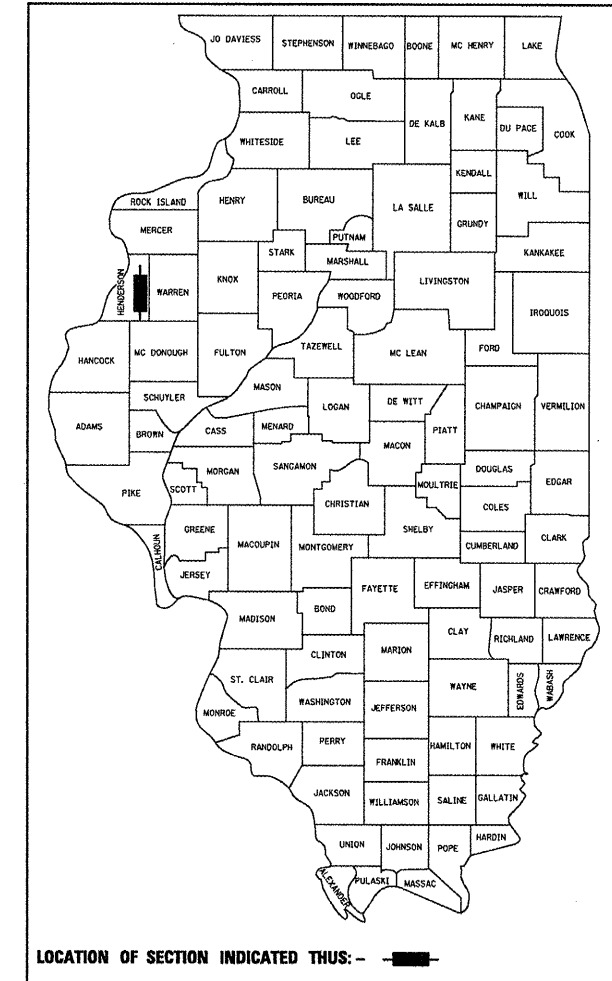


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 68693		

D-94-022-07



PLANS PREPARED BY
HORNER & SHIFRIN, INC.
ENGINEERS
 www.HornerShifrin.com
 640 Pierce Boulevard, Suite 200
 O'Fallon, Illinois 62269
 Phone: (618) 622-3040
 Illinois Professional Design Firm
 No. 184-000435
 License Expires 4/30/2011

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 SUBMITTED 12/16/2010
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
February 4 2011
 acting ENGINEER OF DESIGN AND ENVIRONMENT
February 4 2011
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

**PROPOSED
 HIGHWAY PLANS**

FAP ROUTE 534 (IL 94 /IL 116)
 SECTION 109BR-1
 PROJECT BRF-0534(009)
 HENDERSON COUNTY
 JOB NO. C-94-025-07

INDEX OF SHEETS

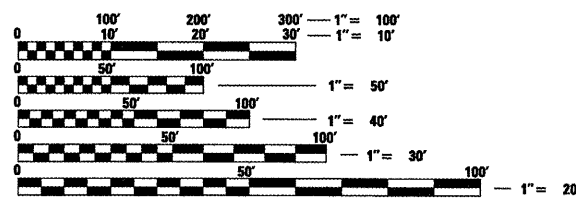
- 1 COVER SHEET
- 2 GENERAL NOTES & COMMITMENTS
- 3-5 SUMMARY OF QUANTITIES
- 6 TYPICAL SECTIONS
- 7-8 SCHEDULES OF QUANTITIES
- 9 ALIGNMENT, TIES, AND BENCHMARKS
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- 12 STAGING DETAILS
- 13 EROSION CONTROL PLAN
- 14-33 STRUCTURE PLANS
- 34-35 DETAILS
- 36-44 CROSS SECTIONS
- 45-56 DISTRICT 4 CADD STANDARDS
HIGHWAY STANDARDS

HIGHWAY STANDARDS

000001-06	630001-09	701201-04
001001-02	630201-06	701306-03
001006	630301-05	701321-11
280001-05	631031-09	701326-04
420001-07	635006-03	701901-01
420401-08	635011-02	704001-06
421001-02	666001-01	720001-01
482011-03	667101-01	780001-02
515001-03	701001-02	781001-03
601101-01	701006-03	701311-03

DESIGN DESIGNATION

MINOR RURAL ARTERIAL
 2007 ADT = 1700
 S.U. = 4.1%
 M.U. = 5.9%



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

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

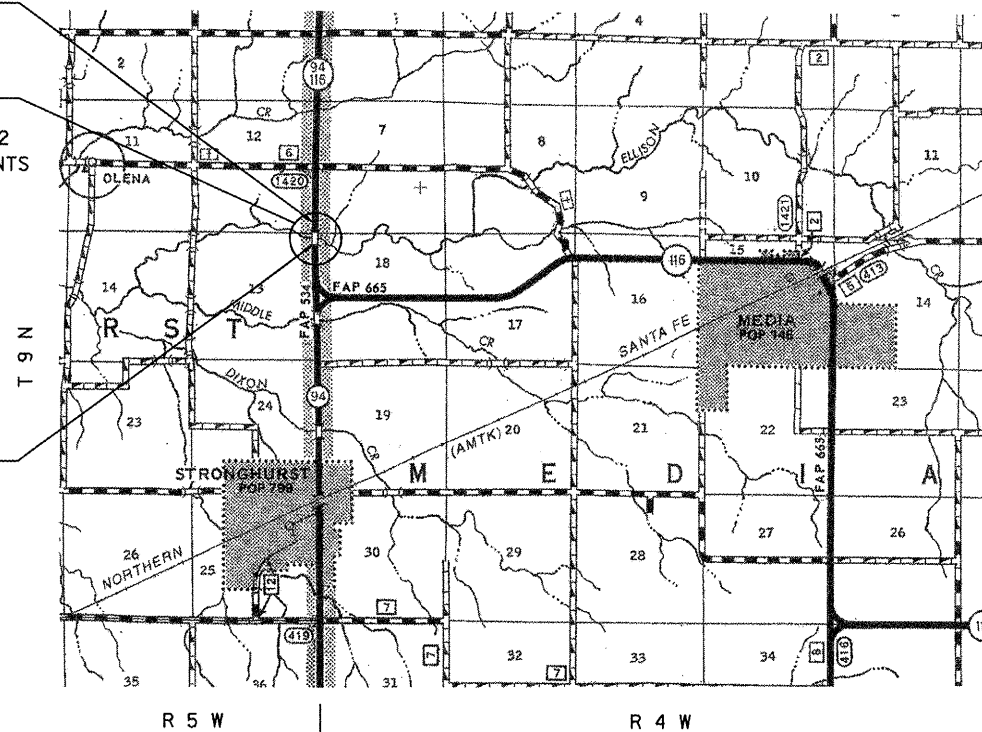
PROJECT ENGINEER: RICH DOTSON (309) 671-3455
 PROJECT MANAGER: TERRISA WORSFOLD (309) 671-3465

CONTRACT NO. 68693
 CATALOG NO. 033468-00D

BEGIN PROJECT
 STA 267+48.82

SN 036-0004 OVER ELLISON CREEK
 1.8 MILES NORTH OF STRONGHURST, IL
 REMOVE AND REPLACE WITH SN 036-0072
 3 SPAN, 112'-0" BACK TO BACK ABUTMENTS
 CONCRETE SLAB BRIDGE

END PROJECT
 STA 273+80.65



GROSS LENGTH OF PROJECT = 631.83 FT = 0.120 MILES
 NET LENGTH OF PROJECT = 631.83 FT = 0.120 MILES



Steven R. Donahue
 STEVEN R. DONAHUE, P.E.
 License Expires 11/30/2011

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GENERAL NOTES

- THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

HOT-MIX ASPHALT BASE COURSE	0.056	TON/SQ YD/IN
HOT-MIX ASPHALT SURFACE COURSE	0.056	TON/SQ YD/IN
AGGREGATE (SURFACE, BASE, & BACKFILL)	2.05	TON/CU YD
BITUMINOUS MATERIALS:		
POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)		
- SHOWN IN TABLE		
AGGREGATE (PRIME COAT)		
- ON EXISTING PAVEMENT	0.002	TON/SQ YD
- ON COLD MILLED SURFACE	0.002	TON/SQ YD
- FOG COAT ON NEW BINDER	0.001	TON/SQ YD
RIP RAP	1.5	TON/CU YD
SEEDING, CLASS 2A, 4A	200	LB/ACRE
TEMPORARY EROSION CONTROL SEEDING	100	LB/ACRE
NITROGEN FERTILIZER NUTRIENT	90	LB/ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90	LB/ACRE
POTASSIUM FERTILIZER NUTRIENT	90	LB/ACRE
MULCH	2	TON/ACRE

- BUTT JOINTS SHALL NOT BE MILLED MORE THAN THREE (3) DAYS PRIOR TO PLACEMENT OF THE HMA SURFACE COURSE.
- CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE HOT-MIX ASPHALT SURFACE. NO INTERRUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED.
- ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.
- THE DISTRICT FOUR TREE COMMITTEE SHOULD BE CONTACTED AND PRIOR APPROVAL OBTAINED FOR ANY TREE REMOVAL BEYOND THE LIMITS/LOCATIONS INCLUDED IN THE PLANS.
- THE CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS REQUIRED TO IMPRINT PAVEMENT STATION NUMBERS IN THE FINISHED SURFACE OF THE PAVEMENT AND/OR OVERLAY. THE NUMBERS SHALL BE APPROXIMATELY 3/4 INCHES WIDE, 5 INCHES HIGH AND 5/8 INCHES DEEP.

THE PAVEMENT STATION NUMBERS SHALL BE INSTALLED AS SPECIFIED HEREIN:

INTERVAL - 200 FEET

BOTTOM OF NUMBERS - 6 INCHES FROM THE INSIDE EDGE OF THE PAVEMENT MARKING

LOCATION:

- 2, 3, & 5 LANE PAVEMENTS - RIGHT EDGE OF PAVEMENT IN DIRECTION OF INCREASING STATIONS
- MULTI-LANE DIVIDED ROADWAYS - OUTSIDE EDGE OF PAVEMENT IN BOTH DIRECTIONS
- RAMPS - ALONG BASELINE EDGE OF PAVEMENT

POSITION - STATIONS SHALL BE PLACED SO THEY CAN BE READ FROM THE ADJACENT SHOULDER

FORMAT - "XXX", WHERE X REPRESENTS THE PAVEMENT STATION

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE COST OF THE ASSOCIATED PAVEMENT AND/OR OVERLAY PAY ITEMS.

- THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES, AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED, UNLESS ELEVATIONS ARE SHOWN --- ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY THE UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM UTILITY COMPANIES AND BY FIELD INSPECTION.
- WHEN INSTALLING RIGHT-OF-WAY MARKERS, CARE SHALL BE TAKEN TO NOT DISTURB ANY EXISTING PROPERTY/RIGHT-OF-WAY PINS. IF A PROPERTY/RIGHT-OF-WAY PIN IS FOUND AT THE LOCATION OF A PROPOSED RIGHT-OF-WAY MARKER, THE MARKER SHALL BE PLACED ONE (1) FOOT IN FRONT OF THE PIN.

- PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND/OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS WILL NEED TO BE OBTAINED AND FILED BY THE CONTRACTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (ENVIRONMENTAL SURVEY REQUEST)
- A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- SIGNED PROPERTY OWNER AGREEMENT FORM - D4 P10100
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA
- BORROW AREA ENTRY AGREEMENT FORM - D4 P10101

PLEASE NOTE THAT A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED ENVIRONMENTAL CLEARANCES.

- ADD THE FOLLOWING SENTENCE TO THE END OF PARAGRAPH 670.02 (I) AND 670.04 (E): ALL OF THE TELEPHONE LINES PROVIDED SHALL HAVE UNPUBLISHED NUMBERS.
- MICROSTATION AND GEOPAK FILES OF THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR. IF THERE IS A CONFLICT BETWEEN THE ELECTRONIC FILES AND THE PRINTED CONTRACT PLANS AND DOCUMENTS, THE PRINTED CONTRACT PLANS AND DOCUMENTS SHALL TAKE PRECEDENCE OVER THE ELECTRONIC FILES. THE CONTRACTOR SHALL ACCEPT ALL RISK ASSOCIATED WITH USING THE ELECTRONIC FILES AND SHALL HOLD THE DEPARTMENT HARMLESS FOR ANY ERRORS OR OMISSIONS IN THE ELECTRONIC FILES AND THE DATA CONTAINED THEREIN. ERRORS OR DELAYS RESULTING FROM THE USE OF THE ELECTRONIC FILES BY THE CONTRACTOR SHALL NOT RESULT IN AN EXTENSION OF TIME FOR ANY INTERIM OR FINAL COMPLETION DATE OR SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL NOT USE, SHARE, OR DISTRIBUTE THESE ELECTRONIC FILES EXCEPT FOR THE PURPOSE OF CONSTRUCTING THIS CONTRACT. ANY CLAIMS BY THIRD PARTIES DUE TO USE OR ERRORS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THIS DISCLAIMER WITH THE TRANSFER OF THESE ELECTRONIC FILES TO ANY OTHER PARTIES AND SHALL INCLUDE APPROPRIATE LANGUAGE BINDING THEM TO SIMILAR RESPONSIBILITIES.
- AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - AMERENIP
 - VILLAGE OF STRONGHURST
 - NICOR GAS
 - MEDIACOM COMMUNICATIONS
 - FRONTIER COMMUNICATIONS
 - MEMBERS OF J.U.L.I.E. (800) 892-0123 OR 811 INDICATED BY *
 NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

COMMITMENTS

NONE

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

HMA MIXTURE DESIGNS

LOCATION:	IL 94	IL 94	IL 94
MIXTURE USE(S):	SURFACE COURSE	POLYMERIZED LEVEL BINDER 3/4"	BINDER (FLEXIBLE PAVEMENT CONNECTOR)
AC/PG:	PG 64-22	SBS OR SBR 70-22	PG 64-22
RAP% (MAX): **	15%	10%	25%
DESIGN AIR Voids:	4.0 % @ N = 50	4.0 % @ N = 50	4.0 % @ N = 50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5 OR IL 12.5	IL 4.75	IL 19.0
FRICION AGGREGATE	MIXTURE "D"	N. A.	N. A.

LOCATION:	IL 94	IL 94
MIXTURE USE(S):	HMA SHOULDER (2 1/4" SURFACE LIFT)	HMA SHOULDER (BASE COURSE WIDENING)
AC/PG:	PG 64-22	PG 64-22
RAP% (MAX): **	30%	30%
DESIGN AIR Voids:	3.0 % @ N = 30	4.0 % @ N = 30
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5L	IL 19.0L
FRICION AGGREGATE	MIXTURE "C"	N. A.

POLYMERIZED BITUMINOUS MATERIALS PRIME COAT

SURFACE TYPE:	ESTIMATED TRUCK APPLICATION RATE:	RESIDUAL RATE:
MILLED (HMA OR PCC)	0.08 GAL/SY	0.04 GAL/SY
EXISTING PAVEMENT (NOT MILLED)	0.05 GAL/SY	0.025 GAL/SY
FOG COAT BETWEEN LIFTS	0.05 GAL/SY	0.025 GAL/SY

STATUS OF UTILITIES

ROUTE	OFFSET	LOCATION	TYPE OF UTILITY	TYPE OF CONFLICT	DISPOSITION
IL 94/ IL 116	25' + 35' RT.	STA. 269+65 TO STA. 271+25	BURIED TELEPHONE	BRIDGE & RIPRAP	RELOCATE
IL 94/ IL 116	35' RT.	STA. 269+60	POLE	GRADE	RELOCATE
IL 94/ IL 116	35' RT.	STA. 270+87	POLE	GRADE	RELOCATE
IL 94/ IL 116	31' LT.	STA. 269+93	POWER POLE	GRADE	RELOCATE
IL 94/ IL 116	18' LT.	STA. 270+00 TO STA. 270+90	4" GAS	NEW STRUCTURE	RELOCATE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



**GENERAL NOTES, COMMITMENTS
AND MIXTURE DESIGNS**

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	2
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

80% FED.
20% STATE

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
			CONSTRUCTION CODE	0004	0011
20200100	EARTH EXCAVATION	CU YD	330	330	
20200500	EARTH EXCAVATION (WIDENING)	CU YD	80	80	
20300100	CHANNEL EXCAVATION	CU YD	341	341	
20400800	FURNISHED EXCAVATION	CU YD	675	675	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2818	2818	
* 25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	53	53	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	53	53	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	53	53	
* 25100115	MULCH, METHOD 2	ACRE	6.75	6.75	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	621	621	
28000305	TEMPORARY DITCH CHECKS	FOOT	45	45	
28000400	PERIMETER EROSION BARRIER	FOOT	850	850	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
28100109	STONE RIPRAP, CLASS A5	SQ YD	1113	150	963
28200200	FILTER FABRIC	SQ YD	1349	150	1199
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	309	309	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	95	95	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	10	10	
40600215	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	TON	1	1	
40600300	AGGREGATE (PRIME COAT)	TON	240	240	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	174	174	
40600990	TEMPORARY RAMP	SQ YD	96	96	
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	110	110	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	46	46	
44000100	PAVEMENT REMOVAL	SQ YD	177	177	
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SQ YD	1211	1211	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	54	54	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	47	47	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1

*SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SUMMARY OF QUANTITIES

SCALE: 1" = 20' SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	3
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

**80% FED.
20% STATE**

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
			CONSTRUCTION CODE	0004	0011
50105220	PIPE CULVERT REMOVAL	FOOT	21	21	
50200100	STRUCTURE EXCAVATION	CU YD	275		275
50300100	FLOOR DRAINS	EACH	14		14
50300225	CONCRETE STRUCTURES	CU YD	161.9		161.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	394.3		394.3
50300260	BRIDGE DECK GROOVING	SQ YD	570		570
50300280	CONCRETE ENCASEMENT	CU YD	8.5		8.5
50300300	PROTECTIVE COAT	SQ YD	734		734
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	127300		127300
50800515	BAR SPLICERS	EACH	511		511
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	1725		1725
51202305	DRIVING PILES	FOOT	1725		1725
51203200	TEST PILE METAL SHELLS	EACH	4		4
51204650	PILE SHOES	EACH	32		32
51500100	NAME PLATES	EACH	1		1
54213453	END SECTIONS 18"	EACH	2	2	
542C0223	PIPE CULVERTS, CLASS C, TYPE 1 18"	FOOT	89	89	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	48		48
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	287.5	287.5	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	454	454	
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	11	11	
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	1	1	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	10	
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	

***SPECIALTY ITEM**

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



SUMMARY OF QUANTITIES

SCALE: 1" = 20' SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	4
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

**80% FED.
20% STATE**

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
			CONSTRUCTION CODE	0004	0011
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	0.5	0.5	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	360	360	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4548	4548	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2632	2632	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	294	294	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	281	281	
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1516	1516	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6	6	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	505	505	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	8	8	
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	84		84
X4060826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	55	55	
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1
X5080600	MECHANICAL SPLICERS	EACH	120		120
X6650202	WOVEN WIRE FENCE REMOVAL	FOOT	588	588	
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	180	180	
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	11		11
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0026407	TEMPORARY SHEET PILING	SQ FT	1912		1912
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0034105	MATERIAL TRANSFER DEVICE	TON	110	110	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	124		124

* SPECIALTY ITEM

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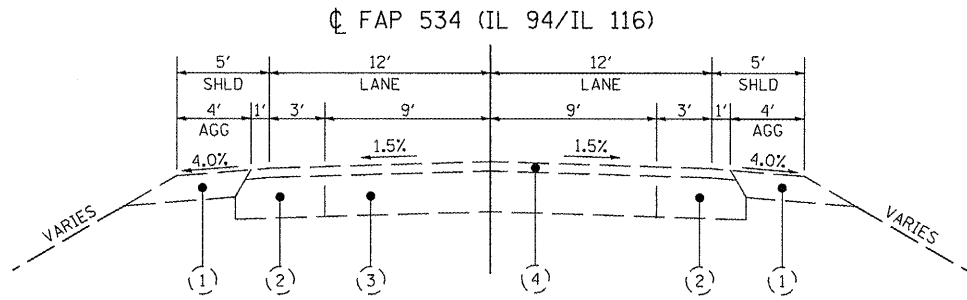
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



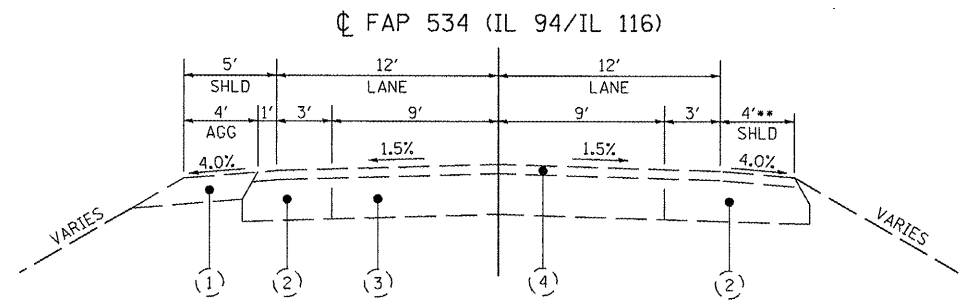
SUMMARY OF QUANTITIES

SCALE: 1" = 20' SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	5
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

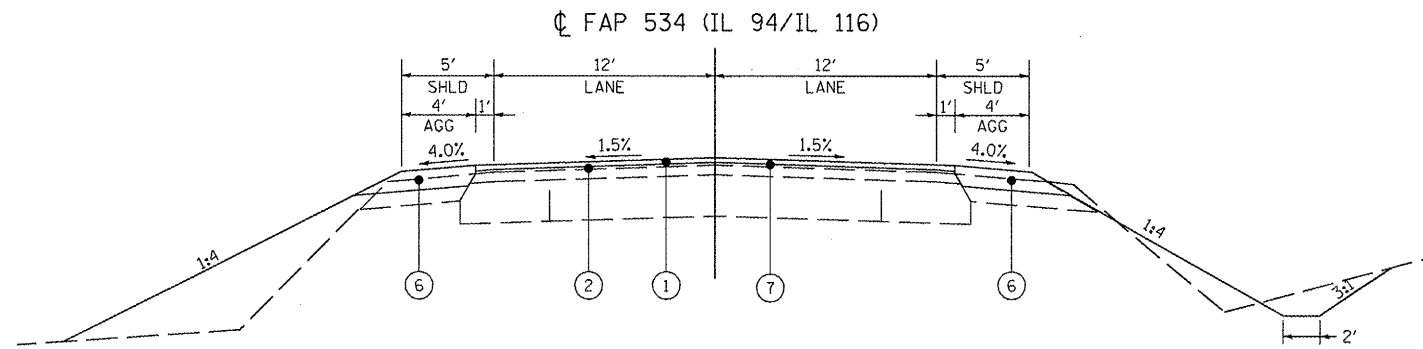


EXISTING
 STA 267+48 TO 268+11.74
 STA 272+49.79 TO STA 273+80
 FAP 534
 (IL ROUTE 94/116)

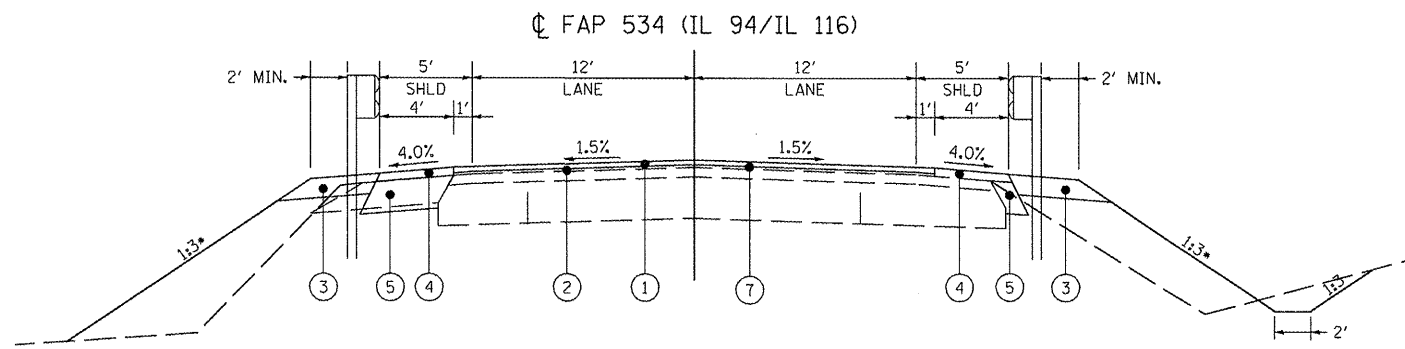


EXISTING
 STA 268+12 TO 269+93.26
 STA 270+72.84 TO 272+49.79
 FAP 534
 (IL ROUTE 94/116)

** EXISTING 4' ASPHALT WIDENING WILL BE UTILIZED FOR STAGE 1 CONSTRUCTION TRAFFIC



PROPOSED
 LT STA 267+48.82 TO LT STA 268+03.98
 RT STA 267+48.82 TO RT STA 267+80.81
 RT STA 272+93.03 TO RT STA 273+80.65
 FAP 534
 (IL ROUTE 94/116)



PROPOSED WITH GUARDRAIL
 LT STA 268+03.98 TO LT STA 269+27.50
 RT STA 267+80.81 TO RT STA 269+27.50
 STA 269+27.50 TO STA 271+38.50
 LT STA 271+38.50 TO LT STA 273+80.65
 RT STA 271+38.50 TO RT STA 272+93.03
 FAP 534
 (IL ROUTE 94/116)

* OR AS SHOWN ON XS

- (1) EXISTING AGG SHOULDERS, TYPE B, 6"
- (2) EXISTING BASE COURSE WIDENING, 9"
- (3) EXISTING PCC PAVEMENT
- (4) EXISTING BIT OVERLAY, 4 1/2"***
- (1) HOT-MIX ASPHALT SURFACE COURSE, 1 1/2"
- (2) LEVELING BINDER (MACHINE METHOD) 3/4"
- (3) GUARDRAIL AGGREGATE EROSION CONTROL, 8 INCH
- (4) HMA SHOULDERS, 2 1/4"
- (5) HMA BASE COURSE WIDENING, 10"
- (6) AGG SHOULDERS, TYPE B, 6"
- (7) HOT-MIX ASPHALT SURFACE REMOVAL, 1/2" AND VARIABLE

*** INCLUDES PROPOSED 2010 OVERLAY
 (3/4" BINDER + 1/2" SURFACE)

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HORNER &
 SHIFRIN, INC.
 ENGINEERS

TYPICAL SECTIONS
 IL 94/IL 116 ROADWAY

SCALE: 1" = 5' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	6
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

EARTHWORK											
LOCATION	STATION		SIDE	CHANNEL EXCAVATION	EARTH EXCAVATION	EARTH EXCAVATION (WIDENING)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	TOPSOIL FURNISH AND PLACE, 4"	
				CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	SQ YD	
IL 94	267+48.82	TO	273+80.65	-							
	269+93.26	TO	270+72.84	-	341						
	267+46.82	TO	267+82.00								83
	267+48.82	TO	267+58.81								29
	267+78.77	TO	270+28.91								520
	268+02.00	TO	270+20.96								504
	270+47.23	TO	273+80.65								740
	270+53.25	TO	273+80.65								942
				TOTAL	341	330	80	310	985	-675	2818

PAVING																			
LOCATION	STATION		SIDE	HOT-MIX ASPHALT BASE COURSE WIDENING, 10 INCH	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4, 75, N50	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50	MATERIAL TRANSFER DEVICE	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	PAVEMENT REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	AGGREGATE SHOULDERS, TYPE B 6"	HOT-MIX ASPHALT SHOULDERS	AGGREGATE SURFACE COURSE, TYPE B 8"	AGGREGATE FOR TEMPORARY ACCESS	TEMPORARY RAMP	
				SQ YD	TON	TON	TON	SQ YD	TON	TON	SQ YD	TON	TON	SQ YD	SQ YD	TON	TON	TON	TON
IL 94	267+48.82	TO	267+78.82	-				87										14	
	267+48.82	TO	269+41.50	-	0.31	84	23		47	47									
	267+48.82	TO	267+56.82	RT										2					
	267+48.82	TO	267+79.99	LT										13					
	267+48.82	TO	267+88.82	RT	23	0.03	4								3				
	267+58.61	TO	267+79.01	-													36	5	
	267+81.80	TO	268+02.20	-													59	5	
	267+71.98	TO	268+11.97	LT	23	0.03	4								3				
	267+78.82	TO	269+41.50	-										514					
	267+80.81	TO	269+41.50	RT	66	0.03	5								9				
	268+03.98	TO	269+41.50	LT	34	0.04	10								8				
	269+41.50	TO	269+47.50	-							23								20
	269+41.50	TO	269+69.50	-								91							14
	270+98.00	TO	271+24.50	-								86							
	271+18.50	TO	271+24.50	-								23							14
	271+24.50	TO	272+93.15	RT	37	0.03	5												20
	271+24.50	TO	273+80.65	LT	126	0.11	18									9			
	271+24.50	TO	273+50.65	-												15			
	271+24.50	TO	273+80.65	-		0.41	111	31		63	63			697					
	272+93.15	TO	273+80.65	RT											39				
273+50.65	TO	273+80.65	-					87										14	
				TOTAL	309	1	240	55	174	110	110	46	177	1211	54	47	95	10	96

PAVEMENT MARKING										
LOCATION	STATION		SIDE	EPOXY PAVEMENT MARKING, LINE 4"	PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	SHORT-TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING, LINE 4"	WORK ZONE PAVEMENT MARKING REMOVAL
				FOOT	SO FT	EACH	EACH	FOOT	FOOT	SO FT
IL 94	267+01.51		BOTH							48
IL 94	267+02.51	TO	273+80.65	LT				84	2034	706
	267+02.51	TO	273+80.65	RT				192	480	238
IL 94	267+03	TO	273+81	LT	678	226		84	2034	1592
	267+03	TO	273+81	-	160	53	6			
	267+03	TO	273+81	RT	678	226				
	273+67.83		BOTH							48
			TOTAL	1516	505	6	8	360	4548	2632

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SCHEDULES OF QUANTITIES
 EARTHWORK, PAVING,
 PAVEMENT MARKING

F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 7
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

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

SEEDING								
LOCATION	STATION		SIDE	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2
				ACRE	POUND	POUND	POUND	ACRE
IL 94	267+46.82	TO 267+82.00	LT	0.02	2	2	2	0.23
	267+48.82	TO 267+58.81	RT	0.01	1	1	1	0.12
	267+78.77	TO 270+28.91	RT	0.11	10	10	10	1.16
	268+02.00	TO 270+20.96	LT	0.11	9	9	9	1.16
	270+47.23	TO 273+80.65	LT	0.16	14	14	14	1.73
	270+53.25	TO 273+80.65	RT	0.20	17	17	17	2.19
			TOTAL	0.75	53	53	53	6.75

FENCE REMOVAL					
LOCATION	STATION		SIDE	WOVEN WIRE FENCE REMOVAL	
				FOOT	FOOT
IL-94	270+85	TO 273+64	LT	279	
	270+61	TO 273+56	RT	309	
			TOTAL	588	

GUARDRAIL										
LOCATION	STATION		SIDE	SPBGR TYPE A, 6 FT POST	TRAFFIC TERMINAL BARRIERS			GUARDRAIL MARKERS, TYPE A	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REMOVAL
					TYPE 1 (SPECIAL) TANGENT	TYPE 1 (SPECIAL) FLARED	TYPE 6			
				FOOT	EACH	EACH	EACH	EACH	EACH	FOOT
IL 94	268+19	TO 269+65	RT					4		
	268+44	TO 269+65	LT					4		
	268+80	TO 269+93	LT							113
	268+80	TO 269+93	RT							113
	268+44	TO 268+94	LT			1			1	
	268+19	TO 268+69	RT			1			1	
	268+94	TO 269+19	LT	25.0						
	268+69	TO 269+19	RT	50.0						
	269+19	TO 269+65	LT				1			
	269+19	TO 269+65	RT				1			
	270+73	TO 271+87	LT							114
	270+73	TO 271+87	RT							114
	271+01	TO 272+59	RT					4		
	271+01	TO 273+47	LT					4		
	271+01	TO 271+47	LT				1			
	271+01	TO 271+47	RT				1			
	271+47	TO 272+10	RT	62.5						
	271+47	TO 272+97	LT	150.0						
	272+10	TO 272+60	RT		1				1	
	272+97	TO 273+47	LT		1				1	
	270+85	TO 273+64	LT							
	270+61	TO 273+56	RT							
			TOTAL	287.5	2	2	4	16	4	454

BARRIER / ATTENUATOR						
LOCATION	STATION		TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
IL 94	268+86.42				1	
	268+86.42	TO 271+79.50	294			
	268+94.56					1
	268+94.56	TO 271+75.00		281		
	271+75.00					1
	271+79.50			1		
			TOTAL	294	281	2

DRAINAGE STRUCTURES						
LOCATION	STATION	OFFSET	SIDE	PIPE CULVERT REMOVAL	PIPE CULVERTS CLASS C TYPE 1 18"	END SECTIONS 18"
				FOOT	FOOT	EACH
IL 94 - FE	267+68.81	13	LT			1
	268+13	14	LT		89	
	26798.76	43	LT	21		
	268+57.08	16	LT			1
			TOTAL	21	89	2

EROSION CONTROL											
LOCATION	STATION		OFFSET	SIDE	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	GUARDRAIL AGGREGATE EROSION CONTROL	STONE RIPRAP, CLASS A5	FILTER FABRIC
					POUND	FOOT	FOOT	EACH	TON	SQ YD	SQ YD
IL 94	267+46.82	TO 267+80.10	-	LT			81				
	267+46.82	TO 267+82.00		LT	21						
	267+48.82	TO 270+28.91		RT	137						
	267+49.01	TO 267+57.49	-	RT			56				
	267+68.81		13.00	LT				1			
	267+79.01	TO 269+62.50	-	RT					49		
	267+80.74	TO 269+73.02	-	RT			208				
	268+02.00	TO 270+20.96	-	LT	105						
	268+02.20	TO 269+62.50	-	LT					45		
	268+03.85	TO 269+77.35	-	LT			195				
	270+47.23	TO 273+80.65	-	LT	158						
	270+53.25	TO 273+80.65	-	RT	200						
	270+55.00	TO 271+40.00	-	RT						150	150
	270+86.40	TO 273+82.10	-	LT			310				
	271+03.50	TO 273+80.65	-	LT					51		
	271+03.50	TO 272+93.15	-	RT					35		
	271+43.00		-	RT		15					
	272+15.00		-	RT		15					
	273+40.00		-	RT		15					
				TOTAL	621	45	850	1	180	150	150

RIGHT-OF-WAY & SURVEY MARKERS						
LOCATION	STATION	OFFSET	SIDE	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	PERMANENT SURVEY MARKERS, TYPE 1	
				EACH	EACH	
IL 94	267+00.00	33	LT	1		
	267+31.91	33	RT	1		
	267+31.91	55	RT	1		
	267+60.00	55	LT	1		
	268+00.00	55	RT	1		
	271+00.00	70	RT	1		
	271+50.00	60	RT	1		
	273+50.00	55	LT	1		
	273+50.00	55	RT	1		
	274+00.00	42.25	RT	1		
	274+00.00	50	LT	1		
	IL 94	PLACED ON BRIDGE AS DIRECTED BY ENGINEER				1
			TOTAL	11	1	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

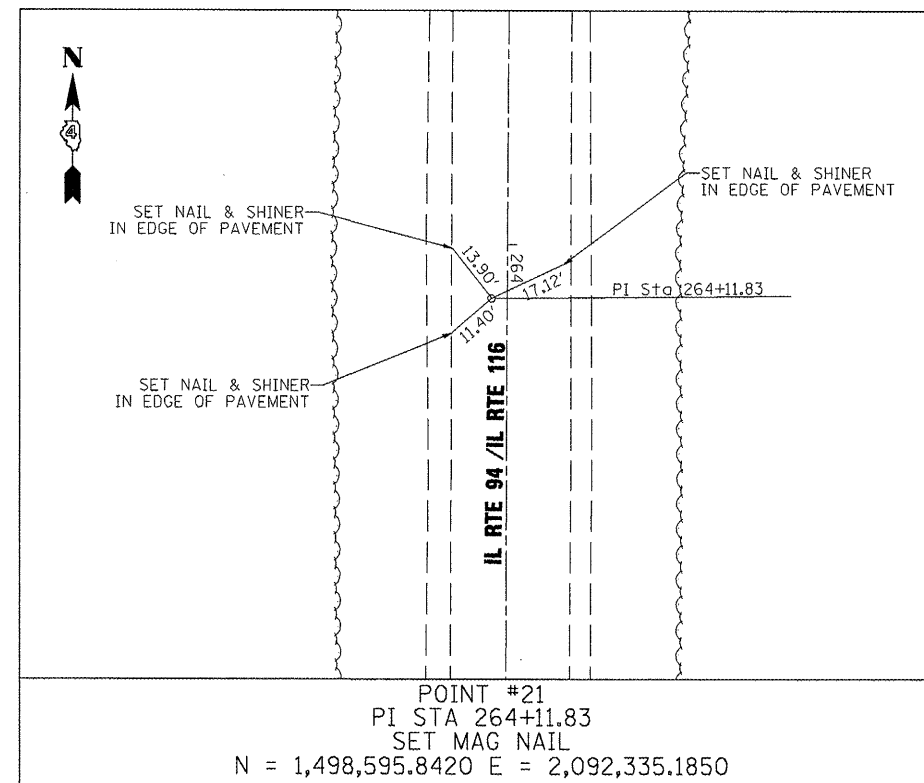
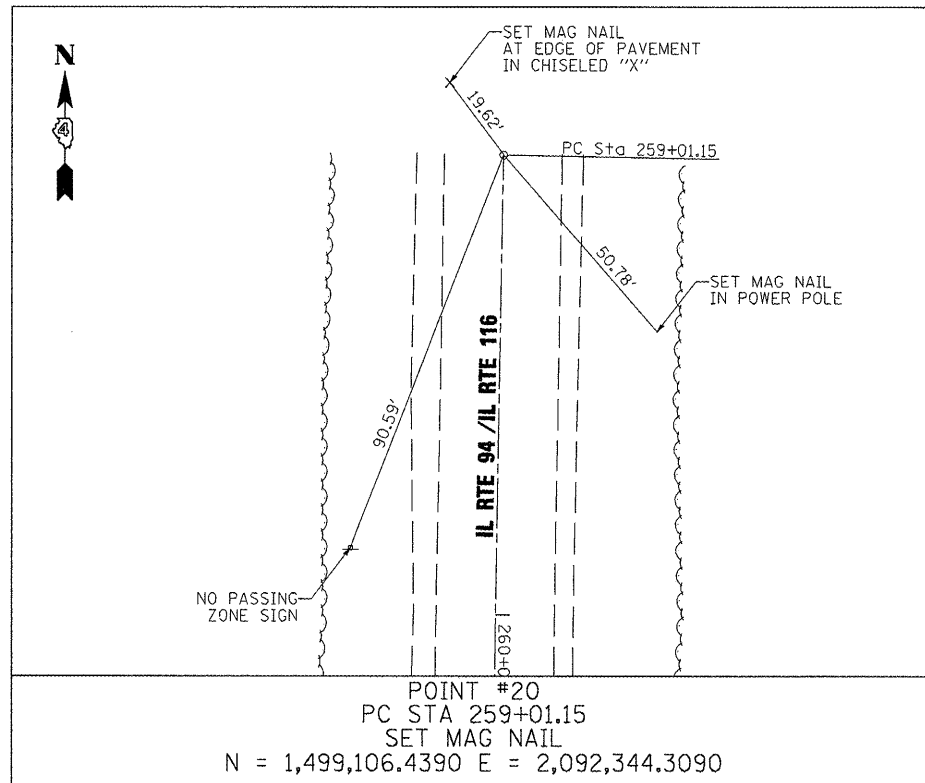


