

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	1

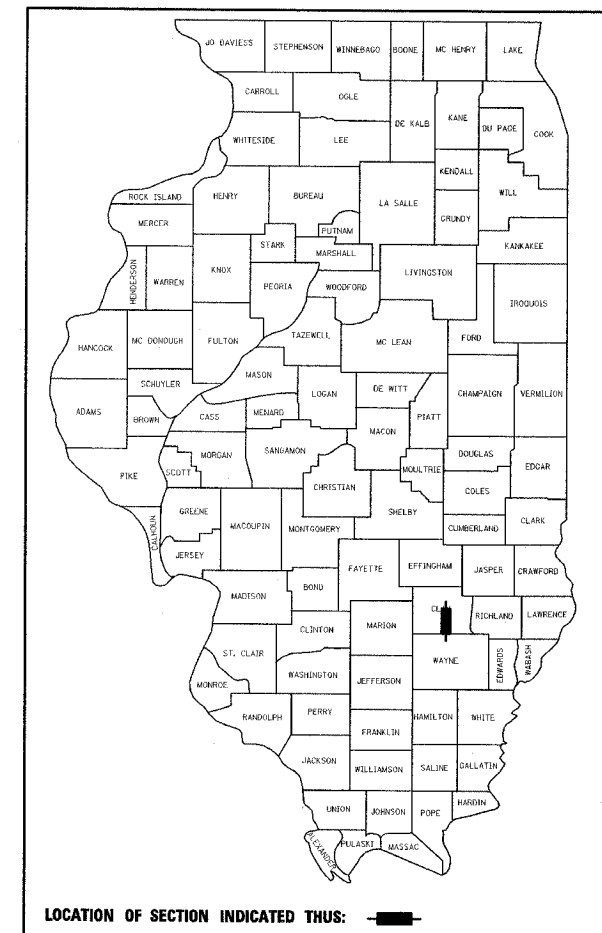
P-94-008-04
D-97-087-06

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

FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
PROJECT-BRF-0328-(020)
CLAY COUNTY

C-97-140-06

US ROUTE 45 OVER BUCK CREEK
STRUCTURE REPLACEMENT



FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 4497 (2009)
PV: 86.7%
SU: 7.8%
MU: 5.4%

**DESIGN DESIGNATION
N.A.**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

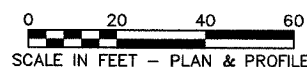
SUBMITTED March 22nd 2007
Christina M. Roads
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11, 2007
Eric E. Harrell
 ENGINEER OF DESIGN AND ENVIRONMENT

May 11, 2007
Milton R. Sewell
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
ROADWAY PLANS	
1.	COVER
2.	GENERAL NOTES AND STANDARDS
3.-4.	SUMMARY OF QUANTITIES
5.	TYPICAL SECTIONS
6.-7.	SCHEDULES OF QUANTITIES
8.-10.	FAP 328 (US 45) PLAN AND PROFILE
11.	PRESTAGE I CONSTRUCTION
12.	STAGE I CONSTRUCTION
13.	STAGE II CONSTRUCTION
14.	STAGE CONSTRUCTION DETAILS
15.	EROSION CONTROL AND DRAINAGE PLAN
16.-17.	MISCELLANEOUS DETAILS
STRUCTURE PLANS	
18.	GENERAL PLAN
19.	GENERAL DATA
20.	STAGE CONSTRUCTION DETAILS
21.	TEMPORARY CONCRETE BARRIER
22.-25.	DECK BEAM REPLACEMENT DETAILS
26.-27.	TOP OF SLAB ELEVATIONS
28.	TOP OF NORTH APPROACH SLAB ELEVATIONS
29.	TOP OF SOUTH APPROACH SLAB ELEVATIONS
30.	SUPERSTRUCTURE
31.	SUPERSTRUCTURE DETAILS
32.	DIAPHRAGM DETAILS
33.	STEEL FRAMING PLAN
34.	STRUCTURAL STEEL DETAILS
35.	BEARING DETAILS
36.	NORTH ABUTMENT
37.	SOUTH ABUTMENT
38.	PIER
39.	BAR SPLICER ASSEMBLY DETAILS
40.	CANTILEVER FORMING BRACKETS
41.	STEEL H-PILE DETAILS
42.-43.	BORING LOGS
EXISTING STRUCTURE PLANS	
44.-56.	EXISTING STRUCTURE PLANS
CROSS SECTIONS	
57.-61.	FAP RTE 328 (US 45) CROSS SECTIONS



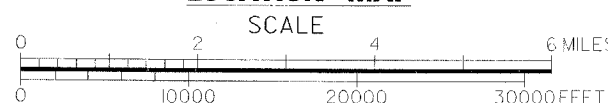
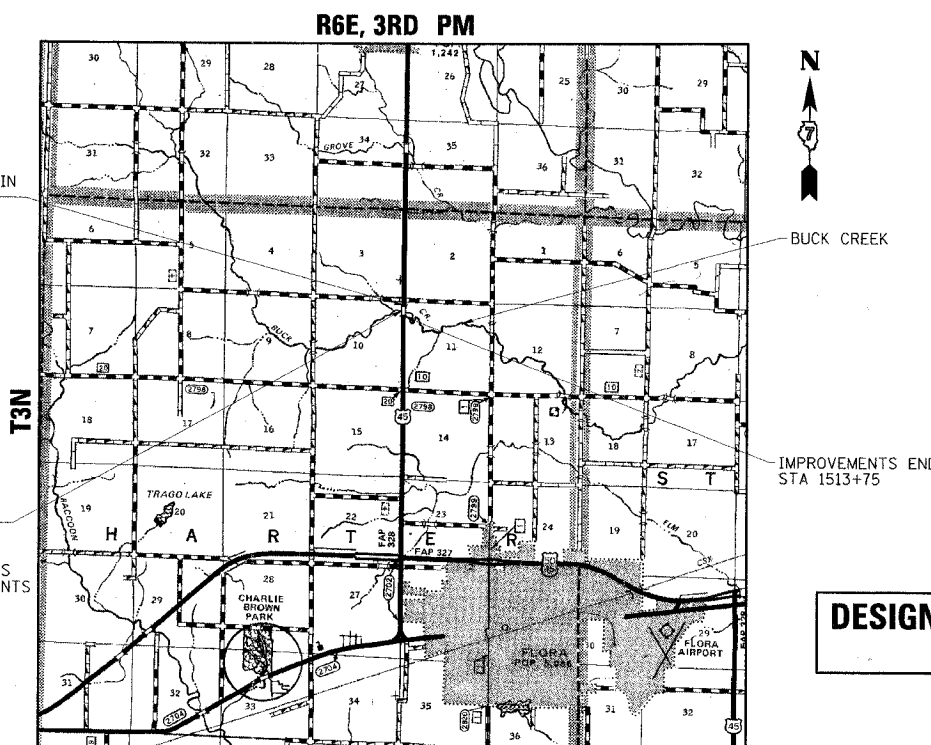
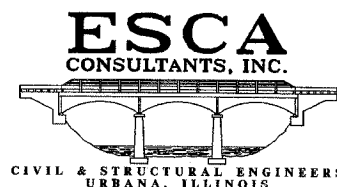
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

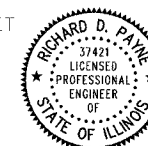
J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123

DISTRICT 7 NO. (217) 342-3951
 PROJECT ENGINEER: BILL STANLEY

CONTRACT NO.: 74037



GROSS LENGTH = 750 FT. = 0.15 MI.
 NET LENGTH = 750 FT. = 0.15 MI.



Richard D. Payne DATE: 03/20/07
 ILLINOIS PROFESSIONAL LICENSE NO. 37421
 (EXPIRATION DATE: 11-30-08)

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



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
420401-05	BRIDGE APPROACH PAVEMENT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
542301-01	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101	CONCRETE HEADWALL FOR PIPE DRAIN
630001-07	STEEL PLATE BEAM GUARDRAIL
630201-04	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
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
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
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

- THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2007; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.
- THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.
- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1/2" UNLESS OTHERWISE NOTED.
- 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.
- THE THICKNESS OF HOT-MIX ASPHALT 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 HOT-MIX ASPHALT MIXTURE IS PLACED.
- BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
- 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.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.08 GAL/SQ YD
AGGREGATE (PRIME COAT)	0.002 TONS/SQ YD
HOT-MIX ASPHALT	112 LBS/SQ YD/INCH
SHORT TERM PAVEMENT MARKING	10 FT/100 FT OF APPLICATION
- 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 EARTH EXCAVATION.
- ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2A. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDDED WILL BE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
- EXCELSIOR BLANKET SHALL BE USED AT ALL EROSION CONTROL BLANKET LOCATIONS.
- LARGE AREAS OF TEMPORARY RAMP ARE REQUIRED DUE TO THE LARGE ELEVATION DIFFERENCE BETWEEN THE PROPOSED AND EXISTING PAVEMENTS. THE CONTRACTOR MAY CONSTRUCT A PORTION OF THE HOT-MIX ASPHALT BINDER COURSE TO REDUCE THE QUANTITY OF TEMPORARY RAMP AS DIRECTED BY THE ENGINEER. RAMPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 406 OF THE STANDARD SPECIFICATIONS AND HAVE A MINIMUM TAPER RATE OF 1:40 (V:H).
- AGGREGATE (PRIME COAT): FA 20 MAY BE USED IN ADDITION TO THE GRADATIONS LISTED IN THE 2ND PARAGRAPH OF ARTICLE 1003.03(c).
- THE CONCRETE PAD AND THE APPROACH PAVEMENT CONNECTOR SHOWN ON STANDARD 420401 SHALL NOT BE CONSTRUCTED. SEE THE DETAIL IN THE PLANS AND THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HMA PLANT QUALITY CONTROL LAB SO THAT HMA PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.
- THE CONTRACTOR SHALL USE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP FOR THE PAY ITEM BITUMINOUS MATERIALS (PRIME COAT).

20. THE FOLLOWING UTILITIES ARE INVOLVED IN THIS PROJECT:

NAME/ADDRESS OF UTILITY COMPANY	TYPE	LOCATION	EST. DATE OF RELOCATION
AMEREN CIPS 4978 N. IL 130 OLNEY, IL 62450	ELECTRIC	PROJECT LIMITS	NONE REQUIRED
VERIZON NORTH, INC. 225 EAST CHESTNUT STREET OLNEY, IL 62450	ABANDONED	EAST SIDE	NONE REQUIRED
WABASH TELEPHONE COOPERATIVE, INC. P.O. BOX 299 LOUISVILLE, IL 62858	TELEPHONE	PROJECT LIMITS	NONE REQUIRED

COMMITMENTS

NONE

HOT MIX ASPHALT REQUIREMENTS

	SURFACE	BINDER COURSE	SHOULDERS
PG GRADE	PG 64-22	PG 64-22	PG 58-22
MAX % RAP ALLOWABLE **	15%	25%	30%
DESIGN AIR VOIDS	4% @ N50	4% @ N50	2% @ N30
MIXTURE COMPOSITION	IL 12.5 OR IL 9.5	IL 19.0	BAM
FRICTION AGGREGATE	MIXTURE C	NA	NA
PLANT CONTROL LIMITS	CLASS I	CLASS I	NON-CLASS I
DENSITY CONTROL LIMITS	CORES/NUCLEAR	CORES/NUCLEAR	*

* MATERIAL SHALL BE COMPACTED TO 93-97 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT THE BOTTOM LIFT SHALL BE COMPACTED TO A MINIMUM OF 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

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

CONTRACT NO. 74037			
FAP RTE	SECTION	COUNTY	TOTAL SHEET NO.
328	(6BR-2)B-1	CLAY	61 2
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	12/06
DRAWN BY:	HAG	12/06
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

**GENERAL NOTES AND STANDARDS
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY**



SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	801.FED./201.STATE CONSTRUCTION TYPE CODE
			X071-2A
20200100	EARTH EXCAVATION	CU YD	70
20300100	CHANNEL EXCAVATION	CU YD	690
20400800	FURNISHED EXCAVATION	CU YD	170
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	88
25000210	SEEDING, CLASS 2A	ACRE	0.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45
25100115	MULCH, METHOD 2	ACRE	0.5
25100630	EROSION CONTROL BLANKET	SQ YD	218
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100
28000300	TEMPORARY DITCH CHECKS	EACH	3
28000400	PERIMETER EROSION BARRIER	FOOT	530
28000500	INLET AND PIPE PROTECTION	EACH	2
28100107	STONE RIPRAP, CLASS A4	SQ YD	740
28200200	FILTER FABRIC	SQ YD	740
35101400	AGGREGATE BASE COURSE, TYPE B	TON	21
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	280
40600300	AGGREGATE (PRIME COAT)	TON	7
40600990	TEMPORARY RAMP	SQ YD	432
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	660
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	163
42001300	PROTECTIVE COAT	SQ YD	282
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	276
44000100	PAVEMENT REMOVAL	SQ YD	138
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	478
48101200	AGGREGATE SHOULDERS, TYPE B	TON	89
48203100	HOT-MIX ASPHALT SHOULDERS	TON	345
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	801.FED./201.STATE CONSTRUCTION TYPE CODE
			X071-2A
50200100	STRUCTURE EXCAVATION	CU YD	270
50300100	FLOOR DRAINS	EACH	14
50300225	CONCRETE STRUCTURES	CU YD	66.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	181.0
50300260	BRIDGE DECK GROOVING	SQ YD	490
50300280	CONCRETE ENCASEMENT	CU YD	10.0
50300300	PROTECTIVE COAT	SQ YD	613
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	384
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	2052
50800105	REINFORCEMENT BARS	POUND	150
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	45790
50800515	BAR SPLICERS	EACH	498
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	126
51201400	FURNISHING STEEL PILES HP10X42	FOOT	1025
51202305	DRIVING PILES	FOOT	1025
51203400	TEST PILE STEEL HP10X42	EACH	2
51204650	PILE SHOES	EACH	22
51205200	TEMPORARY SHEET PILING	SQ FT	810
51500100	NAME PLATES	EACH	1
52000030	PREFORMED JOINT SEAL 2 1/2"	FOOT	6
52100520	ANCHOR BOLTS, 1"	EACH	36
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	66
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	150
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	300
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	658
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7
67100100	MOBILIZATION	L SUM	1

* SPECIALITY ITEM

CONTRACT NO. 74037				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	6BR-21B-1	CLAY	61	3
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

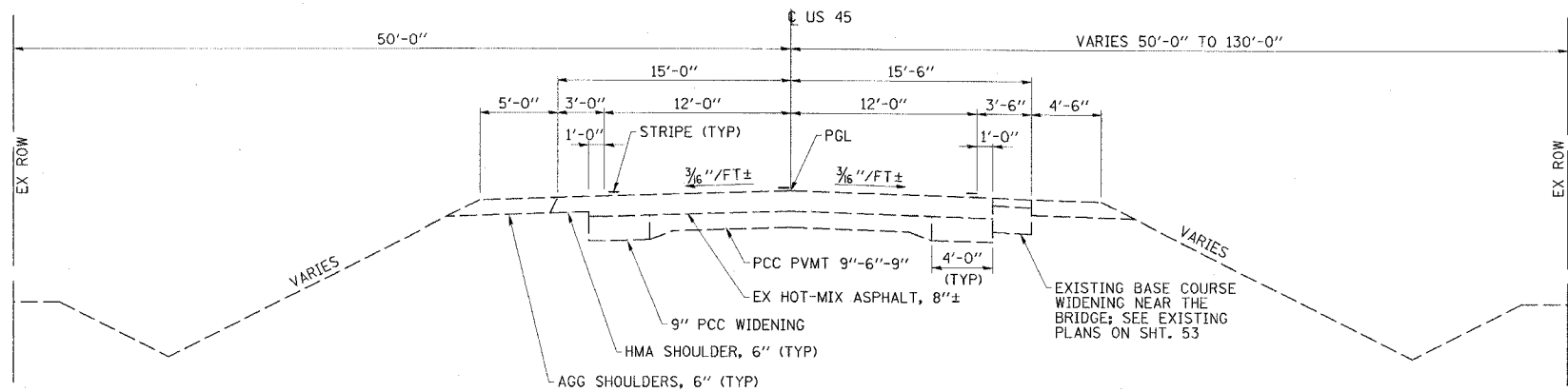
ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	02/07
DRAWN BY:	HAG	02/07
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

SUMMARY OF QUANTITIES
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY

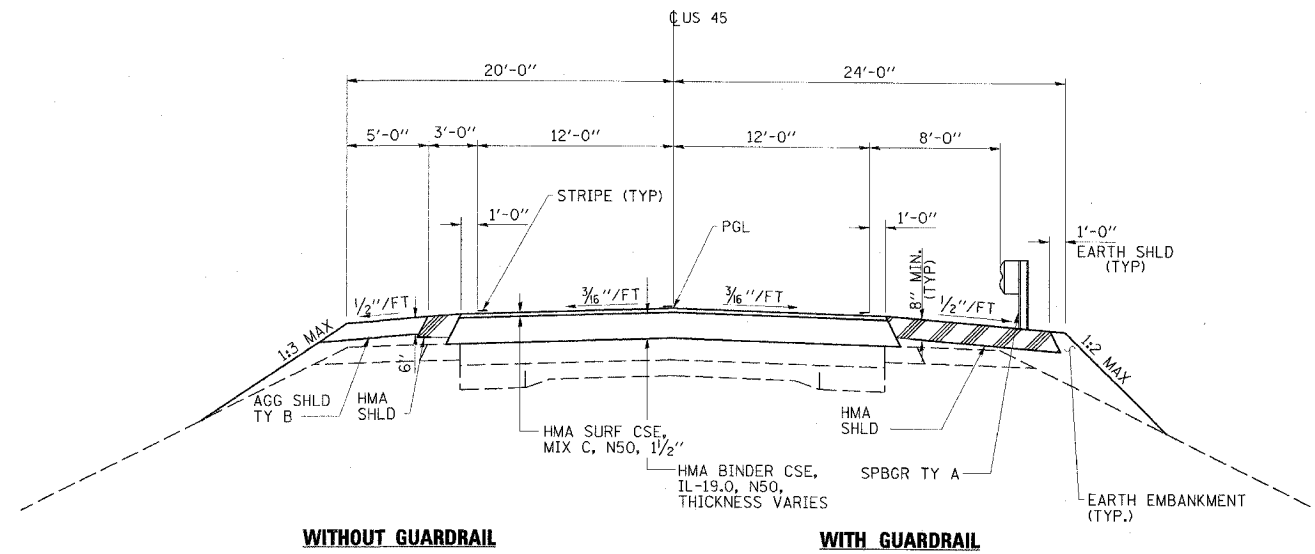
Rev.



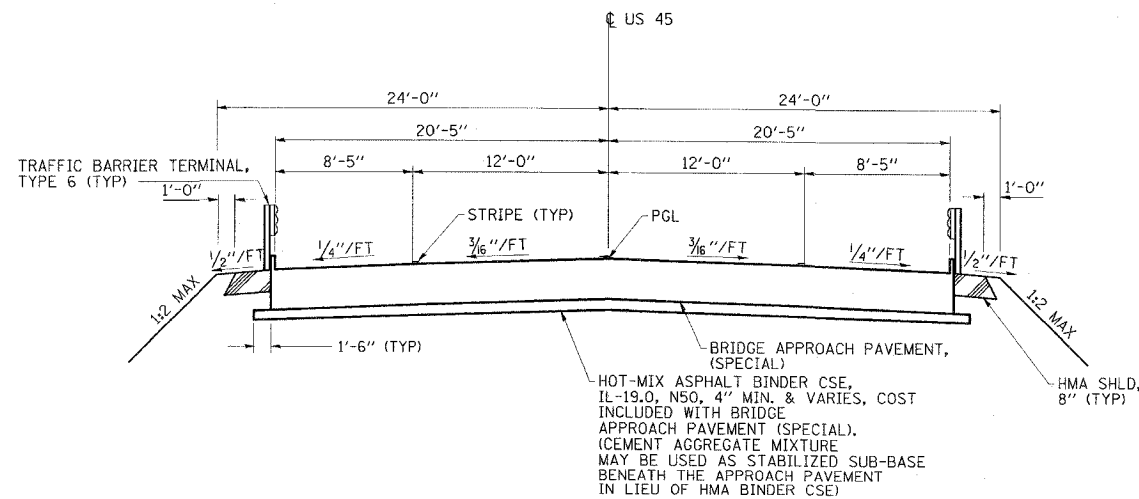
CONTRACT NO. 74037				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	6BR-2B-1	CLAY	61	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL ROADWAY SECTION
 STA 1500+00 TO 1516+00
 BRIDGE OMISSION STA 1509+57 TO 1510+43



PROPOSED TYPICAL ROADWAY SECTION
 STA 1506+25 TO 1513+75



AT BRIDGE APPROACH PAVEMENT
PROPOSED TYPICAL ROADWAY SECTION
 STA 1509+25 TO 1511+01
 BRIDGE OMISSION STA 1509+55 TO 1510+71

ESCA CONSULTANTS, INC.		
DESIGNED BY:	JMS	12/06
DRAWN BY:	HAG/KAH	12/06
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

TYPICAL SECTIONS
 FAP ROUTE 328 (US 45)
 SECTION (6BR-2B-1)
 CLAY COUNTY



CONTRACT NO. 74037				
F&P RTE 328	SECTION 6BR-2)B-1	COUNTY CLAY	TOTAL SHEETS 61	SHEET NO. 6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

EARTHWORK SCHEDULE						
LOCATION	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	INCIDENTAL EXCAVATION 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
NW QUADRANT CUTS & FILLS	6	4			123	-119
SW QUADRANT CUTS & FILLS	11	8			53	-45
NE QUADRANT CUTS & FILLS	25	19			116	-97
SE QUADRANT CUTS & FILLS	28	21			75	-54
STRUCTURE EXCAVATION			202	151		151
TOTALS	70	52	202	151	367	-164

NOTE:
EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)*0.75

EROSION CONTROL SCHEDULE					
LOCATION	EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)	INLET & PIPE PROTECTION	TEMPORARY DITCH CHECKS
	SQ YD	FOOT	POUND	EACH	EACH
NW QUADRANT	45		24		1
SW QUADRANT	44		30	1	1
NE QUADRANT	45	159	26	1	1
SE QUADRANT	44	371	20		
STA 1507+50 LT	20				
STA 1512+35 RT	20				
TOTALS	218	530	100	2	3

PAVING SCHEDULE						
LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	HOT-MIX ASPHALT SURFACE CSE, MIX C, N50	HOT-MIX ASPHALT BINDER CSE, 1L-19.0, N50	AGGREGATE (PRIME COAT)	HMA SHOULDERS	AGGREGATE BSE CSE TY B
	GALLON	TON	TON	TON	TON	TON
STA 1506+25 TO BRIDGE	144	81	382	3.5		
BRIDGE TO STA 1513+75	133	75	278	3.5		
NORTHWEST QUADRANT					103	
SOUTHWEST QUADRANT					70	11
NORTHEAST QUADRANT					71	10
SOUTHEAST QUADRANT					101	
BRIDGE	3	7				
TOTALS	280	163	660	7	345	21

TEMPORARY RAMP SCHEDULE	
LOCATION	SQ YD
NORTH APPROACH PAVEMENT	212
SOUTH APPROACH PAVEMENT	186
NORTH APPROACH	17
SOUTH APPROACH	17
TOTAL	432

SEEDING SCHEDULE					
LOCATION	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2
	ACRE	POUND	POUND	POUND	ACRE
NORTHWEST QUADRANT	0.12	10	10	10	0.12
SOUTHWEST QUADRANT	0.15	15	15	15	0.15
NORTHEAST QUADRANT	0.13	12	12	12	0.13
SOUTHEAST QUADRANT	0.10	8	8	8	0.10
TOTALS	0.50	45	45	45	0.50

HMA SURF REMOVAL (VARIABLE DEPTH) SCHEDULE	
LOCATION	SQ YD
STA 1506+25 TO STA 1507+01	254
STA 1513+30 TO STA 1513+75	150
AT SOUTH APPROACH PAVEMENT	74
TOTAL	478

REMOVAL SCHEDULE		
LOCATION	PAVEMENT REMOVAL	GUARDRAIL REMOVAL
	SQ YD	FOOT
STA 1509+47 TO BRIDGE	69	
BRIDGE TO STA 1510+79	69	
NORTHWEST QUADRANT		203
SOUTHWEST QUADRANT		126
NORTHEAST QUADRANT		126
SOUTHEAST QUADRANT		203
TOTALS	138	658

ESCA
CONSULTANTS, INC.
DESIGNED BY: ELH 02/07
DRAWN BY: HAG 02/07
CHECKED BY: ELH 03/07
APPROVED BY: RDP 03/07

SCHEDULES OF QUANTITIES
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY



CONTRACT NO. 74037				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DRAINAGE SCHEDULE		
LOCATION	CONCRETE HEADWALL FOR PIPE DRAINS	PIPE UNDERDRAINS FOR STRUCTURES 4"
	EACH	FOOT
STRUCTURE NO. 013-0041 - NW CORNER	1	37.5
STRUCTURE NO. 013-0041 - SW CORNER	1	37.5
STRUCTURE NO. 013-0041 - NE CORNER	1	37.5
STRUCTURE NO. 013-0041 - SE CORNER	1	37.5
TOTALS	4	150

BRIDGE APPROACH PAVEMENT SCHEDULE		
LOCATION	BRIDGE APPROACH PAVEMENT (SPECIAL)	PROTECTIVE COAT
	SQ YD	SQ YD
STRUCTURE NO. 013-0041 - NORTH APPROACH	138	141
STRUCTURE NO. 013-0041 - SOUTH APPROACH	138	141
TOTALS	276	282

PAVEMENT MARKING REMOVAL SCHEDULE			
LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
STA 1506+25 TO STA 1513+75	SHORT-TERM	124	
STA 1506+25 TO STA 1513+75	TEMPORARY	567	
STA 1508+60 TO STA 1512+00, RT	EXISTING EDGE LINE		114
STA 1508+55 TO STA 1511+65, RT	EXISTING EDGE LINE		104
STA 1508+25 TO STA 1511+65	EXISTING CENTERLINE		30
TOTALS		691	248

PAVEMENT MARKING SCHEDULE				
LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING (3 APPLICATIONS)	PAINT PAVEMENT MARKING - LINE	TEMPORARY PAVEMENT MARKING - LINE
		FOOT	4"	4"
STA 1506+25 TO STA 1513+75	SKIP-DASH YELLOW CENTERLINE	228	200	200
STA 1506+25 TO STA 1513+75	SOLID WHITE EDGE LINE	144	1500	1500
TOTALS		372	1700	1700

PAVEMENT MARKERS AND REMOVAL SCHEDULE			
LOCATION	RRPM	RRPM (BRIDGE)	RRPM REMOVAL
	EACH	EACH	EACH
AT EXISTING LOCATIONS	9	1	9
TOTALS	9	1	9

GUARDRAIL SCHEDULE								
LOCATION	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	SPBGR TYPE A	TRAFFIC BARRIER TERMINAL TYPE 6	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	TERMINAL MARKER-DIRECT APPLIED	TEMP SPBGR, TYPE A	TEMP. TBT TYPE 1 SPECIAL (TANGENT)
	EACH	FOOT	EACH	EACH	EACH	EACH	FOOT	EACH
STRUCTURE NO. 013-0041 - NW CORNER	1	112.5	1	1				
STRUCTURE NO. 013-0041 - SW CORNER	1	37.5	1	2				
STRUCTURE NO. 013-0041 - NE CORNER	1	37.5	1	2				
STRUCTURE NO. 013-0041 - SE CORNER	1	112.5	1	1				
STRUCTURE NO. 013-0041 - BRIDGE					4			
STAGE I				2		2	50	2
TOTALS	4	300	4	8	4	2	50	2

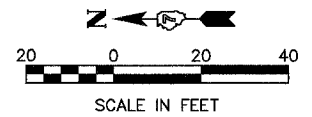
AGGREGATE SHOULDERS, TYPE B SCHEDULE	
LOCATION	TON
NORTHWEST QUADRANT	22
NORTHEAST QUADRANT	28
SOUTHWEST QUADRANT	23
SOUTHEAST QUADRANT	16
TOTAL	89

ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 02/07
DRAWN BY: HAG 02/07
CHECKED BY: ELH 03/07
APPROVED BY: RDP 03/07

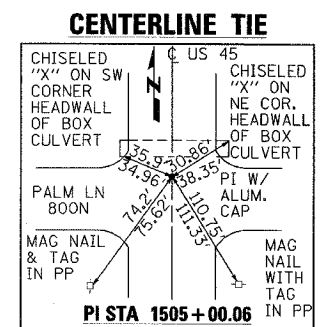
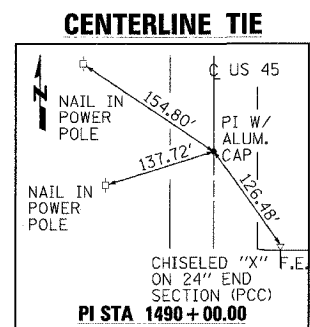
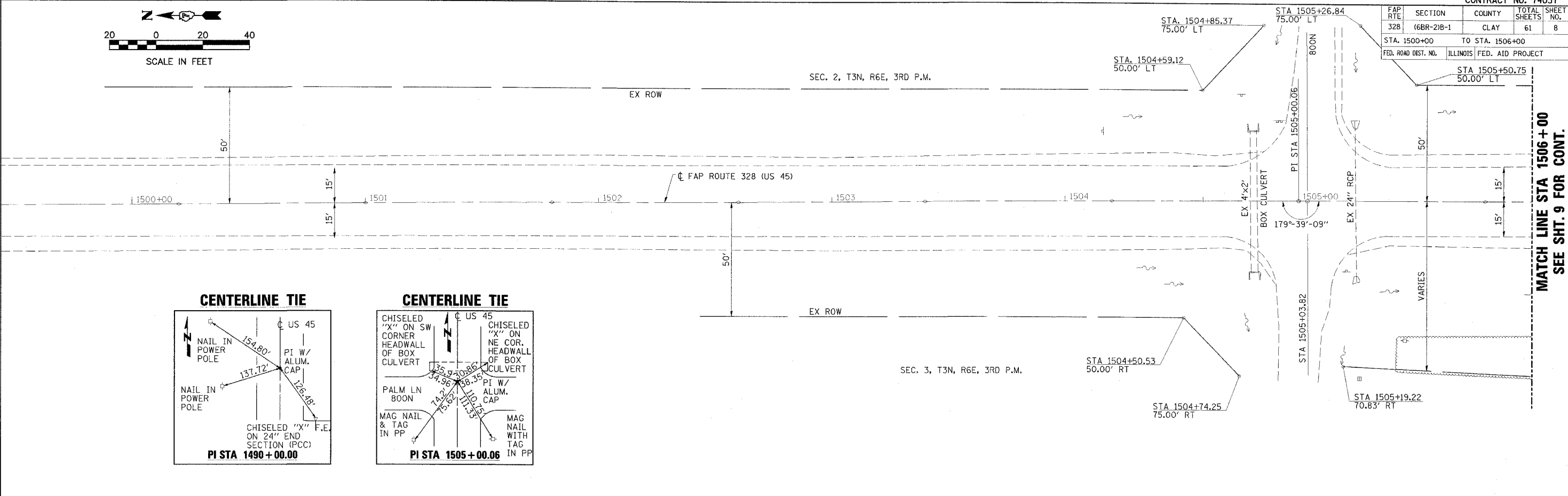
SCHEDULES OF QUANTITIES
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	6BR-2B-1	CLAY	61	8
STA. 1500+00 TO STA. 1506+00		ILLINOIS FED. AID PROJECT		



SEC. 2, T3N, R6E, 3RD P.M.

SEC. 3, T3N, R6E, 3RD P.M.



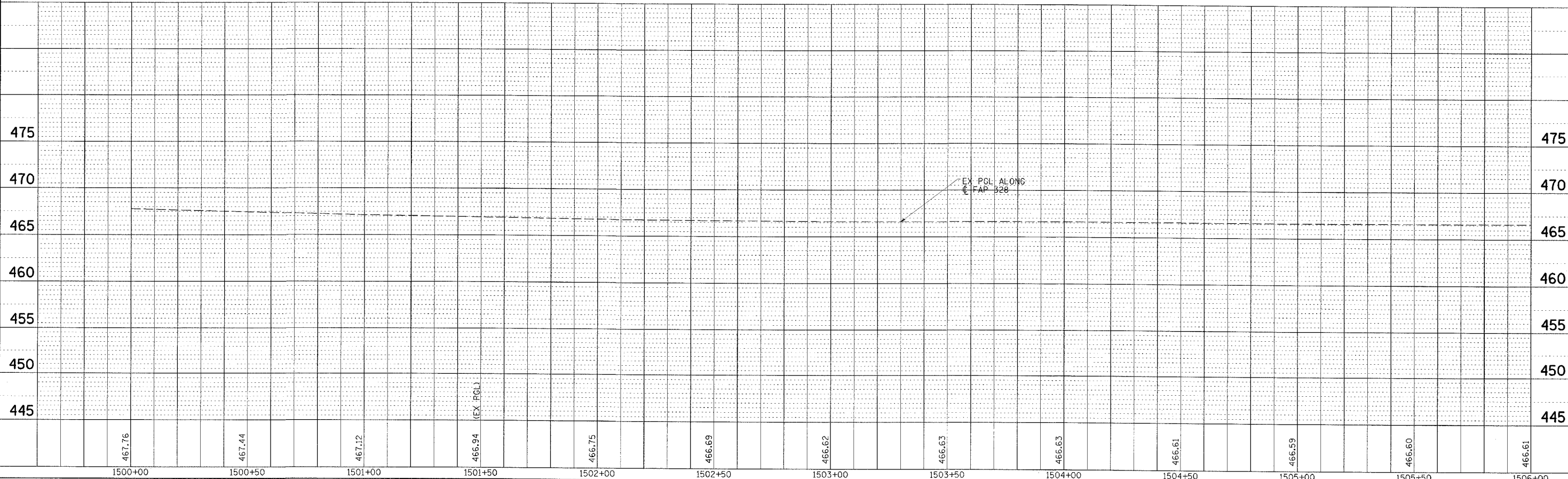
MATCH LINE STA 1506+00
SEE SHT. 9 FOR CONT.

PLAN

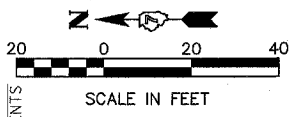
DATE	
BY	
CHECKED	
DESIGNED	
NOTED	
NO.	

PROFILE

DATE	
BY	
CHECKED	
DESIGNED	
NOTED	
NO.	

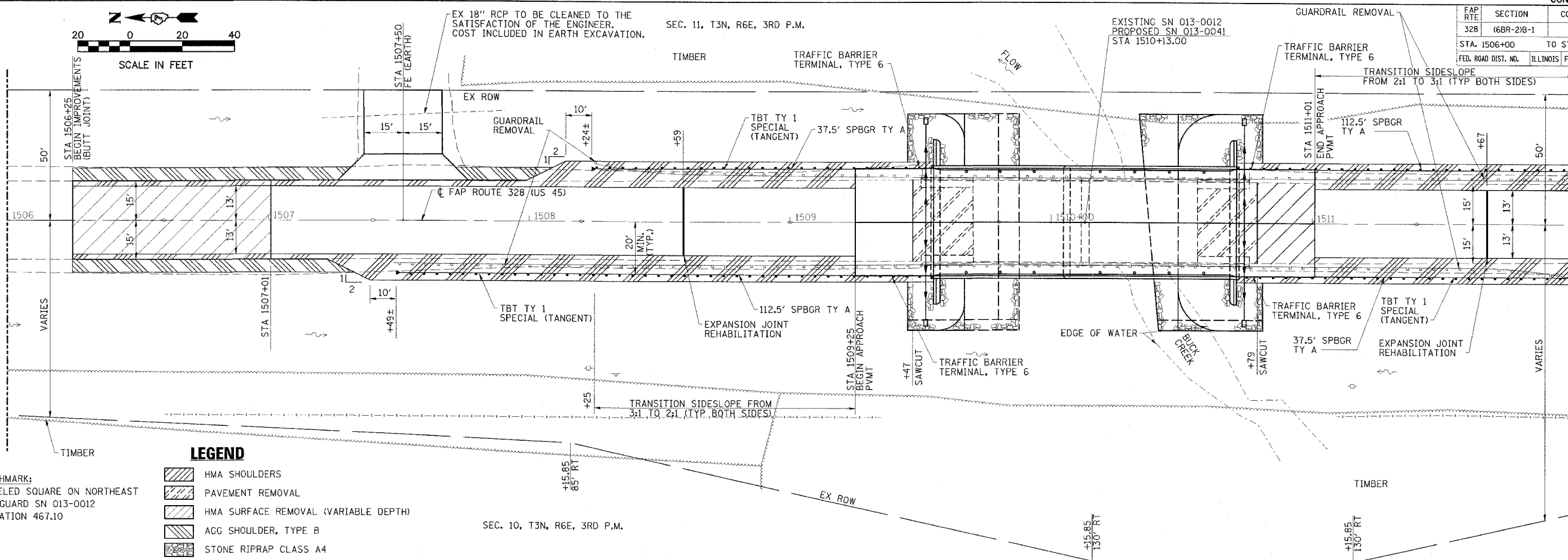


FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(68R-2)B-1	CLAY	61	9
STA. 1506+00		TO STA. 1512+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



MATCH LINE STA 1506+00
SEE SHT. 8 FOR CONT.

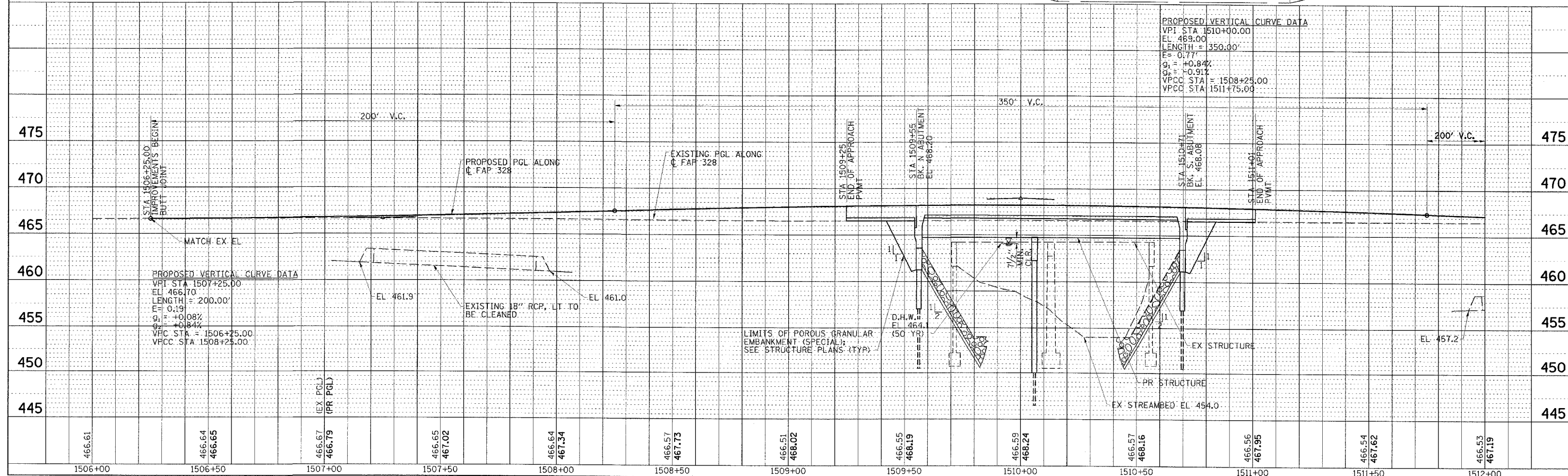
MATCH LINE STA 1512+00
SEE SHT. 10 FOR CONT.



