

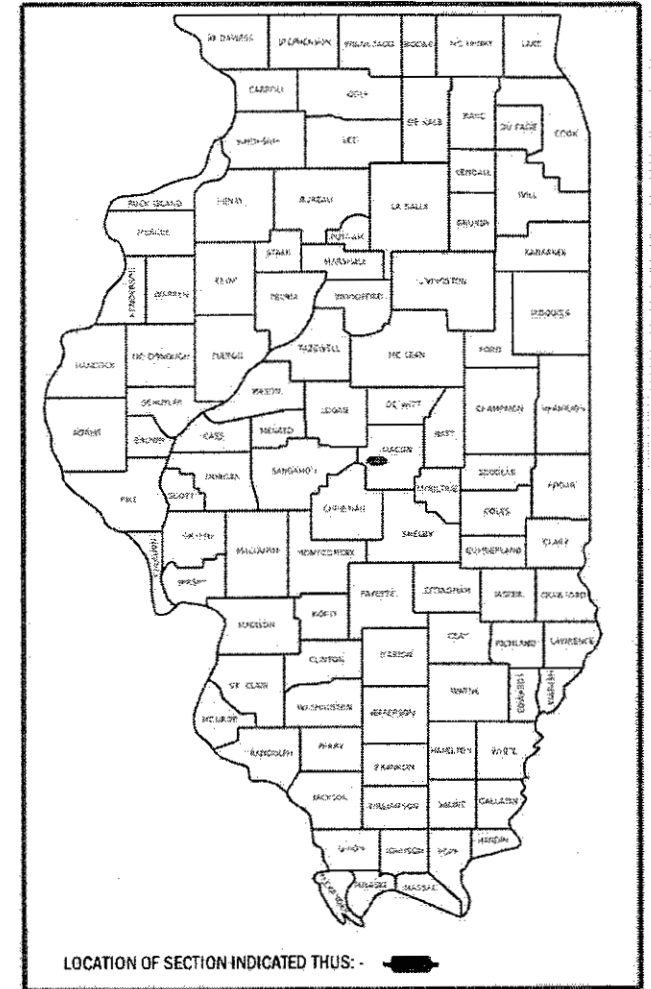
03-09-2018 LETTING ITEM 115

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* 82 + 1 = 83 TOTAL SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	1
ALUMINUMS			CONTRACT NO. 74605	

D-97-004-13



FOR INDEX OF SHEETS, SEE SHEET NO. 2

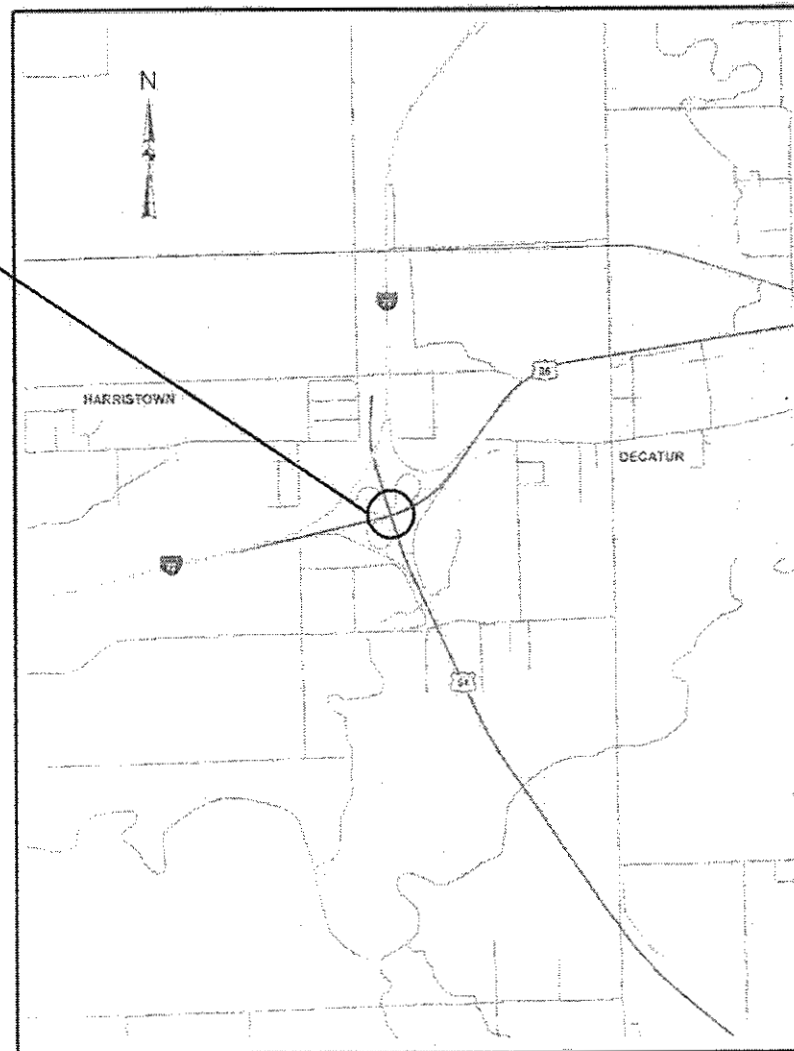
ADT = 4,900 (2017)

PROPOSED HIGHWAY PLANS

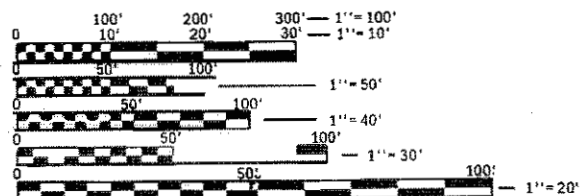
FAP ROUTE 323 (US 36)
SECTION (58-62HB-2)BR
PROJECT NHPP-J631(774)
BRIDGE REHABILITATION (3R)
MACON COUNTY

C-97-009-13

PROJECT LOCATION:
SN 058-0106 (WB) &
SN 058-0107 (EB)



PROJECT LENGTH = 552 FT. = 0.1 MILE



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

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

PROJECT ENGINEER: Tom Ronan
PROJECT MANAGER: Kaleb Hirtzel
PHONE: (217) 342-8256
CONTRACT NO. 74605

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED JANUARY 11 20 18
Jeffrey M. South
REGIONAL ENGINEER

FEB 2 20 18
David P. [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

FEB 2 20 18
David P. [Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES, & HIGHWAY STANDARDS
3-4A	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS
7	SCHEDULES OF QUANTITIES
8-9	PLAN & PROFILE SHEETS
10	GUARDRAIL DETAILS
11	DRAINAGE DETAILS
12-13	TRAFFIC CONTROL & PROTECTION (SPECIAL) DETAILS
14-15	DETOUR SIGNING PLAN
16-19	PAVEMENT MARKING DETAILS
20-58	STRUCTURE PLAN SHEETS & DETAILS
59-82	EXISTING STRUCTURE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 82:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542401-03	METAL FLARED END SECTION FOR PIPE CULVERTS
610001-08	SHOULDER INLET WITH CURB
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-08	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
631031-15	TRAFFIC BARRIER TERMINAL, TYPE 6
667101-02	PERMANENT SURVEY MARKERS
668001-01	U.S. GEOLOGICAL SURVEY AND NATIONAL GEODETIC SURVEY BENCHMARKS, RESETTING METHOD
701101-05	OFF-ROAD OPERATIONS, MULTI-LANE, 15' AWAY TO EDGE OF PAVEMENT
701106-02	OFF-ROAD OPERATIONS, MULTI-LANE, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS >= 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >= 45 MPH
701451-05	RAMP CLOSURE FREEWAY/EXPRESSWAY
701901-07	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
725001-01	OBJECT AND TERMINAL MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

THE WORK INCLUDED IN SECTION (58-62HB-2)BR CONSISTS OF THE COMPLETE REMOVAL AND REPLACEMENT OF THE EXISTING BRIDGE DECKS ON STRUCTURE NUMBER 058-0106 & 058-0107, NEW APPROACH PAVEMENTS, NEW ELASTOMERIC BEARINGS, HOT-MIX ASPHALT RESURFACING, GUARDRAIL, PAVEMENT MARKING, TRAFFIC CONTROL, AND ANY OTHER WORK NECESSARY TO COMPLETE THIS SECTION. THE WORK SHALL BE COMPLETED UTILIZING A MARKED ROUTE DETOUR. THE EXISTING STRUCTURES CARRY EASTBOUND AND WESTBOUND US ROUTE 36 OVER US ROUTE 51 IN HARRISTOWN IN MACON COUNTY.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

GENERAL NOTES (Cont'd)

THE EXISTING PROTECTIVE SHIELD SYSTEM IN PLACE ON THE EXISTING STRUCTURES SHALL BE REMOVED, SALVAGED, AND REMAIN THE PROPERTY OF THE STATE. THE APPROXIMATE AREA OF PROTECTIVE SHIELD TO BE REMOVED IS 2,870 SQ FT FOR SN 058-0106 AND 3,304 SQ FT FOR SN 058-0107. THE EXISTING PROTECTIVE SHIELD SHALL NOT BE USED BY THE CONTRACTOR FOR THE REMOVAL OF THE EXISTING BRIDGE DECKS OR ANY OTHER CONSTRUCTION ON THIS PROJECT. THE CONTRACTOR SHALL CONTACT DAN ZERRUSEN AT 217-342-8377 TO MAKE ARRANGEMENTS FOR STATE MAINTENANCE FORCES TO PICK UP THE PROTECTIVE SHIELD. STATE MAINTENANCE FORCES WILL LOAD THE PROTECTIVE SHIELD ONTO THEIR TRUCKS. A MINIMUM OF 72 HOURS NOTICE WILL BE REQUIRED TO ARRANGE FOR PICKUP OF THE SALVAGED MATERIAL. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF PROTECTIVE SHIELD AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IN LOCATIONS WHERE THE PROPOSED PROFILE IS BELOW THE EXISTING, THE EXISTING AGGREGATE SHOULDERS SHALL BE GRADED AND SHAPED TO MATCH THE NEW EDGE OF SHOULDER ELEVATION. GRADING AND SHAPING THE EXISTING AGGREGATE SHOULDER SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE HOT-MIX ASPHALT SHOULDERS.

THE MATERIAL USED FOR AGGREGATE WEDGE SHOULDER, TYPE B SHALL BE CRUSHED STONE, CRUSHED CONCRETE, OR RAP.

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

A TYPE II CAST IN PLACE PERMANENT SURVEY MARKER SHALL BE PLACED NEAR STRUCTURE 058-0107. THE TABLET STYLE SHALL CONFORM TO STANDARD 667101-02 AND THE CAST IN PLACE BASE WILL CONFORM TO STANDARD 668001-01. A PERMANENT SURVEY MARKER, TYPE I SHALL BE PLACED ON THE PARAPET WALL OF STRUCTURE 058-0106. THE LOCATION OF THE SURVEY MARKERS SHALL BE DETERMINED BY THE ENGINEER AND THE CHIEF OF SURVEYS. THE SURVEY MARKER LOCATION WILL ALSO BE CROSS TIED AND ELEVATED BY IDOT PERSONNEL.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	QUALITY MANAGEMENT
POLYMERIZED HMA SURFACE COURSE, IL 9.5, MIX "D", N90	SBS 70-22	4.0% @ N=90	IL - 9.5	MIXTURE D	QC/QA
HMA BINDER COURSE, IL 19.0, N90	PG 64-22	4.0% @ N=90	IL - 19.0	N/A	QC/QA
HMA SHOULDERS, (TOP LIFT)	PG 64-22	4.0% @ N=70	IL - 9.5	C	QC/QA
HMA SHOULDERS, (BOTTOM LIFTS)	PG 64-22	4.0% @ N=70	IL - 19.0	N/A	QC/QA

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING PLAN QUANTITIES:

AGGREGATE SHOULDERS	2.05 TONS/CU. YD.
HOT-MIX ASPHALT	112 LBS./SQ. YD./INCH

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS &
GENERAL NOTES**

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	2
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				

80% FEDERAL
20% STATE

80% FEDERAL
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0013		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1184	1184		
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	44	44		
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	160	160		
44000300	CURB REMOVAL	FOOT	26	26		
44004250	PAVED SHOULDER REMOVAL	SQ YD	21	21		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	24	24		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	70	70		
50104650	SLOPE WALL REMOVAL	SQ YD	759	759		
50104701	REMOVAL OF EXISTING CONCRETE DECK NO. 1	EACH	1	1		
50104702	REMOVAL OF EXISTING CONCRETE DECK NO. 2	EACH	1	1		
50157300	PROTECTIVE SHIELD	SQ YD	1532	1532		
50300100	FLOOR DRAINS	EACH	14	14		
50300225	CONCRETE STRUCTURES	CU YD	21	21		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0013		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1289.4	1289.4		
50300260	BRIDGE DECK GROOVING	SQ YD	3810	3810		
50300300	PROTECTIVE COAT	SQ YD	4533	4533		
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	9710	9710		
50500505	STUD SHEAR CONNECTORS	EACH	1704	1704		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	338590	338590		
51100100	SLOPE WALL 4 INCH	SQ YD	759	759		
51500100	NAME PLATES	EACH	2	2		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	221	221		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	34	34		
52100505	ANCHOR BOLTS, 5/8"	EACH	136	136		
54262712	METAL FLARED END SECTIONS 12"	EACH	1	1		
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	3.1	3.1		
60100945	PIPE DRAINS 12"	FOOT	153	153		

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14

USER NAME = steffenmk PLOT SCALE = 100.0000' / in. PLOT DATE = 1/12/2018	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES SCALE: N/A SHEET 1 OF 3 SHEETS STA. TO STA.	F.A.P. RATE: 323 SECTION: (58-62HB-2)BR COUNTY: MACON TOTAL SHEETS: 82 SHEET NO.: 3 CONTRACT NO. 74605 ILLINOIS FED. AID PROJECT
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80% FEDERAL
20% STATE

80% FEDERAL
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0013		
60500060	REMOVING INLETS	EACH	4	4		
61000050	CONCRETE THRUST BLOCKS	EACH	2	2		
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	2	2		
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	575	575		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	558	558		
66201120	CONCRETE SHOULDER CURB	FOOT	30	30		
67100100	MOBILIZATION	LSUM	1	1		
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	L SUM	1	1		
70100820	TRAFFIC CONTROL AND PROTECTION, STANDARD 701451	LSUM	1	1		
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0013		
* 78003110	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4"	FOOT	3755	3755		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	8	8		
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	14	14		
X0323586	PIPE DRAIN REMOVAL	FOOT	90	90		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SO YD	2378	2378		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	1		
* X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	3756	3756		
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	34	34		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	24	24		
Z0016702	DETOUR SIGNING	LSUM	1	1		
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	4	4		
Z0026400	FURNISHING AND PLACING SAND FILL	CU YD	80	80		

* SPECIALTY ITEM

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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

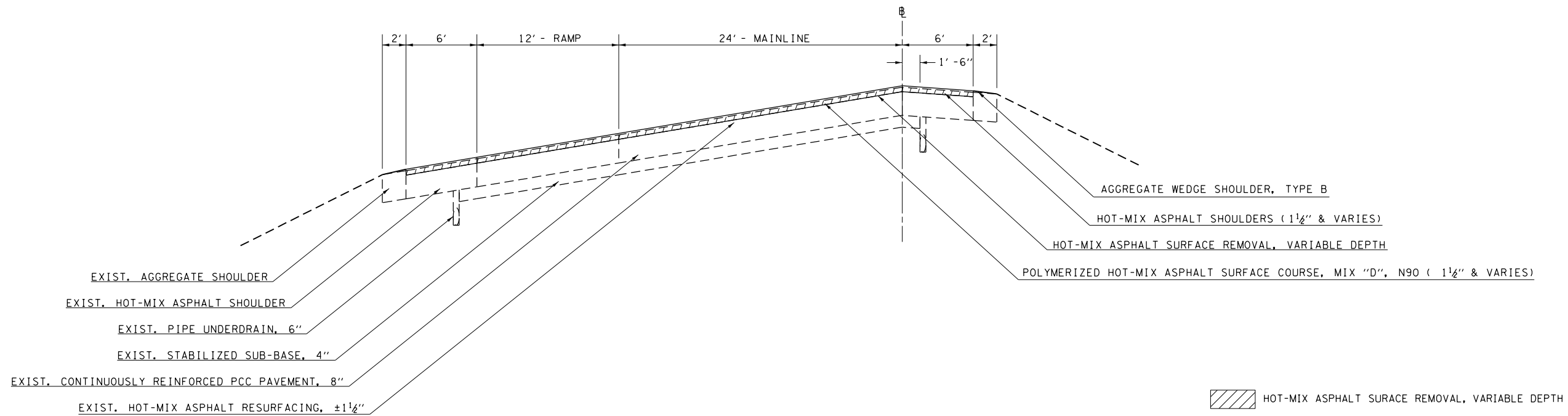
SUMMARY OF QUANTITIES

SCALE: N/A SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 323	SECTION (58-62HB-2)BR	COUNTY MACON	TOTAL SHEETS 82	SHEET NO. 4
CONTRACT NO. 74605			ILLINOIS FED. AID PROJECT	

TYPICAL CROSS SECTIONS - WESTBOUND US 36

STATION 386+34.6 TO STATION 387+34.6
 STATION 387+34.6 TO STATION 390+86.6 (BRIDGE OMISSION)

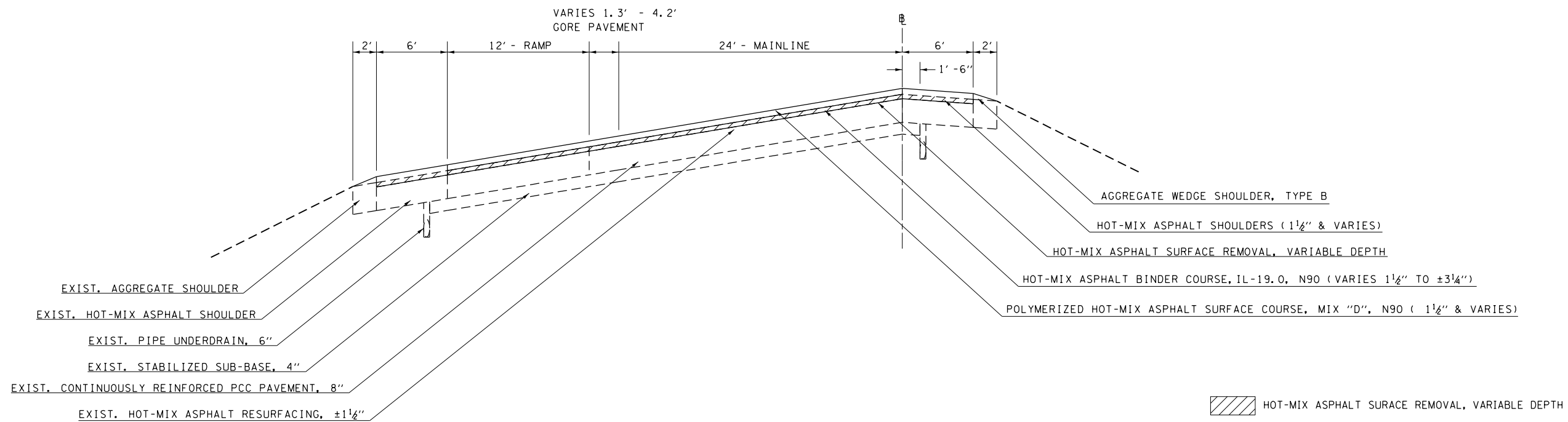


HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

NOTE: NOT DRAWN TO SCALE

TYPICAL CROSS SECTIONS - WESTBOUND US 36

STATION 390+86.6 TO STATION 391+86.6



HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

NOTE: NOT DRAWN TO SCALE

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PLOT DATE = 1/10/2018	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

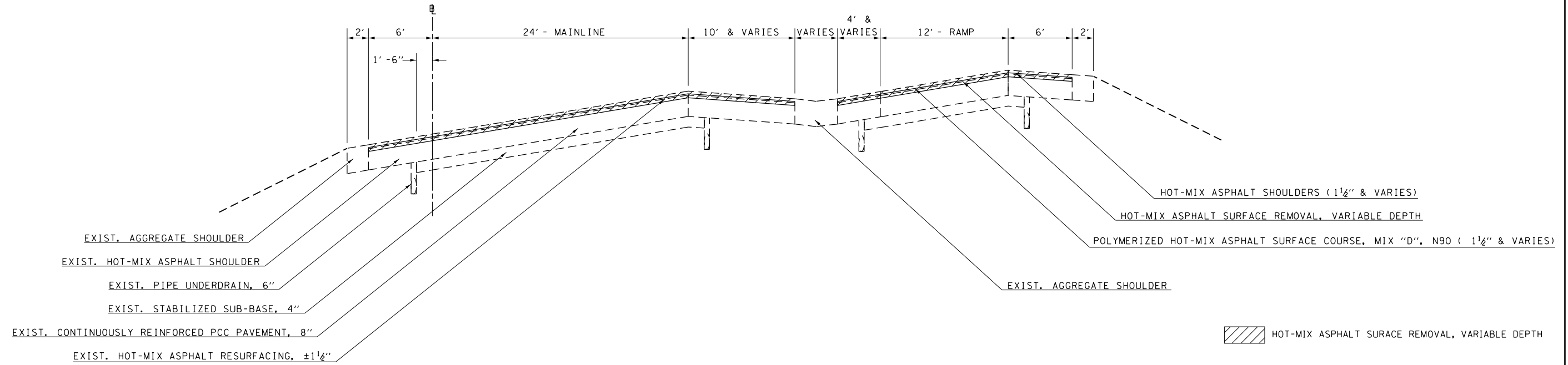
TYPICAL SECTIONS

SCALE: N/A SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	5
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				

TYPICAL CROSS SECTIONS - EASTBOUND US 36

STATION 586+10.5 TO STATION 587+10.5
 STATION 587+10.5 TO STATION 590+39.5 (BRIDGE OMISSION)

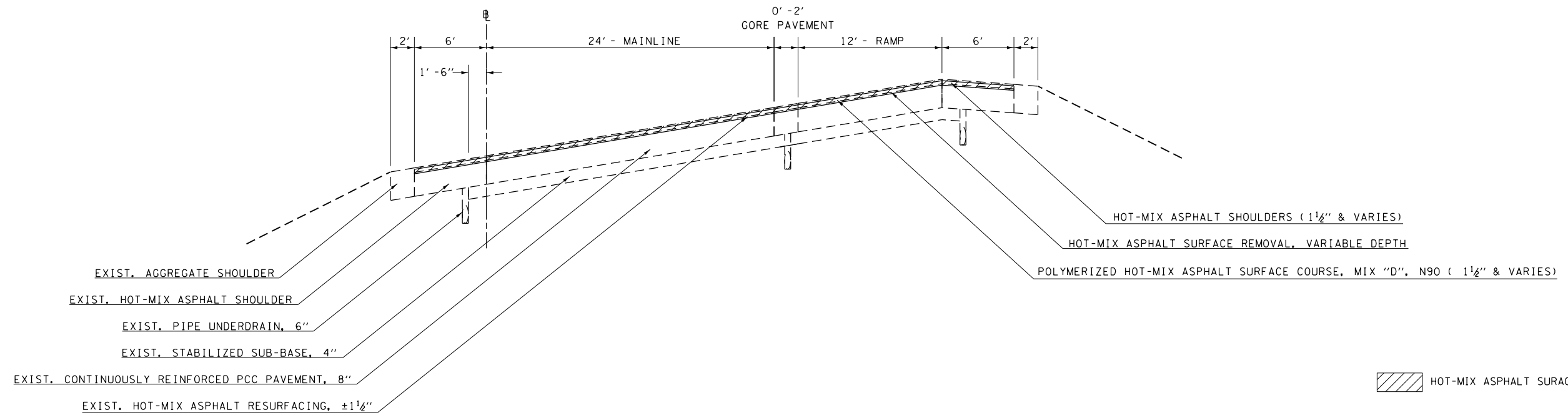


HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

NOTE: NOT DRAWN TO SCALE

TYPICAL CROSS SECTIONS - EASTBOUND US 36

STATION 590+39.5 TO STATION 591+39.5



HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

NOTE: NOT DRAWN TO SCALE

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PLOT DATE = 1/10/2018	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	6
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				

PAVING SCHEDULE				LENGTH	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N90	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	HOT-MIX ASPHALT SHOULDERS	AGGREGATE WEDGE SHOULDER, TYPE B
STATION	TO	STATION	FOOT	SO YD	POUND	TON	TON	TON	TON	
WESTBOUND										
386+34.6	TO	387+34.6	100.0	533.3	240.0	-	44.1	14.7	5.1	
387+34.6	TO	390+86.6	352.0	-	-	-	-	-	-	
390+86.6	TO	391+86.6	100.0	588.9	378.5	43.9	36.9	25.0	5.1	
WESTBOUND TOTALS:			552.0	1122.2	618.5	43.9	81.0	39.7	10.2	
EASTBOUND										
586+10.5	TO	586+61.0	50.5	347.9	156.6	-	17.3	12.5	5.8	
586+61.0	TO	587+10.5	49.5	352.0	158.4	-	24.0	5.5	2.5	
587+10.5	TO	590+39.5	329.0	-	-	-	-	-	-	
590+39.5	TO	591+39.5	100.0	555.6	250.0	-	36.9	11.7	5.1	
EASTBOUND TOTALS:			529.0	1255.5	565.0	0.0	78.2	29.7	13.4	
PROJECT TOTALS:			1081	2378	1184	44	160	70	24	

GUARDRAIL REMOVAL SCHEDULE				GUARDRAIL REMOVAL
STATIONING		SIDE	(FOOT)	
FROM	TO			
WESTBOUND				
390+62.6	392+56.6	LT	177.0	
390+94.0	391+97.5	RT	102.0	
WESTBOUND TOTALS:			279.0	
EASTBOUND				
585+38.8	587+10.6	LT	177.0	
586+09.9	587+10.5	RT	102.0	
EASTBOUND TOTALS:			279.0	
TOTALS:			558.0	

PAVEMENT MARKING SCHEDULE							
STATION	TO	STATION	LENGTH FOOT	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4", (WHITE)	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4", (YELLOW)	GROOVING FOR RECESSED PAVEMENT MARKING 3"	RAISED REFLECTIVE PAVEMENT MARKERS (ONE-WAY CRYSTAL)
WESTBOUND							
386+34.6	TO	387+34.6	100.0	125.0	100.0	225.0	2
387+34.6	TO	390+31.6	297.0	371.3	297.0	668.3	-
390+31.6	TO	390+86.6	55.0	178.8	55.0	233.8	-
390+86.6	TO	391+86.6	100.0	325.0	100.0	425.0	2
WESTBOUND TOTALS:			552.0	1000.0	552.0	1552.0	4
EASTBOUND							
586+10.5	TO	587+10.5	100.0	325.0	100.0	425.0	2
587+10.5	TO	590+39.5	329.0	1069.3	329.0	1398.3	-
590+39.5	TO	590+94.5	55.0	178.8	55.0	233.8	1
590+94.5	TO	591+39.5	45.0	101.3	45.0	146.3	1
EASTBOUND TOTALS:			529.0	1674.3	529.0	2203.3	4
PROJECT TOTALS:			1081	2674	1081	3755	8

GUARDRAIL SCHEDULE							
STATIONING		SIDE	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE I (SPECIAL) TANGENT (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6 (EACH)	GUARDRAIL REFLECTORS, TYPE A (EACH)	TERMINAL MARKER - DIRECT APPLIED (EACH)
FROM	TO						
WESTBOUND							
390+94.8	391+33.1	LT	-	-	1	1	-
391+33.1	392+47.9	LT	112.5	-	-	2	-
392+47.9	392+60.7	LT	-	1	-	-	1
390+85.7	391+23.1	RT	-	-	1	1	-
391+23.1	393+11.0	RT	187.5	-	-	3	-
393+11.0	393+23.5	RT	-	1	-	-	1
WESTBOUND TOTALS:			300.0	2	2	7	2
EASTBOUND							
584+73.0	584+85.5	LT	-	1	-	-	1
584+85.5	586+73.0	LT	187.5	-	-	3	-
586+73.0	587+10.5	LT	-	-	1	1	-
585+72.5	585+85.0	RT	-	1	-	-	1
585+85.0	586+72.3	RT	87.5	-	-	2	-
586+72.3	587+09.7	RT	-	-	1	1	-
EASTBOUND TOTALS:			275.0	2	2	7	2
TOTALS:			575.0	4	4	14	4

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USER NAME = steffemk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/10/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: N/A				SHEET 1 OF 1 SHEETS				STA. TO STA.			
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SCHEDULE OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	7
CONTRACT NO. 74605				
ILLINOIS		FED. AID PROJECT		

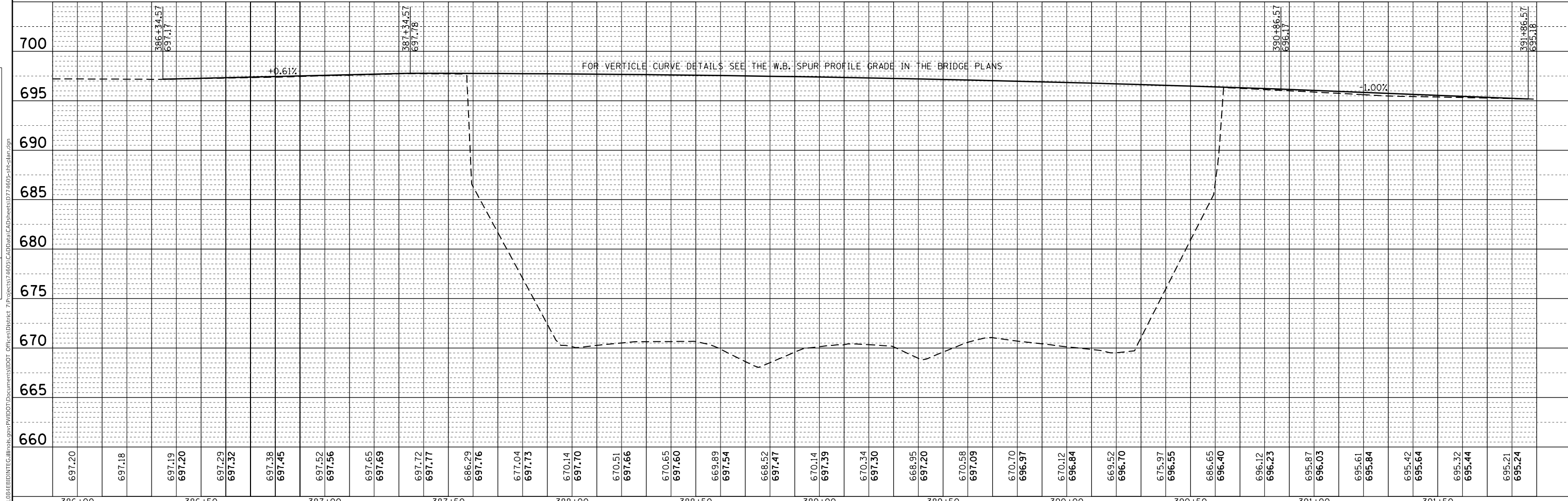
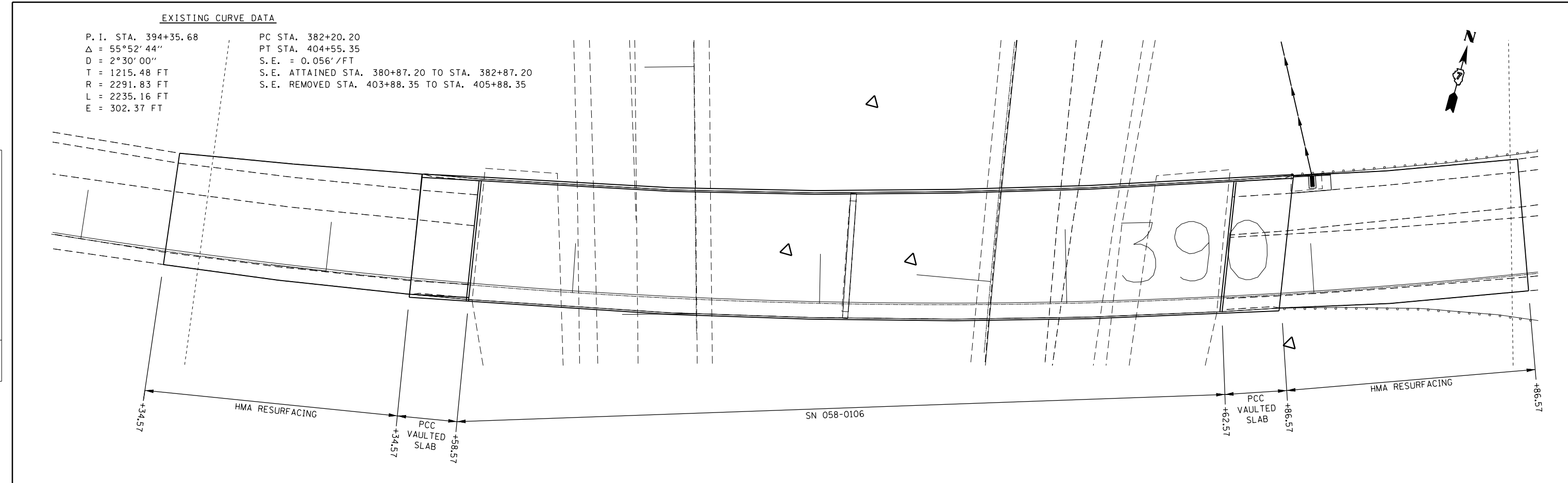
EXISTING CURVE DATA

P. I. STA. 394+35.68
 $\Delta = 55^\circ 52' 44''$
 $D = 2^\circ 30' 00''$
 $T = 1215.48 \text{ FT}$
 $R = 2291.83 \text{ FT}$
 $L = 2235.16 \text{ FT}$
 $E = 302.37 \text{ FT}$

PC STA. 382+20.20
 PT STA. 404+55.35
 $S.E. = 0.056' / \text{FT}$
 S.E. ATTAINED STA. 380+87.20 TO STA. 382+87.20
 S.E. REMOVED STA. 403+88.35 TO STA. 405+88.35

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	NOTE BOOK	
	NO.	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	NOTE BOOK	
	NO.	
	STRUCTURE NOTATIONS SWHD	



650	USER NAME = stefenmk	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE WESTBOUND US 36		F.A.P. RTE. 323	SECTION (58-62HB-2)BR	COUNTY MACON	TOTAL SHEETS 82	SHEET NO. 8	
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISD -		SCALE: 1" = 20'	SHEET 1	OF 4 SHEETS	STA. 386+34.57	TO STA. 391+86.57	CONTRACT NO. 74605		
	PLOT DATE = 1/10/2018	DATE -	REVISD -		ILLINOIS FED. AID PROJECT							

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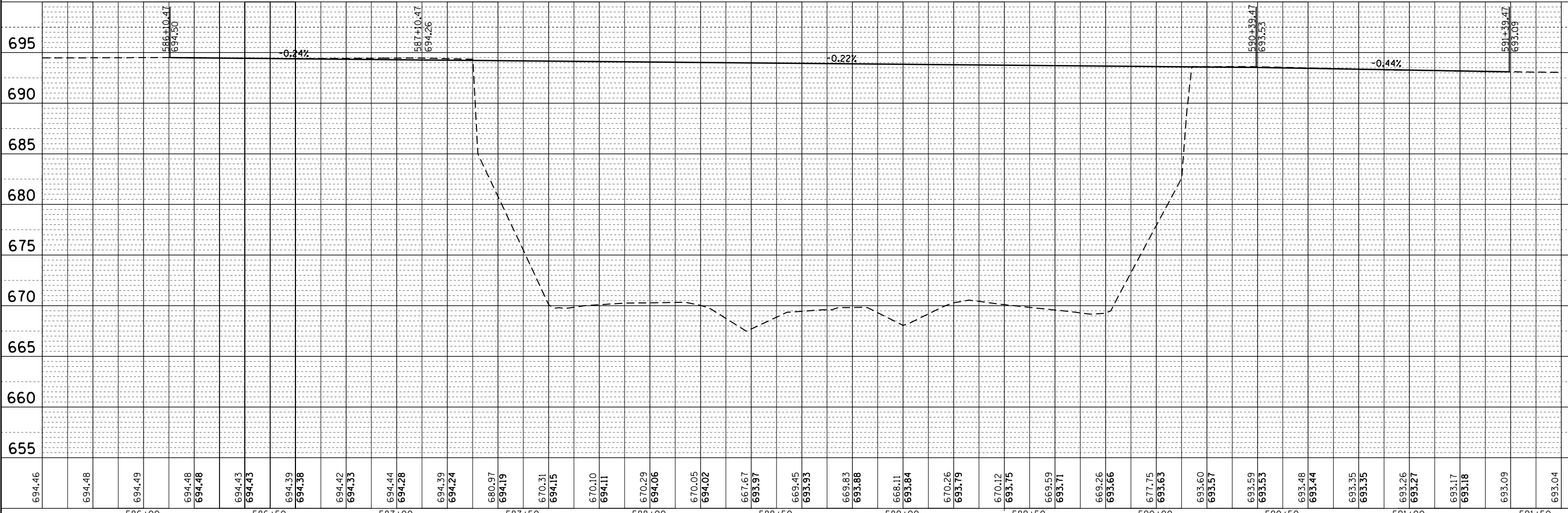
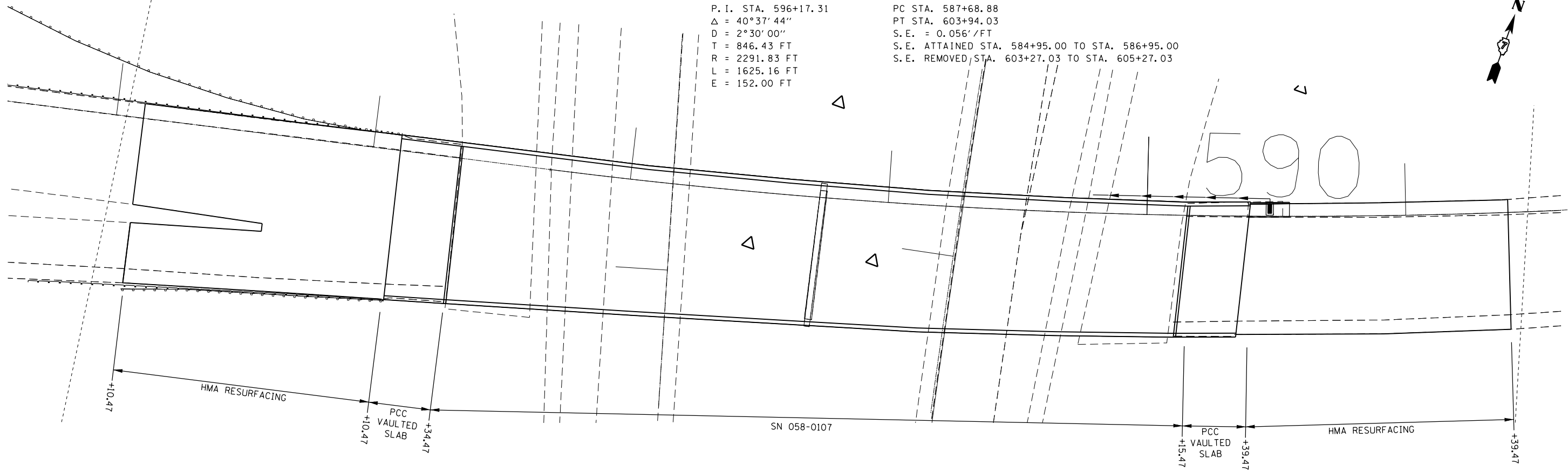
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PROFILE	SURVIVED	DATE
	PLOTTED	
	GRADES CHECKED	
	NOTE BOOK	
	NO.	
	STRUCTURE NOTATIONS ERWD	

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EXISTING CURVE DATA

P. I. STA. 596+17.31 PC STA. 587+68.88
 $\Delta = 40^{\circ}37'44''$ PT STA. 603+94.03
 $D = 2^{\circ}30'00''$ S. E. = 0.056'/FT
 $T = 846.43$ FT S. E. ATTAINED STA. 584+95.00 TO STA. 586+95.00
 $R = 2291.83$ FT S. E. REMOVED STA. 603+27.03 TO STA. 605+27.03
 $L = 1625.16$ FT
 $E = 152.00$ FT



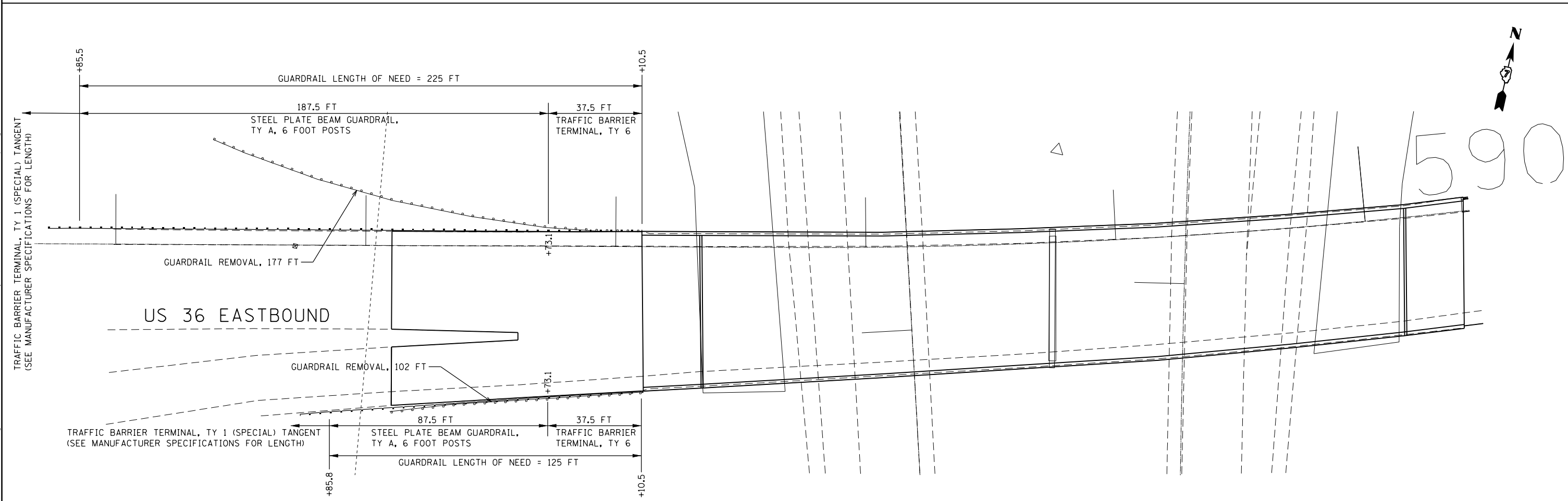
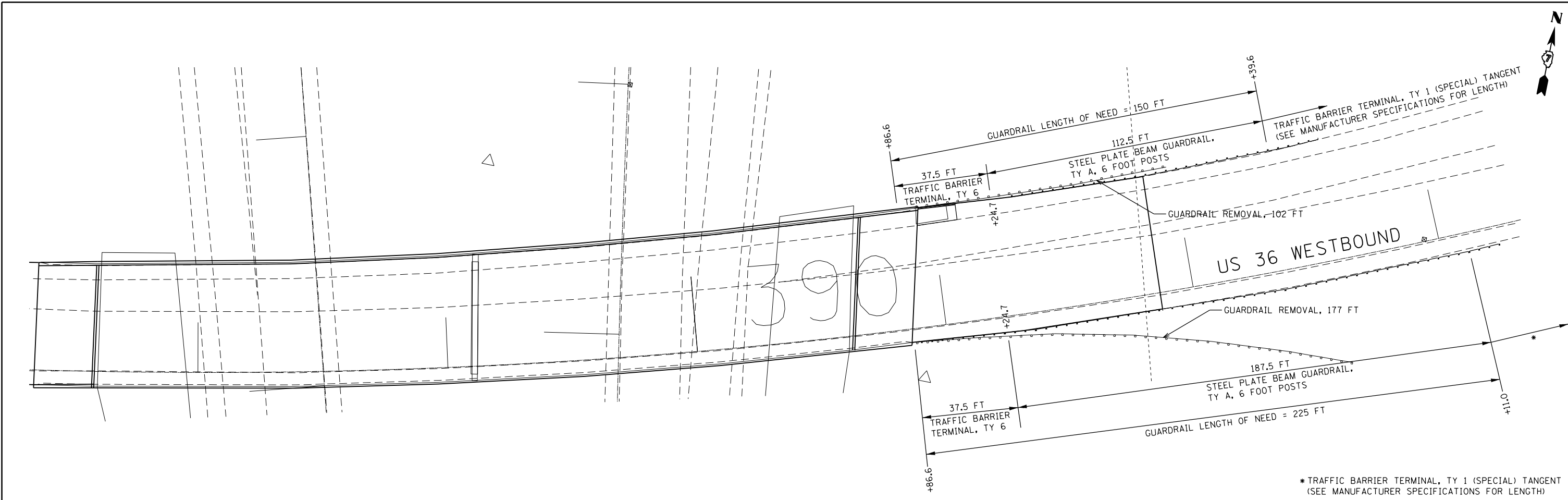
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	DRAWN -	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/10/2018	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
 EASTBOUND US 36

SCALE: 1" = 20' SHEET 2 OF 4 SHEETS STA. 586+10.47 TO STA. 591+39.47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	9
				CONTRACT NO. 74605
		ILLINOIS	FED. AID PROJECT	



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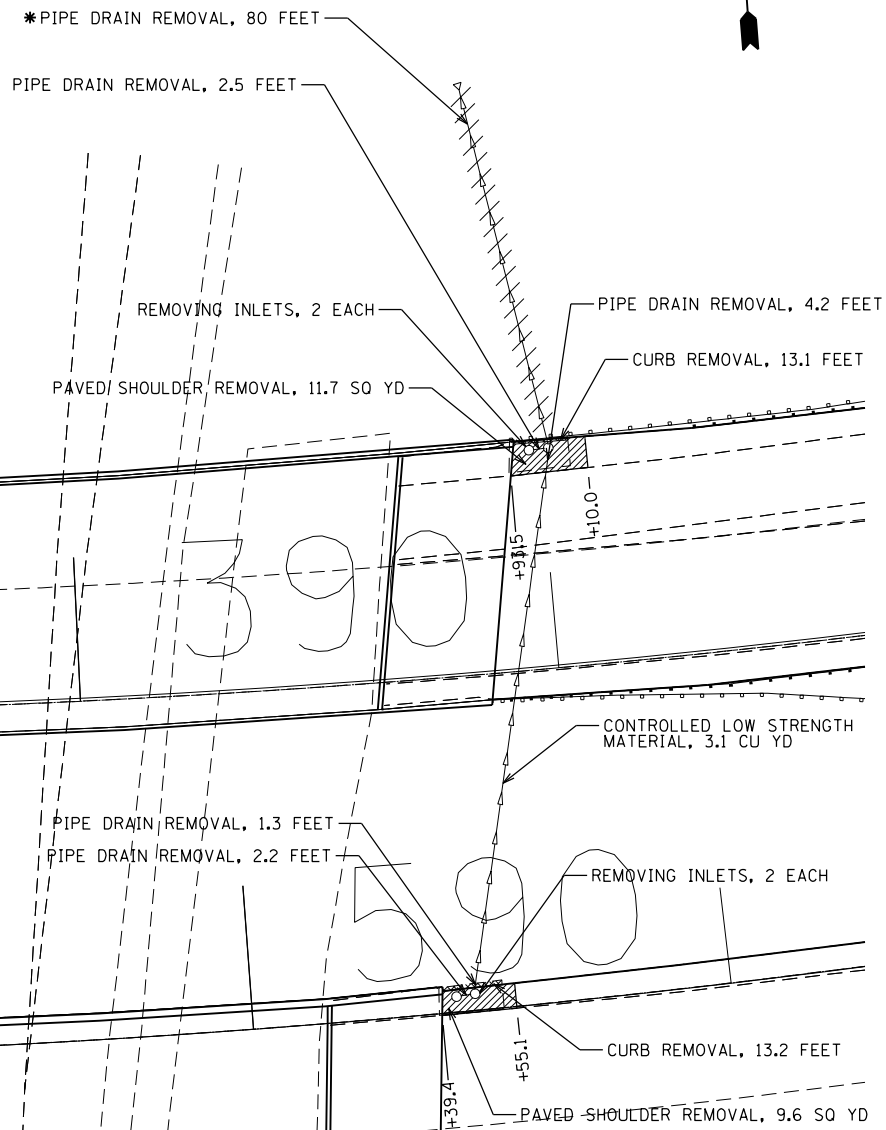
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PLOT DATE = 1/10/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

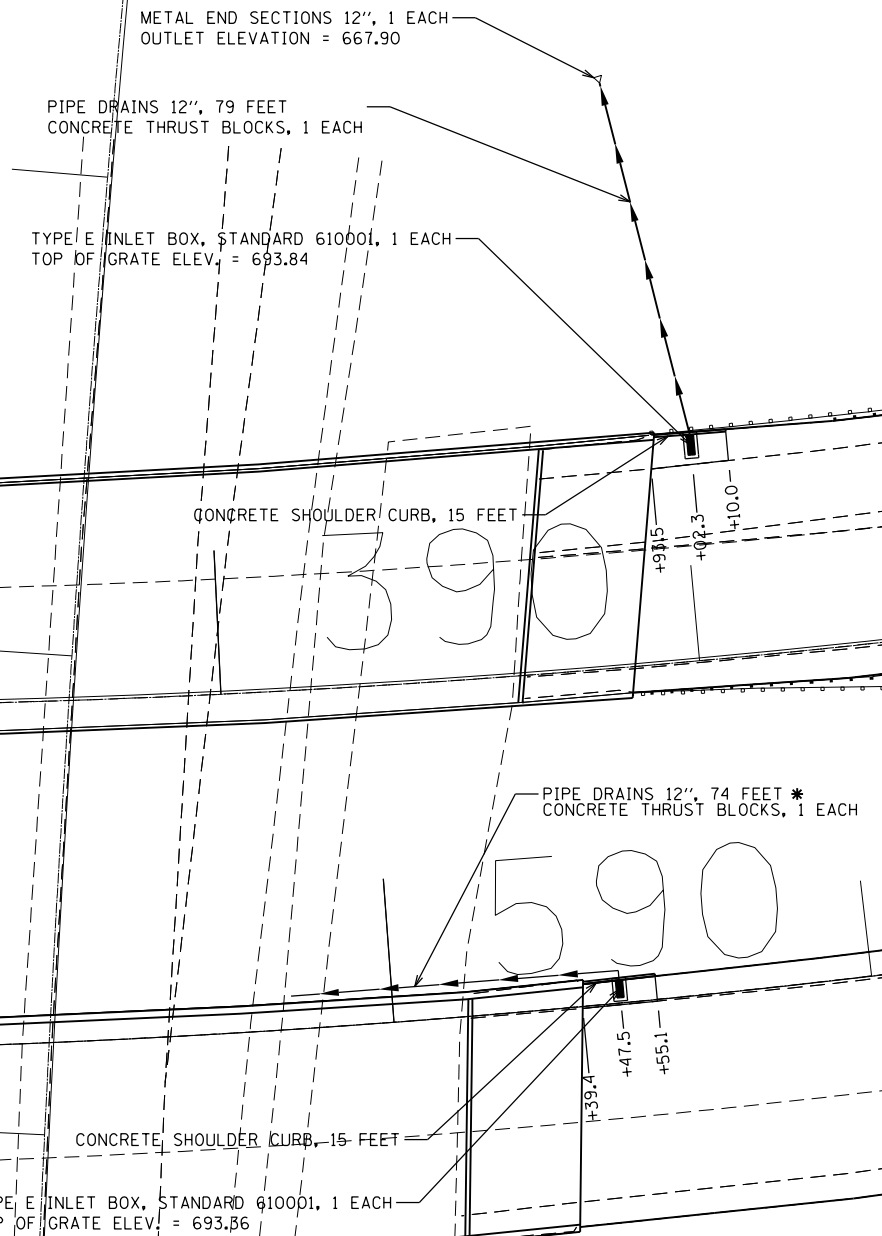
PLAN SHEET
GUARDRAIL DETAILS

SCALE: 1" = 20' SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	10
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				



***NOTE:** THE REMOVAL OF THE PIPE DRAIN END SECTION SHALL BE INCLUDED IN THE COST OF PIPE DRAIN REMOVAL



***NOTE:** THE PIPE DRAIN FOR EB US 36 SHALL OUTLET AT THE BOTTOM OF THE PROPOSED SLOPE WALL FOR STR 058-0107. THE SLOPE OF THE PIPE DRAIN SHALL BE 2.0% FOR A MINIMUM OF 5 FEET FROM THE OUTLET END OF THE PIPE.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PLAN SHEET
DRAINAGE DETAILS**

SCALE: 1" = 20' SHEET 4 OF 4 SHEETS STA. TO STA.

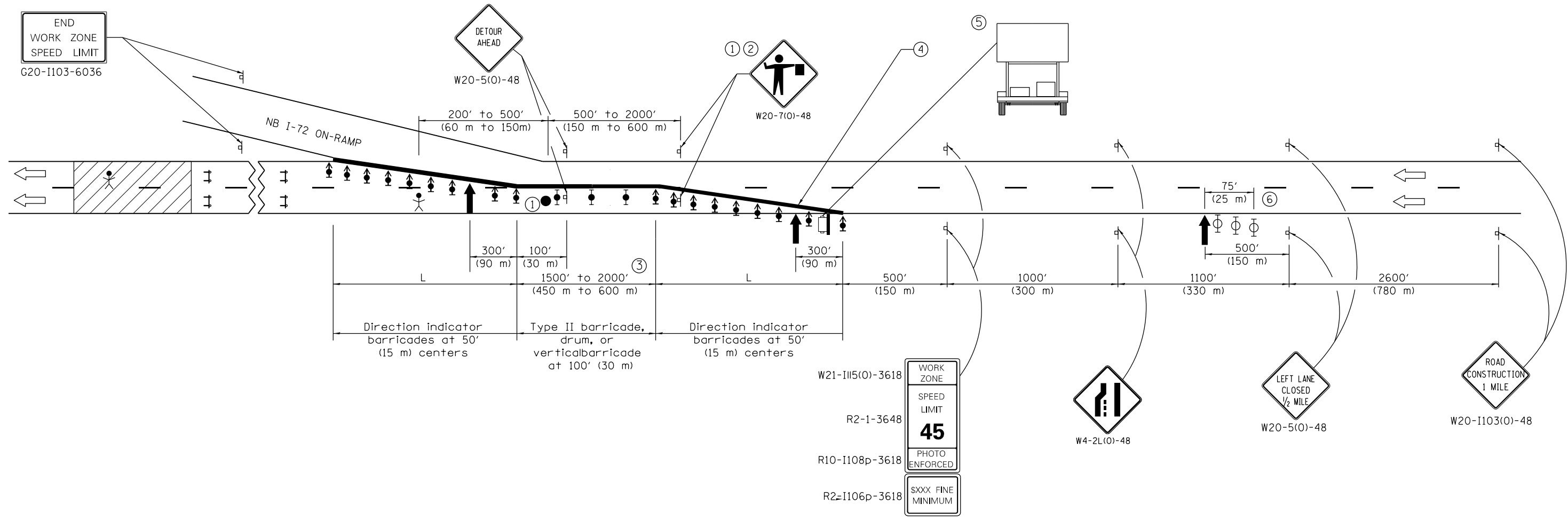
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	11
CONTRACT NO. 74605				

ILLINOIS FED. AID PROJECT

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PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 1/10/2018	CHECKED -	REVISED -
	DATE -	REVISED -

END
WORK ZONE
SPEED LIMIT
G20-I103-6036



L = lane width X taper ratio	
Normal Posted Speed	Taper Ratio
mph	
55	55/1
45	45/1

SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Flagger with traffic control sign
- Worker
- Type II barricade, drum, or vertical barricade with monodirectional flashing light
- Type III barricade with flashing monodirectional lights
- Portable changeable message sign

- ① Only required when workers on foot are present.
- ② FLAGGER signs shall be moved as necessary to maintain the required spacing between the sign and each separate work activity.
- ③ The actual length shall be determined by the Engineer. There shall be a gap in the barricades at the Harristown Blvd intersection to allow for turning movements. A Type III barricade shall be used to prevent vehicles from entering the closed lane at the gap in traffic control.
- ④ ReflectORIZED temporary pavement marking tape shall be placed throughout the taper and for 300' (90 m) along-side the work area where the closure time is greater than fourteen days. The edge line shall be white for right lane closures and yellow for left lane closures.
- ⑤ The message board shall be located 100' into the first taper. The message board shall be used to display status of lanes within the project. The primary messages shall be: "All Trf Must Exit"/ "Follow Marked Detour"
- ⑥ Three Type II barricades, drums, or vertical barricades at 25' (8 m) centers.

GENERAL NOTES

This detail is to be used for the closure and detour of westbound US 36.

A check barricade shall be placed in the middle of the closed lane and at the shoulder at 1000' (300 m) centers.

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

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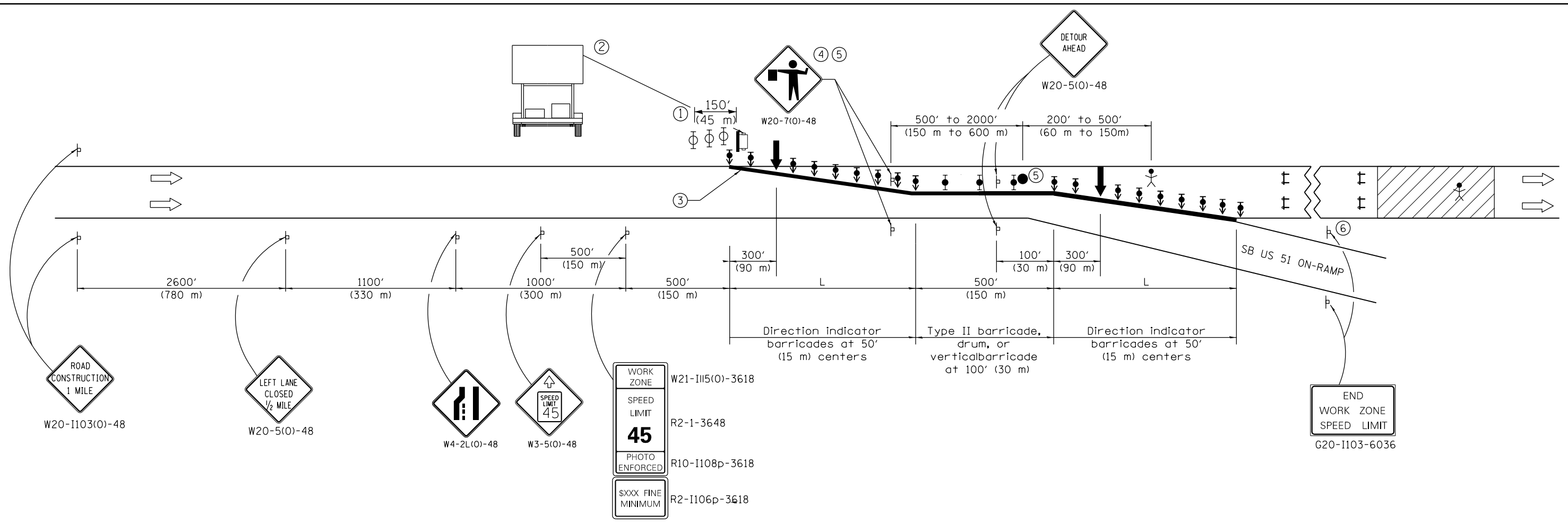
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PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/10/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL & PROTECTION, (SPECIAL)
WESTBOUND US 36**

SCALE: N/A SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	12
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				



L = lane width X taper ratio	
Normal Posted Speed	Taper Ratio
mph	
55	55/1
45	45/1

SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Flagger with traffic control sign
- Worker
- Type II barricade, drum, or vertical barricade with monodirectional flashing light
- Type III barricade with flashing monodirectional lights
- Portable changeable message sign

- ① Three Type II barricades, drums, or vertical barricades at 50' (8 m) centers.
- ② The message board shall be located 100' into the first taper. The message board shall be used to display status of lanes within the project. The primary messages shall be: "All Trf Must Exit"/ "Follow Marked Detour"
- ③ Reflectorized temporary pavement marking tape shall be placed throughout the taper and for 300' (90 m) along-side the work area where the closure time is greater than fourteen days. The edge line shall be white for right lane closures and yellow for left lane closures.
- ④ FLAGGER signs shall be moved as necessary to maintain the required spacing between the sign and each separate work activity.
- ⑤ Only required when workers on foot are present.
- ⑥ Two additional signs shall be placed on I-72 located after the US 36 exit ramp.

GENERAL NOTES

This detail is to be used for the closure and detour of eastbound US 36.

A check barricade shall be placed in the middle of the closed lane and at the shoulder at 1000' (300 m) centers.

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

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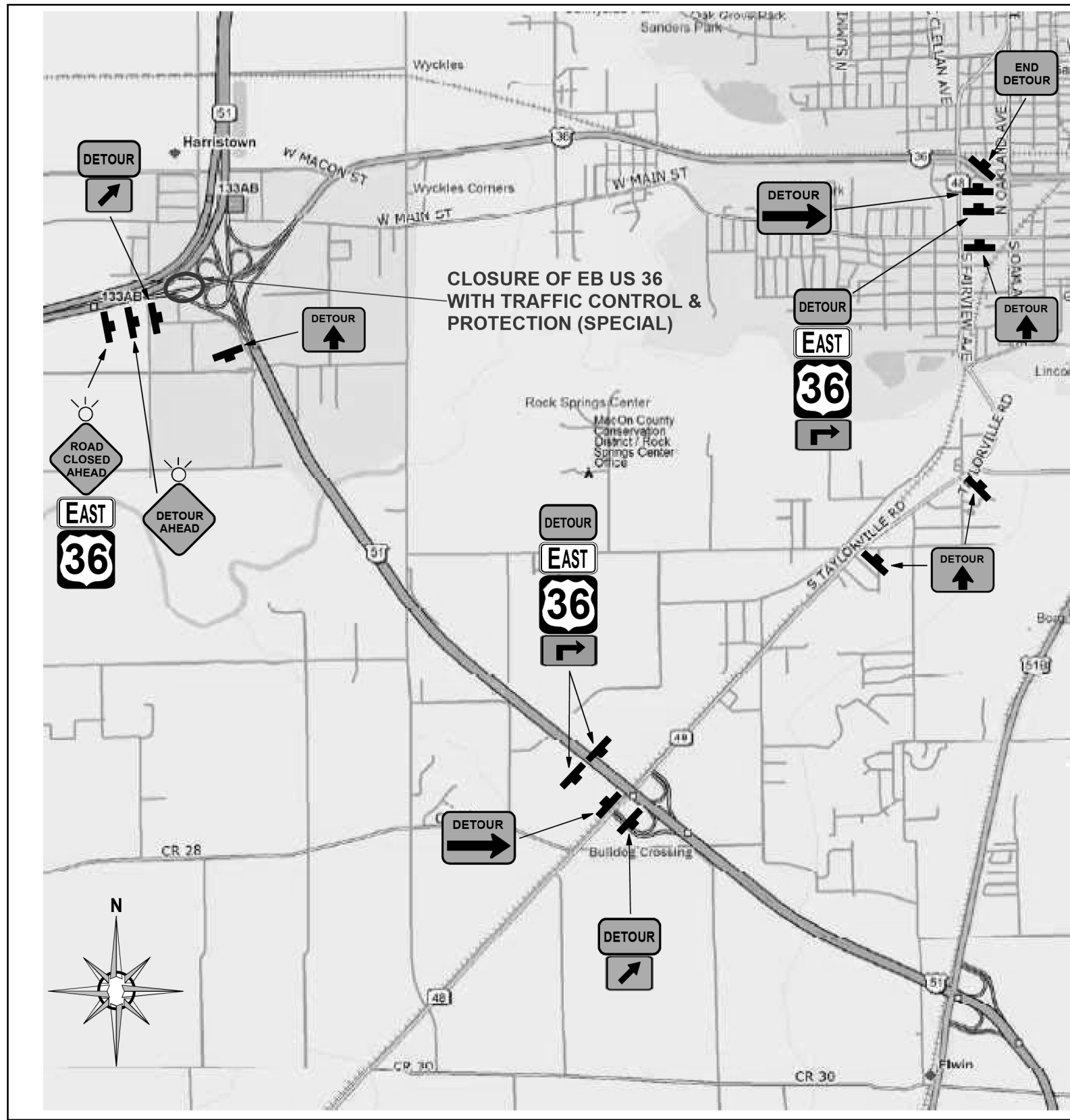
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PLOT DATE = 1/10/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION, (SPECIAL)
EASTBOUND US 36

SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	13
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				



SIGN LEGEND

	W20-3-48
	W20-2-48
	M4-8-3015
	M6-2(O)-3018
	M4-9-3024
	M4-9R-3024
	M4-8a-3024
	M3-4-3618
	M3-2-3618
	M3-4(BL)-3618
	M1-1-48
	M1-4-48

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PLOT DATE = 1/10/2018	DATE -	REVISED -

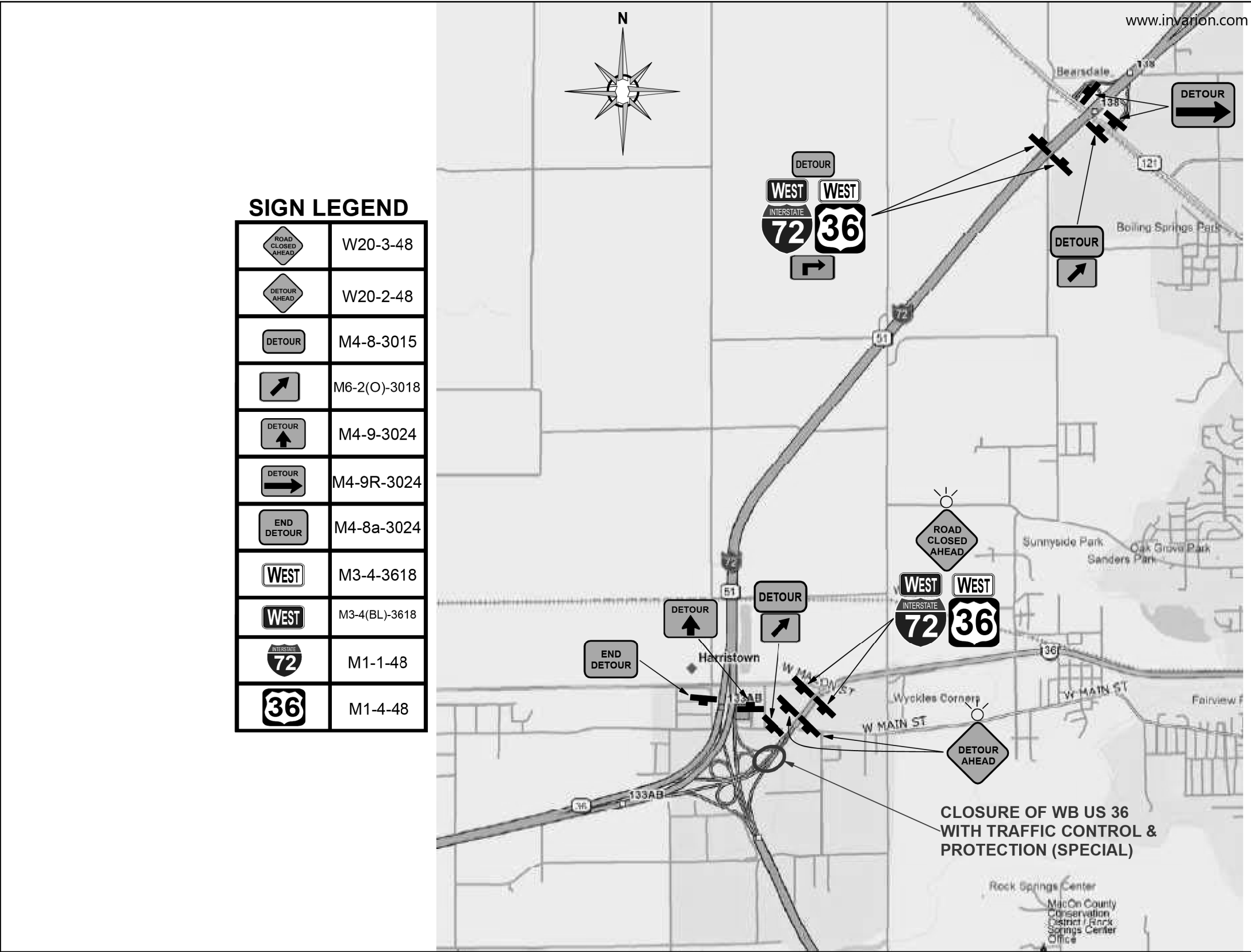
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING PLAN
EASTBOUND US 36**

SCALE: N/A SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	14
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				

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SIGN LEGEND

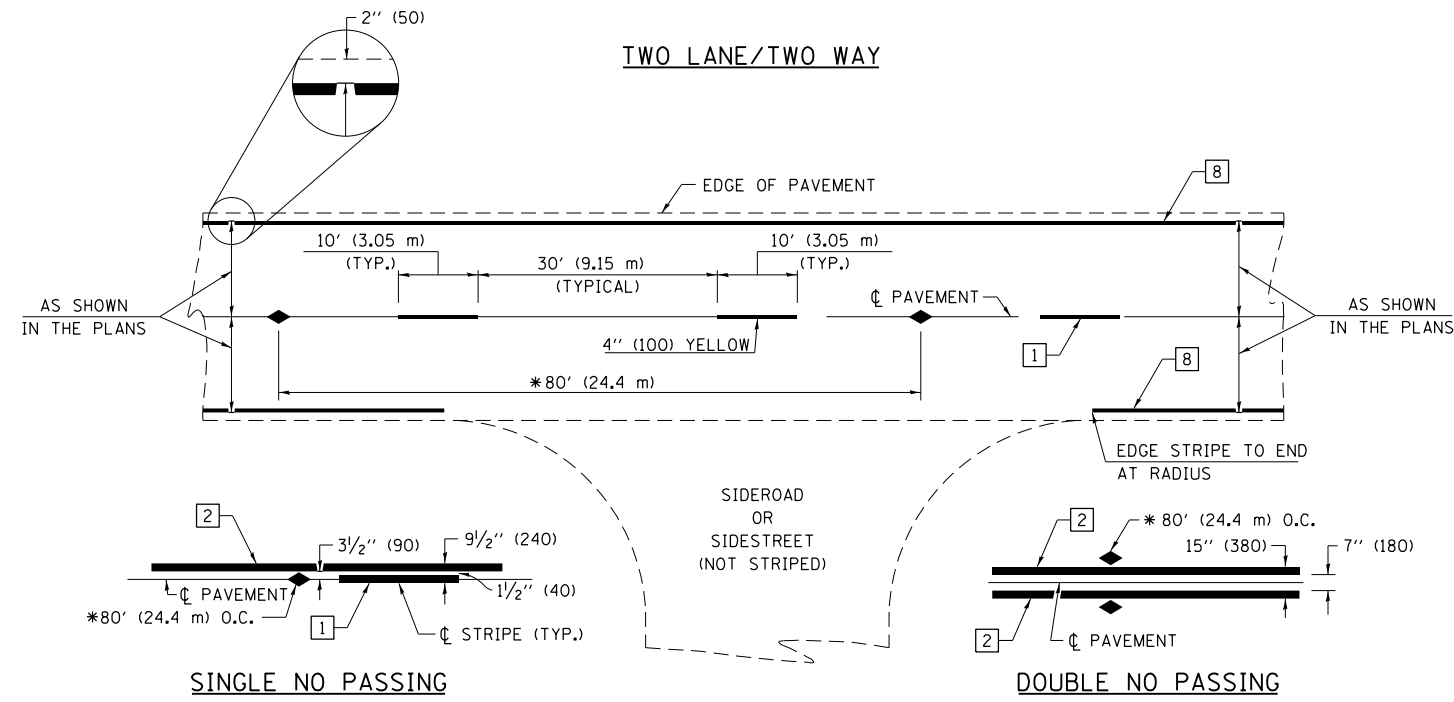
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	W20-2-48
	M4-8-3015
	M6-2(O)-3018
	M4-9-3024
	M4-9R-3024
	M4-8a-3024
	M3-4-3618
	M3-4(BL)-3618
	M1-1-48
	M1-4-48

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING PLAN
 WESTBOUND US 36

SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

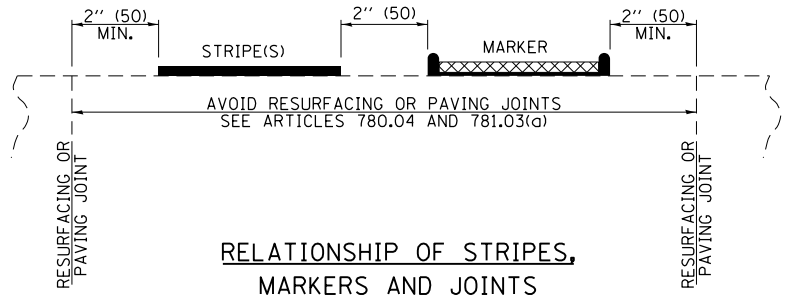
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323	(58-62HB-2)BR	MACON	82	15
CONTRACT NO. 74605				
ILLINOIS FED. AID PROJECT				



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

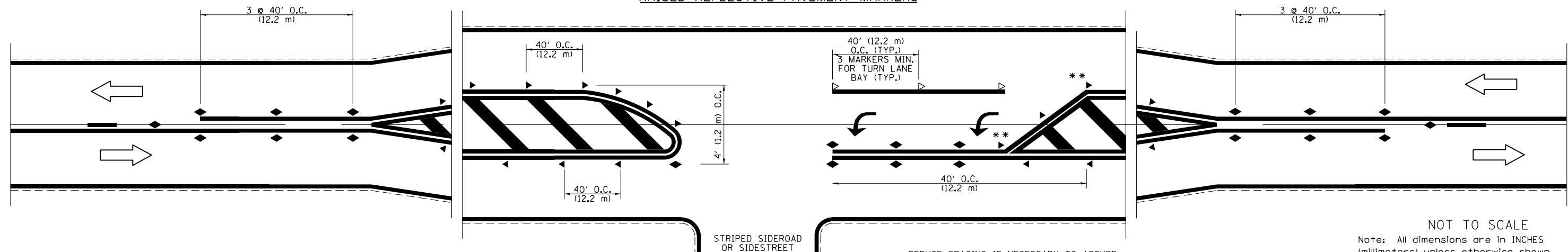


RELATIONSHIP OF STRIPES, MARKERS AND JOINTS

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

RAISED REFLECTIVE PAVEMENT MARKERS



** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

NOT TO SCALE
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

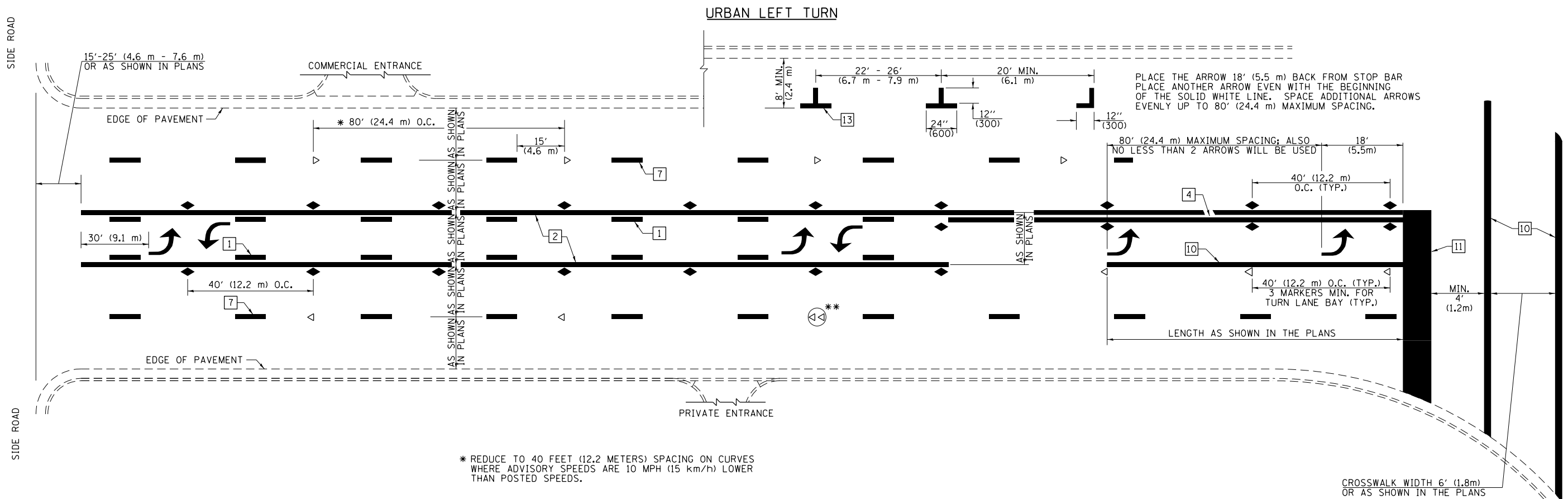
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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: N/A SHEET NO. 1 OF 4 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 78000001				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62HB-2)BR	MACON	82	16
			CONTRACT NO. 74605	
ILLINOIS FED. AID PROJECT				



PLACE THE ARROW 18' (5.5 m) BACK FROM STOP BAR
PLACE ANOTHER ARROW EVEN WITH THE BEGINNING
OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS
EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING.