SCHEDULES OF QUANTITIES

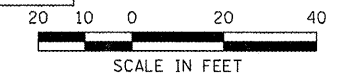
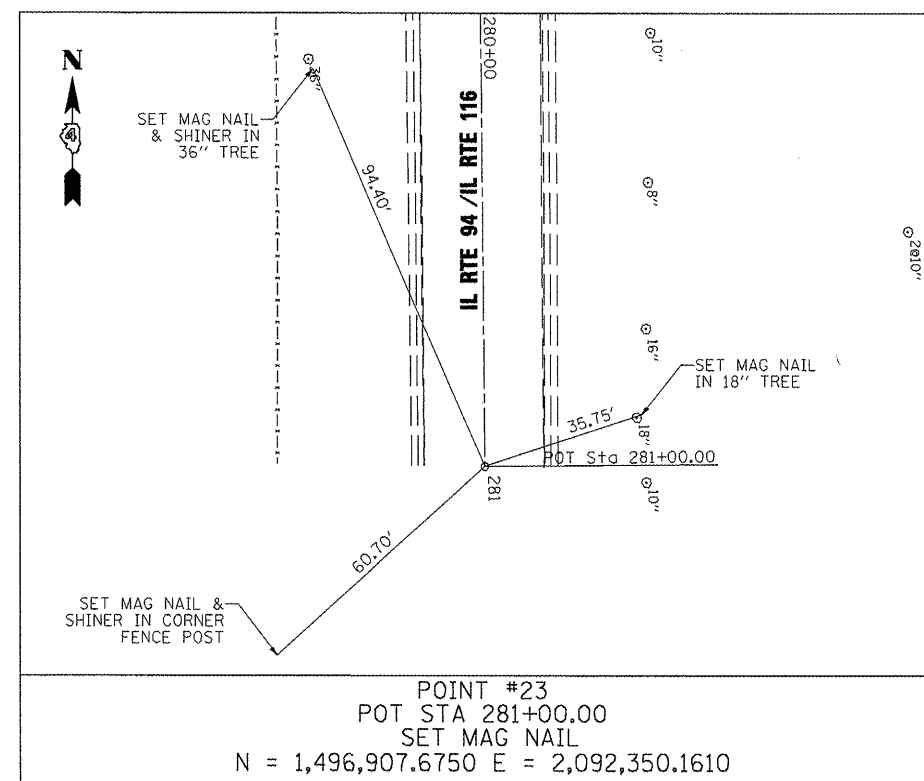
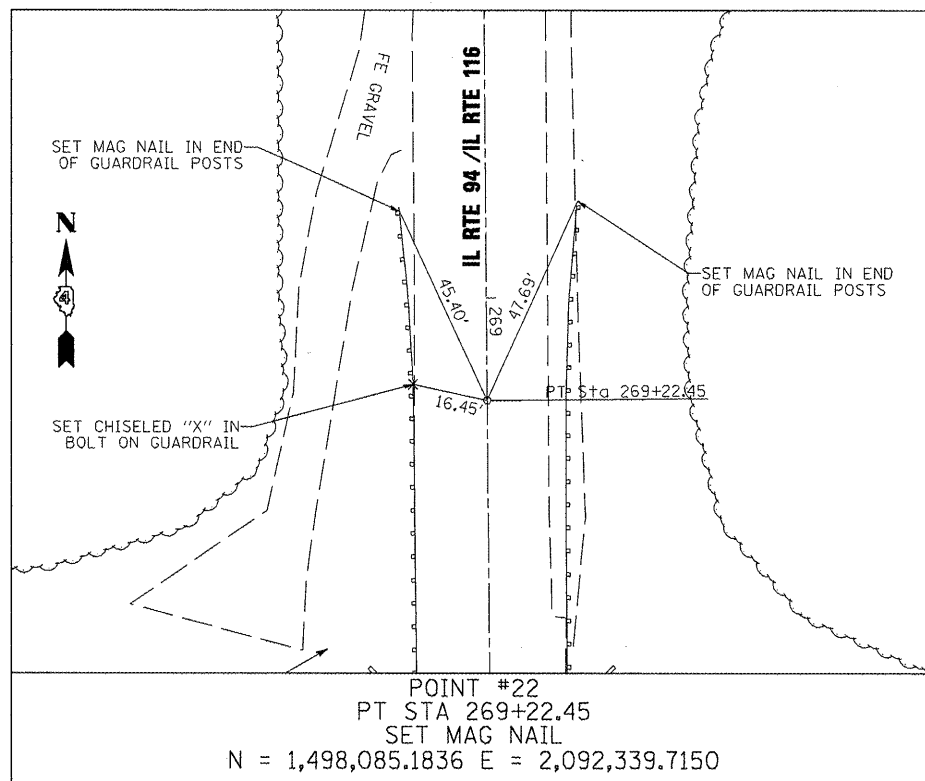
SEEDING, GUARDRAIL, BARRIER / ATTENUATOR, EROSION CONTROL, RIGHT-OF-WAY

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	8
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



BENCHMARK
CB-10: CUT □ ON THE NE APPROACH SLAB AT ABUTMENT FOR SN 036-0004
ELEV = 599.86'



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HORNER & SHERIN, INC.
ENGINEERS

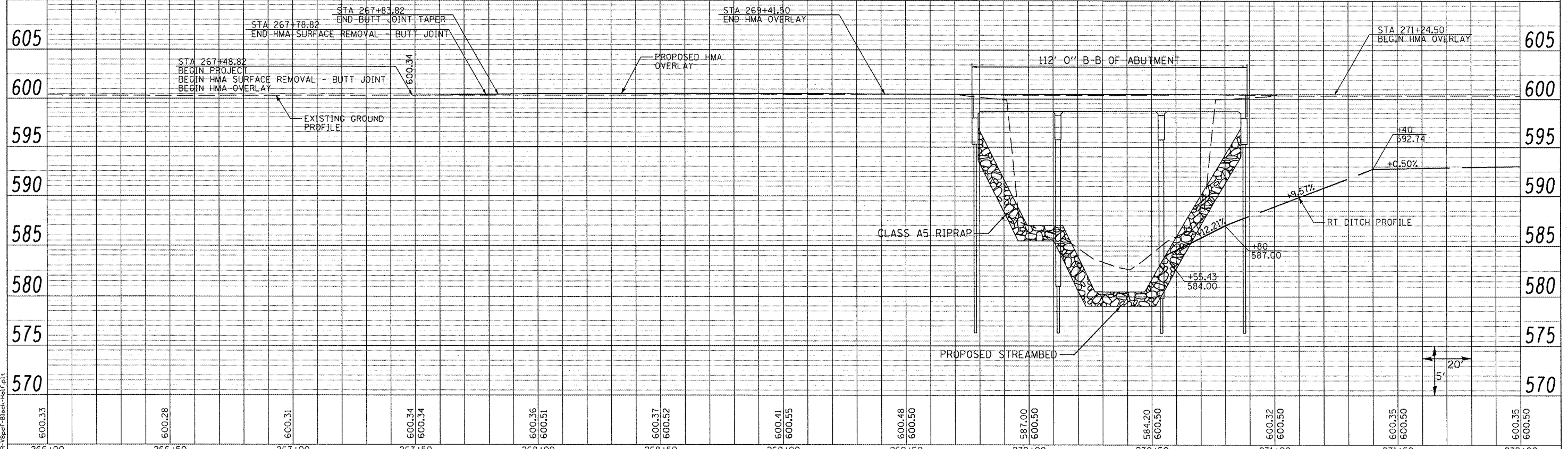
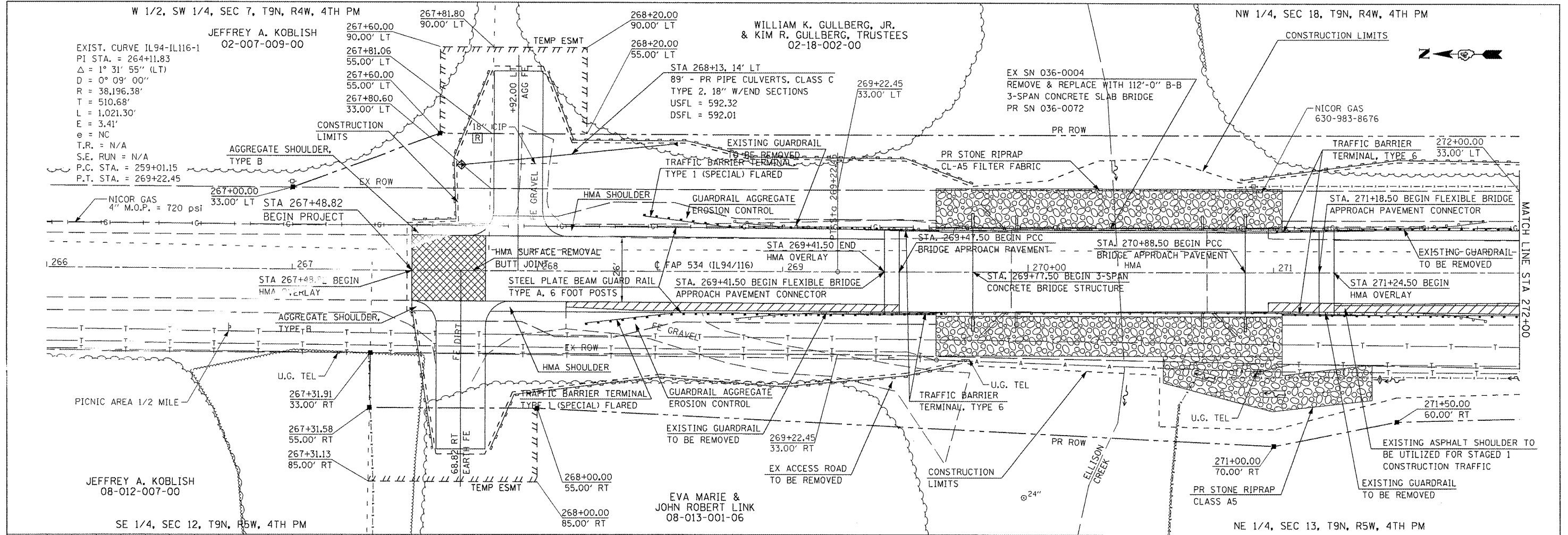
ALIGNMENT TIES & BENCHMARKS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	9
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

DATE	
BY	
NO. OF SHEETS	
NO. OF BOOK	
NO. OF FILE NAME	

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HORNER & SHIFRIN, INC.
ENGINEERS**

PLAN & PROFILE
IL 94/IL 116

SCALE: 1"=20' SHEET NO. 1 OF 2 SHEETS STA. BEGIN PROJ TO STA. 272+00

F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 10
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

WILLIAM K. GULLBERG, JR.
& KIM R. GULLBERG, TRUSTEES
02-18-002-00

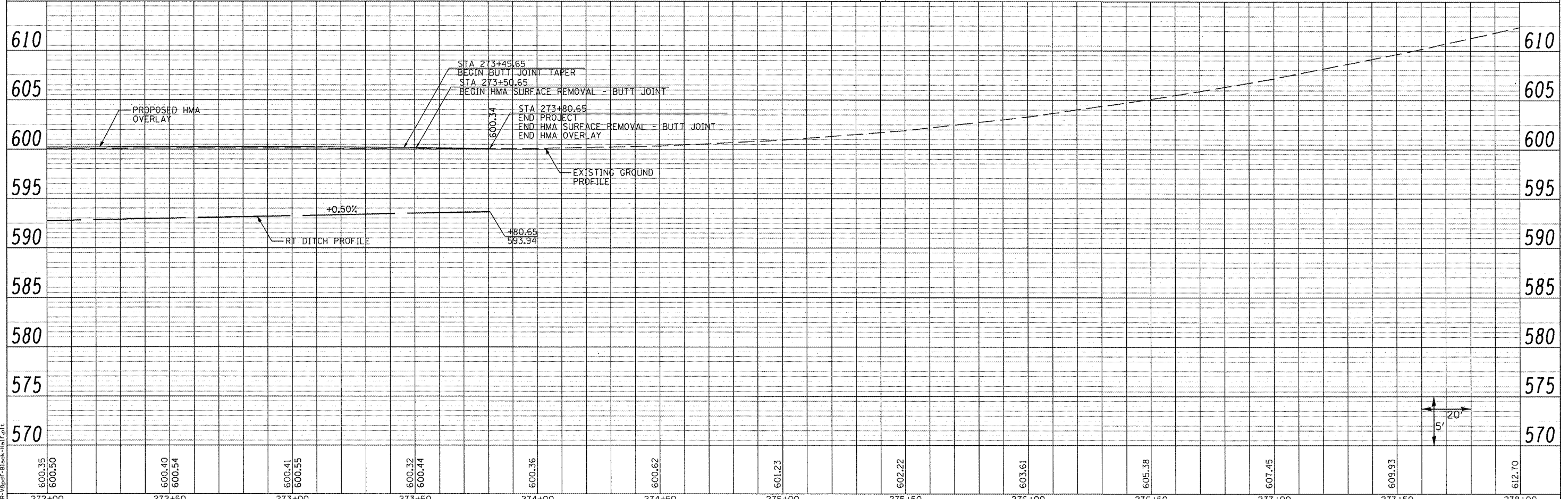
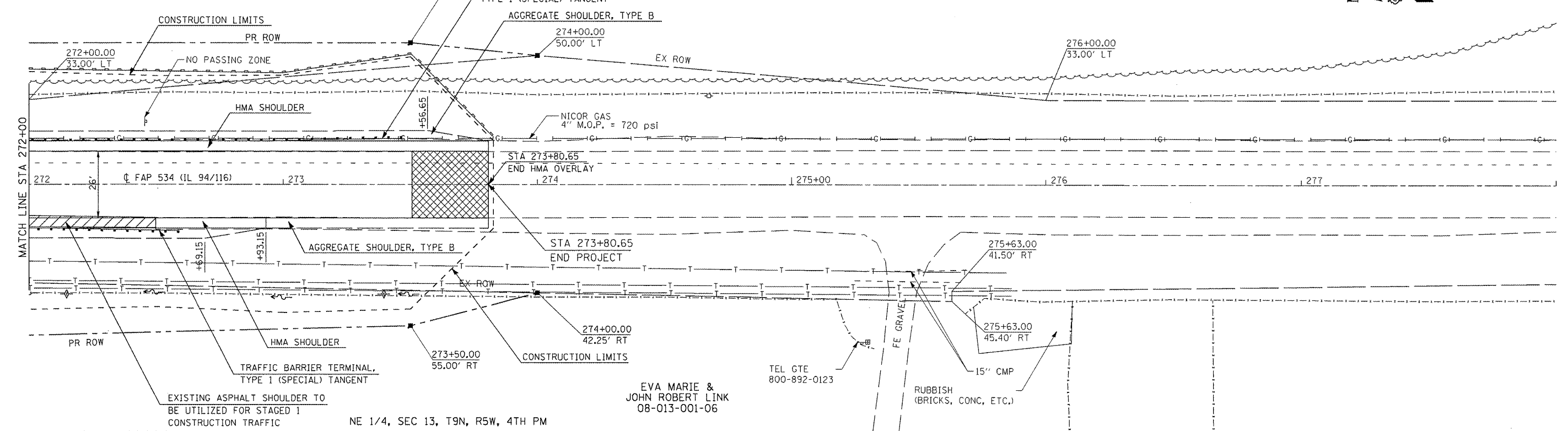
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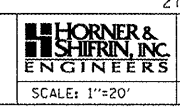
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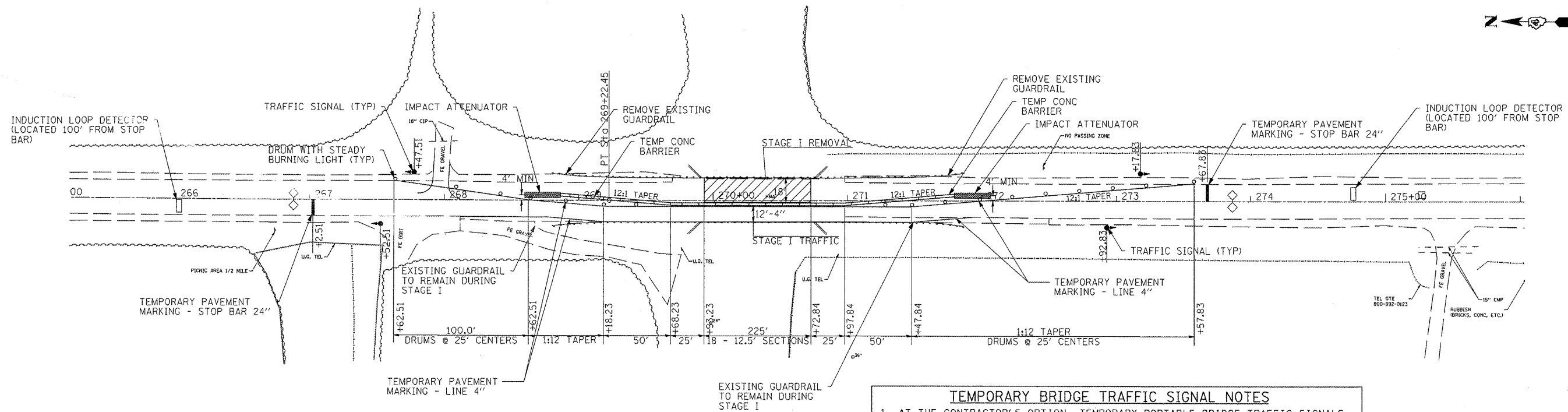
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN & PROFILE
IL 94/1L 116
SCALE: 1"=20'
SHEET NO. 2 OF 2 SHEETS
STA. 272+00 TO STA. END PROJ

F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 11
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

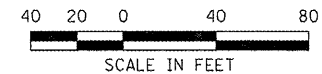


SEQUENCE OF CONSTRUCTION - STAGE I

1. SET-UP STAGE I TRAFFIC CONTROL.
2. REMOVE LEFT SIDE OF EXISTING STRUCTURE.
3. CONSTRUCT NEW PAVEMENT ON LEFT SIDE OF STRUCTURE.
4. WIDEN LEFT SIDE OF PAVEMENT FOR STAGE II TRAFFIC.
5. INSTALL GUARDRAIL ON LEFT SIDE OF ROADWAY.
6. CHANGE TRAFFIC CONTROL TO STAGE II.

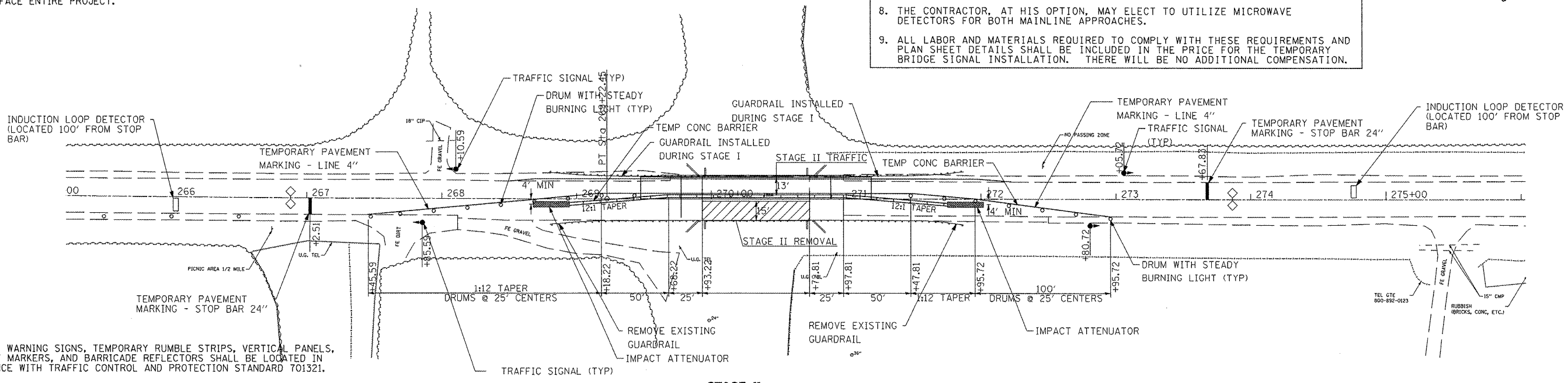
STAGE I

- TEMPORARY BRIDGE TRAFFIC SIGNAL NOTES**
1. AT THE CONTRACTOR'S OPTION, TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS MAY BE USED IN PLACE OF TEMPORARY BRIDGE TRAFFIC SIGNALS.
 2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH STANDARD 701321 EXCEPT WHERE MODIFIED ON THIS PLAN SHEET.
 3. TWO PHASE SIGNAL OPERATION IS REQUIRED. THE ENGINEER OF TRAFFIC SHALL APPROVE ALL TIMING PARAMETERS.
 4. STOP BAR PLACEMENT, TEMPORARY CONCRETE BARRIER, AND SIGNAL PLACEMENT/DETAILS SHALL BE AS SHOWN.
 5. ALL TRAFFIC SIGNAL AND ADVANCED WARNING FLASHER SECTIONS SHALL HAVE 12" DIAMETER LENSES.
 6. THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
 7. THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL MUTCD REQUIREMENTS.
 8. THE CONTRACTOR, AT HIS OPTION, MAY ELECT TO UTILIZE MICROWAVE DETECTORS FOR BOTH MAINLINE APPROACHES.
 9. ALL LABOR AND MATERIALS REQUIRED TO COMPLY WITH THESE REQUIREMENTS AND PLAN SHEET DETAILS SHALL BE INCLUDED IN THE PRICE FOR THE TEMPORARY BRIDGE SIGNAL INSTALLATION. THERE WILL BE NO ADDITIONAL COMPENSATION.



SEQUENCE OF CONSTRUCTION - STAGE II

1. REMOVE RIGHT SIDE OF EXISTING STRUCTURE.
2. CONSTRUCT NEW PAVEMENT ON RIGHT SIDE OF STRUCTURE.
3. INSTALL GUARDRAIL ON RIGHT SIDE OF ROADWAY.
4. REMOVE TRAFFIC CONTROL BARRIER AND TRAFFIC SIGNALS.
5. RESURFACE ENTIRE PROJECT.



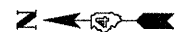
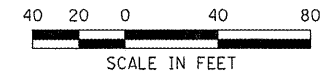
NOTES

ADVANCED WARNING SIGNS, TEMPORARY RUMBLE STRIPS, VERTICAL PANELS, PAVEMENT MARKERS, AND BARRICADE REFLECTORS SHALL BE LOCATED IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

SEE SPECIAL PROVISIONS, STAGING TYPICAL SECTIONS, AND HIGHWAY STANDARD 701321 FOR ADDITIONAL INFORMATION.

IMPACT ATTENUATORS SHALL CONFORM TO BDE PROCEDURE MEMORANDUM NO. 34-08 "IMPACT ATTENUATORS (CRASH CUSHIONS)"

STAGE II



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

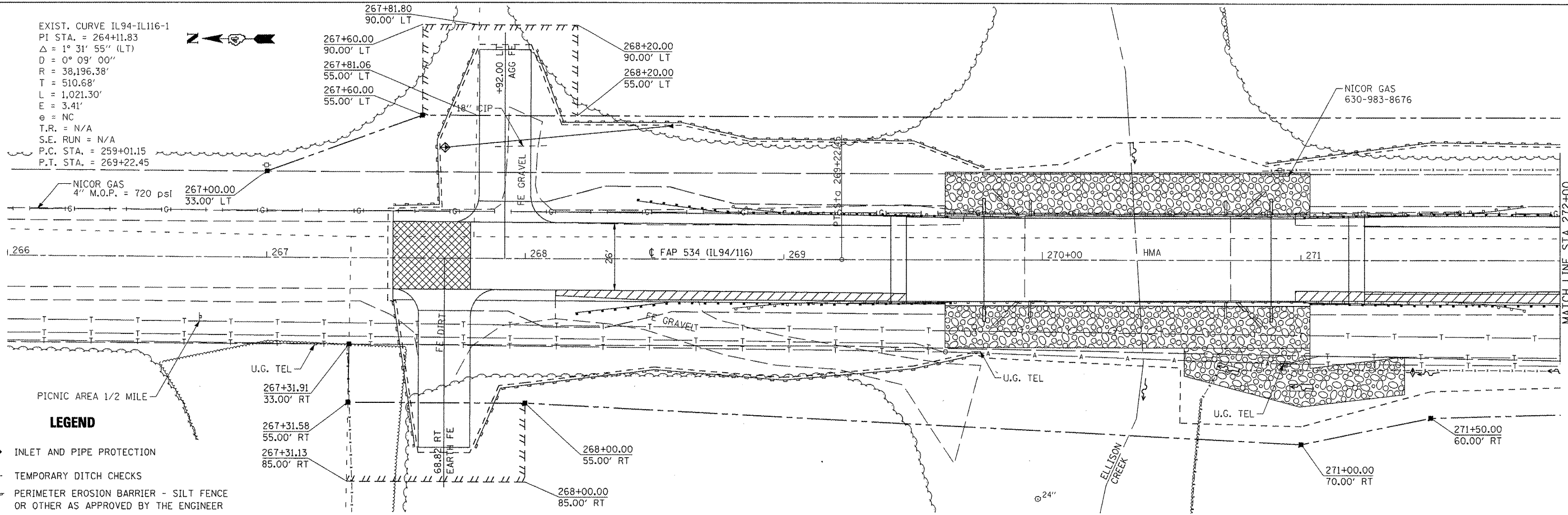
**HORNER & SHIFFRIN
ENGINEERS**

STAGING DETAILS
IL 94/116

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	12
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

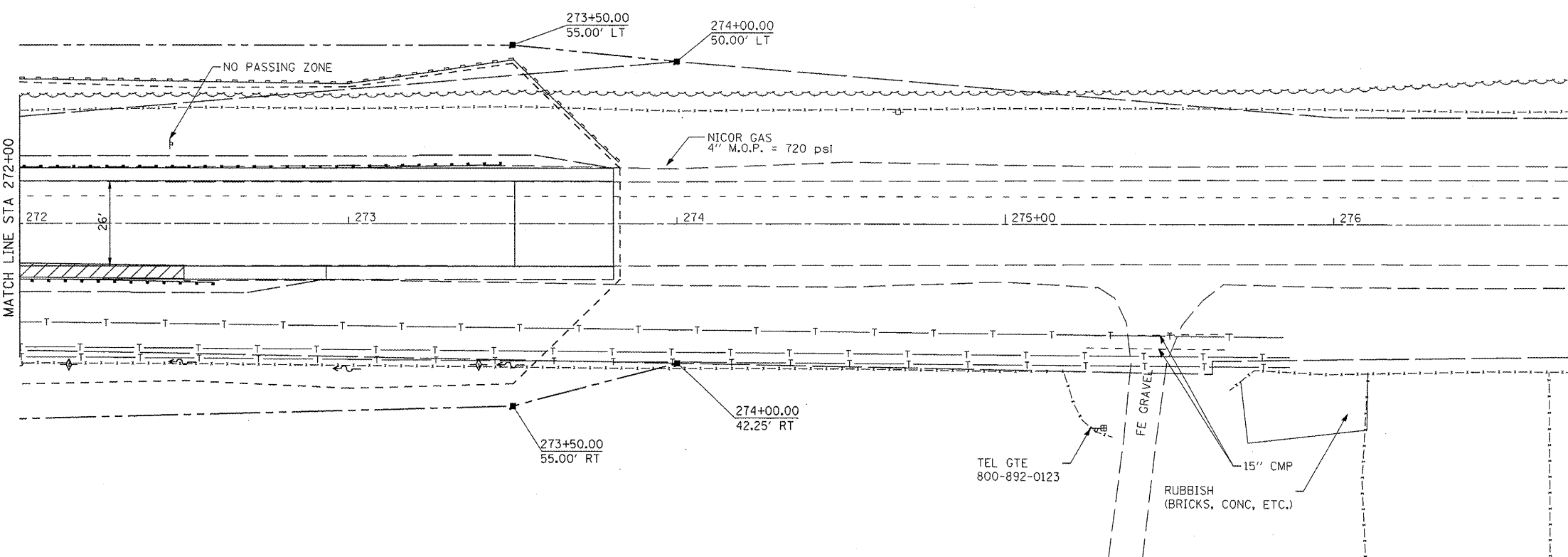
SCALE: 1" = 40' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

EXIST. CURVE IL94-IL116-1
 PI STA. = 264+11.83
 $\Delta = 1^{\circ} 31' 55''$ (LT)
 $D = 0^{\circ} 09' 00''$
 $R = 38,196.38'$
 $T = 510.68'$
 $L = 1,021.30'$
 $E = 3.41'$
 $\theta = NC$
 T.R. = N/A
 S.E. RUN = N/A
 P.C. STA. = 259+01.15
 P.T. STA. = 269+22.45



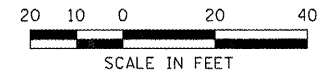
LEGEND

- ◆ INLET AND PIPE PROTECTION
- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER - SILT FENCE OR OTHER AS APPROVED BY THE ENGINEER



LEGEND

- ◆ INLET AND PIPE PROTECTION
- ◆ TEMPORARY DITCH CHECKS
- PERIMETER EROSION BARRIER - SILT FENCE OR OTHER AS APPROVED BY THE ENGINEER



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**HORNER &
 SHIRIN, INC.
 ENGINEERS**

EROSION CONTROL PLAN
 IL 94/IL 116

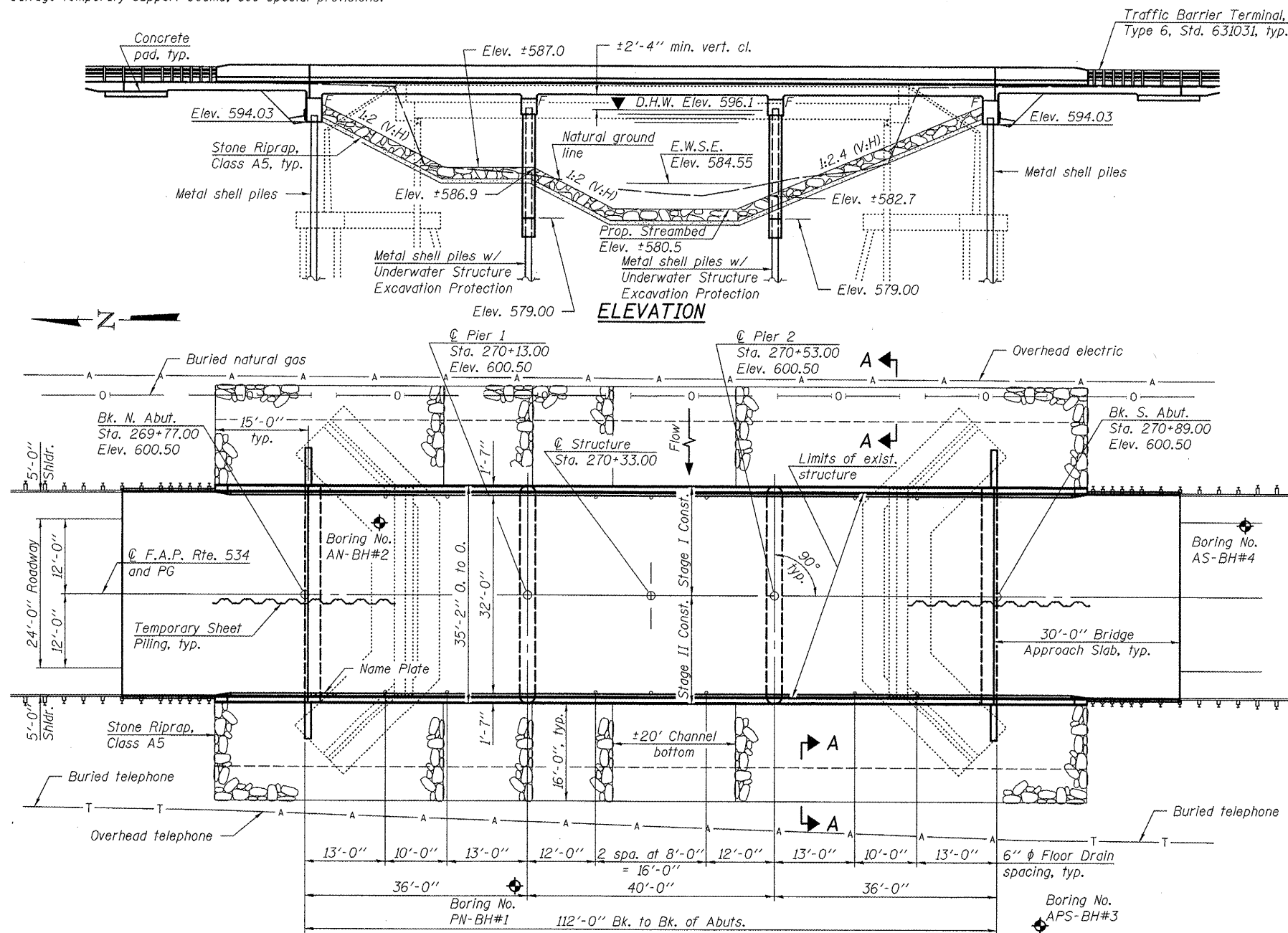
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	96	13
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

Benchmark: CB-1 = RR spike in powerpole at S. entrance to rest area ±500' N. of S.N. 036-0012 on right side of IL 94, Elev. = 609.42.

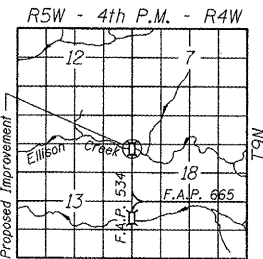
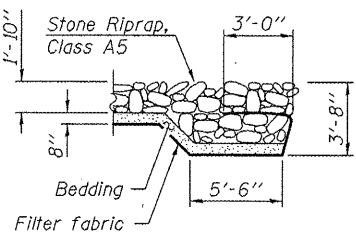
Existing Structure: S.N. 036-0004 was built in 1928 under S.B.I. Rte. 94, Section 109B. In 1977, the superstructure was replaced and the substructure was widened under F.A. Rte. 534, Section 109BR. In 2007, emergency wide flange beams were installed under four beams. The existing single span structure consists of PPC deck beams on untreated timber pile supported closed abutments. The bk. to bk. abts. dimension measures 79'-6" while the O. to O. width measures 33'-0". Staged construction shall be used during construction.

Salvage temporary support beams, see special provisions.