- LEGEND**
- HMA SHOULDERS
 - PAVEMENT REMOVAL
 - HMA SURFACE REMOVAL (VARIABLE DEPTH)
 - ACC SHOULDER, TYPE B
 - STONE RIPRAP CLASS A4
- BENCHMARK:
CHISELED SQUARE ON NORTHEAST
HUB GUARD SN 013-0012
ELEVATION 467.10

PLAN	DATE
BY	
CHECKED	
DATE	

PROFILE	DATE
BY	
CHECKED	
DATE	

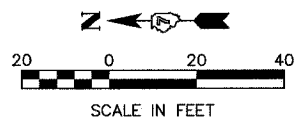


PROPOSED VERTICAL CURVE DATA
 VPI STA 1510+00.00
 EL 469.00
 LENGTH = 350.00'
 $E_1 = 0.77\%$
 $E_2 = +0.84\%$
 $E_3 = -0.91\%$
 VPC STA = 1508+25.00
 VPTC STA = 1511+75.00

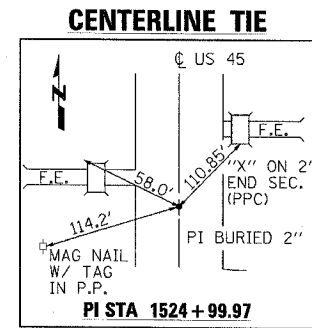
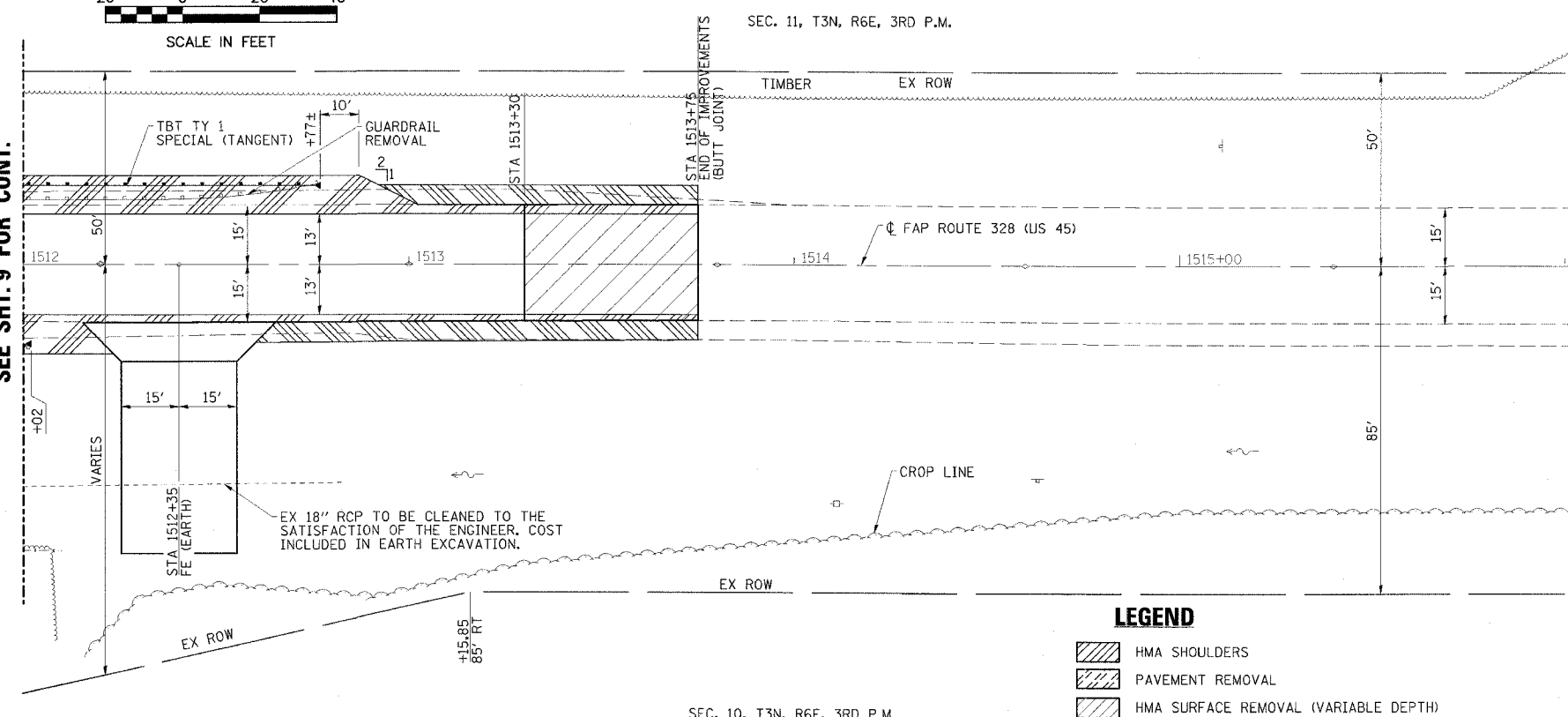
PROPOSED VERTICAL CURVE DATA
 VPI STA 1507+25.00
 EL 466.70
 LENGTH = 200.00'
 $E_1 = +0.19\%$
 $E_2 = +0.08\%$
 $E_3 = +0.84\%$
 VPC STA = 1506+25.00
 VPTC STA = 1508+25.00

LIMITS OF POROUS GRANULAR EMBANKMENT (SPECIAL); SEE STRUCTURE PLANS (TYP)

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	6BR-2B-1	CLAY	61	10
STA. 1512+00		TO STA. 1516+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



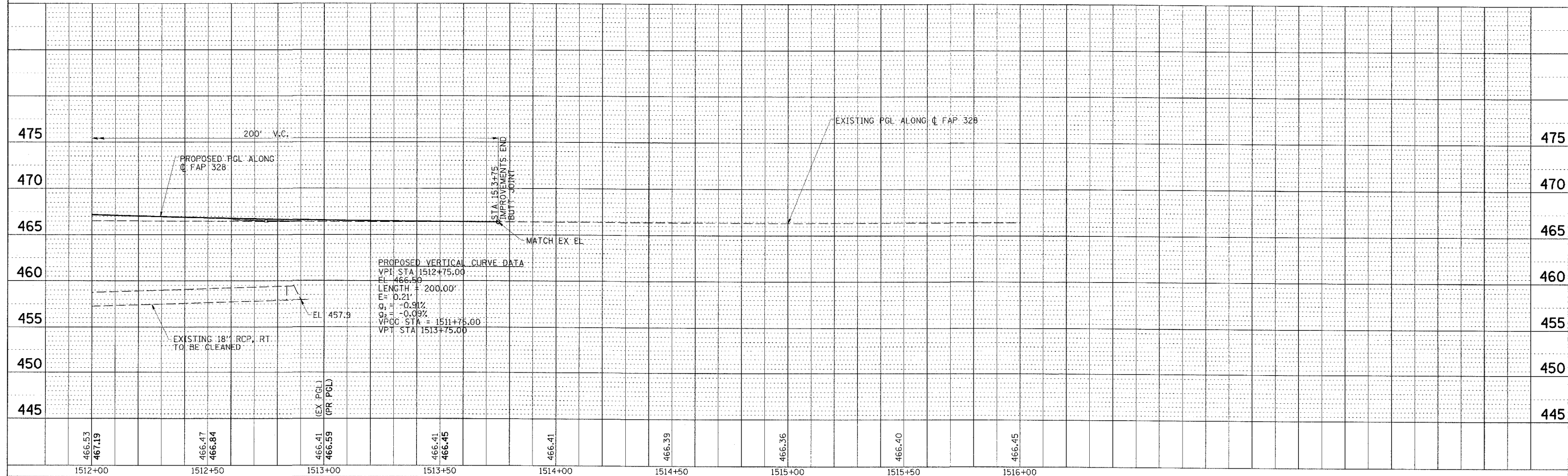
MATCH LINE STA 1512+00
SEE SHT. 9 FOR CONT.



- LEGEND**
- HMA SHOULDERS
 - PAVEMENT REMOVAL
 - HMA SURFACE REMOVAL (VARIABLE DEPTH)
 - AGG SHOULDER, TYPE B

DATE	
BY	
DESIGNED	
CHECKED	
IN CHARGE	
NOTE BOOK NO.	
DATE FILED	

DATE	
BY	
DESIGNED	
CHECKED	
IN CHARGE	
NOTE BOOK NO.	
DATE FILED	



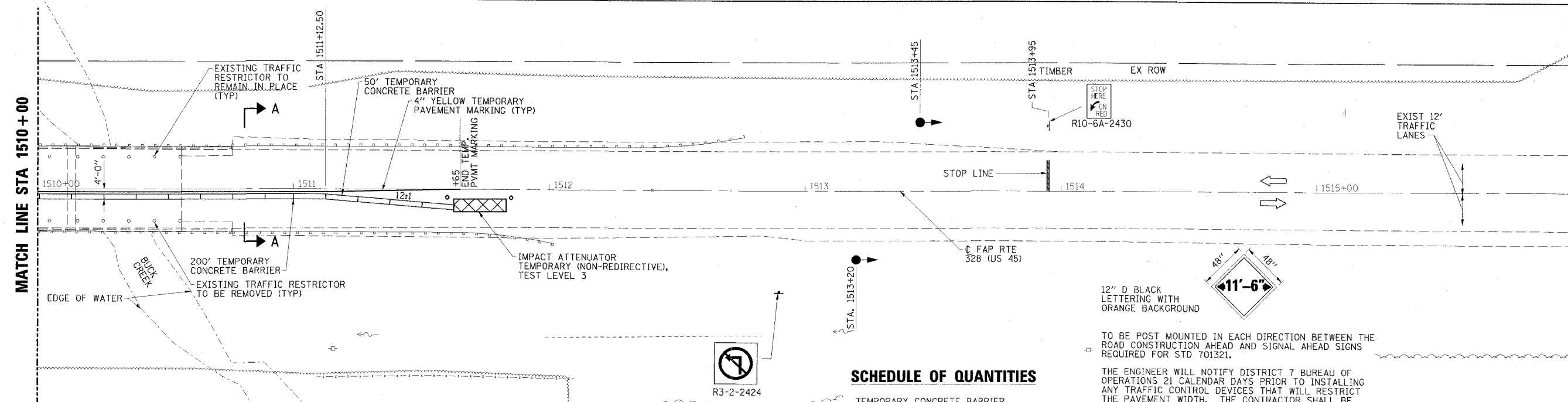
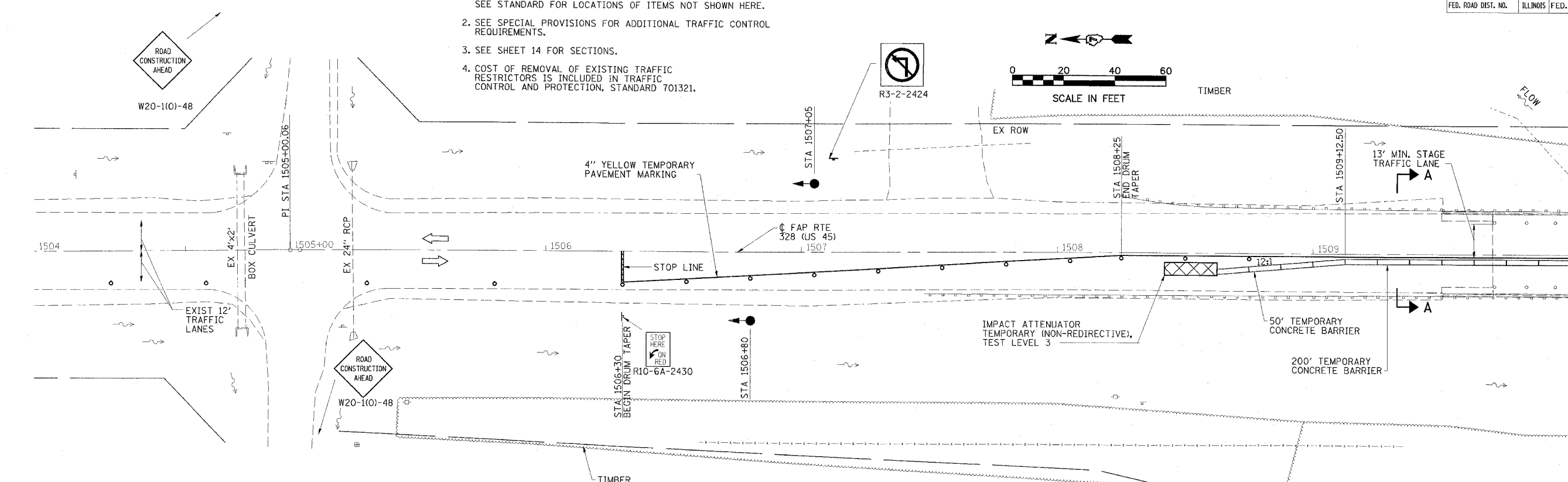
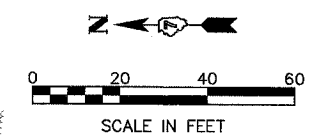


CONTRACT NO. 74037

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	11
STA. 1504+00		TO STA. 1516+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321." SEE STANDARD FOR LOCATIONS OF ITEMS NOT SHOWN HERE.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. SEE SHEET 14 FOR SECTIONS.
4. COST OF REMOVAL OF EXISTING TRAFFIC RESTRICTORS IS INCLUDED IN TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.



SCHEDULE OF QUANTITIES

ITEM	STATION TO	STATION	TOTAL FEET
TEMPORARY CONCRETE BARRIER	1508+62.50	1511+62.50	300
TEMPORARY BRIDGE TRAFFIC SIGNALS			1 EACH
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3			2 EACH

12" D BLACK LETTERING WITH ORANGE BACKGROUND

TO BE POST MOUNTED IN EACH DIRECTION BETWEEN THE ROAD CONSTRUCTION AHEAD AND SIGNAL AHEAD SIGNS REQUIRED FOR STD 701321.

THE ENGINEER WILL NOTIFY DISTRICT 7 BUREAU OF OPERATIONS 21 CALENDAR DAYS PRIOR TO INSTALLING ANY TRAFFIC CONTROL DEVICES THAT WILL RESTRICT THE PAVEMENT WIDTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

ALL WORK NECESSARY TO IMPLEMENT AND ERECT THE WIDTH RESTRICTION SIGNS WILL BE INCLUDED IN THE PRICE FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.

WIDTH RESTRICTION SIGN
(PRESTAGE I SIGN SHOWN;
USE 10'-0" WIDTH SIGNS FOR STAGE I)

PRESTAGE I CONSTRUCTION
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY

LEGEND

- TRAFFIC SIGNAL WITH SIGNAL TIMBER DIRECTION INDICATED
- DRUM WITH STEADY BURNING LIGHT

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS/ELH	02/07
DRAWN BY:	JPC/HAG	02/07
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

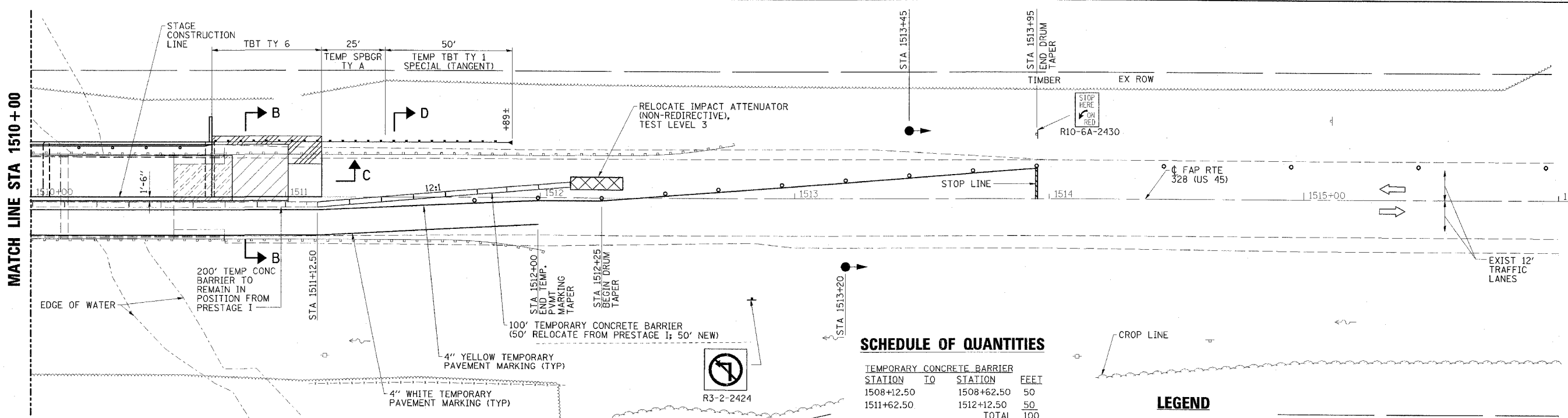
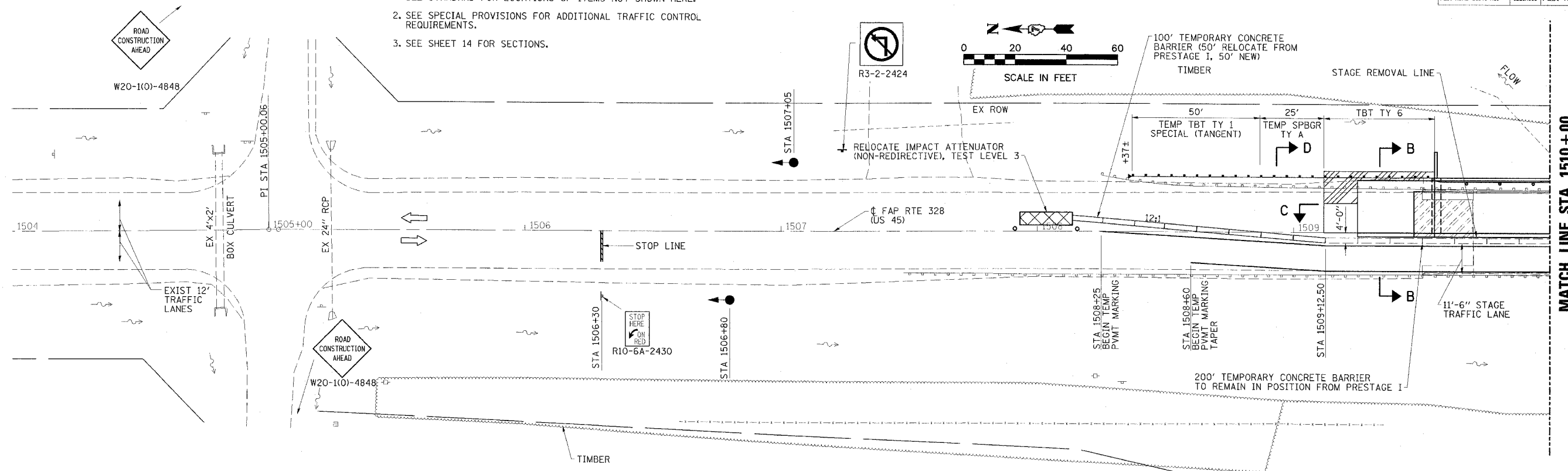


CONTRACT NO. 74037

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	12
STA. 1504+00		TO STA. 1516+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321." SEE STANDARD FOR LOCATIONS OF ITEMS NOT SHOWN HERE.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. SEE SHEET 14 FOR SECTIONS.



SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER			
STATION TO	STATION	FEET	
1508+12.50	1508+62.50	50	
1511+62.50	1512+12.50	50	
	TOTAL	100	

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

RELOCATE TEMPORARY CONCRETE BARRIER			
STATION TO	STATION	FEET	
1508+62.50	1509+12.50	50	
1511+12.50	1511+62.50	50	
	TOTAL	100	

LEGEND

- TRAFFIC SIGNAL WITH SIGNAL DIRECTION INDICATED
- ▨ PAVEMENT REMOVAL
- ▨ HMA SHOULDERS
- DRUM WITH STEADY BURNING LIGHT
- ▨ HMA SURFACE REMOVAL

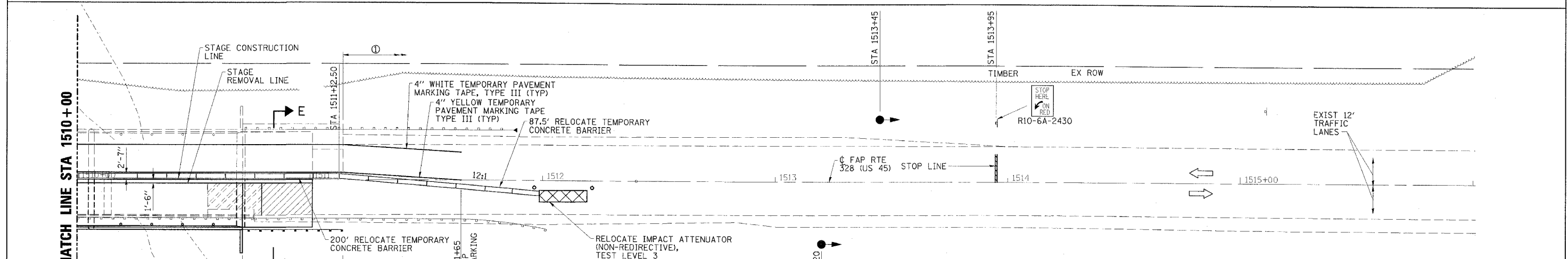
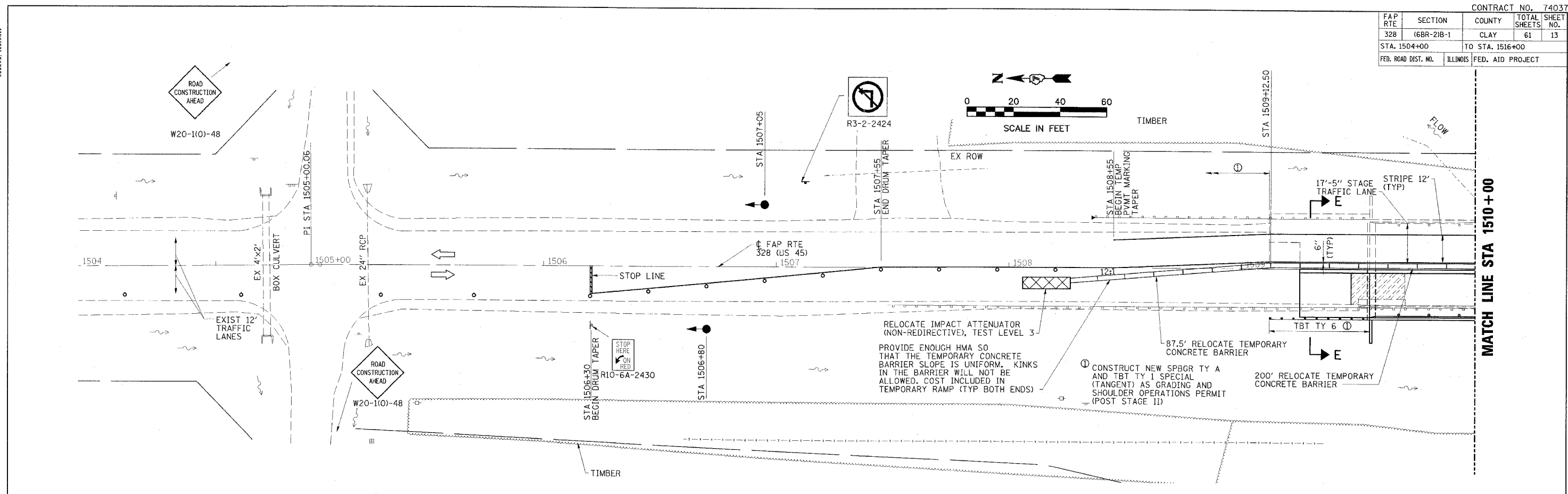
STAGE I CONSTRUCTION
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY

ESCA
CONSULTANTS, INC.

DESIGNED BY:	JMS/ELH	02/07
DRAWN BY:	JPC	02/07
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07



CONTRACT NO. 74037			
FAP RTE	SECTION	COUNTY	TOTAL SHEETS
328	(6BR-2)B-1	CLAY	61
STA. 1504+00		TO STA. 1516+00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



ESCA
CONSULTANTS, INC.

DESIGNED BY: JMS/ELH 02/07
 DRAWN BY: JPC/HAG 02/07
 CHECKED BY: ELH 03/07
 APPROVED BY: RDP 03/07

GENERAL NOTES

- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321," SEE STANDARD FOR LOCATIONS OF ITEMS NOT SHOWN HERE.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- SEE SHEET 14 FOR SECTIONS.

SCHEDULE OF QUANTITIES

RELOCATE TEMPORARY CONCRETE BARRIER	STATION TO	STATION	TOTAL FEET
	1508+25	1512+00	375
IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3			-2 EACH

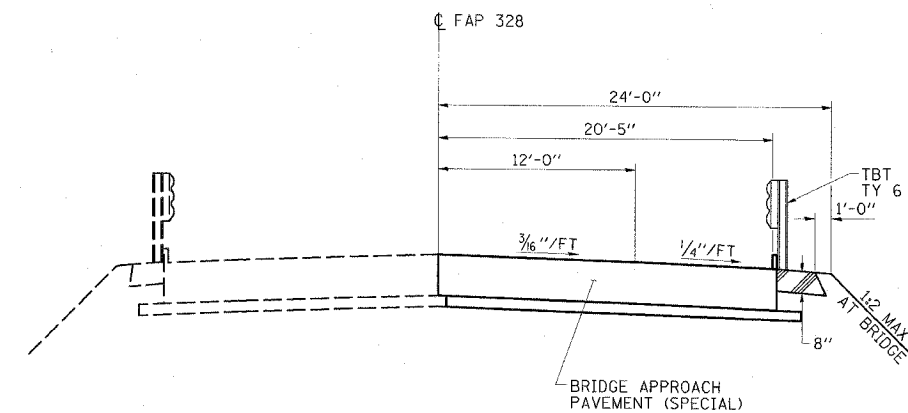
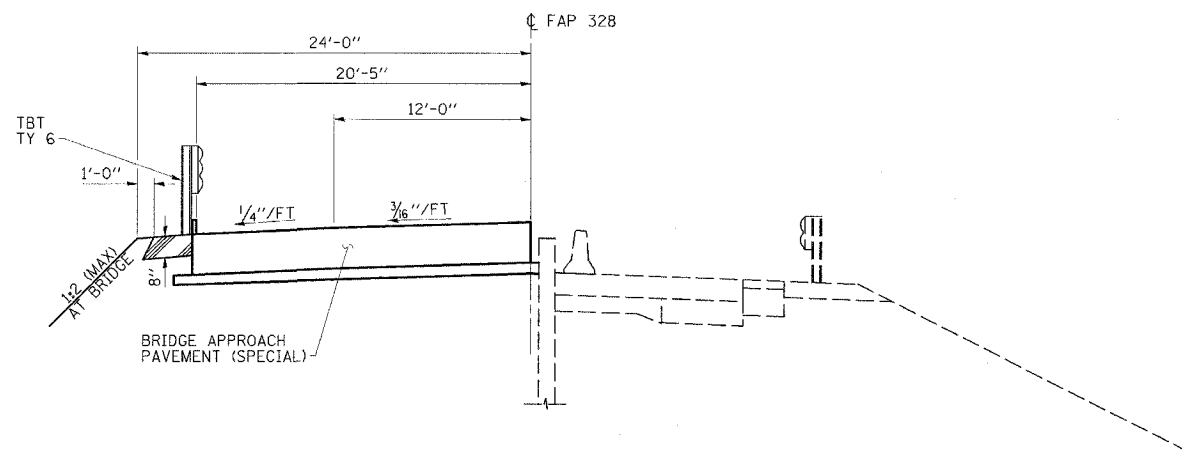
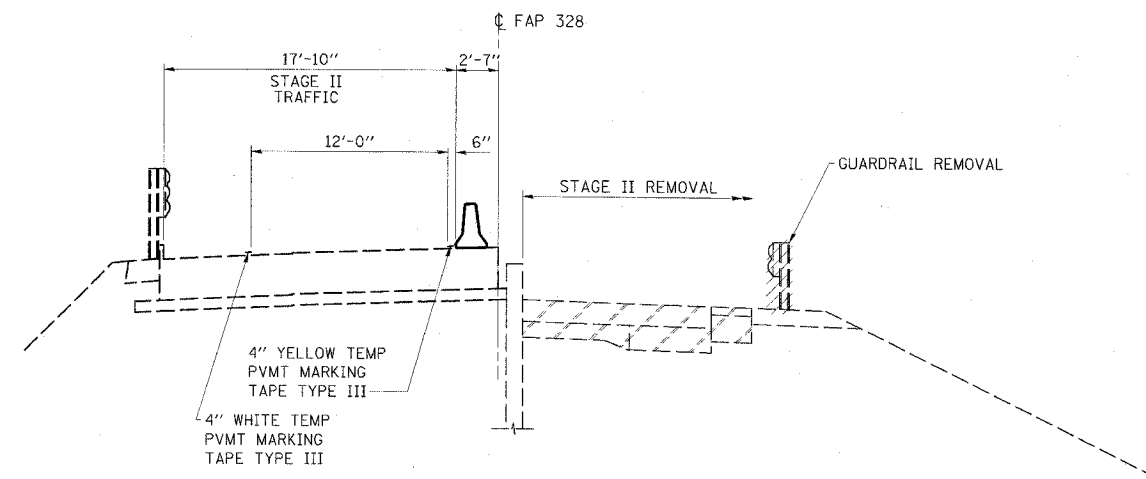
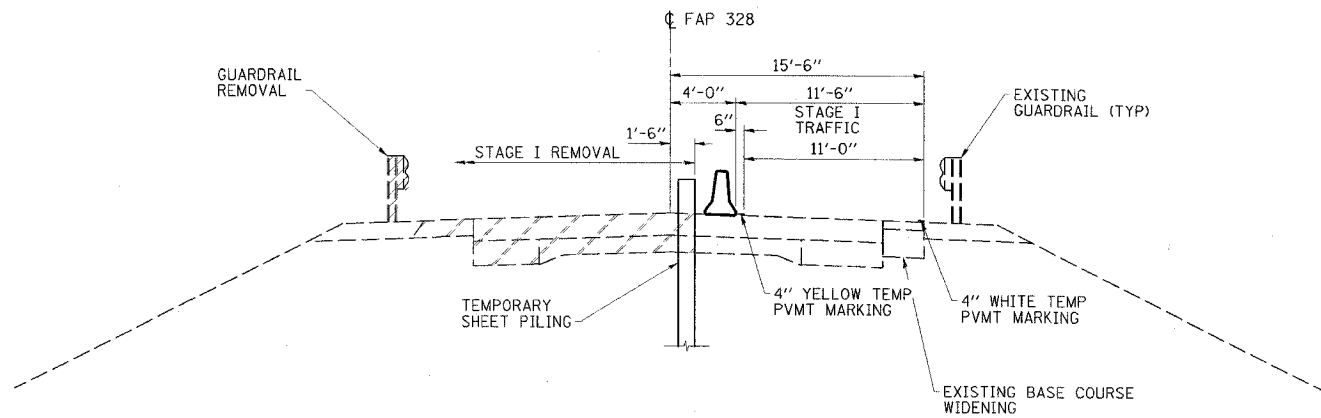
LEGEND

- TRAFFIC SIGNAL WITH SIGNAL DIRECTION INDICATED
- PAVEMENT REMOVAL
- HMA SHOULDERS
- DRUM WITH STEADY BURNING LIGHT
- HMA SURFACE REMOVAL

STAGE II CONSTRUCTION
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY

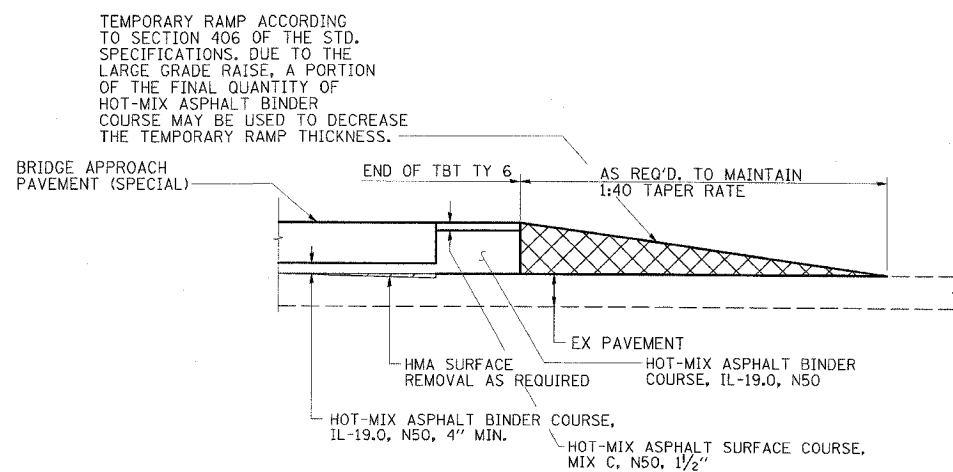


FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

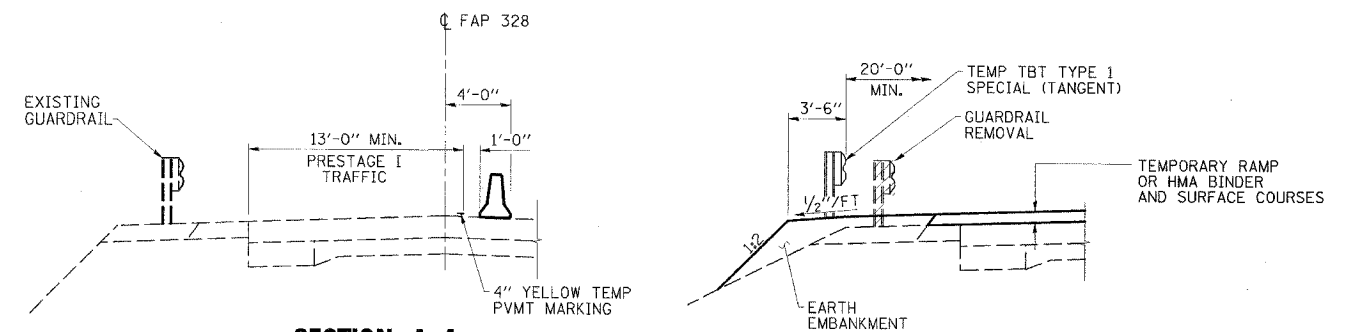


SECTION B-B

SECTION E-E



SECTION C



SECTION A-A

SECTION D

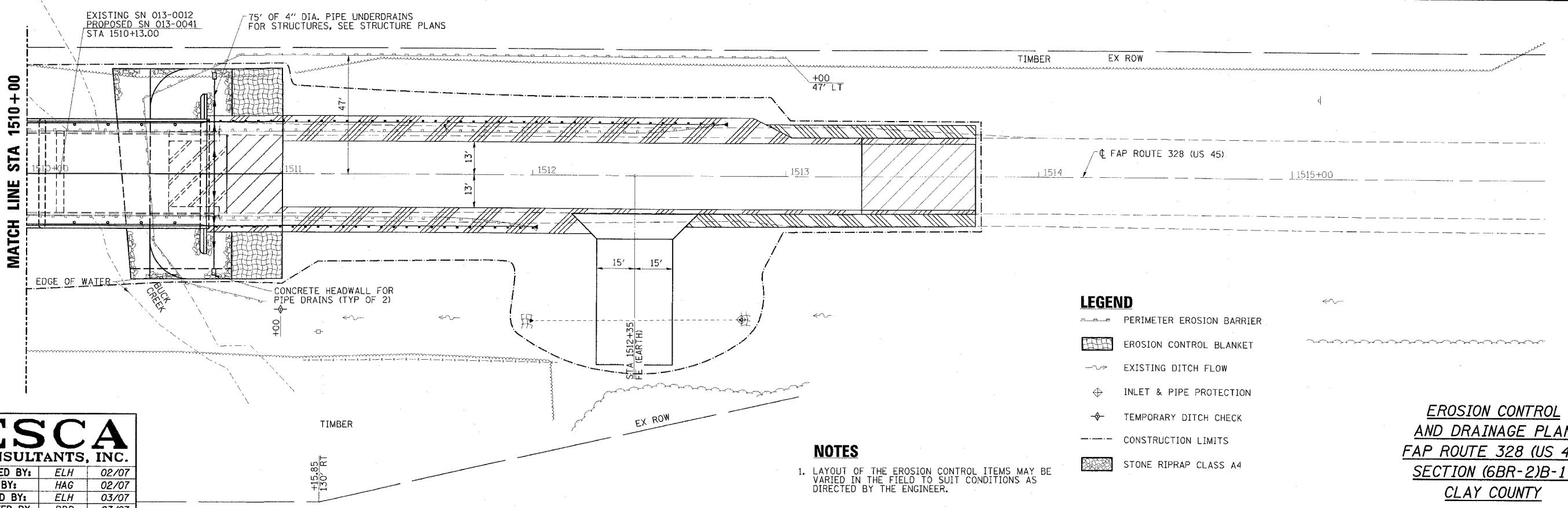
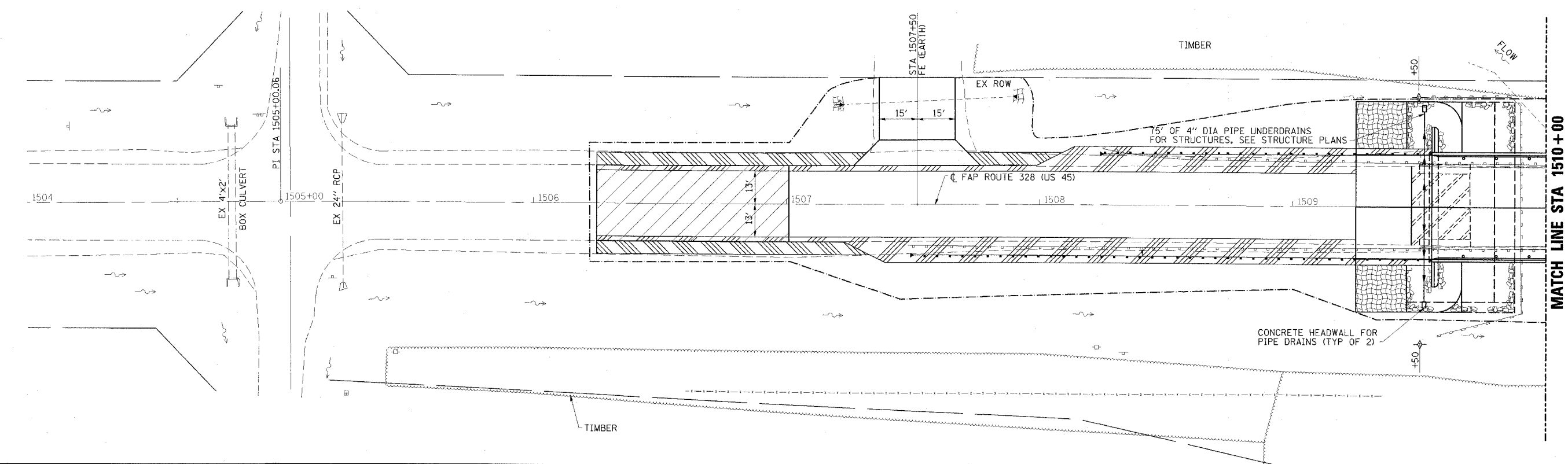
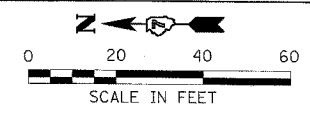
ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	02/07
DRAWN BY:	HAG	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

STAGE CONSTRUCTION DETAILS
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY



CONTRACT NO. 74037				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	15
STA. 1504+00		TO STA. 1516+00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



- LEGEND**
- PERIMETER EROSION BARRIER
 - EROSION CONTROL BLANKET
 - EXISTING DITCH FLOW
 - INLET & PIPE PROTECTION
 - TEMPORARY DITCH CHECK
 - CONSTRUCTION LIMITS
 - STONE RIPRAP CLASS A4

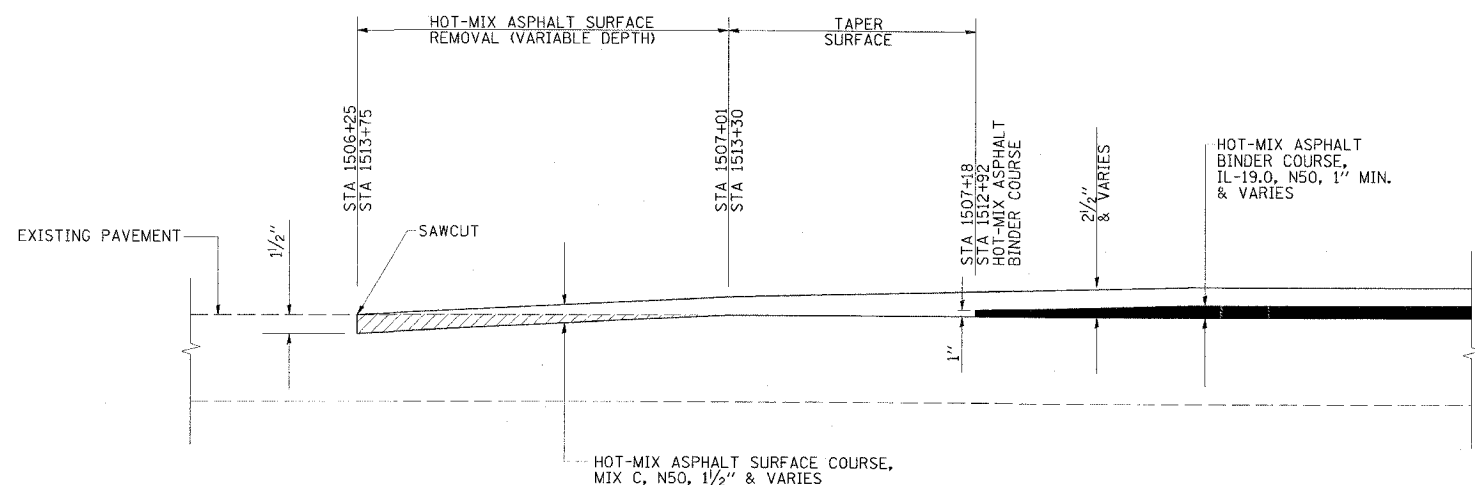
NOTES

1. LAYOUT OF THE EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT CONDITIONS AS DIRECTED BY THE ENGINEER.

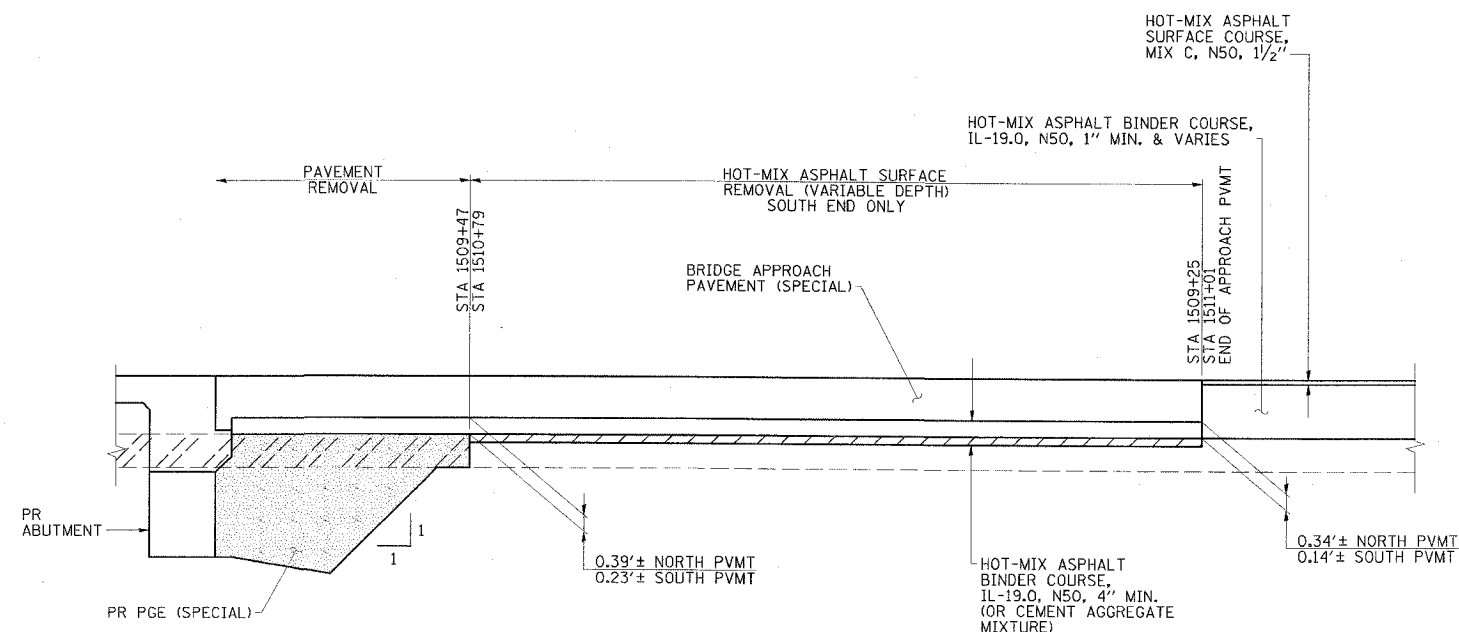
**EROSION CONTROL
AND DRAINAGE PLAN
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY**

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	02/07
DRAWN BY:	HAG	02/07
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

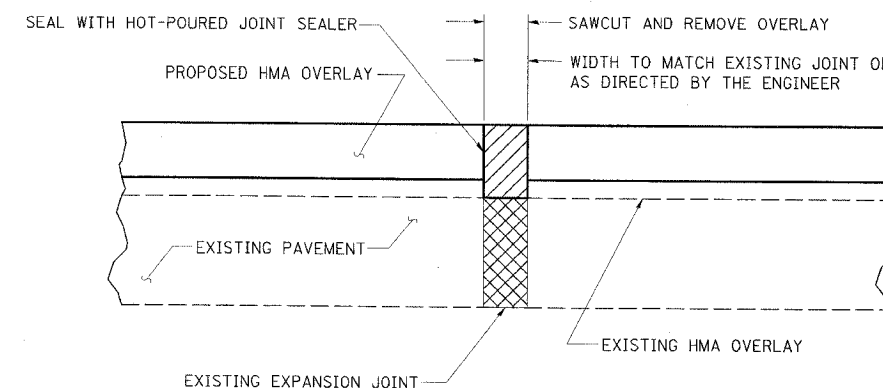
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



BUTT JOINT SECTION



BRIDGE APPROACH PAVEMENT SECTION

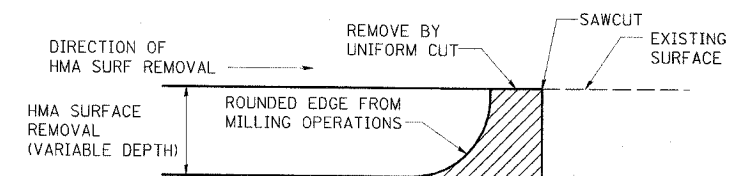


EXPANSION JOINT REHABILITATION DETAIL

STATION 1508+59±, STATION 1511+67±

NOTES:

1. THE NEW HMA OVERLAY SHALL BE SAWED, REMOVED, AND THE JOINT AREA CLEANED, PRIOR TO PLACING THE HOT-POURED JOINT SEALER THE JOINT SHALL BE BLOWN OUT WITH COMPRESSED AIR.
2. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR EXPANSION JOINT REHABILITATION.