* REDUCE TO 40 FEET (12.2 METERS) SPACING ON CURVES
WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER
THAN POSTED SPEEDS.

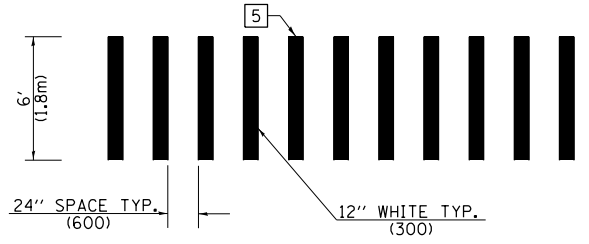
** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED
AND SPACED AS SHOWN IN HIGHWAY STANDARD
781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED
HIGHWAYS.

PAVEMENT MARKING LEGEND

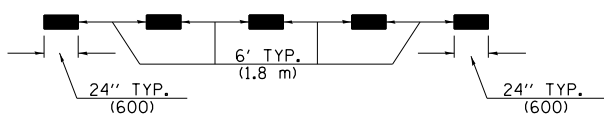
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

GENERAL NOTES

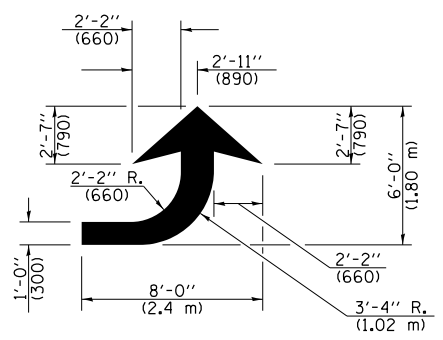
1. TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE. USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
3. THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER.
4. USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)
5. LANE LINE EXTENSIONS SHALL BE THE SAME COLOR AND WIDTH AS THE LANE LINE BEING EXTENDED.



**CROSSWALK DETAIL
(DECATUR CITY LIMITS ONLY)**

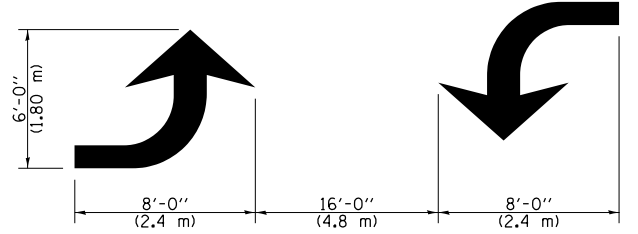


LANE LINE EXTENSIONS



LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²)
(WHITE)



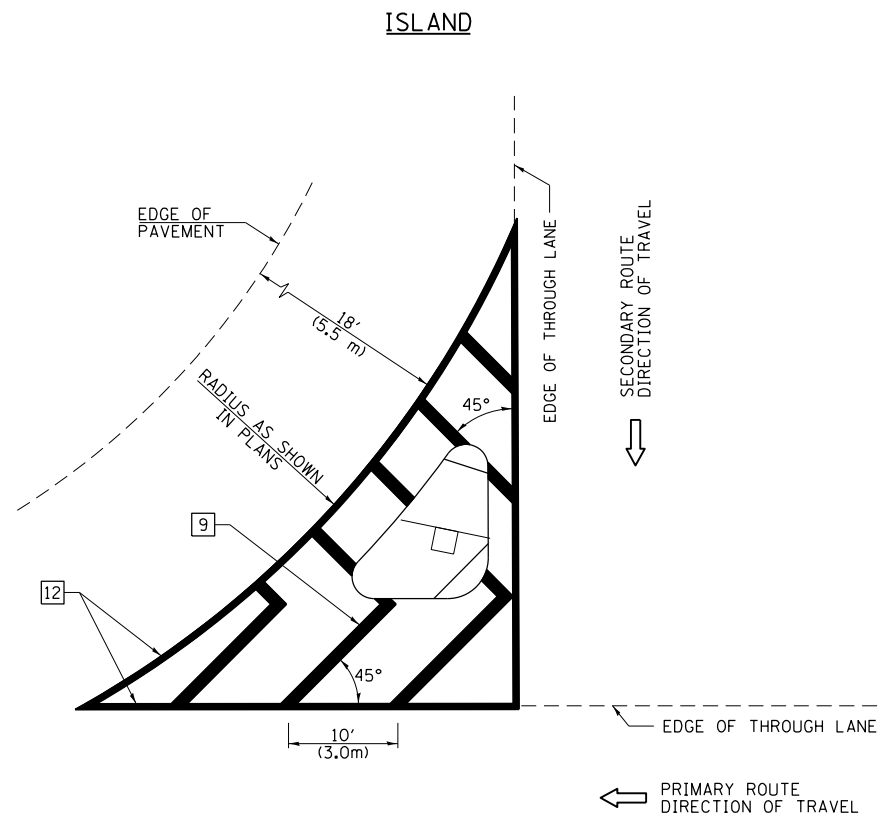
**TYPICAL DOUBLE
TURN ARROWS (WHITE)**

NOT TO SCALE

Note: All dimensions are in INCHES
(millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 7\Projects\74605\Drawings\CABsheets\0774605-sht-details		CHECKED -	REVISED -					323	(58-62HB-2)BR	MACON	82	17
PLOT SCALE = 2.0000' / in.		DATE -	REVISED -					CONTRACT NO. 74605				
PLOT DATE = 1/10/2018								ILLINOIS FED. AID PROJECT				

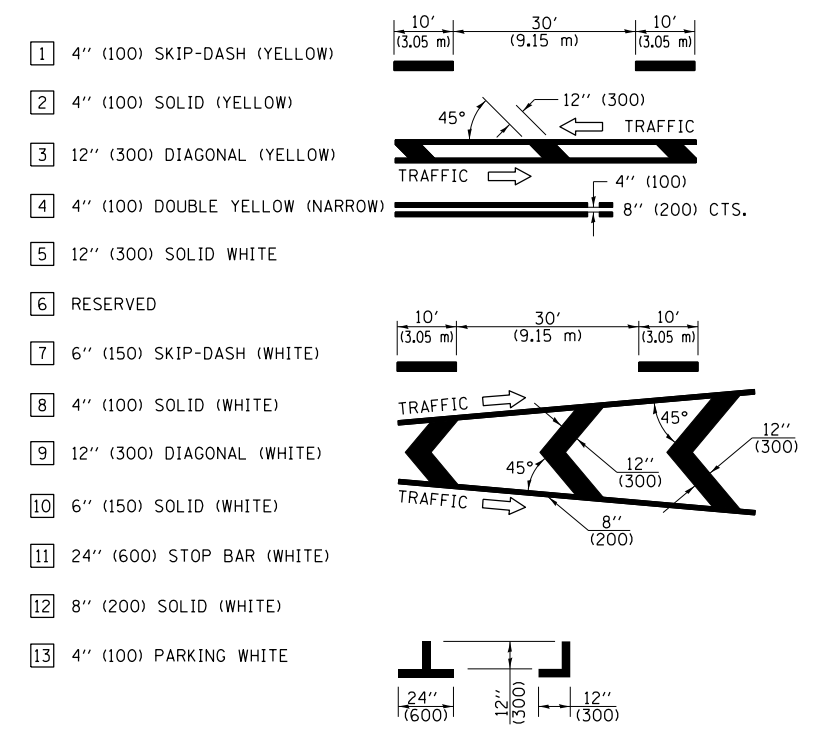


GENERAL NOTES

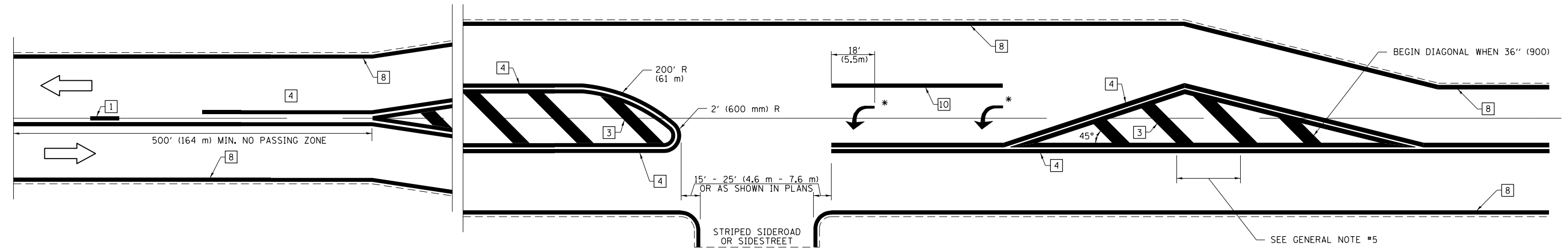
1. RAISED AND CORRUGATED MEDIANS SHALL BE OUTLINED WITH [2] IF PRESENT.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
5. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:

< 30 MPH (< 50 km/h)	15' (4.5 m)
30-45 MPH (50-75 km/h)	20' (6.0 m)
> 45 MPH (> 75 km/h)	30' (9.0 m)

PAVEMENT MARKING LEGEND



RURAL LEFT TURN STRIPING



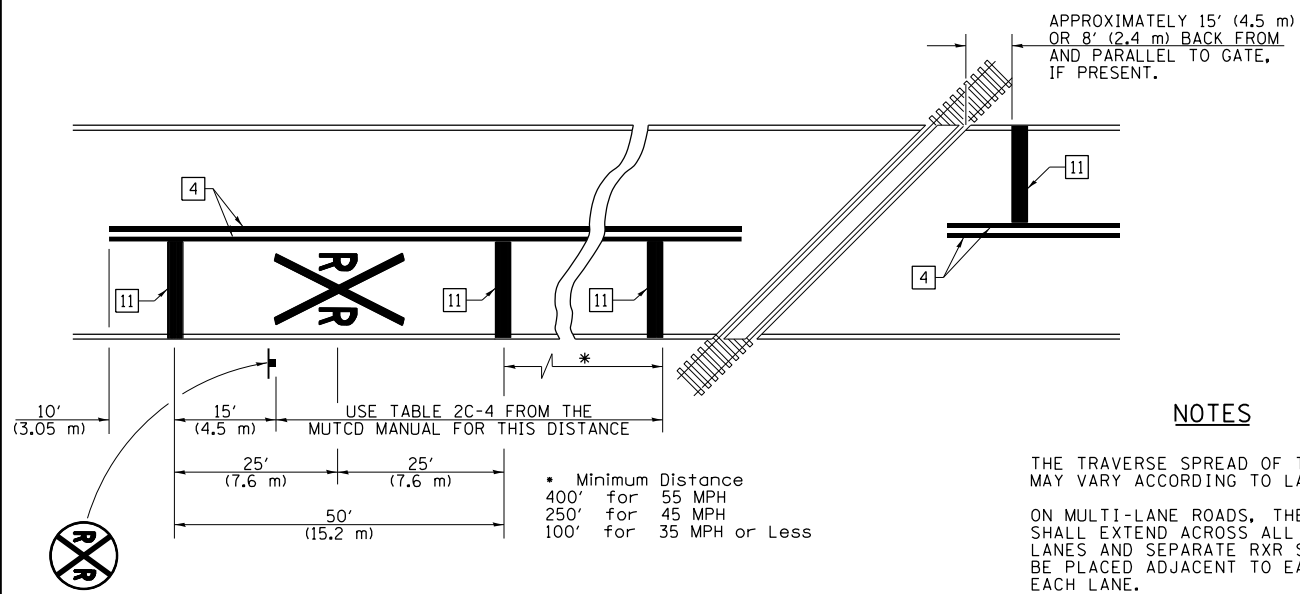
* PLACE AN ARROW 18' (5.5 m) BACK FROM STOP BAR. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

NOT TO SCALE
 Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 7\Projects\74605\Drawings\CAB\Drawings\74605-shd-details	DESIGNED BY	CHECKED -	REVISED -			323	(58-62HB-2)BR	MACON	82	18
	PLOT SCALE = 2.0000' / in.	DATE -	REVISED -			CONTRACT NO. 74605			ILLINOIS FED. AID PROJECT	
	PLOT DATE = 1/10/2018					SCALE: N/A	SHEET NO. 3 OF 4 SHEETS	STA.	TO STA.	

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING



NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

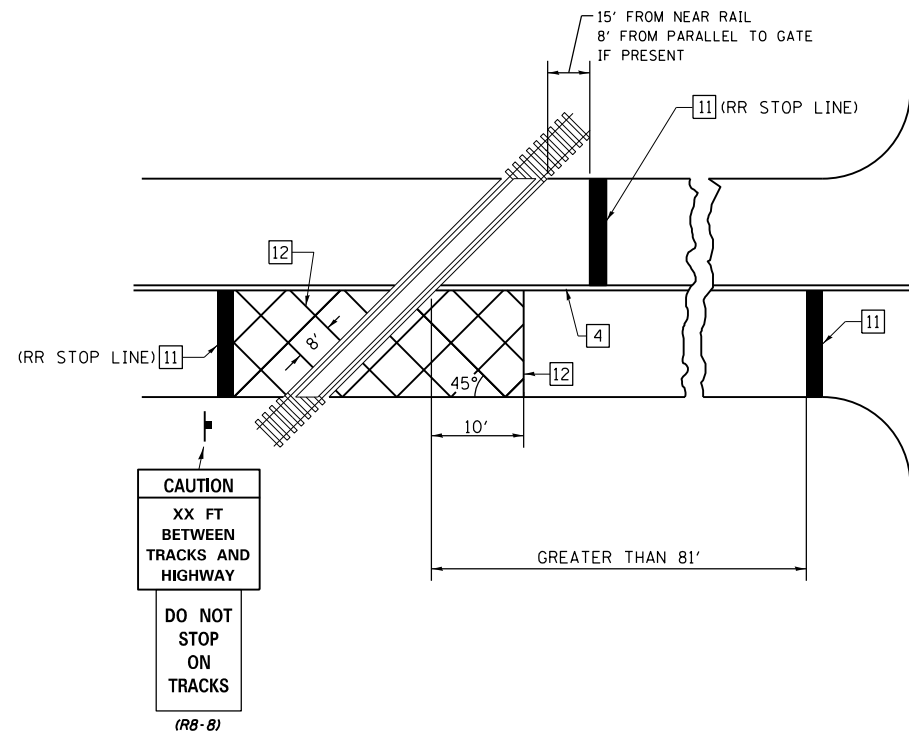
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE R X R SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

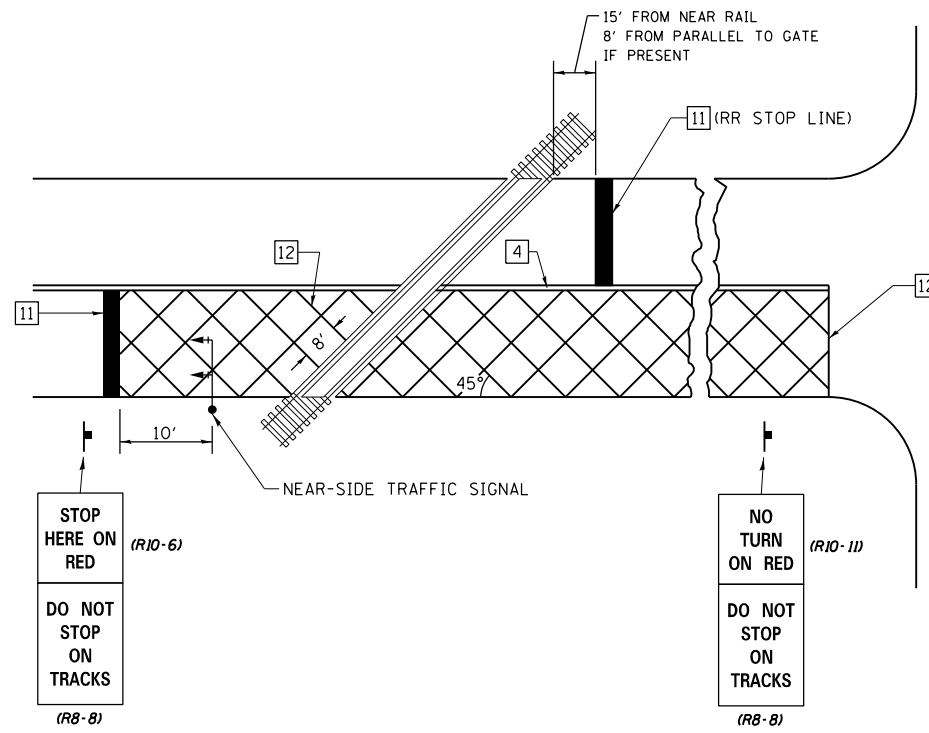
PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.

SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 7 DETAIL NO. 7800001

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)	F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLT DATE = 1/10/2018	DATE -	REVISED -			CONTRACT NO. 74605		ILLINOIS FED. AID PROJECT		

SCALE: N/A SHEET NO. 4 OF 4 SHEETS STA. TO STA.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structural Data
- 3 Offset Sketch and Details
- 4 Slopewall Plan and Details
- 5 Top of Deck Elevations (SN 058-0106)
- 6 Top of Deck Elevations (SN 058-0106)
- 7 Top of Deck Elevations (SN 058-0106)
- 8 Top of Deck Elevations (SN 058-0106)
- 9 Top of Deck Elevations (SN 058-0107)
- 10 Top of Deck Elevations (SN 058-0107)
- 11 Top of Deck Elevations (SN 058-0107)
- 12 Top of Deck Elevations (SN 058-0107)
- 13 Top of West Vault Slab Elevations (SN 058-0106)
- 14 Top of East Vault Slab Elevations (SN 058-0106)
- 15 Top of West Vault Slab Elevations (SN 058-0107)
- 16 Top of East Vault Slab Elevations (SN 058-0107)
- 17 Superstructure (SN 058-0106)
- 18 Superstructure Details (SN 058-0106)
- 19 Diaphragm Details (SN 058-0106)
- 20 Superstructure (SN 058-0107)
- 21 Superstructure Details (SN 058-0107)
- 22 Diaphragm Details (SN 058-0107)
- 23 Superstructure Details
- 24 West Vaulted Slab (SN 058-0106)
- 25 East Vaulted Slab (SN 058-0106)
- 26 West Vaulted Slab (SN 058-0107)
- 27 East Vaulted Slab (SN 058-0107)
- 28 Preformed Joint Strip Seal
- 29 Drainage Scupper, DS-II
- 30 Framing Plan and Details (SN 058-0106)
- 31 Framing Plan and Details (SN 058-0107)
- 32 Moment Tables (SN 058-0106)
- 33 Moment Tables (SN 058-0106)
- 34 Moment Tables (SN 058-0107)
- 35 Moment Tables (SN 058-0107)
- 36 Bearing Details
- 37 Abutment Repairs
- 38 Pier Details
- 39 Concrete Parapet Slipforming Option
- 40-63 Existing Plans

GENERAL NOTES:

Plan dimensions and details relative to existing plans are subject to nominal construction 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 at the unit price bid for the work.

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8" ϕ in holes 5/16" ϕ , unless otherwise noted.

No field welding is permitted except as specified in the contract documents. 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 qualified personnel approved by 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.

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

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Reinforcement bars shall be cleaned according to Article 501.05 of the Standard Specifications and to the satisfaction of the Engineer. Cost included with Concrete Removal.

Due to settlement over time, sand fill shall be placed in existing vaulted abutments, as directed by the Engineer, to the bottom of the proposed vault slab. Quantity shown is estimated.

All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.

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

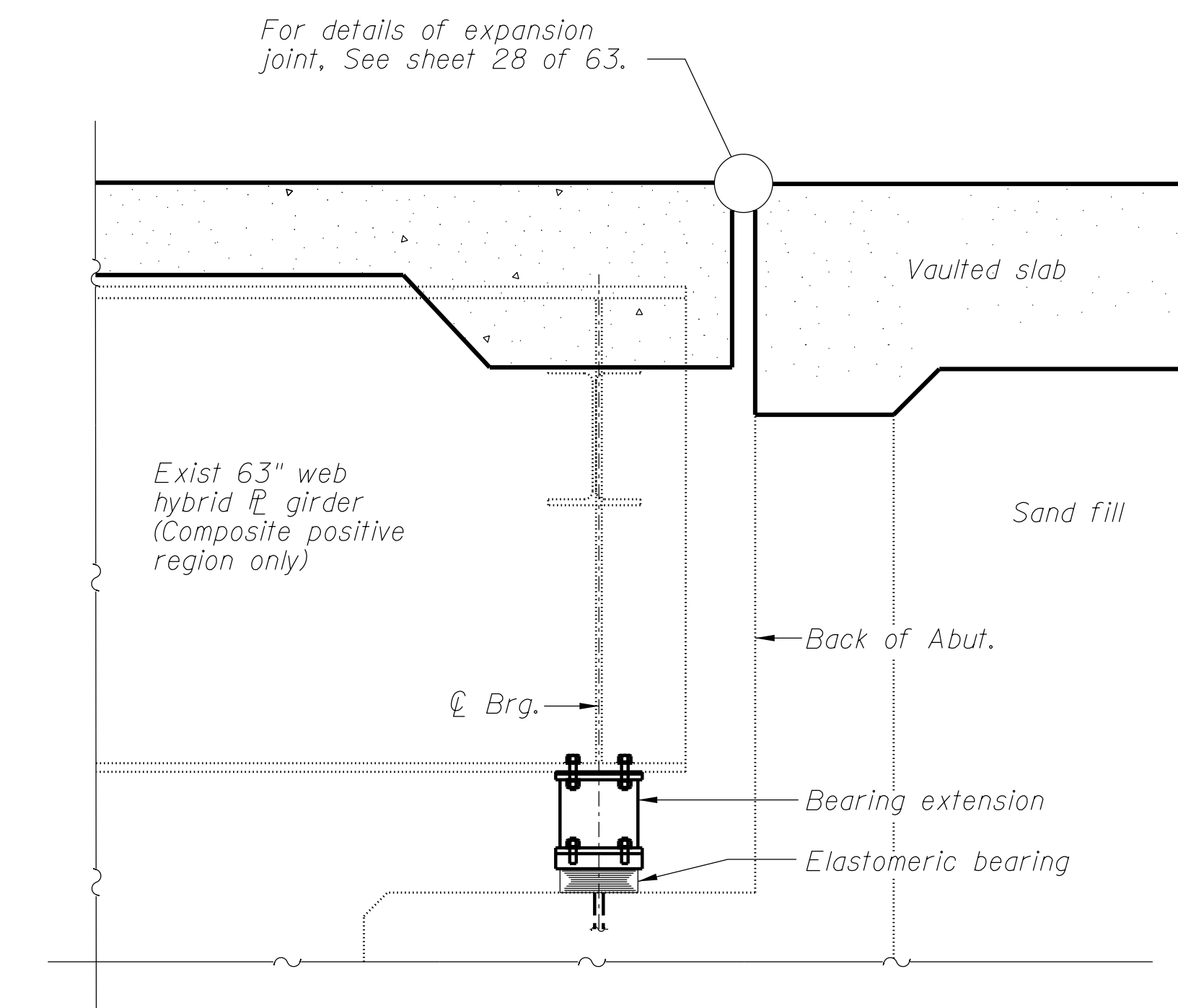
The existing structural steel shall only be cleaned and painted as required by the Special Provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

SCOPE OF WORK

1. Remove and replace the existing reinforced concrete deck of both structures.
2. Remove and replace the vaulted slabs and expansion joints at both abutments of each structure.
3. Remove and replace the high profile rocker bearings with low profile expansion bearings at each abutment of each structure.
4. The height of the existing crashwalls at piers will be raised to 5'-0" above ground line.
5. Repair abutments, piers and slopewall as shown in these plans.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Slope Wall Removal	Sq. Yd.	---	759	759
Removal of Existing Concrete Deck No. 1	Each	1	---	1
Removal of Existing Concrete Deck No. 2	Each	1	---	1
Protective Shield	Sq. Yd.	1,532	---	1,532
Floor Drains	Each	14	---	14
Concrete Structures	Cu. Yd.	---	21.0	21.0
Concrete Superstructure	Cu. Yd.	1,289.4	---	1,289.4
Bridge Deck Grooving	Sq. Yd.	3,810	---	3,810
Protective Coat	Sq. Yd.	4,533	---	4,533
Furnishing and Erecting Structural Steel	Pound	9,710	---	9,710
Stud Shear Connectors	Each	1,704	---	1,704
Reinforcement Bars, Epoxy Coated	Pound	336,930	1,660	338,590
Slope Wall 4 Inch	Sq. Yd.	---	759	759
Name Plates	Each	2	---	2
Preformed Joint Strip Seal	Foot	221	---	221
Elastomeric Bearing Assembly, Type I	Each	---	34	34
Anchor Bolts, 5/8"	Each	---	136	136
Jack and Remove Existing Bearings	Each	---	34	34
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	---	24	24
Drainage Scuppers, DS-II	Each	4	---	4
Furnishing and Placing Sand Fill	Cu. Yd.	---	80	80



SECTION THRU ABUTMENT

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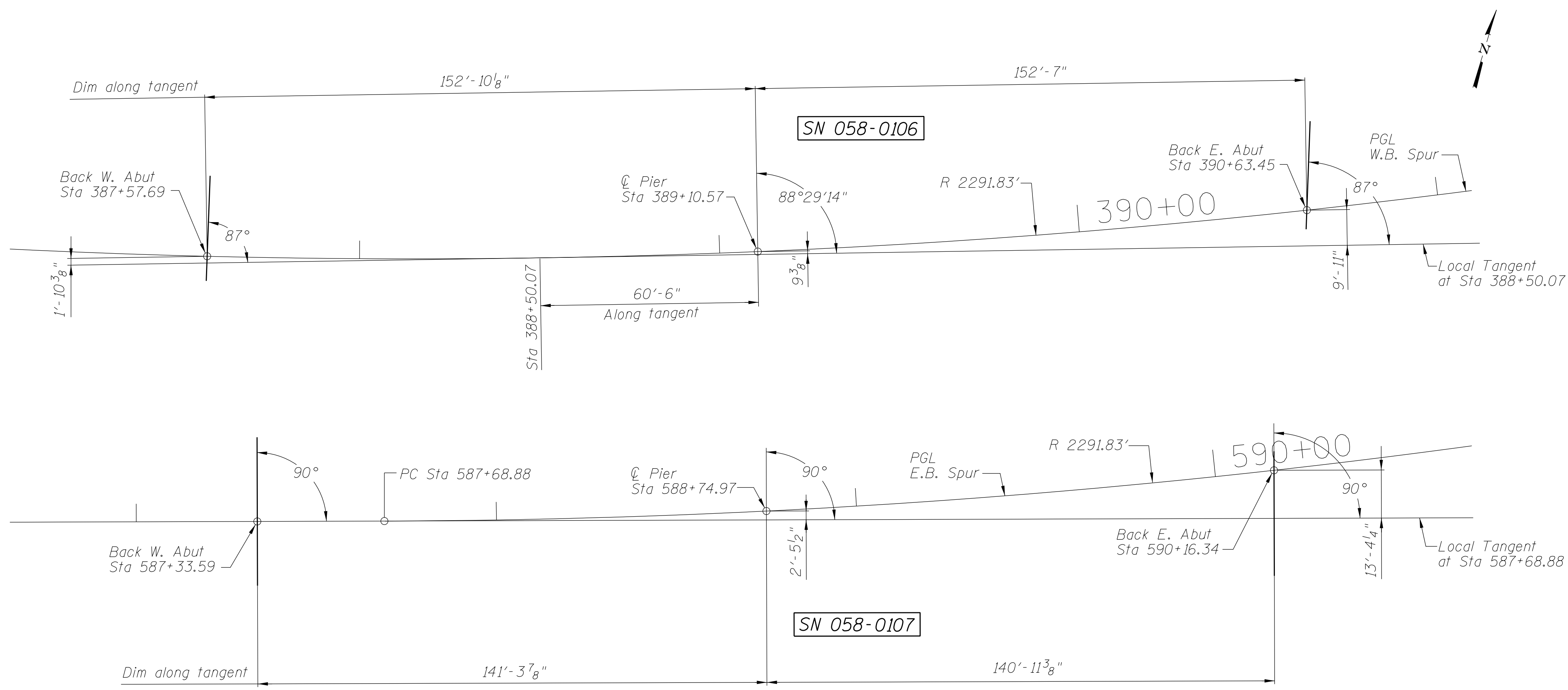
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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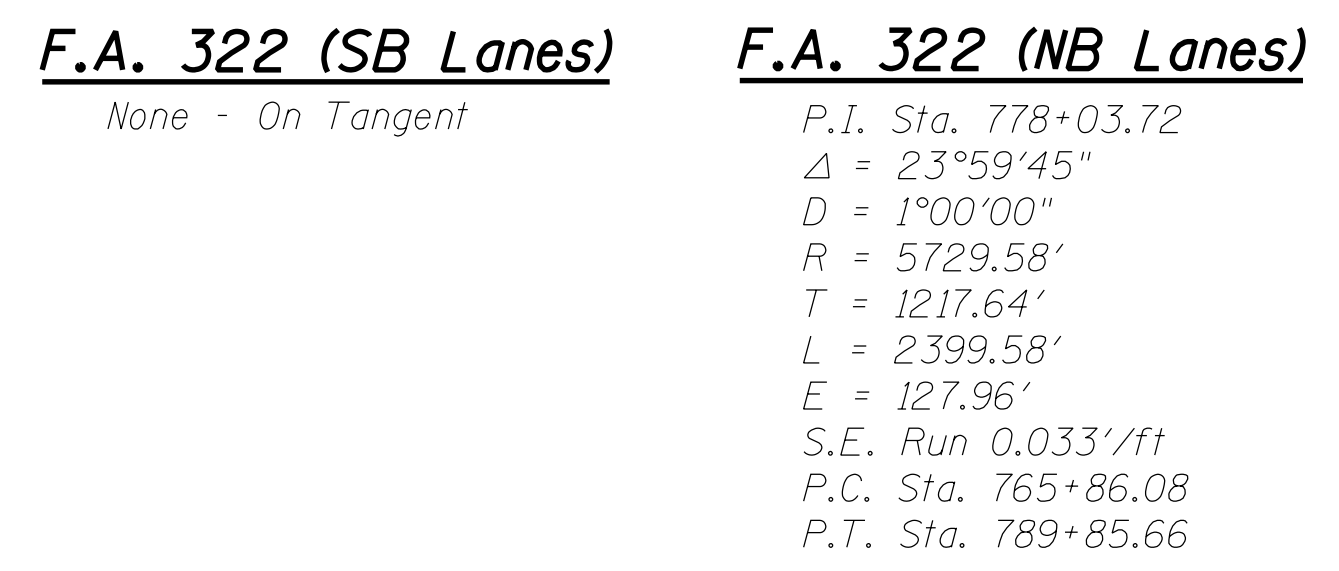
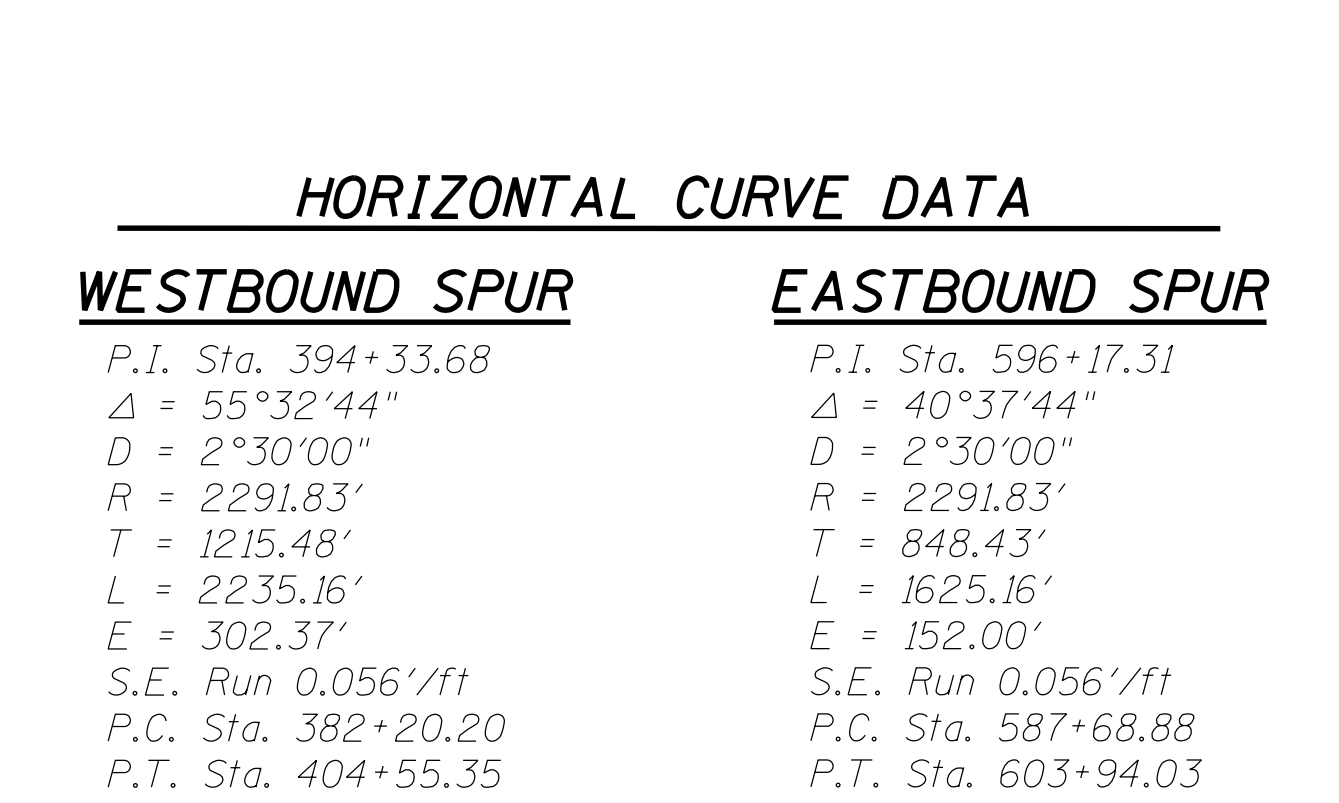
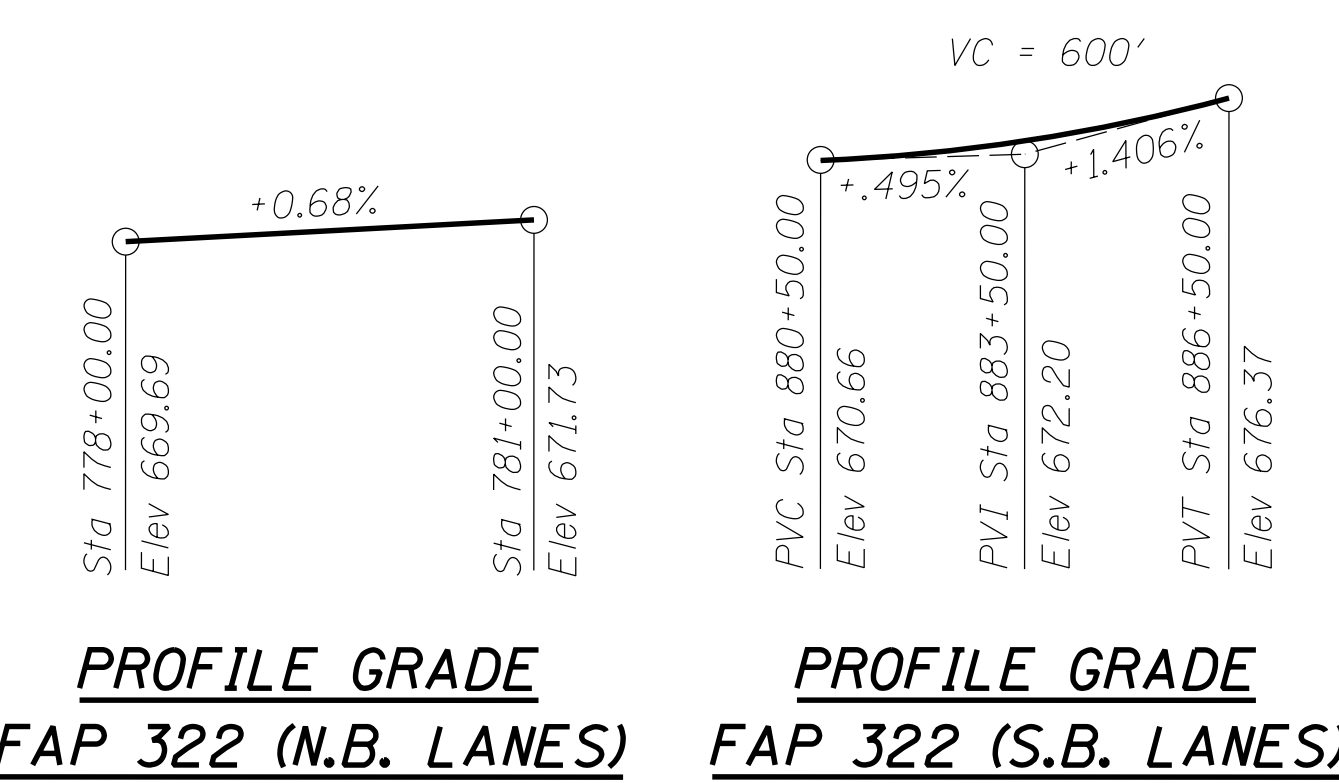
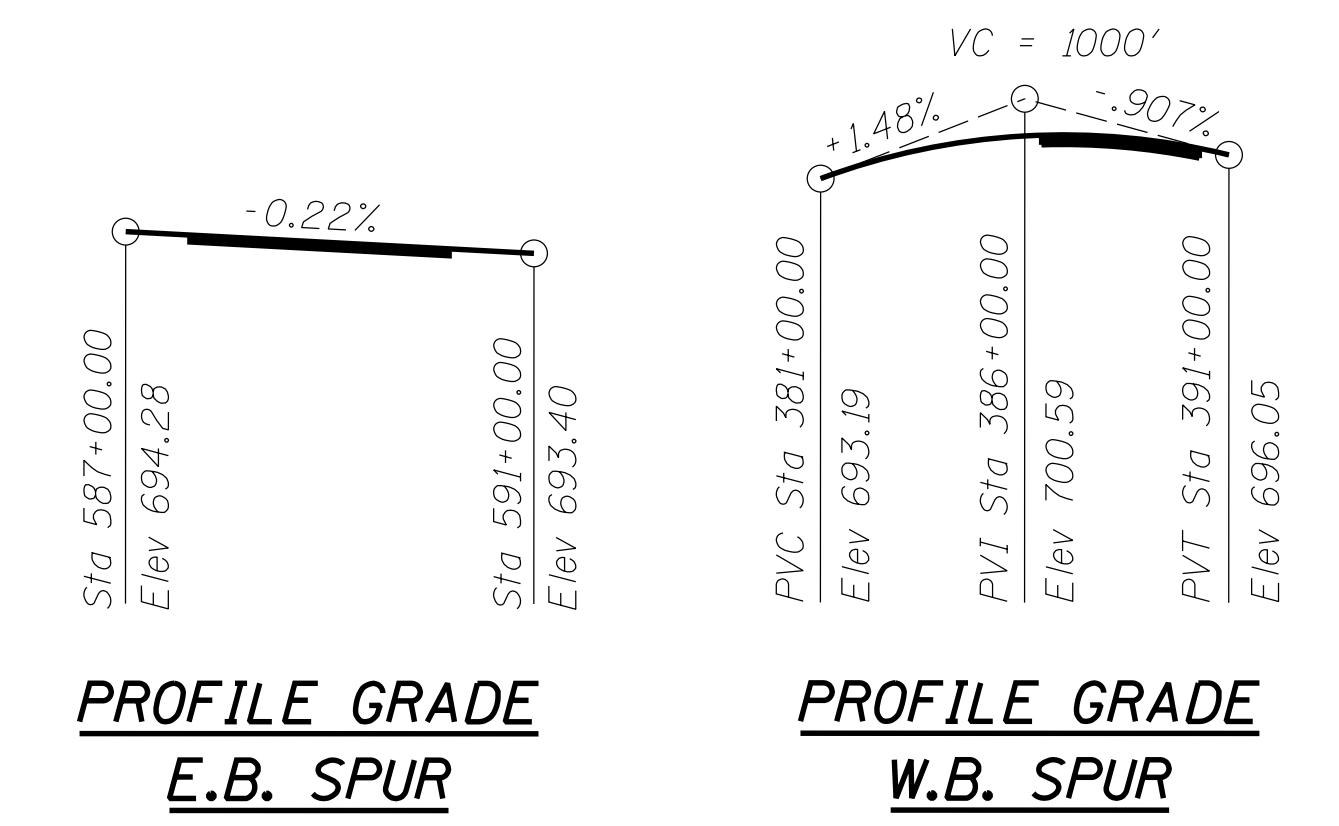
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL STRUCTURAL DATA
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

F.A.P. RTE. 323	SECTION (58-62-HB-2) BR	COUNTY MACON	TOTAL SHEETS 82	SHEET NO. 21
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



BRIDGE OFFSET SKETCH



HORIZONTAL CURVE DATA

WESTBOUND SPUR	EASTBOUND SPUR
P.I. Sta. 394+33.68	P.I. Sta. 596+17.31
$\Delta = 55^{\circ}32'44''$	$\Delta = 40^{\circ}37'44''$
$D = 2^{\circ}30'00''$	$D = 2^{\circ}30'00''$
$R = 2291.83'$	$R = 2291.83'$
$T = 1215.48'$	$T = 848.43'$
$L = 2235.16'$	$L = 1625.16'$
$E = 302.37'$	$E = 152.00'$
S.E. Run 0.056'/ft	S.E. Run 0.056'/ft
P.C. Sta. 382+20.20	P.C. Sta. 587+68.88
P.T. Sta. 404+55.35	P.T. Sta. 603+94.03

EASTBOUND SPUR SUPERELEVATION TRANSITIONS

EASTBOUND LANES	
CROSS-SLOPE	LOCATION
5.6% to 0.0%	586+95
5.6%	588+68.85

LOOKING WEST
○ = PGL LOCATION

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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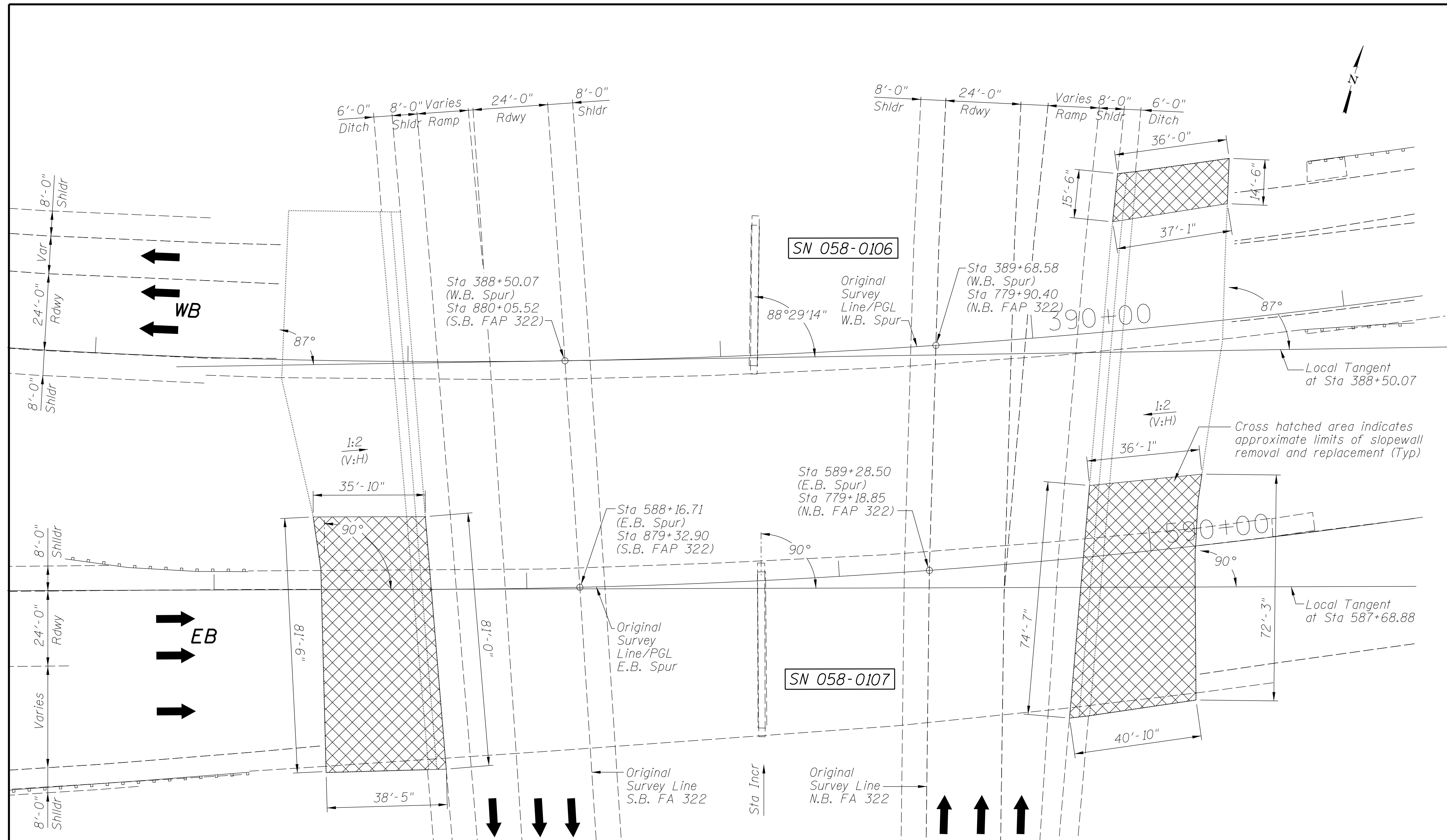
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OFFSET SKETCH AND DETAILS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

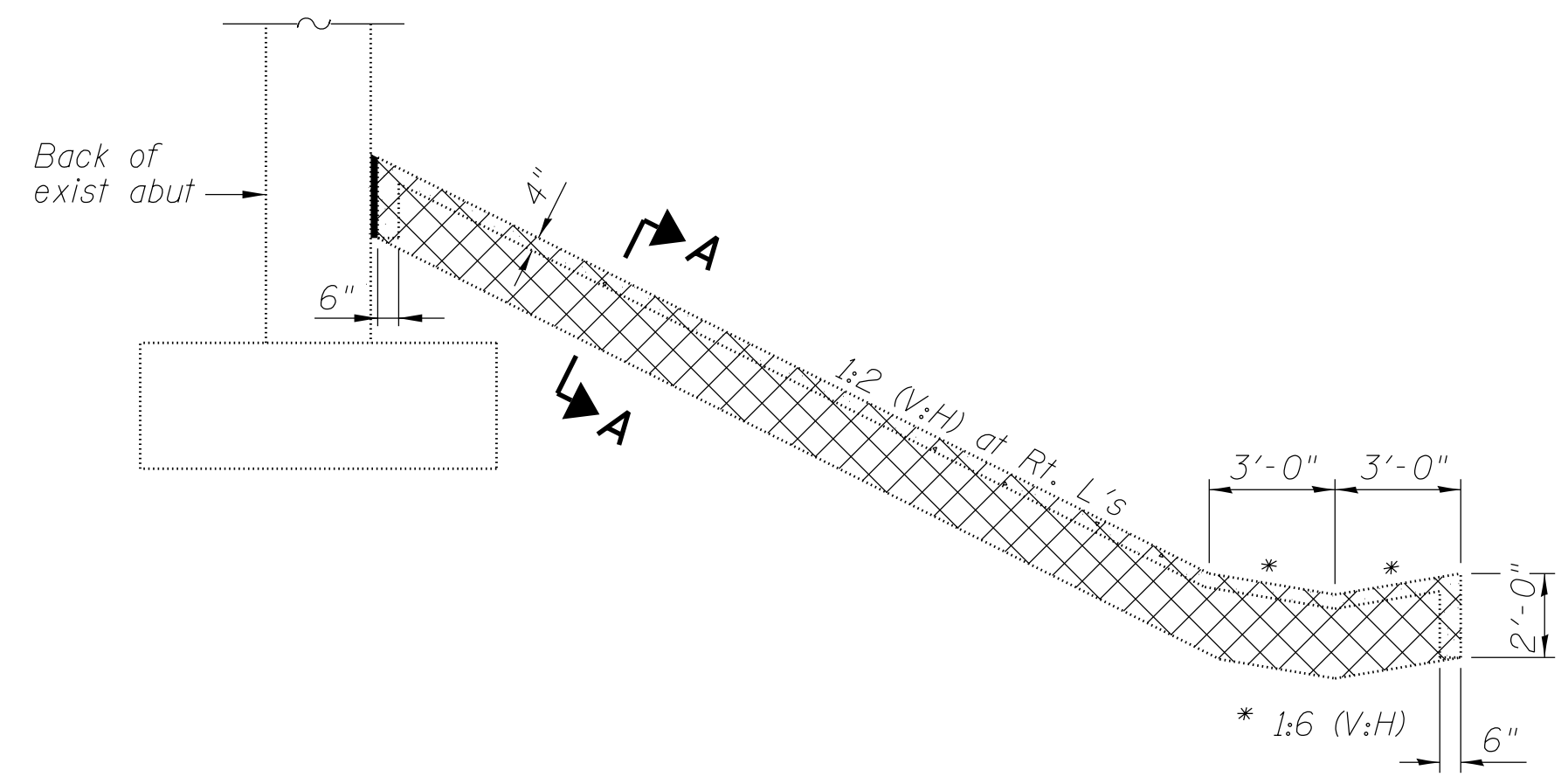
SHEET NO. 3 OF 63 SHEETS

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SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

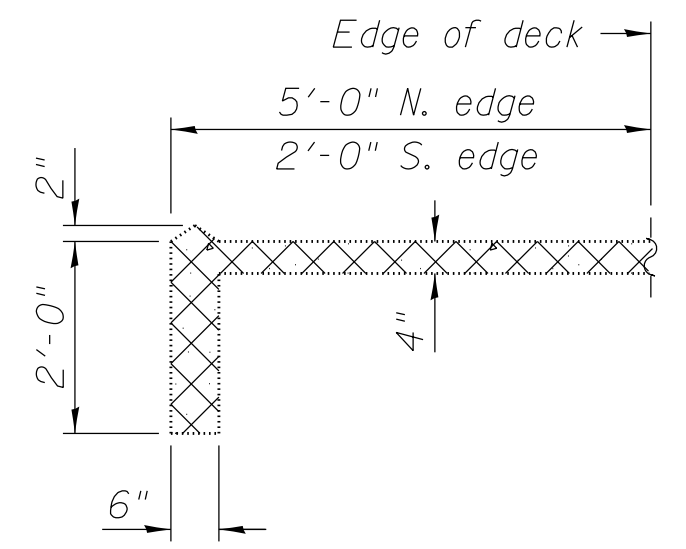
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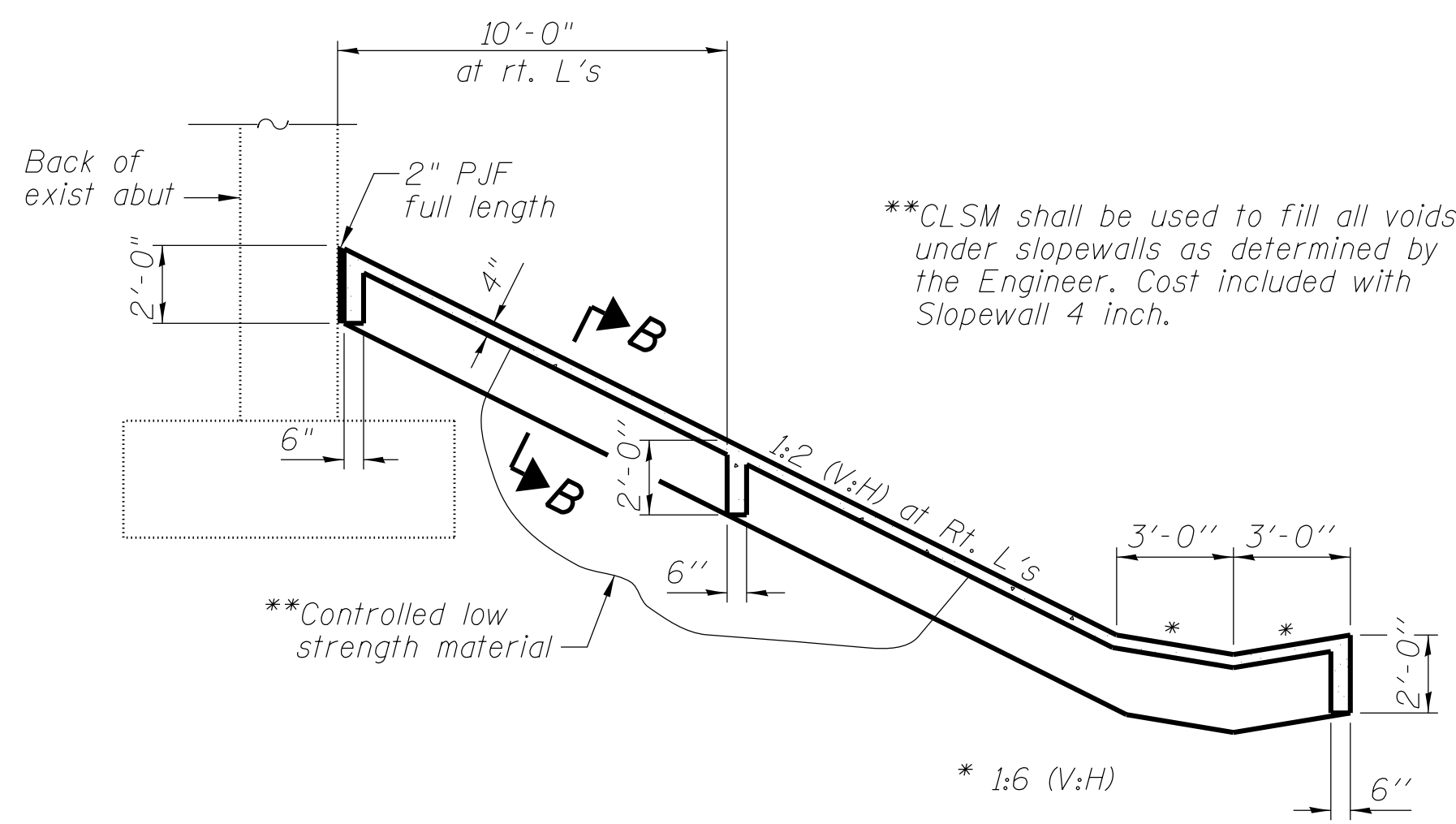
SLOPEWALL PLAN



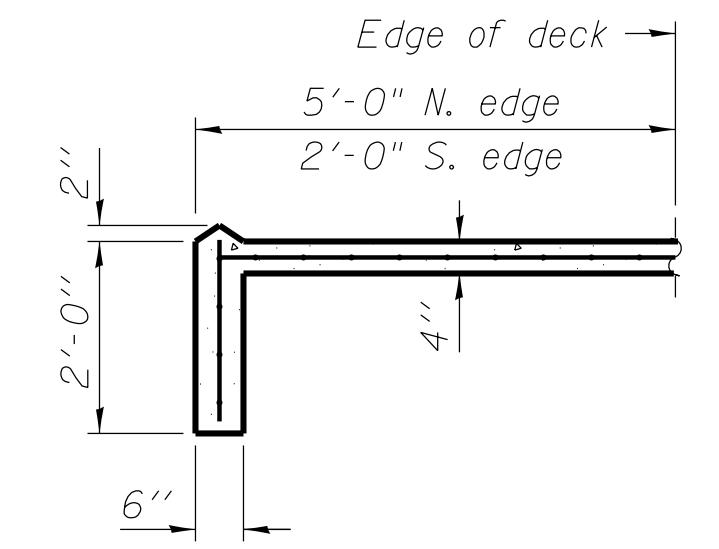
SECTION THRU EXISTING CONCRETE SLOPEWALL



SECTION A-A



SECTION THRU NEW CONCRETE SLOPEWALL



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Slope Wall Removal	Sq Yd	759
Slope Wall 4 Inch	Sq Yd	759

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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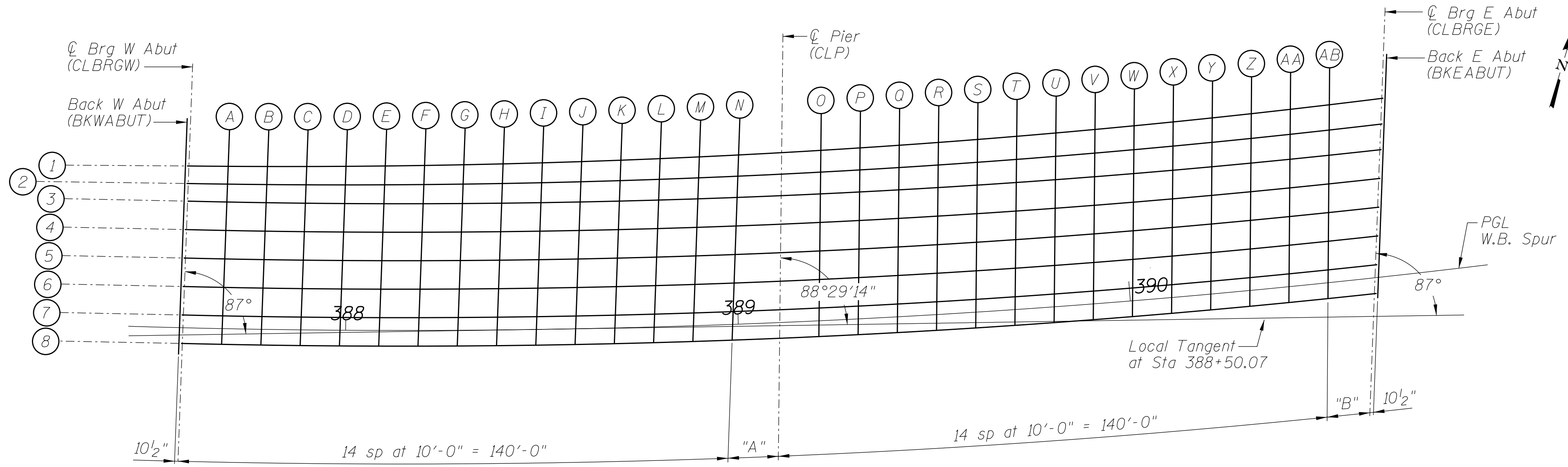
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SLOPEWALL PLAN AND DETAILS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)**

SHEET NO. 4 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	23
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

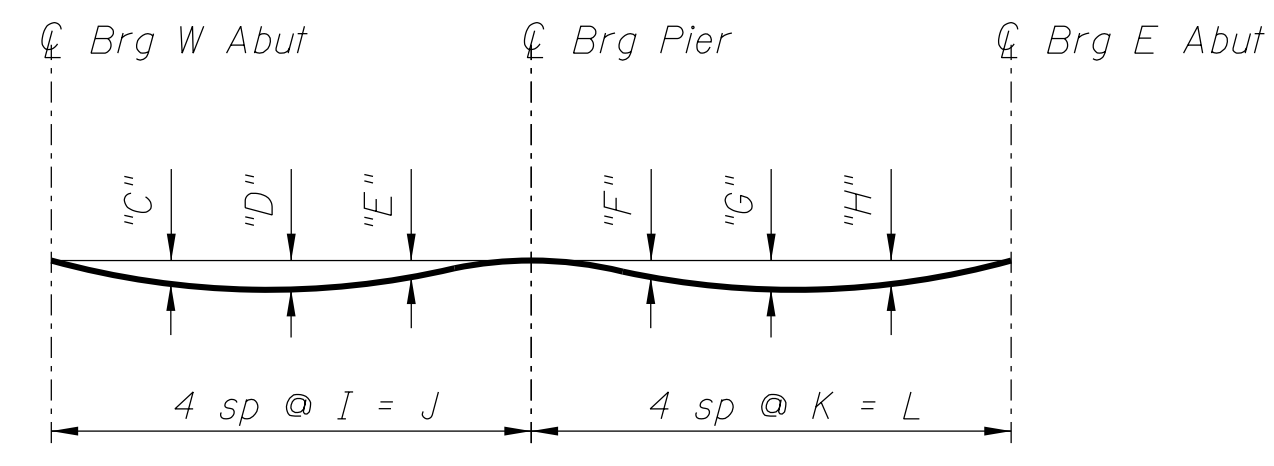
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Note:
 Increments for elevations are measured along centerline of each individual girder. Stations and offsets are located along and radial to PGL.
 Offsets to the left of PGL are negative and offsets to the right of PGL are positive.