ELEVATION

PLAN

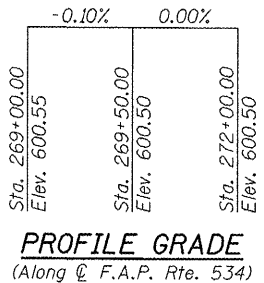


SECTION A-A

LOCATION SKETCH

STATION 270+33.00
 BUILT 201 BY
 STATE OF ILLINOIS
 F.A.P. RT. 534 SEC. 109BR-1
 LOADING HL-93
 STRUCTURE NO. 036-0072

NAME PLATE
 See Std. 515001



INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Temporary Sheet Piling
4. Stage Construction Details
5. Temporary Concrete Barrier
- 6.-8. Superstructure Details
- 9.-10. Approach Slab
11. Abutments
12. Piers
13. Metal Shell Pile Details
14. Bar Splicer Details
- 15.-20. Boring Logs

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.10g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.144g
 Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	594.0	568.5	568.5	594.0

WATERWAY INFORMATION

Drainage Area = 41.7 Sq. Mi. Low Grade Elev. 600.15 @ Sta. 266+50.00

Flood Yr.	Freq.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E. Exist.	Prop.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	10	3,950	689	713	595.0	595.0	1.0	0.9	596.0	595.9
Base	100	7,040	809	875	596.6	596.6	3.1	1.8	599.7	598.4
Overtopping	330	8,800	809	-	597.3	-	3.3	-	600.6	-
Proposed Overtopping	-	-	-	-	-	-	-	-	-	-
Max. Calc.	500	9,350	-	1001	597.5	-	2.5	-	600.0	-

APPROVED
 For Structural Adequacy Only

Eric Lagemann
 Engineer of Bridges & Structures



Eric Lagemann 12/16/10
 Expires 11/30/2012 Date

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 94 OVER ELLISON CREEK
F.A.P. RTE. 534 - SECTION 109BR-1
HENDERSON COUNTY
STATION 270+33.00
STRUCTURE NO. 036-0072

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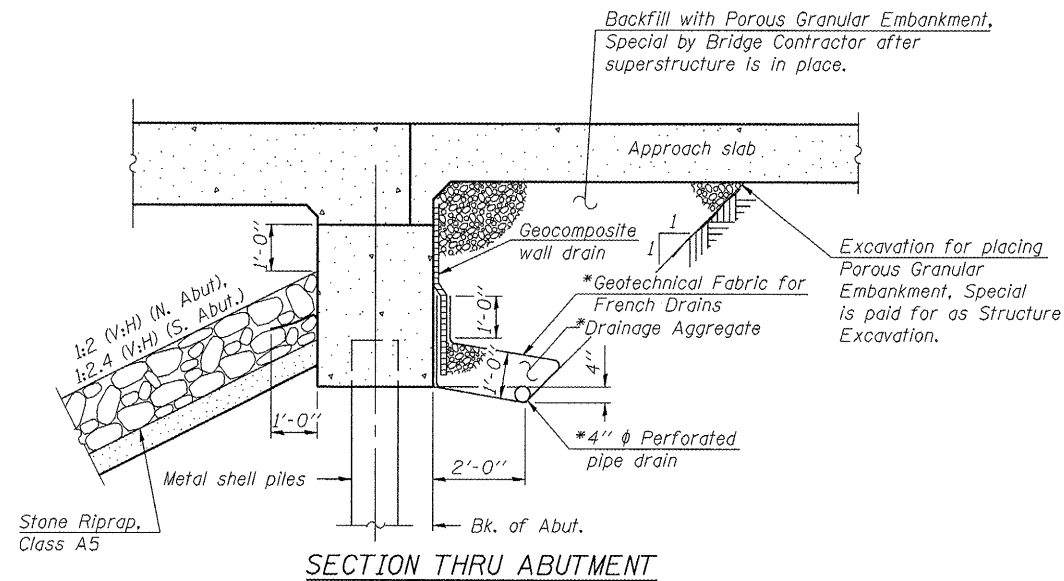
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SHEET NO. 1 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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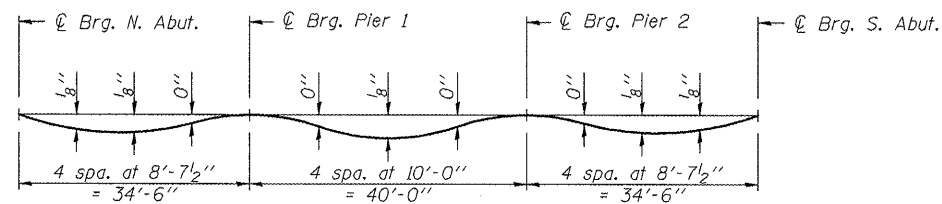
CONTRACT NO. 68693
 [ILLINOIS] FED. AID PROJECT



*Included in the cost of Pipe Underdrains for Structures.

Note:

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



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

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

The Contractor shall make allowance for the deflection of forms, shrinkage, and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

All test piles shall be instrumented for Dynamic Pile Monitoring. The time between initial driving and re-tapping shall be a minimum of 10 days. See Special Provisions. Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		963	963
Filter Fabric	Sq. Yd.		1,199	1,199
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		275	275
Floor Drains	Each	14		14
Concrete Structures	Cu. Yd.		161.9	161.9
Concrete Superstructure	Cu. Yd.	394.3		394.3
Bridge Deck Grooving	Sq. Yd.	570		570
Concrete Encasement	Cu. Yd.		8.5	8.5
Protective Coat	Sq. Yd.	734		734
Reinforcement Bars, Epoxy Coated	Pound	98,420	28,880	127,300
Bar Splicers	Each	339	172	511
Furnishing Metal Shell Piles, 14" x 0.250"	Foot		1,725	1,725
Driving Piles	Foot		1,725	1,725
Test Pile Metal Shells	Each		4	4
Pile Shoes	Each		32	32
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		48	48
Porous Granular Embankment, Special	Cu. Yd.		84	84
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1
Mechanical Splicers	Each		120	120
Asbestos Bearing Pad Removal	Each		11	11
Temporary Sheet Piling	Sq. Ft.		1,912	1,912
Pipe Underdrains for Structures 4"	Foot		124	124

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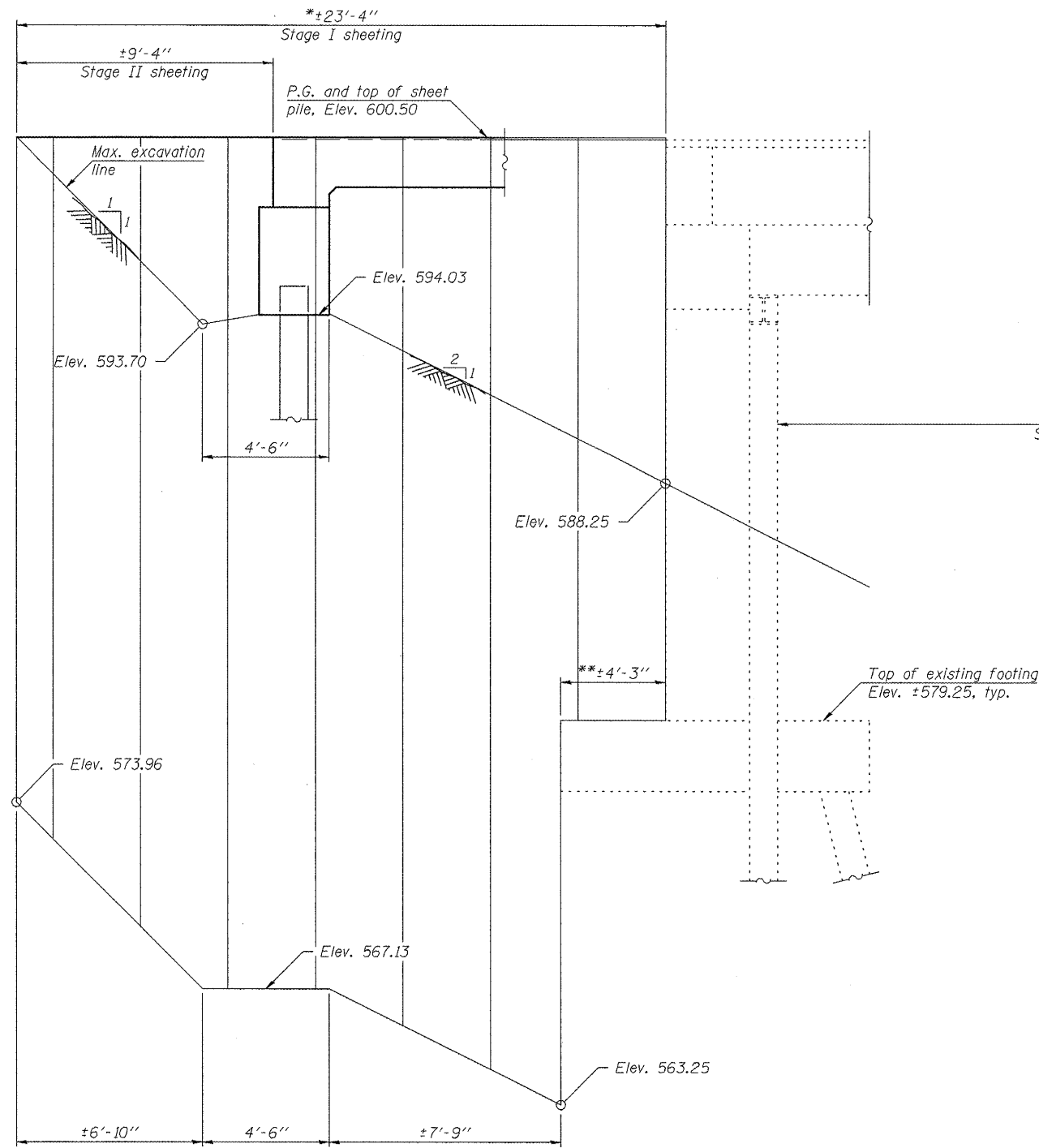
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HORNER &
SHIFRIN, INC.
ENGINEERS**

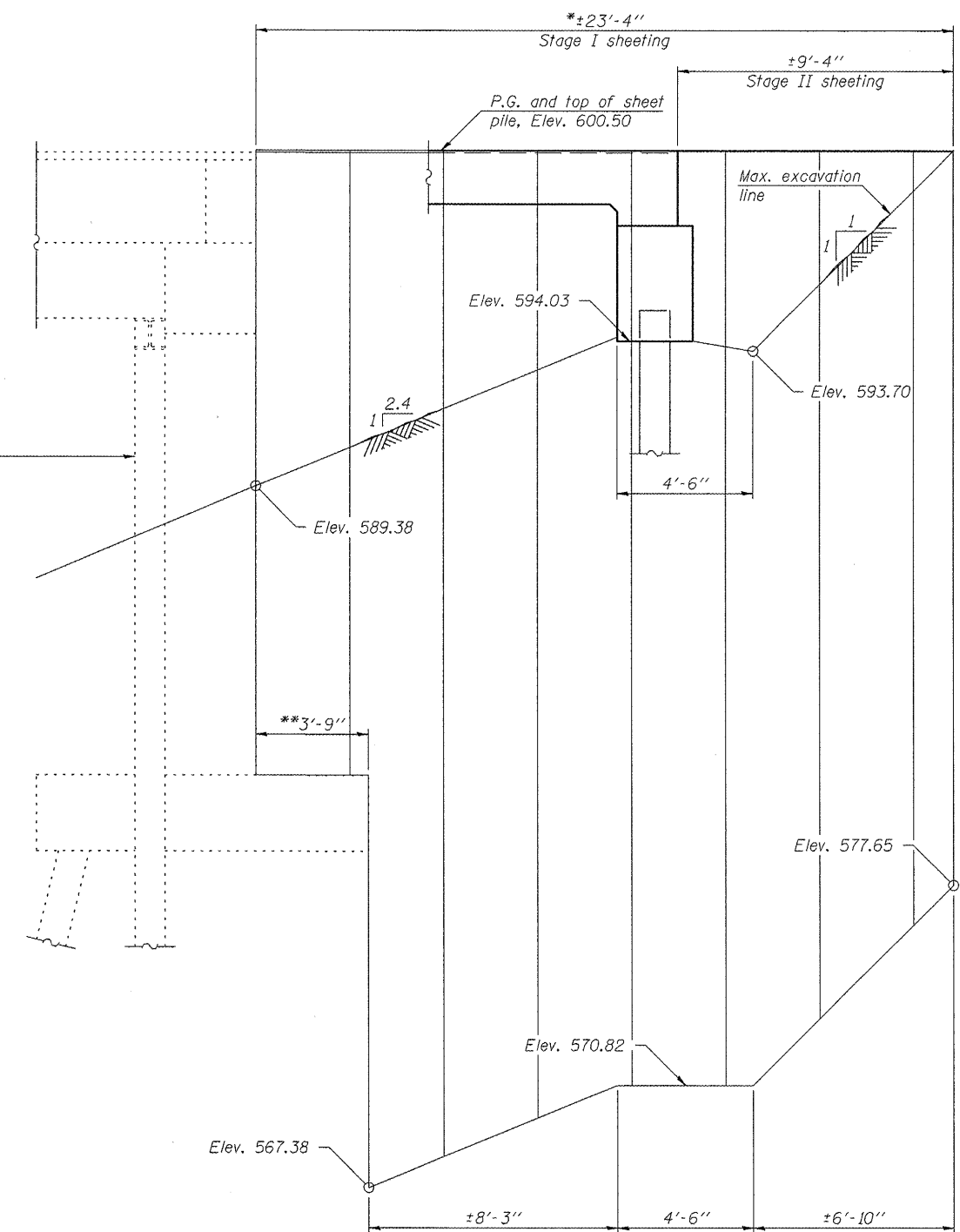
**GENERAL DATA
STRUCTURE NO. 036-0072**

SHEET NO. 2 OF 20 SHEETS

F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 15
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				



**TEMPORARY SHEET PILING
AT NORTH ABUTMENT**



**TEMPORARY SHEET PILING
AT SOUTH ABUTMENT**

Notes:

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

SHEET PILE DATA
 Minimum Section Modulus= 30.0 in.³/ft.
 fy= 38.5 ksi

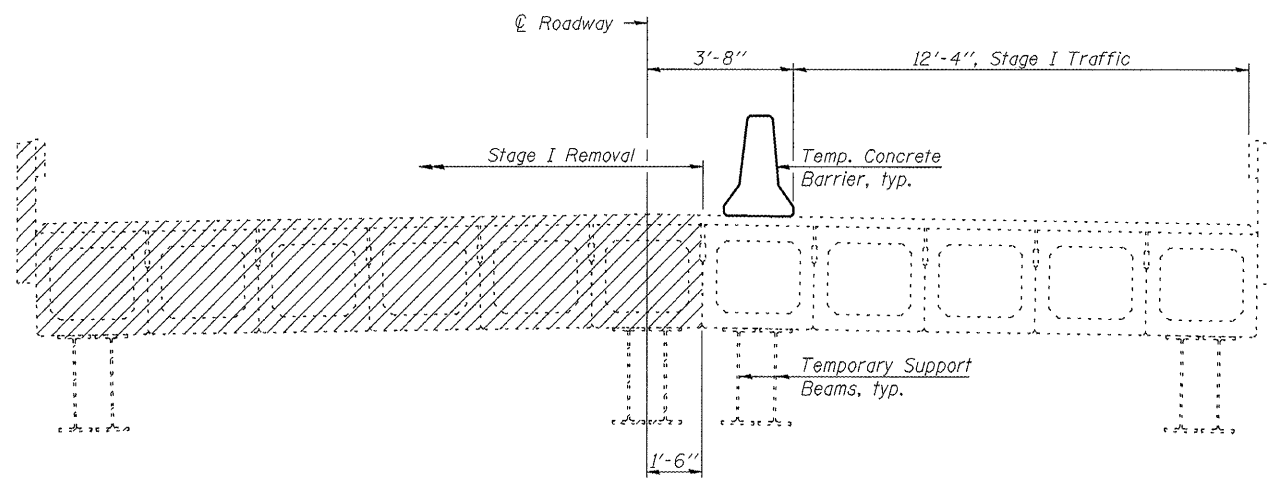
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

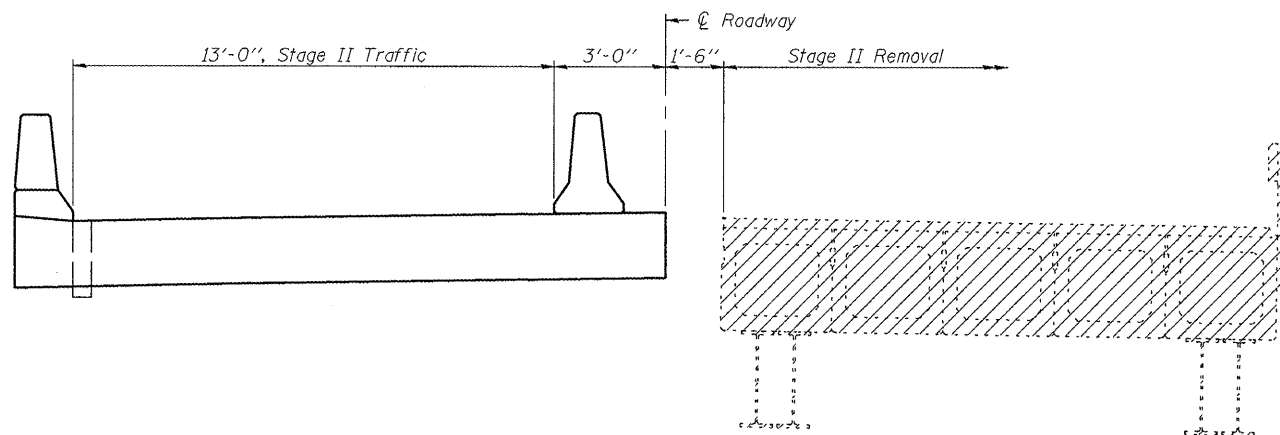


**TEMPORARY SHEET PILING
STRUCTURE NO. 036-0072**
 SHEET NO. 3 OF 20 SHEETS

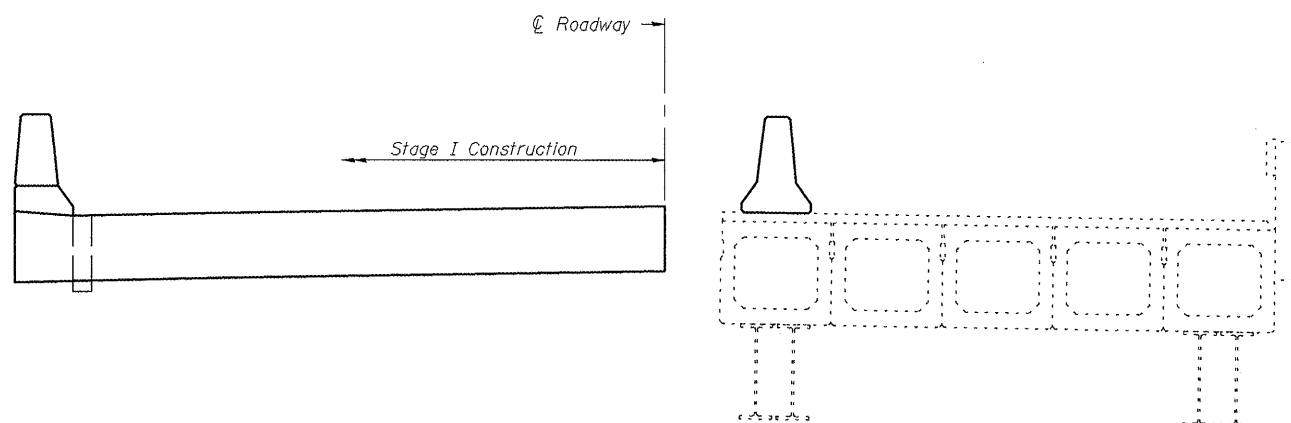
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 68693	



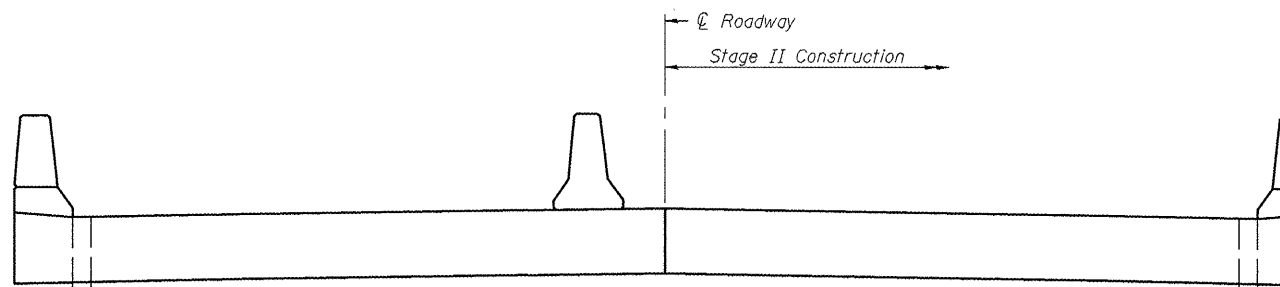
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

Notes:
 For Temporary Concrete Barrier Details, see sheet 5 of 20.
 All staging cross sections are looking South.
 Hatched area indicates Removal of Existing Structures.
 For quantity of Temporary Concrete Barrier, see roadway plans.

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

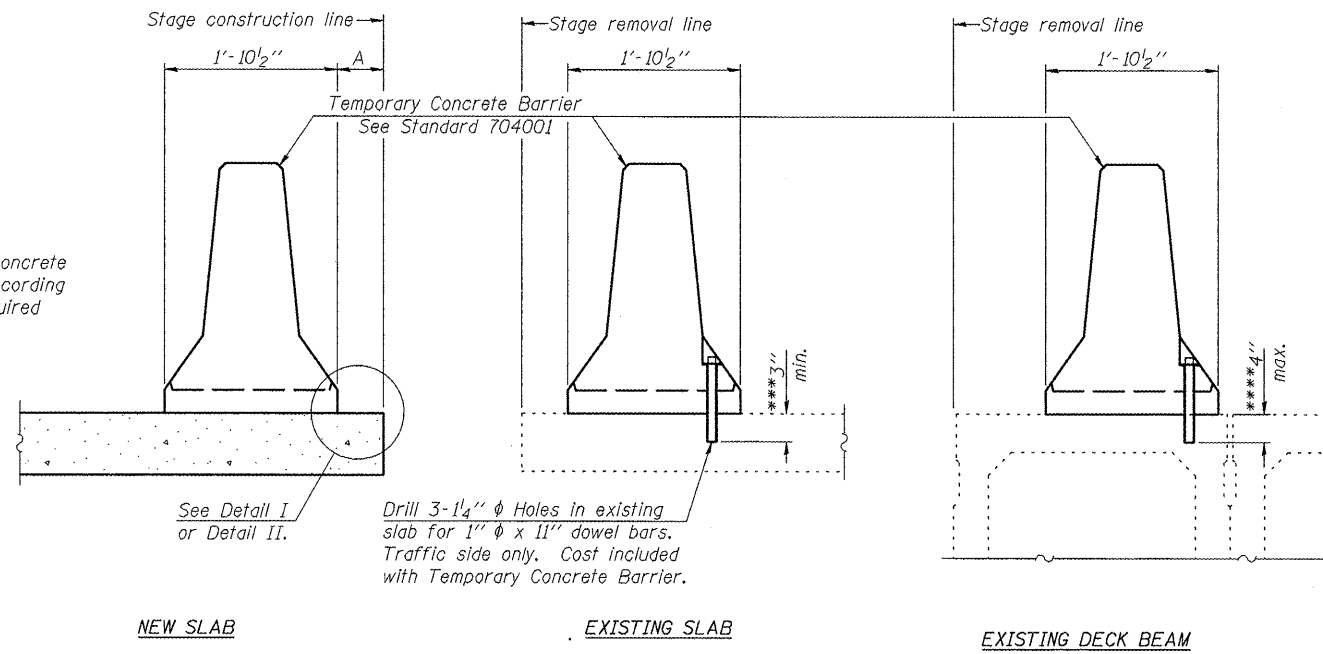
HORNER &
 SHIRIN, INC.
 ENGINEERS

STAGE CONSTRUCTION DETAILS
 STRUCTURE NO. 036-0072

SHEET NO. 4 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	1098R-1	HENDERSON	56	17
CONTRACT NO. 68693			ILLINOIS FED. AID PROJECT	

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

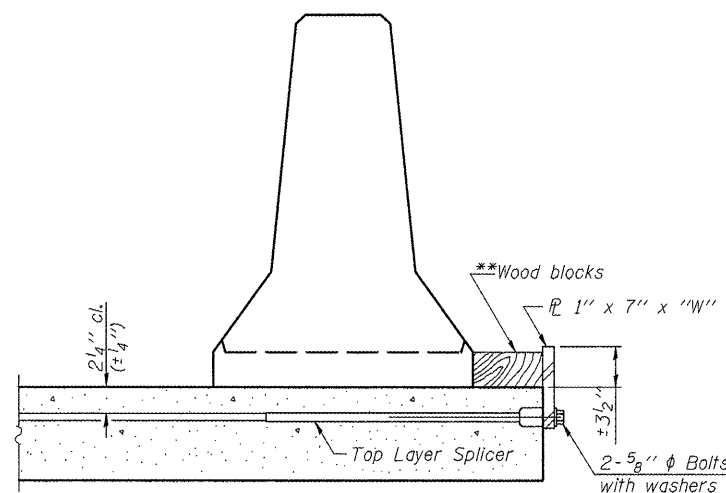
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

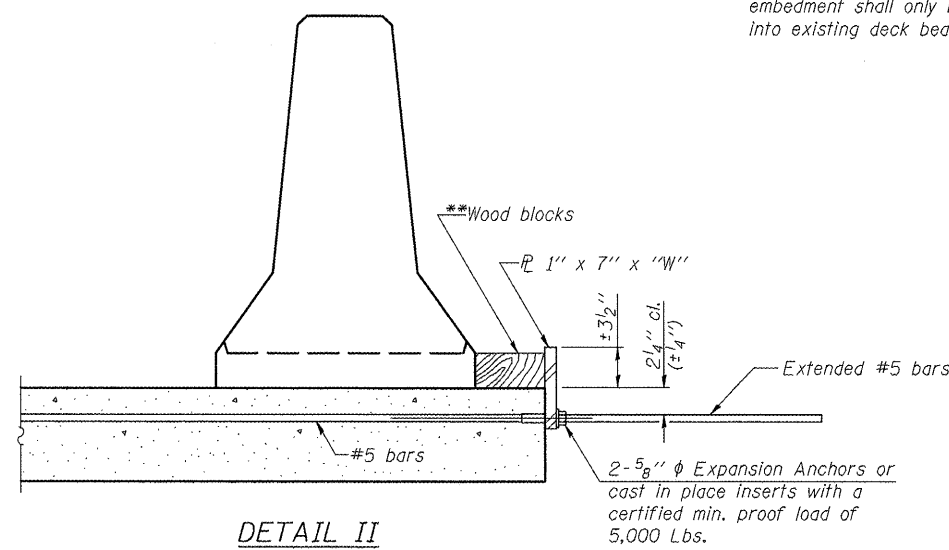
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



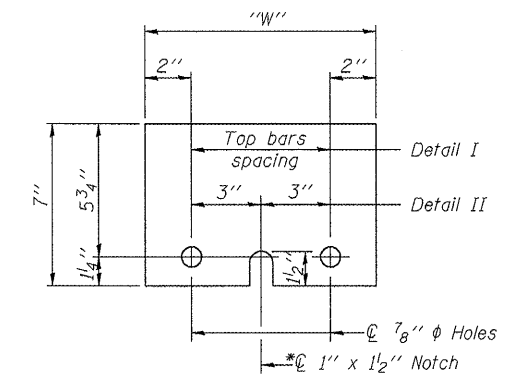
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4"



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

* Required only with Detail II

R-27

7-1-10

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HORNER &
SHERIN, INC.
ENGINEERS**

**TEMP. CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 036-0072**

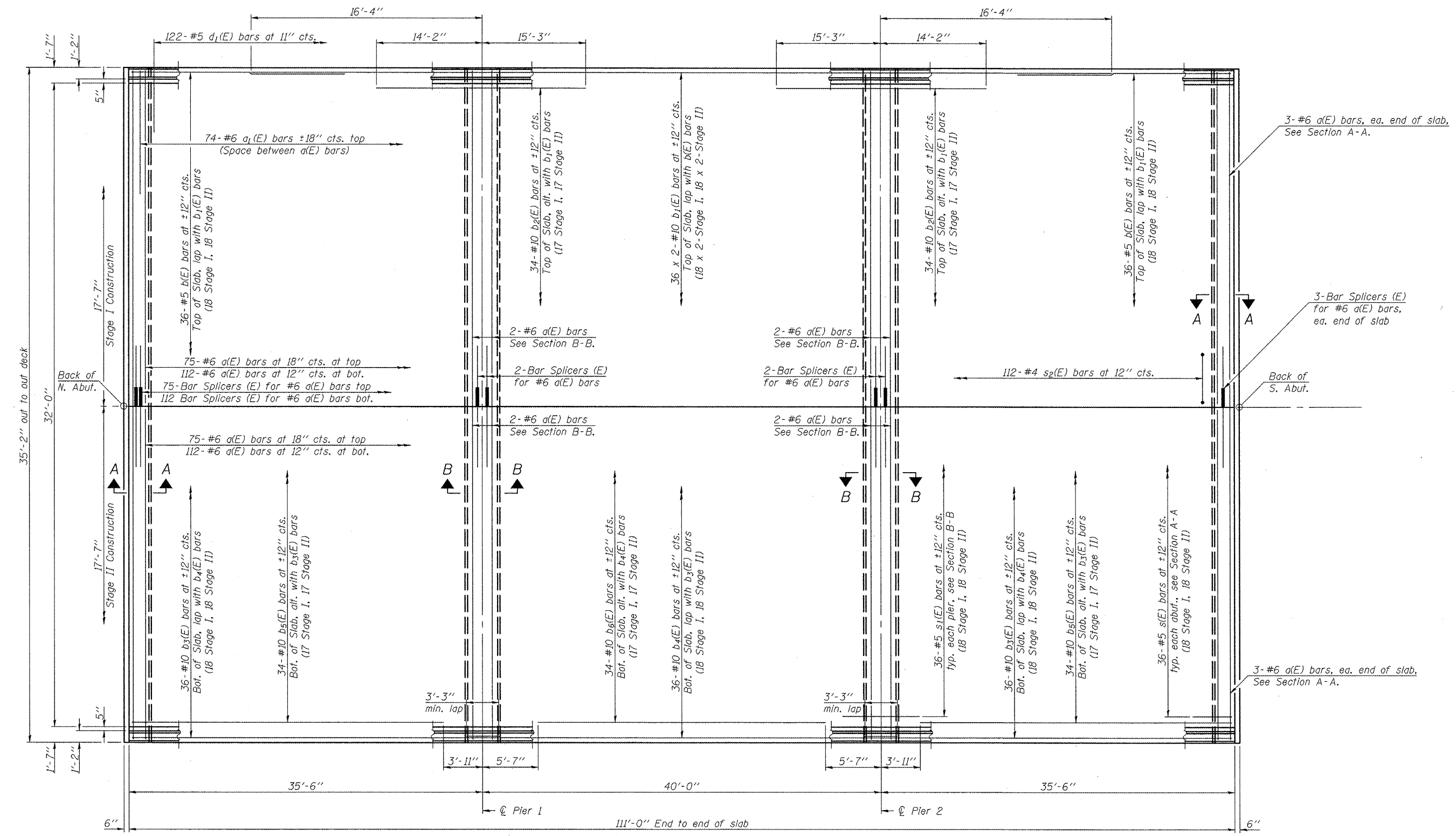
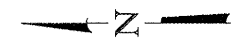
SHEET NO. 5 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	18
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

MINIMUM BAR LAP

#10 top bars = 9'-5"

Notes:
 For Sections A-A and B-B, see sheet 7 of 20.
 For bar bending diagrams and Bill of Materials, see sheet 8 of 20.
 Bars indicated thus 36 x 2-#10 etc. indicates 36 lines of bars with 2 lengths per line.



PLAN

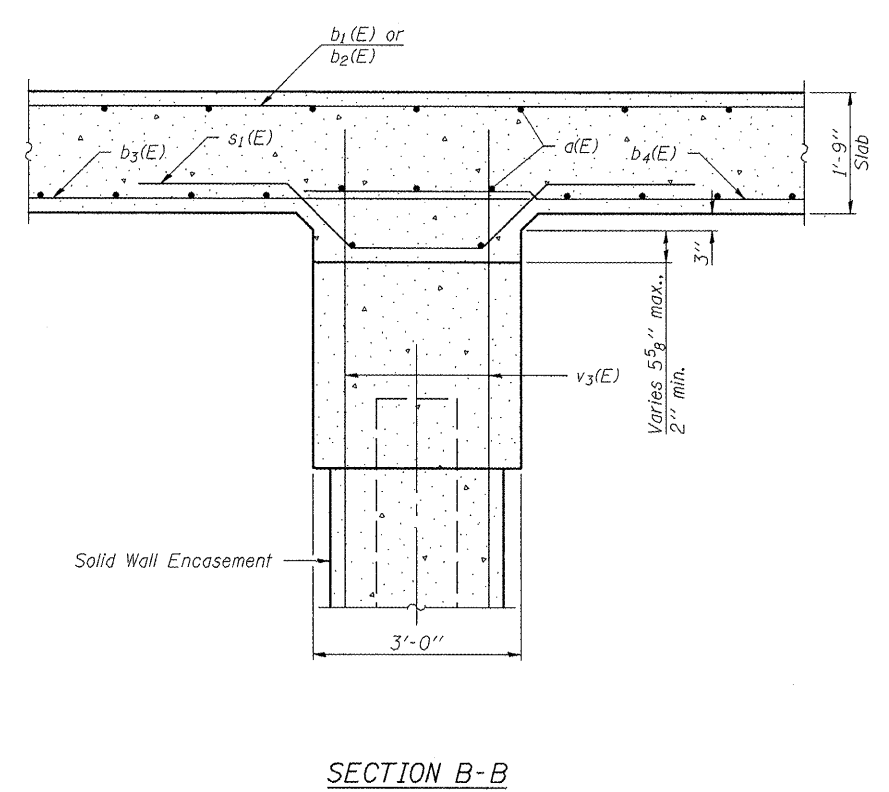
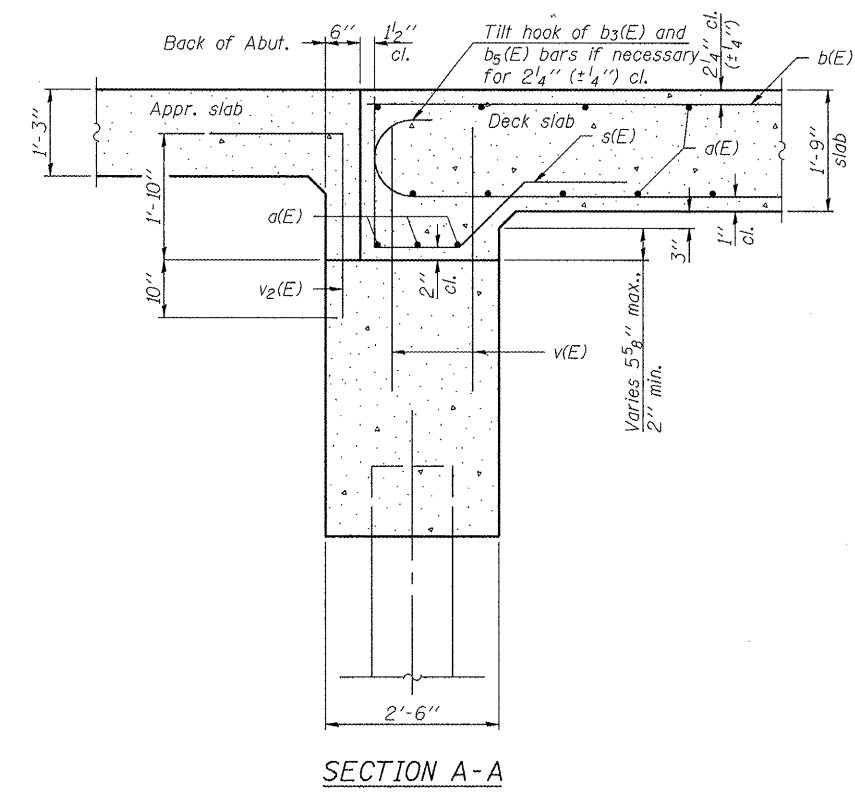
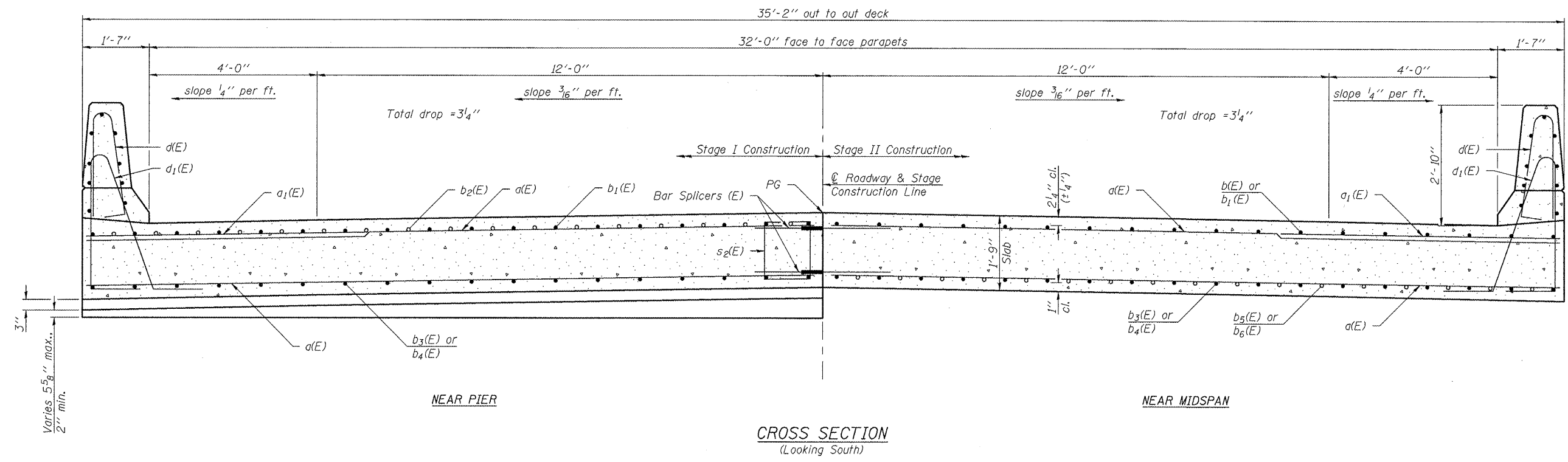
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

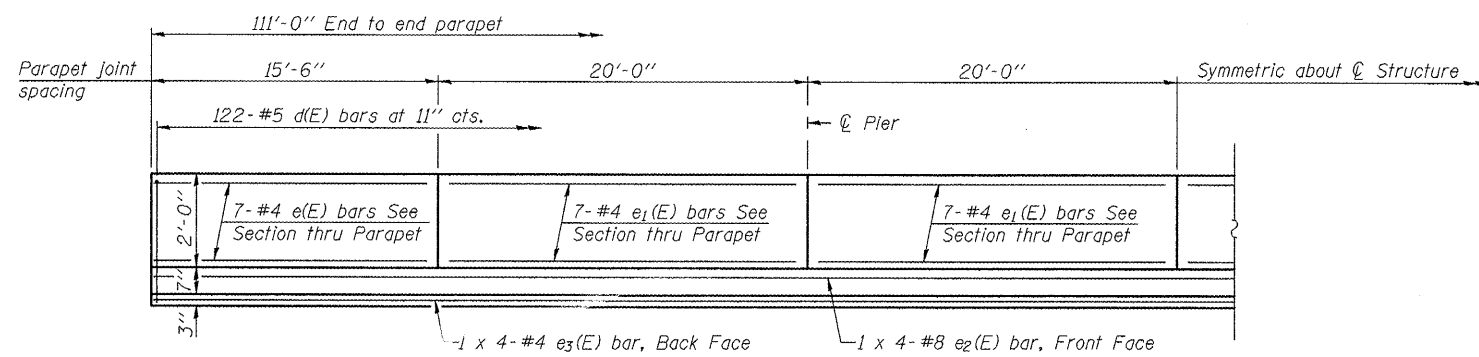


**SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 036-0072**

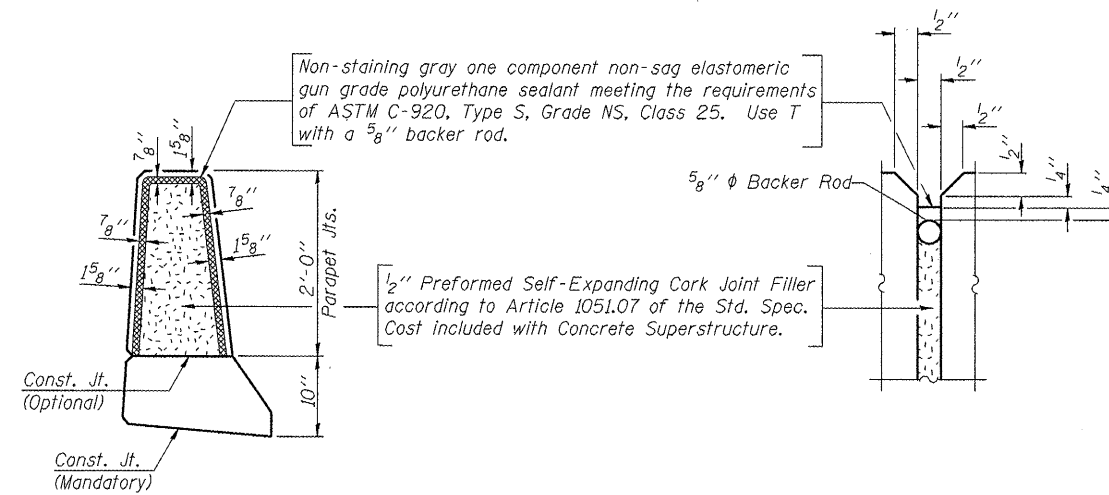
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			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				



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INSIDE ELEVATION OF PARAPET

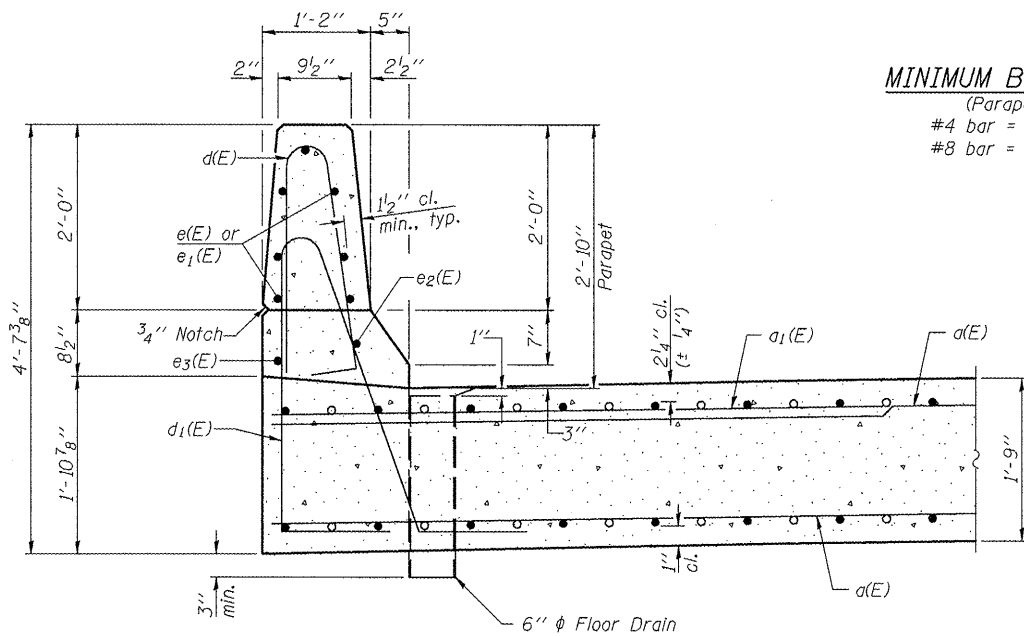


PARAPET JOINT DETAILS

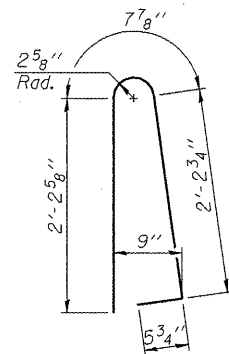
Notes:
 Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 Floor Drains need not be painted.

