

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 78154		

# INDEX OF SHEETS 03-08-13 LETTING ITEM 107

- SHEET NO. DESCRIPTION**
- ROADWAY PLANS**
- COVER SHEET
  - GENERAL NOTES AND STANDARDS
  - 8. SUMMARY OF QUANTITIES
  - 11. TYPICAL SECTIONS
  - SCHEDULES OF QUANTITIES
  - 15. IL RTE 1 PLAN AND PROFILE
  - 17. STAGE CONSTRUCTION PLAN AND DETAILS
  - EROSION CONTROL AND DRAINAGE PLANS
  - SEEDING AND MULCHING DETAILS
  - STEP CONSTRUCTION ON EXISTING FILL DETAILS
  - BUTT JOINT DETAIL
- STRUCTURE PLANS**
- GENERAL PLAN & ELEVATION
  - GENERAL DATA
  - STAGE CONSTRUCTION DETAILS
  - TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
  - TOP OF SLAB ELEVATIONS
  - TOP OF WEST APPROACH SLAB ELEVATIONS
  - TOP OF EAST APPROACH SLAB ELEVATIONS
  - SUPERSTRUCTURE
  - SUPERSTRUCTURE DETAILS
  - BRIDGE APPROACH SLAB DETAILS
  - WEST ABUTMENT
  - EAST ABUTMENT
  - PIER 1
  - PIER 2
  - PIER 3
  - PIER 4
  - PIER 5
  - HP PILE DETAILS
  - BAR SPLICER ASSEMBLY DETAILS
  - BORING LOGS
- EXISTING STRUCTURE PLANS**  
**SN 097-0007**
- EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY

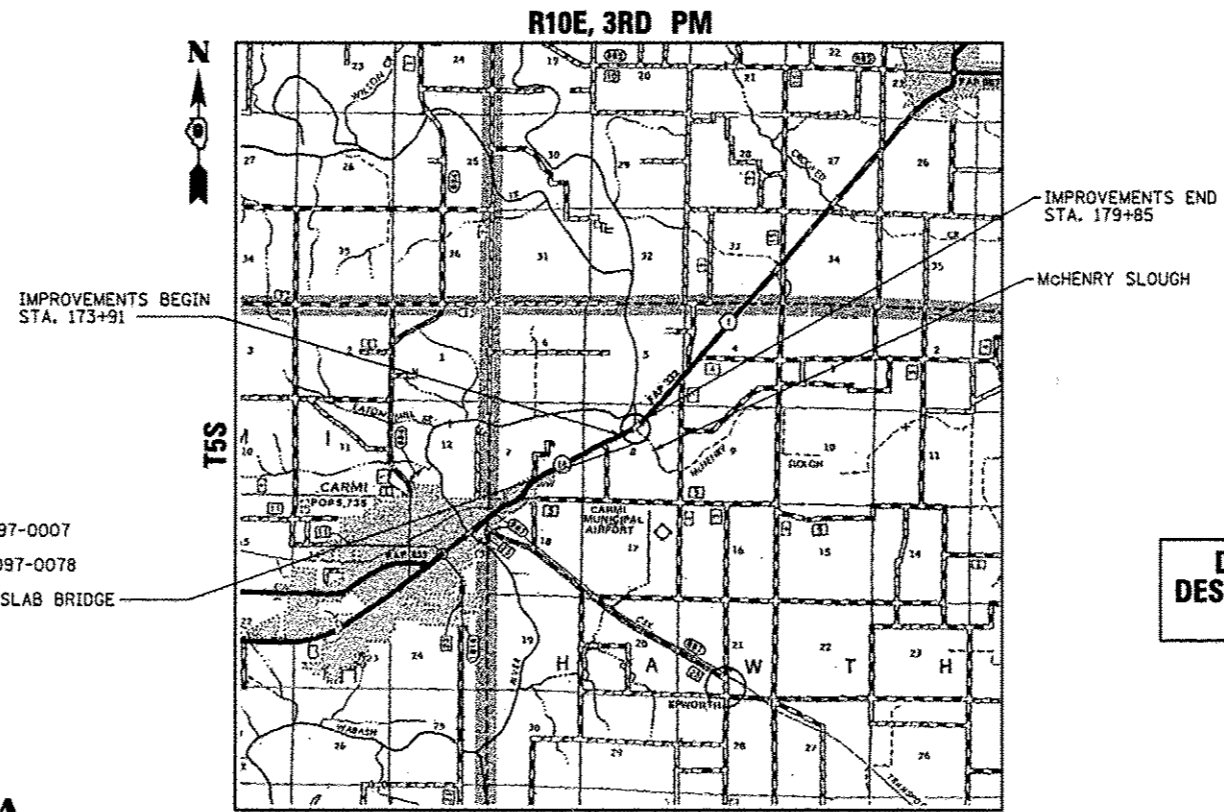
- CROSS SECTIONS**
- IL RTE 1 CROSS SECTIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

FAP ROUTE 332 (IL 1)  
SECTION 4B-1  
PROJECT NHPP-0332(113)  
WHITE COUNTY

C - 99 - 008 - 10  
BRIDGE REPLACEMENT  
OVER McHENRY SLOUGH



DESIGN DESIGNATION  
N.A.

FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NON URBAN)  
DESIGN SPEED: 55 mph  
POSTED SPEED: 55 mph  
ADT: 5,300 (2011)  
PV: 90%  
TRUCKS: 10%  
TOWNSHIP: HAWTHORNE

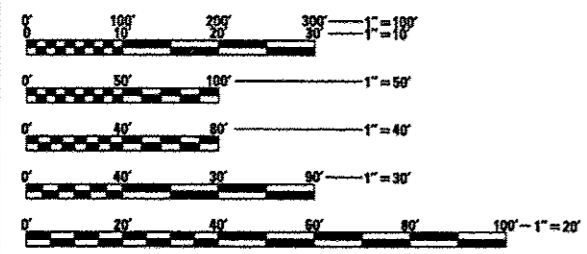
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Dec 10 2012

Omer Osman  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Feb 1 2013  
John D. Baranzoli  
ENGINEER OF DESIGN AND ENVIRONMENT

Feb 1 2013  
Omer Osman  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



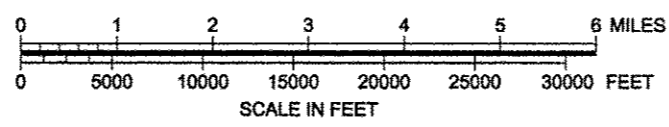
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

DISTRICT 9 NO. (618) 549-2171  
PROJECT ENGINEER: DAVID PICHE  
CONTRACT NO. 78154



Richard D. Payne  
DATE: 08/03/12  
ILLINOIS PROFESSIONAL LICENSE NO. 37421  
EXPIRATION DATE: 11-30-09



GROSS LENGTH = 594 FT. = 0.113 MI.  
NET LENGTH = 594 FT. = 0.113 MI.

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-11	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-04	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-03	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-03	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

**GENERAL NOTES**

- THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- TRIM EDGES OF EXISTING HOT MIX ASPHALT SURFACE FLUSH WITH EXISTING PAVEMENT PRIOR TO CONSTRUCTING NEW BASE COURSE.
- 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 HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THIS SHEET OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:
 

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON PAVEMENT	0.09 GAL/SQ YD
INTERMEDIATE LIFTS (FOG COAT)	0.04 GAL/SQ YD
ON AGGREGATE SURFACE	0.32 GAL/SQ YD
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ YD
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
- 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 ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
- TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER EXCEPT AS DESCRIBED IN NOTE 12. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
- ALL OBSTRUCTIONS WHICH ARE WITHIN 29' OF THE CENTERLINE OF THE ROADWAY AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED FROM STATION 173+62 TO 179+83. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 IN. OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 4 IN. OR GREATER.
- THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC, AND ONE ADDITIONAL APPLICATION.
- EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
- ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
- AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
- THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND HMA SHOULDER SLOPES SHALL NOT EXCEED 8%. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.
- PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
- IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16 THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.16 REGARDLESS IF TRACK MOUNTED OR WHEELED.
- RECLAIMED ASPHALT PAVEMENT (RAP) WILL NOT BE ALLOWED FOR USE AS AGGREGATE IN AGGREGATE SHOULDERS, TYPE B.

**COMMITMENTS**

- NONE AS OF DECEMBER 14, 2012. REFER TO COMMITMENT FILE FOR ANY COMMITMENTS AFTER THIS DATE.

**HMA MIXTURES REQUIREMENTS**

LOCATION(S):	HMA SURFACING	LEVELING BINDER	BASE COURSE	HMA SHOULDERS
MIXTURE USE(S):	HMA SURFACE CSE, MIX D, N90	LEVELING BINDER (MM) N90	HMA BINDER CSE, N90, IL-19.0	HMA SHOULDERS
AC/PG GRADE:	PG64-22	PG64-22	PG64-22	PG58-22
RAP % (MAX.): ***	10	10	10	50
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN	4.0%, 90 GYRATIONS DESIGN	4.0%, 90 GYRATIONS DESIGN	2.0%, 30 GYRATIONS DESIGN
MIXTURE COMPOSITION:	IL-9.5 OR IL-12.5	IL-9.5	IL-19.0	HMA SHOULDERS
(GRADATION MIXTURE)				
FRICTION AGGREGATE:	D SURFACE	NONE	NONE	NONE

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREPARED BY: *Joe Marfisi*  
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *James Eric Eng*  
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: *Cynthia Pulan*  
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: *W. Kelly*  
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: *K. R. S.*  
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: *Douglas J. Helms*  
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: *Paul J. ...*  
DISTRICT MATERIALS ENGINEER

APPROVED BY: *Omni ...*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

Dec 10 2012  
DATE

PRINTED BY: ESCA, INC. 12/10/12 10:54 AM



USER NAME: hqs  
ESCA PROJECT NO. 988.11  
PLOT SCALE: 8.1867" / 1" IN.  
PLOT DATE: 12/31/2012 6:54:14 AM

DESIGNED - JMS  
DRAWN - HAS  
CHECKED - RDP  
DATE - 10/12

REVISED -  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & STANDARDS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	2
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
				0004	0011
				ROADWAY	S.N. 097-0078
20200100	EARTH EXCAVATION	CU YD	1,728	1,728	
* 25000210	SEEDING, CLASS 2A	ACRE	0.45	0.45	
* 25000350	SEEDING, CLASS 7	ACRE	0.45	0.45	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	41	41	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	41	41	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	41	41	
* 25000700	AGRICULTURAL GROUND LIMESTONE	TON	1	1	
* 25100115	MULCH, METHOD 2	ACRE	0.45	0.45	
* 25100630	EROSION CONTROL BLANKET	SQ YD	2,184	2,184	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100	100	
28000400	PERIMETER EROSION BARRIER	FOOT	1,050	1050	
28100109	STONE RIPRAP, CLASS A5	SQ YD	2,500		2,500
28200200	FILTER FABRIC	SQ YD	2,500		2,500
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	202	202	

\* SPECIALTY ITEM



USER NAME: jms  
 ESCA PROJECT NO. 988.JI  
 PLOT SCALE: 1/8"=1'-0"  
 PLOT DATE: 10/31/2012 6:56:29 AM

DESIGNED: JMS  
 DRAWN: HAS  
 CHECKED: RDP  
 DATE: 10/12

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 3
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY	80% FEDERAL 20% STATE BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004	0011
				ROADWAY	S. N. 097-0078
40600300	AGGREGATE (PRIME COAT)	TON	4	4	
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	56	56	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	214	214	
40600990	TEMPORARY RAMP	SO YD	36	36	
40603345	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	130	130	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	56	56	
44000100	PAVEMENT REMOVAL	SO YD	407	407	
44004250	PAVED SHOULDER REMOVAL	SO YD	536	536	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SO YD	158	158	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	96	96	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	180		180
50200300	COFFERDAM EXCAVATION	CU YD	60		60
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1		1

④ SPECIALTY ITEM



USER NAME: JMS  
 ESCA PROJECT NO. 988.11  
 PLOT SCALE: 1/8" = 1'-0"  
 PLOT DATE: 10/12/2012 6:56:56 AM

DESIGNED: JMS  
 DRAWN: HAS  
 CHECKED: RDP  
 DATE: 10/12

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET NO. 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 4
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
				0004	0011
				ROADWAY	S. N. 097-0078
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1		1
50300225	CONCRETE STRUCTURES	CU YD	516.6		516.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	505.8		505.8
50300260	BRIDGE DECK GROOVING	SQ YD	902		902
50300280	CONCRETE ENCASEMENT	CU YD	11.0		11.0
50300300	PROTECTIVE COAT	SQ YD	1,108		1,108
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	141,070		141,070
50800515	BAR SPLICERS	EACH	814		814
51201800	FURNISHING STEEL PILES HP14x73	FOOT	5,054		5,054
51202305	DRIVING PILES	FOOT	5,054		5,054
51203800	TEST PILE STEEL HP14x73	EACH	4		4
51500100	NAME PLATES	EACH	1		1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	52		52
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100	

④ SPECIALTY ITEM



ESCA PROJECT NO. 988.11  
 PLOT SCALE - 0.1667" = 1'-0"  
 PLOT DATE - 10/31/2012

DESIGNED - JMS  
 DRAWN - HAS  
 CHECKED - RDP  
 DATE - 10/12

REVISED -  
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A. P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	5
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
				0004	0011
				ROADWAY	S. N. 097-0078
⊗ 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
⊗ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	400	400	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	6	
⊗ 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	2	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	256	256	
⊗ 70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,388	1,388	

M ⊗ SPECIALTY ITEM



USER NAME: JMS  
 ESCA PROJECT NO. 988.11  
 PLOT SCALE: 1/8" = 1'-0"  
 PLOT DATE: 10/31/2012 04:24 AM

DESIGNED - JMS  
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 CHECKED - RDP  
 DATE - 10/12

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE SHEET NO. 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 6
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY	80% FEDERAL 20% STATE BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004	0011
				ROADWAY	S. N. 097-0078
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	506	506	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	475	475	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	475	475	
⊗ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,388	1,388	
⊗ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4	
⊗ 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3	
78200410	GUARDRAIL MARKERS, TYPE A	EACH	4	4	
78200520	BARRIER WALL MARKERS, TYPE B	EACH	10	10	
⊗ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SO FT	398	398	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	7	7	
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1	1	
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	74		74
X6330103	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE I SPECIAL, TANGENT	EACH	2	2	

1/1  
⊗ SPECIALTY ITEM



ESCA PROJECT NO. 988.11  
 FILED DATE: 10/27/2012  
 6:59:30 AM

DESIGNED - JMS  
 DRAWN - HAS  
 CHECKED - ROP  
 DATE - 10/12

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

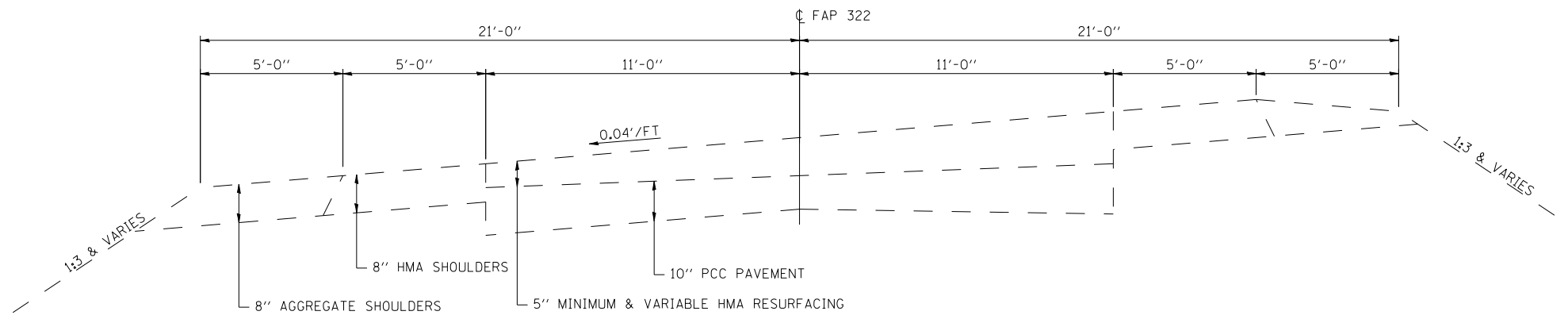
SCALE SHEET NO. 5 OF 6 SHEETS STA. TO STA.

F.A. P. RTE. 332	SECTION 48-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 7
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY 0004 ROADWAY	80% FEDERAL 20% STATE BRIDGE 0011 S. N. 097-0078
CODE NO.	ITEM	UNIT	TOTAL QUANTITY		
Z0002900	BASE COURSE (OPTION)	SO YD	648	648	
Z0026407	TEMPORARY SHEET PILING	SO FT	211		211
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	144		144
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SO FT	780		780
+ Z0076600	TRAINEES	HOUR	1,000	1,000	
+ Z0076604	TRAINEES, TRAINING PROGRAM GRADUATE	HOUR	1,000	1,000	

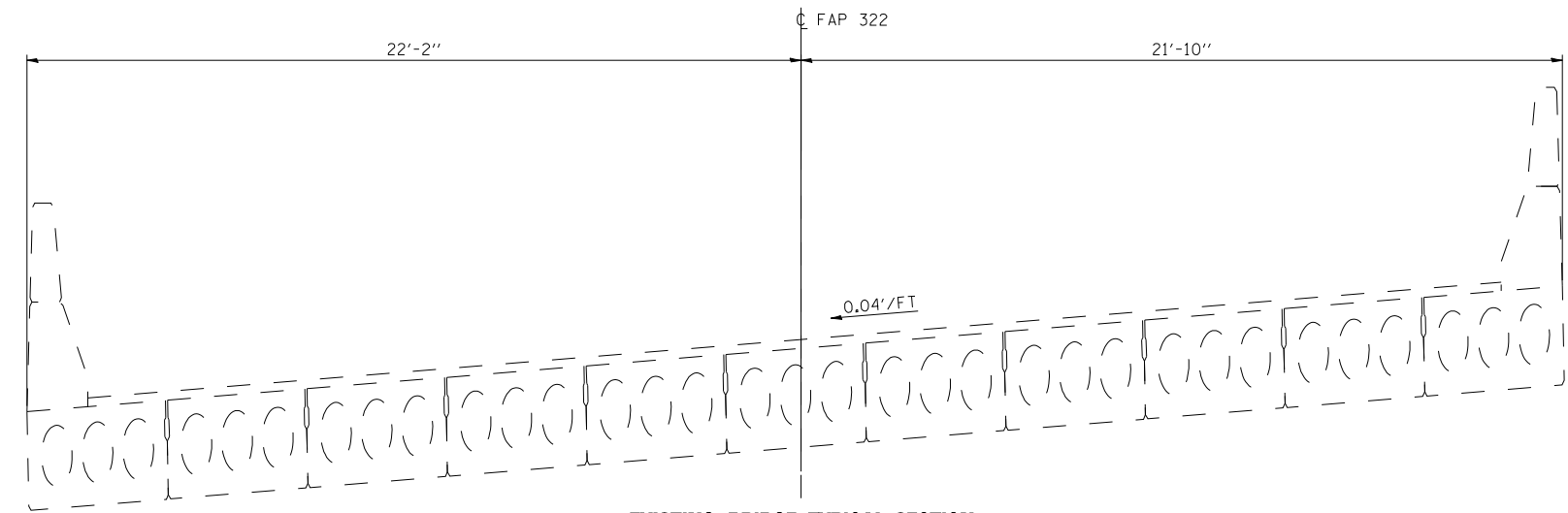
⊗ SPECIALTY ITEM +0042





**EXISTING TYPICAL SECTION**  
**STA 173+91 TO STA 176+27**  
**STA 177+34 TO STA 179+85**

NOTE: BRIDGE APPROACH PAVEMENT WITH HMA RESURFACING  
 STA 176+07 TO STA 176+27  
 STA 177+34 TO STA 177+54



**EXISTING BRIDGE TYPICAL SECTION**  
**CENTERLINE OF STRUCTURE STA 176+80.63**

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 SCALE NAME = PLOT  
 FILE NAME = D:\ESCA\11\988.11\988.11.dwg

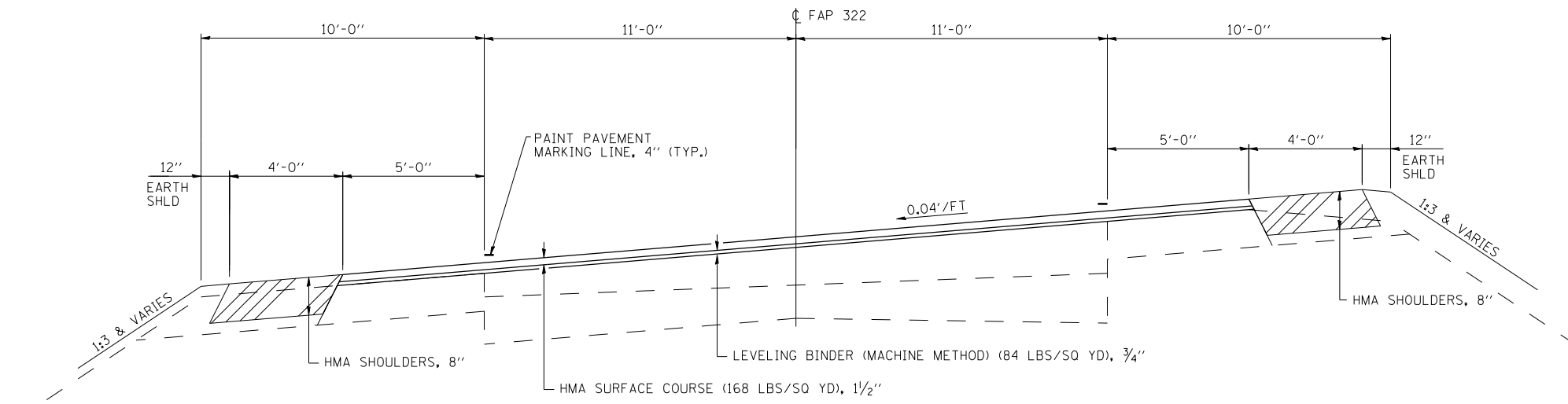


USER NAME = has	DESIGNED - JMS	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
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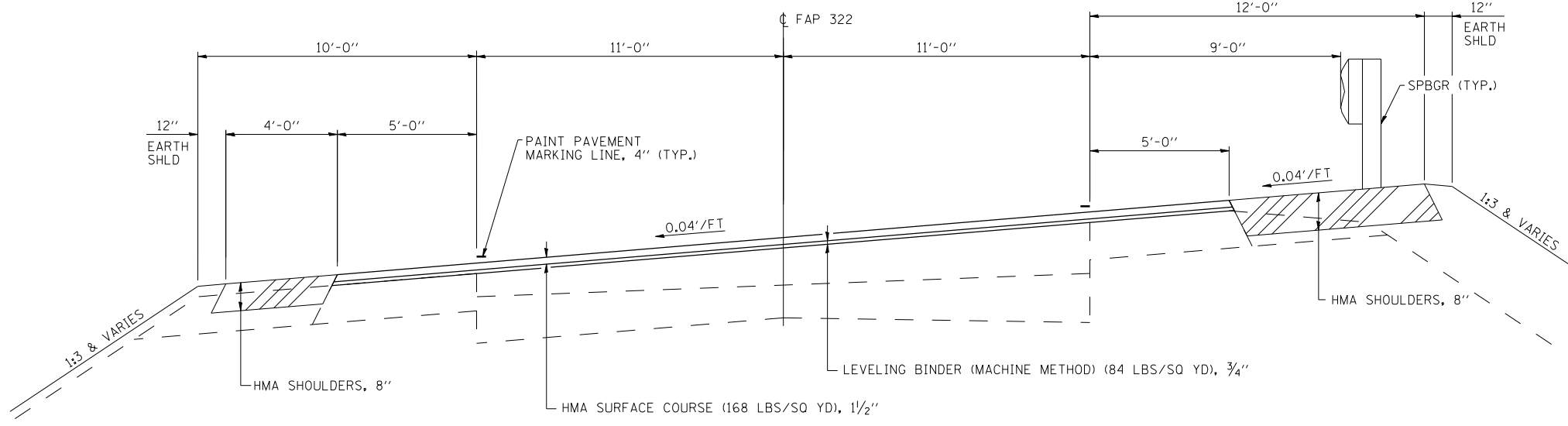
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>TYPICAL SECTIONS</b>	
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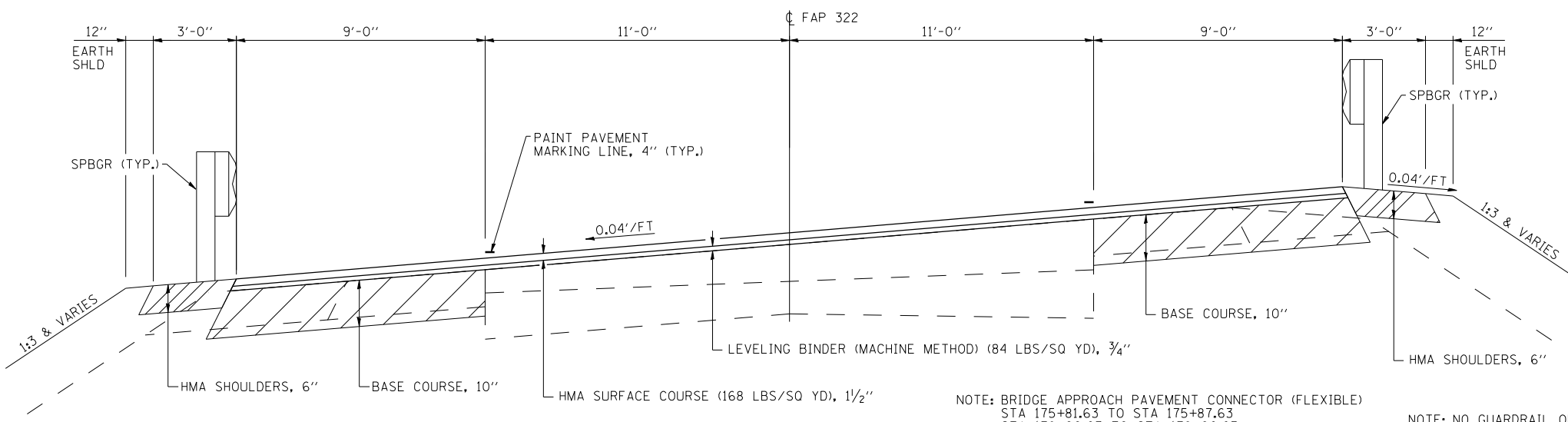
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	4B-1	WHITE	70	9
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT	



**PROPOSED TYPICAL SECTION  
STA 173+91 TO STA 174+36  
STA 179+40 TO 179+85**



**PROPOSED TYPICAL SECTION  
STA 174+36 TO STA 174+50**



**PROPOSED TYPICAL SECTION  
STA 174+50 TO STA 175+87.63  
STA 178+00.63 TO STA 179+16**

NOTE: NO GUARDRAIL OR HMA SHOULDERS, 6" FROM LT. 174+50 TO LT. 174+98

NOTE: BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)  
STA 175+81.63 TO STA 175+87.63  
STA 178+00.63 TO STA 178+06.63

NOTE: NO GUARDRAIL OR HMA SHOULDERS, 6" FROM RT. 179+02 TO RT. 179+16

PRINT DRIVER = LUD-ER-BAR...  
 SCALE INCHES = 1/4" = 1'-0"  
 FILE NAME = D:\PROJECTS\10-31-2012\10-31-2012.dwg



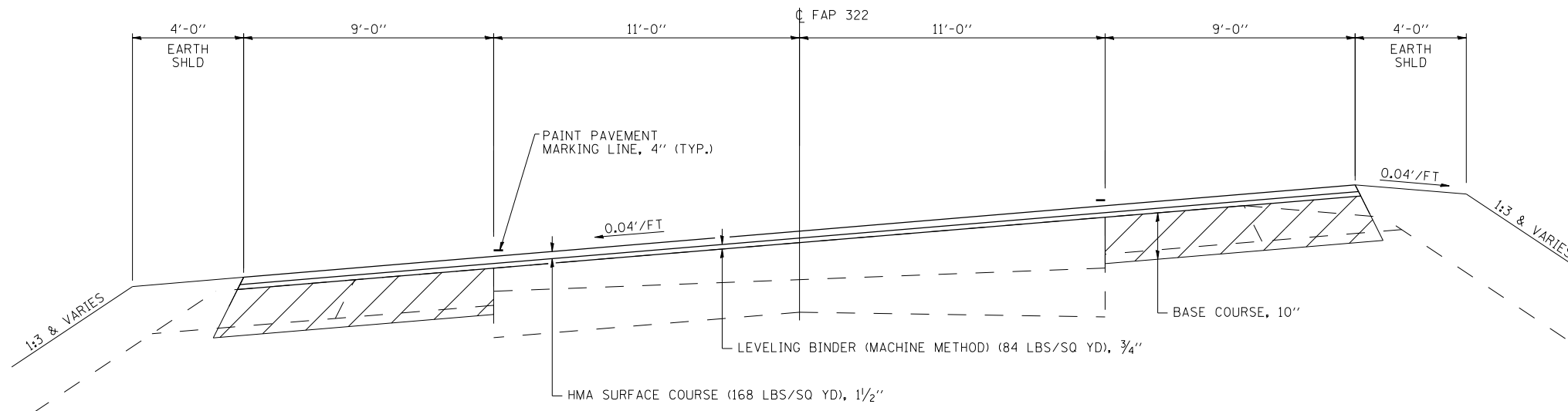
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

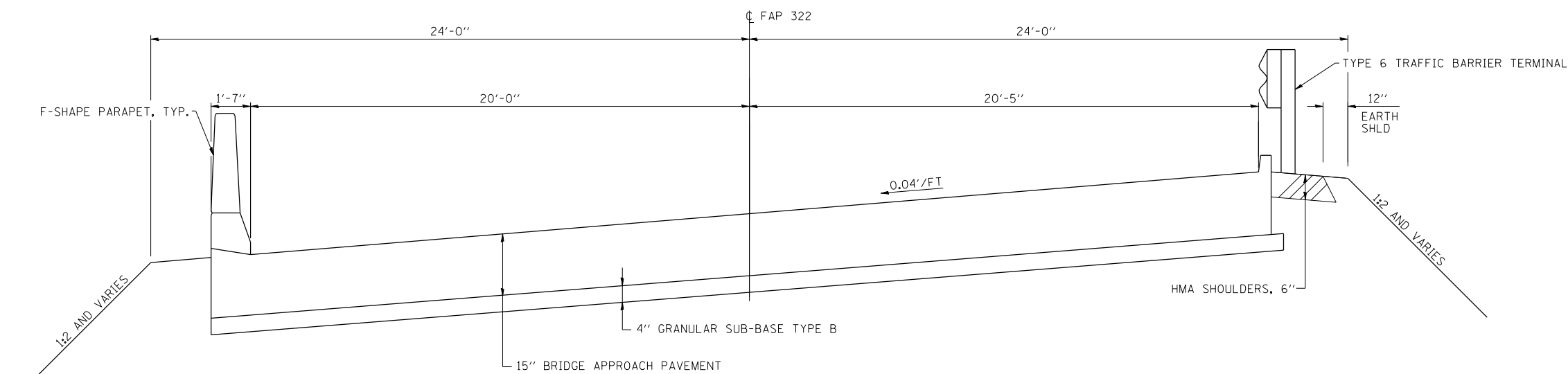
**TYPICAL SECTIONS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



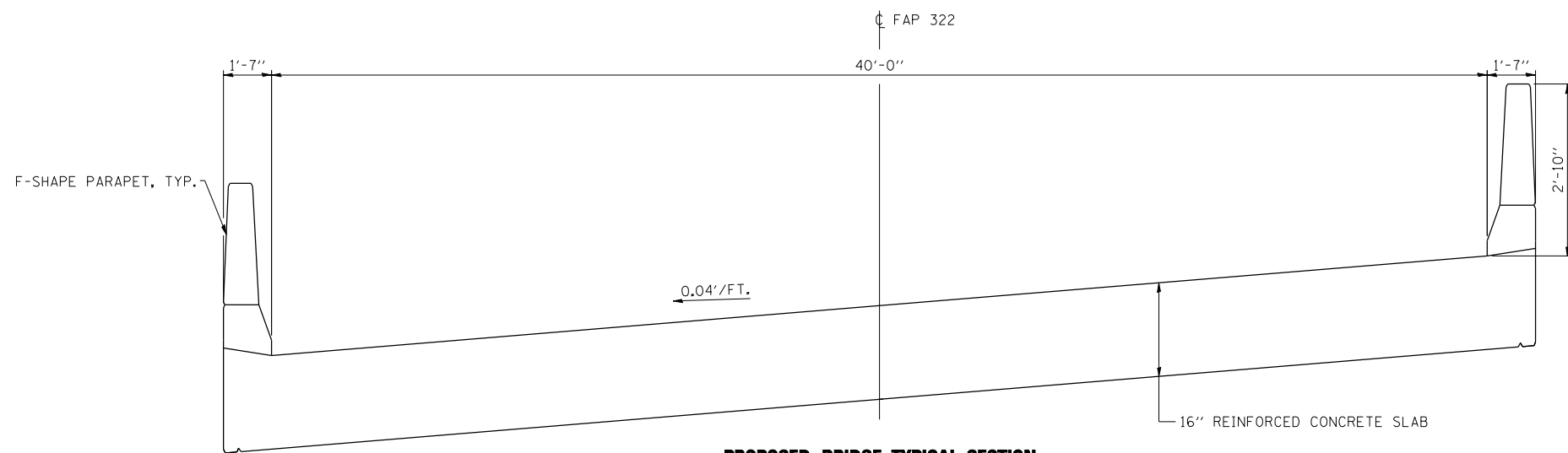
**PROPOSED TYPICAL SECTION  
STA 179+16 TO STA 179+40**



**NEAR ABUTMENT**

**PROPOSED TYPICAL SECTION  
STA 175+87.63 TO 176+17.63  
STA 177+70.63 TO 178+00.63**

**AT APPROACH FOOTING**



**PROPOSED BRIDGE TYPICAL SECTION  
CENTERLINE OF STRUCTURE STA 176+94.13**



USER NAME = has	DESIGNED - JMS	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
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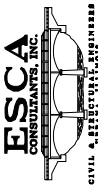
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
322	4B-1	WHITE	70	11
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78154	

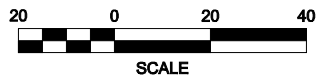




PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	CHECKED		
	AT		
	CAD FILE NAME		
	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE		
	NOT AT THIS OFFICE		
	NO.		

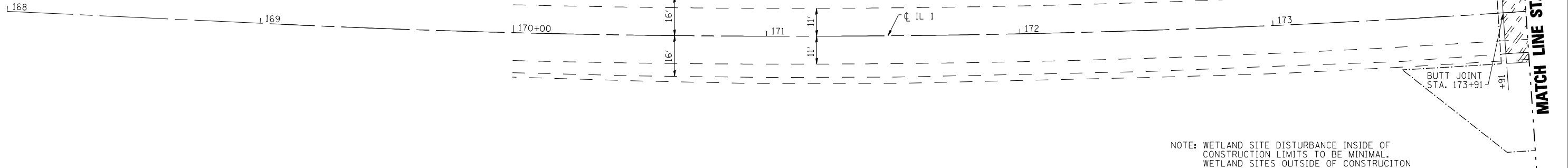
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 MODEL NAME = 170-174.DWG  
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SEC. 8, T5S, R10E, 3RD P.M.

EX PERMANENT EASEMENT

EX ROW

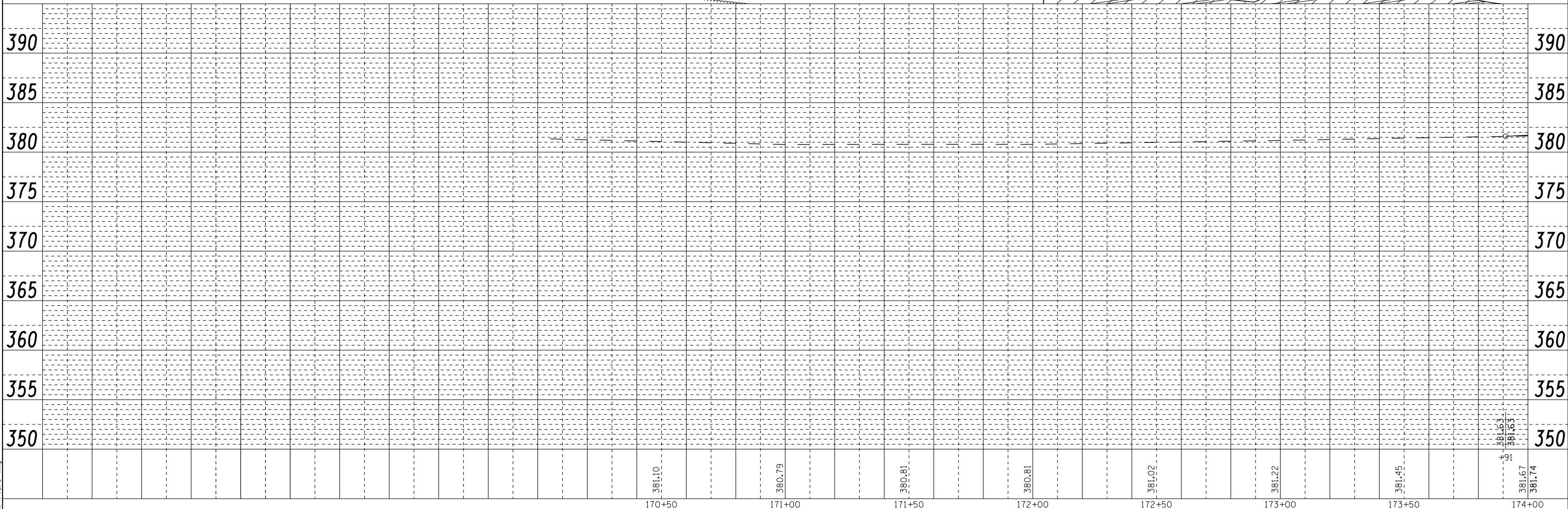


NOTE: WETLAND SITE DISTURBANCE INSIDE OF CONSTRUCTION LIMITS TO BE MINIMAL. WETLAND SITES OUTSIDE OF CONSTRUCTION LIMITS ARE NOT TO BE DISTURBED.

MATCH LINE STA. 174 + 00.00

SEC. 8, T5S, R10E, 3RD P.M.

WETLAND LIMITS



USER NAME = has	DESIGNED - JMS	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
SCALE: (HORIZ) 1"=20' (VERT) 1"=5'	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012 7:06:33 AM	DATE = 10/12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 1 PLAN & PROFILE

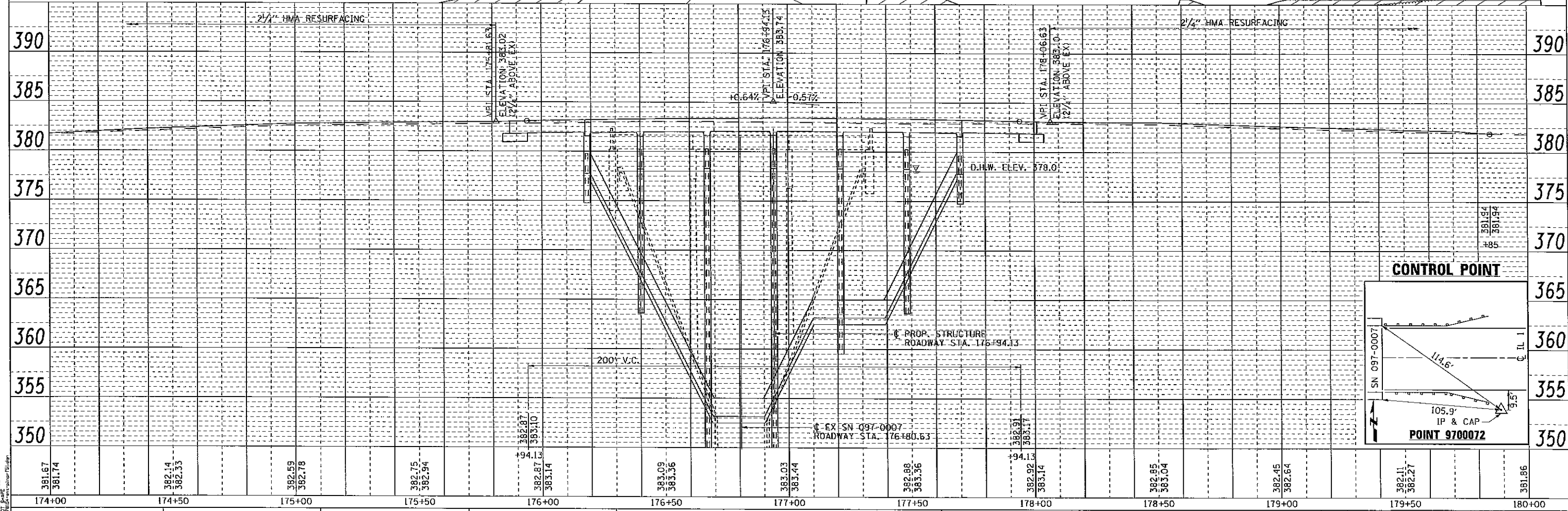
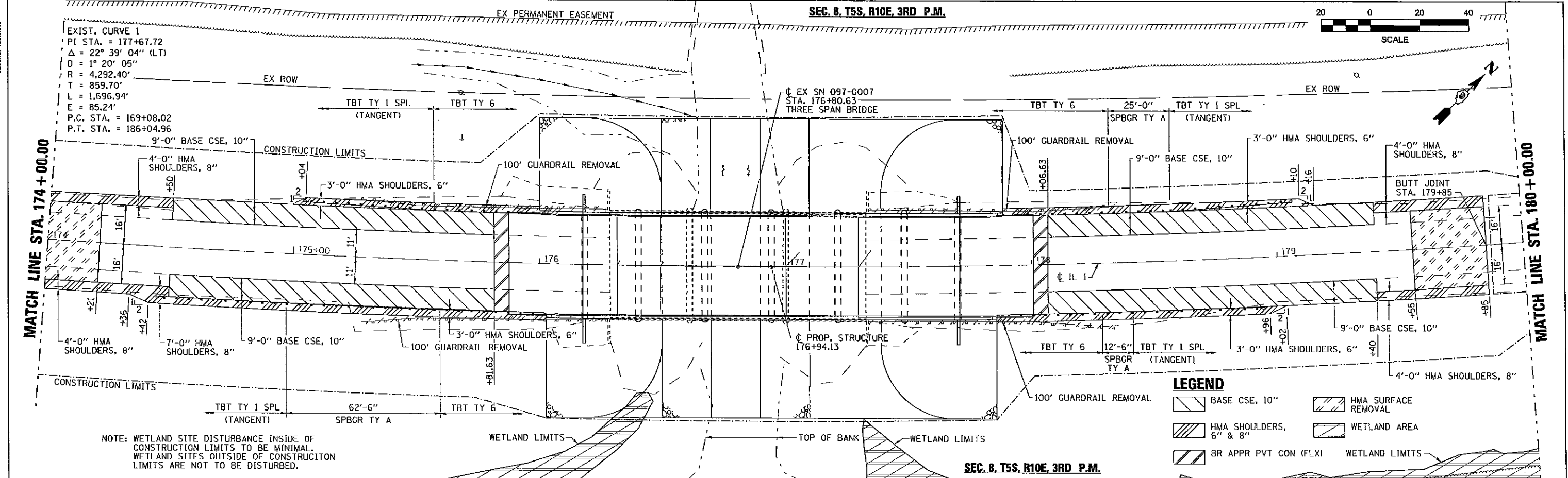
SCALE: 1"=20'-0" SHEET NO. 1 OF 3 SHEETS STA. 170+50 TO STA. 174+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	13
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT AID	CONTRACT NO. 78154		



DATE	
BY	
PLAN	REVISIONS
NO.	
NOTE BOOK	PLOTTED
NO.	
NOTE FILE NAME	BRIDGE CHECKED
	FILE NAME
	NOTATION DIVD

DATE	
BY	
PROFILE	REVISIONS
NO.	
NOTE BOOK	PLOTTED
NO.	
NOTE FILE NAME	BRIDGE CHECKED
	FILE NAME
	NOTATION DIVD



PRINT CHECKS & LAYOUTS  
 PRINTABLE & PLOTTABLE  
 FILE NAME: 11/13/2012 3:03:45 PM



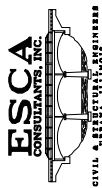
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ESCA PROJECT NO. 989.11	DRAWN - HAS	REVISED -
SCALES (HORIZ) 1"=20' (VERT) 1"=8'	CHECKED - RDP	REVISED -
PLOT DATE = 11/13/2012 3:03:45 PM	DATE - 10/12	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 1 PLAN & PROFILE**

SCALE: 1"=20'-0"   SHEET NO. 2 OF 3 SHEETS   STA. 174+00 TO STA. 180+00

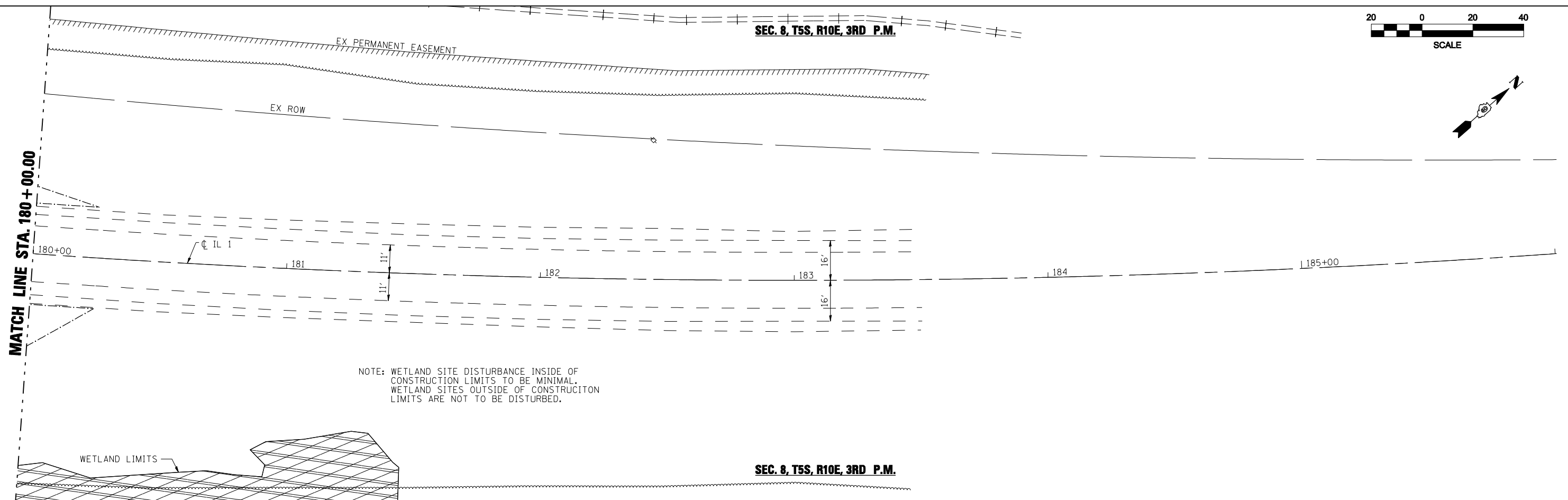
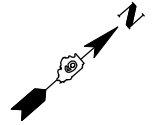
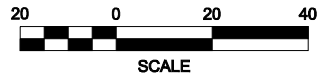
F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 14
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT AID	
CONTRACT NO. 78154				



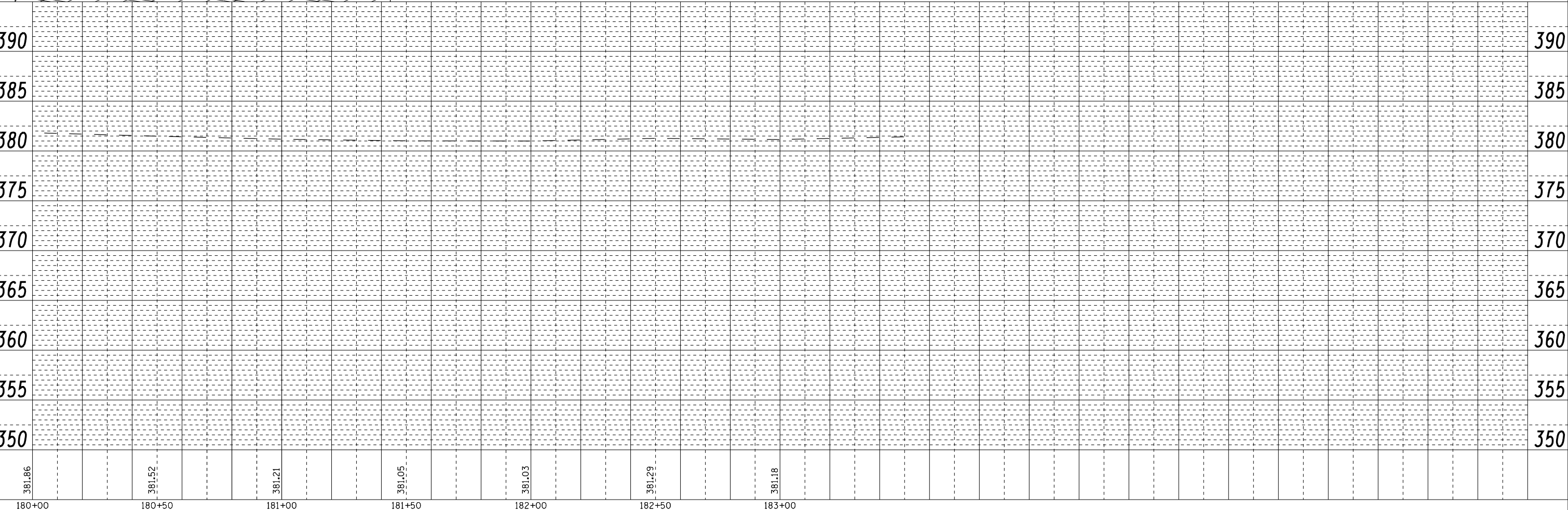
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	PLOTTED		
	NOTED		
	FILED		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	FILED		

PRINT DRIVER = I:\D.L.B. & P.L.  
 MODEL NAME = PLOT...  
 FILE NAME = D:\2012-10-31\10-31-12.dwg



NOTE: WETLAND SITE DISTURBANCE INSIDE OF CONSTRUCTION LIMITS TO BE MINIMAL. WETLAND SITES OUTSIDE OF CONSTRUCTION LIMITS ARE NOT TO BE DISTURBED.



