

97+3=100

CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310		**	97	1
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	US 67/IL 135		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

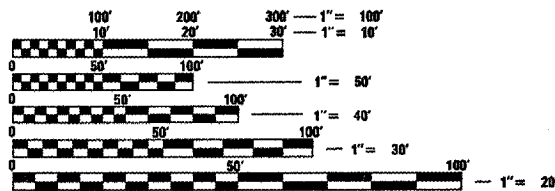
LIST OF STANDARDS

000001-04	630301-00
001001-01	631031-00
280001-03	635006-00
420001-00	635011-01
420401-00	666001
421001-00	701006-00
442201-00	701201-00
	701301-00
515001-00	701306-00
542401	701311-00
609006-00	701321-00
630001-00	701326-00
601101	702001-00
	704001-00
	780001-01

DESIGN DESIGNATION

SECTION (101BY)BR
OTHER PRINCIPLE ARTERIAL (RURAL)
ADT = 2300 (1999)
PV = 80.5%
SU = 4.3%
MU = 15.2%

SECTION (28-BR)I
OTHER PRINCIPLE ARTERIAL (RURAL)
ADT = 1950 (1999)
PV = 83%
SU = 4.2%
MU = 12.8%



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

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

CONTRACT NO. 88798
CATALOG NO. 031567-00D

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FAP 310 (US 67 / IL 135)

SECTION (101BY)BR;(28-BR)I

PROJECT: ACBRF-ACBHF-0310(125)

WARREN COUNTY

C-94-124-96



LOCATION OF SECTION INDICATED THIS: -

SECTION (101BY)BR
BEGIN STA 69+00.00
END STA 77+00.00
REMOVE & REPLACE
THE EXISTING STRUCTURE
OVER TOMS CREEK
WITH A SINGLE SPAN PPC
I-BEAM BRIDGE
EXIST S.N. 094-0001
PROP S.N. 094-0049
AT STA 73+02.00

BEGIN PROJECT
SEC (101BY)BR
STA 69+00.00

SECTION (28-BR)I
BEGIN STA 824+00.00
END STA 833+50.00
REMOVE & REPLACE
THE EXISTING CONCRETE
DECK AND APPROACH
PAVEMENTS OVER
MIDDLE HENDERSON CREEK
PROP S.N. 094-0002
AT STA 829+24.00

END PROJECT
SEC (101BY)BR
STA 77+00.00

BEGIN PROJECT
SEC (28-BR)I
STA 824+00.00

END PROJECT
SEC (28-BR)I
STA 833+50.00

CCQA CONCRETE

NPDES PERMIT REQUIRED



GRAPHIC SCALE
GROSS LENGTH OF PROJECT = 1750 FT (0.332 MILES)
SEC (101BY)BR NET LENGTH OF PROJECT = 800 FT (0.152 MILES)
SEC (28-BR)I NET LENGTH OF PROJECT = 950 FT (0.180 MILES)

DESCRIPTION OF WORK

THIS IMPROVEMENT INCLUDES THE REMOVAL AND REPLACEMENT OF ONE STRUCTURE AND REPLACEMENT OF THE CONCRETE DECK OF ANOTHER. THE PROJECT ALSO INCLUDES EARTHWORK, WIDENING, RESURFACING AND ALL OTHER COLLATERAL WORK.



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED *Aug 28, 2007*
[Signature] DISTRICT ENGINEER
October 18, 2007
Eric E. Harms ENGINEER OF DESIGN AND ENVIRONMENT
October 12, 2007
Mutton R. Sees, P.E. DIRECTOR, DIVISION OF HIGHWAYS

LIAISON ENGINEER: KEVIN HORST 309-671-3460 PROJECT ENGINEER: RICH DOTSON 309-671-3455

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	US 67/IL 135	
* (101BY)BR128-BR1 ** WARREN COUNTIES				

GENERAL NOTES

UTILITIES-LOCATIONS/INFORMATION ON PLANS

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 INVESTIGATIONS 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 CONTRACTORS RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES BY FIELD INSPECTION.

PROPERTY OWNER ACCESS REQUIREMENT

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

TREE REMOVAL

THE DISTRICT FOUR TREE COMMITTEE SHOULD BE CONTACTED AND PRIOR APPROVAL OBTAINED FOR ANY TREE REMOVAL BEYOND THE LIMITS/LOCATIONS INCLUDED IN THE PLANS.

ENVIRONMENTAL REVIEWS

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 SITE.

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
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA

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

PAVEMENT STATION NUMBERS AND PLACEMENT

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 20mm (3/4") WIDE, 125mm (5") HIGH, AND 15mm (5/8") DEEP. THE PAVEMENT STATION NUMBERS SHALL BE INSTALLED AS SPECIFIED HEREIN:
 INTERVAL - 100 METERS (METRIC STATIONING) OR 200 FEET (ENGLISH STATIONING).
 BOTTOM OF NUMBERS - 150mm (6") FROM THE INSIDE EDGE OF THE PAVEMENT MARKINGS.
 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 - METRIC (ENGLISH) PAVEMENT STATIONS SHALL USE THIS FORMAT "XX+X00 (XX)", 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.

MIXTURE REQUIREMENTS

MIXTURE USE	HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N50	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	HOT-MIX ASPHALT BASE COURSE 8 INCH	CLASS D WIDENING, PATCHING
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP%(MAX)	15%	25%	25%	25%
DESIGN AIR VOIDS	4.2% @ Ndes = 50	4.2% @ Ndes = 50	4.2% @ Ndes = 50	4.2% @ Ndes = 50
MIX COMPOSITION (GRADATION MIXTURE)	IL 9.5 IL 12.5	IL 19.0	IL 19.0	IL 19.0
FRICTION AGG	MIXTURE D	N/A	N/A	N/A

PAVING SURFACE COURSE

CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE HMA SURFACE. NO INTERRUPTIONS FOR SIDEROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED

ENGINEERS FIELD OFFICE

ADD THE FOLLOWING SENTENCE TO THE END OF PARAGRAPH 670.02(f) AND 670.04(c) ALL OF THE TELEPHONE LINES PROVIDED SHALL HAVE UNPUBLISHED NUMBERS

ORDERING LENGTH CONFIRMATION--DRAINAGE ITEMS

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTH OF THE BOX/PIPE CULVERTS, STORM SEWERS, AND/OR PIPE DRAINS REQUIRED PRIOR TO ORDERING THESE ITEMS.

PROJECT SPECIFIC NOTES

CONTACT THE TRAFFIC OPERATIONS ENGINEER AT (309) 671-4466 TO LOCATE NO PASSING ZONES FOR PERMANENT ROADWAY PAVEMENT MARKINGS.

A FULL-DEPTH SAW CUT SHALL BE REQUIRED 12' FROM AND PARALLEL TO CENTERLINE OF ROADWAY FOR THE REMOVAL OF THE EXISTING GUTTER AT TOM'S CREEK.

REMOVAL OF EXISTING BRIDGE APPROACH PAVEMENT AND PRECAST CONCRETE BRIDGE SLABS (SEE EXISTING STRUCTURE PLANS SN 094-0001 (FOR INFORMATION ONLY)) WITHIN THE EXISTING APPROACHES SHALL BE PAID FOR AS PAVEMENT REMOVAL.

EARTH EXCAVATION REQUIRED FOR WIDENING SHALL BE PAID FOR AS EARTH EXCAVATION.

INDEX OF SHEETS

1	COVER SHEET
2	GENERAL NOTES, COMMITMENTS, INDEX OF SHEETS & PROJECT SPECIFIC NOTES
3	STATUS OF UTILITIES
4-10	SUMMARY OF QUANTITIES
11	TYPICAL SECTIONS
12-14	SCHEDULES OF QUANTITIES
15	ALIGNMENT, TIES AND BENCHMARKS
16-17	PLAN AND PROFILE SHEETS
18-20	STAGING
21-22	EROSION CONTROL PLANS
23	RIGHT OF WAY PLAN
24	PIPE ELBOW DETAIL
25	TEMPORARY RUMBLE STRIPS DETAIL
26-29	EXIST. STRUCTURE PLANS SN 094-0001 (FOR INFORMATION ONLY)
30-34	EXIST. STRUCTURE PLANS SN 094-0002 (FOR INFORMATION ONLY)
35-48B	STRUCTURE PLANS SN 094-0049
49-64A	STRUCTURE PLANS SN 094-0002
65-85	CADD STANDARDS
86-97	CROSS SECTIONS

COMMITMENTS

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

THE CONTRACTOR MUST MEET THE REQUIREMENTS UNDER THE 404 PERMITS FOR EROSION AND SEDIMENT CONTROL FOR IN STREAM WORK ISSUED BY THE U.S. ARMY CORPS OF ENGINEERS. THE PERMITS EXPIRE JULY 17, 2009.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES,
COMMITMENTS,
INDEX OF SHEETS, &
PROJECT SPECIFIC NOTES**

SCALE: NO SCALE DRAWN BY: BAD
DATE: 04-02-04 CHECKED BY: JLG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (101BY)BR, (28-BR)
** WARREN COUNTIES

STATUS OF UTILITIES TO BE ADJUSTED DURING CONSTRUCTION

Name and Address of Utility

AmerenIP

Route: FAP 310
(IL 135/US 67)
Section: (101BY)BR &(28BR)1
County: Warren/Mercer
Contract No.: 88798
Catalog No.: 031567-00D

Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
US 67 Tom's Creek	50' Lt.	70+02	Power Pole	Widing of Driveway	Relocate
US 67	50' Lt.	73+75	Power Pole	Rip Rap	Caution
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

STATUS OF UTILITIES TO BE ADJUSTED DURING CONSTRUCTION

Name and Address of Utility

Frontier Communications

Route: FAP 310 (US 67/IL 135)
Section: (101BY)BR; (28-BR)1
Counties: Warren & Mercer
Contract No.: 88798
Catalog No.: 031567-00D

Reimburse/Route	Offset	Location	Type of Utility	Type of Conflict	Disposition
<input type="checkbox"/> /US 67/IL 135	Rt. 39'	Sta. 69+20 to 71+00	Telephone	RipRap	Relocate
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

PLOT DATE = 8/7/2007
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = bruceb

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STATUS OF UTILITIES

SCALE: VERT. _____
HORIZ. _____

DATE _____

DRAWN BY _____
CHECKED BY _____

SUMMARY OF QUANTITIES

* 0101BYJBRJ28-BRJI
** WARREN

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	4
STA.		TO STA.		
FED. ROAD DIST. NO. 6	ALMOST	FED. AID PROJECT		

ACBRF ACBHF ACBRF ACBHF

SUMMARY OF QUANTITIES			80% FED 20% ST	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		TOTAL QUANTITIES	SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY I000	MID HEND RDWY I000
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	104					104
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	16					16
20200100	EARTH EXCAVATION	CU YD	759			397		362
20300100	CHANNEL EXCAVATION	CU YD	648					648
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	316.4		190.4	126		
* 21101615	TOP SOIL FURNISH AND PLACE, 4"	SQ YD	2183			875		1308
* 25000300	SEEDING, CLASS 3	ACRE	0.5			0.2		0.3
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45			18		27
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45			18		27
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45			18		27
* 25100630	EROSION CONTROL BLANKET	SQ YD	2183			875		1308
28000200	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	163			63		100
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150			60		90
28000300	TEMPORARY DITCH CHECKS	EACH	12			6		6
28000400	PERIMETER EROSION BARRIER	FOOT	1351			472		879
28000500	INLET AND PIPE PROTECTION	EACH	1			1		
28001000	AGGREGATE (EROSION CONTROL)	TON	29			11		18
28100107	STONE RIPRAP, CLASS A4	SQ YD	817	817				
28100109	STONE RIPRAP, CLASS A5	SQ YD	2584		1384			1200
28100227	STONE RIPRAP, CLASS B4	TON	284			148		136

* SPECIALTY ITEM

SUMMARY OF QUANTITIES

(101BY)BR(28-BR)
** WARREN

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	**	97	5
STA.		TO STA.	
FED. ROAD DIST. NO. 4		ALTERN.	FED. AID PROJECT

ACBRF ACBHF ACBRF ACBHF

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY I000	MID HEND ROWY I000	TRAINING Y080
28100830	STONE DUMPED RIPRAP, CLASS B4	TON	147				147	
28200200	FILTER FABRIC	SQ YD	4023	817	1384	222	1600	
35600708	HOT - MIX ASPHALT BASE COURSE WIDENING, 8"	SQ YD	860			302	558	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	161			52	109	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2			1	1	
40600300	AGGREGATE (PRIME COAT)	TON	10			5	5	
40600982	HOT - MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	564			221	343	
40600990	TEMPORARY RAMP	SQ YD	226			90	136	
40603080	HOT - MIX ASPHALT BINDER COURSE, IL - 19 .0, N50	TON	193				193	
40603335	HOT MIX - ASPHALT SURFACE COURSE, MIX "D ", N50	TON	540			275	265	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	450			225	225	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	86			43	43	
44000100	PAVEMENT REMOVAL	SQ YD	656			416	240	
44000198	HOT - MIX ASPHALT SURFACE REMOVAL, VARIA BLE DEPTH	SQ YD	3487			2200	1287	
44000400	GUTTER REMOVAL	FOOT	108			108		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	94				94	
44002500	GUTTER OUTLET REMOVAL	EACH	2			2		

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	**	97	6
STA. TO STA.		FED. ROAD DIST. NO. 6	
		ILLINOIS	FED. AID PROJECT

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80'X20' FED 20' ST.	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		TOTAL QUANTITIES	SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY I000	MID HEND RDWY I000
44201823	CLASS D PATCHES, TYPE I, 15 INCH	SQ YD	3				3	
44201827	CLASS D PATCHES, TYPE II, 15 INCH	SQ YD	162				57	105
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SQ YD	131					131
44201833	CLASS D PATCHES, TYPE IV, 15 INCH	SQ YD	77					77
48101200	AGGREGATE SHOULDERS, TYPE B	TON	38					38
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1				
50102400	CONCRETE REMOVAL	CU YD	19.2		19.2			
50104650	SLOPE WALL REMOVAL	SQ YD	1056		1056			
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1			
50105220	PIPE CULVERT REMOVAL	FOOT	119				22	97
50200100	STRUCTURE EXCAVATION	CU YD	484	314	170			
50300225	CONCRETE STRUCTURES	CU YD	45.5	33.3	12.2			
50300255	CONCRETE SUPER STRUCTURES	CU YD	270.1	120.1	150			
50300260	BRIDGE DECK GROOVING	SQ YD	706	292	414			
50300280	CONCRETE ENCASEMENT	CU YD	4.2	4.2				
50300300	PROTECTIVE COAT	SQ YD	932	385	547			
50401005	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 48 IN.	FOOT	519	519				
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	600		600			
50500505	STUD SHEAR CONNECTORS	EACH	2004		2004			
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	12		12			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	62,760	25,970	36,790			

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80% FED 20% ST TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY I000	MID HEND RDWY I000	TRAINING Y080
50800515	BAR SPLICERS	EACH	764	305	459			
51201500	FURNISHING STEEL PILES HP10X57	FOOT	384	384				
51202305	DRIVING PILES	FOOT	384	384				
51205200	TEMPORARY SHEET PILING	SQ FT	365		365			
51500100	NAME PLATES	EACH	2	1	1			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12		12			
52100520	ANCHOR BOLTS, 1"	EACH	24		24			
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	66			66		
54215547	METAL END SECTIONS 12"	EACH	4			2	2	
54215559	METAL END SECTIONS 24"	EACH	2			2		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	138	83	55			
60100945	PIPE DRAINS 12"	FOOT	151			79	72	
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	275	145	130			
60500060	REMOVING INLETS	EACH	2				2	
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	16.5			16.5		
60900140	TYPE B INLET BOX, STANDARD 609006	EACH	4			2	2	
60900515	CONCRETE THRUST BLOCKS	EACH	4			2	2	
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	1025			525	500	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8			4	4	
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	7			3	4	
* 63100169	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL(FLARED)	EACH	1			1		

* SPECIALTY ITEM

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	8
STA.		TO STA.		
FED. ROAD DIST. NO. 8		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			80% FED 20% ST TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY 1000	MID HEND RDWY 1000	TRAINING Y080
63200310	GUARD RAIL REMOVAL	FOOT	1326			839	487	
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	4				4	
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	6			3	3	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12			6	6	
67100100	MOBILIZATION	L SUM	1			0.5	0.5	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2			1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1			0.5	0.5	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1			0.5	0.5	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1			0.5	0.5	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	30			15	15	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2			1	1	
70106700	TEMPORARY RUMBLE STRIP	EACH	3			3		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	876			352	524	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5692			2880	2812	
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	712			320	392	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2427			1184	1243	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	740			360	380	

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	9
STA.		TO STA.		
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

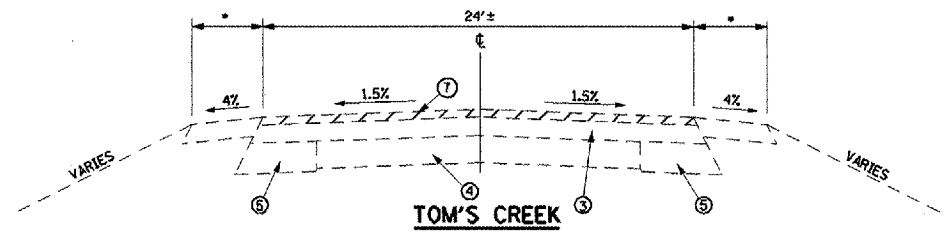
SUMMARY OF QUANTITIES			80% FED 20% ST TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY I000	MID HEND RDWY I000	TRAINING Y080
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	720			340	380	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	6288			3200	3088	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	28			14	14	
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	12			6	6	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8			4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1166			533	633	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1			0.5	0.5	
Z0020805	EROSION CONTROL CURB REMOVAL	FOOT	407			407		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3"	EACH	4			2	2	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3"	EACH	4			2	2	
■ Z0076600	TRAINEES	HOUR	500	250	250			
* A2002316	TREE, BETULA NIGRA(RIVER BIRCH), 2" CALIPER, BALLED AND BURLAPPED	EACH	3				3	
* A2002914	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	3				3	
* A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	4				4	
* B2001114	TREE, CERCIS CANADENSIS (EASTERN REDBUD) 1-3/4" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	3				3	
X0301512	GUARDRAIL AGGREGATE EROSION CONTROL	TON	531			327	204	

F. A. R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	10
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

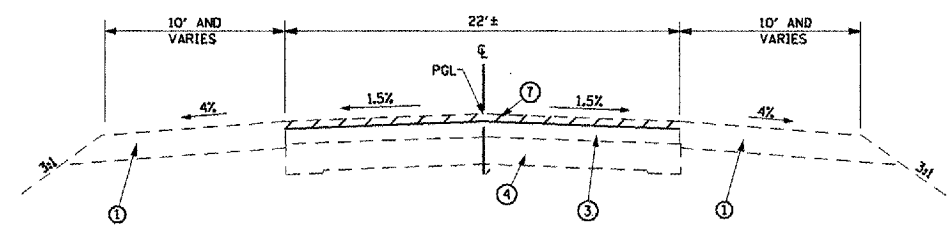
SUMMARY OF QUANTITIES			80% FEB 2075	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	SN 094-0049 X081-2A	SN 094-0002 X071-2A	TOM'S ROADWAY I000	MID HEND RDWY I000	TRAINING Y080
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	713	713				

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	"	**	97	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	US 67/IL 135	
* (101BY)BR(28-BR)				
** WARREN COUNTIES				



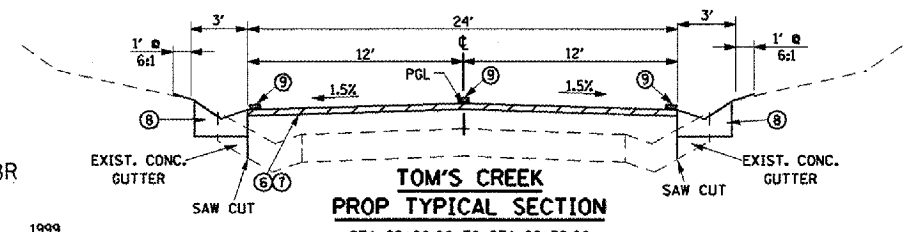
**TOM'S CREEK
EXISTING TYPICAL SECTION**
STA 69+00.00 TO STA 72+87.12
(EXISTING BRIDGE STA 72+87.12 TO STA 73+30.44)
STA 73+30.44 TO STA 77+00.00

* SHOULDER TREATMENT VARIES:
CONCRETE GUTTER STA 69+00.00 TO 69+55.00 WIDTH 2'
AGGREGATE SHOULDER STA 69+55.00 TO 72+87.00 WIDTH 4'
HMA SHOULDER STA 72+87.00 TO 77+00.00 WIDTH VARIES

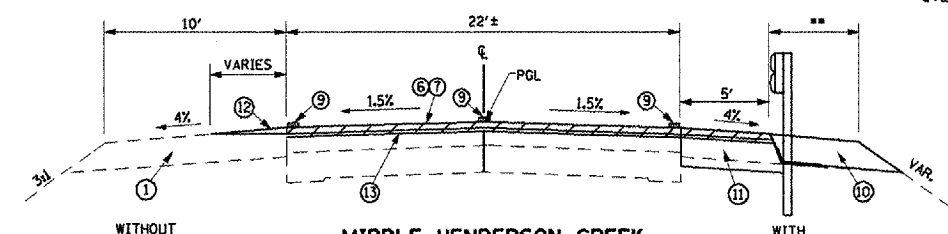


**MIDDLE HENDERSON CREEK
EXISTING TYPICAL SECTION**
STA 824+00.00 TO STA 828+36.50
(EXISTING BRIDGE STA 828+36.50 TO STA 830+11.50)
STA 830+11.50 TO STA 833+50.00

** 3.75' MIN. WHEN FORESLOPE
STEEPER THAN 3:1



**TOM'S CREEK
PROP TYPICAL SECTION**
STA 69+00.00 TO STA 69+36.00



**MIDDLE HENDERSON CREEK
PROPOSED TYPICAL SECTION**
WITHOUT WIDENING
RT STA 824+00.00 TO STA 824+58.00
LT STA 824+00.00 TO STA 826+85.00
WITH WIDENING
RT STA 824+85.00 TO STA 828+25.95
LT STA 826+85.00 TO STA 828+25.95

MIDDLE HENDERSON CREEK SEC (28BR)

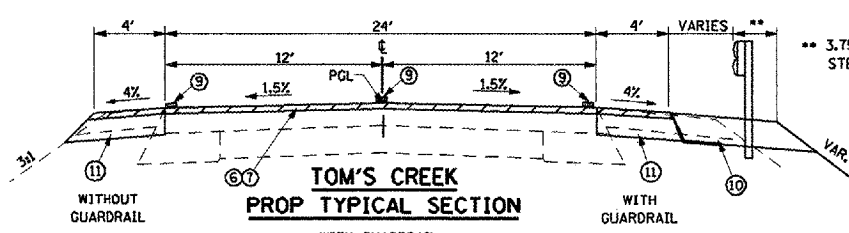
STRUCTURAL DESIGN TRAFFIC: YEAR 1999
PV= 1618 SU= 82 MU= 250
ROAD/STREET CLASSIFICATION: CLASS _____
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P= 83.0 S= 4.2 M= 12.8
TRAFFIC FACTOR: ACTUAL TF= _____
MINIMUM TF= _____ AC TYPE= _____
SUBGRADE SUPPORT RATING:
SSR= _____ (STA _____ TO _____)
SSR= _____ (STA _____ TO _____)

MODIFIED AASHTO
USE: HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NSO (2")
HOT-MIX ASPHALT BASE COURSE WIDENING, 8 INCH
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, NSO

TOM'S CREEK SEC (101BY)BR

STRUCTURAL DESIGN DATA
STRUCTURAL DESIGN TRAFFIC: YEAR 1999
PV= 1851 SU= 99 MU= 350
ROAD/STREET CLASSIFICATION: CLASS III
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P= 80.5 S= 4.3 M= 15.2
TRAFFIC FACTOR: ACTUAL TF= _____
MINIMUM TF= _____ AC TYPE= _____
SUBGRADE SUPPORT RATING:
SSR= _____ (STA _____ TO _____)
SSR= _____ (STA _____ TO _____)

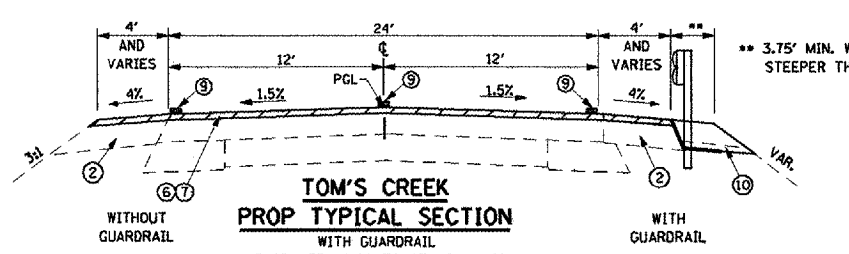
USE: HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NSO (2")
HOT-MIX ASPHALT BASE COURSE WIDENING, 8 INCH
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, NSO



**TOM'S CREEK
PROP TYPICAL SECTION**
WITH GUARDRAIL
RT STA 69+90.00 TO STA 72+22.00
LT STA 70+90.00 TO STA 72+22.00
WITHOUT GUARDRAIL
RT STA 69+36.00 TO STA 69+90.00
LT STA 69+36.00 TO STA 70+90.00

** 3.75' MIN. WHEN FORESLOPE
STEEPER THAN 3:1

** 3.75' MIN. WHEN FORESLOPE
STEEPER THAN 3:1



**TOM'S CREEK
PROP TYPICAL SECTION**
WITH GUARDRAIL
LT STA 73+82.00 TO STA 76+14.50
RT STA 73+82.00 TO STA 75+39.50
WITHOUT GUARDRAIL
LT STA 76+14.50 TO STA 77+00.00
RT STA 75+39.50 TO STA 77+00.00

** 3.75' MIN. WHEN FORESLOPE
STEEPER THAN 3:1

NOTE: BRIDGE OMISSION STA 72+58.00 TO STA 73+46.00
APPROACH PAVT STA 72+28.00 TO STA 72+58.00
AND STA 73+46.00 TO STA 73+76.00
APPROACH PAVT CONNECTOR STA 72+22.00 TO STA 72+28.00
AND STA 73+76.00 TO STA 73+82.00

LEGEND

- ① EXISTING AGGREGATE SHOULDER
- ② EXISTING HMA SHOULDER
- ③ EXISTING HMA PAVEMENT
- ④ EXISTING PCC PAVEMENT
- ⑤ EXISTING HMA WIDENING
- ⑥ PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NSO (2")
- ⑦ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- ⑧ PROP. CLASS SI CONCRETE (OUTLET)
- ⑨ PROP. PAINT PAVEMENT MARKING - LINE 4"
- ⑩ PROP. GUARDRAIL AGGREGATE EROSION CONTROL
- ⑪ PROP. HOT-MIX ASPHALT BASE COURSE WIDENING, 8"
- ⑫ PROP. AGGREGATE SHOULDERS, TYPE B
- ⑬ PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19.0, NSO

NOTE: BRIDGE OMISSION STA 828+61.95 TO STA 829+86.04
APPROACH PAVT STA 828+31.95 TO STA 828+61.95
AND STA 829+86.04 TO STA 830+16.04
APPROACH PAVT CONNECTOR STA 828+25.95 TO STA 828+31.95
AND STA 830+16.04 TO STA 830+22.04

**SECTION (28-BR)
US 67 OVER
MIDDLE HENDERSON
CREEK**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: NO SCALE
DATE: 04-02-04
DRAWN BY: BAD
CHECKED BY: JLG

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	77	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	US 67/IL 135	
* (101BY)BR & (28BR)I				
** WARREN COUNTIES				

	LENGTH	WIDTH	AREA	AGGREGATE SFC. CSE., TY B	AGG. PRIME COAT	BIT, MATERIALS PRIME COAT	HMA SFC. CSE., MIX "D", N50	HMA BINDER CSE., IL-19.0, N50	HMA SURF REM (VAR DEPTH)	HMA SURF REM (BUTT JOINT)	BRIDGE APPROACH PAVEMENT	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	AGGREGATE SHOULDERS, TYPE B
	FOOT	FOOT	SQ. YD.	TON	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	TON
US 67 AT TOM'S													
69+00 TO 69+30	30	24	80.0		0.2	0.03	9.0			80.00			
69+30 TO 72+22	292	32	1038.2		2.1	0.42	120.3		1038.2			21.3	
72+22 TO 72+28	6	32	21.3										
72+28 TO 72+58	30	33.66	112.2								112.2		
BRIDGE OMISSION													
73+46 TO 73+76	30	33.66	112.2								112.2		
73+76 TO 73+82	6	32	21.3									21.3	
73+82 TO 76+70	288	VAR	1162.0		2.3	0.46	130.1		1162.0				
76+70 TO 77+00	30	VAR	141.0		0.3	0.06	15.8			141.00			
ENTRANCE 70+03 LT				52									
US 67 AT MID HEND													
824+00 TO 824+30	30	22	73.3		0.1	0.03	8.2			73.33			1.2
824+30 TO 824+58	28	22	68.4		0.1	0.03	7.7		68.4				1.1
824+58 TO 825+50	92	27	276.0		0.6	0.11	30.9		276.0				1.8
825+50 TO 825+80	30	27	90.0		0.3	0.05	10.1	19.2		90.00			6.3
825+80 TO 826+85	105	27	315.0		0.9	0.16	35.3	67.0					22.1
826+85 TO 827+96	111	32	394.7		1.2	0.21	44.2	84.0					
827+96 TO 828+26	30	32	106.7		0.3	0.06	11.9	22.7		106.67			
828+26 TO 828+32	6	32	21.3									21.3	
828+32 TO 828+62	30	33.66	112.2								112.2		
BRIDGE OMISSION													
829+86 TO 830+16	30	33.66	112.2								112.2		
830+16 TO 830+22	6	32	21.3									21.3	
830+22 TO 831+65	143	32	508.3		1.0	0.20	59.9		508.3				
831+65 TO 832+65	100	27	300.0		0.6	0.12	33.6		300.0				2.0
832+65 TO 833+20	55	22	134.4		0.3	0.05	15.1		134.4				2.2
833+20 TO 833+50	30	22	73.3		0.1	0.03	8.2			73.33			1.2
ENTRANCE 825+00 RT				109									
TOTAL				161	10	2.0	540	193	3487	564	450	86	38

STA LOCATION	SEEDING CLASS 3 (ACRE)	NITROGEN FERTILIZER NUTRIENT (LB)	PHOSPHORUS FERTILIZER NUTRIENT (LB)	POTASSIUM FERTILIZER NUTRIENT (LB)	EROSION CONTROL BLANKET(SQ.YD.)	TEMPORARY EROSION CONTROL SEEDING (LB)
69+00.00 TO 77+00.00	0.2	18	18	18	875	60
824+00.00 TO 833+50.00	0.3	27	27	27	1308	90
TOTAL	0.5	45	45	45	2183	150

LOCATION	PERIMETER EROSION BARRIER (FT)	TEMPORARY DITCH CHECK (EACH)	EARTH EXCAVATION FOR EROSION CONTROL (CU. YD.)	AGGREGATE EROSION CONTROL (TON)	INLET AND PIPE PROTECTION (EACH)
69+66 LT					1
70+00 RT		1			
70+26 TO 72+58 RT	252				
70+66 TO 72+58 LT	220				
70+80 LT		1			
73+02 RT			63	11	
73+46 LT		1			
73+48 RT		1			
73+90 RT		1			
73+96 LT		1			
824+00 TO 828+63 RT	517				
827+43 LT		1			
829+24 RT			100	18	
828+58 LT		1			
829+90 RT		1			
829+95 LT		1			
830+00 TO 832+00 RT	200				
830+55 LT		1			
831+31 LT		1			
831+38 TO 833+00 LT	162				
TOTAL	1351	12	163	29	1

LOCATION	EARTH EXCAVATION (CU YD)	CHANNEL EXCAVATION (CU YD)	FOR INFORMATION ONLY			TOPSOIL FURNISH AND PLACE, 4" (SQ YD)
			EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE(+) OR SHORTAGE(-) (CU YD)	
69+00.00 TO 77+00.00	397		298	182	+116	875
824+00.00 TO 833+50.00	362	648	758	433	+325	1308
TOTAL	759	648	1056	615	+441	2183

LOCATION	STONE RIPRAP CLASS A5 (SQ.YD)	STONE RIPRAP CLASS B4 (TON)	STONE DUMPED RIPRAP, CLASS B4 (TON)	FILTER FABRIC (SQ.YD.)
69+59 TO 69+75 LT		13.1		19.6
69+74 TO 69+96 RT		11.4		17.1
70+44 TO 70+59 LT		12.2		18.3
73+19 TO 73+92 RT		60.3		90.4
73+33 TO 73+96 LT		51.3		77
826+76 TO 828+52 LT			147	196
828+43 TO 828+63 RT			11.3	16.9
828+63 TO 830+00 RT	1200			1200
829+95 TO 831+35 LT			124.5	186.7
TOTAL	1200	284	147	1822

LOCATION	SQ. YD.
69+36 TO 72+22 RT	127
69+36 TO 72+65 LT	175
824+58 TO 828+26 RT	226
826+85 TO 828+62 LT	98
829+86 TO 832+65 LT	155
830+22 TO 831+65 RT	79
TOTAL	860

LOCATION	TREE REMOVAL (6 TO 15 UNITS DIAMETER) (UNIT)	TREE REMOVAL (OVER 15 UNITS DIAMETER) (UNIT)
829+73 LT	80	16
832+25 RT	12	
833+10 LT	12	
TOTAL	104	16

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: NO SCALE
DATE: 04-02-04

DRAWN BY: B.A.D.
CHECKED BY: M.A.R.

CONTRACT NO. 88798

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	US 67/IL 135	
* (101BY8R & C28BR1)				
** WARREN COUNTIES				

GUARDRAIL SCHEDULE						
LOCATION	STEEL PLATE BEAM GUARDRAIL TYPE A (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, (TANGENT) (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (FLARED) (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 (EACH)	GUARDRAIL REMOVAL (FOOT)	TERMINAL MARKER DIRECT APPLIED (EACH)
RT 70+72.00 TO 72+87.00					215	
LT 70+72.00 TO 72+87.00					215	
RT 73+30 TO 74+97					167	
LT 73+30 TO 75+72					242	
RT 69+89.85						1
RT 69+89.85 TO 70+39.85			1			
RT 70+39.85 TO 72+14.85	175					
RT 72+14.85 TO 72+58.00				1		
LT 70+89.85						1
LT 70+89.85 TO 71+39.85		1				
LT 71+39.85 TO 72+14.85	75					
LT 72+14.85 TO 72+58.00				1		
RT 73+46.00 TO 73+89.15				1		
LT 73+46.00 TO 73+89.15				1		
RT 73+89.15 TO 74+89.15	100					
RT 74+89.15 TO 75+39.15		1				
RT 75+39.15						1
LT 73+89.15 TO 75+64.15	175					
LT 75+64.15 TO 76+14.15		1				
LT 76+14.15						1
RT 828+25.00 TO 828+62.00					37	
LT 827+63.00 TO 828+62.00					99	
RT 829+86.00 TO 831+10.00					124	
LT 829+86.00 TO 832+13.00					227	
RT 825+92.97						1
RT 825+92.97 TO 826+42.97		1				
RT 826+42.97 TO 828+17.97	175					
RT 828+17.97 TO 828+61.12				1		
LT 826+92.97						1
LT 826+92.97 TO 827+42.97		1				
LT 827+42.97 TO 828+17.97	75					
LT 828+17.97 TO 828+61.12				1		
RT 829+86.87 TO 830+30.02				1		
RT 830+30.02 TO 831+05.02	75					
RT 831+05.02 TO 831+55.02		1				
RT 831+55.02						1
LT 829+86.87 TO 830+30.02				1		
LT 830+30.02 TO 832+05.02	175					
LT 832+05.02 TO 832+55.02		1				
LT 832+55.02						1
TOTAL	1025	7	1	8	1326	8

MISCELLANEOUS SCHEDULE								
STA LOCATION	ENGINEER'S FIELD OFFICE TYPE A (CAL MO)	MOBILIZATION (L SUM)	TRAFFIC CONTROL AND PROTECTION				TRAFFIC CONTROL SURVEILLANCE (CAL DA)	CONSTRUCTION LAYOUT (L SUM)
			STANDARD 701201 (L SUM)	STANDARD 701321 (EACH)	STANDARD 701306 (L SUM)	STANDARD 701326 (L SUM)		
TOM'S CREEK CK	6	0.5	0.5	1	0.5	0.5	15	0.5
MIDDLE HENDERSON CK	6	0.5	0.5	1	0.5	0.5	15	0.5
TOTAL	12	1	1	2	1	1	30	1

DRAINAGE SCHEDULE							
STA LOCATION	PIPE CULVERTS, CLASS D, TYPE 1, 24" (FOOT)	METAL END SECTIONS 12" (EACH)	METAL END SECTIONS 24" (EACH)	PIPE DRAINS 12" (FOOT)	CLASS SI CONCRETE (OUTLET) (CU. YD.)	TYPE B INLET BOX STANDARD 609006 (EACH)	CONCRETE THRUST BLOCKS (EACH)
69+00 RT					8.8		
69+00 LT					7.7		
69+75 TO 70+41 LT	66		2				
73+71.00 RT		1		33		1	1
73+71.00 LT		1		46		1	1
828+47.50 RT		1		25		1	1
828+47.50 LT		1		47		1	1
TOTAL	66	4	2	151	16.5	4	4

REMOVAL SCHEDULE						
LOCATION	GUTTER REMOVAL (FT)	GUTTER OUTLET REMOVAL (EACH)	PAVEMENT REMOVAL (SQ YD)	COMBINATION CURB AND GUTTER REMOVAL (FOOT)	PIPE CULVERT REMOVAL (FOOT)	EROSION CONTROL CURB REMOVAL (FOOT)
69+00.00 TO 69+54.00 RT	54					
69+00.00 TO 69+54.00 LT	54					
69+54.00 RT/LT		2				
70+03 LT					22	
72+22.00 TO 72+87.00			231			
73+30 TO 74+97 RT						167
73+30 TO 75+70 LT						240
73+30.00 TO 73+82.00			185			
828+25.95 TO 828+62.00			128	72		
828+27 LT					48	1
828+27 RT					19	1
829+85 RT					30	
829+86.00 TO 830+22.04			112	22		
TOTAL	108	2	656	94	119	407

PATCHING QUANTITIES				
LOCATION	CLASS D PATCHES, TYPE I, 15 INCH (SQ. YD.)	CLASS D PATCHES, TYPE II, 15 INCH (SQ. YD.)	CLASS D PATCHES TYPE III, 15 INCH (SQ. YD.)	CLASS D PATCHES, TYPE IV, 15 INCH (SQ. YD.)
824+00 TO 828+25.95		58.7	98.7	31.1
830+22.04 TO 833+50		32	15.6	35.6
69+00 TO 72+22	2.7	16		
73+82 TO 77+00		33.8		
SUBTOTAL	2.7	140.5	114.3	66.7
+15% WINTER BREAKUP	0.4	21.1	17.1	10
TOTAL	3	162	131	77

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: NO SCALE
DATE: 04-02-04

DRAWN BY: B.A.D.
CHECKED BY: M.A.R.

CONTRACT NO. 88798

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			97	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (101BY1BR & (28BR1) ** WARREN COUNTIES				

STAGING SCHEDULE

LOCATION	TEMPORARY RAMP (SQ YD)	TEMPORARY BRIDGE TRAFFIC SIGNALS (EACH)	TEMPORARY RUMBLE STRIP (EACH)	TEMPORARY CONCRETE BARRIER (FOOT)	RELOCATE TEMPORARY CONCRETE BARRIER (FOOT)	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)
69+00.00	18						
72+28.00	24						
73+76.00	24						
77+00.00	24						
71+20.00						1	1
71+22.00 TO 74+82.00				360			
71+32.00 TO 74+72.00					340		
74+75.00							1
74+90.00						1	
824+00.00	16						
825+50.00	23						
828+25.95	27						
828+32.00	24						
828+62.00 LT	3						
829+86.00 LT	3						
830+16.00	24						
833+50.00	16						
827+30.00						1	1
827+34.00 TO 831+14.00				380	380		
831+20.00						1	1
TOM'S CK		1	3				
MIDDLE HENDERSON CK		1					
TOTAL	226	2	3	740	720	4	4

TREE SCHEDULE

LOCATION	TREE, BETULA NIGRA (RIVER BIRCH), 2" CALIPER, BALLED AND BURLAPPED (EACH)	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 1-3/4" CALIPER, BALLED AND BURLAPPED (EACH)	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED (EACH)	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 1-3/4" CALIPER, TREE FORM, BALLED AND BURLAPPED (EACH)
830+20 TO 833+50 RT	3	3	4	3
TOTAL	3	3	4	3

GUARDRAIL & BARRIER WALL MARKERS

LOCATION	GUARDRAIL MARKERS, TYPE A (EACH)	BARRIER WALL MARKERS, TYPE C (EACH)
71+39.5 TO 72+58 LT	3	
70+39.5 TO 72+58 RT	4	
72+58 TO 73+46 LT & RT		6
73+46 TO 74+89.5 RT	3	
73+46 TO 75+64.5 LT	4	
826+42.62 TO 828+61.12 RT	4	
827+42.62 TO 828+61.12 LT	3	
828+61.95 TO 829+86.04 LT & RT		6
829+86.87 TO 831+05.37 RT	3	
829+86.87 TO 832+05.37 LT	4	
TOTAL	28	12

PAVEMENT MARKING SCHEDULE

LOCATION	SHORT-TERM PAVEMENT MARKING (FOOT)	TEMPORARY PAVEMENT MARKING-LINE 4" (FOOT)	PAVEMENT MARKING TAPE, TY III 4" (FOOT)	WORK ZONE PAVEMENT MARKING REMOVAL (SQ FT)	PAVEMENT MARKING REMOVAL (SQ. FT.)	PAINT PAVEMENT MARKING LINE	
						4" WHITE (FT)	4" YELLOW (FT)
69+00.00 TO 77+00.00	352			117	533	1600	1600
69+10.00 TO 77+10.00 STAGE 1		1600		533			
69+10.00 TO 72+22.00 STAGE 2		624		208			
72+22.00 TO 73+82.00 STAGE 2			320	107			
73+82.00 TO 77+10.00 STAGE 2		656		219			
824+00.00 TO 833+50.00	524			175	633	1900	1188
825+24.00 TO 833+25.00 STAGE 1		1602		534			
825+24.00 TO 828+26.00 STAGE 2		604		201			
828+26.00 TO 830+22.00 STAGE 2			392	131			
830+22.00 TO 833+25.00 STAGE 2		606		202			
TOTAL	876	5692	712	2427	1166	6288	

PERMANENT SURVEY MARKER SCHEDULE

LOCATION	POINT TYPE	EACH
69+00.00	P.O.T.	1
77+00.00	P.O.T.	1
SN 094-0049	BRIDGE	1
824+00.00	P.O.T.	1
831+50.00	P.O.T.	1
SN 094-0002	BRIDGE	1
TOTAL		6

GUARDRAIL AGGREGATE EROSION CONTROL

LOCATION	TONS
69+42 TO 72+58 RT	148
70+61 TO 72+58 LT	43
73+46 TO 75+75 RT	60
73+46 TO 76+46 LT	76
825+65 TO 828+62 RT	62
826+74 TO 828+62 LT	39
829+86 TO 831+84 RT	41
829+86 TO 832+82 LT	62
TOTAL	531

FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS

STATION	OFFSET	EACH
827+50.00	70' RT	1
828+50.00	150' RT	1
830+00.00	150' RT	1
830+25.00	70' RT	1
TOTAL		4

TRAINEES

LOCATION	HOURS
ENTIRE PROJECT	500
TOTAL	500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

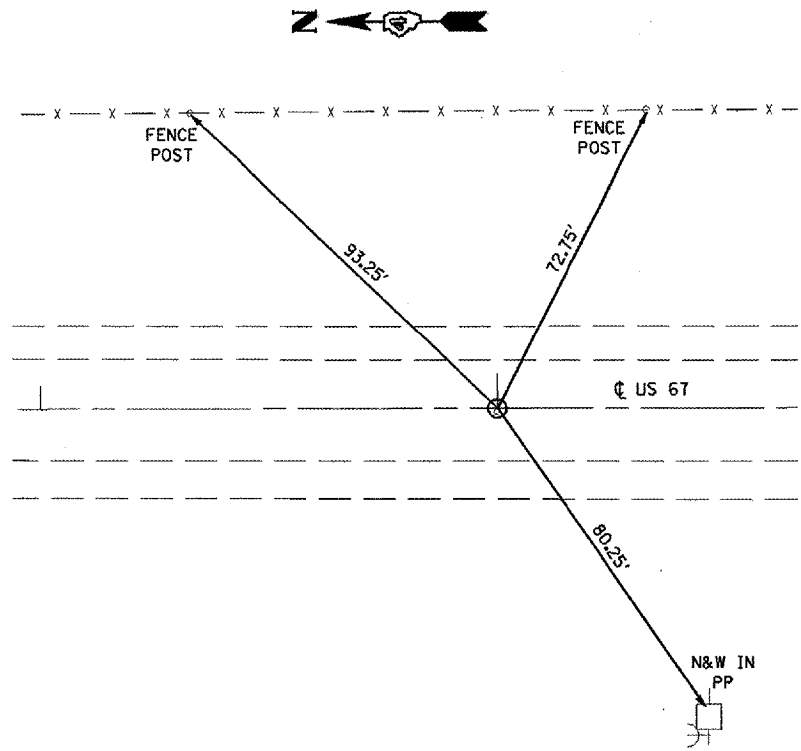
SCHEDULES OF QUANTITIES

SCALE: NO SCALE
DATE: 04-02-04

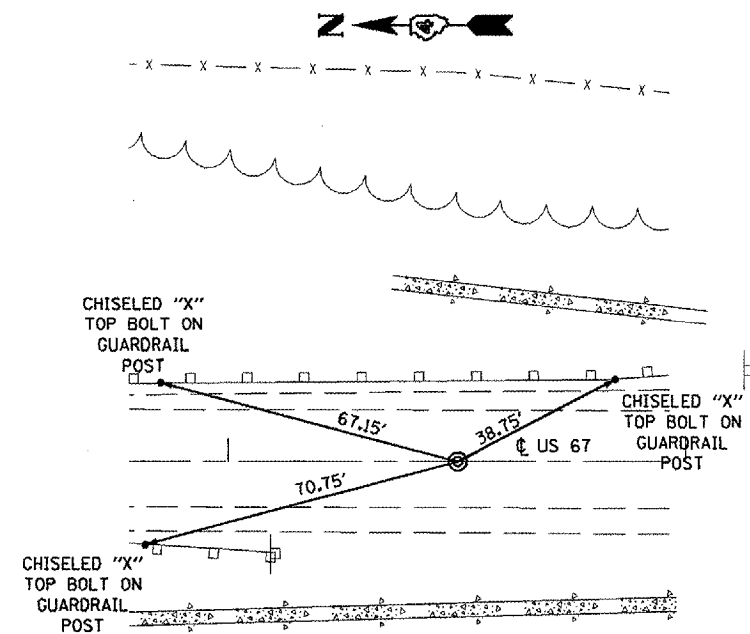
DRAWN BY: B.A.D.
CHECKED BY: M.A.R.

CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310		**	97	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	US 67/IL 135	
(1018Y)BR(28-BR1)				
** WARREN COUNTIES				



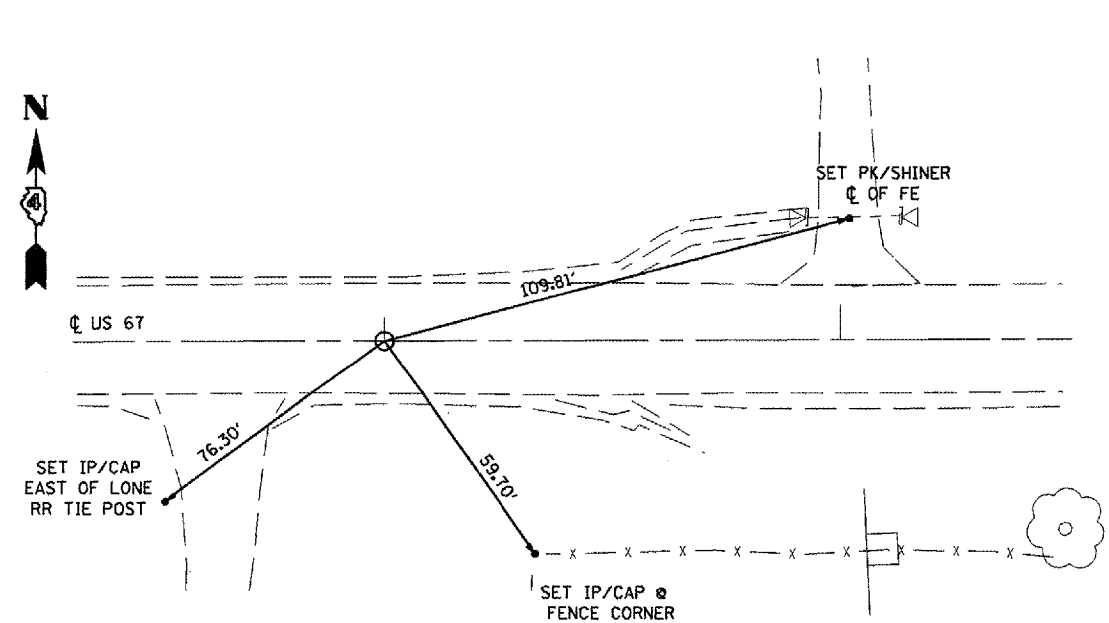
POT STA 824+00.00
PK NAIL



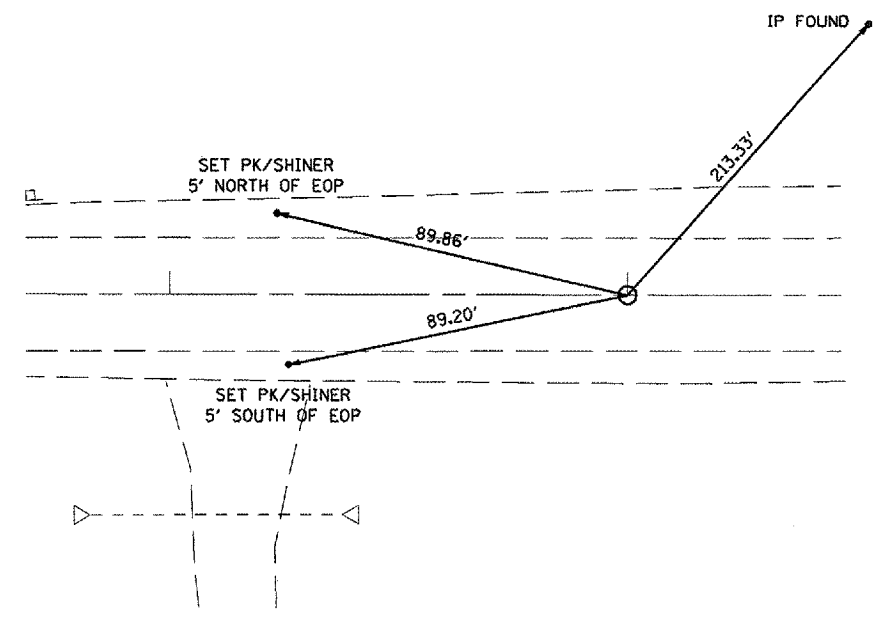
POT STA 831+53.50
PK NAIL

BENCHMARK
BM STA 828+60
BM EL 626.24
CHISELED SQUARE ON NW WINGWALL
OF SN 094-0002

**STA 824+00 TO STA 833+50
MIDDLE HENDERSON CREEK**



POT STA 69+00.00
PK NAIL



POT STA 77+00.00
PK NAIL

BENCHMARK
BM STA 73+30
BM EL 642.47
CHISELED SQUARE ON NE WINGWALL
OF SN 094-0001

**STA 69+00.00 TO STA 77+00.00
TOM'S CREEK**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**ALIGNMENT, TIES
AND BENCHMARKS**

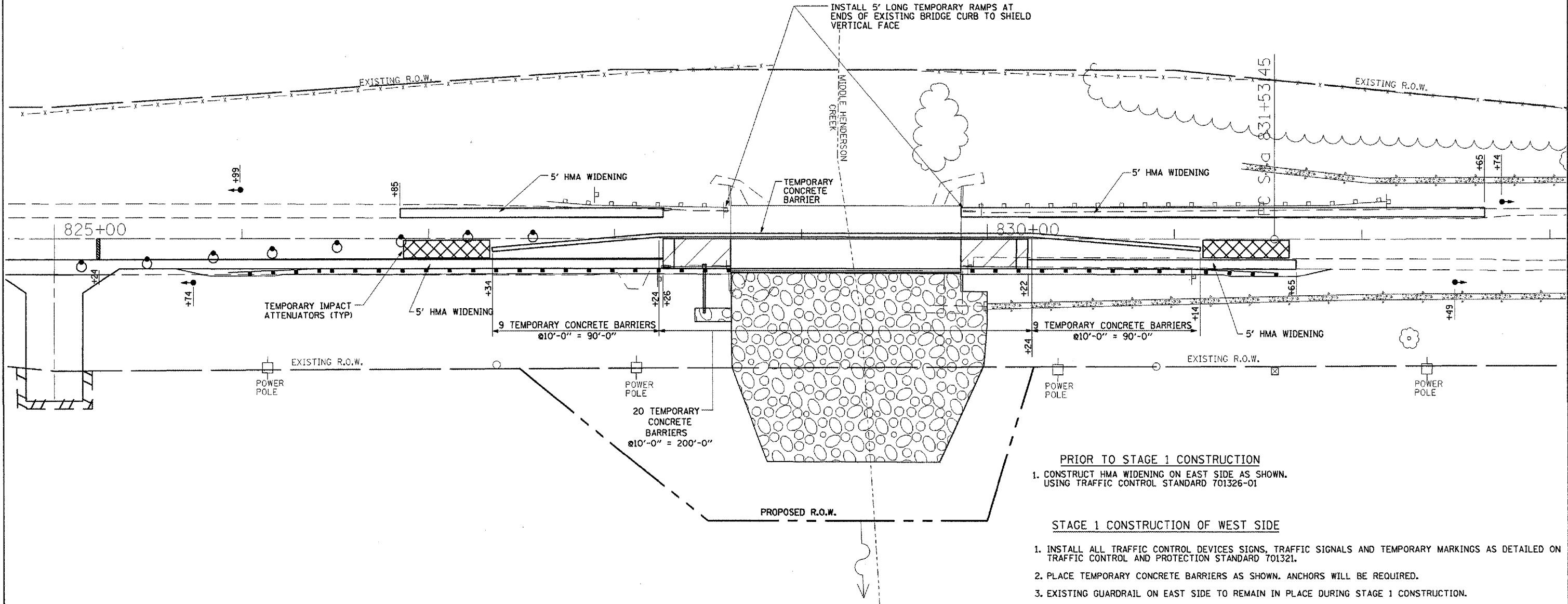
SCALE: NO SCALE
DATE: 04-02-04

DRAWN BY: BAD
CHECKED BY: JLG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(28-BR)I	WARREN	97	19
STA. 824+00.00		TO STA. 833+50.00		
FED. ROAD DIST. NO.	ILLINOIS	US 67		

 - PAVEMENT REMOVAL

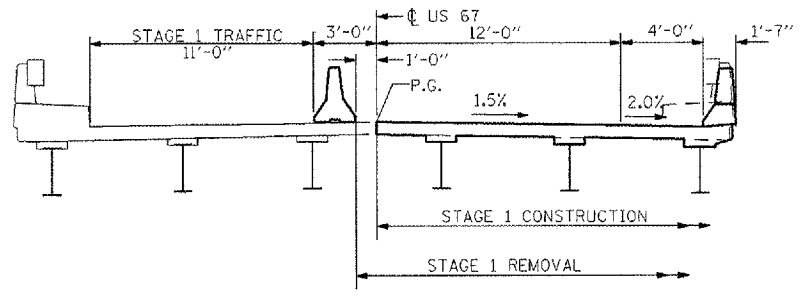
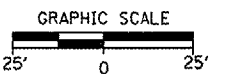
INSTALL FLASHING LIGHT ON THE TRAFFIC SIGNAL WARNING SIGN SOUTH OF THE BRIDGE. PAYMENT FOR THE FLASHING LIGHT SHALL BE INCLUDED IN THE COST OF STD. 701321.



- PRIOR TO STAGE 1 CONSTRUCTION**
1. CONSTRUCT HMA WIDENING ON EAST SIDE AS SHOWN. USING TRAFFIC CONTROL STANDARD 701326-01

- STAGE 1 CONSTRUCTION OF WEST SIDE**
1. INSTALL ALL TRAFFIC CONTROL DEVICES SIGNS, TRAFFIC SIGNALS AND TEMPORARY MARKINGS AS DETAILED ON TRAFFIC CONTROL AND PROTECTION STANDARD 701321.
 2. PLACE TEMPORARY CONCRETE BARRIERS AS SHOWN. ANCHORS WILL BE REQUIRED.
 3. EXISTING GUARDRAIL ON EAST SIDE TO REMAIN IN PLACE DURING STAGE 1 CONSTRUCTION.
 4. INSTALL TEMP. SHEET PILING AS SHOWN ON MIDDLE HENDERSON S.N. 094-0002 STRUCTURAL PLANS
 5. REMOVE GUARDRAIL, PAVEMENT, AND WEST SIDE OF EXISTING DECK AS SHOWN.
 6. CONSTRUCT BRIDGE DECK, APPROACH PAVEMENTS, APPROACH PAVEMENT CONNECTORS, HMA WIDENING, AND ALL OTHER COLLATERAL WORK FOR WEST SIDE OF ROADWAY AS SHOWN.

NOTE: APPROACH PAVEMENT CONNECTOR WILL HAVE TO BE GRADED TO TRANSITION TO EXISTING PROFILE ON THE NORTH APPROACH FOR STAGING OPERATIONS.



STAGE 1 CONSTRUCTION CROSS SECTION
(Looking South)

(28-BR)I
STAGE 1 CONSTRUCTION AT MIDDLE HENDERSON CREEK

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE 1 CONSTRUCTION
MIDDLE HENDERSON CREEK
SN 094-0002

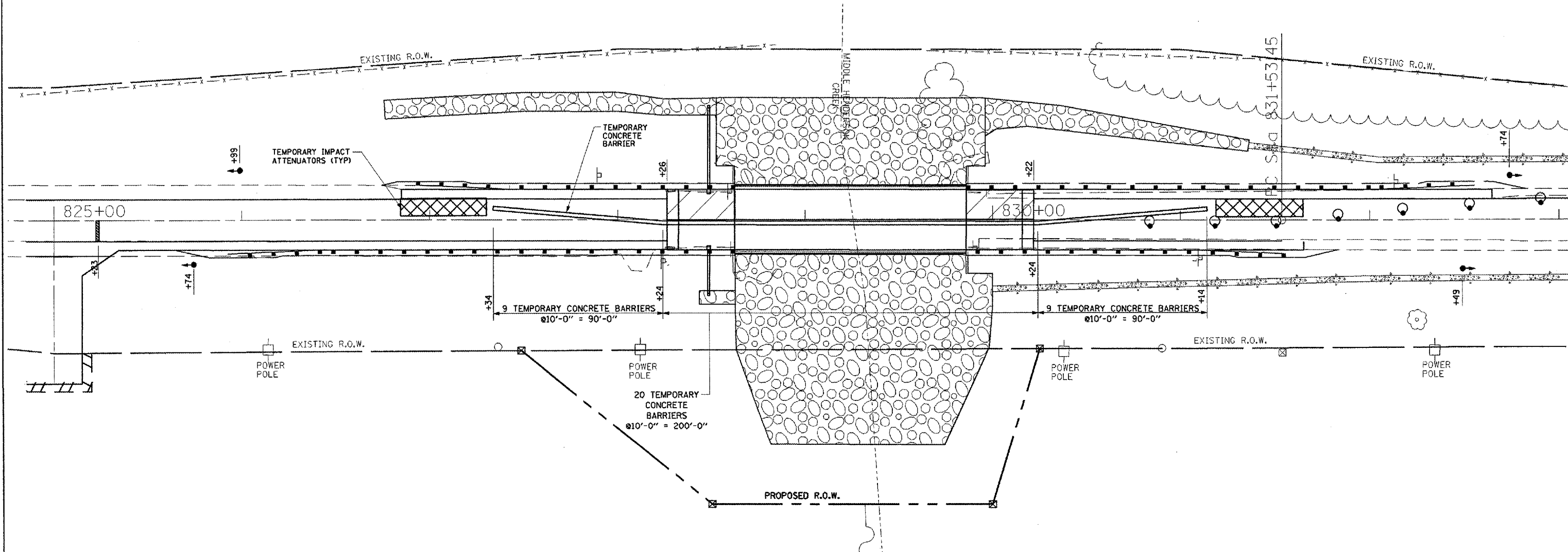
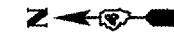
SCALE: DATE: 04-02-04

DRAWN BY: BAD
CHECKED BY: JLG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(28-BR)I	WARREN	97	20
STA. 824+00.00		TO STA. 833+50.00		
FED. ROAD DIST. NO.		ILLINOIS		US 67

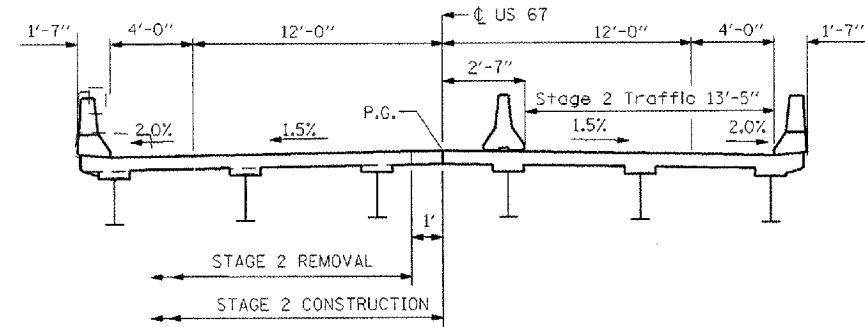
 - PAVEMENT REMOVAL

USE FLASHING LIGHT ON THE TRAFFIC SIGNAL WARNING SIGN SOUTH OF THE BRIDGE. PAYMENT FOR THE FLASHING LIGHT SHALL BE INCLUDED IN THE COST OF STD. 701321.

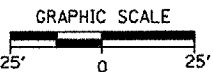


STAGE 2 CONSTRUCTION OF EAST SIDE

1. RELOCATE TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS, AND TEMPORARY MARKINGS AS DETAILED ON TRAFFIC CONTROL AND PROTECTION STANDARD 701321.
2. REMOVE GUARDRAIL, PAVEMENT, AND REMAINING STRUCTURE FOR EAST SIDE AS SHOWN.
3. CONSTRUCT BRIDGE DECK, APPROACH PAVEMENTS, APPROACH PAVEMENT CONNECTORS, AND ALL OTHER COLLATERAL WORK FOR EAST SIDE OF ROADWAY AS SHOWN.
4. REMOVE TRAFFIC CONTROL PAVEMENT MARKINGS, TEMPORARY CONCRETE BARRIERS, RUMBLE STRIPS, AND TEMPORARY SIGNALS.
5. COMPLETE PAVEMENT PATCHING. USE TRAFFIC CONTROL AS DETAILED IN STANDARD 701201.
6. USE VARIABLE DEPTH MILLING AND BINDER COURSE TO ADJUST ROADWAY AND SHOULDER ELEVATIONS TO PROPOSED GRADE ON NORTH APPROACH. USE TRAFFIC CONTROL AS DETAILED ON STANDARD 701306.
7. COMPLETE VARIABLE DEPTH MILLING ON SOUTH APPROACH. USE TRAFFIC CONTROL AS DETAILED ON STANDARD 701306.
8. RESURFACE NORTH AND SOUTH APPROACHES. USE TRAFFIC CONTROL AS DETAILED ON STANDARD 701306.
9. PAVEMENT MARKING WILL BE PLACED AFTER THE COMPLETION OF STAGE 2.



STAGE 2 CONSTRUCTION CROSS SECTION
(Looking South)



(28-BR)I
STAGE 2 CONSTRUCTION AT MIDDLE HENDERSON CREEK

REVISIONS	
NAME	DATE

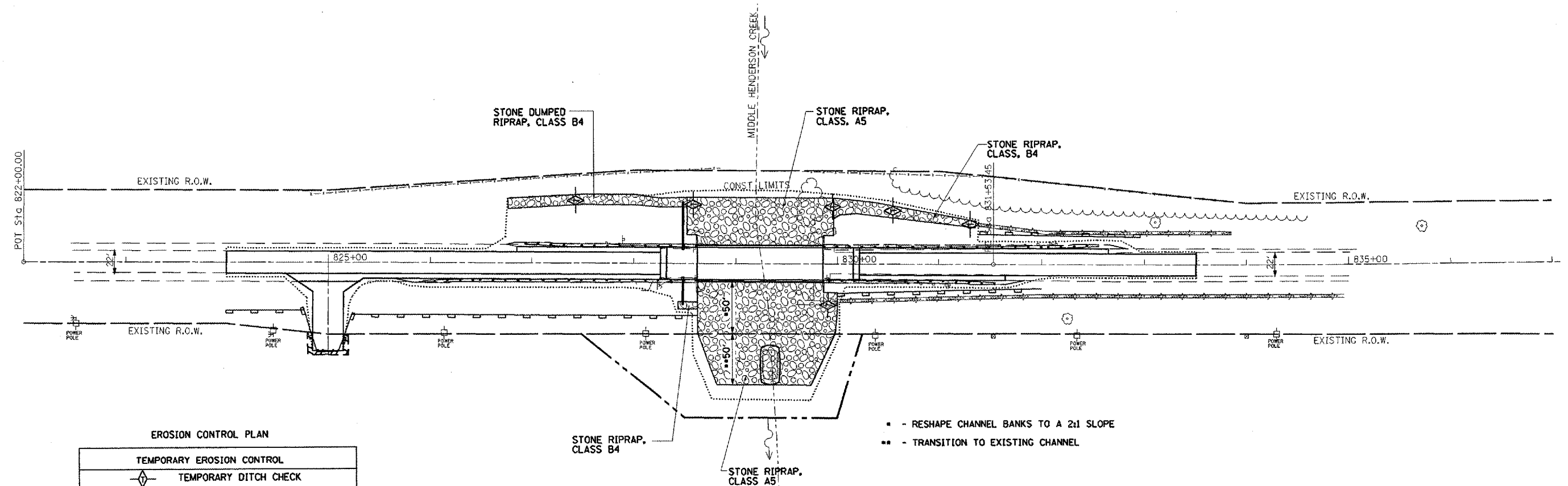
ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE 2 CONSTRUCTION
MIDDLE HENDERSON CREEK
SN 094-0002

SCALE:

DRAWN BY: BAD

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(28BR)I	WARREN	97	22
STA. 824+00		TO STA. 833+50		
FED. ROAD DIST. NO.		ILLINOIS US 67		



EROSION CONTROL PLAN

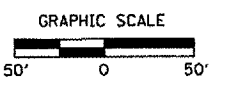
TEMPORARY EROSION CONTROL	
	TEMPORARY DITCH CHECK
	PERIMETER EROSION BARRIER
	SEDIMENT BASIN
PERMANENT EROSION CONTROL	
	CLASS A4 RIPRAP

PRIOR TO BEGINNING EARTHWORK OR STRUCTURE REMOVAL, PERIMETER EROSION BARRIER SHALL BE PLACED AS GIVEN IN ACCORDANCE WITH THE TYPICAL APPLICATION OF SILT FILTER FENCE DETAIL AND SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER.

TEMPORARY DITCH CHECKS AND INLET AND PIPE PROTECTION SHALL BE PLACED AS GIVEN IMMEDIATELY UPON DISTURBANCE OF EXISTING SLOPES IN ACCORDANCE WITH THE EROSION CONTROL SPECIAL PROVISION AND SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER.

PERMANENT CLASS A4 RIPRAP AND SEEDING, CLASS 3 SHALL BE PLACED IMMEDIATELY AFTER FINAL GRADING FOR PROPOSED DITCHES IN ACCORDANCE WITH SECTIONS 250, 251, 281, AND 282 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER.