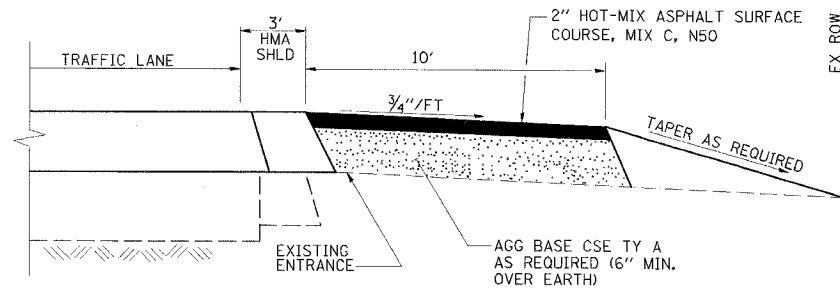
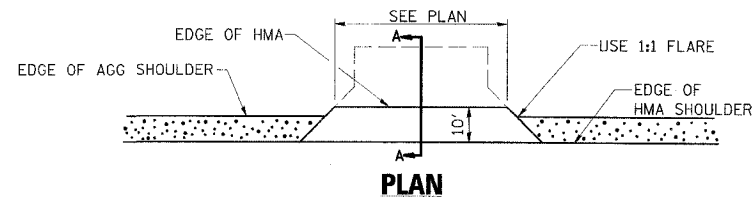


DETAIL AT BUTT JOINT

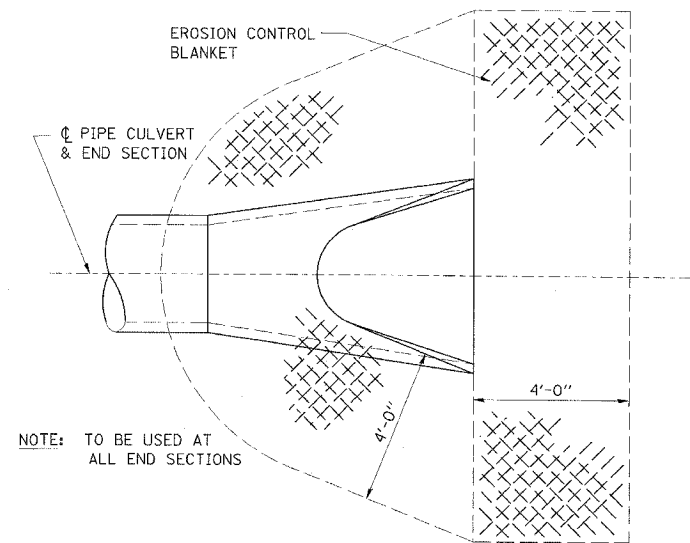
NOTE:

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 (VARIABLE DEPTH). THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

CONTRACT NO. 74037				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	(6BR-2)B-1	CLAY	61	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION A-A
ENTRANCE DETAILS



DETAIL OF EROSION CONTROL BLANKET LINING AROUND END SECTION

NOTE: PRC FLARED END SECTION SHOWN. TREATMENT SAME FOR OTHER END SECTIONS.

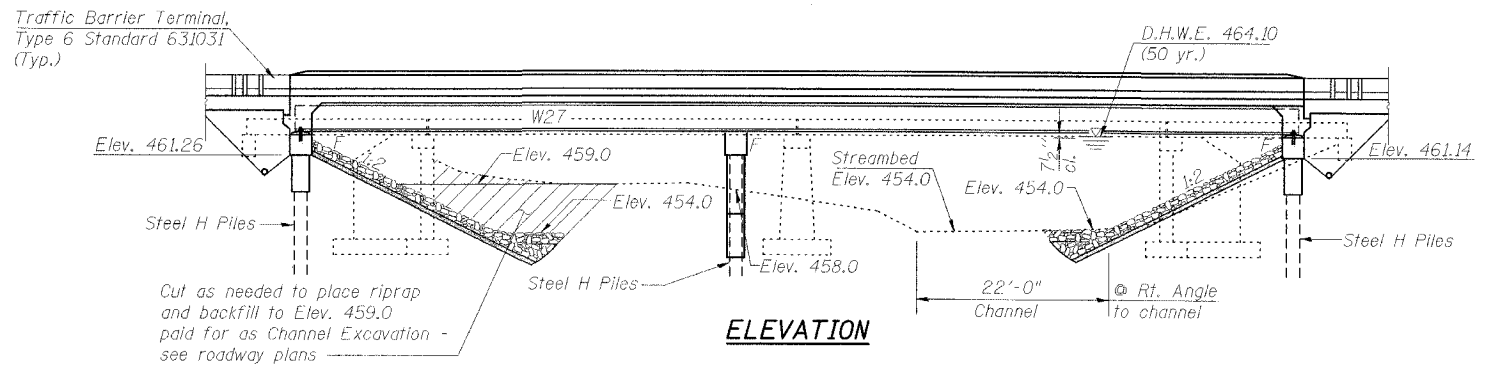
ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	12/06
DRAWN BY:	HAG	12/06
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

MISCELLANEOUS DETAILS
FAP ROUTE 328 (US 45)
SECTION (6BR-2)B-1
CLAY COUNTY

Bench Mark: Chiseled Square on Northeast Hub Guard SN 013-0012, Elev. 467.10
 Existing Structure: SN 013-0012 originally built in 1921 as SBI Route 25, Section 6A. The Superstructure was replaced and the structure widened in 1974 as F.A. Route 26, Section 6BR-2. The rebuilt superstructure is a 2 span PPC Deck Beam bridge with a bituminous overlay. New concrete caps were added to the existing closed concrete abutments and the existing solid concrete pier on spread footings. The existing structure is 86'-0" Bk. to Bk. of abutments and 33'-0" o. to o. of beams. Stage construction will be utilized to maintain 1 lane of traffic each direction. PPC Deck Beam replacement as shown will be required prior to Stage I traffic. No Salvage

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 1
FAP 328	*	CLAY	61	18	26 SHEETS
CONTRACT NO. 74037					*6BR-2)B-1



STATION 1510+13.00
 BUILT 200 BY
 STATE OF ILLINOIS
 FAP ROUTE 328
 SECTION (6BR-2)B-1
 LOADING HS 20-44
 STR. NO. 013-0041

NAME PLATE
 See Std. 515001

STRUCTURE INDEX OF SHEETS

General Plan	Dwg. No. 1 of 26
General Data	Dwg. No. 2 of 26
Stage Construction Details	Dwg. No. 3 of 26
Temporary Concrete Barrier	Dwg. No. 4 of 26
Deck Beam Replacement Details	Dwg. No. 5-8 of 26
Top of Slab Elevations	Dwg. No. 9-10 of 26
Top of North Approach Slab Elevations	Dwg. No. 11 of 26
Top of South Approach Slab Elevations	Dwg. No. 12 of 26
Superstructure	Dwg. No. 13 of 26
Superstructure Details	Dwg. No. 14 of 26
Diaphragm Details	Dwg. No. 15 of 26
Steel Framing Plan	Dwg. No. 16 of 26
Structural Steel Details	Dwg. No. 17 of 26
Bearing Details	Dwg. No. 18 of 26
North Abutment	Dwg. No. 19 of 26
South Abutment	Dwg. No. 20 of 26
Pier	Dwg. No. 21 of 26
Bar Splicer Assembly Details	Dwg. No. 22 of 26
Cantilever Forming Brackets	Dwg. No. 23 of 26
Steel H-Pile Details	Dwg. No. 24 of 26
Boring Logs	Dwg. No. 25-26 of 26

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

DESIGN SPECIFICATIONS
 2002 AASHTO

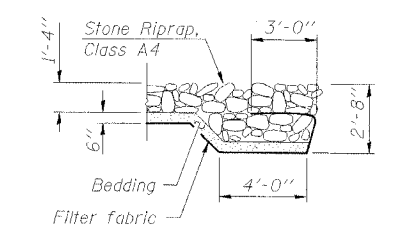
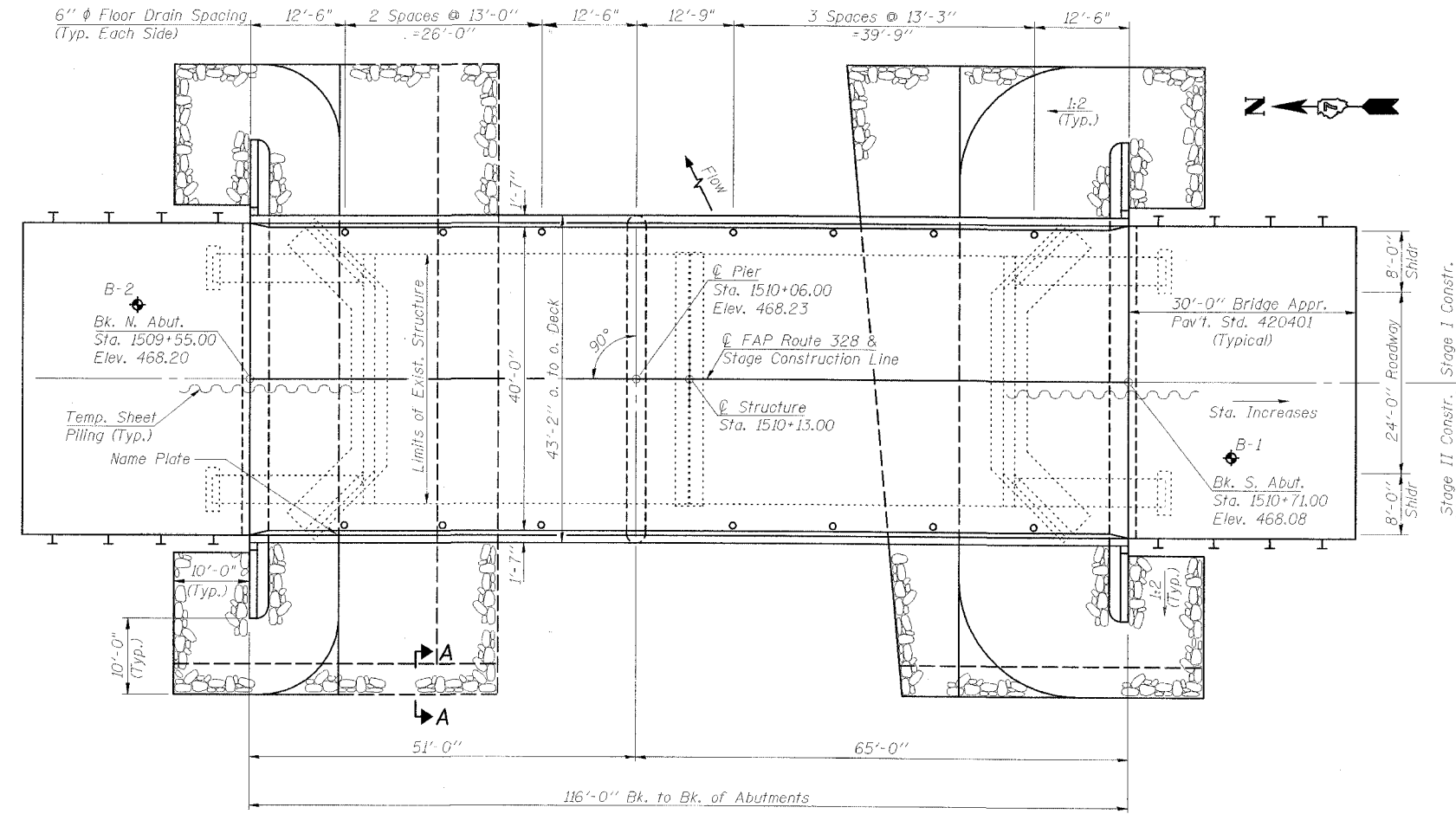
DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

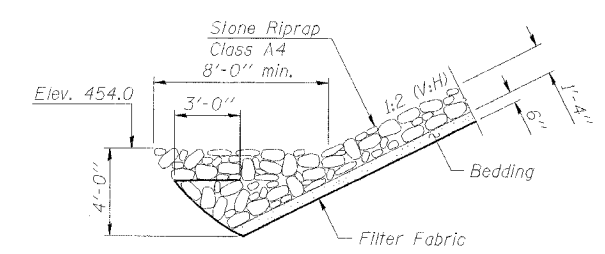
SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.085
 Site Coefficient (S) = 1.0

DESIGN SCOUR TABLE

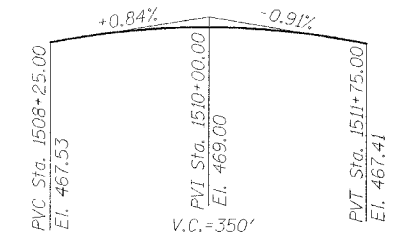
N. Abutment	Pier	S. Abutment
461.3	450.0	461.1



SECTION A-A

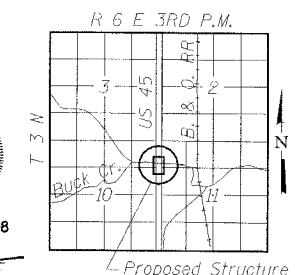


STONE RIPRAP ANCHOR DETAIL



PROFILE GRADE
 (Along & Roadway)

GENERAL PLAN
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041



LOCATION SKETCH

ESCA
CONSULTANTS, INC.
 DESIGNED BY: ELH 01/07
 DRAWN BY: CJ 01/07
 CHECKED BY: ELH 03/07
 APPROVED BY: RDP 03/07

WATERWAY INFORMATION

Drainage Area = 16.2 Sq. mi. Low Grade Elev. 466.36 @ Sta. 1515+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	1772	491	631	463.4	0.5	0.4	463.9	463.8	
Base	100	3032	547	707	464.1	1.0	0.7	465.1	464.8	
Overtopping	500	3909	559	739	464.4	1.1	0.8	465.5	465.2	
Max. Calc.	500	3909	559	776	465.0	1.6	1.0	466.6	466.0	

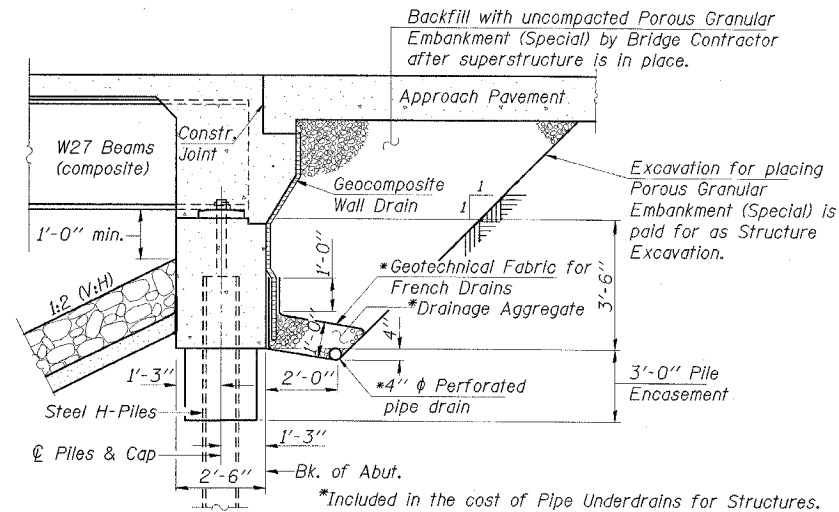
10 yr. velocity thru existing bridge=3.62 cfs
 10 yr. velocity thru proposed bridge=2.82 cfs

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

STATE OF ILLINOIS
 LICENSED PROFESSIONAL ENGINEER
 No. 4647
 EXPIRES 11-30-08
Richard J. Pope
 SIGNATURE
 03/17/07
 DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	MILES	SHEET NO.
FAP 328	*	CLAY	61	19
CONTRACT NO. 74037				
SHEET NO. 2				
26 SHEETS				
*6BR-21B-1				



SECTION THRU INTEGRAL ABUTMENT

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601.101).

GENERAL NOTES

- Fasteners shall be AASHTO M 164 Type 1, mechanically galvanized bolts in painted areas and M 164 Type 3 in unpainted areas. Bolts 1/8", holes 5/16", unless otherwise noted.
- Calculated weight of Structural Steel = 79,910 lbs.
- All structural steel shall be AASHTO M270 Grade 50W including structural steel bearing plates and fill plates for splices.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" (0.01 ft.) Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
- AASHTO M270 Grade 50W structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3". Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- The Contractor shall drive test piles in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles. The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- 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.
- If the Contractor's procedure for existing deck beam removal or placement of new deck beams involves placement of cranes or other heavy equipment on deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the deck beams.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		88	88
Stone Riprap, Class A4	Sq. Yd.		740	740
Filter Fabric	Sq. Yd.		740	740
Removal of Existing Structures	Each	0.5	0.5	1
Structure Excavation	Cu. Yd.		270	270
Concrete Structures	Cu. Yd.		66.0	66.0
Concrete Superstructure	Cu. Yd.	181.0		181.0
Bridge Deck Grooving	Sq. Yd.	490		490
Protective Coat	Sq. Yd.	613		613
Reinforcement Bars	Pound	150		150
Reinforcement Bars, Epoxy Coated	Pound	38480	7310	45790
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2052		2052
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	384		384
Removal of Existing Precast Prestressed Concrete Deck Beams	Sq. Ft.	384		384
Pipe Underdrains for Structures 4"	Foot		150	150
Geocomposite Wall Drain	Sq. Yd.		66	66
Furnishing Steel Piles HP10x42	Foot		1025	1025
Driving Piles	Foot		1025	1025
Test Pile Steel HP10x42	Each		2	2
Pile Shoes	Each		22	22
Underwater Structure Excavation Protection-Location 1	Each		1	1
Hot-Mix Asphalt Surface Course, Mix "C", C50	Ton	7		7
Asbestos Bearing Pad Removal	Each	44		44
Floor Drains	Each	14		14
Name Plates	Each	1		1
Temporary Sheet Piling	Sq. Ft.		810	810
Removing and Re-erecting Existing Railing	Foot	126		126
Bar Splicers	Each	454	44	498
Anchor Bolts, 1"	Each		36	36
Concrete Encasement	Cu. Yd.		10.0	10.0
Preformed Joint Seal 2 1/2"	Foot	6		6

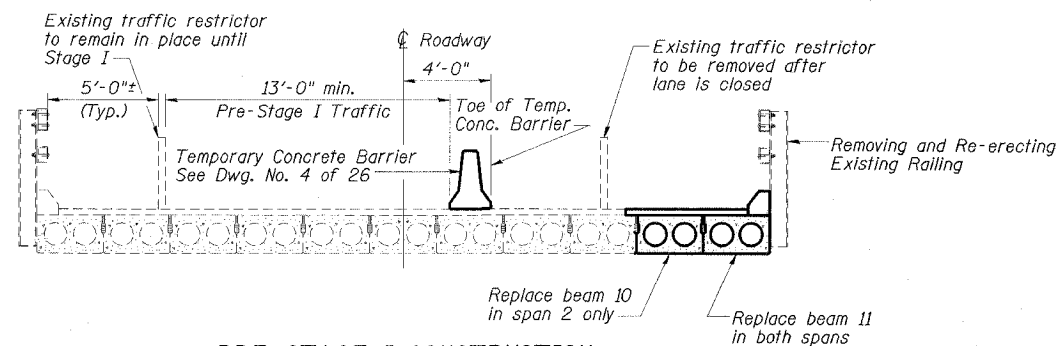
ESCA
CONSULTANTS, INC.
DESIGNED BY: ELH 01/07
DRAWN BY: CJ 01/07
CHECKED BY: ELH 04/07
APPROVED BY: RDP 04/07

GENERAL DATA
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

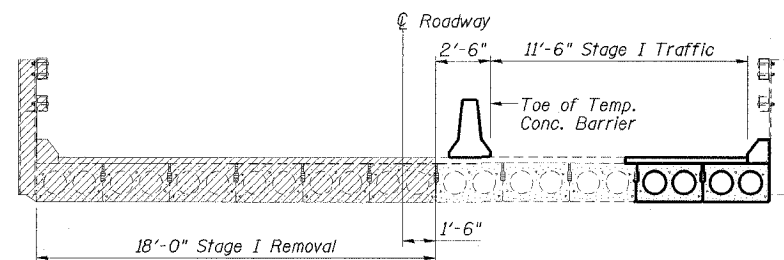
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
FAP 328	*	CLAY	61	20
CONTRACT NO. 74037				*6BR-2)B-1

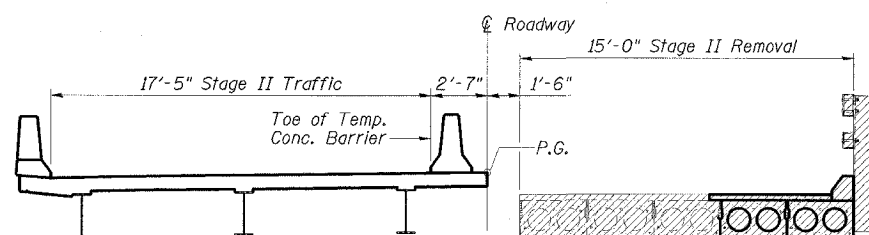
SHEET NO. 3
26 SHEETS



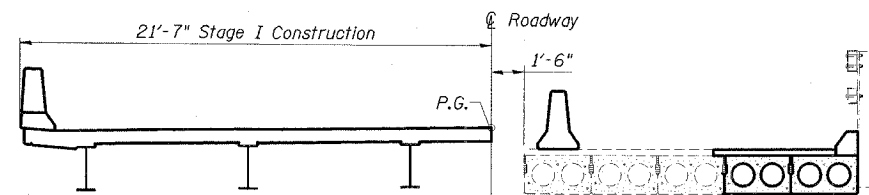
PRE-STAGE I CONSTRUCTION



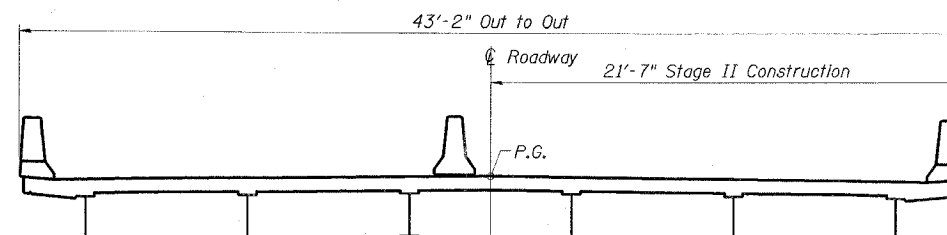
STAGE I REMOVAL



STAGE II REMOVAL



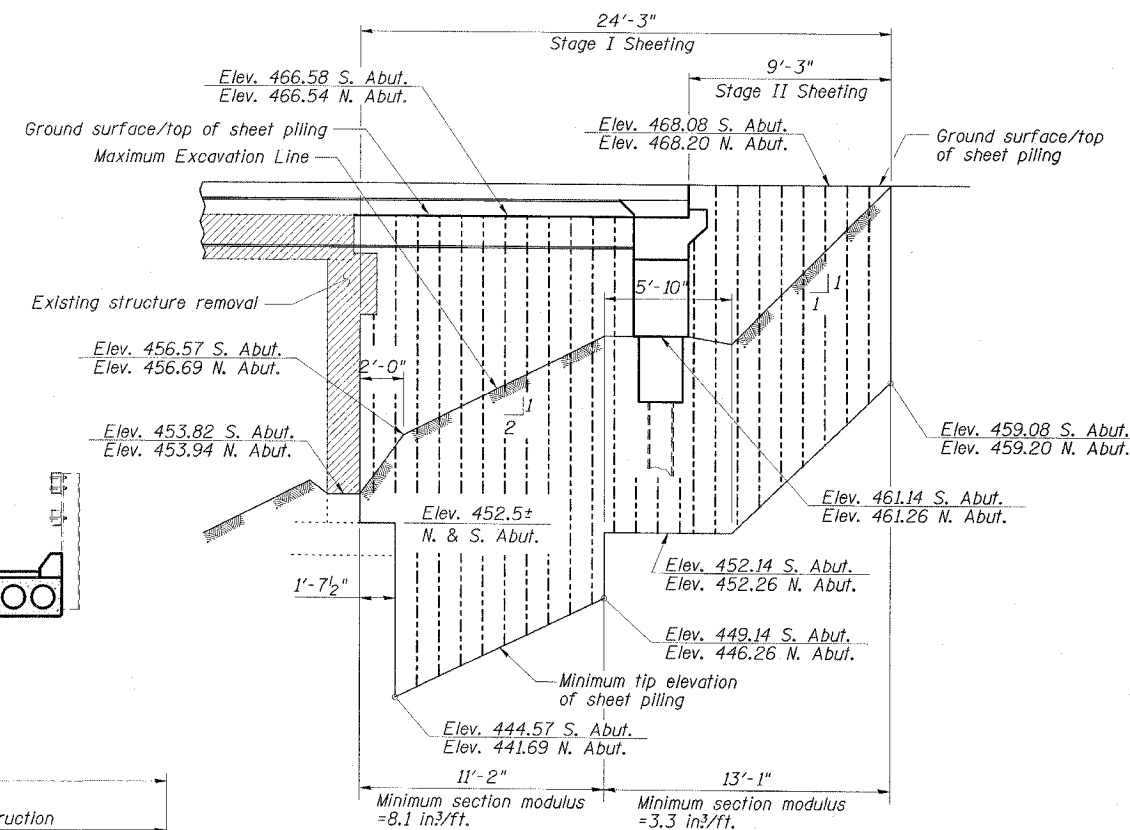
STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

- Hatched areas indicate removal.
- All staging sections are looking South.
- For quantity of Temporary Concrete Barrier, see roadway plans.



TEMPORARY SHEET PILING
(South Abutment shown; North Abutment similar)

TEMPORARY SHEET PILING NOTES

- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

STAGE CONSTRUCTION DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

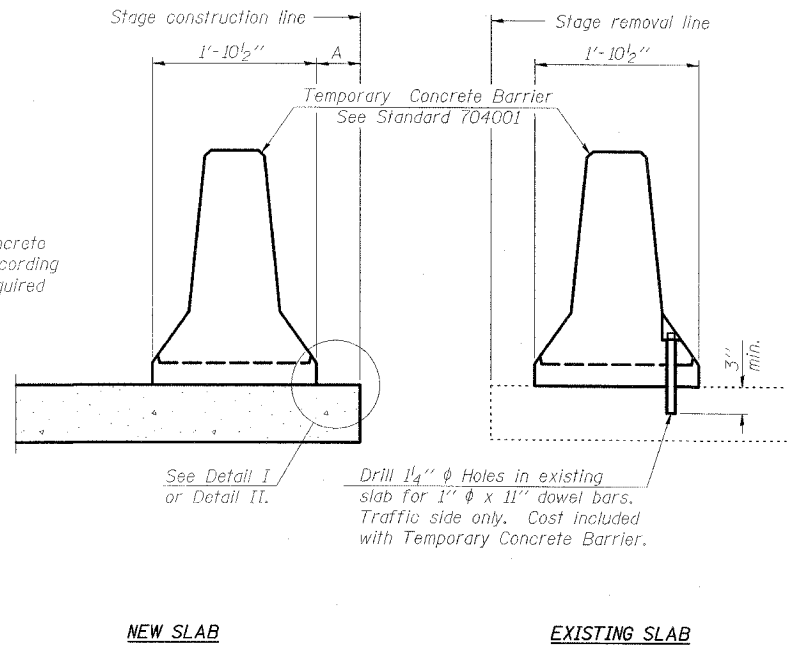
DESIGNED BY:	ELH	02/07
DRAWN BY:	CJ	02/07
CHECKED BY:	ELH	03/07
APPROVED BY:	RDP	03/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	CLAY	61	21
FED. ROAD DIST. NO.	SLABTYPE	REF. AID PROJECT	AID	
			CONTRACT NO. 74037	
			*16BR-21B-1	

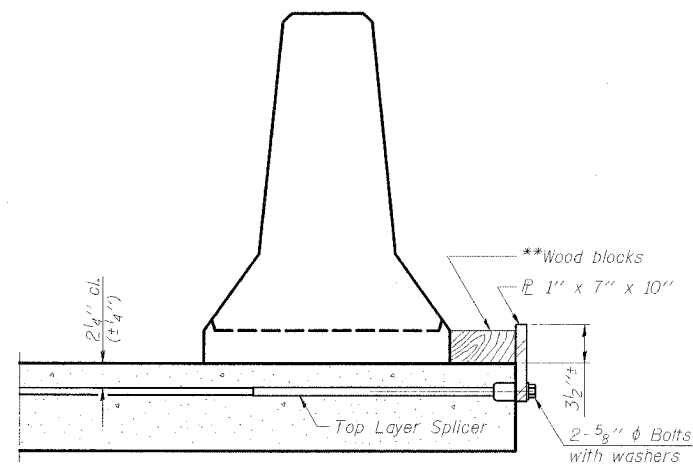
SHEET NO. 4
26 SHEETS

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

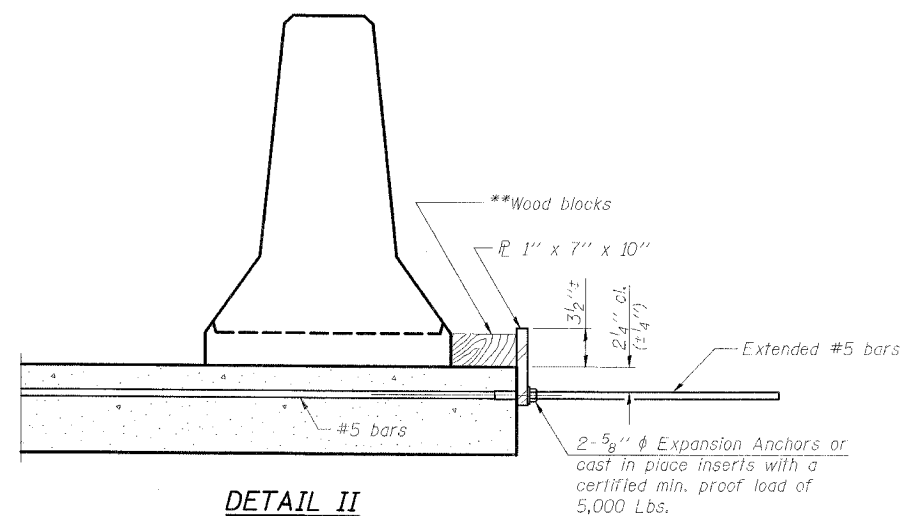


See Detail I or Detail II.
Drill 1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

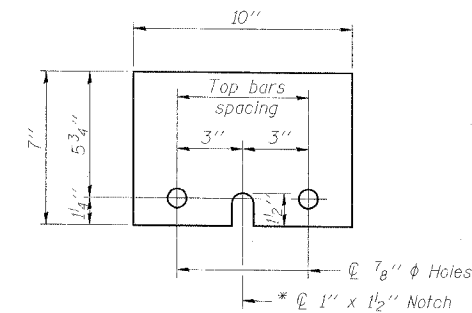
SECTIONS THRU SLAB



DETAIL I



DETAIL II



NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \square to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate ϕ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \square to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ϕ 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.

** 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.

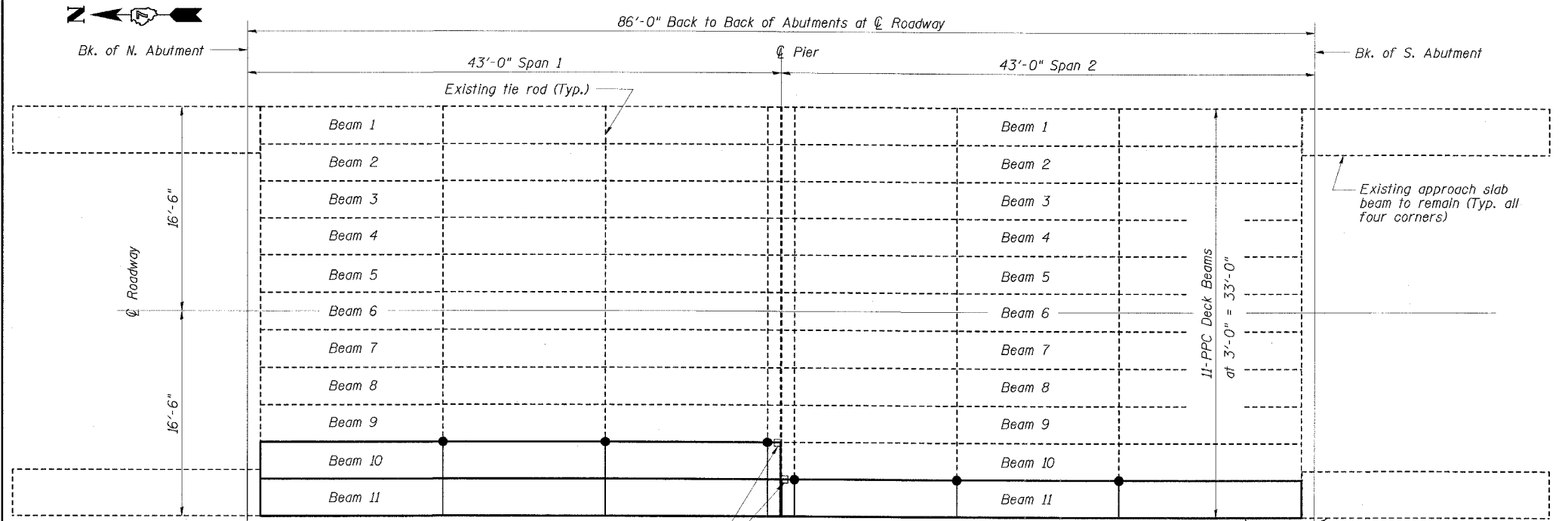
ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	1/07
DRAWN BY:	CJ	1/07
CHECKED BY:	ELH	1/07
APPROVED BY:	RDP	1/07

TEMPORARY CONCRETE BARRIER
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

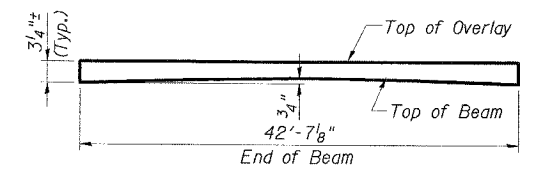
ROUTE NO.	SECTION	COUNTY	JOB NO.	SHEET NO.	SHEET NO. 5 26 SHEETS
FAP 328	*	CLAY	61	22	
FED. ROAD DIST. NO.		BILLING	FED. AID PROJECT - AID		
CONTRACT NO. 74037				*16BR-21B-1	



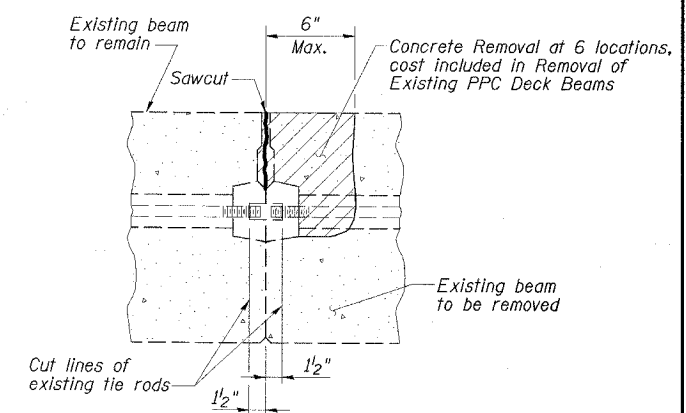
● Indicates existing tie rods to be cut and removed. See detail this Dwg.

Existing 3/4"x7" plate shall be sawcut prior to removal of existing deck beams. Also sawcut existing concrete expansion block and remove any existing reinforcement that interferes with the proposed replacement, cost included in Removal of Existing PPC Deck Beams.

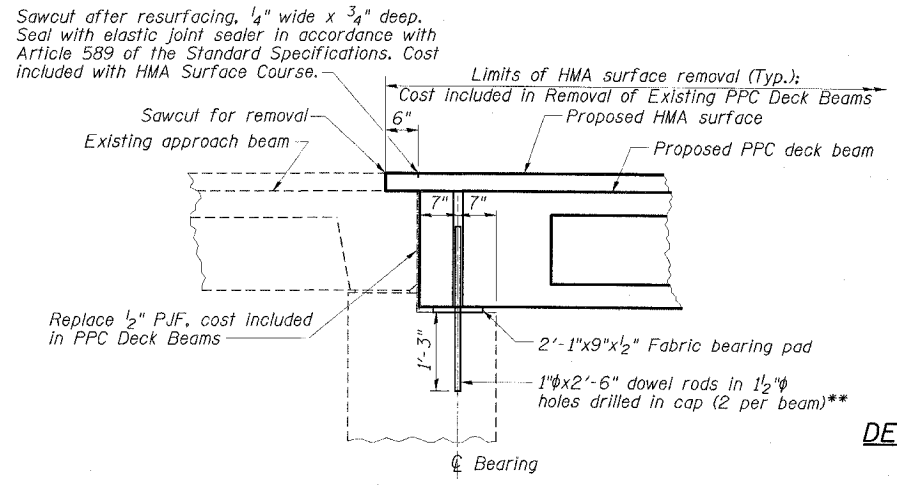
DECK BEAM REPLACEMENT PLAN



ANTICIPATED INITIAL CAMBER DIAGRAM

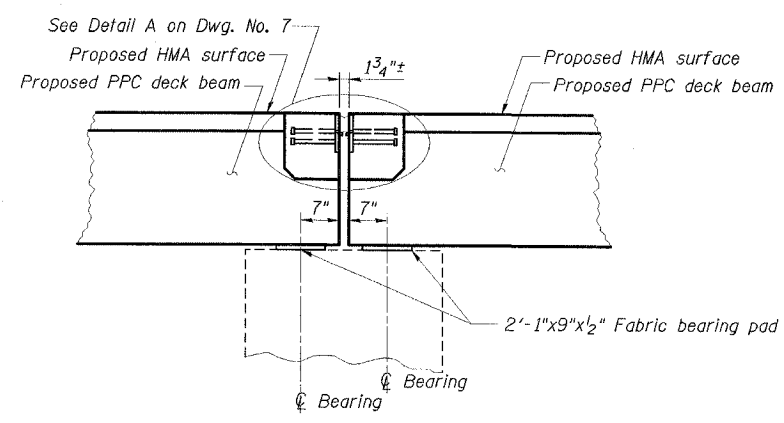


BEAM REMOVAL DETAIL AT TRANSVERSE TIES



** Existing dowel rods are to be burned off and ground flush prior to placement of new beams. Cost included in Removal of Existing PPC Deck Beams. After beams have been erected holes shall be drilled into cap and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys, cost included in PPC Deck Beams.