USER NAME = has  
 ESCA PROJECT NO. 988.11  
 SCALES: (HORIZ) 1"=20' (VERT) 1"=5'  
 PLOT DATE = 10/31/2012 7:07:24 AM

DESIGNED - JMS  
 DRAWN - HAS  
 CHECKED - RDP  
 DATE - 10/12

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 1 PLAN & PROFILE**

SCALE: 1"=20'-0" SHEET NO. 3 OF 3 SHEETS STA. 180+00 TO STA. 183+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	15
CONTRACT NO. 78154				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT AID		

**SCHEDULE OF QUANTITIES**

TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
174+56.5	179+31.5	475
		TOTAL - 475
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH		
TEMPORARY RUMBLE STRIPS - 6 EACH		
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH		

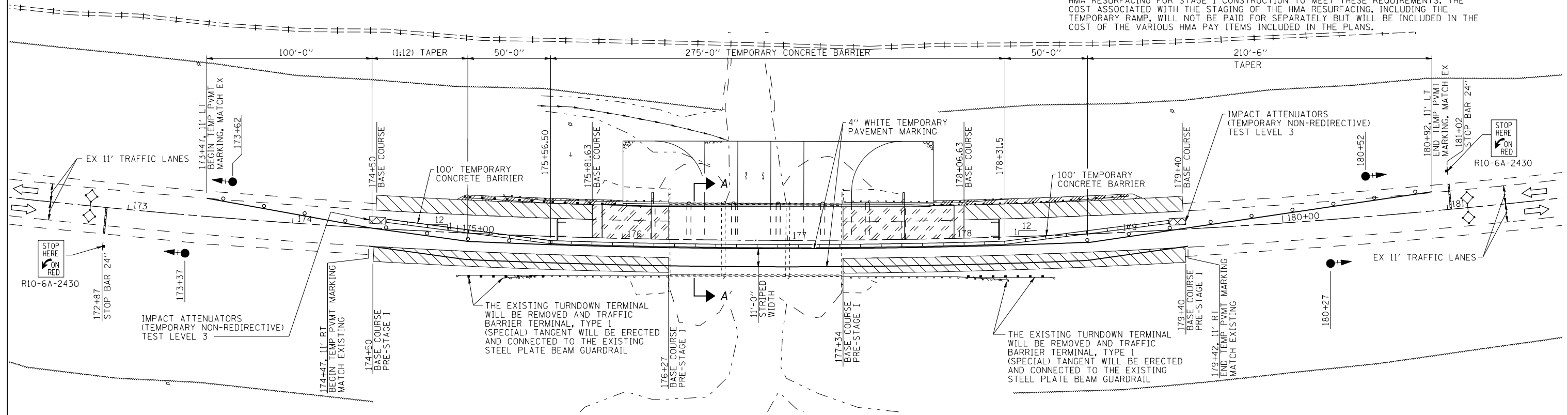
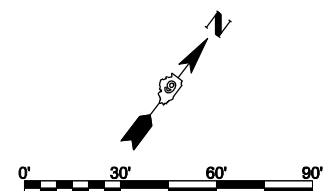
**LEGEND**

- TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- DETECTOR LOOP
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- BASE COURSE, 10"
- PAVEMENT REMOVAL
- HMA SHOULDER, 6" & 8"

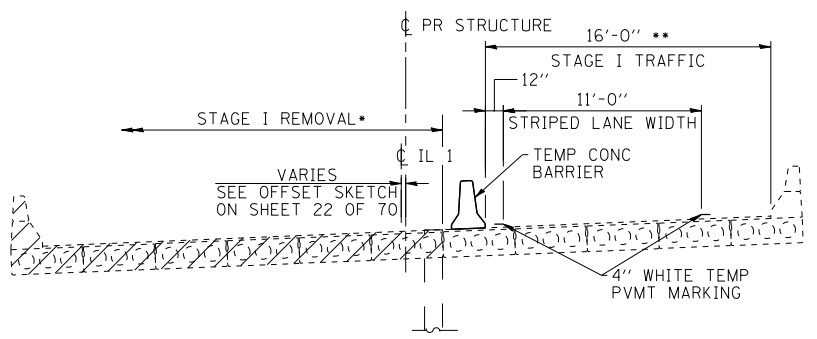
**GENERAL NOTES**

- PRE-STAGE I: CONSTRUCT THE BASE COURSE FROM RT. STA. 174+50 TO RT. STA. 179+40 AS SHOWN ON THIS SHEET PRIOR TO PLACING THE SIGNALS IN OPERATION AND PLACEMENT OF THE TEMPORARY BARRIERS. THE EXISTING TURNDOWN TERMINALS WILL ALSO BE REMOVED AS PART OF THE PRE-STAGE I WORK AND TRAFFIC BARRIER TERMINALS, TYPE 1 (SPECIAL) TANGENT WILL BE ERECTED AS SHOWN ON THIS SHEET.
- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. SEE STANDARD 701321 FOR THE COMPLETION OF THE STAGE CONSTRUCTION TRAFFIC CONTROL THAT IS NOT SHOWN THAT INCLUDES, BUT IS NOT LIMITED TO, ADVANCE SIGNING, ADVANCE LOOP PLACEMENT, DRUMS WITH STEADY BURNING LIGHTS, DOUBLE VERTICAL PANELS AND BARRIER WALL/ GUARDRAIL MARKERS.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
- ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
- THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-1102(0)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-1103) SHOWN ON SHEET 17 SHALL BE 14'-6" FOR STAGE I CONSTRUCTION.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.

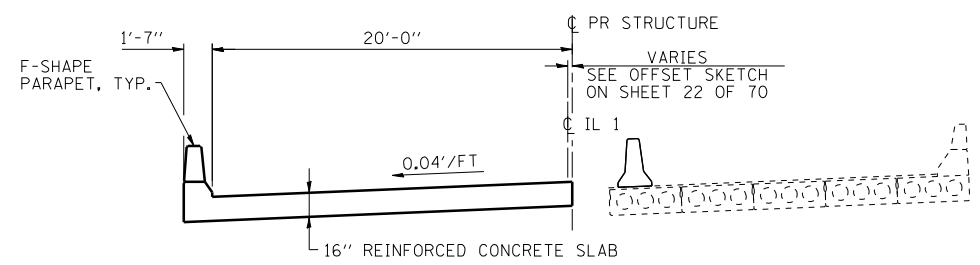
- THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- THE TEMPORARY PAVEMENT MARKING AND STOP BARS SHOWN ON THIS SHEET WILL BE INCLUDED IN THE COST OF STANDARD 701321. THE REMOVAL OF THE MARKINGS PLACED ACCORDING TO STANDARD 701321 THAT CONFLICT WITH EITHER SUBSEQUENT STAGES OR THE PERMANENT MARKINGS WILL BE REMOVED AND THE WORK WILL BE INCLUDED IN THE COST OF STANDARD 701321.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE PARAPET. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OFF OR COVERED.
- THE STAGE I CONSTRUCTION SHALL INCLUDE COMPLETION OF THE EARTHWORK, BASE COURSE, HMA SHOULDERS, GUARDRAIL AND TRAFFIC BARRIER TERMINALS FROM LT. STA. 174+50 TO LT. STA. 179+40 AS REFERENCED ON THIS SHEET AND DESCRIBED IN DETAIL ON THE PLAN AND PROFILE SHEETS. THE LEVELING BINDER (MACHINE METHOD) AND THE HMA SURFACE COURSE SHALL ALSO BE PLACED ON THE TRAFFIC LANE ADJACENT TO THE PROPOSED HMA SHOULDERS TO ALLOW COMPLETION OF THE HMA SHOULDERS PRIOR TO THE INSTALLATION OF THE GUARDRAIL AND TERMINALS. PLACEMENT OF THE LEVELING BINDER AND HMA SURFACE AS INDICATED MAY REQUIRE RELOCATION OF THE TEMPORARY BARRIERS AND THE IMPACT ATTENUATORS DURING THE DAYTIME HOURS AND ALSO PLACEMENT OF A TEMPORARY RAMP IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR WILL SUBMIT A WRITTEN PLAN TO THE ENGINEER FOR APPROVAL THAT DETAILS THE STAGING OF THE HMA RESURFACING FOR STAGE I CONSTRUCTION TO MEET THESE REQUIREMENTS. THE COST ASSOCIATED WITH THE STAGING OF THE HMA RESURFACING, INCLUDING THE TEMPORARY RAMP, WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS HMA PAY ITEMS INCLUDED IN THE PLANS.



**STAGE I PLAN**



**SECTION A-A  
REMOVAL**



**SECTION A-A  
CONSTRUCTION**

\* EDGE OF EXISTING 48" P.P.C. DECK BEAM IS ±1'-10" FROM ROADWAY CENTERLINE. STAGE I REMOVAL LINE IS ALONG THE EDGE OF THE EXISTING BEAM

\*\* DUE TO THE OFFSET BETWEEN THE ROADWAY CENTERLINE AND THE STRUCTURE CENTERLINE, THE TEMPORARY BARRIER SHOULD BE SET FROM THE EXISTING FACE OF PARAPET TO PROVIDE A 16'-0" STAGE CONSTRUCTION WIDTH.

PRINT DRIVER: LUD-58-BARCEL...  
SCALE: 1"=30'-0"  
FILE NAME: C:\PROJECTS\1097\1097.dwg  
DATE: 10/31/2012



USER NAME = has	DESIGNED - JMS	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667' / IN.	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012 7:08:38 AM	DATE - 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION PLAN AND DETAILS  
STRUCTURE NO. 097-0078**

SCALE: 1"=30'-0" SHEET NO. 1 OF 2 SHEETS STA. 172+50 TO STA. 181+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	16
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				



### SCHEDULE OF QUANTITIES

#### RELOCATE

STATION	TO	STATION	FEET
174+56.5		179+31.5	475
TOTAL			475

#### IMPACT ATTENUATORS, RELOCATE

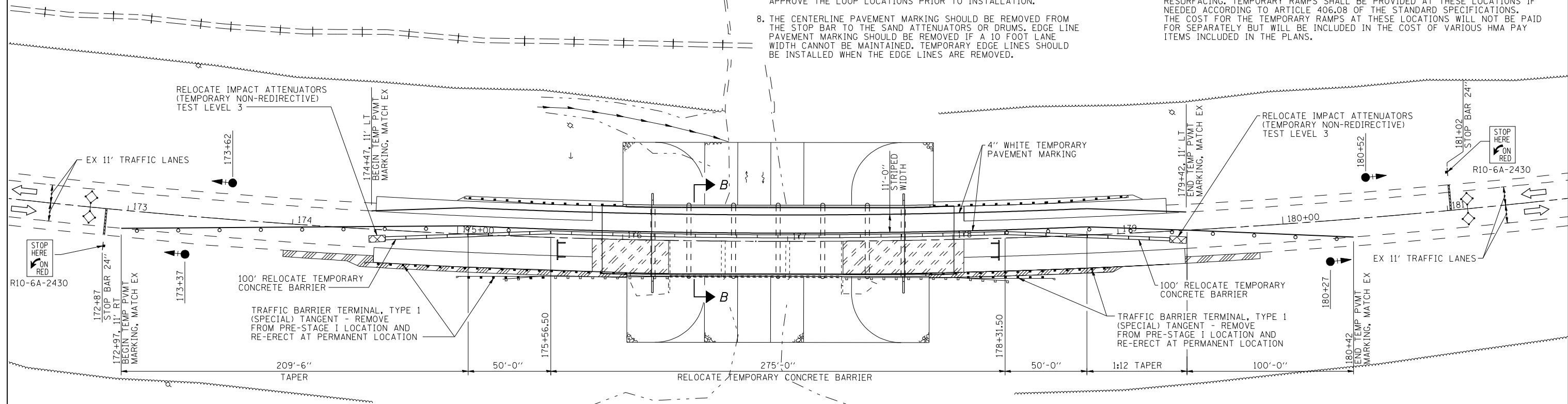
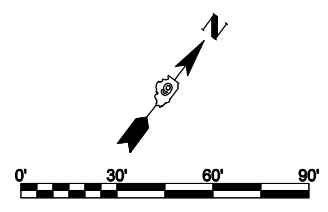
(NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

### LEGEND

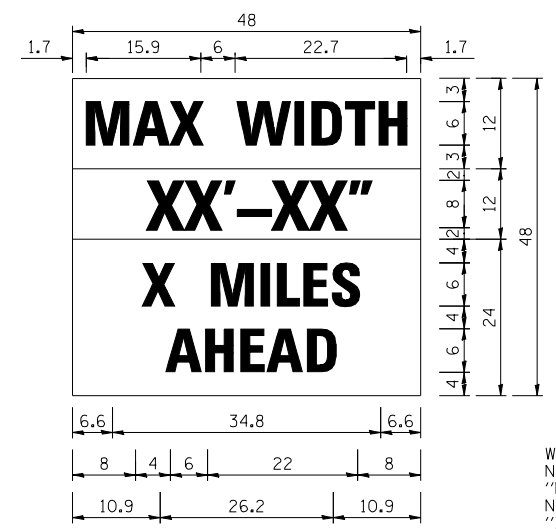
- TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- DETECTOR LOOP
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- BASE COURSE, 10"
- PAVEMENT REMOVAL
- HMA SHOULDER, 6" & 8"

### GENERAL NOTES

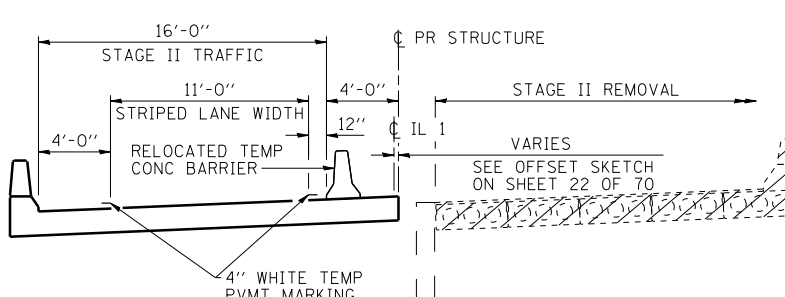
1. TRAFFIC CONTROL SHALL BE ERRECTED AS SHOWN AND ACCORDING TO TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. SEE STANDARD 701321 FOR THE COMPLETION OF THE STAGE CONSTRUCTION TRAFFIC CONTROL THAT IS NOT SHOWN THAT INCLUDES, BUT IS NOT LIMITED TO, ADVANCE SIGNING, ADVANCE LOOP PLACEMENT, DRUMS WITH STEADY BURNING LIGHTS, DOUBLE VERTICAL PANELS AND BARRIER WALL/ GUARDRAIL MARKERS.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
4. CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
5. ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
6. THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-1102(O)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-1103) SHOWN ON THIS SHEET SHALL BE 14'-6" FOR STAGE II CONSTRUCTION.
7. THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR, THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
8. THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
9. THE TEMPORARY PAVEMENT MARKING AND STOP BARS SHOWN ON THIS SHEET WILL BE INCLUDED IN THE COST OF STANDARD 701321. THE REMOVAL OF THE MARKINGS PLACED ACCORDING TO STANDARD 701321 THAT CONFLICT WITH EITHER SUBSEQUENT STAGES OR THE PERMANENT MARKINGS WILL BE REMOVED AND THE WORK WILL BE INCLUDED IN THE COST OF STANDARD 701321.
10. VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE PARAPET. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
11. ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OFF OR COVERED.
12. THE TEMPORARY SIGNALS WILL REMAIN IN OPERATION AND THE TEMPORARY BARRIERS WILL REMAIN IN PLACE UNTIL THE BRIDGE SUPERSTRUCTURE IS COMPLETE INCLUDING PARAPETS AND APPROACH PAVEMENT. THE REMAINING HMA RESURFACING, HMA SHOULDERS, GUARDRAIL, AND TRAFFIC BARRIER TERMINALS SHALL BE COMPLETED USING THE APPROPRIATE STANDARDS INCLUDED IN THE PLANS AND TRAFFIC SHALL BE OPEN TO BOTH LANES DURING NON-WORKING HOURS. THE CONTRACTOR SHALL SCHEDULE THEIR OPERATIONS SO THERE IS NO MORE THAN TWO WEEKS BETWEEN THE REMOVAL OF THE TEMPORARY BARRIERS AND THE START OF GUARDRAIL AND TERMINAL INSTALLATION.
13. THE CONTRACTOR'S OPERATION MAY RESULT IN A DROP-OFF AT THE END OF THE BRIDGE APPROACH PAVEMENT THAT IS UNDER TRAFFIC PRIOR TO THE HMA RESURFACING. TEMPORARY RAMPS SHALL BE PROVIDED AT THESE LOCATIONS IF NEEDED ACCORDING TO ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST FOR THE TEMPORARY RAMPS AT THESE LOCATIONS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF VARIOUS HMA PAY ITEMS INCLUDED IN THE PLANS.



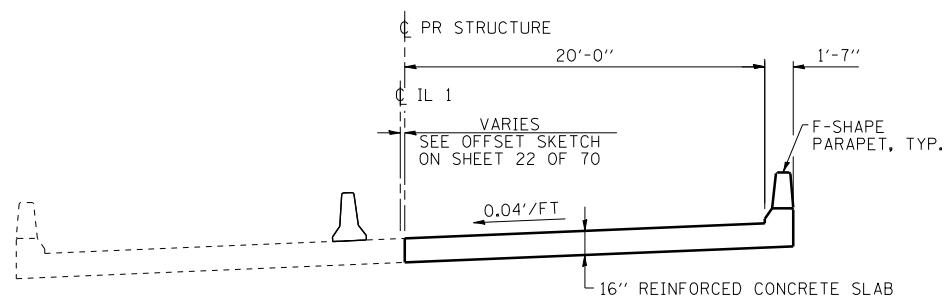
### STAGE II PLAN



**W12-1103**  
 W12-1103 (Width is 80);  
 No border, Black on White;  
 "MAX WIDTH" D;  
 No border, Black on Orange;  
 "XX'-XX" D;  
 No border, Black on White;  
 "X MILES" D; "AHEAD" D



### SECTION B-B REMOVAL



### SECTION B-B CONSTRUCTION



USER NAME = has	DESIGNED - JMS	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667" / IN.	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012	DATE - 10/12	REVISED -

DESIGNED - JMS	REVISED -
DRAWN - HAS	REVISED -
CHECKED - RDP	REVISED -
DATE - 10/12	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**





**STAGE CONSTRUCTION PLAN AND DETAILS  
 STRUCTURE NO. 097-0078**

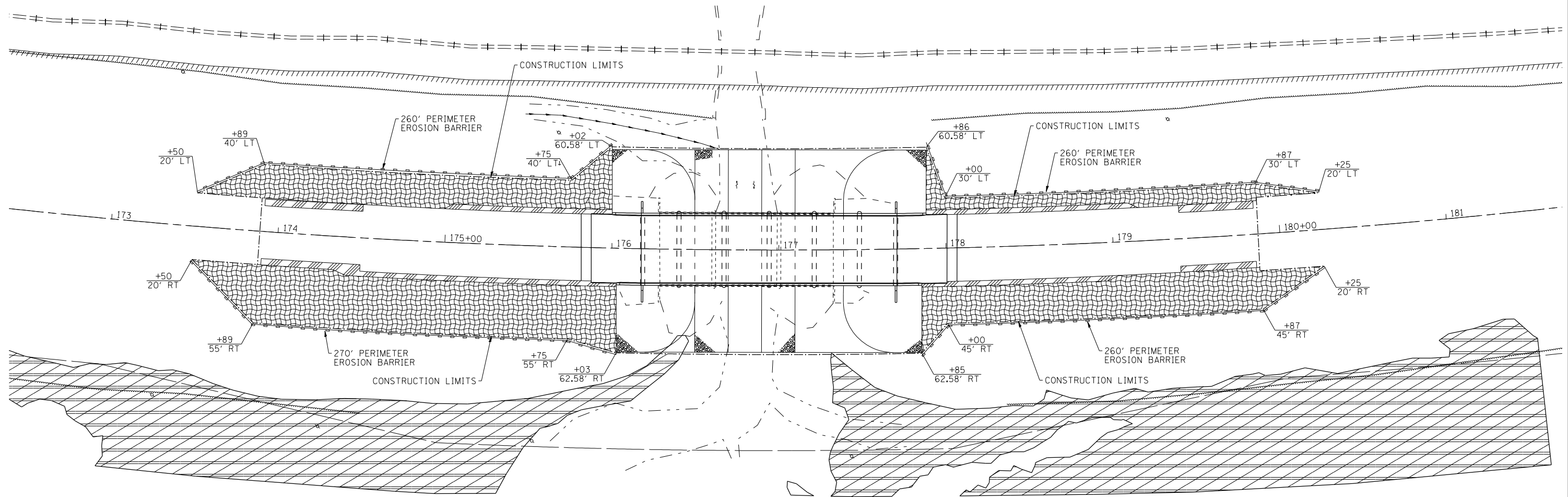
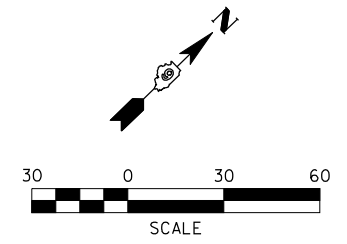
SCALE: 1"=30'-0" SHEET NO. 2 OF 2 SHEETS STA. 172+50 TO STA. 181+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	17
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

PRINT DRIVER = LUD-ER-BARON  
 LAYOUT = JUD-ER-BARON  
 SCALE = 1" = 30'  
 FILE NAME = I:\Projects\1097\1097.dwg  
 DATE = 10/31/2012 7:09:06 AM

**LEGEND**

-  SEEDING CLASS 2A AND EROSION CONTROL BLANKET
-  PERIMETER EROSION BARRIER
-  STONE RIPRAP CLASS A5
-  WETLAND AREA



NOTES: STATIONS AND OFFSETS SHOWN ARE TO THE CONSTRUCTION LIMITS. THE PERIMETER EROSION BARRIER WILL BE PLACED 1'-0" OUTSIDE THE CONSTRUCTION LIMITS. THE SEEDING CLASS 2A AND EROSION CONTROL BLANKET WILL BE PLACED TO THE LIMITS OF THE PERIMETER EROSION BARRIER.

WETLAND SITE DISTURBANCE INSIDE OF CONSTRUCTION LIMITS TO BE MINIMAL. WETLAND SITES OUTSIDE OF CONSTRUCTION LIMITS ARE NOT TO BE DISTURBED.

PRINT DRIVER = L:\00-ESCA\0111  
 SCALE: 1"=30'-0"  
 FILE NAME = D:\2012\10\12\10121012.dwg



USER NAME = has	DESIGNED - JMS	REVISED -
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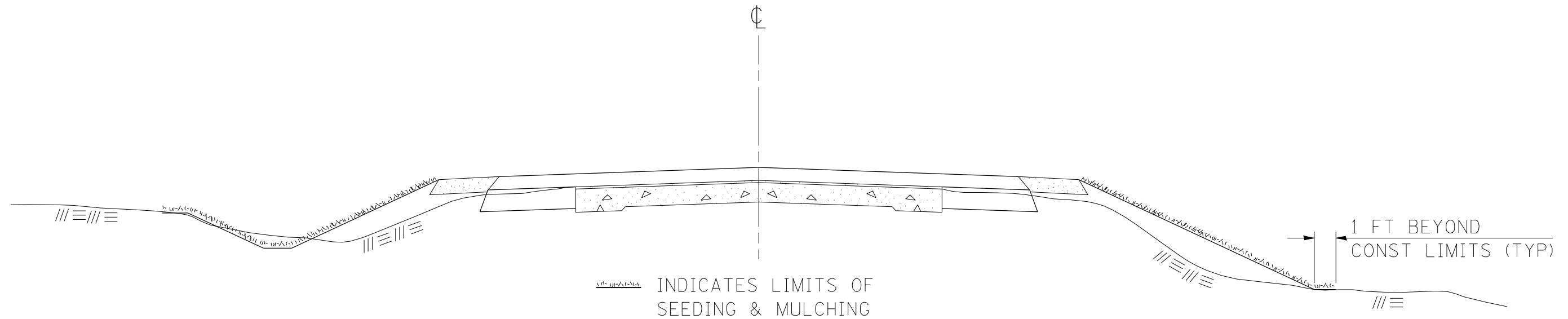
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL AND DRAINAGE PLANS**

SCALE: 1"=30'-0" SHEET NO. 1 OF 1 SHEETS STA. 172+50 TO STA. 181+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	18
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

# SEEDING & MULCHING



## GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

### REVISIONS

REDRAWN	_2-15-89
REVISED	_8-15-94
REVISED	_6-3-99
REVISED	3-27-08

STD. \_9-12

ESCA CONSULTANTS, INC. 10/31/2012 7:10:39 AM



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PLOT DATE = 10/31/2012 7:10:39 AM	DATE - 09/12	REVISED -

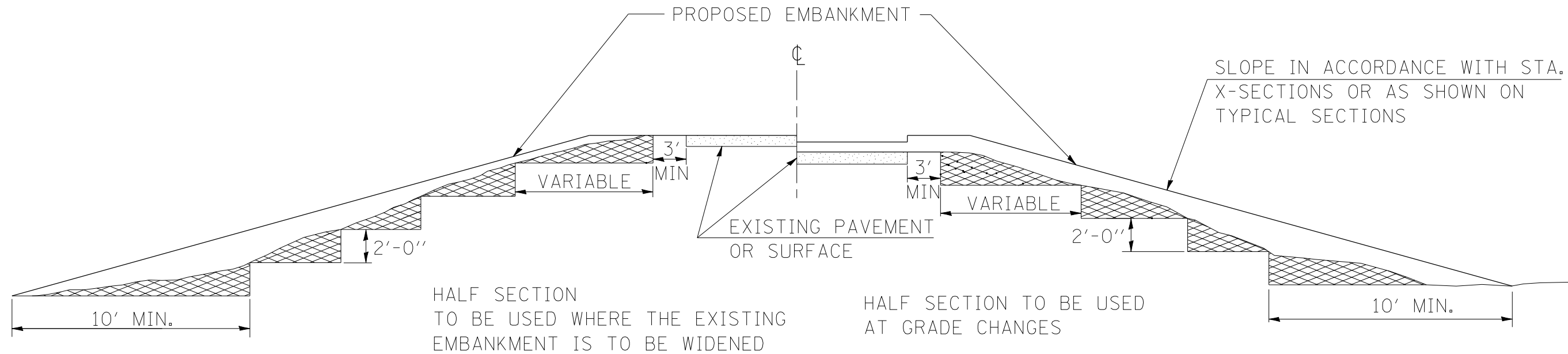
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SEEDING AND MULCHING DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	19
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78154	

# TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	_2-15-89
REVISED	_8-15-94
CHECKED	_6-3-99
RESIZED	5-7-08

STD. 9-16

USER NAME = has	DESIGNED - ELH	REVISED -
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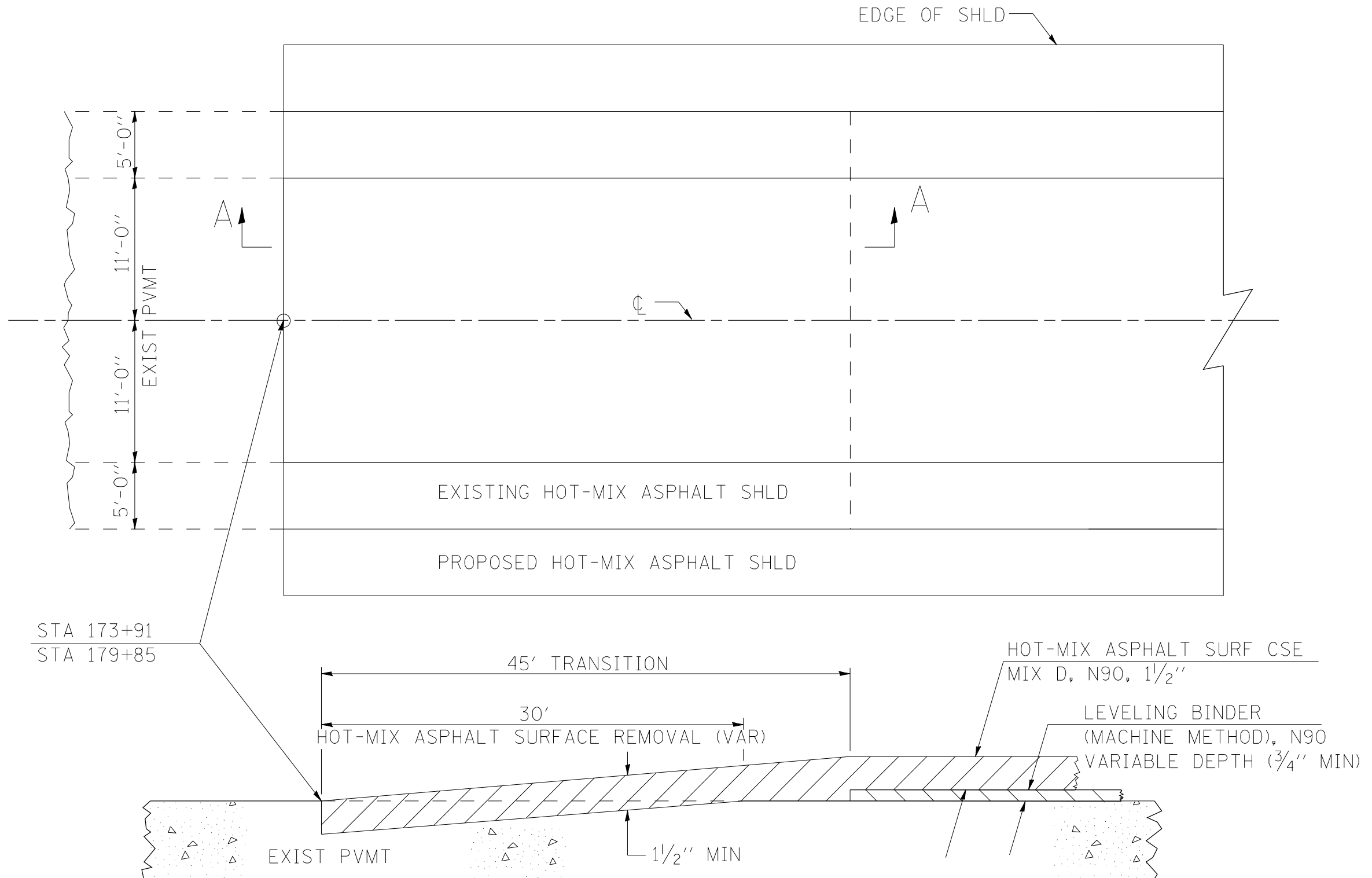
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STEP CONSTRUCTION ON EXISTING FILL DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	20
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78154	

# BUTT JOINT



REVISIONS	
DRAWN	10-17-90
REVISED	01-11-07
REVISED	3-25-08
REVISED	-----

STD. \_9-86

USER NAME = has ESCA PROJECT NO. 988.11 PLOT SCALE = 0.1667' / IN. PLOT DATE = 10/31/2012 7:11:36 AM	DESIGNED - JMS DRAWN - HAS CHECKED - RDP DATE - 10/12	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BUTT JOINT DETAIL</b>	F.A.P. RTE. 332 SECTION 4B-1 COUNTY WHITE TOTAL SHEETS 70 SHEET NO. 21	CONTRACT NO. 78154 ILLINOIS FED. AID PROJECT
SCALE:			SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	

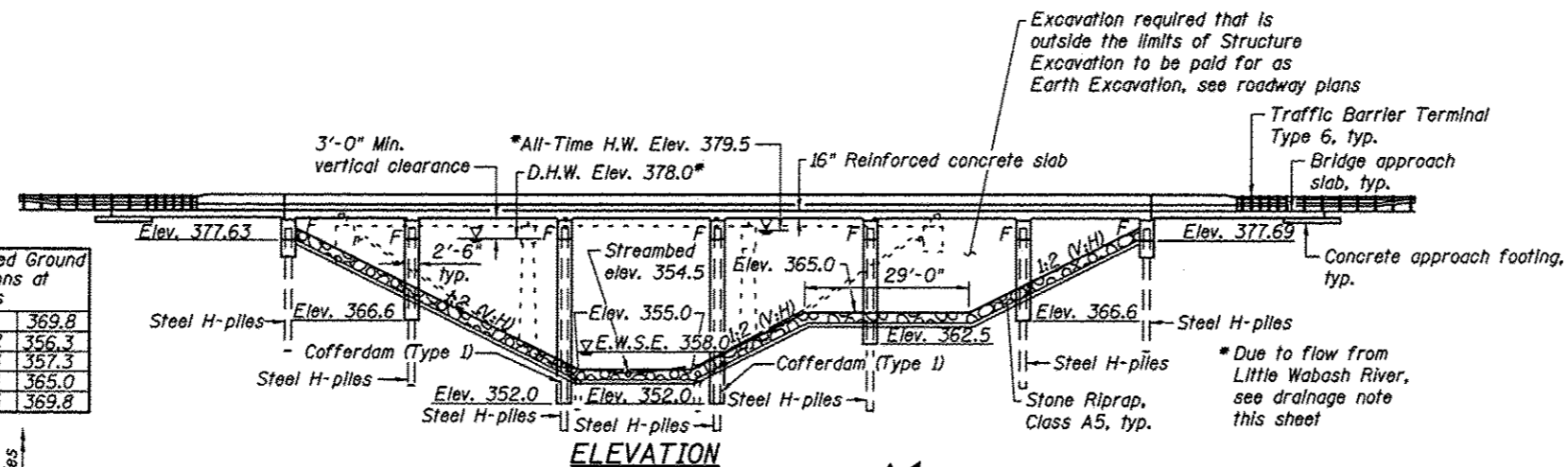
BENCHMARK: BM A5-17 - Chiseled square on SW wing wall of SN 097-0007, elev. 382.67 (NAVD 88)

**EXISTING STRUCTURE:**  
SN 097-0007 was originally built in 1951 as S.B.I. Route 1 Section 4-BY. It had a W24 steel beam superstructure. In 1978, the substructure was widened, and the superstructure was replaced with PPC deck beams. The existing substructure consists of open abutments and solid shaft piers supported on steel and timber piles. The superstructure consists of three spans (32'-2", 38'-11", 32'-7") with an out-to-out deck width of 44'-0". The bridge length is 106'-3" back-to-back of abutments along the local tangent. The structure was constructed with no skew and 0.041 ft/ft superelevation. Traffic shall be maintained utilizing stage construction.

No salvage.

Proposed Ground Elevations at Piers

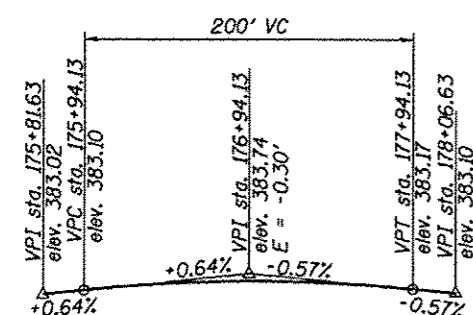
Pier 1	369.8
Pier 2	356.3
Pier 3	357.3
Pier 4	365.0
Pier 5	369.8



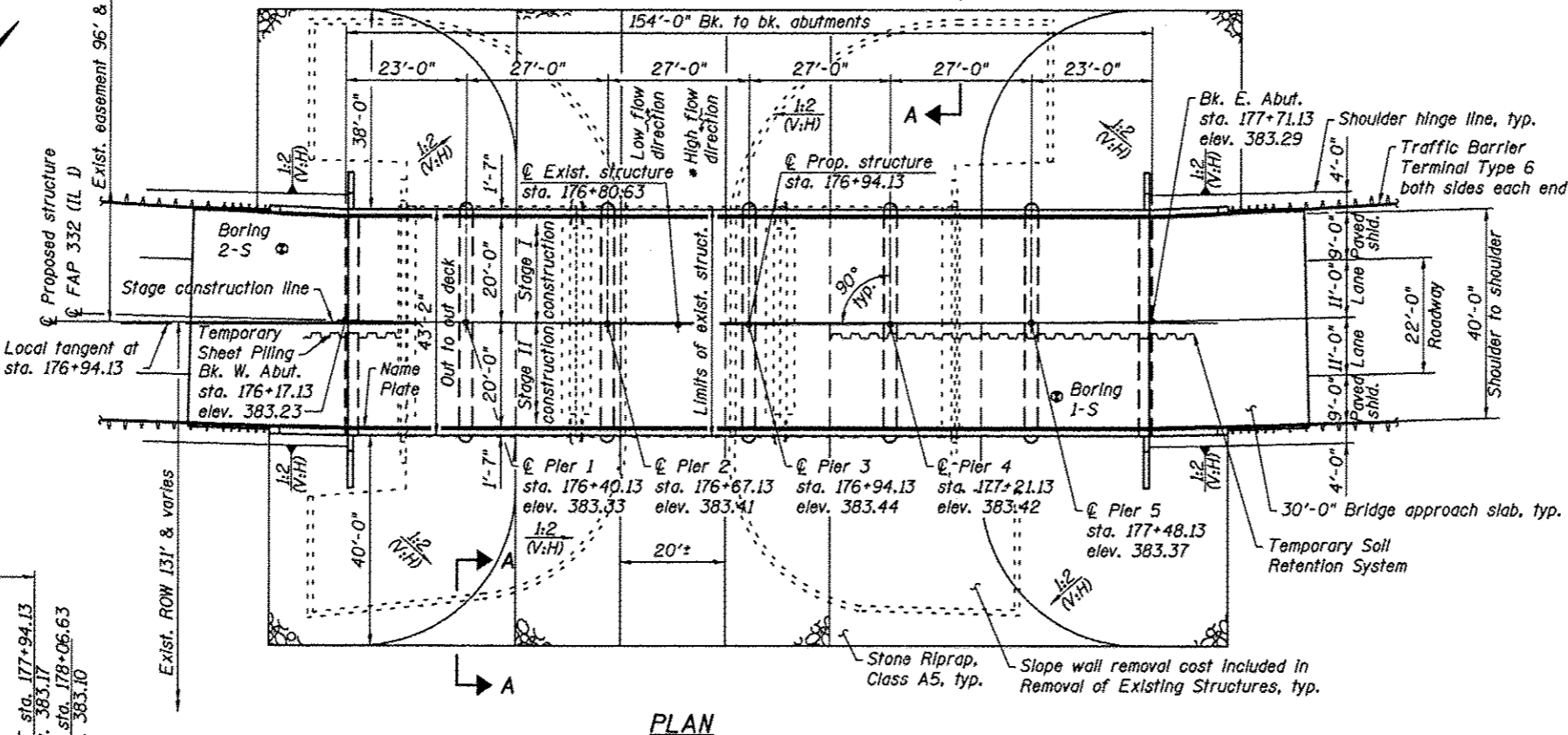
**STRUCTURE INDEX OF SHEETS**

General Plan & Elevation	Sheet No. 1 of 23
General Data	Sheet No. 2 of 23
Stage Construction Details	Sheet No. 3 of 23
Temporary Concrete Barrier for Stage Construction	Sheet No. 4 of 23
Top of Slab Elevations	Sheet No. 5 of 23
Top of West Approach Slab Elevations	Sheet No. 6 of 23
Top of East Approach Slab Elevations	Sheet No. 7 of 23
Superstructure	Sheet No. 8 of 23
Superstructure Details	Sheet Nos. 9 & 10 of 23
Bridge Approach Slab Details	Sheet Nos. 11 & 12 of 23
West Abutment	Sheet No. 13 of 23
East Abutment	Sheet No. 14 of 23
Pier 1	Sheet No. 15 of 23
Pier 2	Sheet No. 16 of 23
Pier 3	Sheet No. 17 of 23
Pier 4	Sheet No. 18 of 23
Pier 5	Sheet No. 19 of 23
HP Pile Details	Sheet No. 20 of 23
Bar Splicer Assembly Details	Sheet No. 21 of 23
Boring Logs	Sheet Nos. 22 & 23 of 23

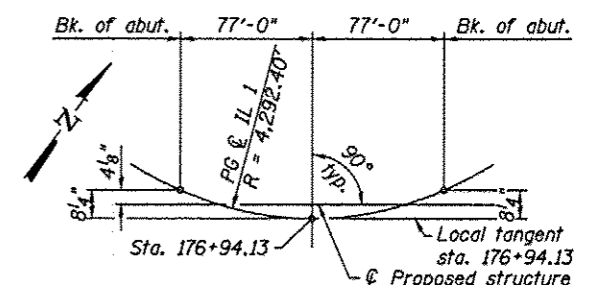
**© FAP ROUTE 332 CURVE DATA**  
 $\Delta = 22^\circ 39' 04''$  (LT)  
 $D = 1^\circ 20' 05''$   
 $R = 4,292.40'$   
 $T = 859.70'$   
 $L = 1,696.94'$   
 $E = 85.25'$   
 $S.E. = 0.04$  ' / '  
 $PC \text{ sta.} = 169+08.02$   
 $PT \text{ sta.} = 186+04.96$   
 $PI \text{ sta.} = 177+67.72$   
 Full superelevation  
 $\text{sta. } 172+00 \text{ to sta. } 183+00$



**PROFILE GRADE**  
(Along © IL 1)



**PLAN**



**OFFSET SKETCH**

Design Scour Elevations (ft.)

W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	E. Abut.
377.7	368.8	350.2	350.2	362.7	368.8	377.7

**WATERWAY INFORMATION**

Drainage Area = 3.71 Sq. Mi. Low Grade Elev. 380.21 @ Sta. 167+00

Flood	Freq. Yr.	Q C.F.S.	Opening-Sq. Ft.		Head-Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	431	1296	1713	378.0	0.0	0.0	378.0	378.0
Base	100	781	1296	1713	378.0	0.0	0.0	378.0	378.0
Max. Calc.	500	1040	1296	1713	378.0	0.0	0.0	378.0	378.0

10 year velocity through existing structure = 0.4 FPS  
 10 year velocity through proposed structure = 0.3 FPS

**DESIGN STRESSES**

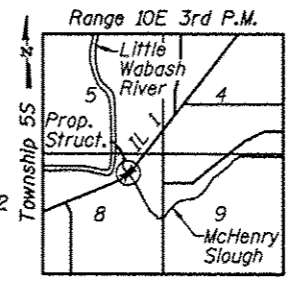
**FIELD UNITS**  
 $f'_c = 3,500 \text{ psi}$   
 $f_y = 60,000 \text{ psi (reinforcement)}$

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 2  
 Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.293g  
 Design Spectral Acceleration at 0.2 sec. ( $S_{D2}$ ) = 0.693g  
 Soil Site Class = D

**DESIGN SPECIFICATIONS**

2010 AASHTO LRFD Bridge Design Specifications 5th Edition with 2010 Interims  
**LOADING HL-93**  
 Allow 50 psf for future wearing surface.



**LOCATION SKETCH**



EXPIRES 11-30-12  
 SIGNATURE  
 08/31/12  
 DATE

**NAME PLATE**

See Std. 1160  
**APPROVED**  
 For Structural Adequacy Only

*D. Carl Perry*  
 Engineer of Bridges & Structures

**GENERAL PLAN & ELEVATION**  
**IL 1 OVER MCHENRY SLOUGH**  
**FAP ROUTE 332 - SECTION 4B-1**

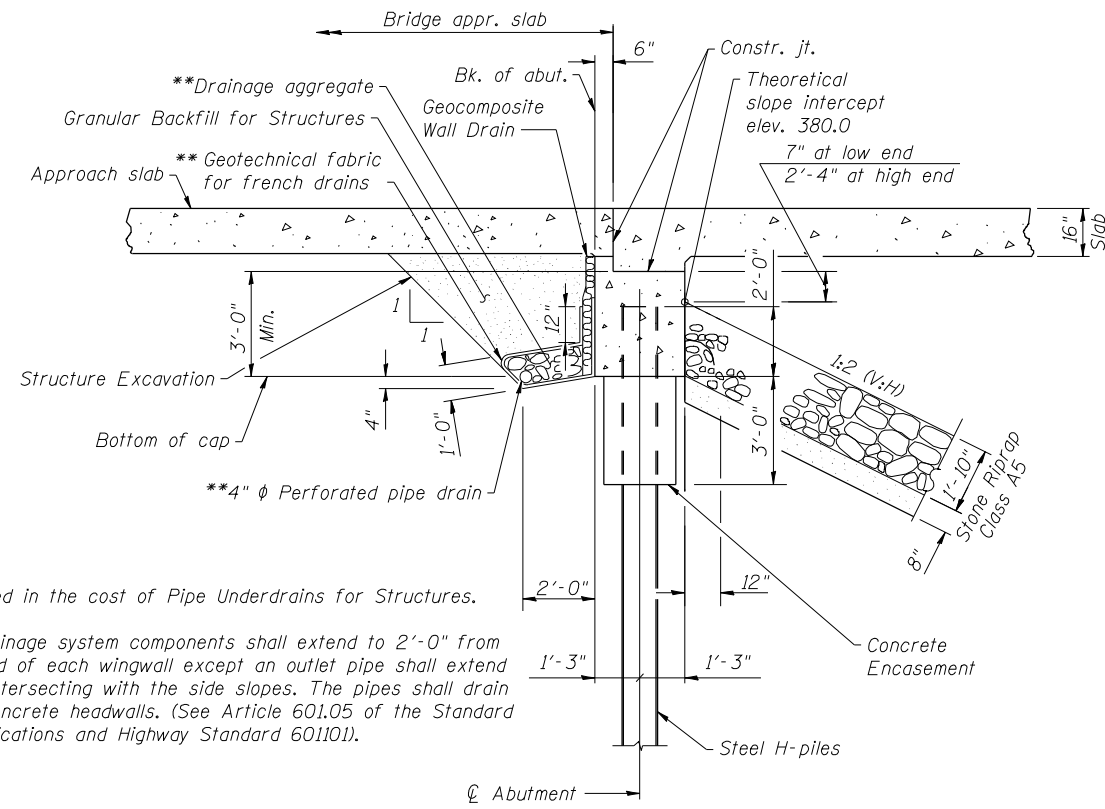
**WHITE COUNTY**  
**STATION 176+94.13**  
**STRUCTURE NO. 097-0078**



USER NAME = elh	DESIGNED - ELH	07/12	REVISED -
ESCA PROJECT NO. 988-11	CHECKED - RDP	10/12	REVISED -
PLOT SCALE = 8/2" = 1" / 16"	DRAWN - DWH/HAS	07/12	REVISED -
PLOT DATE = 1/24/2013 3:59:33 PM	CHECKED - ELH	10/12	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

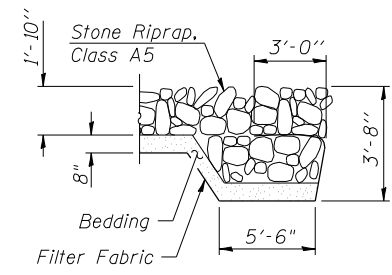
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	22
				CONTRACT NO. 78154
ILLINOIS FED. AID PROJECT AID				



\*\* Included in the cost of Pipe Underdrains for Structures.

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 601101).

SECTION THRU ABUTMENT



SECTION A-A

GENERAL NOTES

- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.	-	2500	2500
Filter Fabric	Sq. Yd.	-	2500	2500
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	180	180
Cofferdam Excavation	Cu. Yd.	-	60	60
Cofferdam (Type 1) (Location - 1)	Each	-	1	1
Cofferdam (Type 1) (Location - 2)	Each	-	1	1
Concrete Structures	Cu. Yd.	-	516.6	516.6
Concrete Superstructure	Cu. Yd.	505.8	-	505.8
Bridge Deck Grooving	Sq. Yd.	902	-	902
Concrete Encasement	Cu. Yd.	-	11.0	11.0
Protective Coat	Sq. Yd.	1108	-	1108
Reinforcement Bars, Epoxy Coated	Pound	99920	41150	141070
Bar Splicers	Each	475	339	814
Furnishing Steel Piles HP14x73	Foot	-	5054	5054
Driving Piles	Foot	-	5054	5054
Test Pile Steel HP14x73	Each	-	4	4
Name Plates	Each	1	-	1
Geocomposite Wall Drain	Sq. Yd.	-	52	52
Granular Backfill for Structures	Cu. Yd.	-	74	74
Temporary Sheet Piling	Sq. Ft.	-	211	211
Pipe Underdrains for Structures 4"	Foot	-	144	144
Temporary Soil Retention System	Sq. Ft.	-	780	780

PRINT DRIVER = L:\00-ESCA\B\11  
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 FILE NAME = 097-0078-02-CONTRACT.dwg



USER NAME = rjt	DESIGNED - ELH/SHL 07/12	REVISED -
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PLOT SCALE = 0.25" = 1' / IN.	DRAWN - HAS 07/12	REVISED -
PLOT DATE = 2/1/2013 10:22:59 AM	CHECKED - ELH 02/13	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL DATA  
STRUCTURE NO. 097-0078

SHEET NO. 2 OF 23 SHEETS

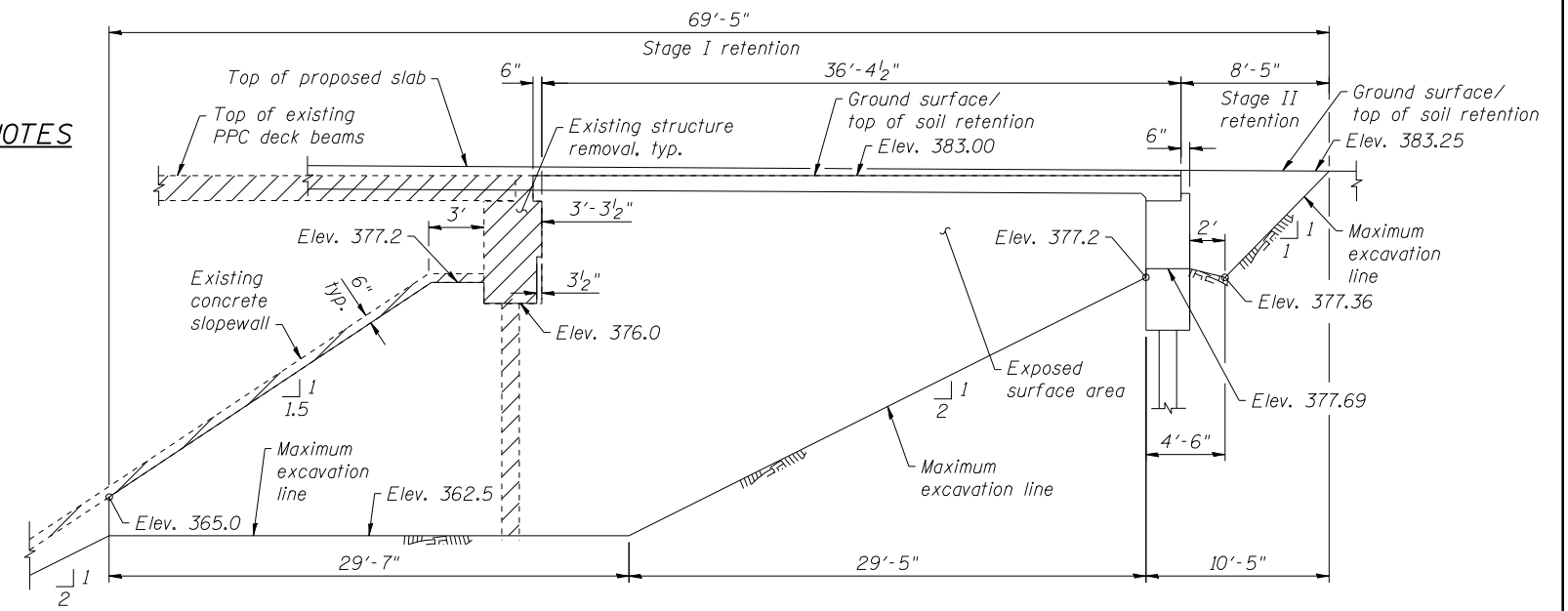
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	23
			CONTRACT NO. 78154	
ILLINOIS FED. AID PROJECT AID				

**STAGE CONSTRUCTION NOTES**

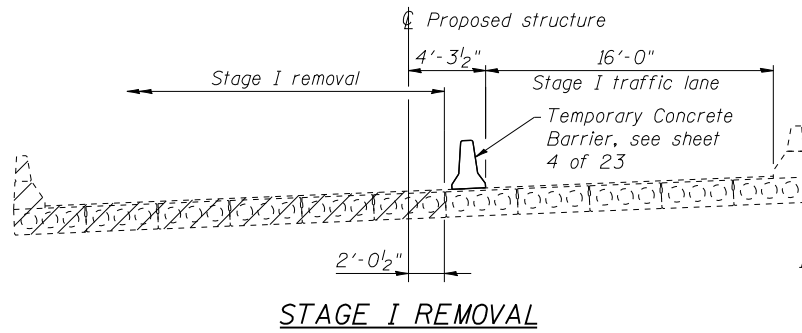
1. Hatched areas indicate Removal of Existing Structures.
2. All staging sections looking East.
3. For quantities of Temporary Concrete Barrier see roadway plans.

