CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	1

11-16-07 Letting, Item 064

FOR INDEX OF SHEETS, SEE SHEET NO.

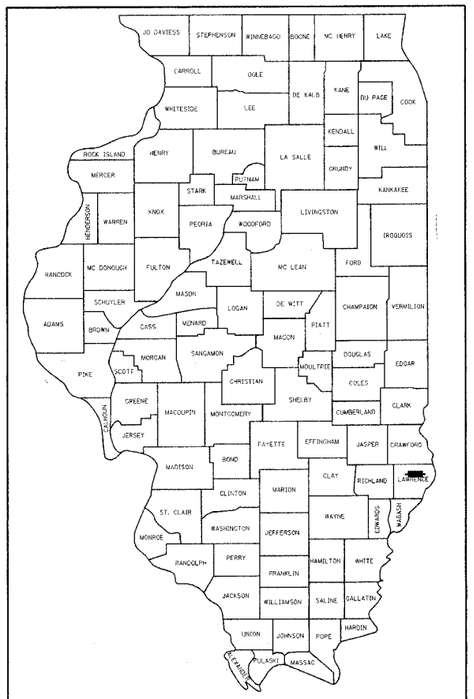
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 327 (US 50)
SECTION (51–23)B–3
PROJECT: ACBRF-0327(040)
LAWRENCE COUNTY
BRIDGE REPLACEMENT

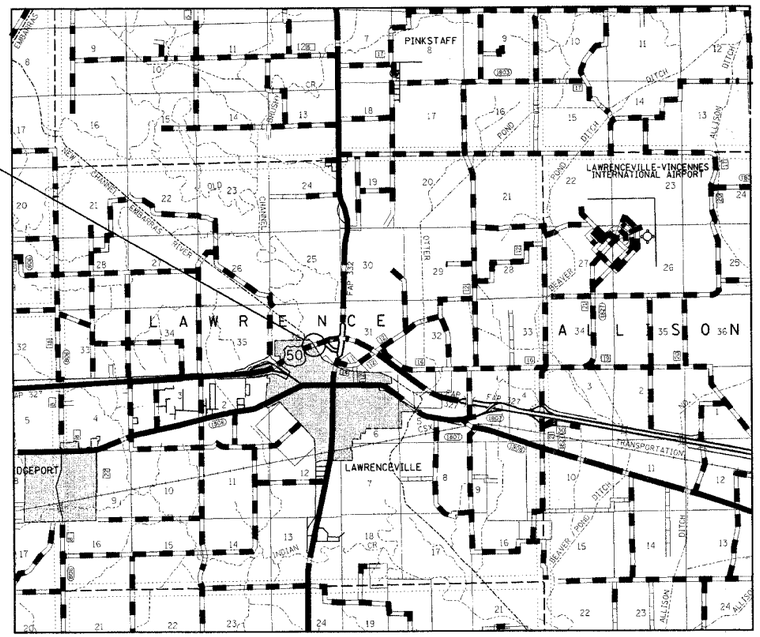
C–97–007–03

D–97–003–03



LOCATION OF SECTION INDICATED THUS: –

STRUCTURE NO. 051-0063



100′ 200′ 300′ — 1″ = 100′
0 10′ 20′ 30′ — 1″ = 10′
0 50′ 100′ — 1″ = 50′
0 50′ 100′ — 1″ = 40′
0 50′ 100′ — 1″ = 30′
0 50′ 100′ — 1″ = 20′

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

CONTRACT NO. 94967

2005 ADT = 4000

GROSS LENGTH = 1671 FEET = 0.316 MILES
NET LENGTH = 1671 FEET = 0.316 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 17 20 07
Christine M. Reed
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 12 20 07
Eric E. Harm PE
Interim ENGINEER OF DESIGN AND ENVIRONMENT
October 12, 2007
Milton R. Sees, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" INDICATED ON THE CHECK SHEET, AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.

THE WORK INCLUDED IN THIS SECTION CONSISTS OF REPLACING THE EXISTING STRUCTURE WITH A NEW BRIDGE ON NEW PIERS AND ABUTMENTS, CONSTRUCTION OF BRIDGE APROACH PAVEMENTS, GUARDRAIL, FULL-DEPTH HOT-MIX ASPHALT PAVEMENT, EARTHWORK, SEEDING AND ALL OTHER WORK NECESSARY TO COMPLETE THIS SECTION.

PROPOSED SHOULDER ON THE LEFT IS THICKER AND WIDER THAN THAT ON THE RIGHT BECAUSE IT WILL CARRY STAGE TWO TRAFFIC.

COST OF REMOVAL OF BROKEN CONCRETE NEAR THE RIVER WITHIN CONSTRUCTION LIMITS SHALL BE INCLUDED IN THE BID PRICE FOR CHANNEL EXCAVATION.

TREE REMOVAL SHALL BE MEASURED AS THE AREA BOUNDED BY THE CONSTRUCTION LIMITS AND THE EXISTING DRIP LINE.

ENGINEER SHALL CONTACT DISTRICT 7 OPERATIONS THREE WEEKS PRIOR TO PLANTING TREES.

SHORT TERM PAVEMENT MARKING ON THE MILLED SURFACE SHALL BE PAINT. ALL OTHER SHORT TERM PAVEMENT MARKINGS SHALL BE TAPE.

EXISTING ET-2000 GUARDRAIL TERMINALS SHALL REMAIN THE PROPERTY OF THE STATE UPON REMOVAL AND SHALL BE TAKEN TO THE LAWRENCEVILLE OPERATIONS YARD NORTH OF LAWRENCEVILLE ON IL ROUTE 1. COST SHALL BE INCLUDED IN THE BID PRICE FOR GUARDRAIL REMOVAL.

EXISTING SIGN SUPPORTS ARE W6X9.

BASE COURSE WIDENING SHALL INCLUDE ALL EXCAVATION FOR CONSTRUCTION OF THE WIDENING. THE WIDENING SHALL, AT THE CONTRATOR'S OPTION, BE CONSTRUCTED OF EITHER PORTLAND CEMENT CONCRETE 8 INCHES THICK OR BITUMINOUS CONCRETE 10 INCHES THICK. THE WIDENING SHALL REMAIN IN PLACE AT THE CONCLUSION OF THE JOB.

AGGREGATE SHOULDERS SHALL BE CRUSHED STONE, CRUSHED CONCRETE, OR RAP.

ALL ELEVATIONS SHOWN IN PLANS ARE BASED ON U.S.G.S. DATUM.

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF ACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING 800-892-0123.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESS TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICES FOR OTHER ITEMS IN THE CONTRACT.

THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE CURING TIME FOR THE VARIOUS BITUMINOUS COURSES.

BITUMINOUS MATERIALS (PRIME COAT) SHALL BE EITHER RC-70 OR SS-1HP.

COST OF REMOVAL OF TEMPORARY RAMP SHALL BE INCLUDED IN THE UNIT PRICE FOR TEMPORARY RAMP.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE
HMA SURFACE COURSE MIX "D" N90	PG 64-22	4.0% @ N=90	IL - 9.5	MIXTURE D
HMA BINDER COURSE IL-19.0 N90	PG 64-22	4.0% @ N=90	IL - 19.0	N/A

INDEX OF SHEETS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED FOLLOWING THE LAST NUMBERED SHEET OF THE PLANS.

000001-04 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-01 AREAS OF REINFORCEMENT BARS
001006 DECIMAL OF AN INCH AND OF A FOOT
280001-03 TEMPORARY EROSION CONTROL SYSTEMS
420401-05 BRIDGE APPROACH PAVEMENT

515001-02 NAME PLATE FOR BRIDGES
609006-03 BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-07 STEEL PLATE BEAM GUARDRAIL
630301-04 SHOULDER WIDENING FOR TYPE 1 GUARDRAIL TERMINALS
631031-06 TRAFFIC BARRIER TERMINAL, TYPE 6
635001 DELINEATORS
635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01 REFLECTOR MARKER AND MOUNTING DETAILS
701001-01 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-02 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-01 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-02 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-08 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
702001-06 TRAFFIC CONTROL DEVICES
704001-03 TEMPORARY CONCRETE BARRIER
720011 METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
780001-01 TYPICAL PAVEMENT MARKINGS
781001-02 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
601101 CONCRETE HEADWALL FOR PIPE DRAIN

REVISIONS NAME	DATE

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & INDEX OF SHEETS

SCALE: VERT. HORIZ. DRAWN BY
DATE CHECKED BY

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CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE I000	X071-2A	
20100500	TREE REMOVAL, ACRES	ACRE	0.6	0.6		
20200100	EARTH EXCAVATION	CU YD	4769	4769		
20300100	CHANNEL EXCAVATION	CU YD	12964	12964		
20600110	GRANULAR EMBANKMENT, SPECIAL	TON	3230	3230		
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	191		191	
* 21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	1602	1602		
* 25000200	SEEDING, CLASS 2	ACRE	2.8	2.8		
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	252	252		
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	252	252		
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	252	252		
* 25000700	AGRICULTURAL GROUND LIMESTONE	TON	5.6	5.6		
* 25100115	MULCH, METHOD 2	ACRE	2.8	2.8		
* 25100630	EROSION CONTROL BLANKET	SQ YD	670	670		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	900	900		
28000300	TEMPORARY DITCH CHECKS	EACH	20	20		
28000400	PERIMETER EROSION BARRIER	FOOT	1200	1200		
28100105	STONE RIPRAP, CLASS A3	SQ YD	180	180		
28100109	STONE RIPRAP, CLASS A5	SQ YD	3098		3098	
28200200	FILTER FABRIC	SQ YD	3298	200	3098	
31101900	SUB-BASE GRANULAR MATERIAL, TYPE C	TON	670	670		
35650700	BASE COURSE WIDENING	SQ YD	590	590		
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1680	1680		
40600300	AGGREGATE (PRIME COAT)	TON	3	3		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	440	440		
40600990	TEMPORARY RAMP	SQ YD	84	84		
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	140	140		
40603345	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	110	110		
40701961	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14"	SQ YD	2090	2090		
44000100	PAVEMENT REMOVAL	SQ YD	770	770		
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SQ YD	950	950		
44000700	APPROACH SLAB REMOVAL	SQ YD	230	230		
44004000	PAVED DITCH REMOVAL	FOOT	510	510		
44004250	PAVED SHOULDER REMOVAL	SQ YD	520	520		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	90	90		

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE I000	X071-2A	
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	520	520		
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	230	230		
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	330	330		
48203045	HOT-MIX ASPHALT SHOULDERS, 12"	SQ YD	850	850		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	42	42		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50105220	PIPE CULVERT REMOVAL	FOOT	41	41		
50200100	STRUCTURE EXCAVATION	CU YD	192		192	
50200300	COFFERDAM EXCAVATION	CU YD	270		270	
* 50200400	ROCK EXCAVATION FOR STRUCTURES	CU YD	149		149	
50200500	COFFERDAMS	EACH	2		2	
50300100	FLOOR DRAINS	EACH	24		24	
50300225	CONCRETE STRUCTURES	CU YD	583.9		583.9	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	624.7		624.7	
50300260	BRIDGE DECK GROOVING	SQ YD	1907		1907	
50300265	SEAL COAT CONCRETE	CU YD	19.2		19.2	
50300280	CONCRETE ENCASEMENT	CU YD	8.8		8.8	
50300300	PROTECTIVE COAT	SQ YD	2430		2430	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
50500505	STUD SHEAR CONNECTORS	EACH	4464		4464	
50800105	REINFORCEMENT BARS	POUND	312	312		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	254,330		254,330	
50800515	BAR SPLICERS	EACH	1920		1920	
51201610	FURNISHING STEEL PILES HP12X63	FOOT	660		660	
51202305	DRIVING PILES	FOOT	660		660	
51203610	TEST PILE STEEL HP12X63	EACH	2		2	
51204650	PILE SHOES	EACH	13		13	
51500100	NAME PLATES	EACH	1		1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	86		86	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12		12	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	72		72	
58700300	CONCRETE SEALER	SQ FT	1227		1227	

* SPECIALTY ITEMS

REVISIONS NAME	DATE

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.
DATE

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USER NAME = staff\rmunk

CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 1000	X071-2A	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	82		82	
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	120		120	
*	63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	400	400		
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
*	63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	4		
	63200310	GUARDRAIL REMOVAL	FOOT	686	686		
	63500105	DELINEATORS	EACH	12	12		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18		
	67100100	MOBILIZATION	L SUM	1	1		
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1		
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	4		
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	400	400		
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	60	60		
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1525	1525		
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1475	1475		
*	72400730	RELOCATE SIGN PANEL - TYPE 3	SQ FT	54	54		
*	72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	120	120		
*	73400100	CONCRETE FOUNDATIONS	CU YD	2.8	2.8		
*	73700200	REMOVE CONCRETE FOUNDATION - GROUND MOUNT	EACH	4	4		
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	4390	4390		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	18	18		
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8	8		
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	11	11		
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1090	1090		
*	A2002416	TREE, BETULA NIGRA HERITAGE (HERITAGE RIVER BIRCH), 2" CALIPER, BALLED AND BURLAPPED	EACH	35	35		
*	A2007616	TREE, TAXODIUM DISTICHUM (COMMON BALD CYPRESS), 2" CALIPER, BALLED AND BURLAPPED	EACH	35	35		

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE 1000	X071-2A	
*	B2001116	TREE, CERCIS CANADENSIS (EASTERN REDBUD) 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	35	35		
	X0321781	MECHANICAL SPLICE	EACH	556		556	
	X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1551		1551	
	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
	Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
⊙	Z0076600	TRAINEES	HOUR	500	500		

⊙ YDBO
* SPECIALTY ITEMS

REVISIONS NAME	DATE

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.
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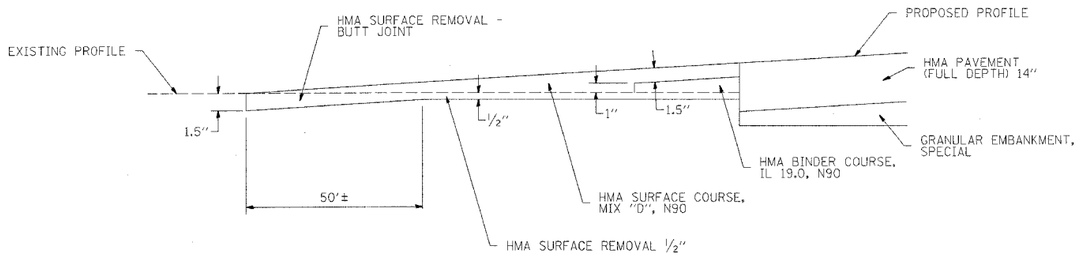
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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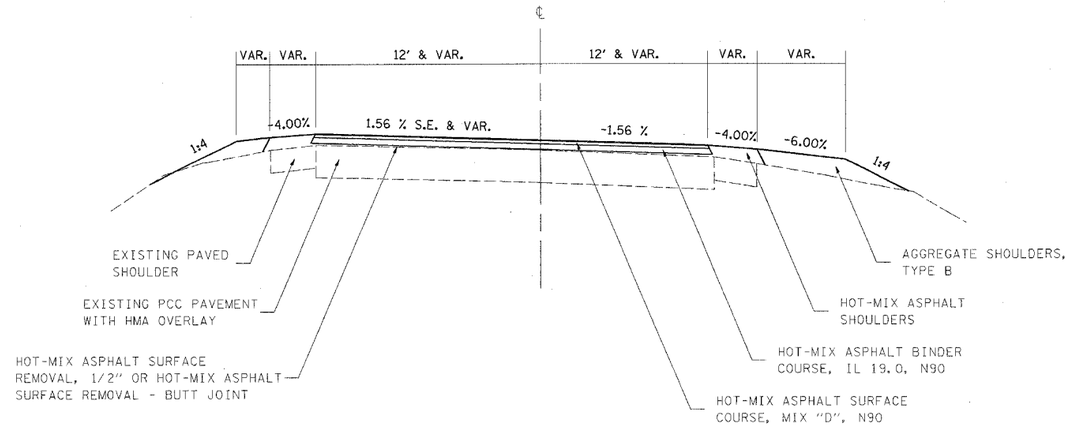
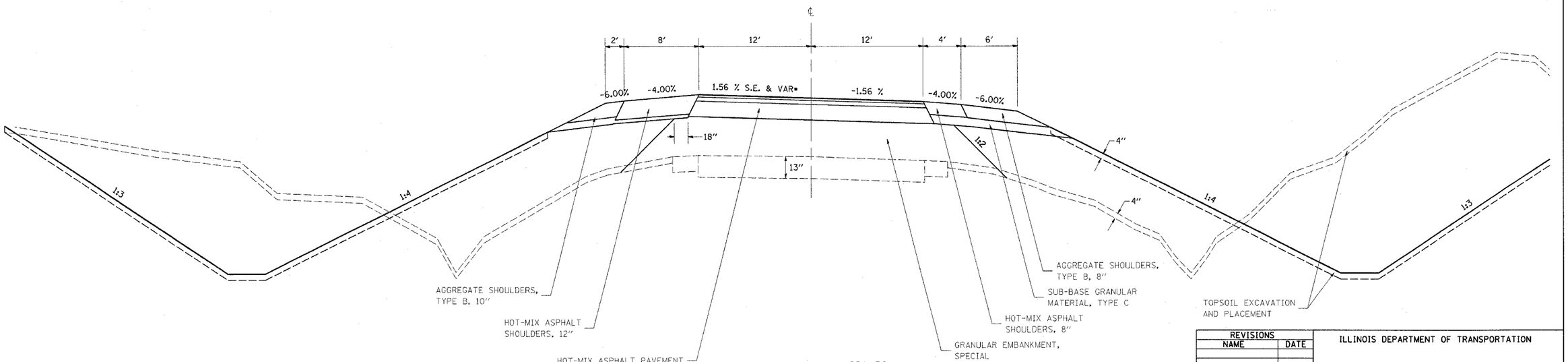


* STA 547+20 TO 548+03
* STA 561+01 TO 563+91
* FOR MAINLINE ONLY, SHOULDERS DIFFERENT



** STA 548+03 TO 551+39
** STA 556+54 TO 561+01
* ATTAIN S.E. 549+69 TO 550+49
** FOR MAILINE ONLY, SHOULDERS DIFFERENT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RESURFACING SCHEDULE

STATION TO STATION	LENGTH	PAVEMENT WIDTH	AREA	BITUMINOUS MATERIAL (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	HOT-MIX ASPHALT SURFACE REMOVAL 1/2"	HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) 14 INCH	TEMPORARY RAMP
	FT	FT	SQ YD	GALLON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD
STA 54720 TO STA 54725	5	24	13.3	2.1			1.2	173.3			16.8
STA 54725 TO STA 54780	55	24	146.7	21.3	0.1		13.3				
STA 54780 TO STA 54803	23	24	61.3	8.9	0.1	2.0	6.4		65		
STA 54803 TO STA 55134	331	24	882.7	641.3	0.9					883.4	
STA 55134 TO STA 55139	5	24	13.3	9.7						13.3	22.8
BRIDGE OMISSION											
STA 55654 TO STA 55659	5	24	13.3	16.1				266.7		13.3	22.2
STA 55659 TO STA 56101	442	24	1178.7	856.3	1.2					1179.6	
STA 56101 TO STA 56345	244	VAR.	0	94.5	0.7	138.0	72.3		885		
STA 56345 TO STA 56386	41	VAR.	0	26.5	0.2		15.1				
STA 56386 TO STA 56391	5	VAR.	0	3.2			1.7				22.2
TOTALS	1156		2309.3	1680	3	140	110	440	950	2090	84

GUARDRAIL SCHEDULE

	STEEL PLATE BEAM GUARDRAIL, TYPE A	GUARDRAIL REMOVAL	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL MARKER, TYPE A	TERMINAL MARKER, DIRECT APPLIED
	FT	FT	EACH	EACH	EACH	EACH
LT STA 549+79.1 TO STA 550+29.1			1			1
LT STA 550+29.1 TO STA 551+16.6	87.5	138			2	
LT STA 551+16.6 TO STA 551+62.3				1		
RT STA 549+62.7 TO STA 550+12.7			1			1
RT STA 550+12.7 TO STA 551+25.2	112.5	216			3	
RT STA 551+25.2 TO STA 551+70.8				1		
LT STA 556+22.5 TO STA 556+68.2			1			1
LT STA 556+68.2 TO STA 558+30.7	162.5	191			4	
LT STA 556+30.7 TO STA 558+80.7				1		
RT STA 556+31.0 TO STA 556+76.6			1			1
RT STA 556+76.6 TO STA 557+14.1	37.5	141			2	
RT STA 557+14.1 TO STA 557+64.1				1		
TOTALS	400	686	4	4	11	4

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE(+) SHORTAGE(-)	TOPSOIL EXCAVATION AND PLACEMENT
	CU YD	CU YD	CU YD	CU YD	CU YD
STA 548+00 TO 551+65	4769	3577	1360	2217	614
STA 556+30 TO 562+00	0	0	9629	-9629	988
STRUCTURE EXCAVATION	400	300		300	
COFFERDAM EXCAVATION	335	251		251	
CHANNEL EXCAVATION	12964	9723	38	9685	
TOTALS	18468	13851	11027	2824	1602

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULES

SCALE: VERT. HORIZ.
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PLOT DATE = 9/28/2007
FILE NAME = c:\projects\94967\sheets\sheet_94967.dgn
PLOT SCALE = 20.0000 '/ IN.
USER NAME = steffenmk

CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	7

STA. 547+00 TO STA.553+00

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

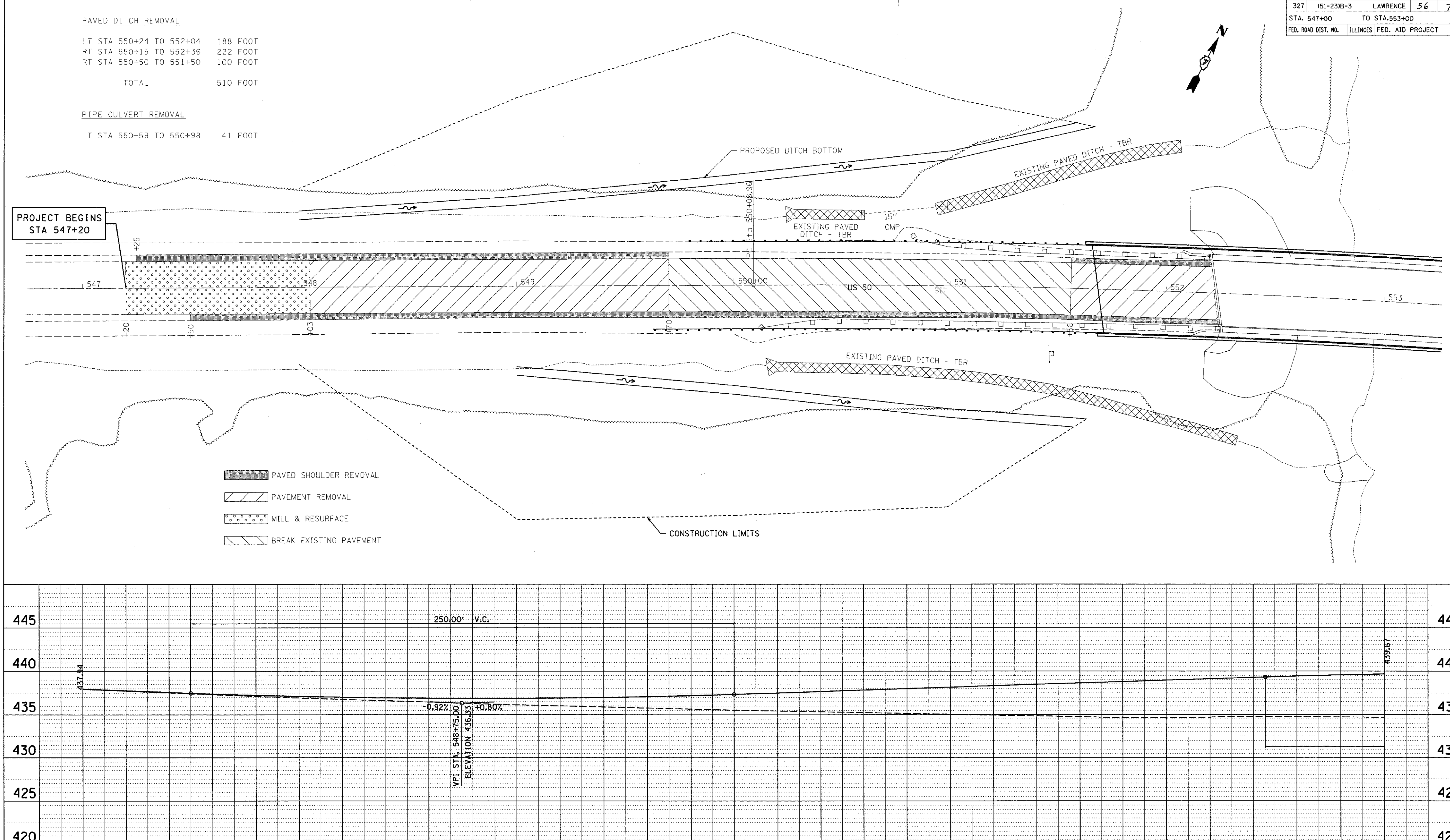
PAVED DITCH REMOVAL

LT STA 550+24 TO 552+04 188 FOOT
RT STA 550+15 TO 552+36 222 FOOT
RT STA 550+50 TO 551+50 100 FOOT

TOTAL 510 FOOT

PIPE CULVERT REMOVAL

LT STA 550+59 TO 550+98 41 FOOT



Station	Existing	Proposed
547+00	437.94	437.94
547+50	437.43	437.48
548+00	436.92	437.11
548+50	436.53	436.90
549+00	436.13	436.88
549+50	435.83	437.02
550+00	435.53	437.34
550+50	435.29	437.74
551+00	435.03	438.14
551+50	434.80	438.54
552+00	434.64	438.95
552+50	434.76	439.35
553+00	434.69	439.67

PLOT DATE = 8/28/2007
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PLAN & PROFILE

CONTRACT NO. 94967

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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NOTE BOOK
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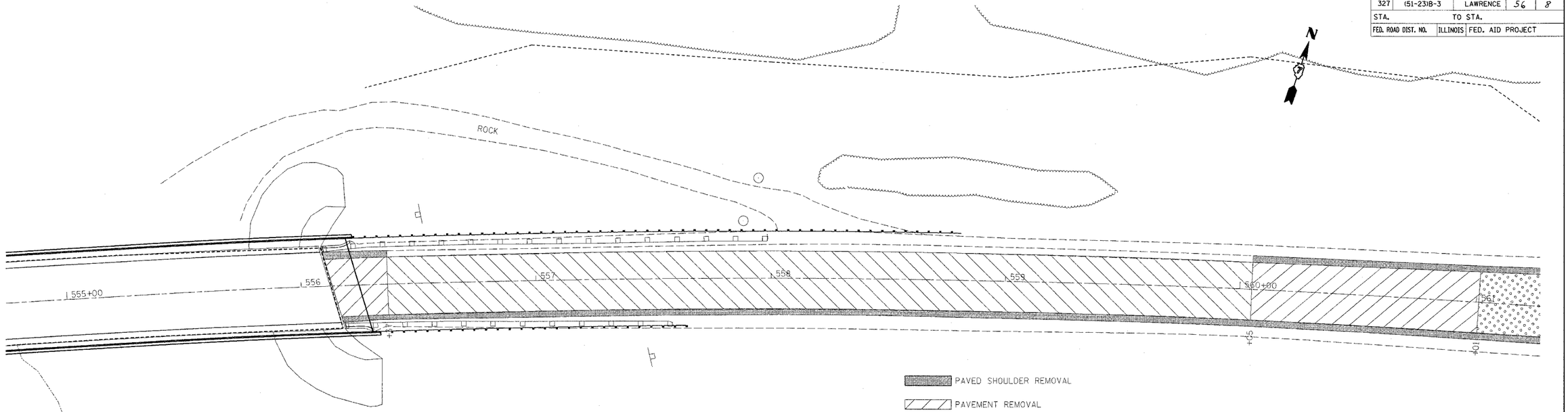
BY



RELOCATE SIGN PANEL - TYPE 3

RT STA 551+47	27 SQ FT
LT STA 556+52	27 SQ FT
TOTAL	54 SQ FT

REINFORCEMENT BARS

RT STA 551+00	156 LB
LT STA 557+00	156 LB
TOTAL	312 LB

CONCRETE FOUNDATIONS

RT STA 551+00	1.4 CU YD
LT STA 557+00	1.4 CU YD
TOTAL	2.8 CU YD

STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY

RT STA 551+00	60 LB
LT STA 557+00	60 LB
TOTAL	120 LB

PROFILE
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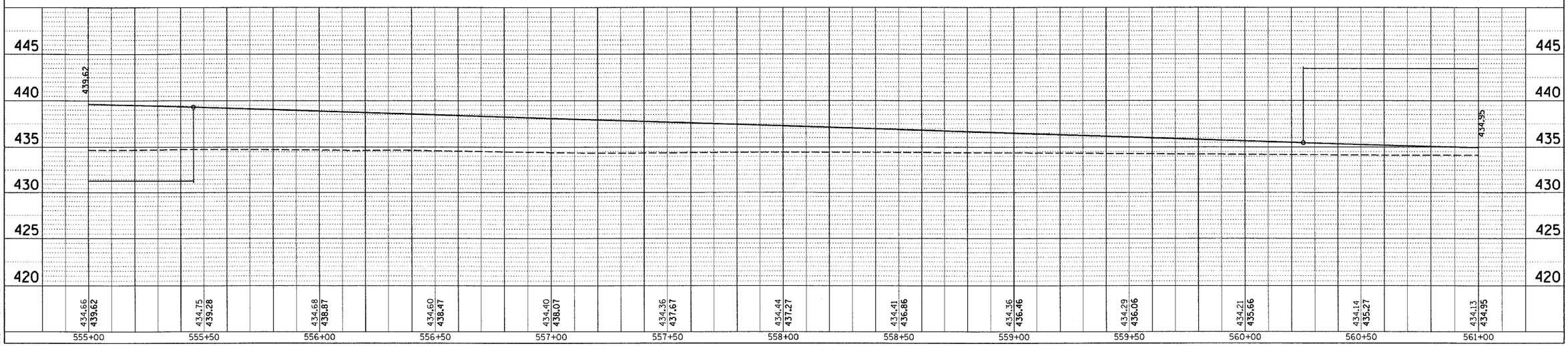
GRADES CHECKED
NOTE BOOK
NO.
STRUCTURE NO(S).
DATE
BY



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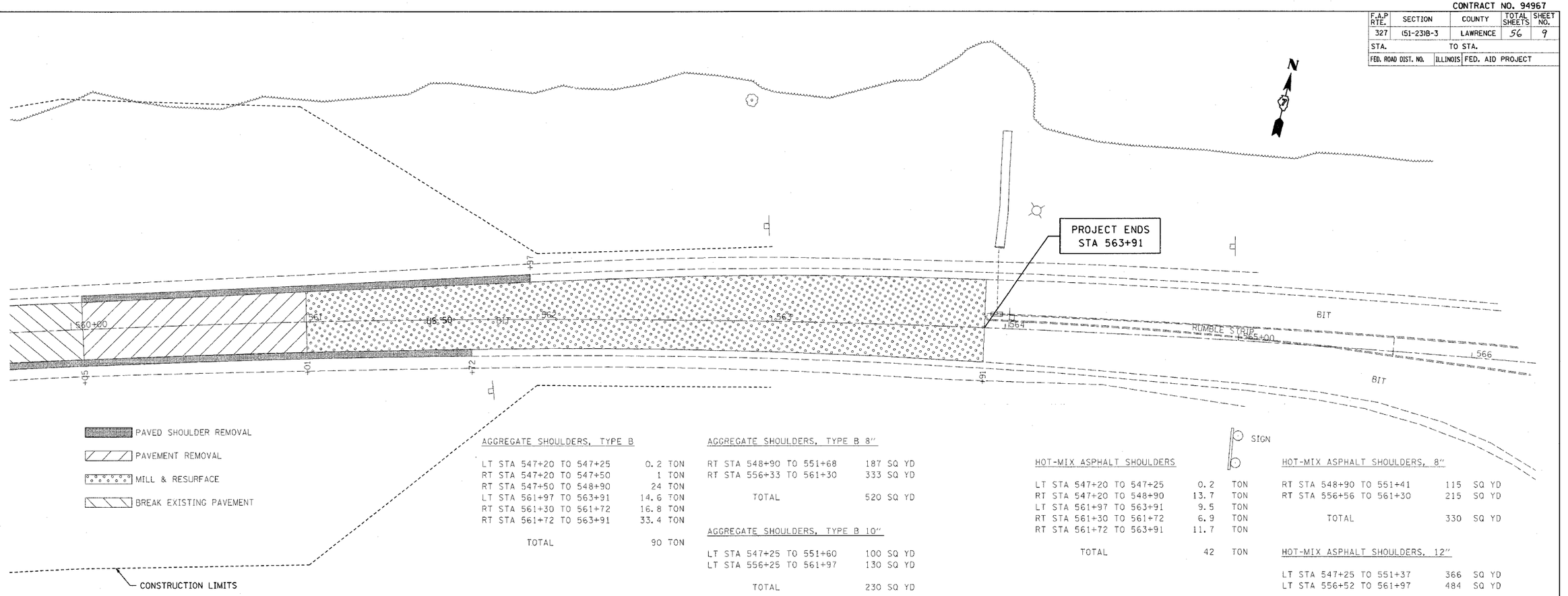
PLAN & PROFILE

CONTRACT NO. 94967

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / GRADES CHECKED / NOTE BOOK / NO. / DATE / BY

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / NOTE BOOK / NO. / STRUCTURE NO(TATING CHKD) / DATE / BY



AGGREGATE SHOULDERS, TYPE B

LT STA 547+20 TO 547+25	0.2 TON
RT STA 547+20 TO 547+50	1 TON
RT STA 547+50 TO 548+90	24 TON
LT STA 561+97 TO 563+91	14.6 TON
RT STA 561+30 TO 561+72	16.8 TON
RT STA 561+72 TO 563+91	33.4 TON
TOTAL	90 TON

AGGREGATE SHOULDERS, TYPE B 8"

RT STA 548+90 TO 551+68	187 SQ YD
RT STA 556+33 TO 561+30	333 SQ YD
TOTAL	520 SQ YD

AGGREGATE SHOULDERS, TYPE B 10"

LT STA 547+25 TO 551+60	100 SQ YD
LT STA 556+25 TO 561+97	130 SQ YD
TOTAL	230 SQ YD

HOT-MIX ASPHALT SHOULDERS

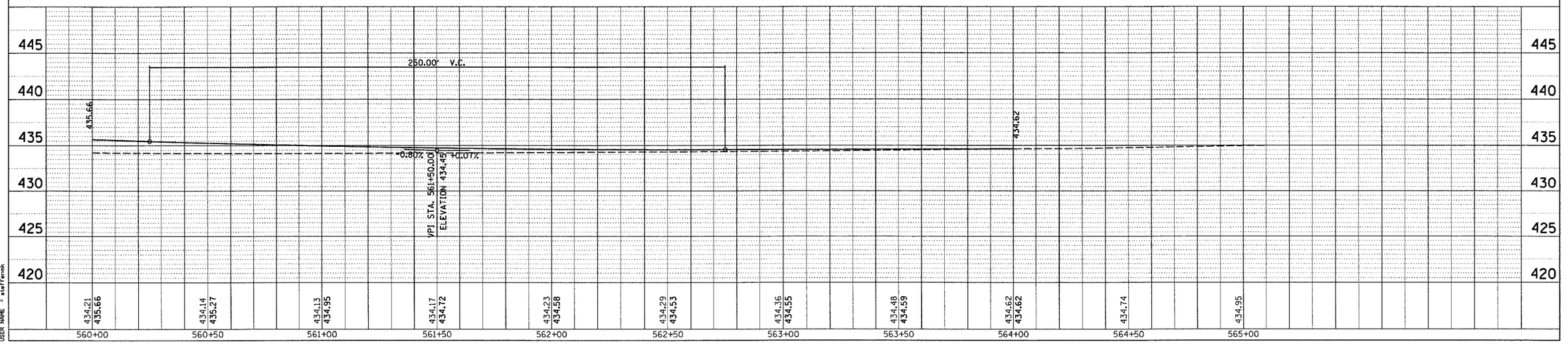
LT STA 547+20 TO 547+25	0.2 TON
RT STA 547+20 TO 548+90	13.7 TON
LT STA 561+97 TO 563+91	9.5 TON
RT STA 561+30 TO 561+72	6.9 TON
RT STA 561+72 TO 563+91	11.7 TON
TOTAL	42 TON

HOT-MIX ASPHALT SHOULDERS, 8"

RT STA 548+90 TO 551+41	115 SQ YD
RT STA 556+56 TO 561+30	215 SQ YD
TOTAL	330 SQ YD

HOT-MIX ASPHALT SHOULDERS, 12"

LT STA 547+25 TO 551+37	366 SQ YD
LT STA 556+52 TO 561+97	484 SQ YD
TOTAL	850 SQ YD



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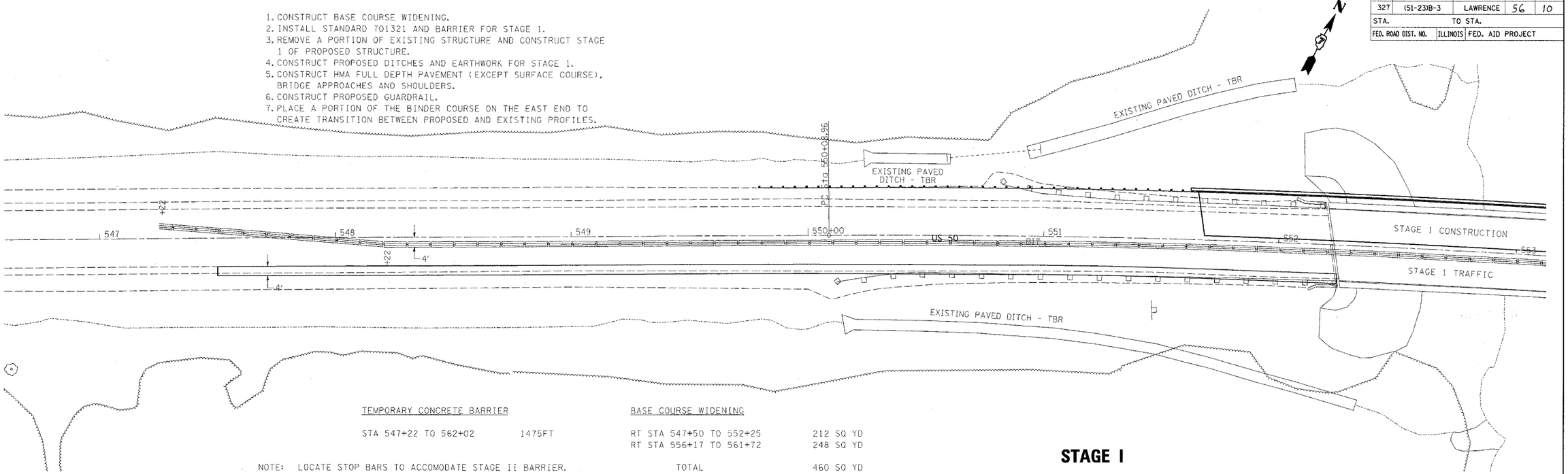
PLAN & PROFILE

CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUGGESTED SEQUENCE OF OPERATIONS:

1. CONSTRUCT BASE COURSE WIDENING.
2. INSTALL STANDARD 701321 AND BARRIER FOR STAGE 1.
3. REMOVE A PORTION OF EXISTING STRUCTURE AND CONSTRUCT STAGE 1 OF PROPOSED STRUCTURE.
4. CONSTRUCT PROPOSED DITCHES AND EARTHWORK FOR STAGE 1.
5. CONSTRUCT HMA FULL DEPTH PAVEMENT (EXCEPT SURFACE COURSE), BRIDGE APPROACHES AND SHOULDERS.
6. CONSTRUCT PROPOSED GUARDRAIL.
7. PLACE A PORTION OF THE BINDER COURSE ON THE EAST END TO CREATE TRANSITION BETWEEN PROPOSED AND EXISTING PROFILES.



TEMPORARY CONCRETE BARRIER

STA 547+22 TO 562+02	1475FT

NOTE: LOCATE STOP BARS TO ACCOMODATE STAGE II BARRIER.