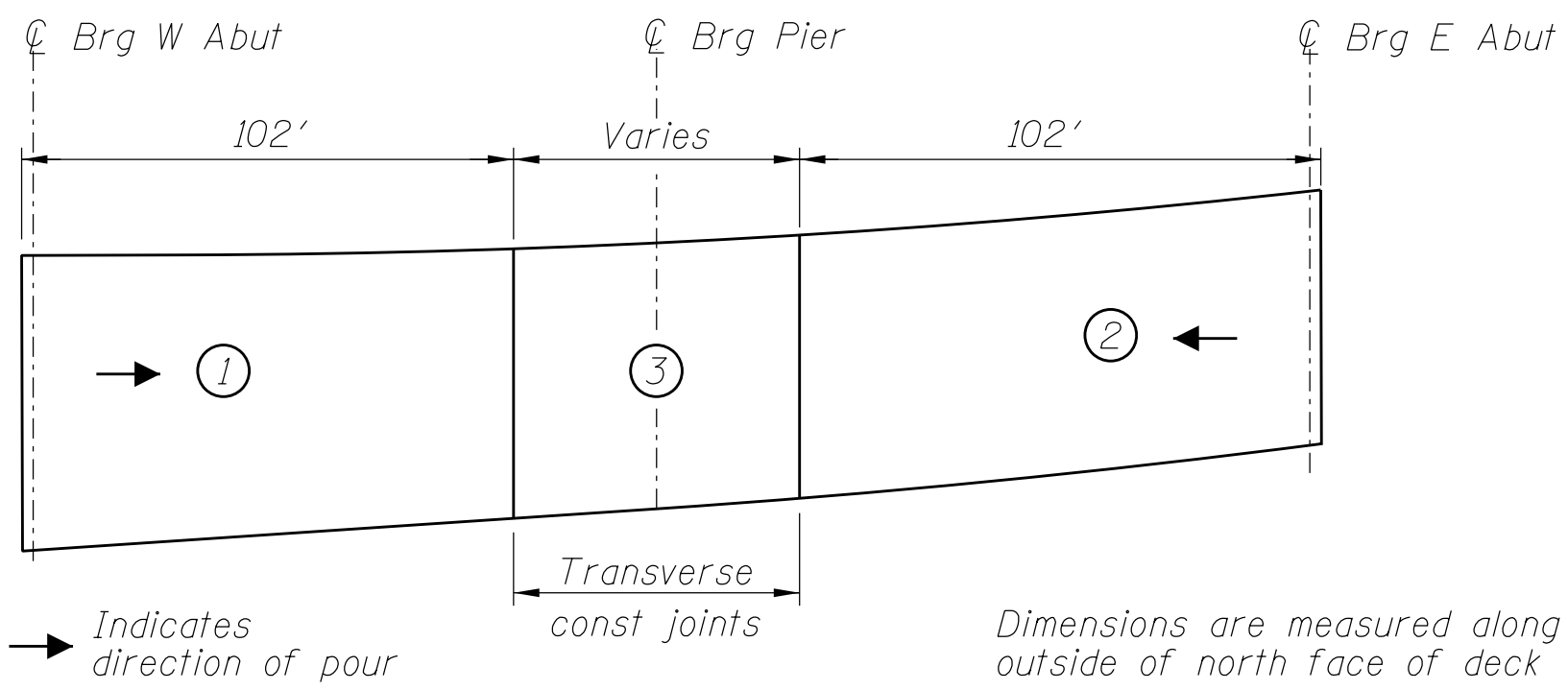
VARIABLES

Girder	"A"	"B"
1	10'-11 ⁵ / ₈ "	13'-5 ¹ / ₈ "
2	11'-0 ⁵ / ₈ "	13'-1 ⁷ / ₈ "
3	11'-1 ¹¹ / ₁₆ "	12'-10 ¹¹ / ₁₆ "
4	11'-3 ⁵ / ₁₆ "	12'-8 ³ / ₈ "
5	11'-6 ¹ / ₄ "	12'-6"
6	11'-8 ¹ / ₂ "	12'-3 ⁵ / ₈ "
7	12'-0"	12'-0 ¹ / ₁₆ "
8	12'-0"	11'-11 ⁵ / ₁₆ "



DEAD LOAD DEFLECTION DIAGRAM
 (Includes weight of concrete only.)

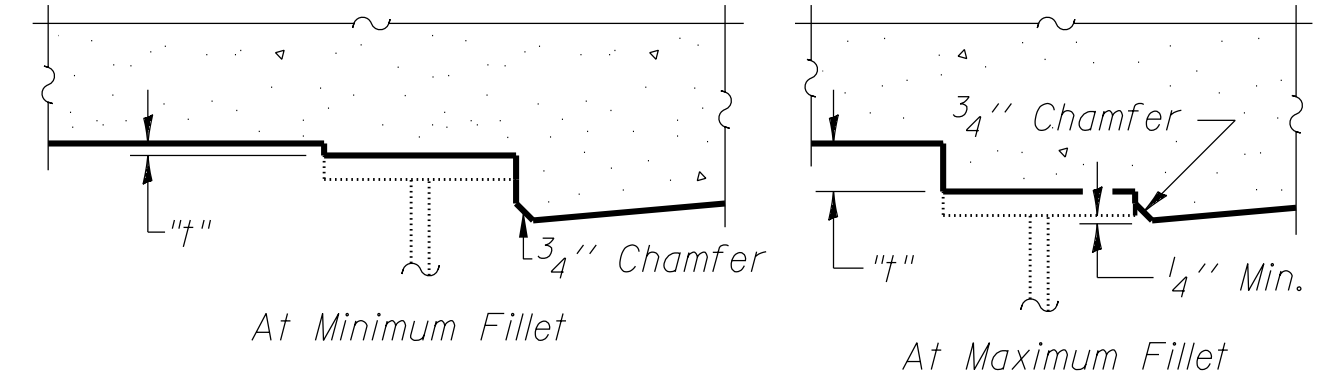
Note:
 The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the table on Sheets 6 thru 8 of 63.



When the deck pour is stopped for the day at one or more of the Transverse Construction Joints in the Deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

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

DECK POURING SEQUENCE



To determine "4": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 6 thru 8 of 63, minus slab thickness, equals the fillet heights "4" above top flange of girders.

FILLET HEIGHTS

DEFLECTION DIAGRAM VARIABLES

Girder	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"
1	1 ¹ / ₂ "	1 ⁵ / ₈ "	1 ¹ / ₂ "	1 ¹ / ₈ "	2 ⁵ / ₈ "	2 ¹ / ₄ "	37'-8 ⁷ / ₈ "	150'-11 ⁵ / ₈ "	38'-4 ¹ / ₄ "	153'-5 ¹ / ₈ "
2	1 ⁵ / ₈ "	1 ³ / ₄ "	5 ⁵ / ₈ "	1 ¹ / ₈ "	2 ⁵ / ₈ "	2 ¹ / ₄ "	37'-9 ¹ / ₈ "	151'-0 ⁵ / ₈ "	38'-3 ¹ / ₂ "	153'-1 ⁷ / ₈ "
3	1 ³ / ₄ "	2"	5 ⁹ / ₈ "	1 ¹ / ₈ "	2 ⁵ / ₈ "	2 ³ / ₈ "	37'-9 ³ / ₈ "	151'-1 ¹¹ / ₁₆ "	38'-2 ⁵ / ₈ "	152'-10 ¹¹ / ₁₆ "
4	2"	2 ¹ / ₈ "	3 ⁴ / ₈ "	1"	2 ⁵ / ₈ "	2 ³ / ₈ "	37'-9 ⁷ / ₈ "	151'-3 ⁵ / ₁₆ "	38'-2 ¹ / ₈ "	152'-8 ³ / ₈ "
5	2 ¹ / ₈ "	2 ³ / ₈ "	7 ⁸ / ₈ "	1"	2 ⁵ / ₈ "	2 ³ / ₈ "	37'-10 ¹ / ₂ "	151'-6 ¹ / ₄ "	38'-1 ¹ / ₂ "	152'-6"
6	2 ¹ / ₄ "	2 ¹ / ₂ "	1"	1"	2 ⁵ / ₈ "	2 ³ / ₈ "	37'-11 ¹ / ₈ "	151'-8 ¹ / ₂ "	38'-0 ⁷ / ₈ "	152'-3 ⁵ / ₈ "
7	2 ³ / ₈ "	2 ⁵ / ₈ "	1"	1"	2 ⁵ / ₈ "	2 ³ / ₈ "	38'-0"	152'-0"	38'-0"	152'-0 ¹ / ₁₆ "
8	2 ¹ / ₂ "	2 ³ / ₄ "	1 ¹ / ₈ "	1"	2 ⁵ / ₈ "	2 ³ / ₈ "	38'-0"	152'-0"	38'-0"	151'-11 ⁵ / ₁₆ "

GIRDER 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+58.20	-41.16	695.46	695.46
CLBRGW	387+59.09	-41.20	695.45	695.45
A	387+69.27	-41.33	695.43	695.48
B	387+79.46	-41.46	695.41	695.49
C	387+89.64	-41.60	695.39	695.50
D	387+99.82	-41.73	695.37	695.50
E	388+10.01	-41.86	695.34	695.48
F	388+20.19	-41.99	695.31	695.46
G	388+30.38	-42.12	695.27	695.42
H	388+40.57	-42.25	695.24	695.36
I	388+50.75	-42.38	695.20	695.31
J	388+60.94	-42.52	695.16	695.24
K	388+71.13	-42.65	695.12	695.17
L	388+81.32	-42.78	695.07	695.10
M	388+91.51	-42.91	695.02	695.03
N	389+01.70	-43.04	694.97	694.98
CLP	389+12.90	-43.19	694.92	694.92
O	389+23.09	-43.32	694.86	694.88
P	389+33.28	-43.45	694.80	694.84
Q	389+43.47	-43.58	694.74	694.81
R	389+53.66	-43.71	694.68	694.78
S	389+63.86	-43.84	694.61	694.75
T	389+74.05	-43.97	694.55	694.72
U	389+84.25	-44.10	694.48	694.68
V	389+94.44	-44.24	694.40	694.62
W	390+04.64	-44.37	694.33	694.56
X	390+14.84	-44.50	694.25	694.47
Y	390+25.03	-44.63	694.17	694.37
Z	390+35.23	-44.76	694.09	694.26
AA	390+45.43	-44.89	694.00	694.13
AB	390+55.63	-45.02	693.91	693.99
CLBRGE	390+69.30	-45.13	693.80	693.80
BKEABUT	390+70.19	-45.14	693.79	693.79

GIRDER 2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+58.14	-36.71	695.71	695.71
CLBRGW	387+59.03	-36.71	695.70	695.70
A	387+69.20	-36.80	695.69	695.73
B	387+79.36	-36.87	695.67	695.76
C	387+89.52	-36.93	695.65	695.77
D	387+99.69	-37.00	695.63	695.78
E	388+09.85	-37.06	695.61	695.77
F	388+20.01	-37.13	695.58	695.75
G	388+30.18	-37.19	695.55	695.71
H	388+40.34	-37.26	695.52	695.66
I	388+50.51	-37.32	695.48	695.60
J	388+60.67	-37.39	695.45	695.53
K	388+70.84	-37.45	695.41	695.47
L	388+81.01	-37.52	695.37	695.40
M	388+91.17	-37.58	695.32	695.34
N	389+01.34	-37.65	695.28	695.28
CLP	389+12.60	-37.72	695.22	695.22
O	389+22.76	-37.78	695.17	695.19
P	389+32.93	-37.85	695.12	695.15
Q	389+43.10	-37.91	695.06	695.12
R	389+53.27	-37.98	695.00	695.10
S	389+63.44	-38.04	694.94	695.08
T	389+73.60	-38.11	694.88	695.05
U	389+83.77	-38.17	694.81	695.01
V	389+93.94	-38.24	694.74	694.96
W	390+04.11	-38.30	694.67	694.91
X	390+14.28	-38.37	694.60	694.82
Y	390+24.45	-38.43	694.52	694.73
Z	390+34.62	-38.50	694.44	694.62
AA	390+44.79	-38.56	694.36	694.49
AB	390+54.96	-38.63	694.28	694.36
CLBRGE	390+68.32	-38.66	694.17	694.17
BKEABUT	390+69.21	-38.67	694.16	694.16

GIRDER 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+58.09	-32.25	695.95	695.95
CLBRGW	387+58.98	-32.25	695.95	695.95
A	387+69.12	-32.25	695.94	695.99
B	387+79.26	-32.25	695.93	696.02
C	387+89.40	-32.25	695.91	696.05
D	387+99.55	-32.25	695.90	696.05
E	388+09.69	-32.25	695.88	696.05
F	388+19.83	-32.25	695.85	696.03
G	388+29.97	-32.25	695.83	696.00
H	388+40.12	-32.25	695.80	695.95
I	388+50.26	-32.25	695.77	695.90
J	388+60.40	-32.25	695.74	695.83
K	388+70.55	-32.25	695.70	695.77
L	388+80.69	-32.25	695.66	695.70
M	388+90.83	-32.25	695.62	695.64
N	389+00.97	-32.25	695.58	695.59
CLP	389+12.30	-32.25	695.53	695.53
O	389+22.44	-32.25	695.48	695.50
P	389+32.58	-32.25	695.43	695.47
Q	389+42.73	-32.25	695.38	695.44
R	389+52.87	-32.25	695.33	695.42
S	389+63.01	-32.25	695.27	695.40
T	389+73.15	-32.25	695.21	695.38
U	389+83.30	-32.25	695.14	695.34
V	389+93.44	-32.25	695.08	695.30
W	390+03.58	-32.25	695.01	695.25
X	390+13.72	-32.25	694.94	695.17
Y	390+23.87	-32.25	694.87	695.08
Z	390+34.01	-32.25	694.80	694.98
AA	390+44.15	-32.25	694.72	694.85
AB	390+54.30	-32.25	694.64	694.72
CLBRGE	390+67.36	-32.25	694.53	694.53
BKEABUT	390+68.23	-32.25	694.53	694.53

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS
STRUCTURE NO. 058-0106 (WB)**

SHEET NO. 6 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	25
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

GIRDER 4

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+58.00	-25.00	696.36	696.36
CLBRGW	387+58.88	-25.00	696.36	696.36
A	387+68.99	-25.00	696.35	696.40
B	387+79.10	-25.00	696.34	696.44
C	387+89.21	-25.00	696.32	696.47
D	387+99.32	-25.00	696.30	696.47
E	388+09.43	-25.00	696.28	696.47
F	388+19.55	-25.00	696.26	696.46
G	388+29.66	-25.00	696.23	696.42
H	388+39.77	-25.00	696.21	696.38
I	388+49.88	-25.00	696.18	696.32
J	388+59.99	-25.00	696.14	696.25
K	388+70.10	-25.00	696.11	696.19
L	388+80.21	-25.00	696.07	696.12
M	388+90.32	-25.00	696.03	696.06
N	389+00.43	-25.00	695.99	696.00
CLP	389+11.90	-25.00	695.94	695.94
O	389+22.02	-25.00	695.89	695.90
P	389+32.13	-25.00	695.84	695.87
Q	389+42.24	-25.00	695.79	695.84
R	389+52.35	-25.00	695.73	695.83
S	389+62.46	-25.00	695.68	695.81
T	389+72.57	-25.00	695.62	695.79
U	389+82.68	-25.00	695.55	695.75
V	389+92.79	-25.00	695.49	695.71
W	390+02.90	-25.00	695.42	695.66
X	390+13.01	-25.00	695.35	695.58
Y	390+23.12	-25.00	695.28	695.49
Z	390+33.23	-25.00	695.21	695.40
AA	390+43.34	-25.00	695.13	695.27
AB	390+53.45	-25.00	695.05	695.14
CLBRGE	390+66.26	-25.00	694.95	694.95
BKEABUT	390+67.14	-25.00	694.94	694.94

GIRDER 5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+57.91	-17.75	696.77	696.77
CLBRGW	387+58.79	-17.75	696.77	696.77
A	387+68.87	-17.75	696.76	696.81
B	387+78.95	-17.75	696.74	696.85
C	387+89.03	-17.75	696.73	696.88
D	387+99.10	-17.75	696.71	696.89
E	388+09.18	-17.75	696.69	696.89
F	388+19.26	-17.75	696.67	696.88
G	388+29.34	-17.75	696.64	696.84
H	388+39.42	-17.75	696.61	696.80
I	388+49.49	-17.75	696.58	696.74
J	388+59.57	-17.75	696.55	696.67
K	388+69.65	-17.75	696.52	696.60
L	388+79.73	-17.75	696.48	696.53
M	388+89.81	-17.75	696.44	696.47
N	388+99.88	-17.75	696.40	696.41
CLP	389+11.51	-17.75	696.35	696.35
O	389+21.59	-17.75	696.30	696.31
P	389+31.67	-17.75	696.25	696.28
Q	389+41.75	-17.75	696.20	696.25
R	389+51.83	-17.75	696.14	696.23
S	389+61.90	-17.75	696.09	696.21
T	389+71.98	-17.75	696.03	696.19
U	389+82.06	-17.75	695.96	696.16
V	389+92.14	-17.75	695.90	696.12
W	390+02.22	-17.75	695.83	696.07
X	390+12.29	-17.75	695.76	695.99
Y	390+22.37	-17.75	695.69	695.91
Z	390+32.45	-17.75	695.62	695.81
AA	390+42.53	-17.75	695.54	695.68
AB	390+52.61	-17.75	695.46	695.55
CLBRGE	390+65.18	-17.75	695.36	695.36
BKEABUT	390+66.06	-17.75	695.36	695.36

GIRDER 6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+57.82	-10.50	697.17	697.17
CLBRGW	387+58.70	-10.50	697.17	697.17
A	387+68.75	-10.50	697.16	697.22
B	387+78.79	-10.50	697.15	697.26
C	387+88.84	-10.50	697.13	697.30
D	387+98.88	-10.50	697.12	697.31
E	388+08.93	-10.50	697.10	697.31
F	388+18.98	-10.50	697.07	697.30
G	388+29.02	-10.50	697.05	697.26
H	388+39.07	-10.50	697.02	697.22
I	388+49.11	-10.50	696.99	697.16
J	388+59.16	-10.50	696.96	697.09
K	388+69.21	-10.50	696.92	697.02
L	388+79.25	-10.50	696.89	696.95
M	388+89.30	-10.50	696.85	696.88
N	388+99.34	-10.50	696.81	696.82
CLP	389+11.13	-10.50	696.75	696.75
O	389+21.17	-10.50	696.71	696.72
P	389+31.22	-10.50	696.66	696.68
Q	389+41.26	-10.50	696.61	696.66
R	389+51.31	-10.50	696.55	696.64
S	389+61.36	-10.50	696.50	696.62
T	389+71.40	-10.50	696.44	696.60
U	389+81.45	-10.50	696.37	696.57
V	389+91.49	-10.50	696.31	696.53
W	390+01.54	-10.50	696.24	696.48
X	390+11.59	-10.50	696.18	696.40
Y	390+21.63	-10.50	696.10	696.32
Z	390+31.68	-10.50	696.03	696.22
AA	390+41.72	-10.50	695.96	696.10
AB	390+51.77	-10.50	695.88	695.97
CLBRGE	390+64.11	-10.50	695.78	695.78
BKEABUT	390+64.98	-10.50	695.77	695.77

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS
STRUCTURE NO. 058-0106 (WB)**

SHEET NO. 7 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	26
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

GIRDER 7

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+57.73	-3.25	697.58	697.58
CLBRGW	387+58.61	-3.25	697.58	697.58
A	387+68.62	-3.25	697.57	697.63
B	387+78.64	-3.25	697.56	697.67
C	387+88.65	-3.25	697.54	697.71
D	387+98.67	-3.25	697.52	697.72
E	388+08.68	-3.25	697.50	697.73
F	388+18.69	-3.25	697.48	697.72
G	388+28.71	-3.25	697.46	697.68
H	388+38.72	-3.25	697.43	697.64
I	388+48.74	-3.25	697.40	697.58
J	388+58.75	-3.25	697.37	697.51
K	388+68.77	-3.25	697.33	697.44
L	388+78.78	-3.25	697.30	697.36
M	388+88.79	-3.25	697.26	697.29
N	388+98.81	-3.25	697.21	697.23
CLP	389+10.74	-3.25	697.16	697.16
O	389+20.76	-3.25	697.12	697.12
P	389+30.77	-3.25	697.07	697.09
Q	389+40.78	-3.25	697.01	697.06
R	389+50.80	-3.25	696.96	697.05
S	389+60.81	-3.25	696.90	697.03
T	389+70.83	-3.25	696.85	697.01
U	389+80.84	-3.25	696.78	696.97
V	389+90.85	-3.25	696.72	696.94
W	390+00.87	-3.25	696.65	696.89
X	390+10.88	-3.25	696.59	696.81
Y	390+20.90	-3.25	696.52	696.73
Z	390+30.91	-3.25	696.44	696.64
AA	390+40.93	-3.25	696.37	696.55
AB	390+50.94	-3.25	696.29	696.39
CLBRGE	390+63.05	-3.25	696.19	696.19
BKEABUT	390+63.91	-3.25	696.18	696.18

WB PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+57.69	0.00	697.76	697.76
CLBRGW	387+58.57	0.00	697.76	697.76
A	387+68.57	0.00	697.75	697.81
B	387+78.57	0.00	697.74	697.86
C	387+88.57	0.00	697.72	697.90
D	387+98.57	0.00	697.70	697.91
E	388+08.57	0.00	697.68	697.92
F	388+18.57	0.00	697.66	697.91
G	388+28.57	0.00	697.64	697.87
H	388+38.57	0.00	697.61	697.83
I	388+48.57	0.00	697.58	697.77
J	388+58.57	0.00	697.55	697.70
K	388+68.57	0.00	697.51	697.62
L	388+78.57	0.00	697.48	697.54
M	388+88.57	0.00	697.44	697.48
N	388+98.57	0.00	697.40	697.41
CLP	389+10.57	0.00	697.34	697.34
O	389+20.57	0.00	697.30	697.31
P	389+30.57	0.00	697.25	697.27
Q	389+40.57	0.00	697.20	697.25
R	389+50.57	0.00	697.14	697.23
S	389+60.57	0.00	697.09	697.21
T	389+70.57	0.00	697.03	697.19
U	389+80.57	0.00	696.97	697.16
V	389+90.57	0.00	696.90	697.12
W	390+00.57	0.00	696.84	697.08
X	390+10.57	0.00	696.77	697.00
Y	390+20.57	0.00	696.70	696.92
Z	390+30.57	0.00	696.63	696.82
AA	390+40.57	0.00	696.55	696.74
AB	390+50.57	0.00	696.47	696.57
CLBRGE	390+62.57	0.00	696.38	696.38
BKEABUT	390+63.45	0.00	696.37	696.37

GIRDER 8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	387+57.65	4.00	697.99	697.99
CLBRGW	387+58.52	4.00	697.98	697.98
A	387+68.50	4.00	697.97	698.04
B	387+78.48	4.00	697.96	698.09
C	387+88.47	4.00	697.95	698.12
D	387+98.45	4.00	697.93	698.14
E	388+08.43	4.00	697.91	698.15
F	388+18.41	4.00	697.89	698.14
G	388+28.40	4.00	697.86	698.10
H	388+38.38	4.00	697.84	698.06
I	388+48.36	4.00	697.81	698.00
J	388+58.35	4.00	697.77	697.93
K	388+68.33	4.00	697.74	697.85
L	388+78.31	4.00	697.70	697.77
M	388+88.29	4.00	697.66	697.71
N	388+98.28	4.00	697.62	697.64
CLP	389+10.36	4.00	697.57	697.57
O	389+20.34	4.00	697.52	697.53
P	389+30.32	4.00	697.47	697.50
Q	389+40.31	4.00	697.42	697.47
R	389+50.29	4.00	697.37	697.45
S	389+60.27	4.00	697.31	697.43
T	389+70.25	4.00	697.25	697.42
U	389+80.24	4.00	697.19	697.38
V	389+90.22	4.00	697.13	697.35
W	390+00.20	4.00	697.07	697.30
X	390+10.18	4.00	697.00	697.23
Y	390+20.17	4.00	696.93	697.15
Z	390+30.15	4.00	696.85	697.05
AA	390+40.13	4.00	696.78	696.97
AB	390+50.11	4.00	696.70	696.80
CLBRGE	390+61.99	4.00	696.61	696.61
BKEABUT	390+62.85	4.00	696.60	696.60

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
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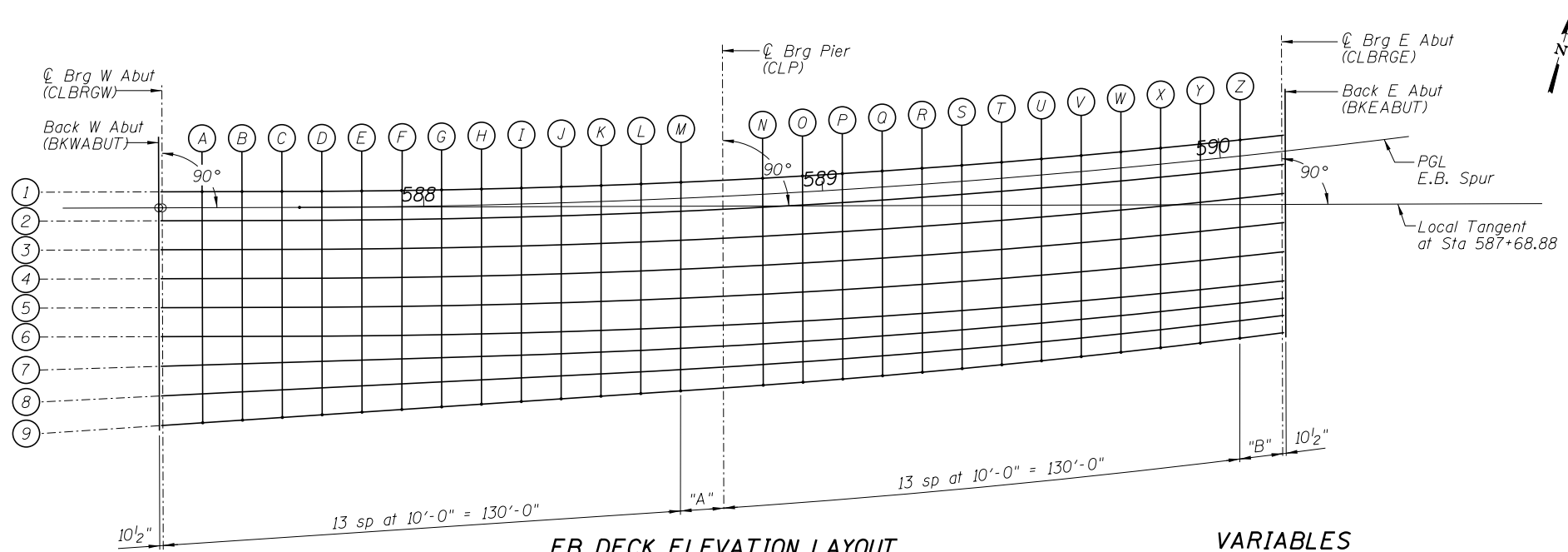
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS
STRUCTURE NO. 058-0106 (WB)**

SHEET NO. 8 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	27
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



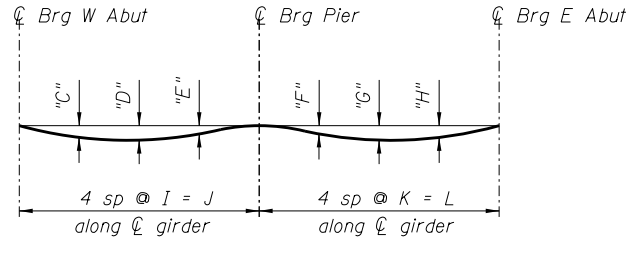
EB DECK ELEVATION LAYOUT

Note:
 Increments for elevations are measured along centerline of each individual girder. Stations and offsets are located along and radial to PGL

Offsets to the left of PGL are negative and offsets to the right of PGL are positive.

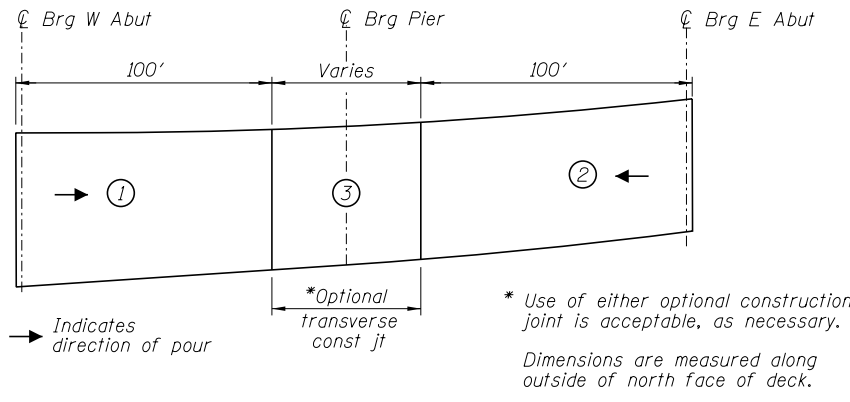
VARIABLES

Girder	"A"	"B"
1	10'-6"	10'-6"
2	10'-6"	10'-6"
3	10'-6"	10'-5 ¹⁵ / ₁₆ "
4	10'-6"	10'-5 ¹⁵ / ₁₆ "
5	10'-6"	10'-5 ⁷ / ₈ "
6	10'-6"	10'-5 ⁷ / ₈ "
7	10'-6 ¹ / ₂ "	10'-6 ³ / ₄ "
8	10'-7 ¹ / ₂ "	10'-7 ¹¹ / ₁₆ "
9	10'-8 ¹⁵ / ₁₆ "	10'-8 ¹¹ / ₁₆ "



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 in the table on Sheets 9 thru 12 of 63.



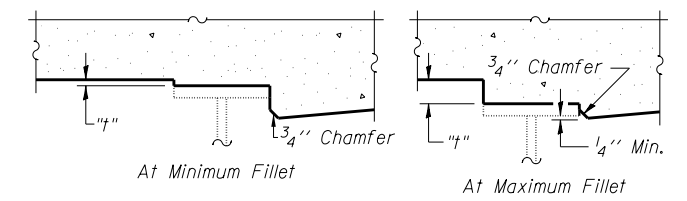
When the deck pour is stopped for the day at one or more of the Transverse Construction Joints in the Deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

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

DECK POURING SEQUENCE

GIRDER 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	-4.00	693.98	693.98
CLBRGW	587+34.48	-4.00	693.98	693.98
A	587+44.48	-4.00	693.96	694.00
B	587+54.48	-4.00	693.94	694.02
C	587+64.48	-4.00	693.91	694.03
D	587+74.49	-4.00	693.89	694.03
E	587+84.50	-4.00	693.87	694.03
F	587+94.52	-4.00	693.85	694.01
G	588+04.54	-4.00	693.83	693.99
H	588+14.56	-4.00	693.80	693.95
I	588+24.57	-4.00	693.78	693.91
J	588+34.59	-4.00	693.76	693.86
K	588+44.61	-4.00	693.74	693.81
L	588+54.63	-4.00	693.72	693.76
M	588+64.64	-4.00	693.69	693.72
CLP	588+75.16	-4.00	693.67	693.67
N	588+85.18	-4.00	693.65	693.66
O	588+95.20	-4.00	693.63	693.64
P	589+05.21	-4.00	693.60	693.63
Q	589+15.23	-4.00	693.58	693.64
R	589+25.25	-4.00	693.56	693.65
S	589+35.27	-4.00	693.54	693.66
T	589+45.28	-4.00	693.52	693.66
U	589+55.30	-4.00	693.49	693.66
V	589+65.32	-4.00	693.47	693.64
W	589+75.34	-4.00	693.45	693.58
X	589+85.35	-4.00	693.43	693.56
Y	589+95.37	-4.00	693.41	693.51
Z	590+05.39	-4.00	693.38	693.48
CLBRGE	590+15.93	-4.00	693.36	693.36
BKEABUT	590+16.79	-4.00	693.36	693.36



To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 9 thru 12 of 63, minus slab thickness, equals the fillet heights "t" above top flange of girders.

FILLET HEIGHTS

FILE NAME = I:\1001\6008 - D7 Ver. Var. Work. Order - 6 - Rte 36 Bridge Plans\CADD_Structural\ebdeckelev.dgn

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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 PLOT DATE = 1/30/2018

DESIGNED - JMB
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 DRAWN - RLK
 CHECKED - JMB

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS
 STRUCTURE NO. 058-0107 (EB)

SHEET NO. 9 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	28
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

EB PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.59	0.00	694.21	694.21
CLBRGW	587+34.47	0.00	694.20	694.20
A	587+44.48	0.00	694.18	694.23
B	587+54.48	0.00	694.16	694.25
C	587+64.48	0.00	694.14	694.26
D	587+74.48	0.00	694.12	694.26
E	587+84.48	0.00	694.09	694.26
F	587+94.48	0.00	694.07	694.24
G	588+04.48	0.00	694.05	694.21
H	588+14.48	0.00	694.03	694.18
I	588+24.48	0.00	694.01	694.14
J	588+34.48	0.00	693.98	694.09
K	588+44.48	0.00	693.96	694.04
L	588+54.48	0.00	693.94	693.99
M	588+64.48	0.00	693.92	693.94
CLP	588+74.98	0.00	693.90	693.90
N	588+84.98	0.00	693.87	693.88
O	588+94.98	0.00	693.85	693.86
P	589+04.98	0.00	693.83	693.86
Q	589+14.98	0.00	693.81	693.86
R	589+24.98	0.00	693.79	693.87
S	589+34.98	0.00	693.76	693.88
T	589+44.98	0.00	693.74	693.89
U	589+54.98	0.00	693.72	693.88
V	589+64.98	0.00	693.70	693.87
W	589+74.98	0.00	693.68	693.81
X	589+84.98	0.00	693.65	693.79
Y	589+94.98	0.00	693.63	693.73
Z	590+04.98	0.00	693.61	693.71
CLBRGE	590+15.47	0.00	693.59	693.59
BKEABUT	590+16.34	0.00	693.58	693.58

GIRDER 2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	3.25	694.39	694.39
CLBRGW	587+34.48	3.25	694.39	694.39
A	587+44.48	3.25	694.36	694.41
B	587+54.48	3.25	694.34	694.43
C	587+64.48	3.25	694.32	694.44
D	587+74.47	3.25	694.30	694.45
E	587+84.45	3.25	694.28	694.44
F	587+94.44	3.25	694.25	694.43
G	588+04.43	3.25	694.23	694.40
H	588+14.41	3.25	694.21	694.36
I	588+24.40	3.25	694.19	694.32
J	588+34.38	3.25	694.17	694.27
K	588+44.37	3.25	694.14	694.22
L	588+54.36	3.25	694.12	694.17
M	588+64.34	3.25	694.10	694.13
CLP	588+74.83	3.25	694.08	694.08
N	588+84.81	3.25	694.06	694.06
O	588+94.80	3.25	694.03	694.04
P	589+04.78	3.25	694.01	694.04
Q	589+14.77	3.25	693.99	694.05
R	589+24.76	3.25	693.97	694.06
S	589+34.74	3.25	693.95	694.07
T	589+44.73	3.25	693.92	694.07
U	589+54.71	3.25	693.90	694.07
V	589+64.70	3.25	693.88	694.05
W	589+74.68	3.25	693.86	694.00
X	589+84.67	3.25	693.84	693.97
Y	589+94.66	3.25	693.81	693.92
Z	590+04.64	3.25	693.79	693.90
CLBRGE	590+15.15	3.25	693.77	693.77
BKEABUT	590+16.01	3.25	693.77	693.77

GIRDER 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	10.50	694.79	694.79
CLBRGW	587+34.48	10.50	694.79	694.79
A	587+44.48	10.50	694.77	694.82
B	587+54.48	10.50	694.75	694.84
C	587+64.48	10.50	694.73	694.85
D	587+74.45	10.50	694.70	694.85
E	587+84.41	10.50	694.68	694.85
F	587+94.36	10.50	694.66	694.84
G	588+04.31	10.50	694.64	694.81
H	588+14.27	10.50	694.62	694.77
I	588+24.22	10.50	694.59	694.73
J	588+34.18	10.50	694.57	694.68
K	588+44.13	10.50	694.55	694.63
L	588+54.09	10.50	694.53	694.58
M	588+64.04	10.50	694.51	694.53
CLP	588+74.49	10.50	694.48	694.48
N	588+84.44	10.50	694.46	694.47
O	588+94.40	10.50	694.44	694.45
P	589+04.35	10.50	694.42	694.45
Q	589+14.31	10.50	694.40	694.45
R	589+24.26	10.50	694.37	694.46
S	589+34.22	10.50	694.35	694.47
T	589+44.17	10.50	694.33	694.47
U	589+54.12	10.50	694.31	694.47
V	589+64.08	10.50	694.29	694.46
W	589+74.03	10.50	694.27	694.40
X	589+83.99	10.50	694.24	694.38
Y	589+93.94	10.50	694.22	694.33
Z	590+03.90	10.50	694.20	694.31
CLBRGE	590+14.37	10.50	694.18	694.18
BKEABUT	590+15.22	10.50	694.17	694.17

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CHASTAIN & ASSOCIATES LLC
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184-001397

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS
STRUCTURE NO. 058-0107 (EB)**

SHEET NO. 10 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	29
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

GIRDER 4

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	17.75	695.20	695.20
CLBRGW	587+34.48	17.75	695.20	695.20
A	587+44.48	17.75	695.18	695.22
B	587+54.48	17.75	695.15	695.24
C	587+64.48	17.75	695.13	695.26
D	587+74.43	17.75	695.11	695.26
E	587+84.36	17.75	695.09	695.25
F	587+94.28	17.75	695.07	695.24
G	588+04.20	17.75	695.04	695.21
H	588+14.13	17.75	695.02	695.18
I	588+24.05	17.75	695.00	695.14
J	588+33.97	17.75	694.98	695.09
K	588+43.90	17.75	694.96	695.04
L	588+53.82	17.75	694.94	694.99
M	588+63.74	17.75	694.91	694.94
CLP	588+74.16	17.75	694.89	694.89
N	588+84.08	17.75	694.87	694.88
O	588+94.01	17.75	694.85	694.85
P	589+03.93	17.75	694.83	694.85
Q	589+13.85	17.75	694.80	694.85
R	589+23.78	17.75	694.78	694.86
S	589+33.70	17.75	694.76	694.87
T	589+43.62	17.75	694.74	694.87
U	589+53.55	17.75	694.72	694.87
V	589+63.47	17.75	694.69	694.85
W	589+73.39	17.75	694.67	694.81
X	589+83.31	17.75	694.65	694.79
Y	589+93.24	17.75	694.63	694.74
Z	590+03.16	17.75	694.61	694.71
CLBRGE	590+13.60	17.75	694.58	694.58
BKEABUT	590+14.45	17.75	694.58	694.58

GIRDER 5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	25.00	695.56	695.56
CLBRGW	587+34.48	25.00	695.56	695.56
A	587+44.48	25.00	695.54	695.59
B	587+54.48	25.00	695.52	695.61
C	587+64.48	25.00	695.50	695.63
D	587+74.42	25.00	695.49	695.63
E	587+84.31	25.00	695.47	695.63
F	587+94.20	25.00	695.45	695.62
G	588+04.09	25.00	695.43	695.60
H	588+13.98	25.00	695.41	695.57
I	588+23.88	25.00	695.39	695.53
J	588+33.77	25.00	695.37	695.48
K	588+43.66	25.00	695.36	695.44
L	588+53.55	25.00	695.34	695.39
M	588+63.44	25.00	695.32	695.35
CLP	588+73.83	25.00	695.30	695.30
N	588+83.72	25.00	695.28	695.29
O	588+93.61	25.00	695.25	695.26
P	589+03.51	25.00	695.23	695.25
Q	589+13.40	25.00	695.21	695.25
R	589+23.29	25.00	695.19	695.26
S	589+33.18	25.00	695.17	695.26
T	589+43.08	25.00	695.15	695.27
U	589+52.97	25.00	695.12	695.26
V	589+62.86	25.00	695.10	695.25
W	589+72.75	25.00	695.08	695.22
X	589+82.64	25.00	695.06	695.19
Y	589+92.54	25.00	695.04	695.15
Z	590+02.43	25.00	695.01	695.12
CLBRGE	590+12.83	25.00	694.99	694.99
BKEABUT	590+13.68	25.00	694.99	694.99

GIRDER 6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	32.25	695.65	695.65
CLBRGW	587+34.48	32.25	695.65	695.65
A	587+44.48	32.25	695.66	695.70
B	587+54.48	32.25	695.66	695.75
C	587+64.48	32.25	695.67	695.79
D	587+74.40	32.25	695.67	695.82
E	587+84.26	32.25	695.68	695.84
F	587+94.12	32.25	695.68	695.85
G	588+03.98	32.25	695.68	695.85
H	588+13.84	32.25	695.69	695.85
I	588+23.70	32.25	695.69	695.83
J	588+33.57	32.25	695.70	695.81
K	588+43.43	32.25	695.70	695.79
L	588+53.29	32.25	695.71	695.76
M	588+63.15	32.25	695.71	695.74
CLP	588+73.50	32.25	695.70	695.70
N	588+83.36	32.25	695.68	695.70
O	588+93.23	32.25	695.66	695.66
P	589+03.09	32.25	695.64	695.65
Q	589+12.95	32.25	695.62	695.65
R	589+22.81	32.25	695.60	695.66
S	589+32.67	32.25	695.57	695.66
T	589+42.53	32.25	695.55	695.66
U	589+52.39	32.25	695.53	695.65
V	589+62.25	32.25	695.51	695.64
W	589+72.12	32.25	695.49	695.63
X	589+81.98	32.25	695.47	695.60
Y	589+91.84	32.25	695.44	695.55
Z	590+01.70	32.25	695.42	695.53
CLBRGE	590+12.07	32.25	695.40	695.40
BKEABUT	590+12.91	32.25	695.40	695.40

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CHASTAIN & ASSOCIATES LLC
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184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS
STRUCTURE NO. 058-0107 (EB)

SHEET NO. 11 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	30
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

GIRDER 7

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	39.68	695.75	695.75
CLBRGW	587+34.48	39.66	695.75	695.75
A	587+44.47	39.38	695.77	695.82
B	587+54.47	39.10	695.79	695.88
C	587+64.46	38.83	695.81	695.94
D	587+74.37	38.56	695.83	695.98
E	587+84.20	38.32	695.85	696.02
F	587+94.03	38.14	695.87	696.04
G	588+03.87	37.99	695.89	696.06
H	588+13.71	37.89	695.90	696.06
I	588+23.54	37.82	695.92	696.06
J	588+33.38	37.75	695.94	696.06
K	588+43.22	37.68	695.96	696.05
L	588+53.06	37.62	695.98	696.04
M	588+62.90	37.55	696.00	696.03
CLP	588+73.27	37.48	696.00	696.00
N	588+83.11	37.41	695.97	695.99
O	588+92.95	37.34	695.95	695.95
P	589+02.79	37.28	695.92	695.93
Q	589+12.63	37.21	695.90	695.93
R	589+22.47	37.14	695.87	695.92
S	589+32.31	37.08	695.85	695.92
T	589+42.15	37.01	695.82	695.92
U	589+51.99	36.94	695.79	695.91
V	589+61.83	36.88	695.77	695.89
W	589+71.67	36.81	695.74	695.88
X	589+81.51	36.74	695.72	695.86
Y	589+91.35	36.68	695.69	695.81
Z	590+01.20	36.61	695.67	695.78
CLBRGE	590+11.59	36.54	695.64	695.64
BKEABUT	590+12.46	36.53	695.64	695.64

GIRDER 8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	47.10	695.84	695.84
CLBRGW	587+34.48	47.06	695.84	695.84
A	587+44.46	46.59	695.89	695.93
B	587+54.45	46.12	695.93	696.02
C	587+64.44	45.65	695.97	696.09
D	587+74.32	45.19	696.00	696.15
E	587+84.12	44.76	696.04	696.20
F	587+93.93	44.38	696.07	696.24
G	588+03.73	44.04	696.10	696.27
H	588+13.54	43.75	696.13	696.29
I	588+23.35	43.49	696.16	696.30
J	588+33.16	43.28	696.19	696.31
K	588+42.97	43.11	696.22	696.31
L	588+52.79	42.98	696.25	696.31
M	588+62.60	42.85	696.28	696.32
CLP	588+73.03	42.70	696.29	696.29
N	588+82.85	42.57	696.26	696.28
O	588+92.67	42.44	696.23	696.23
P	589+02.48	42.31	696.20	696.22
Q	589+12.30	42.17	696.17	696.20
R	589+22.12	42.04	696.15	696.20
S	589+31.94	41.91	696.12	696.19
T	589+41.76	41.78	696.09	696.18
U	589+51.58	41.64	696.06	696.17
V	589+61.40	41.51	696.03	696.15
W	589+71.22	41.38	696.00	696.15
X	589+81.05	41.25	695.97	696.11
Y	589+90.87	41.11	695.94	696.06
Z	590+00.69	40.98	695.91	696.03
CLBRGE	590+11.13	40.83	695.88	695.88
BKEABUT	590+12.01	40.82	695.88	695.88

GIRDER 9

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKWABUT	587+33.60	54.52	695.93	695.93
CLBRGW	587+34.48	54.47	695.94	695.94
A	587+44.46	53.83	696.00	696.05
B	587+54.44	53.20	696.06	696.15
C	587+64.42	52.56	696.12	696.25
D	587+74.27	51.93	696.17	696.33
E	587+84.04	51.34	696.22	696.39
F	587+93.80	50.80	696.27	696.45
G	588+03.57	50.29	696.32	696.49
H	588+13.35	49.83	696.36	696.53
I	588+23.13	49.41	696.40	696.55
J	588+32.91	49.03	696.44	696.56
K	588+42.70	48.70	696.49	696.58
L	588+52.49	48.40	696.53	696.59
M	588+62.28	48.16	696.57	696.61
CLP	588+72.80	47.93	696.58	696.58
N	588+82.59	47.73	696.55	696.57
O	588+92.39	47.53	696.52	696.52
P	589+02.18	47.33	696.49	696.50
Q	589+11.98	47.14	696.45	696.48
R	589+21.78	46.94	696.42	696.47
S	589+31.58	46.74	696.39	696.46
T	589+41.37	46.54	696.36	696.45
U	589+51.17	46.34	696.32	696.44
V	589+60.97	46.14	696.29	696.41
W	589+70.77	45.95	696.26	696.28
X	589+80.58	45.75	696.22	696.33
Y	589+90.38	45.55	696.19	696.27
Z	590+00.18	45.35	696.16	696.17
CLBRGE	590+10.69	45.13	696.12	696.12
BKEABUT	590+11.56	45.11	696.12	696.12

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS
 STRUCTURE NO. 058-0107 (EB)

SHEET NO. 12 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	31
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	387+34.65	-42.14	695.42
A1	387+44.84	-42.27	695.40
A2	387+55.03	-42.40	695.39
E. End of W. Vault	387+58.22	-42.44	695.38

NORTH EDGE OF RAMP

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	387+34.64	-36.88	695.71
A1	387+44.81	-37.02	695.70
A2	387+54.97	-37.15	695.68
E. End of W. Vault	387+58.15	-37.19	695.68

NORTH EDGE OF PAVEMENT

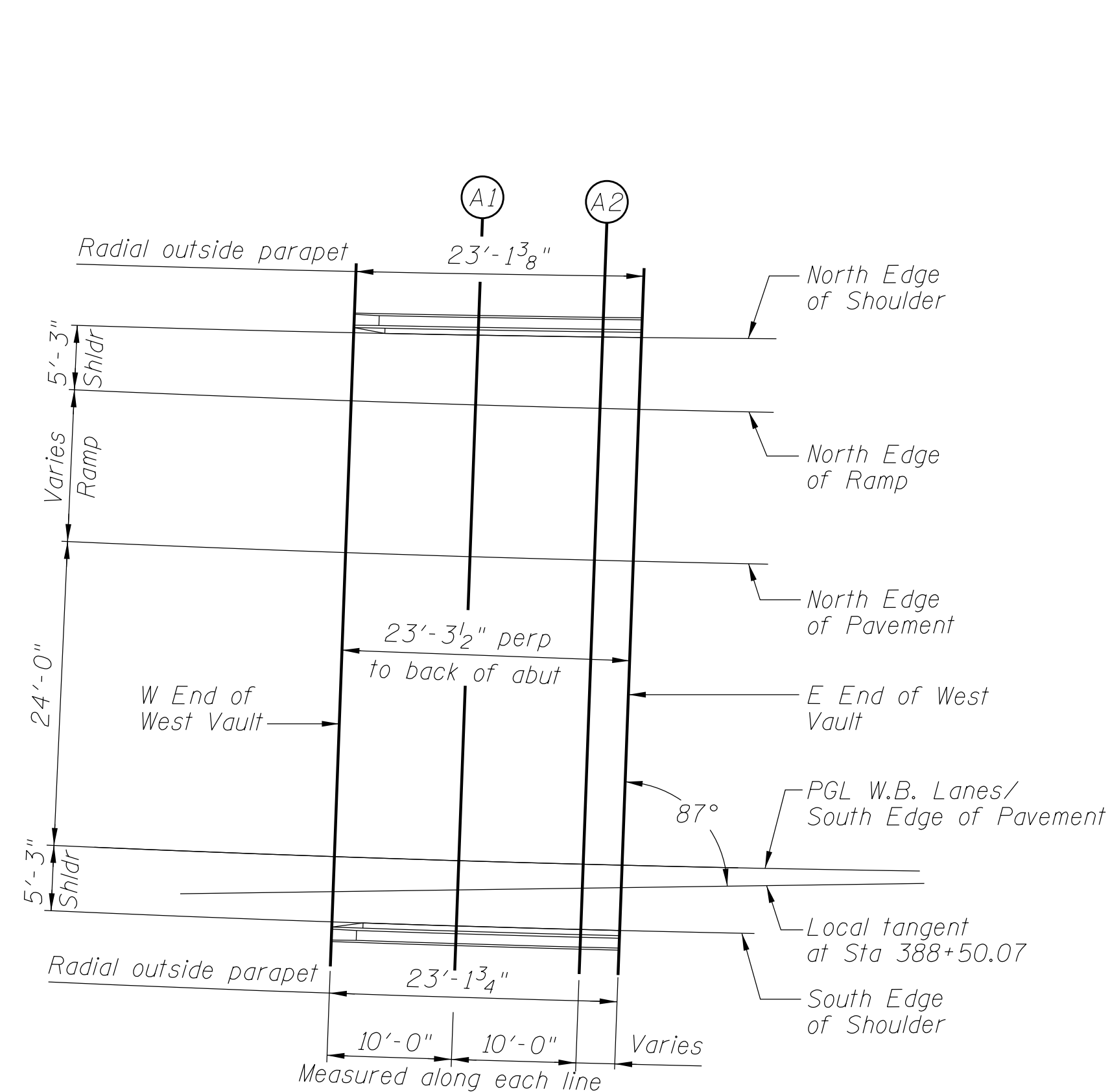
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	387+34.62	-24.00	696.43
A1	387+44.72	-24.00	696.43
A2	387+54.83	-24.00	696.42
E. End of W. Vault	387+57.99	-24.00	696.42

PGL WB LANES/SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	387+34.57	0.00	697.78
A1	387+44.57	0.00	697.77
A2	387+54.57	0.00	697.76
E. End of W. Vault	387+57.69	0.00	697.76

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	387+34.56	5.25	698.07
A1	387+44.54	5.25	698.07
A2	387+54.51	5.25	698.06
E. End of W. Vault	387+57.63	5.25	698.06



PLAN

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NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	390+70.40	-46.46	693.71
A3	390+80.61	-46.59	693.62
A4	390+90.82	-46.72	693.52
E. End of E. Vault	390+94.05	-46.76	693.49

NORTH EDGE OF RAMP

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	390+69.60	-41.20	694.01
A3	390+79.78	-41.33	693.92
A4	390+89.97	-41.46	693.82
E. End of E. Vault	390+93.19	-41.50	693.79

NORTH EDGE OF PAVEMENT

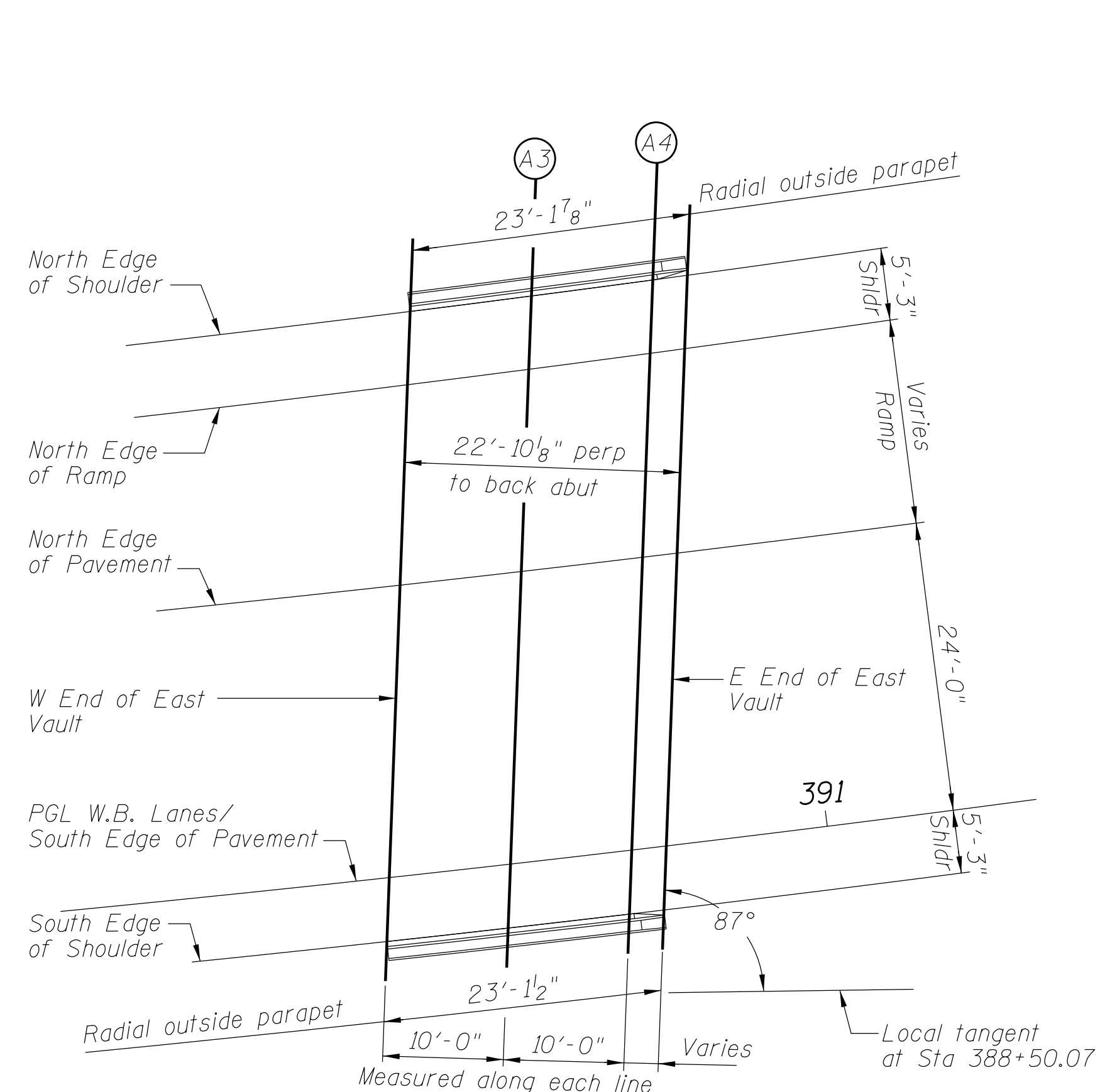
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	390+67.01	-24.00	695.00
A3	390+77.11	-24.00	694.91
A4	390+87.22	-24.00	694.82
E. End of E. Vault	390+90.37	-24.00	694.80

PGL WB LANES/SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	390+63.45	0.00	696.37
A3	390+73.45	0.00	696.29
A4	390+83.45	0.00	696.20
E. End of E. Vault	390+86.56	0.00	696.17

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	390+62.69	5.25	696.67
A3	390+72.66	5.25	696.59
A4	390+82.64	5.25	696.50
E. End of E. Vault	390+85.74	5.25	696.48



PLAN

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NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	587+10.47	-5.25	693.96
A1	587+20.47	-5.25	693.94
A2	587+30.47	-5.25	693.92
E. End of W. Vault	587+33.59	-5.25	693.91

PGL EB LANES/NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	587+10.47	0.00	694.26
A1	587+20.47	0.00	694.23
A2	587+30.47	0.00	694.21
E. End of W. Vault	587+33.59	0.00	694.21

SOUTH EDGE OF PAVEMENT

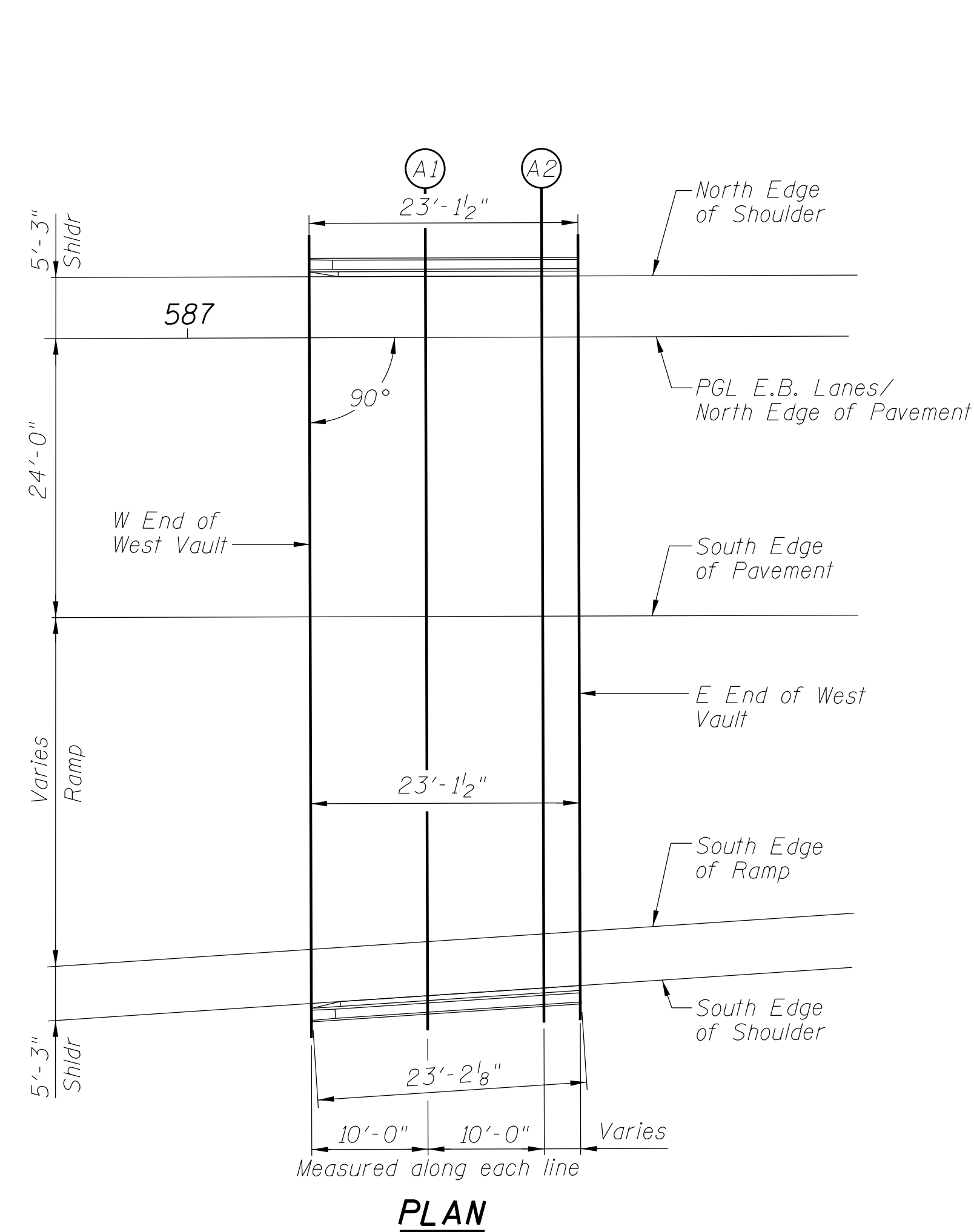
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	587+10.47	24.00	695.60
A1	587+20.47	24.00	695.58
A2	587+30.47	24.00	695.56
E. End of W. Vault	587+33.59	24.00	695.55

SOUTH EDGE OF RAMP

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	587+10.47	51.99	695.74
A1	587+20.46	51.35	695.80
A2	587+30.44	50.72	695.86
E. End of W. Vault	587+33.59	50.52	695.88

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Vault	587+10.47	57.25	695.77
A1	587+20.46	56.61	695.85
A2	587+30.44	55.98	695.92
E. End of W. Vault	587+33.59	55.78	695.95



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NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	590+16.93	-5.25	693.29
A3	590+26.95	-5.25	693.27
A4	590+36.97	-5.25	693.24
E. End of E. Vault	590+40.10	-5.25	693.24

PGL EB LANES/NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	590+16.34	0.00	693.58
A3	590+26.34	0.00	693.56
A4	590+36.34	0.00	693.54
E. End of E. Vault	590+39.46	0.00	693.53

SOUTH EDGE OF PAVEMENT

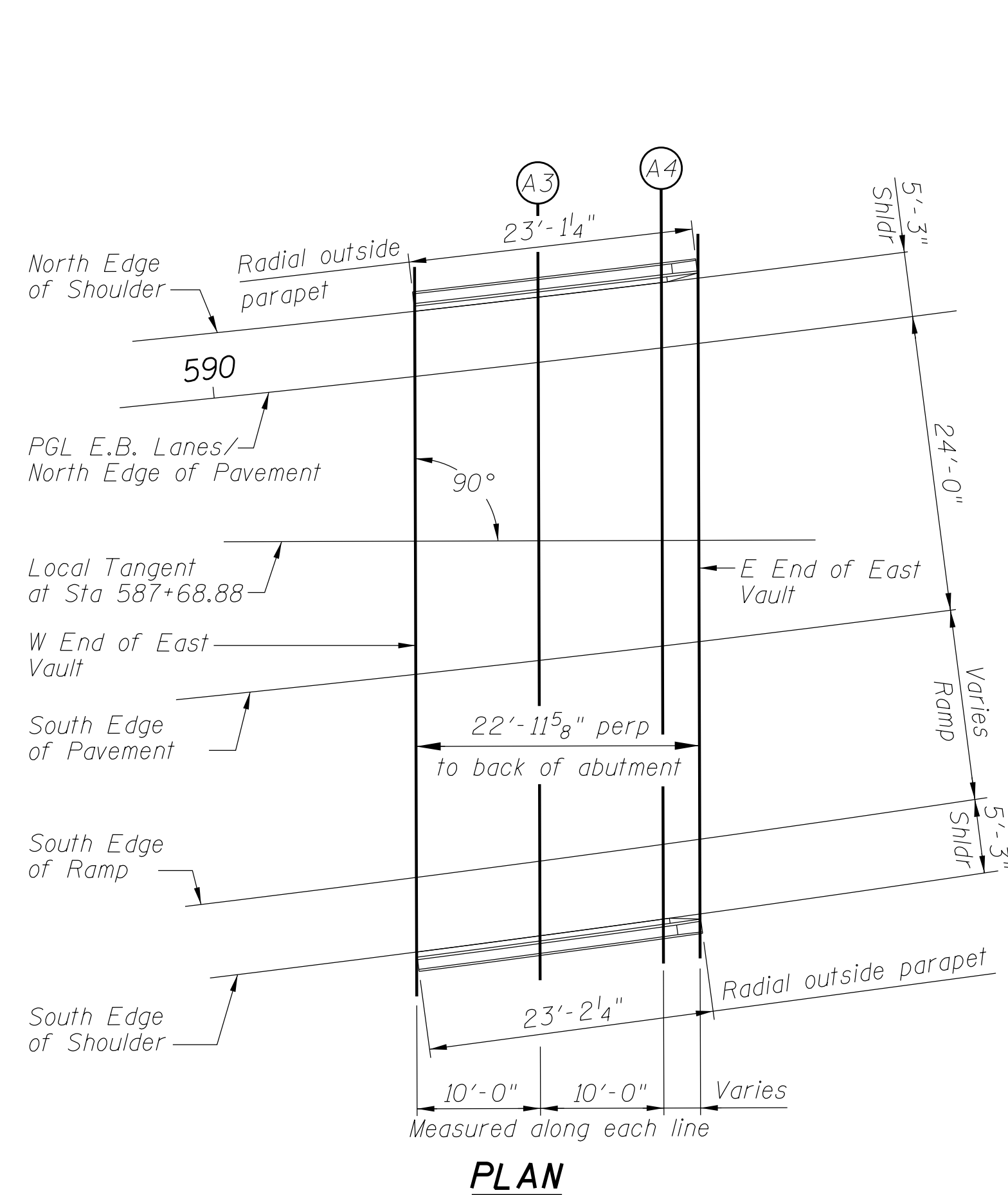
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	590+13.78	24.00	694.93
A3	590+23.68	24.00	694.91
A4	590+33.57	24.00	694.89
E. End of E. Vault	590+36.66	24.00	694.88

SOUTH EDGE OF RAMP

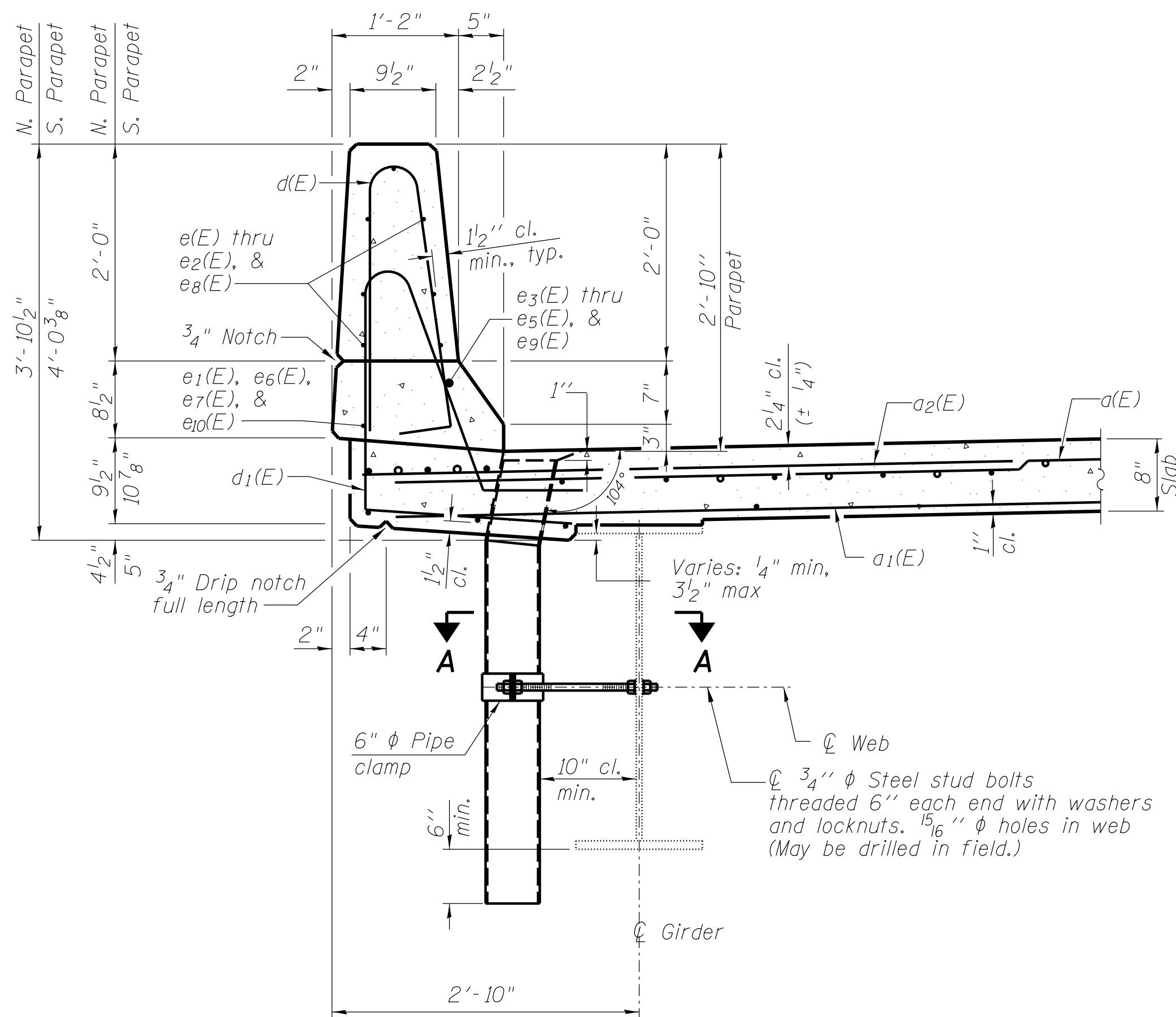
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	590+11.98	41.12	695.90
A3	590+21.80	40.92	695.86
A4	590+31.62	40.72	695.83
E. End of E. Vault	590+34.73	40.66	695.82

SOUTH EDGE OF SHOULDER

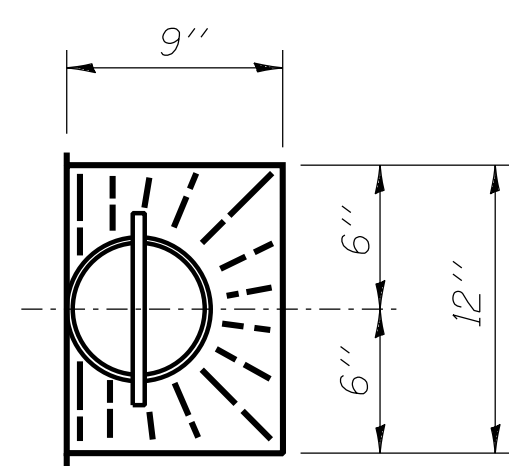
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Vault	590+11.43	46.38	696.19
A3	590+21.23	46.18	696.16
A4	590+31.03	45.98	696.13
E. End of E. Vault	590+34.13	45.92	696.12



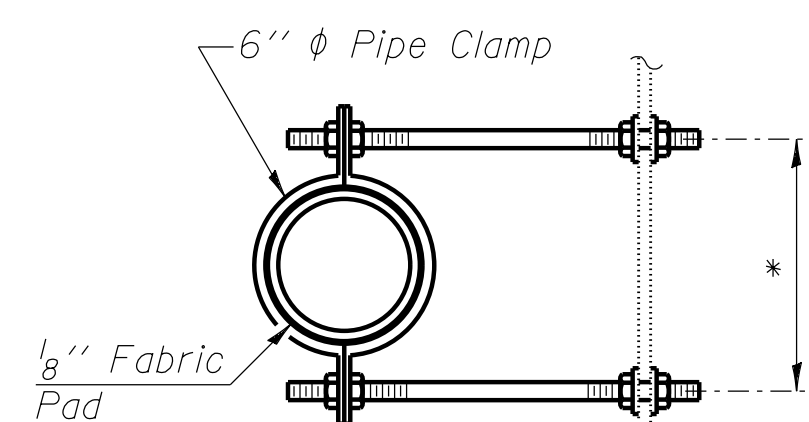
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SECTION THRU PARAPET