**TEMPORARY SOIL RETENTION SYSTEM NOTES**

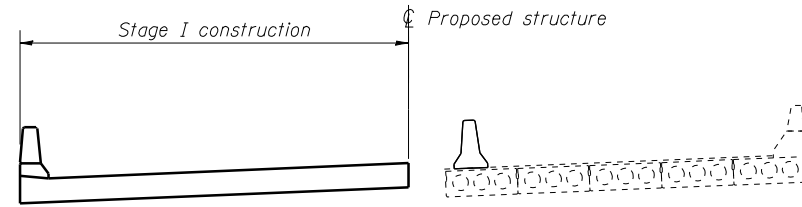
1. At the East Abutment, a cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Existing structure details are taken from existing plans.



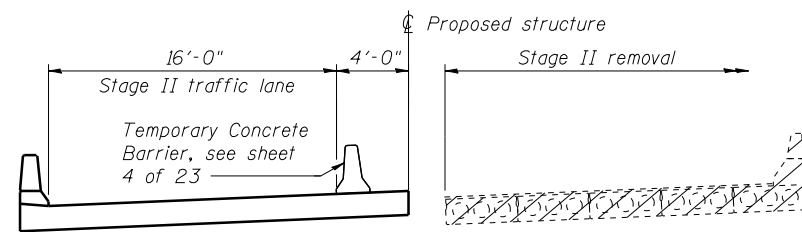
**TEMPORARY SOIL RETENTION SYSTEM**  
(East Abutment)



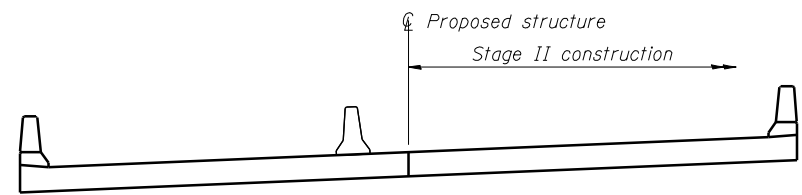
**STAGE I REMOVAL**



**STAGE I CONSTRUCTION**



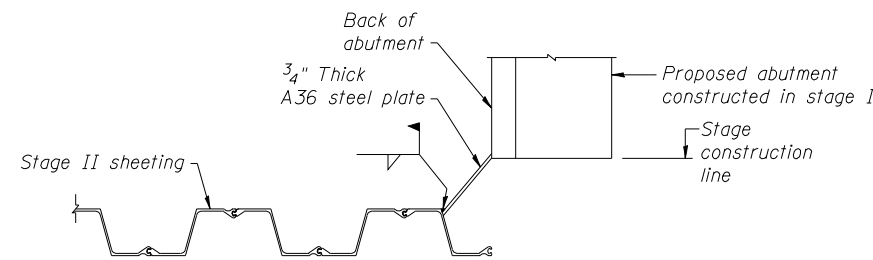
**STAGE II REMOVAL**



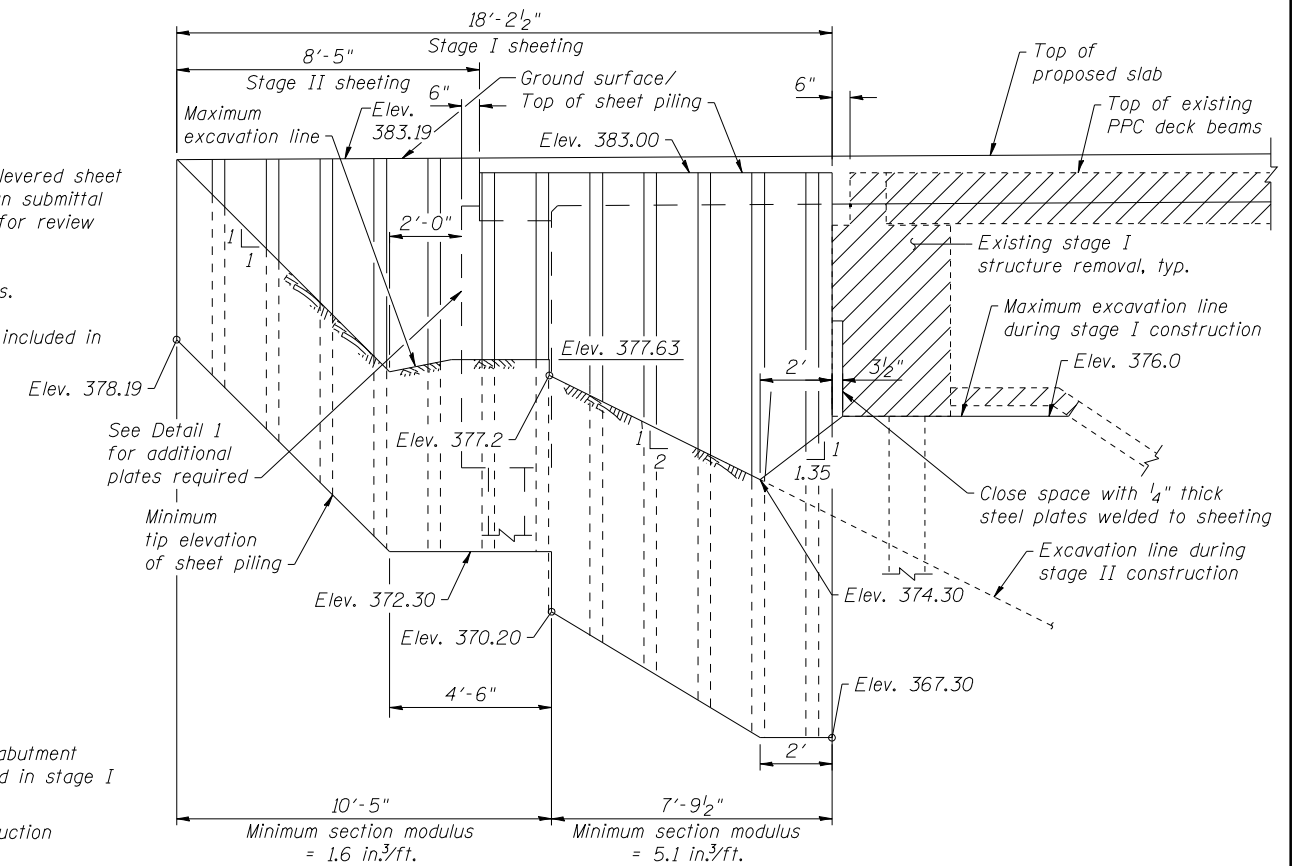
**STAGE II CONSTRUCTION**

**TEMPORARY SHEET PILING NOTES**

1. 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.
2. Existing structure details are taken from existing plans.
3. The cost of additional steel closure plates required is included in Temporary Sheet Piling.



**DETAIL 1**



**TEMPORARY SHEET PILING**  
(West Abutment)

PRINT DRIVER = L:\ESCAP\PLT  
 SCALE NAME = PLOT  
 FILE NAME = 097078-0154-03-10-14.dwg



USER NAME = has	DESIGNED - ELH/SHL 07/12	REVISED -
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PLOT DATE = 10/31/2012 7:12:55 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

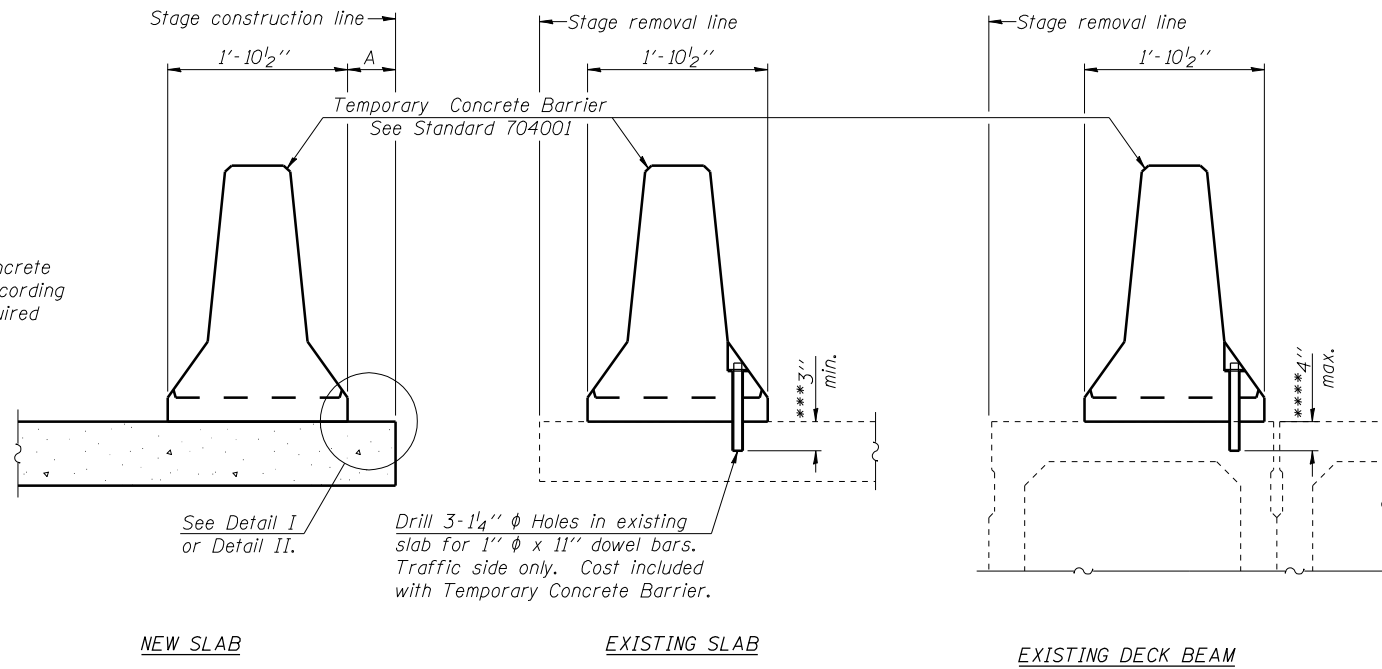
**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 097-0078**

SHEET NO. 3 OF 23 SHEETS

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 24
CONTRACT NO. 78154				
ILLINOIS FED. AID PROJECT AID				



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".



SECTIONS THRU SLAB OR DECK BEAM

**NOTES**

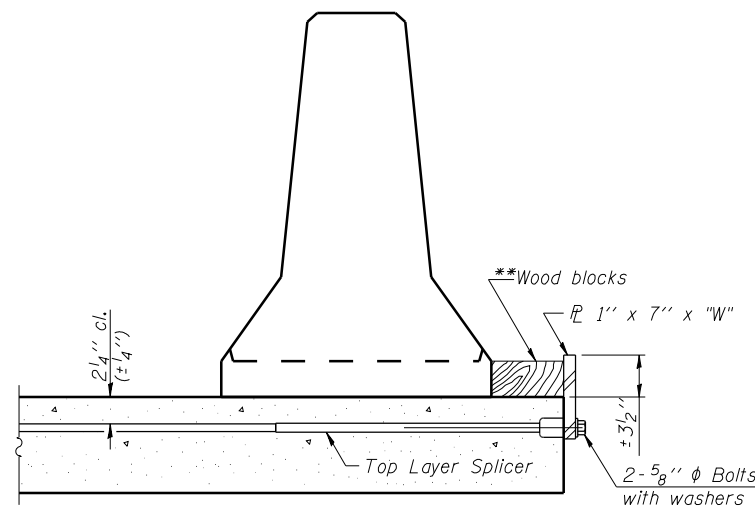
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\phi$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\phi$  of each barrier panel.

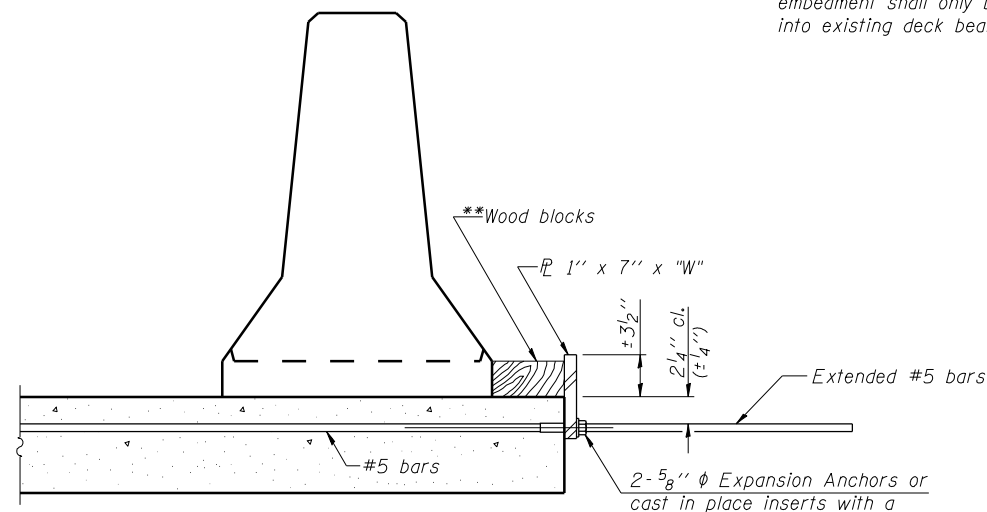
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



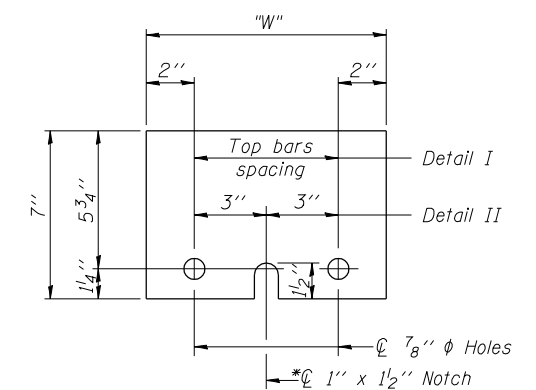
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4"



STEEL RETAINER PL 1" x 7" x "W"

\* Required only with Detail II

PRINT DRIVER = L:\D-ESCA\PLT  
SCALE NAME = 1/4" = 1'-0"  
FILE NAME = 097097-0154-04-10.dwg

R-27

7-1-10



USER NAME = has	DESIGNED - ELH 07/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/4" = 1'-0"	DRAWN - HAS 07/12	REVISED -
PLOT DATE = 10/31/2012 7:13:17 AM	CHECKED - ELH 10/12	REVISED -

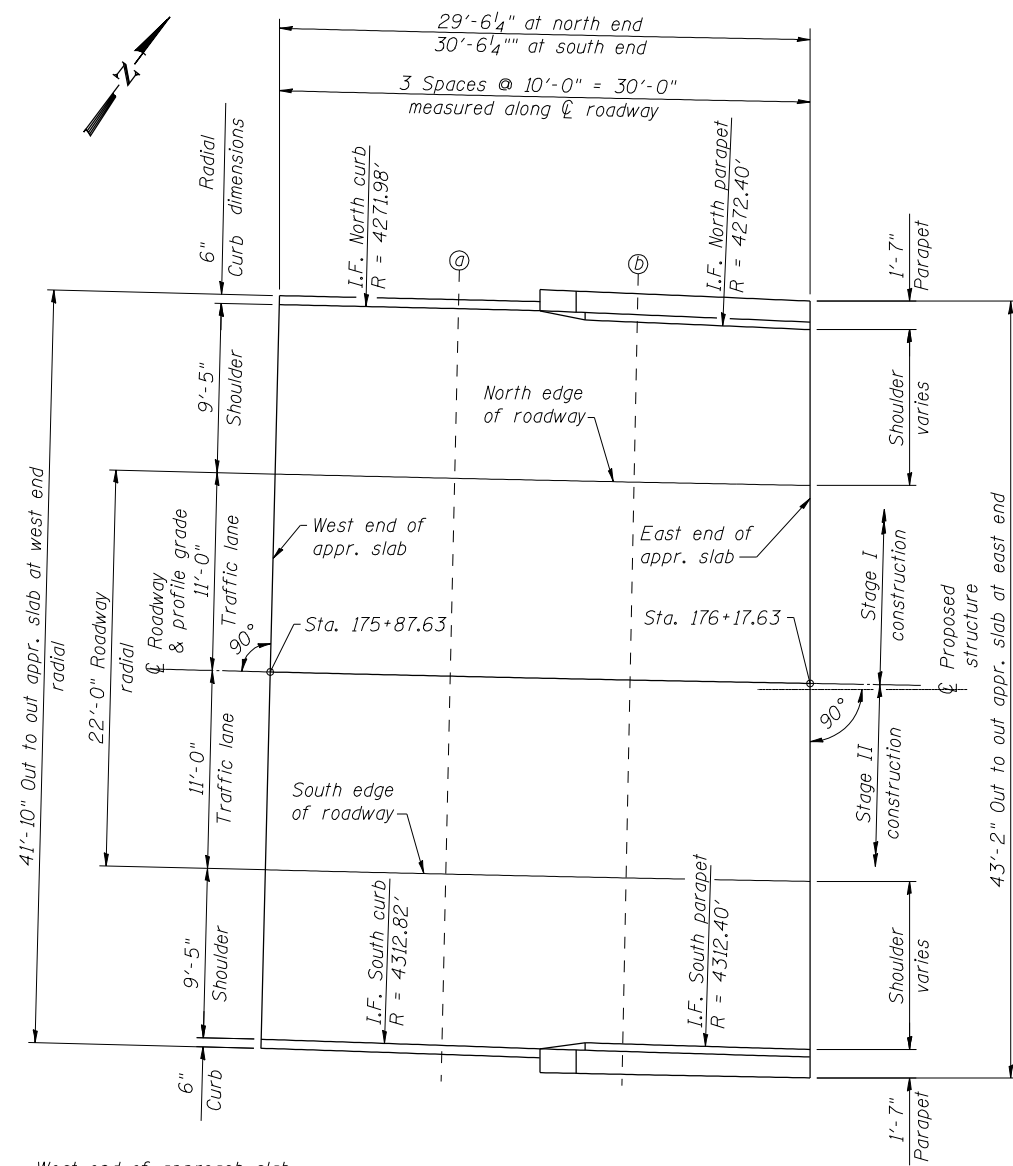
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO. 097-0078

SHEET NO. 4 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	25
			CONTRACT NO. 78154	
ILLINOIS FED. AID PROJECT AID				





West end of approach slab, line ① and line ② are at right angles to local tangent along  $\varnothing$  roadway

**PLAN**

**INSIDE FACE OF NORTH CURB/PARAPET**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	175+87.63	-20.42	382.24
a	175+97.63	-20.42	382.30
b	176+07.63	-19.83	382.39
E. end appr. slab	176+17.27	-19.66	382.45

**SOUTH EDGE OF ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	175+87.63	11.00	383.50
a	175+97.63	11.00	383.56
b	176+07.63	11.00	383.62
E. end appr. slab	176+17.82	11.00	383.67

**NORTH EDGE OF ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	175+87.63	-11.00	382.62
a	175+97.63	-11.00	382.68
b	176+07.63	-11.00	382.74
E. end appr. slab	176+17.43	-11.00	382.79

**INSIDE FACE OF SOUTH CURB/PARAPET**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	175+87.63	20.42	383.88
a	175+97.63	20.42	383.94
b	176+07.63	20.17	383.99
E. end appr. slab	176+17.99	20.33	384.05

**$\varnothing$  ROADWAY & STAGE CONSTRUCTION LINE**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	175+87.63	0.00	383.06
a	175+97.63	0.00	383.12
b	176+07.63	0.00	383.18
E. end appr. slab	176+17.63	0.00	383.23

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SCALE NAME = PLOT  
FILE NAME = 097097-0154.dwg-14x-11x.dwg



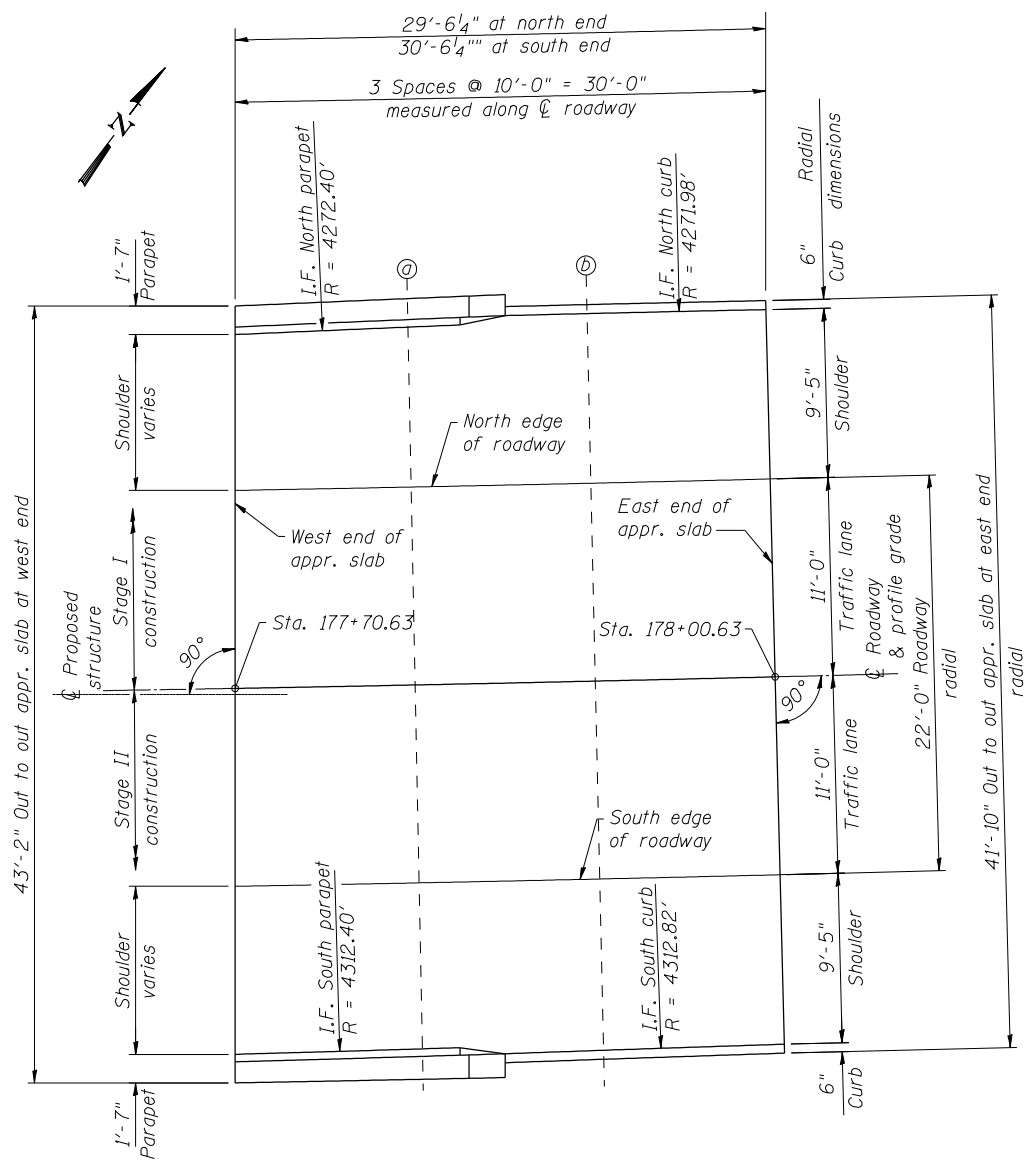
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ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
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PLOT DATE = 10/31/2012 7:13:57 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 097-0078**

SHEET NO. 6 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	27
CONTRACT NO. 78154				
ILLINOIS FED. AID PROJECT AID				



East end of approach slab, line (a) and line (b) are at right angles to local tangent along  $\varnothing$  roadway

**PLAN**

**INSIDE FACE OF NORTH CURB/PARAPET**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	177+70.99	-19.66	382.50
a	177+80.63	-19.83	382.45
b	177+90.63	-20.42	382.37
E. end appr. slab	178+00.63	-20.42	382.31

**SOUTH EDGE OF ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	177+70.44	11.00	383.73
a	177+80.63	11.00	383.68
b	177+90.63	11.00	383.63
E. end appr. slab	178+00.63	11.00	383.57

**NORTH EDGE OF ROADWAY**

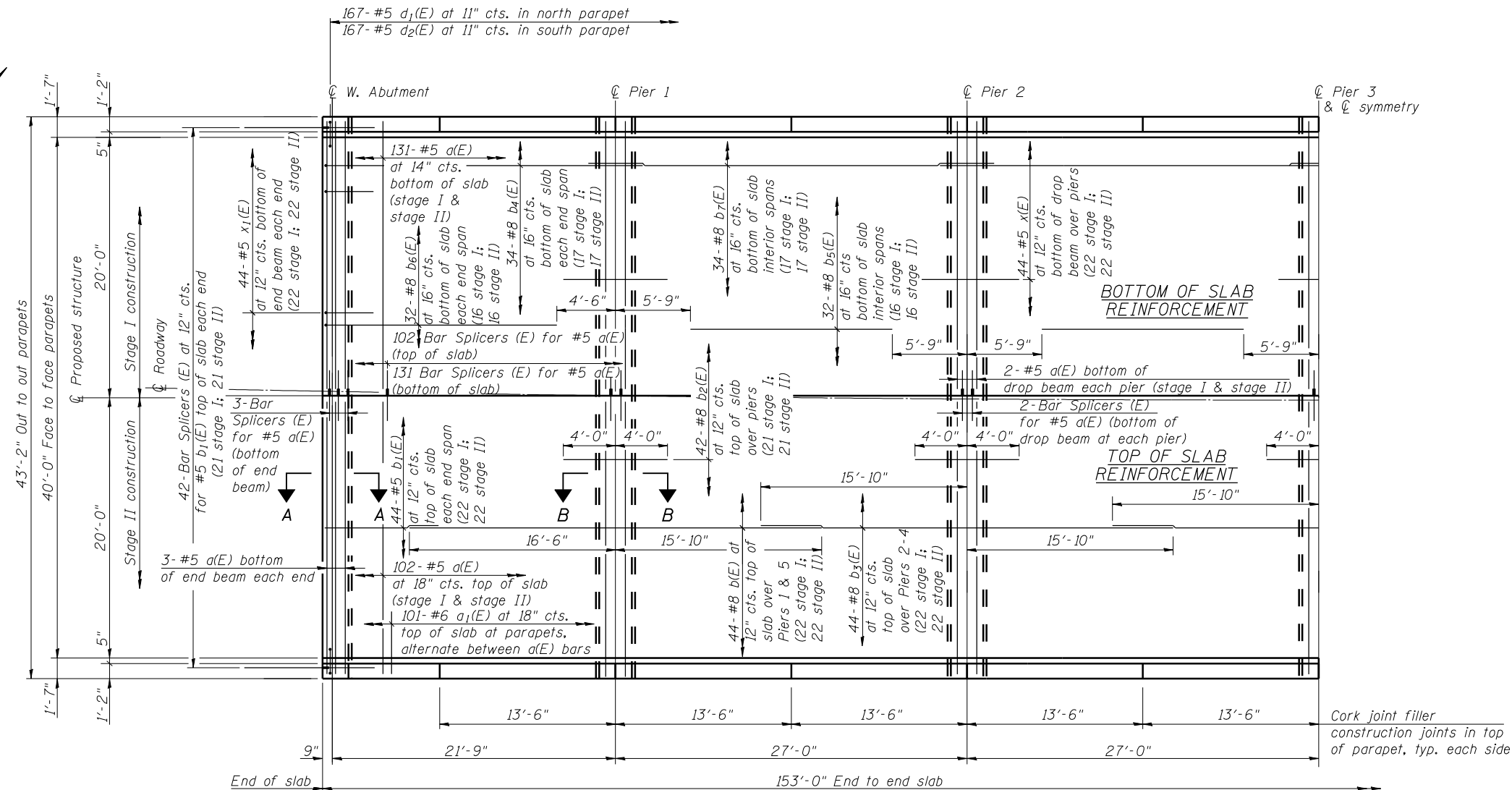
Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	177+70.83	-11.00	382.85
a	177+80.63	-11.00	382.80
b	177+90.63	-11.00	382.75
E. end appr. slab	178+00.63	-11.00	382.69

**INSIDE FACE OF SOUTH CURB/PARAPET**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	177+70.27	20.33	384.10
a	177+80.63	20.17	384.05
b	177+90.63	20.42	384.01
E. end appr. slab	178+00.63	20.42	383.95

**$\varnothing$  ROADWAY & STAGE CONSTRUCTION LINE**

Location	Station	Offset	Theoretical Grade Elevations
W. end appr. slab	177+70.63	0.00	383.29
a	177+80.63	0.00	383.24
b	177+90.63	0.00	383.19
E. end appr. slab	178+00.63	0.00	383.13



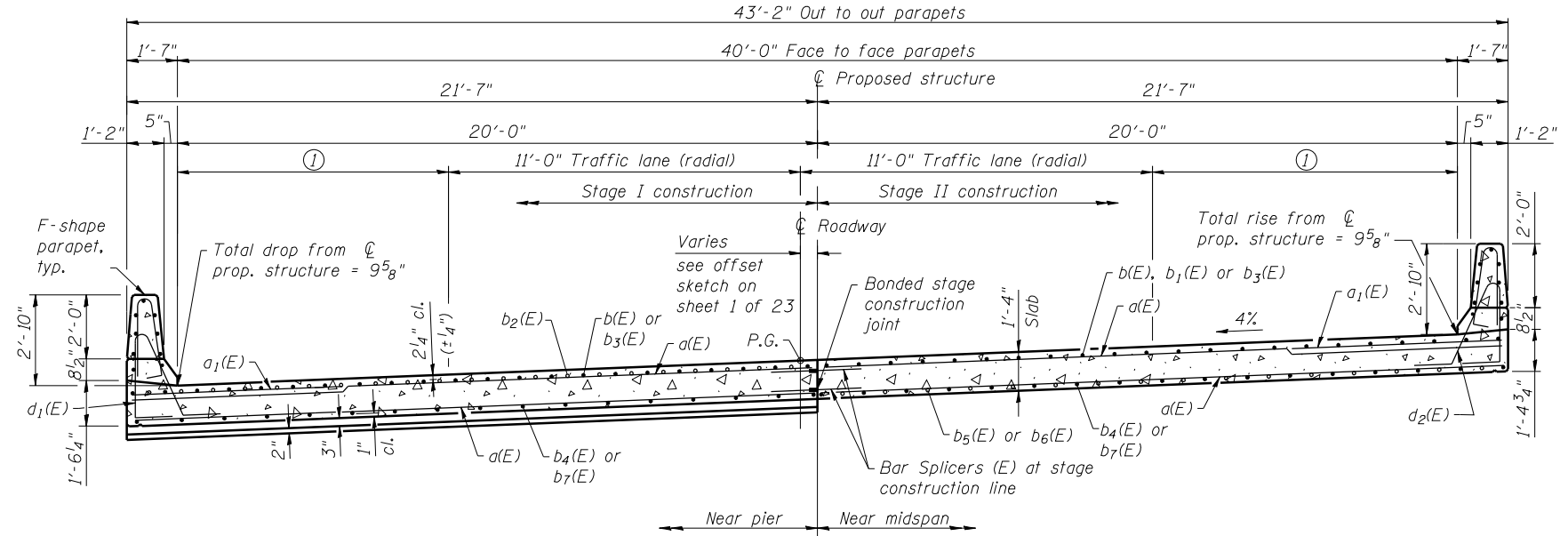
**HALF PLAN**

Notes:  
 See sheets 9 and 10 of 23 for Bill of Material and parapet details.  
 Bars indicated thus: 20x2-#8 etc. indicates 20 lines of bars with 2 lengths per line.  
 See sheet 10 of 23 for sections.

**MINIMUM BAR LAP**

- (Slab)  
 #5 bar = 2'-3"  
 #8 bar = 4'-8" (top)  
 #8 bar = 4'-2" (bottom)

① Shoulder varies 8'-7<sup>7</sup>/<sub>8</sub>" min. to 9'-4<sup>8</sup>/<sub>8</sub>" max.



**CROSS SECTION**

(Looking east)



USER NAME = has	DESIGNED - SHL/ELH 07/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/8" = 1' / IN.	DRAWN - DWH/HAS 07/12	REVISED -
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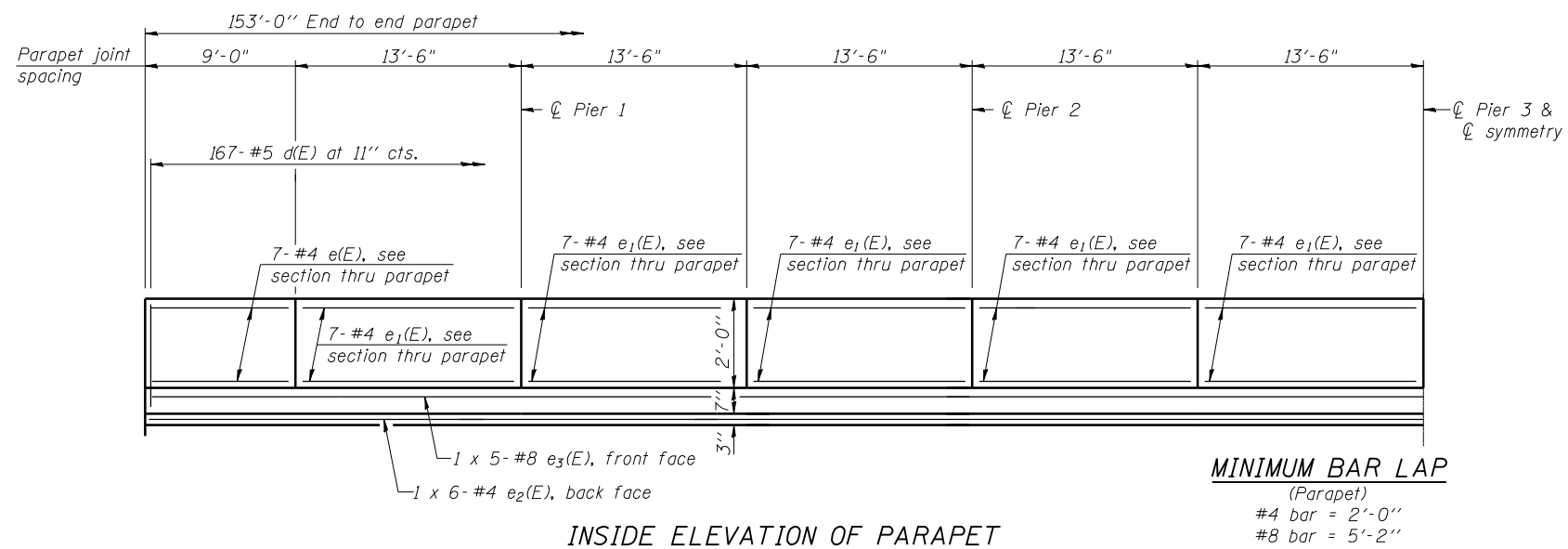
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE**  
**STRUCTURE NO. 097-0078**

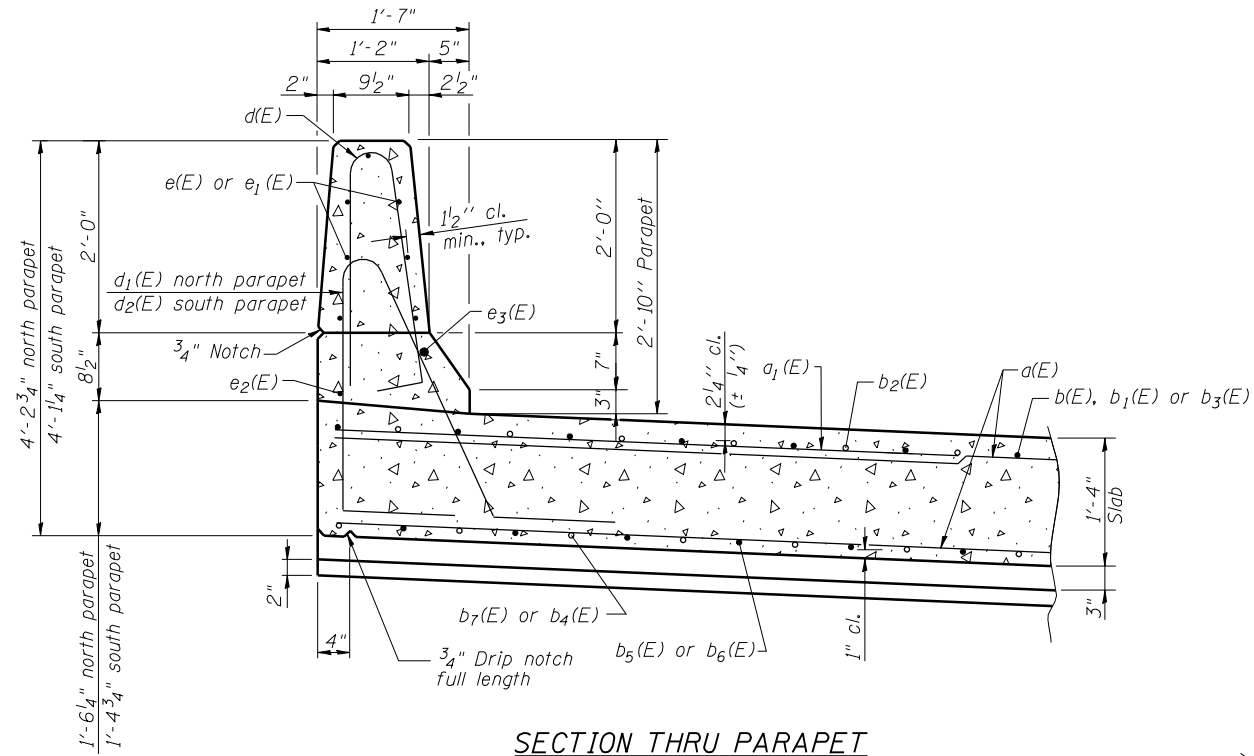
SHEET NO. 8 OF 23 SHEETS

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 29
CONTRACT NO. 78154				

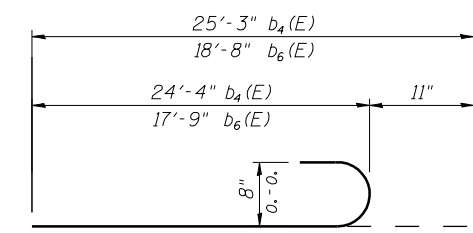
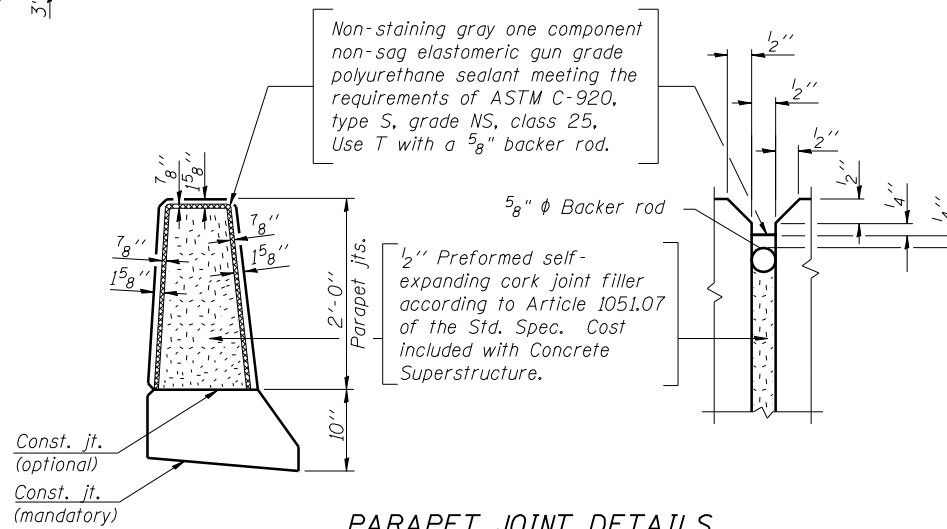
ILLINOIS FED. AID PROJECT AID



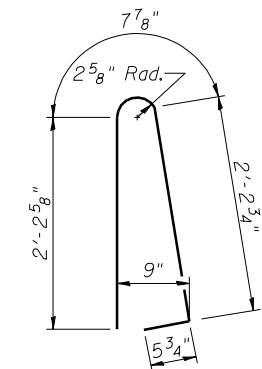
INSIDE ELEVATION OF PARAPET



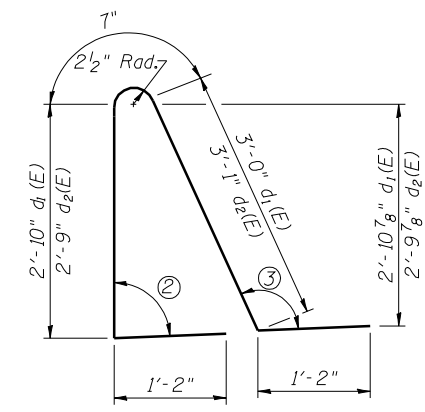
SECTION THRU PARAPET



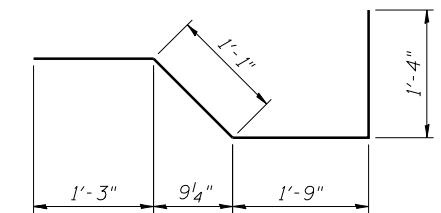
BARS b<sub>4</sub>(E) & b<sub>6</sub>(E)



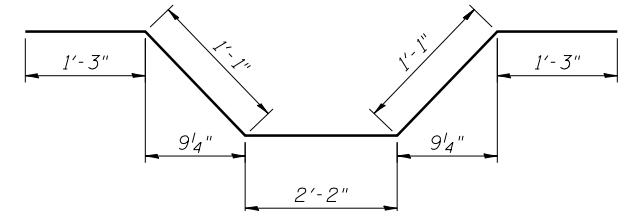
BAR d(E)



BARS d<sub>1</sub>(E) & d<sub>2</sub>(E)



BAR x<sub>1</sub>(E)



BAR x(E)

PRINT DRIVER = L:\05-ESCA\B\11  
SCALE NAME = 1/4" = 1'-0"  
FILE NAME = 097078-0154-09-Str-01.dwg



USER NAME = has	DESIGNED - SHL/ELH 07/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
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PLOT DATE = 10/31/2012 7:14:43 AM	CHECKED - SHL 10/12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 097-0078

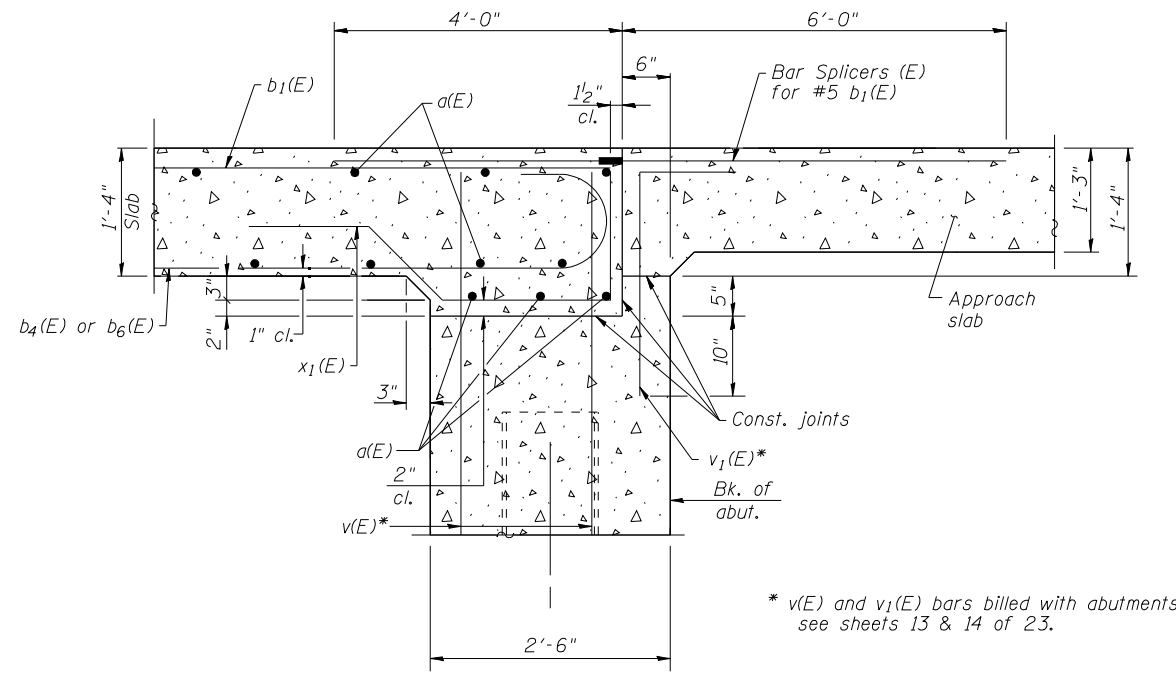
SHEET NO. 9 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	30
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	

**SUPERSTRUCTURE  
BILL OF MATERIAL**

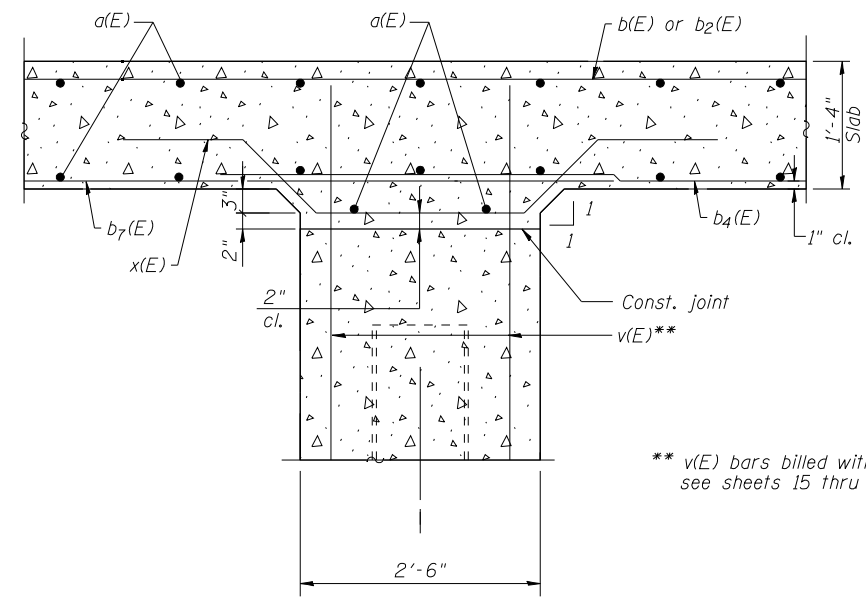
Bar	No.	Size	Length	Shape
a(E)	498	#5	21'-4"	—
a <sub>1</sub> (E)	202	#6	6'-6"	—
b(E)	88	#8	32'-4"	—
b <sub>1</sub> (E)	88	#5	8'-0"	—
b <sub>2</sub> (E)	210	#8	8'-0"	—
b <sub>3</sub> (E)	132	#8	31'-8"	—
b <sub>4</sub> (E)	68	#8	25'-3"	—
b <sub>5</sub> (E)	128	#8	15'-6"	—
b <sub>6</sub> (E)	64	#8	18'-8"	—
b <sub>7</sub> (E)	136	#8	31'-2"	—
d(E)	334	#5	5'-7"	⌋
d <sub>1</sub> (E)	167	#5	8'-9"	⌋
d <sub>2</sub> (E)	167	#5	8'-9"	⌋
e(E)	28	#4	8'-8"	—
e <sub>1</sub> (E)	140	#4	13'-2"	—
e <sub>2</sub> (E)	12	#4	27'-2"	—
e <sub>3</sub> (E)	10	#8	34'-8"	—
x(E)	220	#5	6'-10"	—
x <sub>1</sub> (E)	88	#5	5'-5"	—
Reinforcement Bars, Epoxy Coated	Pound	71040		
Concrete Superstructure	Cu. Yd.	373.0		
Bar Splicers	Each	333		

Bars indicated thus: 1x5-#8 etc. indicates 1 line of bars with 5 lengths per line.  
For details of Bar Splicers, see sheet 21 of 23.  
Name Plate to be mounted on inside face of parapet, see sheet 1 of 23.  
See sheet 9 of 23 for bar bending details.



\* v(E) and v<sub>1</sub>(E) bars billed with abutments, see sheets 13 & 14 of 23.

**SECTION A-A**



\*\* v(E) bars billed with piers, see sheets 15 thru 19 of 23.