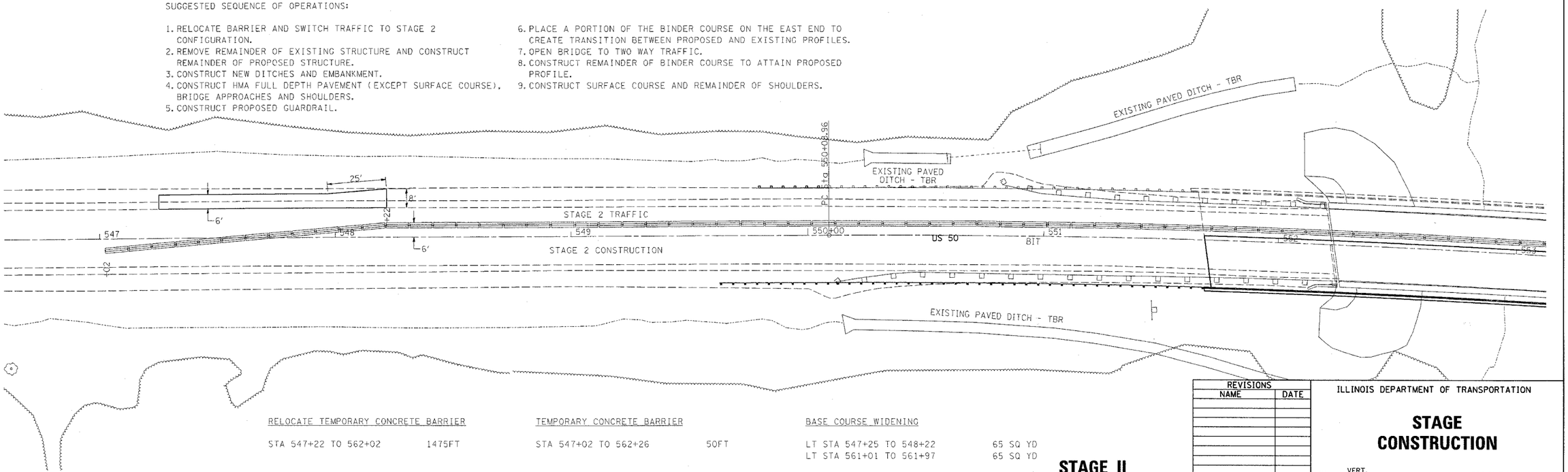
BASE COURSE WIDENING

RT STA 547+50 TO 552+25	212 SQ YD
RT STA 556+17 TO 561+72	248 SQ YD
TOTAL	460 SQ YD

STAGE I

SUGGESTED SEQUENCE OF OPERATIONS:

1. RELOCATE BARRIER AND SWITCH TRAFFIC TO STAGE 2 CONFIGURATION.
2. REMOVE REMAINDER OF EXISTING STRUCTURE AND CONSTRUCT REMAINDER OF PROPOSED STRUCTURE.
3. CONSTRUCT NEW DITCHES AND EMBANKMENT.
4. CONSTRUCT HMA FULL DEPTH PAVEMENT (EXCEPT SURFACE COURSE), BRIDGE APPROACHES AND SHOULDERS.
5. CONSTRUCT PROPOSED GUARDRAIL.
6. PLACE A PORTION OF THE BINDER COURSE ON THE EAST END TO CREATE TRANSITION BETWEEN PROPOSED AND EXISTING PROFILES.
7. OPEN BRIDGE TO TWO WAY TRAFFIC.
8. CONSTRUCT REMAINDER OF BINDER COURSE TO ATTAIN PROPOSED PROFILE.
9. CONSTRUCT SURFACE COURSE AND REMAINDER OF SHOULDERS.



RELOCATE TEMPORARY CONCRETE BARRIER

STA 547+22 TO 562+02	1475FT

TEMPORARY CONCRETE BARRIER

STA 547+02 TO 562+26	50FT

BASE COURSE WIDENING

LT STA 547+25 TO 548+22	65 SQ YD
LT STA 561+01 TO 561+97	65 SQ YD
TOTAL	130 SQ YD

STAGE II

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION

SCALE: VERT.
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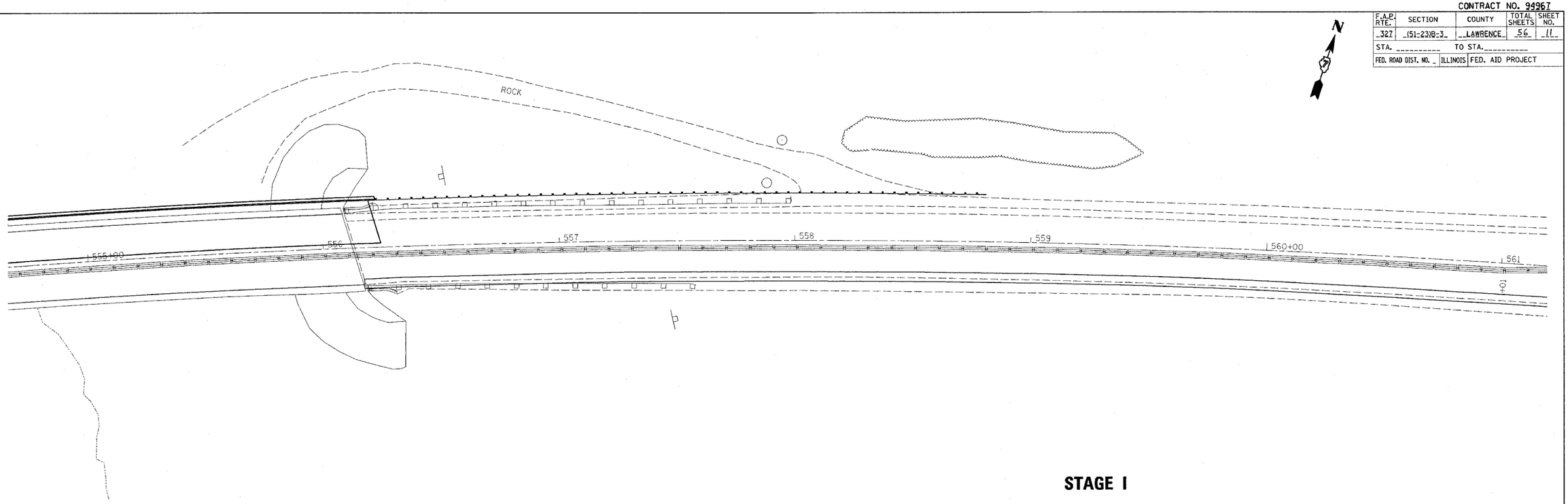
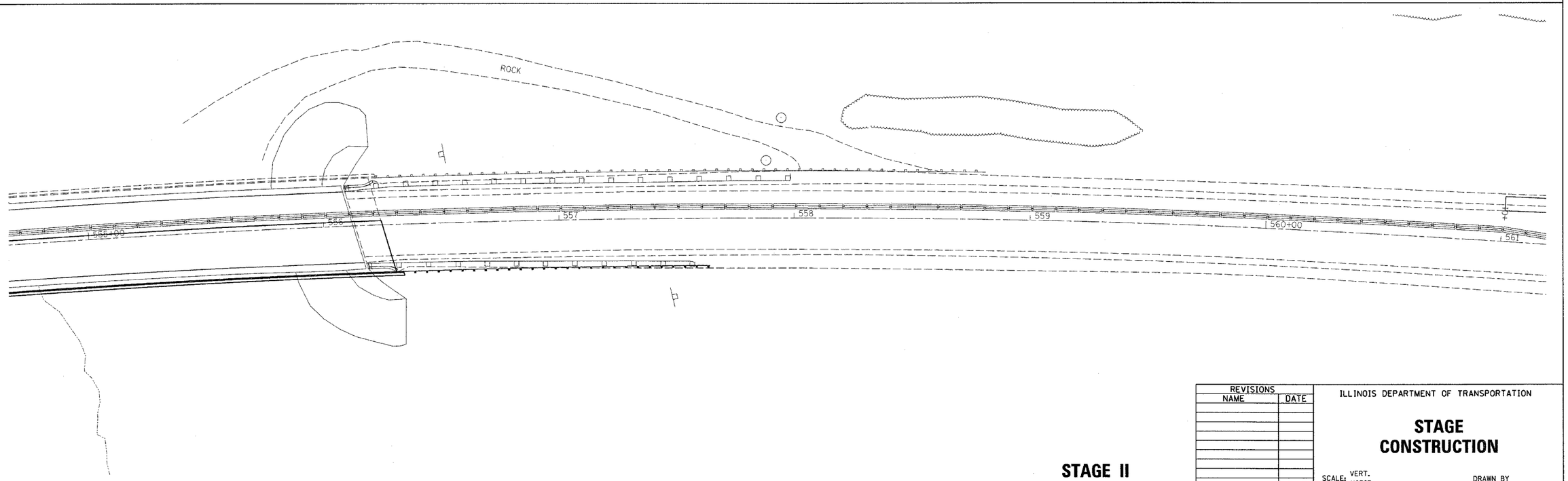
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	11
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



STAGE I



STAGE II

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION

SCALE: VERT.
HORIZ.
DATE

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USER NAME = steffernuk

CONTRACT NO. 94967

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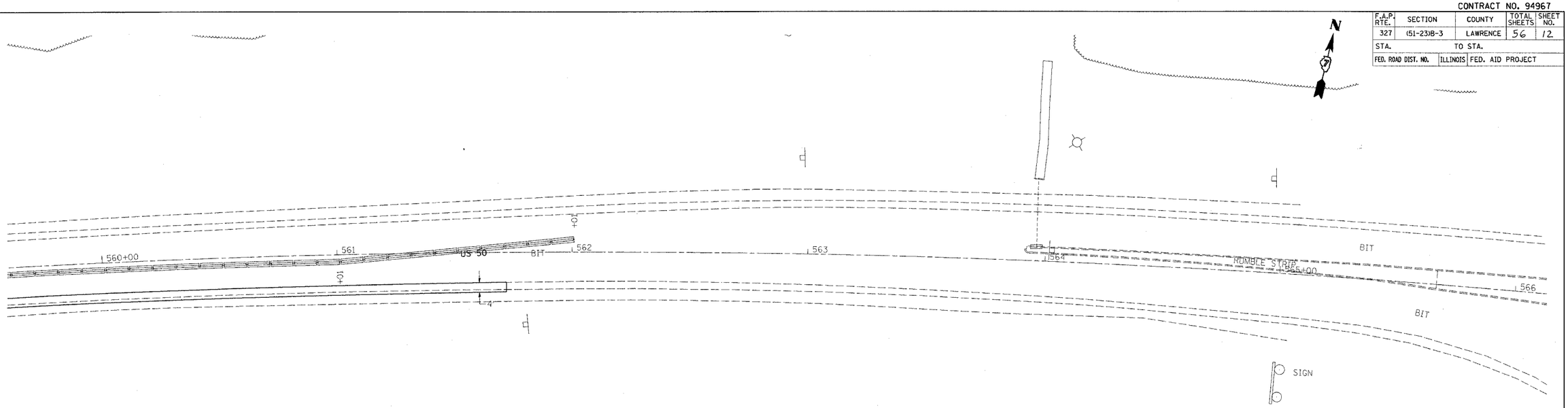
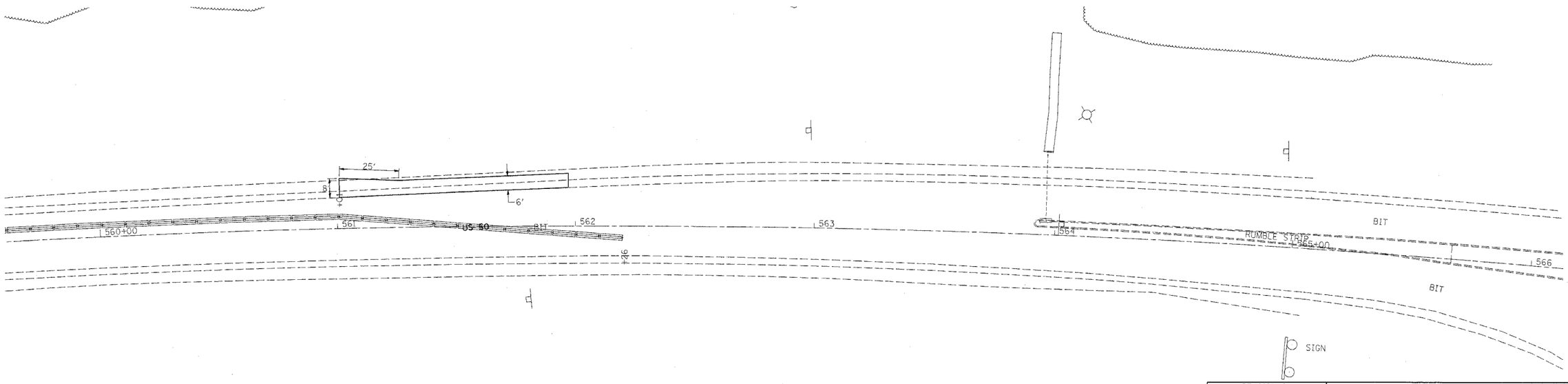
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE I



STAGE II

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION

SCALE: VERT. HORIZ.

DATE

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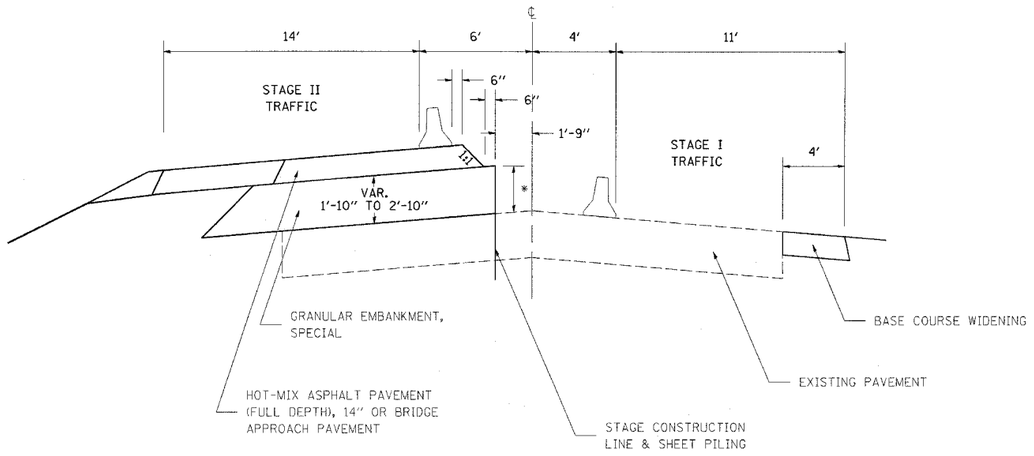
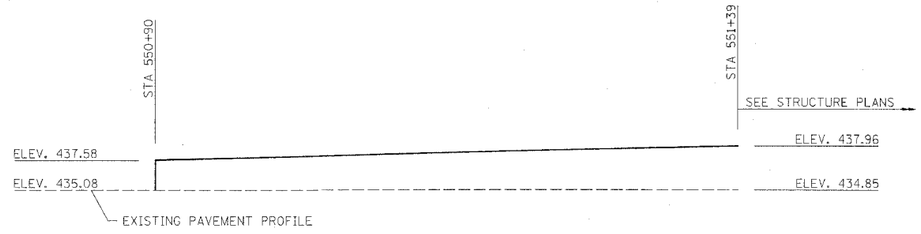
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

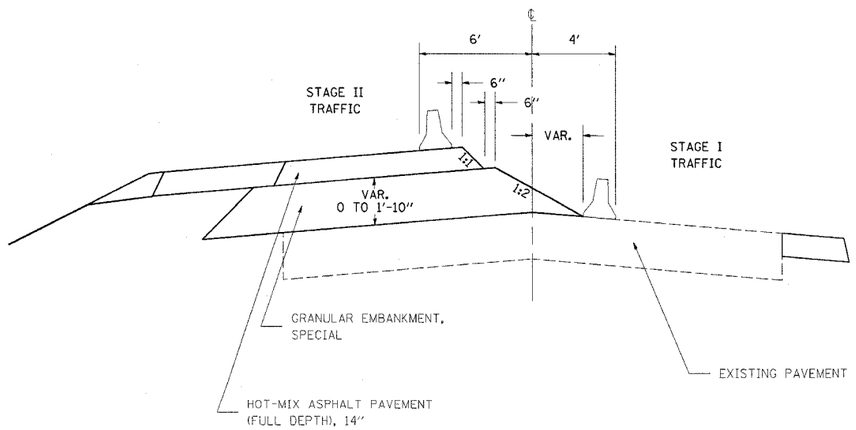


* HEIGHT VARIES

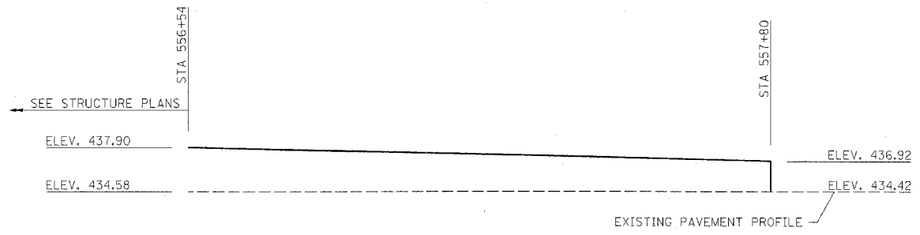
STA 550+90 TO 551+68
STA 556+25 TO 557+80



TEMPORARY SOIL RETENTION SYSTEM - WEST



STA 548+03 TO 550+90
STA 557+80 TO 561+01



TEMPORARY SOIL RETENTION SYSTEM - EAST

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS

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CONTRACT NO. 94967

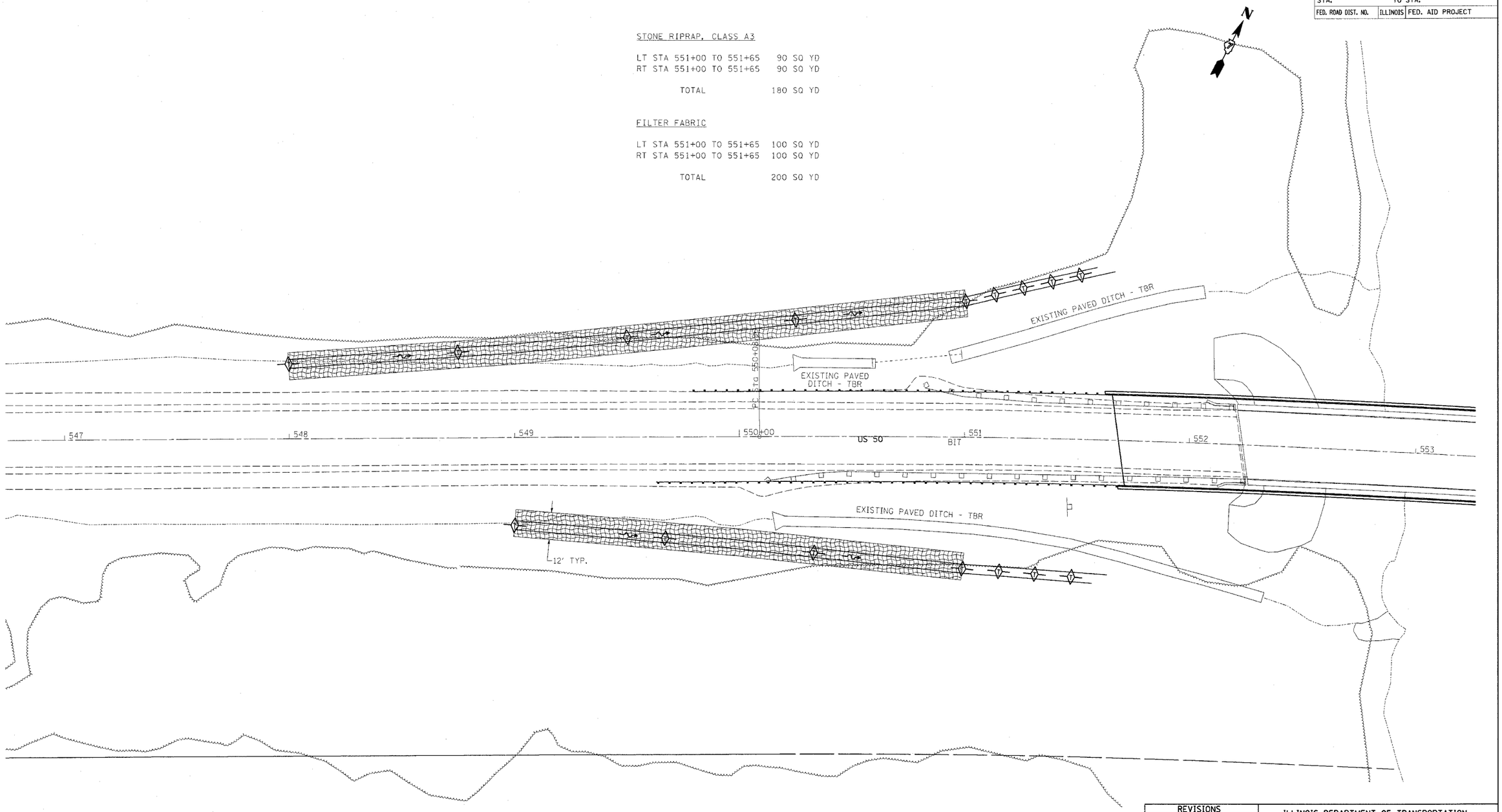
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STONE RIPRAP, CLASS A3

LT STA 551+00 TO 551+65	90 SQ YD
RT STA 551+00 TO 551+65	90 SQ YD
TOTAL	180 SQ YD

FILTER FABRIC

LT STA 551+00 TO 551+65	100 SQ YD
RT STA 551+00 TO 551+65	100 SQ YD
TOTAL	200 SQ YD



EROSION CONTROL BLANKET

TEMPORARY DITCH CHECK

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE: VERT. HORIZ.

DATE

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PLOT DATE = 8/20/2007
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USER NAME = staffernik

CONTRACT NO. 94967

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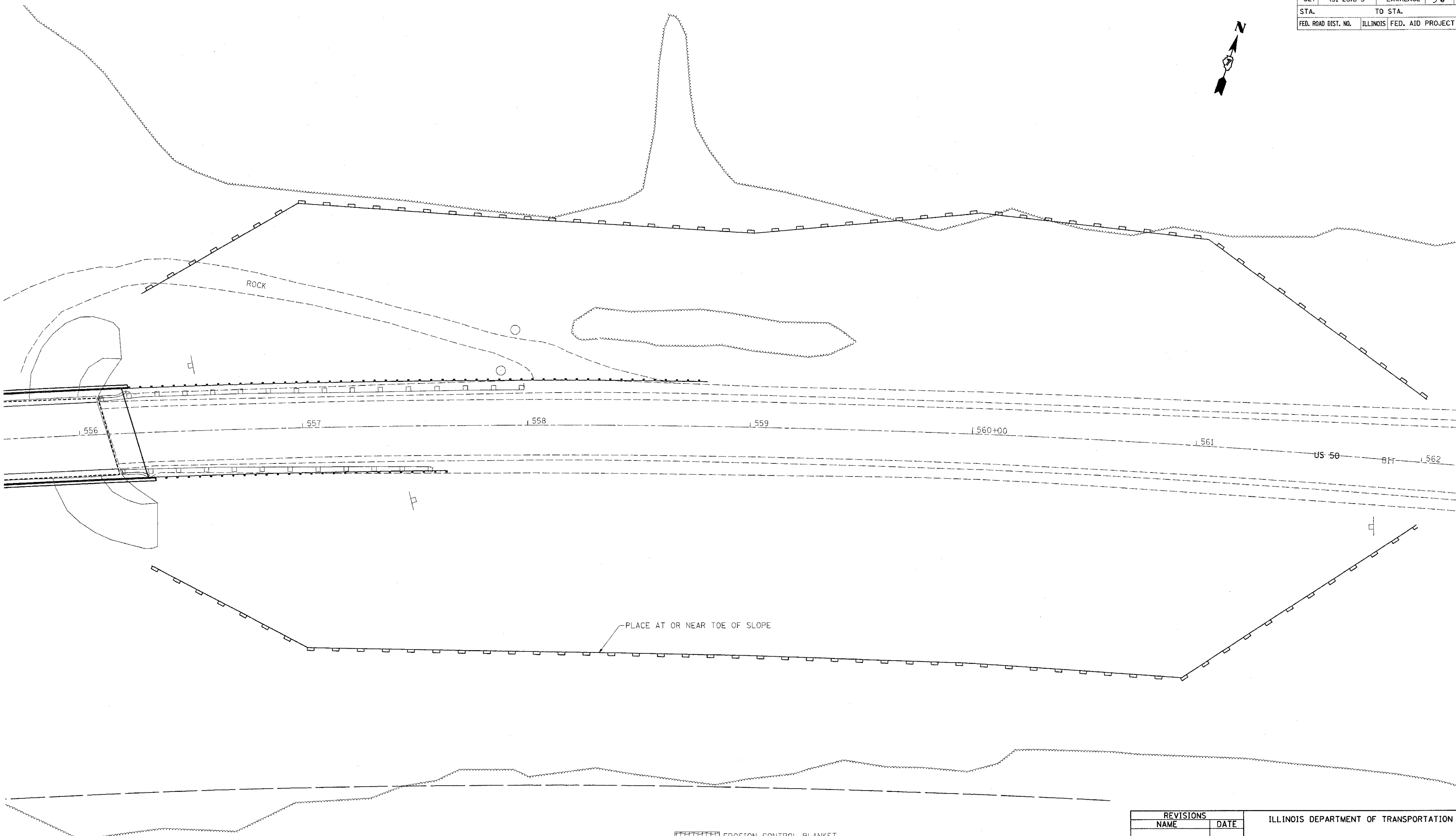
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EROSION CONTROL BLANKET

PERIMETER EROSION BARRIER

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

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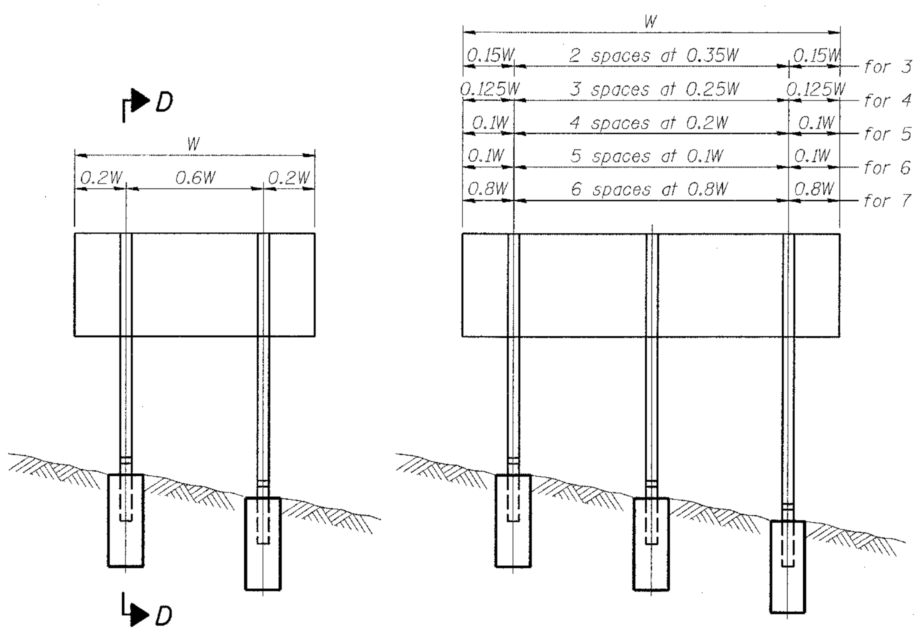
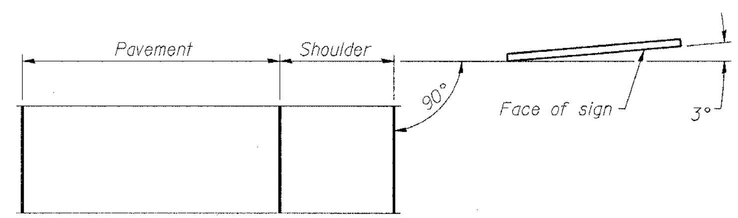
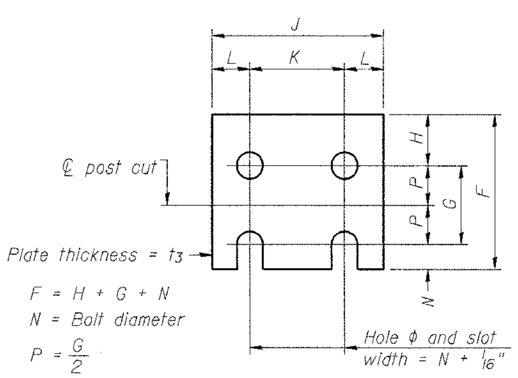


ELEVATION



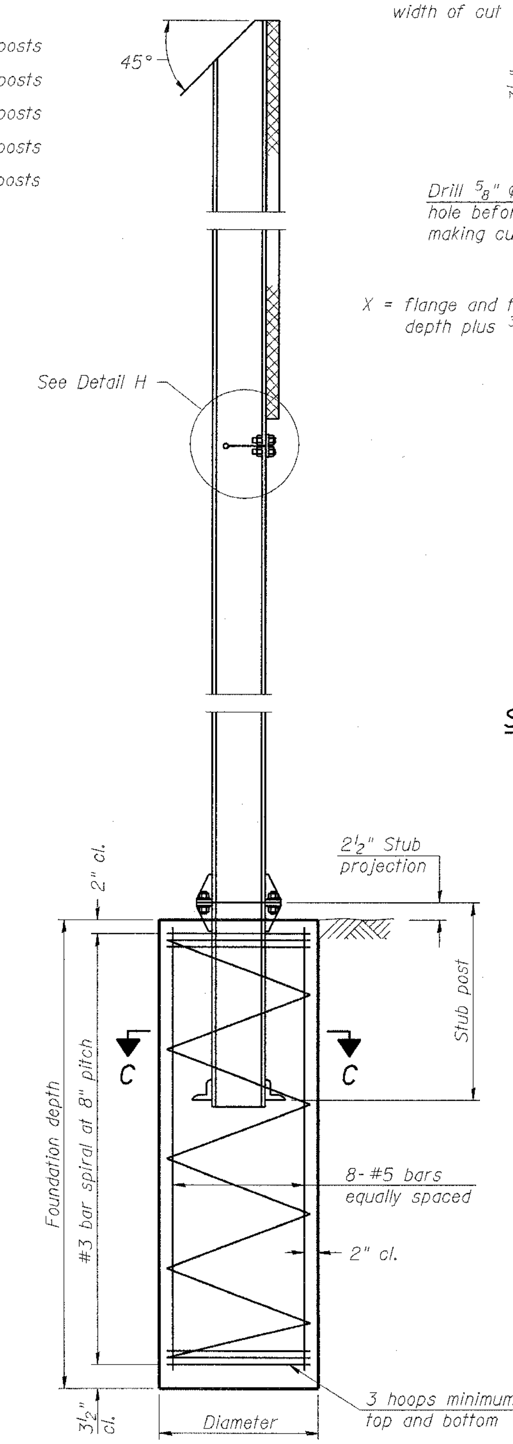
LOCATION SKETCH



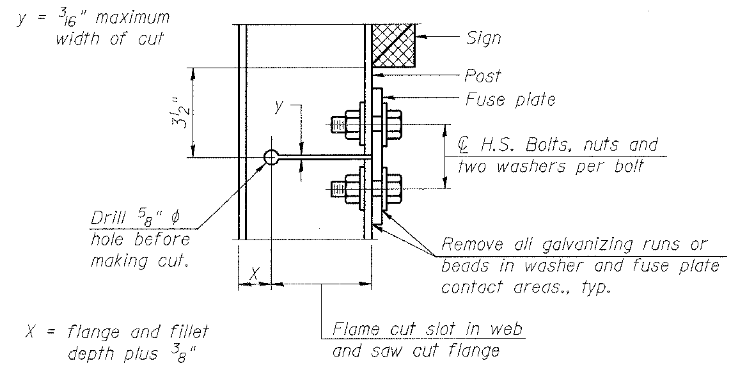
FUSE PLATE DETAIL

(Install with notches down.)

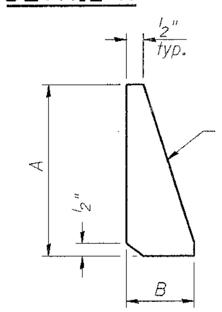
FUSE PLATE DATA		
N = Bolt Diameter	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"
1 1/4"	3 1/2"	1 7/8"



SECTION D-D

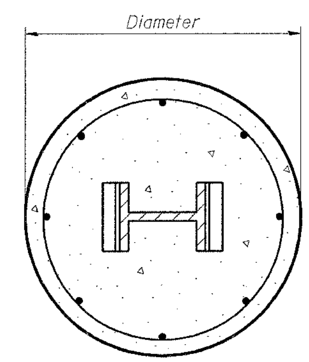


DETAIL H



STIFFENER PLATE DETAIL

(See table for dimensions.)



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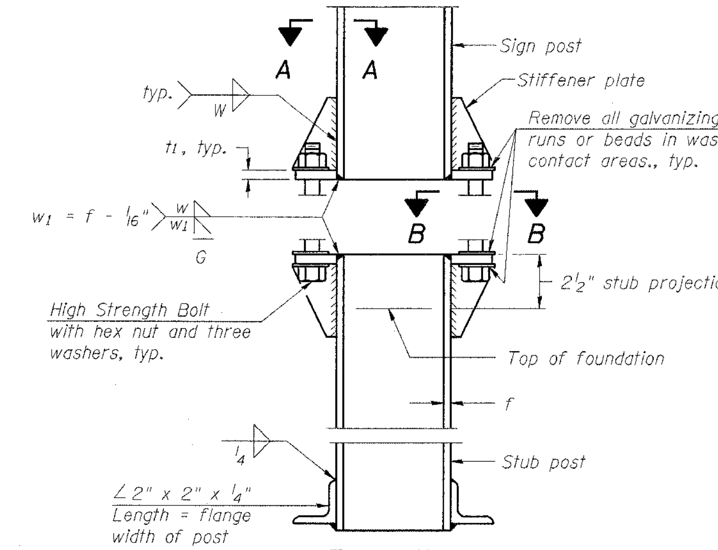
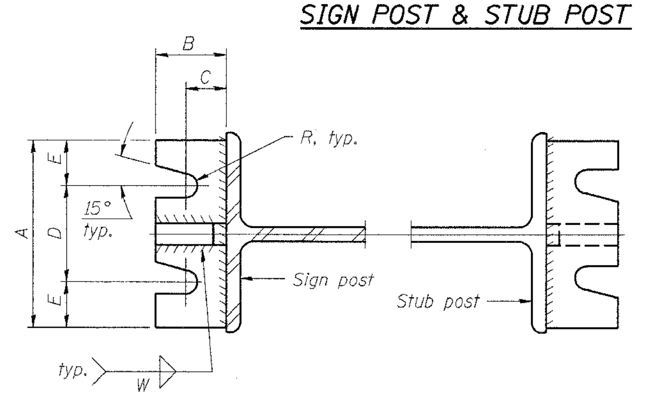


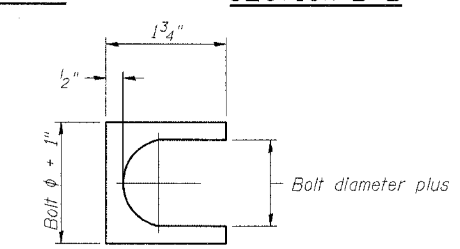
ELEVATION

SIGN POST & STUB POST



SECTION A-A

SECTION B-B



SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 727.05 and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 20,000 p.s.i.
Reinforcing steel - 20,000 p.s.i.
Concrete - 1,400 p.s.i.
Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

NUMBER	REVISION	DATE

BREAK-AWAY WIDE FLANGE STEEL SIGN POST DETAILS

PLOT DATE = 8/20/2007
FILE NAME = c:\projects\94967d\shtdet_94967.dgn
PLOT SCALE = 20.0000 ' / IN.
USER NAME = steffenmk

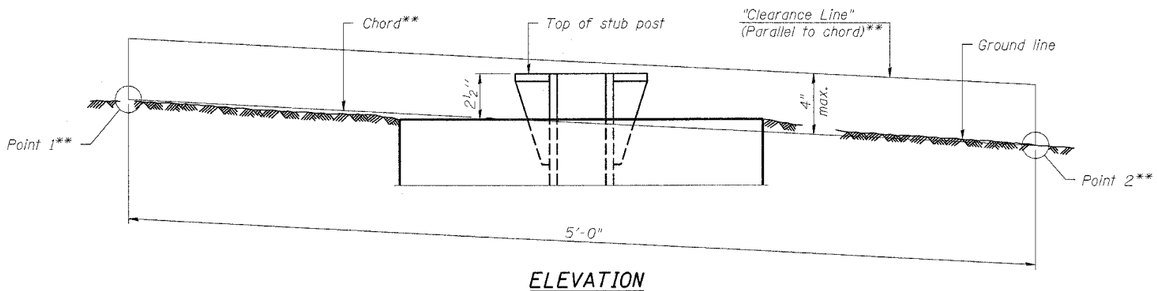
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	LAWRENCE	56	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

POST	CONCRETE FOUNDATION TABLE							POST TO STUB POST CONNECTION DATA									FUSE PLATE DATA			
	Foundation			Reinforcement			Stub Post													
	Diameter	*Minimum Depth	Concrete (1) cu. yds.)	Vertical Bars Length	Bar Spirals Diameter	Bar Spirals Length	lbs. (2)	Length	Bolt Size	A	B	C	D	E	t_1	t_2	R	W	J	K	L	t_3
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-3"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	4"	2¼"	⅞"	¼"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	6"	3½"	1¼"	⅜"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¼"	2¾"	1¼"	⅜"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2½"	105'-0"	92	3'-0"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¾"	2¾"	1½"	½"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2½"	112'-0"	98	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	5¾"	2¾"	1½"	⅝"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2½"	119'-0"	107	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6½"	3½"	1½"	⅝"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8½"	145'-0"	113	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6¾"	3½"	1⅝"	½"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8½"	153'-0"	122	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	6¾"	3½"	1⅝"	½"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8½"	162'-0"	130	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	7"	3½"	1¾"	½"

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE																					
	Sign Height																					
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"	17'-0"	18'-0"	19'-0"	20'-0"	21'-0"	22'-0"	23'-0"	24'-0"
W6x9	½" x 1½"	½" x 1½"	½" x 1½"	½" x 1½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
W6x15	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	—	—	—	—	—	—	—	—	—	—	—	—	—
W8x18	½" x 1¾"	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	—	—	—	—	—	—	—	—	—	—	—	—
W10x22	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2"	⅝" x 2"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	—	—	—	—	—	—	—	—	—
W10x26	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	—	—	—	—	—	—	—	—
W12x26	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	—	—	—	—	—	—	—
W14x30	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2"	⅝" x 2"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	—	—	—	—	—
W14x38	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"
W16x45	—	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1" x 2¾"



ELEVATION
GROUND LINE & STUB POST

** For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

(1) Quantity includes all concrete necessary for one foundation.

(2) Includes reinforcement bars and spiral hooping for one foundation.

