

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 132 (IL-145)
CROSSING FAP ROUTE 885 (IL-146)
SECTION 103B-1
PROJECT F-0132(133)
POPE COUNTY
C-99-060-09
STRUCTURE REPLACEMENT
OVER IL-146

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	1
D-99-041-09		ILLINOIS	CONTRACT NO. 78134	

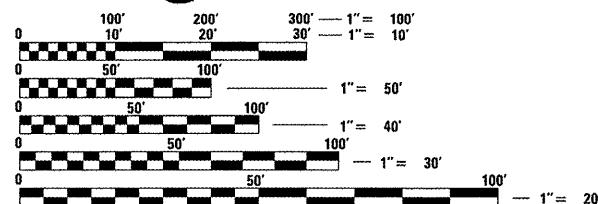
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UTILITY NOTE

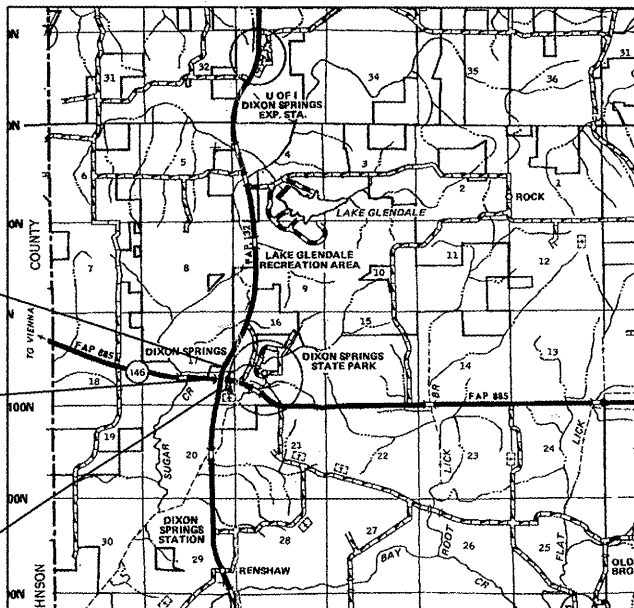
THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, REROUTING, DISCONNECTION, PROTECTION, ETC. OF AN UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR



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 MANAGER - DAVID PICHE (618) 549-2171
CONTRACT NO. 78134

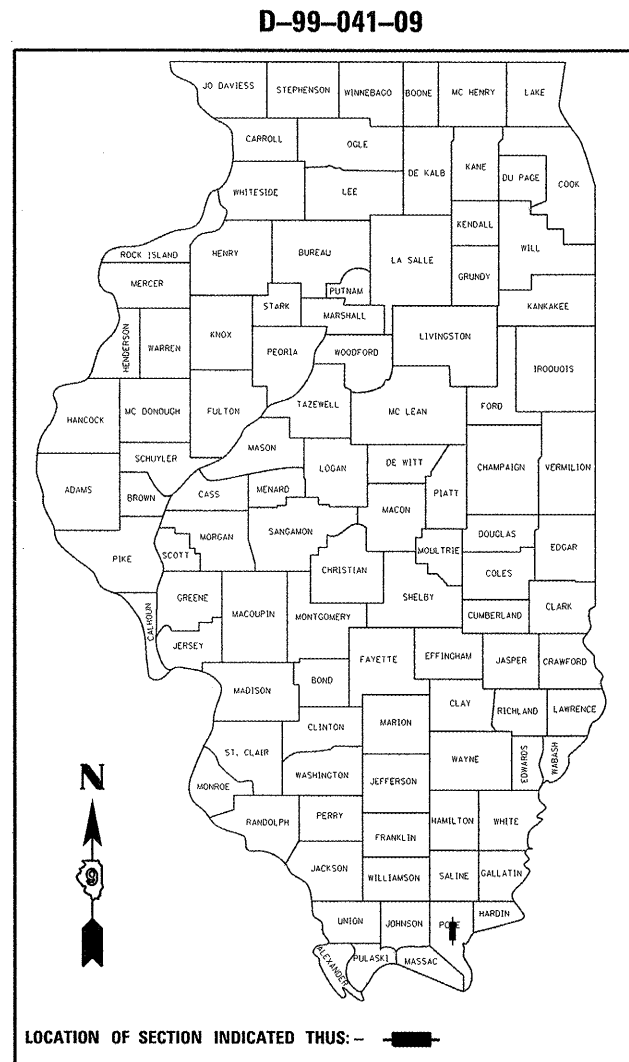


AREA LOCATION PLAN

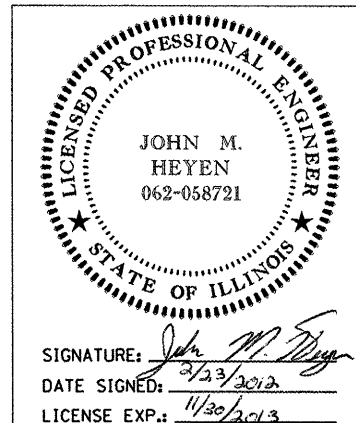


GROSS LENGTH = 1,155.4 FT. = 0.22 MILES
NET LENGTH = 1,155.4 FT. = 0.22 MILES

TOWNSHIP: ROAD DISTRICT #1



FUNCTIONAL CLASSIFICATION
MINOR ARTERIAL (NON-URBAN)
2007 ADT = 1450 (IL-145)
P.V. = 88.9% S.U. = 4.1% M.U. = 7.0%
ROAD DISTRICT #1



SIGNATURE: *John M. Heyen*
DATE SIGNED: 3/23/2012
LICENSE EXP.: 11/30/2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: *March 12 2012*
Omer Asman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11 2012
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 11 2012
William R. Frey, Jr.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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GENERAL NOTES

HIGHWAY STANDARDS

- 1 ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- 2 ACCESS TO ALL ENTRANCES SHALL BE MAINTAINED AT ALL TIMES.
- 3 IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16, THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT, AS DEFINED IN ARTICLE 101.17, REGARDLESS IF TRACK MOUNTED OR WHEELED.
- 4 THESE PLANS HAVE BEEN PREPARED USING STANDARD SYMBOLS AS INDICATED IN THESE PLANS, AND THEY SHALL TAKE PRECEDENCE OVER THOSE SHOWN ON STANDARD 00001 IF THERE IS A CONFLICT.
- 5 ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- 6 FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF EIGHT SAND BAGS PER BARRICADE.
- 7 THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR BITUMINOUS SURFACE BEFORE TRAFFIC IS ALLOWED ON THE PAVEMENT.
- 8 ELEVATION DATA IS BASED ON NATIONAL GEODETIC VERTICAL DATUM 1988 (NGVD88).
- 9 BEFORE ORDERING PIPE CULVERTS, PIPE DRAINS, END SECTIONS OR INLETS THE CONTRACTOR SHALL VERIFY LENGTHS AND QUANTITIES REQUIRED.
- 10 ALL DRAINAGE STRUCTURES SHALL BE FREE OF SILT, DEBRIS, OR OTHER SUCH OBSTRUCTIONS AT THE TIME OF FINAL INSPECTION. THE CLEANING OF THESE DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS INVOLVED.
- 11 GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POST, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE IN THE ORIGINAL STATE AS MUCH AREA OF TEMPORARY EASEMENTS AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 12 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 (2.016 TON/CU YD)
 ALL AGGREGATE - 2.05 TONS/CU YD
 BITUMINOUS MATERIALS (PRIME COAT):
 ON PAVEMENT - 0.09 GAL/ SQ YD
 ON AGGREGATE SURFACE - 0.32 GAL/ SQ YD
 RIPRAP - 1.5 TONS/CU YD
 SEEDING FERTILIZER RATIO PERMANENT (NIT:PHOS:POT) - 90:90:90 LBS/AC
 SEEDING FERTILIZER RATIO WITH CLASS 7 (NIT:PHOS:POT) - 40:0:0 LBS/AC
 TEMPORARY EROSION CONTROL SEEDING - 100 LBS/AC
 AGRICULTURAL GROUND LIMESTONE - 2.00 TONS/AC
 MULCH - 2.00 TONS/AC
 EARTHWORK SHRINKAGE = 20%

- 13 THE THICKNESS OF HOT MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT MIX ASPHALT MIXTURE IS PLACED.
- 14 TRENCH BACKFILL REQUIRED FOR STORM SEWER, SANITARY SEWER, OR WATER MAINS SHALL ONLY BE PLACED UP TO ONE FOOT BELOW THE FINAL GRADE IN AREAS HAVING A PROPOSED GRASS OR SOD SURFACE.
- 15 AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
- 16 THE LIMITS OF ROCK AND EARTH SLOPES SHOWN IN THE CROSS SECTIONS ARE APPROXIMATE. THE ACTUAL SLOPE USED SHALL BE DETERMINED BY THE MATERIAL CLASSIFICATION AS DEFINED IN ARTICLE 202.04, AND AS DIRECTED BY THE ENGINEER.
- 17 PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.

- 18 THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF TRAFFIC OPERATIONS 72 HOURS PRIOR TO THE SHUT-DOWN.
- 19 THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 300 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- 20 THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- 21 ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OFF OR COVERED.
- 22 ALL OBSTRUCTIONS WHICH ARE WITHIN THE CLEAR ZONE SHOWN ON THE TYPICAL SECTION, AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED ON IL-145 BETWEEN STATION 288+50.00 (STATION EQUATION: STA. 295+20.40 = STA. 1020+82.50) AND STATION 1018+40.00. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 100 mm (4 IN.) OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 100 mm (4 IN.) OR GREATER.
- 23 COMMITMENTS:
NONE

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-06 TEMPORARY EROSION CONTROL SYSTEMS
- 420001-07 PAVEMENT JOINTS
- 420401-08 BRIDGE APPROACH PAVEMENT CONNECTOR
- 515001-03 NAME PLATE FOR BRIDGES
- 542401-01 METAL END SECTIONS FOR PIPE CULVERTS
- 606201-02 TYPE B GUTTER (INLET, OUTLET, & ENTRANCE)
- 609006-05 BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
- 610001-06 SHOULDER INLET WITH CURB
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630201-06 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631031-10 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 668001-01 U.S. GEOLOGICAL SURVEY AND NATIONAL GEODETIC SURVEY BENCHMARKS RESETTING METHOD
- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
- 701006-03 OFF-RD OPERATIONS, 2L, 2W, 15; TO 24' FROM PAVEMENT EDGE
- 701011-02 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
- 701321-12 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701326-04 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
- 701901-02 TRAFFIC CONTROL DEVICES
- 704001-07 TEMPORARY CONCRETE BARRIER
- 720006-03 SIGN PANEL ERECTION DETAILS
- 780001-03 TYPICAL PAVEMENT MARKINGS
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN**

UTILITY NOTES

- 1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

UTILITY CONTACT INFORMATION

AMEREN ELECTRIC ELECTRIC & GAS DISTRIBUTION P.O. BOX 460 MARION, IL 62959 ATTN: JOE REINHARD	AMEREN GTS GAS TRANSMISSION 370 S. MAIN DECATUR, IL 62523 ATTN: MICHAEL WETHERELL
FRONTIER COMMUNICATIONS FIBER TELEPHONE 208 W. UNION MARION, IL 62959 ATTN: RICK SHAW	MILLSTONE WATER WATER DISTRIBUTION P.O. BOX 39 EDDYVILLE, IL 62928 ATTN: KEN RICHARDS
SHAWNEE COMMUNICATIONS FIBER TELEPHONE P.O. BOX 69 EQUALITY, IL 62934 ATTN: JOHN BOURLAND	

- 2 ANY DAMAGE TO THE UNDERGROUND FACILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE, INCLUDING TEMPORARY REPAIRS WHICH MAY BE REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. UTILITY ADJUSTMENTS SHALL BE MADE BY THE UTILITY COMPANIES UNLESS NOTED OTHERWISE.
- 3 THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL OBTAIN EXACT UTILITY LOCATIONS FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION. THE FOLLOWING STANDARD UTILITY DEPTHS WERE USED IF INFORMATION WAS UNAVAILABLE:
 TELEPHONE / FIBER OPTIC - 2 FEET
 GAS - 2.5 FEET
 CABLE TV - 1.5 FEET
 ELECTRIC - 3 FEET
 SANITARY SEWER - 2.5 FEET
 WATER - 4 FEET
- 4 ALL ELECTRIC LINES WILL REMAIN ENERGIZED DURING CONSTRUCTION UNLESS OTHERWISE COORDINATED WITH THE UTILITY COMPANY.

Prepared By: *[Signature]*
DISTRICT STUDIES & PLANS ENGINEER

Examined By: *[Signature]*
DISTRICT LAND ACQUISITION ENGINEER

Examined By: *[Signature]*
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: *[Signature]*
DISTRICT OPERATIONS ENGINEER

Examined By: *[Signature]*
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: *[Signature]*
DISTRICT CONSTRUCTION ENGINEER

Examined By: *[Signature]*
DISTRICT MATERIALS ENGINEER

Approved By: *[Signature]*
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

March 12 2012
DATE



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-145 (OVER IL-146)
GENERAL NOTES & HIGHWAY STANDARDS

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

F.A.P.1 RTE. 1	SECTION 103B-1	COUNTY POPE	TOTAL SHEETS 52	SHEET NO. 2
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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CONSTRUCTION CODE
HBP FUNDS
80% FED
20% STATE
BRIDGE
0011
RURAL
TOTAL QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	1.00
20200100	EARTH EXCAVATION	CU YD	3225
20400800	FURNISHED EXCAVATION	CU YD	1920
20800150	TRENCH BACKFILL	CU YD	1.2
X 25000200	SEEDING, CLASS 2	ACRE	1.50
X 25000350	SEEDING, CLASS 7	ACRE	1.50
X 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	195
X 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	135
X 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	135
X 25000700	AGRICULTURAL GROUND LIMESTONE	TON	3.0
X 25100115	MULCH, METHOD 2	ACRE	1.50
25100630	EROSION CONTROL BLANKET	SQ YD	7640
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150
28000400	PERIMETER EROSION BARRIER	FOOT	2486

CONSTRUCTION CODE
HBP FUNDS
80% FED
20% STATE
BRIDGE
0011
RURAL
TOTAL QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
28100105	STONE RIPRAP, CLASS A3	SQ YD	80
28100207	STONE RIPRAP, CLASS A4	TON	128
28200200	FILTER FABRIC	SQ YD	112
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	317
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	560
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	588
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	366
40600990	TEMPORARY RAMP	SQ YD	32
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	1337
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	226
40603520	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	202
44000100	PAVEMENT REMOVAL	SQ YD	303
44000400	GUTTER REMOVAL	FOOT	781
44004250	PAVED SHOULDER REMOVAL	SQ YD	23

X SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-145 (OVER IL-146)
SUMMARY OF QUANTITIES

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	3
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78134	



CONSTRUCTION CODE	
HBP FUNDS	
80% FED	
20% STATE	
BRIDGE	
0011	
RURAL	
TOTAL QUANTITY	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	671
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	712
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50157300	PROTECTIVE SHIELD	SQ YD	167
50200100	STRUCTURE EXCAVATION	CU YD	224
50300100	FLOOR DRAINS	EACH	2
50300225	CONCRETE STRUCTURES	CU YD	166.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	321.5
50300260	BRIDGE DECK GROOVING	SQ YD	785
50300280	CONCRETE ENCASEMENT	CU YD	4.8
50300300	PROTECTIVE COAT	SQ YD	1004
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	4515
50800105	REINFORCEMENT BARS	POUND	17970

CONSTRUCTION CODE	
HBP FUNDS	
80% FED	
20% STATE	
BRIDGE	
0011	
RURAL	
TOTAL QUANTITY	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	102760
50800515	BAR SPLICERS	EACH	904
50800530	MECHANICAL SPLICERS	EACH	96
51100100	SLOPE WALL 4 INCH	SQ YD	458
51201610	FURNISHING STEEL PILES HP12X63	FOOT	414
51202305	DRIVING PILES	FOOT	414
51203610	TEST PILE STEEL HP12X63	EACH	2
51500100	NAME PLATES	EACH	1
X 51603000	DRILLED SHAFT IN SOIL	CU YD	24
X 51604000	DRILLED SHAFT IN ROCK	CU YD	16
52100520	ANCHOR BOLTS, 1"	EACH	28
52100530	ANCHOR BOLTS, 1 1/4"	EACH	28
54213447	END SECTIONS 12"	EACH	3
58700300	CONCRETE SEALER	SQ FT	1182

X SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-145 (OVER IL-146)
SUMMARY OF QUANTITIES

SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 132	SECTION 103B-1	COUNTY POPE	TOTAL SHEETS 52	SHEET NO. 4
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT CONTRACT NO. 78134		



CONSTRUCTION CODE
HBP FUNDS
80% FED
20% STATE
BRIDGE
0011
RURAL

CONSTRUCTION CODE
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20% STATE
BRIDGE
0011
RURAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	64
60100945	PIPE DRAINS 12"	FOOT	204
60500060	REMOVING INLETS	EACH	4
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	7.4
60600605	CONCRETE CURB, TYPE B	FOOT	30
60900515	CONCRETE THRUST BLOCKS	EACH	3
X 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	925.0
X 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
X 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	1106
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIP	EACH	12
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	3
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	171
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	10884
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	3689
70400100	TEMPORARY CONCRETE BARRIER	FOOT	962.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	962.5
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	2
72400600	RELOCATE SIGN PANEL ASSEMBLY - TYPE B	EACH	1
X 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	6297

X SPECIALTY ITEM

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL-145 (OVER IL-146)
SUMMARY OF QUANTITIES**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	5
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 78134				

SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.



CONSTRUCTION CODE	
HBP FUNDS	
80% FED	
20% STATE	
BRIDGE	
0011	
RURAL	
TOTAL QUANTITY	

CONSTRUCTION CODE	
HBP FUNDS	
80% FED	
20% STATE	
BRIDGE	
0011	
RURAL	
TOTAL QUANTITY	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
X 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	45
X 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	35
X 78100105	RAISED REFLECTIVE PAVEMENT MARKER(BRIDGE)	EACH	10
X 78200410	GUARDRAIL MARKERS, TYPE A	EACH	18
X 78200510	BARRIER WALL MARKERS, TYPE A	EACH	6
X 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SO FT	1170
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	36
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
X0323586	PIPE DRAIN REMOVAL	FOOT	183
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	102
X6090150	TYPE B INLET BOX, STANDARD 609006 (SPECIAL)	EACH	3
Z0004552	APPROACH SLAB REMOVAL	SO YD	204
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	3

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	143
Z0053700	RESETTING SURVEY MONUMENTS	EACH	1
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SO FT	1271

X SPECIALTY ITEM

LAYOUT	
DRAWN	
REVIEWED	

FILE NAME =	USER NAME = brann00248	DESIGNED - BKC	REVISED -
al:\working\dms23830\0978134\shl-500.dgn		DRAWN - BKC	REVISED -
MODEL = 500.PAGE 4		CHECKED - MH	REVISED -
		DATE - 02/23/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-145 (OVER IL-146)
SUMMARY OF QUANTITIES

SCALE:	SHEET NO. 4 OF 4 SHEETS	STA.	TO STA.	F.A.P. RTE. 132	SECTION 103B-1	COUNTY POPE	TOTAL SHEETS 52	SHEET NO. 6
				FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

CONTRACT NO. 78134	
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MIXTURE TABLE

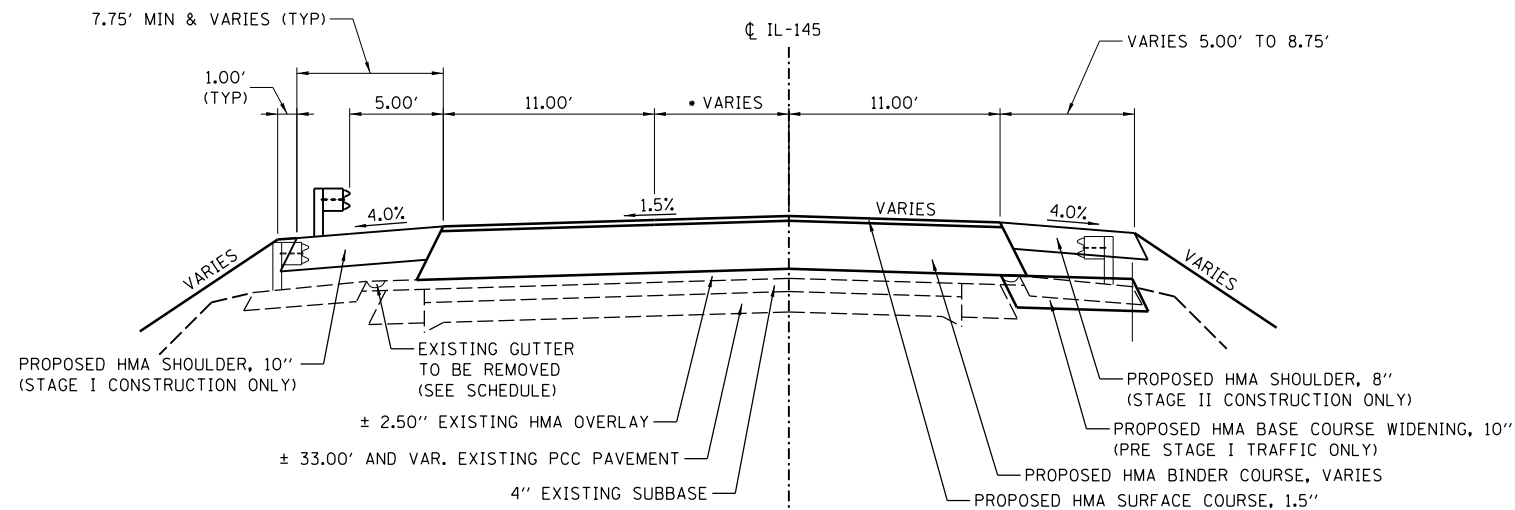
LOCATION(S):	HOT-MIX ASPHALT SHOULDERS
MIXTURE USE(S):	HOT-MIX ASPHALT SHOULDERS
AC/PG:	PG58-22
RAP % (MAX.):	50
DESIGN AIR VOIDS:	2.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	HMA SHOULDERS
FRICTION AGGREGATE	NONE

LOCATION(S):	HOT-MIX ASPHALT SURFACE COURSE
MIXTURE USE(S):	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX C, N90
AC/PG:	SBS PG76-22
RAP % (MAX.):	0
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 MM OR 12.5 MM
FRICTION AGGREGATE	C SURFACE

LOCATION(S):	HOT-MIX ASPHALT BINDER COURSE (TOP LIFT)
MIXTURE USE(S):	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, N90, IL-19.0
AC/PG:	SBS PG76-22
RAP % (MAX.):	0
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.0
FRICTION AGGREGATE	NONE

LOCATION(S):	HOT-MIX ASPHALT BINDER COURSE (LOWER LIFTS)
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE, N90, IL-19.0
AC/PG:	PG64-22
RAP % (MAX.):	10
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.0
FRICTION AGGREGATE	NONE

THE HOT MIX ASPHALT BASE COURSE WIDENING, 10" CONSTRUCTED MAY BE INCORPORATED INTO THE FINAL HOT MIX ASPHALT SHOULDERS, 8" DURING CONSTRUCTION IF APPROVED BY THE ENGINEER. SUCH CHANGE WILL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION, BUT THE CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.



SECTION WITHIN GUARDRAIL LIMITS

STA. 295+17.91 TO STA. 1018+56.89

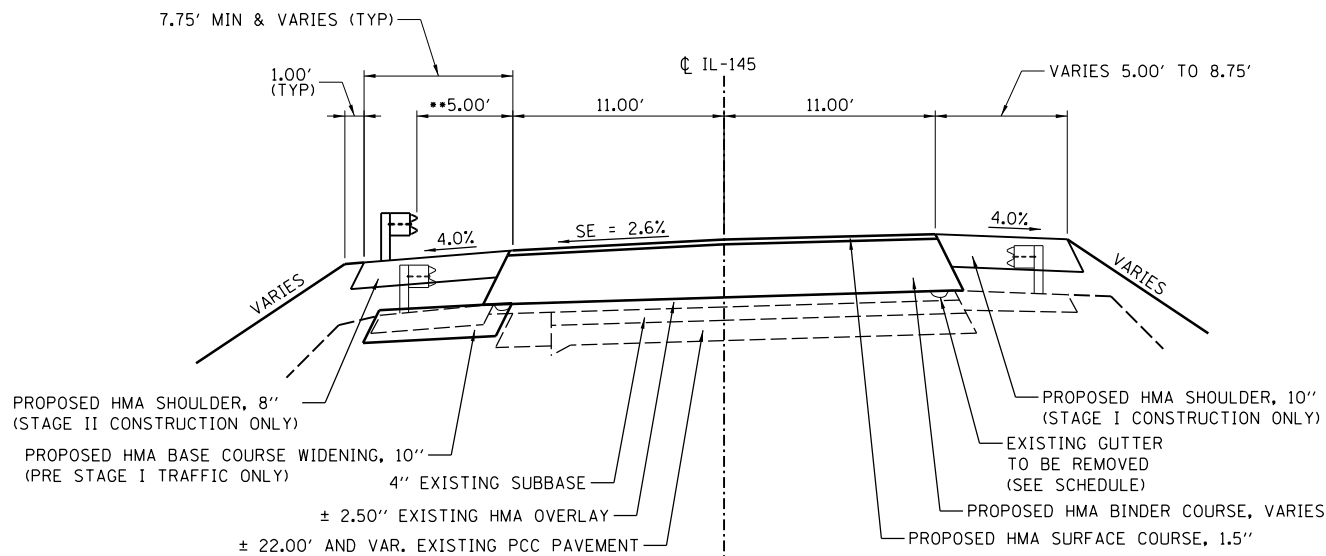
PROPOSED IL-145

STA. 295+17.91 TO STA. 295+20.40
 STA. 295+20.40 BK = STA. 1020+82.50 AH
 STA. 1020+82.50 TO STA. 1018+40.00
 LOOKING NORTH

•VARIES FROM 4'-11" AT STA. 295+17.91 TO 11'-0" AT STA. 1018+41.50

SECTION OUTSIDE GUARDRAIL LIMITS

STA. 1018+56.89 TO STA. 1018+40.00



SECTION WITHIN GUARDRAIL LIMITS

STA. 289+20.80 TO STA. 293+11.40

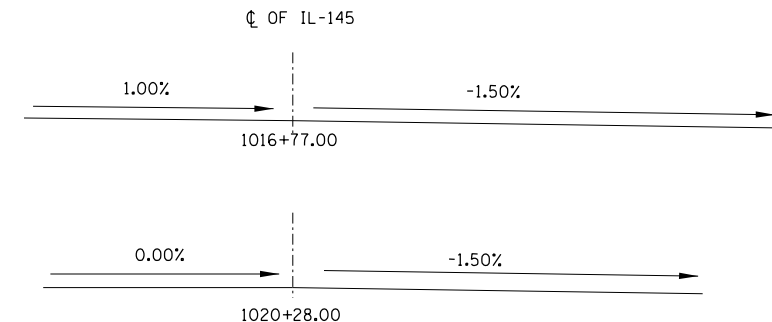
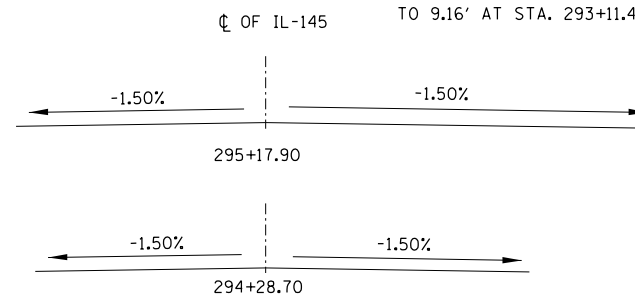
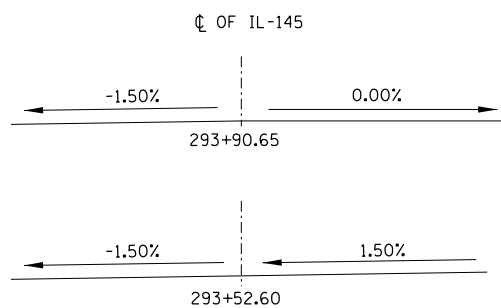
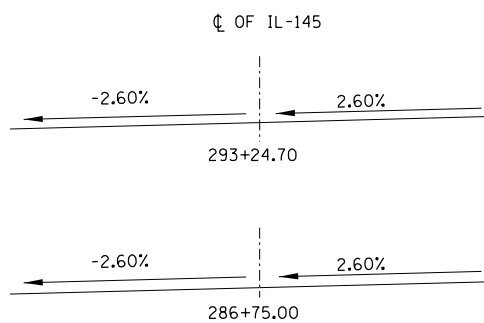
PROPOSED IL-145

STA. 288+50 TO STA. 293+11.40
 LOOKING SOUTH

•VARIES FROM 5.00' AT STA. 292+11.40 (RT) TO 9.16' AT STA. 293+11.40 (RT)

SECTION OUTSIDE GUARDRAIL LIMITS

STA. 288+50.00 TO STA. 289+20.80



SUPERELEVATION DETAIL

LOOKING SOUTH

LAYOUT	
DRAWN	
REVIEWED	

FILE NAME =	USER NAME = brenn00248	DESIGNED - BKC	REVISED -
ca:\working\dm23830\0978134-sh-typical.dgn		DRAWN - BKC	REVISED -
MODEL = Typical Section IL-145 (no super)	SCALE = 1/8" = 1'-0"	CHECKED - MH	REVISED -
	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

IL-145 OVER IL-146 OVERLAY
 TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	7
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING SCHEDULE											
LOCATION			78000200	78000500	78100100	78100105	78200410	78200510	78201000	78300200	NOTE
			THERMOPLASTIC PAVEMENT MARKING LINE 4"	THERMOPLASTIC PAVEMENT MARKING LINE 8"	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS TYPE A	TERMINAL MARKER DIRECT APPLIED	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	
BEGIN STATION	END STATION	OFFSET	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	
286+70.00	295+20.40	CL	1701								DBL YELLOW
286+70.00	295+20.40	RT & LT	1701								WHITE EDGE
286+70.00	292+37.00	CL			7						TWO-WAY AMBER
286+70.00	294+42.00	CL								10	TWO-WAY AMBER
289+20.80	293+27.00	RT & LT					10				
289+20.80	293+27.00	RT & LT							2		
292+37.00	293+11.40	RT & CL			4						TWO-WAY AMBER
293+11.40	293+41.10	RT & CL				2					TWO-WAY AMBER
293+20.90	295+20.40	RT	399								DBL YELLOW
293+26.24	295+02.90							6			STAGE 1 & 2
293+41.10	295+17.90	RT & CL									ONE-WAY AMBER
294+42.00	295+20.40	CL				8				4	TWO-WAY AMBER
295+02.30	1018+56.89	RT & LT					8				
295+17.90	295+20.40	RT & CL			2						ONE-WAY AMBER
1016+61.00	1020+82.50	CL	843								DBL YELLOW
1016+61.00	1020+82.50	LT & RT	842								WHITE EDGE
1016+61.00	1018+42.00	LT		45							WHITE DOTTED
1016+61.00	1020+82.50	LT & CL			22					22	ONE-WAY AMBER
1016+77.00	1020+82.50	LT	811								DBL YELLOW
1018+56.89		LT & LT/LN							2		
		TOTAL	6297	45	35	10	18	6	4	36	

SEEDING SCHEDULE										
LOCATION			25000200	25000350	25000400	25000500	25000600	25000700	25100115	28000250
			SEEDING, CLASS 2	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2	TEMPORARY EROSION CONTROL SEEDING
BEGIN STATION	END STATION	OFFSET	ACRES	ACRES	POUNDS	POUNDS	POUNDS	TONS	ACRES	POUND
IL 145										
287+75.00	293+60.00	RT	0.70	0.70	91	63	63	1.4	0.70	70
287+75.00	293+53.00	LT	0.40	0.40	52	36	36	0.8	0.40	40
294+51.00	1017+95.00	RT/LN	0.30	0.30	39	27	27	0.6	0.30	30
294+55.00	1017+95.00	LT/LN	0.10	0.10	13	9	9	0.2	0.10	10
		TOTAL	1.50	1.50	195	135	135	3.0	1.50	150

EARTHWORK SCHEDULE						
LOCATION			20200100			20400800
			A	B	C	D
			EARTH EXCAVATION	EXCAVATION TO BE USED IN EMBANKMENT, ADJUSTED FOR SHRINKAGE (20%)	EMBANKMENT	EARTHWORK BALANCE EXCESS (+) OR SHORTAGE (-)
			CU YD	CU YD	CU YD	CU YD
BEGIN STATION	END STATION	OFFSET				
IL 145						
288+00.00	295+20.40		116	93	3425	-3333
1117+00.00	1020+82.50		61	49	868	-819
STRUCTURE			3226	2581	347	2234
TOTAL			3225	2720	4640	-1920

EQUATIONS USED
B = A * 0.80
D = B - C

LAYOUT	
DRAWN	
REVIEWED	

FILE NAME =	USER NAME = brenn0248	DESIGNED - BKC	REVISED -
ct:\working\dms23830\0978134-sht-schedule.dgn		DRAWN - BKC	REVISED -
MODEL = Schedule - 1	PLOT SCALE = 2.0000' / in.	CHECKED - MH	REVISED -
	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-145 (OVER IL-146)
SCHEDULE OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	8
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PAVEMENT SCHEDULE

LOCATION				31101000	35600716	40600100	40600990	40603090	40603240	40603520	48203029	48203037	60600605
				SUBBASE GRANULAR MATERIAL, TYPE B	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	BITUMINOUS MATERIALS (PRIME COAT)	TEMPORARY RAMP	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	HOT-MIX ASPHALT SHOULDERS, 8"	HOT-MIX ASPHALT SHOULDERS, 10"	CONCRETE CURB, TYPE B
				TON	SQ YD	GALLON	SQ YD	TON	TON	TON	SQ YD	SQ YD	FOOT
BEGIN STATION	OFFSET	END STATION	OFFSET										
287+75.00	LT AND RT	287+80.00	LT AND RT				13						
287+75.00	LT AND RT	288+50.00	LT AND RT			17							
287+75.00	LT AND RT	288+50.00	LT AND RT							15			
287+75.00	LT	293+55.00	LT		340								
287+99.43	RT	293+11.79	RT									484	
287+99.86	LT	293+01.04	LT								442		
288+00.00	LT AND RT	288+50.00	LT AND RT					1					
288+50.00	LT AND RT	288+85.66	LT AND RT					6		13			
288+50.00	LT AND RT	289+00.00	LT AND RT										
288+50.00	LT AND RT	293+11.40	LT AND RT			102							
288+85.66	LT AND RT	293+11.40	LT AND RT			94			131	87			
289+00.00	LT AND RT	289+50.00	LT AND RT					15					
289+50.00	LT AND RT	290+00.00	LT AND RT					28					
290+00.00	LT AND RT	290+50.00	LT AND RT					38					
290+50.00	LT AND RT	291+00.00	LT AND RT					58					
290+58.59	LT AND RT	293+11.40	LT AND RT			56							
291+00.00	LT AND RT	291+50.00	LT AND RT					91					
291+30.98	LT AND RT	293+11.40	LT AND RT			40							
291+50.00	LT AND RT	292+00.00	LT AND RT					139					
291+85.62	LT AND RT	293+11.40	LT AND RT			28							
292+00.00	LT AND RT	292+50.00	LT AND RT					156					
292+50.00	LT AND RT	293+00.00	LT AND RT					154					
292+73.89	LT AND RT	293+11.40	LT AND RT			8							
293+00.00	LT AND RT	293+41.40	LT AND RT					68					
293+01.20	RT	293+11.20	RT										10
293+08.40	LT AND RT	293+18.40	LT AND RT	54									
293+18.40	LT AND RT	293+35.29	LT AND RT	116									
294+77.40	RT/LN	1017+60.00	RT/LN		220								
294+87.91	LT AND RT	295+00.00	LT AND RT					27					
294+93.18	LT AND F RT	295+10.91	LT AND RT	104									
295+00.00	LT AND RT	295+20.40	LT AND RT					81					
295+10.91	LT AND RT	295+20.91	LT AND RT	43									
295+17.90	LT AND RT	1020+75.00	LT AND RT										20
295+17.90	LT AND RT	295+20.40	LT AND RT						1	1			
295+17.91	LT AND RT	1020+61.79	LT AND RT		6								
295+17.91	LT AND RT	1019+75.16	LT AND RT		31								
295+17.91	LT AND RT	1019+14.39	LT AND RT		50								
295+17.91	LT AND RT	1018+57.86	LT AND RT		68								
295+17.91	LT AND RT	1018+40.00	LT AND RT		73								
1020+82.50	LT AND RT	1020+50.00	LT AND RT					108					
1020+75.02	RT/LN	1018+40.00	RT/LN							229			
1020+74.97	LT/LN	1018+40.00	LT/LN								228		
1020+50.00	LT AND RT	1020+00.00	LT AND RT					148					
1020+00.00	LT AND RT	1019+50.00	LT AND RT					119					
1019+50.00	LT AND RT	1019+00.00	LT AND RT					75					
1019+00.00	LT AND RT	1018+50.00	LT AND RT					25					
1018+58.06	LT AND RT	1020+82.50	LT AND RT						94	62			
1018+40.00	LT AND RT	1017+95.00	LT AND RT		15								
1018+40.00	LT AND RT	1018+58.06	LT AND RT							10			
1017+95.00	LT AND RT	1018+00.00	LT AND RT				19						
1017+95.00	LT AND RT	1018+40.00	LT AND RT							14			
			TOTAL	317	560	588	32	1337	226.0	202	671	712	30

LAYOUT	
DRAWN	
REVIEWED	

FILE NAME =	USER NAME = brenn00248	DESIGNED - BKC	REVISED -
ct:\working\dms23830\0978134-sht-schedule.dgn		DRAWN - BKC	REVISED -
MODEL = Schedule - 2	PLOT SCALE = 2.0000' / in.	CHECKED - MH	REVISED -
	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL-145 (OVER IL-146)
SCHEDULE OF QUANTITIES**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	9
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PROP. CURVE 145N
 PI STA. = 287+83.35
 $\Delta = 30^\circ 00' 00''$ (LT)
 D = 2° 36' 00"
 R = 2,203.60'
 T = 590.45'
 L = 1,153.80'
 E = 77.73'
 e = 2.60%
 T.R. = 38.05'
 S.E. RUN = 65.95'
 P.C. STA. = 281+92.90
 P.T. STA. = 293+46.70

PROP. CURVE 145S
 PI STA. = 1014+71.51
 $\Delta = 12^\circ 16' 00''$ (LT)
 D = 1° 00' 00"
 R = 5,729.70'
 T = 615.70'
 L = 1,226.69'
 E = 32.99'
 e = 1.00%
 T.R. = 57'
 S.E. RUN = 39'
 P.C. STA. = 1008+55.81
 P.T. STA. = 1020+82.50

ALIGNMENT COORDINATES			
IL-145	STATION	N	E
POT	276+00.00	263109.6025	884979.2773
PC	281+92.90	262619.2278	884646.0190
PT	293+46.70	261542.0107	884270.8924
POT	294+11.20	261477.6856	884266.1686
ST. EQ.	295+20.40/1020+82.50	261368.7788	884258.1710
PC	1008+55.81	260164.2853	884038.5535
POT	1002+00.00	259535.3735	883852.6593
IL-146	STATION	N	E
POT	697+28.19	261444.0778	884665.0648
POT	685+00.00	261538.2711	883440.4887

BENCHMARK "801"

ELEVATION 490.44

CHISELED "□" ON BACK SIDE OF A STANDARD INLET ALONG ROUTE 145 STA. 267+63.00, 18.00' RT OF ℓ

USGS 10 FWK

ELEVATION 456.28

DISK ON TOP OF SOUTHEAST WING WALL OF STRUCTURE NO. 076-0016 ALONG IL-145 OVER IL-146

NOTE: USGS 10 FWK TO BE RESET ON PROP. STRUCT. LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

M-39

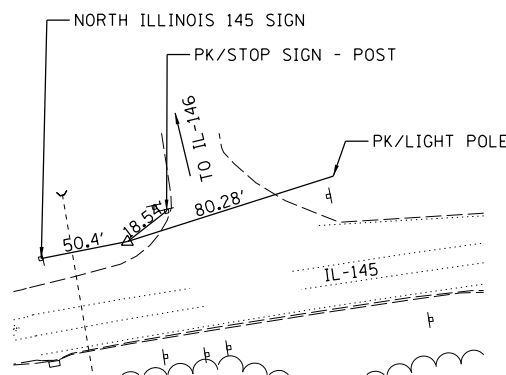
ELEVATION 483.97

CUT "□" ON THE SOUTHWEST CORNER OF THE SOUTHWEST PARAPET WALL ON STRUCTURE NO. 076-0007 ALONG IL-146

BENCHMARK "800"

ELEVATION 387.99

RAILROAD SPIKE IN POWER POLE ALONG ROUTE 145 JUST NORTH OF DIXON SPRINGS MAINTENANCE YARD. SET BY OTHERS

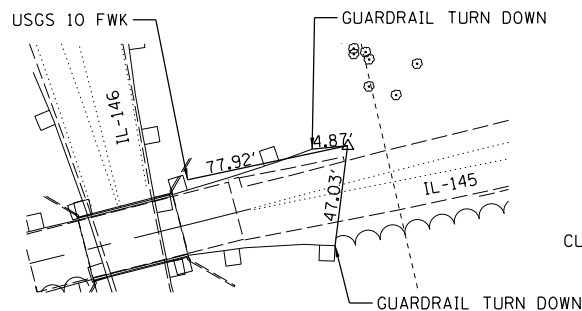


CONTROL POINT 07600161



IRON PIN WITH CAP

STA. 1015+87.48, 32.24' RT
 N 260872.0877
 E 884232.7630
 ELEV. 447.103'

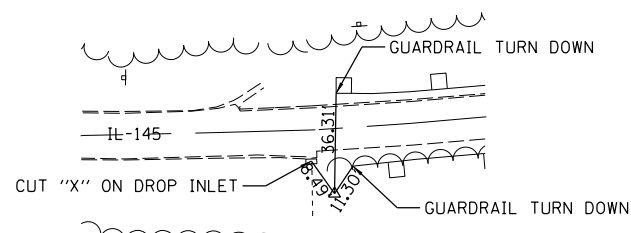


CONTROL POINT 07600162



IRON PIN WITH CAP

STA. 295+19.15, 16.43' LT
 N 261368.8266
 E 884274.6452
 ELEV. 455.189'

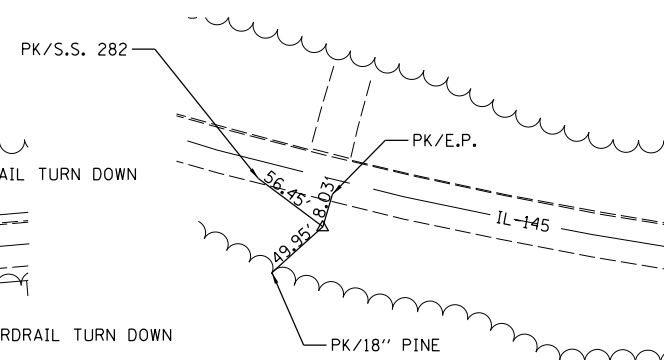


CONTROL POINT 07600163



IRON PIN WITH CAP

STA. 289+07.49, 16.79' RT
 N 261978.4700
 E 884330.1900
 ELEV. 462.457'

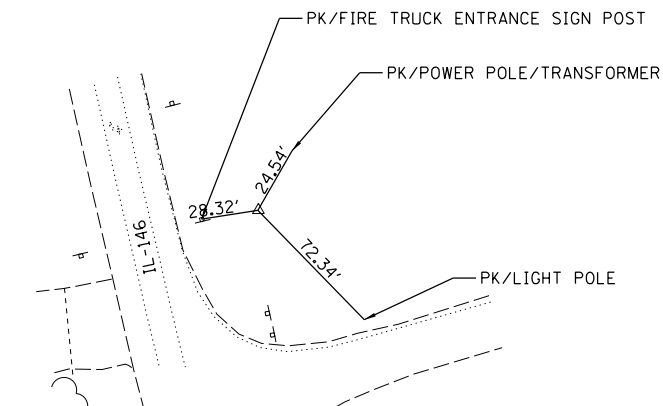


CONTROL POINT 07600164



IRON PIN WITH CAP

STA. 282+57.12, 18.88' RT
 N 262575.7500
 E 884594.7800
 ELEV. N/A



CONTROL POINT 2800



IRON PIN WITH CAP

STA. 697+28.19, 55.59' RT
 N 261385.4515
 E 884702.4031
 ELEV. 467.840'

FILE NAME =
 c:\working\dms23830\0978134-sht-A1B.dgn
 MODEL = 200 scale

USER NAME = brenn02248
 PLOT SCALE = 400.0000' / in.
 PLOT DATE = 02/22/2012

DESIGNED - BKC
 DRAWN - BKC
 CHECKED - MH
 DATE - 02/23/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL-145 (OVER IL-146) ALIGNMENT, TIES, & BENCHMARKS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	10
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

NOTE:
SEE DRAINAGE DETAILS & SCHEDULES SHEET
FOR DRAINAGE ELEVATION/LOCATION

LOW CLEARANCE SIGN (W12-2)
AND POST TO BE REMOVED

APPROACH SLAB REMOVAL (IL 145)
STA. 293+60.81 TO
STA. 293+90.60
AREA = 102 SQ. YD.