TYPICAL SECTION AT ABUTMENTS



TYPICAL SECTION AT PIER

DESIGN STRESSES
PRECAST UNITS
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" low lax strands)
f'si = 201,960 psi (1/2" low lax strands)

DECK BEAM REPLACEMENT DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	04/07
APPROVED BY:	RDP	04/07

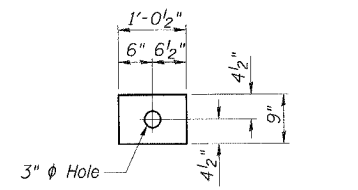
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAP 328	*	CLAY	61	23
PREL. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	ASD	26 SHEETS

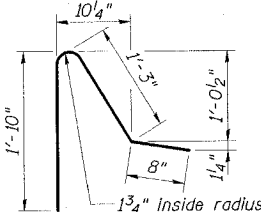
NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
- Lifting loops shall be 2 - $\frac{1}{2}$ " 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 AASHTO M-31 or M-322, Grade 60.
- The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two $\frac{1}{8}$ " fabric adjusting shims of the dimensions shown 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.
- Required Release Strength, f'cl, shall be 4,000 p.s.i.
- See Drawing 8 of 26 for location of rail anchors.
- The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to manufacturer's specifications prior to another coat of zinc. This work shall be performed by the producer and included with the cost of the beam.

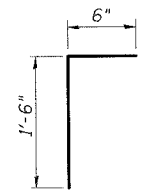
CONTRACT NO. 74037 *6BR-21B-1



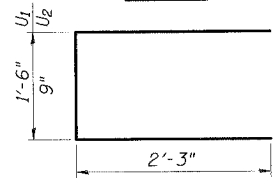
FABRIC ADJUSTING SHIMS
(Fixed shown, Expansion similar without hole)



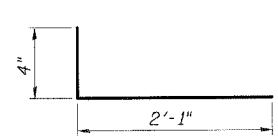
BAR D



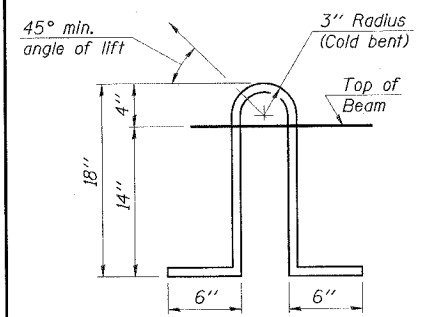
BAR E



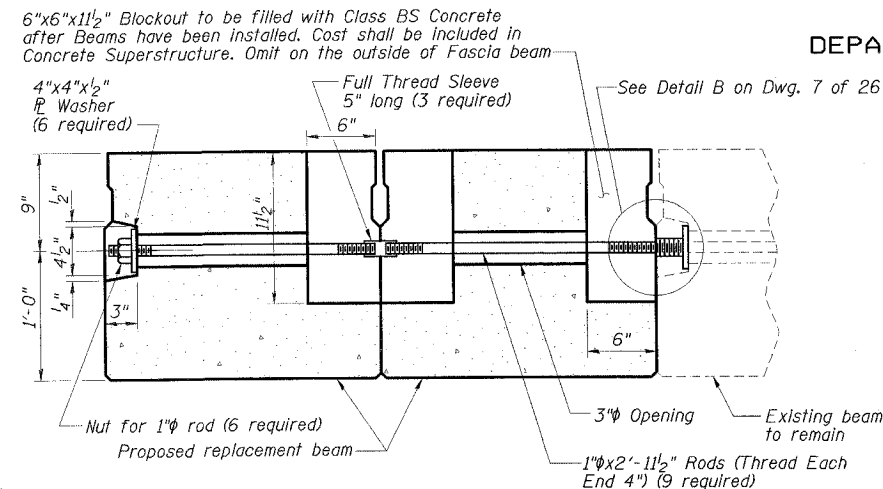
BAR U1 & U2



BAR X

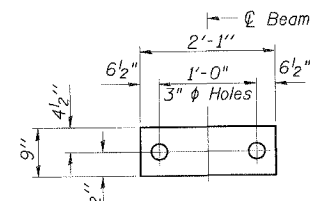


LIFTING LOOP DETAIL

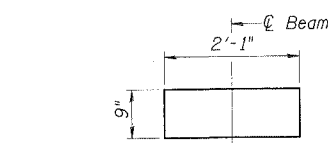


TYPICAL TRANSVERSE TIE ASSEMBLY

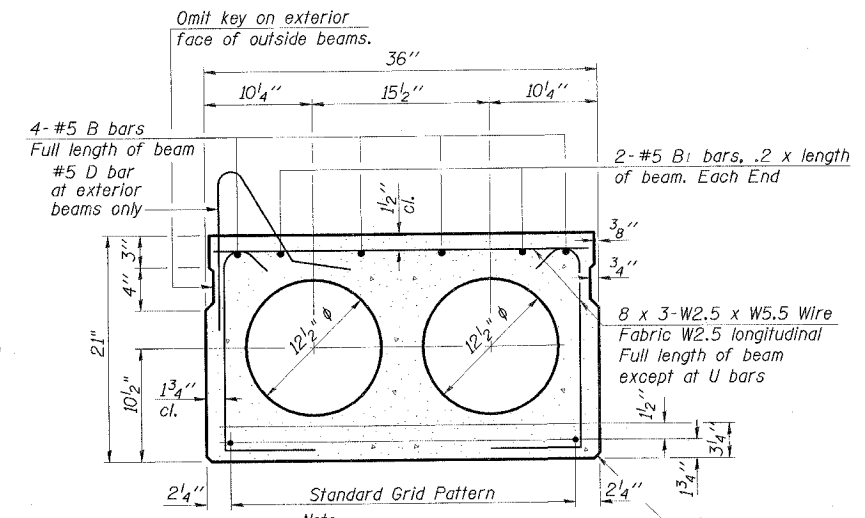
Note:
Existing grout covering existing nuts for transverse tie assemblies shall be removed. Existing rods shall be cut as detailed on Dwg. 5 of 26. Existing rods shall then be removed through holes in exterior beams. Cost included with Removal of Existing PPC Deck Beams.



FIXED FABRIC BEARING PAD
At Abutments

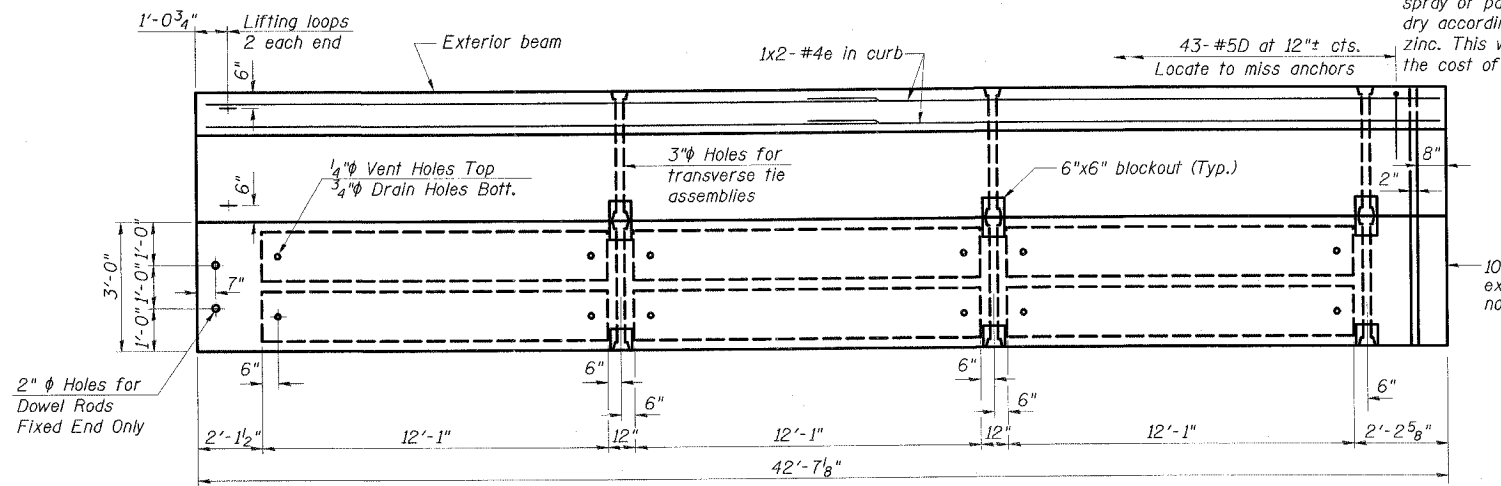


EXPANSION FABRIC BEARING PAD
At Pier

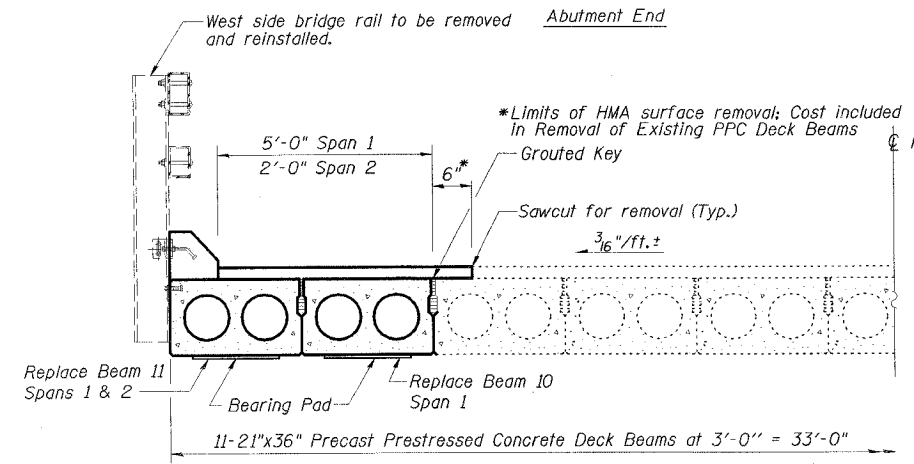


TYPICAL SECTION

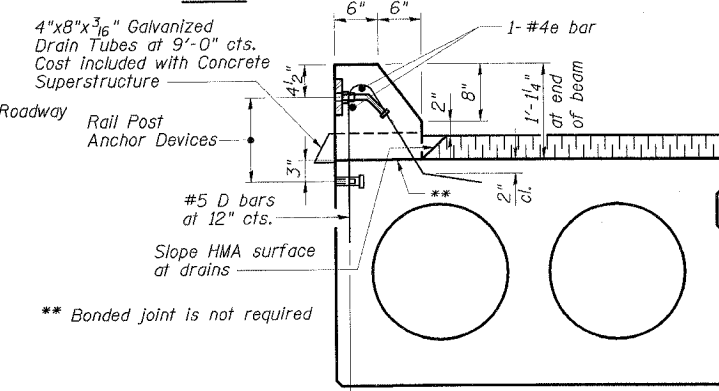
Note:
Place strands symmetrically about ϕ of beam.
10 - $\frac{1}{2}$ " ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands $1\frac{3}{4}$ " up, 4-Strands $3\frac{1}{4}$ " up



PLAN



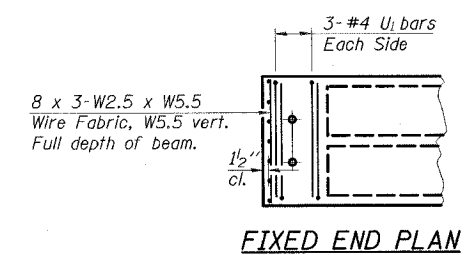
HALF CROSS SECTION
(Looking North)



SECTION THRU CURB
Curb shall be poured in the field and paid for as Concrete Superstructure

BILL OF MATERIAL

Item	Unit	Total
Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	384



FIXED END PLAN

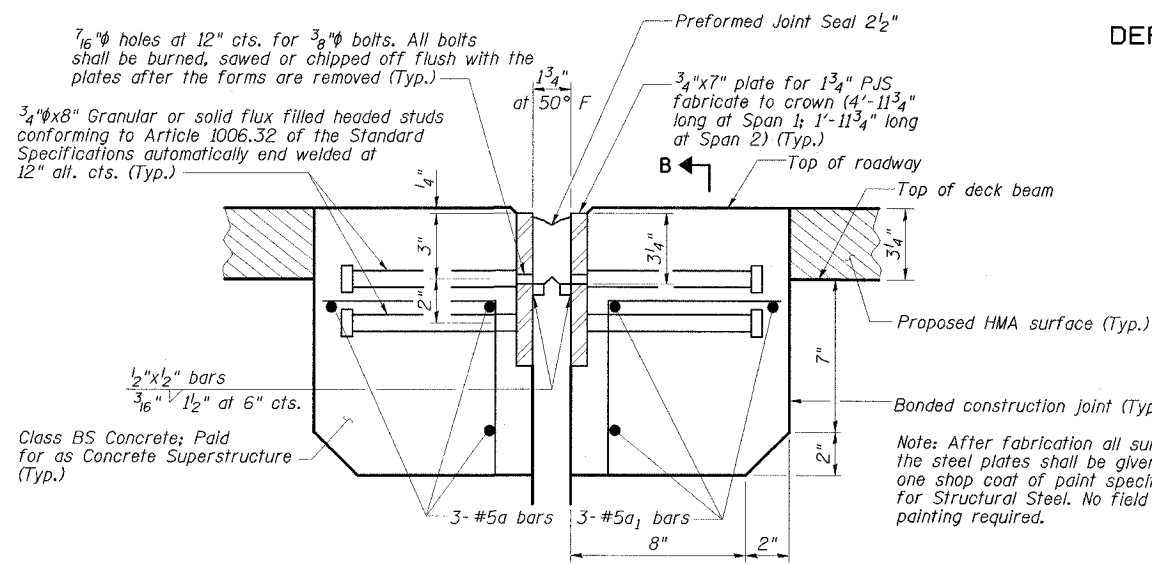
DECK BEAM REPLACEMENT DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.
DESIGNED BY: ELH 01/07
DRAWN BY: CJ 01/07
CHECKED BY: ELH 04/07
APPROVED BY: RDP 04/07

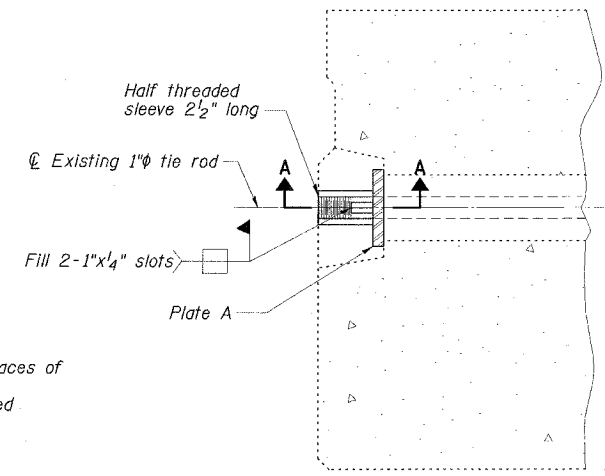
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
FAP 328	*	CLAY	61	24
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT - AID		
CONTRACT NO. 74037			* (GBR-2)B-1	

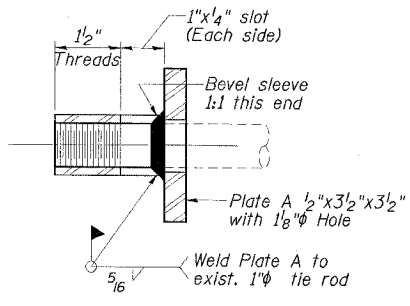
SHEET NO. 7
26 SHEETS



DETAIL A



DETAIL B
(6 Required)



SECTION A-A

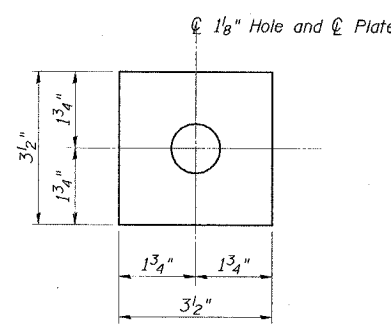
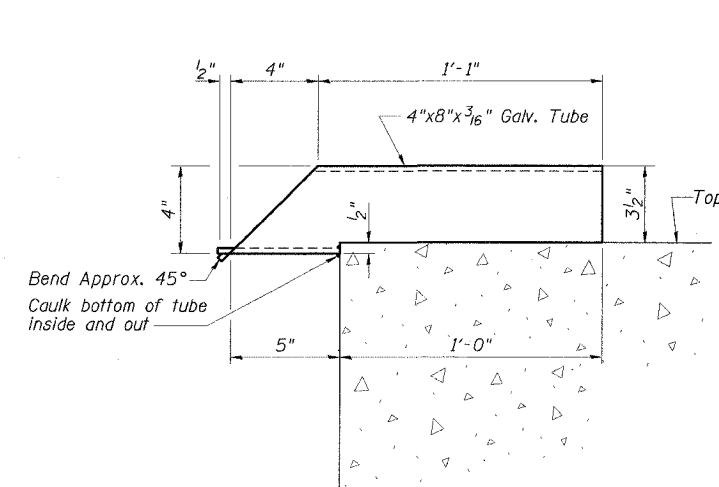
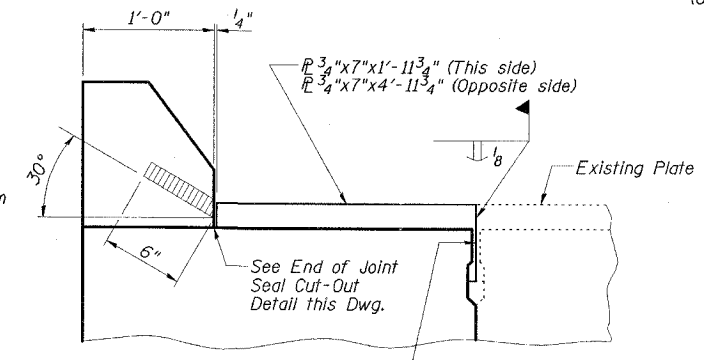


PLATE A

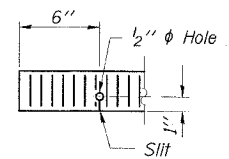


DRAIN DETAIL

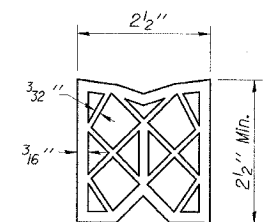


VIEW B-B

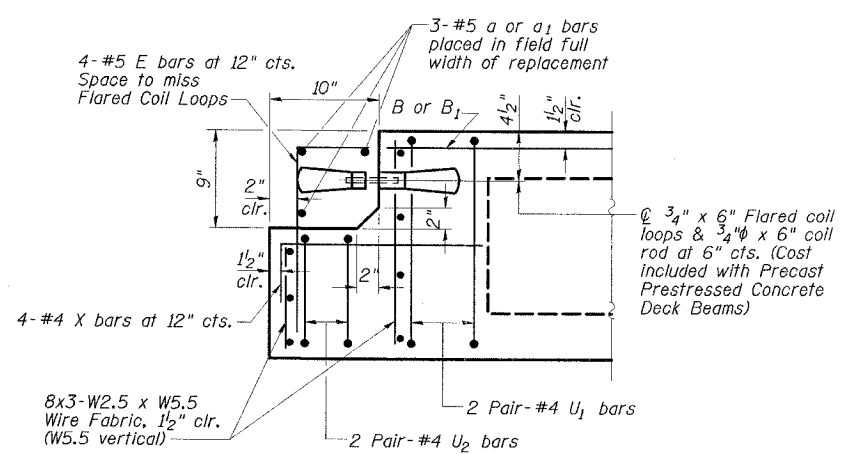
Seal space between existing and new plates with silicone sealant suitable for Structural Steel on front side. Weld fl's on the backside. Cost of plates, silicone sealant and welding is included with Performed Joint Seal.



END OF JOINT SEAL CUT-OUT



PREFORMED JOINT SEAL (2 1/2")



END OF BEAM (EXPANSION END)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	3	#5	5'-8"	—
a ₁	3	#5	2'-8"	—
e	8	#4	21'-9"	—
Concrete Superstructure	Cu. Yd.	3.4		
Reinforcement Bars	Pound	150		
Performed Joint Seal 2 1/2"	Foot	6		

DECK BEAM REPLACEMENT DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (GBR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 01/07
DRAWN BY: CJ 01/07
CHECKED BY: ELH 03/07
APPROVED BY: RDP 03/07

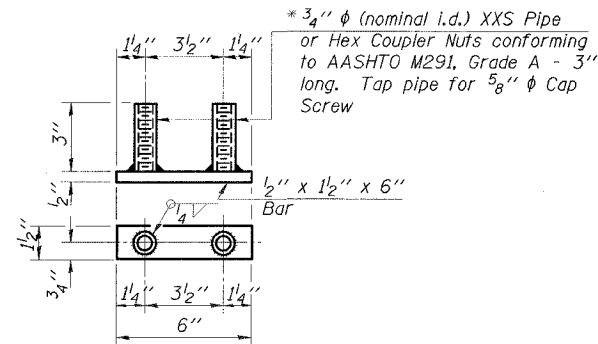
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAP 328	*	CLAY	61	25
FED. ROAD DIST. NO.	ALIGNMENT	FED. AID PROJECT - AID		
			CONTRACT NO. 74037 *6BR-2)B-1	

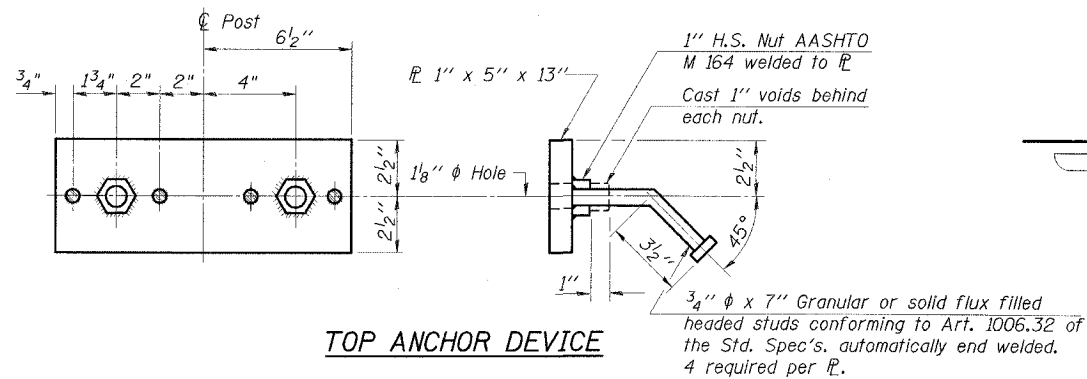
NOTES

1. Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts nuts and washers noted which shall conform to AASHTO M 164.
2. All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
3. Anchor devices shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Cost of anchorage devices is included with the cost of Precast Prestressed Concrete Deck Beams of the depth specified in these contract plans.
4. Sufficient 1/4" galvanized steel shims of the dimensions shown shall be provided to align rail between adjacent spans.
5. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" cap screws in bottom of posts shall be tightened to snug fit only.
6. The length paid for will be overall length along the rail from end to end, in place, at the location of re-erection.
7. Removing and Re-erecting Existing Railing. This work will be paid for at the contract unit price per foot for which price shall include removal, temporary storage, re-erection, shims and all new hardware required to satisfactorily complete the work.

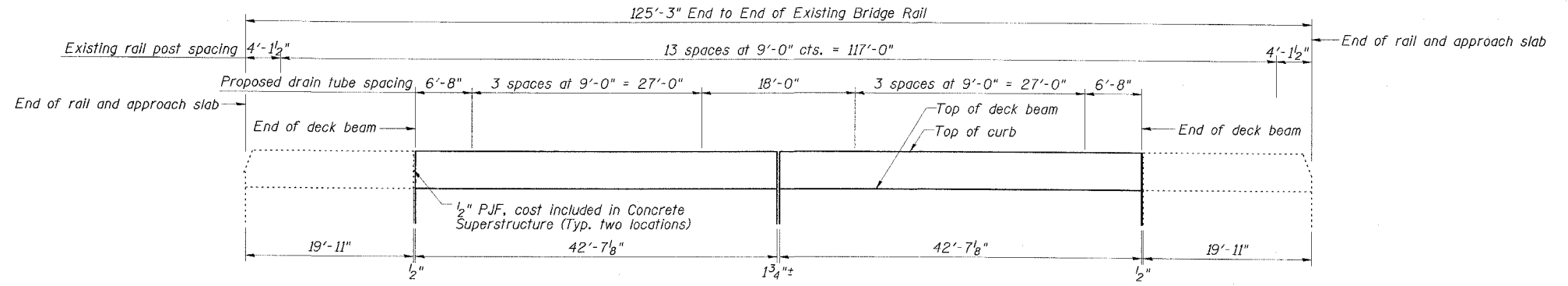
* Threaded areas shall be plugged or blocked off during casting of beam.



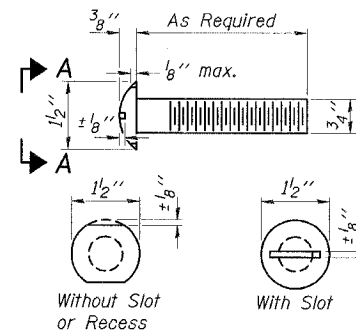
BOTTOM ANCHOR DEVICE



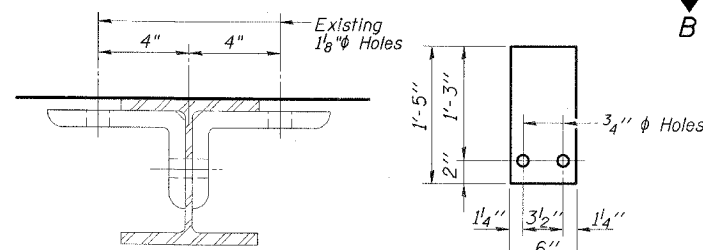
TOP ANCHOR DEVICE



CURB ELEVATION

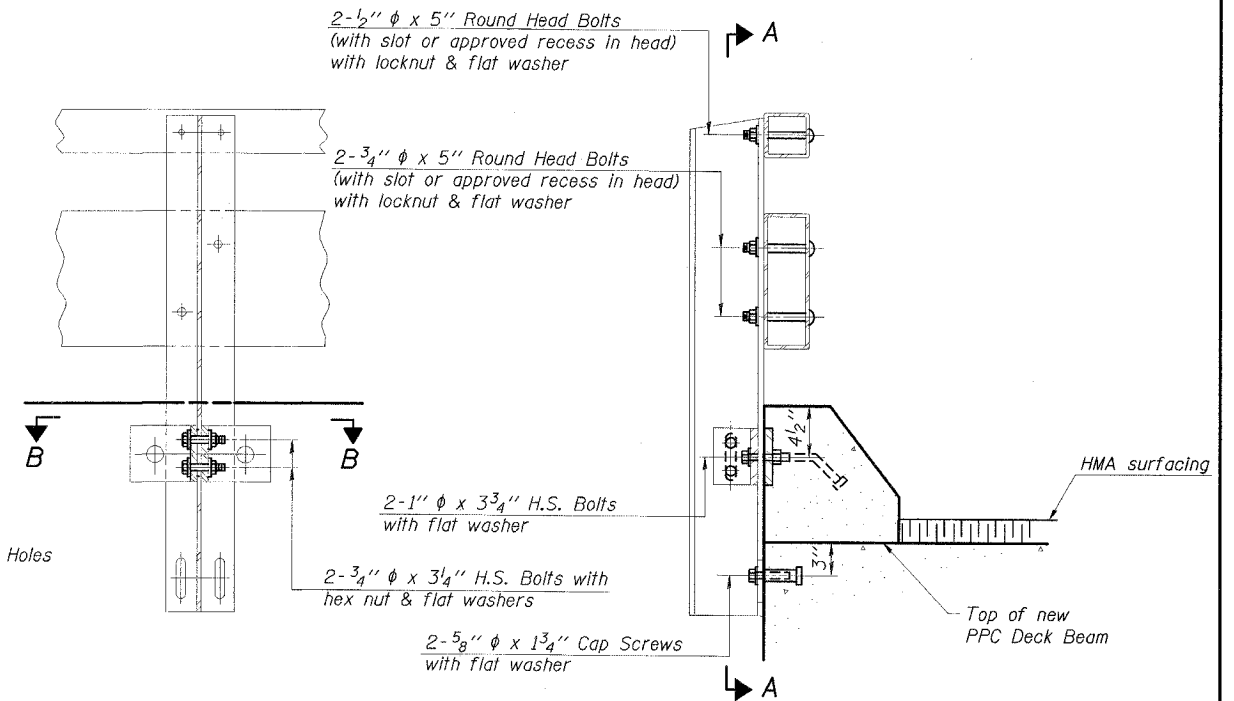


**VIEW A-A
ROUND HEAD BOLT**



SECTION B-B

1/4" SHIM PLATE



SECTION A-A

SECTION AT RAIL POST

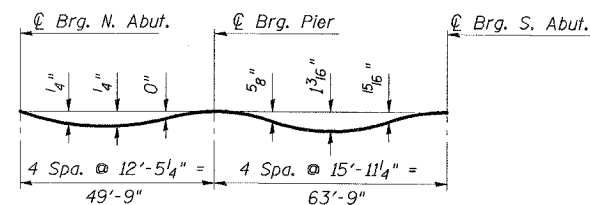
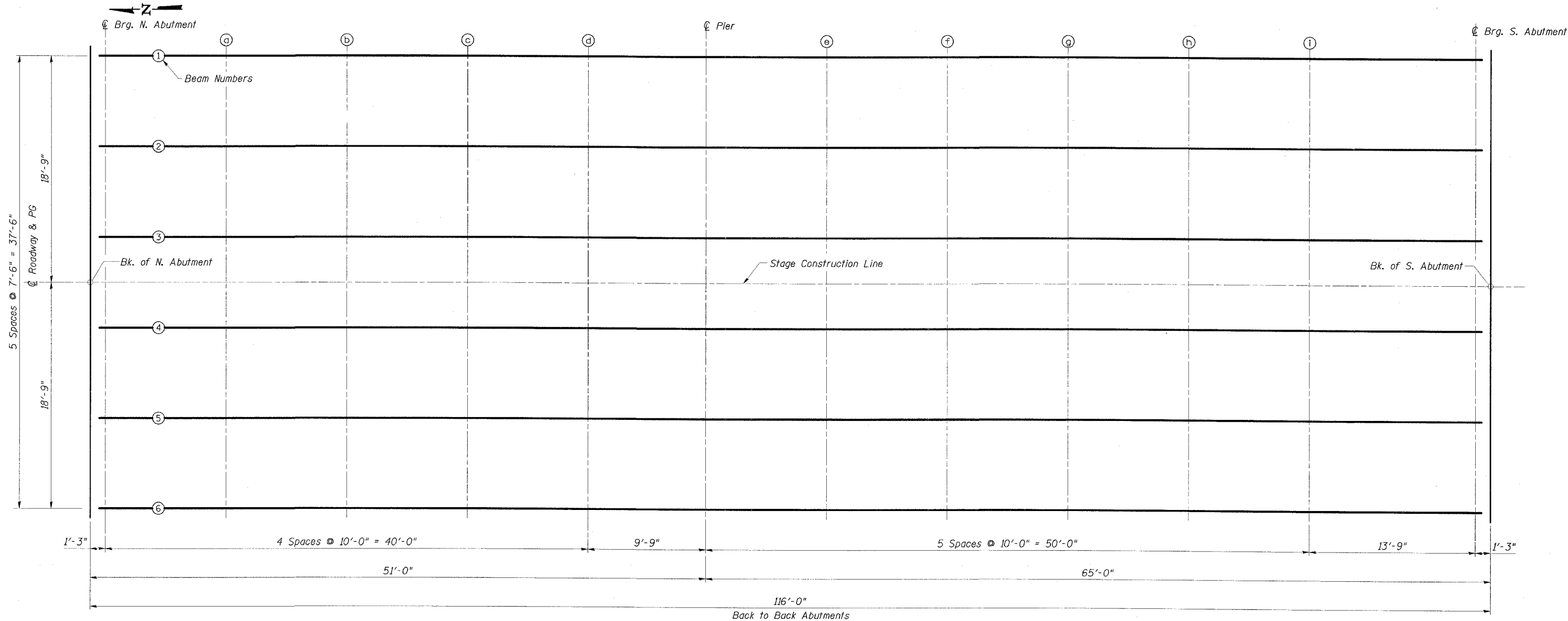
DECK BEAM REPLACEMENT DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	01/07
APPROVED BY:	RDP	01/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

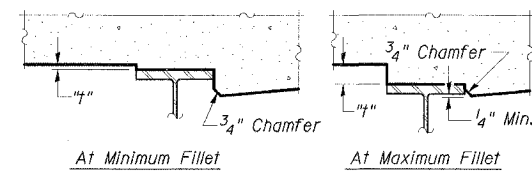
ROUTE NO.	SECTION	COUNTY	SUBDIVISION	SHEET NO.	SHEET NO. 9
FAP 328	#	CLAY	61	26	26 SHEETS
FED. ROAD DIST. NO. #	ILLINOIS	FED. AID PROJECT, AID	CONTRACT NO. 74037 *16BR-21B-1		



Note:
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on Dwg. No. 10 of 26.

DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

PLAN



Note:
To determine "i": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Dwg. No. 10 of 26, minus slab thickness, equals the fillet height "i" above top flange of beams.

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	01/07
APPROVED BY:	RDP	01/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 328	*	CLAY	61	27
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT - AID		
			CONTRACT NO. 74037 *6BR-2/B-1	

BEAM 1

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	-18.75	467.87	467.87
⊕ Brg. N. Abut.	1509+56.25	-18.75	467.87	467.87
a	1509+66.25	-18.75	467.89	467.91
b	1509+76.25	-18.75	467.90	467.93
c	1509+86.25	-18.75	467.91	467.92
d	1509+96.25	-18.75	467.91	467.91
⊕ Pier	1510+06.00	-18.75	467.90	467.90
e	1510+16.00	-18.75	467.89	467.93
f	1510+26.00	-18.75	467.88	467.96
g	1510+36.00	-18.75	467.86	467.97
h	1510+46.00	-18.75	467.84	467.95
i	1510+56.00	-18.75	467.81	467.89
⊕ Brg. S. Abut.	1510+69.75	-18.75	467.76	467.76
Bk. of S. Abut.	1510+71.00	-18.75	467.76	467.76

BEAM 2

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	-11.25	468.02	468.02
⊕ Brg. N. Abut.	1509+56.25	-11.25	468.03	468.03
a	1509+66.25	-11.25	468.04	468.06
b	1509+76.25	-11.25	468.05	468.08
c	1509+86.25	-11.25	468.06	468.07
d	1509+96.25	-11.25	468.06	468.06
⊕ Pier	1510+06.00	-11.25	468.06	468.06
e	1510+16.00	-11.25	468.05	468.08
f	1510+26.00	-11.25	468.03	468.11
g	1510+36.00	-11.25	468.01	468.12
h	1510+46.00	-11.25	467.99	468.10
i	1510+56.00	-11.25	467.96	468.04
⊕ Brg. S. Abut.	1510+69.75	-11.25	467.91	467.91
Bk. of S. Abut.	1510+71.00	-11.25	467.91	467.91

BEAM 3

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	-3.75	468.14	468.14
⊕ Brg. N. Abut.	1509+56.25	-3.75	468.14	468.14
a	1509+66.25	-3.75	468.16	468.18
b	1509+76.25	-3.75	468.17	468.20
c	1509+86.25	-3.75	468.18	468.19
d	1509+96.25	-3.75	468.18	468.18
⊕ Pier	1510+06.00	-3.75	468.17	468.17
e	1510+16.00	-3.75	468.16	468.20
f	1510+26.00	-3.75	468.15	468.23
g	1510+36.00	-3.75	468.13	468.24
h	1510+46.00	-3.75	468.11	468.22
i	1510+56.00	-3.75	468.08	468.16
⊕ Brg. S. Abut.	1510+69.75	-3.75	468.03	468.03
Bk. of S. Abut.	1510+71.00	-3.75	468.02	468.02

⊕ ROADWAY, P.G., & STAGE CONSTRUCTION LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	0.00	468.20	468.20
⊕ Brg. N. Abut.	1509+56.25	0.00	468.20	468.20
a	1509+66.25	0.00	468.22	468.24
b	1509+76.25	0.00	468.23	468.25
c	1509+86.25	0.00	468.23	468.25
d	1509+96.25	0.00	468.24	468.23
⊕ Pier	1510+06.00	0.00	468.23	468.23
e	1510+16.00	0.00	468.22	468.26
f	1510+26.00	0.00	468.21	468.29
g	1510+36.00	0.00	468.19	468.30
h	1510+46.00	0.00	468.17	468.27
i	1510+56.00	0.00	468.14	468.22
⊕ Brg. S. Abut.	1510+69.75	0.00	468.09	468.09
Bk. of S. Abut.	1510+71.00	0.00	468.08	468.08

BEAM 4

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	3.75	468.14	468.14
⊕ Brg. N. Abut.	1509+56.25	3.75	468.14	468.14
a	1509+66.25	3.75	468.16	468.18
b	1509+76.25	3.75	468.17	468.20
c	1509+86.25	3.75	468.18	468.19
d	1509+96.25	3.75	468.18	468.18
⊕ Pier	1510+06.00	3.75	468.17	468.17
e	1510+16.00	3.75	468.16	468.20
f	1510+26.00	3.75	468.15	468.23
g	1510+36.00	3.75	468.13	468.24
h	1510+46.00	3.75	468.11	468.22
i	1510+56.00	3.75	468.08	468.16
⊕ Brg. S. Abut.	1510+69.75	3.75	468.03	468.03
Bk. of S. Abut.	1510+71.00	3.75	468.02	468.02

BEAM 5

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	11.25	468.02	468.02
⊕ Brg. N. Abut.	1509+56.25	11.25	468.03	468.03
a	1509+66.25	11.25	468.04	468.06
b	1509+76.25	11.25	468.05	468.08
c	1509+86.25	11.25	468.06	468.07
d	1509+96.25	11.25	468.06	468.06
⊕ Pier	1510+06.00	11.25	468.06	468.06
e	1510+16.00	11.25	468.05	468.08
f	1510+26.00	11.25	468.03	468.11
g	1510+36.00	11.25	468.01	468.12
h	1510+46.00	11.25	467.99	468.10
i	1510+56.00	11.25	467.96	468.04
⊕ Brg. S. Abut.	1510+69.75	11.25	467.91	467.91
Bk. of S. Abut.	1510+71.00	11.25	467.91	467.91

BEAM 6

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N. Abut.	1509+55.00	18.75	467.87	467.87
⊕ Brg. N. Abut.	1509+56.25	18.75	467.87	467.87
a	1509+66.25	18.75	467.89	467.91
b	1509+76.25	18.75	467.90	467.93
c	1509+86.25	18.75	467.91	467.92
d	1509+96.25	18.75	467.91	467.91
⊕ Pier	1510+06.00	18.75	467.90	467.90
e	1510+16.00	18.75	467.89	467.93
f	1510+26.00	18.75	467.88	467.96
g	1510+36.00	18.75	467.86	467.97
h	1510+46.00	18.75	467.84	467.95
i	1510+56.00	18.75	467.81	467.89
⊕ Brg. S. Abut.	1510+69.75	18.75	467.76	467.76
Bk. of S. Abut.	1510+71.00	18.75	467.76	467.76

TOP OF SLAB ELEVATIONS

US ROUTE 45 OVER

BUCK CREEK

FAP RTE 328-SECTION (6BR-2)B-1

CLAY COUNTY

STATION 1510+13.00

STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	01/07
APPROVED BY:	RDP	01/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 328	6	CLAY	61	28
PPG. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT - AID		
CONTRACT NO. 74037			* (6BR-2)B-1	

EAST CURB LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Appr. Pav't.	1509+25.00	-20.42	467.76
a	1509+35.00	-20.42	467.79
b	1509+45.00	-20.42	467.82
Bk. N. Abutment	1509+55.00	-20.42	467.84

EAST EDGE OF PAVEMENT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Appr. Pav't.	1509+25.00	-12.00	467.93
a	1509+35.00	-12.00	467.96
b	1509+45.00	-12.00	467.99
Bk. N. Abutment	1509+55.00	-12.00	468.01