NUMBER	REVISION	DATE

BREAK-AWAY WIDE FLANGE
STEEL SIGN POST TABLES

BAW-A-2 6/01/2007

(Sheet 2 of 2)

PLOT DATE = 6/29/2007
FILE NAME = d:\projects\94967\sheets_94967.dgn
PLOT SCALE = 20.0000 ' / IN.
USER NAME = steffanmk

Bench Mark: Chiseled square on the west corner of the northwest wingwall of the existing structure. Station 552+07.37, 19.1 feet to the left of centerline of roadway. Elevation 434.87

Existing Structure: S.N. 051-0011 Built in 1959 as F.A.I. Route 8, Section 51-23B-1 at Station 554+17.96. The structure is a six span concrete T beam with a length of 391'-6" back-to-back of abutments. The superstructure is 35'-8" wide and is built on a radius. The piers consist of solid walls with spread footings in rock. The open pile bent abutments are supported on steel piles. The existing bridge is to be removed and replaced under stage construction. Traffic to be maintained using stage construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

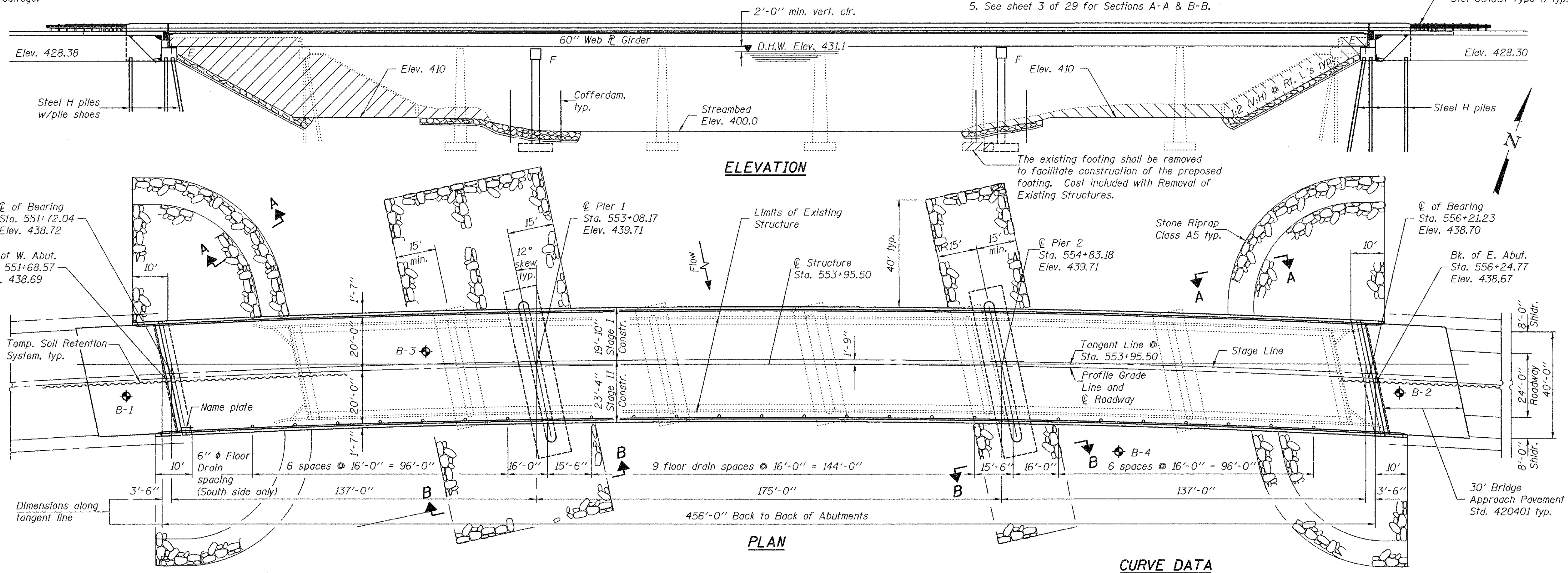
	Pier 1	Pier 2
Estimated top of rock	399.0	398.0
Approximate bottom of footing	395.5	394.5
Estimated water surface elevation = 409.0		

Notes:
1. Hatched area indicates channel excavation. See Roadway Plans for quantities.
2. Cofferdams will be required at Pier 1 and Pier 2.
3. Remove existing broken concrete along banks, prior to placement of stone riprap. Cost included with Channel Excavation.
4. Provide temporary support system mechanism at existing girder ends at existing Pier 3 for Stage I traffic. See details on sheet 4 of 29.
5. See sheet 3 of 29 for Sections A-A & B-B.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	18
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
29 SHEETS

Contract No. 94967



DESIGN SCOUR TABLE

Design Scour Elevation	W. Abut.	Pier 1	Pier 2	E. Abut.
	428.0	396.5	395.5	428.0

WATERWAY INFORMATION

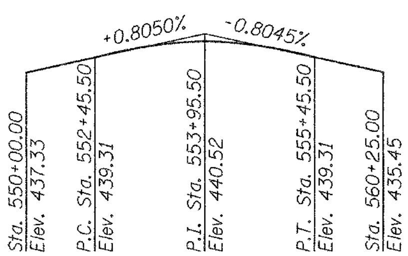
Drainage Area = 2329.25 mi² Low Grade Elev. 430.7 @ Sta. 50+00 (IL.1)

Flood Frequency		Q C.F.S. Exist.	Q C.F.S. Prop.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design 50 Yr.	Main Channel	32008	30685	7384	8901	431.1	0.2	0.2	431.3	431.3
	N. Overflow	3637	7130	4068	4600	431.1	0.2	0.2	431.3	431.3
	S. Overflow	15373	13203	7980	8359	431.1	0.2	0.2	431.3	431.3
	Total	51018	51018	19432	21860	-	-	-	-	-
Base 100 Yr.	Main Channel	30718	31333	7384	8961	432.2	0.2	0.2	432.4	432.4
	N. Overflow	8955	9085	4068	4600	432.2	0.2	0.2	432.4	432.4
	S. Overflow	17568	16823	7980	8359	432.2	0.2	0.2	432.4	432.4
	Total	57241	57241	19432	21920	-	-	-	-	-
Overtopping 40 Yr.	Main Channel	30474	30723	7362	8771	430.8	0.2	0.2	431.0	431.0
	N. Overflow	6011	6153	4068	4600	430.8	0.2	0.2	431.0	431.0
	S. Overflow	11793	11402	7980	8359	430.8	0.2	0.2	431.0	431.0
	Total	48278	48278	19432	21730	-	-	-	-	-
Max. Calc. 500 Yr.	Main Channel	32398	33003	7384	8961	432.5	0.4	0.4	432.9	432.9
	N. Overflow	13260	13560	4068	4600	432.5	0.4	0.4	432.9	432.9
	S. Overflow	26014	25109	7980	8359	432.5	0.4	0.4	432.9	432.9
	Total	71672	71672	19432	21920	-	-	-	-	-

10 yr. velocity through existing bridge = 3.9 fps 10 yr. velocity through proposed bridge = 3.1 fps

STATION 553+95.50
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 327 SEC. (51-23)B-3
LOADING HL-93
STR. NO. 051-0063

NAME PLATE
See Std. 515001



PROFILE GRADE
(F.A.P. Rte. 327)

DESIGNED	W E Bock
CHECKED	[signature]
DRAWN	h.t. duong
CHECKED	CEH / MDS

EXAMINED [signature] Oct. 2, 2007
ENGINEER OF BRIDGE DESIGN

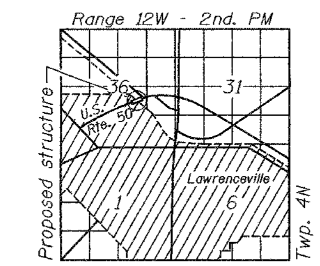
PASSED [signature]
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS — RALPH E. ANDERSON — 081-004625 — LICENSED STRUCTURAL ENGINEER — SPRINGFIELD

EXPIRES 11-30-2008

CURVE DATA

Exist. Curve C1A-1 (Centerline of Roadway)
PI Sta. = 580+83.00
Δ = 66°-01'-58" (RT)
D = 1°-12'-40"
R = 4,730.65'
T = 3,074.04'
L = 5,452.02'
E = 911.05'
e = 1.5%
T.R. = 40'
S.E. RUN = 40'
P.C. Sta. = 550+08.96
P.T. Sta. = 604+60.97



LOCATION SKETCH

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2007 LRFD AASHTO

DESIGN STRESSES
FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel M270 Grade 50)

SEISMIC DATA
Seismic Performance Category (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 0.09g
Site Coefficient (S) = 1.2

GENERAL PLAN & ELEVATIONS
U.S. RT. 50 OVER EMBARRAS RIVER
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
29 SHEETS

Contract No. 94967

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$'' ϕ, holes $\frac{15}{16}$'' ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 788380 lbs. (Grade 50)

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

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

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

Concrete sealer shall be applied to the designated areas of the abutments.

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

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

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

Only the structural steel shall be painted. All other surfaces shall be protected from being painted. All such paint and overspray shall be required to be removed at the Contractor's expense.

Removal of existing slope walls included in the cost of Removal of Existing Structures.

Slip forming of the bridge parapets will not be allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		191	191
Stone Riprap, Class A5	Sq. Yd.		3098	3098
Filter Fabric	Sq. Yd.		3098	3098
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		192	192
Cofferdam Excavation	Cu. Yd.		270	270
Rock Excavation for Structures	Cu. Yd.		149	149
Cofferdams	Each		2	2
Floor Drains	Each	24		24
Concrete Structures	Cu. Yd.		583.9	583.9
Concrete Superstructure	Cu. Yd.	610.5	14.2	624.7
Bridge Deck Grooving	Sq. Yd.	1907		1907
Seal Coat Concrete	Cu. Yd.		19.2	19.2
Concrete Encasement	Cu. Yd.		8.8	8.8
Protective Coat	Sq. Yd.	2430		2430
Furnishing and Erecting Structural Steel	L. Sum	1.0		1.0
Stud Shear Connectors	Each	4464		4464
Reinforcement Bars, Epoxy Coated	Pound	166700	87630	254330
Bar Splicers	Each	1607	313	1920
Furnishing Steel Piles HP12x63	Foot		660	660
Driving Piles	Foot		660	660
Test Pile Steel HP12x63	Each		2	2
Pile Shoes	Each		13	13
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	86		86
Elastomeric Bearing Assembly, Type II	Each	12		12
Anchor Bolt $1\frac{1}{4}$''	Each		72	72
Concrete Sealer	Sq. Ft.		1227	1227
Geocomposite Wall Drain	Sq. Yd.		82	82
Pipe Underdrains for Structures, 4''	Foot		120	120
Mechanical Splice	Each		556	556
Temporary Soil Retention System	Sq. Ft.		1551	1551

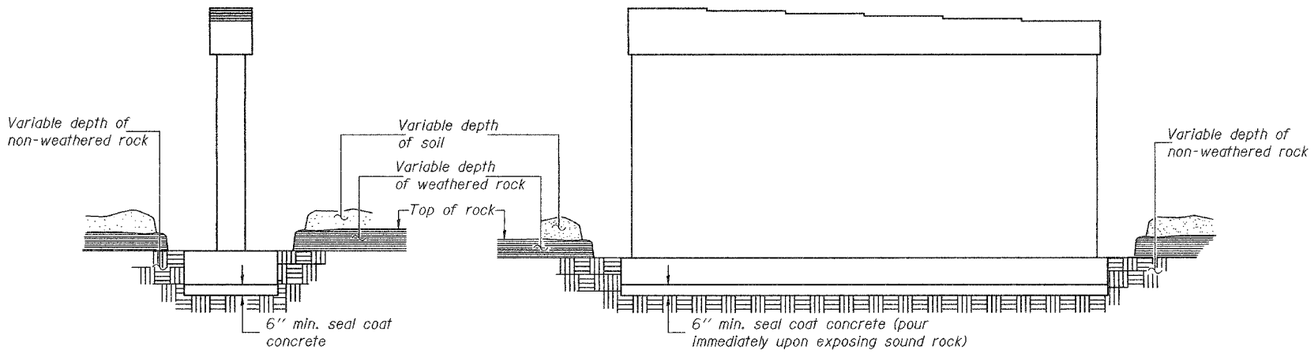
INDEX OF SHEETS

Notes: The bottom of footing elevations shall be a minimum of 12 inches in non-weathered rock. The rock excavation shall be made with near vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.

It is anticipated that variable depths of weathered rock will lie on top of the non-weathered rock.

The footing excavations shall be undercut by 6 inches and immediately filled with seal coat concrete to prevent rapid degradation of the exposed foundation material surface. This concrete seal shall extend out to the faces of the rock excavation and shall be struck off level. The spread footing shall then be built on this level concrete platform.

At the proposed Pier 2 footing location, the bottom of the proposed footing shall also satisfy the condition of being a minimum of 6 inches below the as-built footing elevation for the existing Pier 4.



PIER CONSTRUCTION DETAILS

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL DATA
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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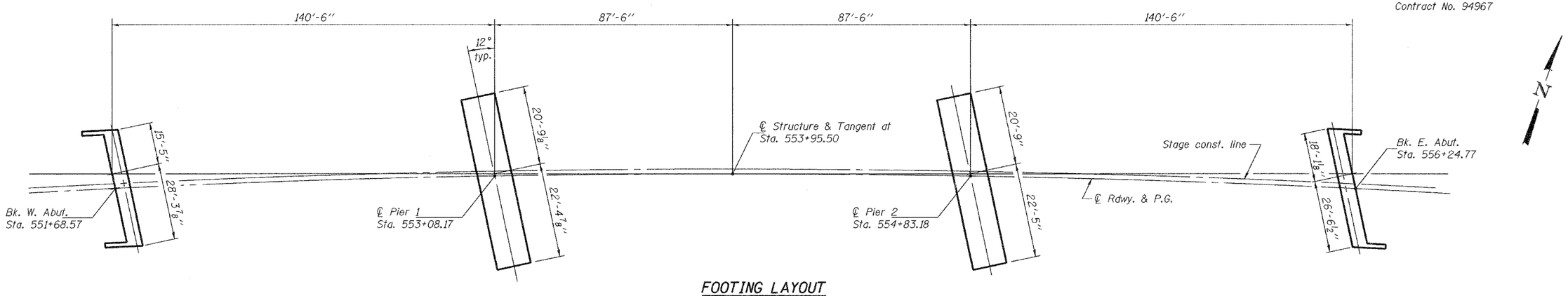
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

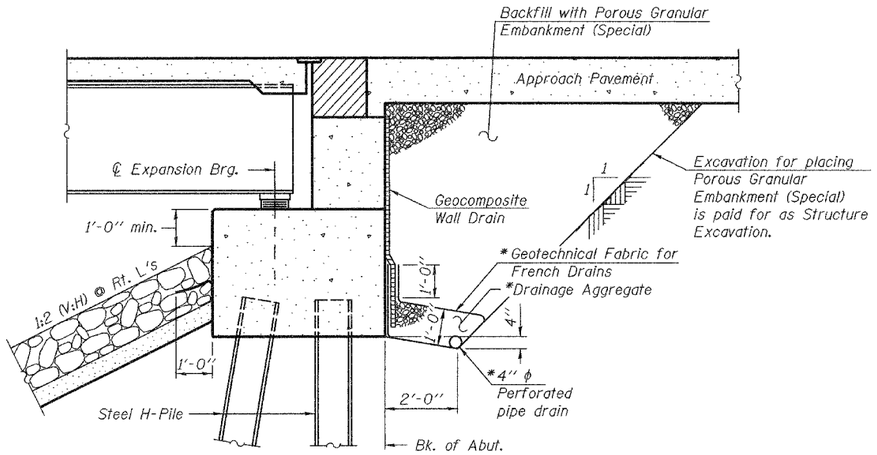
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	20
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
29 SHEETS

Contract No. 94967



FOOTING LAYOUT

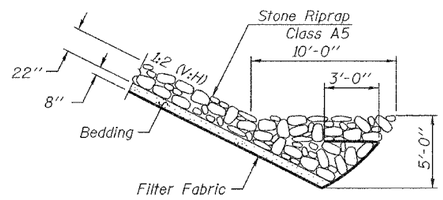


SECTION THRU PILE BENT ABUTMENT

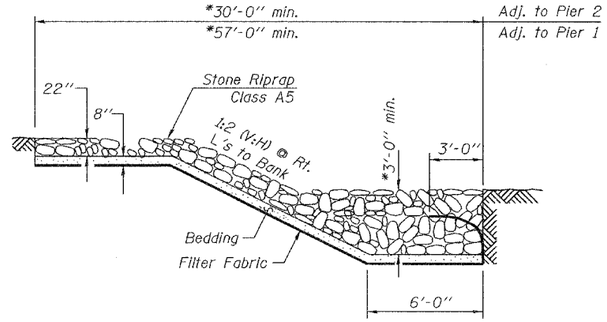
(Horiz. dim. ℄ Rt. L's)

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

Note: All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

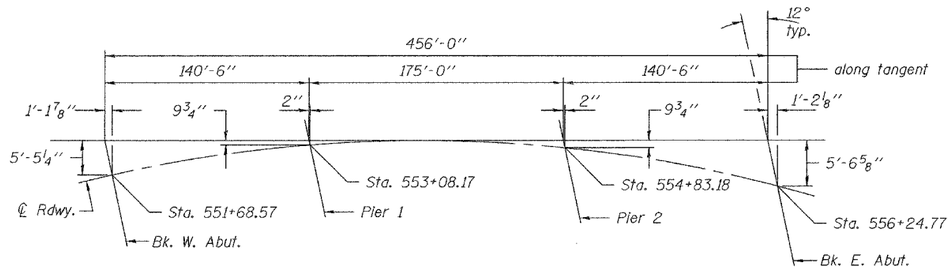


SECTION A-A



*Resident Engineer shall review field conditions and revise riprap layout as needed in the field.

SECTION B-B



OFFSET SKETCH

(Tangent to ℄ Rdwy. at Station 553+95.50)

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

FOOTING LAYOUT & GENERAL DATA
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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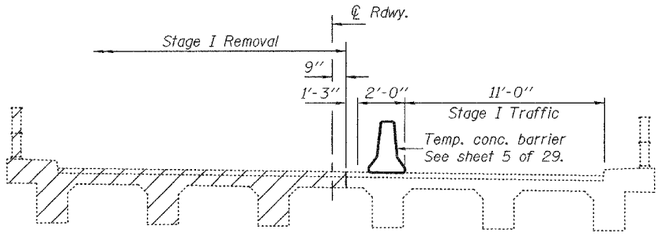
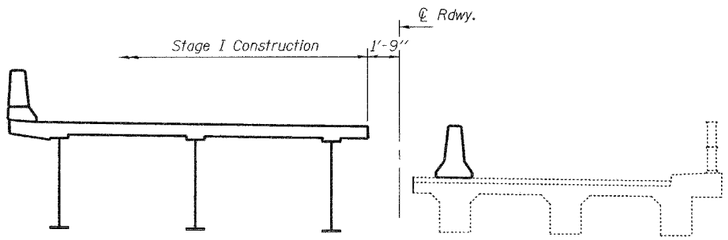
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

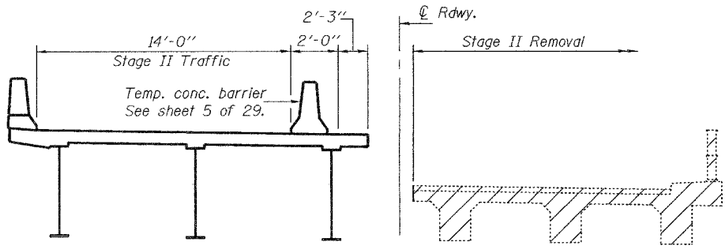
Contract No. 94967



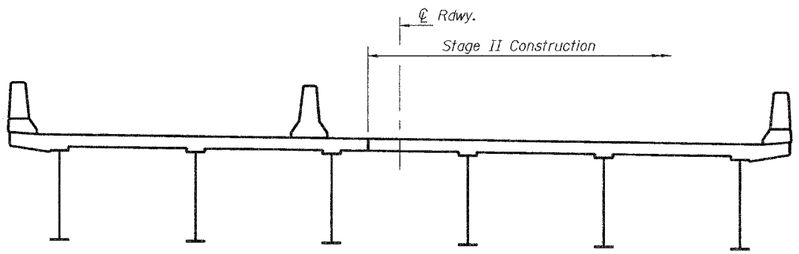
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL

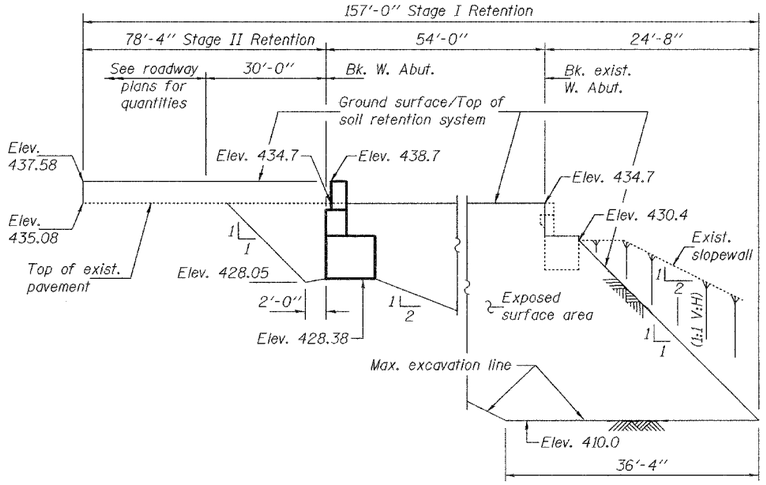


STAGE II CONSTRUCTION

Notes: Hatched areas indicate removal of existing structures.
For quantity of temporary concrete barrier, see Roadway Plans.
All cross sections are looking upstation.
Dimensions shown are radial unless noted otherwise.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



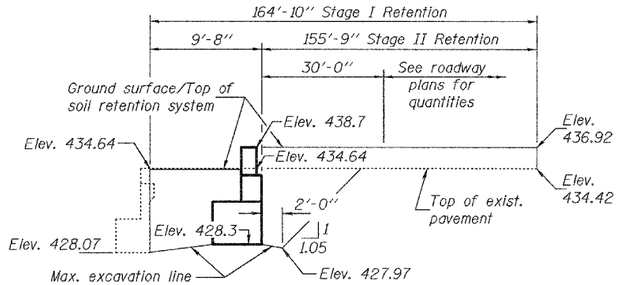
TEMPORARY SOIL RETENTION SYSTEM - WEST ABUT.

(Looking North)

A cantilevered sheet piling design does not appear feasible for portions of the temporary soil retention system 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.

The temporary soil retention system to be furnished by the Contractor shall be capable of maintaining a minimum 1:1 embankment slope in front of the existing abutment to protect the structural integrity of the existing abutment for Stage I traffic.

All horizontal dimensions are given along the stage removal line.

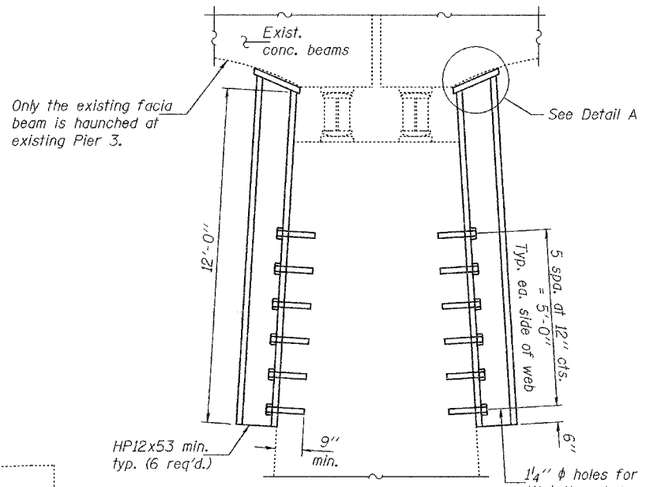


TEMPORARY SOIL RETENTION SYSTEM - EAST ABUT.

(Looking North)

The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

All horizontal dimensions are given along the stage removal line.



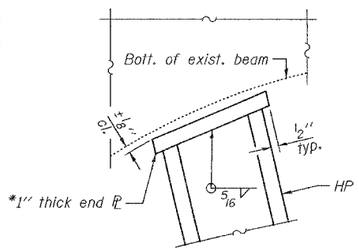
SECTION A-A

The cost of the temporary support system at existing Pier 3 is included with Removal of Existing Structures. The temporary support system shall be installed prior to commencing Stage I removal operations and shall remain in place until traffic has been shifted to the Stage II traffic location.

Structural steel sections and plates for the temporary support system shall have a minimum yield strength of 36 ksi.

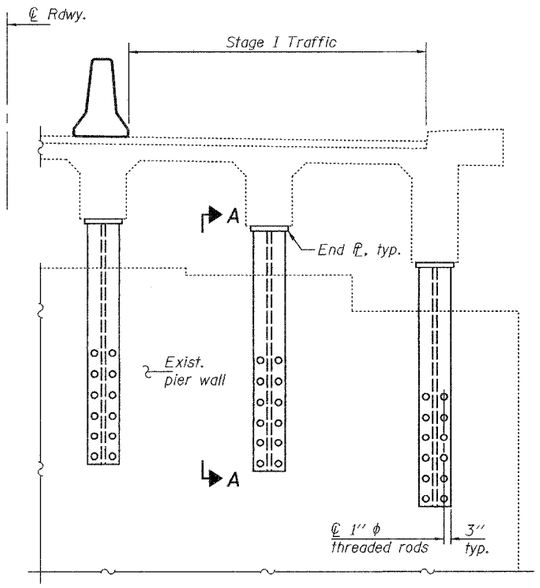
Threaded rods for the temporary support system shall conform to the requirements of ASTM F 1554, Grade 55. The chemical adhesive chosen by the Contractor for installing the anchor rods shall be subject to Section 584 of the Standard Specifications and capable of developing an ultimate shear capacity of 40 kips.

If the Contractor elects to modify the configuration of the support system or alter the size of the members for a lesser design requirement, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer. Design details and calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer retained by the Contractor. Cost included with Removal of Existing Structures.



DETAIL A

*The end of the HP section shall be beveled to allow the end plate to be placed approximately parallel to the bottom of the existing beams. Field measurements shall be taken by the Contractor to determine the degree of the required bevel.



EXISTING PIER 3 - PARTIAL ELEVATION

(Looking upstation)

STAGE CONSTRUCTION DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

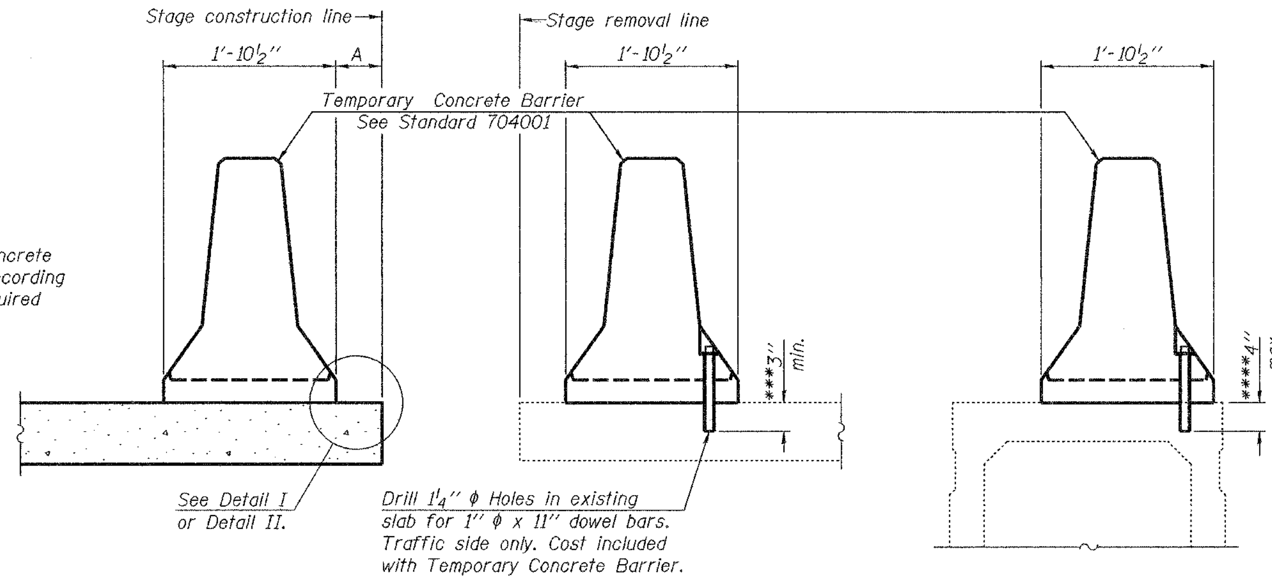
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	22
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
29 SHEETS

Contract No. 94967

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

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

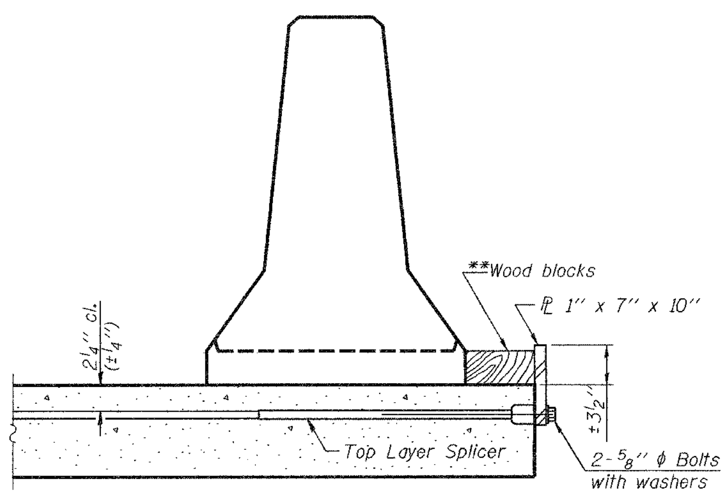
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝"ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

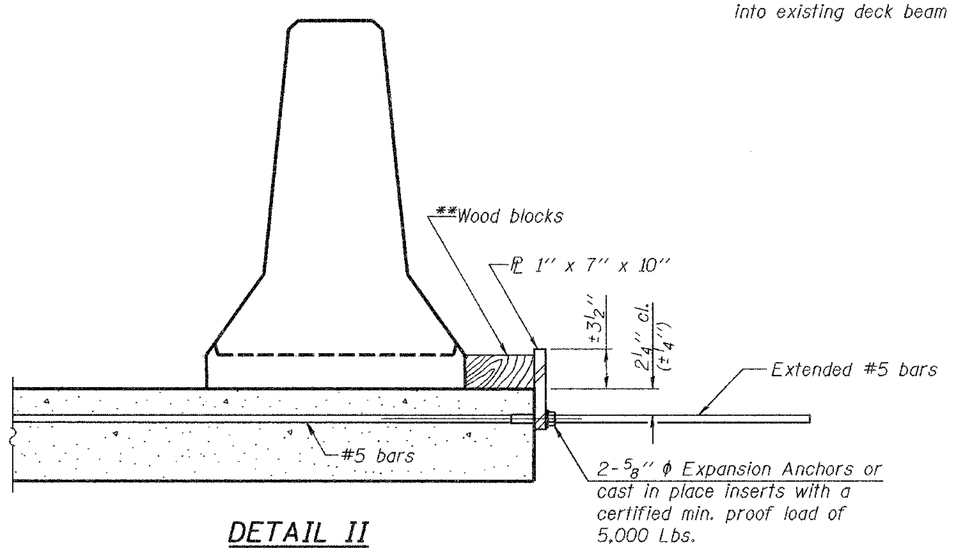
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

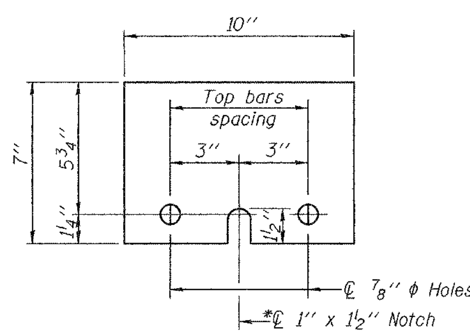
****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x 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.

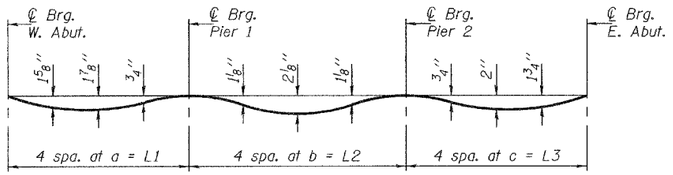
DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

R-27

9-3-07

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

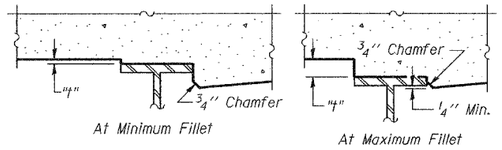


DEAD LOAD DEFLECTION DIAGRAM

(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 29.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



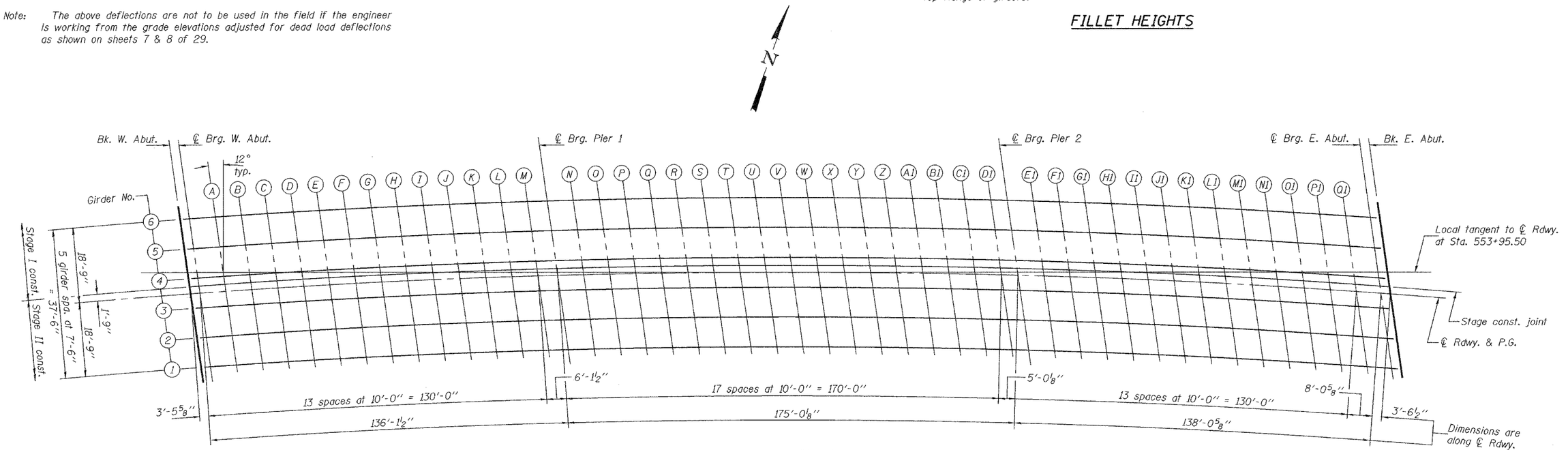
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
29 SHEETS

Contract No. 94967

To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 7 & 8 of 29, minus slab thickness, equals the fillet heights "t" above top flange of girders.

FILLET HEIGHTS



PLAN

TABLE OF DIMENSIONS

(Dimensions are along the ℄ of each respective girder.)

