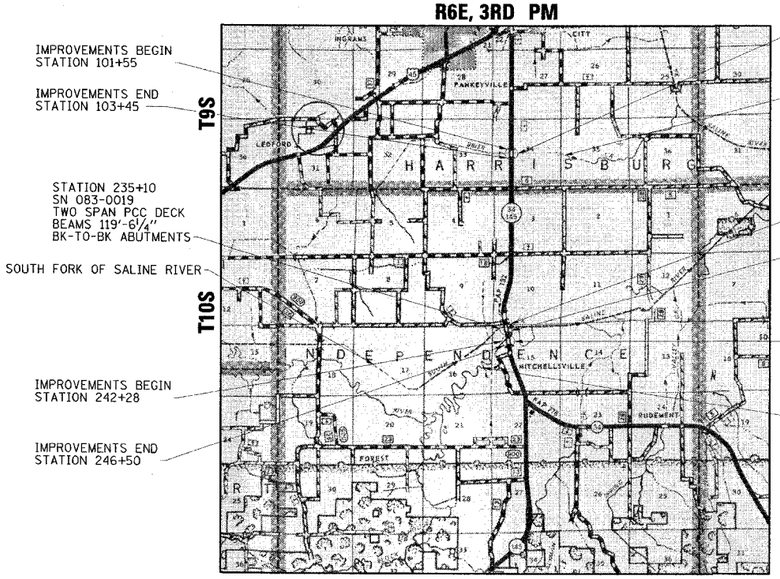
ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
URBANA, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
PROJECT: ACBHS-0132(119)
SALINE COUNTY
C-99-032-07

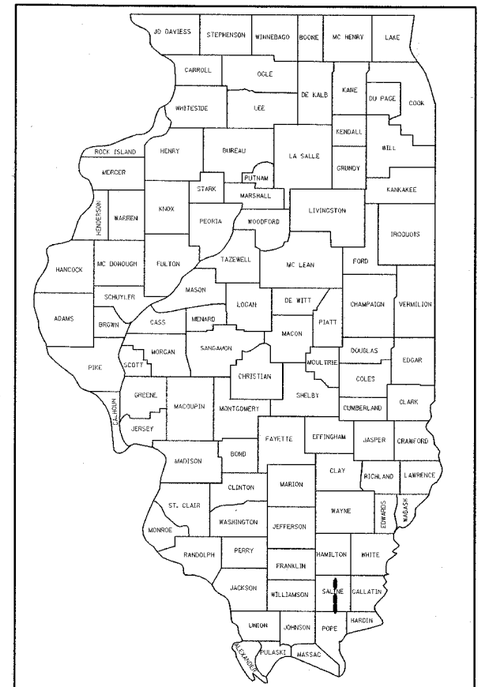
PCC DECK BEAM SUPERSTRUCTURE REPLACEMENTS
OVER BRIER CREEK, SOUTH FORK OF SALINE RIVER, AND SOUTH FORK OF SALINE RIVER OVERFLOW



LOCATION MAP

SCALE
0 2 4 6 MILES
0 10000 20000 30000 FEET

GROSS LENGTH = 14,548 FT. = 2.76 MI.
NET LENGTH = 1,073 FT. = 0.20 MI.



LOCATION OF SECTION INDICATED THUS:

FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (RURAL)
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 6110 (2007)
PV: 88%
TRUCKS: 12%

DESIGN DESIGNATION
N.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 9 20 07
Mark Hamm
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 12, 20 07
Eric E. Harm P.E.
Interim ENGINEER OF DESIGN AND ENVIRONMENT
October 12, 20 07
Milton L. Sees, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

RICHARD D. PAYNE 37421 LICENSED PROFESSIONAL ENGINEER OF STATE OF ILLINOIS

Richard D. Payne DATE: 08/02/07
ILLINOIS PROFESSIONAL LICENSE NO. 37421
(EXPIRATION DATE: 11-30-07)

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

*1BR-1, 1BR-2, 1BR-3

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-03	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
515001-02	NAME PLATE FOR BRIDGES
630001-07	STEEL PLATE BEAM GUARDRAIL
631032-03	TRAFFIC BARRIER TERMINAL, TYPE 6A
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701011-01	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
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
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
720001	SIGN PANEL MOUNTING DETAILS
720006-01	SIGN PANEL ERECTION DETAILS
720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

1. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
2. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
3. ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1½" UNLESS OTHERWISE NOTED.
4. 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 MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
5. THE THICKNESS OF HMA 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 HMA MIXTURE IS PLACED.
6. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
7. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON PAVEMENT	0.09 GAL/SQ YD
INTERMEDIATE LIFTS (FOG COAT)	0.04 GAL/SQ YD
ON AGGREGATE SURFACE	0.32 GAL/SQ YD
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ YD

8. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE 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 SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF PAVEMENT REMOVAL.
9. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2A ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
11. EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
12. ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
13. TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER EXCEPT AS DESCRIBED IN NOTE 22. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTRUBED.
14. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
15. THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION EACH FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURES TO TWO LANE TRAFFIC, THE PRIME COAT, BINDER COURSE, AND THE SURFACE COURSE.
16. THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 300 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
17. THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
18. VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THIE STAGE II NEW BRIDGE RAILING. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
19. ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OR COVERED.
20. "NARROW BRIDGE" SIGNS WITH ADVISORY TAGS "11 FT 0 IN" SHALL BE ERECTED BETWEEN THE ROAD CONSTRUCTION AHEAD AND THE SIGNAL AHEAD SIGNS. THIS WORK SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.
21. COMMITMENTS:
    NONE
22. ALL OBSTRUCTIONS WHICH ARE WITHIN 30' OF THE CENTERLINE OF IL 34/145, AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED FROM STATION 100+00 TO STATION 105+00. STATION 232+00 TO STATION 238+00, AND STATION 242+00 TO STATION 247+00. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 IN. OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 4 IN. OR GREATER.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: Joe Blankenship
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: T. Luis Emery
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: Carrie Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: Kevin Hammes
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: Joseph Lenzini
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: Bruce W Stubbs
DISTRICT MATERIALS ENGINEER

EXAMINED BY: Glen Andrews
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: Darrell Stanton
ASSISTANT REGIONAL ENGINEER

EXAMINED BY: Mary C Lamie
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 8 20 07
DATE

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

GENERAL NOTES
AND STANDARDS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
SALINE COUNTY

ESCA CONSULTANTS, INC. — CIVIL • STRUCTURAL • TRANSPORTATION ENGINEERS — CHAMPAIGN, ILLINOIS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

*1BR-1, 1BR-2, 1BR-3

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE TOTAL	CONSTRUCTION TYPE CODE X080-2A SN 083-0018	SN 083-0019	SN 083-0020
20200500	EARTH EXCAVATION (WIDENING)	CU YD	120	40	40	40
25000210	SEEDING, CLASS 2A	ACRE	0.3	0.1	0.1	0.1
25000350	SEEDING, CLASS 7	ACRE	0.3	0.1	0.1	0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	27	9	9	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	27	9	9	9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	27	9	9	9
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.6	0.2	0.2	0.2
25100115	MULCH, METHOD 2	ACRE	0.6	0.2	0.2	0.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	60	20	20	20
28000400	PERIMETER EROSION BARRIER	FOOT	1825	640	590	595
35301400	PORTLAND CEMENT CONCRETE BASE COURSE (VARIABLE DEPTH)	SQ YD	18	18		
35650500	BASE COURSE WIDENING 10"	SQ YD	505	188	149	168
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	10		6	4
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	318	75	124	119
40600300	AGGREGATE (PRIME COAT)	TON	8	2	3	3
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	190	26.5	86.5	77.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	613	220	201	192
40600990	TEMPORARY RAMP	SQ YD	454	102	176	176
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	190	48	71	71
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	52		26	26
44000196	HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL	SQ YD	62	10	26	26
44000700	APPROACH SLAB REMOVAL	SQ YD	70	18	26	26
48203100	HOT-MIX ASPHALT SHOULDERS	TON	107	22	47	38
50101700	REMOVAL OF EXISTING SUPERSTRUCTURES NO. 1	EACH	1	1		
50101800	REMOVAL OF EXISTING SUPERSTRUCTURES NO. 2	EACH	1		1	
50101900	REMOVAL OF EXISTING SUPERSTRUCTURES NO. 3	EACH	1			1
50300260	BRIDGE DECK GROOVING	SQ YD	1151	169	491	491
50300300	PROTECTIVE COAT	SQ YD	1151	169	491	491
50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	239	239		
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	1067	1067		
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	7888		3944	3944
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	15040	2300	6370	6370
50800515	BAR SPLICERS	EACH	285	37	124	124

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE TOTAL	CONSTRUCTION TYPE CODE X080-2A SN 083-0018	SN 083-0019	SN 083-0020
50901050	STEEL RAILING, TYPE SM	FOOT	815	129	343	343
51500100	NAME PLATES	EACH	3	1	1	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	66		33	33
58700300	CONCRETE SEALER	SQ FT	120	30	45	45
59000200	EPOXY CRACK INJECTION	FOOT	300	44	136	120
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	12	4	4	4
63200310	GUARDRAIL REMOVAL	FOOT	528	176	176	176
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL	FOOT	50	25	25	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	2	2	2
67100100	MOBILIZATION	L SUM	1	1/3	1/3	1/3
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	3	1	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1/3	1/3	1/3
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1/3	1/3	1/3
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	30	10	10	10
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	3	1	1	1
70106700	TEMPORARY RUMBLE STRIP	EACH	18	6	6	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	4	4	4
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	568	152	208	208
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2834	774	1030	1030
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1135	309	413	413
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1112.5	312.5	400.0	400.0
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1100.0	312.5	400.0	387.5
• 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2834	774	1030	1030
• 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	9	2	4	3
• 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	5	1	2	2
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	12	4	4	4
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	10	2	4	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	582	183	201	198
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	9	2	4	3
X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNITS	SQ FT	239	239		
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	213	30	114	69
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	1151	169	491	491

• SPECIALTY ITEMS

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	KAH	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

SUMMARY OF QUANTITIES
FAP RTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
SALINE COUNTY

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

*1BR-1, 1BR-2, 1BR-3

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE TOTAL	CONSTRUCTION TYPE CODE X080-2A SN 083-0018	SN 083-0019	SN 083-0020
X8620020	UNINTERRUPTABLE POWER SUPPLY	EACH	3	1	1	1
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	88		44	44
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	6	2	2	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	6	2	2	2

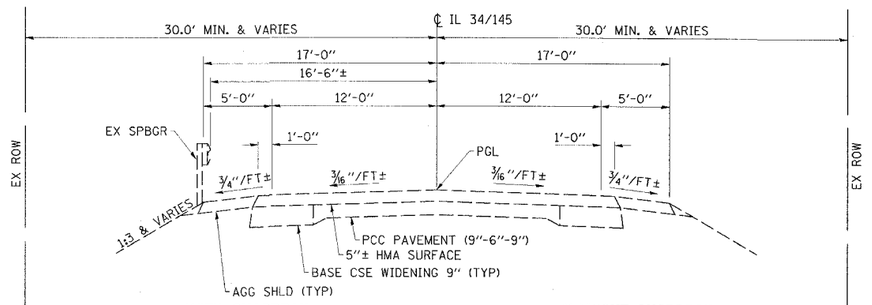
ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	KAH	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

SUMMARY OF QUANTITIES
FAP RTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

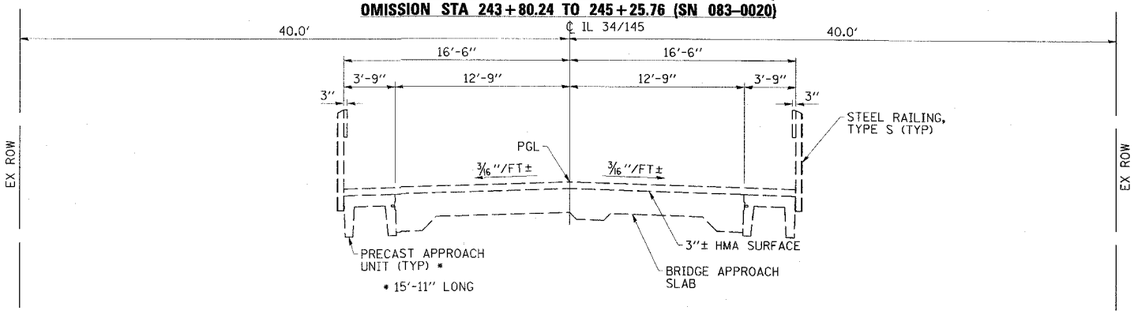
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		
*1BR-1, 1BR-2, 1BR-3				



WITH GUARDRAIL **WITHOUT GUARDRAIL**

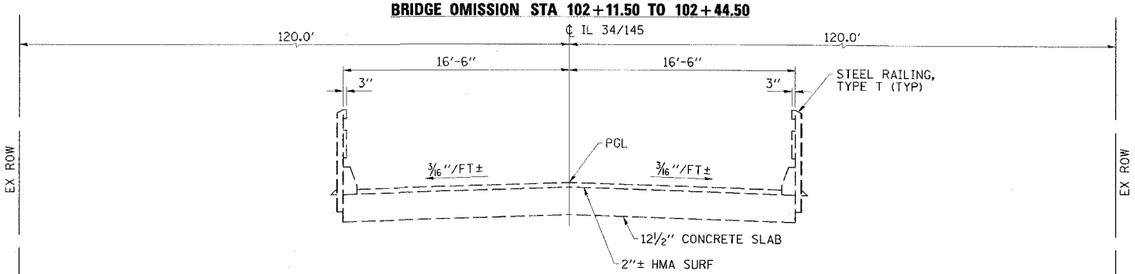
EXISTING TYPICAL ROADWAY SECTION

STA 99+00 TO 105+00 AND STA 233+00 TO 253+00
OMISSION STA 102+34.80 TO 102+64.25 (SN 083-0018)
OMISSION STA 234+24.24 TO 235+95.76 (SN 083-0019)
OMISSION STA 243+80.24 TO 245+25.76 (SN 083-0020)



EXISTING BRIDGE APPROACH SECTION

STA 102+34.80 BK TO 102+64.25
BRIDGE OMISSION STA 102+11.50 TO 102+44.50



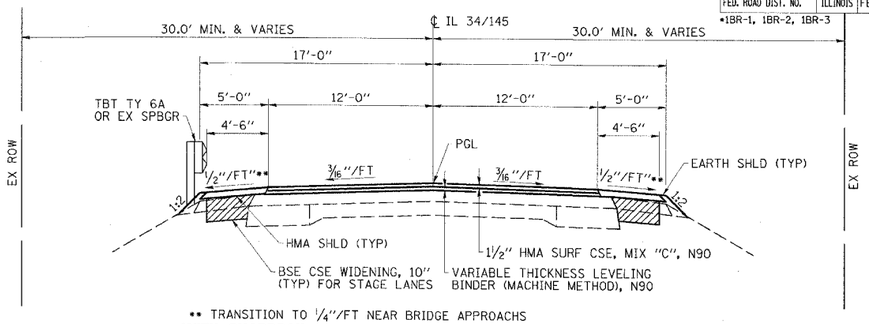
EXISTING BRIDGE APPROACH SECTION

STA 234+24.24 TO 235+95.76
BRIDGE OMISSION STA 234+50.24 TO 235+69.76 (SN 083-0019)
STA 243+54.24 TO 245+25.76
BRIDGE OMISSION STA 243+80.24 TO 244+99.76 (SN 083-0020)

HMA MIXTURES REQUIREMENTS

LOCATION(S):	HOT MIX ASPHALT SURFACE COURSE AND LEVELING BINDER	BASE COURSE WIDENING	HOT MIX ASPHALT SHOULDERS
MIXTURE USE(S):	HOT MIX ASPHALT SURFACE COURSE, MIX C, N90	HOT MIX ASPHALT BINDER COURSE, N90, IL-19.0	HOT MIX ASPHALT SHOULDERS
AC/PG:	PG64-22	PG64-22	PG58-22
RAP % (MAX): ***	10	10	50
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN	4.0%, 90 GYRATION DESIGN	2.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 mm OR IL 12.5 mm	IL-19.0 mm	HMA SHOULDERS
FRICTION AGGREGATE:	C SURFACE	NONE	NONE

*** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

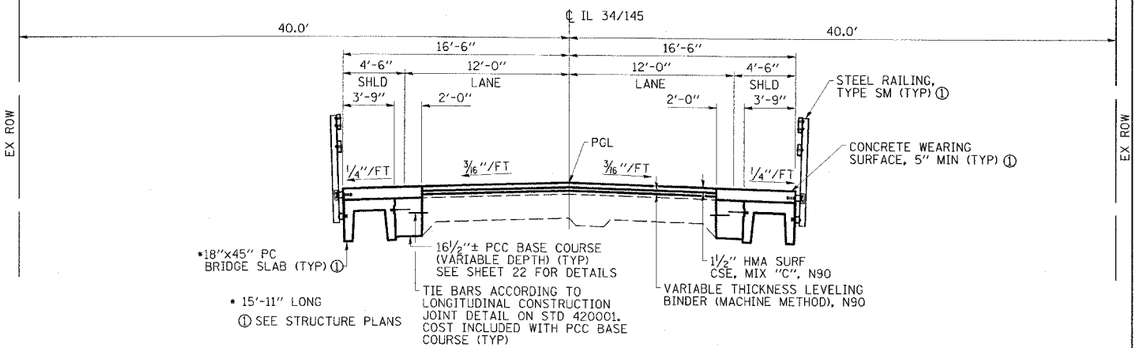


** TRANSITION TO 1/4"/FT NEAR BRIDGE APPROACHS

WITH GUARDRAIL **WITHOUT GUARDRAIL**

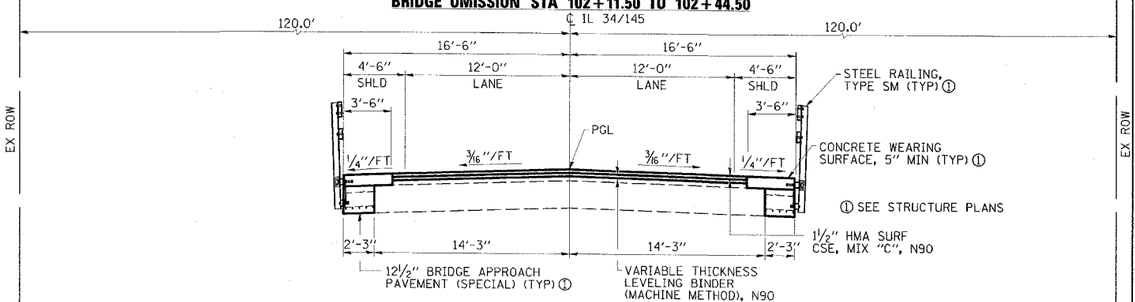
PROPOSED TYPICAL ROADWAY SECTION

STA 101+55 TO 102+34.80 AND STA 102+64.25 TO 103+45
STA 233+04 TO 234+24.24 AND STA 235+95.76 TO 237+20
STA 242+28 TO 243+54.24 AND STA 245+25.76 TO 246+50



PROPOSED BRIDGE APPROACH SECTION

STA 102+34.80 TO 102+64.25
BRIDGE OMISSION STA 102+11.50 TO 102+44.50



PROPOSED BRIDGE APPROACH SECTION

STA 234+24.24 TO 235+95.76
BRIDGE OMISSION STA 234+50.24 TO 235+69.76 (SN 083-0019)
STA 243+54.24 TO 245+25.76
BRIDGE OMISSION STA 243+80.24 TO 244+99.76 (SN 083-0020)

TYPICAL SECTIONS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
SALINE COUNTY

ESCA CONSULTANTS, INC.

DESIGNED BY:	JWS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

LOCATION	SUITABLE EARTH EXCAVATION (WIDENING)	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NE QUADRANT CUTS & FILLS	10	7.5			3.5	+4
NW QUADRANT CUTS & FILLS	10	7.5			3.5	+4
SE QUADRANT CUTS & FILLS	10	7.5			3.5	+4
SW QUADRANT CUTS & FILLS	10	7.5			3.5	+4
TOTALS	40	30	-	-	14	+16

NOTES:
1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)*0.75

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	160	5
NW QUADRANT	160	5
SE QUADRANT	160	5
SW QUADRANT	160	5
TOTALS	640	20

SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
NE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
NW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
TOTALS	0.100	0.100	9.00	9.00	9.00	0.20	0.20

REMOVAL SCHEDULE

LOCATION	APPROACH SLAB REMOVAL
	SQ YD
NE QUADRANT	4.5
NW QUADRANT	4.5
SE QUADRANT	4.5
SW QUADRANT	4.5
TOTAL	18.0

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
			4"	4"
		FOOT	FOOT	FOOT
STA 99+35 TO 105+64, CENTERLINE	SKIP-DASH YELLOW CENTERLINE	152	170	170
STA 101+20 TO 103+79, LT	SOLID WHITE EDGE LINE		302	302
STA 101+20 TO 103+79, RT	SOLID WHITE EDGE LINE		302	302
TOTALS		152	774	774

① INCLUDES 3 ADDITIONAL APPLICATIONS FROM STA 101+20 TO STA 103+45

PAVEMENT MARKERS AND REMOVAL SCHEDULE

LOCATION	RRPM	RRPM (BRIDGE)	RRPM REMOVAL
	EACH	EACH	EACH
STA 101+78	1		1
STA 102+15 AH		1	
STA 102+94	1		1
TOTALS	2	1	2

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
STA 99+35 TO 105+64, ℄	CENTERLINE	51	28
EDGELINES	TEMPORARY	201	
CENTERLINE	TEMPORARY	57	
STA 101+35 TO 103+64, LT	EDGELINE		91
STA 101+35 TO 102+29, RT	EDGELINE		32
STA 102+70 TO 103+64, RT	EDGELINE		32
TOTALS		309	183

BASE COURSE SCHEDULE

LOCATION	PCC BASE COURSE (VARIABLE DEPTH)	BASE COURSE WIDENING, 10"
	SQ YD	SQ YD
NE QUADRANT	4.5	47
NW QUADRANT	4.5	47
SE QUADRANT	4.5	47
SW QUADRANT	4.5	47
TOTALS	18.0	188

HMA SURF REMOVAL SCHEDULE

LOCATION	BUTT JOINT	SPECIAL
	SQ YD	SQ YD
STA 101+55	110	
STA 103+45	110	
NEAR NORTH ABUTMENT		5
NEAR SOUTH ABUTMENT		5
TOTALS	220	10

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	LEVELING BINDER (MACHINE METHOD), N90	HMA SURFACE COURSE, MIX "C", N90	HMA SHOULDERS
	GALLON	TON	TON	TON	TON
NORTH APPROACH	37	1	13.0	24	11
SOUTH APPROACH	38	1	13.5	24	11
TOTALS	75	2	26.5	48	22

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 6A	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	STEEL RAILING, TYPE SM	REMOVE AND RE-ERECT SPBGR
	EACH	EACH	EACH	FOOT	FOOT
STRUCTURE NO. 083-0018 - NE	1	1			
STRUCTURE NO. 083-0018 - NW	1	1			
STRUCTURE NO. 083-0018 - SE	1	1			25
STRUCTURE NO. 083-0018 - SW	1	1			
STRUCTURE NO. 083-0018 - BRIDGE			2	129	
TOTALS	4	4	2	129	25

GUARDRAIL REMOVAL SCHEDULE

LOCATION	FOOT
STRUCTURE NO. 083-0018 - NE	44
STRUCTURE NO. 083-0018 - NW	44
STRUCTURE NO. 083-0018 - SE	44
STRUCTURE NO. 083-0018 - SW	44
TOTAL	176

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

SCHEDULE OF QUANTITIES
FAP RTE 328 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY
SN 083-0018

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

LOCATION	SUITABLE EARTH EXCAVATION (WIDENING)	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NE QUADRANT CUTS & FILLS	10	7.5			6.5	+1
NW QUADRANT CUTS & FILLS	10	7.5			6.5	+1
SE QUADRANT CUTS & FILLS	10	7.5			6.5	+1
SW QUADRANT CUTS & FILLS	10	7.5			6.5	+1
TOTALS	40	30	-	-	26	+4

NOTES:
1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)*0.75

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
			4"	4"
		FOOT	FOOT	FOOT
STA 231+30 TO 238+90, CENTERLINE	SKIP-DASH YELLOW CENTERLINE	208	190	190
STA 233+04 TO 237+20, LT	SOLID WHITE EDGE LINE		420	420
STA 233+04 TO 237+20, RT	SOLID WHITE EDGE LINE		420	420
TOTALS		208	1030	1030

① INCLUDES 3 ADDITIONAL APPLICATIONS FROM STA 233+04 TO STA 237+20

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	160	5
NW QUADRANT	110	5
SE QUADRANT	160	5
SW QUADRANT	160	5
TOTALS	590	20

PAVEMENT MARKERS AND REMOVAL SCHEDULE

LOCATION	RRPM	RRPM (BRIDGE)	RRPM REMOVAL
	EACH	EACH	EACH
STA 233+05	1		1
STA 233+87	1		1
STA 234+64		1	
STA 235+43		1	
STA 236+21	1		1
STA 237+00	1		1
TOTALS	4	2	4

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
STA 231+30 TO 238+90, ℄	CENTERLINE	63.5	28
EDGELINES	TEMPORARY	280	
CENTERLINE	TEMPORARY	63.5	
STA 233+30 TO 236+90, RT	EDGELINE		121
STA 233+30 TO 234+05 AH, LT	EDGELINE		27
STA 236+16 TO 236+90, LT	EDGELINE		25
TOTALS		413.0	201

BASE COURSE SCHEDULE

LOCATION	BASE COURSE WIDENING, 10"
	SQ YD
NE QUADRANT	44.0
NW QUADRANT	20.0
SE QUADRANT	42.5
SW QUADRANT	42.5
TOTAL	149.0

HMA SURF REMOVAL SCHEDULE

LOCATION	BUTT JOINT	SPECIAL
	SQ YD	SQ YD
STA 233+04	102	
STA 237+20	99	
NEAR NORTH ABUTMENT		5.5
NEAR SOUTH ABUTMENT		5.5
APPROACH SHOULDERS		15
TOTALS	201	26

SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
NE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
NW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
TOTALS	0.100	0.100	9.00	9.00	9.00	0.20	0.20

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 6A	REMOVE & RE-ERECT SPBGR	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	STEEL RAILING, TYPE SM
	EACH	FOOT	EACH	EACH	FOOT
STRUCTURE NO. 083-0019 - NE	1		1		
STRUCTURE NO. 083-0019 - NW	1	25	1		
STRUCTURE NO. 083-0019 - SE	1		1		
STRUCTURE NO. 083-0019 - SW	1		1		
STRUCTURE NO. 083-0019 - BRIDGE				4	343
TOTALS	4	25	4	4	343

GUARDRAIL REMOVAL SCHEDULE

LOCATION	FOOT
STRUCTURE NO. 083-0019 - NE	44
STRUCTURE NO. 083-0019 - NW	44
STRUCTURE NO. 083-0019 - SE	44
STRUCTURE NO. 083-0019 - SW	44
TOTAL	176

AGGREGATE SURFACE COURSE, TYPE B SCHEDULE

LOCATION	TON
STA 233+53 SIDEROAD RT	6
TOTAL	6

REMOVAL SCHEDULE

LOCATION	APPROACH SLAB REMOVAL
	SQ YD
NE QUADRANT	6.5
NW QUADRANT	6.5
SE QUADRANT	6.5
SW QUADRANT	6.5
TOTAL	26

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	LEVELING BINDER (MACHINE METHOD), N90	HMA SURFACE COURSE, MIX "C", N90	HMA SHOULDERS
	GALLON	TON	TON	TON	TON
NORTH APPROACH	63	1.5	45.5	35.5	27
SOUTH APPROACH	61	1.5	41.0	35.5	20
TOTALS	124	3.0	86.5	71.0	47

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

SCHEDULE OF QUANTITIES
FAP RTE 328 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY
SN 083-0019

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

LOCATION	SUITABLE EARTH EXCAVATION (WIDENING)	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NE QUADRANT CUTS & FILLS	10	7.5			3.5	+4
NW QUADRANT CUTS & FILLS	10	7.5			3.5	+4
SE QUADRANT CUTS & FILLS	10	7.5			3.5	+4
SW QUADRANT CUTS & FILLS	10	7.5			3.5	+4
TOTALS	40	30	-	-	14	+16

NOTES:
1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)*0.75

EROSION CONTROL SCHEDULE

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
	FOOT	POUND
NE QUADRANT	155	5
NW QUADRANT	140	5
SE QUADRANT	150	5
SW QUADRANT	150	5
TOTALS	595	20

SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
NE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
NW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SE QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
SW QUADRANT	0.025	0.025	2.25	2.25	2.25	0.05	0.05
TOTALS	0.100	0.100	9.00	9.00	9.00	0.20	0.20

REMOVAL SCHEDULE

LOCATION	APPROACH SLAB REMOVAL
	SQ YD
NE QUADRANT	6.5
NW QUADRANT	6.5
SE QUADRANT	6.5
SW QUADRANT	6.5
TOTAL	26

AGGREGATE SURFACE COURSE, TYPE B SCHEDULE

LOCATION	TON
STA 242+17 FE RT	4
TOTAL	4

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE	TEMP PAVEMENT MARKING - LINE
			4"	4"
		FOOT	FOOT	FOOT
STA 240+60 TO 248+20, CENTERLINE	SKIP-DASH YELLOW CENTERLINE	208	190	190
STA 242+28 TO 246+50, LT	SOLID WHITE EDGE LINE		420	420
STA 242+28 TO 246+50, RT	SOLID WHITE EDGE LINE		420	420
TOTALS		208	1030	1030

① INCLUDES 3 ADDITIONAL APPLICATIONS FROM STA 242+28 TO STA 246+50

PAVEMENT MARKERS AND REMOVAL SCHEDULE

LOCATION	RRPM	RRPM (BRIDGE)	RRPM REMOVAL
	EACH	EACH	EACH
STA 242+59	1		1
STA 243+41	1		1
STA 244+19		1	
STA 245+00		1	
STA 245+79	1		1
TOTALS	3	2	3

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
STA 240+60 TO 248+20, ℄	CENTERLINE	63.5	28
EDGELINES	TEMPORARY	280	
CENTERLINE	TEMPORARY	63.5	
STA 242+60 TO 246+20, RT	EDGELINE		120
STA 242+60 TO 243+35 AH, LT	EDGELINE		25
STA 245+45 TO 246+20, LT	EDGELINE		25
TOTALS		413.0	198

BASE COURSE SCHEDULE

LOCATION	BASE COURSE WIDENING, 10"
	SQ YD
NE QUADRANT	42
NW QUADRANT	42
SE QUADRANT	42
SW QUADRANT	42
TOTAL	168

HMA SURF REMOVAL SCHEDULE

LOCATION	BUTT JOINT	SPECIAL
	SQ YD	SQ YD
STA 242+28	97	
STA 246+50	95	
NEAR NORTH ABUTMENT		5.5
NEAR SOUTH ABUTMENT		5.5
APPROACH SHOULDERS		15
TOTALS	192	26

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 6A	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	STEEL RAILING, TYPE SM
	EACH	EACH	EACH	FOOT
STRUCTURE NO. 083-0020 - NE	1	1		
STRUCTURE NO. 083-0020 - NW	1	1		
STRUCTURE NO. 083-0020 - SE	1	1		
STRUCTURE NO. 083-0020 - SW	1	1		
STRUCTURE NO. 083-0020 - BRIDGE			4	343
TOTALS	4	4	4	343

GUARDRAIL REMOVAL SCHEDULE

LOCATION	FOOT
STRUCTURE NO. 083-0020 - NE	44
STRUCTURE NO. 083-0020 - NW	44
STRUCTURE NO. 083-0020 - SE	44
STRUCTURE NO. 083-0020 - SW	44
TOTAL	176

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	LEVELING BINDER (MACHINE METHOD), N90	HMA SURFACE COURSE, MIX "C", N90	HMA SHOULDERS
	GALLON	TON	TON	TON	TON
NORTH APPROACH	60	1.5	33	35.5	18
SOUTH APPROACH	59	1.5	44	35.5	20
TOTALS	119	3.0	77	71.0	38

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

SCHEDULE OF QUANTITIES
FAP RTE 328 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY
SN 083-0020

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

CONTRACT NO. 78010

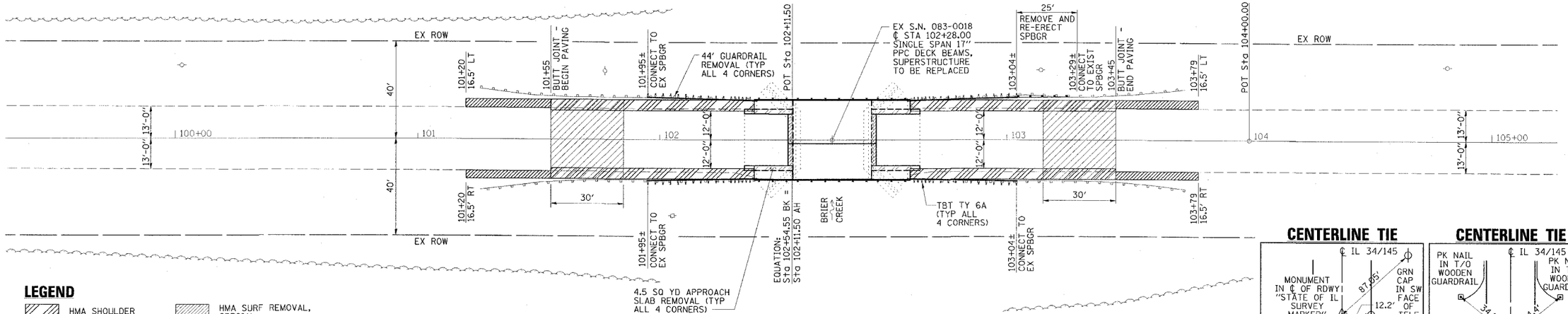
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	9
STA. 99+50		TO STA. 105+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN — SURVEYED / DRAWN / TRACE CHECKED / ALIGNMENT CHECKED / STRUCTURE NO(S) / NOTE BOOK / NO. / CADD FILE NAME / BY / DATE

SEC. 34, T9S, R6E, 3RD P.M.

N

0 20 40 60
SCALE IN FEET



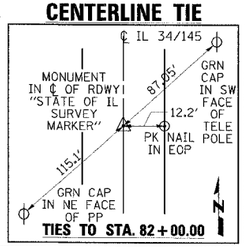
LEGEND

- HMA SHOULDER
- HMA SURF REMOVAL -BUTT JOINT
- APPROACH SLAB REMOVAL
- HMA SURF REMOVAL, SPECIAL
- BASE COURSE WIDENING

BENCHMARK

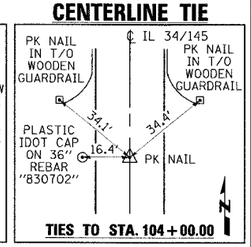
SAWED SQUARE SE CORNER OF SN 083-0018 ON EXPOSED APPROACH SLAB, STATION 102+60, 16.1' LEFT ELEVATION 366.25

CENTERLINE TIE



TIES TO STA. 82+00.00

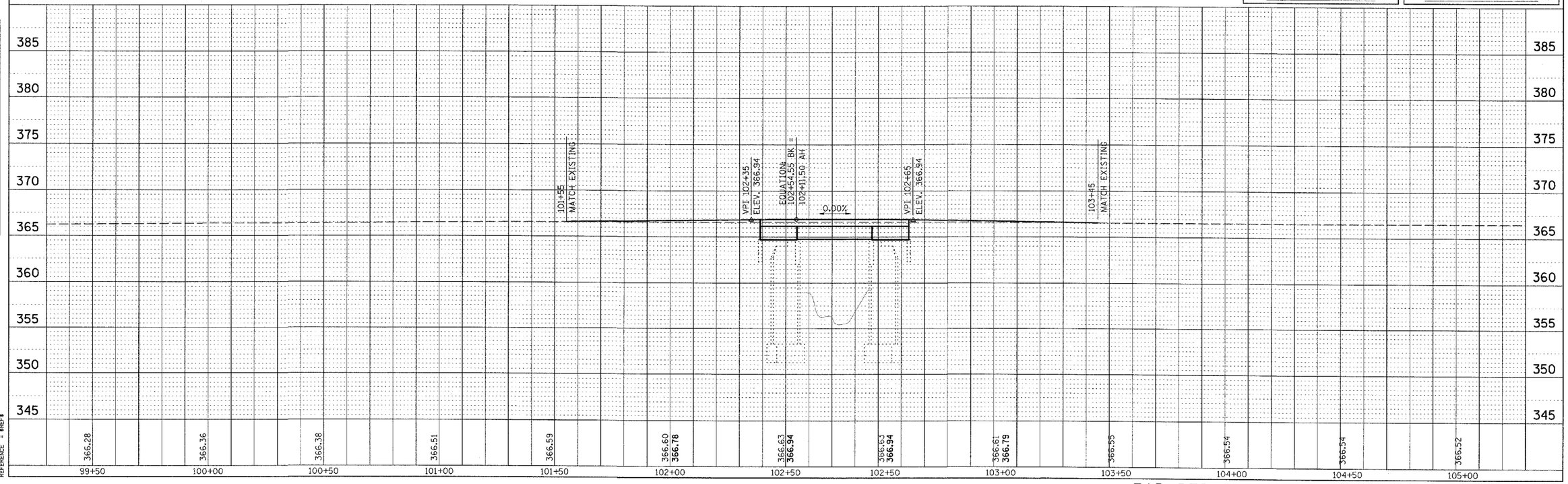
CENTERLINE TIE



TIES TO STA. 104+00.00

SEC. 34, T9S, R6E, 3RD P.M.

PROFILE — SURVEYED / DRAWN / TRACE CHECKED / ALIGNMENT CHECKED / STRUCTURE NO(S) / NOTE BOOK / NO. / BY / DATE



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FILE NAME = $FILE$
PLOT SCALE = $SCALE$
REFERENCE = REF

FAP RTE 132 (IL 34/145) PLAN & PROFILE

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

PLAN	SURVEYED	BY	DATE
	DRAWN		
	PLOTTED		
	CHECKED		
	ALIGNMENT CHECKED		
	PROFILE CHECKED		
	NOTE BOOK		
	NO.		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
	DRAWN		
	PLOTTED		
	GRADES CHECKED		
	ALIGNMENT CHECKED		
	NOTE BOOK		
	NO.		
	STRUCTURE NO(S) CHKD		

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	10
STA. 231+00		TO STA. 237+75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0 20 40 60
SCALE IN FEET

SEC. 34, T10S, R6E, 3RD P.M.

EX ROW (EXTENDS TO 120' FROM ℄)

EXIST ROW

233+04 BUTT JOINT - BEGIN PAVING

233+15 16.5' LT

233+84± CONNECT TO EX SPBGR

POT Sta 234+00.00

44' GUARDRAIL REMOVAL

SOUTH FORK SALINE RIVER

EX S.N. 083-0019 ℄ STA 235+10.00 TWO SPAN 27'-0" PRC DECK BEAMS, SUPERSTRUCTURE TO BE REPLACED

236+40± CONNECT TO EX SPBGR

237+05 16.5' LT

237+20 BUTT JOINT - END PAVING

70'

80' ROW

13'-0" 13'-0" 30' 35'

12'-0" 12'-0"

232 233 234 235 236 237

30'

10' TAPER AGGREGATE SURFACE TO MATCH EXISTING

233+84±

25' REMOVE AND RE-ERECT SPBGR

6.5 SQ YD APPR SLAB REMOVAL (TYP AT 4 CORNERS OF BRIDGE)

TBT TY 6A (TYP ALL 4 CORNERS)

237+05 16.5' RT

EX ROW

+53 SIDEROAD (400N) AGGREGATE

EQUATION: Sta 234+00.00 AH = Sta 234+03.57 BK

LEGEND

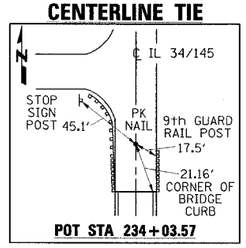
- HMA SHOULDER
- HMA SURF REMOVAL -BUTT JOINT
- APPROACH SLAB REMOVAL
- AGGREGATE SURFACE COURSE, TY B
- HMA SURF REMOVAL, SPECIAL

BENCHMARKS

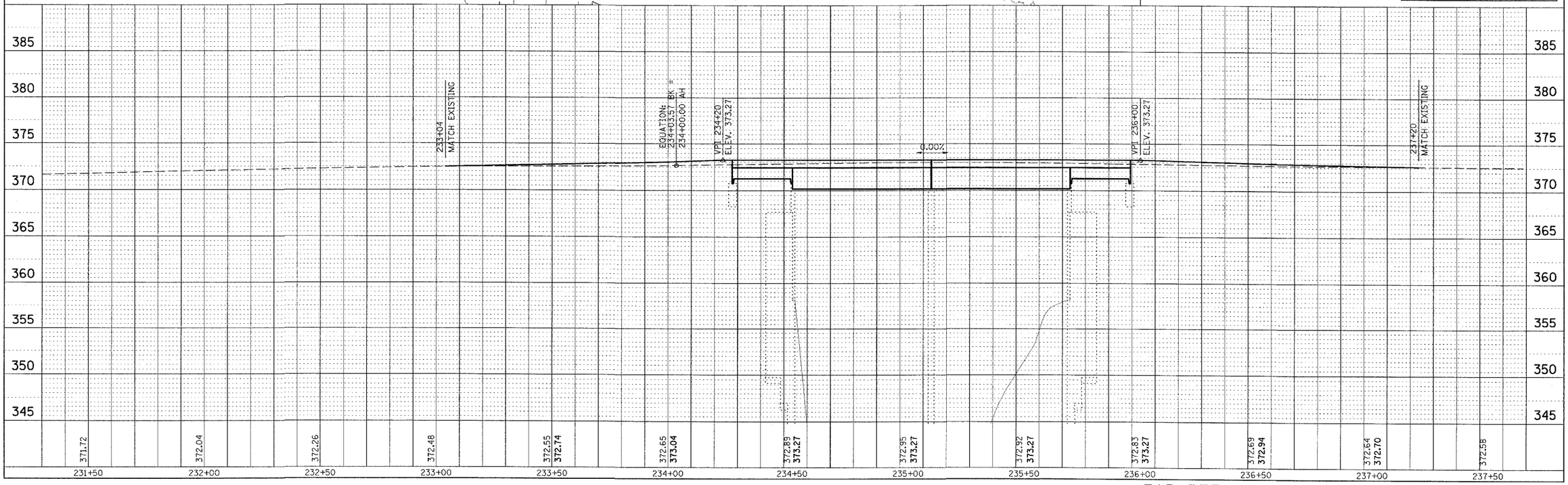
CHISELED SQUARE TOP OF NORTH END OF HUB GUARD, SN 083-0019, STA 234+25, 16' RT, ELEV 373.54

CHISELED SQUARE TOP OF SOUTH END OF HUB GUARD, SN 083-0019, STA 235+95, 16.3' RT, ELEV 373.56

CENTERLINE TIE



POT STA 234+03.57



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PLOT SCALE = #SCALE#
REFERENCE = #REF#

FAP RTE 132 (IL 34/145) PLAN & PROFILE

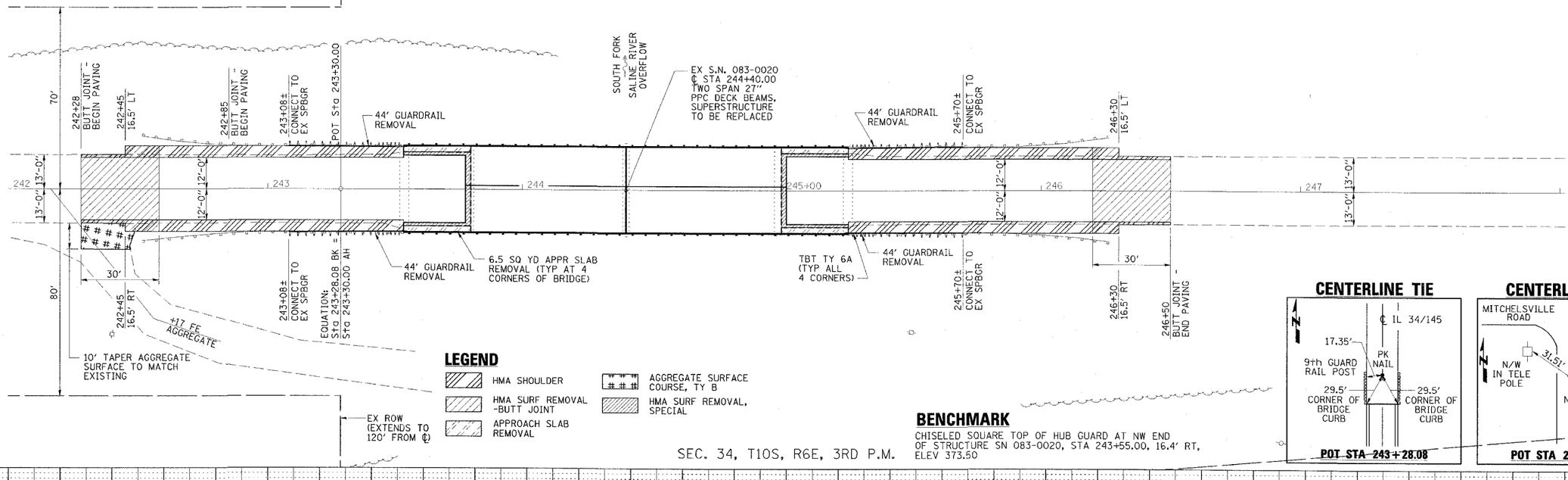
CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	11
STA. 242+00		TO STA. 248+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEC. 34, T10S, R6E, 3RD P.M.

N

0 20 40 60
SCALE IN FEET



LEGEND

- HMA SHOULDER
- HMA SURF REMOVAL -BUTT JOINT
- APPROACH SLAB REMOVAL
- AGGREGATE SURFACE COURSE, TY B
- HMA SURF REMOVAL, SPECIAL

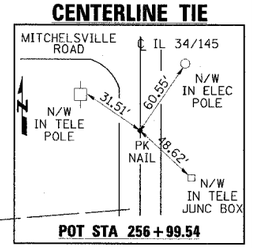
BENCHMARK

CHISELED SQUARE TOP OF HUB GUARD AT NW END OF STRUCTURE SN 083-0020, STA 243+55.00, 16.4' RT, ELEV 373.50

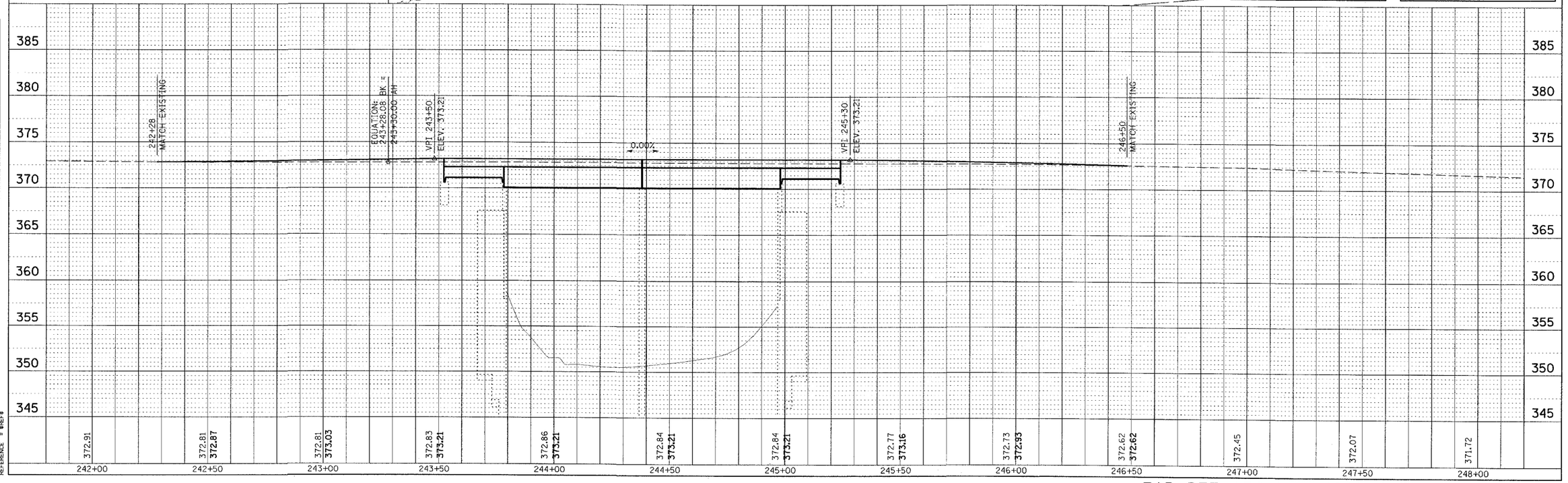
CENTERLINE TIE

POT STA 243+28.08

CENTERLINE TIE



POT STA 256+99.54



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FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

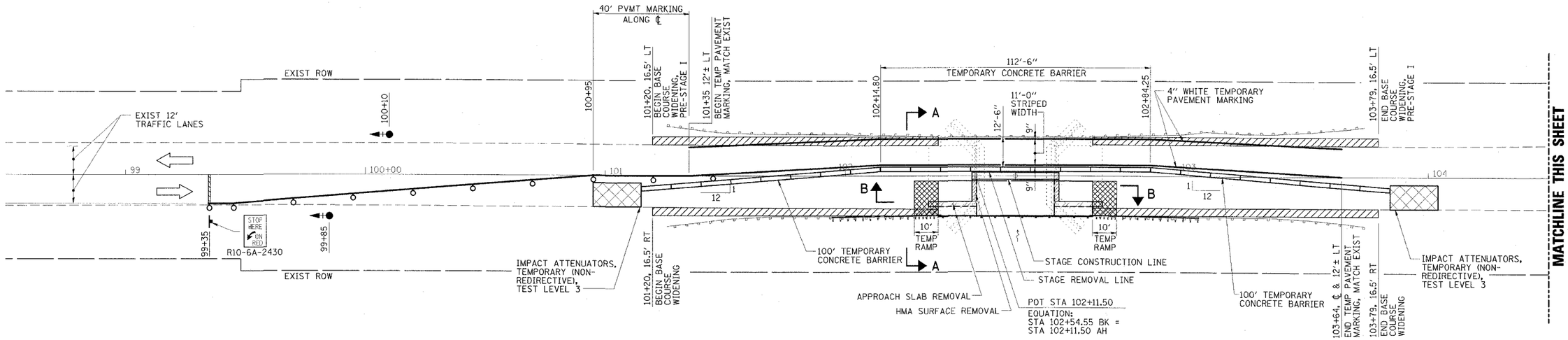
PLAN: SURVEYED ____ BY ____ DRAWN ____ BY ____ CHECKED ____ BY ____ NOTE BOOK ____ NO. ____ ALIGNMENT CHECKED ____ BY ____ FILE LOCATION ____ FADD FILE NAME ____ DATE ____

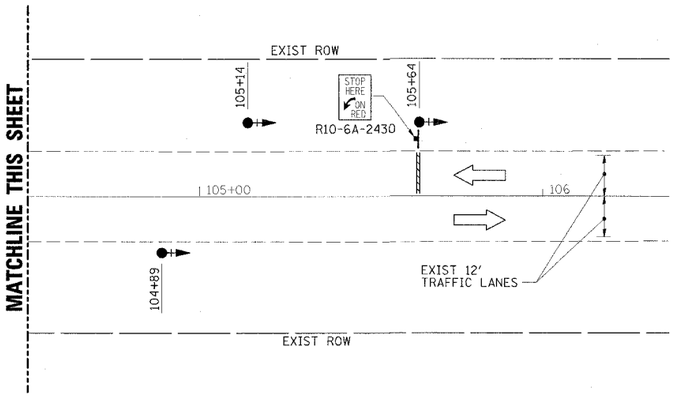
PROFILE: SURVEYED ____ BY ____ DRAWN ____ BY ____ CHECKED ____ BY ____ NOTE BOOK ____ NO. ____ ALIGNMENT CHECKED ____ BY ____ STRUCTURE NO(S)(NOS.) CHKD ____ DATE ____

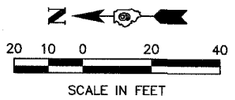
FAP RTE 132 (IL 34/145) PLAN & PROFILE

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	12
STA. 99+35		TO STA. 105+64		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		







LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- BASE COURSE WIDENING, 10"
- TEMPORARY RAMP
- HMA SURFACE REMOVAL, SPECIAL
- APPROACH SLAB REMOVAL

SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
101+15		103+84	312.5
		TOTAL	312.5

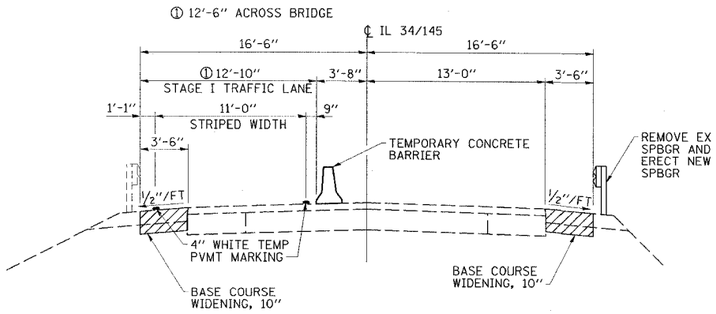
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

TEMPORARY RUMBLE STRIPS - 6 EACH

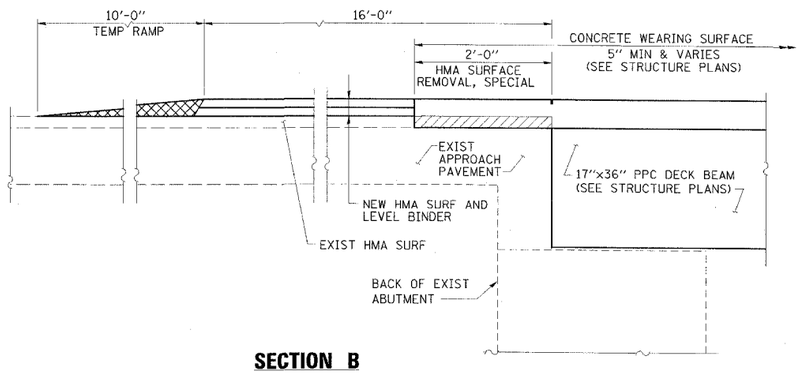
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.



SECTION A-A



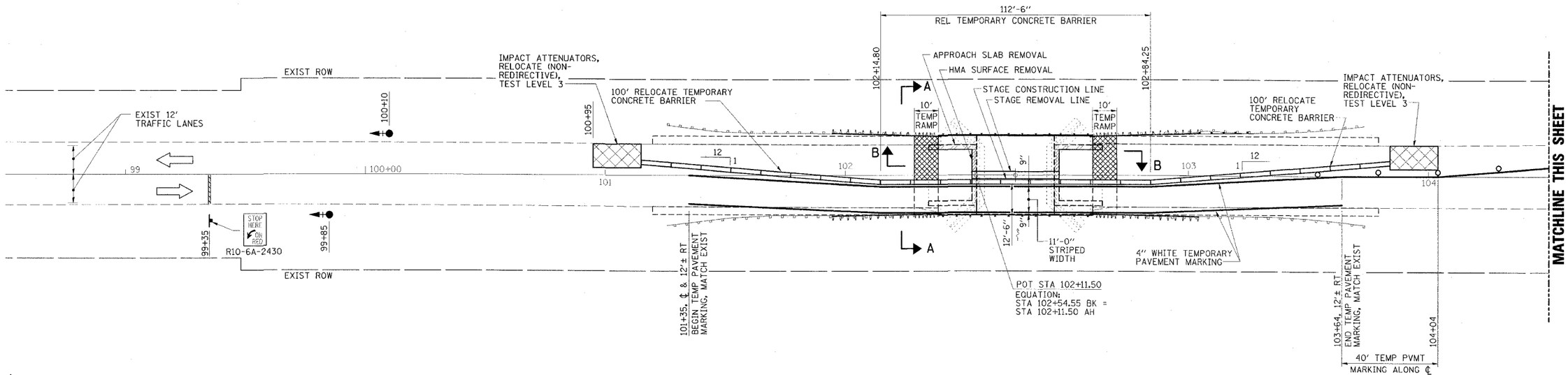
SECTION B

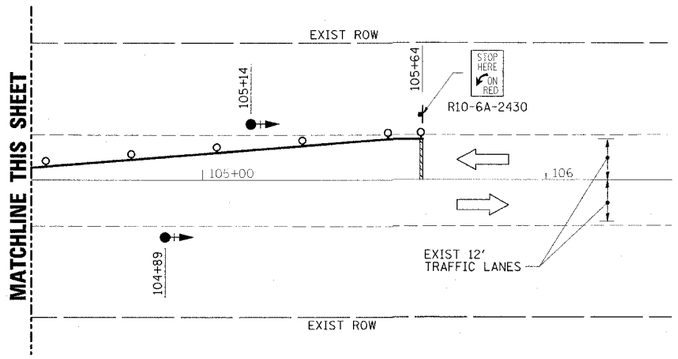
ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

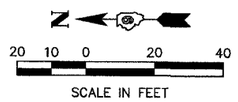
STAGE I CONSTRUCTION
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	13
STA. 99+35		TO STA. 105+64		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		







LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- TEMPORARY RAMP
- HMA SURFACE REMOVAL, SPECIAL
- APPROACH SLAB REMOVAL

SCHEDULE OF QUANTITIES

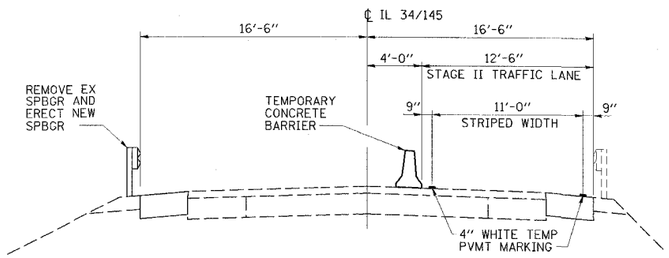
RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
101+15		103+84	312.5
		TOTAL	312.5

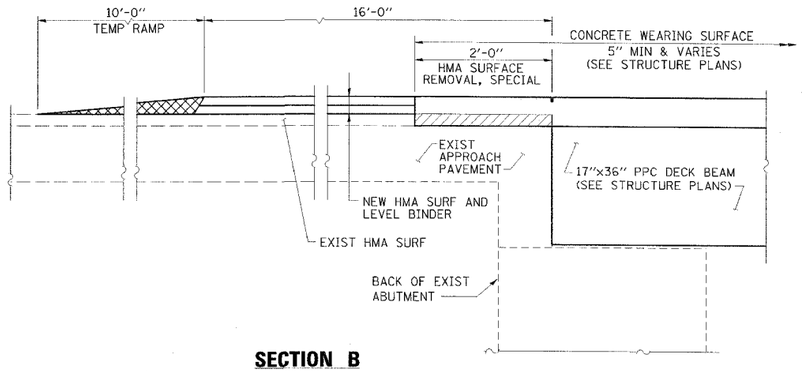
IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.