Ø ROADWAY, PG. & STAGE CONSTRUCTION LINE

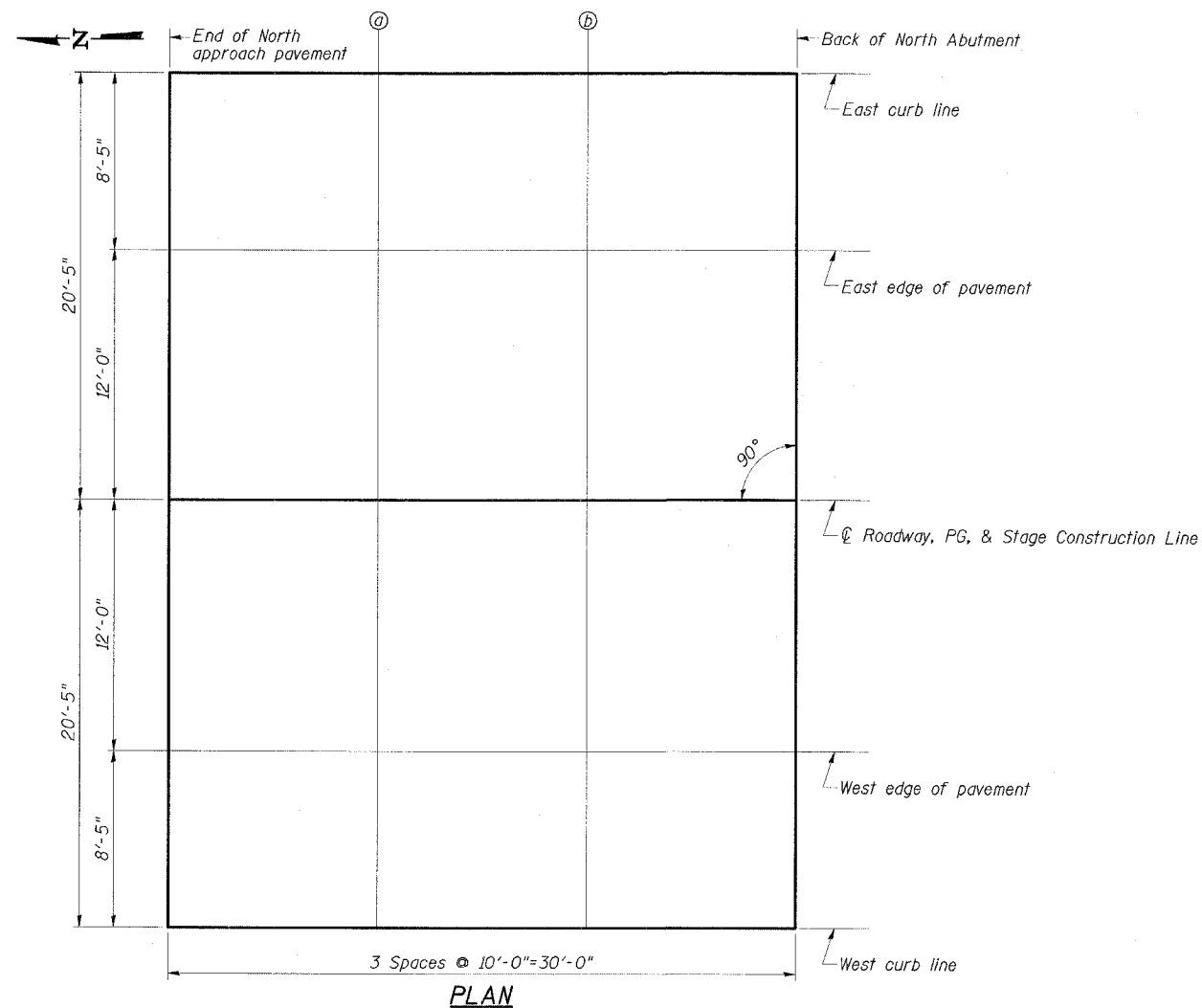
Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Appr. Pav't.	1509+25.00	0.00	468.12
a	1509+35.00	0.00	468.15
b	1509+45.00	0.00	468.18
Bk. N. Abutment	1509+55.00	0.00	468.20

WEST EDGE OF PAVEMENT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Appr. Pav't.	1509+25.00	12.00	467.93
a	1509+35.00	12.00	467.96
b	1509+45.00	12.00	467.99
Bk. N. Abutment	1509+55.00	12.00	468.01

WEST CURB LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
End N. Appr. Pav't.	1509+25.00	20.42	467.76
a	1509+35.00	20.42	467.79
b	1509+45.00	20.42	467.82
Bk. N. Abutment	1509+55.00	20.42	467.84



TOP OF NORTH APPROACH
SLAB ELEVATIONS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.
DESIGNED BY: ELH 01/07
DRAWN BY: CJ 01/07
CHECKED BY: ELH 01/07
APPROVED BY: RDP 01/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET NO.	SHEET NO. 12
FAP 328	*	CLAY	61	29	26 SHEETS
FED. ROAD EST. NO. *	ILLINOIS	FED. AID PROJECT - AID			
CONTRACT NO. 74037					*16BR-2)B-1

EAST CURB LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
Bk. S. Abutment	1510+71.00	-20.42	467.72
a	1510+81.00	-20.42	467.68
b	1510+91.00	-20.42	467.63
End S. Appr. Pav't.	1511+01.00	-20.42	467.58

EAST EDGE OF PAVEMENT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
Bk. S. Abutment	1510+71.00	-12.00	467.90
a	1510+81.00	-12.00	467.85
b	1510+91.00	-12.00	467.81
End S. Appr. Pav't.	1511+01.00	-12.00	467.76

☉ ROADWAY, PG. & STAGE CONSTRUCTION LINE

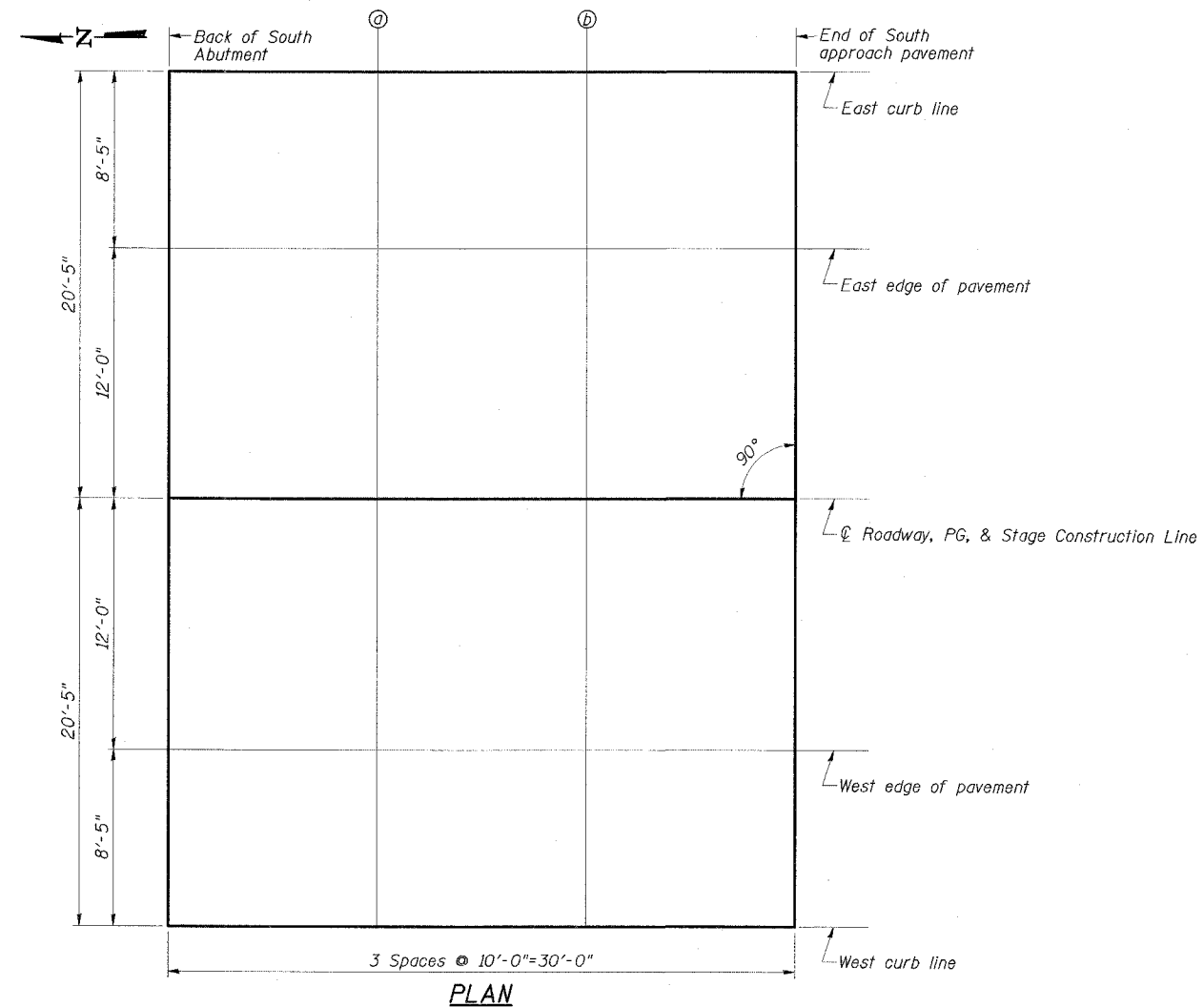
Location	Station	Offset (ft.)	Theoretical Grade Elevations
Bk. S. Abutment	1510+71.00	0.00	468.08
a	1510+81.00	0.00	468.04
b	1510+91.00	0.00	468.00
End S. Appr. Pav't.	1511+01.00	0.00	467.94

WEST EDGE OF PAVEMENT

Location	Station	Offset (ft.)	Theoretical Grade Elevations
Bk. S. Abutment	1510+71.00	12.00	467.90
a	1510+81.00	12.00	467.85
b	1510+91.00	12.00	467.81
End S. Appr. Pav't.	1511+01.00	12.00	467.76

WEST CURB LINE

Location	Station	Offset (ft.)	Theoretical Grade Elevations
Bk. S. Abutment	1510+71.00	20.42	467.72
a	1510+81.00	20.42	467.68
b	1510+91.00	20.42	467.63
End S. Appr. Pav't.	1511+01.00	20.42	467.58



PLAN

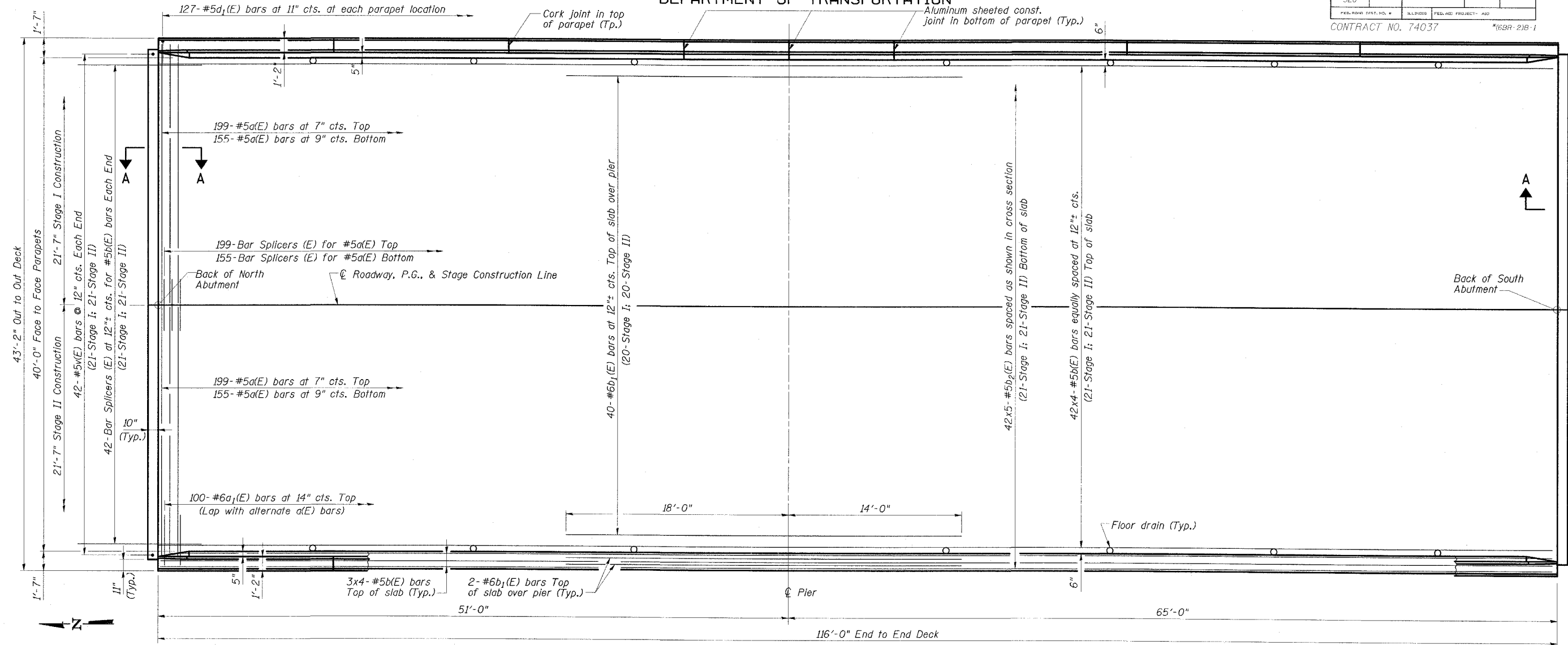
TOP OF SOUTH APPROACH
SLAB ELEVATIONS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

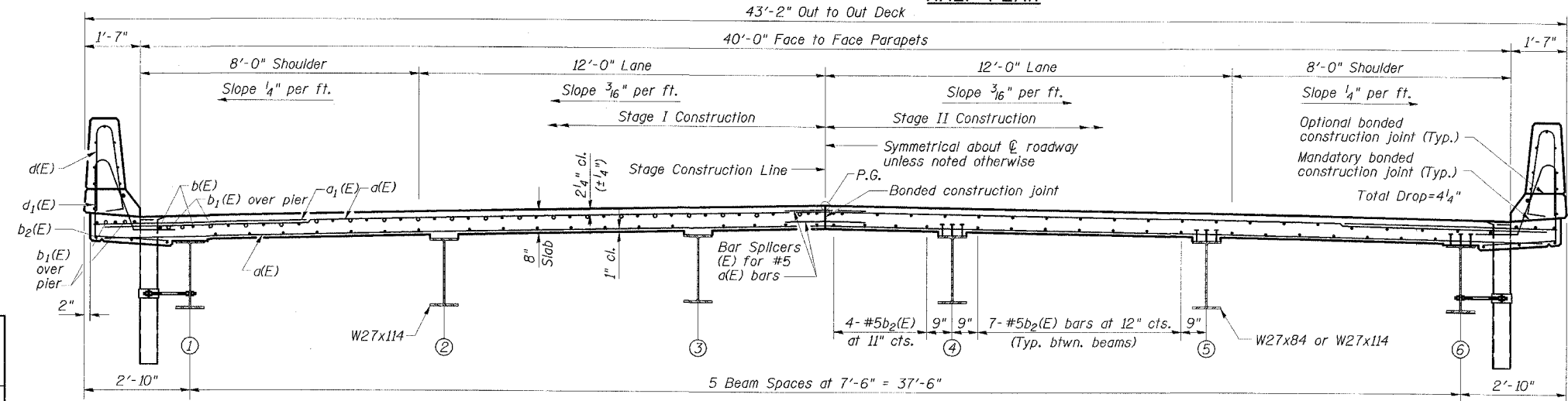
DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	01/07
APPROVED BY:	RDP	01/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	POST	SHEET NO. 13 26 SHEETS
FAP 328	#	CLAY	61	30	
CONTRACT NO. 74037					(6BR-2)B-1



HALF PLAN



CROSS SECTION
(Looking South)

NOTES

1. Bars indicated thus: 42x4- #5 etc. indicates 42 lines of bars with 4 lengths per line.
2. See Dwg. No. 14 of 26 for Superstructure Details, Bill of Material, and parapet reinforcement.
3. See Dwg. No. 15 of 26 for Section A-A and diaphragm details.
4. Floor drains shall be located clear of all diaphragms.

SUPERSTRUCTURE
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

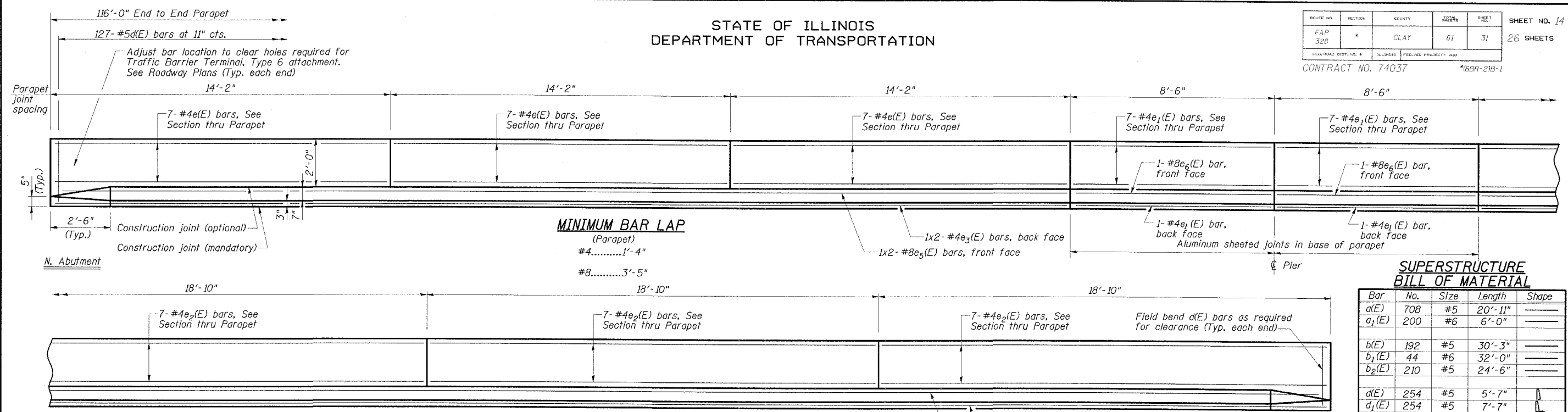
DESIGNED BY:	ELH	02/07
DRAWN BY:	CJ	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

MINIMUM BAR LAP
#5.....1'-8"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STA. FROM	SHEET NO.
FAP 328	*	CLAY	61	31
CONTRACT NO. 74037				

SHEET NO. 14
26 SHEETS

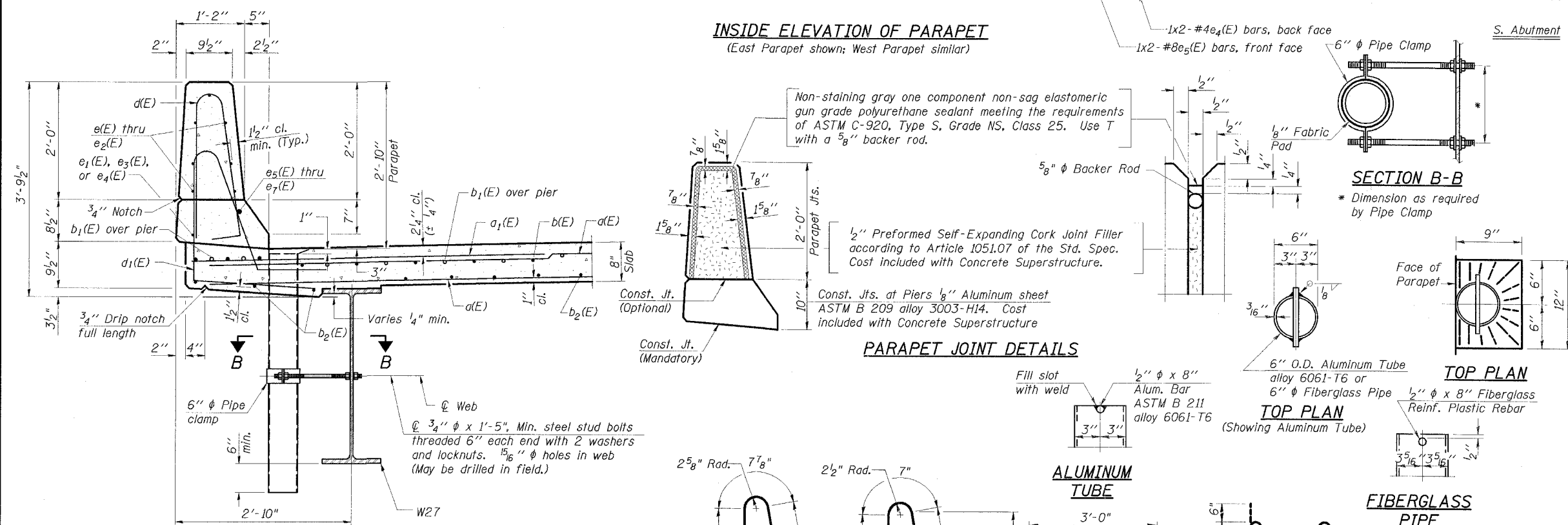


MINIMUM BAR LAP
(Parapet)
#4.....1'-4"
#8.....3'-5"

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	708	#5	20'-11"	—
a ₁ (E)	200	#6	6'-0"	—
b(E)	192	#5	30'-3"	—
b ₁ (E)	44	#6	32'-0"	—
b ₂ (E)	210	#5	24'-6"	—
d(E)	254	#5	5'-7"	—
d ₁ (E)	254	#5	7'-7"	—
e(E)	42	#4	13'-10"	—
e ₁ (E)	32	#4	8'-2"	—
e ₂ (E)	42	#4	18'-6"	—
e ₃ (E)	4	#4	21'-9"	—
e ₄ (E)	4	#4	28'-9"	—
e ₅ (E)	4	#8	22'-8"	—
e ₆ (E)	4	#8	8'-2"	—
e ₇ (E)	4	#8	29'-8"	—
m(E)	8	#6	20'-5"	—
m ₁ (E)	12	#6	21'-2"	—
m ₂ (E)	24	#6	9'-0"	—
m ₃ (E)	8	#6	7'-2"	—
m ₄ (E)	4	#6	3'-8"	—
m ₅ (E)	4	#6	2'-5"	—
s(E)	92	#5	5'-6"	—
s ₁ (E)	84	#4	8'-2"	—
v(E)	84	#5	3'-0"	—
Reinforcement Bars, Epoxy Coated		Pound	38480	
Concrete Superstructure		Cu. Yds.	181.0	
Bar Splicers		Each	454	

INSIDE ELEVATION OF PARAPET
(East Parapet shown; West Parapet similar)



PARAPET JOINT DETAILS

SECTION B-B

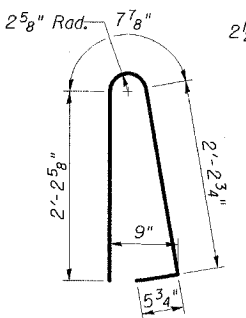
* Dimension as required by Pipe Clamp

TOP PLAN

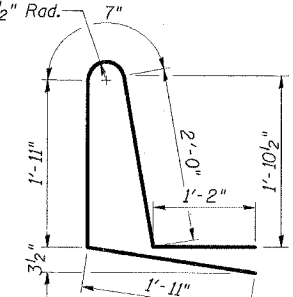
TOP PLAN
(Showing Aluminum Tube)

FIBERGLASS PIPE

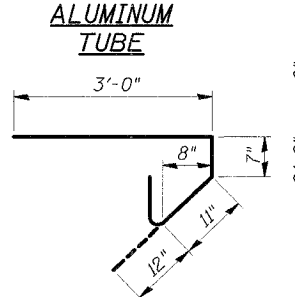
ALUMINUM TUBE



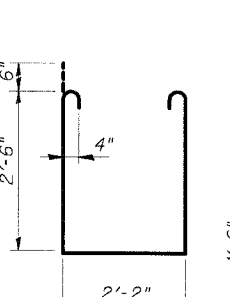
BAR d(E)



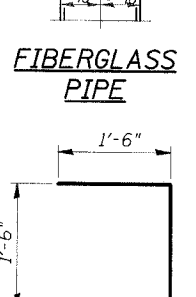
BAR d1(E)



BAR s(E)



BAR s1(E)



BAR v(E)

Notes:
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. Floor drains need not be painted.

ESCA CONSULTANTS, INC.
DESIGNED BY: ELH 02/07
DRAWN BY: CJ 02/07
CHECKED BY: ELH 02/07
APPROVED BY: RDP 02/07

SUPERSTRUCTURE DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

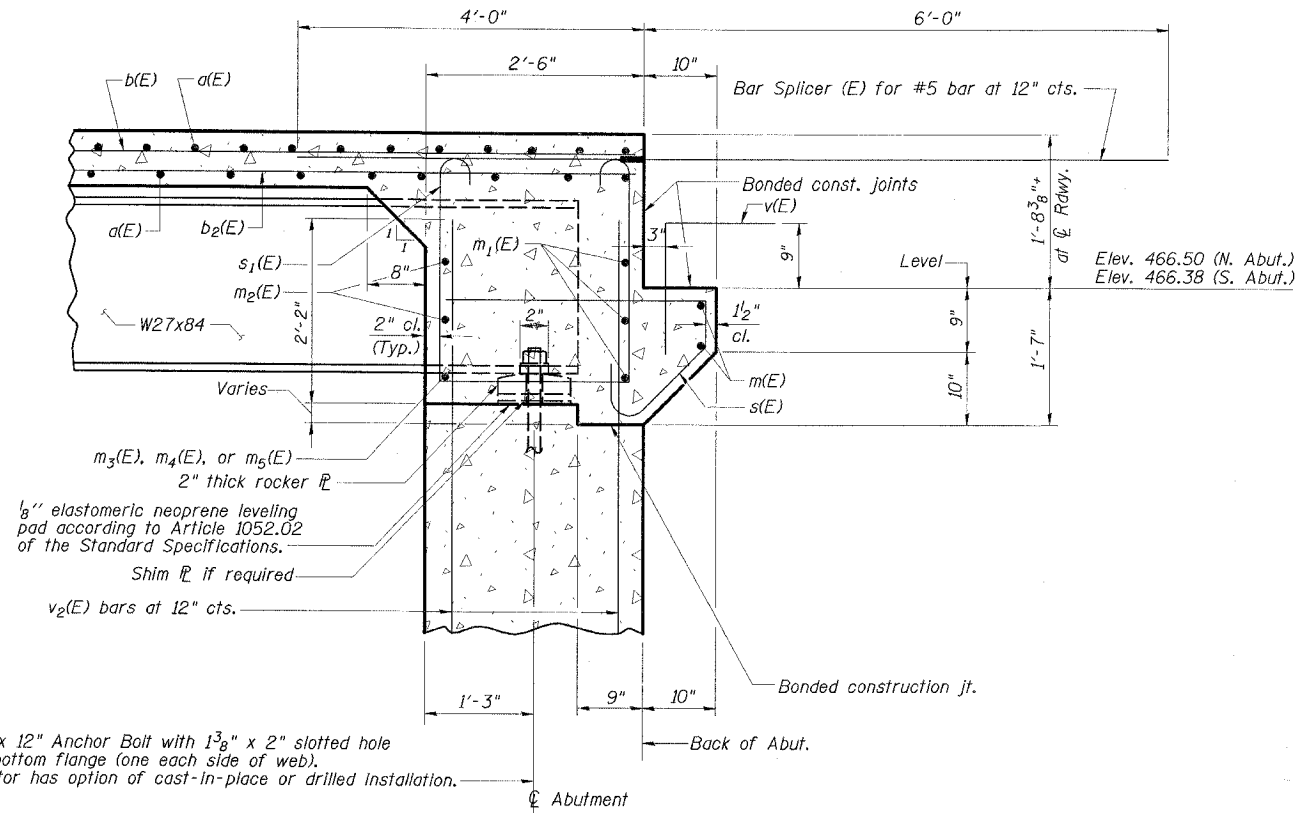
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO. 15 26 SHEETS
FAP 328	*	CLAY	61	32	
FED. ROAD DIST. NO. *		ILLINOIS	FED. AID PROJECT - AID		

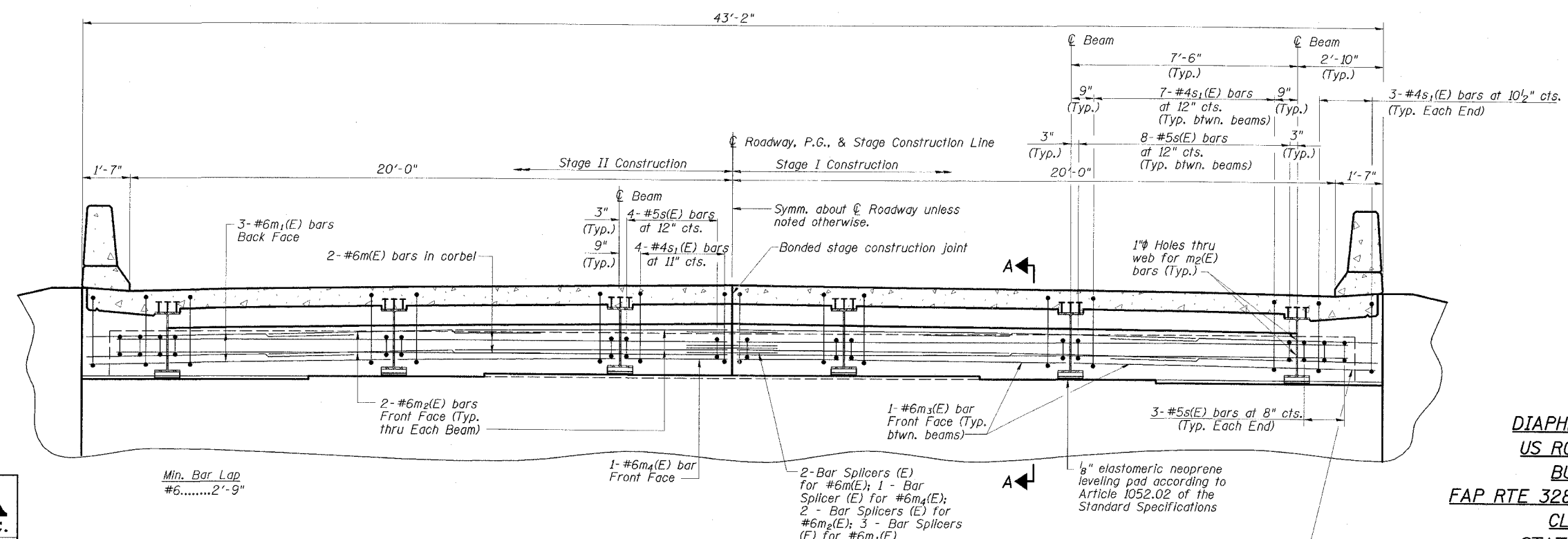
CONTRACT NO. 74037

NOTES

1. Reinforcement bars in diaphragm are billed with superstructure on Dwg. No. 14 of 26.
2. Concrete in diaphragm is included with Concrete Superstructure on Dwg. No. 14 of 26.
3. For details of bars s(E) & s₁(E) see Dwg. No. 14 of 26.
4. For Bar Splicer details see Dwg. No. 22 of 26.
5. The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.



SECTION A-A



DIAPHRAGM ELEVATION AT ABUTMENT
(North Abutment shown; South Abutment similar)

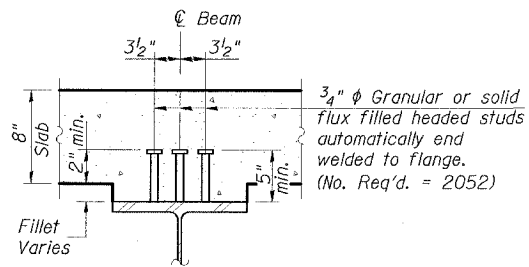
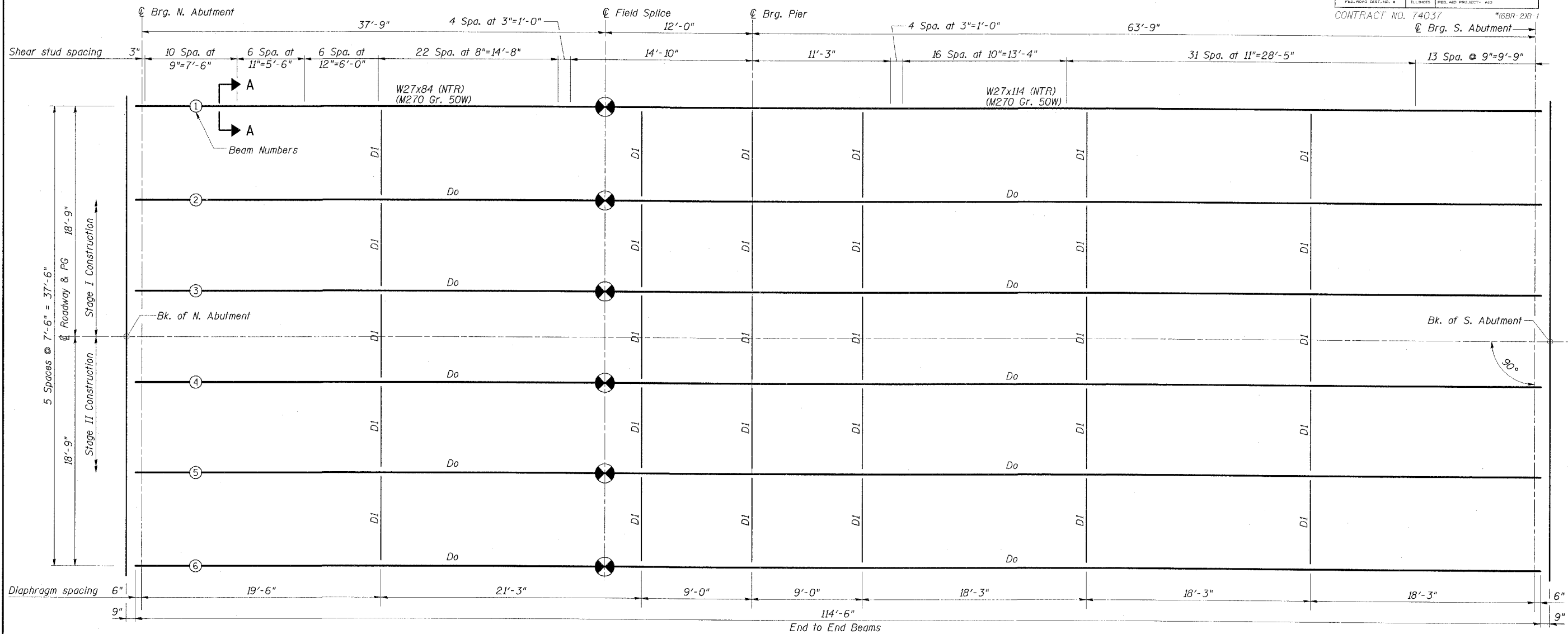
DIAPHRAGM DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

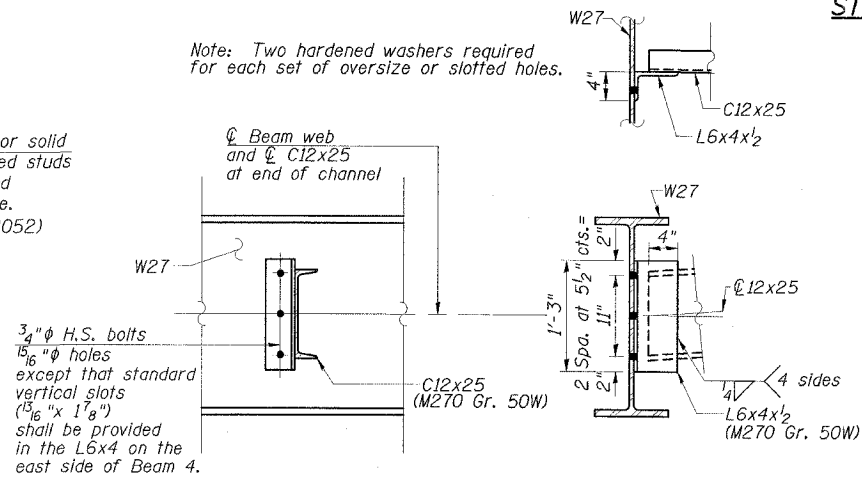
DESIGNED BY:	ELH	02/07
DRAWN BY:	CJ	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	*	CLAY	61	33
CONTRACT NO. 74037 *16BR-2B-1				



Note: Two hardened washers required for each set of oversize or slotted holes.



STEEL FRAMING PLAN

NOTES

- All structural steel shall be AASHTO M 270 Grade 50W including structural steel bearing plates and fill plates for splices.
- See Dwg. No. 17 of 26 for Splice details.
- Load carrying components designated (NTR) shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- To accommodate the differential beam deflection between Stages I and II Construction, long vertical slotted holes are to be provided in the diaphragm connection angles located on the east side of Beam 4. Position slots so that bolts start at the top of the slot prior to the Stage II Construction deck concrete pour. Bolts in slots shall be finger tight until the Stage II pour is complete.

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

BEAM	N. ABUT.	SPLICE @ W27x84	SPLICE @ W27x114	PIER	S. ABUT.
1	467.17	467.12	467.15	467.13	467.05
2	467.32	467.27	467.30	467.28	467.20
3	467.43	467.39	467.42	467.40	467.32
4	467.43	467.39	467.42	467.40	467.32
5	467.32	467.27	467.30	467.28	467.20
6	467.17	467.12	467.15	467.13	467.05

Note: Elevations shown are top of flange (not splice plate) at splice locations.

ESCA
CONSULTANTS, INC.

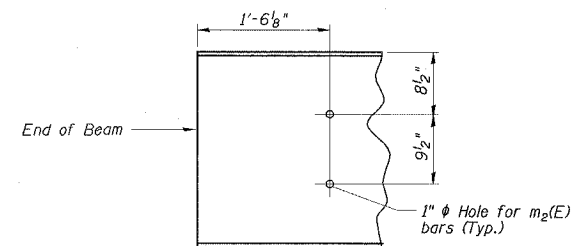
DESIGNED BY:	ELH	2/07
DRAWN BY:	KAH	2/07
CHECKED BY:	ELH	3/07
APPROVED BY:	RDP	3/07

DIAPHRAGM D1
30 Required

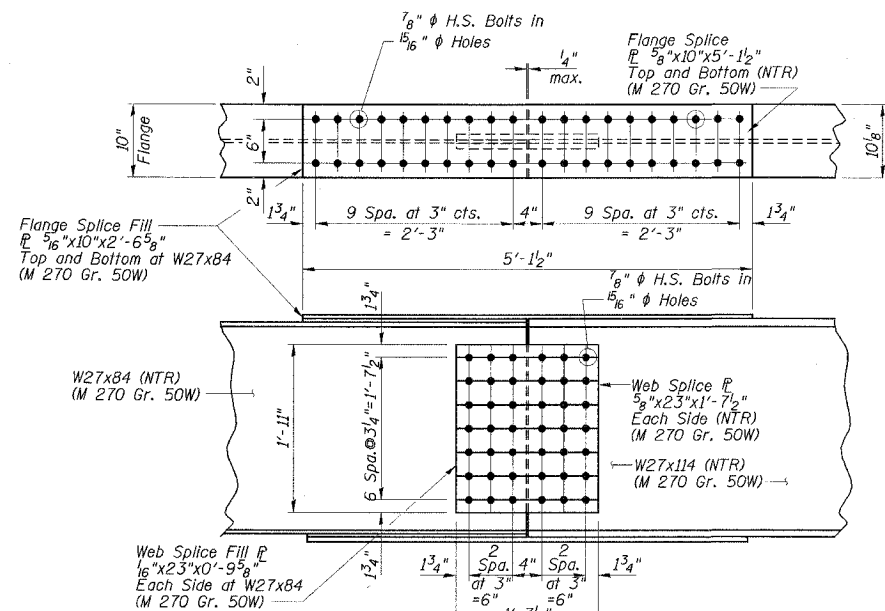
STEEL FRAMING PLAN
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 328	SECTION *	COUNTY CLAY	STA. 61	SHEET 34	SHEET NO. 17 26 SHEETS
FED. ROAD DIST. NO. &		S.L. NUMBER		FED. AID PROJECT - AID	
CONTRACT NO. 74037			*16BR-21B-1		



HOLE LOCATIONS FOR $m_2(E)$ BARS



FIELD SPLICE DETAIL
(6 Required)

Note:
All splices are symmetrical about ϕ splice except for fills.

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in ⁴)	2850	4080	4080
$I_c(n)$	(in ⁴)	8979	---	11858
$I_c(3n)$	(in ⁴)	6863	---	8845
S_s	(in ³)	213	299	299
$S_c(n)$	(in ³)	338	---	454
$S_c(3n)$	(in ³)	307	---	412
Z	(in ³)	---	343	---
ϕ	(k/')	0.869	1.389	0.899
$M\phi$	(k)	106.3	543.3	285.6
$s\phi$	(k/')	0.490	---	0.490
$M_s\phi$	(k)	81.1	---	174.5
$M\phi$	(k)	358.3	225.3	512.3
M_{Imp}	(k)	102.4	62.0	135.7
$\phi_3[M\phi + M_{Imp}]$	(k)	767.9	478.8	1079.9
M_a	(k)	1241.8	1328.6	2002.0
M_u	(k)	1880.6	1429.2	2351.5
$f_s \phi$ non-comp	(ksi)	6.0	21.8	11.5
$f_s \phi$ (comp)	(ksi)	3.2	---	5.1
$f_s \phi_3 [M\phi + M_{Imp}]$	(ksi)	27.3	19.2	28.5
f_s (Overload)	(ksi)	36.5	41.0	45.1
f_s (Total)	(ksi)	---	---	---
VR	(k)	54.4	---	51.5

* Compact, braced section

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (See AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range within the composite portion of the span.
 Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
 The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 & 10.50.1.1.
 M_a (Applied Moment) = $1.3[M\phi + M_s\phi + \phi_3(M\phi + M_{Imp})]$.
 f_s (Overload) is the sum of the stresses due to $M\phi + M_s\phi + \phi_3(M\phi + M_{Imp})$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\phi + M_s\phi + \phi_3(M\phi + M_{Imp})]$.