MINIMUM BAR LAP

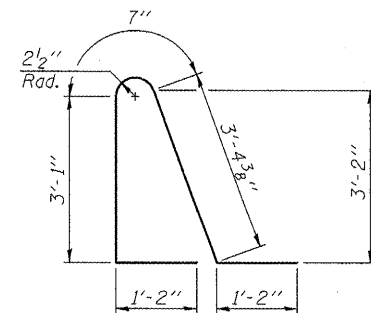
(Parapet)
 #4 bar = 2'-0"
 #8 bar = 5'-2"



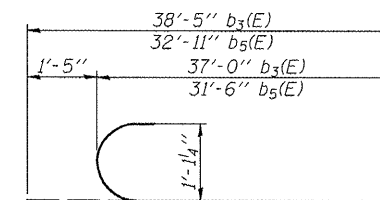
SECTION THRU PARAPET



BAR d(E)



BAR d1(E)

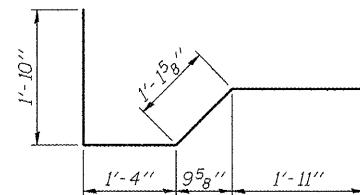
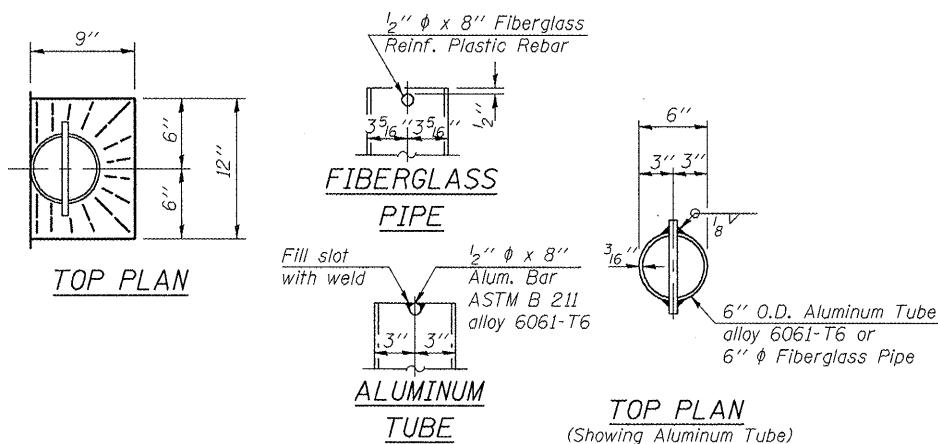


BARS b3(E) and b5(E)

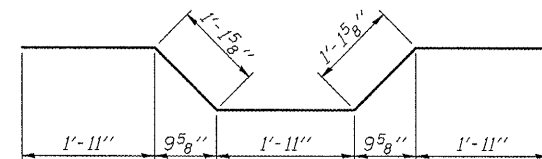
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	394	#6	17'-4"	—
a1(E)	148	#6	6'-6"	—
b(E)	72	#5	28'-5"	—
b1(E)	72	#10	41'-1"	—
b2(E)	68	#10	29'-5"	—
b3(E)	72	#10	38'-5"	—
b4(E)	36	#10	43'-3"	—
b5(E)	68	#10	32'-11"	—
b6(E)	34	#10	28'-10"	—
d(E)	244	#5	5'-7"	—
d1(E)	244	#5	9'-5"	—
e(E)	28	#4	15'-3"	—
e1(E)	56	#4	19'-9"	—
e2(E)	8	#8	31'-7"	—
e3(E)	8	#4	29'-3"	—
s(E)	72	#5	6'-3"	—
s1(E)	72	#5	8'-0"	—
s2(E)	112	#4	5'-11"	—
Reinforcement Bars, Epoxy Coated		Pound	74,820	
Concrete Superstructure		Cu. Yds.	286.9	

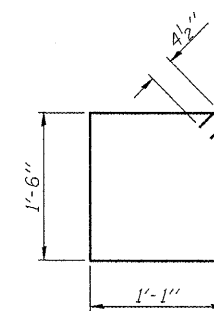
Bars indicated thus 1 x 4-#8 etc. indicates 1 line of bars with 4 lengths per line.



BAR s(E)



BAR s1(E)



BAR s2(E)

FILE NAME = 11\08044\IL94\Cad\SV_Plans\0360072-6863.dgn	USER NAME = eiegemann	DESIGNED KAK	REVISED -
PLOT SCALE =		CHECKED EML	REVISED -
PLOT DATE = 12/15/2010		DRAWN KAK	REVISED -
		CHECKED EML	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

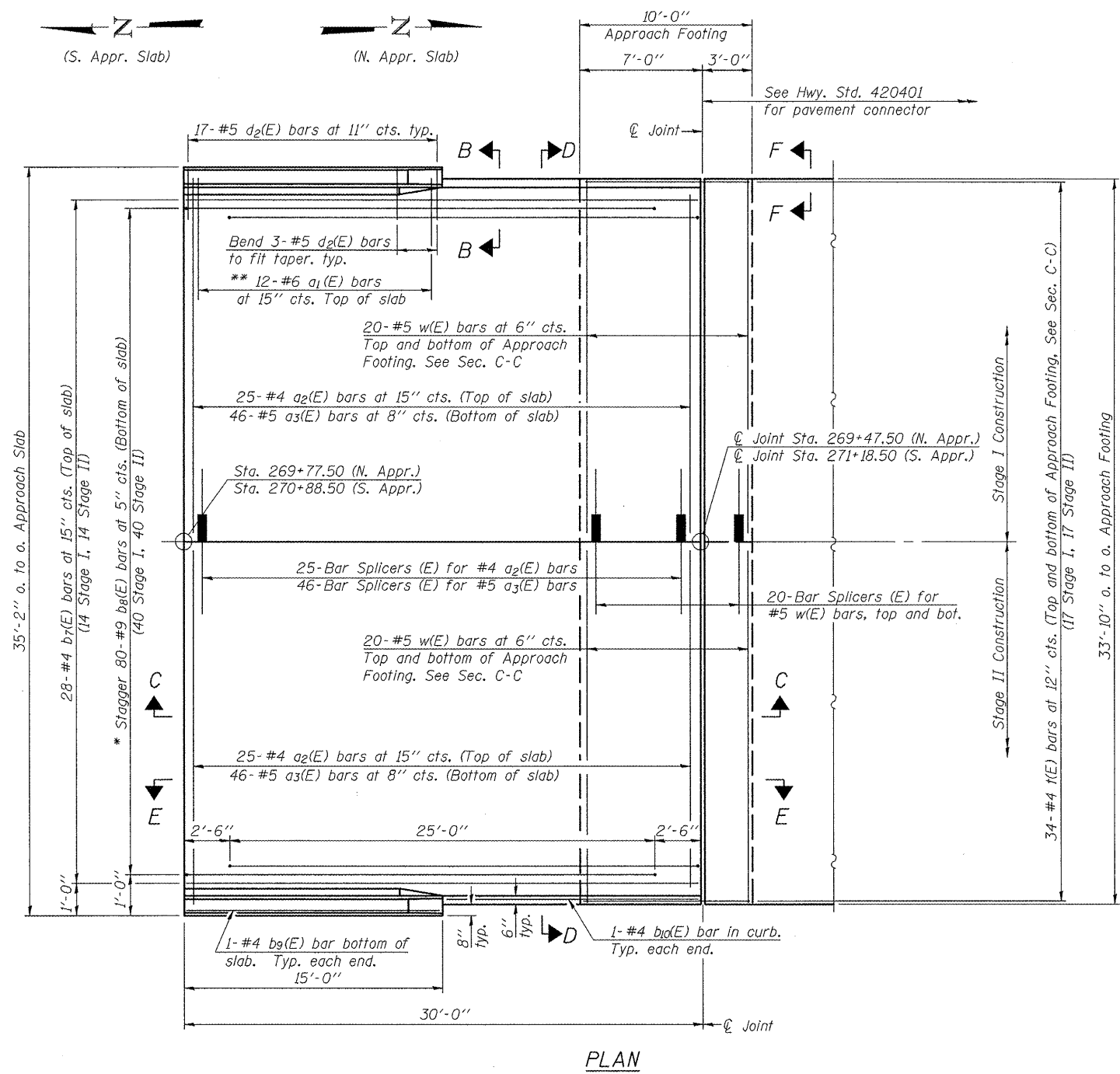
HORNER & SHIFRIN, INC.
 ENGINEERS

SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 036-0072

SHEET NO. 8 OF 20 SHEETS

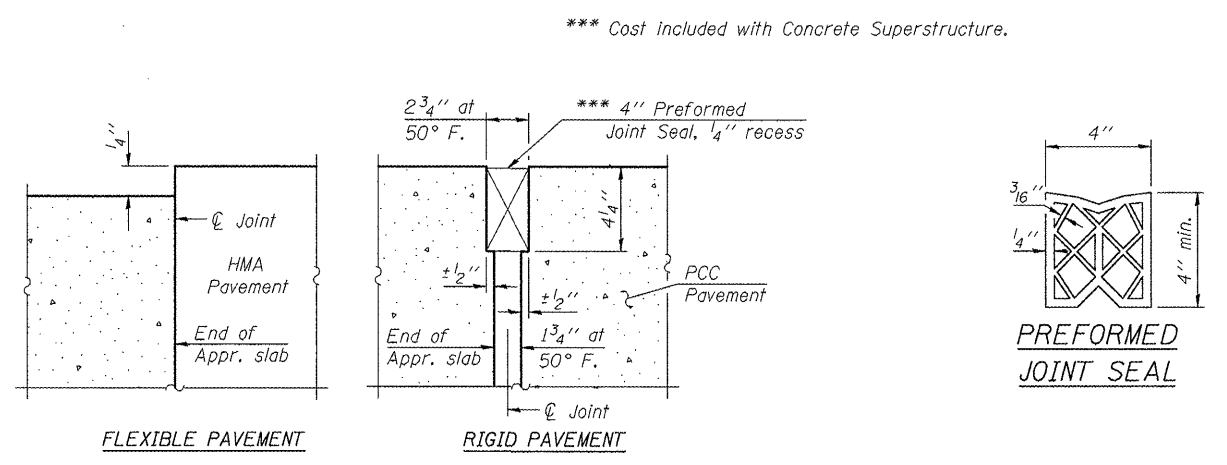
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	21
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

Notes:
See sheet 10 of 20 for Sections C-C & D-D and View E-E.
a₂(E) and a₃(E) bar spacings measured along @ Rdwy.

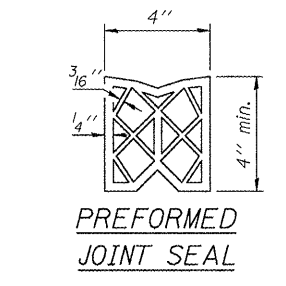


PLAN

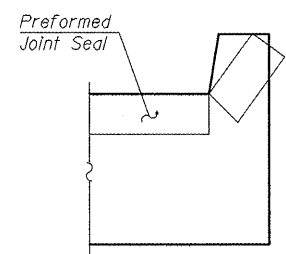
* Tilt #9 b₈(E) bars as required to maintain clearance.
** Space between a₂(E) bars, typ. ea. parapet.



DETAIL A

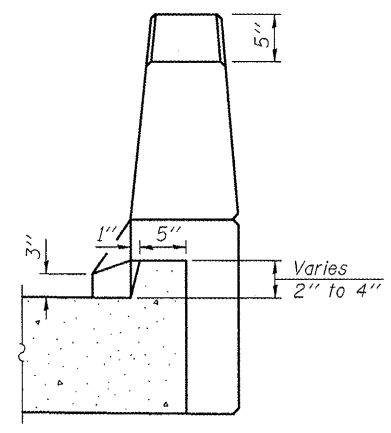


PREFORMED JOINT SEAL



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



VIEW B-B

FILE NAME =	USER NAME = elagemann	DESIGNED KAK	REVISED -
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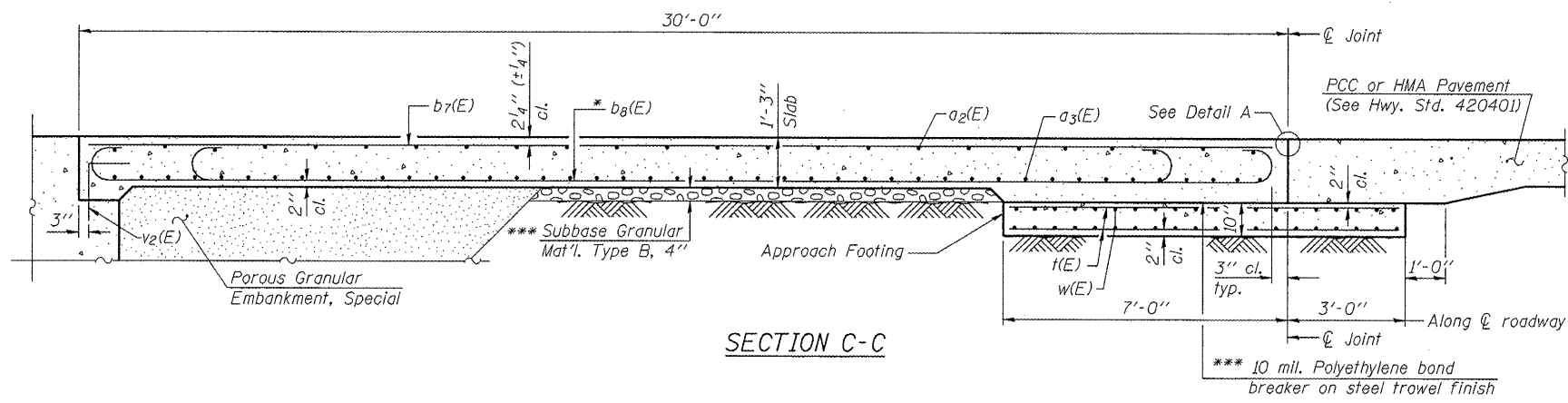
STATE OF ILLINOIS
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HORNER &
SHIRIN, INC.
ENGINEERS

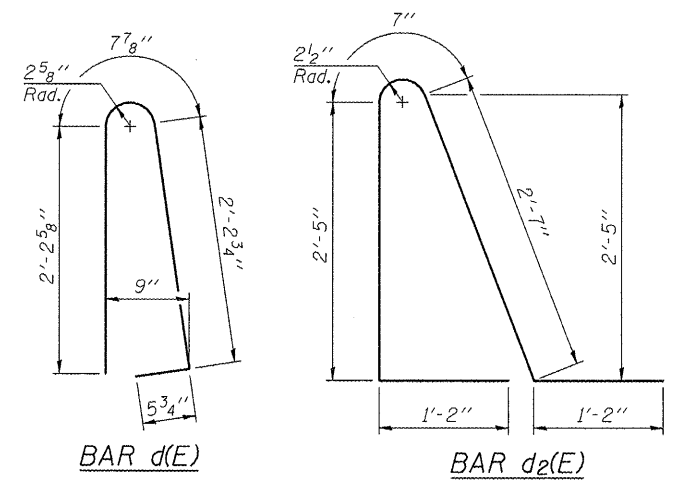
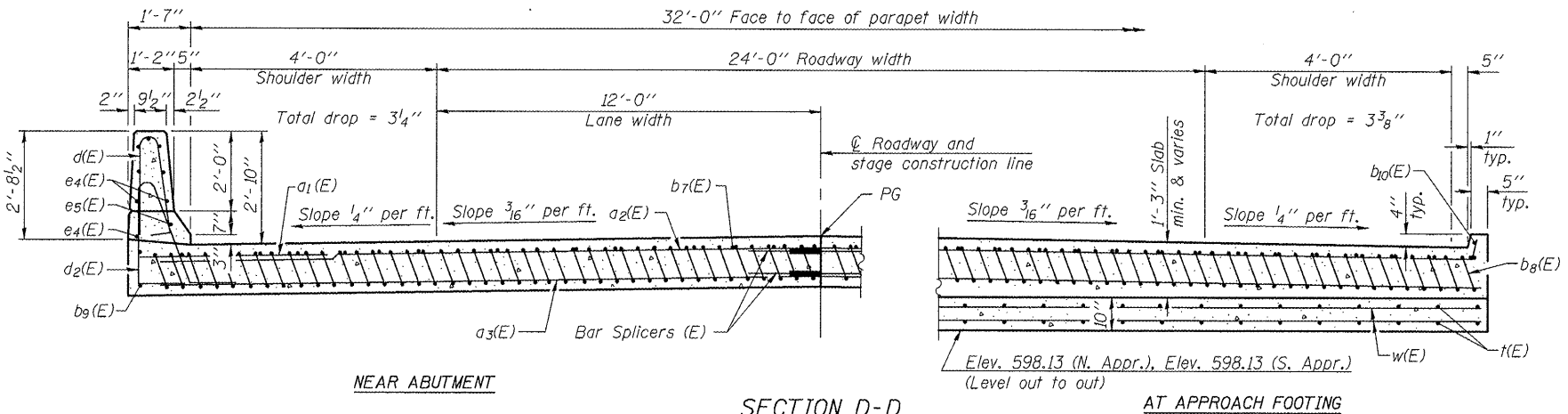
APPROACH SLAB
STRUCTURE NO. 036-0072

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	22
CONTRACT NO. 68693				
ILLINOIS FED. AID PROJECT				

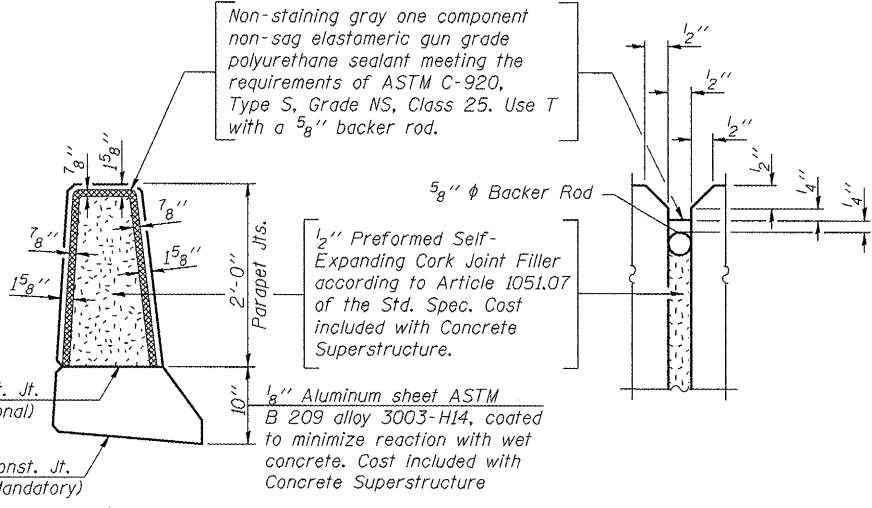
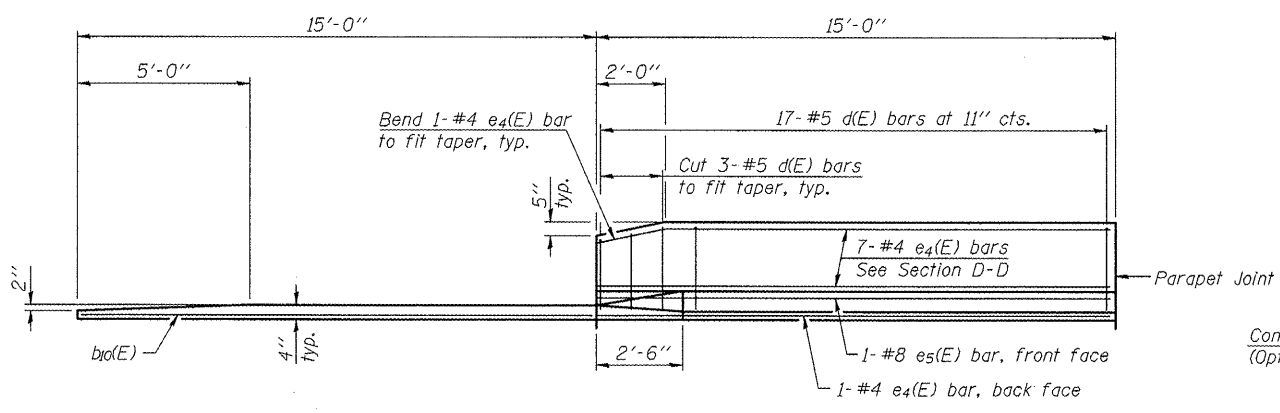
SHEET NO. 9 OF 20 SHEETS



Notes:
 See sheet 9 of 20 for Detail A and View B-B.
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v₂(E) bar details, see sheet 11 of 20.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 For bar splicer details, see sheet 14 of 20.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment, Special and drainage treatment details, see sheet 2 of 20.
 For additional parapet details, see sheet 8 of 20.

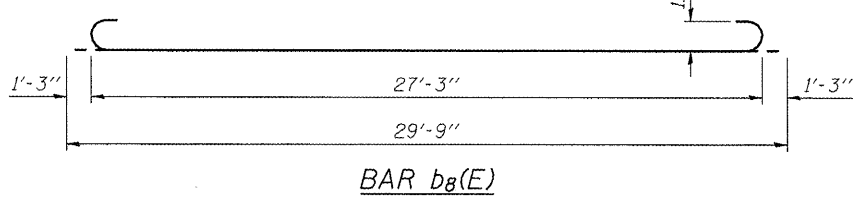
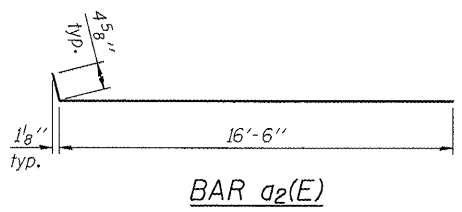


* Tilt #9 b₉(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁ (E)	48	#6	6'-6"	
a ₂ (E)	100	#4	16'-11"	
a ₃ (E)	184	#5	16'-7"	
b ₇ (E)	56	#4	29'-8"	
b ₈ (E)	160	#9	29'-9"	
b ₉ (E)	4	#4	14'-8"	
b ₁₀ (E)	4	#4	14'-6"	
d(E)	68	#5	5'-7"	
d ₂ (E)	68	#5	7'-11"	
e ₄ (E)	32	#4	14'-8"	
e ₅ (E)	4	#8	14'-8"	
t(E)	136	#4	9'-8"	
w(E)	160	#5	16'-7"	
Concrete Superstructure		Cu. Yd.	107.4	
Concrete Structures		Cu. Yd.	20.9	
Reinforcement Bars, Epoxy Coated		Pound	27,240	



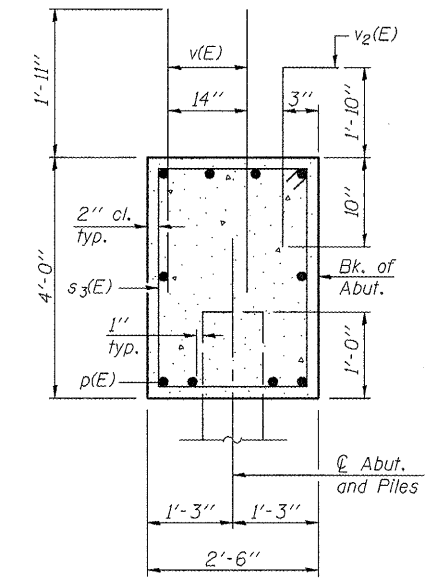
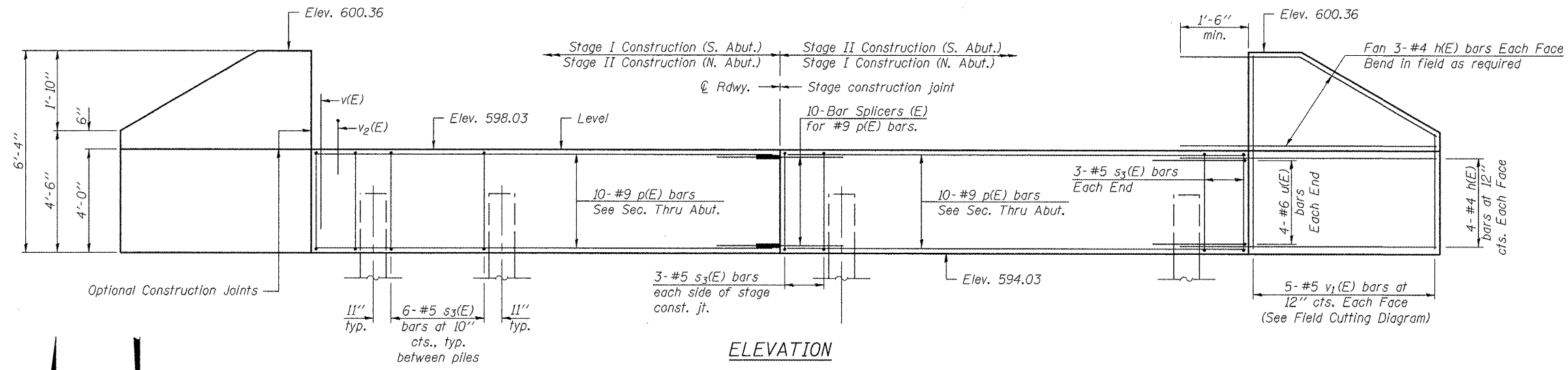
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		CHECKED EML	REVISED -

STATE OF ILLINOIS
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HORNER & SHIFRIN, INC.
 ENGINEERS

APPROACH SLAB
 STRUCTURE NO. 036-0072
 SHEET NO. 10 OF 20 SHEETS

F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 23
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

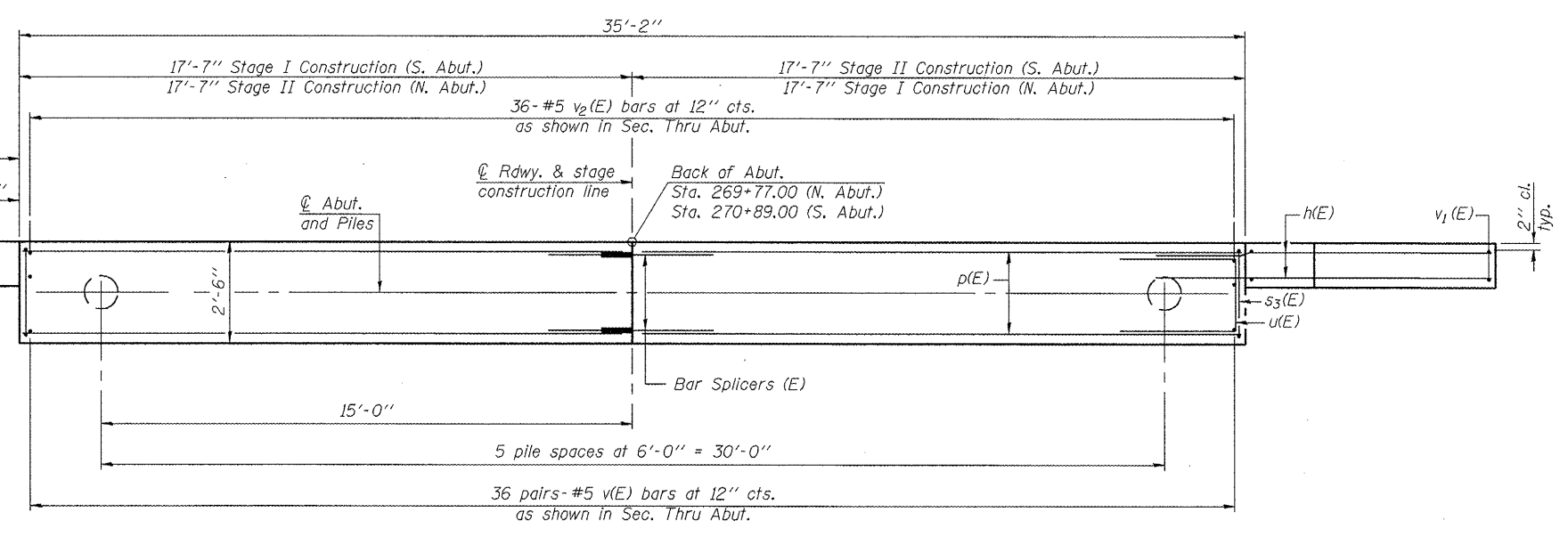
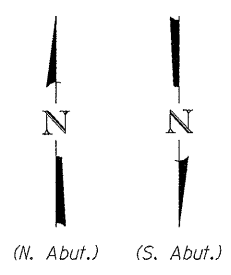


SEC. THRU ABUT.

BILL OF MATERIAL
(BOTH ABUTMENTS)

Bar	No.	Size	Length	Shape
h(E)	56	#4	6'-3"	—
p(E)	40	#9	17'-3"	—
s3(E)	72	#5	12'-7"	□
u(E)	16	#6	11'-9"	—
v(E)	144	#5	4'-1"	—
v1(E)	20	#5	10'-2"	—
v2(E)	72	#5	4'-7"	└
Structure Excavation			Cu. Yd.	162
Concrete Structures			Cu. Yd.	29.5
Reinforcement Bars, Epoxy Coated			Pound	4,980
Furnishing Metal Shell Piles 14" x 0.250"			Foot	600
Driving Piles			Foot	600
Test Pile Metal Shells			Each	2
Pile Shoes			Each	12

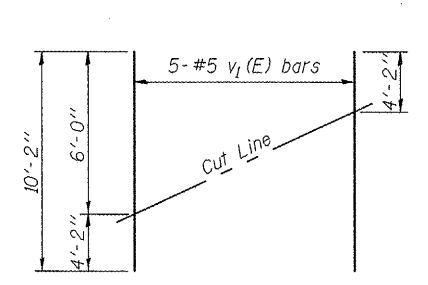
For details of Bar Splicers, see sheet 14 of 20.
For details of Metal Shell Piles, see sheet 13 of 20.