- - RESHAPE CHANNEL BANKS TO A 2:1 SLOPE
- - TRANSITION TO EXISTING CHANNEL



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MIDDLE HENDERSON CREEK

SEC (28BR)I

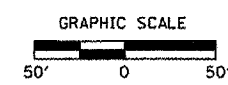
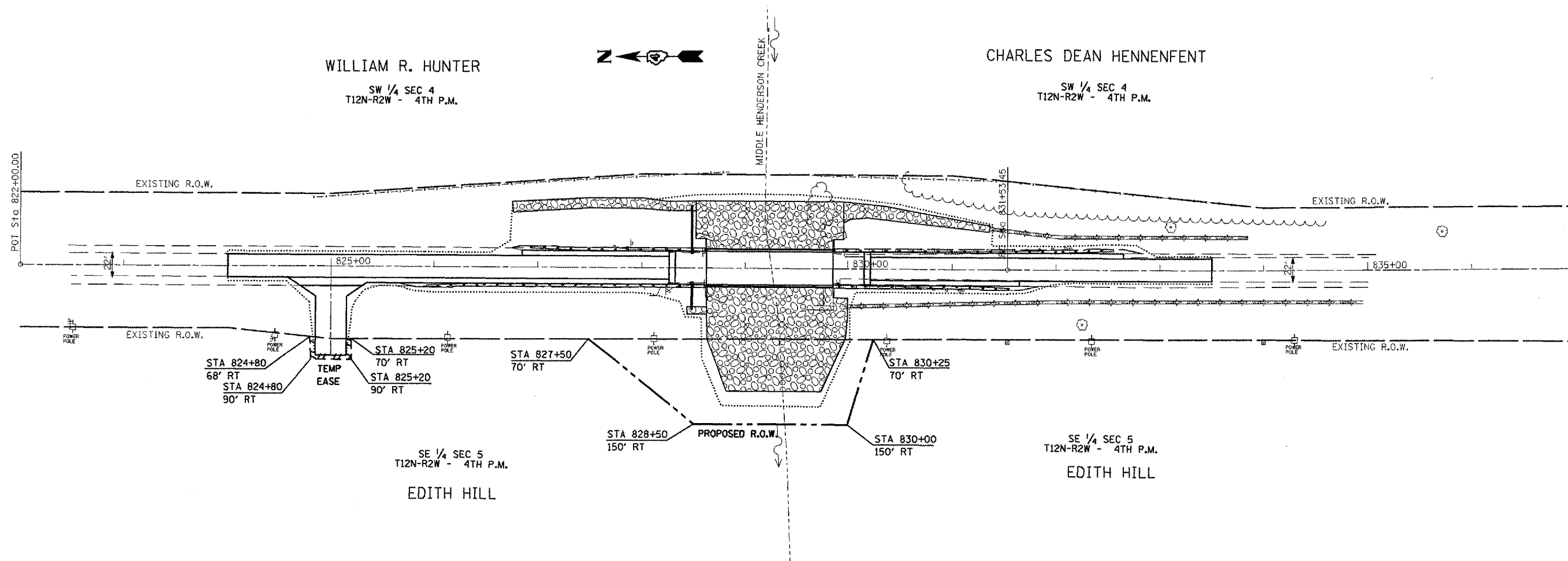
SN 094-0002

EROSION CONTROL PLAN

SCALE: DRAWN BY: BAD

DATE: 04-02-04 CHECKED BY: JLG

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(28-BR)I	WARREN	97	23
STA. 824+00		TO STA. 833+50		
FED. ROAD DIST. NO.		ILLINOIS	US 67	



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MIDDLE HENDERSON CREEK
SEC (28BR)I
SN 094-0002
RIGHT-OF-WAY PLAN
 SCALE: DATE: 04-02-04
 DRAWN BY: BAD
 CHECKED BY: JLG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(101BY)BR428-BR1 ** WARREN COUNTIES				

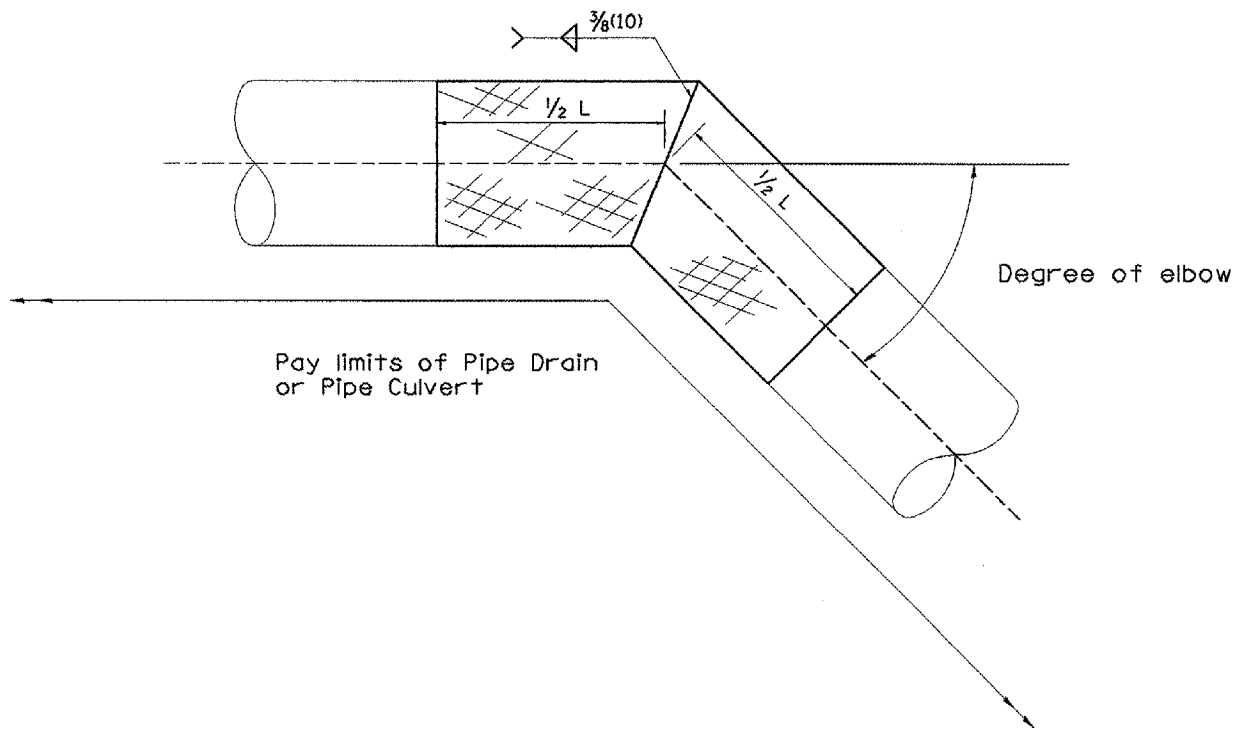
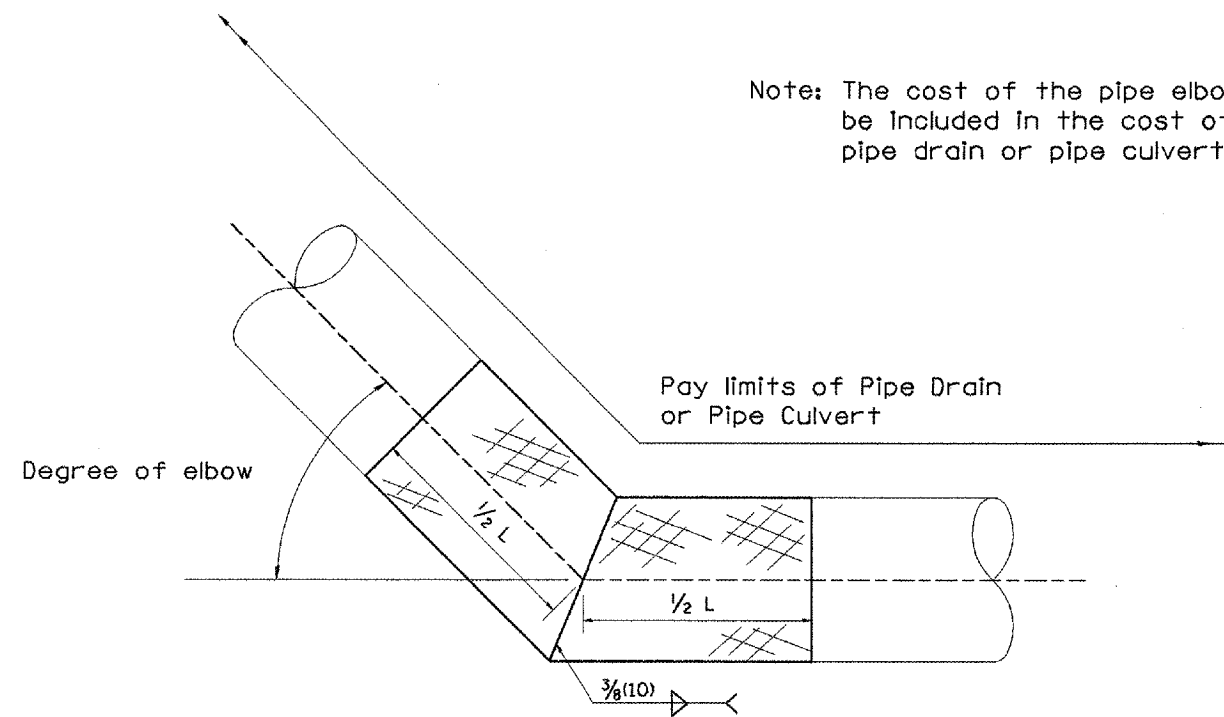


TABLE A ELBOW DESIGN CONTROLS		
PIPE DIAMETER	L = Minimum length of pipe required for fabrication	
	DEGREE OF ELBOW ≤ 45°	DEGREE OF ELBOW ≥ 46°
12(300)	24(600)	4'(1.22M)
15(375)	24(600)	4'(1.22M)
18(450)	24(600)	4'(1.22M)
21(525)	24(600)	4'(1.22M)
24(600)	4'(1.22M)	4'(1.22M)
30(750)	4'(1.22M)	6'(1.83M)
36(900)	4'(1.22M)	6'(1.83M)

TABLE B ELBOW DESIGN CONTROLS	
EARTH SLOPE (V:H)	DEGREE OF ELBOW *
1:6	9°
1:4	14°
1:3	18°
1:2	26°
1:1/2	33°

* Approximate - based upon 0.5% inlet and outlet flowlines.



Note: The cost of the pipe elbow shall be included in the cost of the pipe drain or pipe culvert.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE	REVISIONS	BY

**PIPE ELBOW
DETAIL**

CADD STD. NO. 601301-D4
SCALE: NOT DRAWN TO SCALE
DRAWN BY CADD
CHECKED BY

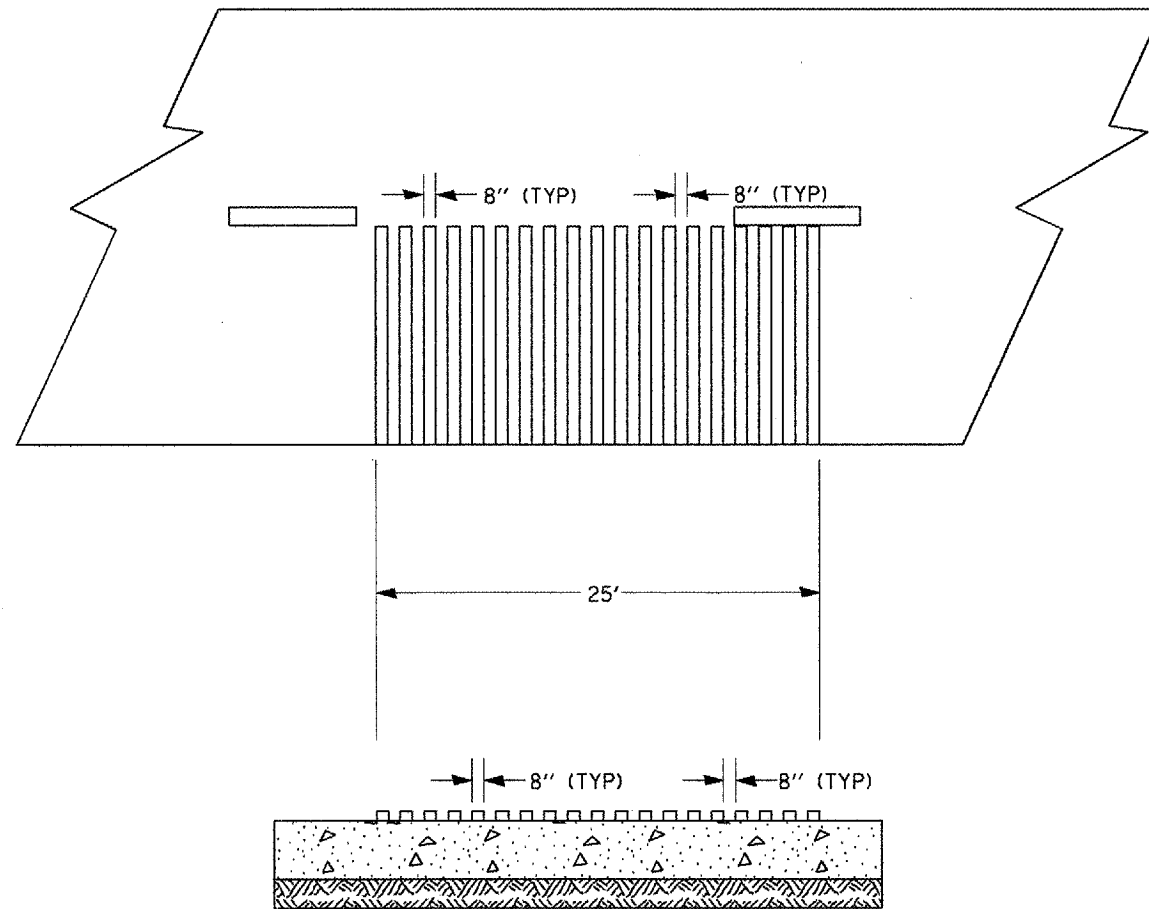
CONTRACT NO. 88798

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	25

FED. AID PROJECT

*[101B]BR(28-BR)
** WARREN COUNTIES

PLAN VIEW



NOTE: THE 25-FOOT RUMBLE AREA HAS 8-INCH LENGTHS OF TREATED SURFACE STRETCHED ACROSS THE WIDTH OF APPROACH LANE, EACH SEPARATED BY 8 INCHES OF EXISTING PAVEMENT.

SEE THE SPECIAL PROVISION TITLED "TEMPORARY RUMBLE STRIPS" FOR ADDITIONAL DETAILS. SEE THE STAGING PLANS AND HIGHWAY STANDARD 701321 FOR LOCATIONS.

\$\$\$DATE\$\$\$

ILLINOIS DEPARTMENT OF TRANSPORTATION

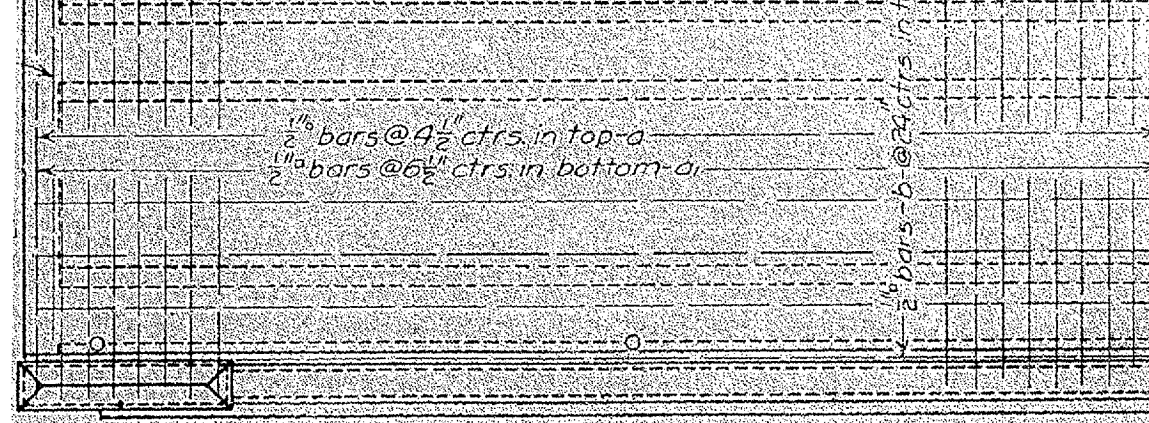
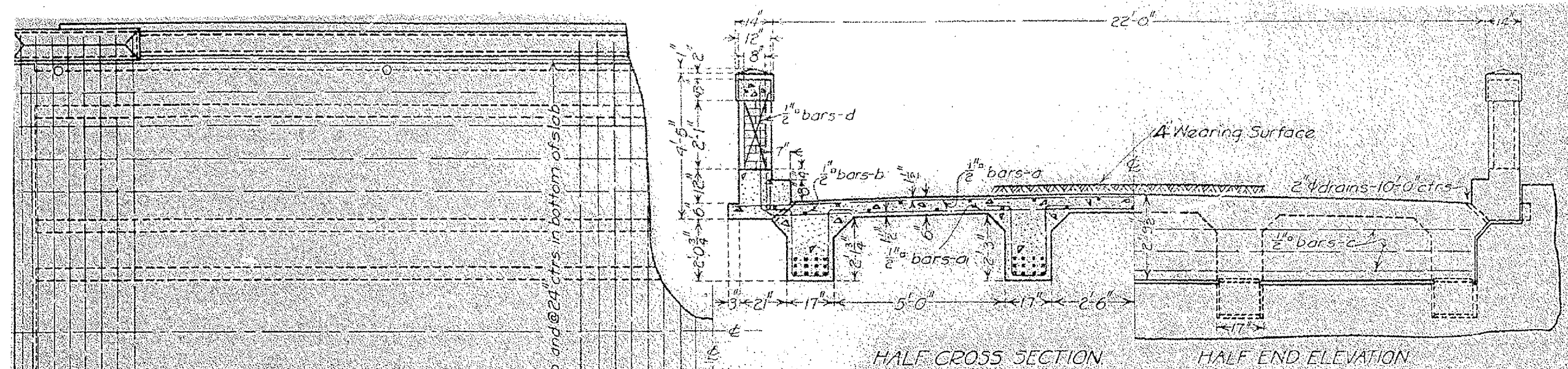
DETAIL

TEMPORARY RUMBLE STRIPS

SCALE: NOT DRAWN TO SCALE

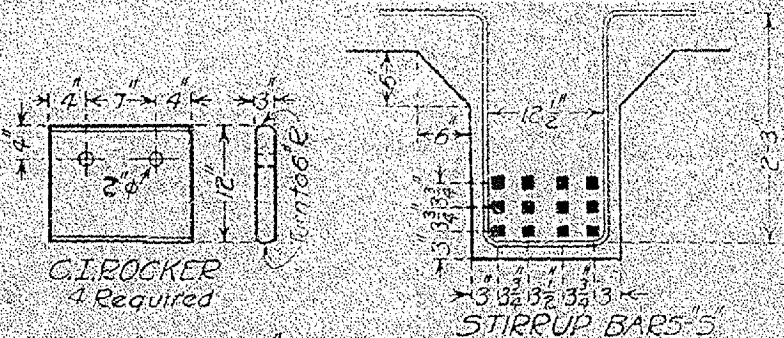
DRAWN BY K.J.H.
CHECKED BY

F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	26
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



BILL OF MATERIAL

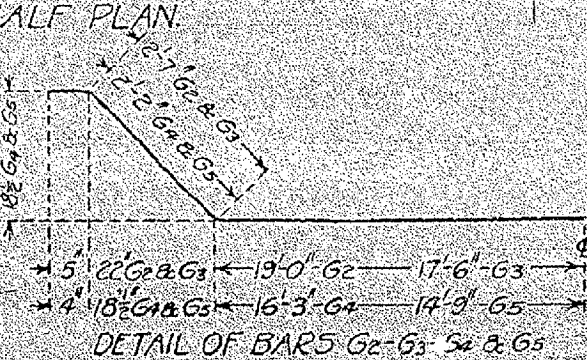
Bars	No	Size	Length
a	114	1/2"	24'-0"
a1	79	1/2"	25'-0"
a2	8	1/2"	6'-0"
b	46	1/2"	22'-6"
c	6	1/2"	20'-0"
d	12	1/2"	5'-6"
e	4	1/2"	12'-0"
f	8	1/4"	42'-6"
g	8	1/8"	44'-0"
g3	8	1/8"	41'-0"
g4	8	1/8"	37'-6"
g5	8	1/8"	34'-6"
s	232	1/2"	7'-9"
e2	8	1/2"	11'-0"
Reinforcing Steel Lbs			15680
Class A Concrete - Cu Yds			46.4
Class X Conc. Cu Yds			6.7
C.I. Rockers - Lbs			560
Steel Plates - Lbs			270
Name Plate			1



Rockers and Plates shall be given two coats of STEEL PLATE sublimed blue lead paint. 8 Required. Surface adjacent to Rockers to be planed.

STATION 73+09
STATE BOND ISSUE ROUTE 85
SECTION A10 MERCER WARREN CO.
1006

EXAMINED *Mar 30 1926*
J.F. Busch BRIDGE ENGINEER
PASSED BY *W. W. ...* ENGINEER OF DESIGN
APPROVED *Frank ...* CHIEF HIGHWAY ENGINEER



Class A Concrete to be used below top Hubguard Proportions 1-2 1/2 - 4

FOR INFORMATION ONLY

REVISIONS		DATE
NAME		

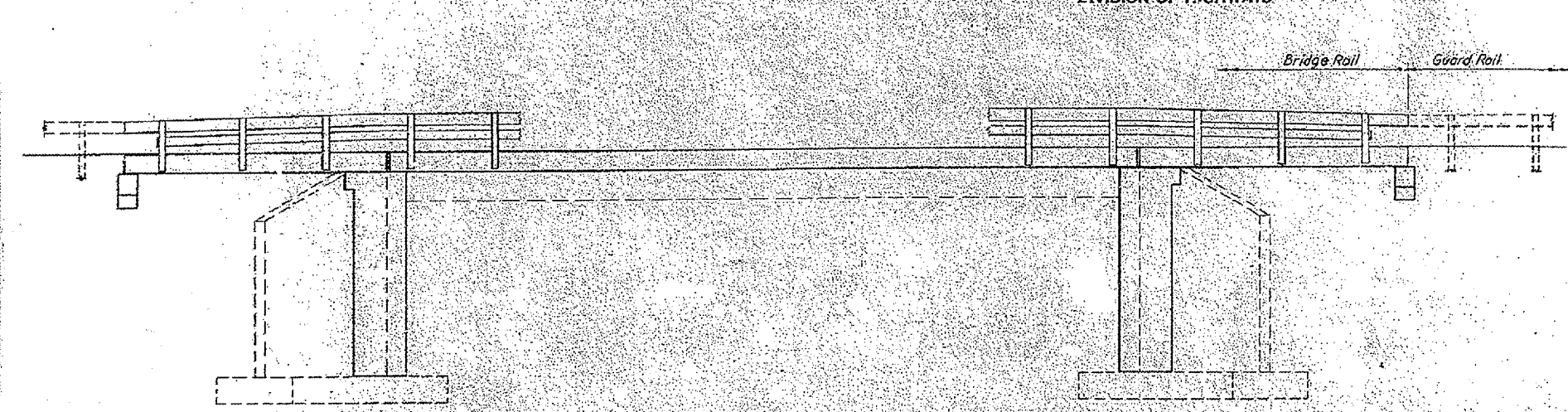
ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0001
TOMS CREEK 1928
SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY

PLT DATE = 7/11/2007
PLOT SCALE = 1/8"=1'-0"
USER NAME = mcg...

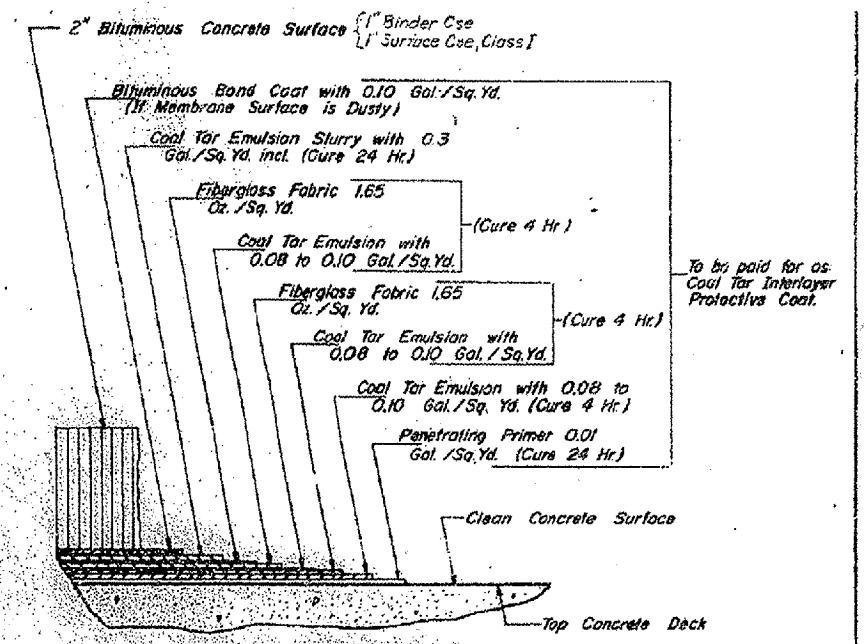
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310		**	97	27
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Built as S.B.I. Rt. 85, Sec 101, Sta. 73+09, Year 1927

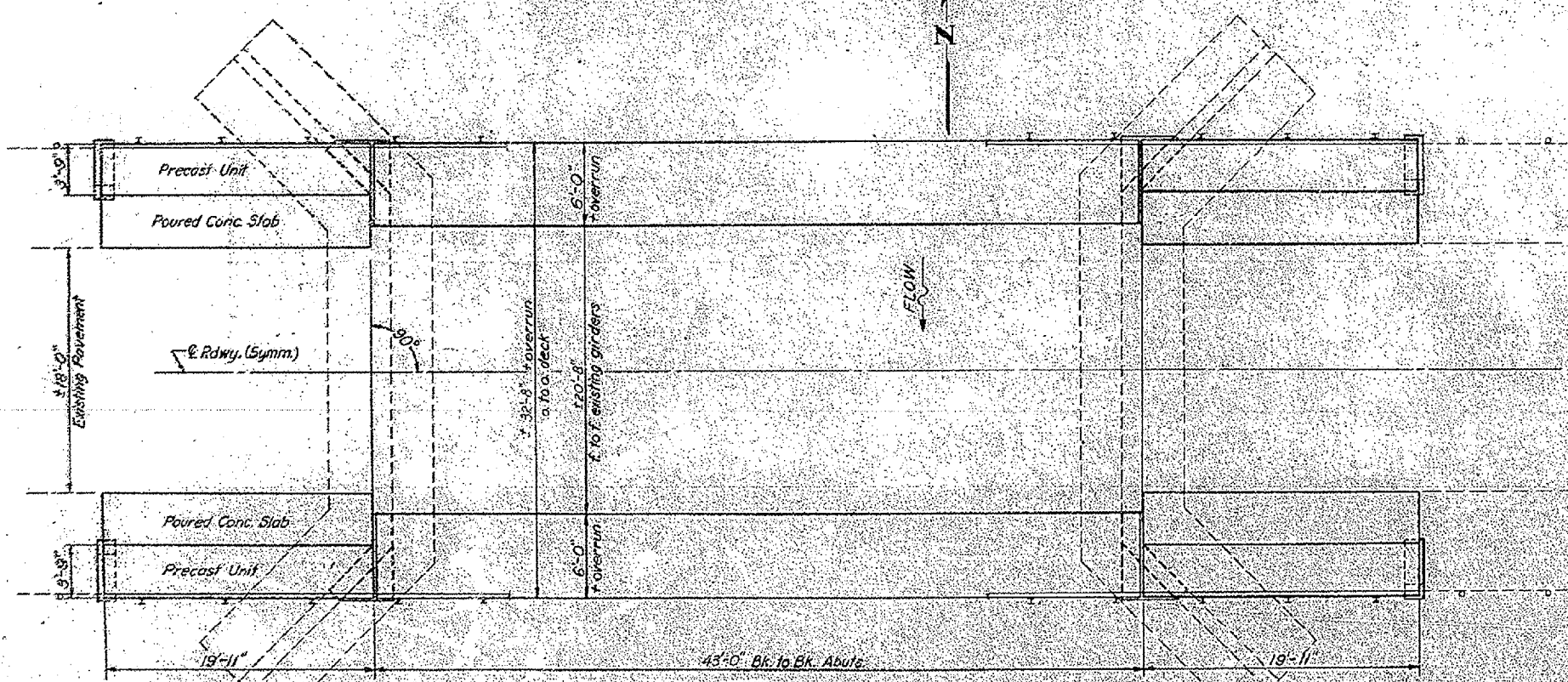
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



ELEVATION



DETAIL OF DECK SURFACING



PLAN

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
An alternate strand pattern using Extra High Strength Prestressing strand (270 ksi) is permitted.
Expansion bolts shall consist of self drilling expansion shields and 3/4" hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete.
Any excavation shall be incidental to Bridge Contract.
Shoulder transition to wingwall shall be shaped with broken concrete. Coat incidental.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Portland Cement Concrete Pavement (10')	Sq. Yds.	33		33
Pavement Fabric	Sq. Yds.	33		33
Concrete Removal	Cu. Yds.	14	4	18
Expansion Bolts (3/4")	Each	52	108	160
Class X Concrete	Cu. Yds.		25.1	25.1
Precast Concrete Bridge Slab	Sq. Ft.	299		299
Precast Prestressed Concrete Deck Beams (17')	Sq. Ft.	514		514
Steel Rolling Type W	Lin. Ft.	150		150
Reinforcement Bars	Lbs.		840	840
Bituminous Concrete Surface Removal	Sq. Yds.	100		100
Coal Tar Interlayer Protective Coat	Sq. Yds.	157		157

FOR INFORMATION ONLY

DESIGN STRESSES

FIELD UNITS	PRECAST PRESTR. UNITS
$f_c = 1400$ psi (super)	$f_c = 5000$ psi
$f_c = 1000$ psi (sub)	$f_c = 4000$ psi
$f_s = 20,000$ psi (reinf)	$f_s = 248,000$ psi
$V_d = 75$ psi (footing)	$f_s = 173,600$ psi
$n = 10$	

LIVE LOAD RATING = H 13.3 (Governs)

GENERAL PLAN & ELEVATION
TOMS CREEK
S.B.I. RT 85 (US 67) SEC 101 BY
WARREN COUNTY
STA 73+00

DESIGNED	James Pence	EXAMINED	[Signature]
CHECKED	Jack Armstrong	PASSED	[Signature]
DRAWN	Jack Armstrong	APPROVED	[Signature]
CHECKED	J.P.		

REVISIONS	
NAME	DATE

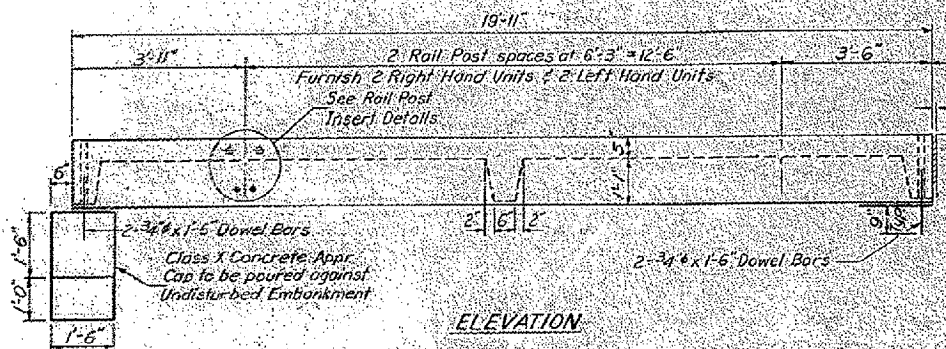
ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0001
TOMS CREEK 1971
SCALE: VERT. _____
HORIZ. _____
DATE _____
DRAWN BY _____
CHECKED BY _____

PLT DATE = 7/11/2007
FILE NAME = c:\puro\mex\concr\final\plans\topical.dgn
PLOT SCALE = 1/8"=1'-0"
USER NAME = mgm

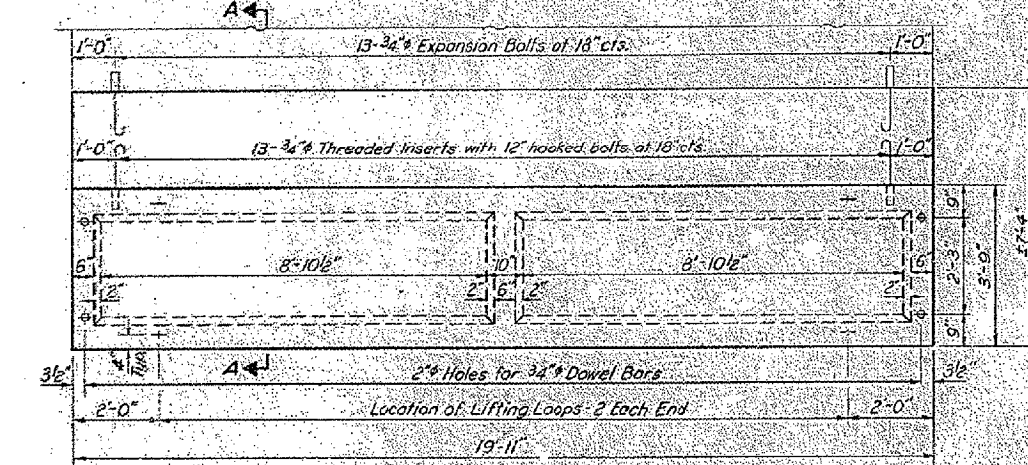
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310			97	28
STA.		TO STA.		
FED. RD. DIST. NO.		ILLINOIS FED. AID PROJECT		

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

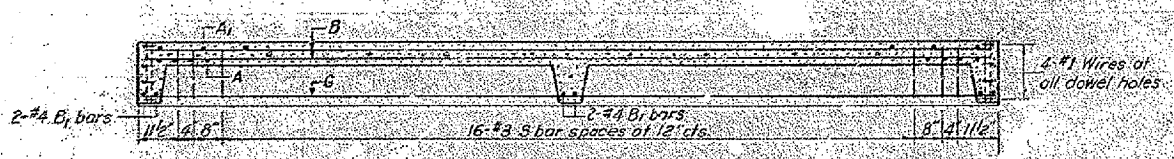
(101BYBR & (28BR))
WARREN COUNTIES



ELEVATION



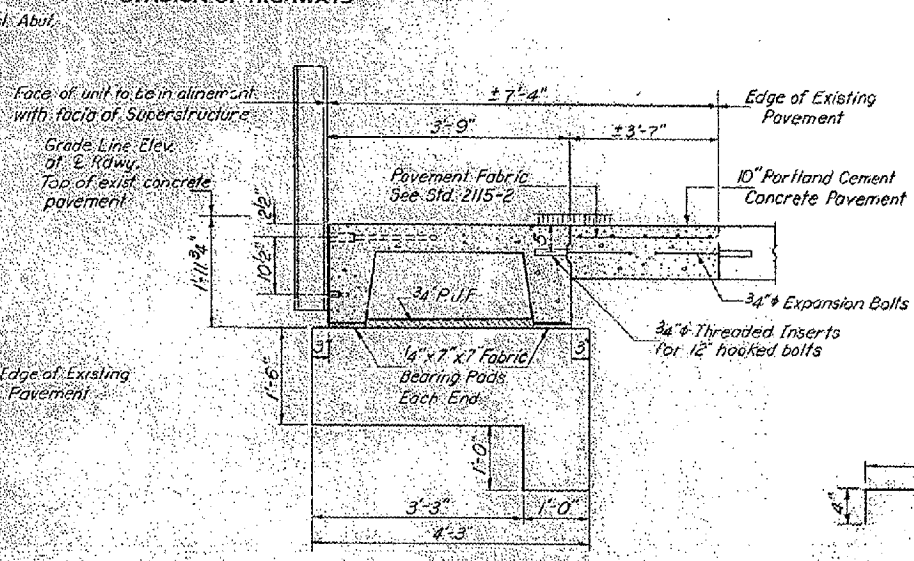
PARTIAL PLAN OF APPR.



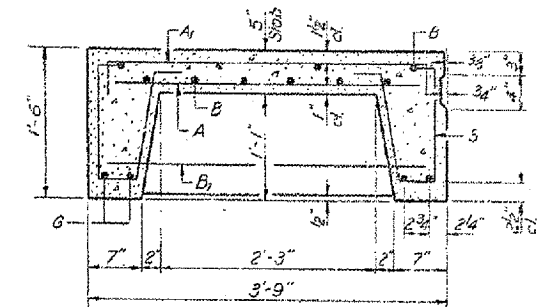
LONGITUDINAL SECTION



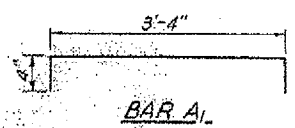
REINFORCEMENT PLAN



SECTION A-A



SECTION THRU PRECAST UNIT



BAR A1

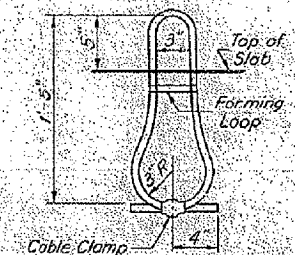


BAR S

BAR LIST - ONE UNIT

Reinforcement to be cast into slab

Bar	No	Size	Length	Shape
A	52	#4	3'-3"	U
A1	27	#4	4'-0"	U
B	10	#4	19'-6"	—
B1	6	#4	3'-6"	—
G	4	#10	19'-6"	—
S	42	#3	3'-4"	U



LIFTING LOOP DETAIL

GENERAL NOTES

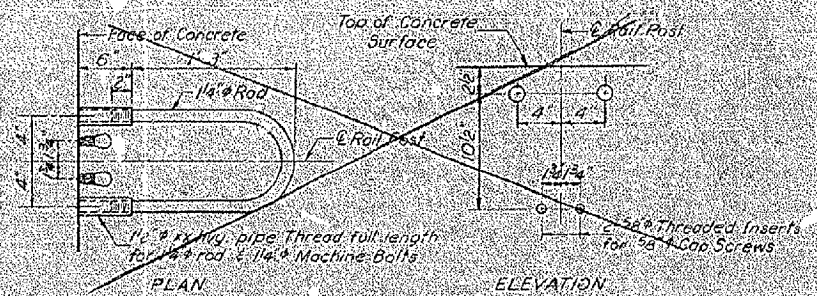
Unless otherwise approved by the Engineer, lifting loops shall be 1/2", 6x19 class wire rope with fiber core and shall have a minimum ultimate strength of 15,700 lbs. Loops shall be burned off after slab has been erected. Holes shall be drilled and anchor dowels grouted in place. Cost of reinforcement and accessories cast into the slab unit, bearing pads, furnishing, drilling for, placing and grouting anchor dowels and 3/4" hooked bolts is included in Unit bid price for "Precast Concrete Bridge Slab".

BILL OF MATERIAL

Item	Unit	Quantity
Precast Concrete Bridge Slab	Sq. Ft.	299
Portland Cement Concrete Pavement (10")	Sq. Yds.	33
Pavement Fabric	Sq. Yds.	33
Expansion Bolts - 3/4"	Each	52
Class X Concrete	Cu. Yds.	1.6

APPROACH DETAILS

SBI RT-85 SEC. 101 BY
WARREN COUNTY
STA. 73+00



RAIL POST INSERT DETAILS

STRESSES
fc = 4,500 psi
fc = 1,800 psi
fs = 20,000 psi
n = 8
LOADING HS-20

DESIGNED	James Pene	EXAMINED	Aug 7 1969
CHECKED	Jack Armstrong	PASSED	McRaus...
DRAWN	J.L. Armstrong	APPROVED	Richard H. ...
CHECKED	J.P.		

REVISIONS	NAME	DATE

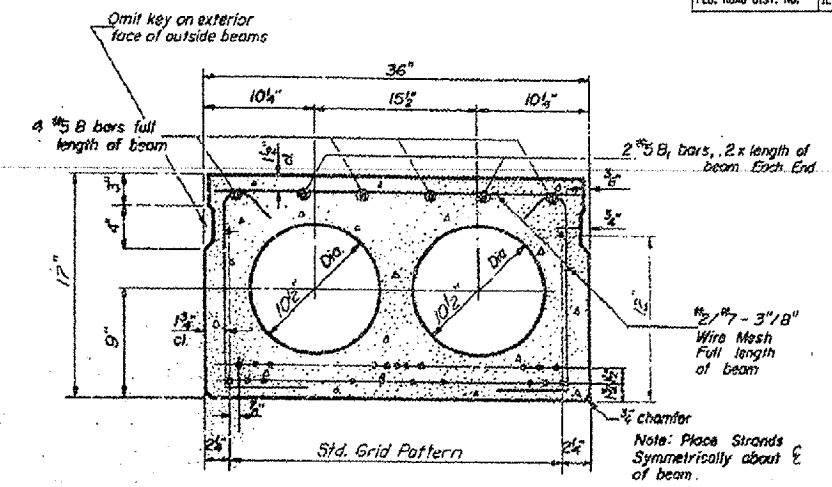
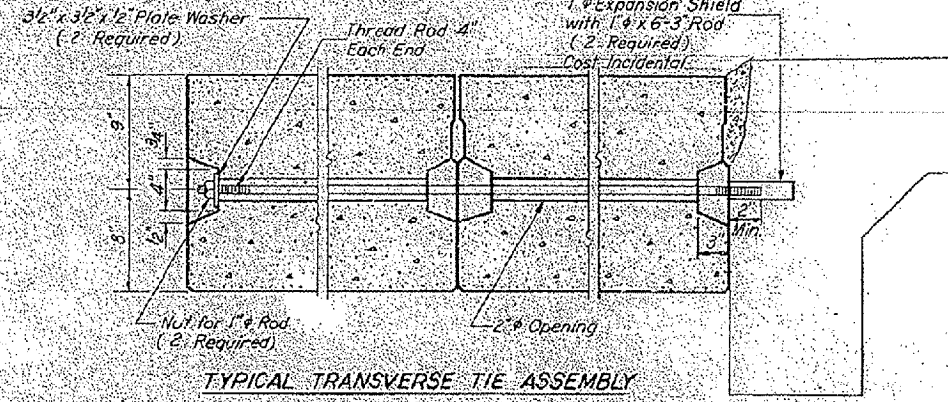
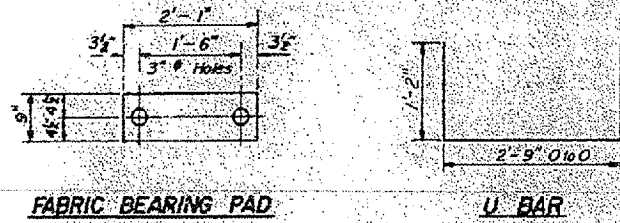
ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0001
TOMS CREEK 1971
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

FOR INFORMATION ONLY

PLT DATE: 7/11/2007
FILE NAME: C:\Users\jason\Documents\final plans\app\total.dgn
PLOT SCALE: 1/8"=1'-0"
USER NAME: jason

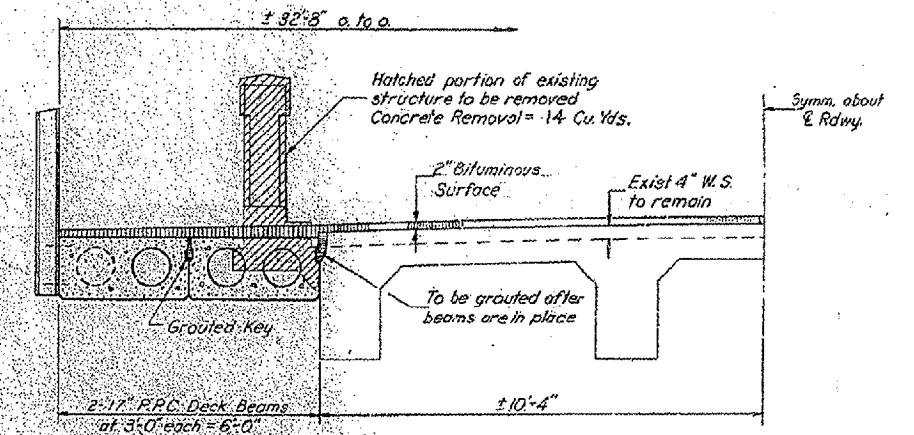
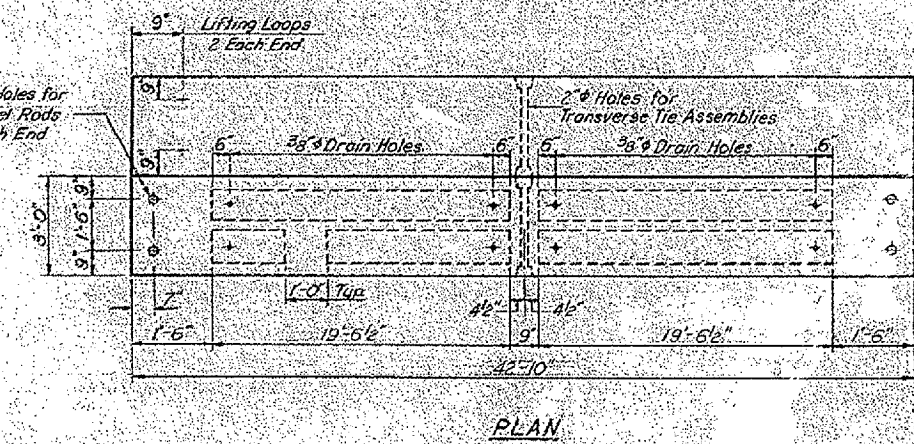
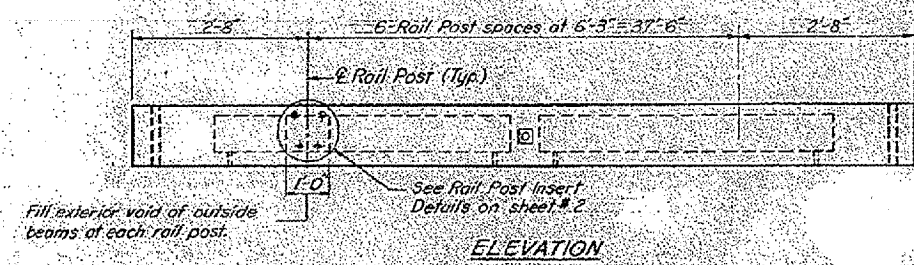
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			97	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

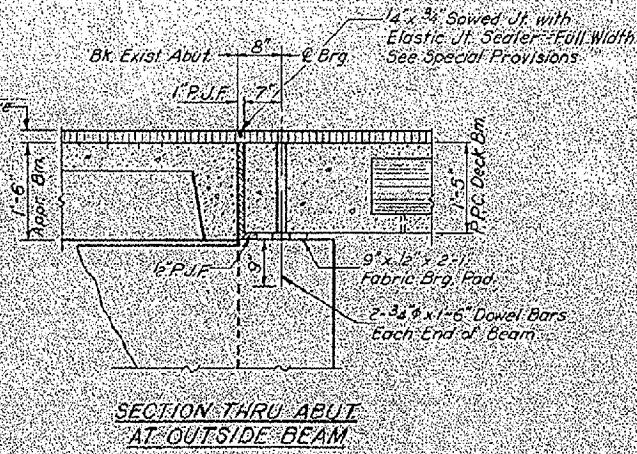


TYPICAL SECTION
7 # Strands Each Strand Stressed to 18,900 lbs.
10 # Strands 1 1/4" up 11 # Strands 3/4" up 2 # Strands 12" up

FOR INFORMATION ONLY



HALF CROSS SECTION
Note: Remove any existing bituminous surface course on bridge.

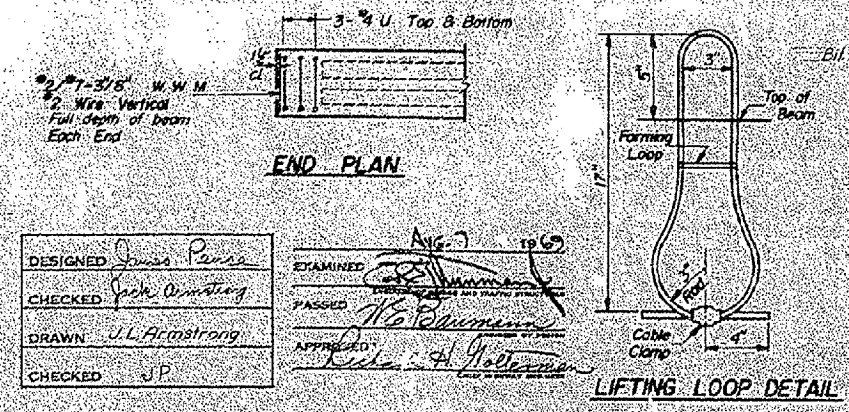


GENERAL NOTES

Prestressing steel shall be non-galvanized high strength stress-relieved 7-wire strand. The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.109 sq. in. Lifting loops shall be 1/2" diameter, 6 x 19 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 18,700 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2-1 sand and P.C. mortar. After beams have been erected holes for the dowel anchors shall be grouted in place. Steel for dowel rods, transverse tie rods, and armor angles shall be S.A.E. 1020 structural steel A.S.T.M. Designation A36, or intermediate grade A.S.T.M. Designation A15. After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with A.S.T.M. Designation A153. Cost of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, of transverse tie assemblies and of grouting longitudinal shear key is included in unit price bid for "Precast Prestressed Concrete Deck Beams".

BILL OF MATERIAL

Item	Unit	Quantity
Precast Prestressed Concrete Deck Beams	Sq. Ft.	514
Concrete Removal	Cu. Yds.	14
Bituminous Concrete Surface Removal	Sq. Yds.	100



DESIGNED *James P. ...*
CHECKED *Jack ...*
DRAWN *J.L. ...*
CHECKED *J.P.*

EXAMINED *...*
PASSED *...*
APPROVED *...*

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0001
TOMS CREEK 1971

SUPERSTRUCTURE
S.B.I. RT. 85 SEG. 10 BY
WARREN COUNTY
STA. 73+00

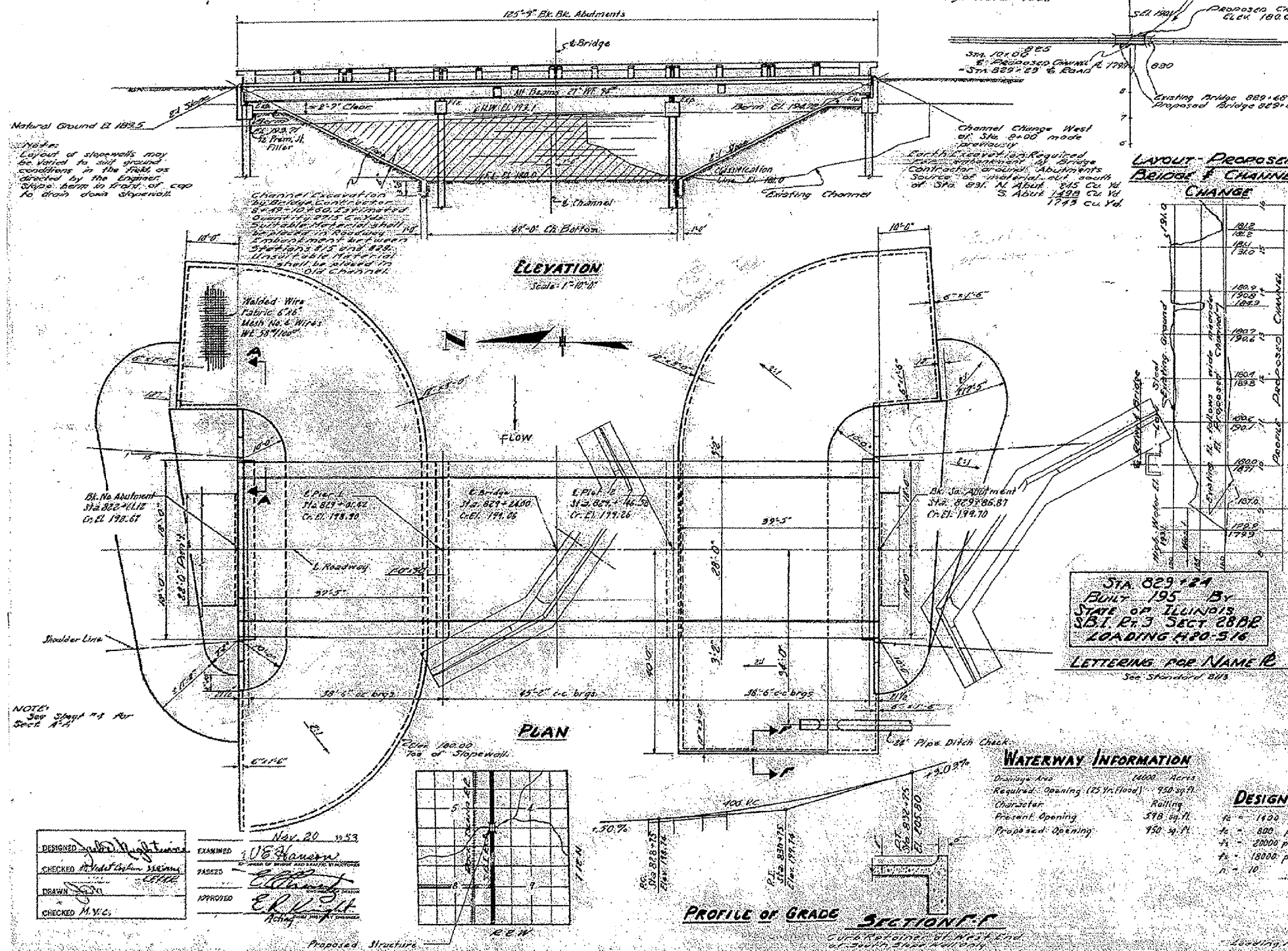
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
310	.	**	97 30
STA. TO STA.			
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT

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

BM. 1 Chisled Square East Corner Wing North Abutment. Bridge in place Sta 829+68. Dec 1953

Existing Bridge: 80' Steel Pony Truss, 21' Roadway on R.C. Abutments. To be removed by Bridge Contractor during construction. Pile caps to become property of Contractor.



GENERAL NOTES

Class X Concrete shall be used throughout except as noted. Handrail Concrete shall be used in Posts & Ends. The concrete floor slab shall be poured in one continuous operation between piers.

The concrete floor slab shall be finished in accordance with Article 316(a) of the Standard Specifications. All rebar, rockers, bearing plates, lead plates, pipes and anchor bolts shall be fabricated and set in accordance with Art. 314 of the Standard Specifications and are included in payment as structural steel. See Weight 2905.85.

Expansion Guards shall be fabricated and erected in accordance with Art. 315(a) of the Standard Specs. All connections shall be riveted except as noted. Rivets shall be 3" and bolts 3/4" except as noted.

All holes for splices shall be punched & 1" rounded to proper size (3/8" in web and 5/8" in flange) with all stringers assembled in shop in proper position with or without diaphragms in place. Leave assembled in shop for inspection.

Structural steel shall receive one shop coat of red lead paint after inspection and two field coats of aluminum paint. All paint to be furnished and applied by contractor. Inspection by Ill. Division of Highway Standard Specs.

Welding shall comply with Art. 35.4(a) of the Standard Specs.

Before superstructure is placed, construct embankment in accordance with Art. 16 of the Std Specs.

The Contractor shall drive three Test Piles in a permanent location, as directed by the Engineer before ordering or casting the remainder of the piles. Anchor bolts shall be set before riveting diaphragm over piers and abutments.

Piles were used in existing structure.

TOTAL BILL OF MATERIAL

ITEM	SUPER	SUB	TOTAL	
Class X Concrete	Cu Yd	116.0	62.1	178.1
Handrail Concrete	Cu Yd	5.9		5.9
Reinforcement Bars	Lbs.	82,180	4480	86,660
Structural Steel	Lbs.	93,400		93,400
Shape Mill	Sq Yd		1056	1056
Non-ferrous	Each	1		1
Channel Excavation	Cu Yd		2715	2715
Class X Excavation for Sh. Cu Yd			60	60
Class X Excavation for Sh. Cu Yd			90	90
16" Precast Conc. Piles	Each		840	840
Test Piles	Each		3	3
Removal of Existing Steel End				1
Removal of Existing Steel End				1943

WATERWAY INFORMATION

Drainage Area: 1400 Acres
 Required Opening (25 Yr Flood): 750 sq ft
 Character: Rolling
 Present Opening: 598 sq ft
 Proposed Opening: 750 sq ft

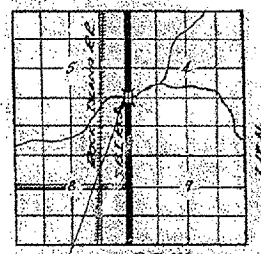
DESIGN STRESSES

Super: 11,000 psi
 S-6: 800 psi
 Reinb: 20,000 psi
 Structural: 18,000 psi
 n = 10

GENERAL PLAN & ELEVATION
 BRIDGE OVER MIDDLE
 HENDERSON CREEK
 S.B.I. P. 3, SECT 28-B.R.
 WARREN COUNTY
 STA. 829+24

DESIGNED	W. H. Hoffmeyer	EXAMINED	W. E. Hansen
CHECKED	W. H. Hoffmeyer	PASSED	W. E. Hansen
DRAWN	W. H. Hoffmeyer	APPROVED	W. E. Hansen
CHECKED	M. V. C.		

Nov 20 1953
 W. E. Hansen
 Acting



PROFILE OF GRADE SECTION P-C

FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

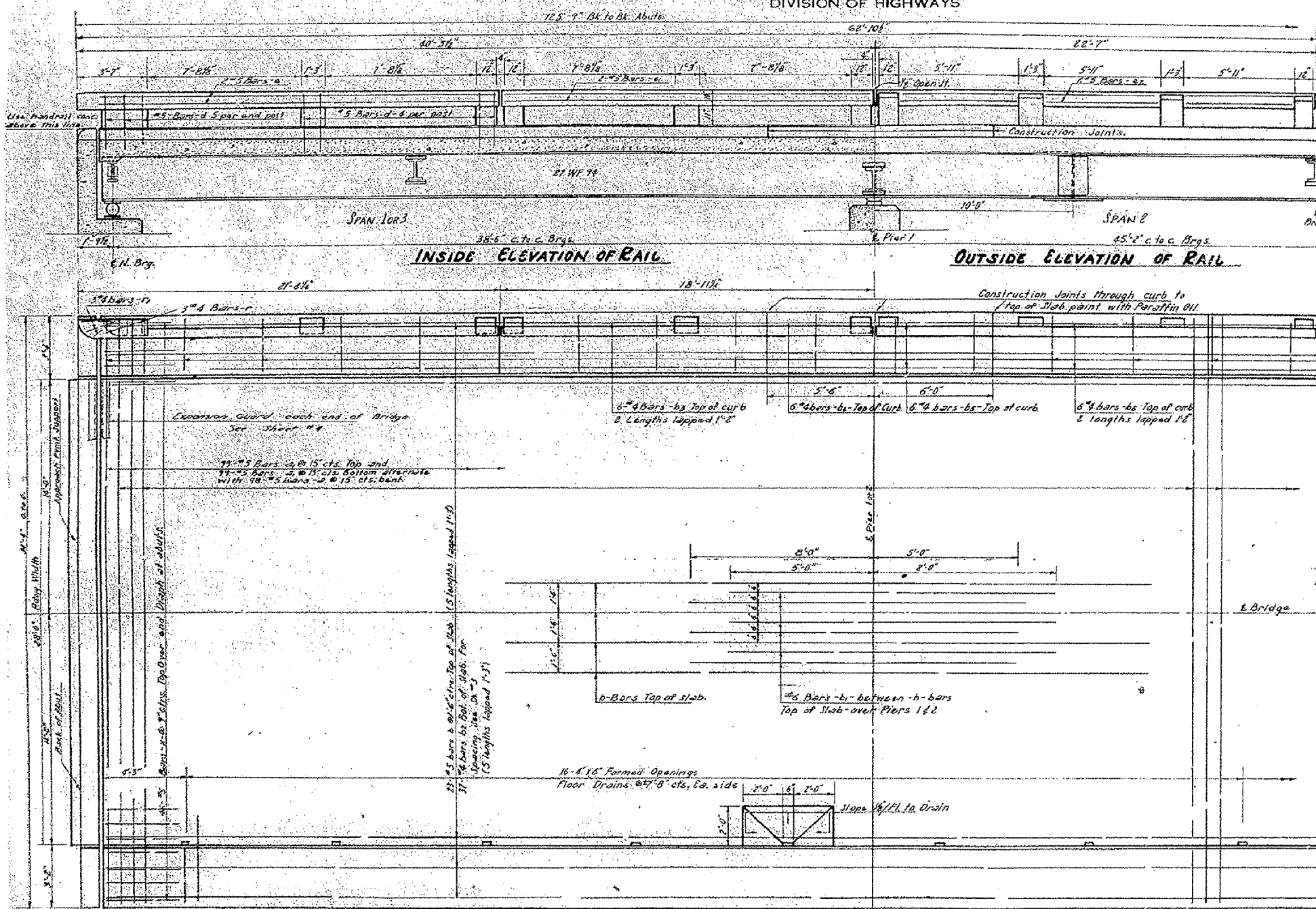
FOR INFORMATION ONLY
 EXISTING S.N. 094-0002
 MIDDLE HENDERSON CREEK
 1954

SCALE: VERT. HORIZ.
 DATE

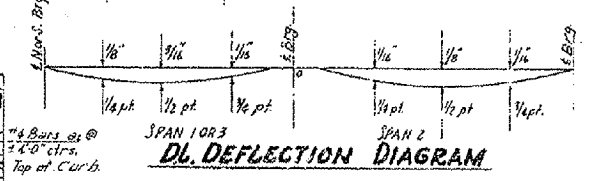
DRAWN BY
 CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	31
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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



Routing is symmetrical about this point except for elevations. For detail of Handrail see Standard 2010 RA Type 3B.



BILL OF MATERIAL-SUPERSTRUCTURE

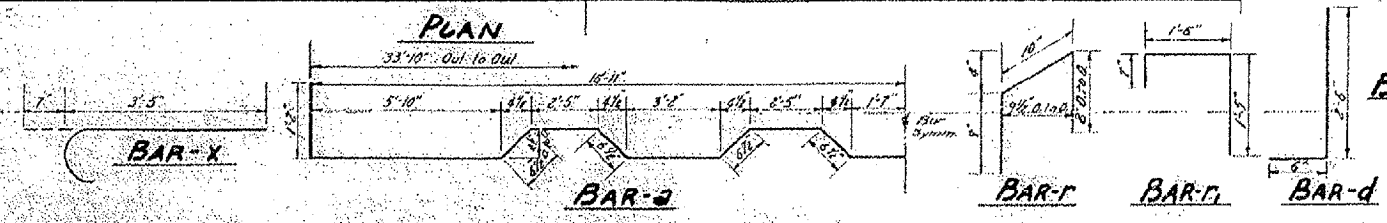
BAR	No.	SIZE	LENGTH	SHAPE
a	98	#5	31'6"	
b	198	#5	33'10"	
c	64	#8	8'10"	
d	115	#5	25'7"	
e	88	#6	13'8"	
f	185	#8	25'7"	
g	62	#8	17'5"	
h	24	#8	5'3"	
i	24	#6	5'9"	
j	24	#4	17'6"	
k	248	#8	7'2"	
l	164	#5	3'0"	
m	18	#5	60'3"	
n	18	#5	18'8"	
o	18	#5	28'6"	
p	84	#6	4'3"	
q	42	#5	4'0"	
r	16	#4	3'6"	
Handrail Concrete Cu Yd. 5.9				
Class X Concrete Cu Yd. 116.0				
Reinforcement Bars Lbs. 22,150				
Structural Steel Lbs. 28,400				

Note: For location of d bar see Sh. # 3.

DESIGNED: *[Signature]*
CHECKED: *[Signature]*
DRAWN: *[Signature]*
CHECKED: *[Signature]*

EXAMINED: *[Signature]*
APPROVED: *[Signature]*

Nov. 20, 1953



SUPERSTRUCTURE
BRIDGE OVER MIDDLE HENDERSON CREEK
SBL R. 2 SECTION 28 B-R
WARREN COUNTY
STA. 829+24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY
EXISTING S.N. 094-0002
MIDDLE HENDERSON CREEK
1954

SCALE: VERT. HORIZ.
DATE

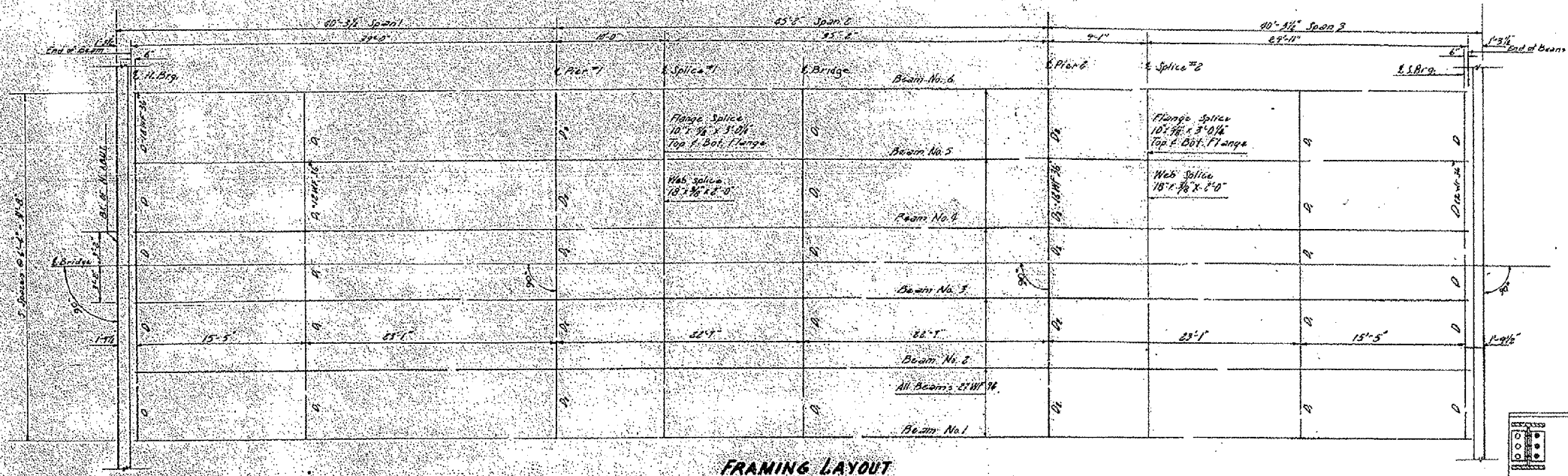
DRAWN BY
CHECKED BY

FOR INFORMATION ONLY

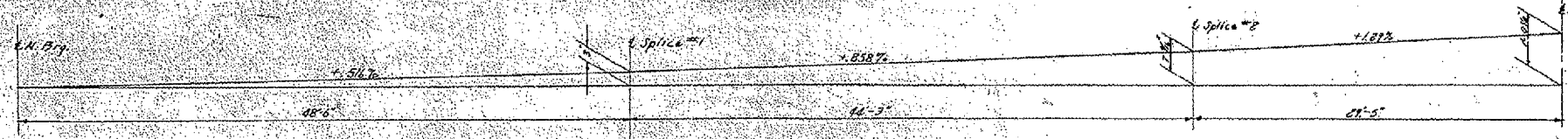
7/11/2007
C:\Users\user\Documents\88798\1\IN
PLOT SCALE = 1/8"=1'-0"
USER NAME = mgm/mba

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	..	97	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

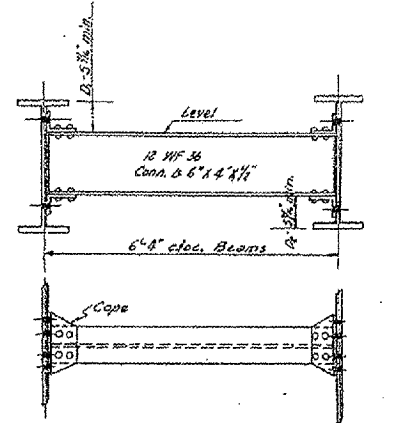
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



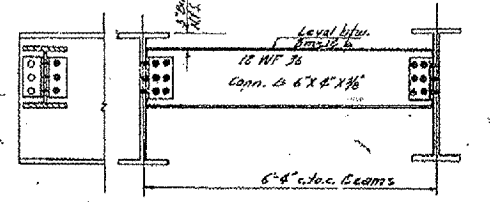
FRAMING LAYOUT



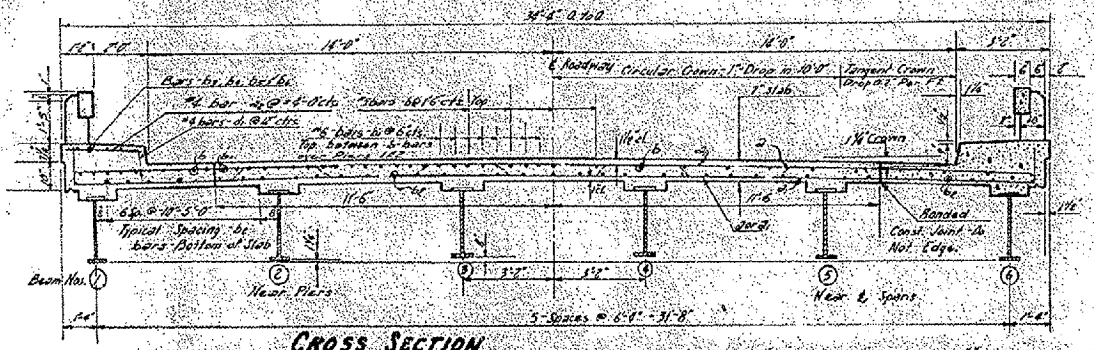
FABRICATION DIAGRAM



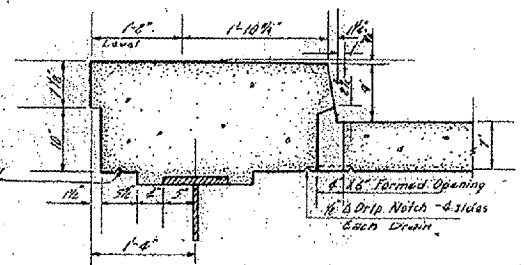
DETAIL OF DIAPHRAGMS-D #02
15 dia. Req. 10 dia. Req.



