08-22-14 SPECIAL LETTING ITEM 029

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12-B2)B-1	WABASH	68 X	1
	ILLINOIS	CONTRACT NO. 74219		

X 68 + 1 = 69

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

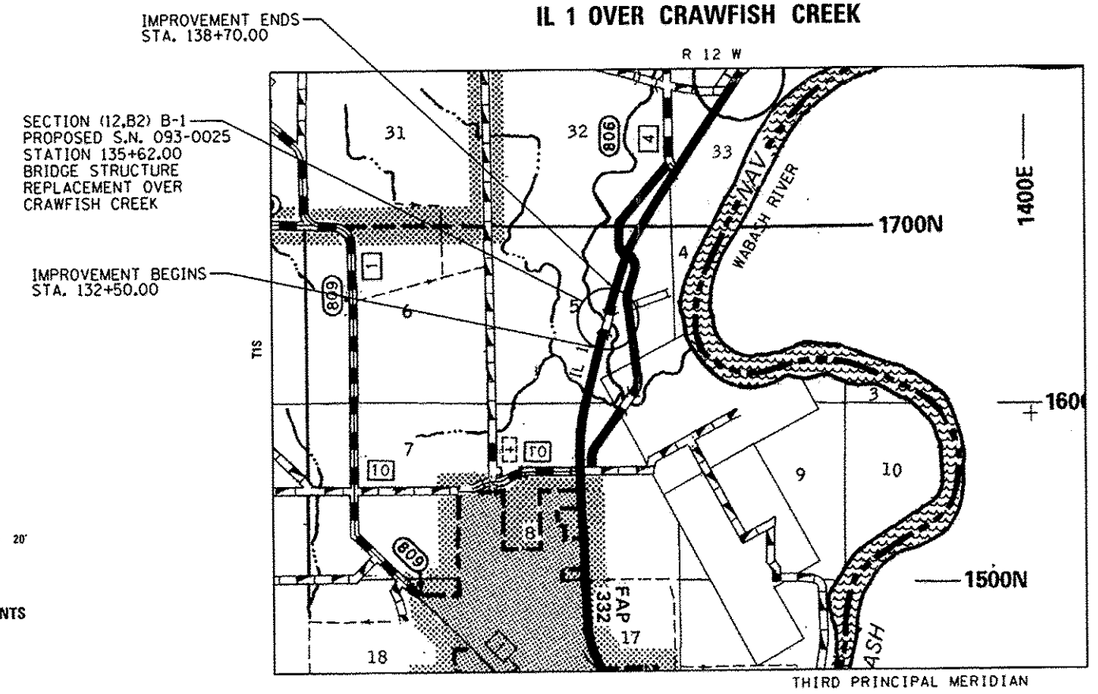
F.A.P. ROUTE 332 (IL 1)
SECTION (12,B2)B-1

BRIDGE REPLACEMENT
WABASH COUNTY

C-97-007-07

IL 1 OVER CRAWFISH CREEK

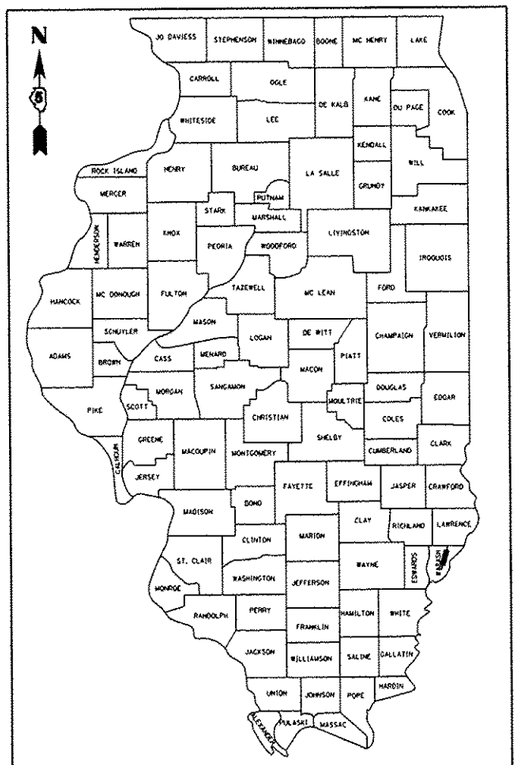
SHEET NO.	INDEX OF SHEETS
1	COVER SHEET
2	GENERAL NOTES AND STANDARDS
3-8A	SUMMARY OF QUANTITIES
9	ROADWAY TYPICAL SECTIONS & BUTT JOINT DETAIL
10-11	SCHEDULE OF QUANTITIES
12	ALIGNMENT, TIES, & BENCHMARKS
13-14	PLAN & PROFILE SHEETS
15-16	STAGE CONSTRUCTION PLANS
17	STAGE CONSTRUCTION DETAILS
18	EROSION CONTROL PLAN
19-20	DETAILS
21-51	BRIDGE PLANS
52-57	EXISTING STRUCTURE PLANS
58-68	CROSS-SECTIONS



LOCATION MAP

3 2 1 0 1 2 3 MILES
APPROXIMATE SCALE

GROSS LENGTH = 620.00 FT. = 0.117 MI.
NET LENGTH = 620.00 FT. = 0.117 MI.



LOCATION OF SECTION INDICATED THUS: —

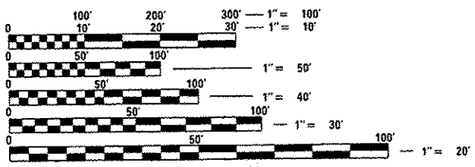
FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL

DESIGN SPEED:	60 MPH
POSTED SPEED:	55 MPH
ADT:	3450 (2010)
PV:	89.5%
SU:	5.5%
MU:	5.0%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 12 20 14
Roger L Driskell (SD)
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
July 18 20 14
John D. Baranzelli P.E./a
ENGINEER OF DESIGN AND ENVIRONMENT
July 18 20 14
Omer Osman, P.E. /a
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

SIGNATURE
June 5, 2014
DATE
LIC. EXP. DATE : Nov. 30, 2015
OUIGG ENGINEERING, INC.



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

PROJECT ENGINEER: TOM RONAN
(217) 342-8320
TOWNSHIP: MOUNT CARMEL
CONTRACT NO. 74219

DESIGN DESIGNATION
N.A.

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

1. THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2014, AND THE SPECIAL PROVISIONS INCLUDED IN THIS PROPOSAL.

2. THE PROPOSED PROJECT IS LOCATED ON ILLINOIS ROUTE 1 APPROXIMATELY 0.8 MILES NORTH OF MT. CARMEL IN WABASH COUNTY. THE WORK INCLUDED IN THIS SECTION CONSISTS OF A BRIDGE REPLACEMENT OVER CRAWFISH CREEK. ALSO INCLUDED ARE MILLING, PLACEMENT OF HOT-MIX ASPHALT LEVELING BINDER AND SURFACE COURSES, CONSTRUCTION OF APPROACH SLABS AND HOT-MIX ASPHALT SHOULDERS, GUARDRAIL REMOVAL AND REPLACEMENT, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

3. STRUCTURE NUMBER 093-0003 IS A THREE-SPAN BRIDGE THAT WILL BE REMOVED WHILE MAINTAINING TRAFFIC ON ILLINOIS ROUTE 1 UTILIZING STAGE CONSTRUCTION.

4. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

5. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

6. ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1 1/2 " UNLESS OTHERWISE NOTED.

7. 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.

8. 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.

9. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

10. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

HOT-MIX ASPHALT	112	LBS/SQ YD/IN
AGGREGATES	2.05	TONS/CU YD
BITUMINOUS MATERIALS (PRIME COAT):		
ON PAVEMENT	0.05	LBS/SQ FT
INTERMEDIATE LIFTS (FOG COAT)	0.025	LBS/SQ FT

11. 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.

12. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2 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.

13. 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.

14. EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.

15. ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

16. TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION EXCEPT AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.

17. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.

18. 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 APPLICATION ON THE COMPLETED SURFACE COURSE.

19. THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM STOP BAR TO STOP BAR.

20. THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HMA PLANT QUALITY CONTROL LAB SO THAT HMA PLANT REPORTS CAN BE EMAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

21. 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 OR COVERED.

22. REMOVAL OF THE TEMPORARY CONCRETE BARRIER IS INCLUDED IN THE PAY ITEMS TEMPORARY CONCRETE BARRIER AND RELOCATE TEMPORARY CONCRETE BARRIER.

23. THE PAY ITEM TEMPORARY RAMP HAS BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY RAMPS IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE CONTRACT UNIT PRICE PER SQUARE YARD FOR TEMPORARY RAMP SHALL INCLUDE BOTH THE INSTALLATION AND THE REMOVAL OF THE RAMPS.

24. THE TOP 4 IN. OF TOPSOIL SHALL BE STRIPPED FROM ALL AREAS WITHIN THE CONSTRUCTION LIMITS. THIS MATERIAL SHALL BE STOCKPILED AT A LOCATION APPROVED BY THE ENGINEER AND REPLACED AFTER MAJOR GRADING OPERATIONS ARE COMPLETED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION.

25. THE EXISTING FORESLOPES SHALL BE BENCHED AS SHOWN ON THE DETAILS SHEET PRIOR TO CONSTRUCTING THE PROPOSED FINISHED GRADE. THE ENGINEER WILL DETERMINE THE EXACT LOCATIONS AND APPLICATION OF THIS DETAIL. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION.

26. THE HOT-MIX ASPHALT SHOULDERS SHALL BE MILLED TO THE SAME DEPTH AS ADJACENT ROADWAY TO FACILITATE CONSTRUCTION OF HOT-MIX ASPHALT SURFACE COURSE.

27. ALL WORK NECESSARY TO ATTACH THE PIPE DRAIN TO THE ABUTMENT UNDERDRAIN PIPE, TRENCHING IN THE PIPE DRAINS AND INSTALLING THE PIPE DRAIN TO THE CONCRETE HEADWALLS IS INCLUDED IN THE PAY ITEM FOR PIPE DRAINS OF THE DIAMETER SPECIFIED.

28. POTHOLES IN THE EXISTING PAVEMENT SHALL BE PATCHED AS DIRECTED BY THE ENGINEER. HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD MIX) IS INCLUDED IN THE CONTRACT FOR PATCHING THE PAVEMENT ON ILLINOIS ROUTE 1. THE QUANTITY SHOWN IN THE PLANS IS AN ESTIMATE ONLY. THE LOCATIONS AND QUANTITIES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

29. BASED ON CURRENT INFORMATION, THE EXISTING PAVEMENT SECTION CONSISTS OF 7" HMA OVER 9" CONCRETE PAVEMENT. ASSUME A PAVEMENT REMOVAL THICKNESS OF 16" FOR THE PAY ITEM PAVEMENT REMOVAL AND 7" FOR THE PAY ITEM PAVED SHOULDER REMOVAL.

30. DUE TO THE PRESENCE OF INDIANA BATS, NO TREES MAY BE REMOVED BETWEEN MARCH 31 AND OCTOBER 1 OF ANY YEAR.

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
420401-10	BRIDGE APPROACH PAVEMENT CONNECTOR
442201-03	CLASS C & D PATCHES
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
631031-12	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
667101-02	PERMANENT SURVEY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600mm) FROM PAVEMENT EDGE
701011-04	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
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

HMA MIXTURES REQUIREMENTS

APPLICATION(S):	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N70	HOT-MIX ASPHALT SHOULDERS	HOT-MIX ASPHALT SHOULDERS	HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N70
MIXTURE USE(S):	SURFACE COURSE, (1 1/2 ")	LEVEL BINDER (MACHINE METHOD 3/4 ")	BRIDGE APPROACH CONNECTOR (FLEXIBLE)	HMA SHOULDERS (BOTTOM LIFT)	HMA SHOULDERS (TOP LIFT)	HMA BASE COURSE WIDENING/PAVEMENT PATCHING
AC/PG:	PG64-22	PG64-22	PG64-22	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS:	4.0% AT N DESIGN = 70	4.0% AT N DESIGN = 70	4.0% AT N DESIGN = 70	4.0% AT N DESIGN = 30	4.0% AT N DESIGN = 30	4.0% AT N DESIGN = 70
MIXTURE COMPOSITION:	IL-9.5	IL-9.5	IL-19.0	IL-19.0L	IL-9.5L	IL-19.0
FRICTION AGGREGATE:	MIXTURE C	N/A	N/A	N/A	MIXTURE C	N/A

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND STANDARDS

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	2
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				100% STATE ROADWAY 0004 RURAL	100% STATE BRIDGE 0011 SN 093-0025	
20100500	TREE REMOVAL, ACRES	ACRE	0.5	0.5		
20200100	EARTH EXCAVATION	CU YD	290	290		
20400800	FURNISHED EXCAVATION	CU YD	100	100		
25100630	EROSION CONTROL BLANKET	SQ YD	4840	4840		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	300	300		
28000305	TEMPORARY DITCH CHECKS	FOOT	129	129		
28000400	PERIMETER EROSION BARRIER	FOOT	1738	1738		
28100107	STONE RIPRAP, CLASS A4	SQ YD	1805		1805	
28200200	FILTER FABRIC	SQ YD	1805		1805	
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	891	891		
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	102	102		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	240	240		
40600990	TEMPORARY RAMP	SQ YD	266	266		

13

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,8218-1	WABASH	68	3
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 100% STATE ROADWAY 0004 RURAL	100% STATE BRIDGE 0011 SN 093-0025	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	148	148		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR	SQ YD	52	52		
	(FLEXIBLE)					
44000100	PAVEMENT REMOVAL	SQ YD	316	316		
44004250	PAVED SHOULDER REMOVAL	SQ YD	262	262		
44201839	CLASS D PATCHES, TYPE II, 16 INCH	SQ YD	12	12		
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	283	283		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50200100	STRUCTURE EXCAVATION	CU YD	800		800	
50200300	COFFERDAM EXCAVATION	CU YD	520		520	
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1		1	
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1		1	
50300100	FLOOR DRAINS	EACH	16		16	
50300225	CONCRETE STRUCTURES	CU YD	318		318	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	4
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				100% STATE ROADWAY 0004 RURAL	100% STATE BRIDGE 0011 SN 093-0025	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	348.9		348.9	
50300260	BRIDGE DECK GROOVING	SQ YD	923		923	
50300280	CONCRETE ENCASEMENT	CU YD	12		12	
50300300	PROTECTIVE COAT	SQ YD	1160		1160	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
50500505	STUD SHEAR CONNECTORS	EACH	3978		3978	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	112120		112120	
50800515	BAR SPLICERS	EACH	1018		1018	
51201900	FURNISHING STEEL PILES HP14X89	FOOT	1320		1320	
51202305	DRIVING PILES	FOOT	620		620	
51203900	TEST PILE STEEL HP14X89	EACH	2		2	
51500100	NAME PLATES	EACH	1		1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	92		92	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12		12	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2IB-1	WABASH	68	5
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 100% STATE ROADWAY 0004 RURAL	100% STATE BRIDGE 0011 SN 093-0025	
	52100510	ANCHOR BOLTS, 3/4"	EACH	48		48	
	58700300	CONCRETE SEALER	SQ FT	994		994	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	54		54	
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4		
	60100905	PIPE DRAINS 4"	FOOT	110	110		
*	63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6	FOOT	462.5	462.5		
		FOOT POSTS					
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4	4		
		(SPECIAL) TANGENT					
	63200310	GUARDRAIL REMOVAL	FOOT	407	407		
	66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	1	1		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	13	13		
	67100100	MOBILIZATION	L SUM	1	0.5	0.5	
	70100405	TRAFFIC CONTROL AND PROTECTION,	EACH	1	1		
		STANDARD 701321					

* SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,82)B-1	WABASH	68	6

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				100% STATE ROADWAY 0004 RURAL	100% STATE BRIDGE 0011 SN 093-0025	
70100450	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1		
	STANDARD 701201					
70100500	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	1		
	STANDARD 701326					
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	8	8		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	360	360		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2112	2112		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	120	120		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	925	925		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	875	875		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2		

12

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Default	PLOT DATE = 6/12/2014	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,8218-1	WABASH	68	7
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 100% STATE ROADWAY 0004 RURAL	CONSTRUCTION TYPE CODE: 100% STATE BRIDGE 0011 SN 093-0025	
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2112	2112		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	5	5		
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3		
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	9	9		
*	78200520	BARRIER WALL MARKERS, TYPE B	EACH	5	5		
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	420	420		
	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.9	0.9		
	X4060110	BITUMINOUS MATERIALS (PRIME COAT)	POUND	878	878		
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE	SQ YD	430	430		
		DEPTH					
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	141		141	
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28		
	Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD	TON	3	3		
		MIX)					

* SPECIALTY ITEMS

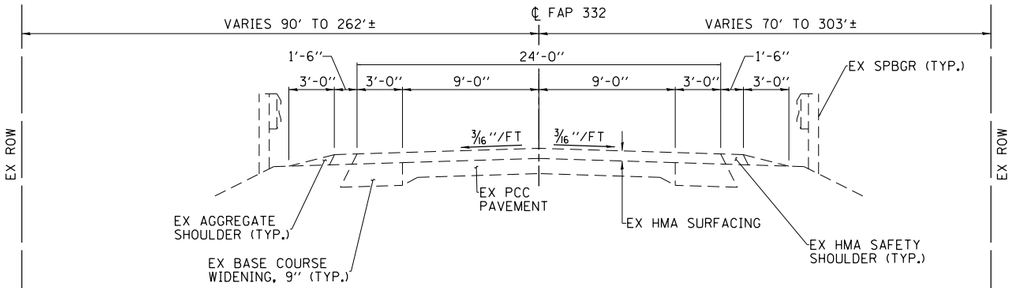
FILE NAME = c:\pw_work\pwidot\steffanmk\d0122332\D074219-sht-sog.dgn	USER NAME = steffanmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -			332	(12,B2IB-1	WABASH	68	8
	PLOT DATE = 6/12/2014	CHECKED -	REVISED -					CONTRACT NO. 74219		
Default		DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

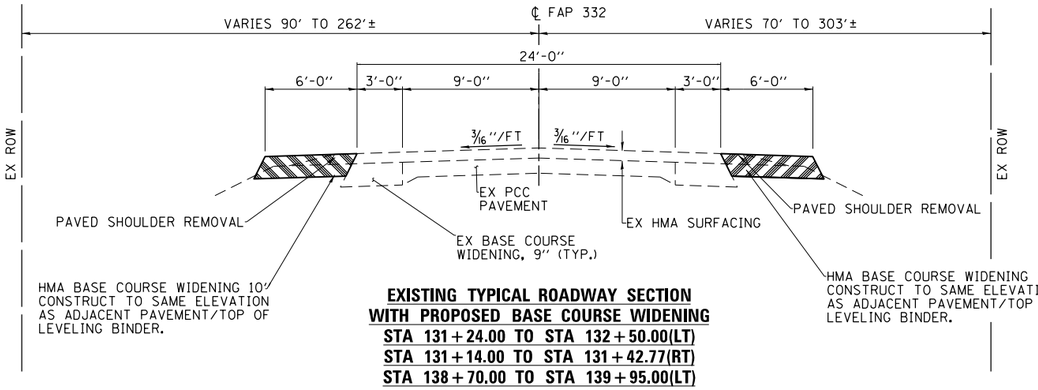
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: 100% STATE ROADWAY 0004 RURAL	100% STATE BRIDGE 0011 SN 093-0025	
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	4		4	
Z0026407	TEMPORARY SHEET PILING	SQ FT	380		380	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	190		190	
Z0065000	SETTING PILES IN ROCK	EACH	20		20	
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	100		100	

5

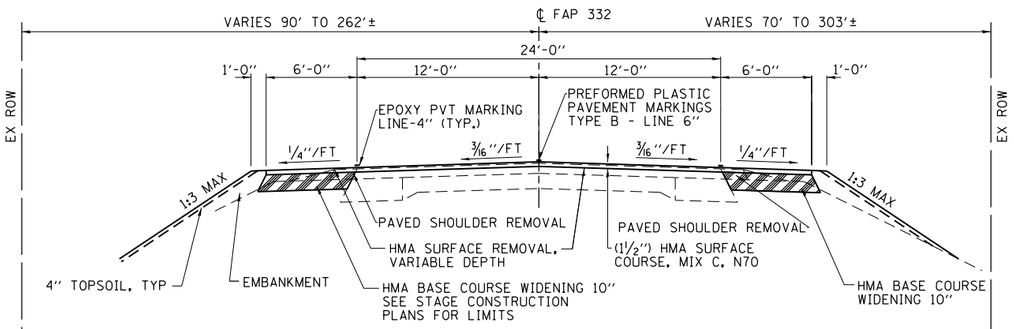
FILE NAME = c:\pw_work\pwidot\steffenmk\d0122332\D7742I9-sht-soq.dgn	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			332	(12.8218-1	WABASH	68	8A
Default	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 74219		
	PLOT DATE = 6/12/2014	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



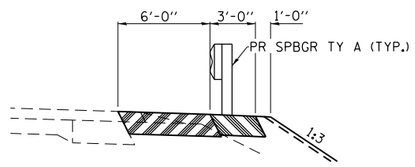
EXISTING TYPICAL ROADWAY SECTION
STA 132+50.00 TO STA 138+70.00



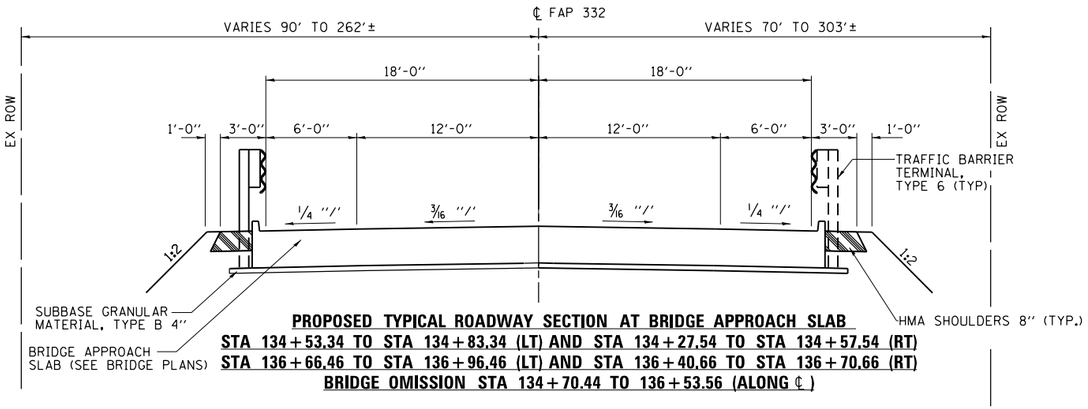
EXISTING TYPICAL ROADWAY SECTION
WITH PROPOSED BASE COURSE WIDENING
STA 131+24.00 TO STA 132+50.00(LT)
STA 131+14.00 TO STA 131+42.77(RT)
STA 138+70.00 TO STA 139+95.00(LT)
STA 138+70.00 TO STA 140+25.00(RT)



PROPOSED TYPICAL ROADWAY SECTION WITHOUT GUARDRAIL
STA 132+50.00 TO STA 132+55.48 (LT)
STA 138+06.02 (RT)/STA 138+18.73 (LT) TO STA 138+70.00

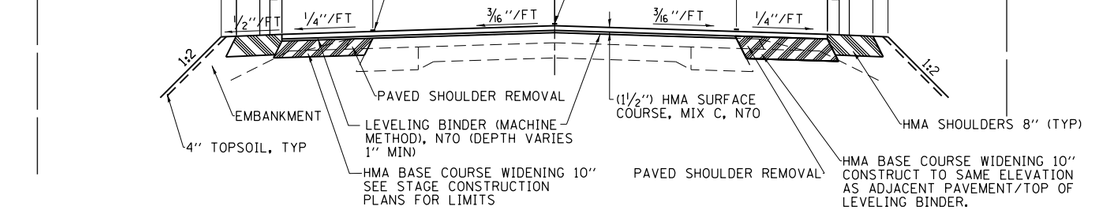


PROPOSED TYPICAL SHOULDER SECTION
STA 131+42.77 TO STA 132+50.00 RT

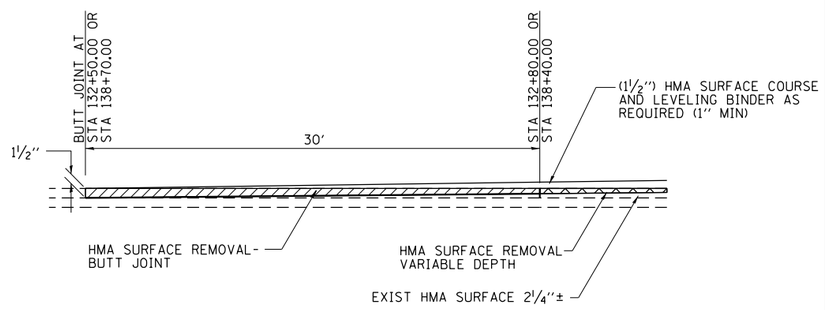


PROPOSED TYPICAL ROADWAY SECTION AT BRIDGE APPROACH SLAB
STA 134+53.34 TO STA 134+83.34 (LT) AND STA 134+27.54 TO STA 134+57.54 (RT)
STA 136+66.46 TO STA 136+96.46 (LT) AND STA 136+40.66 TO STA 136+70.66 (RT)
BRIDGE OMISSION STA 134+70.44 TO 136+53.56 (ALONG ℄)

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)
(SEE STD. 420401 FOR DETAIL INFORMATION)
STA 134+47.34 TO STA 134+53.34 (LT) AND STA 134+21.54 TO STA 134+27.54 (RT)
STA 137+96.46 TO STA 137+02.46 (LT) AND STA 136+70.66 TO STA 136+76.66 (RT)



PROPOSED TYPICAL ROADWAY SECTION WITH GUARDRAIL
STA 132+55.48 TO STA 134+47.34 LT
STA 133+42.77 TO STA 134+21.54 RT
STA 137+02.46 TO STA 138+18.73 LT
STA 136+76.66 TO STA 138+06.02 RT



BUTT JOINT DETAIL

FILE NAME = D774219-sht-typical.dgn	USER NAME = nhaasis	DESIGNED - CMM	REVISED -
		DRAWN - TWK	REVISED -
	PLOT SCALE = 10.0000 '/ in.	CHECKED - MTM	REVISED -
	PLOT DATE = 1/24/2014	DATE - 1/24/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY TYPICAL SECTIONS & BUTT JOINT DETAIL

SCALE: 1/2"=1'-0" | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	9
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE

LOCATION	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
		SQ FT	SQ FT
SHORT TERM PAVEMENT MARKING	SKIP DASH ℄	70	
SHORT TERM PAVEMENT MARKING	EDGELINE	50	
TEMPORARY PAVEMENT MARKING	SKIP DASH ℄		
TEMPORARY PAVEMENT MARKING	EDGELINE		
STA 129+34 TO 131+24	SKIP DASH ℄		25
STA 131+04 TO 132+50	EAST EDGELINE		49
STA 131+50 TO 139+72	WEST EDGELINE		274
STA 138+70 TO 140+10	EAST EDGELINE		47
STA 139+95 TO 141+79	SKIP DASH ℄		25
	TOTALS	120	420

PAVEMENT MARKING SCHEDULE

LOCATION	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE	TEMPORARY PAVEMENT MARKING - LINE
			4"	4"
		FOOT	FOOT	FOOT
STA 129+34 TO 141+79	YELLOW SKIP-DASH CENTERLINE	208	320	320
STA 131+04 TO 140+25	EAST WHITE EDGE LINE	80	921	921
STA 131+24 TO 139+95	WEST WHITE EDGE LINE	72	871	871
	TOTALS	360	2112	2112

① INCLUDES 2 APPLICATIONS

PAVEMENT MARKERS SCHEDULE

LOCATION	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	RAISED REFLECTIVE PAVEMENT MARKER
	EACH	EACH
NORTH APPROACH		2
SOUTH APPROACH		3
BRIDGE	3	
TOTALS	3	5

BASE COURSE SCHEDULE

LOCATION	HMA BASE COURSE WIDENING 10"
	SQ YD
STA 131+14 TO 134+23.94, RT	207
STA 131+24 TO 134+73.98, LT	229
STA 136+45.98 TO 139+95 LT	224
STA 136+79.06 TO 140+25, RT	231
TOTAL	891

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL		STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	TERMINAL MARKER, DIRECT APPLIED	GUARDRAIL REMOVAL
	TYPE 6	TYPE 1 (SPECIAL) TANGENT					
	EACH	EACH	FOOT	EACH	EACH	EACH	FOOT
NE QUADRANT	1	1	65.625	2	2	1	101
SE QUADRANT	1	1	215.625	4		1	102
NW QUADRANT	1	1	53.125	1	3	1	102
SW QUADRANT	1	1	128.125	2		1	102
TOTALS	4	4	462.5	9	5	4	407

HMA SURF REMOVAL AND TEMP RAMP SCHEDULE

LOCATION	HMA SURF REMOVAL VARIABLE DEPTH	HMA SURF REMOVAL BUTT JOINT	TEMPORARY RAMP
	SQ YD	SQ YD	SQ YD
STA 132+50 TO 132+80		120	20
STA 132+80 TO 133+28.85	196		
STA 137+81.67 TO 138+40	234		
STA 138+40 TO 138+70		120	20
NORTH BRIDGE APPROACH			103
SOUTH BRIDGE APPROACH			123
TOTALS	430	240	266

REMOVAL SCHEDULE

LOCATION	PAVEMENT REMOVAL	PAVED SHOULDER REMOVAL
	SQ YD	SQ YD
STA 134+34.44 TO 134+64.00	113	
STA 136+36.00 TO 136+89.56	203	
STA 131+14 TO 134+23.94, RT		64
STA 131+24 TO 134+73.98, LT		65
STA 136+45.98 TO 139+95, LT		67
STA 136+79.06 TO 140+25, RT		66
TOTALS	316	262

PAVING SCHEDULE

LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	BRIDGE APPR PVMT CONNECTOR (FLEXIBLE)	HMA SURFACE COURSE, MIX "C", N70	HMA SHOULDERS 8"	LEVELING BINDER (MACHINE METHOD), N70
	POUND	SQ YD	TON	SQ YD	TON
STA 132+50 TO 134+40.44	459	26	74		63
STA 136+83.56 TO 138+70	419	26	74		39
STA 131+26.77 TO 134+48.17				104	
STA 132+39.48 TO 134+73.38				75	
STA 136+50.62 TO 138+22.02				54	
STA 136+75.83 TO 138+34.73				50	
TOTALS	878	52	148	283	102

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

USER NAME = steffenmk	DESIGNED - ELH	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - HAS/JLF	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -	
PLOT DATE = 6/12/2014 11:33:06 AM	DATE - 06/09/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	10
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

LOCATION	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NE QUADRANT CUTS & FILLS	60	45			100	-55
SE QUADRANT CUTS & FILLS	120	90			890	-800
NW QUADRANT CUTS & FILLS	60	45			120	-75
SW QUADRANT CUTS & FILLS	50	37			100	-63
RIPRAP			400	300		+300
STRUCTURE EXCAVATION			800	600		+600
TOTALS	290	217	1200	900	1210	-93

NOTES;

1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)•0.75

TREE REMOVAL SCHEDULE

LOCATION	TREE REMOVAL, ACRES
	ACRE
NE QUADRANT	0.07
SE QUADRANT	0.30
NW QUADRANT	0.06
SW QUADRANT	0.06
TOTAL	0.50

ABUTMENT DRAINAGE SCHEDULE

LOCATION	CONCRETE HEADWALLS FOR PIPE DRAINS	PIPE DRAINS 4''
	EACH	FOOT
NORTH ABUTMENT	2	55
SOUTH ABUTMENT	2	55
TOTALS	4	110

EROSION CONTROL & SEEDING SCHEDULE

LOCATION	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL SEEDING (3 APPLICATIONS)	EROSION CONTROL BLANKET	SEEDING CLASS 2 (SPECIAL)
	FOOT	FOOT	POUND	SQ YD	ACRE
NE QUADRANT	25	474	51	823	0.17
SE QUADRANT	57	424	150	2420	0.40
NW QUADRANT	25	375	48	774	0.16
SW QUADRANT	22	465	51	823	0.17
TOTALS	129	1738	300	4840	0.9

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

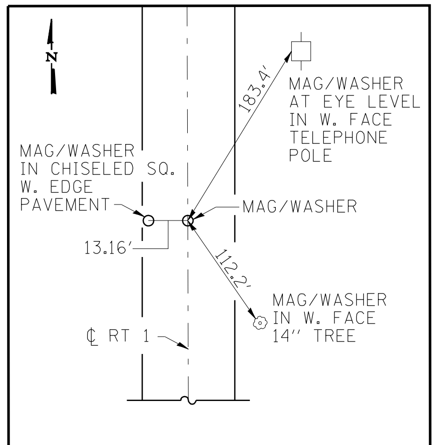
USER NAME = steffenmk	DESIGNED - ELH	REVISED -
ESCA PROJECT NO. 933.14	DRAWN - HAS/JLF	REVISED -
PLOT SCALE = 0.1667 ' / in.	CHECKED - ELH	REVISED -
PLOT DATE = 6/12/2014 11:37:06 AM	DATE - 06/09/14	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

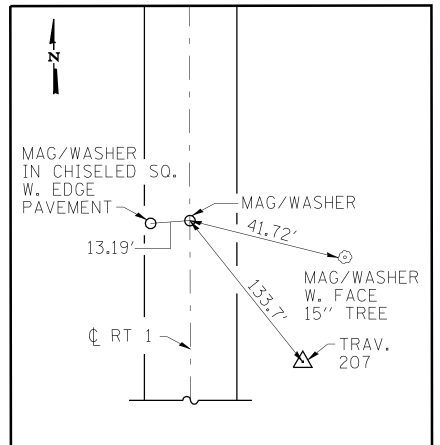
SCHEDULES OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	11
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



POT STA 147+00 (NORTH)

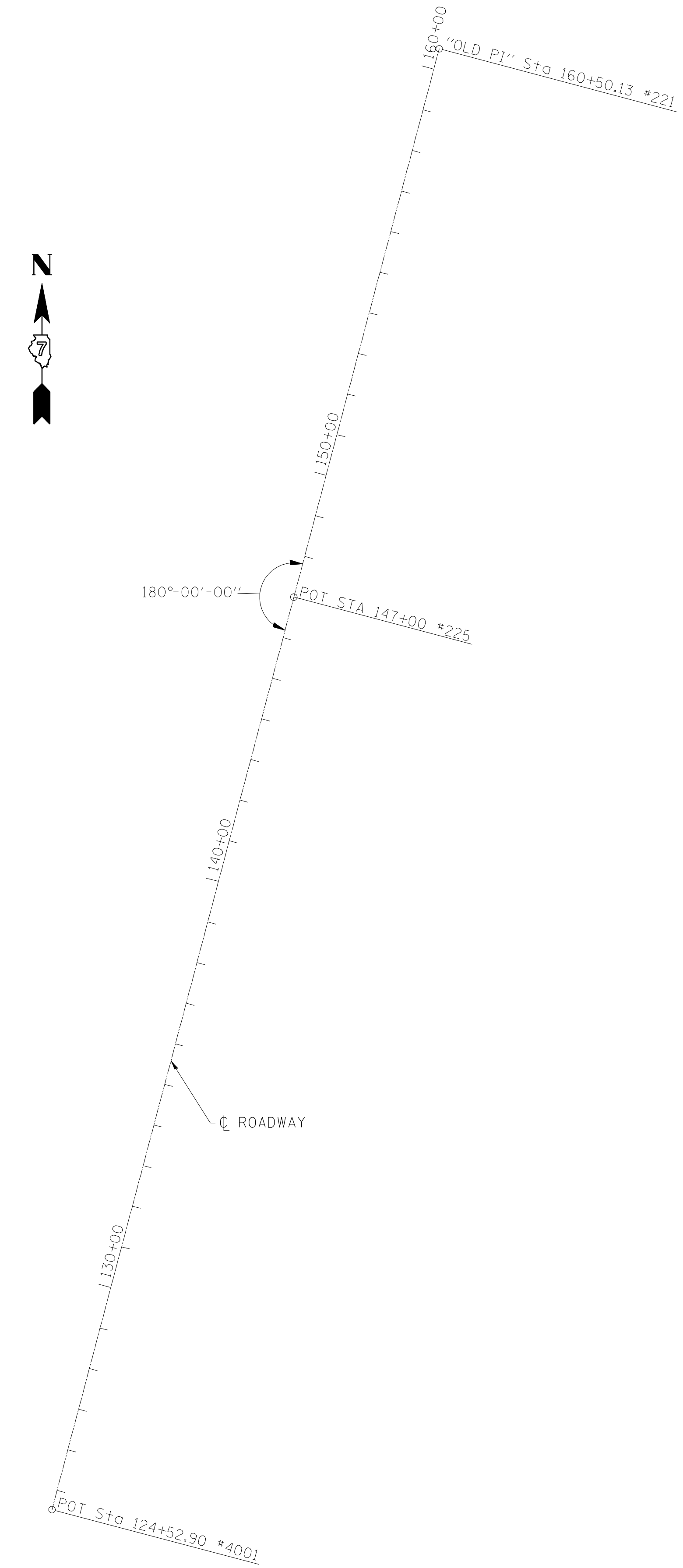


POT STA 124+52.90 (SOUTH)

BENCHMARK DATA

BENCHMARK 313 CHISELED SQ. ON SW CORNER OF BRIDGE
ELEVATION 410.1238

BENCHMARK 314 CHISELED SQ. ON NE CORNER OF BRIDGE
ELEVATION 410.1168



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ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS	USER NAME = has	DESIGNED - ELH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT, TIES AND BENCHMARKS		
	ESCA PROJECT NO. 933.14	DRAWN - JLF	REVISED -				
	PLOT SCALE = 0.1667 ' / IN.	CHECKED - ELH	REVISED -				
	PLOT DATE = 6/10/2014 8:39:38 AM	DATE - 06/09/14	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	12
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXIST. ROW

SECTION 5, T15, R12W, 3RD PM

102' GUARDRAIL REMOVAL

℄ EX SN 093-0003
STA 135+50
THREE SPANS
RC SLAB DECK ON
ROLLED STEEL BEAMS
35'-8" OUT TO OUT DECK
172'-0" BK TO BK ABUTMENTS

CRAWFISH CREEK

BRIDGE APPROACH
PAVEMENT CONNECTOR
(FLEXIBLE), TYP

BEGIN PROJECT
STATION 132+50.00

TBT, TY 1 (SPECIAL)
TANGENT, TYP

10'
TYP.

HMA BASE COURSE WIDENING 10"

125' SPBGR TY A

CONST LIMITS

+24.00

+55.48

+34.44

+40.44

90'

6"

12'

12'

6"

131

℄ FAP 332 (IL 1)

132

133

134

135+00

136

137

+89.56

+83.56

MATCH LINE STA 137+10.00

102' GUARDRAIL REMOVAL

+14.00

70'

+42.77

HMA BASE COURSE WIDENING 10"

HMA SHOULDERS 8" (TYP)

TBT TY 6, TYP

212.5' SPBGR TY A

62.5' SPBGR TY A

CONST LIMITS

CONST LIMITS

CONST LIMITS

EXIST. ROW

LEGEND

HMA SURFACE REMOVAL-BUTT JOINT

PAVEMENT REMOVAL

TREE REMOVAL, ACRES

SPECIAL DITCH RT
STA 131+50 TO STA 133+00

℄ PR SN 093-0025
STA 135+62
THREE SPANS
RC SLAB DECK ON
ROLLED STEEL BEAMS
39'-2" OUT TO OUT DECK
184'-4" BK TO BK ABUTMENTS

20 0 20 40
SCALE IN FEET

PLAN
SURVEYED
PLOTTED
CROSS CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

425 420 415 410 405 400 395 390 385

200.00' V.C.

+50.00
EL. 409.67

+0.04%

+0.60%

VPI STA. 133+50.00
EL. 409.71

+50.00
EL. 410.31

+62.00
EL. 410.38

+0.60%

+0.60%

VPI STA. 135+62.00
EL. 410.98

+0.60%

-0.60%

+62.00
EL. 410.38

+70.00
EL. 410.33

EX PG FAP 332

PR STRUCTURE

EX STRUCTURE

SPECIAL DITCH RT

+50.00
EL 394.61

-0.52%

+00.00
EL 393.82

409.63
409.65
409.67 409.67
409.68 409.73
409.67 409.85
409.55 410.05
409.50 410.31
409.44 410.57
409.47 410.68
409.51 410.64
409.50 410.45
409.65 410.16

131+50 132+00 132+50 133+00 133+50 134+00 134+50 135+00 135+50 136+00 136+50 137+00

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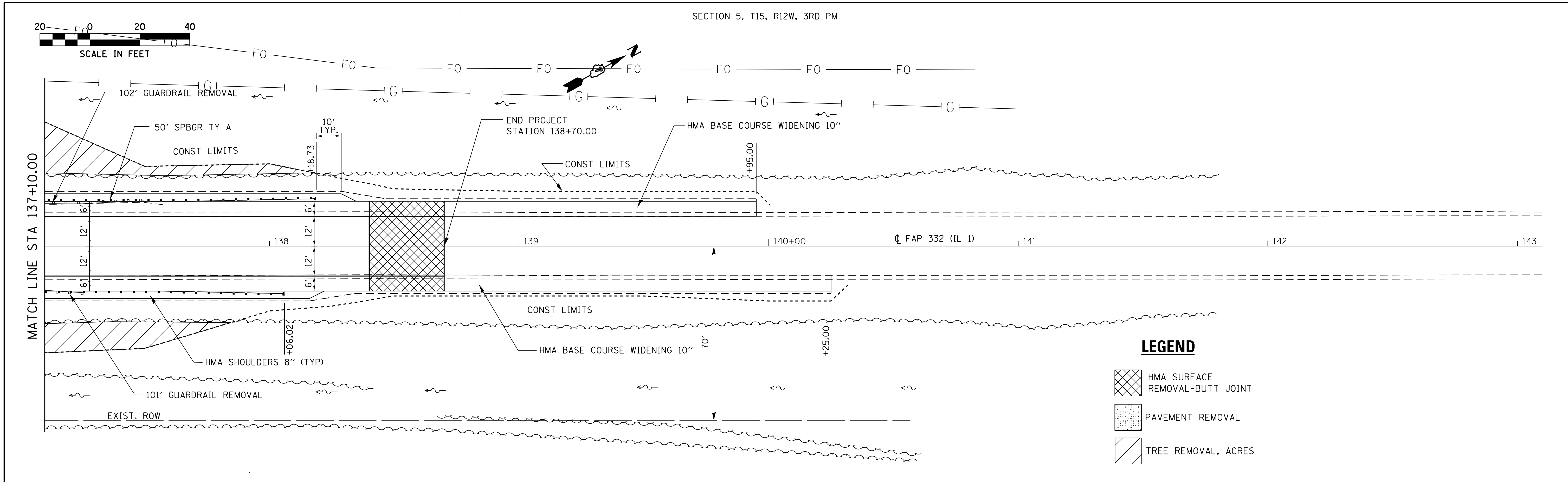
		DRAWN - TKW	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MTM	REVISED -
	PLOT DATE = 6/4/2014	DATE - 6/4/2014	REVISED -

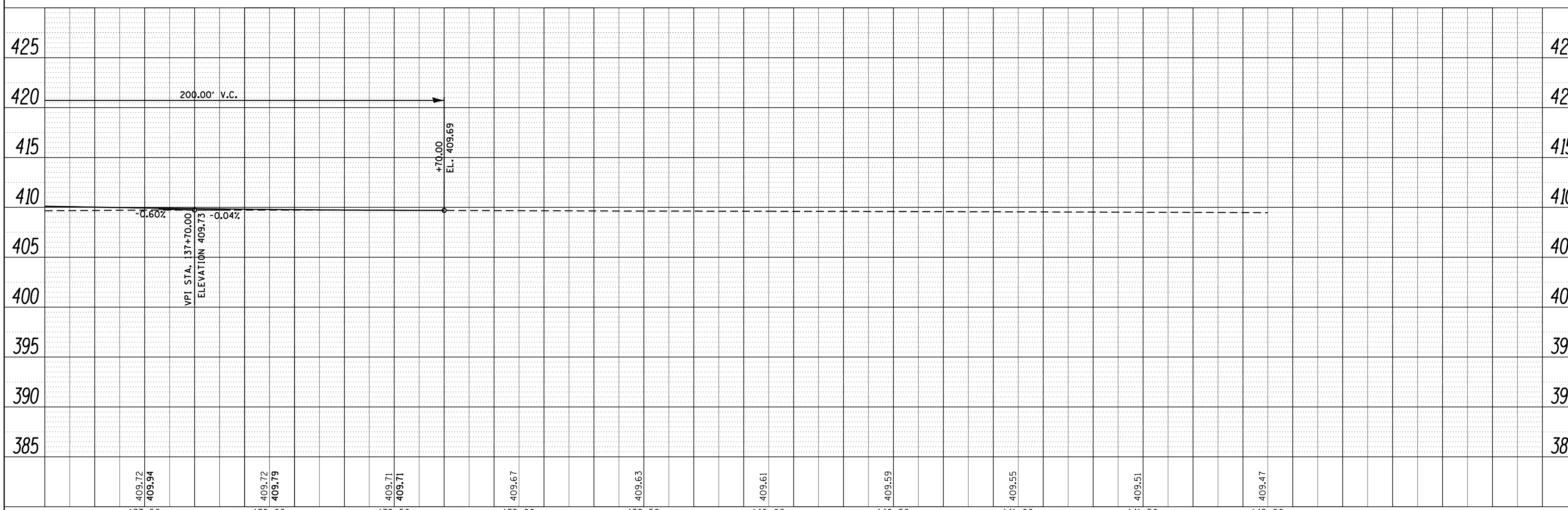
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 128+00.00 TO STA. 137+10.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	13
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			





PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R/T OF WAY CHECKED, CADD FILE NAME, NOTE BOOK NO. ___, BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, STA. NOTED, STRUCTURE NOTATIONS CHKD, NOTE BOOK NO. ___, BY, DATE

FILE NAME = D774219-sht-plnpr.dgn	USER NAME = twalker	DESIGNED - MCV	REVISED -
		DRAWN - TKW	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MTM	REVISED -
	PLOT DATE = 6/4/2014	DATE - 6/4/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