APPROACH SLAB REMOVAL (IL 145)
STA. 294+41.74 TO
STA. 294+71.53
AREA = 102 SQ. YD.

PROPOSED BUTT JOINT @ 240:1
STA. 287+75.00 TO
STA. 288+50.00
AREA = 199 SQ. YD.
SEE DISTRICT STANDARD 9-86

EXISTING GUARDRAIL
TO BE REMOVED (IL 145)
STA. 289+11.30 TO
STA. 293+90.66
LENGTH = 476'

TREE REMOVAL, ACRE
STA. 290+63.59 LT TO
STA. 293+49.85 LT
0.27 ACRES

EXISTING GUTTER
TO BE REMOVED
STA. 292+65.15 TO
STA. 293+54.54
LENGTH = 89'

USGS 10 FWK TO BE RESET ON PROP.
STRUCT. LOCATION TO BE DETERMINED
IN THE FIELD BY THE ENGINEER.

EXISTING GUARDRAIL
TO BE REMOVED (IL 145)
STA. 294+41.73 TO
STA. 295+17.91
LENGTH = 76'

PROPOSED BUTT JOINT @ 240:1
STA. 1018+40.00 TO
STA. 1017+95.00
AREA = 167 SQ. YD.
SEE DISTRICT STANDARD 9-86

EXISTING GUTTER
TO BE REMOVED
STA. 287+75.00 TO
STA. 292+58.07
LENGTH = 507'

EXISTING SHOULDER REMOVAL
STA. 294+77.36 TO
STA. 295+32.64
AREA = 23 SQ. YD.

EXISTING GUTTER
TO BE REMOVED
STA. 1018+40.00 TO
STA. 1019+00.00
LENGTH = 60'

EXISTING GUTTER
TO BE REMOVED
STA. 287+75.00 TO
STA. 288+93.58
LENGTH = 125'

EXISTING GUARDRAIL
TO BE REMOVED (IL 145)
STA. 289+17.90 TO
STA. 293+90.64
LENGTH = 477'

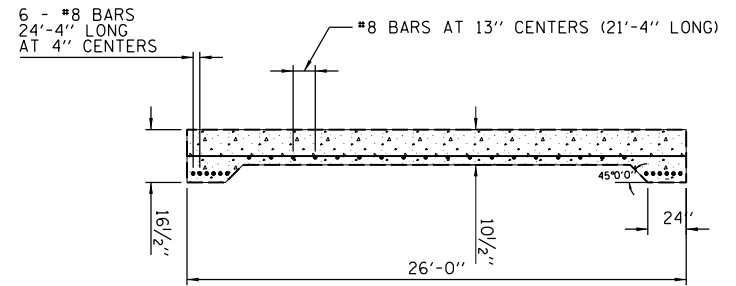
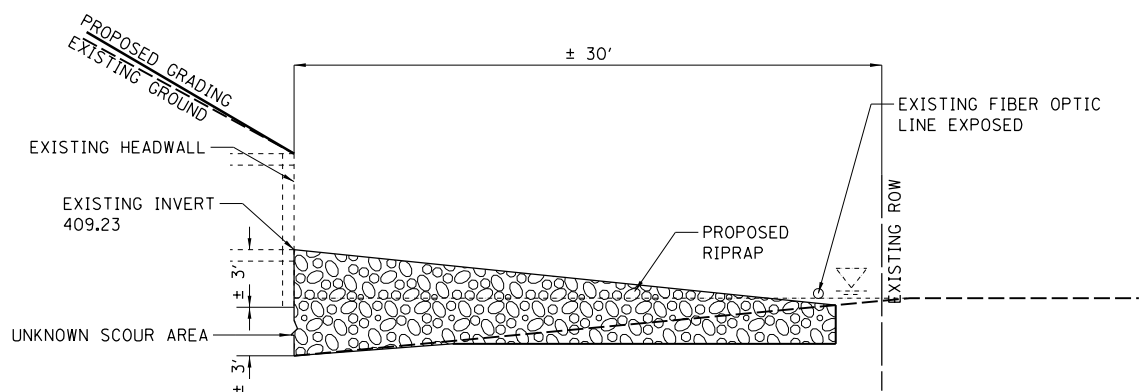
JCT IL-146 SIGN TO BE RELOCATED
TO STA. 292+60.38 21.19' RT

PAVEMENT REMOVAL (IL 145)
STA. 294+71.53 TO
STA. 1020+81.99
AREA = 158 SQ. YD.

PAVEMENT REMOVAL (IL 145)
STA. 293+08.40 TO
STA. 293+60.81
AREA = 145 SQ. YD.

EXISTING GUARDRAIL
TO BE REMOVED (IL 145)
STA. 294+71.73 TO
STA. 295+16.85
LENGTH = 77'

TREE REMOVAL, ACRE
STA. 289+11.95 RT TO
STA. 293+87.00, RT
0.65 ACRES



SECTION A-A SCOUR HOLE FILL DETAIL

SECTIONAL VIEW OF EXISTING APPROACH SLAB IL-145

LOW CLEARANCE SIGN (W12-2)
AND POST TO BE REMOVED



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LAYOUT	
DRAWN	
REVIEWED	

FILE NAME =	USER NAME = brenn00248	DESIGNED - BKC	REVISED -
ct:\working\dms23830\0978134-sht-rem.dgn		DRAWN - BKC	REVISED -
MODEL = 50 scale	PLOT SCALE = 100.0000' / in.	CHECKED - MH	REVISED -
	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

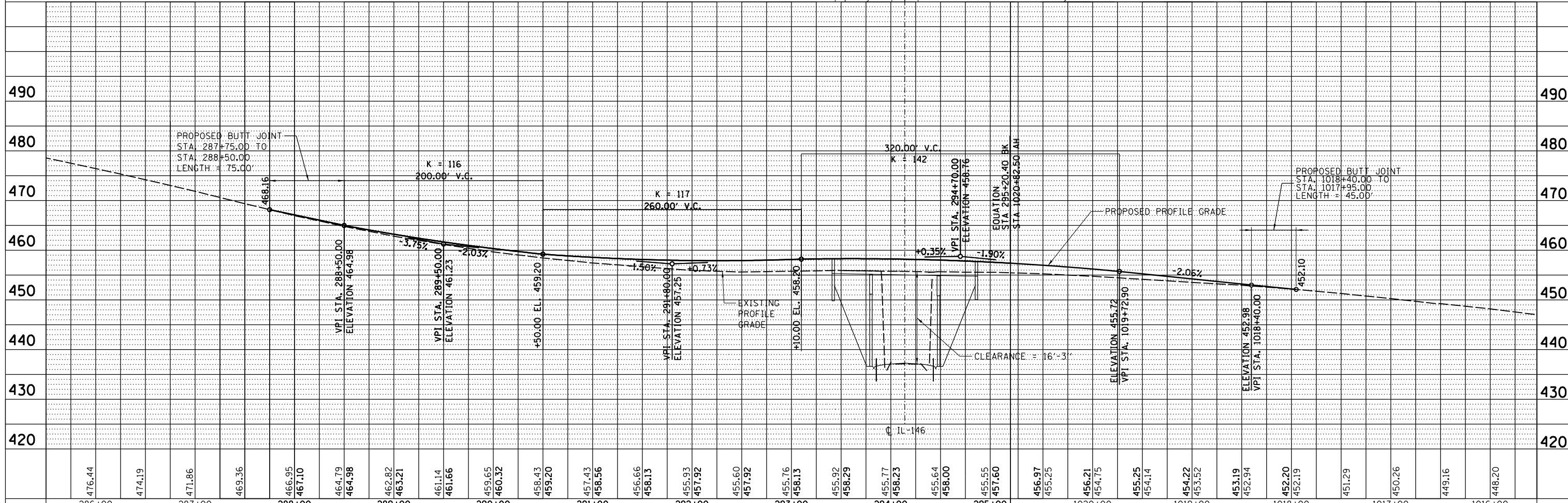
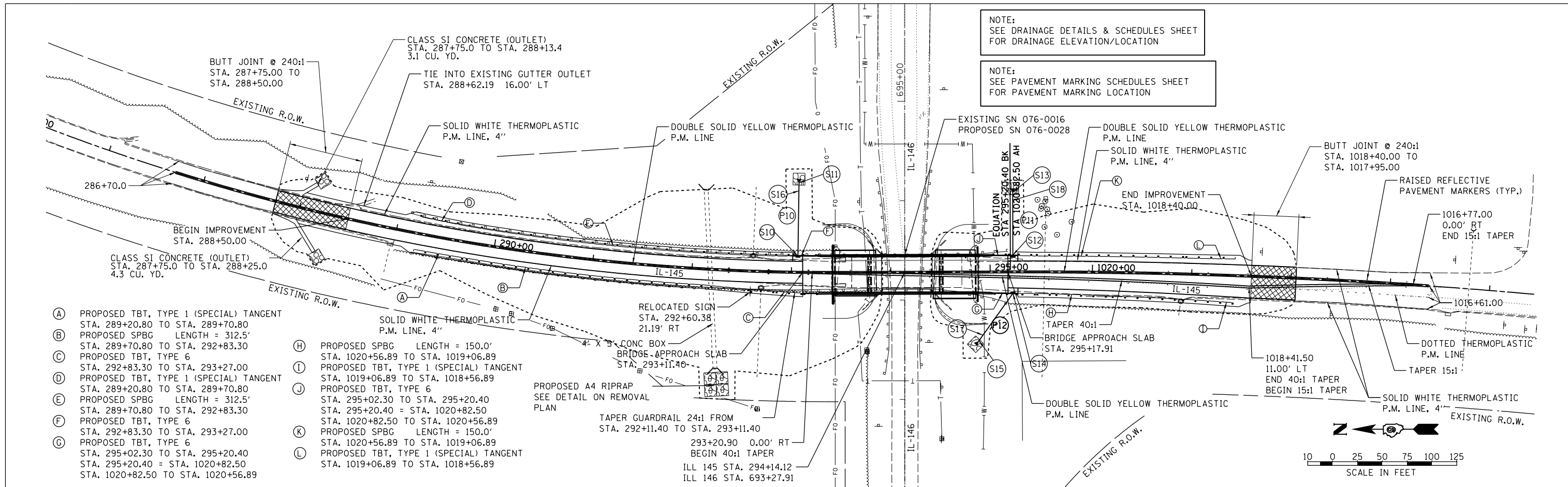
IL ROUTE 145 REMOVAL SHEET

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	11
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	AT	
	FILE NAME	
	NO.	

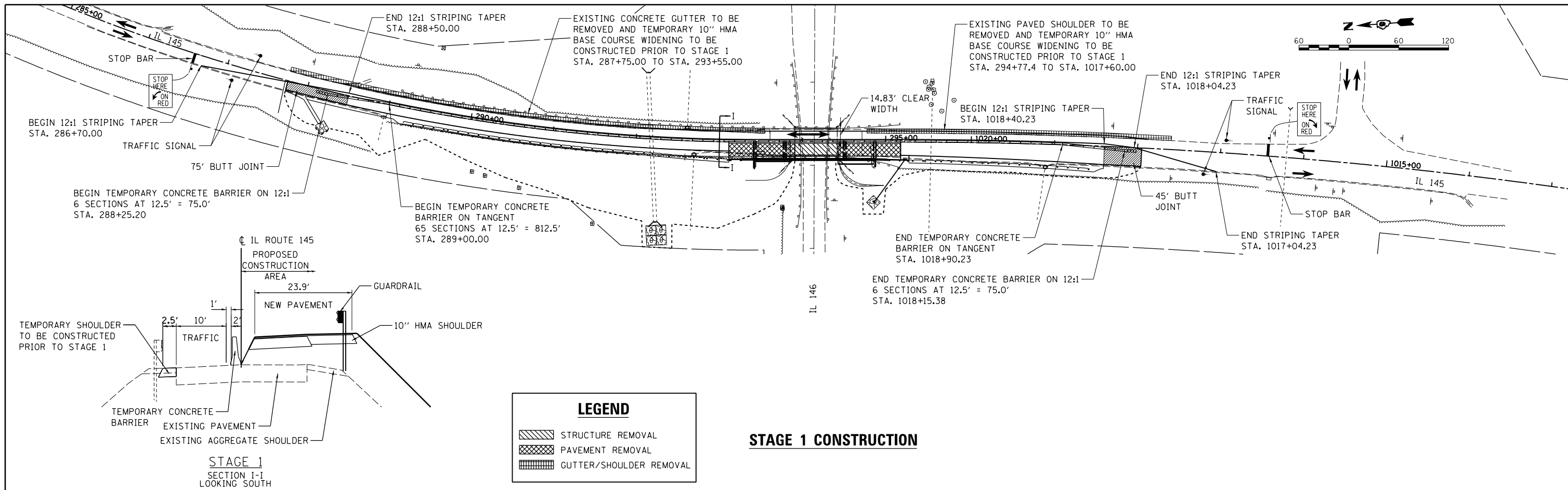
PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	AT	
	NOTATIONS	
	NO.	



FILE NAME =	USER NAME = brenn02248	DESIGNED - BKC	REVISED -	F.A.P. RTE. 132	SECTION 103B-1	COUNTY POPE	TOTAL SHEETS 52	SHEET NO. 12
c:\working\dms23830\0978134-sh-t-plnpr.f.dgn		DRAWN - BKC	REVISED -	SCALE: 1" = 50'		SHEET NO. OF SHEETS STA. 286+50 TO STA. 1016+00		CONTRACT NO. 78134
PLOT SCALE = 100.0000' / in.	CHECKED - JMH	REVISOR -	DATE - 02/23/12	ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

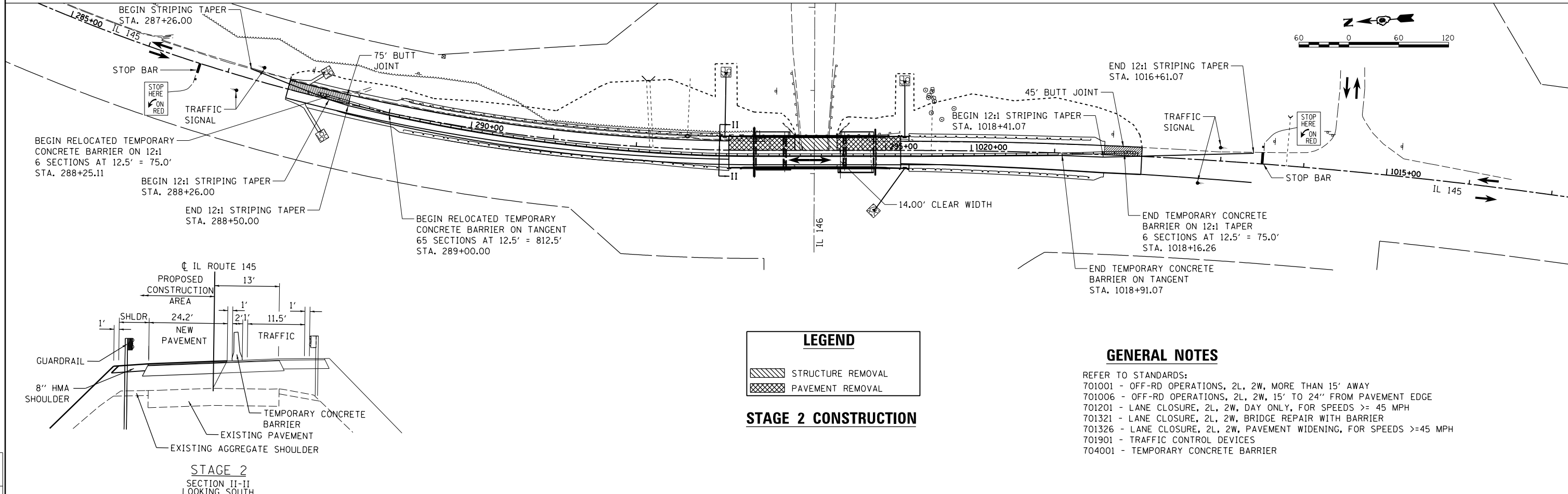
IL ROUTE 145 OVER IL ROUTE 146



LEGEND

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- GUTTER/SHOULDER REMOVAL

STAGE 1 CONSTRUCTION



LEGEND

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL

STAGE 2 CONSTRUCTION

GENERAL NOTES

- REFER TO STANDARDS:
 701001 - OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
 701006 - OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
 701201 - LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
 701321 - LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
 701326 - LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
 701901 - TRAFFIC CONTROL DEVICES
 704001 - TEMPORARY CONCRETE BARRIER

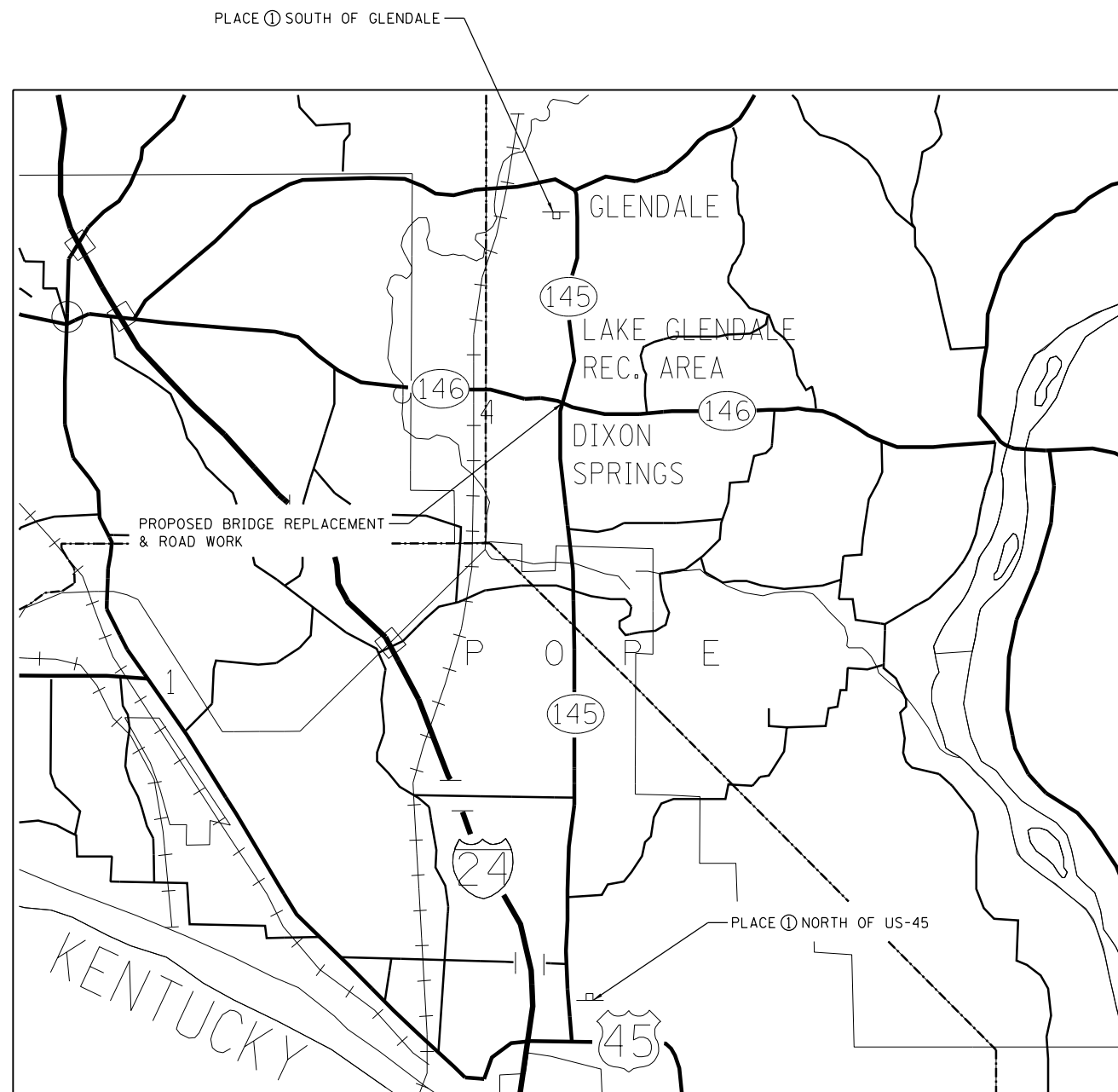
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MODEL = IL 145 STAGE CONSTRUCTION-stag	PLOT SCALE = 120.0000' / in.	CHECKED - MH	REVISED -
	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL-145 (OVER IL-146) TRAFFIC CONTROL AND STAGING

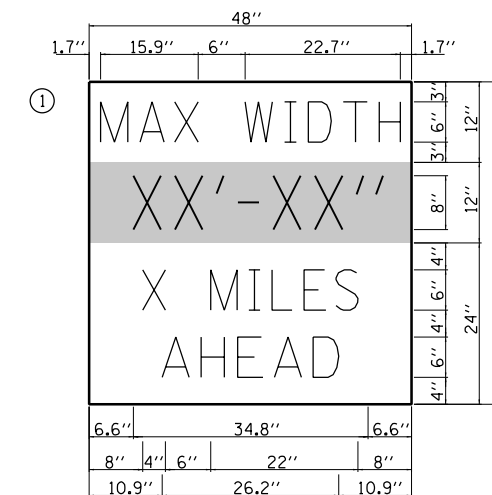
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	13
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



DETOUR SIGNING PLAN

SIGN LEGEND



W12-I103

W12-I103 (WIDTH IS 8D):
 NO BORDER, BLACK ON WHITE;
 "MAX WIDTH" D;
 NO BORDER, BLACK ON ORANGE;
 "XX'-XX'" D;
 NO BORDER, BLACK ON WHITE;
 "X MILES" D; "AHEAD" D



DETOUR NOTES:

1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS AS DIRECTED BY THE ENGINEER, ALL SIGNS SHALL BE POST MOUNTED.
2. THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.
3. THE WIDTH SHOWN ON THE W12-I103 SIGN DURING IL-145 CONTRSTRUCTION SHALL BE 12'-0" FOR STAGE I AND 12'-0" FOR STAGE II OR AS DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

LAYOUT	
DRAWN	
REVIEWED	

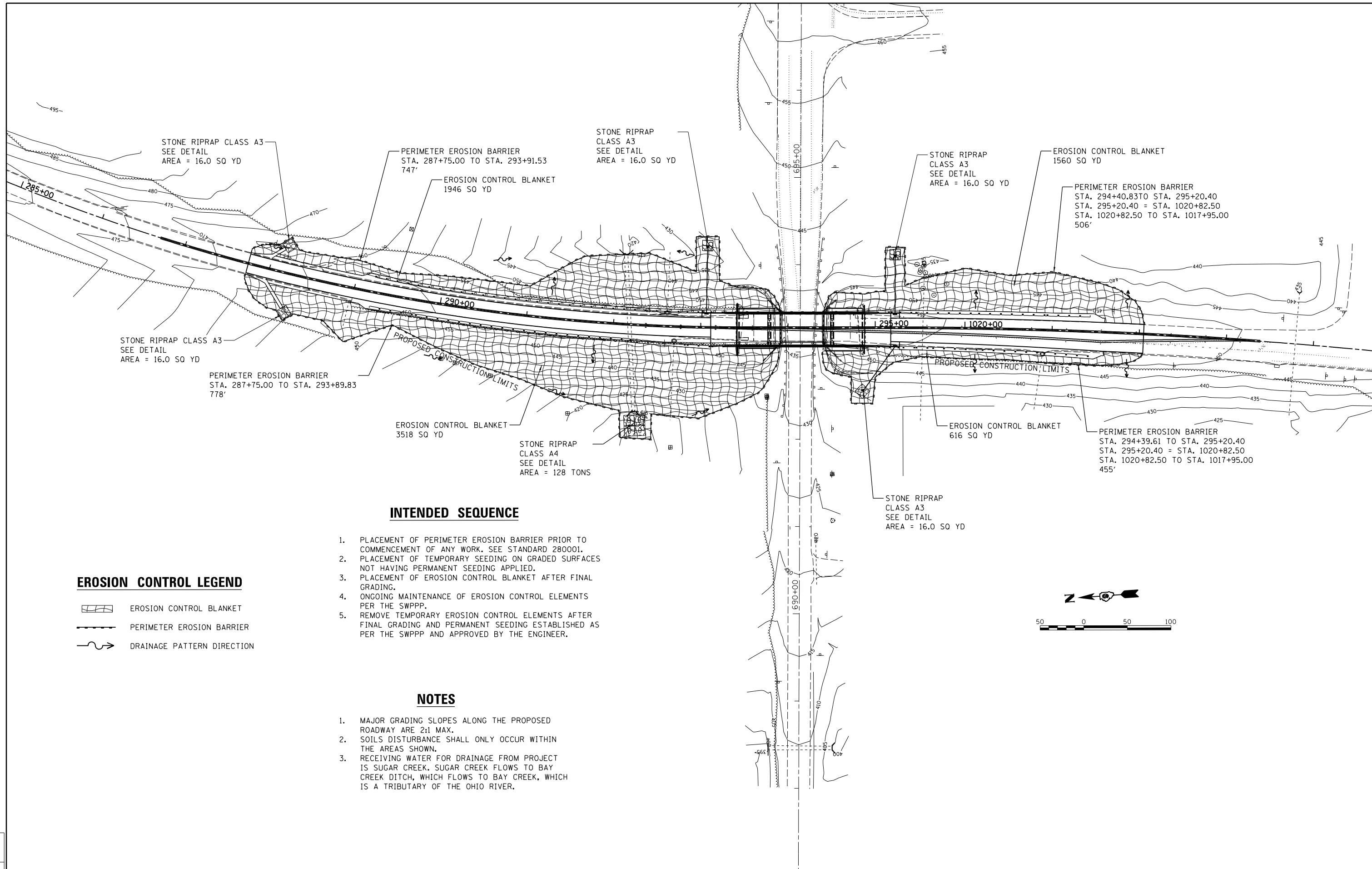
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MODEL = BRIDGE STAGE CONSTRUCTION	PLOT SCALE = 100.0000' / in.	DRAWN - BKC	REVISED -
PLOT DATE = 02/22/2012	DATE - 02/23/12	CHECKED - MH	REVISED -
		DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**




IL-145 (OVER IL-146) WIDE LOAD DETOUR SIGNING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	14
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



EROSION CONTROL LEGEND

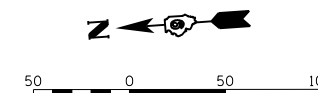
-  EROSION CONTROL BLANKET
-  PERIMETER EROSION BARRIER
-  DRAINAGE PATTERN DIRECTION

INTENDED SEQUENCE

1. PLACEMENT OF PERIMETER EROSION BARRIER PRIOR TO COMMENCEMENT OF ANY WORK. SEE STANDARD 280001.
2. PLACEMENT OF TEMPORARY SEEDING ON GRADED SURFACES NOT HAVING PERMANENT SEEDING APPLIED.
3. PLACEMENT OF EROSION CONTROL BLANKET AFTER FINAL GRADING.
4. ONGOING MAINTENANCE OF EROSION CONTROL ELEMENTS PER THE SWPPP.
5. REMOVE TEMPORARY EROSION CONTROL ELEMENTS AFTER FINAL GRADING AND PERMANENT SEEDING ESTABLISHED AS PER THE SWPPP AND APPROVED BY THE ENGINEER.

NOTES

1. MAJOR GRADING SLOPES ALONG THE PROPOSED ROADWAY ARE 2:1 MAX.
2. SOILS DISTURBANCE SHALL ONLY OCCUR WITHIN THE AREAS SHOWN.
3. RECEIVING WATER FOR DRAINAGE FROM PROJECT IS SUGAR CREEK. SUGAR CREEK FLOWS TO BAY CREEK DITCH, WHICH FLOWS TO BAY CREEK, WHICH IS A TRIBUTARY OF THE OHIO RIVER.



LAYOUT	
DRAWN	
REVIEWED	

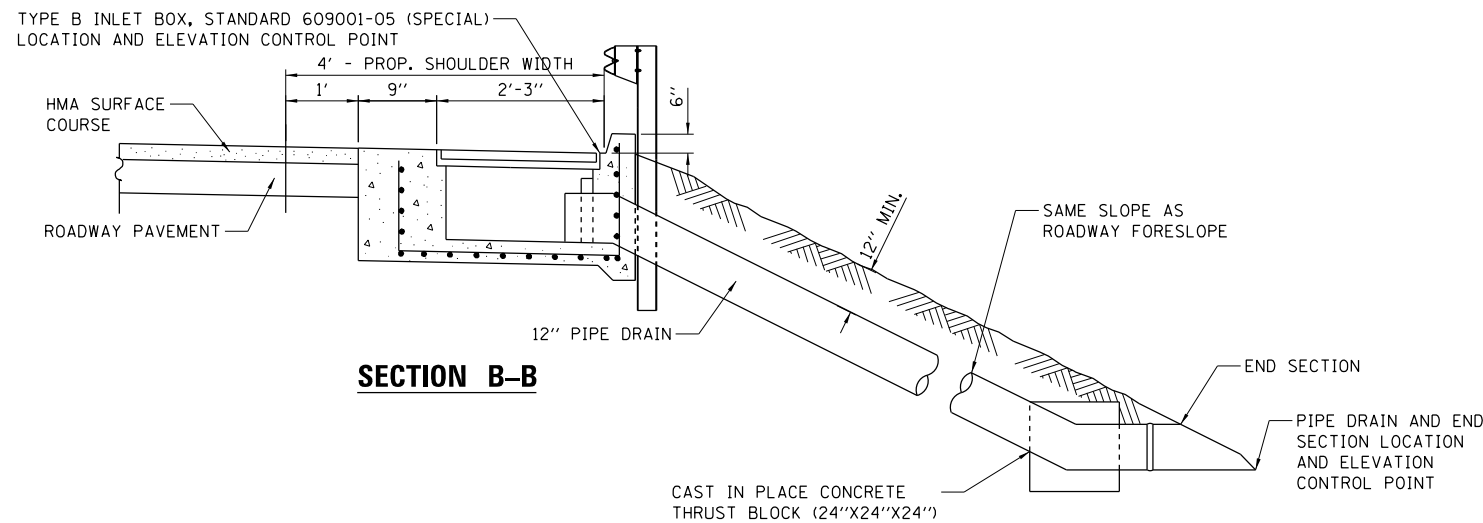
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MODEL = 50 scale	PLOT SCALE = 100.0000' / in.	CHECKED - MH	REVISED -
	PLOT DATE = 02\22\2012	DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

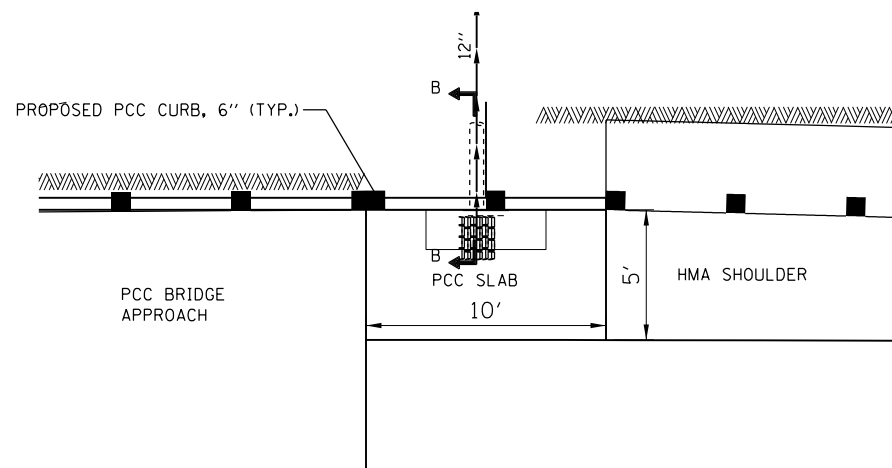
IL-145 OVER IL-146 TEMPORARY EROSION CONTROL PLAN

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

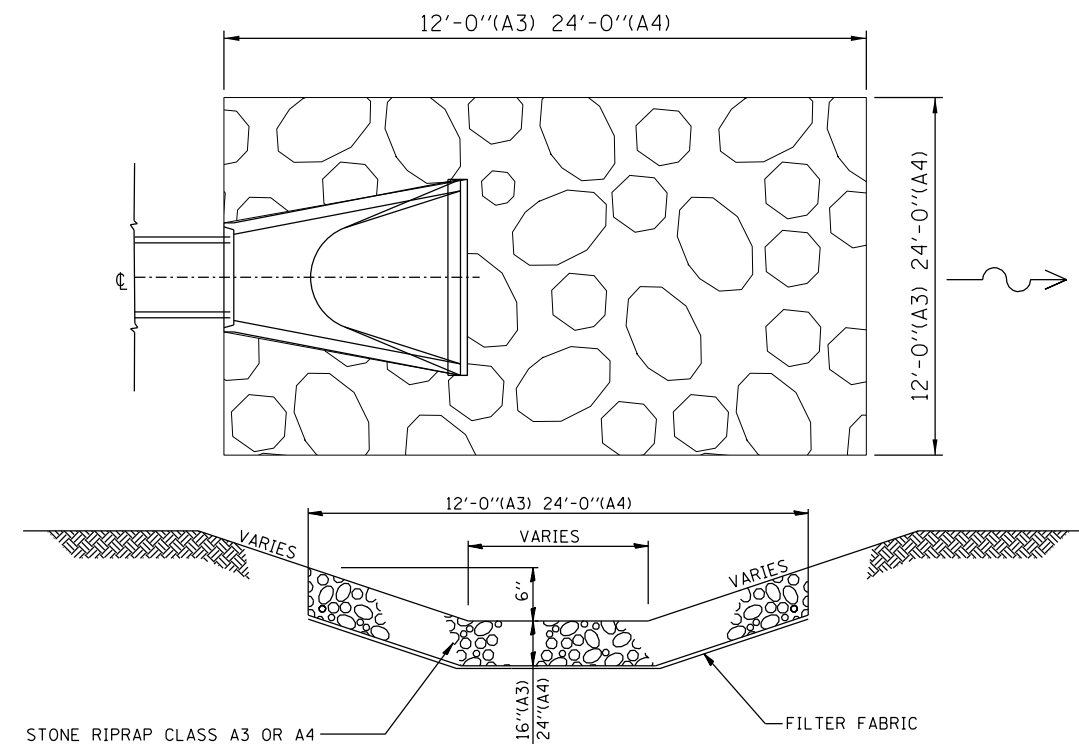
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	15
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SECTION B-B



INLET BOX AND PIPE DRAIN DETAIL



STONE RIP RAP DETAIL

IL RTE 145
 STA. 288+15.00, LT
 STA. 288+25.00, RT
 STA. 292+28.16, RT
 STA. 293+06.34, LT
 STA. 1020+80.00 RT & LT

PIPE SCHEDULE								
LOCATION						PIPE DRAIN 12" (FOOT)	PIPE DRAIN REMOVAL (SPECIAL) SEE NOTE 1 (FOOT)	TRENCH BACKFILL (CU YD)
PIPE NUMBER	FROM STRUCTURE S-NUMBER	TO STRUCTURE INV ELEV	TO STRUCTURE S-NUMBER	TO STRUCTURE INV ELEV	PIPE SLOPE %			
P101	S101	-	S102	-	-	28		
P102	S106	-	S107	-	-	59 *		
P103	S108	-	S109	-	-	86 *		
P104	S110	-	S111	-	-	10 *		
P10	S10	456.01	S11	431.37	32.4%	76		0.4
P11	S12	455.46	S13	436.79	28.3%	66		0.4
P12	S14	455.29	S15	435.92	31.2%	62		0.4
TOTAL						204	183	1.2

NOTE 1
 PIPE DRAIN REMOVAL INCLUDES REMOVAL OF EXISTING END SECTIONS AND CONCRETE THRUST BLOCKS

* CAP EXISTING PIPE WITH CLASS SI CONCRETE. INCLUDED IN THE COST FOR PIPE DRAIN REMOVAL.