DETAIL OF DIAPHRAGMS-D
10 Req'd.



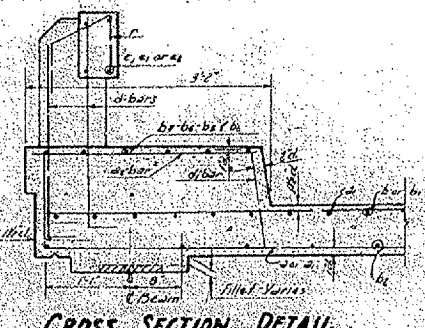
CROSS SECTION



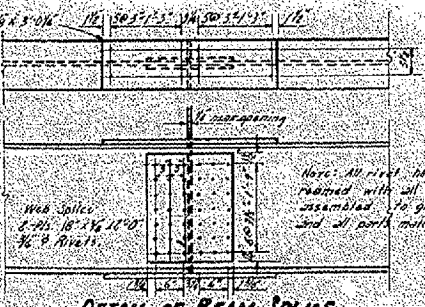
FLOOR DRAIN DETAIL

Method of Determining Fillet Heights:
After all structural steel has been erected, elevations at the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflection for these points, determined from the full deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus floor thickness, equals the fillet heights above top of beam.

DETAIL OF CONCRETE FILLET



CROSS SECTION DETAIL



DETAIL OF BEAM SPLICE

DECK FRAMING & DETAILS
BRIDGE OVER MIDDLE HENDERSON CREEK
S.A.T. ROUTE 3 SEC. 28-B.R.
WARREN COUNTY
STA. 829 + 24

DESIGNED: J. D. Nightingale	EXAMINED: W. B. Hanson
CHECKED: J. J. VonderCulme	PASSED: E. J. ...
DRAWN: J. ...	APPROVED: E. J. ...
CHECKED: M. V. ...	

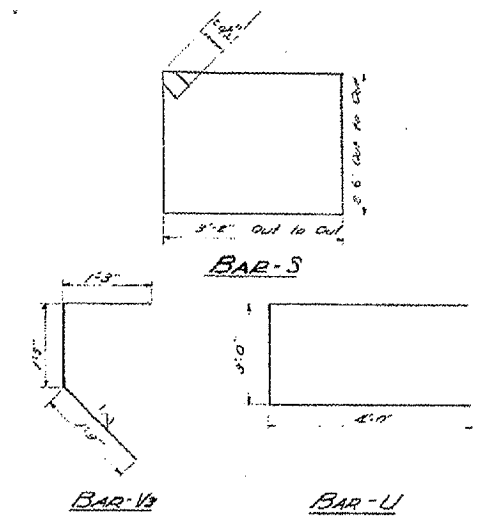
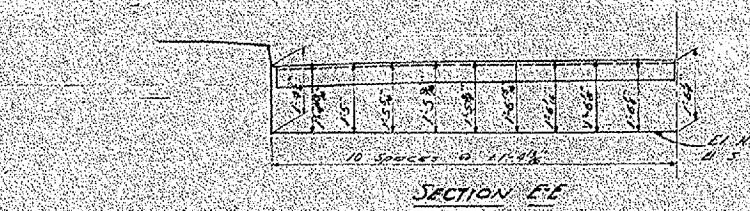
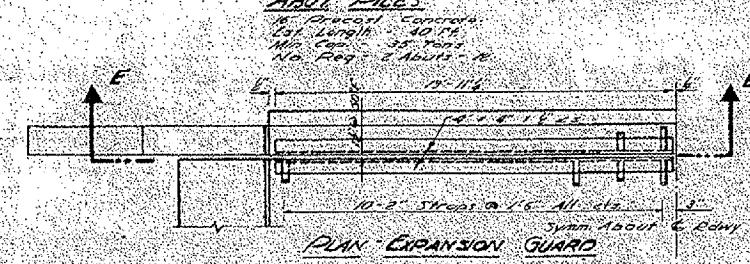
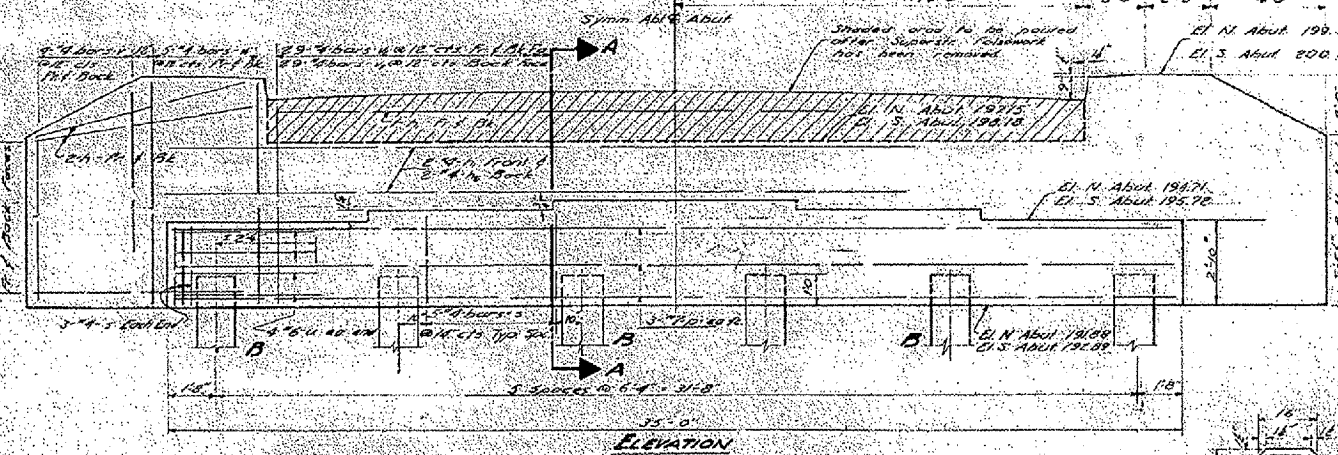
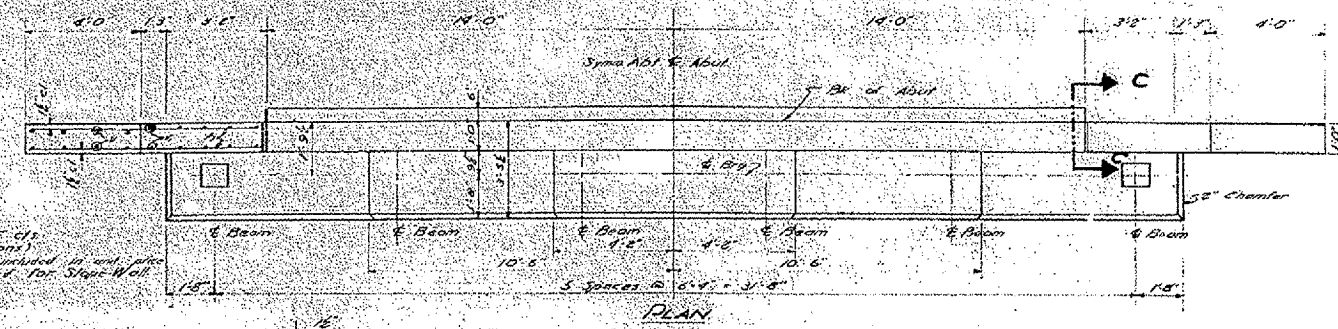
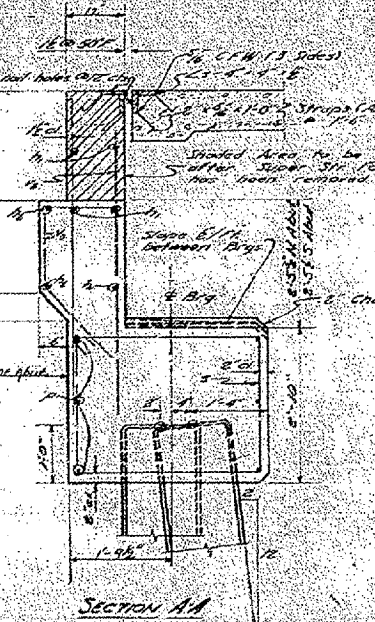
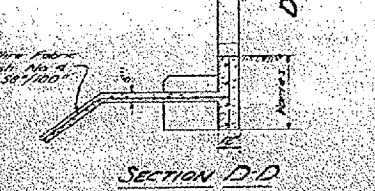
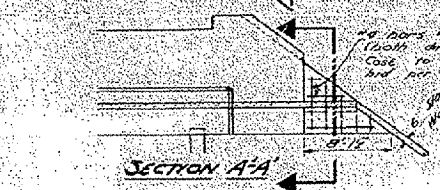
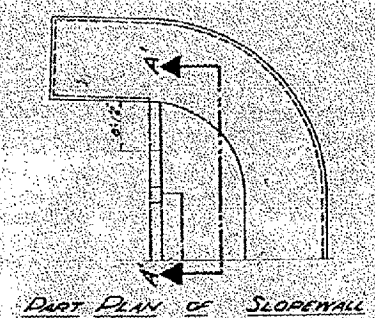
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0002
MIDDLE HENDERSON CREEK
1954
SCALE: VERT. DATE
HORIZ. DATE
DRAWN BY
CHECKED BY

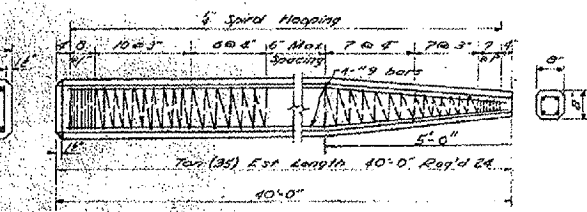
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310		**	97	33
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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



BILL OF MATERIAL - 2 ABUTS

BAR NO	SIZE	LENGTH	SMOOTH
1	6d	8'-3"	
2	10	30'-0"	
3	4	27'-9"	
4	32	5'-3"	
5	40	7'-3"	
6	1/2	5'-3"	
7	5/8	4'-3"	
8	1/2	3'-6"	
9	5/8	12'-1"	
10	1/2	11'-0"	
Class 2 Concrete CU18 941			
Reinforcement Bars Lbs 3170			
16' Precast Conc Piles Lbs 100			
Test Piles Co Two			



DETAIL OF PRECAST CONCRETE PILES

NOTE: For pile lengths up to 45 ft. use two slings placed at a distance of 22 1/2' from each end. On piles longer than 45 ft. use 3 slings placed 15' from each end and one at the midpoint of the pile.
If piles are over 45 ft. long use 8" x 8" kern.

ABUTMENTS

BRIDGE OVER MIDDLE HENDERSON CREEK

S.B.I. Pt. 3 SECT 28-B.P.

WARREN COUNTY

STA. 829 + 64

DESIGNED	W. E. Anderson	DATE	Nov. 20 1933
CHECKED	W. E. Anderson	REVISIONS	
DRAWN	W. E. Anderson	APPROVED	W. E. Anderson
CHECKED	W. E. Anderson		

DATE = 7/12/2007
 FILE NAME = c:\pwworkspace\11\road\plans\uproad.dgn
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = magnum

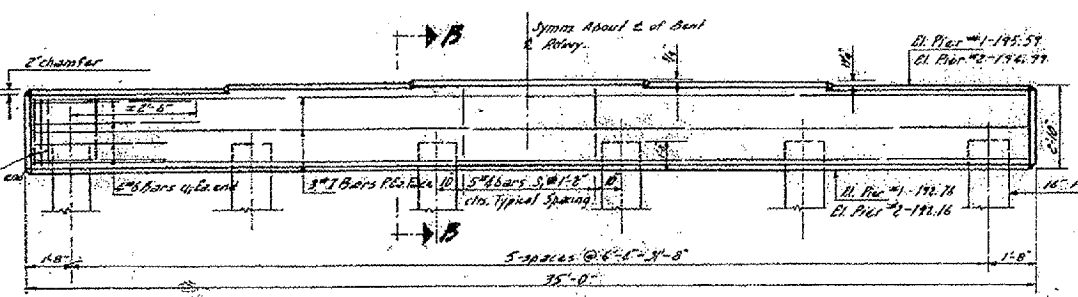
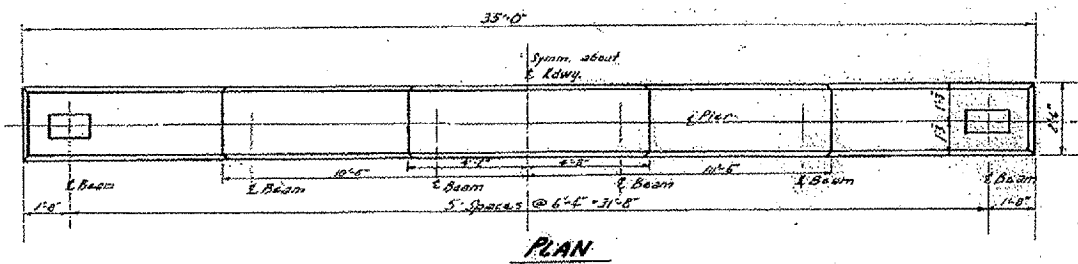
FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

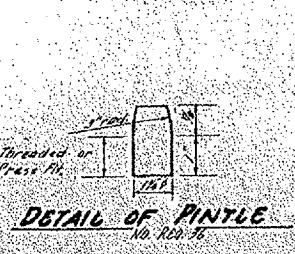
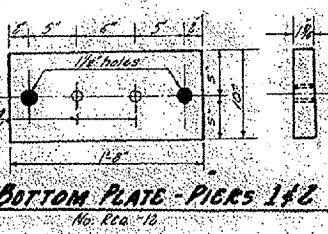
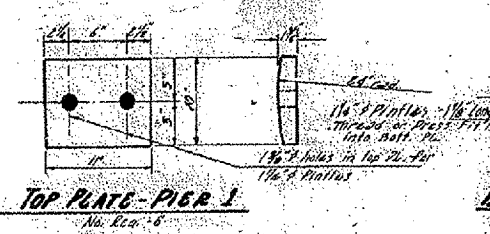
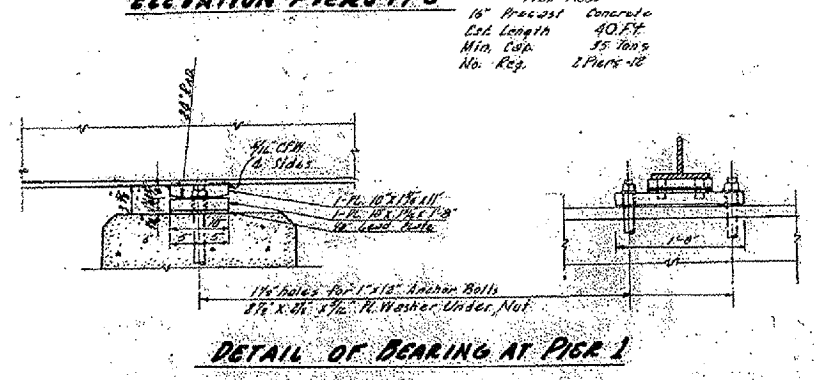
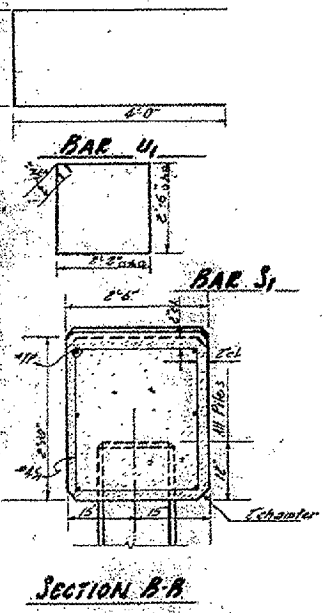
ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0002
MIDDLE HENDERSON CREEK
1954
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	..	97	34
STA. TO STA.				
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

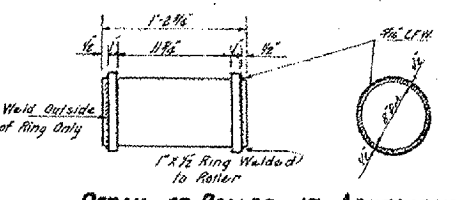
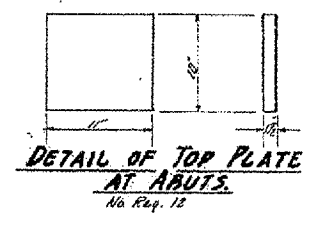
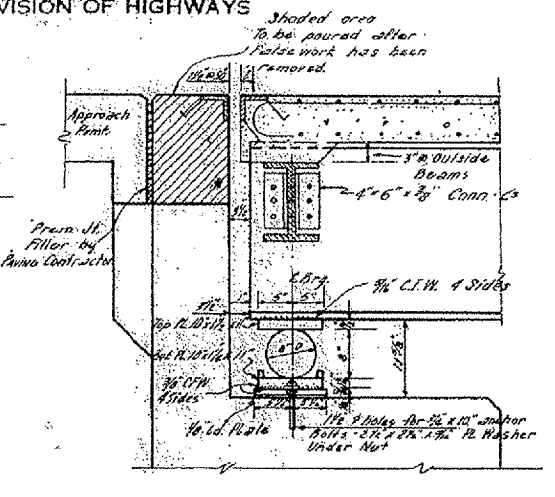
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



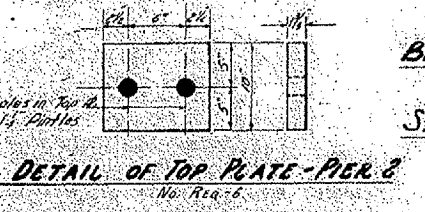
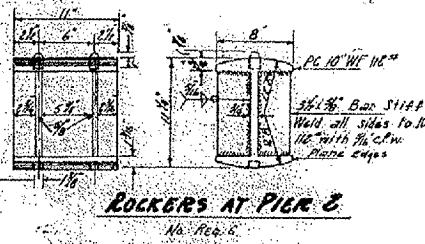
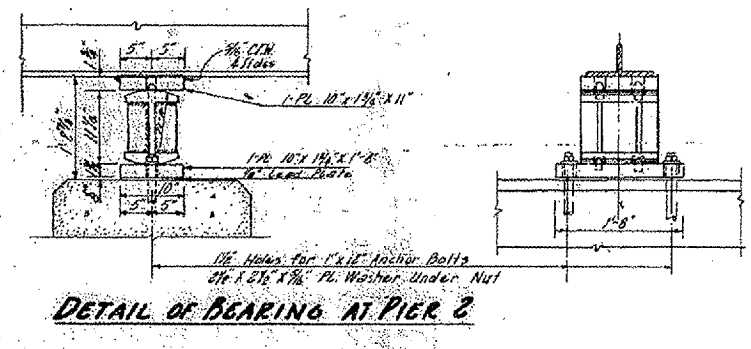
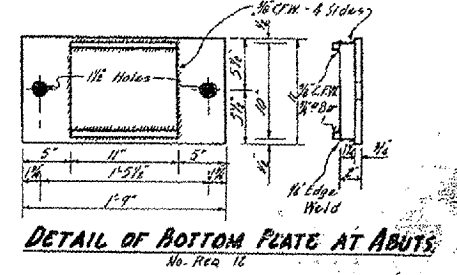
Pier Piers
14" Precast Concrete
Elev. Length 40 FT.
Min. Curb 35' 700's
No. Req. 2 Piers



Notes:
Bearing Plates in contact with the rollers shall have the edges adjacent to the rollers rolled, cut square or finished.
Lead Plates, Rollers, Rockers, Pliers, Anchor Bolts and Bearing Plates shall be paid for as structural steel. Their weight included in Bill of Material on Sheet No. 88798-2.
All welds unless otherwise noted shall be 1/8" continuous fillet.
Paint Rollers & Rockers Same as Structural Steel.



Note: If roller is turned from a solid piece the 1/8" and projections may be omitted. No. Req. 12



BILL OF MATERIAL - 2 PIERS

BAR	No.	SIZE	LENGTH	SHAPE
P	18	#7	11'-6"	
S	68	#4	10'-11"	
U	16	#4	10'-1"	
Class 2 Concrete Cu Yds. 18.0				
Reinforcement Bars Lbs. 1510				
14" Precast Concrete Piers (40) Lin. Ft. 440				
Test Piles - 20				

**PIERS & BEARING DETAILS
BRIDGE OVER MIDDLE HENDERSON
CREEK**
S.B.I. Pt. 3 Sect. 28-B-2
WARREN COUNTY
STA. 829 + 2.4

DESIGNED: [Signature]	EXAMINED: [Signature]
CHECKED: [Signature]	APPROVED: [Signature]
DRAWN: [Signature]	
CHECKED: [Signature]	

FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FOR INFORMATION ONLY
EXISTING S.N. 094-0002
MIDDLE HENDERSON CREEK
1954
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

Bench Mark: Chiseled "□" on wing wall @ N.E. corner of bridge S.N. 094-0001 U.S. 67 over Toms Creek Station 73+30 Elev. 642.47

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 97	POST 35	SHEET NO. 1 16 SHEETS
----------------------------	--------------------------	------------------	-------------	------------	--------------------------

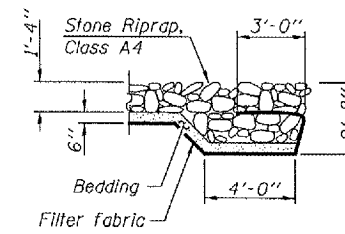
Contract #88798

Existing Structure: S.N. 094-0001; Built in 1927 as S.B.I. 85, Section A-101 at Station 73+09
Existing structure is a single span RC deck girder bridge on closed abutments and widened in 1971 with prestressed deck beams, 43'-0" bk. to bk. abutments, 32'-8" out to out of deck. Structure is to be removed and replaced with a single span PPC I-beam bridge.
One lane of traffic is to be maintained using stage construction.

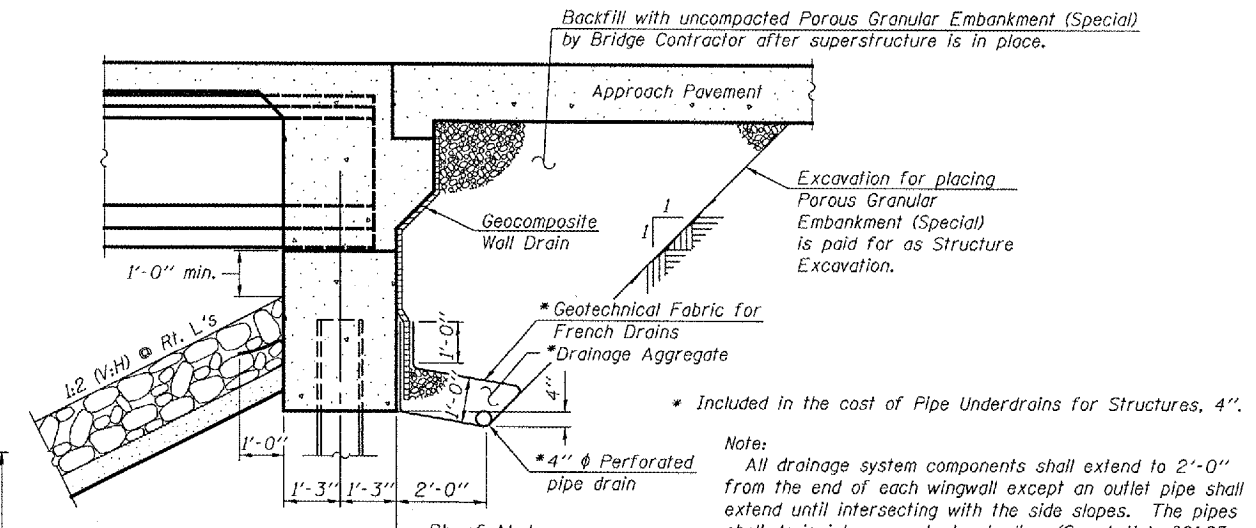
No salvage

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions.
Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
Reinforcement bars designated (E) shall be epoxy coated.
Excavation behind existing abutment walls shall be done before removing the existing superstructure. The contractor shall saw cut the existing abutments at the stage removal line before Stage I removal.



SECTION A-A



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

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).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Temporary Soil Retention System	Sq. Ft.		713	713
Furnishing Steel Piles HP 10x57	Foot		384	384
Driving Piles	Foot		384	384
Structure Excavation	Cu. Yd.		314	314
Concrete Structures	Cu. Yd.		33.3	33.3
Concrete Superstructure	Cu. Yd.	120.1		120.1
Bar Splicers	Each	287	18	305
Furnishing and Erecting Precast Prestressed Concrete I Beams, 48"	Foot	519		519
Reinforcement Bars, Epoxy Coated	Pound	20670	5300	25970
Bridge Deck Grooving	Sq. Yd.	292		292
Protective Coat	Sq. Yd.	385		385
Name Plates	Each	1		1
Stone Riprap, Class A4	Sq. Yd.		817	817
Filter Fabric	Sq. Yd.		817	817
Porous Granular Embankment (Special)	Cu. Yd.		190.4	190.4
Pipe Underdrain for Structures, 4"	Foot		145	145
Geocomposite Wall Drain	Sq. Yd.		83	83
Concrete Encasement	Cu. Yd.		4.2	4.2

STATION 73+02.00
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 310 SECTION (101BY)BR

LOADING HS20
STR. NO. 094-0049
NAME PLATE
See Std. 515001

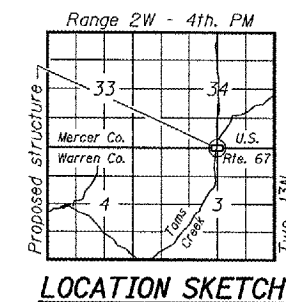
LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
1996 AASHTO with 1997, 1998 & 1999 Interims

DESIGN STRESSES

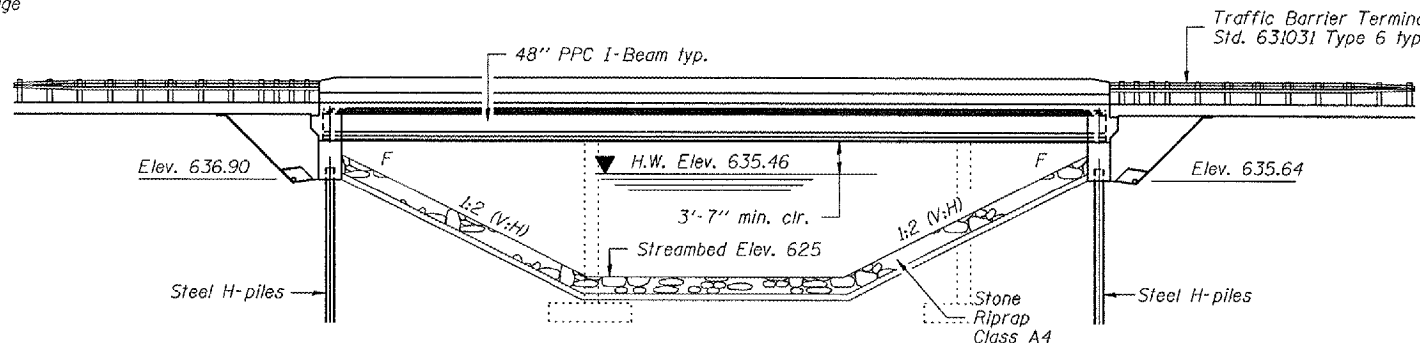
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_t = 5,000$ psi
 $f'_s = 270,000$ psi ($1/2"$ low lax strands)
 $f_s = 201,960$ psi ($1/2"$ low lax strands)

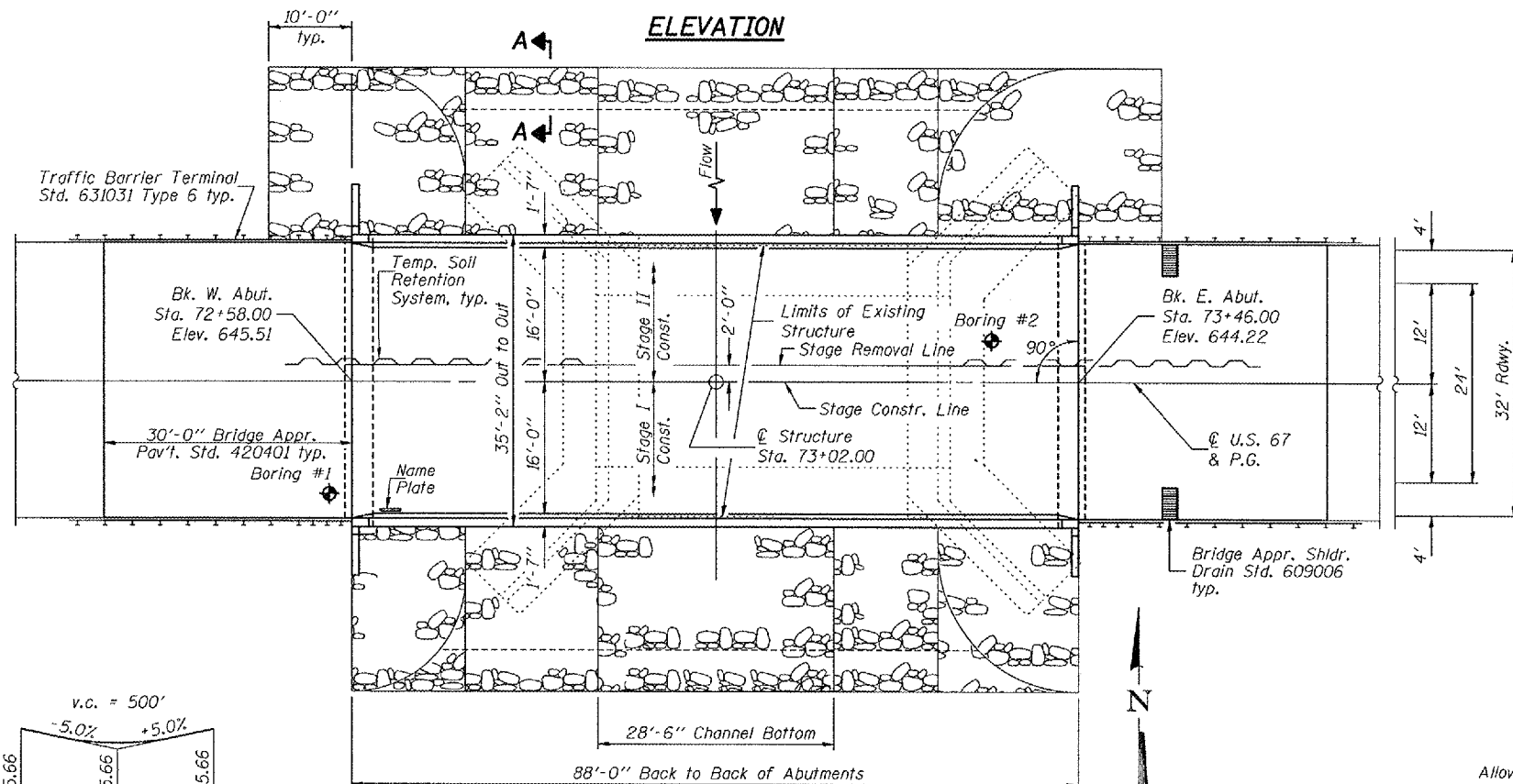
SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.6%
Site Coefficient (S) = 1.0



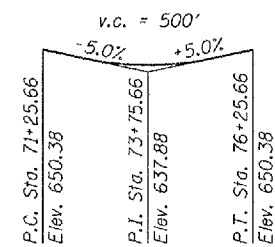
GENERAL PLAN & ELEVATION
U.S. ROUTE 67 OVER
TOMS CREEK
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049



ELEVATION



PLAN



PROFILE GRADE
(along U roadway)

WATERWAY INFORMATION

Drainage Area = 7.8 sq. mi. Low Grade Elev. 367.5 @ Sta. 73+02

Flood Yr.	Freq.	C.F.S.	Opening	Sq. Ft.	Nat.	Head - Ft.	Headwater El.		
			Exist.	Prop.		Exist.	Prop.		
Design	50	2426	261	517	635.46	0.13	0.07	635.59	635.52
Base	100	2674	277	545	635.86	0.98	0.89	636.18	636.08
Overtopping									
Max. Calc.	500	3080	325	635	637.07	1.12	0.72	638.18	637.79

DESIGNED	[Signature]
CHECKED	[Signature]
DRAWN	P.W. SWEET
CHECKED	[Signature]

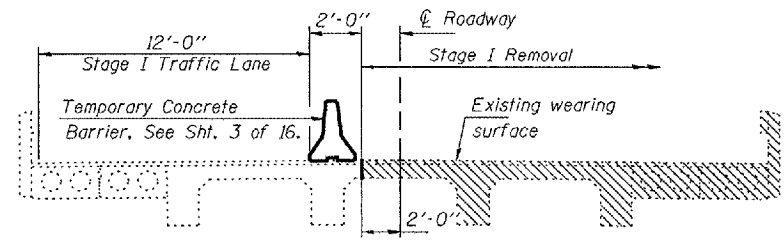
EXAMINED [Signature]
PASSED [Signature]
ENGINEER OF BRIDGES AND STRUCTURES
081-004625
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
LICENSED PROFESSIONAL ENGINEER

EXPIRES 11-30-2008

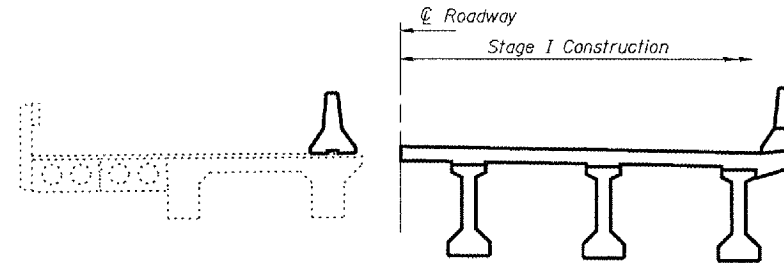
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 310	(101BY) BR	WARREN	97 36	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

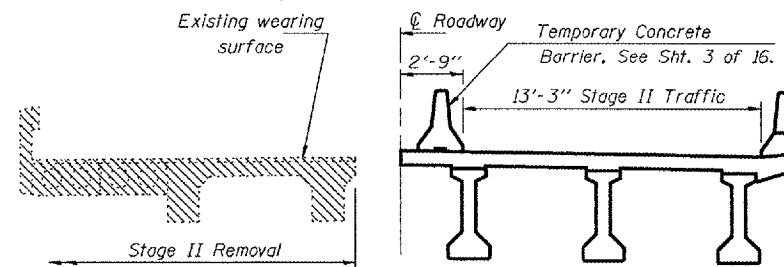
Contract #88798



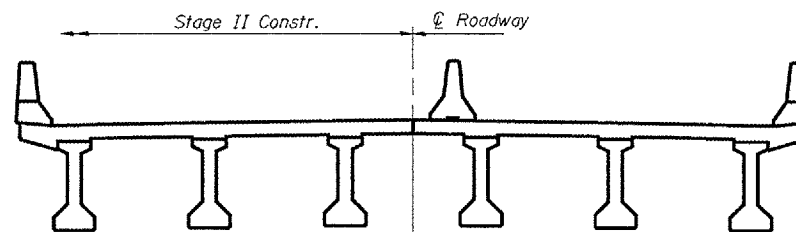
STAGE I REMOVAL



STAGE I CONSTRUCTION

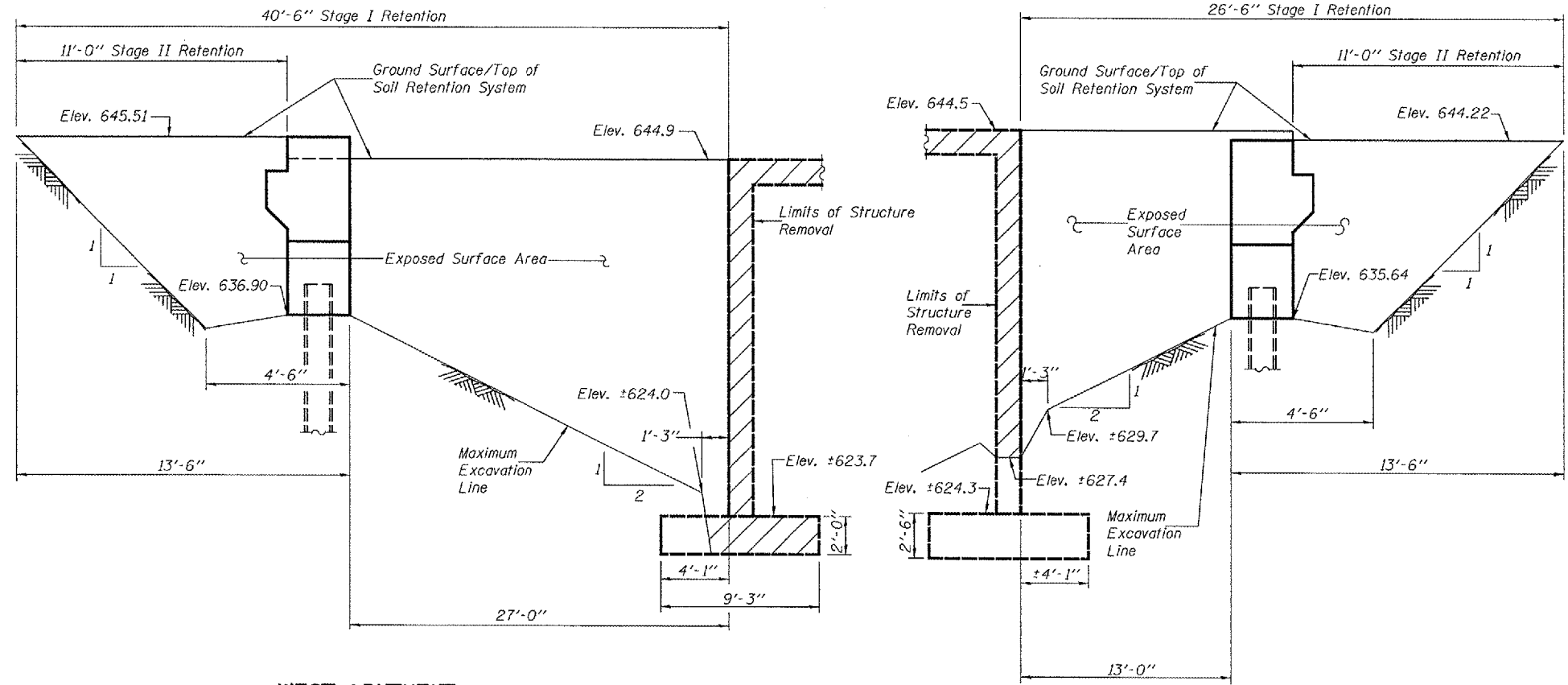


STAGE II REMOVAL



STAGE II CONSTRUCTION

Notes:
Hatched areas indicates Removal of Existing Structures.
See Roadway Plans for quantity of Temporary Concrete Barrier.
All Cross Sections are Looking East, except as noted.



WEST ABUTMENT
Looking North

EAST ABUTMENT
Looking North

TEMPORARY SOIL RETENTION SYSTEM

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

INDEX OF SHEETS

1. General Plan & Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier
- 4.-5. Top of Slab Elevations
6. Superstructure
7. Superstructure Details
8. Diaphragm Details
9. Framing Plan
10. 48" PPC I-Beam
11. 48" PPC I-Beam Details
12. West Abutment
13. East Abutment
14. Steel H-Pile Details
15. Bar Splicer Details
16. Boring Logs

DESIGNED	JSB
CHECKED	CME
DRAWN	OMC P.W. SWEET
CHECKED	JSB/CME

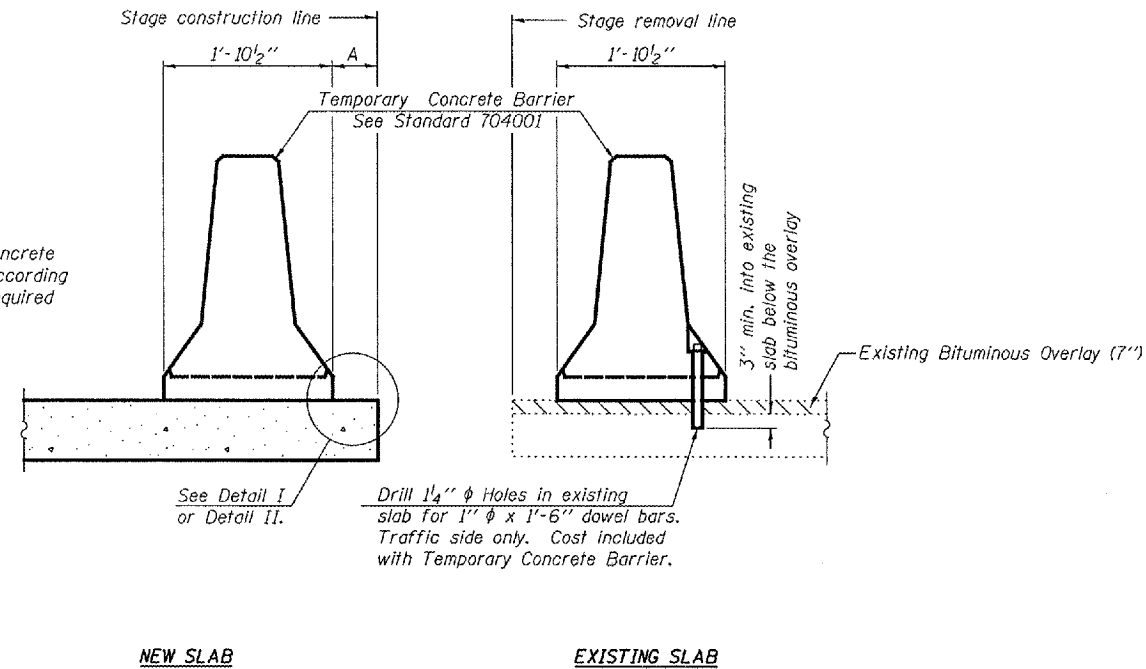
September 6, 2007
EXAMINED *Thomas J. Donagabaki*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

STAGE CONSTRUCTION DETAILS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	PAGE	SHEET NO. 3 16 SHEETS
F.A.P. 310	(101BY) BR	WARREN	97	37	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798



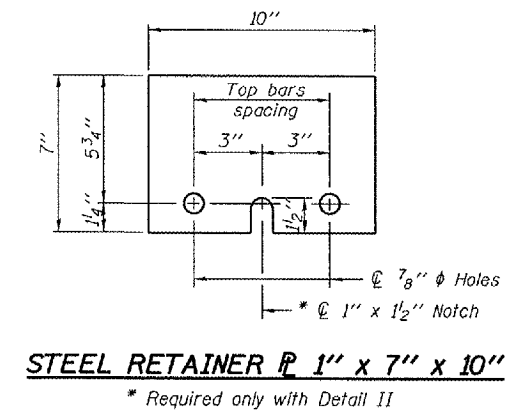
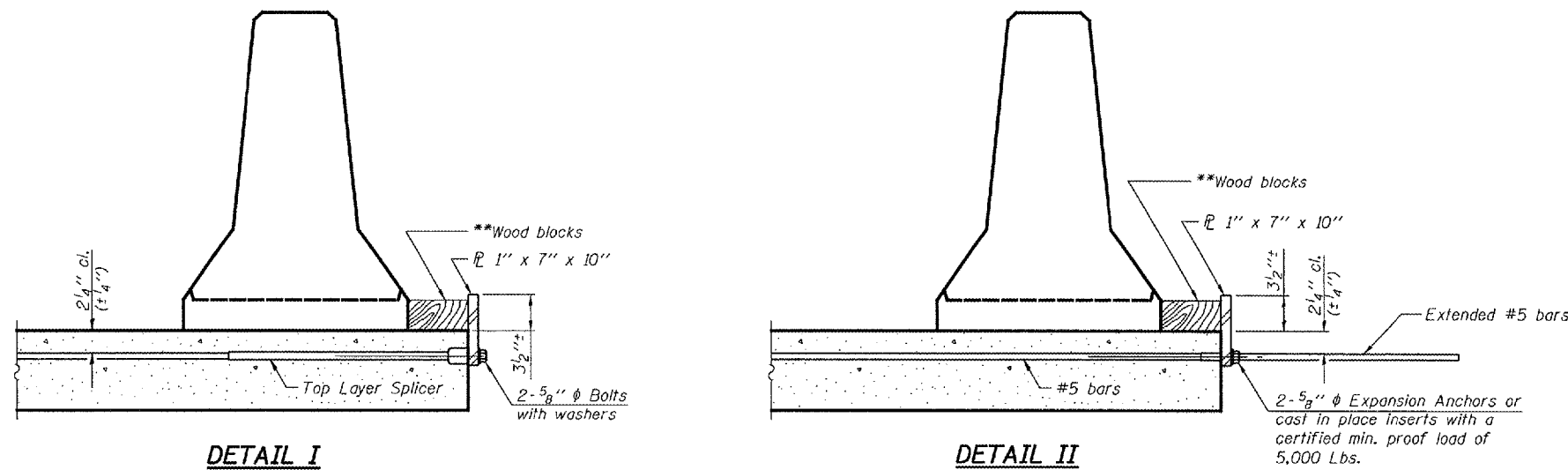
SECTIONS THRU SLAB

NOTES

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

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

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



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

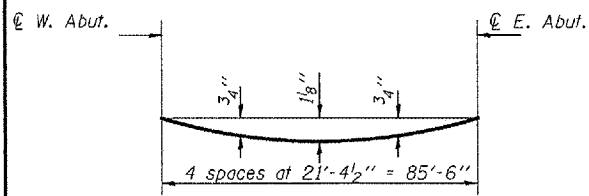
DESIGNED	JSD	EXAMINED	Thomas J. Demagala September 6, 2007 PRINCIPAL ENGINEER OF BRIDGE DESIGN
CHECKED	CME	PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
DRAWN	BMC P.W. SWEET		
CHECKED	JSD/CME		

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. ROUTE 310 - SEC. (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.P. 310	(101BY) BR	WARREN	97	38	16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

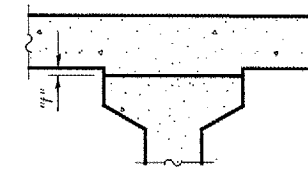
Contract #88798



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheet 5 of 16.

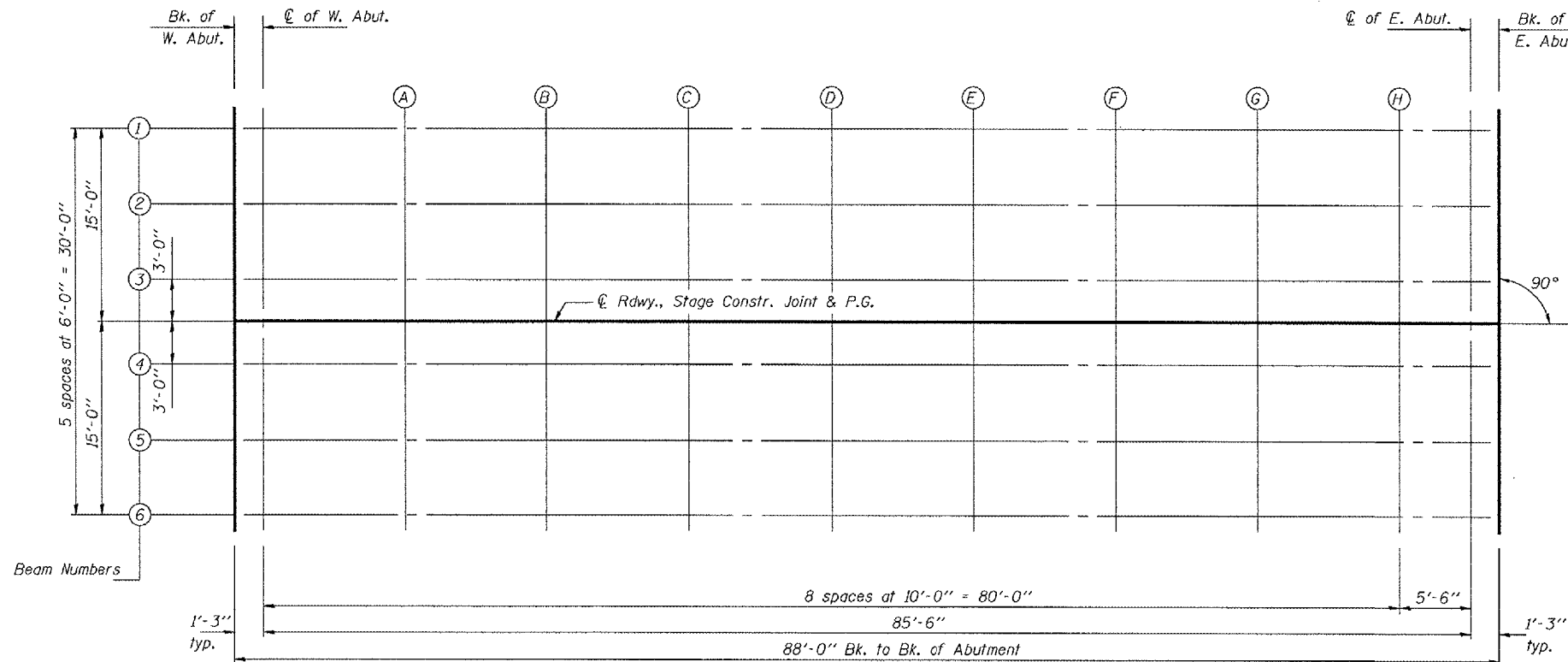


To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "f" above top flanges of beams.

FILLET HEIGHTS

**ROADWAY, P.G., &
STAGE CONSTRUCTION JOINT**

BEAM 1					BEAM 2					BEAM 3					ROADWAY, P.G., & STAGE CONSTRUCTION JOINT				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	7258.000	15.000	645.264	645.264	Bk. W. Abut.	7258.000	9.000	645.374	645.374	Bk. W. Abut.	7258.000	3.000	645.468	645.468	Bk. W. Abut.	7258.000	0.000	645.514	645.514
☉ W. Abut.	7259.250	15.000	645.235	645.235	☉ W. Abut.	7259.250	9.000	645.345	645.345	☉ W. Abut.	7259.250	3.000	645.438	645.438	☉ W. Abut.	7259.250	0.000	645.485	645.485
A	7269.250	15.000	645.012	645.044	A	7269.250	9.000	645.122	645.153	A	7269.250	3.000	645.215	645.247	A	7269.250	0.000	645.262	645.293
B	7279.250	15.000	644.810	644.872	B	7279.250	9.000	644.919	644.981	B	7279.250	3.000	645.013	645.075	B	7279.250	0.000	645.059	645.122
C	7289.250	15.000	644.627	644.704	C	7289.250	9.000	644.736	644.813	C	7289.250	3.000	644.830	644.907	C	7289.250	0.000	644.877	644.954
D	7299.250	15.000	644.464	644.553	D	7299.250	9.000	644.573	644.662	D	7299.250	3.000	644.667	644.756	D	7299.250	0.000	644.714	644.803
E	7309.250	15.000	644.321	644.405	E	7309.250	9.000	644.430	644.514	E	7309.250	3.000	644.524	644.608	E	7309.250	0.000	644.571	644.655
F	7319.250	15.000	644.198	644.270	F	7319.250	9.000	644.308	644.379	F	7319.250	3.000	644.401	644.473	F	7319.250	0.000	644.448	644.520
G	7329.250	15.000	644.095	644.144	G	7329.250	9.000	644.205	644.253	G	7329.250	3.000	644.299	644.347	G	7329.250	0.000	644.345	644.394
H	7339.250	15.000	644.013	644.030	H	7339.250	9.000	644.122	644.139	H	7339.250	3.000	644.216	644.233	H	7339.250	0.000	644.263	644.280
☉ E. Abut.	7344.750	15.000	643.976	643.976	☉ E. Abut.	7344.750	9.000	644.085	644.085	☉ E. Abut.	7344.750	3.000	644.179	644.179	☉ E. Abut.	7344.750	0.000	644.226	644.226
Bk. E. Abut.	7346.000	15.000	643.968	643.968	Bk. E. Abut.	7346.000	9.000	644.077	644.077	Bk. E. Abut.	7346.000	3.000	644.171	644.171	Bk. E. Abut.	7346.000	0.000	644.218	644.218



PLAN

DESIGNED	JSD
CHECKED	CME
DRAWN	P.W. SWEET
CHECKED	JSD/CME

September 6, 2007
 EXAMINED *Thomas J. Donagale*
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 91	SHEET 39	SHEET NO. 5 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #88798

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	7258.000	-3.000	645.468	645.468
℄ W. Abut.	7259.250	-3.000	645.438	645.438
A	7269.250	-3.000	645.215	645.247
B	7279.250	-3.000	645.013	645.075
C	7289.250	-3.000	644.830	644.907
D	7299.250	-3.000	644.667	644.756
E	7309.250	-3.000	644.524	644.608
F	7319.250	-3.000	644.401	644.473
G	7329.250	-3.000	644.299	644.347
H	7339.250	-3.000	644.216	644.233
℄ E. Abut.	7344.750	-3.000	644.179	644.179
Bk. E. Abut.	7346.000	-3.000	644.171	644.171

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	7258.000	-9.000	645.374	645.374
℄ W. Abut.	7259.250	-9.000	645.345	645.345
A	7269.250	-9.000	645.122	645.153
B	7279.250	-9.000	644.919	644.981
C	7289.250	-9.000	644.736	644.813
D	7299.250	-9.000	644.573	644.662
E	7309.250	-9.000	644.430	644.514
F	7319.250	-9.000	644.308	644.379
G	7329.250	-9.000	644.205	644.253
H	7339.250	-9.000	644.122	644.139
℄ E. Abut.	7344.750	-9.000	644.085	644.085
Bk. E. Abut.	7346.000	-9.000	644.077	644.077

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	7258.000	-15.000	645.264	645.264
℄ W. Abut.	7259.250	-15.000	645.235	645.235
A	7269.250	-15.000	645.012	645.044
B	7279.250	-15.000	644.810	644.872
C	7289.250	-15.000	644.627	644.704
D	7299.250	-15.000	644.464	644.553
E	7309.250	-15.000	644.321	644.405
F	7319.250	-15.000	644.198	644.270
G	7329.250	-15.000	644.095	644.144
H	7339.250	-15.000	644.013	644.030
℄ E. Abut.	7344.750	-15.000	643.976	643.976
Bk. E. Abut.	7346.000	-15.000	643.968	643.968

DESIGNED	JSD
CHECKED	CME
DRAWN	BMC P.W. SWEET
CHECKED	JSD/CME

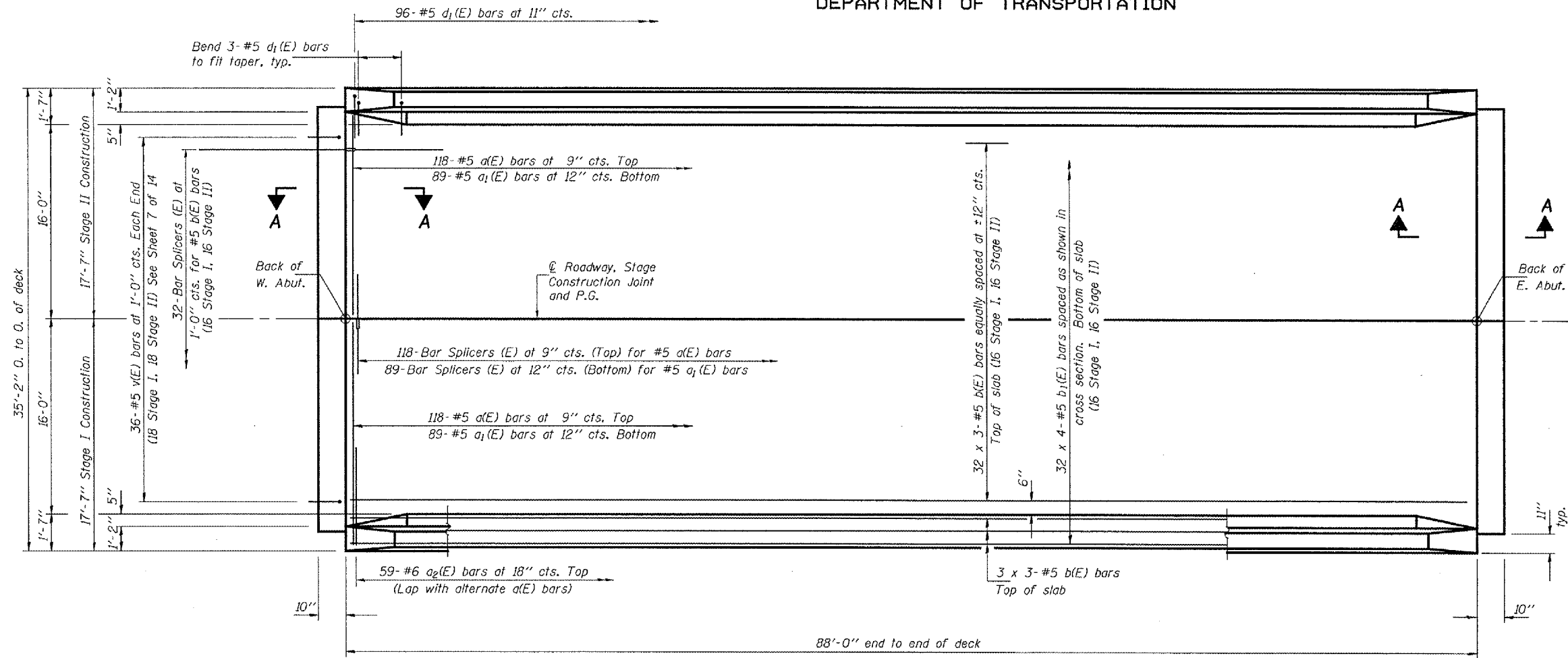
September 6, 2007
 EXAMINED *Thomas J. Donagale*
 ENGINEER OF CIVIL DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SET	SHEET NO.
F.A.P. 310	(101BY) BR	WARREN	97	40	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

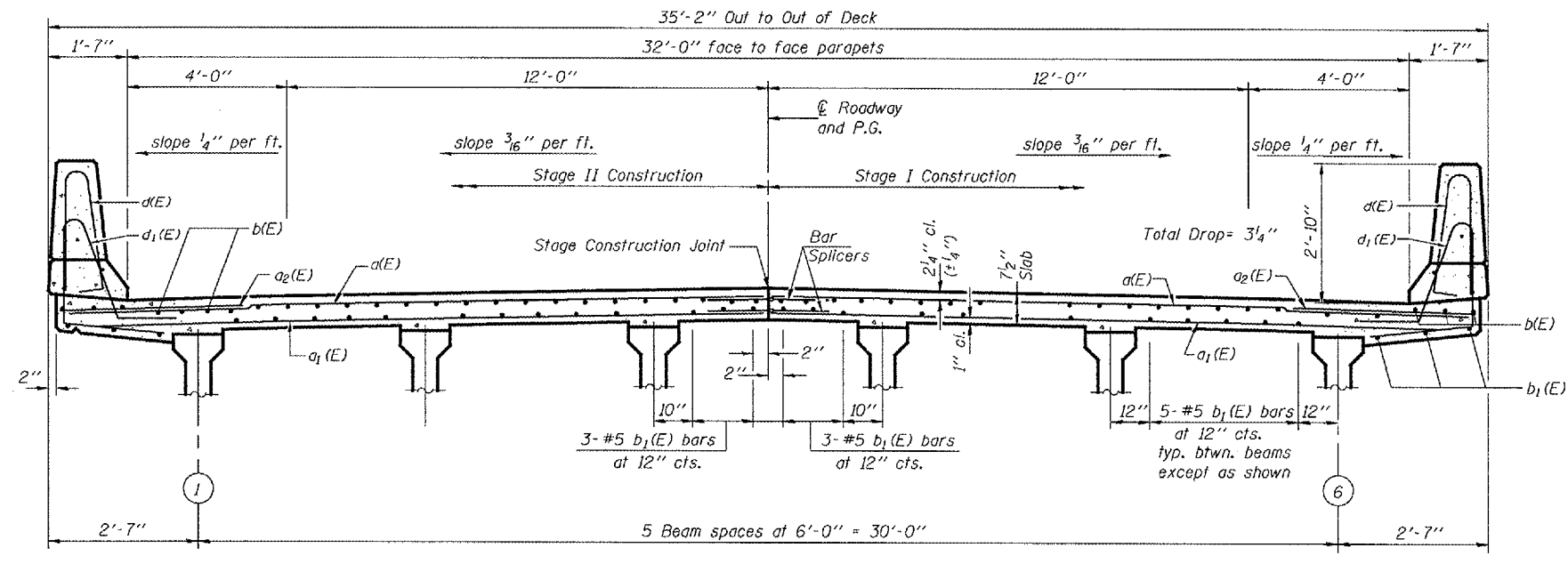
Contract #88798



PLAN

Notes: See sheet 7 of 16 for superstructure details and Bill of Material.
See sheet 8 of 16 for Section A-A and diaphragm details.
Bars indicated thus 32 x 3-#5 etc. indicates 32 lines of bars with 3 lengths per line.
See sheet 13 of 16 for bar splicer details.