**SECTION B-B**

PRINT DRIVER = L:\05-ESCA\B\11  
SCALE NAME = PLOT  
FILE NAME = 097-0078-0104-10-SP-01.dwg



USER NAME = has	DESIGNED - SHL/ELH 07/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
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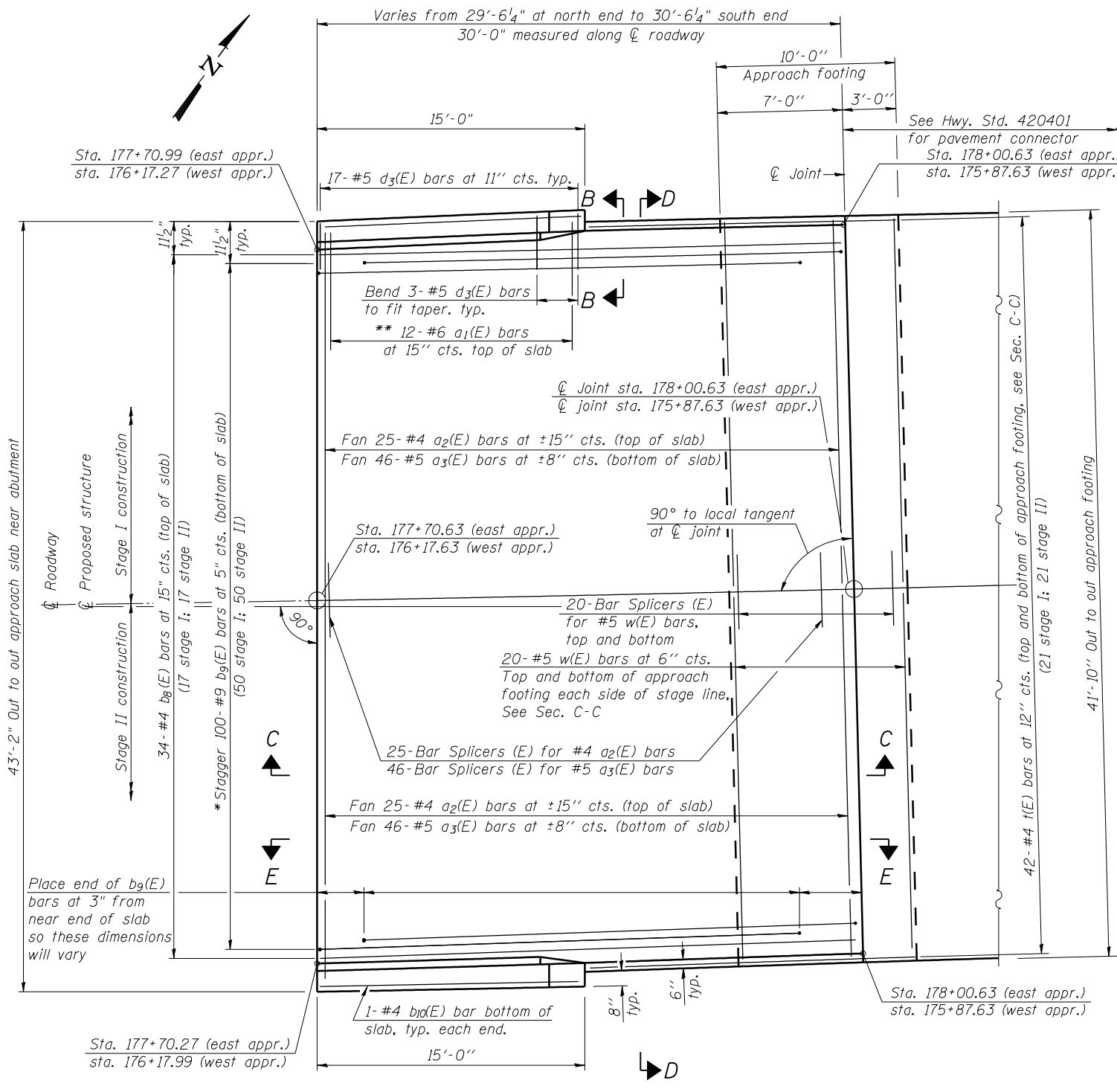
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 097-0078**

SHEET NO. 10 OF 23 SHEETS

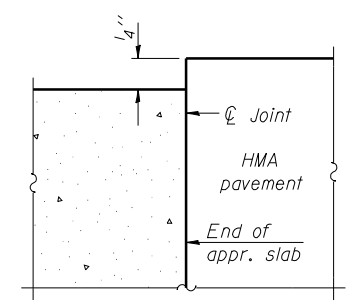
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	31
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	

Notes:  
See sheet 12 of 23 for Sections C-C & D-D and View E-E  
a<sub>2</sub>(E) and a<sub>3</sub>(E) bar spacings measured along  $\bar{C}$  Rdwy.

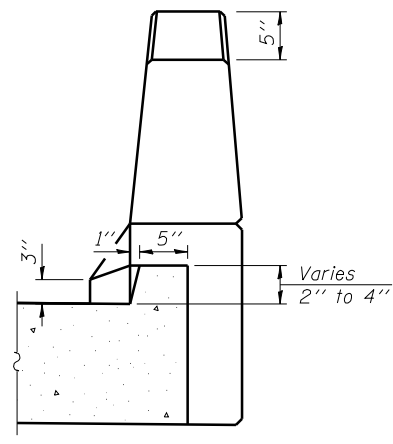


**PLAN**  
(East approach slab shown; west approach slab similar)

\* Tilt #9 b<sub>9</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>2</sub>(E) bars, typ. ea. parapet.



**FLEXIBLE PAVEMENT**  
**DETAIL A**



**VIEW B-B**

PRINT DRIVER = LUD-EBR041L  
 SCALE NAME = PLOT  
 FILE NAME = 8/23/12 8:28:54 11-hw-D14.dwg



USER NAME = has	DESIGNED - SHL 07/12	REVISED -
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PLOT SCALE = 0/2' = 1/4" / IN.	DRAWN - HAS 07/12	REVISED -
PLOT DATE = 10/31/2012 7:15:13 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 097-0078**

(Sheet 1 of 2)

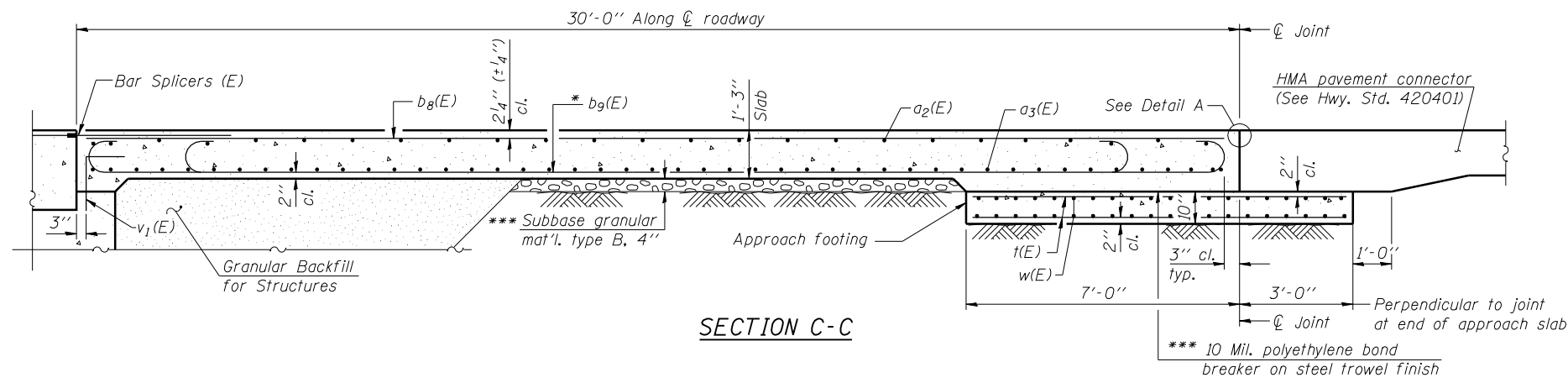
SHEET NO. 11 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	32
CONTRACT NO. 78154				

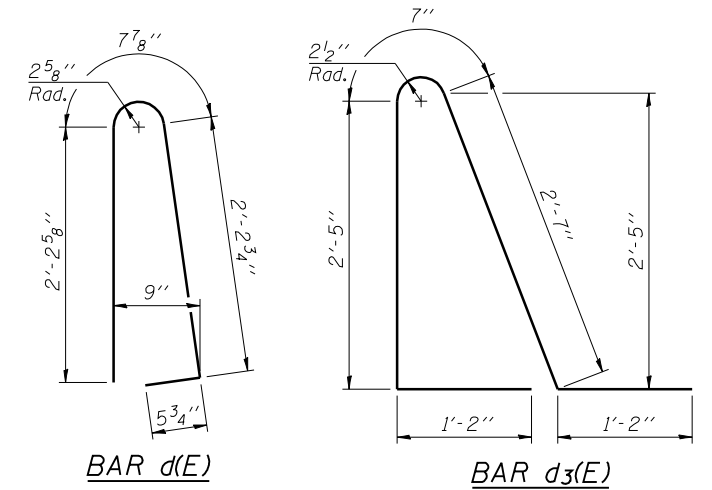
ILLINOIS FED. AID PROJECT AID



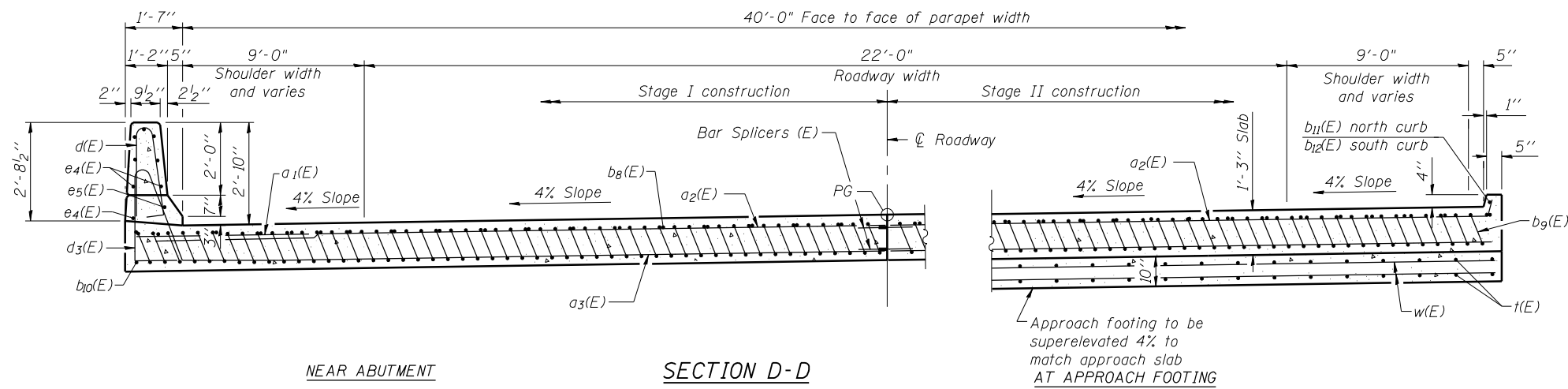
Notes:  
 See sheet 11 of 23 for Detail A and View B-B.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For  $v_1(E)$  bar details, see sheet 13 of 23.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
 For bar splicer details, see sheet 21 of 23.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 23.  
 For additional parapet details, see sheet 9 of 23.



SECTION C-C



\* Tilt #9  $b_9(E)$  bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.

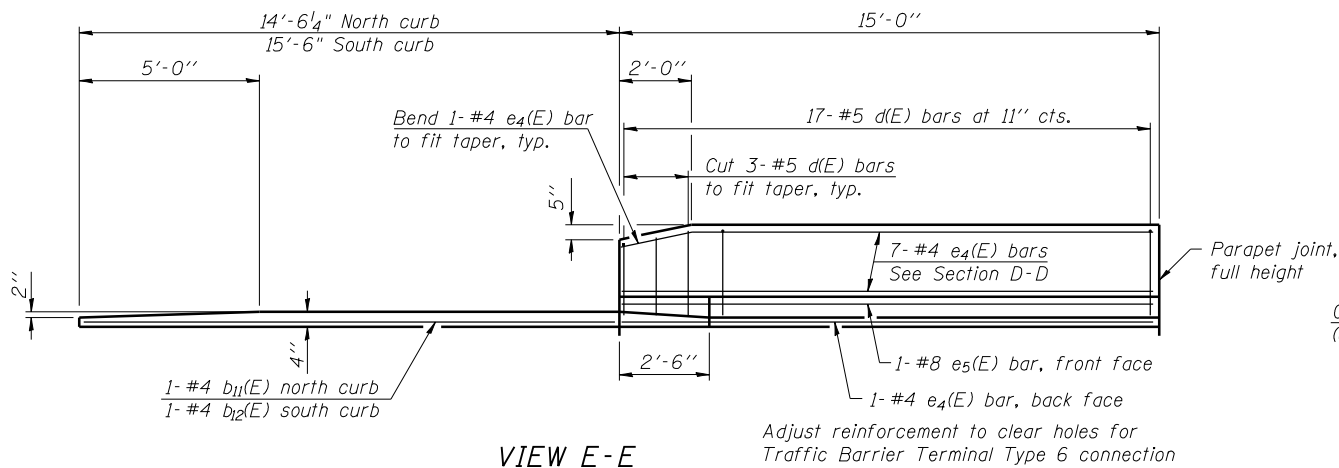


NEAR ABUTMENT

SECTION D-D

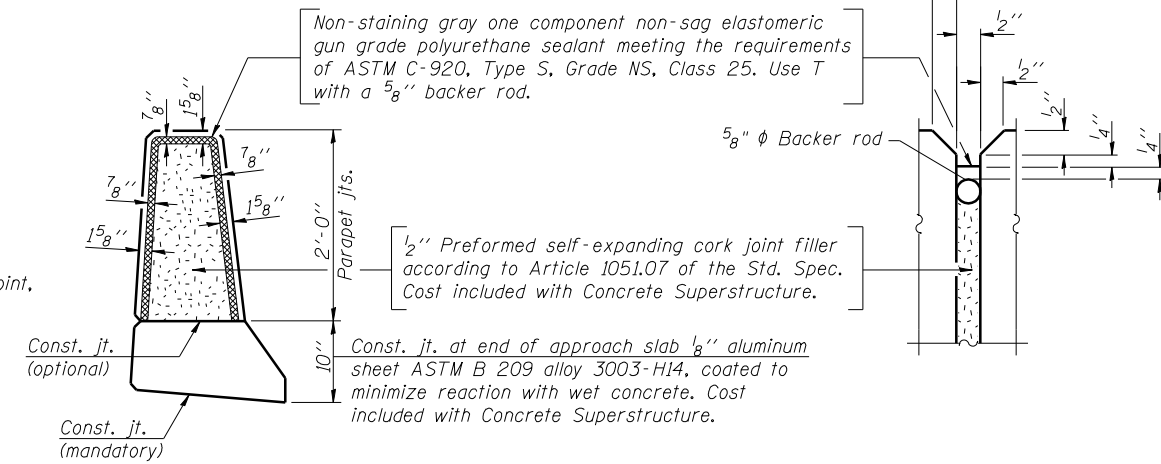
(See Plan for dimensions not shown)

Approach footing to be super-elevated 4% to match approach slab AT APPROACH FOOTING

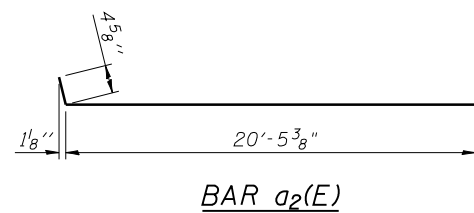


VIEW E-E

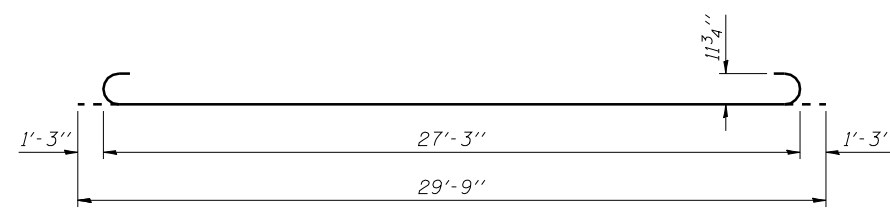
Adjust reinforcement to clear holes for Traffic Barrier Terminal Type 6 connection



PARAPET JOINT DETAILS



BAR  $a_2(E)$



BAR  $b_9(E)$

TWO APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_1(E)$	48	#6	6'-6"	—
$a_2(E)$	100	#4	20'-10"	—
$a_3(E)$	184	#5	20'-7"	—
$b_8(E)$	68	#4	29'-3"	—
$b_9(E)$	200	#9	29'-9"	—
$b_{10}(E)$	4	#4	14'-8"	—
$b_{11}(E)$	2	#4	14'-2"	—
$b_{12}(E)$	2	#4	15'-2"	—
$d(E)$	68	#5	5'-7"	U
$d_3(E)$	68	#5	7'-11"	U
$e_4(E)$	32	#4	14'-8"	—
$e_5(E)$	4	#8	14'-8"	—
$t(E)$	168	#4	9'-8"	—
$w(E)$	160	#5	20'-7"	—
Concrete Superstructure		Cu. Yd.	132.8	
Concrete Structures		Cu. Yd.	25.9	
Reinforcement Bars, Epoxy Coated		Pound	33400	
Bar Splicers		Each	222	

(Sheet 2 of 2)

PRINT DRIVER = L:\05-EB\0411  
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 FILE NAME = 097078-01054-12-04-01.dwg



USER NAME = has	DESIGNED - ELH/SHL 07/12	REVISED -
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PLOT SCALE = 0/2" = 1' / IN.	DRAWN - HAS 07/12	REVISED -
PLOT DATE = 10/31/2012 7:15:27 AM	CHECKED - ELH 10/12	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 097-0078

SHEET NO. 12 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	33
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	

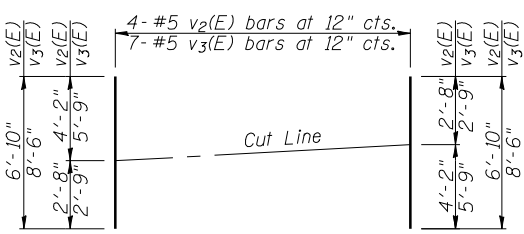
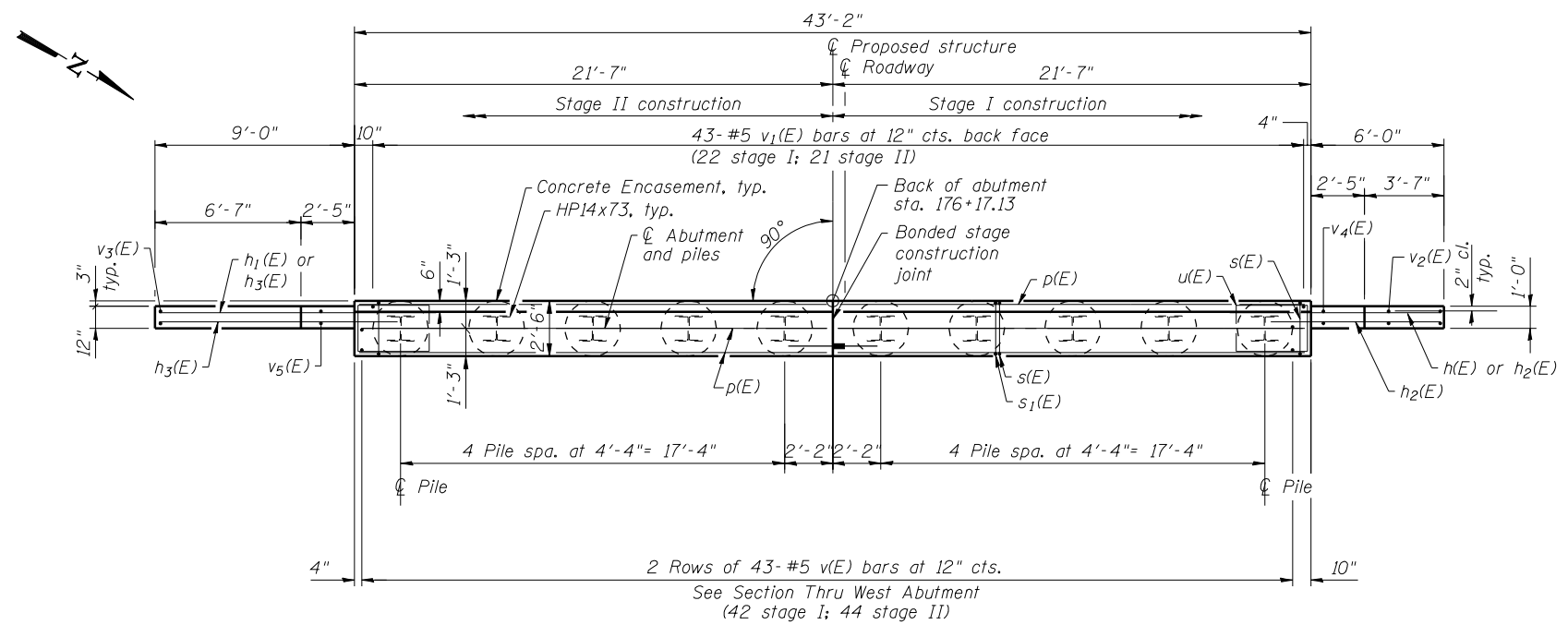
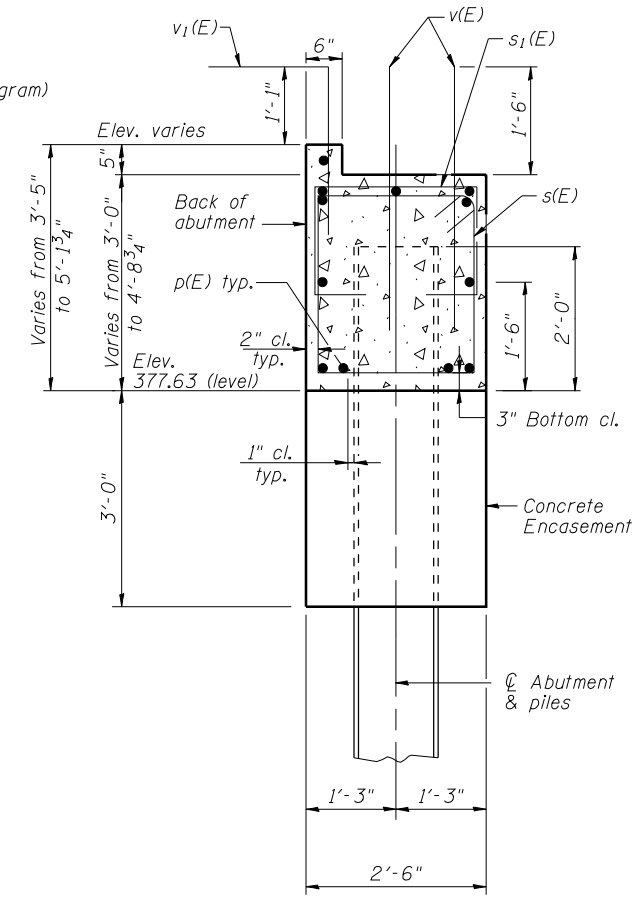
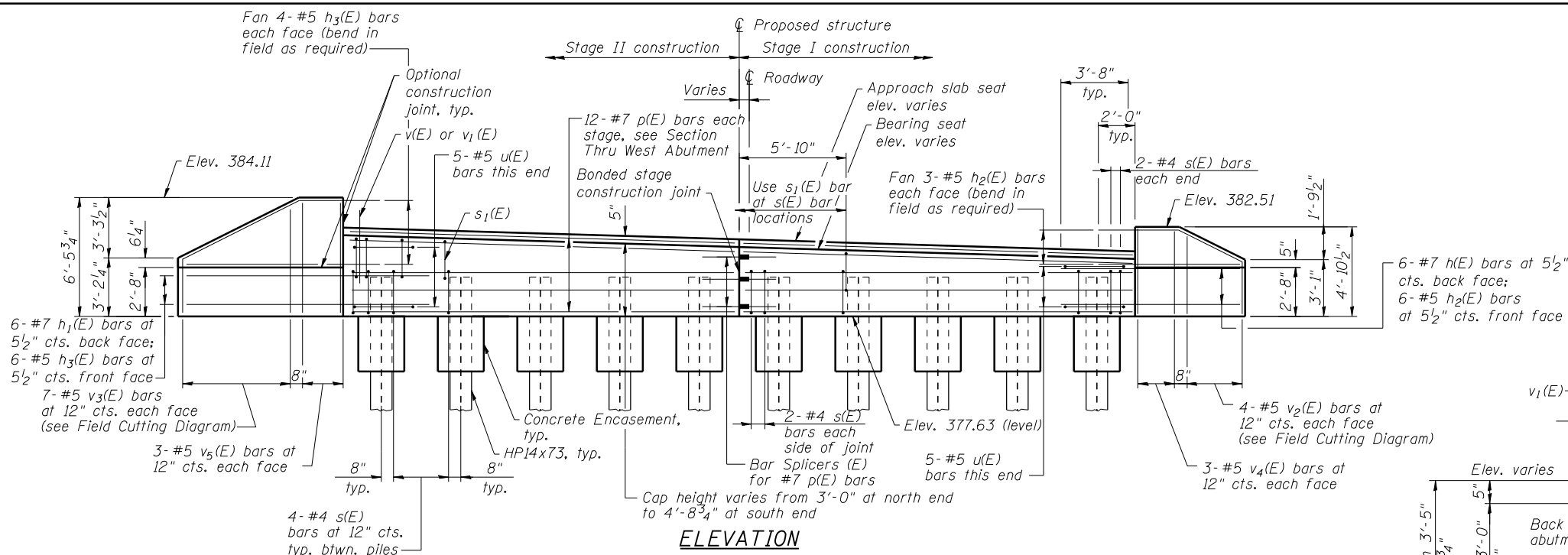
**WEST ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	6	#7	9'-6"	—
h <sub>1</sub> (E)	6	#7	12'-6"	—
h <sub>2</sub> (E)	12	#5	7'-10"	—
h <sub>3</sub> (E)	14	#5	10'-10"	—
p(E)	24	#7	21'-4"	—
s(E)	40	#4	10'-1"	□
s <sub>1</sub> (E)	26	#4	7'-6"	□
u(E)	10	#5	9'-5"	□
v(E)	86	#5	3'-8"	—
v <sub>1</sub> (E)	43	#5	4'-0"	┌
v <sub>2</sub> (E)	4	#5	6'-10"	—
v <sub>3</sub> (E)	7	#5	8'-6"	—
v <sub>4</sub> (E)	6	#5	4'-5"	—
v <sub>5</sub> (E)	6	#5	6'-0"	—
Structure Excavation	Cu. Yd.		80	
Concrete Structures	Cu. Yd.		18.5	
Reinforcement Bars, Epoxy Coated	Pound		2740	
Furnishing Steel Piles, HP14x73	Foot		675	
Driving Piles	Foot		675	
Test Pile, Steel HP14x73	Each		1	
Concrete Encasement	Cu. Yd.		5.5	
Granular Backfill for Structures	Cu. Yd.		37	
Geocomposite Wall Drain	Sq. Yd.		26	
Pipe Underdrains for Structures, 4"	Foot		72	
Bar Splicers	Each		12	

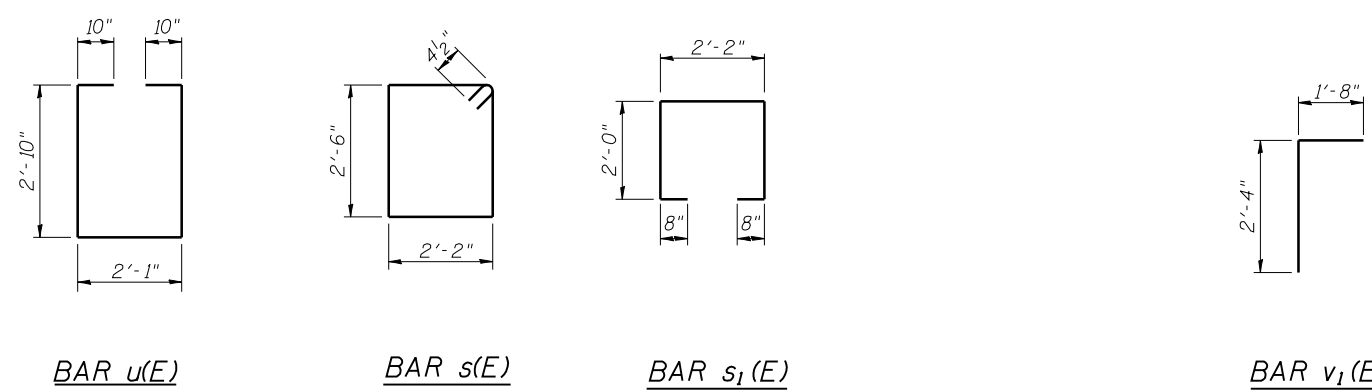
For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.

**PILE DATA**

Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 318 kips  
Estimated Length: 75'  
No. of Production Piles: 9  
No. of Test Piles: 1



**FIELD CUTTING DIAGRAM**  
Order v<sub>2</sub>(E) and v<sub>3</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.



USER NAME = hos	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/8" = 1' / IN.	DRAWN - DWH 08/12	REVISED -
PLOT DATE = 10/31/2012 7:15:46 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT  
STRUCTURE NO. 097-0078**

SHEET NO. 13 OF 23 SHEETS

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 34
ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

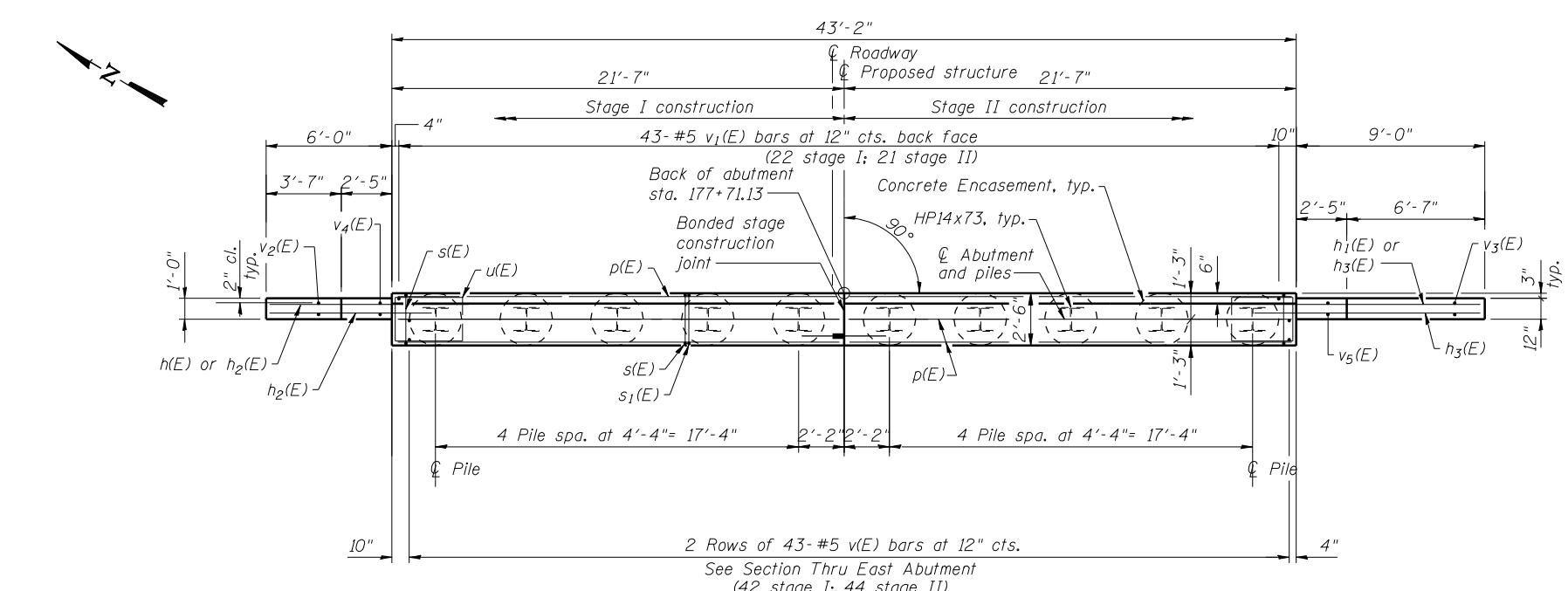
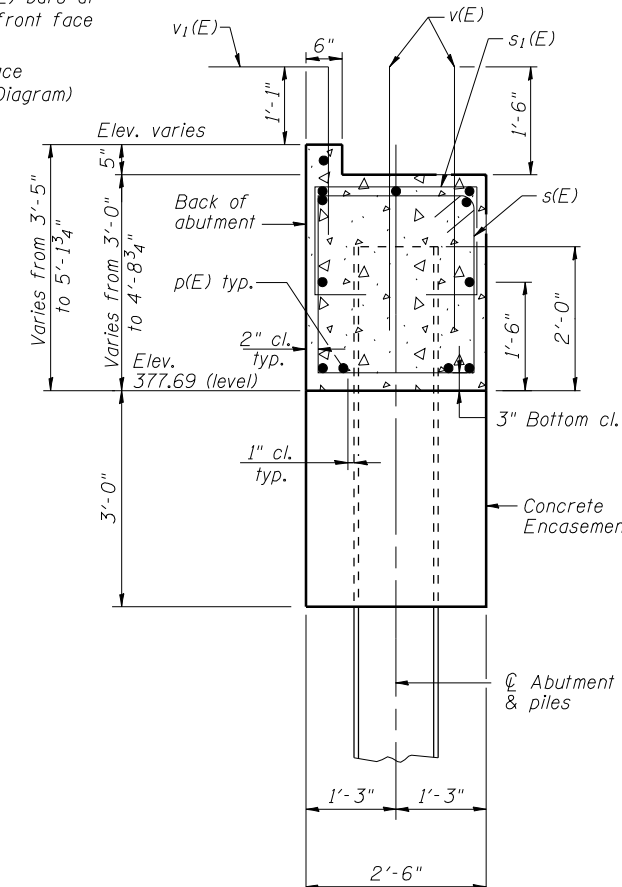
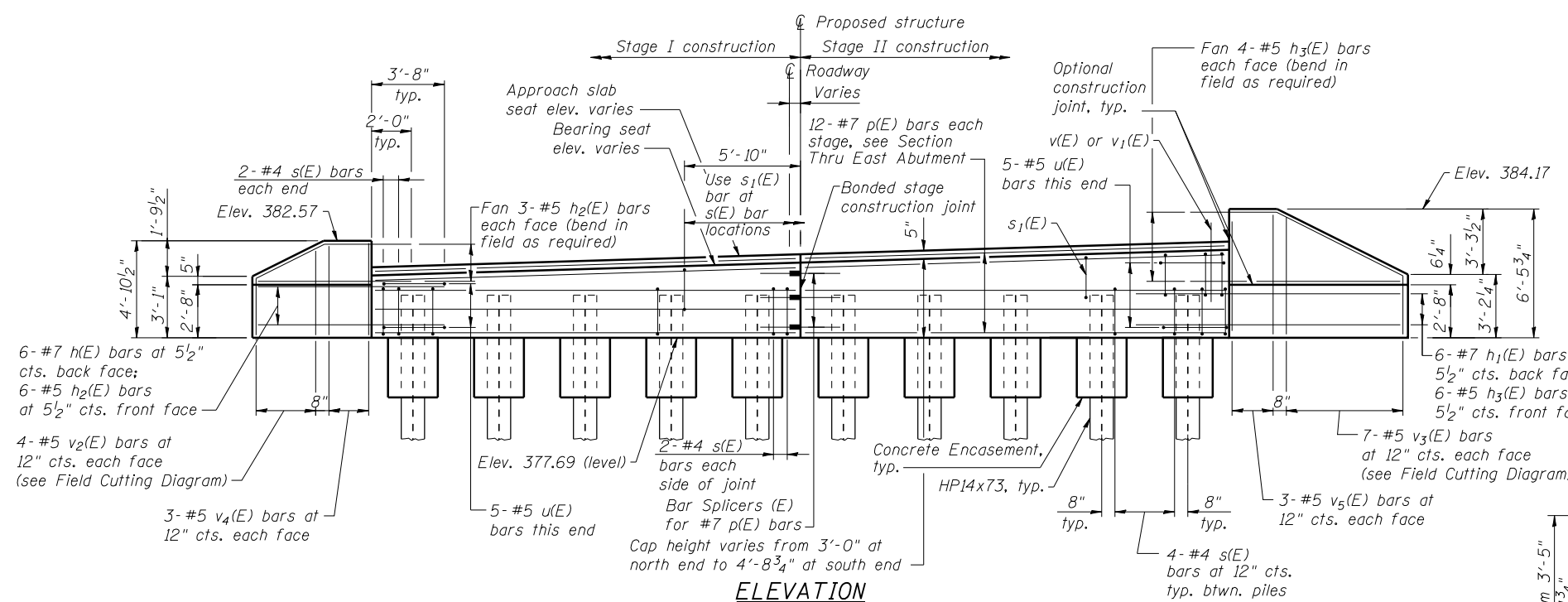
**EAST ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	6	#7	9'-6"	—
h <sub>1</sub> (E)	6	#7	12'-6"	—
h <sub>2</sub> (E)	12	#5	7'-10"	—
h <sub>3</sub> (E)	14	#5	10'-10"	—
p(E)	24	#7	21'-4"	—
s(E)	40	#4	10'-1"	□
s <sub>1</sub> (E)	26	#4	7'-6"	□
u(E)	10	#5	9'-5"	□
v(E)	86	#5	3'-8"	—
v <sub>1</sub> (E)	43	#5	4'-0"	┌
v <sub>2</sub> (E)	4	#5	6'-10"	—
v <sub>3</sub> (E)	7	#5	8'-6"	—
v <sub>4</sub> (E)	6	#5	4'-5"	—
v <sub>5</sub> (E)	6	#5	6'-0"	—
Structure Excavation	Cu. Yd.		80	
Concrete Structures	Cu. Yd.		18.5	
Reinforcement Bars, Epoxy Coated	Pound		2740	
Furnishing Steel Piles, HP14x73	Foot		675	
Driving Piles	Foot		675	
Test Pile, Steel HP14x73	Each		1	
Concrete Encasement	Cu. Yd.		5.5	
Granular Backfill for Structures	Cu. Yd.		37	
Geocomposite Wall Drain	Sq. Yd.		26	
Pipe Underdrains for Structures, 4"	Foot		72	
Bar Splicers	Each		12	

For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.  
For bar bending details and Field Cutting Diagram, see sheet 13 of 23.

**PILE DATA**

Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 318 kips  
Estimated Length: 75'  
No. of Production Piles: 9  
No. of Test Piles: 1



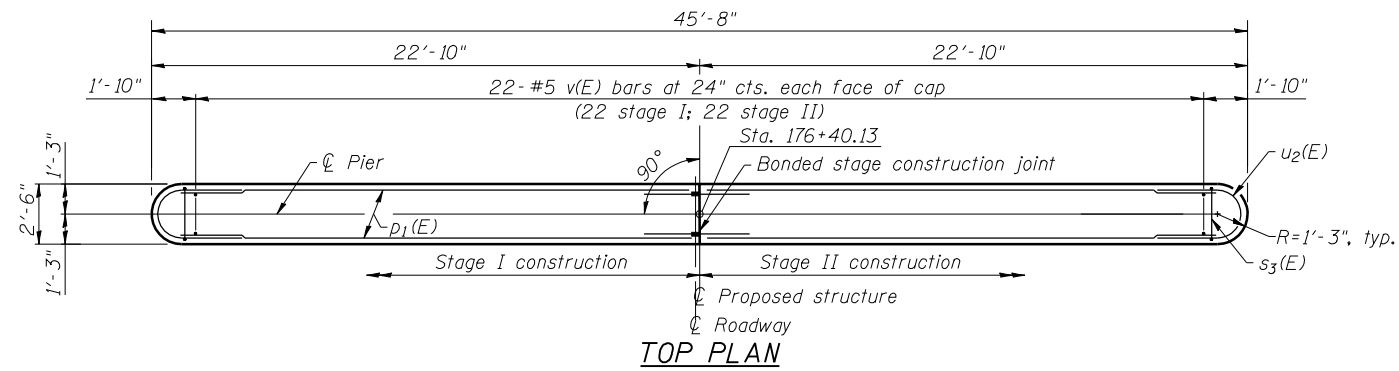
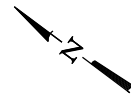
USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/4" = 1'-0"	DRAWN - HAS 08/12	REVISED -
PLOT DATE = 10/31/2012 7:16:07 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

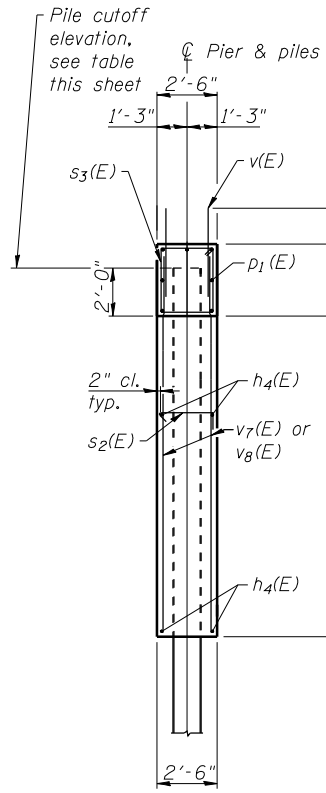
**EAST ABUTMENT  
STRUCTURE NO. 097-0078**

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	35
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	

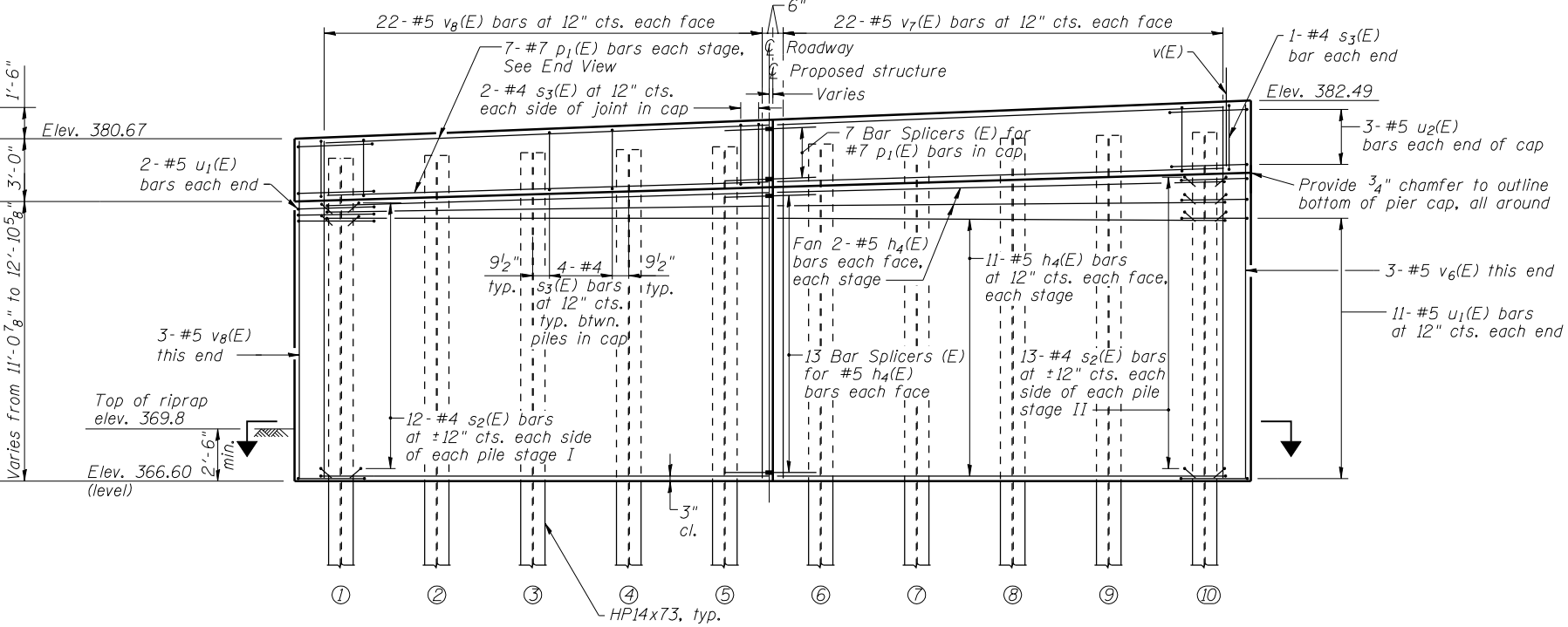
SHEET NO. 14 OF 23 SHEETS



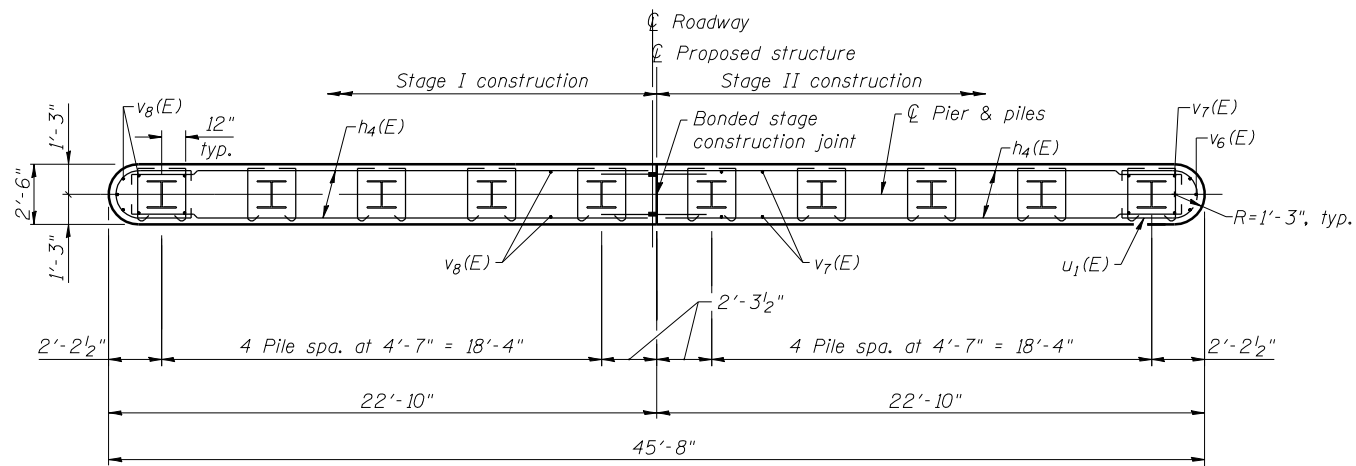
**TOP PLAN**



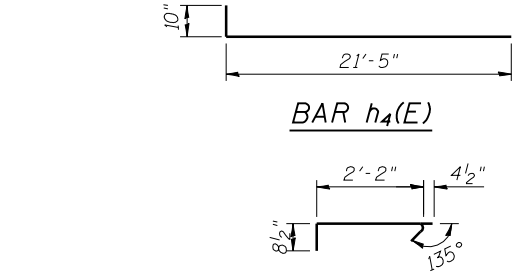
**END VIEW**



**ELEVATION  
(Looking East)**

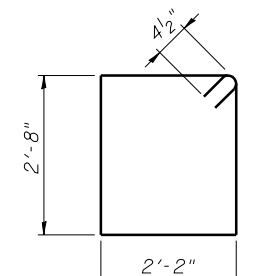


**SECTION**

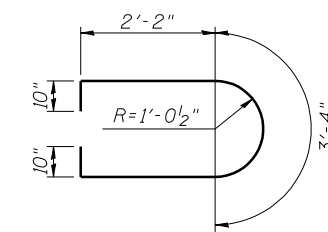


**BAR h4(E)**

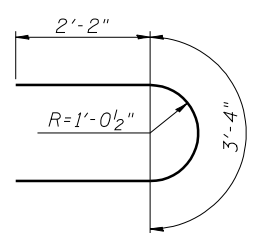
**BAR s2(E)**



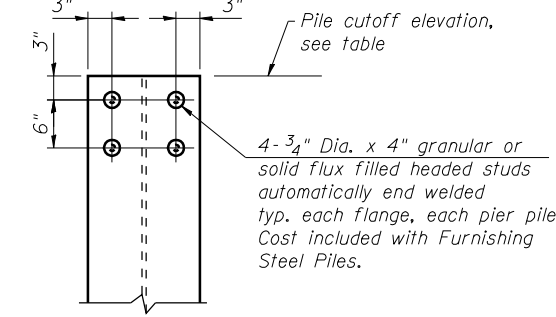
**BAR s3(E)**



**BAR u1(E)**



**BAR u2(E)**



**TOP OF PILE DETAIL**

**PIER 1  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h4(E)	52	#5	22'-3"	—
p1(E)	14	#7	21'-3"	—
s2(E)	250	#4	3'-3"	—
s3(E)	38	#4	10'-5"	—
u1(E)	26	#5	9'-4"	—
u2(E)	6	#5	7'-8"	—
v(E)	44	#5	3'-8"	—
v6(E)	3	#5	15'-4"	—
v7(E)	44	#5	14'-6"	—
v8(E)	47	#5	13'-7"	—
Structure Excavation		Cu. Yd.	10	
Concrete Structures		Cu. Yd.	62.6	
Reinforcement Bars, Epoxy Coated		Pound	4480	
Furnishing Steel Piles, HP14x73		Foot	770	
Driving Piles		Foot	770	
Bar Splicers		Each	33	

For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.

**PILE DATA**

Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 316 kips  
Estimated Length: 77'  
No. of Production Piles: 10  
No. of Test Piles: 0

**PILE CUTOFF TABLE**

Pile No.	Cutoff Elevation
①	379.76
②	379.94
③	380.12
④	380.31
⑤	380.49
⑥	380.67
⑦	380.85
⑧	381.04
⑨	381.22
⑩	381.40



USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/4" = 1'-0"	DRAWN - DWH/HAS 08/12	REVISED -
PLOT DATE = 10/31/2012 7:16:23 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 1  
STRUCTURE NO. 097-0078**

SHEET NO. 15 OF 23 SHEETS

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 36
ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

**PIER 2  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$h_4(E)$	112	#5	22'-3"	—
$p_1(E)$	14	#7	21'-3"	—
$s_2(E)$	550	#4	3'-3"	⌋
$s_3(E)$	38	#4	10'-5"	□
$u_1(E)$	56	#5	9'-4"	⌋
$u_2(E)$	6	#5	7'-8"	⌋
$v(E)$	44	#5	3'-8"	—
$v_9(E)$	3	#5	30'-0"	—
$v_{10}(E)$	44	#5	29'-2"	—
$v_{11}(E)$	47	#5	28'-3"	—
Cofferdam Excavation	Cu. Yd.		30	
Concrete Structures	Cu. Yd.		124.0	
Reinforcement Bars, Epoxy Coated	Pound		8260	
Cofferdam (Type 1) (Location-1)	Each		1	
Test Pile, Steel HP14x73	Each		1	
Furnishing Steel Piles, HP14x73	Foot		702	
Driving Piles	Foot		702	
Bar Splicers	Each		63	

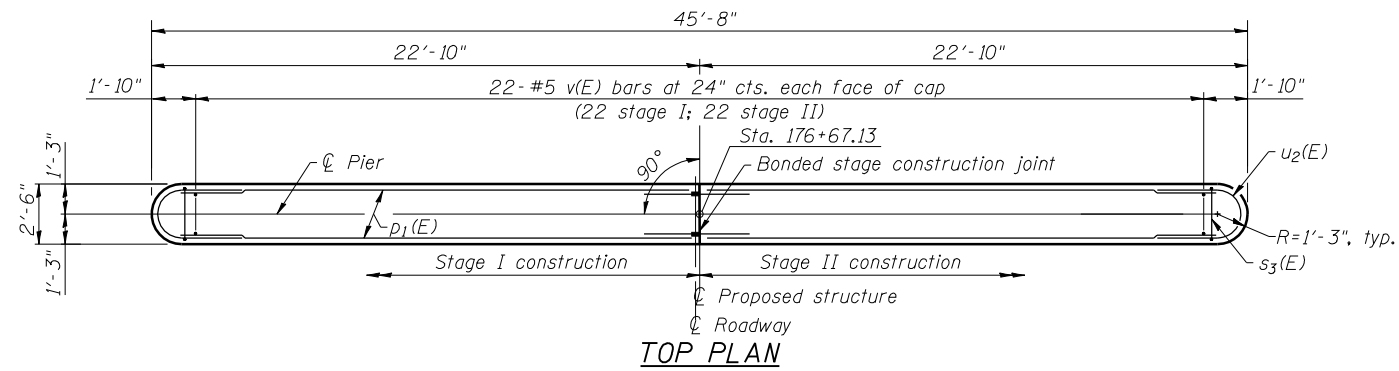
For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.  
See sheet 15 of 23 for bar bending details.