	L1	L2	L3	a	b	c
Girder 1	136'-1 3/4"	175'-0 1/2"	138'-1"	34'-0 1/2"	43'-9 1/8"	34'-6 1/4"
Girder 2	136'-1 3/4"	175'-0 3/8"	138'-0 7/8"	34'-0 1/2"	43'-9 1/8"	34'-6 1/4"
Girder 3	136'-1 1/2"	175'-0 1/4"	138'-0 5/8"	34'-0 3/8"	43'-9 1/8"	34'-6 1/8"
Girder 4	136'-1 1/2"	175'-0"	138'-0 1/2"	34'-0 3/8"	43'-9"	34'-6 1/8"
Girder 5	136'-1 3/8"	174'-11 7/8"	138'-0 3/8"	34'-0 3/8"	43'-9"	34'-6 1/8"
Girder 6	136'-1 3/8"	174'-11 7/8"	138'-0 1/8"	34'-0 3/8"	43'-9"	34'-6"

Note: All skew lines are 12° right forward relative to the local tangent.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2. 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
29 SHEETS

Contract No. 94967

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55171.64	18.75	438.43	438.43
Cl. Brg. W. Abut.	55175.12	18.75	438.46	438.46
A	55185.16	18.75	438.54	438.59
B	55195.20	18.75	438.62	438.71
C	55205.24	18.75	438.70	438.82
D	55215.28	18.75	438.79	438.94
E	55225.33	18.75	438.87	439.03
F	55235.37	18.75	438.95	439.11
G	55245.41	18.75	439.03	439.18
H	55255.45	18.75	439.11	439.24
I	55265.49	18.75	439.18	439.28
J	55275.53	18.75	439.25	439.32
K	55285.57	18.75	439.31	439.35
L	55295.61	18.75	439.36	439.38
M	55305.65	18.75	439.42	439.43
Cl. Brg. Pier 1	55311.81	18.75	439.44	439.44
N	55321.85	18.75	439.49	439.50
O	55331.89	18.75	439.52	439.55
P	55341.93	18.75	439.56	439.61
Q	55351.98	18.75	439.58	439.66
R	55362.02	18.75	439.60	439.71
S	55372.06	18.75	439.62	439.76
T	55382.10	18.75	439.63	439.79
U	55392.14	18.75	439.63	439.80
V	55402.18	18.75	439.63	439.81
W	55412.22	18.75	439.63	439.80
X	55422.27	18.75	439.61	439.76
Y	55432.31	18.75	439.60	439.73
Z	55442.35	18.75	439.57	439.67
A1	55452.39	18.75	439.55	439.62
B1	55462.43	18.75	439.51	439.55
C1	55472.47	18.75	439.47	439.49
D1	55482.52	18.75	439.43	439.44
Cl. Brg. Pier 2	55487.55	18.75	439.41	439.41
E1	55497.59	18.75	439.35	439.36
F1	55507.63	18.75	439.30	439.33
G1	55517.67	18.75	439.23	439.28
H1	55527.72	18.75	439.16	439.24
I1	55537.76	18.75	439.09	439.20
J1	55547.80	18.75	439.01	439.15
K1	55557.84	18.75	438.93	439.09
L1	55567.88	18.75	438.85	439.02
M1	55577.93	18.75	438.77	438.93
N1	55587.97	18.75	438.69	438.84
O1	55598.01	18.75	438.61	438.73
P1	55608.05	18.75	438.53	438.62
Q1	55618.10	18.75	438.44	438.48
Cl. Brg. E. Abut.	55626.18	18.75	438.38	438.38
Bk. of E. Abut.	55629.74	18.75	438.35	438.35

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55170.41	11.25	438.54	438.54
Cl. Brg. W. Abut.	55173.89	11.25	438.56	438.56
A	55183.91	11.25	438.64	438.69
B	55193.93	11.25	438.73	438.82
C	55203.96	11.25	438.81	438.94
D	55213.98	11.25	438.89	439.04
E	55224.01	11.25	438.97	439.13
F	55234.03	11.25	439.05	439.21
G	55244.06	11.25	439.13	439.28
H	55254.08	11.25	439.21	439.34
I	55264.11	11.25	439.28	439.38
J	55274.13	11.25	439.35	439.42
K	55284.16	11.25	439.41	439.45
L	55294.18	11.25	439.47	439.49
M	55304.21	11.25	439.52	439.53
Cl. Brg. Pier 1	55310.35	11.25	439.55	439.55
N	55320.38	11.25	439.59	439.60
O	55330.40	11.25	439.63	439.66
P	55340.42	11.25	439.66	439.71
Q	55350.45	11.25	439.69	439.77
R	55360.47	11.25	439.71	439.83
S	55370.50	11.25	439.73	439.87
T	55380.52	11.25	439.74	439.91
U	55390.55	11.25	439.74	439.92
V	55400.57	11.25	439.74	439.92
W	55410.60	11.25	439.74	439.91
X	55420.62	11.25	439.73	439.89
Y	55430.65	11.25	439.71	439.84
Z	55440.67	11.25	439.69	439.79
A1	55450.70	11.25	439.66	439.73
B1	55460.72	11.25	439.63	439.67
C1	55470.75	11.25	439.59	439.61
D1	55480.77	11.25	439.55	439.56
Cl. Brg. Pier 2	55485.80	11.25	439.53	439.53
E1	55495.82	11.25	439.48	439.49
F1	55505.85	11.25	439.42	439.45
G1	55515.87	11.25	439.36	439.41
H1	55525.90	11.25	439.29	439.37
I1	55535.92	11.25	439.22	439.34
J1	55545.95	11.25	439.14	439.28
K1	55555.97	11.25	439.06	439.23
L1	55566.00	11.25	438.98	439.15
M1	55576.02	11.25	438.90	439.07
N1	55586.05	11.25	438.81	438.97
O1	55596.07	11.25	438.73	438.86
P1	55606.10	11.25	438.65	438.74
Q1	55616.13	11.25	438.57	438.61
Cl. Brg. E. Abut.	55624.20	11.25	438.51	438.51
Bk. of E. Abut.	55627.74	11.25	438.48	438.48

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55169.18	3.75	438.64	438.64
Cl. Brg. W. Abut.	55172.65	3.75	438.67	438.67
A	55182.66	3.75	438.75	438.80
B	55192.67	3.75	438.83	438.92
C	55202.68	3.75	438.91	439.03
D	55212.69	3.75	438.99	439.14
E	55222.69	3.75	439.07	439.23
F	55232.70	3.75	439.15	439.31
G	55242.71	3.75	439.23	439.38
H	55252.72	3.75	439.31	439.43
I	55262.73	3.75	439.38	439.48
J	55272.74	3.75	439.45	439.52
K	55282.74	3.75	439.52	439.56
L	55292.75	3.75	439.57	439.59
M	55302.76	3.75	439.63	439.64
Cl. Brg. Pier 1	55308.90	3.75	439.66	439.66
N	55318.90	3.75	439.70	439.71
O	55328.91	3.75	439.74	439.77
P	55338.92	3.75	439.77	439.82
Q	55348.93	3.75	439.80	439.88
R	55358.94	3.75	439.82	439.93
S	55368.95	3.75	439.84	439.98
T	55378.95	3.75	439.85	440.01
U	55388.96	3.75	439.86	440.03
V	55398.97	3.75	439.86	440.03
W	55408.98	3.75	439.85	440.02
X	55418.99	3.75	439.84	439.99
Y	55428.99	3.75	439.83	439.95
Z	55439.00	3.75	439.81	439.91
A1	55449.01	3.75	439.78	439.85
B1	55459.02	3.75	439.75	439.79
C1	55469.03	3.75	439.71	439.73
D1	55479.04	3.75	439.67	439.68
Cl. Brg. Pier 2	55484.05	3.75	439.65	439.65
E1	55494.06	3.75	439.60	439.61
F1	55504.07	3.75	439.54	439.57
G1	55514.08	3.75	439.48	439.53
H1	55524.08	3.75	439.41	439.49
I1	55534.09	3.75	439.34	439.45
J1	55544.10	3.75	439.27	439.41
K1	55554.11	3.75	439.18	439.34
L1	55564.12	3.75	439.10	439.27
M1	55574.13	3.75	439.02	439.19
N1	55584.13	3.75	438.94	439.09
O1	55594.14	3.75	438.86	438.99
P1	55604.15	3.75	438.78	438.87
Q1	55614.16	3.75	438.70	438.74
Cl. Brg. E. Abut.	55622.22	3.75	438.64	438.64
Bk. of E. Abut.	55625.76	3.75	438.61	438.61

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55168.57	0.00	438.69	438.69
Cl. Brg. W. Abut.	55172.04	0.00	438.72	438.72
A	55182.04	0.00	438.80	438.85
B	55192.04	0.00	438.88	438.97
C	55202.04	0.00	438.96	439.08
D	55212.04	0.00	439.04	439.19
E	55222.04	0.00	439.12	439.28
F	55232.04	0.00	439.20	439.36
G	55242.04	0.00	439.28	439.43
H	55252.04	0.00	439.36	439.49
I	55262.04	0.00	439.44	439.54
J	55272.04	0.00	439.50	439.57
K	55282.04	0.00	439.57	439.61
L	55292.04	0.00	439.63	439.65
M	55302.04	0.00	439.68	439.69
Cl. Brg. Pier 1	55308.17	0.00	439.71	439.71
N	55318.17	0.00	439.75	439.76
O	55328.17	0.00	439.79	439.82
P	55338.17	0.00	439.83	439.88
Q	55348.17	0.00	439.85	439.93
R	55358.17	0.00	439.88	439.99
S	55368.17	0.00	439.89	440.03
T	55378.17	0.00	439.91	440.07
U	55388.17	0.00	439.91	440.08
V	55398.17	0.00	439.91	440.08
W	55408.17	0.00	439.91	440.08
X	55418.17	0.00	439.90	440.05
Y	55428.17	0.00	439.89	440.01
Z	55438.17	0.00	439.87	439.97
A1	55448.17	0.00	439.84	439.91
B1	55458.17	0.00	439.81	439.85
C1	55468.17	0.00	439.77	439.79
D1	55478.17	0.00	439.73	439.74
Cl. Brg. Pier 2	55483.18	0.00	439.71	439.71
E1	55493.18	0.00	439.66	439.67
F1	55503.18	0.00	439.60	439.63
G1	55513.18	0.00	439.54	439.59
H1	55523.18	0.00	439.48	439.56
I1	55533.18	0.00	439.41	439.52
J1	55543.18	0.00	439.33	439.47
K1	55553.18	0.00	439.25	439.41
L1	55563.18	0.00	439.17	439.34
M1	55573.18	0.00	439.09	439.26
N1	55583.18	0.00	439.01	439.16
O1	55593.18	0.00	438.93	439.06
P1	55603.18	0.00	438.85	438.94
Q1	55613.18	0.00	438.77	438.81
Cl. Brg. E. Abut.	55621.23	0.00	438.70	438.70
Bk. of E. Abut.	55624.77	0.00	438.67	438.67

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	25
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 8
29 SHEETS

Contract No. 94967

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55168.29	-1.75	438.71	438.71
Cl. Brg. W. Abut.	55171.75	-1.75	438.74	438.74
A	55181.75	-1.75	438.82	438.87
B	55191.75	-1.75	438.90	438.99
C	55201.74	-1.75	438.98	439.10
D	55211.74	-1.75	439.06	439.21
E	55221.73	-1.75	439.14	439.30
F	55231.73	-1.75	439.23	439.39
G	55241.73	-1.75	439.31	439.46
H	55251.72	-1.75	439.39	439.52
I	55261.72	-1.75	439.46	439.56
J	55271.72	-1.75	439.53	439.60
K	55281.71	-1.75	439.59	439.63
L	55291.71	-1.75	439.65	439.67
M	55301.70	-1.75	439.70	439.71
Cl. Brg. Pier 1	55307.83	-1.75	439.73	439.73
N	55317.83	-1.75	439.78	439.79
O	55327.82	-1.75	439.82	439.85
P	55337.82	-1.75	439.85	439.90
Q	55347.82	-1.75	439.88	439.96
R	55357.81	-1.75	439.90	440.01
S	55367.81	-1.75	439.92	440.06
T	55377.80	-1.75	439.93	440.09
U	55387.80	-1.75	439.94	440.11
V	55397.80	-1.75	439.94	440.11
W	55407.79	-1.75	439.94	440.11
X	55417.79	-1.75	439.93	440.08
Y	55427.79	-1.75	439.91	440.03
Z	55437.78	-1.75	439.89	439.99
A1	55447.78	-1.75	439.87	439.94
B1	55457.77	-1.75	439.84	439.88
C1	55467.77	-1.75	439.80	439.82
D1	55477.77	-1.75	439.76	439.77
Cl. Brg. Pier 2	55482.77	-1.75	439.74	439.74
E1	55492.77	-1.75	439.69	439.70
F1	55502.77	-1.75	439.63	439.66
G1	55512.76	-1.75	439.57	439.62
H1	55522.76	-1.75	439.51	439.59
I1	55532.75	-1.75	439.44	439.55
J1	55542.75	-1.75	439.36	439.50
K1	55552.75	-1.75	439.28	439.44
L1	55562.74	-1.75	439.20	439.37
M1	55572.74	-1.75	439.12	439.29
N1	55582.73	-1.75	439.04	439.19
O1	55592.73	-1.75	438.96	439.09
P1	55602.73	-1.75	438.88	438.97
Q1	55612.72	-1.75	438.80	438.84
Cl. Brg. E. Abut.	55620.77	-1.75	438.73	438.73
Bk. of E. Abut.	55624.31	-1.75	438.70	438.70

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55167.96	-3.75	438.74	438.74
Cl. Brg. W. Abut.	55171.43	-3.75	438.77	438.77
A	55181.42	-3.75	438.85	438.90
B	55191.41	-3.75	438.93	439.02
C	55201.40	-3.75	439.01	439.13
D	55211.39	-3.75	439.09	439.24
E	55221.39	-3.75	439.17	439.33
F	55231.38	-3.75	439.25	439.41
G	55241.37	-3.75	439.33	439.48
H	55251.36	-3.75	439.41	439.54
I	55261.35	-3.75	439.49	439.59
J	55271.35	-3.75	439.56	439.63
K	55281.34	-3.75	439.62	439.66
L	55291.33	-3.75	439.68	439.70
M	55301.32	-3.75	439.73	439.74
Cl. Brg. Pier 1	55307.45	-3.75	439.76	439.76
N	55317.44	-3.75	439.81	439.82
O	55327.43	-3.75	439.85	439.88
P	55337.42	-3.75	439.88	439.93
Q	55347.41	-3.75	439.91	439.99
R	55357.40	-3.75	439.93	440.04
S	55367.40	-3.75	439.95	440.09
T	55377.39	-3.75	439.96	440.12
U	55387.38	-3.75	439.97	440.14
V	55397.37	-3.75	439.97	440.14
W	55407.36	-3.75	439.97	440.14
X	55417.35	-3.75	439.96	440.11
Y	55427.35	-3.75	439.94	440.06
Z	55437.34	-3.75	439.92	440.02
A1	55447.33	-3.75	439.90	439.97
B1	55457.32	-3.75	439.87	439.91
C1	55467.31	-3.75	439.83	439.85
D1	55477.30	-3.75	439.79	439.80
Cl. Brg. Pier 2	55482.31	-3.75	439.77	439.77
E1	55492.30	-3.75	439.72	439.73
F1	55502.29	-3.75	439.66	439.69
G1	55512.29	-3.75	439.60	439.65
H1	55522.28	-3.75	439.54	439.62
I1	55532.27	-3.75	439.47	439.58
J1	55542.26	-3.75	439.39	439.53
K1	55552.25	-3.75	439.31	439.47
L1	55562.24	-3.75	439.23	439.40
M1	55572.24	-3.75	439.15	439.32
N1	55582.23	-3.75	439.07	439.22
O1	55592.22	-3.75	438.99	439.12
P1	55602.21	-3.75	438.91	439.00
Q1	55612.20	-3.75	438.83	438.87
Cl. Brg. E. Abut.	55620.24	-3.75	438.76	438.76
Bk. of E. Abut.	55623.78	-3.75	438.74	438.74

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55166.74	-11.25	438.84	438.84
Cl. Brg. W. Abut.	55170.20	-11.25	438.87	438.87
A	55180.18	-11.25	438.95	439.00
B	55190.15	-11.25	439.03	439.12
C	55200.13	-11.25	439.11	439.24
D	55210.11	-11.25	439.19	439.34
E	55220.08	-11.25	439.27	439.43
F	55230.06	-11.25	439.35	439.51
G	55240.03	-11.25	439.43	439.58
H	55250.01	-11.25	439.51	439.64
I	55259.98	-11.25	439.59	439.69
J	55269.96	-11.25	439.66	439.73
K	55279.93	-11.25	439.72	439.76
L	55289.91	-11.25	439.78	439.80
M	55299.89	-11.25	439.84	439.85
Cl. Brg. Pier 1	55306.00	-11.25	439.87	439.87
N	55315.98	-11.25	439.91	439.92
O	55325.95	-11.25	439.95	439.98
P	55335.93	-11.25	439.99	440.04
Q	55345.90	-11.25	440.02	440.10
R	55355.88	-11.25	440.04	440.16
S	55365.85	-11.25	440.06	440.20
T	55375.83	-11.25	440.07	440.24
U	55385.80	-11.25	440.08	440.26
V	55395.78	-11.25	440.08	440.26
W	55405.75	-11.25	440.08	440.25
X	55415.73	-11.25	440.07	440.23
Y	55425.70	-11.25	440.06	440.19
Z	55435.68	-11.25	440.04	440.14
A1	55445.65	-11.25	440.02	440.09
B1	55455.63	-11.25	439.99	440.03
C1	55465.60	-11.25	439.95	439.97
D1	55475.58	-11.25	439.91	439.92
Cl. Brg. Pier 2	55480.58	-11.25	439.89	439.89
E1	55490.55	-11.25	439.84	439.85
F1	55500.53	-11.25	439.79	439.82
G1	55510.50	-11.25	439.73	439.78
H1	55520.48	-11.25	439.66	439.74
I1	55530.45	-11.25	439.59	439.71
J1	55540.43	-11.25	439.52	439.66
K1	55550.40	-11.25	439.44	439.60
L1	55560.38	-11.25	439.36	439.53
M1	55570.35	-11.25	439.28	439.45
N1	55580.33	-11.25	439.20	439.35
O1	55590.30	-11.25	439.12	439.25
P1	55600.27	-11.25	439.04	439.13
Q1	55610.25	-11.25	438.96	439.00
Cl. Brg. E. Abut.	55618.28	-11.25	438.89	438.89
Bk. of E. Abut.	55621.81	-11.25	438.86	438.86

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	55165.53	-18.75	438.95	438.95
Cl. Brg. W. Abut.	55168.98	-18.75	438.97	438.97
A	55178.94	-18.75	439.05	439.10
B	55188.90	-18.75	439.13	439.22
C	55198.86	-18.75	439.22	439.35
D	55208.82	-18.75	439.30	439.45
E	55218.78	-18.75	439.38	439.55
F	55228.74	-18.75	439.46	439.63
G	55238.70	-18.75	439.54	439.69
H	55248.66	-18.75	439.62	439.75
I	55258.62	-18.75	439.69	439.79
J	55268.58	-18.75	439.76	439.83
K	55278.54	-18.75	439.83	439.87
L	55288.50	-18.75	439.89	439.91
M	55298.45	-18.75	439.94	439.95
Cl. Brg. Pier 1	55304.56	-18.75	439.97	439.97
N	55314.52	-18.75	440.02	440.03
O	55324.48	-18.75	440.06	440.09
P	55334.44	-18.75	440.10	440.15
Q	55344.40	-18.75	440.13	440.21
R	55354.35	-18.75	440.15	440.26
S	55364.31	-18.75	440.17	440.31
T	55374.27	-18.75	440.18	440.34
U	55384.23	-18.75	440.19	440.36
V	55394.19	-18.75	440.20	440.38
W	55404.15	-18.75	440.19	440.36
X	55414.11	-18.75	440.19	440.34
Y	55424.07	-18.75	440.17	440.30
Z	55434.02	-18.75	440.16	440.26
A1	55443.98	-18.75	440.13	440.20
B1	55453.94	-18.75	440.10	440.14
C1	55463.90	-18.75	440.07	440.09
D1	55473.86	-18.75	440.03	440.04
Cl. Brg. Pier 2	55478.85	-18.75	440.01	440.01
E1	55488.81	-18.75	439.96	439.97
F1	55498.76	-18.75	439.91	439.94
G1	55508.72	-18.75	439.85	439.91
H1	55518.68	-18.75	439.79	439.88
I1	55528.64	-18.75	439.72	439.84
J1	55538.60	-18.75	439.65	439.80
K1	55548.56	-18.75	439.57	439.74
L1	55558.51	-18.75	439.49	439.67
M1	55568.47	-18.75	439.41	439.58
N1	55578.43	-18.75	439.33	439.49
O1	55588.39	-18.75	439.25	439.38
P1	55598.35	-18.75	439.17	439.26
Q1	55608.30	-18.75	439.09	439.13
Cl. Brg. E. Abut.	55616.32	-18.75	439.02	439.02
Bk. of E. Abut.	55619.84	-18.75	438.99	438.99

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGES DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
29 SHEETS

Contract No. 94967

NORTH CURB LINE

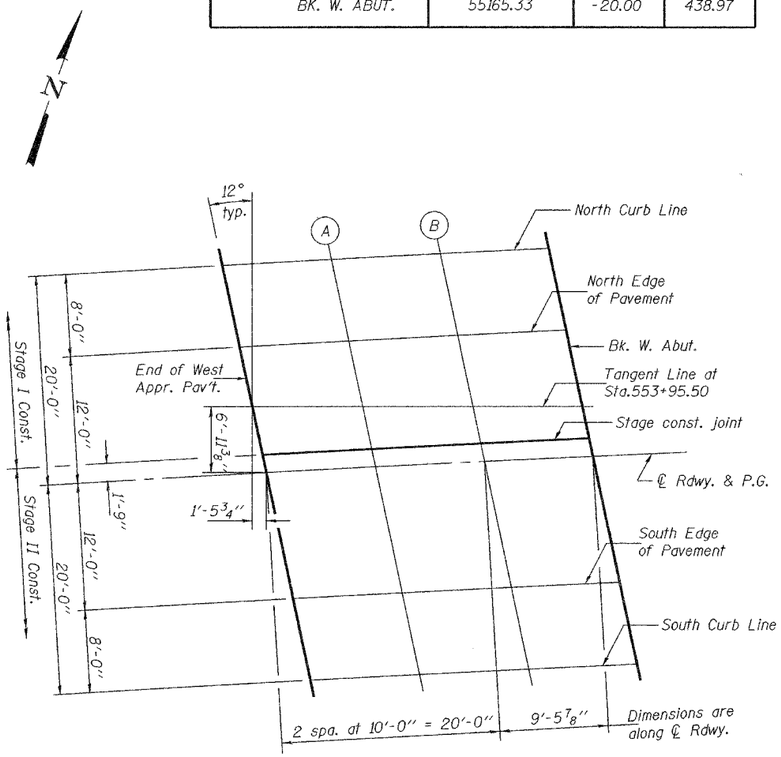
Location	Station	Offset	Theoretical Grade Elevations
END W. APPR. PAV'T	55135.96	-20.00	438.73
A	55145.92	-20.00	438.81
B	55155.88	-20.00	438.89
BK. W. ABUT.	55165.33	-20.00	438.97

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
END W. APPR. PAV'T	55137.21	-12.00	438.62
A	55147.18	-12.00	438.70
B	55157.16	-12.00	438.78
BK. W. ABUT.	55166.62	-12.00	438.86

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
END W. APPR. PAV'T	55138.81	-1.75	438.48
A	55148.80	-1.75	438.56
B	55158.80	-1.75	438.64
BK. W. ABUT.	55168.29	-1.75	438.72



PLAN

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
END W. APPR. PAV'T	55139.08	0.00	438.46
A	55149.08	0.00	438.54
B	55159.08	0.00	438.62
BK. W. ABUT.	55168.57	0.00	438.69

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
END W. APPR. PAV'T	55140.96	12.00	438.29
A	55150.99	12.00	438.37
B	55161.01	12.00	438.45
BK. W. ABUT.	55170.53	12.00	438.53

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
END W. APPR. PAV'T	55142.22	20.00	438.18
A	55152.27	20.00	438.26
B	55162.31	20.00	438.34
BK. W. ABUT.	55171.85	20.00	438.42

Notes: All skew lines are 12° right forward relative to the local tangent.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF WEST APPROACH
PAVEMENT ELEVATIONS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
29 SHEETS

Contract No. 94967

NORTH CURB LINE

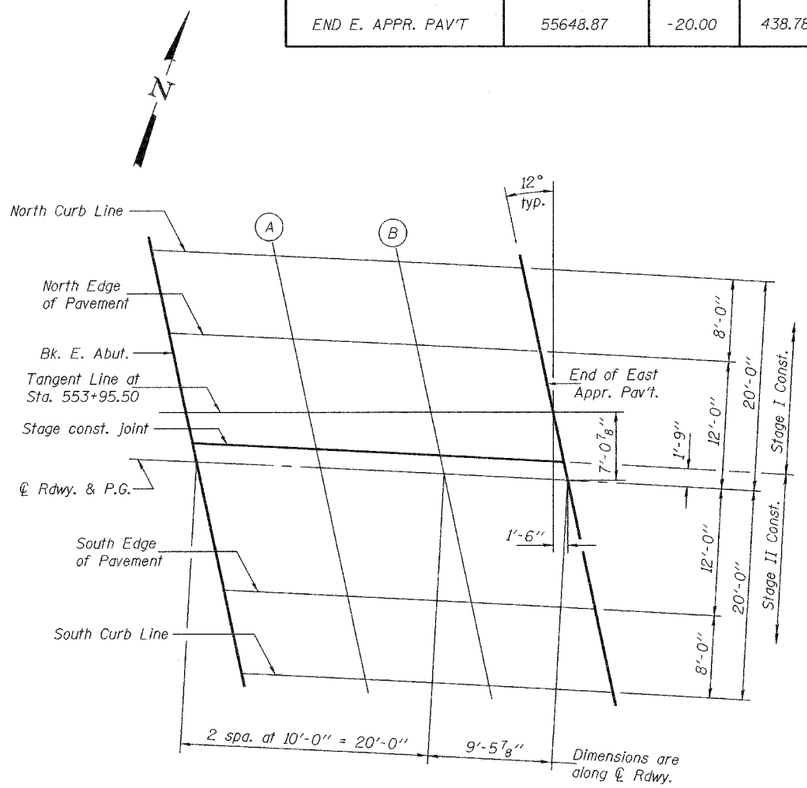
Location	Station	Offset	Theoretical Grade Elevations
BK. E. ABUT.	55619.52	-20.00	439.02
A	55629.48	-20.00	438.94
B	55639.44	-20.00	438.86
END E. APPR. PAV'T	55648.87	-20.00	438.78

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
BK. E. ABUT.	55621.62	-12.00	438.88
A	55631.59	-12.00	438.80
B	55641.57	-12.00	438.72
END E. APPR. PAV'T	55651.02	-12.00	438.64

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
BK. E. ABUT.	55624.31	-1.75	438.71
A	55634.31	-1.75	438.63
B	55644.31	-1.75	438.54
END E. APPR. PAV'T	55653.78	-1.75	438.47



PLAN

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
BK. E. ABUT.	55624.77	0.00	438.68
A	55634.77	0.00	438.60
B	55644.77	0.00	438.51
END E. APPR. PAV'T	55654.26	0.00	438.44

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
BK. E. ABUT.	55627.95	12.00	438.47
A	55637.97	12.00	438.39
B	55648.00	12.00	438.31
END E. APPR. PAV'T	55657.51	12.00	438.23

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
BK. E. ABUT.	55630.07	20.00	438.33
A	55640.12	20.00	438.25
B	55650.16	20.00	438.17
END E. APPR. PAV'T	55659.69	20.00	438.09

Notes: All skew lines are 12° right forward relative to the local tangent.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF EAST APPROACH
PAVEMENT ELEVATIONS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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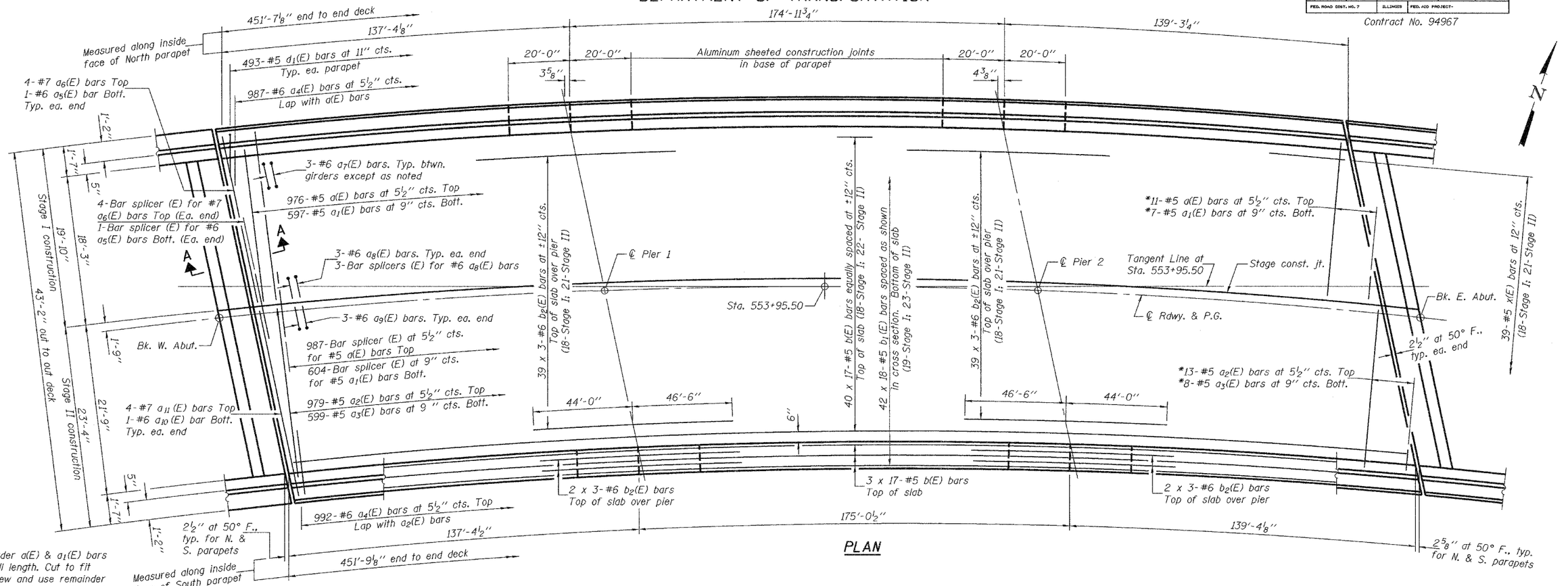
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

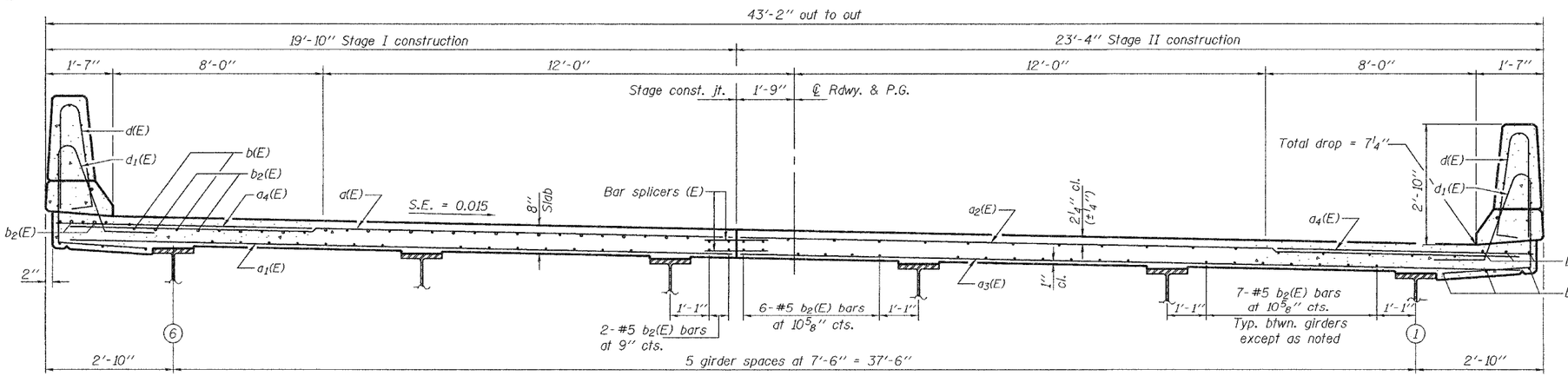
SHEET NO. 11
29 SHEETS

Contract No. 94967



PLAN

*Order d(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
Looking East

MIN. BAR LAPS
#5 bar = 2'-2"
#6 bar = 2'-7"

Notes:

Work this sheet with sheet 12 & 13 of 29.

See sheet 12 of 29 for superstructure details and Bill of Material.

See sheet 13 of 29 for parapet reinforcement.

The deck opening and deck/parapet dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ.

See sheet 26 of 29 for bar splicer details.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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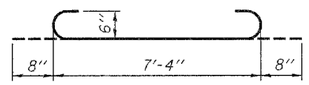
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

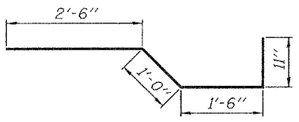
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	29
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 12
29 SHEETS

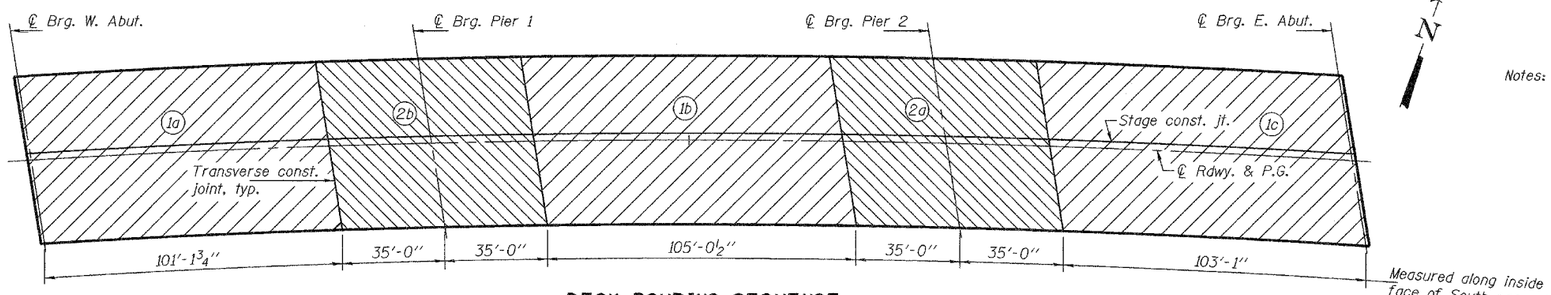
Contract No. 94967



BAR $a_7(E)$



BAR x(E)

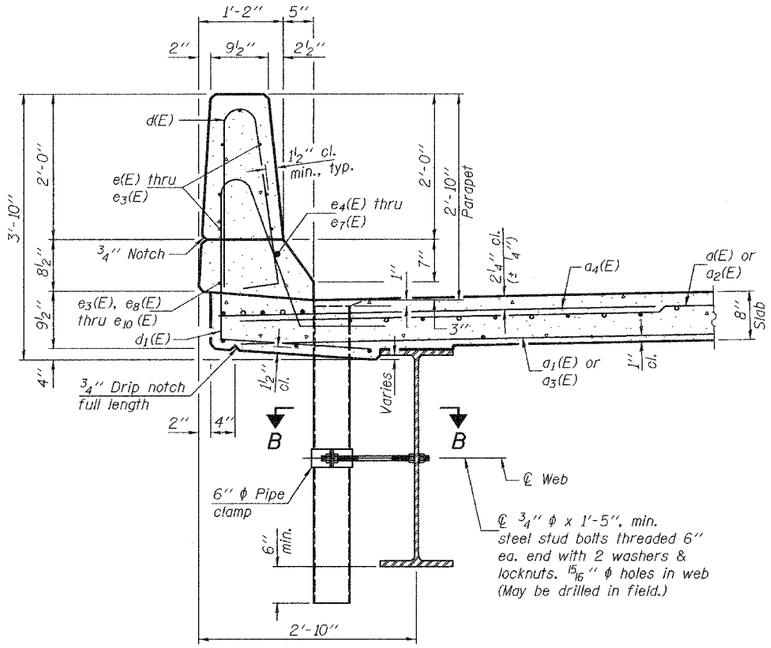


DECK POURING SEQUENCE

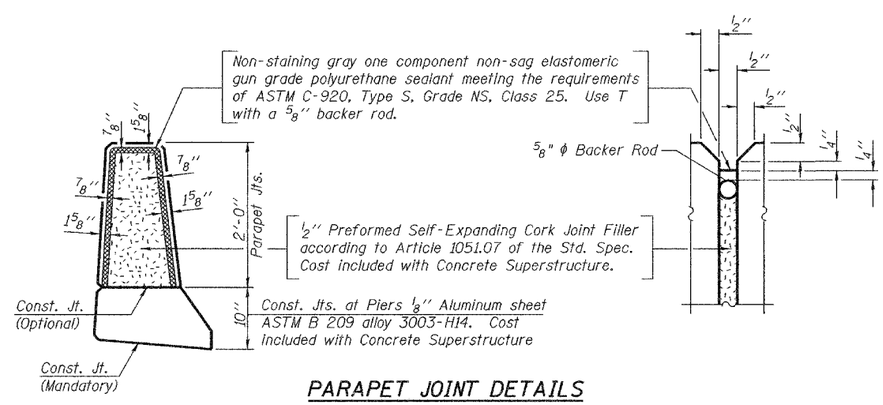
The concrete deck slab segments bearing the same numerical assignment may be cast in a single day in the alphabetical order shown.

Notes: *When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:*

1) *At least 72 hours shall have elapsed from the end of the previous pour.*
2) *The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.*

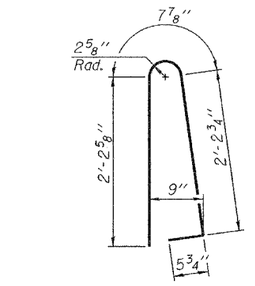


SECTION THRU PARAPET

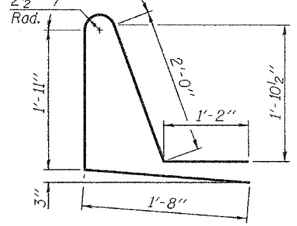


PARAPET JOINT DETAILS

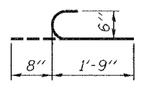
Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



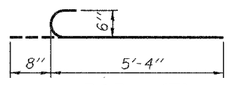
BAR d(E)



BAR $d_1(E)$



BAR $a_8(E)$

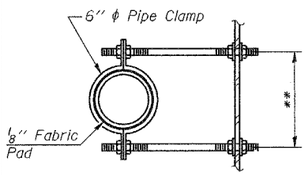


BAR $a_9(E)$

SUPERSTRUCTURE BILL OF MATERIAL

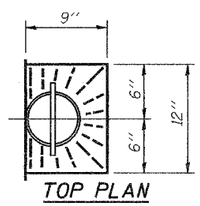
Bar	No.	Size	Length	Shape
d(E)	987	#5	19'-4"	
$a_1(E)$	604	#5	18'-7"	
$a_2(E)$	992	#5	22'-10"	
$a_3(E)$	607	#5	22'-1"	
$a_4(E)$	1979	#6	6'-0"	
$a_5(E)$	2	#6	16'-8"	
$a_6(E)$	8	#7	19'-6"	
$a_7(E)$	24	#6	8'-8"	
$a_8(E)$	6	#6	2'-5"	
$a_9(E)$	6	#6	6'-0"	
$a_{10}(E)$	2	#6	20'-2"	
$a_{11}(E)$	8	#7	23'-0"	
b(E)	782	#5	28'-9"	
$b_1(E)$	756	#5	27'-3"	
$b_2(E)$	258	#6	32'-0"	
d(E)	986	#5	5'-7"	
$d_1(E)$	986	#5	7'-4"	
e(E)	84	#4	19'-2"	
$e_1(E)$	98	#4	18'-11"	
$e_2(E)$	84	#4	19'-6"	
$e_3(E)$	64	#4	19'-8"	
$e_4(E)$	8	#8	32'-0"	
$e_5(E)$	10	#8	29'-9"	
$e_6(E)$	8	#8	32'-6"	
$e_7(E)$	8	#8	19'-6"	
$e_8(E)$	10	#4	24'-7"	
$e_9(E)$	10	#4	28'-1"	
$e_{10}(E)$	10	#4	25'-0"	
x(E)	78	#5	5'-11"	
Reinforcement Bars, Epoxy Coated		Pound	166700	
Concrete Superstructure		Cu. Yds.	624.7	
Bar Splicers		Each	1607	

Bars indicated thus 1 x 6 - #5 etc. indicates 1 line of bars with 6 lengths per line.

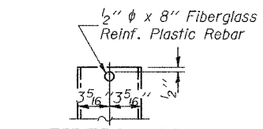


SECTION B-B

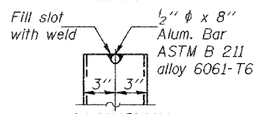
**Dimension as required by Pipe Clamp



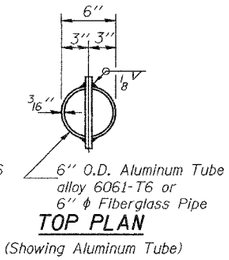
TOP PLAN



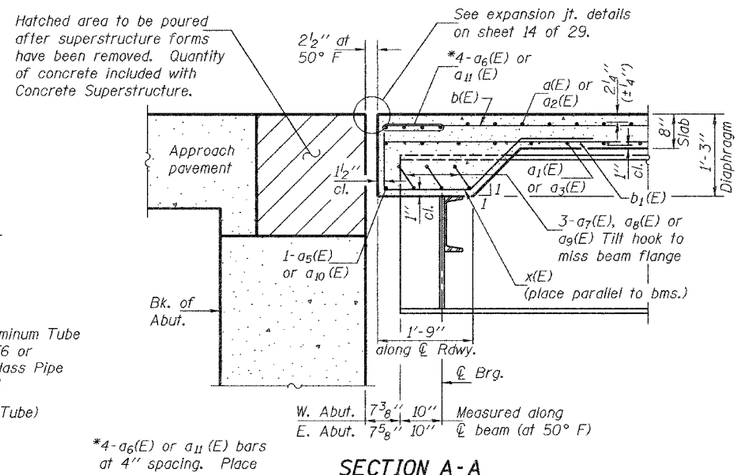
FIBERGLASS PIPE



ALUMINUM TUBE



TOP PLAN
(Showing Aluminum Tube)



*4-$a_6(E)$ or $a_{11}(E)$ bars at 4" spacing. Place under longitudinal bars.

SECTION A-A

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

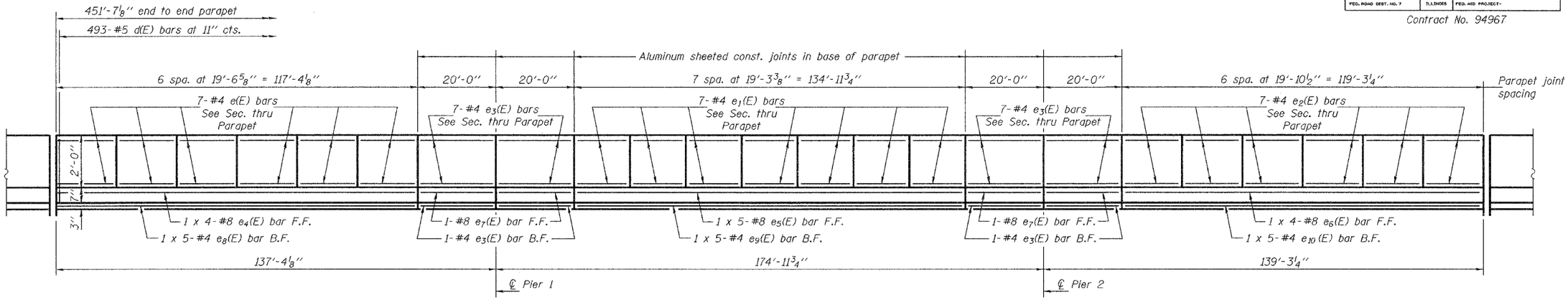
SUPERSTRUCTURE DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
29 SHEETS

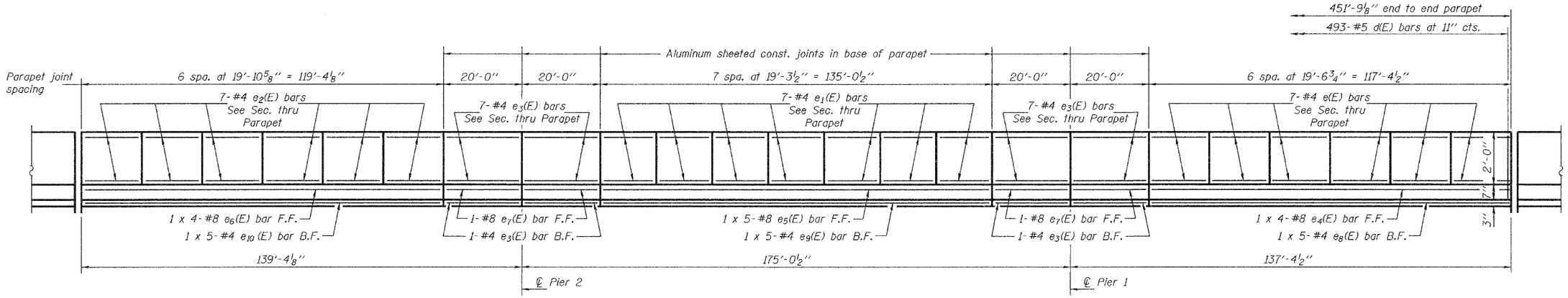
Contract No. 94967

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION OF NORTH PARAPET

(Looking North)



INSIDE ELEVATION OF SOUTH PARAPET

(Looking South)

PARAPET
MIN. BAR LAPS

#4 bar = 1'-4"
#8 bar = 3'-5"

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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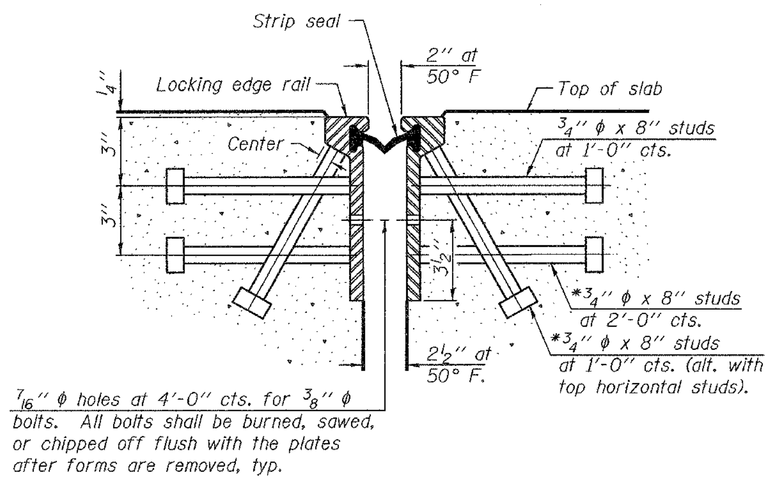
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 14
29 SHEETS

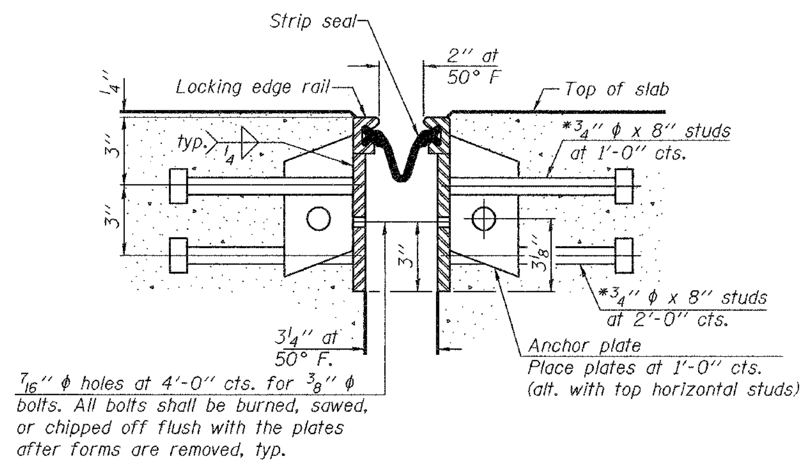
Contract No. 94967

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.
**When joint is fixed, dimension is set at $1\frac{1}{2}''$.