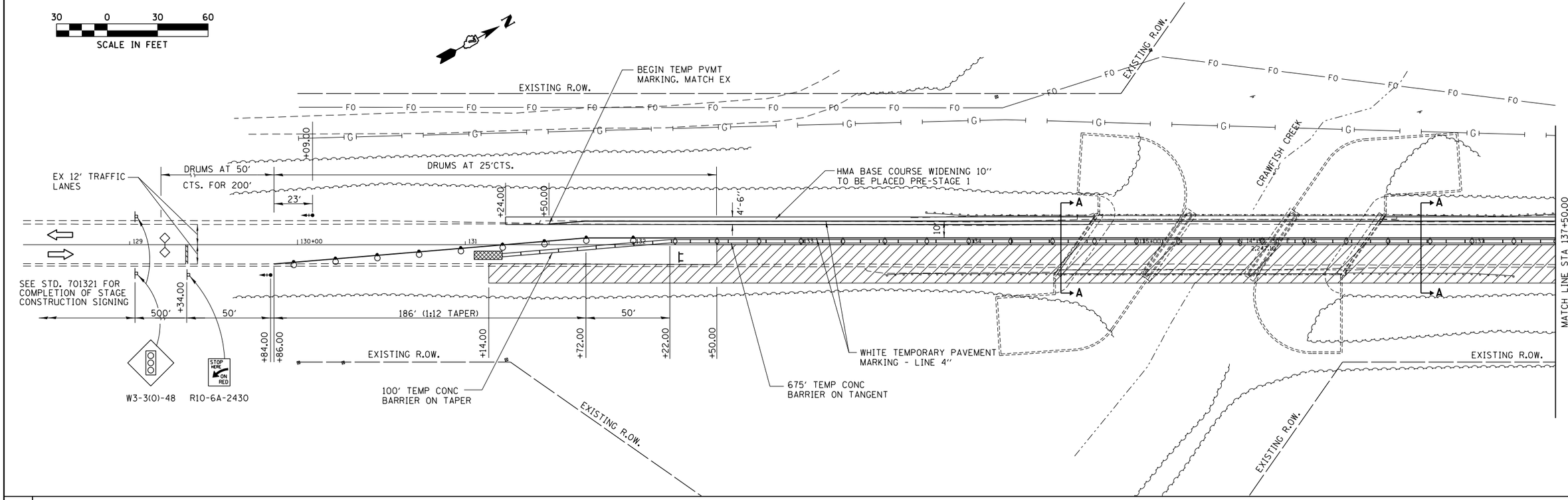
PLAN AND PROFILE

SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. 137+10.00 TO STA. 143+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	14

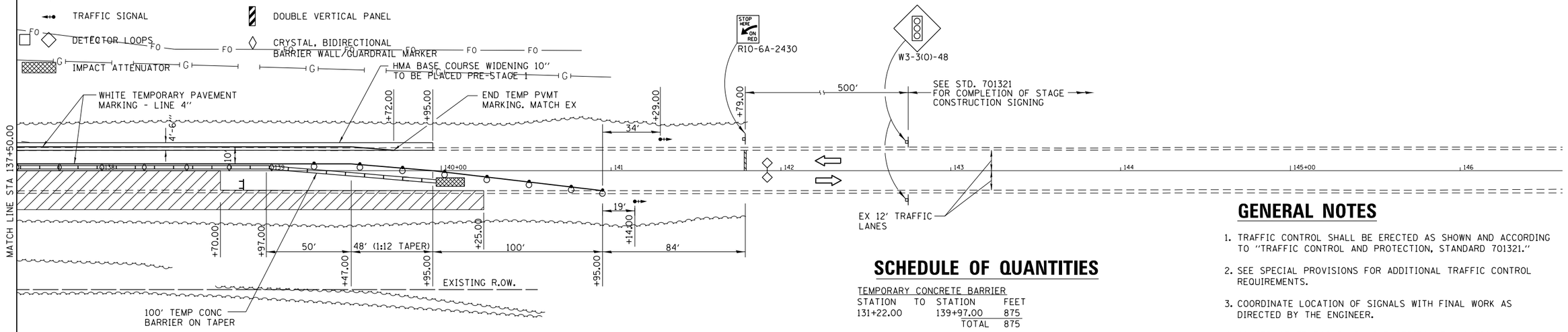
CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER



SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO STATION	FEET
131+22.00	139+97.00	875
	TOTAL	875

TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH

TEMPORARY RUMBLE STRIPS - 6 EACH

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

GENERAL NOTES

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

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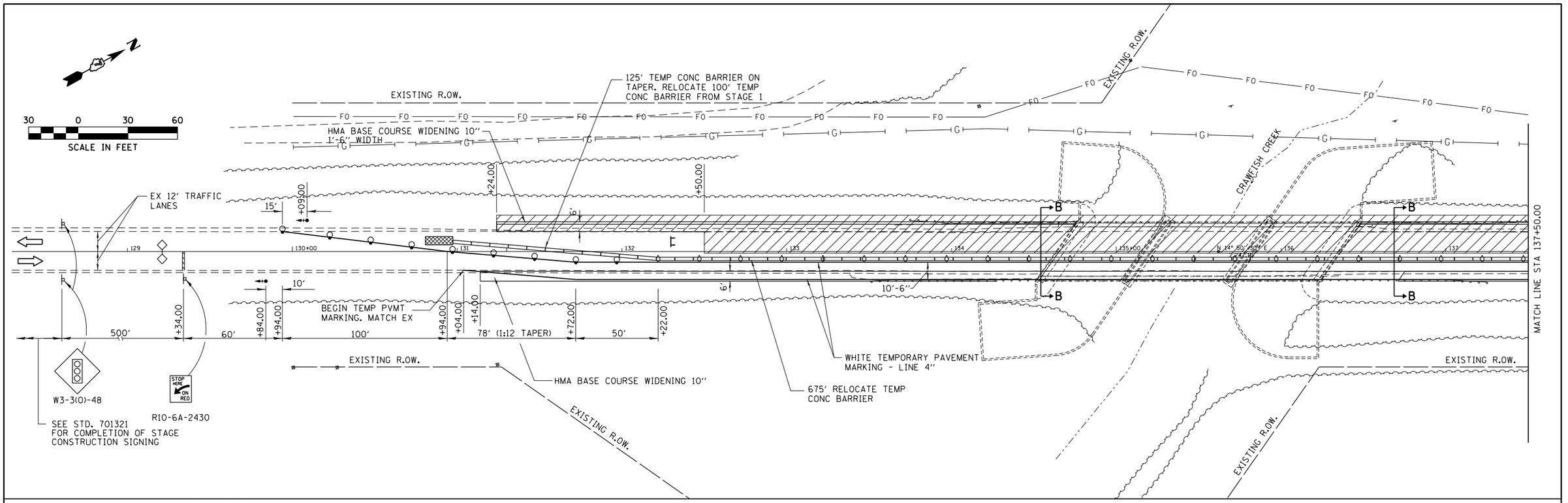
	PLOT DATE = 6/12/2014	DATE - 6/12/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION
STAGE 1

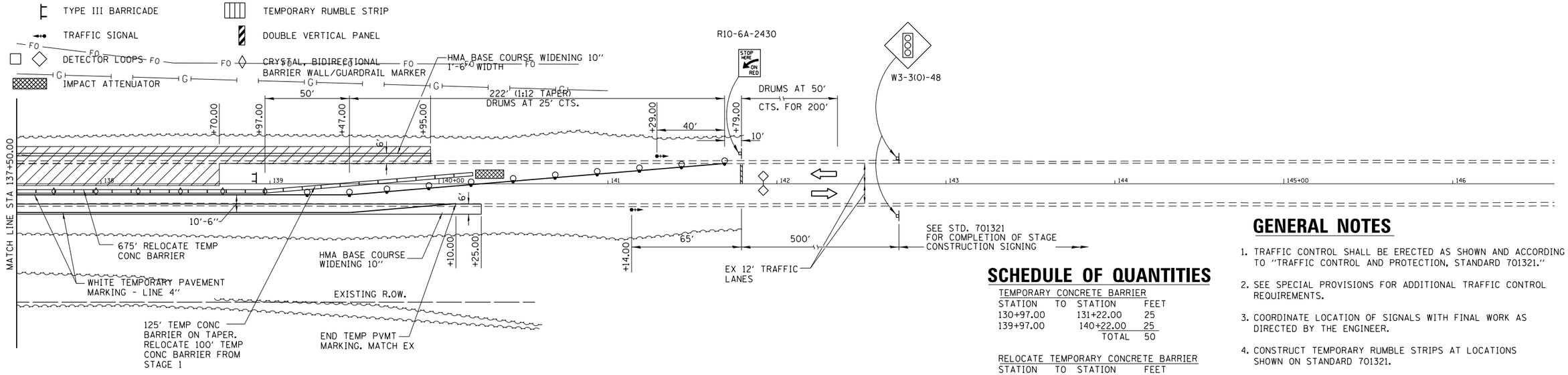
SCALE: 1"=30' | SHEET NO. 1 OF 2 SHEETS | STA. 128+25.00 TO STA. 147+00.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	15
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			



SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY RUMBLE STRIP
- DOUBLE VERTICAL PANEL
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER



SCHEDULE OF QUANTITIES

TEMPORARY CONCRETE BARRIER

STATION	TO STATION	FEET
130+97.00	131+22.00	25
139+97.00	140+22.00	25
	TOTAL	50

RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO STATION	FEET
131+22.00	139+97.00	875
	TOTAL	875

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

GENERAL NOTES

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

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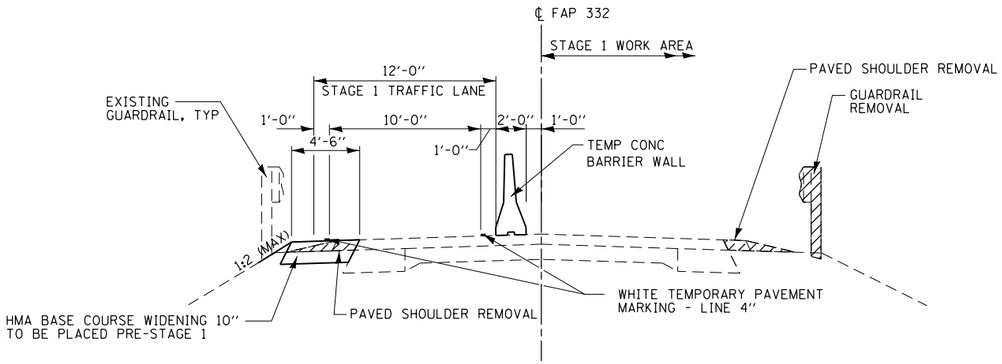
	PLOT DATE = 6/12/2014	CHECKED - MTM	REVISED -
		DATE - 6/12/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

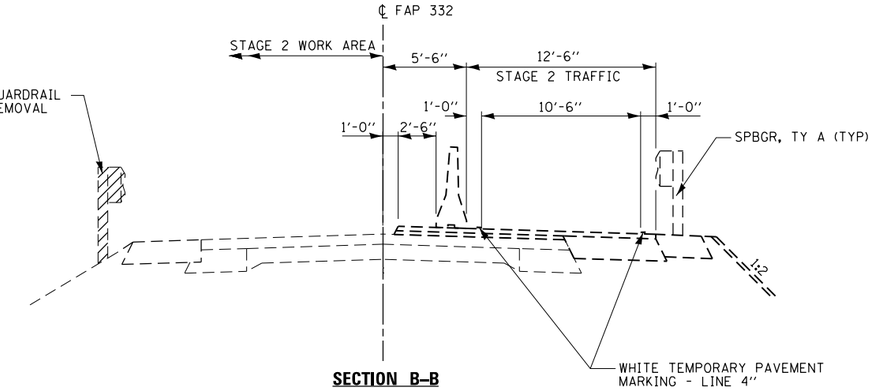
STAGE CONSTRUCTION
STAGE 2

SCALE: 1"=30' | SHEET NO. 2 OF 2 SHEETS | STA. 128+25.00 TO STA. 147+00.00

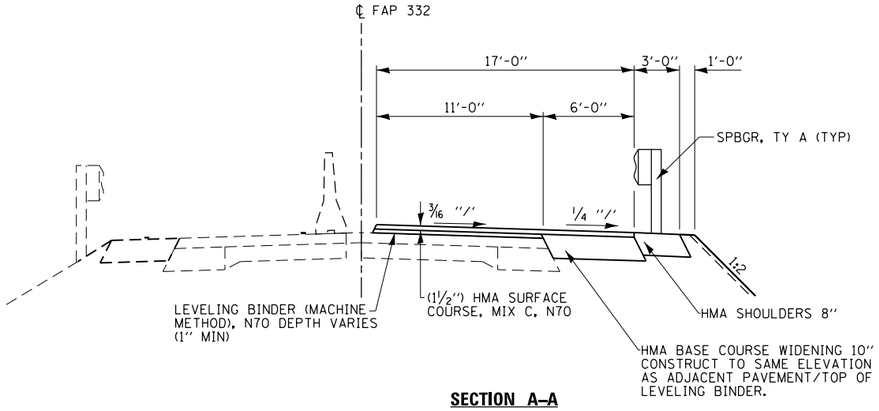
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	16
		CONTRACT NO. 74219		
	ILLINOIS FED. AID PROJECT			



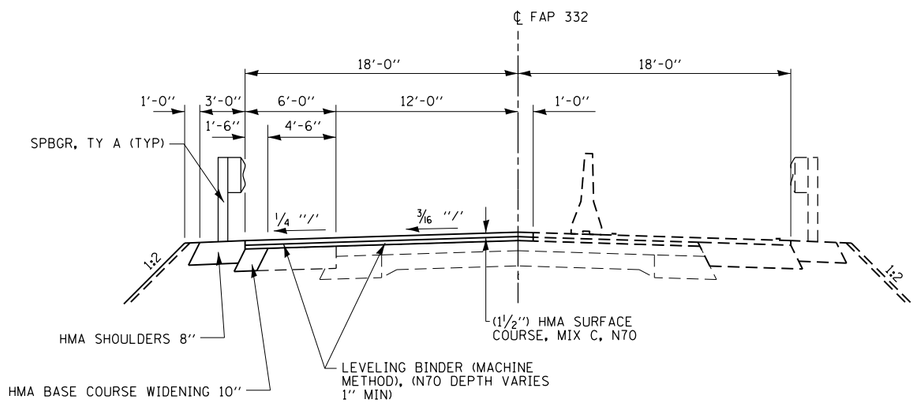
SECTION A–A
REMOVAL STAGE 1



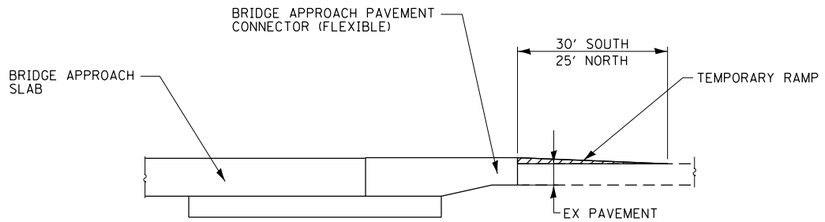
SECTION B–B
REMOVAL STAGE 2



SECTION A–A
CONSTRUCTION STAGE 1



SECTION B–B
CONSTRUCTION STAGE 2



TEMPORARY RAMP DETAIL

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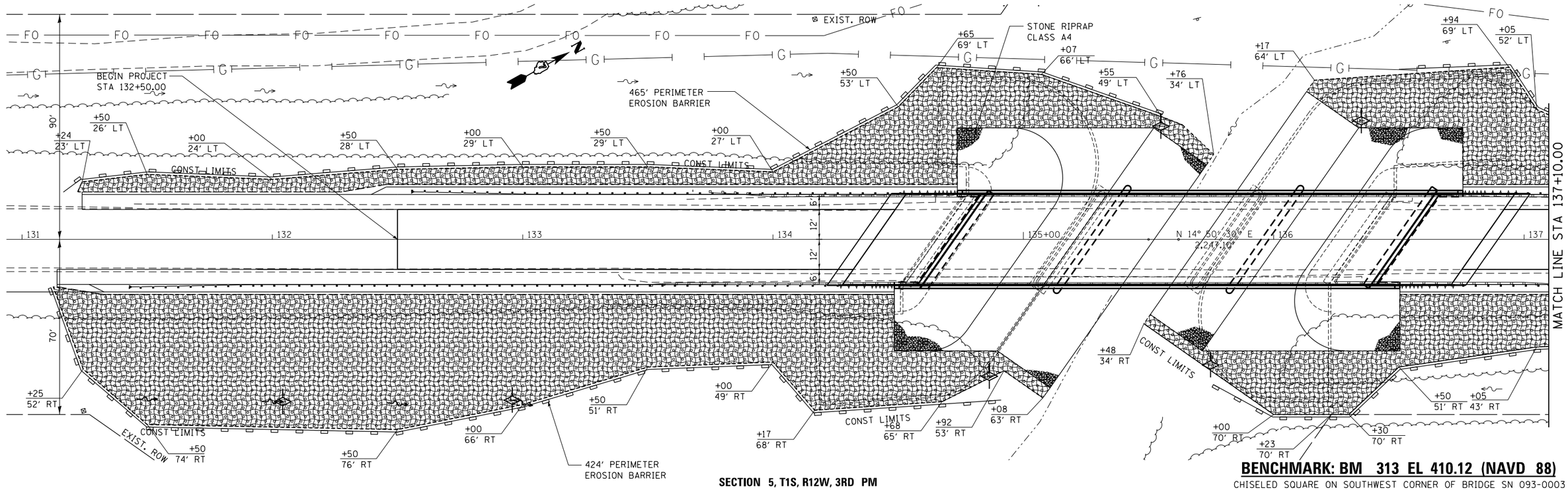
	PLOT DATE = 1/24/2014	DATE - 1/24/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS

SCALE: ½"=1'-0" | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

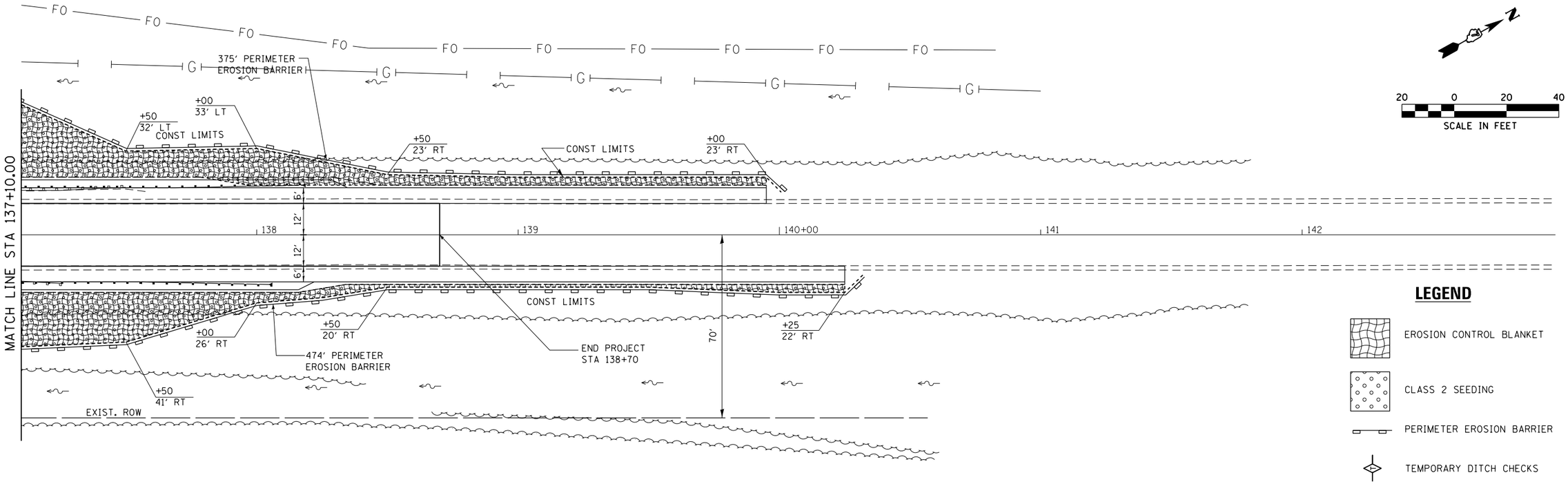
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	17
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		



SECTION 5, T1S, R12W, 3RD PM

BENCHMARK: BM 313 EL 410.12 (NAVD 88)

CHISELED SQUARE ON SOUTHWEST CORNER OF BRIDGE SN 093-0003



LEGEND

- EROSION CONTROL BLANKET
- CLASS 2 SEEDING
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS

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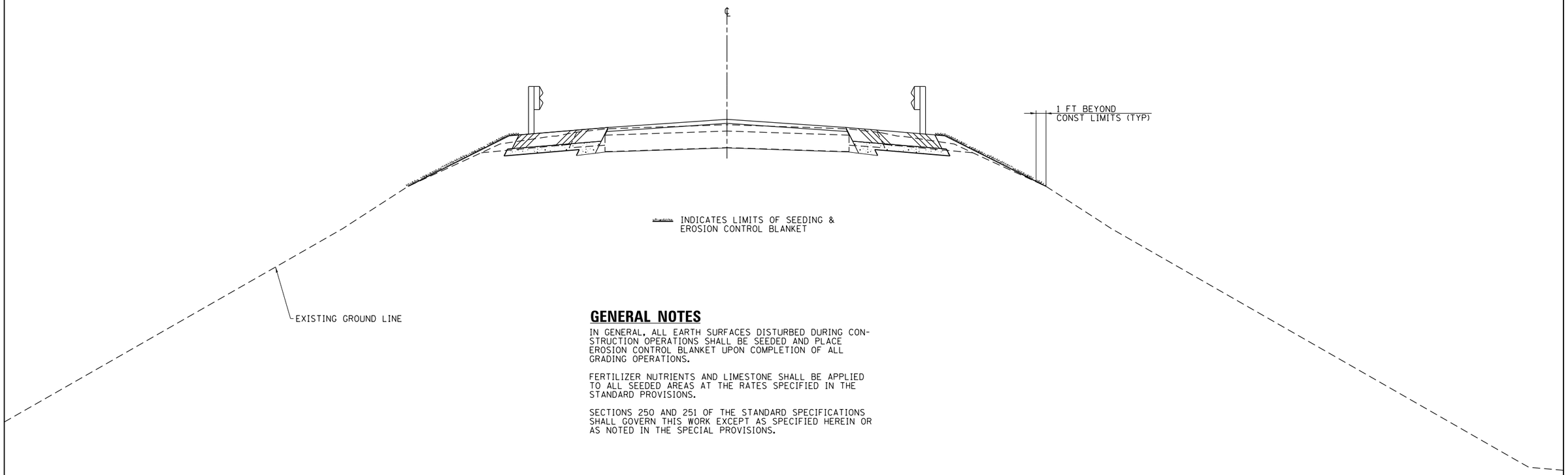
	PLOT DATE = 6/12/2014	DATE - 6/12/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 1 SHEETS | STA. 131+00.00 TO STA. 143+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	18
		CONTRACT NO. 74219		
	ILLINOIS	FED. AID PROJECT		



GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND PLACE EROSION CONTROL BLANKET UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS AT THE RATES SPECIFIED IN THE STANDARD PROVISIONS.

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

SEEDING DETAIL

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	PLOT DATE = 1/24/2014	DATE - 1/24/2014	REVISED -

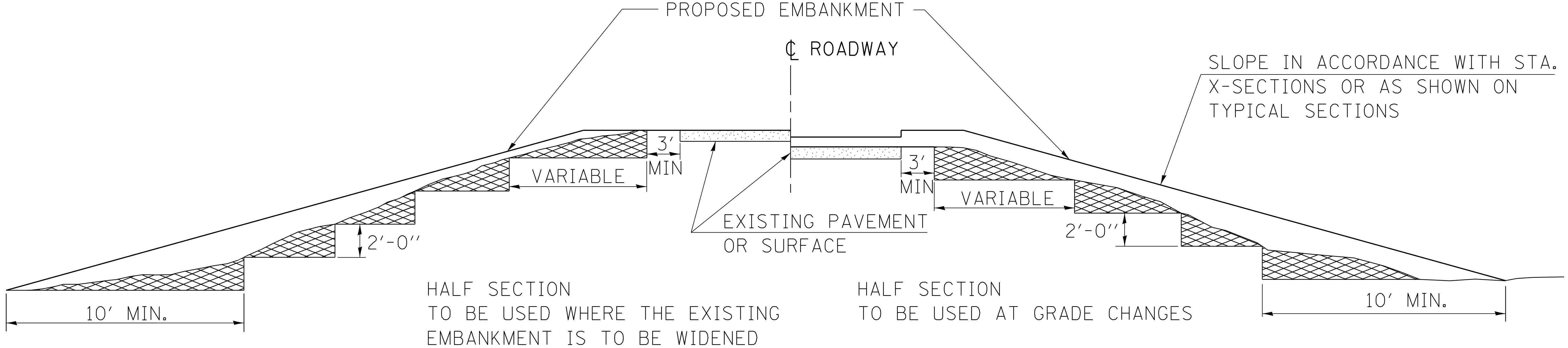
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

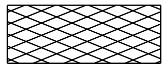
SEEDING DETAIL

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	19
		CONTRACT NO. 74219		
	ILLINOIS	FED. AID PROJECT		

TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL





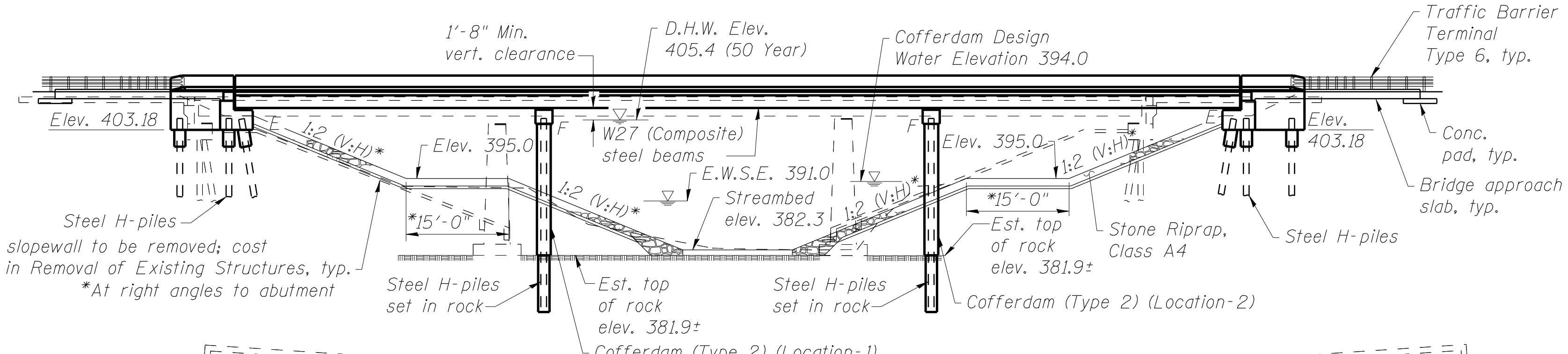
MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

FILE NAME = D774219-sht-details02.dgn	USER NAME = nhaasis	DESIGNED - CMM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS	F.A.P RTE. 332	SECTION (12,B2)B-1	COUNTY WABASH	TOTAL SHEETS 68 / SHEET NO. 20
		DRAWN - DWH/HAS	REVISED -						CONTRACT NO. 74219
	PLOT SCALE = 0.1667 ' / in.	CHECKED - MTM	REVISED -						
	PLOT DATE = 1/24/2014	DATE - 1/24/2014	REVISED -		SCALE: 1/2″=1′-0″ SHEET NO. 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT		

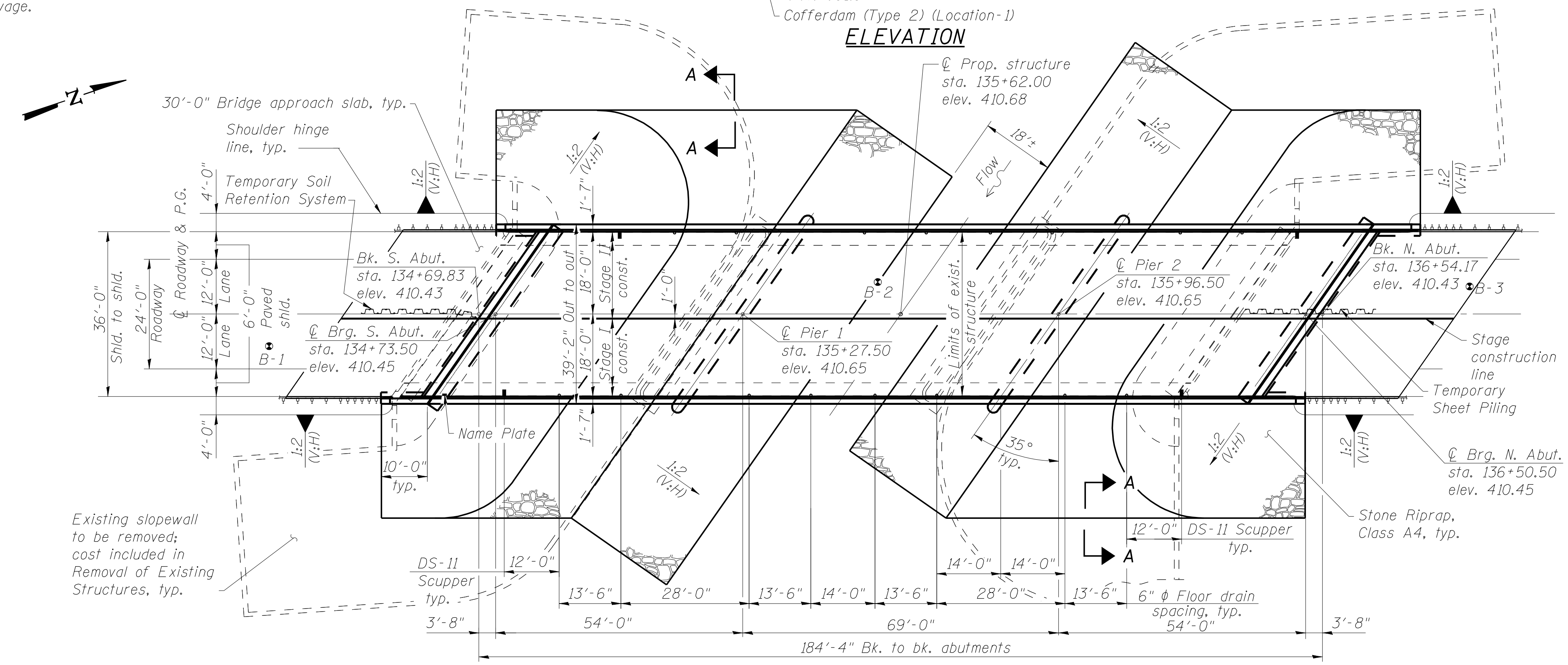
BENCHMARK: BM 313 -Chiseled square on southwest corner of SN 093-0003, elev. 410.12 (NAVD 88)

EXISTING STRUCTURE:
SN 093-0003 was originally built as SBI 1, Section 12-B-2, in 1956. It is a three span continuous reinforced conc. slab deck on rolled steel beams supported by open abutments on steel piles and solid shaft piers on spread footings founded on rock. The deck width is 35'-8" and the length is 172'-0" back to back of abutments. The structure was constructed with a 35° lt. fwd. skew. Traffic shall be maintained utilizing stage construction

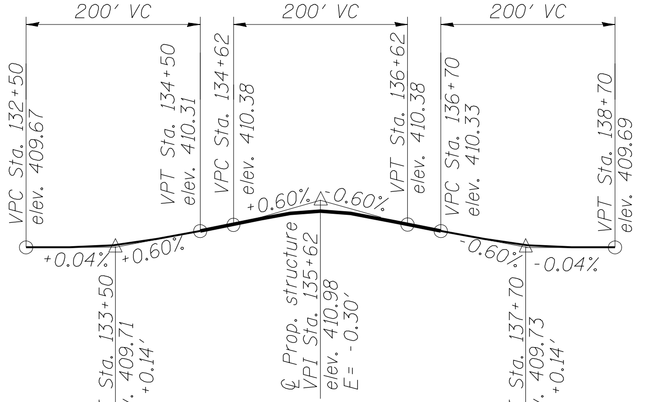
No salvage.



ELEVATION



PLAN



PROFILE GRADE

(Along ℄ roadway)

Design Scour Elevations (ft.)			
S. Abut.	Pier 1	Pier 2	N. Abut.
403.2	381.5	381.5	403.2

WATERWAY INFORMATION

Drainage Area = 34.78 Sq. Mi. Exist. Low Grade Elev. = 408.28 Ft. @ Sta. 124+52.9
Prop. Low Grade Elev. = 408.28 Ft. @ Sta. 124+52.9

Flood	Freq. Yr.	Q C.F.S.	Opening-Sq. Ft. Exist.	Opening-Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	3420	1259	1333	403.1	0.2	0.2	403.3	403.3
Design	50	5370	1536	1631	405.4	0.3	0.3	405.7	405.7
Base	100	6230	1597	1764	406.4	0.4	0.3	406.8	406.7
Overtop	200	7140	1597	1770	407.6	0.6	0.5	408.2	408.1

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

LOADING HL-93

Allow 50 psf for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 50,000 psi (M270 Grade 50)

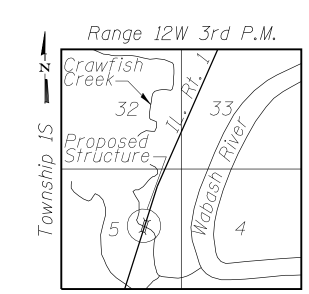
SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec (S_{D1}) = 0.250g
Design Spectral Acceleration at 0.2 sec (S_{DS}) = 0.586g
Soil Site Class = D

STATION 135+62.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 332 SEC. (12,B2)B-1
LOADING HL-93
STR. NO. 093-0025

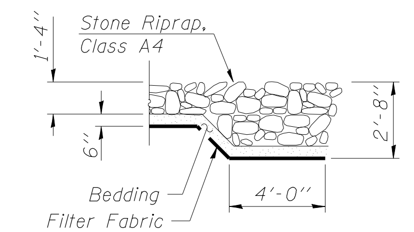
NAME PLATE

(See Hwy. Std. 515001)

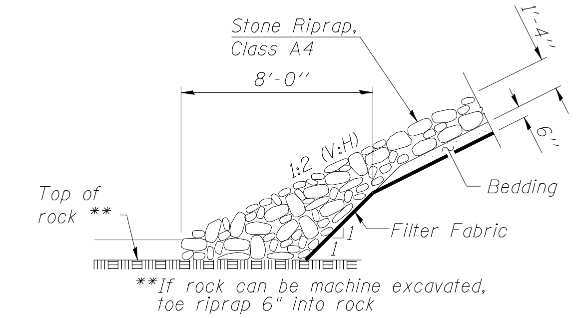


LOCATION SKETCH

STRUCTURE INDEX OF SHEETS



SECTION A-A



**If rock can be machine excavated, toe riprap 6" into rock

STONE RIPRAP ANCHOR DETAIL

STATE OF ILLINOIS
ERIC L. HENKEL
No. 6159
LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-14

SIGNATURE

01-03-14
DATE

GENERAL PLAN & ELEVATION
IL 1 OVER CRAWFISH CREEK
FAP ROUTE 332 - SECTION (12,B2)B-1
WABASH COUNTY
STATION 135+62.00
STRUCTURE NO. 093-0025

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - ELH 05/11	REVISED -
ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -
PLOT SCALE = 0:2 ' ' / IN.	DRAWN - DWH 05/11	REVISED -
PLOT DATE = 6/10/2014 8:46:56 AM	CHECKED - ELH 01/14	REVISED -

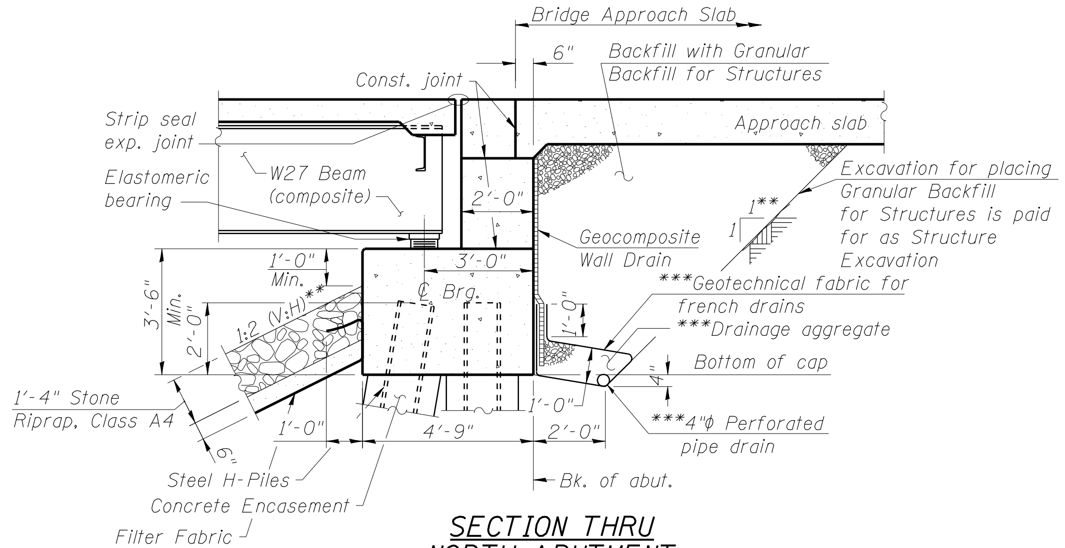
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	21

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



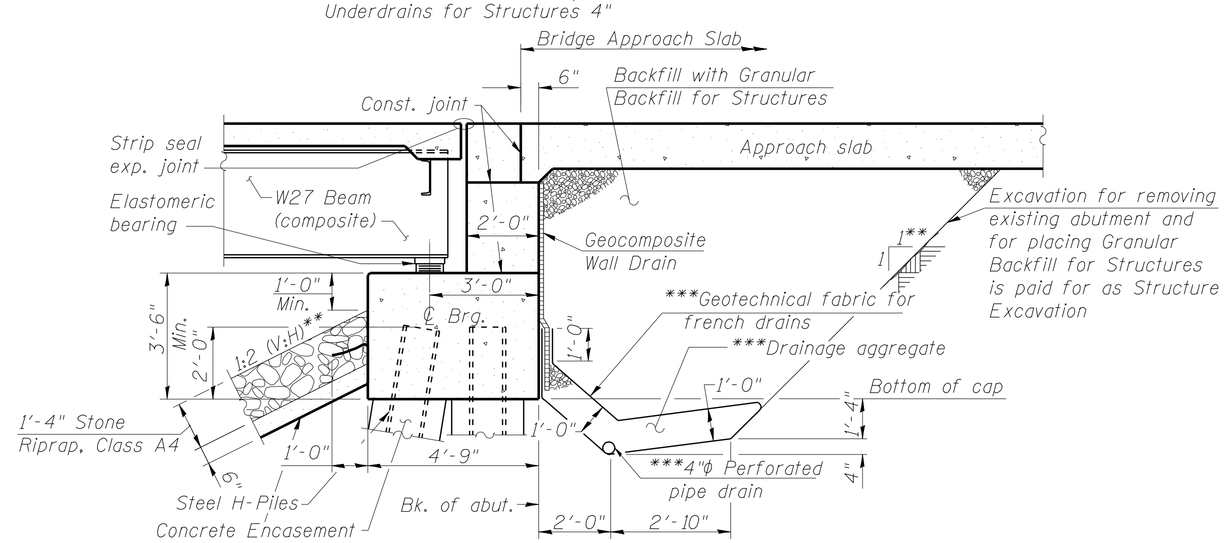
SECTION THRU NORTH ABUTMENT

(Horiz. dim. @ rt. L's)

Note: All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwalls until 2'-0" from intersecting the side slopes. The pipe shall be run down the slope to the toe of slope and drain into conc. headwalls (See Article 601.05 of the Std. Spec's. and Hwy. Std. 601101). The horizontal pipe will be paid for as Pipe Underdrains for Structures 4", and the sloped pipe will be paid for as Pipe Drains 4", see roadway plans.

**@ Rt. L's

***Included in the cost of Pipe Underdrains for Structures 4"



SECTION THRU SOUTH ABUTMENT

(Horiz. dim. @ rt. L's)

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type I, mechanically galvanized bolts. Bolts $\frac{7}{8}$" dia., holes $\frac{15}{16}$" dia., unless otherwise noted.
2. Calculated weight of structural steel = 119,630 lbs. (AASHTO M270 Gr. 50)
   = 14,770 lbs. (AASHTO M270 Gr. 36)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
6. Concrete Sealer shall be applied to the designated areas of the abutments.
7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
8. The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1.
9. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
10. Slipforming of the parapets is not allowed.

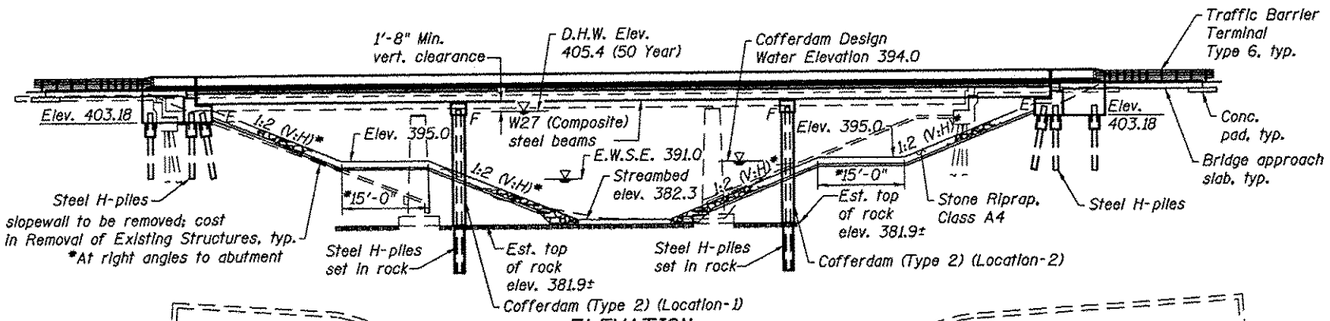
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.	-	1805	1805
Filter Fabric	Sq. Yd.	-	1805	1805
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	800	800
Cofferdam Excavation	Cu. Yd.	-	520	520
Cofferdam (Type 2) (Location-1)	Each	-	1	1
Cofferdam (Type 2) (Location-2)	Each	-	1	1
Floor Drains	Each	16	-	16
Concrete Structures	Cu. Yd.	-	318.0	318.0
Concrete Superstructure	Cu. Yd.	348.9	-	348.9
Bridge Deck Grooving	Sq. Yd.	923	-	923
Concrete Encasement	Cu. Yd.	-	12.0	12.0
Protective Coat	Sq. Yd.	1160	-	1160
Furnishing and Erecting Structural Steel	L Sum	1	-	1
Stud Shear Connectors	Each	3978	-	3978
Reinforcement Bars, Epoxy Coated	Pound	83270	28850	112120
Bar Splicers	Each	798	220	1018
Furnishing Steel Piles HP14x89	Foot	-	1320	1320
Driving Piles	Foot	-	620	620
Test Pile Steel HP14x89	Each	-	2	2
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	92	-	92
Elastomeric Bearing Assembly, Type I	Each	12	-	12
Anchor Bolts, $\frac{3}{4}$"	Each	-	48	48
Concrete Sealer	Sq. Ft.	-	994	994
Geocomposite Wall Drain	Sq. Yd.	-	54	54
Granular Backfill for Structures	Cu. Yd.	-	141	141
Drainage Scuppers, DS-11	Each	4	-	4
Temporary Sheet Piling	Sq. Ft.	-	380	380
Pipe Underdrains for Structures 4"	Foot	-	190	190
Setting Piles in Rock	Each	-	20	20
Temporary Soil Retention System	Sq. Ft.	-	100	100

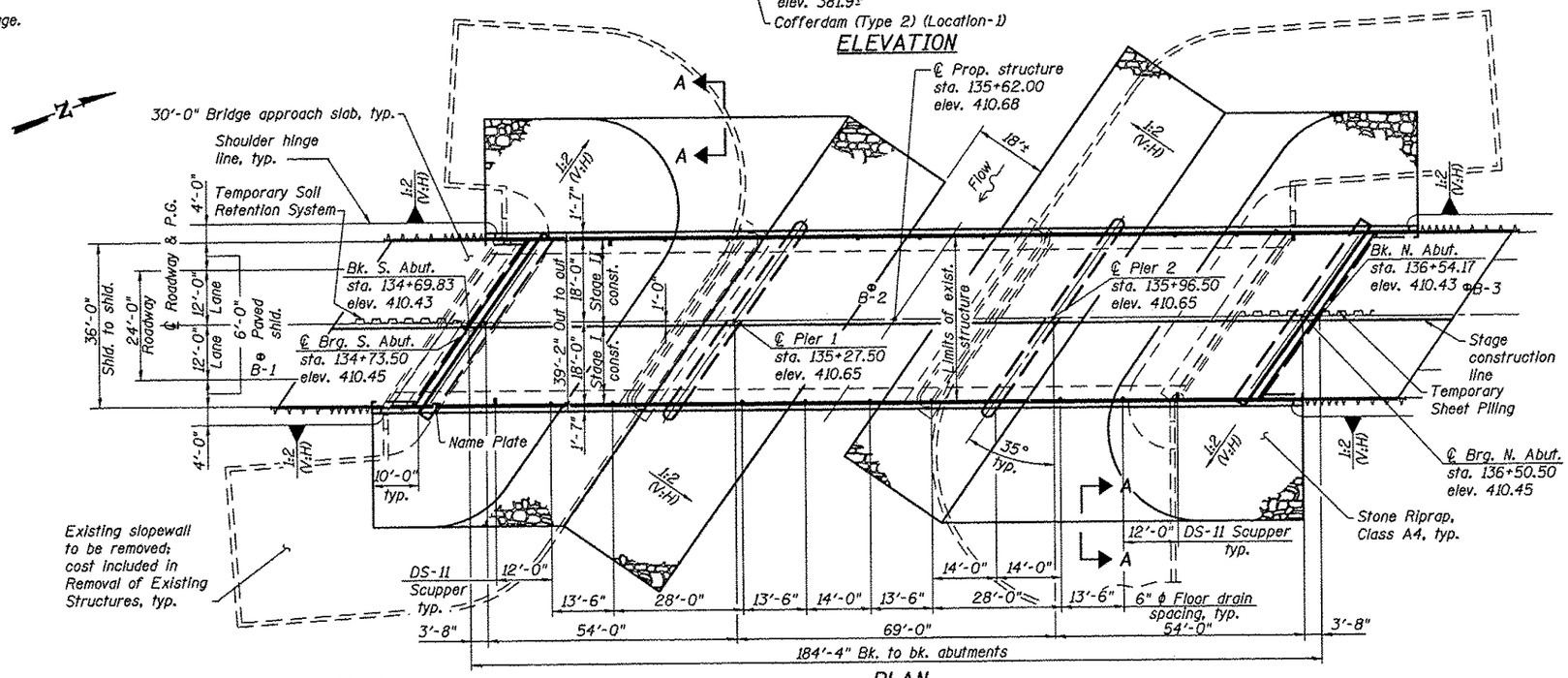
BENCHMARK: BM 313 -Chiseled square on southwest corner of SN 093-0003, elev. 410.12 (NAVD 88)

EXISTING STRUCTURE:
SN 093-0003 was originally built as SBI 1, Section 12-B-2, in 1956. It is a three span continuous reinforced conc. slab deck on rolled steel beams supported by open abutments on steel piles and solid shaft piers on spread footings founded on rock. The deck width is 35'-8" and the length is 172'-0" back to back of abutments. The structure was constructed with a 35° lt. fwd. skew. Traffic shall be maintained utilizing stage construction

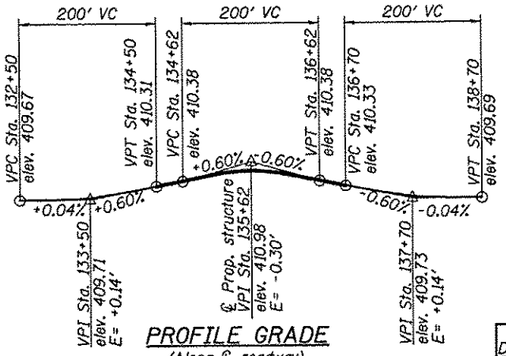
No salvage.