**PILE DATA**

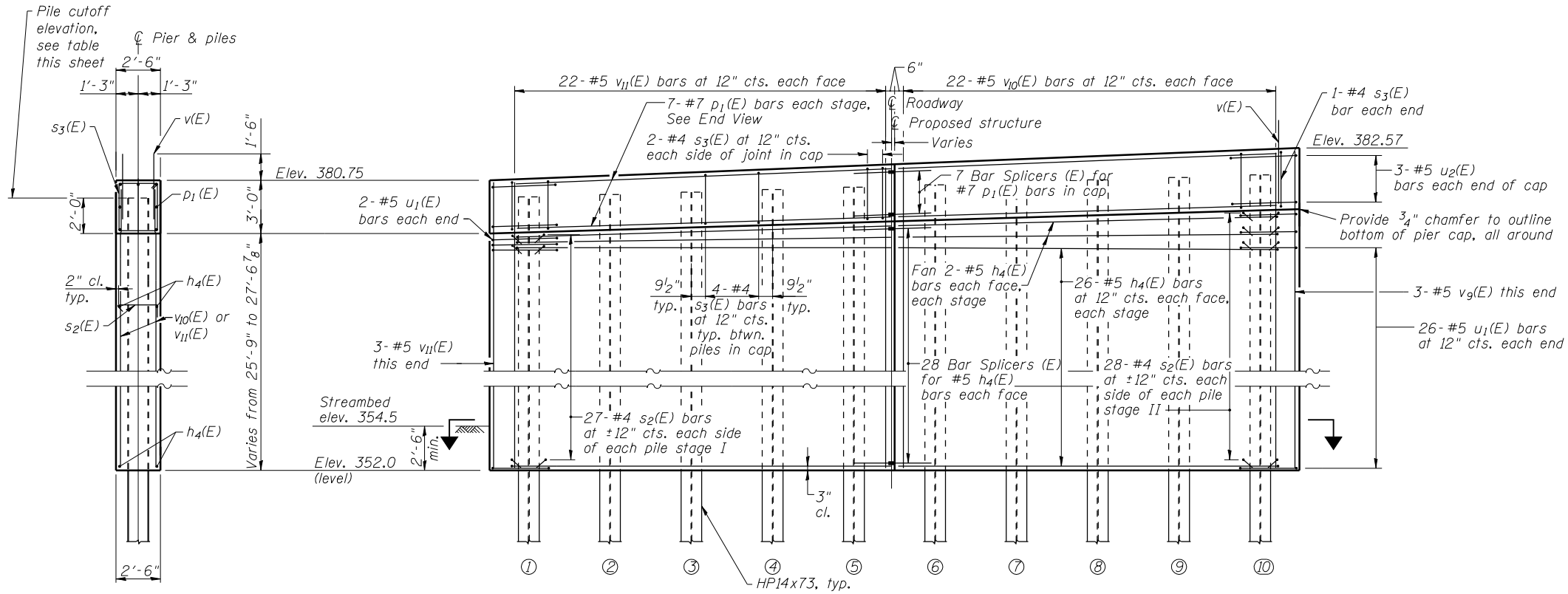
Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 313 kips  
Estimated Length: 78'  
No. of Production Piles: 9  
No. of Test Piles: 1

**PILE CUTOFF TABLE**

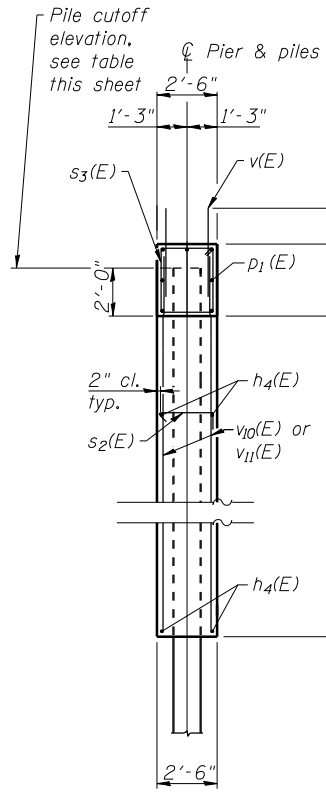
Pile No.	Cutoff Elevation
①	379.84
②	380.02
③	380.20
④	380.39
⑤	380.56
⑥	380.75
⑦	380.93
⑧	381.12
⑨	381.30
⑩	381.48



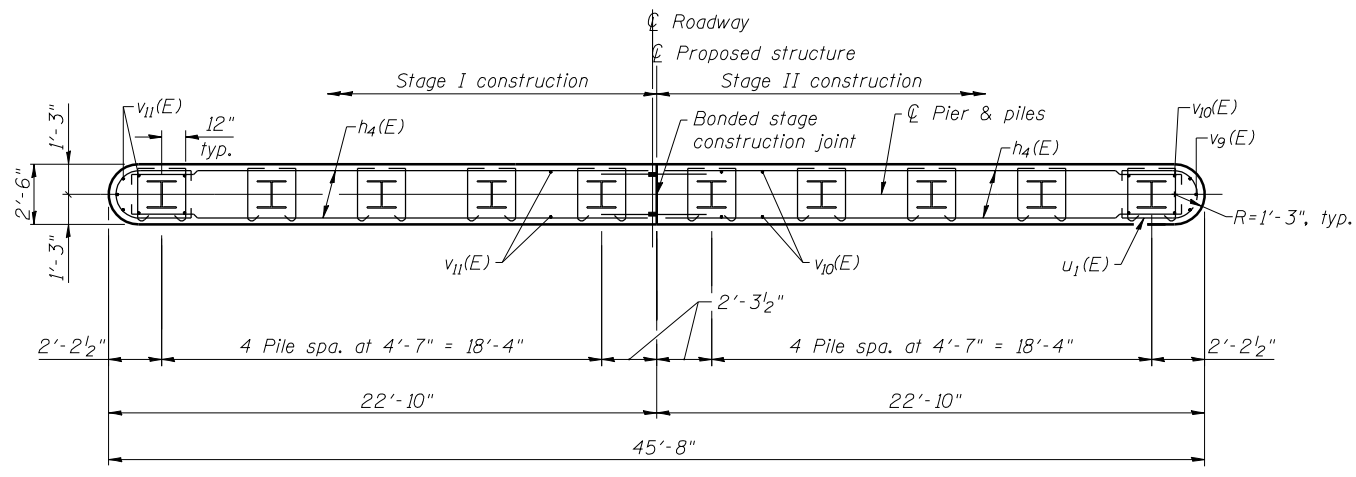
**TOP PLAN**



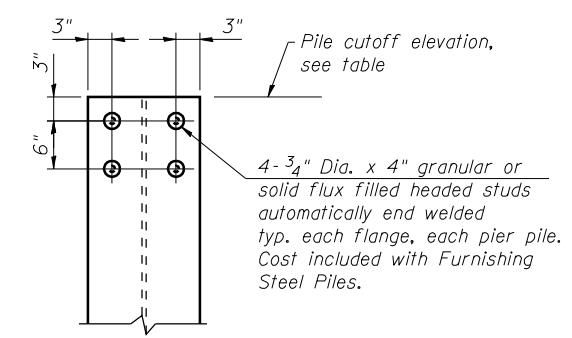
**ELEVATION  
(Looking East)**



**END VIEW**



**SECTION**



**TOP OF PILE DETAIL**



USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/8" = 1' / IN.	DRAWN - DWH/HAS 08/12	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 2  
STRUCTURE NO. 097-0078**

SHEET NO. 16 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	37
ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

**PIER 3  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$h_4(E)$	112	#5	22'-3"	—
$p_1(E)$	14	#7	21'-3"	—
$s_2(E)$	550	#4	3'-3"	⌋
$s_3(E)$	38	#4	10'-5"	□
$u_1(E)$	56	#5	9'-4"	⌋
$u_2(E)$	6	#5	7'-8"	⌋
$v(E)$	44	#5	3'-8"	—
$v_9(E)$	3	#5	30'-0"	—
$v_{10}(E)$	44	#5	29'-2"	—
$v_{11}(E)$	47	#5	28'-3"	—
Cofferdam Excavation	Cu. Yd.		30	
Concrete Structures	Cu. Yd.		124.1	
Reinforcement Bars, Epoxy Coated	Pound		8260	
Cofferdam (Type 1) (Location-2)	Each		1	
Furnishing Steel Piles, HP14x73	Foot		770	
Driving Piles	Foot		770	
Bar Splicers	Each		63	

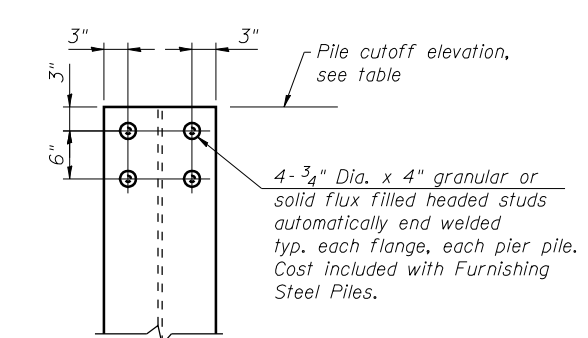
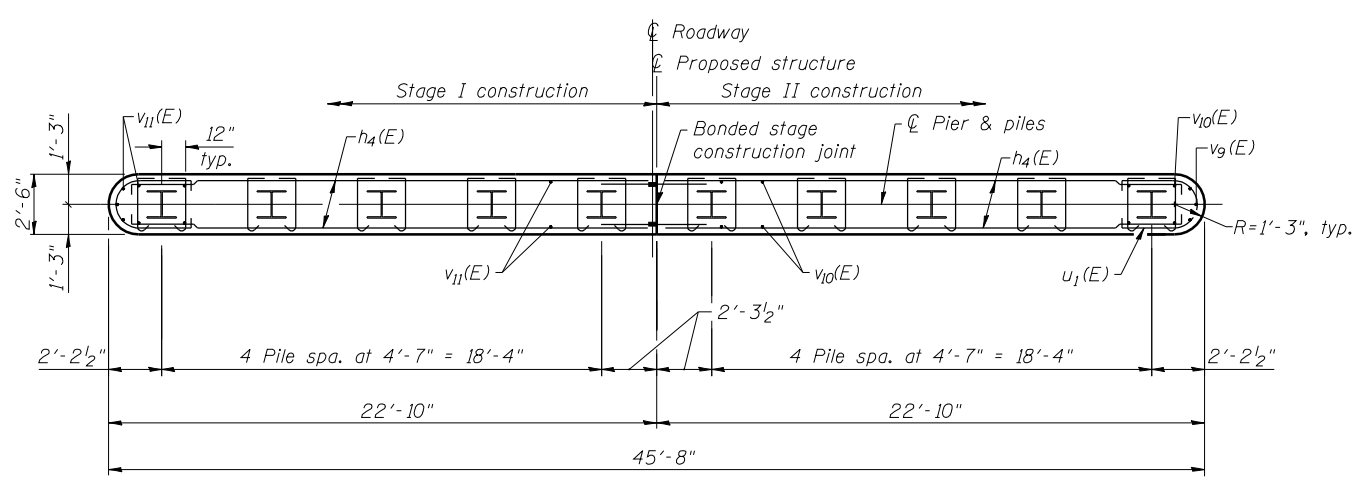
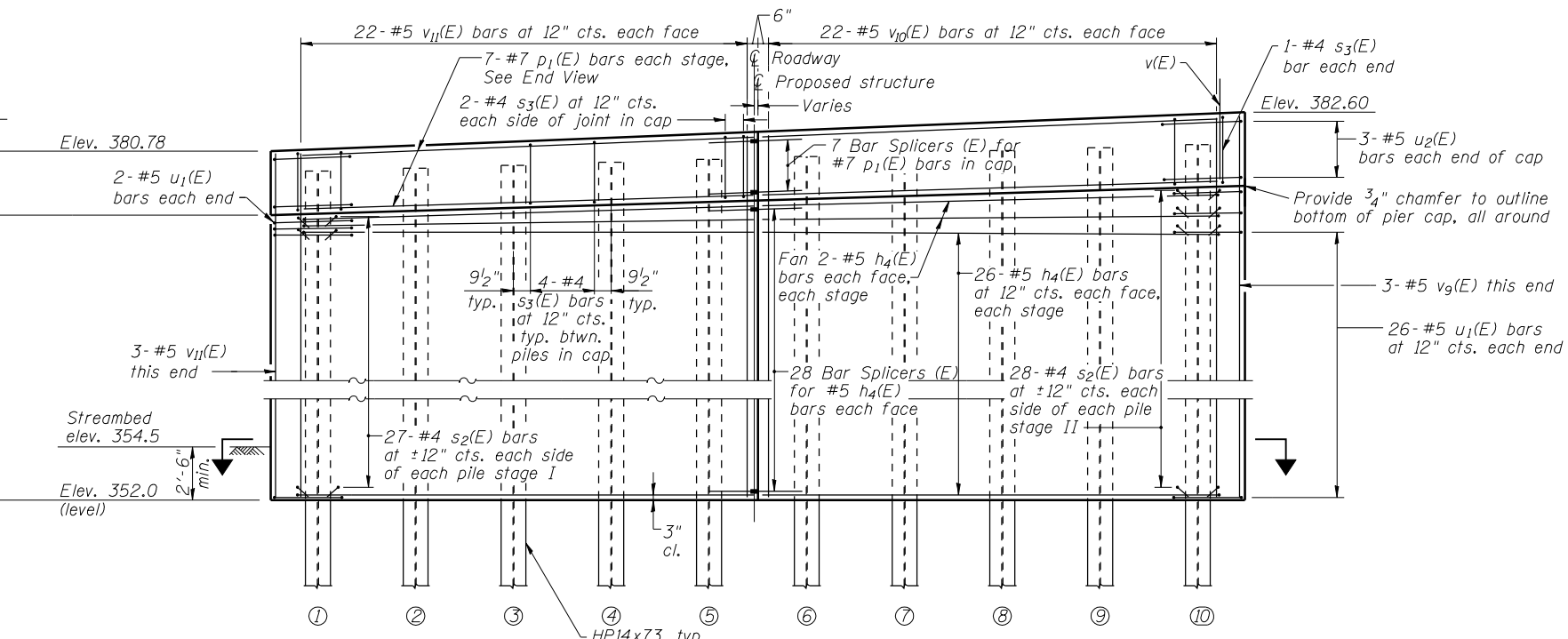
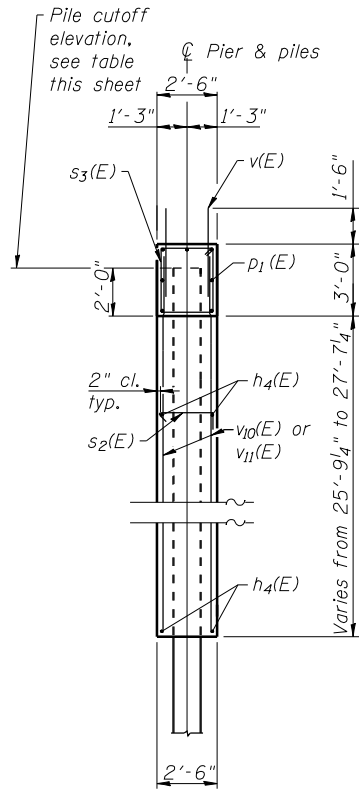
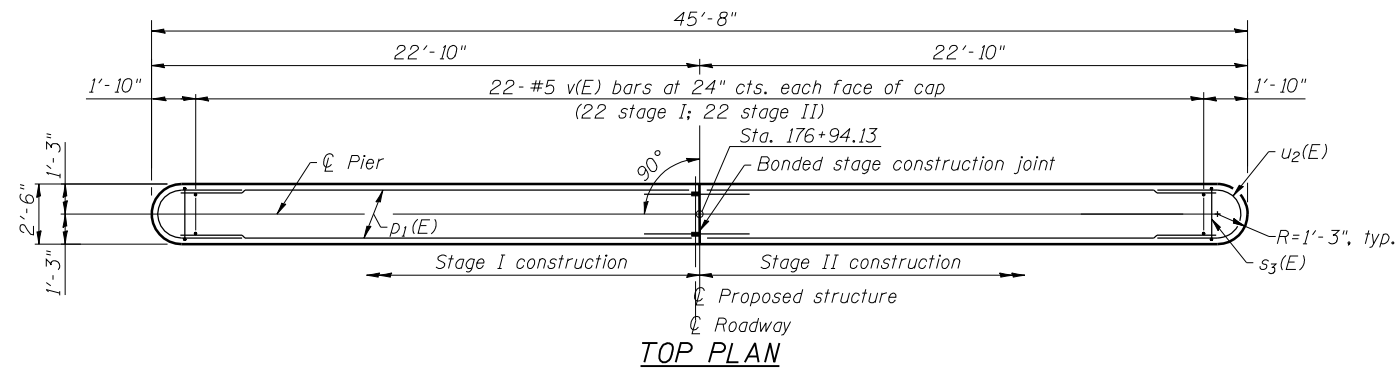
For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.  
See sheet 15 of 23 for bar bending details.

**PILE DATA**

Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 311 kips  
Estimated Length: 77'  
No. of Production Piles: 10  
No. of Test Piles: 0

**PILE CUTOFF TABLE**

Pile No.	Cutoff Elevation
①	379.87
②	380.05
③	380.23
④	380.42
⑤	380.60
⑥	380.78
⑦	380.97
⑧	381.15
⑨	381.33
⑩	381.52



USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/8" = 1' / IN.	DRAWN - DWH/HAS 08/12	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 3  
STRUCTURE NO. 097-0078**

SHEET NO. 17 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	38
ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

**PIER 4  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>4</sub> (E)	72	#5	22'-3"	—
p <sub>1</sub> (E)	14	#7	21'-3"	—
s <sub>2</sub> (E)	350	#4	3'-3"	⌋
s <sub>3</sub> (E)	38	#4	10'-5"	□
u <sub>1</sub> (E)	36	#5	9'-4"	⌋
u <sub>2</sub> (E)	6	#5	7'-8"	⌋
v(E)	44	#5	3'-8"	—
v <sub>12</sub> (E)	3	#5	19'-7"	—
v <sub>13</sub> (E)	44	#5	18'-9"	—
v <sub>14</sub> (E)	47	#5	17'-10"	—

Concrete Structures	Cu. Yd.	80.2
Reinforcement Bars, Epoxy Coated	Pound	5670
Test Pile, Steel HP14x73	Each	1
Furnishing Steel Piles, HP14x73	Foot	702
Driving Piles	Foot	702
Bar Splicers	Each	43

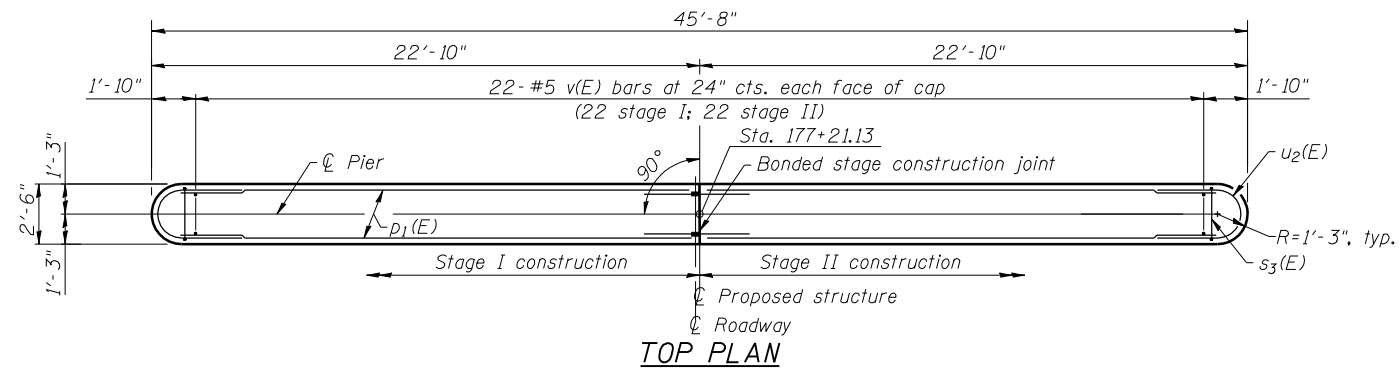
For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.  
See sheet 15 of 23 for bar bending details.

**PILE DATA**

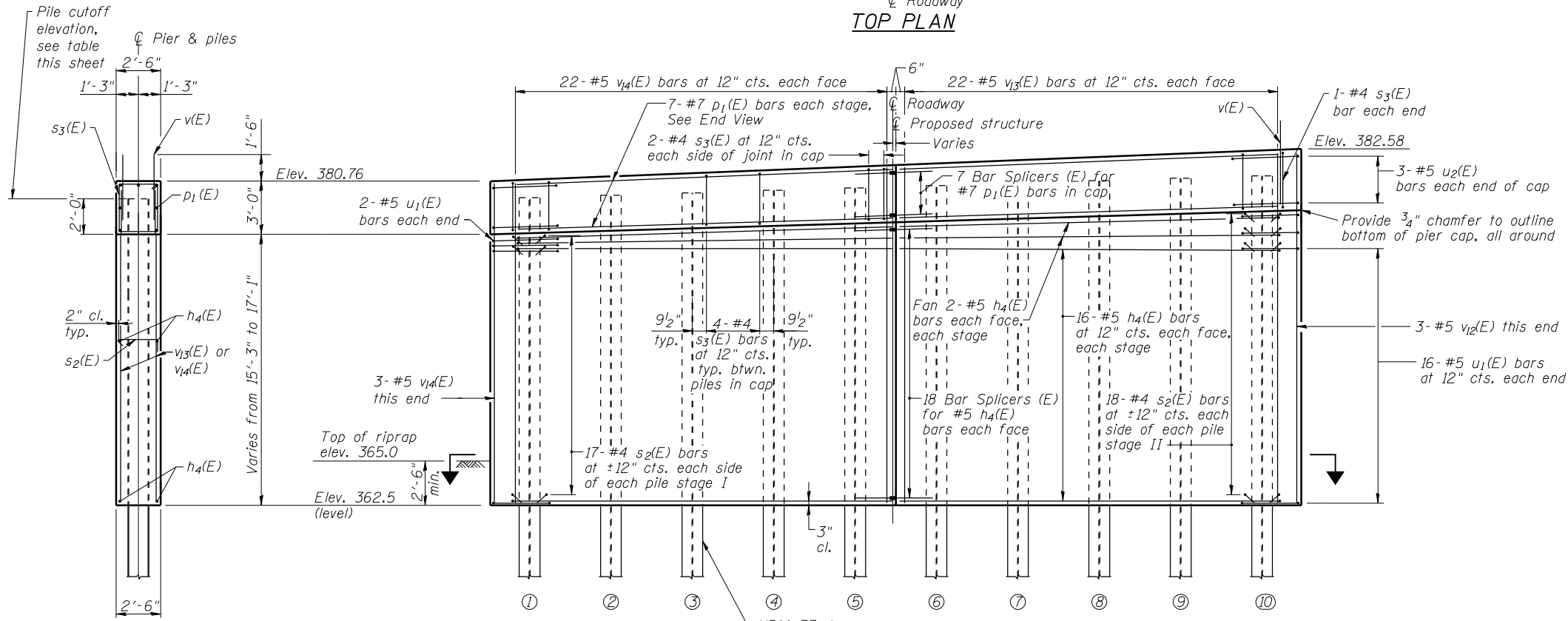
Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 318 kips  
Estimated Length: 78'  
No. of Production Piles: 9  
No. of Test Piles: 1

**PILE CUTOFF TABLE**

Pile No.	Cutoff Elevation
①	379.85
②	380.03
③	380.21
④	380.40
⑤	380.58
⑥	380.76
⑦	380.95
⑧	381.13
⑨	381.31
⑩	381.50

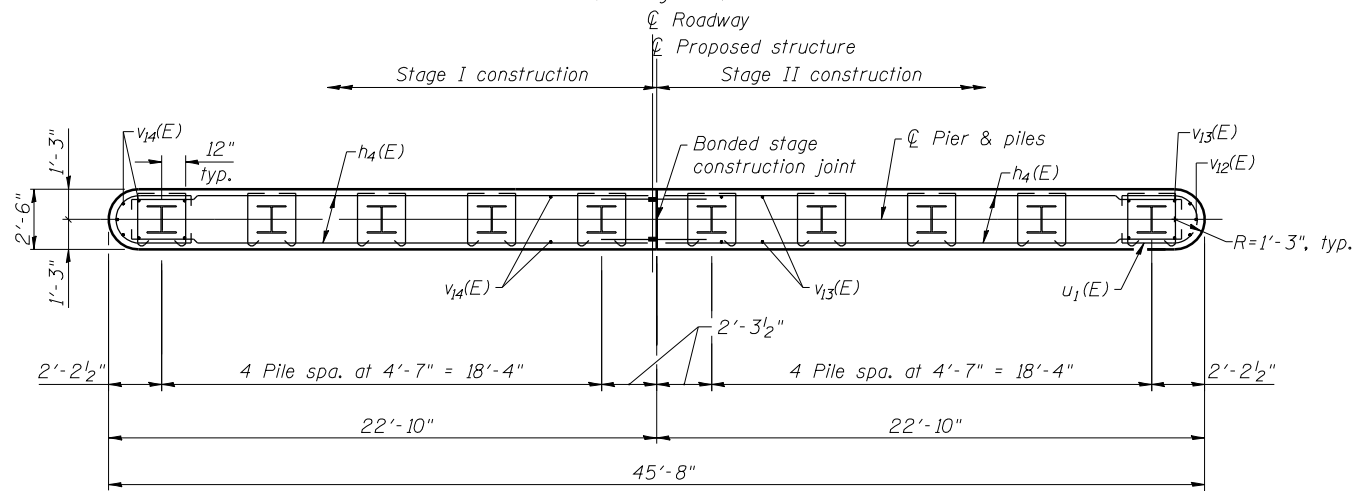


**TOP PLAN**

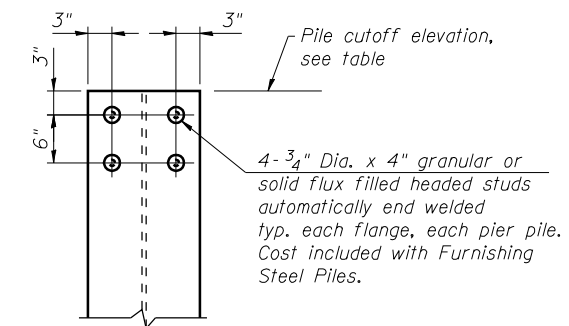


**ELEVATION**  
(Looking East)

**END VIEW**



**SECTION**



**TOP OF PILE DETAIL**



USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/8" = 1' / IN.	DRAWN - DWH/HAS 08/12	REVISED -
PLOT DATE = 10/31/2012 7:17:17 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 4  
STRUCTURE NO. 097-0078**

SHEET NO. 18 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	39
				CONTRACT NO. 78154
ILLINOIS FED. AID PROJECT AID				

**PIER 5  
BILL OF MATERIAL**

Bar No.	Size	Length	Shape
h <sub>4</sub> (E)	#5	22'-3"	—
p <sub>1</sub> (E)	#7	21'-3"	—
s <sub>2</sub> (E)	#4	3'-3"	□
s <sub>3</sub> (E)	#4	10'-5"	□
u <sub>1</sub> (E)	#5	9'-4"	U
u <sub>2</sub> (E)	#5	7'-8"	U
v(E)	#5	3'-8"	—
v <sub>6</sub> (E)	#5	15'-4"	—
v <sub>7</sub> (E)	#5	14'-6"	—
v <sub>8</sub> (E)	#5	13'-7"	—

Structure Excavation	Cu. Yd.	10
Concrete Structures	Cu. Yd.	62.8
Reinforcement Bars, Epoxy Coated	Pound	4480
Furnishing Steel Piles, HP14x73	Foot	760
Driving Piles	Foot	760
Bar Splicers	Each	33

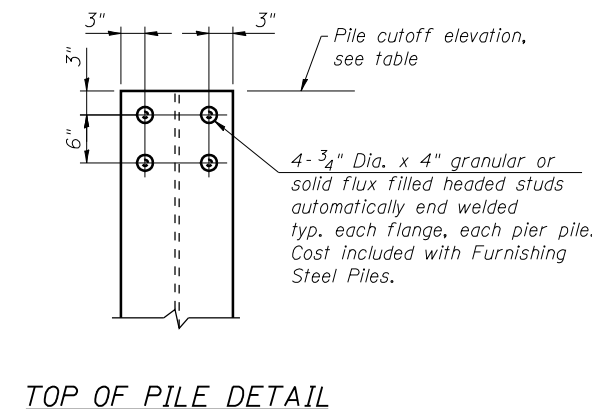
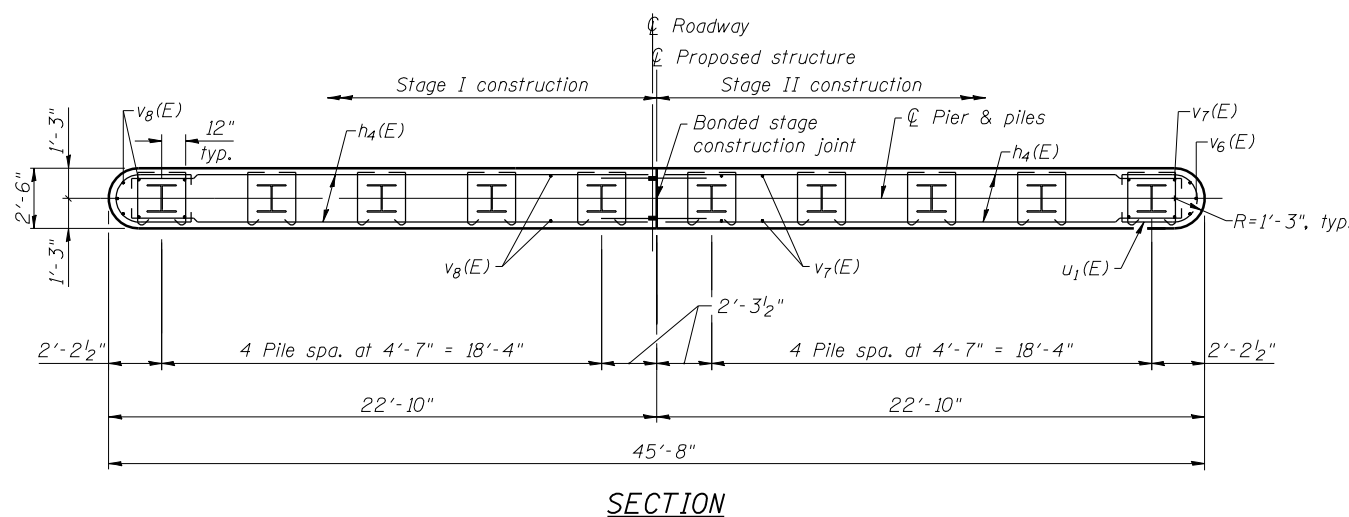
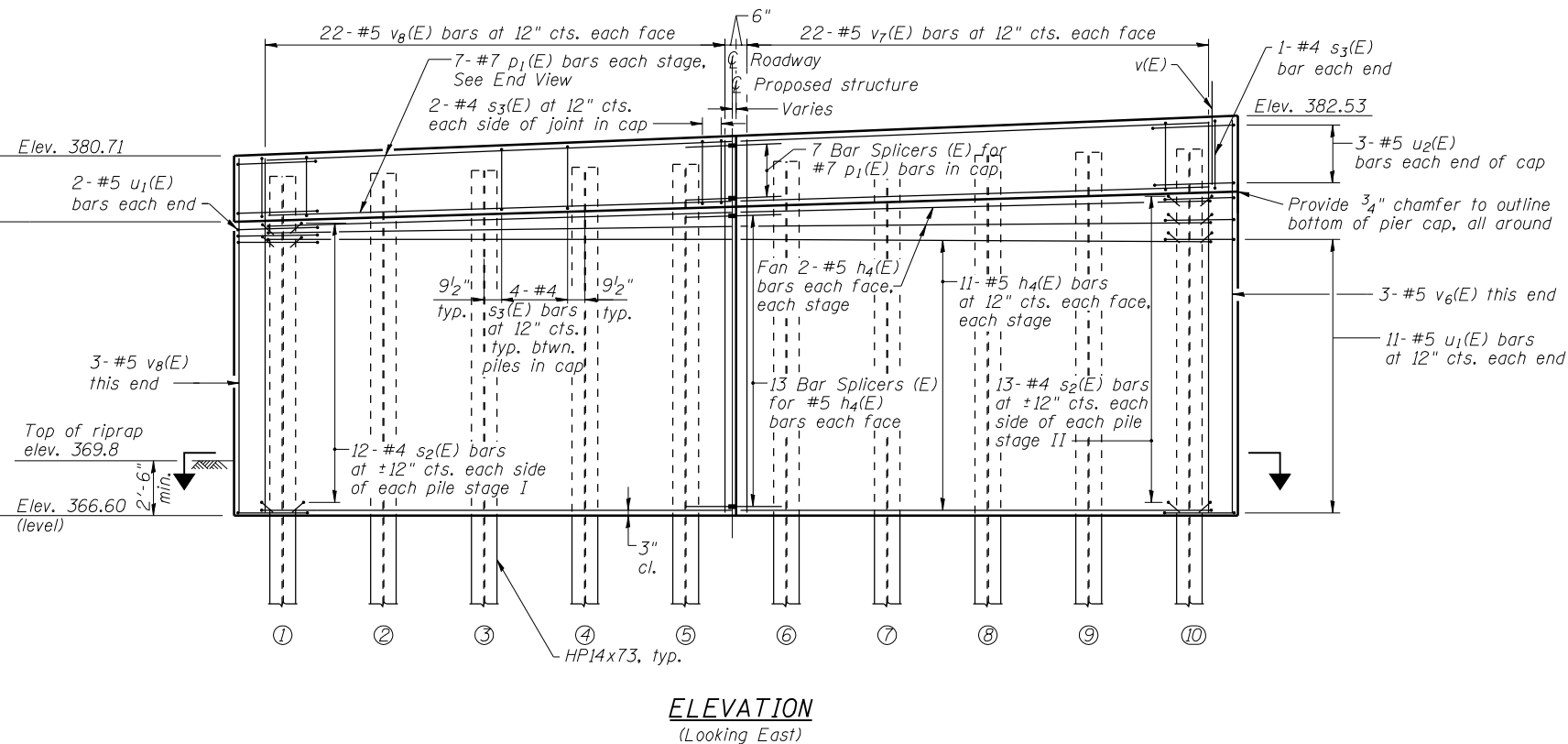
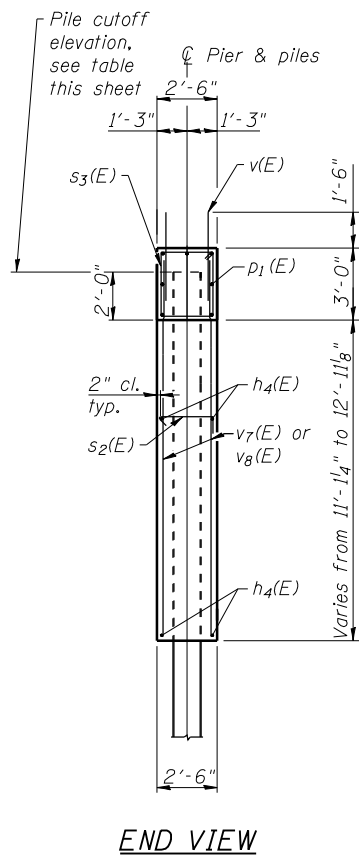
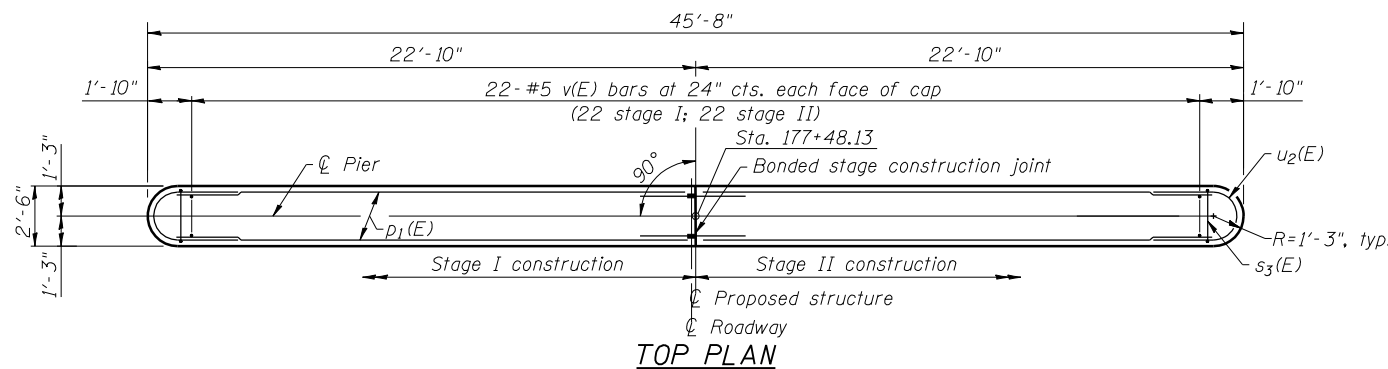
For details of piles and Concrete Encasement, see sheet 20 of 23.  
For details of Bar Splicers, see sheet 21 of 23.  
See sheet 15 of 23 for additional bar bending details.

**PILE DATA**

Type: Steel HP14x73  
Nominal Required Bearing: 578 kips  
Factored Resistance Available: 318 kips  
Estimated Length: 76'  
No. of Production Piles: 10  
No. of Test Piles: 0

**PILE CUTOFF TABLE**

Pile No.	Cutoff Elevation
①	379.80
②	379.98
③	380.16
④	380.35
⑤	380.52
⑥	380.70
⑦	380.89
⑧	381.07
⑨	381.25
⑩	381.44



USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 3/8" = 1' / IN.	DRAWN - DWH/HAS 08/12	REVISED -
PLOT DATE = 10/31/2012 7:17:32 AM	CHECKED - ELH 10/12	REVISED -

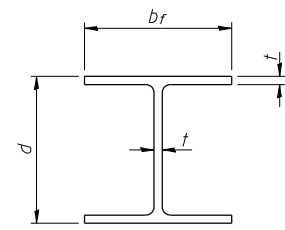
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 5  
STRUCTURE NO. 097-0078**

SHEET NO. 19 OF 23 SHEETS

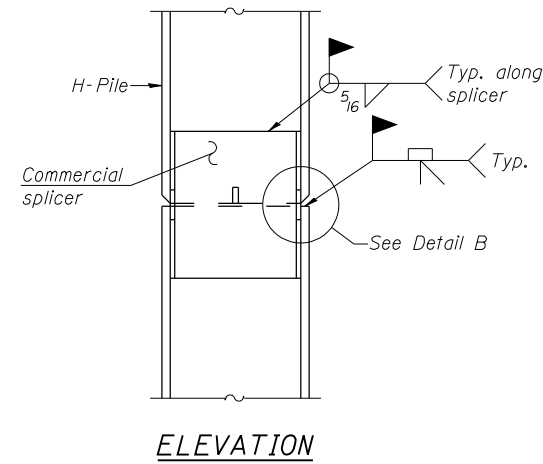
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	40
ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	



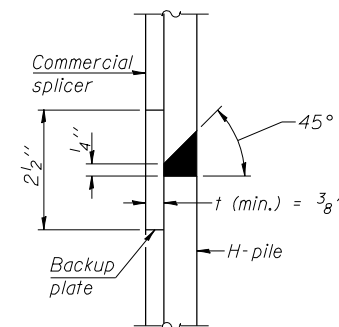


**STEEL PILE TABLE**

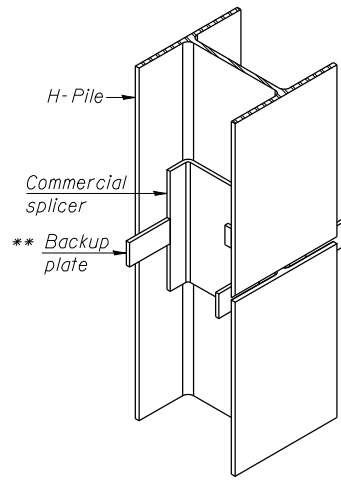
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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

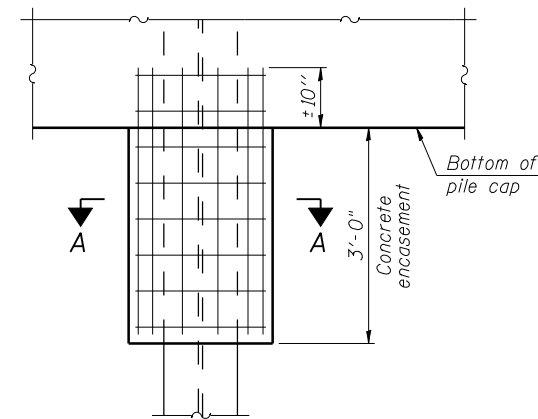


**DETAIL "B"**



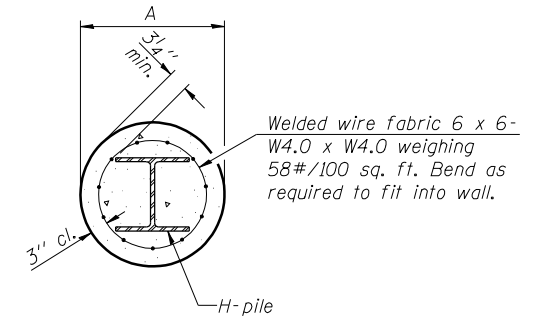
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



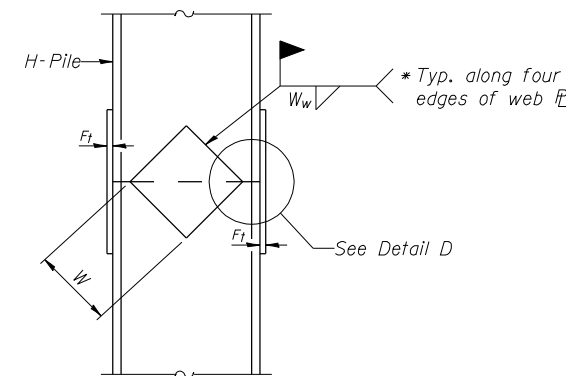
**ELEVATION**

**PILE ENCASEMENT**

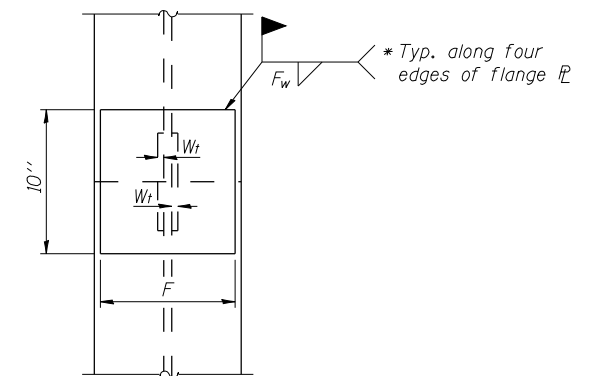


**SECTION A-A**

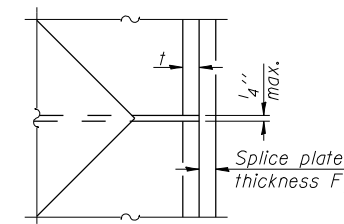
Note:  
Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**



**END VIEW**



**DETAIL D**

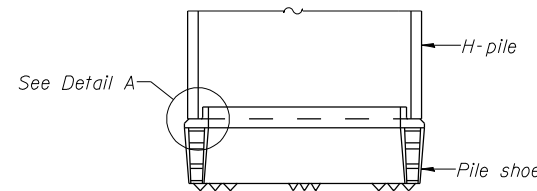
**WELDED PLATE FIELD SPLICE**

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	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"

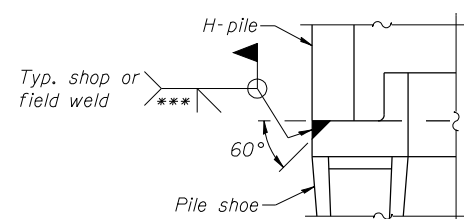
**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

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

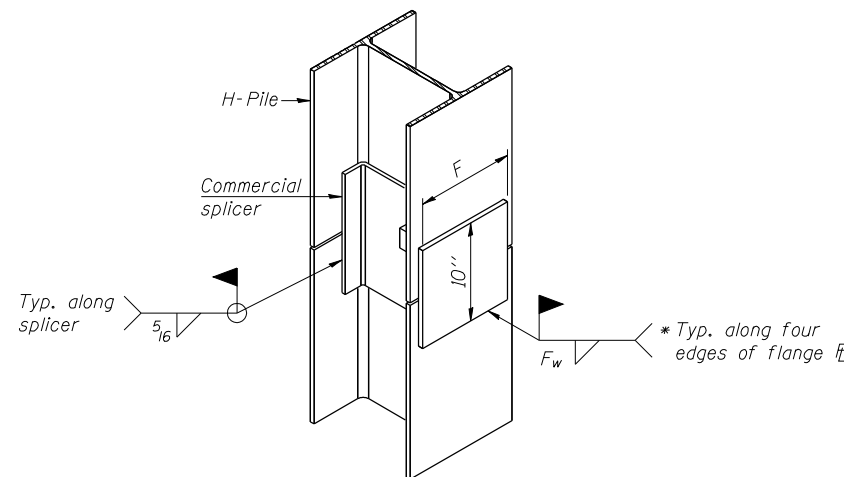


**ELEVATION**



**DETAIL A**

**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

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 SCALE NAME = PLOT...  
 FILE NAME = ...

F-HP

1-27-12



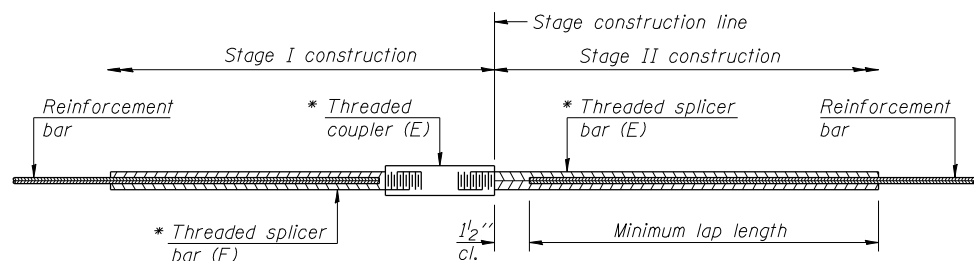
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ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 0/2" = 1' / IN.	DRAWN - HAS 08/12	REVISED -
PLOT DATE = 10/31/2012 7:17:47 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**HP PILE DETAILS  
STRUCTURE NO. 097-0078**

SHEET NO. 20 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	41
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	



**STANDARD BAR SPLICER ASSEMBLY**

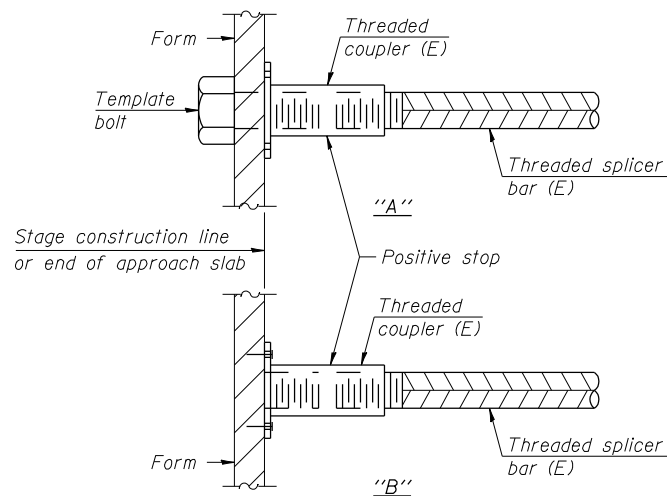
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar lap, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

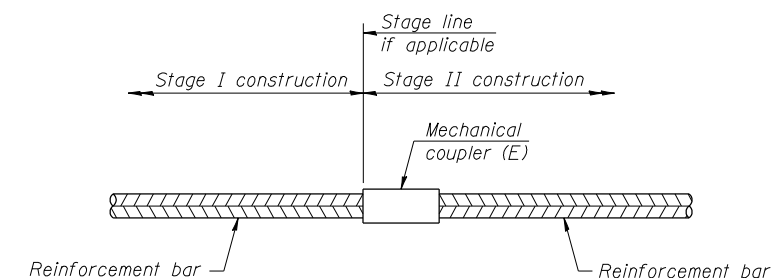
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Approach slabs	#4	50	3
Approach slabs	#5	92	3
Approach footings	#5	80	3
Top bridge slab	#5	131	4
Bottom bridge slab	#5	118	3
Abutments	#7	24	4
Pier caps	#7	35	4
Pier walls	#5	200	3



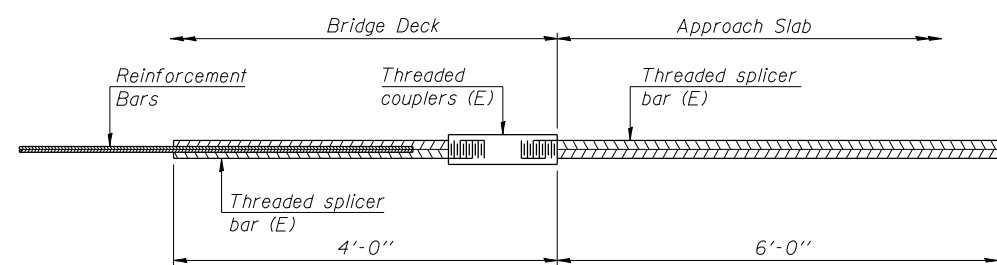
**INSTALLATION AND SETTING METHODS**

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



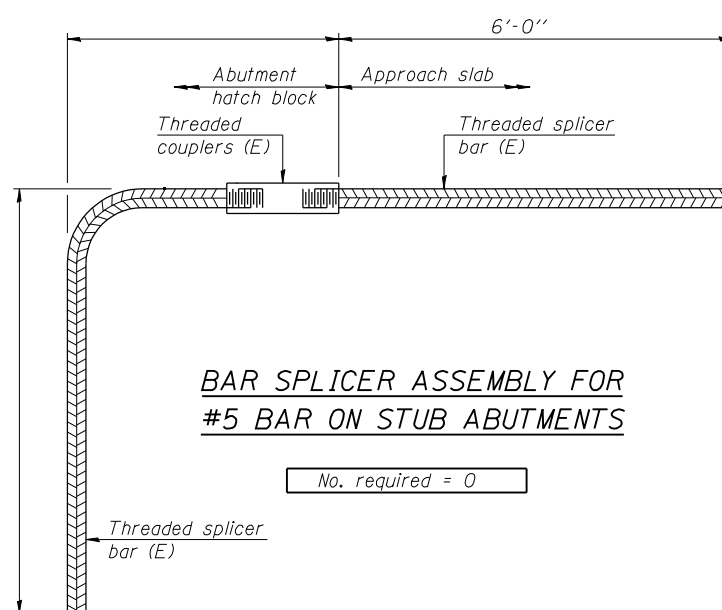
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required
NA		



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

No. required = 84



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 0

**NOTES**

- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
- See approved list of bar splicer assemblies and mechanical splicers for alternatives.