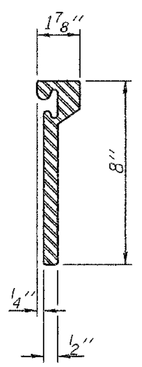


SECTION THRU ROLLED RAIL JOINT

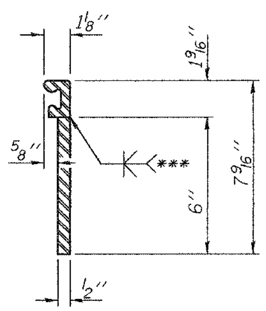


SECTION THRU WELDED RAIL JOINT

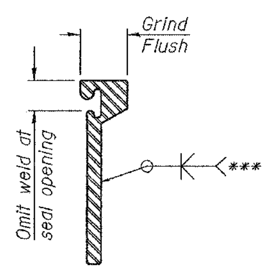
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of ¼″. The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



ROLLED (EXTRUDED) RAIL



WELDED RAIL

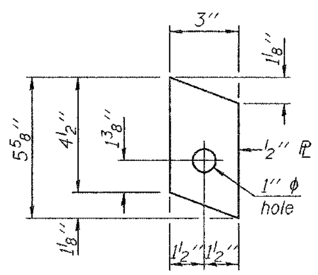


***Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

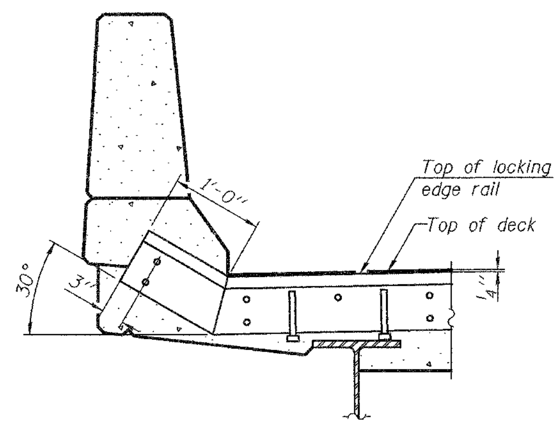
The inside of the locking edge rail groove shall be free of weld residue.

LOCKING EDGE RAILS

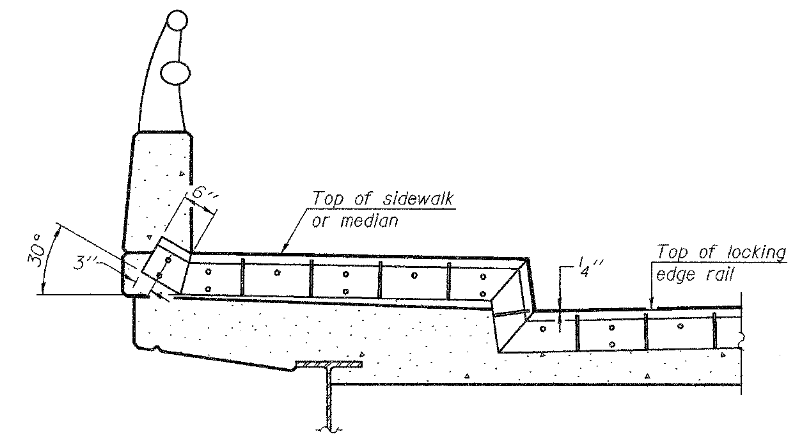


ANCHOR ℙ

(for welded rail)



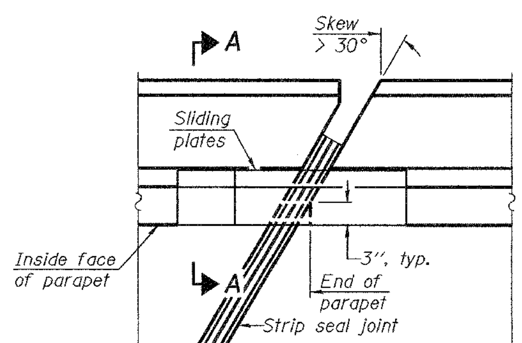
AT PARAPET



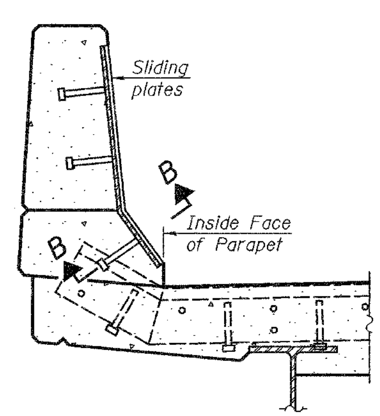
AT SIDEWALK OR MEDIAN

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

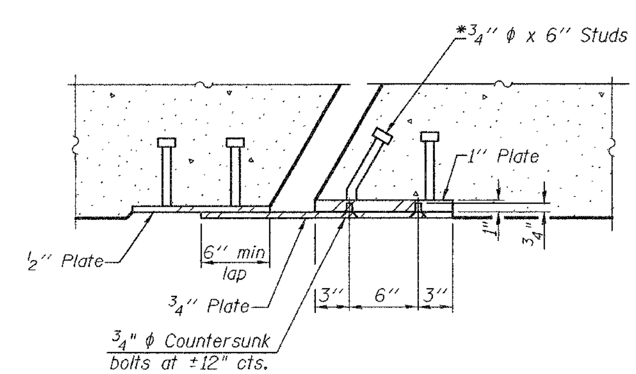
TYPICAL END TREATMENTS



PLAN



SECTION A-A



SECTION B-B

POINT BLOCK DETAILS

(for skews > 30°)

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	86

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

EJ-SSJ 9-3-07

Oct. 2, 2007
EXAMINED [signature] ENGINEER OF BRIDGE DESIGN
PASSED [signature] ENGINEER OF BRIDGES AND STRUCTURES

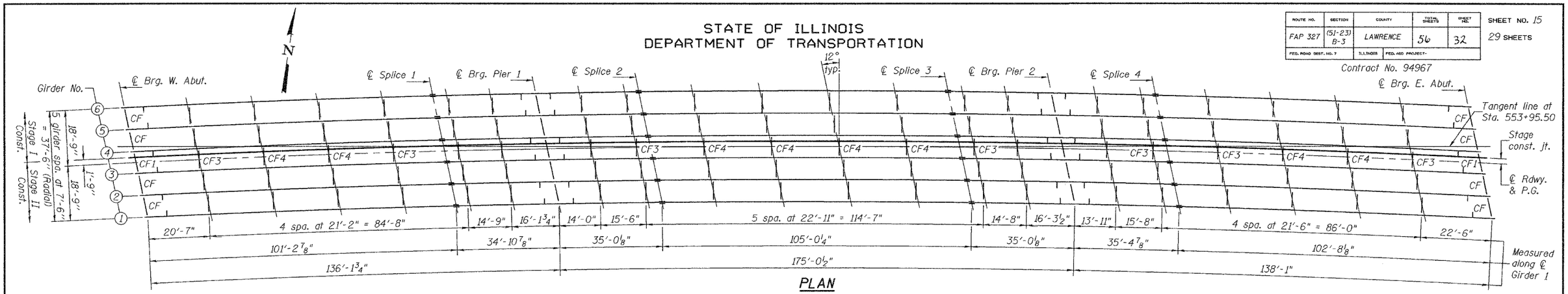
PREFORMED JOINT STRIP SEAL
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	32
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

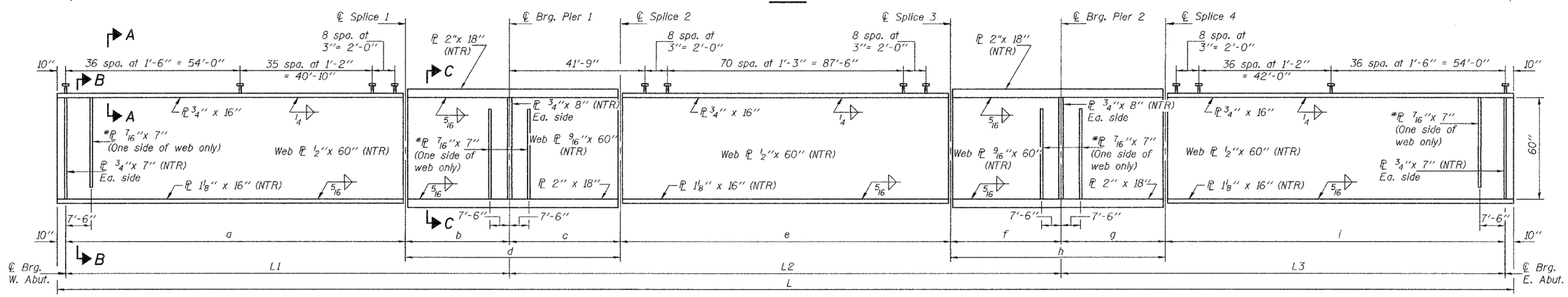
SHEET NO. 15
29 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Contract No. 94967

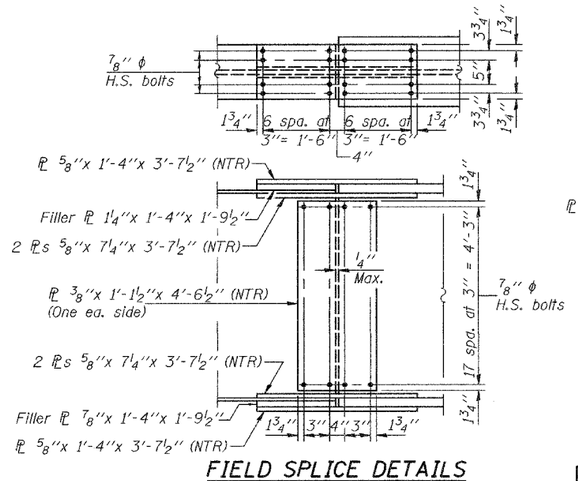


PLAN

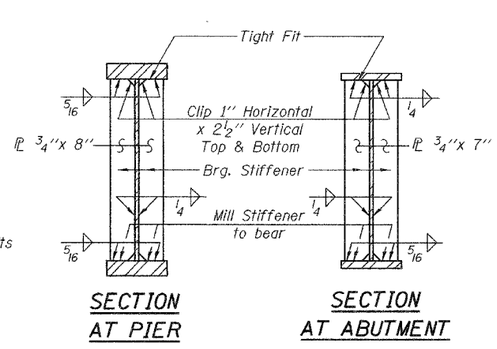


GIRDER ELEVATION

*Transverse stiffeners shall be placed on the interior side of the web of Girders 1 & 6.

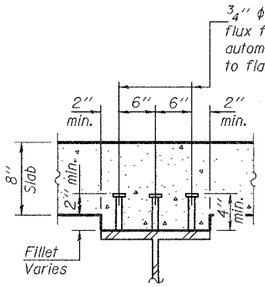


FIELD SPLICE DETAILS

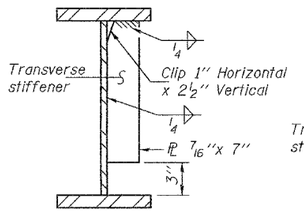


SECTION AT PIER

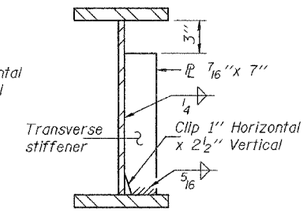
SECTION AT ABUTMENT



SECTION A-A



SECTION B-B



SECTION C-C

Notes: All interior cross frames shall be designated CF2 unless noted otherwise.

All interior cross frames shall be oriented radial to the girders except at the supports.

All skew lines are 12° right forward relative to the local tangent and intersect the radial cross frames at midbay.

All plates of the girders, including bearing and transverse stiffeners and splice plates including fill plates, shall be AASHTO M 270, Grade 50.

Work this sheet with sheets 16 & 17 of 29.

All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. 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 Supplemental Requirements for Notch Toughness, Zone 2.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2. 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TABLE OF GIRDER DIMENSIONS

Location	Radius	L	L1	L2	L3	a	b	c	d	e	f	g	h	i
Girder 1	4711.90	450'-11 1/4"	136'-1 3/4"	175'-0 1/2"	138'-1"	101'-2 7/8"	34'-10 7/8"	35'-0 1/8"	69'-11"	105'-0 1/4"	35'-0 1/8"	35'-4 7/8"	70'-5"	102'-8 1/8"
Girder 2	4719.40	450'-11"	136'-1 3/4"	175'-0 3/8"	138'-0 7/8"	101'-2 7/8"	34'-10 7/8"	35'-0"	69'-10 7/8"	105'-0 1/4"	35'-0 1/8"	35'-4 7/8"	70'-5"	102'-8"
Girder 3	4726.90	450'-10 3/8"	136'-1 1/2"	175'-0 1/4"	138'-0 5/8"	101'-2 3/4"	34'-10 3/4"	35'-0"	69'-10 3/4"	105'-0 1/8"	35'-0 1/8"	35'-4 3/4"	70'-4 7/8"	102'-7 7/8"
Girder 4	4734.40	450'-10"	136'-1 1/2"	175'-0"	138'-0 1/2"	101'-2 3/4"	34'-10 3/4"	35'-0"	69'-10 3/4"	105'-0"	35'-0"	35'-4 3/4"	70'-4 3/4"	102'-7 3/4"
Girder 5	4741.90	450'-9 5/8"	136'-1 3/8"	174'-11 7/8"	138'-0 3/8"	101'-2 5/8"	34'-10 3/4"	35'-0"	69'-10 3/4"	104'-11 7/8"	35'-0"	35'-4 3/4"	70'-4 3/4"	102'-7 5/8"
Girder 6	4749.40	450'-9 3/8"	136'-1 3/8"	174'-11 7/8"	138'-0 1/8"	101'-2 5/8"	34'-10 3/4"	35'-0"	69'-10 3/4"	104'-11 7/8"	35'-0"	35'-4 5/8"	70'-4 5/8"	102'-7 1/2"

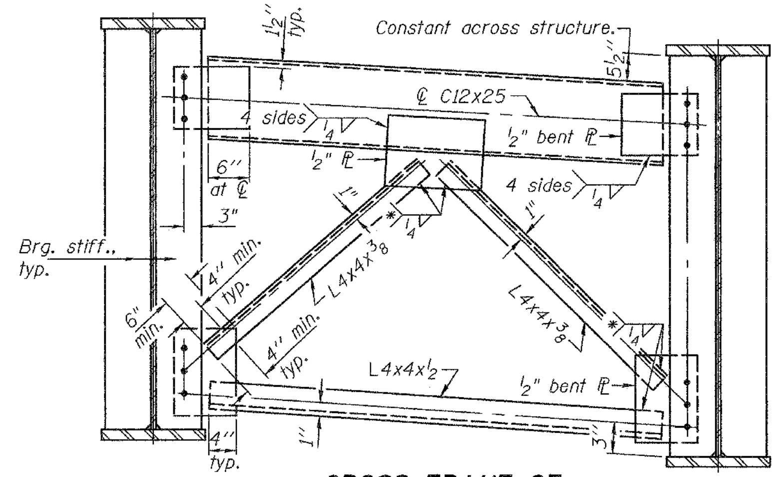
STRUCTURAL STEEL
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	33
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

SHEET NO. 16
29 SHEETS

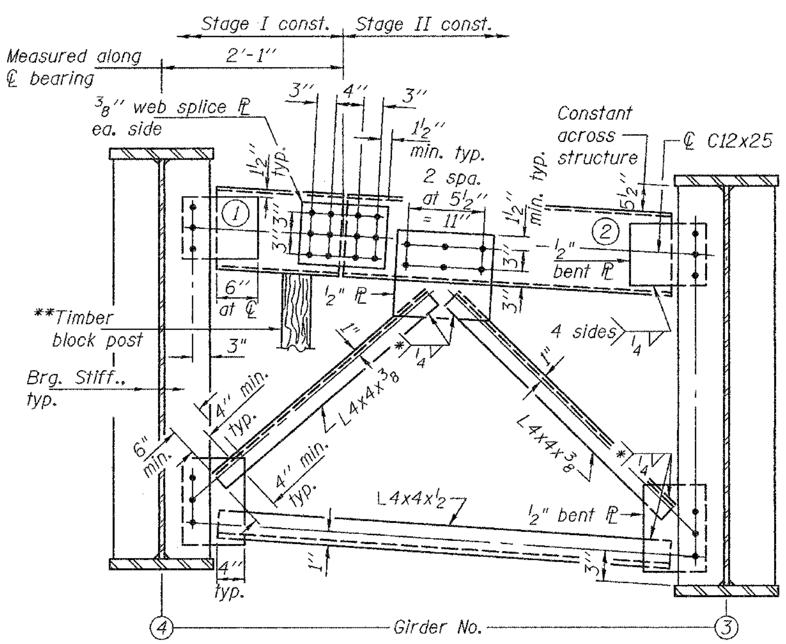
Contract No. 94967



CROSS FRAME CF
(8 Required)

* Weld on near side of ½" plate.

Notes: Use ¾" ϕ H.S. bolts with 15/16" ϕ holes (both plies) in CF and CF1 cross frames.
Place cross frame with channel flanges and outstanding angle legs outward from abutment backwall in CF and CF1 cross frames.

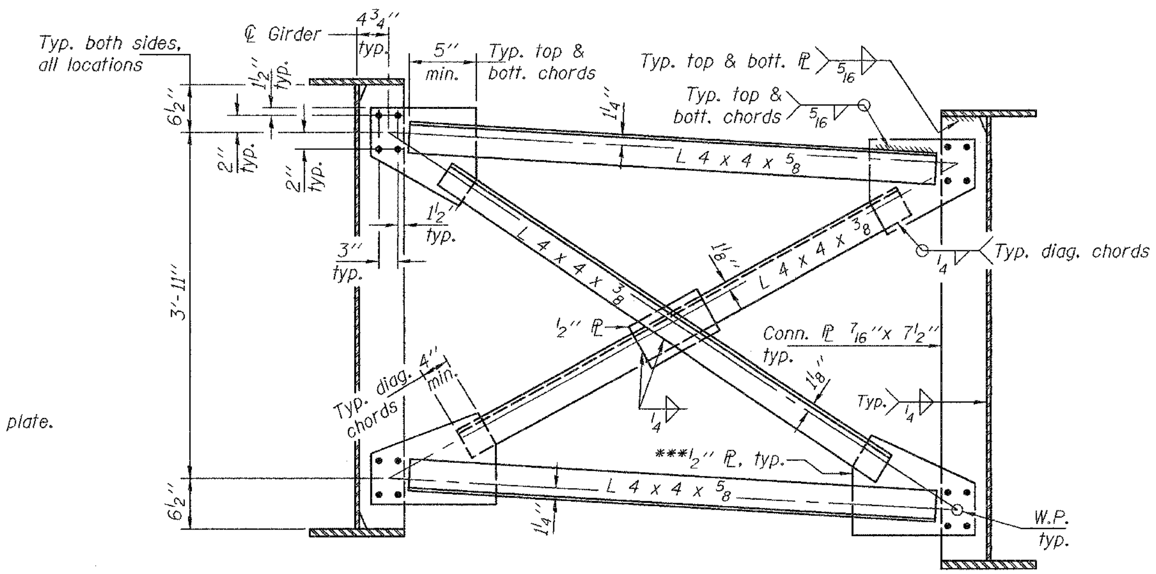


CROSS FRAME CF1
(2 Required)

** Cost of timber block post is included with Structural Steel.

CROSS FRAME CF1
STAGE CONSTRUCTION SEQUENCE

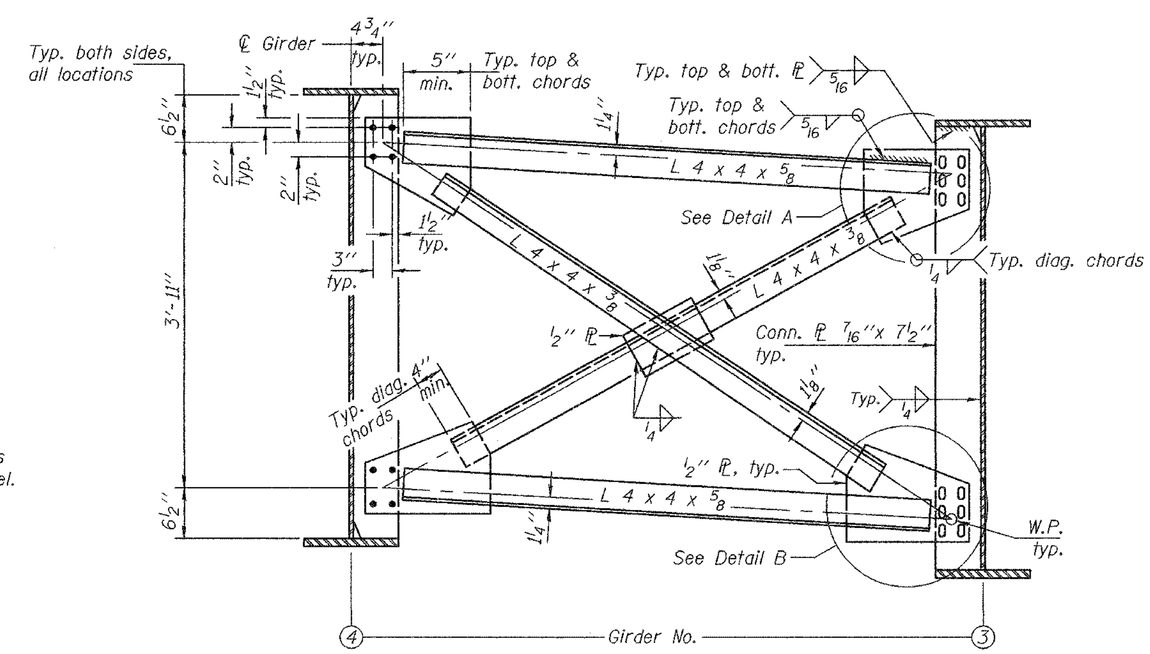
1. Order cross frame in three sections.
2. Attach section ① of cross frame to girder 4.
3. Place timber block post between section ① of cross frame and top of abutment cap to support section ① during Stage I Construction.
4. Attach section ② of cross frame to both girder 3 and section ① during Stage II Steel Erection.
5. Remove the timber block post and install the lower portion (½" plates and angles) of the cross frame.



CROSS FRAME CF2
(95 Required)

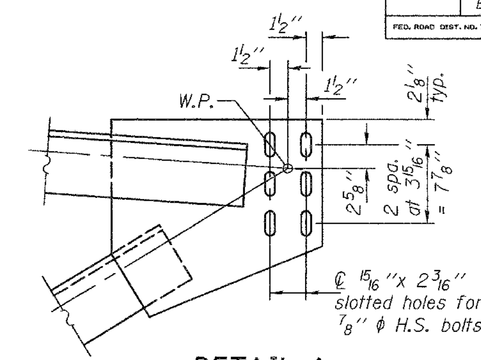
*** Use bent ℙ's for the cross frames at piers.

Notes: Use ⅞" ϕ H.S. bolts with 1 1/16" ϕ holes (both plies) in CF2, CF3, and CF4 cross frames unless otherwise noted.
H.S. bolts in slotted holes shall be finger tightened until the completion of the Stage II deck pour and then fully tightened.

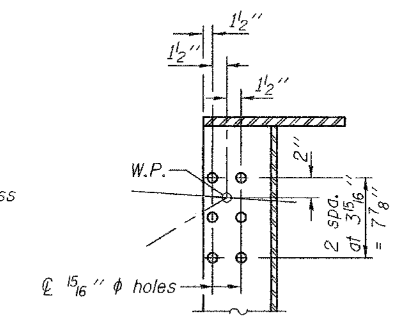


CROSS FRAMES CF3 & CF4
(7-CF3 Required; 8-CF4 Required)

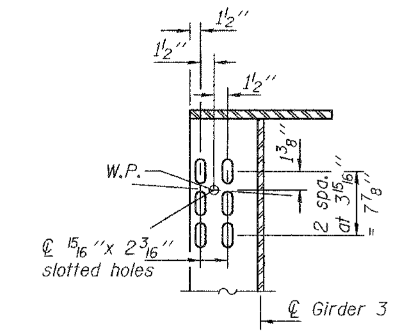
General Notes: Two hardened washers required for each set of oversized holes.
All plates and rolled shapes composing the cross frames, including the connecting plates welded to the girders, shall be AASHTO M 270, Grade 50 and conform to the supplemental requirements for Notch Toughness, Zone 2.



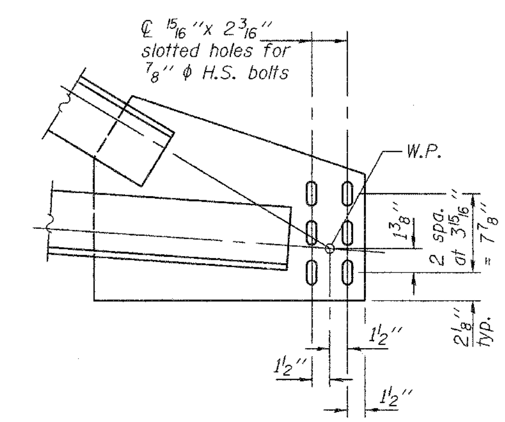
DETAIL A
(Showing cross frame conn. ℙ)



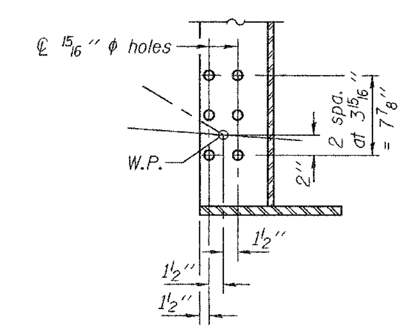
DETAIL A
(Showing girder conn. ℙ for CF3)



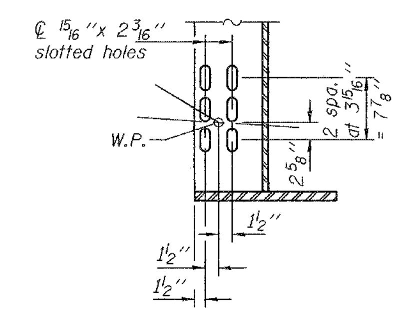
DETAIL A
(Showing girder conn. ℙ for CF4)



DETAIL B
(Showing cross frame conn. ℙ)



DETAIL B
(Showing girder conn. ℙ for CF3)



DETAIL B
(Showing girder conn. ℙ for CF4)

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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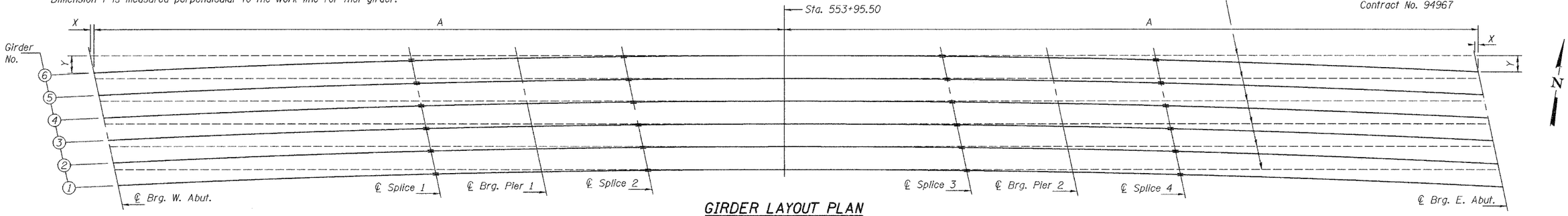
Notes: Work lines and X, Y, and A dimensions shown for a local tangent to each girder at Sta. 553+95.50.
For each girder:
Dimension A is measured from Sta. 553+95.50 to the noted location along the work line for that girder.
Dimensions A and X are measured parallel to the work line for that girder.
Dimension Y is measured perpendicular to the work line for that girder.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 17
29 SHEETS

Contract No. 94967



GIRDER LAYOUT PLAN

TABLE OF LAYOUT DIMENSIONS

	℄ Brg. W. Abut.			℄ Field Splice 1			℄ Brg. Pier 1			℄ Field Splice 2			℄ Field Splice 3			℄ Brg. Pier 2			℄ Field Splice 4			℄ Brg. E. Abut.		
	A	X	Y	A	X	Y	A	X	Y	A	X	Y	A	X	Y	A	X	Y	A	X	Y	A	X	Y
Girder 1	219'-5 1/8"	1'-1"	5'-1 3/8"	118'-3"	3 3/4"	1'-5 3/4"	83'-4 1/4"	1 7/8"	8 7/8"	48'-4 1/4"	5/8"	3"	56'-8 1/8"	7/8"	4 1/8"	91'-8 1/8"	2 1/4"	10 3/4"	127'-0 7/8"	4 3/8"	1'-8 5/8"	229'-8 1/8"	1'-2 1/4"	5'-7 1/4"
Girder 2	221'-0"	1'-1 1/4"	5'-2 1/8"	119'-10"	3 7/8"	1'-6 1/4"	84'-11 3/8"	2"	9 1/8"	49'-11 1/4"	5/8"	3 1/8"	55'-0 7/8"	7/8"	3 7/8"	90'-0 7/8"	2 1/4"	10 3/8"	125'-5 5/8"	4 1/4"	1'-8"	228'-0 3/4"	1'-2 1/8"	5'-6 1/8"
Girder 3	222'-7"	1'-1 3/8"	5'-2 7/8"	121'-5 1/8"	4"	1'-6 3/4"	86'-6 3/8"	2"	9 1/2"	51'-6 3/8"	3/4"	3 3/8"	53'-5 3/4"	3/4"	3 5/8"	88'-5 3/4"	2 1/8"	10"	123'-10 3/8"	4 1/8"	1'-7 1/2"	226'-5 1/2"	1'-1 7/8"	5'-5 1/8"
Girder 4	224'-2"	1'-1 1/2"	5'-3 3/4"	123'-0 1/8"	4 1/8"	1'-7 1/8"	88'-1 1/2"	2 1/8"	9 7/8"	53'-1 1/2"	3/4"	3 5/8"	51'-10 1/2"	3/4"	3 3/8"	86'-10 1/2"	2"	9 5/8"	122'-3 1/8"	4"	1'-7"	224'-10 1/8"	1'-1 5/8"	5'-4 1/8"
Girder 5	225'-8 7/8"	1'-1 3/4"	5'-4 1/2"	124'-7 1/8"	4 1/8"	1'-7 5/8"	89'-8 1/2"	2 1/8"	10 1/8"	54'-8 1/2"	3/4"	3 3/4"	50'-3 3/8"	5/8"	3 1/4"	85'-3 1/4"	2"	9 1/4"	120'-7 7/8"	3 7/8"	1'-6 3/8"	223'-2 3/4"	1'-1 3/8"	5'-3 1/8"
Girder 6	227'-3 7/8"	1'-1 7/8"	5'-5 3/8"	126'-2 1/8"	4 1/4"	1'-8 1/8"	91'-3 5/8"	2 1/4"	10 1/2"	56'-3 5/8"	7/8"	4"	48'-8 1/8"	5/8"	3"	83'-8 1/8"	1 7/8"	8 7/8"	119'-0 5/8"	3 3/4"	1'-5 7/8"	221'-7 3/8"	1'-1 1/4"	5'-2 1/8"

INTERIOR GIRDER MOMENT TABLE - GIRDER 5				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in^4)	36313	79341	36313
$I_c(n)$	(in^4)	87808		87808
$I_c(3n)$	(in^4)	63953		63953
S_s	(in^3)	1296	2479	1296
$S_c(n)$	(in^3)	1753		1753
$S_c(3n)$	(in^3)	1602		1602
S_{xt}	(in^3)	1617		1628
DC1	(k/')	1.00	1.30	1.00
M_{DC1}	('k)	1087	3391	959
DC2	(k/')	0.14		0.14
M_{DC2}	('k)	185		184
DW	(k/')	0.34	0.34	0.34
M_{DW}	('k)	428	901	424
M_{L+Imp}	('k)	2043	2224	2163
M_u (Strength I)	('k)	5807	9482	5850
M_{bl}	('k)	11.1	12.2	12.7
f_s DC1	(ksi)	10.1	16.4	8.9
f_s DC2	(ksi)	1.4		1.4
f_s DW	(ksi)	3.2	4.4	3.2
f_s 1.3(L+I)	(ksi)	18.2	14.0	19.2
f_t	(ksi)	2.8	1.4	3.2
f_s (Service II)	(ksi)	32.9	34.8	32.7
f_s (Total)(Strength I)	(ksi)	43.7	45.9	43.5
F_{cr} (Service II)	(ksi)	47.5	40.0	47.5
V_f	(k)	26.2		21.6
F_{cr}	(ksi)	50	50	50

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) 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) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

S_{xt}: Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange ($in.^3$).

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_{L+Imp}: Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

M_{bl}: Factored lateral bending moment for controlling flange plate (kip-ft.).

f_t: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+Imp}$

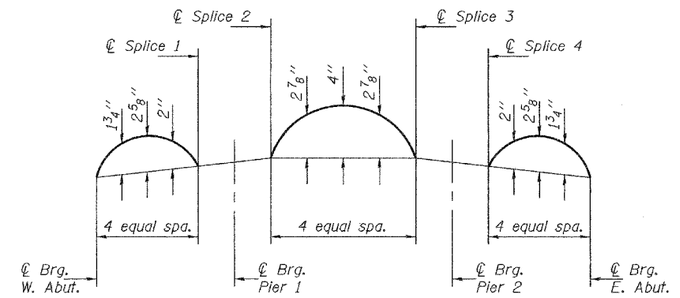
f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

F_{cr} (Service II): Critical flange stress at overload computed according to Article 6.10.4.2 (ksi).

F_{cr}: Critical flange stress computed according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Factored shear range computed according to Article 6.10.10.

Note:
M_{L} and R_{L} include the effects of centrifugal force and superelevation.



CAMBER DIAGRAM

*TOP OF WEB ELEVATIONS

	℄ Brg. W. Abut.	℄ Splice 1	℄ Brg. Pier 1	℄ Splice 2	℄ Splice 3	℄ Brg. Pier 2	℄ Splice 4	℄ Brg. E. Abut.
Girder 1	437.67	438.38	438.53	438.69	438.68	438.51	438.33	437.59
Girder 2	437.77	438.49	438.65	438.81	438.79	438.62	438.45	437.72
Girder 3	437.88	438.59	438.75	438.91	438.91	438.75	438.58	437.85
Girder 4	437.98	438.69	438.85	439.01	439.03	438.87	438.70	437.97
Girder 5	438.08	438.80	438.96	439.12	439.15	438.99	438.82	438.10
Girder 6	438.18	438.90	439.06	439.23	439.26	439.11	438.95	438.23

*For fabrication use only.