ELEVATION



PLAN



PROFILE GRADE
(Along ℄ roadway)

APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures

Design Scour Elevations (ft.)			
S. Abut.	Pier 1	Pier 2	N. Abut.
403.2	381.5	381.5	403.2

WATERWAY INFORMATION

Drainage Area = 34.78 Sq. Mi. — Exist. Low Grade Elev. = 408.28 Ft. @ Sta. 124+52.9; Prop. Low Grade Elev. = 408.28 Ft. @ Sta. 124+52.9

Flood	Freq. Yr.	Q C.F.S.	Opening-Sq. Ft. Exist.	Opening-Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	3420	1259	1333	403.1	0.2	0.2	403.3	403.3
Design	50	5370	1536	1631	405.4	0.3	0.3	405.7	405.7
Base	100	6230	1597	1764	406.4	0.4	0.3	406.8	406.7
Overtop	200	7140	1597	1770	407.6	0.6	0.5	408.2	408.1

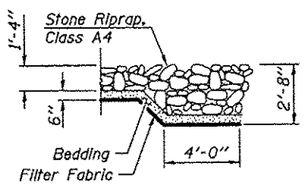
DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

LOADING HL-93
Allow 50 psf for future wearing surface.

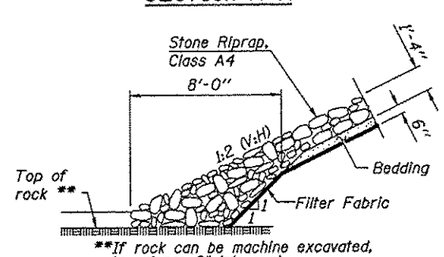
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec (S_{D1}) = 0.250g
Design Spectral Acceleration at 0.2 sec (S_{DS}) = 0.586g
Soil Site Class = D

STRUCTURE INDEX OF SHEETS



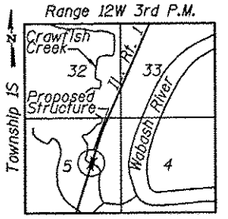
SECTION A-A



STONE RIPRAP ANCHOR DETAIL

STATION 135+62.00
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 332 SEC. (12,B2)B-1
LOADING HL-93
STR. NO. 093-0025

NAME PLATE
(See Hwy. Std. 515001)



LOCATION SKETCH

STATE OF ILLINOIS
ERIC L. HENKEL
No. 6159
LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-14

SIGNATURE

01-03-14
DATE

GENERAL PLAN & ELEVATION
IL 1 OVER CRAWFISH CREEK
FAP ROUTE 332 - SECTION (12,B2)B-1
WABASH COUNTY
STATION 135+62.00
STRUCTURE NO. 093-0025

ESCA CONSULTANTS, INC.

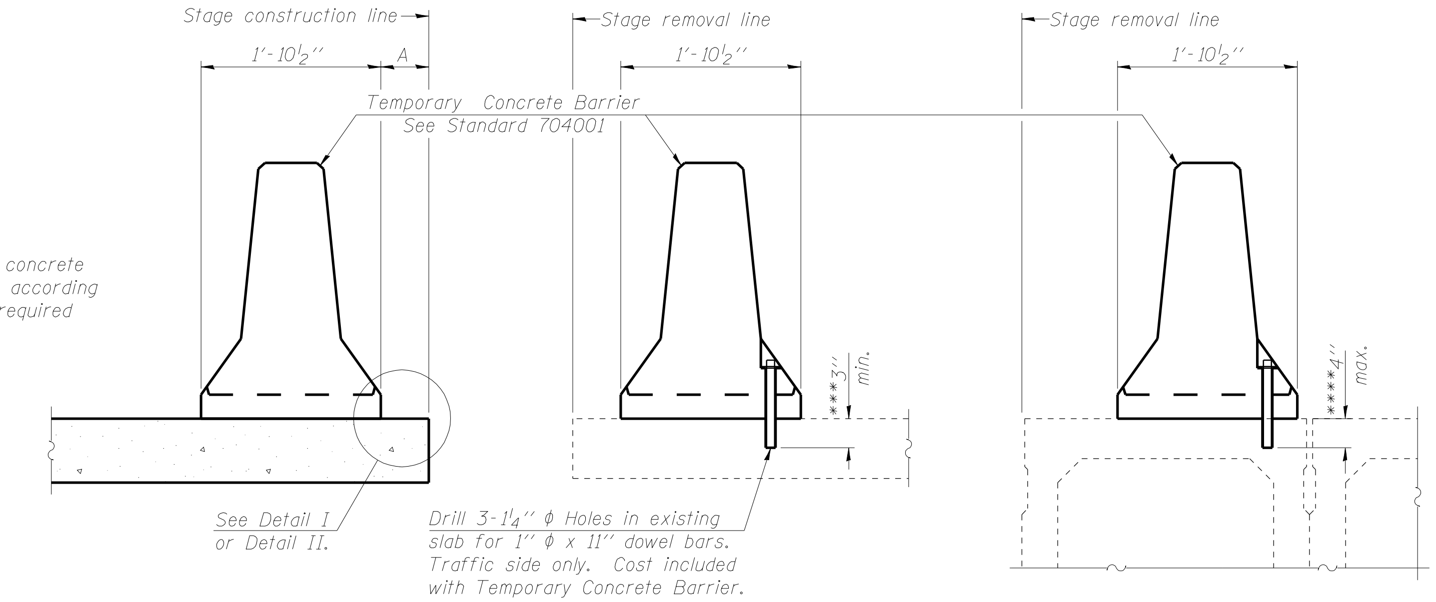
USER NAME = hss	DESIGNED - ELH	05/11	REVISED -		
ESCA PROJECT NO. 933.14	CHECKED - RDP	04/13	REVISED -		
PLOT SCALE = 8:2 '/ IN.	DRAWN - DWH	05/11	REVISED -		
PLOT DATE = 6/4/2014 8:33:49 AM	CHECKED - ELH	01/14	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	21
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

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 ℙ to the top layer of couplers with 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

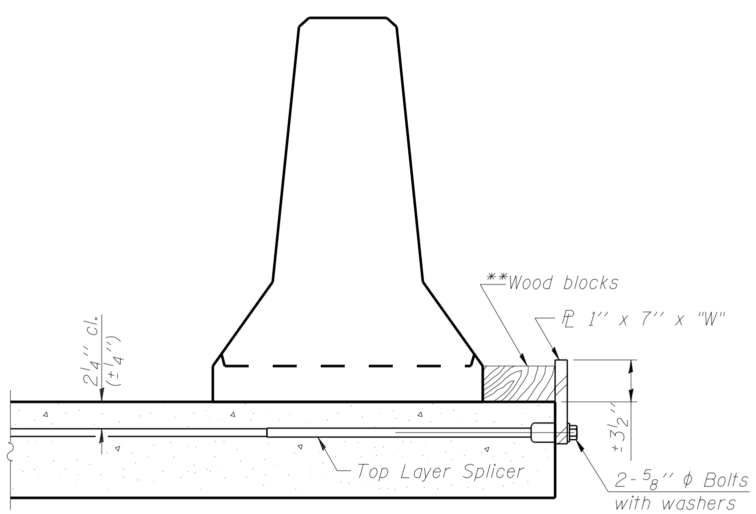
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel ℙ to the concrete slab or concrete wearing surface with 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

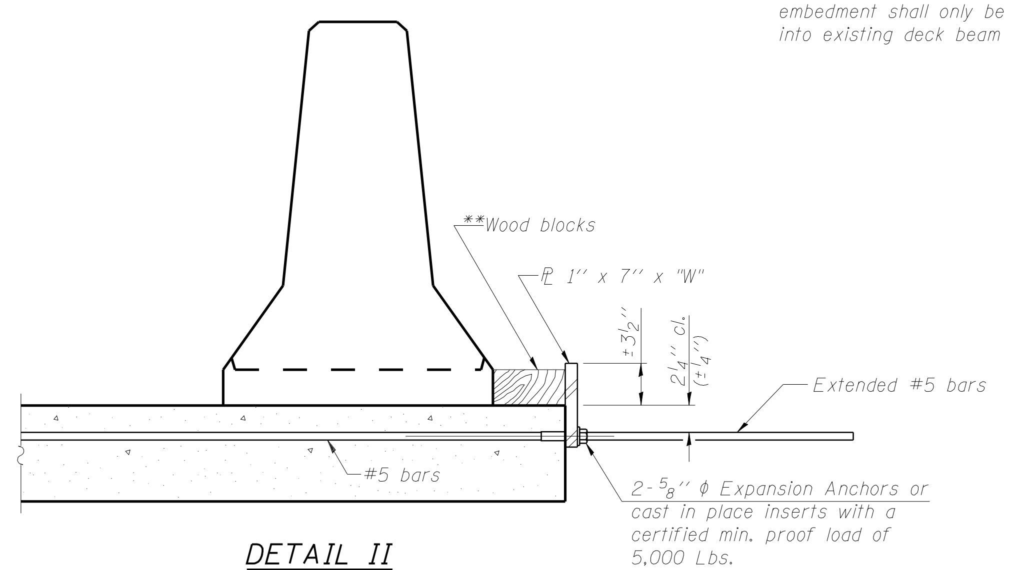
The 1'' x 7'' x ''W'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

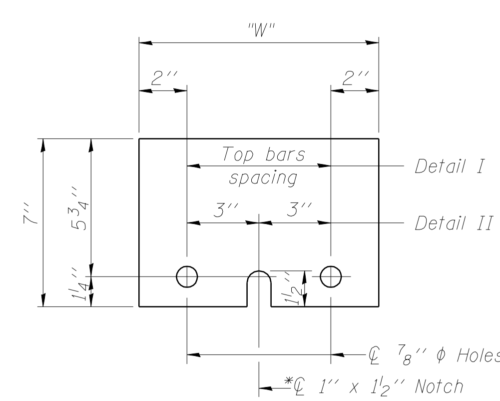
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1'' x 7'' x ''W''

* Required only with Detail II

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

"W" = Top bars spacing + 4''

R-27 7-1-10

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - ELH 05/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -	
	PLOT SCALE = 0:2 '1' / IN.	DRAWN - DWH 05/11	REVISED -	
	PLOT DATE = 6/10/2014 8:47:32 AM	CHECKED - ELH 05/11	REVISED -	

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 093-0025

SHEET NO. 4 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	24
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

BEAM 1

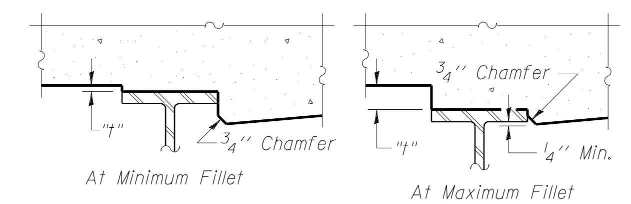
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut.	134+81.35	-16.46	410.20	410.20
℄ Exp. joint	134+83.89	-16.46	410.22	410.22
℄ Brg. S. Abut.	134+85.03	-16.46	410.22	410.22
a	134+95.03	-16.46	410.27	410.29
b	135+05.03	-16.46	410.30	410.33
c	135+15.03	-16.46	410.33	410.36
d	135+25.03	-16.46	410.36	410.37
℄ Pier 1	135+39.03	-16.46	410.38	410.38
e	135+49.03	-16.46	410.39	410.41
f	135+59.03	-16.46	410.40	410.45
g	135+69.03	-16.46	410.40	410.47
h	135+79.03	-16.46	410.39	410.46
i	135+89.03	-16.46	410.38	410.43
j	135+99.03	-16.46	410.36	410.38
℄ Pier 2	136+08.03	-16.46	410.34	410.34
k	136+18.03	-16.46	410.31	410.32
l	136+28.03	-16.46	410.27	410.29
m	136+38.03	-16.46	410.23	410.26
n	136+48.03	-16.46	410.18	410.21
℄ Brg. N. Abut.	136+62.03	-16.46	410.10	410.10
℄ Exp. joint	136+63.15	-16.46	410.09	410.09
Bk. N. Abut.	136+65.69	-16.46	410.08	410.08

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut.	134+76.74	-9.88	410.31	410.31
℄ Exp. joint	134+79.28	-9.88	410.32	410.32
℄ Brg. S. Abut.	134+80.42	-9.88	410.33	410.33
a	134+90.42	-9.88	410.37	410.39
b	135+00.42	-9.88	410.41	410.44
c	135+10.42	-9.88	410.45	410.48
d	135+20.42	-9.88	410.47	410.48
℄ Pier 1	135+34.42	-9.88	410.50	410.50
e	135+44.42	-9.88	410.52	410.54
f	135+54.42	-9.88	410.52	410.57
g	135+64.42	-9.88	410.53	410.60
h	135+74.42	-9.88	410.52	410.59
i	135+84.42	-9.88	410.51	410.56
j	135+94.42	-9.88	410.49	410.51
℄ Pier 2	136+03.42	-9.88	410.47	410.47
k	136+13.42	-9.88	410.45	410.46
l	136+23.42	-9.88	410.41	410.43
m	136+33.42	-9.88	410.37	410.40
n	136+43.42	-9.88	410.33	410.36
℄ Brg. N. Abut.	136+57.42	-9.88	410.25	410.25
℄ Exp. joint	136+58.54	-9.88	410.25	410.25
Bk. N. Abut.	136+61.08	-9.88	410.23	410.23

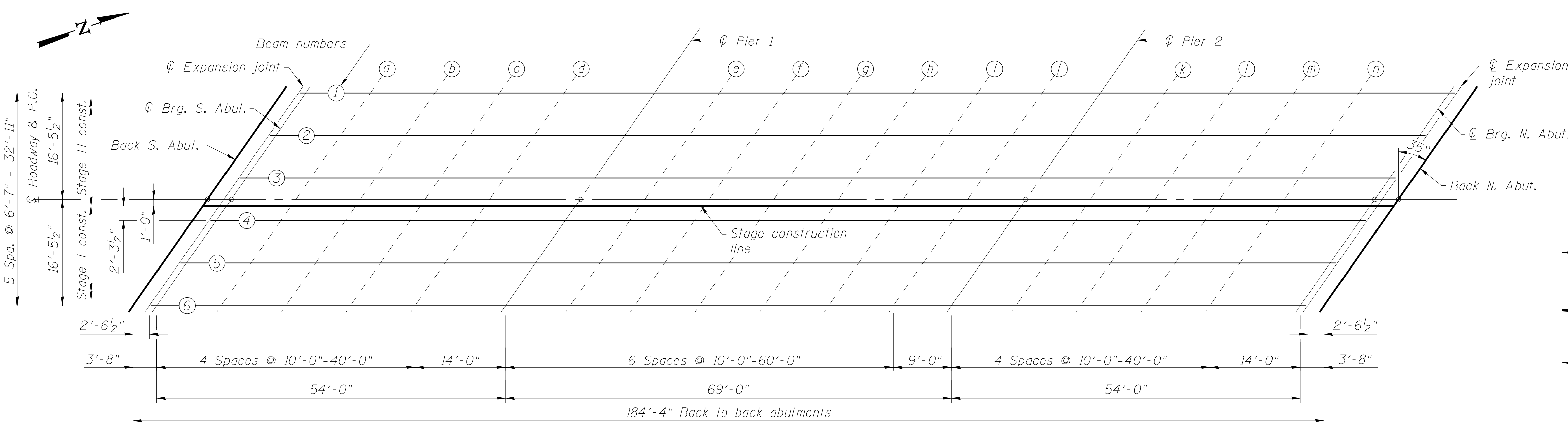
BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk S. Abut.	134+72.13	-3.29	410.39	410.39
℄ Exp. joint	134+74.67	-3.29	410.40	410.40
℄ Brg. S. Abut.	134+75.80	-3.29	410.41	410.41
a	134+85.80	-3.29	410.45	410.47
b	134+95.80	-3.29	410.50	410.53
c	135+05.80	-3.29	410.53	410.56
d	135+15.80	-3.29	410.56	410.57
℄ Pier 1	135+29.80	-3.29	410.60	410.60
e	135+39.80	-3.29	410.61	410.63
f	135+49.80	-3.29	410.62	410.67
g	135+59.80	-3.29	410.63	410.70
h	135+69.80	-3.29	410.63	410.70
i	135+79.80	-3.29	410.62	410.67
j	135+89.80	-3.29	410.61	410.63
℄ Pier 2	135+98.80	-3.29	410.59	410.59
k	136+08.80	-3.29	410.56	410.57
l	136+18.80	-3.29	410.53	410.55
m	136+28.80	-3.29	410.49	410.52
n	136+38.80	-3.29	410.45	410.48
℄ Brg. N. Abut.	136+52.80	-3.29	410.38	410.38
℄ Exp. joint	136+53.93	-3.29	410.38	410.38
Bk. N. Abut.	136+56.47	-3.29	410.36	410.36

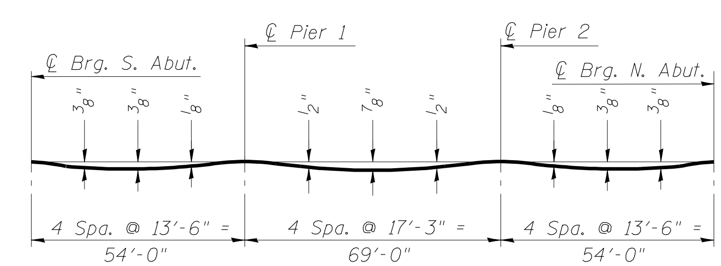


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on this sheet and on sheet 6 of 31, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN



Note:
The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

ESCA CONSULTANTS, INC.

USER NAME = has	DESIGNED - SHL 11/11	REVISED -
ESCA PROJECT NO. 933.14	CHECKED - ELH/RDP 01/14	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 093-0025

SHEET NO. 5 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	25

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	134+69.83	0.00	410.43	410.43
℄ Exp. joint	134+72.37	0.00	410.44	410.44
℄ Brg. S. Abut.	134+72.48	0.00	410.45	410.45
a	134+73.50	0.00	410.50	410.52
b	134+83.50	0.00	410.54	410.57
c	134+93.50	0.00	410.58	410.61
d	135+03.50	0.00	410.61	410.62
℄ Pier 1	135+13.50	0.00	410.64	410.64
e	135+27.50	0.00	410.66	410.68
f	135+37.50	0.00	410.67	410.72
g	135+47.50	0.00	410.68	410.75
h	135+57.50	0.00	410.68	410.75
i	135+67.50	0.00	410.67	410.72
j	135+77.50	0.00	410.66	410.68
℄ Pier 2	135+87.50	0.00	410.64	410.64
k	135+96.50	0.00	410.62	410.63
l	136+06.50	0.00	410.59	410.61
m	136+16.50	0.00	410.56	410.59
n	136+26.50	0.00	410.51	410.54
℄ Brg. N. Abut.	136+36.50	0.00	410.45	410.45
℄ Exp. joint	136+51.63	0.00	410.44	410.44
Bk. N. Abut.	136+54.17	0.00	410.43	410.43

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	134+69.13	1.00	410.41	410.41
℄ Exp. joint	134+71.67	1.00	410.42	410.42
℄ Brg. S. Abut.	134+72.80	1.00	410.43	410.43
a	134+82.80	1.00	410.48	410.50
b	134+92.80	1.00	410.52	410.55
c	135+02.80	1.00	410.56	410.59
d	135+12.80	1.00	410.59	410.60
℄ Pier 1	135+26.80	1.00	410.63	410.63
e	135+36.80	1.00	410.65	410.67
f	135+46.80	1.00	410.66	410.71
g	135+56.80	1.00	410.66	410.73
h	135+66.80	1.00	410.66	410.73
i	135+76.80	1.00	410.66	410.71
j	135+86.80	1.00	410.65	410.67
℄ Pier 2	135+95.80	1.00	410.63	410.63
k	136+05.80	1.00	410.61	410.62
l	136+15.80	1.00	410.58	410.60
m	136+25.80	1.00	410.54	410.57
n	136+35.80	1.00	410.50	410.53
℄ Brg. N. Abut.	136+49.80	1.00	410.43	410.43
℄ Exp. joint	136+50.93	1.00	410.43	410.43
Bk. N. Abut.	136+53.47	1.00	410.42	410.42

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	134+67.53	3.29	410.36	410.36
℄ Exp. joint	134+70.07	3.29	410.38	410.38
℄ Brg. S. Abut.	134+71.20	3.29	410.38	410.38
a	134+81.20	3.29	410.43	410.44
b	134+91.20	3.29	410.48	410.51
c	135+01.20	3.29	410.52	410.55
d	135+11.20	3.29	410.55	410.56
℄ Pier 1	135+25.20	3.29	410.59	410.59
e	135+35.20	3.29	410.61	410.63
f	135+45.20	3.29	410.62	410.67
g	135+55.20	3.29	410.63	410.70
h	135+65.20	3.29	410.63	410.70
i	135+75.20	3.29	410.62	410.67
j	135+85.20	3.29	410.61	410.63
℄ Pier 2	135+94.20	3.29	410.60	410.60
k	136+04.20	3.29	410.58	410.59
l	136+14.20	3.29	410.55	410.57
m	136+24.20	3.29	410.51	410.54
n	136+34.20	3.29	410.47	410.50
℄ Brg. N. Abut.	136+48.20	3.29	410.41	410.41
℄ Exp. joint	136+49.33	3.29	410.41	410.41
Bk. N. Abut.	136+51.87	3.29	410.39	410.39

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	134+62.92	9.88	410.23	410.23
℄ Exp. joint	134+65.46	9.88	410.25	410.25
℄ Brg. S. Abut.	134+66.58	9.88	410.25	410.25
a	134+76.58	9.88	410.31	410.33
b	134+86.58	9.88	410.35	410.38
c	134+96.58	9.88	410.40	410.43
d	135+06.58	9.88	410.43	410.44
℄ Pier 1	135+20.58	9.88	410.47	410.47
e	135+30.58	9.88	410.50	410.52
f	135+40.58	9.88	410.51	410.56
g	135+50.58	9.88	410.52	410.59
h	135+60.58	9.88	410.53	410.60
i	135+70.58	9.88	410.52	410.57
j	135+80.58	9.88	410.52	410.54
℄ Pier 2	135+89.58	9.88	410.50	410.50
k	135+99.58	9.88	410.48	410.49
l	136+09.58	9.88	410.46	410.48
m	136+19.58	9.88	410.43	410.46
n	136+29.58	9.88	410.39	410.42
℄ Brg. N. Abut.	136+43.58	9.88	410.33	410.33
℄ Exp. joint	136+44.72	9.88	410.33	410.33
Bk. N. Abut.	136+47.26	9.88	410.31	410.31

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	134+58.31	16.46	410.08	410.08
℄ Exp. joint	134+60.85	16.46	410.09	410.09
℄ Brg. S. Abut.	134+61.97	16.46	410.10	410.10
a	134+71.97	16.46	410.16	410.18
b	134+81.97	16.46	410.21	410.25
c	134+91.97	16.46	410.25	410.28
d	135+01.97	16.46	410.29	410.30
℄ Pier 1	135+15.97	16.46	410.34	410.34
e	135+25.97	16.46	410.36	410.38
f	135+35.97	16.46	410.38	410.43
g	135+45.97	16.46	410.39	410.46
h	135+55.97	16.46	410.40	410.47
i	135+65.97	16.46	410.40	410.45
j	135+75.97	16.46	410.39	410.41
℄ Pier 2	135+84.97	16.46	410.38	410.38
k	135+94.97	16.46	410.37	410.38
l	136+04.97	16.46	410.34	410.37
m	136+14.97	16.46	410.32	410.36
n	136+24.97	16.46	410.28	410.31
℄ Brg. N. Abut.	136+38.97	16.46	410.22	410.22
℄ Exp. joint	136+40.11	16.46	410.22	410.22
Bk. N. Abut.	136+42.65	16.46	410.20	410.20

ESCA CONSULTANTS, INC.

USER NAME = has	DESIGNED - SHL 11/11	REVISED -
ESCA PROJECT NO. 933.14	CHECKED - ELH/RDP 01/14	REVISED -
PLOT SCALE = 0:2 ':' / IN.	DRAWN - HAS 11/11	REVISED -
PLOT DATE = 6/10/2014 8:47:56 AM	CHECKED - SHL 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

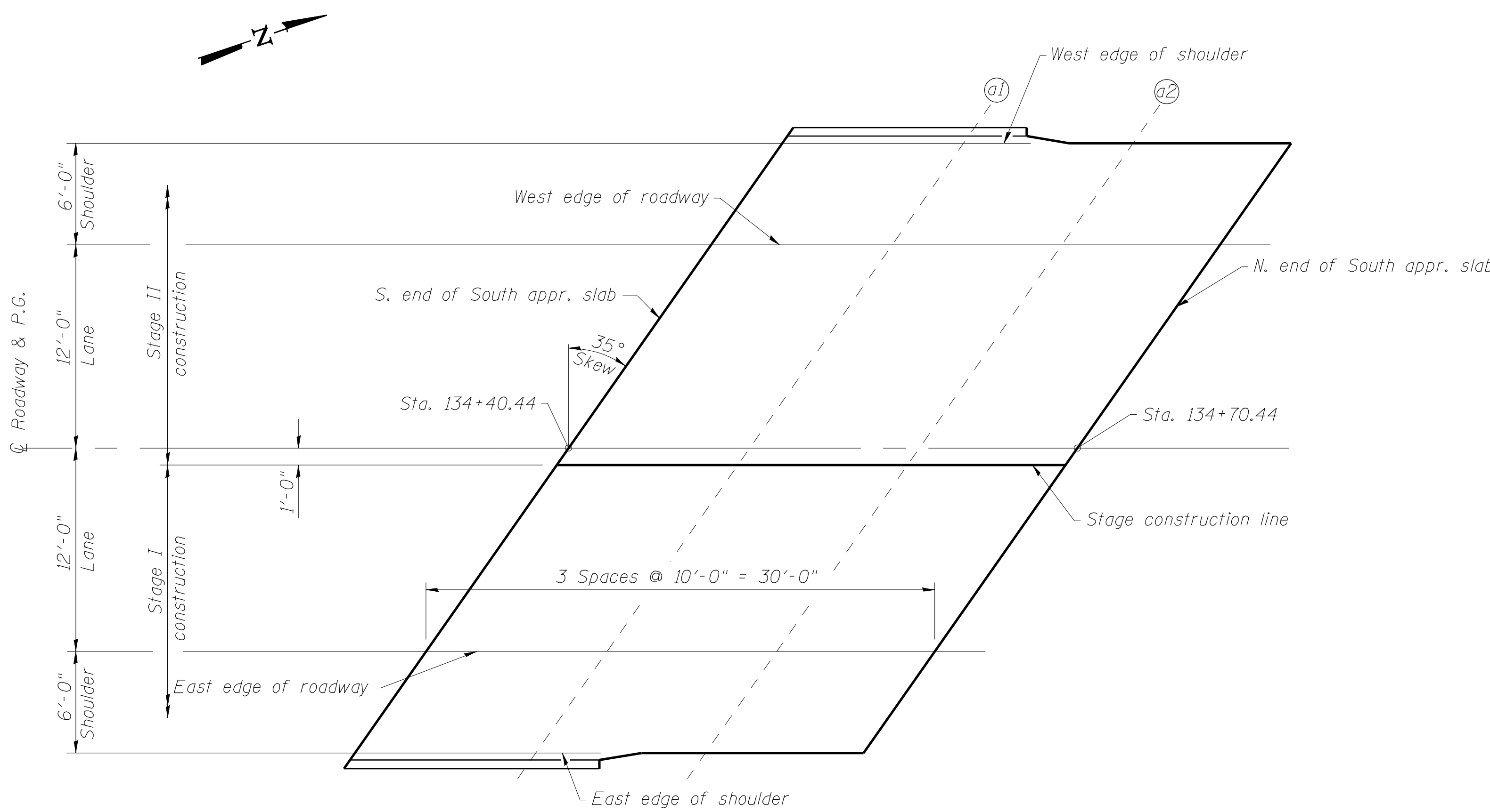
TOP OF SLAB ELEVATIONS
STRUCTURE NO. 093-0025

SHEET NO. 6 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	26

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



PLAN

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	134+53.04	-18.00	410.02
a1	134+63.04	-18.00	410.07
a2	134+73.04	-18.00	410.13
N. end appr. slab	134+83.04	-18.00	410.18

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	134+39.74	1.00	410.23
a1	134+49.74	1.00	410.29
a2	134+59.74	1.00	410.35
N. end appr. slab	134+69.74	1.00	410.41

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	134+48.84	-12.00	410.12
a1	134+58.84	-12.00	410.17
a2	134+68.84	-12.00	410.23
N. end appr. slab	134+78.84	-12.00	410.29

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	134+32.04	12.00	410.02
a1	134+42.04	12.00	410.08
a2	134+52.04	12.00	410.13
N. end appr. slab	134+62.04	12.00	410.19

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	134+40.44	0.00	410.25
a1	134+50.44	0.00	410.31
a2	134+60.44	0.00	410.37
N. end appr. slab	134+70.44	0.00	410.43

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	134+27.84	18.00	409.87
a1	134+37.84	18.00	409.93
a2	134+47.84	18.00	409.98
N. end appr. slab	134+57.84	18.00	410.04

ESCA CONSULTANTS, INC.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

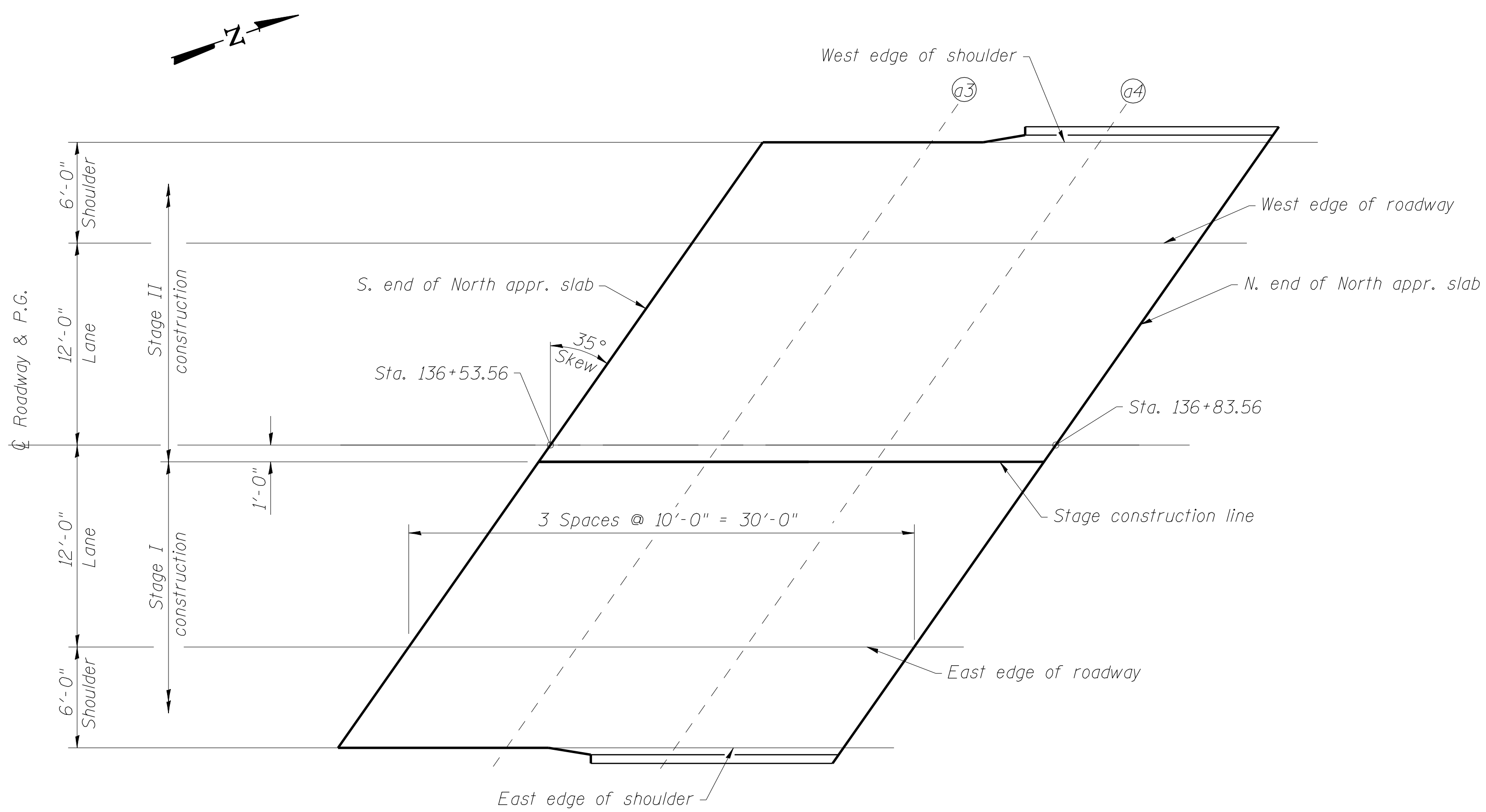
TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 093-0025

SHEET NO. 7 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	27

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



PLAN

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	136+66.16	-18.00	410.04
a3	136+76.16	-18.00	409.98
a4	136+86.16	-18.00	409.92
N. end appr. slab	136+96.16	-18.00	409.87

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	136+52.86	1.00	410.42
a3	136+62.86	1.00	410.36
a4	136+72.86	1.00	410.30
N. end appr. slab	136+82.86	1.00	410.24

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	136+61.96	-12.00	410.19
a3	136+71.96	-12.00	410.13
a4	136+81.96	-12.00	410.07
N. end appr. slab	136+91.96	-12.00	410.02

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	136+45.16	12.00	410.29
a3	136+55.16	12.00	410.23
a4	136+65.16	12.00	410.17
N. end appr. slab	136+75.16	12.00	410.11

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	136+53.56	0.00	410.43
a3	136+63.56	0.00	410.37
a4	136+73.56	0.00	410.31
N. end appr. slab	136+83.56	0.00	410.25

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. end appr. slab	136+40.96	18.00	410.18
a3	136+50.96	18.00	410.13
a4	136+60.96	18.00	410.07
N. end appr. slab	136+70.96	18.00	410.01

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - SHL 11/11	REVISED -
ESCA PROJECT NO. 933.14	CHECKED - ELH/RDP 04/13	REVISED -
PLOT SCALE = 0:2 ' ' / IN.	DRAWN - HAS 11/11	REVISED -
PLOT DATE = 6/10/2014 8:48:34 AM	CHECKED - SHL 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

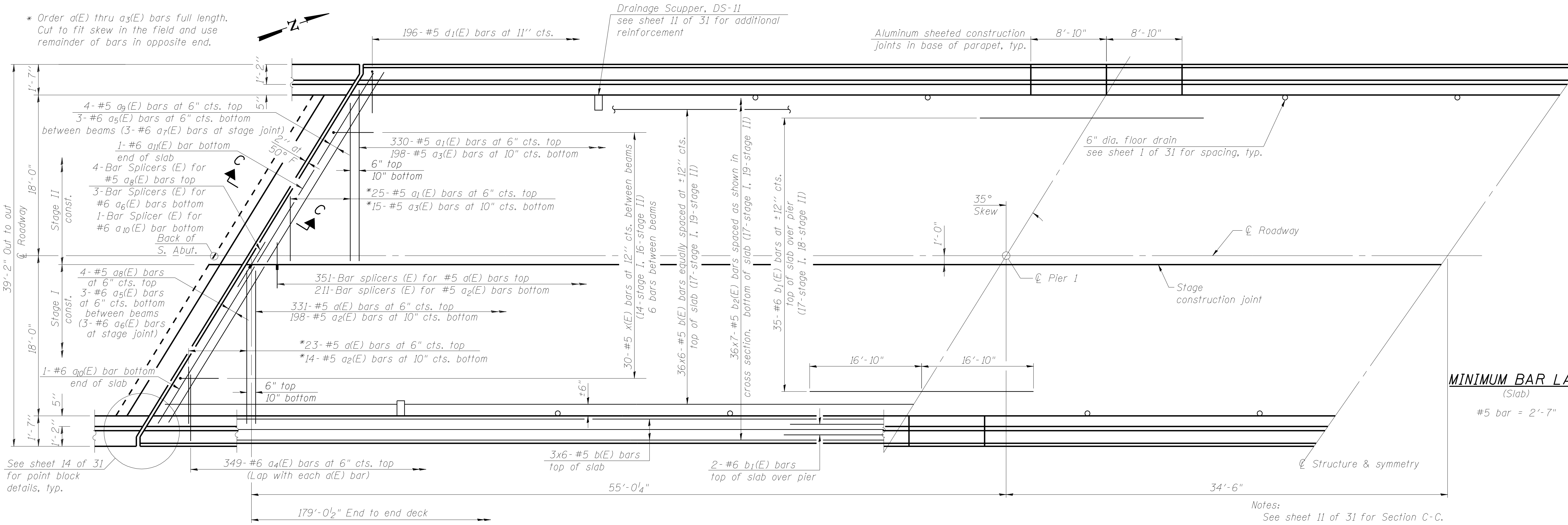
TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 093-0025

SHEET NO. 8 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	28

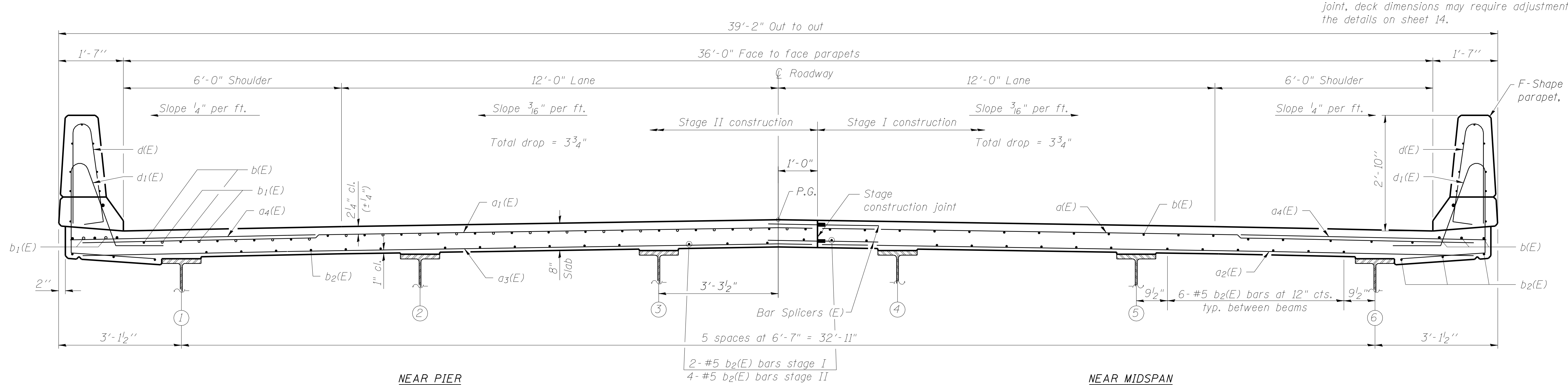
CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



PARTIAL PLAN

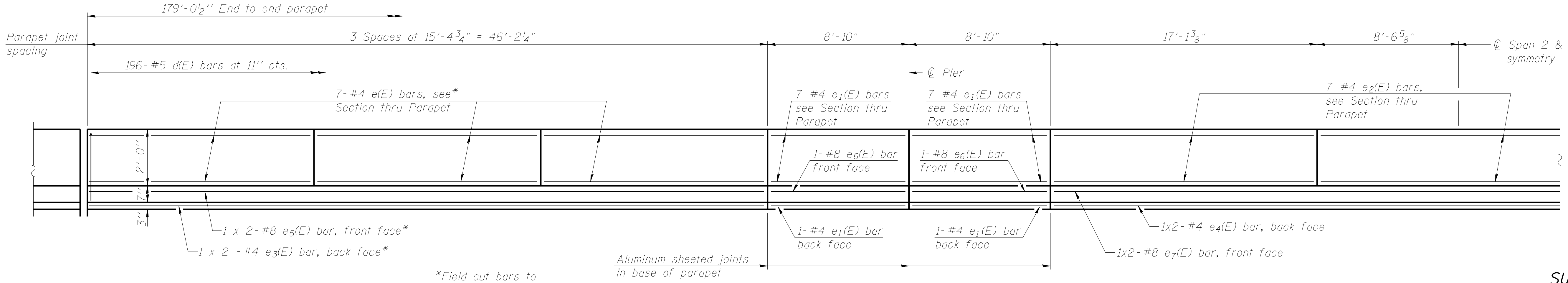
Notes:
See sheet 11 of 31 for Section C-C.
See sheets 10 & 11 of 31 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 10 of 31 for parapet reinforcement.
Dimensions are based on a rolled rail strip seal joint. If the Contractor elects to use the welded rail strip seal joint, deck dimensions may require adjustments to satisfy the details on sheet 14.



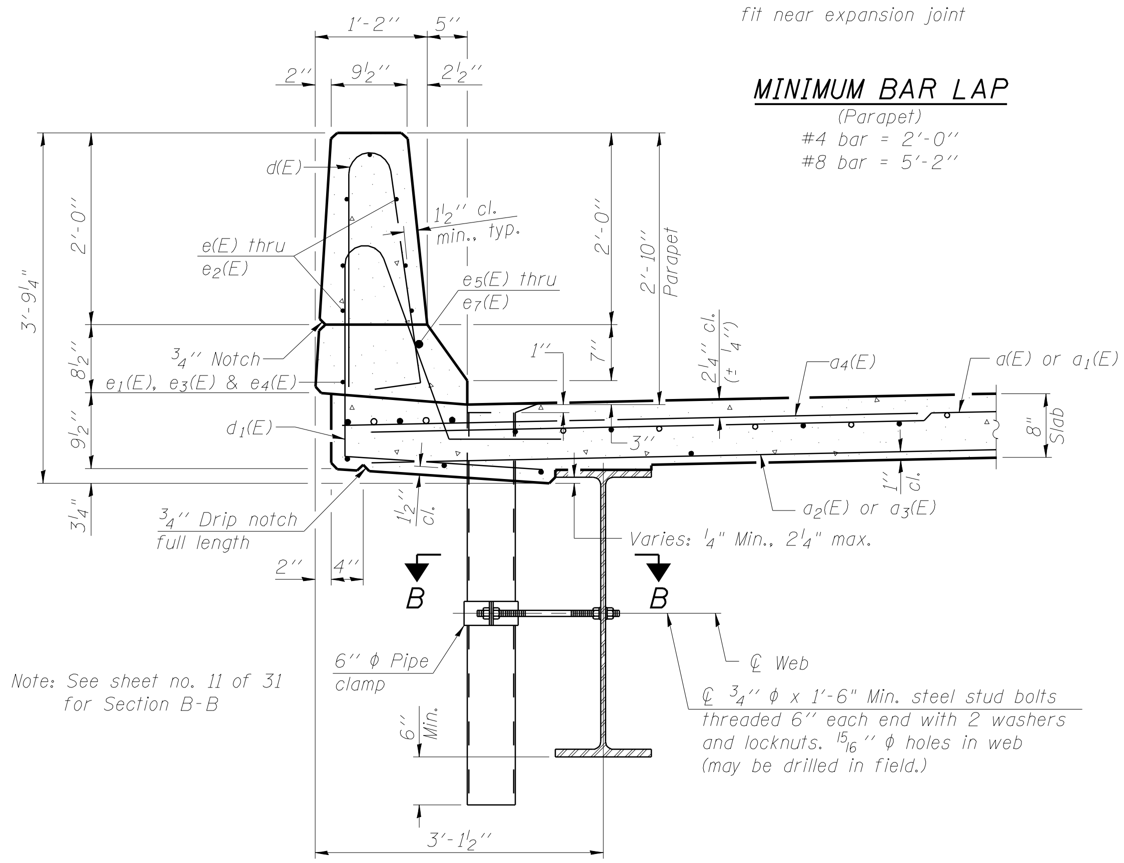
CROSS SECTION
(Looking North)

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS	USER NAME = has	DESIGNED - SHL 12/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE STRUCTURE NO. 093-0025
	ESCA PROJECT NO. 933.14	CHECKED - ELH/RDP 01/14	REVISED -		
		DRAWN - HAS 12/11	REVISED -		
	PLOT DATE = 6/10/2014 8:48:50 AM	CHECKED - SHL 12/11	REVISED -		SHEET NO. 9 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	29
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET

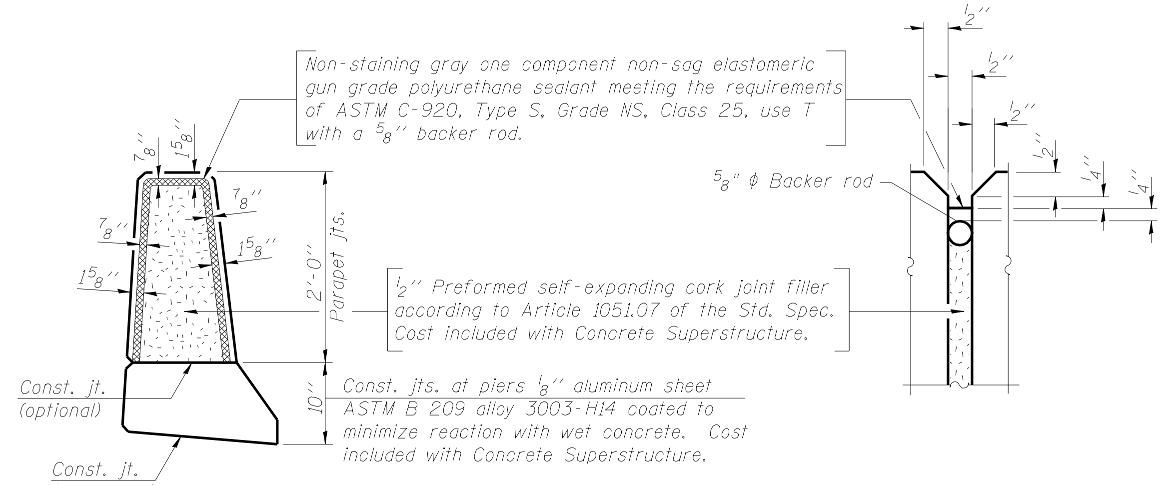


MINIMUM BAR LAP

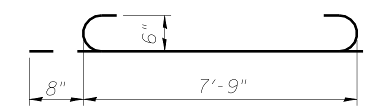
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

Note: See sheet no. 11 of 31 for Section B-B

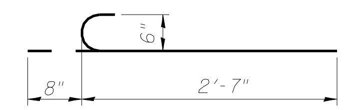
SECTION THRU PARAPET



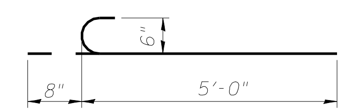
PARAPET JOINT DETAILS



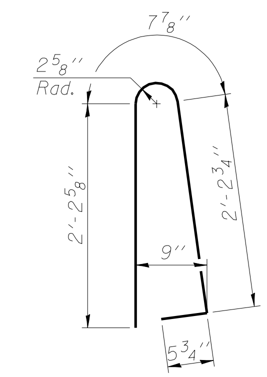
$a_5(E)$ BAR



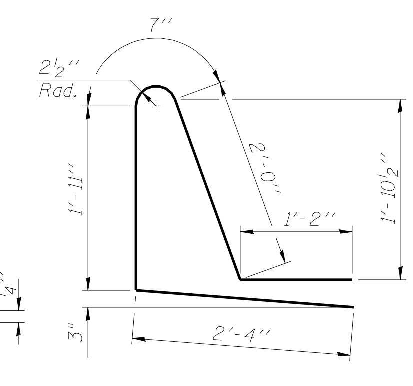
$a_6(E)$ BAR



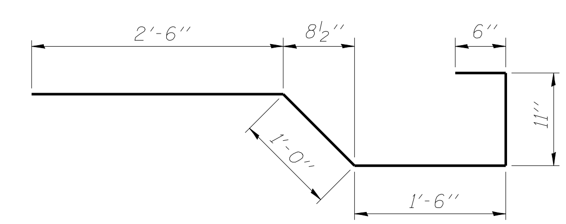
$a_7(E)$ BAR



BAR d(E)



BAR $d_1(E)$



BAR x(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	354	#5	18'-0"	straight
$a_1(E)$	355	#5	20'-0"	straight
$a_2(E)$	212	#5	17'-11"	straight
$a_3(E)$	213	#5	19'-11"	straight
$a_4(E)$	698	#6	6'-6"	straight
$a_5(E)$	24	#6	9'-1"	hooked both ends
$a_6(E)$	6	#6	3'-3"	hooked one end
$a_7(E)$	6	#6	5'-8"	hooked one end
$a_8(E)$	8	#5	22'-1"	straight
$a_9(E)$	8	#5	24'-5"	straight
$a_{10}(E)$	2	#6	21'-10"	straight
$a_{11}(E)$	2	#6	24'-3"	straight
$a_{12}(E)$	32	#5	1'-6"	straight
b(E)	252	#5	32'-0"	straight
$b_1(E)$	78	#6	33'-8"	straight
$b_2(E)$	252	#5	27'-9"	straight
d(E)	392	#5	5'-7"	bent
$d_1(E)$	392	#5	8'-0"	bent
e(E)	84	#4	15'-0"	straight
$e_1(E)$	64	#4	8'-6"	straight
$e_2(E)$	42	#4	16'-9"	straight
$e_3(E)$	8	#4	24'-0"	straight
$e_4(E)$	4	#4	26'-6"	straight
$e_5(E)$	8	#8	25'-7"	straight
$e_6(E)$	8	#8	8'-6"	straight
$e_7(E)$	4	#8	28'-1"	straight
x(E)	60	#5	6'-5"	bent
Reinforcement Bars, Epoxy Coated			Pound	58750
Concrete Superstructure			Cu. Yds.	238.3

Bars indicated thus 1 x 2 - #8 etc. indicates 1 line of bars with 2 lengths per line.