PRINT DRIVER = L:\D-ESCA\B\A\11  
 SCALE: INCHES = 1/8" = 1'-0"  
 FILE NAME = 081012\097-0078-23-BSP-01.dwg

BSD-1

1-27-12



USER NAME = has	DESIGNED - ELH 08/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 0.25" = 1' / IN.	DRAWN - HAS 08/12	REVISED -
PLOT DATE = 10/31/2012 7:18:03 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 097-0078**

SHEET NO. 21 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	42
CONTRACT NO. 78154				
ILLINOIS FED. AID PROJECT AID				

ILLINOIS DEPARTMENT OF TRANSPORTATION District Nine Materials Bridge Foundation Boring Log

FAP (IL 1) Over McHenry Slough Sheet 1 of 2
Route: FAP 332 (IL 1) Structure Number: 097-0007 Date: 10/19/2009
Section: 4, BY 4BR Borad By: Rich Moberly
County: White Location: 2 Miles North of Carmi Checked By: Rob Graeff

Table with columns for Depth (D), Penetration (E), Location (L), Water (W), Blow count (S), and Soil characteristics. Includes data points for various soil layers like 'Asphalt and crushed aggregate', 'Loose, moist, brown, fine Sand', and 'Medium, moist, brown, Sandy Loam A-4'.

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2 Date: 10/19/2009

Route: FAP 332 (IL 1) Section: 4, BY 4BR County: White

Continuation of the boring log table from sheet 1, detailing soil layers such as 'Dense, moist, grey, Sand', 'Medium, moist, grey, Sand', and 'Hard, damp, grey, Clay Shale' with associated blow counts and descriptions.

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)



Revision table with columns for USER NAME, DESIGNED, CHECKED, DRAWN, and PLOT DATE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS STRUCTURE NO. 097-0078

Summary table with columns for F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO. 78154.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
District Nine Materials

Bridge Foundation  
Boring Log  
Sheet 1 of 2

FAP (IL 1) Over McHenry Slough  
Route: FAP 332 (IL 1) Structure Number: 097-007 Date: 10/20/2009  
Section 4, BY 4BR Bored By: Rich Moberly  
County: White Location: 2 Miles North of Carmi Checked By: Rob Graeff

Boring No 2-S	DEPTH	BLOW	Qu	W%	Description	DEPTH	BLOW	Qu	W%
					Surf Wat Elev: 365.7				
					Ground Water Elevation when Drilling 353.1				
					At Completion 353				
					At: Hrs:				
					Asphalt and crushed aggregate				
					381.1				
					Stiff, moist, grey, Silty Clay A7-6				
					355.8				
					378.1				
					Stiff, moist, brown, Silty Clay A7-6				
					353.1				
					375.8				
					Medium, moist, brown and grey, Silty Clay A-6				
					348.1				
					373.1				
					Stiff, moist, brown and grey, Silty Clay A-6				
					370.8				
					370.8				
					Stiff, moist, brown, Clay to Silty Clay A7-6				
					368.1				
					368.1				
					Medium, moist to very moist, grey and brown, Clay to Clay Loam A-6				
					365.6				
					365.6				
					Medium, very moist, brown, Clay Loam A-6 with Sand				
					339.6				
					363.1				
					Medium, very moist, grey, Clay to Silty Clay A-6				
					333.1				
					25.0				

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2  
Date: 10/20/2009

Route: FAP 332 (IL 1)  
Section: 4, BY 4BR  
County: White

Boring No 2-S	DEPTH	BLOW	Qu	W%	Description	DEPTH	BLOW	Qu	W%
					Surf Wat Elev: 365.7				
					Ground Water Elevation when Drilling 353.1				
					At Completion 353				
					At: Hrs:				
					Loose, very moist, grey, fine to medium Silty Sand				
					86% Sand				
					10% Silt				
					4% Clay				
					Bottom of hole = 74.8 feet				
					Free water observed at 29.5 feet				
					Elevation referenced to BM @ SW wingwall. Elev = 382.7 feet				
					Note: To convert "N" values to "NGO" multiply by 1.25				
					55.0				
					60.0				
					318.1				
					Medium, very moist, grey, Sand				
					86% Sand				
					10% Silt				
					4% Clay				
					90.0				
					313.1				
					Loose, very moist, grey, Sand				
					86% Sand				
					10% Silt				
					4% Clay				
					95.0				
					309.1				
					Hard, damp, grey, Clay Shale				
					307.6				

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

PRINT DRIVER = L:\D-ESCA\B\11  
SCALE: 1" = 10'  
DATE: 10/20/2009 10:23:54 AM



USER NAME = has	DESIGNED - ELH 04/12	REVISED -
ESCA PROJECT NO. 988.11	CHECKED - RDP 10/12	REVISED -
PLOT SCALE = 1/4" = 1'-0"	DRAWN - HAS 04/12	REVISED -
PLOT DATE = 10/31/2012 7:18:34 AM	CHECKED - ELH 10/12	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BORING LOGS**  
**STRUCTURE NO. 097-0078**

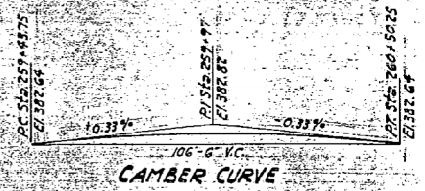
SHEET NO. 23 OF 23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	44
CONTRACT NO. 78154				
ILLINOIS FED. AID PROJECT AID				

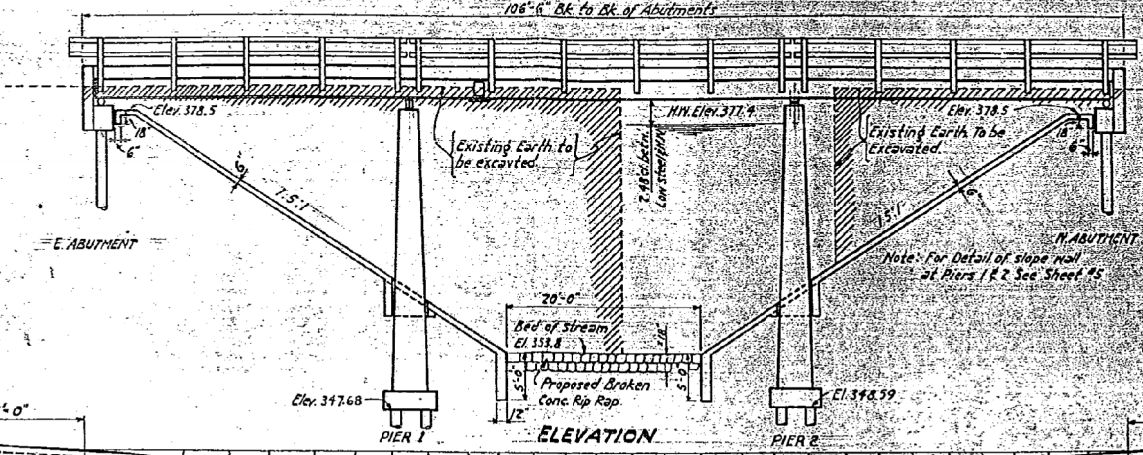
BM Top of Bolt head on N end of N.E. Wing wall of Exist. Bridge, Elev 381.05  
 Existing Structure: P.C. Slab Span 1 @ 20'-0" R/W 20'-0"  
 Substructure: Closed Concrete Abut. on Pile foundation. The back wing walls  
 Existing Structure to be removed by Bridge Contractor at time of new construction  
 and shall be used as rip-rap in stream bed as indicated on plans.

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

DATE	BY	CHECKED	SCALE	SHEET NO.
10/31/12	A.C.	WHITE	29	8
SHEET NO. 1				5 SHEETS



Note: The layout of the slope wall is only approximate. It may be varied to conform to ground surface in the field after embankment has been constructed, if so instructed by the Engineer.

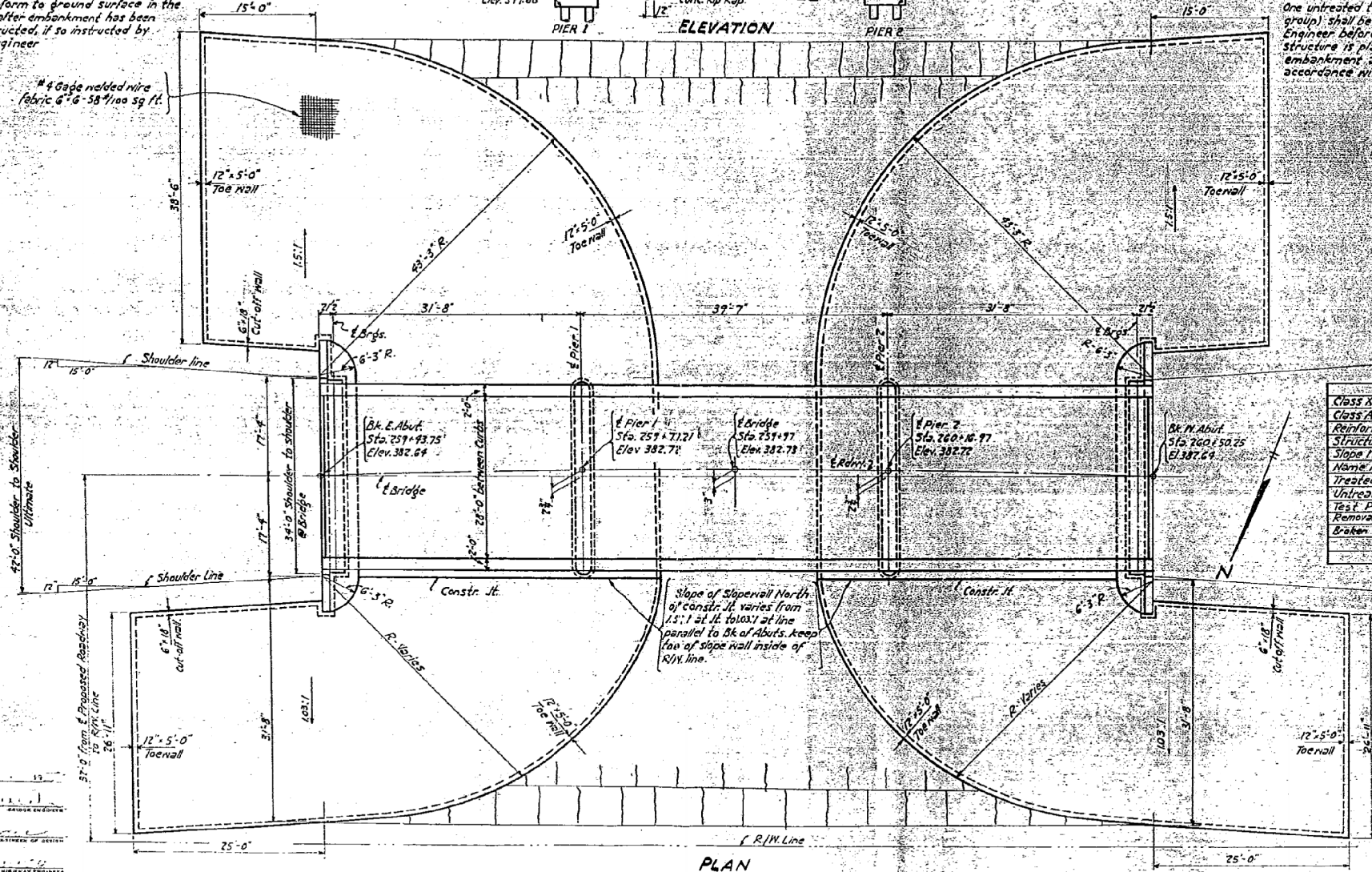


**GENERAL NOTES**

Class X Concrete shall be used in the Superstructure and in the Abutts.  
 Class A Concrete shall be used in Piers 1 & 2.  
 Concrete floor slab shall be finished in accordance with Art. 61.3(e) of the Standard Specifications and shall be poured in one continuous operation.  
 All connections shall be riveted, except as noted. Rivets shall be 3/4" and 1 1/2" holes, except as noted.  
 All holes for splices shall be punched 1/4" and reamed to proper size (1 3/8" web & 1 5/8" flange) with all stringers assembled in shop in proper position with or without diaphragms in place. Leave assembled for shop inspection.  
 Inspection of Structural Steel by Division of Highways shall be made before painting. Structural Steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. All paint to be furnished and applied by the Contractor.  
 Rolling shall be readjusted to true alignment after the floor slab and curbs have been poured.  
 All rollers, rockers, bearing plates and anchor bolts shall be finished painted and set in accordance with Art. 54.3(d) of the Standard Specs. and are included for payment as Structural Steel, Est. No. 6750 lbs.  
 Welding shall comply with Art. 55.6(38) of the Standard Specifications.  
 Anchor bolts shall be set before riveting diaphragms over Abutts & Piers.  
 All piles under Abutts shall be treated timber piles.  
 All piles under Piers shall be untreated timber piles.  
 One untreated test pile (not to be included in permanent pile group) shall be driven at the East Abut. or as directed by the Engineer before installing remainder of piles. Before Superstructure is placed the Contractor shall construct the embankment around the abutments as shown and in accordance with Sec. 10 of the Standard Specifications.

**WATERWAY INFORMATION**

Drainage Area: 2560 Acres  
 Character: level rolling, sand wooded & cultivated  
 Present Bridge Opening: 472 Sq.Ft.  
 Proposed Bridge Opening: 1217 Sq.Ft.



STATION 259+97  
 BUILT '75 BY  
 STATE OF ILLINOIS  
 S.B.I.R.T. 1 SEC 4-BY  
 F.A. PROJ. 52(G)  
 LOADING H20-516  
**NAME PLATE DATA**  
 Std. 1881

**TOTAL BILL OF MATERIAL**

ITEM	SUPER	SUB	TOTAL	
Class A Concrete	CuYds	87.6	30.4	118.0
Class X Concrete	CuYds		236.4	236.4
Reinforcement Bars	Lbs	14530	10120	24650
Structural Steel	Lbs	77190		77190
Slope Mat	SqYds		1238	1238
Name Plate	Ea	1		1
Treated Piles (25'-0")	lin.Ft.		300	500
Untreated Piles (25'-0")	lin.Ft.		1000	1000
Test Piles	Ea		1	1
Removal of Existing Struct.	Ea			1
Broken Concrete Rip-Rap	SqYds		398	398

**Stresses**

f<sub>s</sub> Struct: 18000 p.s.i.  
 f<sub>s</sub> Reinf: 20000 p.s.i.  
 f<sub>c</sub> Super: 1700 p.s.i.  
 f<sub>c</sub> Sub: 800 p.s.i.  
 n: 10

DESIGNED: A.C. Campbell  
 CHECKED: James J. Marving  
 DRAWN: G.D.C.  
 EXAMINED: [Signature]  
 PASSED: [Signature]  
 APPROVED: [Signature]

**GENERAL PLAN & ELEVATION**  
 PROJ. P-52(G)  
 S.B.I.R.T. 1 (S.B. 1.R.T. 1)  
 SECTION 4-BY  
 WHITE COUNTY  
 STA. 259+97

FOR INFORMATION ONLY

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
 STRUCTURE NO. 097-0007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	45
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	

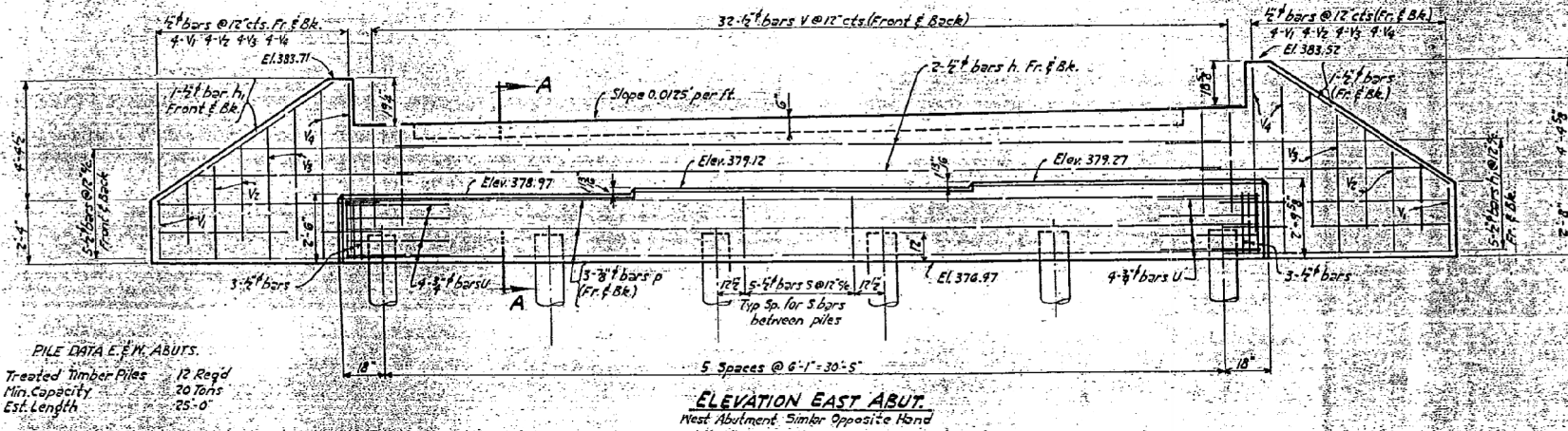
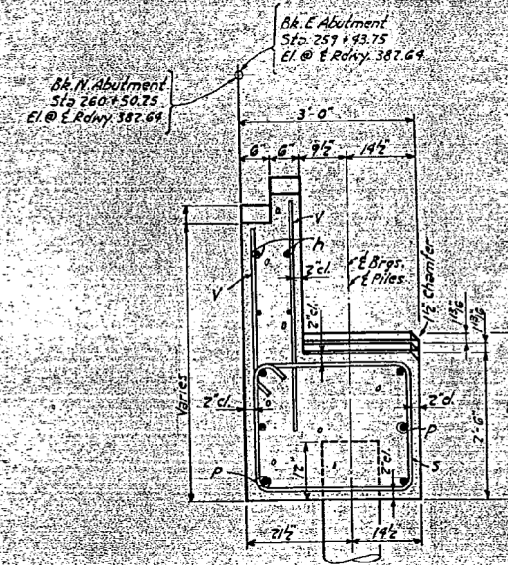
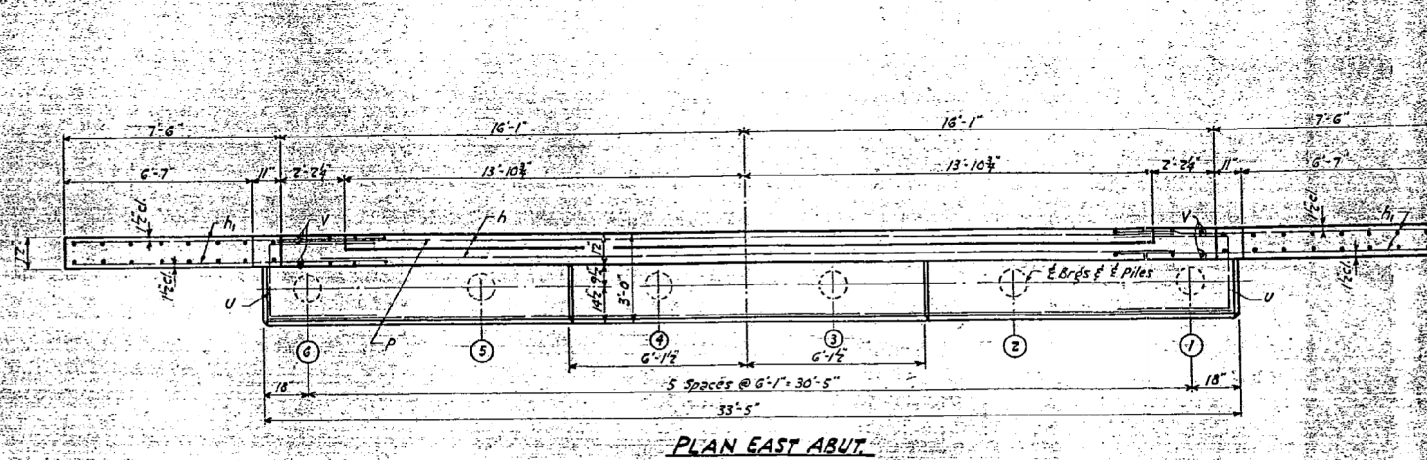


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PLOT DATE = 10/31/2012	DATE - 04/12	REVISED -

SCALE: SHEET NO. 1 OF 12 SHEETS STA. TO STA.

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

DATE	DESIGNED	CHECKED	DRAWN	APPROVED	SHEET NO. 1
1/11	ASB	WHITE	29	11	5 SHEETS
FED. ROAD DIST. NO. 1					ILLINOIS



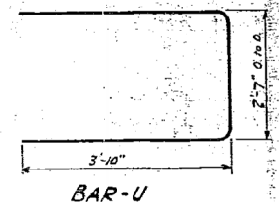
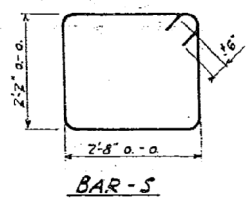
PILE DATA E. & W. ABUTS.  
Treated Timber Piles 12 Req'd  
Min. Capacity 20 Tons  
Est. Length 25'-0"

BILL OF MATERIAL TWO ABUTS.

BAR	No.	SIZE	LGTH	SHAPE
F	8	1/2"	30'-0"	
h	48	1/2"	8'-0"	
V	128	1/2"	3'-6"	
V	16	1/2"	2'-5"	
V	16	1/2"	3'-6"	
V	16	1/2"	4'-9"	
V	16	1/2"	6'-0"	
P	12	1/2"	33'-0"	
S	82	1/2"	10'-6"	
U	16	1/2"	10'-3"	
Class X Concrete		CUYAS 30.4		
Reinf. Bars		Lbs. 2,380		
Treated Timber Piles (25') Unpl.		300		

DESIGNED *A.D. Campbell*  
CHECKED *James J. Neveny*  
DRAWN *G.D.C.* *DEHNRE*  
CHECKED *James J. Neveny*

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



FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

SCALE: SHEET NO. 2 OF 12 SHEETS STA. TO STA.

ABUTMENTS  
PROJECT F-52(6)  
SECTION 4-BY  
WHITE COUNTY  
STATION 259+97

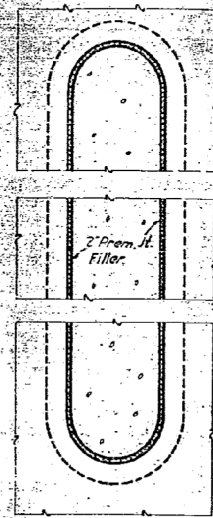


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ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
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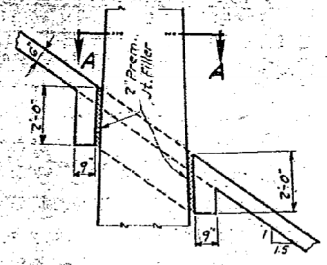
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	46
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

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

NO. 1	SECTION	DATE	TOTAL SHEETS	SHEET NO.
1	4-BK	WHITE	27	42
SHEET NO. 5 5 SHEETS				

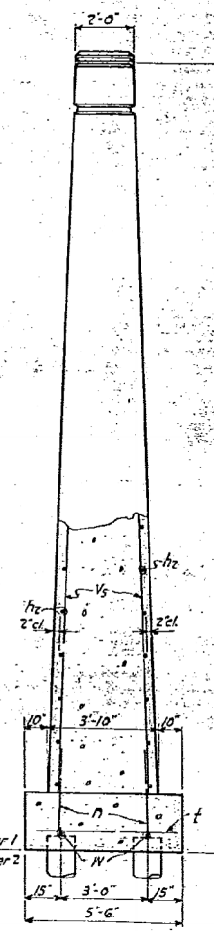


SECTION A-A

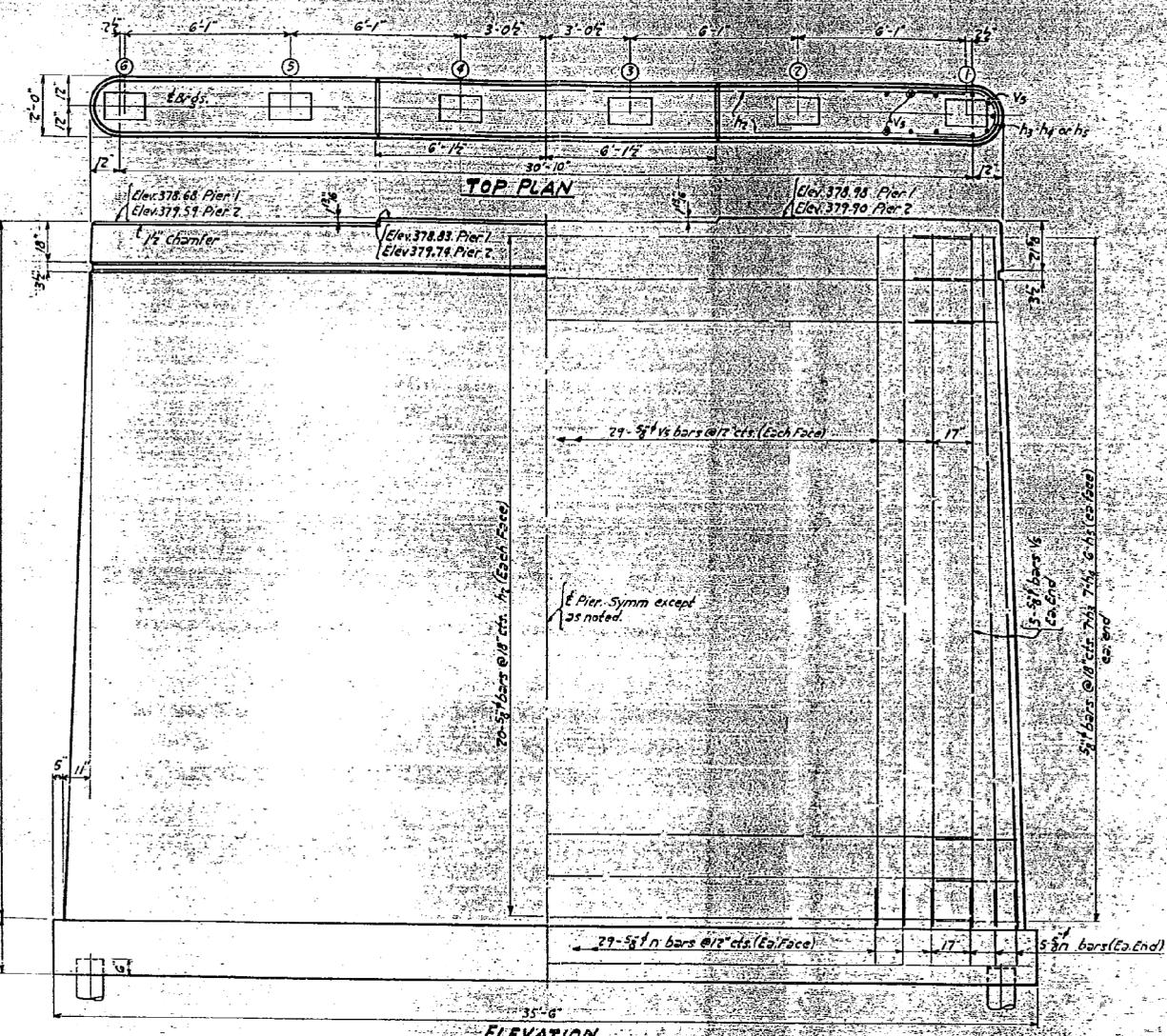


DETAIL OF SLOPE WALL @ PIERS

PILE DATA PIERS 1 & 2  
Untreated Timber Piles 40 Reg'd.  
Min Capacity 20 Ton  
Est. Length 25 Feet.

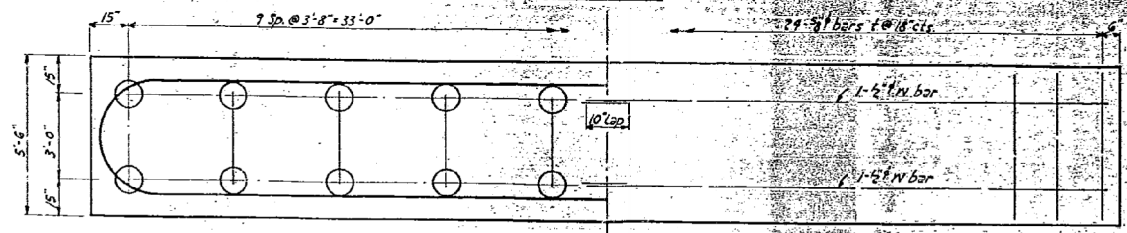


END VIEW

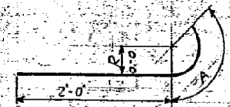


TOP PLAN

ELEVATION



FOOTING PLAN



BARS h3, h4, h5

BAR	R	A
h3	10"	2'-0"
h4	14"	2'-9"
h5	18"	3'-6"



NOTCH DETAIL

BILL OF MATERIAL PIERS 1 & 2

BAR	No.	SIZE	LENGTH	SHAPE
V6	136	5/8"	28'-3"	
h2	80	5/8"	30'-9"	
h3	28	5/8"	4'-0"	
h4	28	5/8"	4'-0"	
h5	24	5/8"	5'-6"	
V7	130	5/8"	3'-0"	
V8	48	5/8"	5'-0"	
N	8	5/8"	18'-0"	

Class A Concrete Cu. Yds. 236.4  
Reinf. Bars Lbs. 7740  
Untreated Timber Piles (25' L. in Ft.) 1000

DESIGNED *A. J. Campbell*  
CHECKED *John J. Murray*  
DRAWN *A. J. Campbell*  
CHECKED *John J. Murray*

EXAMINED  
PASSED  
APPROVED

PIERS 1 OR 2  
PROJECT F 52(6)  
SECTION 4 BY  
WHITE COUNTY  
STA. 259+97

FOR INFORMATION ONLY



USER NAME = has	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667' / IN.	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012 7:22:33 AM	DATE - 04/12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

SCALE: SHEET NO. 3 OF 12 SHEETS STA. TO STA.

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 47
CONTRACT NO. 78154			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID	

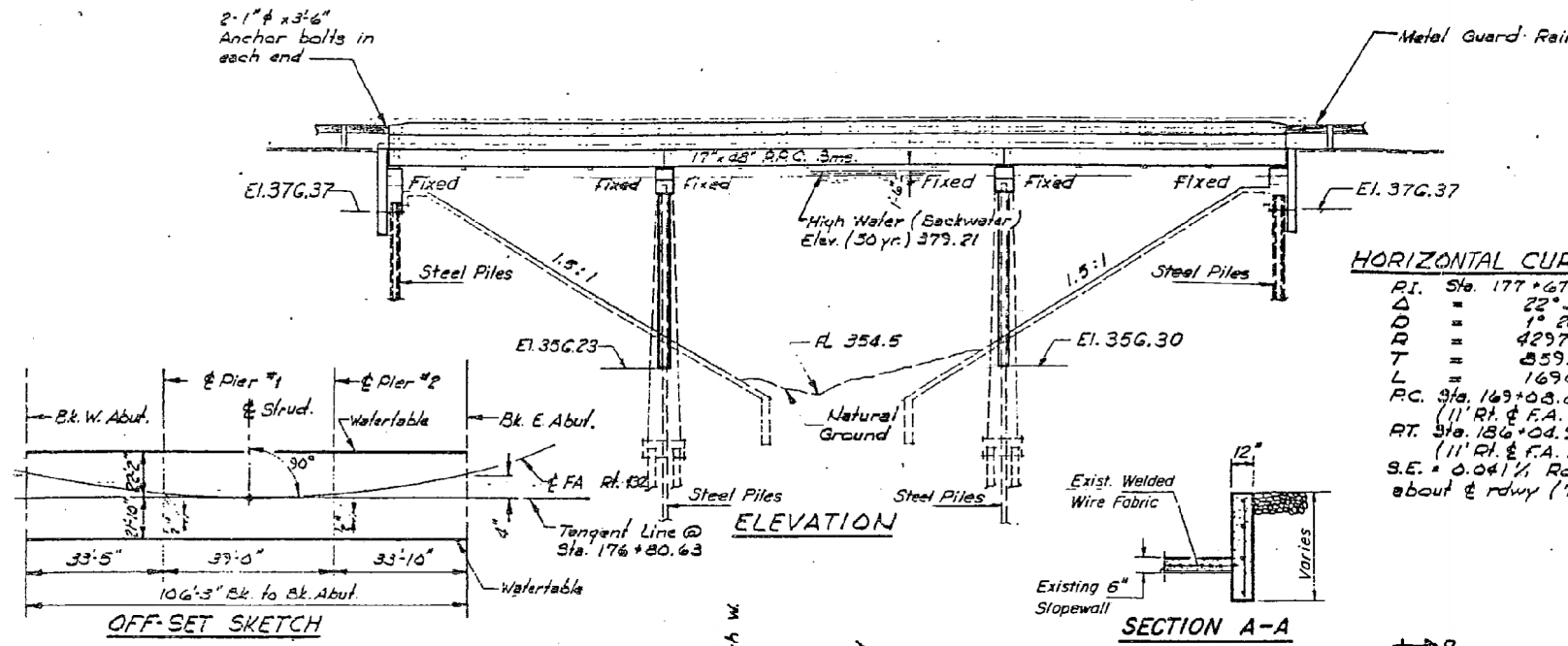
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	SECTION	TOTAL SHEETS	SHEET NO.	SHEET NO.
48R	WHITE	103	39	9	9 SHEETS

#15 (USC & G9) Chiseled "4" on N.E. wall of Bridge  
76+20.63 Elev. 383.42  
Structure: Built in 1930, S.B.I. Rte. 1, Sec. 4BY  
White County Sta. 259+37 3 Span with 24" WF on R.C.  
piers and pile bent abuts. Contractor shall  
leave all existing superstructure using stage  
excavation to maintain one way traffic at all  
times. The existing substructure to be rebuilt as  
needed to accommodate the new P.C. Deck beam  
structure. Existing structure #097-0007  
Salvage.

GENERAL NOTES

See Proposal for Boring Data.  
It shall be the responsibility of the Contractor to verify all dimensions  
and conditions existing in the field prior to construction and ordering of  
materials.  
The top surface of the beams shall be finished in accordance with  
Article 505.06 of the Standard Specifications except that the surface shall  
not be roughened by brooming. The finished surface shall be free of depressions  
or high spots with sharp corners.  
The concrete rail section above the mandatory construction joint at the top  
of the slab shall be constructed of Class X Concrete, except the aggregates  
shall conform to the requirements of Handrail Concrete.  
Protective Coat shall not be applied to surfaces to which Waterproofing  
Membrane System is applied.  
Expansion bolts shall consist of self drilling expansion anchors and 3/4" x  
12" hooked bolts.  
The Contractor shall drive one steel HP 10x42 test pile in a permanent  
location at Pier #2 as directed by the Engineer before ordering the remainder  
of piles.

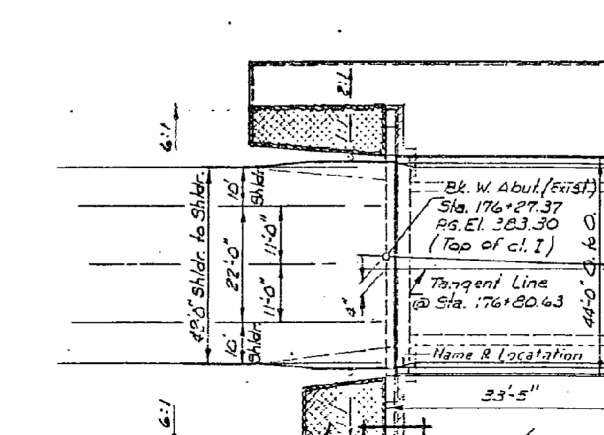


HORIZONTAL CURVE DATA

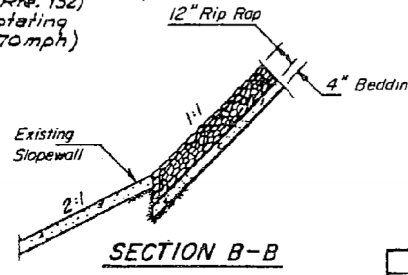
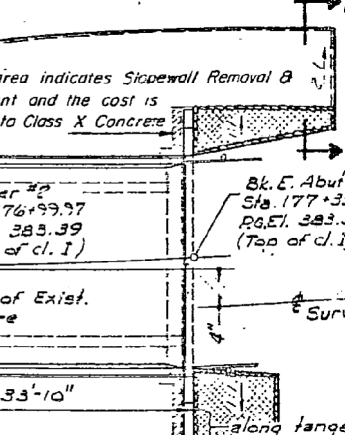
P.I. Sta. 177+67.69  
Δ = 22° 37' 33"  
D = 1° 20' 00"  
R = 4297.18'  
T = 359.66'  
L = 1696.94'  
P.C. Sta. 169+08.03  
(11' R.I. & F.A. Rte. 132)  
P.T. Sta. 186+04.97  
(11' R.I. & F.A. Rte. 132)  
S.E. = 0.041 1/2 Rotating  
about rdwy (70mph)

STATION 176+80.63  
BUILT 197 BY  
STATE OF ILLINOIS  
F.A. RT. 132 SEC. 4 BR  
FA PROJ. EBF-132(11)  
LOADING HS20  
See Standard 2113  
NAME PLATE

OFF-SET SKETCH



SECTION A-A



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Removal of Existing Superstructure #1	Each	1		1
Concrete Removal	Cu.Yds.		21	21
Bituminous Concrete Surface Course, Mix D, Class I	Tons	35		35
Waterproofing Membrane System	Sq.Yds.	488		488
Expansion Bolts (3/4" Ø)	Each		240	240
Protective Coat	Sq.Yds.	89		89
Class X Concrete	Cu.Yds.	35.5	118.8	154.3
Precast Prestressed Concrete Deck Beams (17")	Sq.Ft.	4561		4561
Reinforcement Bars	Pounds	3,460	9,110	12,570
Name Plates	Each	1		1
Portland Cement Mortar Fairing Course	Lin.Ft.	1037		1037
Stone Rip Rap	Sq.Yds.		115	115
Steel Piles (HP 10x42)	Lin.Ft.		777	777
Test Piles Steel (HP 10x42)	Each		1	1
Structure Excavation	Cu.Yds.		50	50
Pavement Removal & P.C.C. Replacement, Type 2 (10")	Sq.Yds.	12		12
Temporary Guardrail	Lin.Ft.	106		106

\*See Special Provisions



DESIGN STRESSES  
FIELD UNITS  
fc = 1400 psi  
fy = 60,000 psi (Rebar)  
fs = 20,000 psi (Structure)

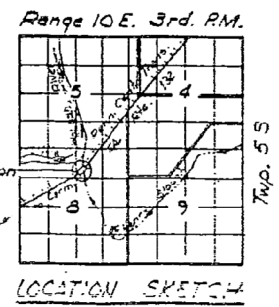
WATERWAY INFORMATION

Drainage Area 2560 Acres.  
Existing Opening 1217 Sq. Ft.  
Required Opening 1217 Sq. Ft.  
Proposed Opening 1217 Sq. Ft.  
H.W.E. (100 yr. Backwater) Elev. 380.57  
H.W.E. (50 yr. Backwater) Elev. 379.21  
Design Discharge (50 yr. Headwater) 625 cfs  
Q (100 yr. Headwater) 800 cfs

PRECAST PRESTRESSED UNITS

fc = 5000 psi  
fc' = 4000 psi  
fs = 270,000 psi (3/4" strands)  
fs' = 188,700 psi (3/4" strands)

LOADING HS 20 - 44  
Allow 25 #/ft² for future wearing surface.  
FOR INFORMATION ONLY



GENERAL PLAN & ELEVATION  
F.A. Rte. 132 Over McHENRY SLOUGH  
F.A. Rte. 132 SECTION 4 BR  
WHITE COUNTY  
Sta. 176+80.63

EXAMINED  
PASSED  
APPROVED

August 23 1976  
P. Barnett



USER NAME = has	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667" / IN.	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012 7:22:45 AM	DATE - 04/12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

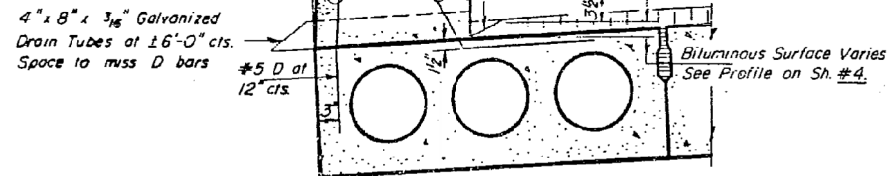
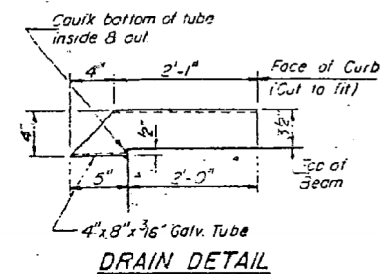
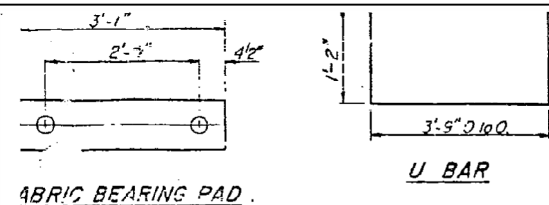
EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

SCALE: SHEET NO. 4 OF 12 SHEETS STA. TO STA.

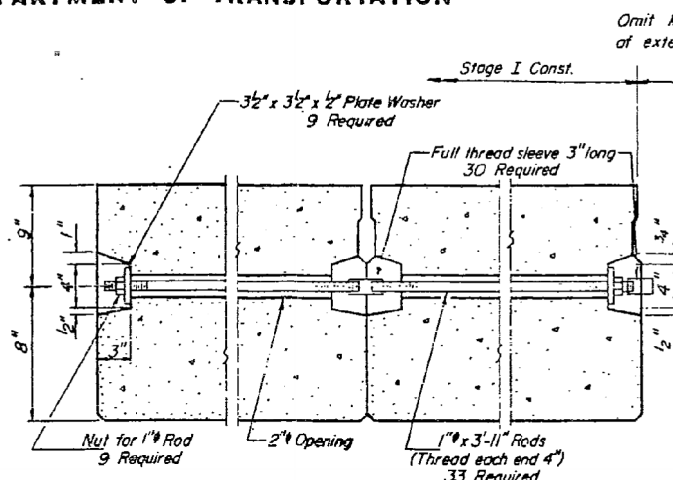
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	48
CONTRACT NO. 78154			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID	



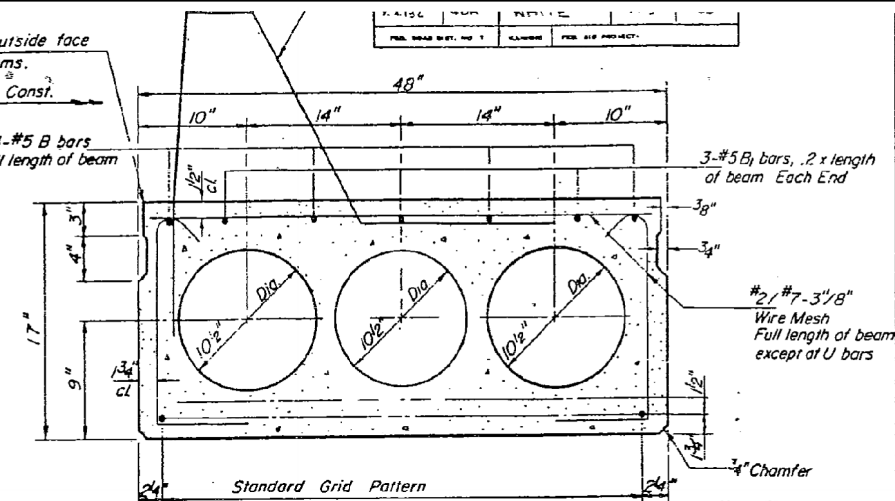
DEPARTMENT OF TRANSPORTATION



SECTION THRU CURB  
 Curbs shall be poured in the field.  
 For placement of bars b thru b<sub>3</sub>,  
 d, e and e<sub>1</sub> see Sheet #4.

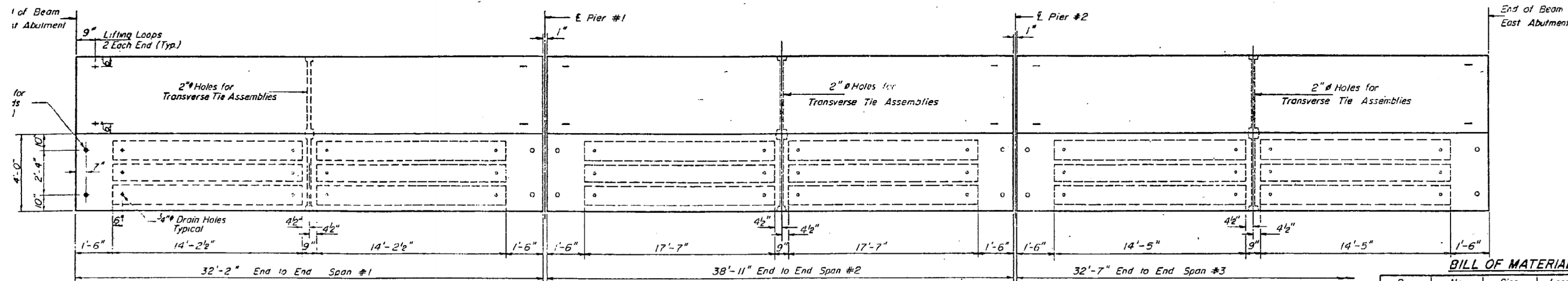


TYPICAL TRANSVERSE TIE ASSEMBLY

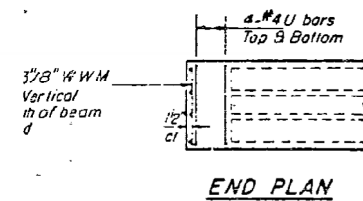


TYPICAL SECTION	
Spans #1 & #3	14 - 1/16" Strands, Each Strand Stressed to 21,700 Lbs. 14 - Strands 1-3/4" up,
Span #2	21 - 7/16" Strands, Each Strand Stressed to 21,700 Lbs. 9 - Strands 1-3/4" up, 12 - Strands 3/4" up

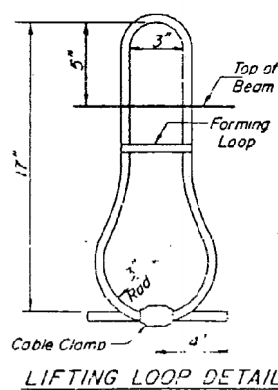
Note: For "Section thru Superstructure"  
 See Sheet #3.



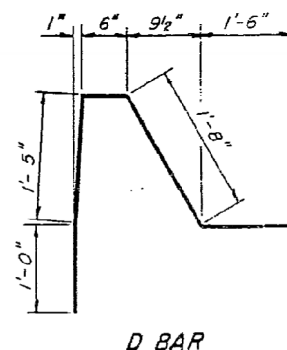
PLAN



END PLAN



LIFTING LOOP DETAIL



D BAR

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 7/16" and the nominal cross-sectional area shall be 0.115 sq. in. Lifting loops shall be 1/2" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Packets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.

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

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b	16	#8	17'-9"	—
b <sub>1</sub>	8	#8	21'-0"	—
b <sub>2</sub>	16	#5	17'-0"	—
b <sub>3</sub>	8	#5	20'-0"	—
d	420	#5	2'-3"	—
Precast Prestressed Concrete Deck Beams (17")		Sq. Ft.	4561	
Reinforcement Bars		Pounds	2640	
Class X Concrete		Cu. Yds.	22.5	

Parapet reinforcement & Class X Concrete are not billed on Sheet #4.

**SUPERSTRUCTURE**  
 F.A. RT. 132 SECTION 4 B.R.  
 WHITE COUNTY  
 STA. 176+60.63

DESIGNED	EXAMINED
DRAWN	PASSED
CHECKED	APPROVED

FOR INFORMATION ONLY

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
 STRUCTURE NO. 097-0007

SCALE: SHEET NO. 5 OF 12 SHEETS STA. TO STA.