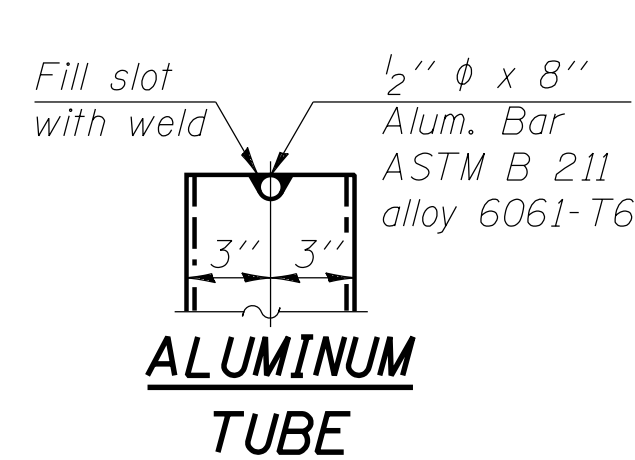


TOP PLAN

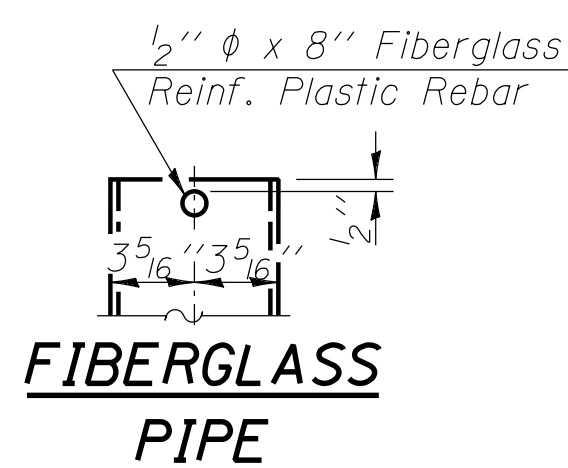


SECTION A-A

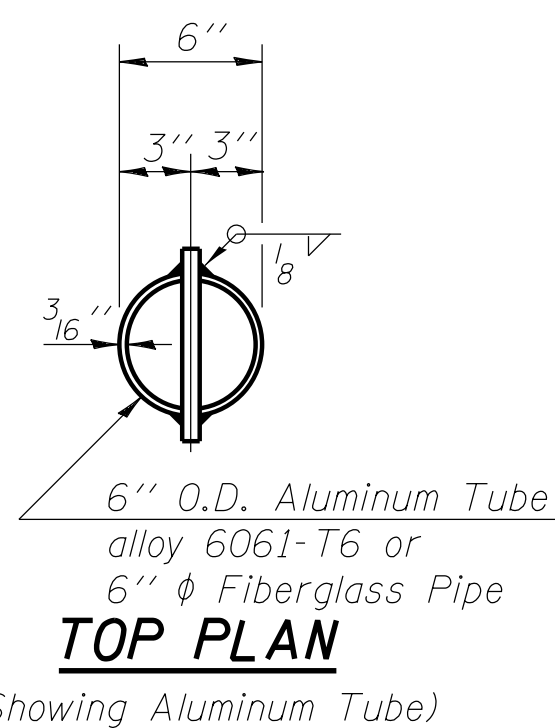
* Dimension as required by Pipe Clamp



ALUMINUM TUBE

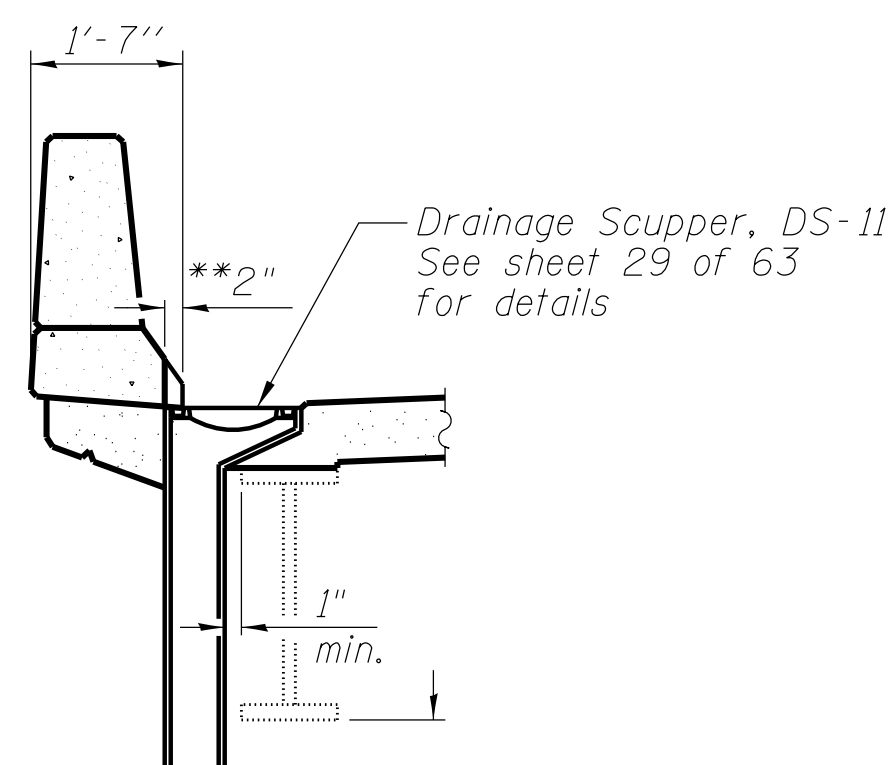


FIBERGLASS PIPE

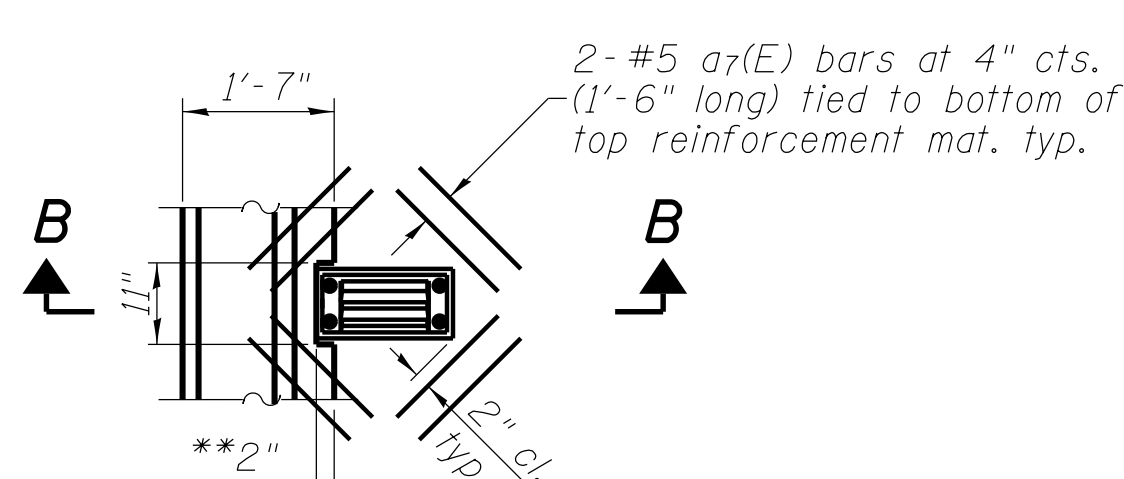


TOP PLAN

(Showing Aluminum Tube)

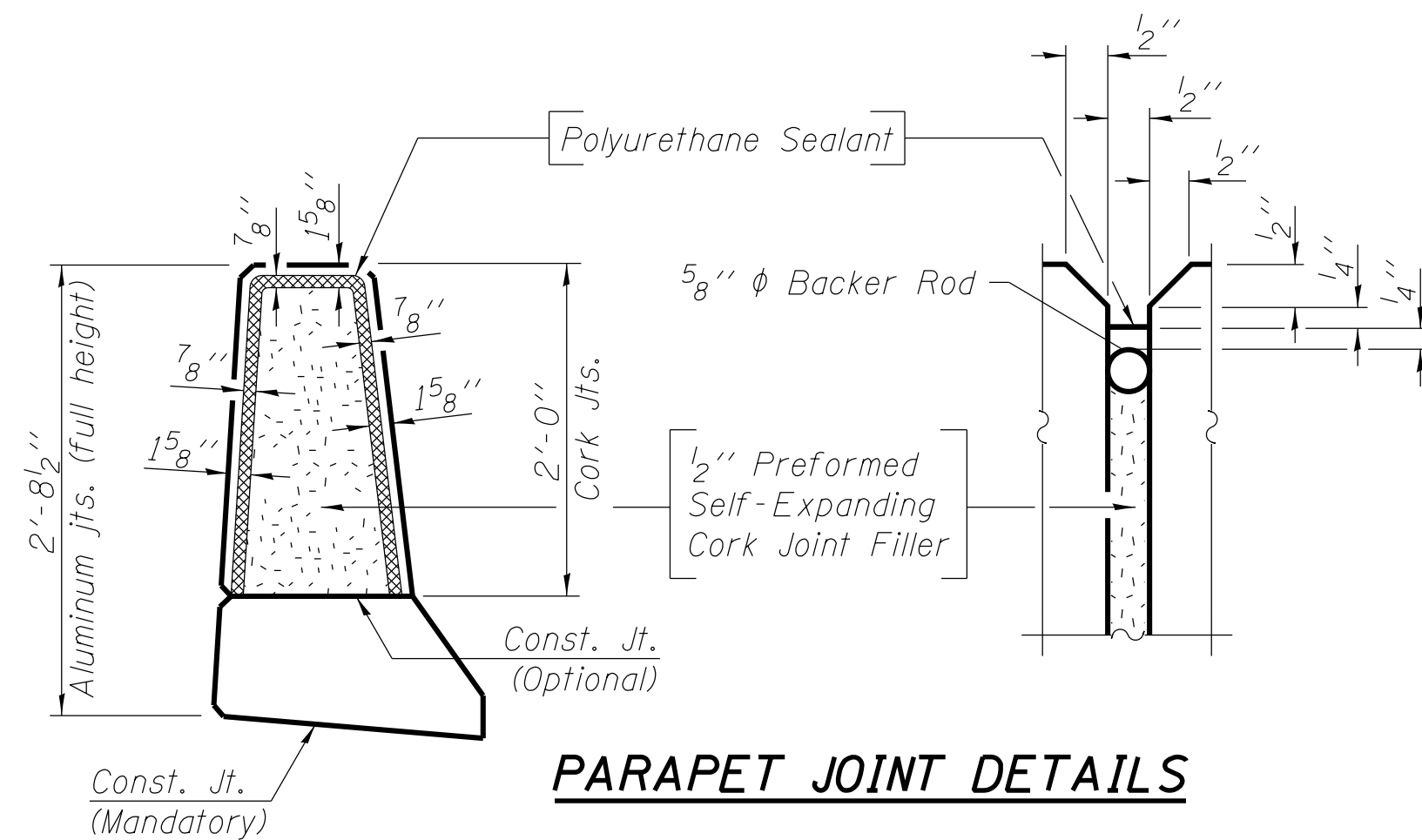


SECTION B-B



SCUPPER PLAN

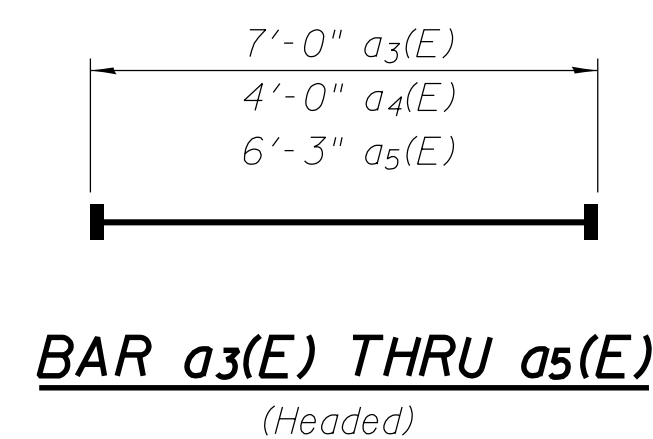
Note: Cut longitudinal reinforcement to clear drainage scuppers. **Notch Parapet 11"x2" to allow placement of Scuppers and future removal of grate. 2" dimension may be reduced if Scupper can be moved closer to fascia girder.



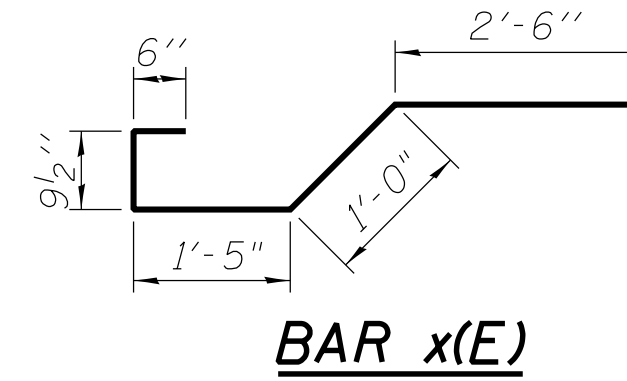
PARAPET JOINT DETAILS

Notes:

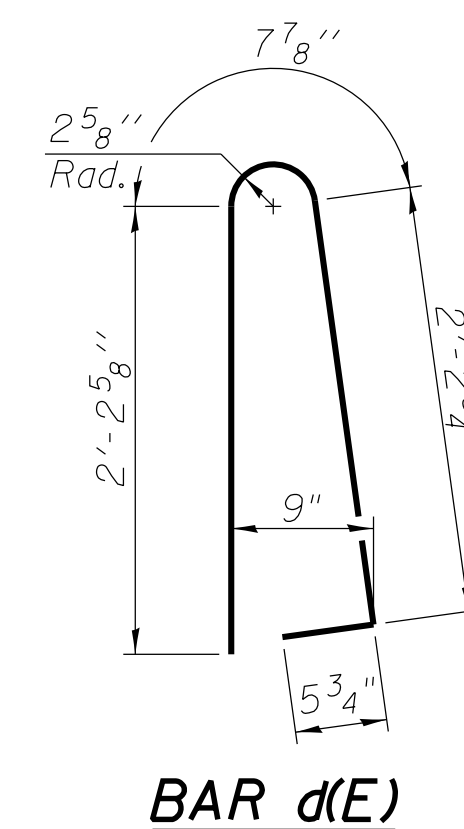
- Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
- The exterior surfaces of the floor drains shall not be painted.
- The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.
- The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.
- The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.
- The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.
- Headed bars shall conform to ASTM A970 Class HA. Cost included with Reinforcement Bars, Epoxy Coated.
- See Sheet 23 of 63 for parapet reinforcement.



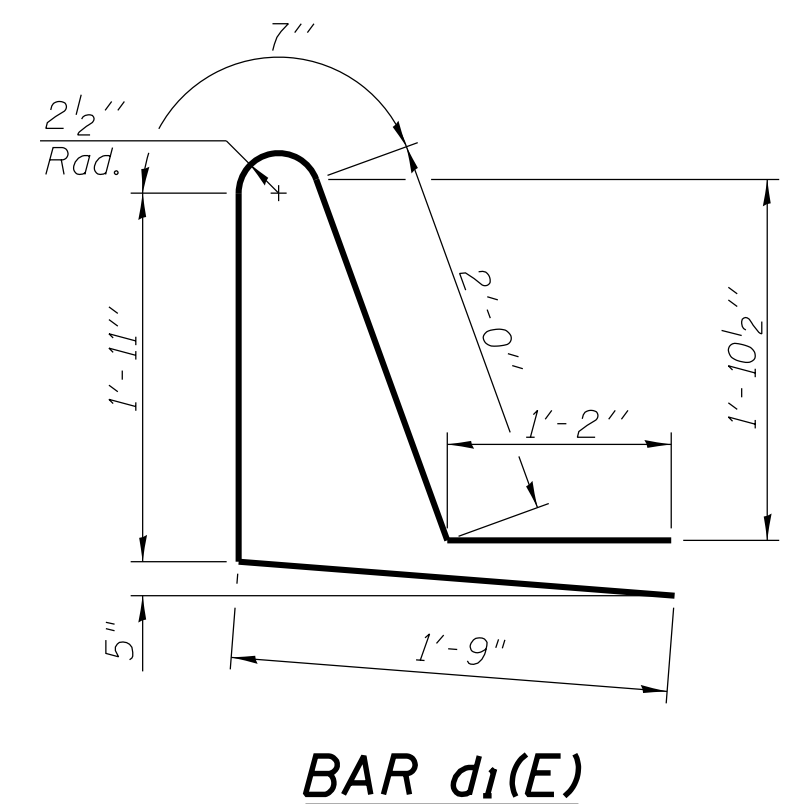
BAR a3(E) THRU a5(E)
(Headed)



BAR x(E)



BAR d(E)



BAR d1(E)

**WB SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	1034	#5	28'-10"	—
a1(E)	1206	#5	20'-4"	—
a2(E)	1050	#6	6'-6"	—
a3(E)	30	#5	7'-0"	—
a4(E)	6	#5	4'-0"	—
a5(E)	6	#5	6'-3"	—
a6(E)	20	#5	29'-2"	—
a7(E)	16	#4	1'-6"	—
b(E)	684	#5	28'-8"	—
b1(E)	270	#6	34'-7"	—
b2(E)	624	#5	26'-9"	—
d(E)	668	#5	5'-7"	—
d1(E)	668	#5	7'-5"	—
e(E)	49	#4	18'-6"	—
e1(E)	32	#4	19'-8"	—
e2(E)	49	#4	18'-10"	—
e3(E)	5	#8	31'-0"	—
e4(E)	4	#8	19'-8"	—
e5(E)	5	#8	31'-7"	—
e6(E)	5	#4	28'-2"	—
e7(E)	5	#4	28'-9"	—
e8(E)	98	#4	18'-8"	—
e9(E)	10	#8	31'-4"	—
e10(E)	10	#4	28'-6"	—
x(E)	90	#5	6'-3"	—
Reinforcement Bars, Epoxy Coated		Lbs.	134,490	
Concrete Superstructure		Cu. Yds.	503.4	
Bridge Deck Grooving		Sq. Yd.	1,619	
Protective Coat		Sq. Yd.	1,943	

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

FILE NAME = I:\1001\6008 - D7 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\superdetails.dgn

SDE - SB-1

11-22-2016

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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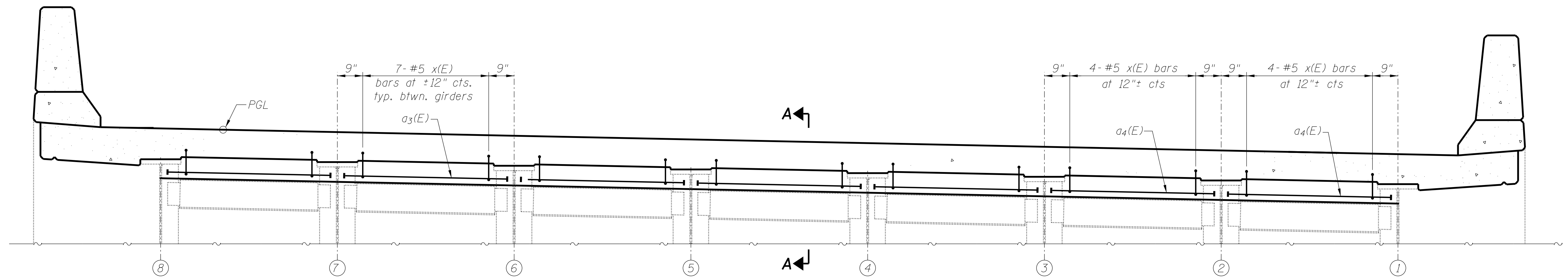
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

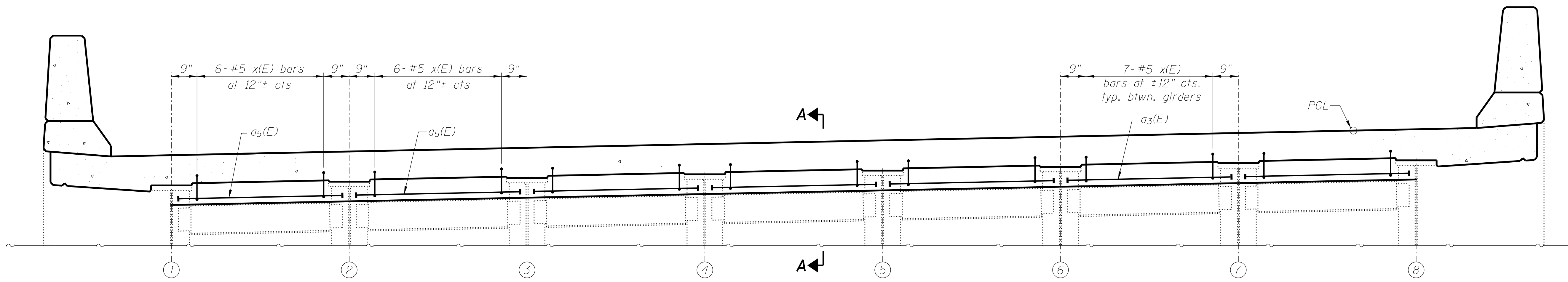
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0106 (WB)

SHEET NO. 18 OF 63 SHEETS

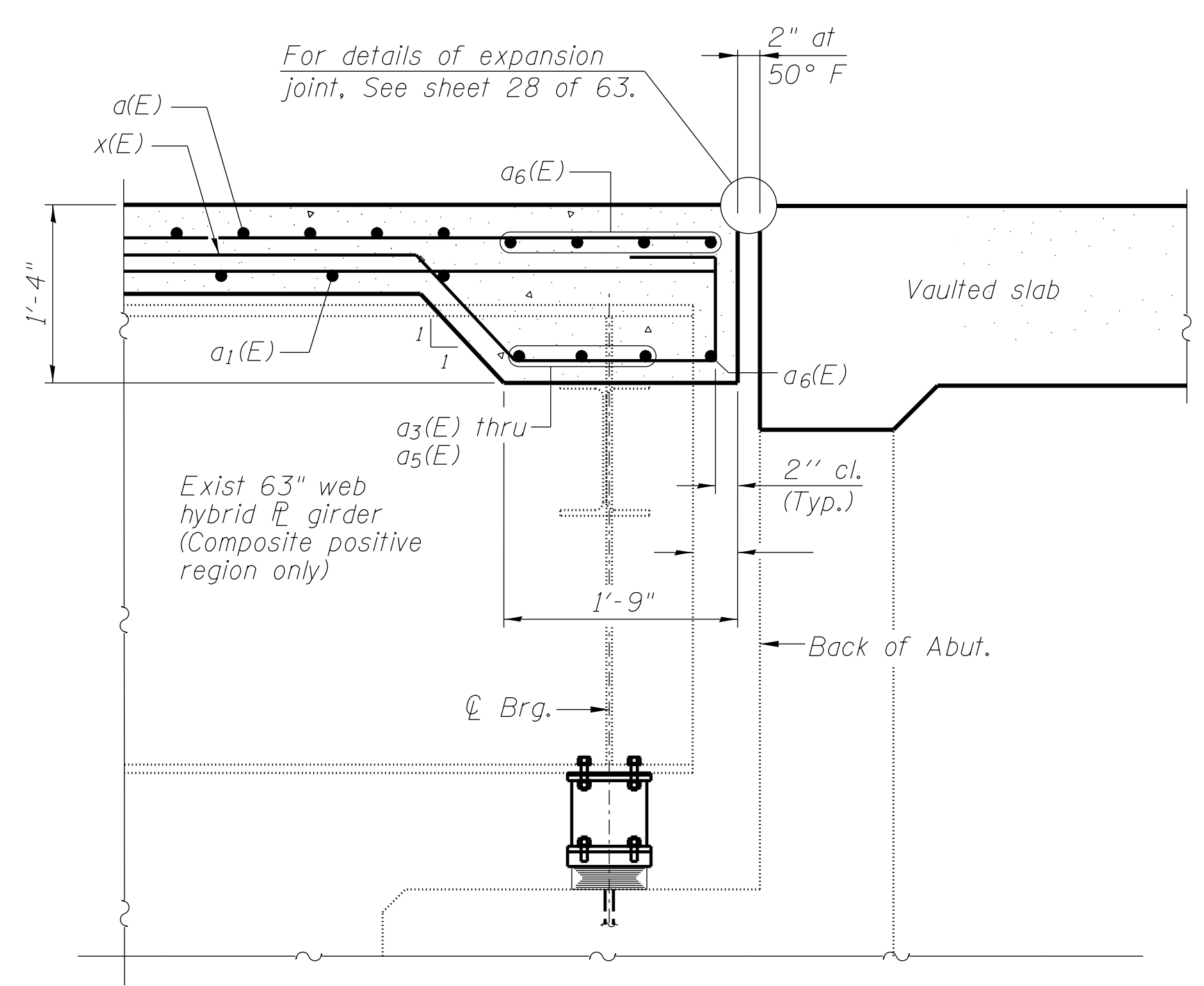
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323	(58-62-HB-2) BR	MACON	82	37
	SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605	
STA.	ILLINOIS FED. AID PROJECT			



DIAPHRAGM AT WEST ABUTMENT



DIAPHRAGM AT EAST ABUTMENT



SECTION A-A

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet 18 of 63.
 Concrete in diaphragm is included with Concrete Superstructure on sheet 18 of 63.
 For details of bar x(E) see sheet 18 of 63.

FILE NAME = I:\DOT\6008 - D7 Ver. Ver.\Work Order 6 - Res 36 Bridge Plans\CADD_Structural\superdetails.dgn

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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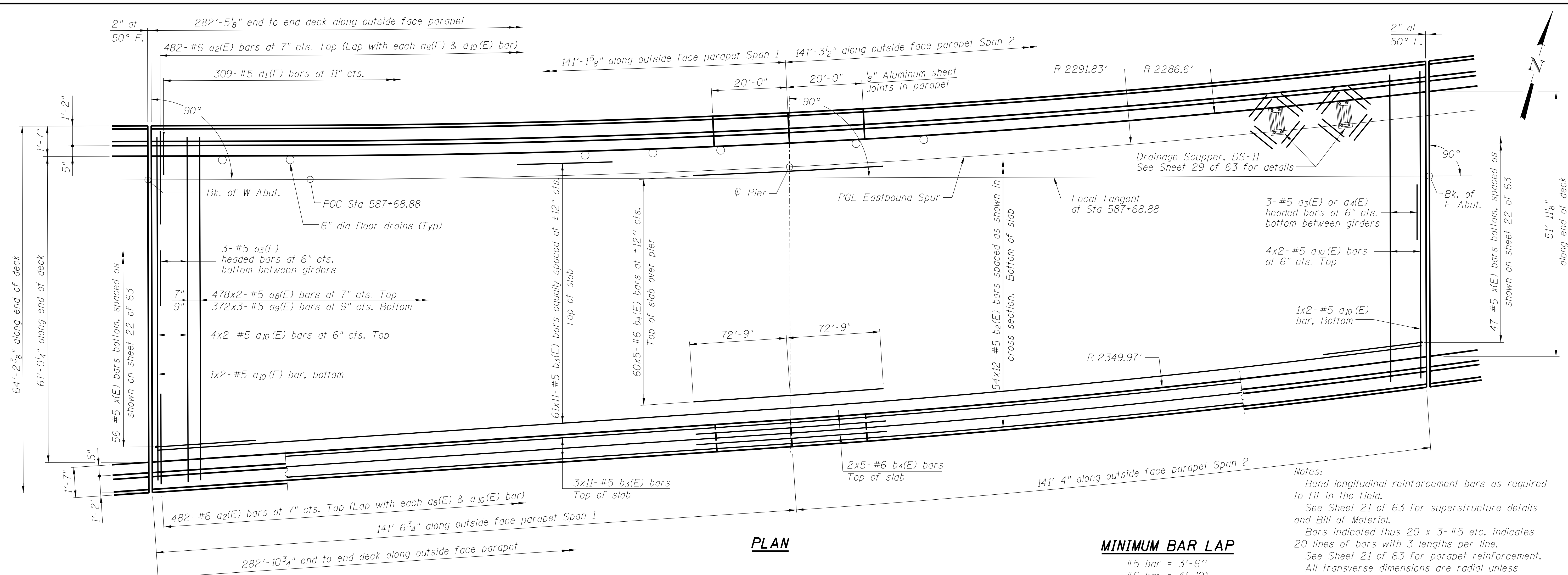
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 058-0106 (WB)

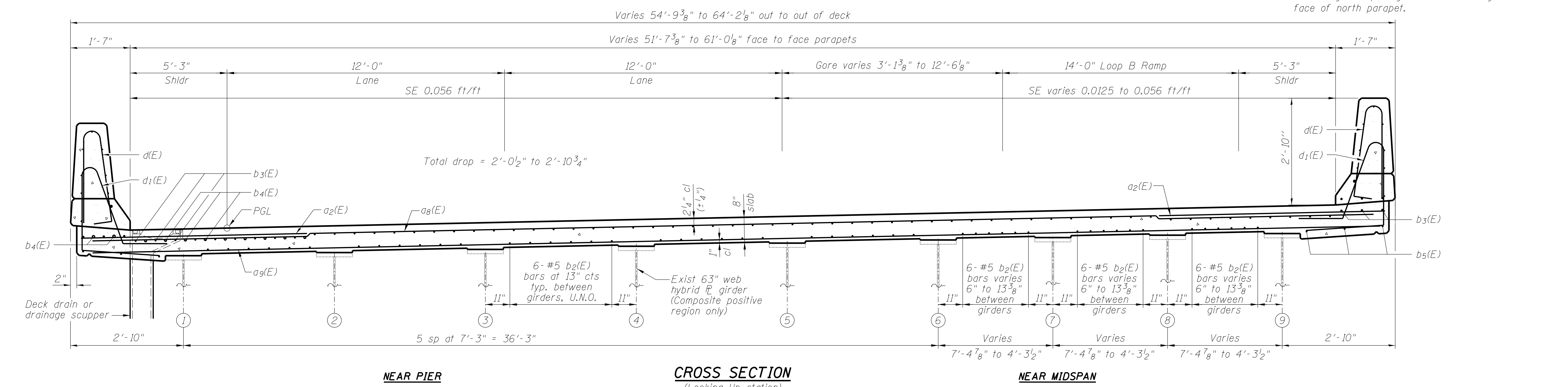
SHEET NO. 19 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



Notes:
 Bend longitudinal reinforcement bars as required to fit in the field.
 See Sheet 21 of 63 for superstructure details and Bill of Material.
 Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet 21 of 63 for parapet reinforcement.
 All transverse dimensions are radial unless noted otherwise.
 All a(E) bars shall be placed perpendicular to local tangent. Spacings shown are along outside face of north parapet.

MINIMUM BAR LAP
 #5 bar = 3'-6"
 #6 bar = 4'-10"



FILE NAME = I:\1001\6008 - D7 Ver-Work\Order-6 - Res 36 Bridge Plans\CADD_Structural\beckdeckplan.dgn

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

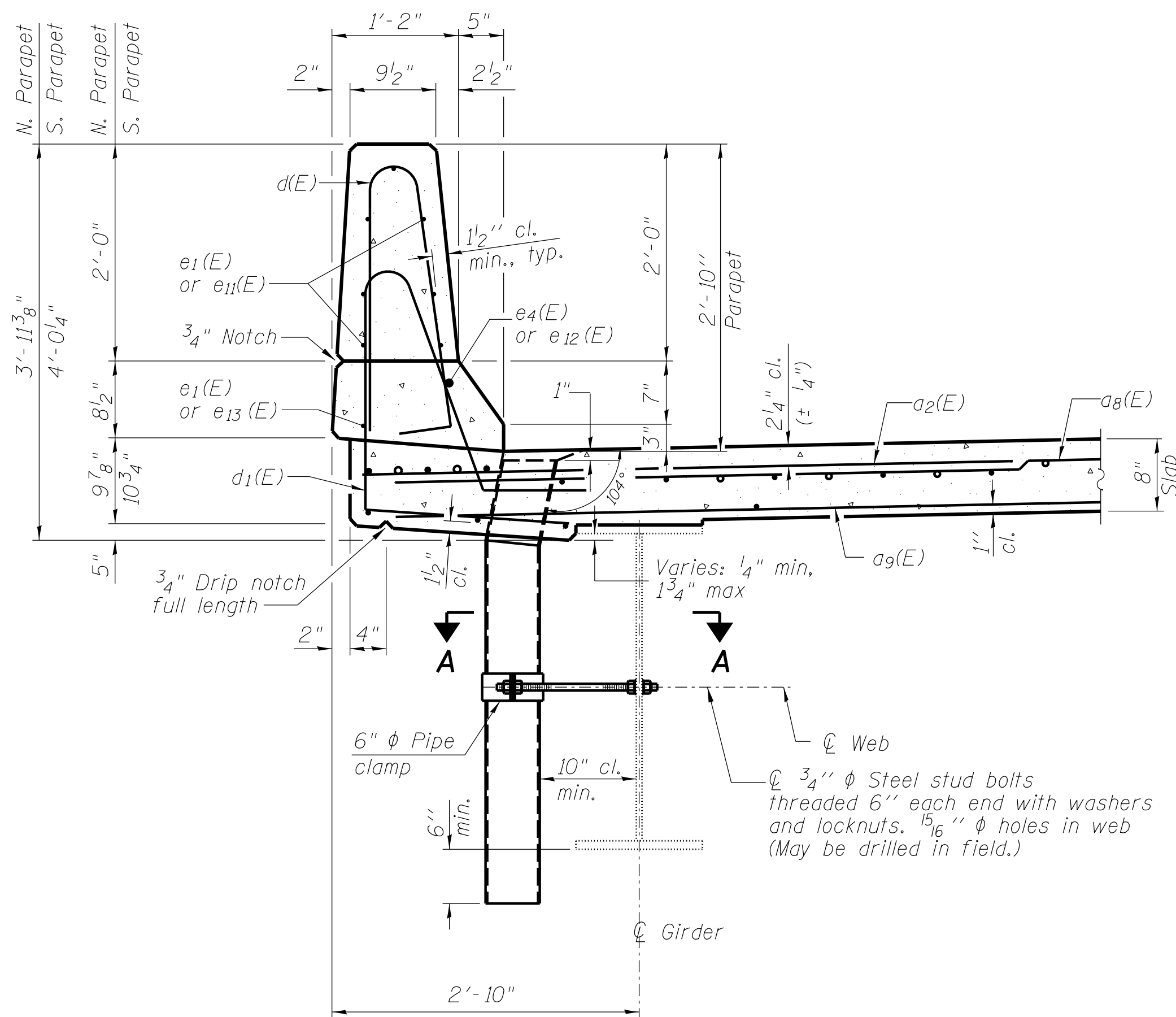
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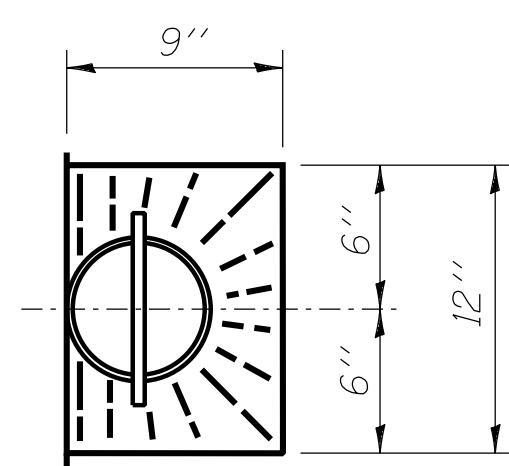
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 058-0107 (EB)
 SHEET NO. 20 OF 63 SHEETS

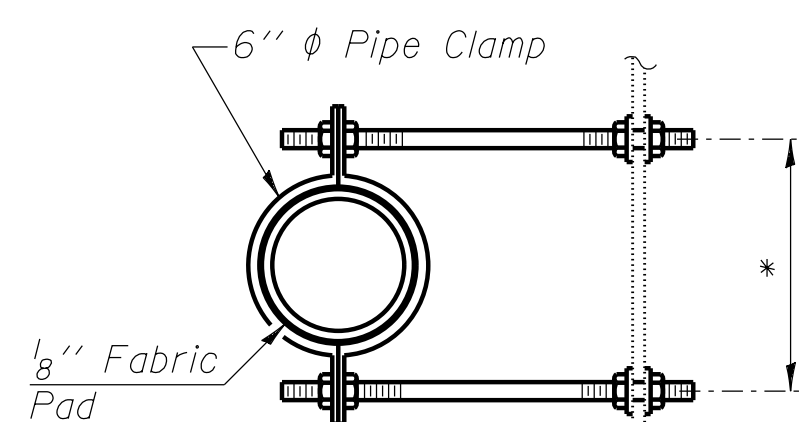
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323	(58-62-HB-2) BR	MACON	82	39
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



SECTION THRU PARAPET

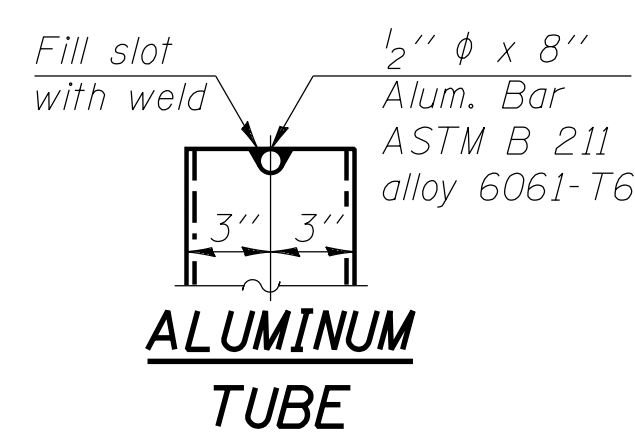


TOP PLAN

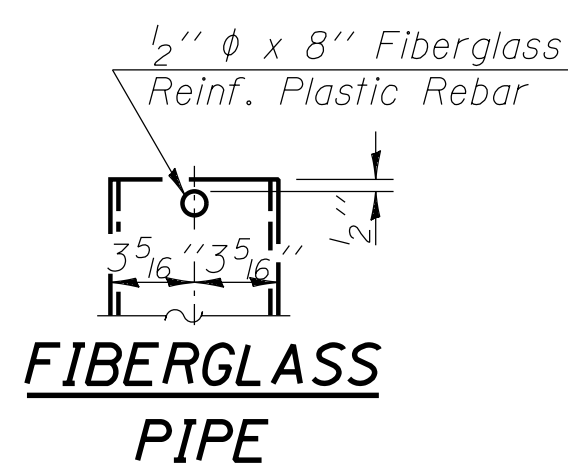


SECTION A-A

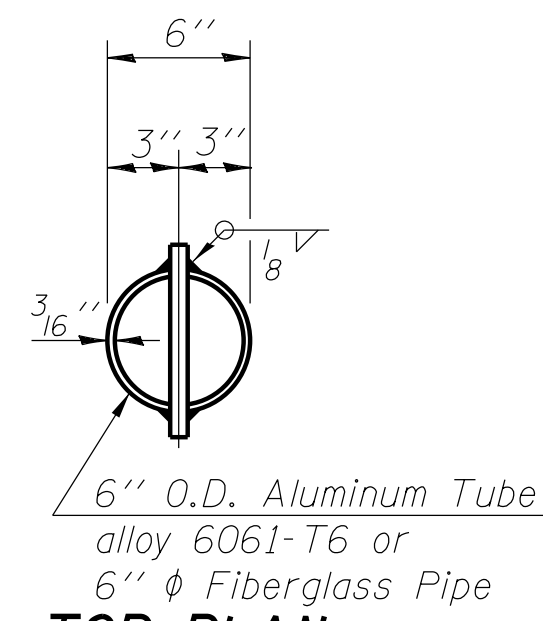
* Dimension as required by Pipe Clamp



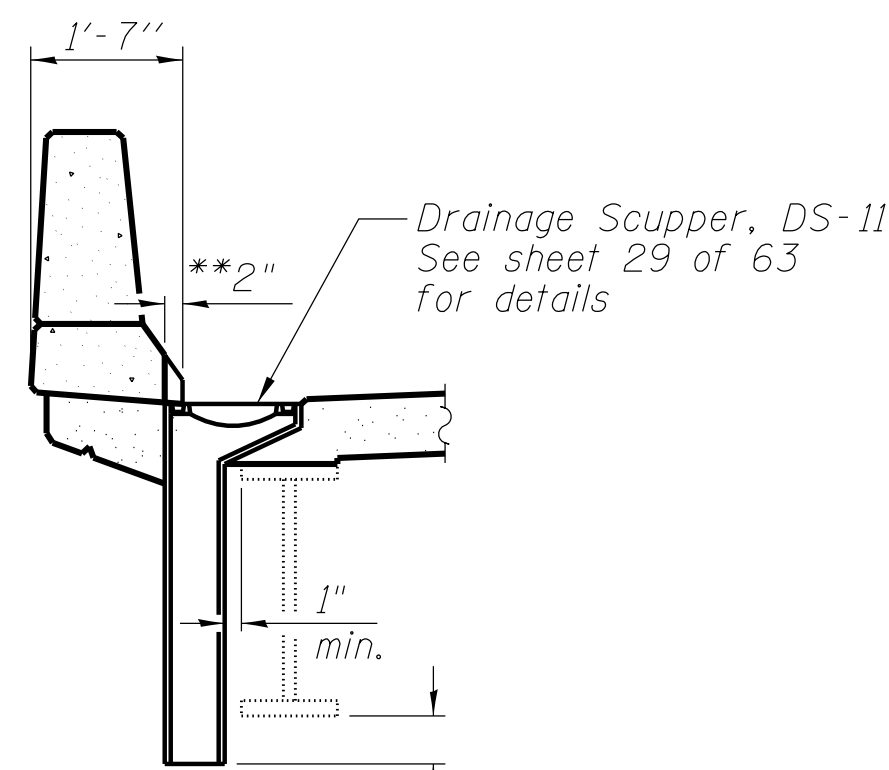
ALUMINUM TUBE



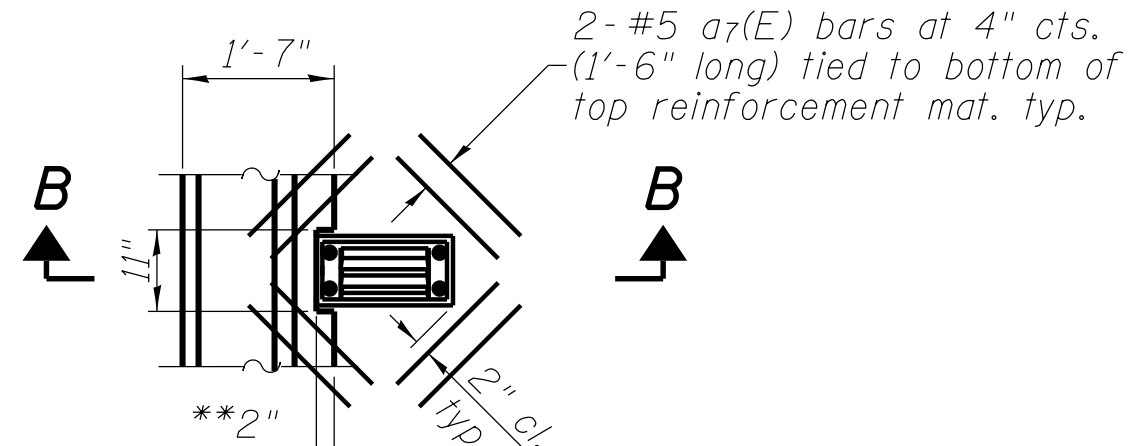
FIBERGLASS PIPE



TOP PLAN (Showing Aluminum Tube)

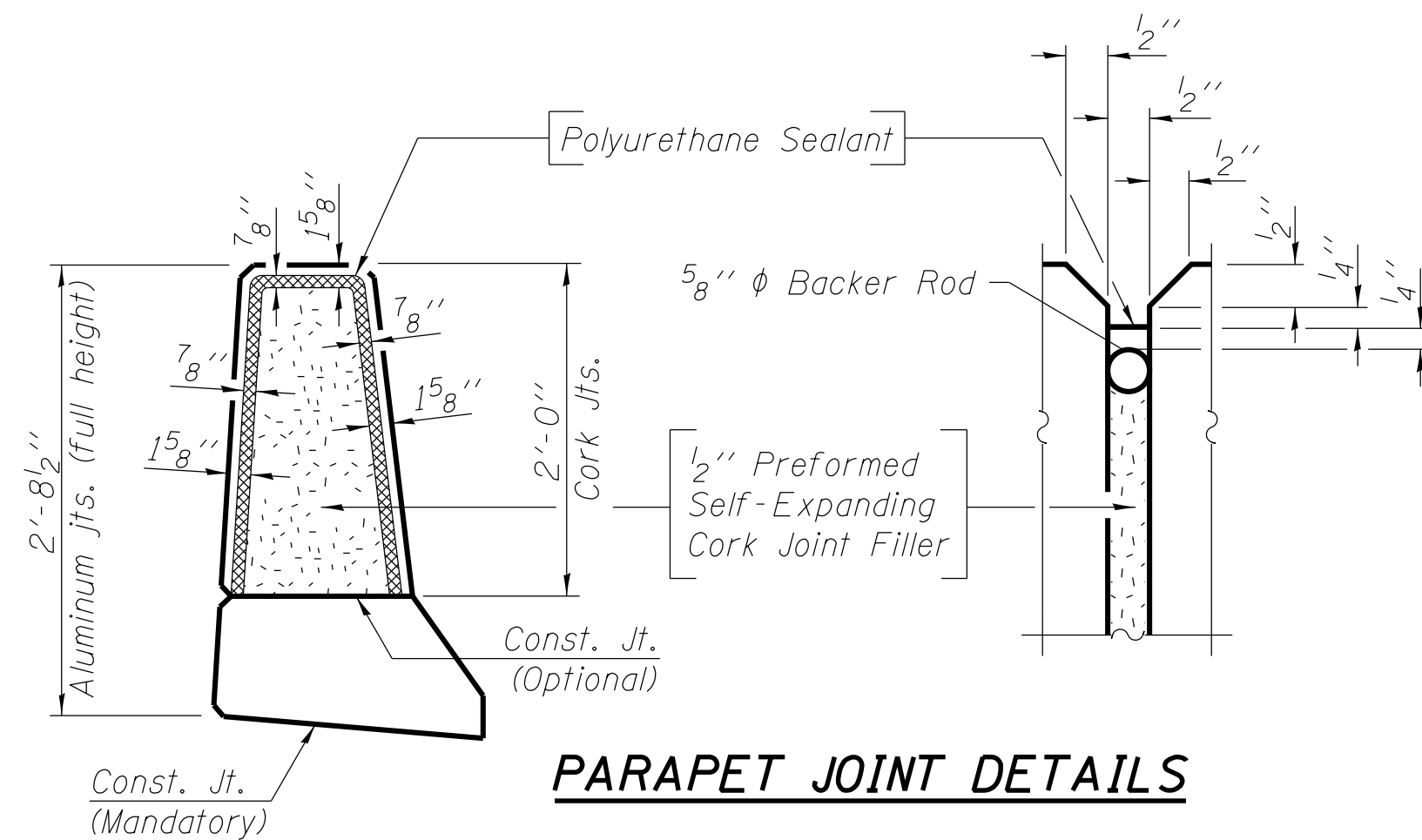


SECTION B-B



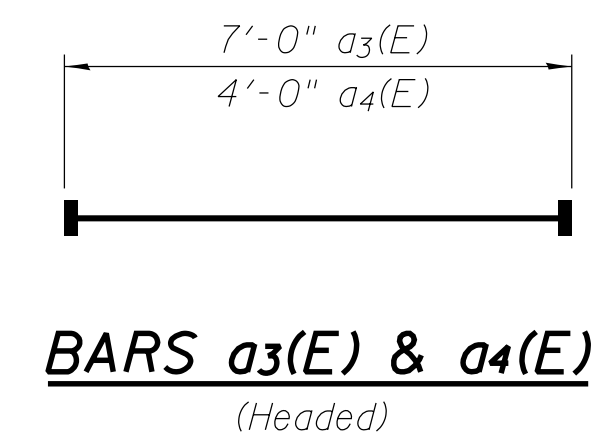
SCUPPER PLAN

Note: Cut longitudinal reinforcement to clear drainage scuppers. **Notch Parapet 11"x2" to allow placement of Scuppers and future removal of grate. 2" dimension may be reduced if Scupper can be moved closer to fascia girder.

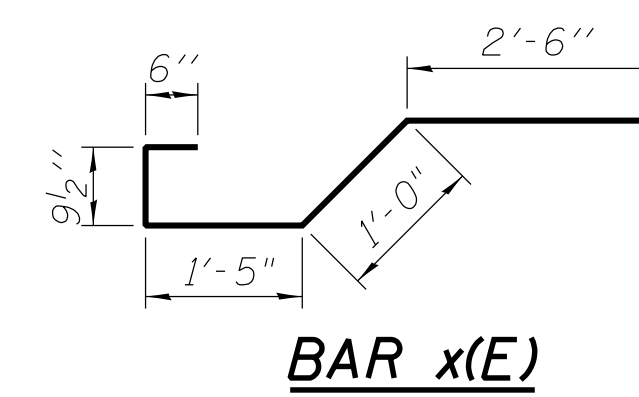


PARAPET JOINT DETAILS

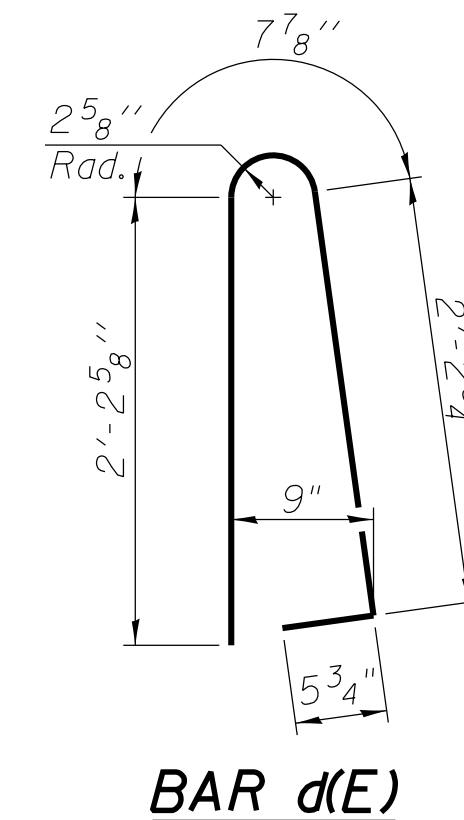
Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the floor drains shall not be painted.
 The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.
 The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.
 The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.
 The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.
 Headed bars shall conform to ASTM A970 Class HA. Cost included with Reinforcement Bars, Epoxy Coated.
 See Sheet 23 of 63 for parapet reinforcement.



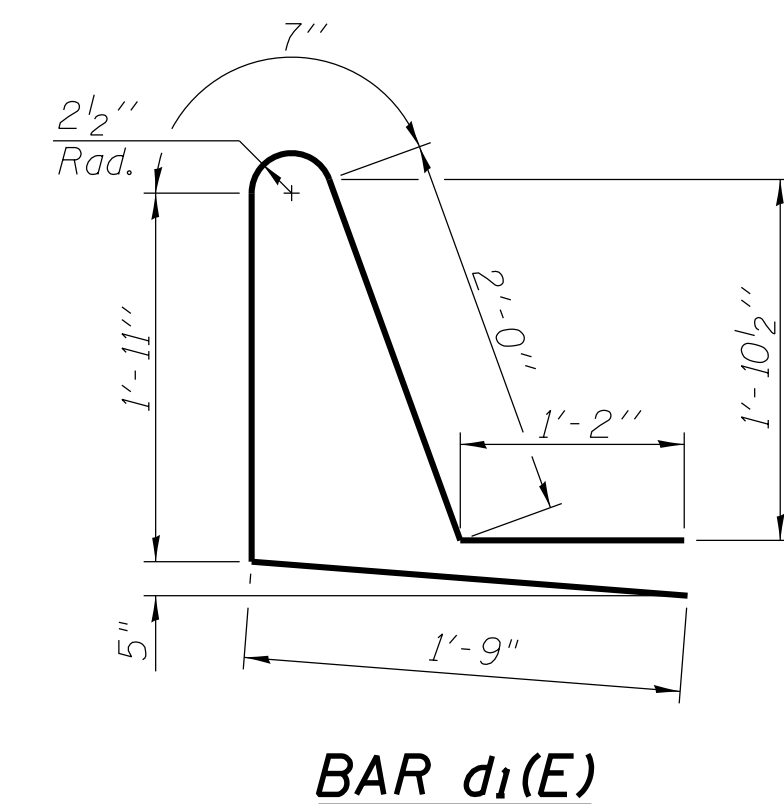
BARS a3(E) & a4(E)
(Headed)



BAR x(E)



BAR d1(E)



BAR d1(E)

**EB SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2(E)	964	#6	6'-6"	—
a3(E)	39	#5	7'-0"	—
a4(E)	9	#5	4'-0"	—
a7(E)	16	#4	1'-6"	—
a8(E)	956	#5	33'-6"	—
a9(E)	1116	#5	33'-2"	—
a10(E)	20	#5	33'-10"	—
b2(E)	648	#5	26'-9"	—
b3(E)	737	#5	28'-11"	—
b4(E)	320	#6	33'-0"	—
d(E)	618	#5	5'-7"	⏏
d1(E)	618	#5	7'-5"	⏏
e1(E)	32	#4	19'-8"	—
e4(E)	4	#8	19'-8"	—
e11(E)	196	#4	17'-0"	—
e12(E)	20	#8	29'-0"	—
e13(E)	20	#4	26'-3"	—
x(E)	103	#5	6'-3"	⏏
Reinforcement Bars, Epoxy Coated		Lbs.	152,440	
Concrete Superstructure		Cu. Yds.	521.7	
Bridge Deck Grooving		Sq. Yd.	1,665	
Protective Coat		Sq. Yd.	1,964	

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

FILE NAME = I:\1001\6008 - D7 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\superdetails.dgn

SDE - SB-1

11-22-2016

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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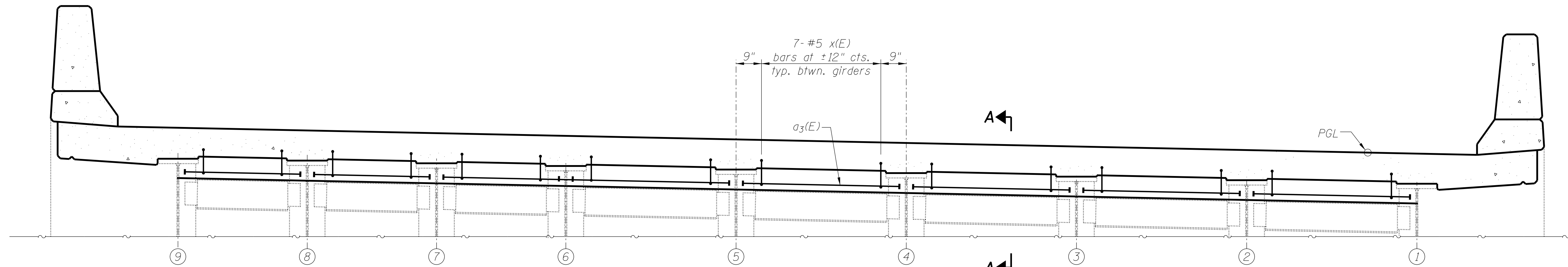
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

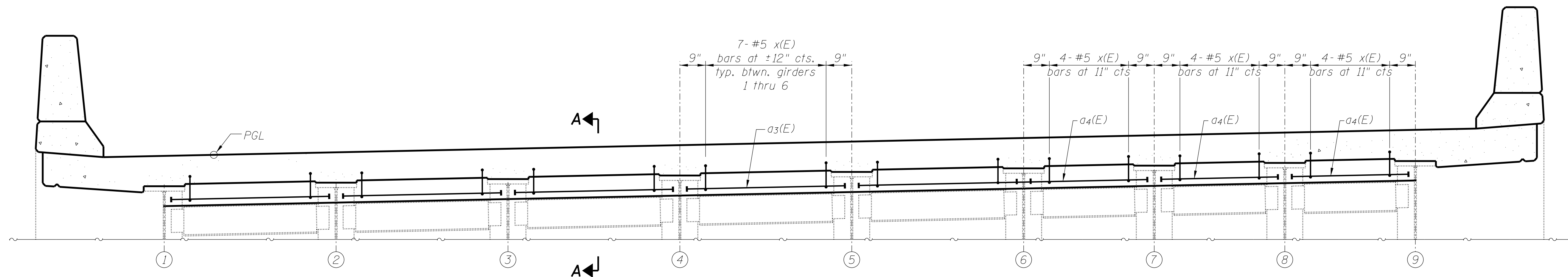
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0107 (EB)

SHEET NO. 21 OF 63 SHEETS

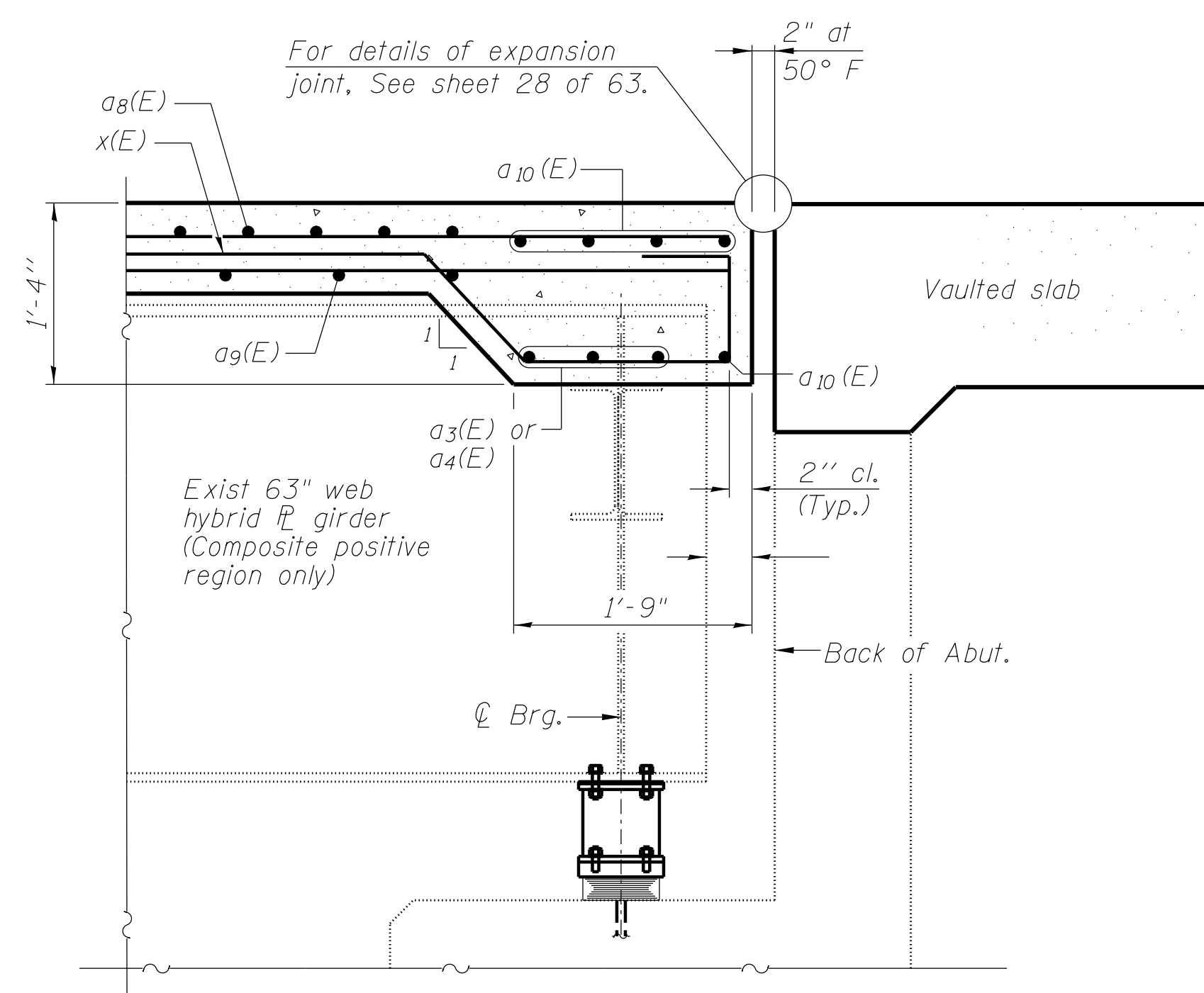
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	40
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



DIAPHRAGM AT WEST ABUTMENT



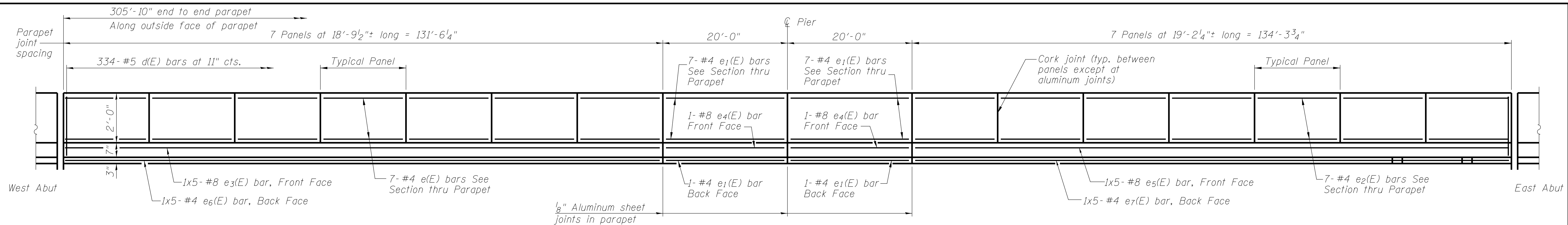
DIAPHRAGM AT EAST ABUTMENT



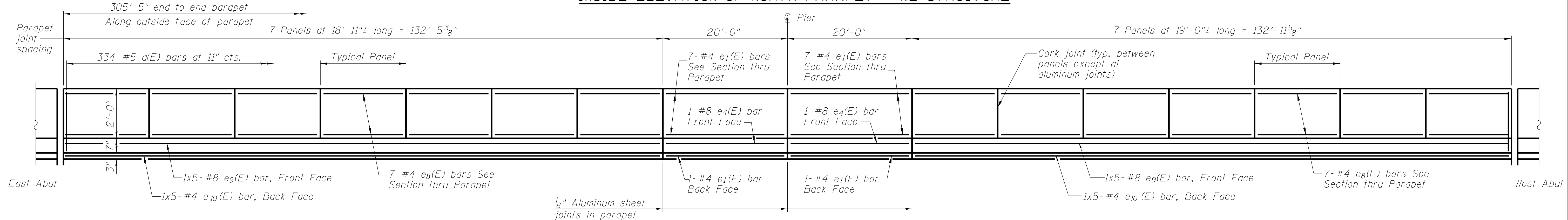
SECTION A-A

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet 21 of 63.
 Concrete in diaphragm is included with Concrete Superstructure on sheet 21 of 63.
 For details of bar x(E) see sheet 21 of 63.