SECTION A-A



SECTION B

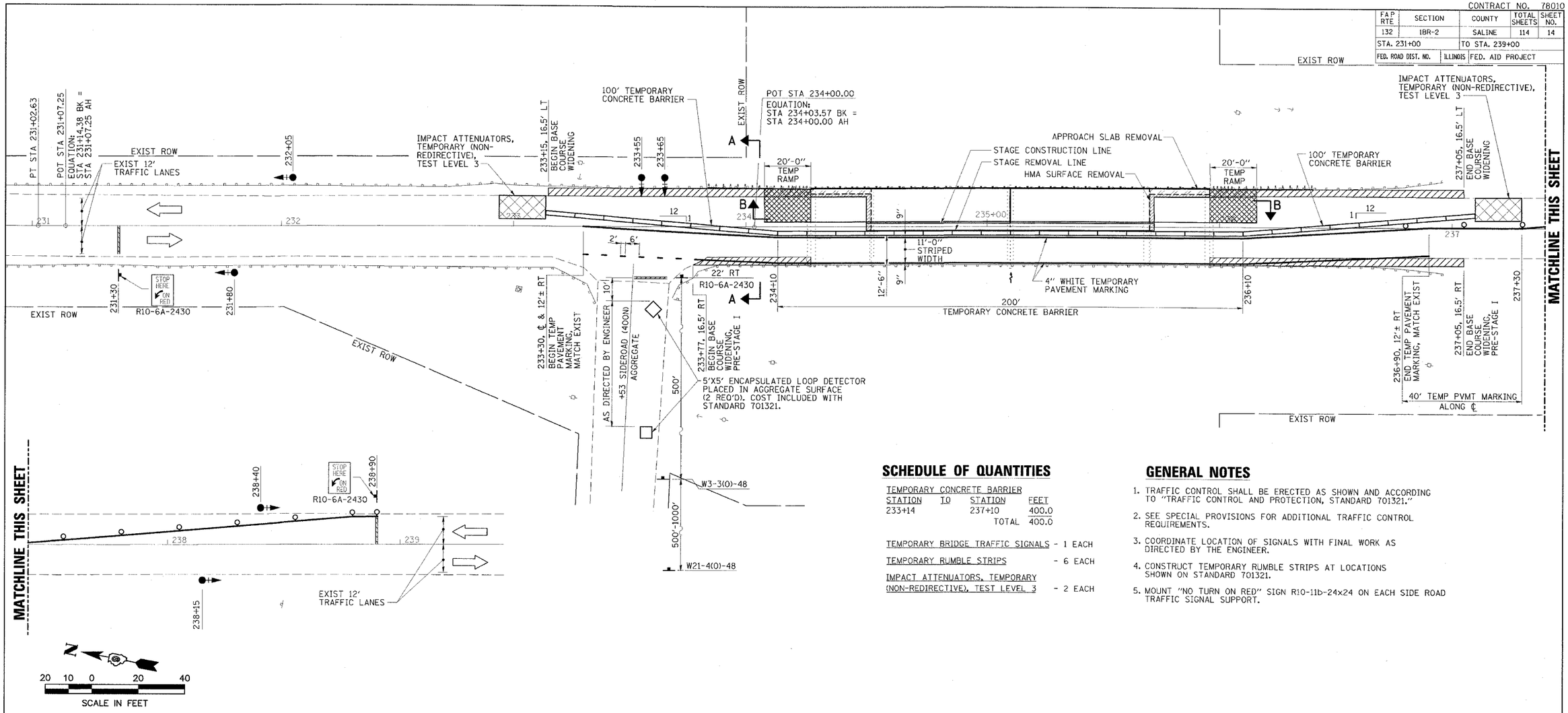
ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STAGE II CONSTRUCTION
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	14
STA. 231+00		TO STA. 239+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
233+14		237+10	400.0
		TOTAL	400.0

TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

TEMPORARY RUMBLE STRIPS - 6 EACH

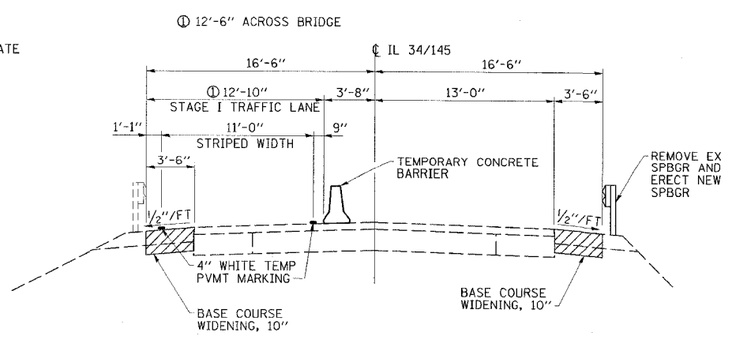
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

GENERAL NOTES

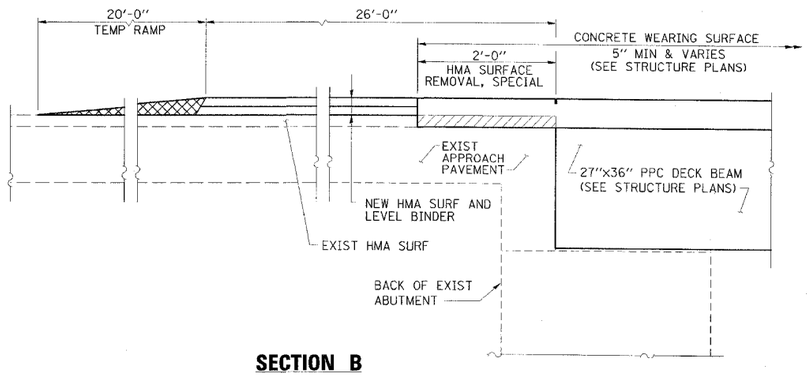
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
5. MOUNT "NO TURN ON RED" SIGN R10-11b-24x24 ON EACH SIDE ROAD TRAFFIC SIGNAL SUPPORT.

LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- BASE COURSE WIDENING, 10"
- TEMPORARY RAMP
- HMA SURFACE REMOVAL, SPECIAL
- APPROACH SLAB REMOVAL



SECTION A-A



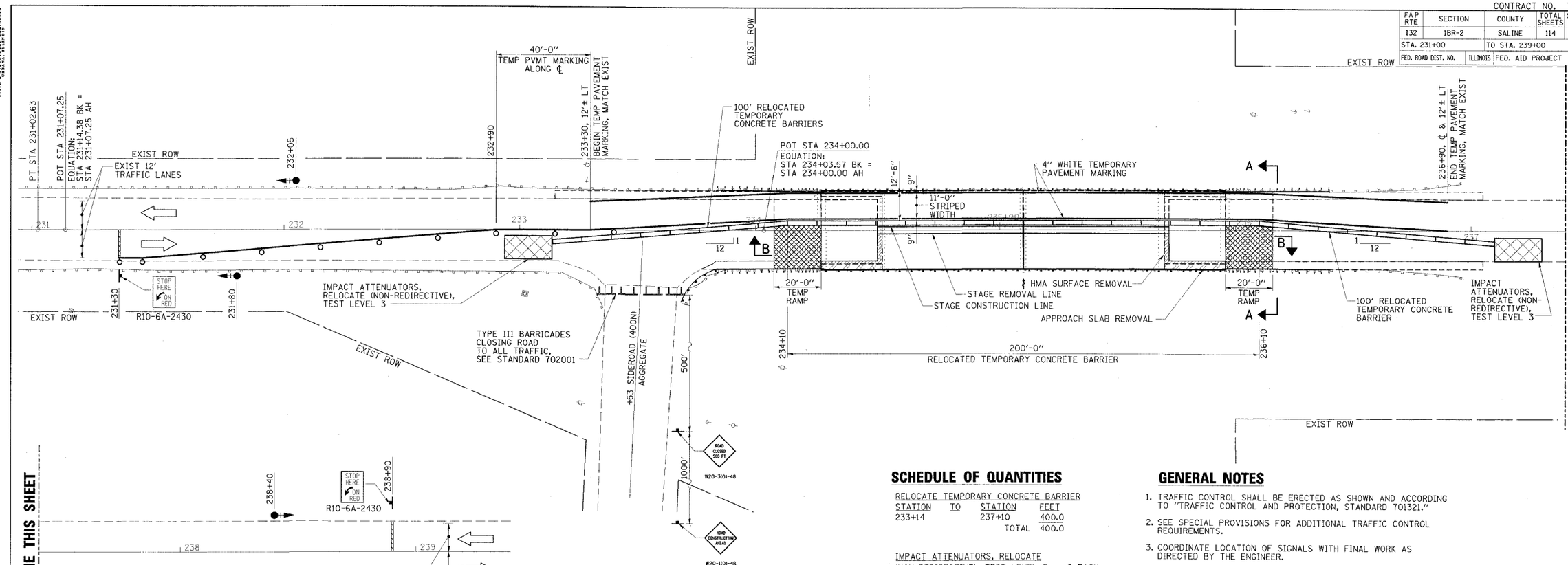
SECTION B

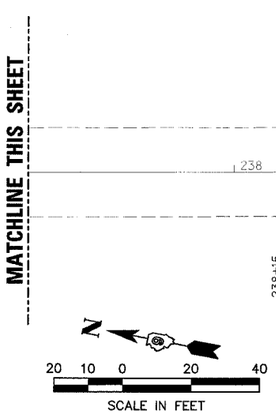
DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STAGE I CONSTRUCTION
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	15
STA. 231+00		TO STA. 239+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





SCHEDULE OF QUANTITIES

RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
233+14		237+10	400.0
		TOTAL	400.0

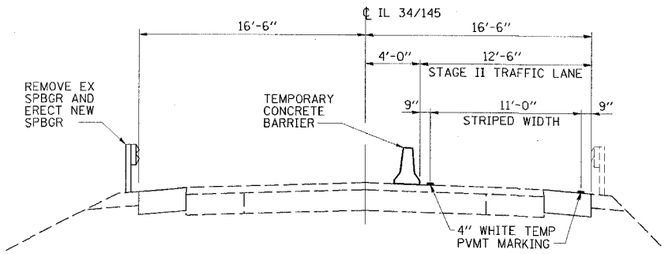
IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

GENERAL NOTES

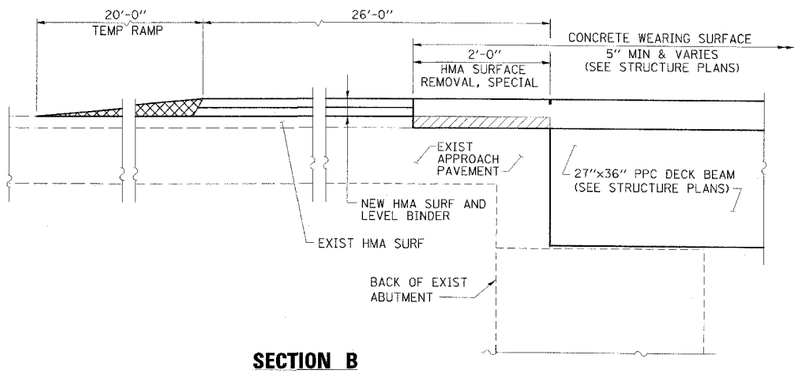
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
5. ERECT SIGNS AND TYPE III BARRICADES AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CLOSE SIDEROAD (400N) DURING STAGE II CONSTRUCTION. COST INCLUDED WITH STANDARD 701321.

LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- TEMPORARY RAMP
- HMA SURFACE REMOVAL, SPECIAL
- APPROACH SLAB REMOVAL



SECTION A-A



SECTION B

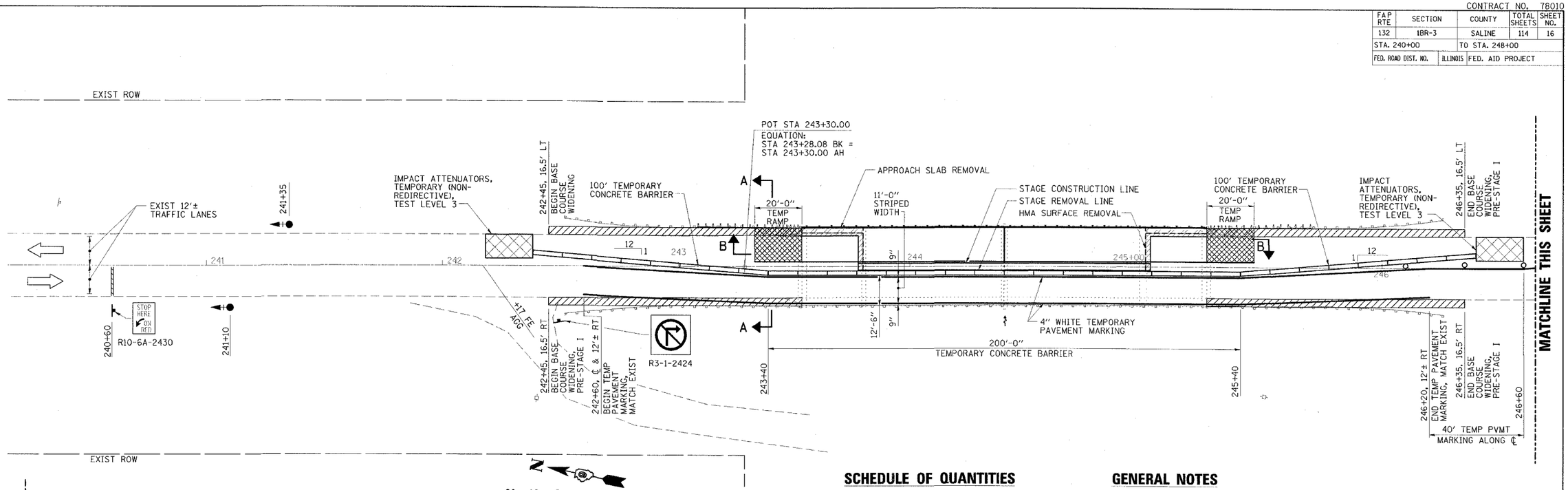
STAGE II CONSTRUCTION
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	16
STA. 240+00		TO STA. 248+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE SIGNAL DIRECTION INDICATED
- BASE COURSE WIDENING, 10"
- TEMPORARY RAMP
- HMA SURFACE REMOVAL, SPECIAL
- APPROACH SLAB REMOVAL

SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
242+41		246+40	400.0
		TOTAL	400.0

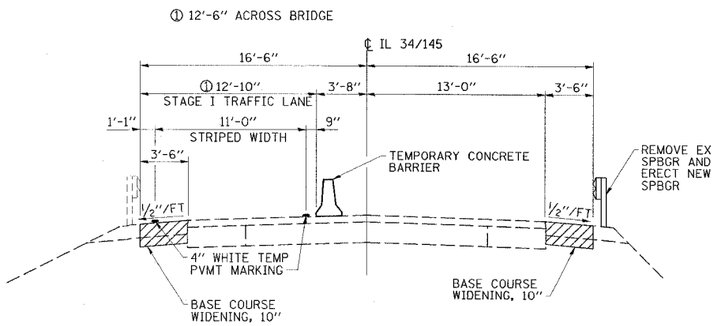
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

TEMPORARY RUMBLE STRIPS - 6 EACH

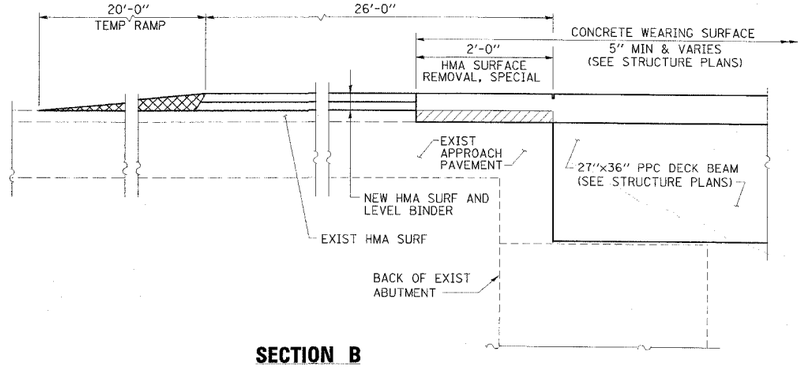
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.



SECTION A–A



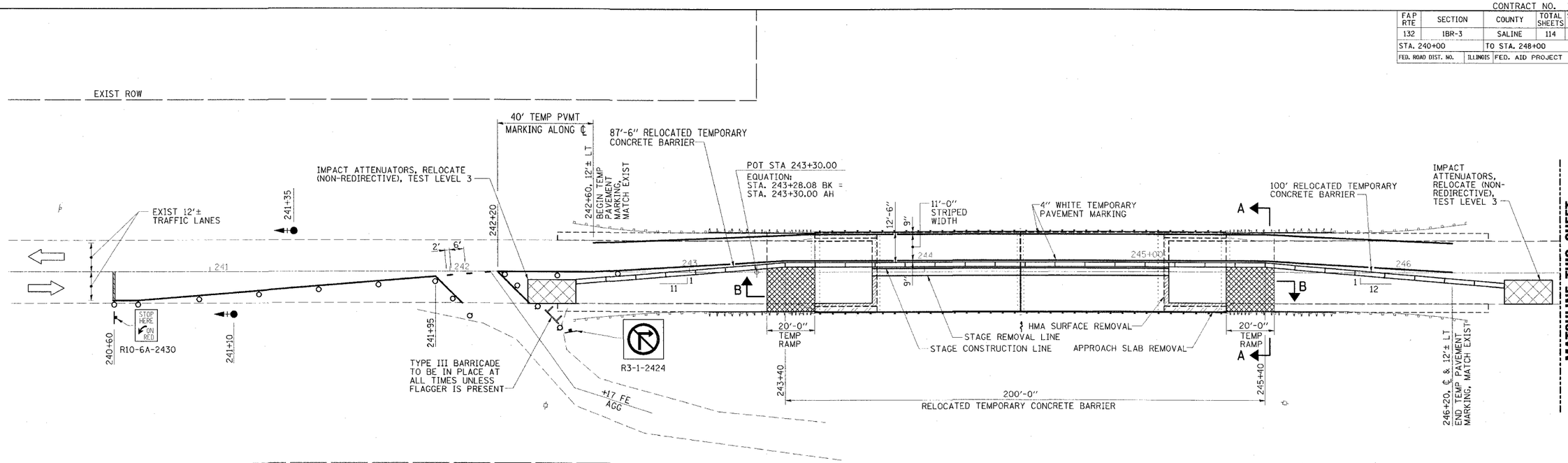
SECTION B

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STAGE I CONSTRUCTION
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	17
STA. 240+00		TO STA. 248+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SCHEDULE OF QUANTITIES

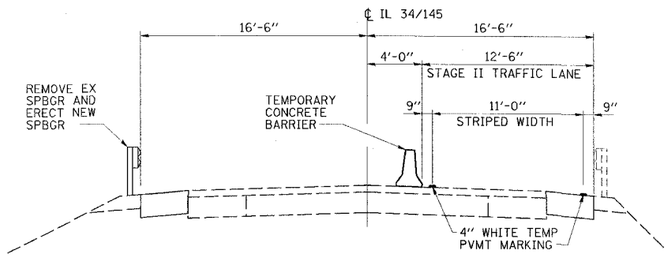
RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	FEET
242+51		246+40	387.5
		TOTAL	387.5

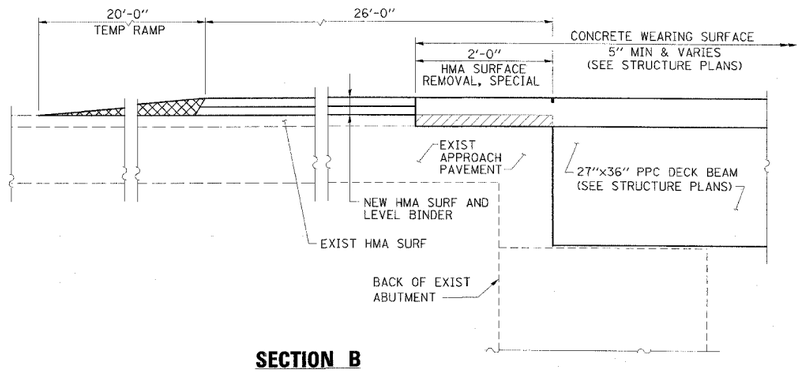
IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 - 1 EACH

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.



SECTION A–A



SECTION B

ESCA CONSULTANTS, INC.

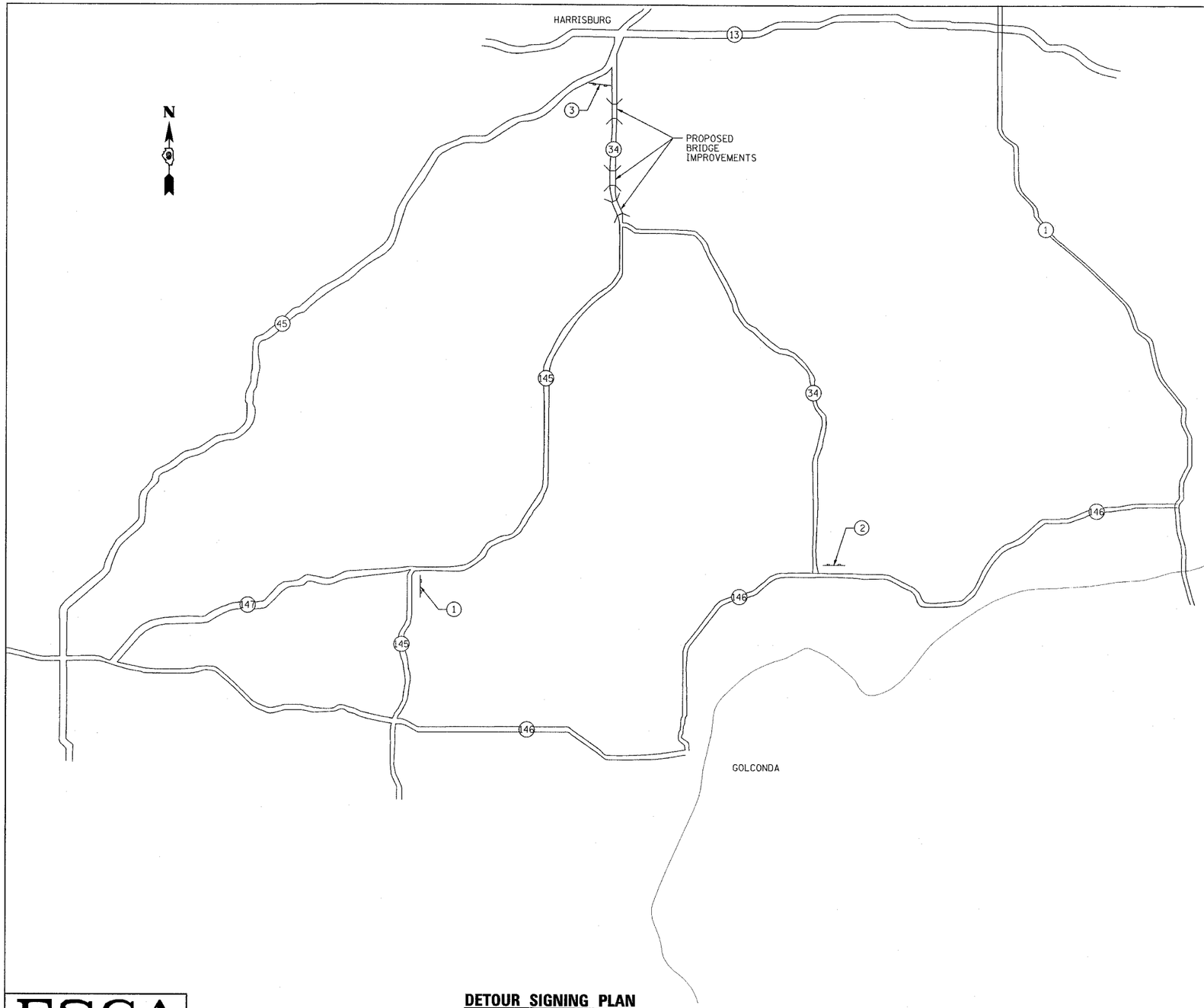
DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STAGE II CONSTRUCTION
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	18
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

*1BR-1, 1BR-2, 1BR-3



SIGN LEGEND STAGE I

① WIDE LOADS OVER 11'–0"
DETOUR VIA
WEST ILLINOIS 147 | WEST ILLINOIS 146 | NORTH ROUTE 45
60"x90"

② WIDE LOADS OVER 11'–0"
DETOUR VIA
EAST ILLINOIS 146 | NORTH ILLINOIS 1 | WEST ILLINOIS 13
60"x90"

③ WIDE LOADS OVER 11'–0"
DETOUR VIA
SOUTH ROUTE 45 | EAST ILLINOIS 146
60"x90"

SIGN LEGEND STAGE II

① WIDE LOADS OVER 11'–0"
DETOUR VIA
WEST ILLINOIS 147 | WEST ILLINOIS 146 | NORTH ROUTE 45
60"x90"

② WIDE LOADS OVER 11'–0"
DETOUR VIA
EAST ILLINOIS 146 | NORTH ILLINOIS 1 | WEST ILLINOIS 13
60"x90"

③ WIDE LOADS OVER 11'–0"
DETOUR VIA
SOUTH ROUTE 45 | EAST ILLINOIS 146
60"x90"

DETOUR NOTES

1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
2. THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD. 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.

DETOUR SIGNING PLAN

ESCA CONSULTANTS, INC.

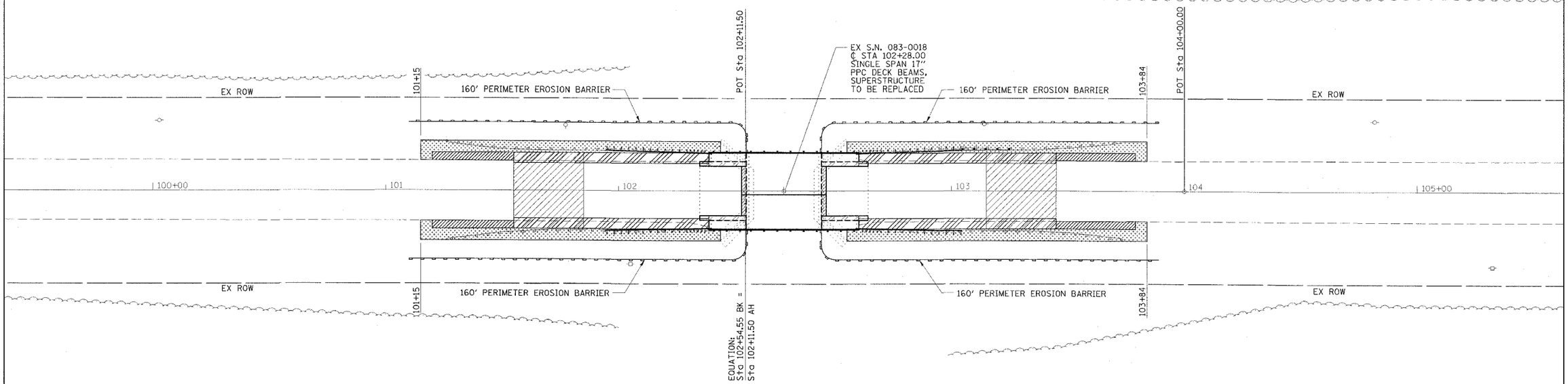
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

WIDE LOAD DETOUR
FAP RTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	19
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0 20 40 60
SCALE IN FEET



LEGEND

APPROXIMATE SEEDING & MULCH AREAS

PERIMETER EROSION BARRIER

ESCA CONSULTANTS, INC.

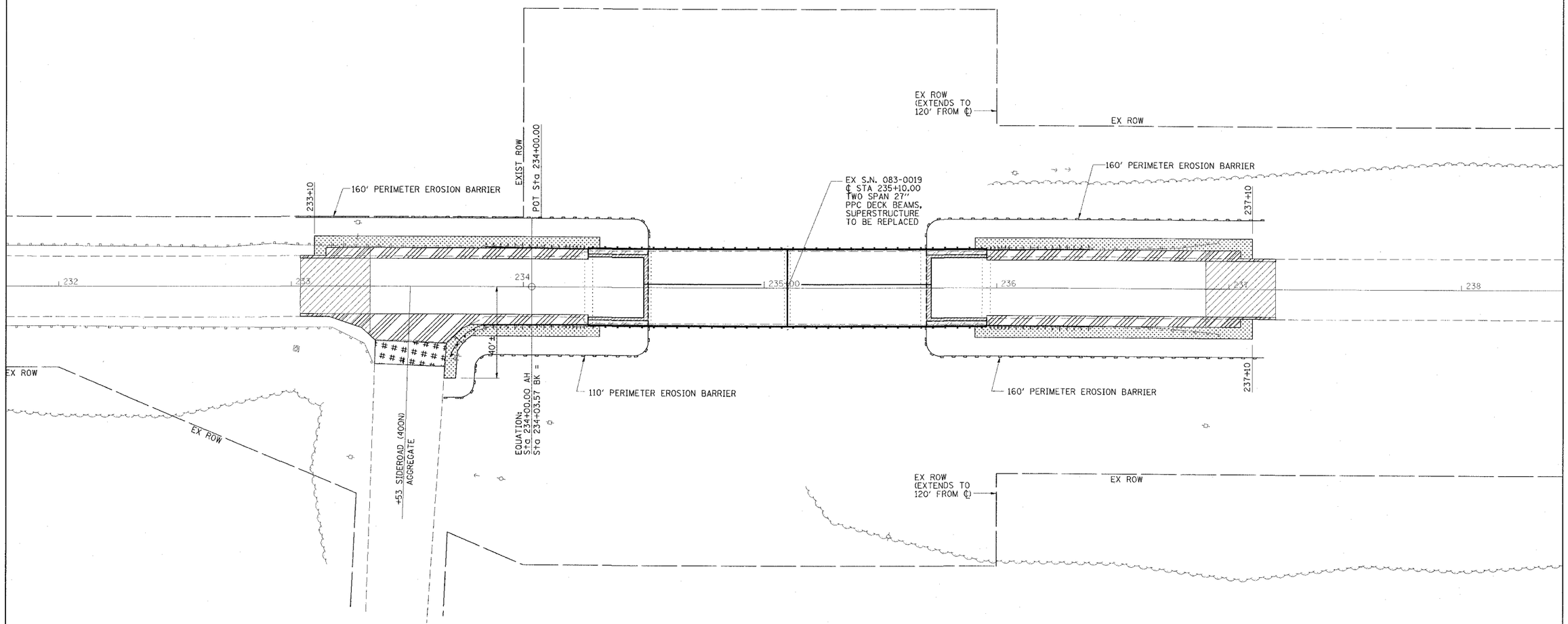
DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

EROSION CONTROL AND DRAINAGE PLAN
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 038-0018

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0 20 40 60
SCALE IN FEET



LEGEND

APPROXIMATE SEEDING & MULCH AREAS

PERIMETER EROSION BARRIER

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

EROSION CONTROL AND DRAINAGE PLAN
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 038-0019

CONTRACT NO. 70810

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0 20 40 60
SCALE IN FEET

EXIST ROW

EX ROW

155' PERIMETER EROSION BARRIER

242+40

POT Sta 243+30.00

EX S.N. 083-0020
℄ STA 244+40.00
TWO SPAN 27"
PPC DECK BEAMS,
SUPERSTRUCTURE
TO BE REPLACED

150' PERIMETER EROSION BARRIER

246+35

241 242 243 244 245+00 246 247

28'-0"±

#17 FF AGGREGATE

EQUATION:
Sta 243+28.08 BK =
Sta 243+30.00 AH

140' PERIMETER EROSION BARRIER

150' PERIMETER EROSION BARRIER

246+35

EX ROW

EXIST ROW

EXIST ROW

LEGEND

APPROXIMATE SEEDING & MULCH AREAS

PERIMETER EROSION BARRIER

ESCA
CONSULTANTS, INC.

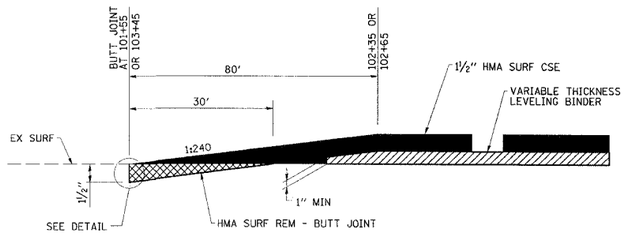
DESIGNED BY:	JMS/MTD	05/07
DRAWN BY:	cj	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

EROSION CONTROL AND DRAINAGE PLAN
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 038-0020

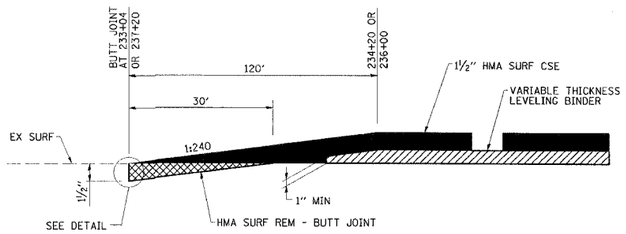
CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	SALINE	114	22
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

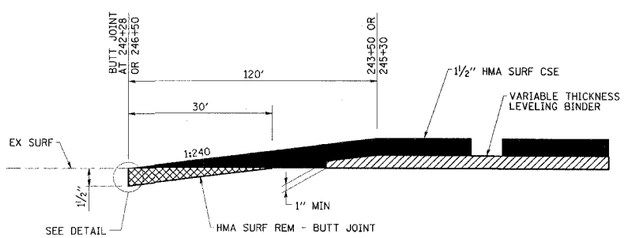
*1BR-1, 1BR-2, 1BR-3



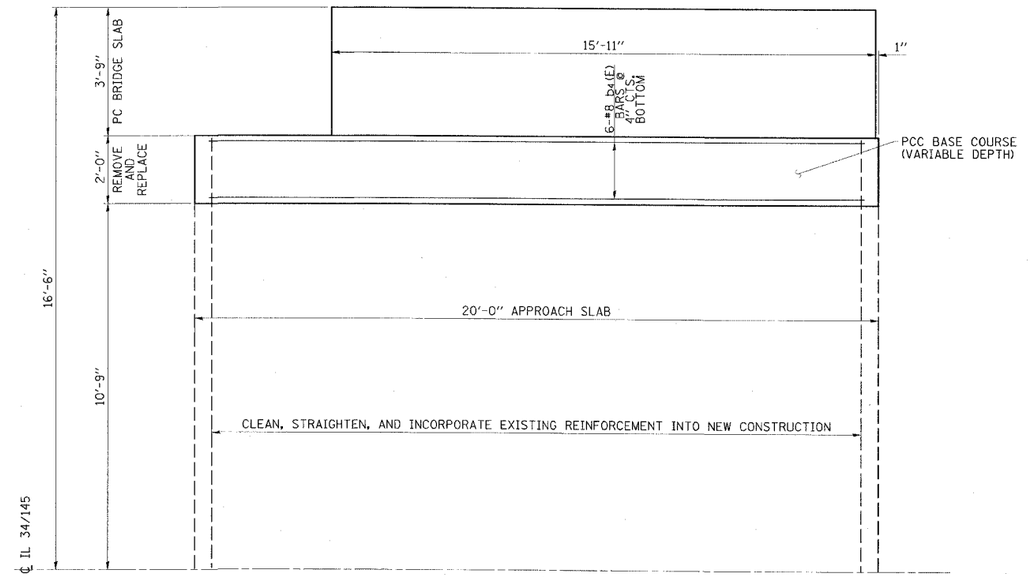
TYPICAL BUTT JOINT SECTION – SN 083–0018



TYPICAL BUTT JOINT SECTION – SN 083–0019

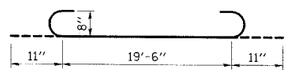


TYPICAL BUTT JOINT SECTION – SN 083–0020



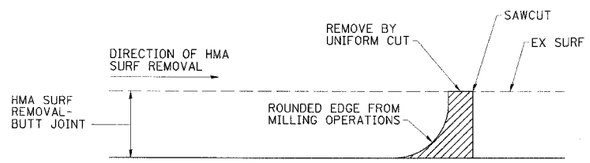
NOTE: THE COST OF REINFORCEMENT BARS AND INCORPORATING EXISTING REINFORCEMENT IS INCLUDED IN PCC BASE COURSE (VARIABLE DEPTH)

PARTIAL PLAN AT NE CORNER



BAR b4(E)

PCC BASE COURSE DETAILS AT SN 083–0018 ONLY



DETAIL AT BUTT JOINT

NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAWCUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE COST OF ALL WORK SHOWN IN THE DETAIL IS INCLUDED IN HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

MISCELLANEOUS DETAILS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1, 1BR-2, 1BR-3
SALINE COUNTY

BENCHMARK: Sawed square in SE corner of SN 083-0018 on exposed approach slab, Station 102+60, 16.1' left, Elevation 366.25.

EXISTING STRUCTURE: SN 083-0018 was originally built in 1925 as S.B.I. Rte. 34, Section 1B. The superstructure was replaced in 1977 and precast concrete bridge slabs were utilized to widen the approaches. The superstructure consists of one simple span, 17" PPC deck beams. The substructure consists of two reinforced concrete closed abutments on timber piles. The back-to-back abutments length is 33'-0", the out-to-out width is 33'-0". The existing superstructure and the existing approach shoulder bridge slabs shall be removed and replaced utilizing stage construction.

No salvage.

STATION 102+28.00
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 132 SEC. 1BR-1
LOADING HS20
STR. NO. 083-0018

NAME PLATE
See Std. 515001

Note:
Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.

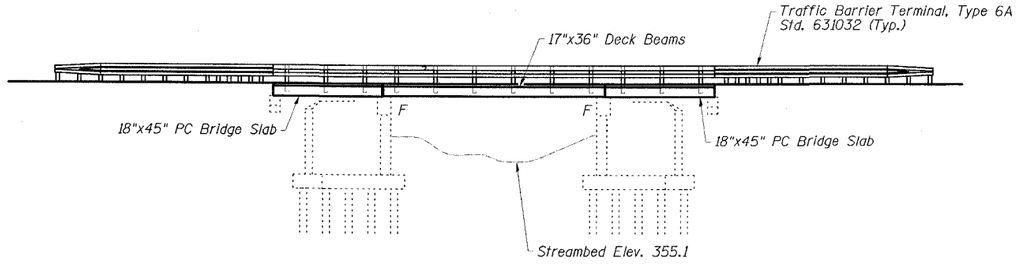
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	23
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

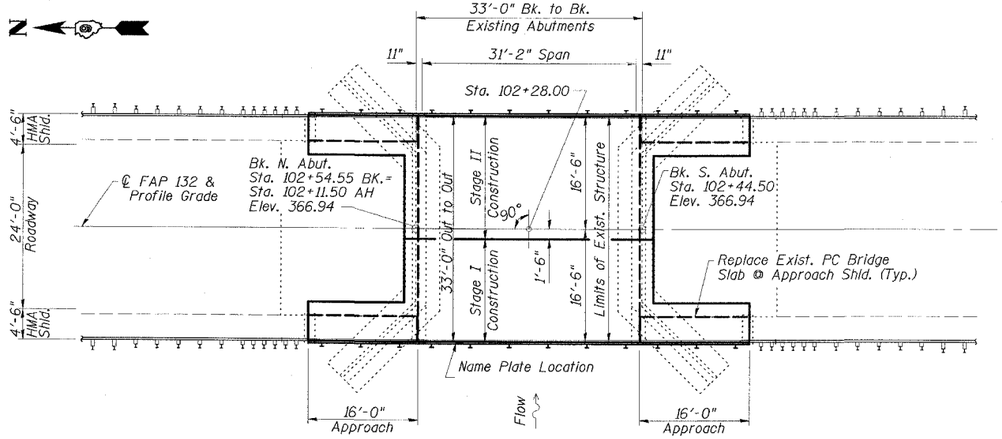
SHEET NO. 1
13 SHEETS

78010

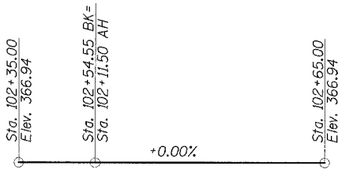
STRUCTURE INDEX OF SHEETS



ELEVATION



PLAN



PROFILE GRADE
(Along ℄ Roadway)

SCOPE OF WORK

1. Remove existing surfacing, steel railing, deck beams, and approach shoulder bridge slabs.
2. Repair beam bearing seats and perform other repairs at abutments as required.
3. Reconstruct a single-span PPCD beam superstructure with Concrete Wearing Surface and Steel Railing, Type SM. Reconstruct existing approach shoulders with Precast Concrete Bridge Slabs with Concrete Wearing Surface.

DESIGN SPECIFICATION
2002 AASHTO

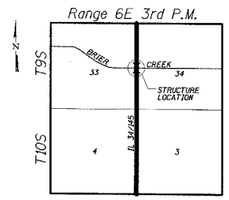
LOADING HS20-44
No Allowance for future wearing surface

DESIGN STRESSES

FIELD UNITS
f'c = 5,000 psi (Concrete Wearing Surface)
f'c = 3,500 psi (All concrete except CWS)
fy = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ low lax strands)
fsi = 201,960 psi (½"ϕ low lax strands)

PRECAST UNITS
f'c = 4,500 psi
fy = 60,000 psi (reinf.)



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RALPH D. POPE
No. 4647
LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-08
Ralph D. Pope
SIGNATURE
8/02/07
DATE

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

GENERAL PLAN
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	24
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

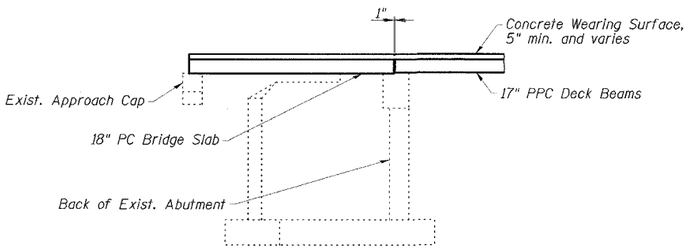
SHEET NO. 2
13 SHEETS

78010

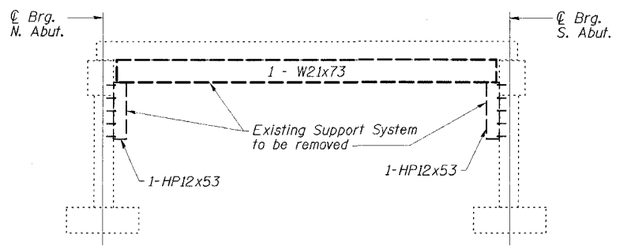
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions.
2. Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
3. Concrete Sealer shall be applied to abutment bearing seats where Structural Repair of Concrete is performed.
4. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300 Type 1 unless noted otherwise.
5. No in-stream work will be allowed on this project.
6. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
7. If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new or existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures No. 1.
8. The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
9. Repair of the substructure shall be completed prior to placement of the new deck beams.
10. Stage Construction of Precast Prestressed Concrete Deck Beams shall be according to Article 504.06(d) of the Standard Specifications.



SECTION THRU ABUTMENTS @ OUTSIDE BEAM

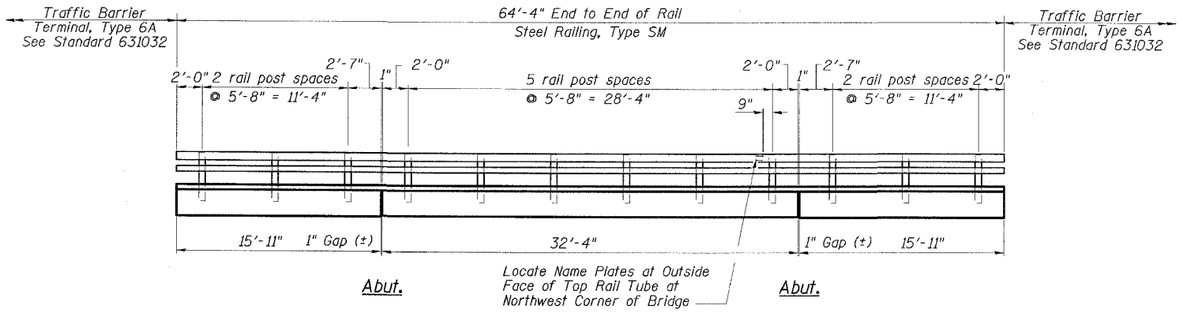


SECTION NEAR EXISTING SUPPORT SYSTEM

Note: An Existing Support System is in place under one of the interior PPC Deck Beams. Contractor shall remove all components of the system after removal of the existing PPC Deck Beam supported by the system and prior to placing the Stage I PPC Deck Beams. All anchorages shall be cut, ground flush with the surface of the concrete, and sealed with epoxy. This work shall be included in the cost of Removal of Existing Superstructures No. 1.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures No. 1	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	169	-	169
Protective Coat	Sq. Yd.	169	-	169
Precast Concrete Bridge Slab	Sq. Ft.	239	-	239
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1067	-	1067
Reinforcement Bars, Epoxy Coated	Pound	2300	-	2300
Bar Splicers	Each	37	-	37
Steel Railing, Type SM	Foot	129	-	129
Name Plates	Each	1	-	1
Concrete Sealer	Sq. Ft.	-	30	30
Epoxy Crack Injection	Foot	-	44	44
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	-	30	30
Concrete Wearing Surface, 5"	Sq. Yd.	169	-	169
Removal of Existing Precast Concrete Units	Sq. Ft.	239	-	239



STEEL RAILING, TYPE SM ELEVATION
(Showing Inside Face of East Railing; West Railing Similar)

See Dwg. No. 9 of 13 for Railing Details.

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

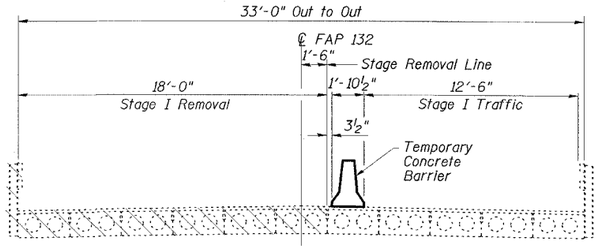
GENERAL DATA
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

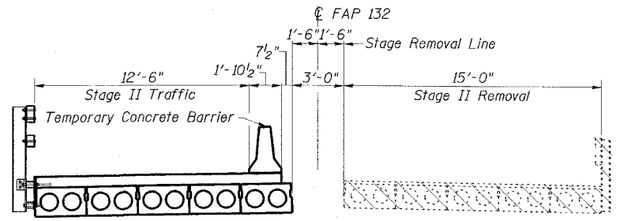
ROUTE, NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	25
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
13 SHEETS

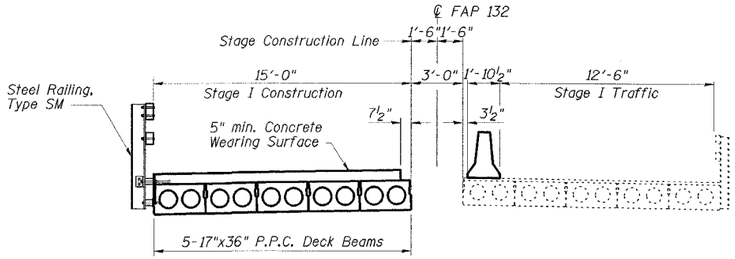
78010



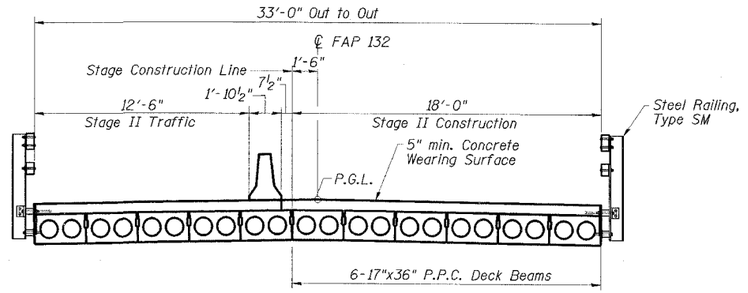
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. All staging sections are looking North.
2. See Dwg. No. 5 of 13 for shear key clamping details.
3. For quantity of Temporary Concrete Barrier, see Roadway Plans.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

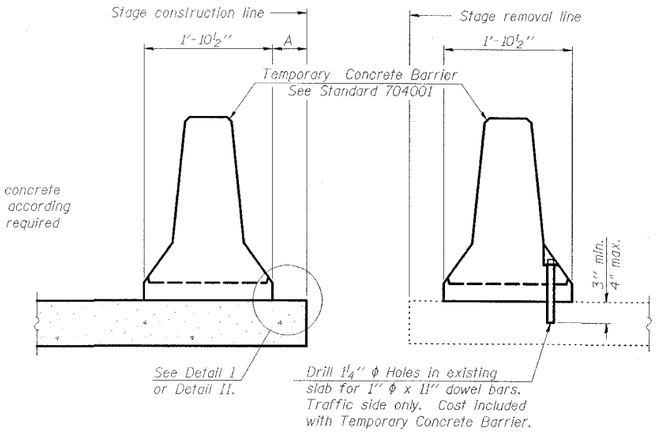
STAGE CONSTRUCTION DETAILS
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	26
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
13 SHEETS

78010



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".

NEW SLAB

EXISTING SLAB

SECTIONS THRU SLAB

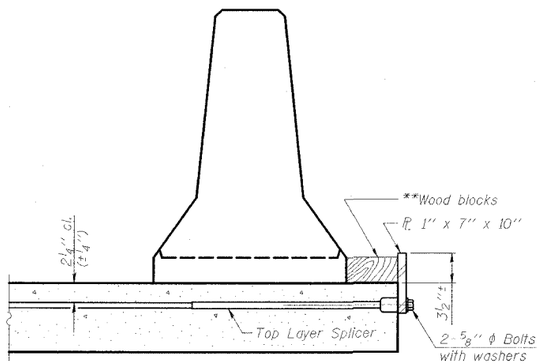
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

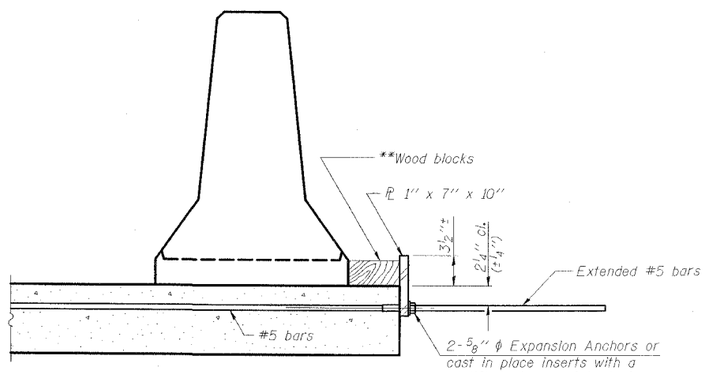
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℄ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

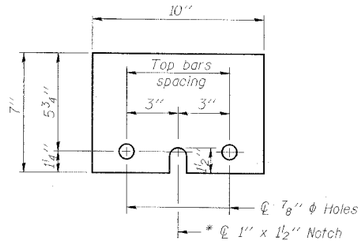
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER ℄ 1" x 7" x 10"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

ESCA CONSULTANTS, INC.

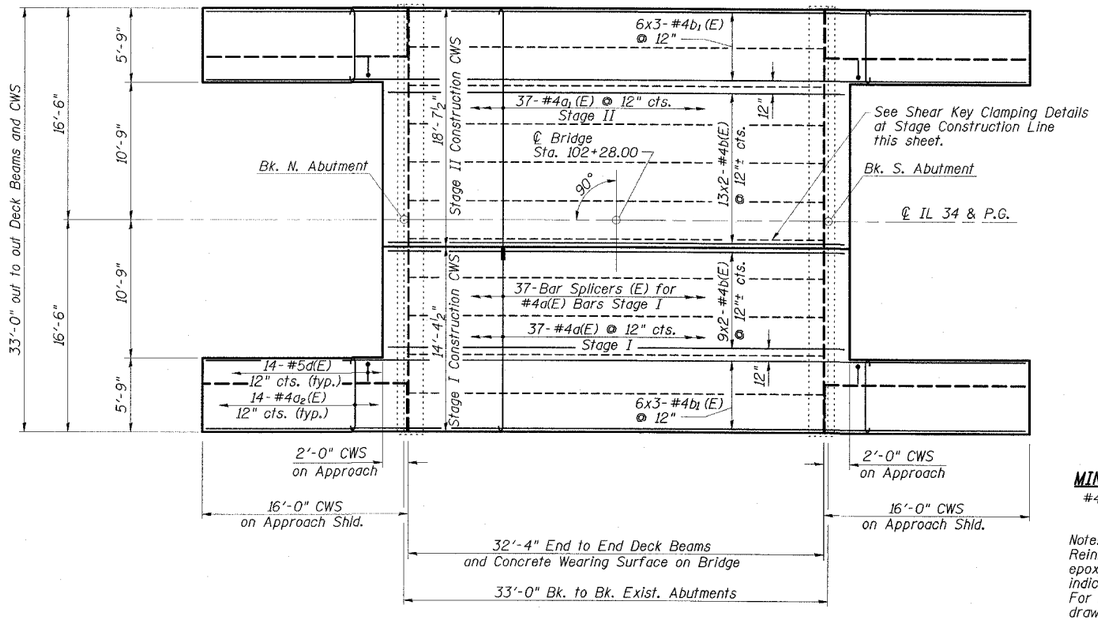
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

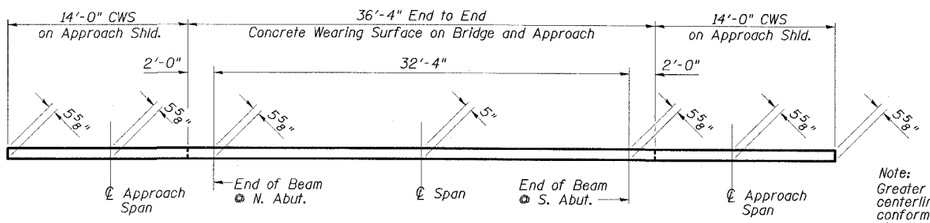
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	27
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
13 SHEETS

78010



PLAN - WEARING SURFACE



REINFORCED CONCRETE WEARING SURFACE PROFILE
(At edge of bridge deck)

Note:
Greater thickness is required at centerline of superstructure to conform to cross section slopes shown on Dwg. 6 of 13.

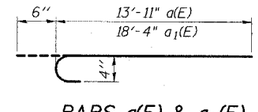
MIN. BAR LAP

#4 bar = 1'-8"

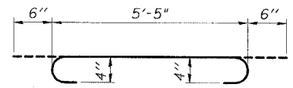
Note:
Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 14x2-#4 etc. indicates 14 lines of bars with 2 lengths per line. For remainder of superstructure details, see drawings 6 and 8 of 13.

CONCRETE WEARING SURFACE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	37	#4	14'-5"	
a1(E)	37	#4	18'-10"	
a2(E)	56	#4	6'-5"	
b(E)	44	#4	18'-10"	
b1(E)	36	#4	22'-6"	
d(E)	56	#5	2'-4"	
Reinforcement Bars, Epoxy Coated		Pound	2300	
Concrete Wearing Surface, 5"		Sq. Yd.	169	
Bridge Deck Grooving		Sq. Yd.	169	
Bar Splicers		Each	37	
Protective Coat		Sq. Yd.	169	

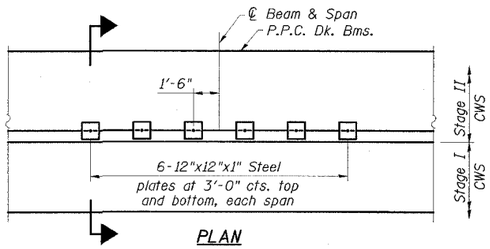


BARS d(E) & a1(E)

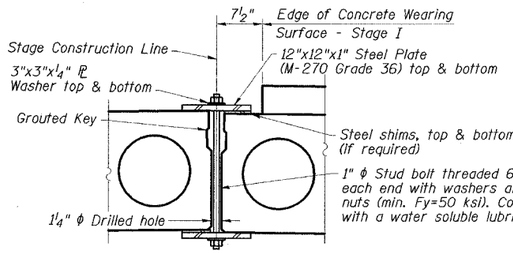


BAR a2(E)

BAR d(E)

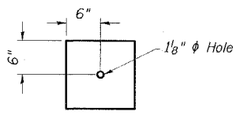


PLAN



SECTION

SHEAR KEY CLAMPING DETAILS



CLAMPING PLATE

Notes:
See Stage Construction Details for traffic lanes. Cost is included with Precast Prestressed Concrete Deck Beams.

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

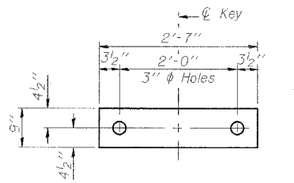
SUPERSTRUCTURE
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

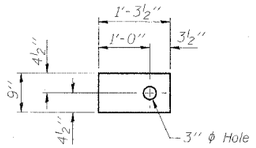
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	28
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
13 SHEETS

78010

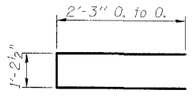


FABRIC BEARING PAD
(Interior)

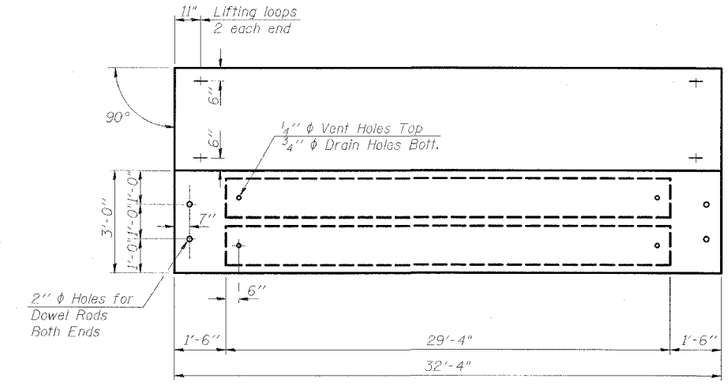


FABRIC BEARING PAD
(Exterior and Stage Construction Line)

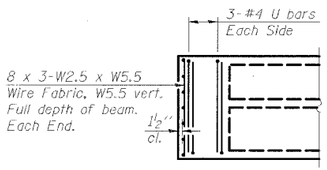
FIXED



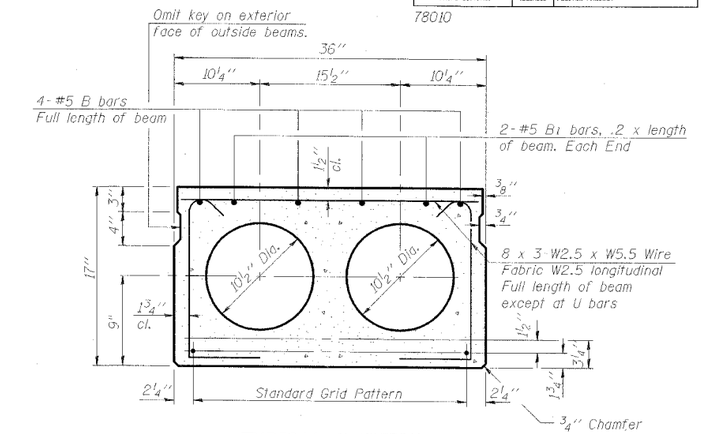
U BAR



PLAN



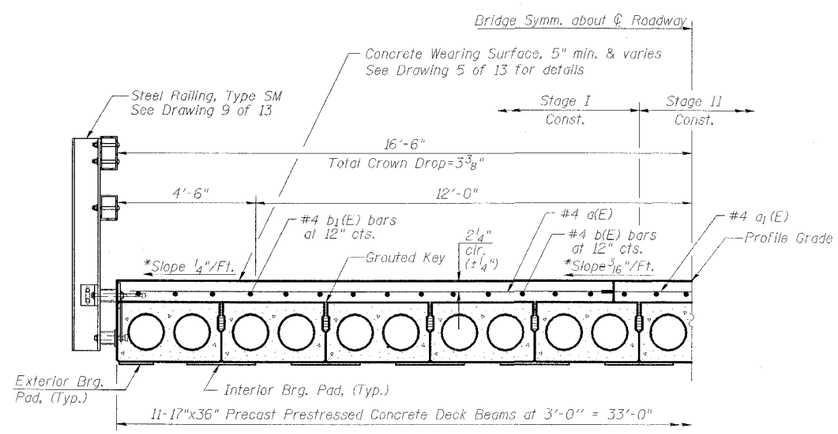
END PLAN



TYPICAL SECTION

9-½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
5-Strands 1¾" up, 4-strands 3¼" up

Notes:
1. Place strands symmetrically about ℄ of beam.
2. See Dwg. 8 of 13 for add'l. details applicable to fascia beams.