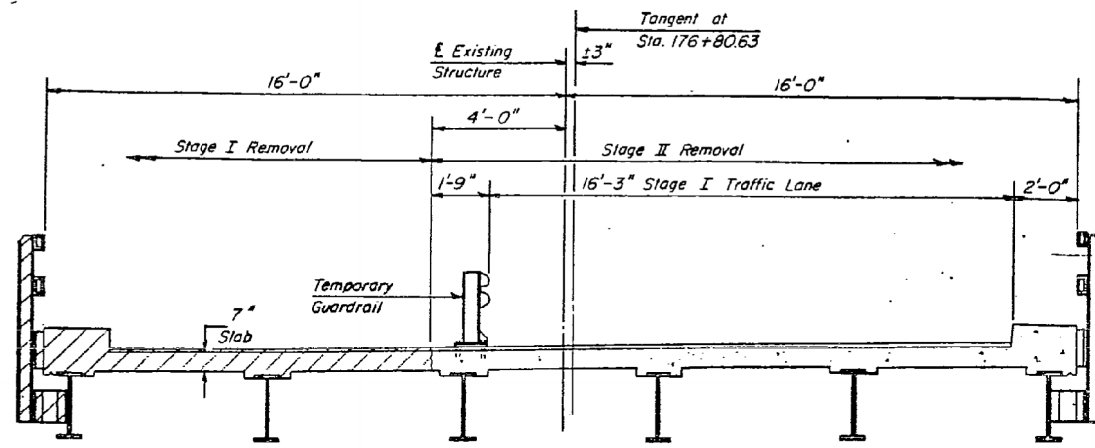
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	49
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	



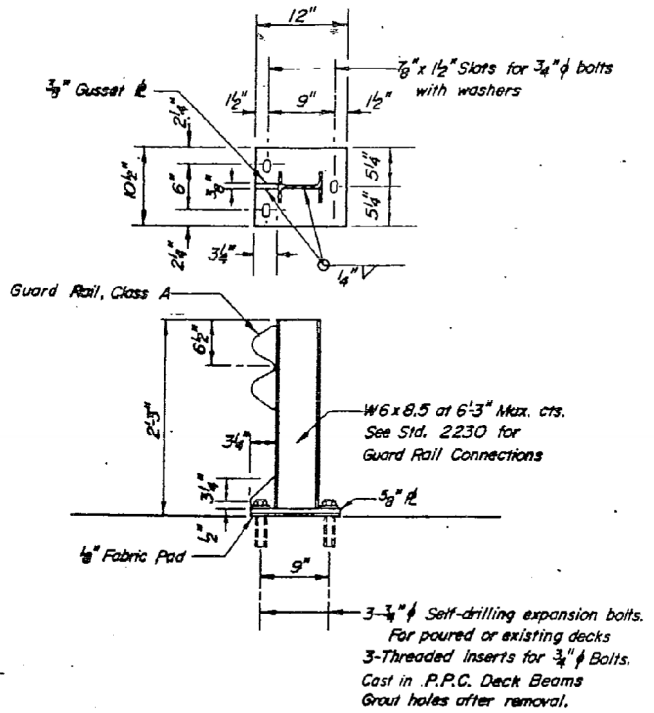
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 PLOT DATE = 10/31/2012 7:22:57 AM

DESIGNED - ELH  
 DRAWN - HAS  
 CHECKED - RDP  
 DATE - 04/12

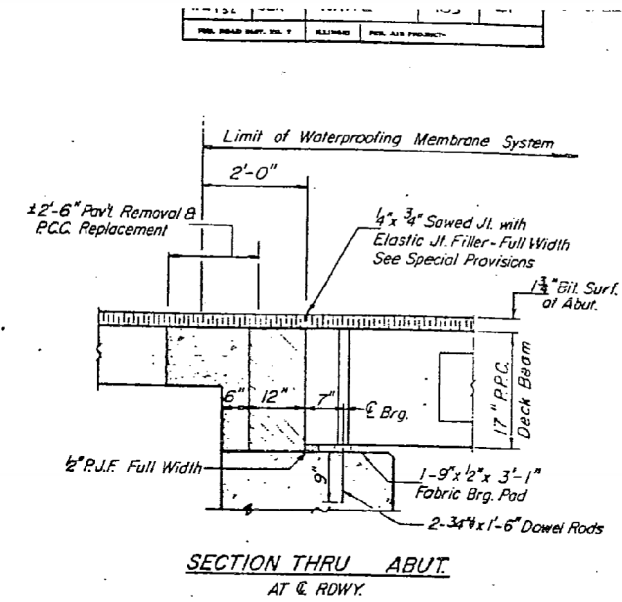
REVISED -  
 REVISED -  
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 REVISED -



**STAGE REMOVAL SKETCH**  
(LOOKING EAST)

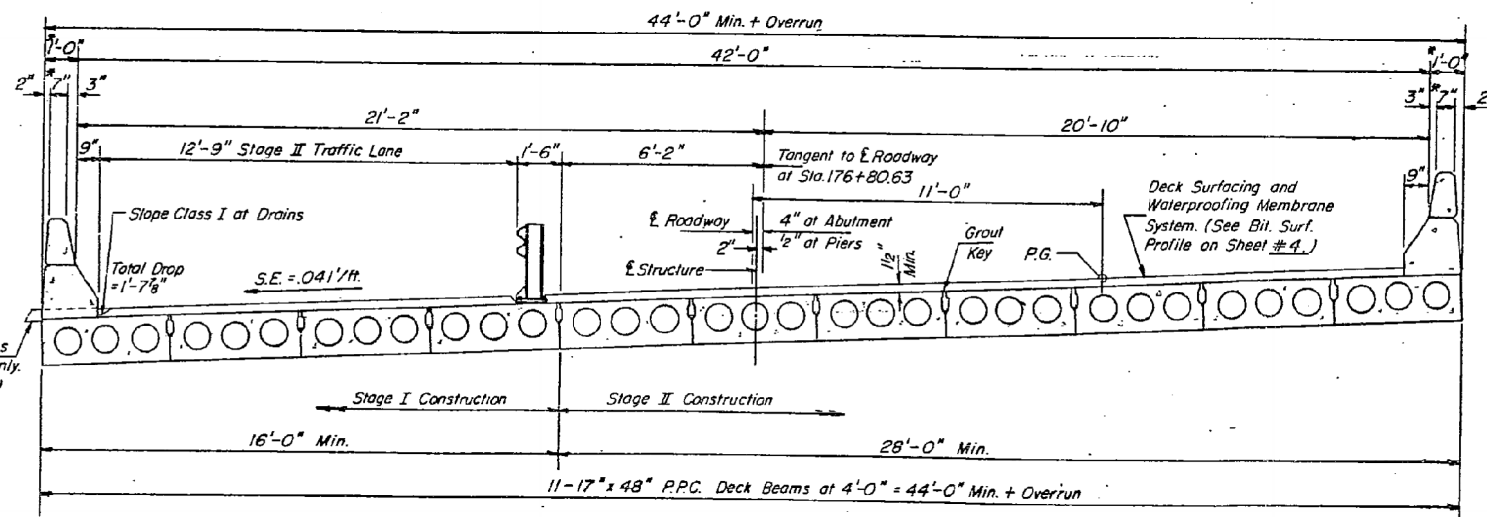


**TEMPORARY GUARD RAIL DETAIL**  
See Special Provisions



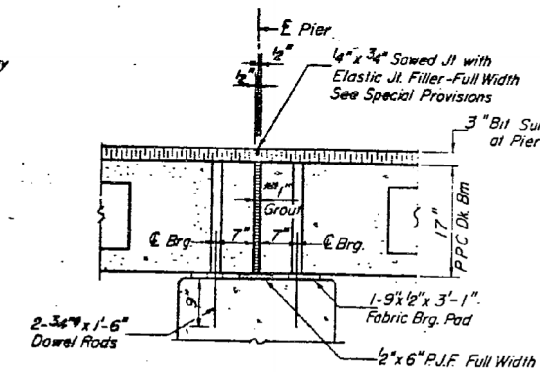
**SECTION THRU ABUT.**  
AT & RDWY.

Note: Hatched area to be poured after superstructure is in place and joints grouted. Quantity of Class X Concrete is billed with the Superstructure on Sheet #2.



**SECTION THRU SUPERSTRUCTURE & STAGE CONSTRUCTION SKETCH**  
(LOOKING EAST)

\*Minimum dimensions may vary due to overrun.



**SECTION THRU PIER**

\*1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar. This dimension may vary plus or minus to accommodate tolerance in beam lengths.

DESIGNED	<i>John A. Williams</i>	EXAMINED	<i>Aug 23 1976</i>
CHECKED	<i>Joe J. Edwards</i>	PASSED	
DRAWN	<i>P. Bonnett</i>	APPROVED	
CHECKED	<i>Bill</i>		

**SUPERSTRUCTURE DETAILS**  
**E.A. RT. 132 SECTION 4 BR**  
**WHITE COUNTY**  
**STA. 176+80.63**

**FOR INFORMATION ONLY**

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY**  
**STRUCTURE NO. 097-0007**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	50
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

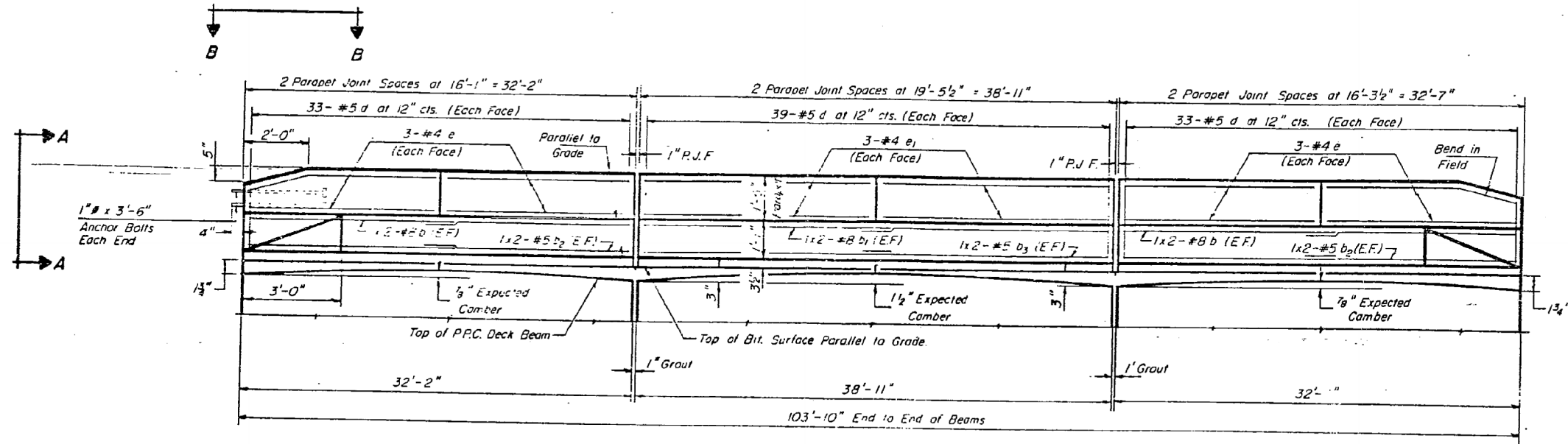
SCALE: SHEET NO. 6 OF 12 SHEETS STA. TO STA.



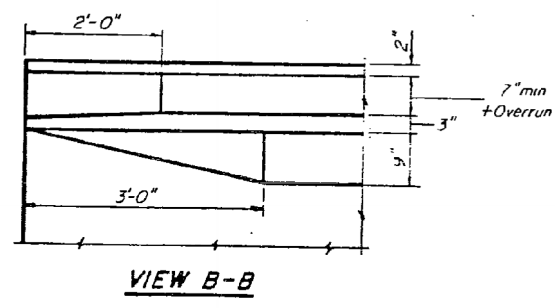
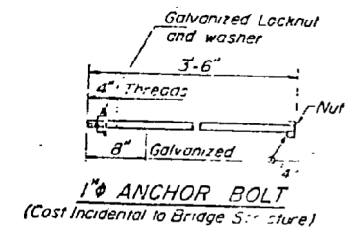
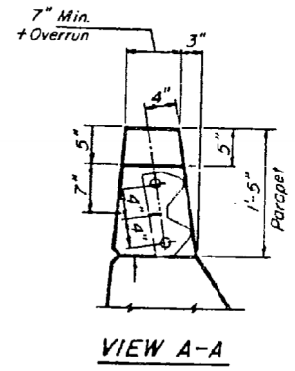
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ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
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PLOT DATE = 10/31/2012 7:23:10 AM	DATE - 04/12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

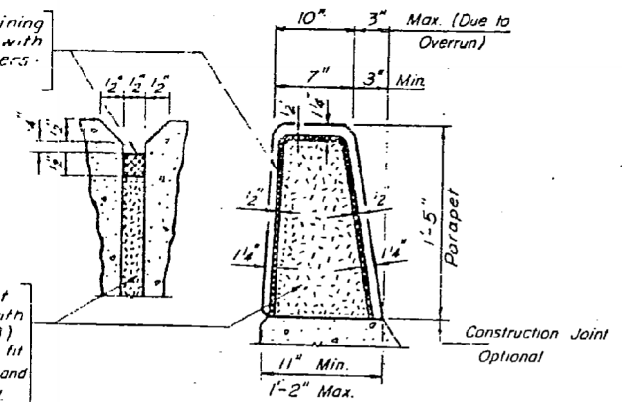
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
46R	46R	WHITE	103	12	9
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



CURB & PARAPET ELEVATION & BITUMINOUS SURFACE PROFILE



Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.



PARAPET JOINT DETAIL

PARAPET  
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
e	48	#4	15'-10"	—
e1	24	#4	19'-3"	—
Reinforcement Bars				800
Class X Concrete				100

DESIGNED	John A. Williams	EXAMINED	[Signature]
CHECKED	X. J. Edwards	PASSED	[Signature]
DRAWN	P. Barnett	APPROVED	[Signature]
CHECKED	[Signature]		

CURB & PARAPET DETAILS  
F.A. RT. SECTION 4 35  
WHITE COUNTY

FOR INFORMATION ONLY



USER NAME = has	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667' / IN.	CHECKED - RDP	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

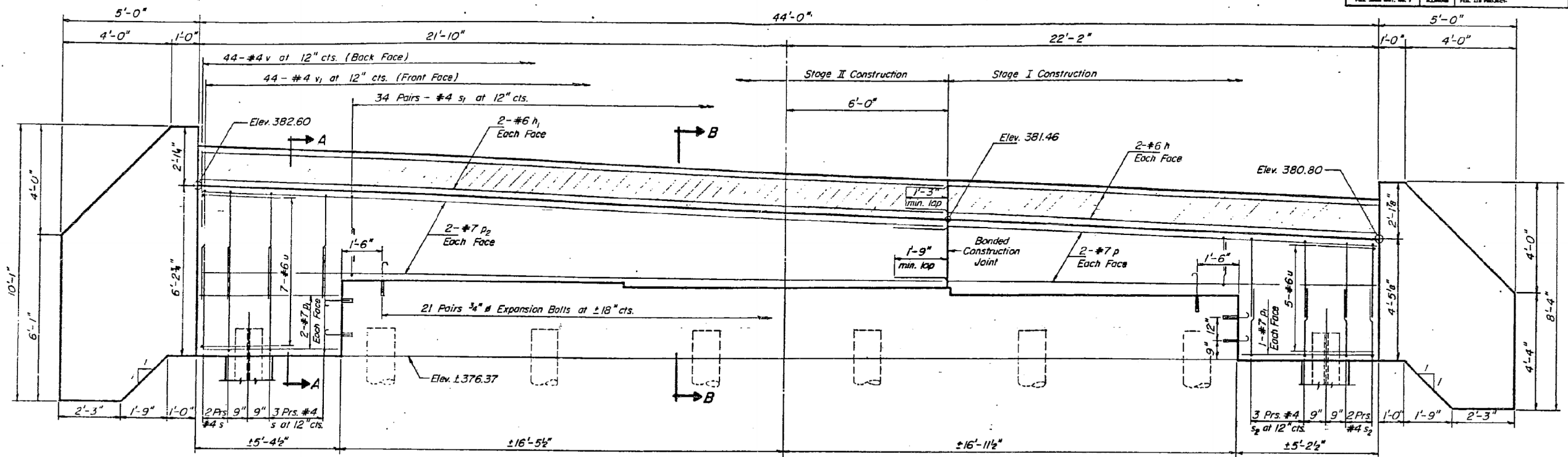
EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

SCALE: SHEET NO. 7 OF 12 SHEETS STA. TO STA.

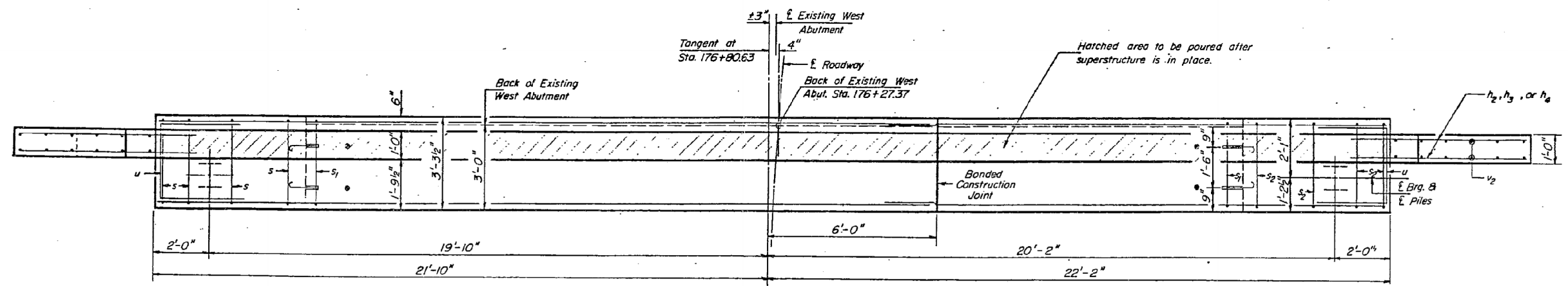
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	51
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	BY	CHECKED	TOTAL SHEETS	SHEET NO.
10/31/12	4BR	WHITE	103	43
SHEET NO. 5 9 SHEETS				

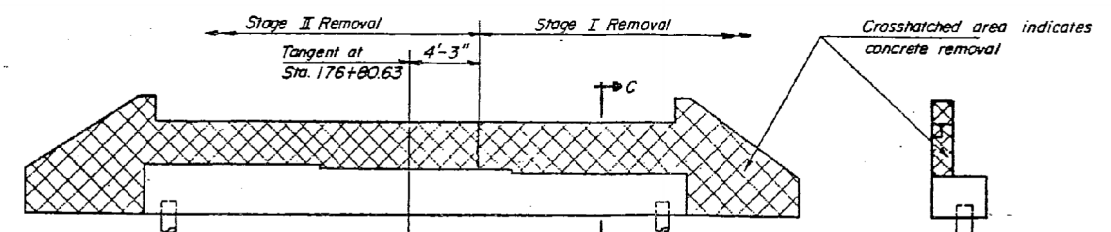


ELEVATION



PLAN

**PILE DATA**  
Type: Steel (HP10 x 42)  
Capacity: Drive to Refusal  
Est. Length: 70'-0"  
No. Required: 2



ELEVATION  
SECTION C-C  
CONCRETE REMOVAL SKETCH

Note: Work this sheet with Sheet # 7.

**WEST ABUTMENT**  
F.A. RT. 132 SECTION 4 BR  
WHITE COUNTY  
STA. 176+80.63

DESIGNED	John A. Mann	EXAMINED	10/23/12
CHECKED	Jan J. Egan	PASSED	
DRAWN	P. Barnett	APPROVED	
CHECKED			

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

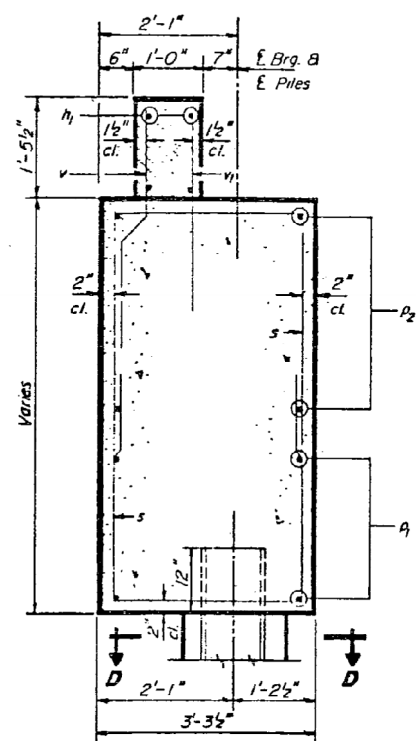
EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	52
CONTRACT NO. 78154				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID				

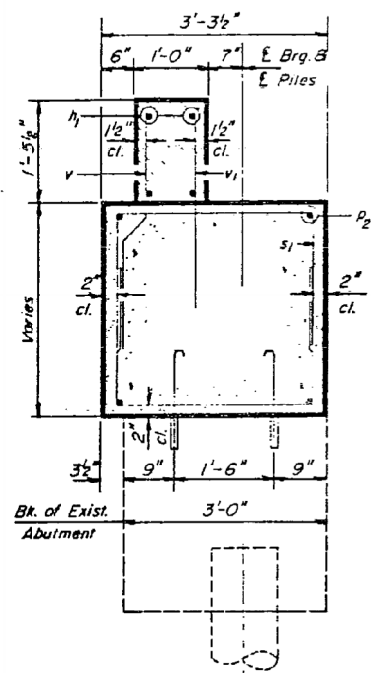


USER NAME	DESIGNED	REVISED
ESCA PROJECT NO. 988.11	ELH	
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	HAS	
PLOT DATE = 10/31/2012 7:23:37 AM	CHECKED	REVISED
	ROP	
	DATE	REVISED
	04/12	

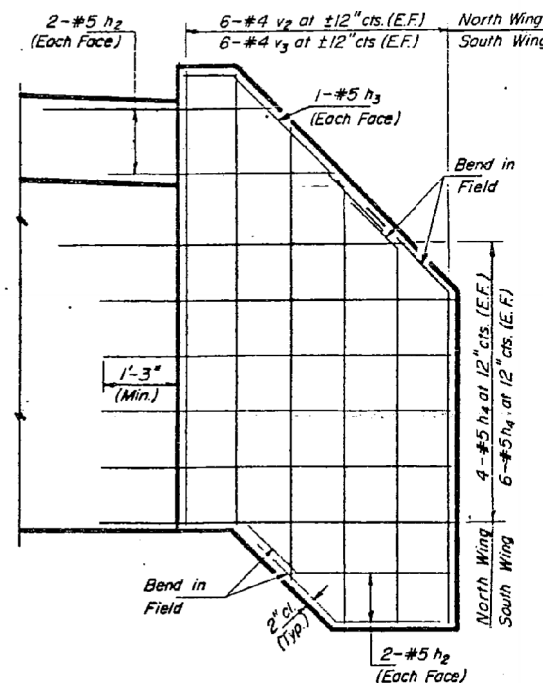
SCALE: SHEET NO. 8 OF 12 SHEETS STA. TO STA.



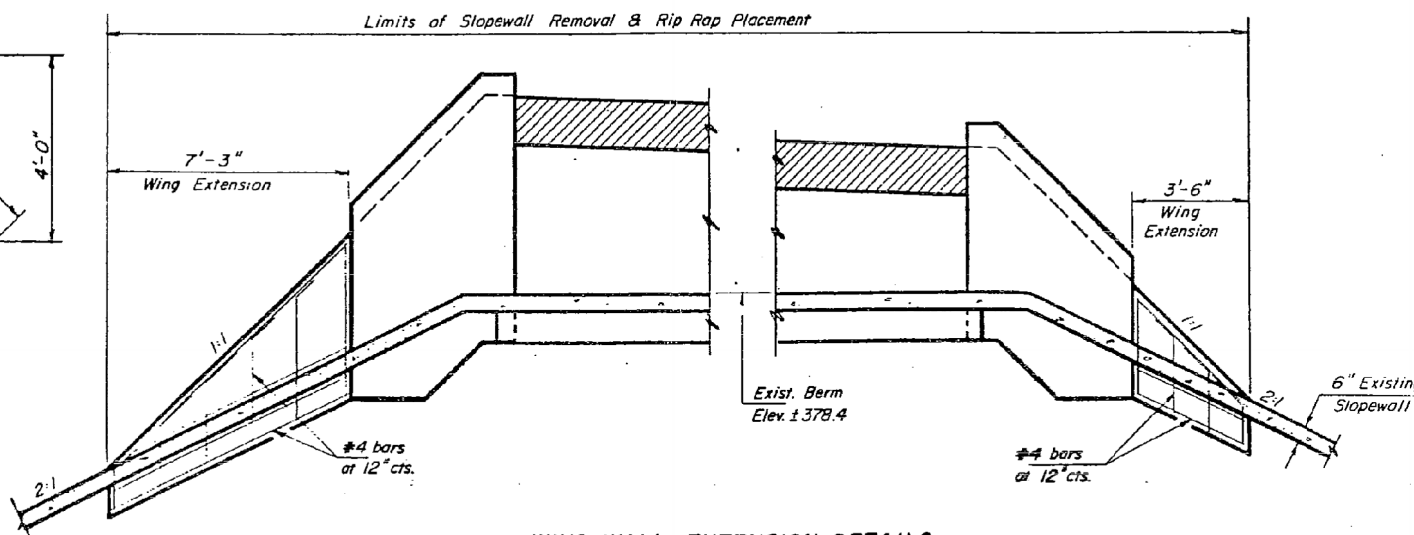
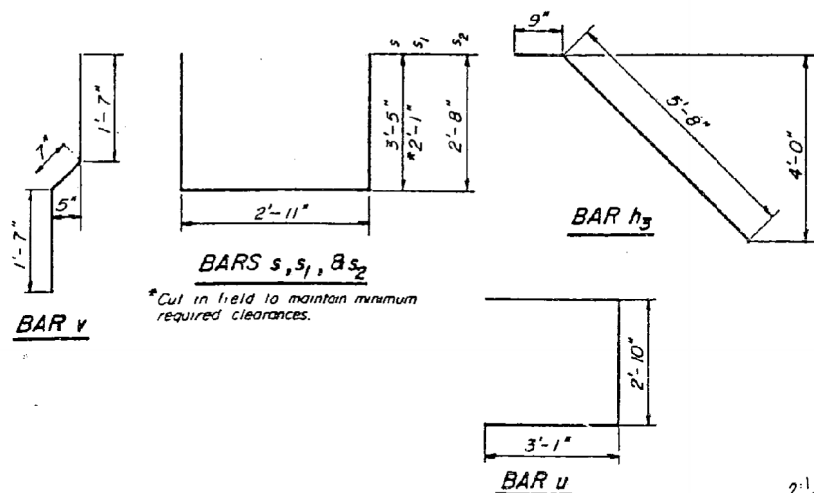
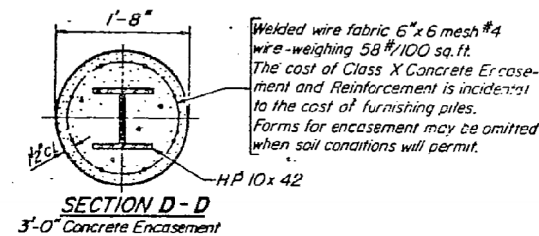
SECTION A-A



SECTION B-B



WING WALL DETAILS



WING WALL EXTENSION DETAILS  
(Cost incidental to Class X Concrete)  
(LOOKING WEST)

TWO ABUTMENTS  
BILL OF MATERIAL

BAR	NO	SIZE	LENGTH	SHAPE
h	8	#6	17'-3"	—
h1	8	#6	27'-6"	—
h2	32	#5	4'-0"	—
h3	8	#5	6'-5"	—
h4	40	#5	6'-3"	—
p	8	#7	17'-9"	—
p1	12	#7	5'-0"	—
p2	8	#7	27'-6"	—
s	20	#4	9'-9"	□
s1	136	#4	7'-1"	□
s2	20	#4	8'-3"	□
u	24	#6	9'-0"	□
v	88	#4	3'-9"	—
v1	88	#4	3'-0"	—
v2	24	#4	6'-3"	—
v3	24	#4	8'-0"	—
Class X Concrete			Cu. Yds.	40.7
Reinforcement Bars			Pounds	3680
Steel Piles (HP10x42)			Lin. Ft.	280
3/4" Expansion Balls			Each	100
Concrete Removal			Cu. Yds.	11.0

ABUTMENT DETAILS  
FA. RT. 132 SECTION 4 BR  
WHITE COUNTY  
STA. 176+80.63

DESIGNED: John P. Moore  
CHECKED: Joe J. Clark  
DRAWN: P. Barnett  
CHECKED: [Signature]  
EXAMINED: [Signature]  
PASSED: [Signature]  
APPROVED: [Signature]  
DATE: Aug 23, 1976

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

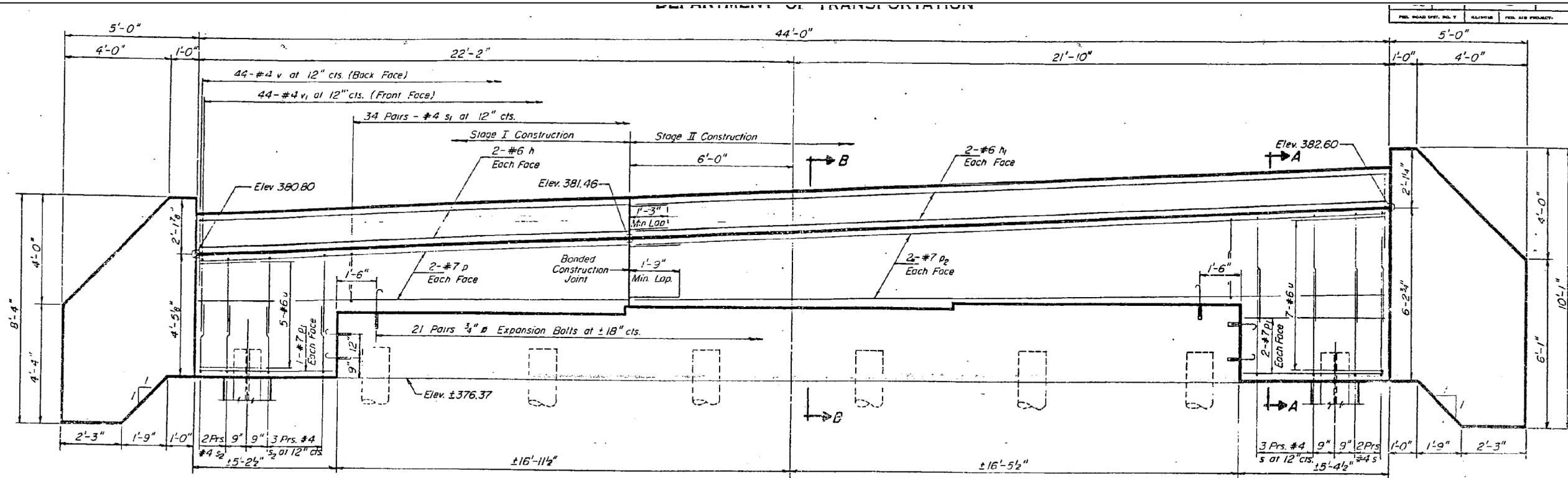
SCALE: SHEET NO. 9 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	53
CONTRACT NO. 78154				

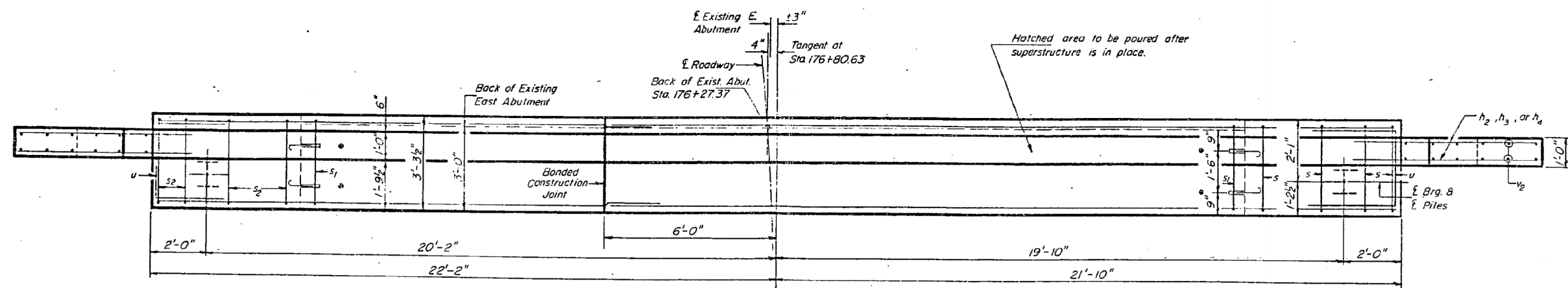
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID



USER NAME	DESIGNED	REVISED
has	ELH	-
ESCA PROJECT NO. 988.11	DRAWN	HAS
PLOT SCALE = 0.1667" / IN.	CHECKED	RDP
PLOT DATE = 10/31/2012 7:23:53 AM	DATE	04/12



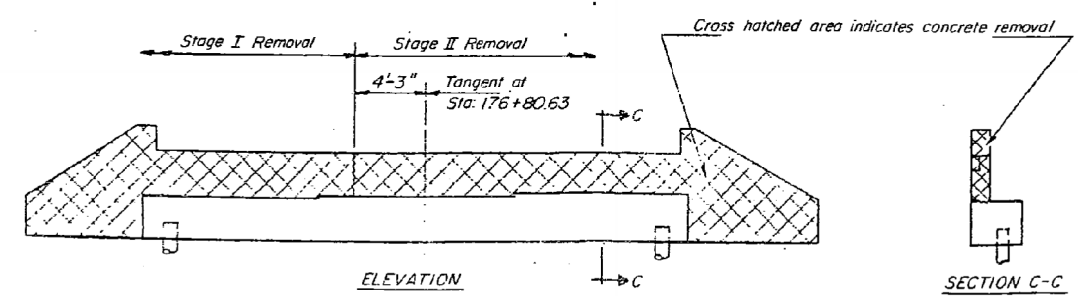
ELEVATION



PLAN

**PILE DATA**

Type: Steel (HP 10 x 42)  
 Capacity: Drive to Refusal  
 Est. Length: 70'-0"  
 No. Required: 2



ELEVATION  
 CONCRETE REMOVAL SKETCH

Note: Work this sheet with Sheet # 7.

DESIGNED	J. A. Stevens	EXAMINED	[Signature]
CHECKED	[Signature]	PASSED	[Signature]
DRAWN	P. Berner	APPROVED	[Signature]
CHECKED	[Signature]		

**EAST ABUTMENT**  
 F.A. RT. 132 SECTION 4 BR  
 WHITE COUNTY  
 STA 176+80.63

**FOR INFORMATION ONLY**

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
 STRUCTURE NO. 097-0007

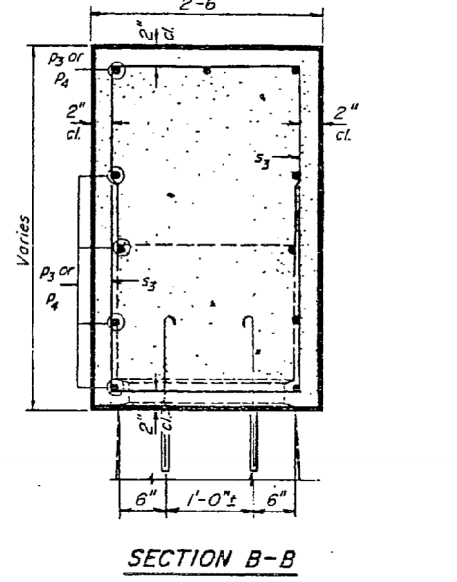
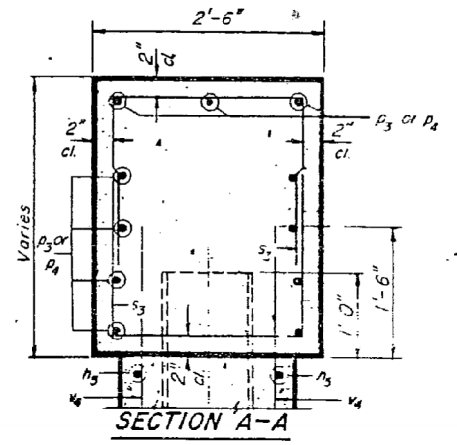
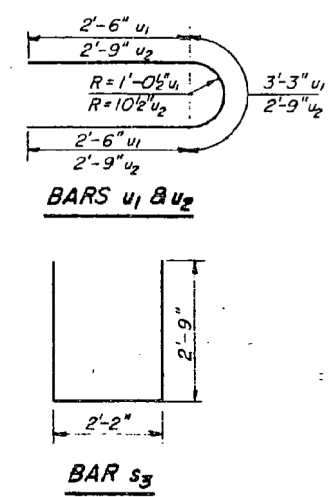
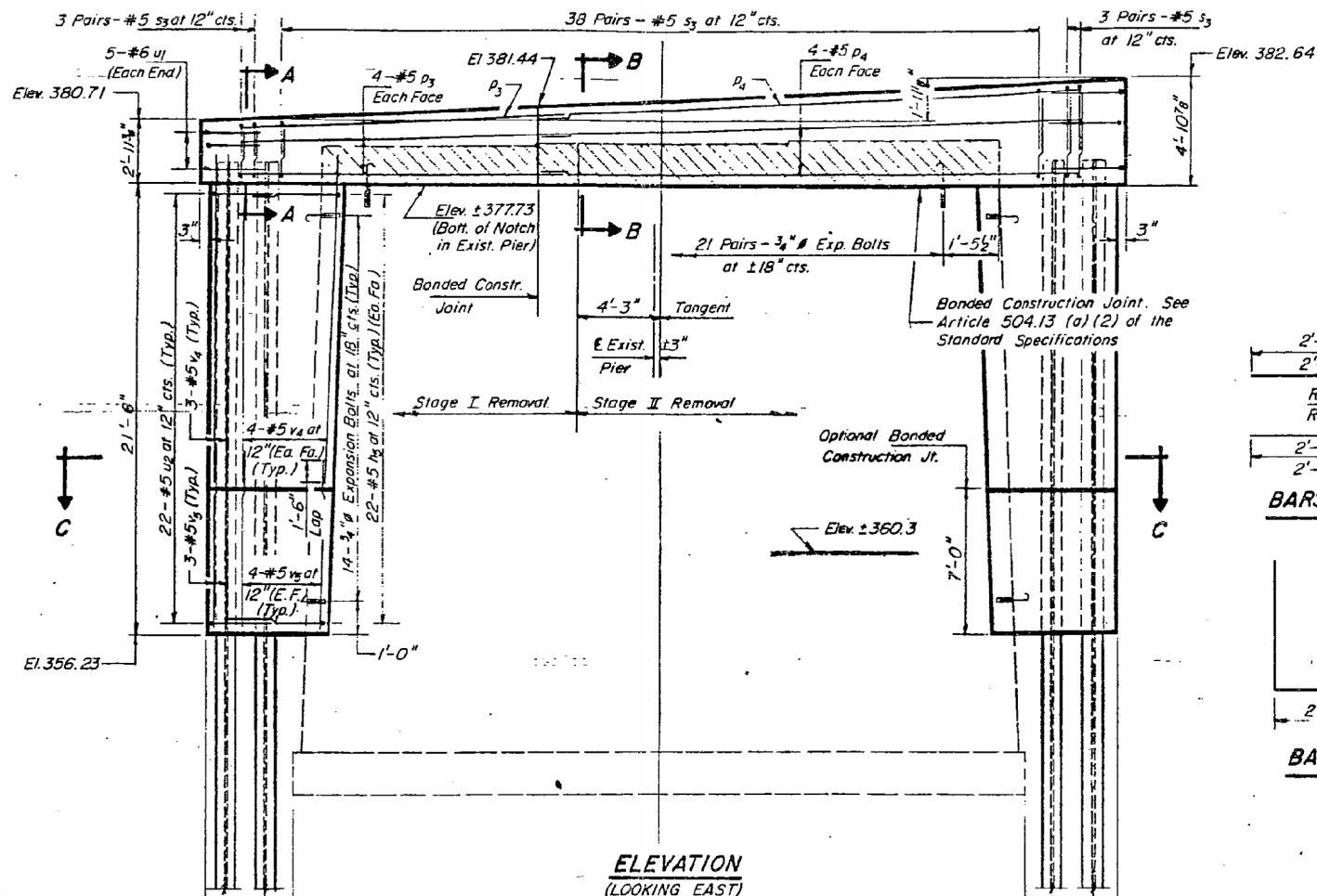
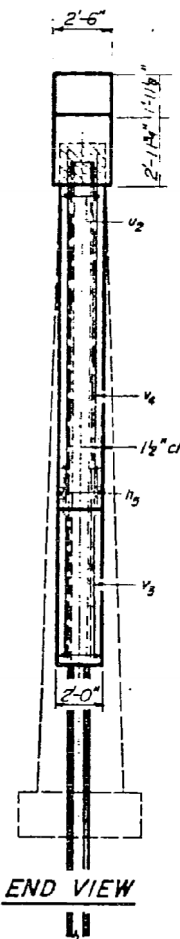
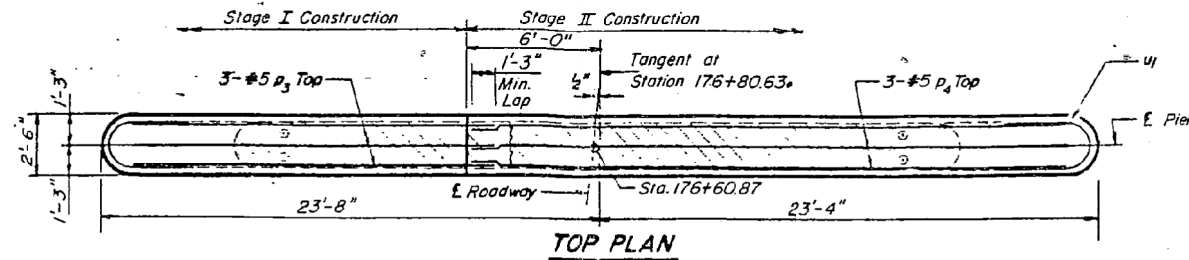
SCALE: SHEET NO. 10 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	54
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT AID	
			CONTRACT NO. 78154	



USER NAME = has	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667' / IN.	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012 7:24:06 AM	DATE - 04/12	REVISED -

incorporated into new construction.  
 Hatched area indicates concrete removal.  
 Space reinforcement in cap to miss dowel rods.



**PILE DATA**  
 Type: Steel (HP 10 x 42)  
 Capacity: Drive to Refusal  
 Est. Length: 71'-0"  
 No. Required: 4

DESIGNED	<i>John A. M...</i>
CHECKED	<i>K...</i>
DRAWN	<i>P. Borner</i>
CHECKED	<i>[Signature]</i>

EXAMINED	<i>[Signature]</i>
PASSED	
APPROVED	

**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h5	88	#5	4'-6"	—
p3	11	#5	17'-9"	—
p4	11	#5	28'-0"	—
s3	88	#5	7'-8"	□
u1	10	#6	8'-3"	U
u2	44	#5	8'-3"	U
v4	22	#5	16'-0"	—
v5	22	#5	8'-6"	—
Class X Concrete			Cu. Yds.	37.5
Reinforcement Bars			Pounds	2710
Expansion Bolts (3/4" #)			Each	70
Steel Piles (HP 10 x 42)			Lin. Ft.	284
Concrete Removal			Cu. Yds.	5.0

**PIER #1**  
**F.A. RT. B2 SECTION 4 BR**  
**WHITE COUNTY**  
**STA. 176+80.63**

FOR INFORMATION ONLY

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
 STRUCTURE NO. 097-0007

SCALE: SHEET NO. 11 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	55
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

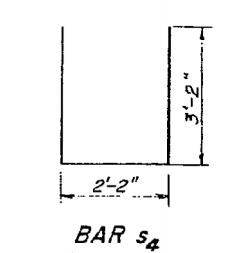
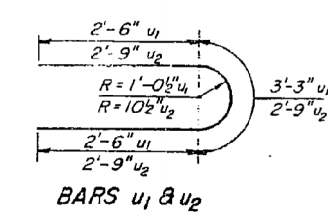
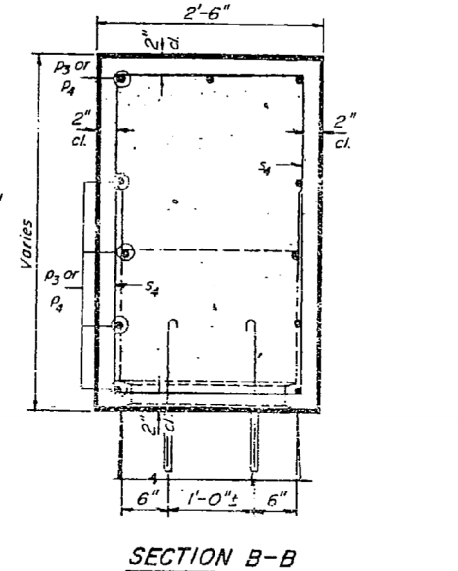
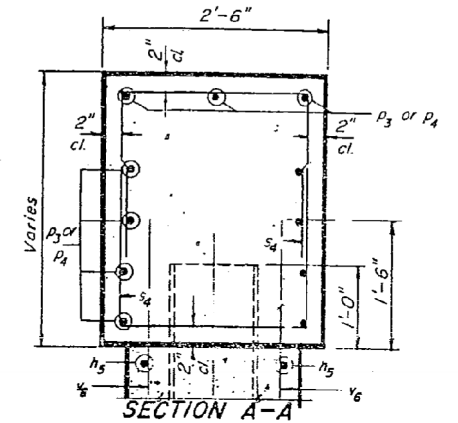
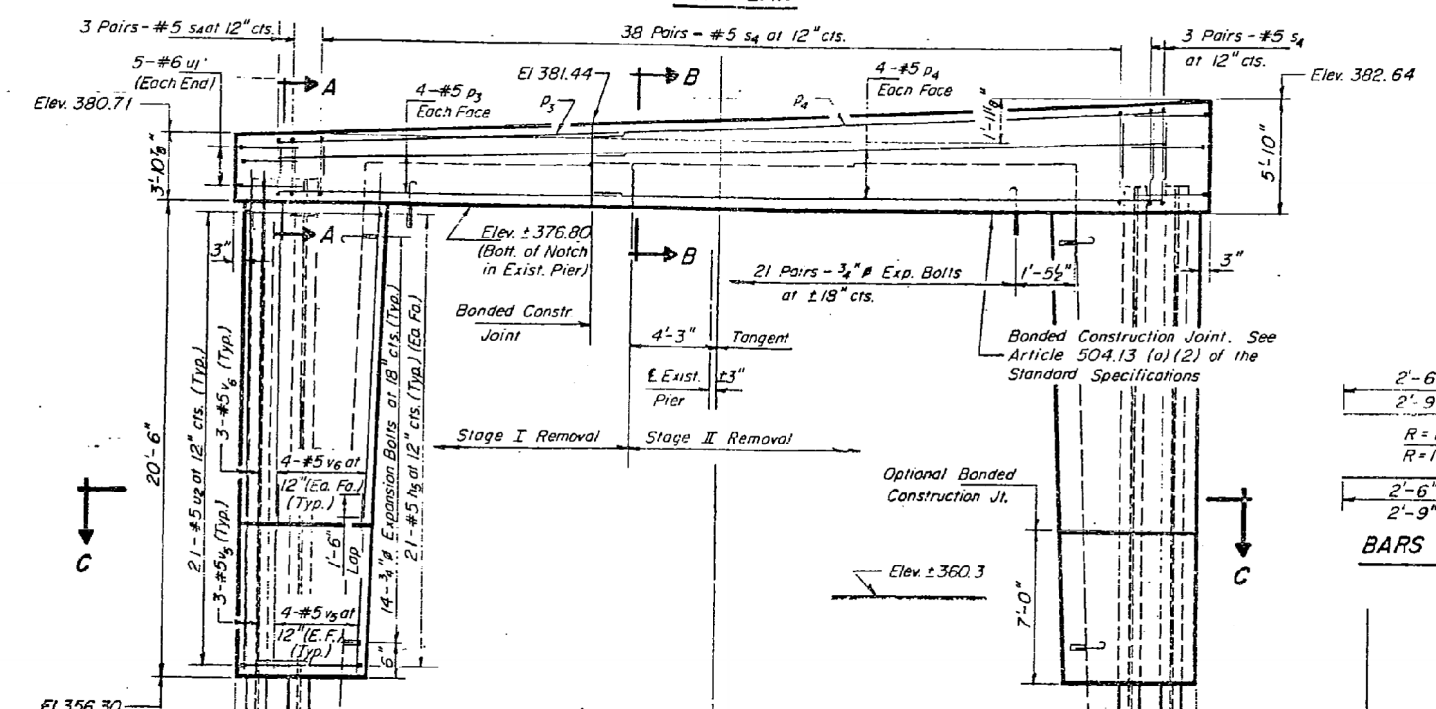
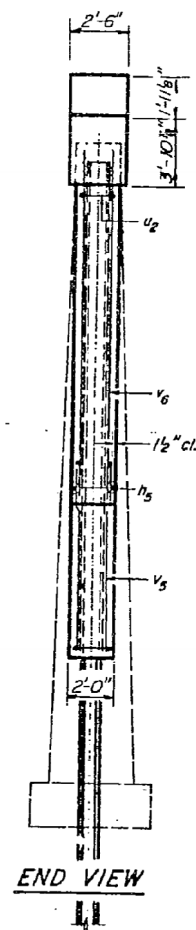
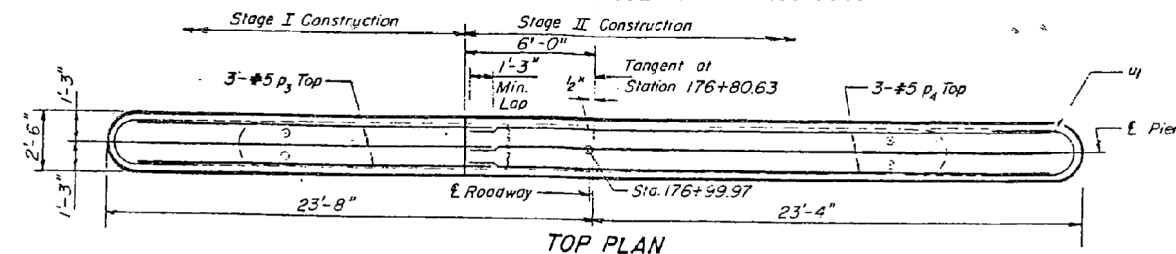


USER NAME = has	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
PLOT SCALE = 0.1667' / IN.	CHECKED - RDP	REVISED -
PLOT DATE = 10/31/2012 7:24:19 AM	DATE - 04/12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

S.S.L.	4BR	WHITE	103	47	9 SHEETS
P.L. 132					
P.L. 132					

incorporated into new construction  
hatched area indicates concrete removal.  
Space reinforcement in cap to miss dowel rods.