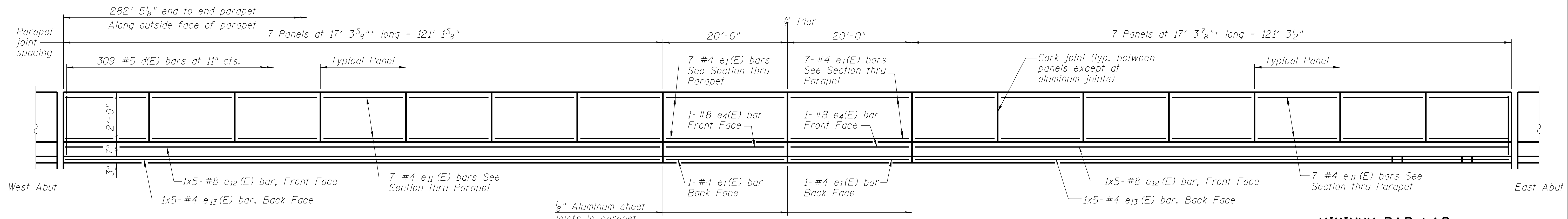
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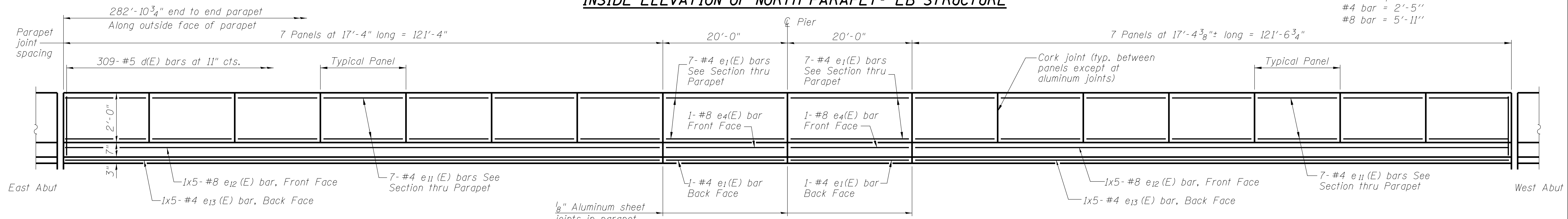
INSIDE ELEVATION OF NORTH PARAPET - WB STRUCTURE



INSIDE ELEVATION OF SOUTH PARAPET - WB STRUCTURE



INSIDE ELEVATION OF NORTH PARAPET - EB STRUCTURE



INSIDE ELEVATION OF SOUTH PARAPET - EB STRUCTURE

MINIMUM BAR LAP
 (Parapet)
 #4 bar = 2'-5"
 #8 bar = 5'-11"

FILE NAME = I:\1001\6008 - D7 Ver. Work Order - R36 Bridge Plans\CADD_Structural\parapetdetails.dgn

CHASTAIN & ASSOCIATES LLC
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 184-001397

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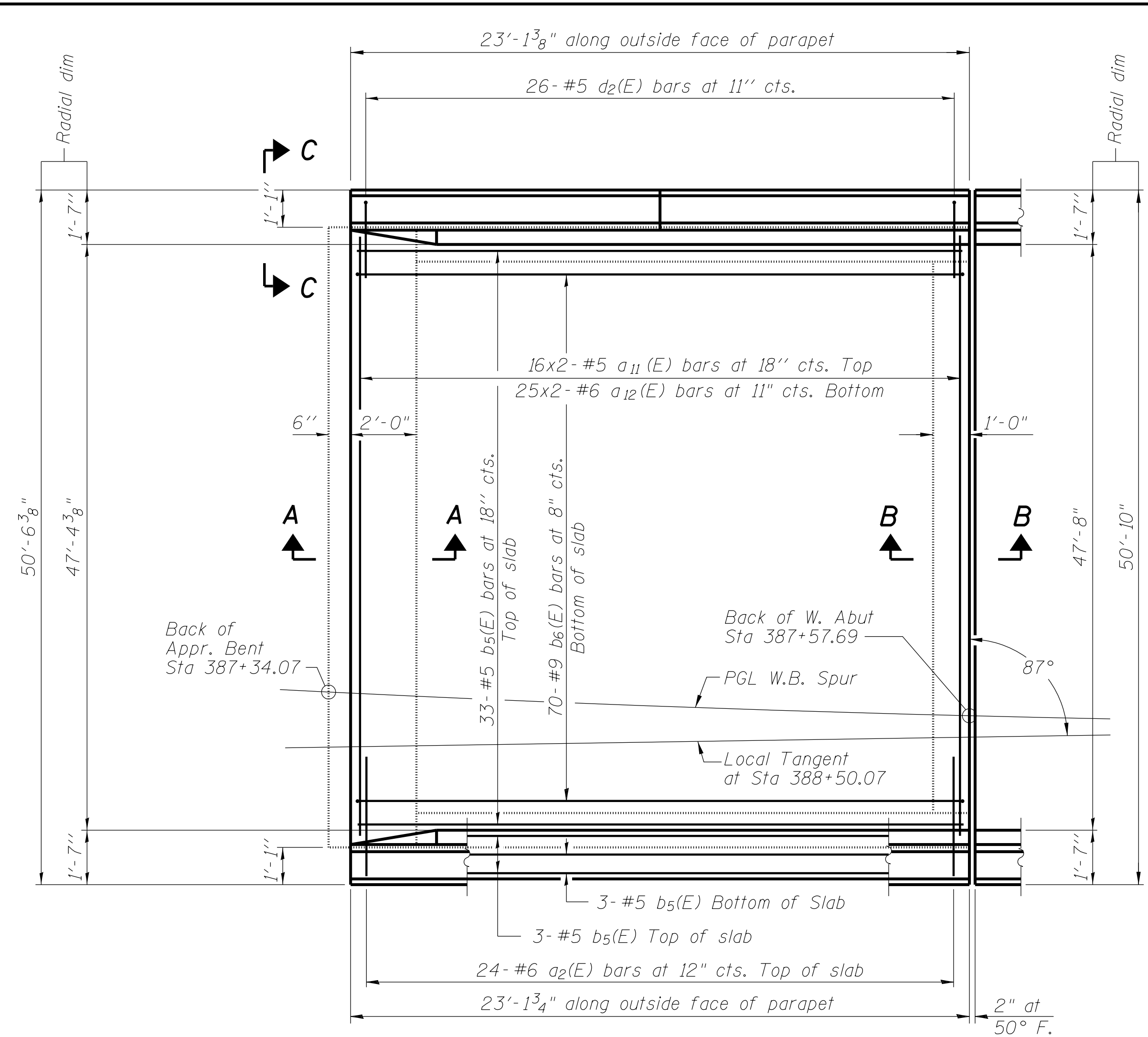
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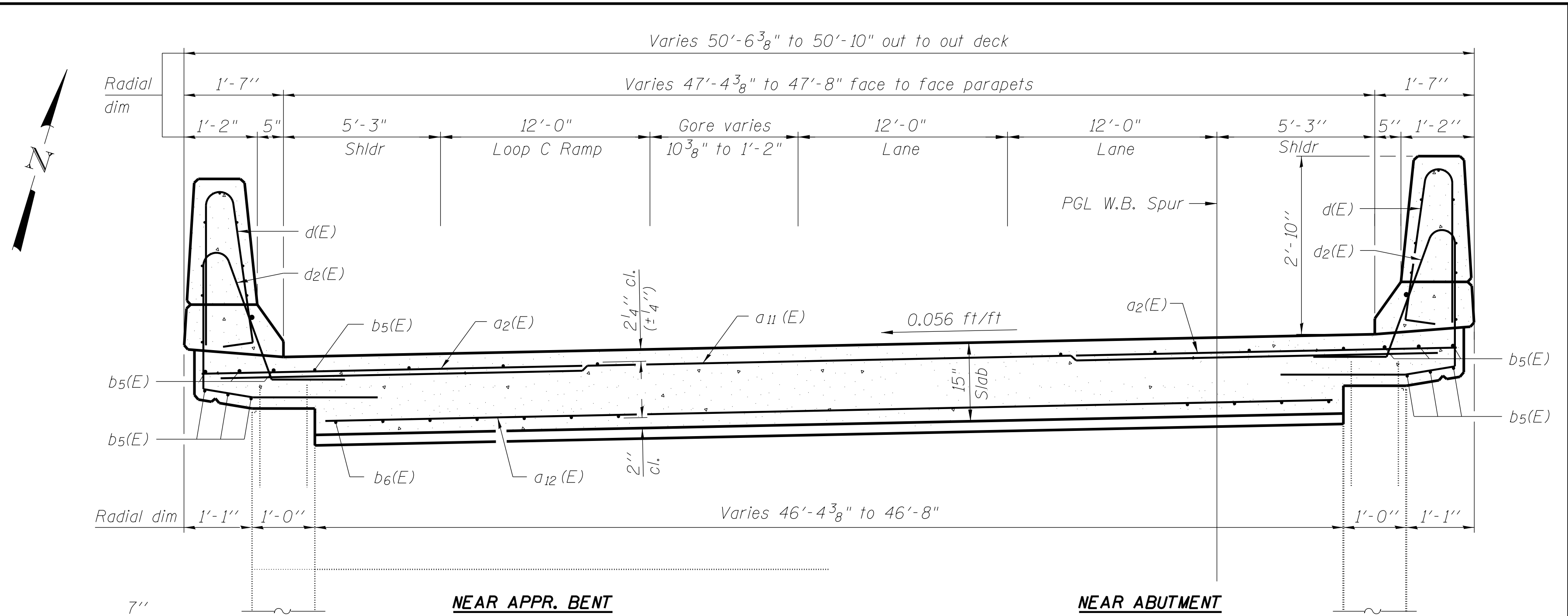
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

SHEET NO. 23 OF 63 SHEETS

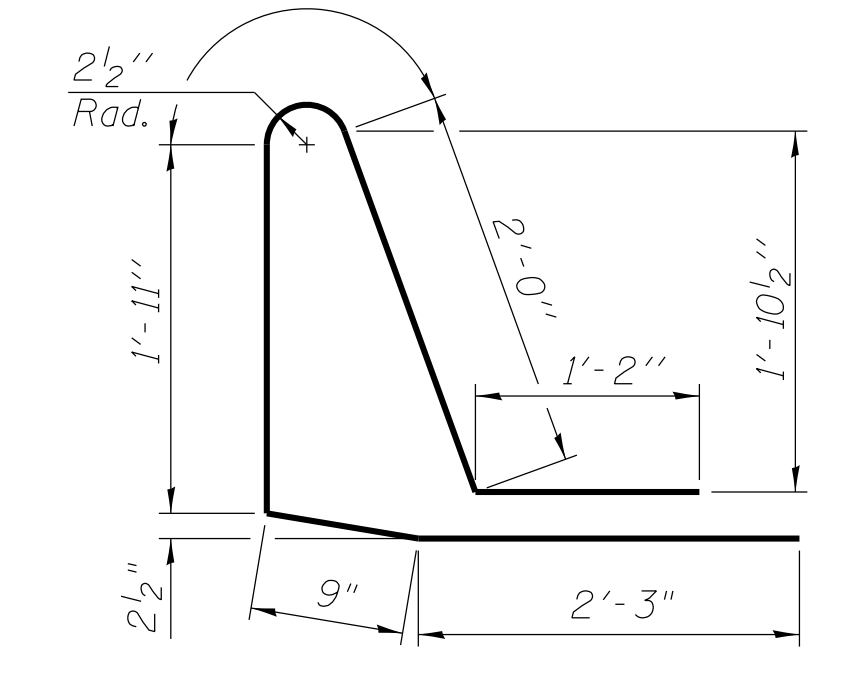
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SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



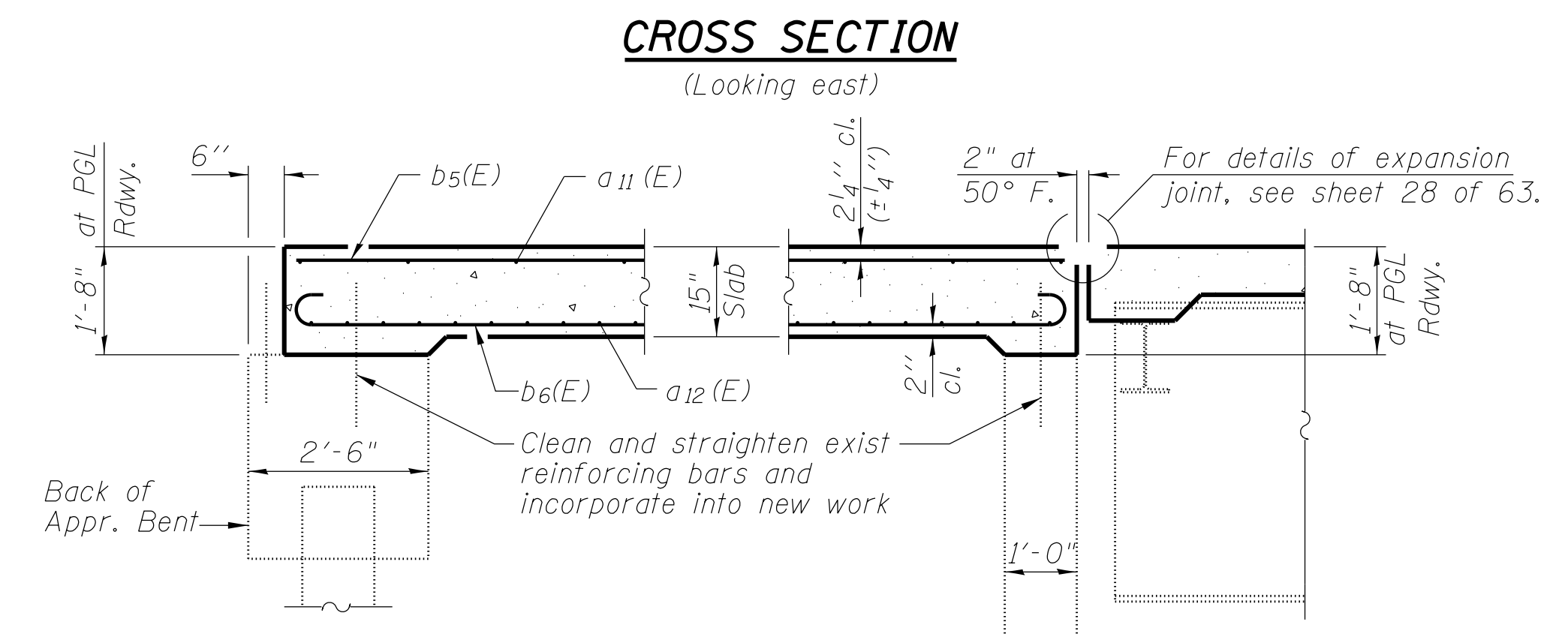
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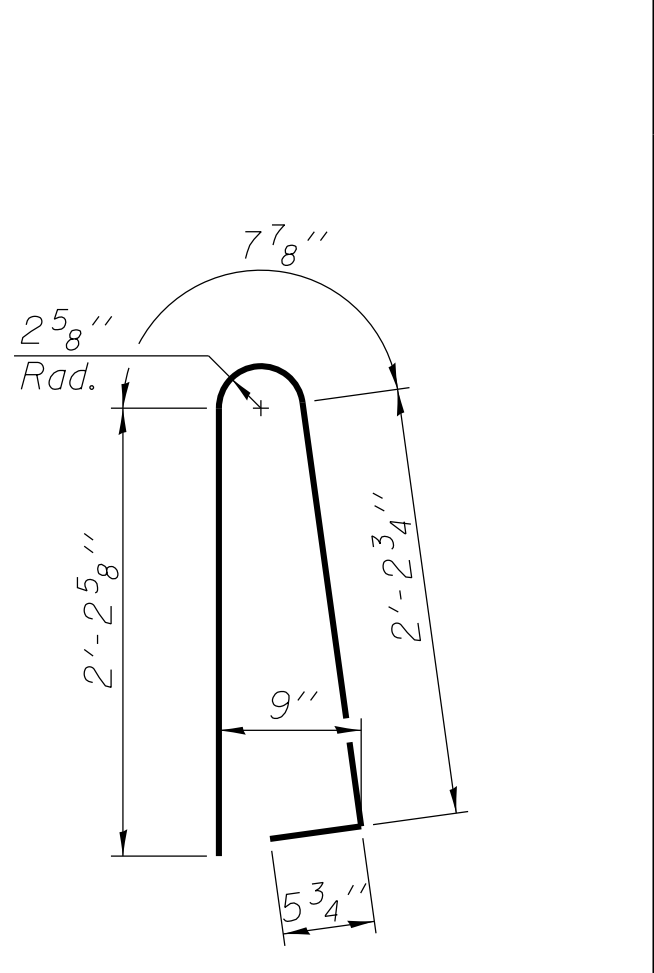
CROSS SECTION
(Looking east)



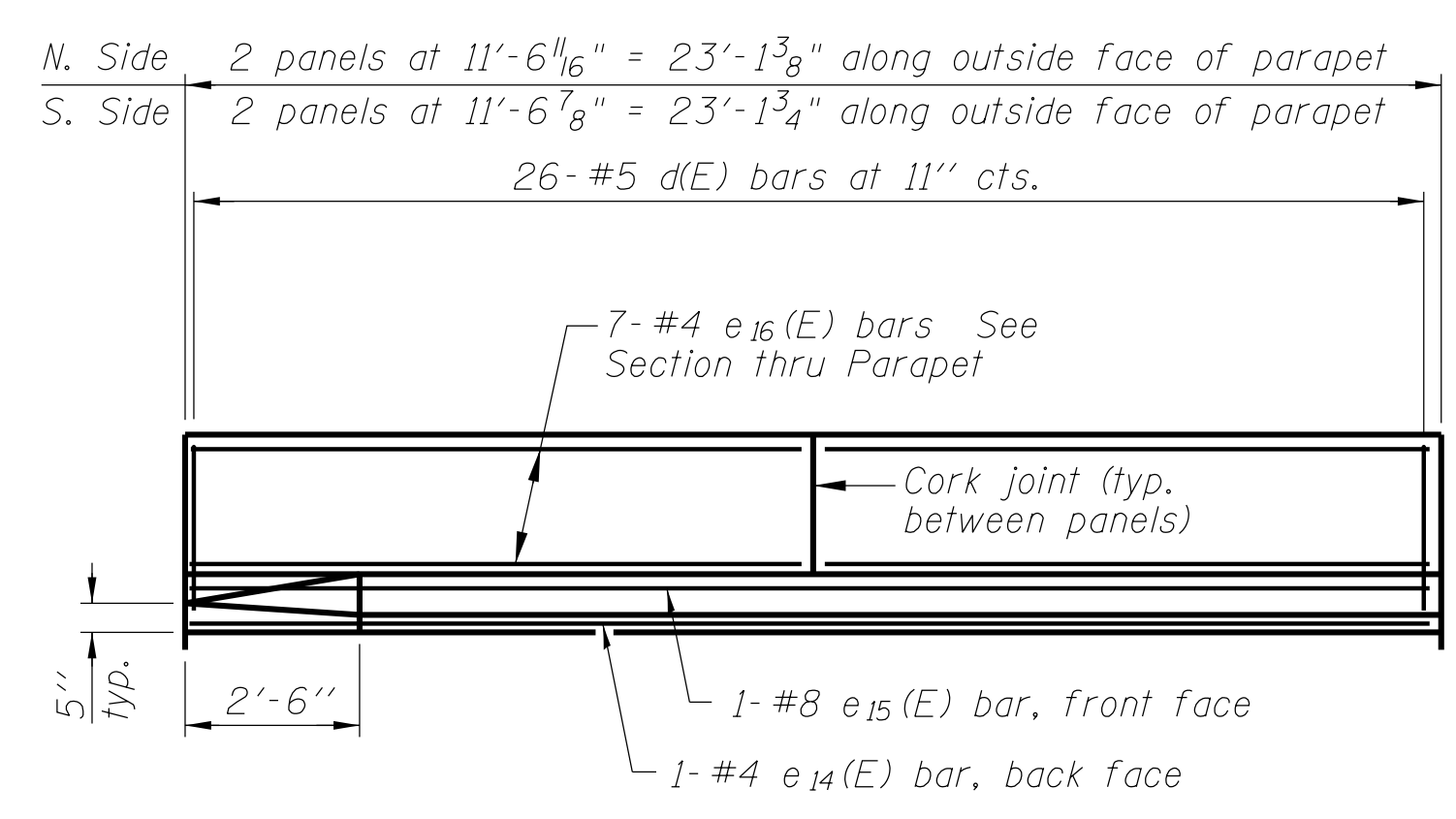
BAR d2(E)



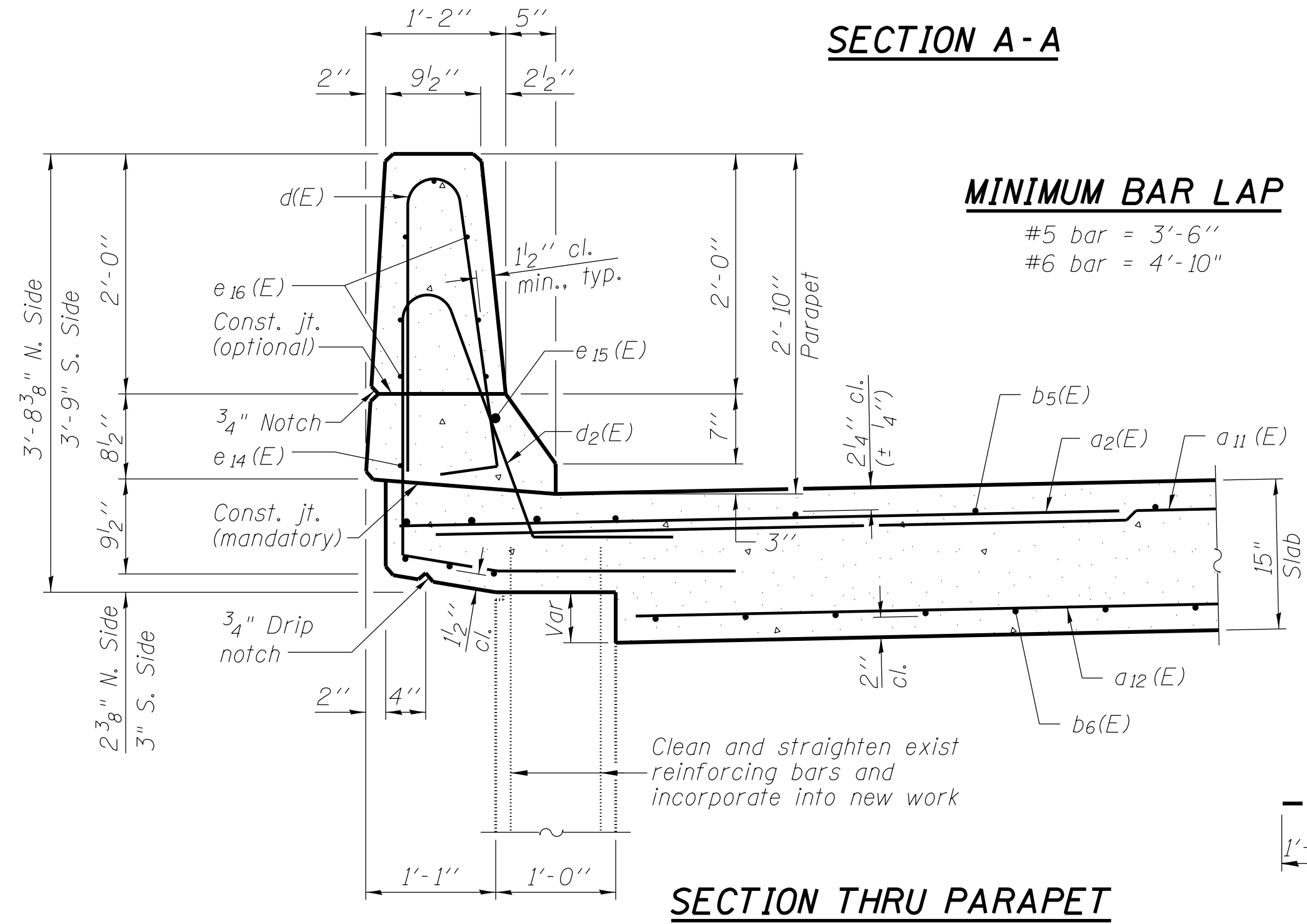
SECTION A-A



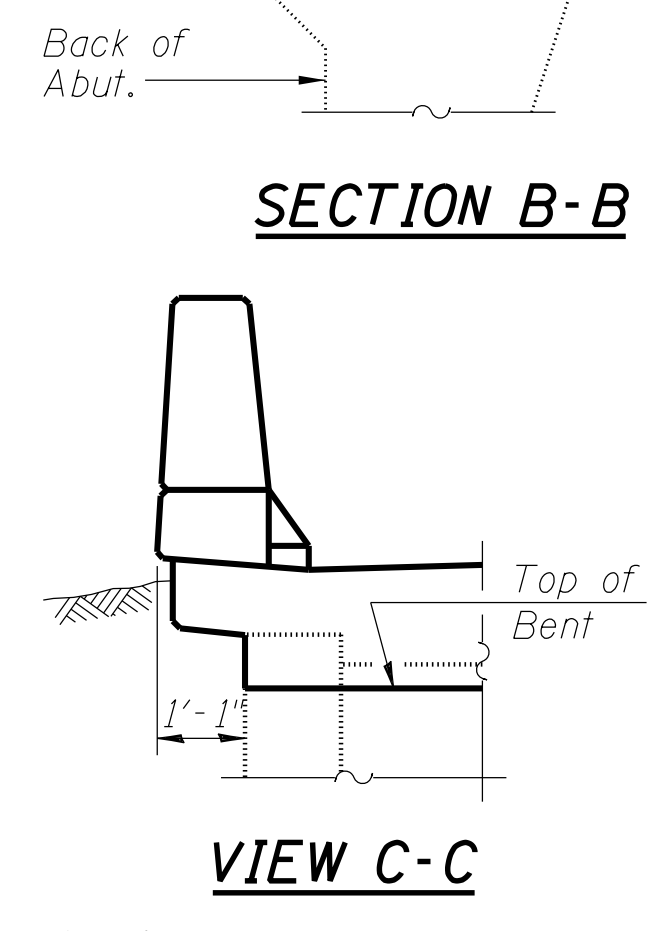
BAR d(E)



INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET



SECTION B-B



VIEW C-C

MINIMUM BAR LAP
#5 bar = 3'-6"
#6 bar = 4'-10"

Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Removal of Existing Concrete Deck No. 1.

For Parapet Joint Details see sheet 18 of 39.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a11(E)	32	#5	26'-10"	—
a12(E)	50	#6	25'-7"	—
b5(E)	45	#5	22'-9"	—
b6(E)	70	#9	25'-3"	U
d(E)	52	#5	5'-7"	I
d2(E)	52	#5	8'-8"	L
e14(E)	2	#4	22'-10"	—
e15(E)	2	#8	22'-10"	—
e16(E)	14	#4	11'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	11,390
Concrete Superstructure			Cu. Yd.	59.8
Bridge Deck Grooving			Sq. Yd.	117
Protective Coat			Sq. Yd.	142

FILE NAME = I:\1001\6008 - D7 Ver. Var\Work Order 6 - Res 36 Bridge Plans\CADD\Structural\wvaubab.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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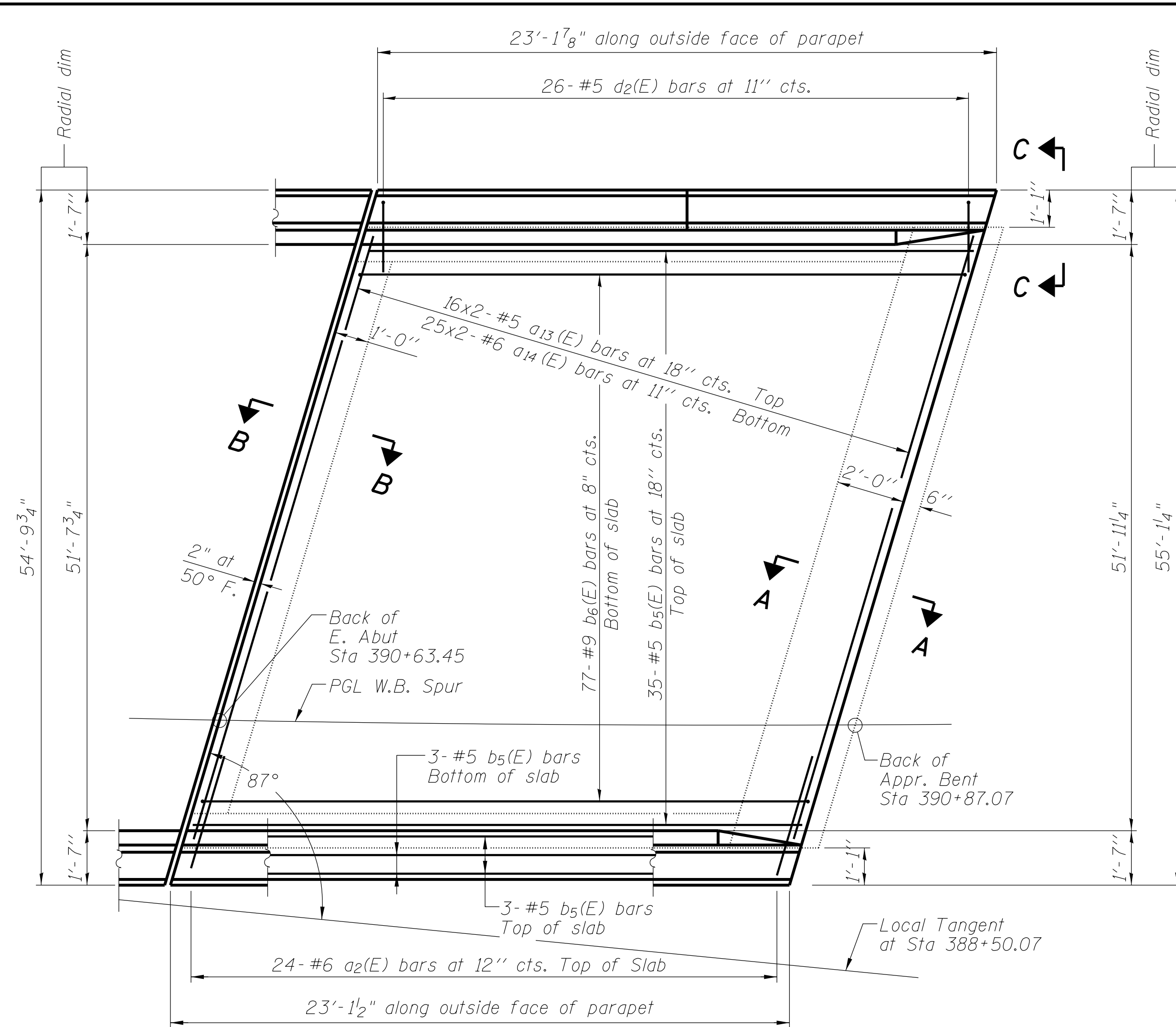
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STATE OF ILLINOIS
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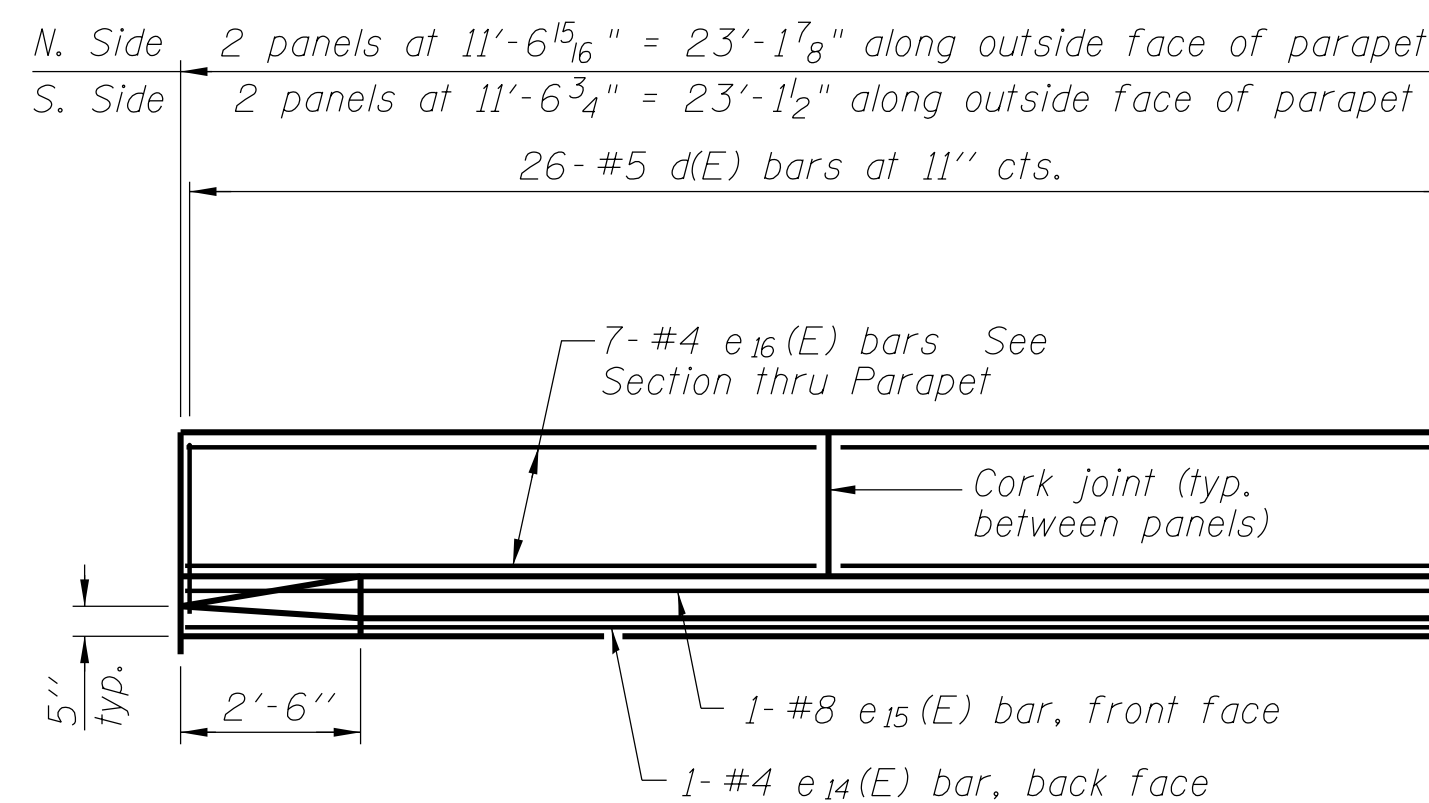
WEST VAULTED SLAB
STRUCTURE NO. 058-0106 (WB)

SHEET NO. 24 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	43
SN. 058-0106 (WB) & 0107 (EB)	CONTRACT NO. 74605			
STA.	ILLINOIS FED. AID PROJECT			



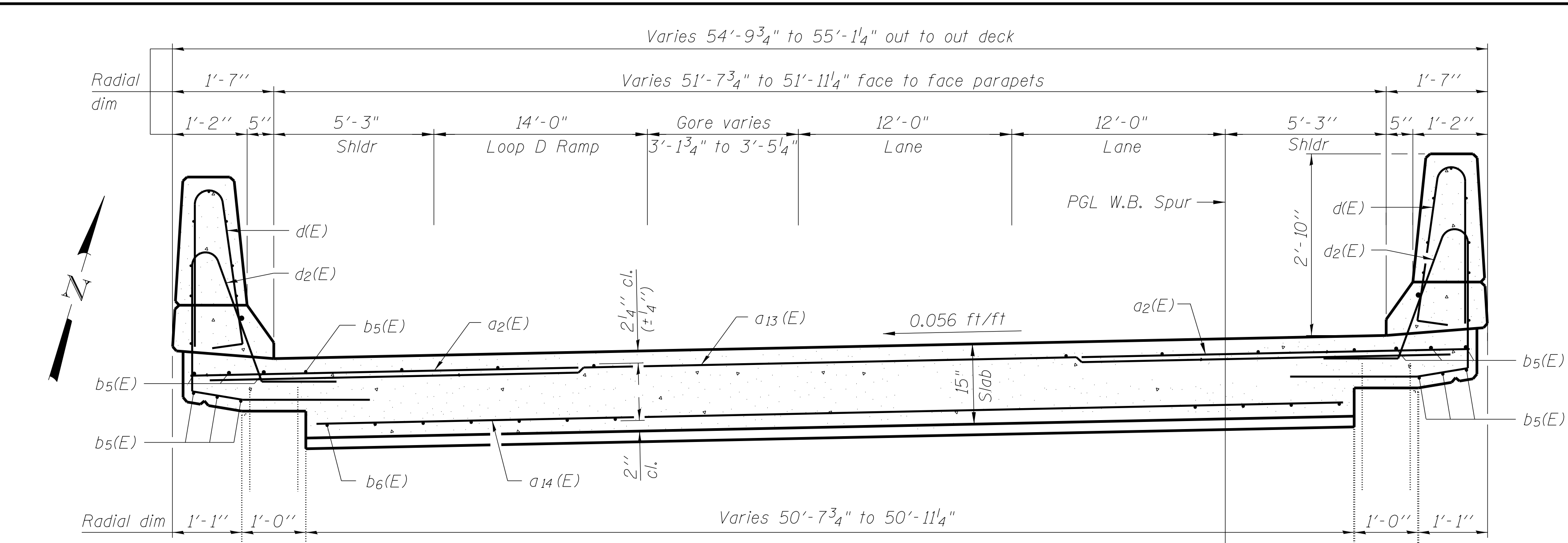
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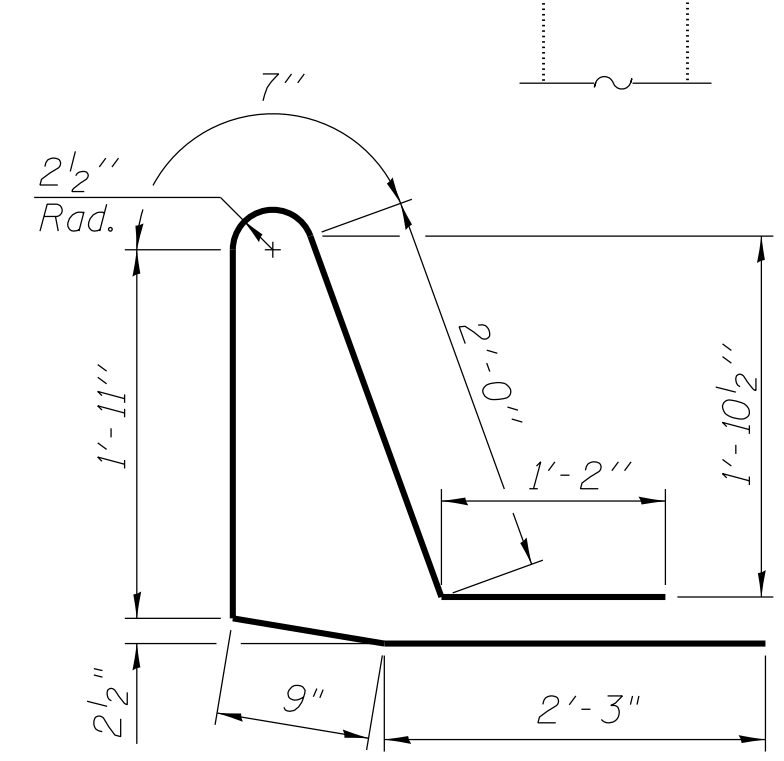
INSIDE ELEVATION OF PARAPET

Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Removal of Existing Concrete Deck No. 1.

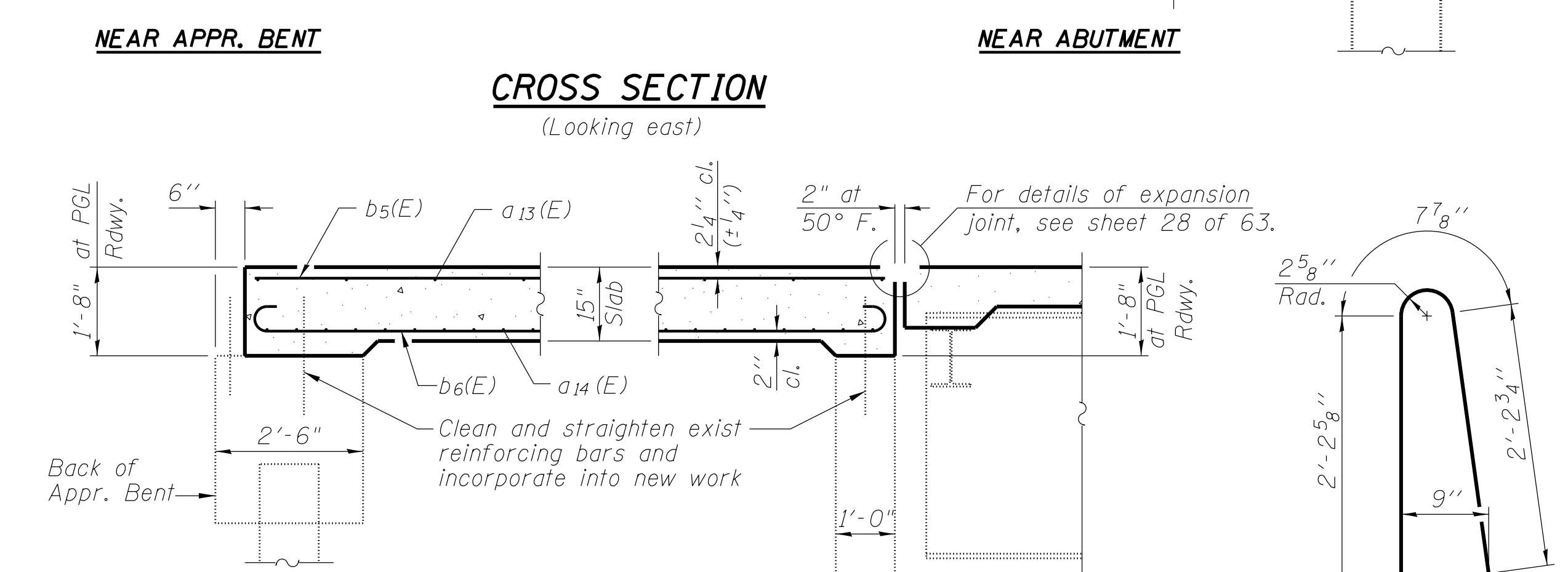
For Parapet Joint Details see sheet 21 of 39.



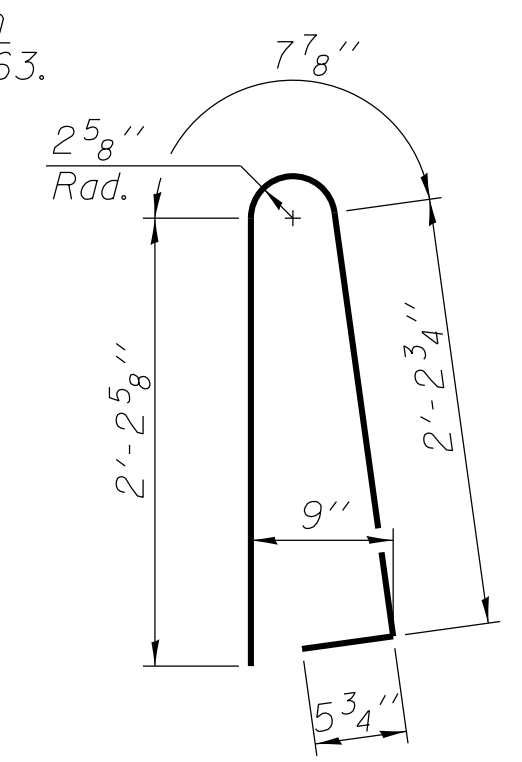
CROSS SECTION
(Looking east)



BAR d2(E)

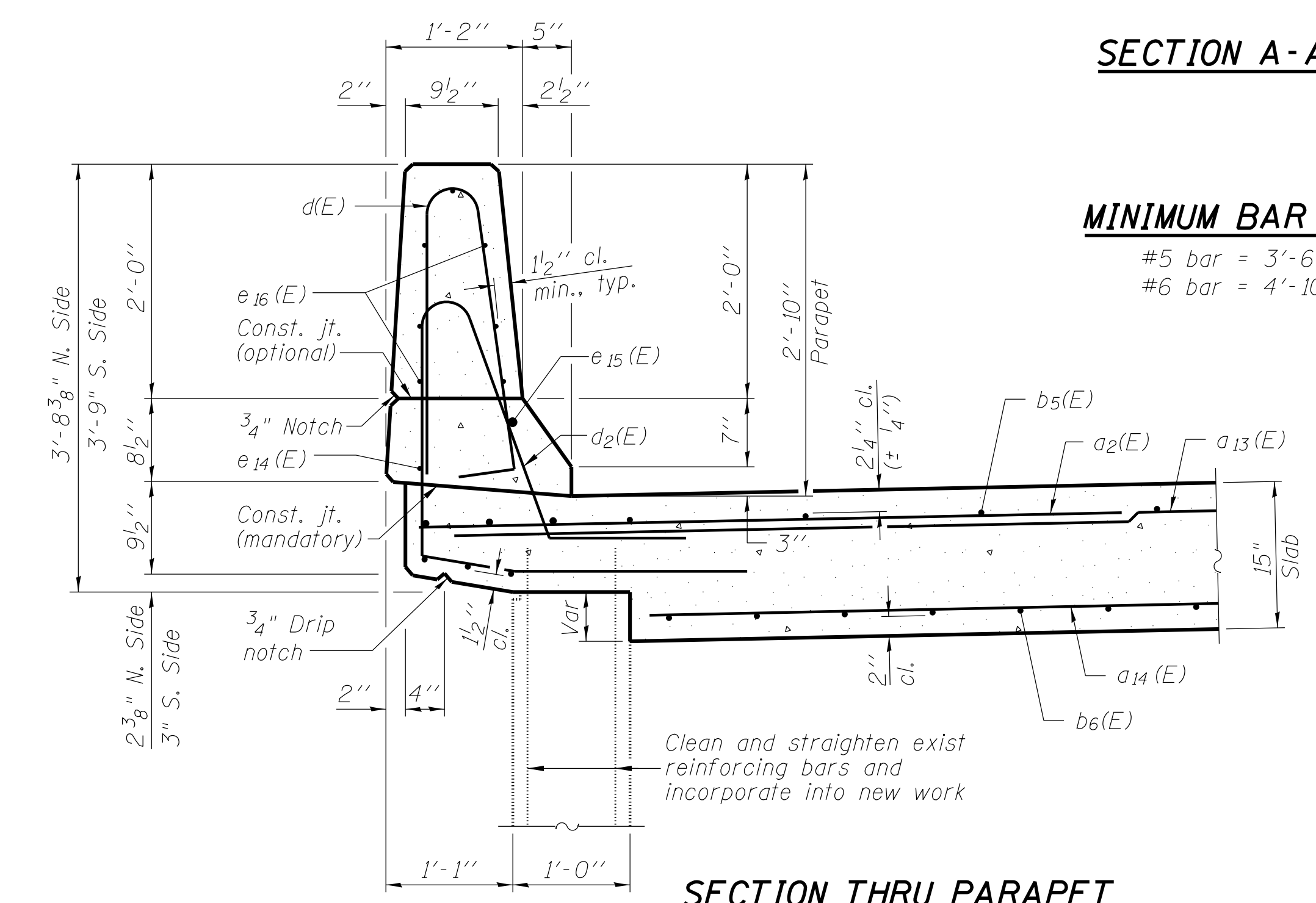


SECTION A-A

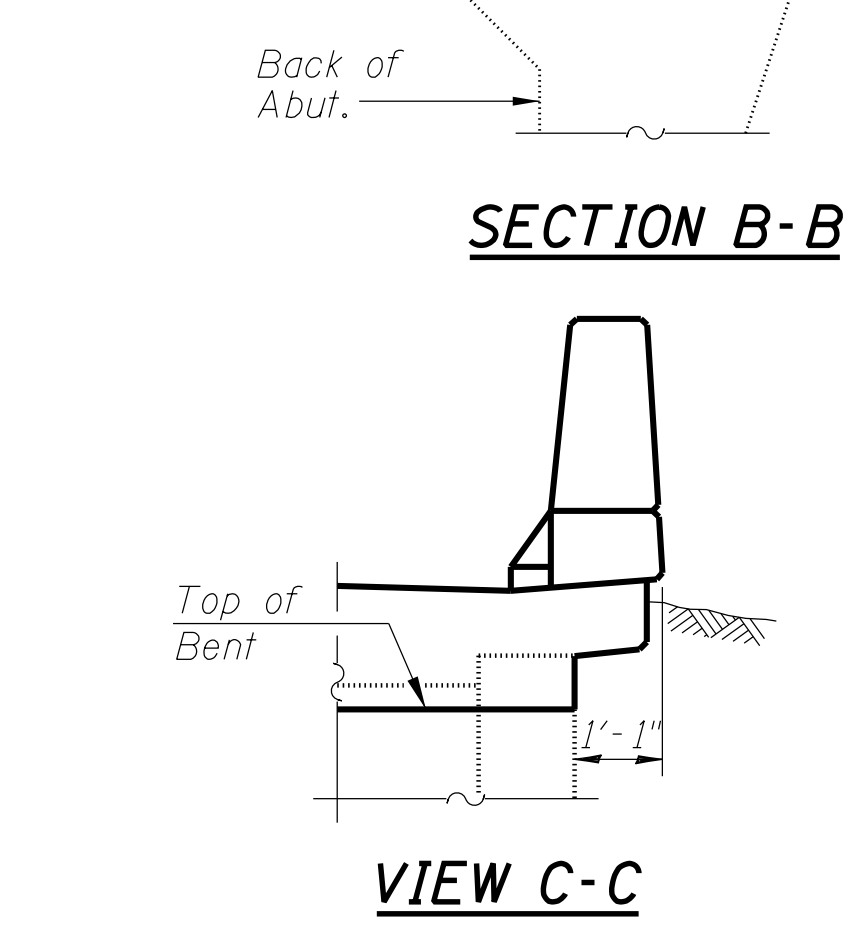


BAR d(E)

MINIMUM BAR LAP
#5 bar = 3'-6"
#6 bar = 4'-10"



SECTION THRU PARAPET



SECTION B-B

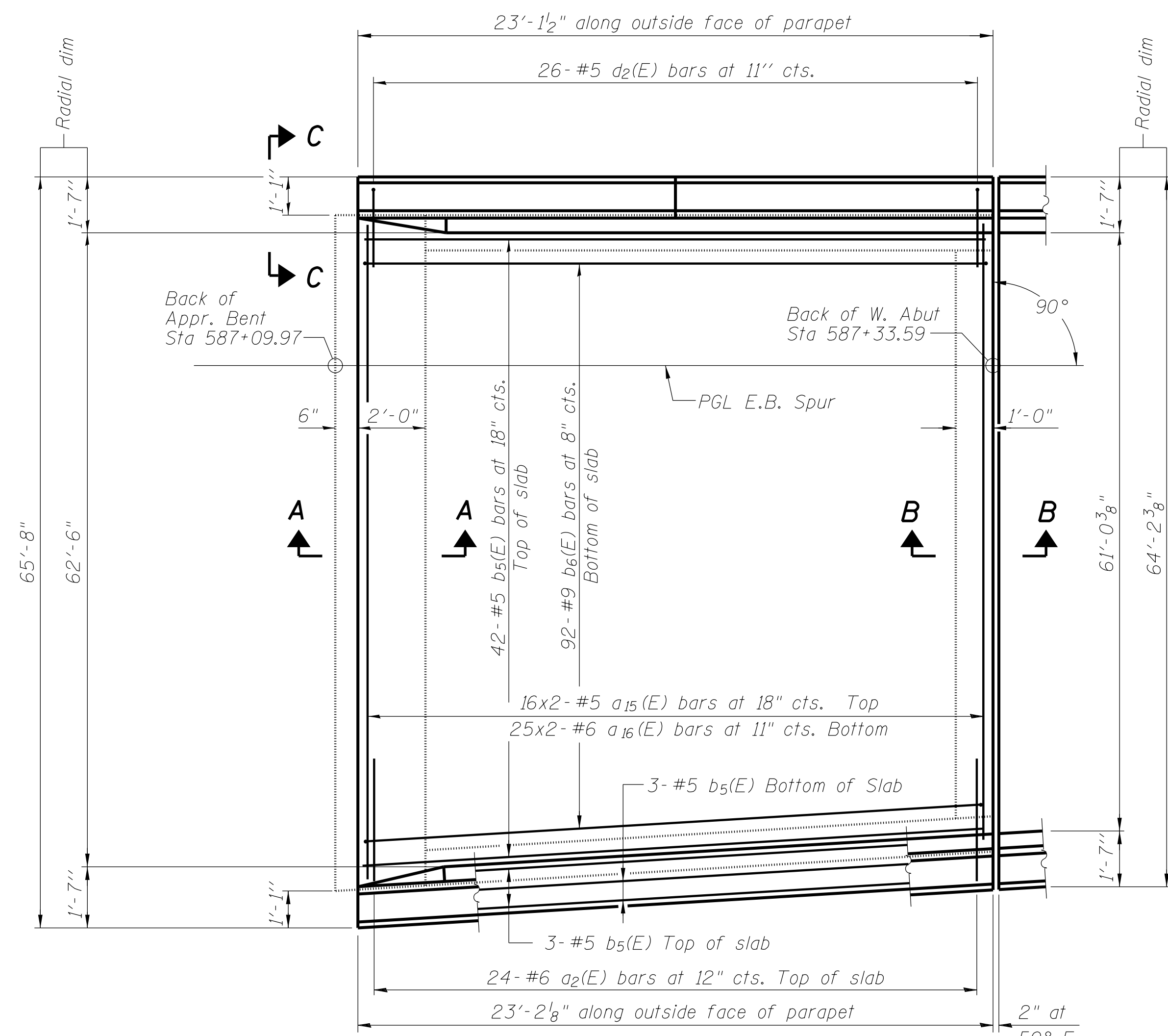


BAR b7(E)

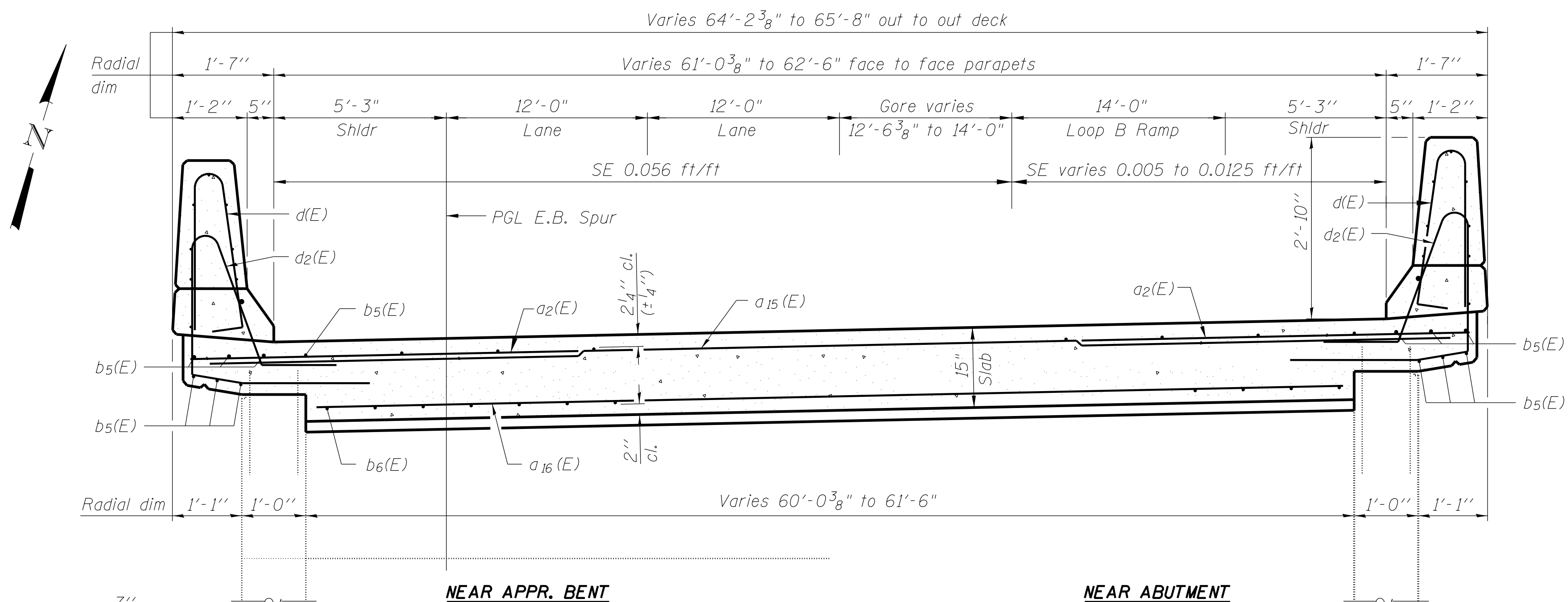
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a13(E)	32	#5	29'-6"	—
a14(E)	50	#6	28'-7"	—
b5(E)	47	#5	22'-9"	—
b6(E)	77	#9	25'-3"	—
d(E)	52	#5	5'-7"	—
d2(E)	52	#5	8'-8"	—
e14(E)	2	#4	22'-10"	—
e15(E)	2	#8	22'-10"	—
e16(E)	14	#4	11'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	12,360
Superstructure			Cu. Yd.	64.7
Bridge Deck Grooving			Sq. Yd.	128
Protective Coat			Sq. Yd.	153

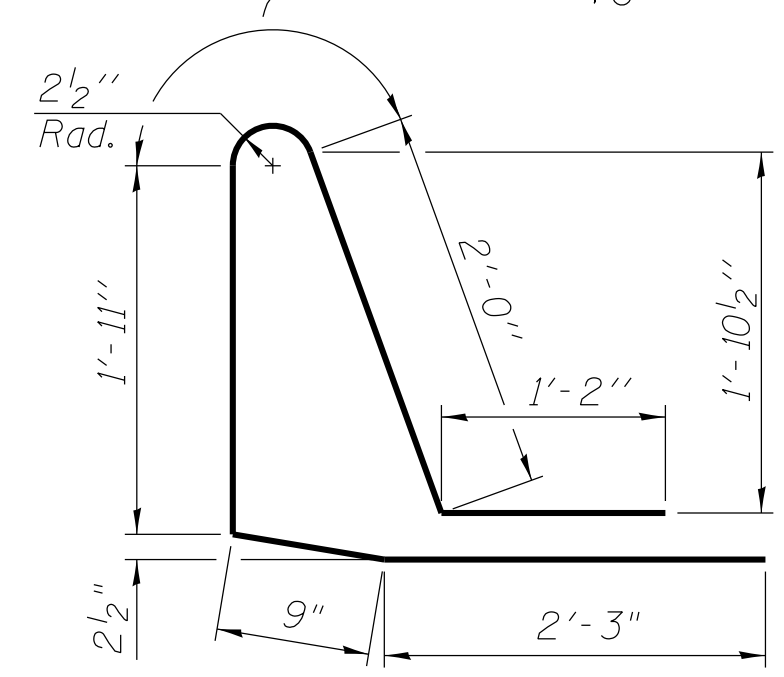
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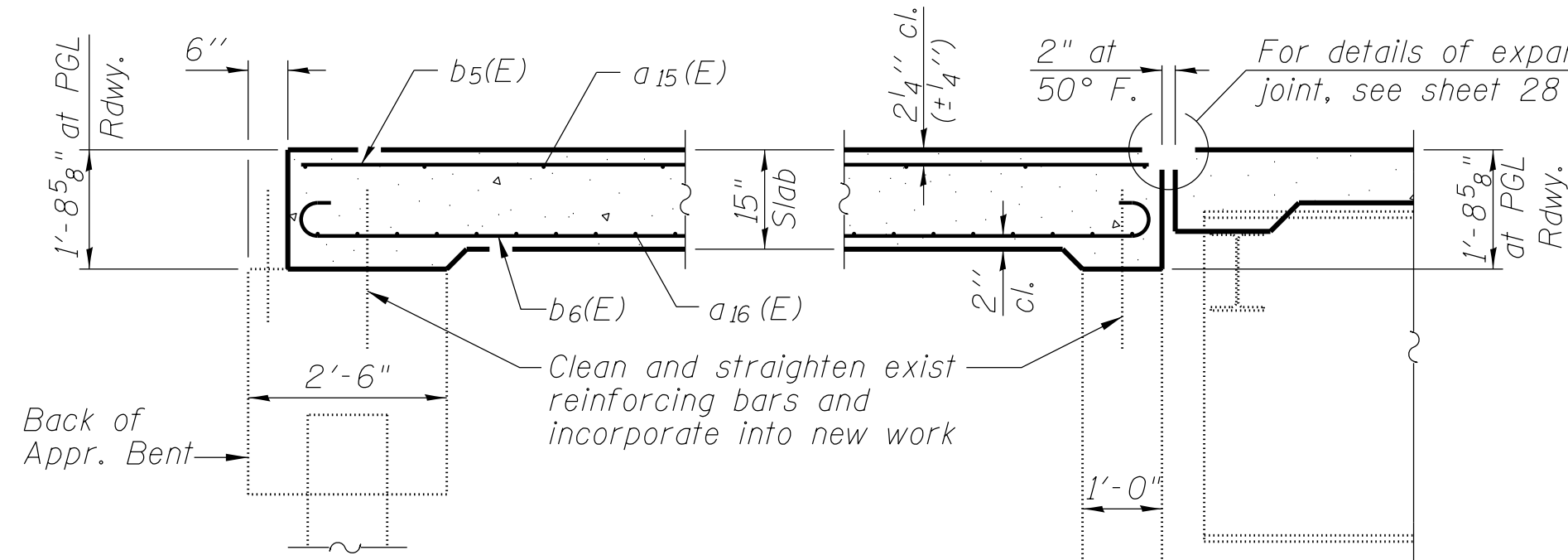
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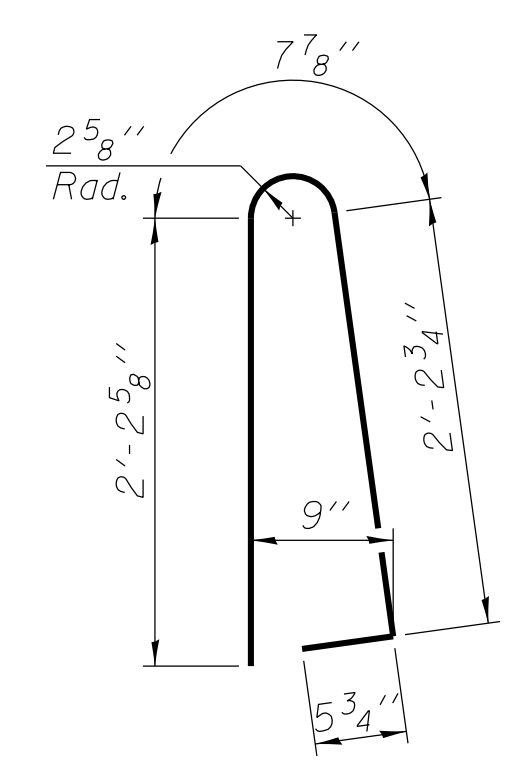
CROSS SECTION
(Looking east)



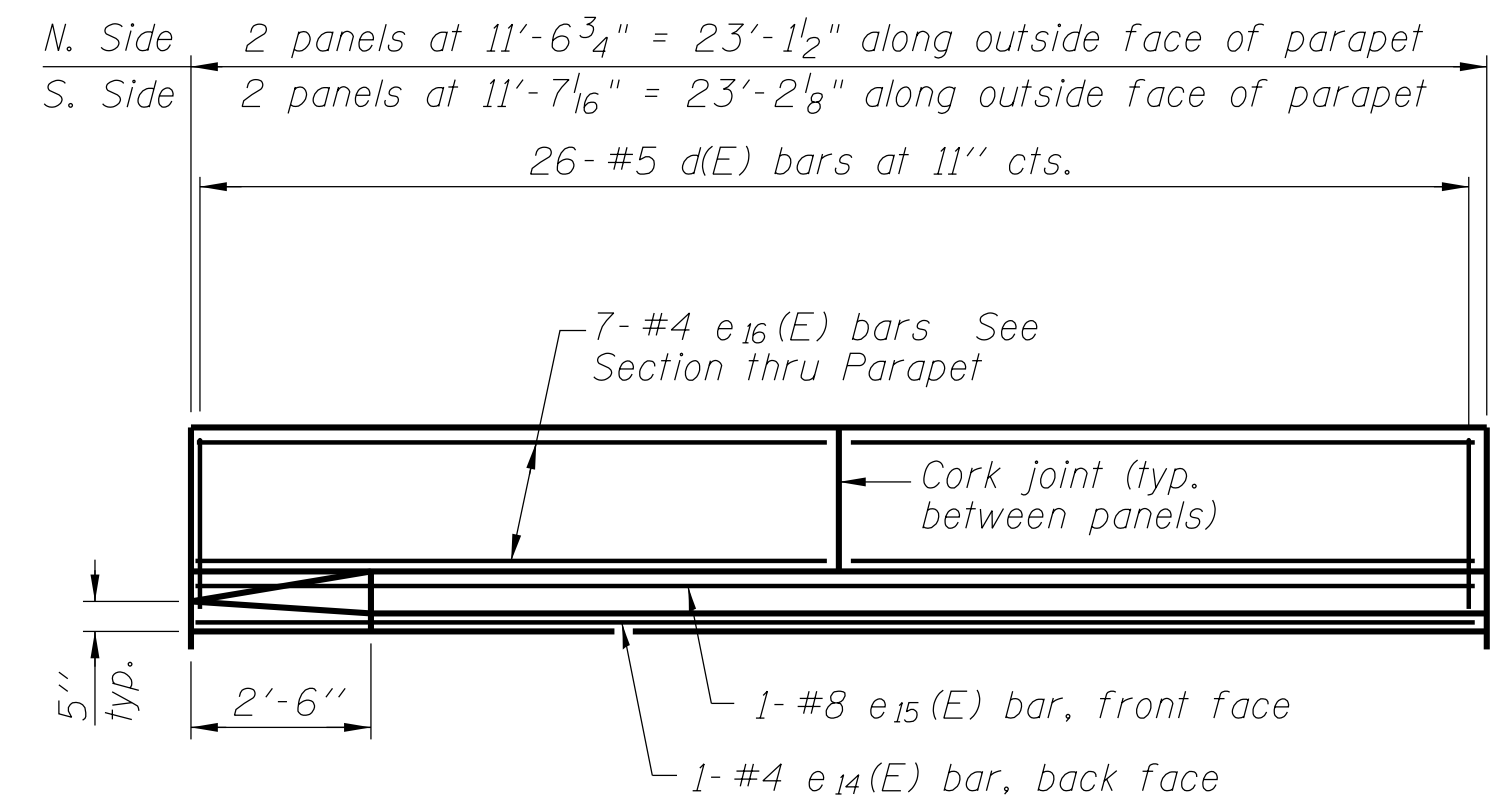
BAR d2(E)



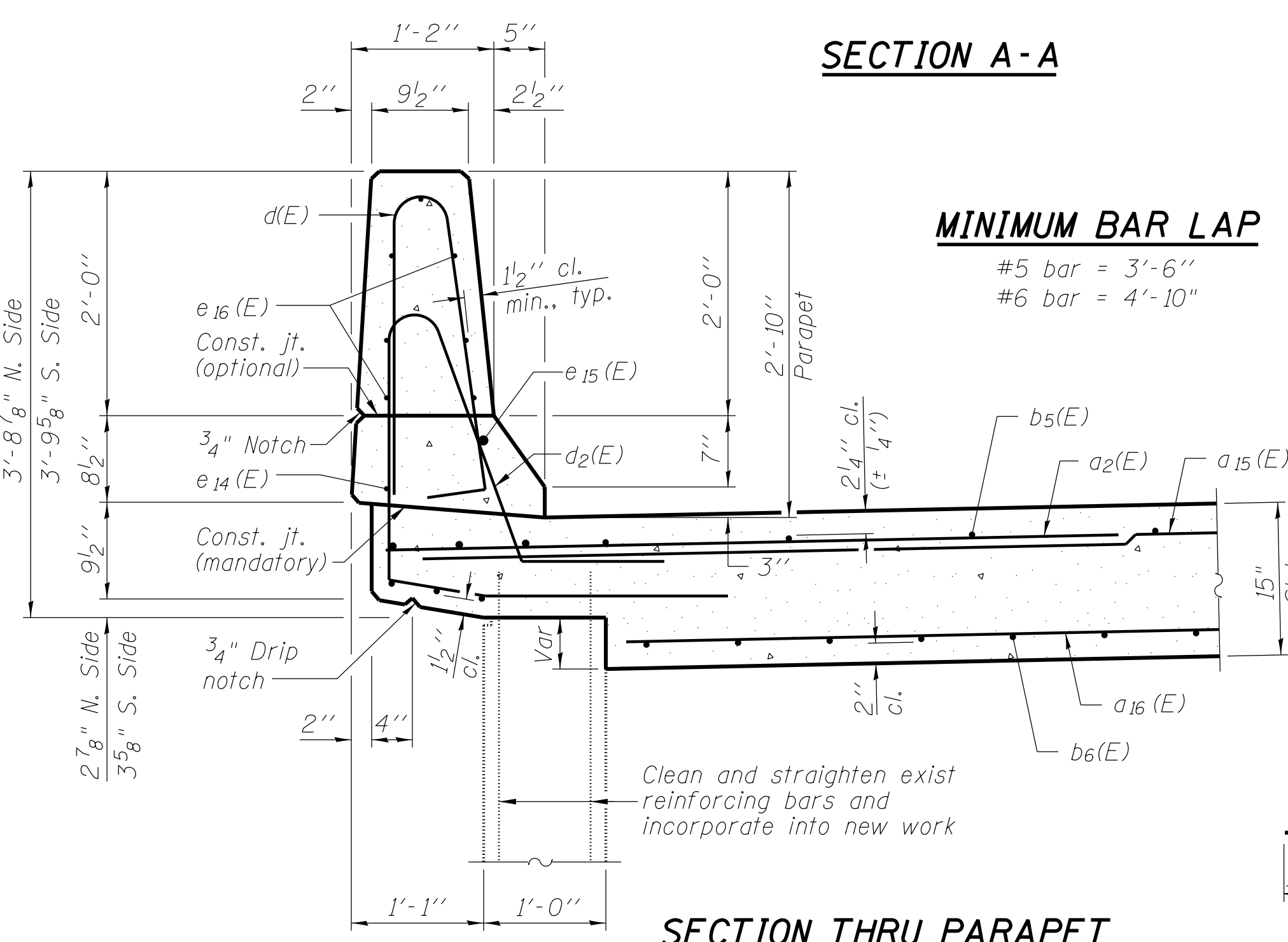
SECTION A-A



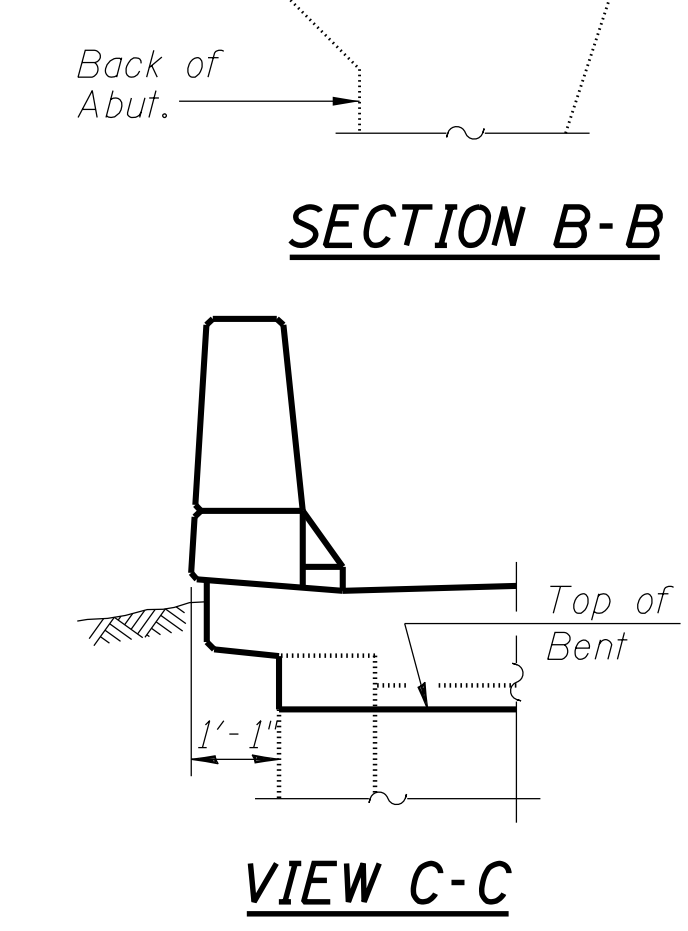
BAR d(E)



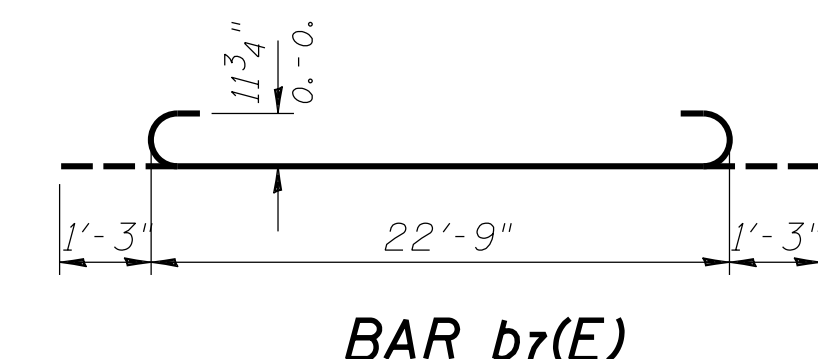
INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET



SECTION B-B



VIEW C-C
BAR b7(E)

MINIMUM BAR LAP
#5 bar = 3'-6"
#6 bar = 4'-10"

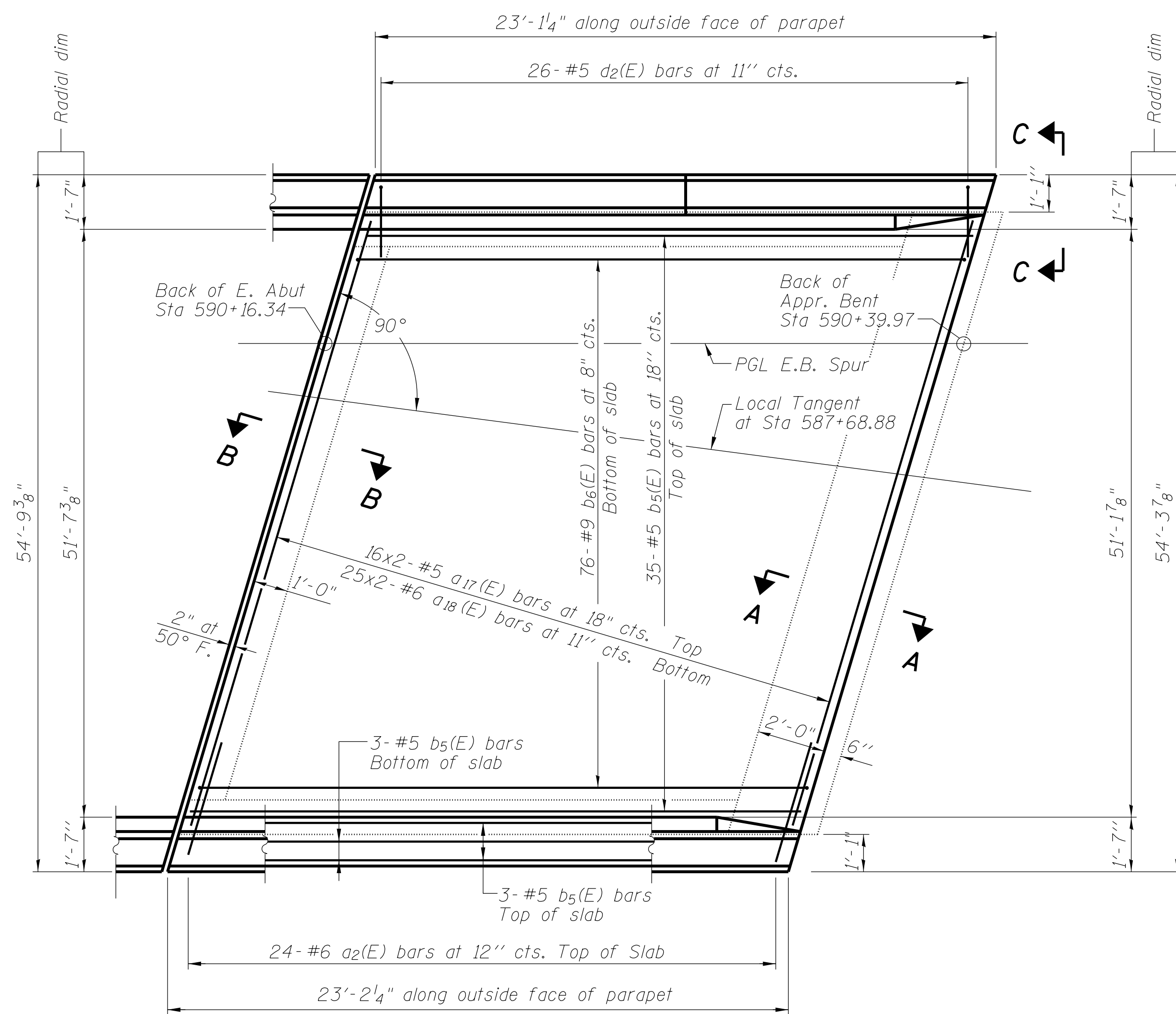
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a15(E)	32	#5	34'-3"	—
a16(E)	50	#6	33'-0"	—
b5(E)	42	#5	22'-9"	—
b6(E)	92	#9	25'-3"	—
d(E)	52	#5	5'-7"	⌋
d2(E)	52	#5	8'-8"	⌋
e14(E)	2	#4	22'-10"	—
e15(E)	2	#8	22'-10"	—
e14(E)	14	#4	11'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	14,020
Concrete Superstructure			Cu. Yd.	75.9
Bridge Deck Grooving			Sq. Yd.	154
Protective Coat			Sq. Yd.	179

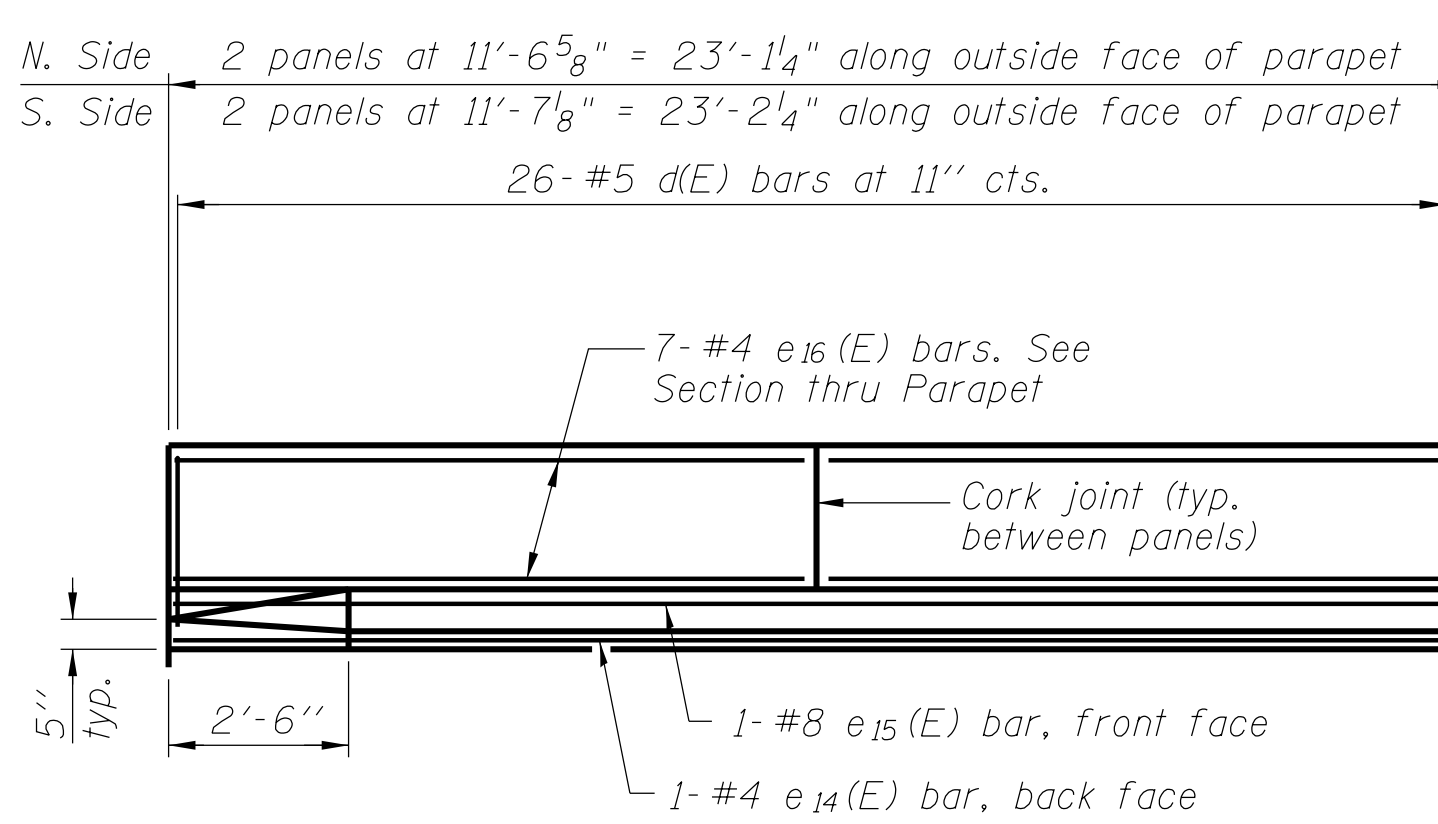
Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Removal of Existing Concrete Deck No. 2.