* Cross slopes shown are applicable to Concrete Wearing Surface.

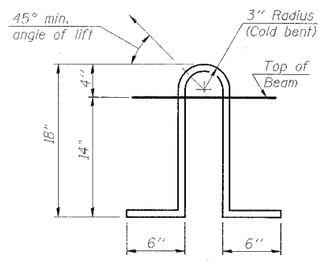
HALF CROSS SECTION
(Looking North)

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (17")	Sq. Ft.	1067

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 4000 p.s.i.
See Dwg. No. 2 of 13 for location of rail anchors and additional notes.



LIFTING LOOP DETAIL

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

PD-3-SA 11-1-06

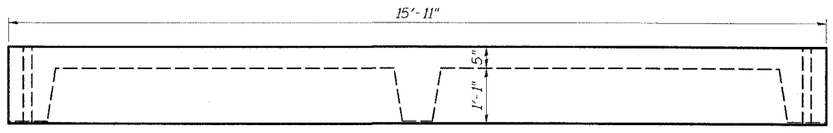
SUPERSTRUCTURE DETAILS
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

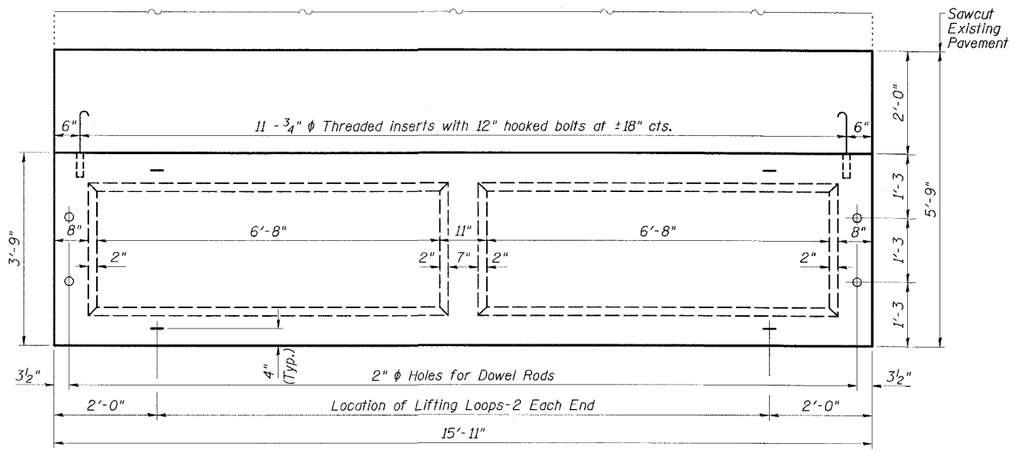
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	29
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
13 SHEETS

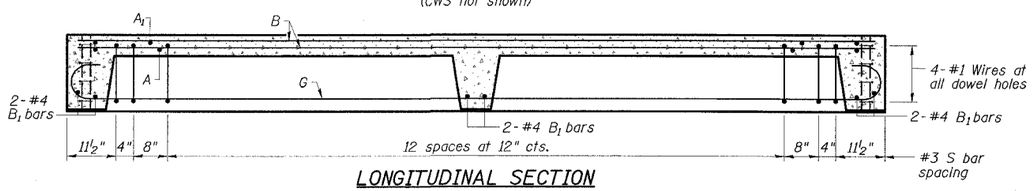
78010



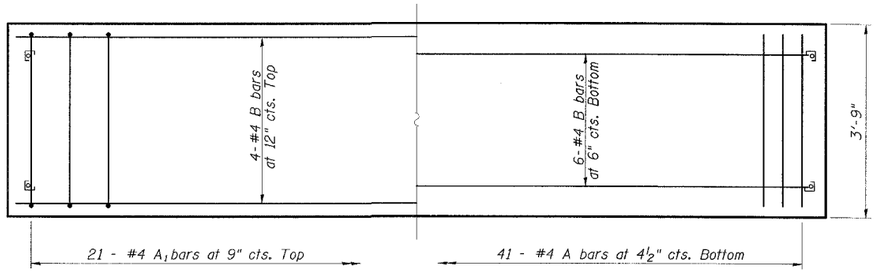
ELEVATION



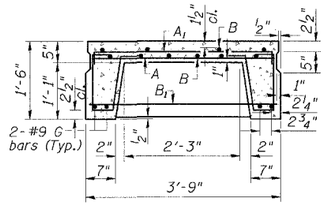
PARTIAL PLAN OF APPROACH
(CWS not shown)



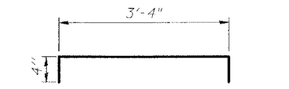
LONGITUDINAL SECTION



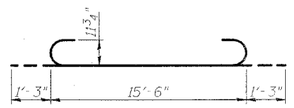
SLAB REINFORCEMENT



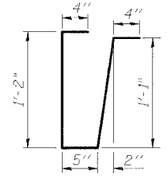
SECTION THRU PRECAST UNIT



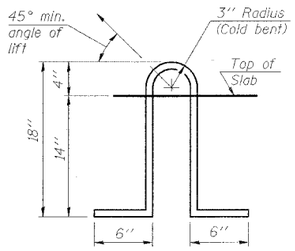
BAR A1



BAR G

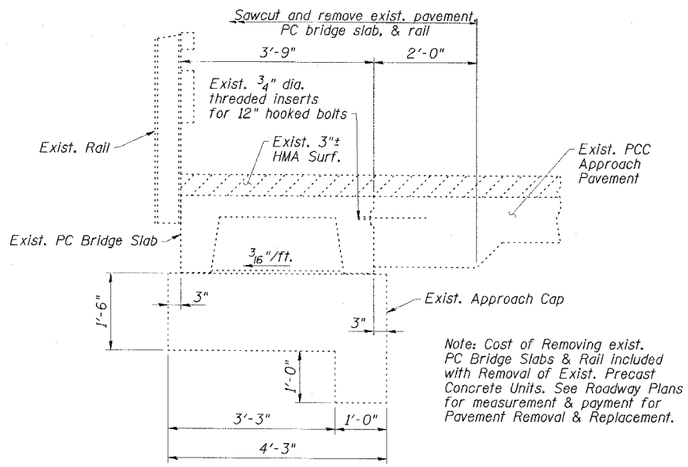


BAR S



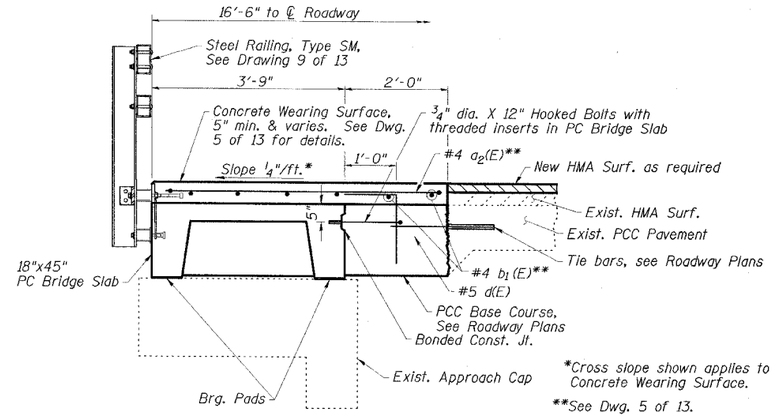
LIFTING LOOP DETAIL

FABRIC BEARING PAD



Note: Cost of Removing exist. PC Bridge Slabs & Rail included with Removal of Exist. Precast Concrete Units. See Roadway Plans for measurement & payment for Pavement Removal & Replacement.

EXISTING CROSS SECTION



*Cross slope shown applies to Concrete Wearing Surface.
**See Dwg. 5 of 13.

PROPOSED CROSS SECTION

NOTES

Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.

Reinforcing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the slabs. Cleaning shall be done by sandblasting the keyway areas between top of the slab and the bottom edge of the key.

Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast concrete bridge slabs.

Required Strength, f'c, shall be 4500 p.s.i.

See Dwg. No. 2 of 13 for location of rail anchors and additional notes.

Cost of reinforcement and accessories cast into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor rods and ¾" ϕ hooked bolts is included in contract Unit Price for "Precast Concrete Bridge Slab."

The Precast Concrete Bridge Slab shall be erected and aligned with the exterior face of the exterior Deck Beam after Deck Beams are in final position.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq. Ft.	239

APPROACH DETAILS
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

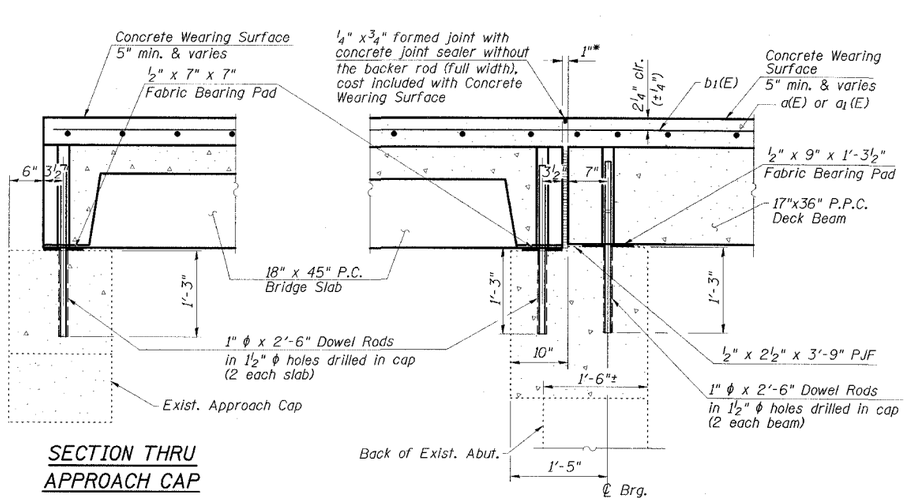
ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	30
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

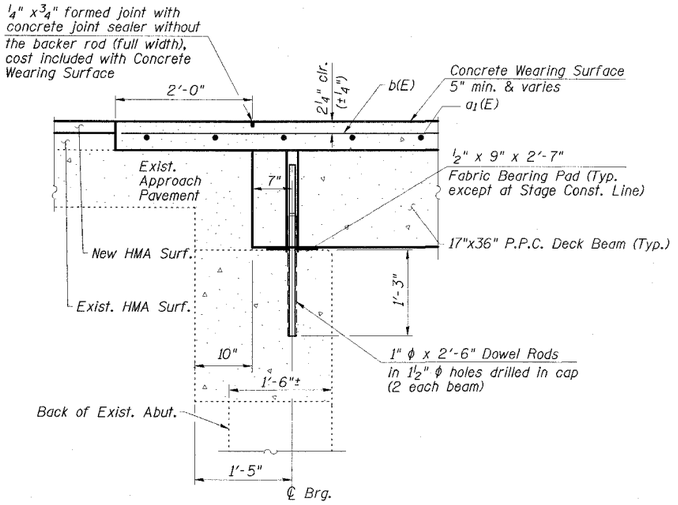
SHEET NO. 8
13 SHEETS

78010



SECTION THRU APPROACH CAP

SECTION THRU ABUTMENT @ OUTSIDE BEAM



SECTION THRU ABUTMENT @ ℄ RDWY.

* 1" joint shall be filled w/non-shrink grout, 1" dimension may vary to accomodate variation in beam lengths

NOTES

After beams have been erected, holes shall be drilled into substructure and dowels rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

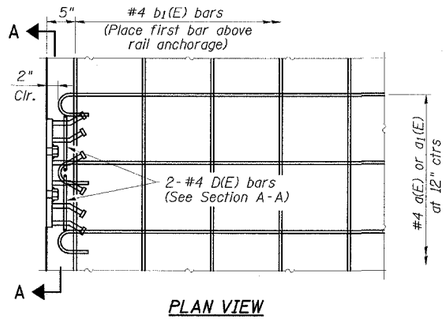
Concrete wearing surface to be poured after grouting the shear keys.

Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (17" depth) or Precast Concrete Bridge Slabs.

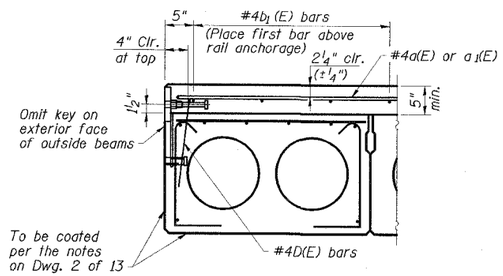
The rail anchorage shall be cast with the beam or slab and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam or slab. Drilling into the beam or slab will not be permitted.

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

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

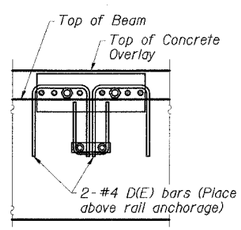


PLAN VIEW

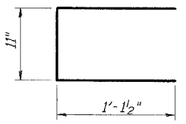


FASCIA BEAM CROSS SECTION

See Typical Section - Interior Beams on Dwg. 5 of 13 for strand pattern, dimensions and bar call outs.



SECTION A-A



BAR D(E)

CONCRETE OVERLAY MODIFICATIONS FOR RAIL ANCHORAGE
(Bridge shown, Approach similar)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

SUPERSTRUCTURE AND APPROACH DETAILS
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

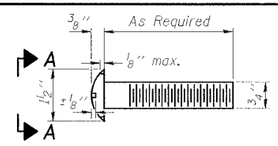
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-1	SALINE	114	31
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

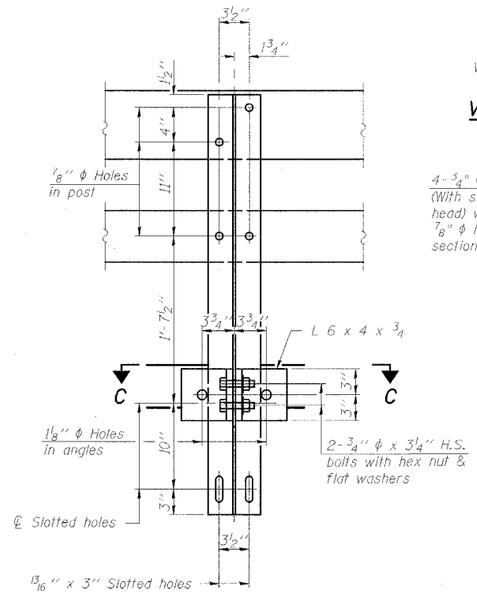
SHEET NO. 9
13 SHEETS

78010

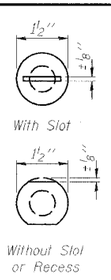
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF $\frac{3}{4}$" ϕ ROUND HEAD BOLT

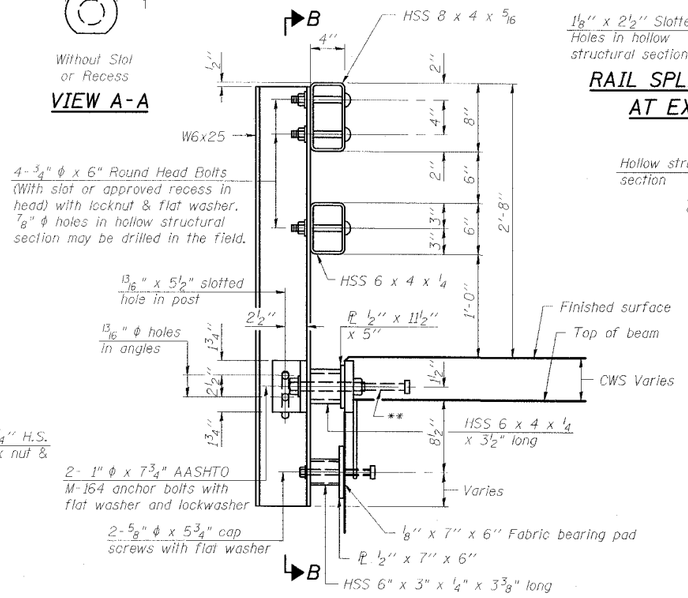




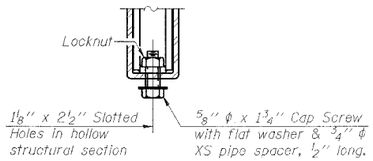
SECTION B-B



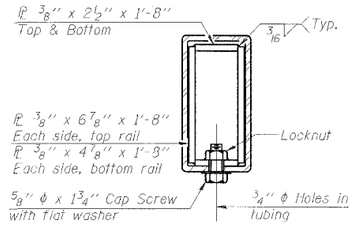
VIEW A-A



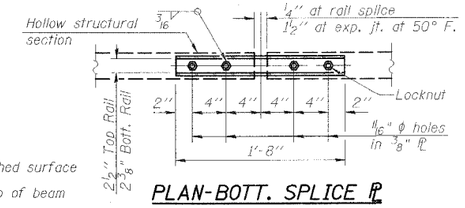
SECTION AT RAIL POST



RAIL SPLICE CONNECTION AT EXPANSION JT.

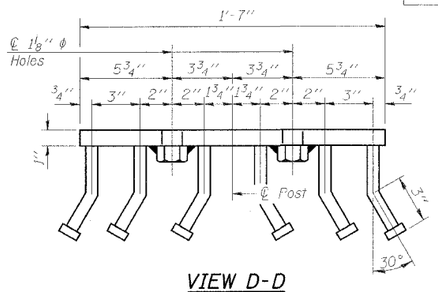


SECTION AT RAIL SPLICE

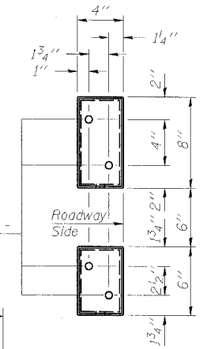


PLAN-BOTT. SPLICE PL TYPICAL

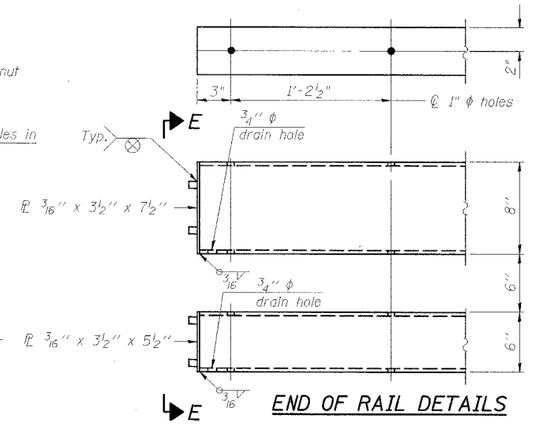
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW D-D

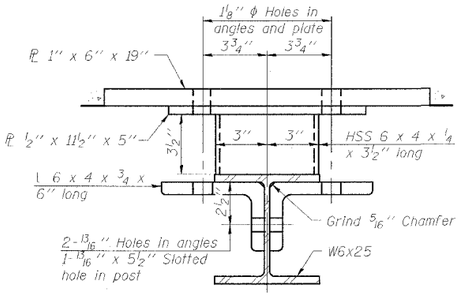


VIEW E-E

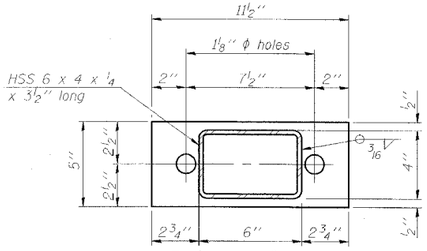


END OF RAIL DETAILS

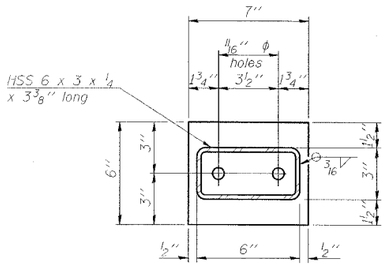
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



SECTION C-C

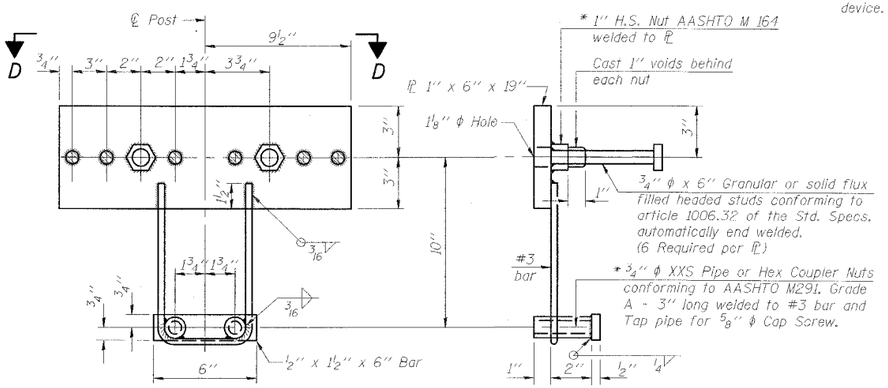


PL 1/2" x 11 1/2" x 5"



PL 1/2" x 7" x 6"

(6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	129

STEEL RAILING, TYPE SM
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

R-34CWS

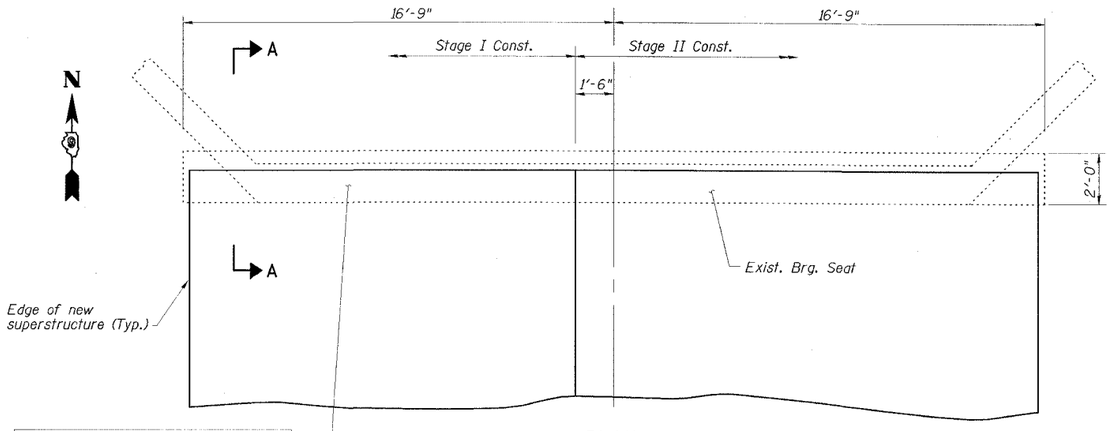
11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	32
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

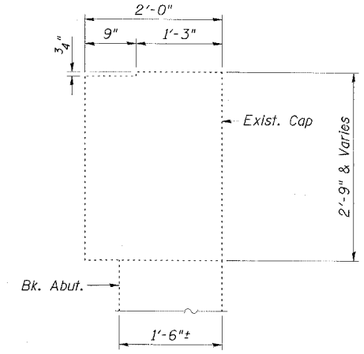
SHEET NO. 10
13 SHEETS

78010



PLAN

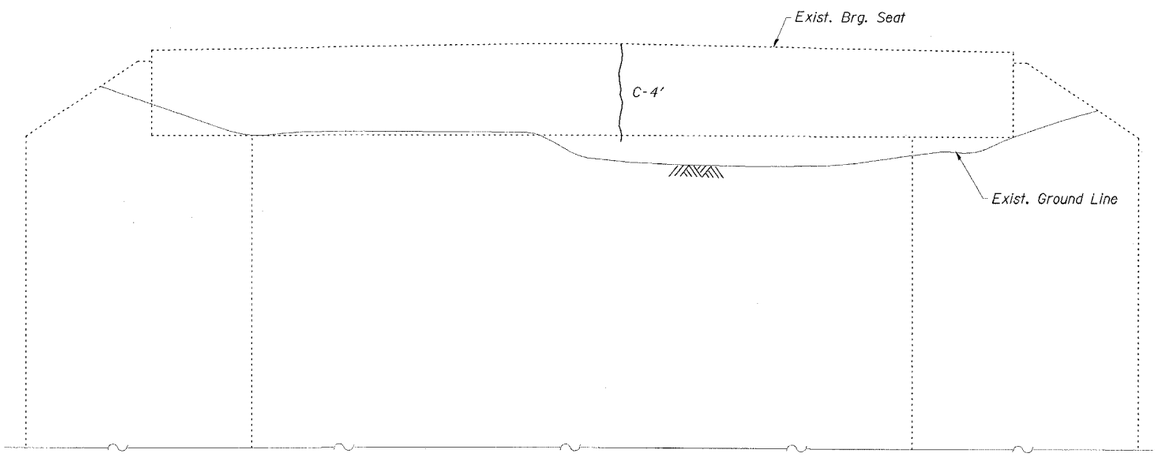
EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH < 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



SECTION A-A

NORTH ABUTMENT BILL OF MATERIAL

Item	Unit	Quantity
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	24
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	15



ELEVATION

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

REPAIR LEGEND

Inspection Date: 02/01/07

C.-6' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

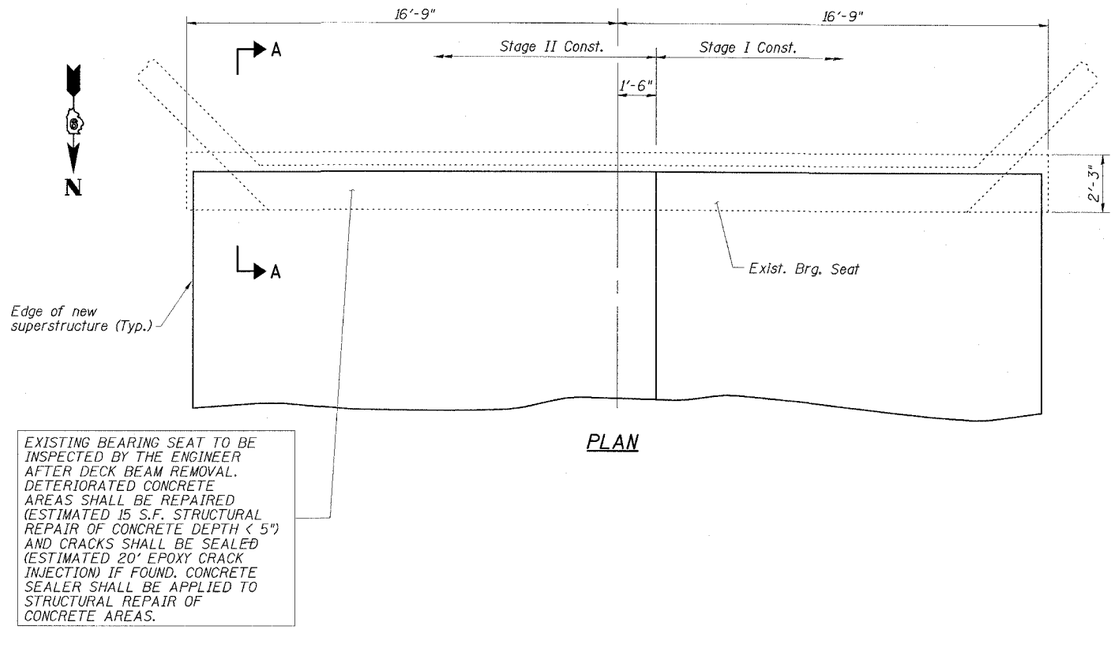
NORTH ABUTMENT
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-1	SALINE	114	33
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

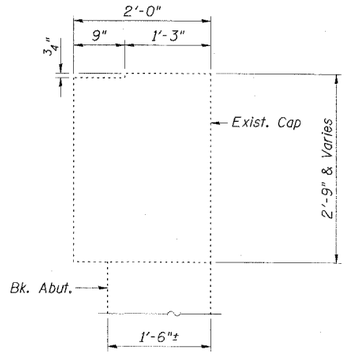
SHEET NO. 11
13 SHEETS

78010



PLAN

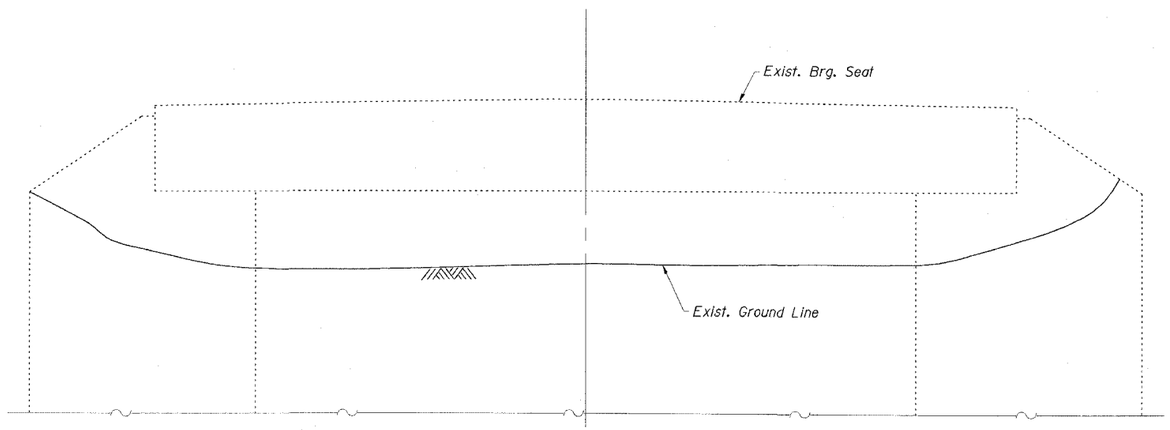
EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH < 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



SECTION A-A

SOUTH ABUTMENT BILL OF MATERIAL

Item	Unit	Quantity
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	20
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	15



ELEVATION

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE REPAIR AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

REPAIR LEGEND

Inspection Date: 02/01/07

C.-6' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAG	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

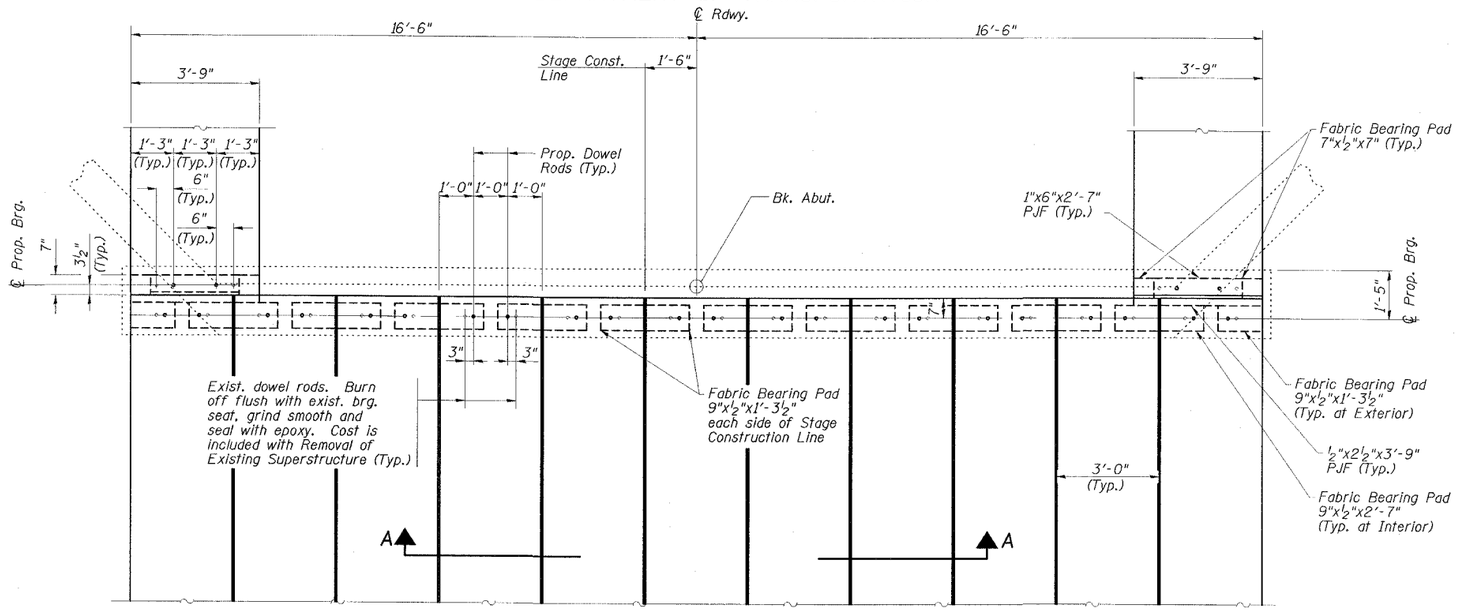
SOUTH ABUTMENT
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	34
FED. ROAD DIST. NO.	ILL. STATE	FED. AID PROJECT		

SHEET NO. 12
13 SHEETS

78010

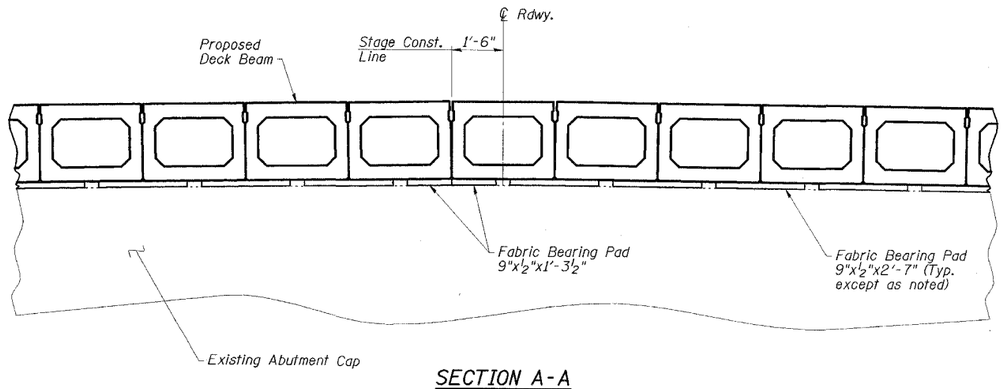
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



N. Abut. shown; S. Abut. similar

ABUTMENT BEARING SEAT PLAN

(Concrete wearing surface and approach pavement not shown)



SECTION A-A

(Concrete wearing surface not shown)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

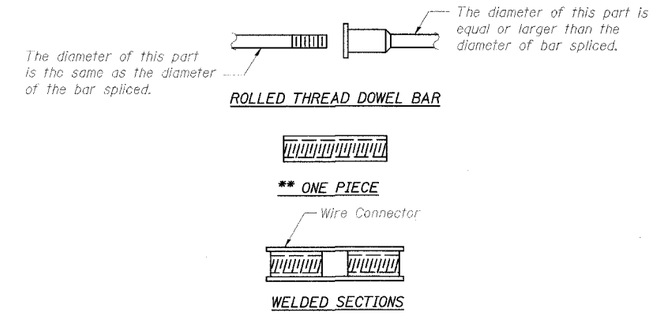
ABUTMENT DETAILS
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-1	SALINE	114	35
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

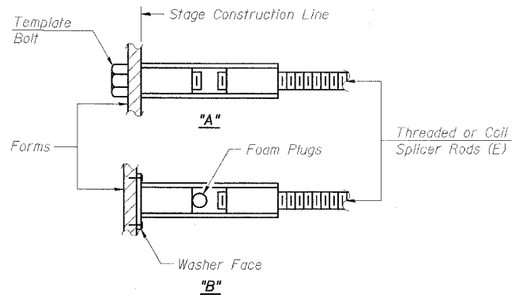
SHEET NO. 13
13 SHEETS

78010



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.

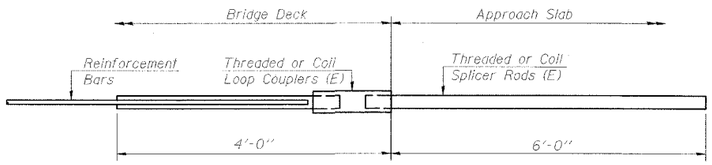
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

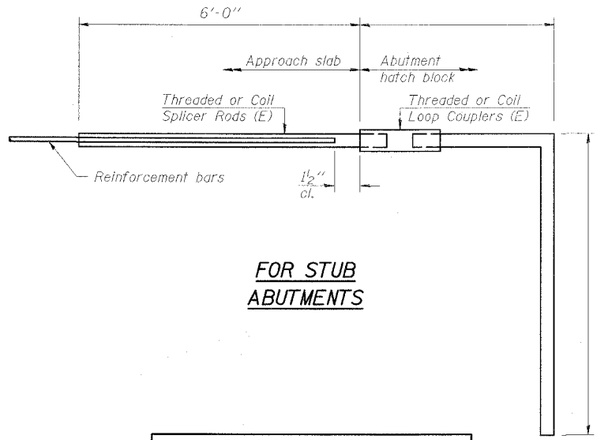
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



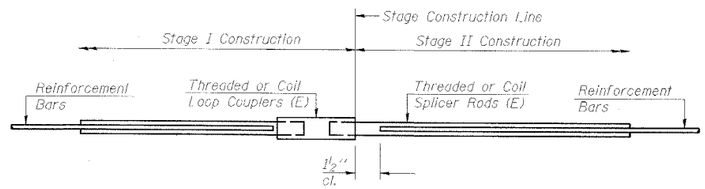
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#4	37	Concrete Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
IL 34/145 OVER BRIER CREEK
FAP ROUTE 132 - SECTION 1BR-1
SALINE COUNTY
STATION 102+28.00
STRUCTURE NO. 083-0018

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

BSD-1 11-1-06

ESCA CONSULTANTS, INC.
CIVIL • STRUCTURAL • MECHANICAL ENGINEERS
CARBONDALE, ILLINOIS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	36
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

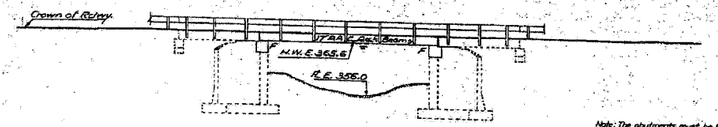
083-0018 STR

B.M.: R.r. Spike in R.R. 32' Rt. Sta. 105+32 - Elev. 363.62.
Existing Structure: N.B. 083-0018 at Sta. 102+28 built in 1925 as S.B.I. Rte. 34, Sec. 1B, Existing R.C. Thru girder span. To be removed and replaced with a single 17'-4 3/8" P.P.C. Deck Beam span. Existing abutments to be widened to accommodate the new portion of the superstructure. One lane traffic to be maintained with Stage Construction and temporary guardrail.
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

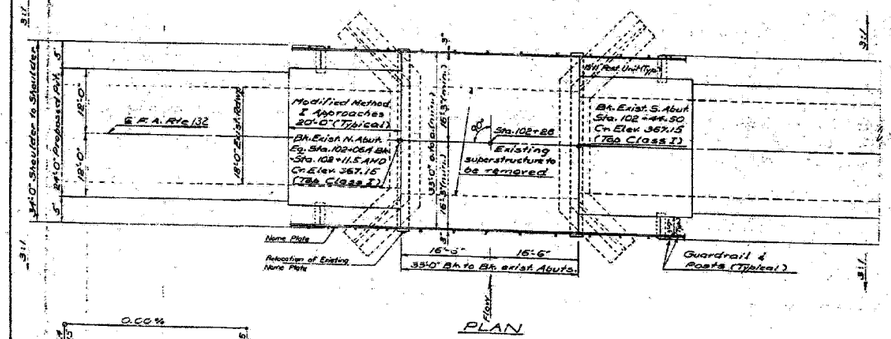
			SHEET NO.	
1-132	1B-OR	SALINE	14	6
PROJ. SECT. NO.	ROUTE	COUNTY	TOTAL SHEETS	NO. OF STRUCTURES

SHEET NO. 1
7 SHEETS

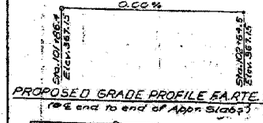


ELEVATION

Note: The abutments must be braced before any removed of the existing superstructure is done. See Sheet #6 for the bracing details.



PLAN



PROPOSED GRADE PROFILE F.A.RTE. 132
(P.C. and to end of Appr. Slabs)

DESIGNED	J. M. Sweet	
CHECKED	S. Hsueh	JMS
DRAWN	Y.H.	JAS
CHECKED	L. S. Hsueh	
EXAMINED		
PASSED		
APPROVED		

February 23, 1971

WATERWAY INFORMATION

Drainage Area	2000 Acres
Design Discharge (50 yr.)	1450 C.F.S.
Existing Opening (below 50 yr. H.W.E.)	210 Sq. Ft.
Required Opening (below 50 yr. H.W.E.)	220 Sq. Ft.
Proposed Opening (below 50 yr. H.W.E.)	220 Sq. Ft.
Created Head for Design Flood	2.5 Ft.
100 - Year Discharge	1960 C.F.S.
Created Head for 100-Year Flood	2.5 Ft.

DESIGN STRESSES

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi.
f'ci = 4,000 psi.
f's = 270,000 psi (½" Strands)
f'si = 189,000 psi (½" Strands)

FIELD UNITS
f'c = 3500 psi
fy = 60,000 psi

PRECAST UNITS
f'c = 4,500 psi
fc = 1800 psi
Es = 29,000 psi
n = 8

New Constn. Loading MS20-44

Allow 25 #/ft for future W.S.
Design Specifications 1973 AASHTO, 1974 and 1975 Interim Specifications (as applicable)

STATE OF ILLINOIS 2-18

STATION 102+28.05
BUILT IN BY
STATE OF ILLINOIS
F.A. RT. 132 SEC. 1B-OR
LOADING MS20
**STR. No. 083-0018

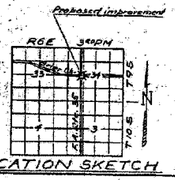
NAME PLATE
Std. 2113

**Structure Number to be supplied by District.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course Class I	Ton	11		11
Concrete Removal	Cu. Yd.		11	11
Class X Concrete	Cu. Yd.		15.0	15.0
Precast Concrete Bridge Slab	Sq. Ft.	239		239
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1067		1067
Steel Railing, Type S	Lin. Ft.	129		129
Reinforcement Bars	Pound		1500	1500
Removal of Existing Superstructures	Each	1		1
* Waterproofing Membrane System	Sq. Yd.	122		122
Name Plates	Each	1	1	1
* Portland Cement Mortar Fairing Course	Lin. Ft.	323		323
Expansion Bolts 4"ø	Each		32	32
* Temporary Guardrail	Lin. Ft.	33		33
* Temporary Supporting System	L. Sum	1		1

*See Special Provisions



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A.RTE. 132 OVER BRIER CREEK
F.A.RTE. 132 SEC. 1B-OR
SALINE COUNTY
STA. 102+28.00

GENERAL NOTES

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

The top surface of the beams shall be finished in accordance with Article 503.06 of the Standard Specifications except that the surface shall not be roughened by broaming. The finished surface shall be free of depressions or high spots with abrupt corners.

Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.

Reinforcement bars shall conform to the requirements of AASHTO M31 Grade 60.

Limits of Waterproofing Membrane System shall be 6" beyond both ends of deck and out to out of deck.

ESCA CONSULTANTS, INC.

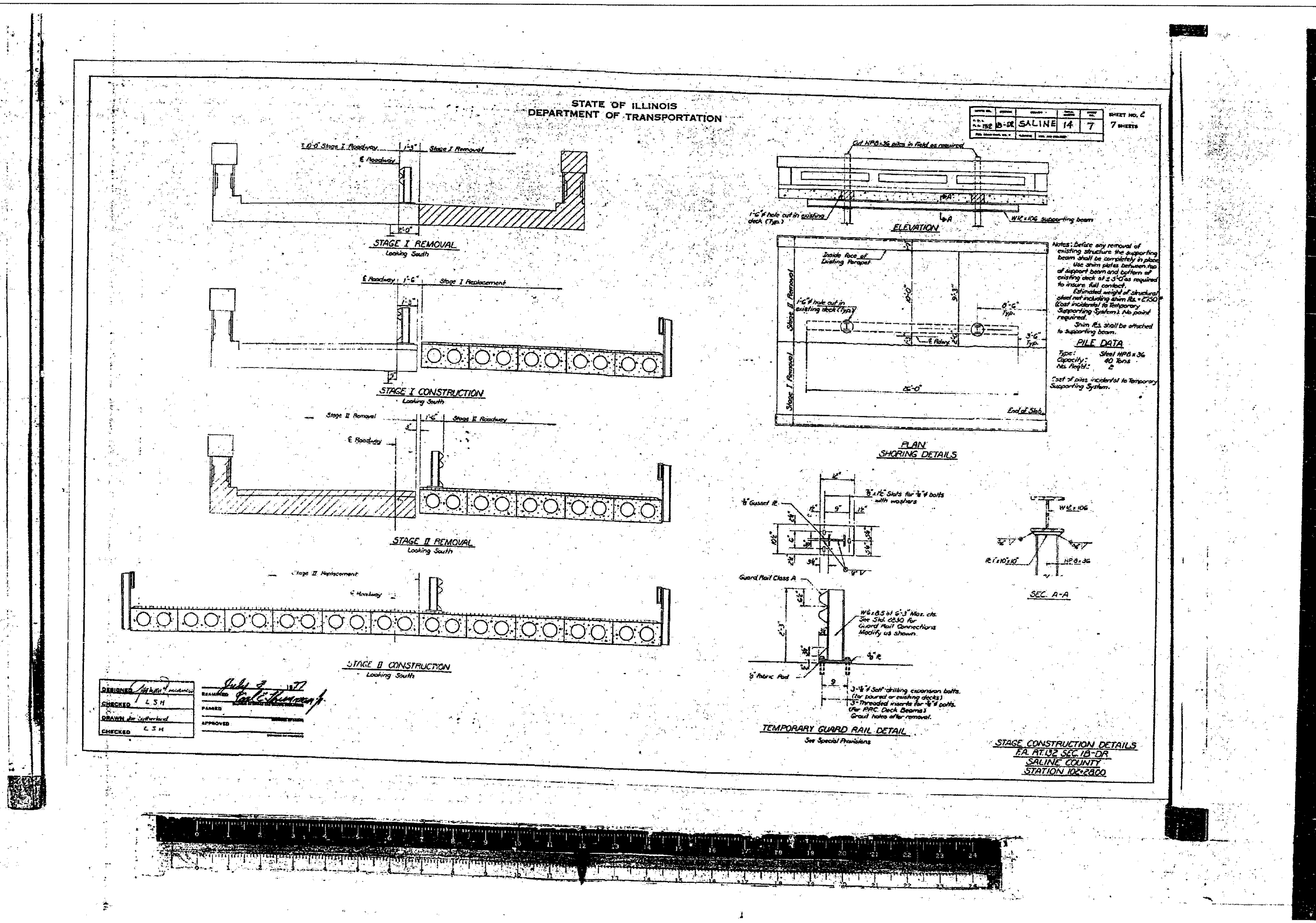
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	37
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		



ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	38
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 3
7 SHEETS

132	1BR	SALINE	14	B

FABRIC BEARING PAD

U BAR

BITUMINOUS PROFILE

TYPICAL TRANSVERSE TIE ASSEMBLY

TYPICAL SECTION
7 - 1/2" ø Strands, Each Strand Stressed to 29,300 Lbs.
7 - Strands 3/4" up.

SEC. THRU ABUT.
At E. Rdwy.
North Abut. Looking East
South Abut. Looking West

PLAN

END PLAN

LIFTING LOOP DETAIL

SEC. THRU ABUT.
At Outside Beam
North Abut. looking East
South Abut. looking West

HALF CROSS SECTION
For Stage Construction See Sheet #2

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153sq in. Lifting loops shall be 1/2" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the substructure and the anchor dowels shall be grouted in place.

Cost of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams".

Item	Unit	Total
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq Ft.	10567

SUPERSTRUCTURE
FA RTE 132 SEC 1B-1BR
SALINE COUNTY
STATION 102+26.00

PD-1-S

DESIGNED	L. S. Hsueh	
CHECKED	L. S. Hsueh	EXAMINED
DRAWN	Jos. Sutherland	PASSED
CHECKED	L. S. Hsueh	APPROVED

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

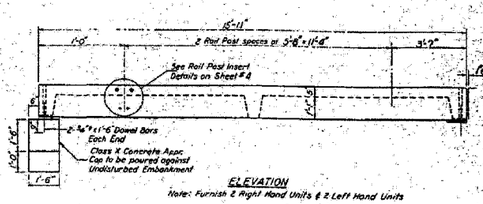
FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

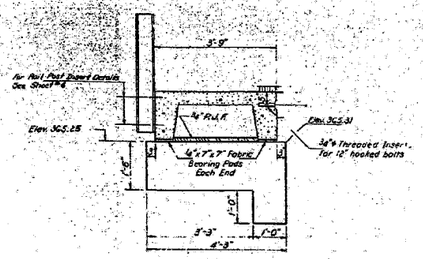
CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	39
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

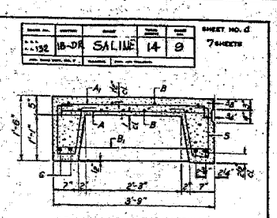
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



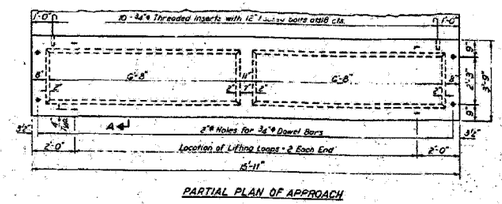
ELEVATION
Note: Furnish 2 Right Hand Units & 2 Left Hand Units



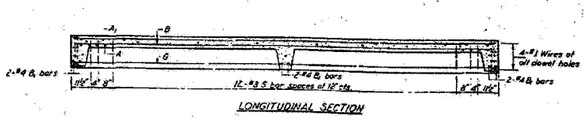
SECTION A-A



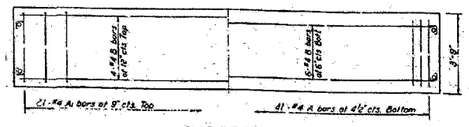
SECTION THRU PRECAST UNIT



PARTIAL PLAN OF APPROACH



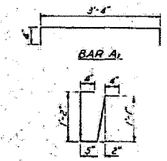
LONGITUDINAL SECTION



SLAB REINFORCEMENT

DESIGNED	Modified Divisions
CHECKED	L. S. Hsueh
DRAWN	Joe Sutherland
CHECKED	L. S. Hsueh
EXAMINED	
PASSED	
APPROVED	

DIRECTOR OF HIGHWAYS



BAR S

BAR LIST - ONE UNIT
Reinforcement to be cast into slab

Bar	No.	Size	Length	Shape
A	21	#4	3'-9"	
A_1	21	#4	4'-0"	
B	10	#4	15'-6"	
B_1	6	#4	3'-6"	
S	4	#10	15'-6"	
S	36	#3	3'-8"	

NOTES

Unless otherwise approved by the Engineer, lifting loops shall be ⅝", 6 x 19 class wire rope with fiber core and shall have a minimum ultimate strength of 18,700 lbs. Loops shall be burned off after slab has been erected.

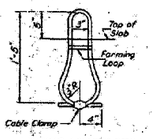
Holes shall be drilled and anchor dowels grouted in place.

Cost of reinforcement and accessories cost into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor dowels, belts is included in Unit bid price for "Precast Concrete Bridge Slab."

The Precast Concrete Bridge Slab shall be erected and aligned with the exterior face of the exterior Deck Beam after Deck Beams are in final position.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq. Ft	239
Class X Concrete	Cu.Yds.	1.6



LIFTING LOOP DETAIL

STRESSES
f_c = 4,500 psi.
f_c = 1,800 psi.
f_s = 20,000 psi.
n = 8

LOADING H S-20

APPROACH DETAILS
FA RT. 132 SEC. 1B-DR
SALINE COUNTY
STATION 102+28.00

AP-1 20' Precast Appr Unit (Rt ℄) 12-8-06

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

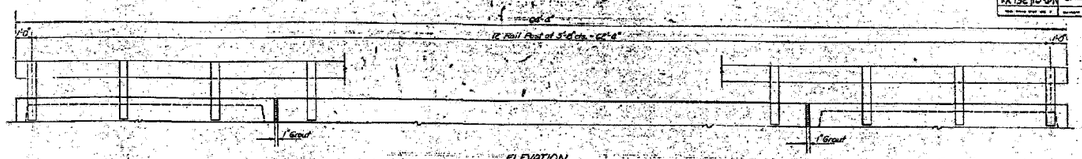
EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

CONTRACT NO. 78010

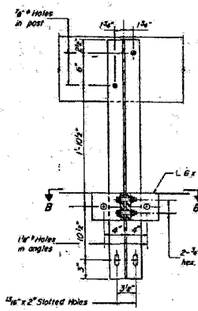
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	40
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

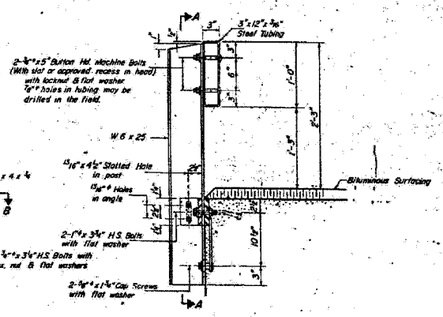
FA 132	1B-DR	SALINE	14	10	SHEET NO. 5 7 SHEETS



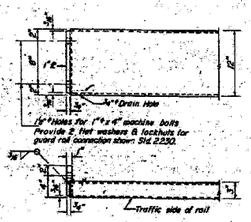
ELEVATION
Showing Outside Face



SECTION A-A



SECTION AT RAIL POST



END OF RAIL DETAILS

NOTES

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts shall conform to AASHTO M-168.

Bolts, cap screws, and nuts shall conform to the requirement of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

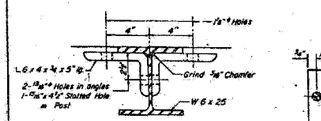
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and A.S.T.M. A-385. Galvanized rail shall not be painted.

Fitting shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE S.

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

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place ⅛" fabric bearing pad between the post and concrete.

The ¾" high strength bolts used to connect the 6 x 4 x ¾ angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional ⅛ turn.

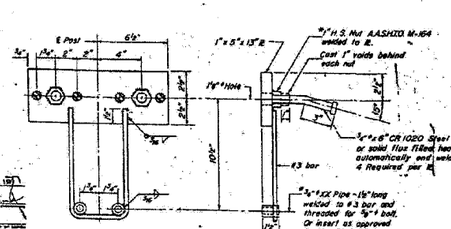


SECTION B-B

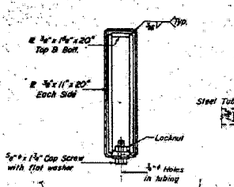
DESIGNED	Affected Individuals
CHECKED	L. S. Hauer
DRAWN	Jos. Sutherland
CHECKED	L. S. Hauer

EXAMINED
PASSED
APPROVED

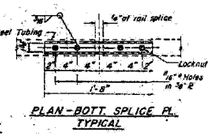
R-23 8-1-76 (6'-3" Maximum Post Spacing)



ANCHOR DEVICE
*Threaded areas shall be plugged or blocked off during casting of beam.



SECTION AT RAIL SPLICE

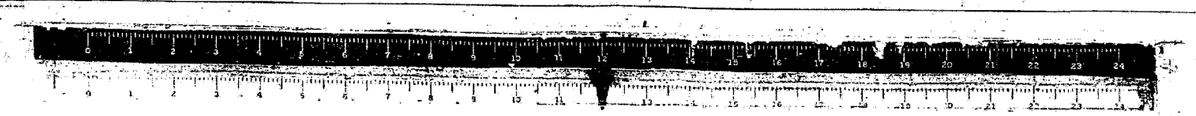


PLAN - BOTT. SPLICE PL. TYPICAL

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S	Lin. Ft.	129

TYPE S
STEEL RAILING
FA RT. 132 SEC. 1B-DR
SALINE COUNTY
STATION 102+28.00



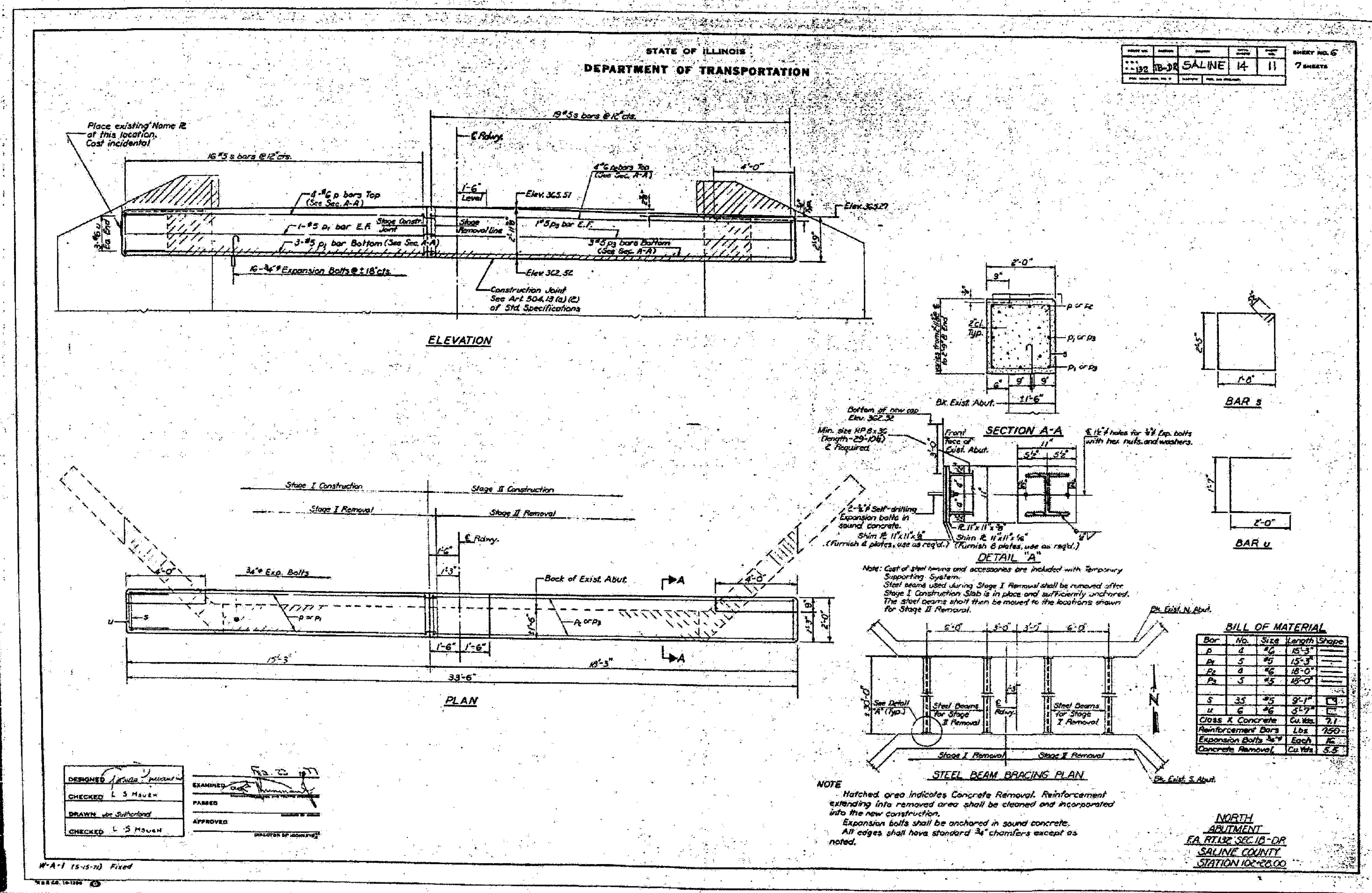
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	41
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		



ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

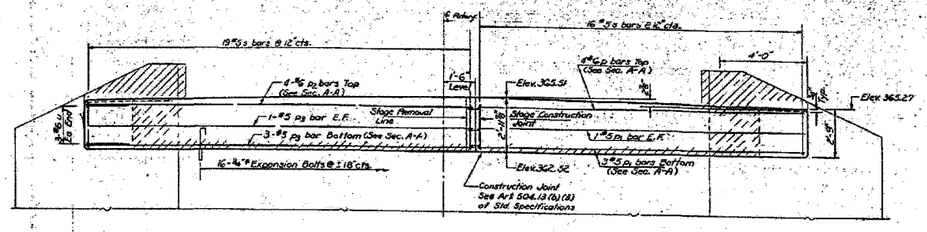
EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

CONTRACT NO. 78010

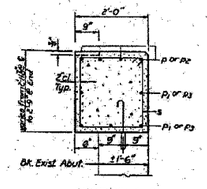
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	42
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

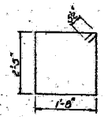
132	1B-DR	SALINE	14	12	SHEET NO. 7 OF 7 SHEETS



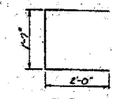
ELEVATION



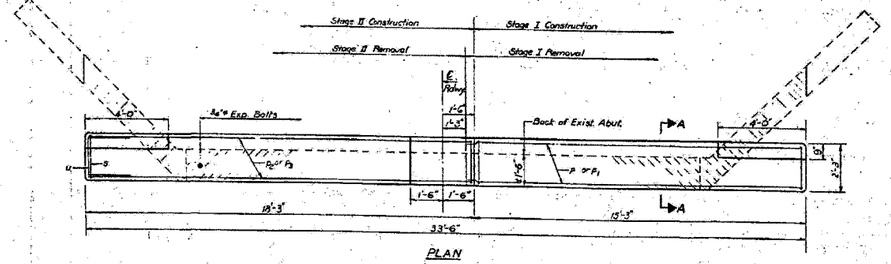
SECTION A-A



BAR 3



BAR 4



PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
P	4	#6	15'-3"	
P1	5	#5	15'-3"	
P2	4	#6	18'-0"	
P3	5	#5	18'-0"	
S	33	#5	9'-1"	
4	6	#6	5'-7"	
Class X Concrete			Cu. Yds.	77
Reinforcement Bars			Lbs	730
Expansion Bolts ¾"ø			Each	16
Concrete Removal			Cu. Yds	5.5

DESIGNED JMS (5-15-07)
CHECKED
DRAWN Joe Sutherland
CHECKED

Engineer Carl E. Thompson July 8, 1977
Passed
Approved
Director of Highways

NOTE
Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new construction.
Expansion bolts shall be anchored in sound concrete.
All edges shall have standard ¾" chamfers except as noted.