INTERIOR GIRDER REACTION TABLE			
		Abuts.	Piers
R_{DC1}	(k)	46.9	189.7
R_{DC2}	(k)	7.1	25.9
R_{DW}	(k)	17.0	60.7
R_{L+Imp}	(k)	83.5	167.8
R_{Total}	(k)	154.5	444.1

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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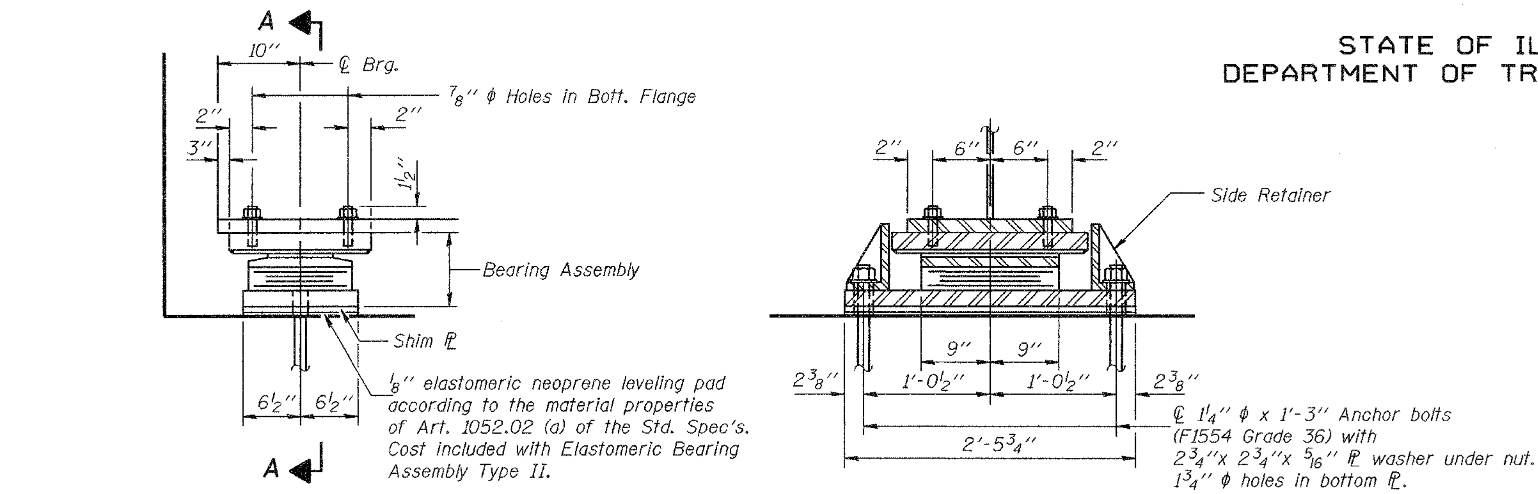
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

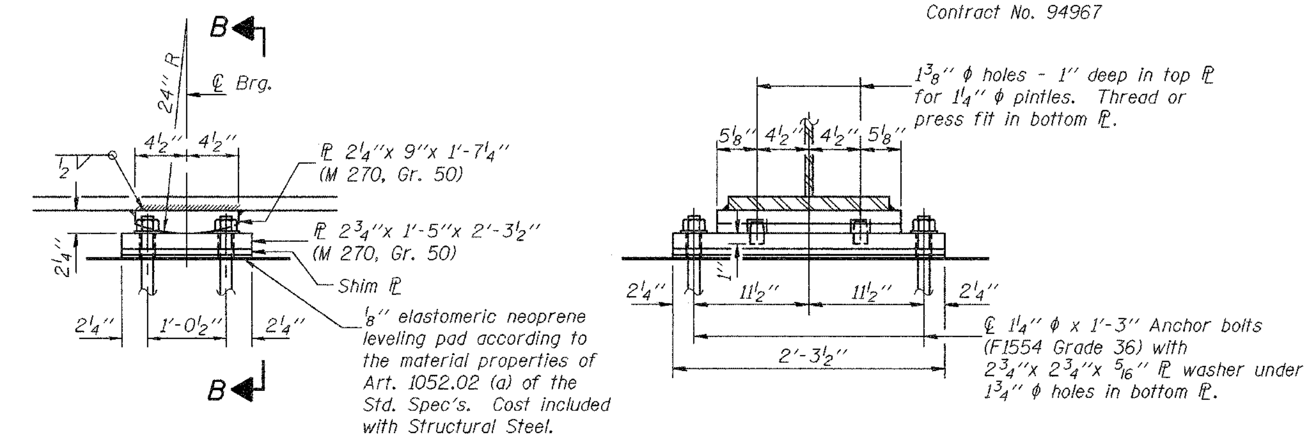
SHEET NO. 18
29 SHEETS

Contract No. 94967



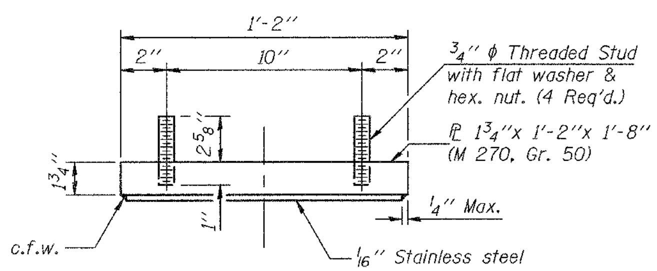
ELEVATION AT ABUTS. SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

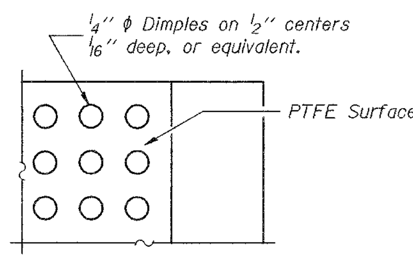


ELEVATION AT PIERS SECTION B-B

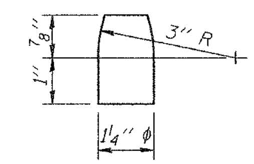
FIXED BEARING



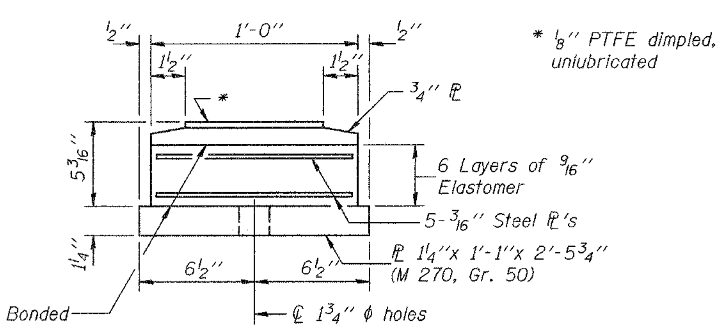
TOP BEARING ASSEMBLY



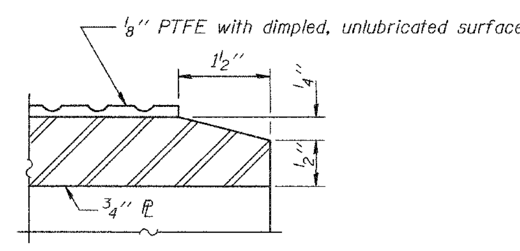
PLAN-PTFE SURFACE



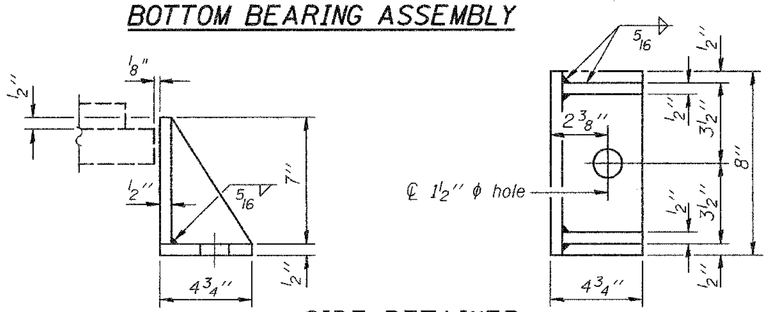
PINTLE
(M 270, Gr. 50)



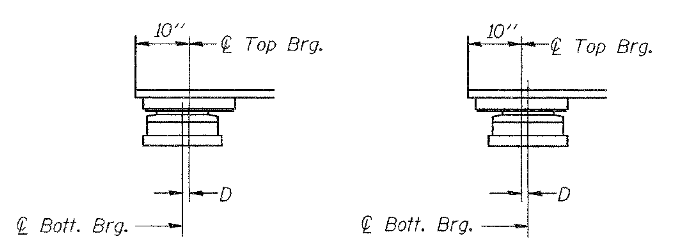
BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE



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



BELOW 50°F. (Move bott. brg. away from fixed brg.)

ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=⅛″ per each 100′ of expansion for every 15° temp. change from the normal temp. of 50°F.

Notes:

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

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

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

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The ⅛″ PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of ⅛″ PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270, Grade 50.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12
Anchor Bolts 1¼″	Each	72

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. [illegible] ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

BEARING DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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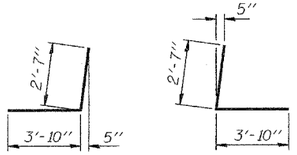
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

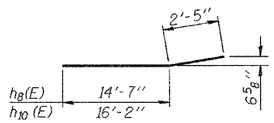
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 19
29 SHEETS

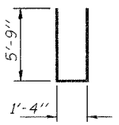
Contract No. 94967



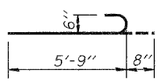
BAR $h_2(E)$ BAR $h_3(E)$



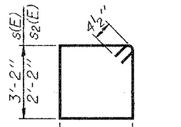
BARS $h_8(E)$ & $h_{10}(E)$



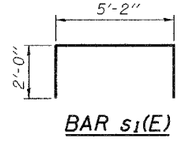
BAR $n(E)$



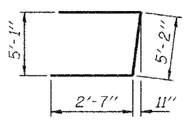
BAR $n_1(E)$



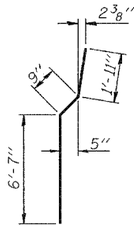
BARS $s(E)$ & $s_2(E)$



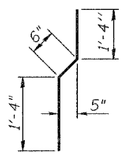
BAR $s_1(E)$



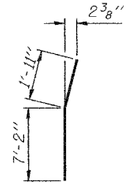
BAR $u(E)$



BAR $v_6(E)$



BAR $v_1(E)$



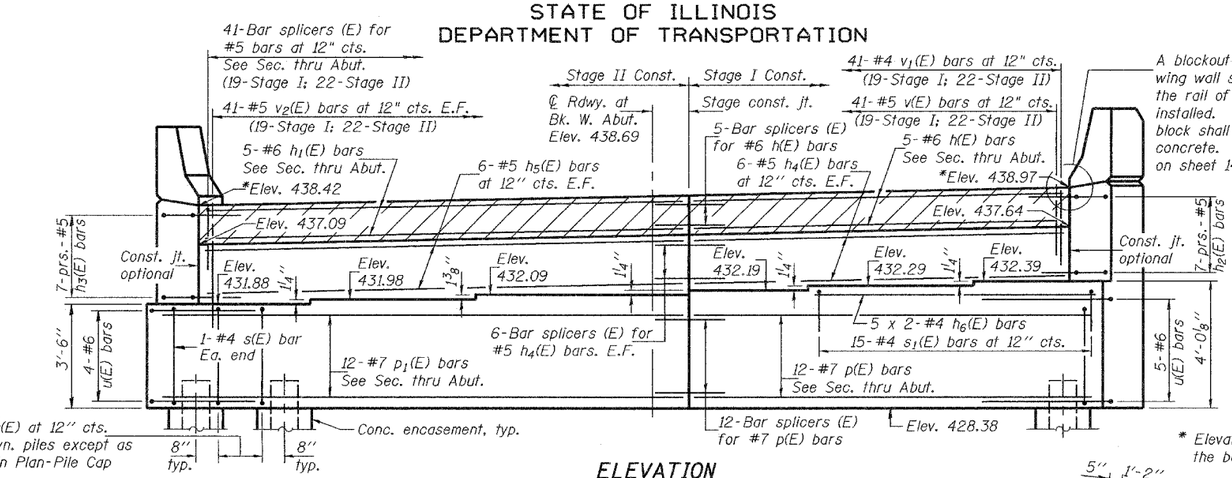
BAR $v_5(E)$

PILE DATA

Type: Steel HP12x63 w/pile shoes
Nominal Required Bearing: 460 Kips
Factored Resistance Available: 230 Kips
Est. Length: 15'
No. Production Piles: 12
No. Test Piles: 1

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



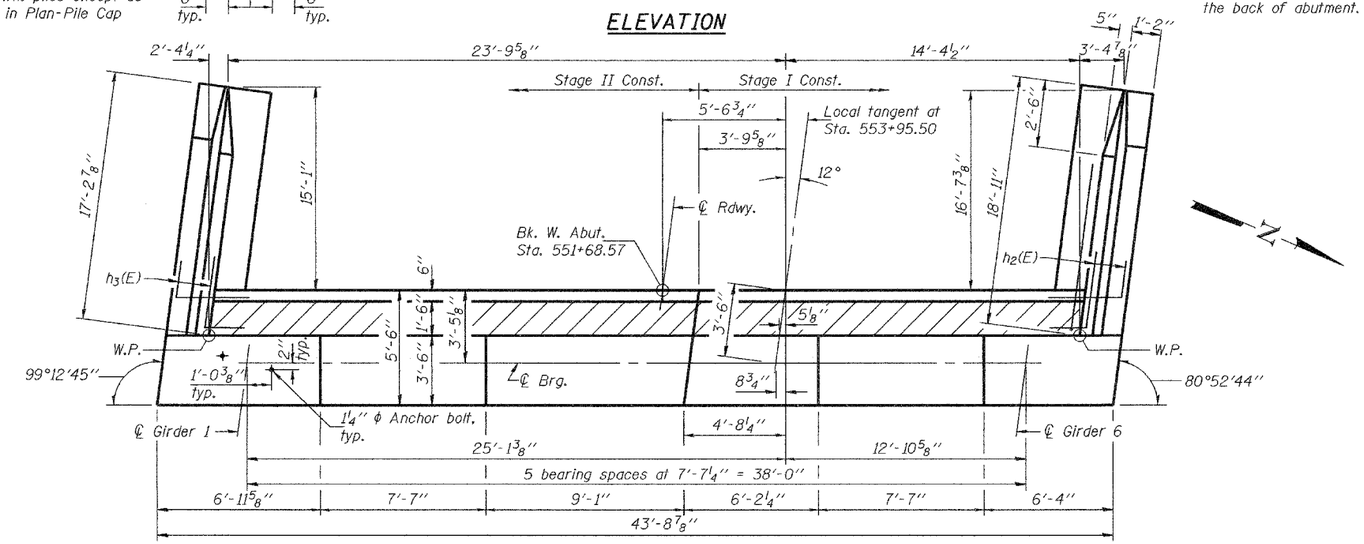
ELEVATION

* Elevations are given at the back of abutment.

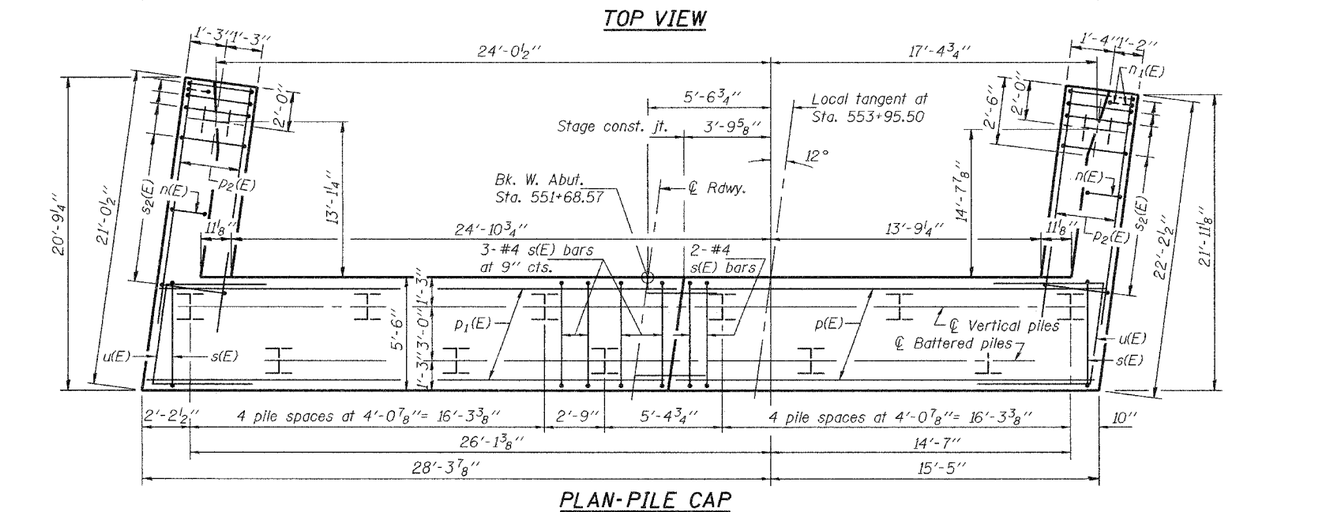
A blockout may be provided in the wing wall stem as required to facilitate the rail of the expansion joint to be installed. The blockout and hatched block shall be simultaneously cast with concrete. See expansion joint details on sheet 14 of 29. Typ. ea. wing wall.

MIN. BAR LAPS

#4 bar = 1'-8"
#5 bar = 2'-2"
#6 bar = 2'-7"



TOP VIEW



PLAN-PILE CAP

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	5	#6	18'-2"	
$h_1(E)$	5	#6	21'-8"	
$h_2(E)$	14	#5	6'-5"	
$h_3(E)$	14	#5	6'-5"	
$h_4(E)$	12	#5	18'-2"	
$h_5(E)$	12	#5	21'-8"	
$h_6(E)$	10	#4	8'-3"	
$h_7(E)$	13	#4	17'-0"	
$h_8(E)$	9	#4	17'-0"	
$h_9(E)$	13	#4	18'-4"	
$h_{10}(E)$	9	#4	18'-7"	
n(E)	31	#6	12'-10"	
$n_1(E)$	12	#6	6'-5"	
p(E)	12	#7	19'-9"	
$p_1(E)$	12	#7	23'-3"	
$p_2(E)$	12	#7	19'-0"	
s(E)	42	#4	17'-5"	
$s_1(E)$	15	#4	9'-2"	
$s_2(E)$	39	#4	9'-5"	
u(E)	9	#6	10'-4"	
v(E)	41	#5	3'-4"	
$v_1(E)$	41	#4	3'-2"	
$v_2(E)$	82	#5	7'-7"	
$v_4(E)$	37	#6	9'-0"	
$v_5(E)$	6	#6	9'-1"	
$v_6(E)$	31	#6	9'-3"	
Structure Excavation		Cu. Yd.	95	
Concrete Structures		Cu. Yd.	72.9	
Reinforcement Bars, Epoxy Coated		Pound	6650	
Furnishing Steel Piles, HP12x63		Foot	180	
Driving Piles		Foot	180	
Test Pile Steel HP12x63		Each	1	
Pile Shoes		Each	13	
Concrete Encasement		Cu. Yd.	4.4	
Concrete Sealer		Sq. Ft.	607	
Bar Splicers		Each	70	

For details of bar splicers, see sheet 26 of 29.
For details of piles and concrete encasement, see sheet 25 of 29.
Concrete sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.
Bars indicates thus 1 x 6-#5 etc. indicates 1 line of bars with 6 lengths per line.

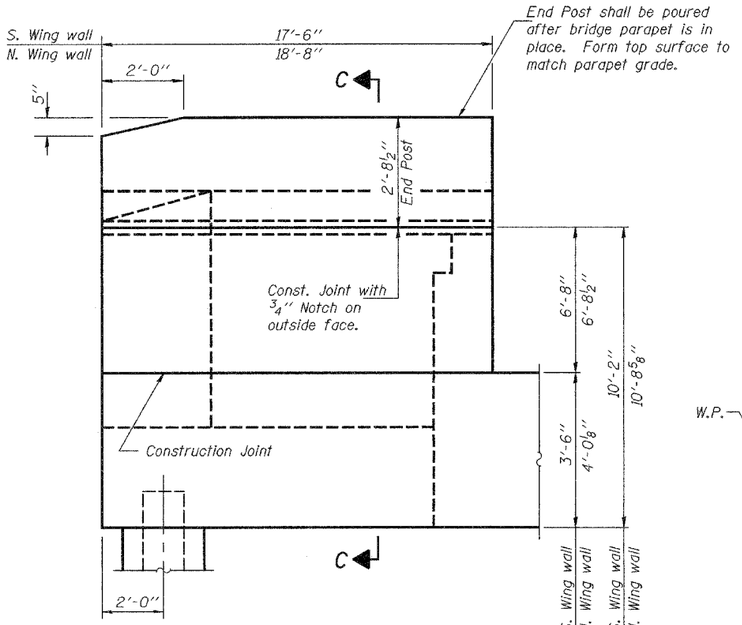
WEST ABUTMENT
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

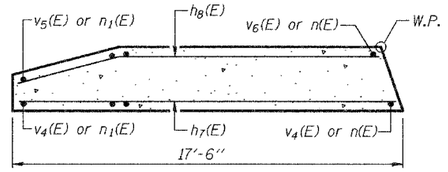
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 20
29 SHEETS

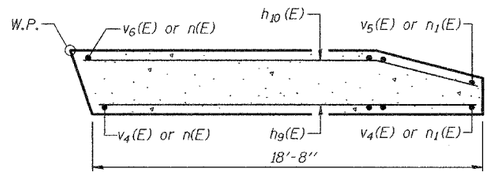
Contract No. 94967



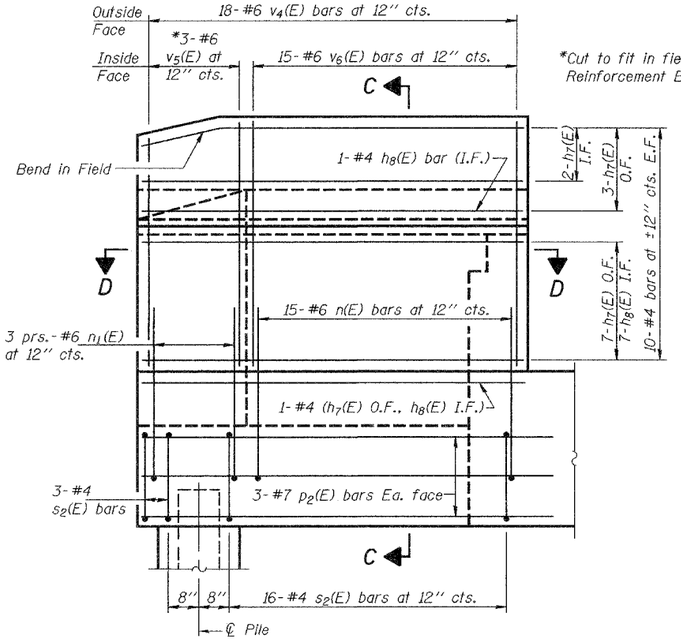
WING WALL ELEVATION
(Showing dimensions along outside face)



SECTION D-D

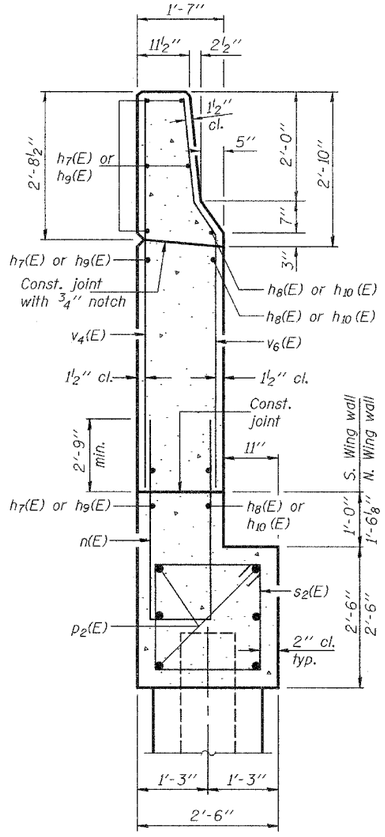


SECTION B-B

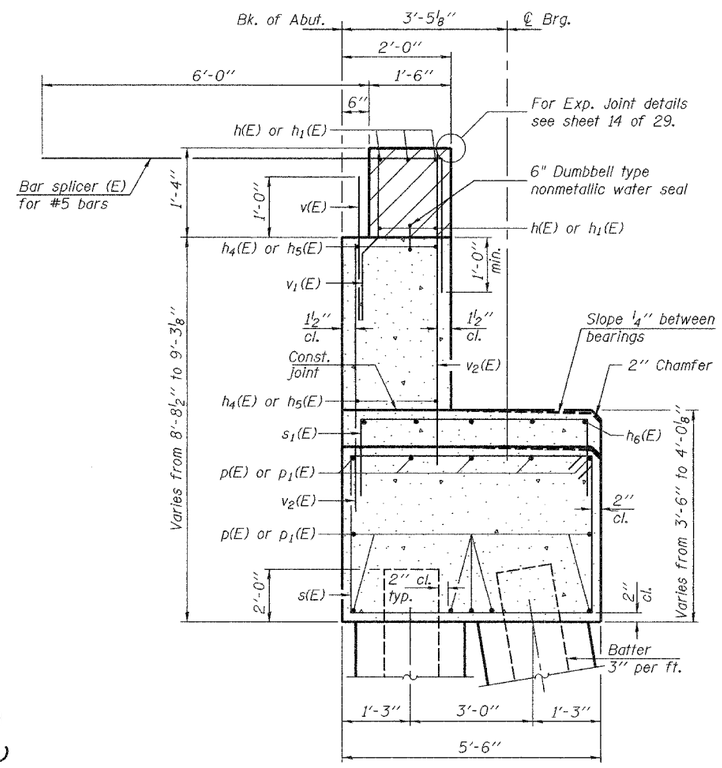


*Cut to fit in field. Cost included with Reinforcement Bars, Epoxy Coated.

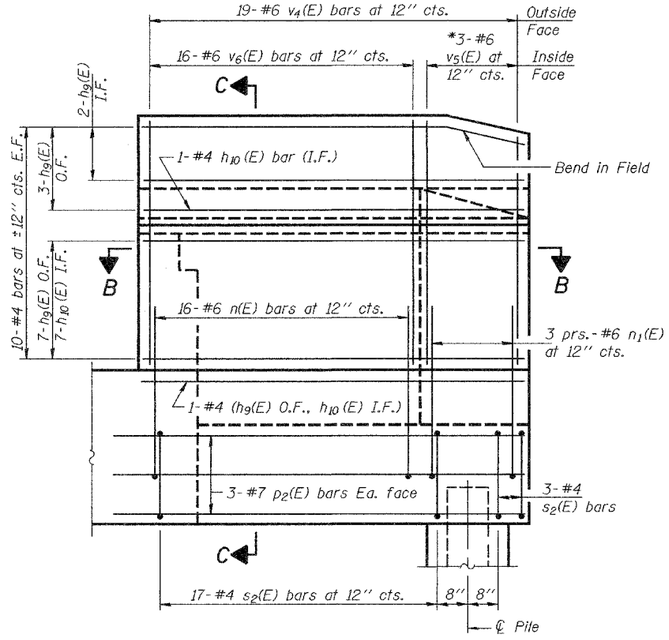
SOUTH WING WALL ELEVATION
(Showing reinforcement)



SECTION C-C



SEC. THRU ABUT.



NORTH WING WALL ELEVATION
(Showing reinforcement)

Notes: Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 12 of 29.
For concrete encasement details, see sheet 25 of 29.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

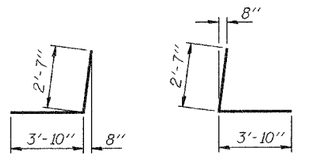
WEST ABUTMENT DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

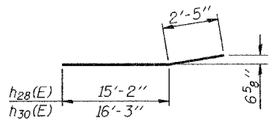
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
29 SHEETS

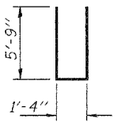
Contract No. 94967



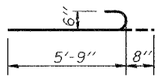
BAR $h_{22}(E)$ BAR $h_{23}(E)$



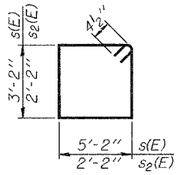
BARS $h_{28}(E)$ & $h_{30}(E)$



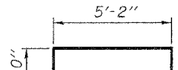
BAR n(E)



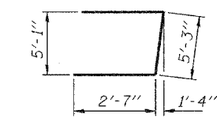
BAR $n_1(E)$



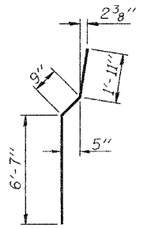
BARS s(E) & $s_2(E)$



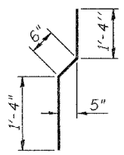
BAR $s_1(E)$



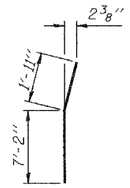
BAR $u_1(E)$



BAR $v_6(E)$



BAR $v_1(E)$



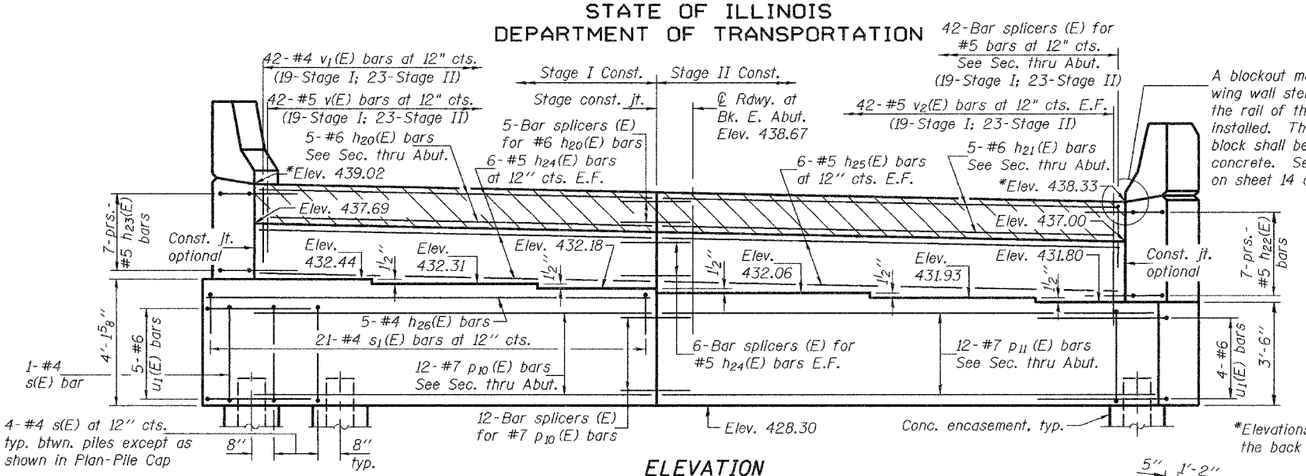
BAR $v_5(E)$

PILE DATA

Type: Steel HP12x63
Nominal Required Bearing: 460 Kips
Factored Resistance Available: 230 Kips
Est. Length: 40'
No. Production Piles: 12
No. Test Piles: 1

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

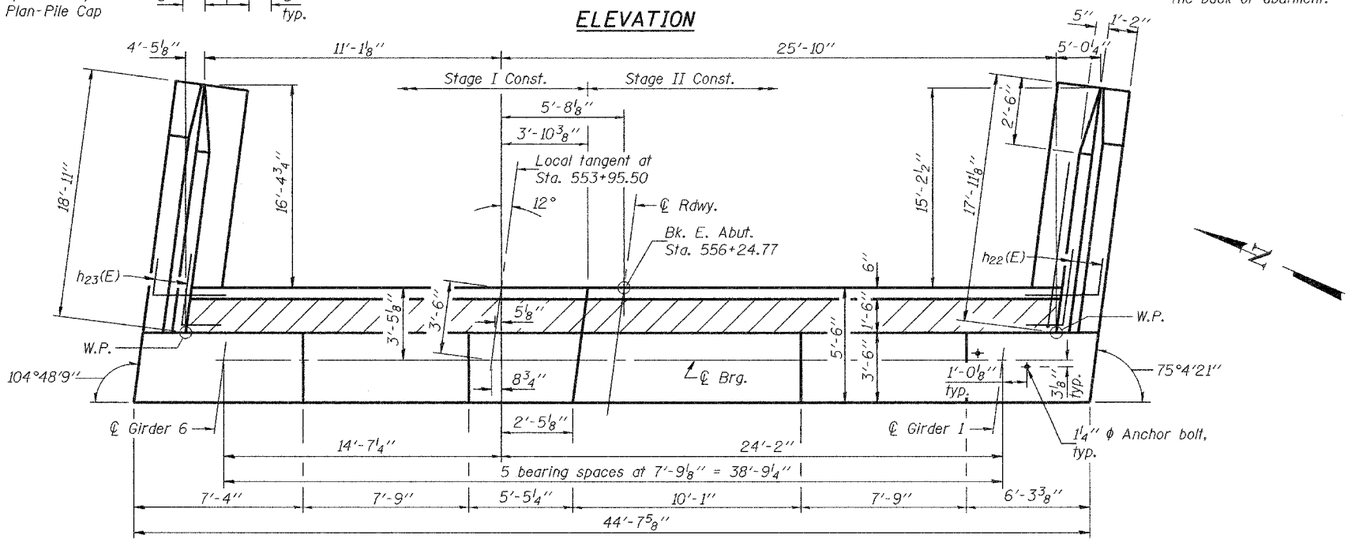
Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



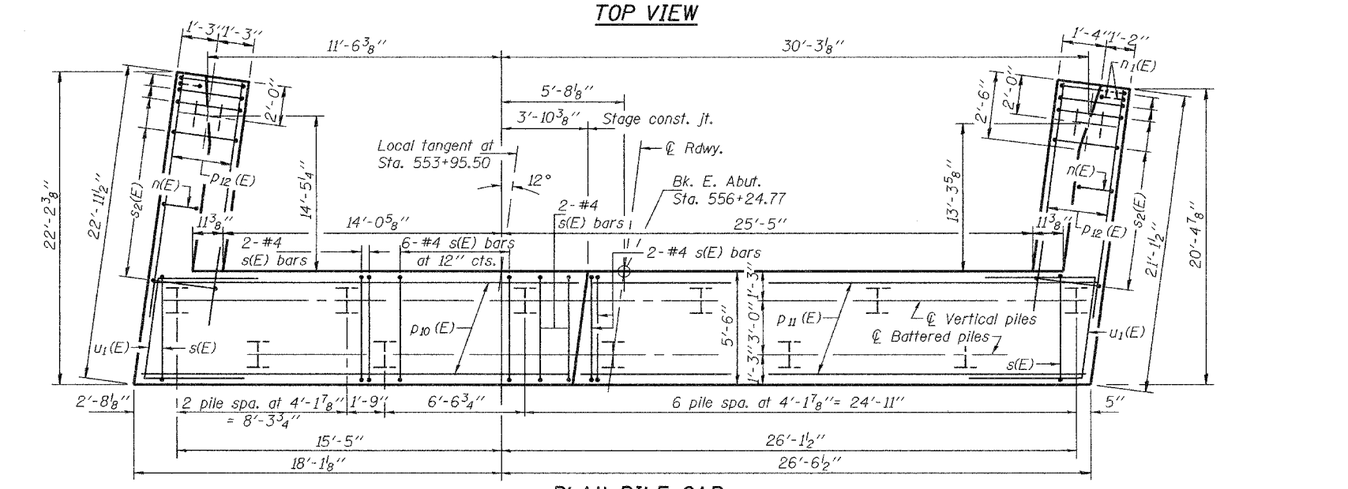
*Elevations are given at the back of abutment.

A blockout may be provided in the wing wall stem as required to facilitate the rail of the expansion joint to be installed. The blockout and hatched block shall be simultaneously cast with concrete. See expansion joint details on sheet 14 of 29. Typ. ea. wing wall.

ELEVATION



TOP VIEW



PLAN-PILE CAP

MIN. BAR LAP

#5 bar = 2'-2"
#6 bar = 2'-7"

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{20}(E)$	5	#6	18'-6"	
$h_{21}(E)$	5	#6	22'-2"	
$h_{22}(E)$	14	#5	6'-5"	
$h_{23}(E)$	14	#5	6'-5"	
$h_{24}(E)$	12	#5	18'-6"	
$h_{25}(E)$	12	#5	22'-2"	
$h_{26}(E)$	5	#4	20'-2"	
$h_{27}(E)$	13	#4	17'-2"	
$h_{28}(E)$	9	#4	17'-7"	
$h_{29}(E)$	13	#4	18'-10"	
$h_{30}(E)$	9	#4	18'-8"	
n(E)	32	#6	12'-10"	
$n_1(E)$	12	#6	6'-5"	
$p_{10}(E)$	12	#7	20'-2"	
$p_{11}(E)$	12	#7	23'-9"	
$p_{12}(E)$	12	#7	19'-3"	
s(E)	41	#4	17'-5"	
$s_1(E)$	21	#4	9'-2"	
$s_2(E)$	40	#4	9'-5"	
$u_1(E)$	9	#6	10'-5"	
v(E)	42	#5	3'-4"	
$v_1(E)$	42	#4	3'-2"	
$v_2(E)$	84	#5	7'-7"	
$v_4(E)$	38	#6	9'-0"	
$v_5(E)$	6	#6	9'-1"	
$v_6(E)$	32	#6	9'-3"	
Structure Excavation		Cu. Yd.	97	
Concrete Structures		Cu. Yd.	75.1	
Reinforcement Bars, Epoxy Coated		Pound	6820	
Furnishing Steel Piles, HP12x63		Foot	480	
Driving Piles		Foot	480	
Test Pile Steel HP12x63		Each	1	
Concrete Encasement		Cu. Yd.	4.4	
Concrete Sealer		Sq. Ft.	620	
Bar Splicers		Each	71	

For details of bar splicers, see sheet 26 of 29.

For details of piles and concrete encasement, see sheet 25 of 29.

Concrete sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

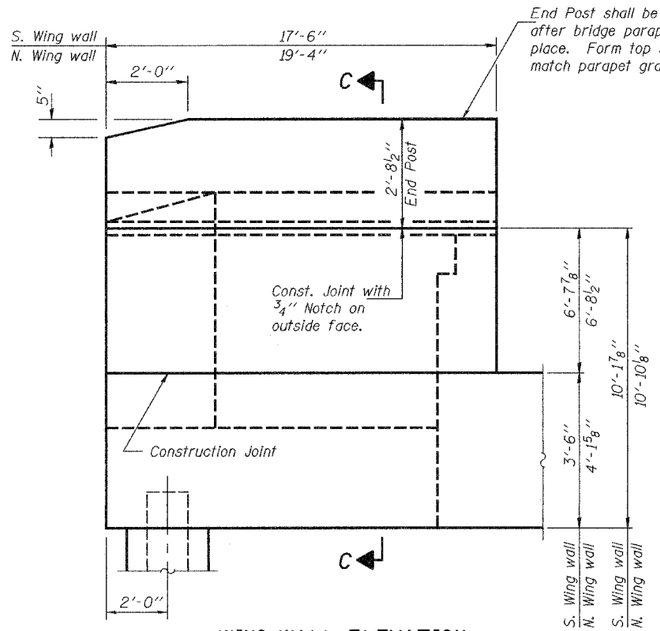
EAST ABUTMENT
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

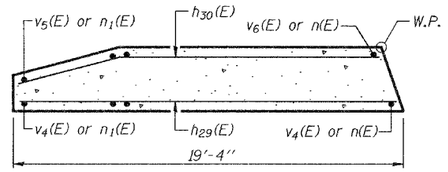
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 22
29 SHEETS

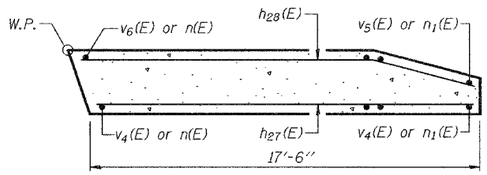
Contract No. 94967



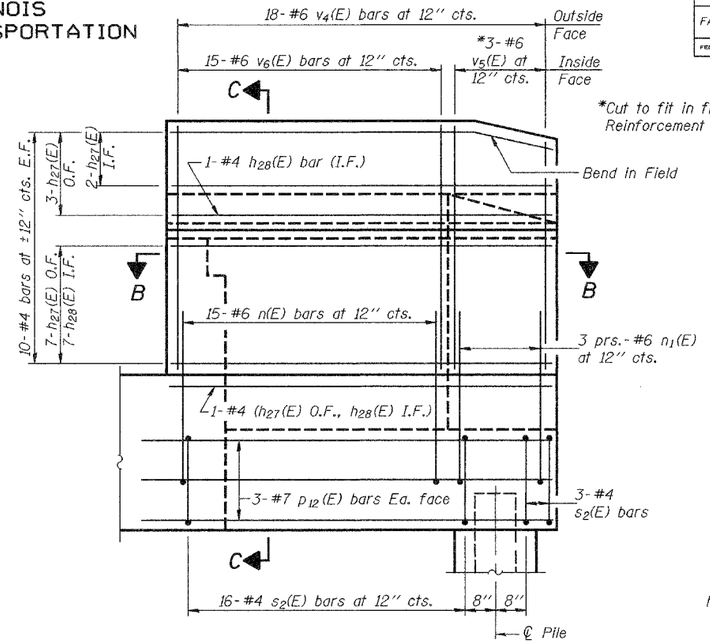
WING WALL ELEVATION
(Showing dimensions along outside face)



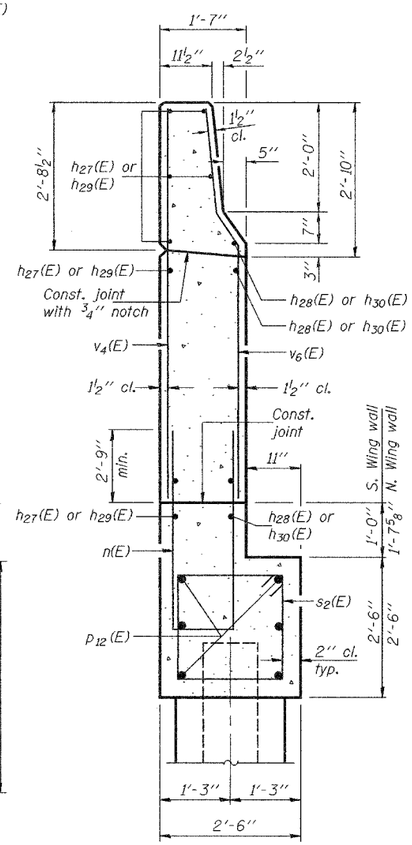
SECTION D-D



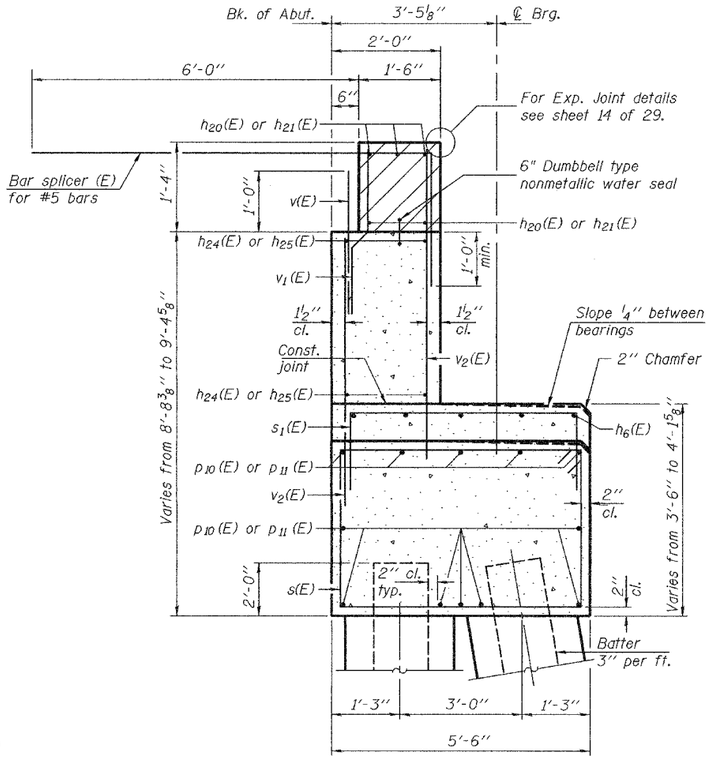
SECTION B-B



SOUTH WING WALL ELEVATION
(Showing reinforcement)

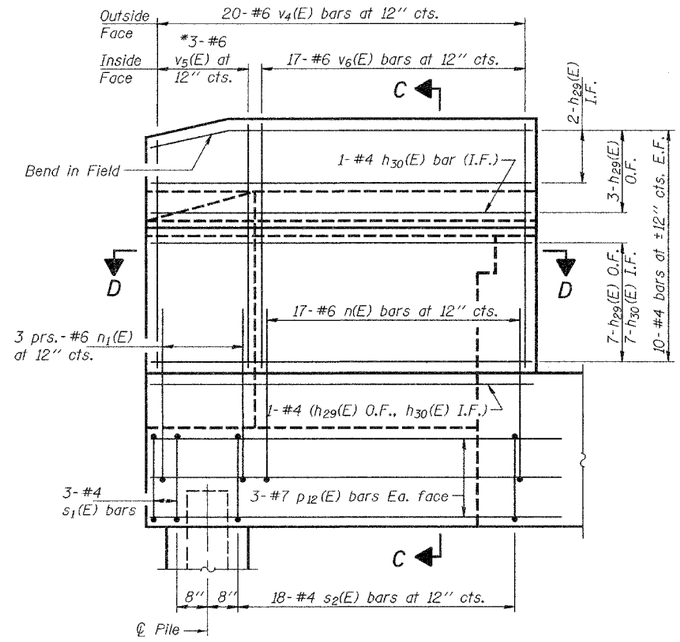


SECTION C-C



SEC. THRU ABUT.