INTERIOR BEAM REACTION TABLE				
		N. Abut.	Pier	S. Abut.
$R\phi$	(k)	22.9	97.9	35.8
$R\phi$	(k)	38.5	48.1	40.9
Imp	(k)	11.0	13.2	10.8
R (Total)	(k)	72.4	159.2	87.5

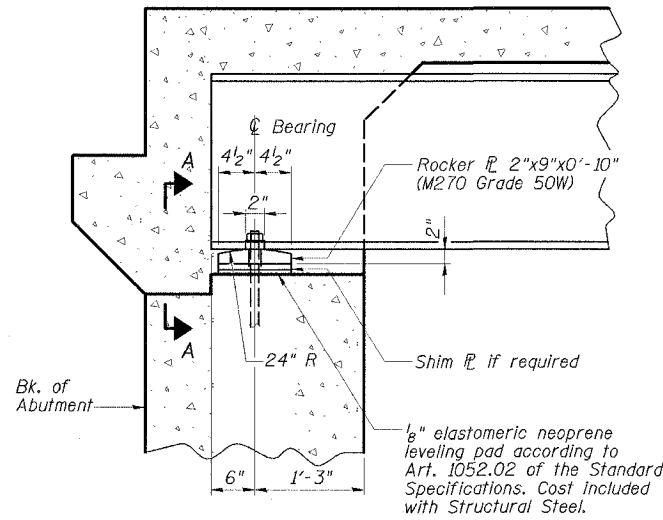
STRUCTURAL STEEL DETAILS
 US ROUTE 45 OVER
 BUCK CREEK
 FAP RTE 328-SECTION (6BR-2)B-1
 CLAY COUNTY
 STATION 1510+13.00
 STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

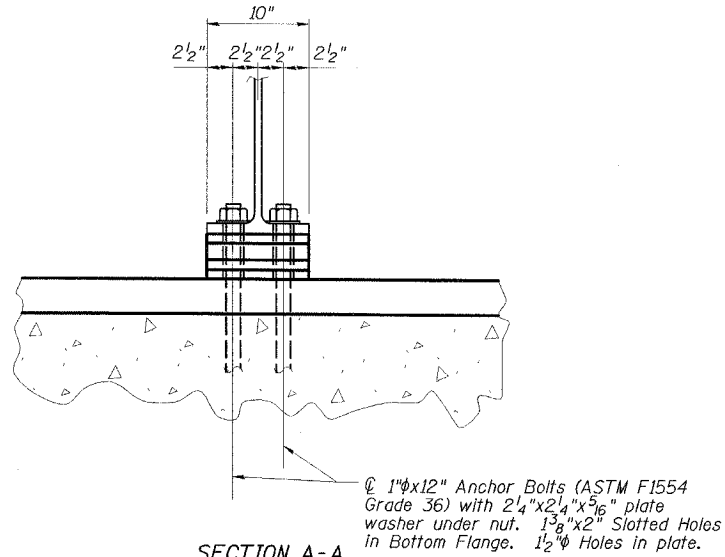
DESIGNED BY: ELH 02/07
 DRAWN BY: CJ 02/07
 CHECKED BY: ELH 03/07
 APPROVED BY: RDP 03/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 18 26 SHEETS
FAP 328	#	CLAY	61	35	
FED. ROAD DIST. NO. *		BILLING	FED. AID PROJECT - AID		
		CONTRACT NO. 74037		*6BR-2/B-1	



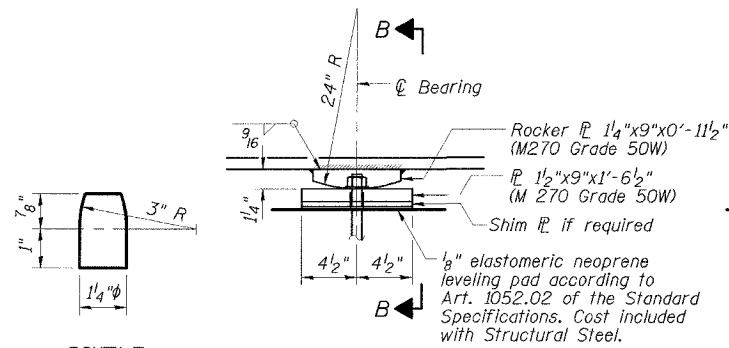
ELEVATION AT ABUTMENTS



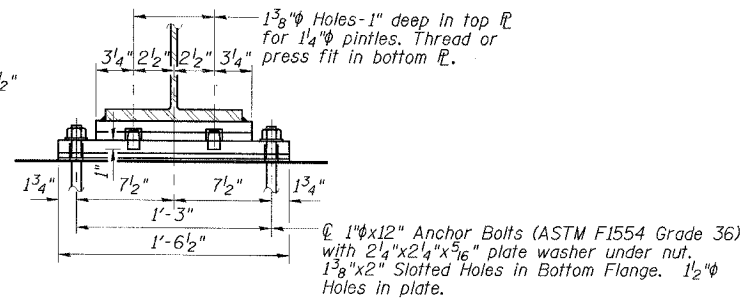
SECTION A-A

FIXED BEARING AT ABUTMENTS
(12 Required)

- NOTES**
- Anchor bolts at fixed bearings may be either cast-in-place or installed in holes drilled after the supported member is in place.
 - Anchors shall be set and grout cured for a minimum of 24 hours prior to forming the bridge deck.
 - 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.
 - Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

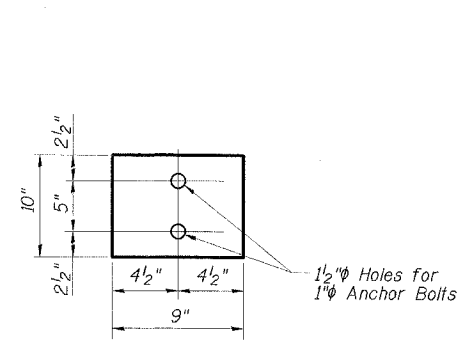


ELEVATION AT PIER

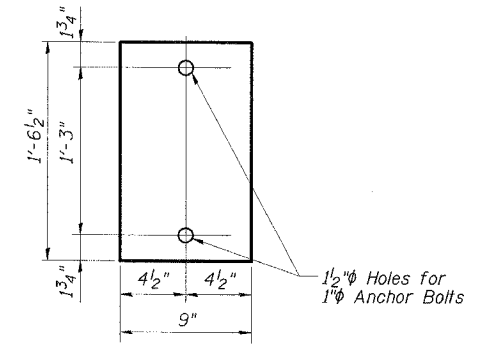


SECTION B-B

FIXED BEARING AT PIER
(6 Required)



PLAN AT ABUTMENTS



PLAN AT PIER

1/8" ELASTOMERIC NEOPRENE LEVELING PAD DETAIL

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts 1" ϕ	Each	36

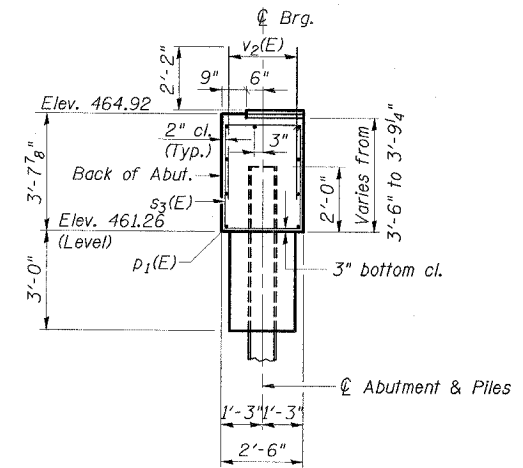
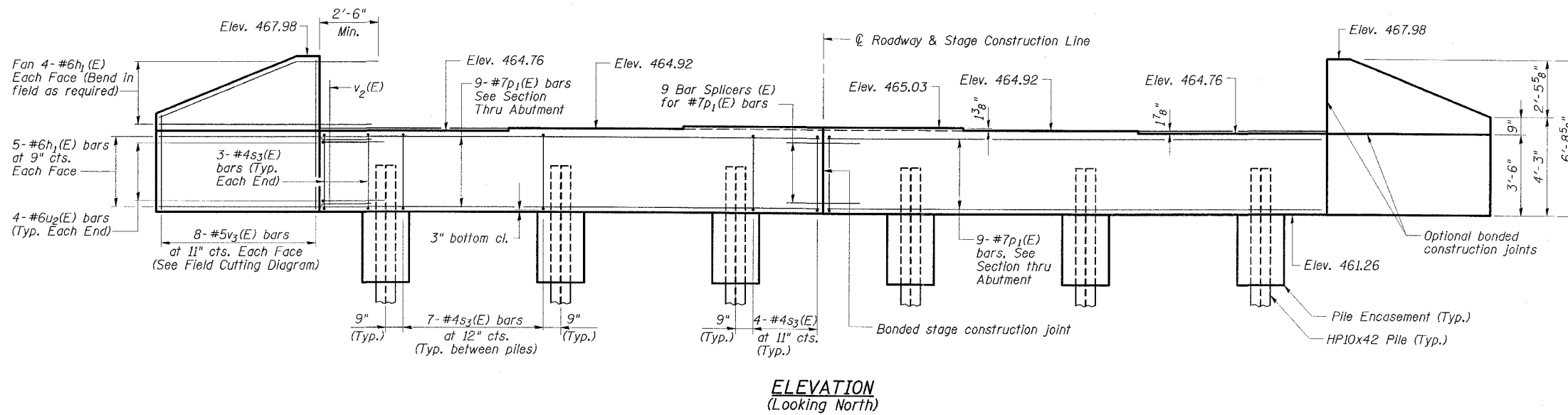
ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	01/07
APPROVED BY:	RDP	01/07

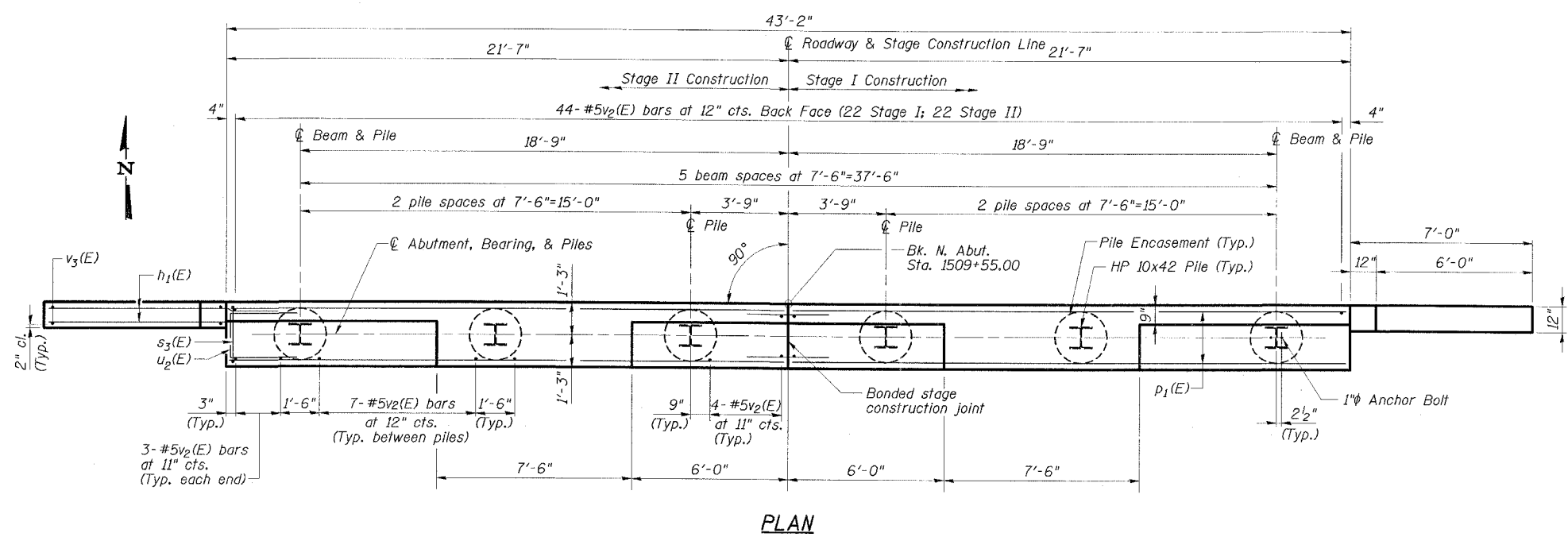
BEARING DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUALITY	30% SHEETS	SHEET NO.	SHEET NO. 19 26 SHEETS
FAP 328	*	CLAY	61	36	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT - A0	CONTRACT NO. 74037		*6BR-21B-1



SECTION THRU ABUTMENT

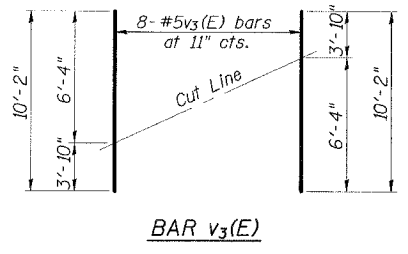


PLAN

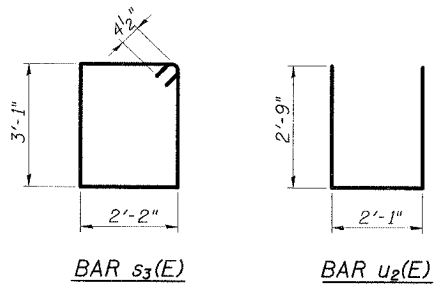
NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁ (E)	36	#6	9'-4"	—
p ₁ (E)	18	#7	21'-3"	—
s ₃ (E)	42	#4	11'-3"	□
u ₂ (E)	8	#6	7'-7"	⊏
v ₂ (E)	86	#5	4'-8"	—
v ₃ (E)	16	#5	10'-2"	—
Reinforcement Bars, Epoxy Coated		Pound	2290	
Concrete Structures		Cu. Yd.	17.5	
Structure Excavation		Cu. Yd.	109	
Furnishing Steel Piles HP10x42		Foot	300	
Driving Piles		Foot	300	
Pipe Underdrains for Structures, 4"		Foot	75	
Porous Granular Embankment (Special)		Cu. Yd	44	
Bar Splicers		Each	9	
Pile Shoes		Each	6	
Concrete Encasement		Cu. Yd	2.1	
Geocomposite Wall Drain		Sq. Yd	33	

PILE DATA
Pile Type & Size: HP10x42 with pile shoes
Nominal Required Bearing: 335 kips
Allowable Resistance Available: 111 kips
Estimated Pile Length: 50'
No. of Production Piles: 6
No. of Test Piles: 0



FIELD CUTTING DIAGRAM
Order v₃(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR BENDING DETAILS

- NOTES**
- See Dwg. No. 2 of 26 for backfill required for abutment construction.
 - Pour steps monolithically with cap.
 - Space reinforcement in cap to miss anchor bolts.
 - For pile details and concrete encasement details see Dwg. No. 24 of 26.

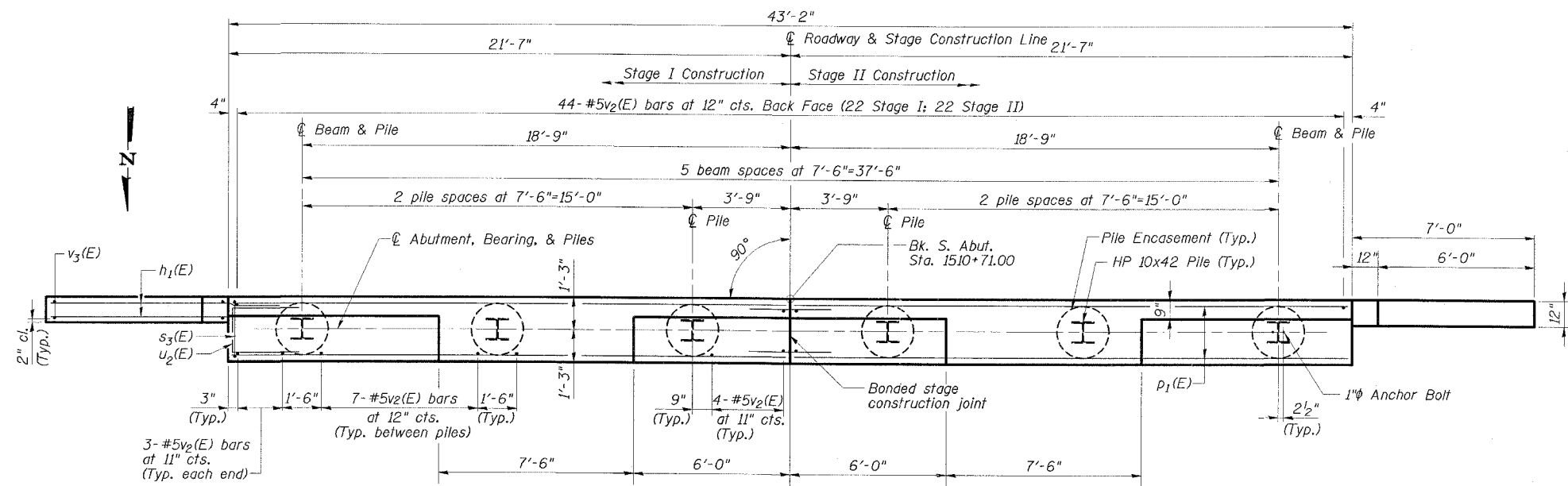
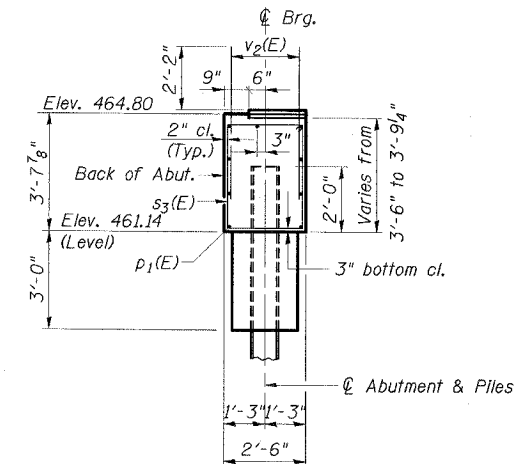
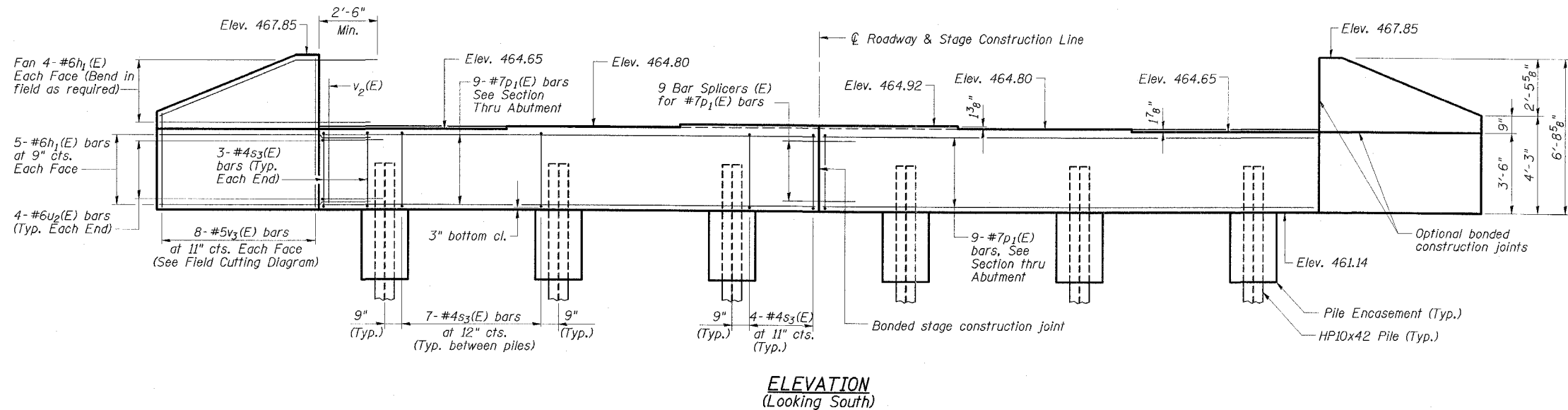
NORTH ABUTMENT
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	02/07
DRAWN BY:	CJ	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAP 328	*	CLAY	61	37
CONTRACT NO. 74037				26 SHEETS



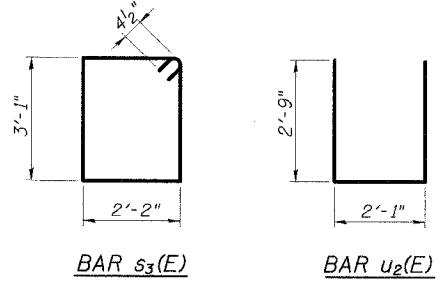
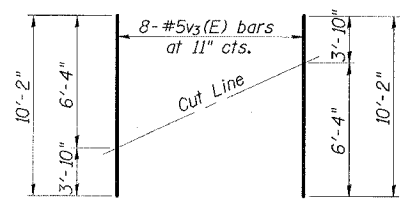
SECTION THRU ABUTMENT

SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	36	#6	9'-4"	—
$p_1(E)$	18	#7	21'-3"	—
$s_3(E)$	42	#4	11'-3"	□
$u_2(E)$	8	#6	7'-7"	□
$v_2(E)$	86	#5	4'-8"	—
$v_3(E)$	16	#5	10'-2"	—
Reinforcement Bars, Epoxy Coated		Pound	2290	
Concrete Structures		Cu. Yd.	17.5	
Structure Excavation		Cu. Yd.	109	
Furnishing Steel Piles HP10x42		Foot	275	
Driving Piles		Foot	275	
Pipe Underdrains for Structures, 4"		Foot	75	
Porous Granular Embankment (Special)		Cu. Yd	44	
Bar Splicers		Each	9	
Pile Shoes		Each	6	
Concrete Encasement		Cu. Yd	2.1	
Geocomposite Wall Drain		Sq. Yd	33	
Test Pile Steel HP10x42		Each	1	

PLAN

PILE DATA
Pile Type & Size: HP10x42 with pile shoes
Nominal Required Bearing: 335 kips
Allowable Resistance Available: 111 kips
Estimated Pile Length: 55'
No. of Production Piles: 5
No. of Test Piles: 1



NOTES

- See Dwg. No. 2 of 26 for backfill required for abutment construction.
- Pour steps monolithically with cap.
- Space reinforcement in cap to miss anchor bolts.
- For pile details and concrete encasement details see Dwg. No. 24 of 26.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	02/07
DRAWN BY:	CJ	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

FIELD CUTTING DIAGRAM
Order $v_3(E)$ full length. Cut as shown and use remainder of bars in opposite face.

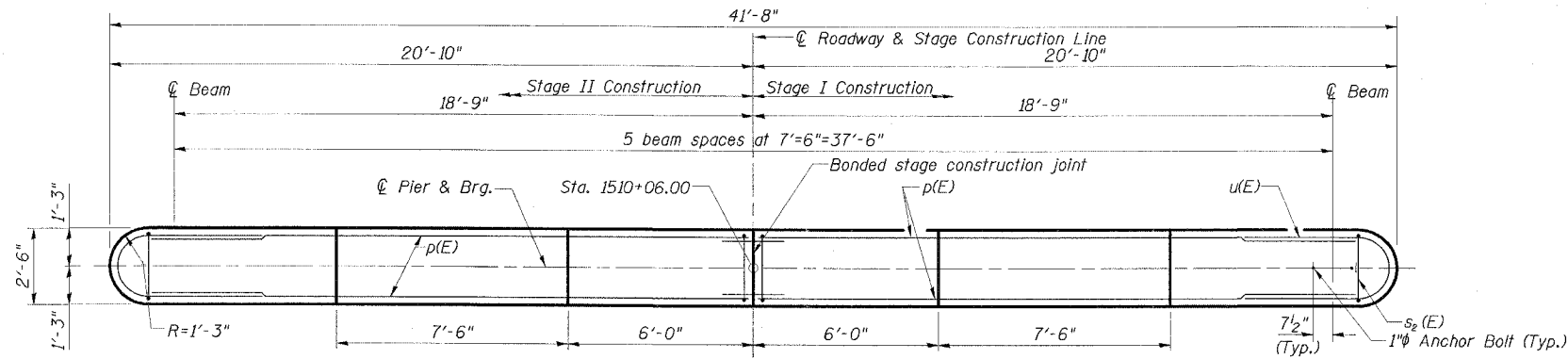
BAR BENDING DETAILS

SOUTH ABUTMENT
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

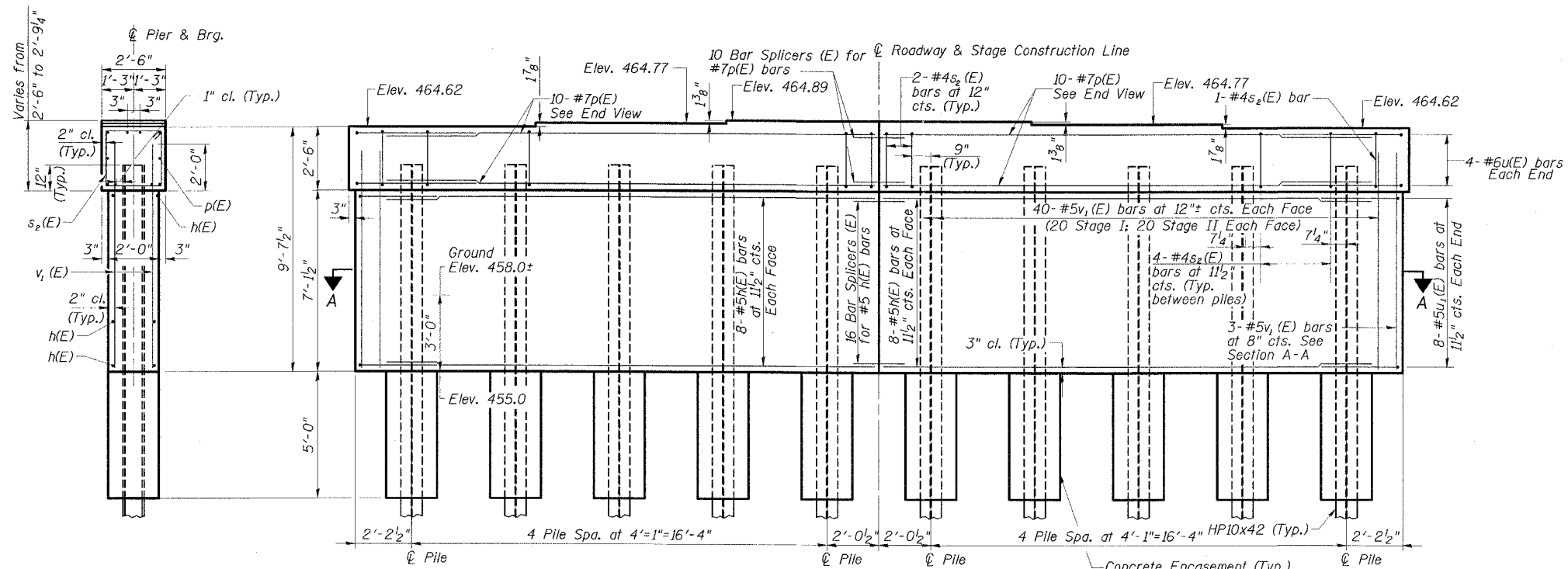
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET #	SHEET NO.
FAP 328	#	CLAY	61	38
CONTRACT NO. 740.37 *6BR-2/B-1				

26 SHEETS

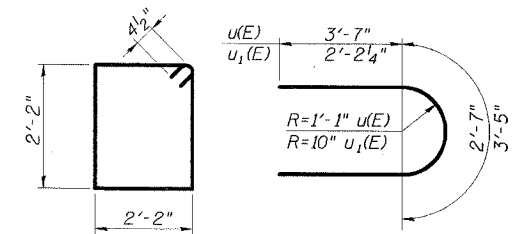


TOP PLAN

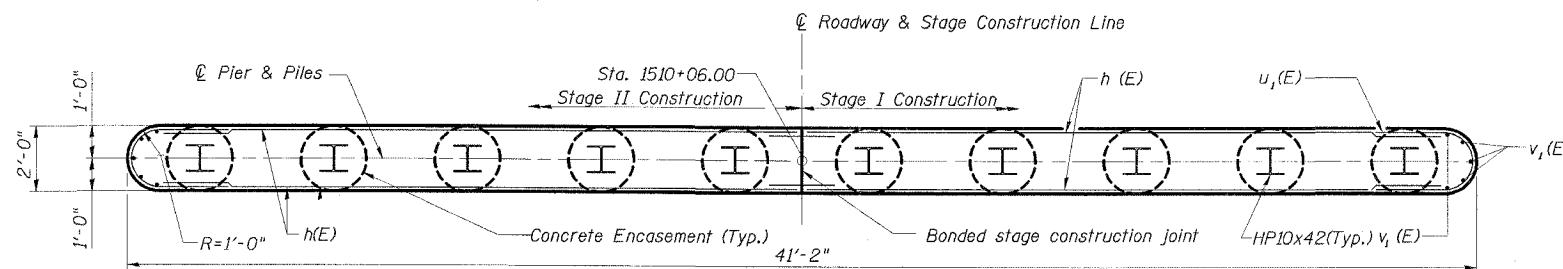


END VIEW

ELEVATION



BAR BENDING DETAILS



SECTION A-A

NOTES

1. Pour steps monolithically with cap.
2. Space reinforcement in cap to miss anchor bolts.
3. For pile details and concrete encasement details see Dwg. No. 24 of 26.

PIER
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h(E)	32	#5	19'-5"	—	
p(E)	20	#7	19'-5"	—	
s ₂ (E)	38	#4	9'-5"	□	
u(E)	8	#6	10'-7"	U	
u ₁ (E)	16	#5	7'-0"	U	
v ₁ (E)	86	#5	8'-10"	—	
Reinforcement Bars, Epoxy Coated				Pound	2730
Concrete Structures				Cu. Yd.	31.0
Structure Excavation				Cu. Yd.	52
Furnishing Steel				Foot	450
Piles HP10x42				Foot	450
Driving Piles				Foot	450
Test Pile Steel HP10x42				Each	1
Underwater Structure Excavation Protection-Location 1				Each	1
Bar Splicers				Each	26
Concrete Encasement				Cu. Yd.	5.8
Pile Shoes				Each	10

PILE DATA

Pile Type & Size: HP10X42 with pile shoes
Nominal Required Bearing: 335 kips
Allowable Resistance Available: 111 kips
Estimated Pile Length: 50'
No. of Production Piles: 9
No. of Test Piles: 1

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	02/07
DRAWN BY:	CJ/KAH	02/07
CHECKED BY:	ELH	02/07
APPROVED BY:	RDP	02/07

PIER
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

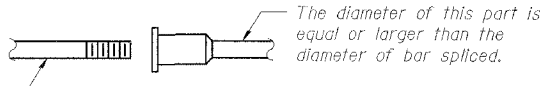
ROUTE NO.	SECTION	COUNTY	DATE SHEETS	SHEET	SHEET NO. 22 26 SHEETS
FAP 328	*	CLAY	61	39	
FED. ROAD DIST. NO. *		S.I. INCHES	FED. PROJ. NO.	PROJ. - AID	
			CONTRACT NO. 74037	*16BR-21B-1	

NOTES

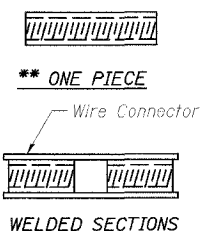
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the 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) = $1.25 \times f_y \times A_l$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_l$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_l = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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

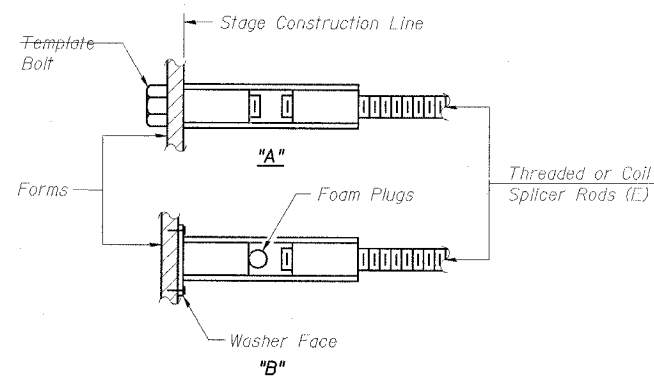


ROLLED THREAD DOWEL BAR



BAR SPLICER ASSEMBLY ALTERNATIVES

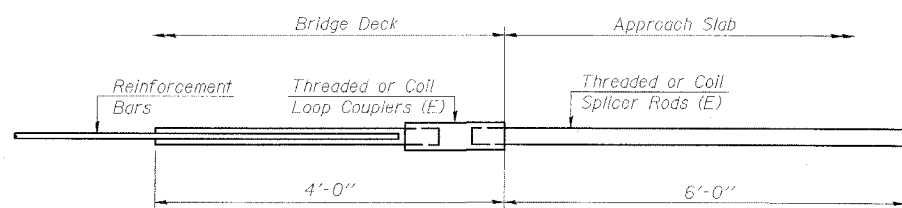
** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

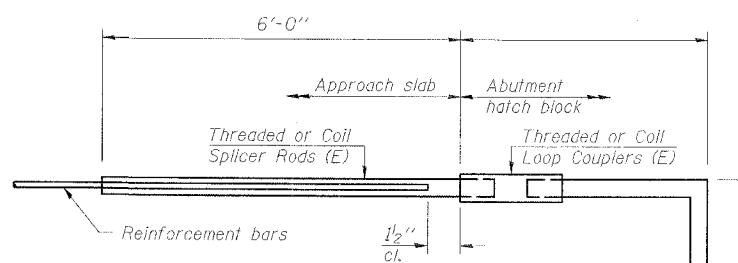
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

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



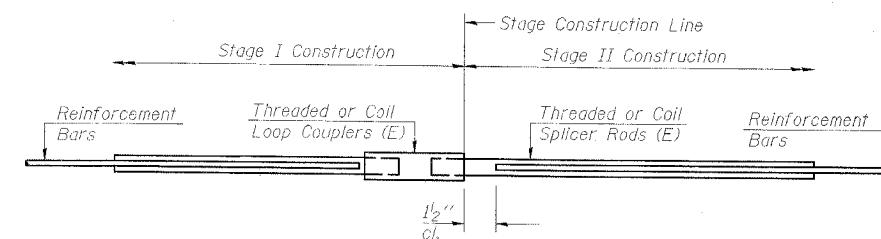
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity = 23.0 kips - tension	
Min. Pull-out Strength = 12.3 kips - tension	
No. Required = 84	



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	354	Concrete Deck
#6	16	Diaphragms
#5	16	Pier
#7	10	Pier
#7	18	Abutments

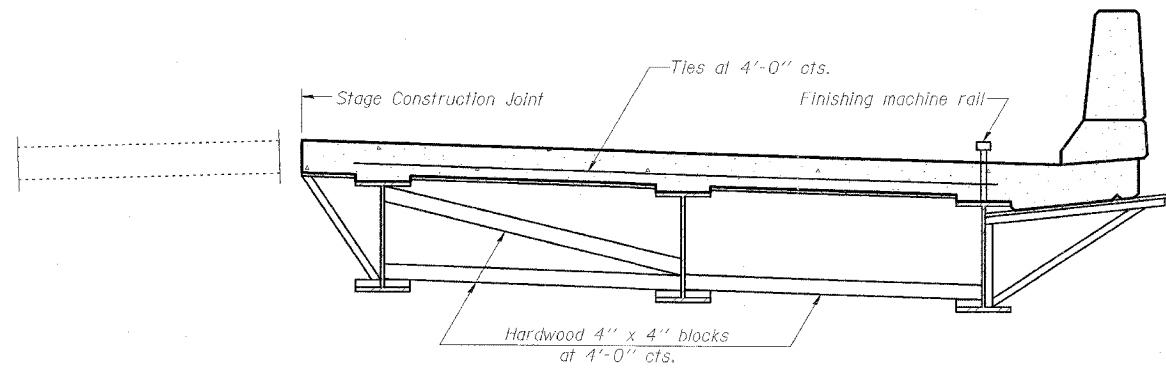
BAR SPLICER ASSEMBLY DETAILS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

ESCA
CONSULTANTS, INC.

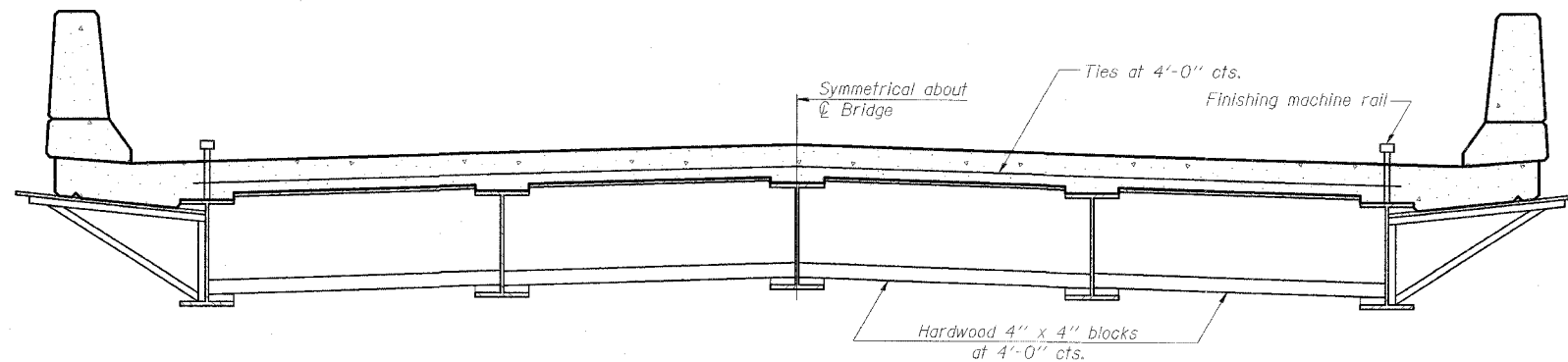
DESIGNED BY:	ELH	1/07
DRAWN BY:	CJ	1/07
CHECKED BY:	ELH	1/07
APPROVED BY:	RDP	1/07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.	SHEET NO.
FAP 328	*	CLAY	61	40	26 SHEETS
FED. ROAD DIST. NO. *	ILLINOIS	FED. AID PROJECT - AID			
CONTRACT NO. 74037				*16BR-2)B-1	



**FORM BRACES FOR
STAGE CONSTRUCTION**



**FORM BRACES FOR
STANDARD CONSTRUCTION**

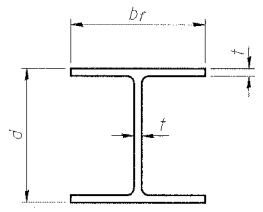
When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

ESCA CONSULTANTS, INC.		
DESIGNED BY:	ELH	1/07
DRAWN BY:	CJ	1/07
CHECKED BY:	ELH	1/07
APPROVED BY:	RDP	1/07

CANTILEVER FORMING BRACKETS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

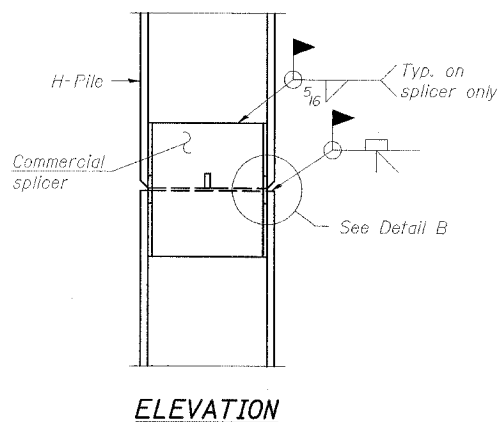
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 24 26 SHEETS
FAP 328	*	CLAY	61	41	
FED. ROAD DIST. NO. *		ILLINOIS	ESTIMATED PROJECT - A&B		CONTRACT NO. 74037
					*16BR-21B-1

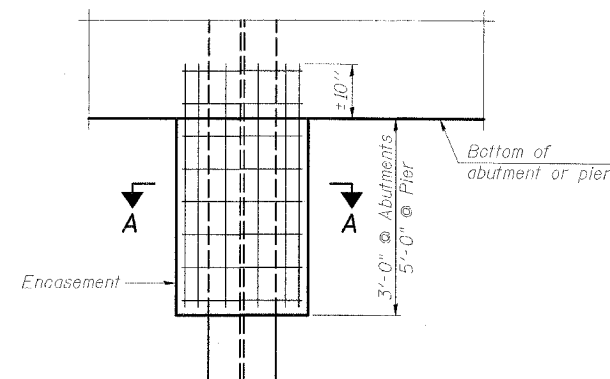


STEEL PILE TABLE

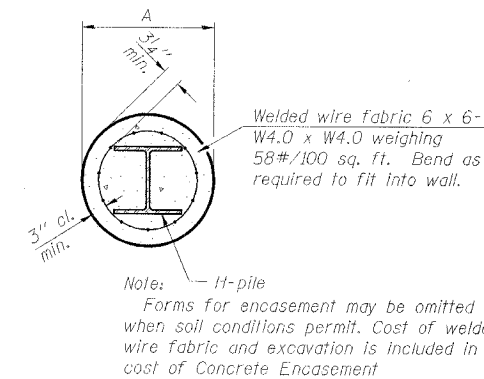
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

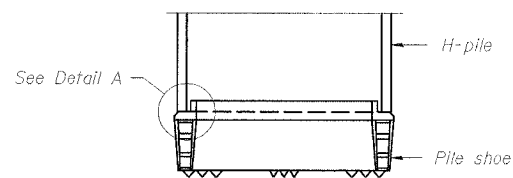


ELEVATION

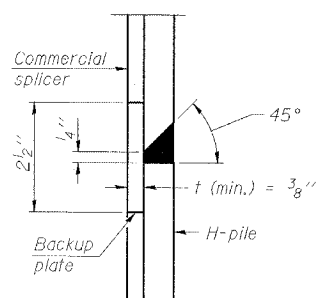


SECTION A-A

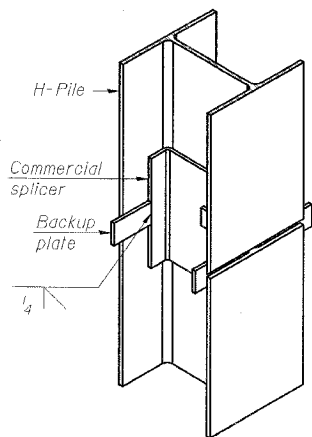
Note: H-pile
Forms for encasement may be omitted when soil conditions permit. Cost of welded wire fabric and excavation is included in the cost of Concrete Encasement



ELEVATION

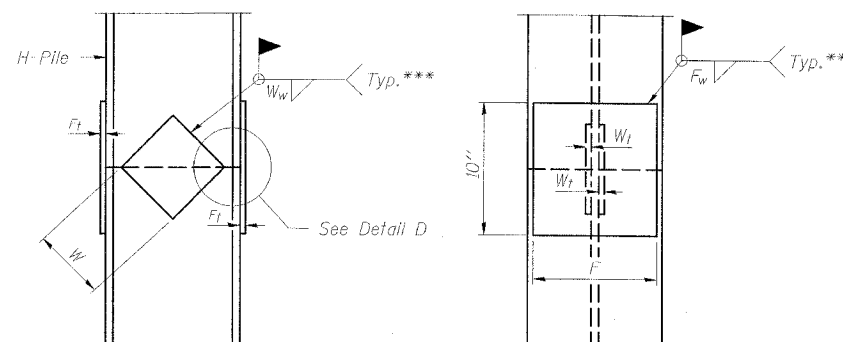


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



ELEVATION

END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 9/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 9/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 9/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 9/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 9/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 9/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

STEEL H-PILE DETAILS

US ROUTE 45 OVER

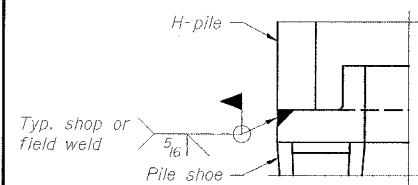
BUCK CREEK

FAP RTE 328-SECTION (6BR-2)B-1

CLAY COUNTY

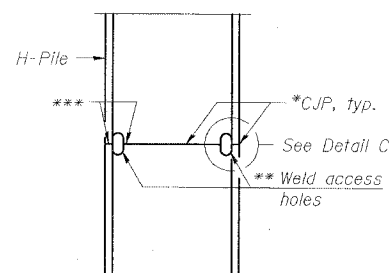
STATION 1510+13.00

STRUCTURE NO. 013-0041

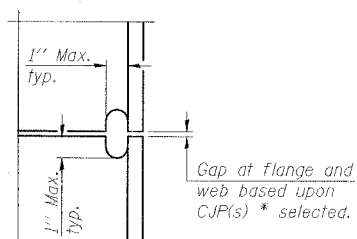


DETAIL A

H-PILE SHOE ATTACHMENT

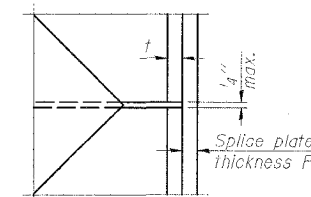


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	01/07
DRAWN BY:	CJ	01/07
CHECKED BY:	ELH	01/07
APPROVED BY:	RDP	01/07



SOIL BORING LOG

Page 1 of 2
Date 8/28/06

ROUTE FAP 328 (US 45) DESCRIPTION Buck Creek LOGGED BY E. Sandschafer
SECTION (6BR-2)B-1 LOCATION Sec 10 - NE 1/4, Sec 11 - NW 1/4, SEC., TWP. 3 N, RNG. 6 E, 3 PM
COUNTY Clay DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH	DESCRIPTION	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 72 Hrs.	DEPTH	DESCRIPTION	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 72 Hrs.	
013-0012	1510+00	(ft)	(/6") (tsf) (%)	454.69 ft	453.76 ft		416.9 ft	459.4 ft	458.5 ft	(ft)	(/6") (tsf) (%)	454.69 ft	453.76 ft		416.9 ft	459.4 ft	458.5 ft	
			13 1/2" Asphalt pavement															
		465.29	Stiff, damp, brown, CLAY w/ trace Silt.															
		461.89	Medium to stiff, damp, gray, SILTY CLAY.															
		460.89	Gray, SANDY LOAM.															
		459.39	Medium, damp, gray, CLAY LOAM.															
		456.89	Soft, very damp, brown, SANDY LOAM.															
		454.39	Very stiff, damp, gray, CLAY TILL w/ trace organics.															