For Parapet Joint Details see sheet 18 of 39.

FILE NAME = I:\1001\6008 - D7 Var - Work Order - 6 - Res 36 Bridge Plans\CADD_Structural\wval.tbl.dgn



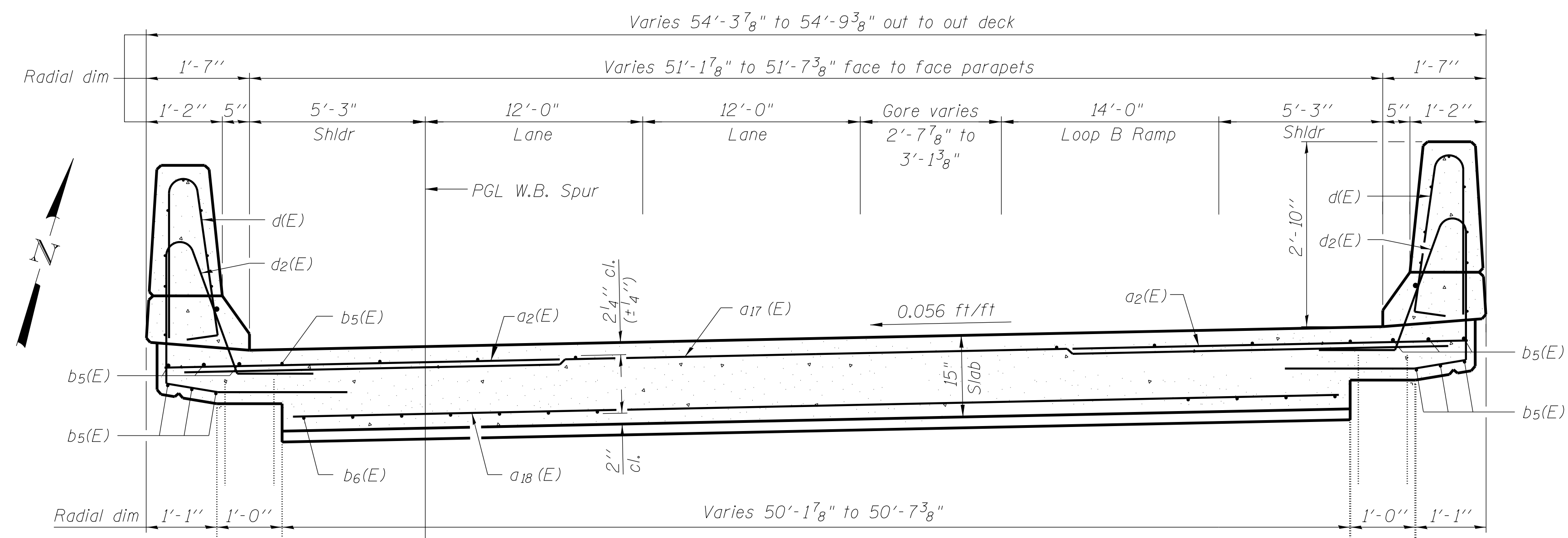
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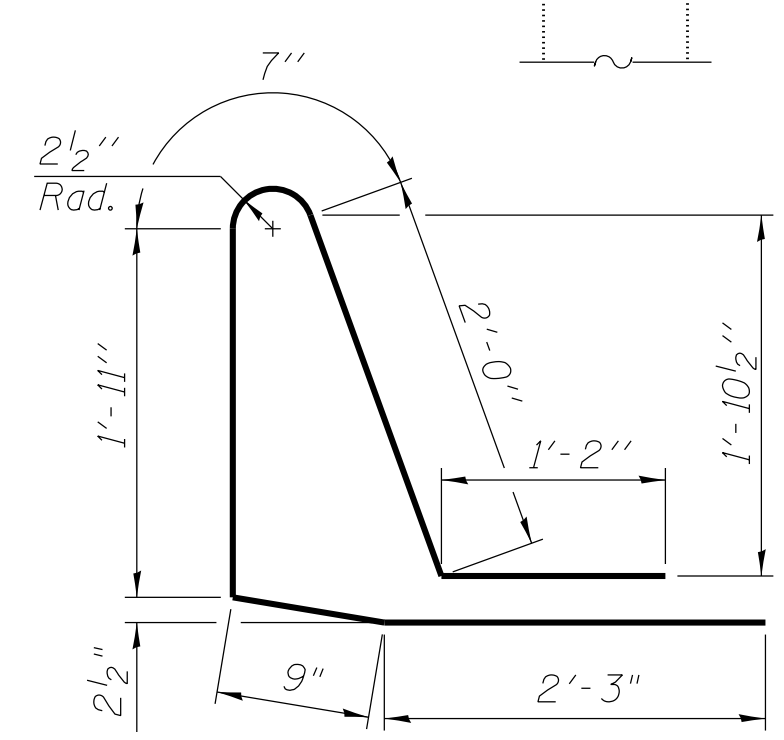
INSIDE ELEVATION OF PARAPET

Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Removal of Existing Concrete Deck No. 2.

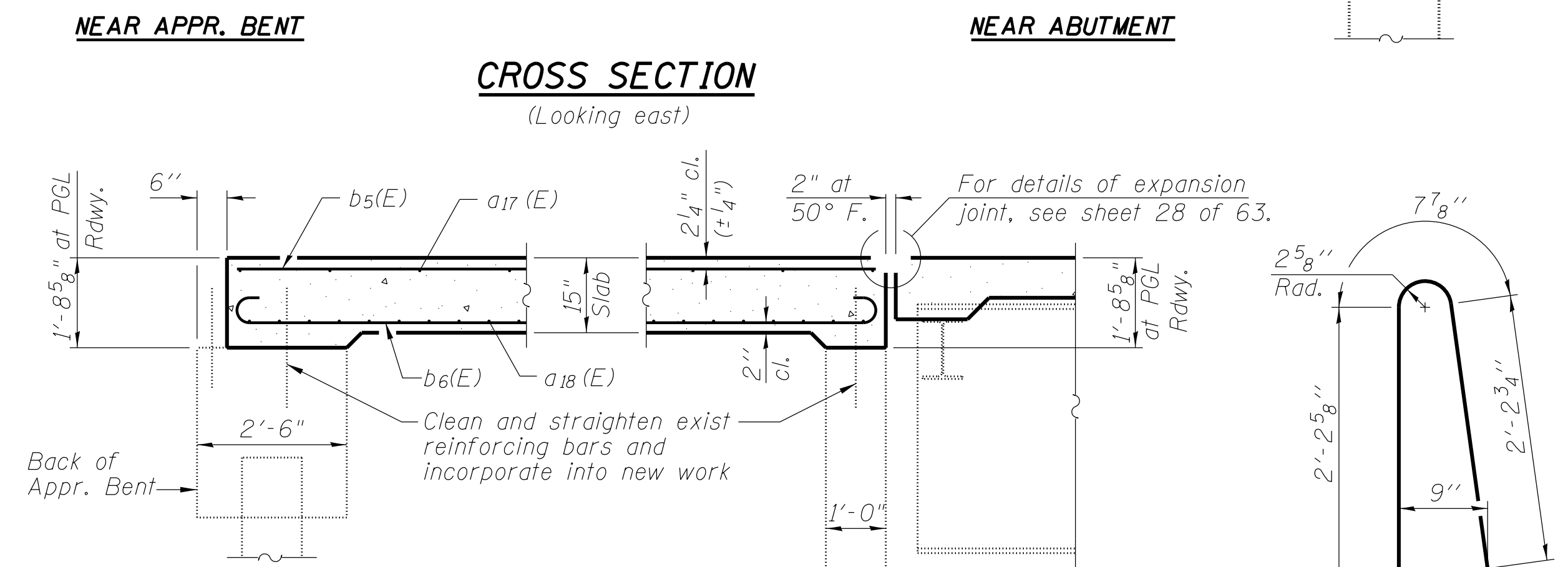
For Parapet Joint Details see sheet 21 of 39.



CROSS SECTION
(Looking east)



BAR d2(E)

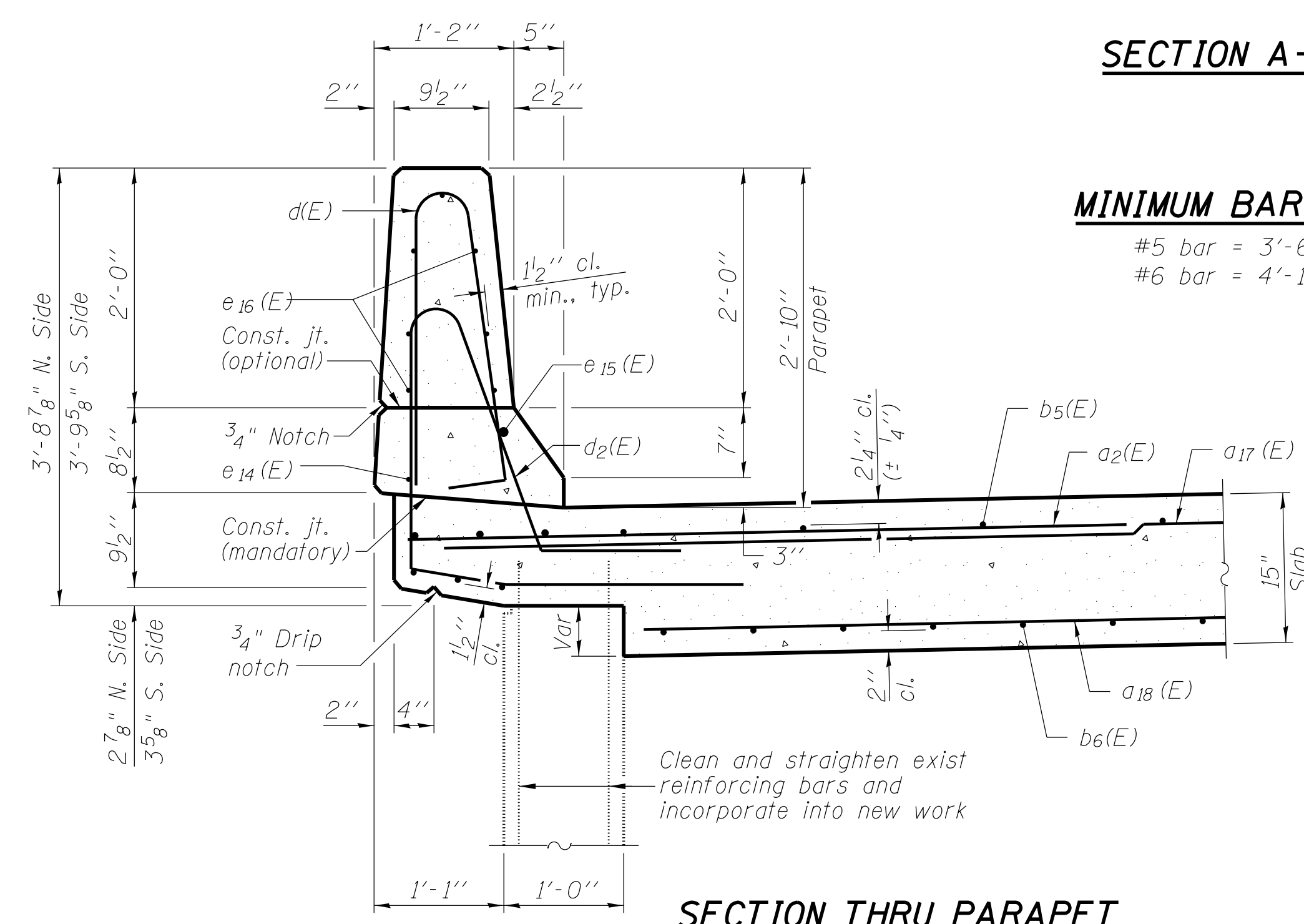


SECTION A-A

BAR d(E)

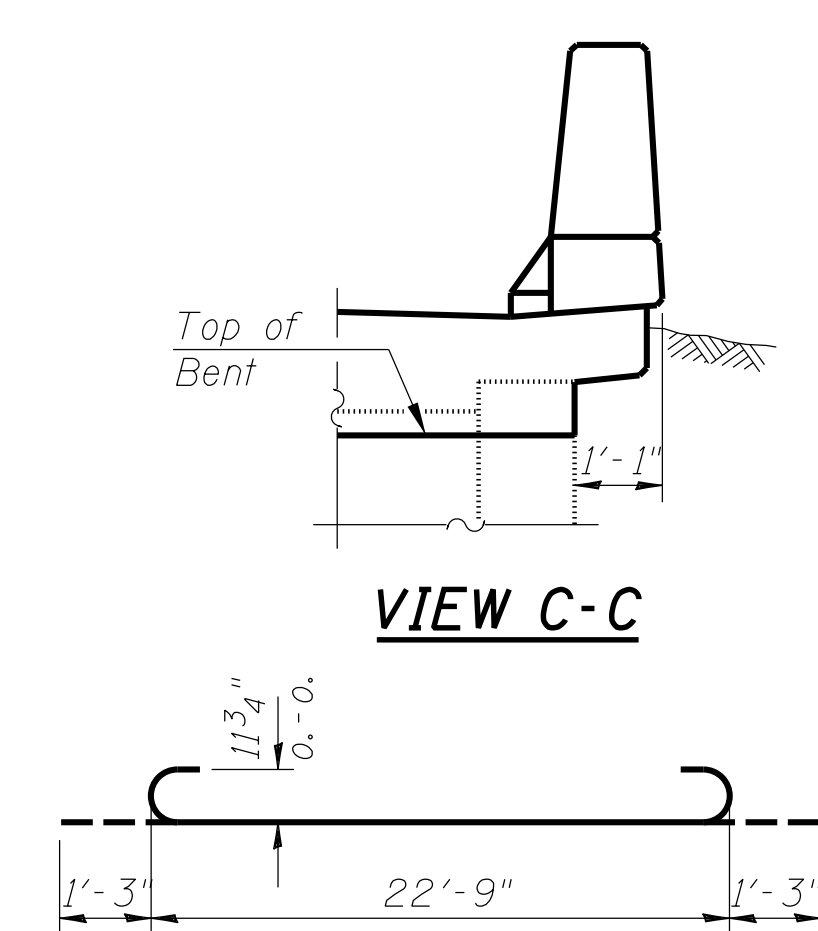
MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"



SECTION THRU PARAPET

SECTION B-B



VIEW C-C

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a17(E)	32	#5	29'-0"	—
a18(E)	50	#6	28'-3"	—
b5(E)	47	#5	22'-9"	—
b6(E)	76	#9	25'-3"	—
d(E)	52	#5	5'-7"	—
d2(E)	52	#5	8'-8"	—
e14(E)	2	#4	22'-10"	—
e15(E)	2	#8	22'-10"	—
e16(E)	14	#4	11'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	12,230
Concrete Superstructure			Cu. Yd.	63.9
Bridge Deck Grooving			Sq. Yd.	127
Protective Coat			Sq. Yd.	152

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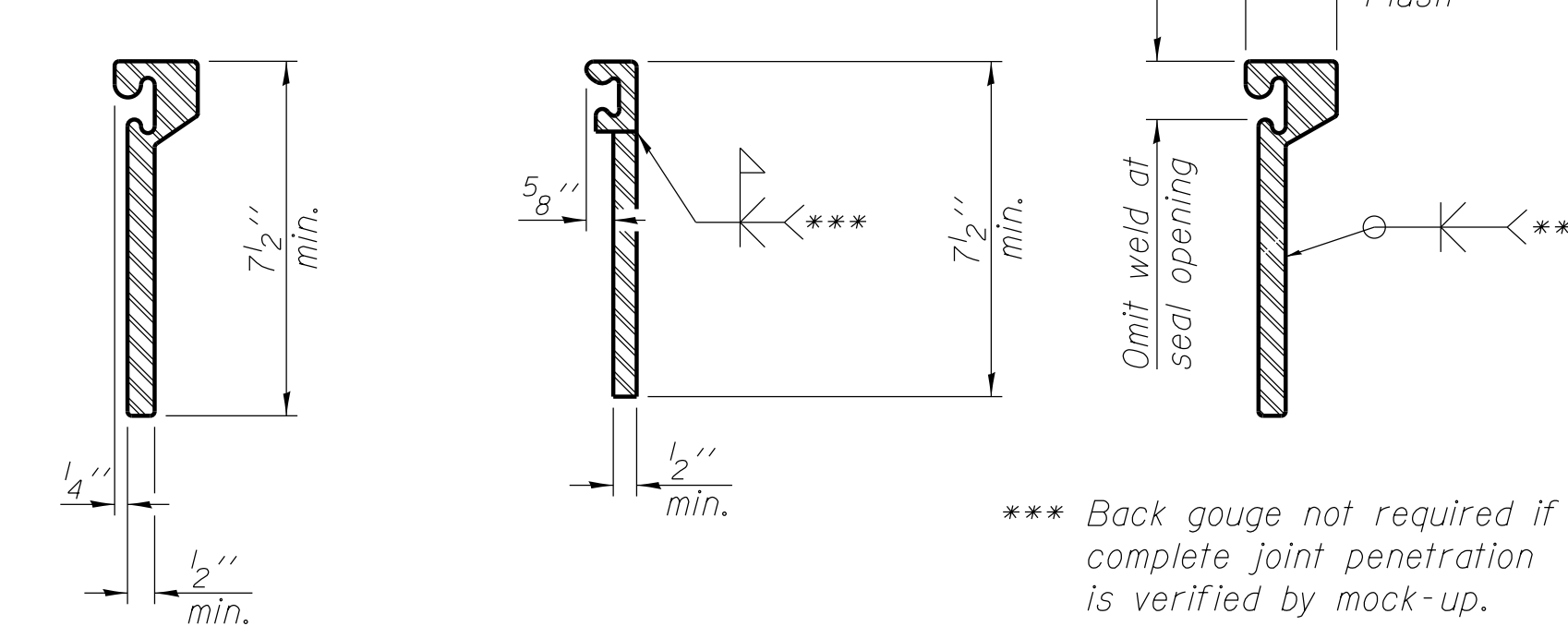
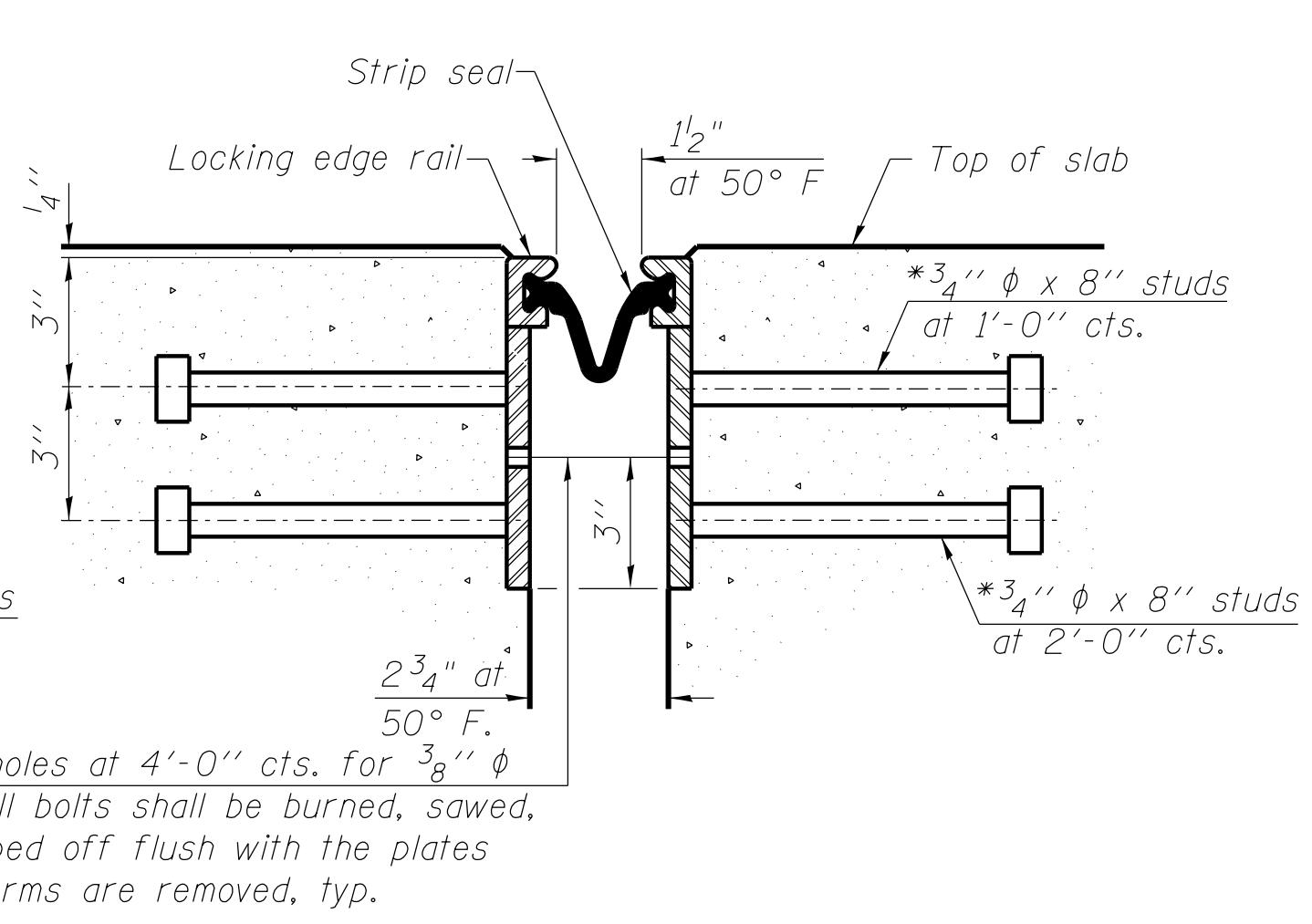
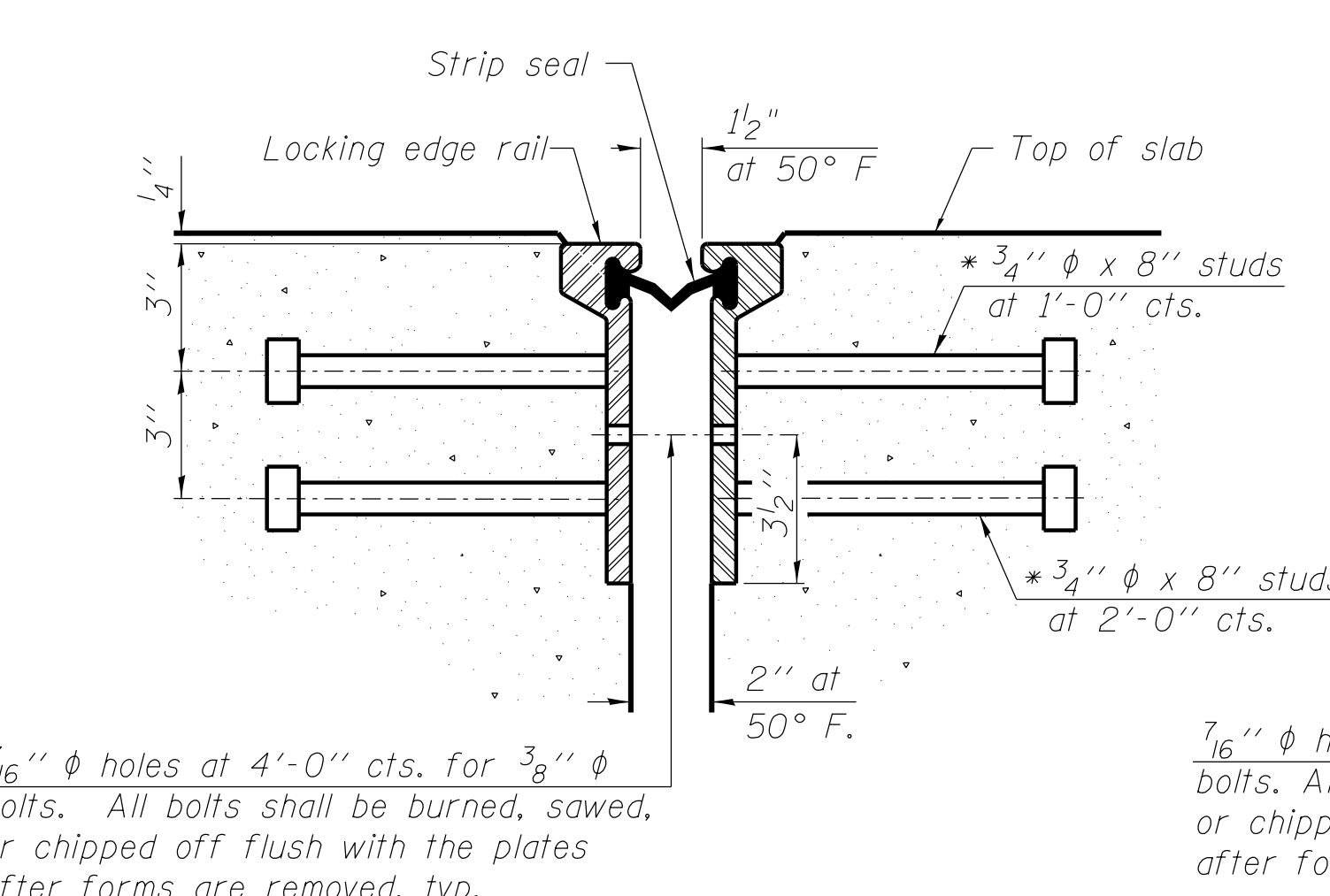
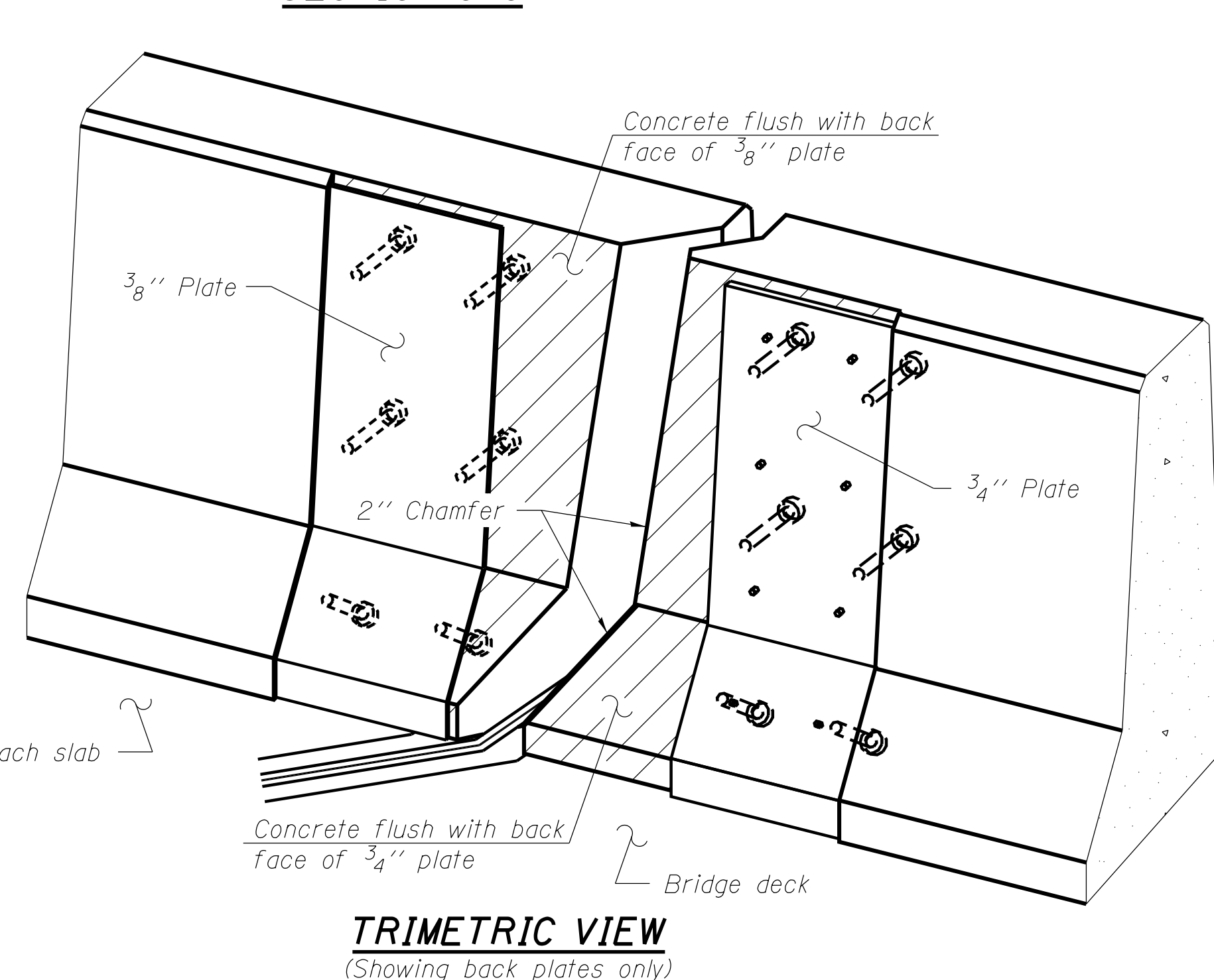
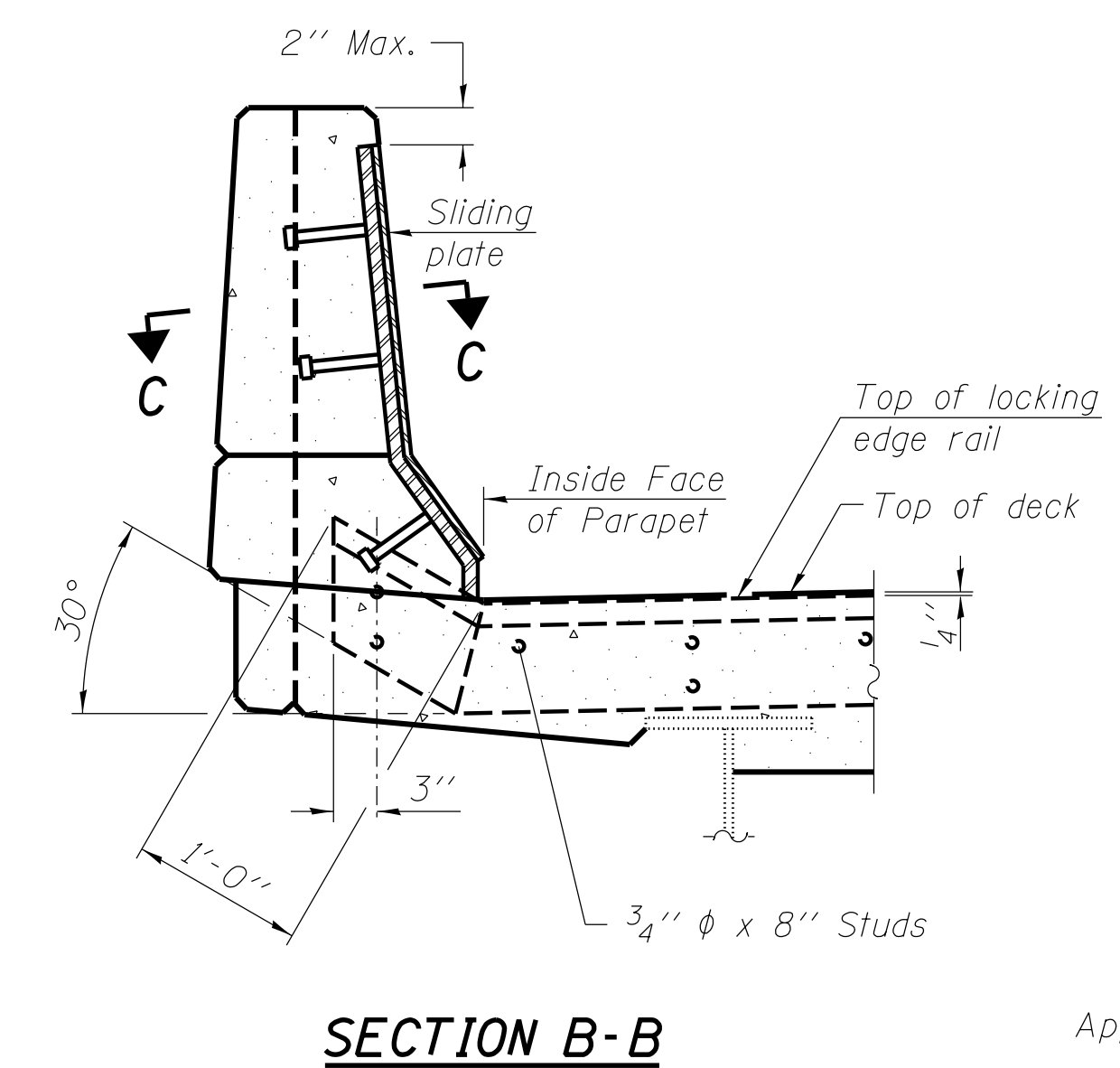
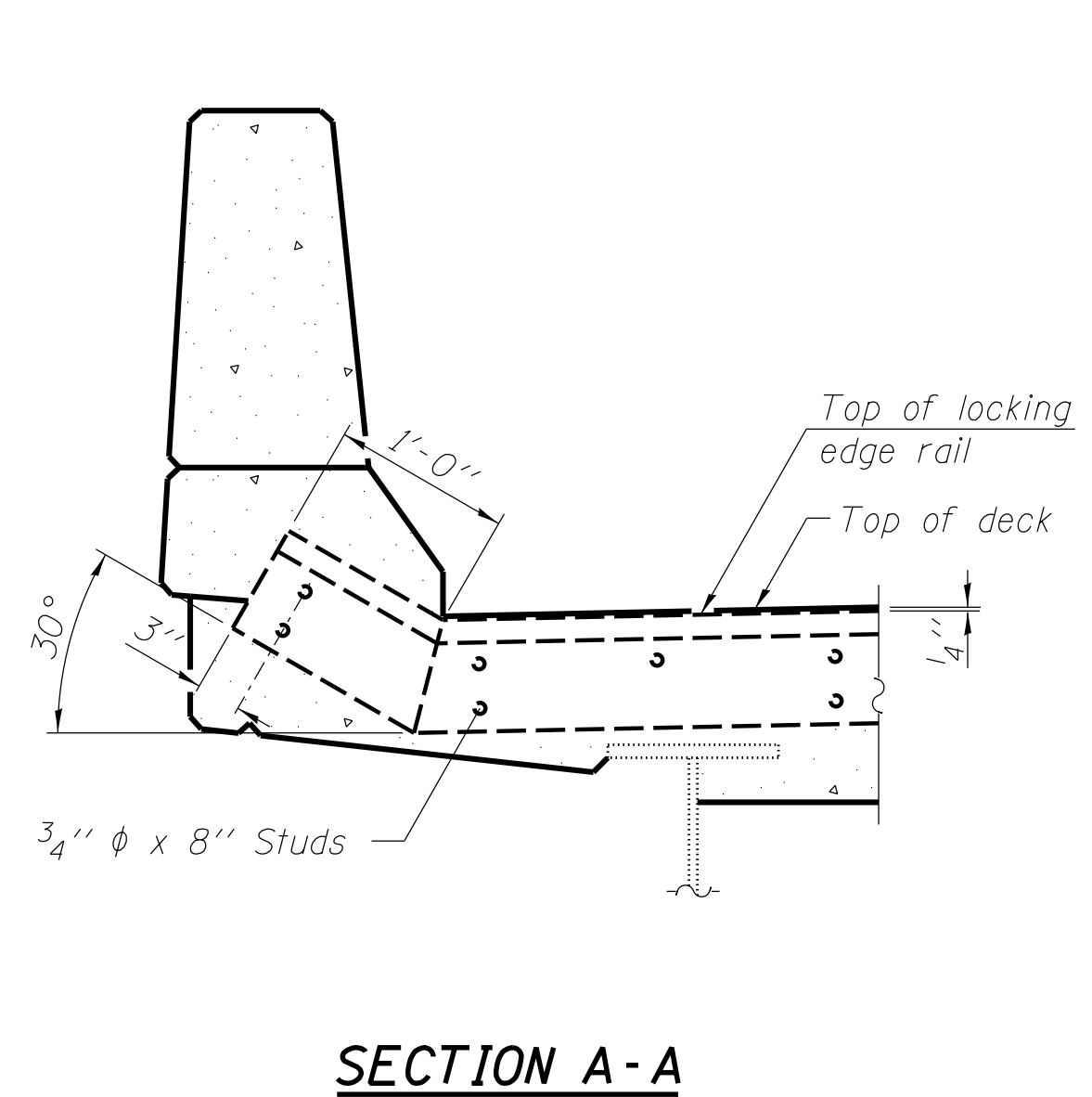
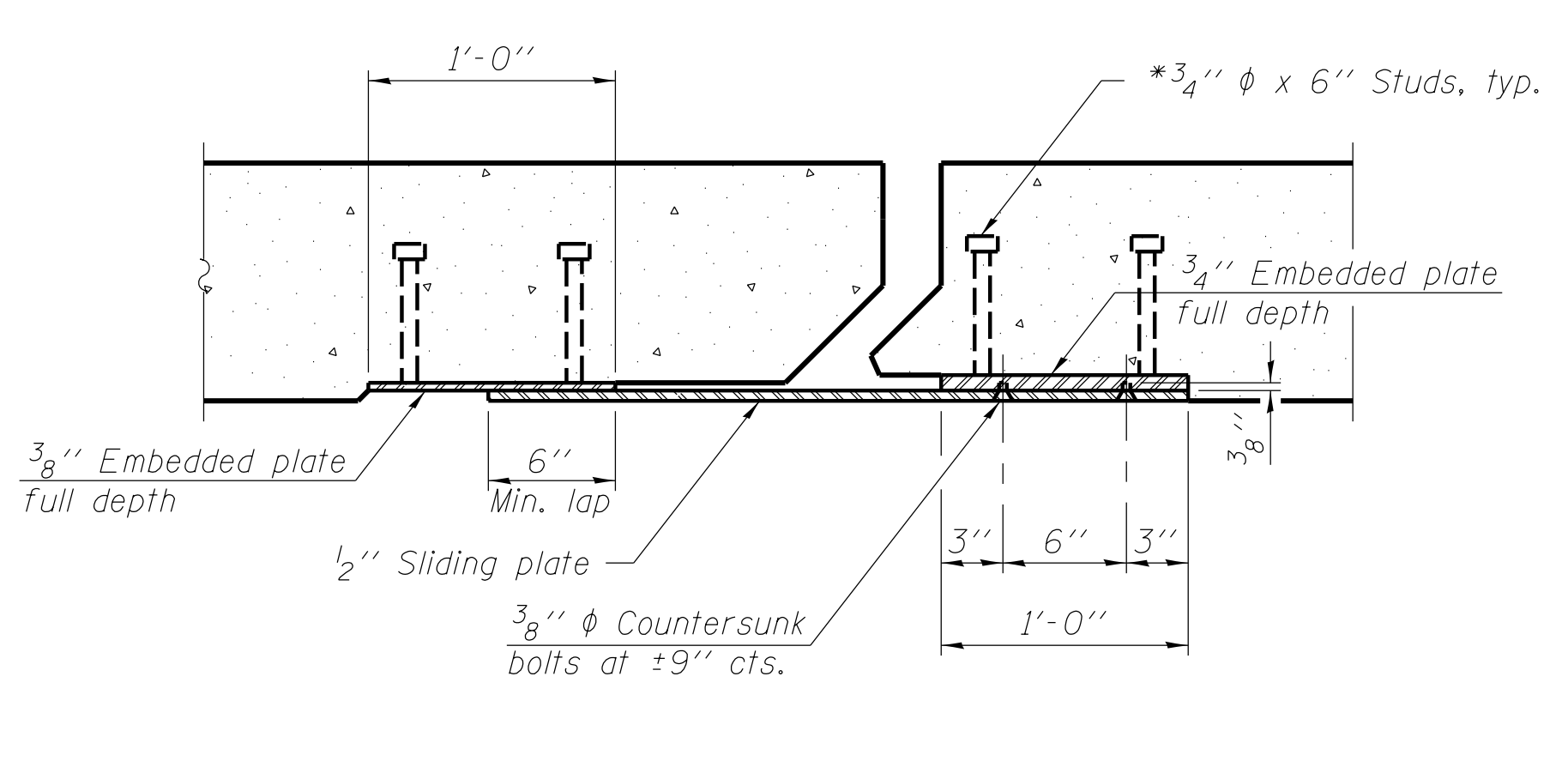
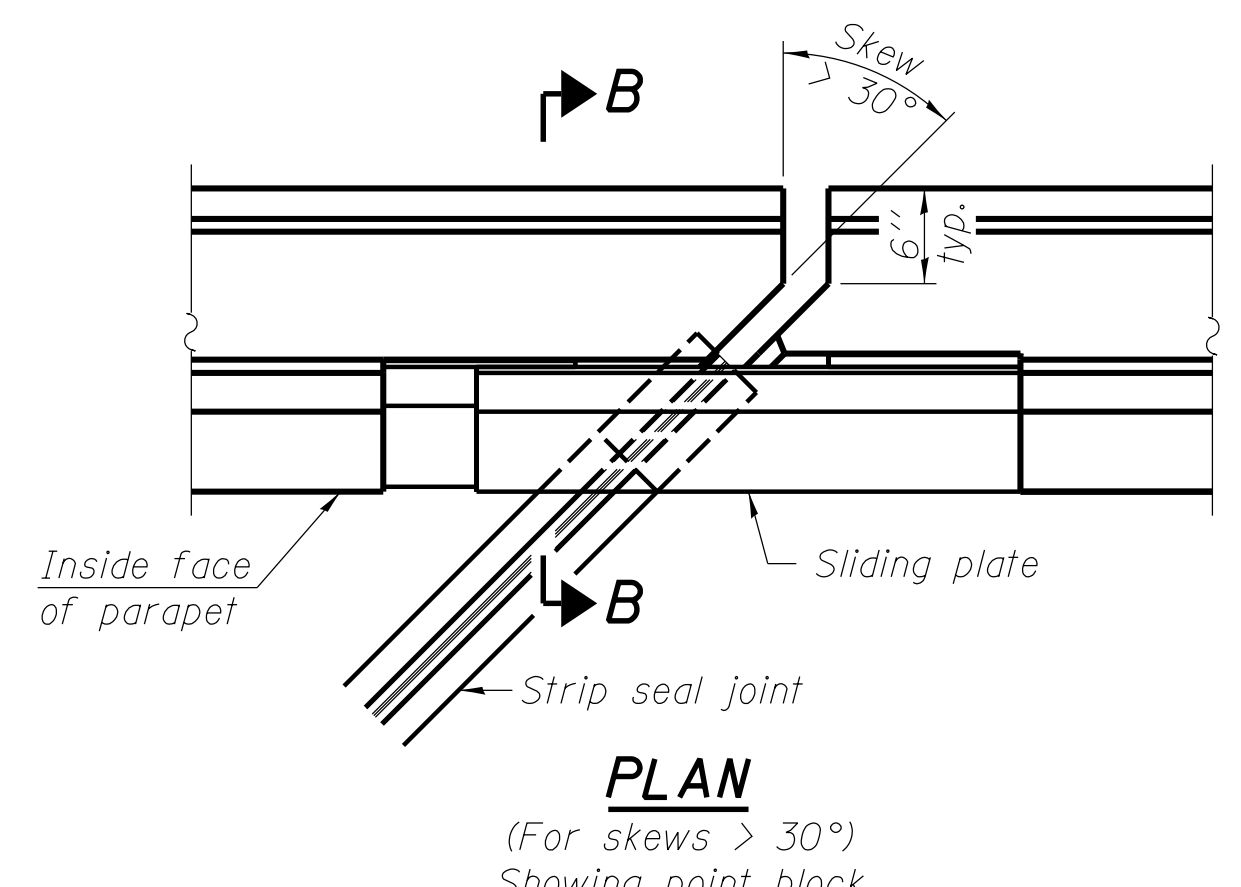
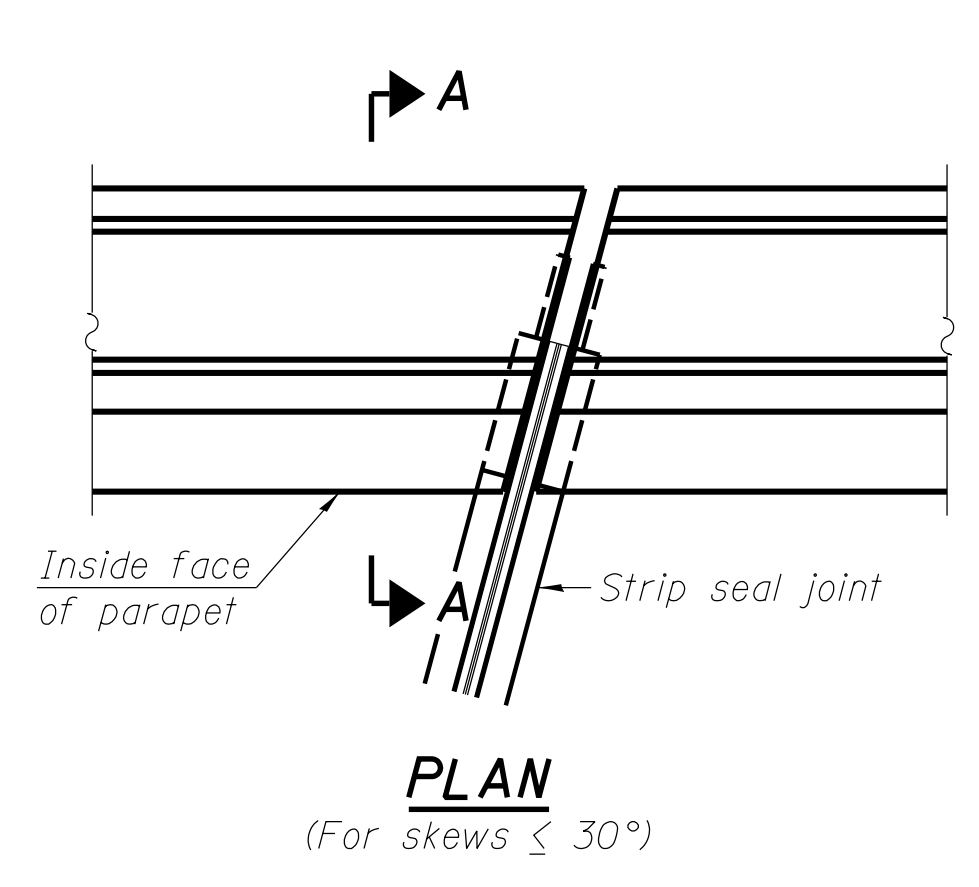
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST VAULTED SLAB
STRUCTURE NO. 058-0107 (EB)
SHEET NO. 27 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	46
SN. 058-0106 (WB) & 0107 (EB)	CONTRACT NO. 74605			
STA.	ILLINOIS FED. AID PROJECT			

FILE NAME = I:\1001\6008 - D7 Ver-Work\6008 - D7 Ver-Work\CADD_Structural\stripseal.dgn



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

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	221

EJ-SSJ 2-17-2017

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jbenning	DESIGNED - JMB	REVISED -
PLOT TIME = 10:52:43 AM	CHECKED - ACB	REVISED -
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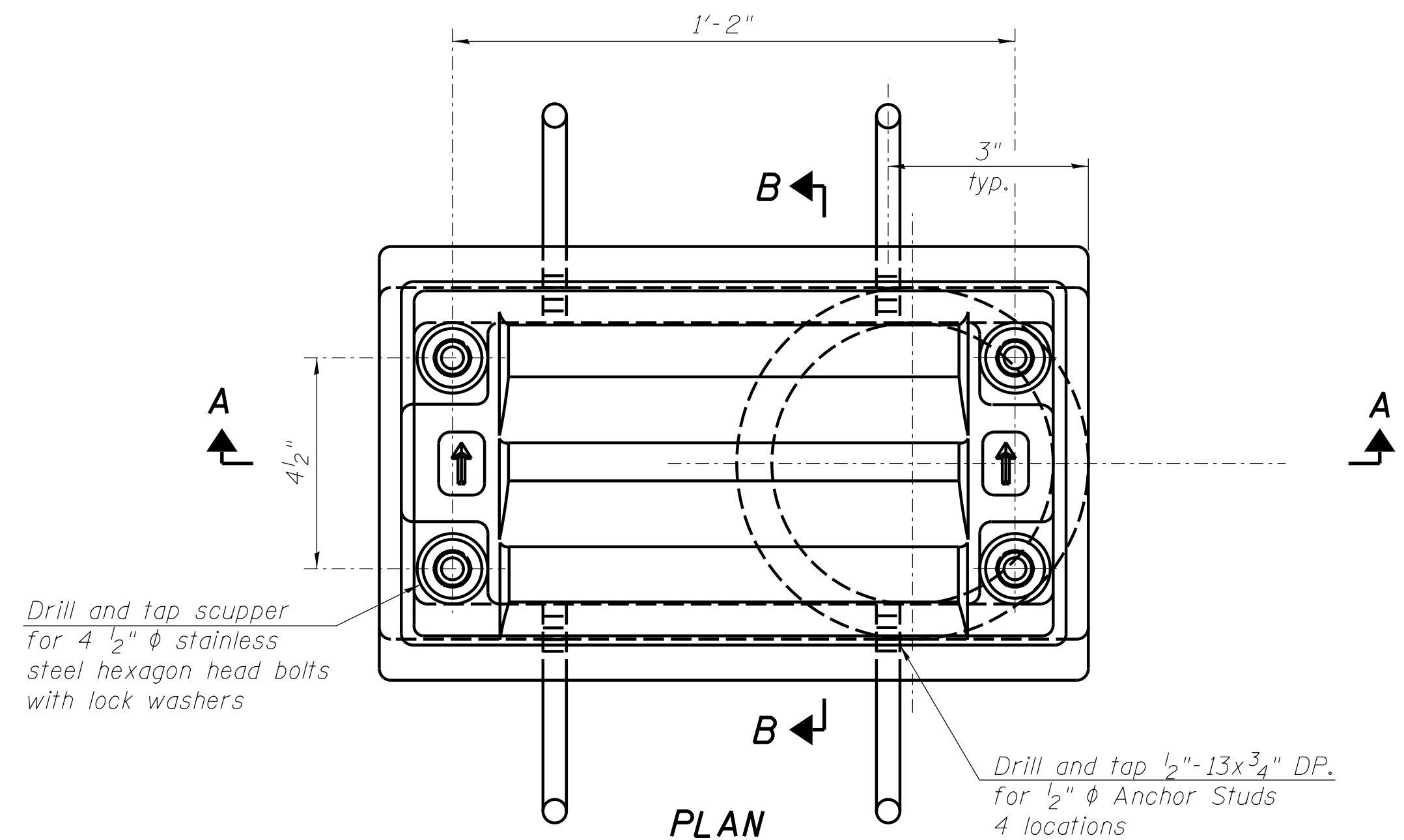
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

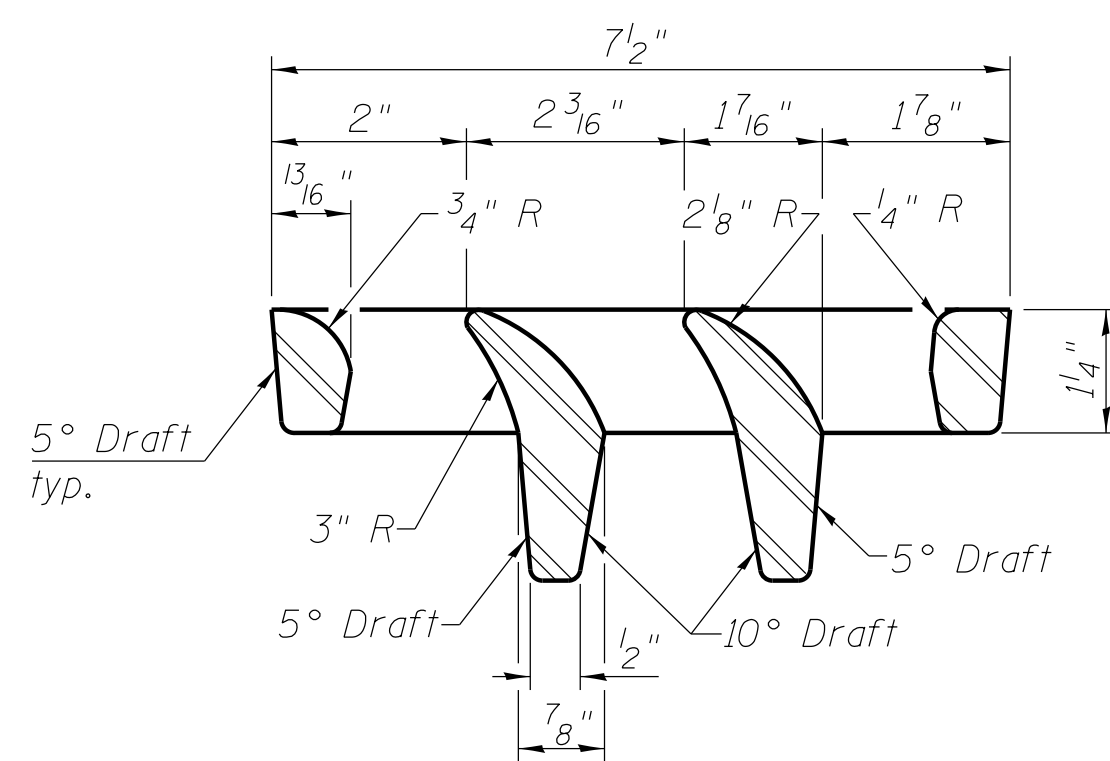
SHEET NO. 28 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	47
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

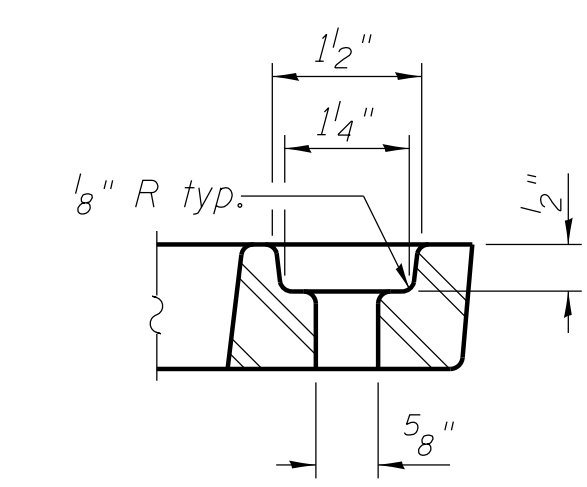
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



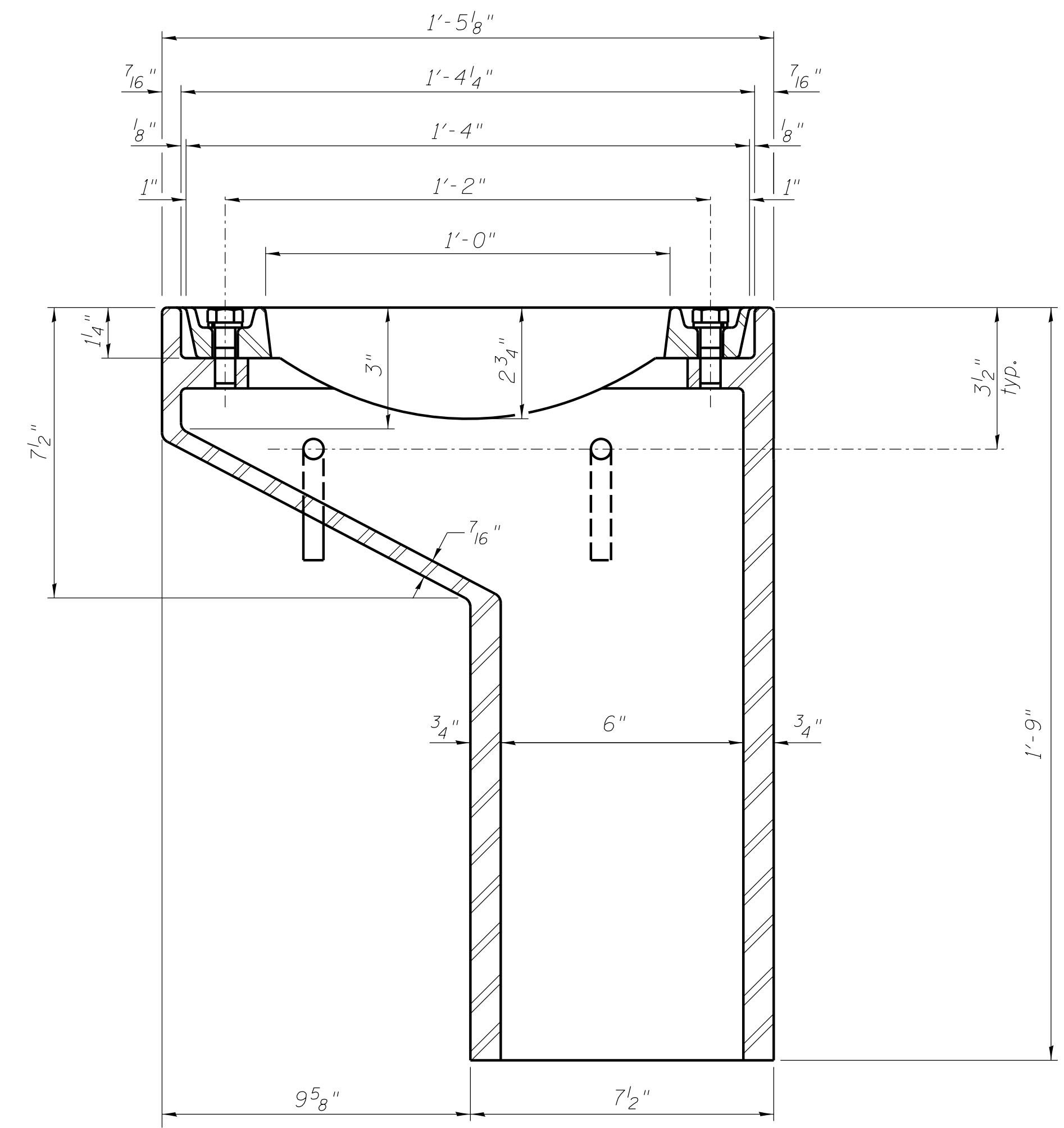
PLAN



VANE GRATE DETAIL

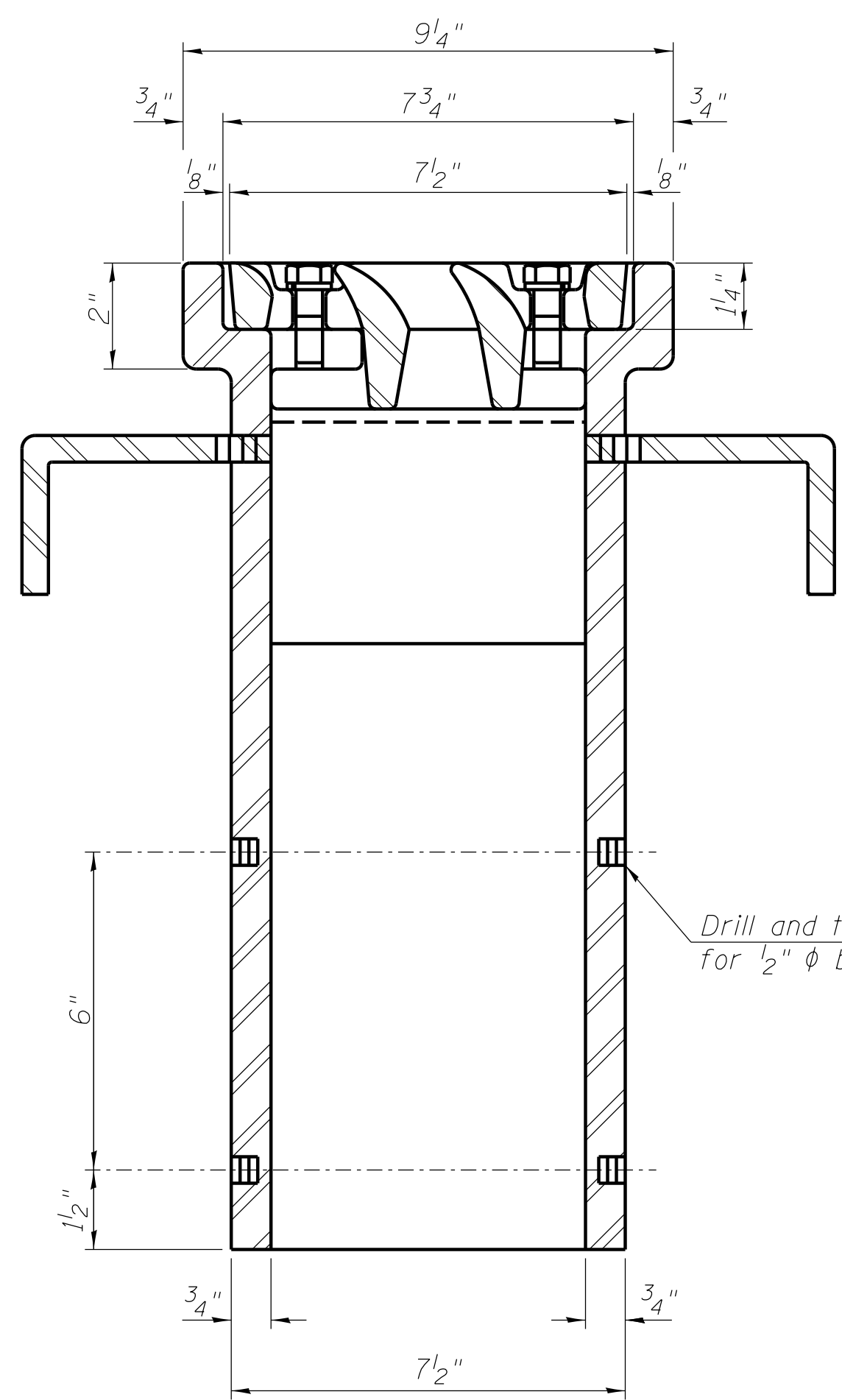


BOLT HOLE DETAIL

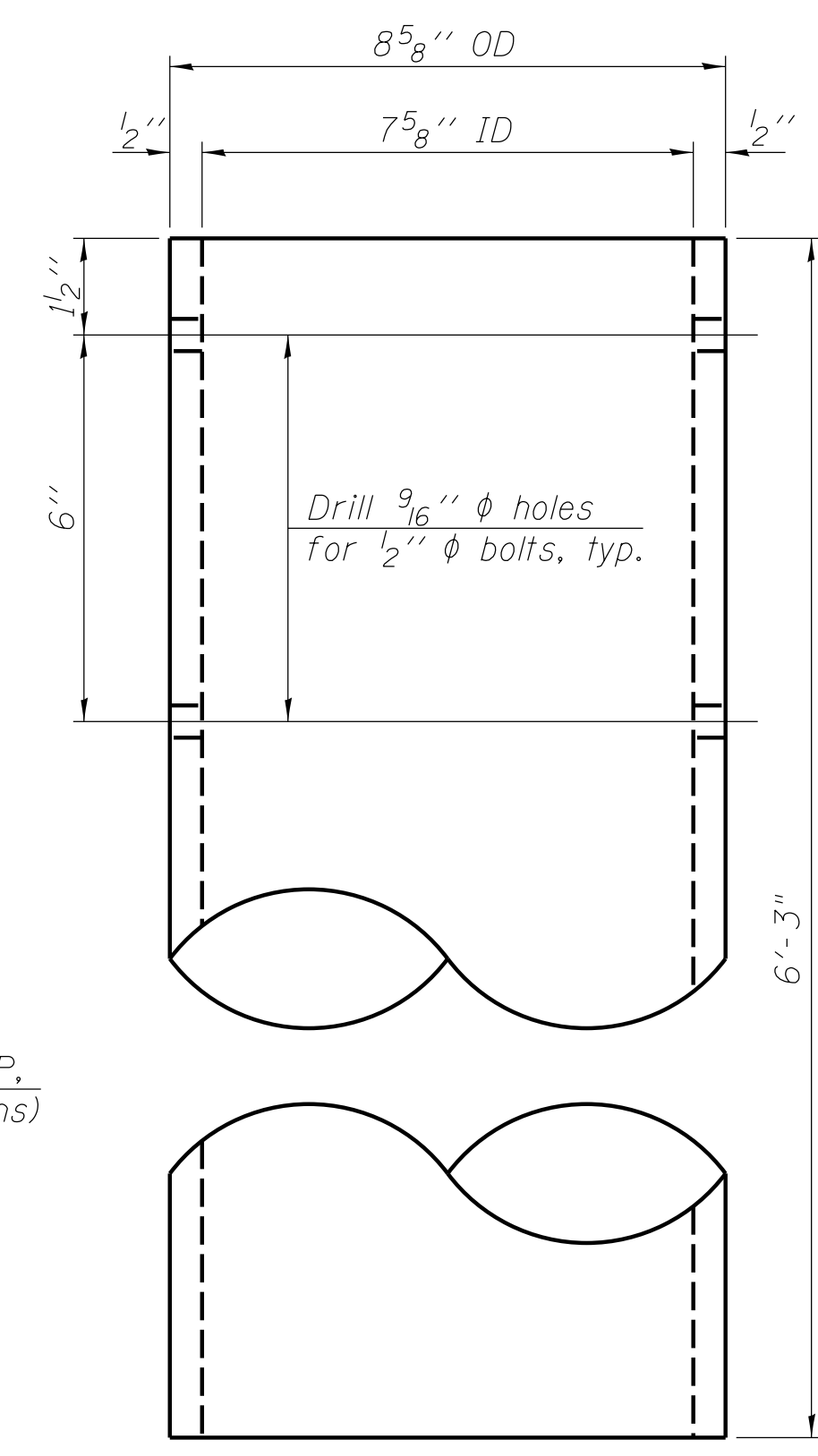


SECTION A-A

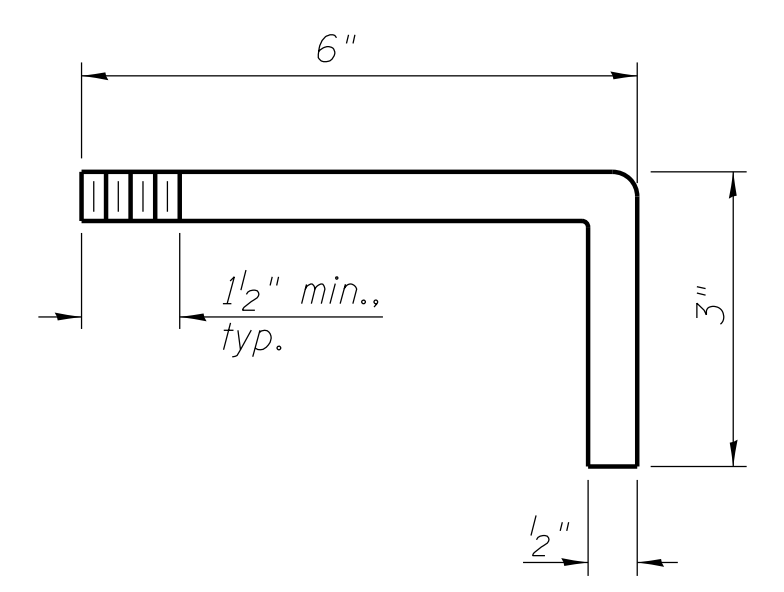
See sheet 18 & 21 of 63 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11

2-17-2017

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jbenning
PLOT TIME = 10:52:51 AM
PLOT SCALE = 4:0 1/4" / in.
PLOT DATE = 1/11/2018

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CHECKED - ACB
DRAWN - RLK
CHECKED - JMB

REVISED -
REVISED -
REVISED -
REVISED -

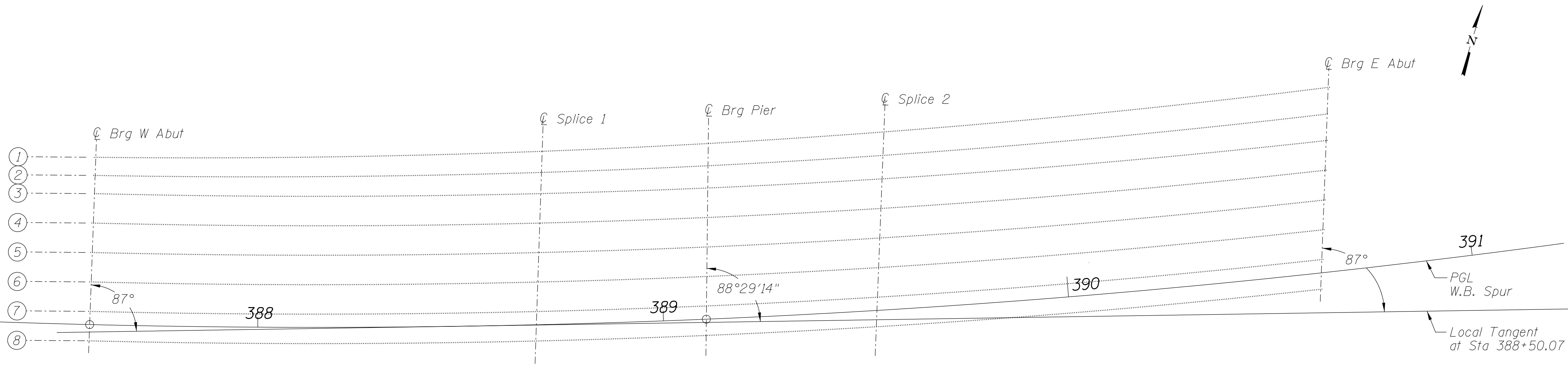
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

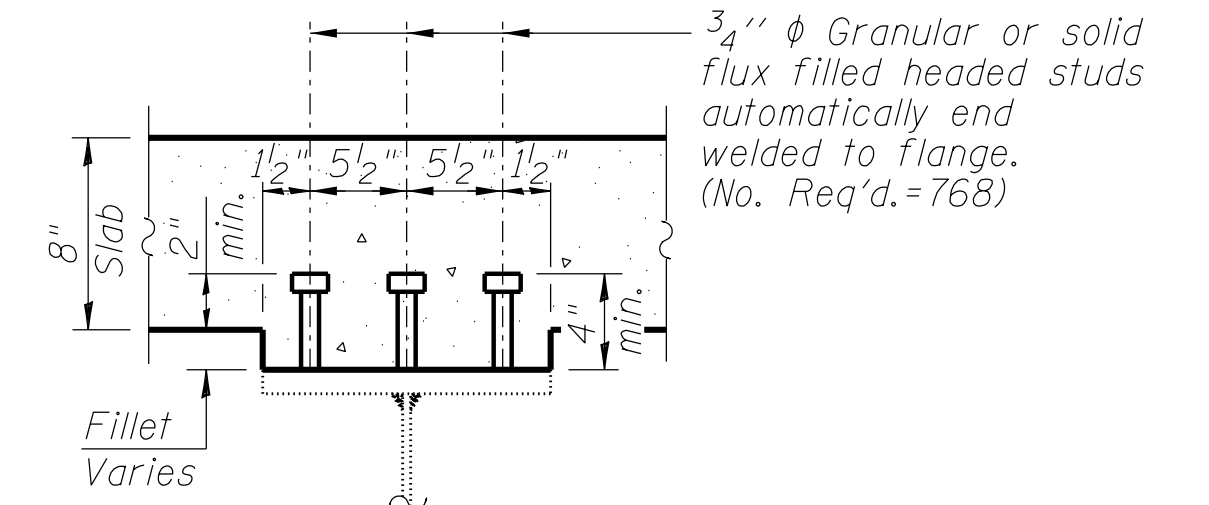
SHEET NO. 29 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-WB-2) BR	MACON	82	48
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

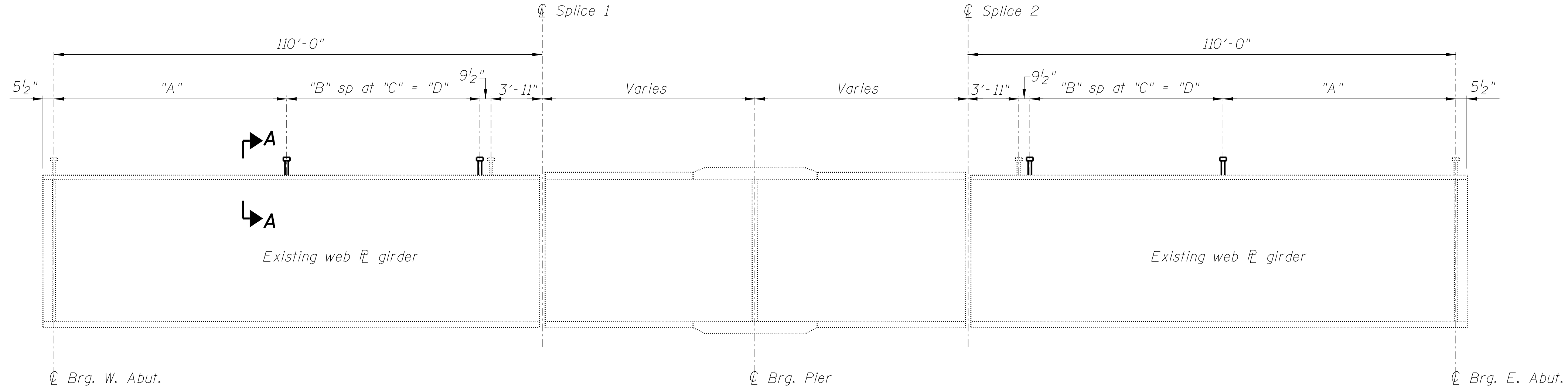
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WB FRAMING PLAN



SECTION A-A



GIRDER ELEVATION

Note:
All existing studs shall remain. New studs spaced as detailed on this sheet shall be placed between existing stud spaces.