Notes: Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 12 of 29.
For concrete encasement details, see sheet 25 of 29.



NORTH WING WALL ELEVATION
(Showing reinforcement)

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

EXAMINED Thomas J. Domagalski — Oct. 2, 2007 — ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson — ENGINEER OF BRIDGES AND STRUCTURES

EAST ABUTMENT DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

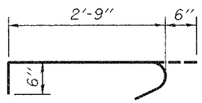
Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
See pier construction details on sheet 2 of 29.
Mechanical splices designated (E) shall be epoxy coated.
The s_{12} (E), s_{13} (E), and s_{14} (E) cross-tie bars shall be placed so that the 90° hooked ends of two successive cross-ties alternate end-for-end.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

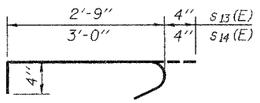
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	50	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 23
29 SHEETS

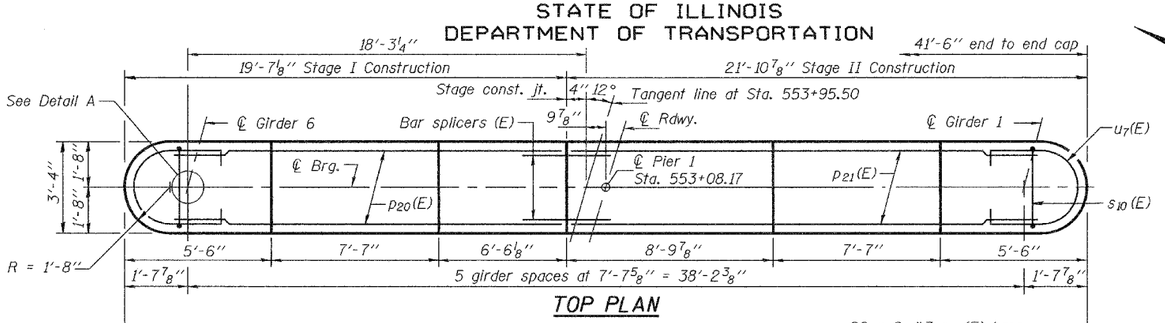
Contract No. 94967



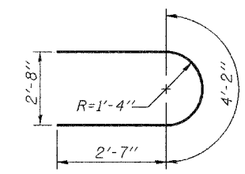
BAR s_{12} (E)



BARS s_{13} (E) & s_{14} (E)

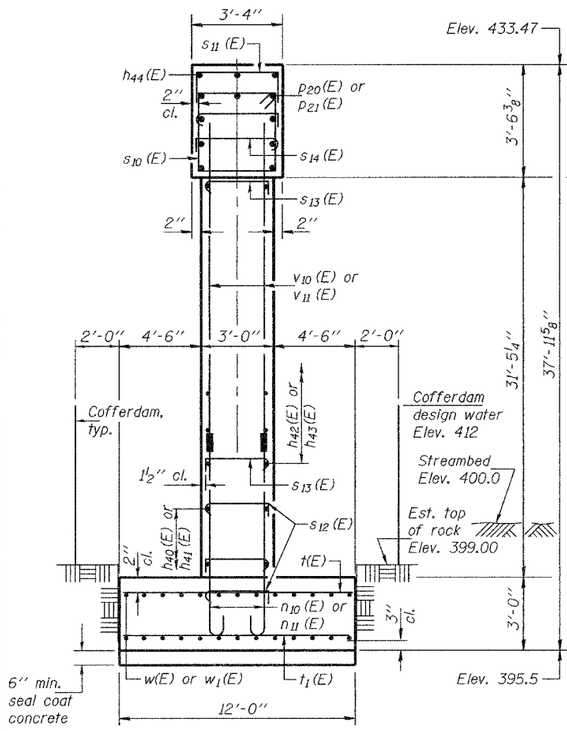


TOP PLAN



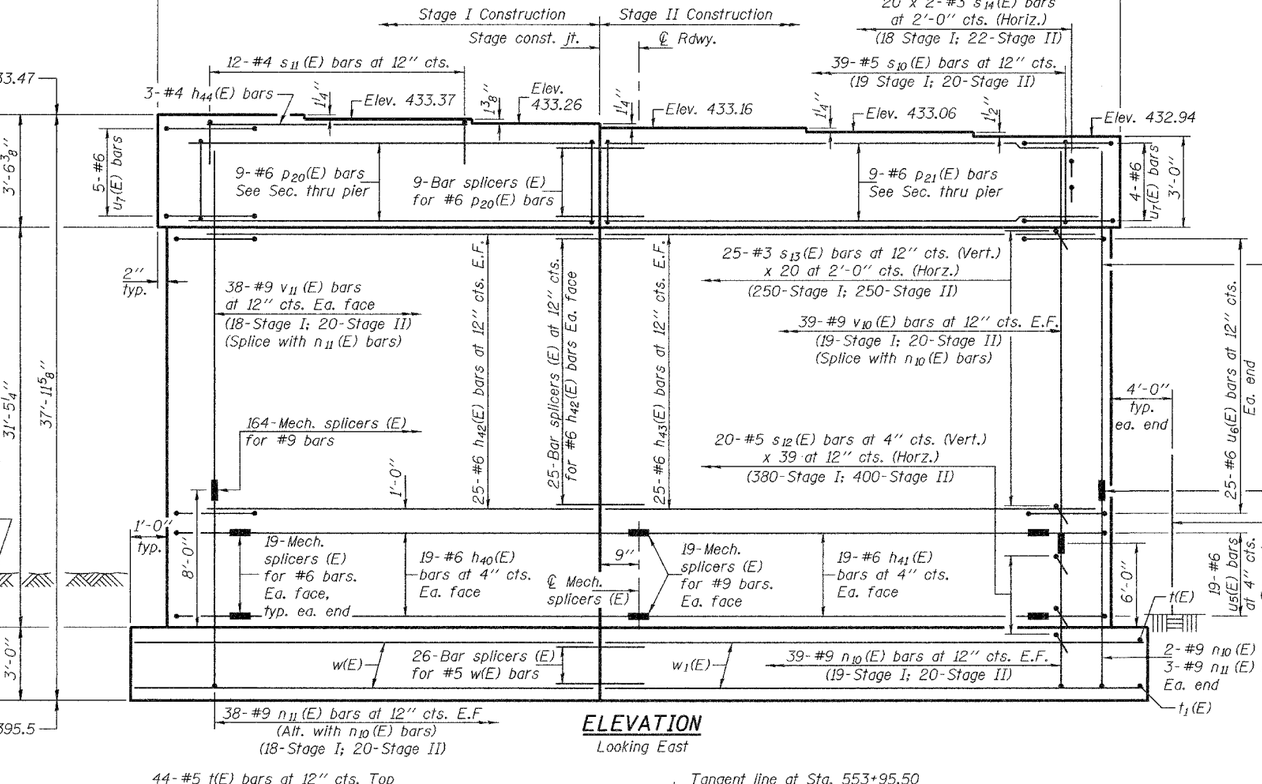
BAR u_5(E)

BARS u_6(E) & u_7(E)



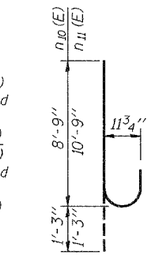
SECTION THRU PIER

(Max. applied service bearing pressure = 15.0 KSF)

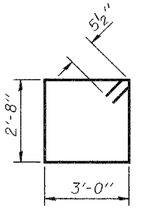


ELEVATION

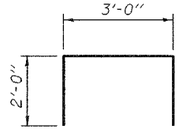
Looking East



BARS n_{10} (E) & n_{11} (E)



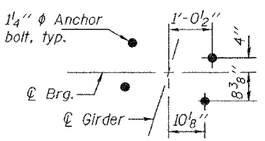
BAR s_{10} (E)



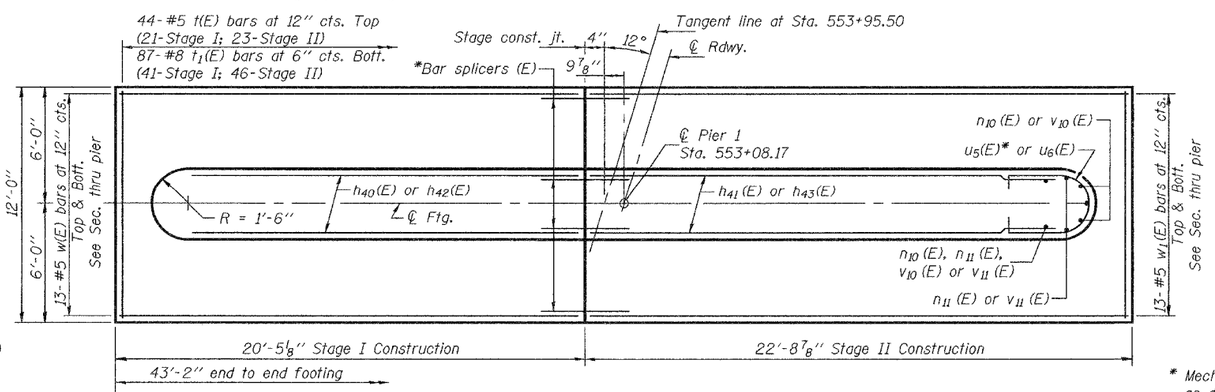
BAR s_{11} (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{40}(E)	38	#6	16'-1"	
h_{41}(E)	38	#6	16'-11"	
h_{42}(E)	50	#6	17'-9"	
h_{43}(E)	50	#6	20'-1"	
h_{44}(E)	3	#4	11'-3"	
n_{10}(E)	82	#9	10'-0"	
n_{11}(E)	82	#9	12'-0"	
p_{20}(E)	9	#6	17'-9"	
p_{21}(E)	9	#6	20'-1"	
s_{10}(E)	39	#5	12'-3"	
s_{11}(E)	12	#4	7'-0"	
s_{12}(E)	780	#5	3'-9"	
s_{13}(E)	500	#3	3'-5"	
s_{14}(E)	40	#3	3'-8"	
t(E)	44	#5	11'-8"	
t_1(E)	87	#8	11'-8"	
u_5(E)	38	#6	9'-4"	
u_6(E)	50	#6	11'-4"	
u_7(E)	9	#6	11'-9"	
v_{10}(E)	82	#9	28'-0"	
v_{11}(E)	82	#9	26'-0"	
w(E)	26	#5	20'-1"	
w_1(E)	26	#5	22'-5"	
Concrete Structures		Cu. Yd.	215.6	
Reinforcement Bars, Epoxy Coated		Pound	36690	
Mechanical Splice		Each	278	
Cofferdam Excavation		Cu. Yd.	175	
Cofferdams		Each	1	
Seal Coat Concrete		Cu. Yd.	9.6	
Bar Splicers		Each	85	
Rock Excavation for Structures		Cu. Yd.	77	



DETAIL A



FOOTING PLAN

MIN. BAR LAP

#6 bar = 2'-7"

* Mechanical splices (E) shall be used as detailed in elevation view.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PIER 1
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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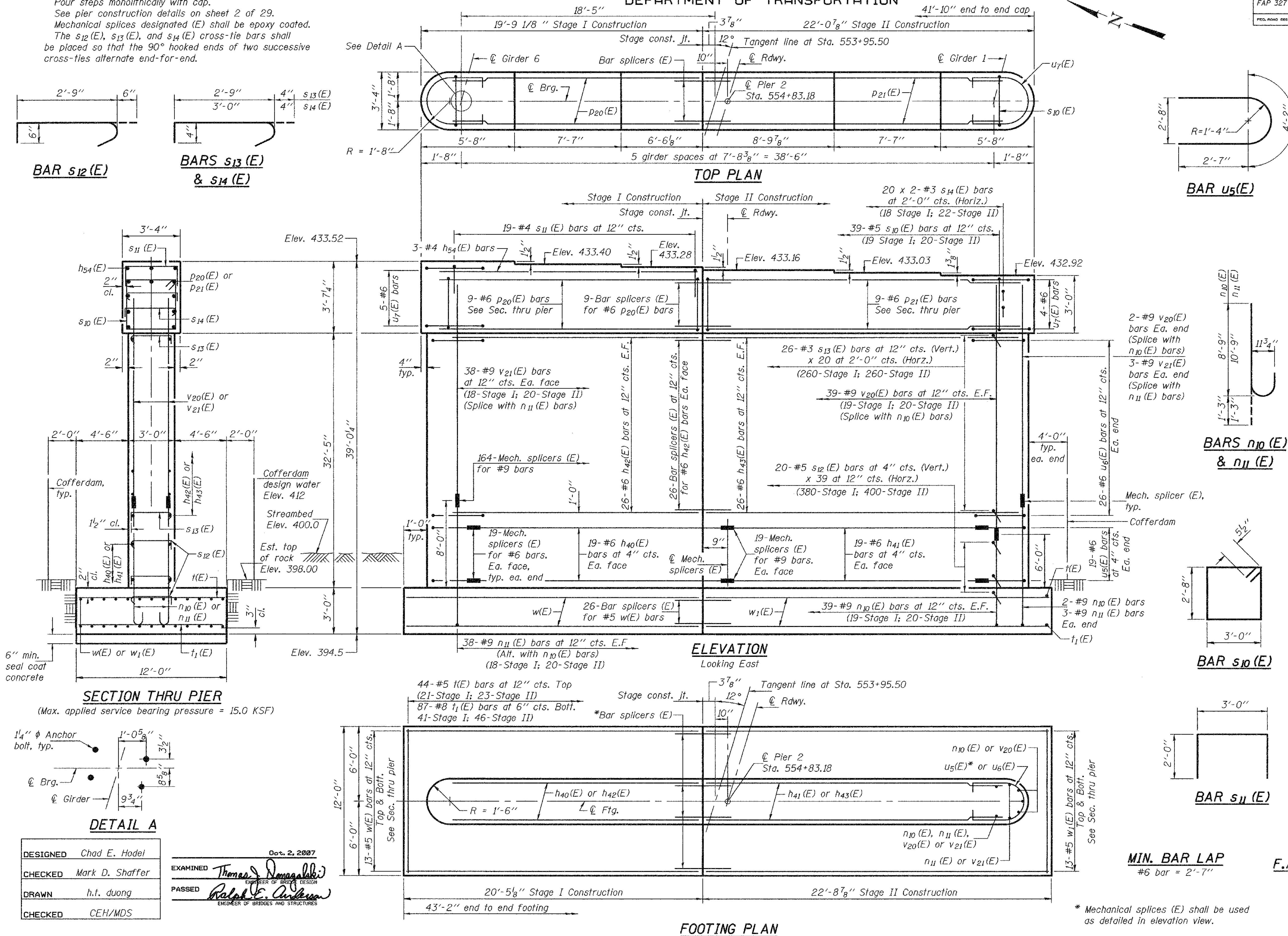
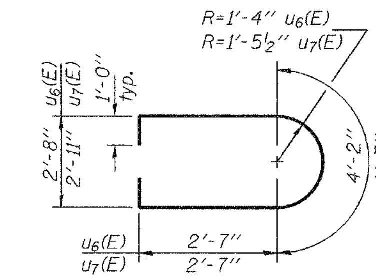
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	41

SHEET NO. 24
29 SHEETS
Contract No. 94967

Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
See pier construction details on sheet 2 of 29.
Mechanical splices designated (E) shall be epoxy coated.
The $s_{12}(E)$, $s_{13}(E)$, and $s_{14}(E)$ cross-tie bars shall be placed so that the 90° hooked ends of two successive cross-ties alternate end-for-end.





BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{40}(E)$	38	#6	16'-1"	straight
$h_{41}(E)$	38	#6	16'-11"	straight
$h_{42}(E)$	52	#6	17'-9"	straight
$h_{43}(E)$	52	#6	20'-1"	straight
$h_{54}(E)$	3	#4	17'-7"	straight
$n_{10}(E)$	82	#9	10'-0"	hooked
$n_{11}(E)$	82	#9	12'-0"	hooked
$p_{20}(E)$	9	#6	17'-11"	straight
$p_{21}(E)$	9	#6	20'-3"	straight
$s_{10}(E)$	39	#5	12'-3"	closed tie
$s_{11}(E)$	19	#4	7'-0"	U-stirrup
$s_{12}(E)$	780	#5	3'-9"	cross-tie
$s_{13}(E)$	520	#3	3'-5"	cross-tie
$s_{14}(E)$	40	#3	3'-8"	cross-tie
$t(E)$	44	#5	11'-8"	straight
$t_1(E)$	87	#8	11'-8"	straight
$u_5(E)$	38	#6	9'-4"	U-bar
$u_6(E)$	52	#6	11'-4"	U-bar
$u_7(E)$	9	#6	11'-9"	U-bar
$v_{20}(E)$	82	#9	29'-0"	straight
$v_{21}(E)$	82	#9	27'-0"	straight
$w(E)$	26	#5	20'-1"	straight
$w_1(E)$	26	#5	22'-5"	straight
Concrete Structures			Cu. Yd.	220.3
Reinforcement Bars, Epoxy Coated			Pound	37470
Mechanical Splice			Each	278
Cofferdam Excavation			Cu. Yd.	95
Cofferdams			Each	1
Seal Coat Concrete			Cu. Yd.	9.6
Bar Splicers			Each	87
Rock Excavation for Structures			Cu. Yd.	72

MIN. BAR LAP
#6 bar = 2'-7"

* Mechanical splices (E) shall be used as detailed in elevation view.

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

EXAMINED — ENGINEER OF BRIDGE DESIGN — Oct. 2, 2007
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

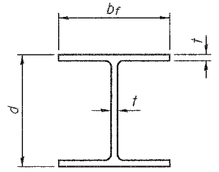
PIER 2
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	42
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

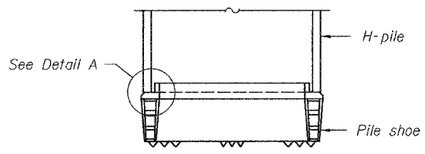
SHEET NO. 25
29 SHEETS

Contract No. 94967

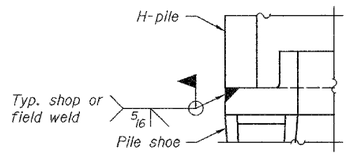


STEEL PILE TABLE

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

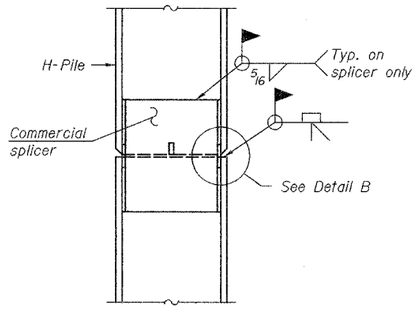


ELEVATION

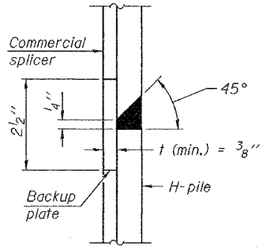


DETAIL A

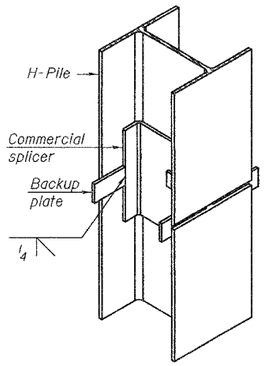
H-PILE SHOE ATTACHMENT



ELEVATION

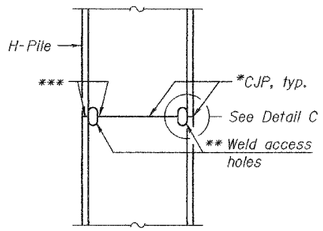


DETAIL "B"

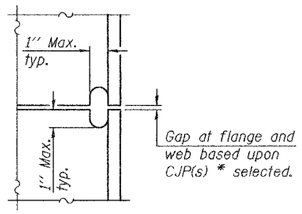


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

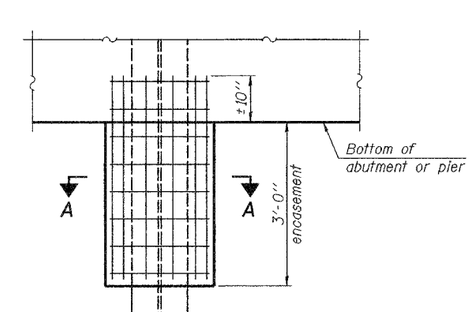


ELEVATION

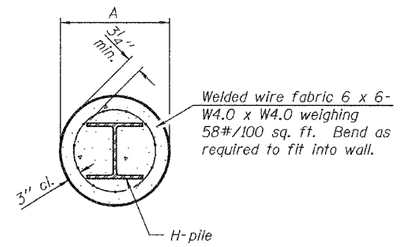


DETAIL C

COMPLETE PENETRATION WELD SPLICE



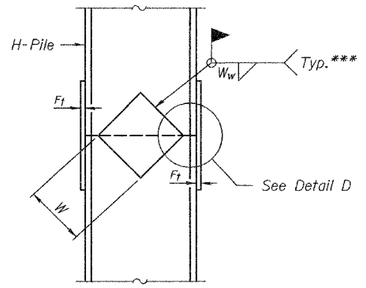
ELEVATION



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

SECTION A-A

PILE ENCASEMENT



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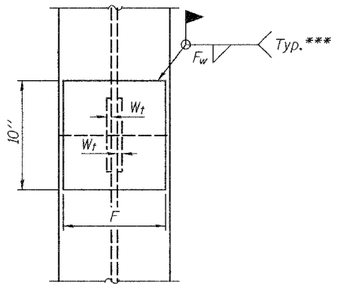
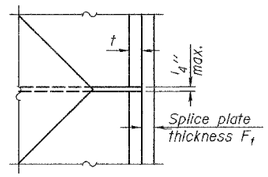


END VIEW



DETAIL D

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

WELDED PLATE FIELD SPLICE

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

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

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

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

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

Oct. 2, 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

F-HP 11-1-06

STEEL HP DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	43
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 26
29 SHEETS

Contract No. 94967

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

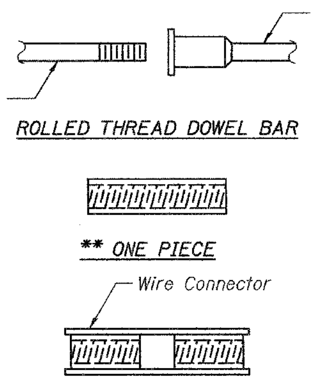
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

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

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

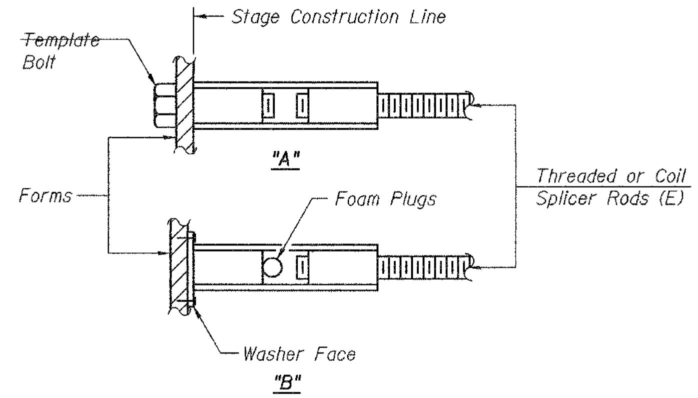
② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

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



BAR SPLICER ASSEMBLY ALTERNATIVES

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

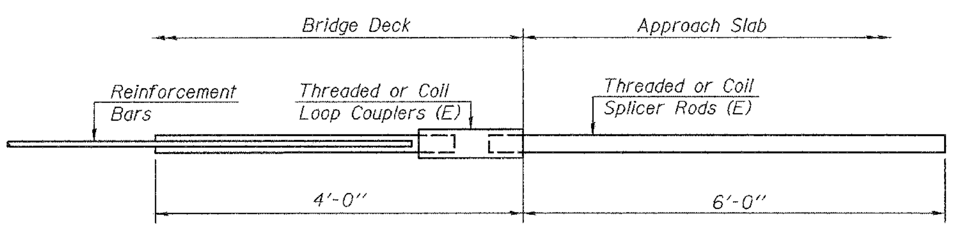


INSTALLATION AND SETTING METHODS

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

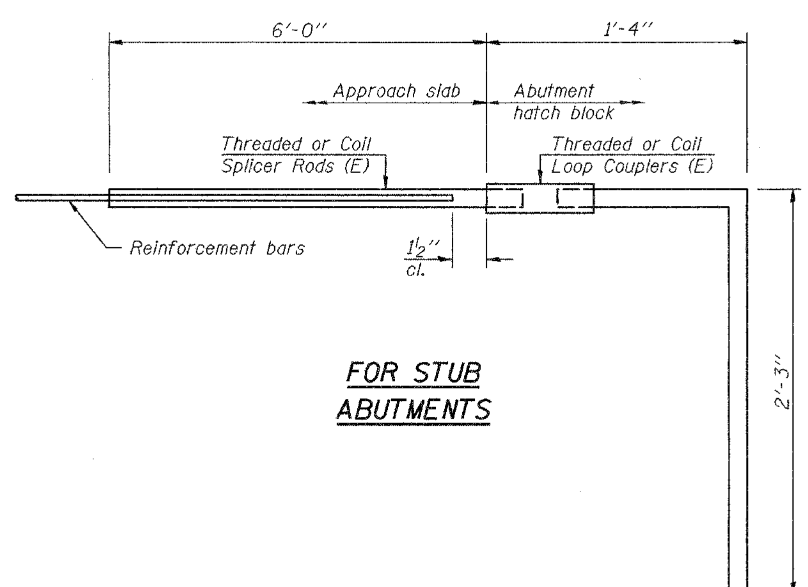
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	*2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

* 1'-6" for the a_8(E) bars in Stage I Construction of the deck.



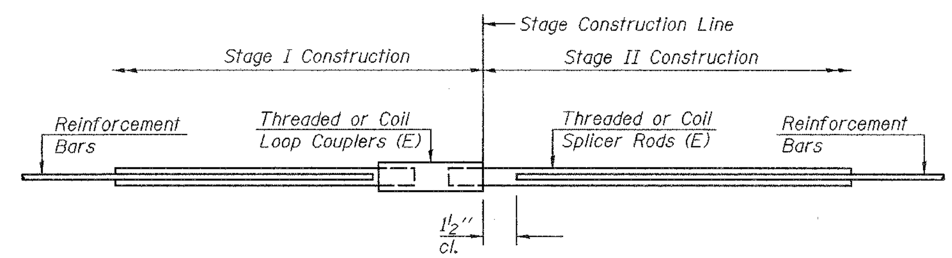
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 83



STANDARD

Bar Size	No. Assemblies Required	Location
#5	1591	Deck
#6	8	Deck
#7	8	Deck
#5	12	W. Abut.
#6	5	W. Abut.
#7	12	W. Abut.
#5	12	E. Abut.
#6	5	E. Abut.
#7	12	E. Abut.
#5	26	Pier 1
#6	59	Pier 1
#5	26	Pier 2
#6	61	Pier 2

DESIGNED	Chad E. Hodel
CHECKED	Mark D. Shaffer
DRAWN	h.t. duong
CHECKED	CEH/MDS

BSD-1 11-1-06

EXAMINED Oct. 2, 2007 Thomas J. Domagalski ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

BAR SPLICER ASSEMBLY DETAILS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	44
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 27
29 SHEETS

Contract No. 94967

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 1 of 3

Date 5/2/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

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

STRUCT. NO. 051-0011
Station 554+17

BORING NO. 1
Station 551+52
Offset 9.00ft Rt
Ground Surface Elev. 434.78 ft

Surface Water Elev. 406.68 ft
Stream Bed Elev. 399.08 ft

Groundwater Elev.:
First Encounter Dry ft
Upon Completion Washed ft
After ____ Hrs. samples ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
2" Asphalt on 10" Concrete pavement. 433.78			
6" Aggregate subbase. 433.28			
Very stiff, damp, brown mottled gray, CLAY w/some Silt.	3		
	5 7 B	2.4	17
-5	2		
	4 5 B	1.2	19
	2		
	4 5 B	2.8	22
425.28			
Stiff, damp, tan mottled brown, SILTY CLAY. -10	2		
	5 7 B	1.4	20
	3		
	5 14 B	1.8	18
419.78 -15	16		
Hard, moist, tan to gray, SILTY CLAY SHALE, pokerchipped.	25 36 S	4.4	10
Samples re-assembled to test Qu.	22		
	506" 503" S	5.4	12
415.28 -20	47		
Very dense, moist, gray, SILTY CLAY SHALE, pokerchipped. 414.48	50/2" 50/1"		7
Sample powdered, unable to test Qu. (continued)			
Borehole continued with rock coring.			
-25			
-30			
-35			
-40			

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

Illinois Department of Transportation
Division of Highways
District 7 Materials

ROCK BORING LOG

Page 2 of 3

Date 5/2/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 051-0011
Station 554+17

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

BORING NO. 1
Station 551+52
Offset 9.00ft Rt
Ground Surface Elev. 434.78 ft

Core Diameter 2.06 in
Top of Rock Elev. 419.78 ft
Begin Core Elev. 414.48 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, SILTY CLAY SHALE, slightly weathered. 414.48		86	86	0.9	
Rock core B1a 25.0' to 25.5' = 24 tsf 409.48 -25					
Gray, CLAY SHALE, slightly weathered.		100	95	0.7	
Rock core B1b 30.0' to 30.5' = 11 tsf -30		86	80	0.8	
400.78					
Gray, SANDSTONE, slightly weathered.					
Rock core B1c 34.0' to 34.7' = 113 tsf 400.08 -35					
Gray, CLAY SHALE, severely weathered.		100	43	0.8	
395.78					
Gray, CLAY SHALE, slightly weathered.					
Rock core B1d 40.0' to 40.3' = 52 tsf 394.48 -40					

Color pictures of the cores
Cores will be stored for examination until _____
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

Illinois Department of Transportation
Division of Highways
District 7 Materials

ROCK BORING LOG

Page 3 of 3

Date 5/2/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 051-0011
Station 554+17

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

BORING NO. 1
Station 551+52
Offset 9.00ft Rt
Ground Surface Elev. 434.78 ft

Core Diameter 2.06 in
Top of Rock Elev. 419.78 ft
Begin Core Elev. 414.48 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Extent of exploration.					
Benchmark: BM 204 Chiseled square on SE corner of existing bridge, Sta 556+26, 18.6' Lt = 434.66' Provided by Program Development.					
Stationing of borings based on center of existing bridge = 554+17.					
-45					
-50					
-55					
-60					

Color pictures of the cores
Cores will be stored for examination until _____
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

BORING LOGS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	45
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 28
29 SHEETS

Contract No. 94967

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 7 Materials

Page 1 of 2 — Date 5/3/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

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

STRUCT. NO. 051-0011, Station 554+17

BORING NO. 2, Station 556+25, Offset 9.00ft Rt, Ground Surface Elev. 434.50 ft

Surface Water Elev. 406.68 ft; Stream Bed Elev. 399.08 ft

Groundwater Elev.: First Encounter 405.0 ft; Upon Completion 411.5 ft; After 24 Hrs. 410.2 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
2 7/8" Asphalt on 12" Concrete pavement.	433.20				
Void.	~~433.00~~				
6" Aggregate subbase.	432.50		1		
Very stiff, damp, brown, CLAY LOAM.			3	3.5	16
	430.00		3	PP	
Medium to stiff, damp, red mottled gray, CLAY w/trace gravel.		-5	1		
			3	0.8	21
			4	B	
			2		
			3	1.2	20
	425.00		5	B	
Stiff, damp, gray, CLAY LOAM.		-10	2		
			3	1.1	19
	422.50		4	B	
Medium to stiff, damp, brown to red, SILTY CLAY.			2		
			2	0.9	20
			4	B	
		-15	2		
			4	1.4	20
	417.50		6	B	
Medium to stiff, damp, brown marbled gray, CLAY. Estimated natural ground elevation.			2		
			3	1.0	20
	415.00		4	B	
		-20	1		
Medium, damp, gray, SILTY CLAY. (continued)			1	0.7	19
	412.30		3	B	
Stiff, damp, gray marbled red, CLAY LOAM.			1		
			3	1.3	23
	410.00		4	B	
Stiff to medium, damp, gray mottled red, CLAY LOAM.		-25	1		
			2	1.2	19
			6	B	
Brown			1		
			5	0.7	22
	405.00		5	B	
Very loose, very damp, brown, fine grained, SAND. 4% passing #200 sieve.		-30	0		
			0		20
			1		
Medium. 1% passing #200 sieve.		-35	3		
			4		23
	395.00		13		
Gray, SANDY CLAY SHALE.	394.70	-40	50/2"		6

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

Illinois Department of Transportation — ROCK BORING LOG

Division of Highways, District 7 Materials

Page 2 of 2 — Date 5/3/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 051-0011, Station 554+17

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

Core Diameter 2.06 in; Top of Rock Elev. 395.00 ft; Begin Core Elev. 394.70 ft

BORING NO. 2, Station 556+25, Offset 9.00ft Rt, Ground Surface Elev. 434.50 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, SANDY CLAY SHALE.	394.70			80	72	0.6	
	393.50						
Black, CLAY SHALE.	390.50						
Gray, estimated LIMESTONE. Rock Core B2a 44.0' to 44.8' = 1190 tsf	389.70	-45					
Gray, slightly weathered, SANDY CLAY SHALE.				100	84	0.6	
Rock Core B2b 48.0' to 48.5' = 90 tsf		-50		100	86	0.8	
	379.70	-55					
Extent of exploration.							

Benchmark: BM 204 Chiseled square on SE corner of existing bridge, Sta 556+26, 18.6' Lt = 434.66' Provided by Program Development.

Stationing of borings based on center of existing bridge = 554+17.

Color pictures of the cores ____________
Cores will be stored for examination until ____________
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 7 Materials

Page 1 of 2 — Date 5/23/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

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

STRUCT. NO. 051-0011, Station 554+17

BORING NO. 3, Station 552+67, Offset 6.00ft Lt, Ground Surface Elev. 434.87 ft

Surface Water Elev. 406.68 ft; Stream Bed Elev. 399.08 ft

Groundwater Elev.: First Encounter 405.4 ft; Upon Completion N/A ft; After ____ Hrs. N/A ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Bridge deck.	434.17				
Air.		-5			
		-10			
		-15			
		-20			
Air. (continued)		-25			
	405.37				
Medium, very damp, gray, SILTY CLAY LOAM.		-30	0		
			1	0.6	23
	402.87		2	B	
Medium, very damp, gray mottled red, CLAY.			1		
			2	0.7	35
	400.37		3	B	
Hard, very moist, gray, CLAY SHALE.		-35	13		
	399.27		50	4.4	14
Borehole continued with rock coring.			50/1"	S	
		-40			

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

Illinois Department of Transportation — ROCK BORING LOG

Division of Highways, District 7 Materials

Page 2 of 2 — Date 5/23/06

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 051-0011, Station 554+17

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

Core Diameter 2.06 in; Top of Rock Elev. 399.27 ft; Begin Core Elev. 399.27 ft

BORING NO. 3, Station 552+67, Offset 6.00ft Lt, Ground Surface Elev. 434.87 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray, slightly weathered, SANDY CLAY SHALE.	399.27			90	69	0.8	
		-40					
Rock core B3a 40.2' to 40.6' = 75 tsf	394.27						
Dark gray, CLAY SHALE.	393.57			100	88	0.8	
Gray, estimated LIMESTONE. Rock core B3b 41.5' to 42.0' = 963 tsf	392.67						
Gray, slightly weathered, SANDY CLAY SHALE.		-45		100	100	0.8	
Rock core B3c 49.0' to 49.5' = 48 tsf		-50					
	384.27						
Extent of exploration.		-55					

Benchmark: BM 204 Chiseled square on SE corner of existing bridge, Sta 556+26, 18.6' Lt = 434.66' Provided by Program Development.

Stationing of borings based on center of existing bridge = 554+17.