PLAN

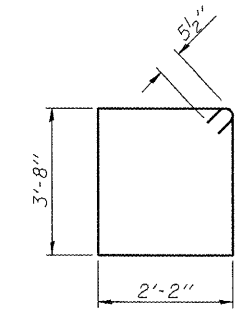
N. ABUT. PILE DATA
 Type: Metal Shell - 14" φ x 0.250" wall w/ pile shoes
 Nominal Required Bearing: 325 Kips
 Factored Resistance Available: 179 Kips
 Est. Length: 60 ft.
 No. Production Piles: 5
 No. Test Piles: 1

S. ABUT. PILE DATA
 Type: Metal Shell - 14" φ x 0.250" wall w/ pile shoes
 Nominal Required Bearing: 319 Kips
 Factored Resistance Available: 176 Kips
 Est. Length: 60 ft.
 No. Production Piles: 5
 No. Test Piles: 1

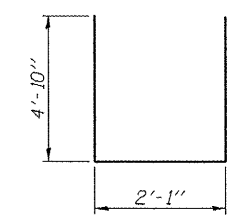


FIELD CUTTING DIAGRAM

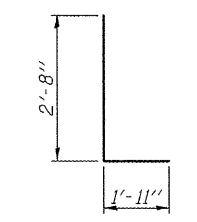
Order v1(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s3(E)



BAR u(E)



BAR v2(E)

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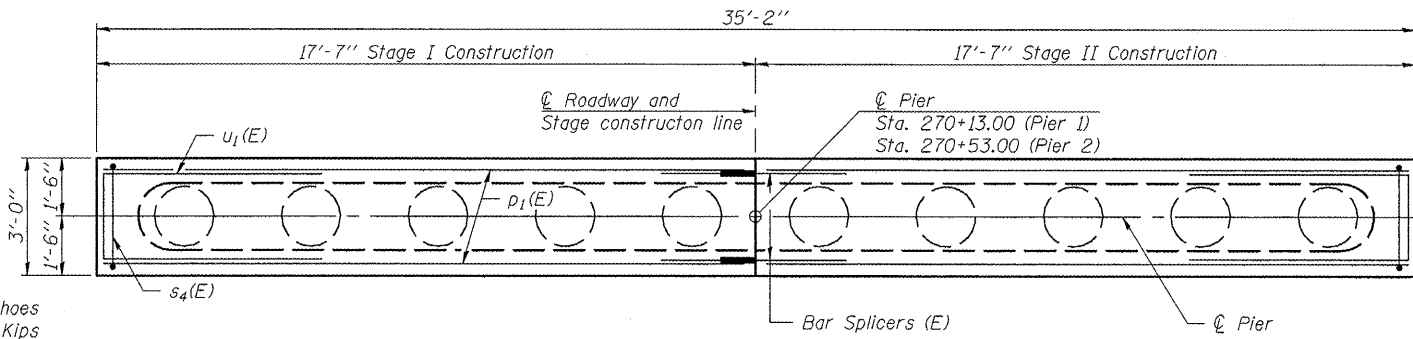
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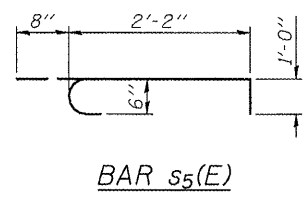
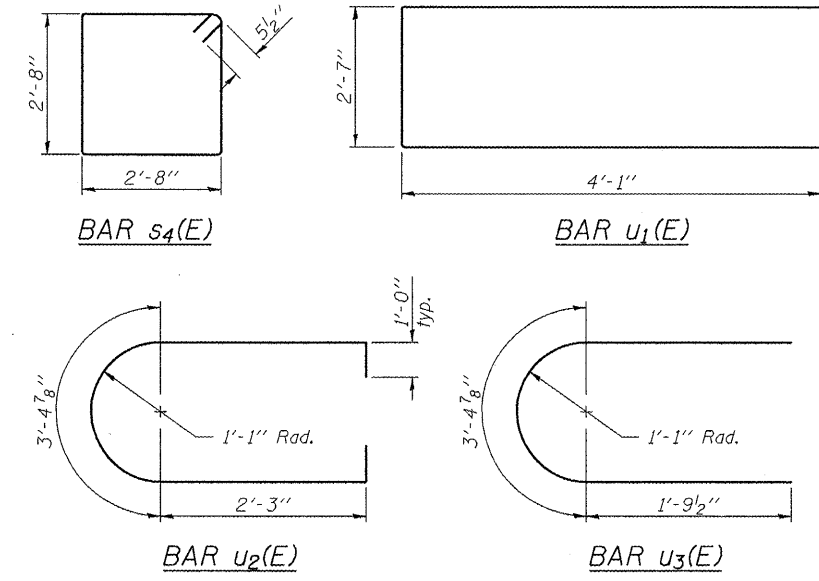
ABUTMENTS
STRUCTURE NO. 036-0072

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	24
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

SHEET NO. 11 OF 20 SHEETS

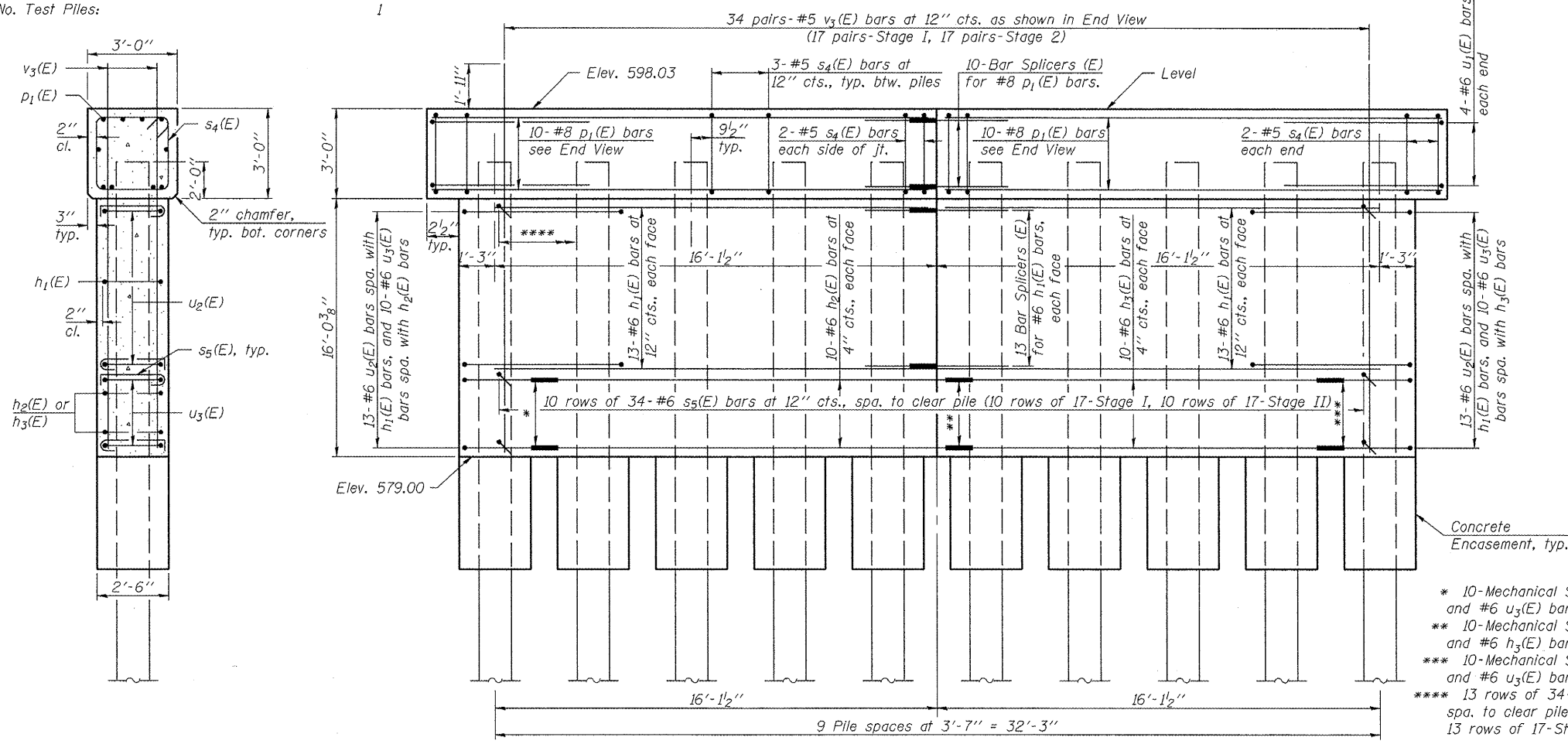


PLAN



PIER 1 PILE DATA
 Type: Metal Shell - 14" ϕ x 0.250" wall w/ pile shoes
 Nominal Required Bearing: 295 Kips
 Factored Resistance Available: 153 Kips
 Est. Length: 63 ft.
 No. Production Piles: 9
 No. Test Piles: 1

PIER 2 PILE DATA
 Type: Metal Shell - 14" ϕ x 0.250" wall w/ pile shoes
 Nominal Required Bearing: 275 Kips
 Factored Resistance Available: 147 Kips
 Est. Length: 62 ft.
 No. Production Piles: 9
 No. Test Piles: 1



END VIEW

ELEVATION

BILL OF MATERIAL (BOTH PIERS)

Bar	No.	Size	Length	Shape
h1(E)	104	#6	15'-11"	—
h2(E)	40	#6	15'-4"	—
h3(E)	40	#6	13'-4"	—
p1(E)	40	#8	17'-3"	—
s4(E)	64	#5	11'-7"	□
s5(E)	1,564	#6	3'-10"	U
u1(E)	16	#6	10'-9"	U
u2(E)	52	#6	9'-11"	U
u3(E)	40	#6	7'-0"	U
v3(E)	136	#5	20'-10"	—
Structure Excavation			Cu. Yd.	113
Concrete Structures			Cu. Yd.	111.5
Concrete Encasement			Cu. Yd.	8.5
Reinforcement Bars, Epoxy Coated			Pound	20,260
Furnishing Metal Shell Piles 14" x 0.250"			Foot	1,125
Driving Piles			Foot	1,125
Test Pile Metal Shells			Each	2
Pile Shoes			Each	20
Underwater Structure Excavation Protection - Location 1			Each	1
Underwater Structure Excavation Protection - Location 2			Each	1
Mechanical Splicers			Each	120

- * 10-Mechanical Splicers (E) for #6 h2(E) and #6 u3(E) bars, each face
- ** 10-Mechanical Splicers (E) for #6 h2(E) and #6 h3(E) bars, each face
- *** 10-Mechanical Splicers (E) for #6 h3(E) and #6 u3(E) bars, each face
- **** 13 rows of 34-#6 s5(E) bars at 12" cts., spa. to clear pile (10 rows of 17-Stage I, 10 rows of 17-Stage II)

If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction. Location 1 refers to Pier 1, Location 2 refers to Pier 2.

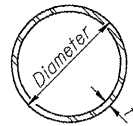
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STATE OF ILLINOIS
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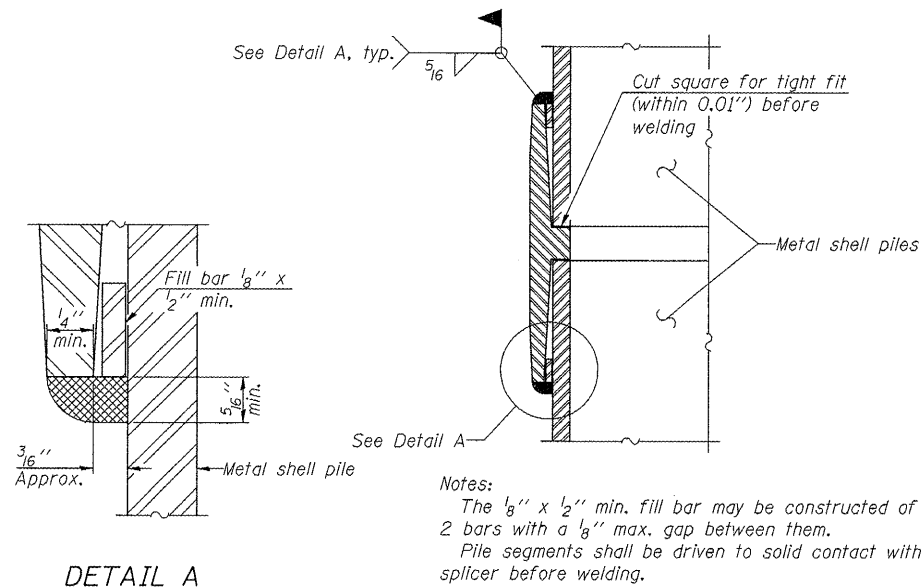
PIERS
STRUCTURE NO. 036-0072
SHEET NO. 12 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	25
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				



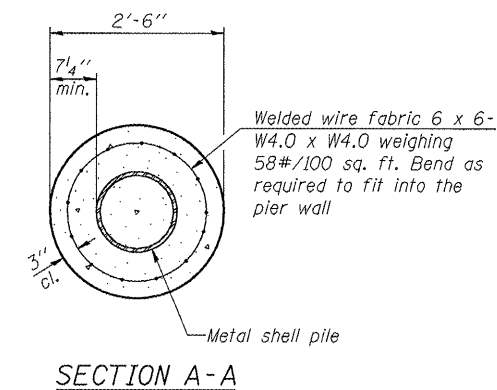
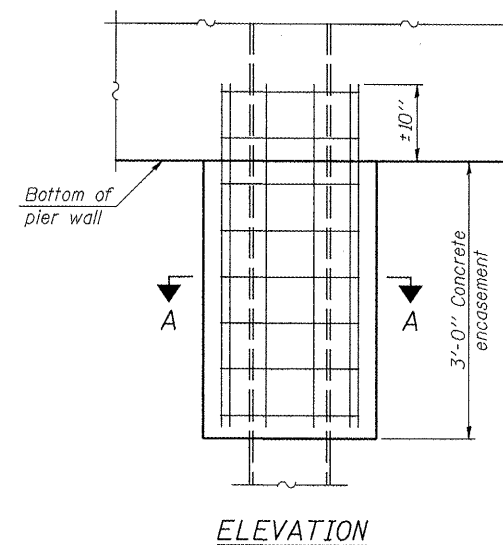
METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



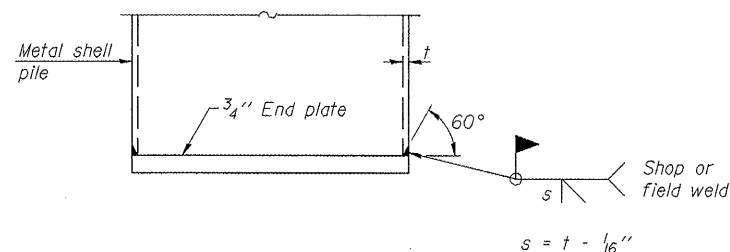
Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE

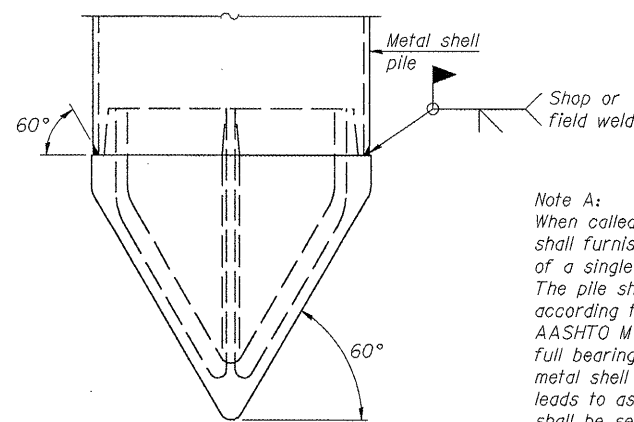


Note:
 Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



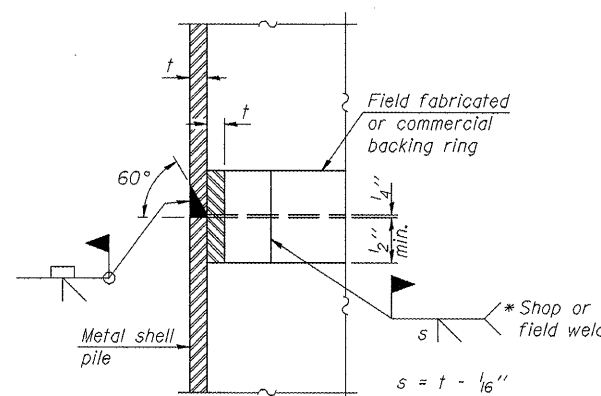
END PLATE ATTACHMENT



Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

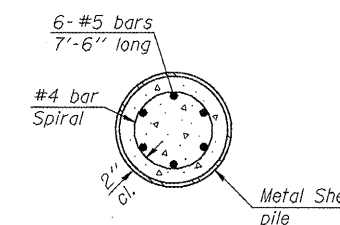
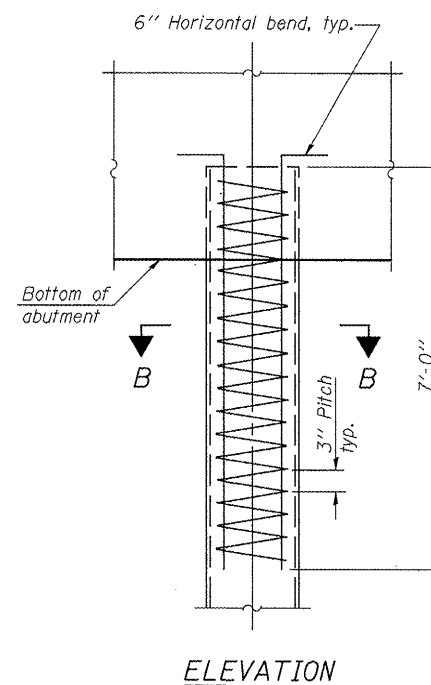
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS

7-1-10

FILE NAME =	USER NAME = elagemann	DESIGNED KAK	REVISED -
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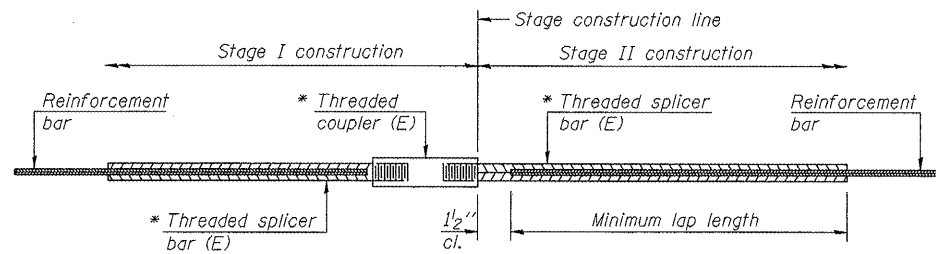
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HORNER &
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 ENGINEERS

METAL SHELL PILE DETAILS
 STRUCTURE NO. 036-0072

SHEET NO. 13 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	26
			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

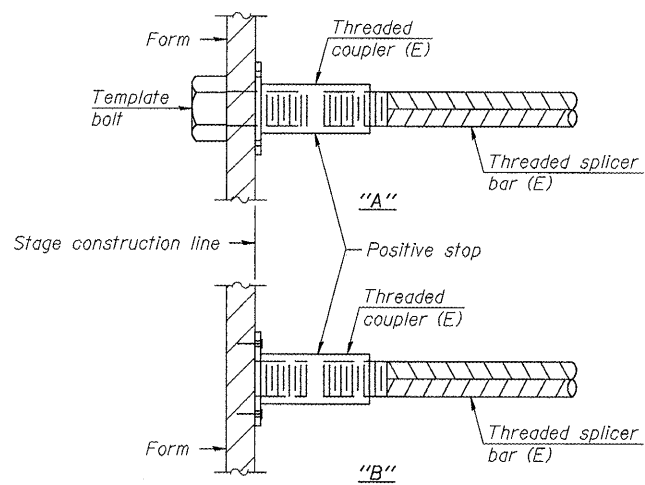
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

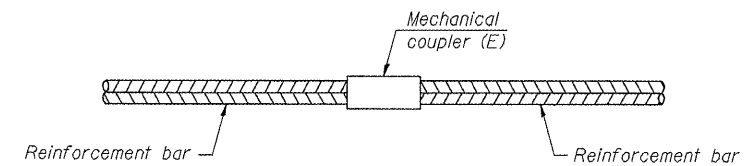
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Approach Slabs	#4	50	Table 4
Approach Slabs	#5	172	Table 3
Slab	#6	197	Table 4
Abutments	#9	20	Table 4
Piers	#8	20	Table 4
Piers	#6	52	Table 4



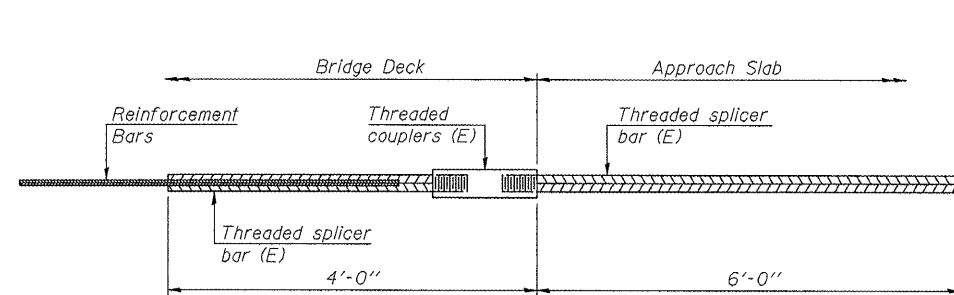
INSTALLATION AND SETTING METHODS

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



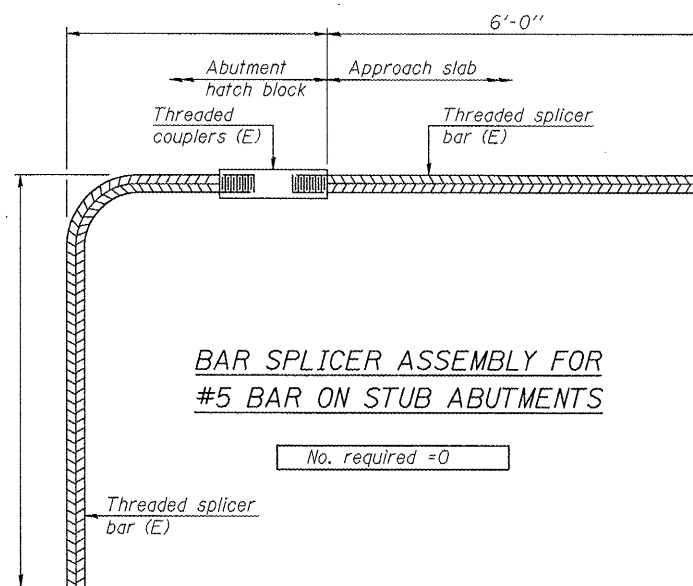
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Piers	#6	120



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

No. required = 0



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES

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

BSD-1

7-1-10

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		CHECKED EML	REVISED -
		DRAWN KAK	REVISED -
		CHECKED EML	REVISED -
PLOT SCALE =			
PLOT DATE = 12/16/2010			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DET.
STRUCTURE NO. 036-0072

F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 27
				CONTRACT NO. 68693
ILLINOIS FED. AID PROJECT				

SHEET NO. 14 OF 20 SHEETS



Illinois Department
of Transportation
Division of Highways
Kaskaskia Engineering Group, LLC

SOIL BORING LOG

Page 1 of 3

Date 2/18/10

ROUTE FAP 534 (IL 94/IL 116) DESCRIPTION IL 94 over Ellison Creek LOGGED BY KEG
SECTION 109BR-1 LOCATION Media TWP, NW 1/4, Sec 18, T9N, R4W and NE 1/4 Sec 13, T9N, R5W
COUNTY Henderson DRILLING METHOD CME 55LC w/ HSA/Mud Rotary HAMMER TYPE Automatic

STRUCT. NO.	DEPT	BLOW	UNITS	METHOD	Surface Water Elev.	DEPT	BLOW	UNITS	METHOD
036-0004	H	S	Qu	T	ft	H	S	Qu	T
Station	Station								
BORING NO.	BORING NO.								
Station	Station								
Offset	Offset								
Ground Surface Elev.	Ground Surface Elev.								
599.31	599.98								
ASPHALT - 8 Inches	579.48								
CRUSHED ROCK - 4 Inches	SANDY LOAM: Grayish brown, fine (A-2)								
FILL: Brown, sandy clay loam, trace asphalt (A-6)	9					WR			
	5	1.5	20			WH	4	NC	24
	6	P							
No asphalt	5					WR			
	4	1.2	19			2		NC	
	-5	B				2			
Becomes gray	3				574.48	WR			
	3	0.9	25			5		NC	
	4	B				7			
	3					3			
	3	1.6	22			7		NC	
	-10	B				10			
FILL: Gray, silty clay (A-7)	3				589.48				
	3	1.3	24						
	4	P			568.48				
	3					3			
	3	0.9	28			6	2.3	16	
	-15	B				10	B		
SILTY CLAY LOAM: Brown (A-6)	1				584.48				
	2	0.4	25						
	3	B							
SANDY CLAY LOAM: Grayish brown (A-4)	1				581.48	4			
	1	NC	23			5	1.8	17	
	-20					6	B		

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



Illinois Department
of Transportation
Division of Highways
Kaskaskia Engineering Group, LLC

SOIL BORING LOG

Page 2 of 3

Date 2/18/10

ROUTE FAP 534 (IL 94/IL 116) DESCRIPTION IL 94 over Ellison Creek LOGGED BY KEG
SECTION 109BR-1 LOCATION Media TWP, NW 1/4, Sec 18, T9N, R4W and NE 1/4 Sec 13, T9N, R5W
COUNTY Henderson DRILLING METHOD CME 55LC w/ HSA/Mud Rotary HAMMER TYPE Automatic

STRUCT. NO.	DEPT	BLOW	UNITS	METHOD	Surface Water Elev.	DEPT	BLOW	UNITS	METHOD
036-0004	H	S	Qu	T	ft	H	S	Qu	T
Station	Station								
BORING NO.	BORING NO.								
Station	Station								
Offset	Offset								
Ground Surface Elev.	Ground Surface Elev.								
599.98	579.0								
CLAY LOAM: Gray, trace fine gravel (A-7) (continued)	SILTY CLAY LOAM: Dark brown, trace to some organics (A-6) (continued)								
	4				537.98				
	5	1.7	19			6			
	-45	B				9	11.4	24	
						15	B		
	4								
	6	1.3	23			6			
	8	B				7	2.1	23	
	-50					10	B		
	5				526.98				
	5	2.1	21			8			
	-55	B				24	NC		
						-75	26		
	3				542.98				
	6	1.9	30						
	-60	S							
SILTY CLAY LOAM: Dark brown, trace to some organics (A-6)	CLAY: Grayish brown, trace fine gravel, organics (A-7)								
	3				521.48	3			
	5	1.8	23			5	B		
	-80					7	B		

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

FILE NAME =	USER NAME = eiegemann	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HORNER & SHIFRIN, INC ENGINEERS	BORING LOGS STRUCTURE NO. 036-0072	F.A.P. RTE. 534	SECTION 109BR-1	COUNTY HENDERSON	TOTAL SHEETS 56	SHEET NO. 28
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	DRAWN KAK	CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT				
	PLOT DATE = 12/16/2010	CHECKED EML	REVISED -								



Illinois Department
of Transportation
Division of Highways
Kaskaskia Engineering Group, LLC

SOIL BORING LOG

Page 1 of 3

Date 2/19/22/2010

ROUTE FAP 534 (IL 94/IL 116) DESCRIPTION IL 94 over Ellison Creek LOGGED BY KEG

SECTION 109BR-1 LOCATION Media TWP, NW 1/4, Sec 18, T9N, R4W and NE 1/4 Sec 13, T9N, R5W

COUNTY Henderson DRILLING METHOD CME 55LC w/ HSA/Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S Qu	M O I S T
BORING NO. <u>APS-BH#3</u> Station <u>270+96</u> Offset <u>53.0 ft Rt</u> Ground Surface Elev. <u>595.57</u> ft					Stream Bed Elev. _____ ft				
					Groundwater Elev.:				
					First Encounter <u>584.6</u> ft				
					Upon Completion _____ ft				
					After _____ Hrs.				

Soil Description	Depth (ft)	Blows (/6")	UCS (tsf)	Moisture (%)
FILL: Brown, sandy clay loam (A-4)	4			
	5	NC	16	
	4			
	592.57			
SILTY CLAY: Brown (possible fill) (A-6)	4			
	5	1.5	24	
	-5	B		
Becomes grayish brown	2			
	2	1.5	24	
	3	P		
	587.57			
SILTY CLAY LOAM: Brown (A-6)	1	<0.25	28	
	-10	P		
	585.07			
SILTY CLAY: Grayish brown (A-6)	1			
	2	0.2	34	
	2	B		
	WH			
	WH	0.3	44	
	-15	B		
	580.07			
SILTY CLAY LOAM: Grayish brown (A-7)	WH			
	WH	<0.25	32	
	578.57			
SANDY LOAM: Grayish brown, fine (A-2)	2	P		
With clay deposits	1			
	3	NC	17	
	-20	B		

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



Illinois Department
of Transportation
Division of Highways
Kaskaskia Engineering Group, LLC

SOIL BORING LOG

Page 2 of 3

Date 2/19/22/2010

ROUTE FAP 534 (IL 94/IL 116) DESCRIPTION IL 94 over Ellison Creek LOGGED BY KEG

SECTION 109BR-1 LOCATION Media TWP, NW 1/4, Sec 18, T9N, R4W and NE 1/4 Sec 13, T9N, R5W

COUNTY Henderson DRILLING METHOD CME 55LC w/ HSA/Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ ft	D E P T H	B L O W S	U C S Qu	M O I S T
BORING NO. <u>APS-BH#3</u> Station <u>270+96</u> Offset <u>53.0 ft Rt</u> Ground Surface Elev. <u>595.57</u> ft					Stream Bed Elev. _____ ft				
					Groundwater Elev.:				
					First Encounter <u>584.6</u> ft				
					Upon Completion _____ ft				
					After _____ Hrs.				

Soil Description	Depth (ft)	Blows (/6")	UCS (tsf)	Moisture (%)
CLAY LOAM: Gray, trace fine gravel (A-7) (continued)				
	553.57			
SANDY CLAY LOAM: Gray, some organics (A-6)	3			
	7	1.7	21	
	-45	B		
	548.57			
SILTY CLAY LOAM: Dark brown (A-7)	4			
	5	1.4	23	
	-50	B		
	524.57			
CLAY: Gray (A-7)	7			
	7	2.1	16	
	-75	B		
Some organics	7			
	12	1.7	52	
	-55	S		
	538.57			
CLAY: Gray (A-7)	4			
	7	2.4	4	
	-60	B		
	515.57			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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BBS, form 137 (Rev. 8-99)



Illinois Department
of Transportation
Division of Highways
Kaskaskia Engineering Group, LLC

SOIL BORING LOG

Page 2 of 3

Date 2/23/10

ROUTE FAP 534 (IL 94/IL 116) DESCRIPTION IL 94 over Ellison Creek LOGGED BY KEG

SECTION 109BR-1 LOCATION Media TWP, NW 1/4, Sec 18, T9N, R4W and NE 1/4 Sec 13, T9N, R5W

COUNTY Henderson DRILLING METHOD CME 55LC w/ HSA/Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 036-0004
Station _____

BORING NO. AS-BH#4
Station 271+29
Offset 11.5 ft Lt
Ground Surface Elev. 600.04 ft

D	B	U	M	Surface Water Elev.	D	B	U	M
E	L	C	O	_____ ft	E	L	C	O
P	O	S	I	Stream Bed Elev. _____ ft	P	O	S	I
T	W	S	T	Groundwater Elev.:	T	W	S	T
H	S	Qu	T	First Encounter <u>581.5</u> ft	H	S	Qu	T
(ft)	(/6")	(tsf)	(%)	Upon Completion _____ ft	(ft)	(/6")	(tsf)	(%)
				After _____ Hrs. _____ ft				

CLAY LOAM: Grayish brown,
trace fine gravel
(A-7) (continued)

SILTY CLAY LOAM: Dark brown, some
organics
(A-6) (continued)

4				536.54				
6	1.8	21			6			
8	P				7	1.3	27	
-45					13	B		

SANDY CLAY LOAM: Gray
(A-4)

3				534.04				
3	1.7	22			8			
5	B				20	2.7	16	
-50					50	B		

SAND: Gray, medium to coarse
sand with gravel and cobble
(A-1)

3				530.54				
4	1.7	24			2			
6	B				12	NC		
-55					17			

SAND: Brown, fine to medium
(A-3)

Heavy gravel or cobbles
encountered at approximately
77.5 feet.

5				527.04				
10	2.5	59			6			
13	S				6	1.9	20	
-60					9	B		

SILTY CLAY LOAM: Dark brown, some
organics
(A-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)

BBS, form 137 (Rev. 8-99)



Illinois Department
of Transportation
Division of Highways
Kaskaskia Engineering Group, LLC

SOIL BORING LOG

Page 3 of 3

Date 2/23/10

ROUTE FAP 534 (IL 94/IL 116) DESCRIPTION IL 94 over Ellison Creek LOGGED BY KEG

SECTION 109BR-1 LOCATION Media TWP, NW 1/4, Sec 18, T9N, R4W and NE 1/4 Sec 13, T9N, R5W

COUNTY Henderson DRILLING METHOD CME 55LC w/ HSA/Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 036-0004
Station _____

BORING NO. AS-BH#4
Station 271+29
Offset 11.5 ft Lt
Ground Surface Elev. 600.04 ft

D	B	U	M	Surface Water Elev.	D	B	U	M
E	L	C	O	_____ ft	E	L	C	O
P	O	S	I	Stream Bed Elev. _____ ft	P	O	S	I
T	W	S	T	Groundwater Elev.:	T	W	S	T
H	S	Qu	T	First Encounter <u>581.5</u> ft	H	S	Qu	T
(ft)	(/6")	(tsf)	(%)	Upon Completion _____ ft	(ft)	(/6")	(tsf)	(%)
				After _____ Hrs. _____ ft				

CLAY: Grayish brown,
trace fine gravel
(A-7) (continued)
Mud rotary drilling started at 80
feet.

CLAY: Grayish brown,
trace fine gravel
(A-7) (continued)

9				513.04				
9	1.6	22			9			
11	B				11	B		
-85								

SAND: Brown, fine to medium,
some gravel
(A-3)

14				508.04				
14					14			
36	NC				36	NC		
-90					32			

SAND: Coarse, with fine gravel
(A-1)

23	NC	24		505.54				
23	NC	24			23	NC	24	
-95								

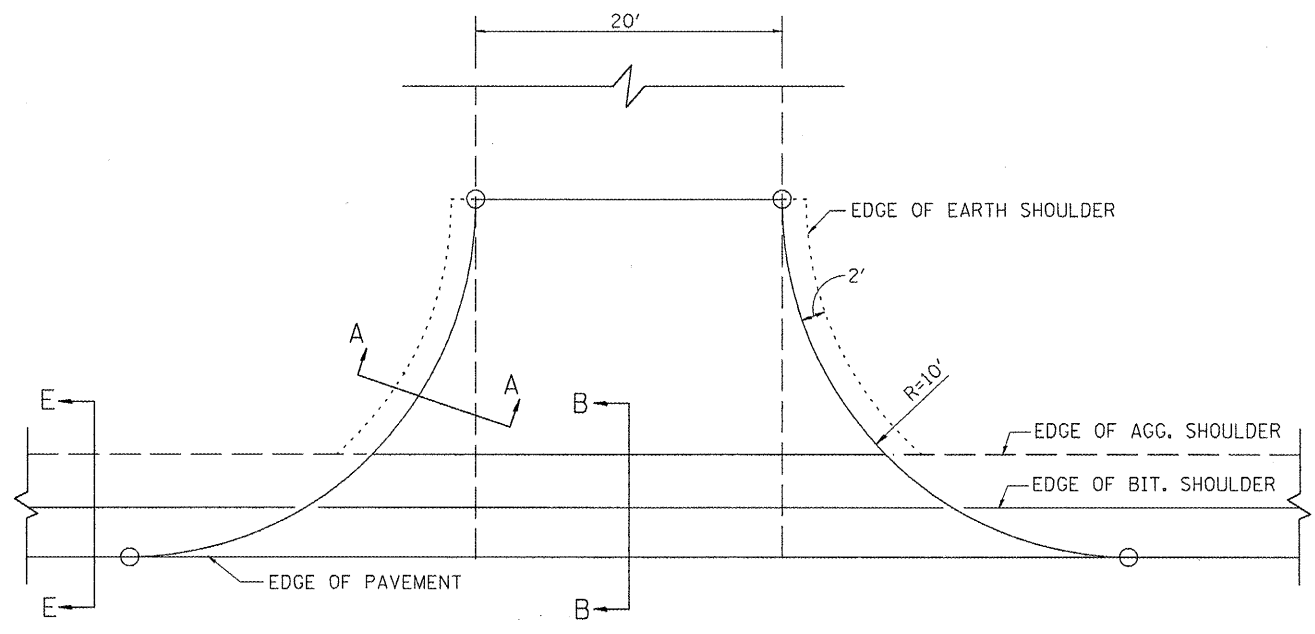
Sand blow in prevented
sampling with SPT from 94
to 95 feet.
Possible cobble encountered
at approximately 93.5 feet.

CLAYEY SHALE: Brown

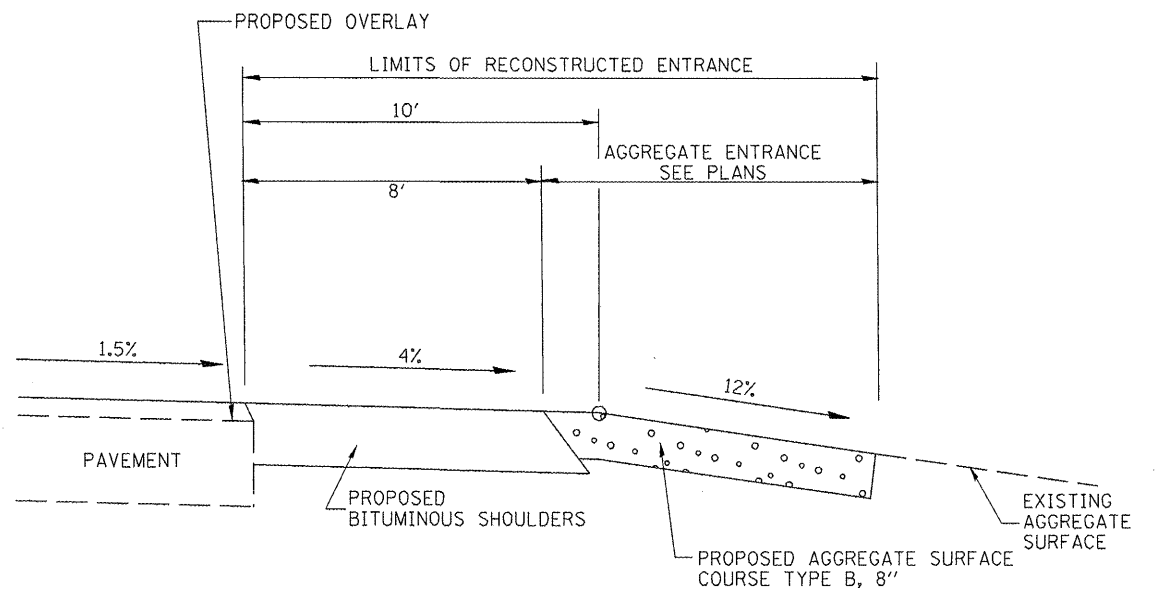
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The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

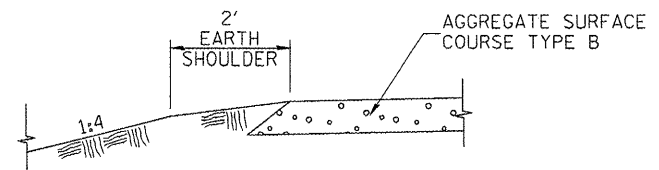
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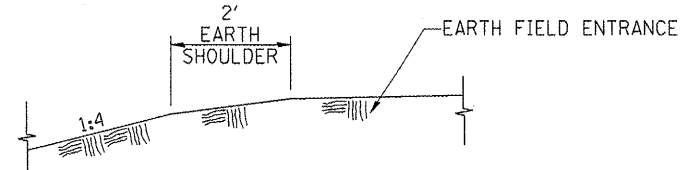
PLAN
FIELD ENTRANCE



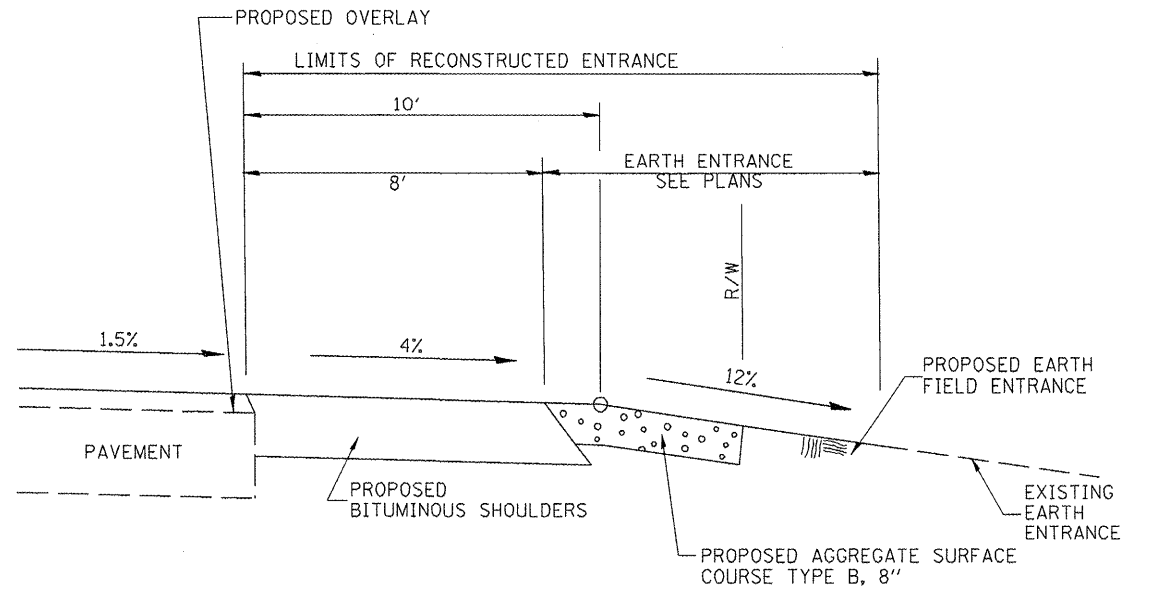
SECTION B-B
RECONSTRUCTED AGGREGATE FIELD ENTRANCE



SECTION A-A
SHOULDER TREATMENT FOR AGGREGATE FIELD ENTRANCE



SECTION A-A
SHOULDER TREATMENT FOR EARTH FIELD ENTRANCE



SECTION B-B
RECONSTRUCTED EARTH FIELD ENTRANCE

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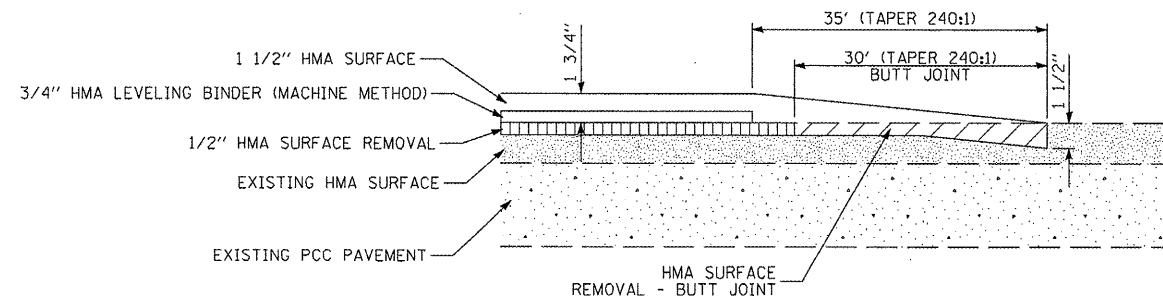
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HORNER &
SHIRIN, INC.
ENGINEERS

DETAILS
FIELD ENTRANCE DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	34
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.