MIN. BAR LAPS
#5 bars = 1'-8"



CROSS SECTION
(Looking East)

SUPERSTRUCTURE
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

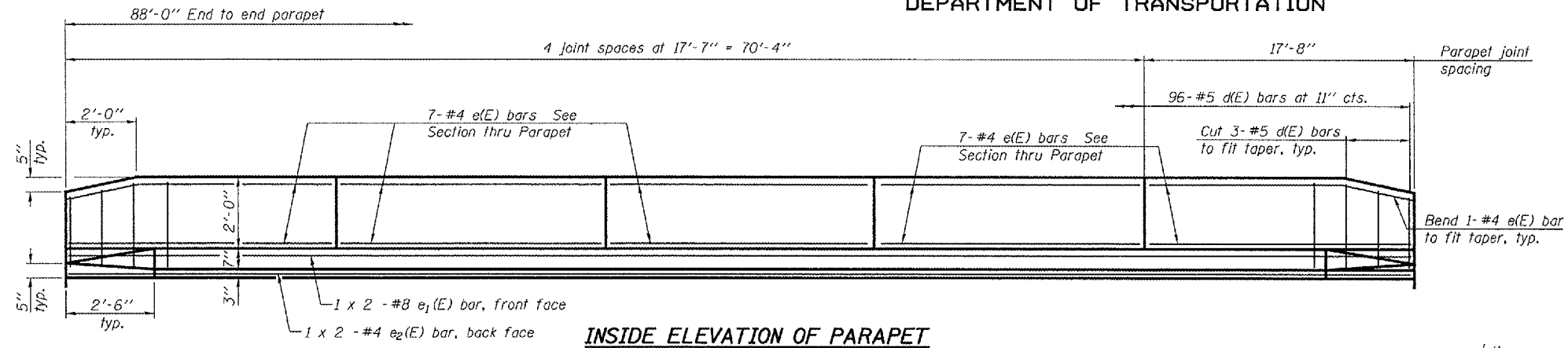
DESIGNED	JSD
CHECKED	GME
DRAWN	P.W. SWEET
CHECKED	JSD/GME

September 6, 2007
EXAMINED *Thomas J. Danagalala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

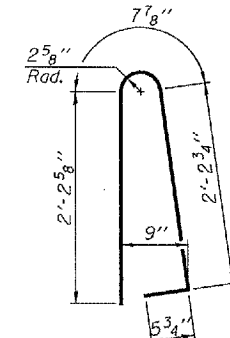
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET NO. 97 41	SHEET NO. 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

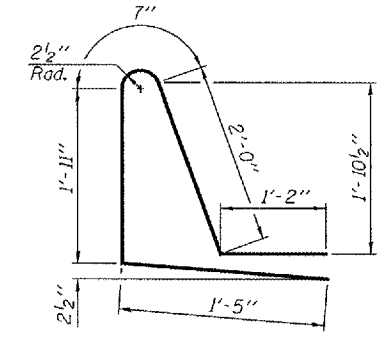
Contract #88798



INSIDE ELEVATION OF PARAPET



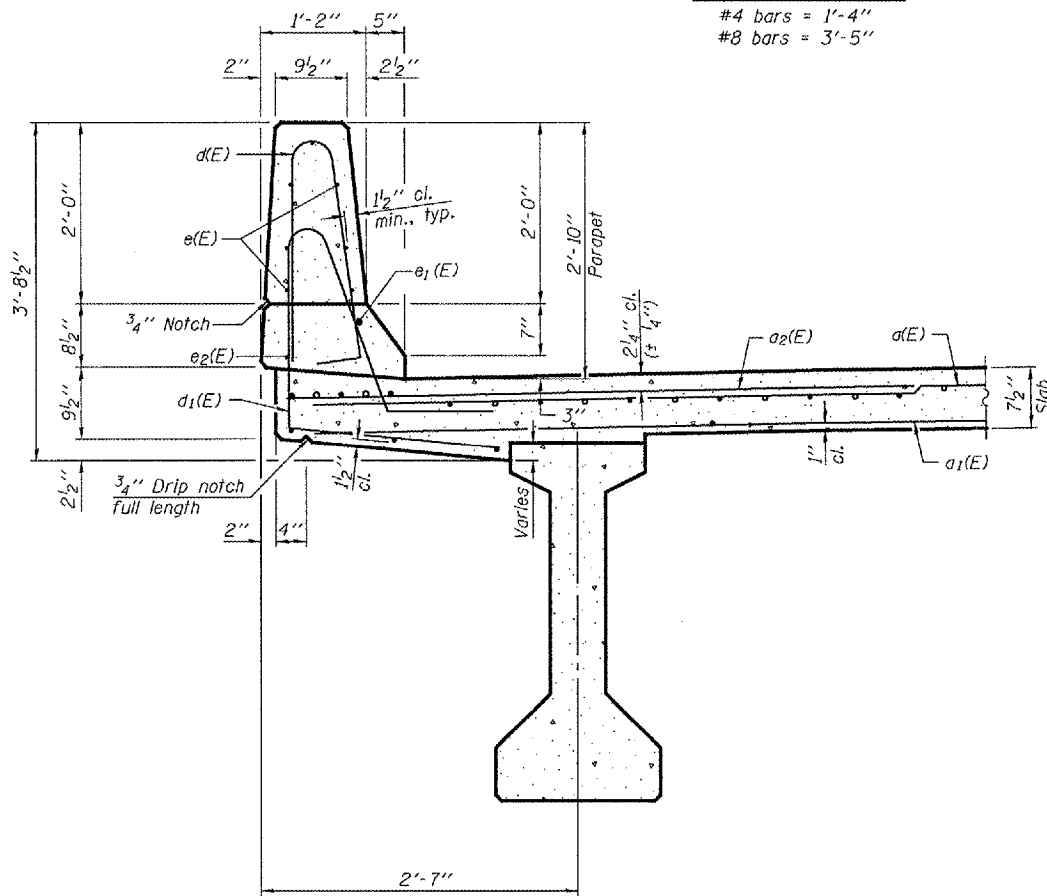
BAR d(E)



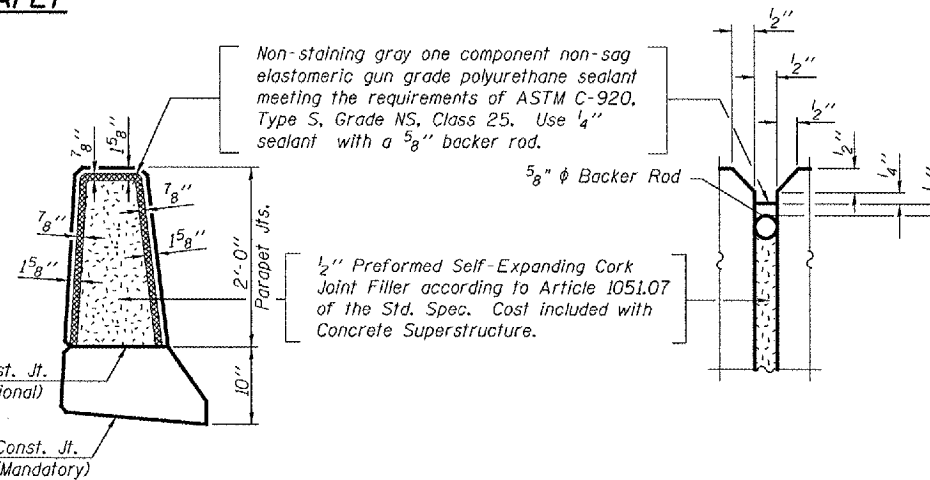
BAR d1(E)

MIN. BAR LAPS

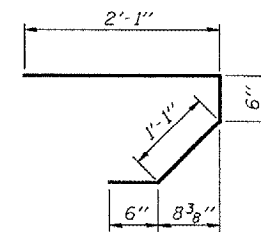
#4 bars = 1'-4"
#8 bars = 3'-5"



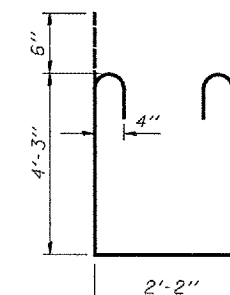
SECTION THRU PARAPET



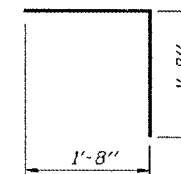
PARAPET JOINT DETAILS



BAR s(E)



BAR s1(E)



BAR v(E)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	236	#5	17'-2"	—
d1(E)	178	#5	16'-8"	—
a2(E)	118	#6	4'-6"	—
b(E)	114	#5	30'-6"	—
d1(E)	128	#5	23'-4"	—
d(E)	192	#5	5'-7"	U
d1(E)	192	#5	7'-1"	U
e(E)	70	#4	17'-4"	—
e1(E)	4	#8	45'-7"	—
e2(E)	4	#4	44'-7"	—
m(E)	12	#6	17'-3"	—
m1(E)	8	#6	16'-5"	—
m2(E)	24	#6	7'-7"	—
m3(E)	8	#6	3'-10"	—
m4(E)	4	#6	1'-4"	—
s(E)	64	#5	4'-2"	U
s1(E)	64	#4	11'-8"	U
v(E)	72	#5	3'-4"	—
Reinforcement Bars, Epoxy Coated		Lbs.	20670	
Concrete Superstructure		Cu. Yds.	120.1	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

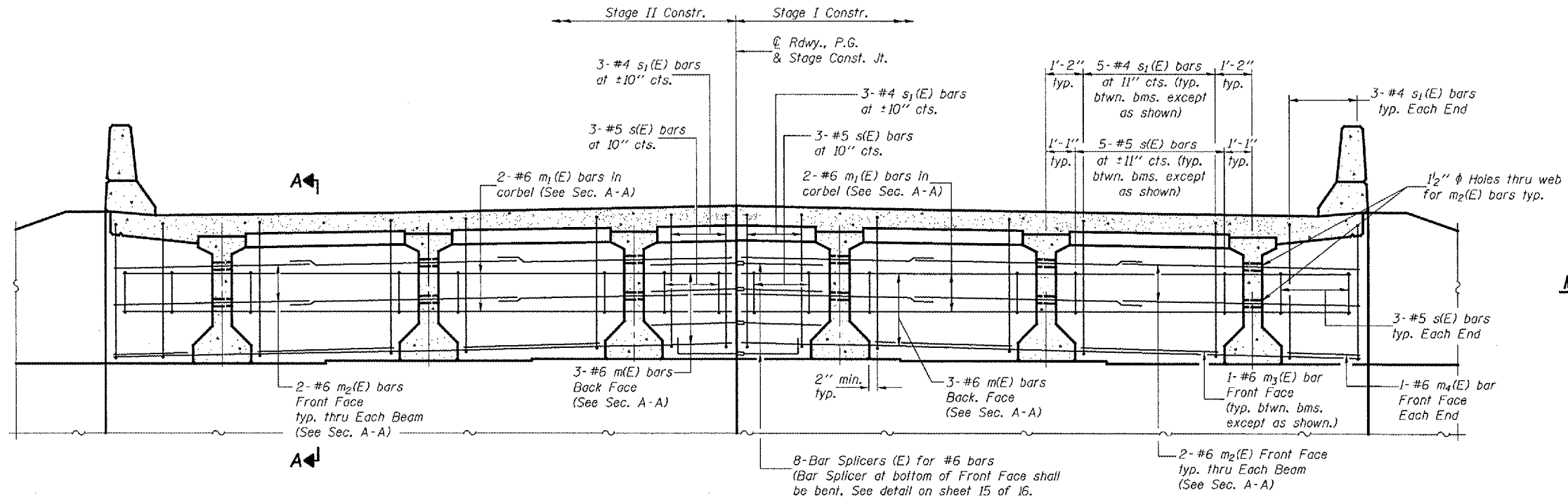
DESIGNED	JSB
CHECKED	CME
DRAWN	P.W. SWEET
CHECKED	JSB/CME

September 6, 2007
EXAMINED *Thomas J. Donagale*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 310	(101BY) BR	WARREN	97 42	8
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	16 SHEETS

Contract #88798

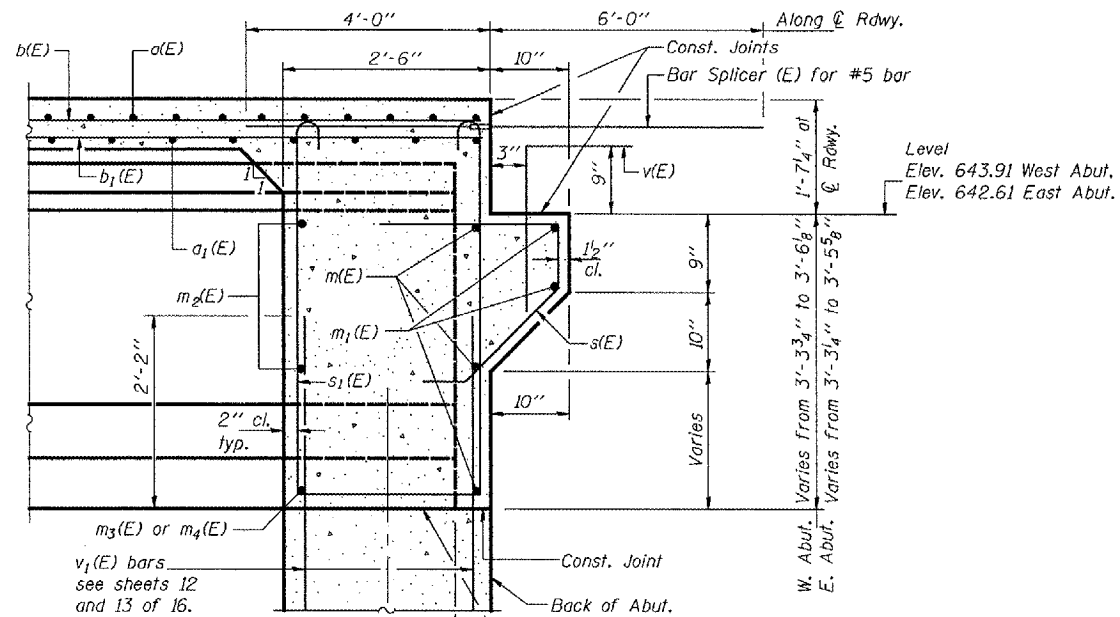


MIN. BAR LAPS
#6 bars = 2'-9"

DIAPHRAGM ELEVATION AT ABUTMENT

Looking East at East Abutment
(West Abutment similar)

Notes: Reinforcement bars in diaphragm are billed with Superstructure on Sheet 7 of 16.
Concrete in diaphragm is included with Concrete Superstructure on Sheet 7 of 16.
For details of Bar Splicers, see Sheet 15 of 16.
For details of bars s(E) and s₁(E) see sheet 7 of 16.



Beam ends shall be set on an initial 1/2" Min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

DESIGNED	JSB
CHECKED	CME
DRAWN	DMC P.W. SWEET
CHECKED	JSB/CME

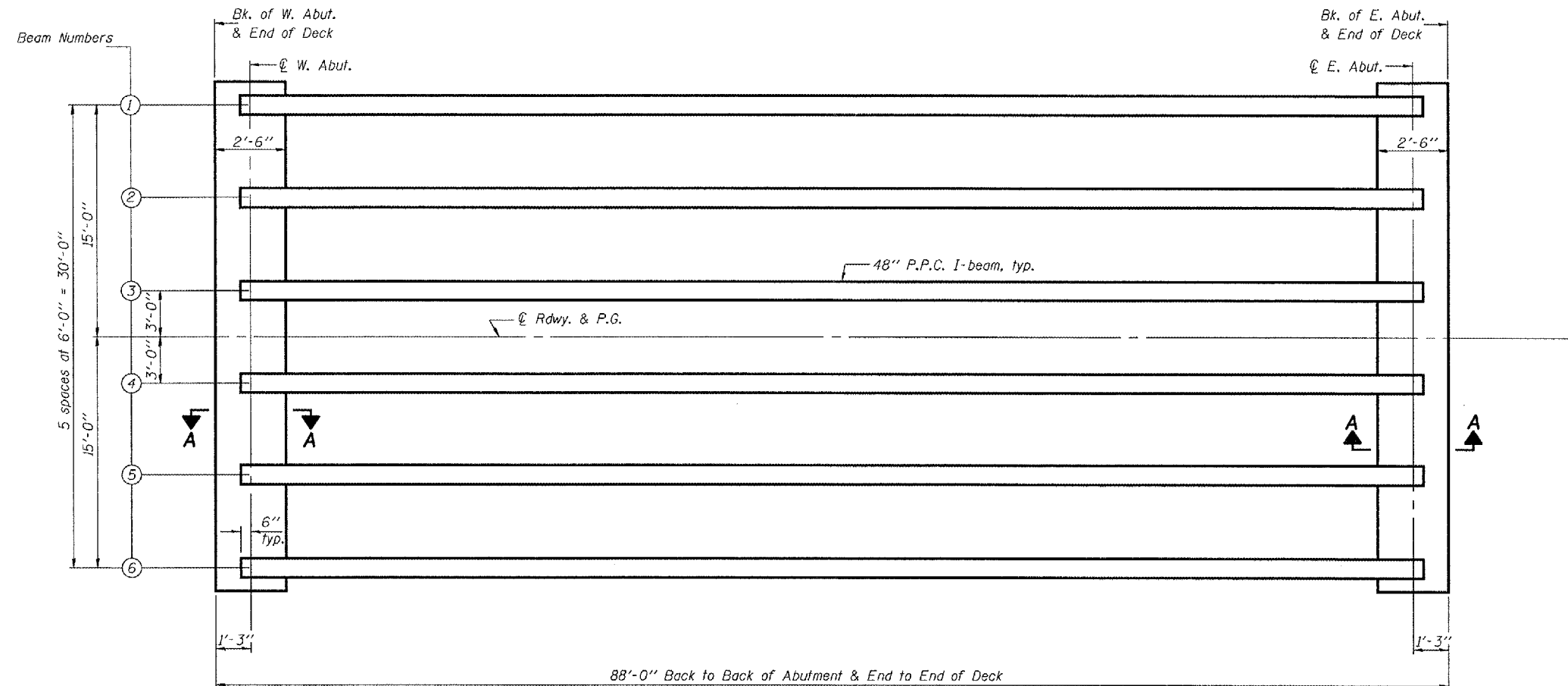
September 6, 2007
EXAMINED *Thomas J. Donagale*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 97	SHEET 43	SHEET NO. 9 16 SHEETS
FED. ROAD DIST. NO. 7		FED. AID PROJECT			

Contract #88798



FRAMING PLAN

Note: For Section A-A see sheet 8 of 16.

DESIGNED	JSB
CHECKED	GME
DRAWN	DMC P.W. SWEET
CHECKED	JSB/GME

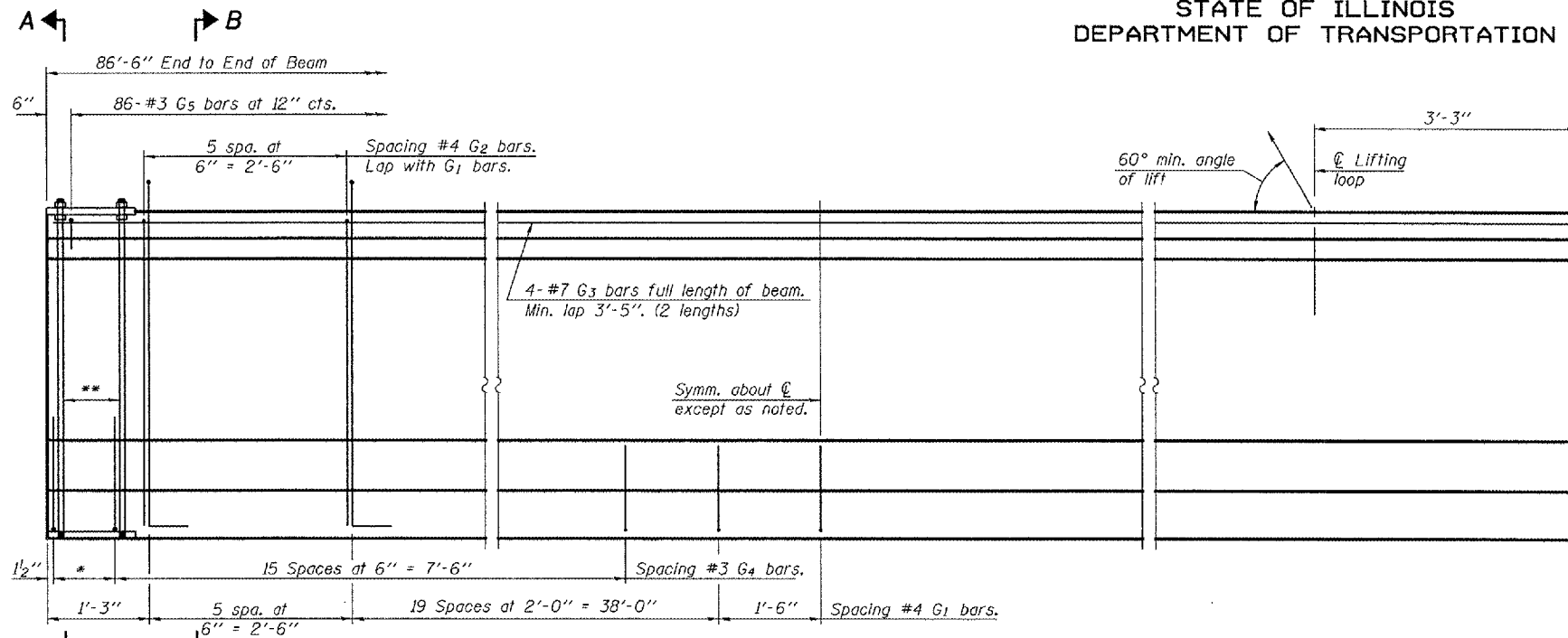
September 6, 2007
 EXAMINED *Thomas J. Donagale*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

FRAMING PLAN
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 97 44	SHEET NO. 10 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

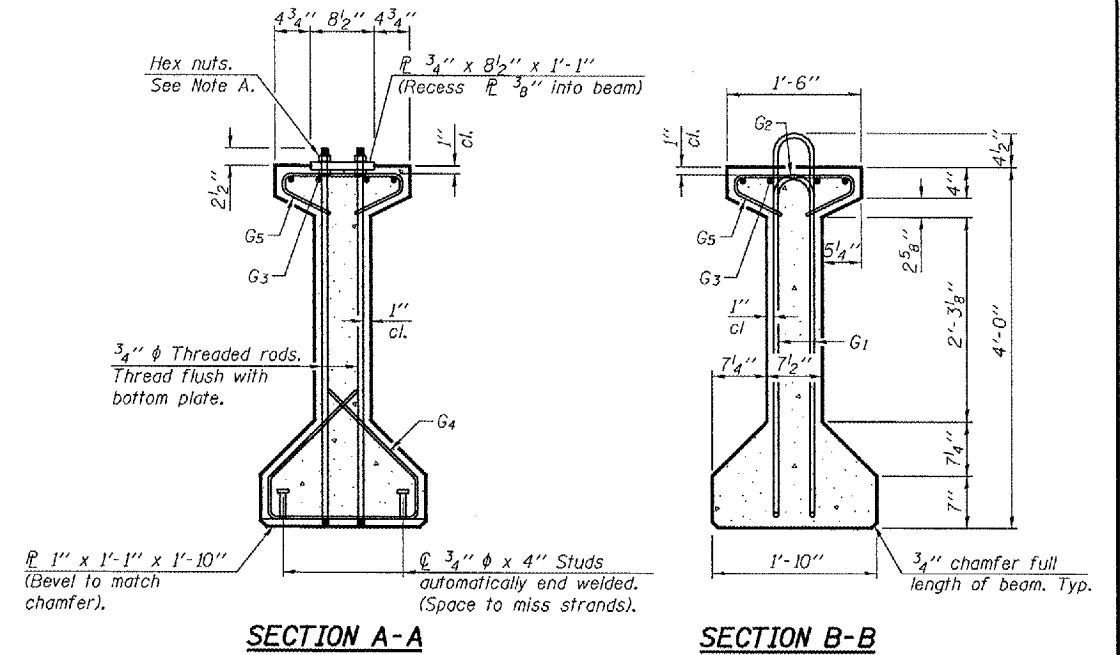
Contract #88798



ELEVATION OF BEAM
(Showing reinforcement & dimensions)

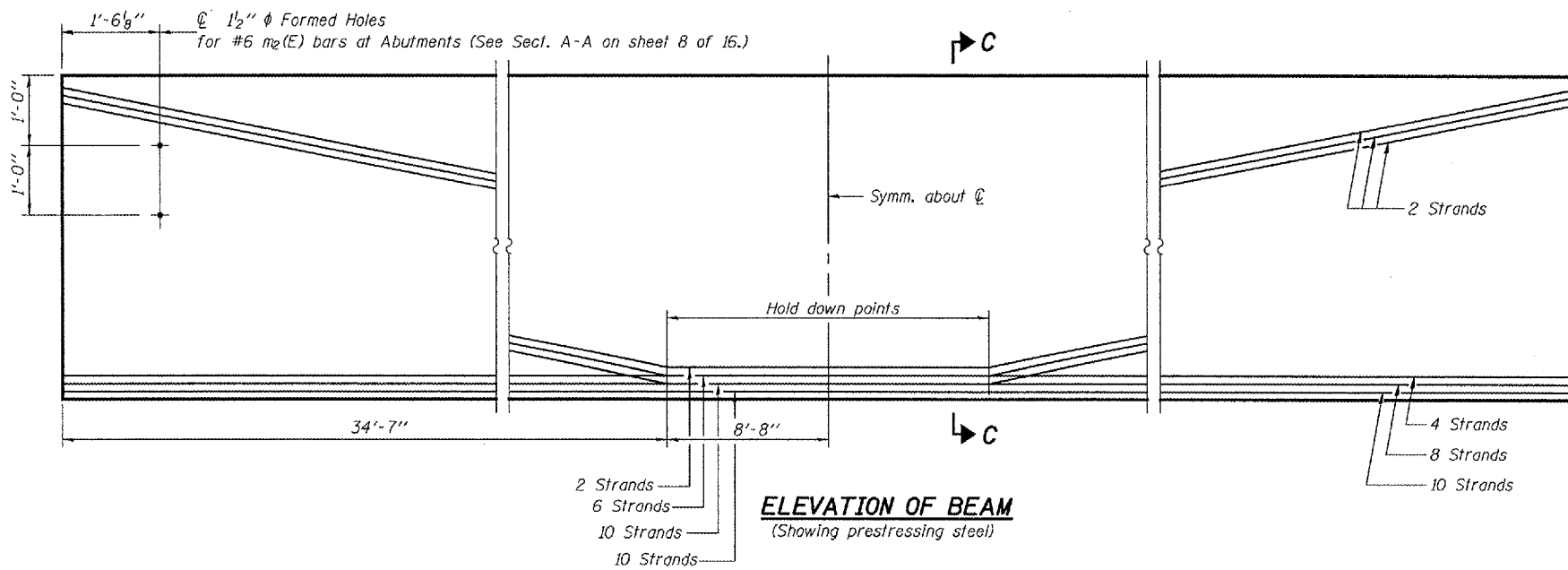
* 3 spaces at 3" = 9".
** 4-3/4" ϕ threaded dowel rods at 3" cts., each face.

Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



SECTION A-A

SECTION B-B



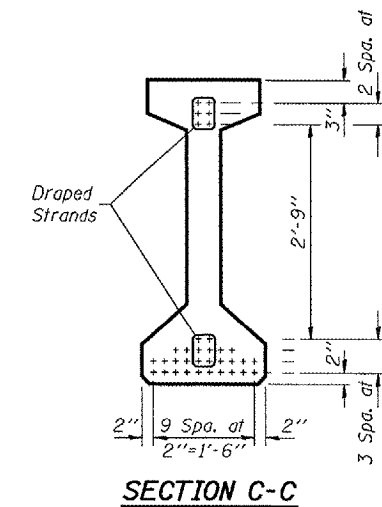
ELEVATION OF BEAM
(Showing prestressing steel)

***** BAR LIST
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G ₁	51	#4	9'-6"	⌈
G ₂	12	#4	7'-11"	⌈
G ₃	8	#7	44'-10"	—
G ₄	38	#3	5'-3"	⌋
G ₅	86	#3	2'-9"	⌋

*** For information only

Notes:
See sheet 11 of 16 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.



SECTION C-C

DESIGNED	JSB
CHECKED	CME
DRAWN	P.W. SWEET
CHECKED	JSB/CME

September 6, 2007
EXAMINED *Thomas J. Donagale*
PASSED *Ralph E. Anderson*

48" PPC I-BEAM
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
F.A.P. 310	(101BY) BR	WARREN	97	45	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #88798

NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling.

The bottom plates and studs shall be galvanized according to AASHTO M111.

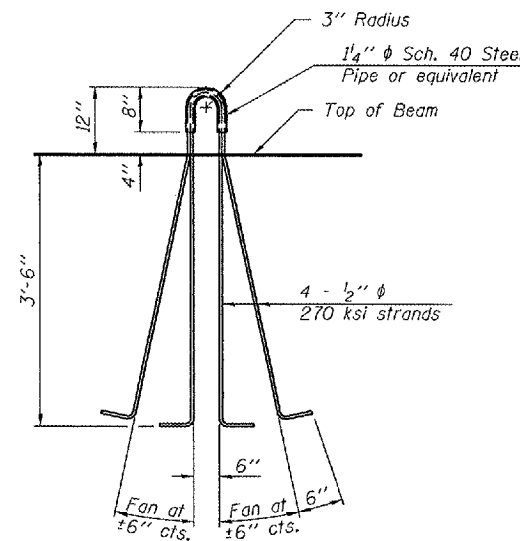
Threaded rods shall be ASTM F 1554 Grade 55.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 48 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

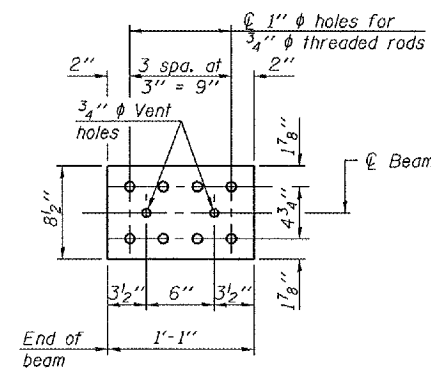
INTERIOR BEAM MOMENT TABLE		
0.5 Sp. 2		
I	(in ⁴)	144117
I'	(in ⁴)	370305
S _b	(in ³)	6834
S _b '	(in ³)	10914
S _t	(in ³)	5355
S _t '	(in ³)	26319
Q	(k/ft)	1.167
M _Q	(k)	1066
s _Q	(k/ft)	0.450
M _{sQ}	(k)	411
M _L	(k)	689
M _{Imp}	(k)	164

INTERIOR BEAM REACTION TABLE		
Abut.		
R _Q	(k)	49.9
R _{sQ}	(k)	19.2
R _L	(k)	35.0
Imp.	(k)	8.3
R _{Total}	(k)	112.4

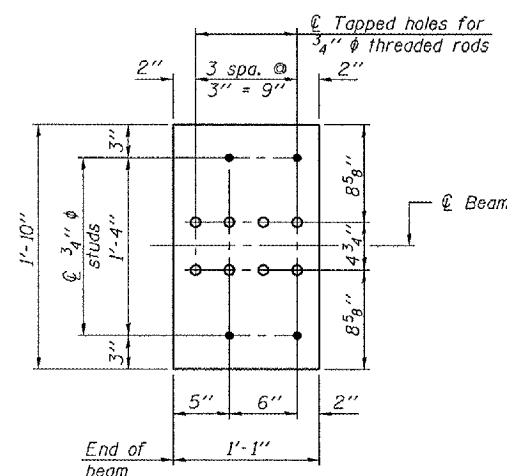
- I: Non-composite moment of inertia of beam section (in⁴).
- I': Composite moment of inertia of beam section (in⁴).
- S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_b': Composite section modulus for the bottom fiber of the prestressed beam (in³).
- S_t: Non-composite section modulus for the top fiber of the prestressed beam (in³).
- S_t': Composite section modulus for the top fiber of the prestressed beam (in³).
- Q: Un-factored non-composite dead load (kips/ft.).
- M_Q: Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
- s_Q: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- M_{sQ}: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_L: Un-factored live load moment on the composite section (kip-ft.).
- M_{Imp}: Un-factored moment due to impact on the composite section (kip-ft.).



LIFTING LOOP DETAIL

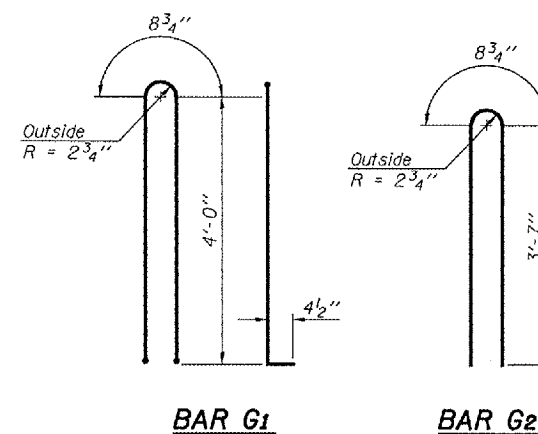


TOP PLATE



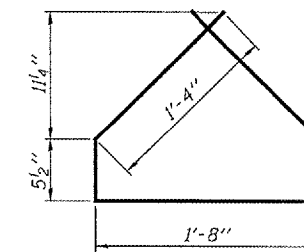
BOTTOM PLATE

See bearing details for pintle hole locations when required.

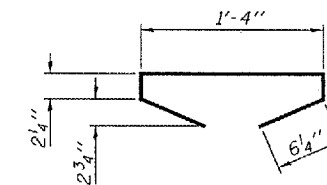


BAR G1

BAR G2



BAR G4



BAR G5

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Ft.	519

DESIGNED	JSD
CHECKED	CME
DRAWN	P.W. SWEET
CHECKED	JSD/CME

September 6, 2007
 EXAMINED *Thomas J. Donagale*
 MEMBER OF PROFESSIONAL DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

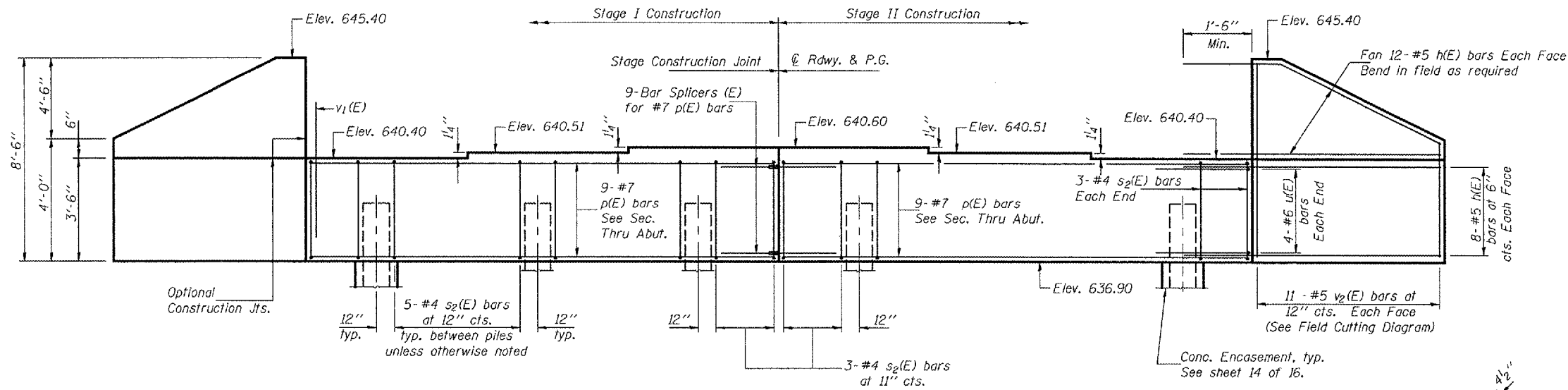
48" PPC I-BEAM DETAILS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

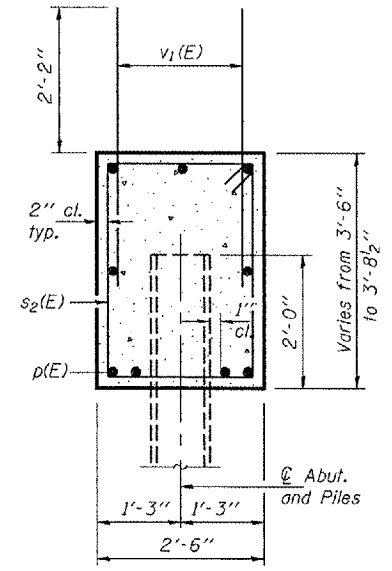
ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 47	POST 46	SHEET NO. 12 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798

Notes: Pour steps monolithically with cap.



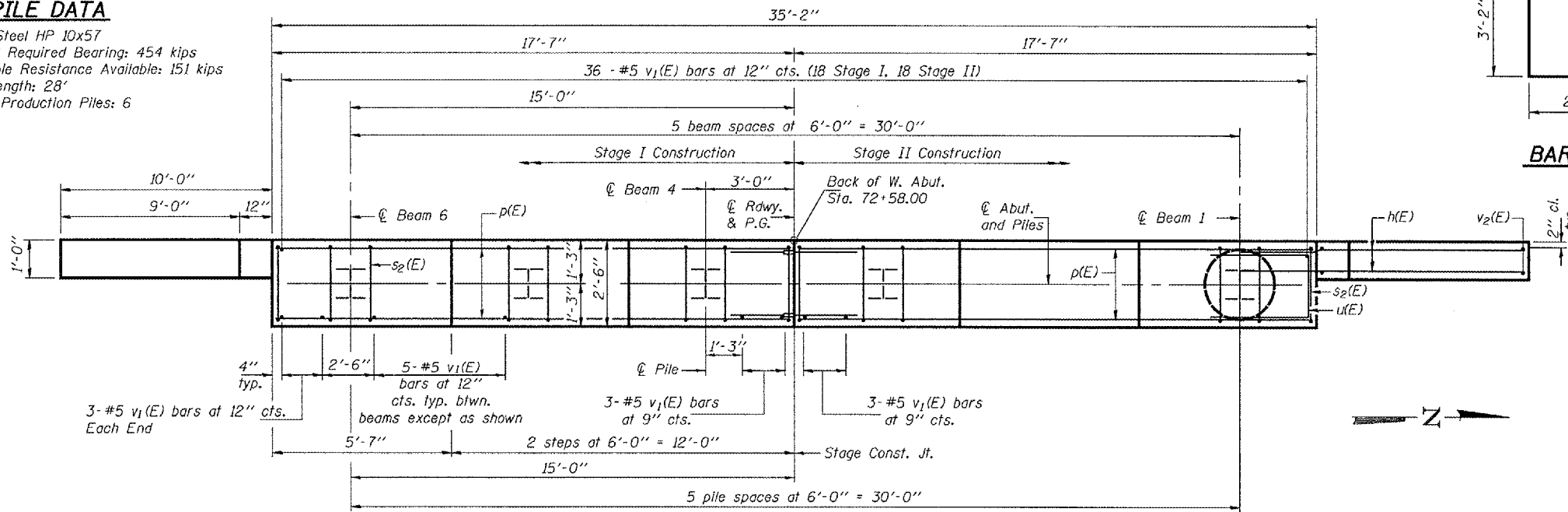
ELEVATION
(Looking West)



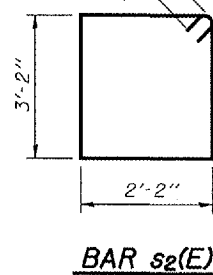
SEC. THRU ABUT.

PILE DATA

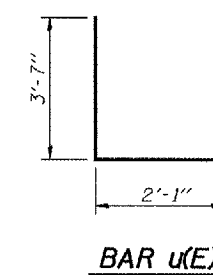
Type: Steel HP 10x57
Nominal Required Bearing: 454 kips
Allowable Resistance Available: 151 kips
Est. Length: 28'
No. of Production Piles: 6



PLAN



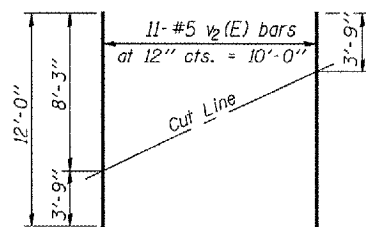
BAR s2(E)



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	80	#5	11'-4"	—
p(E)	18	#7	17'-3"	—
s2(E)	32	#4	11'-5"	□
u(E)	8	#6	9'-3"	□
v1(E)	68	#6	4'-4"	—
v2(E)	22	#5	12'-0"	—
Concrete Structures		Cu. Yd.	16.7	
Reinforcement Bars, Epoxy Coated		Pound	2650	
Structure Excavation		Cu. Yd.	220.5	
Furnishing Steel		Ft.	168	
Piles HP 10x57		Ft.	168	
Driving Piles		Ft.	168	



FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.

DESIGNED	JSB
CHECKED	CME
DRAWN	BMC P.W. SWEET
CHECKED	JSB/CME

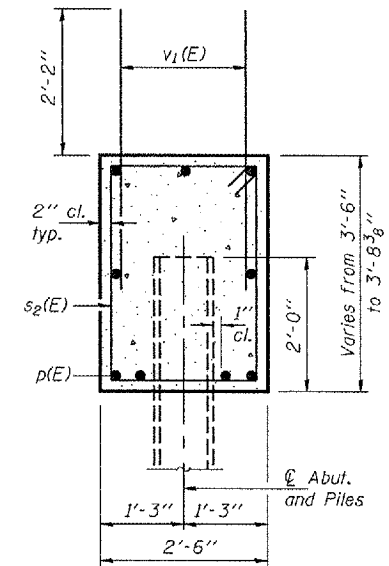
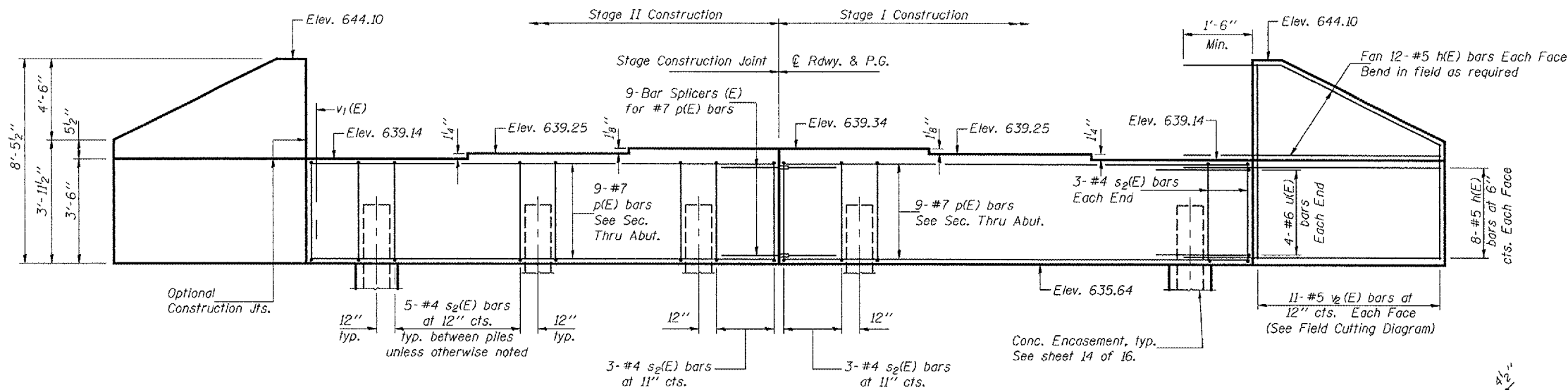
September 6, 2007
EXAMINED *Thomas J. Donagale*
MEMBER OF THE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

WEST ABUTMENT
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

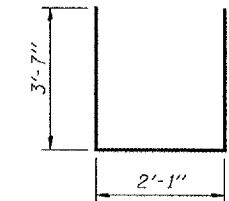
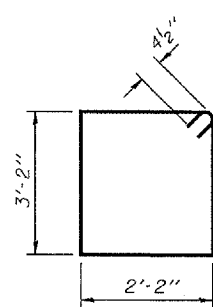
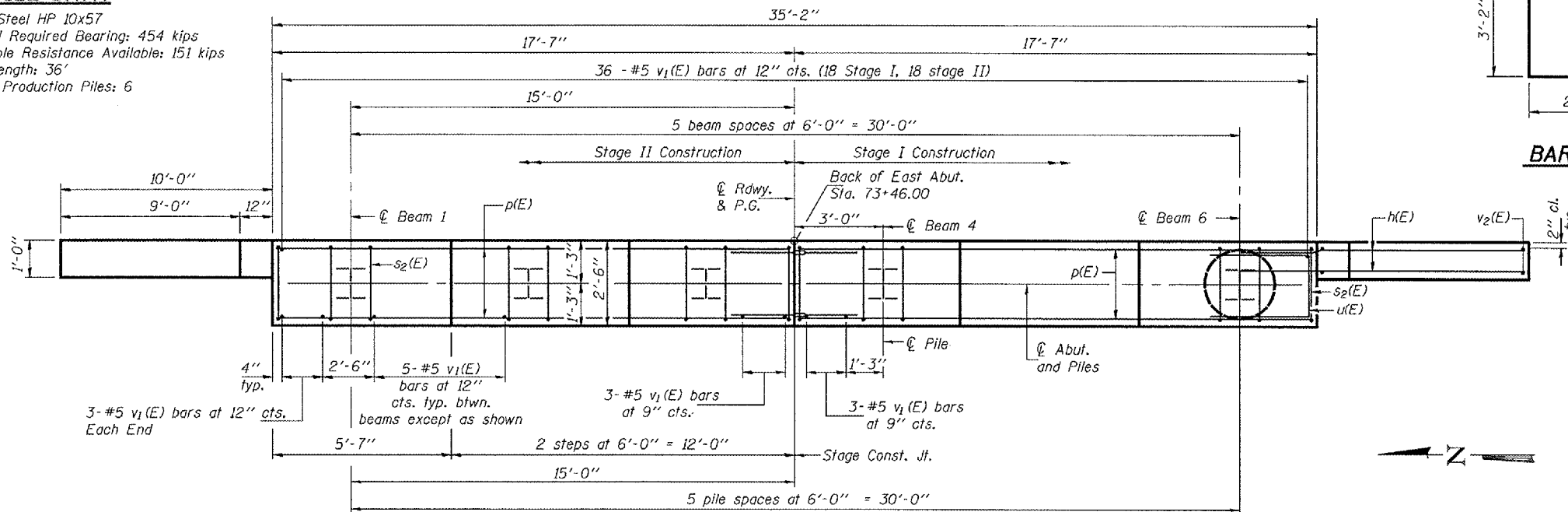
ROUTE NO. 310	SECTION (101BY)BR	COUNTY WARREN	SHEET 97 47	SHEET NO. 13 16 SHEETS
F.A.P. 310		ILLINOIS		CONTRACT #88798

Notes: Pour steps monolithically with cap.



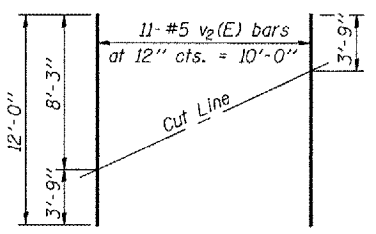
PILE DATA

Type: Steel HP 10x57
Nominal Required Bearing: 454 kips
Allowable Resistance Available: 151 kips
Est. Length: 36'
No. of Production Piles: 6



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	80	#5	11'-4"	—
p(E)	18	#7	17'-3"	—
s2(E)	32	#4	11'-5"	□
u(E)	8	#6	9'-3"	□
v1(E)	68	#6	4'-4"	—
v2(E)	22	#5	12'-0"	—
Concrete Structures		Cu. Yd.	16.6	
Reinforcement Bars, Epoxy Coated		Pound	2650	
Structure Excavation		Cu. Yd.	220.5	
Furnishing Steel		Ft.	216	
Driving Piles		Ft.	216	



Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.

DESIGNED	JSD
CHECKED	CME
DRAWN	OMC P.W. SWEET
CHECKED	JSD/CME

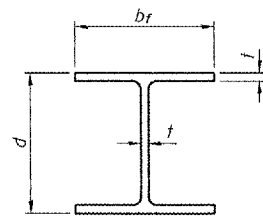
September 5, 2007
EXAMINED *Thomas J. Donagale*
PASSED *Ralph E. Anderson*

EAST ABUTMENT
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

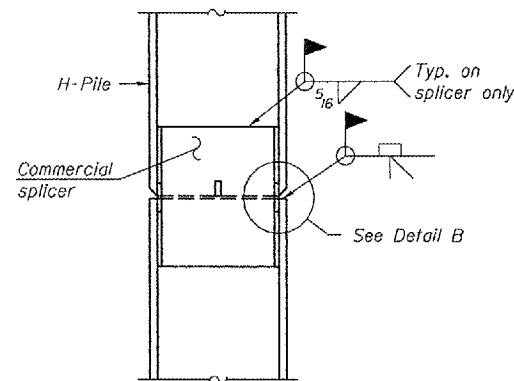
ROUTE NO. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET 97	PAGE 48	SHEET NO. 14
FED. ROAD DIST. NO. 7					ILLINOIS
FED. AID PROJECT					16 SHEETS

Contract #88798

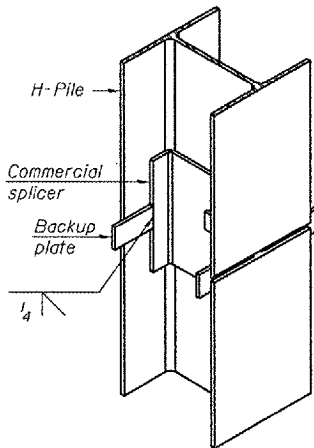


STEEL PILE TABLE

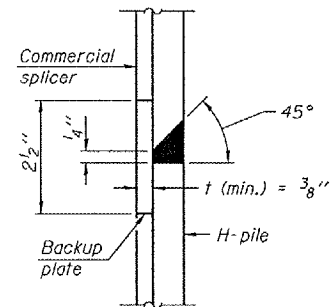
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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



ELEVATION

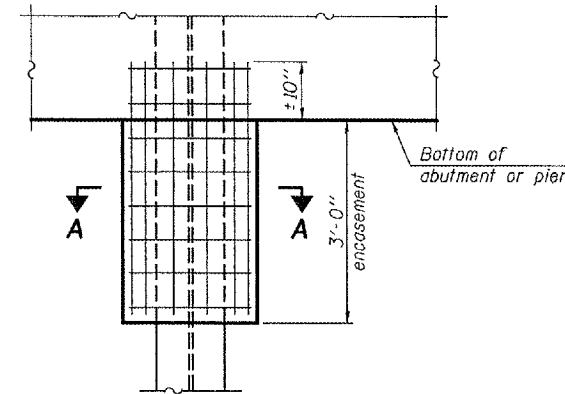


ISOMETRIC VIEW



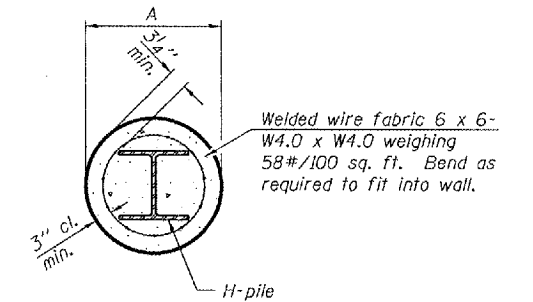
DETAIL "B"

WELDED COMMERCIAL SPLICE



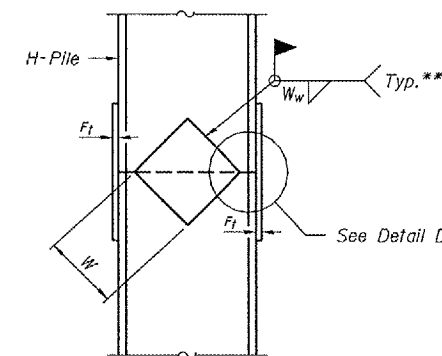
ELEVATION

PILE ENCASEMENT

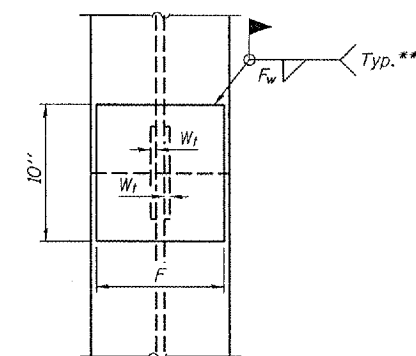


SECTION A-A

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



ELEVATION

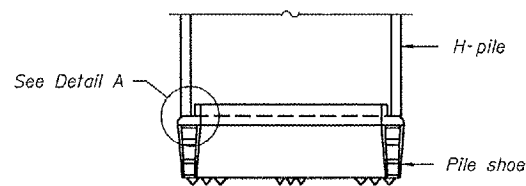


END VIEW

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

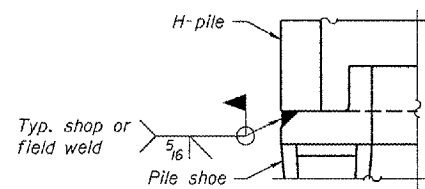
WELDED PLATE FIELD SPLICE

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

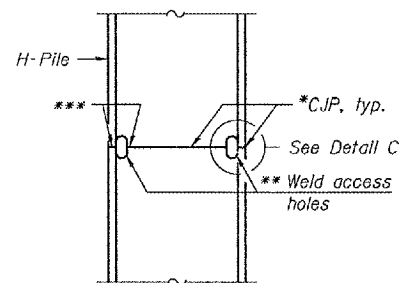


ELEVATION

H-PILE SHOE ATTACHMENT

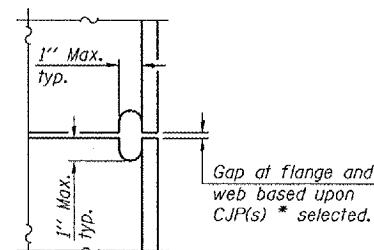


DETAIL A

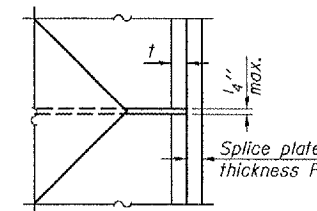


ELEVATION

COMPLETE PENETRATION WELD SPLICE



DETAIL C



DETAIL D

DESIGNED	FT
CHECKED	SMR
DRAWN	DMC P.W. SWEET
CHECKED	FT/SMR

11-1-06

September 6, 2007
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

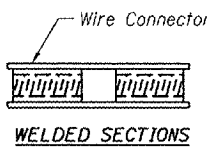
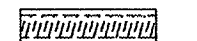
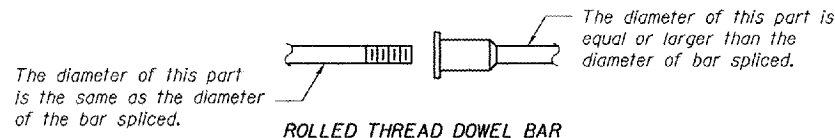
- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

STEEL H-PILE DETAILS
F.A.P. ROUTE 310 - SEC. (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

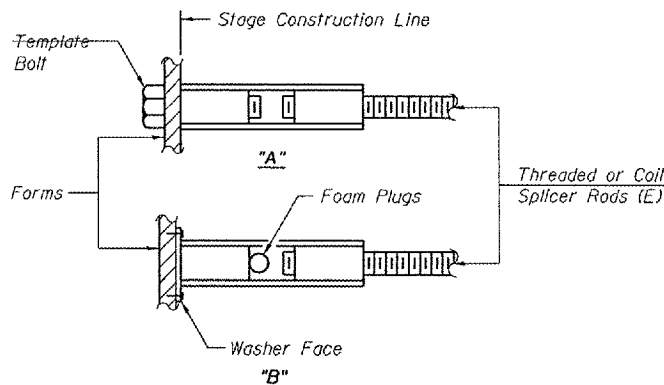
ROUTE NO. F.A.P. 310	SECTION (101BY) BR	COUNTY WARREN	SHEET NO. 27	POST 48a	SHEET NO. 15
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798



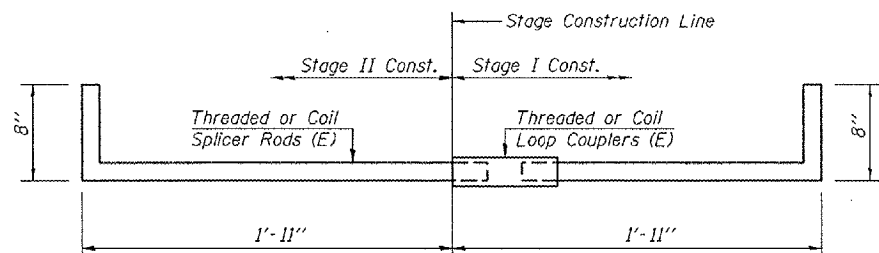
BAR SPLICER ASSEMBLY ALTERNATIVES

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



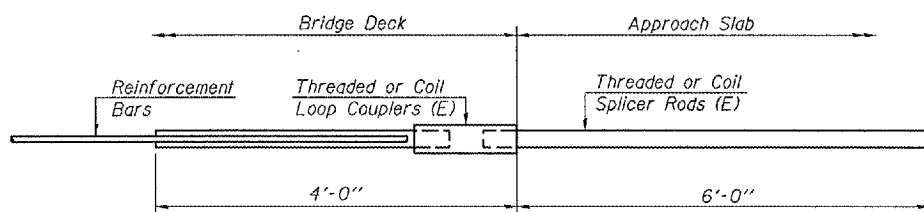
INSTALLATION AND SETTING METHODS

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



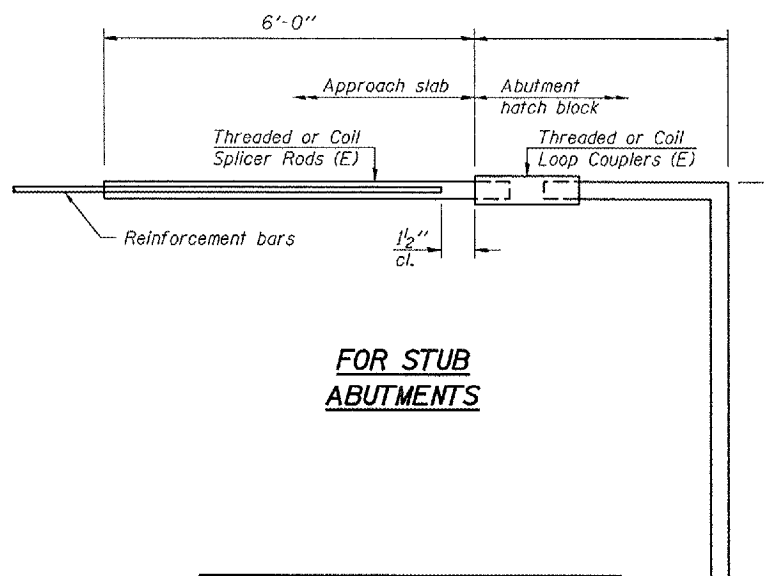
FOR BOTTOM SPLICER AT DIAPHRAGMS

Bar Splicer for #6 bar
Min. Capacity = 33.1 kips - tension
Min. Pull-out Strength = 17.4 kips - tension
No. Required = 2



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



FOR STUB ABUTMENTS

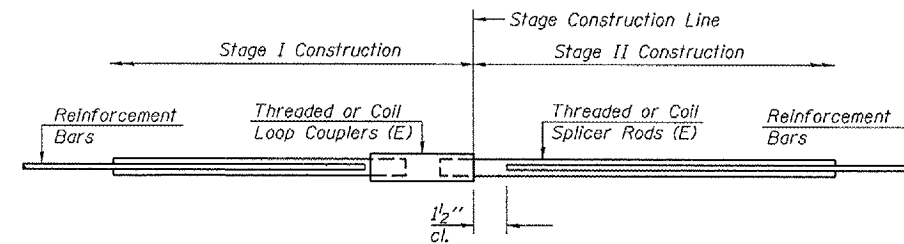
Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_l$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_l$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_l = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	207	Superstructure
#6	14	Diaphragms
#7	18	Abutments

BAR SPLICER ASSEMBLY DETAILS
F.A.P. ROUTE 310 - SEC. (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

DESIGNED	JSB
CHECKED	GME
DRAWN	DMC P.W. SWEET
CHECKED	JSB/GME

September 6, 2007

EXAMINED *Thomas J. Donagale*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 16 16 SHEETS
F.A.P. 310	(101BY) BR	WARREN	97 486	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #88798

Page 1 of 1

SOIL BORING LOG

Date 4/25/00

ROUTE _____ DESCRIPTION US 87 over Tom's Creek LOGGED BY DPS

SECTION (101 BY) BR LOCATION NW 14, NE 14, SEC. 3, TWP. 12N, RNG. 2W, 4th PM

COUNTY WARREN DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 094-0001 (EXIST)
094-0049 (PROP)
Station 73+09 (EXIST)

BORING NO. 1 (WEST ABUT)
Station 72+55
Offset 13.00% FT
Ground Surface Elev. 644.88 ft

DEPTH (ft)	SOIL DESCRIPTION	TESTS	REMARKS
0.0	Surface Water Elev. 627.66 ft		
0.0	Stream Bed Elev. _____ ft		
0.0	Groundwater Elev. _____ ft		
0.0	First Encounter Upon Completion _____ ft		
0.0	After 24 Hrs. 632.4 ft		
0.0	Brown & Gray SILT CLAY	2 74 28	
2.0	Brown & Gray SILTY CLAY LOAM	1 25 29	
2.0	Gray SILTY CLAY	1 37 27	
2.0	Gray SILTY CLAY	2 59 25	
2.0	Gray CLAY LOAM	3 4 29	
2.0	Gray SHALE	17 15 15	
2.0	Dark Gray SILTY CLAY LOAM	1 30 30	
2.0	Gray & Brown SILTY CLAY	2 16 28	
2.0	Brown & Gray SILTY CLAY	1 25 29	

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

Page 1 of 2

SOIL BORING LOG

Date 4/25/00

ROUTE _____ DESCRIPTION US 87 over Tom's Creek LOGGED BY DPS

SECTION (101 BY) BR LOCATION NW 14, NE 14, SEC. 3, TWP. 12N, RNG. 2W, 4th PM

COUNTY WARREN DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 094-0001 (EXIST)
094-0049 (PROP)
Station 73+09 (EXIST)

BORING NO. 2 (EAST ABUT)
Station 73+36
Offset 5.50% LT
Ground Surface Elev. 643.86 ft

DEPTH (ft)	SOIL DESCRIPTION	TESTS	REMARKS
0.0	Surface Water Elev. 627.66 ft		
0.0	Stream Bed Elev. _____ ft		
0.0	Groundwater Elev. _____ ft		
0.0	First Encounter Upon Completion _____ ft		
0.0	After 24 Hrs. NONE ft		
0.0	8" BIT. CONC. 8" PCC	2 21 28	
0.0	Gray SANDY CLAY LOAM	2 21 28	
0.0	Gray LOAM with small sand seams	1 48 26	
0.0	Gray SILTY CLAY LOAM	1 1 26	
0.0	Gray SILTY CLAY	2 132 28	
0.0	Brown & Gray SILTY CLAY LOAM	3 91 25	
0.0	Dark Gray SILTY CLAY	1 124 29	
0.0	Gray SILTY CLAY	1 115 26	
0.0	Gray & Brown SANDY CLAY LOAM	1 56 23	
0.0	Gray SANDY CLAY LOAM	1 56 23	

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

Page 2 of 2

SOIL BORING LOG

Date 4/25/00

ROUTE _____ DESCRIPTION US 87 over Tom's Creek LOGGED BY DPS

SECTION (101 BY) BR LOCATION NW 14, NE 14, SEC. 3, TWP. 12N, RNG. 2W, 4th PM

COUNTY WARREN DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 094-0001 (EXIST)
094-0049 (PROP)
Station 73+09 (EXIST)

BORING NO. 2 (EAST ABUT)
Station 73+36
Offset 5.50% LT
Ground Surface Elev. 643.86 ft

DEPTH (ft)	SOIL DESCRIPTION	TESTS	REMARKS
0.0	Gray SHALE (continued)	12	
0.0	No rock cores due to poor quality of shale		
0.0	End of Boring		

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

BORING LOGS
F.A.P. ROUTE 310 - SECTION (101BY)BR
WARREN COUNTY
STATION 73+02
STRUCTURE NO. 094-0049

Bench Mark: Chiseled "□" on NE wingwall of S.N. 094-0002. Elev. 626.24.

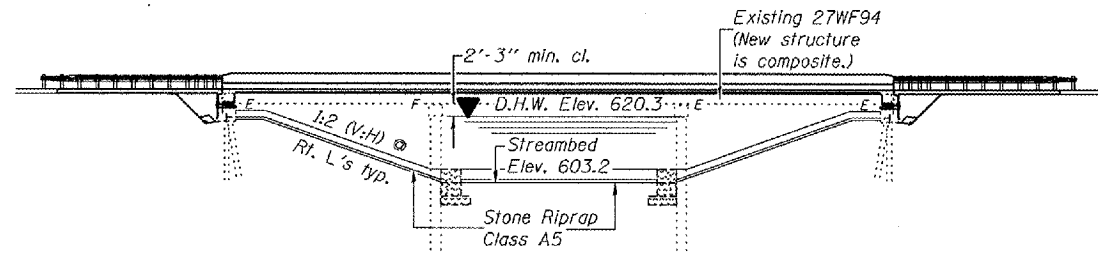
Existing Structure: S.N. 094-0002 built in 1954 as S.B.I. Route 3, Section 28-BR at Station 829+24.00.
Structure consists of 3 span reinforced concrete deck on steel WF beams supported on spill-thru pile bent abutments and open concrete pile bent piers. 125'-9" back-to-back abutments, 34'-4" out-to-out deck. Concrete deck to be removed and replaced using Stage Construction.

No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
F.A.P. 310	28BR-1	WARREN	97	49	16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #88798



ELEVATION

STATION 829+24.00
REBUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 310 - SECTION 28BR-1
LOADING HS20-44
STR. NO. 094-0002

NAME PLATE
See Std. 515001

Note:
The existing name plate is to be cleaned and relocated next to new name plate. Cost is included with Name Plates.

GENERAL NOTES

No field welding is permitted except as specified in the contract documents. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete. As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

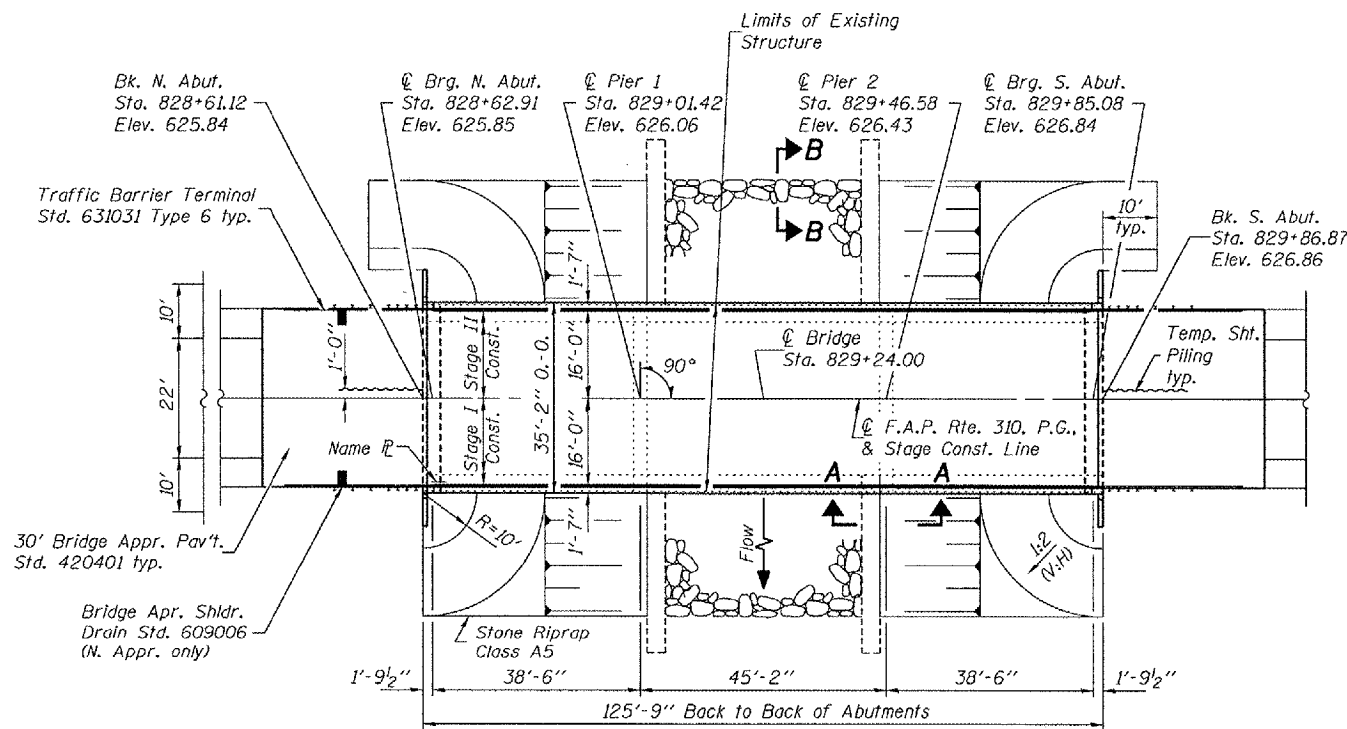
Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

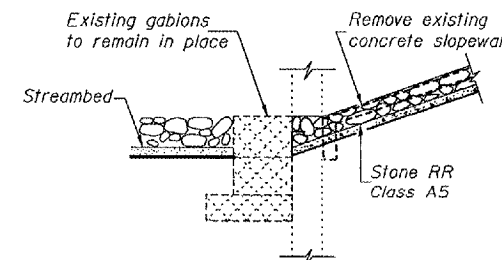
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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

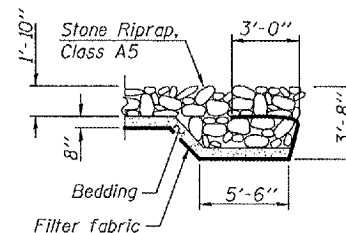
All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type 1.



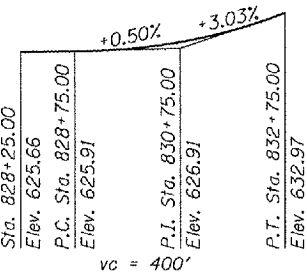
PLAN



SECTION A-A



SECTION B-B



PROFILE GRADE
(along centerline roadway)

DESIGNED	Tom Kuntz
CHECKED	Alan Johnson
DRAWN	AMC Amber M. Seiber
CHECKED	TJK/AMT

September 4, 2007
EXAMINED: Thomas Douglas
PASSED: Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008

WATERWAY INFORMATION

Drainage Area = 35.10 Sq. Mi. Low Grade Elev. 624.04' @ Sta. 825+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	5573	970	970	620.3	620.3	0.5	0.5	620.8	620.8
Base	100	6328	1058	1058	621.2	621.2	0.5	0.5	621.7	621.7
Overtopping	-	-	-	-	-	-	-	-	-	-
Max. Calc.	500	8254	1237	1237	622.7	622.7	0.9	0.9	623.6	623.6

LOADING HS20-44 (New Const.)

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

DESIGN SPECIFICATIONS (New Const.)