SOUTH ABUTMENT
FA RT 132 SEC 1B-DR
SALINE COUNTY
STATION 102+23.00

W-A-1 (5-15-07) Fixed

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-1
SALINE COUNTY

BENCHMARKS: Chiseled Square in top of north end of hub guard, SN 083-0019, Sta. 234+25, 16.3' Rt., Elev. 373.54; Chiseled square in top of south end of hub guard, SN 083-0019, Sta. 235+95, 16.3' Rt., Elev. 373.56.

EXISTING STRUCTURE: SN 083-0019 was originally built in 1925 as S.B.I. Rte. 34, Section 1 BC. The superstructure was replaced in 1977. The superstructure consists of two simple spans, 27" PPC deck beams. The substructure consists of two reinforced concrete closed abutments on timber piles, and a single solid concrete encased pile bent pier supported on H-piles. The back-to-back abutments length is 119'-6¼", the out-to-out width is 33'-0". The existing superstructure and the existing bridge approach shoulders shall be removed and replaced utilizing stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	43
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

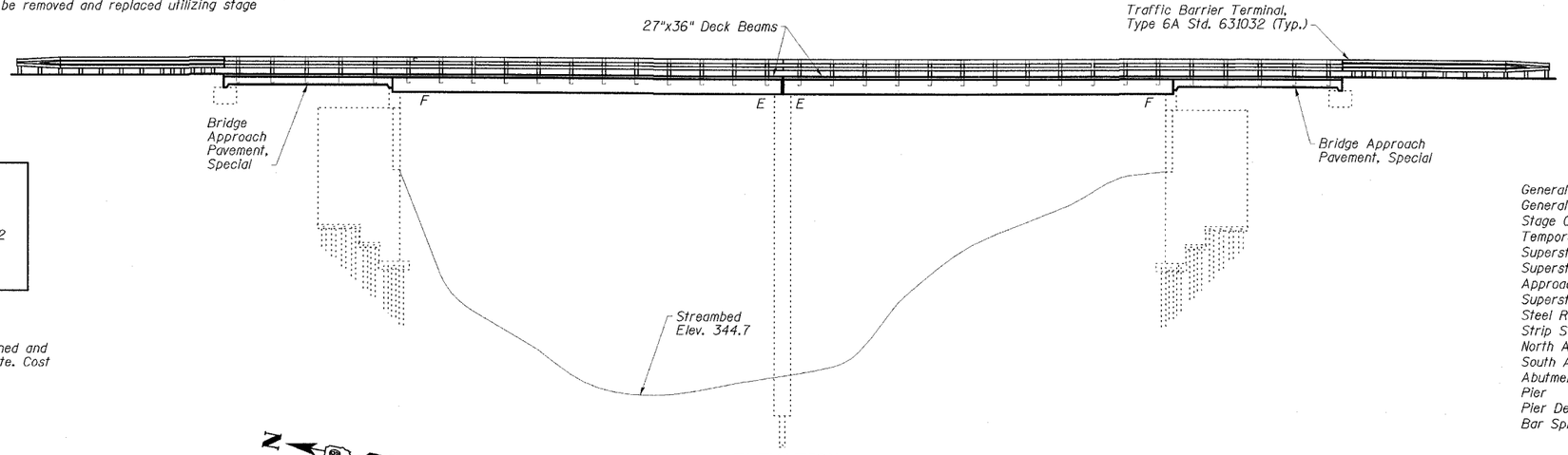
SHEET NO. 1
16 SHEETS

78010

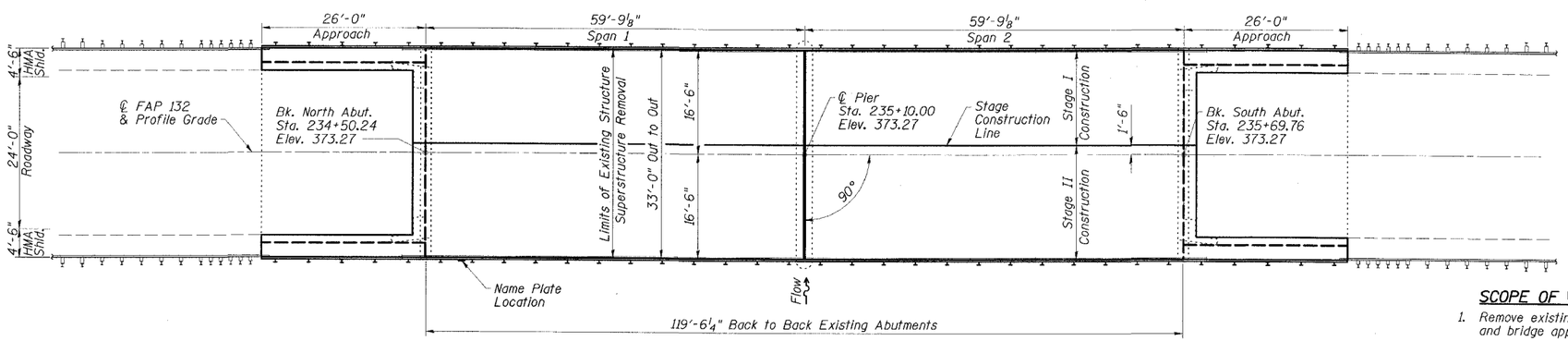
STATION 235+10.00
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 132 SEC. 1BR-2
LOADING HS20
STR. NO. 083-0019

NAME PLATE
See Std. 515001

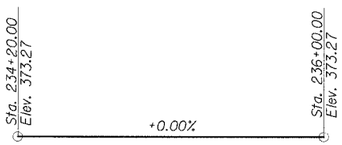
Note: Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.



ELEVATION



PLAN



PROFILE GRADE
(Along ℄ Roadway)

STRUCTURE INDEX OF SHEETS

SCOPE OF WORK

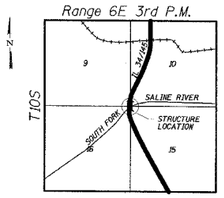
1. Remove existing surfacing, steel railing, deck beams, curbs, and bridge approach shoulders.
2. Repair beam bearing seats and perform other repairs at abutments and pier as required.
3. Reconstruct a two-span PPCD beam superstructure with Concrete Wearing Surface and Steel Railing, Type SM. Reconstruct existing approach shoulders with Bridge Approach Pavement with Concrete Wearing Surface.

DESIGN SPECIFICATION
2002 AASHTO

LOADING HS20-44
No Allowance for future wearing surface

DESIGN STRESSES
FIELD UNITS
f'c = 5,000 psi (Concrete Wearing Surface)
f'c = 3,500 psi (All concrete except CWS)
fy = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ low lax strands)
fsi = 201,960 psi (½"ϕ low lax strands)



LOCATION SKETCH

GENERAL PLAN
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · RICHARD D. PAYNE · No. 4647 · LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-08
R.D. Payne
SIGNATURE
8/02/07
DATE

ESCA CONSULTANTS, INC.

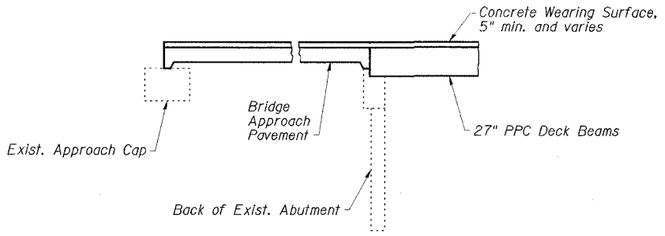
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	44
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
16 SHEETS

78010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



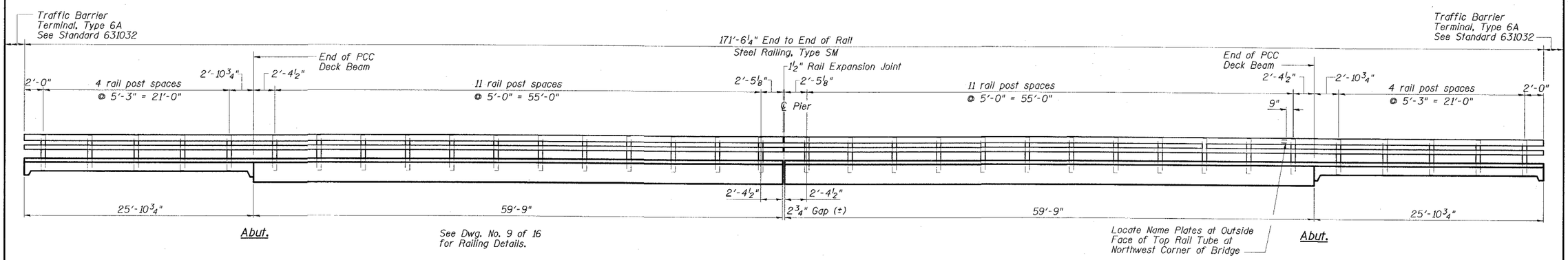
SECTION THRU ABUTMENTS
@ OUTSIDE BEAM

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions.
2. Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
3. Concrete Sealer shall be applied to abutment bearing seats where Structural Repair of Concrete is performed.
4. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300 Type 1 unless noted otherwise.
5. No in-stream work will be allowed on this project.
6. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
7. If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new or existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures No. 2.
8. The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
9. Repair of the substructure shall be completed prior to placement of the new deck beams.
10. Stage Construction of Precast Prestressed Concrete Deck Beams shall be according to Article 504.06(d) of the Standard Specifications.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Bridge Approach Pavement (Special)	Sq. Yd.	26	-	26
Removal of Existing Superstructures No. 2	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	491	-	491
Protective Coat	Sq. Yd.	491	-	491
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	3944	-	3944
Reinforcement Bars, Epoxy Coated	Pound	6370	-	6370
Bar Splicers	Each	124	-	124
Steel Railing, Type SM	Foot	343	-	343
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	33	-	33
Concrete Sealer	Sq. Ft.	-	45	45
Epoxy Crack Injection	Foot	-	136	136
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	-	114	114
Concrete Wearing Surface, 5"	Sq. Ft.	491	-	491
Asbestos Bearing Pad Removal	Each	-	44	44



RAILING ELEVATION
(Showing Inside Face of East Railing; West Railing Similar)

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

ESCA CONSULTANTS, INC.

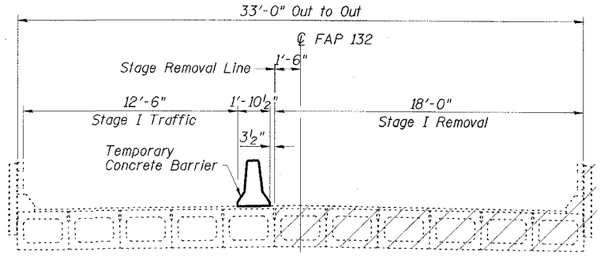
GENERAL DATA
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

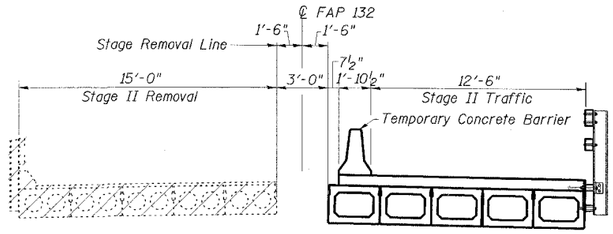
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	45
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
16 SHEETS

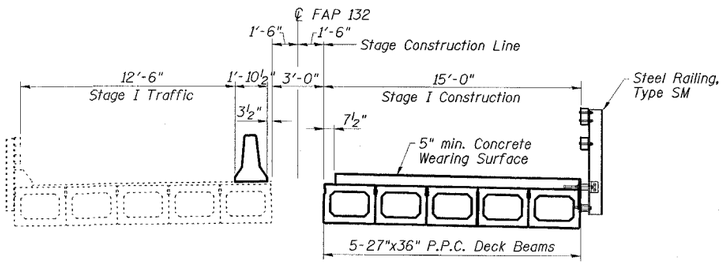
18010



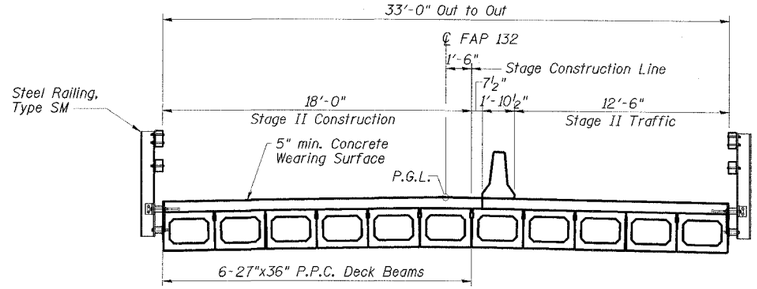
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. All staging sections are looking North.
2. See Dwg. No. 5 of 16 for shear key clamping details.
3. For quantity of Temporary Concrete Barrier, see Roadway Plans.

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

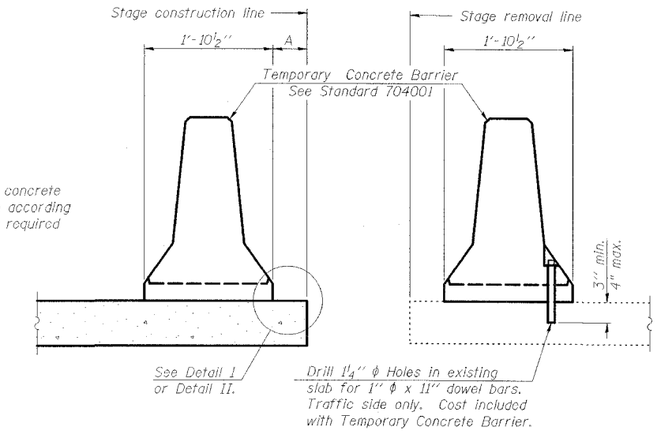
STAGE CONSTRUCTION DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	46
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4
16 SHEETS

78010



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".

NEW SLAB

EXISTING SLAB

NOTES

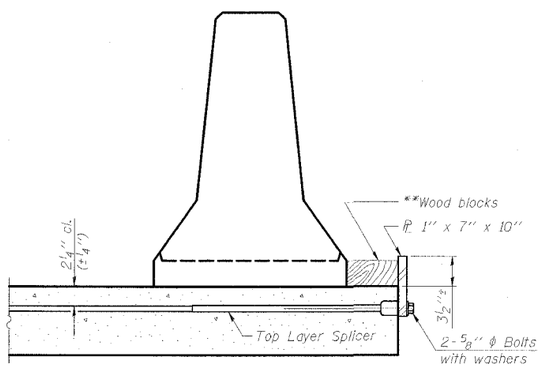
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

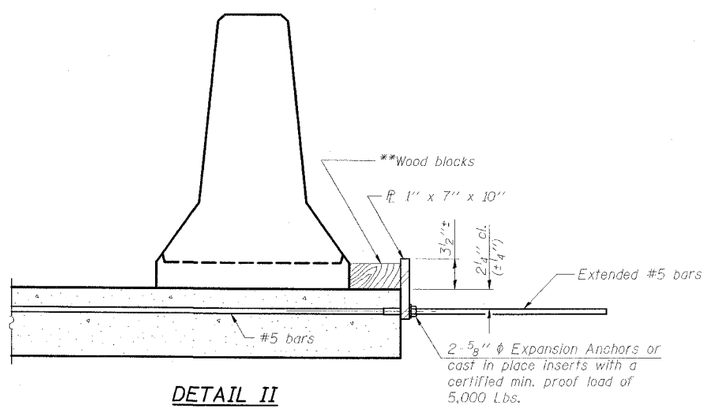
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" 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.

SECTIONS THRU SLAB

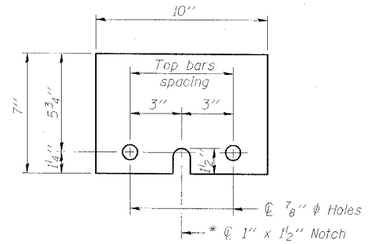


DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ESCA CONSULTANTS, INC.		
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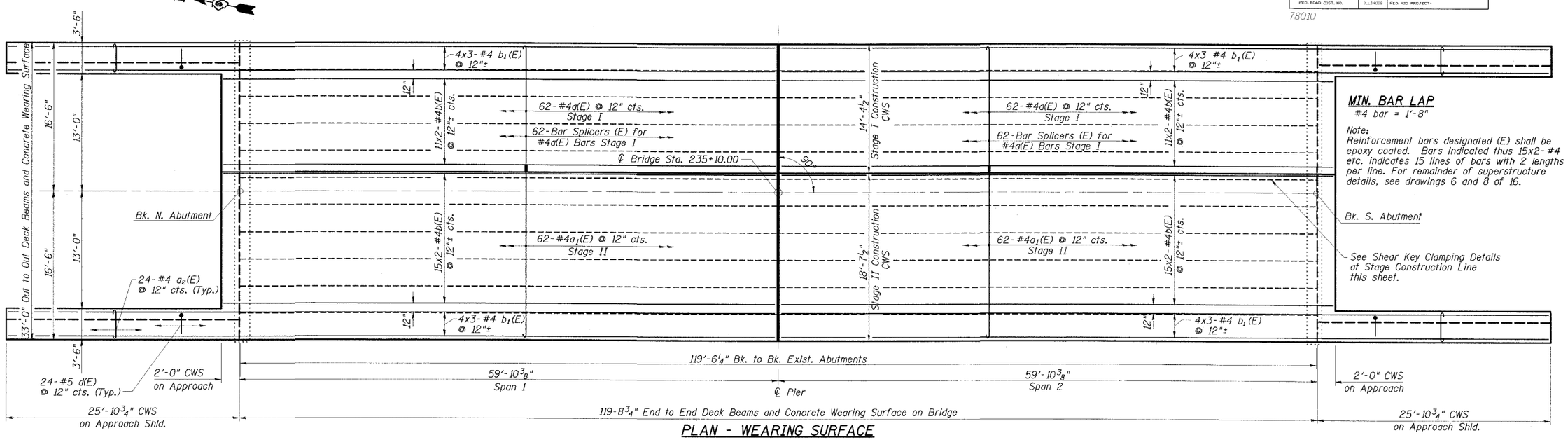
R-27 11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

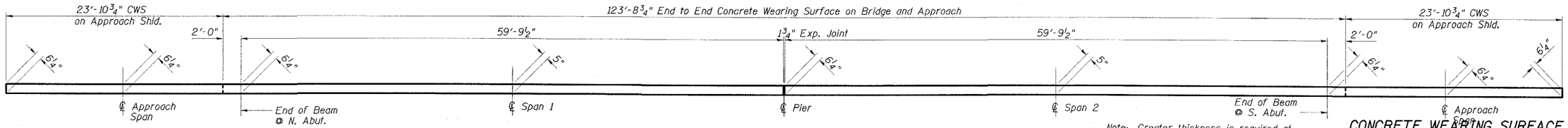
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	47
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 5
16 SHEETS

78010



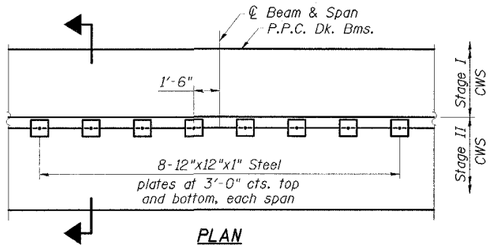
PLAN - WEARING SURFACE



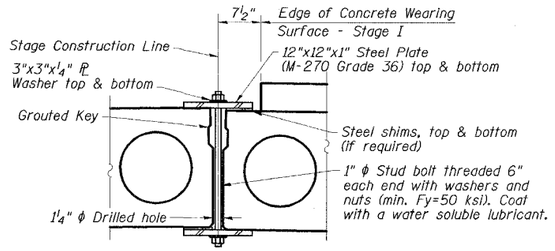
REINFORCED CONCRETE WEARING SURFACE PROFILE

(At edge of bridge deck)

Note: Greater thickness is required at centerline of superstructure to conform to cross section slopes shown on Dwg. 6 of 16.

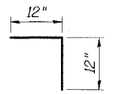


PLAN

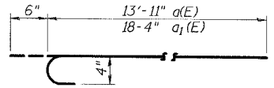


SECTION

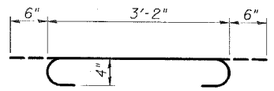
SHEAR KEY CLAMPING DETAILS



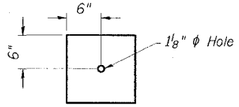
BAR d(E)



BARS a(E) & a1(E)



BAR a2(E)



CLAMPING PLATE

Notes:
See Stage Construction Details for traffic lanes.
Cost is included with Precast Prestressed Concrete Deck Beams.

CONCRETE WEARING SURFACE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	124	#4	14'-5"	
a1(E)	124	#4	18'-10"	
a2(E)	96	#4	4'-2"	
b(E)	104	#4	31'-7"	
b1(E)	48	#4	29'-7"	
d(E)	96	#5	2'-0"	
Reinforcement Bars, Epoxy Coated		Pound	6370	
Concrete Wearing Surface, 5"		Sq. Yd.	491	
Bridge Deck Grooving		Sq. Yd.	491	
Bar Splicers		Each	124	
Protective Coat		Sq. Yd.	491	

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

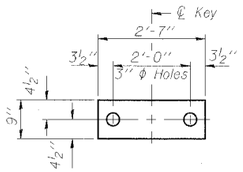
SUPERSTRUCTURE
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

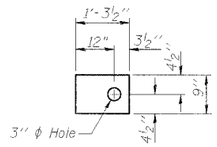
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	48
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT =		

SHEET NO. 6
16 SHEETS

78010

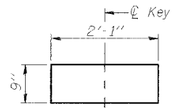


FABRIC BEARING PAD
(Interior)



FABRIC BEARING PAD
(Exterior and Stage Construction Line)

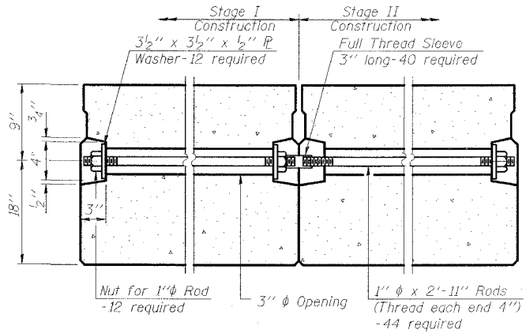
FIXED



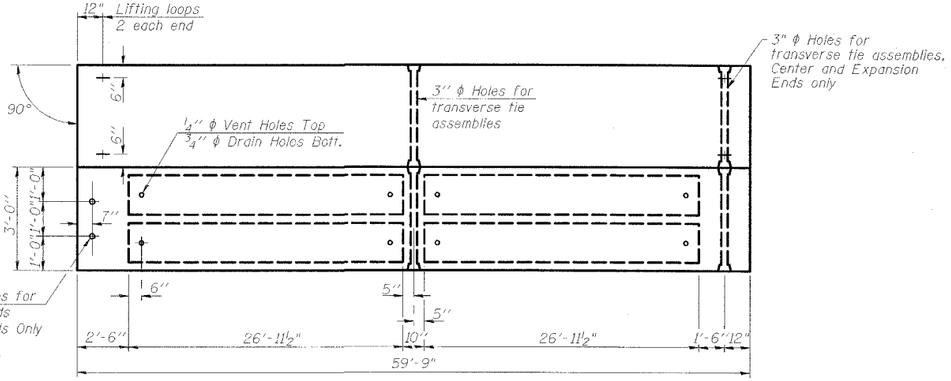
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior and Stage Construction Line)

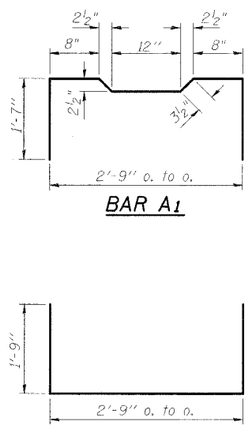
EXPANSION



TYPICAL TRANSVERSE TIE ASSEMBLY

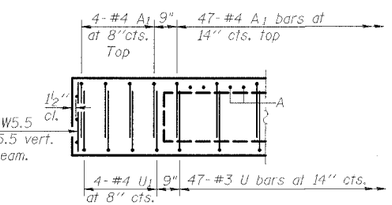


PLAN

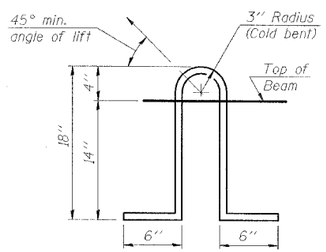


BAR A1

BARS U & U1

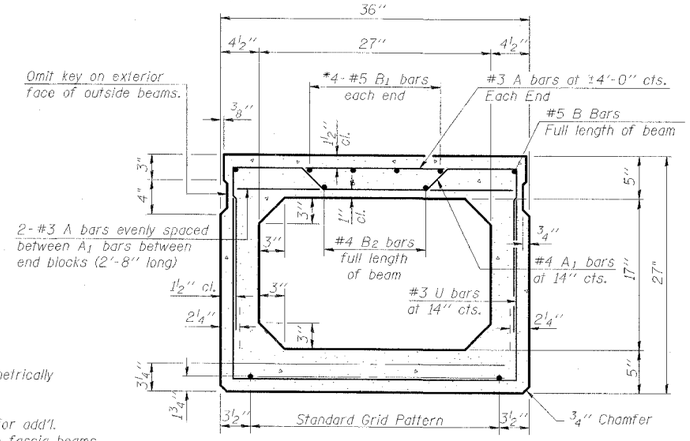


END ELEVATION



LIFTING LOOP DETAIL

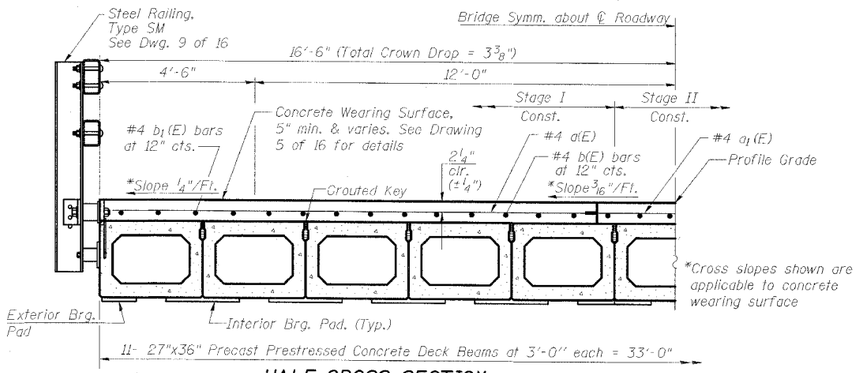
*0.2 x Length of beam



TYPICAL SECTION

14-½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1¾" up, 6-Strands 3¼", 2-Strands 4½" up

Notes:
1. Place strands symmetrically about ℄ of beam.
2. See Dwg. 8 of 16 for add'l. details applicable to fascia beams.



HALF CROSS SECTION
(Looking South)

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 4000 p.s.i.
See Dwg. 2 of 16 for location of rail anchors and additional notes.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (27")	Sq. Ft.	3944

SUPERSTRUCTURE DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

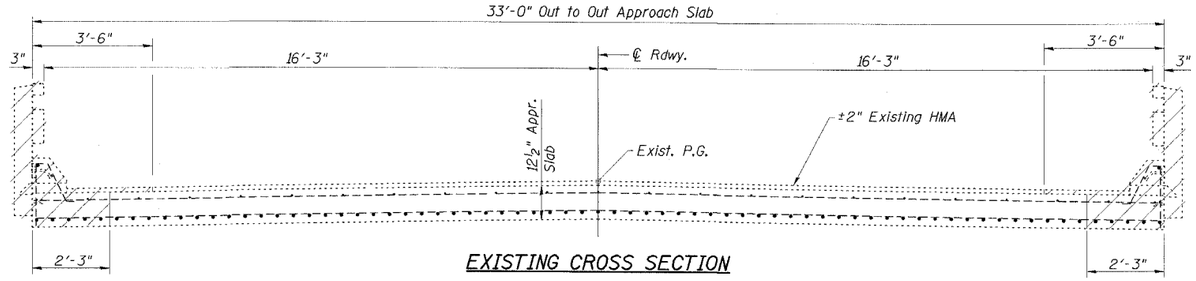
PD-5-S 11-1-06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	49
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

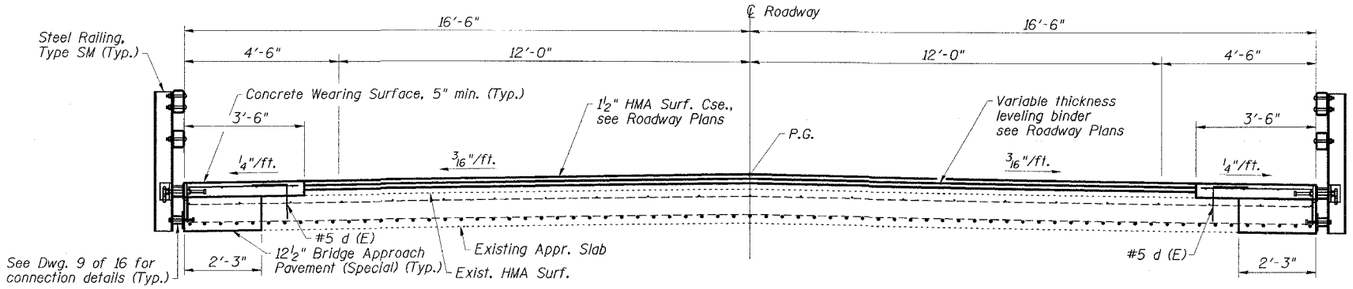
SHEET NO. 7
16 SHEETS

78010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

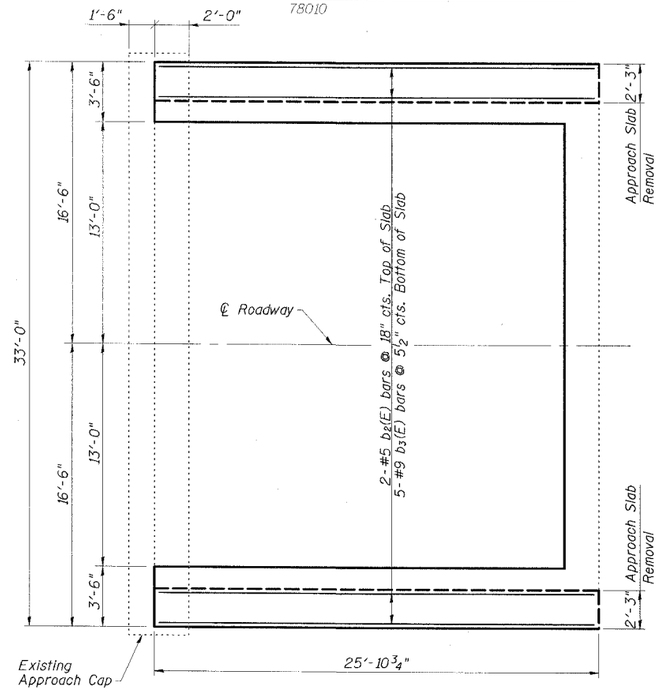


EXISTING CROSS SECTION

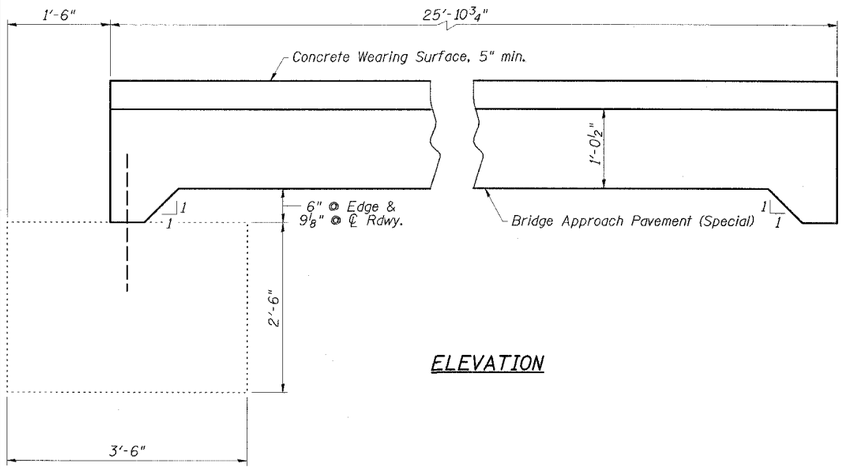


PROPOSED CROSS SECTION

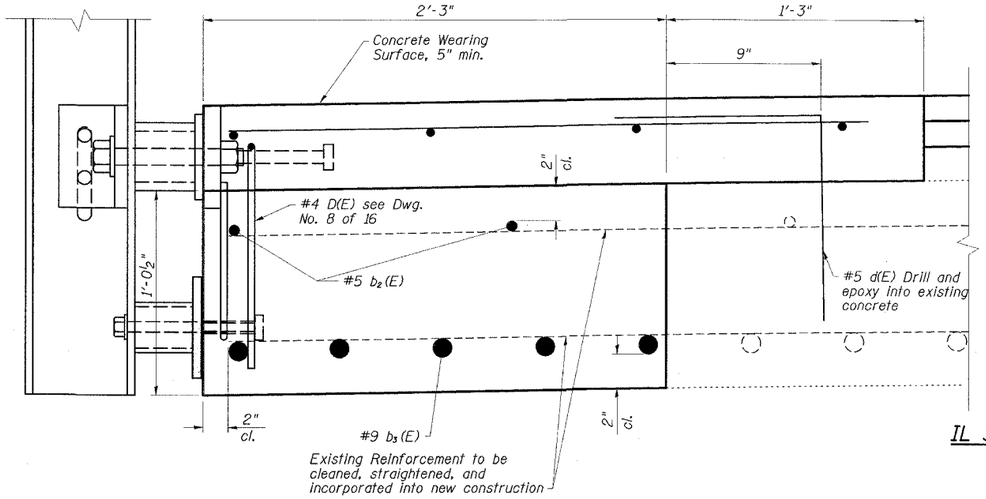
Note: The cost of reinforcement bars and incorporating existing reinforcement is included in Bridge Approach Pavement (Special)



PLAN
(N. Approach shown, S. Approach similar)



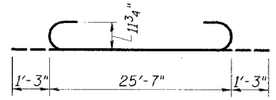
ELEVATION



ENLARGED SECTION THRU BRIDGE APPROACH PAVEMENT

TWO APPROACHES
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Bridge Approach Pav't (Special)	Sq. Yd.	26
Approach Slab Removal	Sq. Yd.	26



BAR b_3(E)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

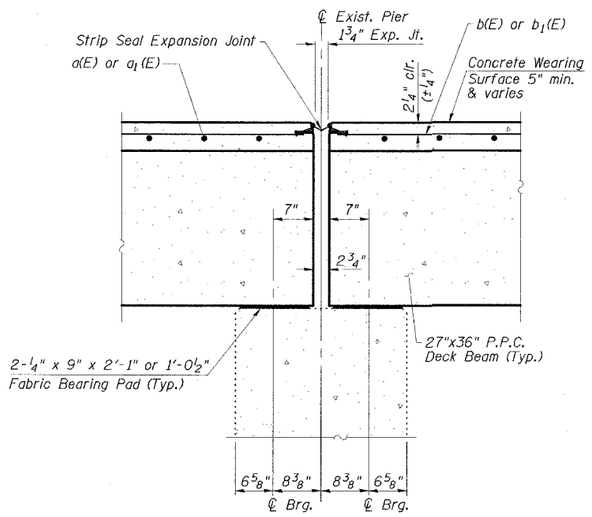
APPROACH DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 134 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

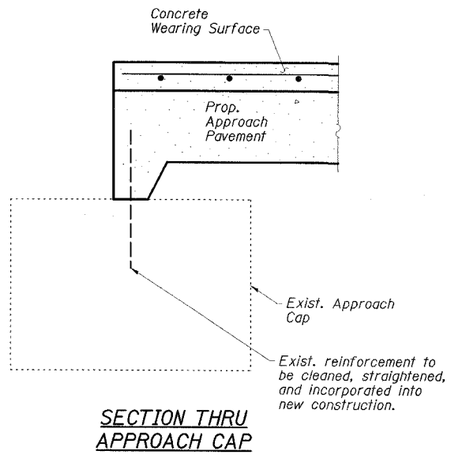
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	50
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
16 SHEETS

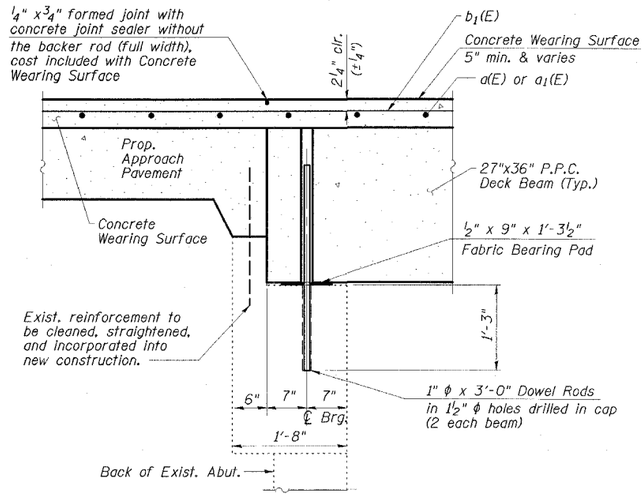
78010



SECTION THRU PIER



SECTION THRU APPROACH CAP



SECTION THRU ABUTMENT @ OUTSIDE BEAM

NOTES

After beams have been erected, holes shall be drilled into substructure and doweis rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

Concrete wearing surface to be poured after grouting the shear keys.

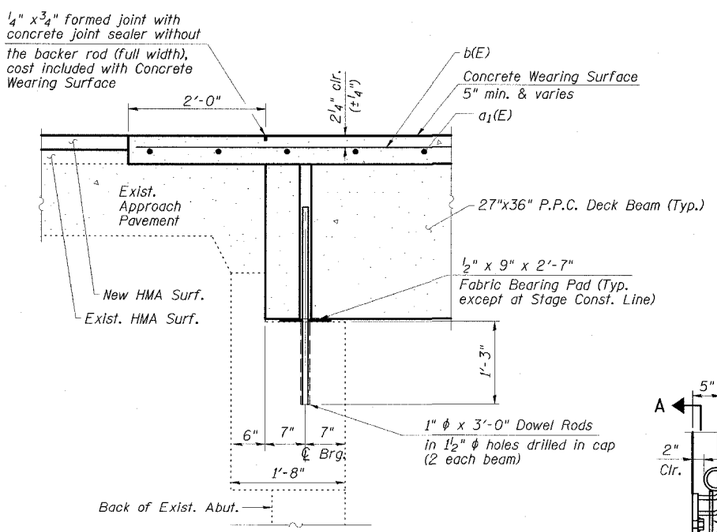
Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (27" depth).

The rail anchorage shall be cast with the beam or approach pavement and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam or approach pavement. Drilling into the beam will not be permitted.

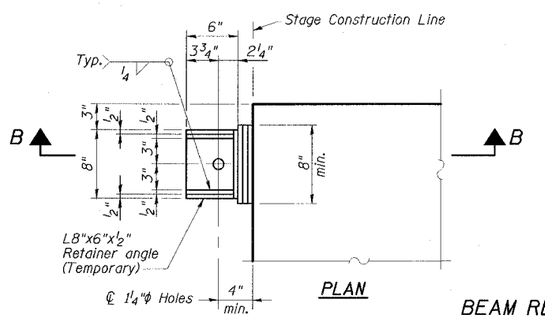
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

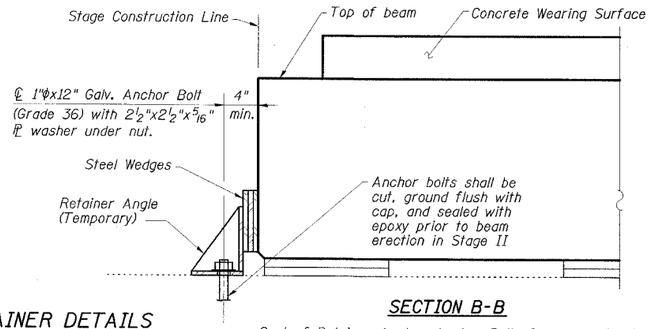
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



SECTION THRU ABUTMENT @ ℄ ROADWAY



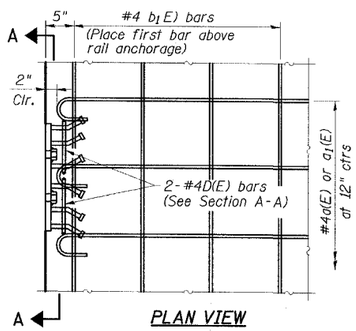
PLAN



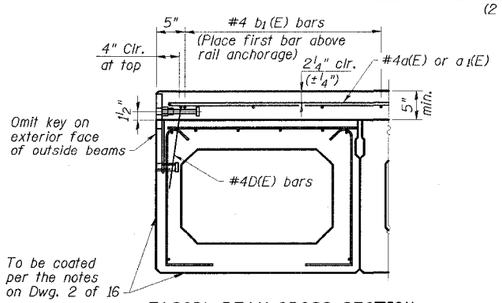
SECTION B-B

Cost of Retainer Angles, Anchor Bolts & accessories is included with Precast Prestressed Concrete Deck Beams.

BEAM RETAINER DETAILS AT STAGE CONSTRUCTION LINE
(2 Required)

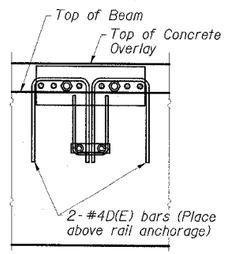


PLAN VIEW

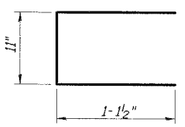


FASCIA BEAM CROSS SECTION

See Typical Section on Dwg. 6 of 16 for strand pattern, dimensions and bar call outs.



SECTION A-A



BAR D(E)

CONCRETE OVERLAY MODIFICATIONS FOR RAIL ANCHORAGE
(Bridge shown, Approach similar)

SUPERSTRUCTURE AND APPROACH DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 134 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ESCA CONSULTANTS, INC.

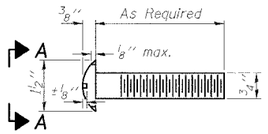
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

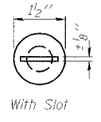
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	51
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 9
16 SHEETS

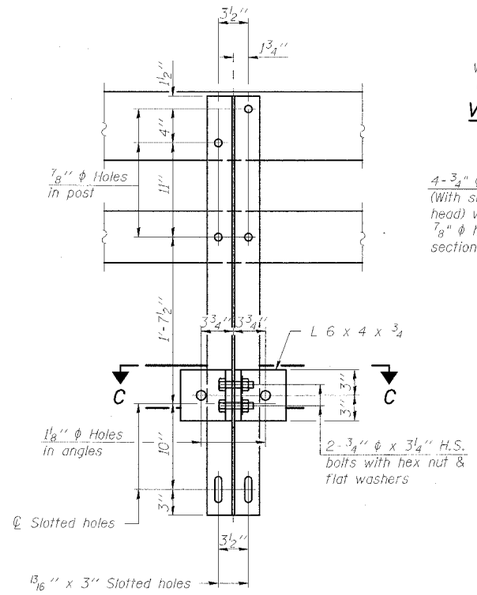
78010



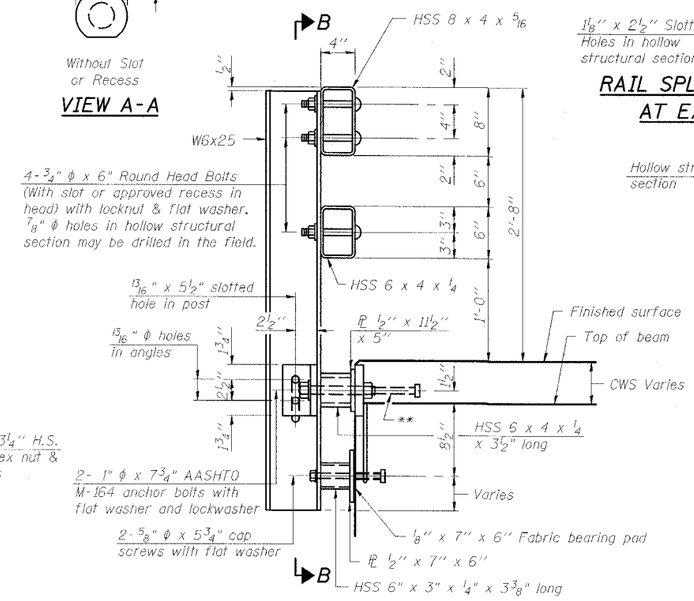
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



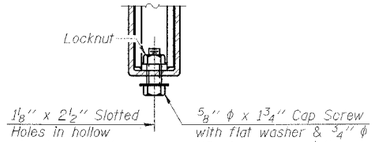
VIEW A-A



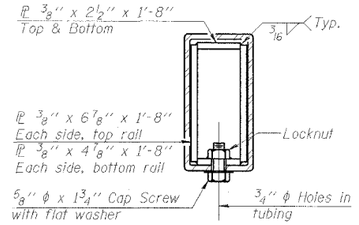
SECTION B-B



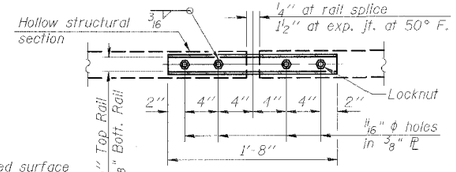
SECTION AT RAIL POST



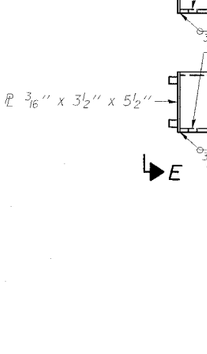
RAIL SPLICE CONNECTION AT EXPANSION JT.



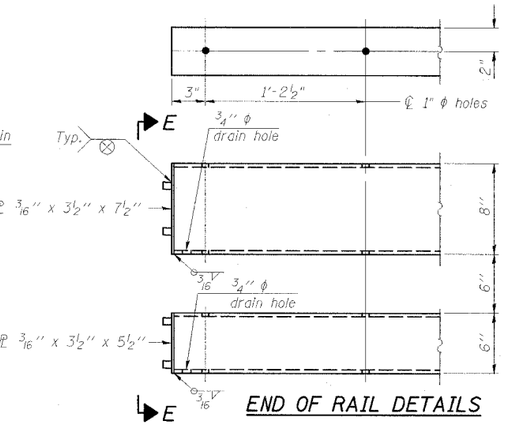
SECTION AT RAIL SPLICE



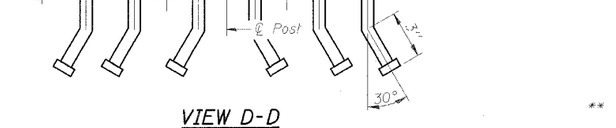
PLAN-BOTT. SPLICE PL TYPICAL



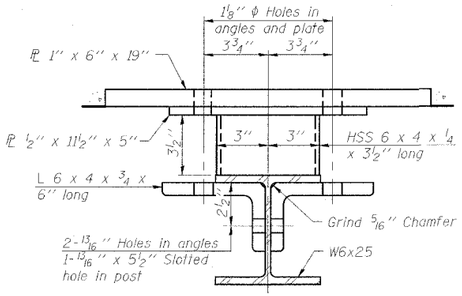
VIEW E-E



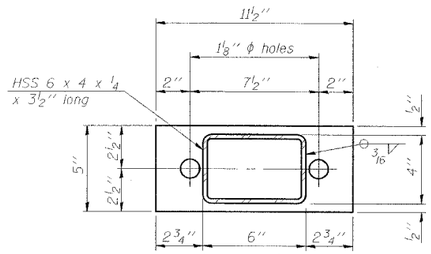
END OF RAIL DETAILS



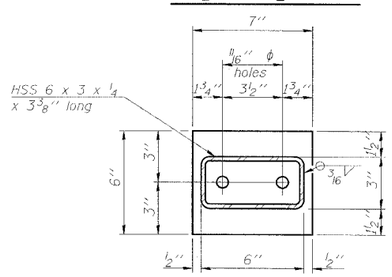
VIEW D-D



SECTION C-C

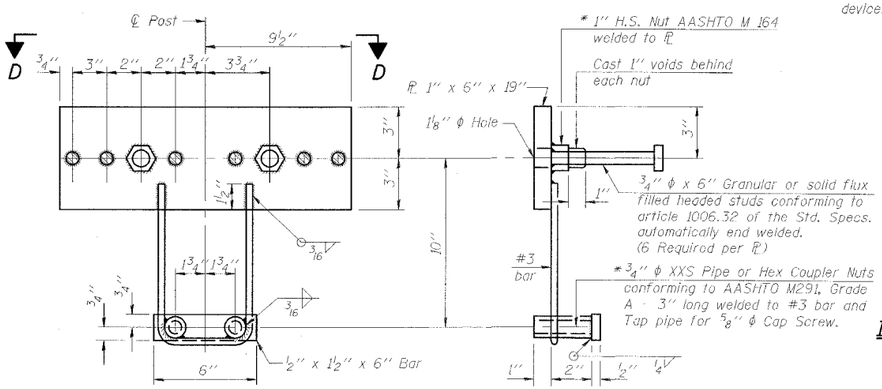


PL 1/2" x 11 1/2" x 5"



PL 1/2" x 7" x 6"

(6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM. Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	343

STEEL RAILING, TYPE SM
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

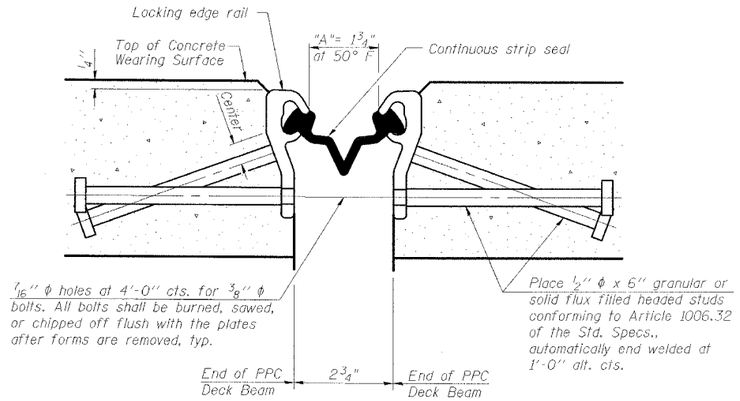
R-34CWS 11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	52
FED. ROAD DIST. NO.	ILLINOIS	PRTL. AID PROJECT-		

SHEET NO. 10
16 SHEETS

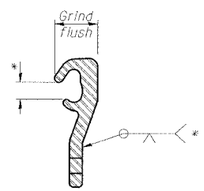
78010



SECTION THRU STRIP SEAL JOINT
FOR OVERLAY OVER DECK BEAMS

* Omit weld at seal opening.

LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

All Steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

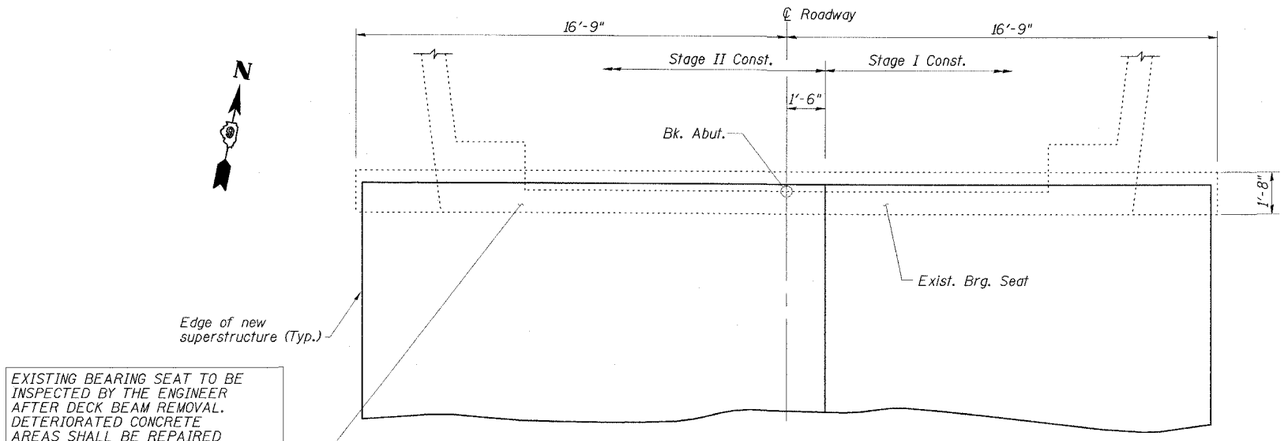
STRIP SEAL EXPANSION JOINT
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	53
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

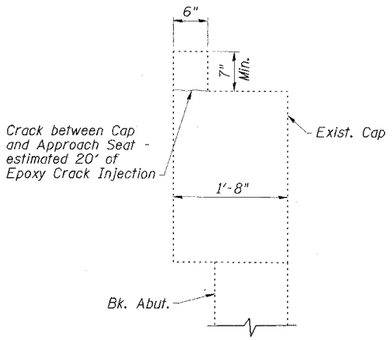
SHEET NO. 11
16 SHEETS

78010



PLAN

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH ≤ 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



SECTION THRU EXISTING ABUTMENT

NORTH ABUTMENT BILL OF MATERIAL

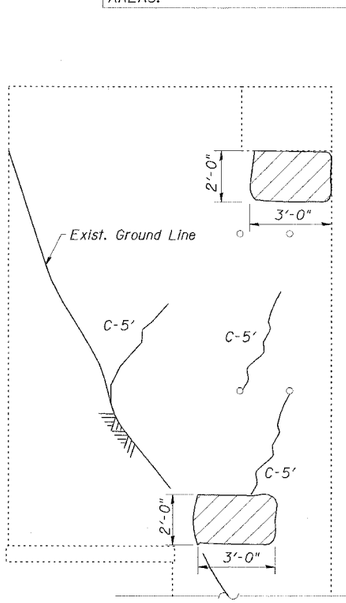
Item	Unit	Quantity
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	55
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	48

REPAIR LEGEND

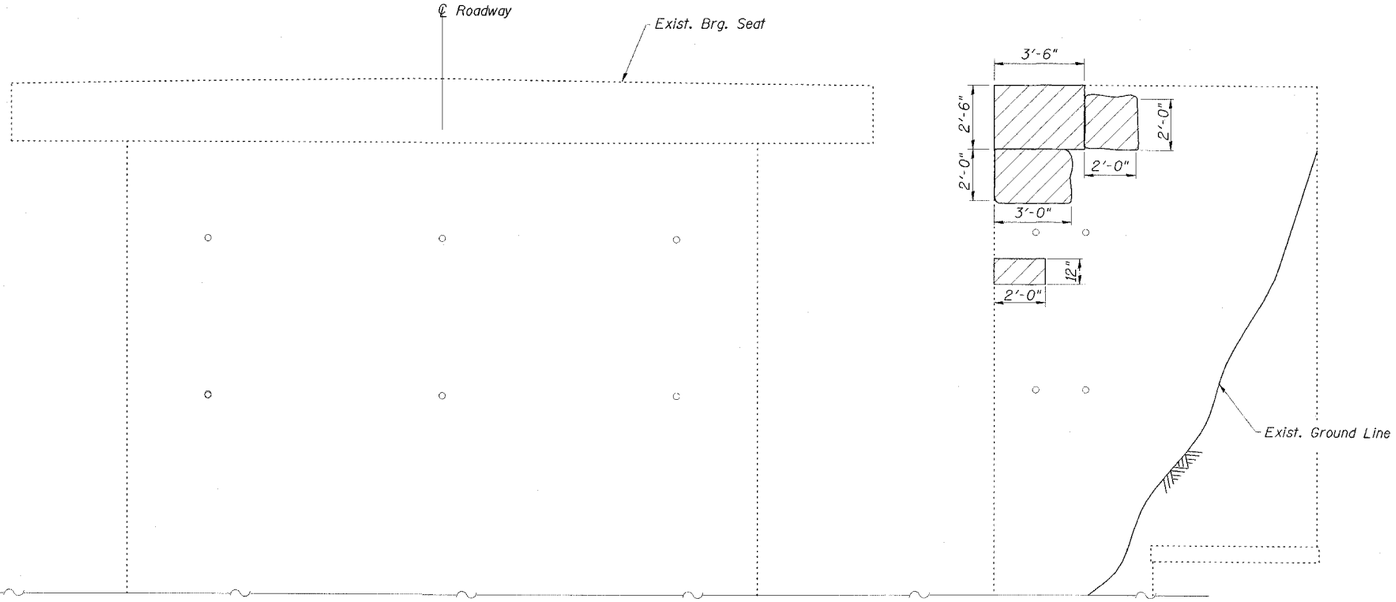
Inspection Date: 02/01/07

C.-5' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete



ELEVATION
WEST WING



ELEVATION

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

ELEVATION
EAST WING

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

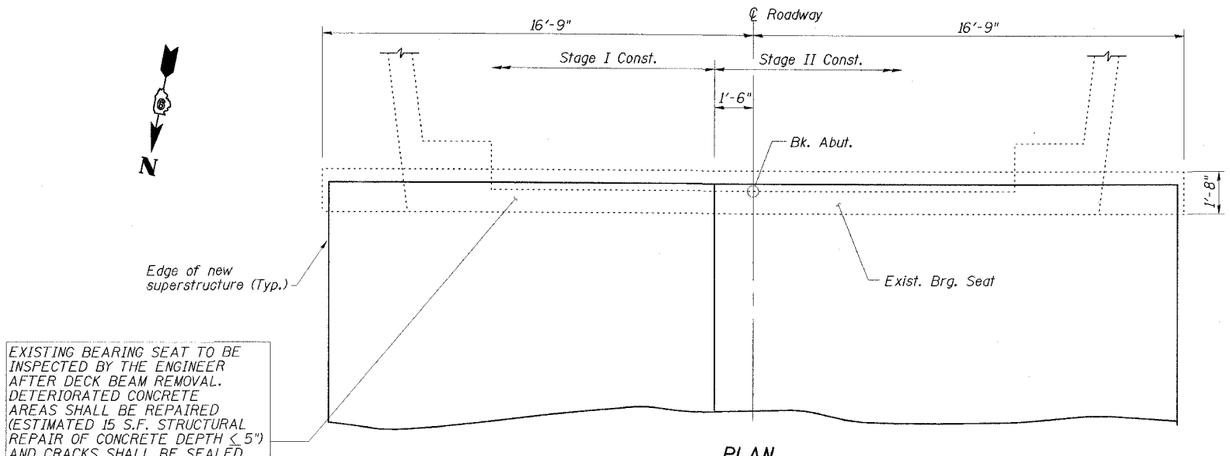
NORTH ABUTMENT
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	54
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT=	

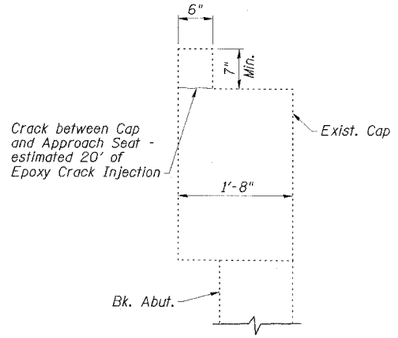
SHEET NO. 12
16 SHEETS

78010



PLAN

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH ≤ 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



SECTION THRU EXISTING ABUTMENT

SOUTH ABUTMENT BILL OF MATERIAL

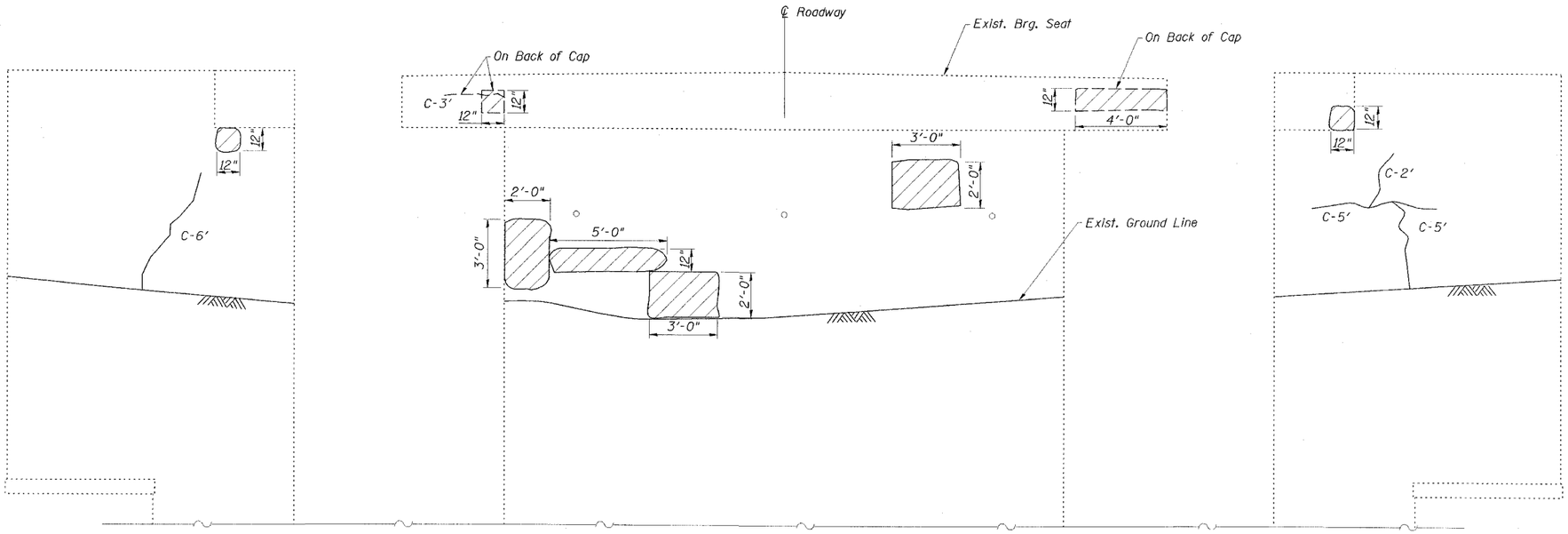
Item	Unit	Quantity
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	61
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	45

REPAIR LEGEND

Inspection Date: 02/01/07

C.-6' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete



ELEVATION EAST WING

ELEVATION

ELEVATION WEST WING

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

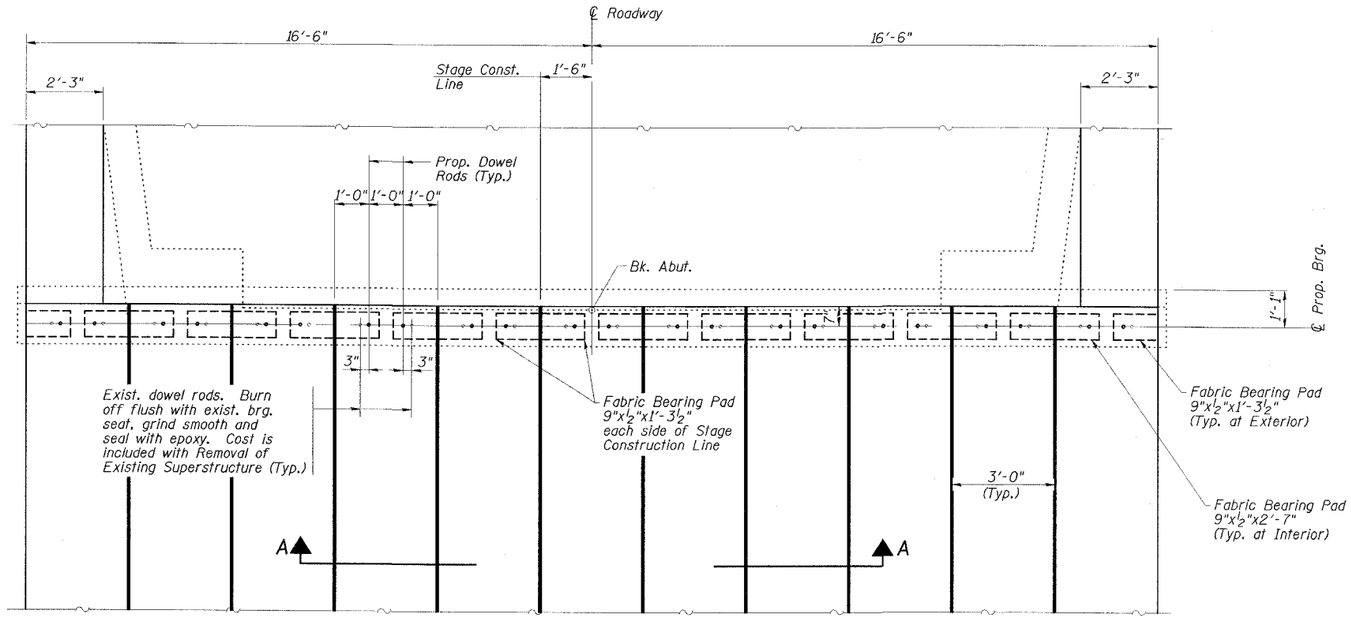
SOUTH ABUTMENT
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	55
FED. HWAY DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
16 SHEETS

78010

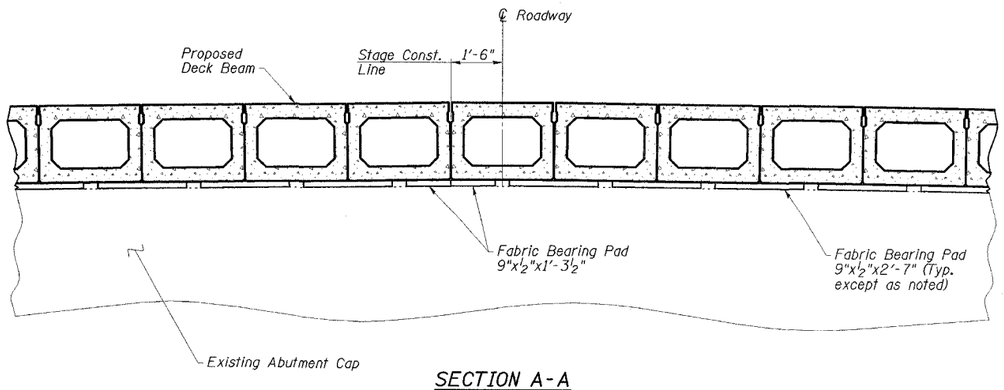
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



S. Abut. shown; N. Abut. similar

ABUTMENT BEARING SEAT PLAN

(Concrete wearing surface not shown)



SECTION A-A

(Concrete wearing surface not shown)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

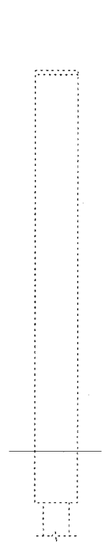
ABUTMENT DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

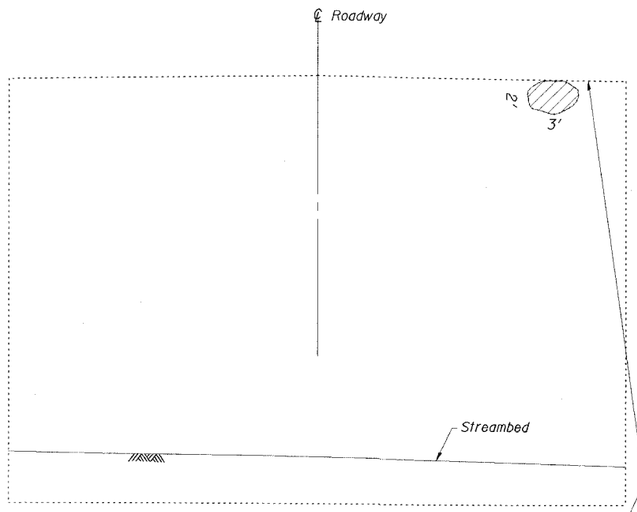
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	56
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 14
16 SHEETS

78010

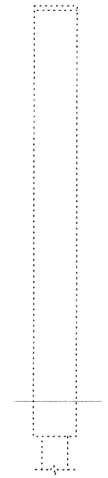


WEST END

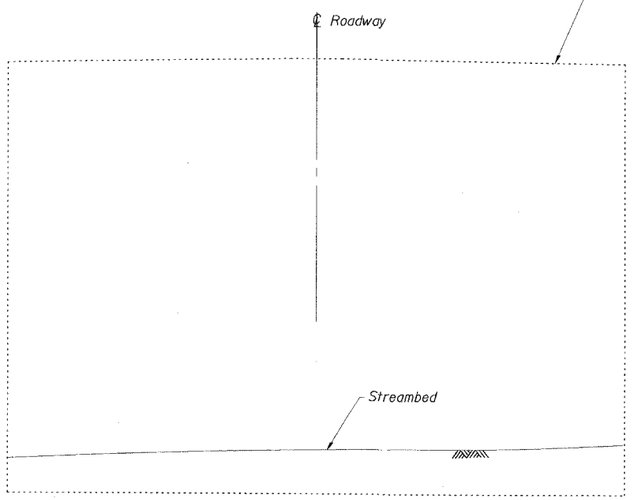


SOUTH ELEVATION

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH ≤ 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



EAST END



NORTH ELEVATION

NOTE: PIER CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

PIER
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	20
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	21
Concrete Sealer	Sq. Ft.	15

REPAIR LEGEND

C.-6' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

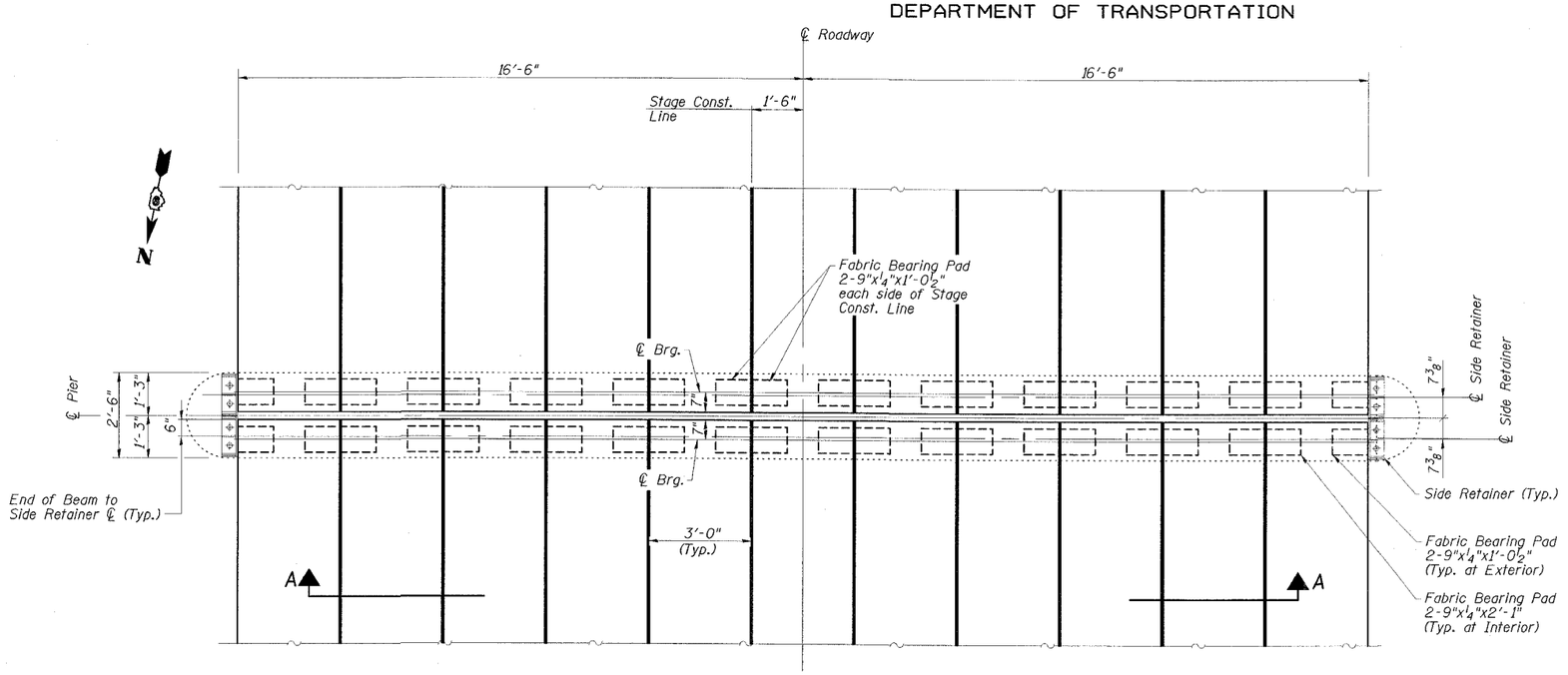
PIER
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION IBR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	57
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

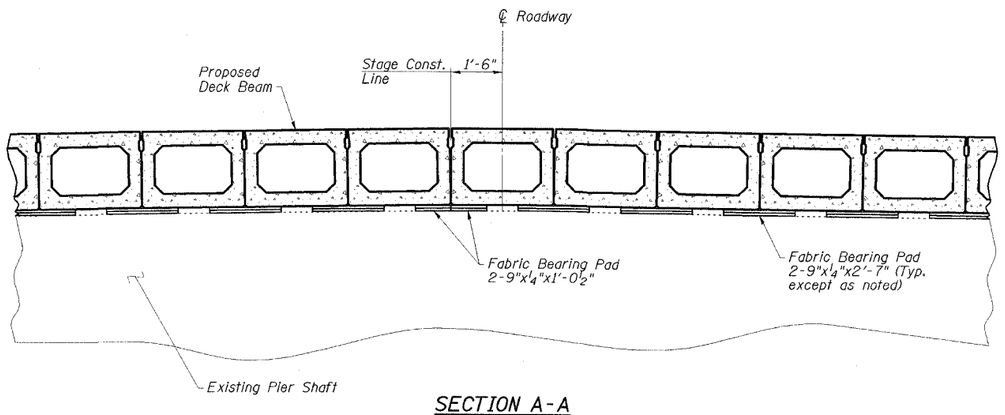
SHEET NO. 15
16 SHEETS

78010



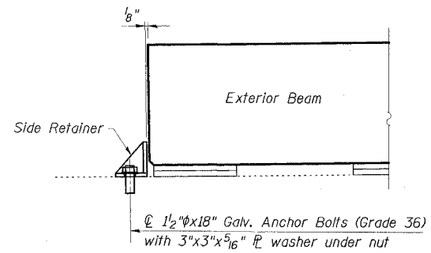
PIER BEARING SEAT PLAN

(Concrete wearing surface and expansion joint not shown)



SECTION A-A

(Concrete wearing surface not shown)



EXTERIOR BEAM RETAINER DETAILS

(4 Required)

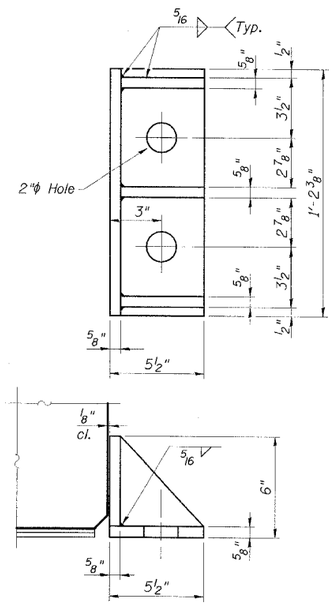
Cost of Retainer Angles, Anchor Bolts & accessories are included with Precast Prestressed Concrete Deck Beams.

Fill ⅛" gap with shim ℄ to provide temporary lateral support until shear keys have been grouted and concrete wearing surface has been placed.

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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

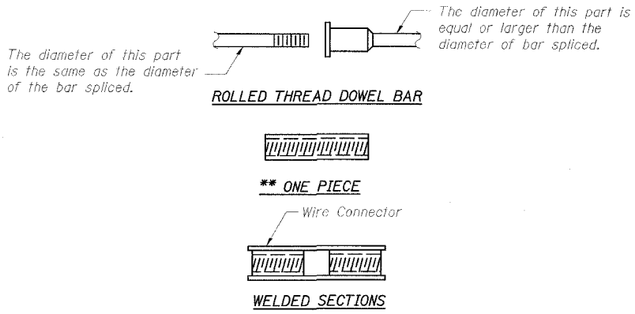
PIER DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-2	SALINE	114	58
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

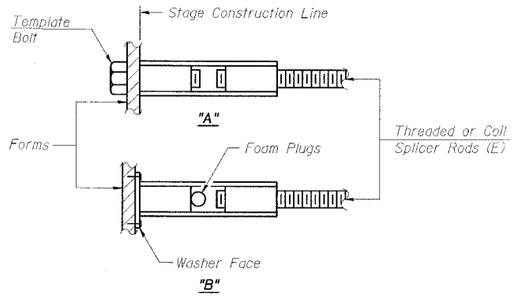
SHEET NO. 16
16 SHEETS

78010



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.

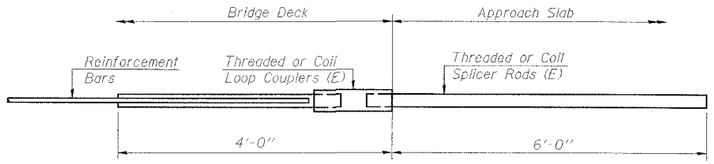
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

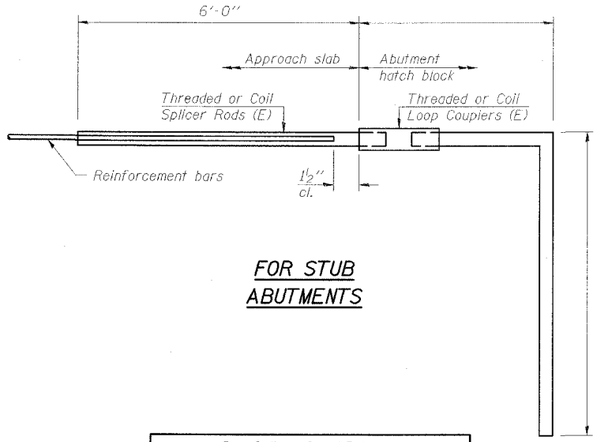
Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



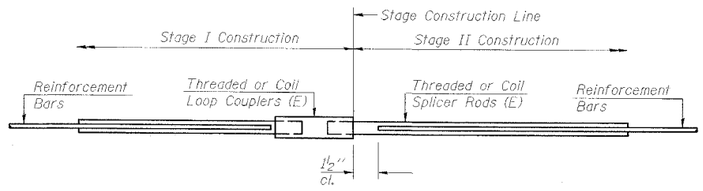
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#4	124	Concrete Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER
FAP ROUTE 132 - SECTION 1BR-2
SALINE COUNTY
STATION 235+10.00
STRUCTURE NO. 083-0019

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

BSD-1 11-1-06

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	59
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

B.M. : R.R. Spike in N. side of 30" Oak 80 ft. Rt. Sta. 236+79 Elev. 362.41

Existing Structure, No. 083-0019 Built at S.B.I. Rte. 34 Sec. 1 BC, at Sta. 235+10 in 1925. The existing truss superstructure shall be removed and the diaphragm walls R.C. closed abutment substructure widened to accommodate a new P.P.C. Deck Beam superstructure. Traffic shall be detoured to a temporary road during reconstruction.

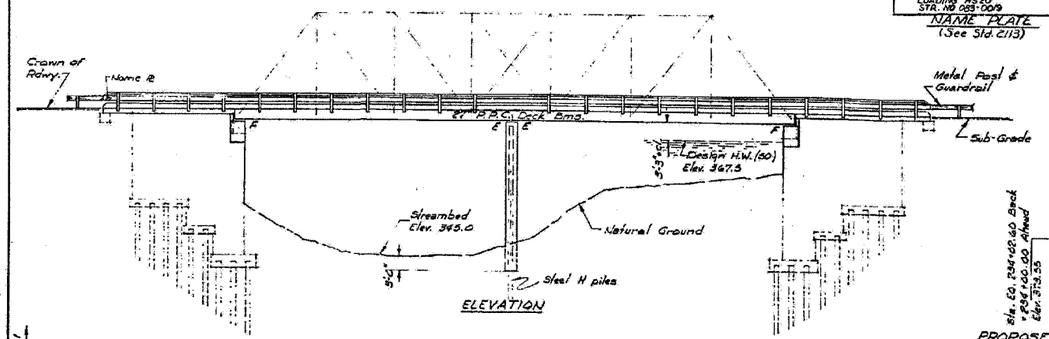
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

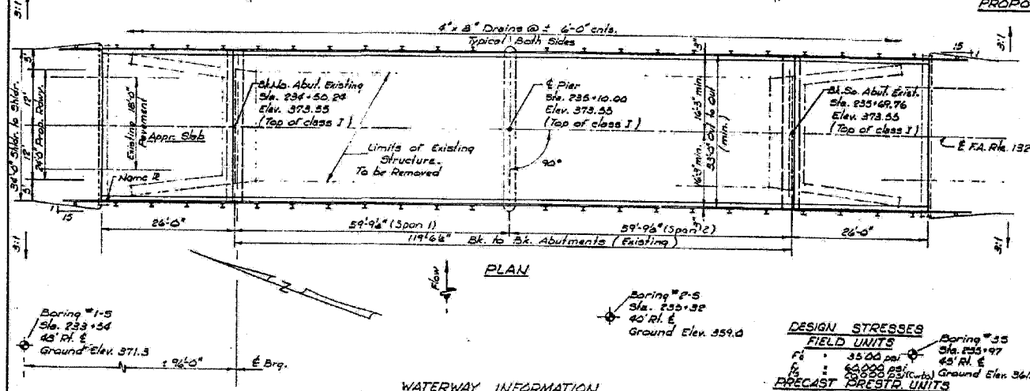
A.A.R. 132	V	Saline	32	11

SHEET NO. 1
7 SHEETS

STATION 2351+0.00
REBUILT 19 BY
STATE OF ILLINOIS
F.A. RTE. 132 SEC. 1B-DR-1
PROJECT No. (82128)
LOADING HS 20
STR. NO 083-0019

NAME PLATE
(See Std. 2113)

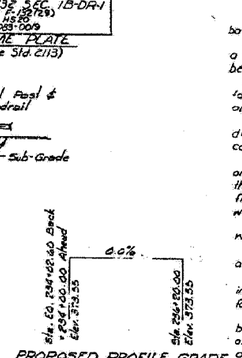




Boring #1-S
Sta. 233+54
48' Rt. ℄
Ground Elev. 371.3

Boring #2-S
Sta. 235+32
40' Rt. ℄
Ground Elev. 359.0

Boring #3S
Sta. 235+97
48' Rt. ℄
Ground Elev. 361.7



PROPOSED PROFILE GRADE
F.A. Rte. 132
@ ℄ Rdwy.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M31, Grade 60 except as noted in Design Stresses.

For Boring Data see the Proposal.

All structural steel shall be shop painted with two coats of basic lead silica chromate paint.

The Contractor shall drive one steel (HP8x36) test pile in a permanent location of the pier as directed by the Engineer before ordering the remainder of piles.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by broaming. The finished surface shall be free of depressions or high spots with sharp corners.

Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Expansion bolts shall consist of self drilling expansion anchors and ⅞" x 12" hooked bolts.

Limits of Waterproofing Membrane System shall be six inches beyond the ends of approach slabs and face to face of curbs.

Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Article 503.07 (c) of the Standard Specifications and are included in quantity of structural steel.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Structure Excavation	Cu. Yds.		67	67
Bituminous Concrete Surface Course, Class I	Tons	40		40
Concrete Removal	Cu. Yds.		25	25
Pavement Removal	Sq. Yds.	100		100
Protective Coat	Sq. Yds.	57		57
Class A Concrete	Cu. Yds.		94.1	94.1
Class X Concrete	Cu. Yds.	102	10.7	112.7
Precast Prestressed Concrete Deck Beams (7" Deck)	Sq. Ft.	3944		3944
Structural Steel	Pound	2127		2127
Reinforcement Bars	Pound	20,460	6990	27,450
Waterproofing Membrane System	Sq. Yds.	590		590
Portland Cement Mortar Fairing Course	Lin. Ft.	1178		1178
Steel Railing, Type "T"	Lin. Ft.	343		343
Steel Piles (HP8x36)	Lin. Ft.		620	620
Test Piles Steel (HP8x36)	Each		1	1
Expansion Bolts ⅞"	Each		32	32
Preformed Joint Sealer (4")	Lin. Ft.	33		33
Name Plates	Each	1		1

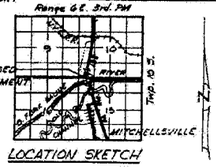
DESIGN STRESSES

FIELD UNITS
- f'_c = 3500 psi
- f_s = 20,000 psi
- f_c = 1350 PSI (Comb.)

PRECAST PRESTR. UNITS
- f'_c = 5,000 psi
- f_{ci} = 4,000 psi
- f_s = 270,000 psi (½" ϕ Strand)
- f_{si} = 189,000 psi (½" ϕ Strand)

WATERWAY INFORMATION

Drainage Area	=	248 sq. miles
Required Opening	=	3332 sq. ft.
Proposed Opening-Main Channel	=	1653 sq. ft.
Overflow Structure	=	1391 sq. ft.
Overflow Culvert	=	288 sq. ft.
Q(50)	=	17,000 c.f.s.
Q(100)	=	20,600 c.f.s.
H.W.E. (50) Design	=	367.5



LOADING HS 20-44

Allow 25#/sq. ft. for future wearing surface. Design Specification : 1973 AASHTO 1974, 1975 and 1976 Interim Specs

DESIGNED	T. A. Howell	
CHECKED	Y.E. Smith	
DRAWN	R. Daly	
CHECKED	YES	
EXAMINED		
PASSED		
APPROVED		

GENERAL PLAN & ELEVATION
F.A. Rte. 132 Over So. Fork Saline River (main channel)
F.A. Rte. 132 SECTION 1B-DR-1
SALINE COUNTY
Sta. 235+10.00

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

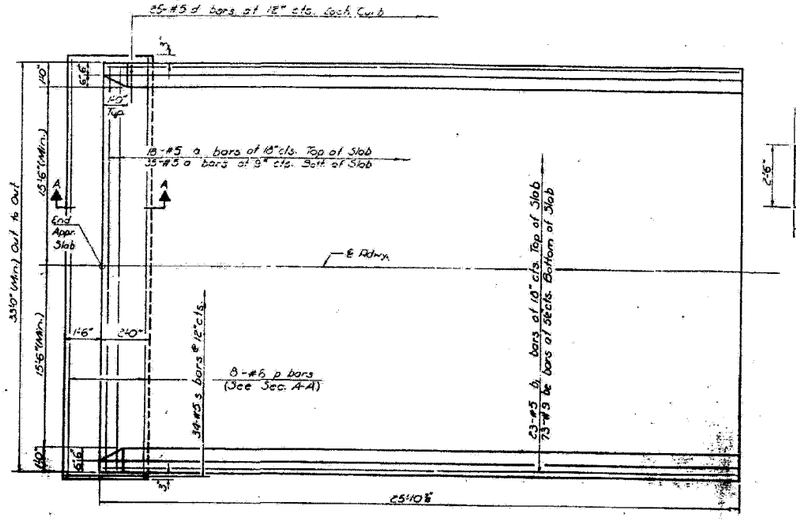
FOR INFORMATION ONLY

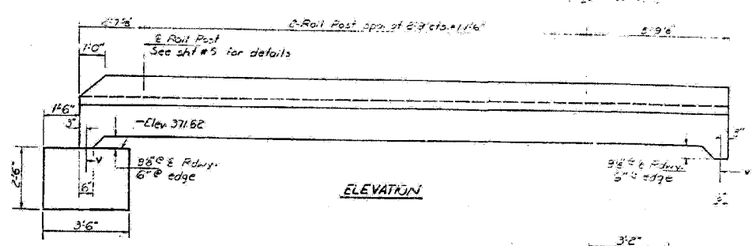
EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

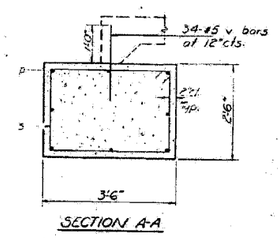
CONTRACT NO. 78010

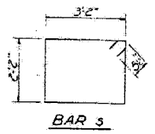
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	60
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

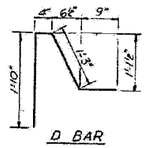
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

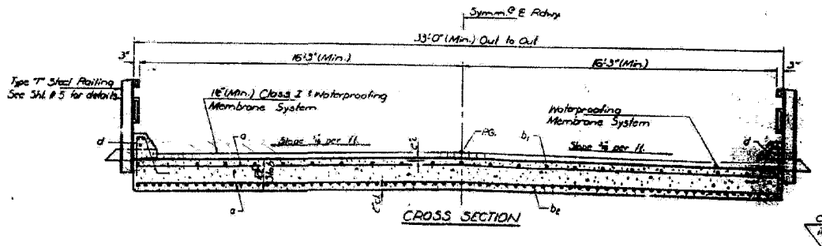


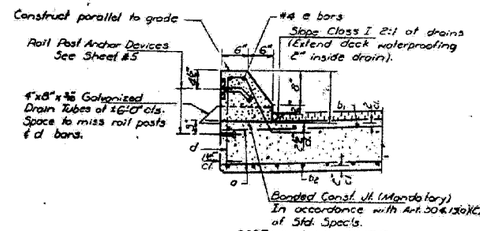


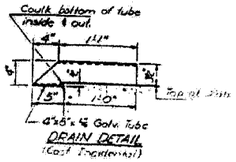












TWO APPR. SLABS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	106	#5	36'-9"	
b1	46	#5	25'-6"	
b2	146	#9	25'-6"	
d	100	#5	4'-2"	
p	8	#6	33'-3"	
s	68	#5	11'-7"	
v	68	#5	2'-0"	
Class X Concrete		Cu. Yd.	45.6	
Reinforcement Bars		Pound	19,190	

APPROACH DETAILS
F.A. RT. 132 SEC. 1B-DA-1
SALINE COUNTY
STA 2+55+1000

DESIGNED	J. Hunt	
CHECKED	R. Pantle	
DRAWN	R. Daly	
CHECKED	R. Pantle	
EXAMINED		
PASSED		
APPROVED		

ESCA CONSULTANTS, INC.

DESIGNED BY:	JWS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

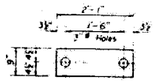
EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

CONTRACT NO. 78010

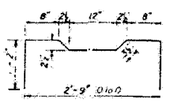
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	61
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

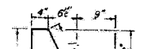
SHEET NO. 3
7 SHEETS



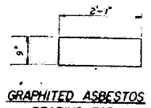
FABRIC BEARING PAD



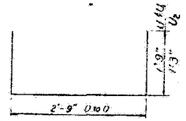
A_1 BAR



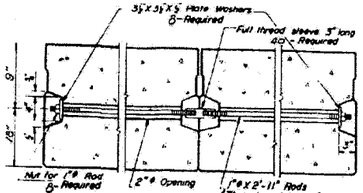
D BAR



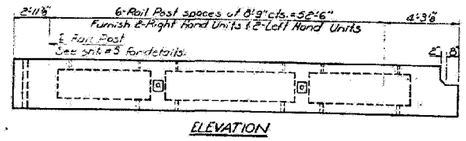
GRAPHITED ASBESTOS BEARING PAD



U, U_1 & U_2 BAR

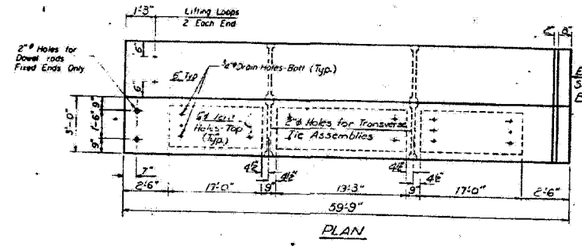


TYPICAL TRANSVERSE TIE ASSEMBLY

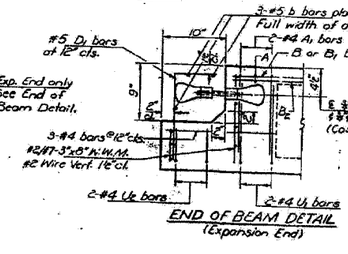


ELEVATION

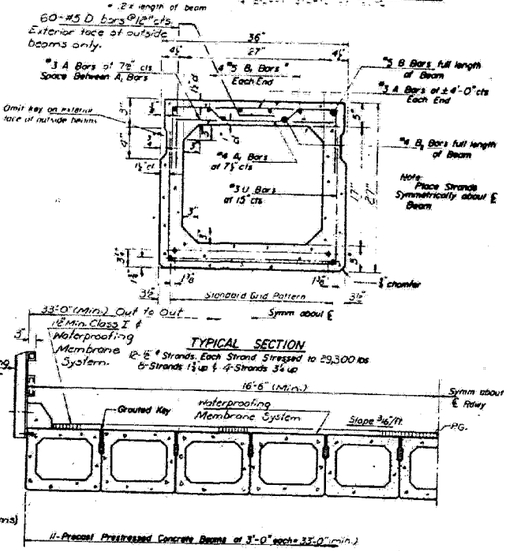
D_1 BAR



PLAN

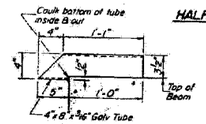


END OF BEAM DETAIL
(Expansion End)

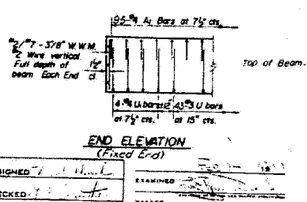


TYPICAL SECTION

HALF CROSS SECTION

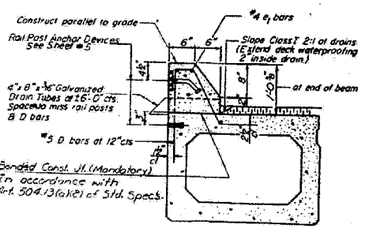


DRAIN DETAIL
(Cost Incidental)



END ELEVATION
(Fixed End)

LIFTING LOOP DETAIL



SECTION THRU CURB
Curbs shall be poured in the field.
Class X Concrete @ 3 cy/cy for curbs
are billed on Sheet #5

GENERAL NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq in. Lifting loops shall be #8 diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33.0 tons. The 1" ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place.

Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the substructure and the anchor dowels shall be grouted in place.

Cost of reinforcement and accessories cast into the beam, of bearing pads, of formed voids and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams."

BILL OF MATERIAL

Bar	No	Size	Length	Shape
D	6	#5	32'-9"	
Precast Prestressed Concrete Deck Beams (27" Depth)			Sq Ft	3944
Class X Concrete			Cu Yd.	1.5
Reinforcement Bars			Pound	220

SUPERSTRUCTURE
F.A. RT. 132 SEC. 1B-DR-1
SALINE COUNTY
STA. 235+10.00

DESIGNED :	H. L.
CHECKED :	
DRAWN :	R. Doty
CHECKED :	

EXAMINED
PASSED
APPROVED

W-SR-4 (11-15-71)

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

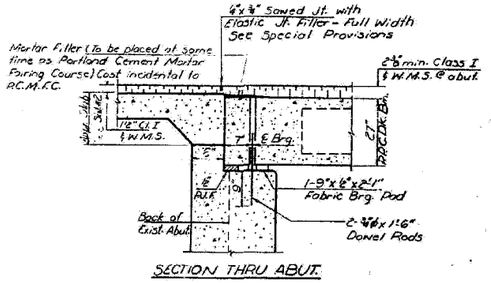
EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

CONTRACT NO. 78010

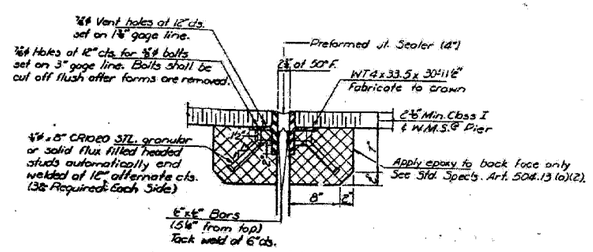
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	62
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 4
7 SHEETS

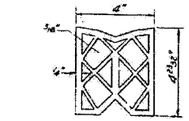

4"x¾" Sawed Jt. with Elastic Jt. Filler - Full Width See Special Provisions
Mortar Filler (To be placed at same time as Portland Cement Mortar Paving Course) Cost incidental to R.C.M.K.C.
2'-6" min. Class I ℄ W.M.S. @ abut.
Slope
1½" Cl. I ℄ W.M.S.
7" ℄ Brg.
2'-7" R.C. Dk. Bm.
6" R.I.P.
1-9"x6"x2'-1" Fabric Brg. Pad
Back of Exist. Abut.
2-⅞"ø x 1'-6" Dowel Rods

SECTION THRU ABUT.

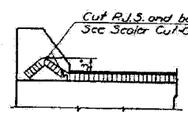


DETAIL "A"

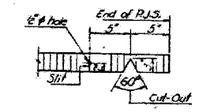
Dimensions are at right angles.
Cross hatched areas to be poured after beams have been erected.
Ends of beams shall be aligned at the expansion end. Any lineal variation in the beam lengths shall be placed at the fixed end.
See End of Beam Detail Sht. #3 for reinforcement.



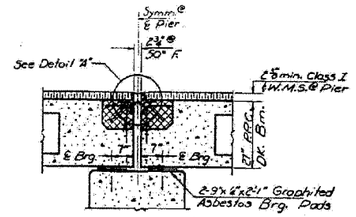
PREFORMED JOINT SEALER (4")



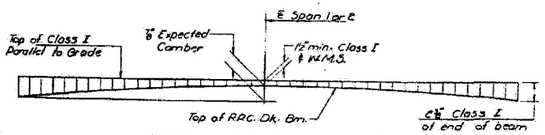
END OF SEALER TREATMENT



SEALER CUT-OUT DETAIL



SECTION THRU PIER



BITUMINOUS SURFACE PROFILE
(Typical Spans 1 ℄ C)

DESIGNED	J. S. Hawk
CHECKED	J.E. Smith
DRAWN	R. Doty
CHECKED	

Feb 14 '07

EXAMINED
PASSED
APPROVED

SUPERSTRUCTURE DETAILS
F.A. RT. 132 SEC. 1B-DR-1
SALINE COUNTY
STA. 235+10.00

ESCA CONSULTANTS, INC.

DESIGNED BY:	JWS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

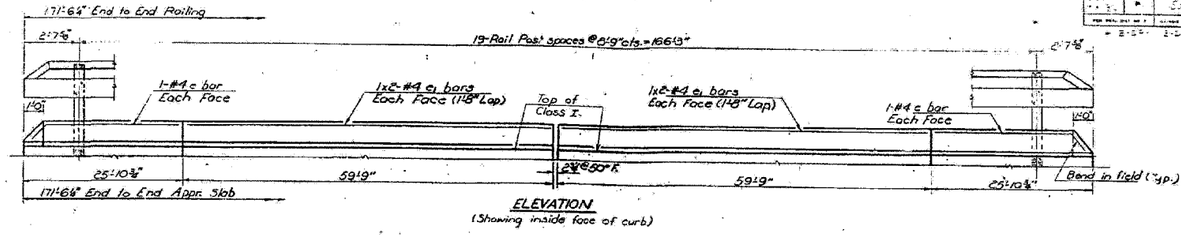
CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	63
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

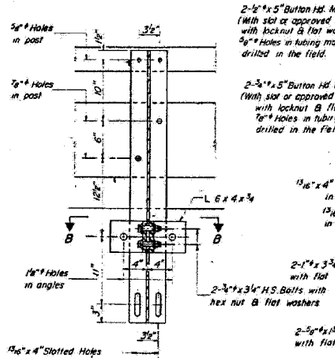
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 5
7 SHEETS

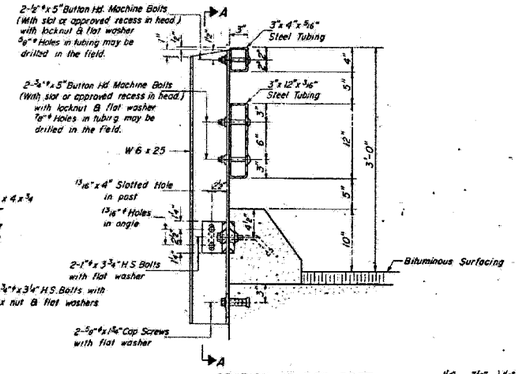
NOTE:
Bars indicated thus 1x2-#4 indicate 1 line of bars with 2 lengths per line.



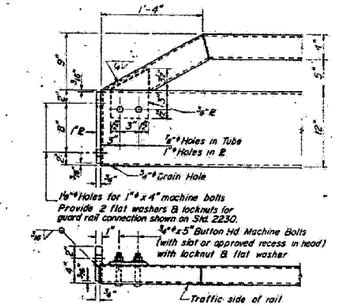
ELEVATION
(Showing inside face of curb)



SECTION A-A



SECTION AT RAIL POST



END OF RAIL DETAILS

NOTES

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts shall conform to AASHTO M-188.

Bolts, cap screws, and nuts shall conform to the requirement of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

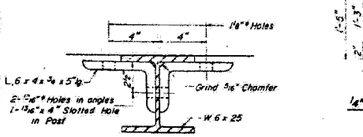
Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE T.

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

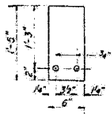
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 711.09 Type B or place ⅛" fabric bearing pad between the post and concrete.

The ¾"ø high strength bolts used to connect the 6 x 4 x ¾ angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1"ø high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional ½ turn.

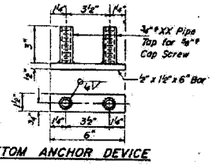
For multi-span bridges, sufficient ⅛" x 6" x 1'-5" galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to Steel Railing.



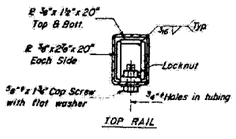
SECTION B-B



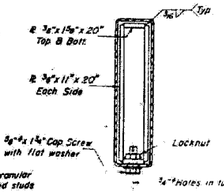
¼" SHIM PLATE



BOTTOM ANCHOR DEVICE

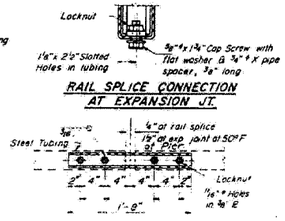


TOP RAIL



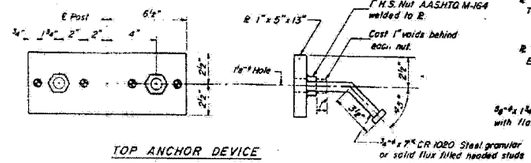
BOTTOM RAIL

SECTIONS AT RAIL SPLICE



PLAN - BOTT. SPLICE R
TYPICAL

RAIL SPLICE CONNECTION AT EXPANSION JT.



TOP ANCHOR DEVICE

CURB & RAIL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e	8	#4	25'-5"	
c1	16	#4	30'-9"	
Reinforcement Bars			Lbs.	470
Class X Concrete			Cu. Yds.	10.3
Steel Railing, Type T			Lin. Ft.	343

TYPE T
STEEL RAILING
F.A. RTE. 132 SEC. 1BR-DR-1
SALINE COUNTY
STA. C35+1000

DESIGNED	J. S. H.	
CHECKED	J.S.	
DRAWN	R. Doty	
CHECKED		

EXAMINED
PASSED
APPROVED
DIRECTOR OF HIGHWAYS

R-24 8-1-76 19'-0" Maximum Post Spacing)

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	64
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO 6
7 SHEETS

34-#5 u bars at 12" c/s. (See Sec. A-A)

Symm. about ℄ Rdwy.

16'-9"

1'-6" Level

Level

Elev. 371.04

Elev. 370.80

4-#6 u bars Each End

3-#9 P_1 bars Top

2-#5 h bars E.F.

2-#7 P_2 bars Bottom

34-#5 s bars at 12" c/s.

1'-0"

16-¾"ø Expansion Bolts at 3'-8" c/s.

1'-6"

ELEVATION

Remove Exist. Abut. to Elev. 368.54

Construction Joint See Art. 504.13(b)(2) of Std. Specifications

Top of Exist. Wing

Remove Existing wing wall to Elev. 372.10. Grout to bottom of slab.

Exist. Conc. Columns to remain in place (Typ.)

See Sheet #2 for Approach Cap Details.

Back of Abut.

SIDE ELEVATION

Top portion of existing wing wall to be removed to clear approach slab. See Side Elevation.

Symm. about ℄ Rdwy.

Back of Exist. Abut.

End of Deck Bms.

P_1 or P_2

1'-6"

15'-3"

33'-6"

REINFORCEMENT

PLAN

DIMENSIONS

33.5' ≈ 7.5 - 3/16 = 7.4375

NOTES:
Hatched Areas indicate Concrete Removal.
All edges shall have standard ¾" chamfers except as noted.
Expansion bolts shall be anchored in sound concrete.

1'-3"

2'-6"

BAR u

2'-0"

1'-4"

BAR s_1

TWO ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	8	#5	33'-3"	—
P_1	6	#9	33'-3"	—
P_2	4	#7	33'-3"	—
s_1	68	#5	7'-7"	□
u	16	#6	6'-3"	⊏
v	68	#5	2'-0"	—
Class X Concrete			Cu Yds.	10.7
Reinforcement Bars			Lbs.	2060
Concrete Removal			Cu Yds.	25
Expansion Bolts ¾"			Each	32

NORTH AND SOUTH ABUTMENTS
F.A. RT. 132 SEC. 1B-DR-1
SALINE COUNTY
STA. 235+10.00

DESIGNED T. J. Hunt
CHECKED T. J. Hunt
DRAWN R. Doty
CHECKED T. J. Hunt
EXAMINED
PASSED
APPROVED
DIRECTOR OF HIGHWAYS

Concrete Removal

Existing reinforcement to be cleaned & incorporated into new cap.

Back of Exist. Abutment

SECTION THRU EXISTING ABUT AT ℄ RDWY

6"

3"

v

1'-8" ℄ Rdwy.

P_1

h

s_1

P_2

2'-6" or ℄ Rdwy.

Back of Abut.

Back of Exist. Abut.

1'-8"

6"

SECTION A-A

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	65
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

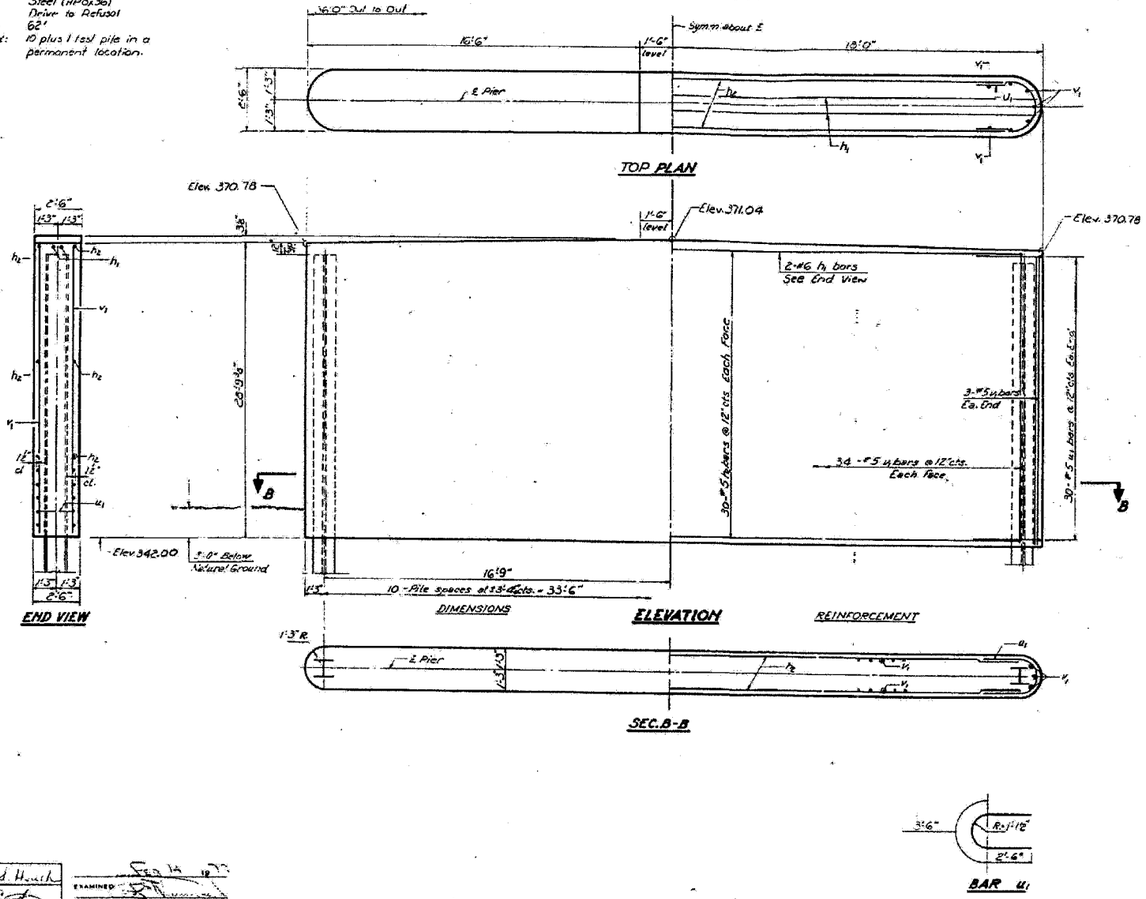
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

B.R.S.				SHEET NO. 7
F.A. 34	9	Saline	22	17
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		7 SHEETS

F.A.-B-DR-1, B-DR-2, I-X11A9-2

PILE DATA

Type: Steel (HP8x36)
Capacity: Drive to Refusal
Est. length: 62'
No. Required: 10 plus 1 test pile in a permanent location.



Note:
All edges shall have Std. ¾" chamfers.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1	2	#6	33'0"	—
h2	60	#5	33'6"	—
u1	60	#5	8'6"	⊏
v1	74	#5	28'6"	—
Class A Concrete			Cu. Yds.	94.1
Reinforcement Bars			Lbs.	4930
Steel Piles (HP8x36)			Lin. Ft.	620
Test Piles Steel (HP8x36)			Each	1

DESIGNED	J. S. Hauck
CHECKED	R. E. Smith
DRAWN	R. Ely
CHECKED	J. [illegible]

EXAMINED Sept 14 19 77
PASSED
APPROVED
DIRECTOR OF HIGHWAYS

PIER
F.A. RT. 132 SEC. 1B-DR-1
SALINE COUNTY
STA. 235+10.00

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-2
SALINE COUNTY

BENCHMARK: Chiseled Square in top of hub guard at NW end of SN 083-0020, Sta. 243+55.00, 16.4' Rt., Elev. 373.50.

EXISTING STRUCTURE: SN 083-0020 was originally built in 1925 as S.B.I. Rte. 34, Section 1 BC. The superstructure was replaced in 1977. The superstructure consists of two simple spans, 27" PPC deck beams. The substructure consists of two reinforced concrete closed abutments on timber piles, and a single solid concrete encased pile bent pier supported on H-piles. The back-to-back abutments length is 119'-6 1/4", the out-to-out width is 33'-0". The existing superstructure and the existing bridge approach shoulders shall be removed and replaced utilizing stage construction.

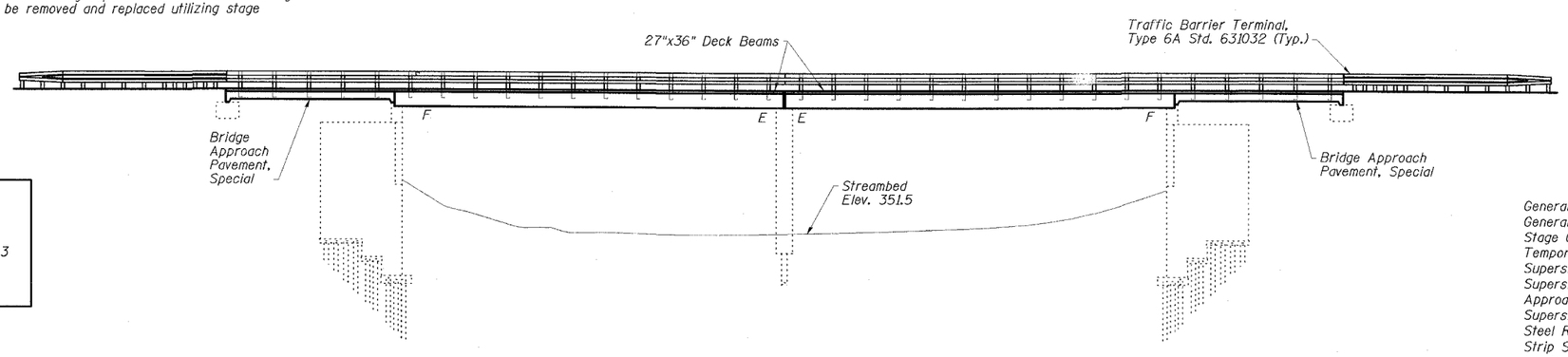
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	66
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
16 SHEETS

78010



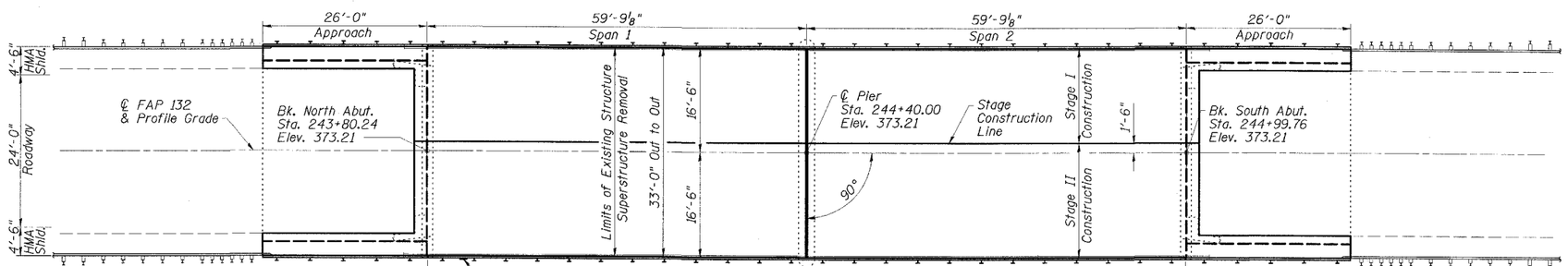
STATION 244+40.00
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 132 SEC. 1BR-3
LOADING HS20
STR. NO. 083-0020

NAME PLATE
See Std. 515001

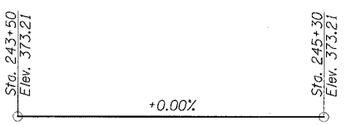
Note: Existing Name Plate shall be cleaned and relocated adjacent to the new plate. Cost included with Name Plates.

STRUCTURE INDEX OF SHEETS

ELEVATION



PLAN



PROFILE GRADE
(Along ℄ Roadway)

SCOPE OF WORK

1. Remove existing surfacing, steel railing, deck beams, curbs and bridge approach shoulders.
2. Repair beam bearing seats and perform other repairs at abutments and pier as required.
3. Reconstruct a two-span PPCD beam superstructure with Concrete Wearing Surface and Steel Railing, Type SM. Reconstruct existing approach shoulders with Bridge Approach Pavement with Concrete Wearing Surface.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson (TSD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS · RICHARD D. PAYNE · No. 4647 · LICENSED STRUCTURAL ENGINEER
EXPIRES 11-30-08
R.D.P.
SIGNATURE
8/02/07
DATE

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

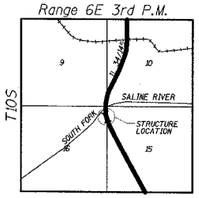
DESIGN SPECIFICATION
2002 AASHTO

LOADING HS20-44
No Allowance for future wearing surface

DESIGN STRESSES

FIELD UNITS
f'c = 5,000 psi (Concrete Wearing Surface)
f'c = 3,500 psi (All concrete except CWS)
fy = 60,000 psi (reinf.)