BUTT JOINT DETAIL

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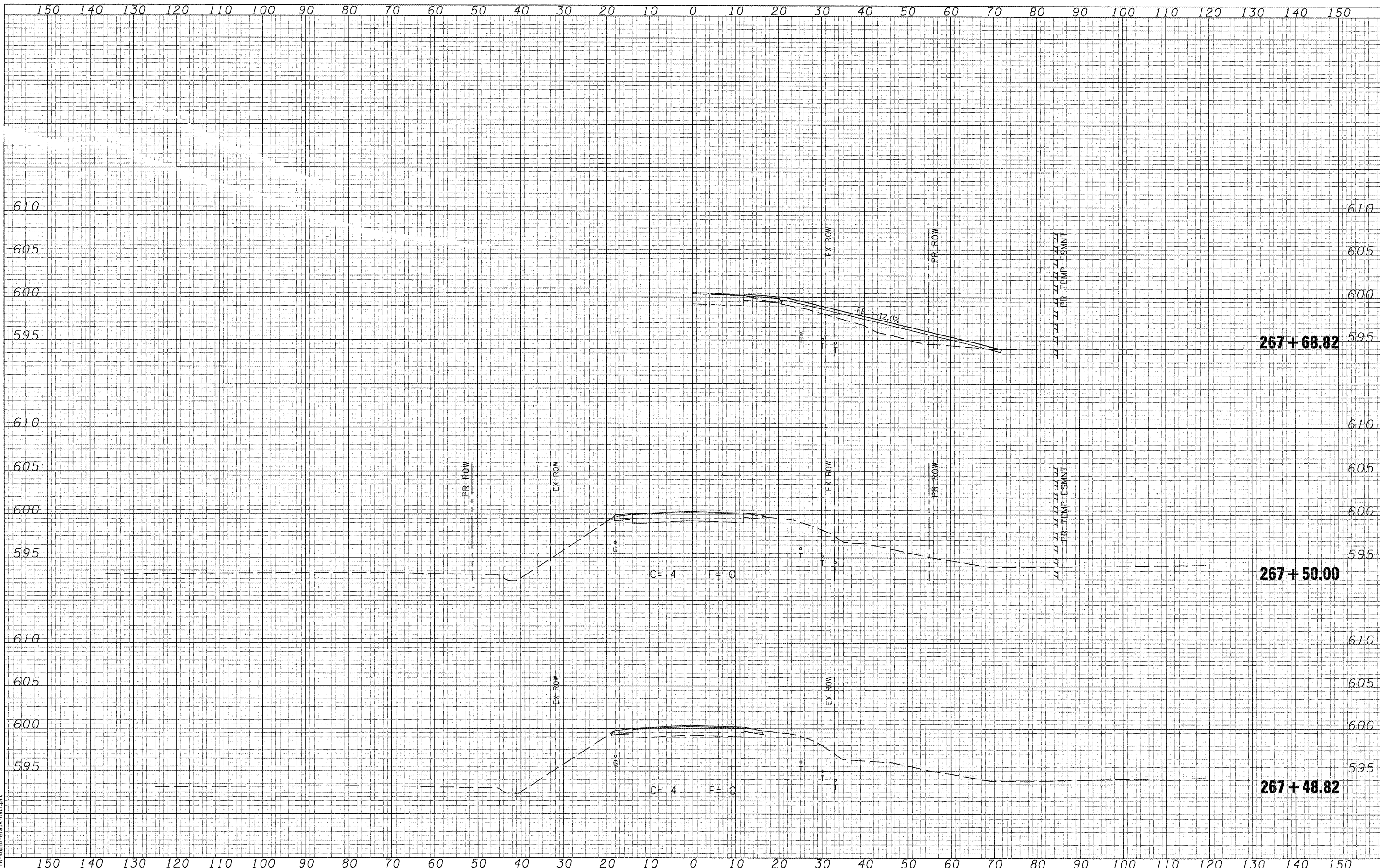
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HORNER &
 SHIFRIN, INC.
 ENGINEERS

DETAILS
 BUTT JOINT DETAIL

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	35
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
ILLINOIS FED. AID PROJECT				



BY	DATE
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

BY	DATE
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

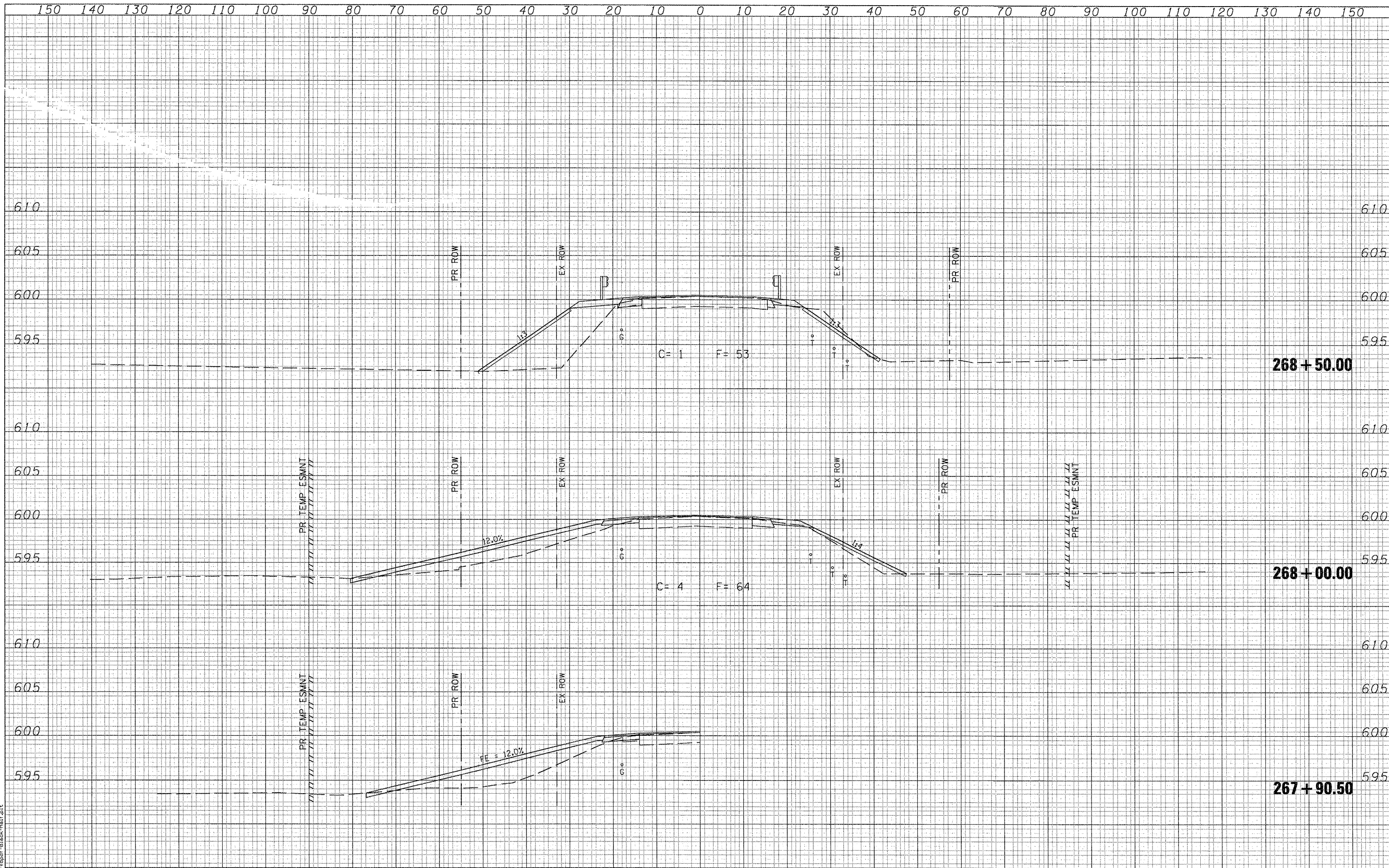
CROSS SECTIONS - IL 94/IL 116

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	36
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	DATE
SURVEYED	
NOTE BOOK	
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ORIGINAL SURVEY	DATE
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

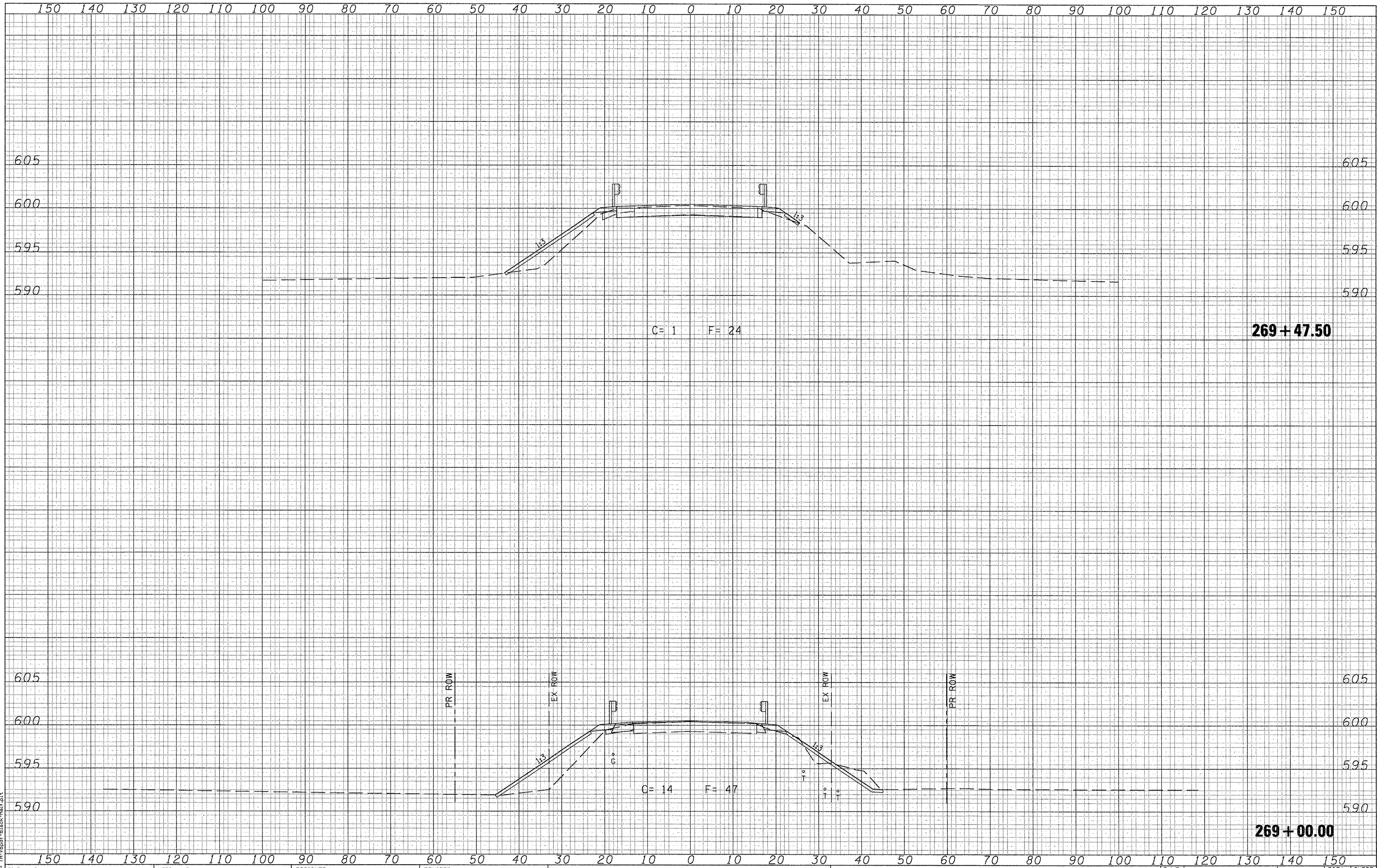
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	37
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
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REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

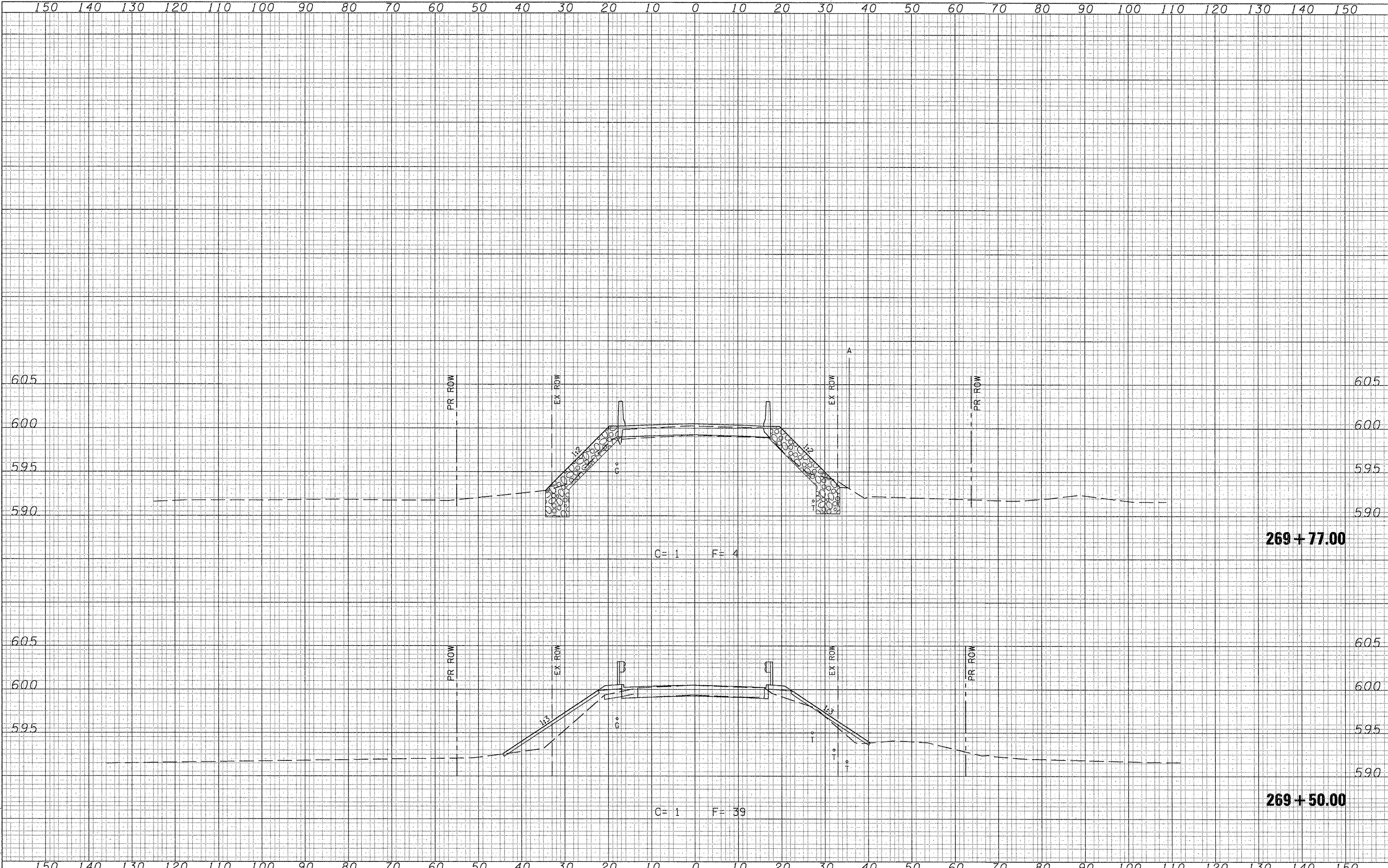
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - IL 94/IL 116
 SCALE: SHEET NO. OF SHEETS STA. 269+00.00 TO STA. 269+27.49

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	38
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	

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

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



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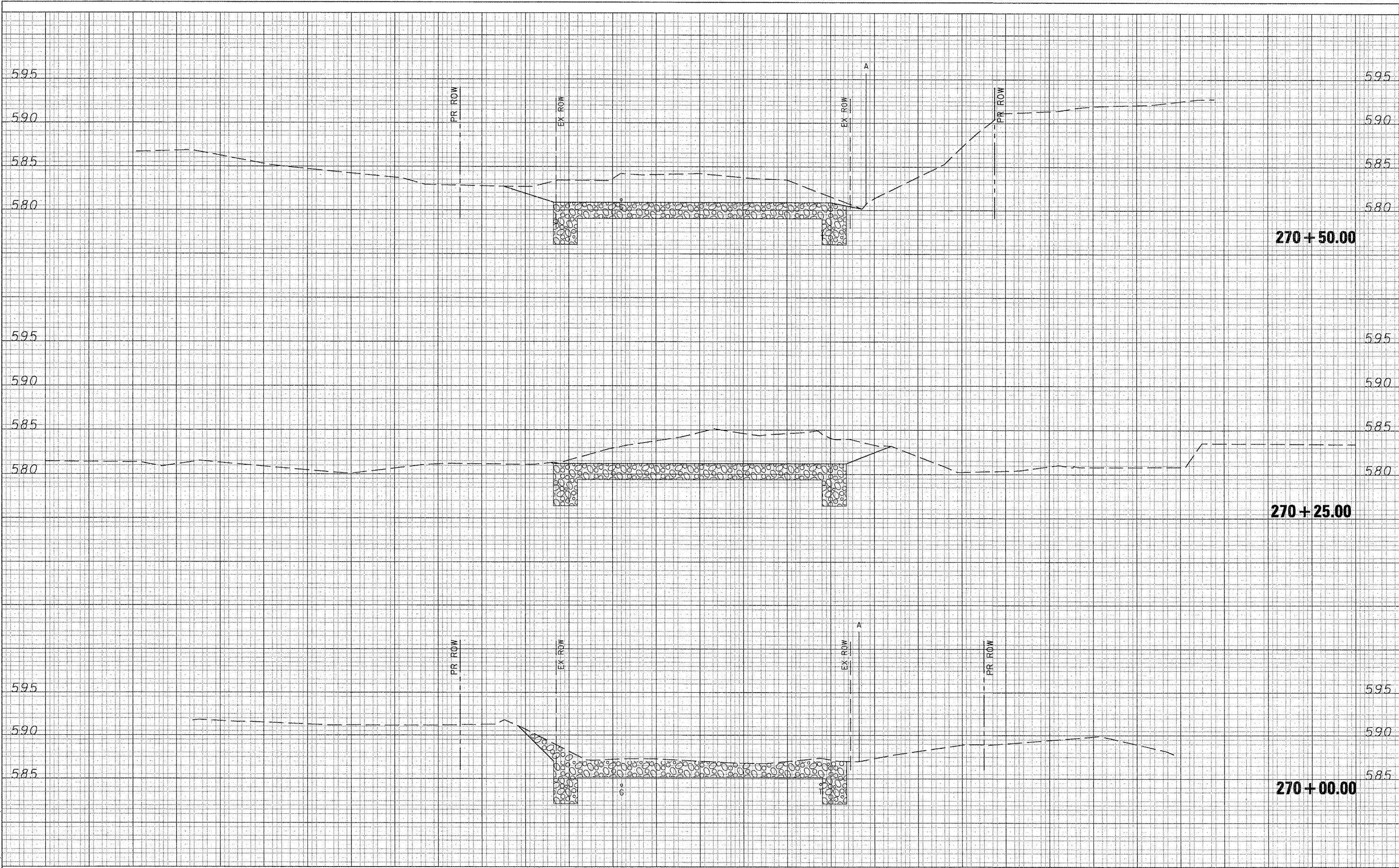
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - IL 94/IL 116			
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	39
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

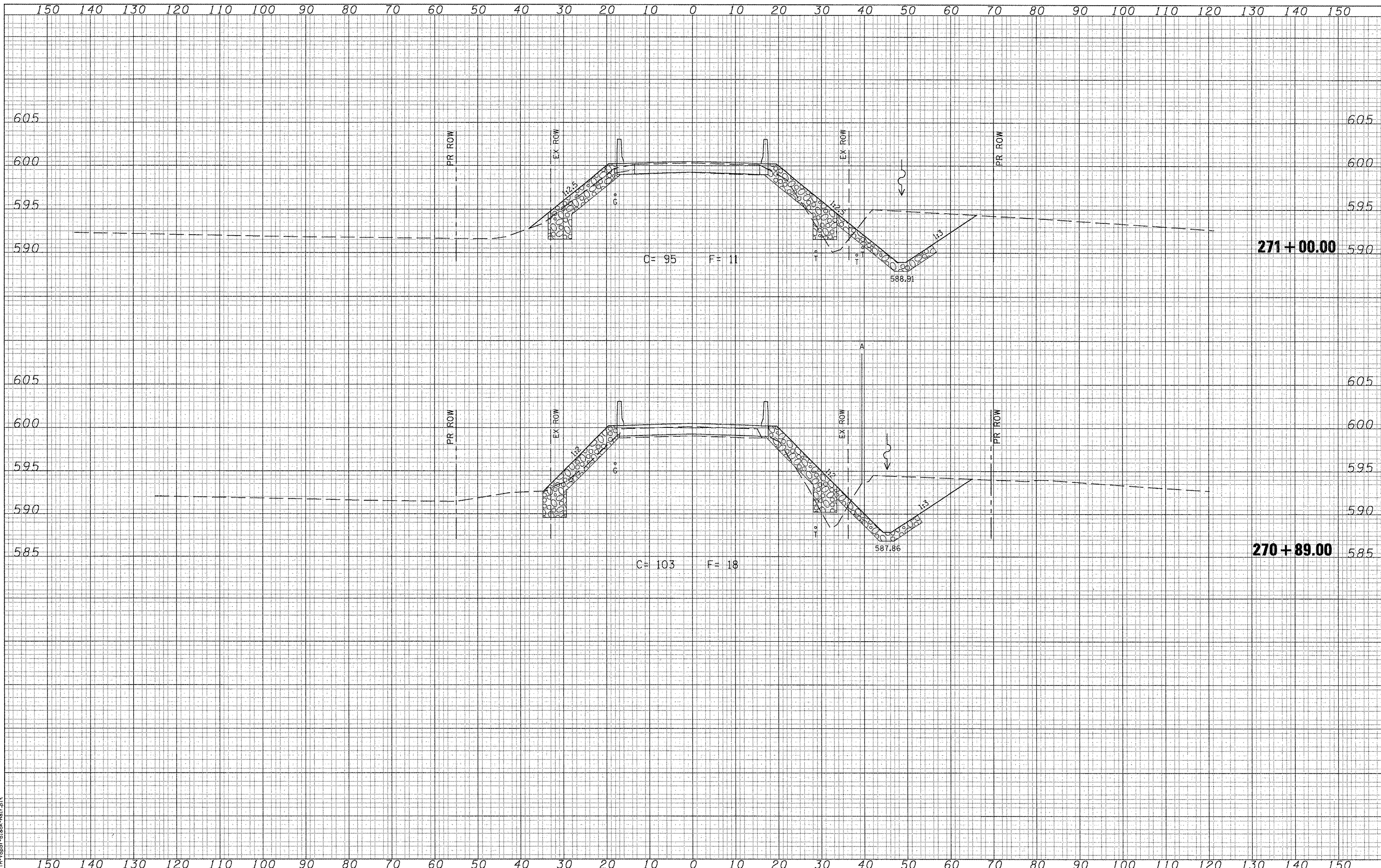
CROSS SECTIONS - IL 94/IL 116

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	40
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
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DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
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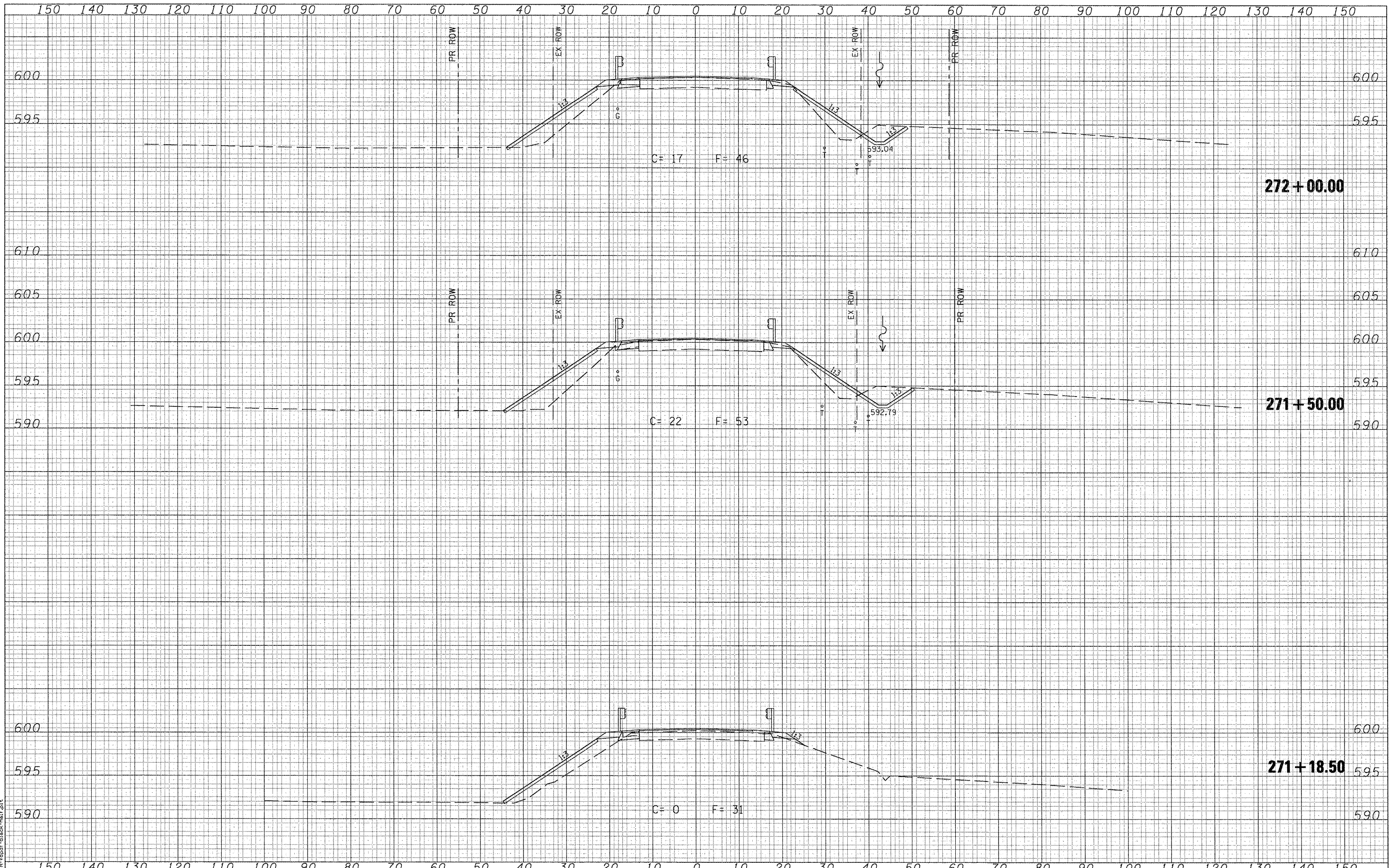
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - IL 94/IL 116			
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	41
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO.	
DESIGNED	
DRAWN	
CHECKED	
DATE	

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO.	
DESIGNED	
DRAWN	
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DATE	



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DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS - IL 94/IL 116

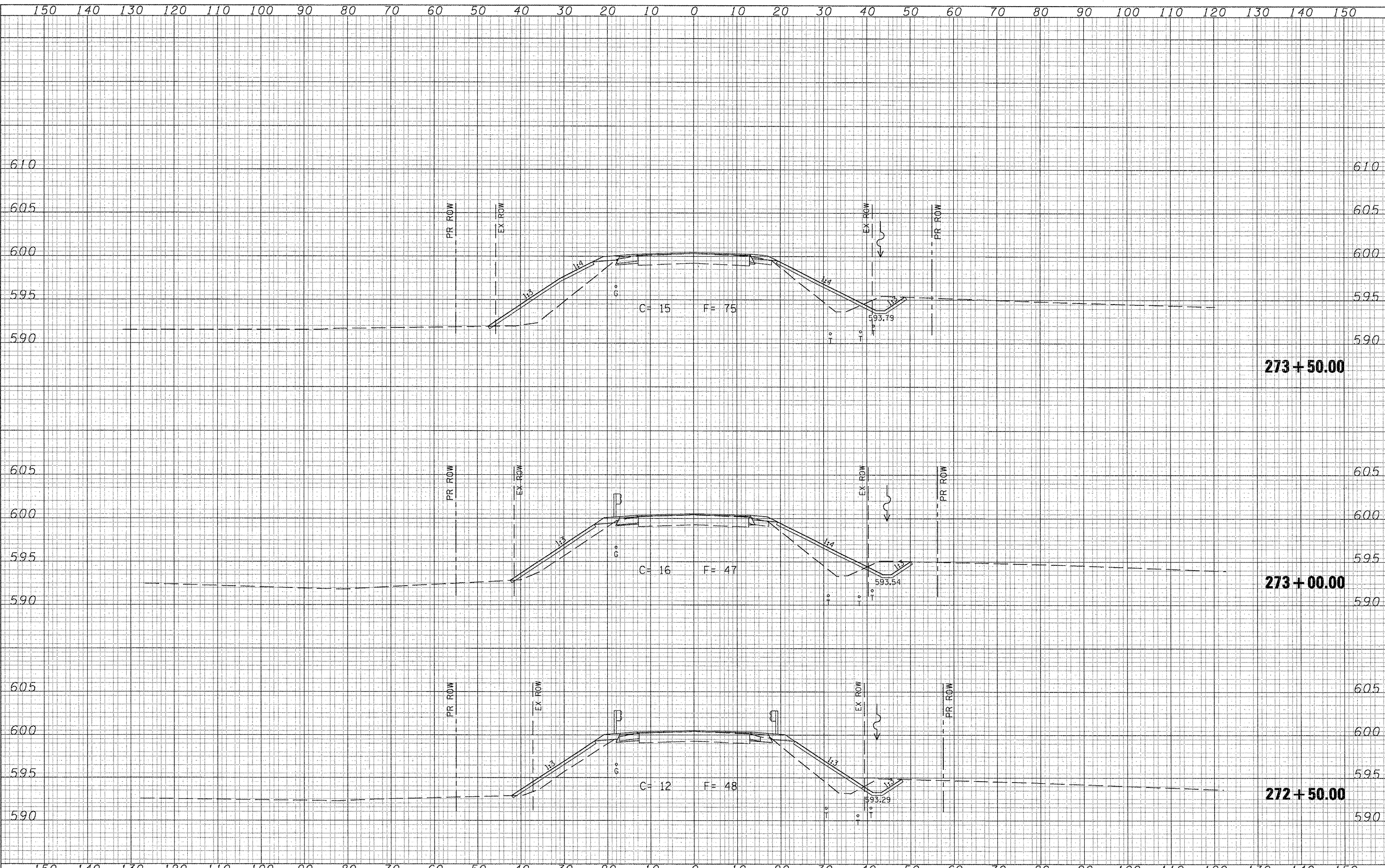
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	42
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

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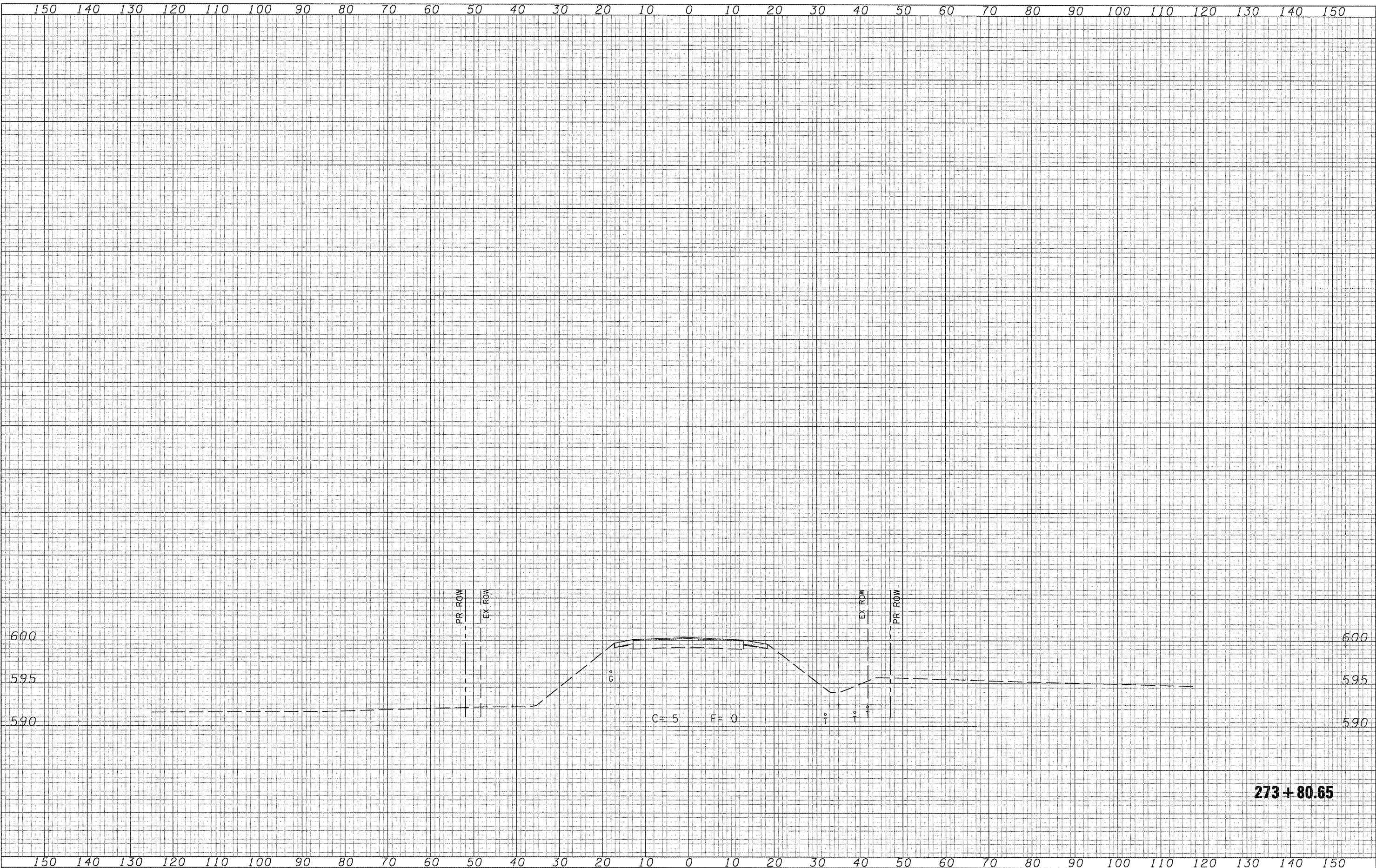
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FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	AREAS	
	CHECKED	

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



273 + 80.65

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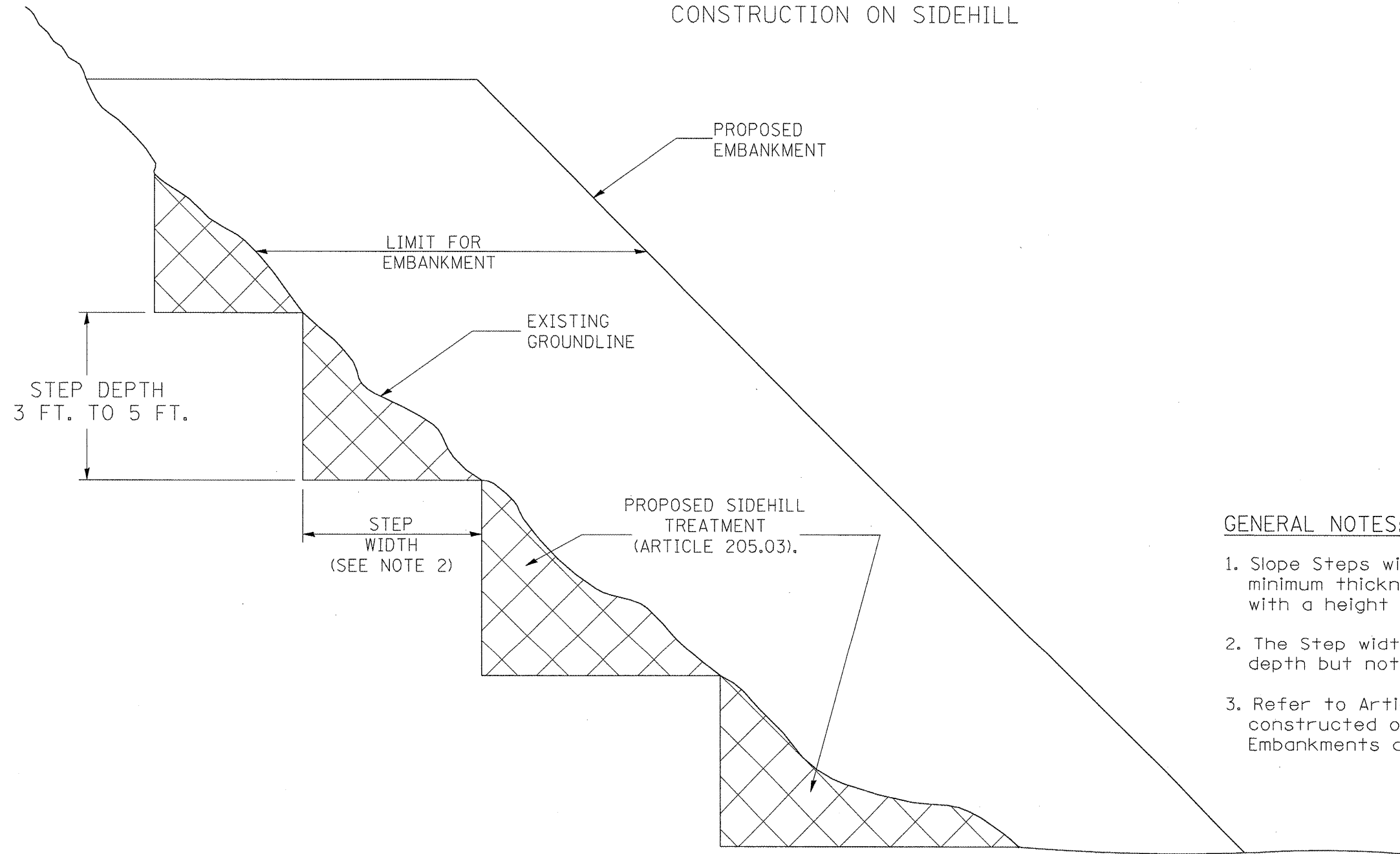
DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET NO.	OF	SHEETS	STA. 273+80.65	TO STA. 273+80.65
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	44
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

SLOPE STEPS DETAIL
TYPICAL CROSS-SECTION EMBANKMENT
CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

1. Slope Steps will be required for all 12(300) minimum thickness "silver fills" and on a fills with a height of 10'(3.0m).
2. The Step width shall be twice the Step depth but not less than 6 feet.
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

REPLACEMENT MATERIAL:



STANDARD EMBANKMENT
(IN ACCORDANCE WITH
205 OF THE STANDARD SPECIFACATION).