1996 AASHTO with 1997 thru 2002 Interims

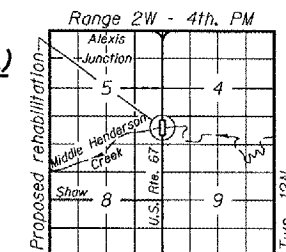
DESIGN STRESSES

FIELD UNITS (New Construction)

f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.6%
Site Coefficient (S) = 1.2



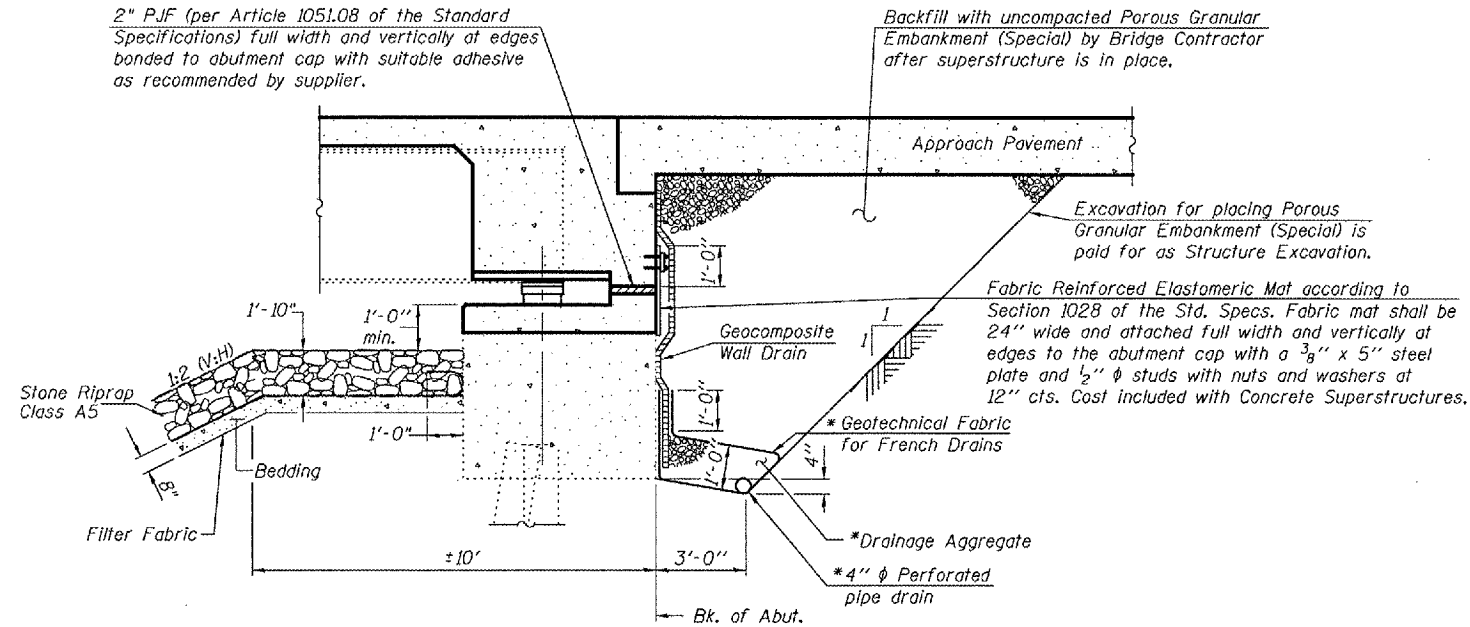
LOCATION SKETCH

GENERAL PLAN
U.S. ROUTE 67 OVER
MIDDLE HENDERSON CREEK
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
F.A.P. 310	28BR-1	WARREN	97	50	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #88798



SECTION THRU SEMI-INTEGRAL ABUTMENT

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

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 60110).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		170	170
Porous Granular Embankment (Special)	Cu. Yd.		126	126
Concrete Structures	Cu. Yd.		12.2	12.2
Concrete Superstructure	Cu. Yd.	150		150
Stud Shear Connectors	Each	2004		2004
Reinforcement Bars, Epoxy Coated	Pound	35,290	1,500	36,790
Stone Riprap, Class A5	Sq. Yd.		1384	1384
Filter Fabric	Sq. Yd.		1384	1384
Name Plates	Each	1		1
Bridge Deck Grooving	Sq. Yd.	414		414
Concrete Removal	Cu. Yd.		19.2	19.2
Jack and Remove Existing Bearings	Each		12	12
Elastomeric Bearing Assembly, Type I	Each		12	12
Removal of Existing Concrete Deck	Each	1		1
Temporary Sheet Piling	Sq. Ft.		365	365
Bar Splicers	Each	449	10	459
Slope Wall Removal	Sq. Yd.		1056	1056
Protective Coat	Sq. Yd.	547		547
Anchor Bolt 1"φ	Each	24		24
Geocomposite Wall Drain	Sq. Yd.		55	55
Pipe Underdrains for Structures, 4"	Foot		130	130

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	AMC Amber M. Seiber
CHECKED	TLK/AMJ

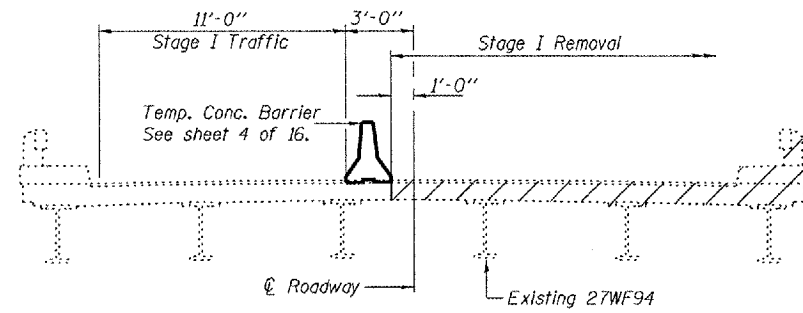
EXAMINED	Thomas J. Domagala ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

GENERAL DATA
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

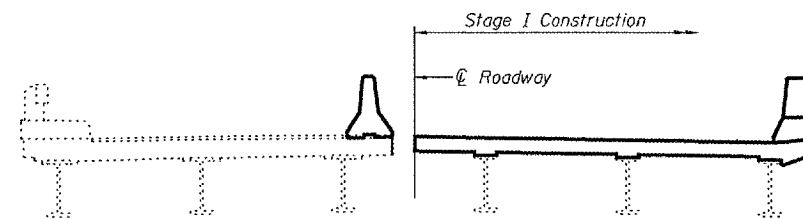
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	SHEET 97	POST 51	SHEET NO. 3
FED. ROAD DIST. NO. 7					ILLINOIS
FED. AID PROJECT					16 SHEETS

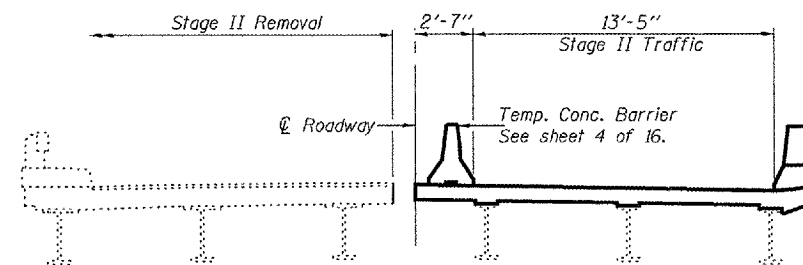
Contract #88798



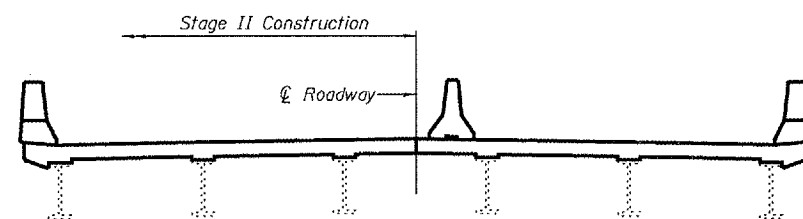
STAGE I REMOVAL



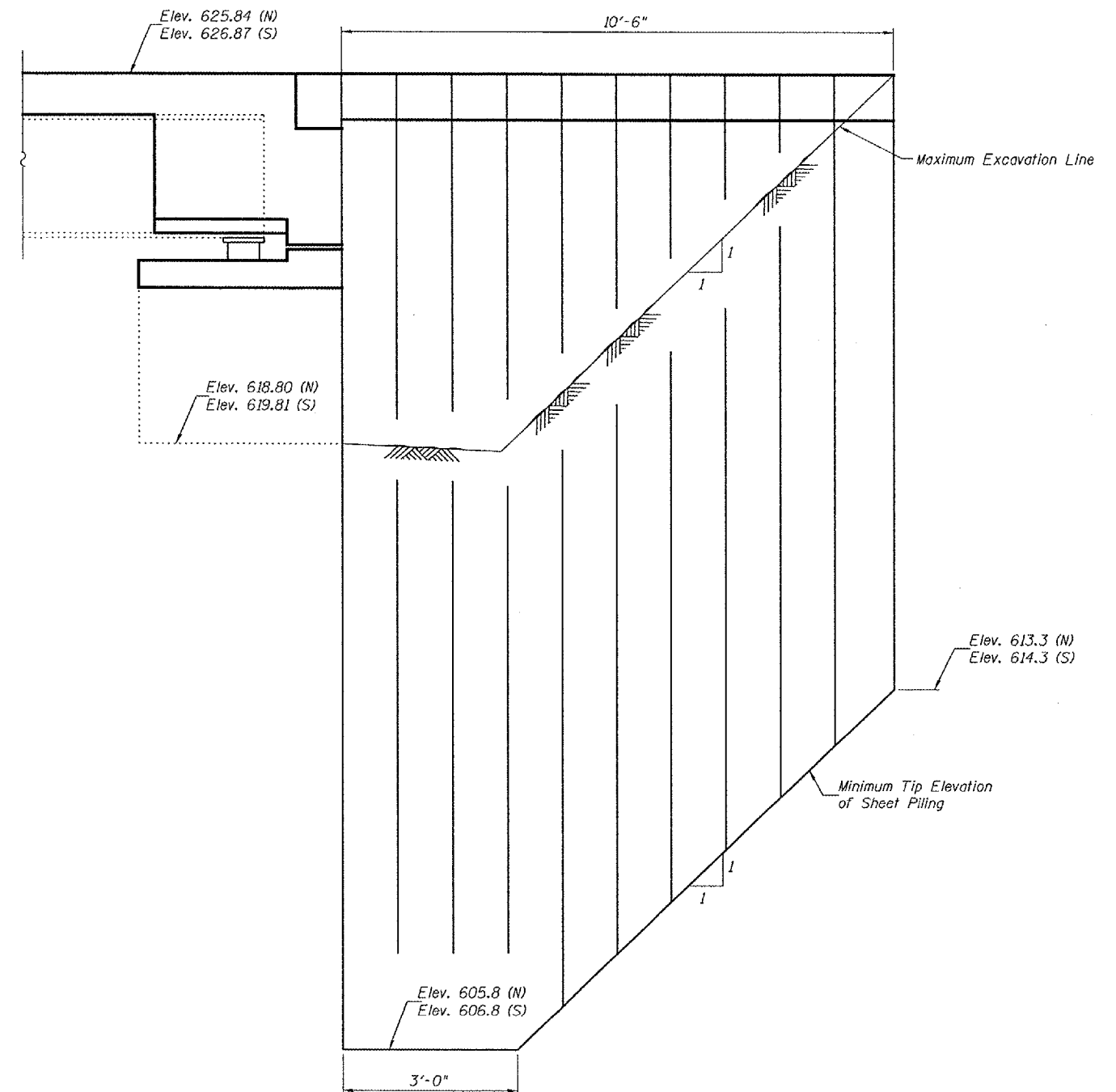
STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION



TEMPORARY SHEET PILING

(Stage I and Stage II)
Minimum Section Modulus = 7.7 in³/ft
Minimum Embedment = 12'-6"

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.

Due to the lack of boring data, the temporary sheet piling design has been developed to account for most soil conditions. The sheet piling should be monitored for excessive deflection and the Engineer contacted if soft or loose soils are encountered.

STAGE CONSTRUCTION DETAILS
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	BMC Amber M. Seiber
CHECKED	TLK/AMJ

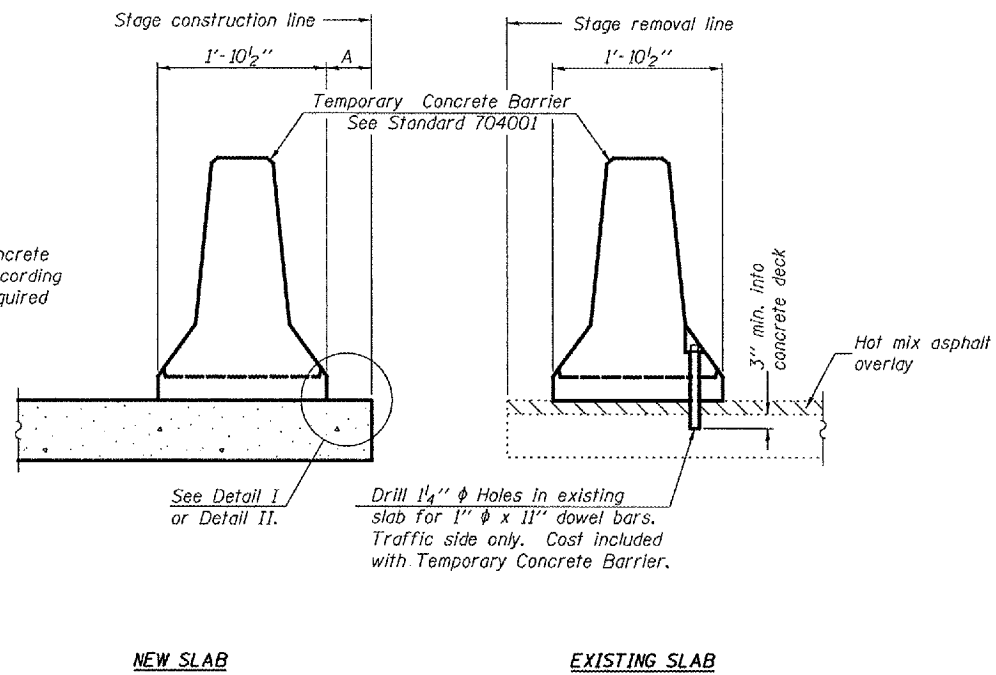
EXAMINED	Thomas J. Demagalki	September 4, 2007
PASSED	Ralph E. Anderson	

Notes:
All staging cross sections are looking South.
Hatched area indicates Removal of Existing Concrete Deck.
For quantity of Temporary Concrete Barrier see Roadway Plans.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.P. 310	28BR-1	WARREN	41 52	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #88798

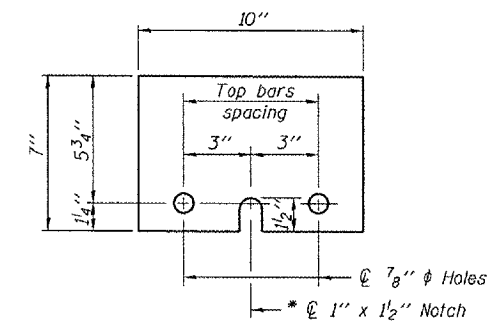
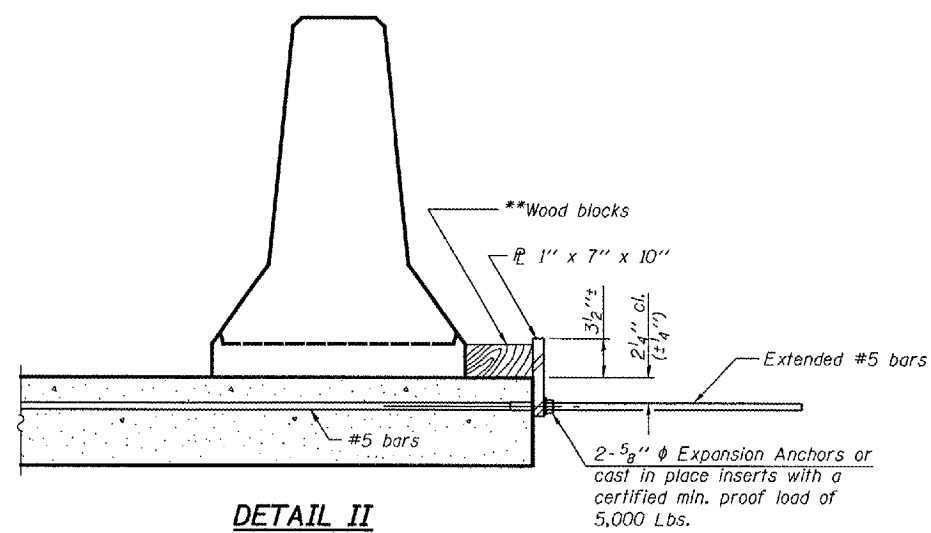
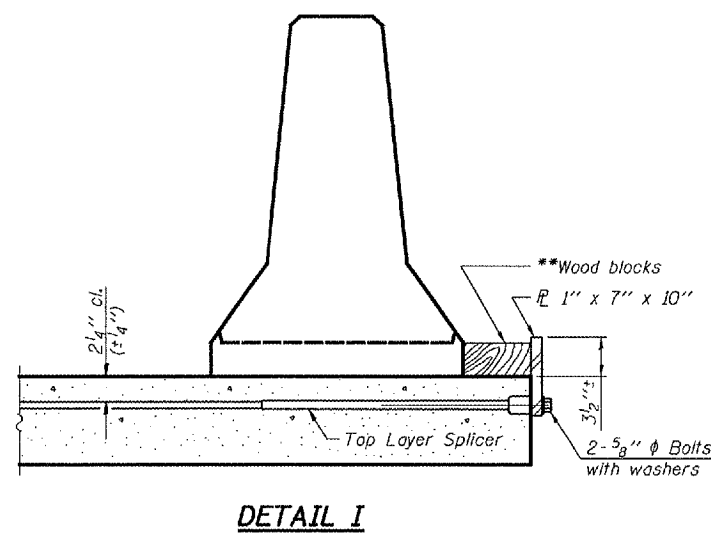


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

NOTES

- Detail I - With Bar Splicer or Couplers:**
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2- $\frac{5}{8}$ " ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:**
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab with 2- $\frac{5}{8}$ " ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

SECTIONS THRU SLAB



** 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.

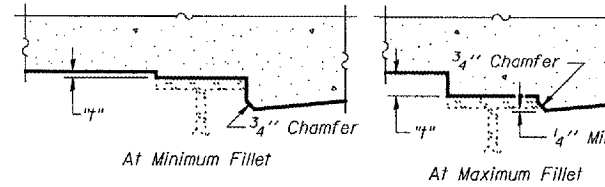
STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

DESIGNED Tom L. Kurtenbach	September 4, 2007
CHECKED Alan M. Johnson	EXAMINED <i>Thomas J. Demasalaki</i>
DRAWN BMC Amber M. Seiber	PASSED <i>Ronald E. Anderson</i>
CHECKED TLK/AMJ	

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. ROUTE 310 - SEC. 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



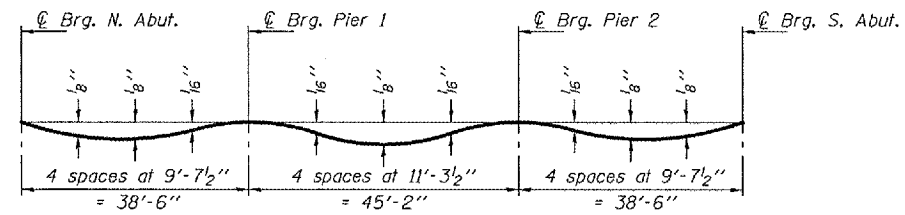
ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	SHEET 47	SHEET 53	SHEET NO. 5
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798

16 SHEETS

To determine "I": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 6 of 16, minus slab thickness, equals the fillet heights "I" above top flange of beams.

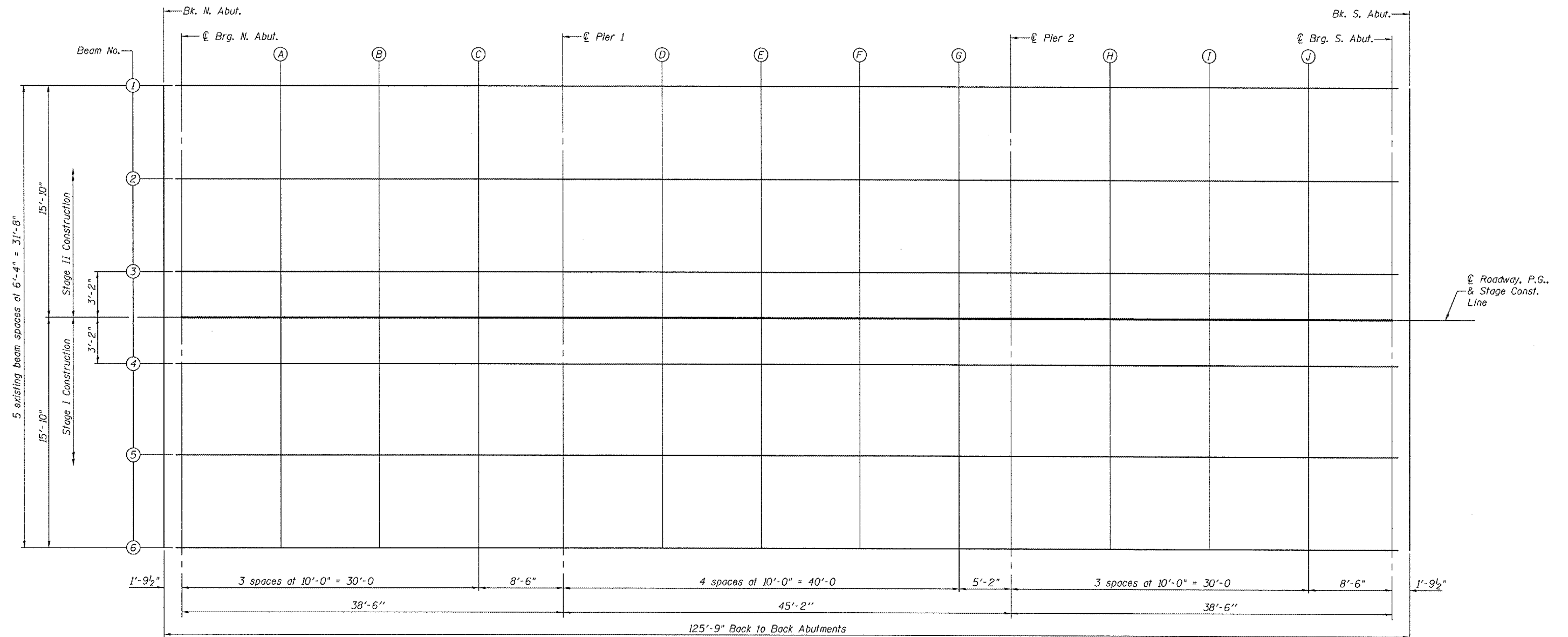
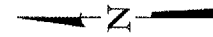
FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 6 of 16.



PLAN

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	AMC Amber M. Seiber
CHECKED	TLK/AMJ

September 4, 2007
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	SHEET 97	SHEET 54	SHEET NO. 6 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	15.833	625.573	625.573
€ Brg N. Abut.	82862.912	15.833	625.582	625.582
A	82872.912	15.833	625.632	625.642
B	82882.912	15.833	625.684	625.696
C	82892.912	15.833	625.742	625.748
€ Pier 1	82901.412	15.833	625.797	625.797
D	82911.412	15.833	625.867	625.871
E	82921.412	15.833	625.943	625.952
F	82931.412	15.833	626.025	626.032
G	82941.412	15.833	626.114	626.117
€ Pier 2	82946.578	15.833	626.163	626.163
H	82956.578	15.833	626.261	626.268
I	82966.578	15.833	626.366	626.377
J	82976.578	15.833	626.477	626.486
€ Brg S. Abut.	82985.078	15.833	626.576	626.576
BK S. Abut.	82986.870	15.833	626.598	626.598

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	9.500	625.692	625.692
€ Brg N. Abut.	82862.912	9.500	625.701	625.701
A	82872.912	9.500	625.751	625.761
B	82882.912	9.500	625.803	625.814
C	82892.912	9.500	625.861	625.867
€ Pier 1	82901.412	9.500	625.916	625.916
D	82911.412	9.500	625.986	625.990
E	82921.412	9.500	626.062	626.071
F	82931.412	9.500	626.144	626.151
G	82941.412	9.500	626.233	626.235
€ Pier 2	82946.578	9.500	626.281	626.281
H	82956.578	9.500	626.380	626.387
I	82966.578	9.500	626.485	626.496
J	82976.578	9.500	626.596	626.605
€ Brg S. Abut.	82985.078	9.500	626.695	626.695
BK S. Abut.	82986.870	9.500	626.717	626.717

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	3.167	625.791	625.791
€ Brg N. Abut.	82862.912	3.167	625.800	625.800
A	82872.912	3.167	625.850	625.860
B	82882.912	3.167	625.902	625.913
C	82892.912	3.167	625.960	625.966
€ Pier 1	82901.412	3.167	626.015	626.015
D	82911.412	3.167	626.085	626.089
E	82921.412	3.167	626.161	626.170
F	82931.412	3.167	626.243	626.250
G	82941.412	3.167	626.332	626.334
€ Pier 2	82946.578	3.167	626.380	626.380
H	82956.578	3.167	626.479	626.486
I	82966.578	3.167	626.584	626.595
J	82976.578	3.167	626.695	626.704
€ Brg S. Abut.	82985.078	3.167	626.794	626.794
BK S. Abut.	82986.870	3.167	626.816	626.816

€ ROADWAY, P.G., & STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	0.000	625.841	625.841
€ Brg N. Abut.	82862.912	0.000	625.850	625.850
A	82872.912	0.000	625.900	625.910
B	82882.912	0.000	625.952	625.963
C	82892.912	0.000	626.010	626.016
€ Pier 1	82901.412	0.000	626.064	626.064
D	82911.412	0.000	626.134	626.138
E	82921.412	0.000	626.210	626.219
F	82931.412	0.000	626.293	626.299
G	82941.412	0.000	626.382	626.384
€ Pier 2	82946.578	0.000	626.430	626.430
H	82956.578	0.000	626.528	626.535
I	82966.578	0.000	626.633	626.645
J	82976.578	0.000	626.744	626.753
€ Brg S. Abut.	82985.078	0.000	626.844	626.844
BK S. Abut.	82986.870	0.000	626.865	626.865

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	-3.167	625.791	625.791
€ Brg N. Abut.	82862.912	-3.167	625.800	625.800
A	82872.912	-3.167	625.850	625.860
B	82882.912	-3.167	625.902	625.913
C	82892.912	-3.167	625.960	625.966
€ Pier 1	82901.412	-3.167	626.015	626.015
D	82911.412	-3.167	626.085	626.089
E	82921.412	-3.167	626.161	626.170
F	82931.412	-3.167	626.243	626.250
G	82941.412	-3.167	626.332	626.334
€ Pier 2	82946.578	-3.167	626.380	626.380
H	82956.578	-3.167	626.479	626.486
I	82966.578	-3.167	626.584	626.595
J	82976.578	-3.167	626.695	626.704
€ Brg S. Abut.	82985.078	-3.167	626.794	626.794
BK S. Abut.	82986.870	-3.167	626.816	626.816

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	-9.500	625.692	625.692
€ Brg N. Abut.	82862.912	-9.500	625.701	625.701
A	82872.912	-9.500	625.751	625.761
B	82882.912	-9.500	625.803	625.814
C	82892.912	-9.500	625.861	625.867
€ Pier 1	82901.412	-9.500	625.916	625.916
D	82911.412	-9.500	625.986	625.990
E	82921.412	-9.500	626.062	626.071
F	82931.412	-9.500	626.144	626.151
G	82941.412	-9.500	626.233	626.235
€ Pier 2	82946.578	-9.500	626.281	626.281
H	82956.578	-9.500	626.380	626.387
I	82966.578	-9.500	626.485	626.496
J	82976.578	-9.500	626.596	626.605
€ Brg S. Abut.	82985.078	-9.500	626.695	626.695
BK S. Abut.	82986.870	-9.500	626.717	626.717

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N. Abut.	82861.120	-15.833	625.573	625.573
€ Brg N. Abut.	82862.912	-15.833	625.582	625.582
A	82872.912	-15.833	625.632	625.642
B	82882.912	-15.833	625.684	625.696
C	82892.912	-15.833	625.742	625.748
€ Pier 1	82901.412	-15.833	625.797	625.797
D	82911.412	-15.833	625.867	625.871
E	82921.412	-15.833	625.943	625.952
F	82931.412	-15.833	626.025	626.032
G	82941.412	-15.833	626.114	626.117
€ Pier 2	82946.578	-15.833	626.163	626.163
H	82956.578	-15.833	626.261	626.268
I	82966.578	-15.833	626.366	626.377
J	82976.578	-15.833	626.477	626.486
€ Brg S. Abut.	82985.078	-15.833	626.576	626.576
BK S. Abut.	82986.870	-15.833	626.598	626.598

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	AMC Amber M. Seiber
CHECKED	TLK/AMJ

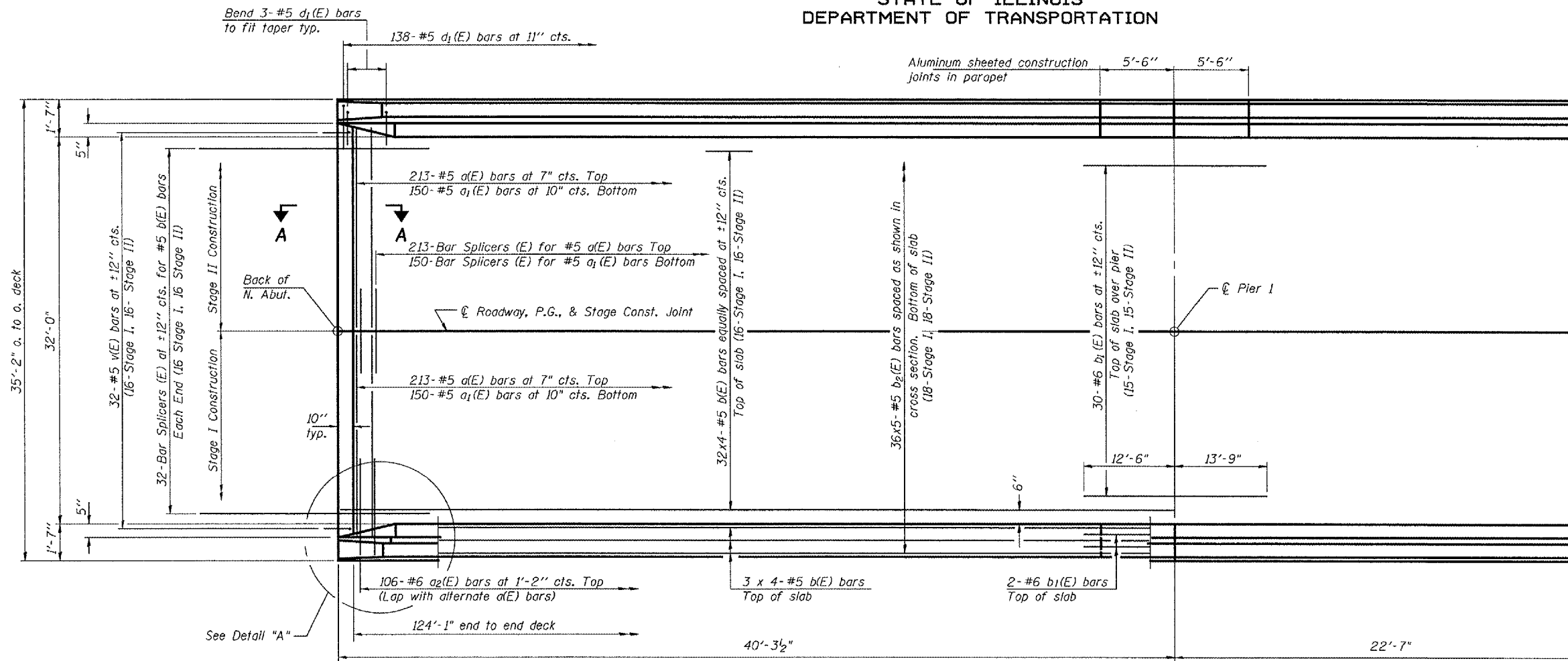
September 4, 2007
 EXAMINED *Thomas J. Domagala*
 ENGINEER OF BRIDGE DESIGN
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 7 16 SHEETS
F.A.P. 310	28BR-1	WARREN	97	55	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

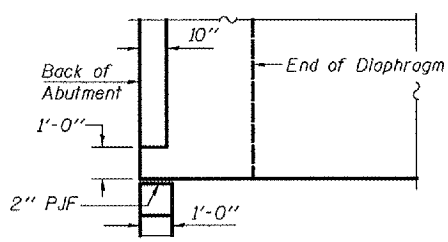
Contract #88798



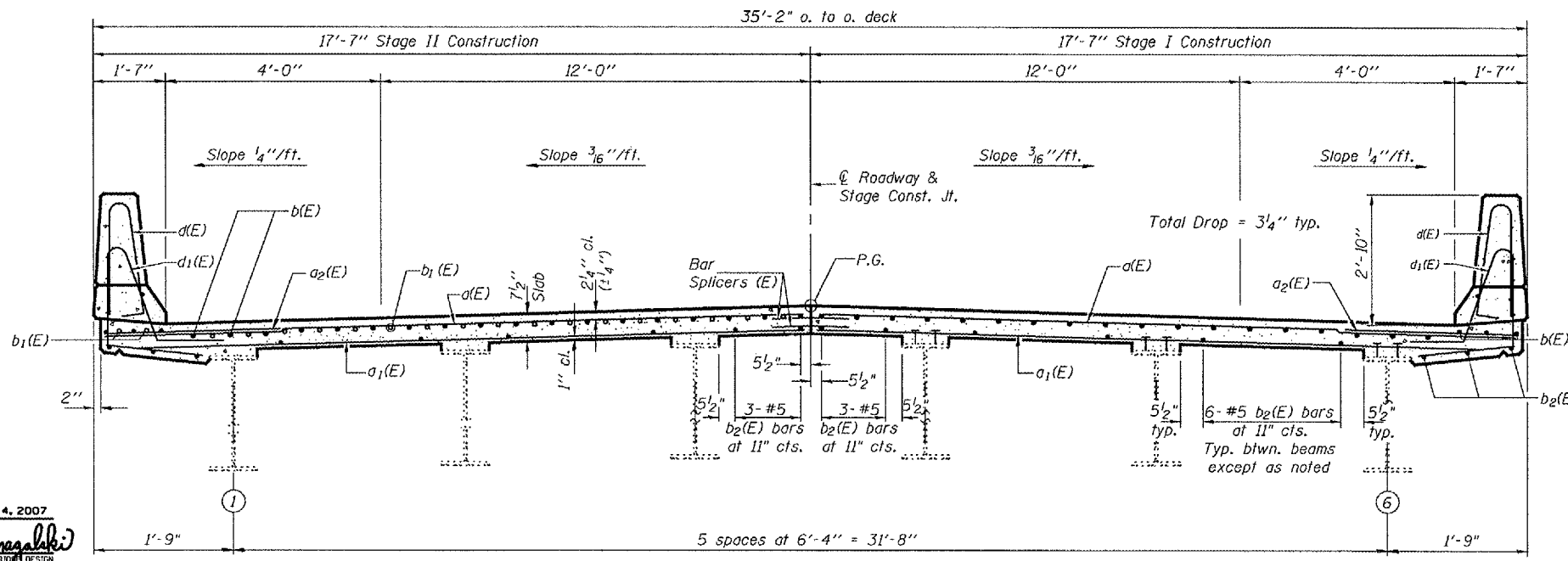
HALF PLAN

Symmetrical about
C of Span 2

MIN. BAR LAPS
#5 = 1'-8"



DETAIL "A"
(Parapet and approach not included)



CROSS SECTION
(Looking South)

Notes:
See Sheet 8 of 16 for superstructure details and Bill of Material.
Bars indicated thus 32 x 4-#5 etc. indicates 32 lines of bars with 4 lengths per line.
See Sheet 8 of 16 for parapet reinforcement.
For Section A-A and diaphragm details see sheet 9 of 16.
See sheet 16 of 16 for Bar Splicer Details.

DESIGNED Tom L. Kurtenbach
CHECKED Alan M. Johnson
DRAWN BMC Amber M. Seiber
CHECKED TLK/AMJ

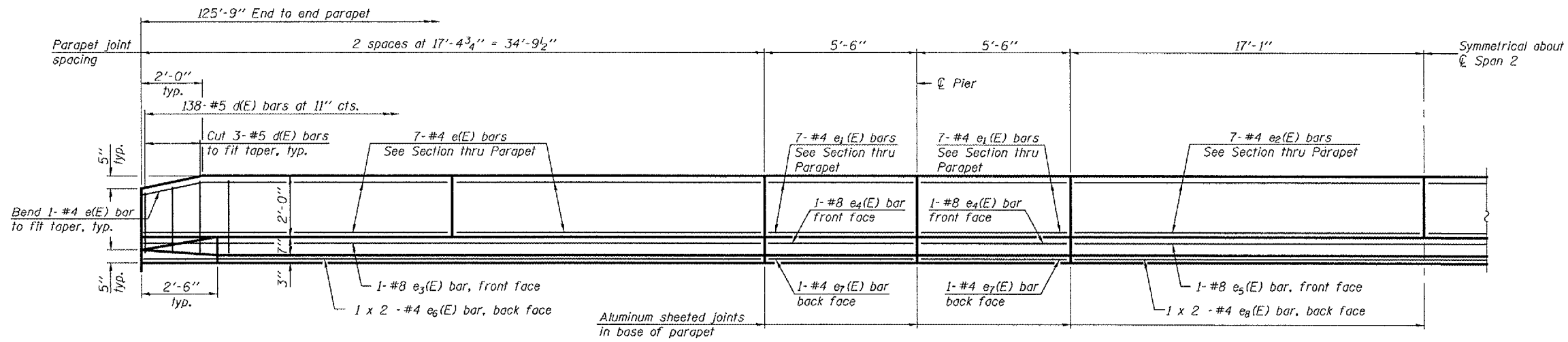
September 4, 2007
EXAMINED Thomas J. Domagalli
PASSED Ralph E. Anderson

SUPERSTRUCTURE
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	SHEET 97	SHEET 56	SHEET NO. 8 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #88798

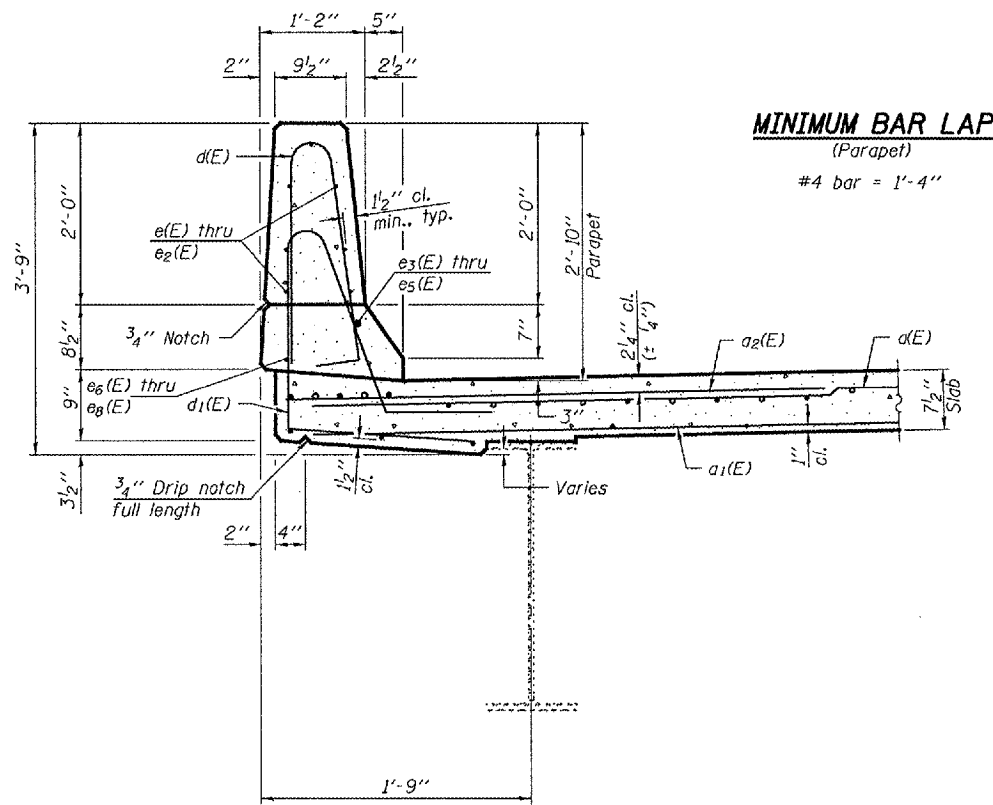


INSIDE ELEVATION OF PARAPET

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	426	#5	17'-0"	—
d1(E)	300	#5	16'-7"	—
d2(E)	212	#6	6'-0"	—
b(E)	152	#5	32'-3"	—
b1(E)	68	#6	26'-3"	—
b2(E)	180	#5	26'-2"	—
d(E)	276	#5	5'-7"	⌒
d1(E)	276	#5	6'-7"	⌒
e(E)	56	#4	17'-1"	—
e1(E)	56	#4	5'-3"	—
e2(E)	28	#4	16'-10"	—
e3(E)	4	#8	34'-6"	—
e4(E)	8	#8	5'-3"	—
e5(E)	2	#8	33'-11"	—
e6(E)	8	#4	18'-0"	—
e7(E)	8	#4	5'-3"	—
e8(E)	4	#4	17'-10"	—
m(E)	32	#6	17'-1"	—
m1(E)	24	#6	7'-6"	—
m2(E)	4	#6	2'-11"	—
m3(E)	8	#6	6'-1"	—
m4(E)	4	#6	1'-4"	—
s(E)	76	#5	6'-8"	□
s1(E)	68	#4	7'-9"	□
u(E)	72	#4	2'-9"	U
v(E)	64	#5	3'-8"	Γ
Reinforcement Bars, Epoxy Coated			Pound	35,290
Concrete Superstructure			Cu. Yds.	150

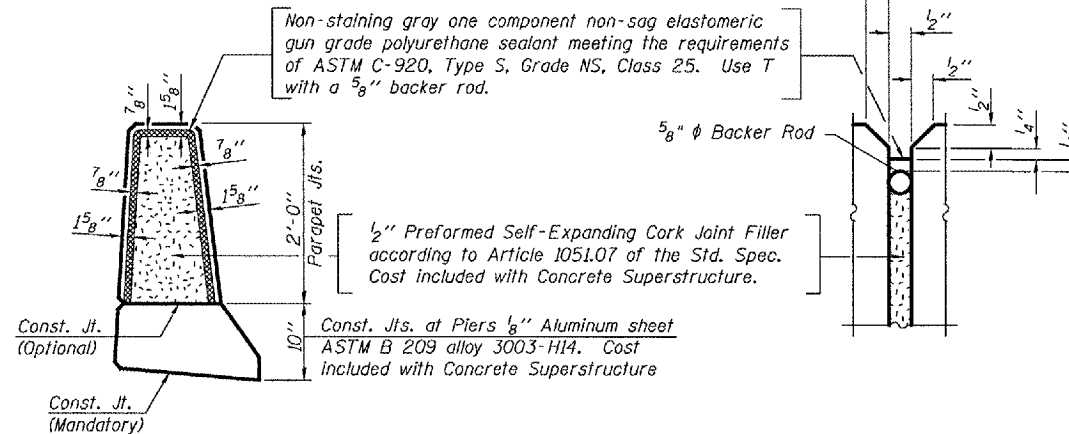
Bars indicated thus 1 x 2 - #4 etc. indicates 1 line of bars with 2 lengths per line.



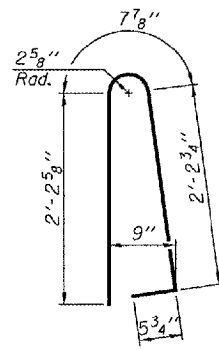
SECTION THRU PARAPET

MINIMUM BAR LAP
(Parapet)

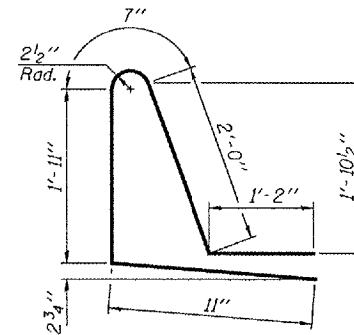
#4 bar = 1'-4"



PARAPET JOINT DETAILS



BAR d(E)



BAR d1(E)

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	BMC Amber M. Saiber
CHECKED	TLK/AMJ

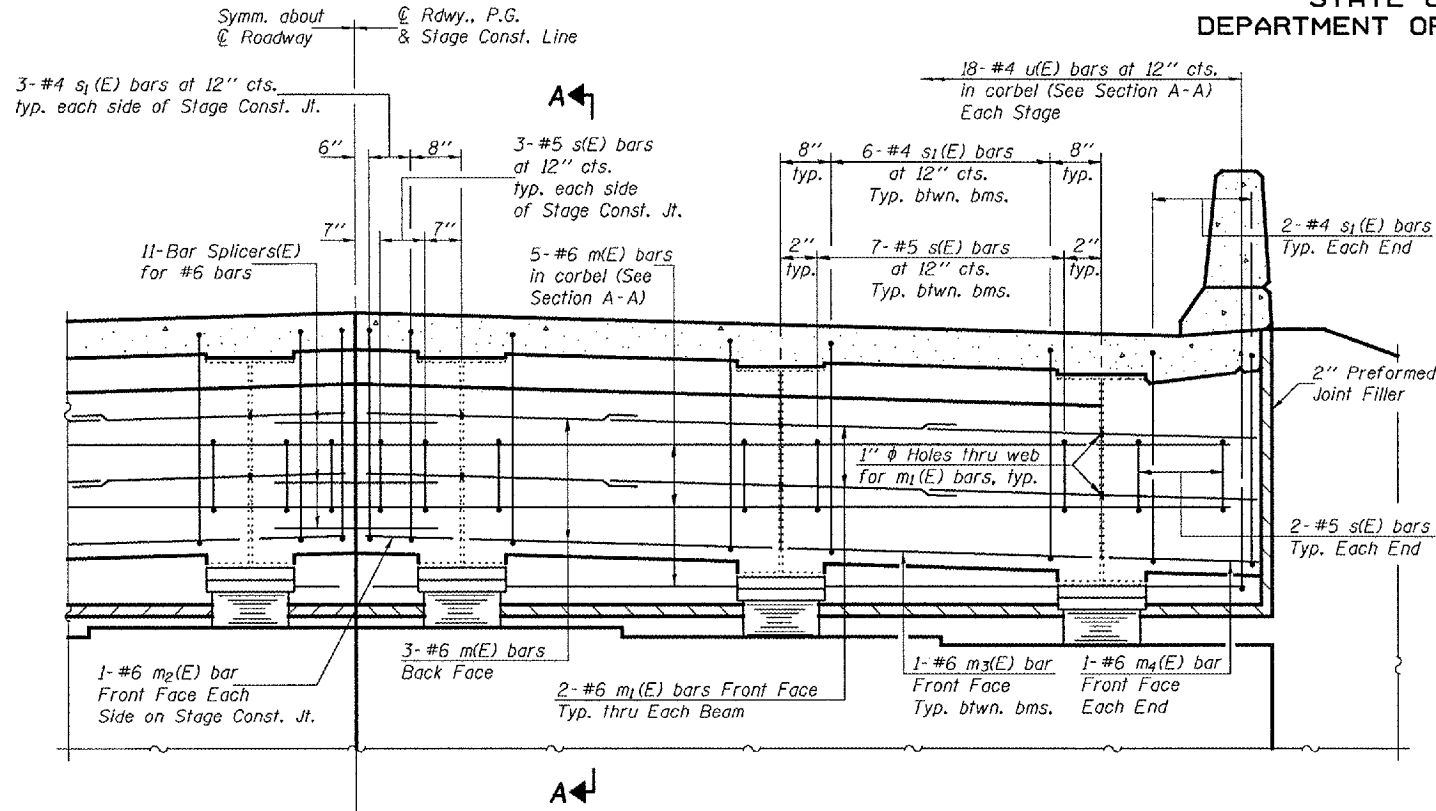
EXAMINED	Thomas J. Domagala	September 4, 2007
PASSED	Ralph E. Anderson	

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	PAGE	SHEET NO.
F.A.P. 310	28BR-1	WARREN	97	57	16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

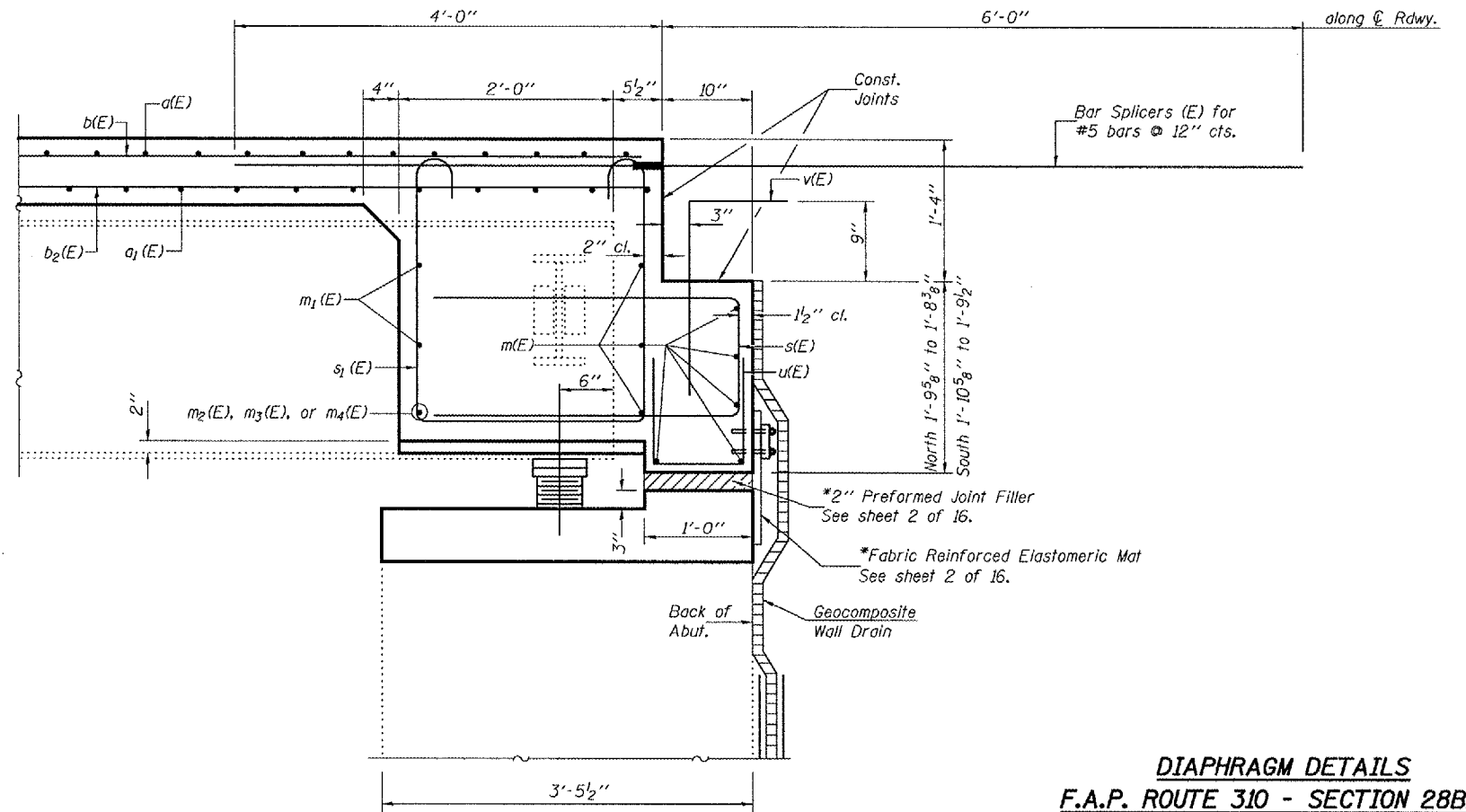
Contract #88798



Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 16.
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 16.
For Bar Splicer (E) details see sheet 16 of 16.
Cost of Field Drilling 1" ϕ holes for $m_1(E)$ bars included with Concrete Superstructures.

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

DIAPHRAGM ELEVATION AT ABUTMENT
(Half of diaphragm shown, other half is similar)



SECTION A-A
* Cost included with Concrete Superstructure.

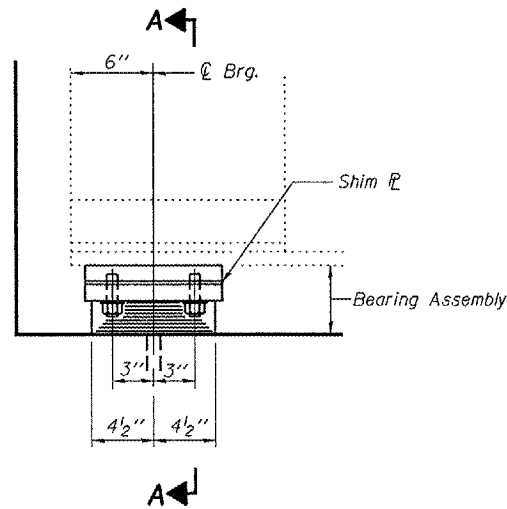
DIAPHRAGM DETAILS
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

DESIGNED	Tom L. Kurtenbach	September 4, 2007
CHECKED	Alan M. Johnson	EXAMINED <i>Thomas J. Domagala</i>
DRAWN	BECKY M. CURRY	PASSED <i>Ralph J. Anderson</i>
CHECKED	TLK/AMJ	

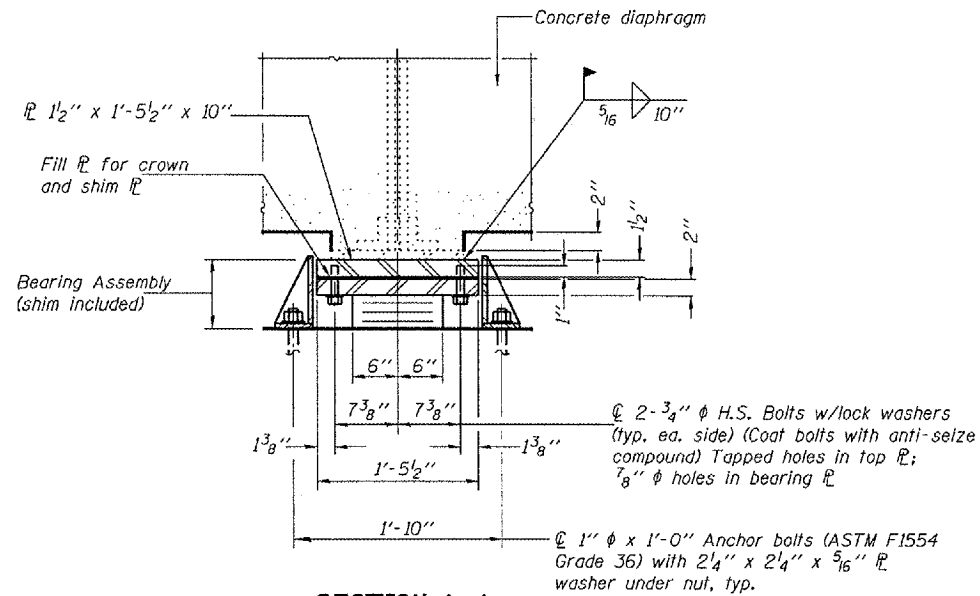
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUANTITY	DATE	BY	SHEET NO. 11 16 SHEETS
F.A.P. 310	28BR-1	WARREN	97	57	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

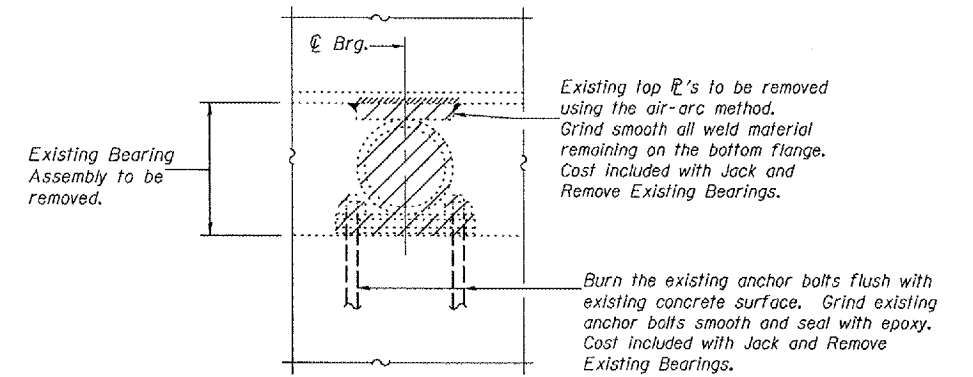
Contract #88798



ELEVATION AT N. ABUT.



SECTION A-A



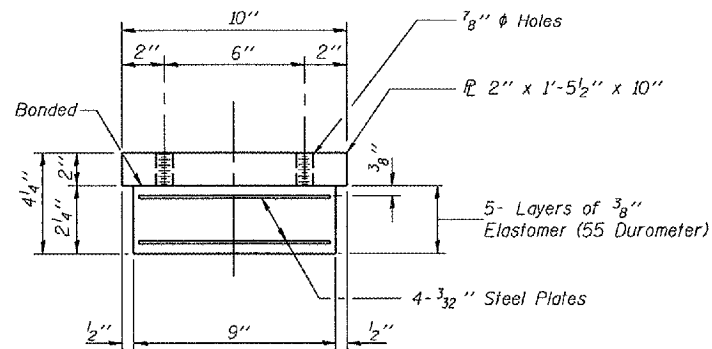
JACK AND REMOVE EXISTING BEARING PROCEDURE

1. The contractor shall submit for approval by the engineer, plans for jacking existing beams and installing new bearings prior to commencing any related work. The maximum dead load reaction per beam (weight of steel only) is 1.7k at the abutments. Minimum jack capacity is 3.4k at abutments.
2. Prior to ordering any material, the contractor shall verify shim plate thickness required at each bearing.
3. Jack and Remove Existing bearings shall be done after the existing deck is removed and prior to placing the new deck.
4. Jacking shall be limited to a maximum of 1/4" lift to remove existing bearing.
5. The new bearings and shim plates shall be in place and the jacks shall be lowered before the new concrete deck is poured.

Note: Hatched area indicates Removal of Existing Bearing.

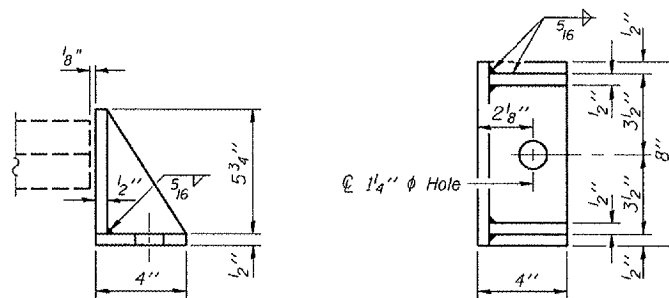
TYPE I ELASTOMERIC EXP. BRG.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



BEARING ASSEMBLY
(6 Required)

Note: Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Jack and Remove Existing Bearings	Each	12
Anchor Bolts 1" phi	Each	12

BEARING AT NORTH ABUTMENT
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

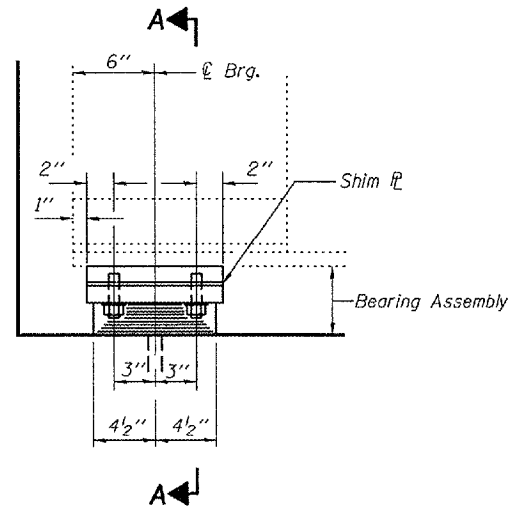
DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	BECKY M. GURRY
CHECKED	TLK/AMJ

September 4, 2007
EXAMINED *Thomas J. Demas*
PASSED *Robert E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

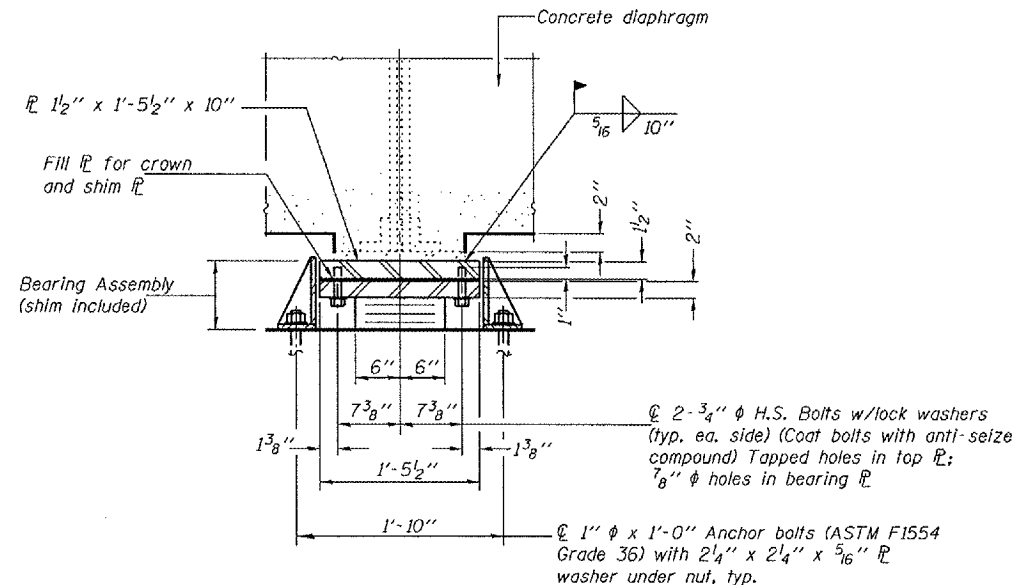
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. 310	SECTION 28BR-1	COUNTY WARREN	SHEET NO. 97	SHEET 60	SHEET NO. 12 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798



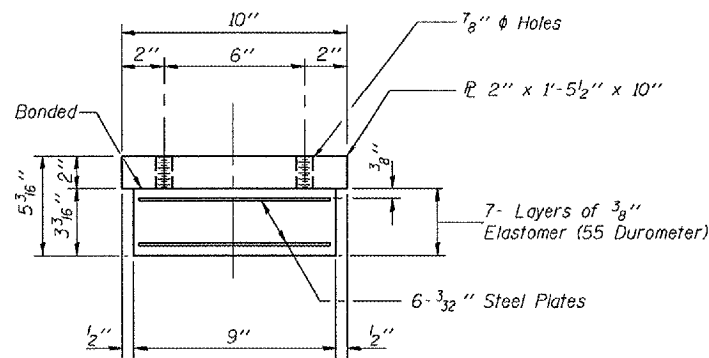
ELEVATION AT S. ABUT.



SECTION A-A

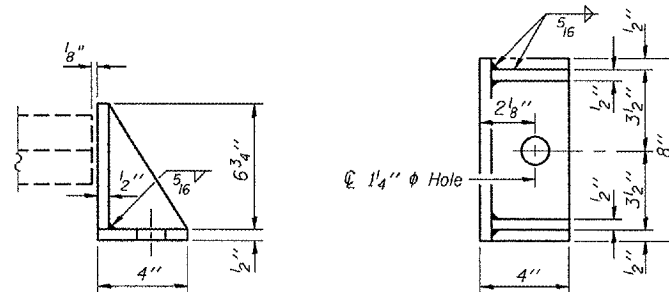
TYPE I ELASTOMERIC EXP. BRG.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
Provide 1/8" Shim Plates for bearings 2 and 5.
See sheet 10 of 16 for Jack and Remove Existing Bearings.
Cost of field welding is included in Elastomeric Bearing Assembly, Type I.



BEARING ASSEMBLY
(6 Required)

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts 1" φ	Each	12

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	BECKY M. CURRY
CHECKED	TLK/AMJ

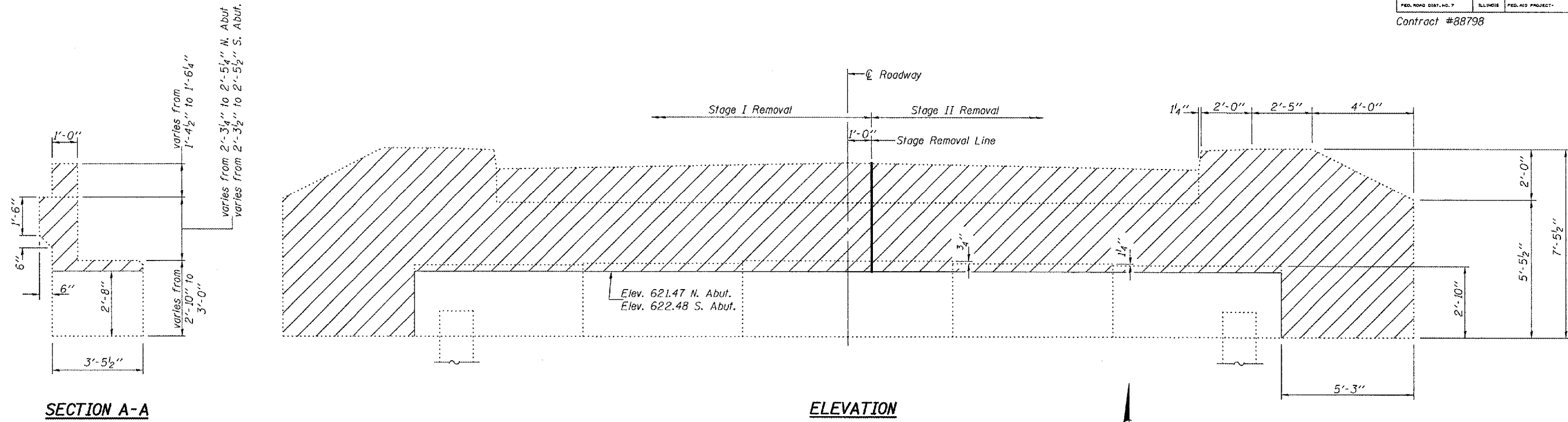
September 4, 2007
EXAMINED *Thomas J. Demasak*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

BEARING AT SOUTH ABUTMENT
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

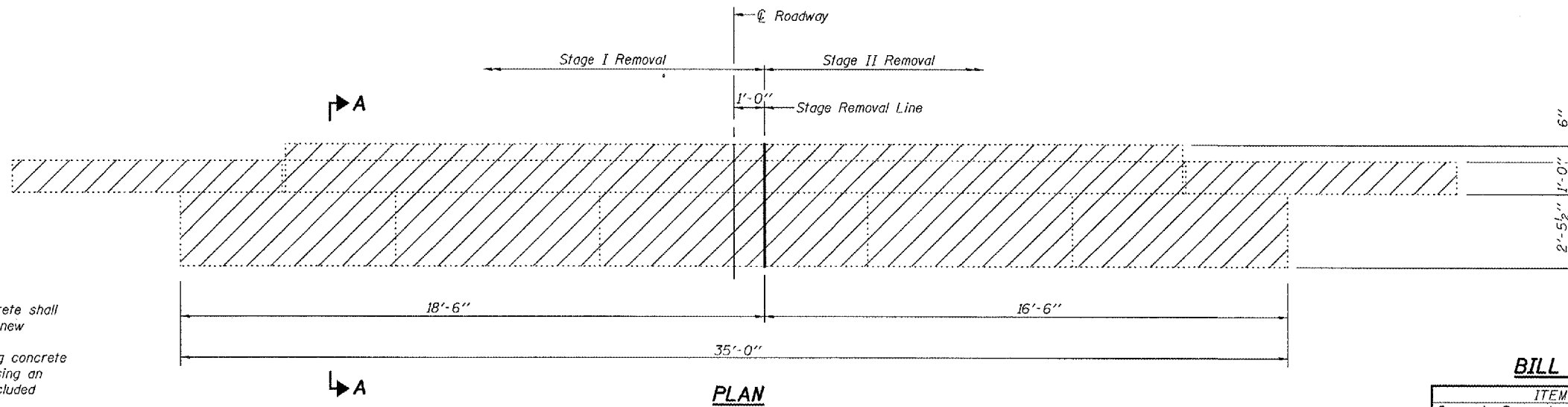
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	TOTAL SHEETS 97	SHEET NO. 61	SHEET NO. 13 16 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #88798



ELEVATION
(North Abutment looking North).
(South abutment similar by 180° rotation).