DRAINAGE STRUCTURE SCHEDULE													
LOCATION						TYPE B INLET BOX, STANDARD 609006 (SPECIAL) (EACH)	CONCRETE THRUST BLOCKS (EACH)	END SECTIONS 12" (EACH)	STONE RIP RAP CLASS A3 (SQ YD)	STONE RIP RAP CLASS A4 (TON)	FILTER FABRIC (SQ YD)	REMOVING INLETS (EACH)	SEE NOTE 1
STR	STATION	OFFSET	SIDE	RIM ELEV	INVERT ELEV								
-	288+15.00	27.08'	LT	-	-				16				
-	288+25.00	40.11'	RT	-	-				16				
S101	288+96.79	16.90'	RT	-	-						1		
S102	288+95.92	44.71'	RT	-	-							1	
S105	292+28.16	99.99'	RT	-	-				128	64			
S106	292+61.05	15.49'	LT	-	-						1		
S107	292+61.68	84.90'	LT	-	-							1	
S108	292+70.03	16.33'	RT	-	-							1	
S109	292+68.76	107.47'	RT	-	-							1	
S110	1019+10.41	27.57'	LT/LN	-	-							1	
S111	1019+18.32	91.22'	LT/LN	-	-							1	
S10	293+06.34	14.20'	LT	458.01	456.01	1							
S11	293+06.34	76.00'	LT	-	431.37			1	16		16		
S16	293+06.34	69.00'	LT	-	-		1						
S15	294+88.00	70.00'	RT	-	435.92			1	16		16		
S17	294+95.00	58.00'	RT	-	-		1						
S12	1020+80.00	14.20'	RT/LN	457.46	455.46	1							
S13	1020+80.00	64.00'	RT/LN	-	436.79			1	16		16		
S14	1020+80.00	19.45'	LT/LN	457.29	455.29	1							
S18	1020+80.00	66.00'	RT/LN	-	-		1						
TOTAL						3	3	3	80	128	112	4	1

FILE NAME =	USER NAME = brenn00248	DESIGNED - BKC	REVISED -
ct:\working\dms23830\0978134-sht-details.dgn		DRAWN - BKC	REVISED -
MODEL = DRAINAGE DETAILS	PLOT SCALE = 40.0000 ' / in.	CHECKED - MH	REVISED -
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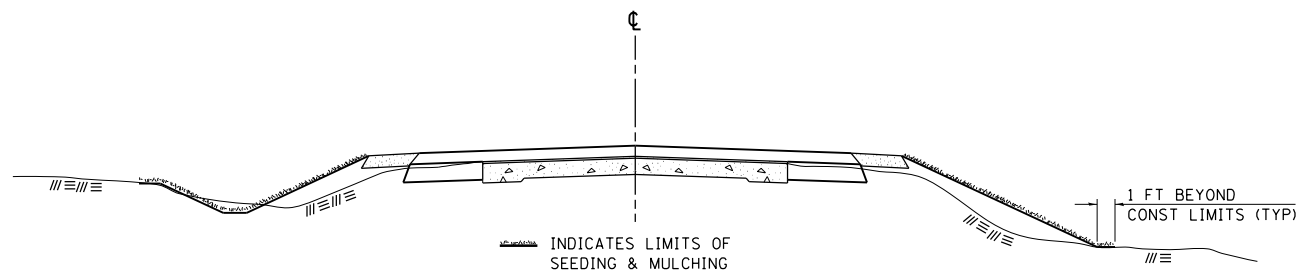
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

IL-145 (OVER IL-146) DRAINAGE DETAILS & SCHEDULES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	16
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SEEDING & MULCHING



GENERAL NOTES

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

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

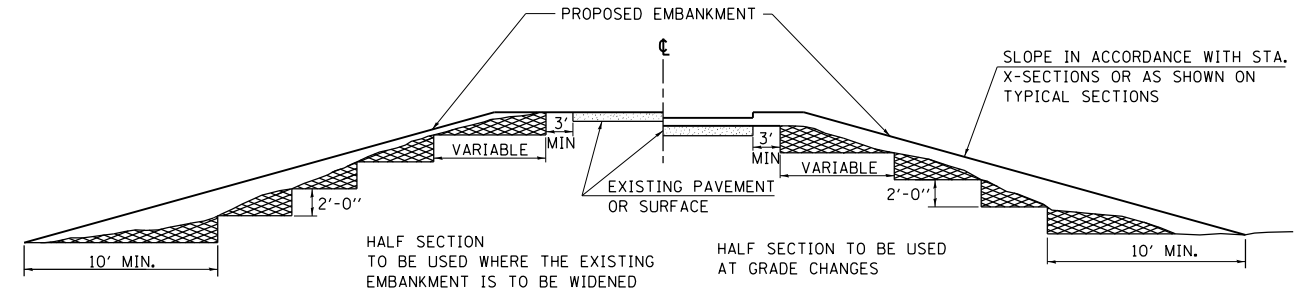
THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

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

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99

STD. 9-12

TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL

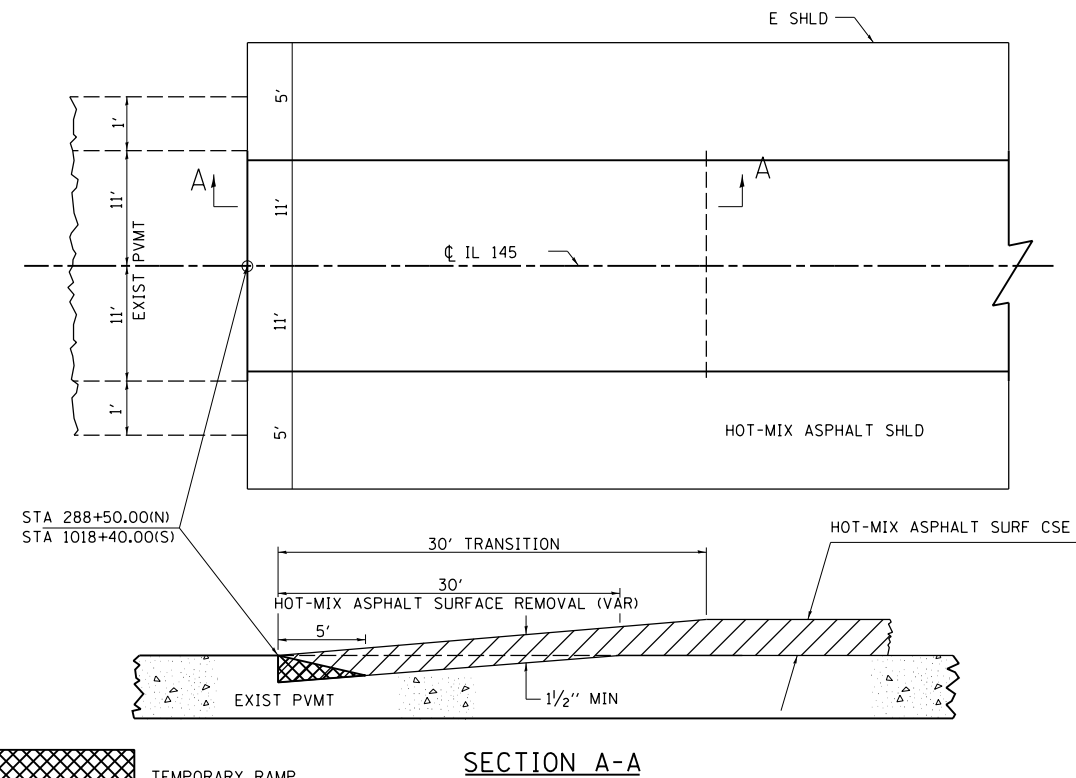


MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99

STD. 9-16

BUTT JOINT



REVISIONS	
DRAWN	10-17-90
REVISED	01-11-07
REVISED	
REVISED	

STD. 9-86

FILE NAME =	USER NAME = brenn00248	DESIGNED - BKC	REVISED -
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	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL-145 (OVER IL-146) STANDARDS

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

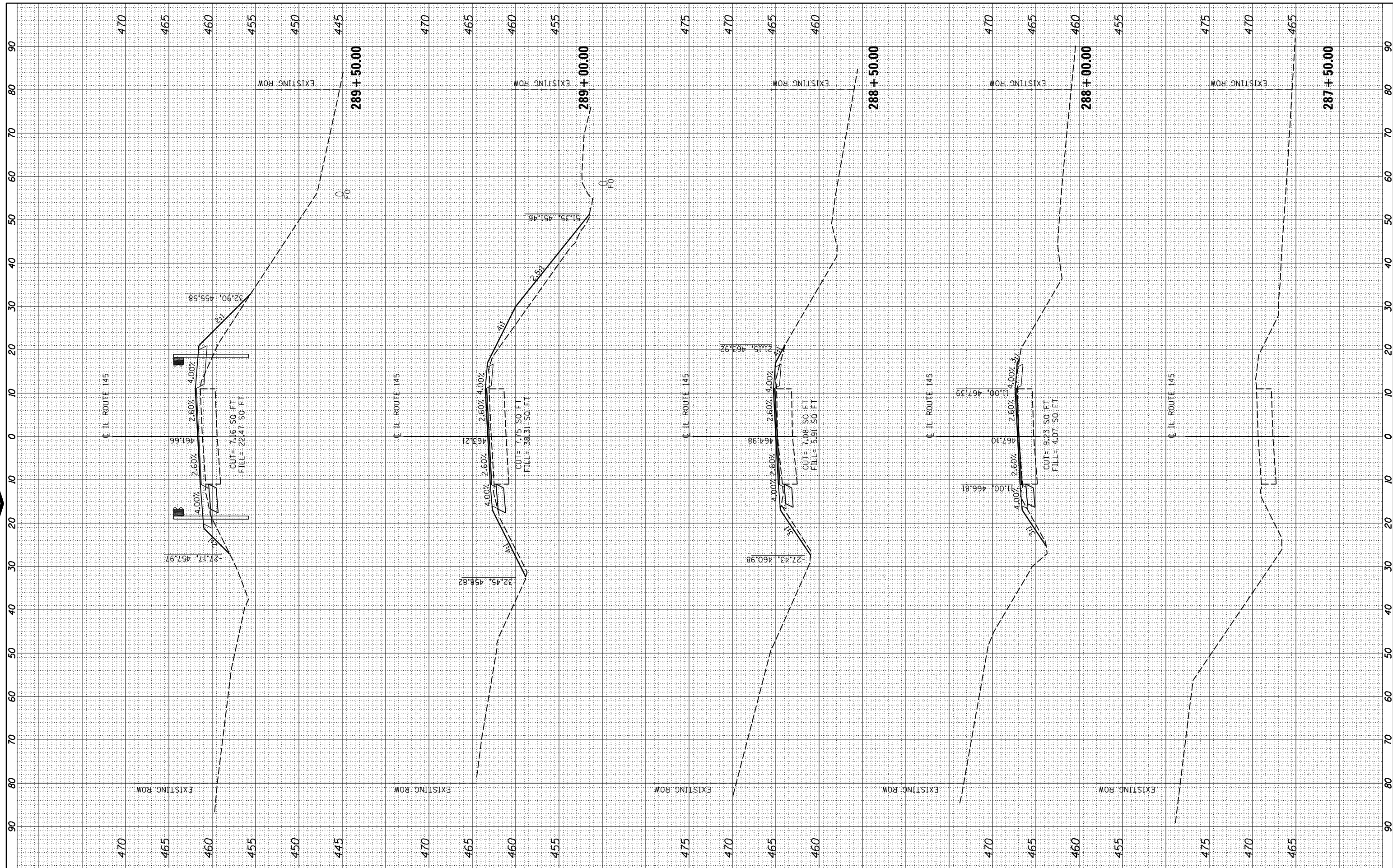
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	17
CONTRACT NO. 78134				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

LAYOUT	
DRAWN	
REVIEWED	

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED
BY	DATE

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HANSON

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED
BY	DATE



FILE NAME =	USER NAME = brenn00248	DESIGNED - BKC	REVISED -
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		DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

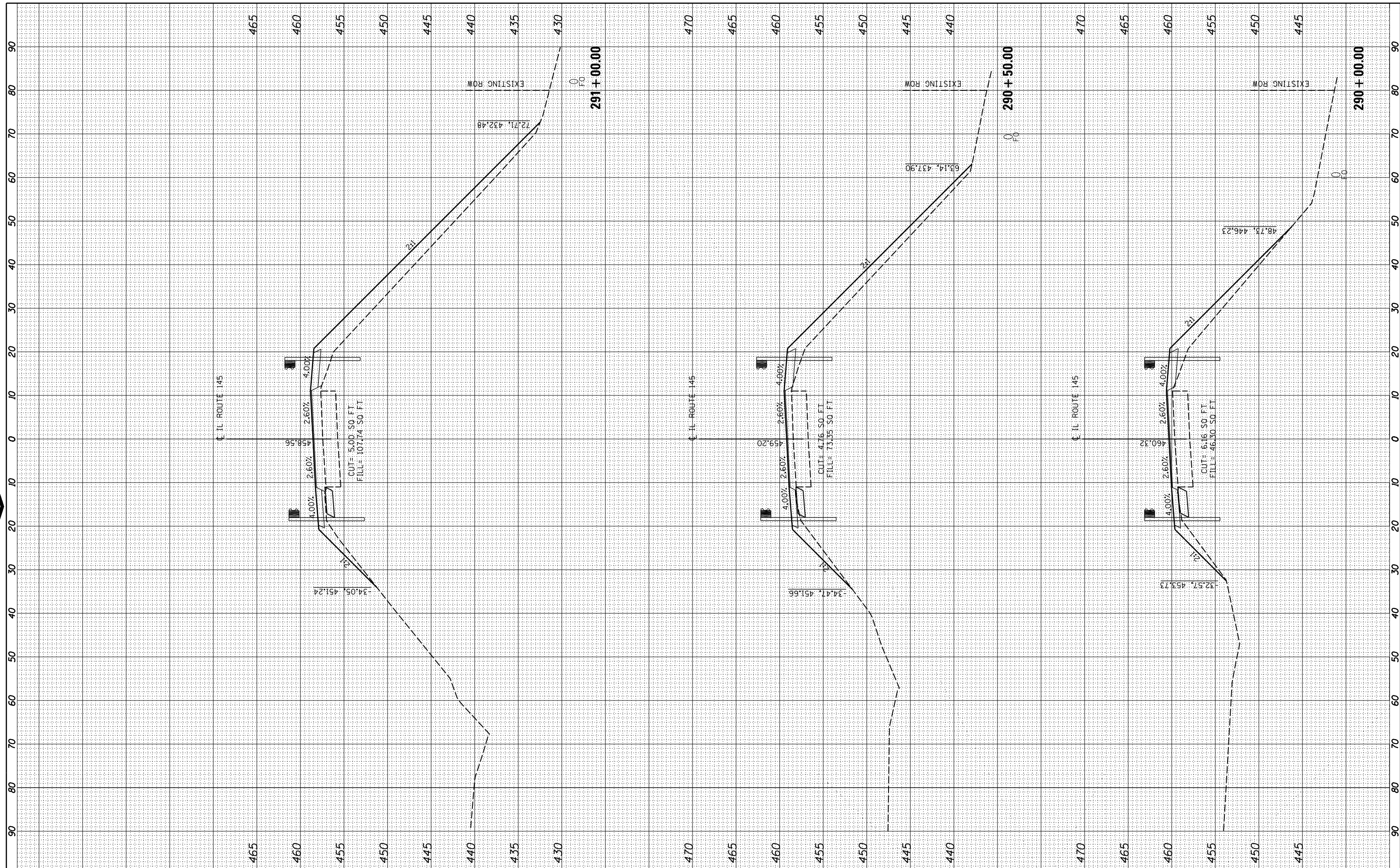
CROSS SECTION SHEET IL ROUTE 145	
SCALE:	SHEET NO. 1 OF 7 SHEETS
STA. 287+50.00 TO 289+50.00	

F.A.P. RTE. 132	SECTION 103B-1	COUNTY POPE	TOTAL SHEETS 52	SHEET NO. 18
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



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	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEET
IL ROUTE 145**

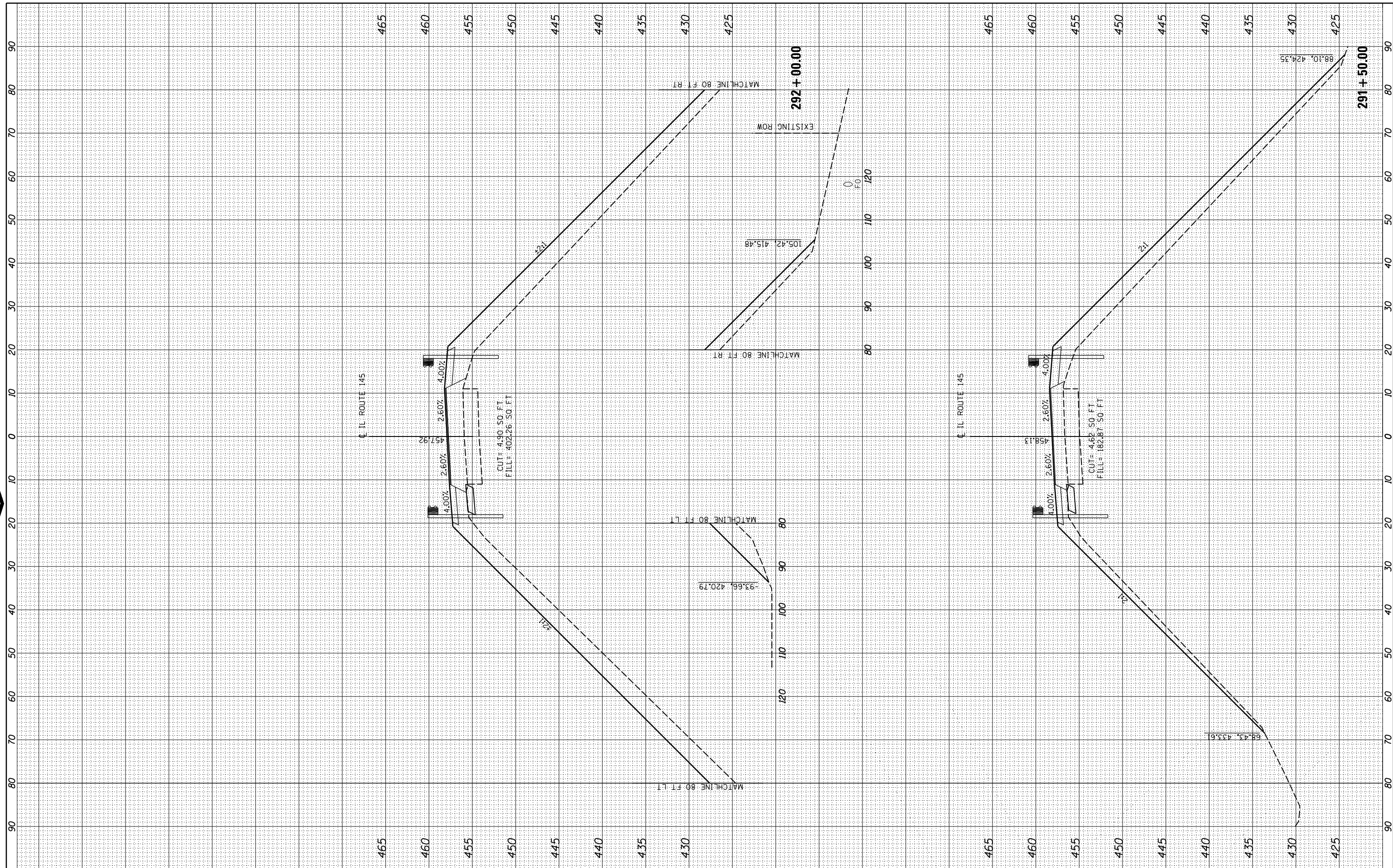
SCALE: SHEET NO. 2 OF 7 SHEETS STA. 290+00.00 TO 291+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	19
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



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USER NAME = brenn0248
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 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 02/22/2012

DESIGNED - BKC
 DRAWN - BKC
 CHECKED - MH
 DATE - 02/23/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

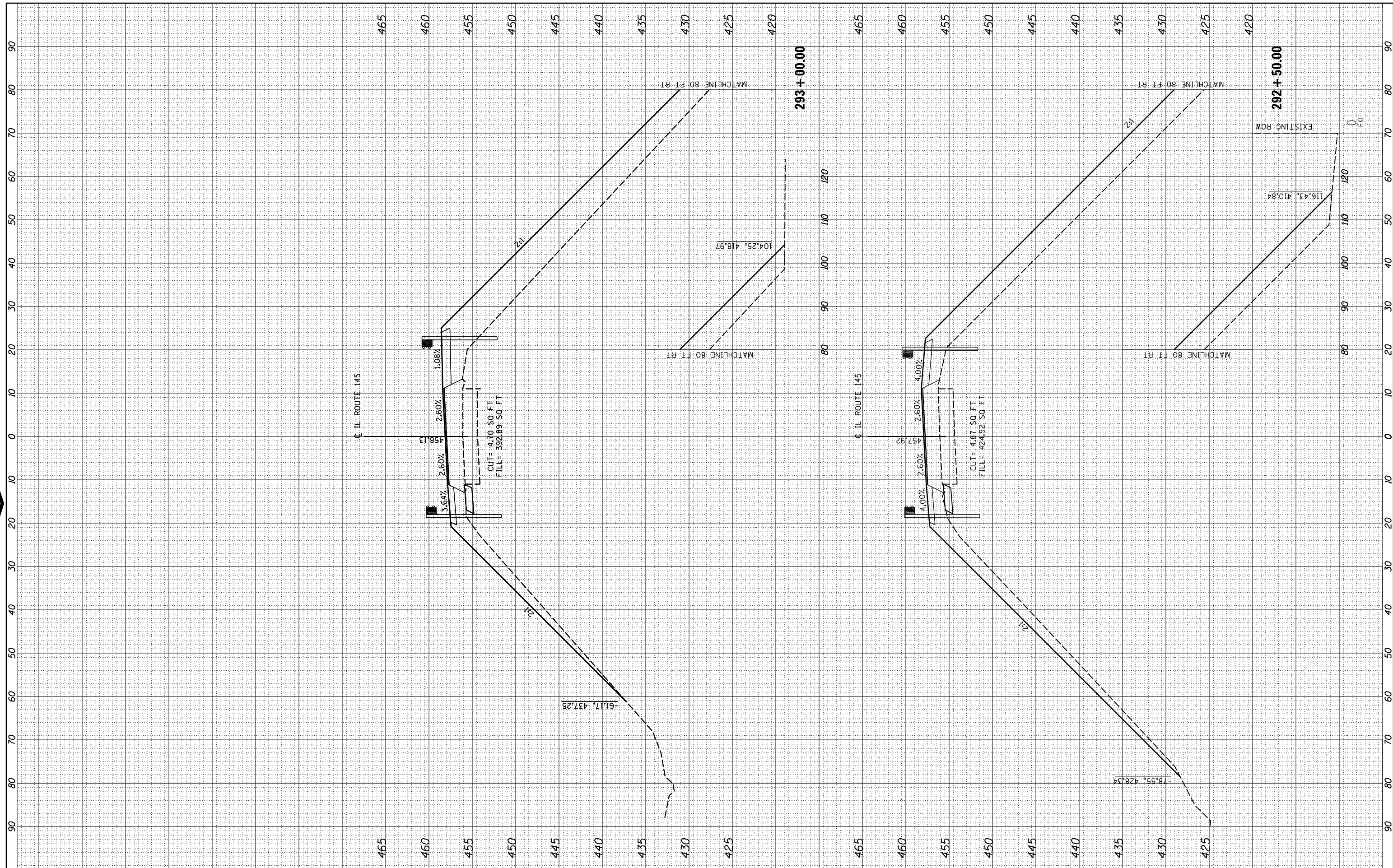
**CROSS SECTION SHEET
 IL ROUTE 145**
 SCALE: SHEET NO. 3 OF 7 SHEETS STA. 291+50.00 TO 292+00.00

F.A.P. RTE. 132	SECTION 103B-1	COUNTY POPE	TOTAL SHEETS 52	SHEET NO. 20
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME =	USER NAME = brenn0248	DESIGNED - BKC	REVISED -
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	PLOT DATE = 02/22/2012	DATE - 02/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEET
IL ROUTE 145**

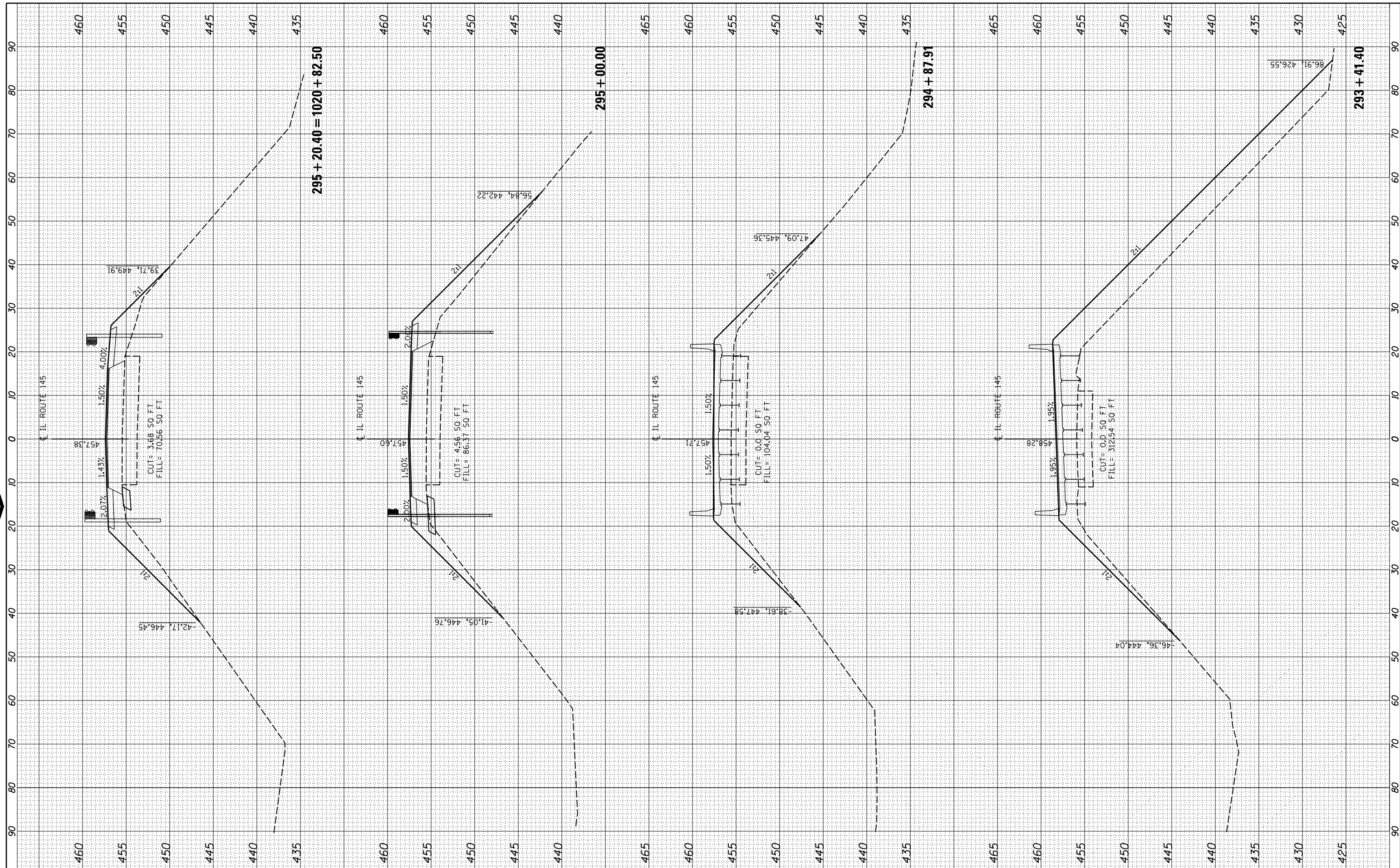
SCALE: SHEET NO. 4 OF 7 SHEETS STA. 292+50.00 TO 293+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	21
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				

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

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



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 MODEL = 6
 PLOT SCALE = 20.0000' / 1" /
 PLOT DATE = 02/22/2012

DESIGNED - BKC
 DRAWN - BKC
 CHECKED - MH
 DATE - 02/23/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEET
 IL ROUTE 145**
 SCALE: SHEET NO. 5 OF 7 SHEETS STA. 293+41.40 TO 295+20.40

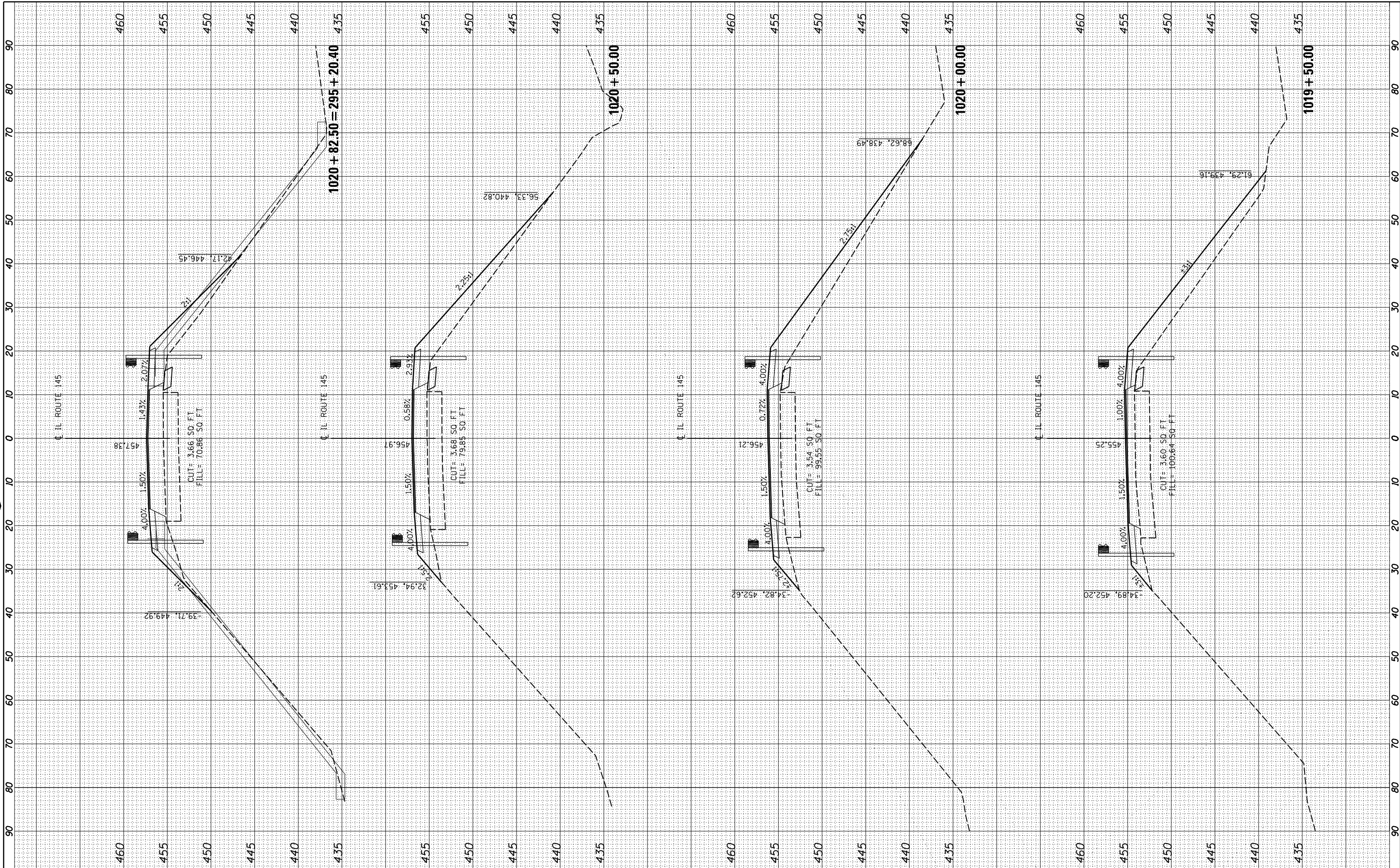
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132	103B-1	POPE	52	22
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				

BY	DATE

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BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED



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 PLOT DATE = 02/22/2012

DESIGNED - BKC
 DRAWN - BKC
 CHECKED - MH
 DATE - 02/23/12

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEET
 IL ROUTE 145**

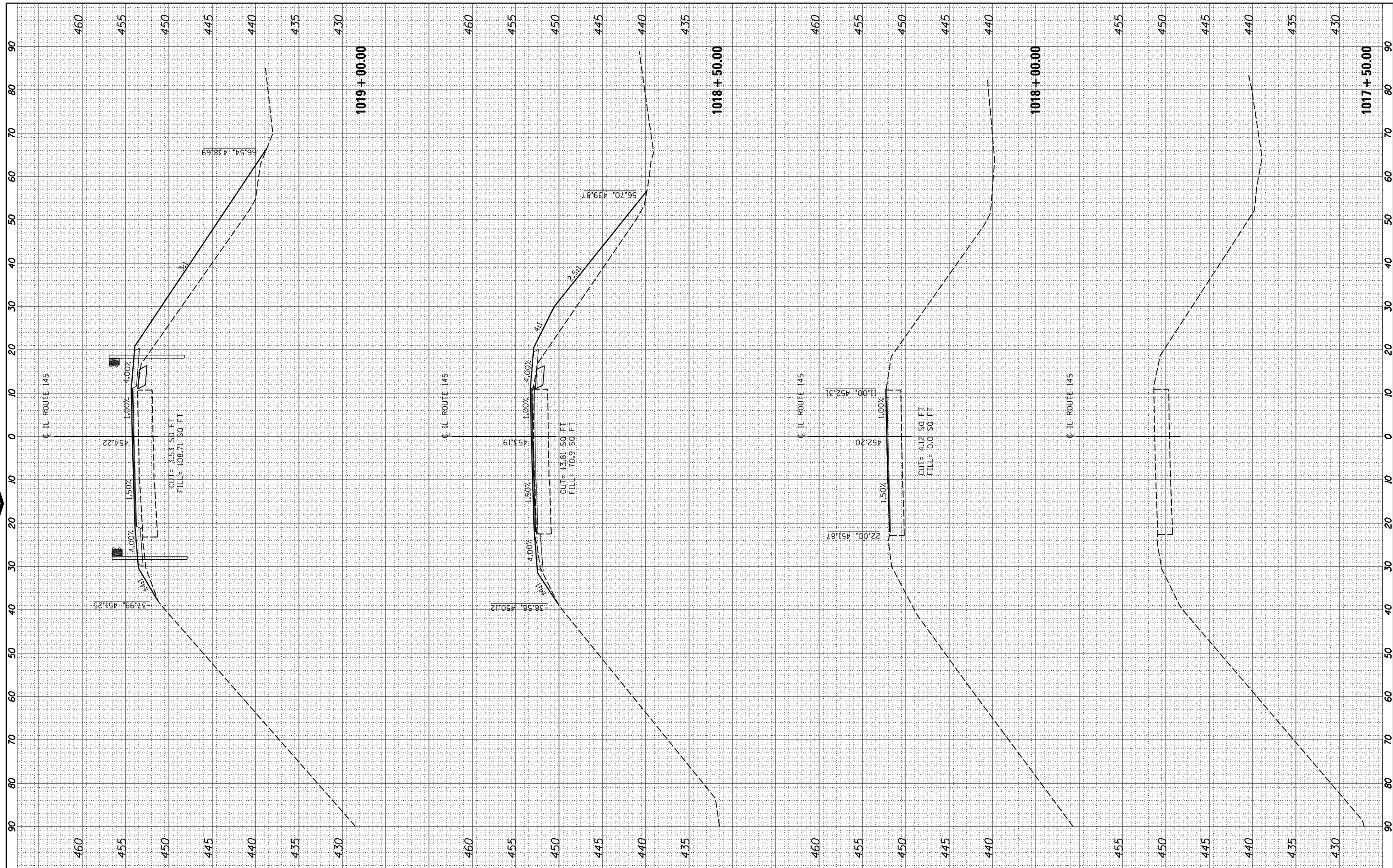
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132	103B-1	POPE	52	23
CONTRACT NO. 78134				

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

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



FILE NAME =	USER NAME = brenn0248	DESIGNED - BKC	REVISED -
I:\08_jobs\08H0131\W010-SN076-0028\1145-146\PH11	CADD\Road\Mode\VC-SHT_XS-145-S.dgn	DRAWN - BKC	REVISED -
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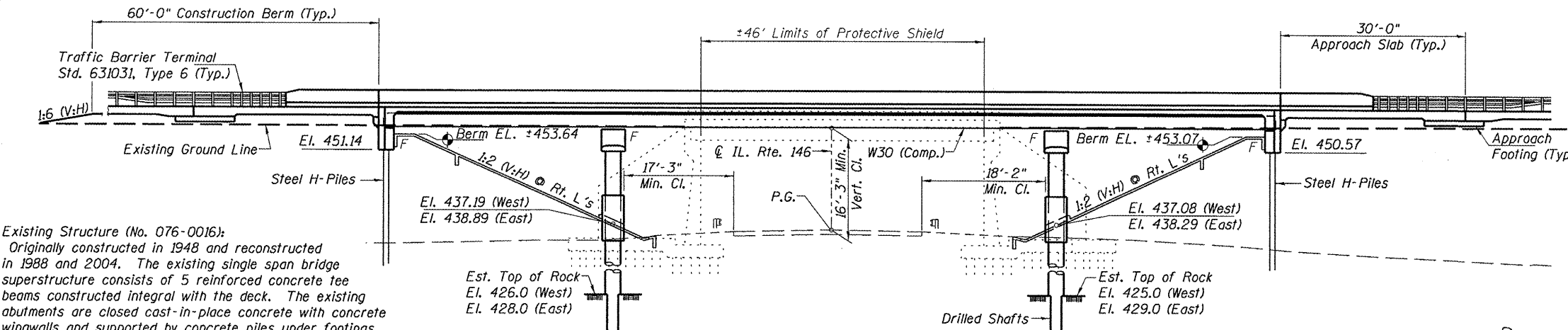
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION SHEET
IL ROUTE 145**

SCALE: SHEET NO. 7 OF 7 SHEETS STA. 1019+00.00 TO 1017+50.00

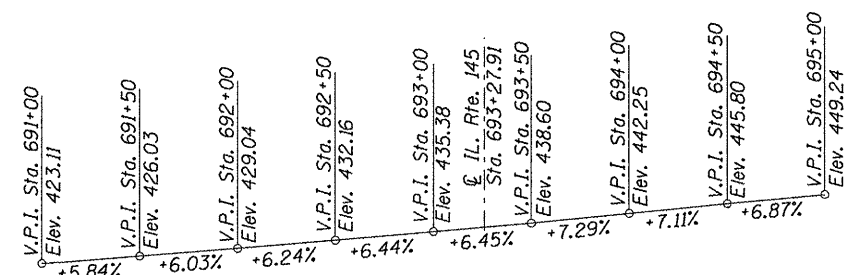
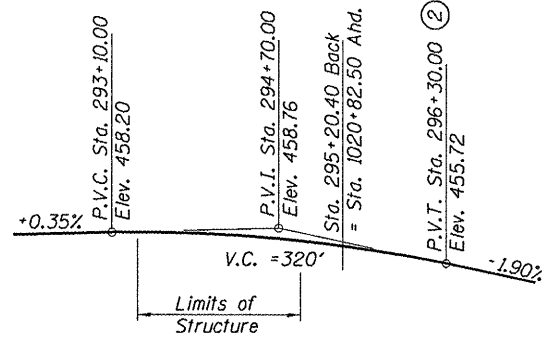
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	103B-1	POPE	52	24
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				

BM #10 (USGS): Disk on top of S.E. Wingwall of structure number 076-0016 on Route 145.
NAVD 88 Elev. = 456.28



Existing Structure (No. 076-0016):
Originally constructed in 1948 and reconstructed in 1988 and 2004. The existing single span bridge superstructure consists of 5 reinforced concrete tee beams constructed integral with the deck. The existing abutments are closed cast-in-place concrete with concrete wingwalls and supported by concrete piles under footings. Overall length of 51'-2" back to back of abutments, and out to out deck width of 34'-4" with 0° skew. Structure to be removed and replaced using stage construction. No Salvage.