DESIGNER NOTE:

1. EACH PROJECT SHOULD BE REVIEWED INDEPENDENTLY FOR TREATMENT REQUIRED.
2. REFER TO THIS DETAIL WITH NOTE ON APPLICABLE TYPICAL SECTIONS.

LAST SAVED = 12/14/2016
PEN TABLE = VP-Half.rab
PLOT DRIVER = D:\Vegaf-B\work-Half.rab

1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE	T.P.	
	BOX, REVISED GENERAL NOTES.		
10-16-06	REVISED TO 2007 SPEC.	M.A.	
		10:21:07 AM	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

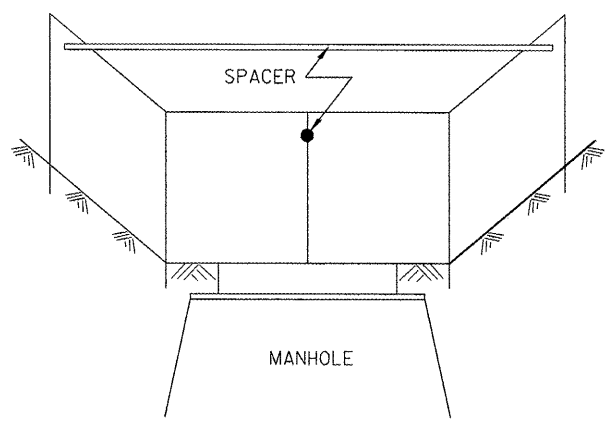
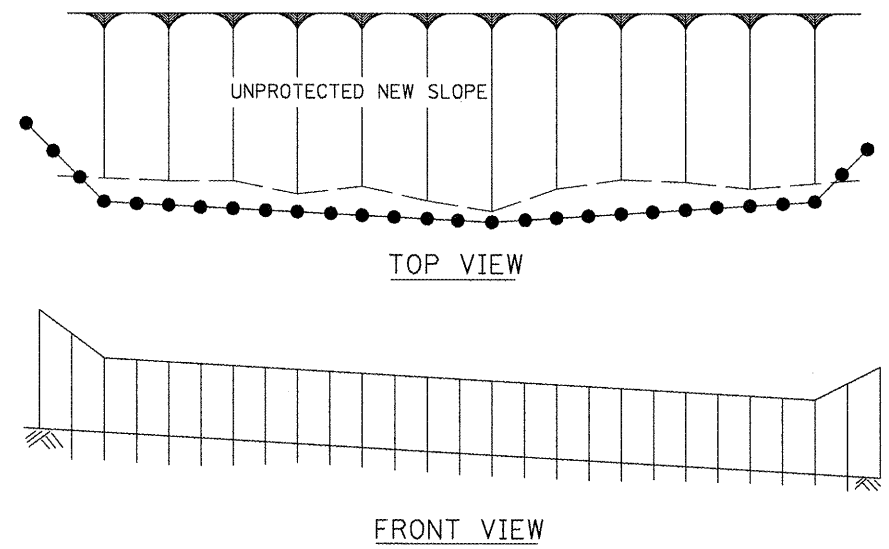
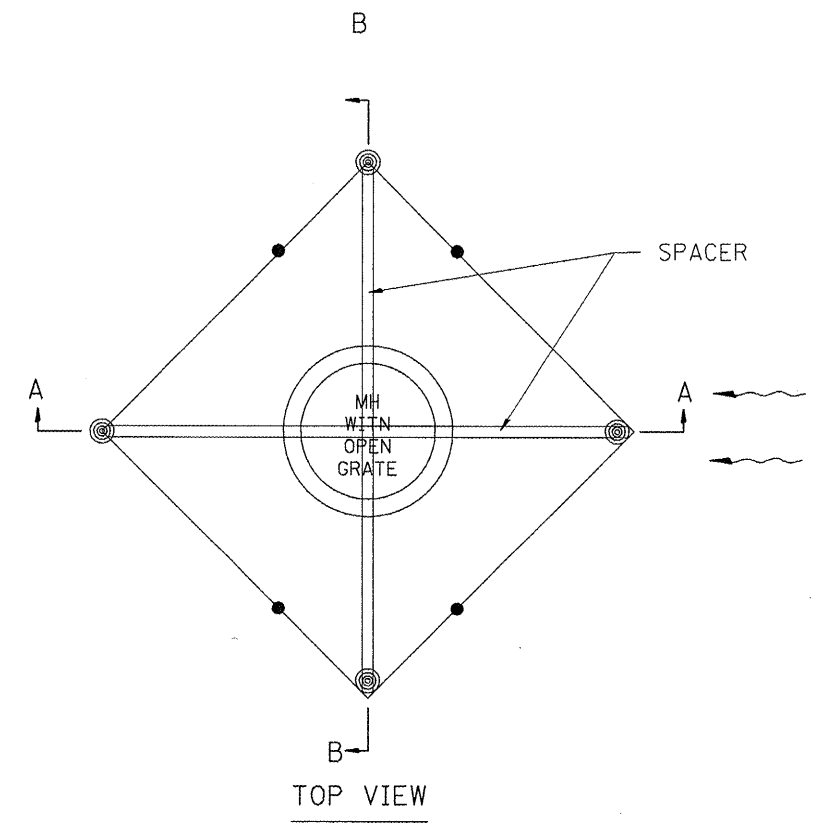
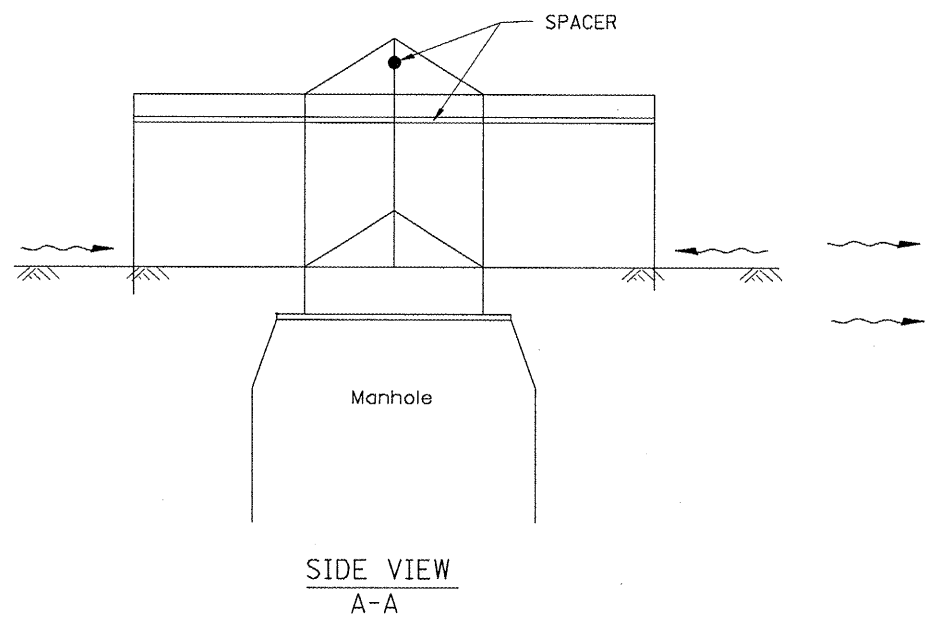
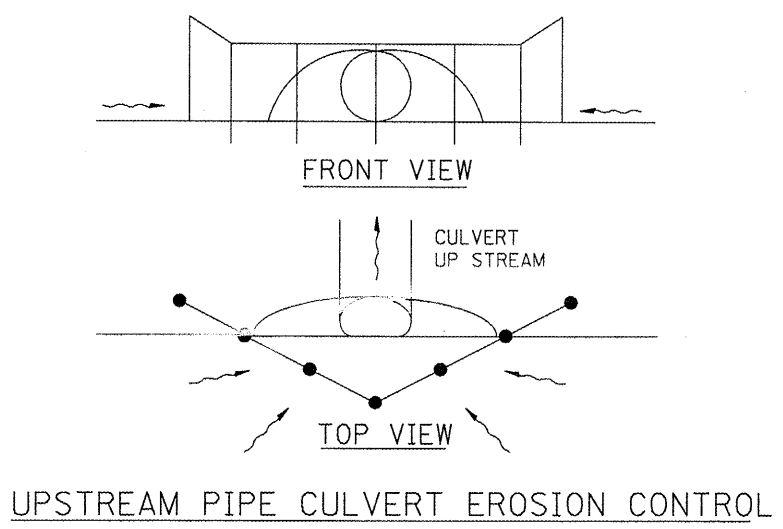
SLOPE STEPS DETAIL

CADD STD. 205001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	45
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

All dimensions are in inches (millimeters) unless otherwise noted.

Designer NOTES:
 1. Designer to modify this Special Detail sheet, as needed, for inclusion in plans.
 2. Include Highway Standard 280001 "TEMPORARY EROSION CONTROL SYSTEM."



EROSION CONTROL
AT
OPEN GRATE MAN HOLE

- GENERAL NOTES:**
1. This work shall be performed in accordance with Sections 280 & 1081, of the Standard Specifications.
 2. Additional Timber or Metal Post shall be installed, as needed.

All dimensions are in inches (millimeters) unless otherwise noted.

1-1-97	T.P.
3-11-03	M.A.
ELIMINATED SILT FENCE DITCH CHECK	
18:21:48 AM	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL APPLICATION OF SILT FILTER FENCE

NOT TO SCALE

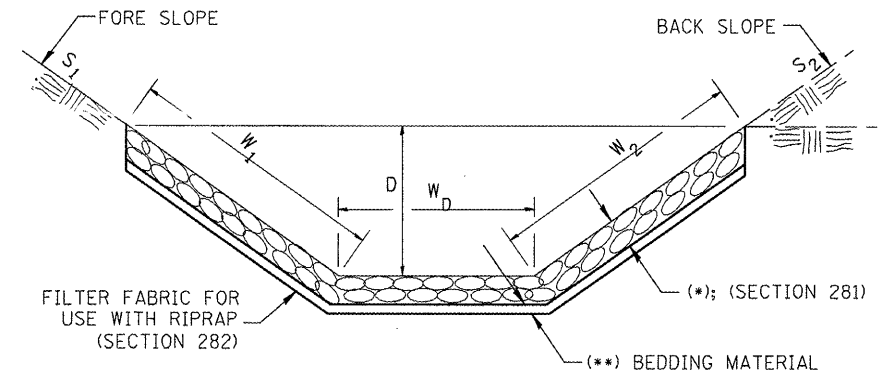
CADD STD. 280001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	46
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

Designer NOTES:
 1. Designer to modify this Special Detail Sheet, as needed for inclusion in plans.
 2. (*) Designer to specify pay item including material, quality, and gradation.
 3. (**) Designer to specify thickness of bedding material.
 4. Include District Special Provision if needed.

LAST SAVED = 12/14/2010
 PLOT NUMBER = 067667733
 PLOT DATE = 11/10/2010 10:21:09 AM

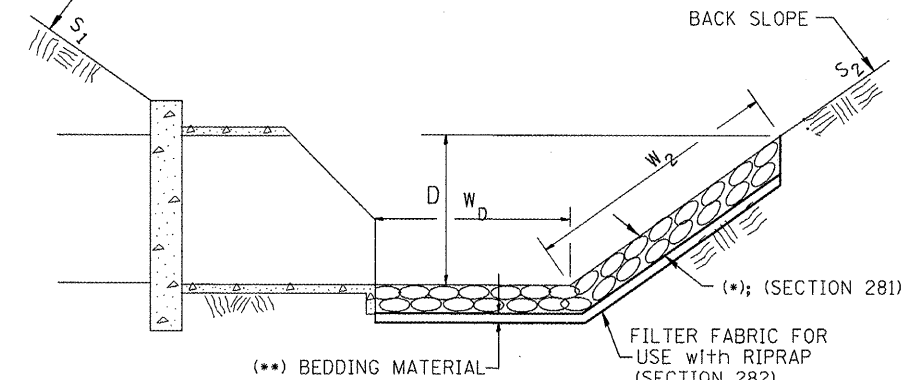
**CASE 1
(DITCH)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = $W_1 + W_2 + W_0$

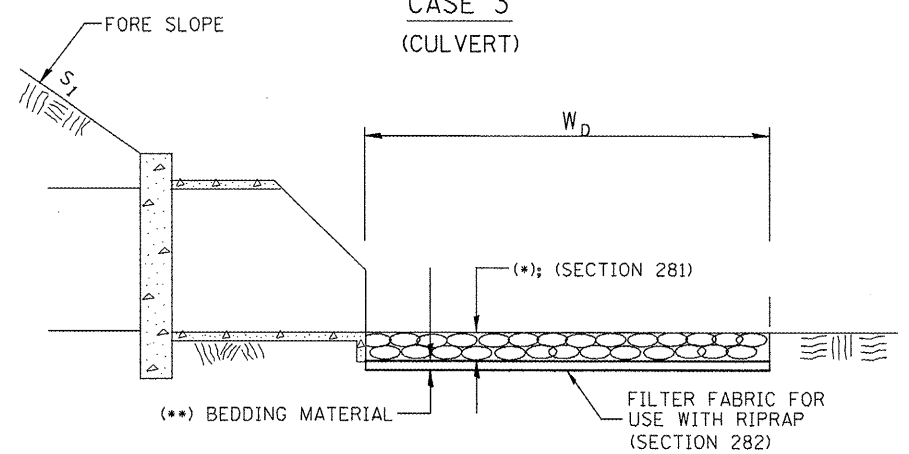
**CASE 2
(CULVERT & SLOPE)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = $W_2 + W_0$

**CASE 3
(CULVERT)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	lin ft (m)	lin ft (m)	tons (m tons)	sq yds (m ²)
TOTAL				

(1) WIDTH = W_0

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in inches (millimeters) unless otherwise noted.

1-1-97	RENUM. A-12.02, NEW REVISION BOX	T.P.
12-1-97	CORRECT FILTER FABRIC LEADER ARROW	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

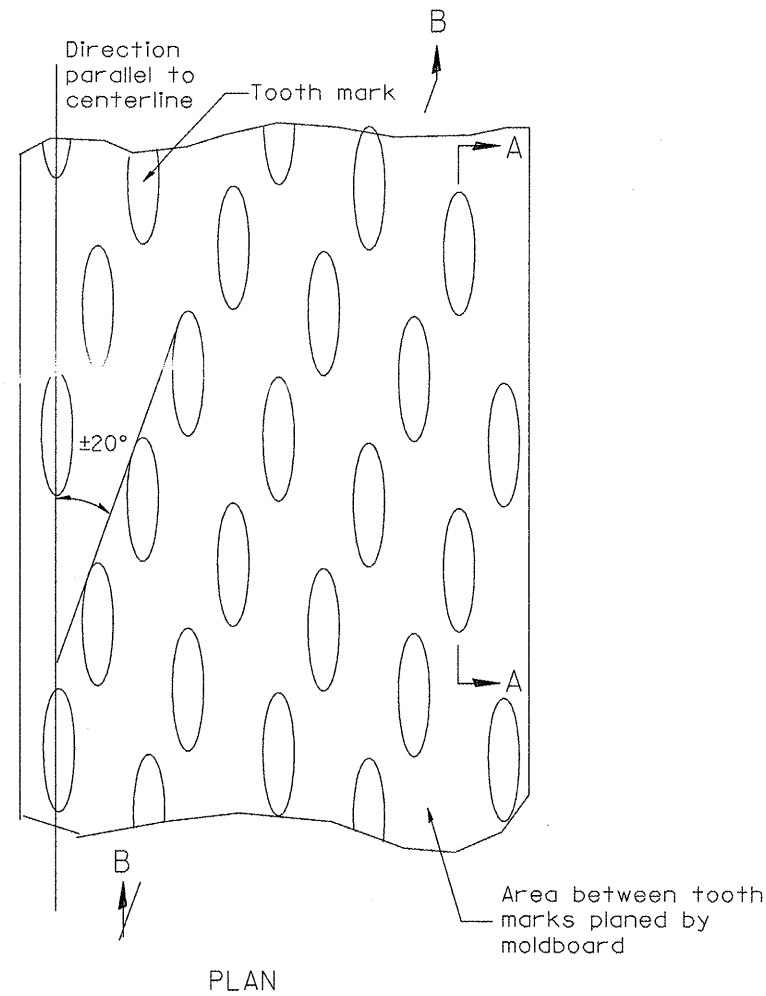
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

RIPRAP DITCH FOR EROSION PROTECTION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	48
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

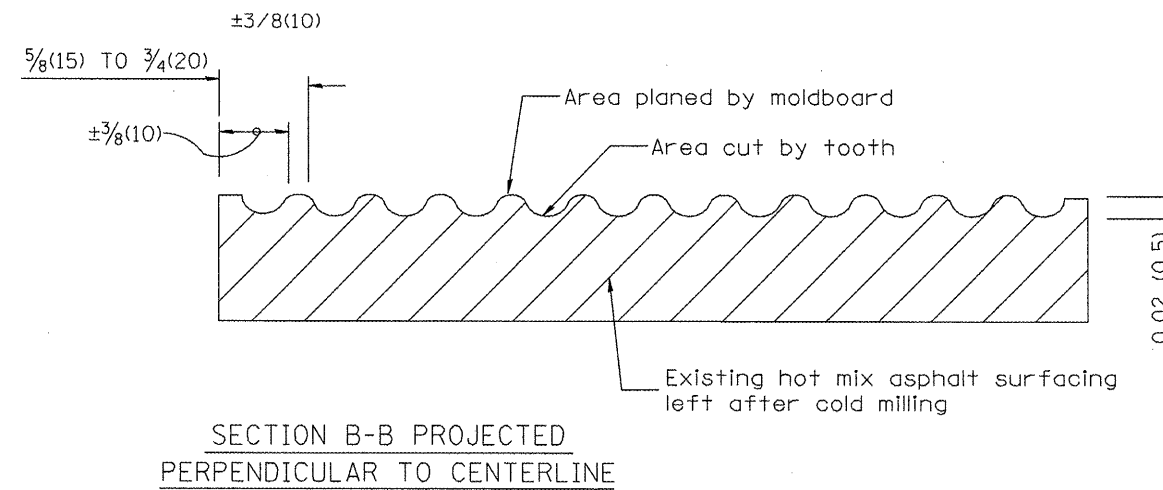
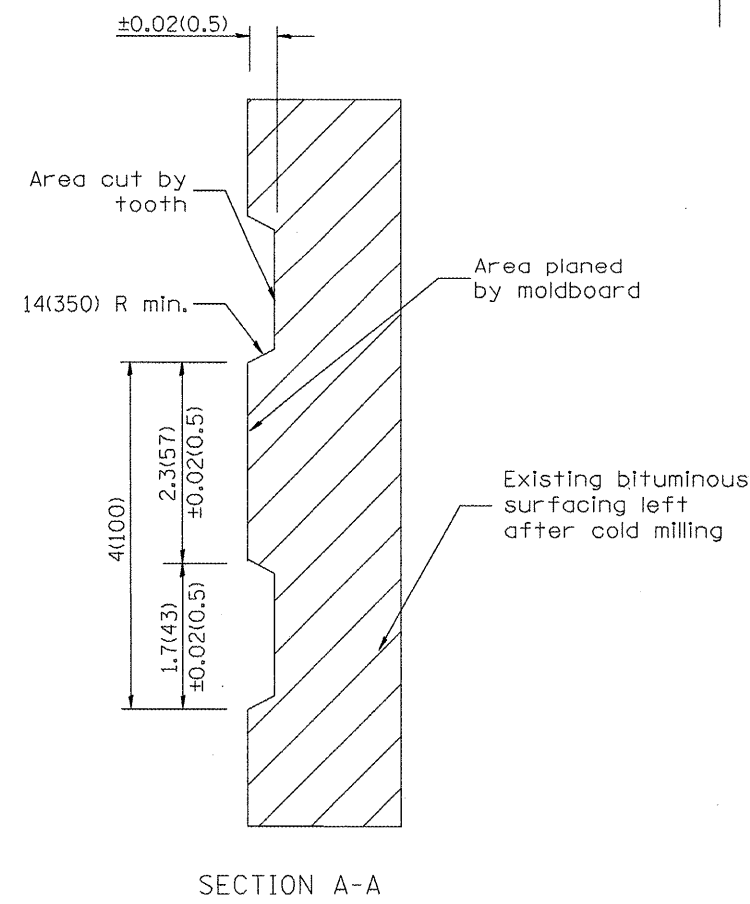
NOT TO SCALE

CADD STD. 281001-D4



General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.



DESIGNER NOTES: INCLUDE DISTRICT SPECIAL PROVISION, IF APPLICABLE.

01-01-97	RENUM. C-104.01, NEW REVISION BOX	T.P.
04-20-98	REMOVED MILLING DETAIL FROM STANDARD	J.A.
09-08-98	CORRECT NOTE LEADER PLACEMENT	R.W.
10-16-06	REVISED TO 2007 SPEC.	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

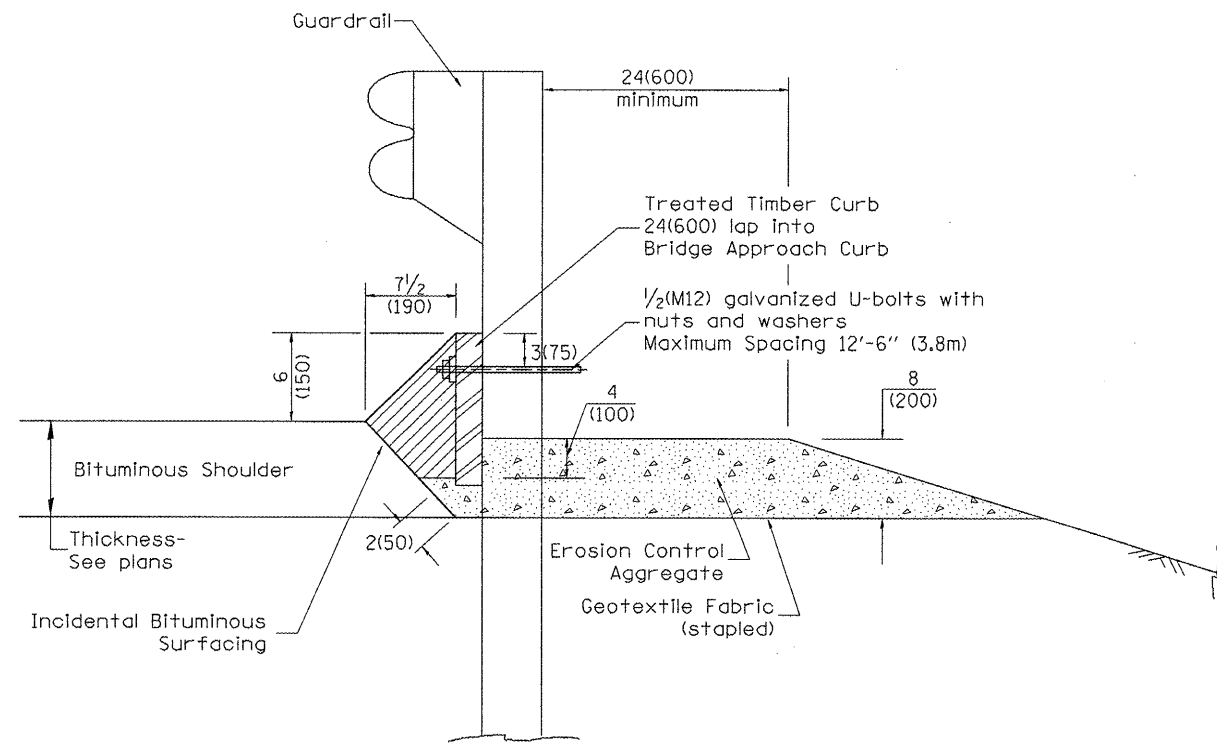
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CADD STD. 440001-D4

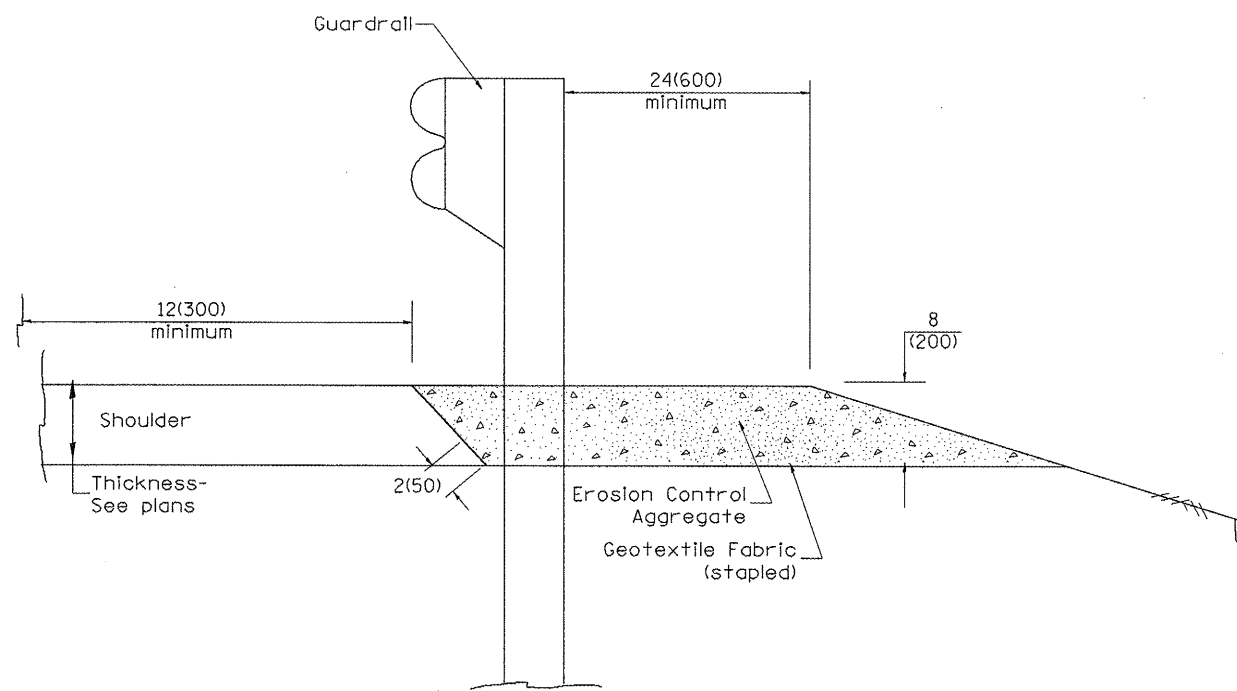
All dimensions are in inches (millimeters) unless otherwise noted.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	49
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

DESIGNER NOTES:
 1. Use EROSION CONTROL CURB at guardrail installations where grades are equal to or greater than 1% and at inlets. (Include District Special Provision)
 2. Use GUARDRAIL AGGREGATE EROSION CONTROL at guardrail installations where grades are less than 1%. (Include District Special Provision)
 3. Include State Standards 609001, 609006 or 610001 if applicable.
 4. Include the following District Cadd Standards as needed: Slope Drains for Exposed Pipes; Slope Drains for Buried Pipes; Seepage Collars for Buried Pipes; Seepage Collars for Buried Pipes; Seepage Collars for Exposed Pipes; Concrete Thrust Blocks and Pipe Elbow. (Include District Special Provision - "Aggregate Quality" for projects located in the Western Area of the District - approx. dividing line is IL 97.)



TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

GENERAL NOTES: EROSION CONTROL CURB

1. This work shall consist of grading as needed, installing hardware and treated timber boards, furnishing and placing mastic material and incidental bituminous surfacing in front of Steel Plate Beam Guardrail in accordance with Plan Details.
2. Timber shall be treated in accordance with Article 1007.12. All preservatives specified in the article will be allowed. Waterborne preservatives "asa" and "cca" shall have a minimum retention of 0.40 lbs./cu. ft. (6.4 kg/m³)

GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 12(300) minimum overlap. A knife cut for guardrail post installation is necessary.
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
6. Materials shall meet the following requirements:
 - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
 - B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.

All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-22.01, NEW REVISION BOX	T.P.
03-01-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-03-00	CORRECTION TO NOTES	M.A.
10-16-06	REVISED TO 2007 SPEC.	10/21/06 MVA

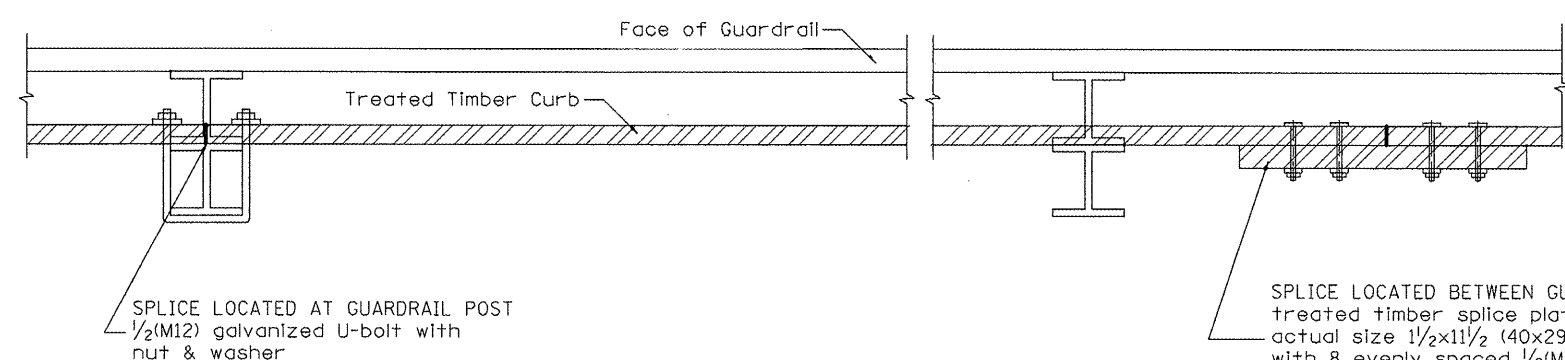
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GUARDRAIL EROSION CONTROL TREATMENTS

NOT TO SCALE

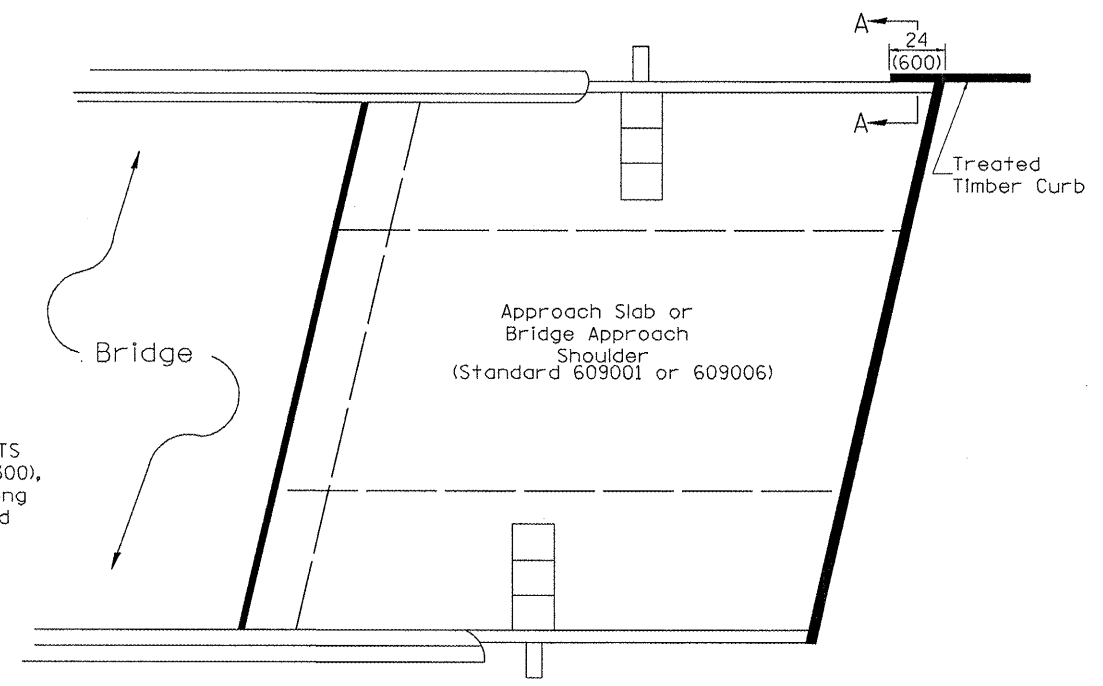
SHT. 1 OF 2
 CAOD STD. 630101-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	50
IL 94/116 OVER ELLISON CREEK		CONTRACT NO. 68693		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

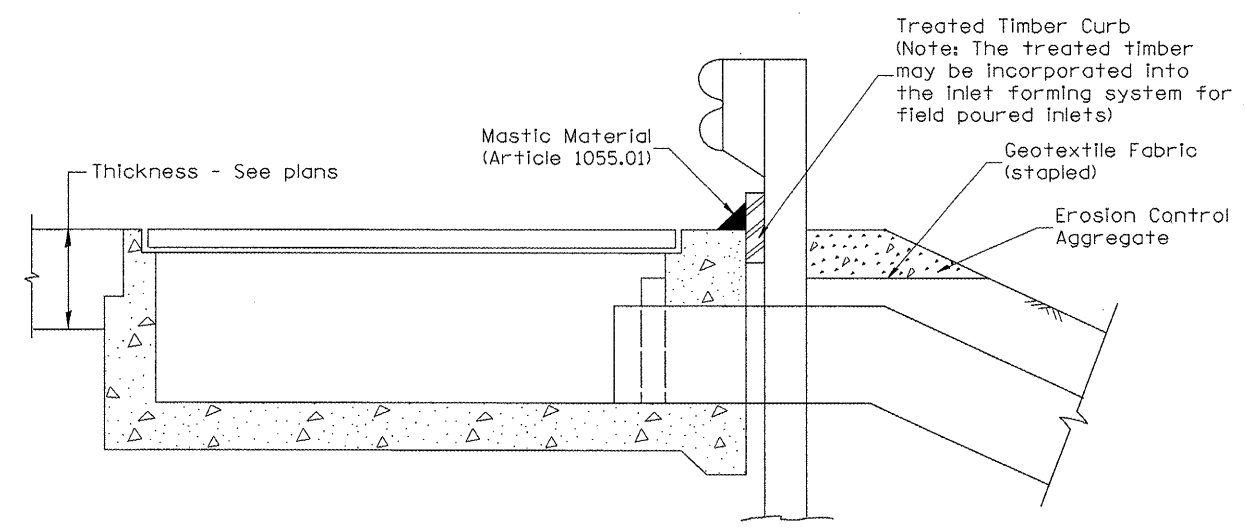


DETAIL A
(Typical Treated Timber Splices)

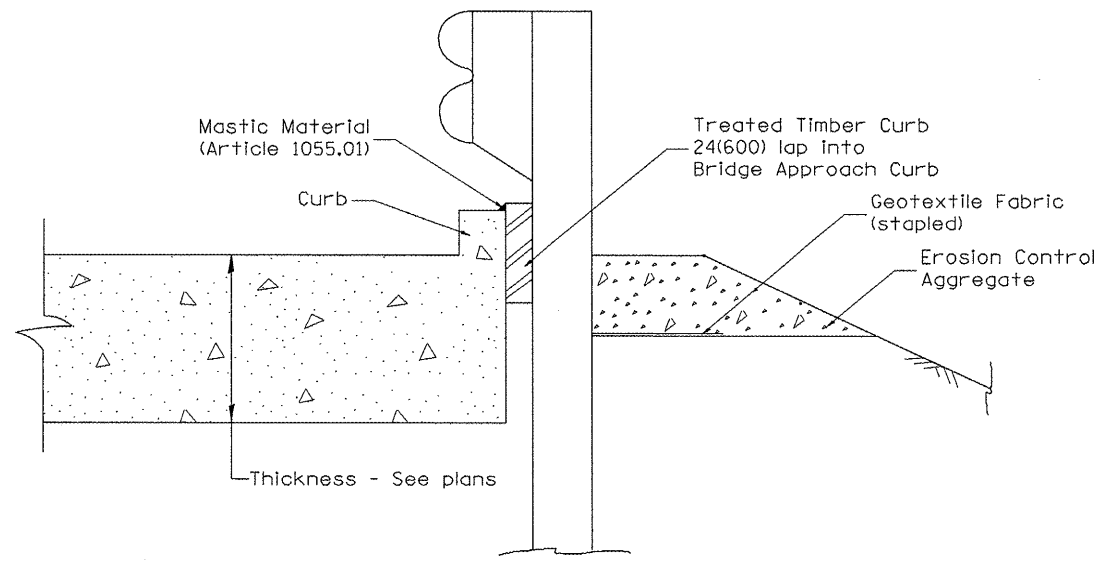
SPLICE LOCATED BETWEEN GUARDRAIL POSTS
treated timber splice plate 2x12 (50x300),
actual size 1 1/2 x 1 1/2 (40x290), 24(600) long
with 8 evenly spaced 1/2(M12) galvanized
bolts with nuts & washers.