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



SOIL BORING LOG

Page 2 of 2
Date 8/28/06

ROUTE FAP 328 (US 45) DESCRIPTION Buck Creek LOGGED BY E. Sandschafer
SECTION (6BR-2)B-1 LOCATION Sec 10 - NE 1/4, Sec 11 - NW 1/4, SEC., TWP. 3 N, RNG. 6 E, 3 PM
COUNTY Clay DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH	DESCRIPTION	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 72 Hrs.	DEPTH	DESCRIPTION	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 72 Hrs.	
013-0012	1510+00	(ft)	(/6") (tsf) (%)	454.69 ft	453.76 ft		416.9 ft	459.4 ft	458.5 ft	(ft)	(/6") (tsf) (%)	454.69 ft	453.76 ft		416.9 ft	459.4 ft	458.5 ft	
			Very stiff, damp, gray, CLAY TILL (continued)															
		421.89	Stiff, damp, blue, SANDY LOAM TILL.															
		416.49	Very dense, moist, gray, SILTY CLAY SHALE															
		416.19	Extent of exploration.															
			Benchmark: BM 268 = Chiseled square on NE corner of parapet on existing bridge, Station 1509+52, 16' Lt = 467.11'. Provided by Program Development.															

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

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	11/06
DRAWN BY:	KAH	11/06
CHECKED BY:	ELH	11/06
APPROVED BY:	RDP	11/06

BORING LOGS
US ROUTE 45 OVER
BUCK CREEK
FAP RTE 328-SECTION (6BR-2)B-1
CLAY COUNTY
STATION 1510+13.00
STRUCTURE NO. 013-0041

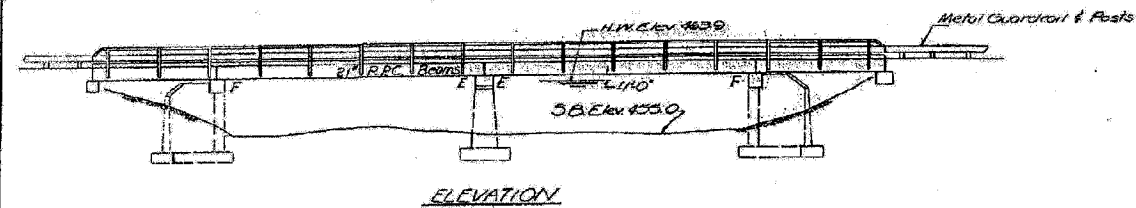
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 1
FAP 328	*	CLAY	61	44
FED. ROAD DIST. NO.				ILLINOIS FED. ROAD PROJECT
CONTRACT NO. 74037				* 6BR-21B-1

EXISTING BRIDGE TO BE REMOVED AND REPLACED WITH PRECAST/PRESTRESSED CONCRETE BRIDGE. SUPERSTRUCTURE TO BE REMOVED AND REPLACED WITH PRECAST/PRESTRESSED CONCRETE BRIDGE. A TEMPORARY BRIDGE IS REQUIRED WITH A W.W.O. OF 155 TONS PER FOOT. PLANS BY CONTRACTOR. LOADING H5EO. NO SALVAGE OF EXISTING SUPERSTRUCTURES.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS

DATE	DESCRIPTION	BY	NO.	SHEET NO.
1/14/64	REVISED	J.M.R.	14	6
PREPARED BY		CHECKED BY		SHEET NO.
J.M.R.		J.M.R.		7 SHEETS



GENERAL NOTES

- All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
- The Basic Lead Silico Chromate paint system shall be used for two coats of shop painting of structural steel.
- 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.
- An alternate strand pattern using Extra High Strength Prestressing strand (270 ksi.) is permitted.
- Protective Coat shall not be applied to surfaces to which Deck Tar Interlayer Protective Coat is applied.
- Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.
- Shoulder transition to wingwall shall be shaped with broken concrete. Cost Incidental.

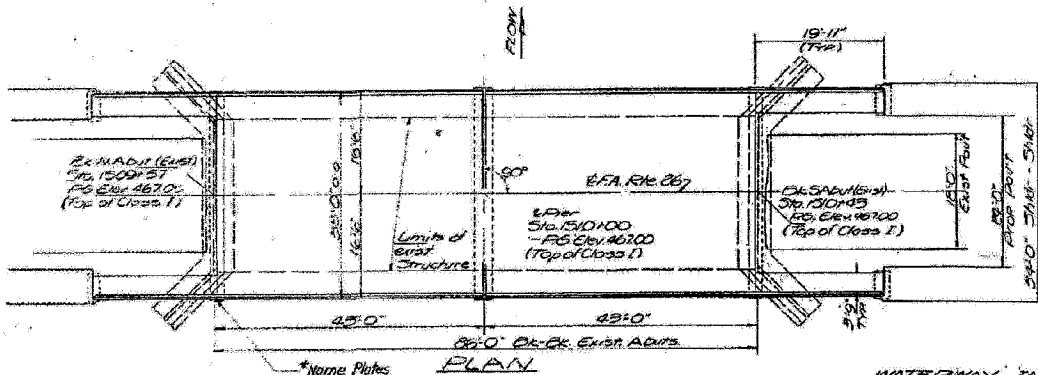
STATION 1510+00
REBUILD 197 BY
STATE OF ILLINOIS
F.A. RT. 26, SEC. 6BR-2
LOADING H5EO

NAME PLATE
See Std 213

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
* Bituminous Concrete Surface Course Class 1	Sq Yds	50		50
Portland Cement Concrete Pavement (10")	Sq Yds	33		33
Pavement Fabric	Sq Yds	33		33
Concrete Removal	Cu Yds	10		10
Expansion Bolts (3/4")	Each	58	58	110
Class X Concrete	Cu Yds	10.3	20.0	30.3
Precast Concrete Bridge Slab	Sq Ft	299		299
Precast Prestressed Concrete Deck Beam	Sq Ft	2813		2813
Steel Paving, Type T	Lin Ft	251		251
Reinforcement Bars	Lbs	340	2580	2920
Pavement Removal PCC Replacement Top 10"	Sq Yds	10		10
Removal of Existing Superstructure	Each	1		1
Coat for Interlayer Protective Coat	Sq Yds	301		301
Name Plates	Each	1		1
Preformed Joint Sealer 2 1/2"	Lin Ft	33		33
Structural Steel	Lbs	870		870
Protective Coat	Sq Yds	42		42
Temporary Bridge Complete	Each		1	1

* Bituminous Concrete Surfacing quantity is from back to back of new abutment caps.



WATERWAY INFORMATION

Drainage Area: 16.73 Sq Miles
Character: rolling, cultivated
Present Opening: 537 Sq Ft
Road Opening: 537 Sq Ft
Proposed Opening: 537 Sq Ft
Clear: 4250 cfs

DESIGN STRESSES

FIELD UNITS
16,400 psi (Sub-Cube)
15,000 psi (Beam)
17-10

PRECAST/PRESTRESSED UNITS

16,000 psi
16,400 psi
15,000 psi (Net Strands)
15,000 psi (Net Strands)

PRECAST UNITS

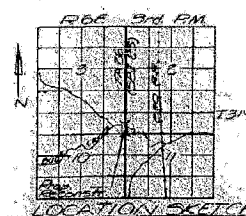
16,400 psi
16,400 psi
15,000 psi
17-8

Design Specifications: 909AASHO (as applicable)

Flange NS allow 63% 30 FL
LOADING H5EO 44 (NEW 50221)

DESIGNED G.E. Ozurt
CHECKED J.M. Rife
DRAWN G.E.O.
CHECKED J.M.R.

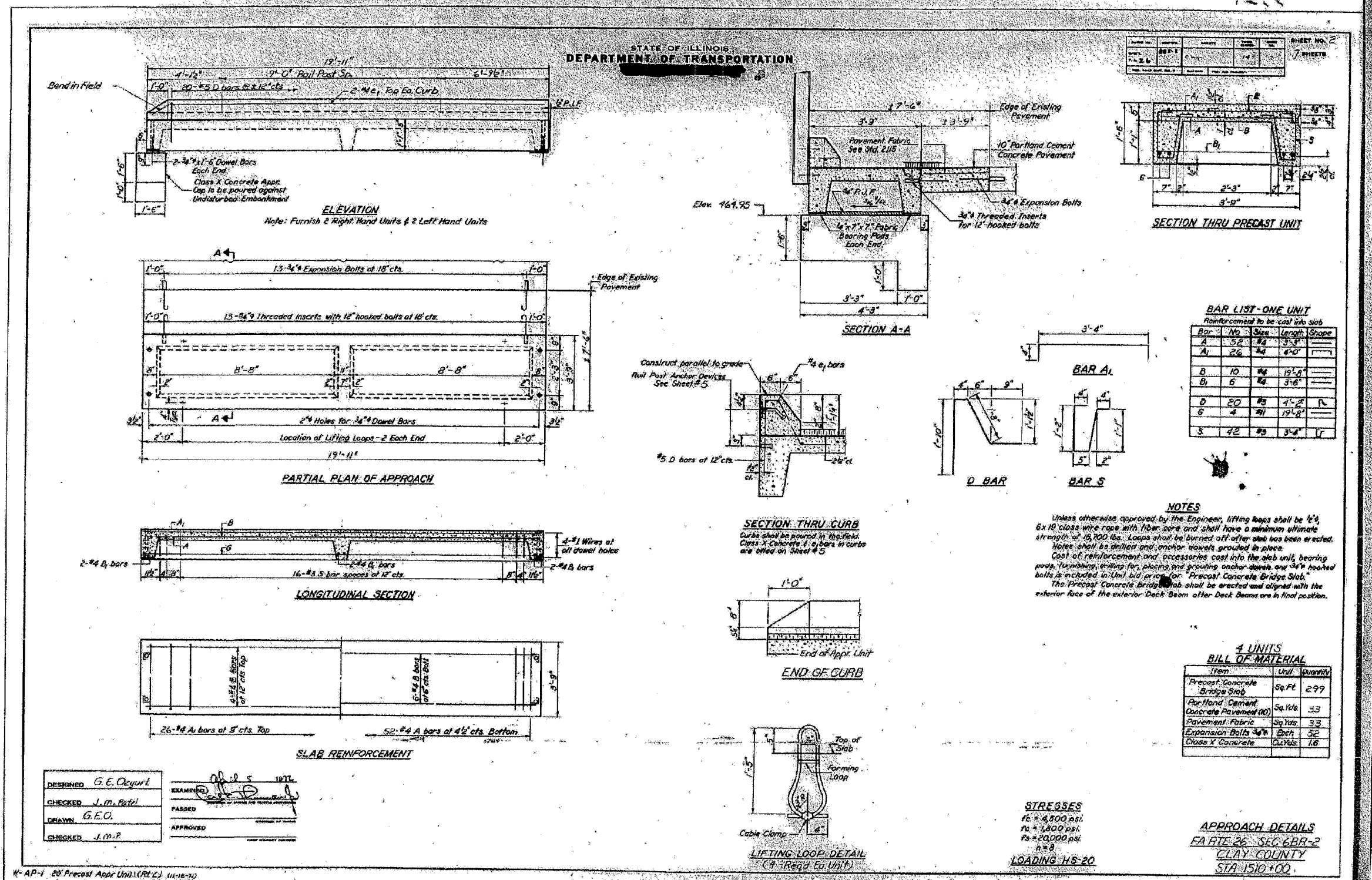
EXAMINED
PREPARED
APPROVED



GENERAL PLAN & ELEVATION
FA 26 (SEC 6) OVER BUCK CREEK
FA RT 26, SEC 6BR-2
CLAY COUNTY
STA 1510+00

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 2 13 SHEETS
FAP 328	*	CLAY	61	45	
CONTRACT NO. 74037		* 16BR-21B-1			



DESIGNED G.E. Ozyurt
 CHECKED J.M. Patel
 DRAWN G.E.O.
 CHECKED J.M.P.

EXAMINED [Signature]
 PASSED [Signature]
 APPROVED [Signature]

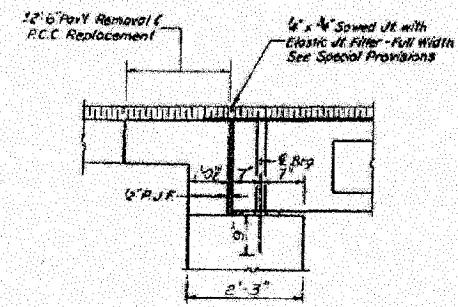
W-AP-1 20' Precast Appr Units (Rt. L.) (11/18/12)

FOR INFORMATION ONLY

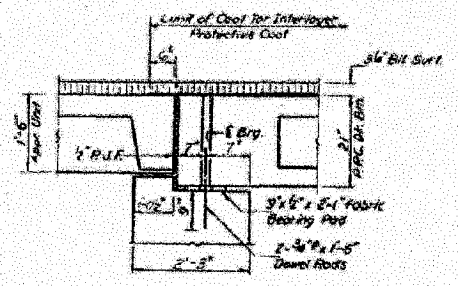
PROJECT NO.	SECTION	COUNTY	SHEET NO.	SHEET
FAP 328	*	CLAY	61	47
SHEET NO. 4 13 SHEETS				
FED. ROAD DIST. NO.	ILL. ROAD DIST. NO.	FED. AID PROJECT		
			CONTRACT NO. 74037 * 6BR-218-1	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

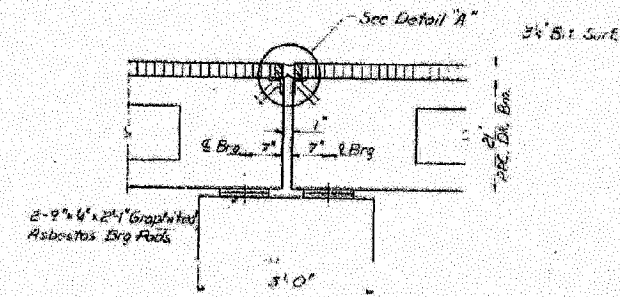
PROJECT NO.	SECTION	COUNTY	SHEET NO.	SHEET
FAP 328	*	CLAY	61	47
SHEET NO. 4 13 SHEETS				
FED. ROAD DIST. NO.	ILL. ROAD DIST. NO.	FED. AID PROJECT		
			CONTRACT NO. 74037 * 6BR-218-1	



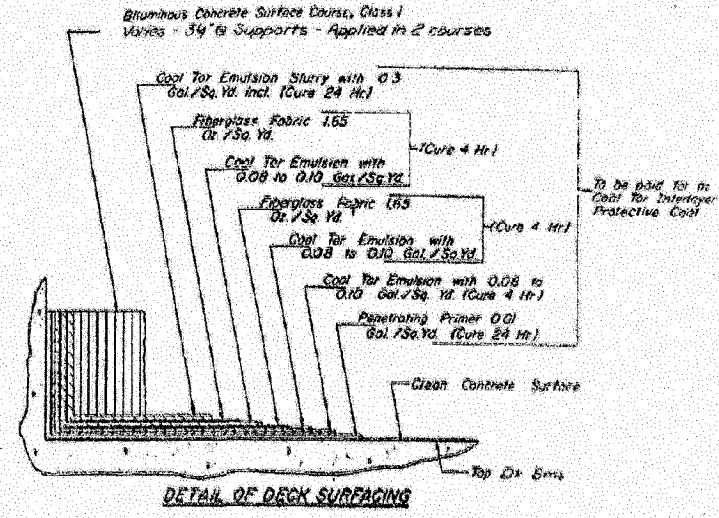
SECTION THRU ABUT
NEAR E ROWY



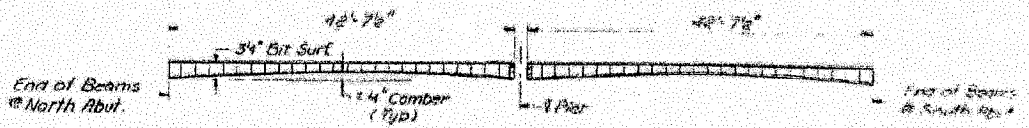
SECTION THRU ABUT
AT OUTSIDE BEAM



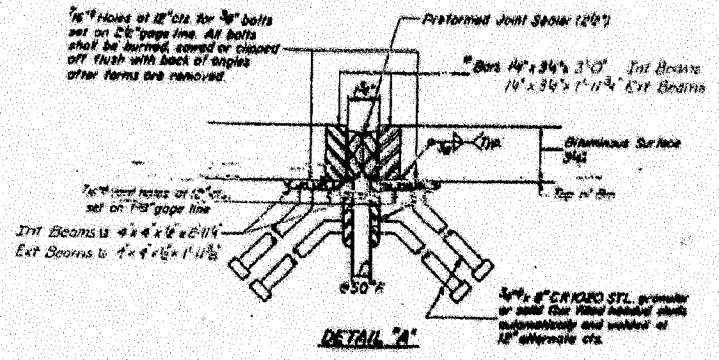
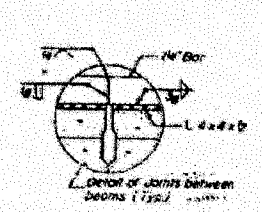
SECTION THRU PIER



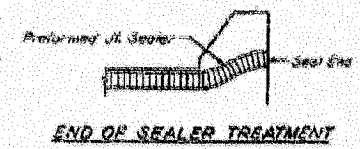
DETAIL OF DECK SURFACING



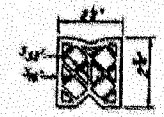
BITUMINOUS SURFACING
PROFILE



DETAIL 'A'



END OF SEALER TREATMENT



PREFORMED JOINT SEALER (12")

GENERAL DETAILS
FA RTE 26 SEC 6BR-1
CLAY COUNTY
STA 1510+00

DESIGNED	J. E. O'Connell	EXAMINED	[Signature]
CHECKED	J. M. Hest	PASSED	[Signature]
DRAWN	G. E. O.	APPROVED	[Signature]
CHECKED	J. M. H.		

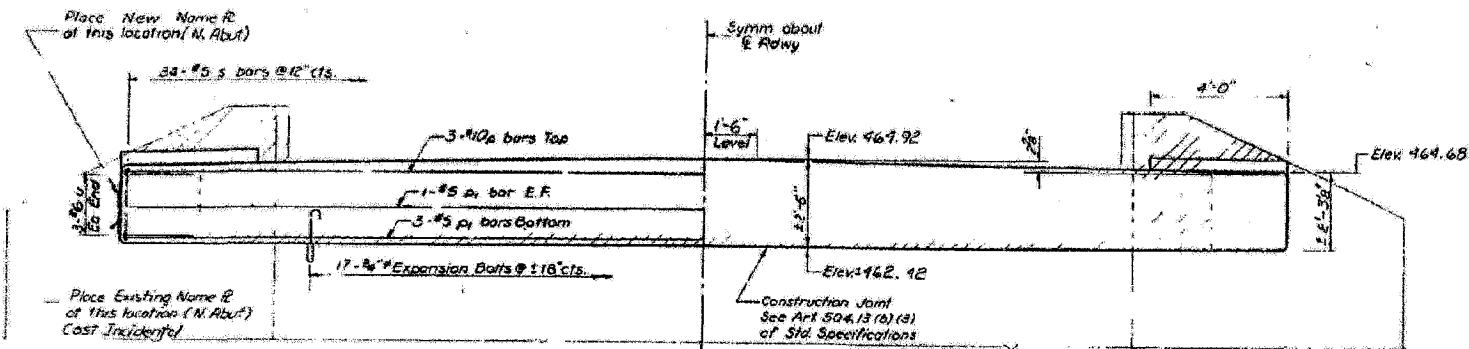
W-5A-D (11-15-52)

FOR INFORMATION ONLY

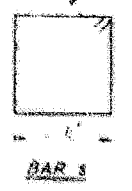
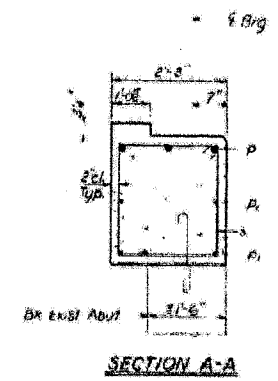
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
FAP 328	*	CLAY	61	49
CONTRACT NO. 74037 * IGBR-218-1				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

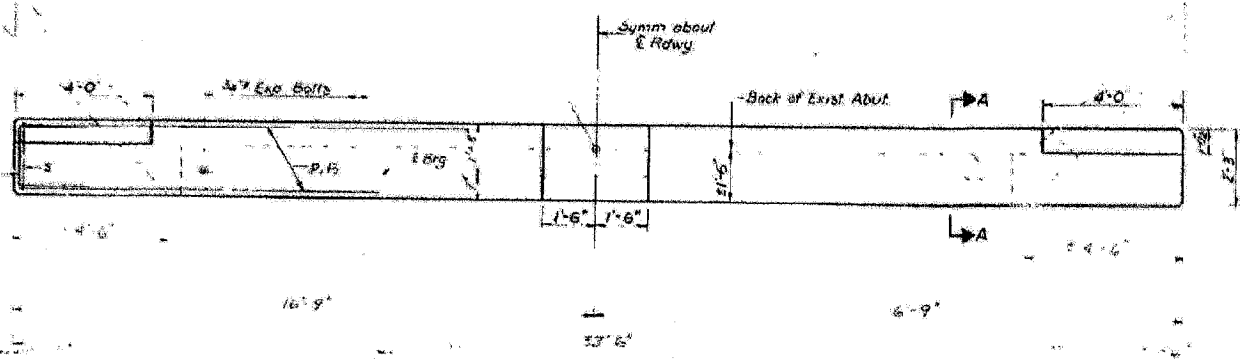
DATE	BY	CHECKED	DATE
12-7	C/A	W	11



ELEVATION



N. Abut Sta. 1509+57
S. Abut Sta. 1510+93



BILL OF MATERIALS

NO.	DESCRIPTION	QTY	UNIT
1	CONCRETE		
2	REINFORCEMENT		

DESIGNED: G.F. O'Connell
CHECKED: J.M. Burt
DRAWN: G.C.D.
CHECKED: J.M.P.

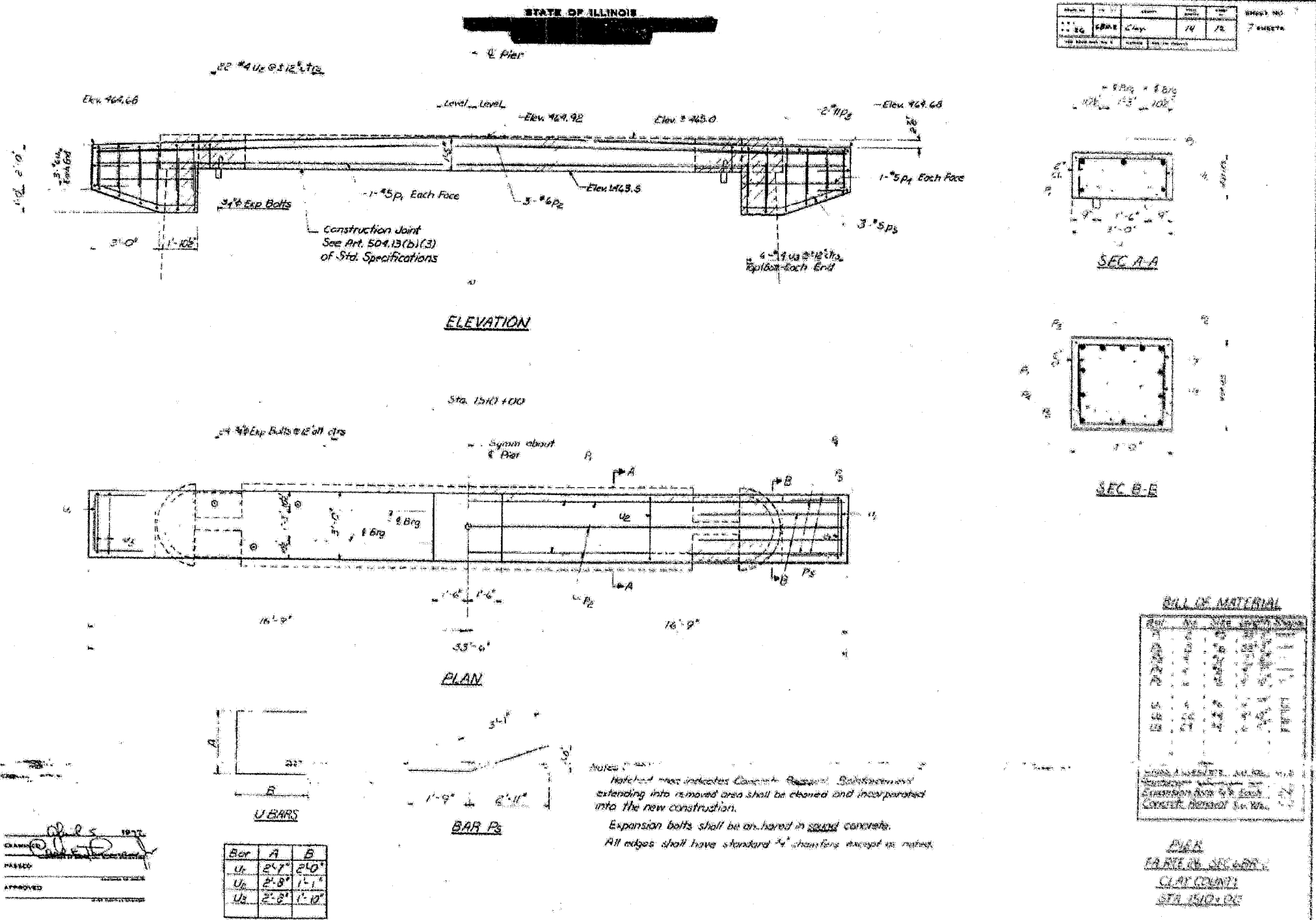
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

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 adjacent concrete. All edges shall have standard 45° chamfers except as noted.

NORTH & SOUTH ABUTMENTS
FRATE 26 SEC. 6 BRIDGE
CLAY COUNTY
STA. 1510+00

FOR INFORMATION ONLY

ROUTE NO. FAP 328	SECTION *	COUNTY CLAY	SHEET NO. 61	SHEET 50
SHEET NO. 7 13 SHEETS				
FED. ROAD DIST. NO.		S.L. NO. 10		FED. AID PROJECT
CONTRACT NO. 74037				* (6BR-2)B-1

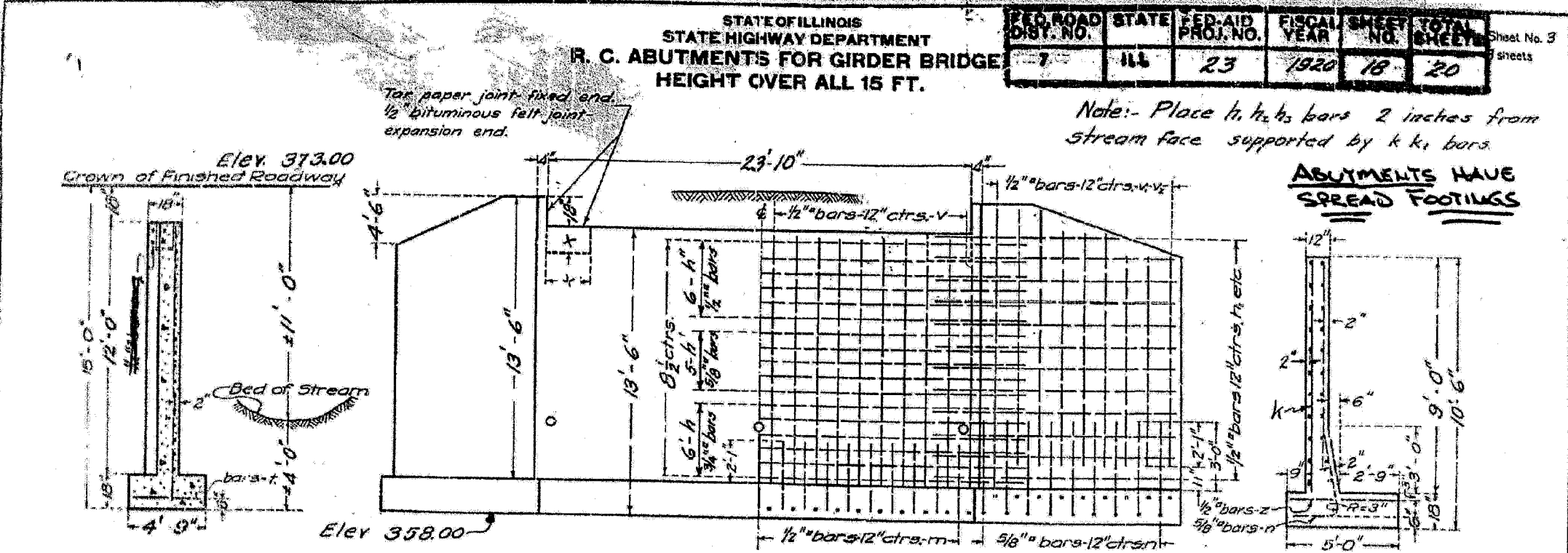


FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
FAP 328	*	CLAY	61	51
CONTRACT NO. 74037 * (GBR-218-1)				

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	ILL	23	1920	18	20

STATE OF ILLINOIS
STATE HIGHWAY DEPARTMENT
R. C. ABUTMENTS FOR GIRDER BRIDGE
HEIGHT OVER ALL 15 FT.



Note:- Place h_1, h_2, h_3 bars 2 inches from stream face supported by k, k_1 bars.

ABUTMENTS HAVE SPREAD FOOTINGS

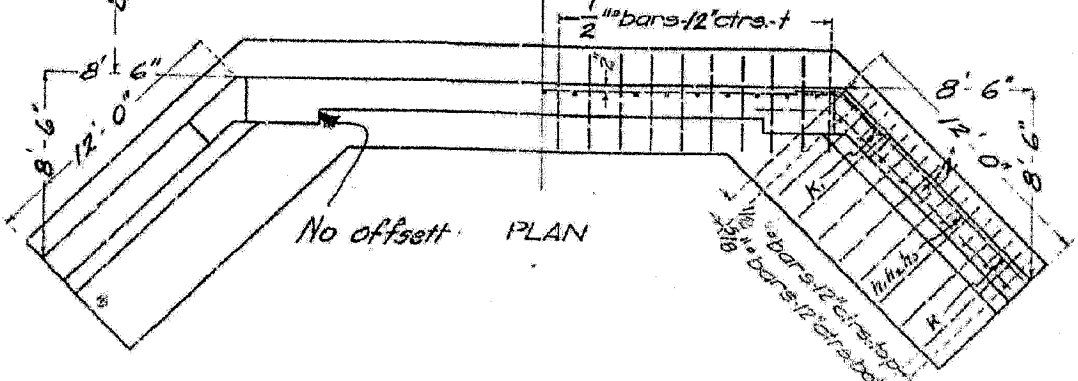
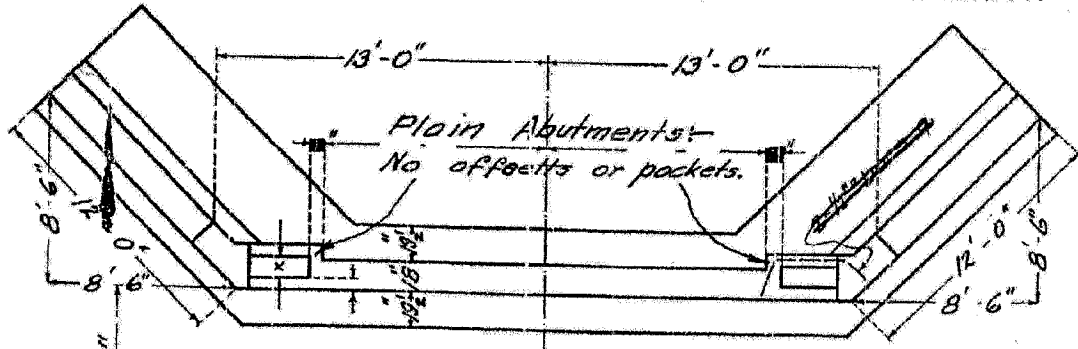
SECTION OF ABUTMENT

FRONT ELEVATION
SHOWING OUTLINES SHOWING REINFORCEMENT

END OF WING

HORIZONTAL STEEL - MAIN WALL

Bars	Length of Bridge Seat.							
	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"	25'-0"	26'-0"
No.	6	7	7	5	5	6	6	7
h Size	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ctrs.	8 1/2"	7 1/2"	7"	10 1/2"	9 1/2"	8 1/2"	8"	7 1/2"
No.	5	5	6	4	5	5	5	5
h Size	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ctrs.	8 1/2"	7 1/2"	7"	10 1/2"	9 1/2"	8 1/2"	8"	7 1/2"
No.	6	7	7	5	5	6	7	7
h Size	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
ctrs.	8 1/2"	7 1/2"	7"	10 1/2"	9 1/2"	8 1/2"	8"	7 1/2"
Thickness of Wall	12"	12"	12"	18"	18"	18"	18"	18"



BILL OF MATERIAL

Bars	No.	Size	Length
v	50	1/2"	11'-6"
v1	8	1/2"	12'-6"
v2	12	1/2"	17'-0"
v3	16	1/2"	9'-6"
v4	12	1/2"	8'-0"
h	12	3/4"	30'-0"
h1	10	3/4"	28'-0"
h2	12	3/4"	28'-0"
k	4	1/2"	9'-0"
k1	4	1/2"	13'-0"
h3	36	1/2"	14'-0"
h4	8	1/2"	10'-6"
h5	4	1/2"	7'-6"
m	50	1/2"	3'-0"
n	48	5/8"	6'-0"
t	50	1/2"	4'-6"
z	48	1/2"	4'-9"
Reinforcing Steel - lbs.	3750		
Concrete - cu Yds.	72.9		

Class A concrete to be used throughout. Proportions 1:2 1/2:4.

STATION 1510+00
SECTION 6A
CLAY COUNTY

DESIGNED BY *W. D. Smith*
ENGINEER OF BRIDGES

APPROVED BY *L. J. Bunch*
BRIDGE ENGINEER
APPROVED BY *W. D. Smith*
STATE HIGHWAY ENGINEER

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	#	CLAY	61	52
13 SHEETS				
FED. ROAD DIST. NO.	SUBDIVISION	FED. AID PROJECT		
CONTRACT NO. 74037			* (6BR-2)B-1	

DATE	BY	REVISION
7	ALL	23 1900 0 20

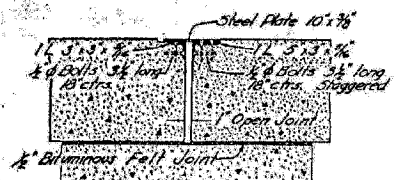
$$\begin{array}{r} 373.17 \\ - 15.17 \\ \hline 358.00 \end{array}$$
 both footing

$$\begin{array}{r} 358.00 \\ + 15.82 \\ \hline 373.82 \end{array}$$
 new survey

$$\begin{array}{r} 2 \\ 10-5 \\ 1-6 \\ 1-6 \\ \hline 1-9 \\ \hline 15-2 \end{array}$$

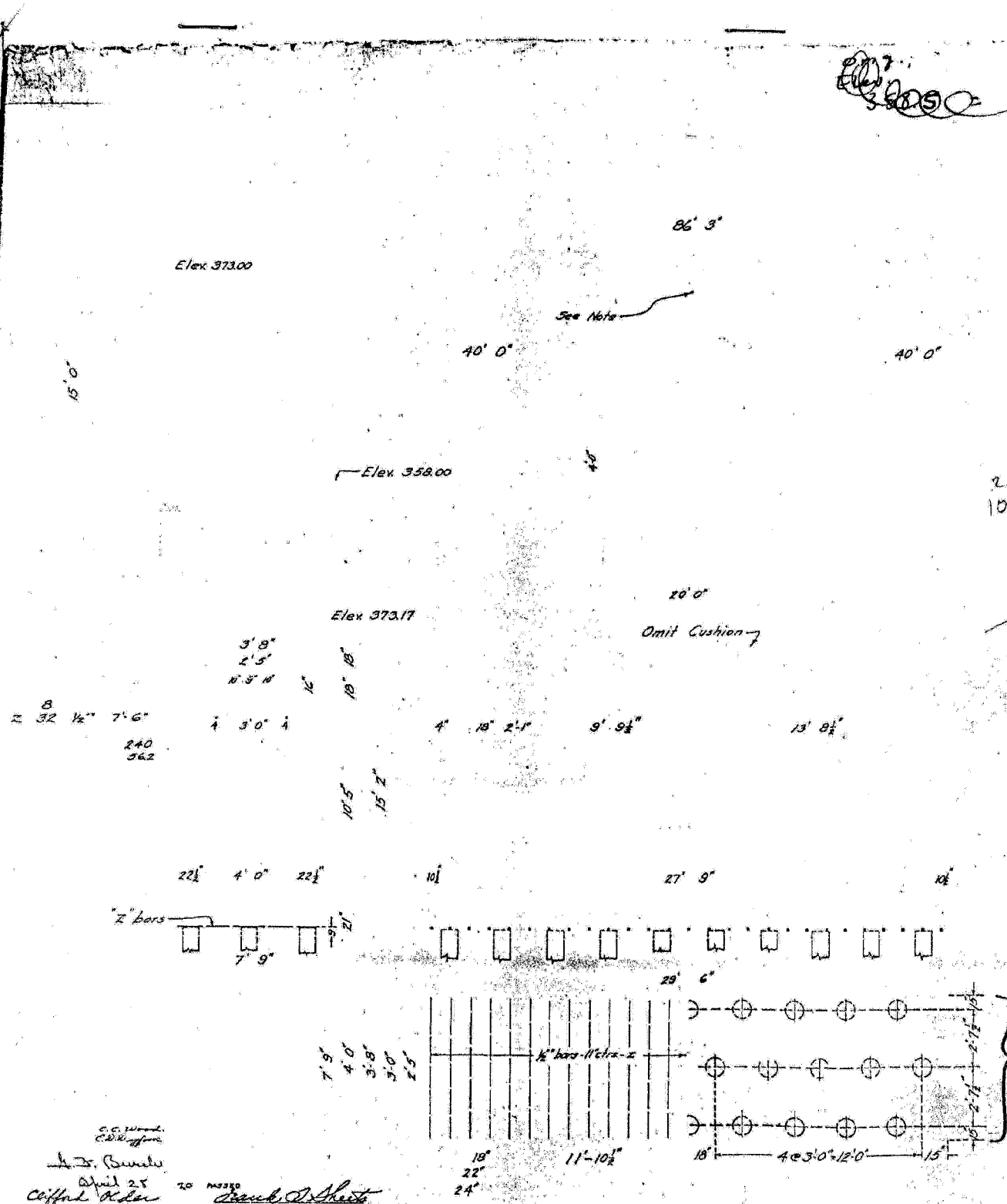
31640
 3750
 240
 35630
 900
 470
 1472
 78.9
 56.2
 226.1
 56.2
 282.3

Piles under Pier - 28
 Expansion Device - Angles and Plates lbs. 540



FLOOR EXPANSION DETAILS
 OVER PIER.
 Note - Make one inch open joint in floor
 between subgirders and 1/2 inch bituminous
 felt joint in girders.