HEADED STUD SPACING VARIABLES

Girder	"A"	"B"	"C"	"D"
1	95'-9 1/2"	6	1'-7"	9'-6"
2	95'-9 1/2"	6	1'-7"	9'-6"
3	84'-8 1/2"	13	1'-7"	20'-7"
4	75'-2 1/2"	19	1'-7"	30'-1"
5	75'-2 1/2"	19	1'-7"	30'-1"
6	75'-2 1/2"	19	1'-7"	30'-1"
7	75'-2 1/2"	19	1'-7"	30'-1"
8	75'-2 1/2"	19	1'-7"	30'-1"

FILE NAME = I:\DOT\6008 - D7 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\WebSteel\Fmgdgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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PLOT DATE = 1/11/2018

DESIGNED - JMB
CHECKED - ACB
DRAWN - RLK
CHECKED - JMB

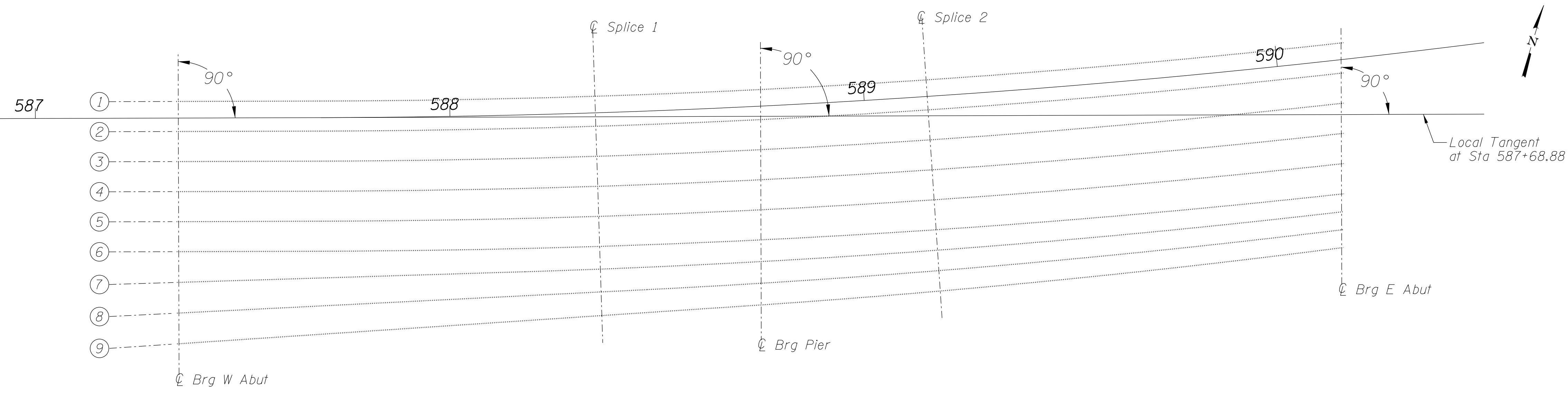
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

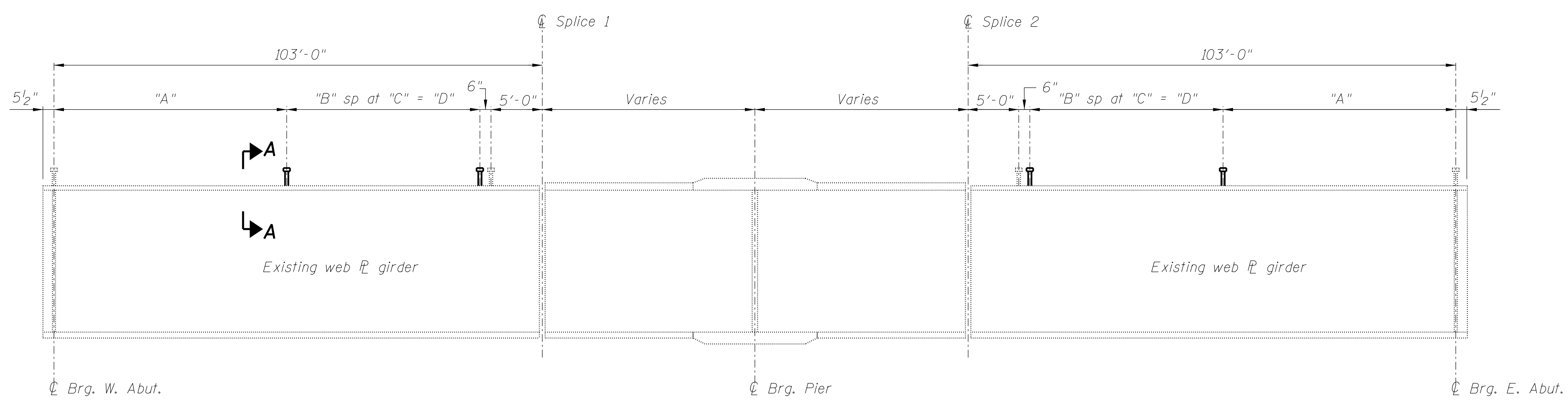
FRAMING PLAN AND DETAILS
STRUCTURE NO. 058-0106 (WB)

SHEET NO. 30 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	49
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			

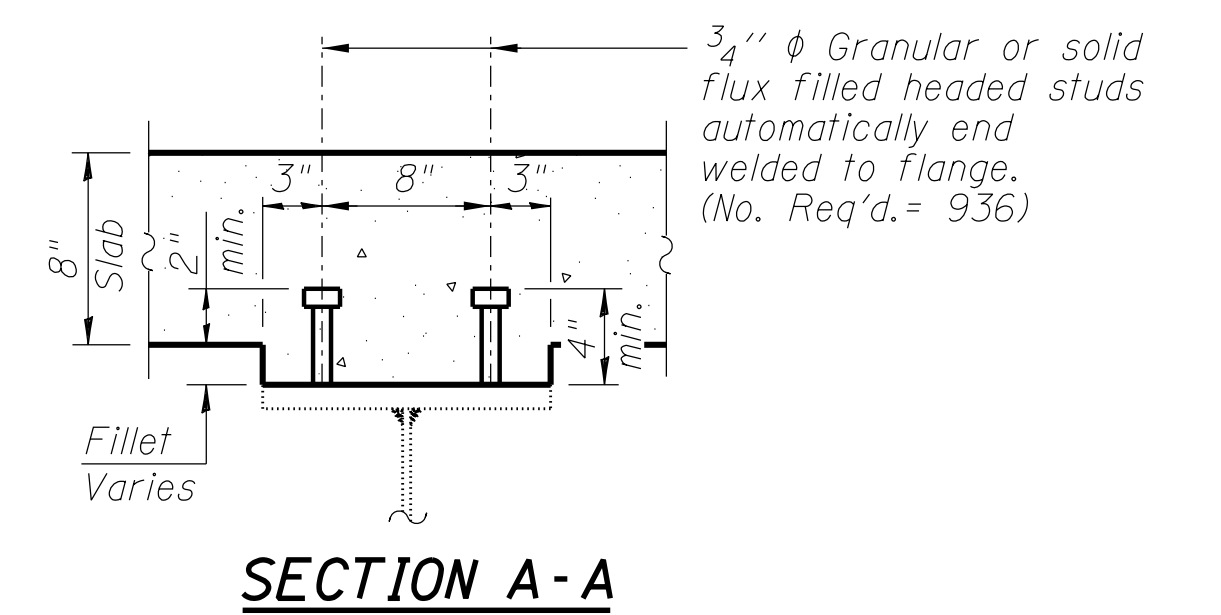


EB FRAMING PLAN



GIRDER ELEVATION

Note:
All existing studs shall remain. New studs spaced as detailed on this sheet shall be placed between existing stud spaces.



HEADED STUD SPACING VARIABLES

Girder	"A"	"B"	"C"	"D"
1	79'-6"	18	1'-0"	18'-0"
2	70'-6"	27	1'-0"	27'-0"
3	70'-6"	27	1'-0"	27'-0"
4	70'-6"	27	1'-0"	27'-0"
5	70'-6"	27	1'-0"	27'-0"
6	70'-6"	27	1'-0"	27'-0"
7	70'-6"	27	1'-0"	27'-0"
8	70'-6"	27	1'-0"	27'-0"
9	79'-6"	18	1'-0"	18'-0"

FILE NAME = I:\DOT\6008 - D7 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\ebsteel.fmg.dgn

FILE NAME = I:\DOT\6008 - D7 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\Bmomtables.dgn

GIRDER 2 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	38907	105694	38907
I_c (n)	(in ⁴)	94829	-	100978
I_c (3n)	(in ⁴)	66834	-	71684
S_s	(in ³)	1428.8	3108.6	1428.8
S_c (n)	(in ³)	1932.1	-	1961.9
S_c (3n)	(in ³)	1751.4	-	1789.4
S_l	(in ³)	60.8	135	60.8
DL	(k/')	0.73	1.02	0.73
M_{DL}	('k)	943	3105	1185
S DL	(k/')	0.32	0.32	0.32
M_s DL	('k)	409	994	446
M_{LL}	('k)	832	1166	968
M_l	('k)	208	233	242
$5/3[M_{LL} + M_l]$	('k)	1733	2332	2018
M_o	('k)	4010	8362	4743
M_{br}	('k)	8	18	10
f_s DL (non-comp)	(ksi)	7.9	12.0	10.0
f_s DL (comp)	(ksi)	2.8	3.8	3.0
f_s $5/3[M_{LL} + M_l]$	(ksi)	10.8	9.0	12.3
f_l	(ksi)	1.7	1.6	1.9
f_s (Overload)	(ksi)	21.5	24.8	25.3
f_s (Total)	(ksi)	27.9	32.3	32.9
F_{cr} (Overload)	(ksi)	47.5	42.9	47.5
VR	(k)	16.1	-	19.9
F_{cr}	(ksi)	49.5	45.7	49.4

GIRDER 2 REACTION TABLE HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	54.6	227.9	64.6
R_{LL}	(k)	28.5	72.8	42.5
R_l	(k)	8.2	18.2	12.2
R_{Total}	(k)	91.3	318.8	119.3

GIRDER 3 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	38907	105694	38907
I_c (n)	(in ⁴)	100963	-	103544
I_c (3n)	(in ⁴)	71671	-	73873
S_s	(in ³)	1428.8	3108.6	1428.8
S_c (n)	(in ³)	1962.0	-	1973.8
S_c (3n)	(in ³)	1789.5	-	1805.7
S_l	(in ³)	60.8	135	60.8
DL	(k/')	0.85	1.11	0.90
M_{DL}	('k)	1043	3303	1231
S DL	(k/')	0.27	0.27	0.27
M_s DL	('k)	398	911	410
M_{LL}	('k)	975	1287	1028
M_l	('k)	237	257	188
$5/3[M_{LL} + M_l]$	('k)	2020	2574	2027
M_o	('k)	4499	8824	4769
M_{br}	('k)	10	21	11
f_s DL (non-comp)	(ksi)	8.8	12.7	10.3
f_s DL (comp)	(ksi)	2.7	3.5	2.7
f_s $5/3[M_{LL} + M_l]$	(ksi)	12.4	9.9	12.3
f_l	(ksi)	1.9	1.9	2.1
f_s (Overload)	(ksi)	23.8	26.2	25.4
f_s (Total)	(ksi)	30.9	34.1	33.0
F_{cr} (Overload)	(ksi)	47.5	43.1	47.5
VR	(k)	15.8	-	16.2
F_{cr}	(ksi)	49.4	45.7	49.3

GIRDER 3 REACTION TABLE HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	58.3	239.4	65.0
R_{LL}	(k)	45.0	83.6	46.5
R_l	(k)	13.5	20.9	13.9
R_{Total}	(k)	116.9	343.8	125.3

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

S_l : Section modulus of one flange plate for lateral flange bending (in³).

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : Un-factored moment due to non-composite dead load (kip-ft.).

sQ : Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s Q$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).
 $1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

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

f_l : Factored calculated normal stress at the edge of flange due to lateral bending (ksi).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_Q + M_s Q + \frac{5}{3} (M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below (ksi).
 $1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

F_{cr} (Overload): Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5 (ksi).

F_{cr} : Critical average flange stress (smaller of F_{cr1} or F_{cr2} for partially braced flanges and F_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4) (ksi).

VR: Maximum $L +$ impact shear range within span for stud shear connector design (kips).

Note:
 M_L and R_L include the effects of centrifugal force and superelevation.

FILE NAME = I:\DOT\6008 - D7 Ver-Work Order-6 - Rte 36 Bridge Plans\CADD_Structural\abmontables.dgn

GIRDER 7 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	38907	105694	38907
I_c (n)	(in ⁴)	105874	-	105874
I_c (3n)	(in ⁴)	75955	-	75955
S_s	(in ³)	1428.8	3108.6	1428.8
S_c (n)	(in ³)	1984.1	-	1984.1
S_c (3n)	(in ³)	1820.2	-	1820.2
S_l	(in ³)	60.8	135	60.8
DL	(k/')	0.96	1.20	0.96
M_{DL}	(k)	1271	3684	1231
S DL	(k/')	0.36	0.36	0.36
M_s DL	(k)	451	1069	451
M_{LL}	(k)	1072	1364	1069
M_I	(k)	261	273	260
$5/3[M_{LL} + M_I]$	(k)	2222	2727	2215
M_o	(k)	5127	9725	5065
M_{br}	(k)	10	21	11
f_s DL (non-comp)	(ksi)	10.7	14.2	10.3
f_s DL (comp)	(ksi)	3.0	4.1	3.0
f_s $5/3[M_{LL} + M_I]$	(ksi)	13.4	10.5	13.4
f_i	(ksi)	1.9	1.9	2.1
f_s (Overload)	(ksi)	27.1	28.9	26.7
f_s (Total)	(ksi)	35.2	37.5	34.7
F_{cr} (Overload)	(ksi)	47.5	43.1	47.5
VR	(k)	22.9	-	23.3
F_{cr}	(ksi)	49.4	45.7	49.3

GIRDER 7 REACTION TABLE				
HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	68.3	274.7	68.0
R_{LL}	(k)	46.5	90.4	46.4
R_I	(k)	13.4	22.6	13.4
R_{total}	(k)	128.1	387.7	127.7

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

S_l : Section modulus of one flange plate for lateral flange bending (in³).

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : Un-factored moment due to non-composite dead load (kip-ft.).

s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s Q$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).

$1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

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

f_x : Factored calculated normal stress at the edge of flange due to lateral bending (ksi).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).

$M_Q + M_s Q + \frac{5}{3} (M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below (ksi).

$1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

F_{cr} (Overload): Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5 (ksi).

F_{cr} : Critical average flange stress (smaller of F_{cr1} or F_{cr2} for partially braced flanges and F_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4) (ksi).

VR: Maximum $L +$ impact shear range within span for stud shear connector design (kips).

Note:
 M_L and R_L include the effects of centrifugal force and superelevation.

FILE NAME = I:\DOT\6008 - D7 Ver-Work Order-6 - Rte 36 Bridge Plans\CADD_Structural\abmomtables.dgn

GIRDER 5 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	37180	85190	37180
I_c (n)	(in ⁴)	99382	-	99382
I_c (3n)	(in ⁴)	71946	-	71946
S_s	(in ³)	1318.4	2543.0	1318.4
S_c (n)	(in ³)	1838.0	-	1838.0
S_c (3n)	(in ³)	1684.9	-	1684.9
S_r	(in ³)	54.0	108	54.0
DL	(k/')	0.96	1.13	0.96
M_{DL}	('k)	1136	2864	1021
S DL	(k/')	0.18	0.18	0.18
M_s DL	('k)	277	595	278
M_{LL}	('k)	982	1203	980
M_I	('k)	246	241	245
$5/3[M_{LL} + M_I]$	('k)	2046	2407	2041
M_o	('k)	4497	7626	4342
M_{bl}	('k)	12	20	12
f_s DL (non-comp)	(ksi)	10.3	13.5	9.3
f_s DL (comp)	(ksi)	2.0	2.8	2.0
f_s $5/3[M_{LL} + M_I]$	(ksi)	13.4	11.4	13.3
f_l	(ksi)	2.6	2.3	2.6
f_s (Overload)	(ksi)	25.7	27.7	24.6
f_s (Total)	(ksi)	33.4	36.0	32.0
F_{cr} (Overload)	(ksi)	47.5	41.4	47.5
VR	(k)	14.3	-	21.1
F_{cr}	(ksi)	49.1	44.6	49.1

GIRDER 5 REACTION TABLE HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	59.8	216.1	55.7
R_{LL}	(k)	47.7	88.5	47.5
R_I	(k)	14.3	22.1	14.2
R_{Total}	(k)	121.8	326.8	117.4

GIRDER 6 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	37180	85190	37180
I_c (n)	(in ⁴)	97078	-	94450
I_c (3n)	(in ⁴)	69850	-	67579
S_s	(in ³)	1318.4	2543.0	1318.4
S_c (n)	(in ³)	1827.2	-	1815.0
S_c (3n)	(in ³)	1669.9	-	1653.1
S_r	(in ³)	54.0	108	54.0
DL	(k/')	0.89	1.03	0.84
M_{DL}	('k)	1119	2686	935
S DL	(k/')	0.23	0.23	0.23
M_s DL	('k)	294	653	297
M_{LL}	('k)	992	1130	892
M_I	('k)	248	226	216
$5/3[M_{LL} + M_I]$	('k)	2066	2261	1847
M_o	('k)	4523	7279	4003
M_{bl}	('k)	12	19	11
f_s DL (non-comp)	(ksi)	10.2	12.7	8.5
f_s DL (comp)	(ksi)	2.1	3.1	2.2
f_s $5/3[M_{LL} + M_I]$	(ksi)	13.6	10.7	12.2
f_l	(ksi)	2.7	2.2	2.4
f_s (Overload)	(ksi)	25.9	26.4	22.9
f_s (Total)	(ksi)	33.6	34.3	29.7
F_{cr} (Overload)	(ksi)	47.5	41.0	47.5
VR	(k)	19.8	-	14.7
F_{cr}	(ksi)	49.1	44.4	49.2

GIRDER 6 REACTION TABLE HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	58.7	212.4	53.2
R_{LL}	(k)	51.1	79.9	41.0
R_I	(k)	15.3	20.0	12.3
R_{Total}	(k)	125.1	312.3	106.5

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

S_r : Section modulus of one flange plate for lateral flange bending (in³).

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : Un-factored moment due to non-composite dead load (kip-ft.).

s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s Q$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).
 $1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

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

f_l : Factored calculated normal stress at the edge of flange due to lateral bending (ksi).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_Q + M_s Q + \frac{5}{3} (M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below (ksi).
 $1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

F_{cr} (Overload): Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5 (ksi).

F_{cr} : Critical average flange stress (smaller of F_{cr1} or F_{cr2} for partially braced flanges and F_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4) (ksi).

VR: Maximum $t +$ impact shear range within span for stud shear connector design (kips).

Note:
 M_L and R_L include the effects of centrifugal force and superelevation.

FILE NAME = I:\DOT\6008 - D7 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\abmomtables.dgn

GIRDER 7 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	37180	85190	37180
$I_c (n)$	(in ⁴)	95236	-	88201
$I_c (3n)$	(in ⁴)	68246	-	62631
S_s	(in ³)	1318.4	2543.0	1318.4
$S_c (n)$	(in ³)	1818.5	-	1783.3
$S_c (3n)$	(in ³)	1658.1	-	1613.4
S_r	(in ³)	54.0	108	54.0
DL	(k/')	0.84	0.93	0.72
M_{DL}	('k)	1097	2551	882
S DL	(k/')	0.27	0.27	0.27
$M_s DL$	('k)	332	735	321
M_{LL}	('k)	952	1025	782
M_I	('k)	232	205	193
$5/3[M_{LL} + M_I]$	('k)	1974	2050	1625
M_o	('k)	4424	6936	3676
M_{bi}	('k)	0	18	10
$f_s DL (non-comp)$	(ksi)	10.0	12.0	8.0
$f_s DL (comp)$	(ksi)	2.4	3.5	2.4
$f_s 5/3[M_{LL} + M_I]$	(ksi)	13.0	9.7	10.9
f_i	(ksi)	0.0	2.1	2.2
$f_s (Overload)$	(ksi)	25.4	25.2	21.3
$f_s (Total)$	(ksi)	33.0	32.7	27.8
$F_{cr} (Overload)$	(ksi)	47.5	40.8	47.5
VR	(k)	13.1	-	17.5
F_{cr}	(ksi)	50.0	44.2	49.3

GIRDER 7 REACTION TABLE HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	61.5	204.0	48.3
R_{LL}	(k)	46.9	75.4	31.7
R_I	(k)	14.1	18.9	9.2
R_{Total}	(k)	122.5	298.2	89.1

GIRDER 8 MOMENT TABLE				
		0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	(in ⁴)	37180	85190	37180
$I_c (n)$	(in ⁴)	96249	-	88204
$I_c (3n)$	(in ⁴)	69121	-	62633
S_s	(in ³)	1318.4	2543.0	1318.4
$S_c (n)$	(in ³)	1823.6	-	1783.3
$S_c (3n)$	(in ³)	1664.4	-	1613.4
S_r	(in ³)	54.0	108	54.0
DL	(k/')	0.87	0.93	0.72
M_{DL}	('k)	1068	2463	839
S DL	(k/')	0.32	0.32	0.32
$M_s DL$	('k)	393	867	385
M_{LL}	('k)	883	902	719
M_I	('k)	221	180	173
$5/3[M_{LL} + M_I]$	('k)	1840	1804	1486
M_o	('k)	4291	6674	3523
M_{bi}	('k)	0	18	9
$f_s DL (non-comp)$	(ksi)	9.7	11.6	7.6
$f_s DL (comp)$	(ksi)	2.8	4.1	2.9
$f_s 5/3[M_{LL} + M_I]$	(ksi)	12.1	8.5	10.0
f_i	(ksi)	0.0	2.0	2.1
$f_s (Overload)$	(ksi)	24.7	24.2	20.5
$f_s (Total)$	(ksi)	32.1	31.5	26.7
$F_{cr} (Overload)$	(ksi)	47.5	40.5	47.5
VR	(k)	19.5	-	14.1
F_{cr}	(ksi)	50.0	44.1	49.3

GIRDER 8 REACTION TABLE HS20 Loading				
		W. Abut.	Pier	E. Abut.
R_{DL}	(k)	62.1	210.7	52.6
R_{LL}	(k)	45.1	62.0	23.5
R_I	(k)	13.1	15.5	6.9
R_{Total}	(k)	120.2	288.2	82.9

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

S_r : Section modulus of one flange plate for lateral flange bending (in³).

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : Un-factored moment due to non-composite dead load (kip-ft.).

s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s Q$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).

$1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

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

f_t : Factored calculated normal stress at the edge of flange due to lateral bending (ksi).

$f_s (Overload)$: Sum of stresses as computed from the moments below (ksi).

$M_Q + M_s Q + \frac{5}{3} (M_L + M_I)$

$f_s (Total)$: Sum of stresses as computed from the moments below (ksi).

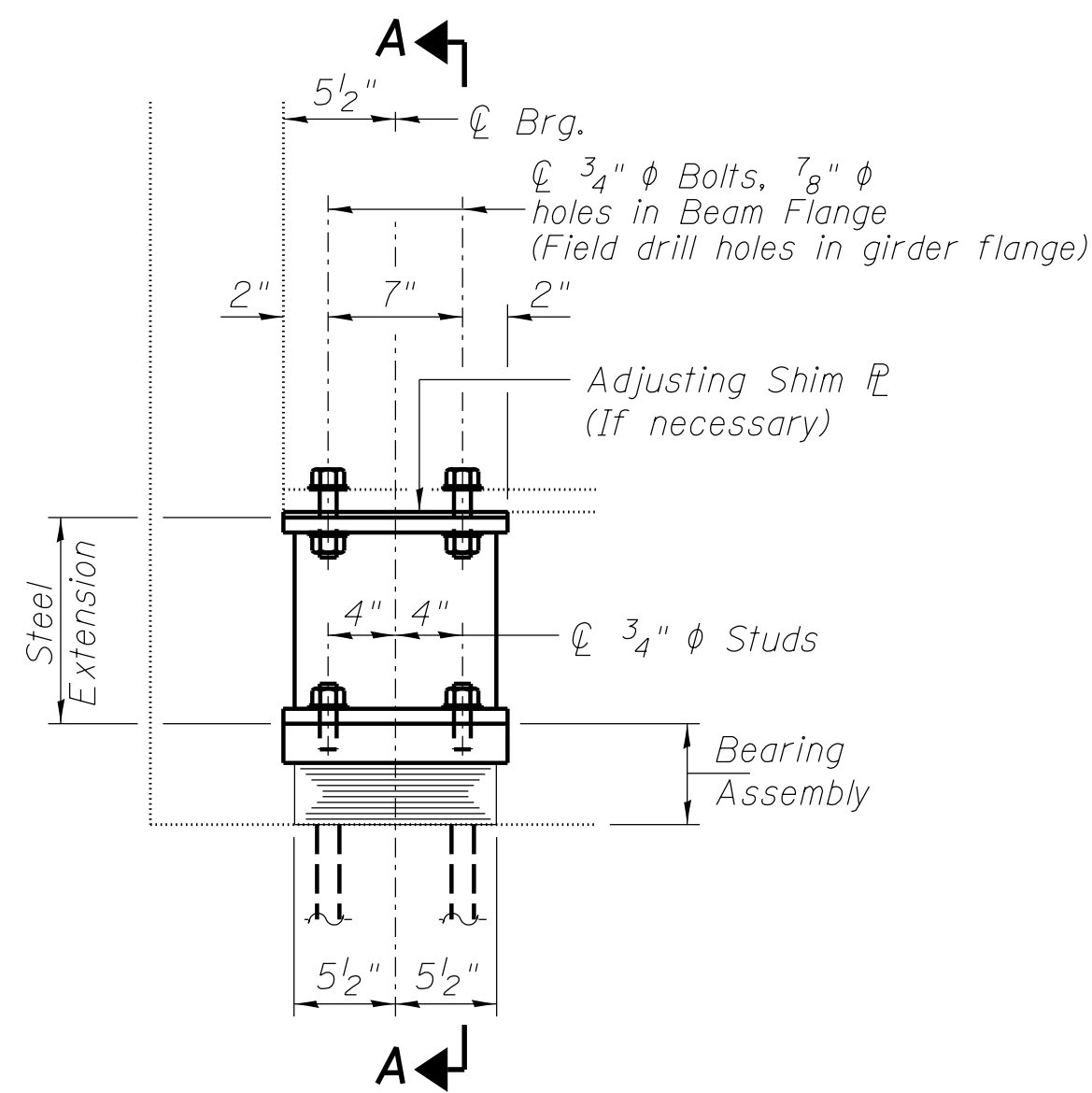
$1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$

$F_{cr} (Overload)$: Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5 (ksi).

F_{cr} : Critical average flange stress (smaller of F_{cr1} or F_{cr2} for partially braced flanges and F_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4) (ksi).

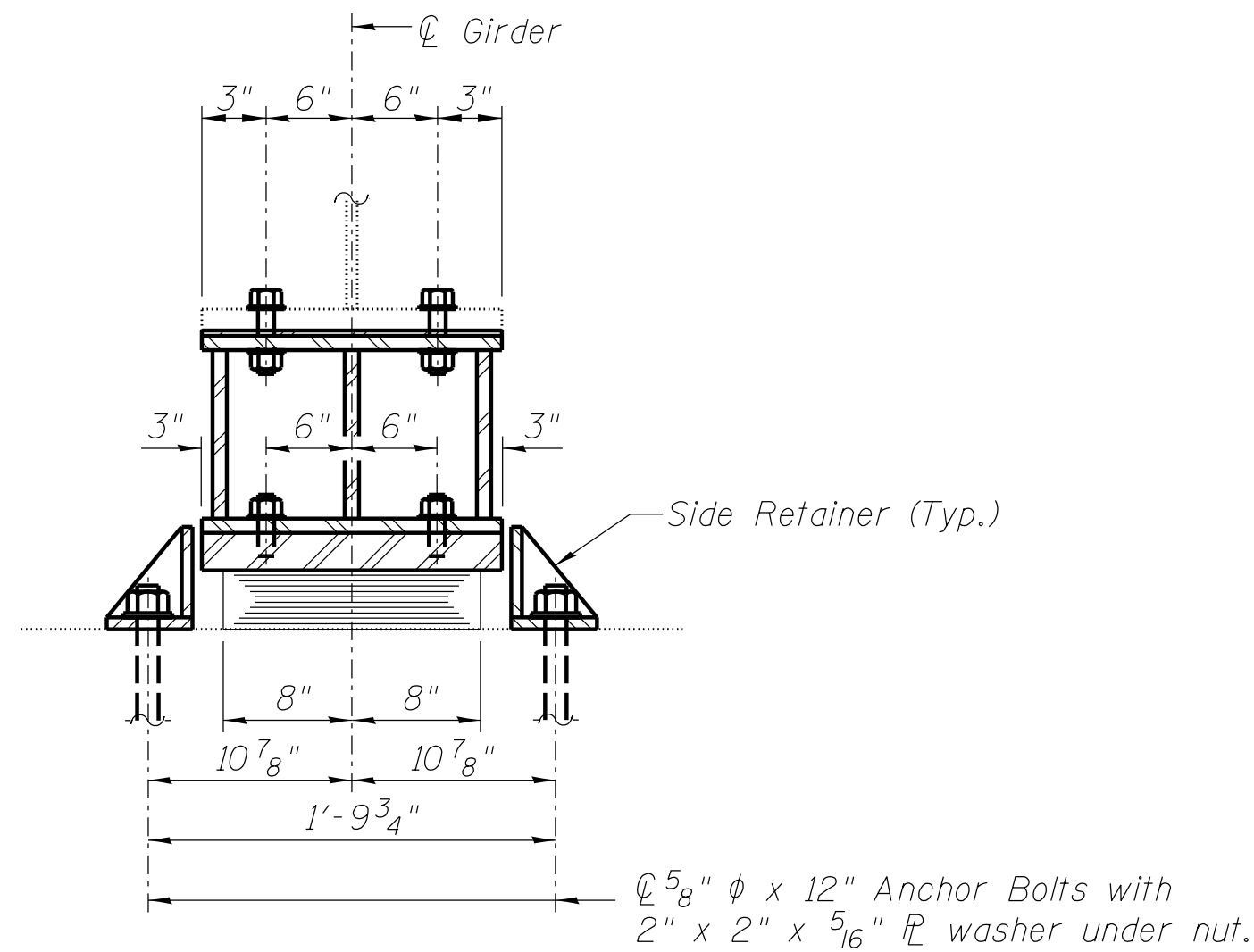
VR: Maximum $t +$ impact shear range within span for stud shear connector design (kips).

Note:
 M_L and R_L include the effects of centrifugal force and superelevation.

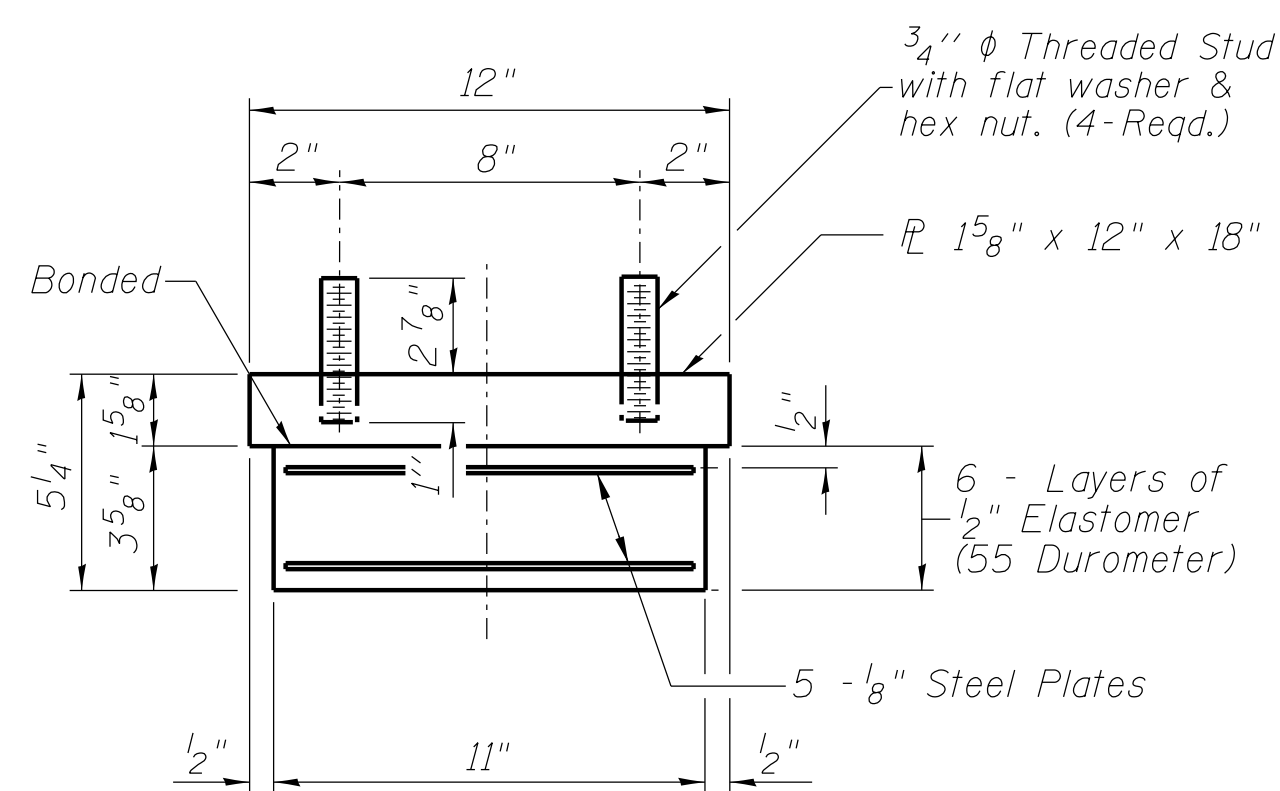


ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.

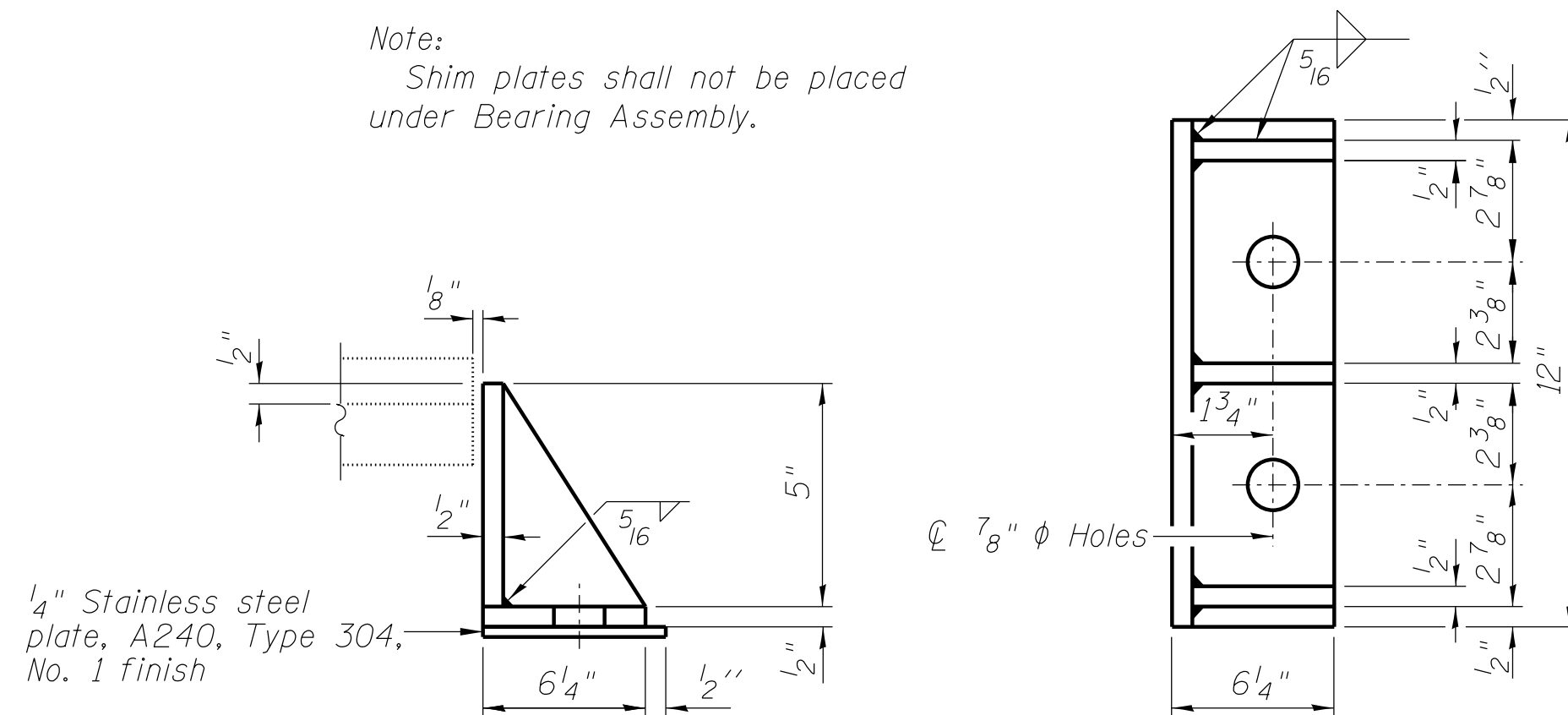


SECTION A-A



BEARING ASSEMBLY

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.

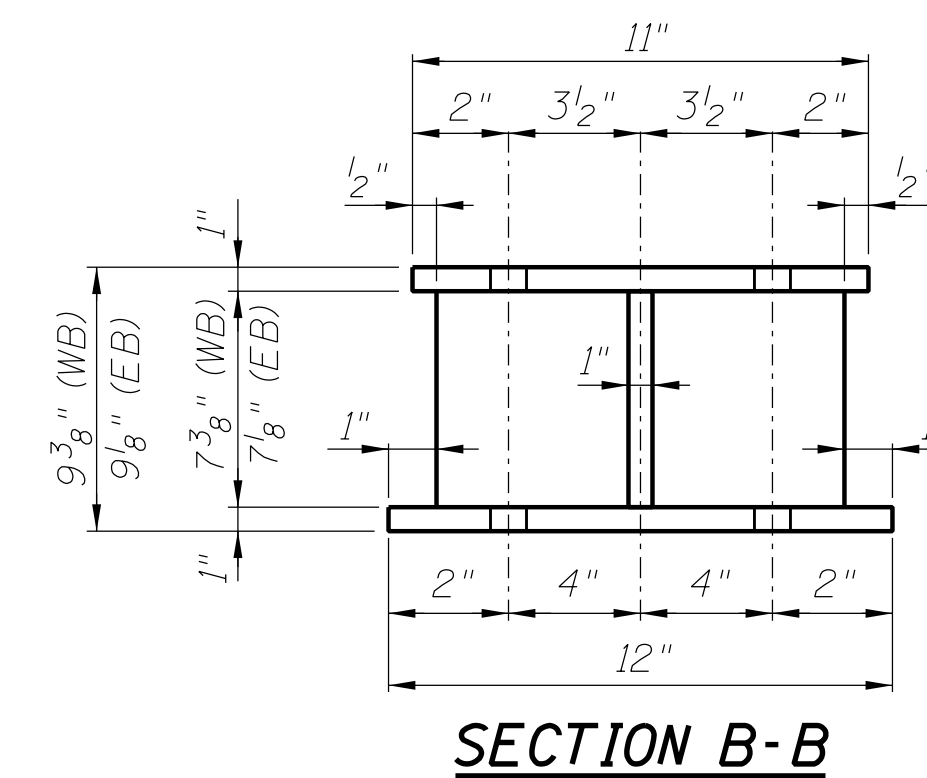
TABLE OF SHIM PLATES (SN 058-0106)

Girder	W Abut	E Abut
1	7/8"x11"x18"	--
2	1 3/8"x11"x18"	1/8"x11"x18"
3	1 3/8"x11"x18"	3/8"x11"x18"
4	1 1/8"x11"x18"	3/8"x11"x18"
5	1 1/8"x11"x18"	1/4"x11"x18"
6	1 1/8"x11"x18"	1/4"x11"x18"
7	1 1/4"x11"x18"	1/4"x11"x18"
8	1 1/2"x11"x18"	5/8"x11"x18"

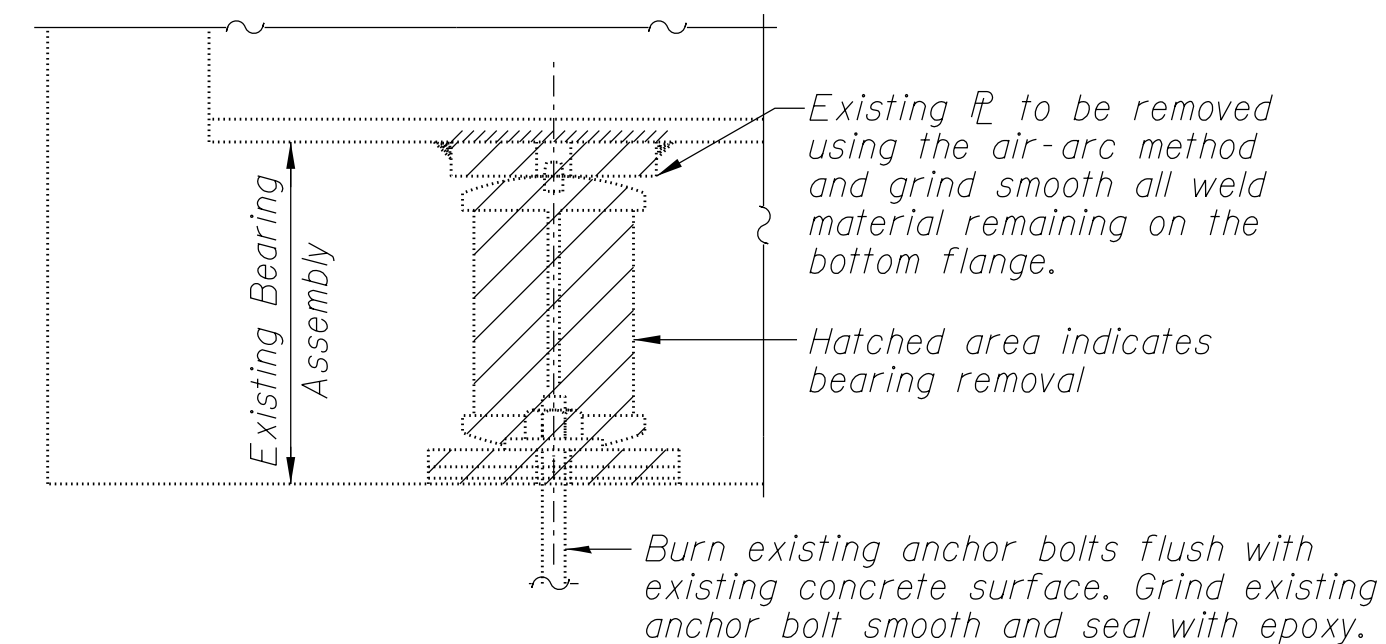
TABLE OF SHIM PLATES (SN 058-0107)

Girder	W Abut	E Abut
1	1/8"x11"x18"	--
2	3/8"x11"x18"	1/8"x11"x18"
3	1/2"x11"x18"	1/4"x11"x18"
4	1/2"x11"x18"	1/4"x11"x18"
5	1/2"x11"x18"	5/8"x11"x18"
6	1/2"x11"x18"	5/8"x11"x18"
7	1/2"x11"x18"	7/8"x11"x18"
8	1/2"x11"x18"	1/2"x11"x18"
9	1/2"x11"x18"	5/8"x11"x18"

Notes:
Cross frame removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Cost of field drilling is included in the Furnishing & Erecting of Structural Steel.
Two 1/8 in. adjusting shims shall be provided for each abutment bearing in addition to all other plates or shims and placed as shown on bearing details.
The structural steel plates of the bearing assembly including steel extension shall conform to the requirements of AASHTO M 270 Grade 50.



SECTION B-B



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

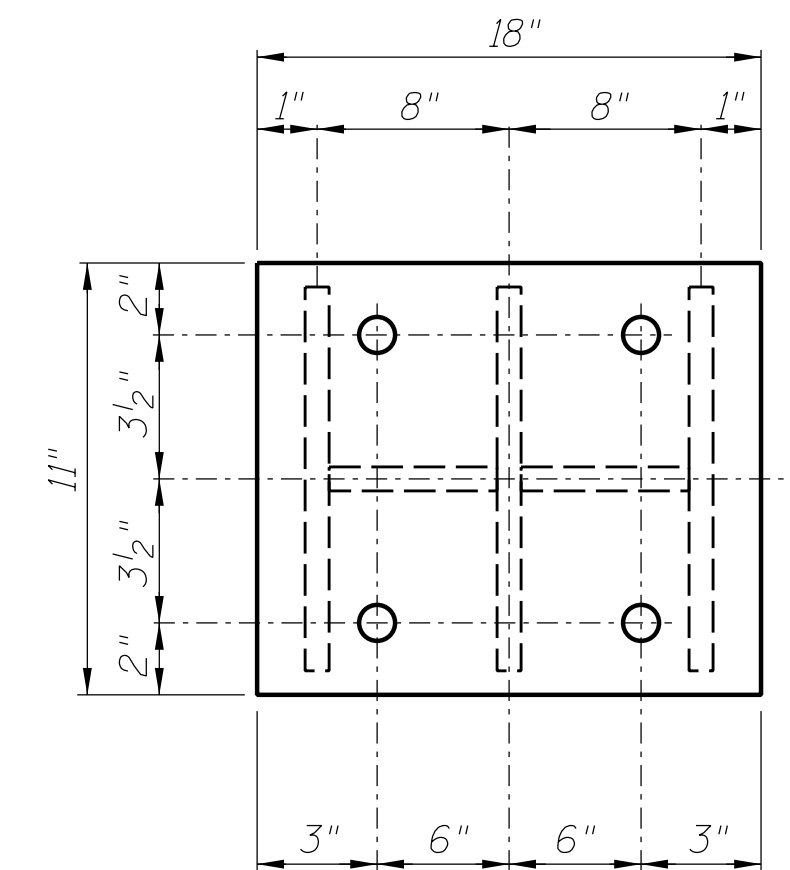
JACK AND REMOVE EXISTING BEARING PROCEDURE

The Contractor shall submit for approval by the Engineer, plans for jacking existing girders and installing new bearings prior to commencing any related work. The maximum dead load reaction per girder (weight of steel only) is 12.1 k. Minimum jack capacity is 20 k.

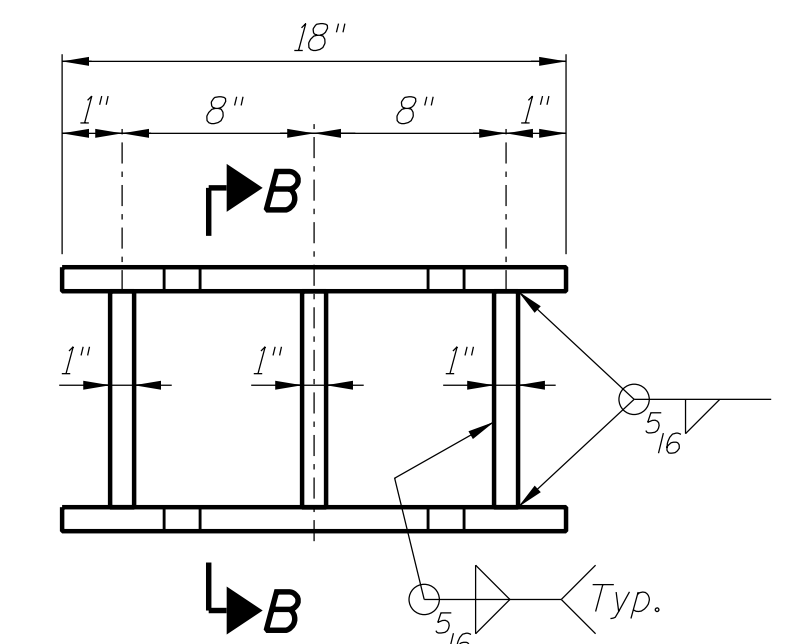
Prior to ordering any material, the Contractor shall verify steel extension and fill plate thickness required at each bearing.

Jacking and removing existing bearings shall be done after the existing deck is removed and prior to placing the new deck.

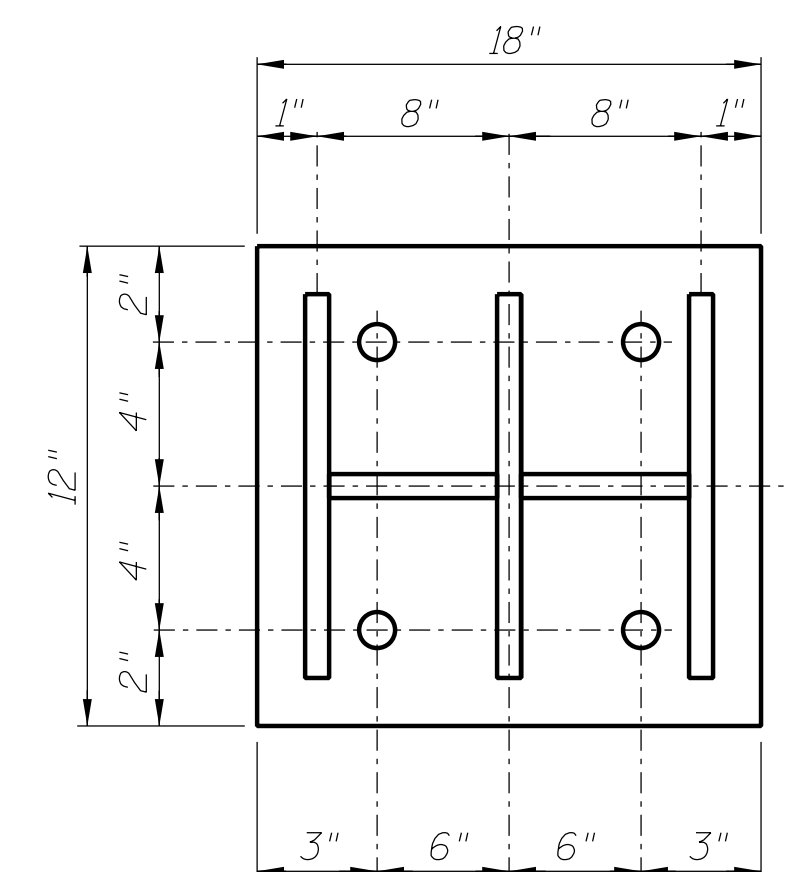
The new bearings, plates, and steel extensions shall be in place and the jack shall be lowered before the new concrete deck is poured.



PLAN - TOP EXTENSION PLATE



STEEL EXTENSION DETAIL

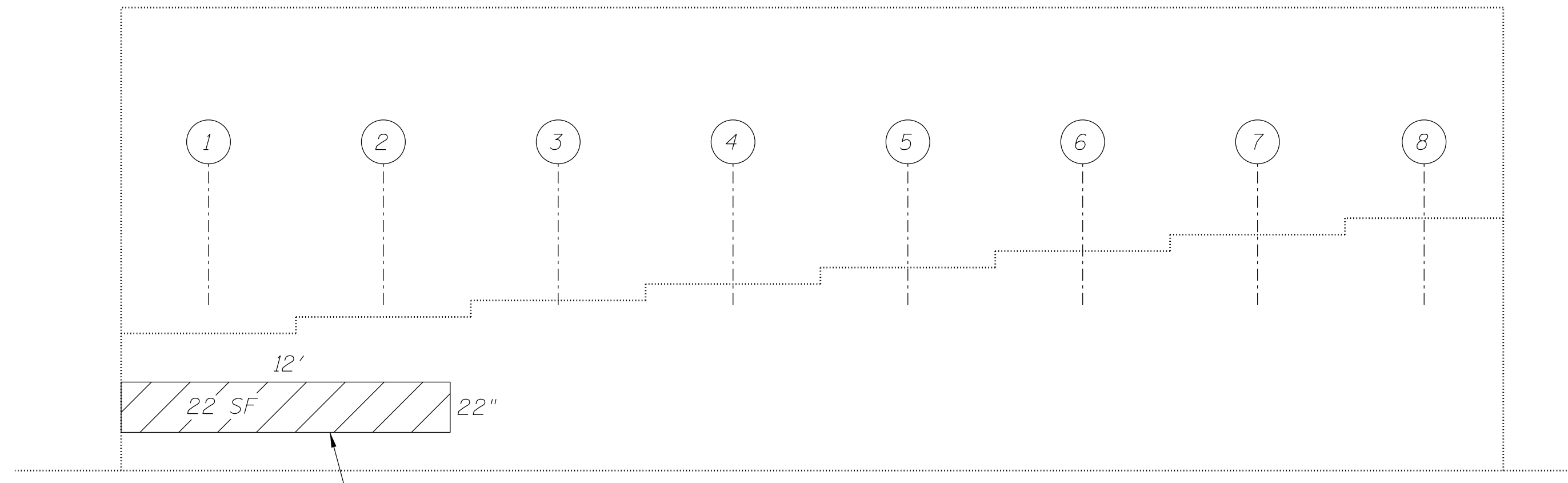


PLAN - BOTTOM EXTENSION PLATE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	34
Jack and Remove Existing Bearings	Each	34
Furnishing and Erecting Structural Steel	Pound	9,710
Anchor Bolts 5/8"φ	Each	136

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Structural Repair of
Concrete (Depth
equal to or less
than 5 inches)

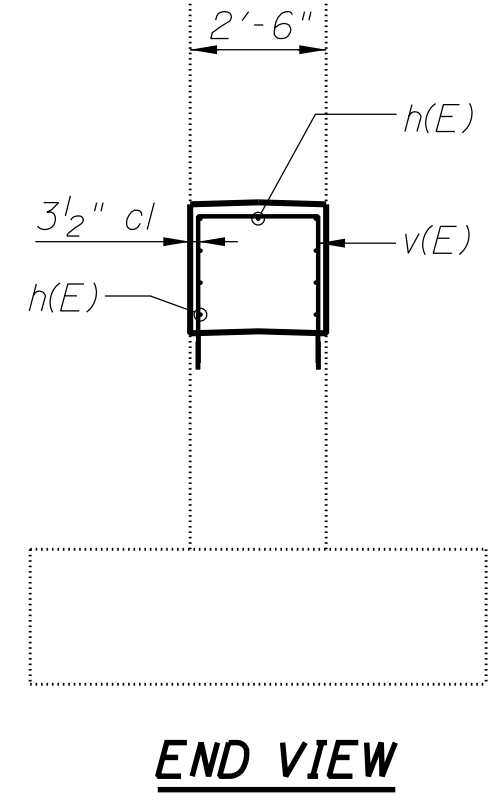
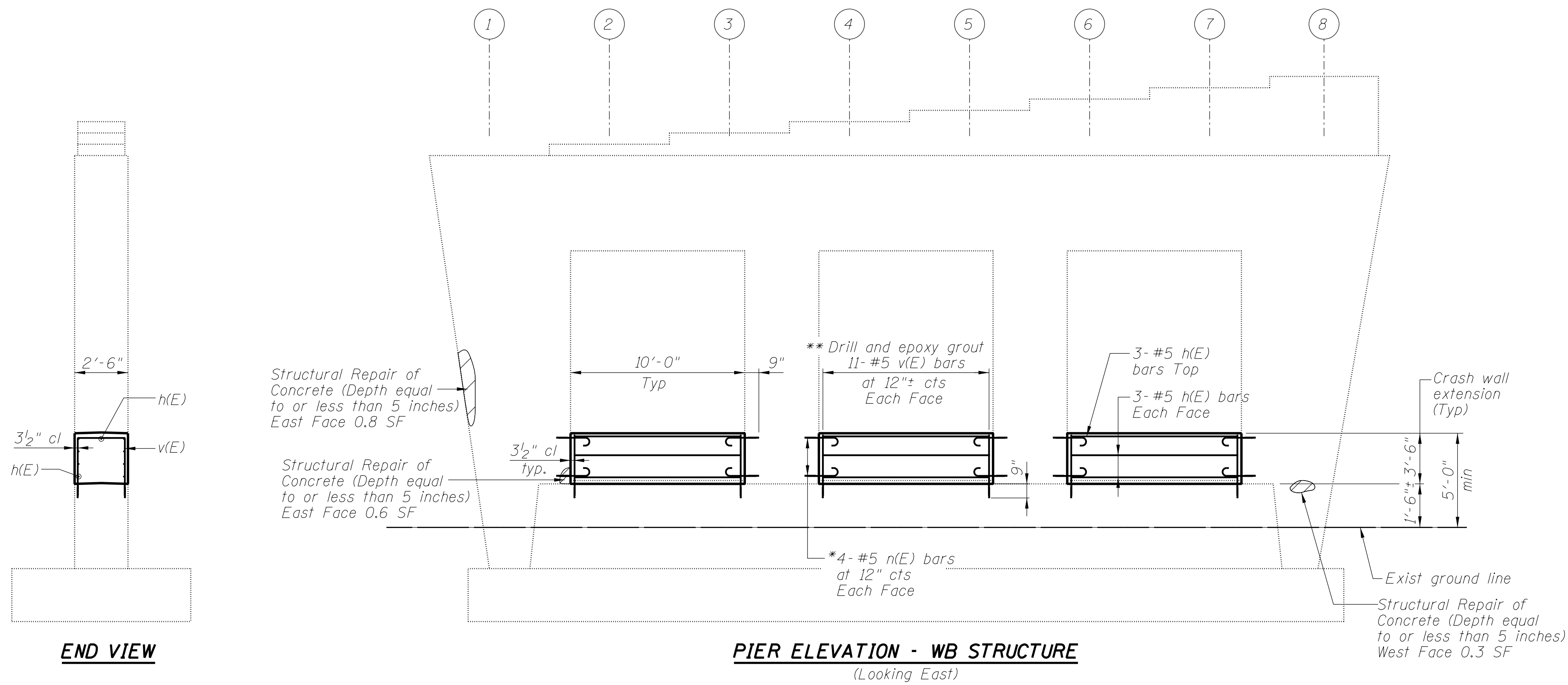
EAST ABUTMENT ELEVATION - EB
(Looking East)

Note:
Repair of the existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction and shall be recorded in the as-built plans.