ELEVATION



LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims

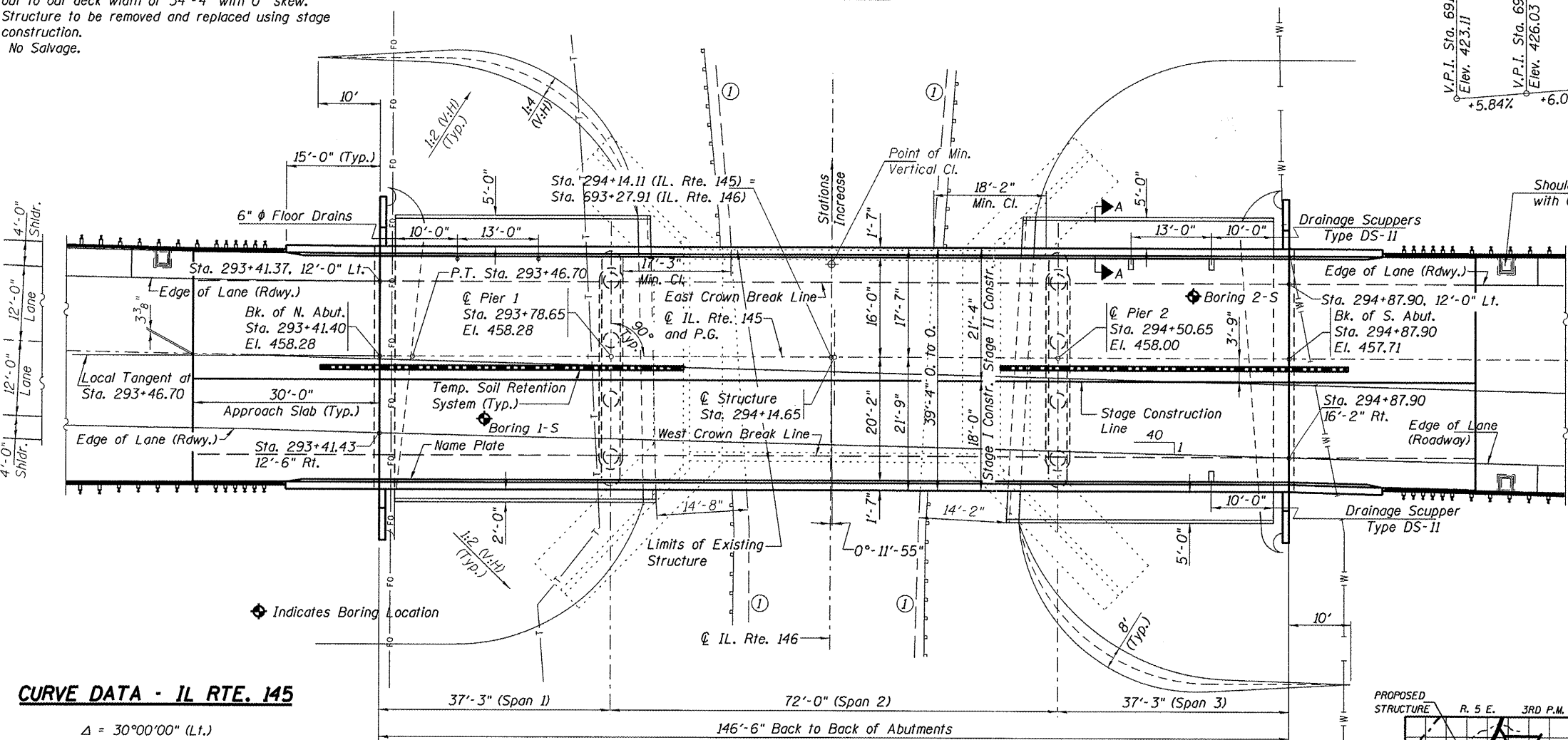
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)
 $f_y = 36,000$ psi (M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.34
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.90
Soil Site Class = C



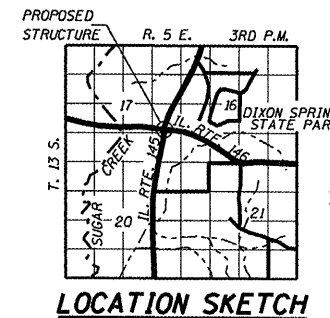
CURVE DATA - IL RTE. 145

$\Delta = 30^{\circ}00'00''$ (L1.)
 $D = 2^{\circ}36'00''$
 $T = 590.45'$
 $L = 1,153.80'$
 $E = 77.73'$
 $R = 2,203.60$
 $S.E. = 0.026'/ft.$
 $P.C. = Sta. 281+92.90$
 $P.T. = Sta. 293+46.70$
 $P.I. = Sta. 287+83.35$
 $S.E. Attn. = Sta. 293+24.70$ (2.60%) to $Sta. 294+28.70$ (-1.50%)

PLAN

ILL. 146 - EXIST. EDGE OF PAVEMENT

Stations	Offsets	
	Left	Right
692+50	12.98'	12.85'
693+00	13.09'	14.11'
693+50	16.64'	16.67'
694+00	21.10'	20.43'



Michael Mendenhall
MICHAEL MENDENHALL
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
01-1006657

APPROVED
For Structural Adequacy Only

Michael Mendenhall
Engineer of Bridges & Structures

SIGNATURE
02-22-2012
DATE
LIC. EXP. DATE: 11-30-2012

GENERAL PLAN
IL. ROUTE 145 OVER IL. ROUTE 146
F.A.P. ROUTE 132 - SECTION 103B-1
POPE COUNTY
STATION 294+14.65
STRUCTURE NO. 076-0028

GENERAL NOTES

Fasteners shall be AASHTO M164 Type I, mechanically galvanized bolts.
Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel = M270, Gr. 50 = 108320 lbs.
M270, Gr. 36 = 8430 lbs.

No field welding is permitted except as specified in the contract documents.

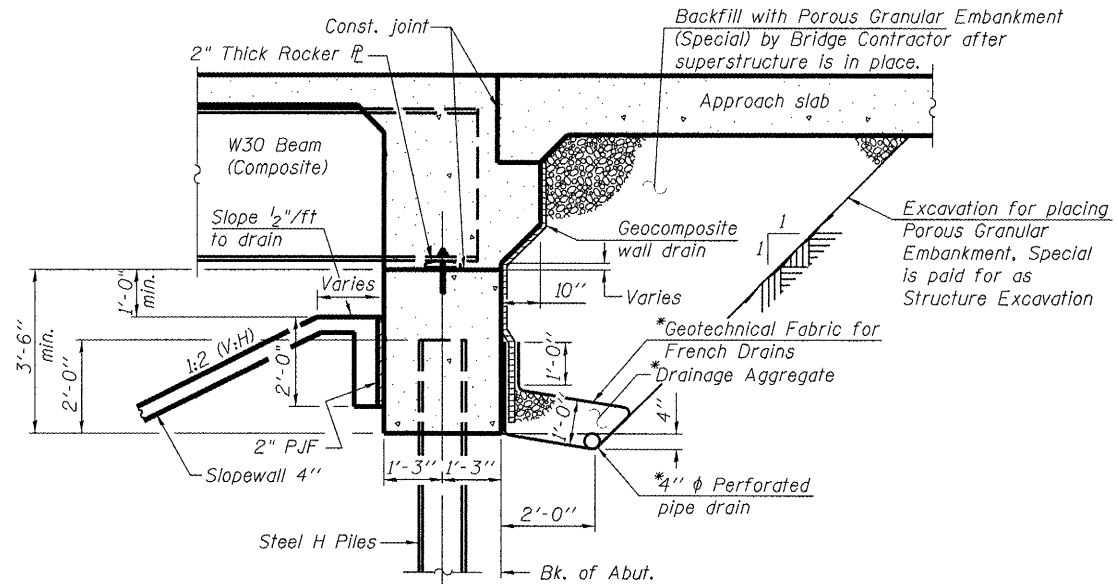
Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

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 Blue, Munsell No. 10B 3/6.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Slipforming of parapets is not allowed.



SECTION THRU INTEGRAL ABUTMENT

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

*Included in the cost of Pipe Underdrains for Structures.

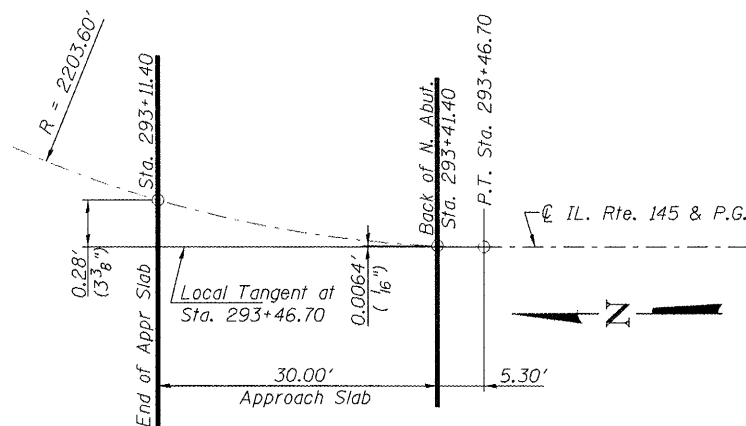
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slope. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)

TOTAL BILL OF MATERIAL

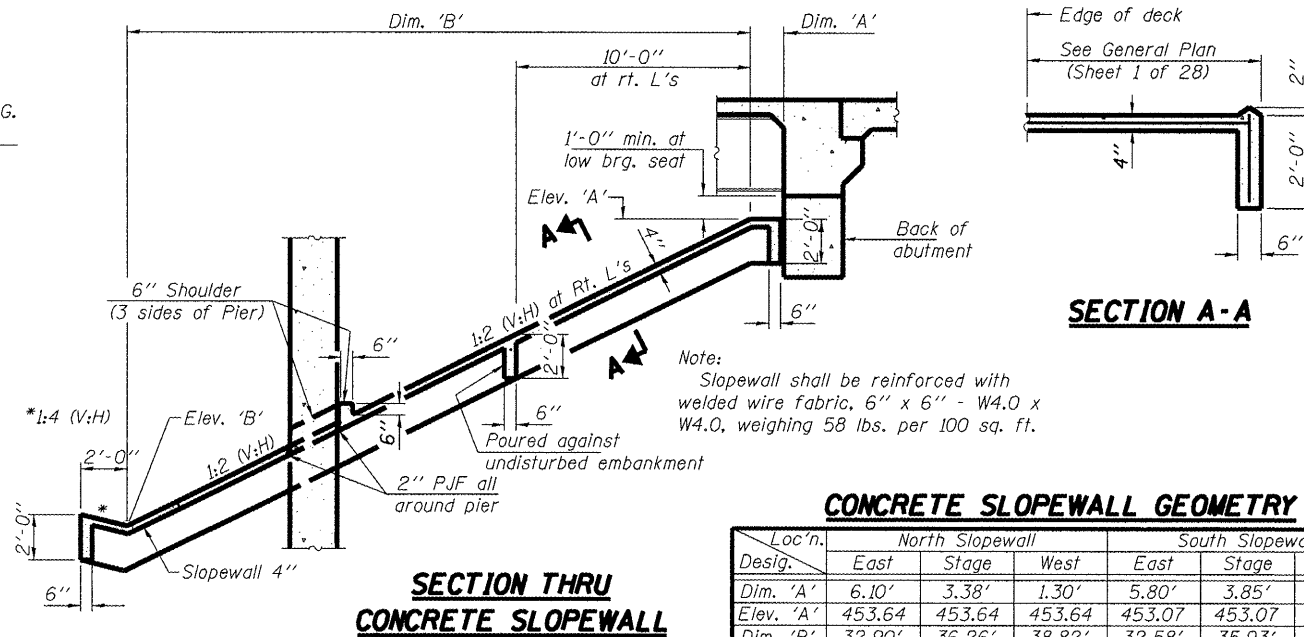
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	-	102	102
Removal of Existing Structures	Each	-	-	1
Protective Shield	Sq. Yd.	167	-	167
Structure Excavation	Cu. Yd.	-	224	224
Floor Drains	Each	2	-	2
Concrete Structures	Cu. Yd.	-	166.5	166.5
Concrete Superstructure	Cu. Yd.	321.5	-	321.5
Bridge Deck Grooving	Sq. Yd.	785	-	785
Concrete Encasement	Cu. Yd.	-	4.8	4.8
Protective Coat	Sq. Yd.	1004	-	1004
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	4515	-	4515
Reinforcement Bars	Pound	-	17970	17970
Reinforcement Bars, Epoxy Coated	Pound	79810	22950	102760
Bar Splicers	Each	672	232	904
Slope Wall 4 Inch	Sq. Yd.	-	458	458
Furnishing Steel Piles HP12x63	Foot	-	414	414
Driving Piles	Foot	-	414	414
Test Pile Steel HP12x63	Each	-	2	2
Name Plates	Each	1	-	1
Drilled Shaft in Soil	Cu. Yd.	-	24	24
Drilled Shaft in Rock	Cu. Yd.	-	16	16
Anchor Bolts, 1"	Each	28	-	28
Anchor Bolts, 1 1/4"	Each	28	-	28
Geocomposite Wall Drain	Sq. Yd.	-	64	64
Pipe Underdrains for Structures 4"	Foot	-	143	143
Mechanical Splicers	Each	-	96	96
Drainage Scuppers, DS-11	Each	3	-	3
Temporary Soil Retention System	Sq. Ft.	-	1271	1271

INDEX OF SHEETS

- 1 General Plan
- 2 General Data
- 3 Substructure Layout and Temporary Soil Retention System Details
- 4 Stage Construction Details
- 5 Temporary Concrete Barrier for Stage Construction
- 6-8 Top of Slab Elevations - Bridge Deck
- 9-10 Top of Slab Elevations - Approach Slabs
- 11-13 Superstructure Details
- 14-15 Integral Abutment Diaphragm Details
- 16-17 Bridge Approach Slab Details
- 18 Drainage Scupper Details
- 19-20 Structural Steel Details
- 21 Bearing Details
- 22 North Abutment
- 23 South Abutment
- 24 Pier 1
- 25 Pier 2
- 26 HP Pile Details
- 27 Bar Splicer Assembly and Mechanical Splicer Details
- 28 Boring Logs



SCHEMATIC OFFSET SKETCH



SECTION THRU CONCRETE SLOPEWALL

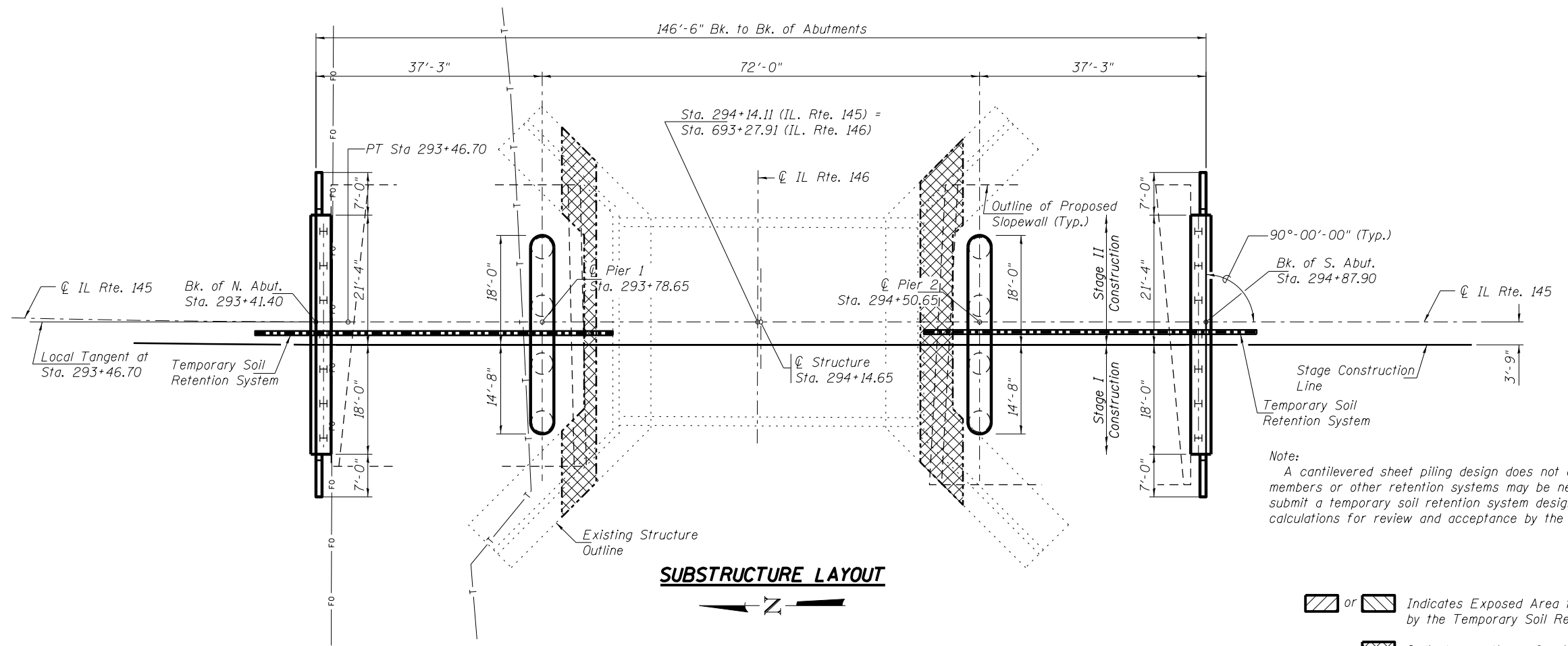
CONCRETE SLOPEWALL GEOMETRY

Loc'n. Desig.	North Slopewall			South Slopewall		
	East	Stage	West	East	Stage	West
Dim. 'A'	6.10'	3.38'	1.30'	5.80'	3.85'	2.10'
Elev. 'A'	453.64	453.64	453.64	453.07	453.07	453.07
Dim. 'B'	32.90'	36.26'	38.82'	32.58'	35.93'	38.86'
Elev. 'B'	437.19	435.51	434.23	436.78	435.10	433.64

STATION 294+14.65
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 132 SEC. 103B-1
LOADING HL93
STRUCTURE NO. 076-0028

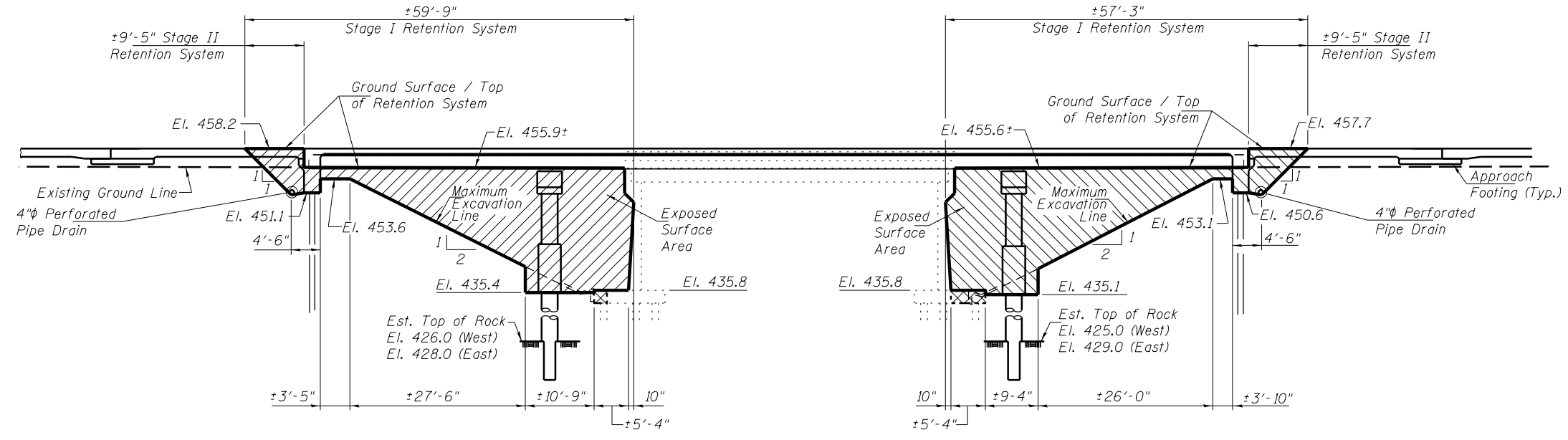
NAME PLATE

See Std. 515001



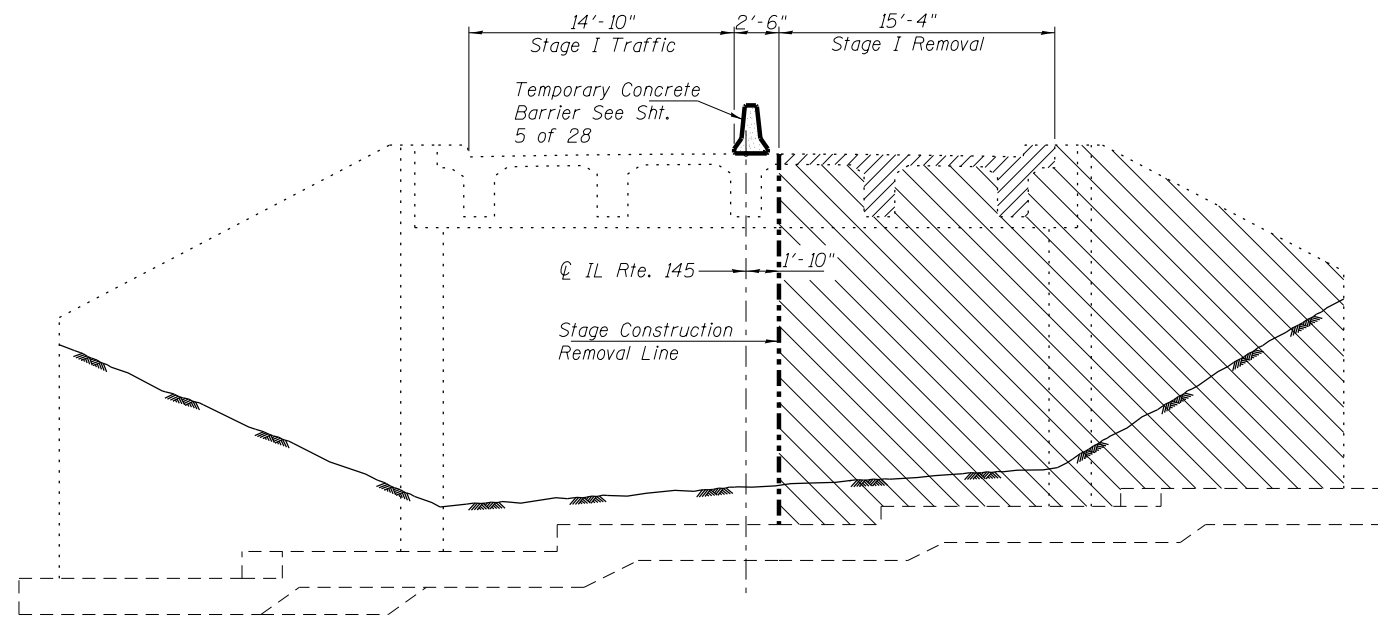
Note:
 A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

- or Indicates Exposed Area to be retained by the Temporary Soil Retention System.
- Indicates portions of existing footings that must be removed to facilitate the installation of Slopewall Vee-ditch and Toe. Cost included with "Removal of Existing Structures".

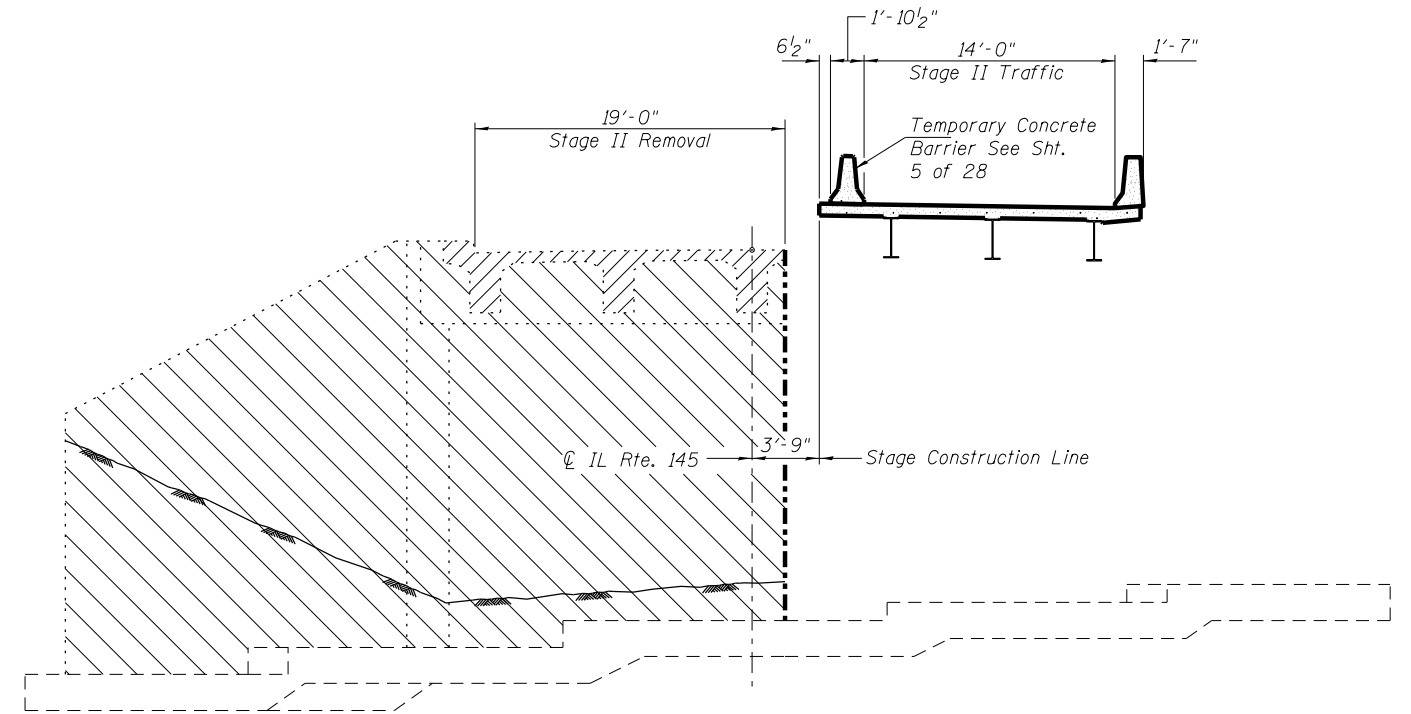


TEMPORARY SOIL RETENTION SYSTEM ELEVATION

FILE NAME = 0760028-78134.dgn	USER NAME = hmf1m00028	DESIGNED - BDC	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUBSTRUCTURE LAYOUT and TEMPORARY SOIL RETENTION SYSTEM DETAILS STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 27	
PLOT SCALE =	DRAWN - DAB and Rod	REVISD -	CONTRACT NO. 78134								
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISD -	SHEET NO. 3 OF 28 SHEETS								
ILLINOIS FED. AID PROJECT											

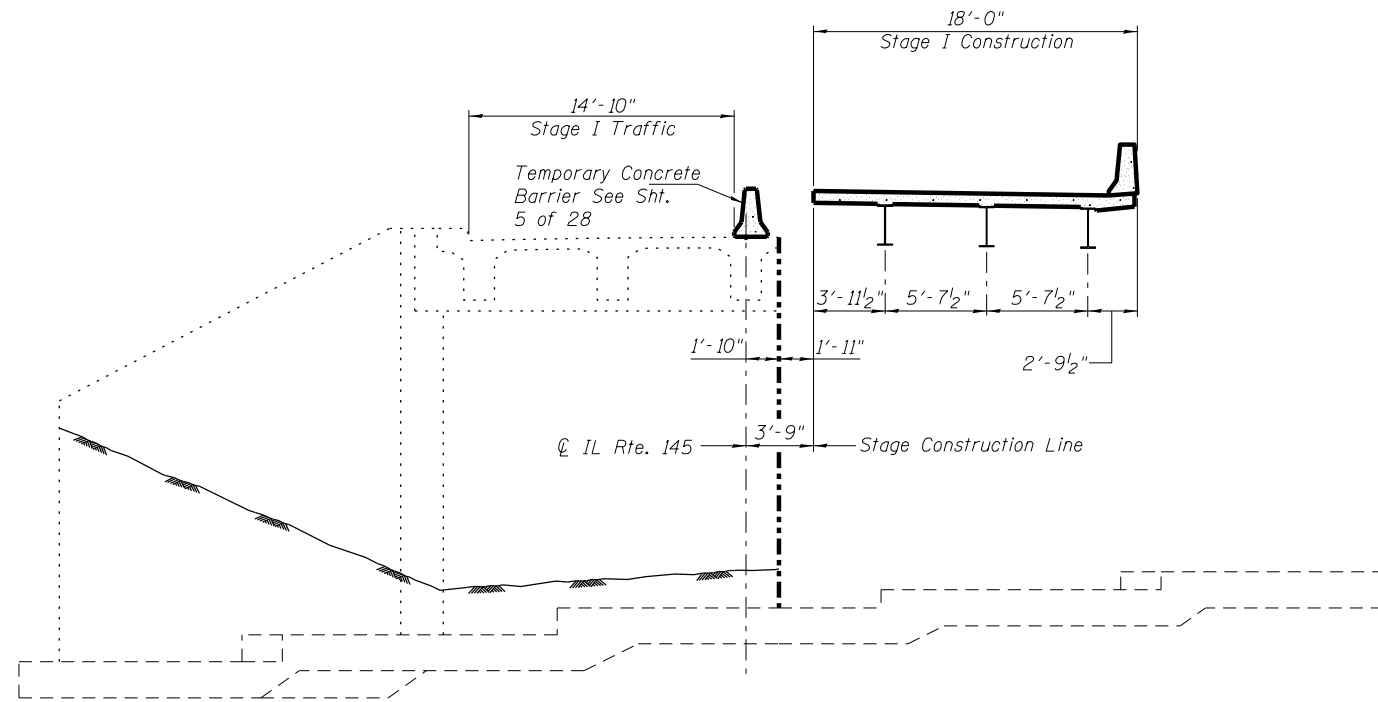


STAGE I REMOVAL
LOOKING SOUTH

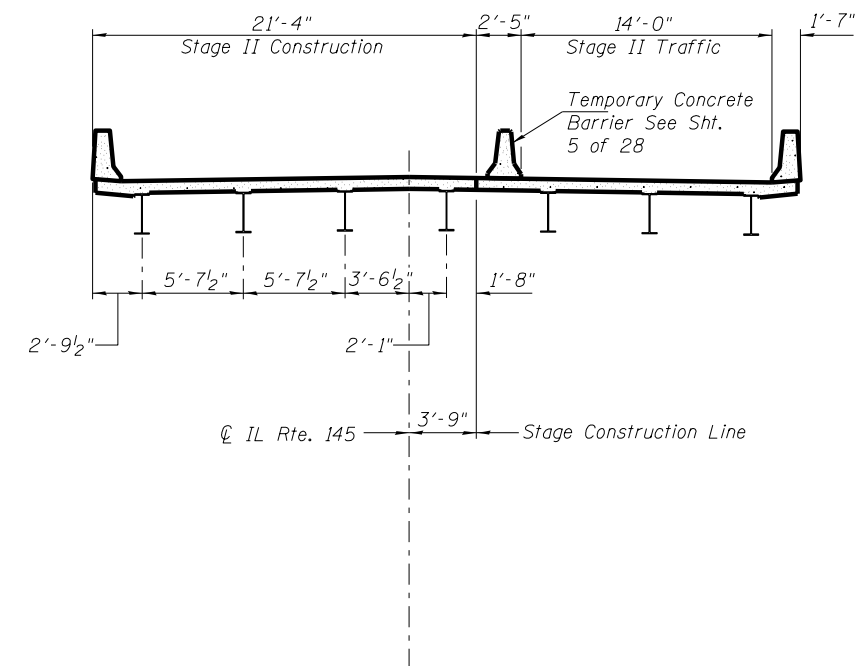


STAGE II REMOVAL
LOOKING SOUTH

Indicates Areas to be removed as part of "Removal of Existing Structures".



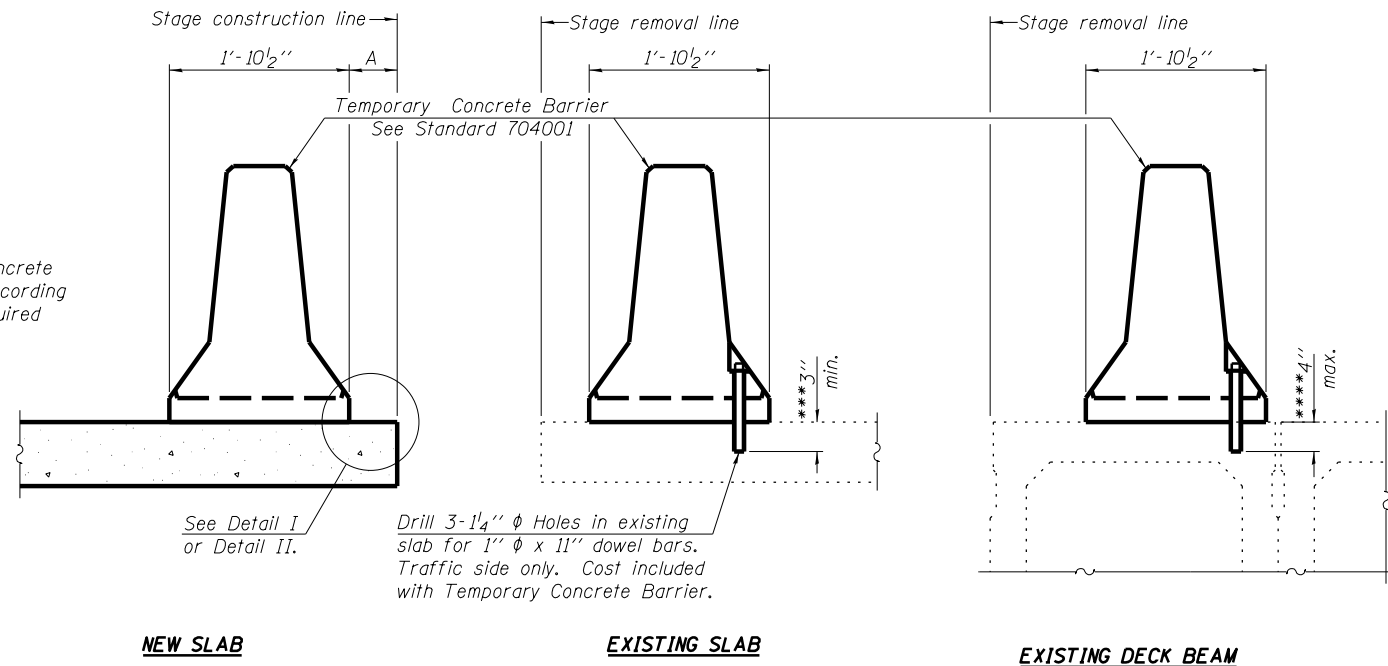
STAGE I CONSTRUCTION
LOOKING SOUTH



STAGE II CONSTRUCTION
LOOKING SOUTH

Note: See Roadway Plans for Temporary Concrete Barrier quantities.

FILE NAME = 0760028-78134.dgn	USER NAME = hmf1m00028	DESIGNED - BDC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 28
PLOT SCALE =	DRAWN - Rod	REVISED -	CONTRACT NO. 78134							
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISED -	ILLINOIS FED. AID PROJECT							
SHEET NO. 4 OF 28 SHEETS										



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

See Detail I or Detail II.

Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NOTES

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

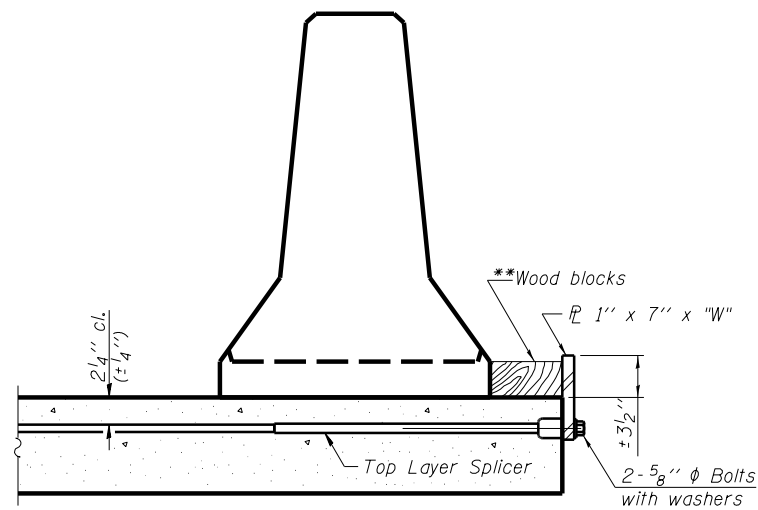
Detail II - With Extended Reinforcement Bars:
 Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

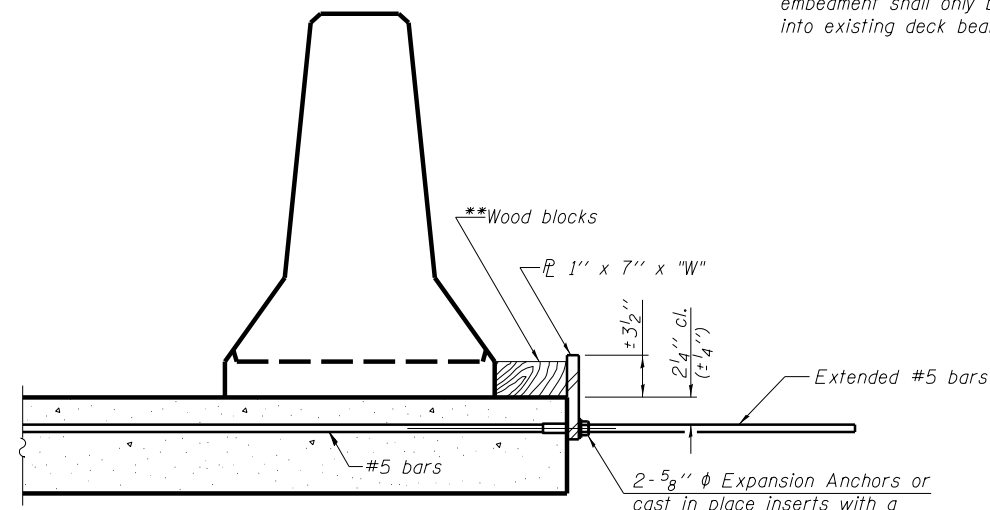
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

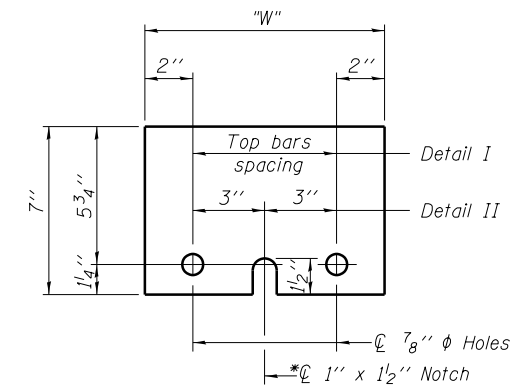
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{P} 1" x 7" x 10"

* Required only with Detail II

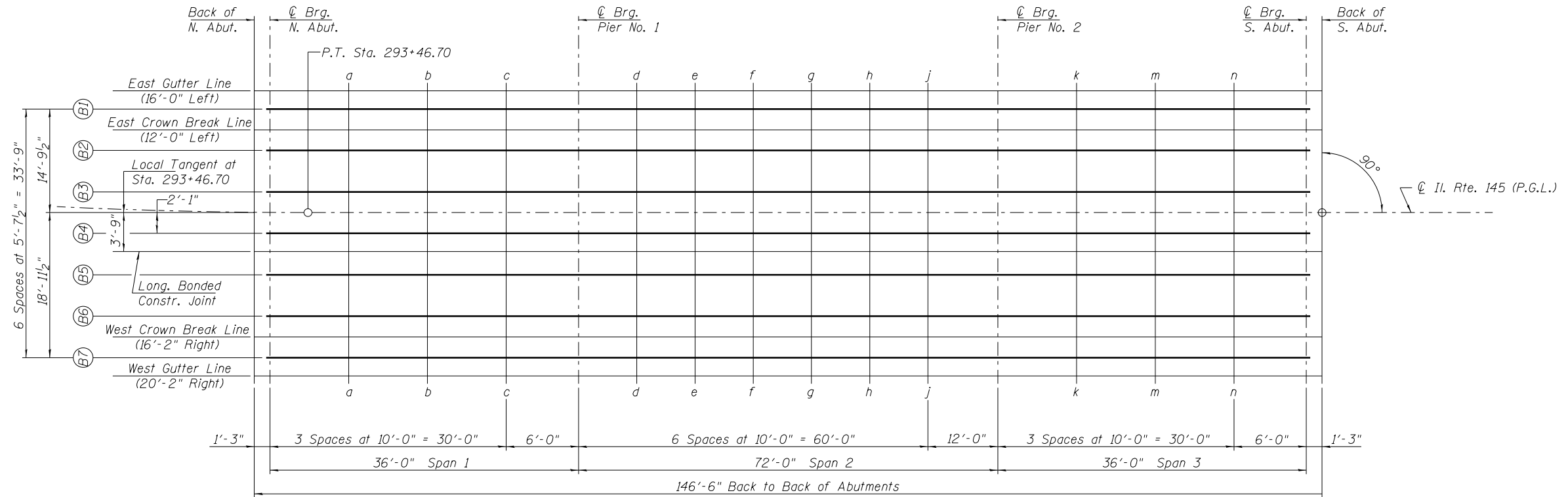
** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