PLAN

Notes:

Hatched areas indicate Concrete Removal.
Existing reinforcement extending into new concrete shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.
Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	19.2

DESIGNED Tom L. Kurtenbach	September 4, 2007
CHECKED Alan M. Johnson	EXAMINED <i>Thomas J. Domagalaki</i> CHIEF OF BUREAU DESIGN
DRAWN BECKY M. CURRY	PASSED <i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES
CHECKED TLK/AMJ	

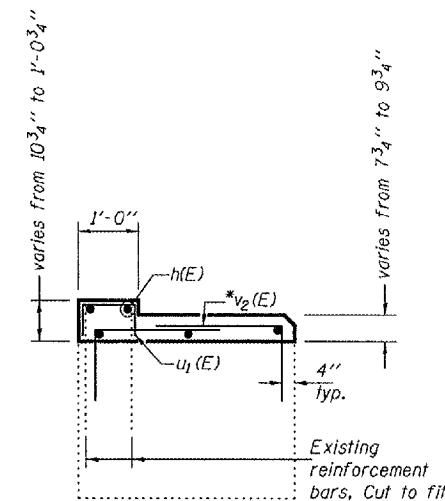
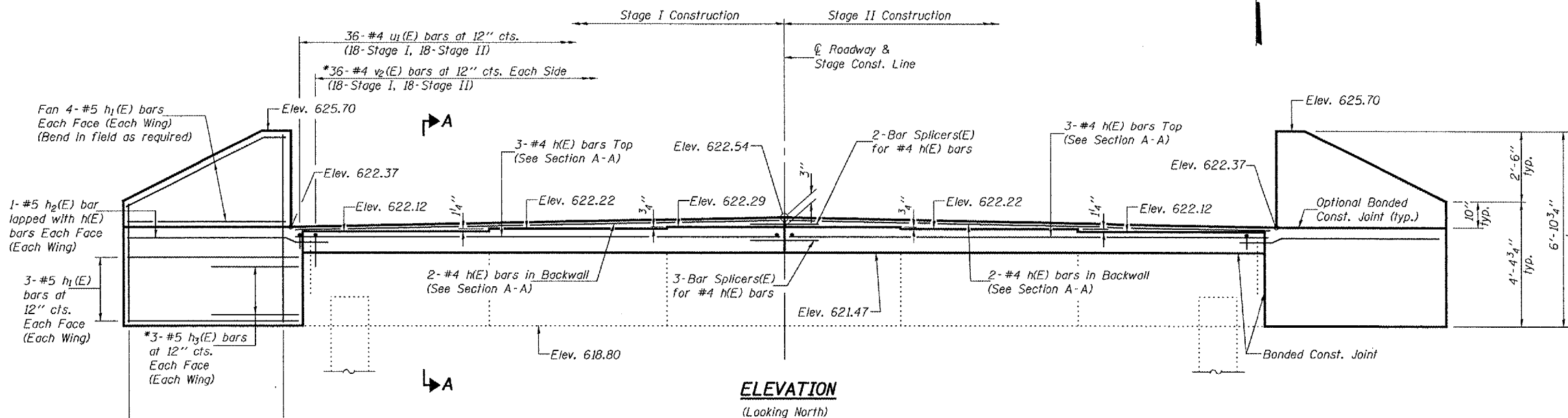
**NORTH & SOUTH ABUTMENT
CONCRETE REMOVAL
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	SHEET 97 62	SHEET NO. 14 16 SHEETS
----------------------------	-------------------	------------------	----------------	---------------------------

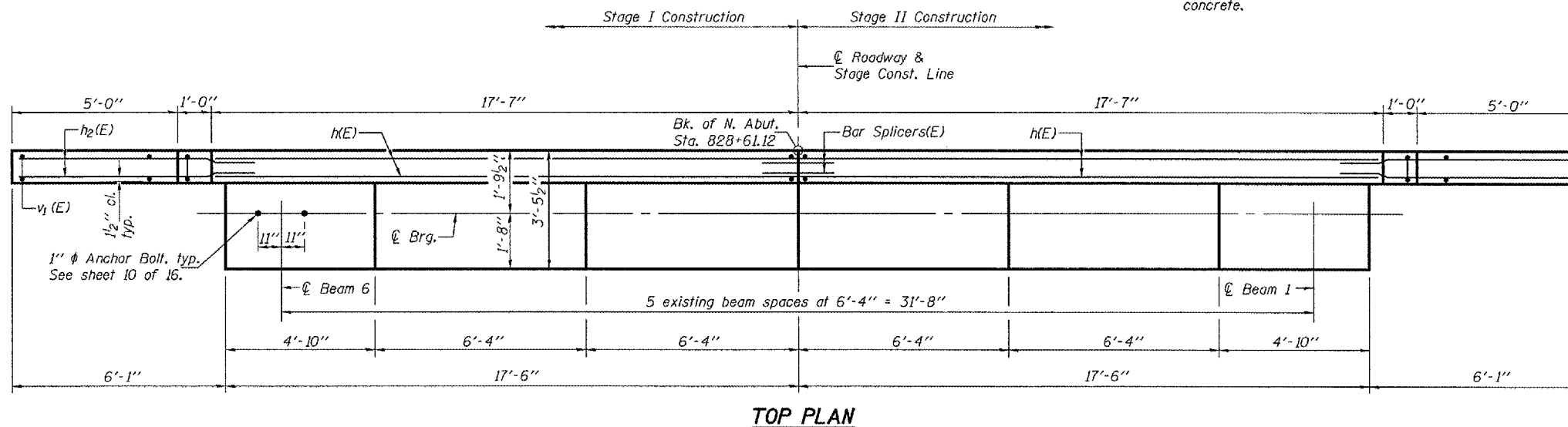
Contract #88798

Notes:
Space drilled holes in existing cap to miss existing reinforcement.
All edges shall have standard 3/4" chamfer except as noted.
For Bar Splicer Details see sheet 16 of 16.

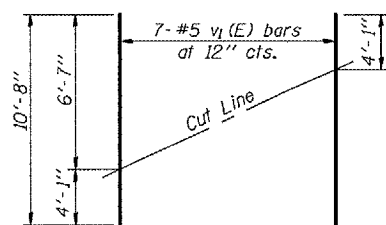


SECTION THRU ABUTMENT

*Epoxy Grout h3(E) and v2(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications. All grouted bars shall have 4" cl. to the edge of existing concrete.



TOP PLAN



FIELD CUTTING DIAGRAM

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

BAR u1(E)

BAR v2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	10	#4	17'-3"	—
h1(E)	28	#5	5'-10"	—
h2(E)	4	#5	8'-1"	—
h3(E)	12	#5	3'-1"	—
u1(E)	36	#4	1'-11"	□
v1(E)	14	#5	10'-8"	—
v2(E)	72	#4	4'-0"	—
Concrete Structures		Cu. Yd.	6.3	
Reinforcement Bars, Epoxy Coated		Pound	750	
Structure Excavation		Cu. Yd.	85	

NORTH ABUTMENT
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

DESIGNED	Tom L. Kurtenbach
CHECKED	Alan M. Johnson
DRAWN	BECKY M. GURRY
CHECKED	TLK/AMJ

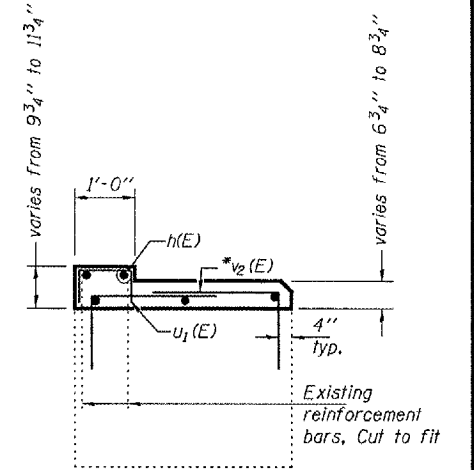
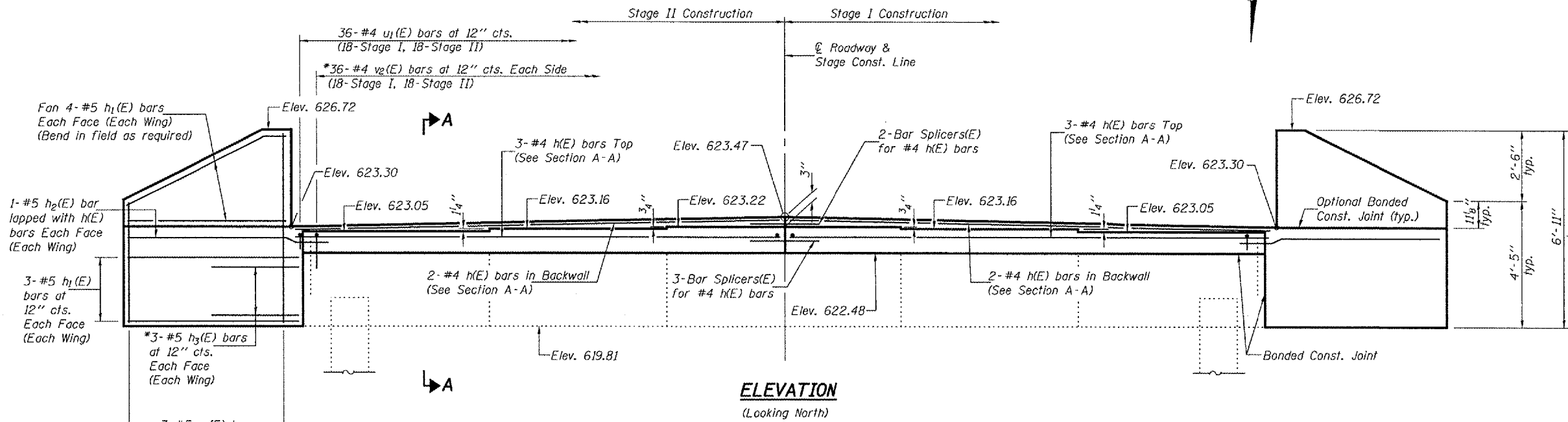
September 4, 2007
EXAMINED *Thomas J. Domagalick*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

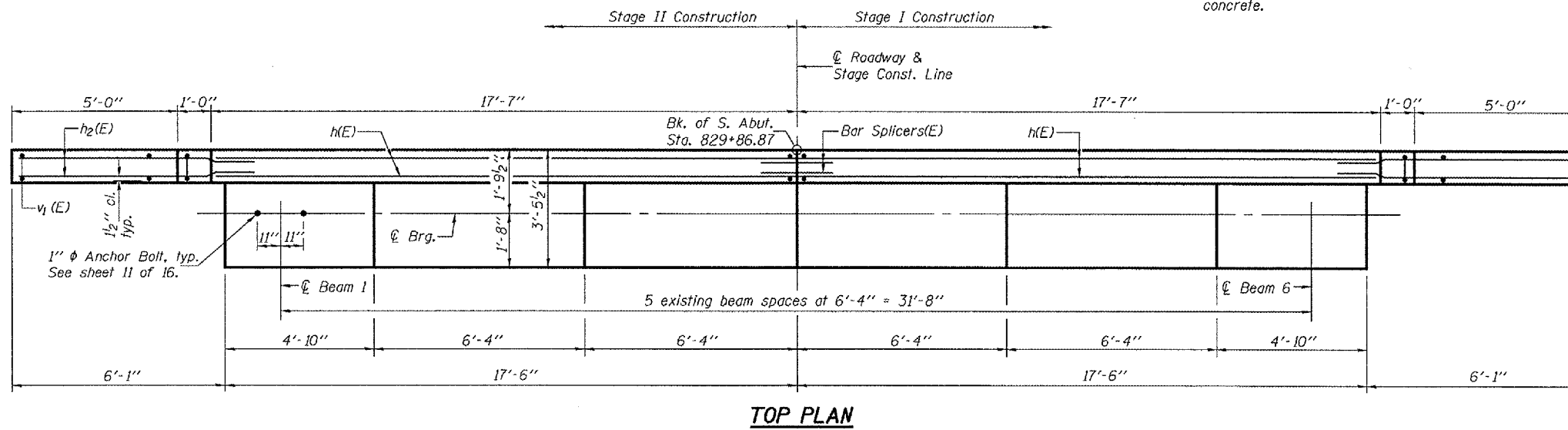
ROUTE NO. F.A.P. 310	SECTION 28BR-1	COUNTY WARREN	SHEET 97	POST 63	SHEET NO. 15
FED. ROAD DIST. NO. 7					ILLINOIS
FED. AID PROJECT					16 SHEETS

Contract #88798

Notes:
Space drilled holes in existing cap to miss existing reinforcement.
All edges shall have standard $\frac{3}{4}$ " chamfer except as noted.
For Bar Splicer Details see sheet 16 of 16.

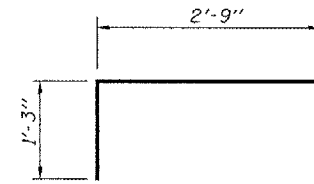
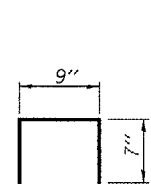
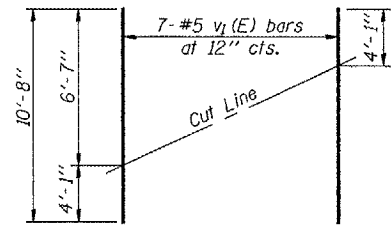


*Epoxy Grout h₃(E) and v₂(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications. All grouted bars shall have 4" cl. to the edge of existing concrete.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	10	#4	17'-3"	—
h ₁ (E)	28	#5	5'-10"	—
h ₂ (E)	4	#5	8'-1"	—
h ₃ (E)	12	#5	3'-1"	—
u ₁ (E)	36	#4	1'-11"	□
v ₁ (E)	14	#5	10'-8"	—
v ₂ (E)	72	#4	4'-0"	┌
Concrete Structures		Cu. Yd.	5.9	
Reinforcement Bars, Epoxy Coated		Pound	750	
Structure Excavation		Cu. Yd.	85	



FIELD CUTTING DIAGRAM

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

DESIGNED Tom L. Kurtenbach
CHECKED Alan M. Johnson
DRAWN BECKY M. CURRY
CHECKED TLK/AMJ

September 4, 2007
EXAMINED Thomas J. Domagalick
PASSED Ralph E. Anderson

SOUTH ABUTMENT
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P. 310	28BR-1	WARREN	97	64
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 16
16 SHEETS

Contract #88798

NOTES

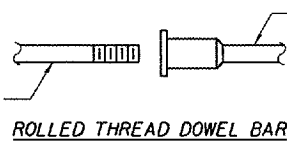
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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

The diameter of this part is equal or larger than the diameter of bar spliced.

The diameter of this part is the same as the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



** ONE PIECE

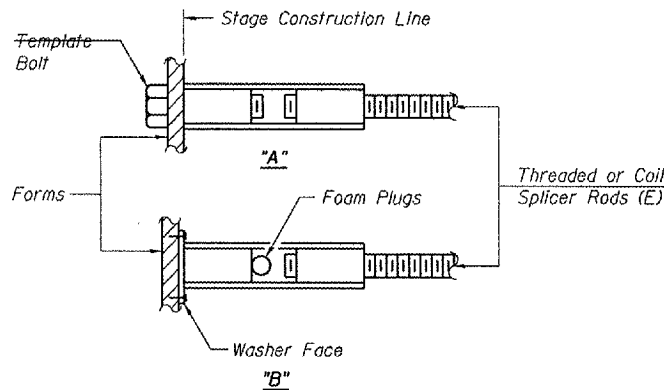
Wire Connector



WELDED SECTIONS

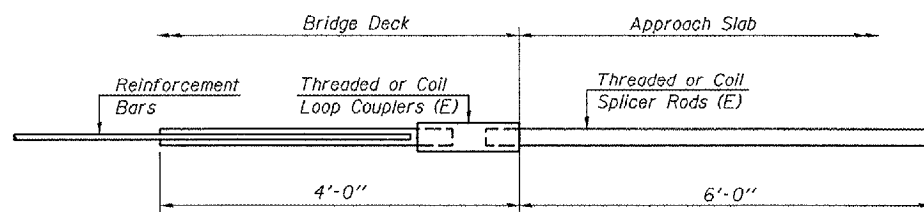
BAR SPLICER ASSEMBLY ALTERNATIVES

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



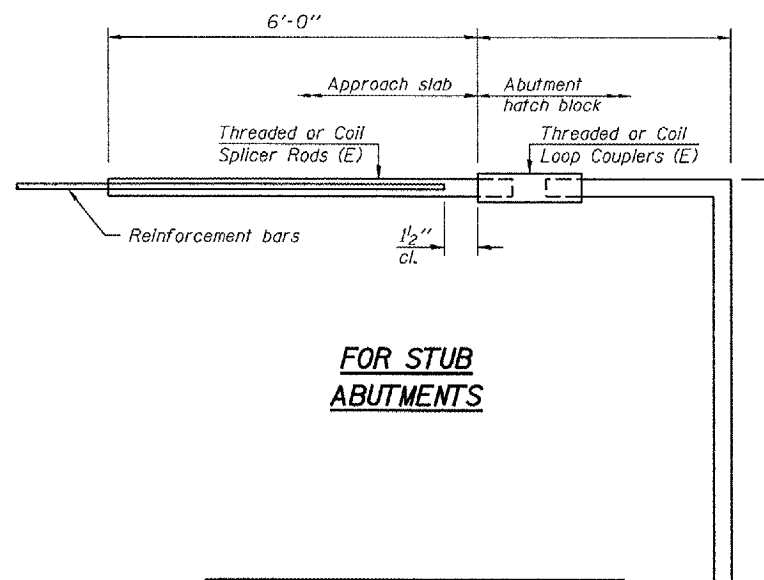
INSTALLATION AND SETTING METHODS

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



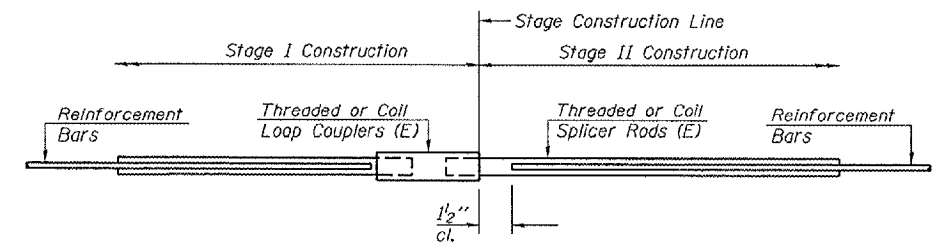
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	363	Deck
#6	22	Diaphragms
#4	10	Abutments

BAR SPLICER ASSEMBLY DETAILS
F.A.P. ROUTE 310 - SEC. 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

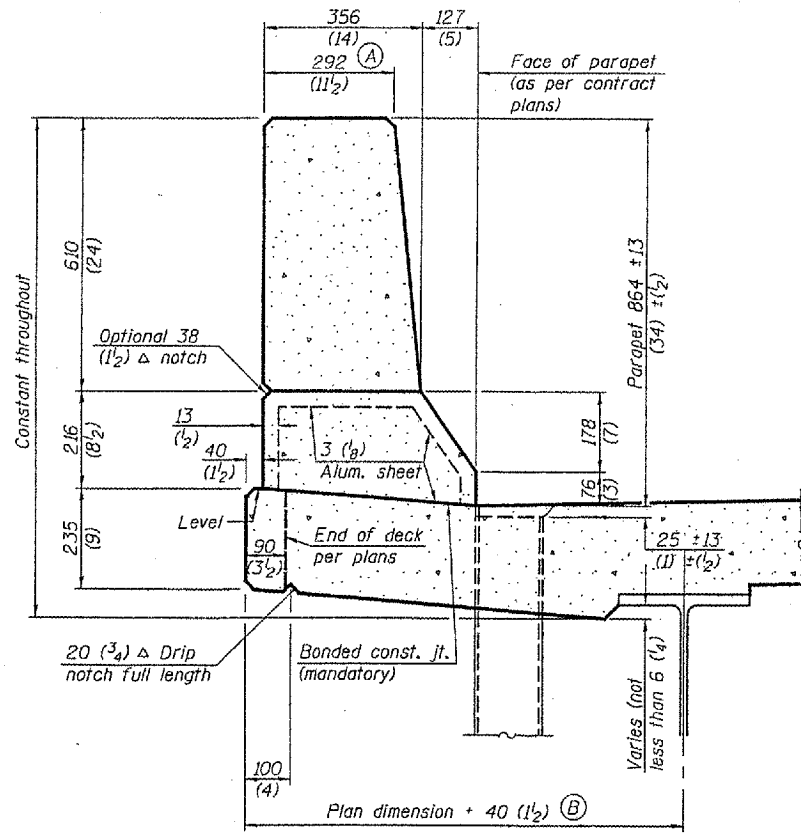
DESIGNED Tom L. Kurtenbach	September 4, 2007
CHECKED Alan M. Johnson	EXAMINED <i>Thomas J. Donagale</i>
DRAWN BECKY M. CURRY	PASSED <i>Ralph E. Anderson</i>
CHECKED TLK/AMJ	ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-06

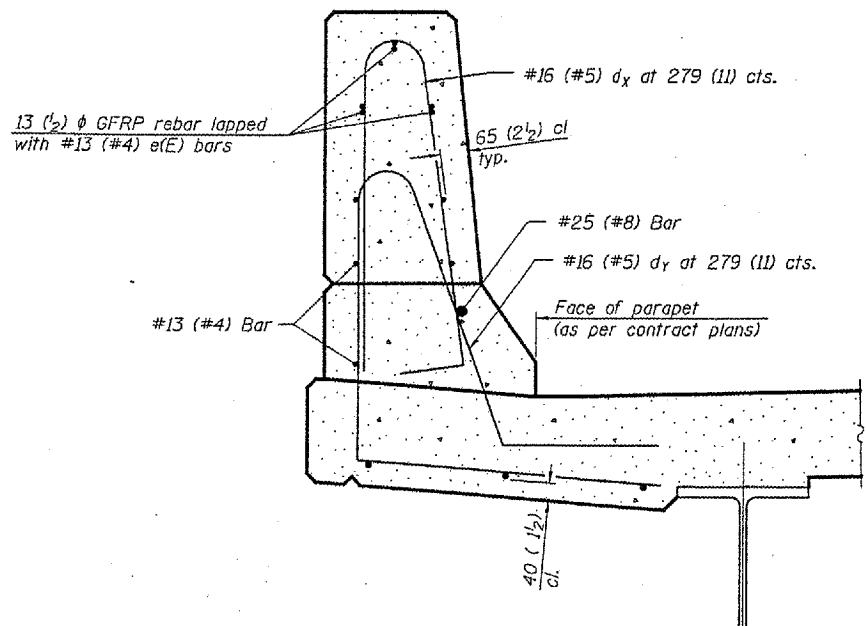
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
FAP 310		WARREN	9764A	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		SHEETS

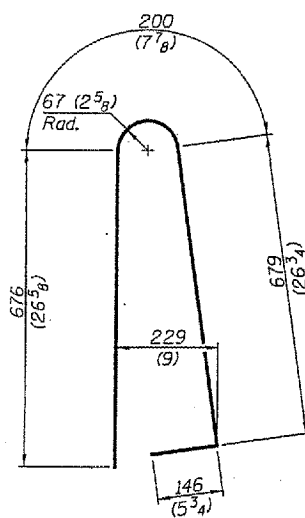
Contract # 88798



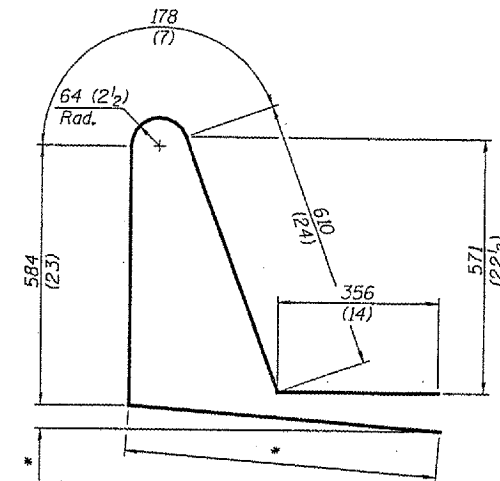
SECTION
(Showing dimensions)



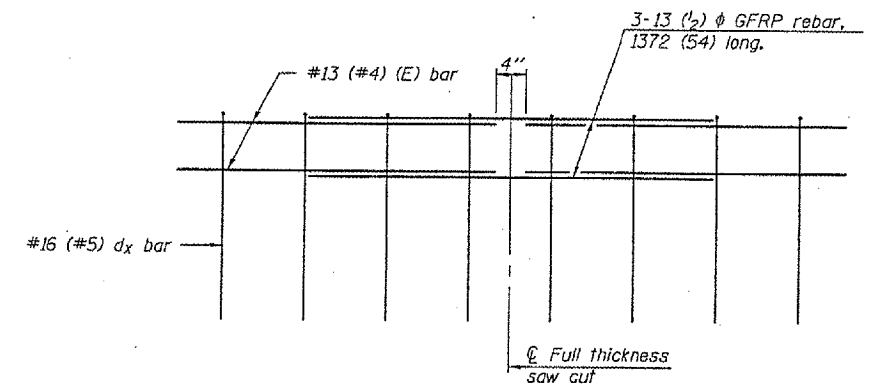
SECTION
(Showing required reinforcement)



BAR dx(e)



BAR dy(e)
* Per contract plans



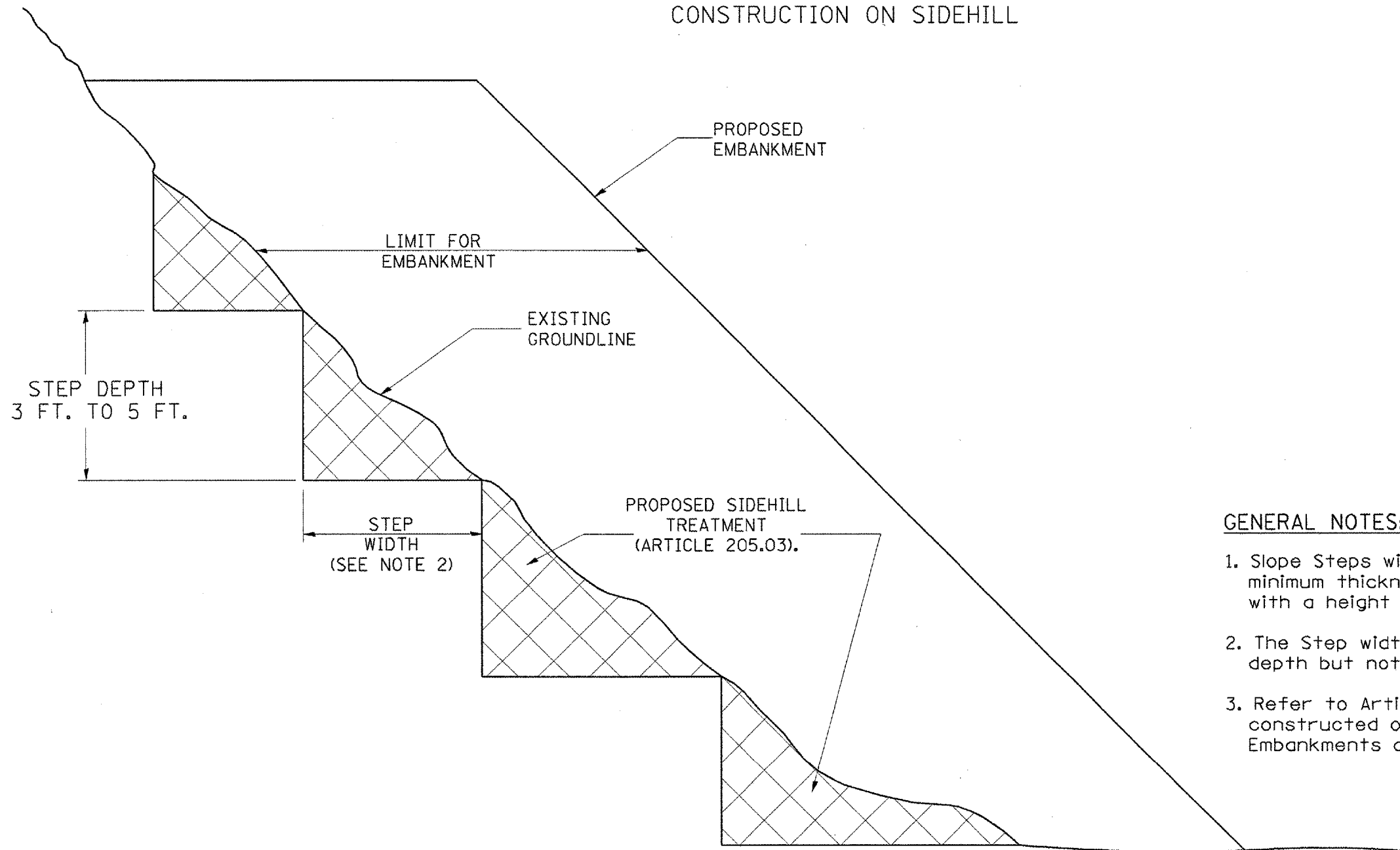
GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section)

GENERAL NOTES
All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0422 m³/m (0.165 cu. yds./ft.) of parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.

**CONCRETE PARAPET
SLIPFORMING OPTION**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	65
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*0101Y1BR/28-BR01		WARREN COUNTIES		

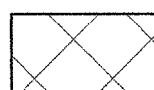
SLOPE STEPS DETAIL
TYPICAL CROSS-SECTION EMBANKMENT
CONSTRUCTION ON SIDEHILL



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).

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

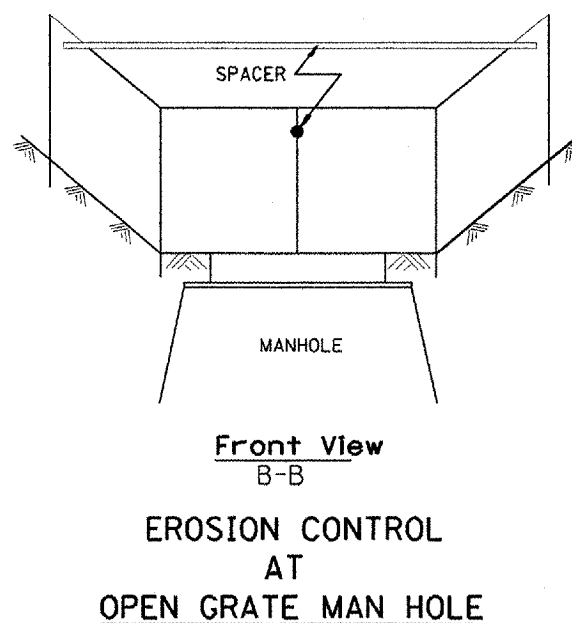
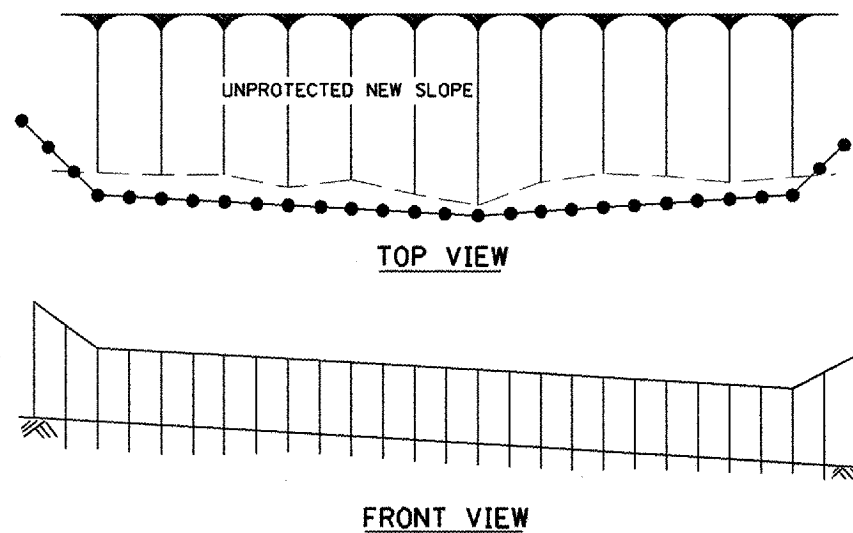
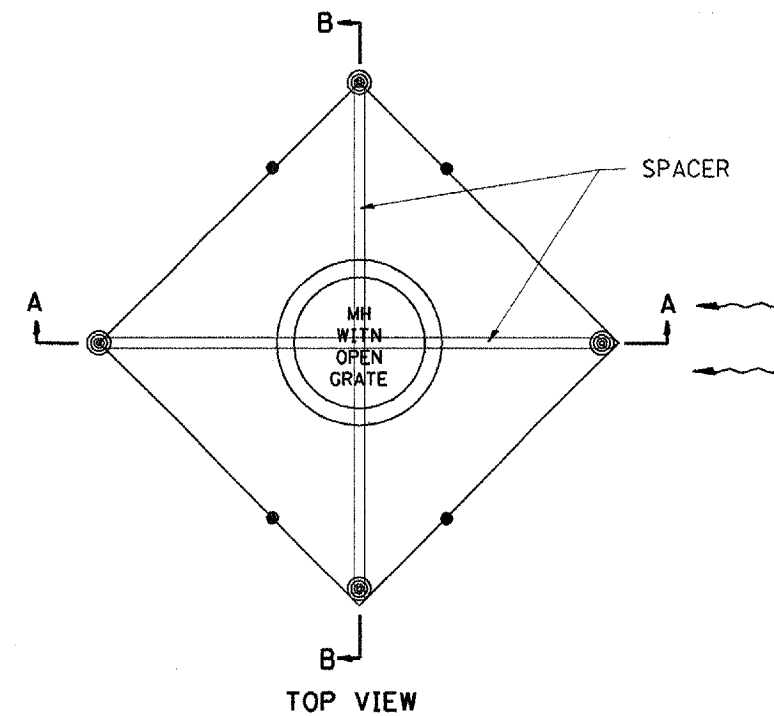
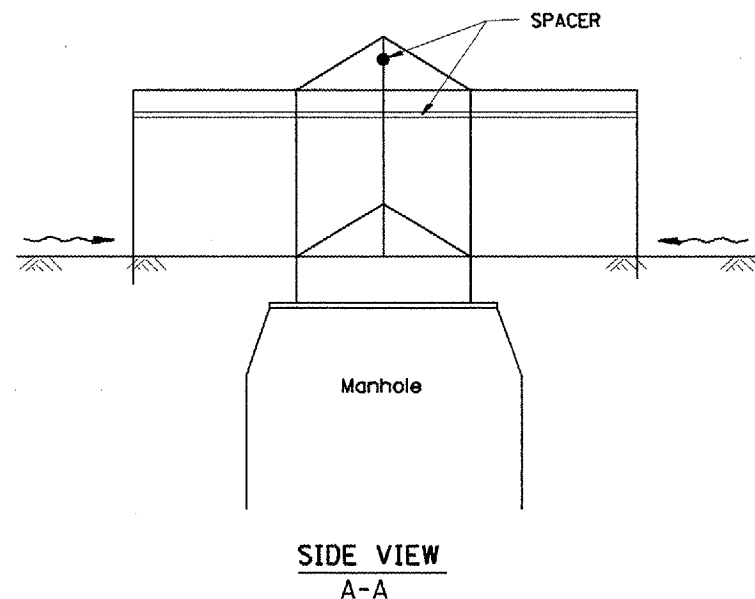
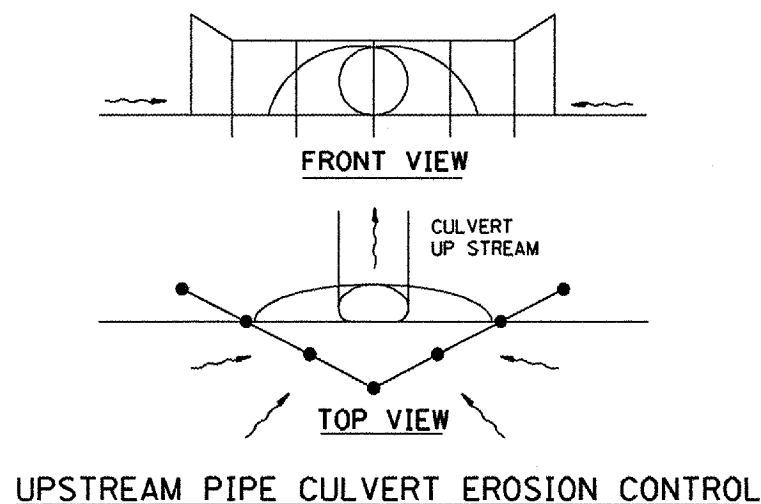
DATE	REVISIONS	BY
1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.
10-16-08	REVISED TO 2007 SPEC.	M.A.

CADD STD. NO. 205001-04
SCALE: NOT DRAWN TO SCALE
DRAWN BY CADD
CHECKED BY

**SLOPE STEPS
DETAIL**

DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	66
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*101BYBR-128-BR1				
** WARREN COUNTIES				



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.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL DETAIL SHEET

TYPICAL APPLICATION OF SILT FILTER FENCE

CADD DETAIL 280001-04
SCALE: NOT DRAWN TO SCALE

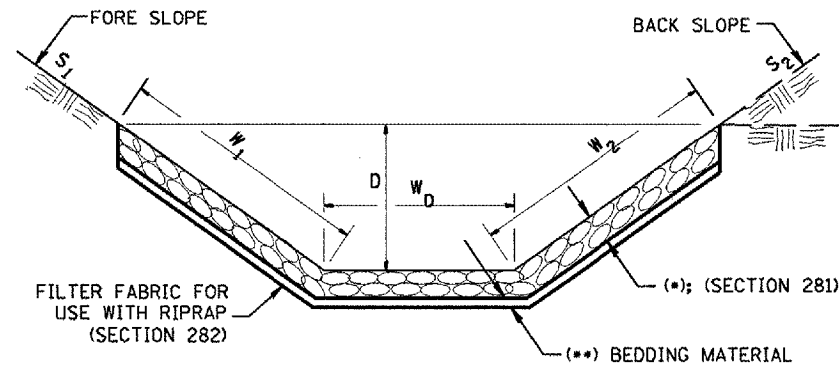
DRAWN BY CADD
CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. A-12.05. NEW REVISION BOX	T.P.
3-11-03	ELIMINATED SILT FENCE DITCH CHECK	M.M.A.

\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	67
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(101BY)BR#28-BR#				
** WARREN COUNTIES				

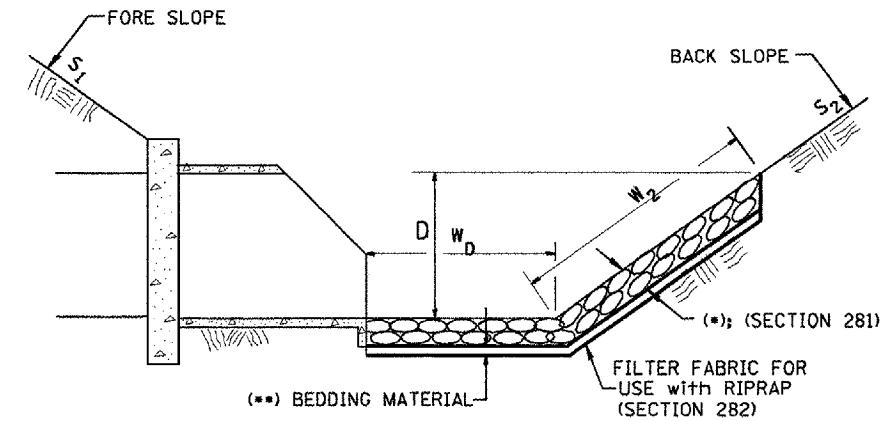
CASE 1
(DITCH)



(*)				
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 = $W_1 + W_2 + W_D$

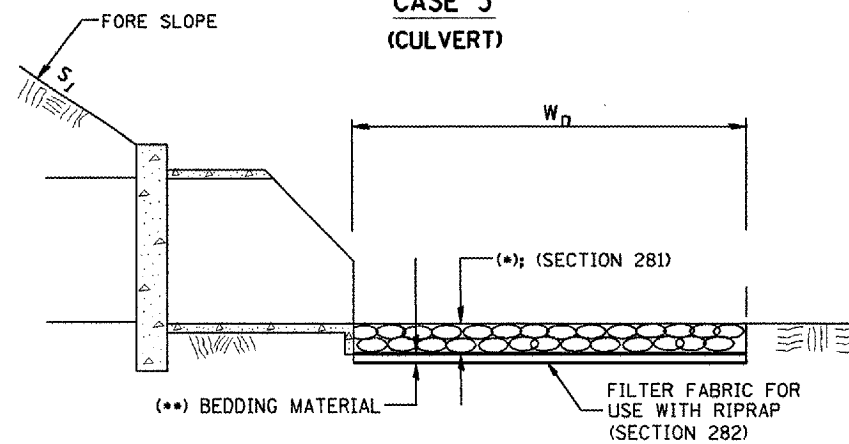
CASE 2
(CULVERT & SLOPE)



(*)				
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 = $W_2 + W_D$

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_D

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.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL DETAIL SHEET

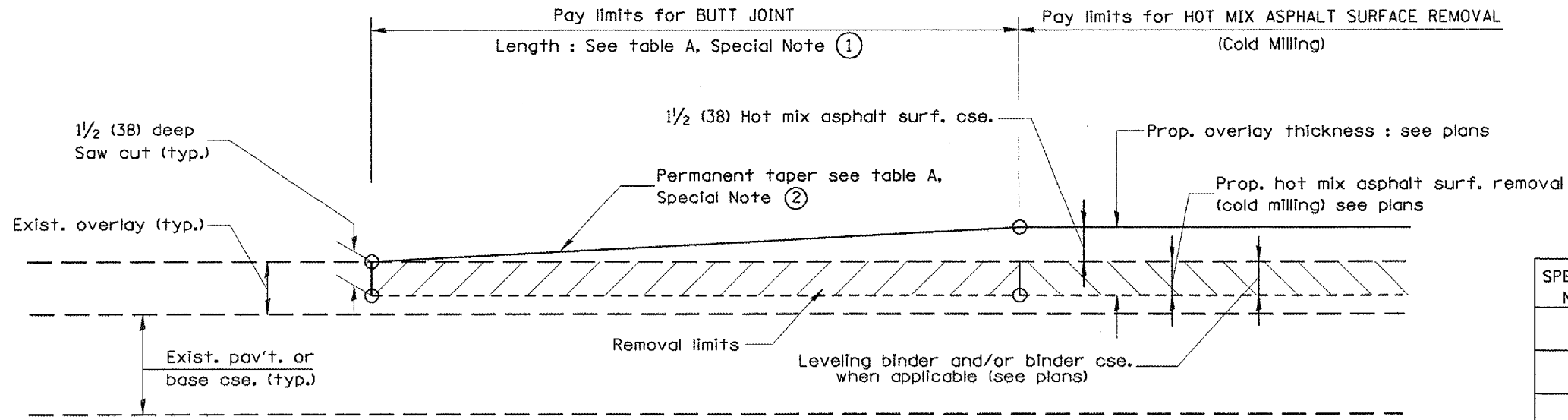
RIPRAP DITCH FOR EROSION PROTECTION

CADD DETAIL 281001-D4
SCALE: NOT DRAWN TO SCALE
DRAWN BY CADD
CHECKED BY

DATE	REVISIONS	BY
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.

\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	68
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(101B)(BR)(28-BR)				
** WARREN COUNTIES				



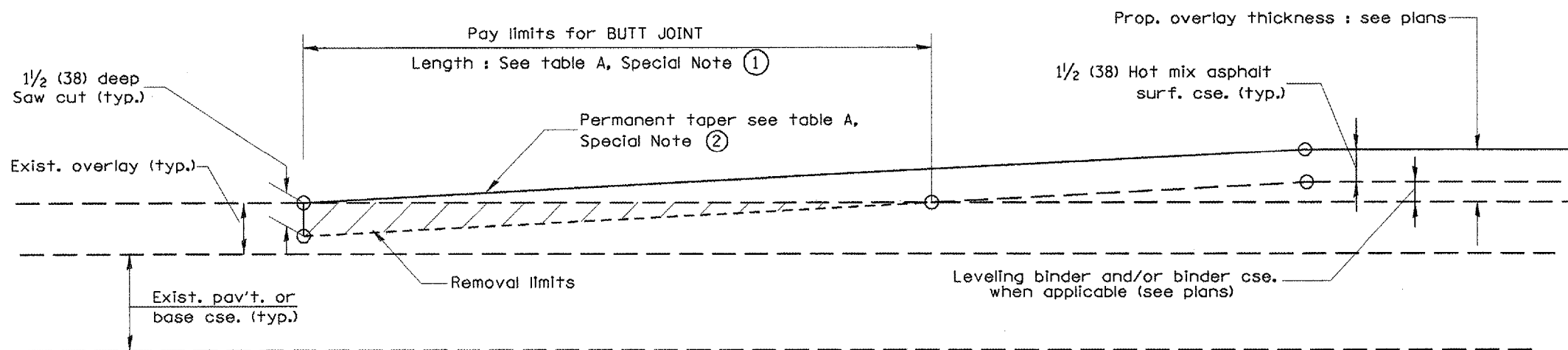
CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

TABLE A
(LENGTHS AND TAPER RATES)

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	LENGTH OF BUTT JOINT	60'(18.0 m)	30'(9.0 m)
②	PERMANENT TAPER RATE	1:480	1:240
③	TEMPORARY RAMP TAPER RATE	1:80	1:40
④	TEMPORARY RAMP LENGTH	10'(3.0 m)	5'(1.5 m)
⑤	LENGTH OF BUTT JOINT	10'(3.0 m)	10'(3.0 m)

GENERAL NOTES

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.



CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

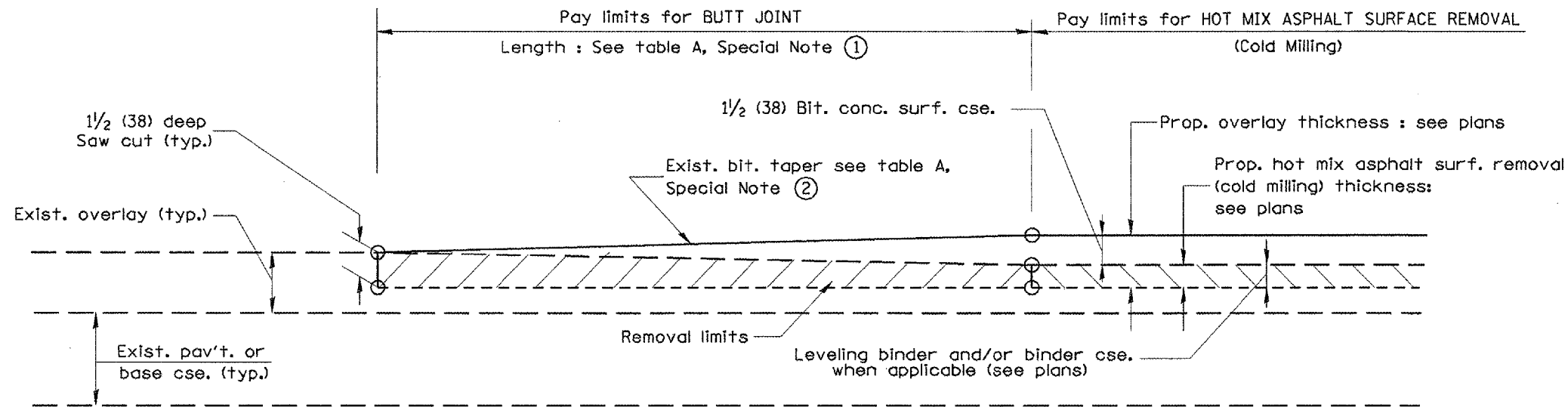
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

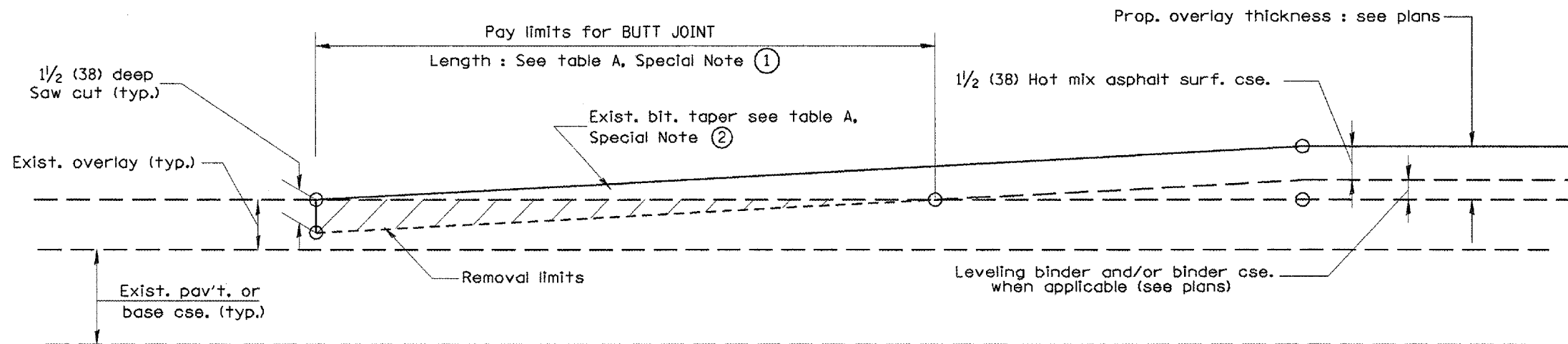
DATE	REVISIONS	BY
1-1-97	RENUM. C-23.01, NEW REVISION BOX	T.P.
4-1-97	CORRECTION TO DEPTH	J.A.
9-15-05	REVISED DESIGNER NOTE	M.M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

BUTT JOINTS
CADD STD NO. 406101-D4 SHEET 1 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE CHECKED BY

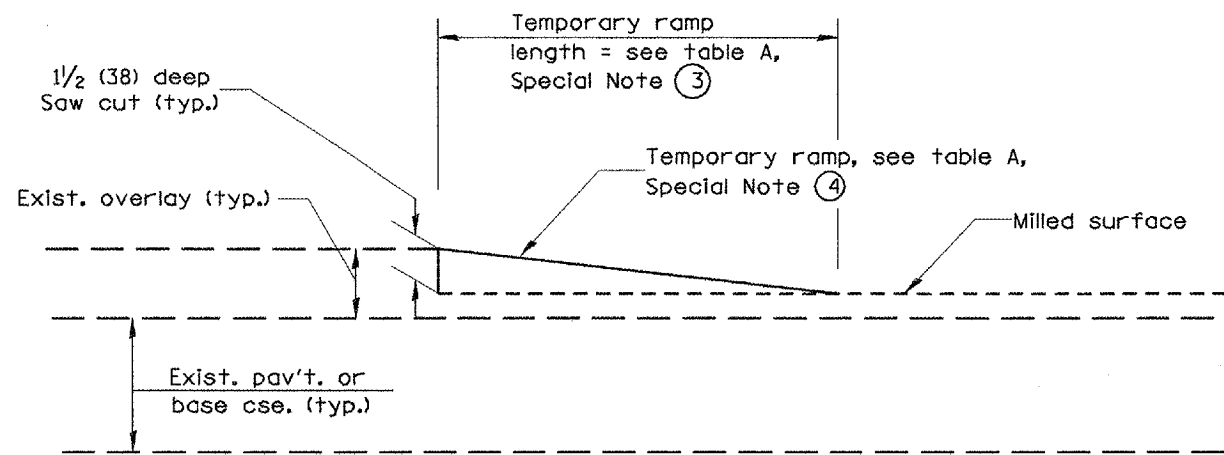
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	69
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*([11/19/88/28-PR]) ** WARREN COUNTIES				



**CASE 3 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



**CASE 4 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



DETAIL TEMPORARY RAMP

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

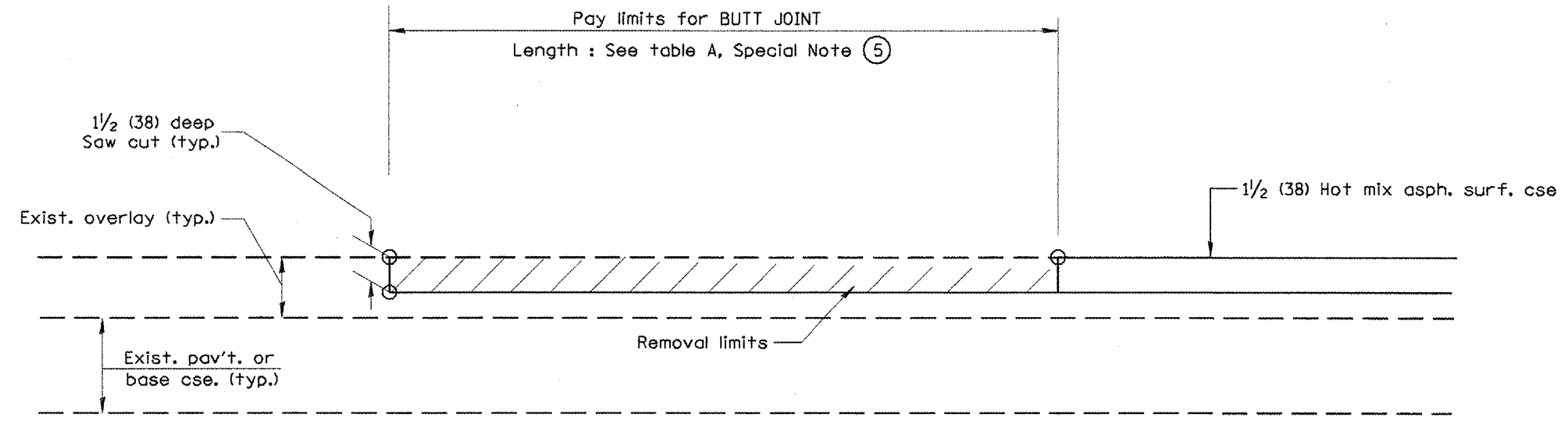
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

BUTT JOINTS

CADD STD NO. 406101-D4 SHEET 2 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
CHECKED BY

CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	**	97	70
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
**	01	TARRANT COUNTIES		



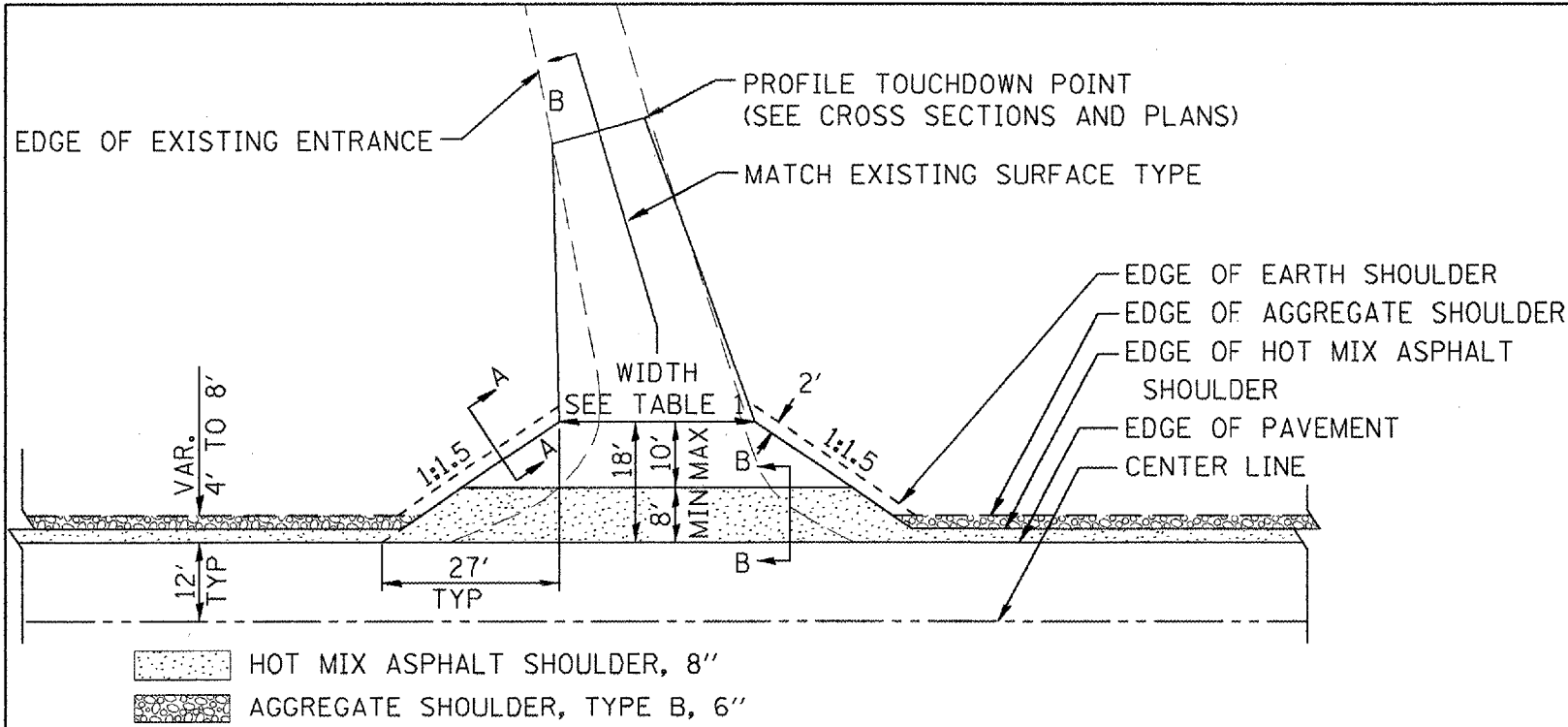
**CASE 5 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

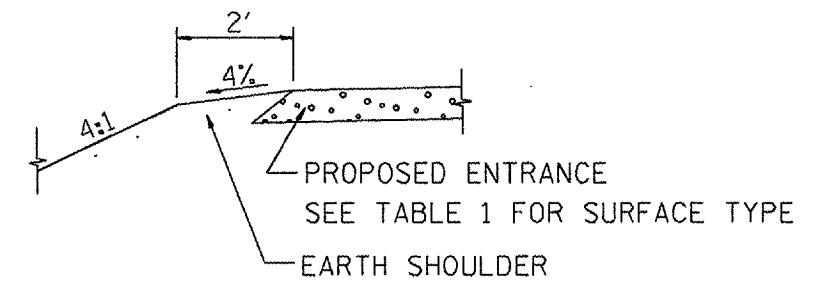
BUTT JOINTS
CADD STD NO. 406101-D4 SHEET 3 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	71
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN
COMMERCIAL / FARM-RELATED ENTRANCE

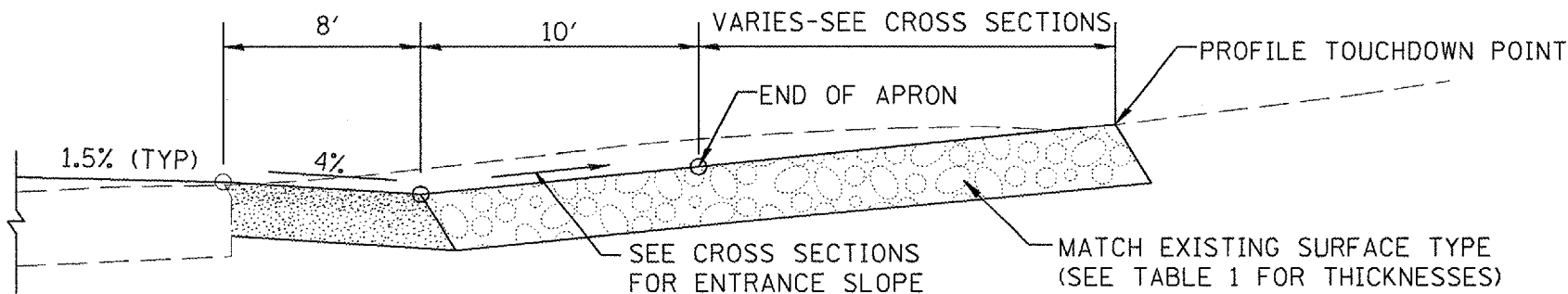
TABLE 1					
RURAL ENTRANCE DESIGN					
ELEMENT	NON-COMMERCIAL		NON-COMMERCIAL W/ LARGE FARM EQUIPMENT	COMMERCIAL	
				1-WAY OPERATION	2-WAY OPERATION
WIDTH (W)	12'(3.6m) Min.	24'(7.2m) Max.	20' (6.1m)Max.	30' (9.0m)Max.	14'(4.3m) Min., 24'(7.2m) Max., 24'(7.2m) Min., 35'(10.7m) Max.
FLARE	1:1.5				
MAX. GRADE (G)	12%		12%		10%
SURFACE TYPE					
INCIDENTAL HOT MIX ASPHALT SURFACING	6"		—		8"
AGGREGATE SURFACE COURSE	6"		8"		8"
PCC DRIVEWAY PAVEMENT	6"		—		7"



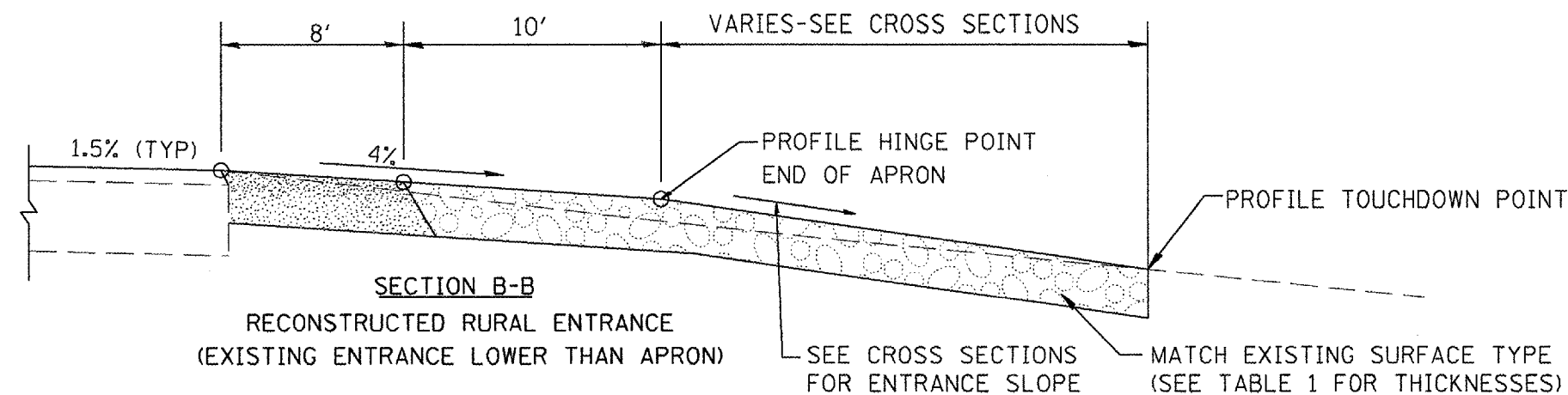
SECTION A-A
SHOULDER TREATMENT FOR RURAL ENTRANCES

GENERAL NOTES

- ENTRANCES SHALL SLOPE AWAY FROM THE PAVEMENT AT A RATE EQUAL TO THE SHOULDER SLOPE FOR A MINIMUM DISTANCE OF 8'.
- A MINIMUM 8' PAVED SHOULDER SHALL BE CONSTRUCTED BETWEEN LOCATIONS WHERE THE RURAL ENTRANCE IS LESS THAN 50' FROM AN ADJACENT SIDEROAD, ENTRANCE OR MAILBOX TURNOUT.
- A TAPER RATE OF 5:1 IS DESIRABLE WHEN TRANSITING FROM THE RURAL ENTRANCE WIDTH SHOWN IN TABLE 1, TO THE EXISTING ENTRANCE WIDTH.



SECTION B-B
RECONSTRUCTED RURAL ENTRANCE
(EXISTING ENTRANCE HIGHER THAN APRON)



SECTION B-B
RECONSTRUCTED RURAL ENTRANCE
(EXISTING ENTRANCE LOWER THAN APRON)

DATE	REVISIONS	BY
1-1-97	RENUM. C-103.06, NEW REVISION BOX	T.P.
7-1-97	REVISE DESIGNER NOTES	J.A.
1-17-03	ADJUST DESIGN, CHANGE ENTRANCE RADIUS FOR FLARE	J.A.T.R.
9-15-05	REVISED TO 2007 SPEC.	M.A.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

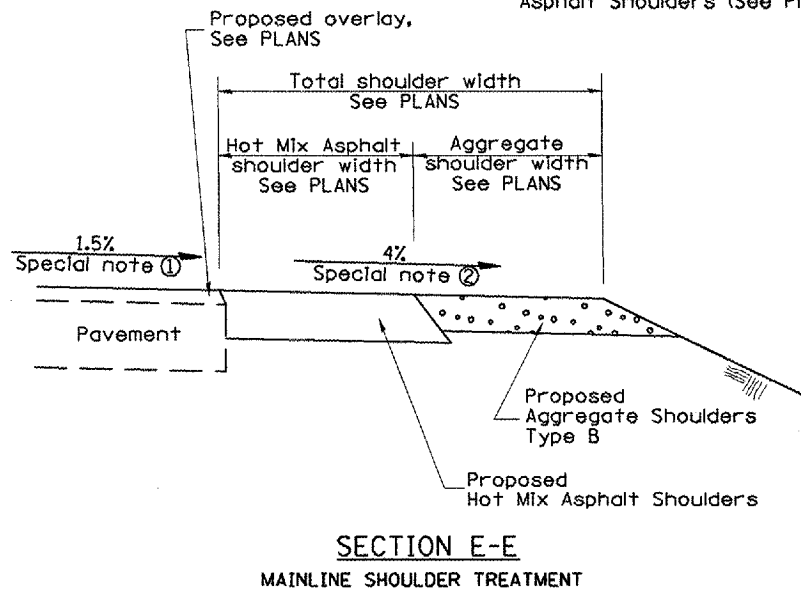
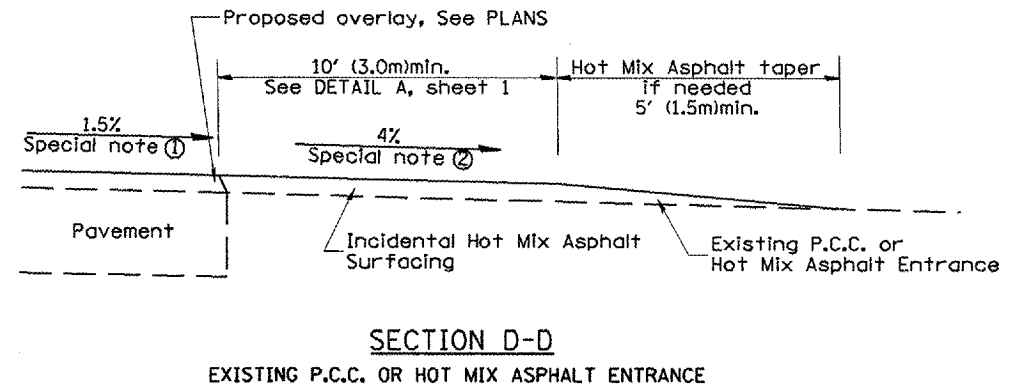
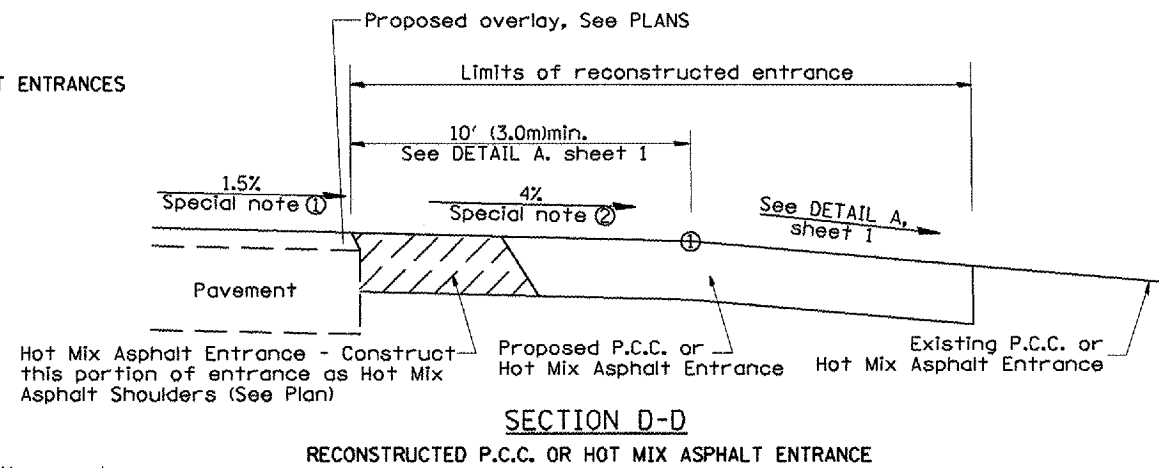
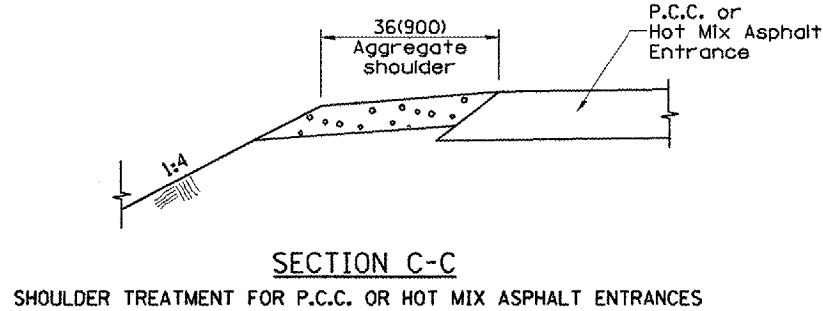
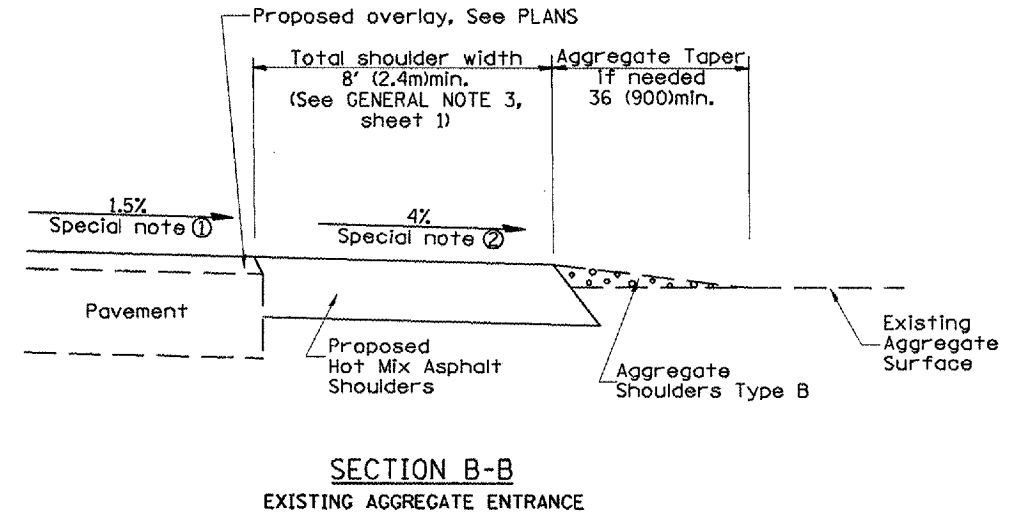
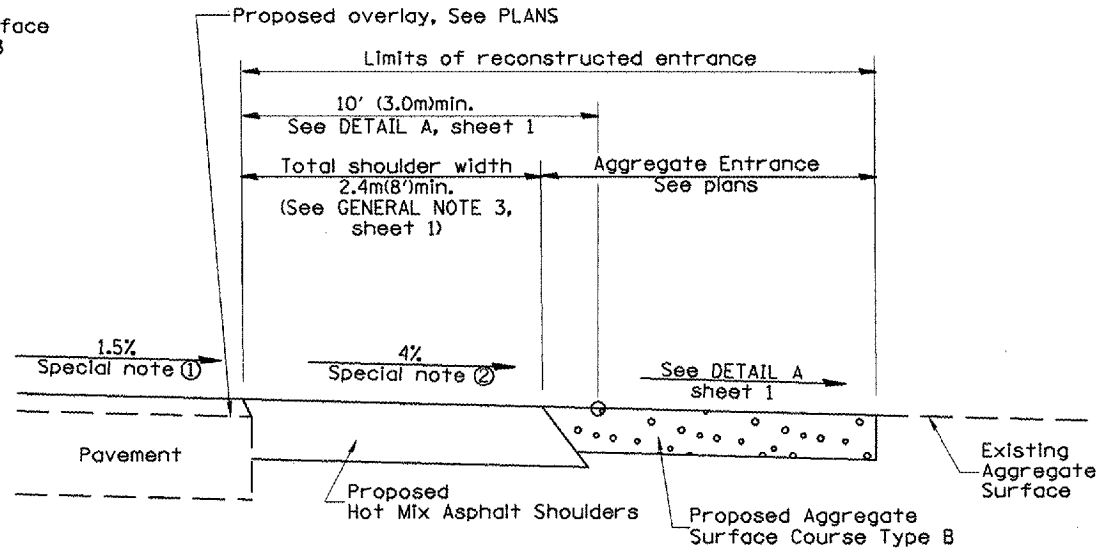
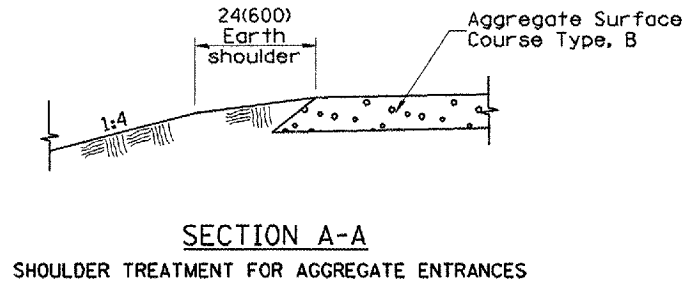
RURAL ENTRANCES FOR "3R" PROJECTS

SHEET 1 OF 2

CADD STD NO. 406301-D4
SCALE: NOT DRAWN TO SCALE
DATE

DRAWN BY CADD
CHECKED BY: T. PICKERING

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	..	97	72
STA.		TO STA.		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* (101BY)BRK28-BR1 **) WARREN COUNTIES				



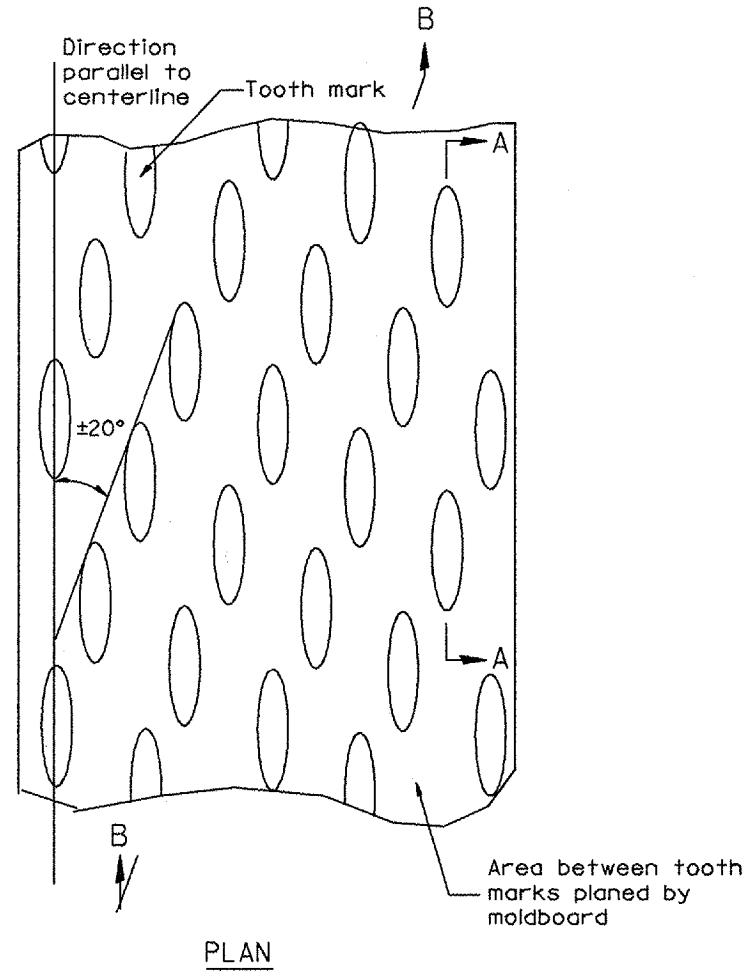
SPECIAL NOTES

- ① The mainline pavement cross-slope is 1.5% for tangent alignment. See PLANS for cross-slope on superelevated horizontal curves.
- ② The shoulder slope shall control the entrance profile for a distance of 10' (3.0m) minimum from the pavement edge. The shoulder cross-slope is 4% for tangent alignment. Through superelevated curves, the maximum pavement-shoulder breakover should not be greater than 10% for shoulders 6' (1.8m) and wider and 12% for shoulders 4' (1.2m) and less. Where 12' (366cm) paved shoulders are provided, the breakover should be at the edge of the paved shoulder rather than at the pavement edge.