**PILE DATA**  
Type: Steel (HP 10x42)  
Capacity: Drive to Refusal  
Est. Length: 71'-0"  
No. Required: 3 + 1 Test Pile

DESIGNED	John A. Morris	EXAMINED	Aug 23 1976
CHECKED	P. Barnett	PASSED	
DRAWN	P. Barnett	APPROVED	
CHECKED	J. A. Morris		

**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h5	84	#5	4'-6"	
p3	11	#5	17'-9"	
p4	11	#5	28'-0"	
s4	98	#5	8'-6"	□
u1	10	#6	8'-3"	
u2	42	#5	8'-3"	
v3	22	#5	8'-6"	
v6	22	#5	15'-0"	
Class X Concrete			cu. yds	436
Reinforcement Bars			Pounds	2720
Expansion Bolts (1/4")			Each	2
Steel Piles (HP 10x42)			Lin. Ft.	72
Test Piles Steel (HP 10x42)			Each	1
Concrete Removal			cu. yds.	1

PIER #2  
F.A. RT. 132 SECTION 4BR  
WHITE COUNTY  
STA 176+80.63

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 097-0007

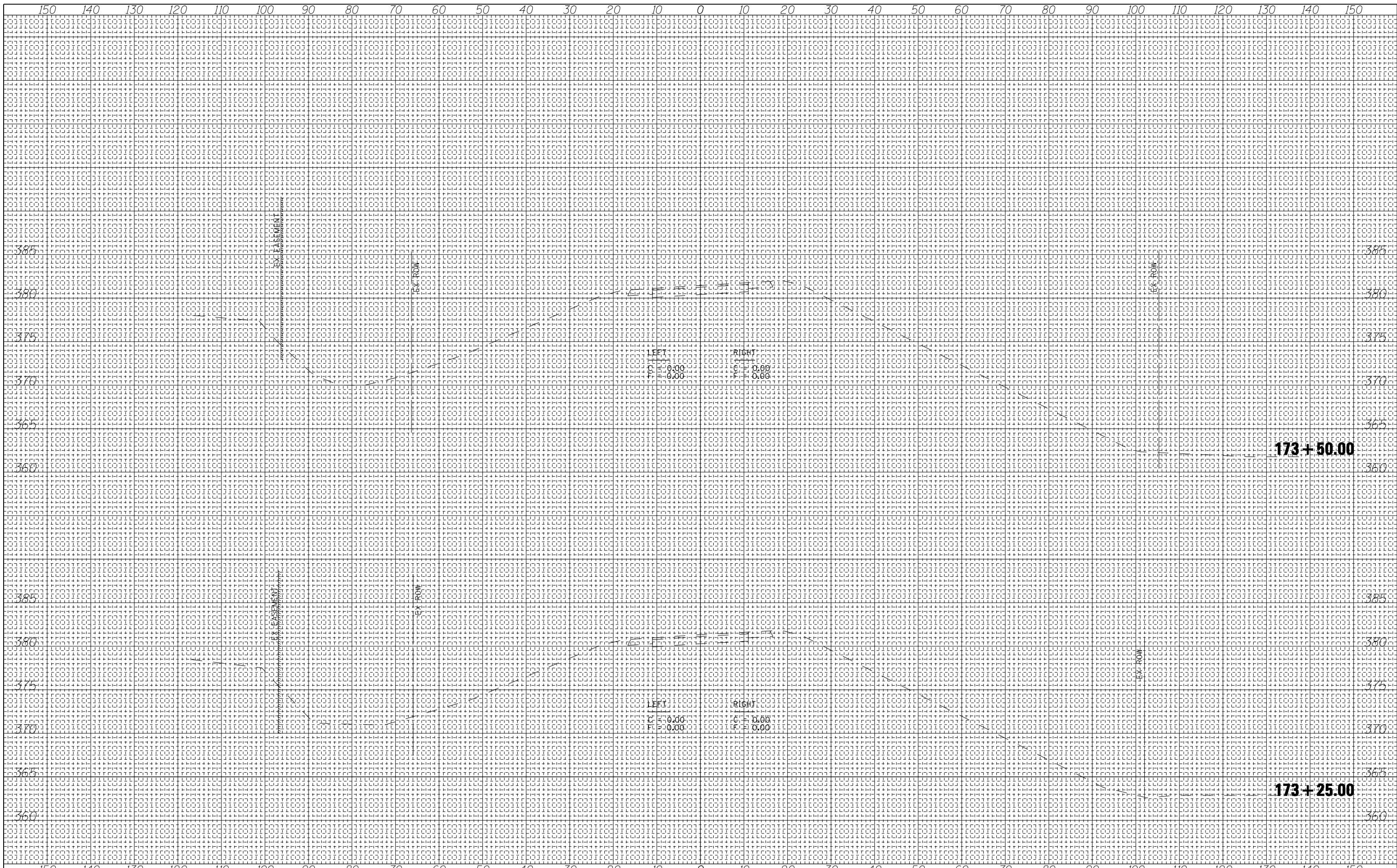
SCALE: SHEET NO. 12 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	56
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT AID	CONTRACT NO. 78154	



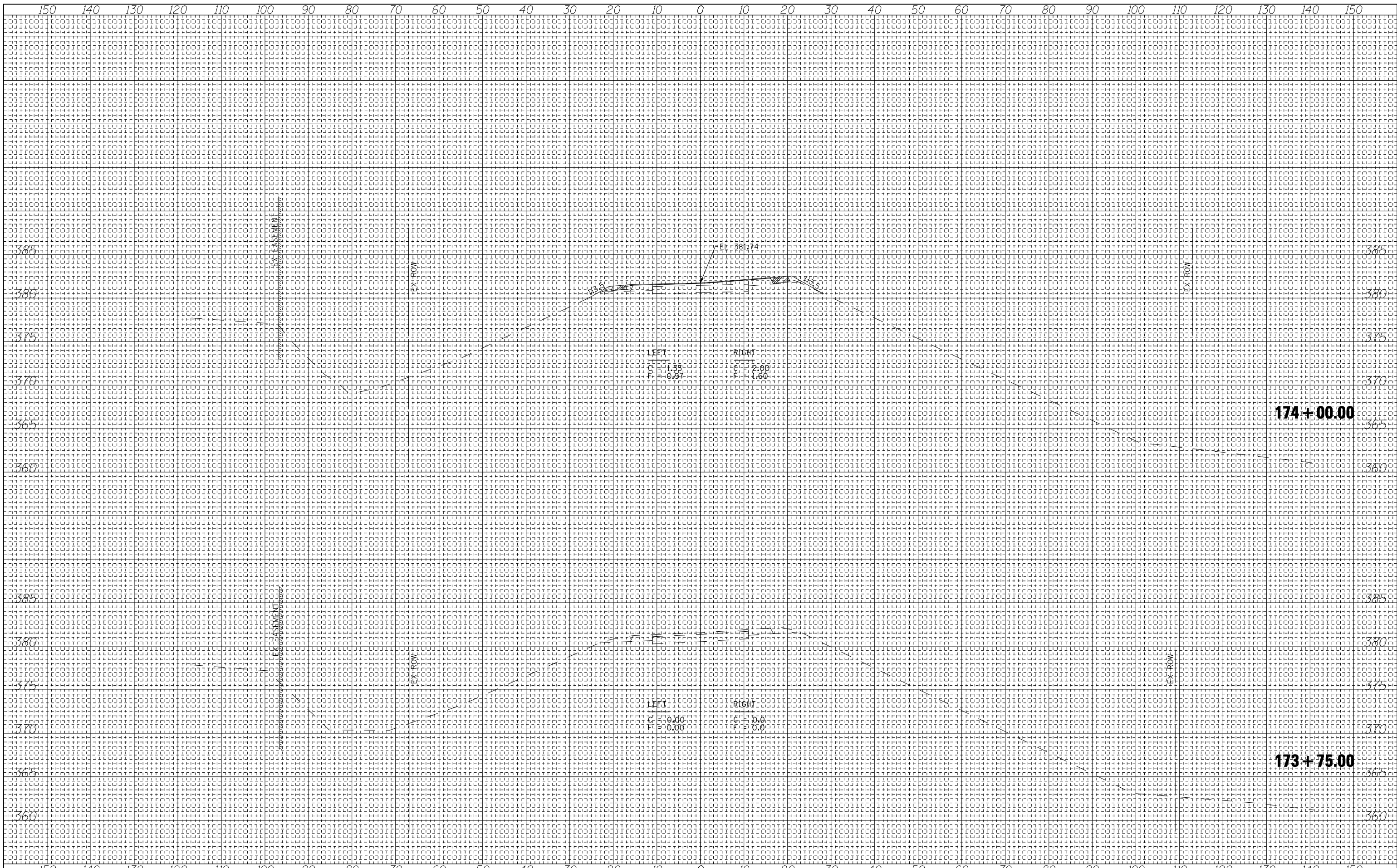
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ESCA PROJECT NO. 988.11	DRAWN - HAS	REVISED -
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PLOT DATE = 10/31/2012 7:24:31 AM	DATE - 04/12	REVISED -





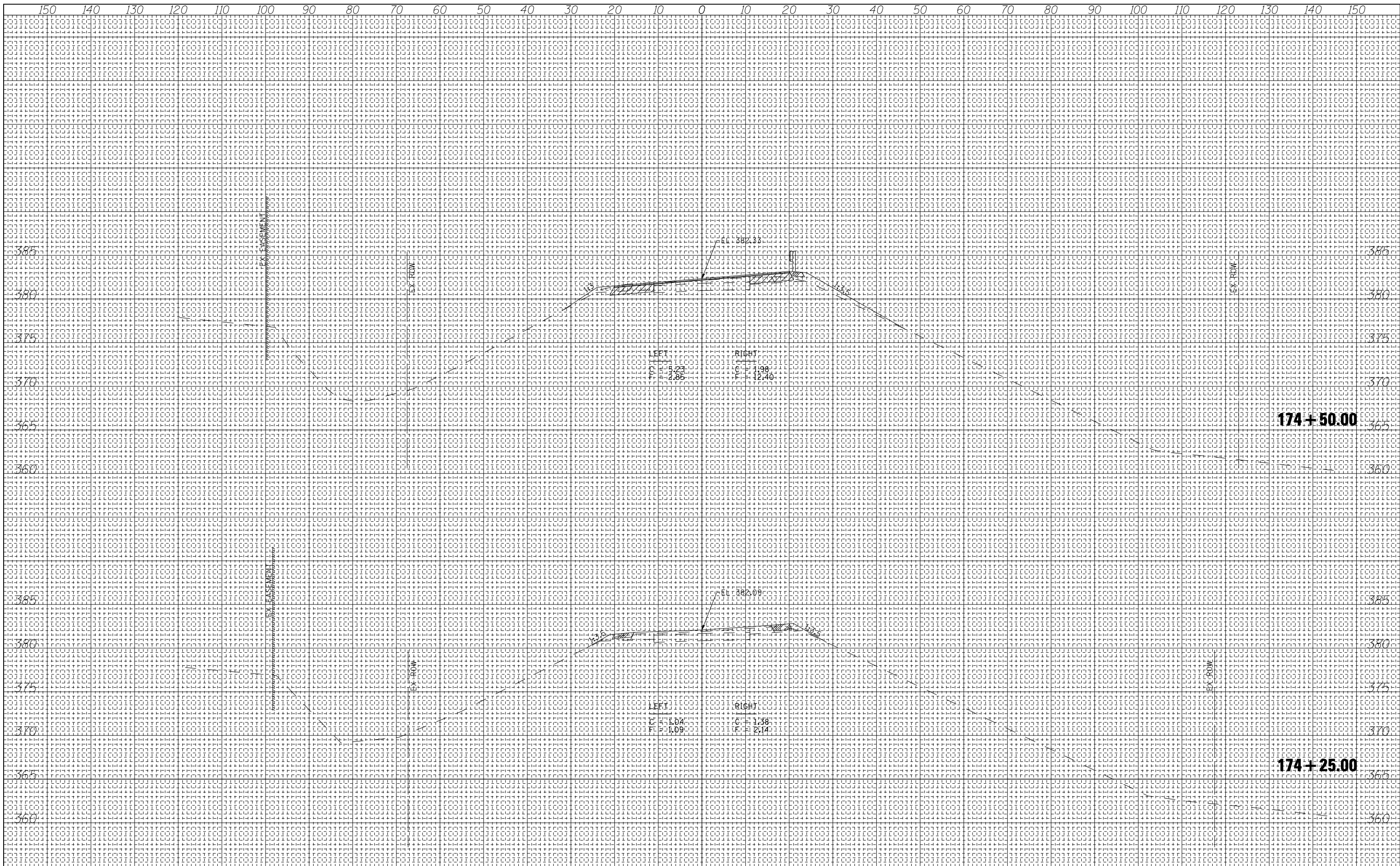
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BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	
NO.	

DATE	
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ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
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NO.	



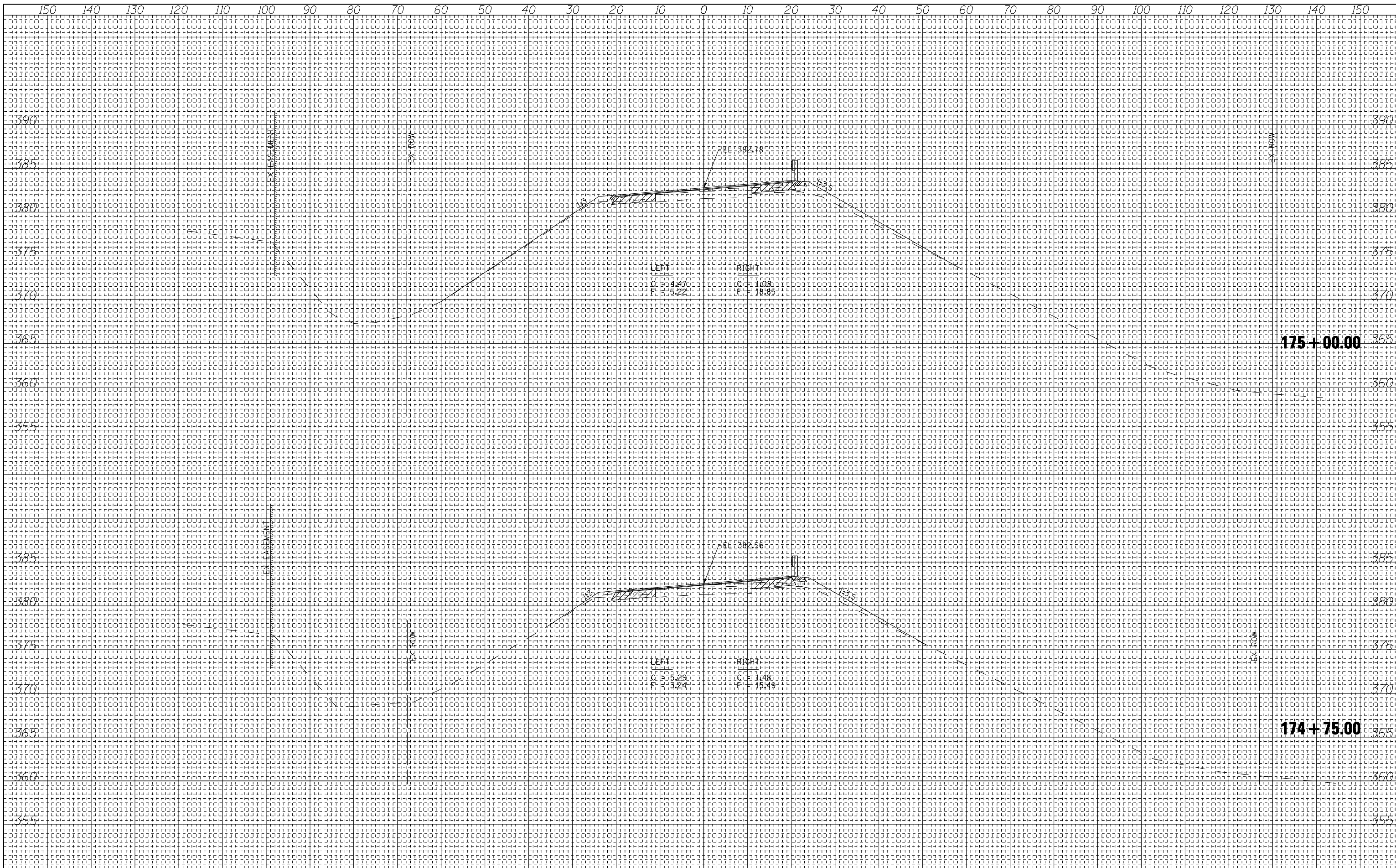
DATE	BY
NO.	AREAS CHECKED
NOTE BOOK	TEMPLATE
NO.	AREAS CHECKED
FINAL SURVEY	SURVEYED PLOTTED
NO.	AREAS CHECKED

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



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

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



BY: \_\_\_\_\_ DATE: \_\_\_\_\_

FINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

NO. \_\_\_\_\_

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

ORIGINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

NO. \_\_\_\_\_



USER NAME = hos  
 ESCA PROJECT NO. 988.11  
 PLOT SCALE = 20x0 '1' / IN.  
 PLOT DATE = 10/31/2012 7:27:52 AM

DESIGNED - JMS  
 DRAWN - RJT/HAS  
 CHECKED - RDP  
 DATE - 10/12

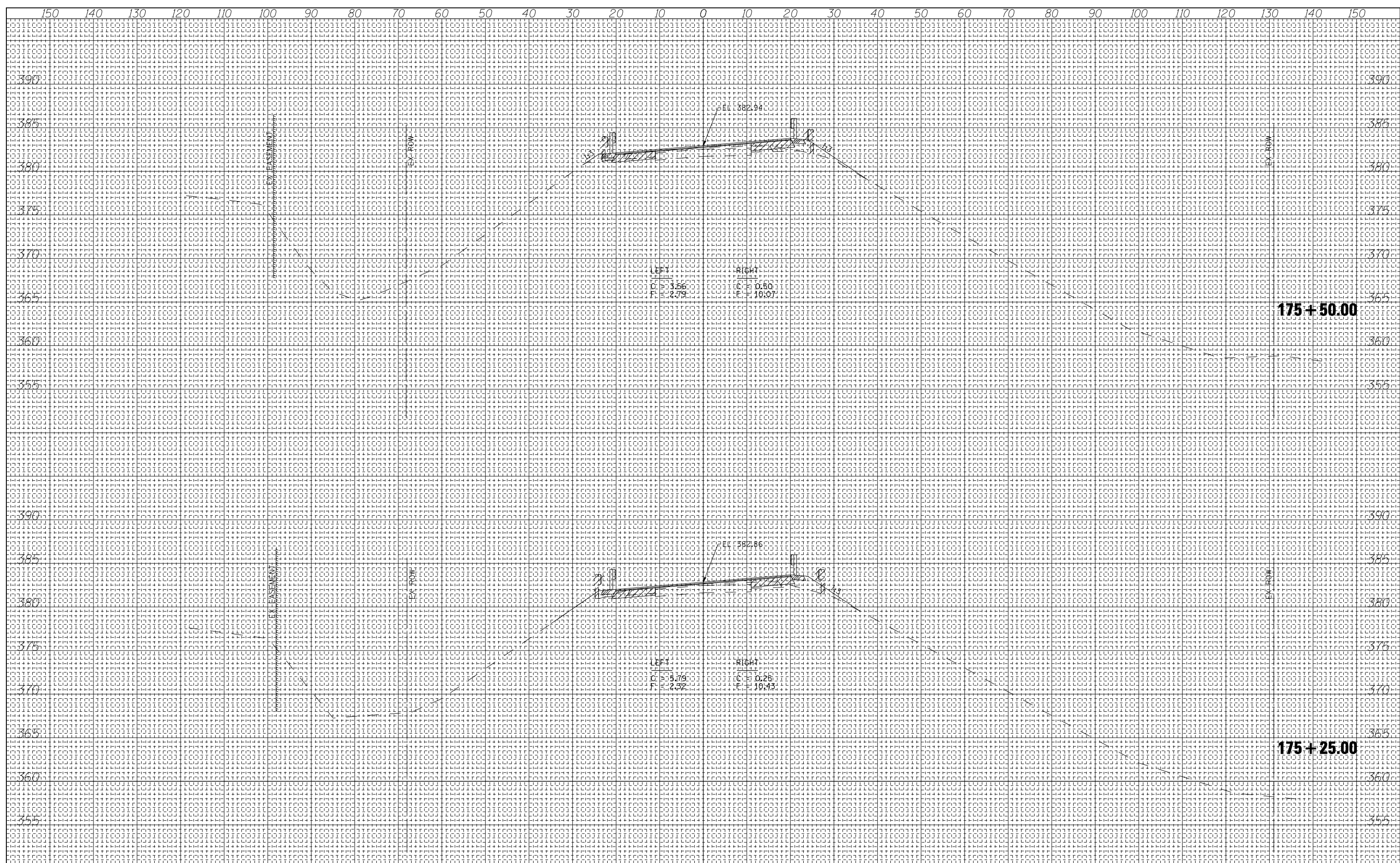
REVISED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 1 CROSS SECTIONS**

SCALE: AS SHOWN SHEET NO. 4 OF 14 SHEETS STA. 174+75.00 TO STA. 175+00.00

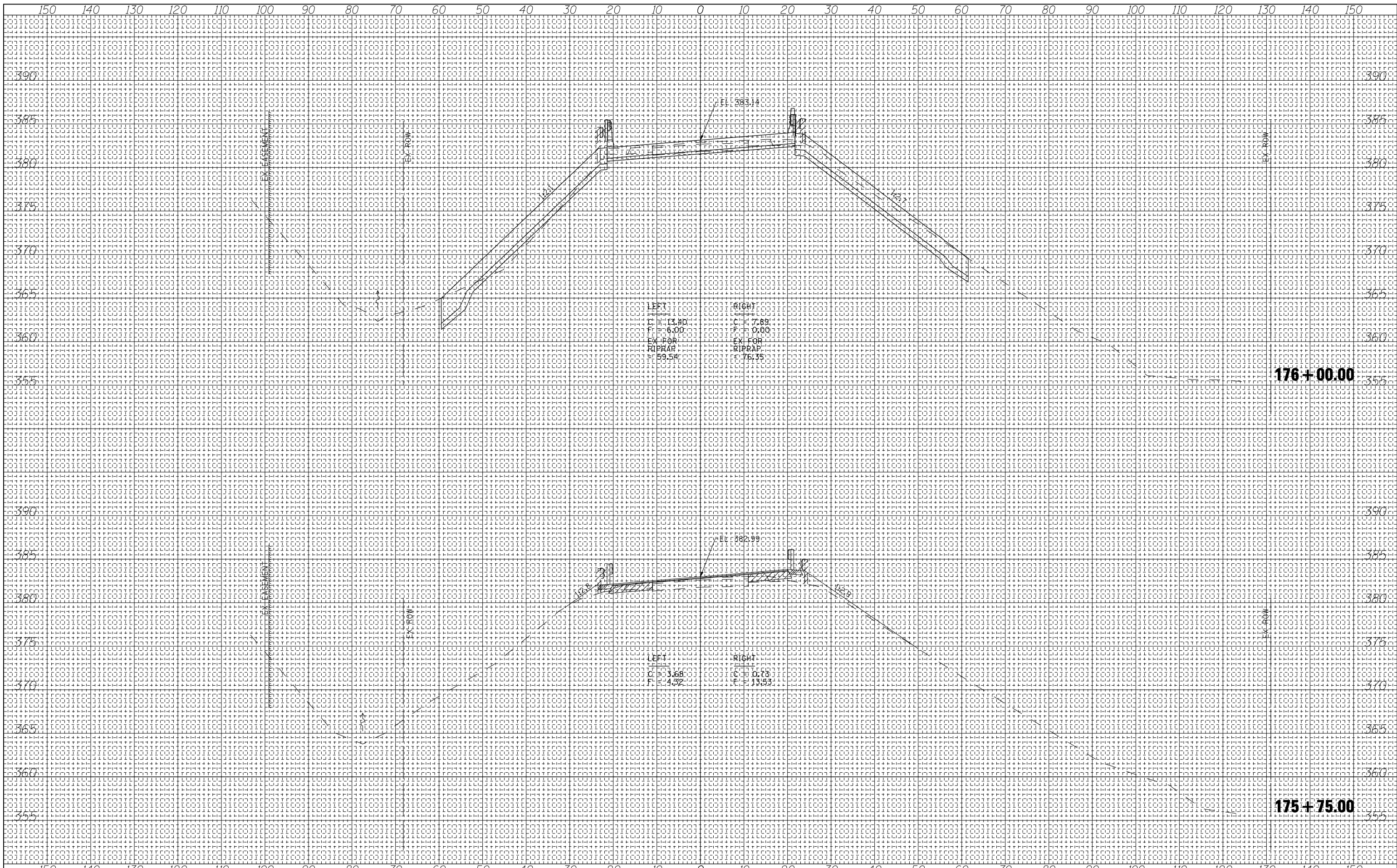
F.A.P. R.T.E. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 60
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	



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

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

	USER NAME = has	DESIGNED - JMS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 1 CROSS SECTIONS</b>			F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 61	
	ESCA PROJECT NO. 988.11	DRAWN - RJT/HAS	REVISED -		SCALE: AS SHOWN			SHEET NO. 5 OF 14 SHEETS	STA. 175+25.00	TO STA. 175+50.00	FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT AID		
	PLOT SCALE = 20'0" = 1" / IN.	CHECKED - RDP	REVISED -		CONTRACT NO. 78154								
	PLOT DATE = 10/31/2012	DATE - 10/12	REVISED -										



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

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



USER NAME = hos  
 ESCA PROJECT NO. 988.11  
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 PLOT DATE = 10/31/2012 7:28:30 AM

DESIGNED - JMS  
 DRAWN - RJT/HAS  
 CHECKED - RDP  
 DATE - 10/12

REVISED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

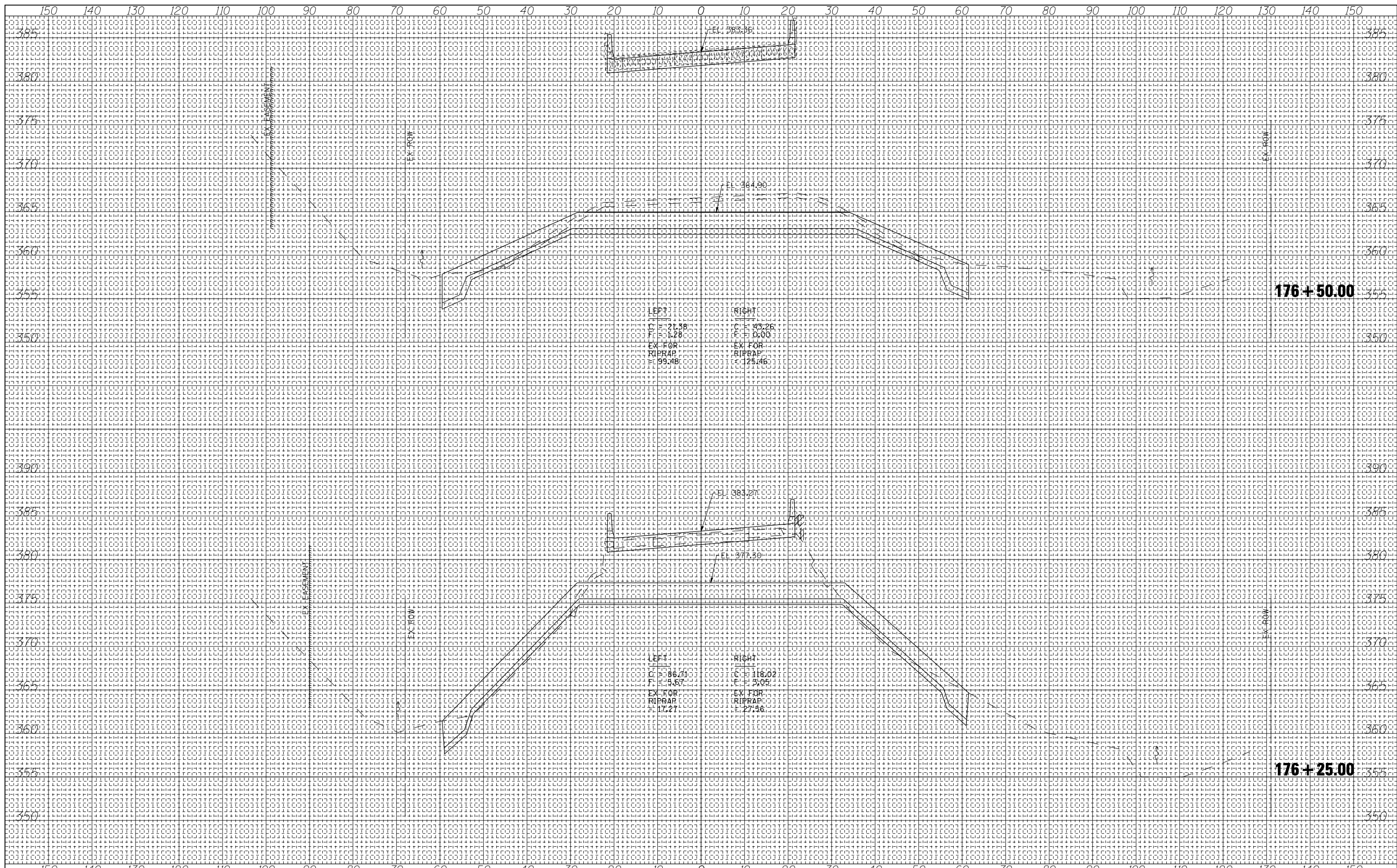
**ILLINOIS ROUTE 1 CROSS SECTIONS**

SCALE: AS SHOWN SHEET NO. 6 OF 14 SHEETS STA. 175+75.00 TO STA. 176+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	62
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	

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

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



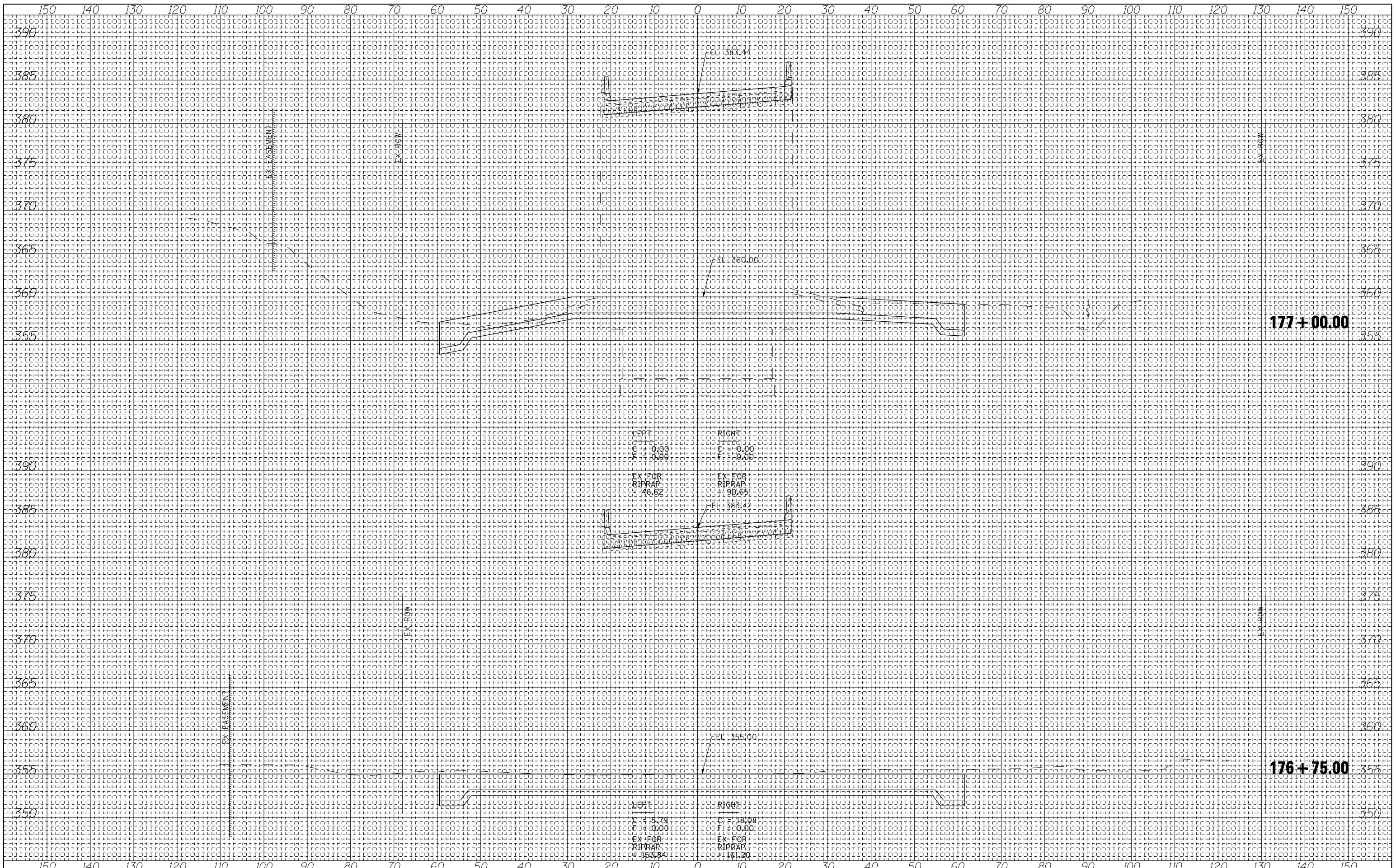
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PLOT SCALE = 20' = 1" / IN.	CHECKED - RDP	REVISD -
PLOT DATE = 10/31/2012 7:28:49 AM	DATE - 10/12	REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 1 CROSS SECTIONS**

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 63
CONTRACT NO. 78154			ILLINOIS FED. AID PROJECT AID	

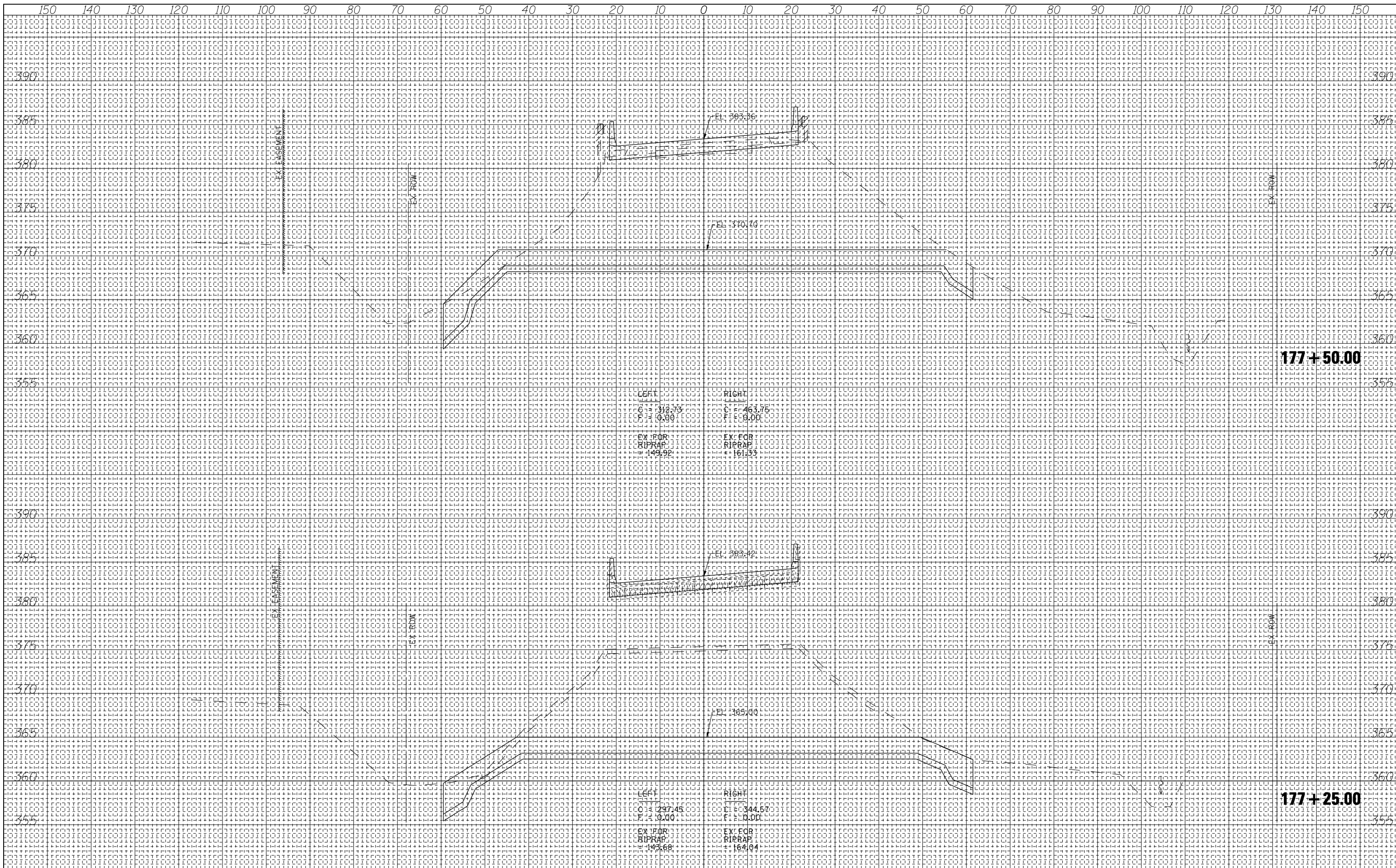
SCALE: AS SHOWN SHEET NO. 7 OF 14 SHEETS STA. 176+25.00 TO STA. 176+50.00



DATE	BY
DATE	BY
DATE	BY

DATE	BY
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BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 TEMPLATE \_\_\_\_\_  
 AREAS \_\_\_\_\_  
 CHECKED \_\_\_\_\_

FINAL SURVEY NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 TEMPLATE \_\_\_\_\_  
 AREAS \_\_\_\_\_  
 CHECKED \_\_\_\_\_

ORIGINAL SURVEY NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_



USER NAME = hos  
 ESCA PROJECT NO. 988.11  
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 PLOT DATE = 10/31/2012 7:29:27 AM

DESIGNED - JMS  
 DRAWN - RJT/HAS  
 CHECKED - RDP  
 DATE - 10/12

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 REVISED -

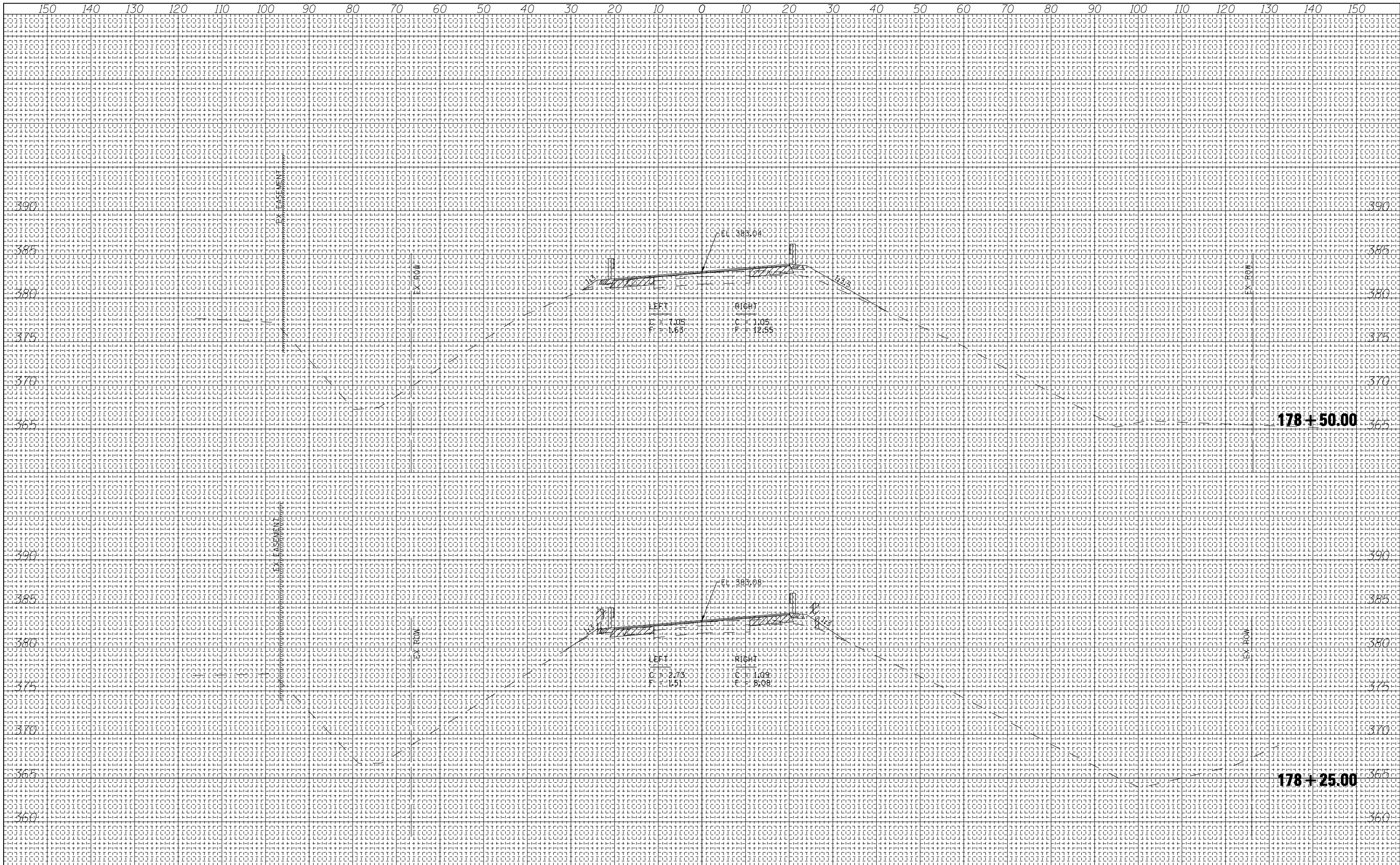
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 1 CROSS SECTIONS**

SCALE: AS SHOWN SHEET NO. 9 OF 14 SHEETS STA. 177+25.00 TO STA. 177+50.00

F.A.P. RTE. 332	SECTION 4B-1	COUNTY WHITE	TOTAL SHEETS 70	SHEET NO. 65
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID			CONTRACT NO. 78154	





BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED PLOTTED  
 SURVEY TEMPLATE  
 NOTE BOOK AREAS CHECKED  
 NO. \_\_\_\_\_

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED PLOTTED  
 SURVEY TEMPLATE  
 NOTE BOOK AREAS CHECKED  
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USER NAME = hos  
 ESCA PROJECT NO. 988.11  
 PLOT SCALE = 20'0" = 1" / IN.  
 PLOT DATE = 10/31/2012 7:30:05 AM

DESIGNED - JMS  
 DRAWN - RJT/HAS  
 CHECKED - RDP  
 DATE - 10/12

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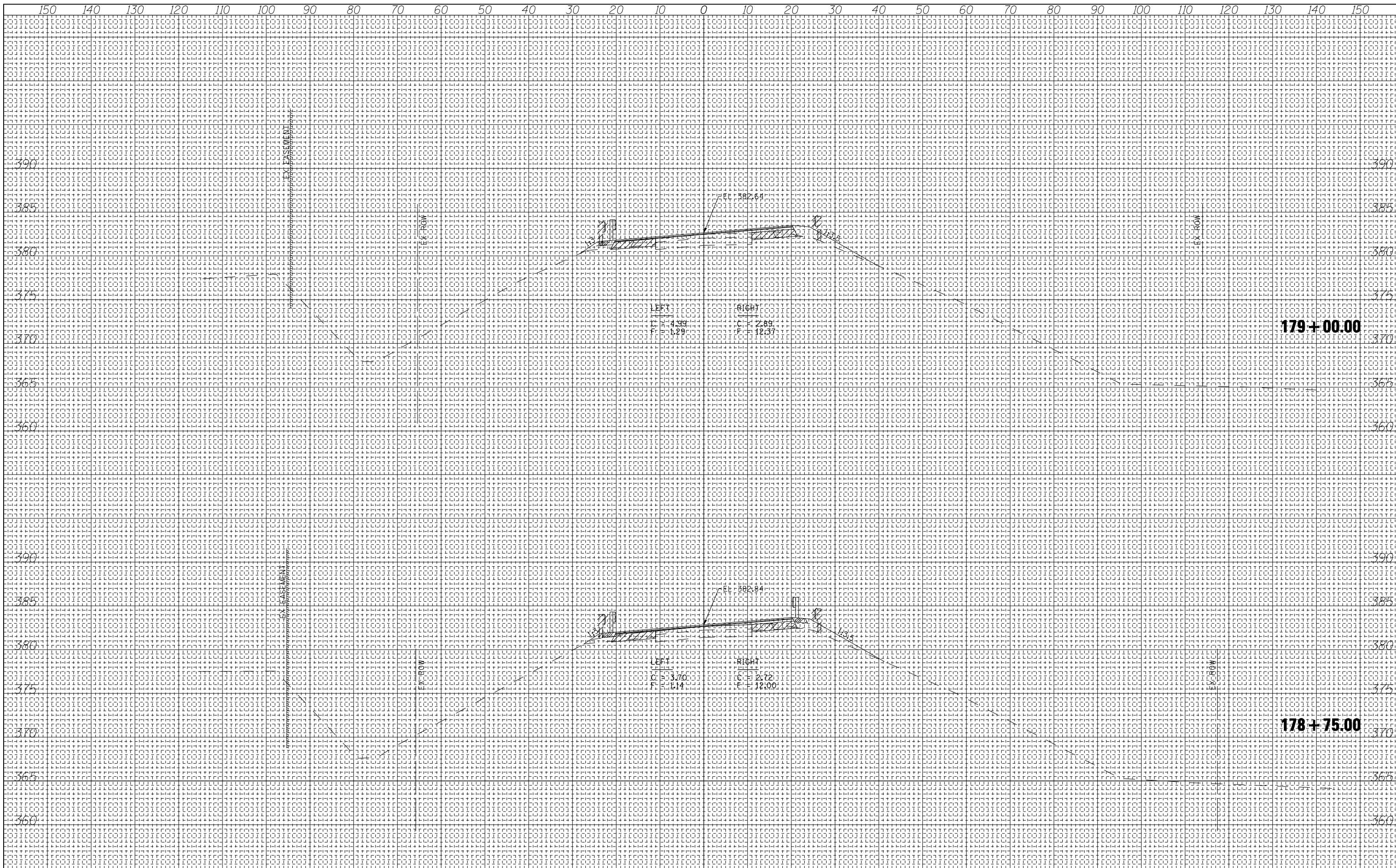
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 1 CROSS SECTIONS**

SCALE: AS SHOWN SHEET NO. 11 OF 14 SHEETS STA. 178+25.00 TO STA. 178+50.00

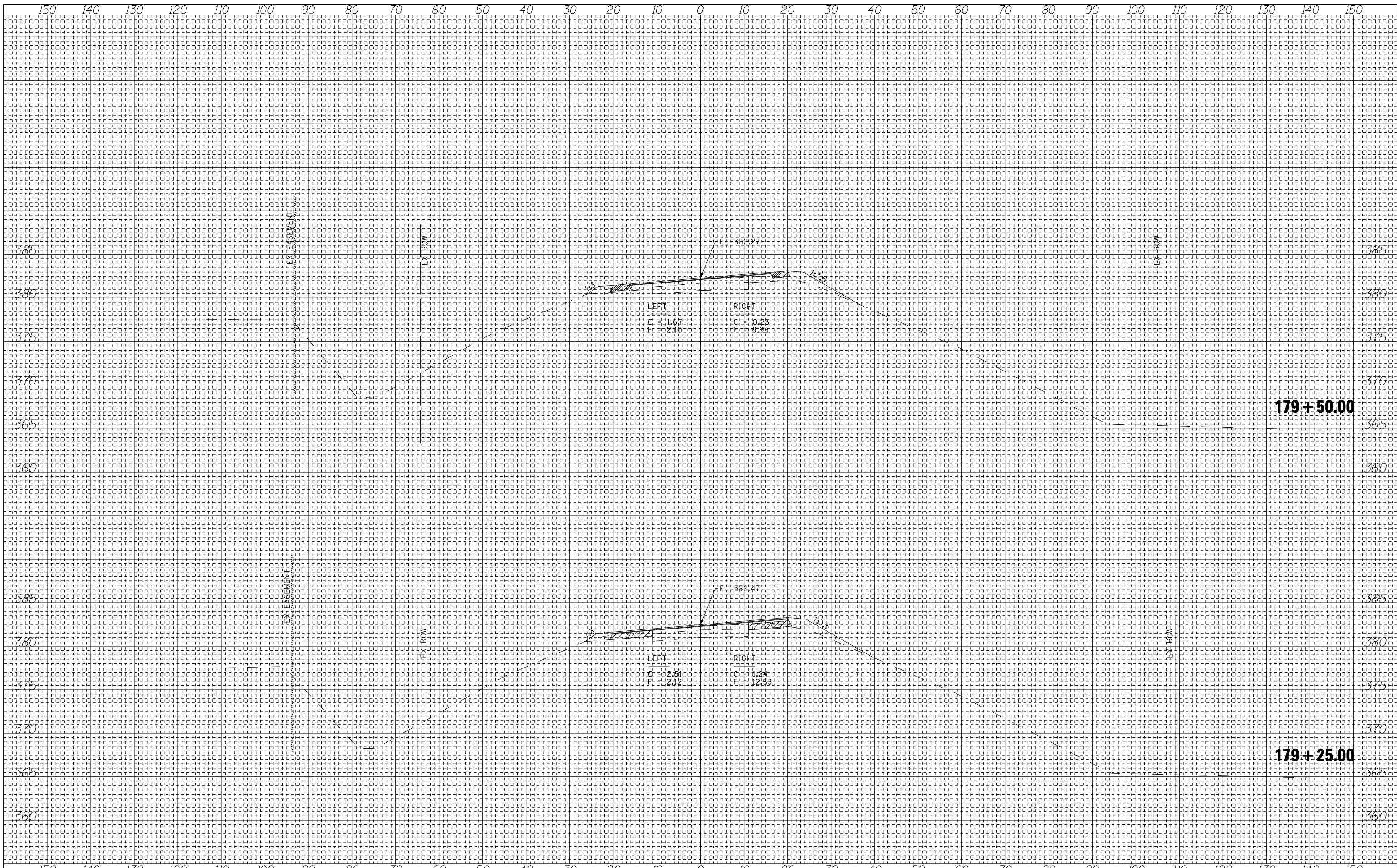
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	4B-1	WHITE	70	67

CONTRACT NO. 78154  
 FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT AID



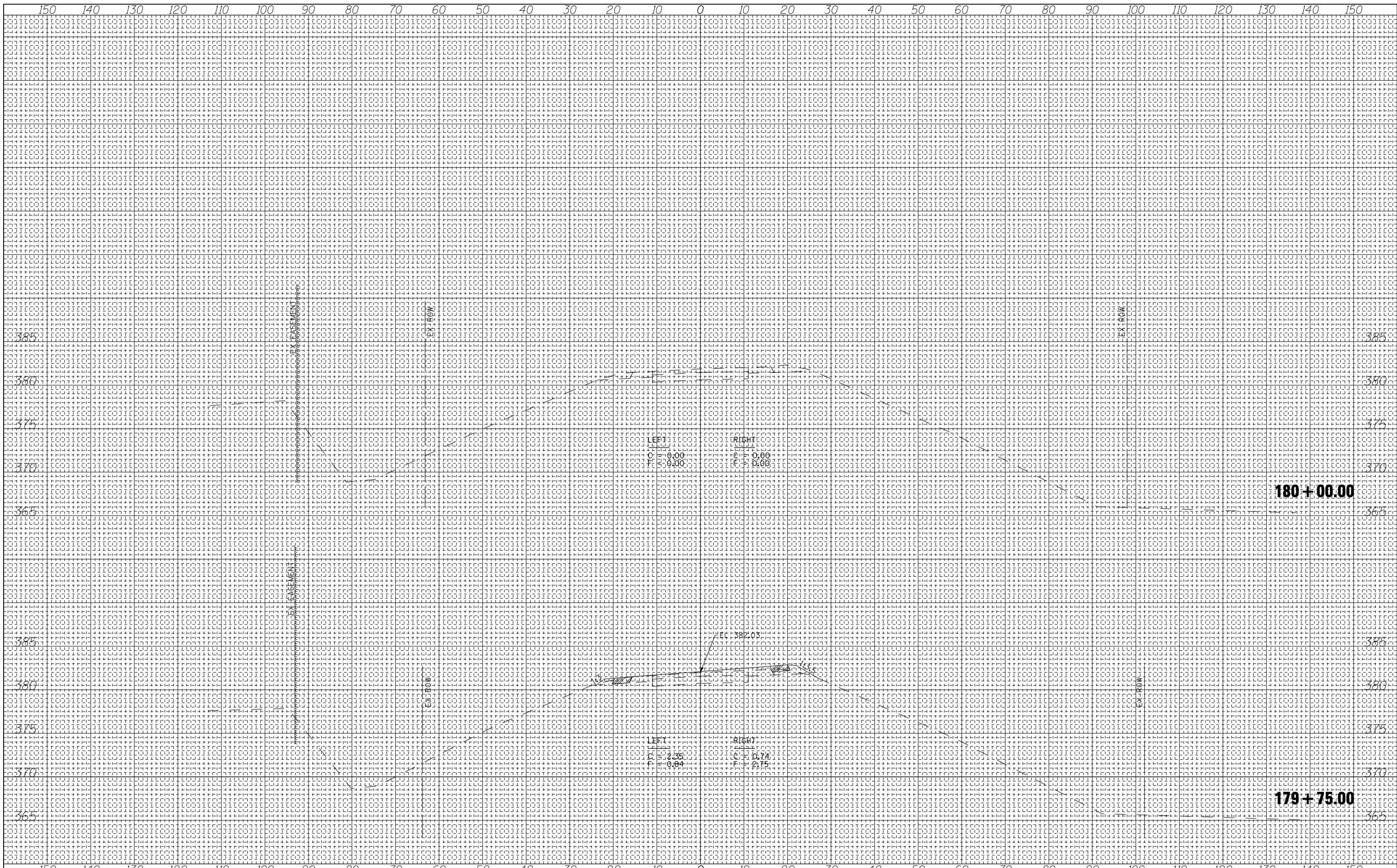
BY \_\_\_\_\_ DATE \_\_\_\_\_  
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BY \_\_\_\_\_ DATE \_\_\_\_\_  
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DATE	
BY	
FINAL SURVEY PLOTTED TEMPLATE	
NOTE BOOK AREAS CHECKED	
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DATE	
BY	
ORIGINAL SURVEY PLOTTED TEMPLATE	
NOTE BOOK AREAS CHECKED	
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DATE	BY
NO.	NO.
AREAS CHECKED	AREAS CHECKED
TEMPLATE	TEMPLATE
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NOTE BOOK	NOTE BOOK
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PLOTTED	PLOTTED
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