STATION 1510+00
 FEDERAL Aid PROJ. No. 23
 SECTION 6, A.P.C.
 CLAY COUNTY



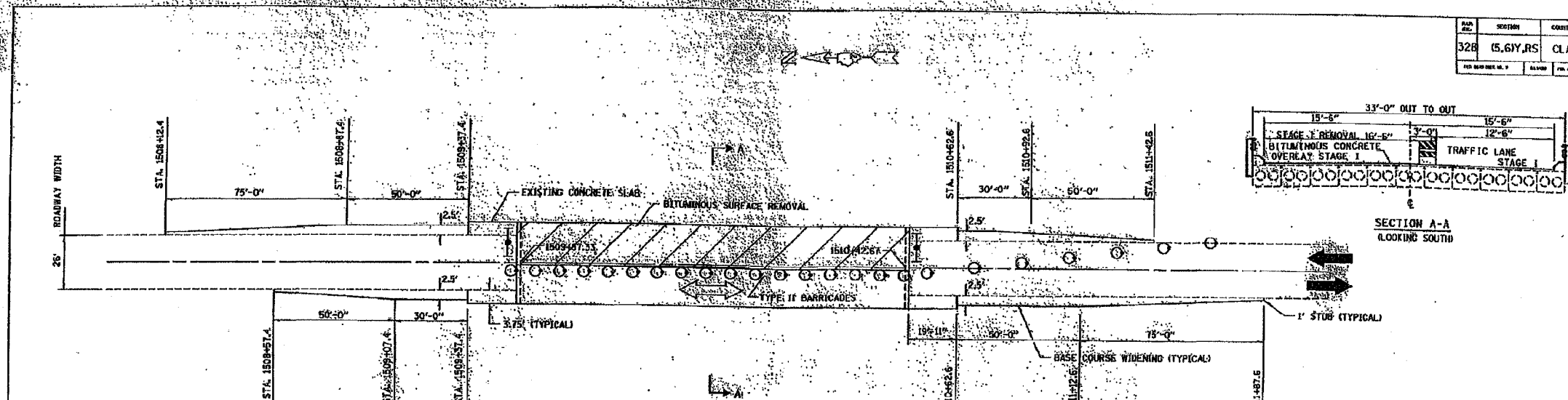
C.C. Wood
 Civil Engineer
 H. J. Bunch
 April 25
 Civil Engineer
 20 19330
 H. J. Bunch
 ENGINEER OF DESIGN

785

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 10 13 SHEETS
FAP 328	*	CLAY	61	53	
CONTRACT NO. 74037 * 16BR-21B-1					

MAP NO.	SECTION	COUNTY	SHEETS	SHEET
328	15,61Y,RS	CLAY	146	47



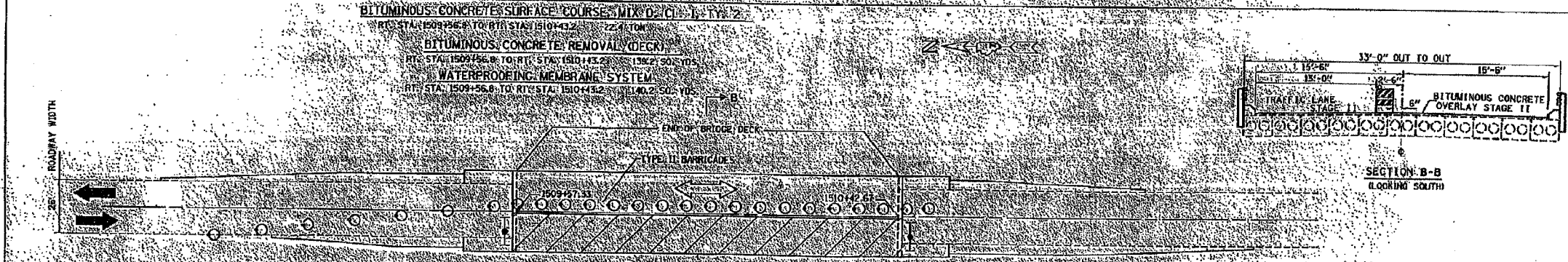
BITUMINOUS CONCRETE REMOVAL (DECK)
 LT. STA. 1509+56.8 TO RT. STA. 1510+43.2 = 86.4 SO. YDS.

BITUMINOUS CONCRETE SURFACE COURSE, MIX D, CL. I, TY. 2
 NET LT. STA. 1509+56.8 TO RT. STA. 1510+43.2 = 86.4 SO. YDS.

WATERPROOFING MEMBRANE SYSTEM
 LT. STA. 1509+56.8 TO RT. STA. 1510+43.2 = 86.4 SO. YDS.

BASE COURSE WIDENING
 RT. STA. 1509+56.8 TO RT. STA. 1510+43.2 = 86.4 SO. YDS.
 LT. STA. 1509+56.8 TO LT. STA. 1510+43.2 = 86.4 SO. YDS.
 TOTAL = 172.8 SO. YDS.

- STAGE 1**
1. CONSTRUCT BASE COURSE WIDENING ON THE RIGHT SIDE OF THE ROADWAY.
 2. INSTALL TRAFFIC CONTROL FOR STAGE I CONSTRUCTION AS PER TRAFFIC CONTROL AND PROTECTION STANDARD 2309 (SPECIAL).
 3. CONSTRUCT STAGE I REPAIRS, SEE SHEET NO. 50 FOR KEYWAY AND DECK BEAM REPAIR LOCATIONS.
 4. CONSTRUCT BASE COURSE WIDENING ON THE LEFT SIDE OF ROADWAY.



- STAGE 2**
1. RELOCATE TRAFFIC CONTROL FOR STAGE II CONSTRUCTION.
 2. CONSTRUCT STAGE II REPAIRS.
 3. REMOVE TEMPORARY TRAFFIC CONTROL.

BUCK CREEK
 SECTION 15,61Y,RS
 CLAY COUNTY
 STA. 1510+00
 (SM. 013-0012)

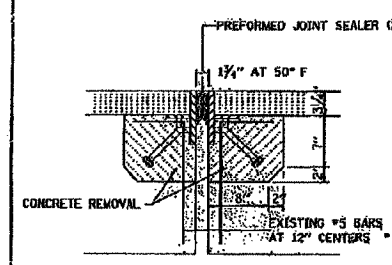
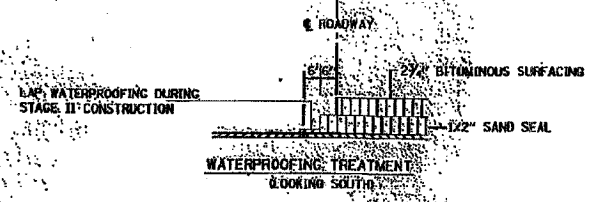
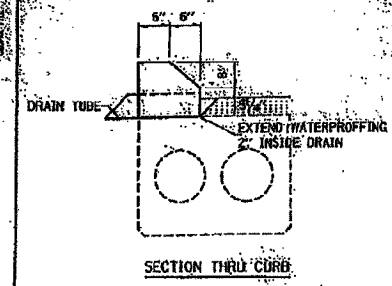
BRIDGE STAGE CONSTRUCTION - BUCK CREEK

FOR INFORMATION ONLY

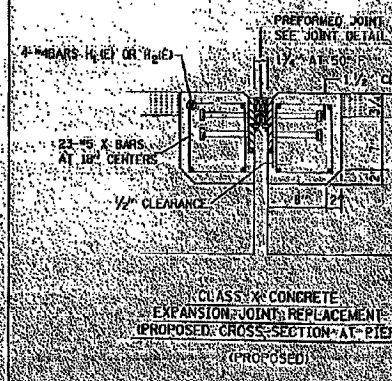
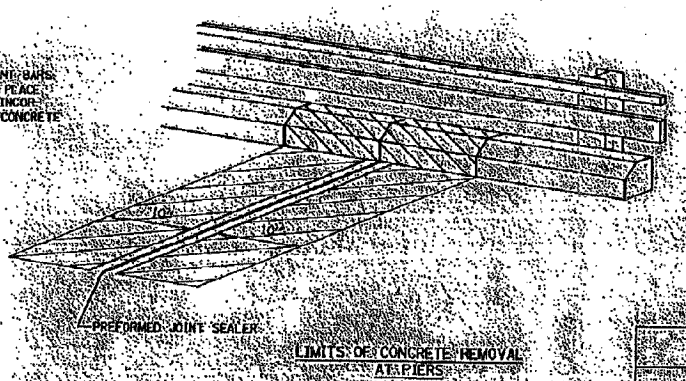
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 328	#	CLAY	61	54
13 SHEETS				
FED. ROAD DIST. NO.	DIST. NO.	FED. AID PROJECT		

CONTRACT NO. 74037 * (6BR-2)B-1

SECTION	COUNTY	DATE	NO.
(5,6)Y,RS	CLAY	1966	48



EXISTING REINFORCEMENT BARS THAT ARE TO REMAIN IN PLACE SHALL BE CLEANED AND INCORPORATED INTO THE NEW CONCRETE



ITEM	UNIT	STAGE I	STAGE II	TOTAL
CONCRETE REMOVAL	CU YD	0.86	0.76	1.62
PREFORMED JOINT SEALER 2 1/2"	LIN FT	17	16	33
CLASS III CONCRETE	CU YD	1.12	1.06	2.17
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	708	664	1370
REINFORCEMENT BARS EPOXY COATED	BOUND	181	141	292

FOR INFORMATION ONLY

BAR	NO.	SIZE	LENGTH	SHAPE
TYPE I STAGE I	8	#4	15'-10"	
TYPE I STAGE II	8	#4	15'-10"	
TYPE II	4C	#6	2'-6"	

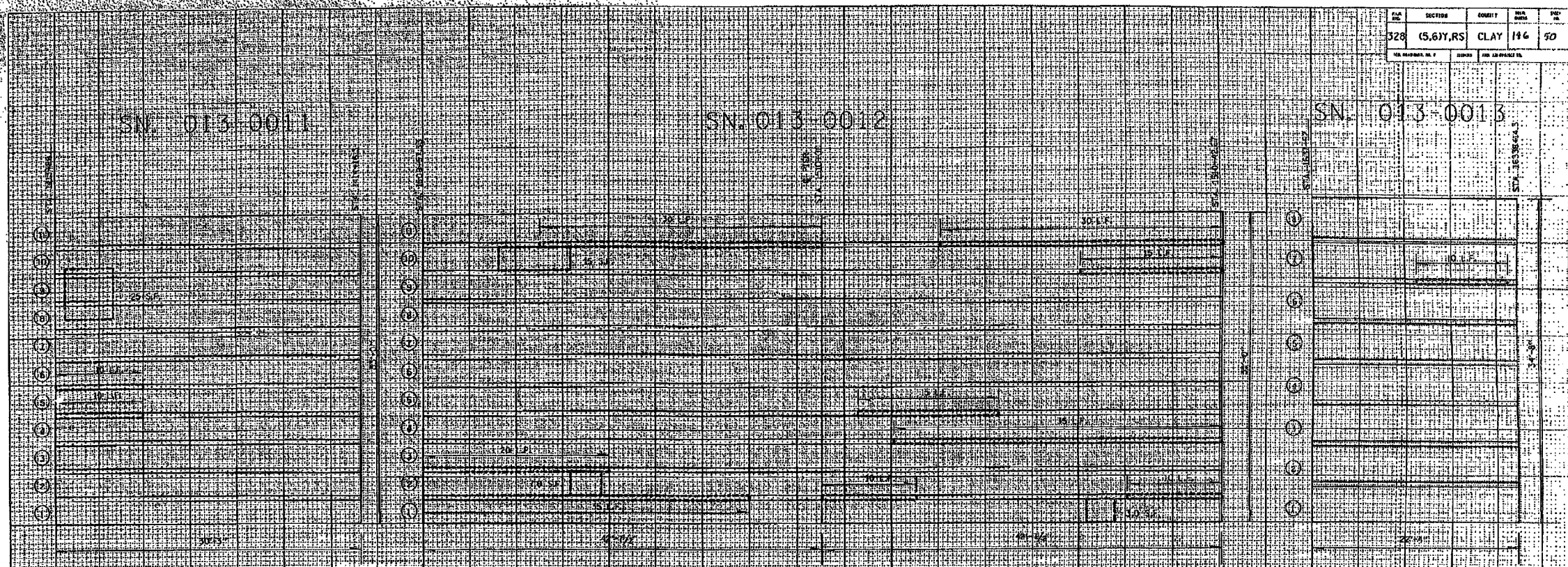
(E) DENOTES EPOXY COATED

BUCK CREEK
SECTION (5,6)Y,RS
CLAY COUNTY
STA. 1510+00
(SN. 013-0012)

BUCK CREEK DETAILS

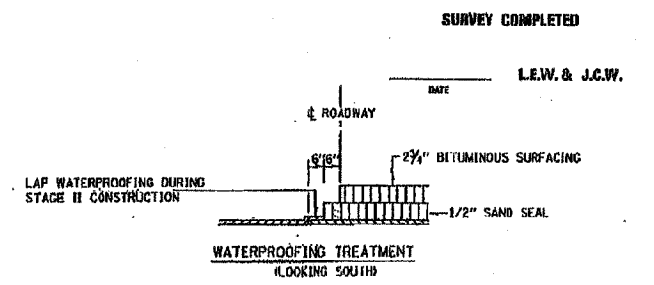
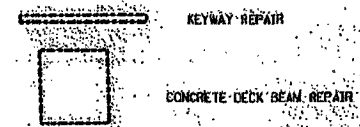
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 328	5,6JY,RS	CLAY	61	55
13 SHEETS				
CONTRACT NO. 74037 * 16BR-2B-1				



FLOORSLAB DOWN

BILL OF MATERIAL					
ITEM	UNIT	0011	0012	0013	TOTAL
TRAFFIC CONT. AND PROT. STAND. 2' HIGH SPECIAL	EACH	1	1	1	3
BASE COURSE WIDENING SPECIAL	SQ. YDS.	108.8	93.2	149.0	351
BITUMINOUS CONCRETE REMOVAL DECK	SQ. YDS.	114.8	297.6	84.6	497
KEYWAY REPAIR	LIN. FT.	20	200	10	230
CONCRETE DECK BEAM REPAIR	SQ. FT.	25	25		50
CONCRETE REMOVAL	CU. YD.		1.6		1.6
PREFORMED JOINT SEAL 1/2"	LIN. FT.		33		33
CLASS II CONCRETE	CU. YD.		2.2		2.2
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND		470		470
REINFORCEMENT BARS EXPOSED	POUND		292		292
WATERPROOFING MEMBRANE SYSTEM	SQ. YDS.	114.8	297.6	84.6	497
BITUMINOUS CONCRETE SURFACE COURSE MIX D. 50/70	CU. YD.	12.8	44.8	9.4	67.0

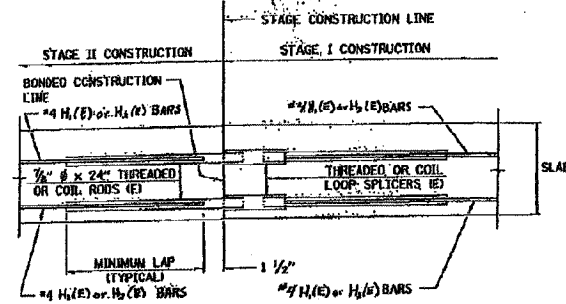


SURVEY COMPLETED
 DATE _____
 L.E.W. & J.C.W.
 GROVE, BLICK, AND
 BRANCH OF ELM RIVER
 SECTION (5,6)Y,RS
 CLAY COUNTY
 STA: 1414+01, 1510+00, 1638+03.2
 SN: 013-0011
 SN: 013-0012
 SN: 013-0013

DELAMTECT SURVEY

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 13
FAP 328	#	CLAY	61	56	13 SHEETS
FED. ROAD DIST. NO.	DRAWING	FED. AID PROJECT	CONTRACT NO. 74037 * 16BR-21B-1		



TYPICAL SECTION AT ABUTMENT

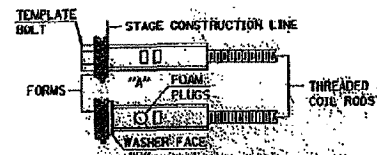
THE DIAMETER OF THIS PART OF SPLICER IS THE SAME AS THE DIAMETER OF THE BAR SPLICED.

ROLLED THREAD DOWEL BAR

ONE PIECE WIRE CONNECTOR

WELDED SECTIONS

SPLICER ALTERNATIVES
 ** HEAVY HEX NUTS CONFORMING TO ASTM A 563, GRADE C.D. OR OH MAY BE USED.



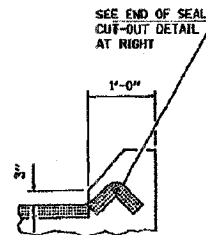
INSTALLATION AND SETTING METHODS

** #4 SET SPLICER BY MEANS OF A TEMPLATE BOLT.
 ** #4 SET SPLICER BY MEANS OF 1/2" ROD FORMS OR CEMENTING TO METAL FORMS.
 (E) INDICATES EPOXY COATING.

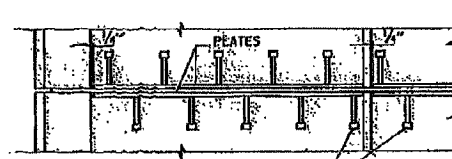
NOTES

- STEEL SPLICER (COUPLER) ASSEMBLY SHALL BE OF AN APPROVED TYPE AND SHALL DEVELOP IN TENSION AT LEAST 125 PERCENT OF THE YIELD STRENGTH OF THE LAPPED REINFORCEMENT BAR.
- STEEL SPLICER RODS SHALL BE OF MINIMUM 60 KSI YIELD STRENGTH THREADED OR COILED FULL LENGTH AND HAVE EFFECTIVE TENSILE STRESS AREA EQUAL TO OR GREATER THAN THAT OF THE LAPPED REINFORCEMENT BARS.
- ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER RODS. SPLICER COMPLETE ASSEMBLY (IN THE FIELD) SHALL BE EPDM COATED IN ACCORDANCE WITH 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 SPLICER (COUPLER) ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENTS:
 - MINIMUM CAPACITY (TENSION IN KIPS) = 125% AT 1/2" ALLOW.
 - MINIMUM PULL-OUT STRENGTH (TENSION IN KIPS) = 125% AT 1/2" ALLOW.
- WHERE f_y = YIELD STRENGTH OF LAPPED REINFORCEMENT BARS IN KSI.
 f_a ALLOW = ALLOWABLE TENSILE STRESS IN LAPPED REINFORCED BARS.
 S = 45% SERVICE LOAD.
 A = TENSILE STRESS IN AREA OF LAPPED REINFORCEMENT BARS.
 S = 28% CONCRETE.

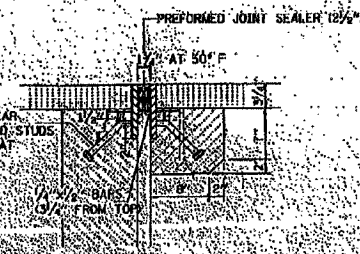
TYPICAL SPLICER (COUPLER) ASSEMBLY SIZES	MINIMUM CAPACITY = 230 KIPS TENSION
IN SLAB	MINIMUM PULL-OUT STRENGTH = 9.2 KIPS TENSION
#4 BAR LAP WITH #4 SPLICER (COUPLER) #4 SPLICER RODS	



END OF SEALER TREATMENT



3/4" x 8" GRANULAR OR SOLID FLUX FILLED HEADED STUDS CONFORMING TO ART. 710.38 OF THE STD. SPEC'S. AUTOMATICALLY END WELDED AT 12" ALTERNATE CENTERS.

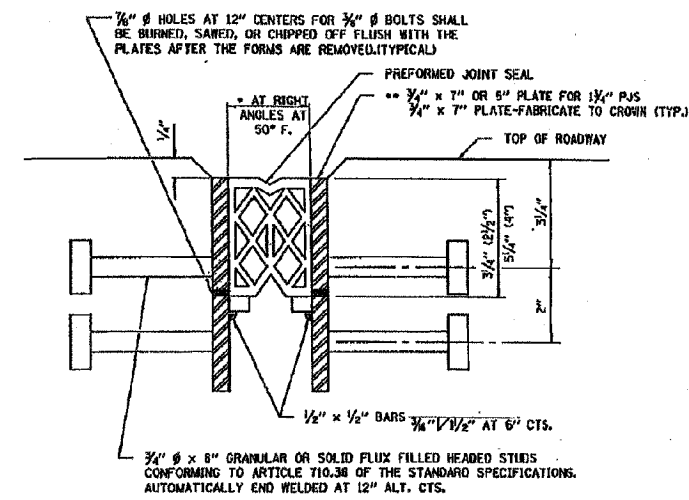


EXISTING JOINT SEAL

GENERAL NOTES FOR PREFORMED JOINT SEAL.

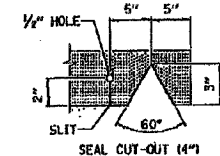
AFTER FABRICATION ALL SURFACES OF THE STEEL PLATES SHALL BE PAINTED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 503.04 OF THE STANDARD SPECIFICATIONS.
 JOINT OPENINGS SHALL BE ADJUSTED IN ACCORDANCE WITH ARTICLE 503.07 (d) OF THE STANDARD SPECIFICATIONS.

SECTION	QUANTITY	UNIT	PRICE
(S, G), RS	CLAY	144	51

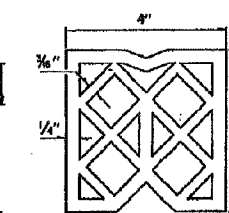


1" AT 50° F (1 1/2")
 1 1/2" AT 50° F (2 1/4")
 2 1/4" AT 50° F (4")

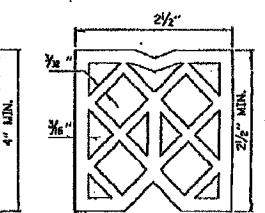
** FURNISH IN SEGMENTS OF 25 FT. MAXIMUM LENGTH. MAXIMUM SPACE BETWEEN INSTALLED SEGMENTS SHALL BE 1/8". SEAL SPACE WITH SILICONE SEALANT SUITABLE FOR STRUCTURAL STEEL.



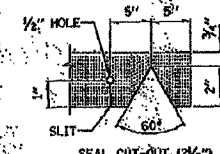
SEAL CUT-OUT (4")



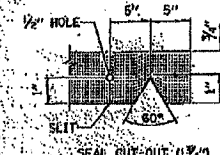
(4")



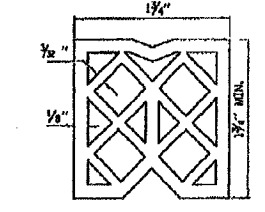
(2 1/2")



SEAL CUT-OUT (2 1/2")



SEAL CUT-OUT (1 1/4")



(1 3/4")

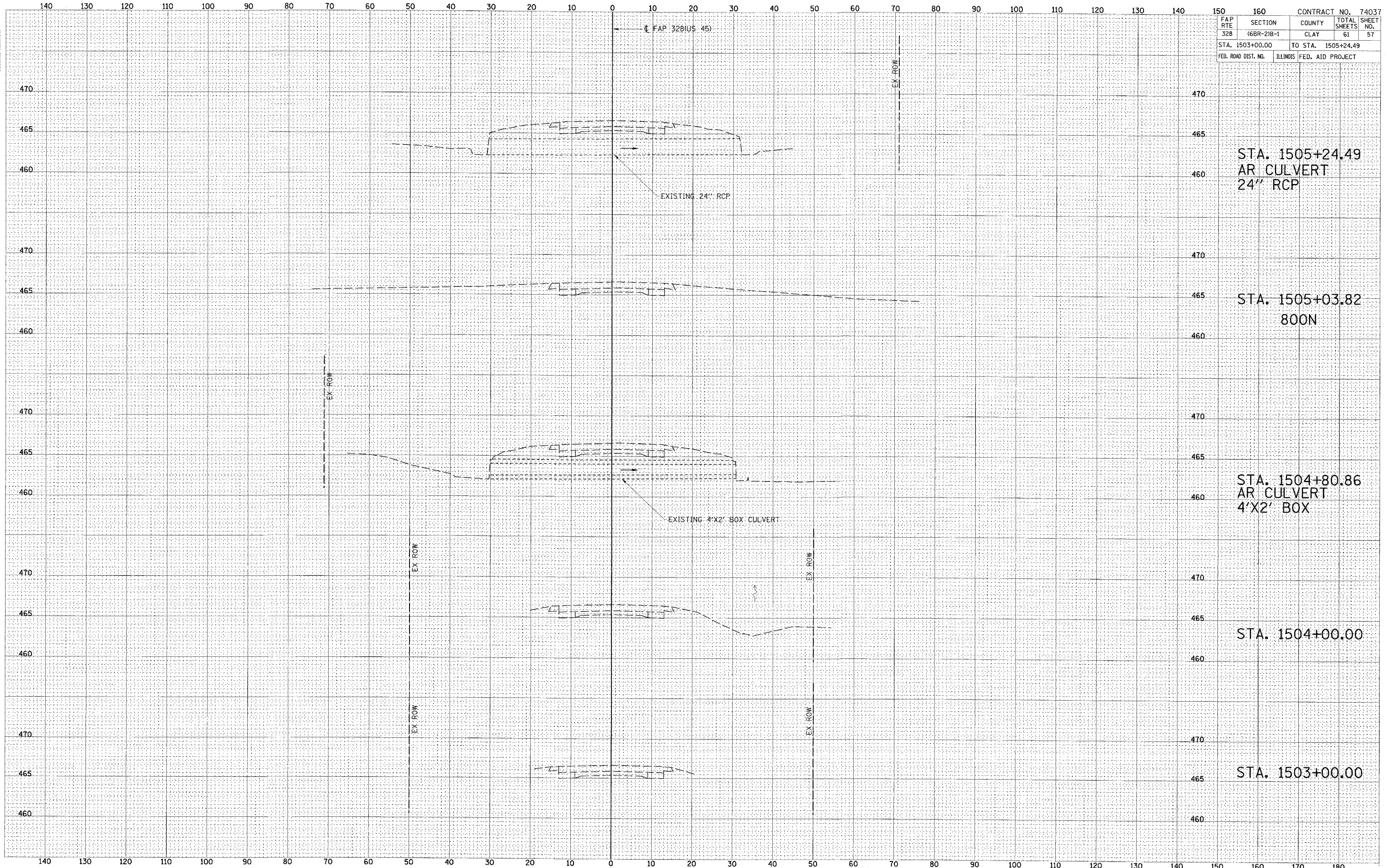
PREFORMED JOINT SEALS

JOINT DETAIL



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

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



FAP RTE		SECTION		COUNTY		TOTAL SHEETS		CONTRACT NO.	
328	6BR-21B-1	CLAY	61	61	57	74037			
STA. 1503+00.00				TO STA. 1505+24.49					
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT					

STA. 1505+24.49
AR CULVERT
24" RCP

STA. 1505+03.82
800N

STA. 1504+80.86
AR CULVERT
4'X2' BOX

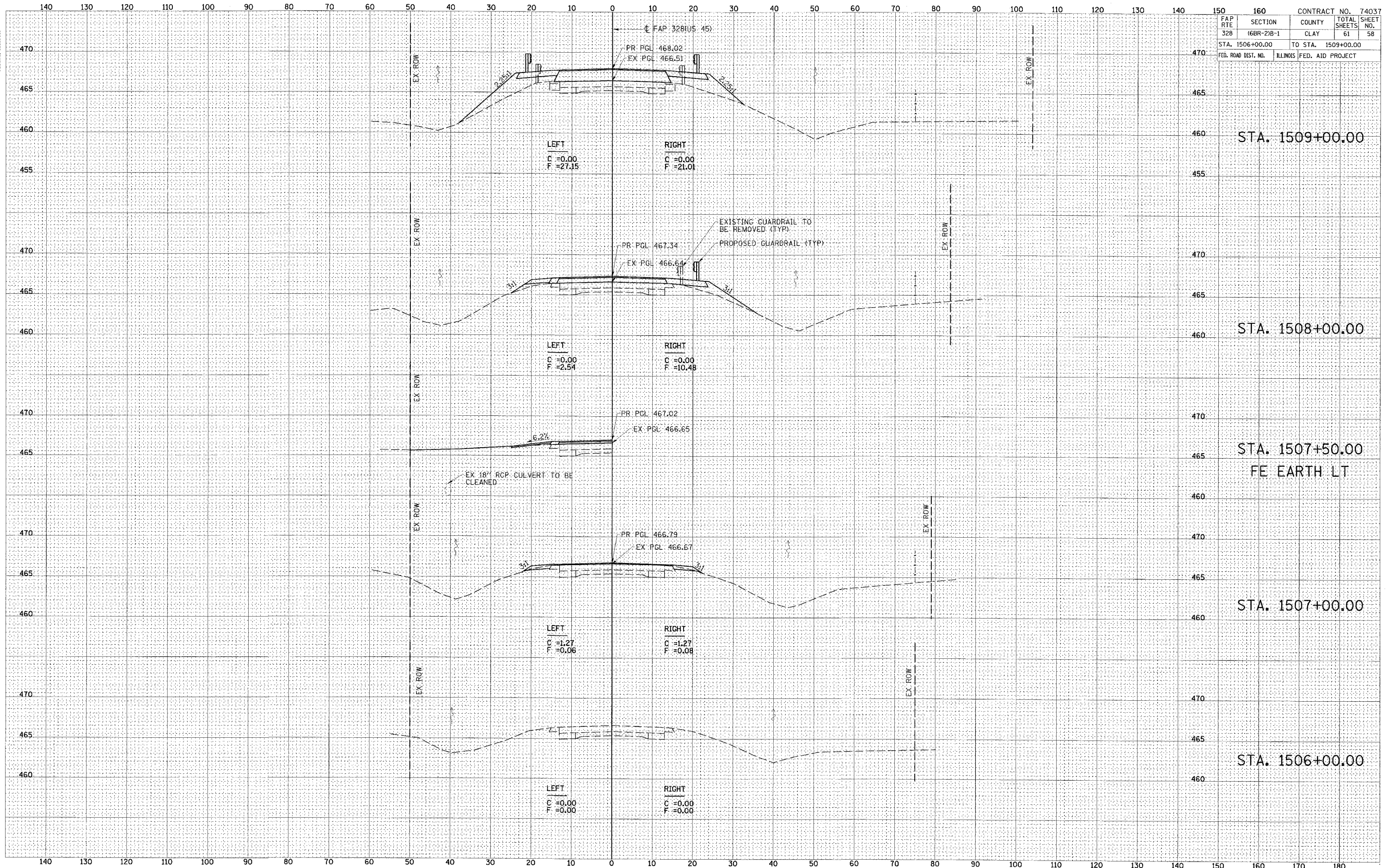
STA. 1504+00.00

STA. 1503+00.00



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

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



CONTRACT NO. 74037				
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	6BR-2B-1	CLAY	61	58
STA. 1506+00.00		TO STA. 1509+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA. 1509+00.00

STA. 1508+00.00

STA. 1507+50.00
FE EARTH LT

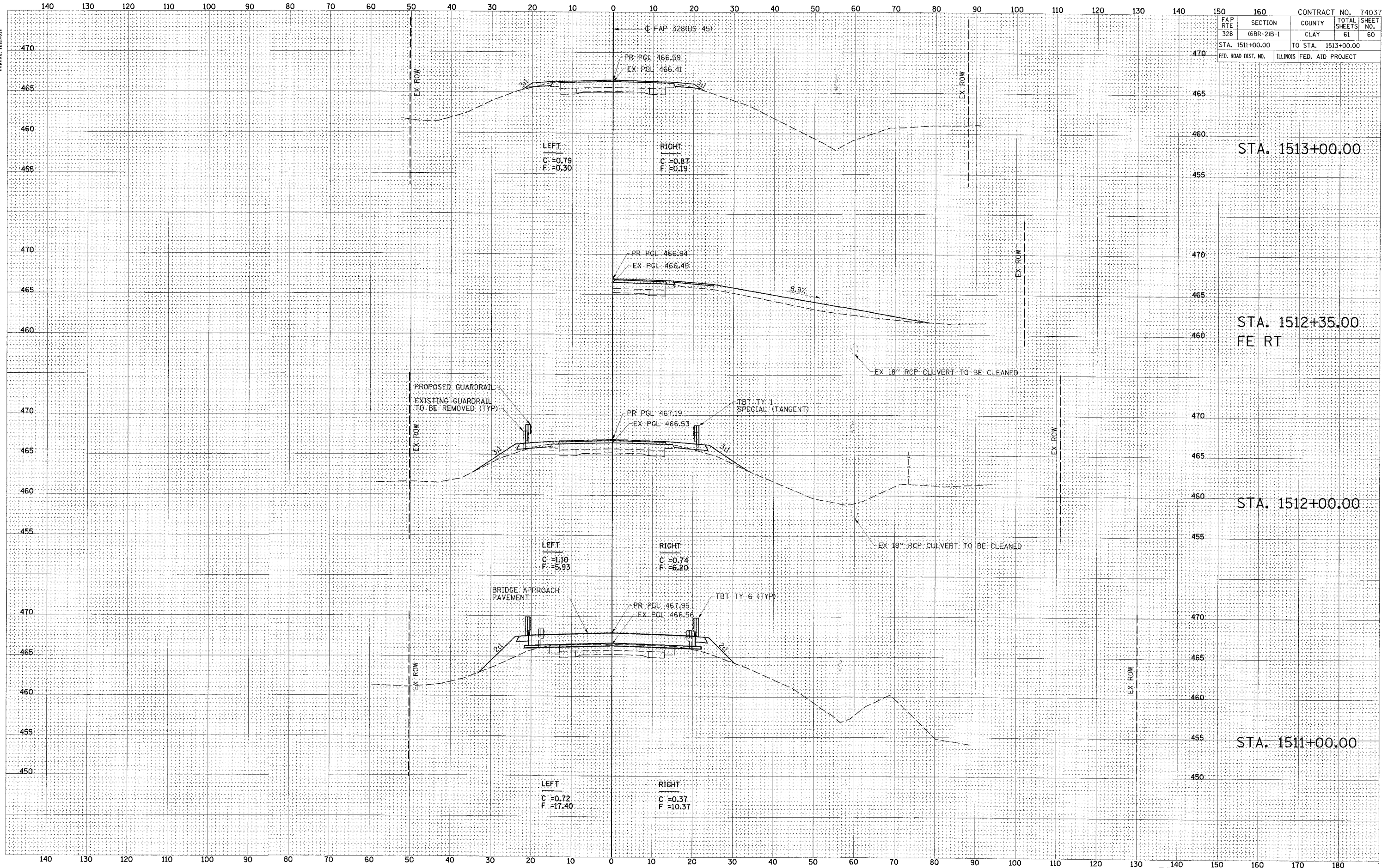
STA. 1507+00.00

STA. 1506+00.00



DATE	
BY	
FINAL SURVEY	
NOTED BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTED BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

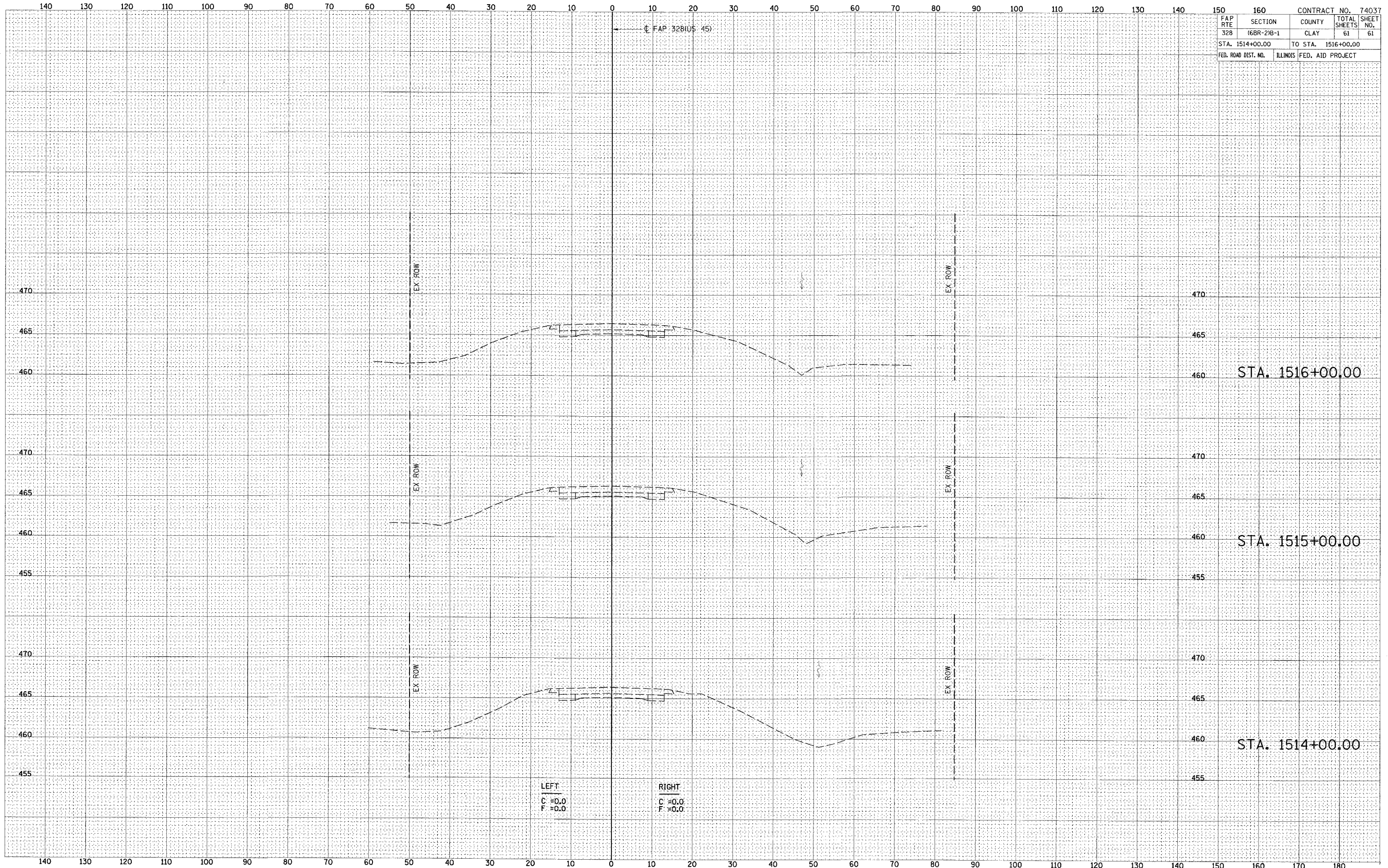


CONTRACT NO. 74037				
FAP RTE 328	SECTION 6BR-2B-1	COUNTY CLAY	TOTAL SHEETS 61	SHEET NO. 60
STA. 1511+00.00		TO STA. 1513+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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



FAP RTE 328		SECTION 160		CONTRACT NO. 74037	
CLAY		ILLINOIS		TOTAL SHEETS	SHEET NO.
1514+00.00		1516+00.00		61	61
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	

LEFT
C = 0.0
F = 0.0

RIGHT
C = 0.0
F = 0.0