PRECAST PRESTRESSED UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ low lax strands)
fsi = 201,960 psi (½"ϕ low lax strands)



LOCATION SKETCH

GENERAL PLAN
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	67
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT=	

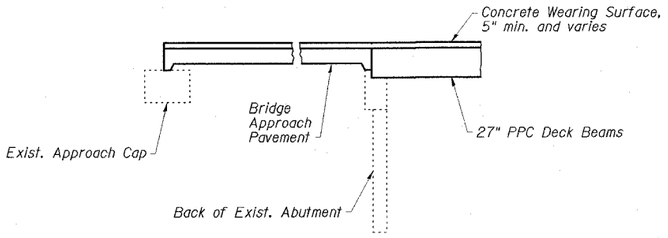
SHEET NO. 2
16 SHEETS

78010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

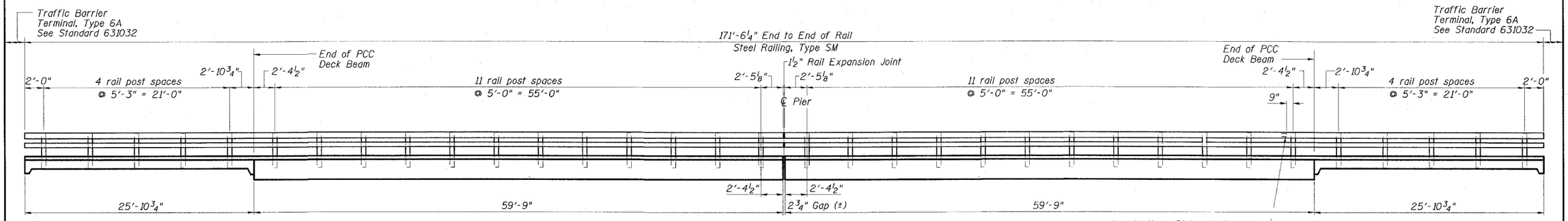
1. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions.
2. Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
3. Concrete Sealer shall be applied to abutment bearing seats where Structural Repair of Concrete is performed.
4. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300 Type 1 unless noted otherwise.
5. No in-stream work will be allowed on this project.
6. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
7. If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the new or existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures No. 3.
8. The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
9. Repair of the substructure shall be completed prior to placement of the new deck beams.
10. Stage Construction of Precast Prestressed Concrete Deck Beams shall be according to Article 504.06(d) of the Standard Specifications.



SECTION THRU ABUTMENTS @ OUTSIDE BEAM

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Bridge Approach Pavement (Special)	Sq. Yd.	26	-	26
Removal of Existing Superstructures No. 2	Each	1	-	1
Bridge Deck Grooving	Sq. Yd.	491	-	491
Protective Coat	Sq. Yd.	491	-	491
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	3944	-	3944
Reinforcement Bars, Epoxy Coated	Pound	6370	-	6370
Bar Splicers	Each	124	-	124
Steel Railing, Type SM	Foot	343	-	343
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	33	-	33
Concrete Sealer	Sq. Ft.	-	45	45
Epoxy Crack Injection	Foot	-	120	120
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	-	69	69
Concrete Wearing Surface, 5"	Sq. Ft.	491	-	491
Asbestos Bearing Pad Removal	Each	-	44	44



RAILING ELEVATION
(Showing Inside Face of East Railing; West Railing Similar)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

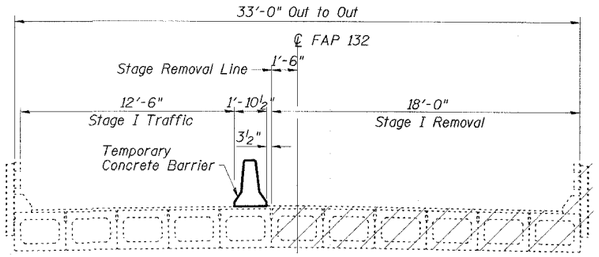
GENERAL DATA
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	68
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

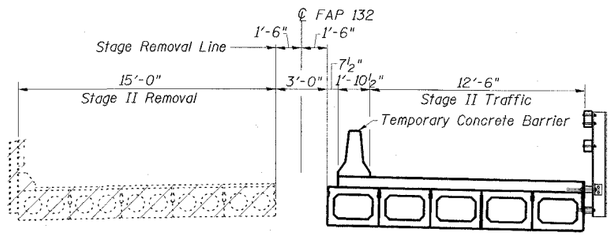
SHEET NO. 3
16 SHEETS

78010

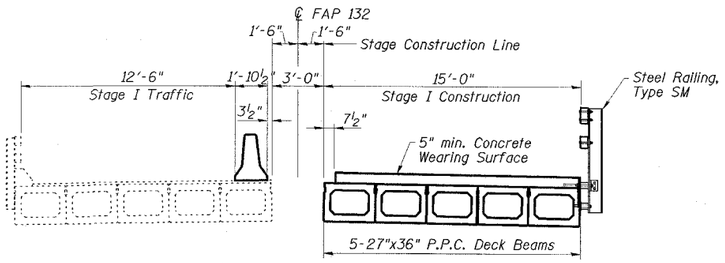
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



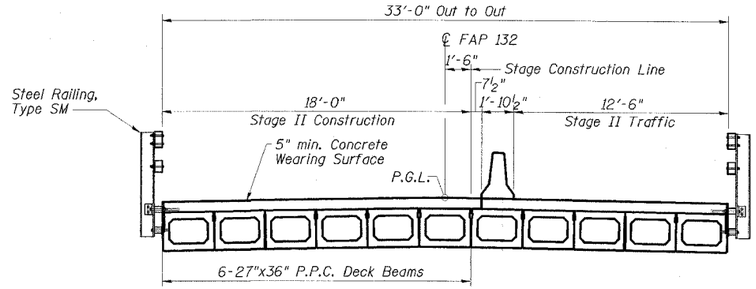
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. All staging sections are looking North.
2. See Dwg. No. 5 of 16 for shear key clamping details.
3. For quantity of Temporary Concrete Barrier, see Roadway Plans.

ESCA CONSULTANTS, INC.		
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APPROVED BY:	RDP	06/07

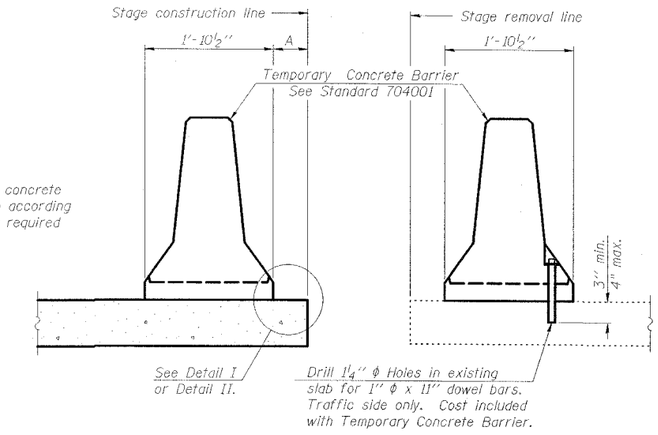
STAGE CONSTRUCTION DETAILS
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	69
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 4
16 SHEETS

78010



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".

NEW SLAB EXISTING SLAB

NOTES

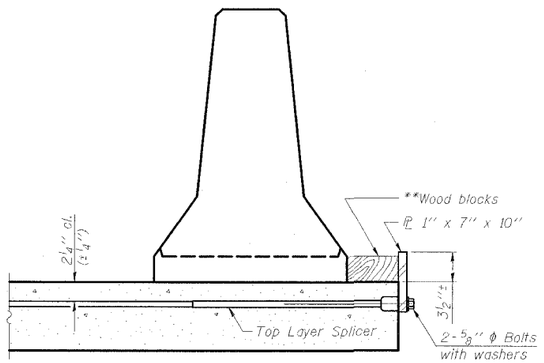
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℄ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

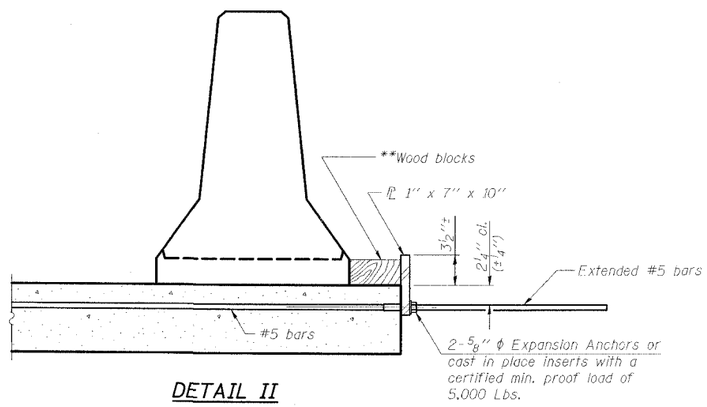
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" 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.

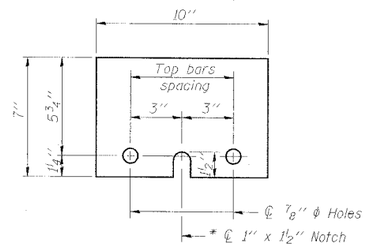
SECTIONS THRU SLAB



DETAIL I



DETAIL II



STEEL RETAINER ℄ 1" x 7" x 10"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
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APPROVED BY:	RDP	06/07

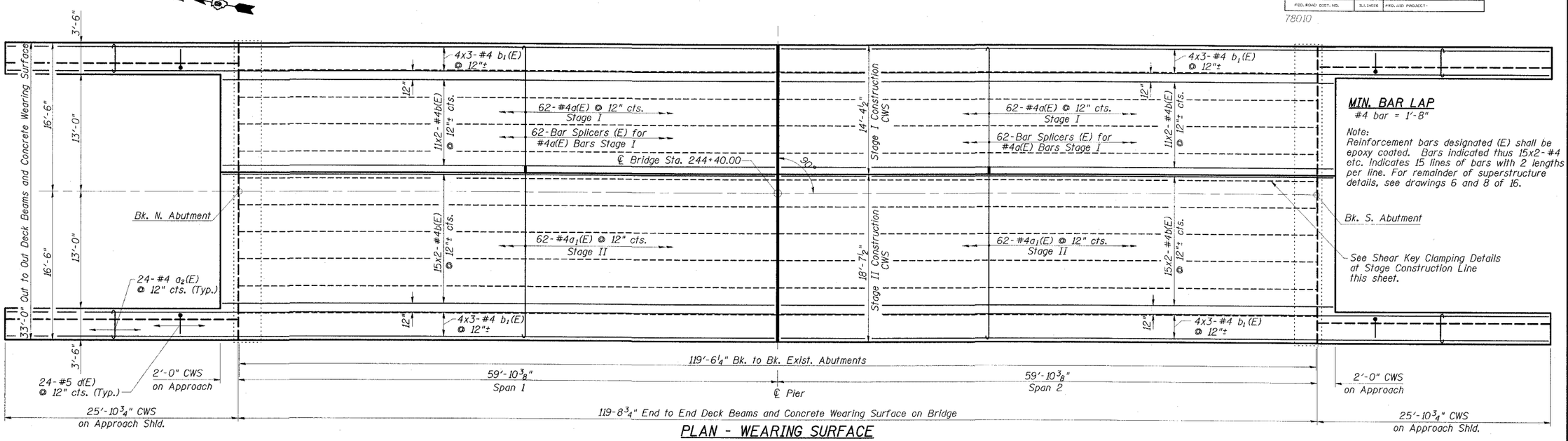
R-27 11-1-06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-3	SALINE	114	70
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

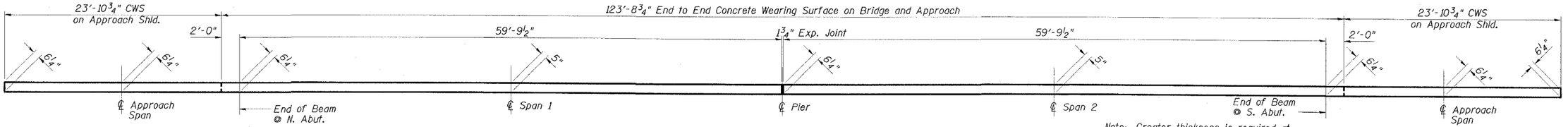
SHEET NO. 5
16 SHEETS

78010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



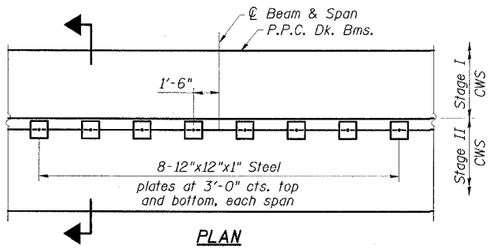
PLAN - WEARING SURFACE



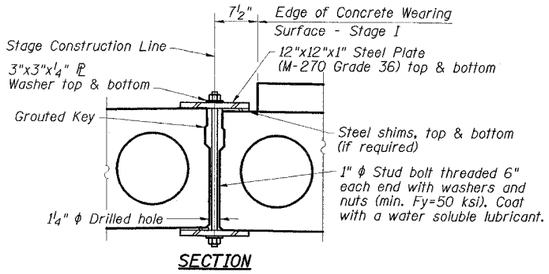
REINFORCED CONCRETE WEARING SURFACE PROFILE

(At edge of bridge deck)

Note: Greater thickness is required at centerline of superstructure to conform to cross section slopes shown on Dwg. 6 of 16.

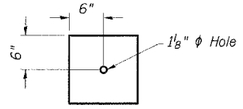


PLAN



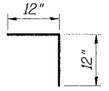
SECTION

SHEAR KEY CLAMPING DETAILS



CLAMPING PLATE

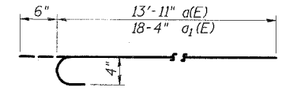
Notes:
See Stage Construction Details for traffic lanes.
Cost is included with Precast Prestressed Concrete Deck Beams.



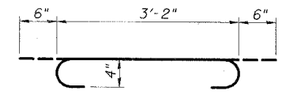
BAR d(E)

CONCRETE WEARING SURFACE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	124	#4	14'-5"	
a1(E)	124	#4	18'-10"	
a2(E)	96	#4	4'-2"	
b(E)	104	#4	31'-7"	
b1(E)	48	#4	29'-7"	
d(E)	96	#5	2'-0"	
Reinforcement Bars, Epoxy Coated			Pound	6370
Concrete Wearing Surface, 5"			Sq. Yd.	491
Bridge Deck Grooving			Sq. Yd.	491
Bar Splicers			Each	124
Protective Coat			Sq. Yd.	491



BARS d(E) & a1(E)



BAR a2(E)

SUPERSTRUCTURE
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ESCA CONSULTANTS, INC.

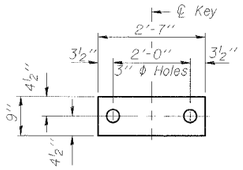
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

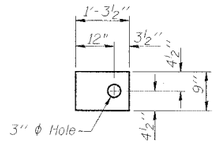
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-3	SALINE	114	71
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
16 SHEETS

78010

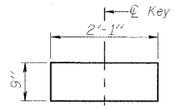


FABRIC BEARING PAD
(Interior)

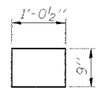


FABRIC BEARING PAD
(Exterior and Stage Construction Line)

FIXED

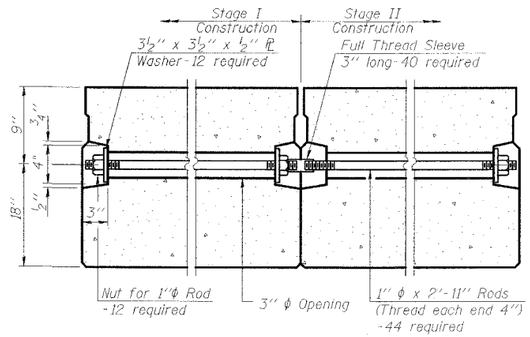


FABRIC BEARING PAD
(Interior)

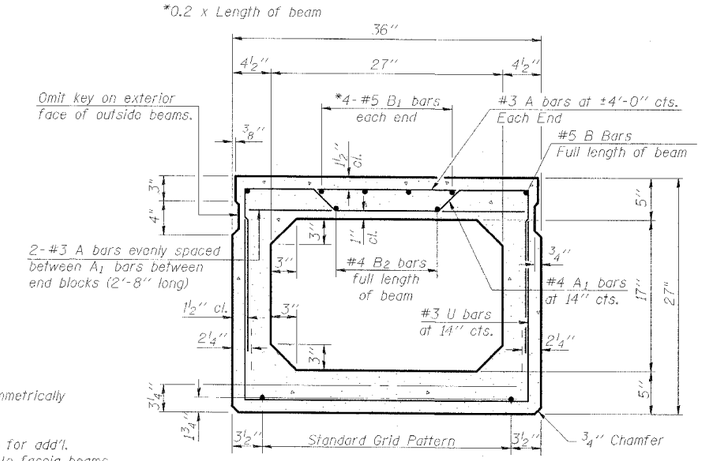


FABRIC BEARING PAD
(Exterior and Stage Construction Line)

EXPANSION



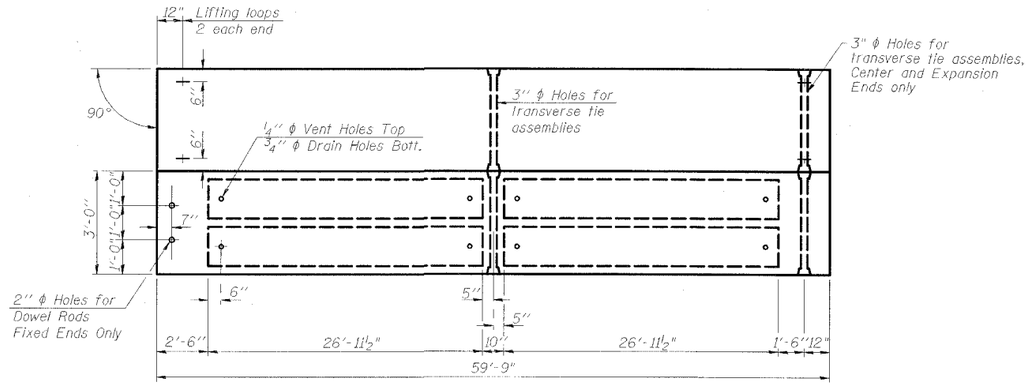
TYPICAL TRANSVERSE TIE ASSEMBLY



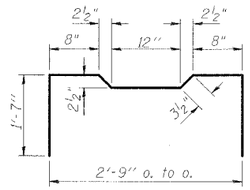
TYPICAL SECTION

14-½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1¾" up, 6-Strands 3¼", 2-Strands 4½" up

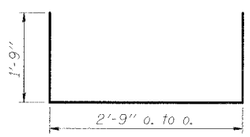
Notes:
1. Place strands symmetrically about ℄ of beam.
2. See Dwg. 8 of 16 for add'l. details applicable to fascia beams.



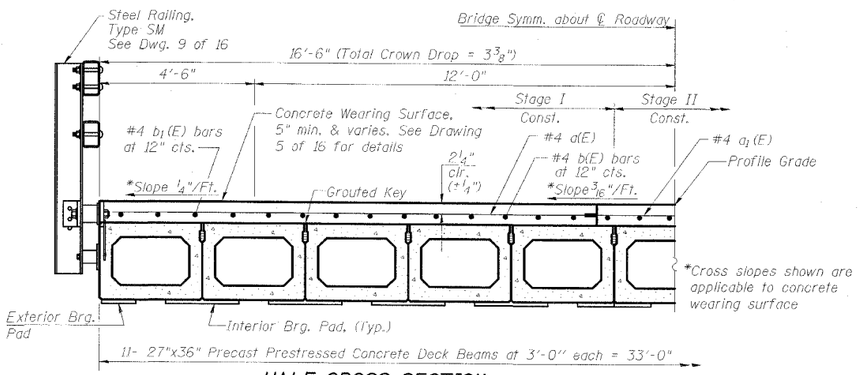
PLAN



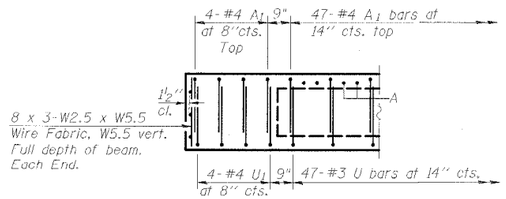
BAR A1



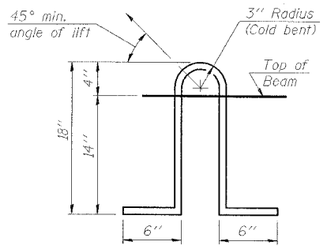
BARS U & U1



HALF CROSS SECTION
(Looking South)



END ELEVATION



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 4000 p.s.i.
See Dwg. 2 of 16 for location of rail anchors and additional notes.

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Conc. Deck Bms. (27")	Sq. Ft.	3944

SUPERSTRUCTURE DETAILS
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION IBR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

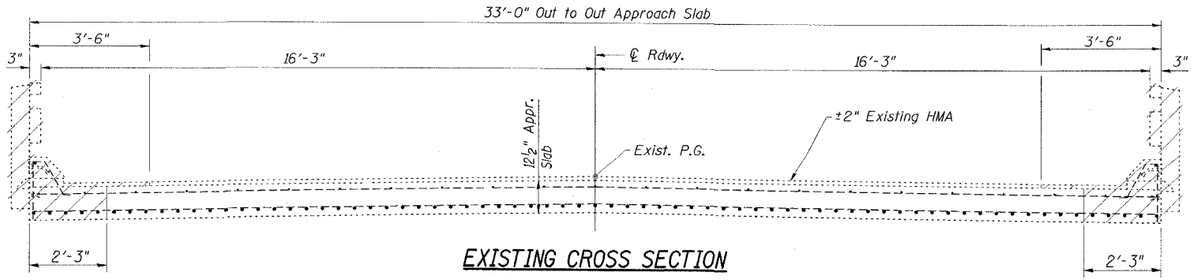
PD-5-S 11-1-06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-3	SALINE	114	72
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

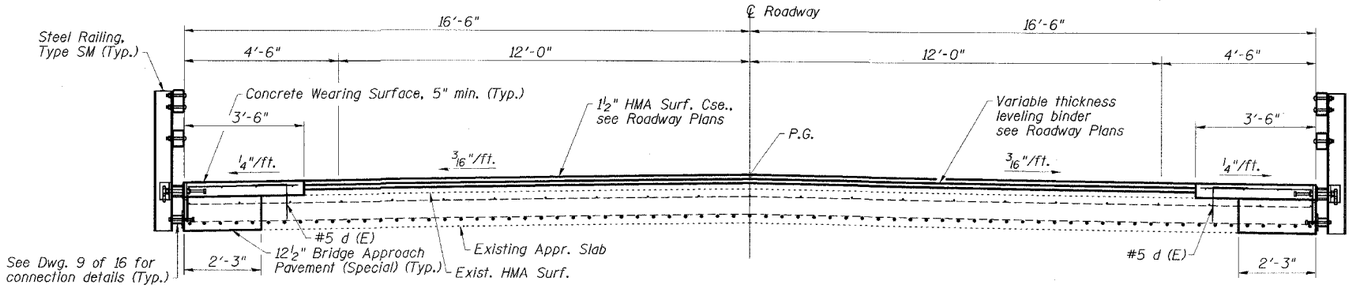
SHEET NO. 7
16 SHEETS

78010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

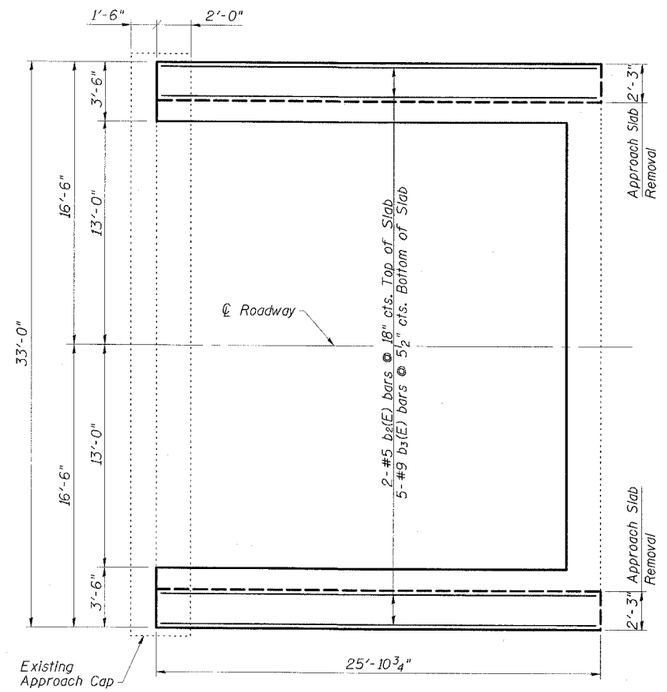


EXISTING CROSS SECTION

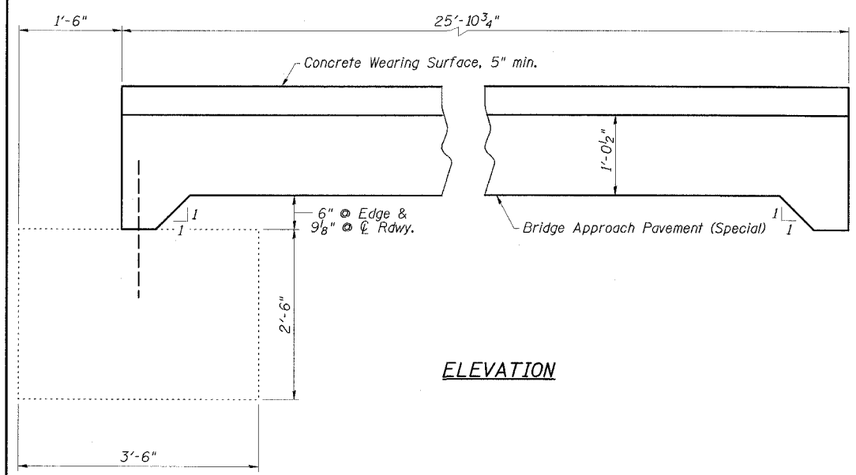


PROPOSED CROSS SECTION

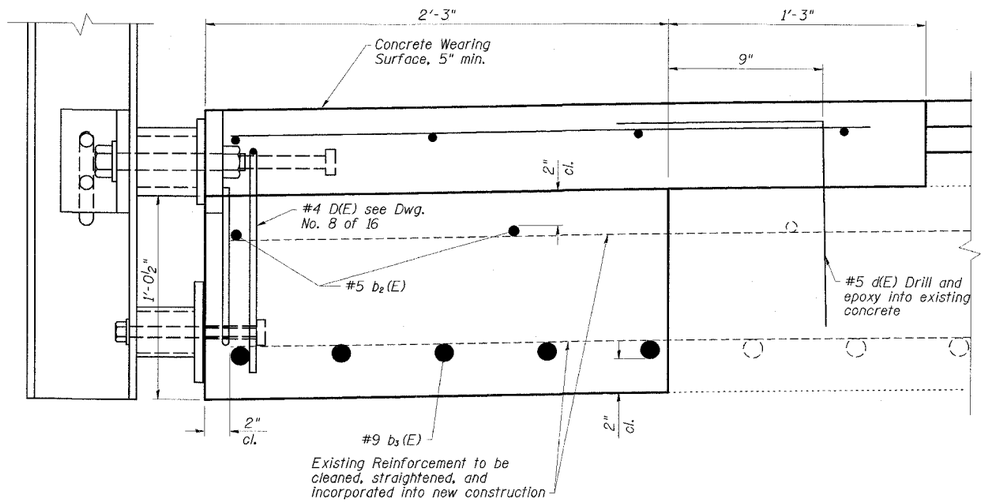
Note: The cost of reinforcement bars and incorporating existing reinforcement is included in Bridge Approach Pavement (Special)



PLAN
(N. Approach shown, S. Approach similar)



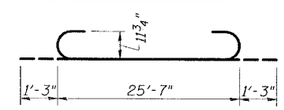
ELEVATION



ENLARGED SECTION THRU BRIDGE APPROACH PAVEMENT

TWO APPROACHES
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Bridge Approach Pav't (Special)	Sq. Yd.	26
Approach Slab Removal	Sq. Yd.	26



BAR b3(E)

APPROACH DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION IBR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ESCA CONSULTANTS, INC.

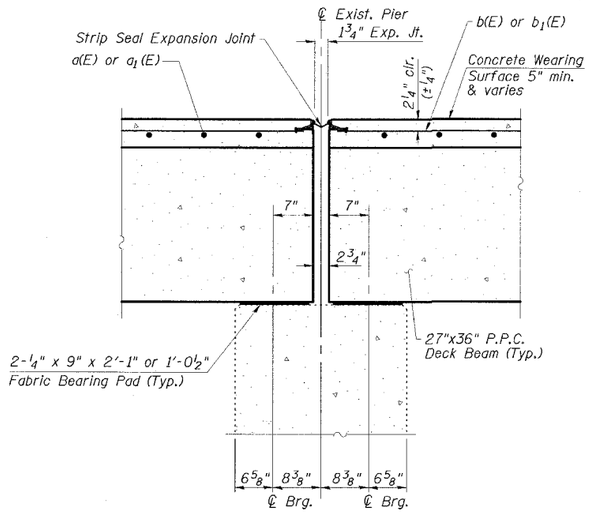
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

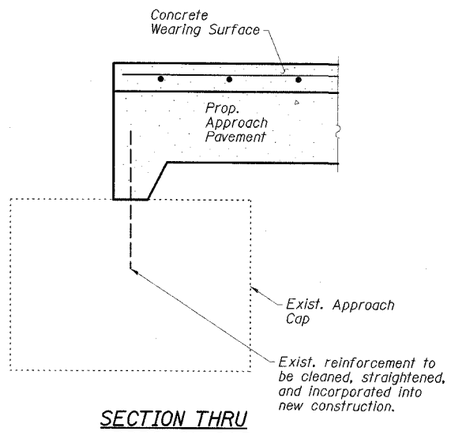
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-3	SALINE	114	13
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SHEET NO. 8
16 SHEETS

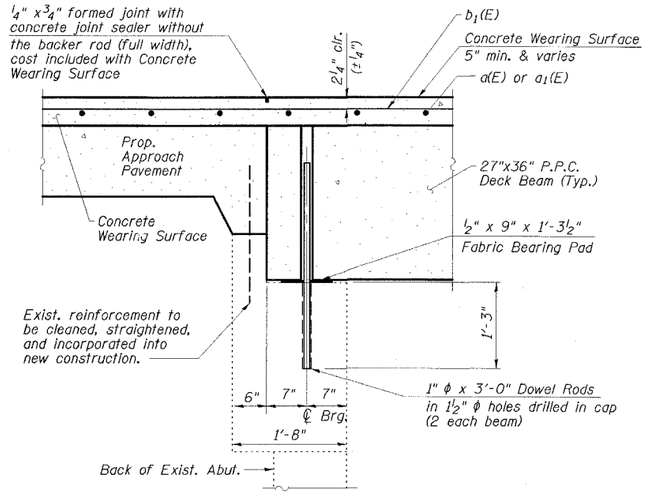
78010



SECTION THRU PIER



SECTION THRU APPROACH CAP



SECTION THRU ABUTMENT @ OUTSIDE BEAM

NOTES

After beams have been erected, holes shall be drilled into substructure and doweis rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

Concrete wearing surface to be poured after grouting the shear keys.

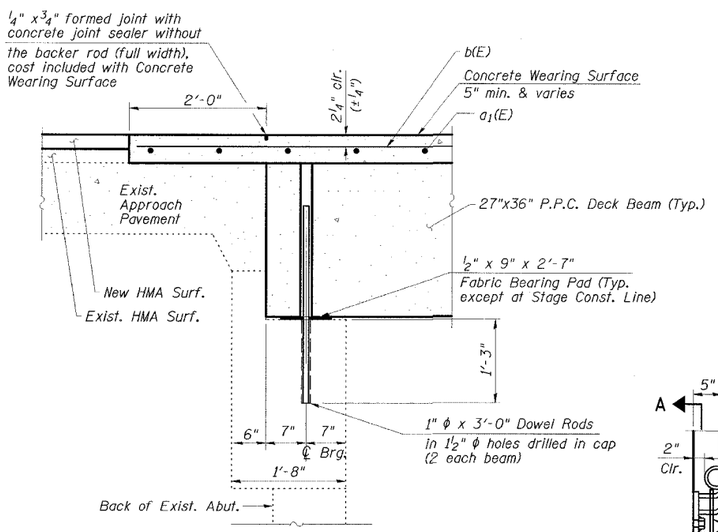
Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (27" depth).

The rail anchorage shall be cast with the beam or approach pavement and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam or approach pavement. Drilling into the beam will not be permitted.

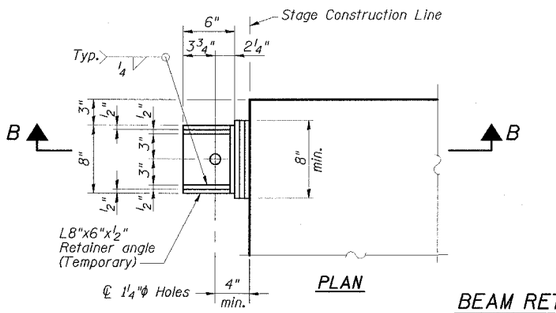
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

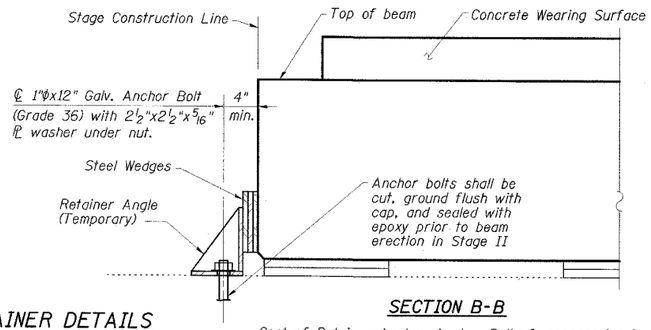
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



SECTION THRU ABUTMENT @ ℄ ROADWAY



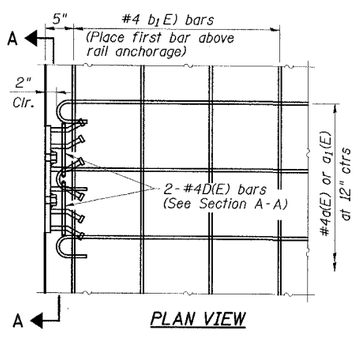
PLAN



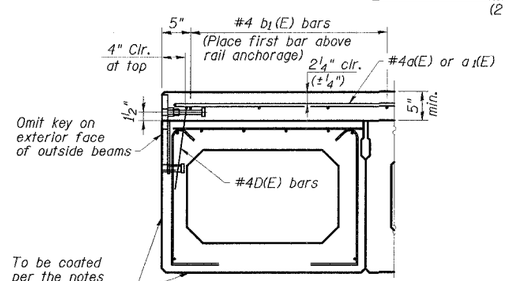
SECTION B-B

Cost of Retainer Angles, Anchor Bolts & accessories is included with Precast Prestressed Concrete Deck Beams.

BEAM RETAINER DETAILS AT STAGE CONSTRUCTION LINE
(2 Required)

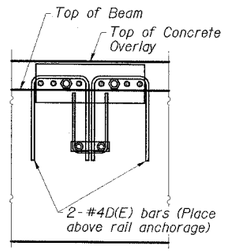


PLAN VIEW

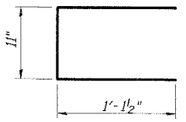


FASCIA BEAM CROSS SECTION

See Typical Section on Dwg. 6 of 16 for strand pattern, dimensions and bar call outs.



SECTION A-A



BAR D(E)

CONCRETE OVERLAY MODIFICATIONS FOR RAIL ANCHORAGE
(Bridge shown, Approach similar)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

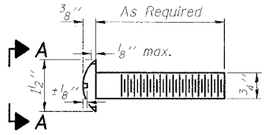
SUPERSTRUCTURE AND APPROACH DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION IBR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

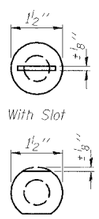
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	74
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
16 SHEETS

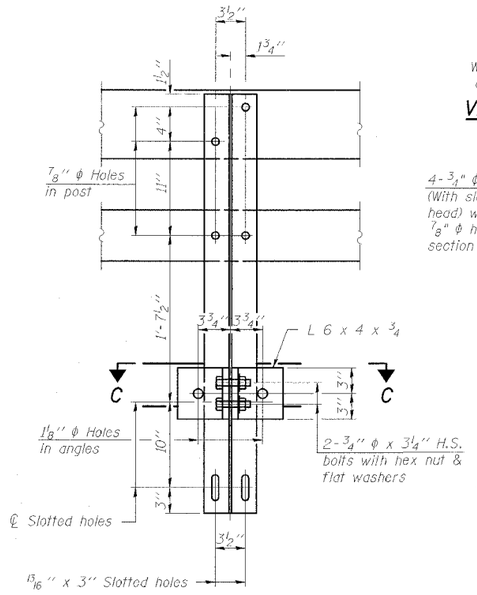
78010



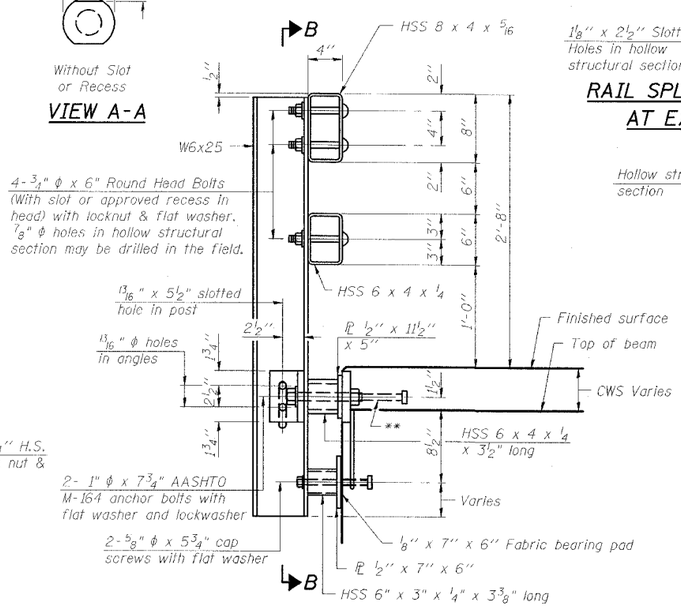
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



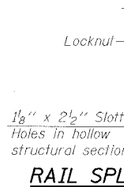
VIEW A-A



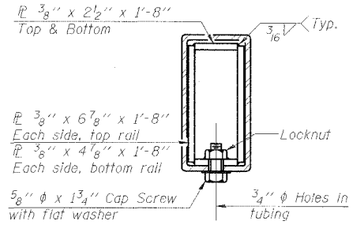
SECTION B-B



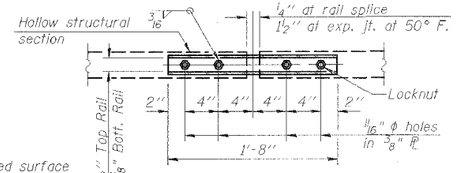
SECTION AT RAIL POST



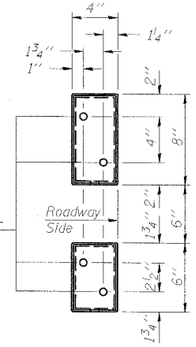
RAIL SPLICE CONNECTION AT EXPANSION JT.



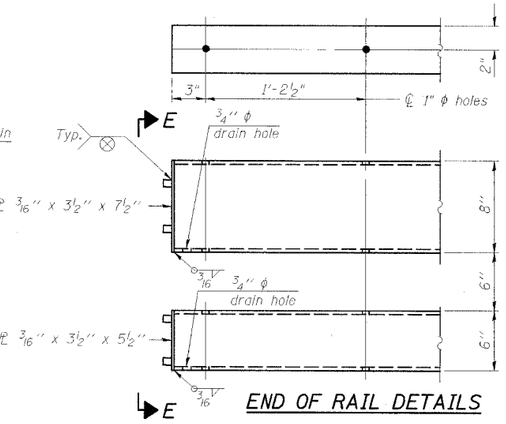
SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE PL TYPICAL

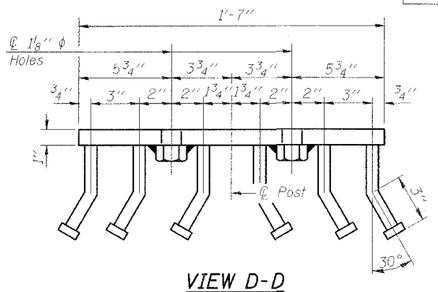


VIEW E-E

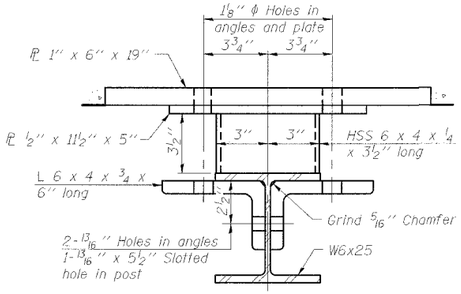


END OF RAIL DETAILS

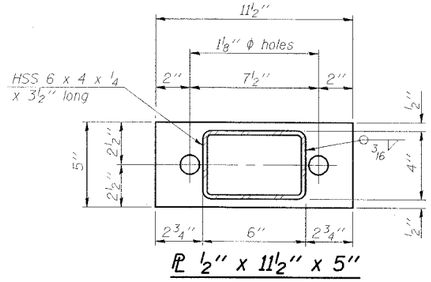
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



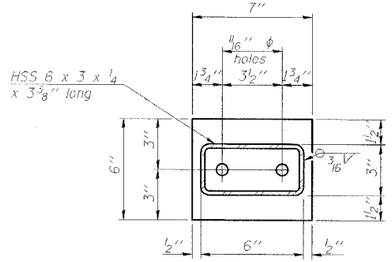
VIEW D-D



SECTION C-C

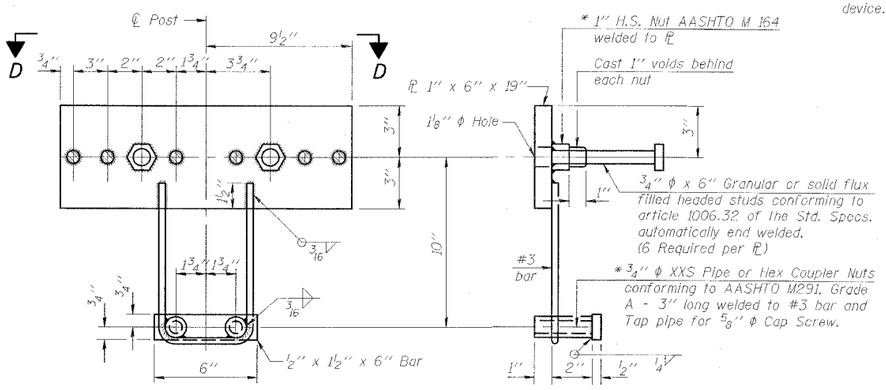


PL 1/2" x 11 1/2" x 5"



PL 1/2" x 7" x 6"

(6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM. Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	343

STEEL RAILING, TYPE SM
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

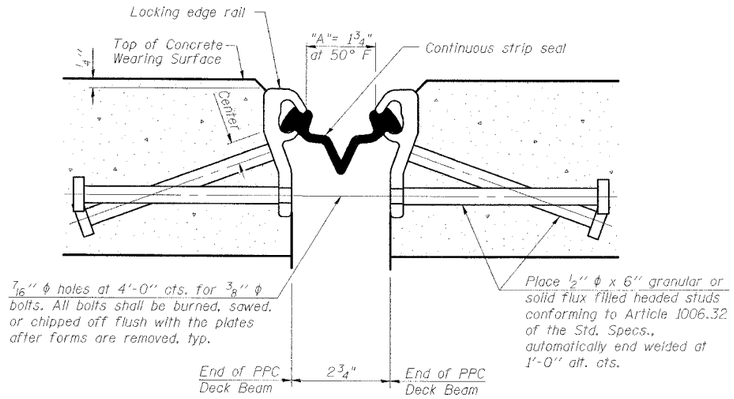
R-34CWS 11-1-06

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	75
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
16 SHEETS

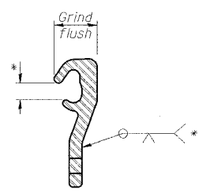
78010



SECTION THRU STRIP SEAL JOINT
FOR OVERLAY OVER DECK BEAMS

* Omit weld at seat opening.

LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

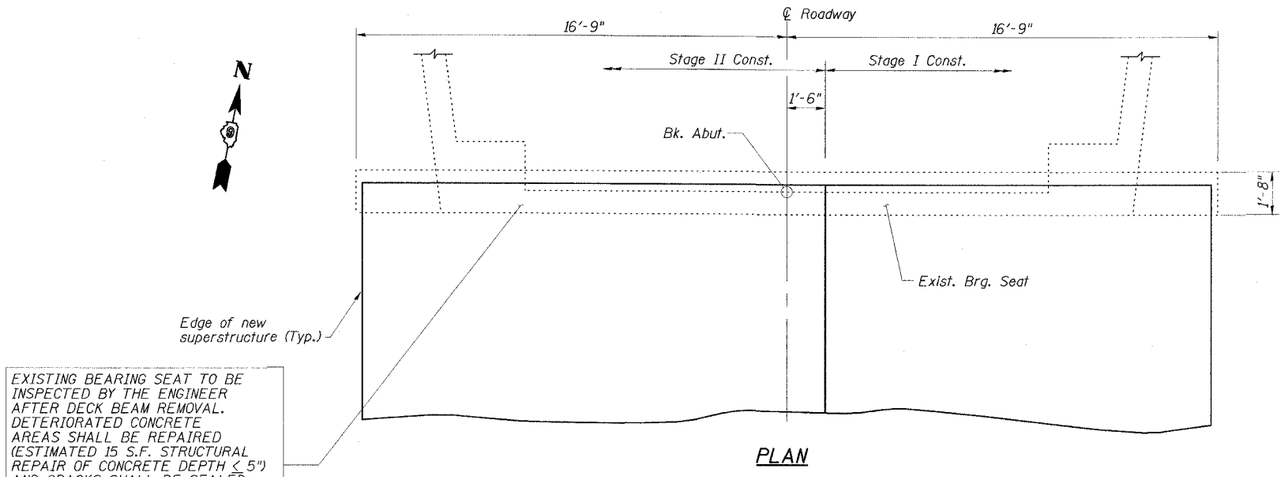
STRIP SEAL EXPANSION JOINT
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-3	SALINE	114	76
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

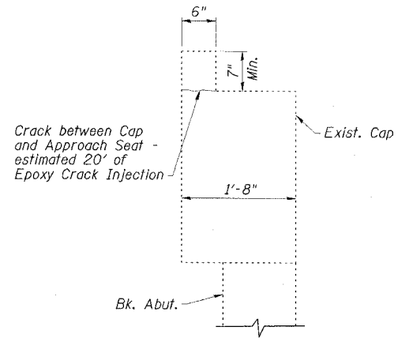
SHEET NO. 11
16 SHEETS

78010



EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH < 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.

PLAN



SECTION THRU EXISTING ABUTMENT

NORTH ABUTMENT BILL OF MATERIAL

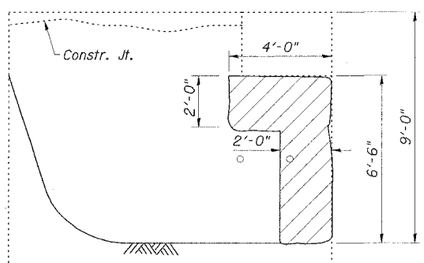
Item	Unit	Quantity
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	49
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	35

REPAIR LEGEND

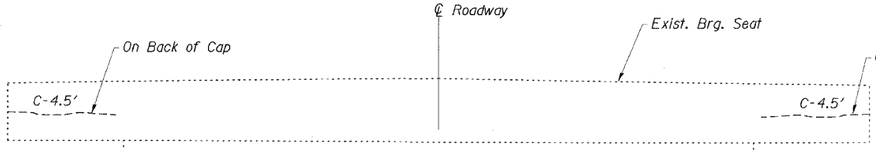
Inspection Date: 02/01/07

C.-5' Crack to be epoxy injected

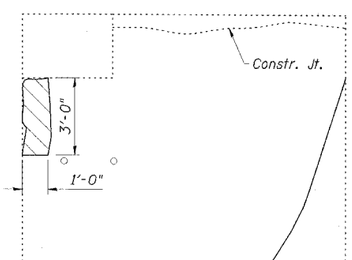
Delaminated or Spalled Area - Use Structural Repair of Concrete



ELEVATION WEST WING



ELEVATION



ELEVATION EAST WING

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

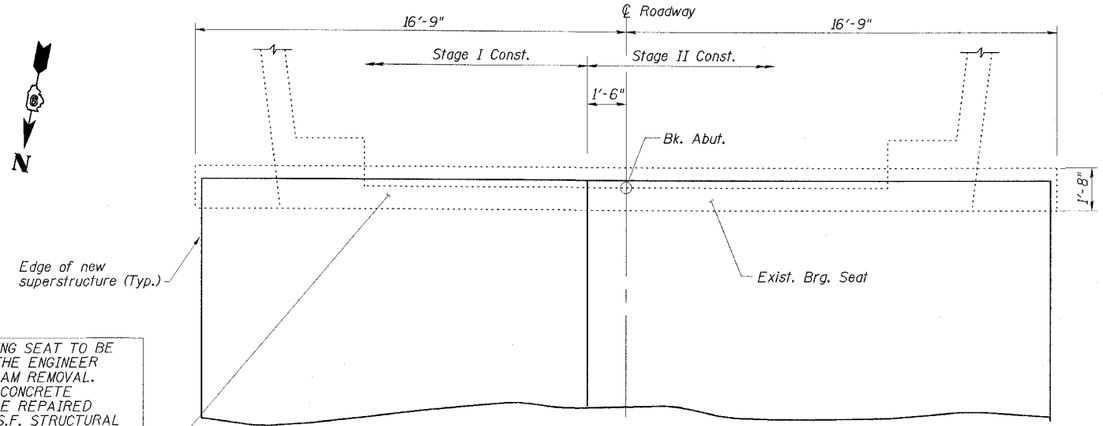
NORTH ABUTMENT
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	IBR-2	SALINE	114	77
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

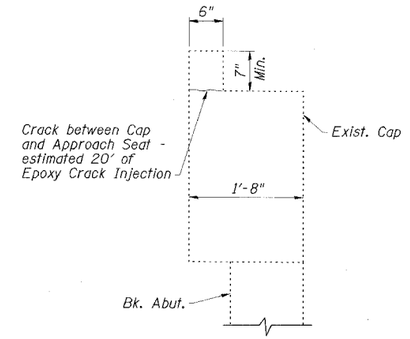
SHEET NO. 12
16 SHEETS

78010



PLAN

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH ≤ 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



SECTION THRU EXISTING ABUTMENT

SOUTH ABUTMENT BILL OF MATERIAL

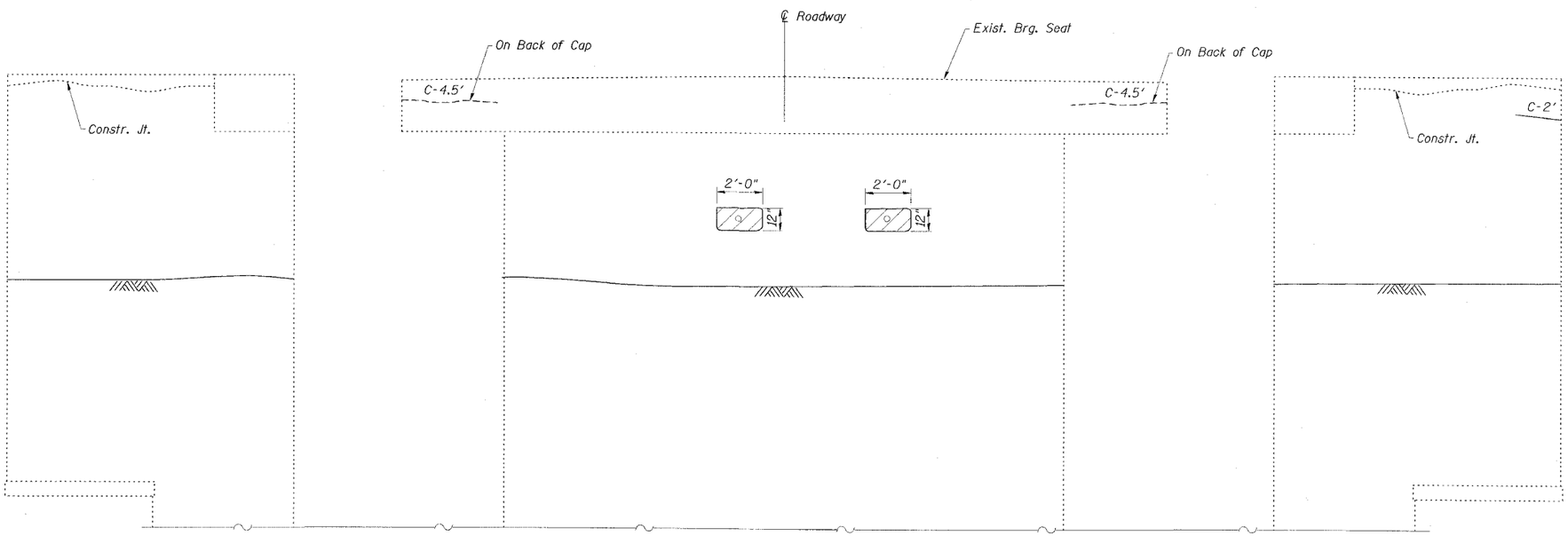
Item	Unit	Quantity
Concrete Sealer	Sq. Ft.	15
Epoxy Crack Injection	Foot	51
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	19

REPAIR LEGEND

Inspection Date: 02/01/07

C.-6' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete



ELEVATION EAST WING

ELEVATION

ELEVATION WEST WING

NOTE: ABUTMENT CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

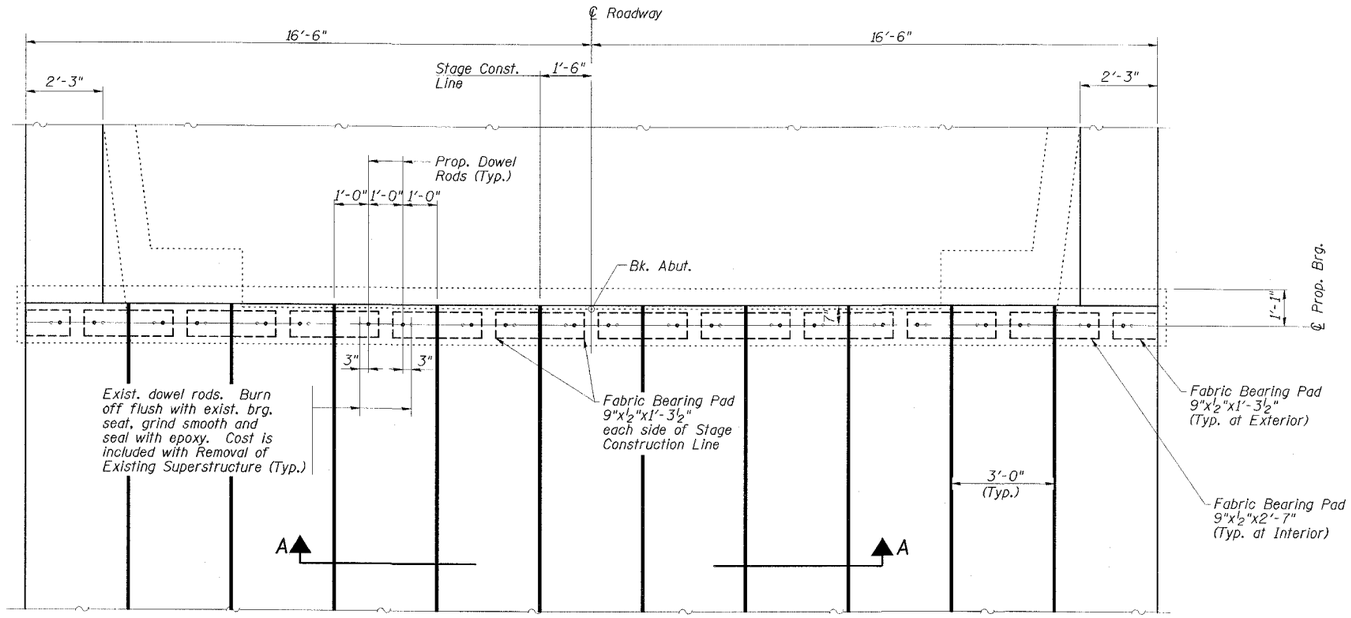
SOUTH ABUTMENT
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	78
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 13
16 SHEETS

78010

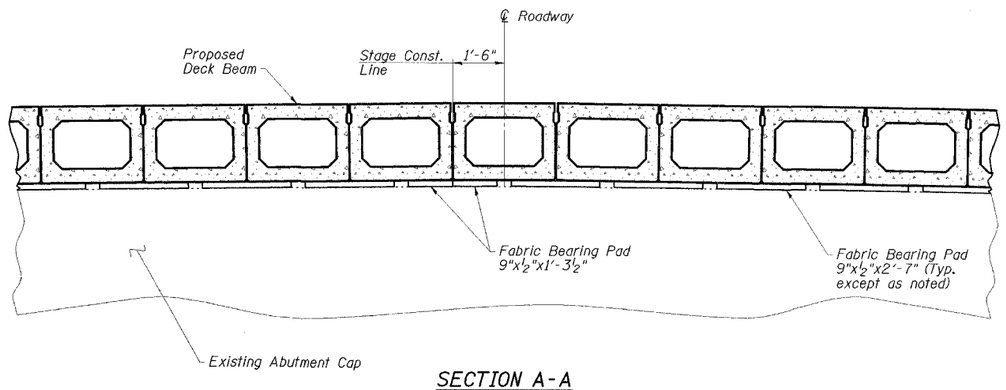
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



S. Abut. shown; N. Abut. similar

ABUTMENT BEARING SEAT PLAN

(Concrete wearing surface not shown)



SECTION A-A

(Concrete wearing surface not shown)

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

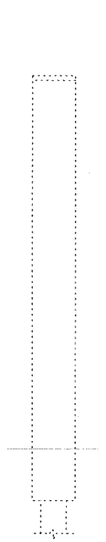
ABUTMENT DETAILS
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

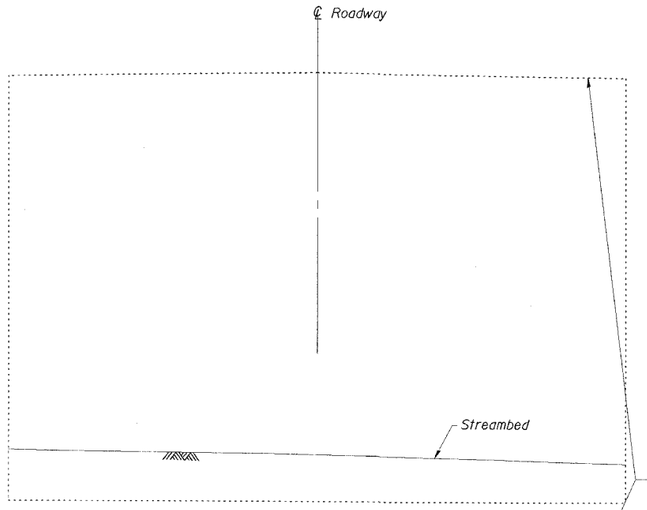
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	79
FED. ROAD DIST. NO.		ILL. PROJ. NO.	FED. AID PROJECT-	

SHEET NO. 14
16 SHEETS

78010

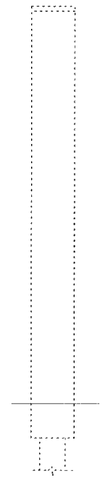


WEST END

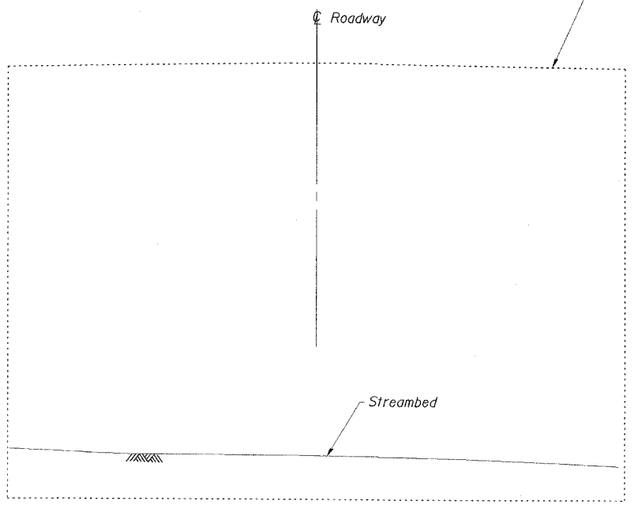


SOUTH ELEVATION

EXISTING BEARING SEAT TO BE INSPECTED BY THE ENGINEER AFTER DECK BEAM REMOVAL. DETERIORATED CONCRETE AREAS SHALL BE REPAIRED (ESTIMATED 15 S.F. STRUCTURAL REPAIR OF CONCRETE DEPTH ≤ 5") AND CRACKS SHALL BE SEALED (ESTIMATED 20' EPOXY CRACK INJECTION) IF FOUND. CONCRETE SEALER SHALL BE APPLIED TO STRUCTURAL REPAIR OF CONCRETE AREAS.