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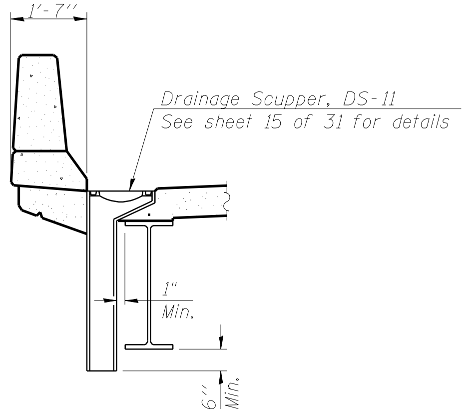
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

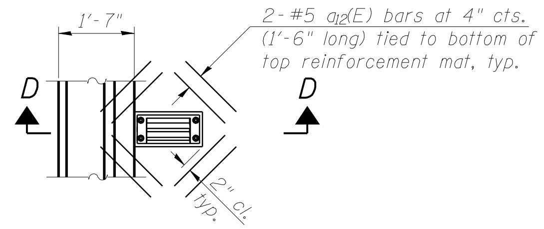
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 093-0025

SHEET NO. 10 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	30
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

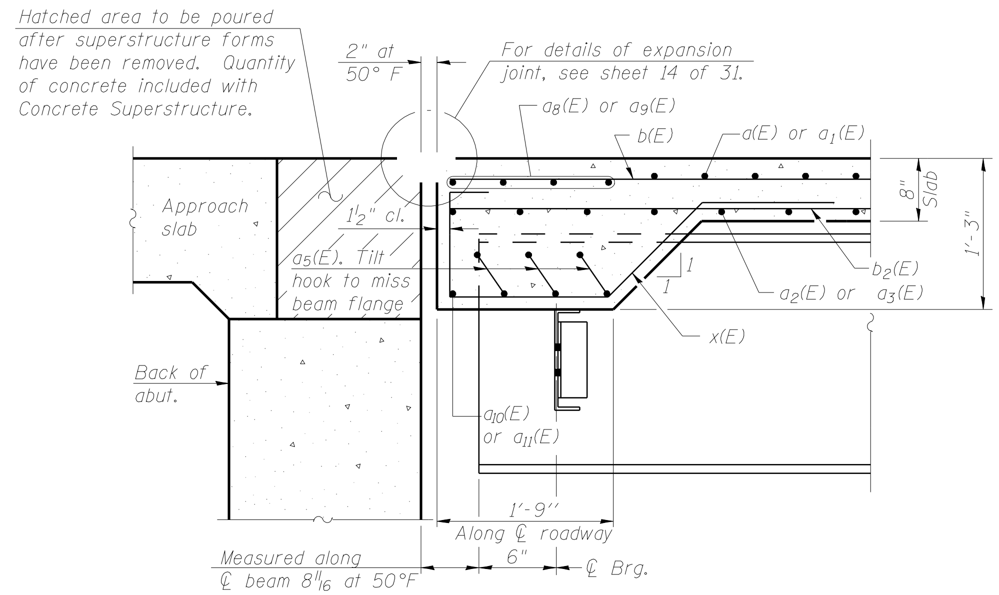


SECTION D-D



PLAN AT SCUPPER

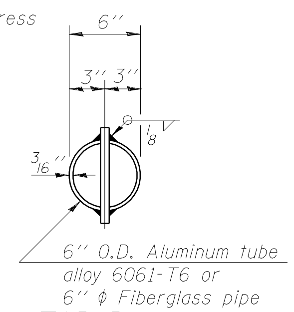
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



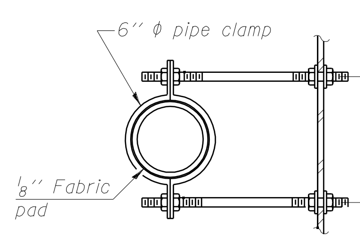
SECTION C-C

(See sheet no. 9 of 31 for location of section)

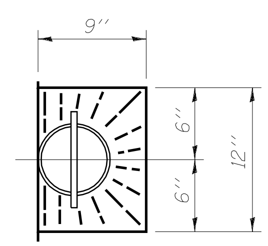
Notes:
Drains shall be located clear of all diaphragms.
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in Section 506 of the Standard Specifications. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.



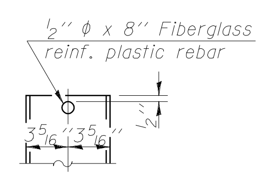
TOP PLAN
(Showing aluminum tube)



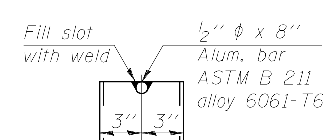
SECTION B-B
(See sheet no. 10 for location of section)



TOP PLAN



FIBERGLASS PIPE



ALUMINUM TUBE

*Dimension as required by pipe clamp

FLOOR DRAIN DETAILS

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS	USER NAME = has	DESIGNED - SHL 12/11	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 093-0025

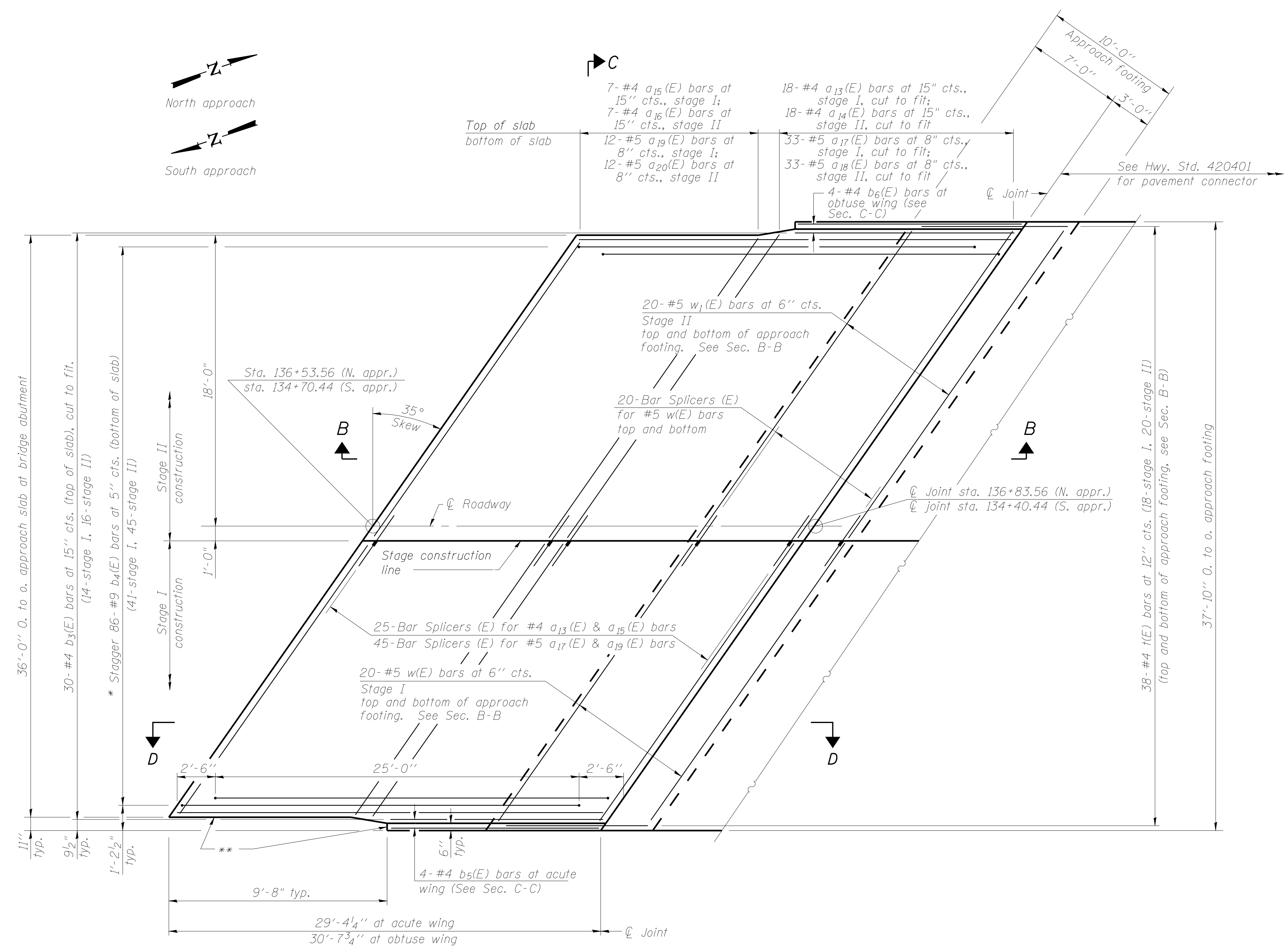
SHEET NO. 11 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	31
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

Notes:

See sheet 13 of 31 for Sections B-B & C-C and View D-D.

a_{13}(E), a_{14}(E), a_{15}(E), a_{16}(E), a_{17}(E), a_{18}(E), a_{19}(E) and a_{20}(E) bar spacings measured along ℄ roadway.

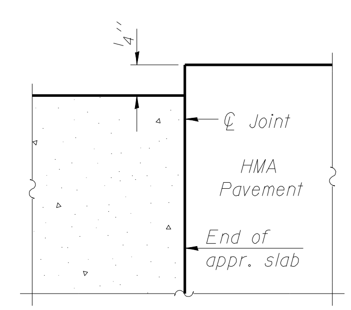


PLAN

(N. appr. shown; S. appr. opposite hand)

* Tilt #9 b_4(E) bars as required to maintain clearance.

** Closed cell joint filler according to Article 1051.09 of the Std. Specifications; full depth of slab, full length of parapet, typ. each parapet.

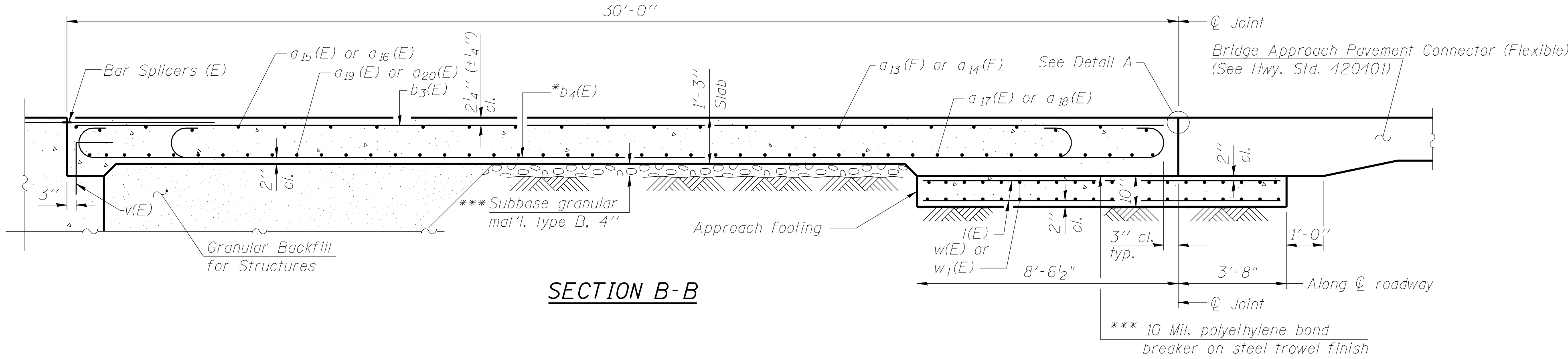


FLEXIBLE PAVEMENT

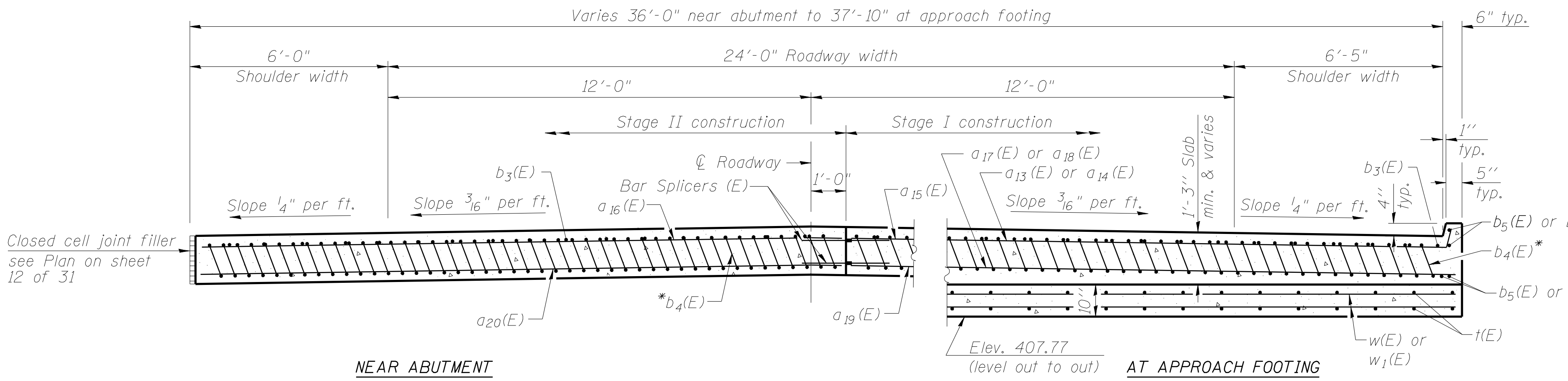
DETAIL A

(Sheet 1 of 2)

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - ELH 11/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 093-0025	F.A.P. RTE. 332; SECTION (12,B2)B-1; COUNTY WABASH; TOTAL SHEETS 68; SHEET NO. 32
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -			CONTRACT NO. 74219
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - DWH 11/11	REVISED -		SHEET NO. 12 OF 31 SHEETS	ILLINOIS FED. AID PROJECT
	PLOT DATE = 6/10/2014 8:50:23 AM	CHECKED - ELH 01/14	REVISED -			



SECTION B-B

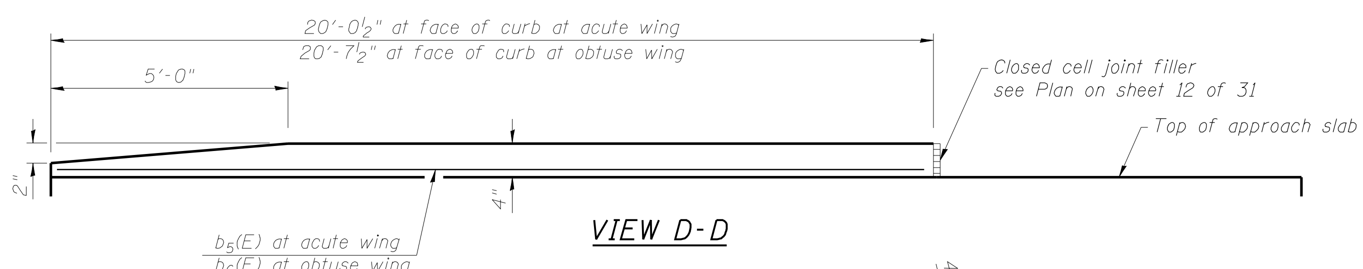


SECTION C-C

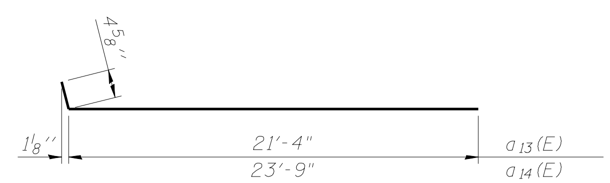
(See Plan for dimensions not shown)

* Tilt #9 b_4(E) bars as required to maintain clearance.

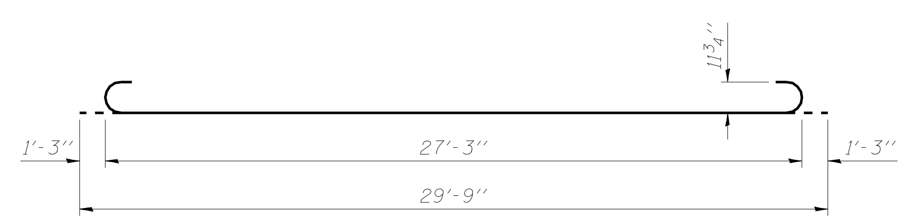
*** Cost included with Concrete Superstructure.



VIEW D-D



BARS a_{13}(E) and a_{14}(E)



BAR b_4(E)

Notes:

See sheet 12 of 31 for Detail A.
Approach slab 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(E) bar details, see sheet 19 of 31.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 25 of 31.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 31.
Cost of closed cell joint filler included with Concrete Superstructure.

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{13}(E)	36	#4	21'-9"	
a_{14}(E)	36	#4	24'-2"	
a_{15}(E)	14	#4	20'-4"	
a_{16}(E)	14	#4	22'-9"	
a_{17}(E)	66	#5	21'-6"	
a_{18}(E)	66	#5	23'-11"	
a_{19}(E)	24	#5	20'-4"	
a_{20}(E)	24	#5	22'-9"	
b_3(E)	60	#4	29'-8"	
b_4(E)	172	#9	29'-9"	
b_5(E)	8	#4	19'-7"	
b_6(E)	8	#4	20'-6"	
t(E)	152	#4	11'-9"	
w(E)	80	#5	21'-6"	
w_1(E)	80	#5	23'-11"	
Concrete Superstructure			Cu. Yd.	110.6
Concrete Structures			Cu. Yd.	28.6
Reinforcement Bars, Epoxy Coated			Pound	29,500

(Sheet 2 of 2)

USER NAME = has	DESIGNED - ELH 11/11	REVISED -	
ESCA PROJECT NO. 933.14	CHECKED - RDP 01/14	REVISED -	
PLOT SCALE = 0.2 ' / IN.	DRAWN - DWH 11/11	REVISED -	
PLOT DATE = 6/10/2014 8:50:39 AM	CHECKED - ELH 11/11	REVISED -	

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

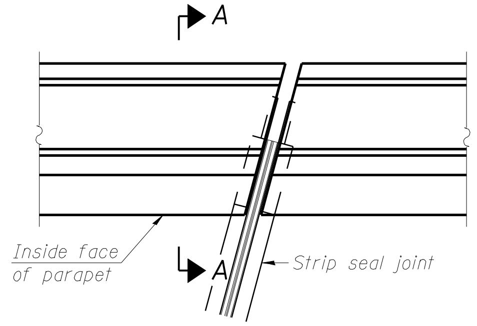
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 093-0025

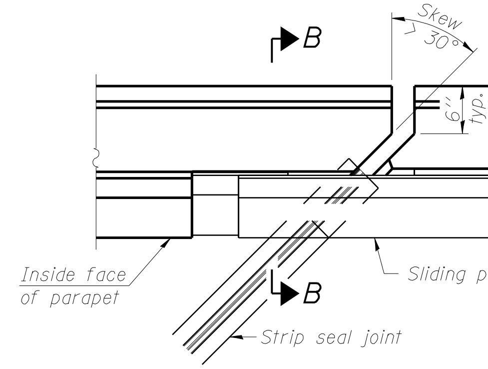
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	33

CONTRACT NO. 74219

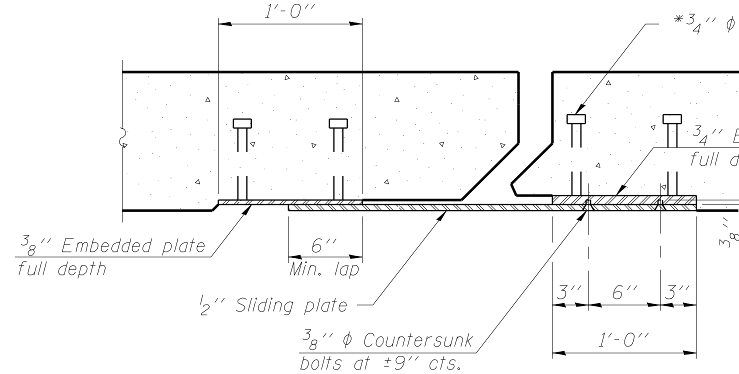
ILLINOIS FED. AID PROJECT



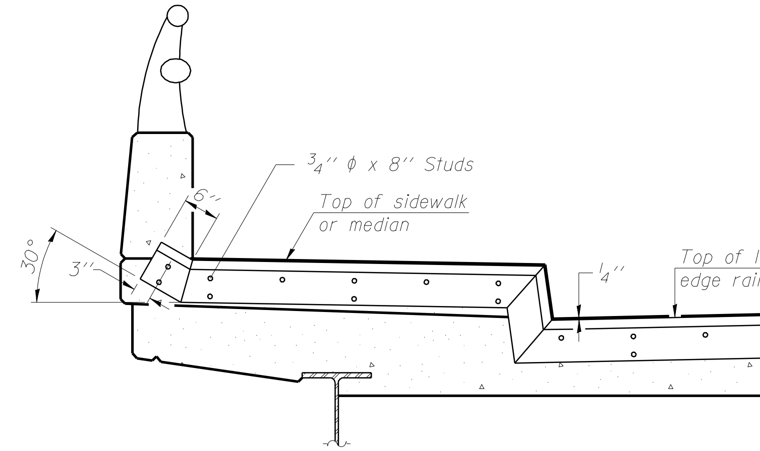
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

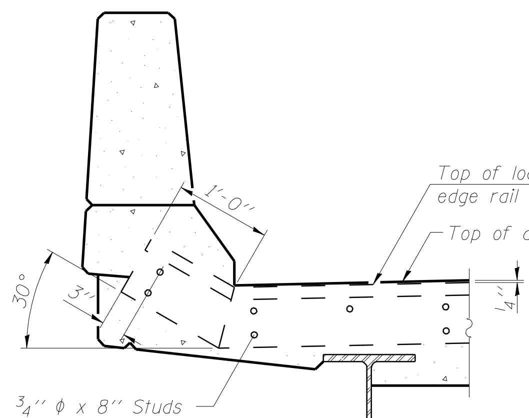


SECTION C-C

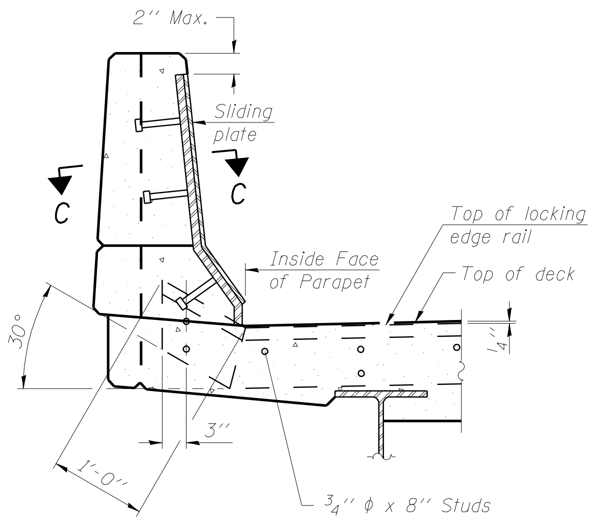


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

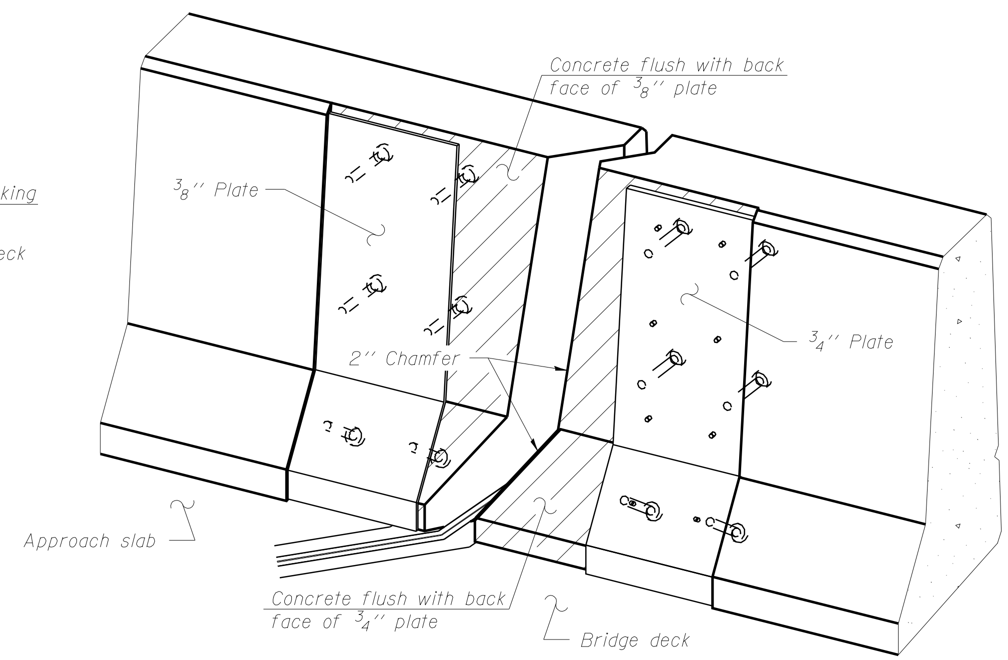
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



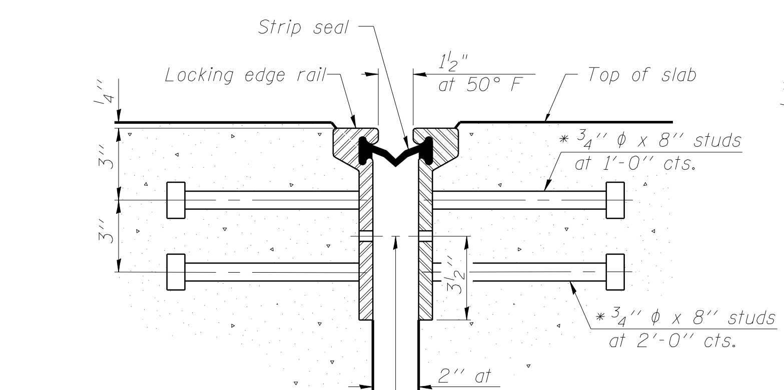
SECTION A-A



SECTION B-B

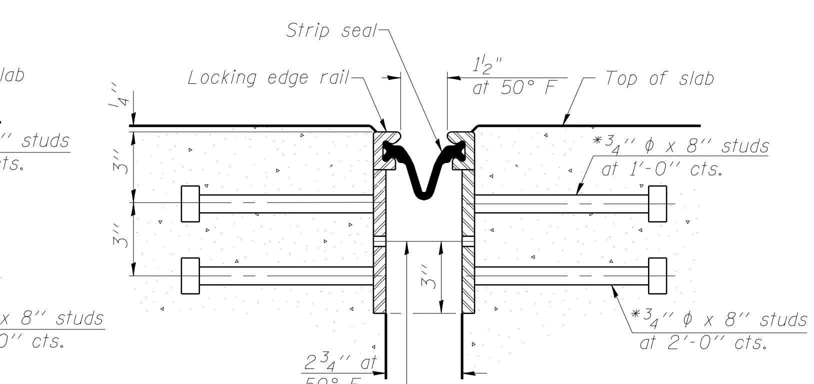


TRIMETRIC VIEW
(Showing back plates only)



7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

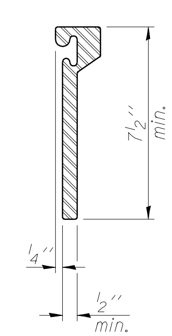
SECTION THRU ROLLED RAIL JOINT



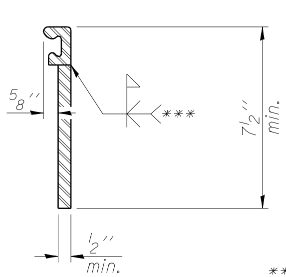
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

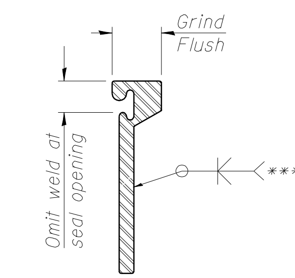
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

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

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

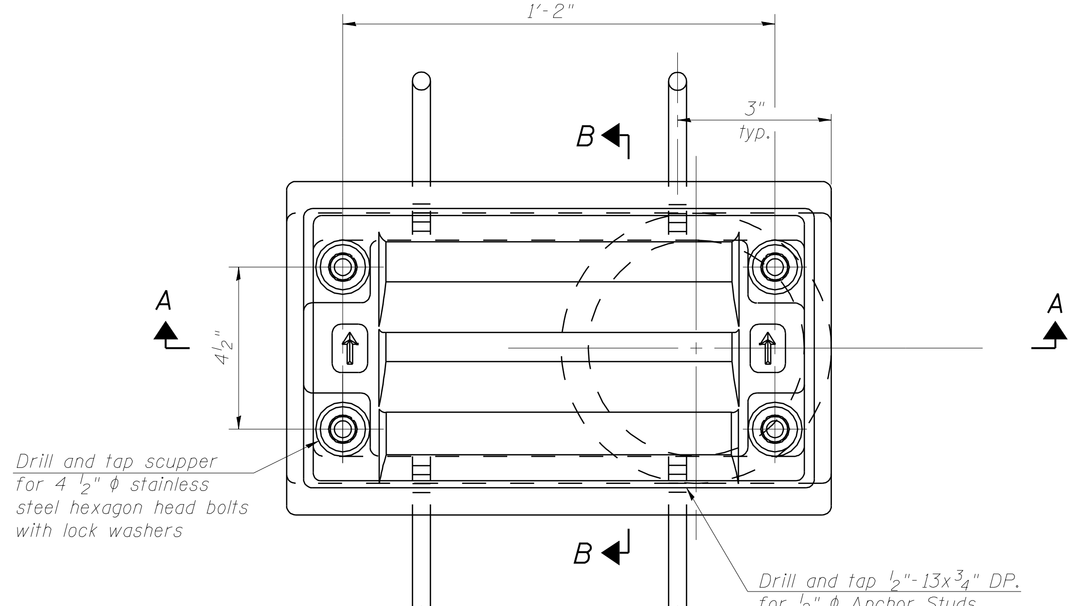
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	92

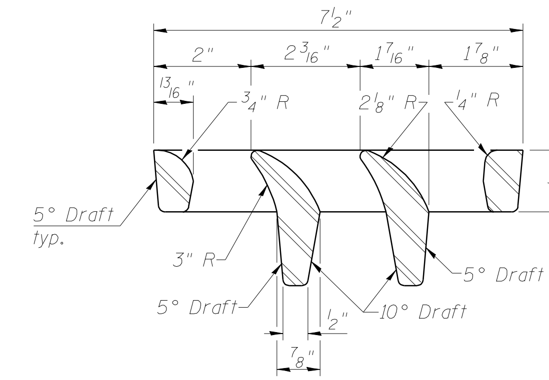
EJ-SSJ 1-27-12

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - ELH 12/12	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 093-0025
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -		
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - DWH 12/12	REVISED -		
	PLOT DATE = 6/10/2014 8:50:51 AM	CHECKED - ELH 12/12	REVISED -		SHEET NO. 14 OF 31 SHEETS

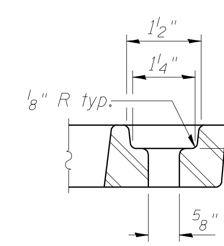
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	34
CONTRACT NO. 74219				
ILLINOIS FED. AID PROJECT				



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

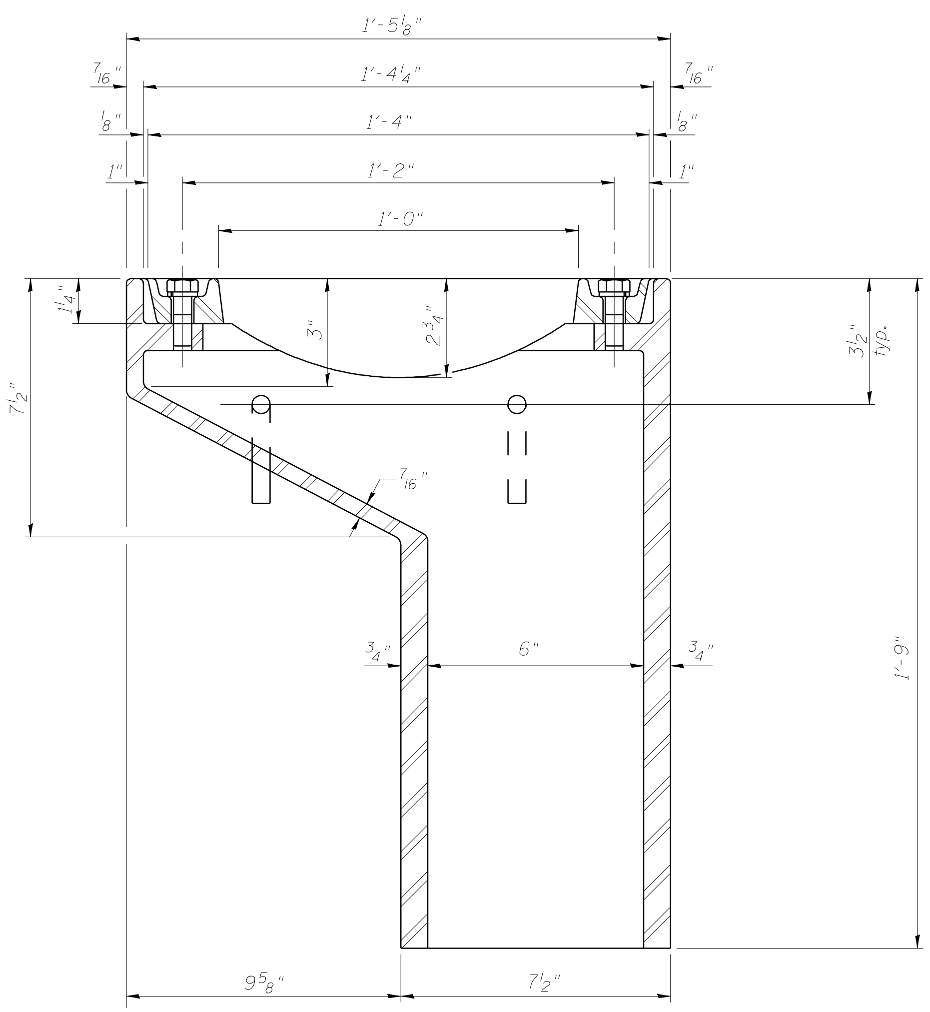
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

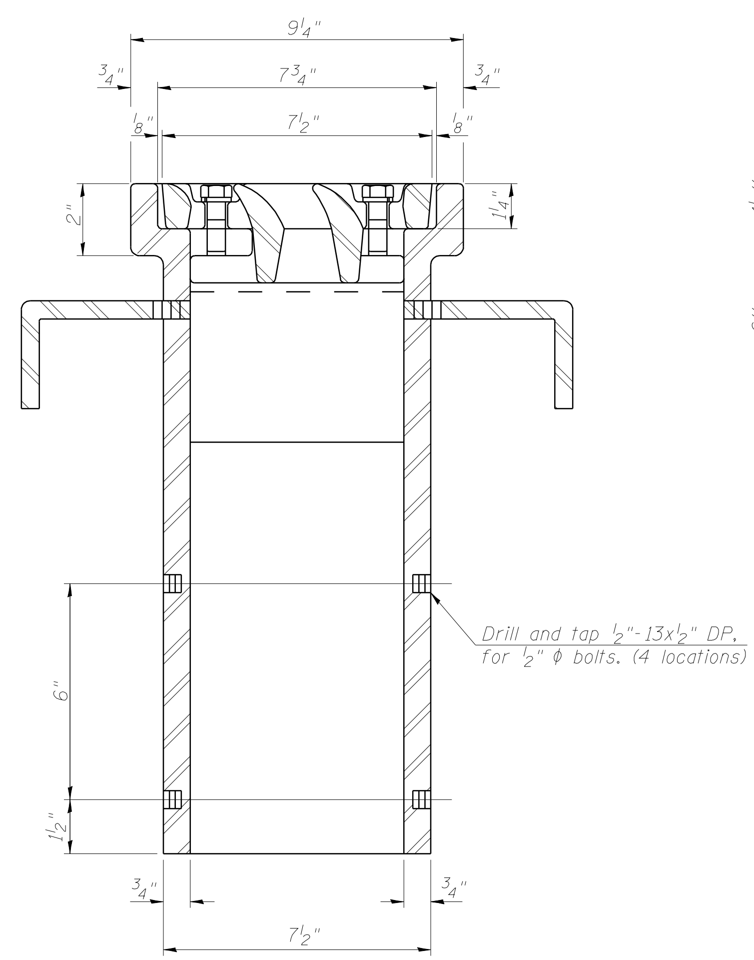
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

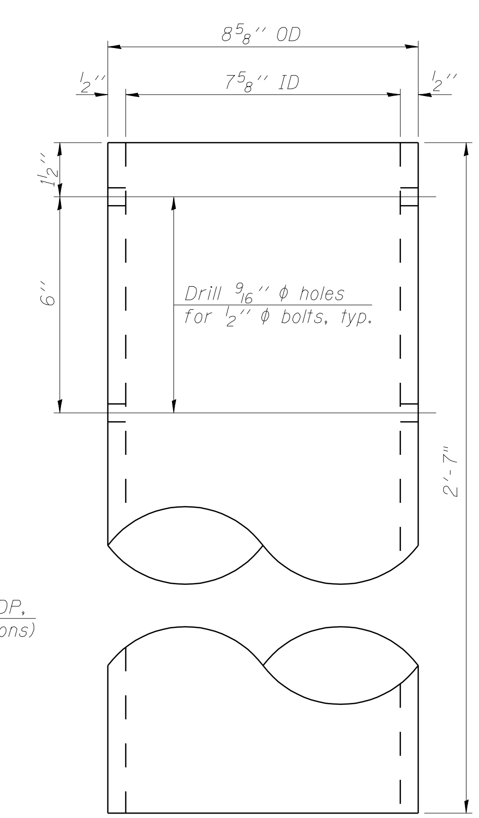


SECTION A-A

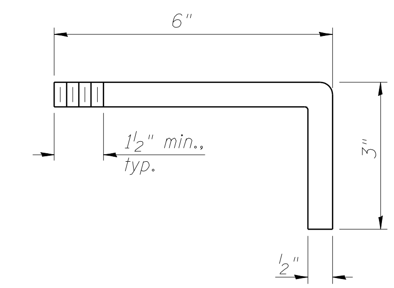
See sheet 11 of 31 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11 7-1-10

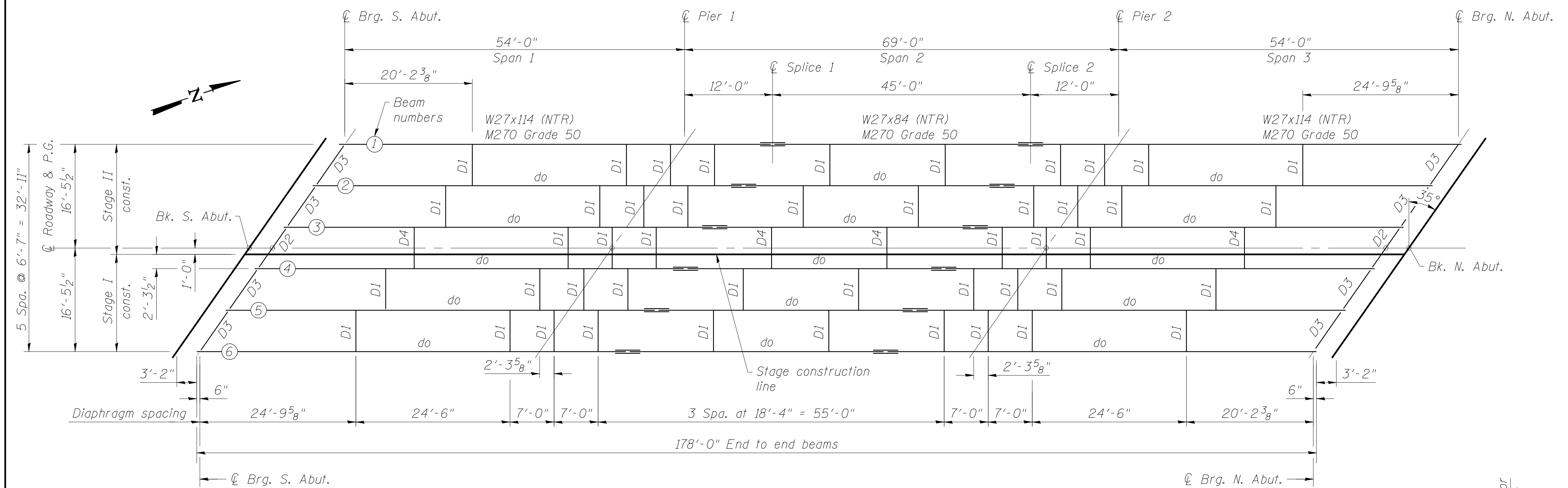
ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS	USER NAME = has	DESIGNED - ELH 05/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -	
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - DWH 05/11	REVISED -	
	PLOT DATE = 6/10/2014 8:51:05 AM	CHECKED - ELH 01/14	REVISED -	

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 093-0025

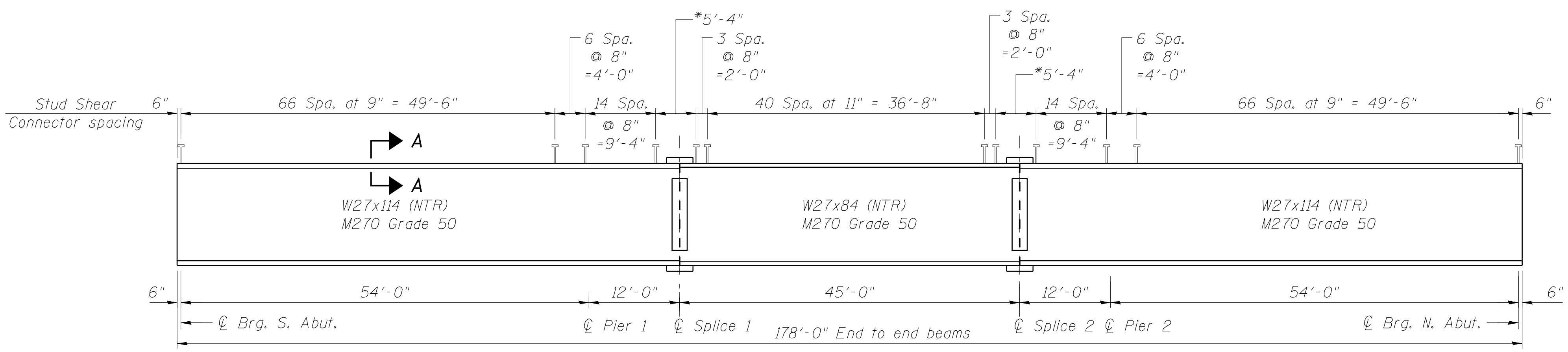
SHEET NO. 15 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	35
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

Notes:
See sheet 17 of 31 for steel details.
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
Splice plates shall be M270 Grade 50.