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.

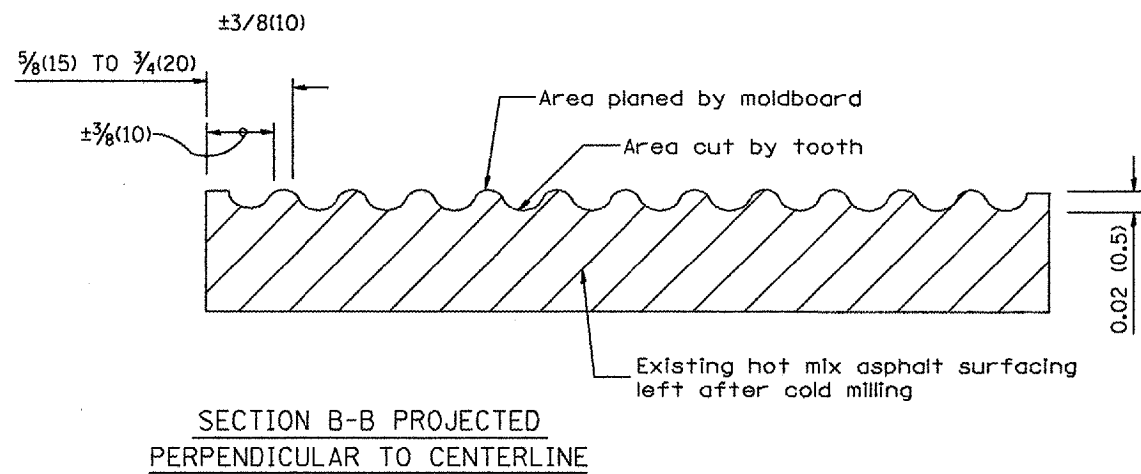
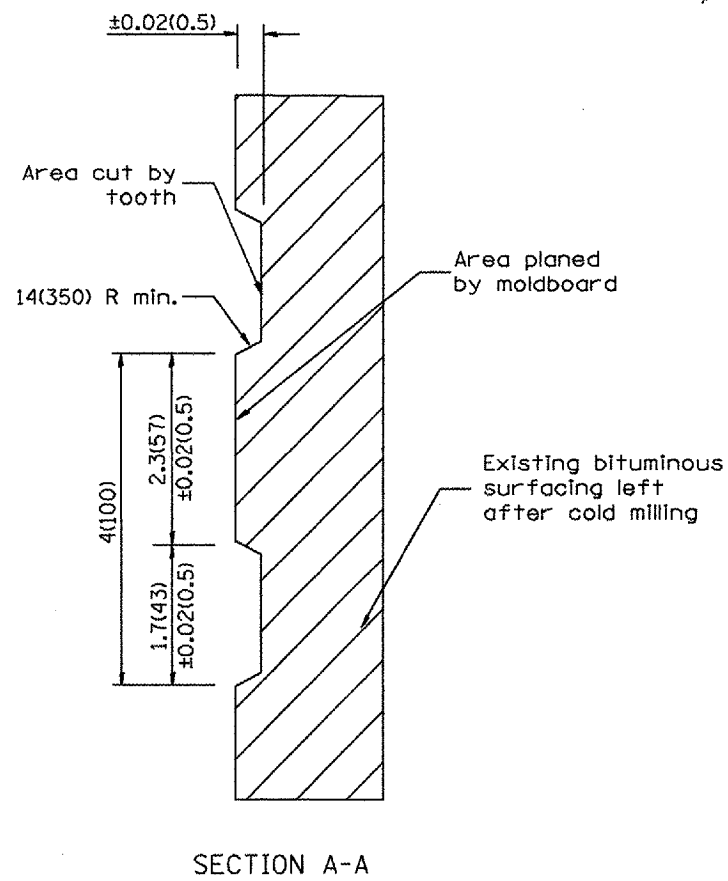
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
RURAL ENTRANCES FOR "3R" PROJECTS	
SHEET 2 OF 2	
CADD STD NO. 406301-D4	DRAWN BY CADD
SCALE: NOT DRAWN TO SCALE	CHECKED BY: T. PICKERING

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	73
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
**101R1RR128-BR1				
**1 WARREN COUNTIES				



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.



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

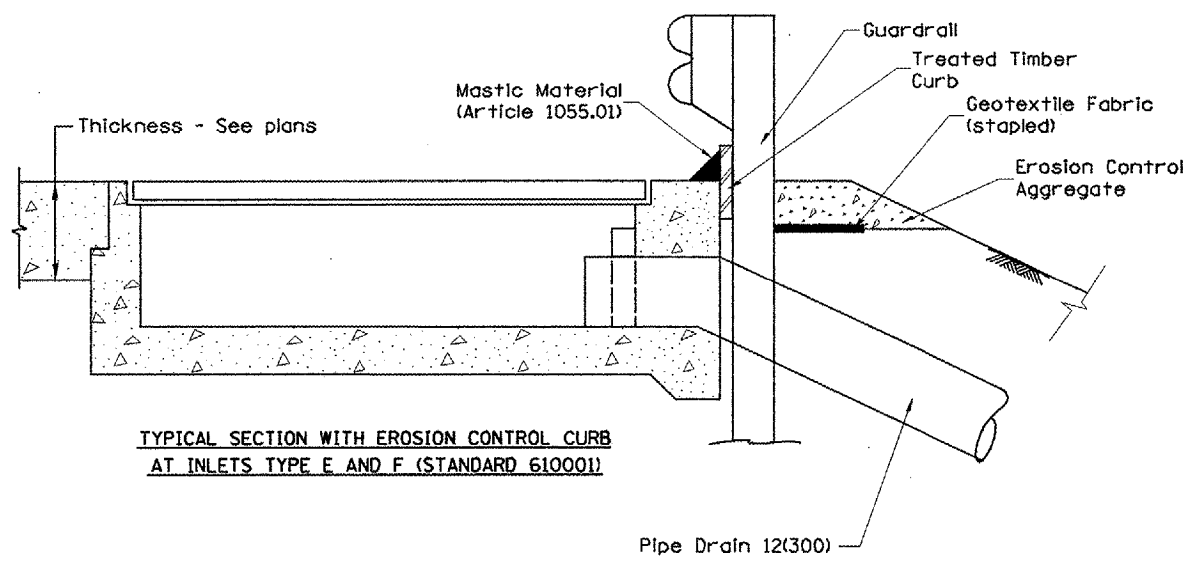
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1- 1-97	RENUM. C-104.01, NEW REVISION BOX	T. P.
4-20-98	REMOVED MILLING DETAIL FROM STD.	J. A.
9-08-98	CORRECT NOTE LEADER PLACEMENT	R. W.
10-16-06	REVISED TO 2007 SPEC.	M.A.

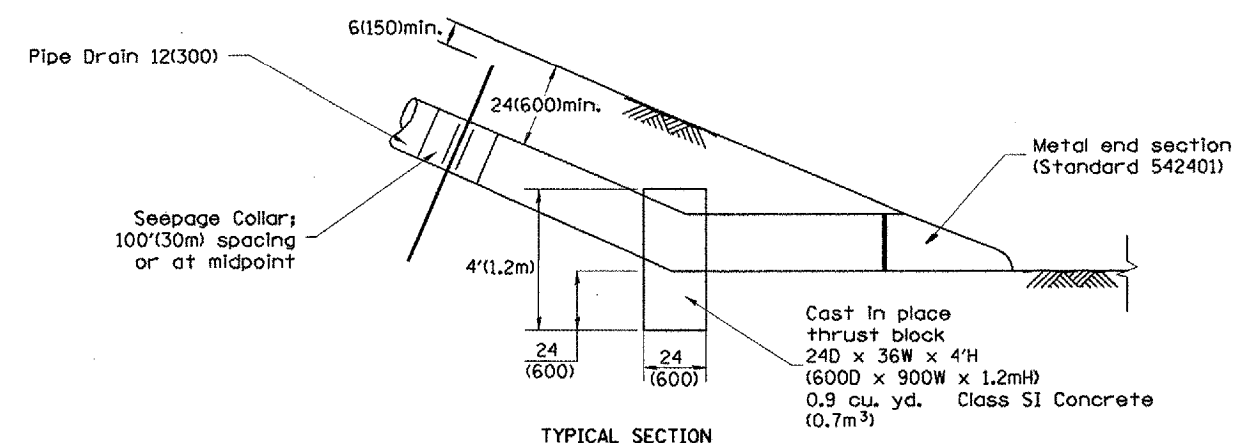
HOT MIX ASPHALT
SURFACE REMOVAL
(COLD MILLING)
CADD STD NO. 440001-D4
SCALE: NOT DRAWN TO SCALE
DATE

DRAWN BY CADD
CHECKED BY

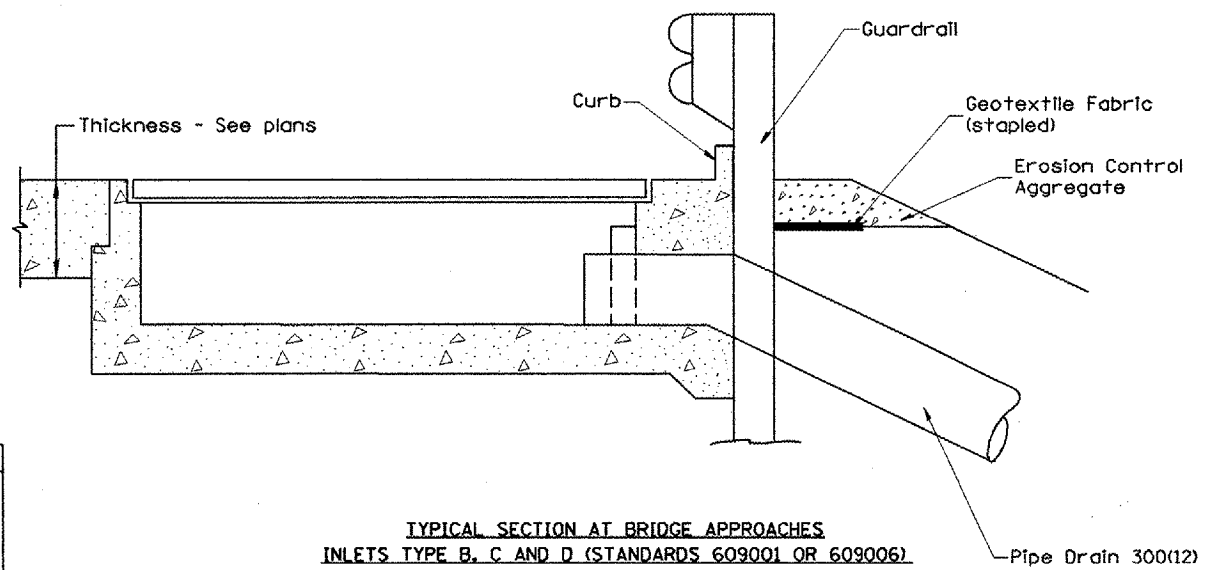
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	74
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*(101BY)BR-128-BR1 ** WARREN COUNTIES				



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



TYPICAL SECTION



TYPICAL SECTION AT BRIDGE APPROACHES INLETS TYPE B, C AND D (STANDARDS 609001 OR 609006)

GENERAL NOTES

1. The material for Pipe Drains shall be bituminous coated galvanized corrugated steel culvert pipe or bituminous coated corrugated aluminum alloy pipe in accordance with Article 601.02(f) or 601.02(i).
2. An approved mastic material (Article 1055.01) shall be applied to the inside of the connecting bands.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

SLOPE DRAIN DETAILS FOR BURIED PIPES

CADD STD. NO. 601101-D4
NOT DRAWN TO SCALE

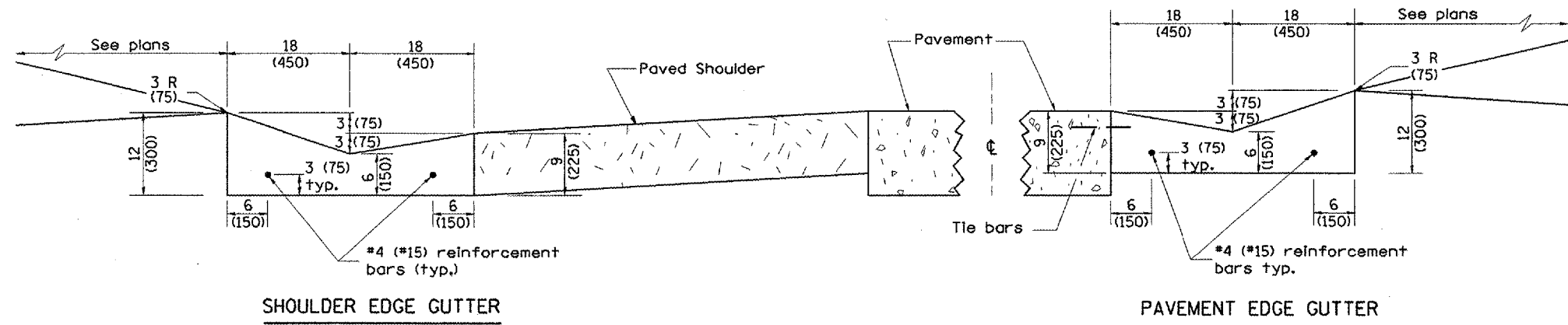
DRAWN BY CADD

DATE	REVISIONS	BY
1-1-97	RENUM. H-1.04, NEW REVISION BOX, REVISED TITLE BOX, REVISED DESIGNER NOTES, ADDED QUANTITY CALCULATION BOX	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

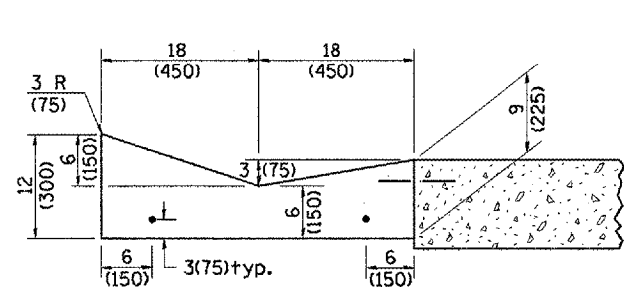
QUANTITIES	
CALC. BY:	DATE:
CHECKED BY:	DATE:

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION

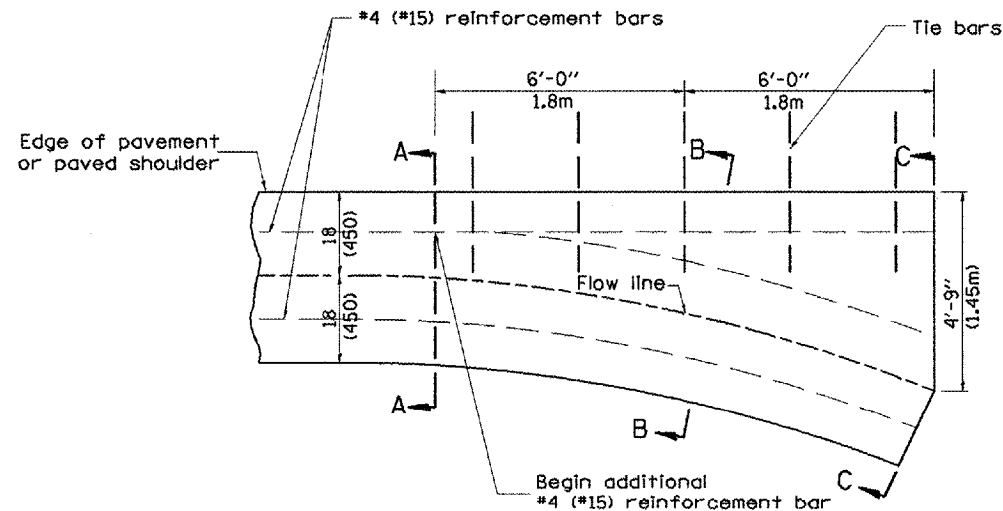
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	75
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(101BY)BR/28-BR/				
** WARREN COUNTIES				



TYPE A GUTTER (MODIFIED)

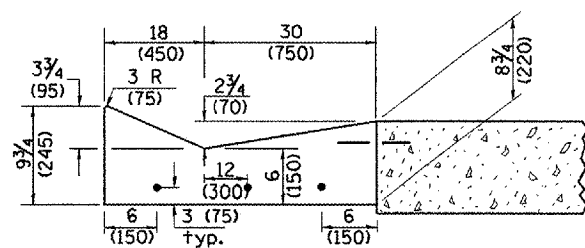


SECTION A-A

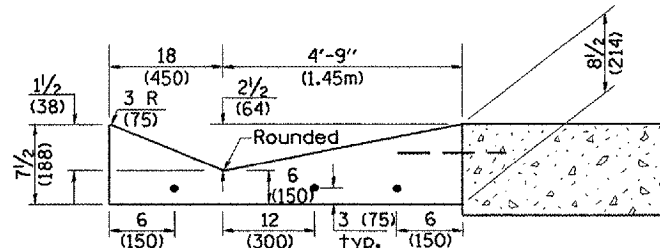


PLAN

QUANTITY
Section C-C to A-A= 1.2 cu. yd.
(0.92 m³) concrete.



SECTION B-B



SECTION C-C

INLET

GENERAL NOTES:

1. TYPE A GUTTER (MODIFIED) shall conform to the applicable portions of Section 606.
2. Tie bars shall be No. 6 (No. 20) at 24" (600mm) centers unless otherwise shown.
3. Gutter, gutter inlets, gutter outlets, and gutter entrances shall be tied to rigid pavement in accordance with details shown on Standard 420001.
4. Joints shall be constructed in accordance with Article 606.06.
5. Welded wire fabric shall conform to Article 1006.10(c)(1), and shall not be less than 58 lbs/100 sq.ft. (2.83 kg/m²).

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

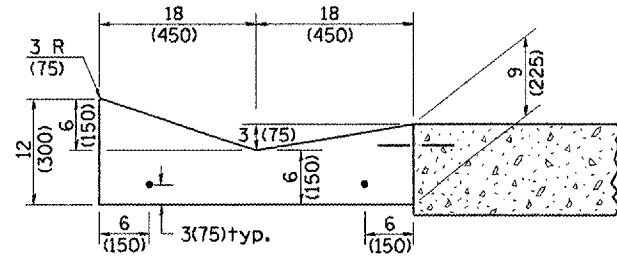
ILLINOIS DEPARTMENT OF TRANSPORTATION		
DISTRICT CADD STANDARD		
TYPE A GUTTER, (MODIFIED)		
(INLET, OUTLET & ENTRANCE)		
CADD STANDARD 606101-D4	SHEET 1 OF 3	
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD	CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. A-1.02, NEW REVISION	T.P.
	BOX. ELIMINATED EXPANSION	
	ANCHOR TIES.	
2-28-02	ENTRANCE TYPICALS REVISED	M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.
1-10-07	REVISED QUANTITY	M.A.

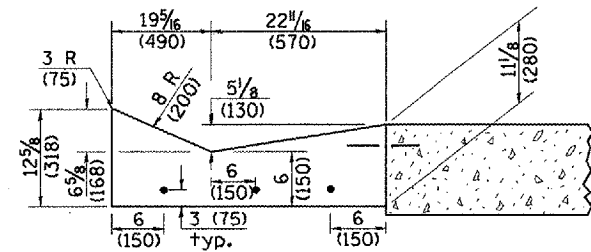
QUANTITIES	
CALC. BY:	DATE:
CHECKED BY:	DATE:
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION	

DGN-ONLY

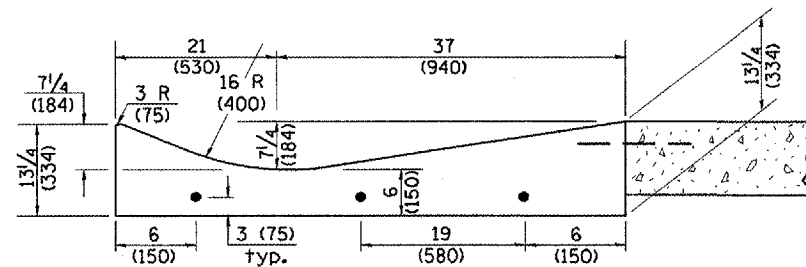
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	..	97	76
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*101BY28R128-BR1		**		
WARREN COUNTIES				



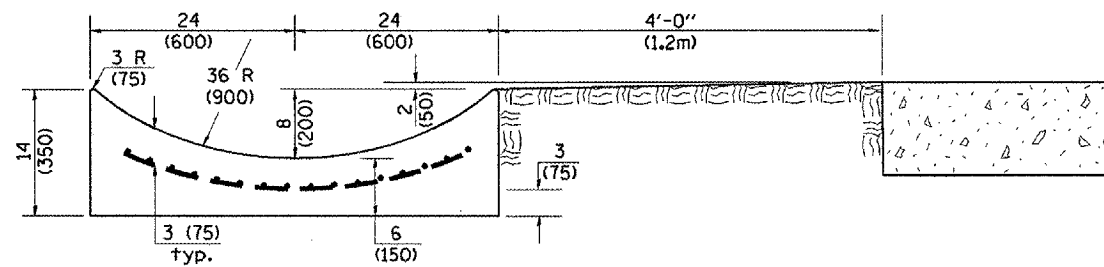
SECTION A-A



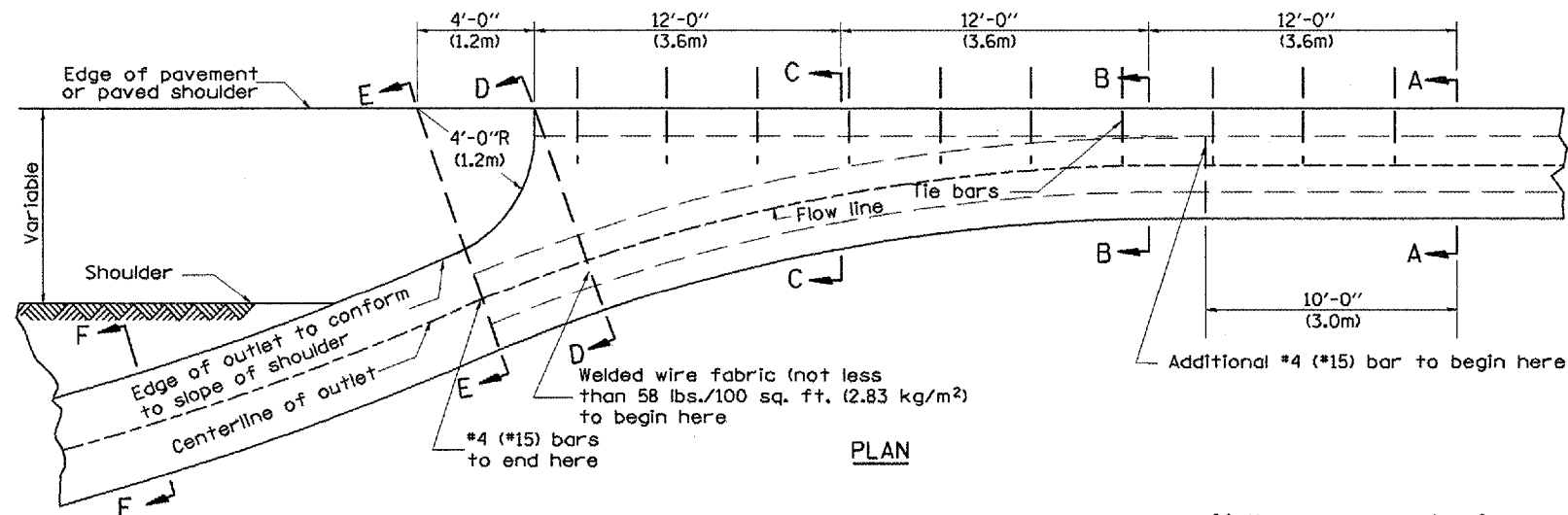
SECTION B-B



SECTION C-C



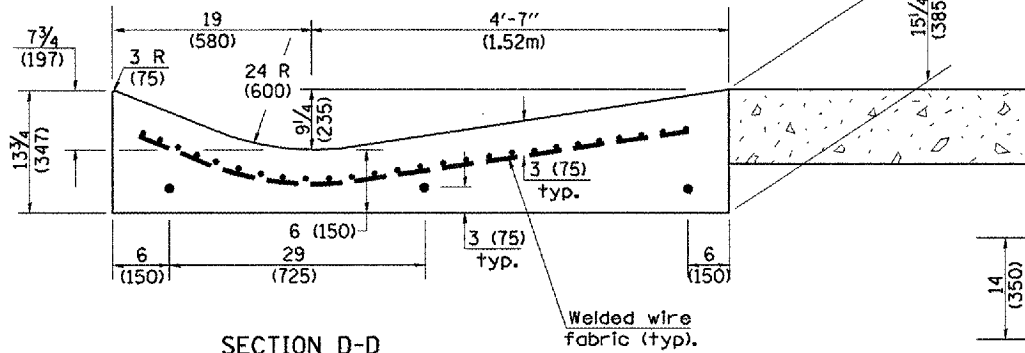
SECTION E-E



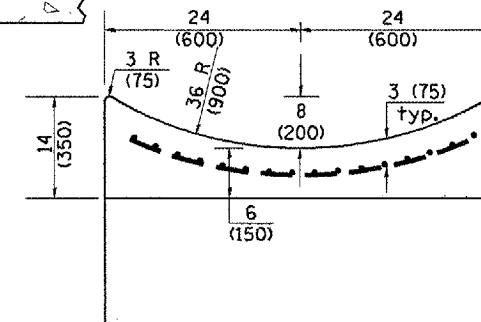
PLAN

QUANTITY
 Section A-A to E-E= 4.5 cu. yd. (3.36 m³) concrete.
 Section F-F= 0.10 cu. yd./ft. (0.26 m³/m) concrete.

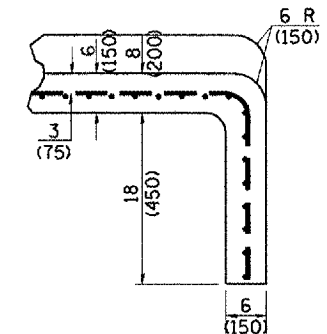
If the average grade of pavement for the distance from section A-A to section D-D exceeds 2%, this distance shall be increased 6 ft. (1.8 m) for each 1% increase in grade. A quantity adjustment is required.



SECTION D-D

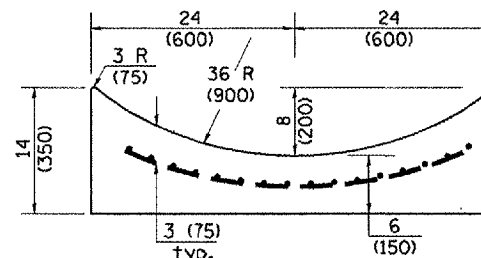


SECTION F-F



SECTIONS AT END OF OUTLET (CURTAIN WALL)

QUANTITY
 Curtain Wall = 0.1 cu. yd. (0.08 m³) concrete.



OUTLET

QUANTITIES

CALC. BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION

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

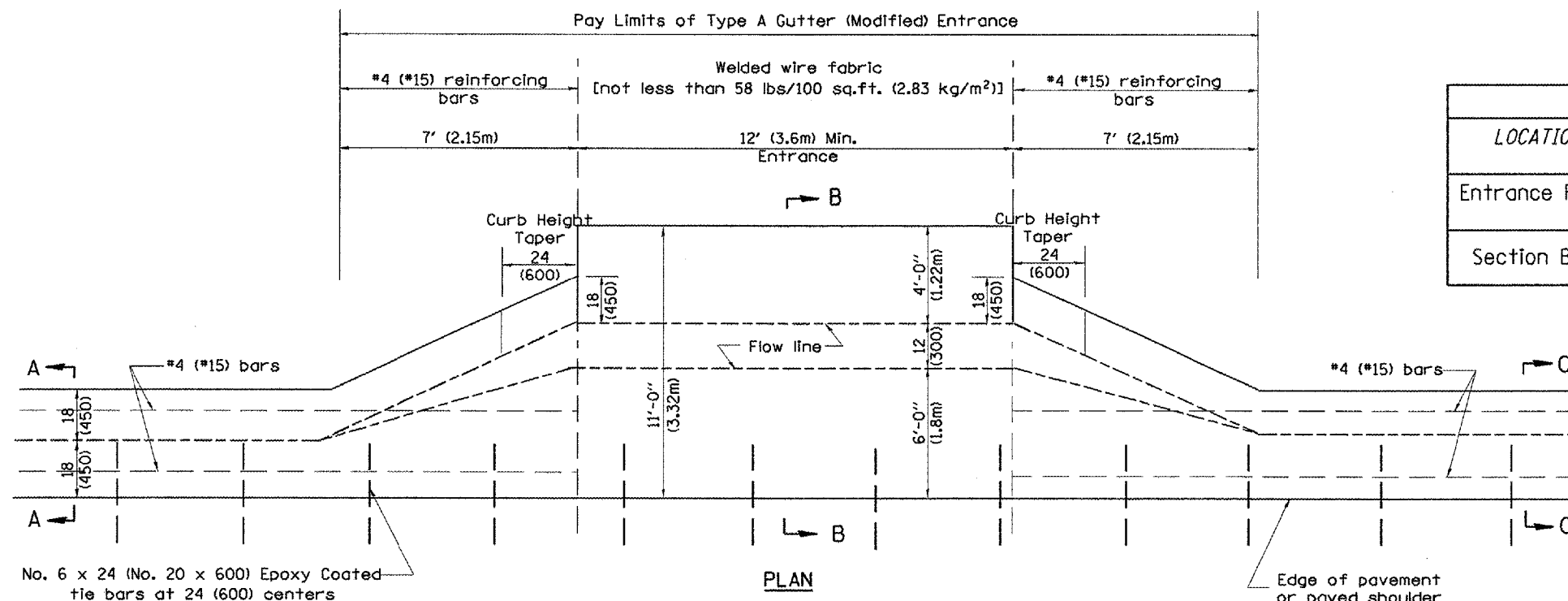
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

TYPE A GUTTER, (MODIFIED) (INLET, OUTLET & ENTRANCE)

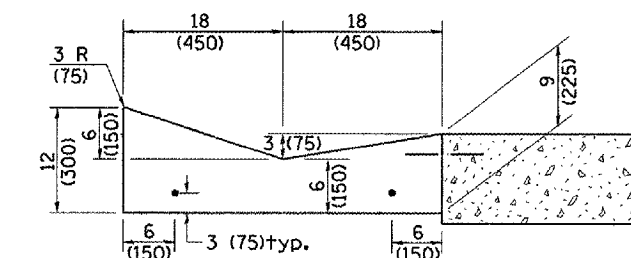
CADD STANDARD 606101-D4 SHEET 2 OF 3
 SCALE: NOT DRAWN TO SCALE DRAWN BY CADD CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	77
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*(101R)RR#28-BR1				
** WARREN COUNTIES				

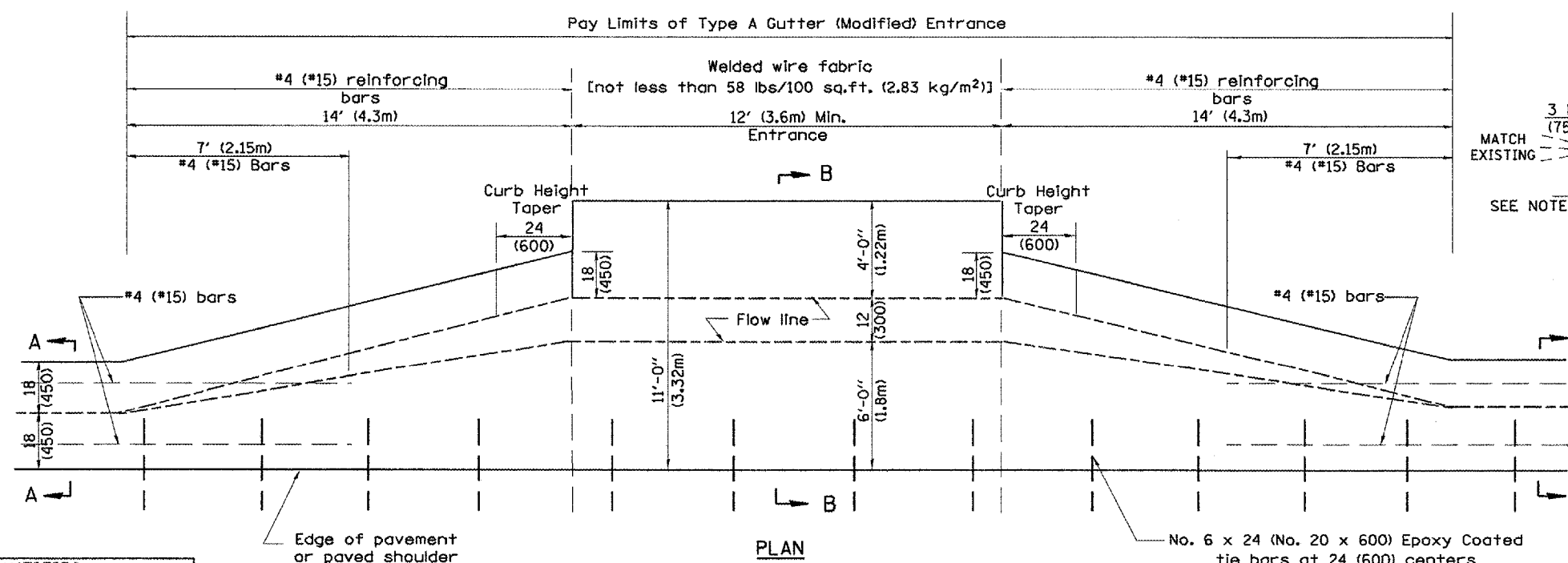
LOCATION	LENGTH	NON-COMMERCIAL	COMMERCIAL ENTRANCE
		6 (150)	8 (200)
Entrance Flare	7 Ft (2.15 m) Urban 14 Ft (4.30 m) Rural	0.15 Cu Yd / Ft (0.37 Cu M / M)	0.18 Cu Yd / Ft (0.45 Cu M / M)
Section B-B	See Plans	0.23 Cu Yd / Ft (0.57 Cu M / M)	0.28 Cu Yd / Ft (0.70 Cu M / M)



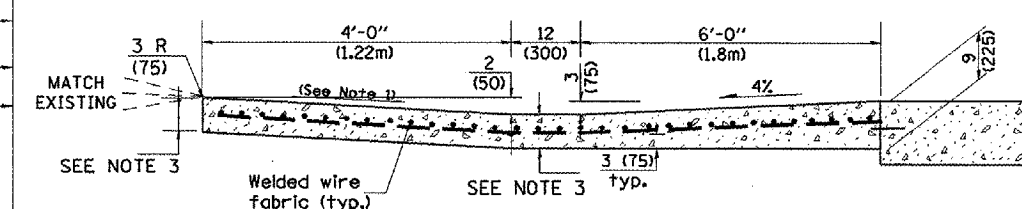
TYPICAL URBAN ENTRANCE



SECTION A-A & C-C



TYPICAL RURAL ENTRANCE



SECTION B-B

- GENERAL NOTES**
- Slope may be increased from 4% (min.) to 6% (max.) in order to match the existing.
 - The cross-slope is to be constructed as given in the plans from back turnout to where driveway matches existing.
 - For Non-Commercial Entrances the driveway thickness shall be 6 (150). For Commercial Entrances the driveway thickness shall be 8 (200).

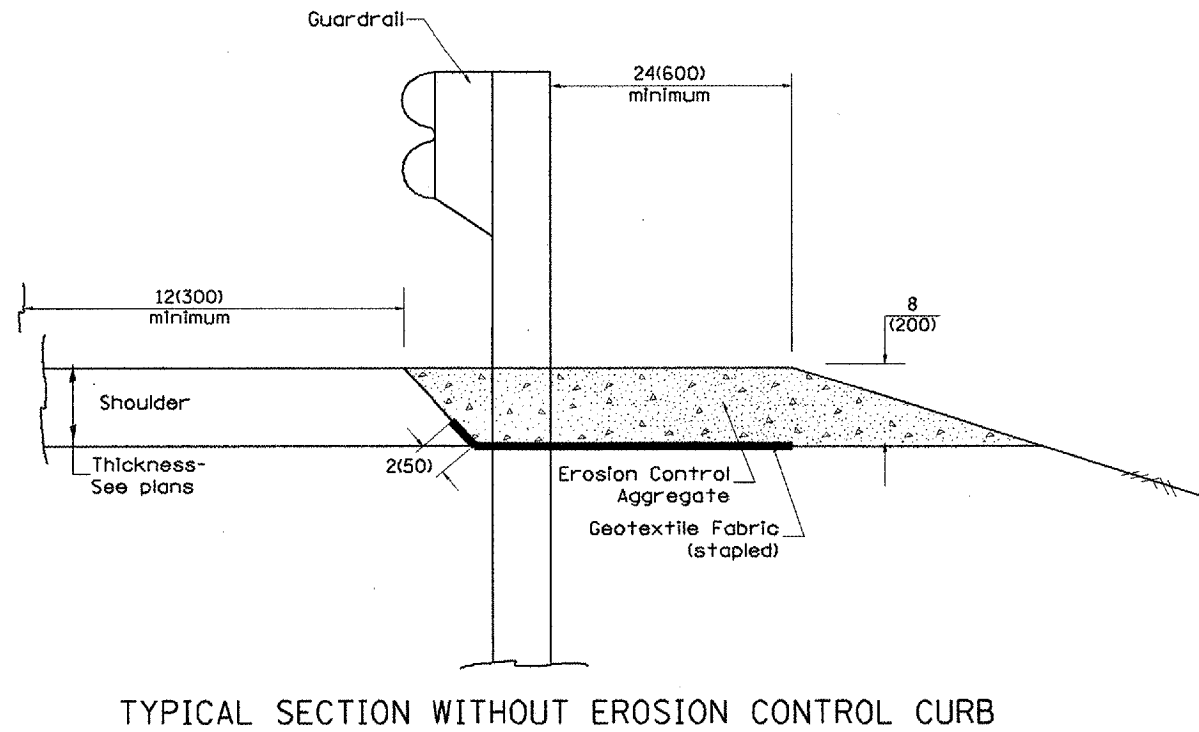
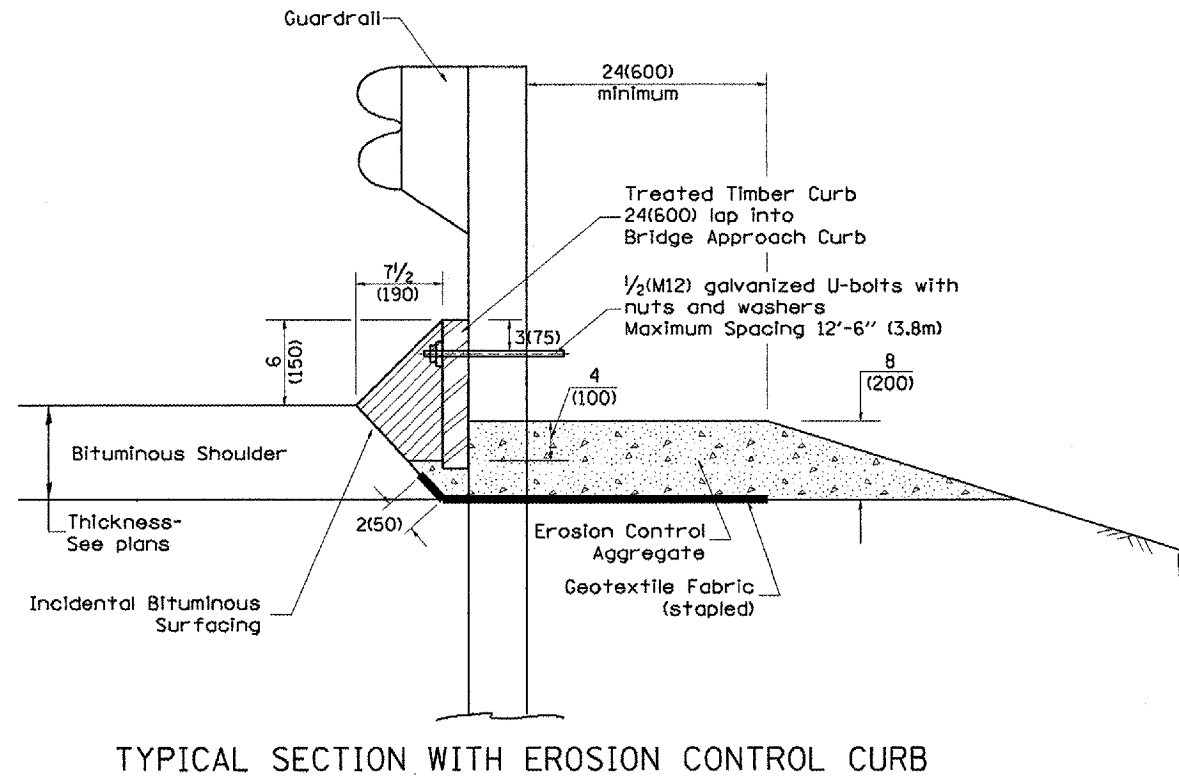
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
TYPE A GUTTER, (MODIFIED)	
(INLET, OUTLET & ENTRANCE)	
CADD STANDARD 606101-D4	SHEET 3 OF 3
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
	CHECKED BY

CALC. BY:	DATE:
CHECKED BY:	DATE:

QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	78
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(101R)BR(28-BR)		** WARREN COUNTIES		



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 "oca" 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.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD**

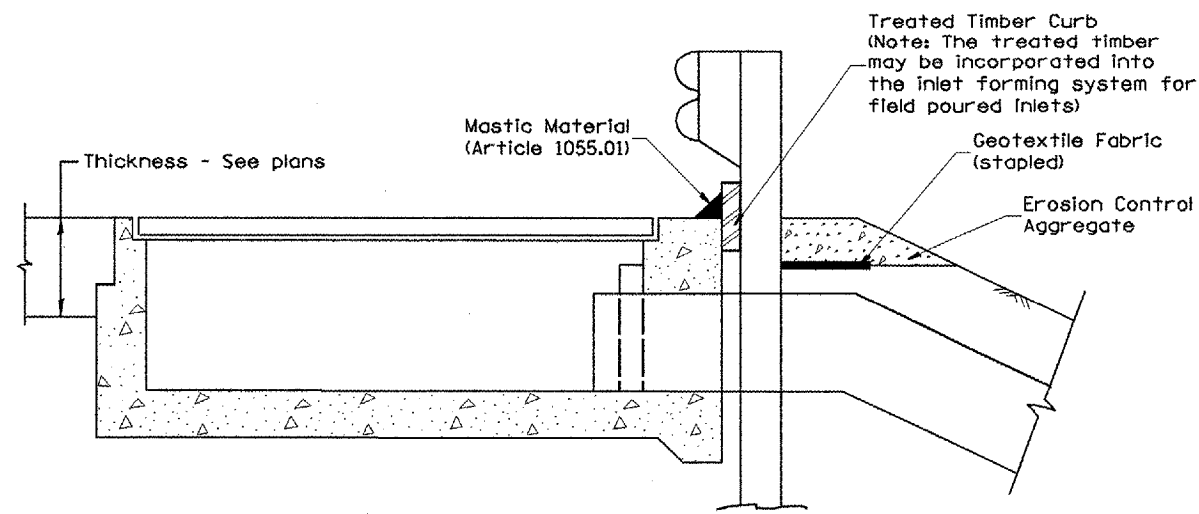
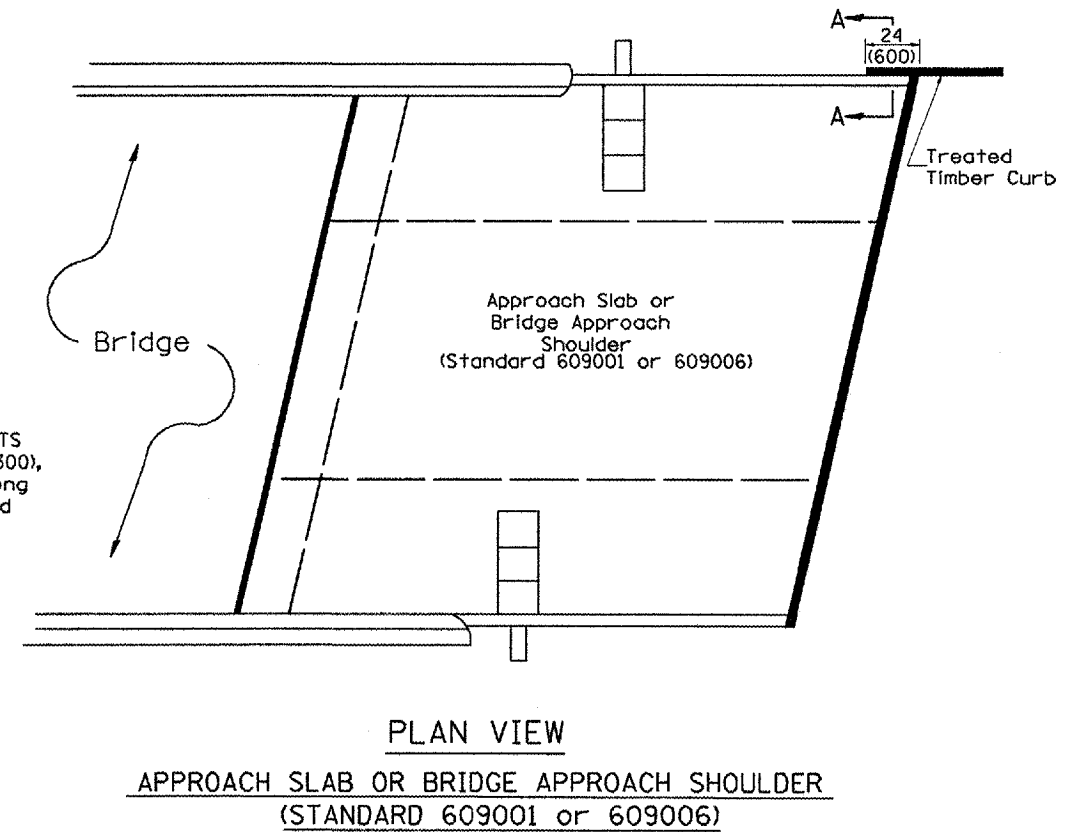
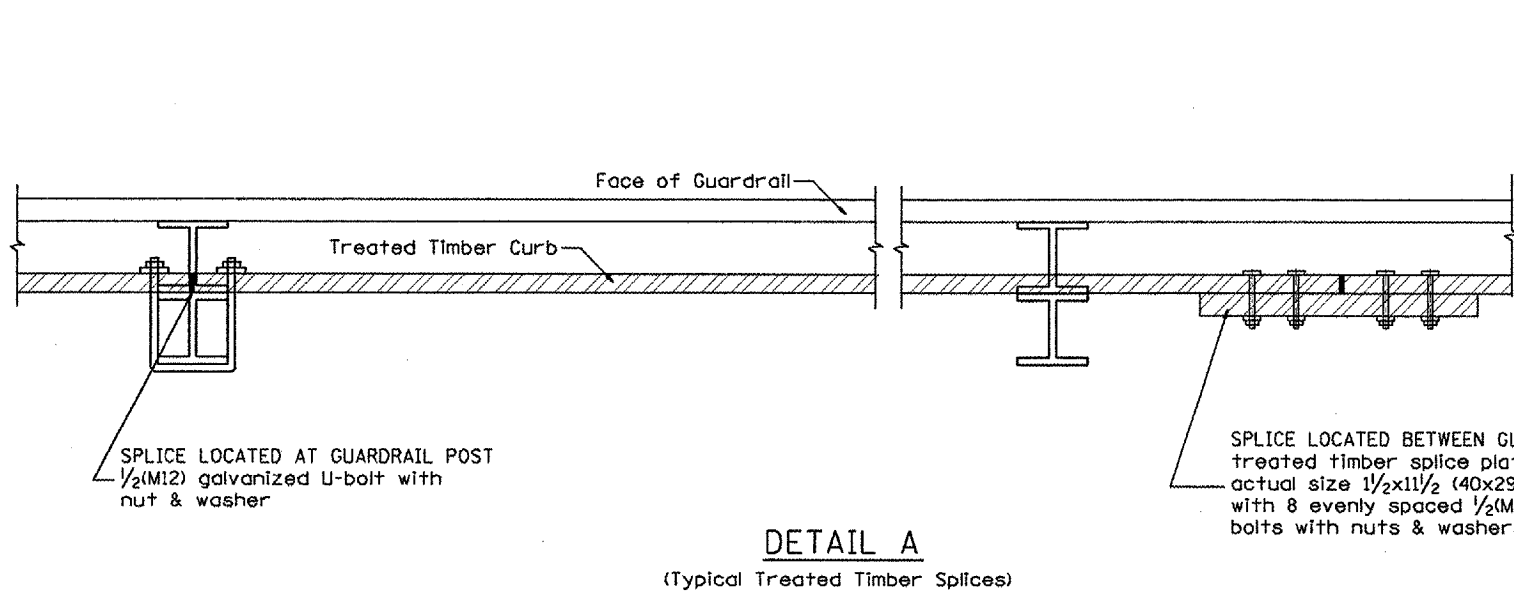
**GUARDRAIL EROSION
CONTROL TREATMENTS**

DATE	REVISIONS	BY
1-1-97	RENUN. C-22.01, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-3-00	CORRECTION TO NOTES	M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

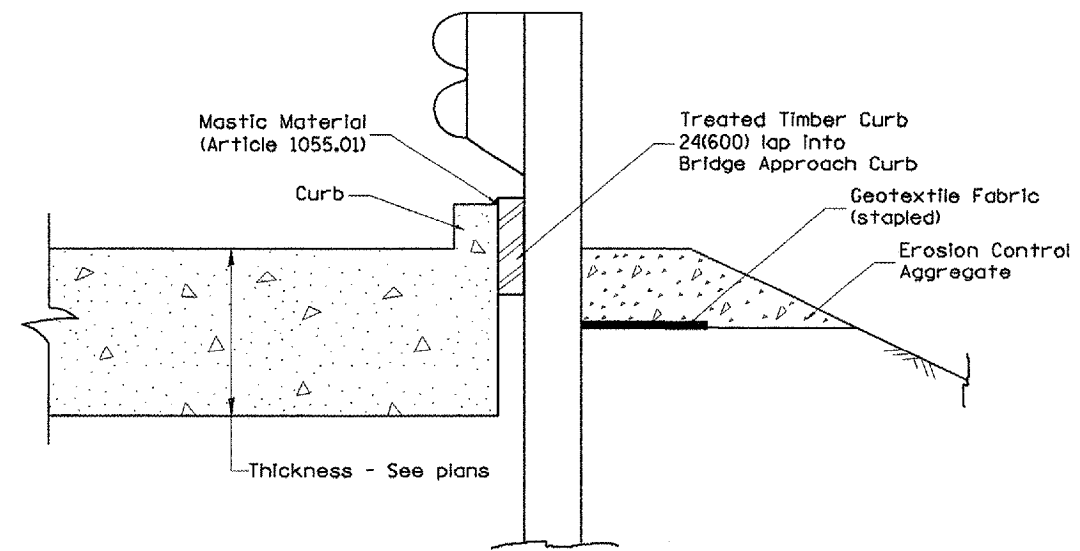
CADD STD NO. 630101-D4(1)
SCALE: NOT DRAWN TO SCALE

SHEET 1 OF 2
DRAWN BY CADD
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	79
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
*101BYBRK28-BRI				
**1 WARREN COUNTIES				



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



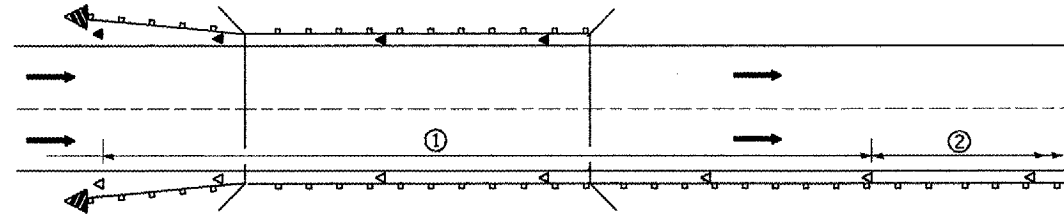
SECTION A-A TYPICAL SECTION WITH EROSION CONTROL CURB AT BRIDGE APPROACH CURB (STANDARD 609001 OR 609006)

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

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL EROSION CONTROL TREATMENTS	
CADD STD NO. 630101-D4(2)	SHEET 2 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
	CHECKED BY

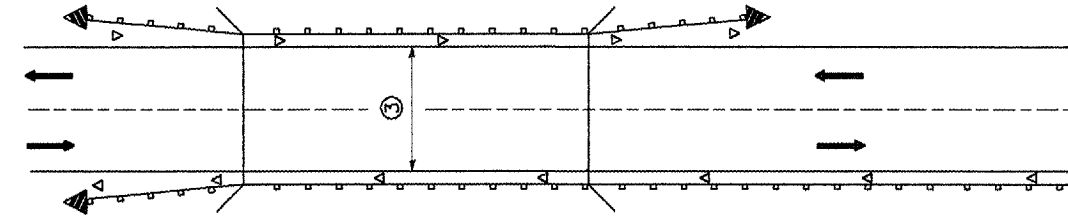
\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	80
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
*101BY1BR/28-BR1 ** WARREN COUNTIES				



- 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



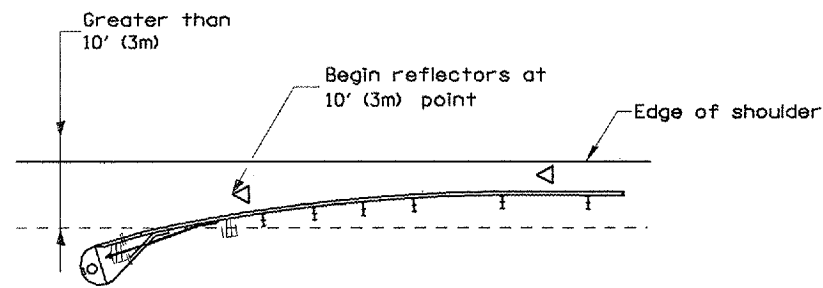
- ③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 24 (610) wider than the pavement approaching the bridge.

TWO-WAY TRAFFIC

GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS

LEGEND

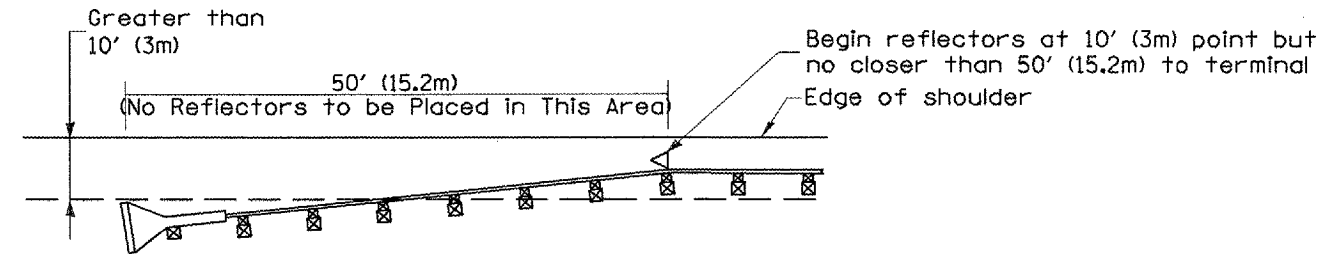
- ◁ Monodirectional silver
- ◄ Monodirectional amber
- ◄ Terminal Marker - Black/Yellow
Left or Right as appropriate



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.

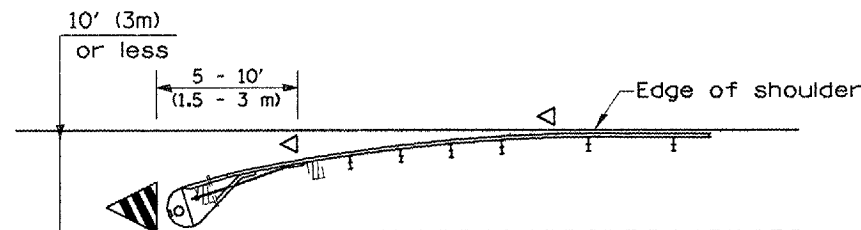
Traffic Barrier Terminal Type(*) and/or Turned-Down Terminal

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



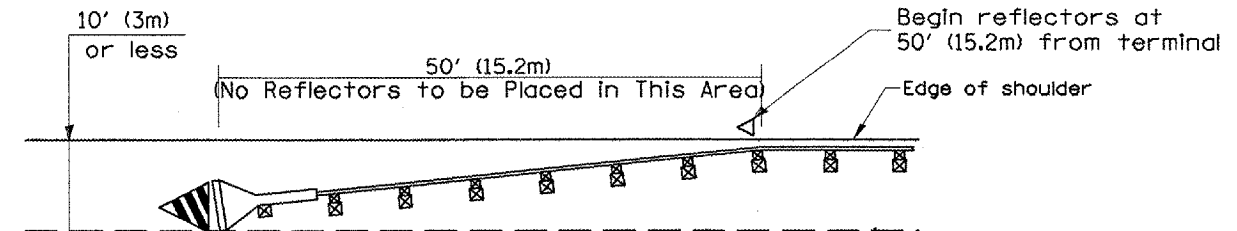
NOTE: Omit terminal marker when terminal over (10') from edge of paved shoulder or break point of unpaved shoulder.

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]

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

**ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD**

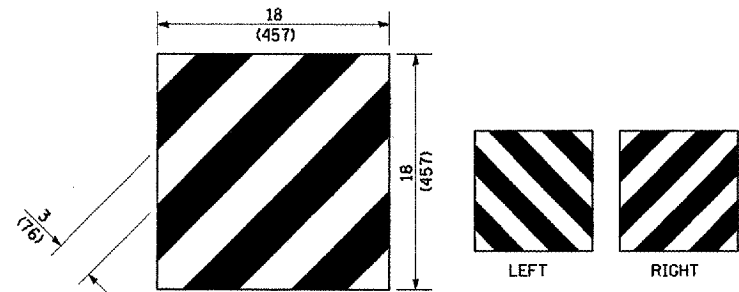
**GUARDRAIL AND
BARRIER WALL DELINEATION**

CADD STD. NO. 635101-D4 SHEET 1 OF 3
SCALE: NOT DRAWN TO SCALE
DRAWN BY CADD
CHECKED BY

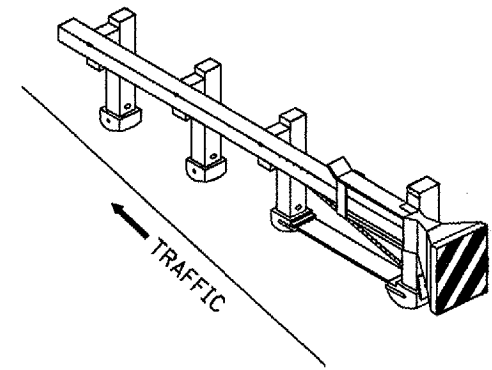
DATE	REVISIONS	BY
1-1-97	RENUM. E-10.02, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. SPEC. *	J.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

TERMINAL MARKER PLACEMENT

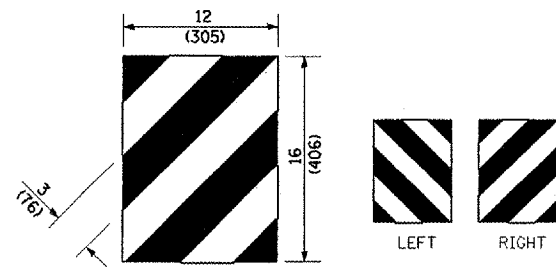
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	81
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
*101BYBRM2P-BR1		** WARREN COUNTIES		



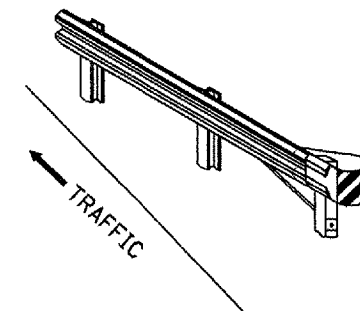
For Traffic Barrier Terminal Type 1 (Special)



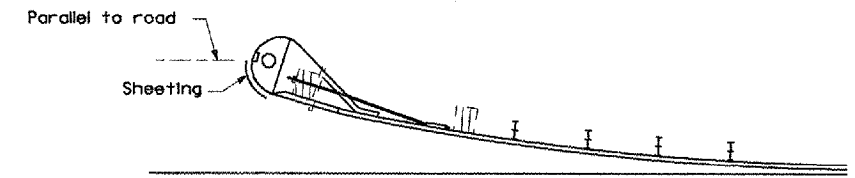
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type 1 (Special)



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



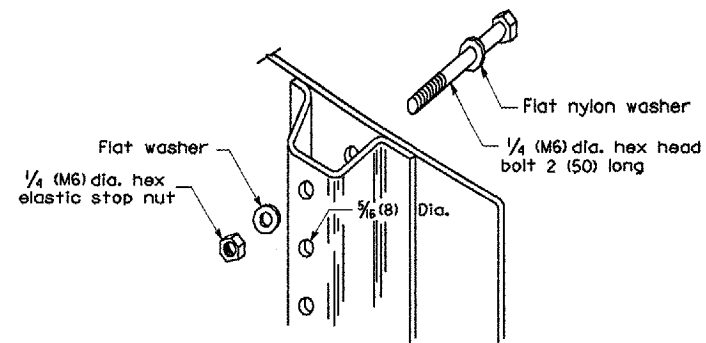
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type (*)
* See Plans for Type



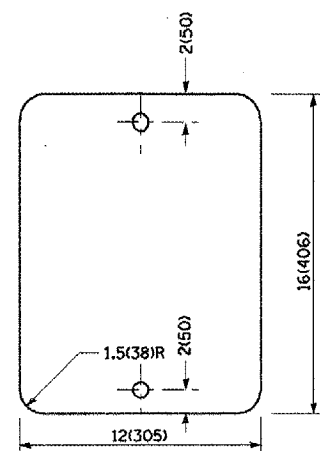
Sheeting Position for
Traffic Barrier Terminal Type (*)
* See Plans for Type

TERMINAL MARKER DETAILS

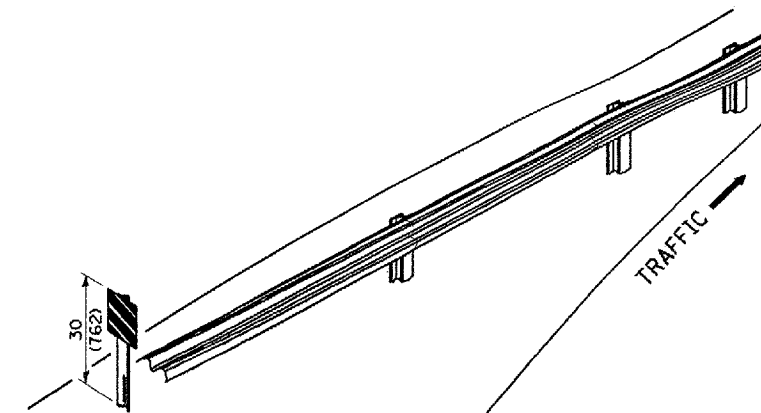
- Color: Black / Yellow reflectorized
- OM - I100 (L or R) Direct applied reflective sheeting
- OM - I200 (L or R) Post mounted



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.