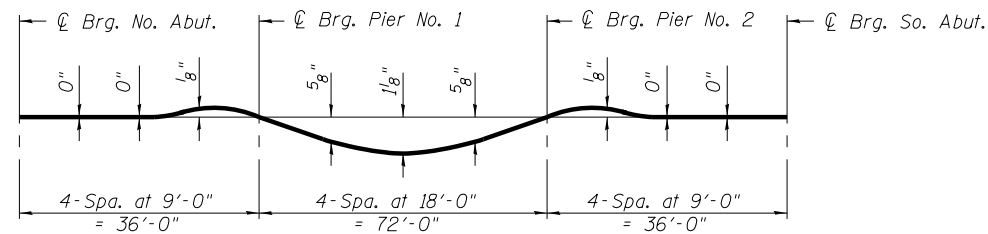
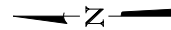
R-27

11-1-09

FILE NAME = 0760028-78134.dgn	USER NAME = hmf1m0028	DESIGNED - BDC	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 29
PLOT SCALE =	DRAWN - DAB	REVISD -	CONTRACT NO. 78134							
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISD -	SHEET NO. 5 OF 28 SHEETS							
						ILLINOIS FED. AID PROJECT				



DIAGRAMMATIC PLAN

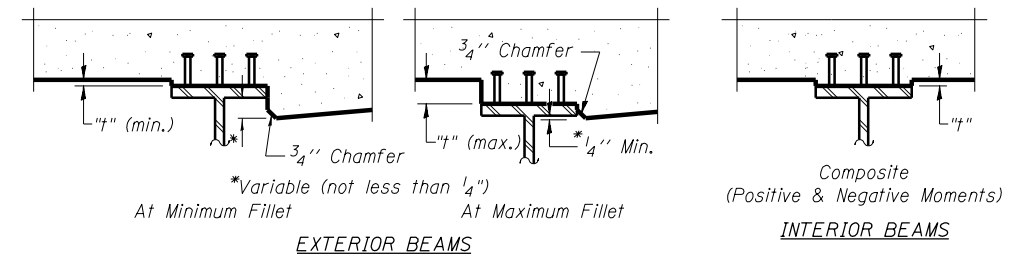


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 7 & 8 of 28.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 7 & 8 of 28, minus 8" slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

FILE NAME = 0760028-78134.dgn	USER NAME = hufm00028	DESIGNED - BDC	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS (Sheet 1 of 3) STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 30
PLOT SCALE =	DRAWN - DAB and Rod	REVISD -	CONTRACT NO. 78134							
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISD -	SHEET NO. 6 OF 28 SHEETS							
						ILLINOIS FED. AID PROJECT				

EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	-16.00	457.96	457.96
⊕ Brg. No. Abut	293+42.65	-16.00	457.97	457.97
a	293+52.65	-16.00	458.03	458.02
b	293+62.65	-16.00	458.03	458.02
c	293+72.65	-16.00	458.02	458.01
⊕ Brg. Pier No. 1	293+78.65	-16.00	458.01	458.01
d	293+88.65	-16.00	458.00	458.03
e	293+98.65	-16.00	457.97	458.04
f	294+08.65	-16.00	457.94	458.03
g	294+18.65	-16.00	457.91	457.99
h	294+28.65	-16.00	457.86	457.93
j	294+38.65	-16.00	457.81	457.84
⊕ Brg Pier No. 2	294+50.65	-16.00	457.74	457.74
k	294+60.65	-16.00	457.67	457.66
m	294+70.65	-16.00	457.59	457.59
n	294+80.65	-16.00	457.51	457.51
⊕ Brg. So. Abut.	294+86.65	-16.00	457.46	457.46
Bk. So. Abut.	294+87.90	-16.00	457.45	457.45

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	-14.79	457.99	457.99
⊕ Brg. No. Abut	293+42.65	-14.79	457.99	457.99
a	293+52.65	-14.79	458.05	458.05
b	293+62.65	-14.79	458.05	458.04
c	293+72.65	-14.79	458.05	458.04
⊕ Brg. Pier No. 1	293+78.65	-14.79	458.04	458.04
d	293+88.65	-14.79	458.02	458.05
e	293+98.65	-14.79	458.00	458.06
f	294+08.65	-14.79	457.97	458.05
g	294+18.65	-14.79	457.93	458.02
h	294+28.65	-14.79	457.88	457.95
j	294+38.65	-14.79	457.83	457.87
⊕ Brg Pier No. 2	294+50.65	-14.79	457.76	457.76
k	294+60.65	-14.79	457.69	457.69
m	294+70.65	-14.79	457.62	457.61
n	294+80.65	-14.79	457.54	457.54
⊕ Brg. So. Abut.	294+86.65	-14.79	457.49	457.49
Bk. So. Abut.	294+87.90	-14.79	457.47	457.47

EAST CROWN BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	-12.00	458.04	458.04
⊕ Brg. No. Abut	293+42.65	-12.00	458.05	458.05
a	293+52.65	-12.00	458.11	458.10
b	293+62.65	-12.00	458.11	458.10
c	293+72.65	-12.00	458.10	458.09
⊕ Brg. Pier No. 1	293+78.65	-12.00	458.09	458.09
d	293+88.65	-12.00	458.08	458.11
e	293+98.65	-12.00	458.05	458.12
f	294+08.65	-12.00	458.02	458.11
g	294+18.65	-12.00	457.99	458.07
h	294+28.65	-12.00	457.94	458.01
j	294+38.65	-12.00	457.89	457.92
⊕ Brg Pier No. 2	294+50.65	-12.00	457.82	457.82
k	294+60.65	-12.00	457.75	457.74
m	294+70.65	-12.00	457.67	457.67
n	294+80.65	-12.00	457.59	457.59
⊕ Brg. So. Abut.	294+86.65	-12.00	457.54	457.54
Bk. So. Abut.	294+87.90	-12.00	457.53	457.53

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	-9.17	458.10	458.10
⊕ Brg. No. Abut	293+42.65	-9.17	458.10	458.10
a	293+52.65	-9.17	458.15	458.15
b	293+62.65	-9.17	458.15	458.14
c	293+72.65	-9.17	458.14	458.14
⊕ Brg. Pier No. 1	293+78.65	-9.17	458.14	458.14
d	293+88.65	-9.17	458.12	458.15
e	293+98.65	-9.17	458.10	458.16
f	294+08.65	-9.17	458.07	458.15
g	294+18.65	-9.17	458.03	458.12
h	294+28.65	-9.17	457.98	458.05
j	294+38.65	-9.17	457.93	457.97
⊕ Brg Pier No. 2	294+50.65	-9.17	457.86	457.86
k	294+60.65	-9.17	457.79	457.78
m	294+70.65	-9.17	457.72	457.71
n	294+80.65	-9.17	457.64	457.63
⊕ Brg. So. Abut.	294+86.65	-9.17	457.58	457.58
Bk. So. Abut.	294+87.90	-9.17	457.57	457.57

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	-3.54	458.21	458.21
⊕ Brg. No. Abut	293+42.65	-3.54	458.21	458.21
a	293+52.65	-3.54	458.23	458.23
b	293+62.65	-3.54	458.23	458.23
c	293+72.65	-3.54	458.23	458.22
⊕ Brg. Pier No. 1	293+78.65	-3.54	458.22	458.22
d	293+88.65	-3.54	458.20	458.23
e	293+98.65	-3.54	458.18	458.24
f	294+08.65	-3.54	458.15	458.24
g	294+18.65	-3.54	458.11	458.20
h	294+28.65	-3.54	458.07	458.14
j	294+38.65	-3.54	458.02	458.05
⊕ Brg Pier No. 2	294+50.65	-3.54	457.94	457.94
k	294+60.65	-3.54	457.88	457.87
m	294+70.65	-3.54	457.80	457.80
n	294+80.65	-3.54	457.72	457.72
⊕ Brg. So. Abut.	294+86.65	-3.54	457.67	457.67
Bk. So. Abut.	294+87.90	-3.54	457.66	457.66

⊕ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	0.00	458.28	458.28
⊕ Brg. No. Abut	293+42.65	0.00	458.28	458.28
a	293+52.65	0.00	458.29	458.28
b	293+62.65	0.00	458.29	458.28
c	293+72.65	0.00	458.28	458.27
⊕ Brg. Pier No. 1	293+78.65	0.00	458.27	458.27
d	293+88.65	0.00	458.26	458.29
e	293+98.65	0.00	458.23	458.30
f	294+08.65	0.00	458.20	458.29
g	294+18.65	0.00	458.17	458.25
h	294+28.65	0.00	458.12	458.19
j	294+38.65	0.00	458.07	458.10
⊕ Brg Pier No. 2	294+50.65	0.00	458.00	458.00
k	294+60.65	0.00	457.93	457.92
m	294+70.65	0.00	457.85	457.85
n	294+80.65	0.00	457.77	457.77
⊕ Brg. So. Abut.	294+86.65	0.00	457.72	457.72
Bk. So. Abut.	294+87.90	0.00	457.71	457.71

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	2.08	458.32	458.32
⊕ Brg. No. Abut	293+42.65	2.08	458.32	458.32
a	293+52.65	2.08	458.32	458.31
b	293+62.65	2.08	458.31	458.30
c	293+72.65	2.08	458.30	458.29
⊕ Brg. Pier No. 1	293+78.65	2.08	458.28	458.28
d	293+88.65	2.08	458.26	458.29
e	293+98.65	2.08	458.23	458.29
f	294+08.65	2.08	458.19	458.27
g	294+18.65	2.08	458.14	458.23
h	294+28.65	2.08	458.09	458.16
j	294+38.65	2.08	458.04	458.07
⊕ Brg Pier No. 2	294+50.65	2.08	457.97	457.97
k	294+60.65	2.08	457.90	457.89
m	294+70.65	2.08	457.82	457.82
n	294+80.65	2.08	457.74	457.74
⊕ Brg. So. Abut.	294+86.65	2.08	457.69	457.69
Bk. So. Abut.	294+87.90	2.08	457.68	457.68

LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	3.75	458.35	458.35
⊕ Brg. No. Abut	293+42.65	3.75	458.35	458.35
a	293+52.65	3.75	458.34	458.34
b	293+62.65	3.75	458.33	458.32
c	293+72.65	3.75	458.31	458.30
⊕ Brg. Pier No. 1	293+78.65	3.75	458.29	458.29
d	293+88.65	3.75	458.26	458.29
e	293+98.65	3.75	458.22	458.29
f	294+08.65	3.75	458.18	458.26
g	294+18.65	3.75	458.12	458.21
h	294+28.65	3.75	458.06	458.13
j	294+38.65	3.75	458.01	458.05
⊕ Brg Pier No. 2	294+50.65	3.75	457.94	457.94
k	294+60.65	3.75	457.87	457.87
m	294+70.65	3.75	457.80	457.79
n	294+80.65	3.75	457.72	457.72
⊕ Brg. So. Abut.	294+86.65	3.75	457.66	457.66
Bk. So. Abut.	294+87.90	3.75	457.65	457.65

Note: Offsets are from Local Tangent



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BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	7.71	458.42	458.42
⊘ Brg. No. Abut	293+42.65	7.71	458.42	458.42
a	293+52.65	7.71	458.40	458.40
b	293+62.65	7.71	458.37	458.37
c	293+72.65	7.71	458.34	458.33
⊘ Brg. Pier No. 1	293+78.65	7.71	458.31	458.31
d	293+88.65	7.71	458.26	458.29
e	293+98.65	7.71	458.21	458.27
f	294+08.65	7.71	458.15	458.23
g	294+18.65	7.71	458.08	458.17
h	294+28.65	7.71	458.00	458.07
j	294+38.65	7.71	457.95	457.99
⊘ Brg Pier No. 2	294+50.65	7.71	457.88	457.88
k	294+60.65	7.71	457.81	457.81
m	294+70.65	7.71	457.74	457.73
n	294+80.65	7.71	457.66	457.66
⊘ Brg. So. Abut.	294+86.65	7.71	457.61	457.61
Bk. So. Abut.	294+87.90	7.71	457.59	457.59

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	13.33	458.53	458.53
⊘ Brg. No. Abut	293+42.65	13.33	458.53	458.53
a	293+52.65	13.33	458.49	458.48
b	293+62.65	13.33	458.43	458.43
c	293+72.65	13.33	458.38	458.37
⊘ Brg. Pier No. 1	293+78.65	13.33	458.34	458.34
d	293+88.65	13.33	458.27	458.30
e	293+98.65	13.33	458.19	458.26
f	294+08.65	13.33	458.11	458.19
g	294+18.65	13.33	458.02	458.11
h	294+28.65	13.33	457.92	457.99
j	294+38.65	13.33	457.87	457.90
⊘ Brg Pier No. 2	294+50.65	13.33	457.80	457.80
k	294+60.65	13.33	457.73	457.72
m	294+70.65	13.33	457.65	457.65
n	294+80.65	13.33	457.57	457.57
⊘ Brg. So. Abut.	294+86.65	13.33	457.52	457.52
Bk. So. Abut.	294+87.90	13.33	457.51	457.51

WEST CROWN BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	16.17	458.59	458.59
⊘ Brg. No. Abut	293+42.65	16.17	458.58	458.58
a	293+52.65	16.17	458.53	458.52
b	293+62.65	16.17	458.47	458.46
c	293+72.65	16.17	458.40	458.39
⊘ Brg. Pier No. 1	293+78.65	16.17	458.35	458.35
d	293+88.65	16.17	458.27	458.30
e	293+98.65	16.17	458.18	458.25
f	294+08.65	16.17	458.09	458.17
g	294+18.65	16.17	457.99	458.07
h	294+28.65	16.17	457.88	457.95
j	294+38.65	16.17	457.83	457.86
⊘ Brg Pier No. 2	294+50.65	16.17	457.75	457.75
k	294+60.65	16.17	457.69	457.68
m	294+70.65	16.17	457.61	457.61
n	294+80.65	16.17	457.53	457.53
⊘ Brg. So. Abut.	294+86.65	16.17	457.48	457.48
Bk. So. Abut.	294+87.90	16.17	457.47	457.47

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	18.96	458.64	458.64
⊘ Brg. No. Abut	293+42.65	18.96	458.63	458.63
a	293+52.65	18.96	458.57	458.56
b	293+62.65	18.96	458.49	458.48
c	293+72.65	18.96	458.41	458.40
⊘ Brg. Pier No. 1	293+78.65	18.96	458.36	458.36
d	293+88.65	18.96	458.26	458.29
e	293+98.65	18.96	458.16	458.23
f	294+08.65	18.96	458.06	458.14
g	294+18.65	18.96	457.94	458.03
h	294+28.65	18.96	457.82	457.89
j	294+38.65	18.96	457.77	457.81
⊘ Brg Pier No. 2	294+50.65	18.96	457.70	457.70
k	294+60.65	18.96	457.63	457.62
m	294+70.65	18.96	457.56	457.55
n	294+80.65	18.96	457.48	457.47
⊘ Brg. So. Abut.	294+86.65	18.96	457.42	457.42
Bk. So. Abut.	294+87.90	18.96	457.41	457.41

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	293+41.40	20.17	458.66	458.66
⊘ Brg. No. Abut	293+42.65	20.17	458.65	458.65
a	293+52.65	20.17	458.58	458.58
b	293+62.65	20.17	458.50	458.50
c	293+72.65	20.17	458.42	458.41
⊘ Brg. Pier No. 1	293+78.65	20.17	458.36	458.36
d	293+88.65	20.17	458.26	458.29
e	293+98.65	20.17	458.16	458.22
f	294+08.65	20.17	458.04	458.13
g	294+18.65	20.17	457.92	458.01
h	294+28.65	20.17	457.80	457.87
j	294+38.65	20.17	457.75	457.78
⊘ Brg Pier No. 2	294+50.65	20.17	457.67	457.67
k	294+60.65	20.17	457.61	457.60
m	294+70.65	20.17	457.53	457.53
n	294+80.65	20.17	457.45	457.45
⊘ Brg. So. Abut.	294+86.65	20.17	457.40	457.40
Bk. So. Abut.	294+87.90	20.17	457.39	457.39

Note: Offsets are from Local Tangent

FILE NAME = 0760028-78134.dgn	USER NAME = huffman0028	DESIGNED - BDC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS (Sheet 3 of 3) STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 32	
PLOT SCALE =	DRAWN - Rod	REVISED -	CONTRACT NO. 78134								
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISED -	SHEET NO. 8 OF 28 SHEETS								
ILLINOIS FED. AID PROJECT											

EAST EDGE OF SHOULDER

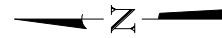
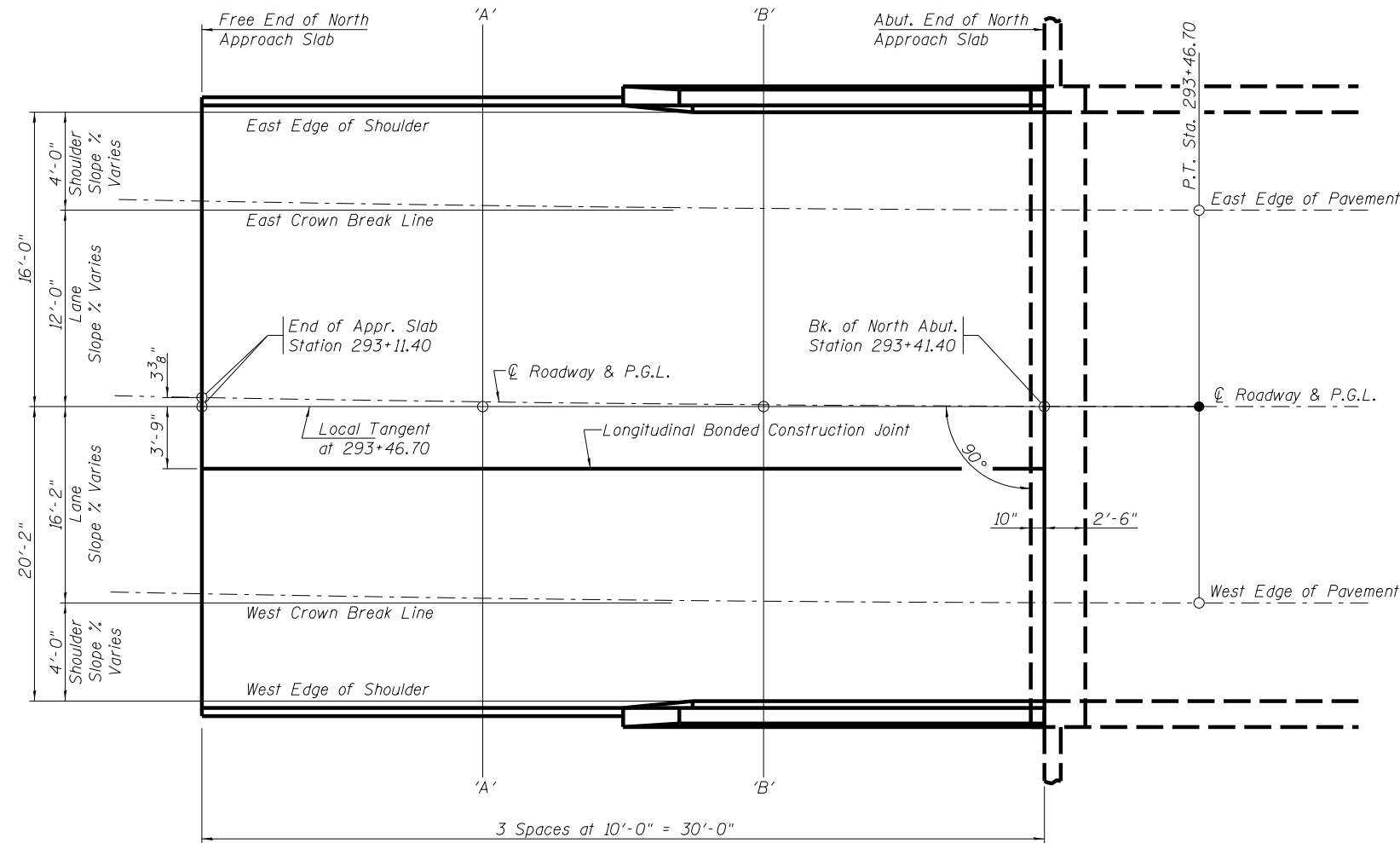
Location	Station	Offset	Theoretical Grade Elevations
Free End of North Apr.	293+11.40	-16.00	457.79
'A'	293+21.40	-16.00	457.82
'B'	293+31.40	-16.00	457.89
Abut. End of North Apr.	293+41.40	-16.00	457.96

EAST CROWN BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Apr.	293+11.40	-12.00	457.89
'A'	293+21.40	-12.00	457.92
'B'	293+31.40	-12.00	457.98
Abut. End of North Apr.	293+41.40	-12.00	458.04

LOCAL TANGENT

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Apr.	293+11.40	0.00	458.20
'A'	293+21.40	0.00	458.24
'B'	293+31.40	0.00	458.26
Abut. End of North Apr.	293+41.40	0.00	458.28



PLAN

Note:
Offsets are from Local Tangent

LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Apr.	293+11.40	3.75	458.30
'A'	293+21.40	3.75	458.33
'B'	293+31.40	3.75	458.35
Abut. End of North Apr.	293+41.40	3.75	458.35

WEST CROWN BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Apr.	293+11.40	16.17	458.63
'A'	293+21.40	16.17	458.66
'B'	293+31.40	16.17	458.64
Abut. End of North Apr.	293+41.40	16.17	458.59

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Apr.	293+11.40	20.17	458.73
'A'	293+21.40	20.17	458.76
'B'	293+31.40	20.17	458.73
Abut. End of North Apr.	293+41.40	20.17	458.66

EAST EDGE OF SHOULDER

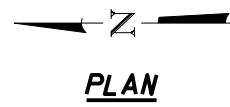
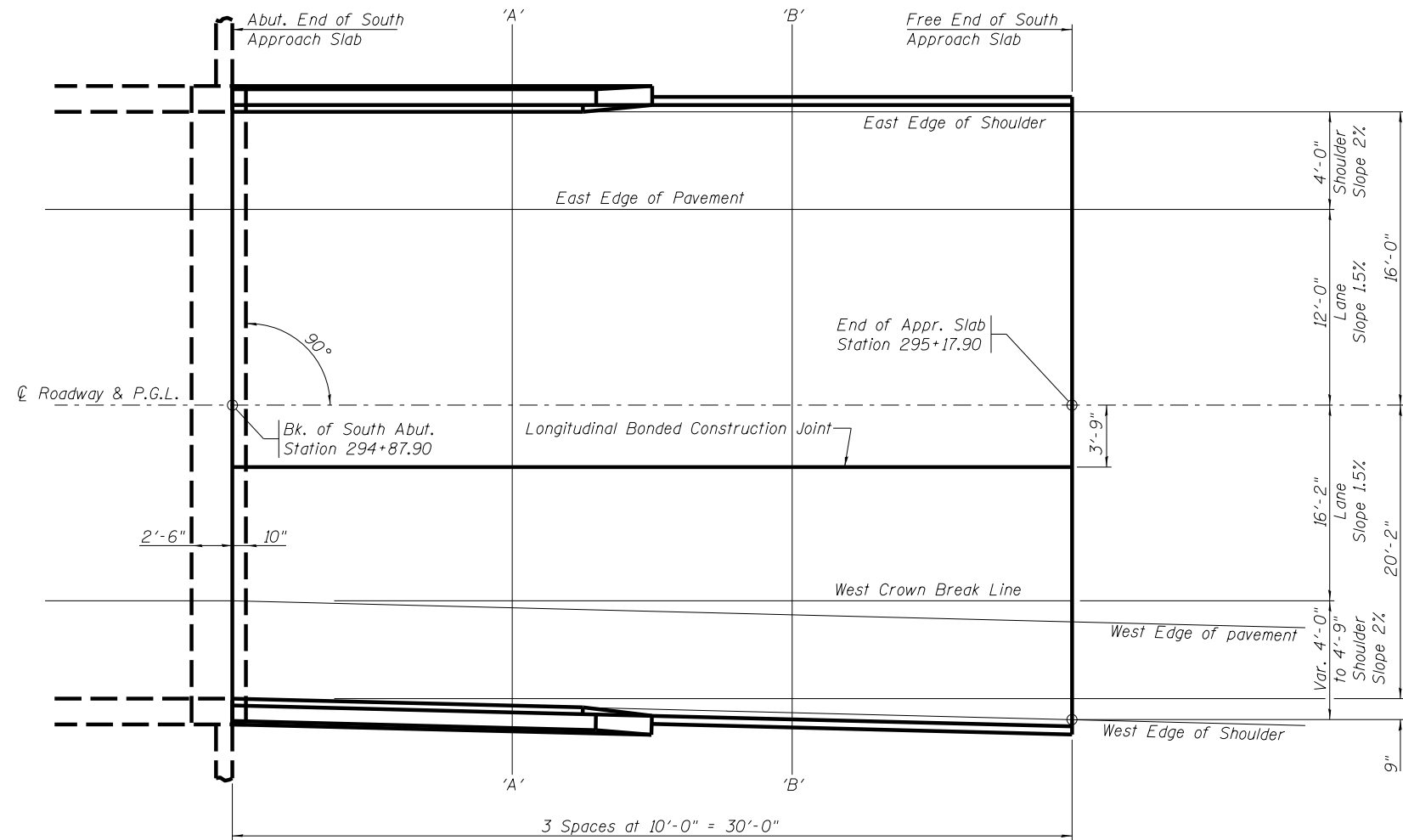
Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Apr.	294+87.90	-16.00	457.45
'A'	294+97.90	-16.00	457.36
'B'	295+07.90	-16.00	457.26
Free End of South Apr.	295+17.90	-16.00	457.15

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Apr.	294+87.90	-12.00	457.53
'A'	294+97.90	-12.00	457.44
'B'	295+07.90	-12.00	457.34
Free End of South Apr.	295+17.90	-12.00	457.23

☉ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Apr.	294+87.90	0.00	457.71
'A'	294+97.90	0.00	457.62
'B'	295+07.90	0.00	457.52
Free End of South Apr.	295+17.90	0.00	457.41



LONGITUDINAL BONDED CONSTRUCTION JOINT

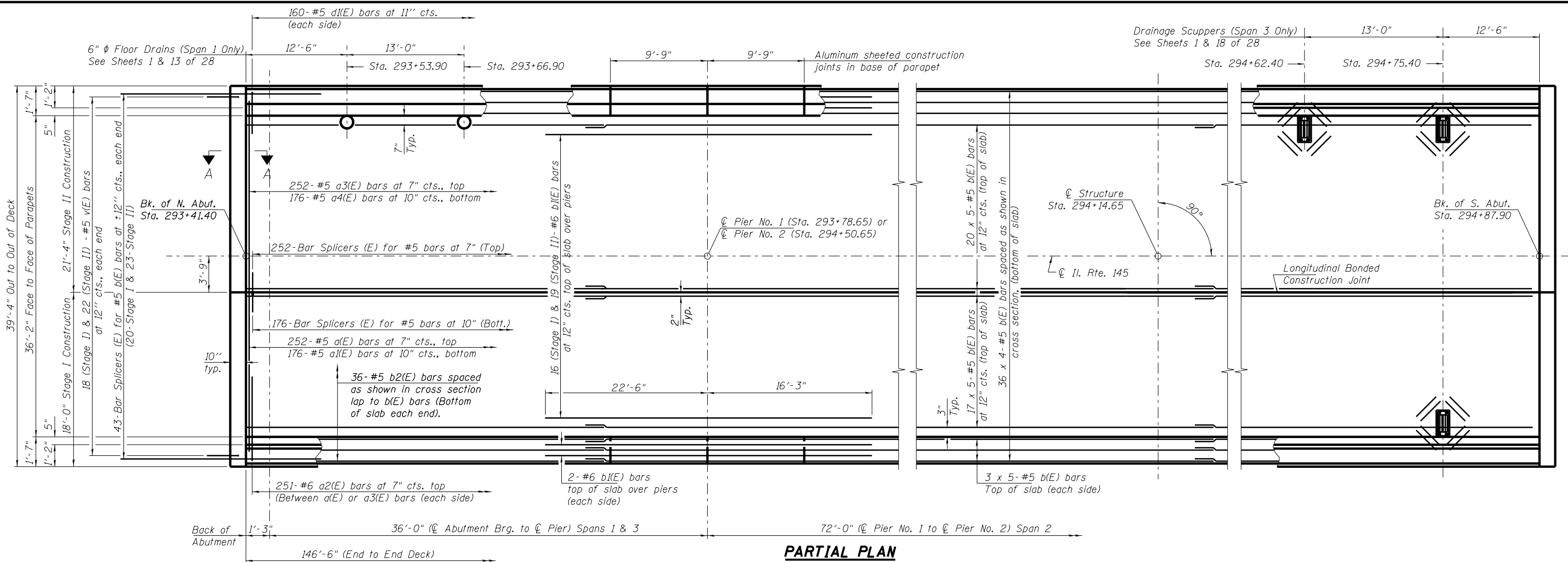
Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Apr.	294+87.90	3.75	457.65
'A'	294+97.90	3.75	457.56
'B'	295+07.90	3.75	457.46
Free End of South Apr.	295+17.90	3.75	457.35

WEST CROWN BREAK LINE

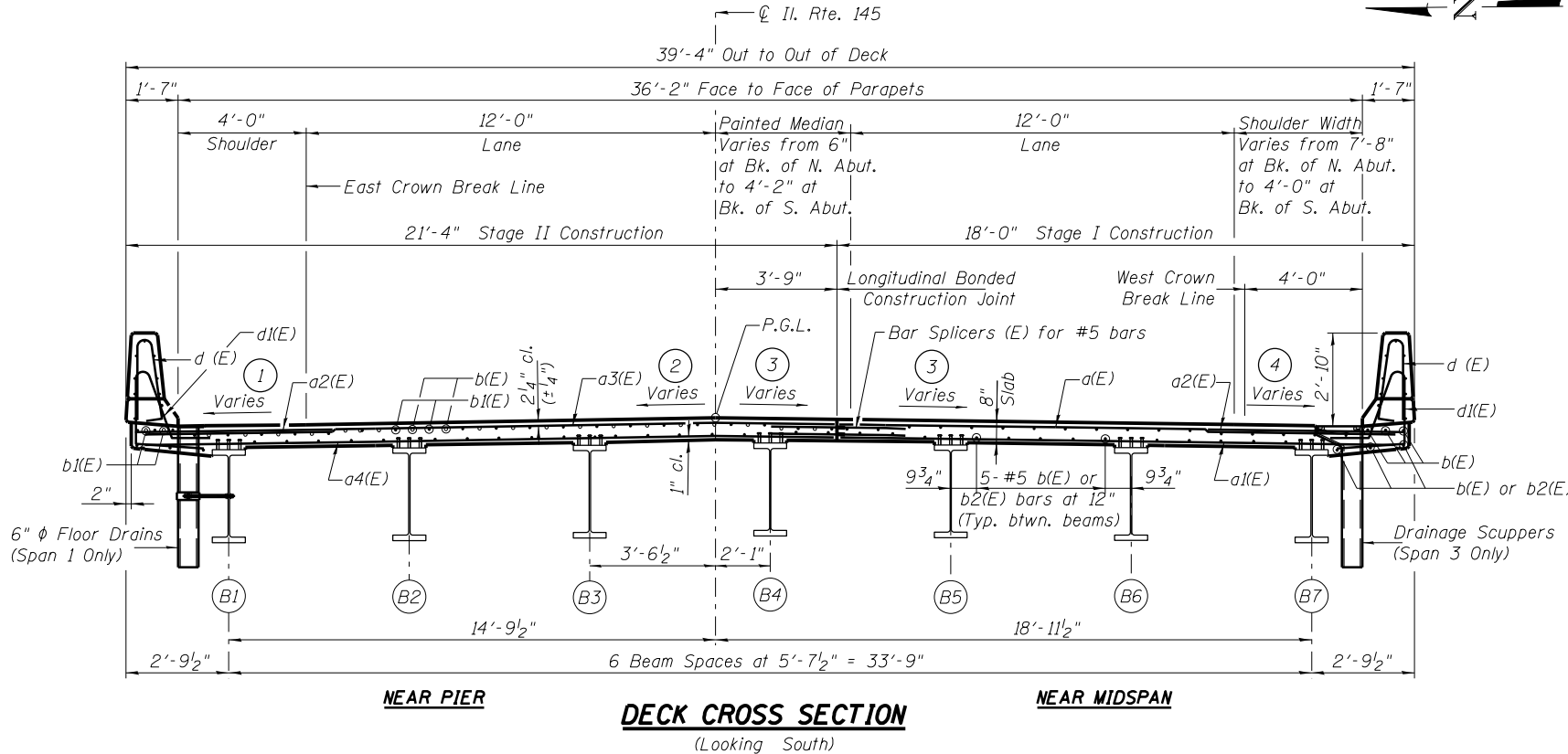
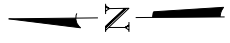
Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Apr.	294+87.90	16.17	457.47
'A'	294+97.90	16.17	457.37
'B'	295+07.90	16.17	457.27
Free End of South Apr.	295+17.90	16.17	457.17

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Apr.	294+87.90	20.17	457.39
'A'	294+97.90	20.42	457.29
'B'	295+07.90	20.67	457.18
Free End of South Apr.	295+17.90	20.92	457.07



PARTIAL PLAN



DECK CROSS SECTION

(Looking South)

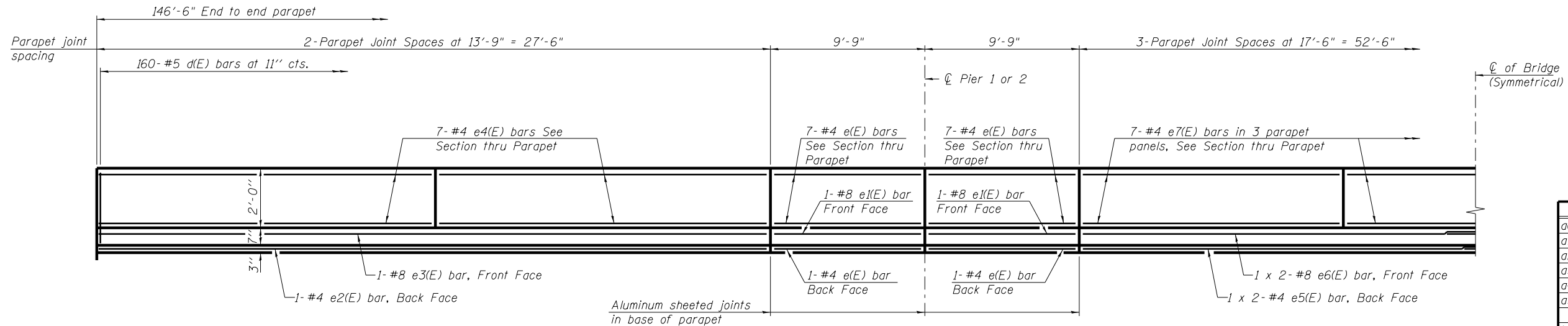
SUPERELEVATION - CROWN CHANGE LOCATIONS

AT STATION	CROSS SLOPES			
	①	②	③	④
293+24.70	-2.60%	-2.60%	2.60%	2.60%
293+39.92	-2.00%	-2.00%	2.00%	1.93%
293+52.60	-2.00%	-1.50%	1.50%	1.37%
293+90.65	-2.00%	-1.50%	0.00%	-0.32%
294+28.70	-2.00%	-1.50%	-1.50%	-2.00%
294+23.90	-2.00%	-1.50%	-1.50%	-2.00%

Notes:
See Sheet 12 of 28 for superstructure details, bar laps and Bill of Material.
Bars indicated thus 15 x 5-#5 etc. indicates 15 lines of bars with 5 lengths per line.
See Sheet 12 of 28 for parapet reinforcement.
See Sheets 14 & 15 of 28 for Section A-A.
See Sheet 13 of 28 for Sections Thru Parapet and Scupper Reinforcement.

MINIMUM BAR LAP

#5 bar = 3'-3"

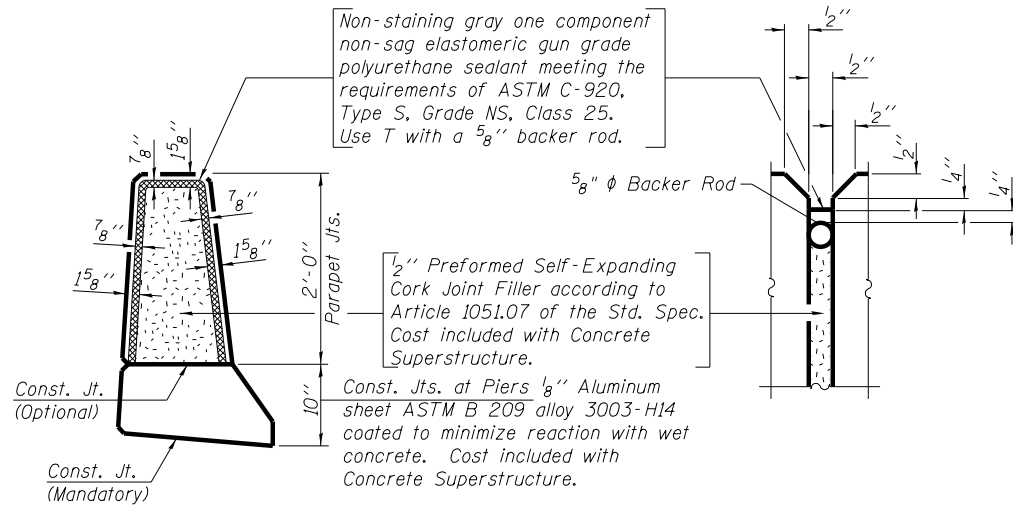


INSIDE ELEVATION OF PARAPET

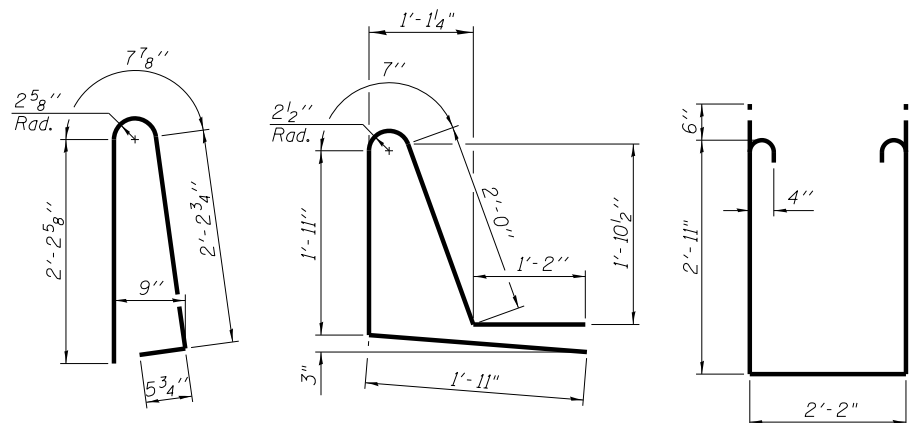
**SUPERSTRUCTURE
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	252	#5	17'-6"	—
a1(E)	176	#5	16'-10"	—
a2(E)	502	#6	6'-6"	—
a3(E)	252	#5	20'-10"	—
a4(E)	176	#5	20'-2"	—
a5(E)	24	#5	1'-6"	—
b(E)	359	#5	31'-10"	—
b1(E)	78	#6	38'-9"	—
b2(E)	72	#5	17'-7"	—
d(E)	320	#5	5'-7"	⌒
d1(E)	320	#5	7'-7"	⌒
e(E)	64	#4	9'-5"	—
e1(E)	8	#8	9'-5"	—
e2(E)	4	#4	27'-2"	—
e3(E)	4	#8	27'-2"	—
e4(E)	56	#4	13'-5"	—
e5(E)	4	#4	27'-1"	—
e6(E)	4	#8	28'-8"	—
e7(E)	42	#4	17'-2"	—
m(E)	10	#6	21'-0"	—
m1(E)	28	#6	9'-0"	—
m2(E)	10	#6	5'-3"	—
m3(E)	4	#6	2'-5"	—
m4(E)	2	#6	1'-4"	—
m5(E)	10	#6	17'-8"	—
m6(E)	2	#6	3'-8"	—
s(E)	84	#5	6'-10"	⌒
s1(E)	84	#4	9'-0"	⌒
v(E)	80	#5	3'-9"	⌒
Reinforcement Bars, Epoxy Coated		Pound		48790
Concrete Superstructure		Cu. Yds.		204.2

Bars indicated thus 1 x 3 - #5 etc. indicates 1 line of bars with 3 lengths per line.