STEEL FRAMING PLAN



ELEVATION

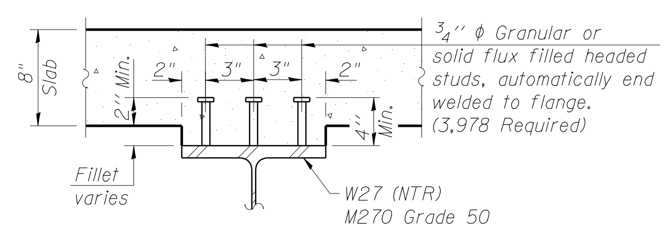
* Omit shear connectors over splices

TOP OF BEAM ELEVATIONS

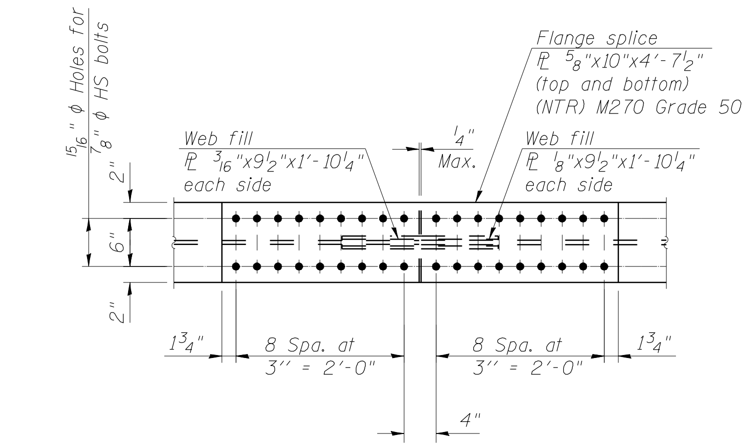
(For fabrication only)

Beam	℄ Brg. S. Abut.	℄ Pier 1	℄ Splice 1	℄ Splice 2	℄ Pier 2	℄ Brg. N. Abut.
1	409.50	409.60	409.63	409.60	409.56	409.38
2	409.61	409.72	409.75	409.73	409.70	409.54
3	409.69	409.82	409.85	409.84	409.81	409.66
4	409.66	409.81	409.84	409.85	409.82	409.69
5	409.54	409.70	409.73	409.75	409.72	409.61
6	409.38	409.56	409.60	409.63	409.60	409.50

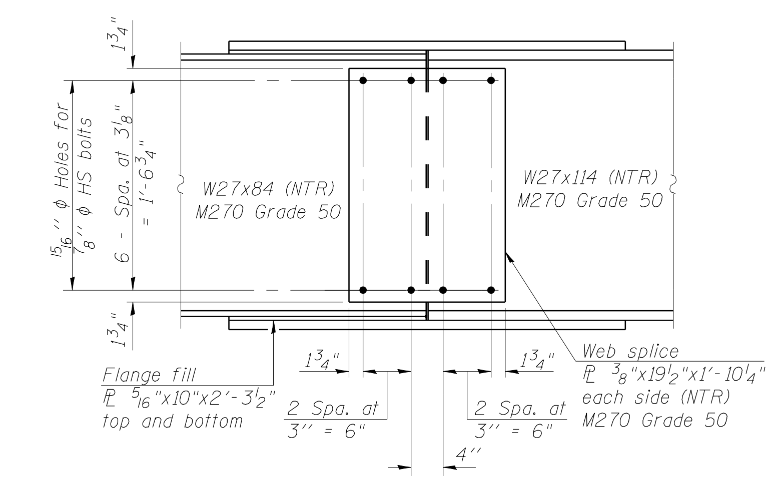
Notes:
Elevations shown do not include deflection and are intended only for use in fabrication of steel beams.
Elevations at splice locations are top of W27X114 flange (not splice plate).



SECTION A-A



PLAN



ELEVATION

SPLICE DETAIL

(12 Required)

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - SLH 11/11	REVISED -
	ESCA PROJECT NO. 933.14	CHECKED - ELH/RDP 01/14	REVISED -
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - HAS 11/11	REVISED -
	PLOT DATE = 6/10/2014 8:51:40 AM	CHECKED - SLH 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL FRAMING PLAN
STRUCTURE NO. 093-0025

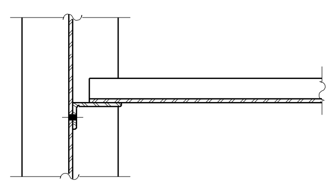
SHEET NO. 16 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	36

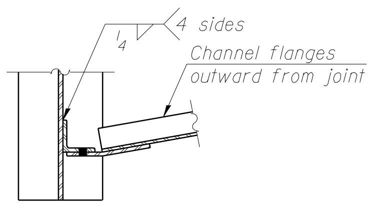
CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT

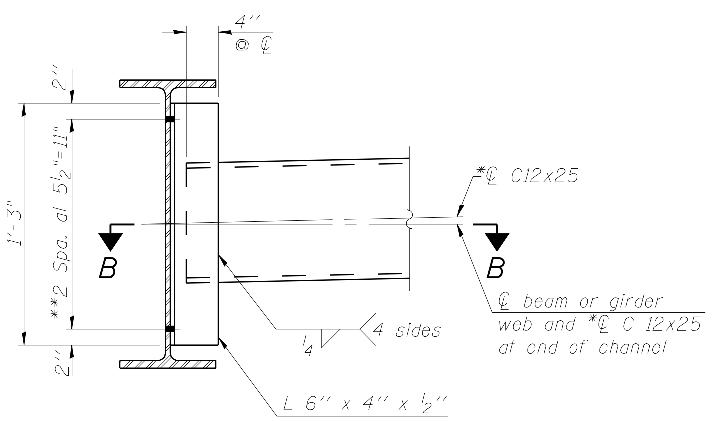
Notes:
Two hardened washers required for each set of oversized holes.
*Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**$\frac{3}{4}$'' ϕ HS bolts, $\frac{15}{16}$'' ϕ holes
***Cost of timber block posts is included with structural steel.



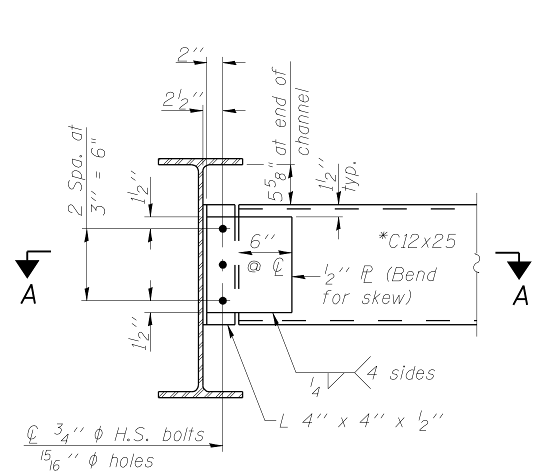
SECTION B-B



SECTION A-A



INTERIOR DIAPHRAGM D1
(46 Required)

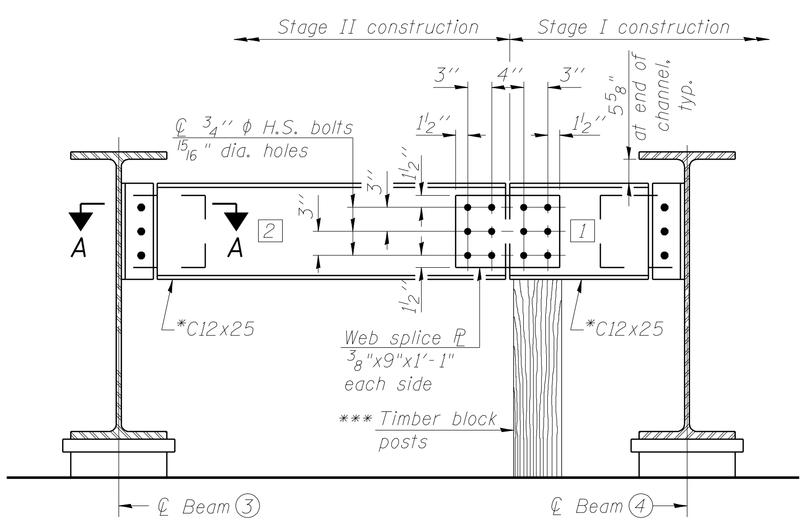


END DIAPHRAGM D3
(8 Required)

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Piers	0.5 Sp. 2
I_s	(in^4)	4,080	4,080	2,850
$I_c(n)$	(in^4)	11,926	11,926	9,067
$I_c(3n)$	(in^4)	8,744	-	6,814
$I_c(cr)$	(in^4)	-	5,914	-
S_s	(in^3)	299	299	213
$S_c(n)$	(in^3)	460	460	342
$S_c(3n)$	(in^3)	414	-	309
$S_c(cr)$	(in^3)	-	355	-
DC1	(k/')	0.800	0.810	0.790
M_{DC1}	('k)	151.9	322.3	147.7
DC2	(k/')	0.150	0.150	0.150
M_{DC2}	('k)	28.5	60.1	29.2
DW	(k/')	0.300	0.300	0.300
M_{DW}	('k)	56.9	120.2	58.4
M_{LL+IM}	('k)	591.5	586.2	545.6
M_u (Strength I)	('k)	1,346.0	1,684.2	1,263.5
$\phi_f M_n$	('k)	2,340.5	1,854.1	1,688.3
f_s DC1	(ksi)	6.10	12.94	8.32
f_s DC2	(ksi)	0.83	2.03	1.13
f_s DW	(ksi)	1.65	4.06	2.27
f_s (LL+IM)	(ksi)	15.43	19.82	19.14
f_s (Service II)	(ksi)	28.63	44.79	36.61
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50
V_f	(k)	26.7	25.6	19.6

INTERIOR BEAM REACTION TABLE			
		Abut.	Piers
R_{DC1}	(k)	17.7	55.4
R_{DC2}	(k)	3.0	10.3
R_{DW}	(k)	5.9	20.7
R_{LL+IM}	(k)	75.6	100.0
R_{Total}	(k)	102.2	186.4

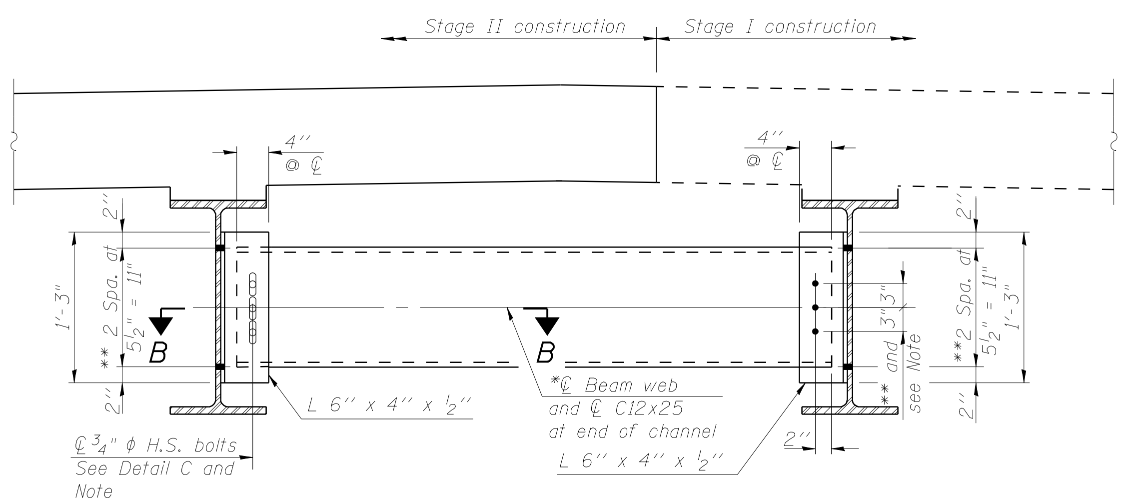
I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.^{4} and in.^{3}).
$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.^{4} and in.^{3}).
$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).
$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).
DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}$
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.
f_s (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{LL+IM} / S_c(n)$ or $M_{LL+IM} / S_c(cr)$ as applicable.
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (LL+IM)$
$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
V_f: Maximum factored shear range in span computed according to Article 6.10.10.



END DIAPHRAGM D2
(2 Required)

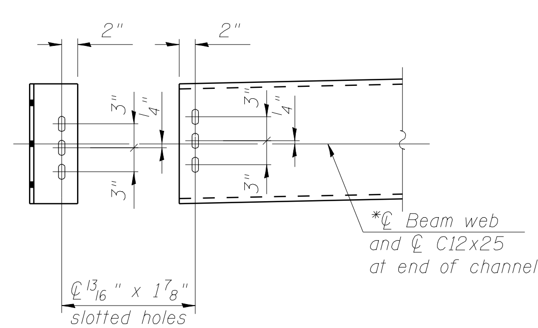
END DIAPHRAGM D2 STAGE CONSTRUCTION SEQUENCE

1. Order diaphragm in two sections.
2. Attach section [1] of diaphragm to beam ④.
3. Place timber block posts between section [1] of diaphragm and abutment bearing seat.
4. Attach section [2] of diaphragm to both beam ③ and section [1] of diaphragm during stage II construction with splice plates.
5. Remove timber block posts.



Note:
Bolts in *C12x25 shall be finger tightened prior to stage II deck pour to permit differential displacement of beams. Fully tighten after stage II deck pour is complete.

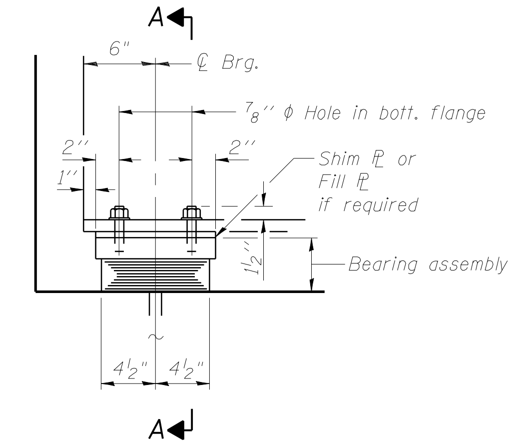
INTERIOR DIAPHRAGM - D4
(4 Required)



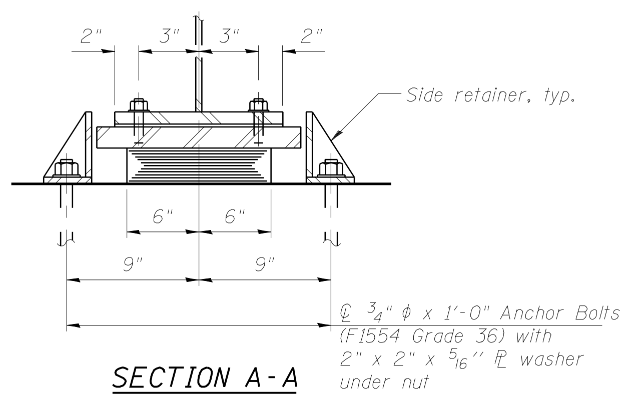
DETAIL C

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - SHL 11/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL FRAMING DETAILS STRUCTURE NO. 093-0025
	ESCA PROJECT NO. 933.14	CHECKED - ELH/RDP 01/14	REVISED -		
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - HAS 11/11	REVISED -		
	PLOT DATE = 6/10/2014 8:52:11 AM	CHECKED - SHL 11/11	REVISED -		SHEET NO. 17 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	37
CONTRACT NO. 74219				
ILLINOIS FED. AID PROJECT				

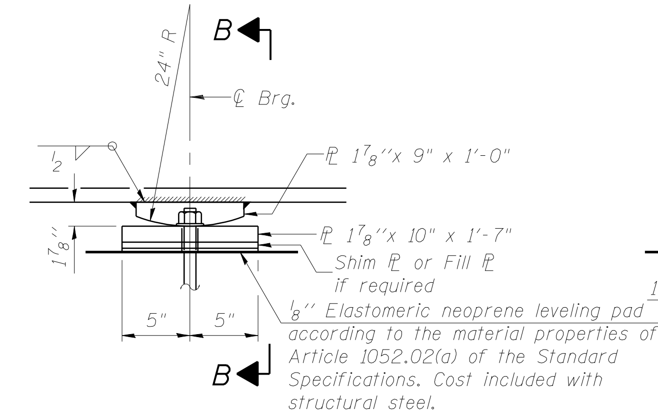


ELEVATION AT ABUT.

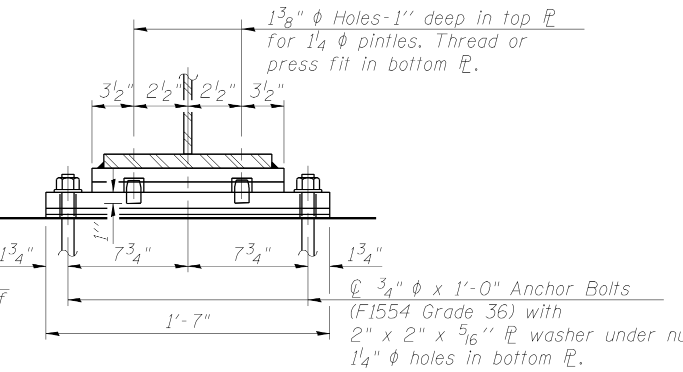


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

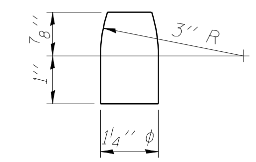


ELEVATION AT PIER

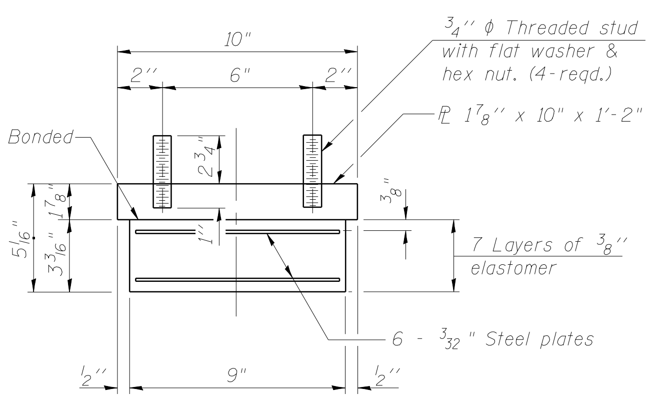


SECTION B-B

FIXED BEARING



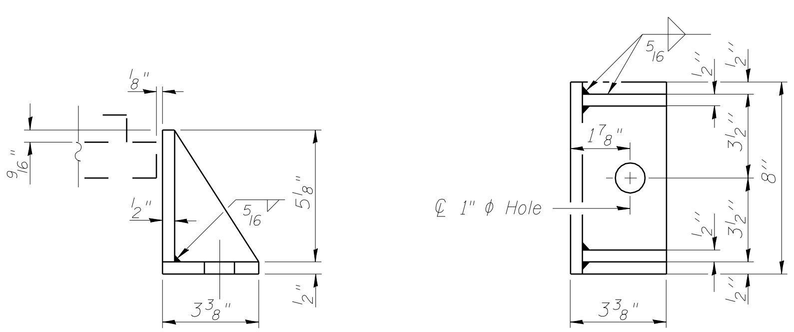
PINTLE



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under bearing assembly.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.
Fill plates are required at the locations shown in the table below and shall be placed as shown on bearing details.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



SIDE RETAINER

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

BEARING FILL PLATES

Location		Thickness
South Abutment	Beam 3	1"
South Abutment	Beam 4	5/8"
Pier 1	Beam 3	1/8"
Pier 2	Beam 4	1/8"
North Abutment	Beam 4	1"
North Abutment	Beam 3	5/8"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 3/4"	Each	48

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

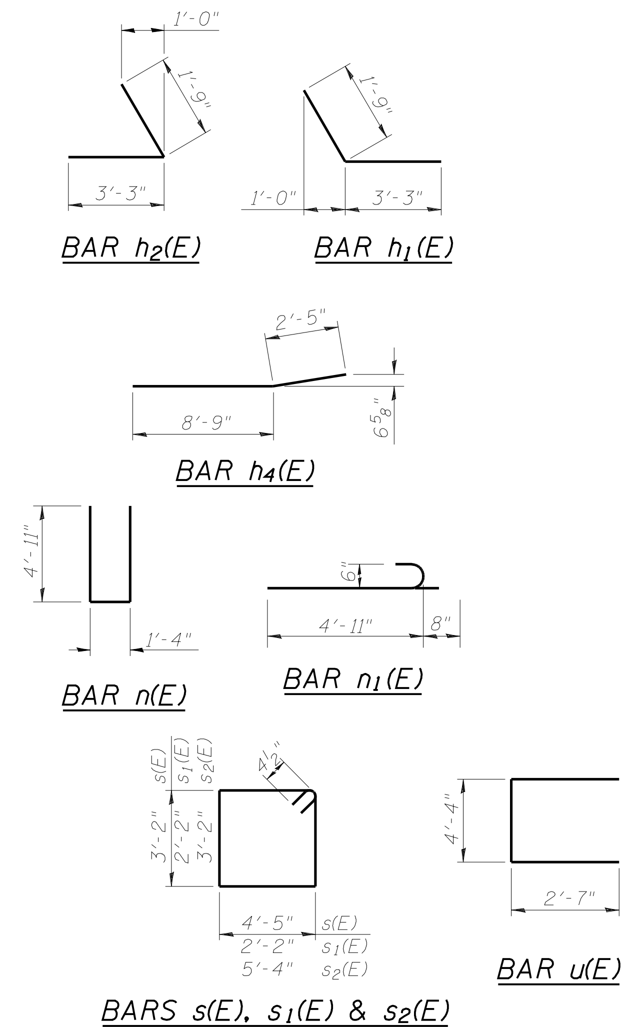
BEARING DETAILS
STRUCTURE NO. 093-0025

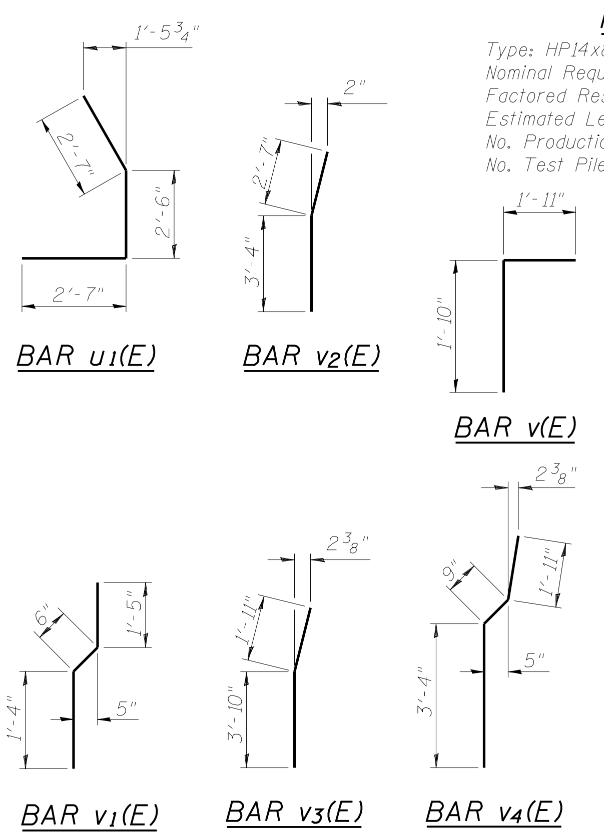
SHEET NO. 18 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	38

CONTRACT NO. 74219

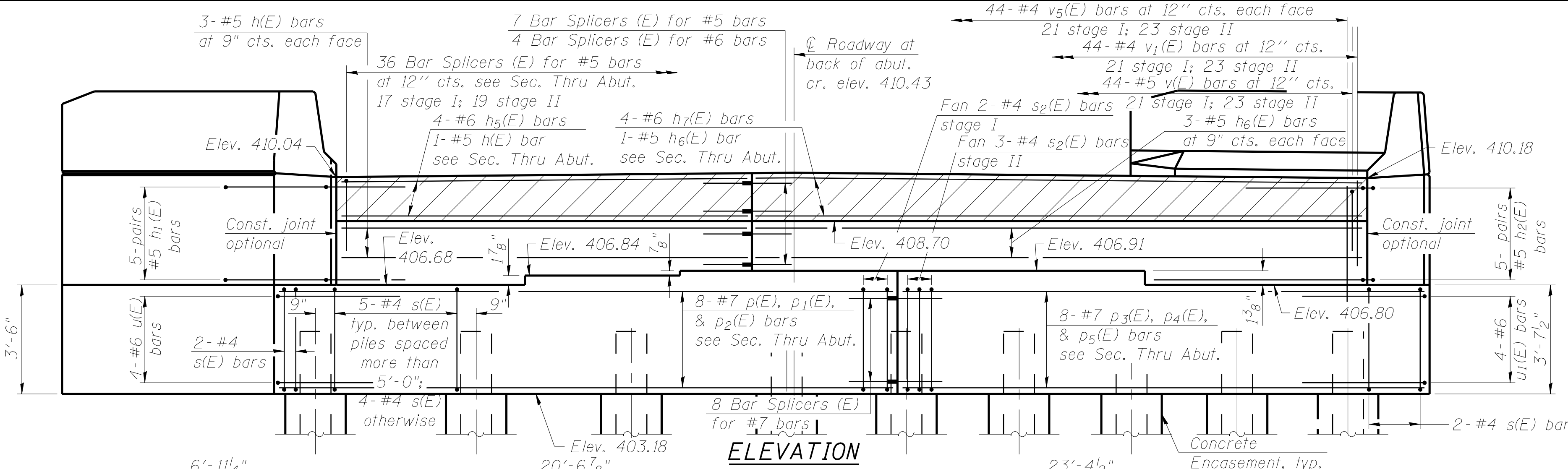
ILLINOIS FED. AID PROJECT



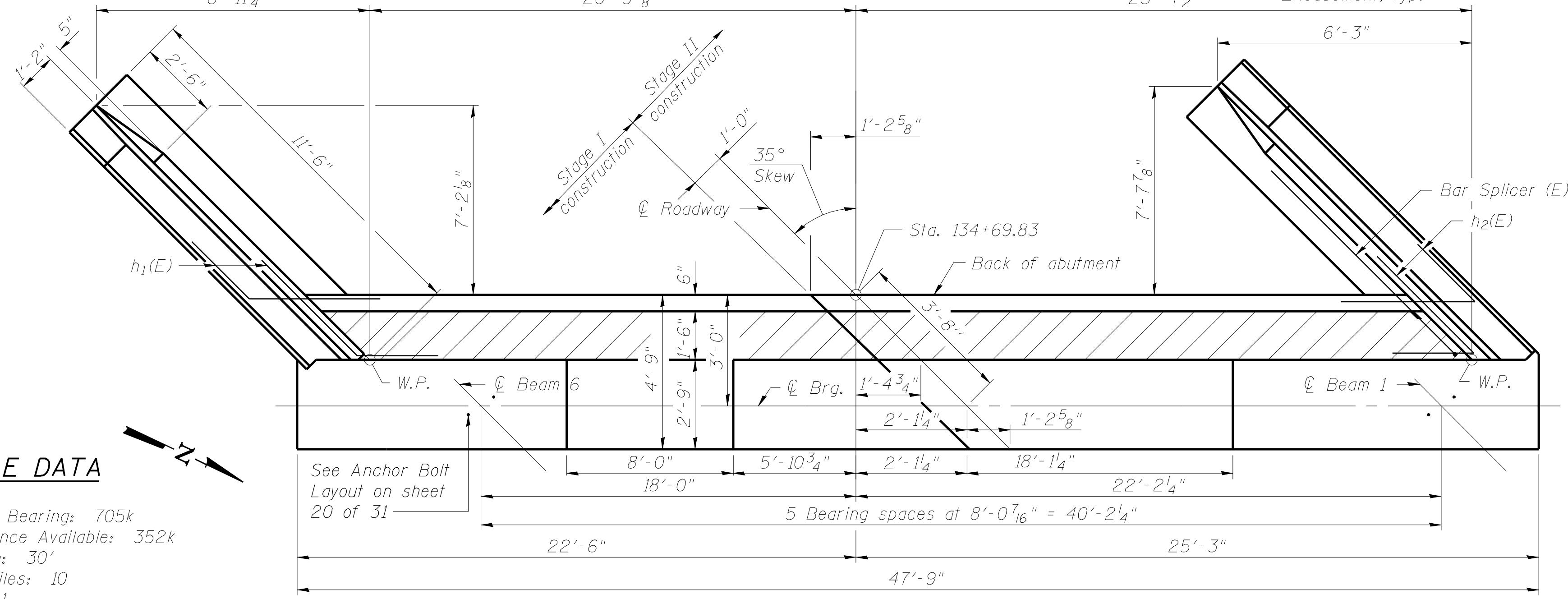


PILE DATA

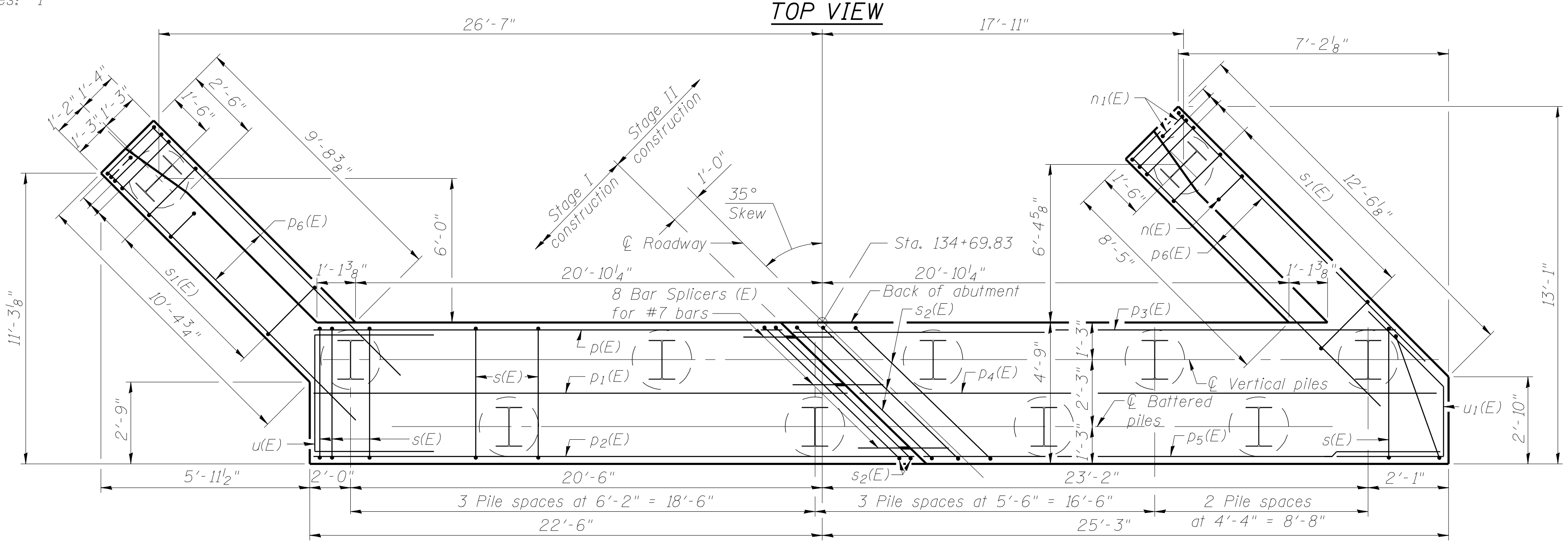
Type: HP14x89
Nominal Required Bearing: 705k
Factored Resistance Available: 352k
Estimated Length: 30'
No. Production Piles: 10
No. Test Piles: 1



ELEVATION



TOP VIEW



PLAN-PILE CAP

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	7	#5	20'-4"	
h_1(E)	10	#5	5'-0'	
h_2(E)	10	#5	5'-0"	
h_3(E)	11	#4	11'-11"	
h_4(E)	12	#4	11'-2"	
h_5(E)	4	#6	20'-4"	
h_6(E)	7	#5	22'-9"	
h_7(E)	4	#6	22'-9"	
h_8(E)	9	#4	10'-4"	
n(E)	18	#6	11'-2"	
n_1(E)	12	#6	5'-7"	
p(E)	3	#7	21'-0"	
p_1(E)	2	#7	22'-7"	
p_2(E)	3	#7	24'-1"	
p_3(E)	3	#7	24'-9"	
p_4(E)	2	#7	24'-5"	
p_5(E)	3	#7	22'-10"	
p_6(E)	12	#7	12'-2"	
s(E)	37	#4	15'-11"	
s_1(E)	24	#4	9'-5"	
s_2(E)	5	#4	17'-9"	
u(E)	4	#6	9'-6"	
u_1(E)	4	#6	7'-8"	
v(E)	44	#5	3'-9"	
v_1(E)	44	#4	3'-3"	
v_2(E)	24	#6	5'-11"	
v_3(E)	6	#6	5'-9"	
v_4(E)	18	#6	6'-0"	
v_5(E)	88	#4	4'-6"	

Structure Excavation	Cu. Yd.	210
Concrete Structures	Cu. Yd.	46.6
Reinforcement Bars, Epoxy Coated	Pound	4050
Furnishing Steel Piles, HP14x89	Foot	300
Driving Piles	Foot	300
Test Pile, HP14x89	Each	1
Concrete Encasement	Cu. Yd.	6.0
Concrete Sealer	Sq. Ft.	497
Granular Backfill for Structures	Cu. Yd.	92
Geocomposite Wall Drain	Sq. Yd.	27
Pipe Underdrains for Structures 4"	Foot	100

For details of Bar Splicers, see sheet 25 of 31.
For details of piles and Concrete Encasement, see sheet 24 of 31.
For Sec. Thru Abut. and wing wall details, see sheet 21 of 31.
Concrete Sealer shall be applied to all exposed surfaces of the backwall, bearing seats, and pile cap.
For location of anchor bolts, see sheet 20 of 31.

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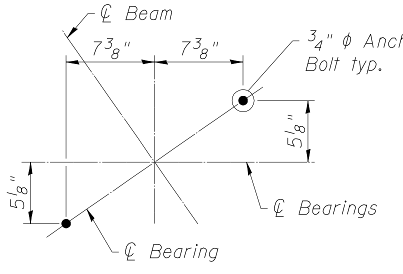
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 093-0025

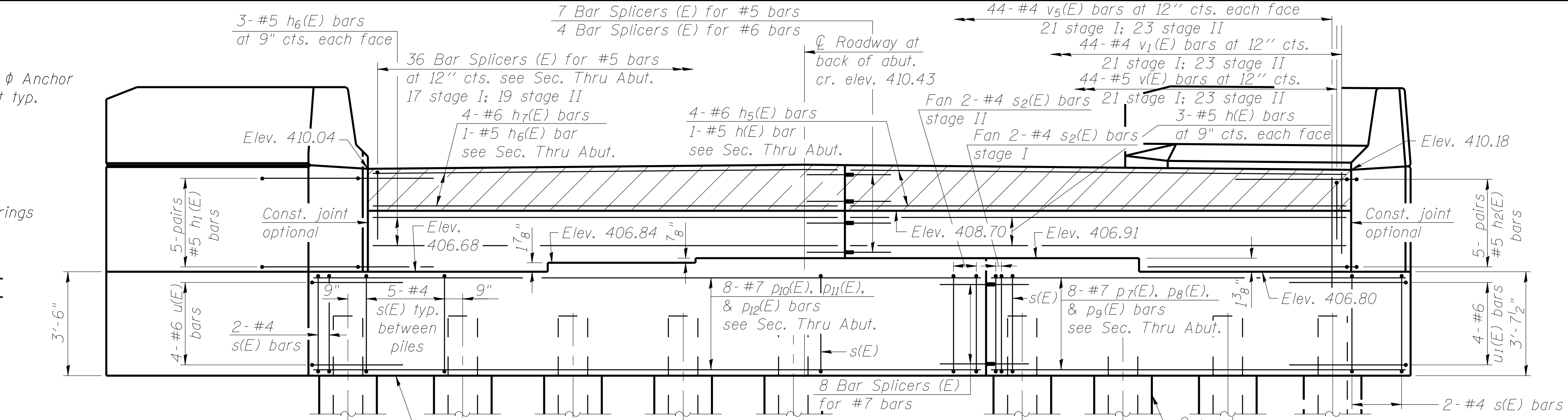
SHEET NO. 19 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	39
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

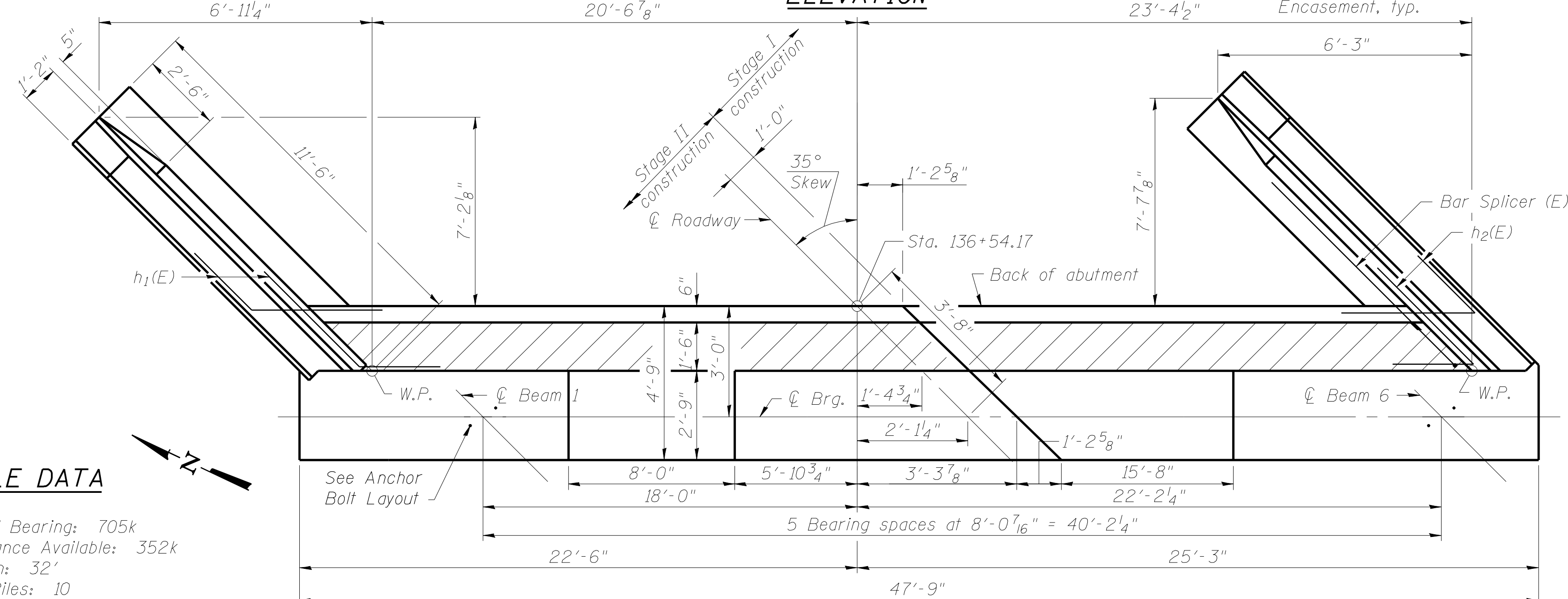


ANCHOR BOLT LAYOUT

(Typical both abutments)



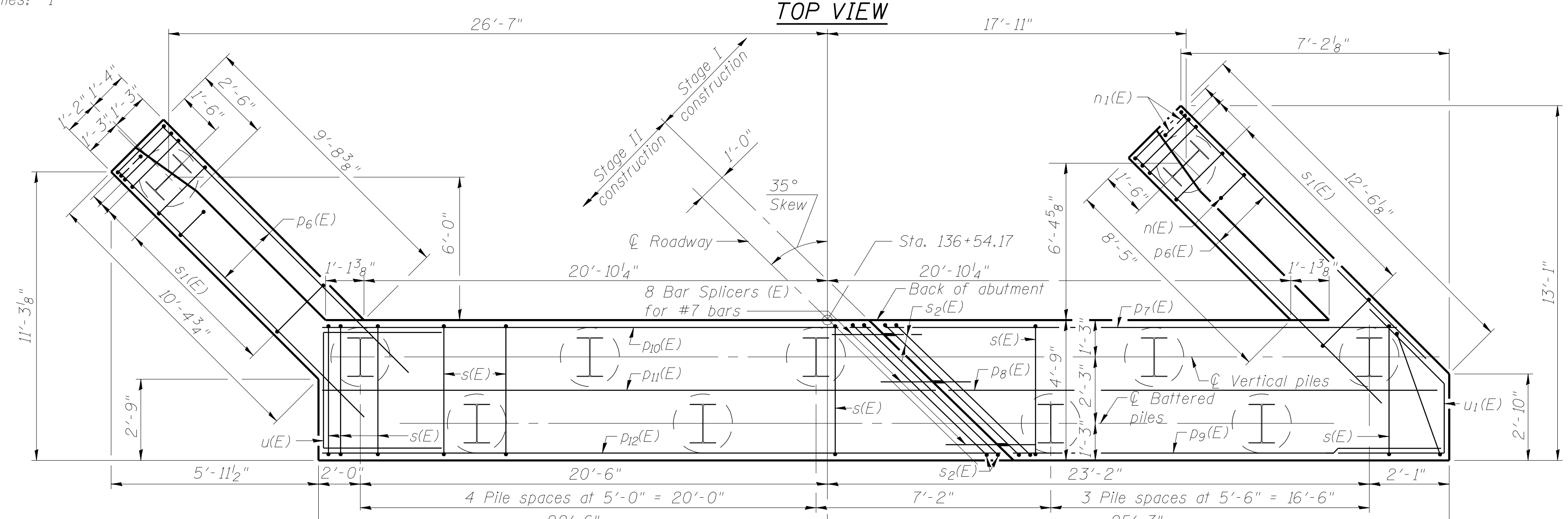
ELEVATION



TOP VIEW

PILE DATA

Type: HP14x89
Nominal Required Bearing: 705k
Factored Resistance Available: 352k
Estimated Length: 32'
No. Production Piles: 10
No. Test Piles: 1



PLAN-PILE CAP

NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	7	#5	20'-4"	
h1(E)	10	#5	5'-0'	
h2(E)	10	#5	5'-0"	
h3(E)	11	#4	11'-11"	
h4(E)	12	#4	11'-2"	
h5(E)	4	#6	20'-4"	
h6(E)	7	#5	22'-9"	
h7(E)	4	#6	22'-9"	
h8(E)	9	#4	10'-4"	
n(E)	18	#6	11'-2"	
n1(E)	12	#6	5'-7"	
p6(E)	12	#7	12'-2"	
p7(E)	3	#7	22'-2"	
p8(E)	2	#7	22'-0"	
p9(E)	3	#7	20'-6"	
p10(E)	3	#7	23'-6"	
p11(E)	2	#7	25'-0"	
p12(E)	3	#7	26'-6"	
s(E)	41	#4	15'-11"	
s1(E)	24	#4	9'-5"	
s2(E)	4	#4	17'-9"	
u(E)	4	#6	9'-6"	
u1(E)	4	#6	7'-8"	
v(E)	44	#5	3'-9"	
v1(E)	44	#4	3'-3"	
v2(E)	24	#6	5'-11"	
v3(E)	6	#6	5'-9"	
v4(E)	18	#6	6'-0"	
v5(E)	88	#4	4'-6"	

Structure Excavation	Cu. Yd.	170
Concrete Structures	Cu. Yd.	46.6
Reinforcement Bars, Epoxy Coated	Pound	4080
Furnishing Steel Piles, HP14x89	Foot	320
Driving Piles	Foot	320
Test Pile, HP14x89	Each	1
Concrete Encasement	Cu. Yd.	6.0
Concrete Sealer	Sq. Ft.	497
Granular Backfill for Structures	Cu. Yd.	49
Geocomposite Wall Drain	Sq. Yd.	27
Pipe Underdrains for Structures 4"	Foot	90

For details of Bar Splicers, see sheet 25 of 31.
For details of piles and Concrete Encasement, see sheet 24 of 31.
For Sec. Thru Abut. and wing wall details, see sheet 21 of 31.
Concrete Sealer shall be applied to all exposed surfaces of the backwall, bearing seats, and pile cap.
For bar bending details, see sheet 19 of 31.

ESCA CONSULTANTS, INC.