EAST END



NORTH ELEVATION

NOTE: PIER CRACK REPAIR LENGTHS AND STRUCTURAL REPAIR OF CONCRETE AREAS ARE ESTIMATED FROM 02-01-07 SURVEY WORK. ACTUAL LOCATIONS AND QUANTITIES OF REPAIRS SHALL BE SHOWN BY THE ENGINEER ON THE AS-BUILT PLANS FOR THIS SECTION.

PIER
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Epoxy Crack Injection	Foot	20
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	15
Concrete Sealer	Sq. Ft.	15

REPAIR LEGEND

C.-6' Crack to be epoxy injected

Delaminated or Spalled Area - Use Structural Repair of Concrete

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

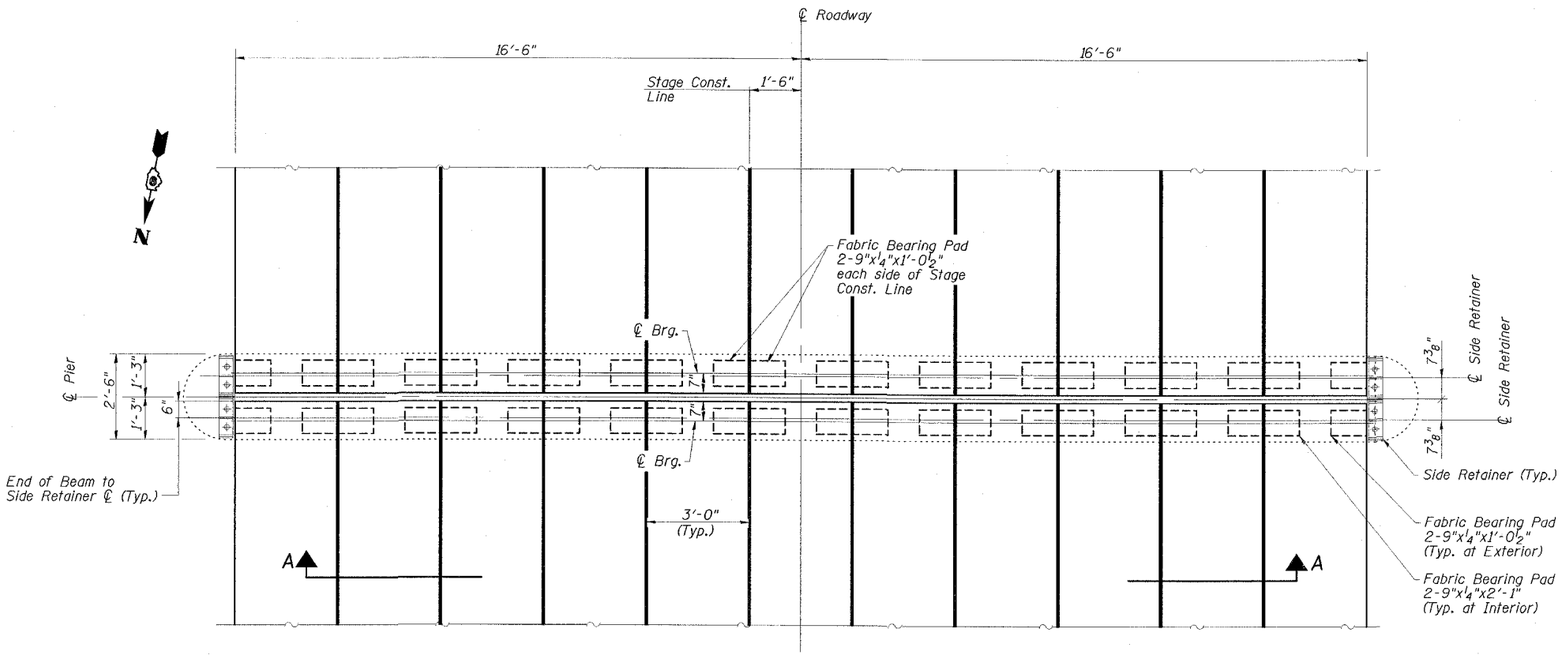
PIER
IL 34/145 OVER SOUTH FORK SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	80
F.A.I. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

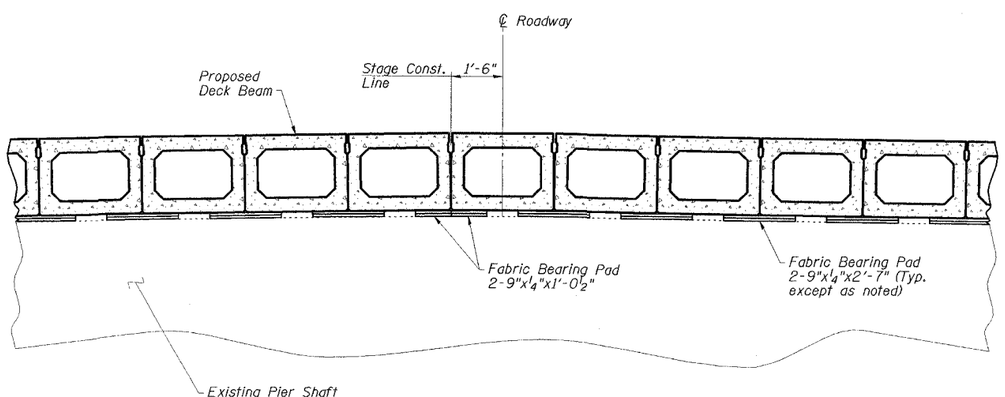
SHEET NO. 15
16 SHEETS

78010



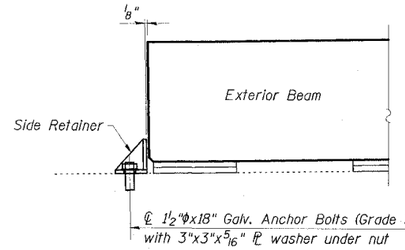
PIER BEARING SEAT PLAN

(Concrete wearing surface and expansion joint not shown)



SECTION A-A

(Concrete wearing surface not shown)



EXTERIOR BEAM RETAINER DETAILS

(4 Required)

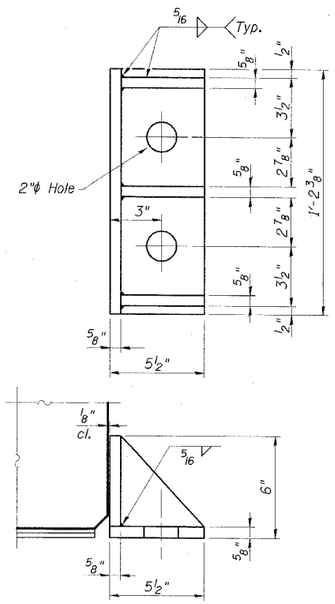
Cost of Retainer Angles, Anchor Bolts & accessories are included with Precast Prestressed Concrete Deck Beams.

Fill ⅛" gap with shim ℄ to provide temporary lateral support until shear keys have been grouted and concrete wearing surface has been placed.

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

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

PIER DETAILS
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

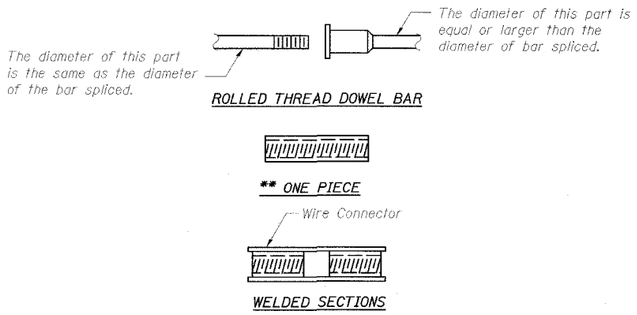
ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 132	1BR-3	SALINE	114	81
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

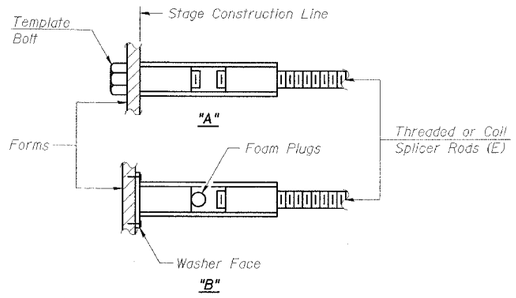
SHEET NO. 16
16 SHEETS

78010



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.

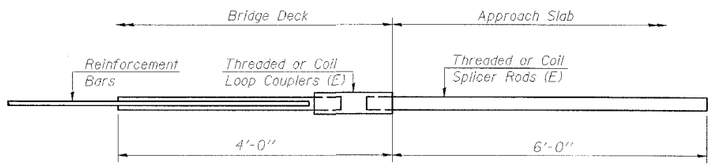
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

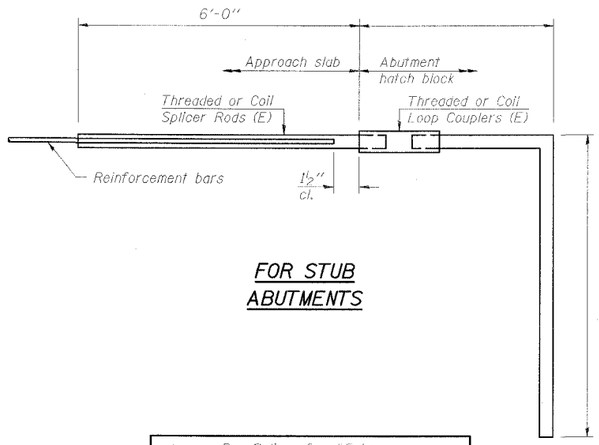
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



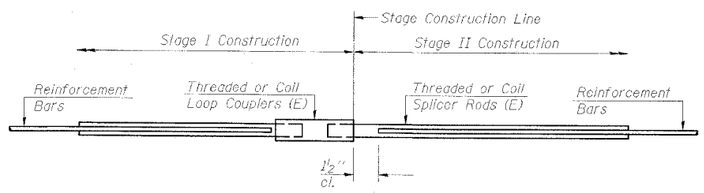
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#4	124	Concrete Wearing Surface

BAR SPLICER ASSEMBLY DETAILS
IL 34/145 OVER SOUTH FORK
SALINE RIVER OVERFLOW
FAP ROUTE 132 - SECTION 1BR-3
SALINE COUNTY
STATION 244+40.00
STRUCTURE NO. 083-0020

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	05/07
DRAWN BY:	HAS	05/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

11-1-06

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	82
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

B.M. R.R. Spike in a 26" Oak 81' Rt. Sta. 239+06. Elev. 363.67

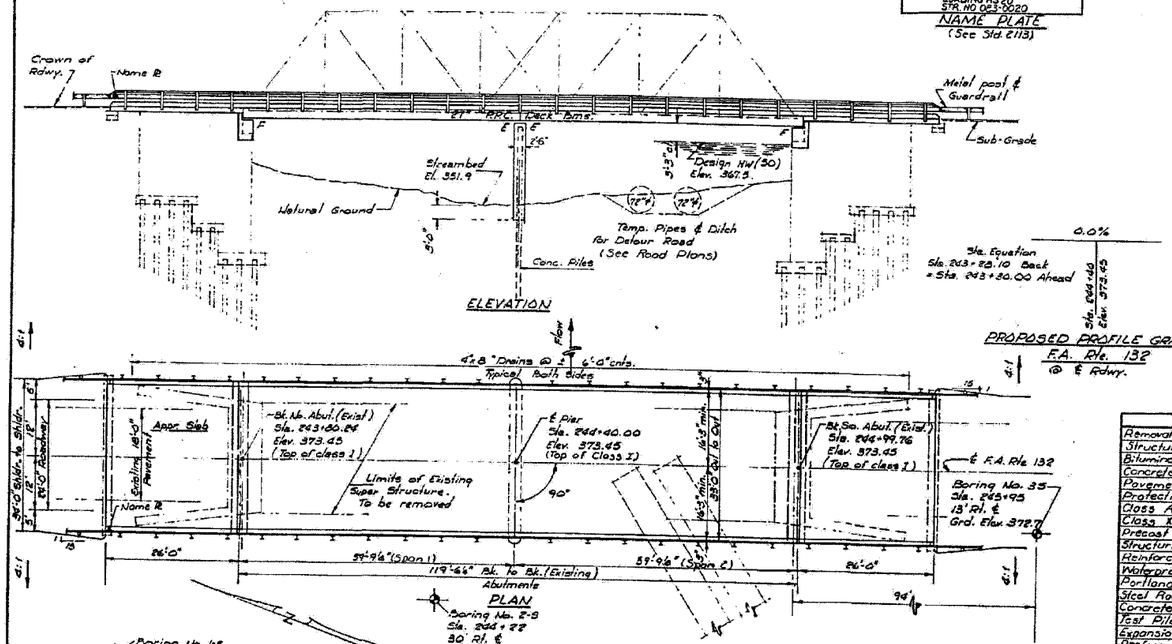
Existing Structure : Built as S61 Rte. 34, Sec. 1 BC, Sta. 239+40 in 1925. Single span 150' thru truss on R.C. diaphragm walls closed abutments. The existing superstructure to be removed by contractor and replaced with 2 span P.B.C. Deck Beams. Traffic shall be detoured during construction. Existing Structure No. 083-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. 132	*	Saline	32	18	SHEET NO. 1 8 SHEETS

* 1B-DR-1, 1B-DR-2, I-KNRS-2

STATION 244+40.00
REBUILT 19 BY
STATE OF ILLINOIS
F.A. RTE 132 SEC. 1B-DR-2
PROJECT P-S-R(29)
LOADING HS 20
STR. NO 083-0020
NAME PLATE
(See Std. 2113)



GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M31, Grade 60 except as noted in Design Stresses.

For Boring Data see the Proposal.

All structural steel shall be shop painted with two coats of basic lead silico chromate paint.

The Contractor shall drive one concrete test pile in a permanent location of the pier as directed by the Engineer before ordering the remainder of piles.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.

Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Expansion bolts shall consist of self drilling expansion anchors and ⅞ x 12" hooked bolts.

Limits of Waterproofing Membrane System shall be six inches beyond the ends of approach slabs and face to face of curbs.

Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Article 503.07(c) of the Standard Specifications and are included in quantity of structural steel.

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Structure Excavation	Cu. Yd.		28	28
Bituminous Concrete Surface Course, Class I	Tons	40		40
Concrete Removal	Cu. Yd.		25	25
Pavement Removal	Sq. Yd.	100		100
Protective Coat	Sq. Yd.	57		57
Class A Concrete	Cu. Yd.		64.7	64.7
Class X Concrete	Cu. Yd.	102.0	10.7	112.7
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3944		3944
Structural Steel	Pound	2127		2127
Reinforcement Bars	Pound	20,460	3840	24,300
Waterproofing Membrane System	Sq. Yd.	590		590
Portland Cement Mortar Fairing Course	Lin. Ft.	1178		1178
Steel Railing, Type "T"	Lin. Ft.	343		343
Concrete Piles	Lin. Ft.		660	660
Test Piles Concrete	Each		1	1
Expansion Bolts ⅞	Each		32	32
Preformed Joint Sealer (4")	Lin. Ft.	33		33
Name Plates	Each	1		1

DESIGN STRESSES

FIELD UNITS

f'c = 3500 psi
fs = 20000 psi (Curbs)

PRECAST PRESTR. UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
fs = 270,000 psi (½" ϕ strands)
fsi = 189,000 psi (½" ϕ strands)

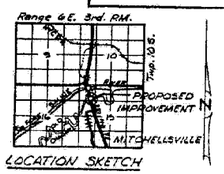
WATERWAY INFORMATION

Drainage Area = 288 sq. mi.

Required Opening = 3232 Sq. ft.
Proposed Opening
Main Channel = 1653 sq. ft.
Overflow Channel = 1391 sq. ft.
Overflow Culvert = 388 sq. ft.
Q (50) = 17,000 cfs
Q (100) = 20,000 cfs
Design H.W.E. (50) = 367.5
H.W.E. (100) = 368.0

LOADING HS 20-44

Allow 25#/sq. ft. for future wearing surface.
Design Specification: 1973 AASHTO 1974, 1975 and 1976 Interim Specification.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A. Rte. 132 Over So. Fork Saline River (overflow)
F.A. Rte. 132 SECTION 1B-DR-2
SALINE COUNTY
Sta. 244+40.00

DESIGNED	J. J. Hinds	
CHECKED	K.P.S.	
DRAWN	R. Doty	
CHECKED	K.E.S.	
EXAMINED		February 14 (19)77
PASSED		
APPROVED		

STATE OF ILLINOIS 22267

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JWS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

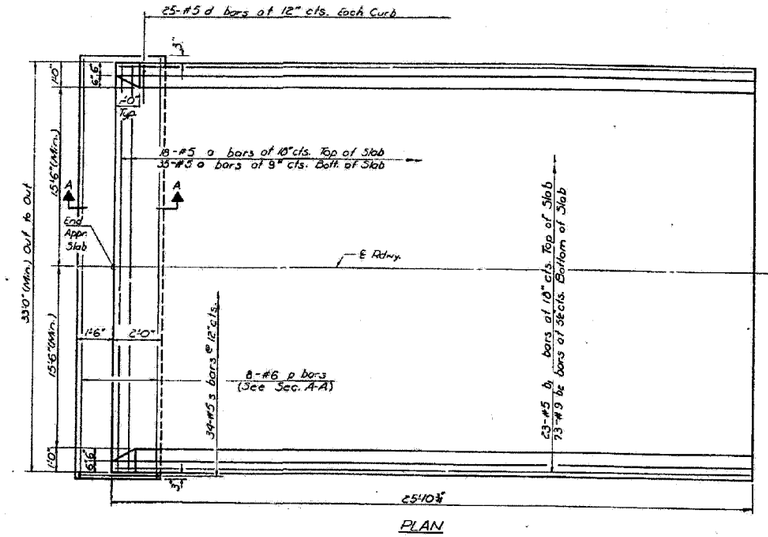
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	83
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

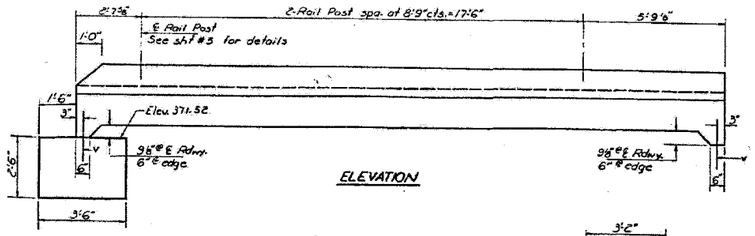
S.B.I. F.A. 132	*	Saline	32	19

SHEET NO. 2
6 SHEETS

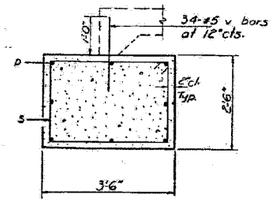
* 1B-DR-1, 1B-DR-2, 1-X-RS-2



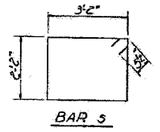
PLAN



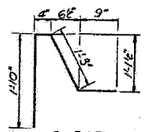
ELEVATION



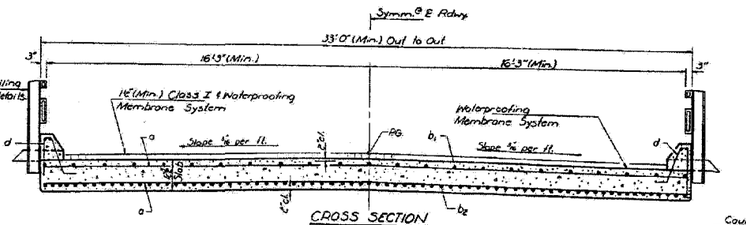
SECTION A-A



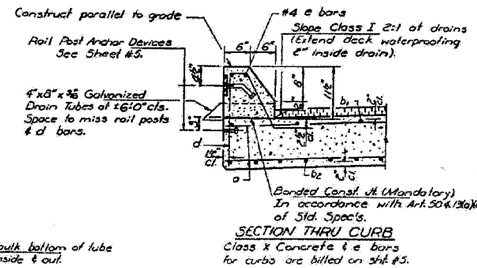
BAR s



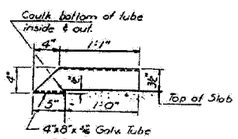
D BAR



CROSS SECTION



SECTION THRU CURB
Class X Concrete & e bars for curbs are billed on sht #5.



DRAIN DETAIL
(Cost Incidental)

TWO APPR. SLABS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	106	#3	32'9"	
b1	46	#5	25'8"	
b2	146	#9	25'8"	
d	100	#5	4'2"	
p	16	#6	33'3"	
s	68	#5	11'7"	
v	68	#5	2'0"	
Class X Concrete			Cu. Yd.	80.2
Reinforcement Bars.			Pound	19,790

APPROACH DETAILS
F.A. RT. 132 SEC. 1B-DR-2
SALINE COUNTY
STA. 242+4000

DESIGNED	T. J. Hamel
CHECKED	T.E.S.
DRAWN	A. Daly
CHECKED	T.E.S.
EXAMINED	
PASSED	
APPROVED	

F.E.D. 19

Note:
Approach slab shall be poured after PRC. Deck Beams are in place to allow for alignment of the water table.

ESCA
CONSULTANTS, INC.

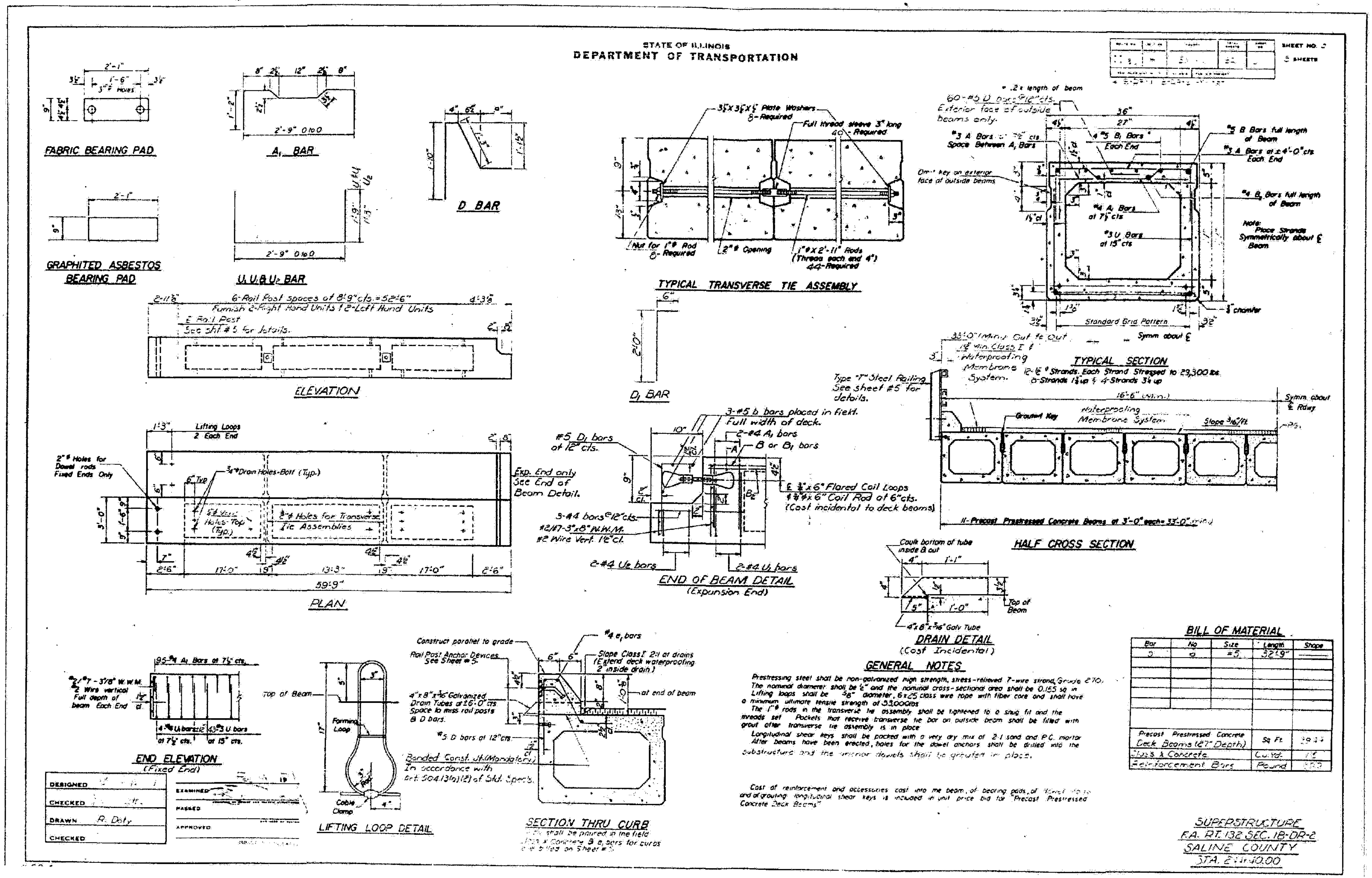
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	84
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		



ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

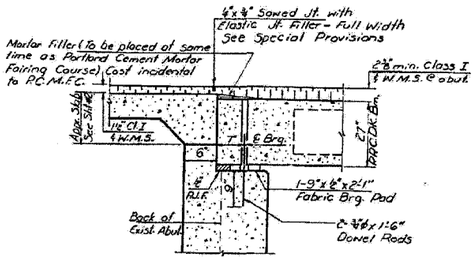
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	85
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

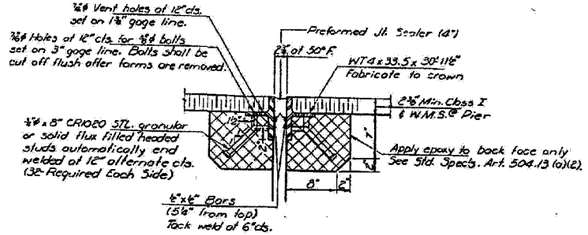
F.A.P. RTE 132	*	Saline	32	21

SHEET NO. 4 OF 6 SHEETS

1-DR-1, 1-DR-2, 1-XNPS-2

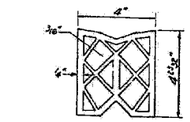


SECTION THRU ABUT.

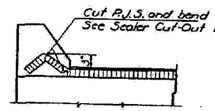


DETAIL "A"

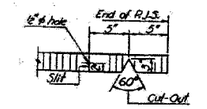
Dimensions are at right angles.
Cross hatched areas to be poured after beams have been erected.
Ends of beams shall be aligned at the expansion end. Any lineal variation in the beam lengths shall be placed at the fixed end.
See End of Beam Detail Sht #3 for reinforcement.



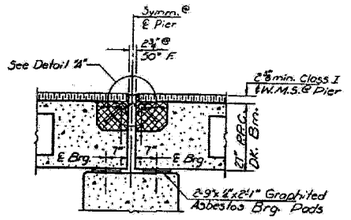
PREFORMED JOINT SEALER (4")



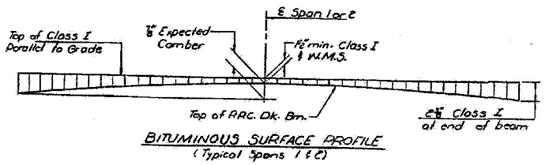
END OF SEALER TREATMENT



SEALER CUT-OUT DETAIL



SECTION THRU PIER



BITUMINOUS SURFACE PROFILE
(Typical Spans 1 & 2)

DESIGNED	T. A. Hinck
CHECKED	J.E. Smith
DRAWN	R. Doty
CHECKED	J.E.S.

EXAMINED
PASSED
APPROVED

SUPERSTRUCTURE DETAILS
F.A. RT. 132 SEC. 1B-DR-2
SALINE COUNTY
STA. 244+40.00

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

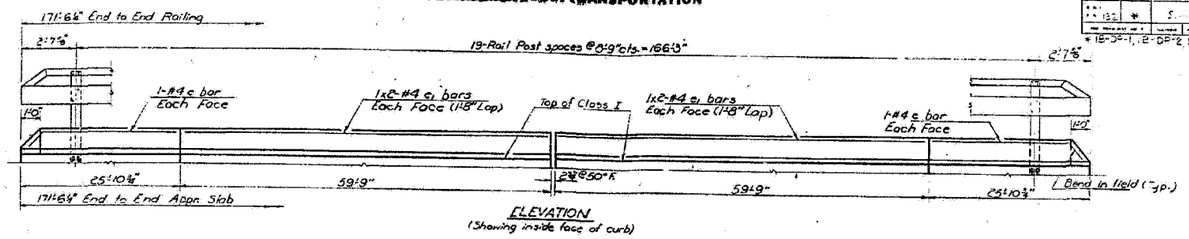
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	86
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

DEPARTMENT OF TRANSPORTATION

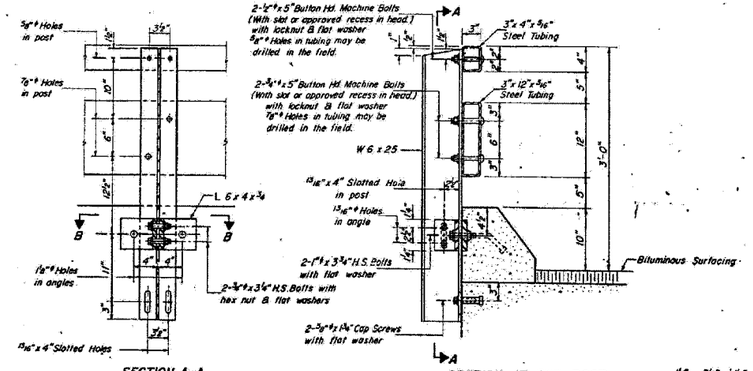
132	*	5	22	SHEET NO. 5
				8 SHEETS

* 1B-3-1, 1B-3-2, 1B-3-3, 1B-3-4

NOTE:
Bars indicated thus 1x2-#4 indicate 1-line of bars with 2 lengths per line.

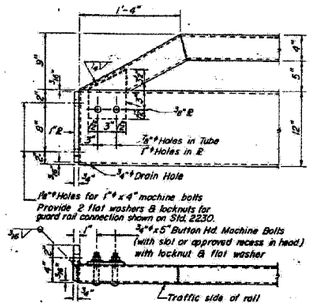


ELEVATION
(Showing inside face of curb)



SECTION A-A

SECTION AT RAIL POST



END OF RAIL DETAILS

NOTES

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts shall conform to AASHTO M-168.

Bolts, cap screws, and nuts shall conform to the requirement of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and A.S.T.M. A-385. Galvanized rail shall not be painted.

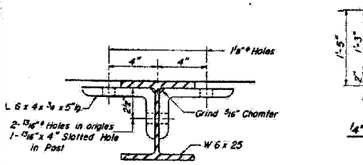
Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE T.

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

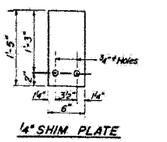
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place ⅛" fabric bearing pad between the post and concrete.

The ¾" ϕ high strength bolts used to connect the 6 x 4 x ⅜ angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional ½ turn.

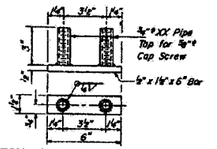
For multi-span bridges, sufficient 4"± x 6"± x 1"-5" galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to Steel Railing.



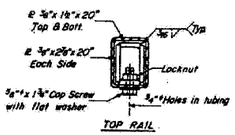
SECTION B-B



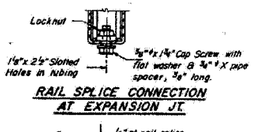
¼" SHIM PLATE



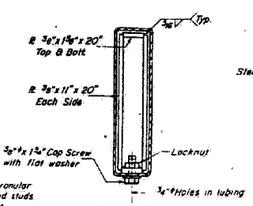
BOTTOM ANCHOR DEVICE



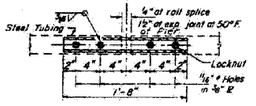
TOP RAIL



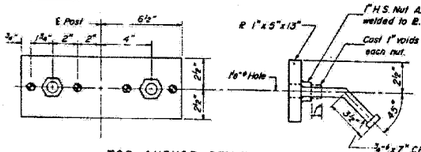
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTIONS AT RAIL SPLICE



PLAN - BOTT. SPLICE ℄ TYPICAL



TOP ANCHOR DEVICE

CURB & RAIL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	8	#4	25'-5⅝"	
ci	16	#4	30'-9"	
Reinforcement Bars			Lbs.	670
Class X Concrete			Cu. Yds.	10.2
Steel Railing, Type T			Lin. Ft.	333

TYPE T
STEEL RAILING
F.A. RT. 132 SEC. 1B-OR-2
SALINE COUNTY
STA. 244+4000

DESIGNED	L. [illegible]	
CHECKED	[illegible]	
DRAWN	R. Doty	
CHECKED	[illegible]	
EXAMINED		
PASSED		
APPROVED		

R-24 8-1-76 (9'-0" Maximum Post Spacing)

ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

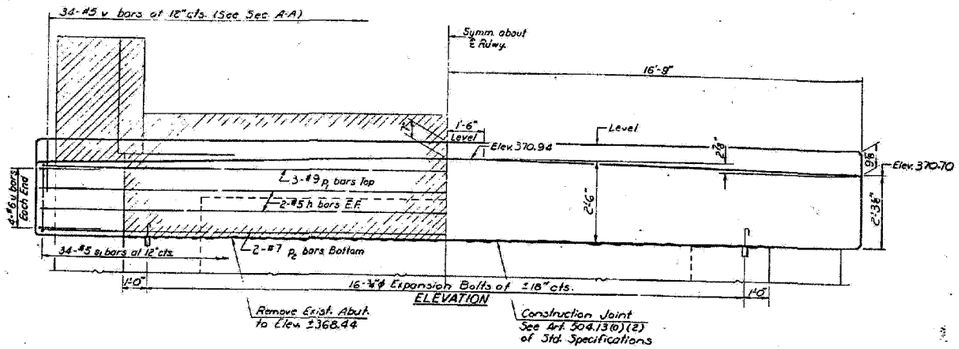
CONTRACT NO. 78010

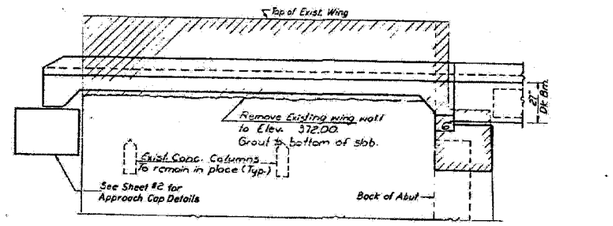
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	87
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

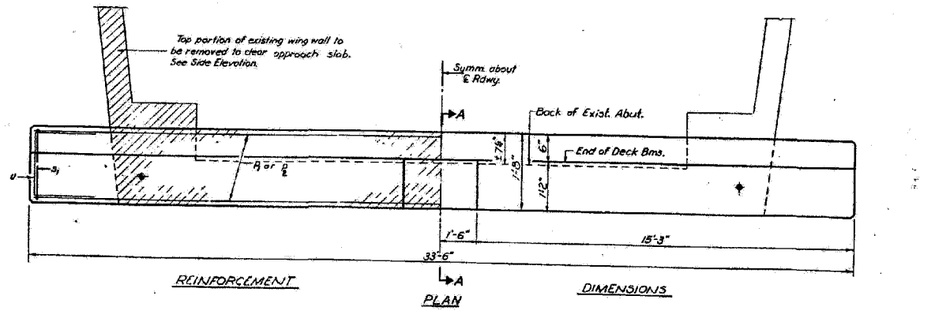
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 6
					8 SHEETS
F.A.P. 132	9	Saline	52	2.8	
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT		

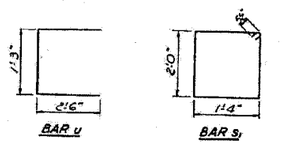
*IB-DR-1, IB-DR-2, I-XWRS-2







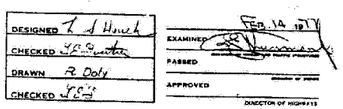
NOTES:
Hatched Areas indicate Concrete Removal.
All edges shall have standard ¾" chamfers except as noted.
Expansion bolts shall be anchored in sound concrete.

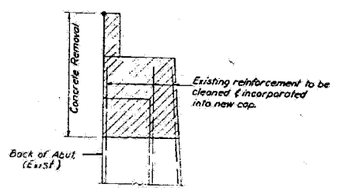


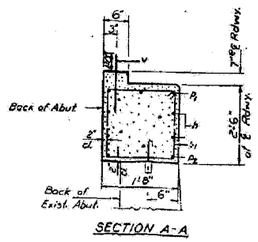
TWO ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	8	#5	33'-5"	—
P1	6	#9	33'-3"	—
P2	4	#7	33'-3"	—
s1	68	#5	7'-7"	□
u	16	#6	6'-3"	⊏
v	68	#5	2'-0"	—
Class X Concrete		Cu Yds.	10.7	
Reinforcement Bars		Lbs.	2060	
Concrete Removal		Cu Yds.	16.	
Expansion Bolts ¾"		Each	30	

NORTH AND SOUTH ABUTMENTS
F.A. RT. 132 SEC. 1B-DR-2
SALINE COUNTY
STA. 244+40.00







ESCA CONSULTANTS, INC.

DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	88
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

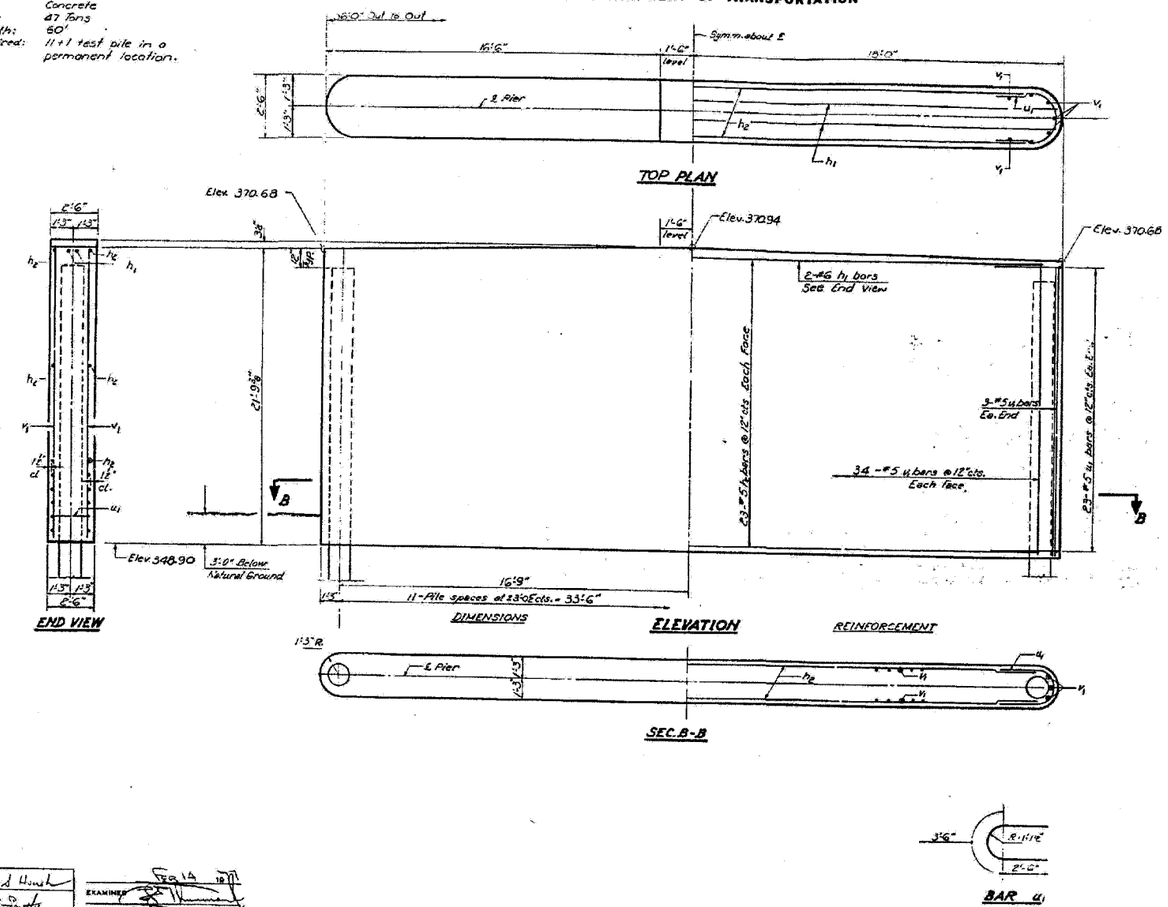
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 132	*	Saline	32	24

SHEET NO. 7
8 SHEETS

* 1B-DR-1, 1B-DR-2, 1-XNR5-2

PILE DATA

Type: Concrete
Capacity: 47 Tons
Est. length: 50'
No. Required: 11+1 test pile in a permanent location.



Note:
All edges shall have Std. ¾" chamfers.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_1	2	#6	35'0"	—
h_2	46	#5	33'6"	—
u_1	46	#5	8'6"	C
v_1	74	#5	2'1'6"	—
Class A Concrete			Cu. Yds.	64.7
Reinforcement Bars			Lbs.	3780
Concrete Piles			Lin. Ft.	660
Test Piles Concrete			Each	1

DESIGNED	J. S. Hinds
CHECKED	R. C. Smith
DRAWN	R. Doty
CHECKED	R. C. Smith

EXAMINED Feb. 14, 19 71
PASSED
APPROVED
DIRECTOR OF HIGHWAYS

P-1 (W) 5-15-71

PIER
F.A. RT. 132 SEC. 1B-DR-2
SALINE COUNTY
STA. 294+40.00

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

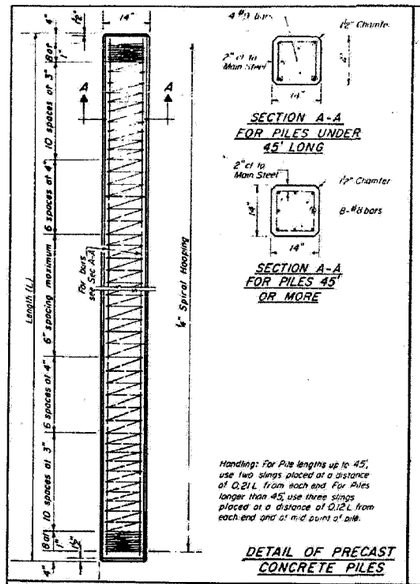
CONTRACT NO. 78010

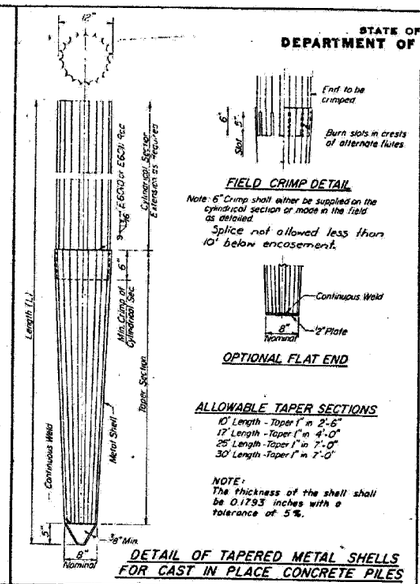
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	89
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID		

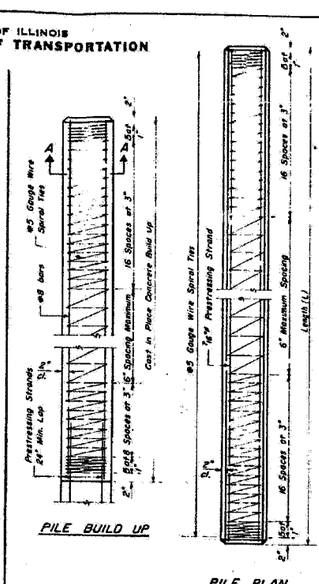
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

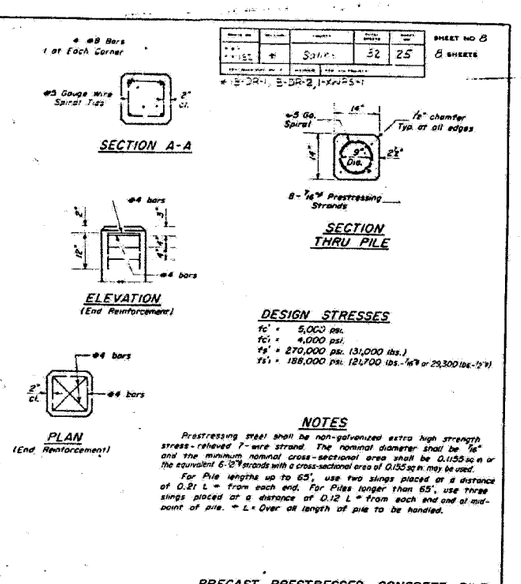
SHEET NO 8 OF 8 SHEETS

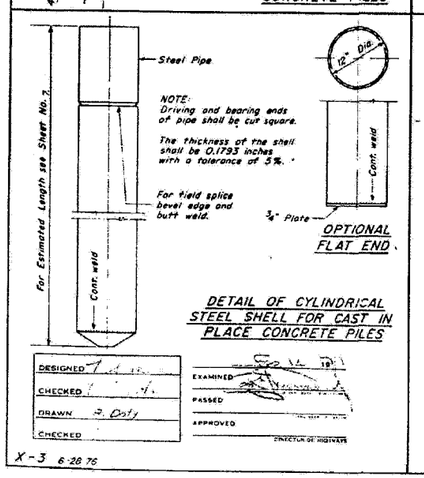
F-1-132-1BR-2, 1-Xxx-PS-1

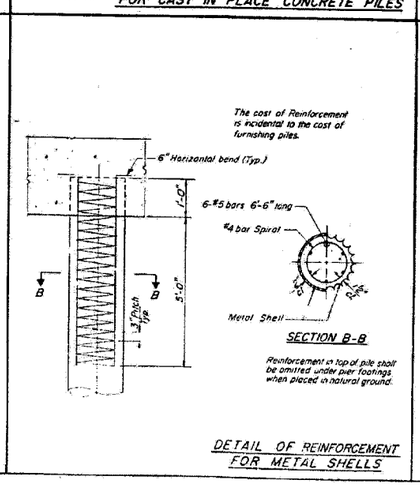


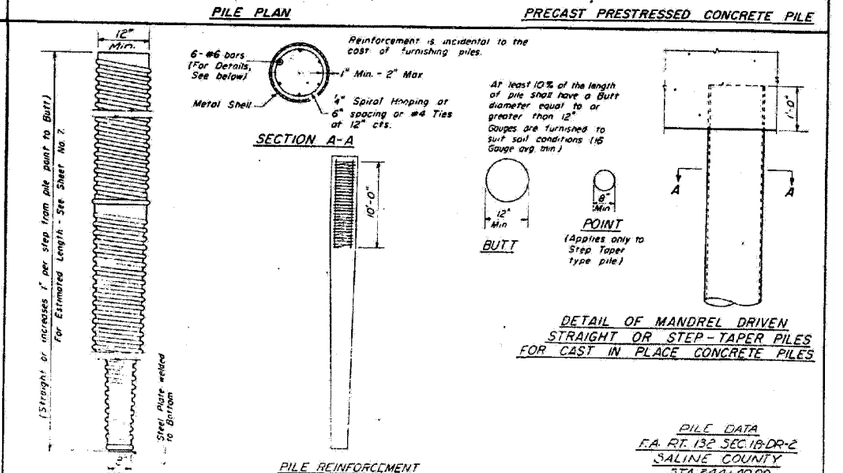












ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	06/07
DRAWN BY:	HAS	06/07
CHECKED BY:	MTD	06/07
APPROVED BY:	RDP	06/07

FOR INFORMATION ONLY

EXISTING STRUCTURE PLANS
FAP RTE 132 (IL 34/145)
SECTION 1BR-3
SALINE COUNTY

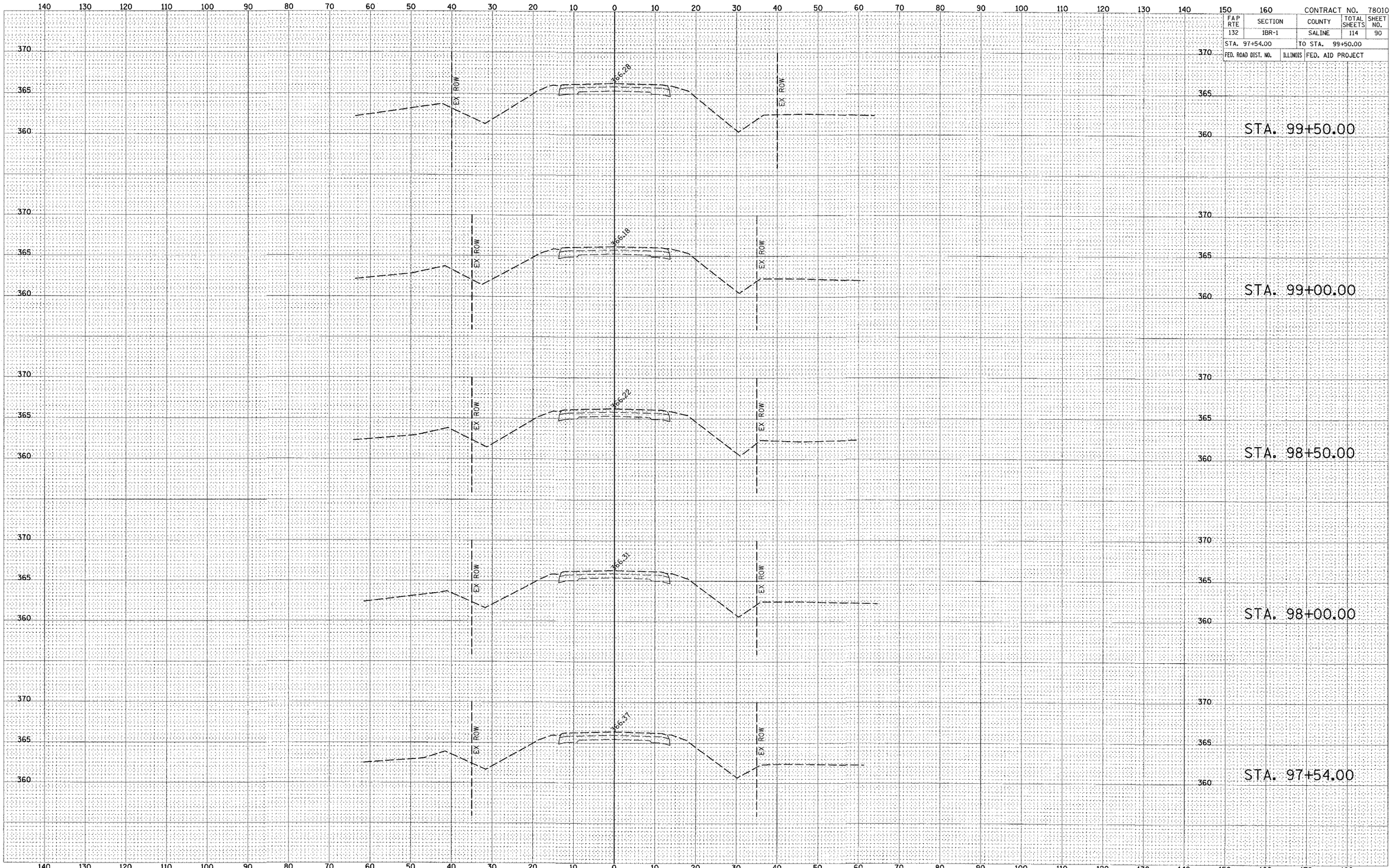
ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	90
STA. 97+54.00		TO STA. 99+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	91
STA. 100+00.00		TO STA. 101+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

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

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

EX ROW

LEFT
C = 2.3
F = 0.6

RIGHT
C = 2.4
F = 0.2

366.59

366.51

366.38

366.36

STA. 101+50.00

STA. 101+00.00

STA. 100+50.00

STA. 100+00.00

FAP RTE 132 (IL 34/145) CROSS SECTIONS

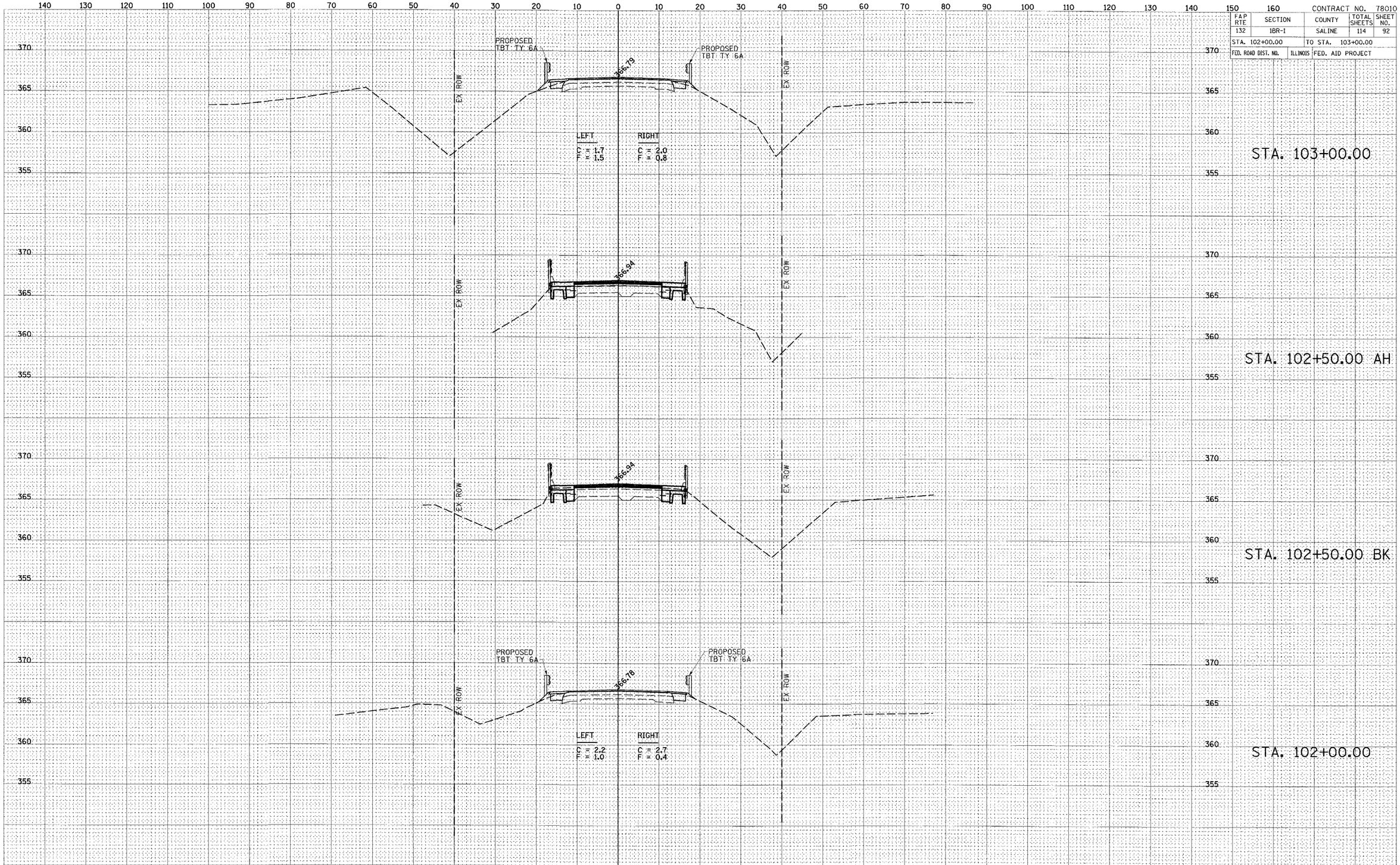
ESCA CONSULTANTS, INC.
CIVIL ENGINEERS · STRUCTURAL ENGINEERS · LAND SURVEYORS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	92
STA. 102+00.00		TO STA. 103+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & ENVIRONMENTAL ENGINEERS

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

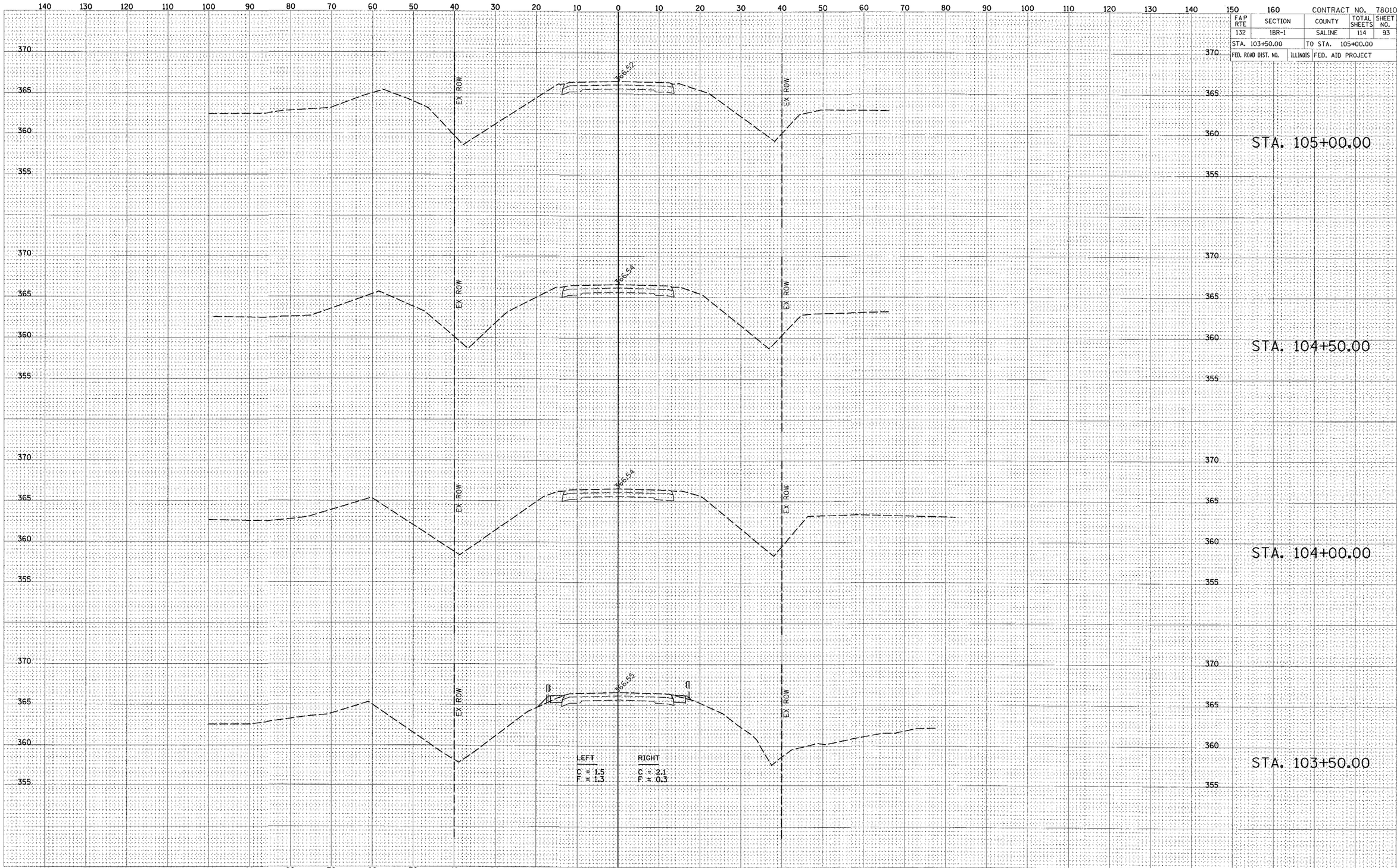
ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	
	AREAS CHECKED	