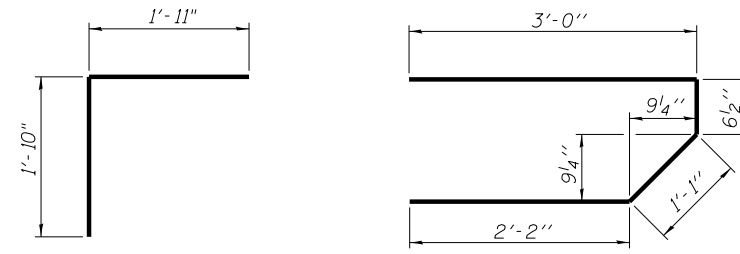
PARAPET JOINT DETAILS



BAR d(E)

BAR d1(E)

BAR s1(E)

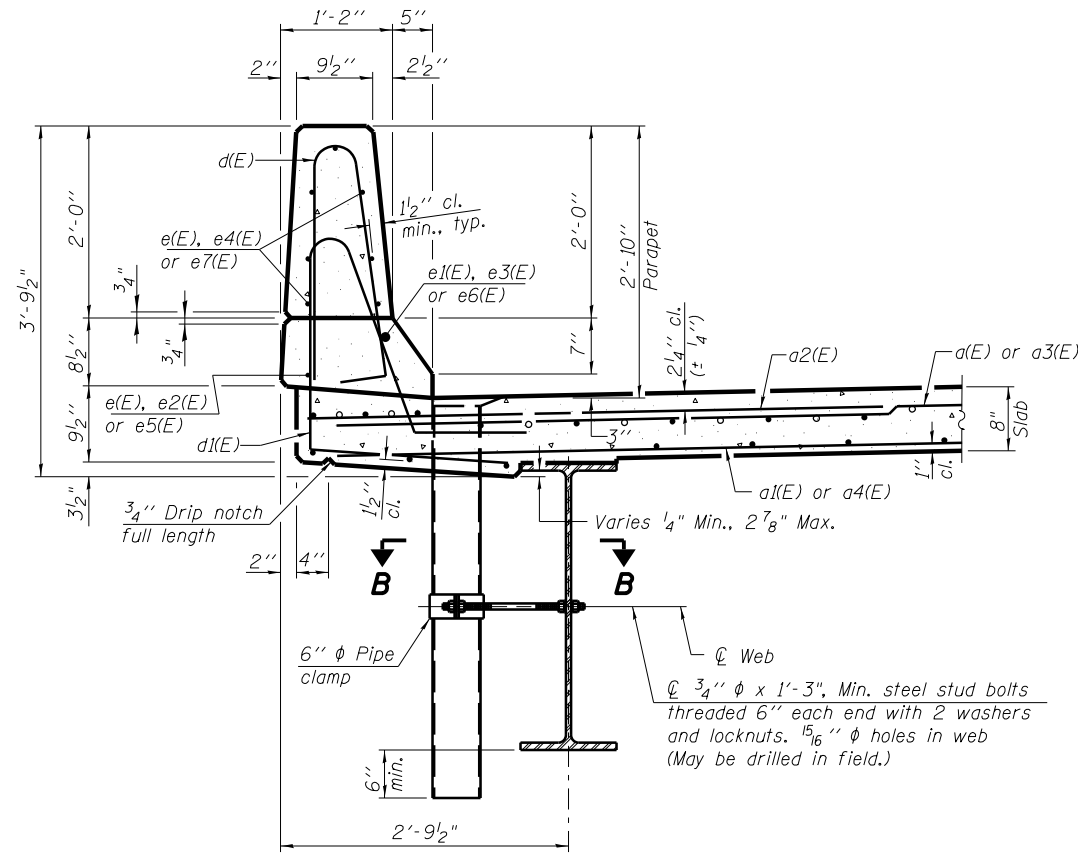


BAR v(E)

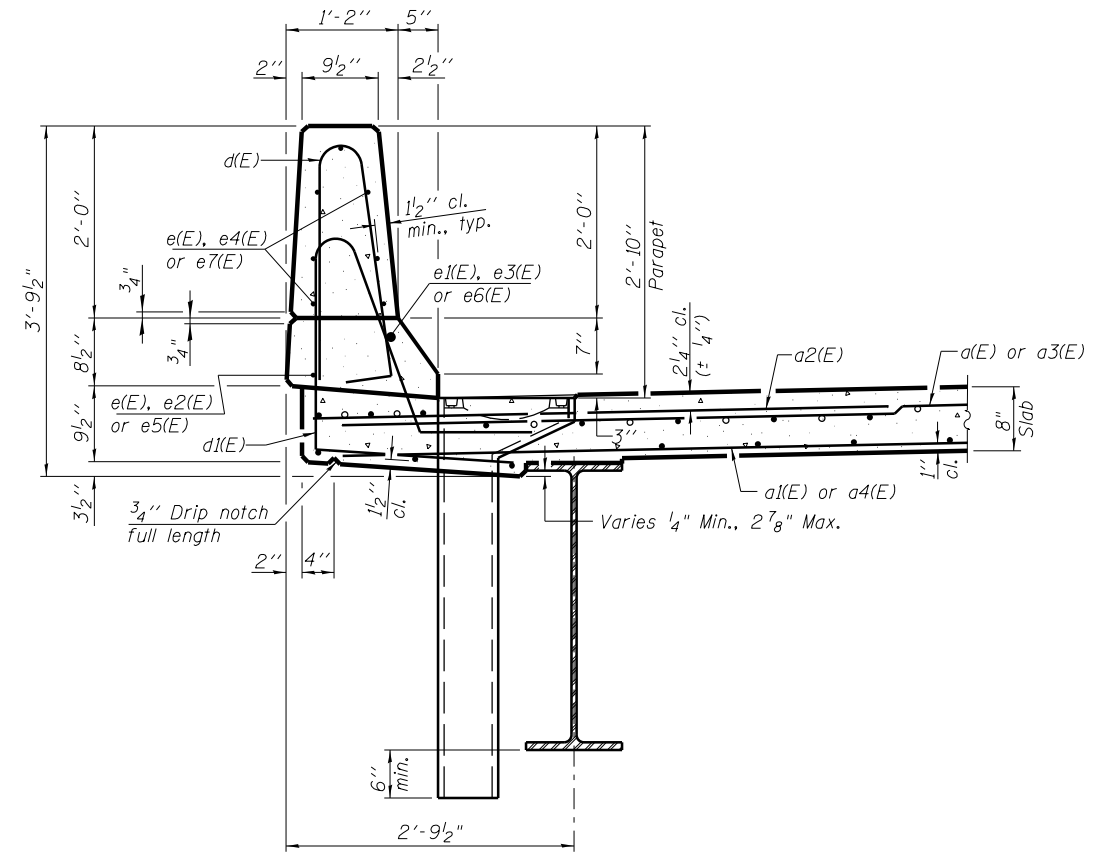
BAR s(E)

MINIMUM BAR LAP

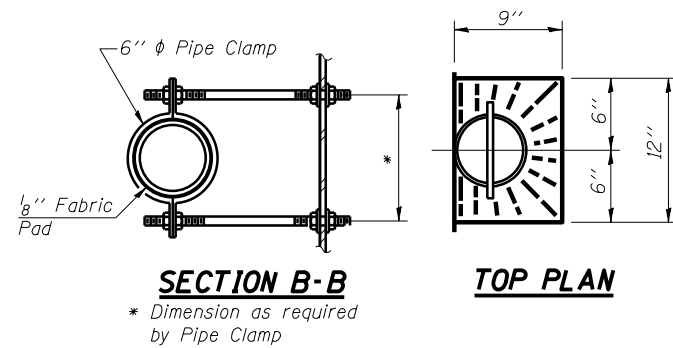
#4 bar = 2'-0"
 #8 bar = 5'-2"



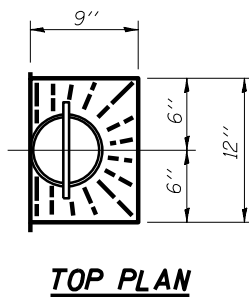
**SECTION THRU PARAPET
SHOWING FLOOR DRAIN INSTALLATION**



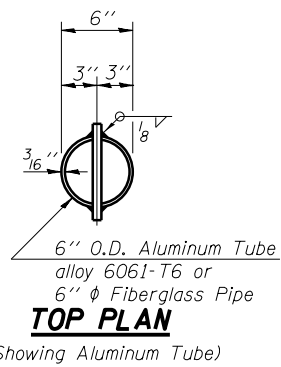
**SECTION THRU PARAPET
SHOWING SCUPPER INSTALLATION**



SECTION B-B
* Dimension as required
by Pipe Clamp

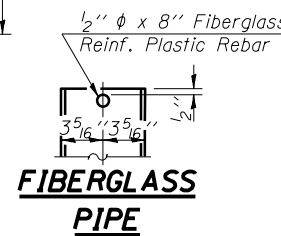


TOP PLAN

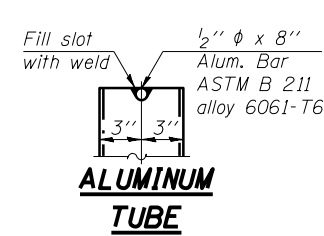


TOP PLAN

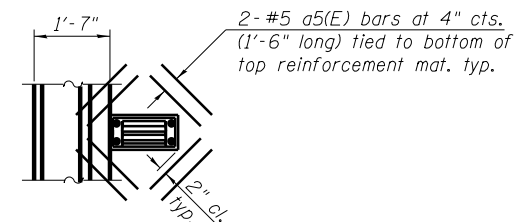
(Showing Aluminum Tube)



**FIBERGLASS
PIPE**



**ALUMINUM
TUBE**



**PLAN - REINFORCEMENT
TREATMENT AT SCUPPERS**

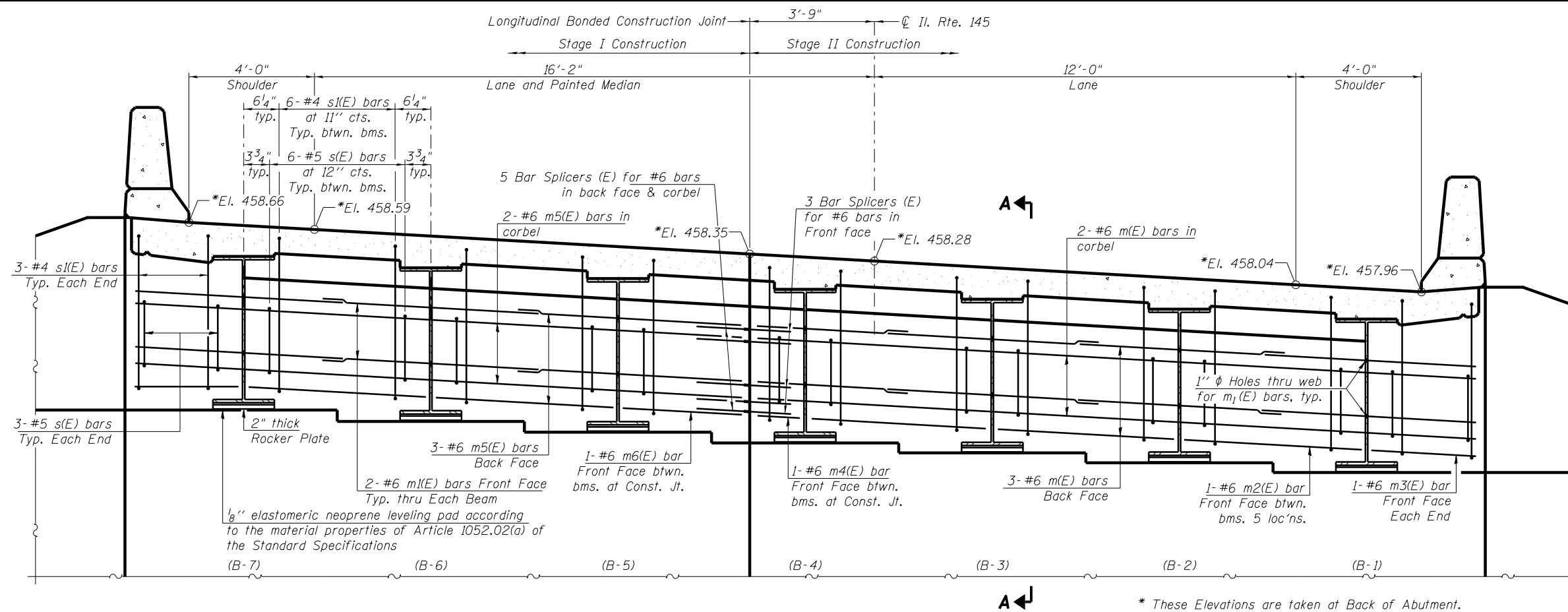
Note:
Cut longitudinal reinforcement to
clear drainage scuppers.

Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SPI 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.

FILE NAME = 0760028-78134.dgn	USER NAME = hufm00028	DESIGNED - BDC	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS (Sheet 2 of 2) STRUCTURE NO. 076-0028	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED - MNM	REVISD -			132	103B-1	Pope	52	37	
	PLOT DATE = 02/22/2012	DRAWN - DAB	REVISD -			CONTRACT NO. 78134					
		CHECKED - TEH	REVISD -			SHEET NO. 13 OF 28 SHEETS					



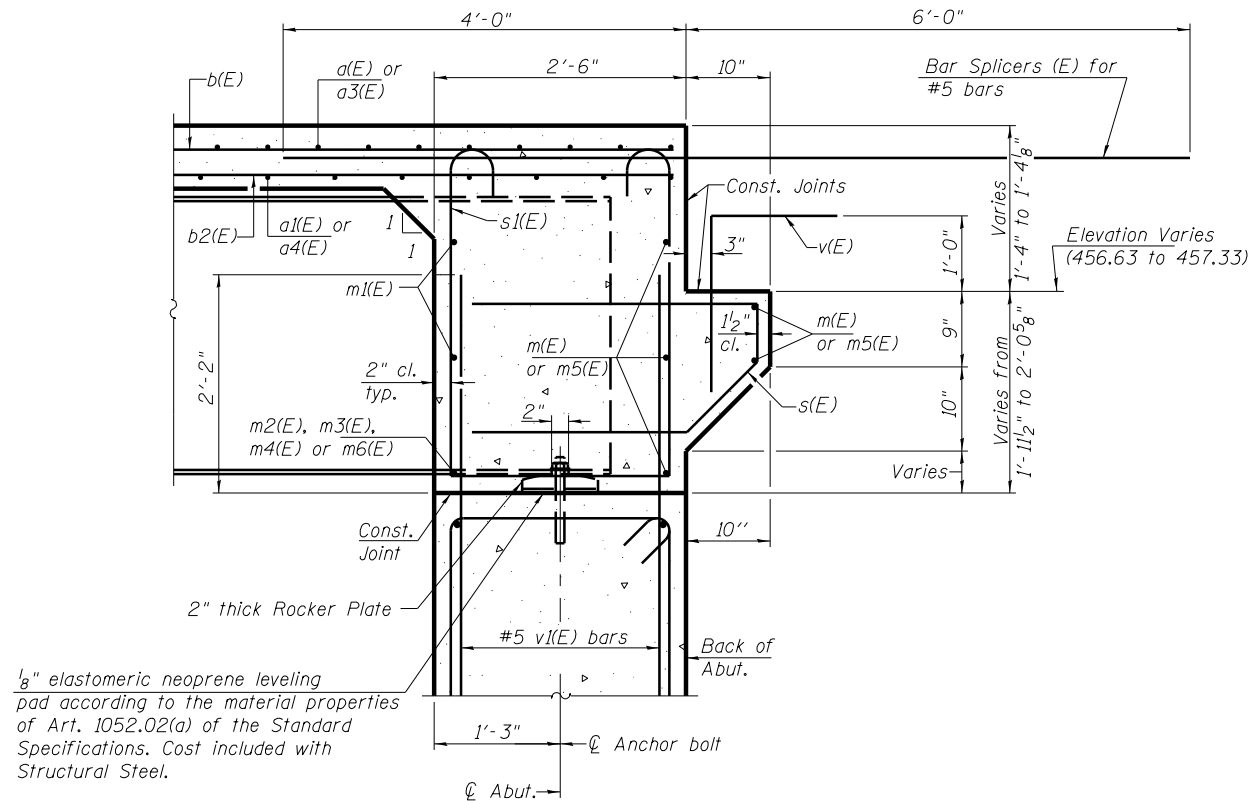
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DIAPHRAGM ELEVATION AT NORTH ABUTMENT

Looking North

* These Elevations are taken at Back of Abutment.



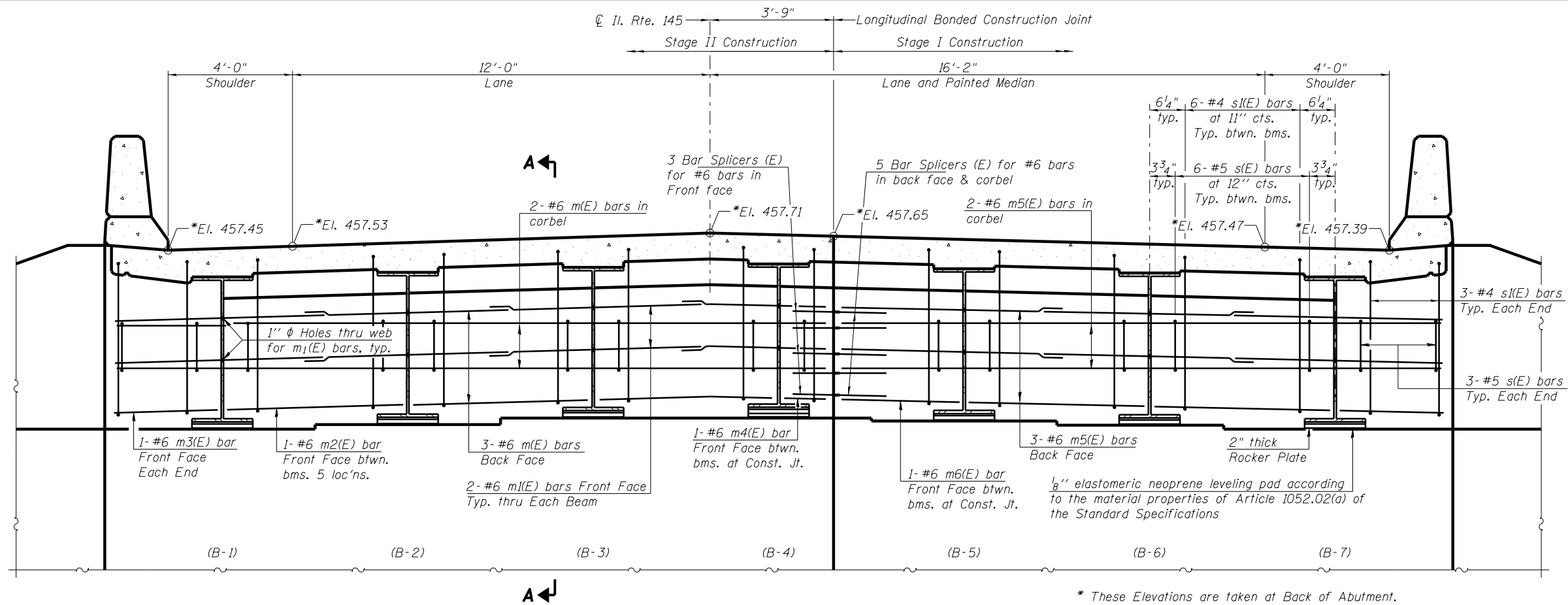
SECTION A-A

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet 12 of 28.
 Concrete in diaphragm is included with Concrete Superstructure on sheet 12 of 28.
 For details of bars s(E) & sl(E) see sheet 12 of 28.
 The s(E) and sl(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

MIN. BAR LAP

#6 bar = 3'-4"

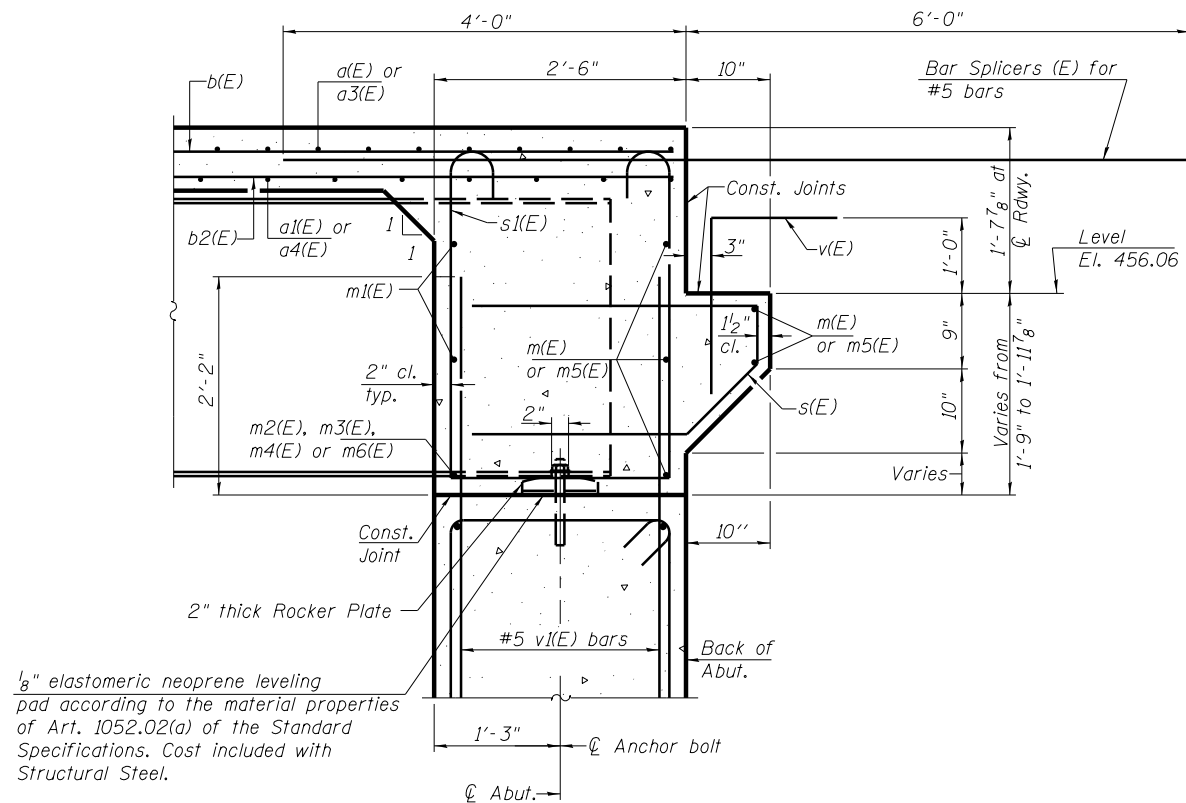
FILE NAME = 0760028-78134.dgn	USER NAME = huffm00028	DESIGNED - DAB	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTEGRAL ABUTMENT DIAPHRAGM DETAILS - NORTH ABUTMENT STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 38	
PLOT SCALE =	DRAWN - DAB and Rod	REVISD -	CONTRACT NO. 78134								
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISD -	SHEET NO. 14 OF 28 SHEETS								
ILLINOIS FED. AID PROJECT											



DIAPHRAGM ELEVATION AT SOUTH ABUTMENT

Looking South

* These Elevations are taken at Back of Abutment.



SECTION A-A

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet 12 of 28.
 Concrete in diaphragm is included with Concrete Superstructure on sheet 12 of 28.
 For details of bars s(E) & s1(E) see sheet 12 of 28.
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 Provide Shim Plate between Bearing and Bearing Pad at Beam #4. See Sheet 21 of 28.

MIN. BAR LAP

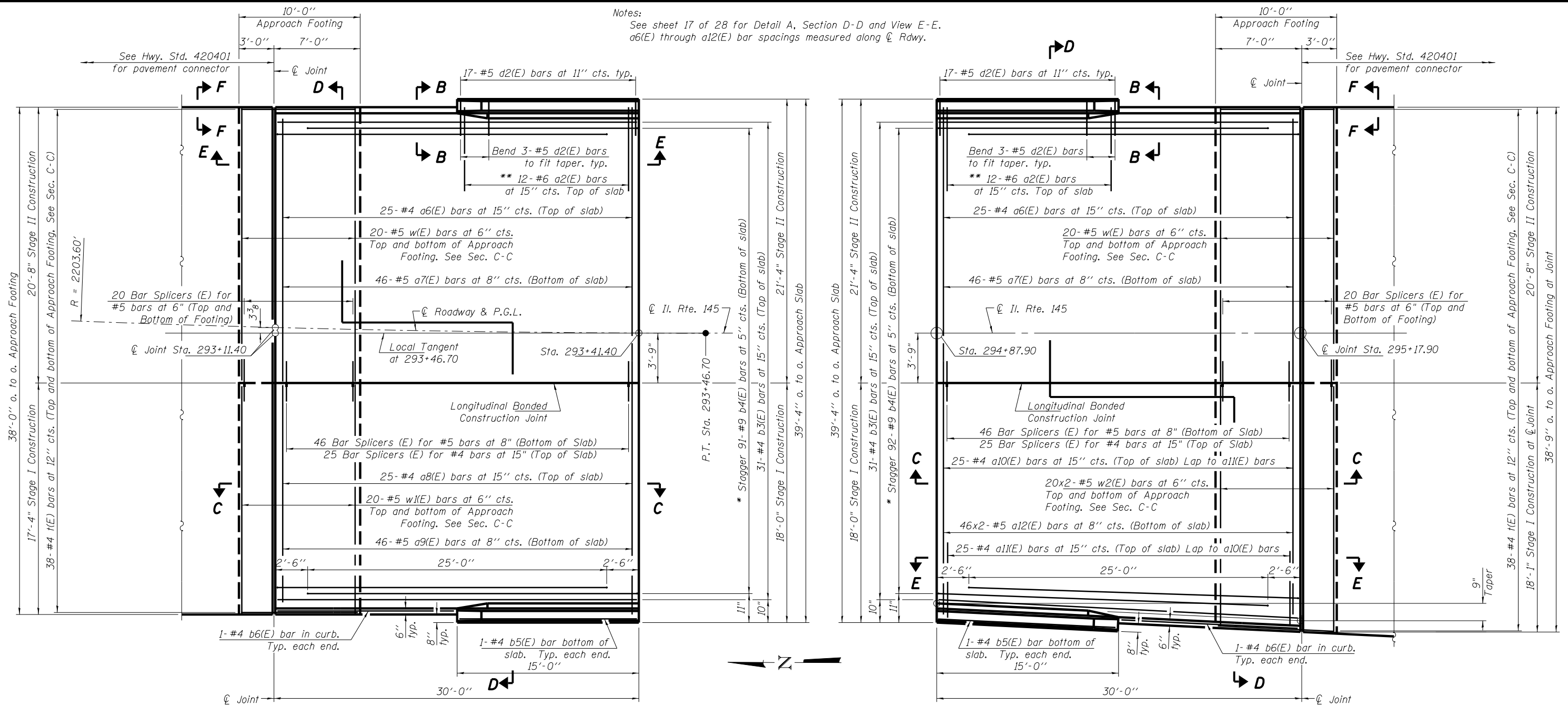
#6 bar = 3'-4"

FILE NAME = 0760028-78134.dgn	USER NAME = hufm00028	DESIGNED - DAB	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTEGRAL ABUTMENT DIAPHRAGM DETAILS - SOUTH ABUTMENT STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 39
PLOT SCALE =	DRAWN - DAB and Rod	REVISIONS -	CONTRACT NO. 78134							
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISIONS -	SHEET NO. 15 OF 28 SHEETS							
						ILLINOIS FED. AID PROJECT				

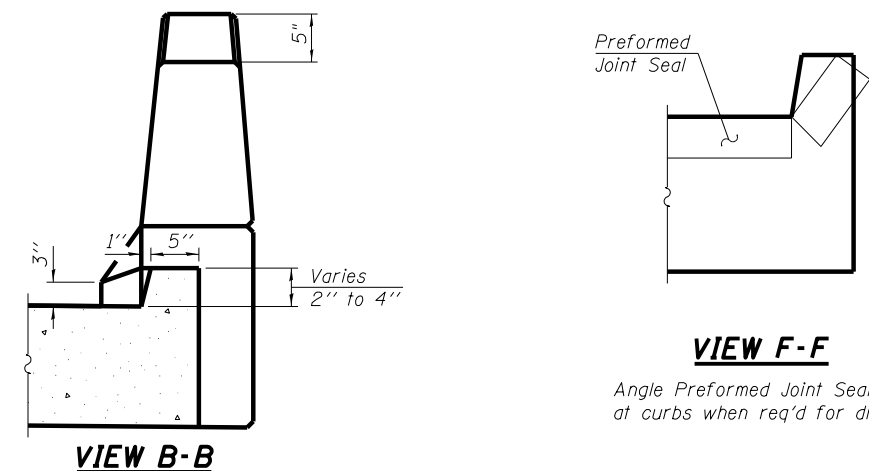
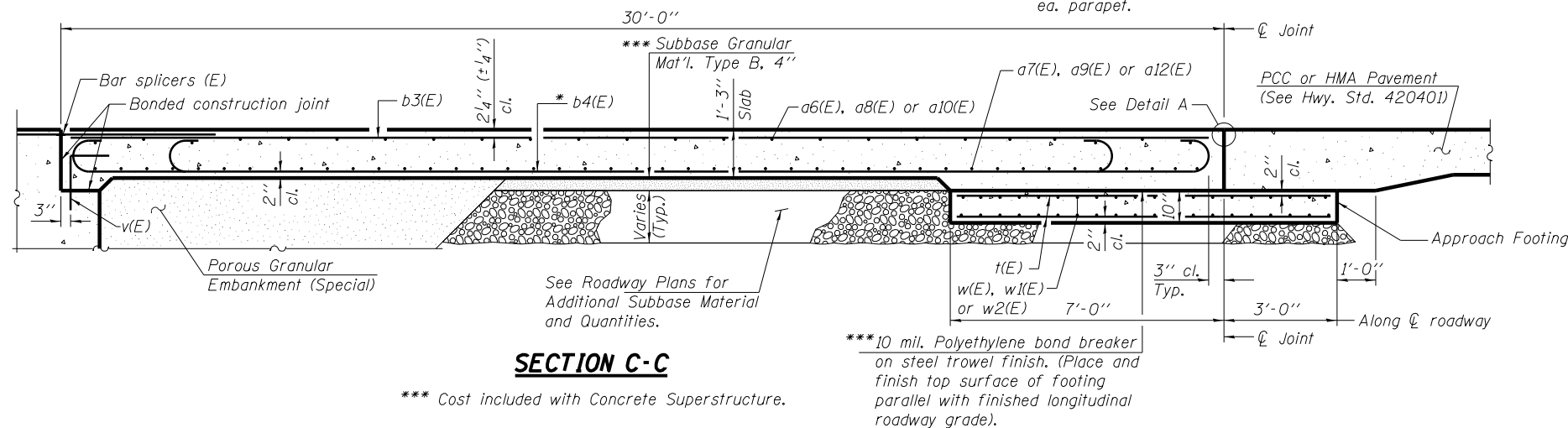


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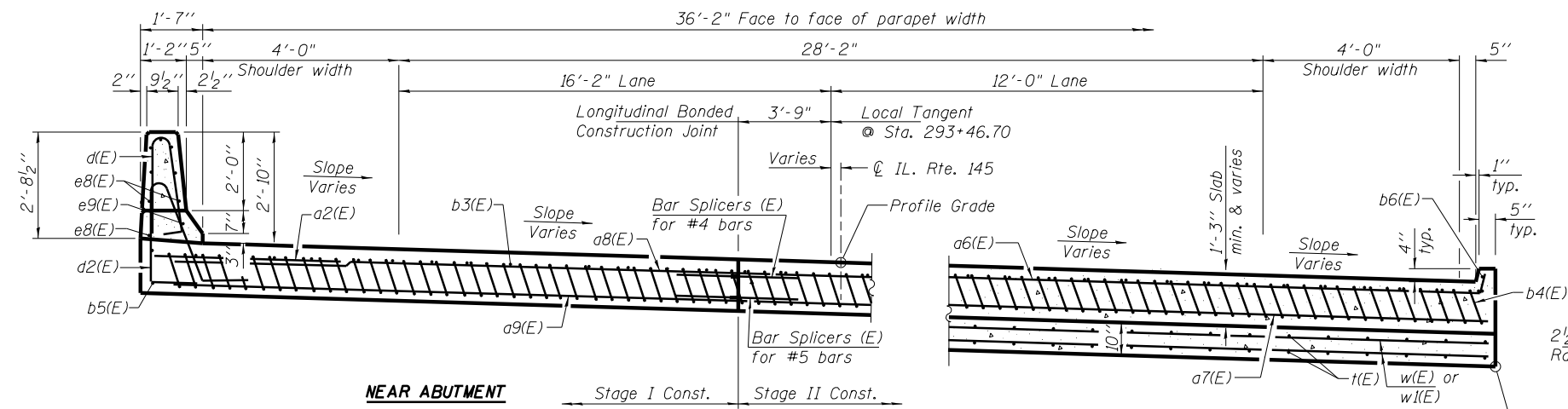
Notes:
 See sheet 17 of 28 for Detail A, Section D-D and View E-E.
 a6(E) through a12(E) bar spacings measured along \bar{C} Rdwy.



* Tilt #9 b4(E) bars as required to maintain clearance.
 ** Space between a6(E), a8(E), a10(E) or a11(E) bars, typ. ea. parapet.

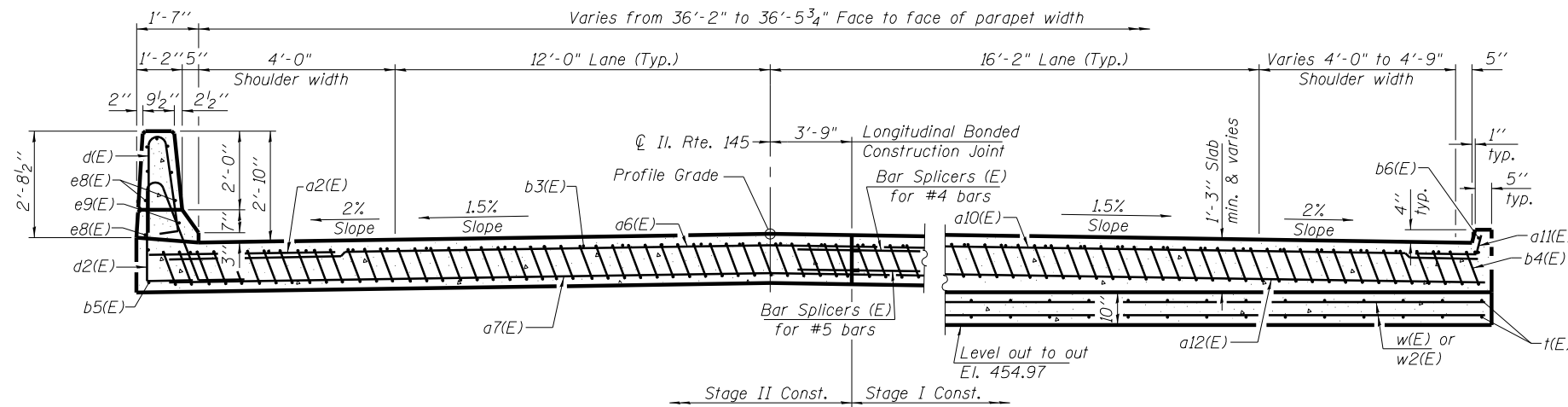


FILE NAME = 0760028-78134.dgn	USER NAME = hmf1m0028	DESIGNED - DAB	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS (Sheet 1 of 2) STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 40	
PLOT SCALE =	DRAWN - DAB	REVISD -	CONTRACT NO. 78134								
PLOT DATE = 02/22/2012	CHECKED - TEH	REVISD -	ILLINOIS FED. AID PROJECT								
SHEET NO. 16 OF 28 SHEETS											



SECTION D-D (NORTH APPROACH)
(See Plan for dimensions not shown)

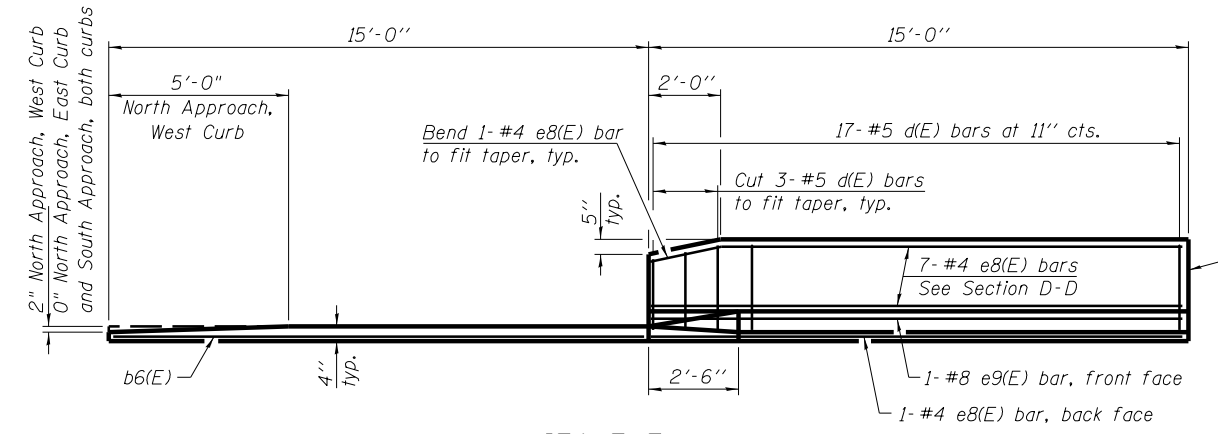
* Tilt #9 b4(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



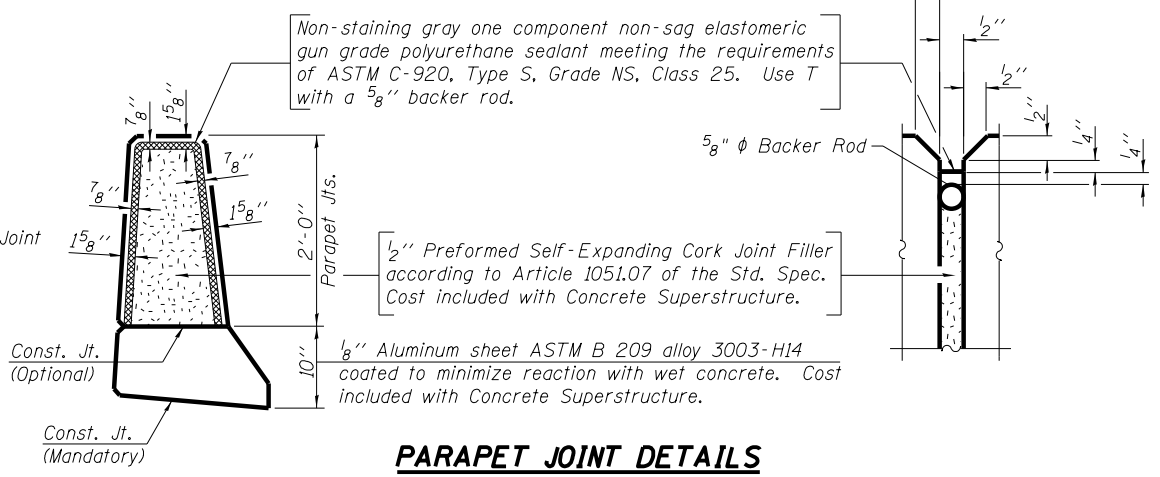
SECTION D-D (SOUTH APPROACH)
(See Plan for dimensions not shown)

NEAR ABUTMENT

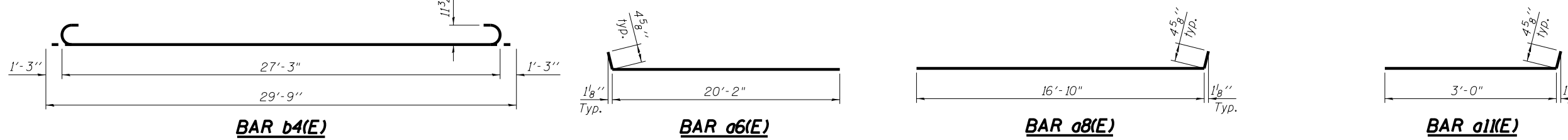
AT APPROACH FOOTING



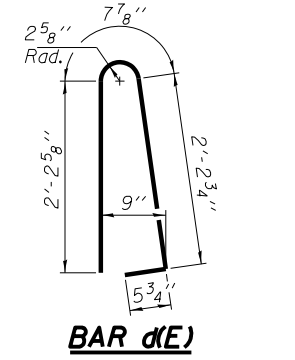
VIEW E-E



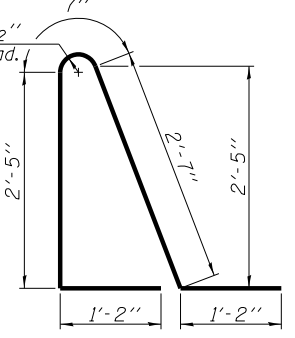
PARAPET JOINT DETAILS



MINIMUM BAR LAP
 #4 bar = 2'-7"
 #5 bar = 3'-3"

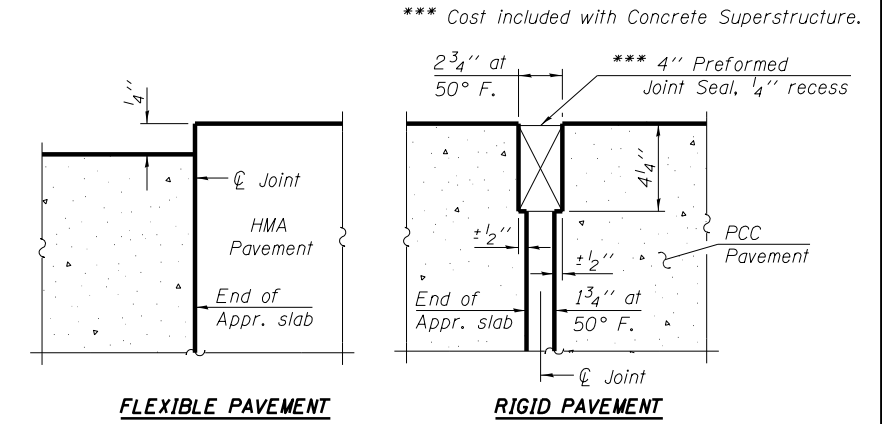


BAR d(E)



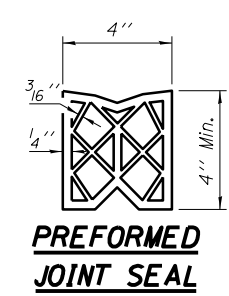
BAR d2(E)

Notes:
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v(E) bar details, see sheet 12 of 28.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet 27 of 28.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 28.
 For additional parapet details, see sheet 12 of 28.