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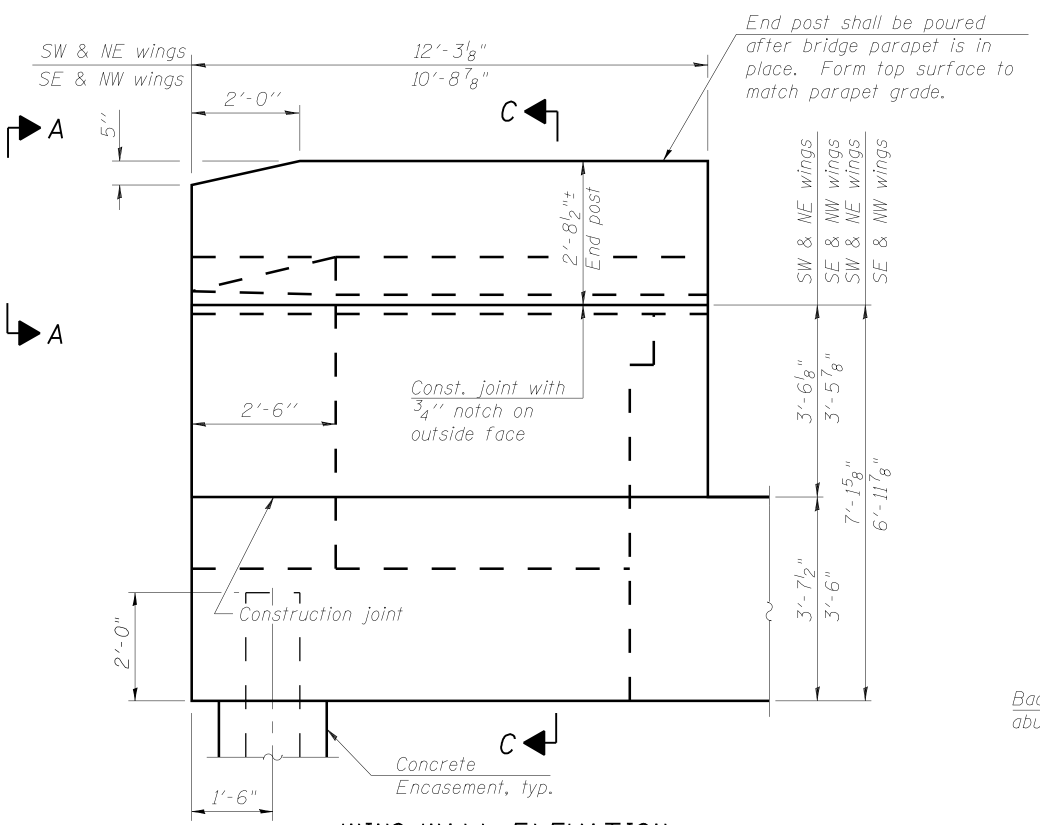
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 093-0025

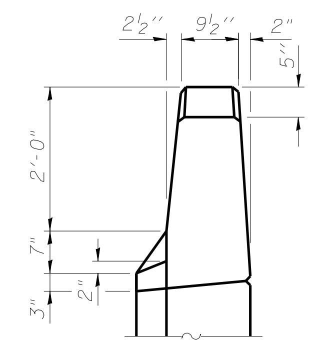
SHEET NO. 20 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	40

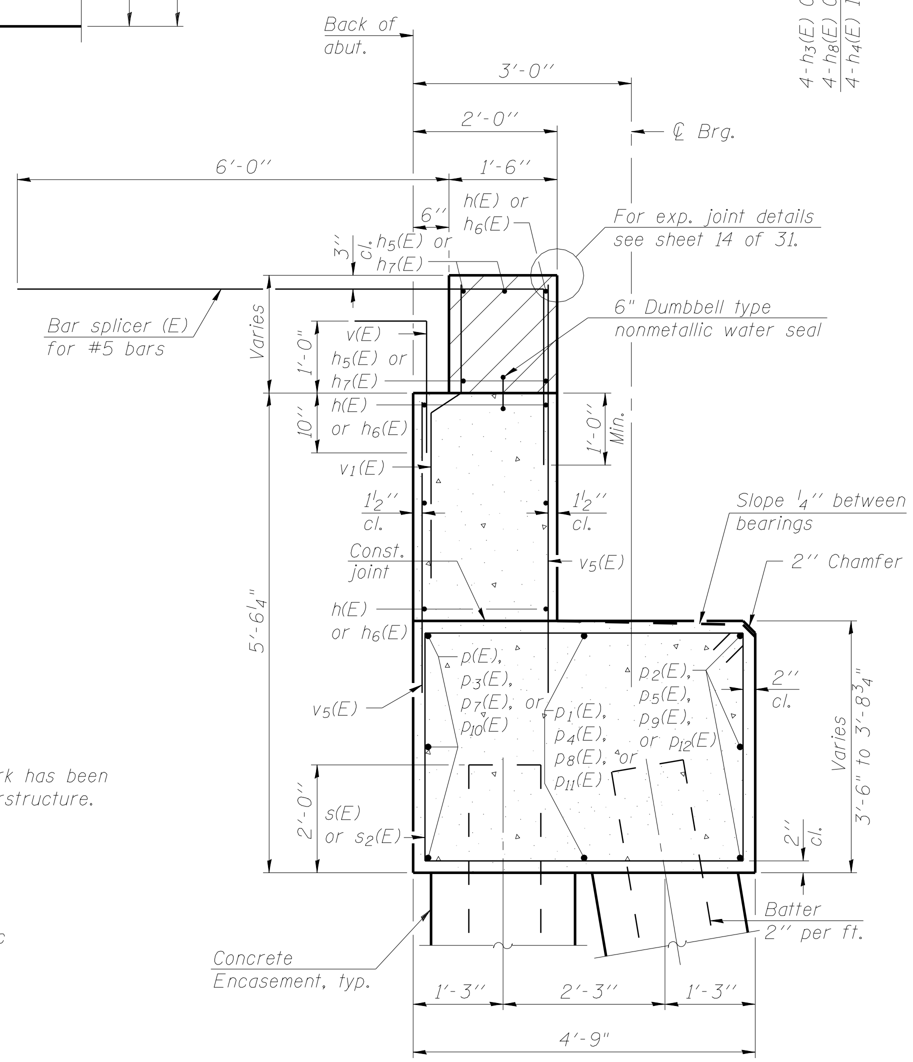
CONTRACT NO. 74219
ILLINOIS FED. AID PROJECT



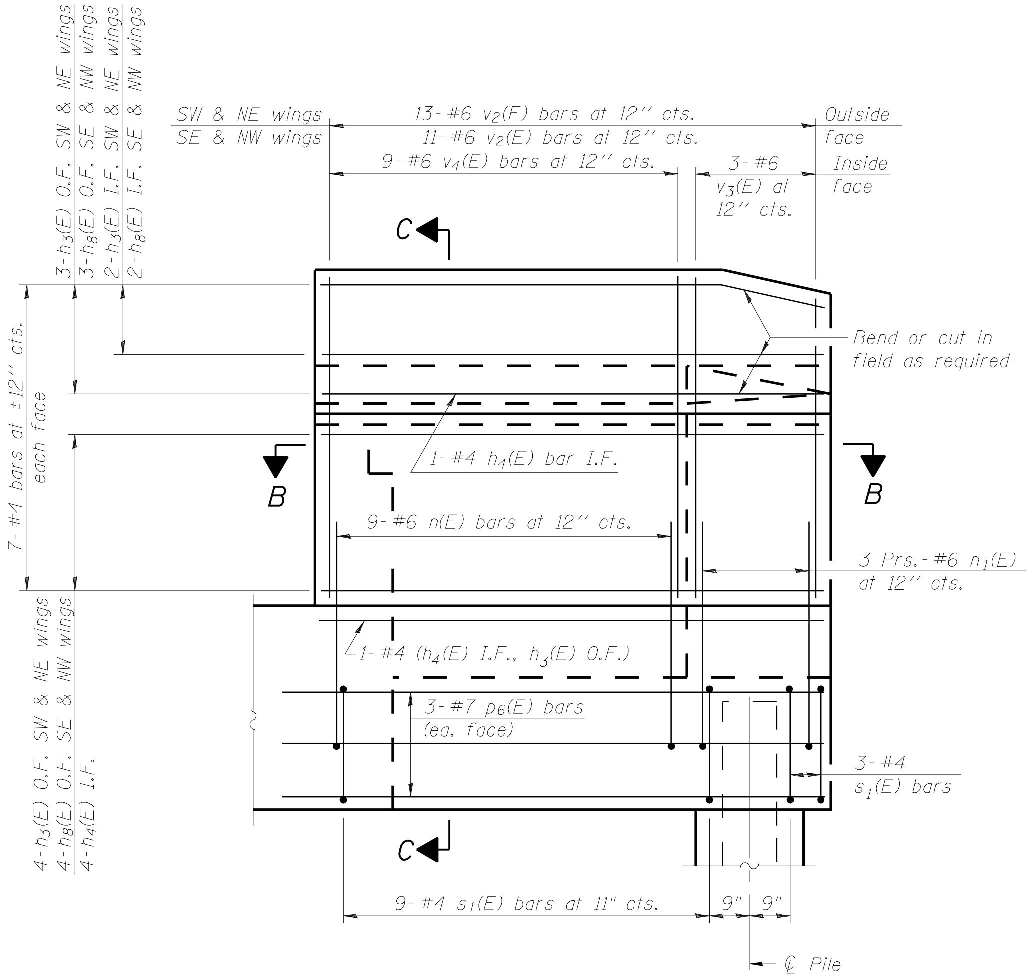
WING WALL ELEVATION
Showing Dimensions



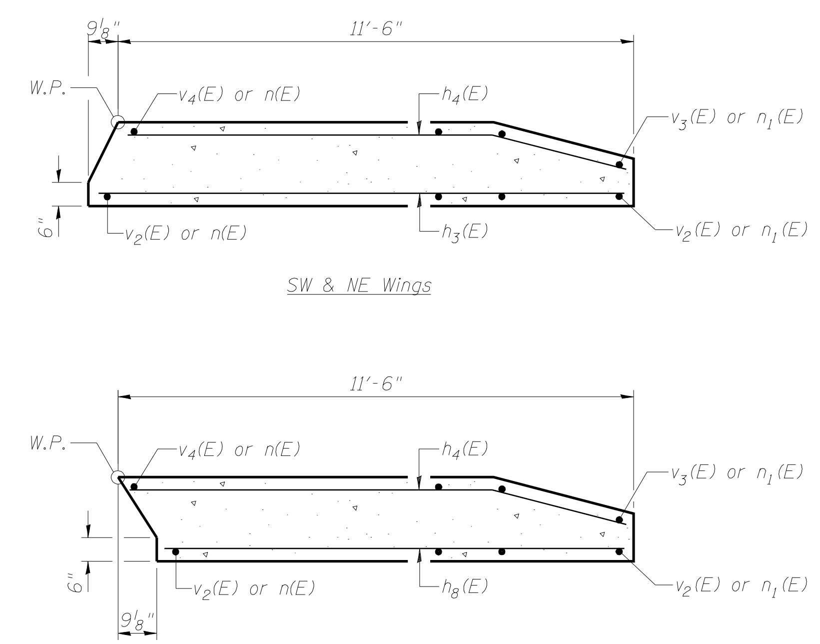
VIEW A-A



SEC. THRU ABUT.



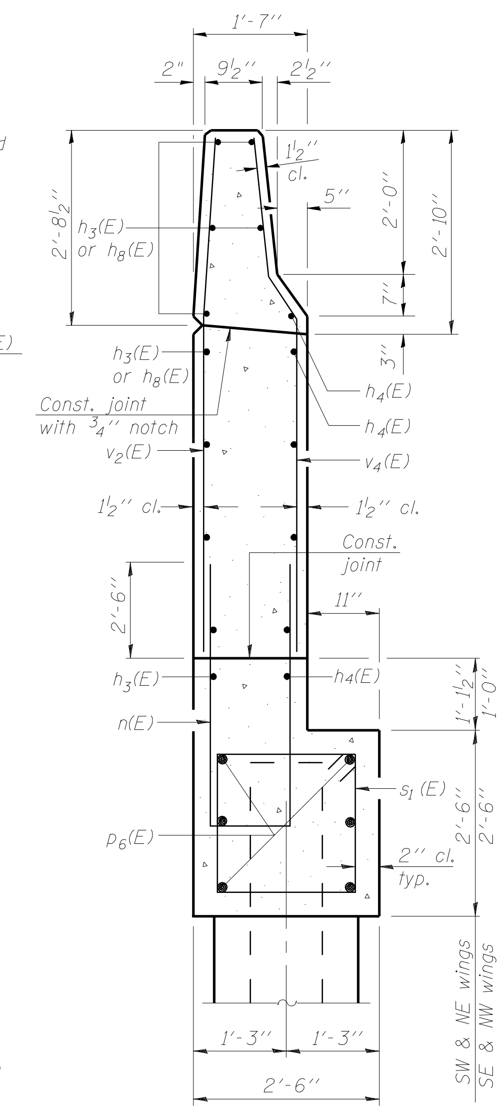
WING WALL ELEVATION
Showing Reinforcement



SW & NE Wings

SE & NW Wings

SECTION B-B



SECTION C-C

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 10 of 31.
For Concrete Encasement details, see sheet 24 of 31.
Space reinforcement in end post to miss bolts for Traffic Barrier Terminal, Type 6.

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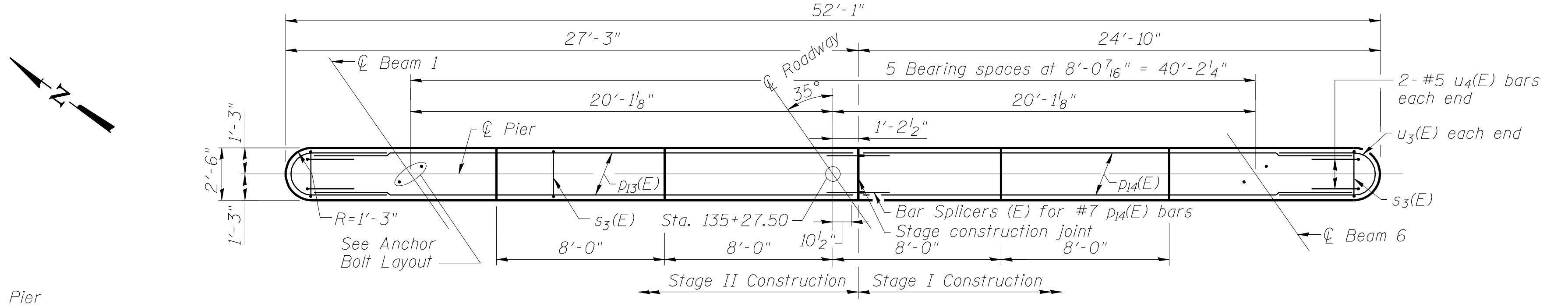
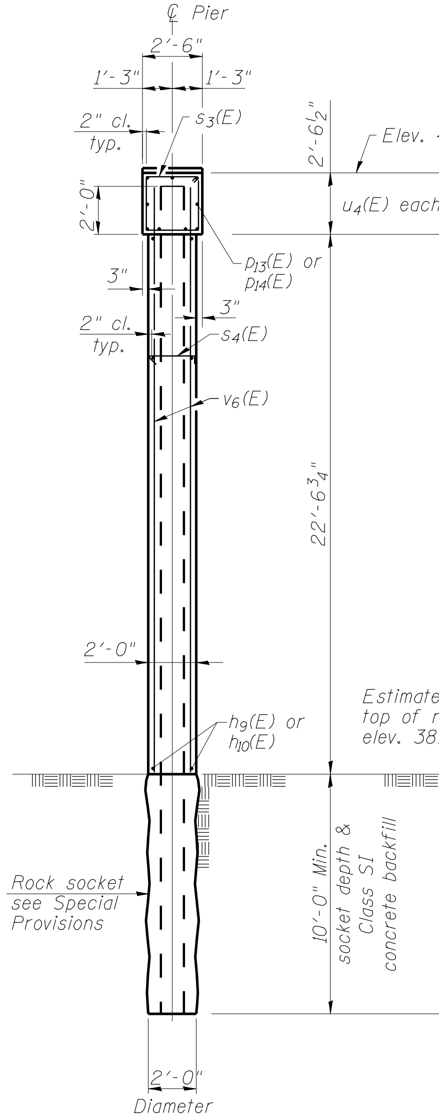
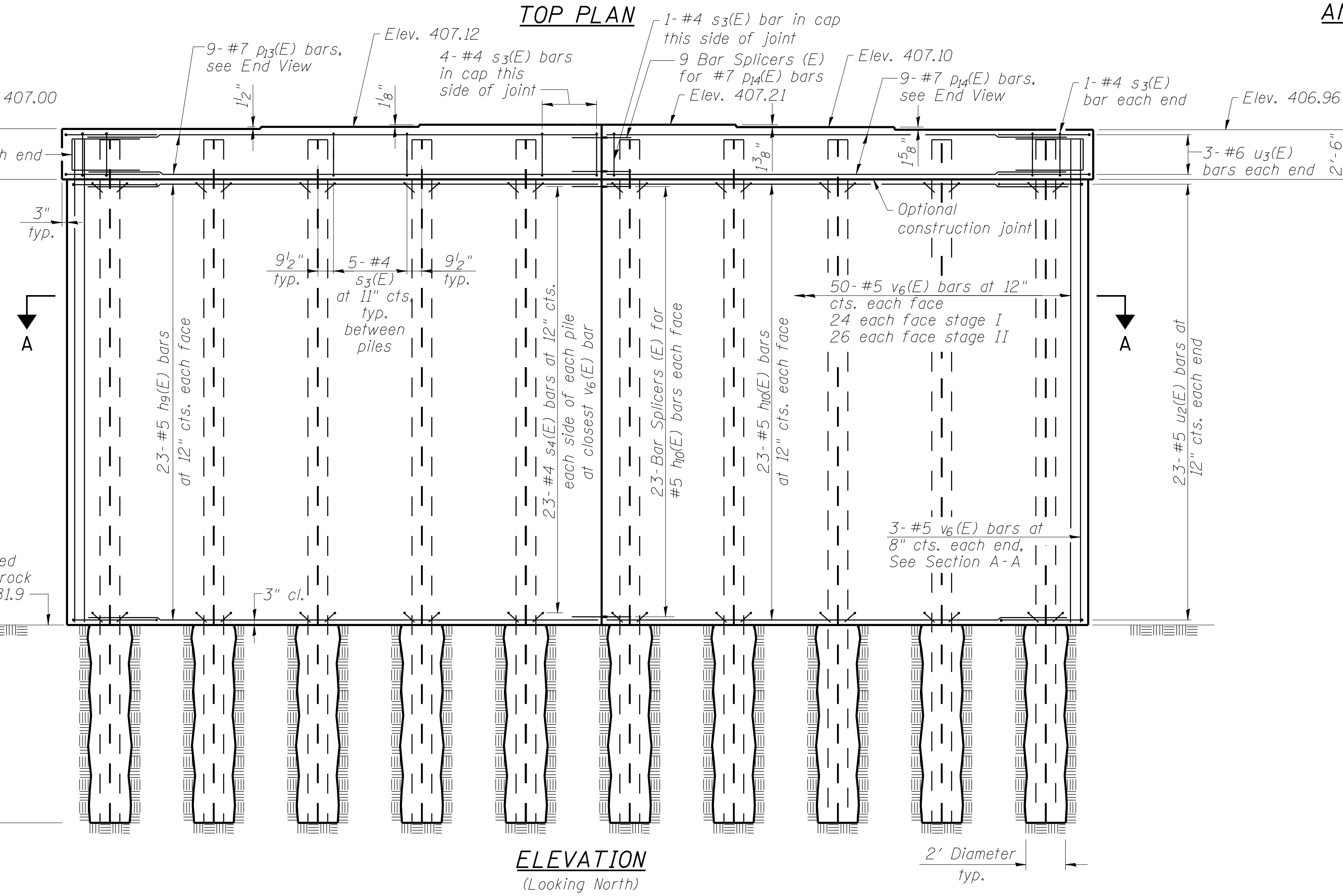
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	41
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		



TOP PLAN

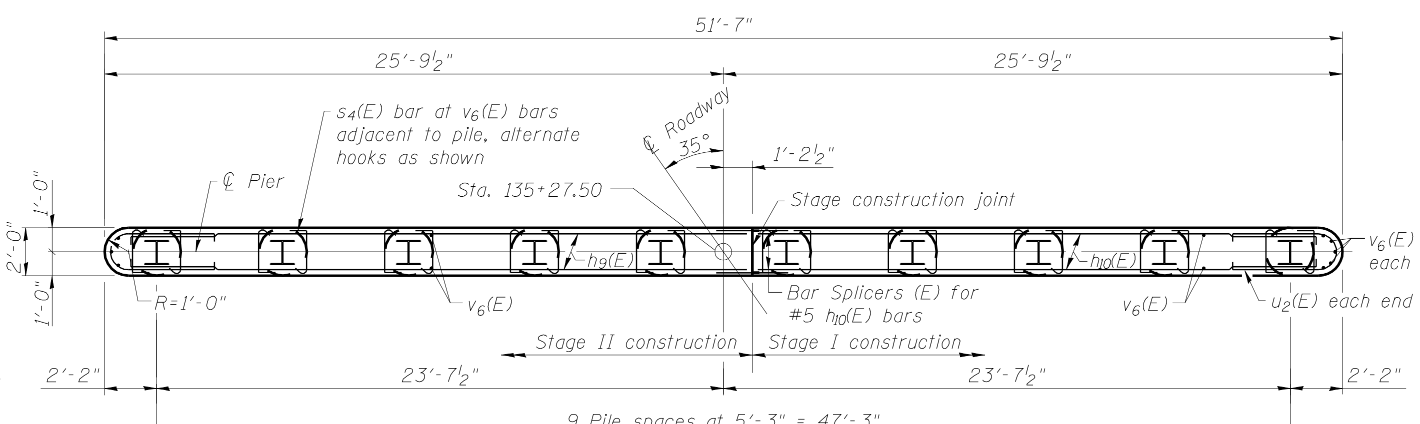


END VIEW



ELEVATION

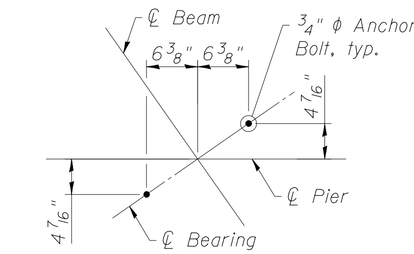
(Looking North)



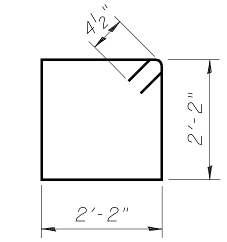
SECTION A-A

PILE DATA

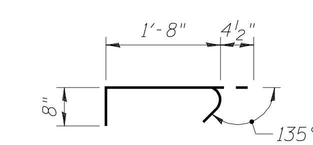
Type: HP14x89
Nominal Required Bearing: 705 kips
Factored Resistance Available: 352 kips
Estimated Length: 35 feet
No. Production Piles: 10
No. Test Piles: 0



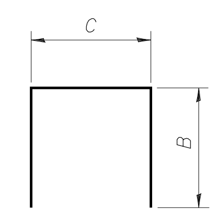
ANCHOR BOLT LAYOUT



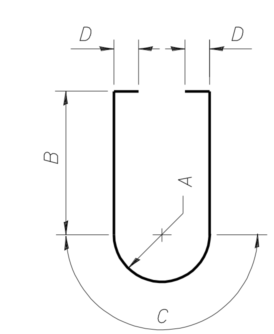
BAR $s_3(E)$



BAR $s_4(E)$



BAR $u_4(E)$



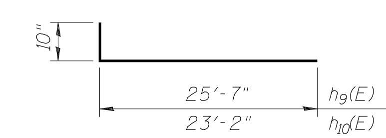
BARS $u_2(E)$ & $u_3(E)$

PIER 1 BILL OF MATERIAL

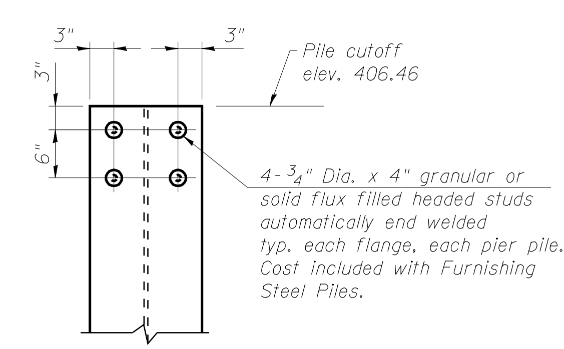
Bar	No.	Size	Length	Shape
$h_9(E)$	46	#5	26'-5"	
$h_{10}(E)$	46	#5	24'-0"	
$p_{13}(E)$	9	#7	25'-10"	
$p_{14}(E)$	9	#7	23'-5"	
$s_3(E)$	47	#4	9'-5"	
$s_4(E)$	460	#4	2'-9"	
$u_2(E)$	46	#6	8'-8"	
$u_3(E)$	6	#6	8'-6"	
$u_4(E)$	4	#5	6'-4"	
$v_6(E)$	106	#5	24'-5"	

Cofferdam Excavation	Cu. Yd.	250
Concrete Structures	Cu. Yd.	98.1
Reinforcement Bars, Epoxy Coated	Pound	7870
Furnishing Steel Piles HP14x89	Foot	350
Cofferdam (Type 2) (Location-1)	Each	1
Setting Piles in Rock	Each	10

For details of Bar Splicers, see sheet 25 of 31.
For details of piles, see sheet 24 of 31.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.



BAR $h_9(E)$ & $h_{10}(E)$



TOP OF PILE DETAIL

A, B, C, & D DIMENSIONS

Bar	A	B	C	D
$u_2(E)$	10"	2'-2"	2'-7 3/8"	10"
$u_3(E)$	1'-0 1/2"	2'-7"	3'-3 1/4"	
$u_4(E)$		2'-2"	2'-0"	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

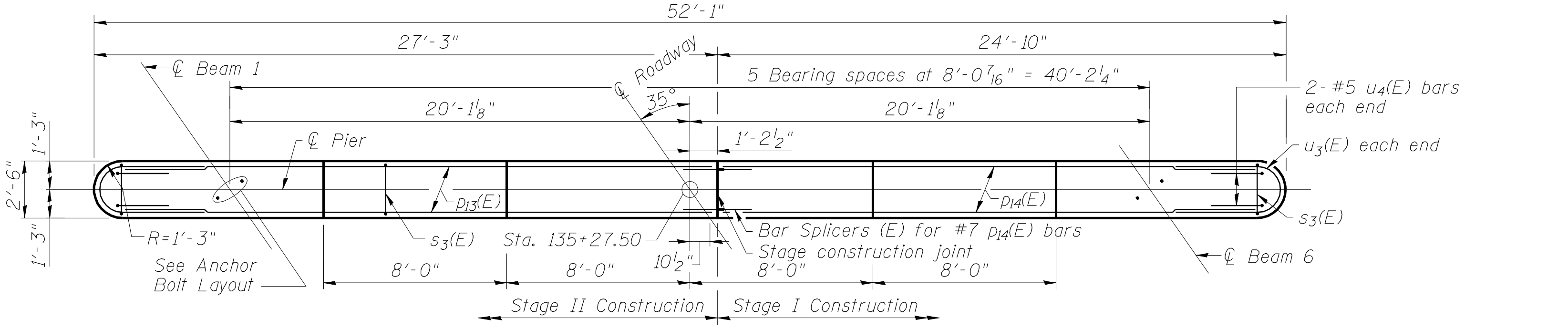
PIER 1
STRUCTURE NO. 093-0025

SHEET NO. 22 OF 31 SHEETS

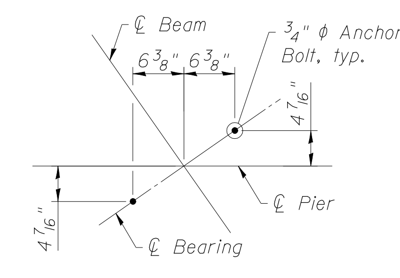
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	42

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



TOP PLAN

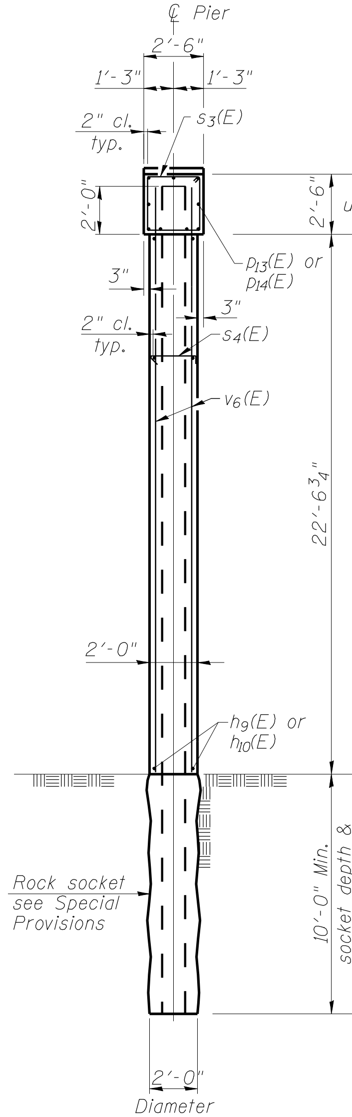


ANCHOR BOLT LAYOUT

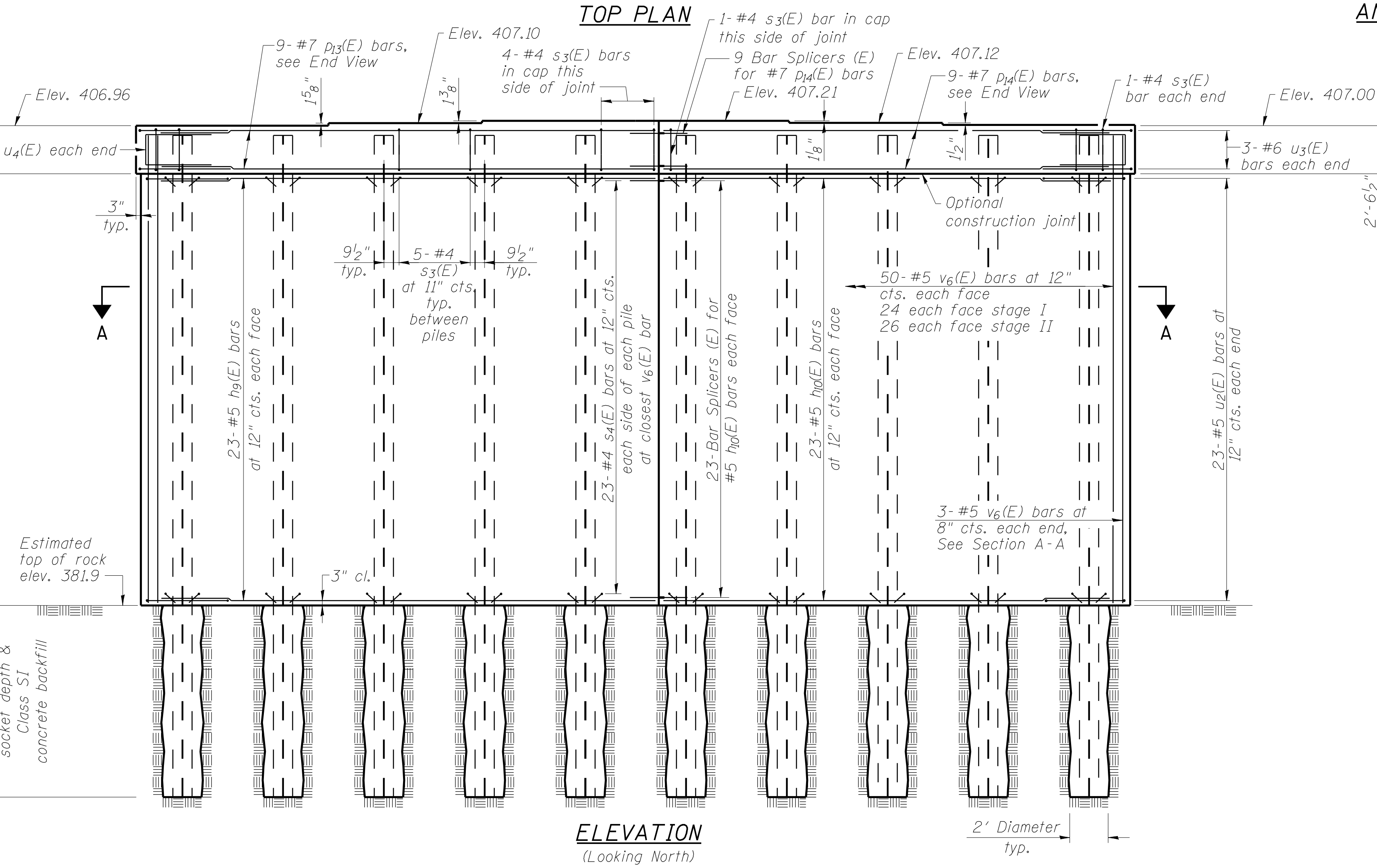
PIER 2 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h9(E)	46	#5	26'-5"	
h10(E)	46	#5	24'-0"	
p13(E)	9	#7	25'-10"	
p14(E)	9	#7	23'-5"	
s3(E)	47	#4	9'-5"	
s4(E)	460	#4	2'-9"	
u2(E)	46	#6	8'-8"	
u3(E)	6	#6	8'-6"	
u4(E)	4	#5	6'-4"	
v6(E)	106	#5	24'-5"	
Cofferdam Excavation		Cu. Yd.	270	
Concrete Structures		Cu. Yd.	98.1	
Reinforcement Bars, Epoxy Coated		Pound	7870	
Furnishing Steel Piles HP14x89		Foot	350	
Cofferdam (Type 2) (Location-2)		Each	1	
Setting Piles in Rock		Each	10	

For details of Bar Splicers, see sheet 25 of 31.
For details of piles, see sheet 24 of 31.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For bar bending details, see sheet 22 of 31.

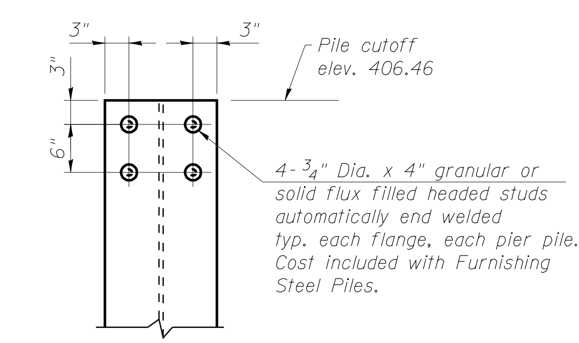


END VIEW

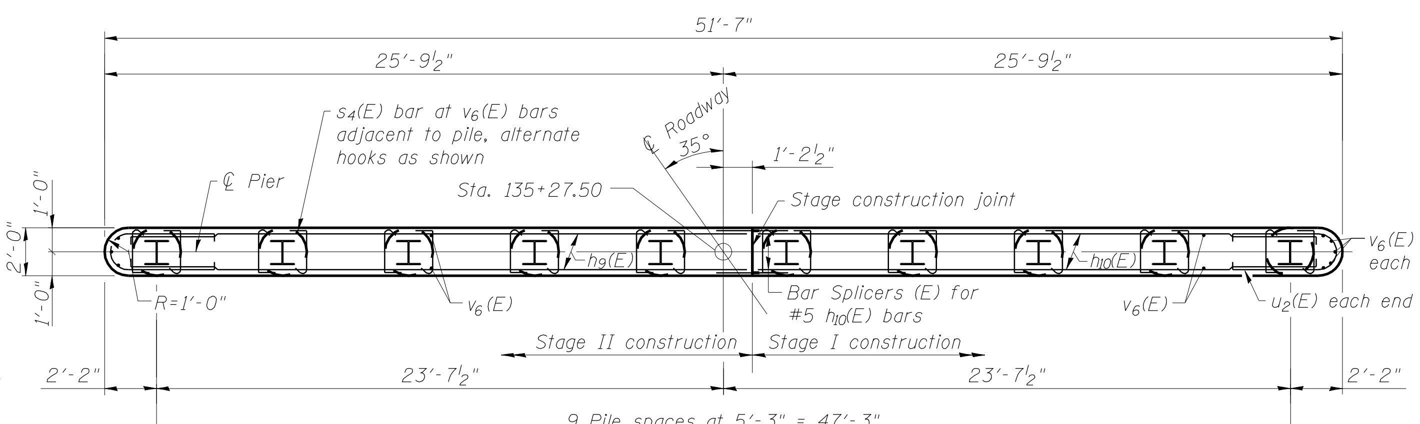


ELEVATION

(Looking North)



TOP OF PILE DETAIL

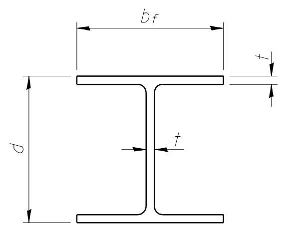


SECTION A-A

PILE DATA

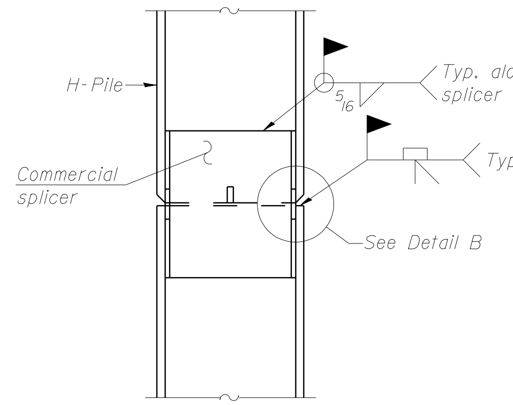
Type: HP14x89
Nominal Required Bearing: 705 kips
Factored Resistance Available: 352 kips
Estimated Length: 35 feet
No. Production Piles: 10
No. Test Piles: 0

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - ELH 12/12	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 2 STRUCTURE NO. 093-0025	F.A.P. RTE. 332	SECTION (12,B2)B-1	COUNTY WABASH; TOTAL SHEETS 68; SHEET NO. 43
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -					CONTRACT NO. 74219
	PLOT SCALE = 0:2 ' ' / IN.	DRAWN - DWH 12/12	REVISED -		SHEET NO. 23 OF 31 SHEETS			ILLINOIS FED. AID PROJECT
	PLOT DATE = 6/10/2014 8:53:29 AM	CHECKED - ELH 01/14	REVISED -					

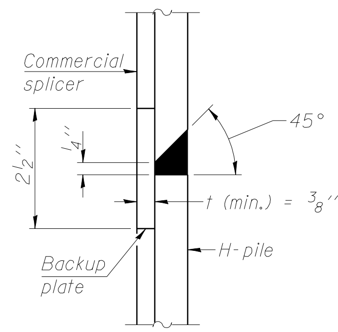


STEEL PILE TABLE

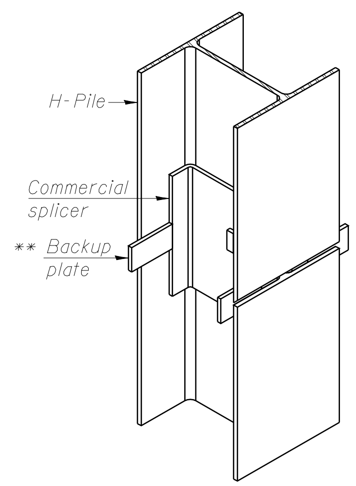
Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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

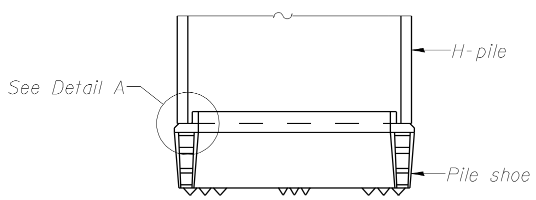


DETAIL "B"

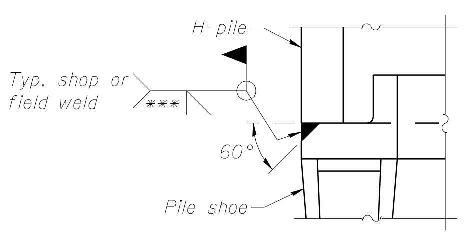


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

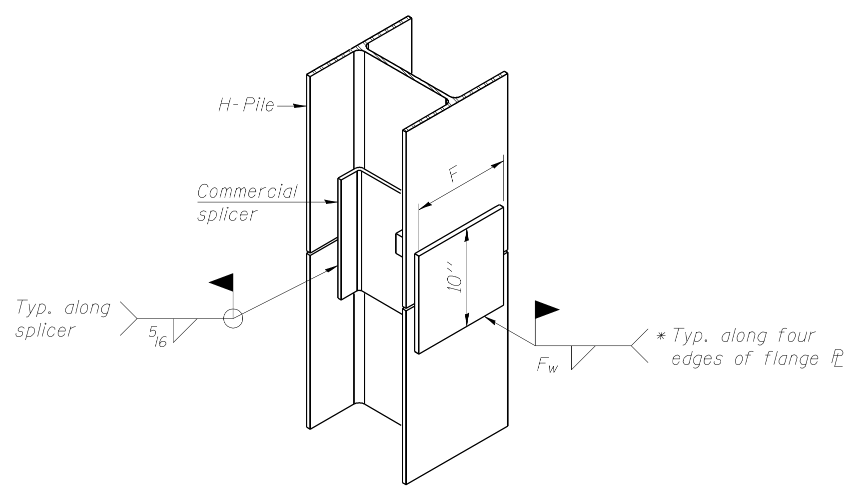


ELEVATION



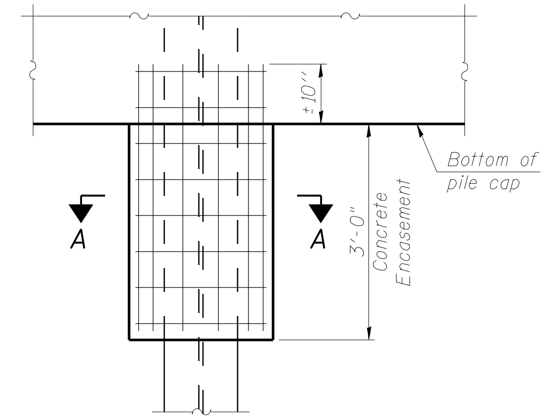
DETAIL A

H-PILE SHOE ATTACHMENT

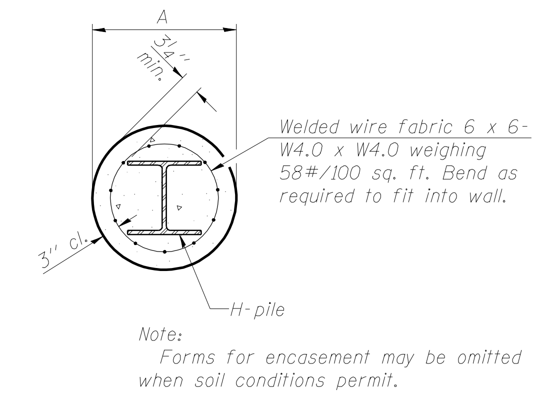


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE



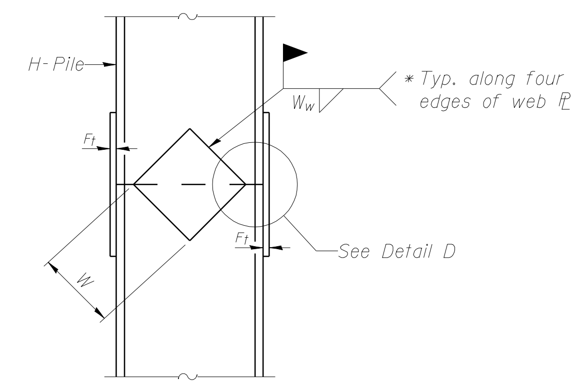
ELEVATION



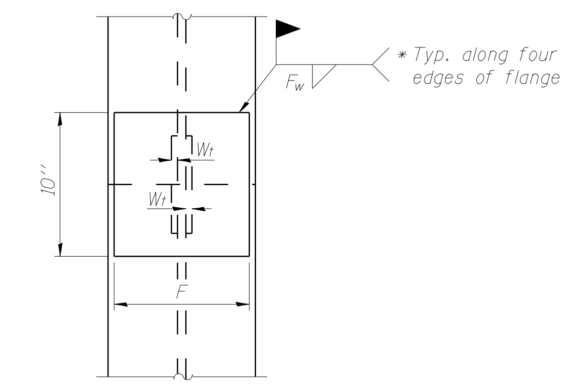
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

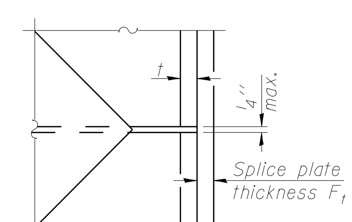
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
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"	11/16"	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"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	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 PLATE FIELD SPLICE

* Interrupt welds 1/4" from end of web and/or each flange.

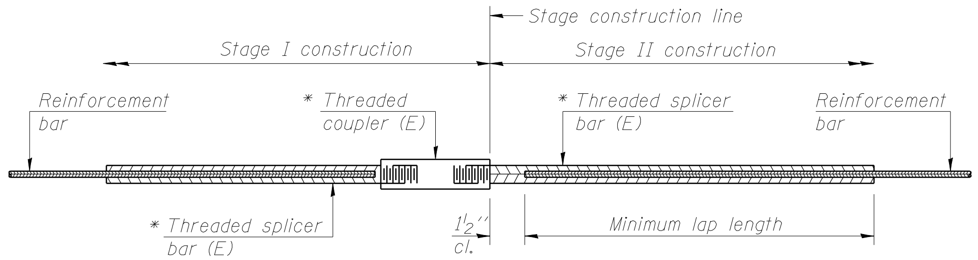
** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).

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

F-HP   1-27-12

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - ELH 12/12	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 093-0025	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -			332	(12,B2)B-1	WABASH	68	44
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - HAS 12/12	REVISED -			CONTRACT NO. 74219				
	PLOT DATE = 6/10/2014 8:53:42 AM	CHECKED - ELH 12/12	REVISED -		SHEET NO. 24 OF 31 SHEETS	ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

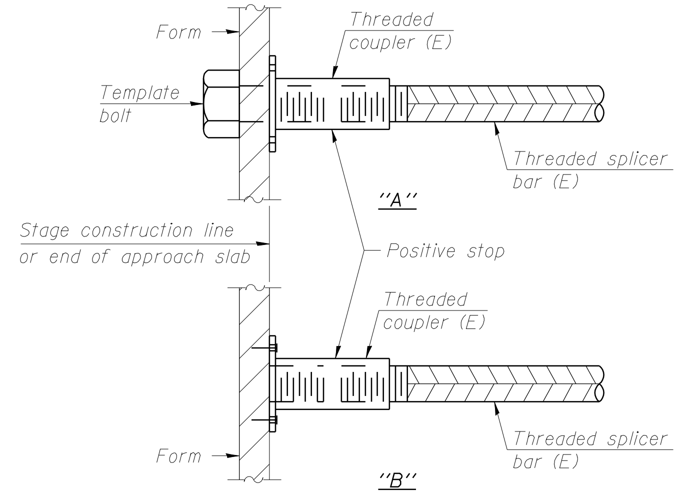
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5''	1'-11''	2'-1''	2'-4''	2'-7''	2'-11''
5	1'-9''	2'-5''	2'-7''	2'-11''	3'-3''	3'-8''
6	2'-1''	2'-11''	3'-1''	3'-6''	3'-10''	4'-5''
7	2'-9''	3'-10''	4'-2''	4'-8''	5'-2''	5'-10''
8	3'-8''	5'-1''	5'-5''	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 + 1½'' + thread length

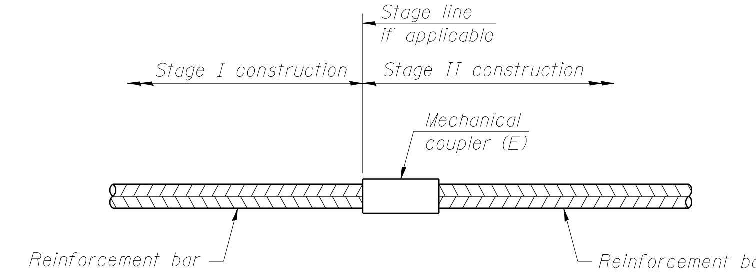
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Approach footing	#5	80	3
Approach slabs	#5	90	3
Approach slabs	#4	50	4
Deck	#5	570	3
Deck	#6	8	3
Pier caps	#7	18	4
Pier stems	#5	92	3
Abutment caps	#7	16	4
Abutment backwalls	#5	14	6
Abutment backwalls	#6	8	6



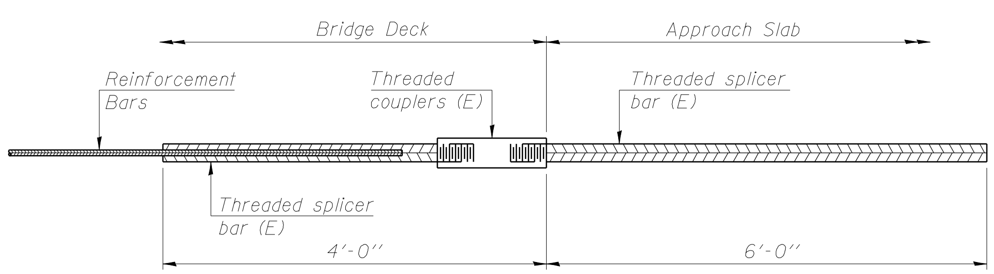
INSTALLATION AND SETTING METHODS

"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.



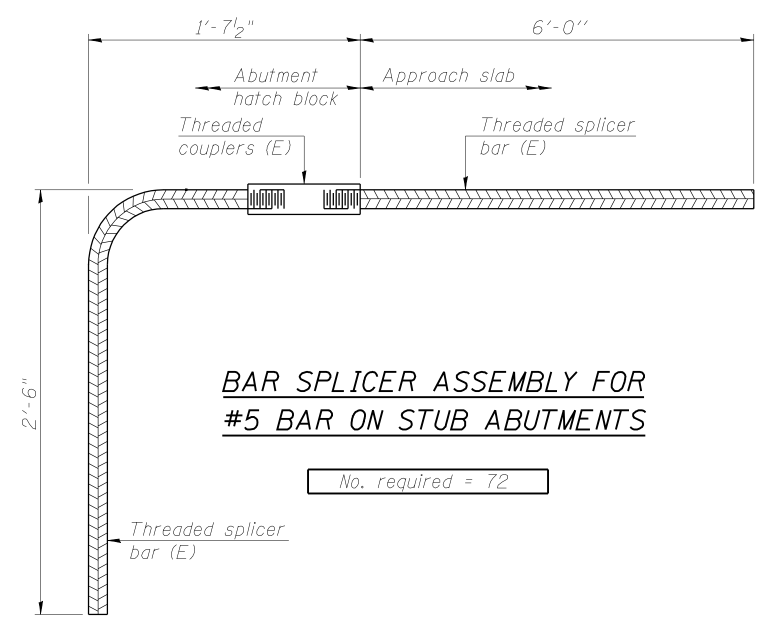
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
NA		



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

No. required = 0



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 72

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.