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	93

STA. 103+50.00 TO STA. 105+00.00

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

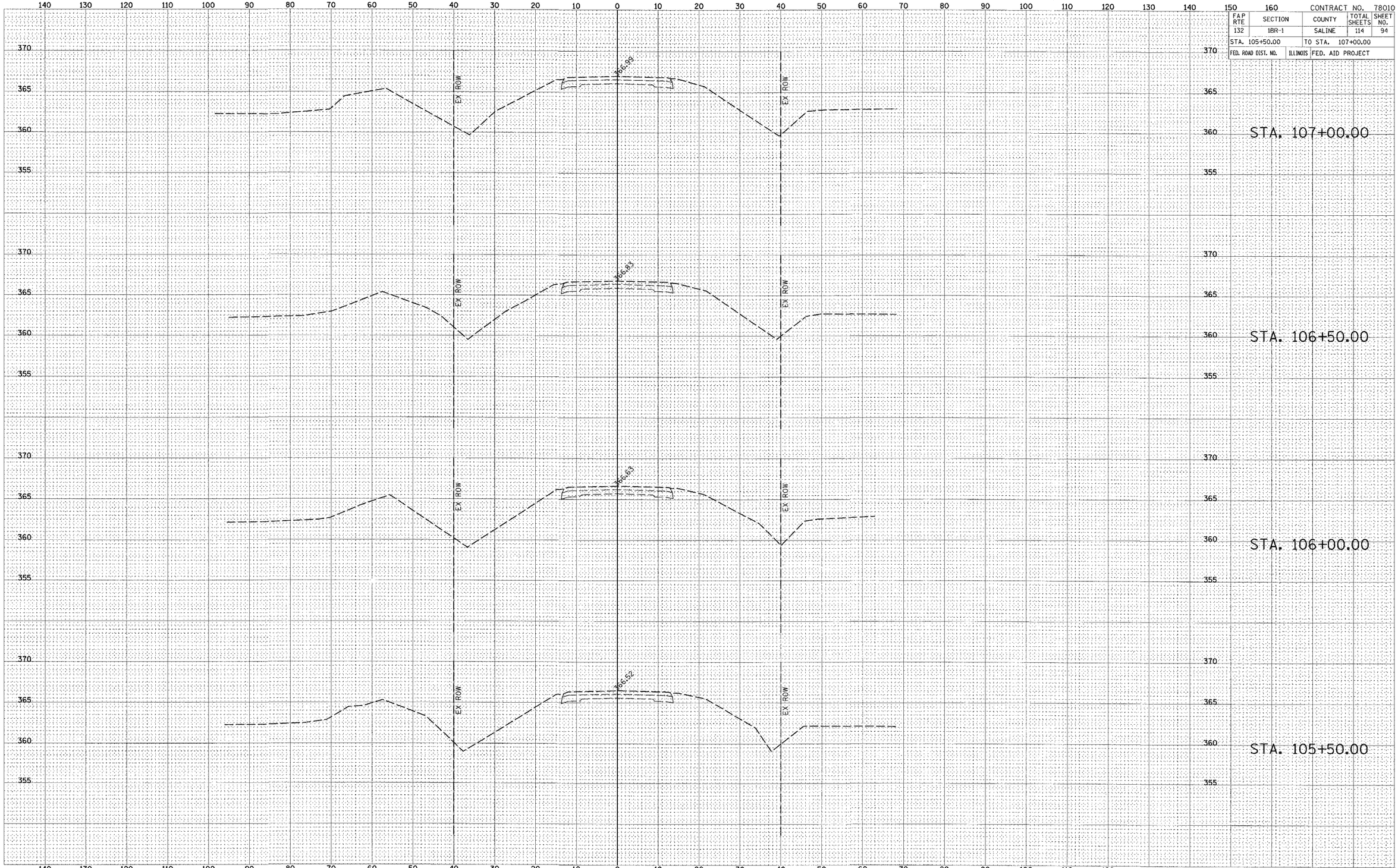
ESCA CONSULTANTS, INC.
ENVIRONMENTAL, TRANSPORTATION, PLANNING, ENGINEERING

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	94
STA. 105+50.00		TO STA. 107+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-1	SALINE	114	95
STA. 107+47.00		TO STA. 107+47.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

370
365
360
355

EX ROW
367.42
EX ROW

370
365
360
355

STA. 107+47.00

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

FAP RTE 132 (IL 34/145) CROSS SECTIONS

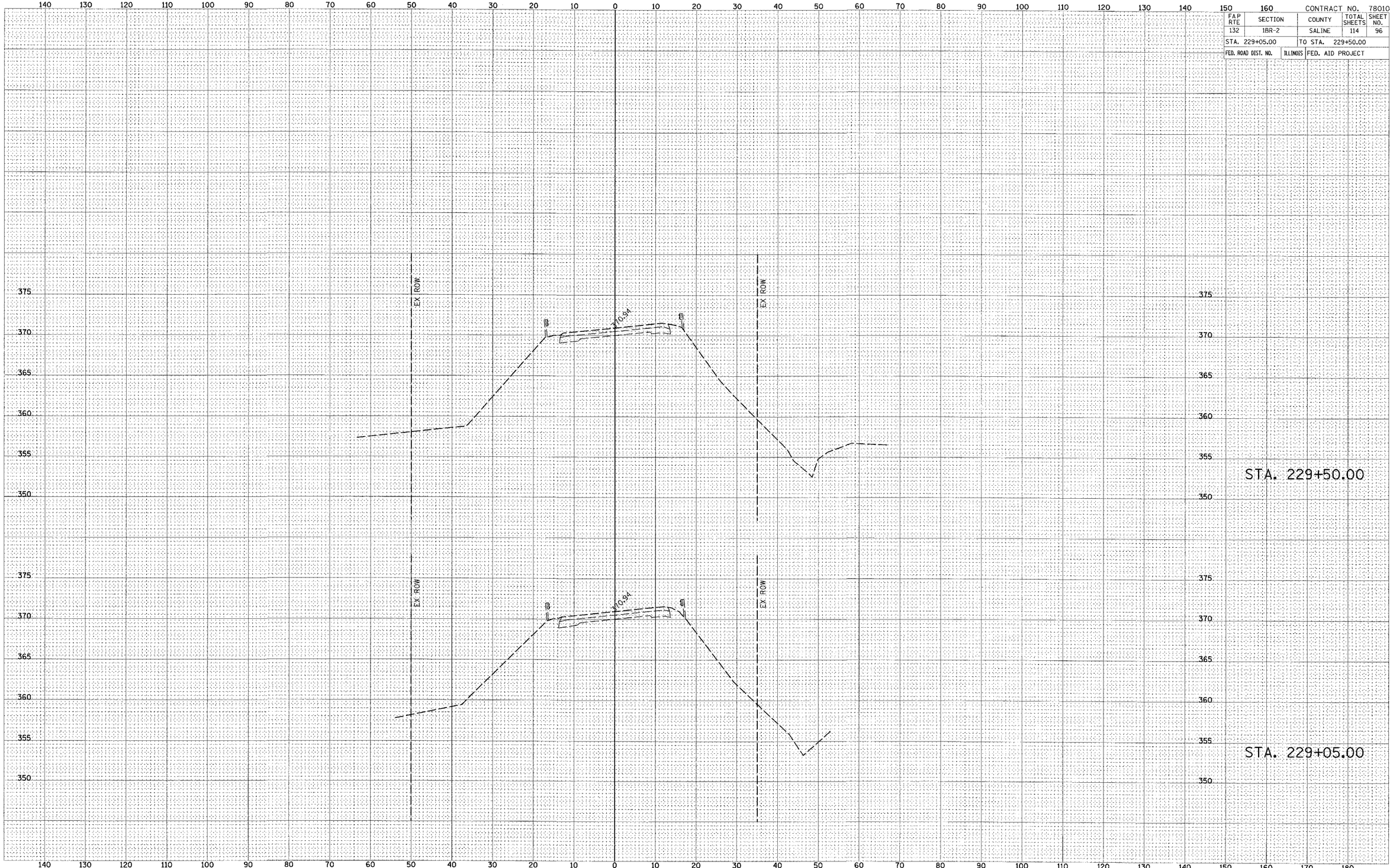
ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

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

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

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	96
STA. 229+05.00		TO STA. 229+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FAP RTE 132 (IL 34/145) CROSS SECTIONS

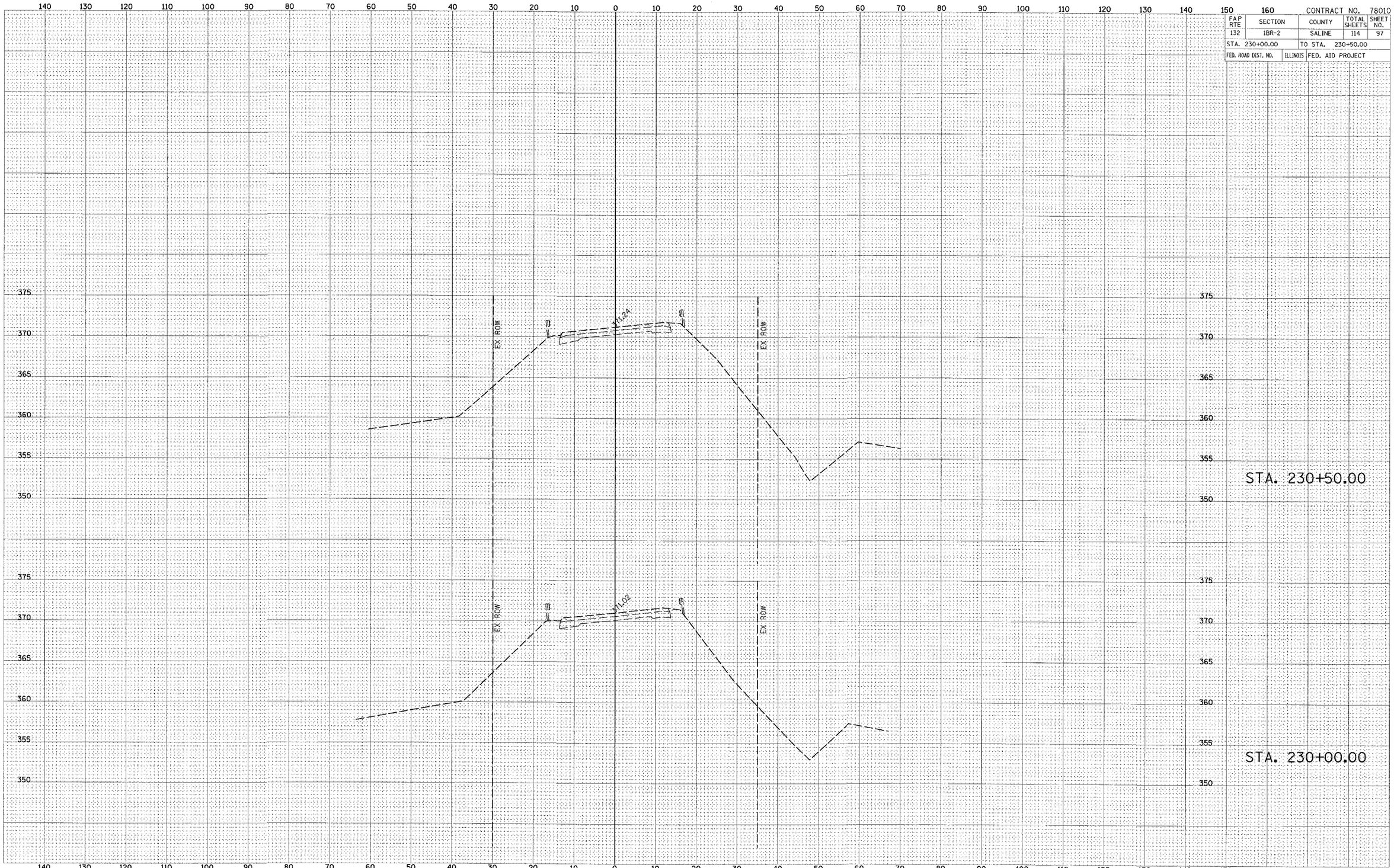
ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
SURVEYORS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	IBR-2	SALINE	114	97
STA. 230+00.00		TO STA. 230+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & GEOTECHNICAL ENGINEERS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	98

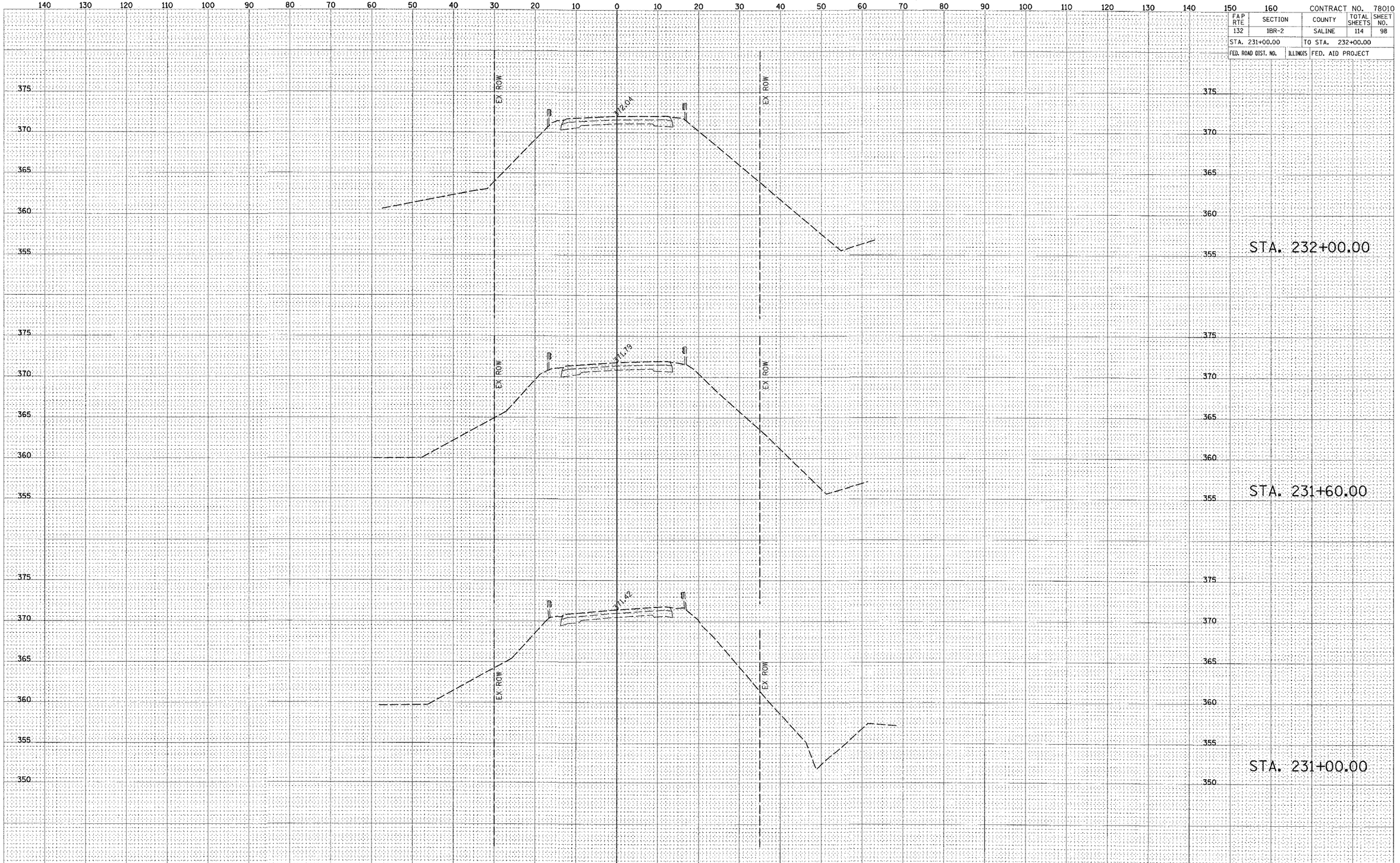
CONTRACT NO. 78010

STA. 231+00.00 TO STA. 232+00.00

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

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	99
STA. 232+50.00		TO STA. 233+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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

+53 400N RT
AGG
STA. 233+50.00

STA. 233+00.00

STA. 232+50.00

EX ROW

372.74

372.48

372.26

LEFT
C = 2.6
F = 0.1

RIGHT
C = 0.0
F = 0.0

FAP RTE 132 (IL 34/145) CROSS SECTIONS

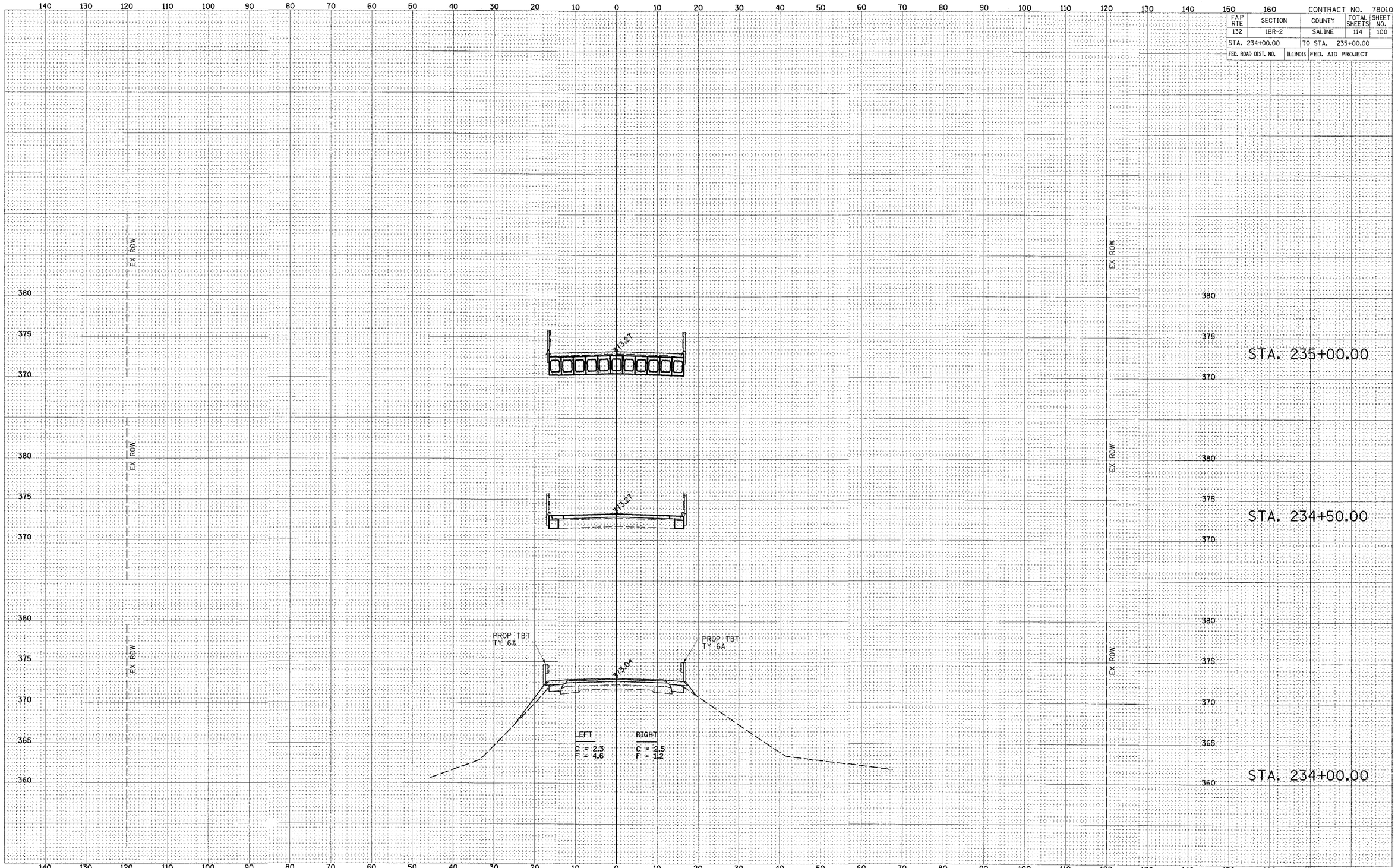
ESCA CONSULTANTS, INC.
CIVIL & ENVIRONMENTAL ENGINEERS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	IBR-2	SALINE	114	100
STA. 234+00.00		TO STA. 235+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & SURVEY CONSULTANTS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	101
STA. 235+50.00		TO STA. 236+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

STA. 236+50.00

EX ROW

372.94

LEFT
C = 2.3
F = 1.0

RIGHT
C = 2.5
F = 1.1

PROP TBT
TY 6A

373.27

LEFT
C = 2.1
F = 2.6

RIGHT
C = 2.5
F = 1.7

STA. 236+00.00

373.27

STA. 235+50.00

FAP RTE 132 (IL 34/145) CROSS SECTIONS

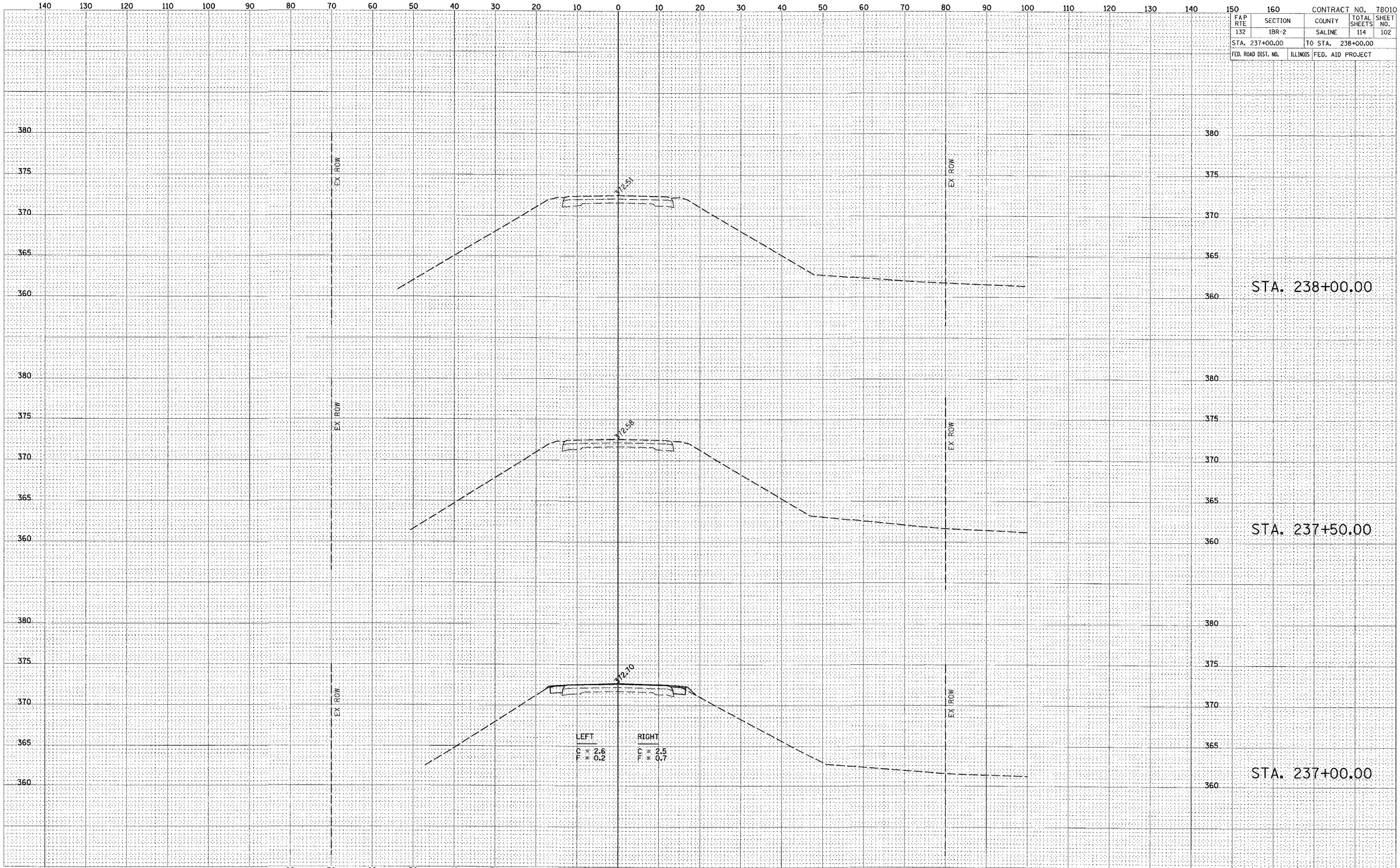
ESCA CONSULTANTS, INC.
CIVIL ENGINEERING • LAND SURVEYING • ENVIRONMENTAL

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	102
STA. 237+00.00		TO STA. 238+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL • STRUCTURAL • TRANSPORTATION ENGINEERS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-2	SALINE	114	103
STA. 238+50.00		TO STA. 239+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

STA. 239+50.00

STA. 239+00.00

STA. 238+50.00

FAP RTE 132 (IL 34/145) CROSS SECTIONS

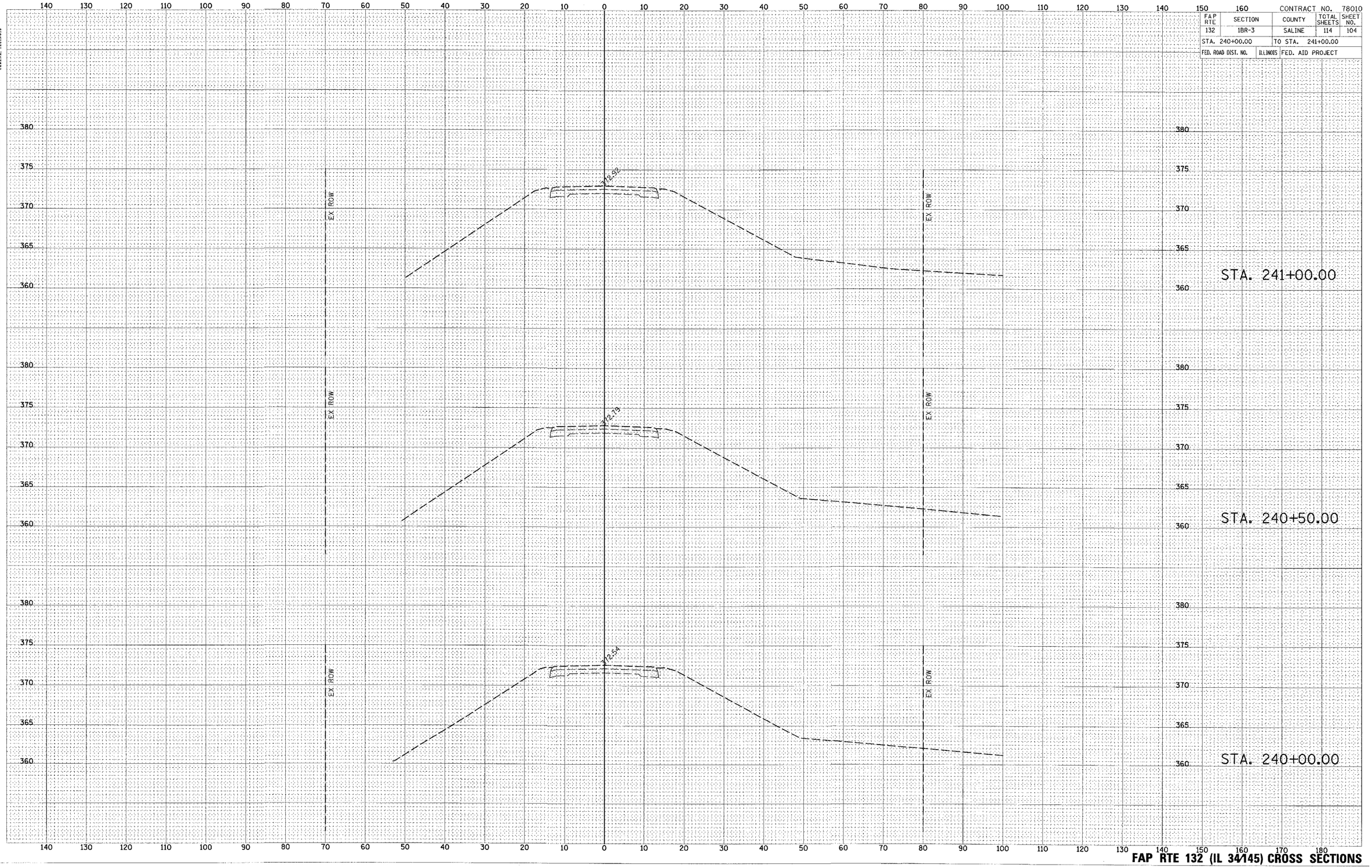
ESCA CONSULTANTS, INC.
CIVIL ENGINEERS, LAND SURVEYORS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	104
STA. 240+00.00		TO STA. 241+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL · HIGHWAY · TRANSPORTATION

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	105

CONTRACT NO. 78010

STA. 241+50.00 TO STA. 242+17.00

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

STA. 242+17.00
FE RT
AGG

STA. 242+00.00

STA. 241+50.00

372.87

372.91

372.99

EX ROW

EX ROW

EX ROW

EX ROW

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

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

FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	106
STA. 242+50.00		TO STA. 243+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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

STA. 243+50.00

PROP. TBT TY. 6A

373.21

LEFT
C = 2.0
F = 2.0

RIGHT
C = 2.4
F = 0.9

EX ROW

STA. 243+00.00

373.03

LEFT
C = 2.4
F = 0.5

RIGHT
C = 2.5
F = 0.6

STA. 242+50.00

372.87

LEFT
C = 2.5
F = 0.1

RIGHT
C = 2.6
F = 0.1

FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL ENGINEERS • STRUCTURAL ENGINEERS • LAND SURVEYORS

FINAL SURVEY	DATE
SURVEYED	
SCALE	
NOTE BOOK	
TEMPLATE	
AREAS	
NO.	AREAS CHECKED

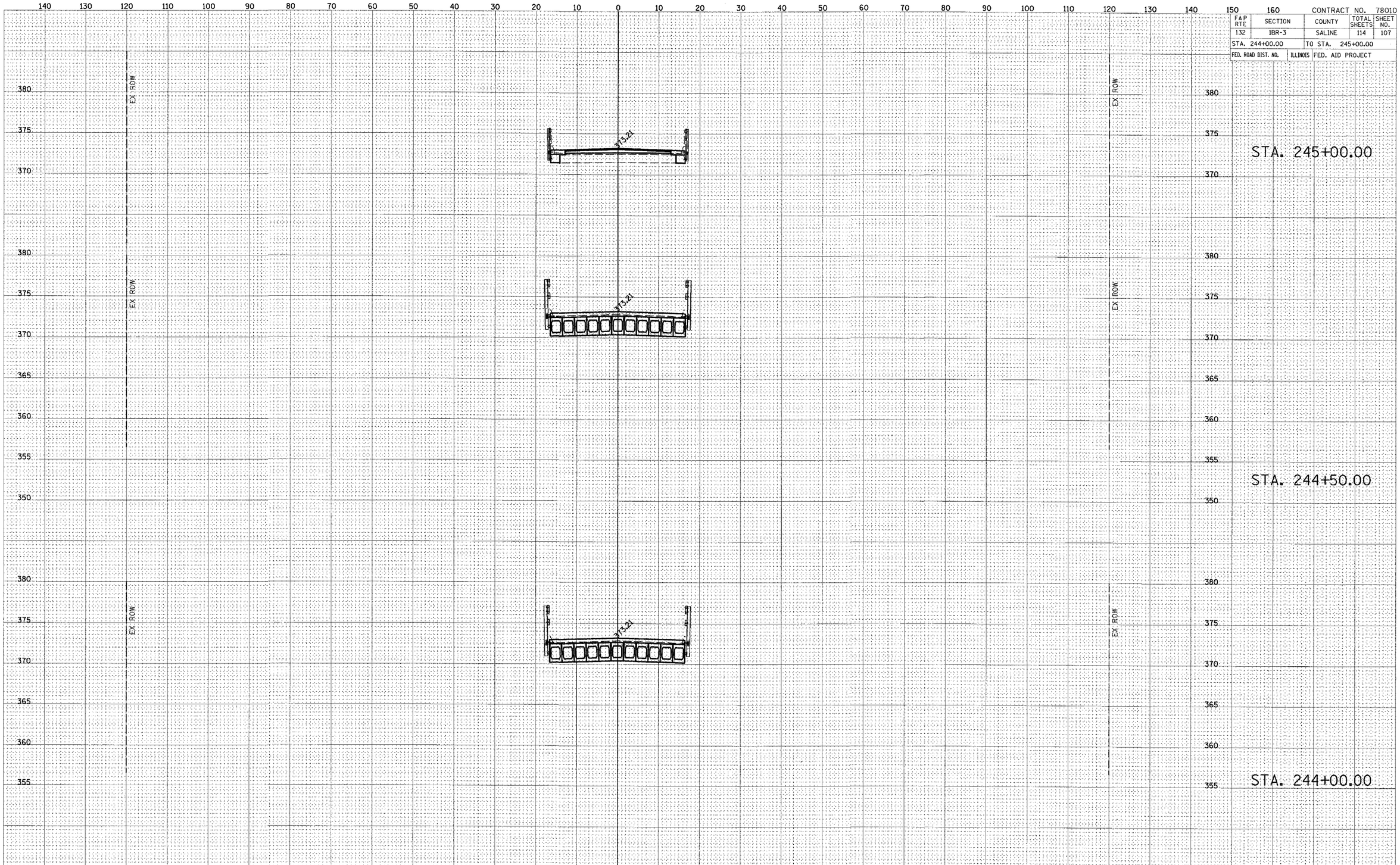
ORIGINAL SURVEY	DATE
SURVEYED	
SCALE	
NOTE BOOK	
TEMPLATE	
AREAS	
NO.	AREAS CHECKED

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	107

STA. 244+00.00 TO STA. 245+00.00

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL · STRUCTURAL · TRANSPORTATION

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

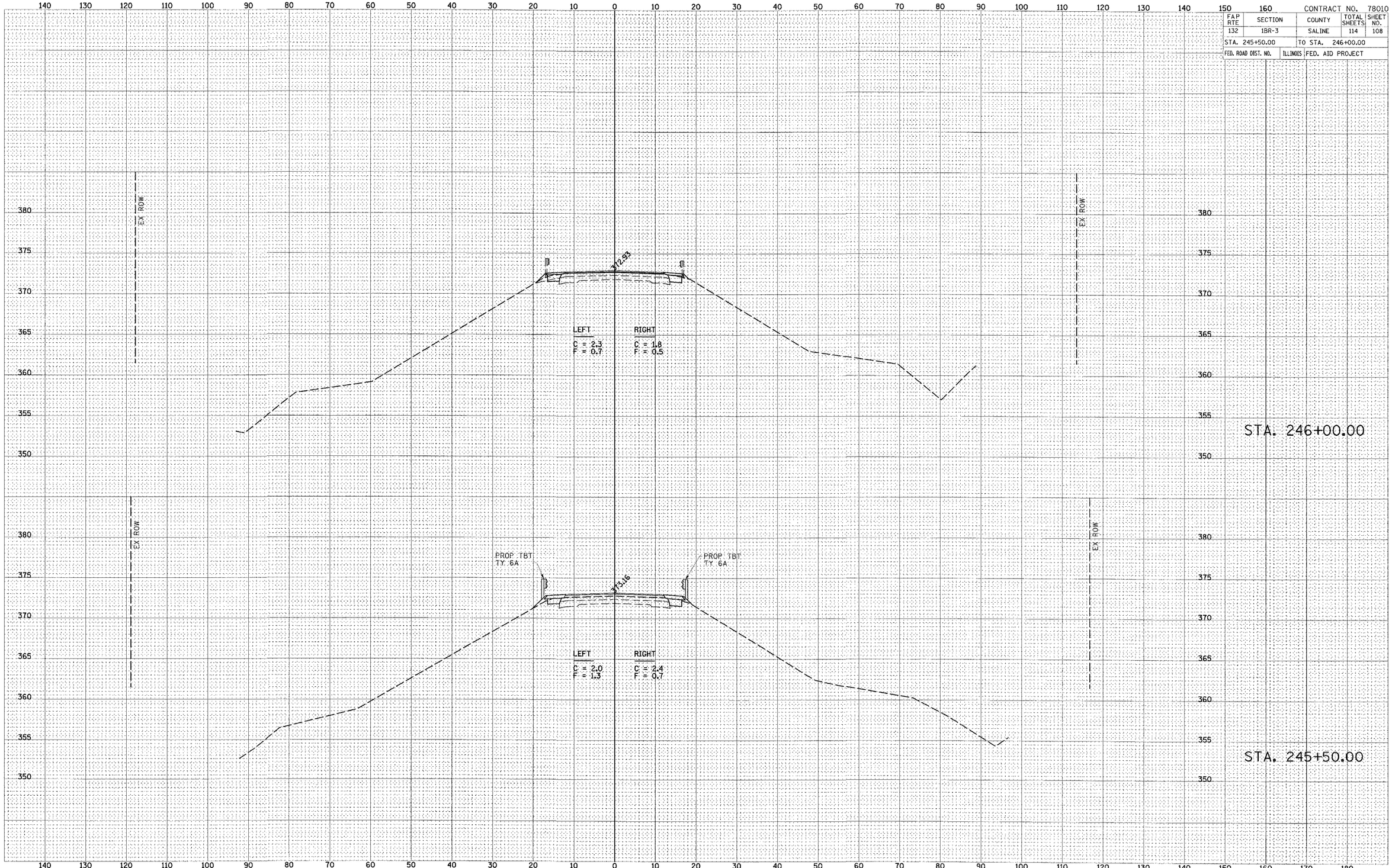
ORIGINAL SURVEY	SURVEYED	BY	DATE
	COMPUTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	18R-3	SALINE	114	108

STA. 245+50.00 TO STA. 246+00.00

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS
BELLEVILLE, ILLINOIS

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	109

STA. 246+50.00 TO STA. 247+00.00

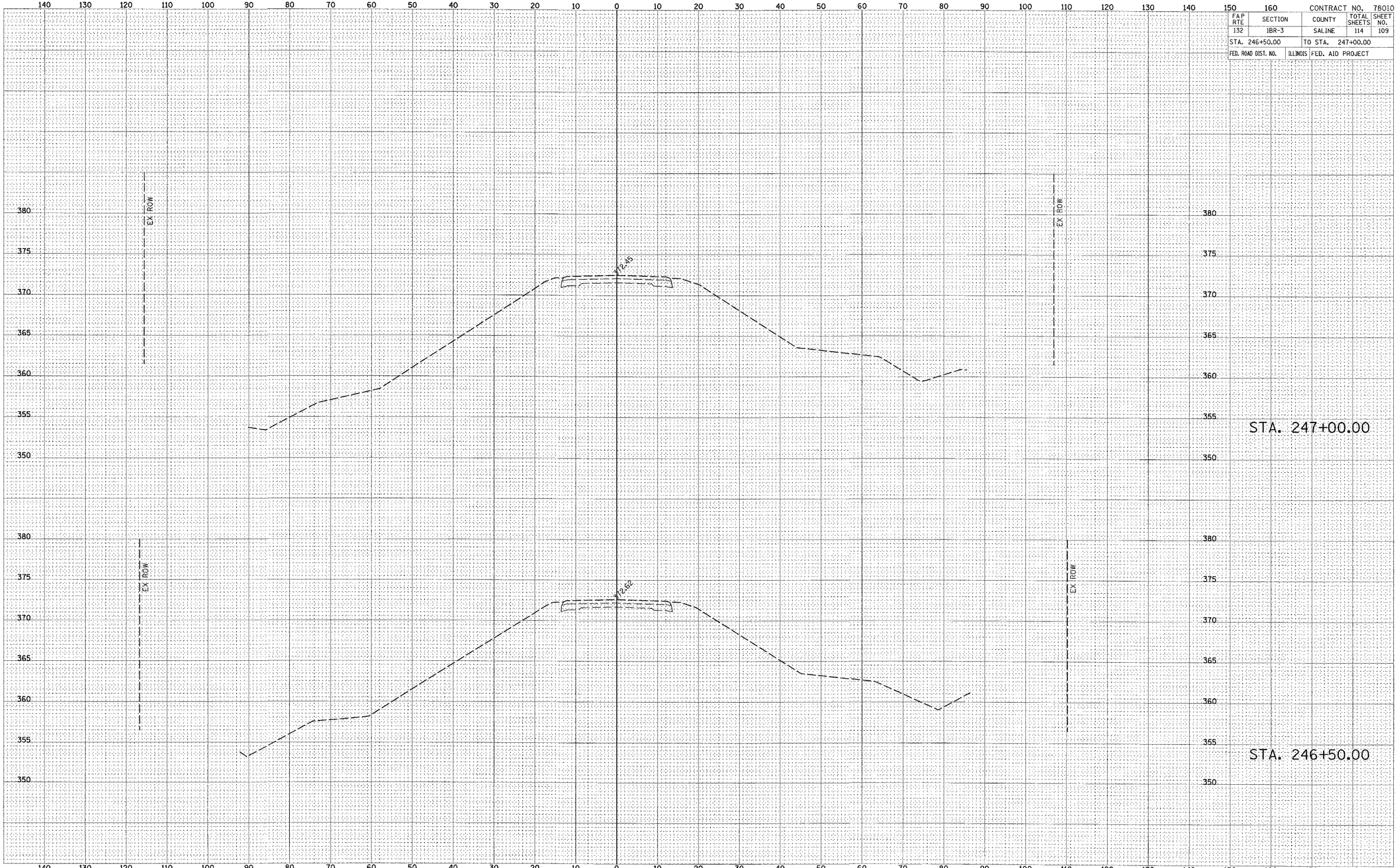
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

FINAL SURVEY NOTE BOOK NO.

BY	DATE
SURVEYED	
PLOTTED	
CHECKED	
AREAS	
AREAS CHECKED	

ORIGINAL SURVEY NOTE BOOK NO.

BY	DATE
SURVEYED	
PLOTTED	
CHECKED	
AREAS	
AREAS CHECKED	



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CORPORATION
CIVIL & STRUCTURAL ENGINEERS
SPRINGFIELD, ILLINOIS

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

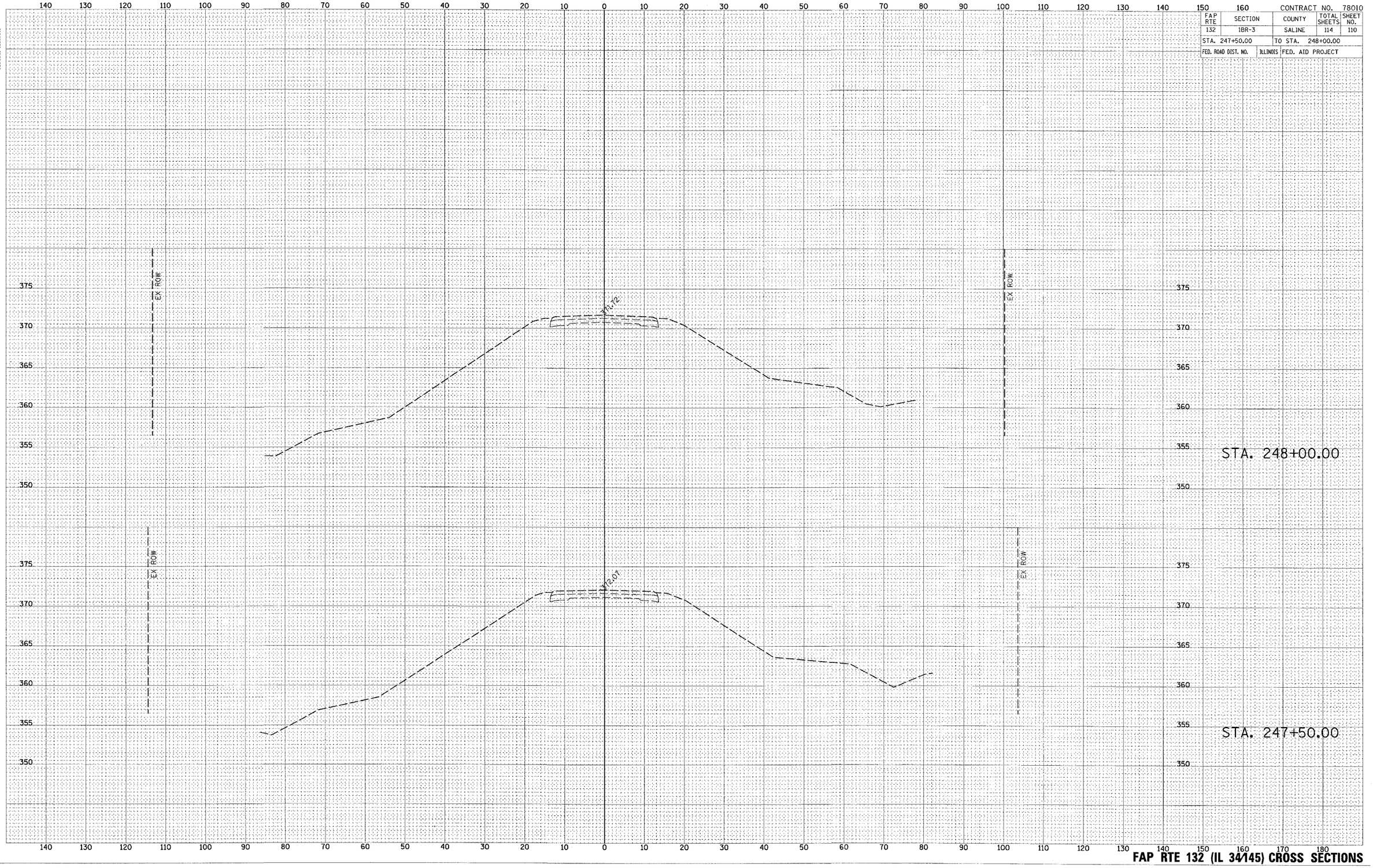
ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	110

STA. 247+50.00 TO STA. 248+00.00

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

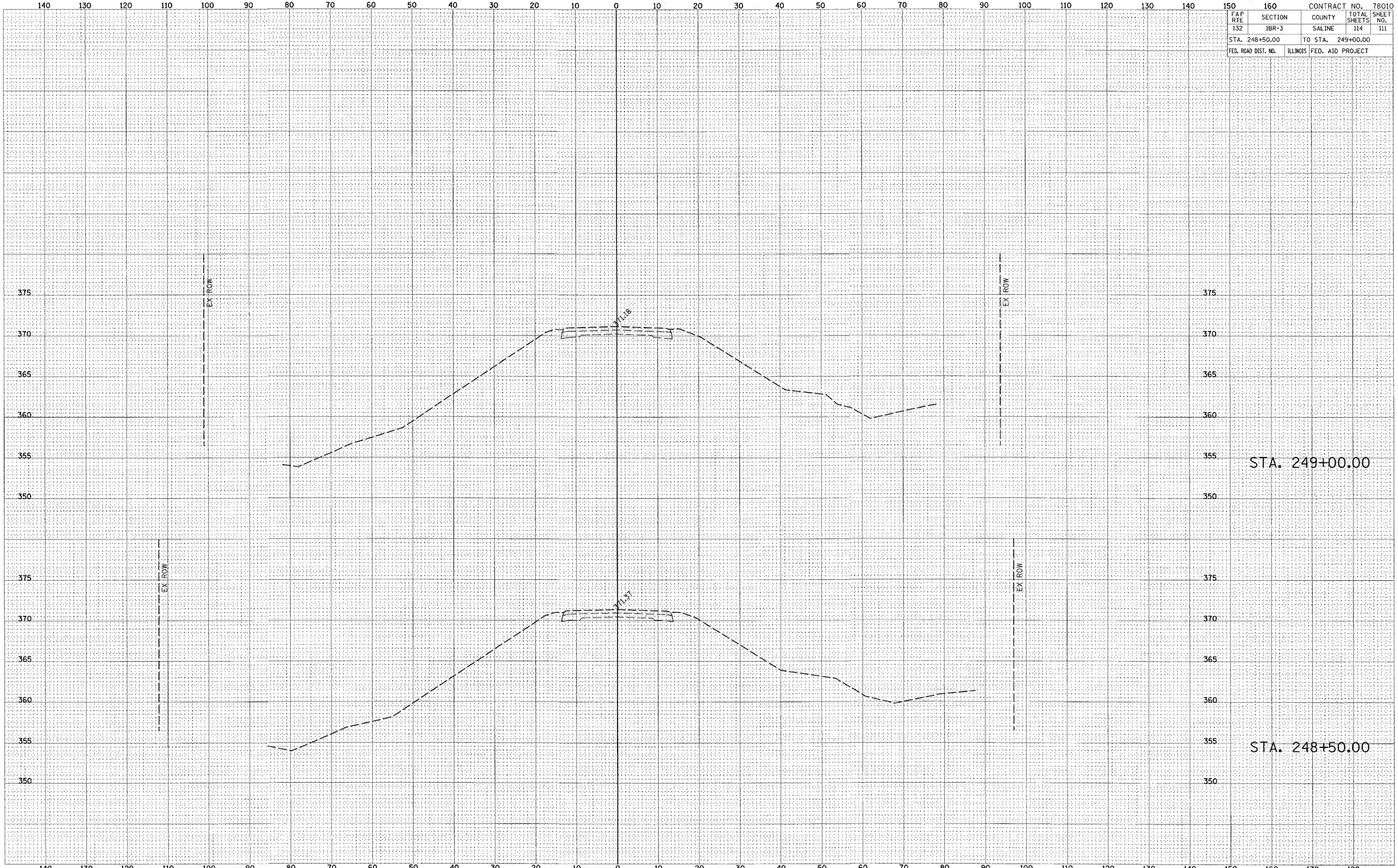
ESCA CORPORATION
CIVIL & STRUCTURAL CONSULTANTS
BELLEVILLE, ILLINOIS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	IBR-3	SALINE	114	111
STA. 248+50.00		TO STA. 249+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	112
STA. 249+50.00		TO STA. 250+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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

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

EX ROW

370.65

370.90

STA. 250+00.00

STA. 249+50.00

FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL • STRUCTURAL • TRANSPORTATION

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

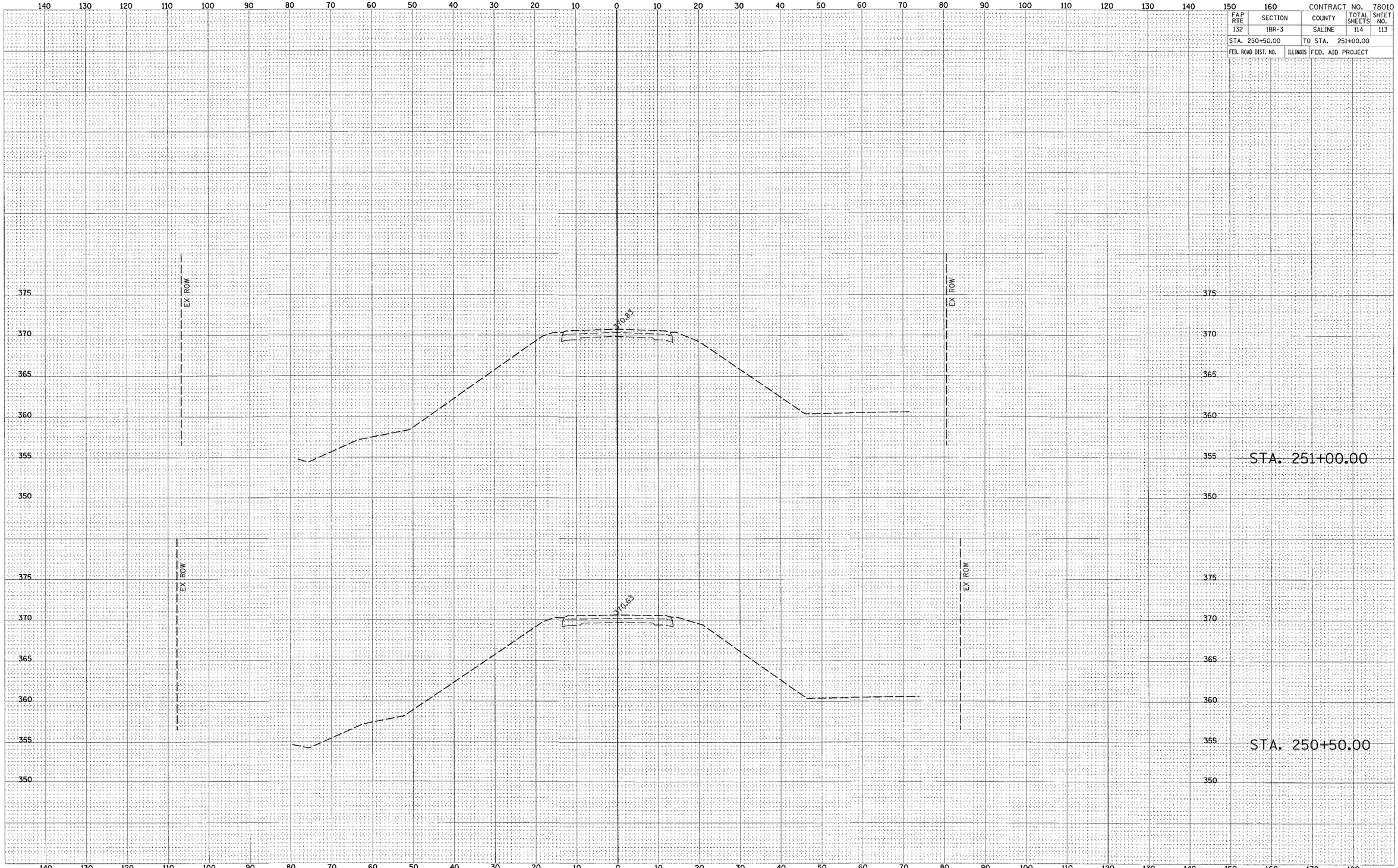
ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

CONTRACT NO. 78010

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	1BR-3	SALINE	114	113

STA. 250+50.00 TO STA. 251+00.00

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



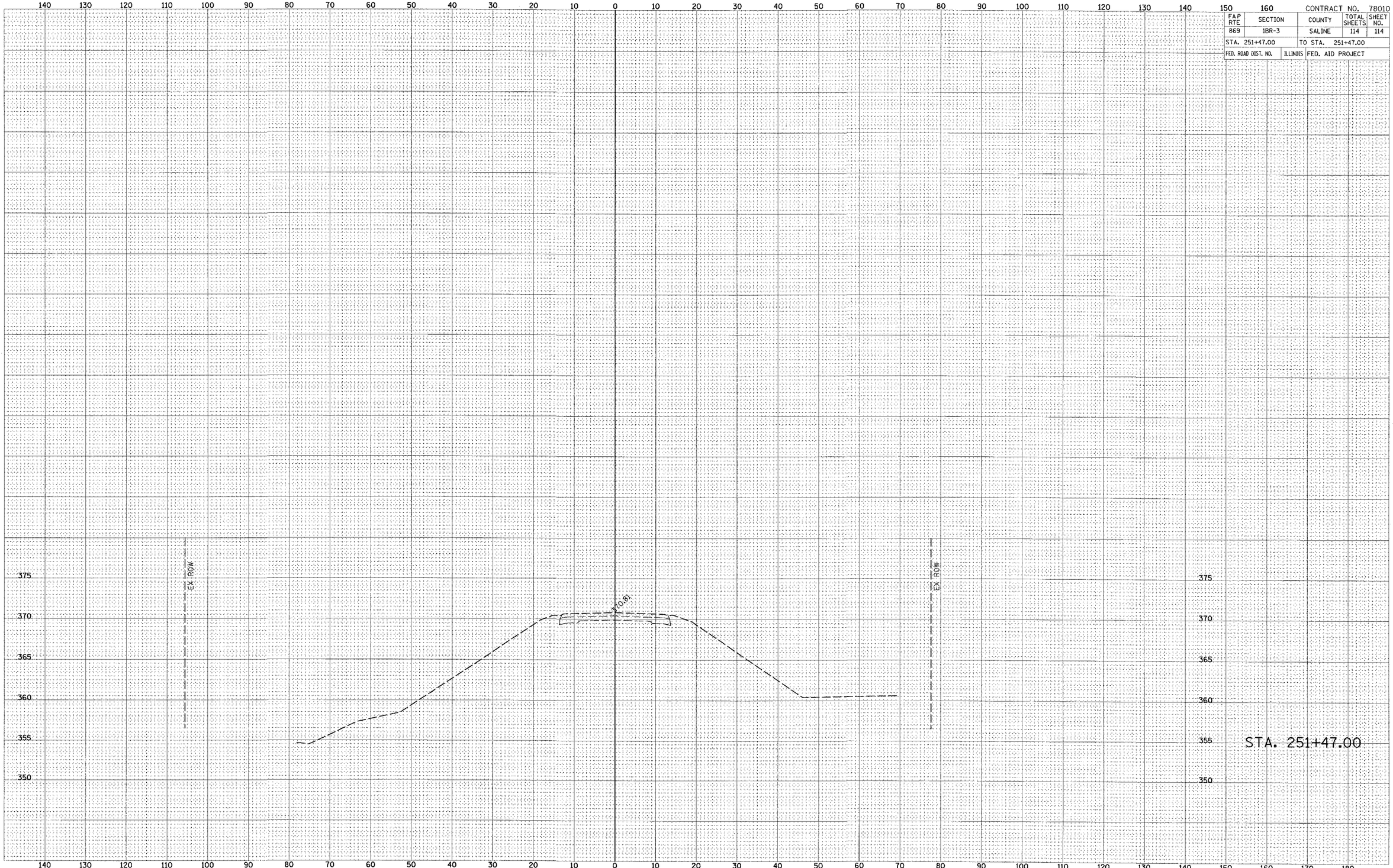
FAP RTE 132 (IL 34/145) CROSS SECTIONS

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	1BR-3	SALINE	114	114
STA. 251+47.00		TO STA. 251+47.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 78010

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



FAP RTE 132 (IL 34/145) CROSS SECTIONS