Color pictures of the cores ____________
Cores will be stored for examination until ____________
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BORING LOGS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 327	(51-23) B-3	LAWRENCE	56	46
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 29
29 SHEETS

Contract No. 94967

Illinois Department of Transportation
Division of Highways
District 7 Materials

SOIL BORING LOG

Page 1 of 2

Date 52306

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

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

STRUCT. NO. 051-0011
Station 554+17

BORING NO. 4
Station 555+30
Offset 31.00ft Rt
Ground Surface Elev. 417.58 ft

Surface Water Elev. 406.68 ft
Stream Bed Elev. 399.08 ft

Groundwater Elev.:
First Encounter 402.1 ft
Upon Completion Washed ft
After 24 Hrs. 401.6 ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
417.08 Brown, SANDY CLAY w/ vegetation and roots.			
Medium, damp, red marbled gray, SANDY CLAY.	1		
	2	0.8	19
	3	B	
413.08 Medium, damp, red, SANDY LOAM.	-5 1		
	3	0.8	19
	5	BS	
410.08 Medium, damp, red marbled tan, SILTY CLAY LOAM.	0		
	2	0.7	27
	3	B	
407.28 Soft to very soft, very damp, red/brown/gray, SANDY LOAM.	-10 1		
	2	0.3	22
	2	B	
	0		
	0	0.1	22
	1	B	
402.08 Gray, SAND. 9% passing #200 sieve.	-15 0		
	1	0.1	23
	2	B	
401.78 Very soft, wet, gray, SANDY LOAM. 400.58	0		
Medium, wet, gray, fine grained, SAND. 8% passing #200 sieve. 399.18	0		24
	3		
Very dense, moist, dark gray, SANDY CLAY SHALE.	-20 5		

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
396.88 Borehole continued with rock coring.	16		7
	50/2"		
	-25		
	-30		
	-35		
	-40		

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

Illinois Department of Transportation
Division of Highways
District 7 Materials

ROCK BORING LOG

Page 2 of 2

Date 52306

ROUTE FAP 327 (US 50) DESCRIPTION Embarras River LOGGED BY E. Sandschafer

SECTION (51-23)B-3 LOCATION , SEC. 36, TWP. 4 N, RNG. 12 W, 3 PM

COUNTY Lawrence CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 051-0011
Station 554+17

CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

BORING NO. 4
Station 555+30
Offset 31.00ft Rt
Ground Surface Elev. 417.58 ft

Core Diameter 2.06 in
Top of Rock Elev. 397.88 ft
Begin Core Elev. 396.88 ft

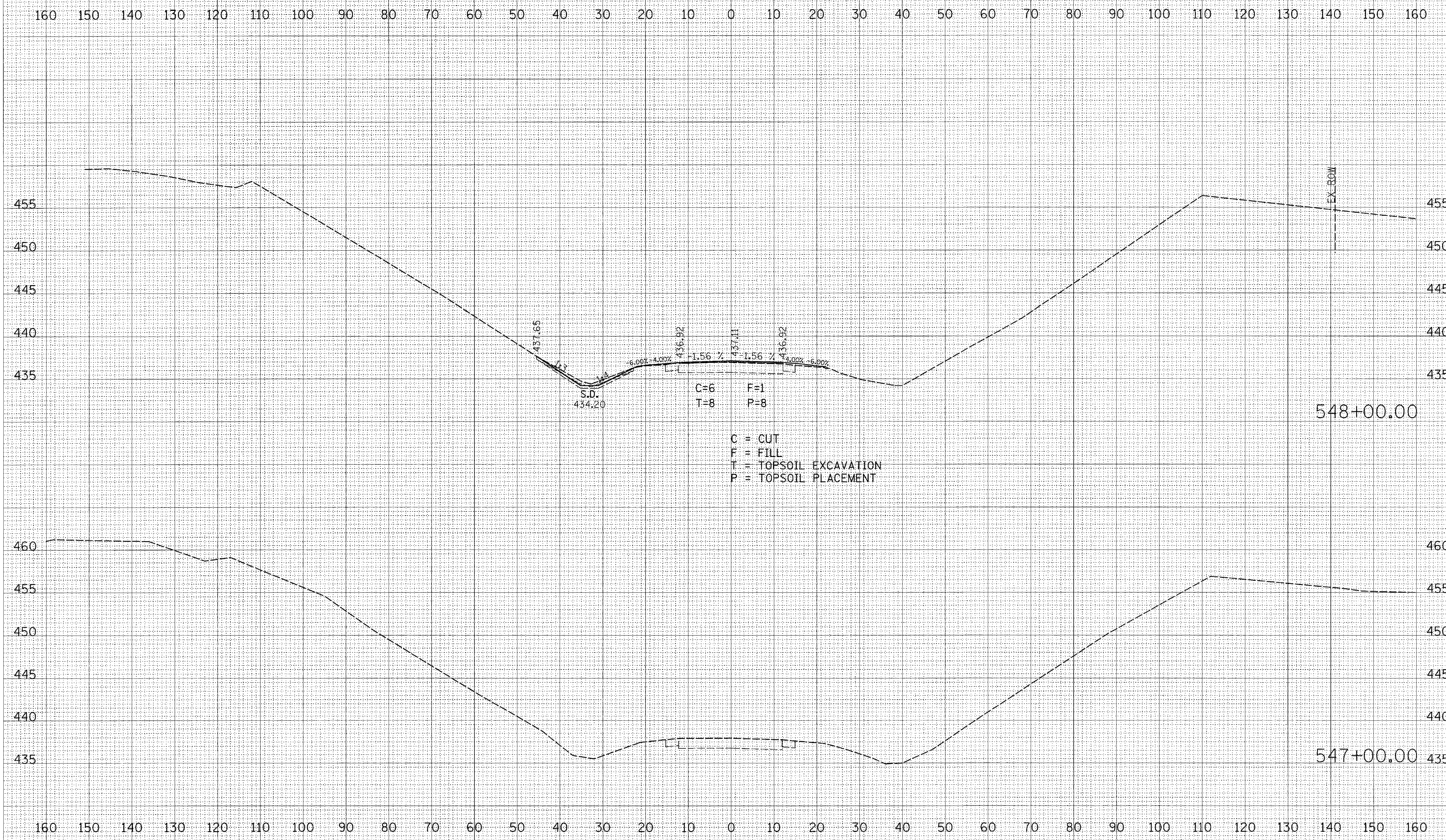
DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dark gray, moderately weathered, SANDY CLAY LOAM SHALE. 396.88		80	62	0.8	
394.08 Dark gray to black, slightly weathered, CLAY SHALE.					
Rock core B4a 24.0' to 24.5' = 52 tsf	-25				
391.58 Gray, estimated LIMESTONE w/vertical fracture.		100	51	0.7	
390.58 Gray, slightly weathered, SANDY CLAY SHALE.					
Rock core B4b 28.0' to 28.5' = 91 tsf	-30				
		100	89	0.8	
Rock core B4c 34.0' to 34.5' = 36 tsf	-35				
381.88 Extent of exploration.					
Benchmark: BM 204 Chiseled square on SE corner of existing bridge, Sta 556+26, 18.6' Lt = 434.66' Provided by Program Development.					
Stationing of borings based on center of existing bridge = 554+17.	-40				

Color pictures of the cores _____
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BORING LOGS
F.A.P. RT. 327 - SEC. (51-23)B-3
LAWRENCE COUNTY
STATION 553+95.50
STRUCTURE NO. 051-0063

CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	47
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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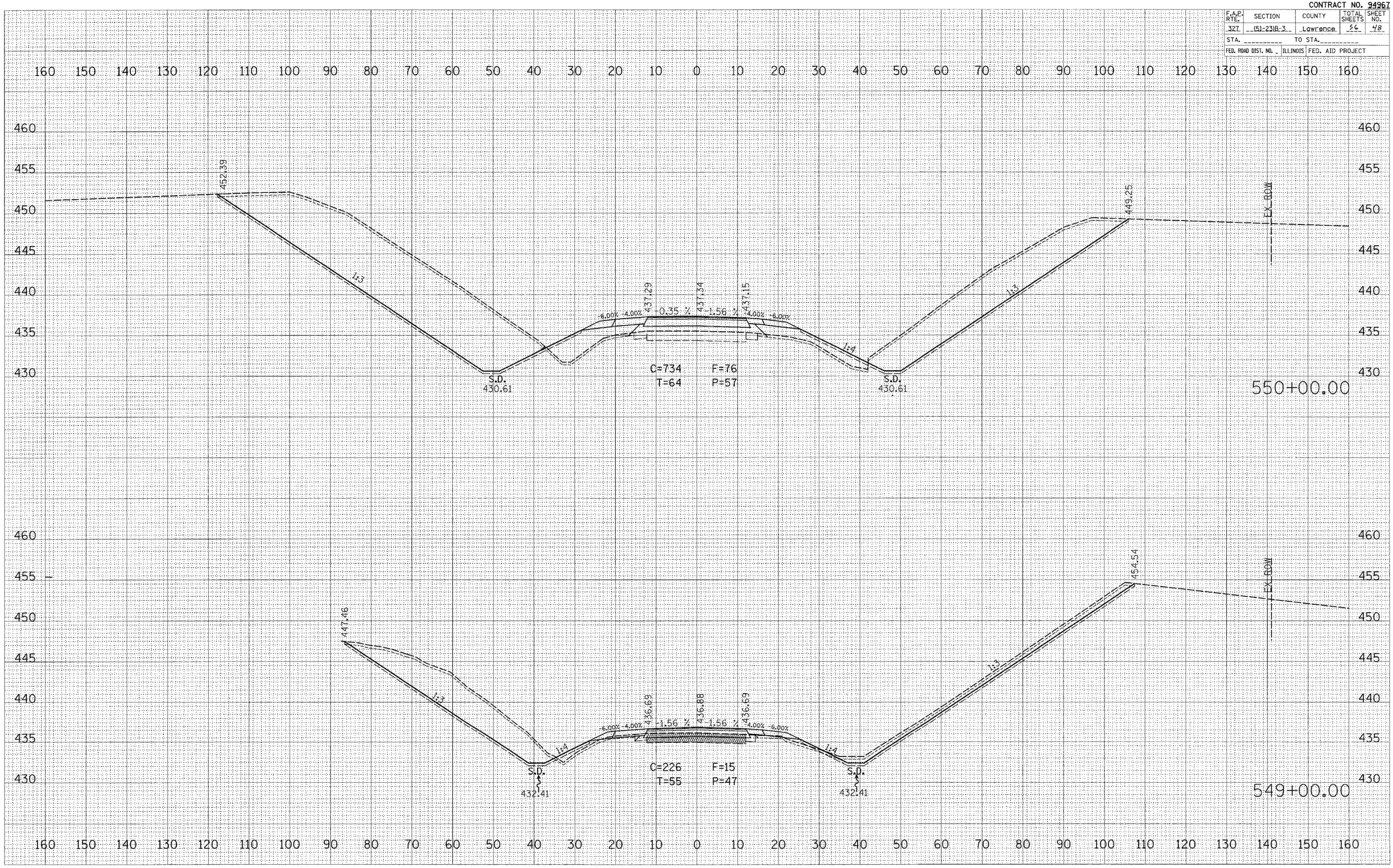
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(5)-23)B-3	Lawrence	56	48
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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



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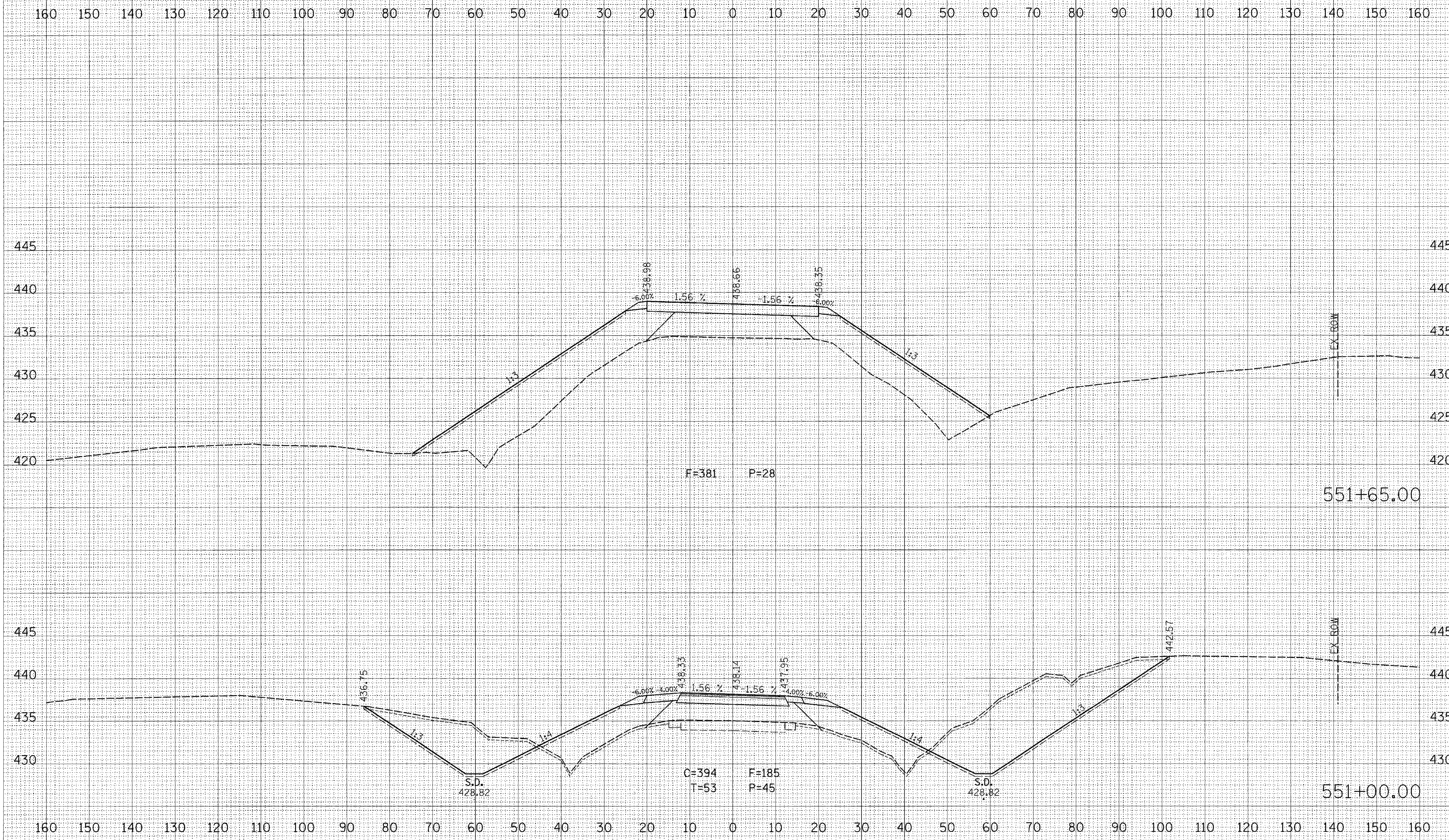
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	49
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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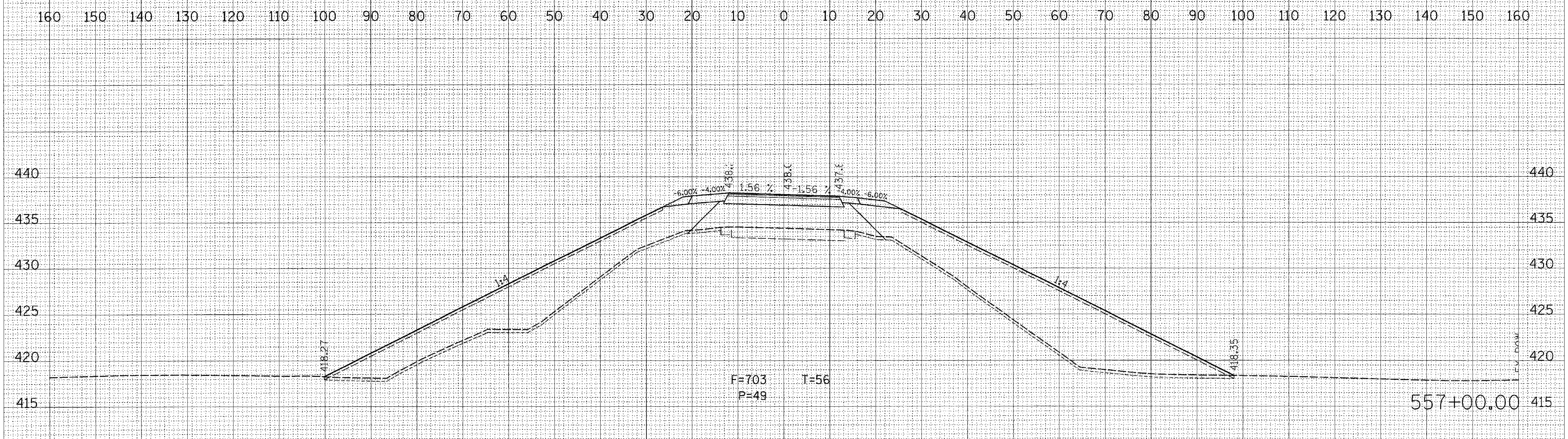
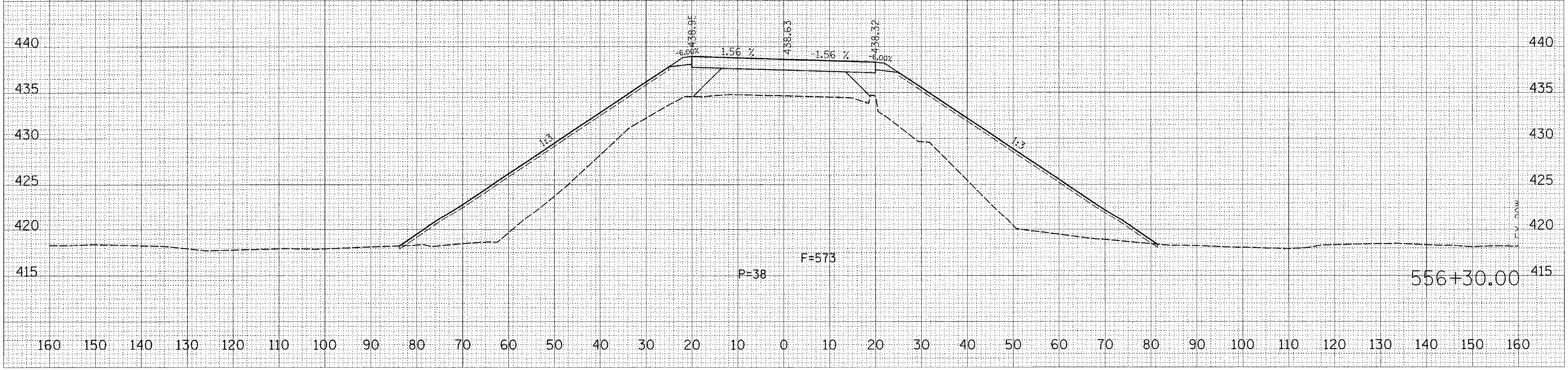
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	50

STA. ________ TO STA. ________

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





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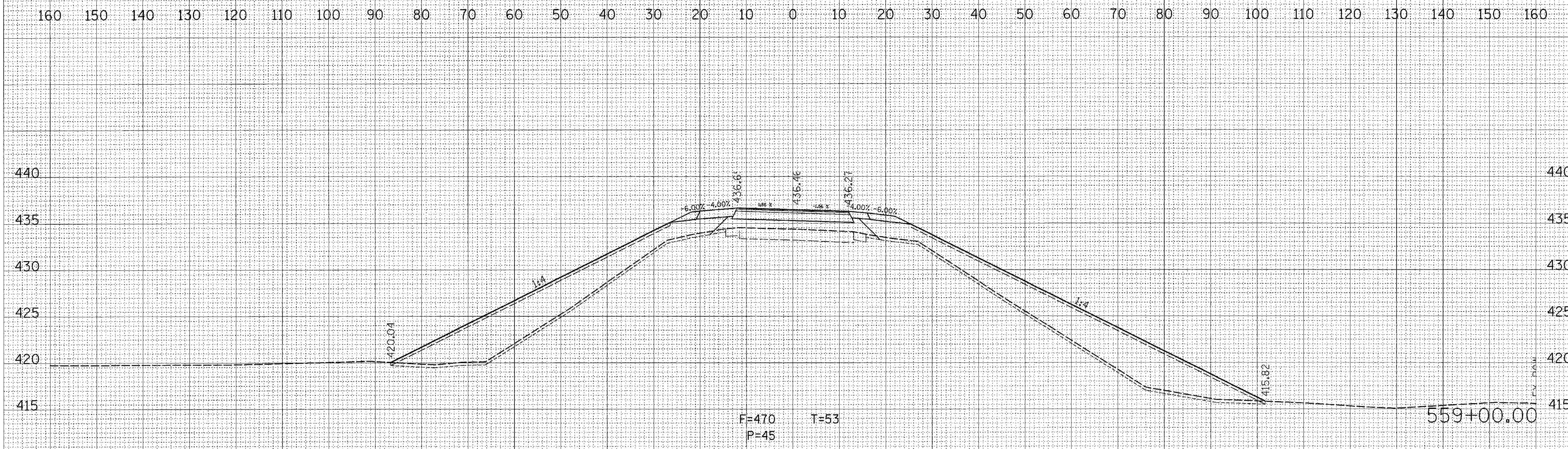
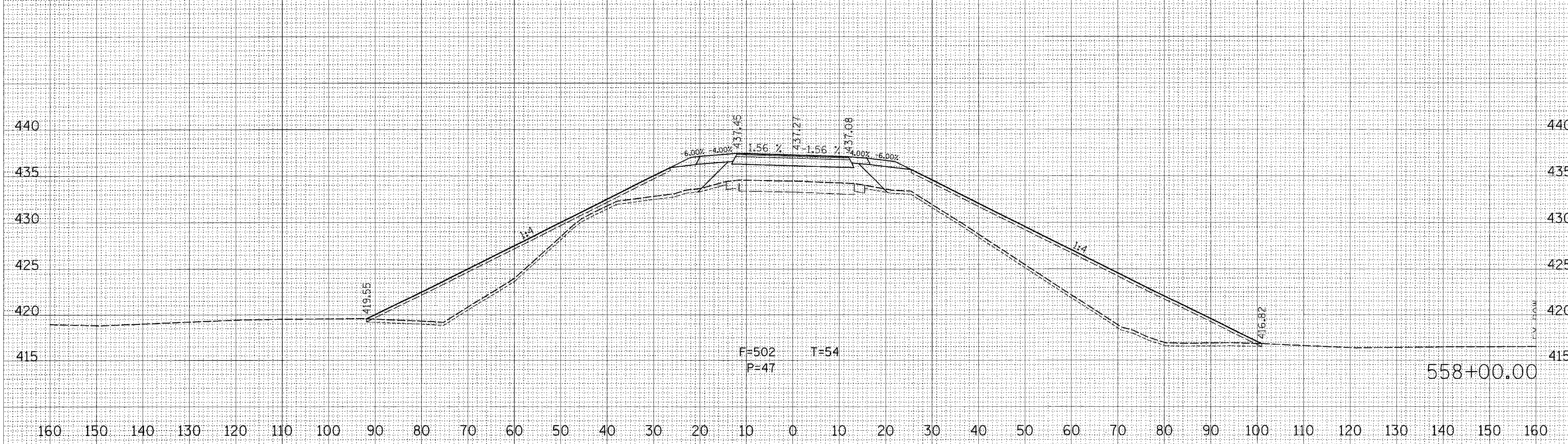
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	51

STA. ________ TO STA. ________

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





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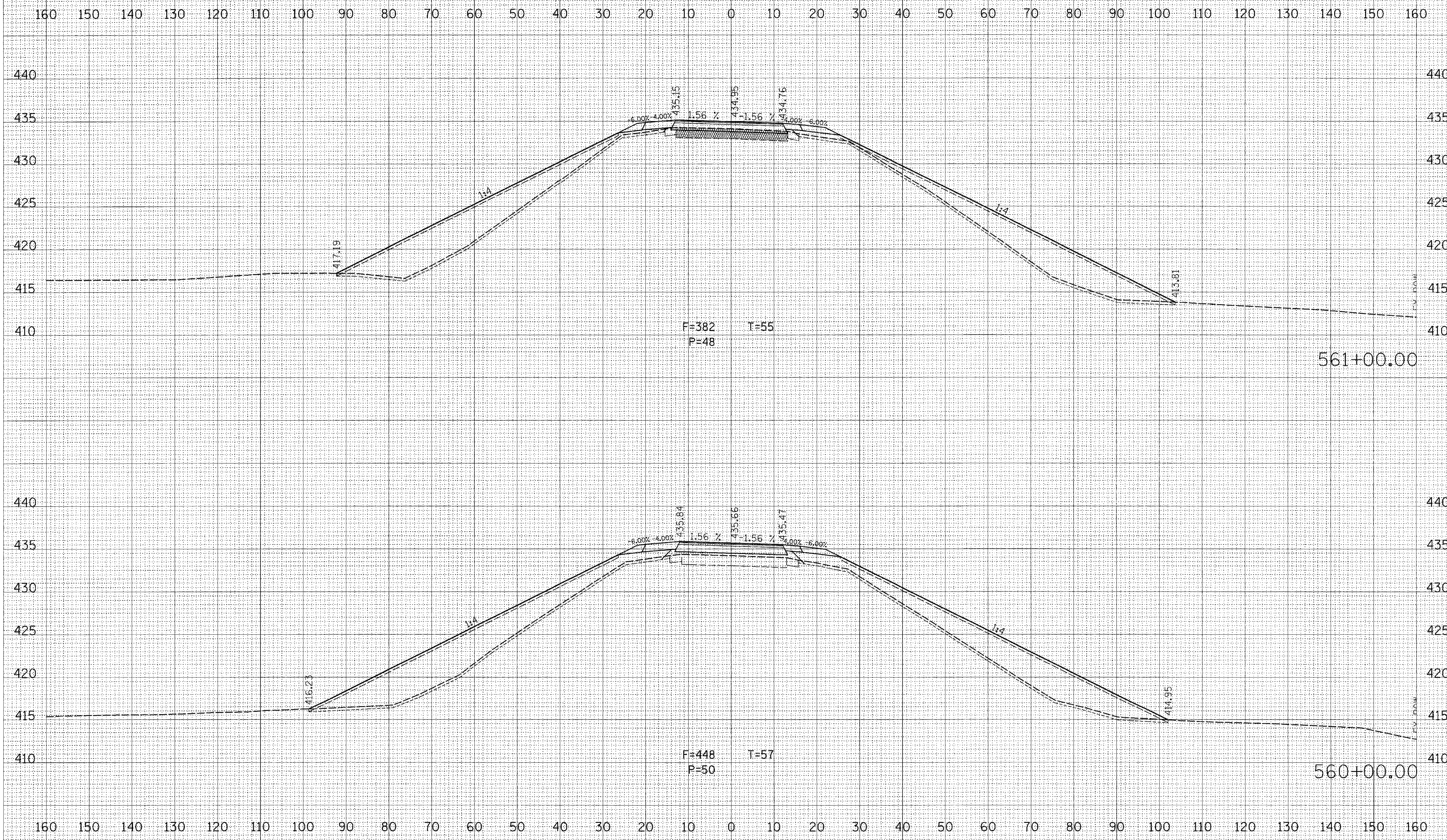
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	52
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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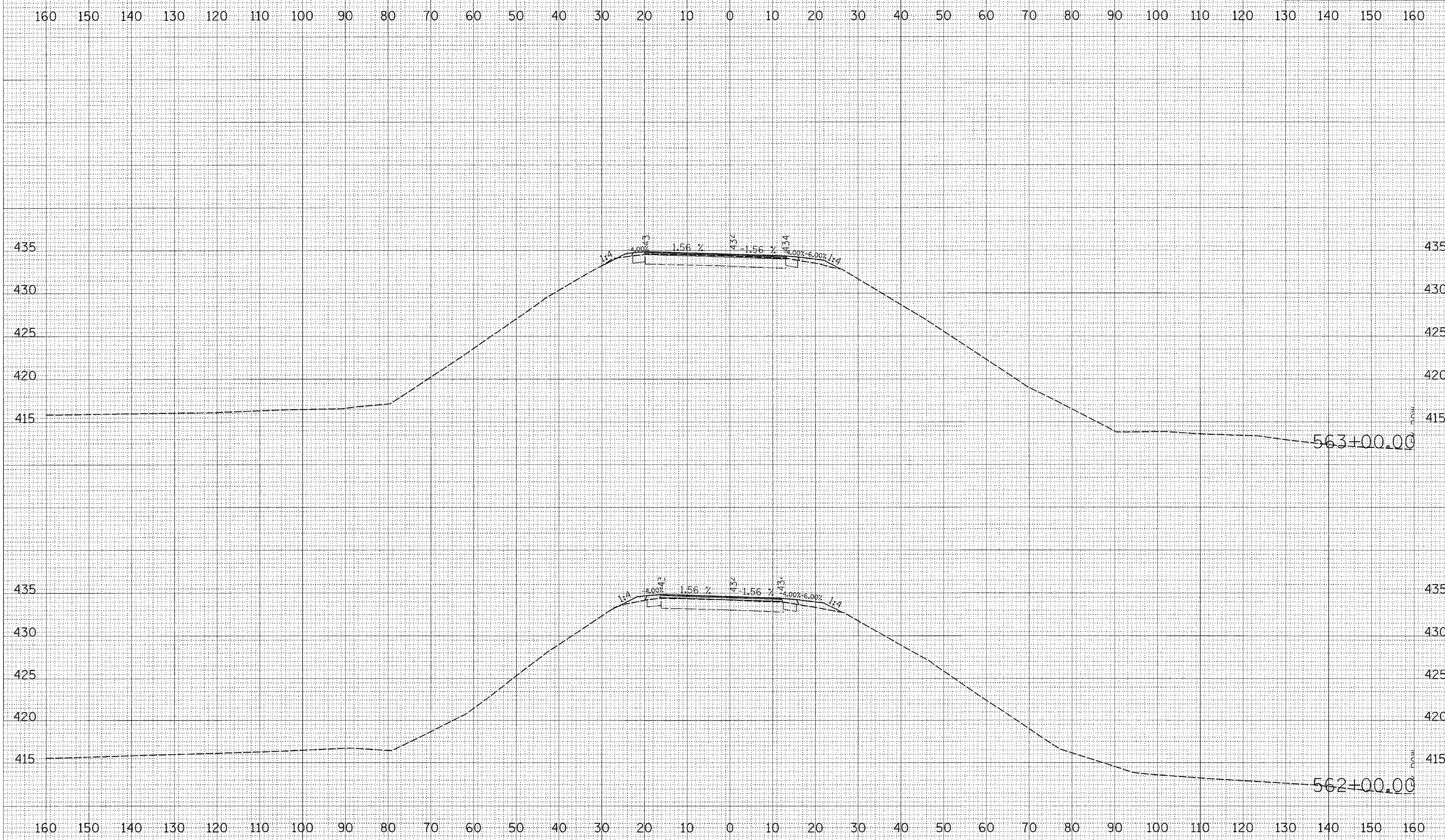
CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	53
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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CONTRACT NO. 94967

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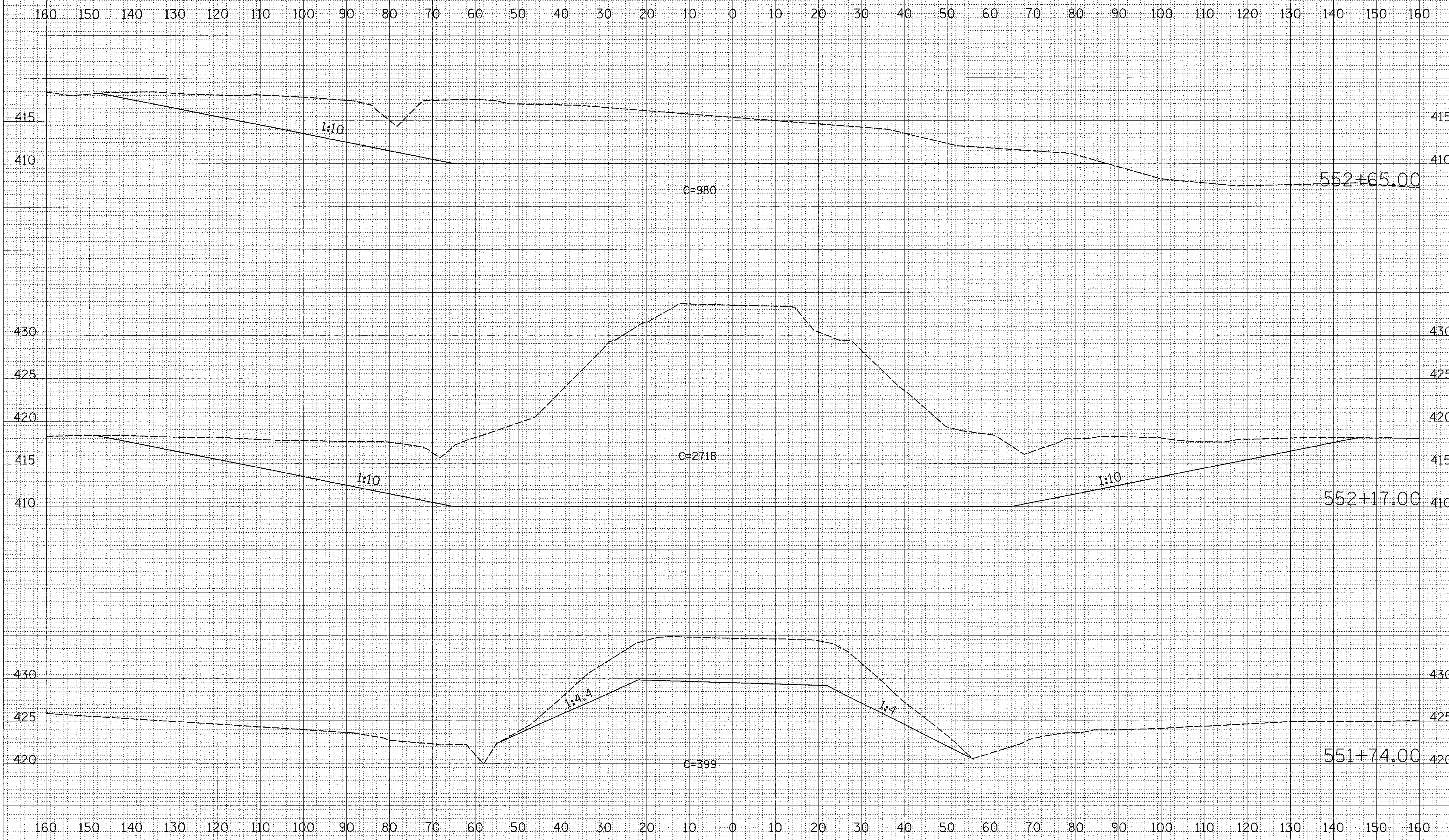
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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CHANNEL EXCAVATION

CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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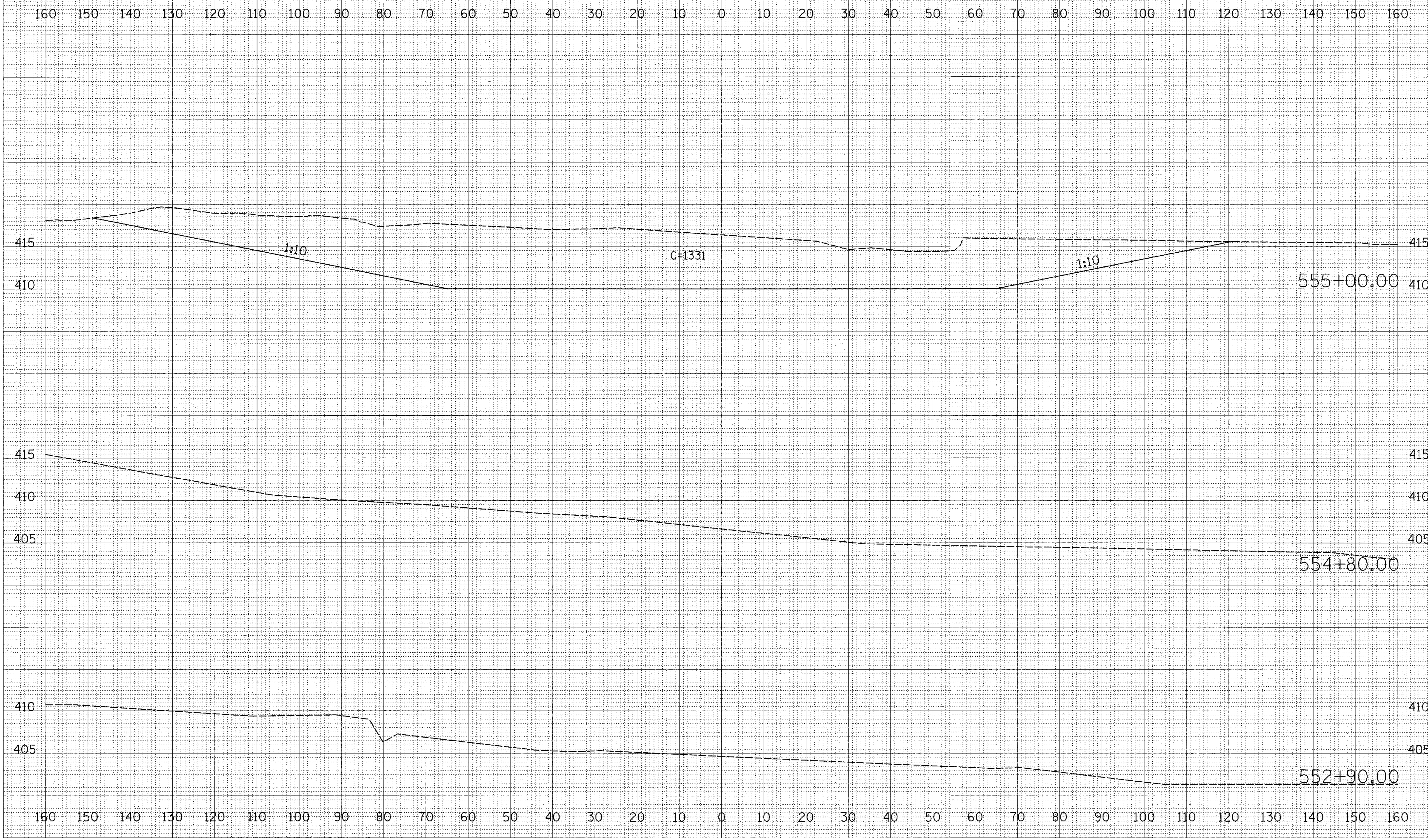
STA. ________	TO STA. ________			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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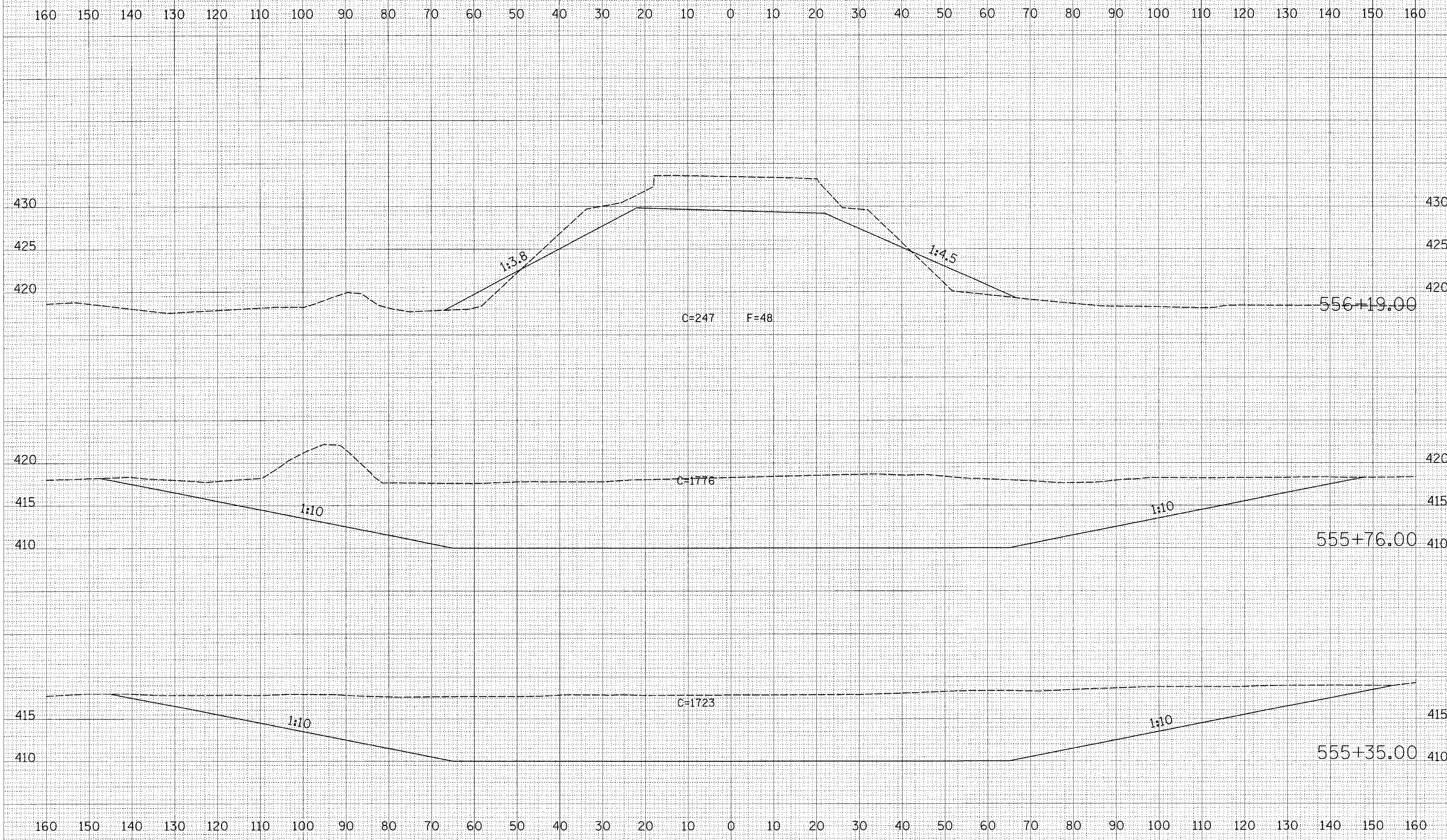
CHANNEL EXCAVATION

CONTRACT NO. 94967

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
327	(51-23)B-3	Lawrence	56	56

STA. __________ TO STA. __________

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



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CHANNEL EXCAVATION