BSD-1 1-27-12

PRINT DRIVER = I_PD_E_B_0.plt
PEN TABLE = IDOT_VER02.TBL
MODEL NAME = PLOT
FILE NAME = 0930025-74219-25-BarDtl.dgn

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - ELH 12/12	REVISED -	
ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
PLOT SCALE = 0:2 ':' / IN.	DRAWN - HAS 12/12	REVISED -	
PLOT DATE = 6/10/2014 8:53:55 AM	CHECKED - ELH 12/12	REVISED -	

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 093-0025

SHEET NO. 25 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	45

CONTRACT NO. 74219

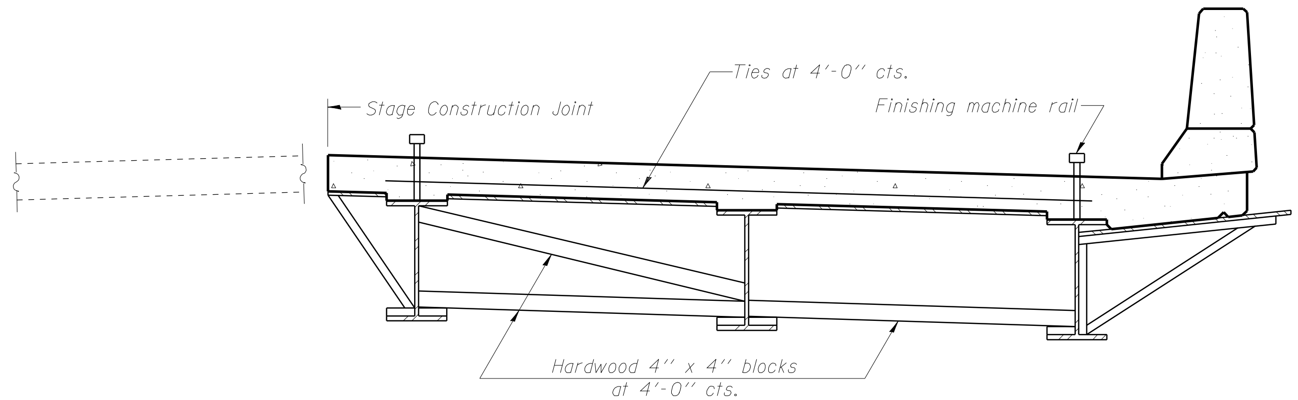
ILLINOIS FED. AID PROJECT

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

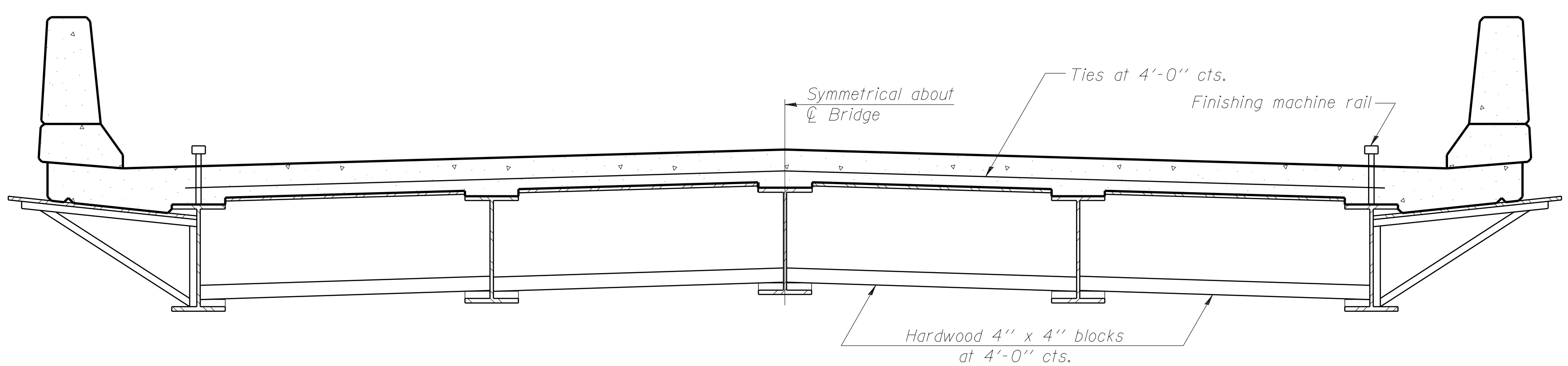
The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR
STAGE CONSTRUCTION



FORM BRACES FOR
STANDARD CONSTRUCTION

SB-1 7-1-10

USER NAME = has	DESIGNED - ELH 05/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -	
PLOT SCALE = 0:2 ':' / IN.	DRAWN - DWH 05/11	REVISED -	
PLOT DATE = 6/10/2014 8:54:08 AM	CHECKED - ELH 05/11	REVISED -	

ESCA CONSULTANTS, INC.

CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER STRUCTURE NO. 093–0025

SHEET NO. 26 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	46
		CONTRACT NO. 74219		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 4/9/09

ROUTE FAP 332 (IL 1) DESCRIPTION Crawfish Creek LOGGED BY E. Sandschafer

SECTION (12-B2)BR LOCATION East 1/2, **SEC.** 5, **TWP.** 1 S, **RNG.** 12 W, 3 PM

COUNTY Wabash DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 093-0003
Station 135+50

BORING NO. 1 S Abut
Station 134+24
Offset 7.00ft Rt
Ground Surface Elev. 409.44 ft

Surface Water Elev. 395.70 ft
Stream Bed Elev. 384.58 ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion 400.0 ft
After 144 **Hrs.** 407.7 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6 5/8" asphalt on 11 3/4" concrete pavement.	407.94				
Very stiff, damp, gray, CLAY.			1		
			3	2.8	20
	404.94		4	BS	
Stiff, damp, gray marbled brown, SILTY CLAY w/ wood splinters.		-5	2		
			5	1.4	23
	402.44		7	B	
Stiff, damp, gray mottled brown, CLAY LOAM.			2		
			3	1.4	14
	401.04		3	B	
Gray, SANDY LOAM.	399.94				
Medium, damp, red, CLAY LOAM.		-10	2		
			2	0.9	18
	397.44		2	B	
Medium, damp, gray, LOAM.			0		
			1	0.9	19
	394.44		2	B	
		-15	3		
Brown, SANDY LOAM.			2	0.4	23
	393.54		2	S	
Brown, SANDY CLAY.	392.44				
Soft to very soft, very damp, gray, SILTY LOAM.			0		
			0	0.3	24
			2	B	
		-20	0		

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Soft to very soft, very damp, gray, SILTY LOAM. *(continued)*			0	0.2	22
			1	B	
			0		
			0	0.2	23
			1	B	
		-25	2		
	384.14		2	0.3	24
Very soft, blue to red, SANDSTONE.	382.44		20	B	
Very dense, moist, tan, SANDSTONE.			50		
			50/2"		19
			50/1"		
	379.34	-30	50/5"		
Borehole continued with rock coring.			50/2"		16
			50/1"		
		-35			
		-40			

Latitude W 87 deg 45.991 min Longitude N 38 deg 27.459 min, Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Date 4/9/09

ROUTE FAP 332 (IL 1) DESCRIPTION Crawfish Creek LOGGED BY E. Sandschafer

SECTION (12-B2)BR LOCATION East 1/2, **SEC.** 5, **TWP.** 1 S, **RNG.** 12 W, 3 PM

COUNTY Wabash CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 093-0003
Station 135+50

BORING NO. 1 S Abut
Station 134+24
Offset 7.00ft Rt
Ground Surface Elev. 409.44 ft

CORING BARREL TYPE & SIZE NW
Core Diameter 2.06 in
Top of Rock Elev. 384.14 ft
Begin Core Elev. 379.34 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Light brown to tan, slightly weathered, SANDSTONE.	379.34		B1C1	82	55	0.2	
Rock core B1C1 from 30.7' to 31.2' = 106 tsf. *Black, Coal lense*							
Severe weathered layer							
	374.34	-35					
Light brown, slightly weathered, SANDSTONE.			B1C2	100	54	0.2	
Rock core B1C2 from 39.0' to 39.5' = 158 tsf.							
	369.34	-40					
Light brown, slightly weathered, SANDSTONE.			B1C3	100	69	0.3	
Rock core B1C3 from 41.2' to 41.7' = 164 tsf.							
	364.34	-45					
Extent of exploration.							
Benchmark: BM 313 Chiseled square on SW corner of existing bridge = 410.12' elevation. Provided by Program Development.							
		-50					

Color pictures of the cores Available on request
Cores will be stored for examination until 04/09/13
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

PRINT DRIVER : I_PDF_B.8plt
PEN TABLE : IDOT_VERB2.TBL
MODEL NAME : PLOT
FILE NAME : 0930025-74219-27-Soil.dgn

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - ELH 05/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORING LOGS STRUCTURE NO. 093-0025	F.A.P. RTE. 332
ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -			SECTION (12,B2)B-1
PLOT SCALE = 0:2 ' / IN.	DRAWN - DWH 05/11	REVISED -			COUNTY WABASH
PLOT DATE = 6/10/2014 8:54:21 AM	CHECKED - ELH 05/11	REVISED -		SHEET NO. 27 OF 31 SHEETS	TOTAL SHEETS 68, SHEET NO. 47

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT

Field Rock Core Log a.xls

Field Rock Core Log

Date: 4-09-09

Structure # : 093-0003 Boring # : 1

Rock Core # : B1 C1 Rock Core # : B1C2

Rock Core B1C1

Depth: 30'

- Lt Brn soft SS w/slight to no weathering
- 0.44 OJ
- 0.55 OJ
- CORE to TEST
- 1.17 OJ
- 1.24 OJ
- Blk coal severe weathering
- 1.37 OJ
- 1.43 OJ
- brn changing to Red orange SS
- 2.10 OJ
- 2.15 OJ
- 2.27 OJ
- Severe weathering — SS
- 2.40 OJ
- Lt brn or tan soft SS w/slight weathering
- 2.67 OJ
- 3.08 OJ
- 3.18 OJ
- 3.45 OJ
- 4.09'
- CORE NOT Retrieved

RQD: 0.44, 0.60, 0.70, 0.39, 0.60 — 2.73

Depth: 35'

Core Time: 1 min 0 sec

Recovery: 81.8%

RQD: 54.6%

Rock Core B1C2

Depth: 35'

- 0.07 OJ
- 0.16 OJ
- Lt BRN Soft SS w/slight weathering
- 0.54 OJ
- 0.75 OJ
- 1.04 OJ
- 1.40 OJ
- 1.65 OJ
- 1.77 OJ
- 2.04 OJ
- 2.39 OJ
- 2.54 OJ
- 2.84 OJ
- 3.15 OJ
- 3.85
- CORE To Test
- 4.40
- 4.77
- 4.98

RQD: 0.37, 0.36, 0.35, 1.60 — 2.68

Depth: 40'

Core Time: 1 min

Recovery: 99.6%

RQD: 53.6%

Logged By: Eric Sandschafer

Field Rock Core Log a.xls

Field Rock Core Log

Date: 4-09-09

Structure # : 093-0003 Boring # :

Rock Core # : B1C3 Rock Core # :

Rock Core B1C3

Depth: 40'

- 0.09 OJ
- tan soft SS w/slight weathering
- 0.96 OJ
- 1.10 OJ
- CORE TO test
- 1.60
- 2.13 OJ
- 2.38 OJ
- 2.43 OJ
- 2.55 OJ
- 2.86 OJ
- 2.95 OJ
- 3.00 OJ
- 3.61 OJ
- 3.89 OJ
- Grey soft SS
- 4.57 OJ

RQD: 0.87, 0.50, 0.53, 1.57 — 3.47

Depth: 45'

Core Time: 1 min 25 sec

Recovery: 100%

RQD: 69.4%

Logged By: Eric Sandschafer

Depth:

Depth:

Core Time:

Recovery:

RQD:

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 4/15/09

ROUTE FAP 332 (IL 1) DESCRIPTION Crawfish Creek LOGGED BY E. Sandschafer

SECTION (12-B2)BR LOCATION East 1/2, SEC. 5, TWP. 1 S, RNG. 12 W, 3 PM

COUNTY Wabash DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 093-0003
Station 135+50

BORING NO. 2 Pier
Station 135+57
Offset 7.00ft Lt
Ground Surface Elev. 409.45 ft

Surface Water Elev. 395.70 ft
Stream Bed Elev. 384.58 ft

Groundwater Elev.:
First Encounter 394.7 ft
Upon Completion 394.7 ft
After ___ Hrs. N/A ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
1 7/8" asphalt on 7" concrete bridge deck.	408.65				
Air.	394.65	-5, -10, -15			
Water.		-20			
Water. (continued)	382.45	-25			
Silt.	381.95				
Very dense, moist, brown to gray, SANDSTONE.	379.15	-30	50/4"		
			50/5"		14
			50/1"		
Extent of exploration.		-35, -40			

Benchmark: BM 313 Chiseled square on SW corner of existing bridge = 410.12' elevation. Provided by Program Development.

Latitude W 87 deg 45.980 min, Longitude N 38 deg 27.438 min, Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 4/14/09

ROUTE FAP 332 (IL 1) DESCRIPTION Crawfish Creek LOGGED BY E. Sandschafer

SECTION (12-B2)BR LOCATION East 1/2, SEC. 5, TWP. 1 S, RNG. 12 W, 3 PM

COUNTY Wabash DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 093-0003
Station 135+50

BORING NO. 3 N Abut
Station 136+86
Offset 6.00ft Lt
Ground Surface Elev. 409.68 ft

Surface Water Elev. 395.70 ft
Stream Bed Elev. 384.58 ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion 399.4 ft
After 24 Hrs. 399.3 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6 1/2" asphalt on 10 1/4" concrete pavement.	408.28				
Medium to soft, damp, brown, SANDY LOAM.			9		
			40	0.7	11
			22	S	
		-5	9		
			14	0.4	10
			15	S	
	402.68				
Stiff, damp, gray, SILTY CLAY LOAM.			2		
			5	2.0	21
			6	B	
	400.18				
Stiff, damp, gray, CLAY LOAM.		-10	2		
			4	1.7	15
			7	B	
			3		
			8	1.6	12
			12	B	
	395.18				
Very stiff, damp, gray, SILTY CLAY.		-15	2		
			4	3.2	17
			4	S	
	392.68				
Stiff, damp, gray, CLAY LOAM TILL.			0		
			2	1.5	14
			4	B	
		-20	2		
Stiff, damp, gray, CLAY LOAM TILL. (continued)			2	1.4	16
			4	B	
	387.68				
Stiff, damp, gray/brown/red, SILTY CLAY.			2		
			4	1.8	30
			5	S	
		-25	3		
			3	1.6	24
			3	B	
	382.68				
Stiff, damp, gray marbled brown, CLAY LOAM TILL.			3		
			2	1.5	16
			4	B	
	379.68	-30	27		
Very dense, moist, gray with red layers, SANDSTONE.	378.98		50		16
			50/2"		
Borehole continued with rock coring.		-35, -40			

Latitude W 87 deg 45.977 min, Longitude N 38 deg 27.536 min, Map Datum WGS 84

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

ROCK CORE LOG

Date 4/14/09

ROUTE FAP 332 (IL 1) DESCRIPTION Crawfish Creek LOGGED BY E. Sandschafer

SECTION (12-B2)BR LOCATION East 1/2, **SEC.** 5, **TWP.** 1 S, **RNG.** 12 W, 3 **PM**

COUNTY Wabash CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 093-0003
Station 135+50

CORING BARREL TYPE & SIZE NW

Core Diameter 2.06 in
Top of Rock Elev. 379.68 ft
Begin Core Elev. 378.98 ft

BORING NO. 3 N Abut
Station 136+86
Offset 6.00ft Lt
Ground Surface Elev. 409.68 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, soft, SANDSTONE. *Rock Core B3C1 from 31.5' to 31.8' depth = 72 tsf.* *Rust Colored.* *No return from 32.6' to 35.7' depth.*	378.98		B3C1	38	7	0.2	
	373.98	-35					
Reddish brown to gray, soft, moderately weathered, SANDSTONE *Severely Weathered.* *No return from 38.6' to 40.7' depth.*			B3C2	57	0	0.23	
	368.98	-40					
Gray with red layers, soft, moderately to severely weathered, SANDSTONE. *No return from 42.9' to 45.7' depth.*			B3C3	45	0	0.3	
	363.98	-45					
Extent of exploration. Benchmark: BM 313 Chiseled square on SW corner of existing bridge = 410.12' elevation. Provided by Program Development.		-50					

Color pictures of the cores Available on request
Cores will be stored for examination until 04/09/13
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

Field Rock Core Log a.xls

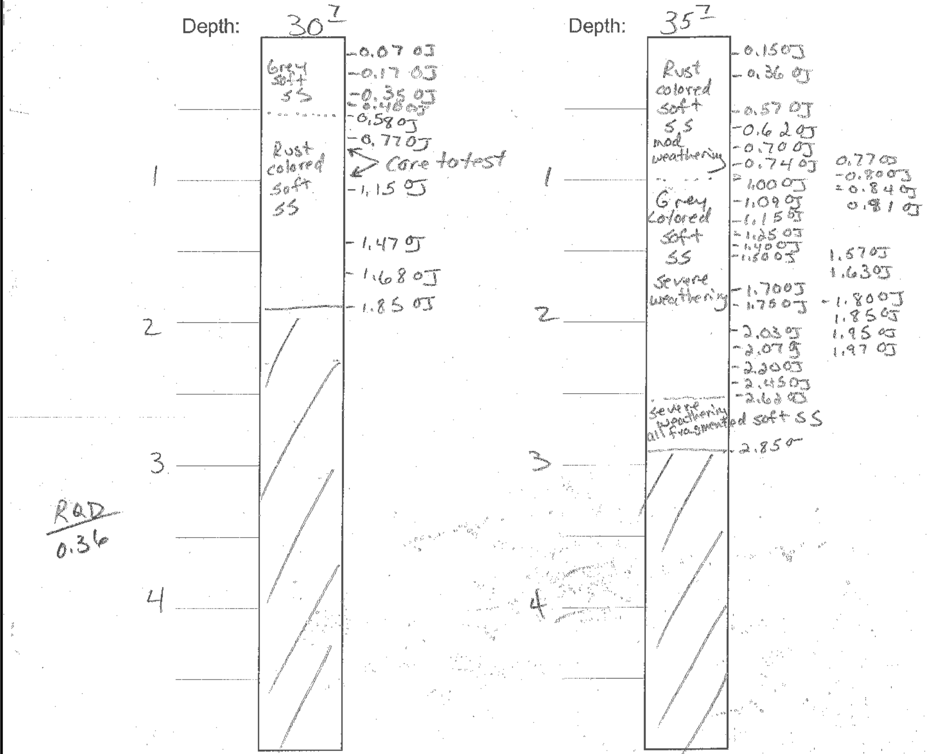
Field Rock Core Log

Date: 4-14-09

Structure #: 093-0003 Boring #: B3

Rock Core #: B3C1 Rock Core #: B3C2

Depth: 30.7 Depth: 35.7



Depth: 35.7 Depth: 40.7
Core Time: 1 min Core Time: 1 min 10 sec
Recovery: 38% Recovery: 57%
RQD: 7% RQD: 0%
Logged By: Eric Sandschafer

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS	USER NAME = has	DESIGNED - ELH 05/11	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORING LOGS STRUCTURE NO. 093-0025	F.A.P. RTE. 332	SECTION (12,B2)B-1	COUNTY WABASH	TOTAL SHEETS 68	SHEET NO. 50
	ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -			CONTRACT NO. 74219				
	PLOT SCALE = 0:2 ':' / IN.	DRAWN - DWH 05/11	REVISED -		SHEET NO. 30 OF 31 SHEETS	ILLINOIS FED. AID PROJECT				
	PLOT DATE = 6/10/2014 8:55:08 AM	CHECKED - ELH 05/11	REVISED -							

Field Rock Core Log a.xls

Field Rock Core Log

Date: 4-14-09

Structure # : 093-0003 Boring # : B3

Rock Core # : B3C3 Rock Core # :

Depth: 40.7 Depth:

Grey + Red layered soft SS w/ mod to severe weathering

-0.120J
-0.260J
-0.280J
-0.350J 0.420J
-0.500J
-0.640J
-0.700J
-0.750J
-0.800J 0.900J
0.980J
-1.050J
-1.100J
-1.170J
-1.230J
-1.270J 1.340J
-1.650J 1.440J
-1.720J 1.490J
-1.780J 1.520J
-1.840J 1.540J
-1.930J 1.580J
-2.060J 1.600J
-2.170J
-2.230J

1

2

3

4

Depth: 45.7 Depth:

Core Time: 1 min 30 sec Core Time:

Recovery: 44.6% Recovery:

RQD: 0% RQD:

Logged By: Eric Sandschafer

USER NAME = has	DESIGNED - ELH 05/11	REVISED -	
ESCA PROJECT NO. 933.14	CHECKED - RDP 04/13	REVISED -	
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ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 093-0025

SHEET NO. 31 OF 31 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	51

CONTRACT NO. 74219

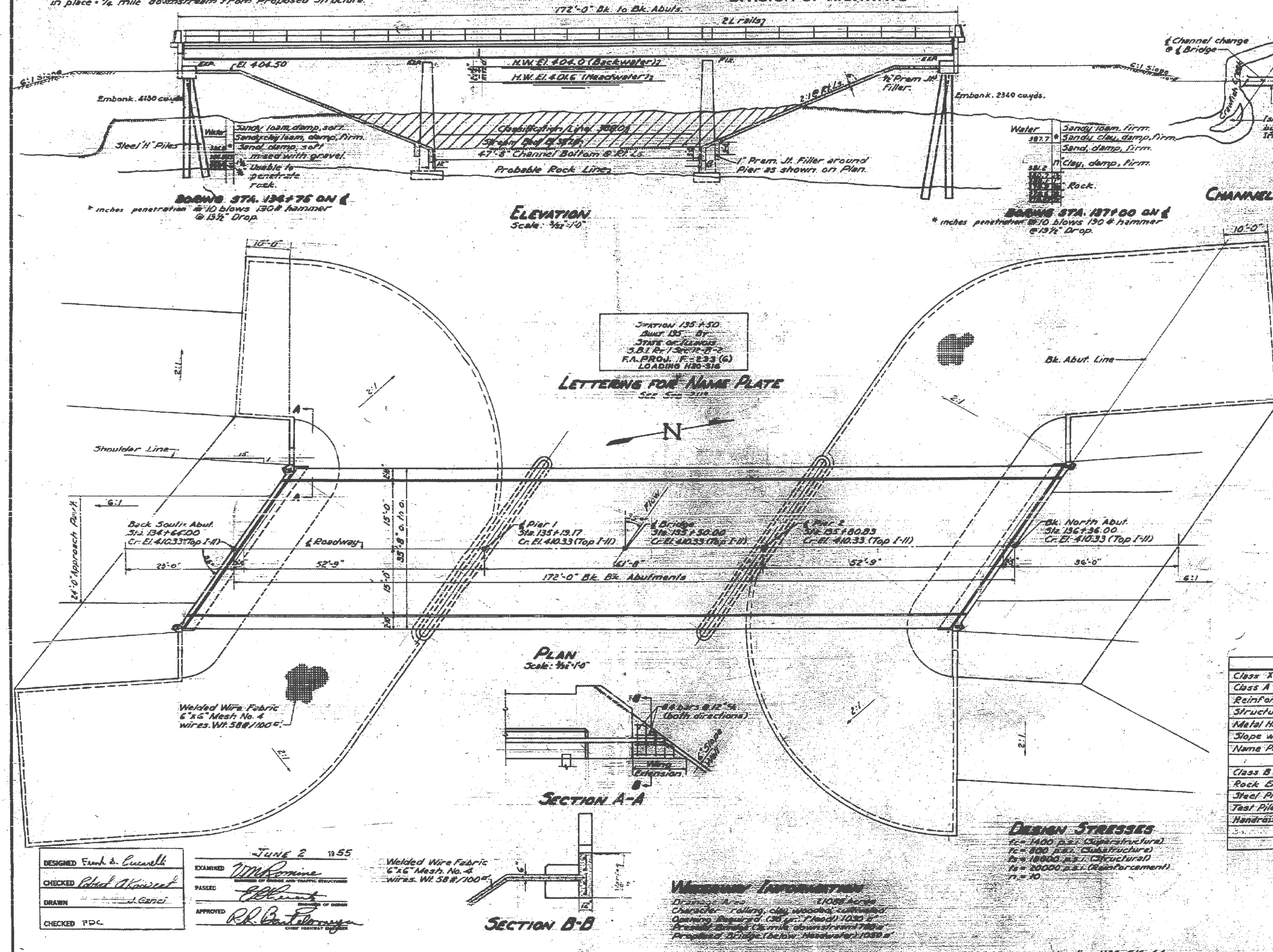
ILLINOIS FED. AID PROJECT

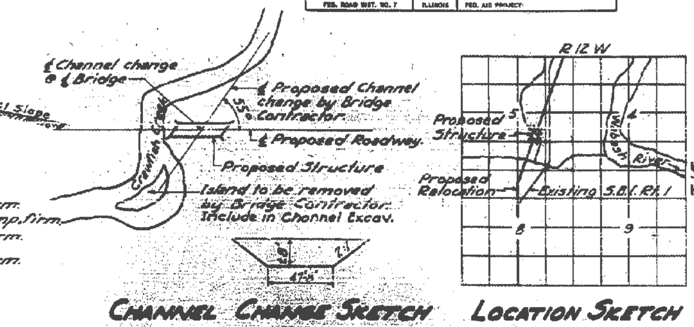
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 1 F.A.	12-B-2	Wabash	11	5

SHEET NO. 1
6 SHEETS

B.M. 3" W in North side of leaning Twin Maple 100' East of Sta. 135+20. El. 396.72* El. 396.35 U.S.G.S. Datum
Existing Structure: R.C. Thru Girder 1 Span @ 50' Roadway 20' on solid concrete abutments on rock. Bridge to remain in place • 1/4 mile downstream from Proposed Structure.





General Notes

Class X concrete shall be used throughout except in hand rails and piers.

Class A concrete shall be used in piers.

The concrete floor slab shall be finished in accordance with Article 31.18 (a) of the Standard Specifications.

Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, #4 wires, weighing 58 # per 100 sq. ft.

Layout of slope walls may be varied to suit ground conditions in the field, as directed by the Engineer.

Rivets 3/4" Ø, open holes 13/16" Ø, unless noted.

Field connections riveted, unless noted.

Railings shall be adjusted to true alignment after curbs have been poured.

All rollers, rockers, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.14 of the Standard Specifications and are included for payment as Structural Steel.

Anchor bolts shall be set before riveting diaphragms over supports.

The roadway expansion plate shall be fabricated and erected to fit the crown of roadway.

Expansion guards are included for payment as Structural Steel.

The following surfaces of expansion guards shall be given two shop coats of red lead paint; all surfaces inaccessible after erection. Omit paint on anchor straps 2"x 5/16".

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 57.1 to 57.5 inclusive of the Standard Specifications.

All paint shall be furnished and applied by the Contractor.

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

Boring Data are shown on the drawings only as a guide to bidders in estimating soil conditions which may be encountered in the work.

Total Bill of Material

Item		Superstr.	Substr.	Total
Class X Concrete	Cu. Yds.	163.0	55.1	218.1
Class A Concrete	Cu. Yds.		254.2	254.2
Reinforcement Bars	Lbs.	30034	[illegible]	42186
Structural Steel	Lbs.	178770		178770
Metal Handrail	Lin. Ft.	340		340
Slope wall	Sq. Yds.			2022
Name Plates	Each			One
Class B Excavation for Struct.	Cu. Yds.		118	118
Rock Excavation	Cu. Yds.		25	25
Steel Piles	Lin. Ft.			299
Test Piles (Steel)	Each		One	One
Handrail Concrete	cu. yds	0.5		0.5

Design Stresses

fc = 1400 p.s.i. (Superstructure)
fc = 800 p.s.i. (Substructure)
fs = 18000 p.s.i. (Structural)
fs = 20000 p.s.i. (Reinforcement)
n = 10

Waterway Information

Drainage Area 31086 acres
Character: rolling, clay, wooded, cultivated
Opening Required (50 yr. flood) 1050 s'
Opening Provided (below Headwater) 1050 s'

General Plan & Elevation
Bridge over Crawfish Creek
S.B.I. Rt. 1 Sec. 12-B-2
Wabash County
Station 135+50

DESIGNED	Frank S. Cicarelli
CHECKED	Robert A. Kinnert
DRAWN	J. Genci
CHECKED	PDC

June 2 1955
EXAMINED: [signature] ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED: [signature]
APPROVED: [signature] CHIEF HIGHWAY ENGINEER

Rev. 2-29-55

Loading H20-S16-44

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

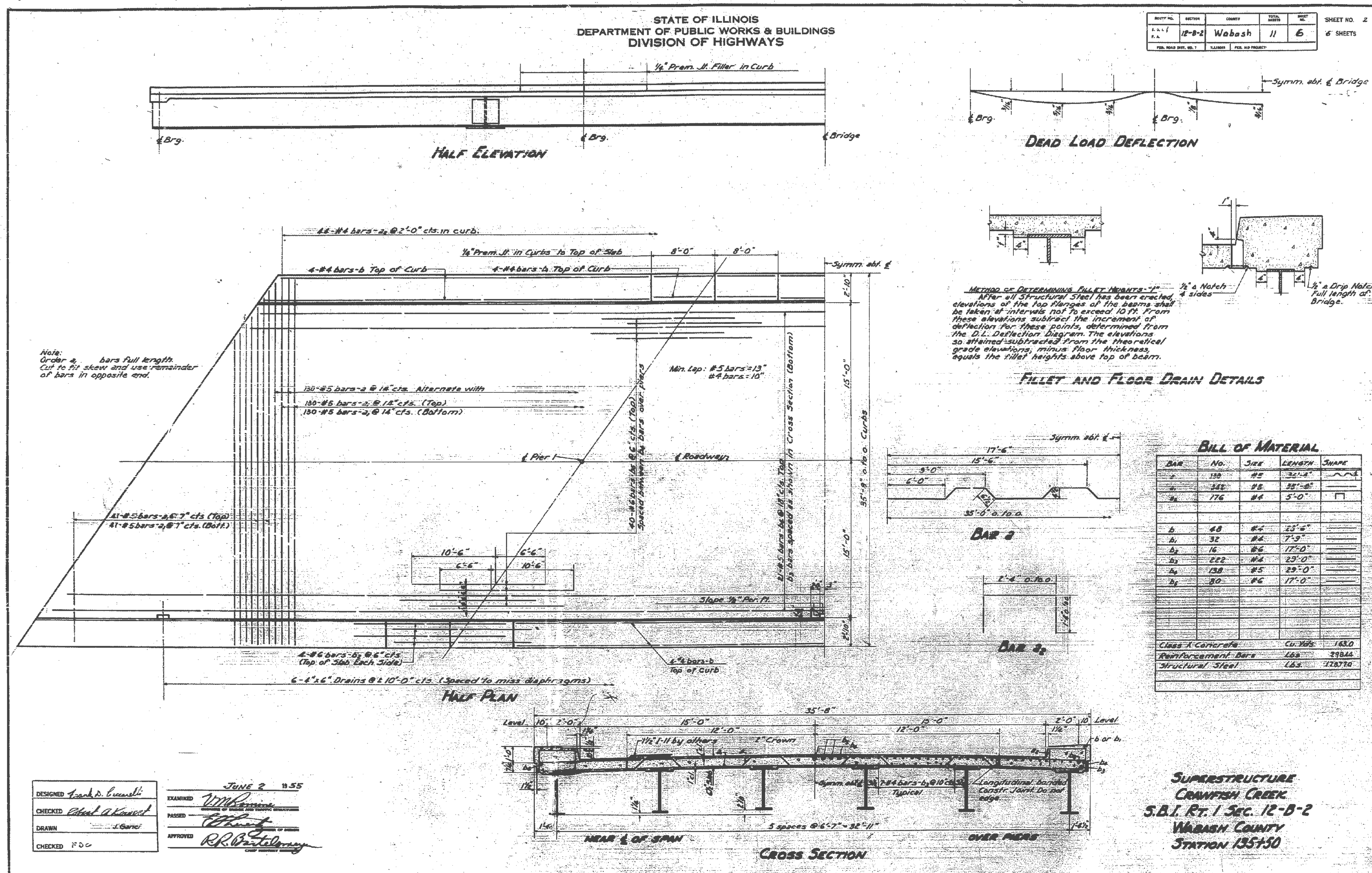
EXISTING STRUCTURE PLANS - SN 093-0003
FOR INFORMATION ONLY

SHEET NO. 1 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	52

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



Bill of Material

Bar	No.	Size	Length	Shape
[illegible]	130	#5	[illegible]	
[illegible]	[illegible]	#8	[illegible]	
a_2	176	#4	5'-0"	
b	48	#4	23'-6"	
b_1	32	#4	7'-9"	
b_2	16	#6	17'-0"	
b_3	222	#4	23'-0"	
b_4	138	#5	29'-0"	
b_5	80	#6	17'-0"	
Class X Concrete			Cu. Yds.	163.0
Reinforcement Bars			Lbs.	29844
Structural Steel			Lbs.	178790

ESCA CONSULTANTS, INC.

USER NAME = has	DESIGNED - MTD	REVISED -	
ESCA PROJECT NO. 933.14	CHECKED - RDP	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

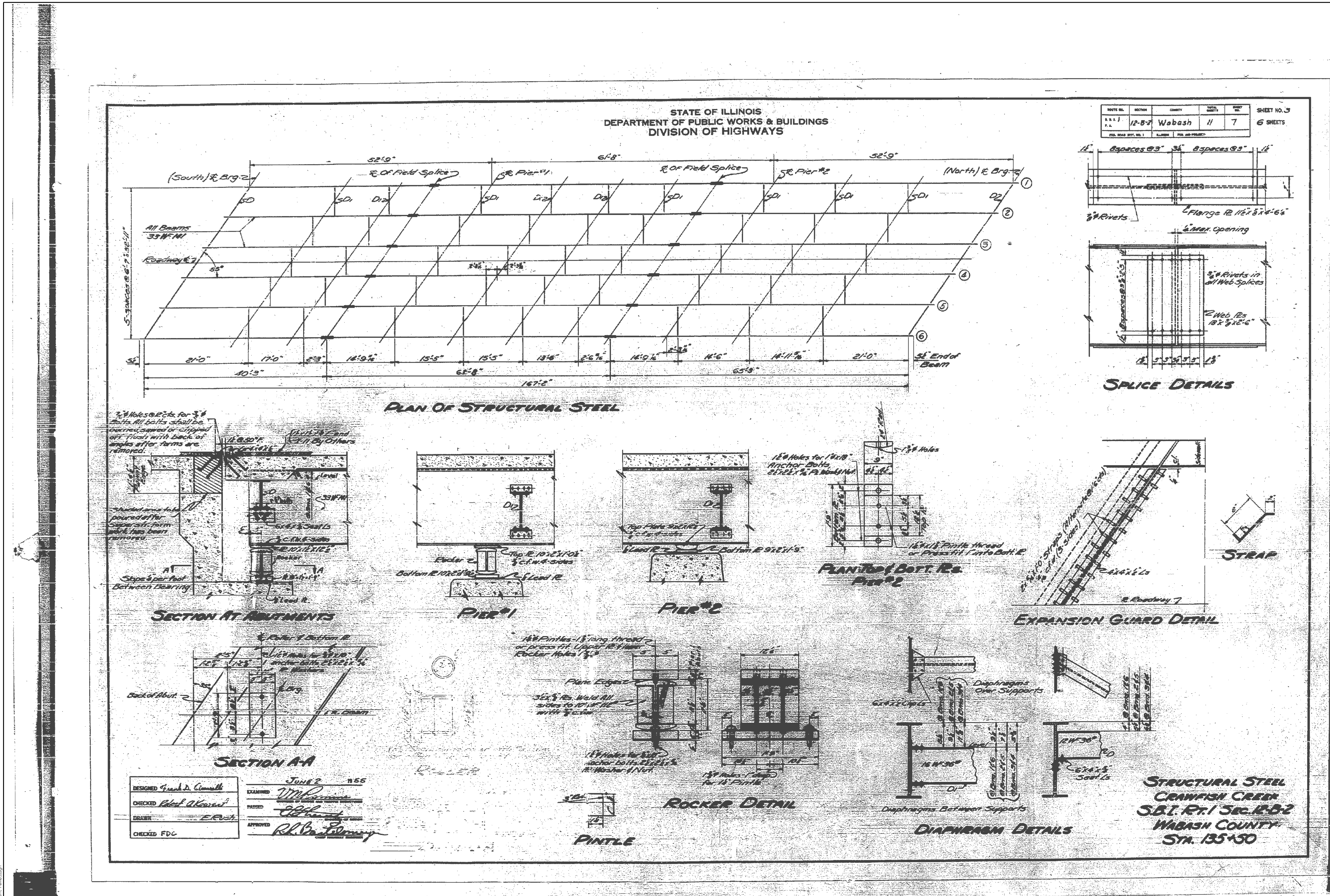
EXISTING STRUCTURE PLANS – SN 093–0003
FOR INFORMATION ONLY

SHEET NO. 2 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	53

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



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ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

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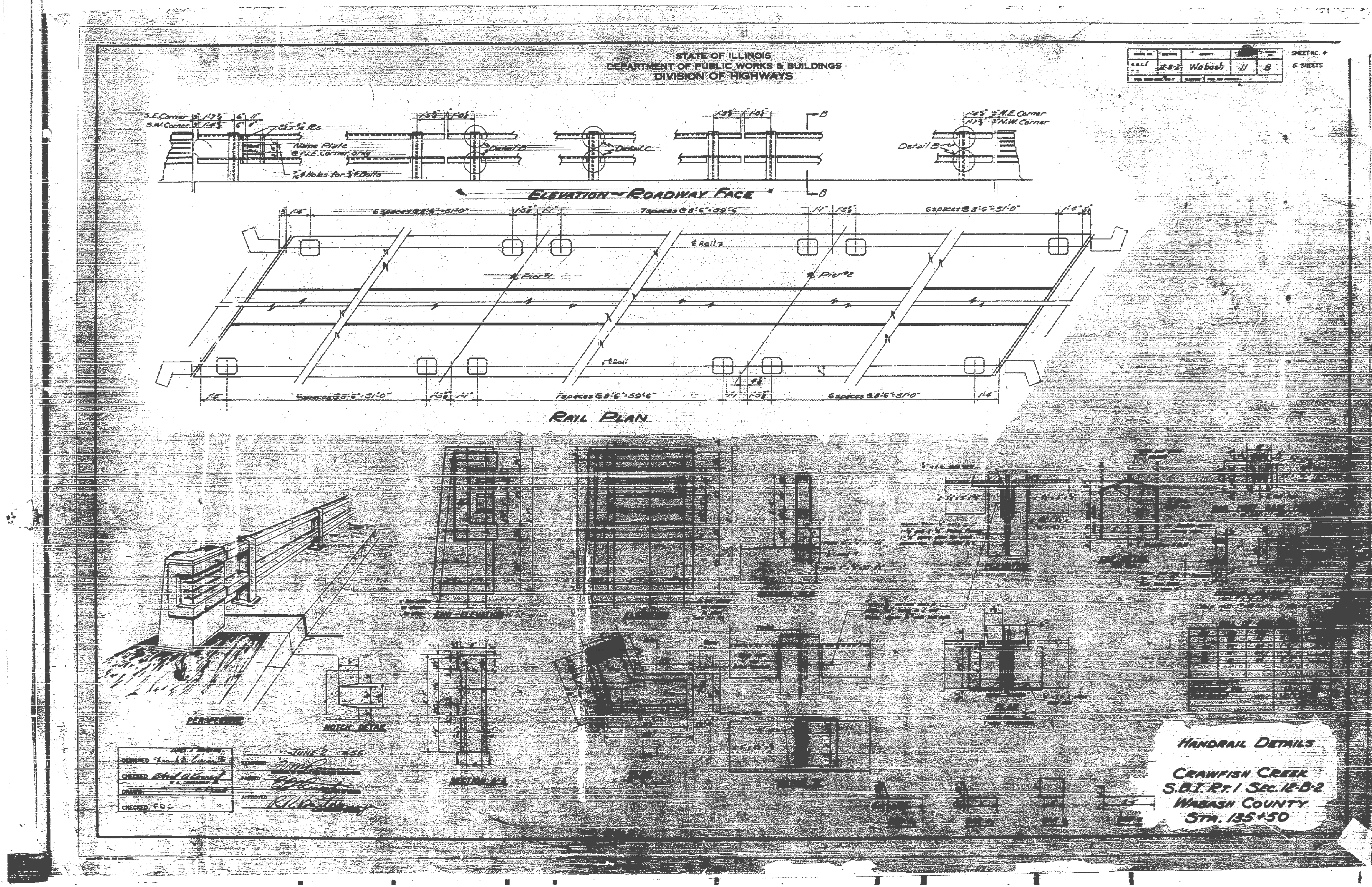
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS – SN 093–0003
FOR INFORMATION ONLY

SHEET NO. 3 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	54
		CONTRACT NO. 74219		
	ILLINOIS	FED. AID PROJECT		



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS – SN 093–0003
FOR INFORMATION ONLY

SHEET NO. 4 OF 6 SHEETS

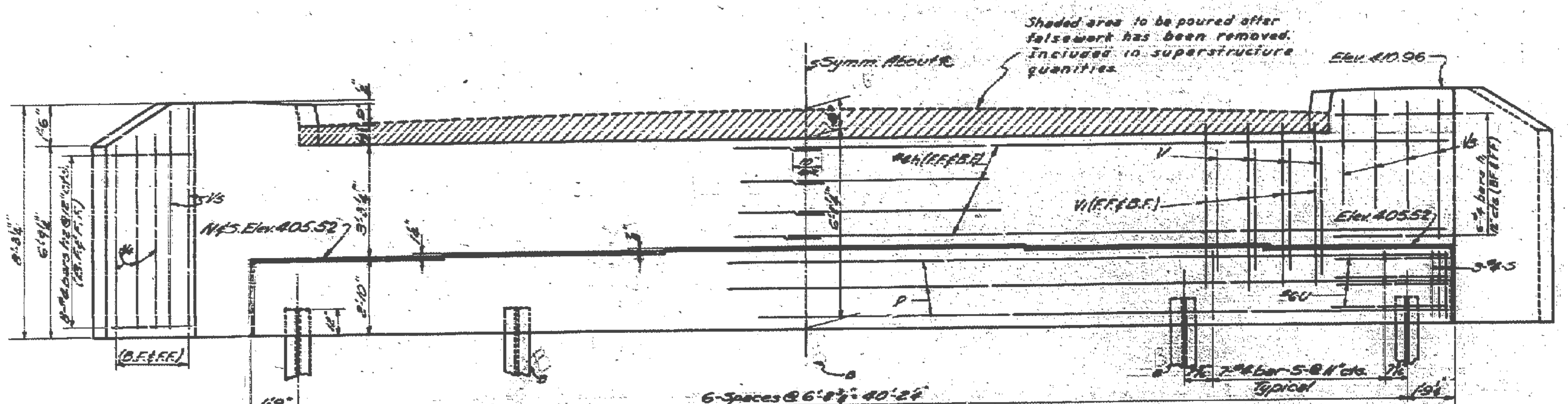
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	55
CONTRACT NO. 74219				
ILLINOIS FED. AID PROJECT				

Route No.	Section	County	Total Sheets	Sheet No.
S.B.I. 1 F.A.	12-B-2	Wabash	11	9

Fed. Road Dist. No. 7 | Illinois | Fed. Aid Project

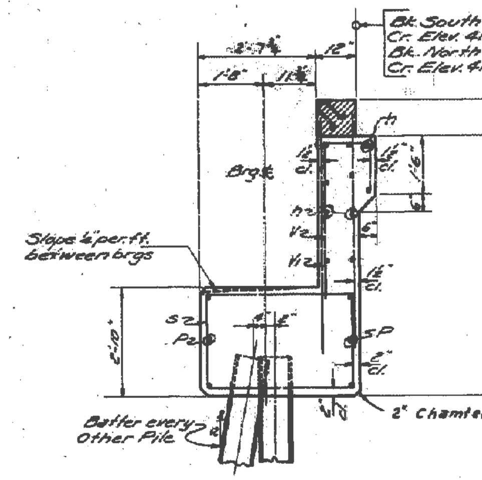
SHEET NO. 5
6 SHEETS

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

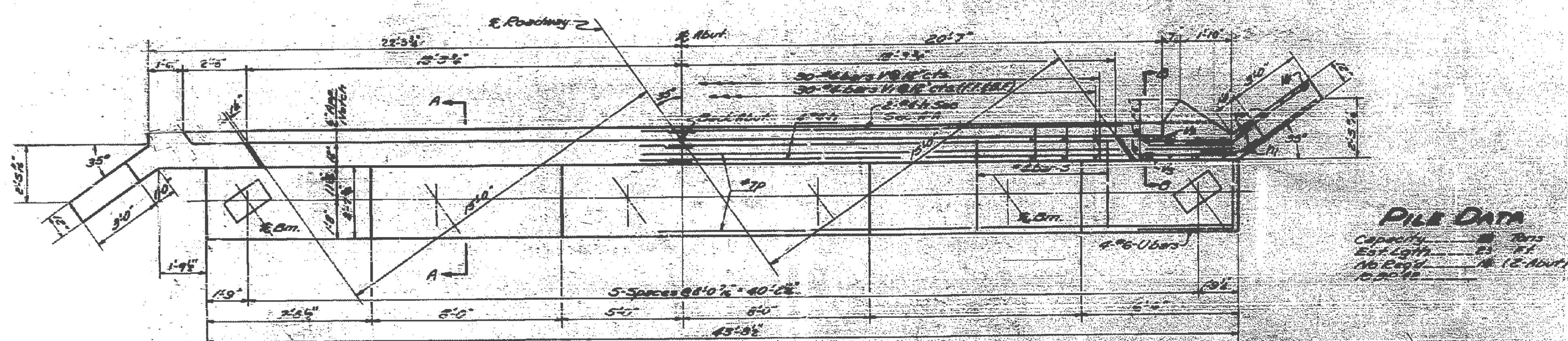


ELEVATION

Note: Piles marked "B" to be battered as shown in Section "AA"



SECTION A-A



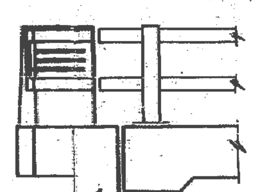
PLAN

PILE DATA

Capacity — Tons
Est. Lgth. — Ft.
No. Req'd. — 16 (2-Abut.)

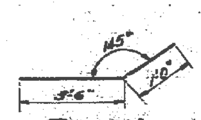
BILL OF MATERIAL - 2 ABUTS.