PLAN VIEW
APPROACH SLAB OR BRIDGE APPROACH SHOULDER
(STANDARD 609001 or 609006)



TYPICAL SECTION WITH EROSION CONTROL CURB
AT INLETS TYPE E & F (STANDARD 610001)



SECTION A-A
TYPICAL SECTION WITH EROSION CONTROL CURB
AT BRIDGE APPROACH CURB
(STANDARD 609001 OR 609006)

All dimensions are in inches (millimeters) unless otherwise noted.

LAST SAVED = 12/14/2008
PEN TABLE = V8-Hstf.tb1
PLOT DRIVER = Trc-V8pdf-Black-Hstf.plt

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

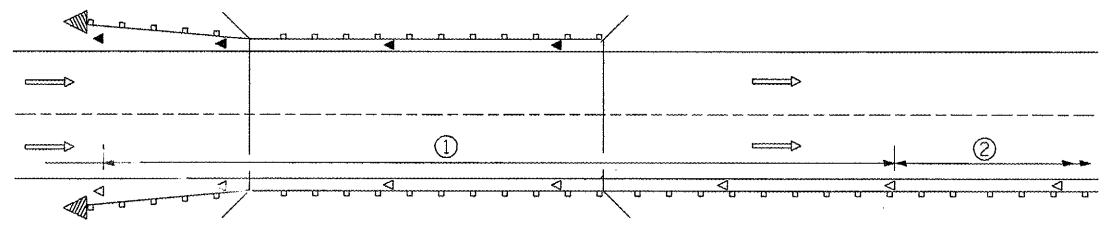
GUARDRAIL EROSION CONTROL TREATMENTS

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SHT. 2 OF 2
CADD STD. 630101-D4

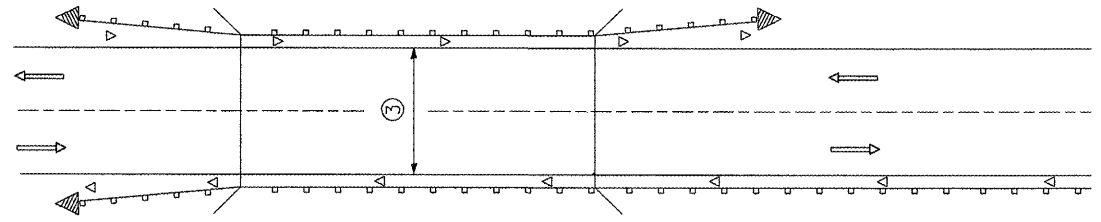
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	51
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

DESIGNER NOTES:
 1. INCLUDE APPROPRIATE SPECIAL PROVISIONS FOR "GUARD RAIL DELINEATION POLICY: 1. TERMINAL MARKER, 2. TERMINAL MARK POST, AND 3. GUARDRAIL AND BARRIER WALL MARKERS."
 FROM INTERIM SPECIAL PROVISIONS 94-74; "GUARDRAIL AND BARRIER WALL DELINEATION."
 2. IF POST MOUNT TERMINAL MARKER IS USED, INCLUDE STATE STD. 720011.
 3. IF POST MOUNT TERMINAL MARKER IS USED, INCLUDE STATE STD. 720011.



- ① Spacing 80 ft. (24 m) max. for first 400 ft. (122 m) or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).
- ② After 400 ft. (122 m), transition to normal delineator spacing shown in Standard 635001, and continue as required.

ONE-WAY TRAFFIC



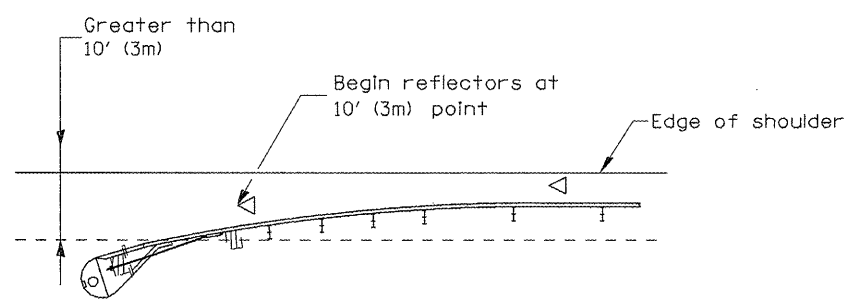
- ③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 24 (610) wider than the pavement approaching the bridge.

TWO-WAY TRAFFIC

GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS

LEGEND

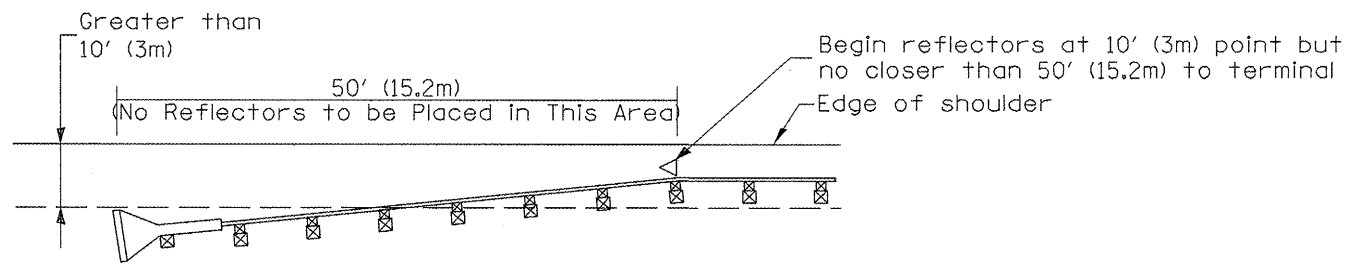
- ◁ Monodirectional silver
- ◄ Monodirectional amber
- ◄ Terminal Marker - Black/Yellow
Left or Right as appropriate



NOTE: Omit terminal marker when terminal over 10' (3m) from edge of paved shoulder or break point of unpaved shoulder, or when terminal buried in backslope.

Traffic Barrier Terminal Type(*) and/or Turned-Down Terminal

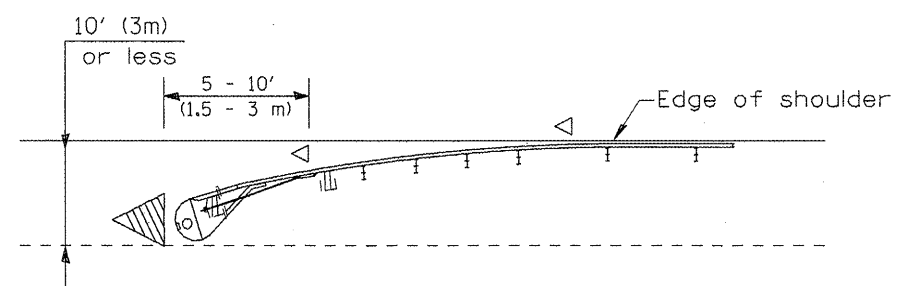
[Terminal over 10' (3m) from edge of shoulder]
*See Plans for Type



NOTE: Omit terminal marker when terminal over (10') from edge of paved shoulder or break point of unpaved shoulder.

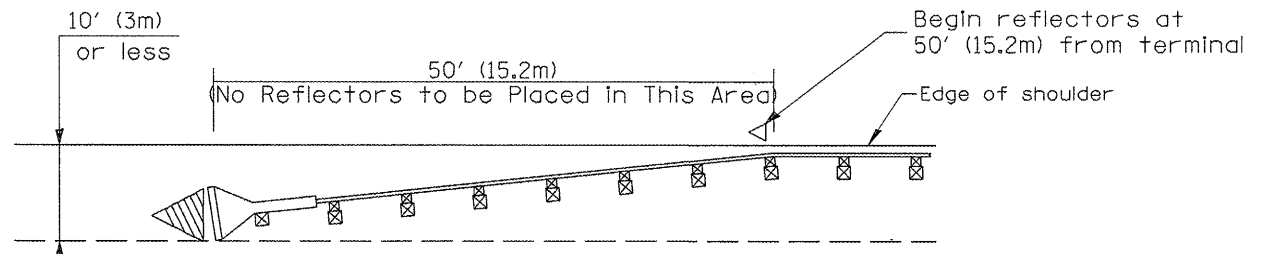
Traffic Barrier Terminal Type 1 (Special)

[Terminal over 10' (3m) from edge of shoulder]



Traffic Barrier Terminal Type(*) and/or Turned-Down Terminal

[Terminal over 10' (3m) or less from edge of shoulder]
*See Plans for Type



Traffic Barrier Terminal Type 1(Special)

[Terminal 10' (3m) or less from edge of shoulder]

TERMINAL MARKER PLACEMENT

All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. E-10.02, NEW REVISION BOX	T.P.
03-01-97	CORRECT STD. SPEC. *	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

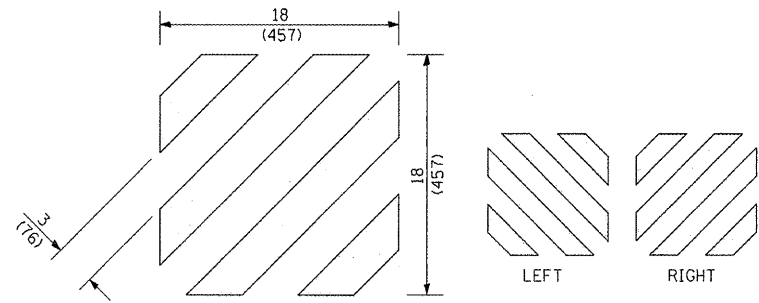
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GUARDRAIL AND BARRIER WALL DELINEATION

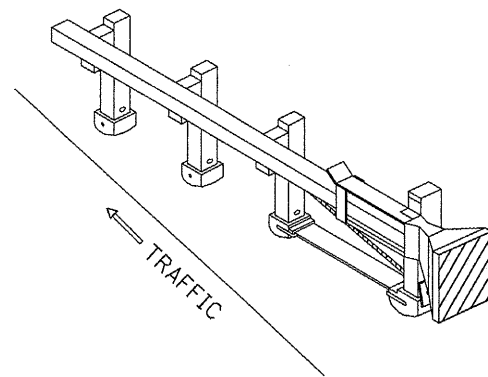
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	52

NOT TO SCALE
SHT. 1 OF 3
CADD STD. 635101-D4

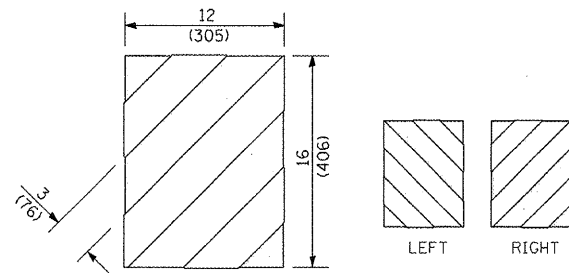
IL 94/116 OVER ELLISON CREEK
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
CONTRACT NO. 68693



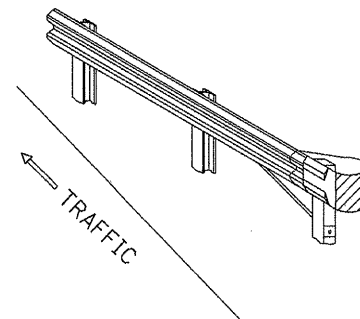
For Traffic Barrier Terminal Type 1 (Special)



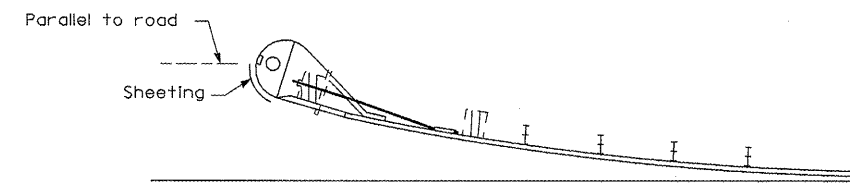
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type 1 (Special)



For Traffic Barrier Terminal Type (*)
and Post Mount
* See Plans for Type



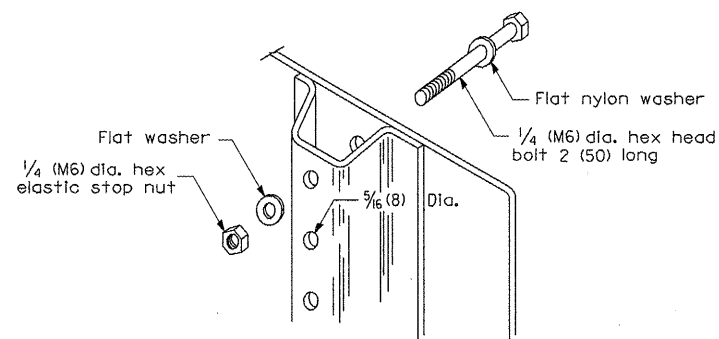
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type (*)
* See Plans for Type



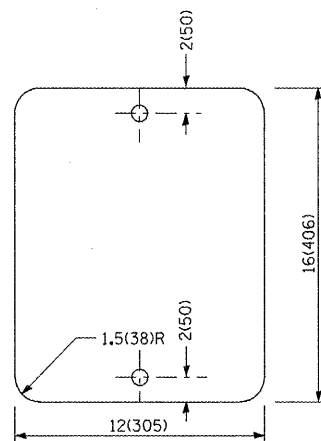
Sheeting Position for
Traffic Barrier Terminal Type (*)
* See Plans for Type

TERMINAL MARKER DETAILS

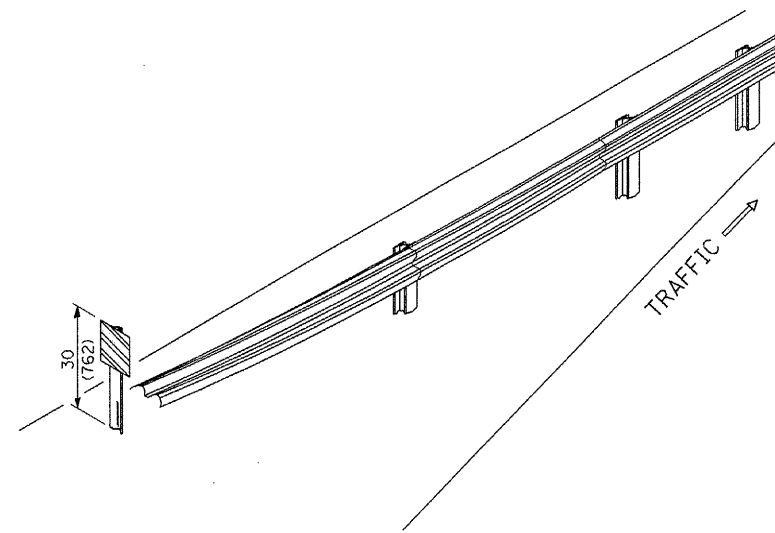
- Color: Black / Yellow reflectorized
- OM - I100 (L or R) Direct applied reflective sheeting
- OM - I200 (L or R) Post mounted



DETAIL OF MOUNTING TERMINAL MARKER TO POST



STANDARD TERMINAL MARKER



ALTERNATE TREATMENT - POST MOUNTED
(For turned-down terminal where sheeting cannot be direct applied)

TERMINAL MARKER TREATMENTS

GENERAL NOTES

All dimensions are in Inches (millimeters) unless otherwise noted.

POST MOUNTED TERMINAL MARKER ASSEMBLY

LAST SAVED = 12/14/2010
 PEN TABLE = 10-Hair.tbl
 PLOT DRIVER = PLOTTER-Black-Hair.plt

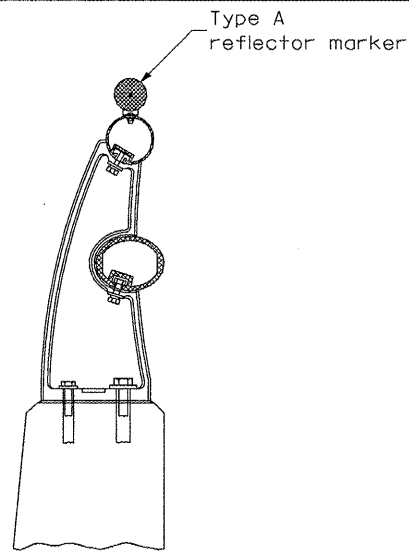
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL AND BARRIER WALL DELINEATION

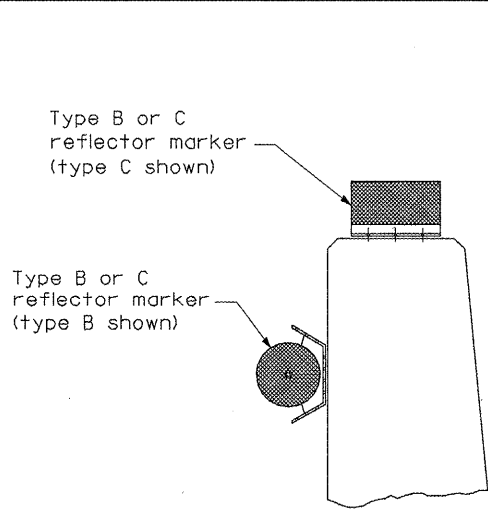
NOT TO SCALE

SHT. 2 OF 3
CADD STD. 635101-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	53
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

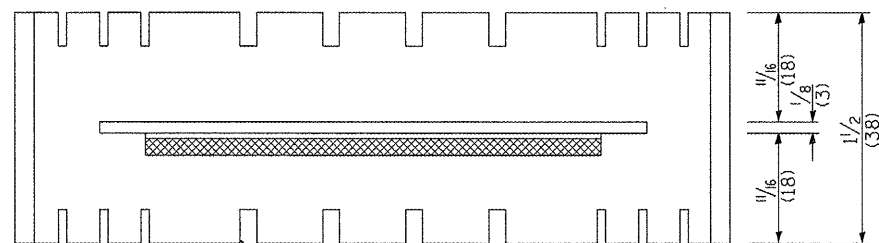


TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR

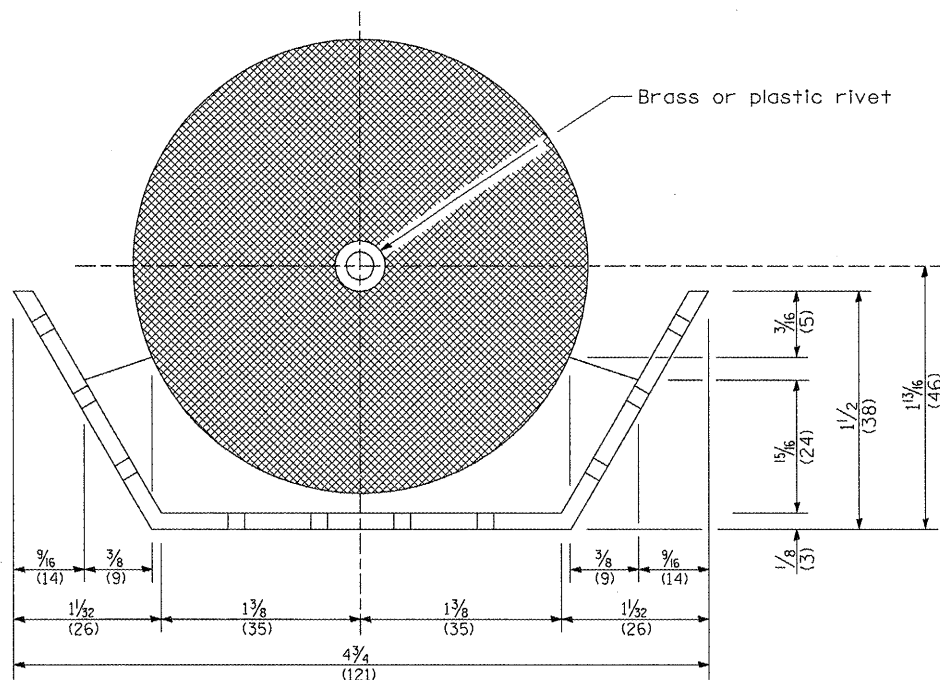


TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR

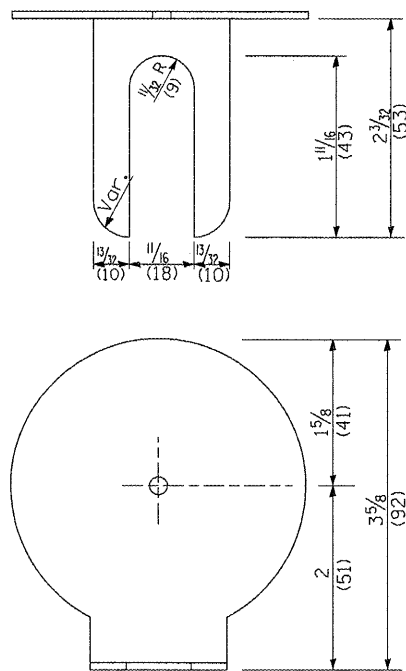
REFLECTOR MOUNTING



Adhesive weep slots or holes equally spaced on both sides

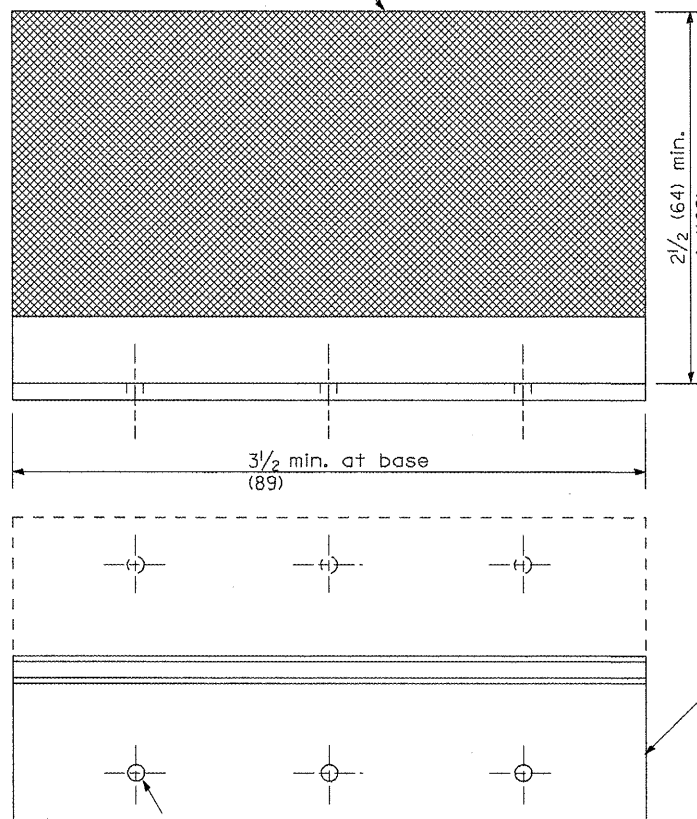


REFLECTOR MARKER TYPE B



REFLECTOR MARKER TYPE A

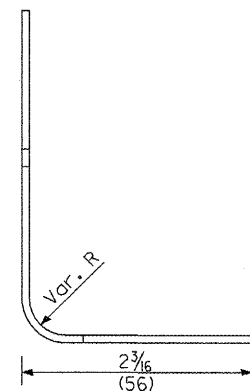
Min. reflective area 6 1/2 sq. in. (4,194 mm²) each side. May be rectangular or slight trapezoid.



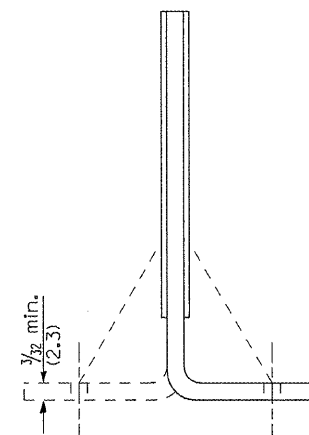
REFLECTOR MARKER TYPE C

3 min. adhesive weep holes or slots each side, variable spacing.

Minimum total area of base 7.0 Sq. In. (4,516 mm²)



TYPICAL GUARDRAIL MOUNTING WITH REFLECTOR MARKER TYPE A



Cross section may be "T" or "L" shaped and may have side supports at ends.

REFLECTORS

LAST SAVED = 12/14/2010
PEN TABLE = 08-Hal.F.dwg
PLOT DRIVER = HP-GL/2 - Black-Hal.F.plt

10:21:24 AM

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DEPARTMENT OF TRANSPORTATION

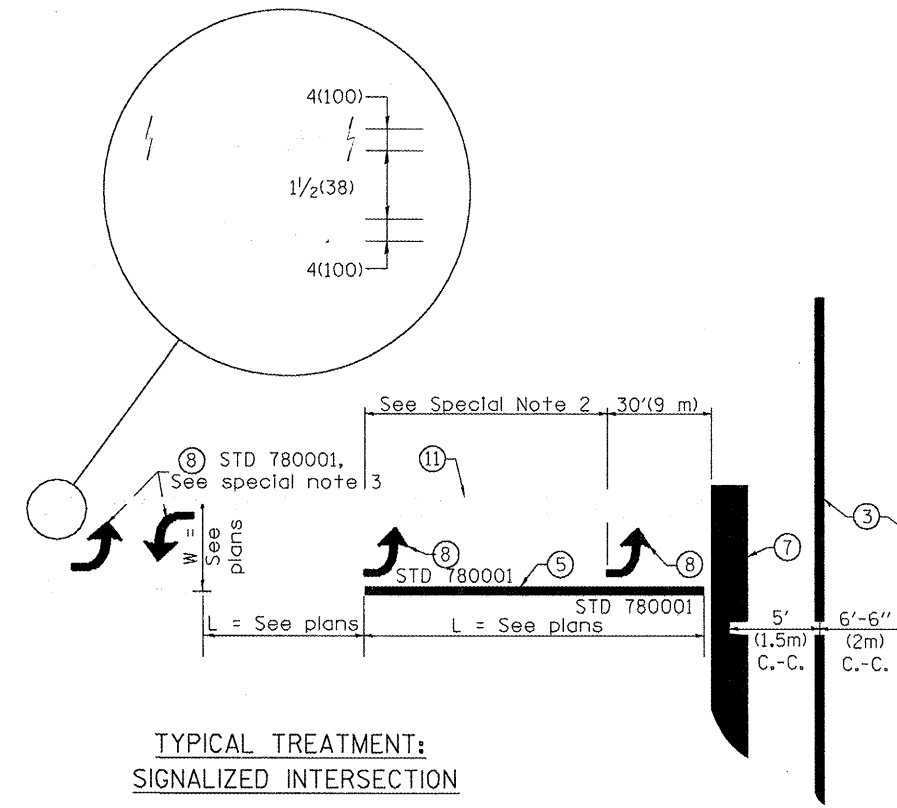
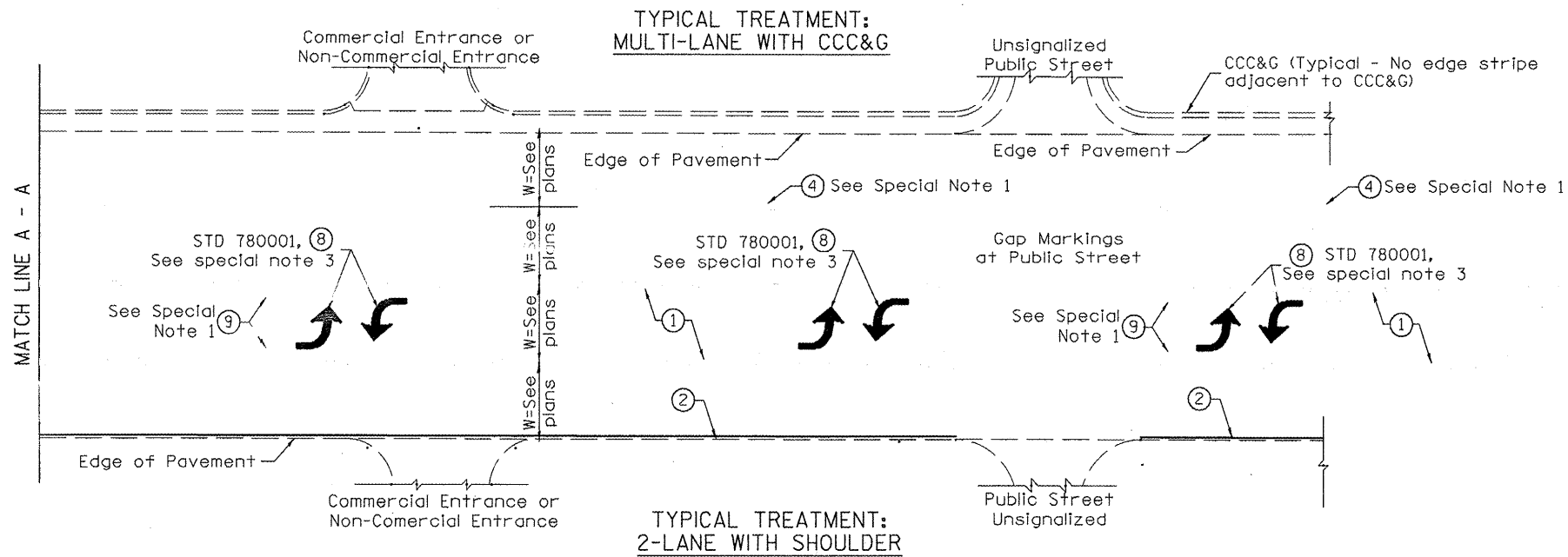
GUARDRAIL AND BARRIER WALL DELINEATION

NOT TO SCALE

SHT. 3 OF 3
CADD STD. 635101-04

All dimensions are in inches (millimeters) unless otherwise noted.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	54
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	



FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

TYPICAL PAVEMENT MARKING LEGEND

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- ① 4(100) Solid (Yellow)
- ② 4(100) Solid (White)
- ③ 2-6(150) Crosswalk @ 6'-6" (2m)min C.-C. (White)
2-8(200) Crosswalk @ 6'-6" (2m)min C.-C. (White) (When traffic signals are present.)
- ④ 6(150) Skip-Dash (White) (See Special Note 1)
- ⑤ 8(200) Solid (White)
- ⑥ 12(300) Diagonal (White) (Item ⑥ is shown on Std. 780001)
- ⑦ 24(600) Stop Bar (White)
- ⑧ Letters & Arrows (See Std. 780001 and Special Notes 2 & 3)
- ⑨ 4(100) Skip-Dash (Yellow) (See Special Note 1)
- ⑩ 12(300) Diagonal (Yellow) (See Table A)
- ⑪ 4(100) Double Solid (Yellow) (See Table A)

SPECIAL NOTES

1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
2. The following shall apply to arrows located in one-way left turn lanes:
 - A. A minimum of two (2) arrows is required.
 - B. The maximum spacing between arrows is 80' (24 m).
 - C. Arrows shall be evenly spaced if three (3) or more are required.
3. The following shall apply to arrow pairs located in two-way left turn lanes:
 - A. A minimum of two (2) arrow pairs is required.
 - B. The maximum spacing between arrow pairs is 200' (61 m).
 - C. Arrow pairs shall be evenly spaced if three (3) or more are required.
 - D. The spacing between Bi Directional Left Turn Arrows is 33' (10 m).

GENERAL NOTES

1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.

DESIGNER NOTES: LAST SAVED = 12/14/2010 10:21:46 AM. PROJECT DRIVER = TRV98PUB1BEC-1010121

01-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.
02-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.		
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.		
08-02	ADD CROSSWALK DIMS. WITH T.S.	10:21:46 MVA		

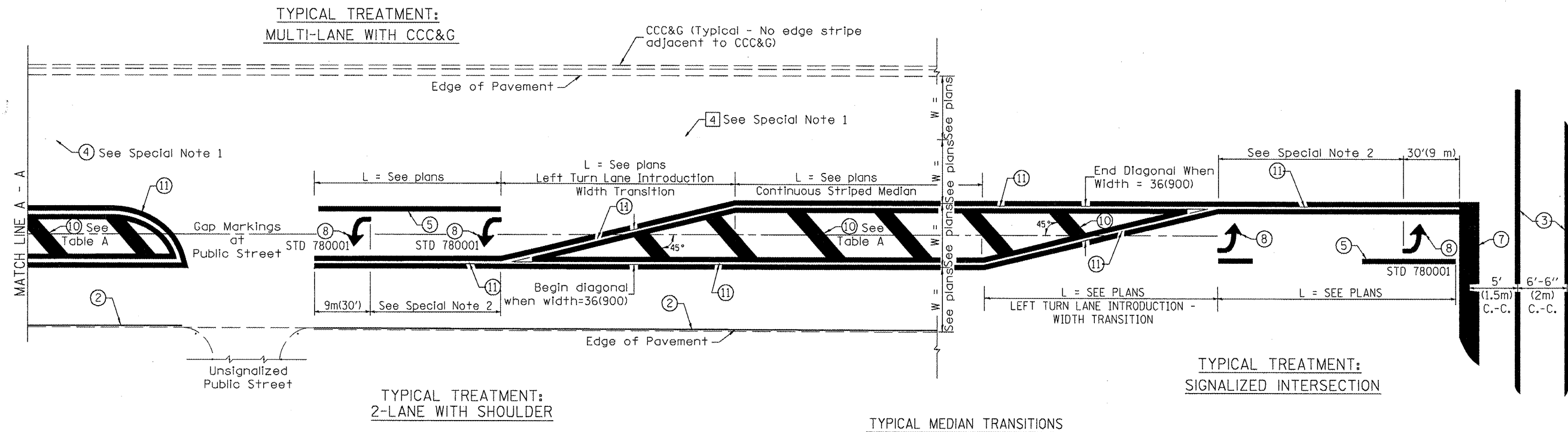
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL PAVEMENT MARKINGS

NOT TO SCALE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	55
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

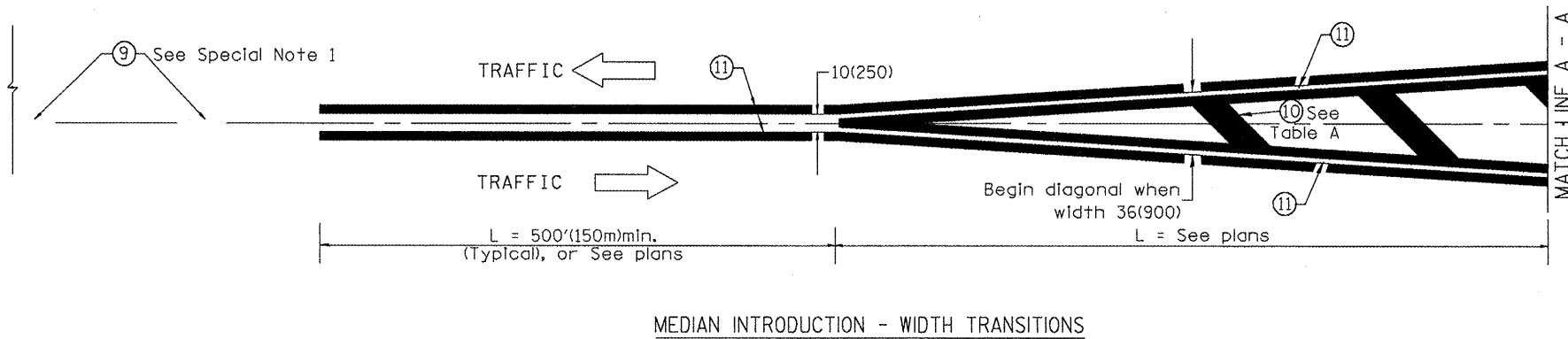
SHT. 1 OF 2
CADD STD. 780001-D4



FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A
RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)	
	CONTINUOUS	
Less Than 30 mph (50 km/h)	50' (15m)	15' (5m)
30 - 45 mph (50 - 70 km/h)	75' (23m)	20' (6m)
Over 45 mph (70 km/h)	150' (46m)	30' (9m)



All dimensions are in inches (millimeters) unless otherwise noted.

LAST SAVED = 12/14/2010
PEN TABLE = 10-hal.f.dsl
PLOT DRIVER = hp-plt2000-usb-hal.f.plt

10:21:46 AM

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL PAVEMENT MARKINGS

NOT TO SCALE

SHT. 2 OF 2
CADD STD. 780001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-1	HENDERSON	56	56
IL 94/116 OVER ELLISON CREEK			CONTRACT NO. 68693	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	