FLEXIBLE PAVEMENT

RIGID PAVEMENT

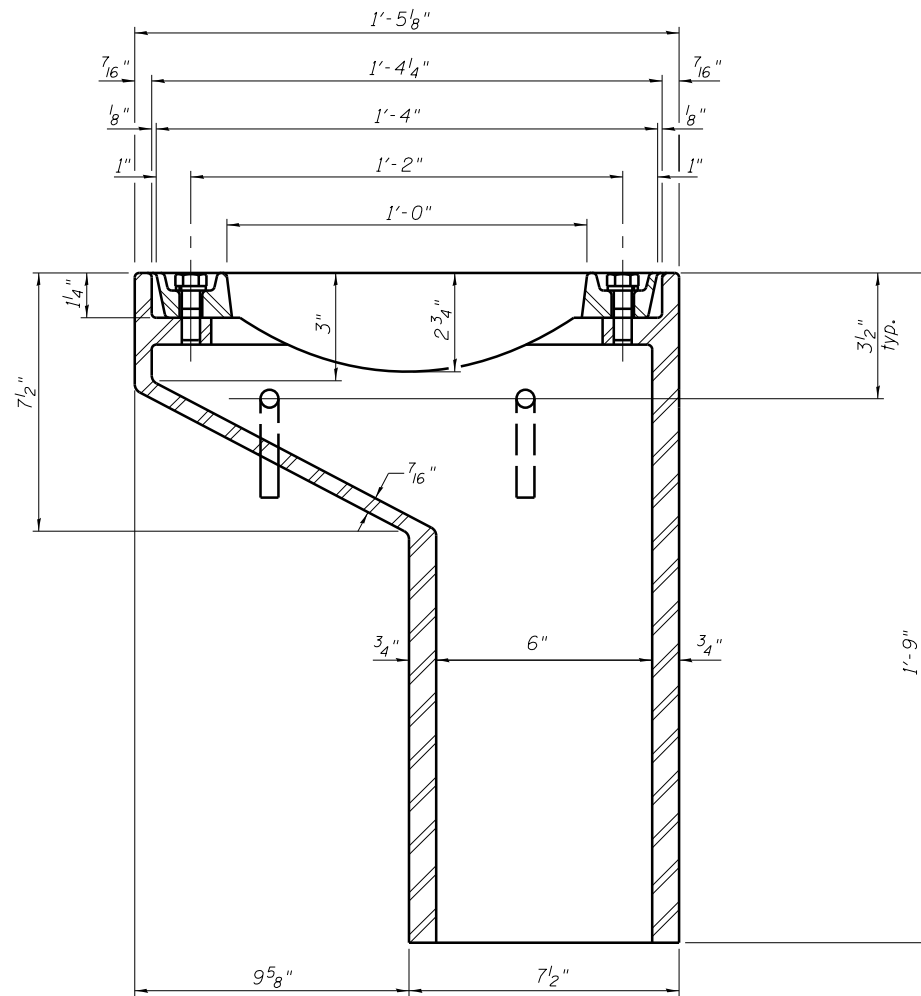
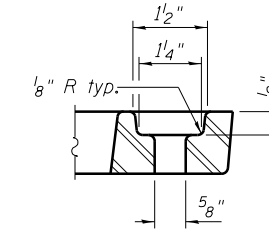
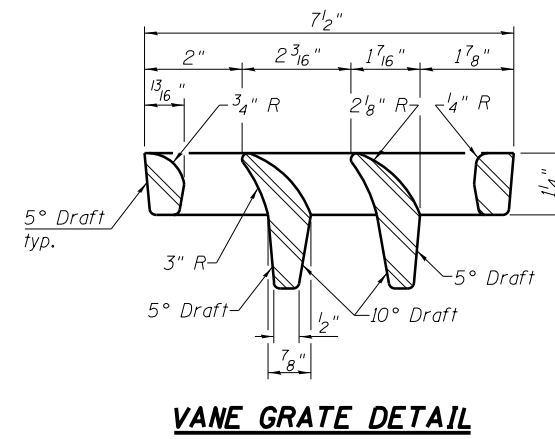
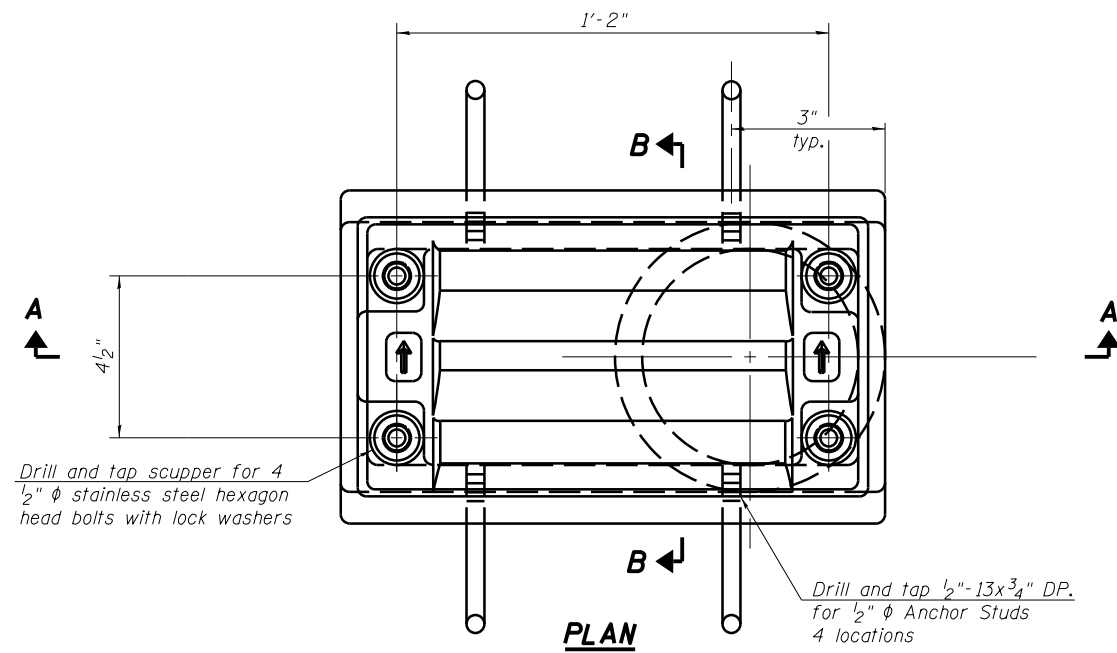


PREFORMED JOINT SEAL

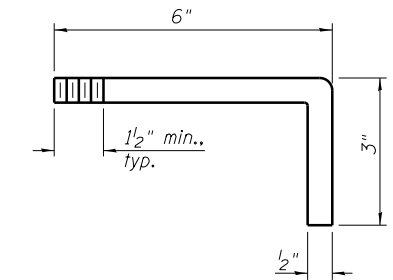
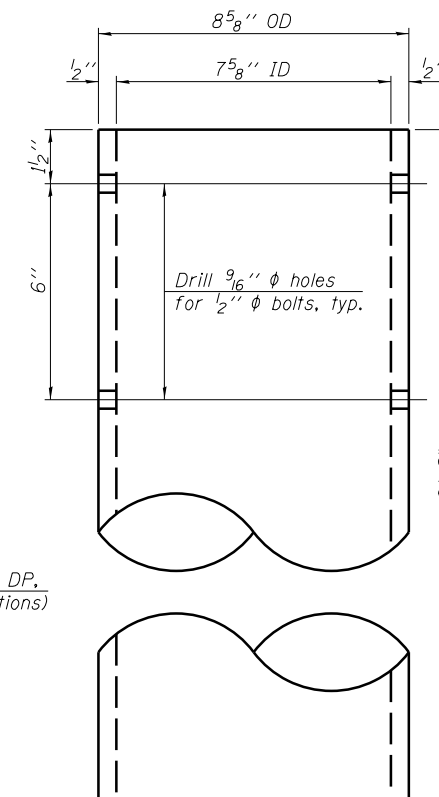
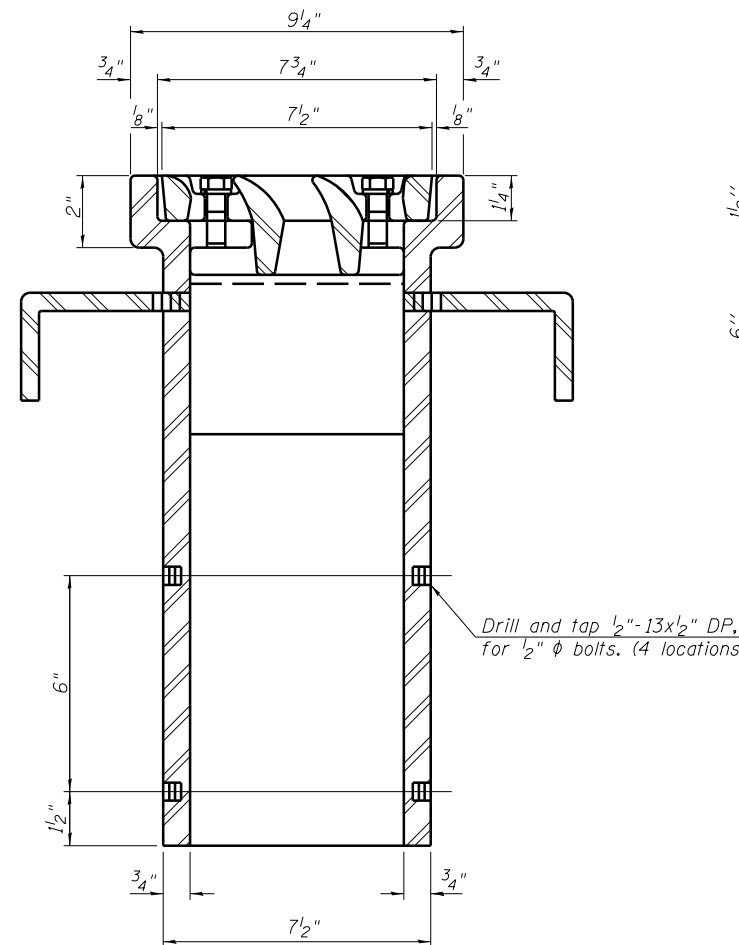
DETAIL A

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a6(E)	50	#4	20'-7"	—
a7(E)	92	#5	20'-4"	—
a8(E)	25	#4	17'-3"	—
a9(E)	46	#5	17'-0"	—
a10(E)	25	#4	17'-0"	—
a11(E)	25	#4	3'-5"	—
a12(E)	92	#5	10'-3"	—
b3(E)	62	#4	29'-8"	—
b4(E)	183	#9	29'-9"	—
b5(E)	4	#4	14'-8"	—
b6(E)	4	#4	14'-7"	—
d(E)	68	#5	5'-7"	—
d2(E)	68	#5	7'-11"	—
e8(E)	32	#4	14'-8"	—
e9(E)	4	#8	14'-8"	—
t(E)	152	#4	9'-8"	—
w(E)	80	#5	20'-4"	—
w1(E)	40	#5	17'-0"	—
w2(E)	80	#5	10'-3"	—
Concrete Superstructure			Cu. Yd.	117.3
Concrete Structures			Cu. Yd.	23.7
Reinforcement Bars, Epoxy Coated			Pound	31020



See sheet 11 & 13 of 28 for scupper location relative to parapet.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	3

DS-11

11-1-09

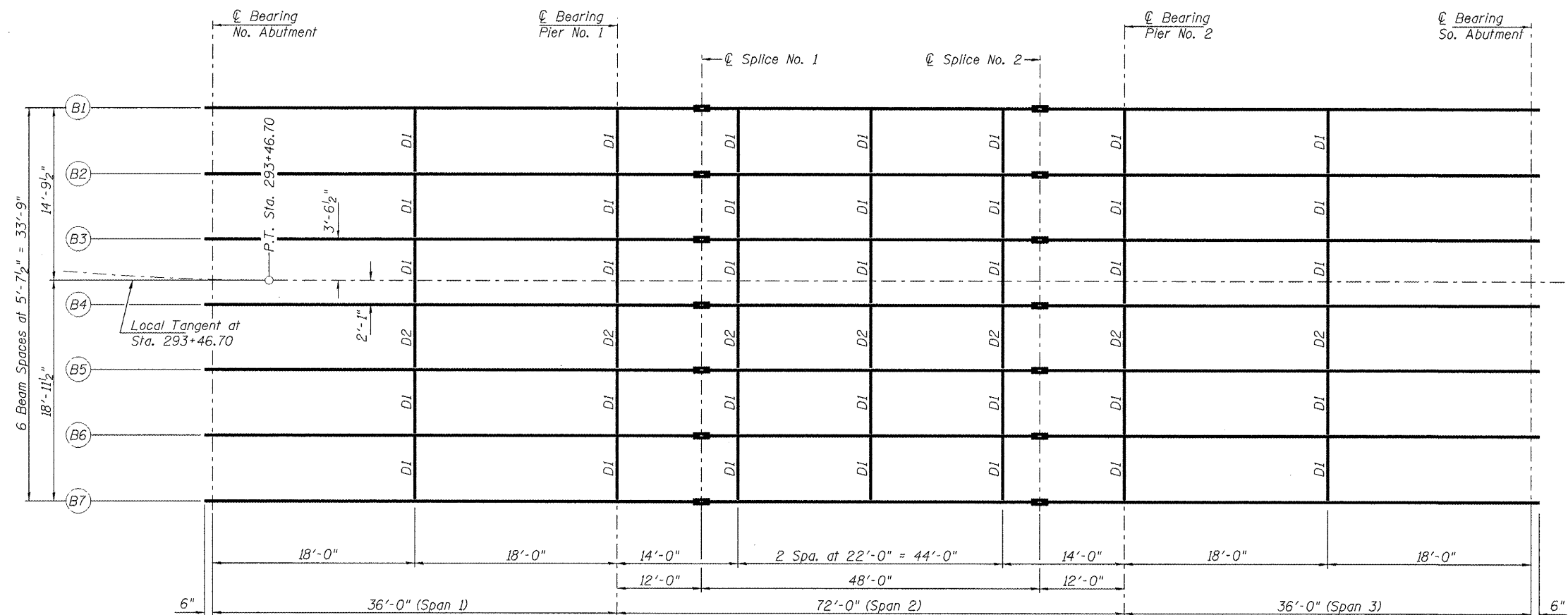
FILE NAME = 0760028-78134.dgn	USER NAME = huf1m00028	DESIGNED - BDC	REVISED -
		CHECKED - MNM	REVISED -
		DRAWN - DAB	REVISED -
		CHECKED - TEH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

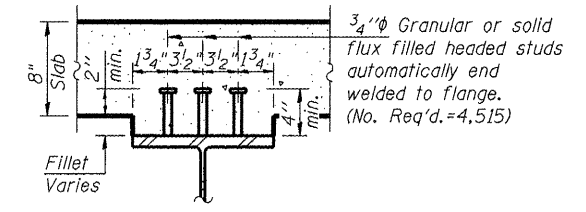
DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 076-0028

SHEET NO. 18 OF 28 SHEETS

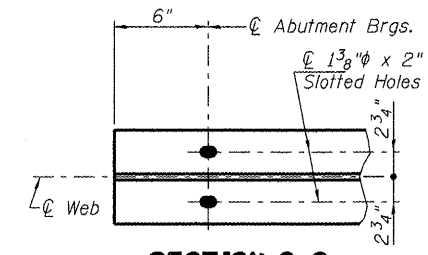
F.A.P. RTE. 132	SECTION 103B-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 42
CONTRACT NO. 78134				
ILLINOIS FED. AID PROJECT				



FRAMING PLAN

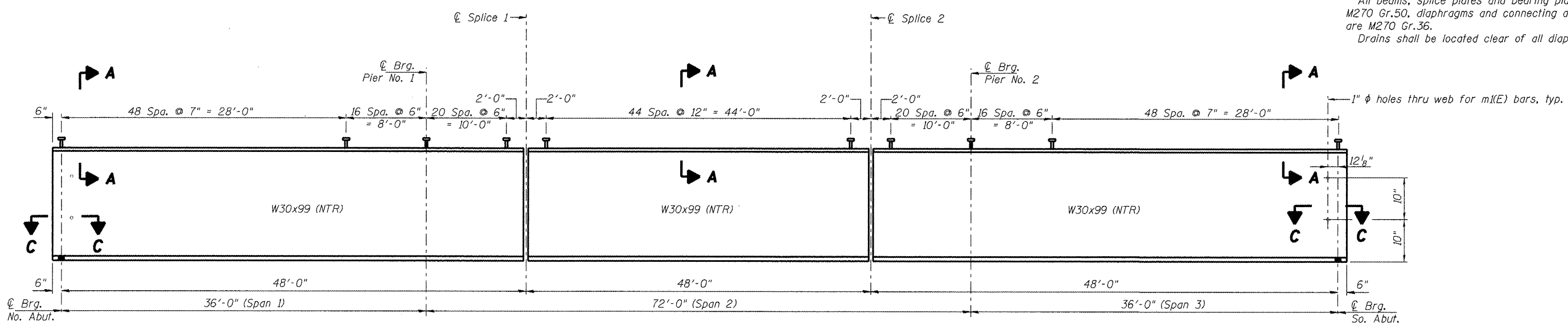


SECTION A-A



SECTION C-C

Notes:
 All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
 All beams, splice plates and bearing plates are M270 Gr.50, diaphragms and connecting angles are M270 Gr.36.
 Drains shall be located clear of all diaphragms.



GIRDER ELEVATION

FILE NAME = 0760028-78134.dgn	USER NAME = hufm00028	DESIGNED - BDC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL STRUCTURE NO. 076-0028	F.A.P. RTE. 132	SECTION 1038-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 43
PLOT SCALE =	DRAWN - DAB	CHECKED - MNM	REVISED -			CONTRACT NO. 78134				
PLOT DATE = 04/24/2012	DRAWN - DAB	CHECKED - TEH	REVISED -			ILLINOIS FED. AID PROJECT				
						SHEET NO. 19 OF 28 SHEETS				

TOP of BEAM ELEVATIONS TABLE

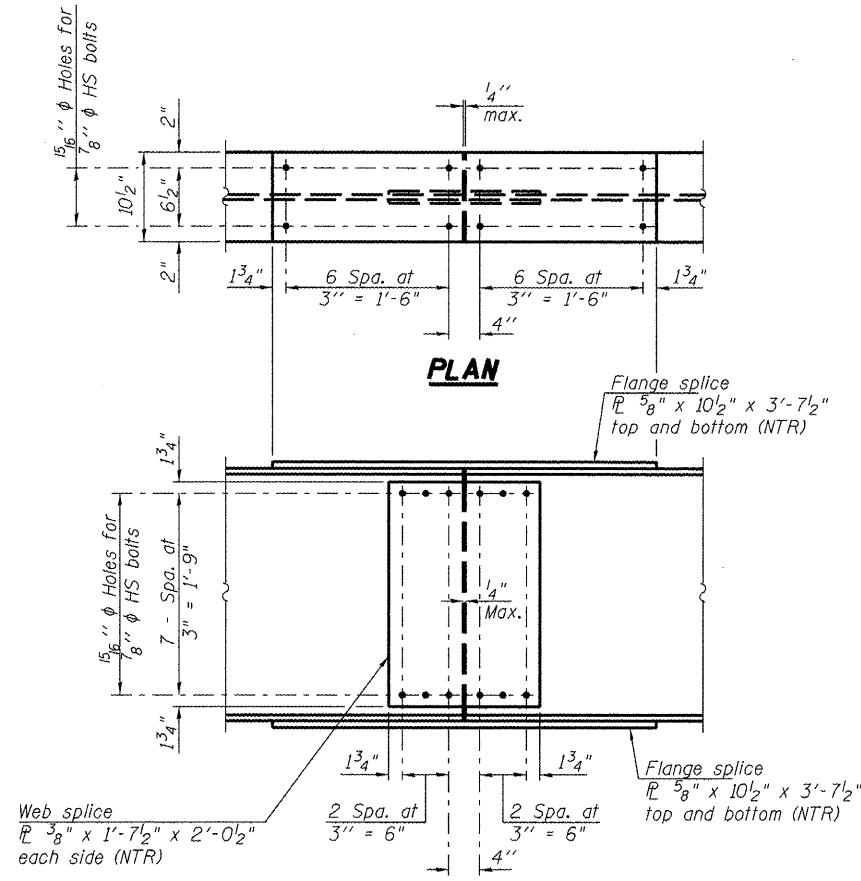
For Fabrication Only

Beam Number	℄ Brg. No. Abut.	℄ Brg. Pier 1	℄ Splice No. 1	℄ Splice No. 2	℄ Brg. Pier 2	℄ Brg. So. Abut.
Beam 1	457.29	457.26	457.26	457.07	457.00	456.78
Beam 2	457.40	457.37	457.36	457.17	457.10	456.88
Beam 3	457.50	457.46	457.44	457.26	457.18	456.96
Beam 4	457.61	457.52	457.49	457.28	457.20	456.98
Beam 5	457.71	457.55	457.49	457.19	457.12	456.90
Beam 6	457.82	457.58	457.49	457.11	457.03	456.81
Beam 7	457.93	457.59	457.48	457.01	456.94	456.72

INTERIOR BEAM MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴) 3990	3990	3990
$I_c(n)$	(in ⁴) 11273	-	11273
$I_c(3n)$	(in ⁴) 8308	-	8308
$I_c(cr)$	(in ⁴) -	5700	-
S_s	(in ³) 269	269	269
$S_c(n)$	(in ³) 409	-	409
$S_c(3n)$	(in ³) 369	-	369
$S_c(cr)$	(in ³) -	317	-
DC1	(k/')	0.687	0.687
M _{DC1}	(k)	7	195
DC2	(k/')	0.130	0.130
M _{DC2}	(k)	1	37
DW	(k/')	0.260	0.260
M _{DW}	(k)	3	74
$M_k + IM$	(k)	322	445
M_u (Strength I)	(k)	577	1293
$\phi_r M_n, \phi_r M_{nc}$	(k)	2165	1487
f_s DC1	(ksi)	0.3	11.18
f_s DC2	(ksi)	0.04	1.79
f_s DW	(ksi)	0.08	3.59
f_s (L+IM)	(ksi)	12.27	21.89
f_s (Service II)	(ksi)	12.69	38.45
$0.95R_n F_y f$	(ksi)	47.50	47.50
Vr	(k)	18.9	23.5

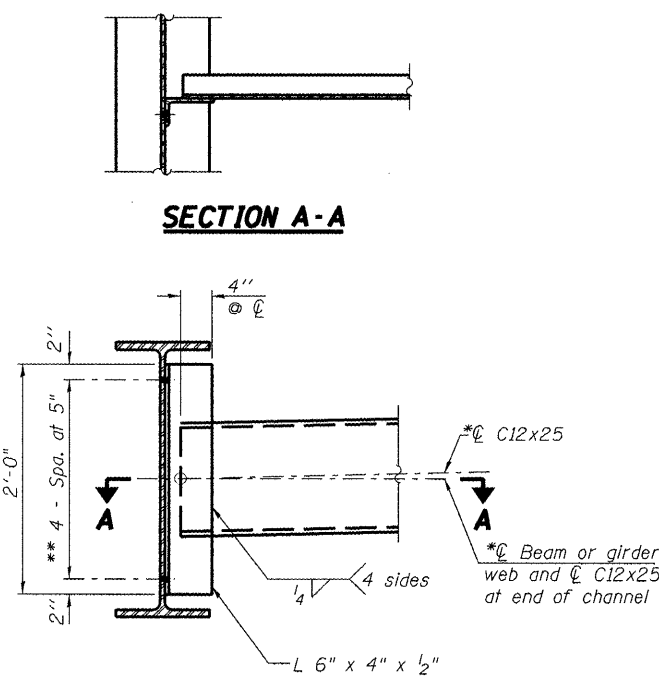
I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
 $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular 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 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.).
 $M_k + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
 M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$
 $\phi_r M_n, \phi_r M_{nc}$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or negative moment capacity computed according to Appendix A6 (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 (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
 $M_k + IM / S_c(3n)$ or $M_k + IM / S_c(cr)$ as applicable.
 f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (L + IM)$
 $0.95R_n F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
 Vr: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

INTERIOR BEAM REACTION TABLE		
	Abuts.	Pier 1 or 2
R _{DC1}	(k) 5.4	44.0
R _{DC2}	(k) 1.0	8.3
R _{DW}	(k) 2.0	16.7
$R_k + IMP$	(k) 50.5	88.1
R _{Total}	(k) 58.9	157.1



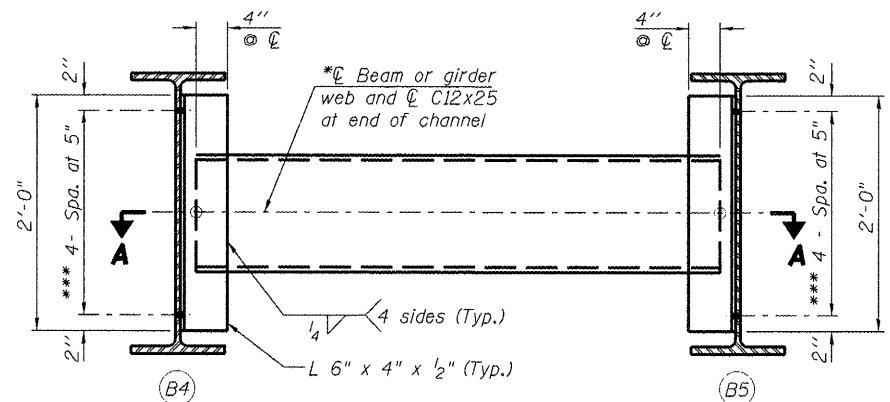
ELEVATION
FIELD SPLICE DETAIL
(14 Required)

Note: Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.



SECTION A-A
INTERIOR DIAPHRAGM D1
(35 Required)

Note:
 Two hardened washers required for each set of oversized holes.
 *Alternate channels C12x30 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.
 ***3/4" φ HS bolts, 1 5/16" φ holes



INTERIOR DIAPHRAGM D2
(7 Required)

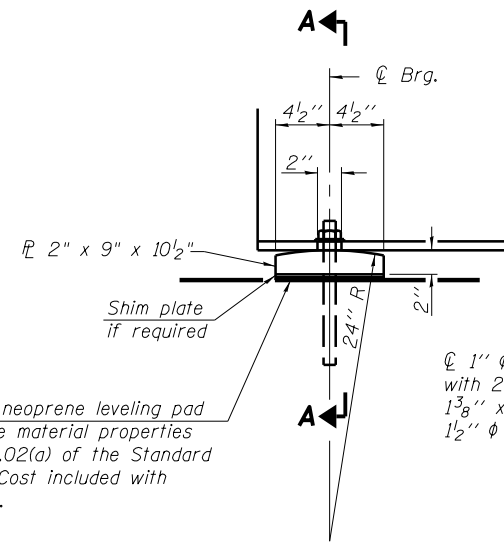
Note:
 *** 3/4" φ H.S. bolts, 1 5/16" φ holes in Beam 5 web and 1 5/16" x 1 7/8" vertically slotted holes in connection angle at Beam 5 end of diaphragm assembly.
 3/4" φ H.S. bolts, 1 5/16" φ holes in all connection parts at Beam 4 end of diaphragm assembly. Other notes on Diaphragm D1 pertain and Section A-A Similar.

FILE NAME = 0760028-78134.dgn	USER NAME = huff00028	DESIGNED - BDC	REVISED -
		CHECKED - MNM	REVISED -
		DRAWN - DAB	REVISED -
		CHECKED - TEH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 076-0028
 SHEET NO. 20 OF 28 SHEETS

F.A.P. RTE. 132	SECTION 1038-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 44
CONTRACT NO. 78134			ILLINOIS FED. AID PROJECT	

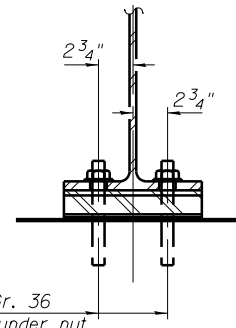


ELEVATION AT ABUTMENT

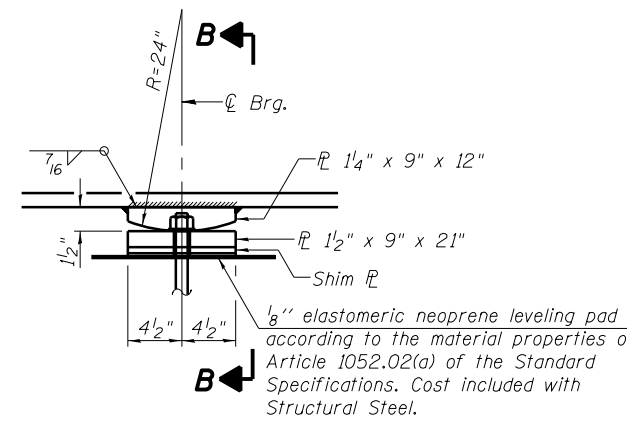
INTEGRAL ABUTMENT FIXED BEARING DETAILS

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

1" ϕ x 12" anchor bolts F1554 Gr. 36 with 2 1/4" x 2 1/4" x 5/16" PL washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2" ϕ holes in bearing plate.

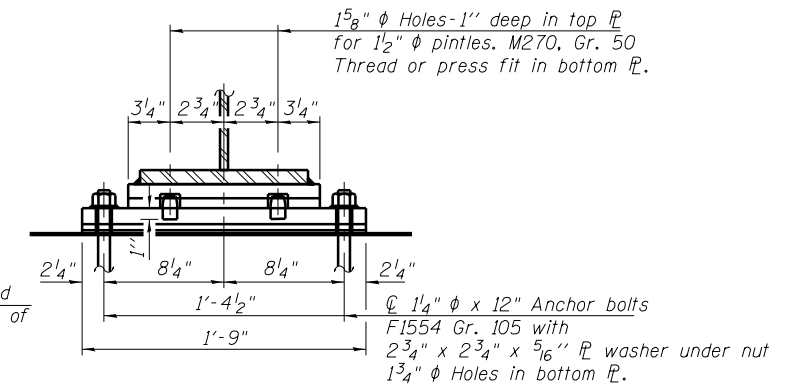


SECTION A-A

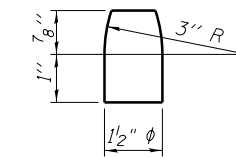


ELEVATION AT PIER

FIXED PIER BEARING DETAILS



SECTION B-B



PINTLE

BEARING SHIM PLATE TABLE

Location	Beam No.	Plate Size
Pier No. 1	B-5	PL 5/16" x 9" x 21"
Pier No. 1	B-6	PL 5/8" x 9" x 21"
Pier No. 2	B-4	PL 1/4" x 9" x 21"
So. Abut.	B-4	PL 1/4" x 9" x 10 1/2"

The above tabled shims are required shims, and should have no effect on the total number of adjusting shims that are to be provided.

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 may be either cast in place or installed in holes drilled after the supported member is in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Steel members required for the bearing assembly shall be included in the cost of Structural Steel.

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.

The anchor bolt lengths shown are the required total lengths for cast-in-place headed anchor bolts. The required total length for the sealed capsule alternate anchor bolt shall be according to the manufacturer's recommendations.

The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.

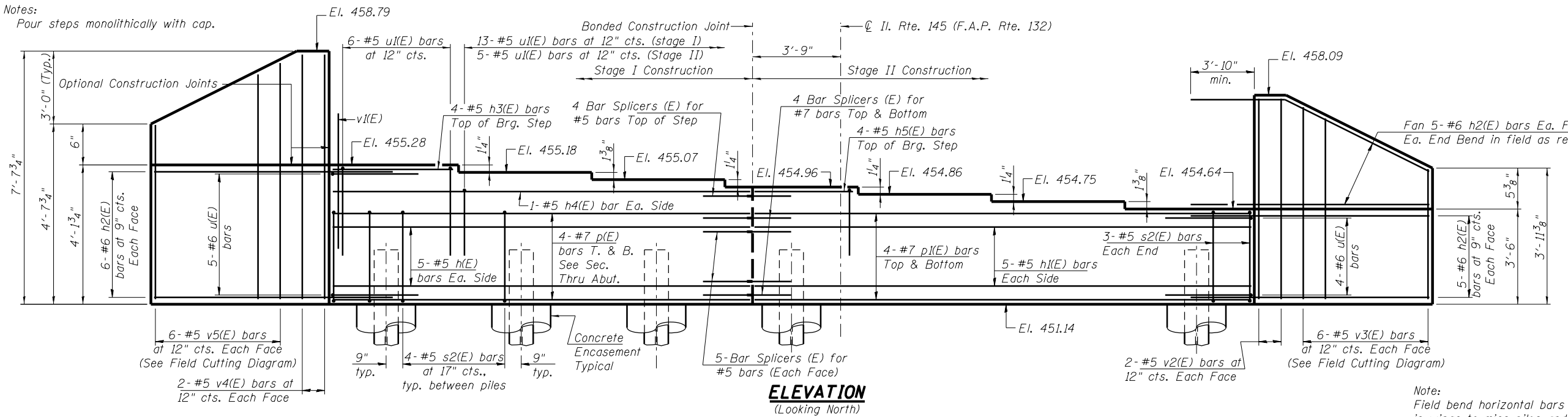
The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL

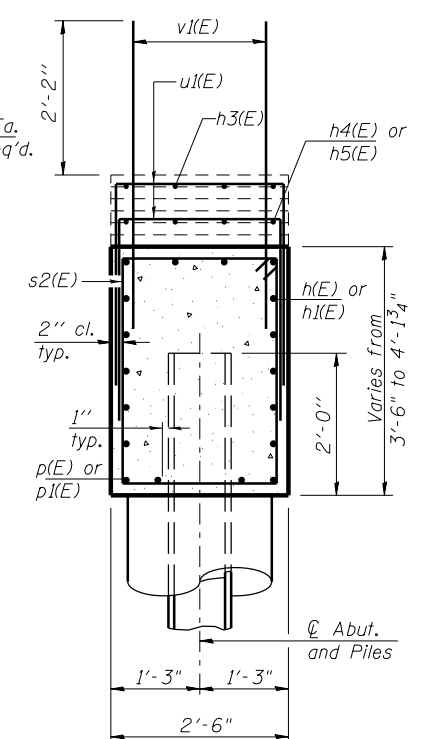
Item	Unit	Total
Anchor Bolts, 1"	Each	28
Anchor Bolts, 1 1/4"	Each	28

Notes:

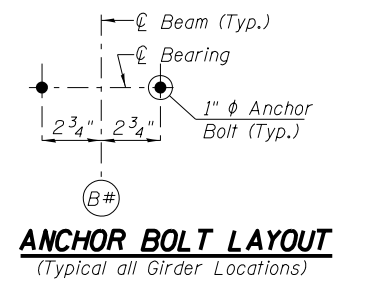
Four steps monolithically with cap.



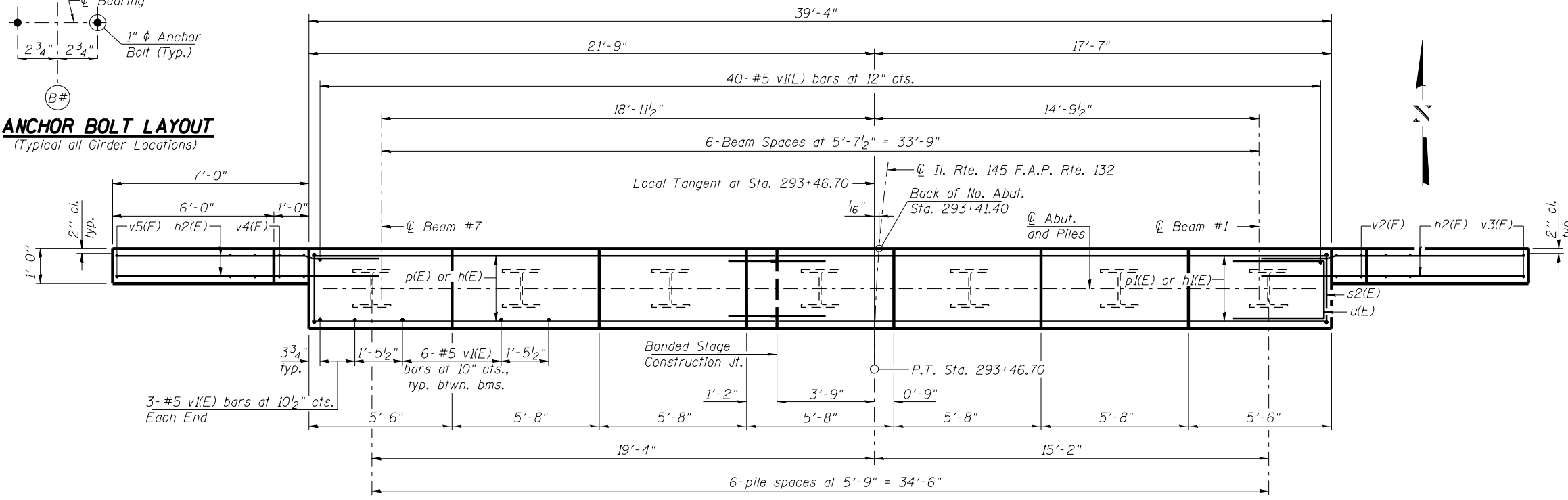
ELEVATION
(Looking North)



SEC. THRU ABUT.



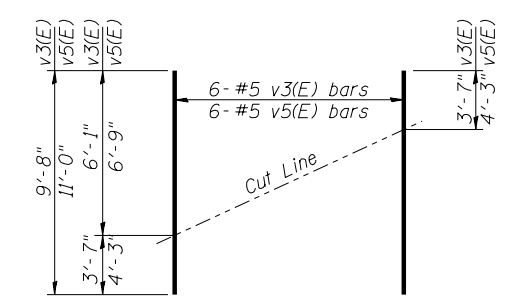
ANCHOR BOLT LAYOUT
(Typical all Girder Locations)



PLAN

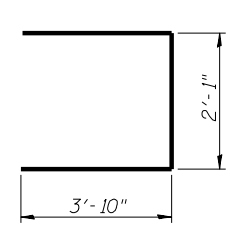
PILE DATA

Type:	HP 12x63
Nominal Required Bearing:	497 kips
Factored Resistance Available:	273 kips
Factored Resistance Available During an Extreme Event I:	497 kips
Est. Length:	35 Feet
No. Production Piles:	6
No. Test Piles:	1 (In Stage I Area)

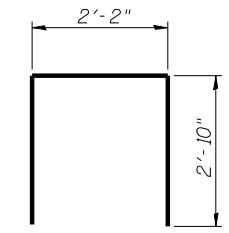


FIELD CUTTING DIAGRAM

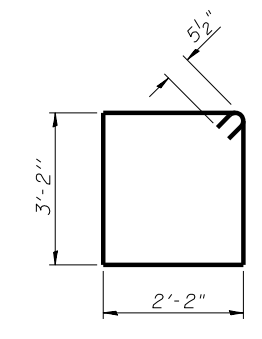
Order v3(E) & v5(E) bars full length. Cut as bars shown and use remainder of bars in opposite face.