Bar	No.	Size	Length	Shape
h	40	#4	23'-9"	straight
h1	48	#4	4'-6"	bent
h2	64	#4	4'-0"	straight
P	12	#7	43'-3"	straight
S	96	#4	12'-3"	⊓
U	16	#6	14'-8"	⊐
V	60	#4	4'-9"	Γ
V1	120	#4	4'-6"	straight
V3	32	#4	6'-0"	straight
V4	24	#4	6'-6"	straight
V5	16	#4	7'-9"	straight
Class X Concrete			Cu. Yds.	[illegible]
Reinforcement Bars			Lbs.	[illegible]
Test Piles (Steel)			Each	One
Steel Piles			Lin. Ft.	299

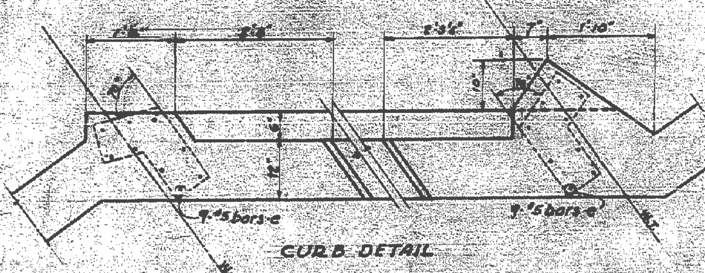


SECTION B-B

BAR-S BAR-V BAR-U



BAR-h1



CURB DETAIL

e bars listed on Sh. 4

2-ABUTMENTS
CRAWFISH CREEK
S.B.I. RT. 1 SEC. 12-B-2
WABASH COUNTY
STA. 135+50

DESIGNED Frank B. Cuccelli
CHECKED Robert A. Koval
DRAWN E. Rush
CHECKED
JUNE 2 1955
EXAMINED
PASSED
APPROVED

ESCA CONSULTANTS, INC.	USER NAME = has	DESIGNED - MTD	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

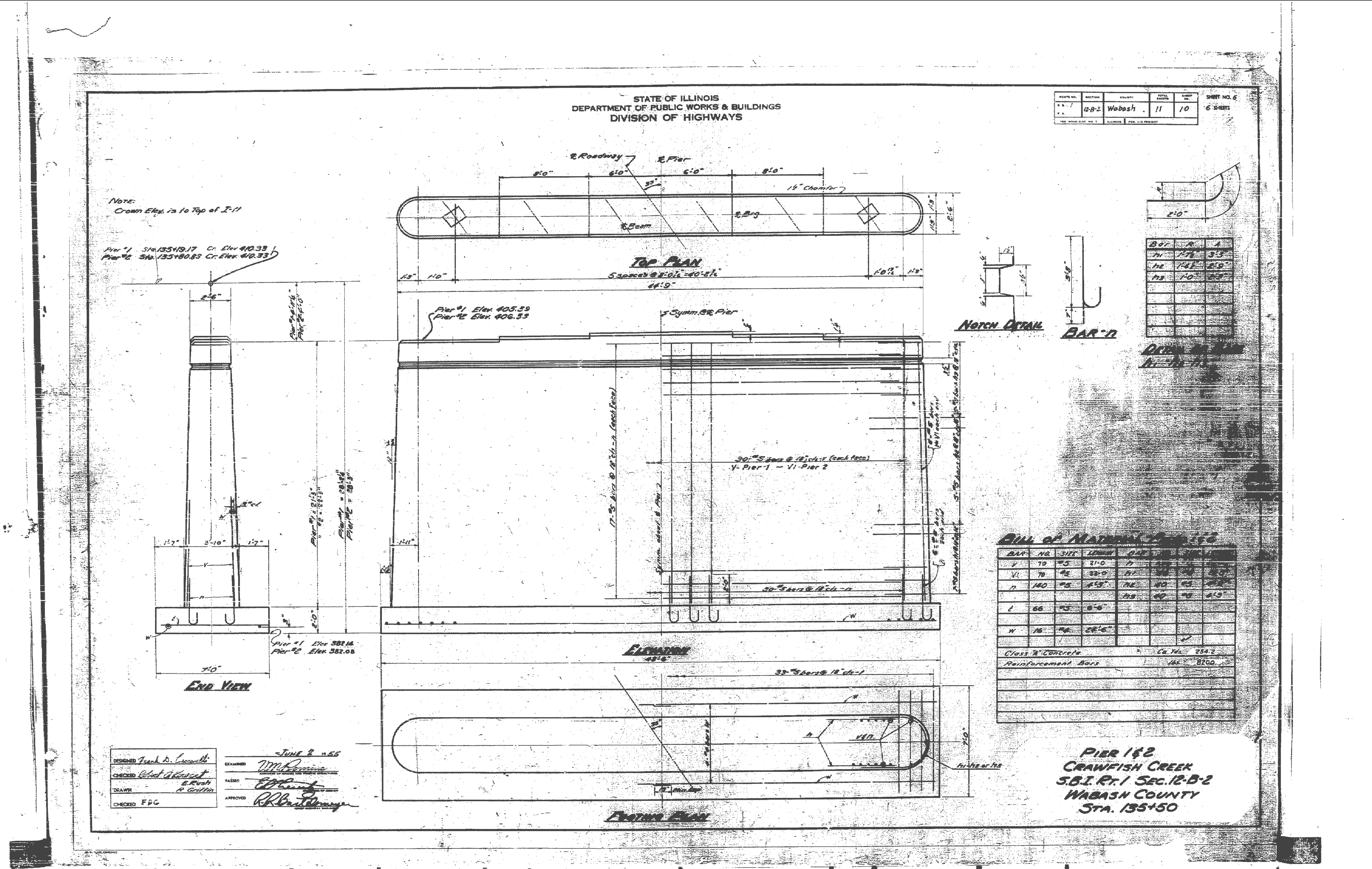
EXISTING STRUCTURE PLANS – SN 093-0003
FOR INFORMATION ONLY

SHEET NO. 5 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	56

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT



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ESCA CONSULTANTS, INC.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS – SN 093–0003
FOR INFORMATION ONLY

SHEET NO. 6 OF 6 SHEETS

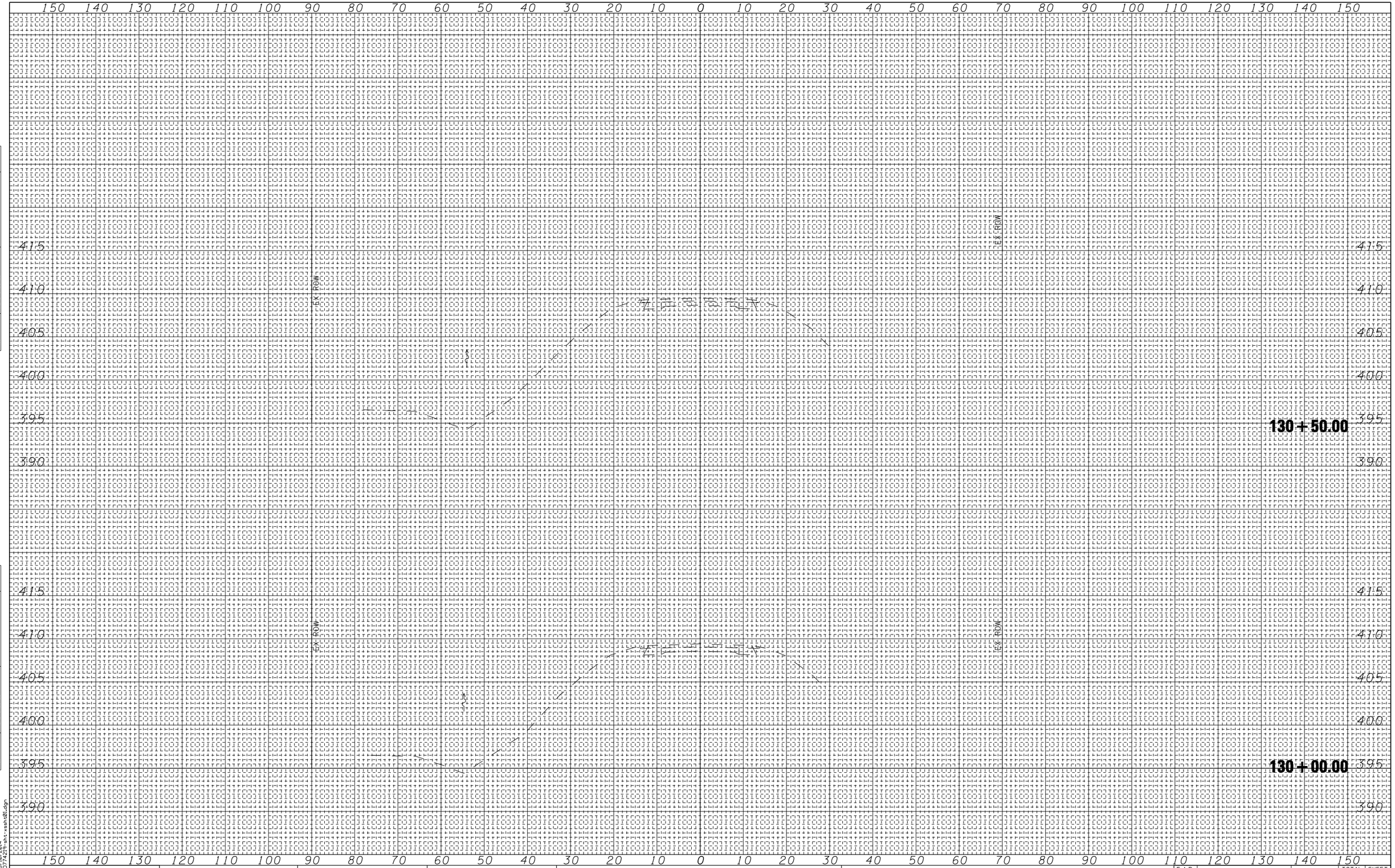
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	57

CONTRACT NO. 74219

ILLINOIS FED. AID PROJECT

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

BY	DATE



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

BY	DATE

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ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

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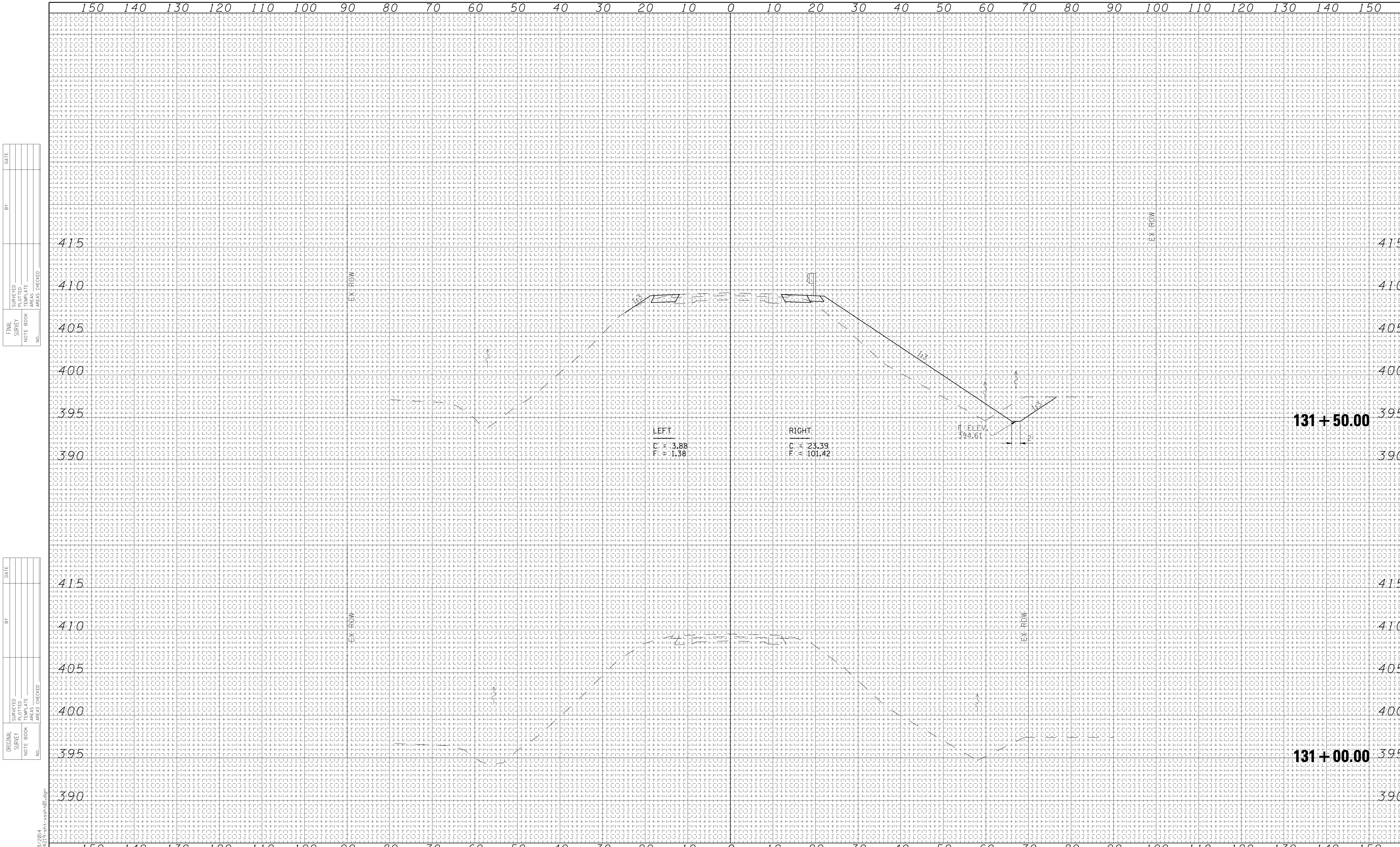
PLOT DATE = 6/10/2014	8:44:03 AM	DATE - 05/30/13		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 1 OF 11 SHEETS | STA. 130+00.00 TO STA. 130+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	58
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS	USER NAME = has	DESIGNED - MTD/NHP	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 2 OF 11 SHEETS | STA. 131+00.00 TO STA. 131+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	59
		CONTRACT NO. 74219		

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

USER = has
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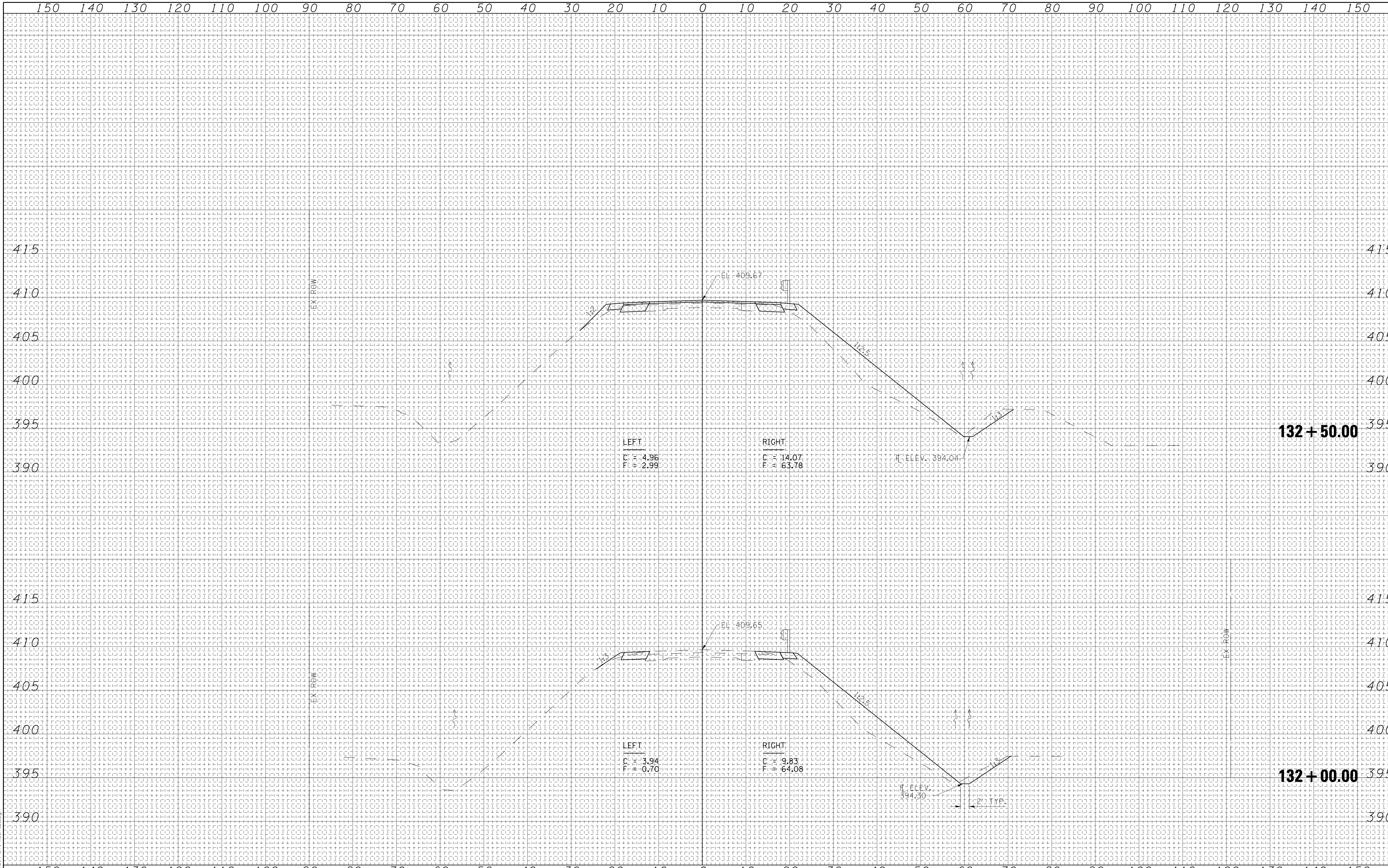


FINAL SURVEY	
NOTE BOOK NO.	SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED
BY	DATE

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

USER = has
PRINT DATE = 6/10/2014
FILE NAME = D774219-sht-xssht01.dgn

ESCA CONSULTANTS, INC. CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - MTD/NHP	REVISED -
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -
PLOT DATE = 6/10/2014 8:44:29 AM	DATE - 01/30/14	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

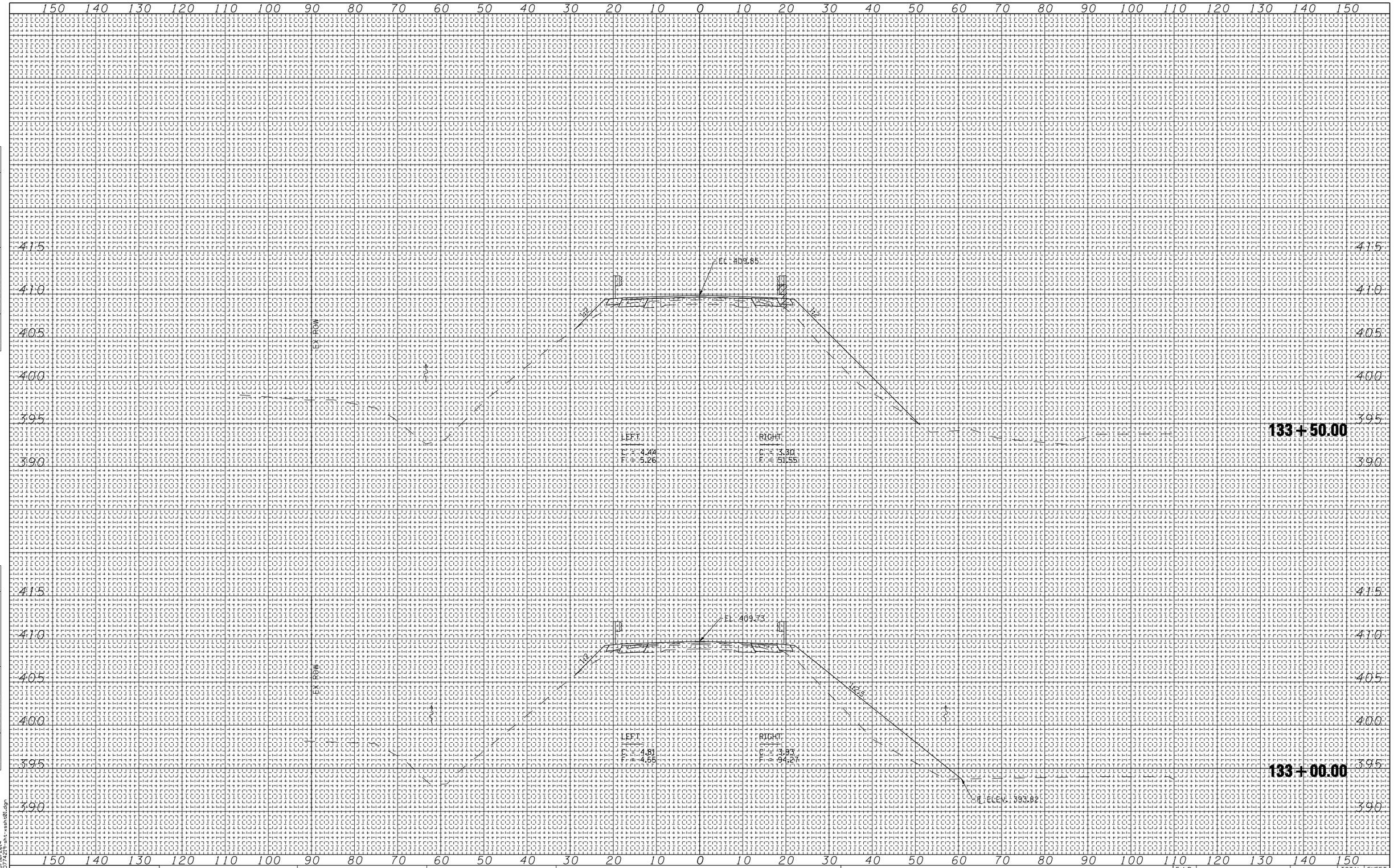
SCALE: AS SHOWN | SHEET NO. 3 OF 11 SHEETS | STA. 132+00.00 TO STA. 132+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	60
		CONTRACT NO. 74219		

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

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

BY	DATE



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

BY	DATE

USER NAME = has
PLOT DATE = 6/10/2014
FILE NAME = D:\74219-sht-xssh01d.dgn

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - MTD/NHP	REVISED -
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -
PLOT DATE = 6/10/2014 8:44:49 AM	DATE - 01/30/14	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 4 OF 11 SHEETS | STA. 133+00.00 TO STA. 133+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	61
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

BY	DATE

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

BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

415 410 405 400 395 390

EX. ROW

EL. 410.31

LEFT
C = 0.86
T = 29.78

RIGHT
C = 3.73
T = 62.11

134 + 50.00

EX. ROW

EL. 410.05

LEFT
C = 2.96
T = 6.03

RIGHT
C = 1.69
T = 42.49

134 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

USER NAME = has
PLOT DATE = 6/10/2014
FILE NAME = D:\74219-sht-xssh01.dgn

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

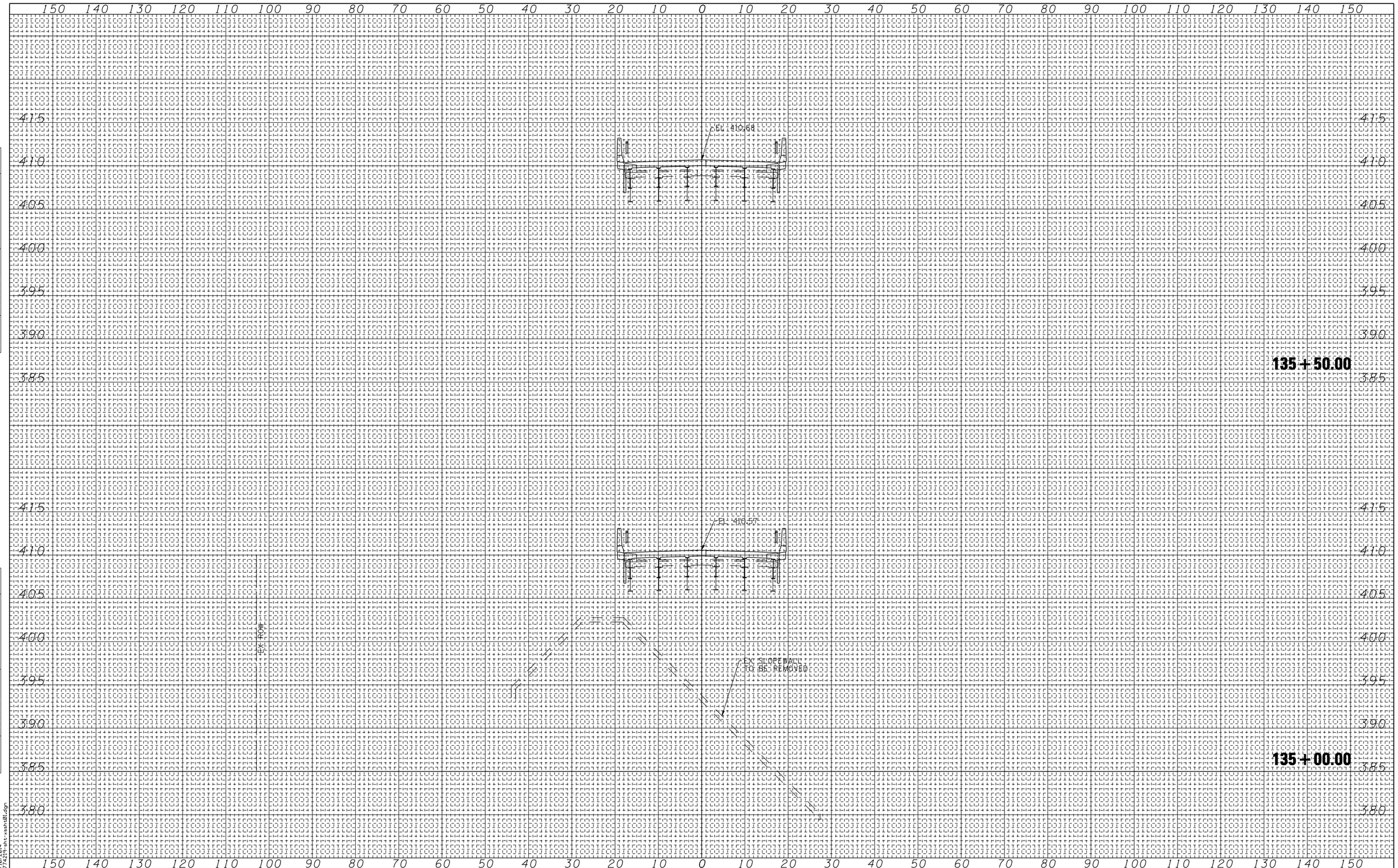
USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -	
PLOT DATE = 6/10/2014 8:45:03 AM	DATE - 01/30/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 5 OF 11 SHEETS | STA. 134+00.00 TO STA. 134+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	62
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

BY	DATE

USER = has
PRINT DATE = 6/10/2014
FILE NAME = D:\74219-sht-xssh01.dgn

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
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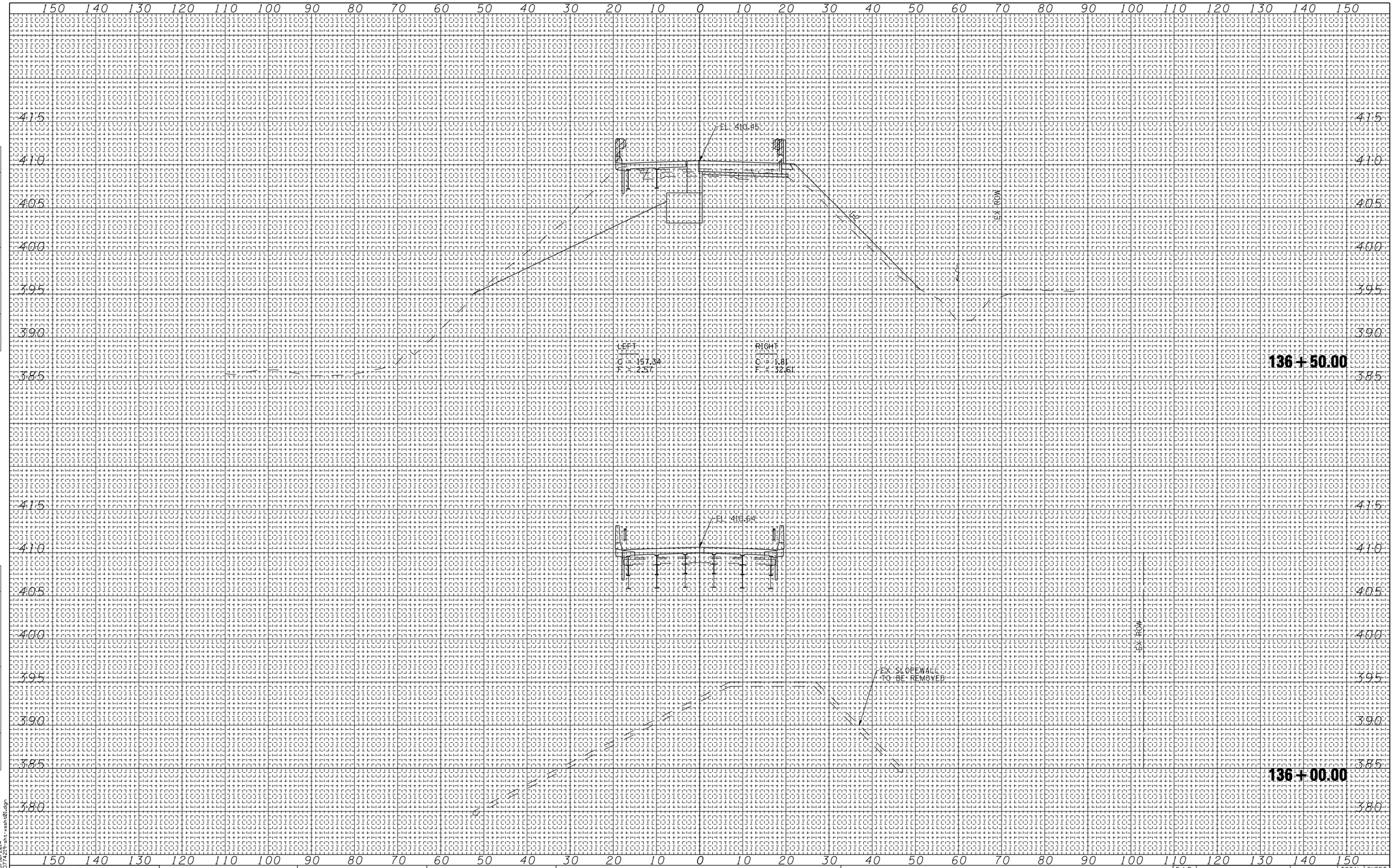
PLOT DATE = 6/10/2014 8:45:17 AM	DATE - 05/30/13	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 6 OF 11 SHEETS | STA. 135+00.00 TO STA. 135+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	63
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

USER NAME = has
PRINT DATE = 6/10/2014
FILE NAME = D74219-sht-xssh01.dgn

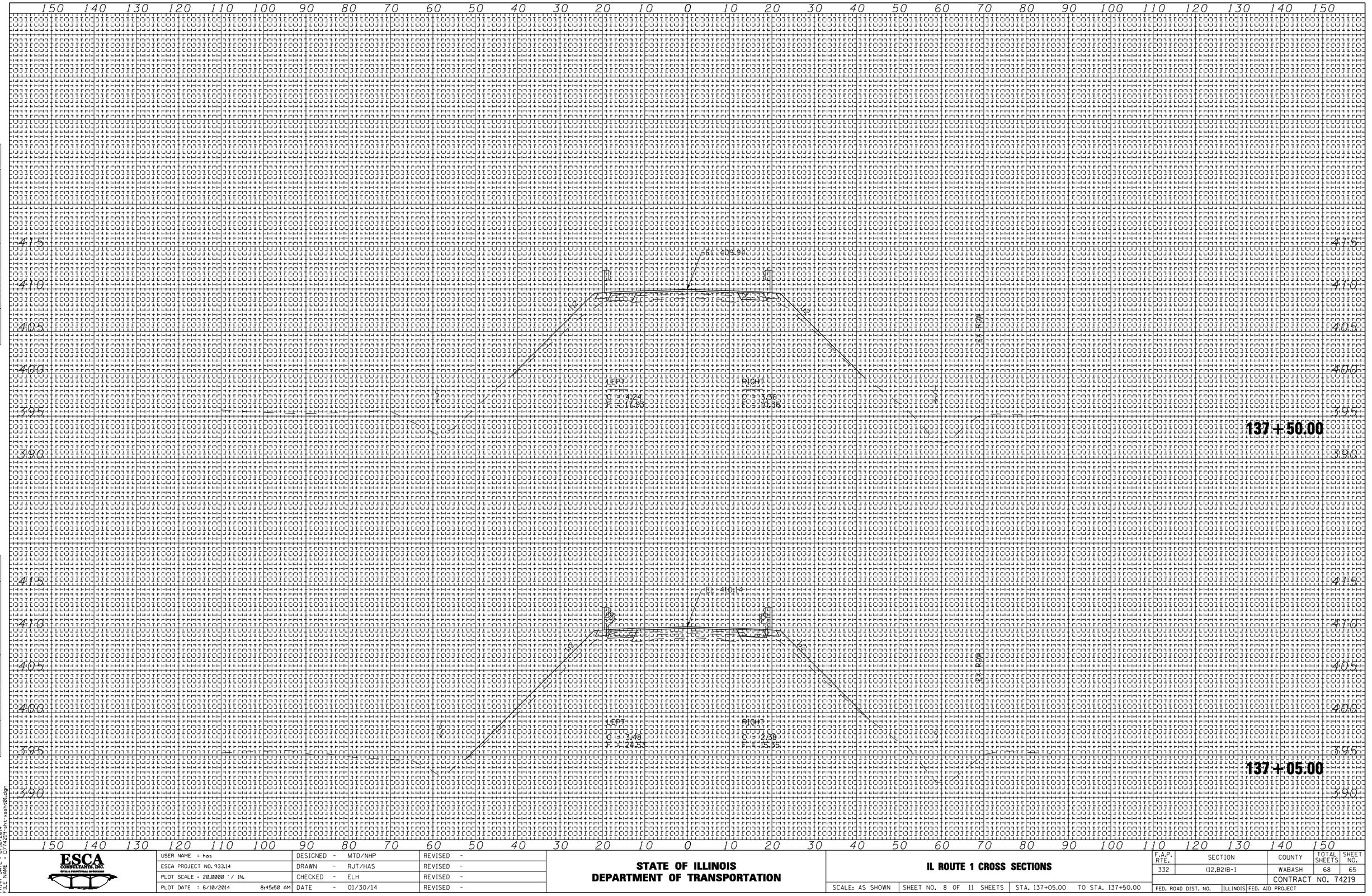
USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -	
PLOT DATE = 6/10/2014 8:45:35 AM	DATE - 05/30/13	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 7 OF 11 SHEETS | STA. 136+00.00 TO STA. 136+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	64
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

BY	DATE

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

BY	DATE

USER NAME = has
PLOT DATE = 6/10/2014
FILE NAME = D74219-sht-xssh01.dgn

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

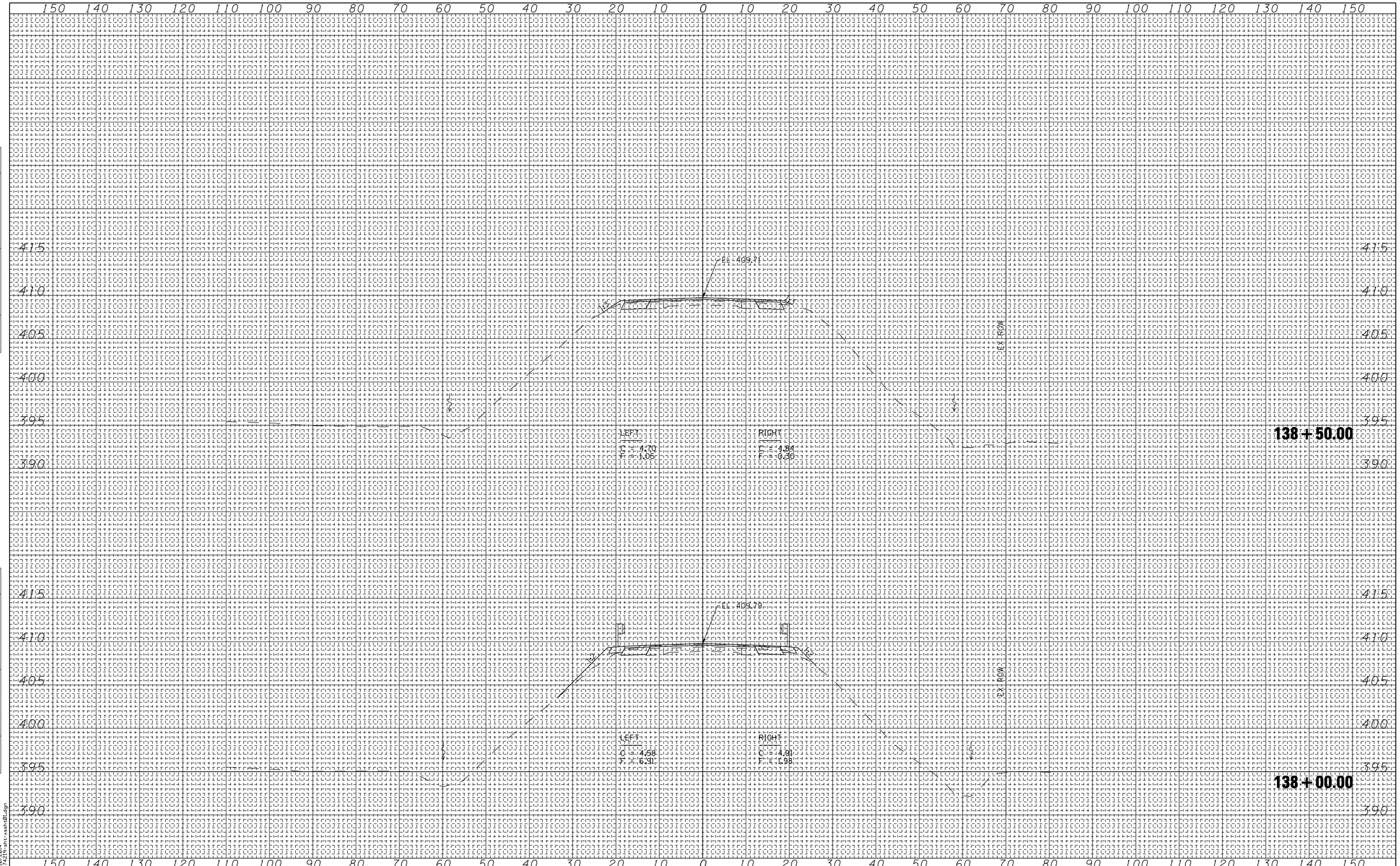
USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -	
PLOT DATE = 6/10/2014 8:45:50 AM	DATE - 01/30/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 8 OF 11 SHEETS | STA. 137+05.00 TO STA. 137+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	65
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY	NOTE BOOK	NO.

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

ORIGINAL SURVEY	NOTE BOOK	NO.

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

USER NAME = has
PLOT DATE = 6/10/2014
FILE NAME = D774219-sht-xsah101.dgn

ESCA CONSULTANTS, INC.
ROAD & STRUCTURAL ENGINEERS

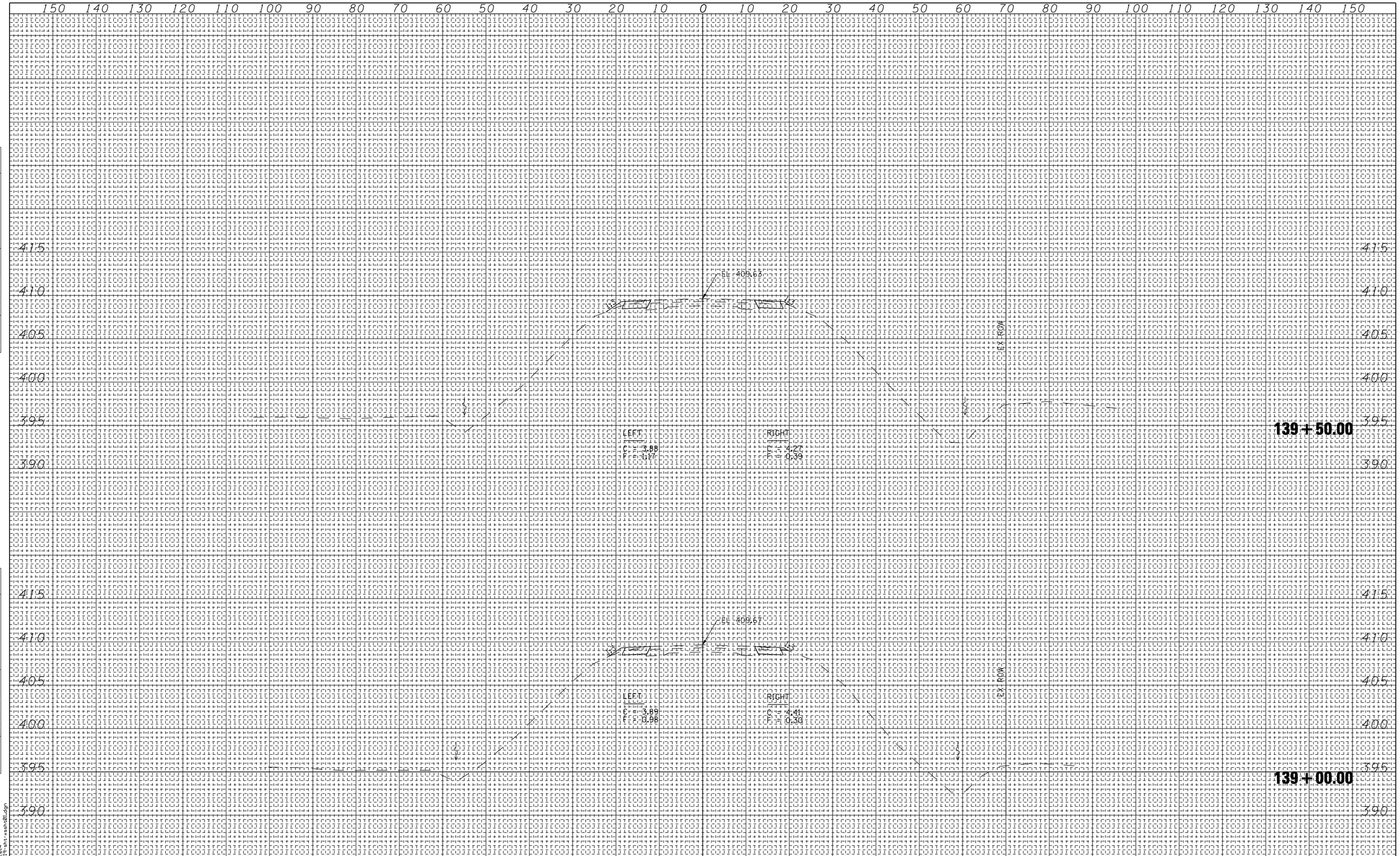
USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -	
PLOT DATE = 6/10/2014 8:46:06 AM	DATE - 01/30/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 9 OF 11 SHEETS | STA. 138+00.00 TO STA. 138+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	66
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

BY	DATE

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

BY	DATE

USER NAME = has
PRINT DATE = 6/10/2014
FILE NAME = D774219-sht-xsh101.dgn

ESCA CONSULTANTS, INC.
ROAD & TRANSPORTATION DIVISION

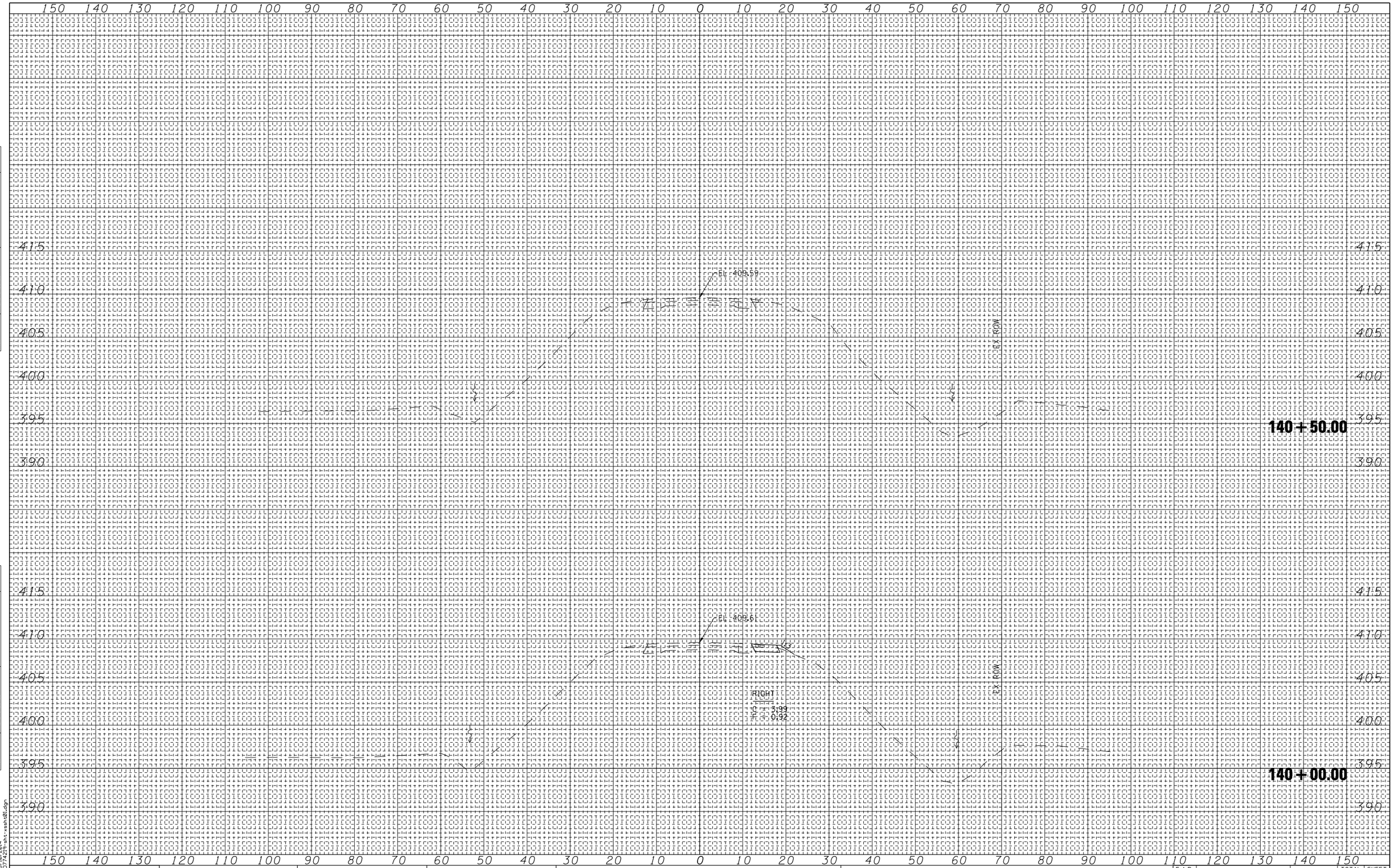
USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - ELH	REVISED -	
PLOT DATE = 6/10/2014 8:46:19 AM	DATE - 01/30/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 10 OF 11 SHEETS | STA. 139+00.00 TO STA. 139+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	67
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY	
NOTE BOOK	
NO.	

SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

BY	DATE

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

BY	DATE

USER NAME = has
PLOT DATE = 6/10/2014
FILE NAME = D74219-sht-xssh01.dgn

ESCA CONSULTANTS, INC.
CIVIL & STRUCTURAL ENGINEERS

USER NAME = has	DESIGNED - MTD/NHP	REVISED -	
ESCA PROJECT NO. 933.14	DRAWN - RJT/HAS	REVISED -	
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PLOT DATE = 6/10/2014 8:46:32 AM	DATE - 01/30/14	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 1 CROSS SECTIONS

SCALE: AS SHOWN | SHEET NO. 11 OF 11 SHEETS | STA. 140+00.00 TO STA. 140+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(12,B2)B-1	WABASH	68	68
		CONTRACT NO. 74219		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		