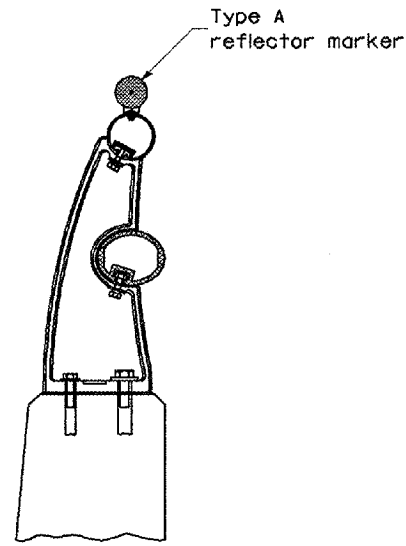
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

GUARDRAIL AND
BARRIER WALL DELINEATION

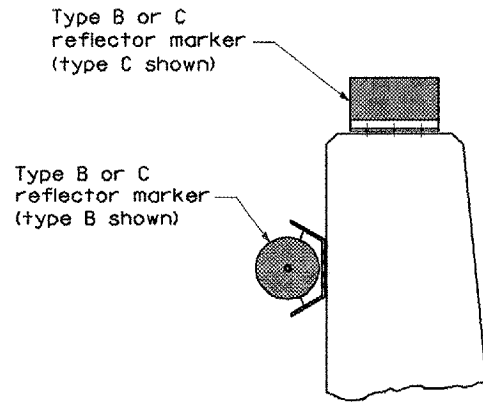
CADD STD. NO. 635101-D4
SCALE: NOT DRAWN TO SCALE

SHEET 2 OF 3
DRAWN BY CADD
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	*	**	97	82
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* (HARRISON) BRIDGE				
** WARREN COUNTIES				

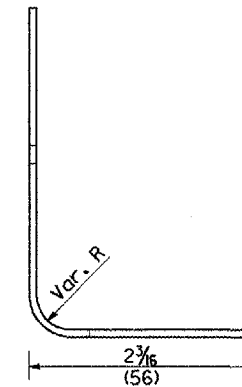
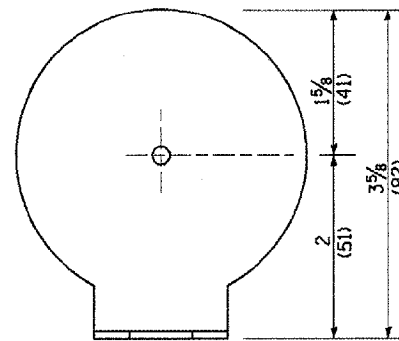
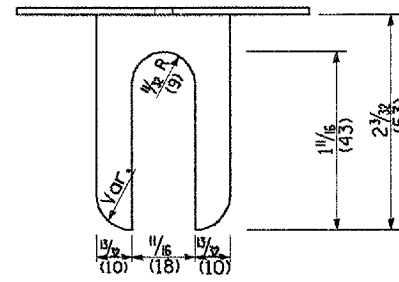


TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR



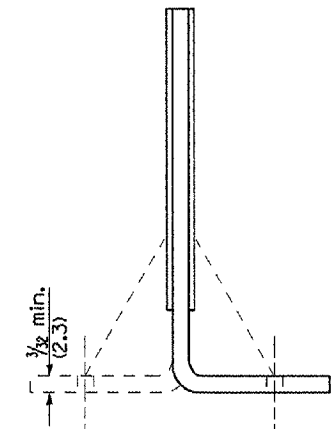
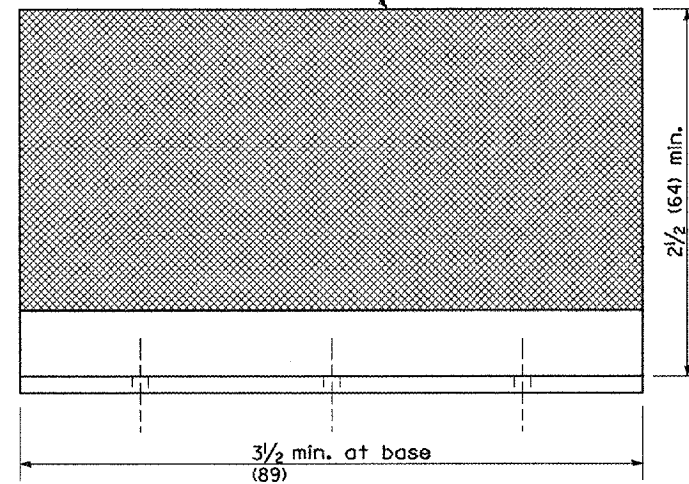
TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR

REFLECTOR MOUNTING



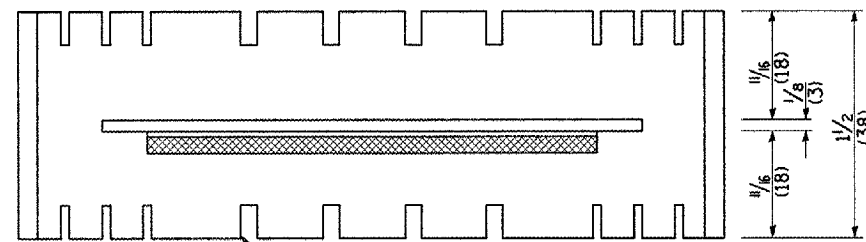
REFLECTOR MARKER TYPE A

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

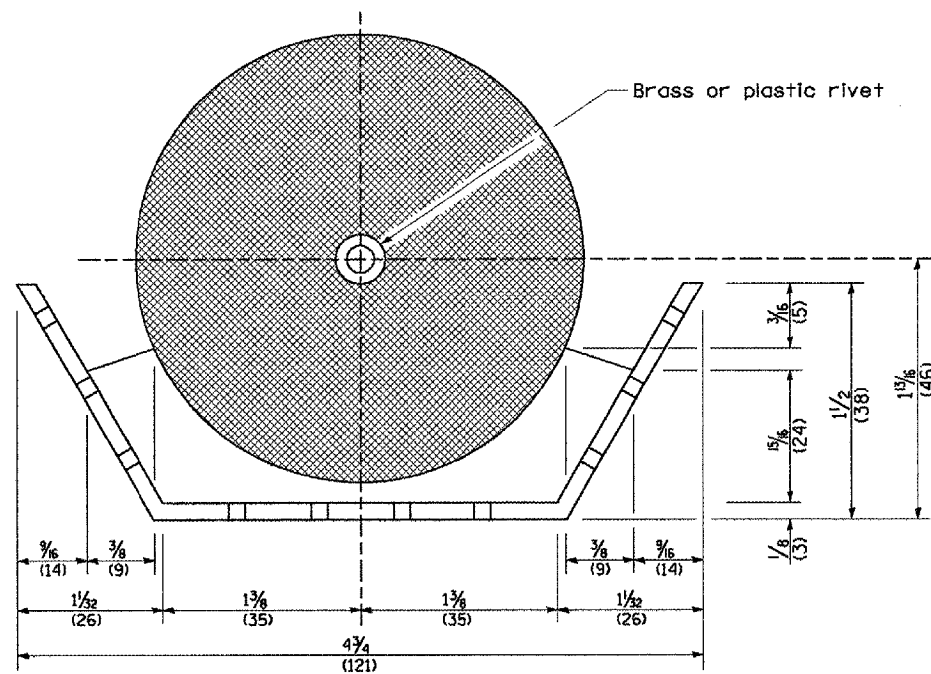


Cross section may be "T" or "L" shaped and may have side supports at ends.

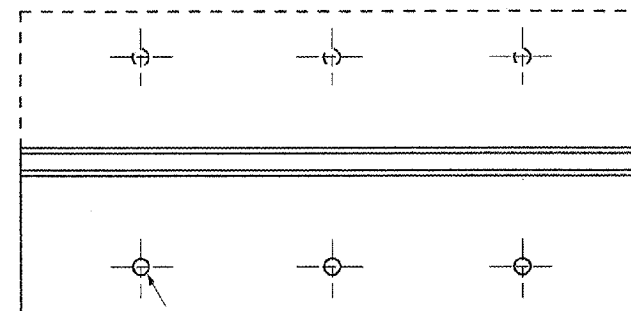
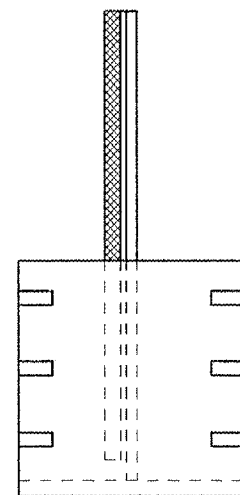
REFLECTORS



Adhesive weep slots or holes equally spaced on both sides



REFLECTOR MARKER TYPE B



REFLECTOR MARKER TYPE C

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

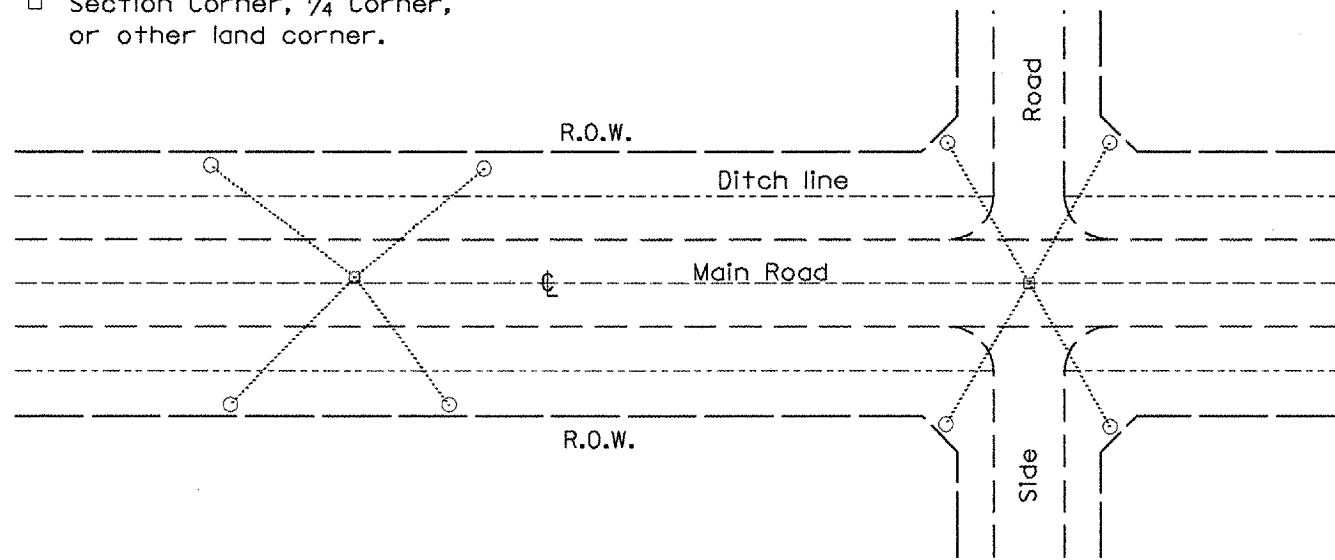
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL AND BARRIER WALL DELINEATION	
CADD STD. NO. 635101-D4	SHEET 3 OF 3
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
	CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	83
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*(1)RYRRI(28-BR)		** WARREN COUNTIES		

PERMANENT SURVEY TIES

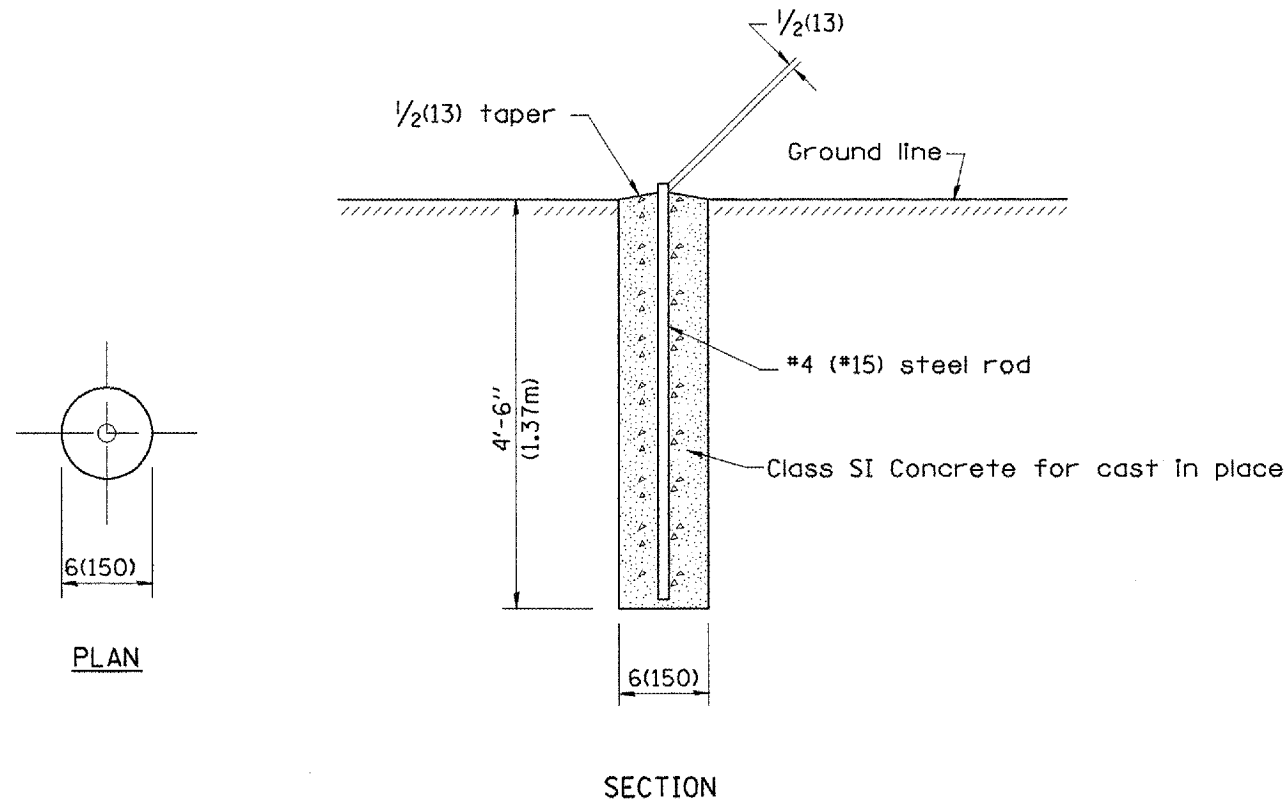
- Permanent Survey Tie
- Section Corner, 1/4 Corner, or other land corner.



TYPICAL APPLICATION

GENERAL NOTES

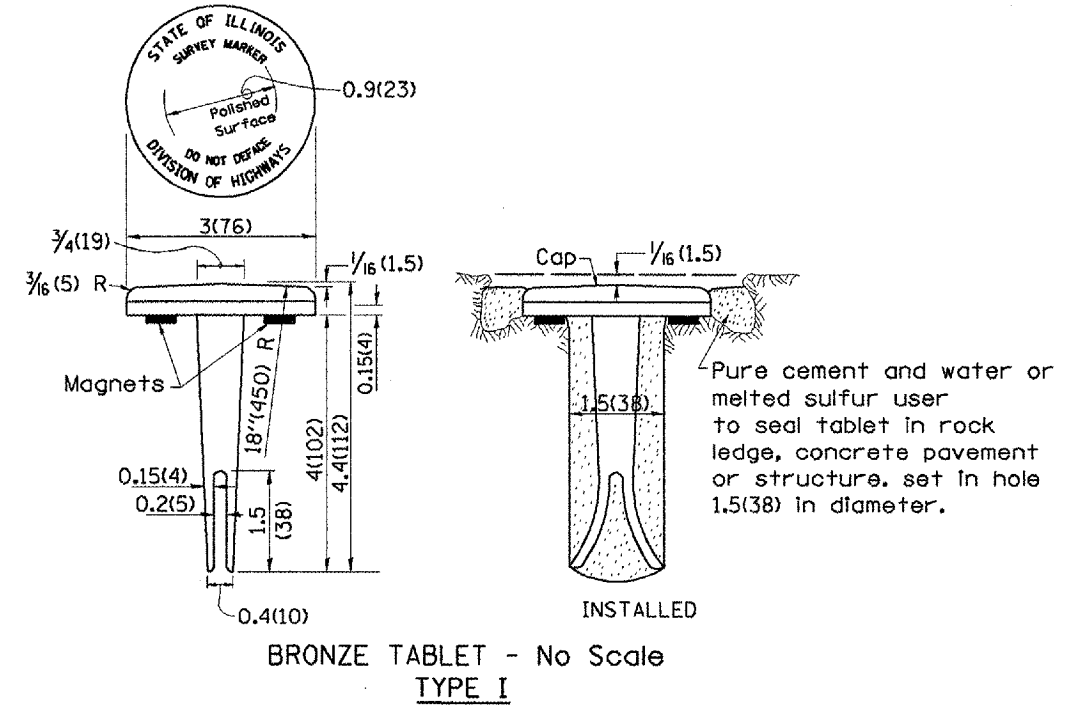
- The marker shall be cast in place of Class SI Concrete.
- Tie marker shall be installed after the final seeding has been completed unless otherwise specified by the Engineer.
- The tie distances to the section corner shall be measured and recorded by the IDOT Chief of Surveys.



PLAN

SECTION

PERMANENT SURVEY MARKERS

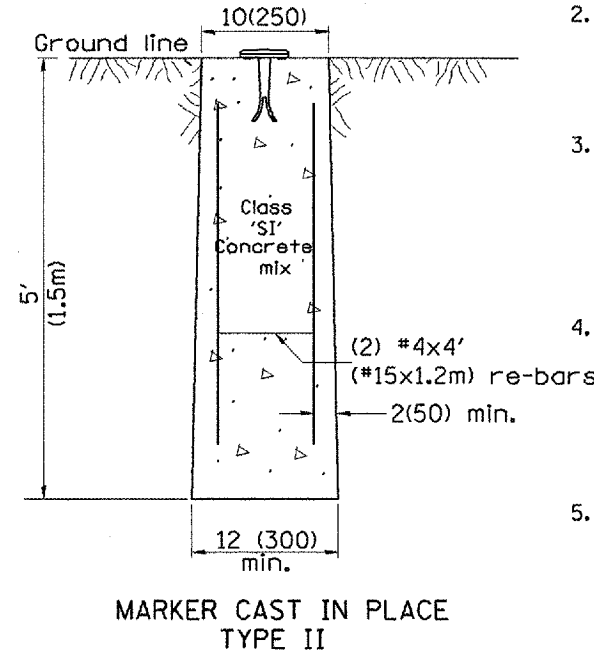


BRONZE TABLET - No Scale TYPE I

GENERAL NOTES

- All type II markers shall be cast in place, and precast markers will not be allowed.
- Two permanent magnets, each having a diameter of 3/4 (19) and a thickness of 1/4 (6), or equivalent, shall be attached to the underside of the tablet with an approved epoxy bonding agent.
- The location of the markers shall be in accordance with the plans in general, the markers will be placed at the P.T.'s and P.C.'s of horizontal curves and spaces along the tangents in a way that a minimum of two markers are always inter-visible, and not to exceed 1000' (300m).
- The markers shall be placed under the direction of the Engineer and shall be installed in a workmanlike manner in order that there will be no further settlement or horizontal shifting. The monuments shall be placed in a way that the survey point will fall within the portion of the plaque provided for that purpose.
- The project designation, the centerline station, the survey point, and the elevation shall be permanently marked by the use of metal dies after marker has been installed.

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



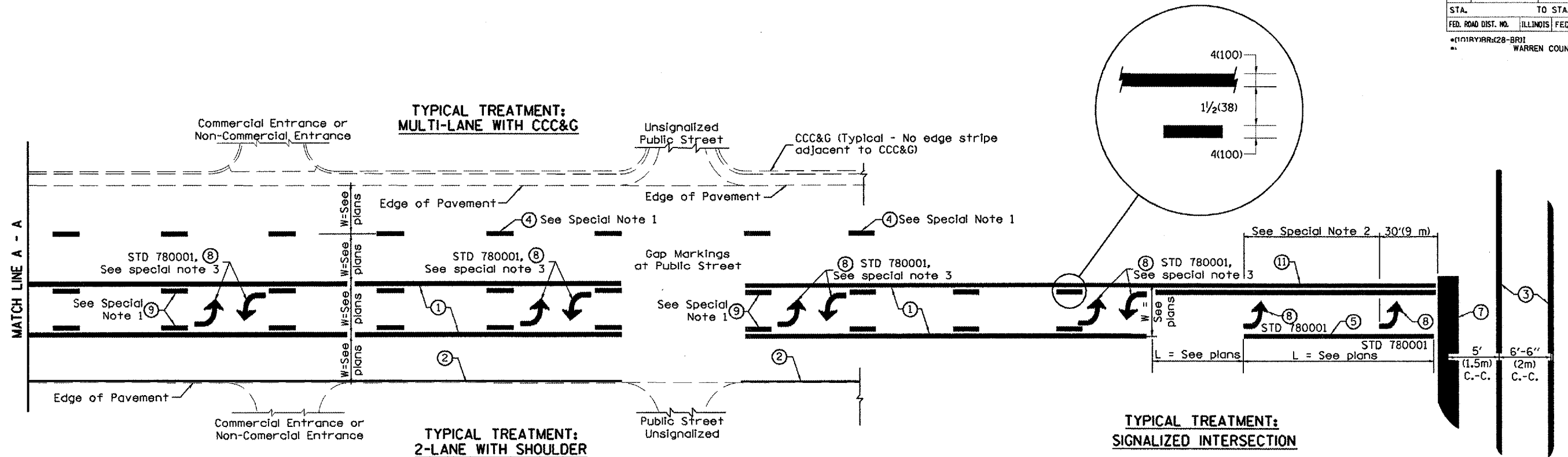
MARKER CAST IN PLACE TYPE II

DATE	REVISIONS	BY
1-1-97	RENUM. D-3.01, NEW REVISION BOX	T.P.
	ADD DESIGNER NOTE, REVISED TITLE BOX	
7-7-98	ADD DESIGNER NOTE	J.A.
5-24-06	REMOVED GEN. NOTE UNDER TIES	M.A.
10-18-06	REVISED TO 2007 SPEC.	M.A.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
PERMANENT SURVEY TIE	
&	
PERMANENT SURVEY MARKERS TY.I - TY.II	
CADD STD. NO. 667101-D4	DRAWN BY CADD
SCALE: NOT DRAWN TO SCALE	CHECKED BY

\$\$\$DATE\$\$\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	..	97	84
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
*(11)RYR&28-BRI				
.. WARREN COUNTIES				



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) (See Std. 780001 and Special Notes 2 & 3)
- 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) (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.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

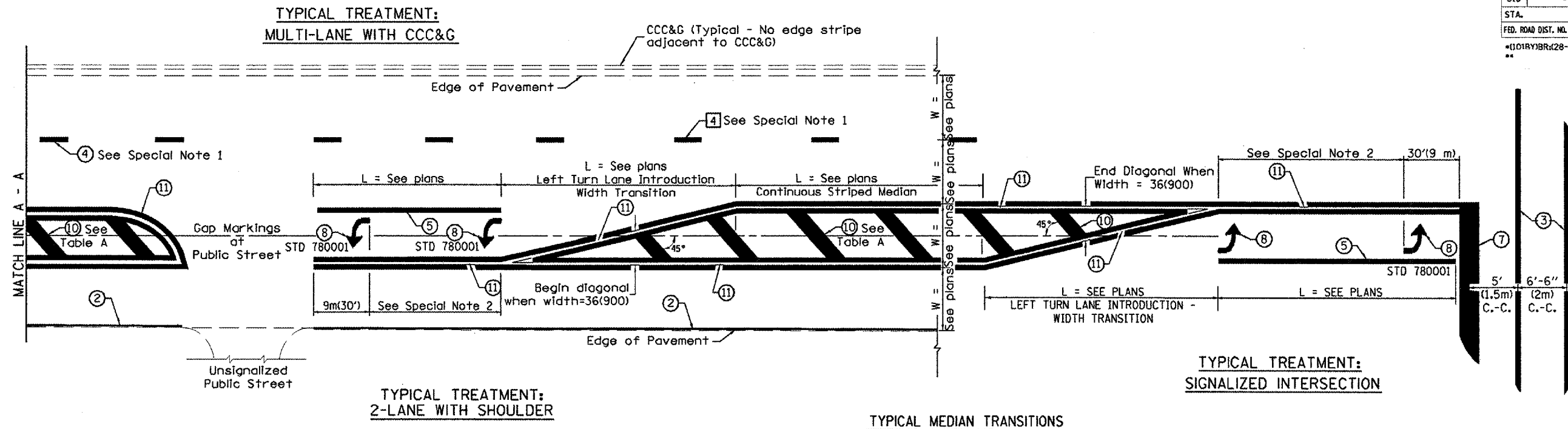
TYPICAL PAVEMENT MARKINGS

DATE	REVISIONS	BY
1-1-97	RENUM. F-8.03, NEW REVISION BOX	T.P.
2-7-97	ADD BI DIRECTIONAL DIMENSION	J.A.
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.
8-02	ADD CROSSWALK DIMNS. WITH T.S.	M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.

CADD STANDARD 780001-D4 SHEET 1 OF 2
SCALE: NOT DRAWN TO SCALE
DRAWN BY CADD
CHECKED BY

\$\$\$DATE\$\$\$

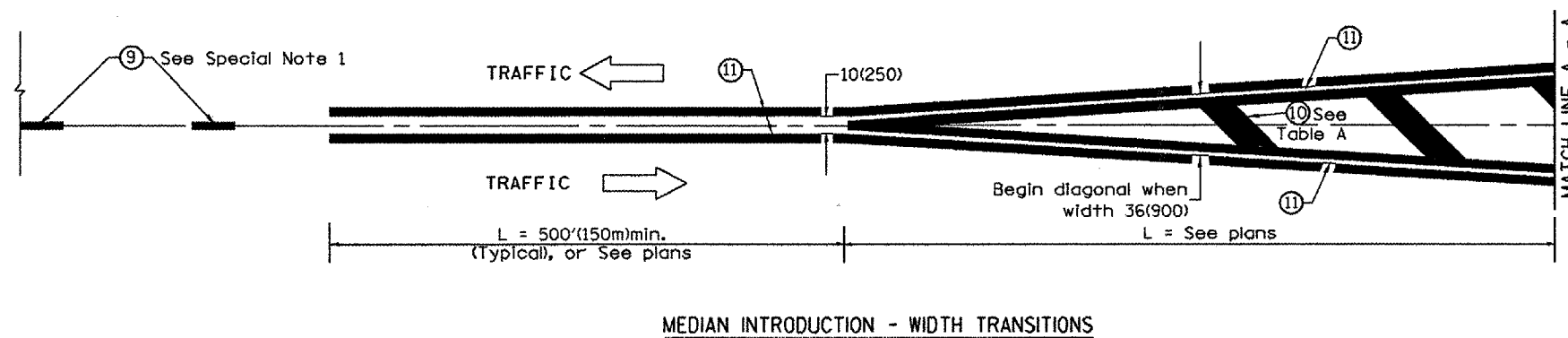
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	.	**	97	85
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*101BYBR(28-BR) WARREN COUNTIES				



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.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

TYPICAL PAVEMENT MARKINGS

CADD STANDARD 780001-D4
SCALE: NOT DRAWN TO SCALE

SHEET 2 OF 2
DRAWN BY CADD
CHECKED BY

\$\$\$DATE\$\$\$

CONTRACT NO. 88798

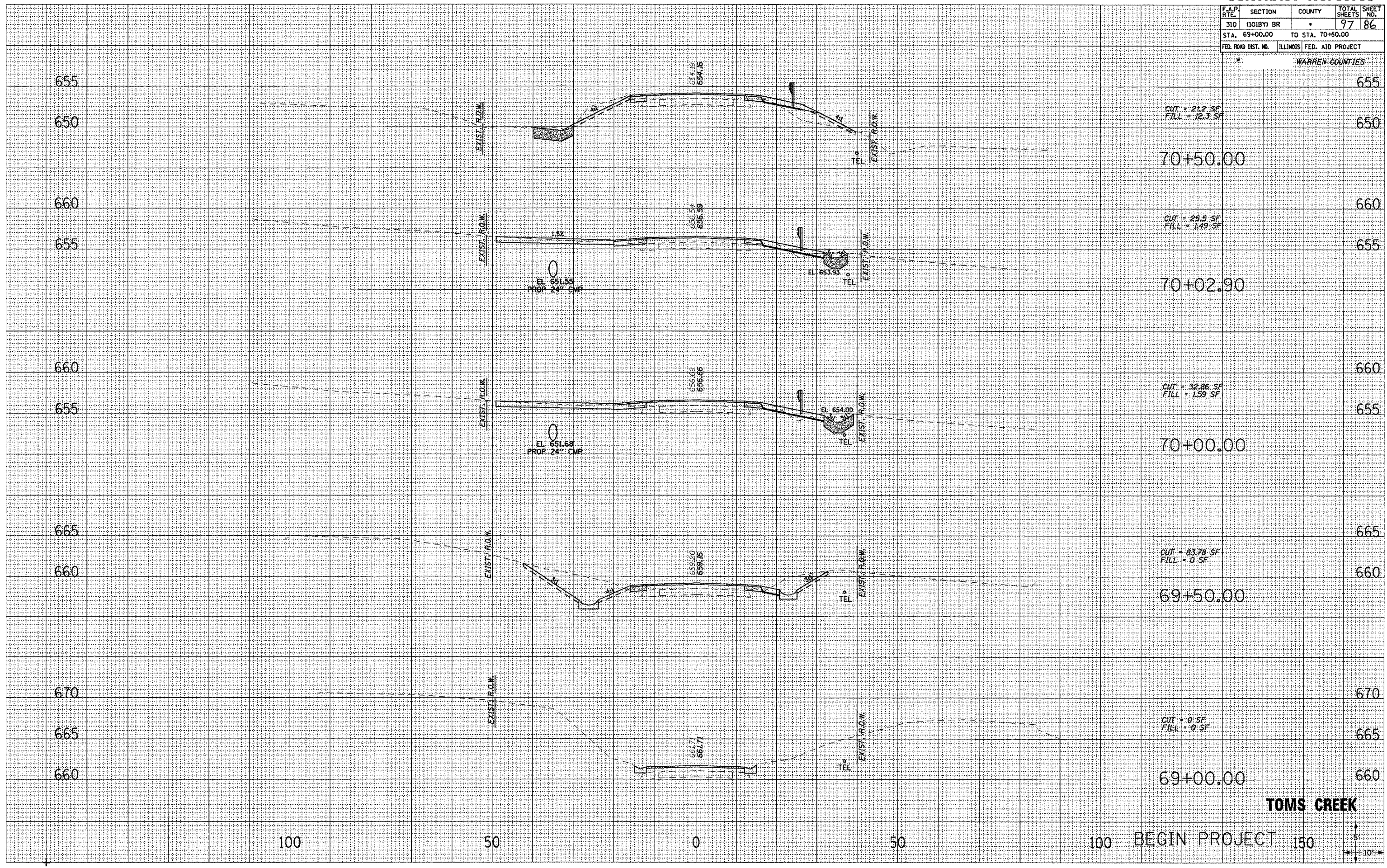
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(101BY) BR		97	86

STA. 69+00.00 TO STA. 70+50.00
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

WARREN COUNTIES

FINAL SURVEY	DATE
REVISIONS	
NO. 1	

ORIGINAL SURVEY	DATE
REVISIONS	
NO. 1	



TOMS CREEK

100 50 0 50 100 BEGIN PROJECT 150



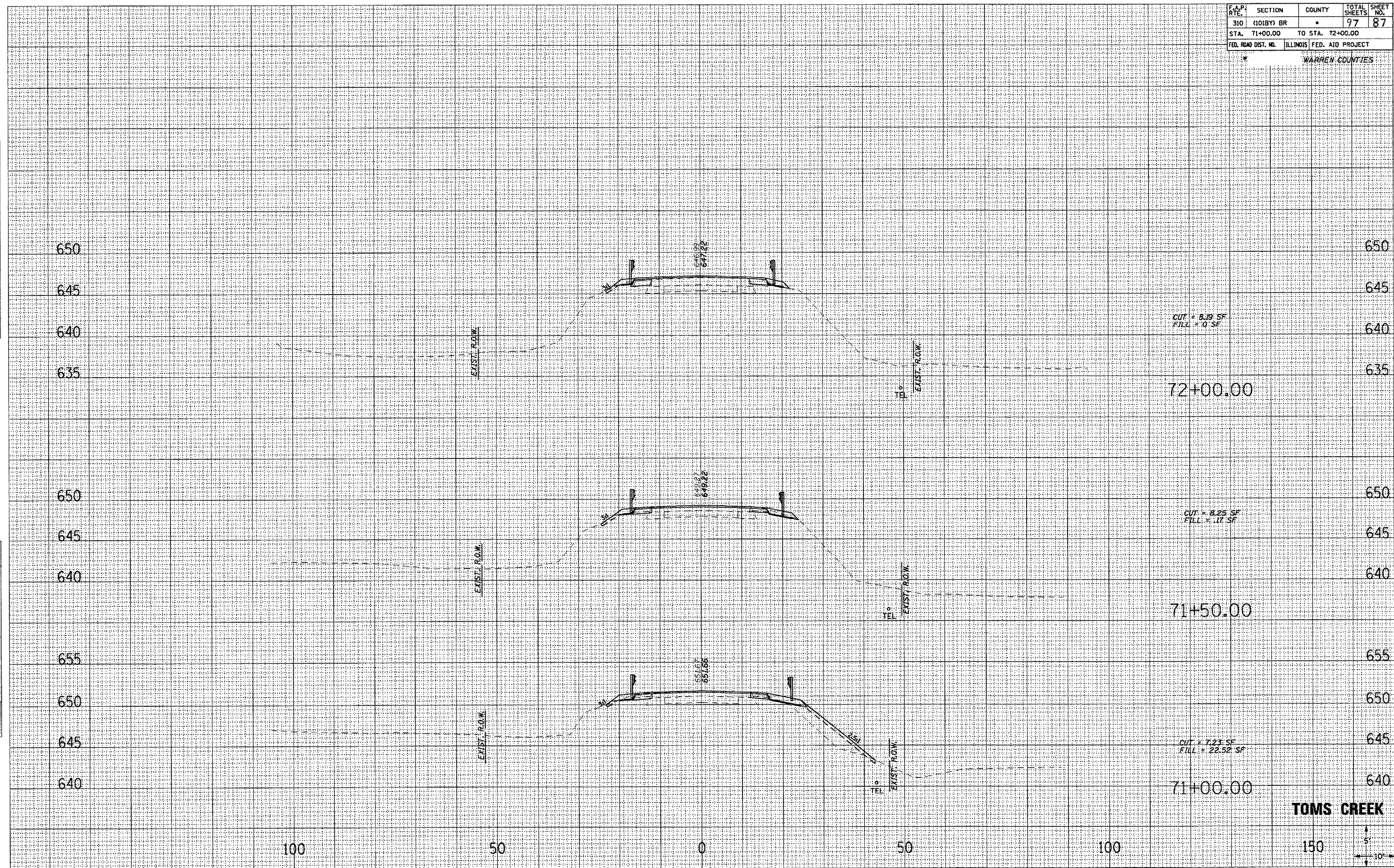
CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(101BY) BR	*	97	87
STA. 71+00.00		TO STA. 72+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

* WARREN COUNTIES

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

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



TOMS CREEK



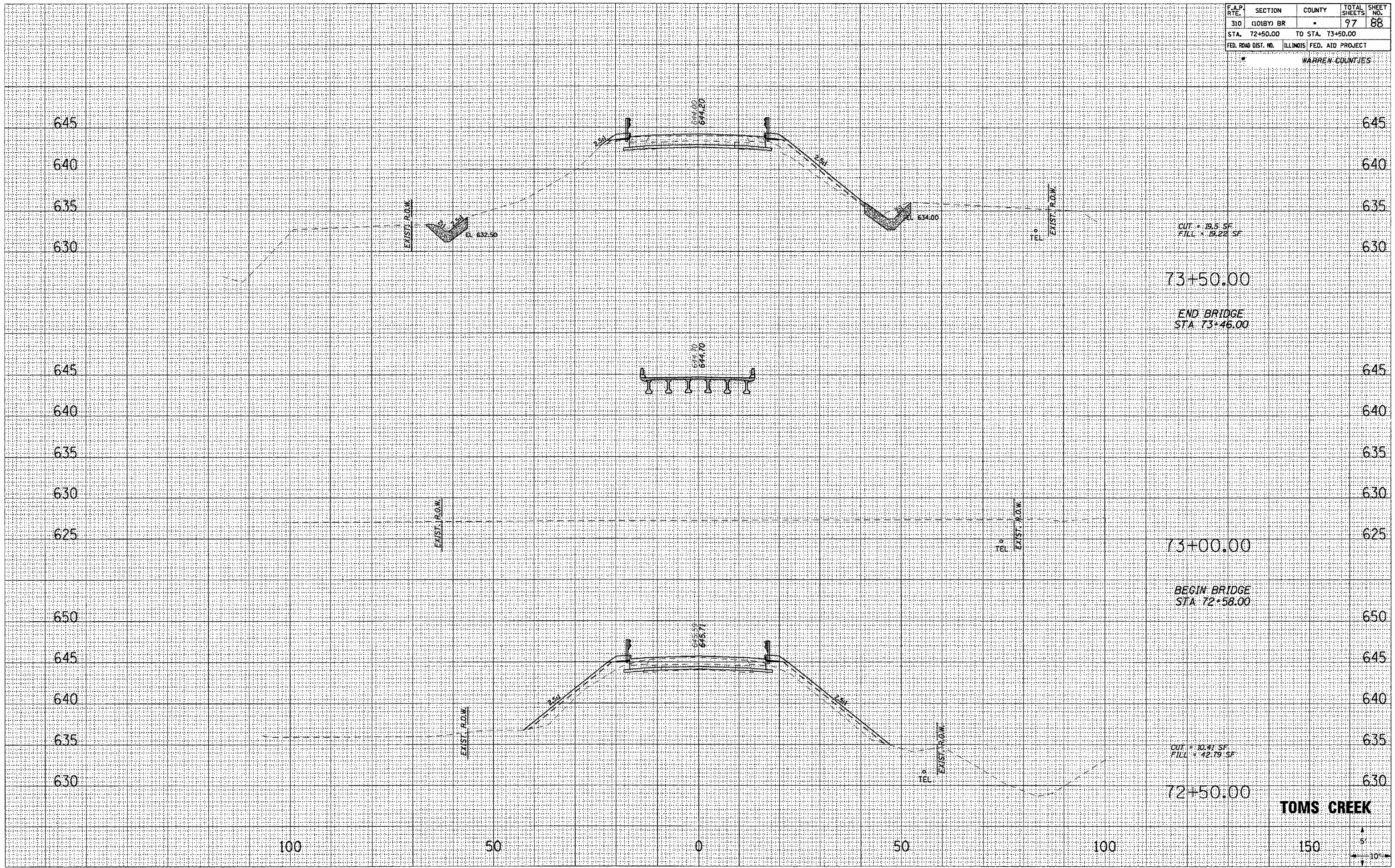
CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(1018Y) BR	*	97	88
STA. 72+50.00		TO STA. 73+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

WARREN COUNTIES

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	



CUT = 19.5 SF
 FILL = 19.22 SF
 73+50.00
 END BRIDGE
 STA 73+46.00

73+00.00
 BEGIN BRIDGE
 STA 72+58.00

CUT = 10.41 SF
 FILL = 42.79 SF
 72+50.00

TOMS CREEK

100

50

0

50

100

150



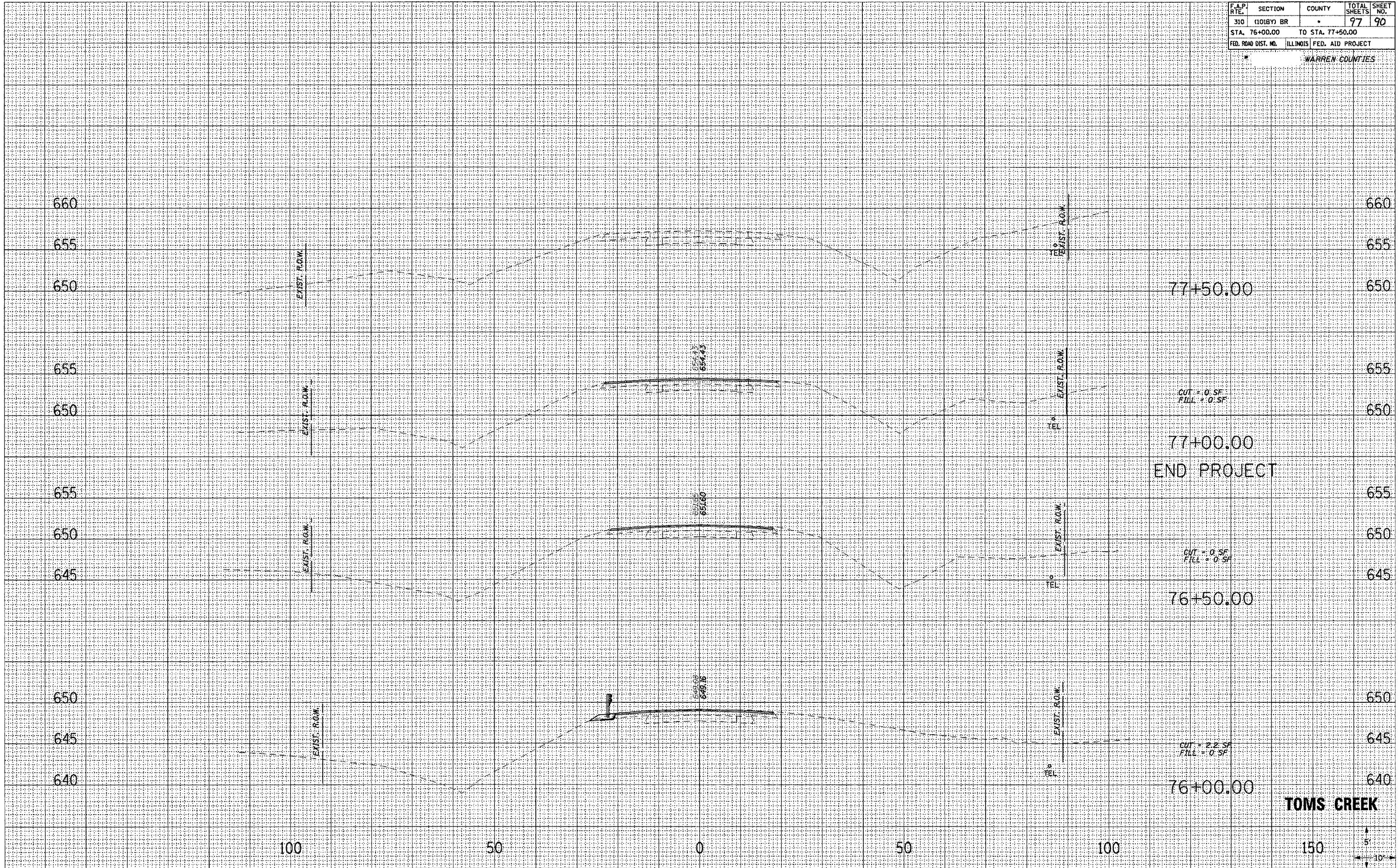
CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(1018Y) BR	*	97	90
STA. 76+00.00 TO STA. 77+50.00				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

WARREN COUNTIES

BY	DATE
ORIGINAL SURVEY	DATE
SAVED SURVEY	DATE
PLOTTED	DATE
NOTE BOOK	DATE
NO.	

BY	DATE
ORIGINAL SURVEY	DATE
SAVED SURVEY	DATE
PLOTTED	DATE
NOTE BOOK	DATE
NO.	



TOMS CREEK

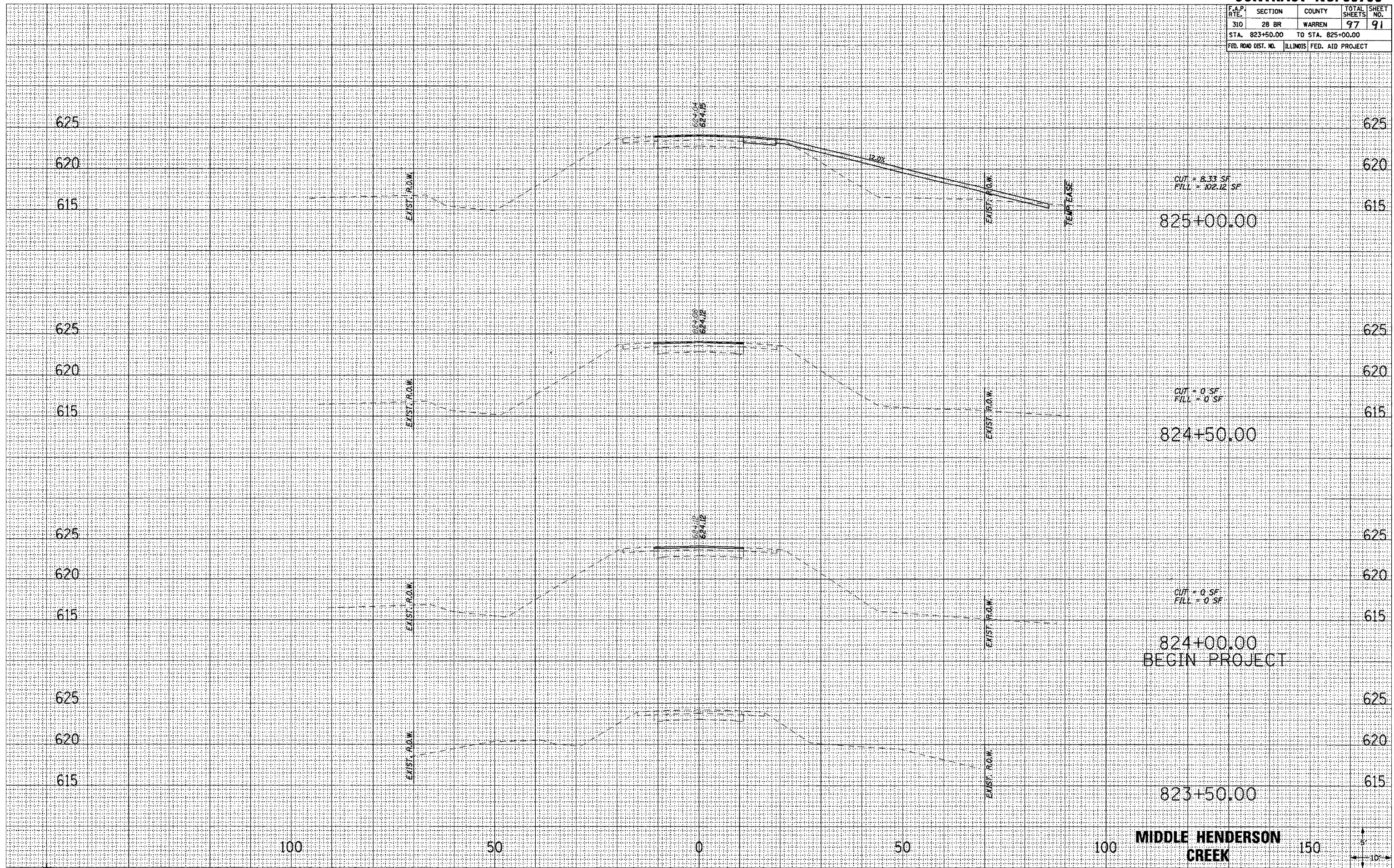


CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	97	91
STA. 823+50.00 TO STA. 825+00.00				
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

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

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

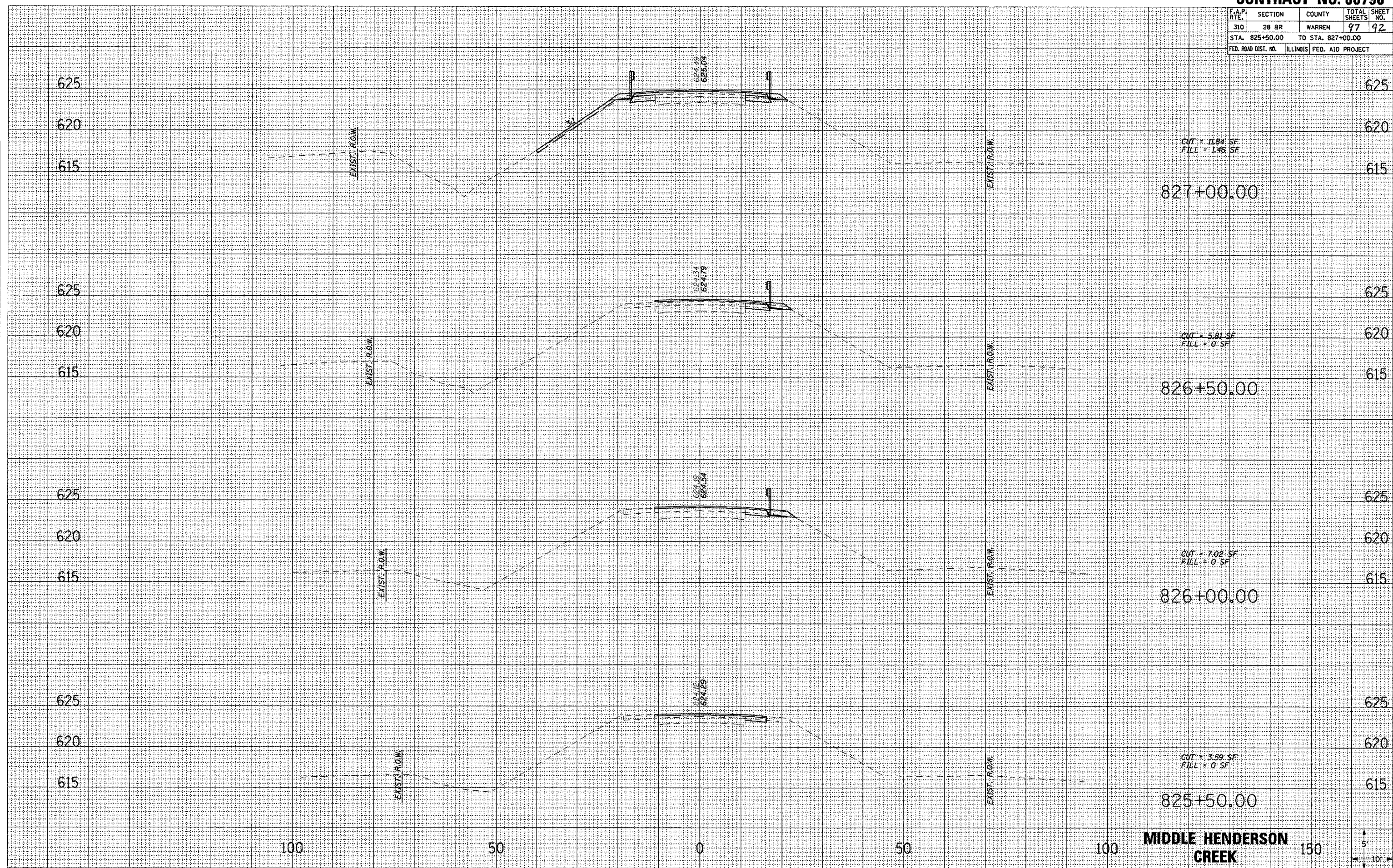


CONTRACT NO. 88798

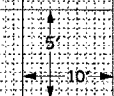
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	97	92
STA. 825+50.00		TO STA. 827+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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



MIDDLE HENDERSON CREEK

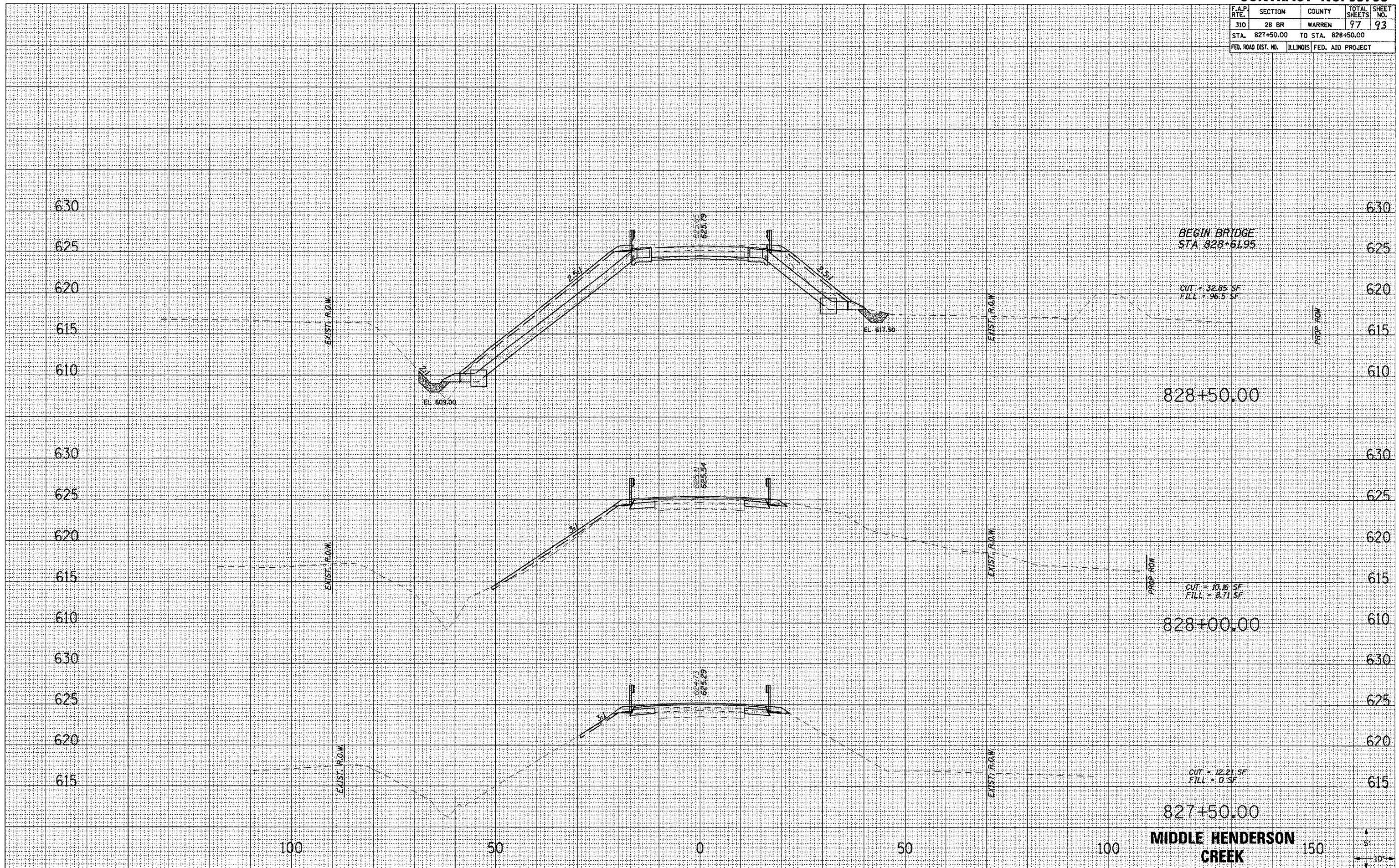


CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	97	93
STA. 827+50.00		TO STA. 828+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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

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

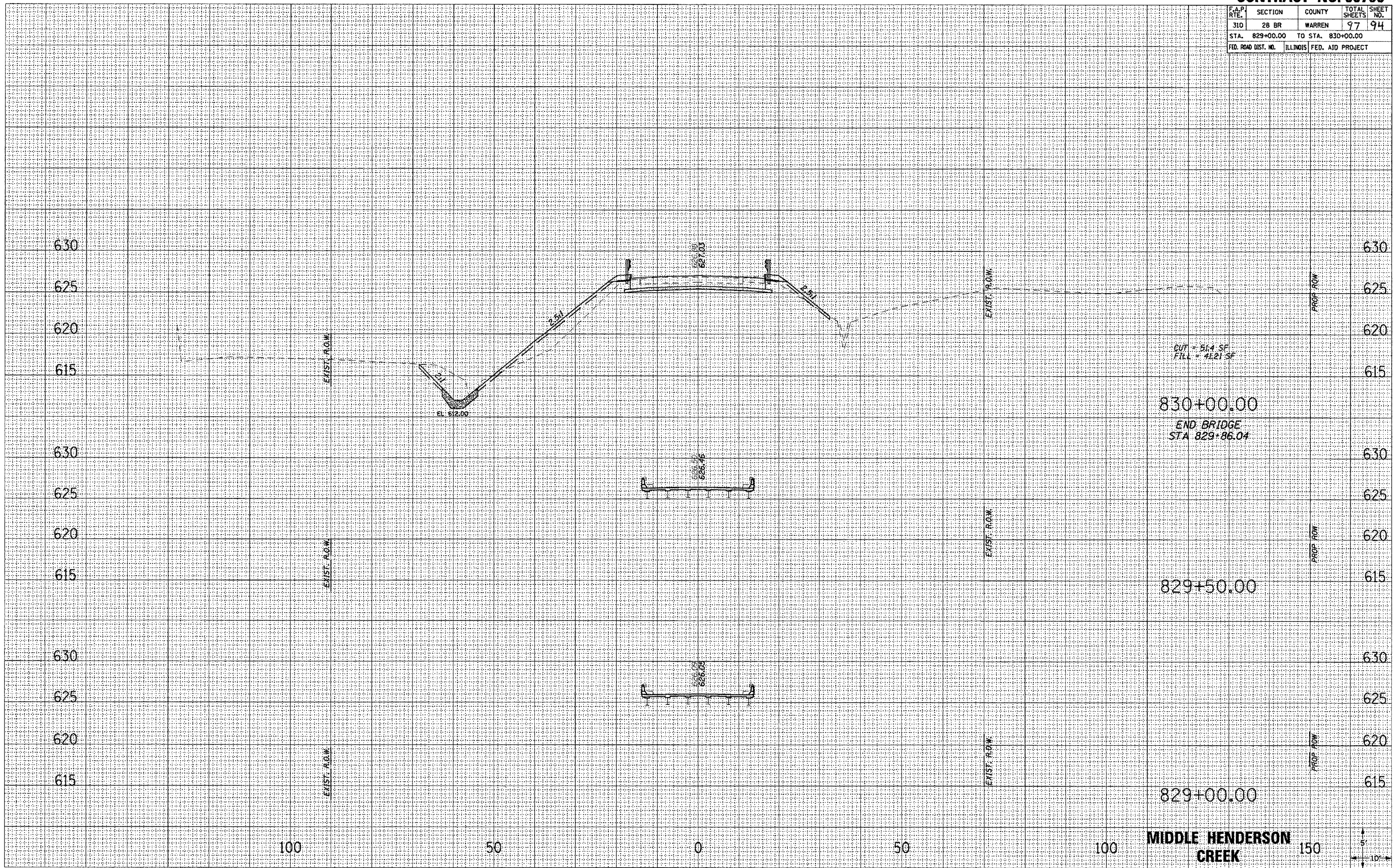


CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	97	94
STA. 829+00.00		TO STA. 830+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



100

50

0

50

100

MIDDLE HENDERSON CREEK

150

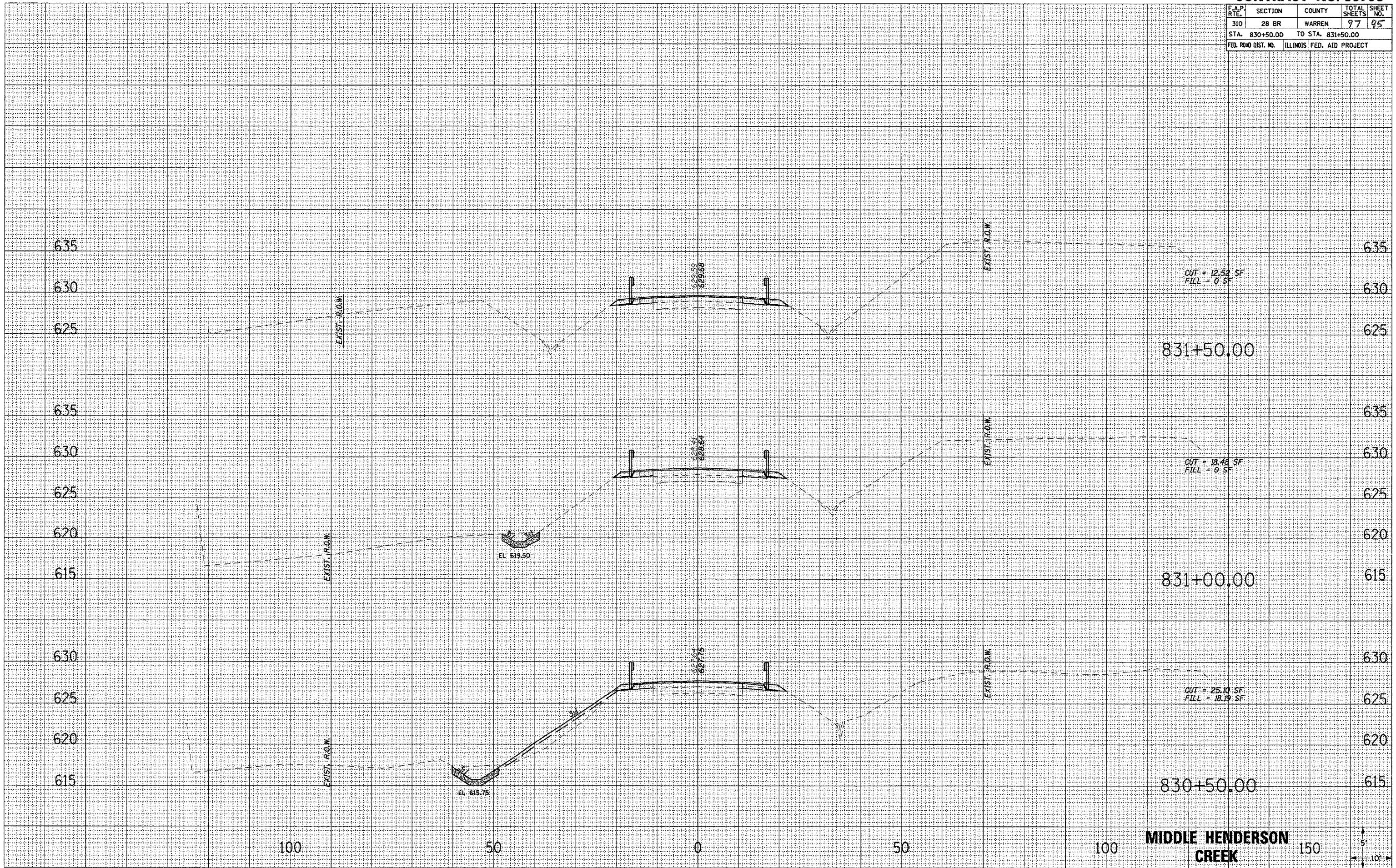


CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	97	95
STA. 830+50.00		TO STA. 831+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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

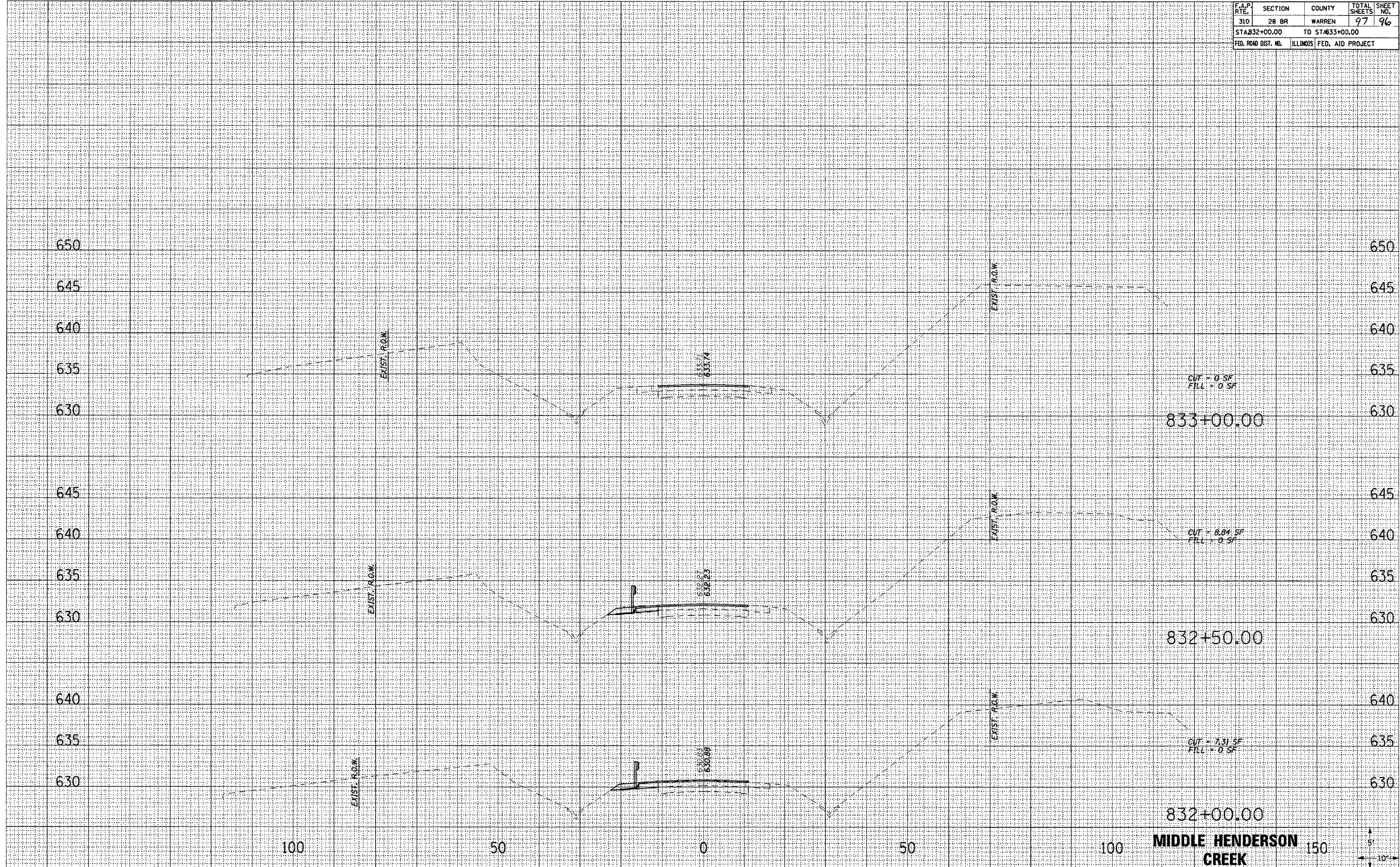


CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	97	96
STA 832+00.00 TO STA 833+00.00				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	DATE
DISK/ETD	BY
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
DISK/ETD	BY
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



CONTRACT NO. 88798

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	28 BR	WARREN	77	97
STA. 833+50.00		TO STA. 834+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY
 SURVEYED BY _____ DATE _____
 SURVEYED BY _____ DATE _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS CHECKED _____
 AREAS CHECKED _____

ORIGINAL SURVEY
 SURVEYED BY _____ DATE _____
 SURVEYED BY _____ DATE _____
 NOTE BOOK _____
 TEMPLATE _____
 AREAS CHECKED _____
 AREAS CHECKED _____