BAR u(E)



BAR u(E)

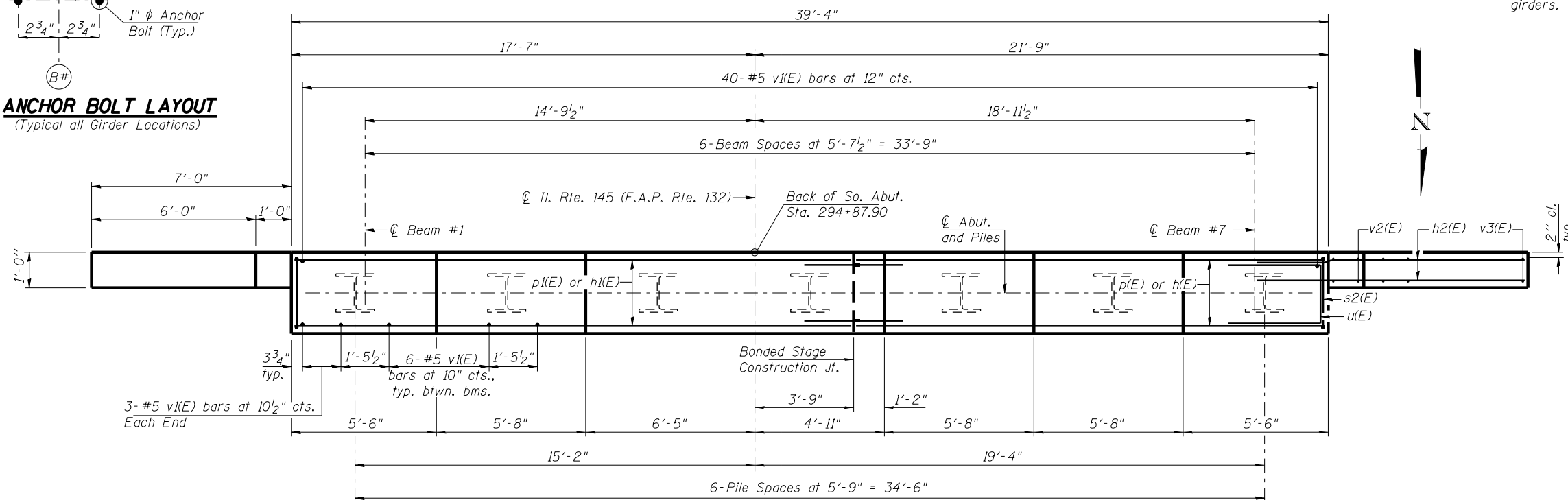
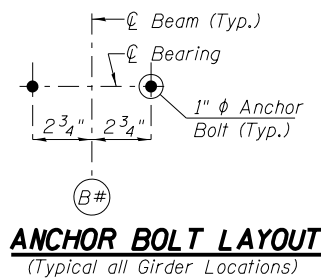
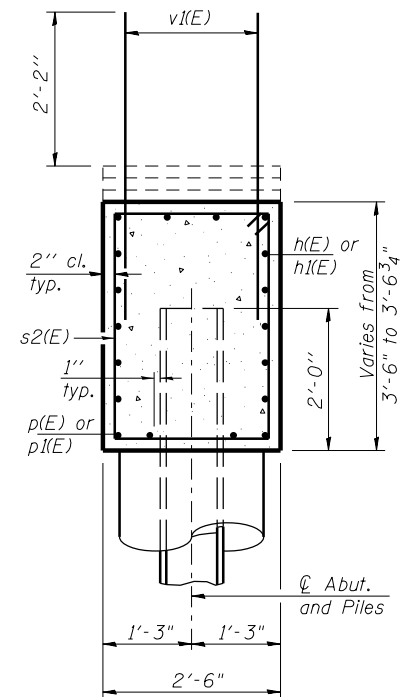
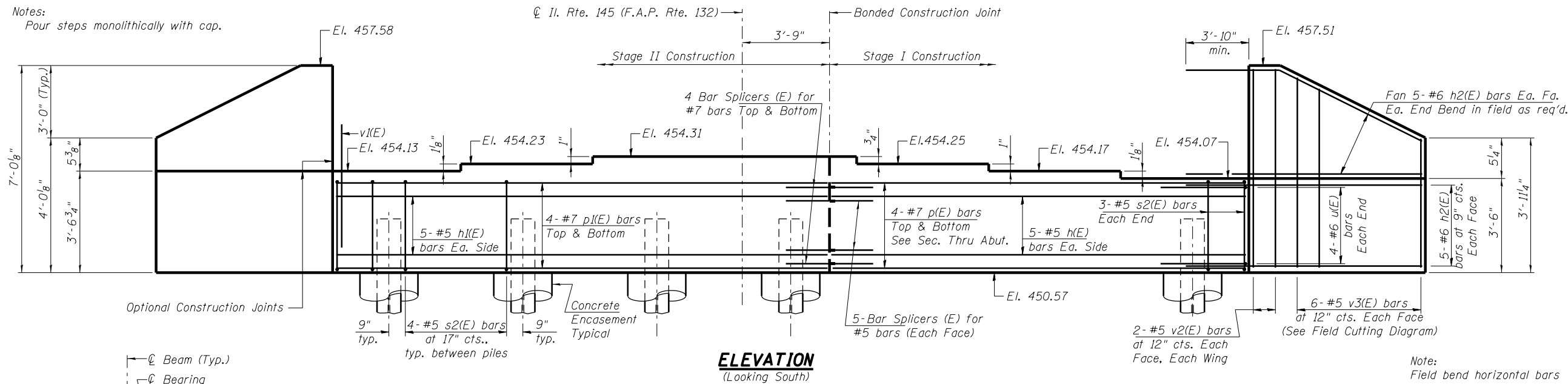


BAR s2(E)

BILL OF MATERIAL (No. Abut.)

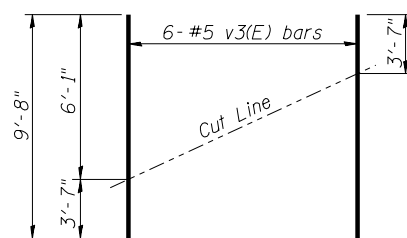
Bar	No.	Size	Length	Shape
h(E)	10	#5	17'-8"	—
h1(E)	10	#5	21'-0"	—
h2(E)	42	#6	10'-10"	—
h3(E)	4	#5	5'-2"	—
h4(E)	2	#5	17'-8"	—
h5(E)	4	#5	4'-2"	—
p(E)	8	#7	17'-8"	—
p1(E)	8	#7	21'-0"	—
s2(E)	30	#5	11'-7"	□
u(E)	9	#6	9'-9"	U
u1(E)	24	#5	7'-10"	U
v1(E)	82	#5	4'-4"	—
v2(E)	4	#5	6'-7"	—
v3(E)	6	#5	9'-8"	—
v4(E)	4	#5	7'-3"	—
v5(E)	6	#5	11'-0"	—
Structure Excavation		Cu. Yd.	84	
Concrete Structures		Cu. Yd.	17.0	
Reinforcement Bars, Epoxy Coated		Pound	3040	
Furnishing Steel Piles, HP12x63		Foot	210	
Driving Piles		Foot	210	
Test Pile, HP12x63		Each	1	
Concrete Encasement		Cu. Yd.	2.4	

For details of Bar Splicers, see sheet 27 of 28.
 For details of piles and Concrete Encasement, see sheet 26 of 28.



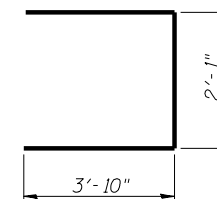
PILE DATA

Type: HP 12x63
 Nominal Required Bearing: 497 kips
 Factored Resistance Available: 273 kips
 Factored Resistance Available During an Extreme Event I: 497 kips
 Est. Length: 34 Feet
 No. Production Piles: 6
 No. Test Piles: 1 (In Stage I Area)

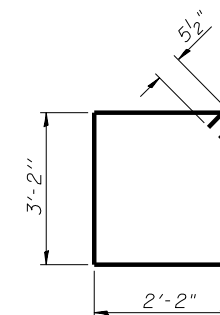


FIELD CUTTING DIAGRAM

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



BAR u(E)



BAR s2(E)

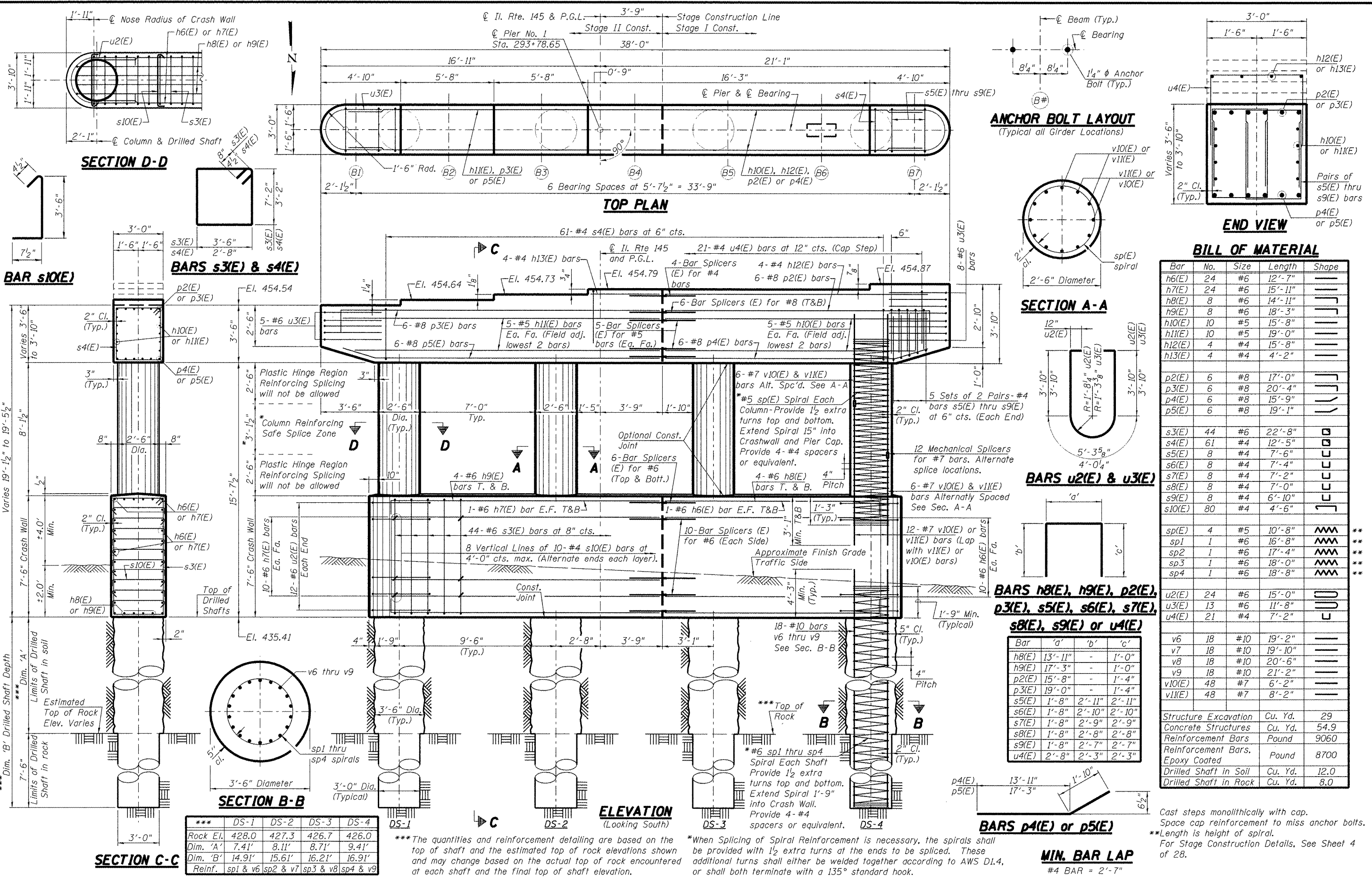
BILL OF MATERIAL (So. Abut.)

Bar	No.	Size	Length	Shape
h(E)	10	#5	17'-8"	—
h1(E)	10	#5	21'-0"	—
h2(E)	40	#6	10'-10"	—
p(E)	8	#7	17'-8"	—
p1(E)	8	#7	21'-0"	—
s2(E)	30	#5	11'-7"	□
u(E)	8	#6	9'-9"	□
v1(E)	82	#5	4'-4"	—
v2(E)	8	#5	6'-7"	—
v3(E)	12	#5	9'-8"	—
Structure Excavation			Cu. Yd.	82
Concrete Structures			Cu. Yd.	16.2
Reinforcement Bars, Epoxy Coated			Pound	2710
Furnishing Steel Piles, HP12x63			Foot	204
Driving Piles			Foot	204
Test Pile, HP12x63			Each	1
Concrete Encasement			Cu. Yd.	2.4

For details of Bar Splicers, see sheet 27 of 28. For details of piles and Concrete Encasement, see sheet 26 of 28.



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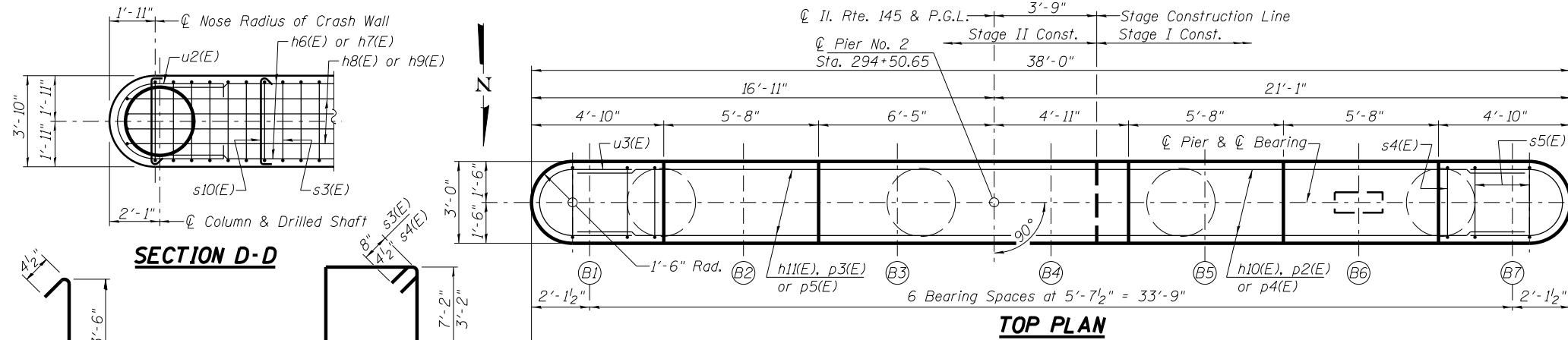
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	24	#6	12'-7"	
h7(E)	24	#6	15'-11"	
h8(E)	8	#6	14'-11"	
h9(E)	8	#6	18'-3"	
h10(E)	10	#5	15'-8"	
h11(E)	10	#5	19'-0"	
h12(E)	4	#4	15'-8"	
h13(E)	4	#4	4'-2"	
p2(E)	6	#8	17'-0"	
p3(E)	6	#8	20'-4"	
p4(E)	6	#8	15'-9"	
p5(E)	6	#8	19'-1"	
s3(E)	44	#6	22'-8"	
s4(E)	61	#4	12'-5"	
s5(E)	8	#4	7'-6"	
s6(E)	8	#4	7'-4"	
s7(E)	8	#4	7'-2"	
s8(E)	8	#4	7'-0"	
s9(E)	8	#4	6'-10"	
s10(E)	80	#4	4'-6"	
u2(E)	24	#6	15'-0"	
u3(E)	13	#6	11'-8"	
u4(E)	21	#4	7'-2"	
v6	18	#10	19'-2"	
v7	18	#10	19'-10"	
v8	18	#10	20'-6"	
v9	18	#10	21'-2"	
v10(E)	48	#7	6'-2"	
v11(E)	48	#7	8'-2"	
sp(E)	4	#5	10'-8"	
sp1	1	#6	16'-8"	
sp2	1	#6	17'-4"	
sp3	1	#6	18'-0"	
sp4	1	#6	18'-8"	
Structure Excavation		Cu. Yd.	29	
Concrete Structures		Cu. Yd.	54.9	
Reinforcement Bars		Pound	9060	
Reinforcement Bars, Epoxy Coated		Pound	8700	
Drilled Shaft in Soil		Cu. Yd.	12.0	
Drilled Shaft in Rock		Cu. Yd.	8.0	

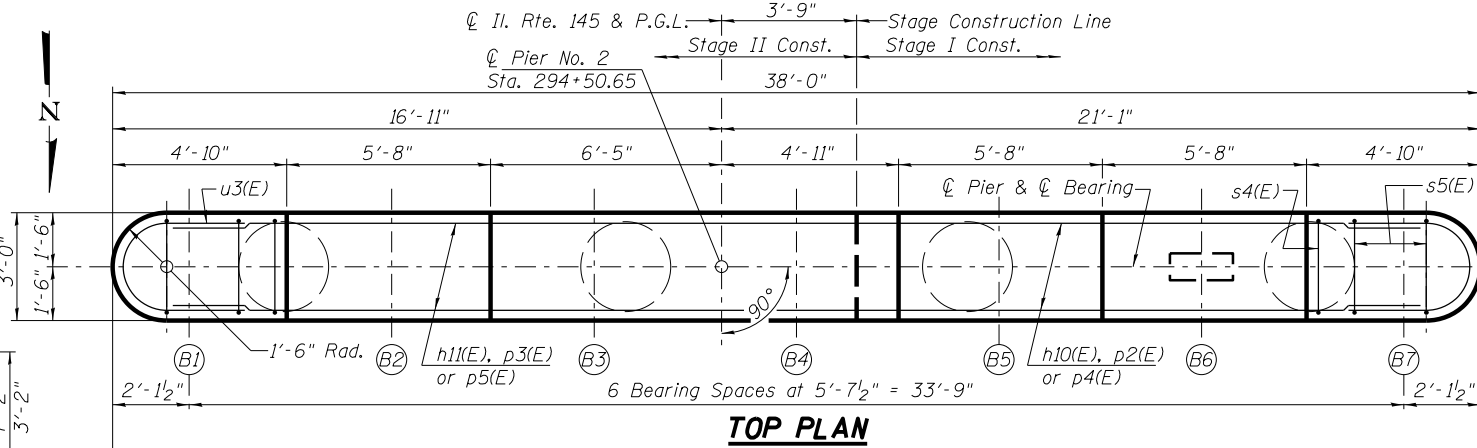
***	DS-1	DS-2	DS-3	DS-4
Rock El.	428.0	427.3	426.7	426.0
Dim. 'A'	7.41'	8.11'	8.71'	9.41'
Dim. 'B'	14.91'	15.61'	16.21'	16.91'
Reinf.	sp1 & v6	sp2 & v7	sp3 & v8	sp4 & v9

***The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.

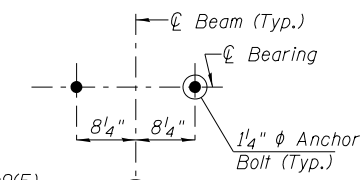
***When Splicing of Spiral Reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.



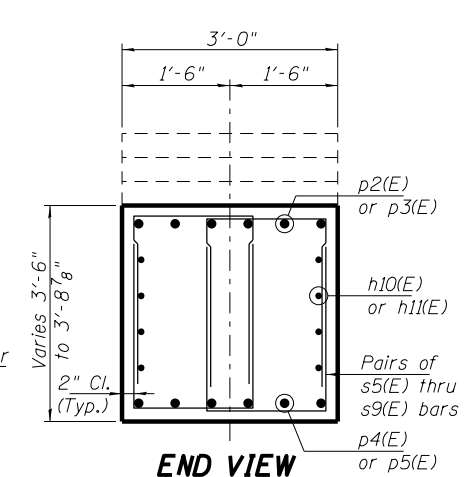
SECTION D-D



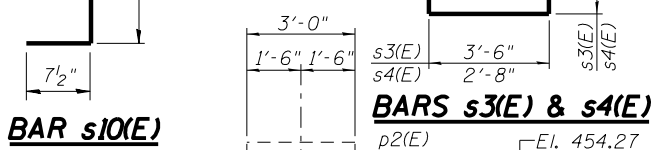
TOP PLAN



ANCHOR BOLT LAYOUT
(Typical all Girder Locations)

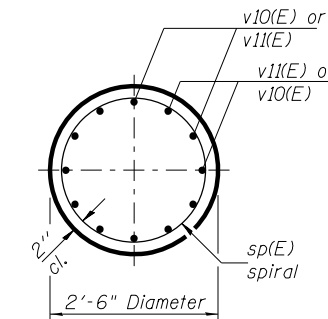


END VIEW

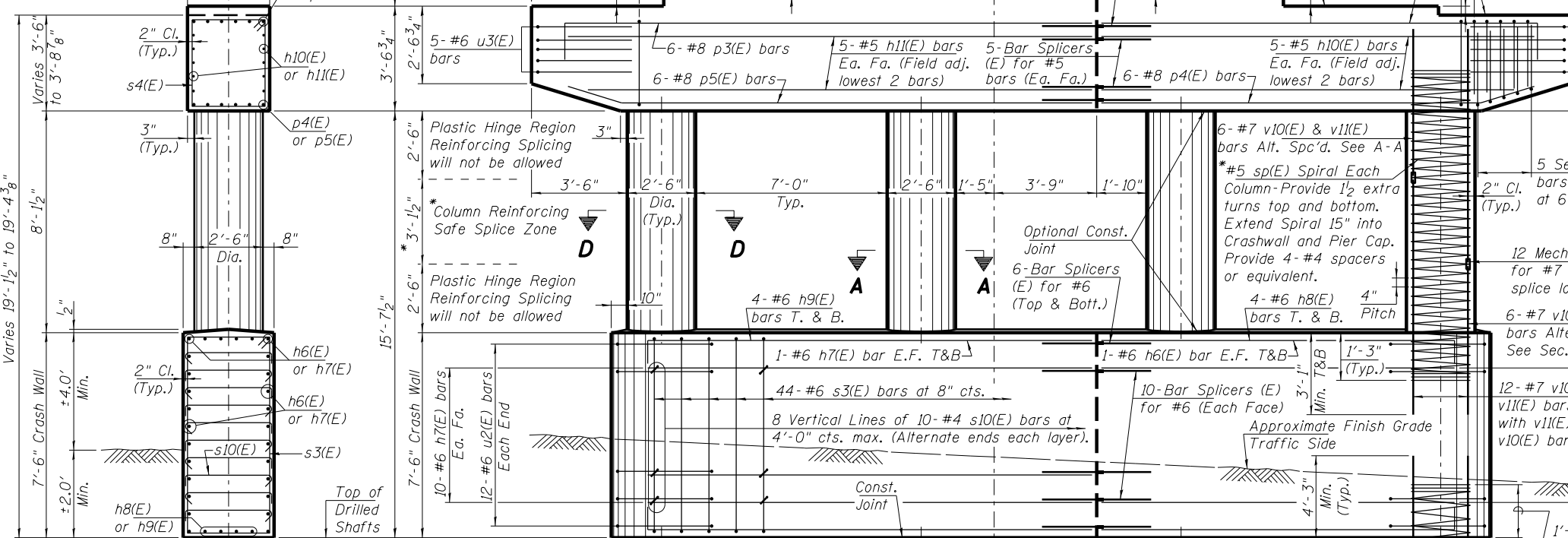


BARS s3(E) & s4(E)

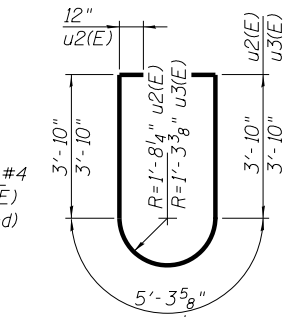
BAR s10(E)



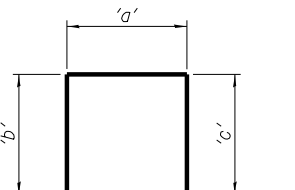
SECTION A-A



ELEVATION
(Looking South)



BARS u2(E) & u3(E)



BARS h8(E), h9(E), p2(E), p3(E), s5(E), s6(E), s7(E), s8(E) or s9(E)

Bar	'a'	'b'	'c'
h8(E)	13'-11"	-	1'-0"
h9(E)	17'-3"	-	1'-0"
p2(E)	15'-8"	-	1'-4"
p3(E)	19'-0"	-	1'-4"
s5(E)	1'-8"	2'-11"	2'-11"
s6(E)	1'-8"	2'-10"	2'-10"
s7(E)	1'-8"	2'-9"	2'-9"
s8(E)	1'-8"	2'-8"	2'-8"
s9(E)	1'-8"	2'-7"	2'-7"

BARS p4(E) or p5(E)

MIN. BAR LAP
#4 BAR = 2'-7"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	24	#6	12'-7"	—
h7(E)	24	#6	15'-11"	—
h8(E)	8	#6	14'-11"	—
h9(E)	8	#6	18'-3"	—
h10(E)	10	#5	15'-8"	—
h11(E)	10	#5	19'-0"	—
p2(E)	6	#8	17'-0"	—
p3(E)	6	#8	20'-4"	—
p4(E)	6	#8	15'-9"	—
p5(E)	6	#8	19'-1"	—
s3(E)	44	#6	22'-8"	—
s4(E)	61	#4	12'-5"	—
s5(E)	8	#4	7'-6"	—
s6(E)	8	#4	7'-4"	—
s7(E)	8	#4	7'-2"	—
s8(E)	8	#4	7'-0"	—
s9(E)	8	#4	6'-10"	—
s10(E)	80	#4	4'-6"	—
sp(E)	4	#5	10'-8"	—
sp1	1	#6	16'-8"	—
sp3	1	#6	18'-0"	—
sp5	1	#6	15'-4"	—
sp6	1	#6	19'-4"	—
u2(E)	24	#6	15'-0"	—
u3(E)	10	#6	11'-8"	—
v10(E)	48	#7	6'-2"	—
v11(E)	48	#7	8'-2"	—
v6	18	#10	19'-2"	—
v8	18	#10	20'-6"	—
v12	18	#10	17'-10"	—
v13	18	#10	21'-10"	—
Structure Excavation		Cu. Yd.	29	
Concrete Structures		Cu. Yd.	54.7	
Reinforcement Bars		Pound	8910	
Reinforcement Bars, Epoxy Coated		Pound	8500	
Drilled Shaft in Soil		Cu. Yd.	12.0	
Drilled Shaft in Rock		Cu. Yd.	8.0	

Cast steps monolithically with cap.
 Space cap reinforcement to miss anchor bolts.
 **Length is height of spiral.
 For Stage Construction Details, See Sheet 4 of 28.

***	DS-5	DS-6	DS-7	DS-8
Rock El.	429.0	427.7	426.3	425.0
Dim. 'A'	6.09	7.39	8.79	10.09
Dim. 'B'	13.59	14.89	16.29	17.59
Reinf.	sp5 & v12	sp1 & v6	sp3 & v8	sp6 & v13

***The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.

***When Splicing of Spiral Reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

FILE NAME = 0760028-78134.dgn

USER NAME = hufm00208
 PLOT SCALE =
 PLOT DATE = 02/22/2012

DESIGNED - BDC
 CHECKED - MNM
 DRAWN - Rod
 CHECKED - TEH

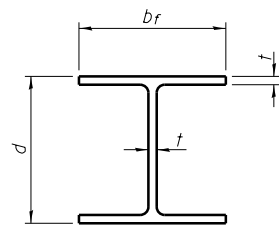
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 2
 STRUCTURE NO. 076-0028

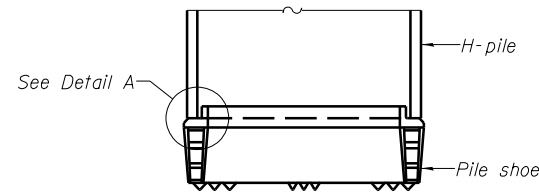
SHEET NO. 25 OF 28 SHEETS

F.A.P. RTE. 132 SECTION 103B-1 COUNTY Pope TOTAL SHEETS 52 SHEET NO. 49 CONTRACT NO. 78134 ILLINOIS FED. AID PROJECT

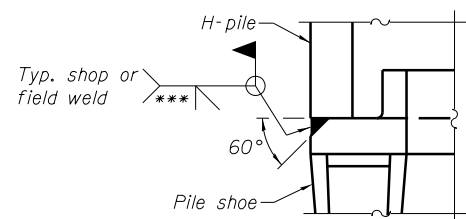


STEEL PILE TABLE

Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/6"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/6"	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"



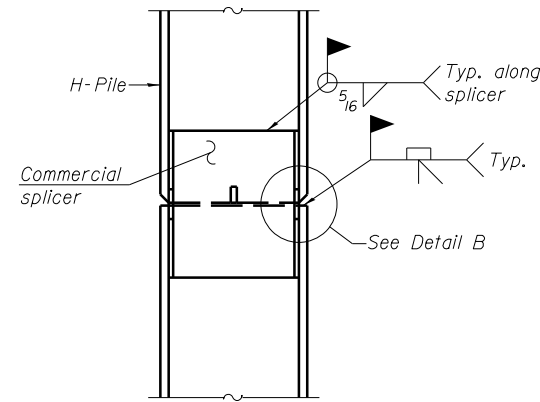
ELEVATION



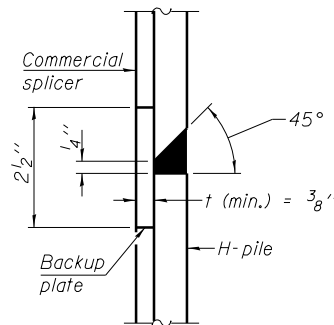
DETAIL A

H-PILE SHOE ATTACHMENT

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

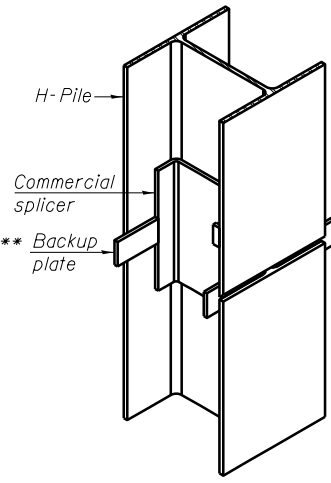


ELEVATION

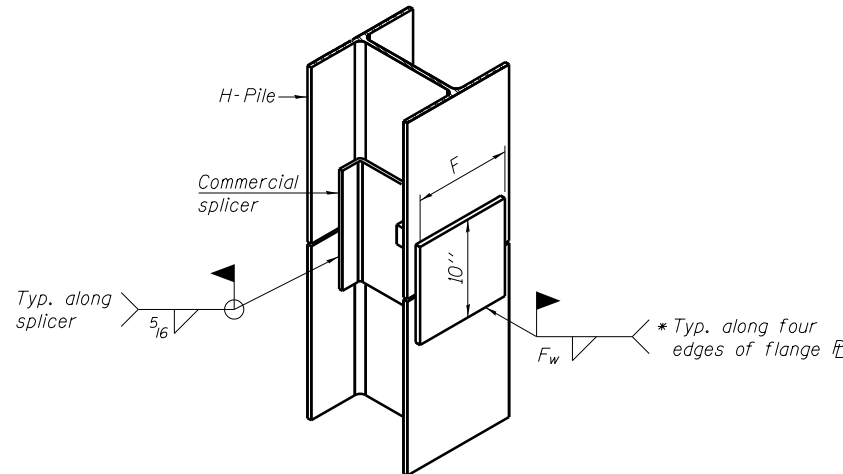


DETAIL "B"

WELDED COMMERCIAL SPLICE



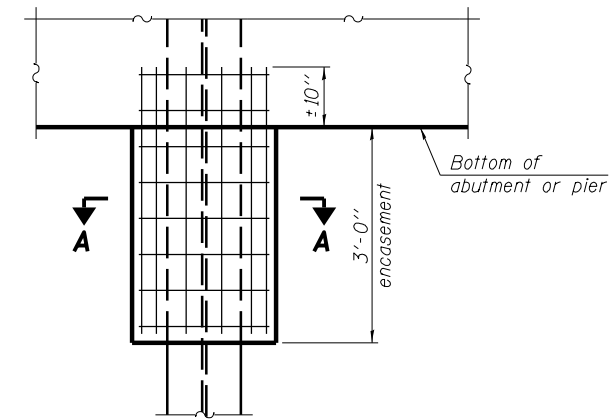
ISOMETRIC VIEW



ISOMETRIC VIEW

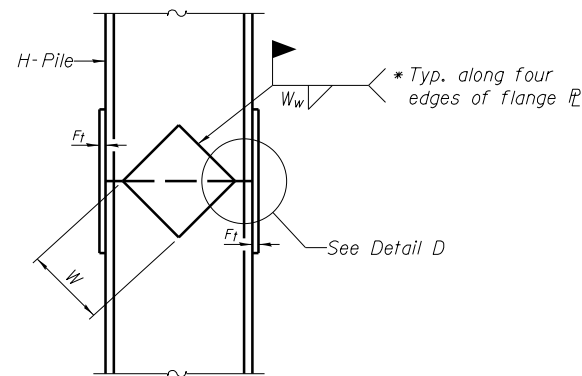
WELDED COMMERCIAL SPLICE ALTERNATE

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

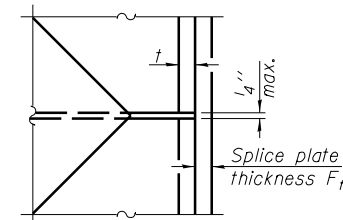


ELEVATION

PILE ENCASEMENT

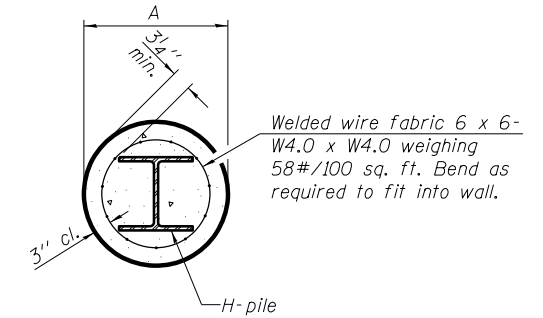


ELEVATION



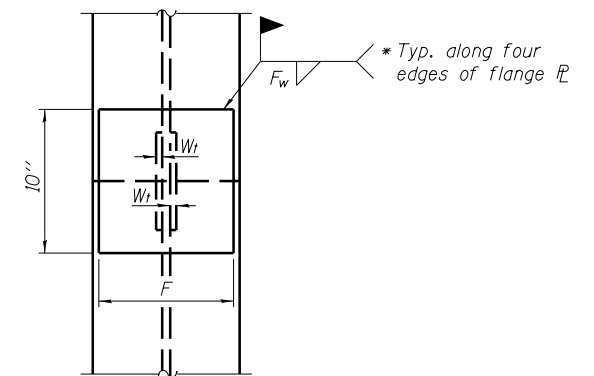
DETAIL D

WELDED PLATE FIELD SPLICE



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

SECTION A-A



END VIEW

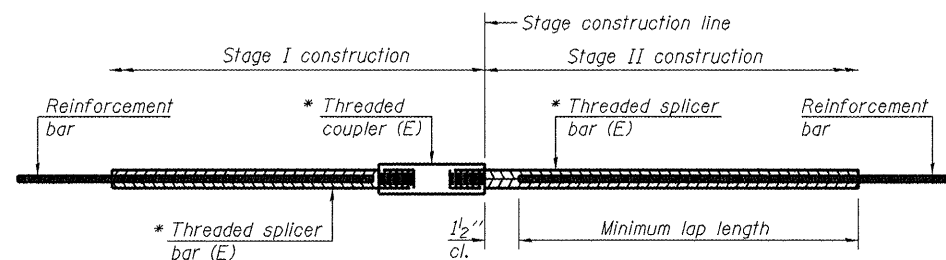
Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/6"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/6"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/6"	6 1/2"	5 1/2"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	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"

F-HP

11-1-09

FILE NAME = 0760028-78134.dgn	USER NAME = hmf1m0028	DESIGNED - BDC	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 076-0028	F.A.P. R.T.E. = 132	SECTION = 103B-1	COUNTY = Pope	TOTAL SHEETS = 52	SHEET NO. = 50
PLOT SCALE =	DRAWN - DAB	REVISD -	CONTRACT NO. 78134							
PLOT DATE = 02/22/2012	CHECKED - MNM	REVISD -	ILLINOIS FED. AID PROJECT							
SHEET NO. 26 OF 28 SHEETS										

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STANDARD BAR SPLICER ASSEMBLY

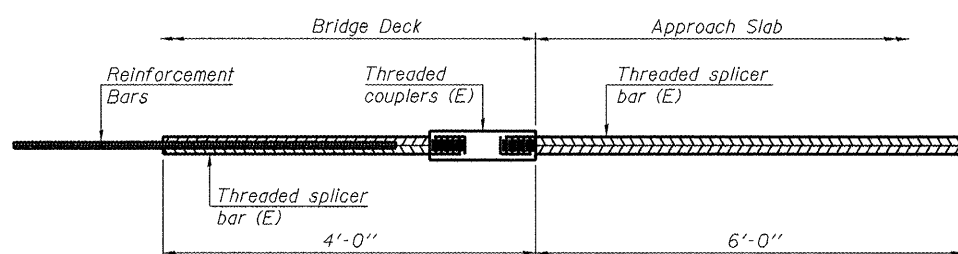
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

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

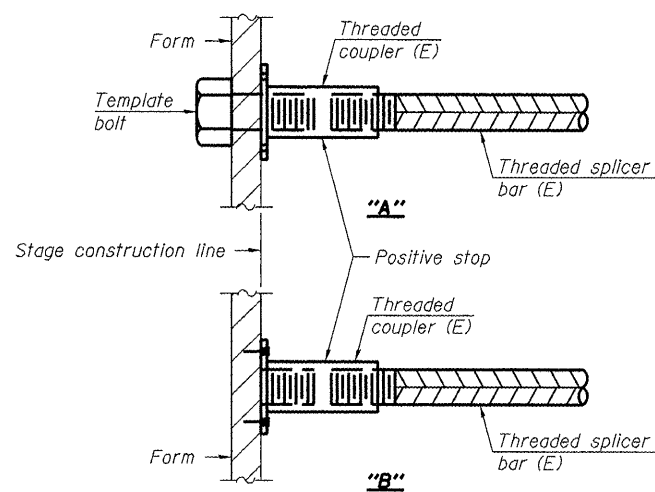
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Superstructure	#5	428	2'-7"
Diaphragms	#6	16	3'-1"
Bridge Appr. Slabs	#4	50	2'-1"
Bridge Appr. Slabs	#5	92	2'-7"
Bridge Appr. Slab Footings	#5	80	2'-7"
Abutments	#5	24	2'-7"
Abutments	#7	16	4'-8"
Pier Crashwalls	#6	64	3'-6"
Pier Caps	#4	4	2'-1"
Pier Caps	#5	20	2'-7"
Pier Caps	#8	24	6'-2"



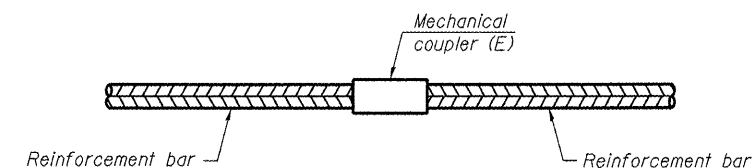
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 86



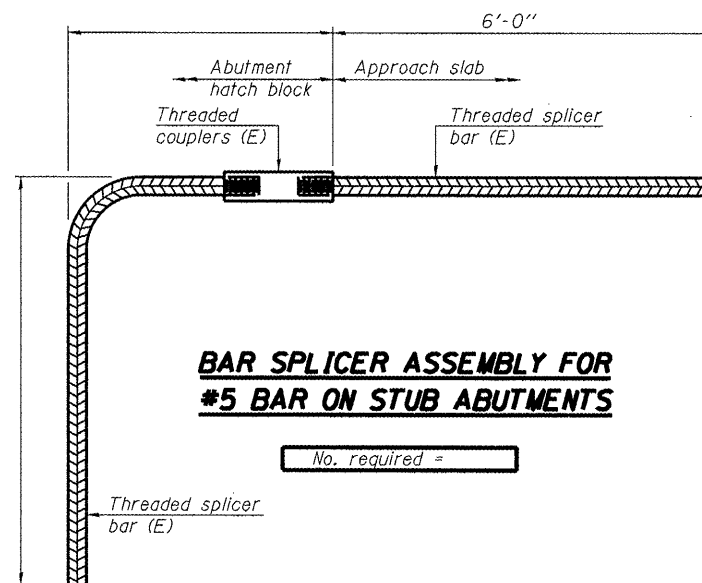
INSTALLATION AND SETTING METHODS

"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
Pier 1 Columns	#7	48
Pier 2 Columns	#7	48



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

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

11-1-09

FILE NAME * 0760028-78134.dgn	USER NAME * huffm00028	DESIGNED - BDC	REVISED -
		CHECKED - MNM	REVISED -
		DRAWN - Rood and DAB	REVISED -
		CHECKED - MNM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 076-0028

SHEET NO. 27 OF 28 SHEETS

F.A.P. RTE. 132	SECTION 1038-1	COUNTY Pope	TOTAL SHEETS 52	SHEET NO. 51
CONTRACT NO. 78134			ILLINOIS FED. AID PROJECT	