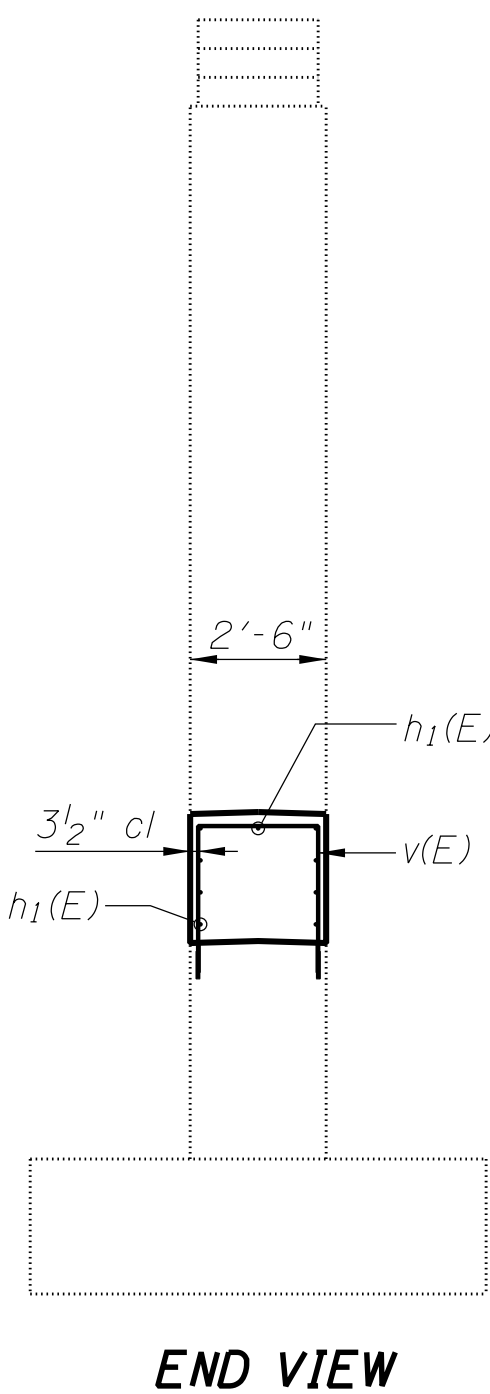
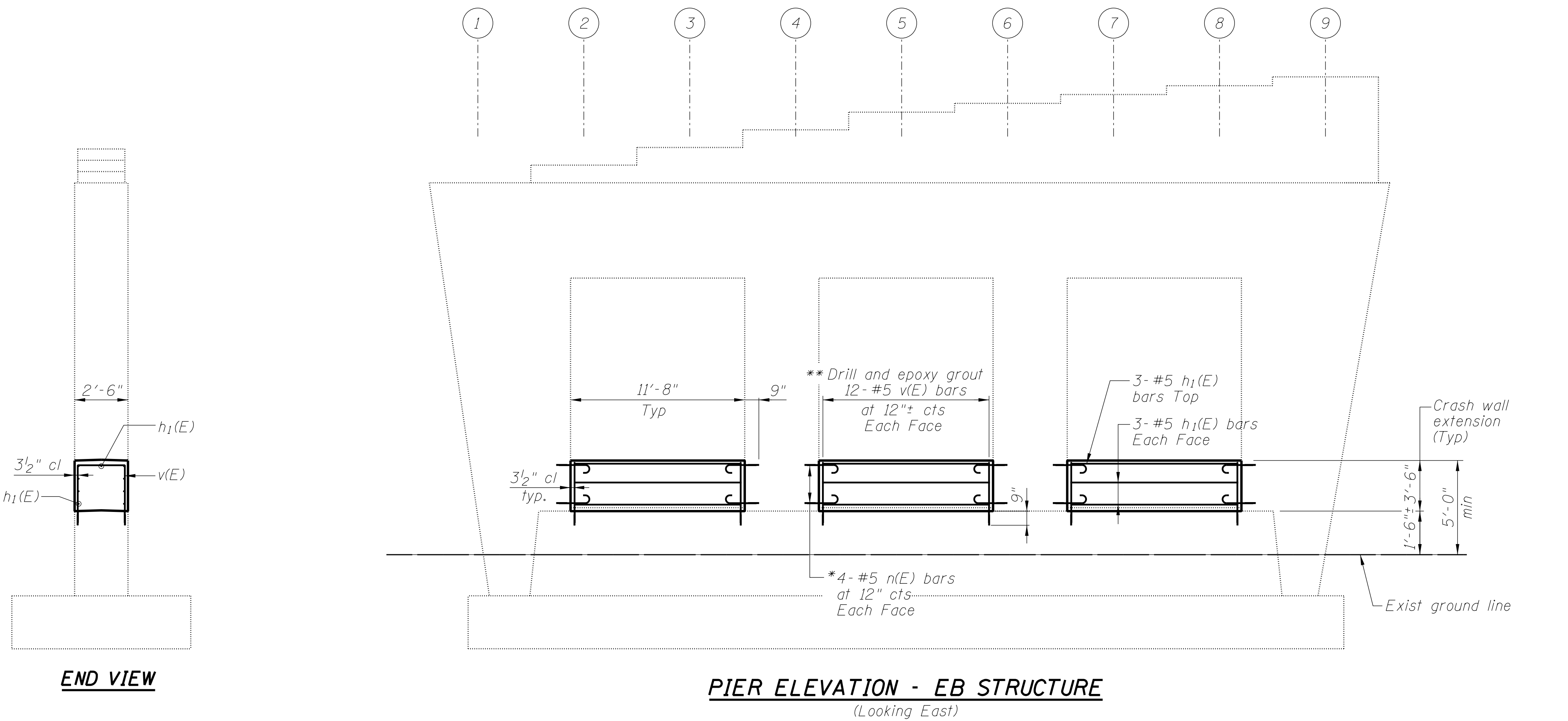
BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq Ft	22

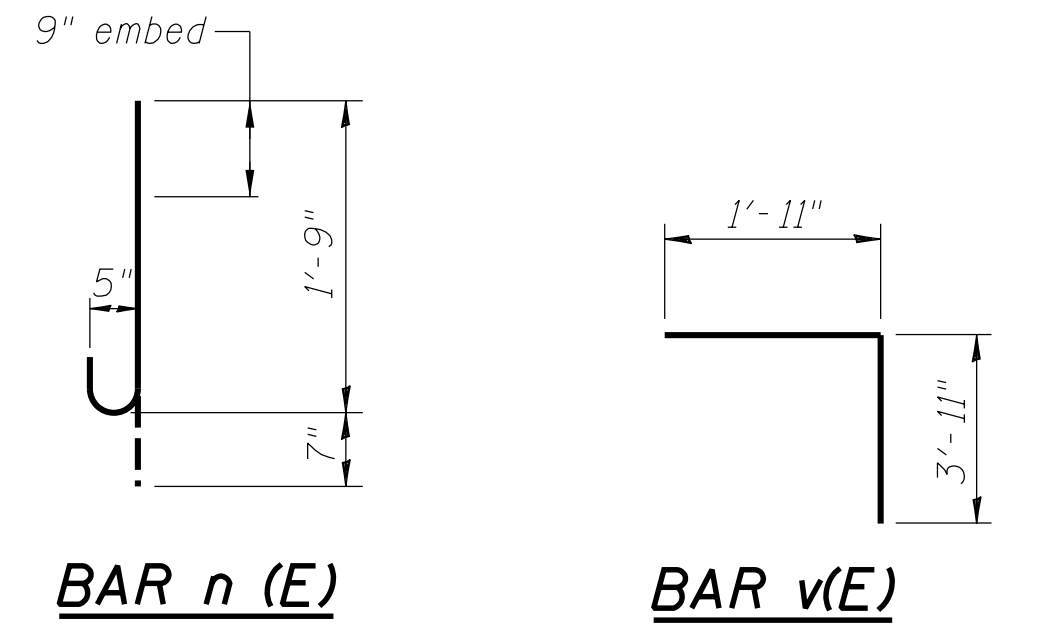
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PIER ELEVATION - WB STRUCTURE
(Looking East)



PIER ELEVATION - EB STRUCTURE
(Looking East)



BILL OF MATERIAL (2 PIERS)

Bar	No.	Size	Length	Shape
h(E)	27	#5	9'-8"	—
h1(E)	27	#5	11'-4"	—
n(E)	96	#5	2'-4"	U
v(E)	138	#5	5'-10"	L
Concrete Structures			Cu. Yd.	21.0
Reinforcement Bars, Epoxy Coated			Pound	1660
Structural Repair of Concrete (Depth equal to or less than 5 inches)			Sq. Ft.	2

*Epoxy grout n(E) bars into 9" deep holes into existing pier columns as per Section 584 of the Standard Specifications. Cost included with Concrete Structures. Drill holes to miss existing vertical reinforcement bars.

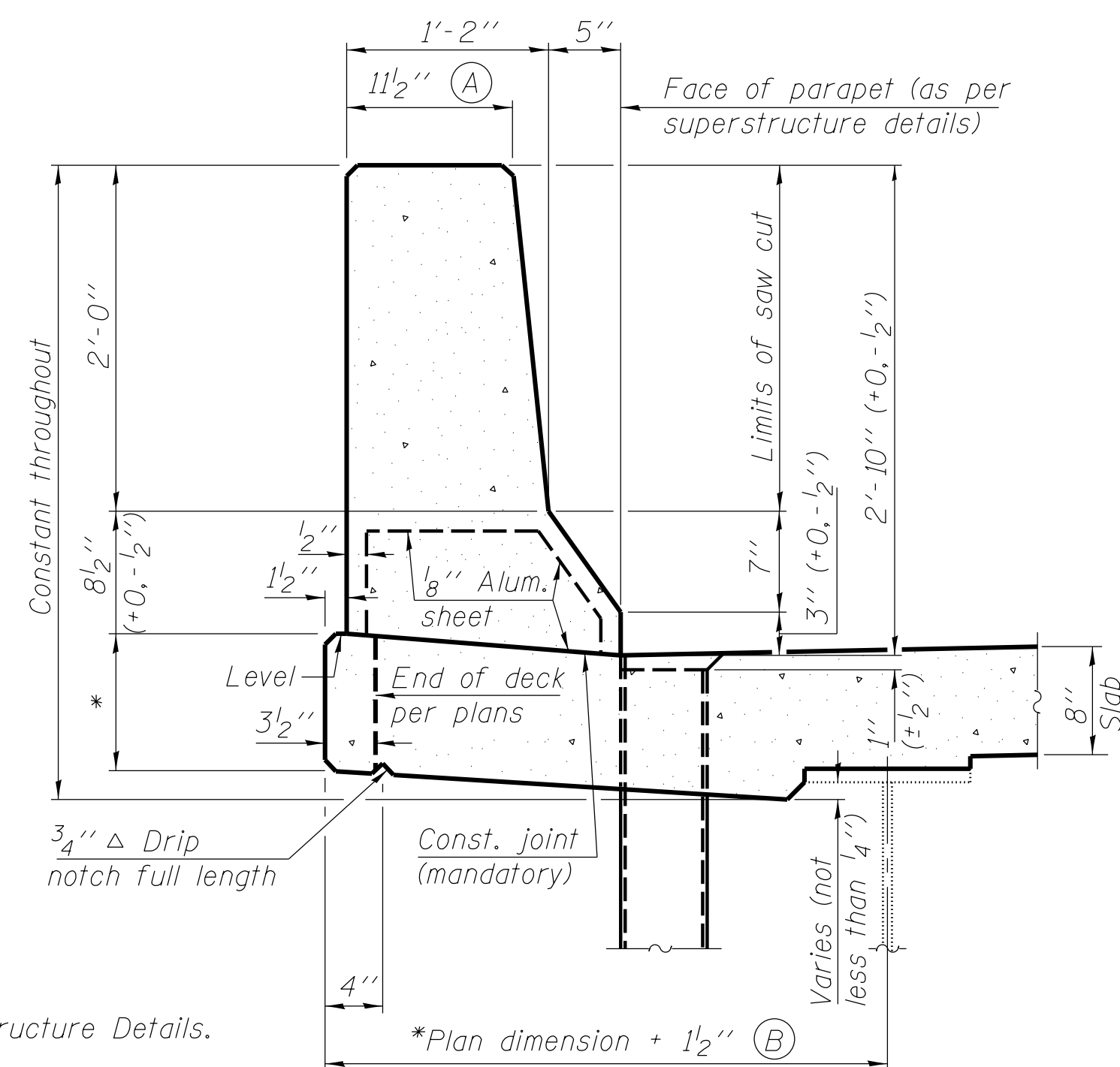
**Epoxy grout v(E) bars into 9" deep holes into existing pier wall as per Section 584 of the Standard Specifications. Cost included with Concrete Structures. Drill holes to miss existing horizontal reinforcement bars.

Note:
Repair of the existing piers shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction and shall be recorded in the as-built plans. Concrete clear to proposed reinforcement bars to all existing concrete shall be 3 1/2".

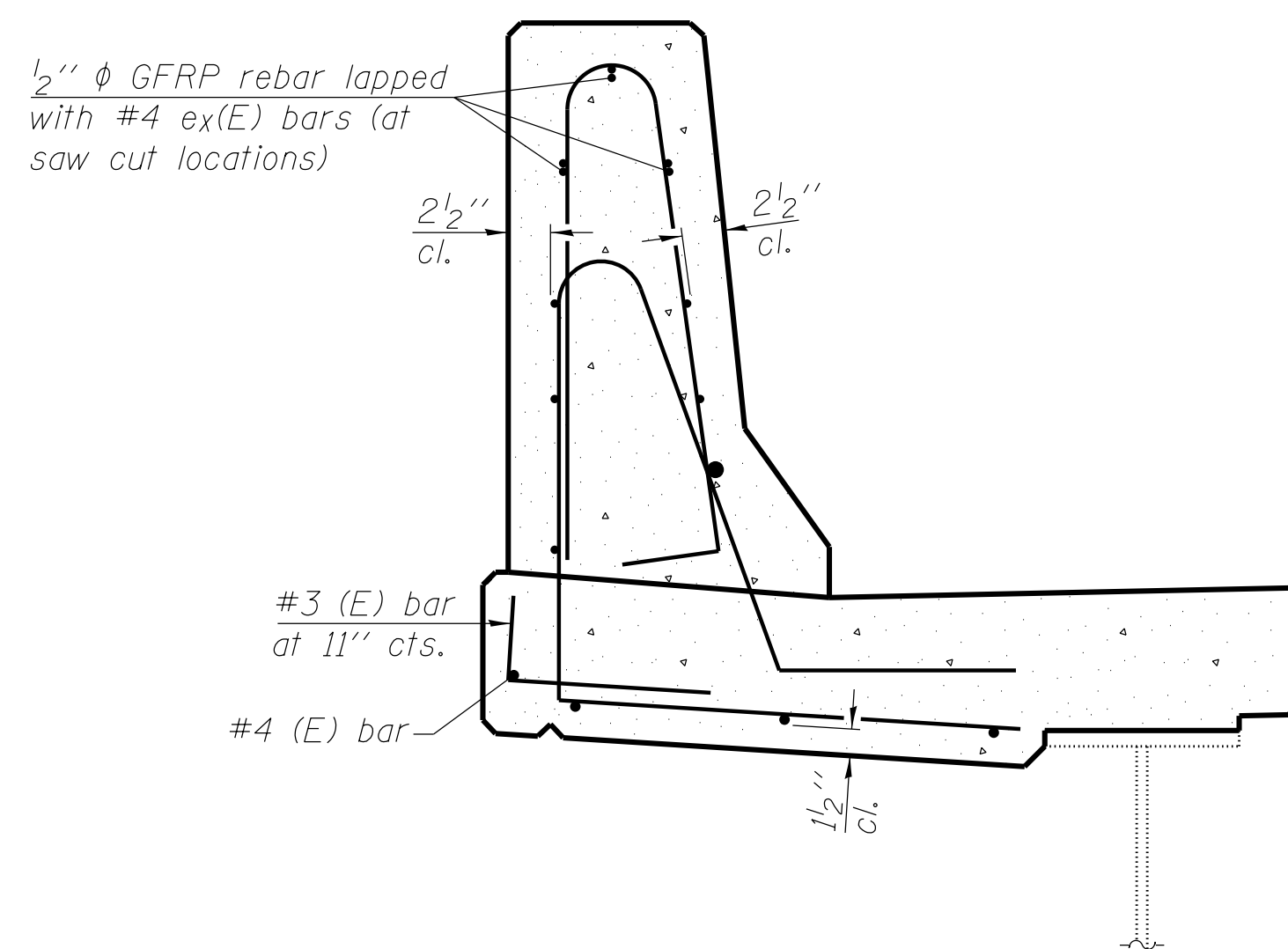
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GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, 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 = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler. Steel superstructure shown. Other superstructure types similar.

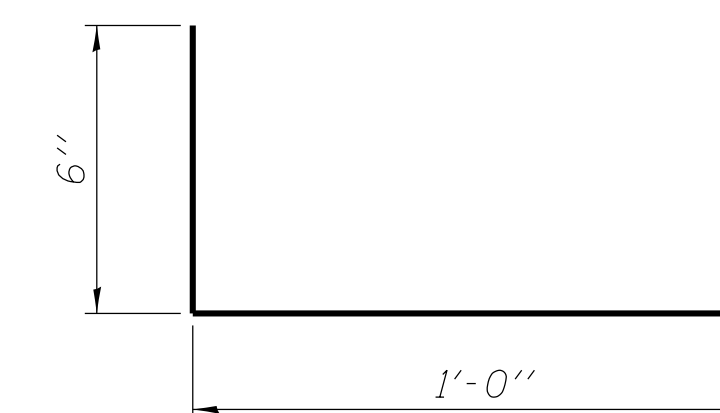


34" F SHAPE PARAPET SECTION
(Showing dimensions)

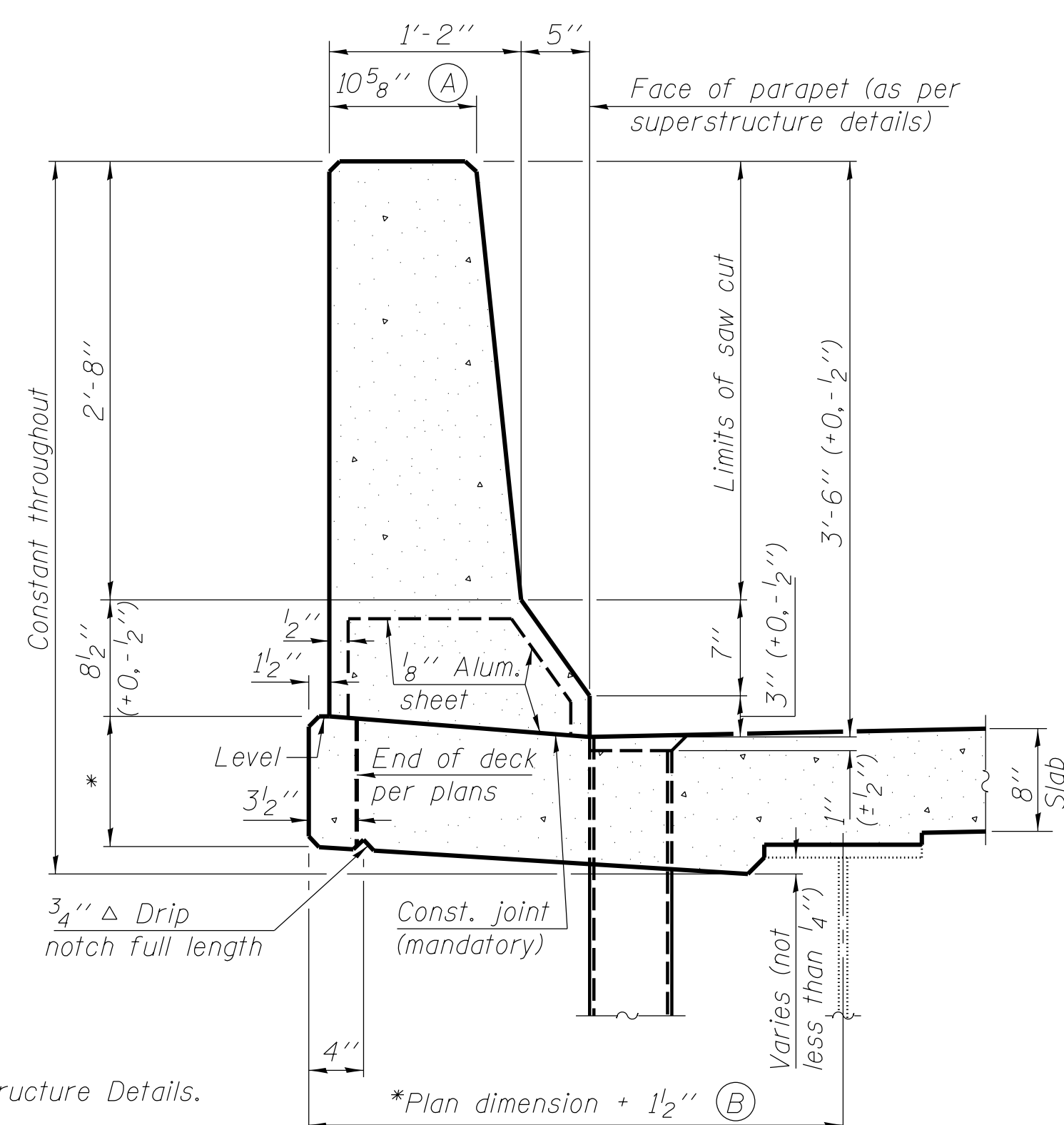


SECTION

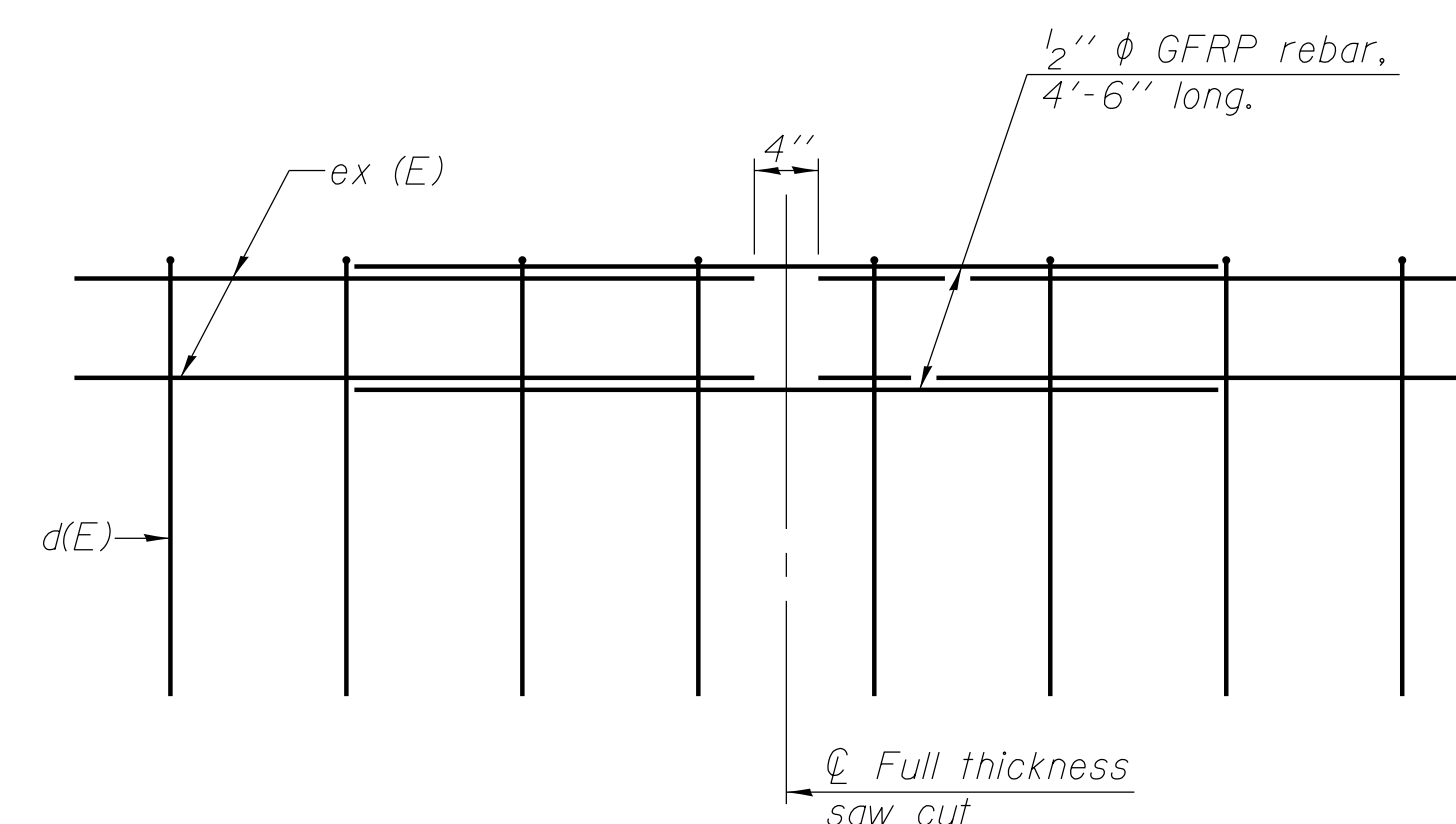
(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



#3 (E) BAR

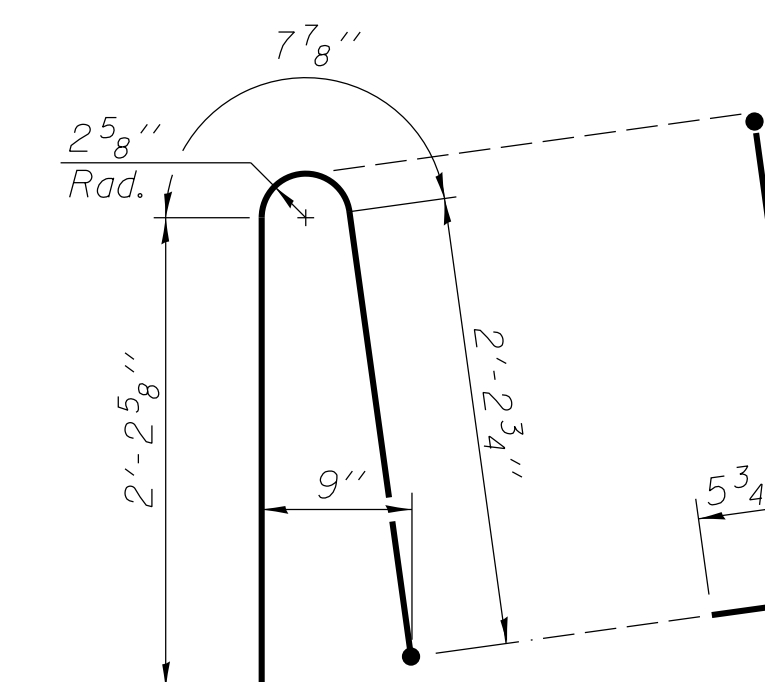


42" F SHAPE PARAPET SECTION
(Showing dimensions)



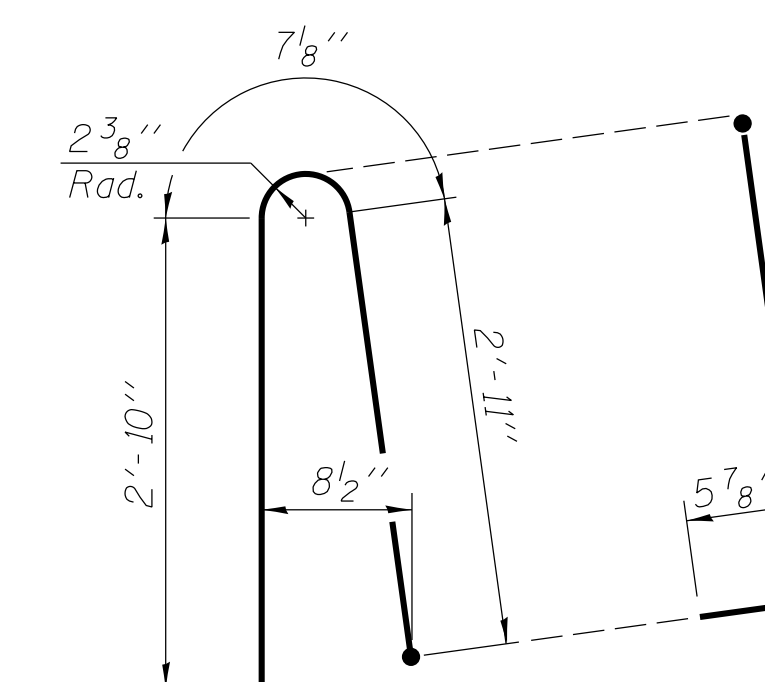
GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)



ALTERNATE BAR d(E)

(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)

(For 42" parapet when conduit is present)

FILE NAME = I:\1001\6008 - D7 Ver. Ver\Work Order - 6 - Res 36 Bridge Plans\CADD_Structural\101form.dgn

SFP 34-42

2-17-2017

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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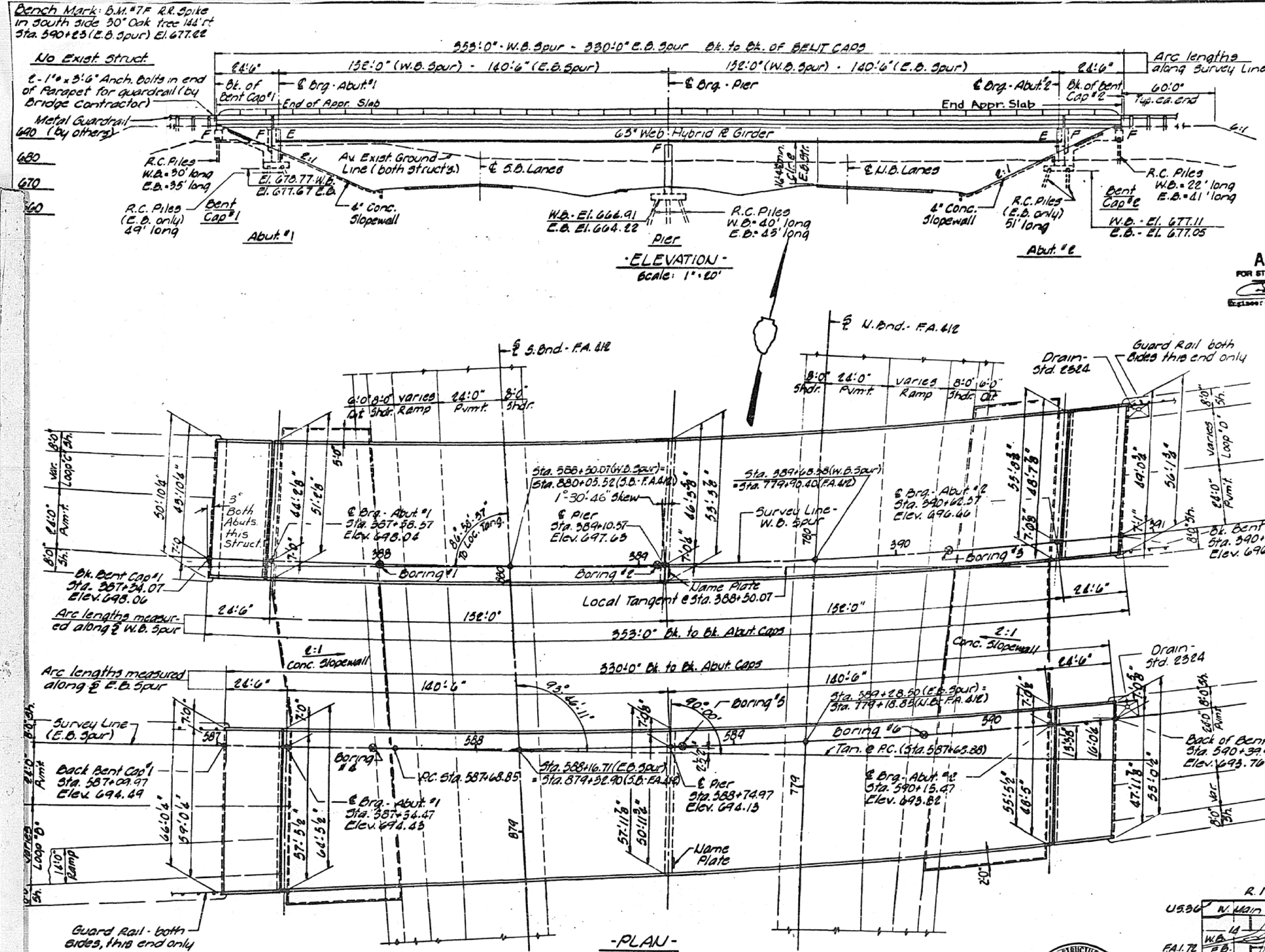
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REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

SHEET NO. 39 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	58
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.	ILLINOIS FED. AID PROJECT			



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
[Signature]
Engineer of Bridge & Traffic Structures

DESIGN LOADING
Live Load HS 20-44 AASHTO 1973 & Interim Specifications. Dead load includes 25 lbs./sq. ft. of roadway for future wearing surface.

DESIGN STRESSES

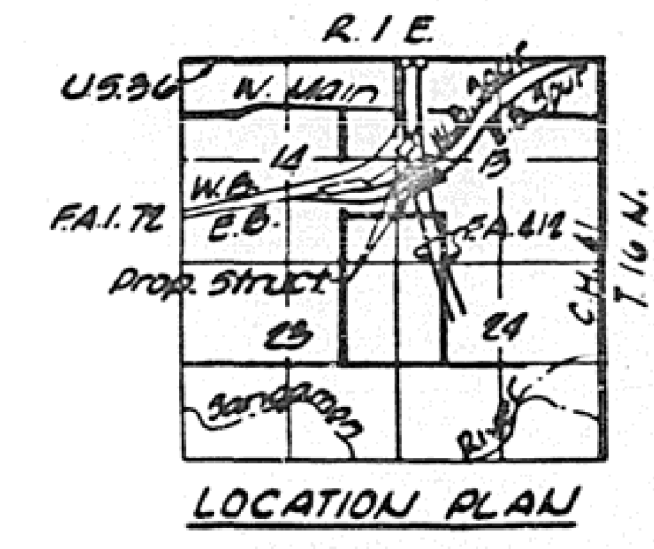
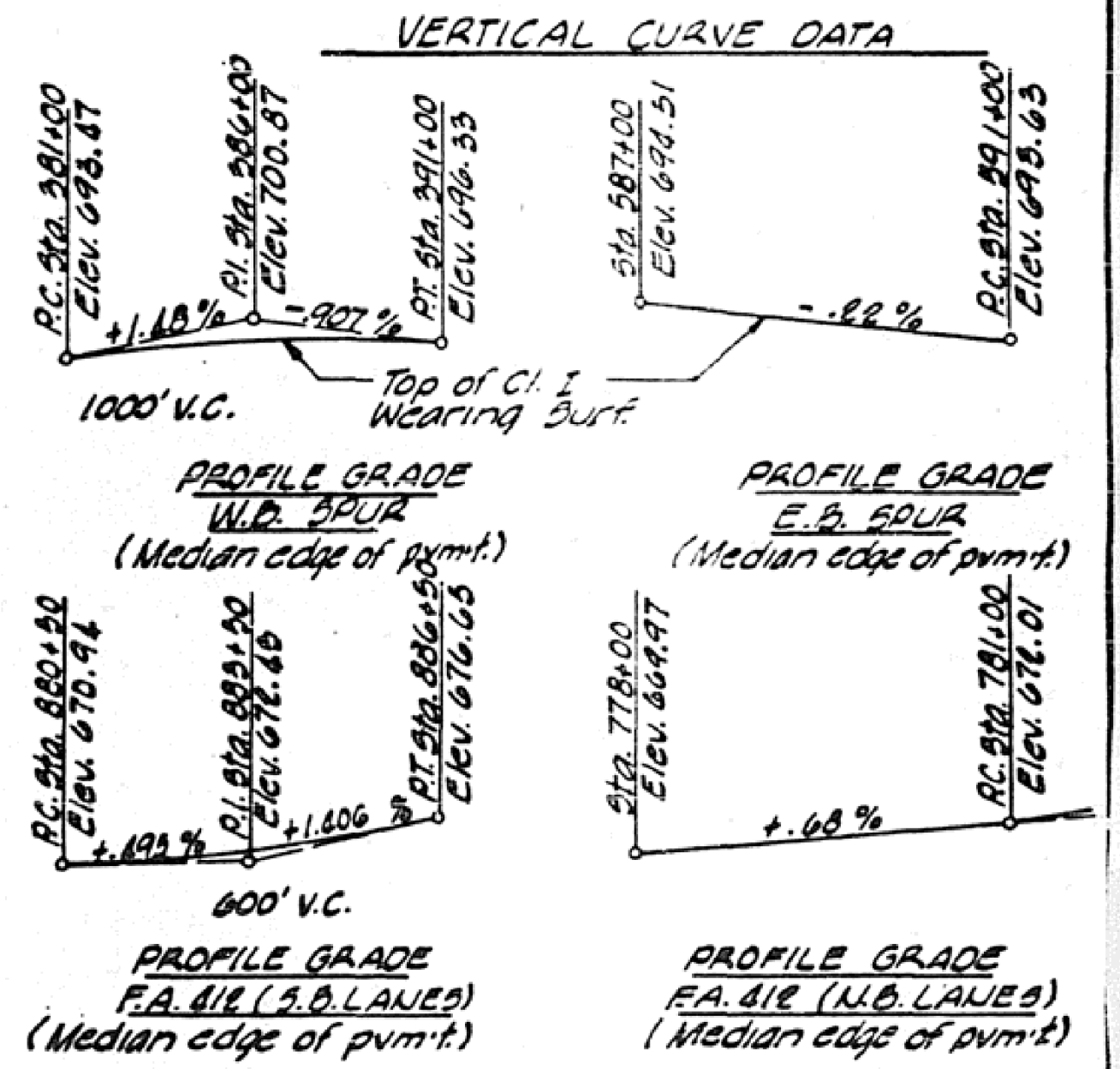
f _c	1400 p.s.i.	Substructure, Curb & Parapet
f _c	1600 p.s.i.	Superstructure Slab
f _c	75 p.s.i.	Footings
f _s	20,000 p.s.i.	Reinforcing Steel
f _s	20,000 p.s.i.	Structural Steel (Hybrid)
n	10	

LIVE LOAD DEFLECTION
L/1200 for Composite Construction

HORIZONTAL CURVE DATA

WEST BND. SPUR	EAST BND. SPUR
R = 2291.85', Dc = 2°20'00"	R = 2291.85', Dc = 2°20'00"
S.E. = .056'/ft.	S.E. = .056'/ft.

F.A. #12 (S.B. LANES) F.A. #12 (N.B. LANES)
NONE - ON TANGENT R = 5729.55', Dc = 1°00'00"
S.E. = .055'/ft.



REGISTERED STRUCTURAL ENGINEER
JOHN W. CLARK
81-3859
STATE OF ILLINOIS
[Signature]

AS REVISED

As Revised 5-10-76 S.Y.K.

FILE NAME = I:\DDT\6008 - D7 Ver-Work Order 6 - Res 36 Bridge Plans\CADD_Structural\externalplans.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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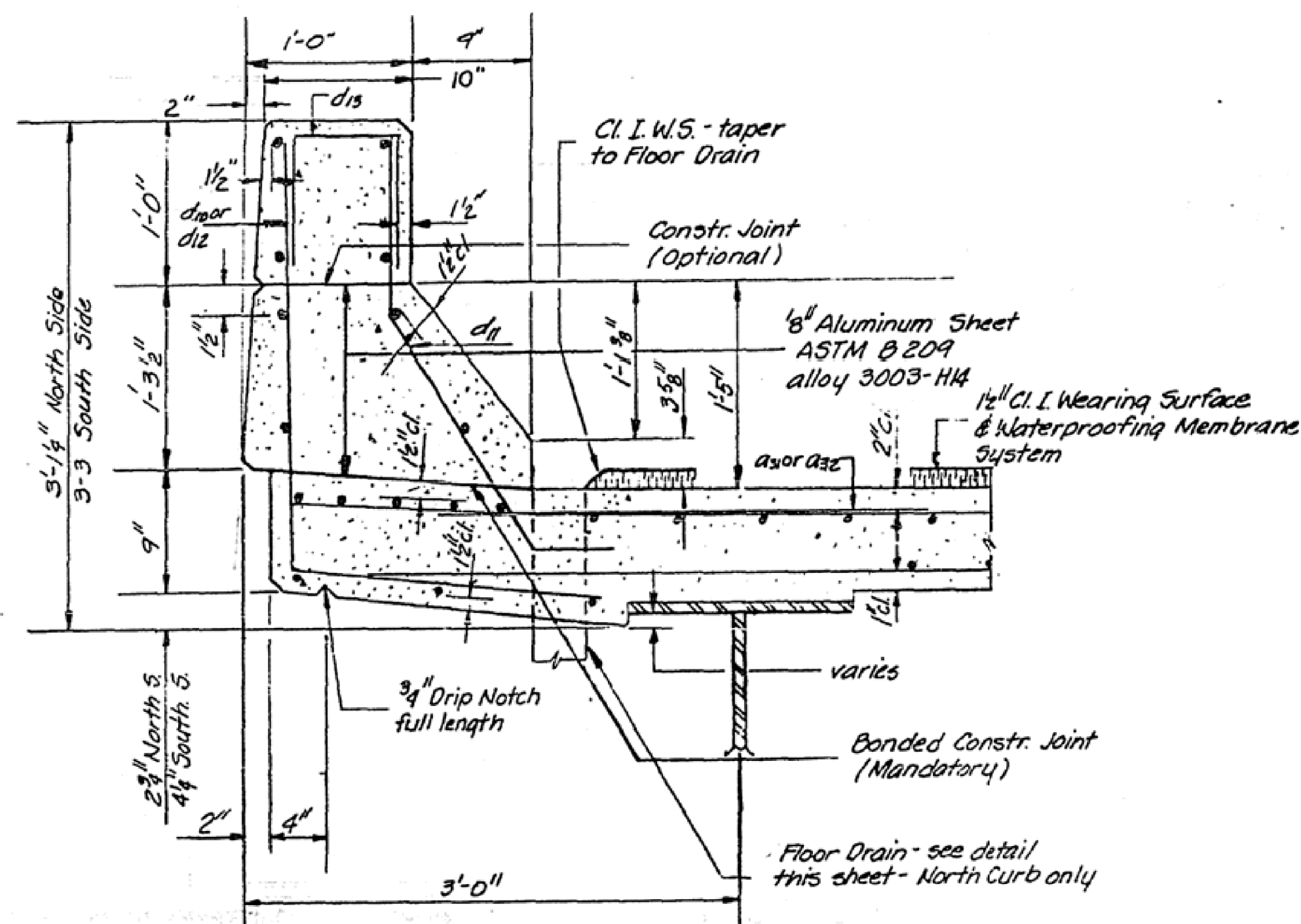
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

SHEET NO. 40 OF 63 SHEETS

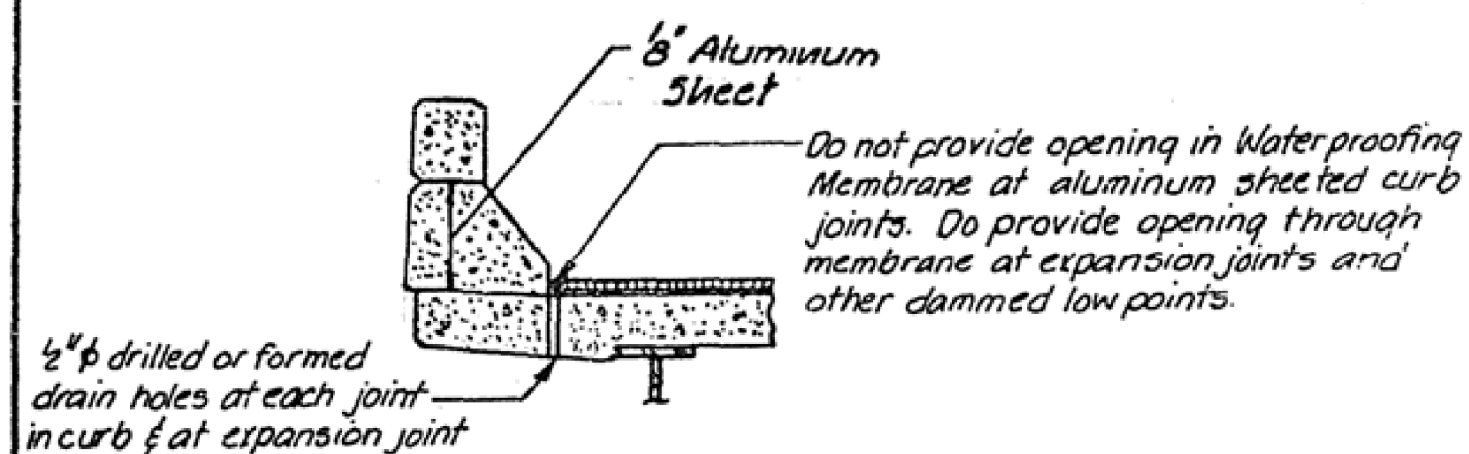
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	59
SN. 058-0106 (WB) & 0107 (EB)			CONTRACT NO. 74605	
STA.			ILLINOIS FED. AID PROJECT	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62 4B-2	MACON	65	23
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

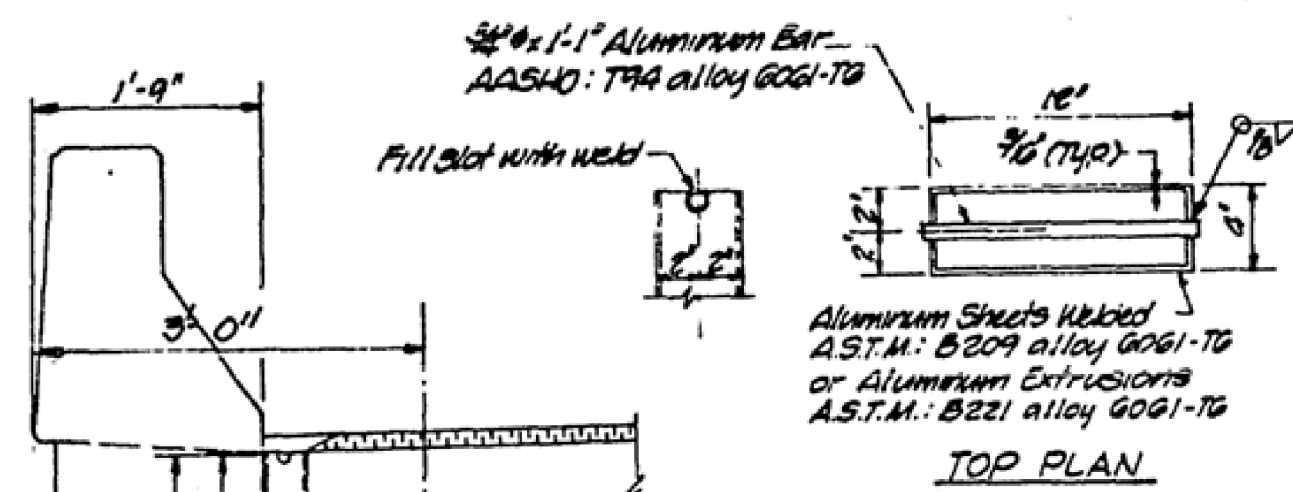


CURB SECTION

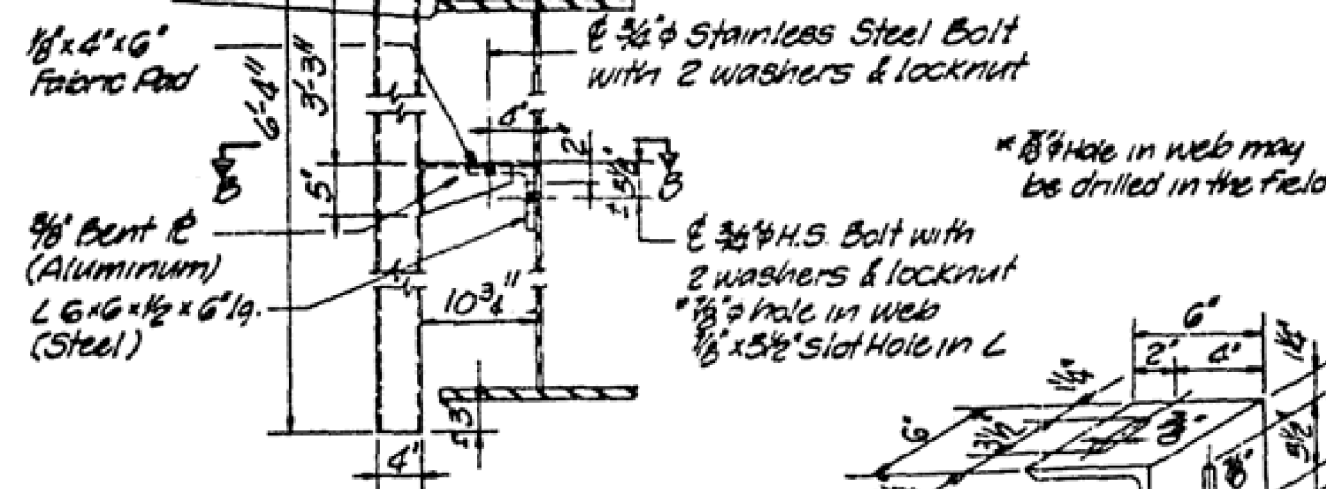
Cost of Aluminum sheets shall be incidental to Class X Concrete



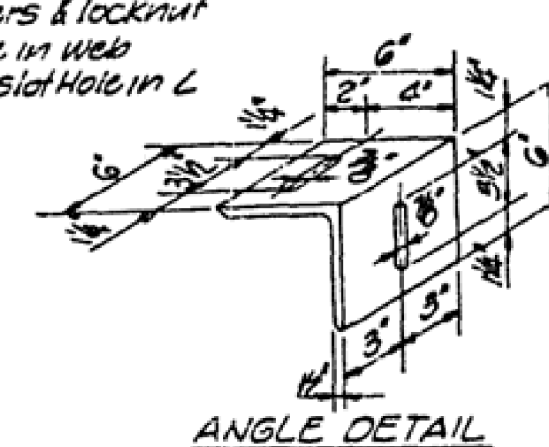
SECTION AT NORTH CURB



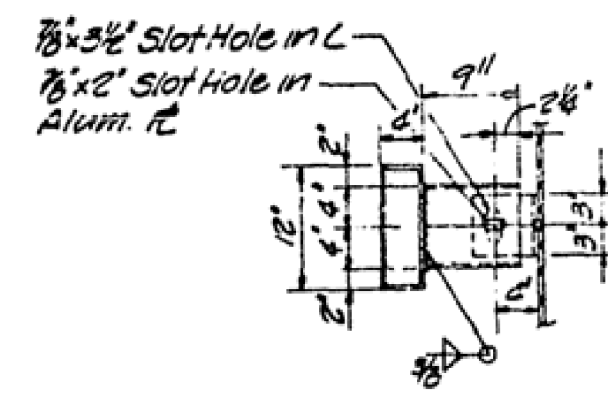
TOP PLAN



SECTION AT CURB



ANGLE DETAIL



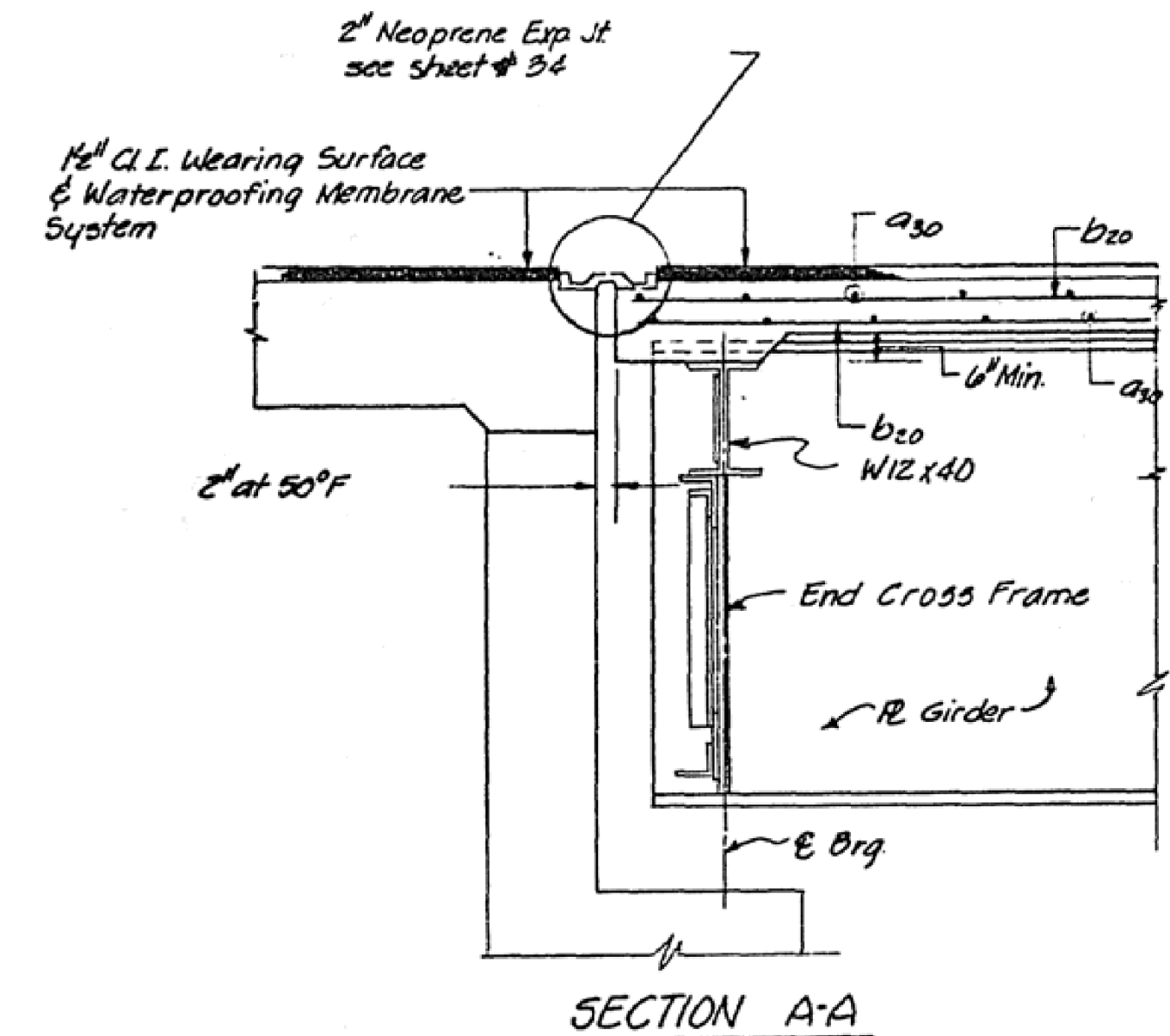
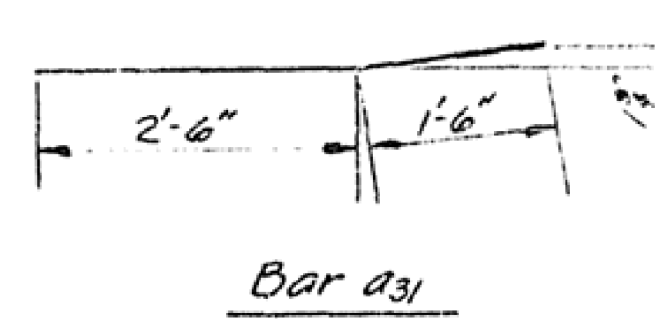
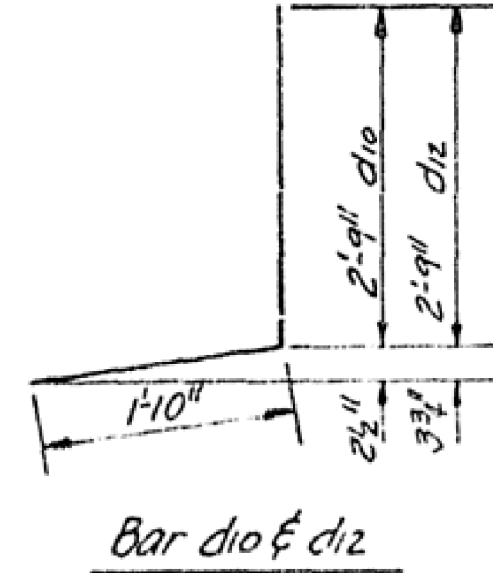
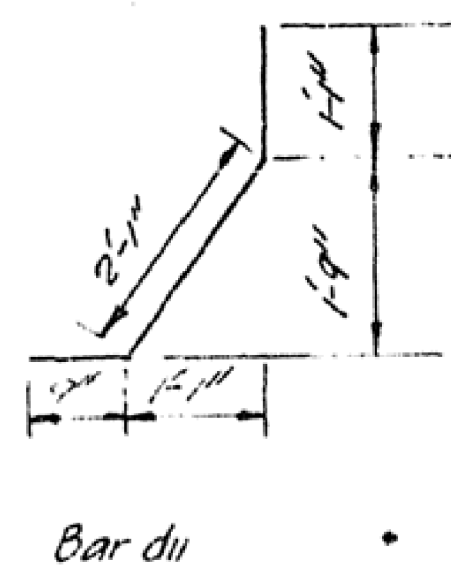
SECTION B-B

DETAILS OF GIRDER DRAIN EXTENSION

Cost of Drains is incidental to Class X concrete.

Note: The exterior surfaces of the aluminum drains shall be cleaned and given a wash-coat pretreatment in accordance with the Steel Structure Painting Council's Specification SSPC-SP1 & SSPC-PR3 followed by the basic lead chromate painting specified for Structural Steel.

*The lengths and quantities of longitudinal reinf. ϕ cl. x concrete in parapets are not incl. in these quantities See sheet #11.



SECTION A-A

BILL OF MATERIAL

BAR	NO.	Size	Length	Shape	
d30	2008	#6	27'-4"		
d31	251	#6	4'-0"		
d32	251	#6	4'-0"		
b20	1062	#5	35'-1"		
b21	53	#6	69'-8"		
b22	32	#8	32'-9"		
b23	32	#5	32'-2"		
b24	8	#8	27'-8"		
b25	8	#5	27'-8"		
d10	306	#4	4'-7"		
d11	612	#5	3'-11"		
d12	306	#4	4'-7"		
* Class X Concrete				cu yds	438.9
* Reinforcement Bars				lbs	138,920
* Neoprene Exp #187				lin ft	108

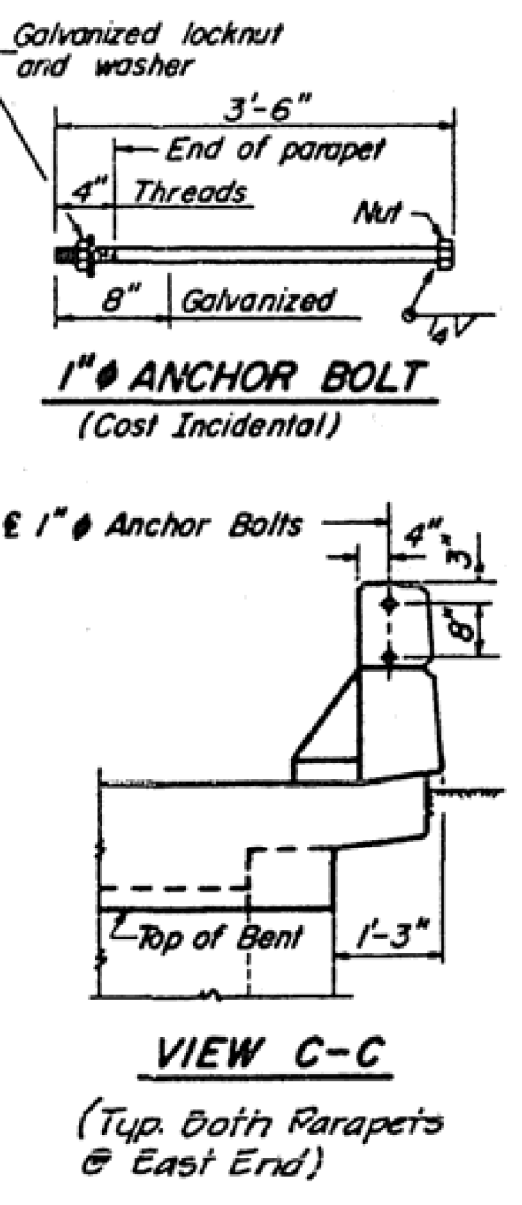
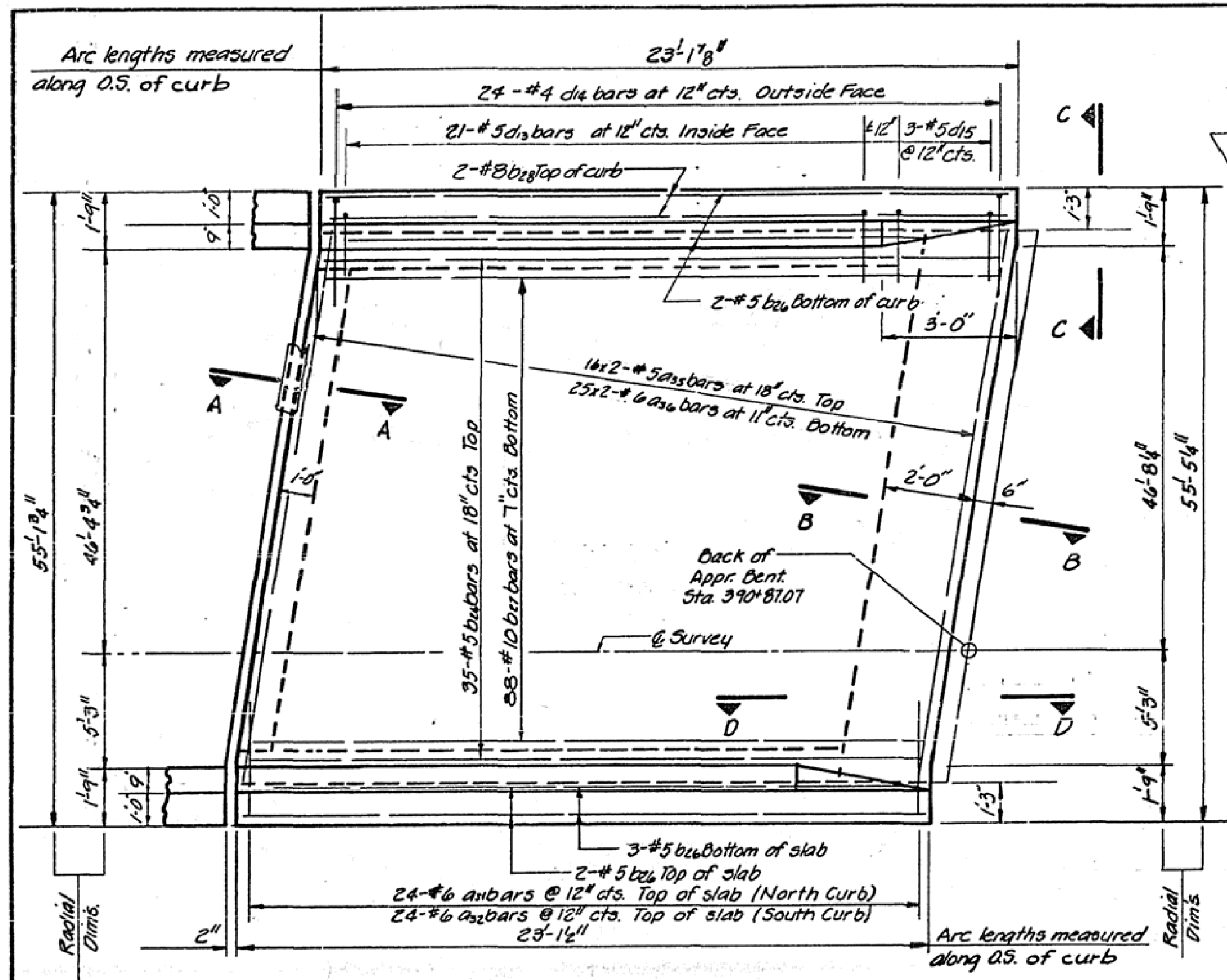
SUPERSTRUCTURE DETAILS - W.B. SPUR			
NO.	DATE	BY	CHKD.
1	11/11/2018	JBU	ACB
2			
3			
4			
5			
6			
7			
8			
9			
10			

E.B. SPUR & W.B. SPUR OVER FA DIZ
FAI 12 - 58-62-42 HB-2 PROJ
STA 58+28.50 TO 58+28.50 MACON COUNTY

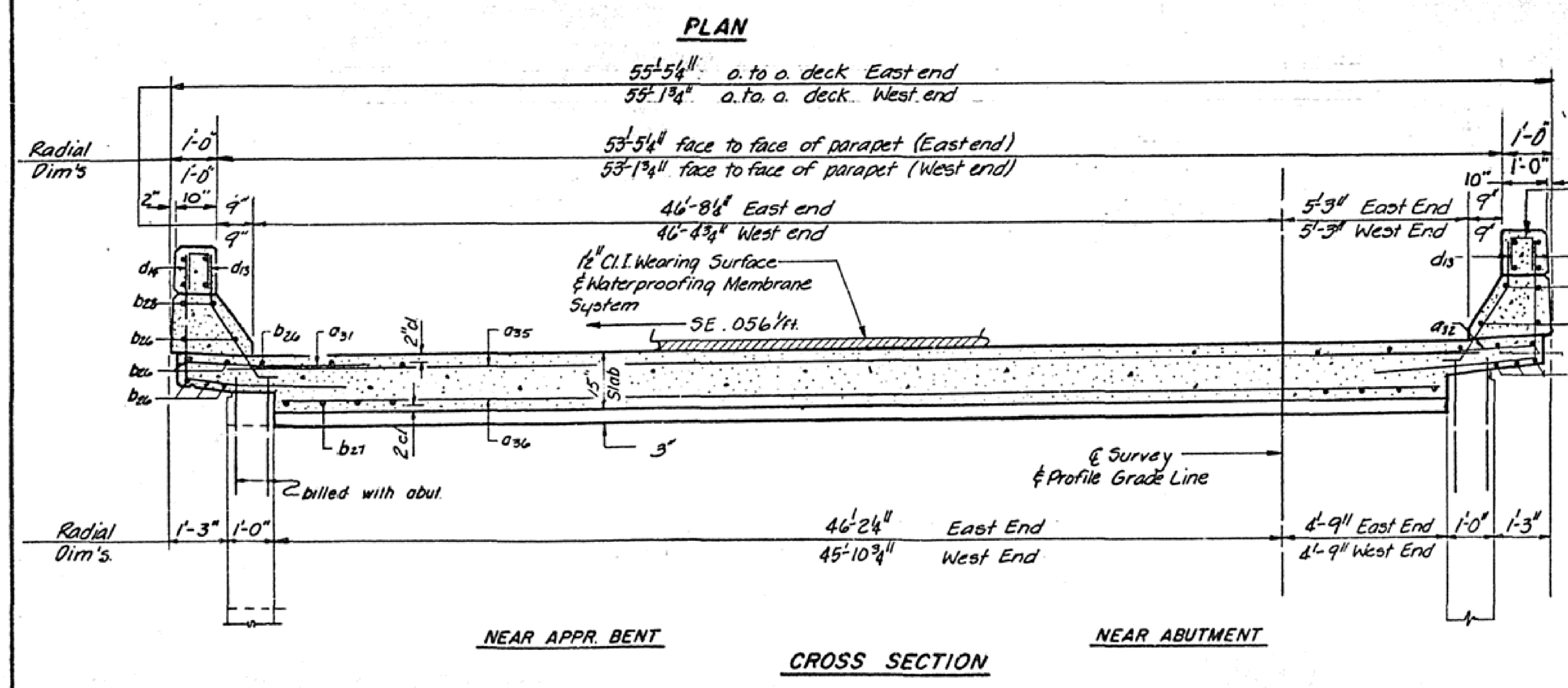
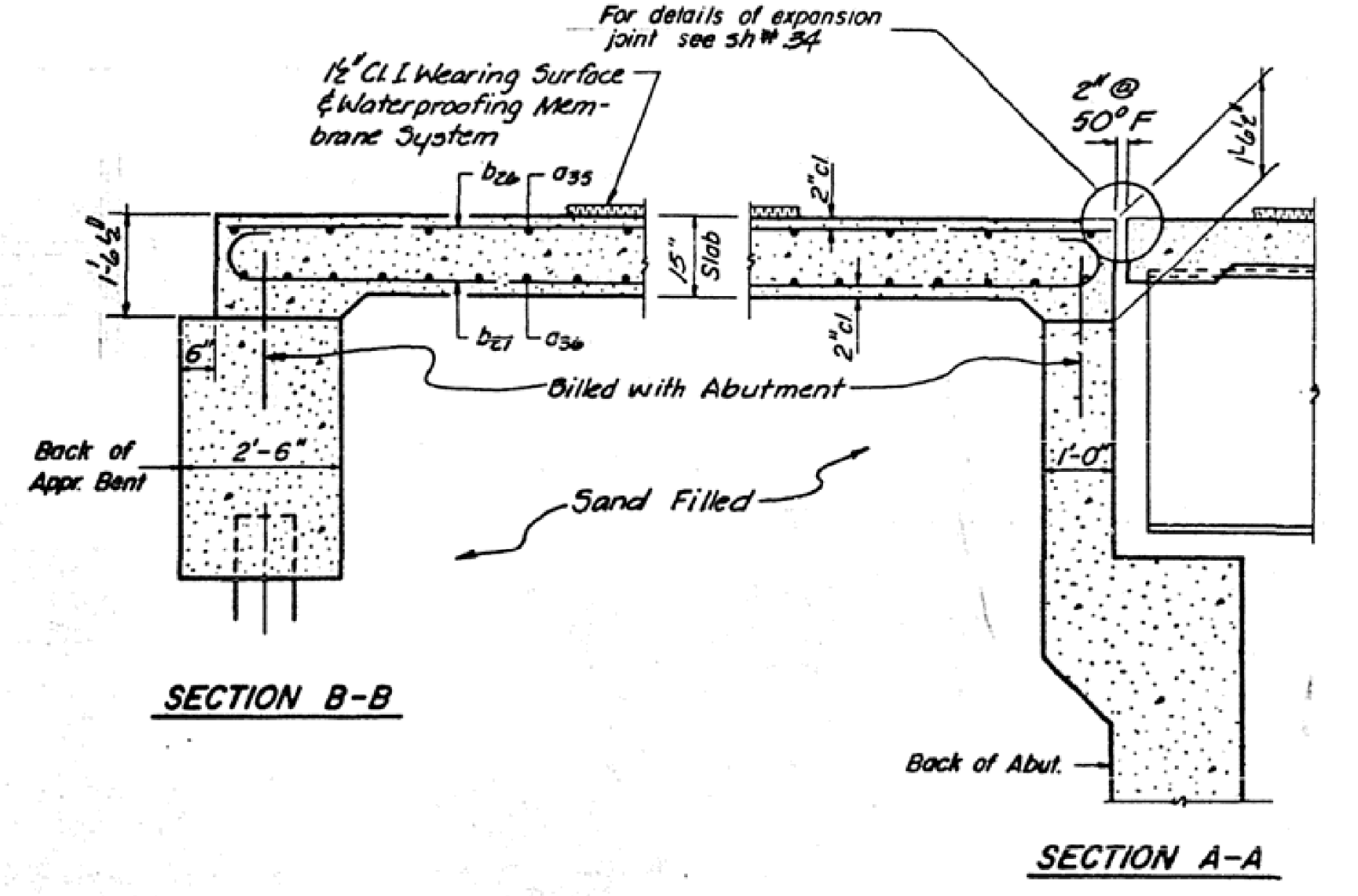
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

PROJECT NO. 2029-3
SHEET NO. 23

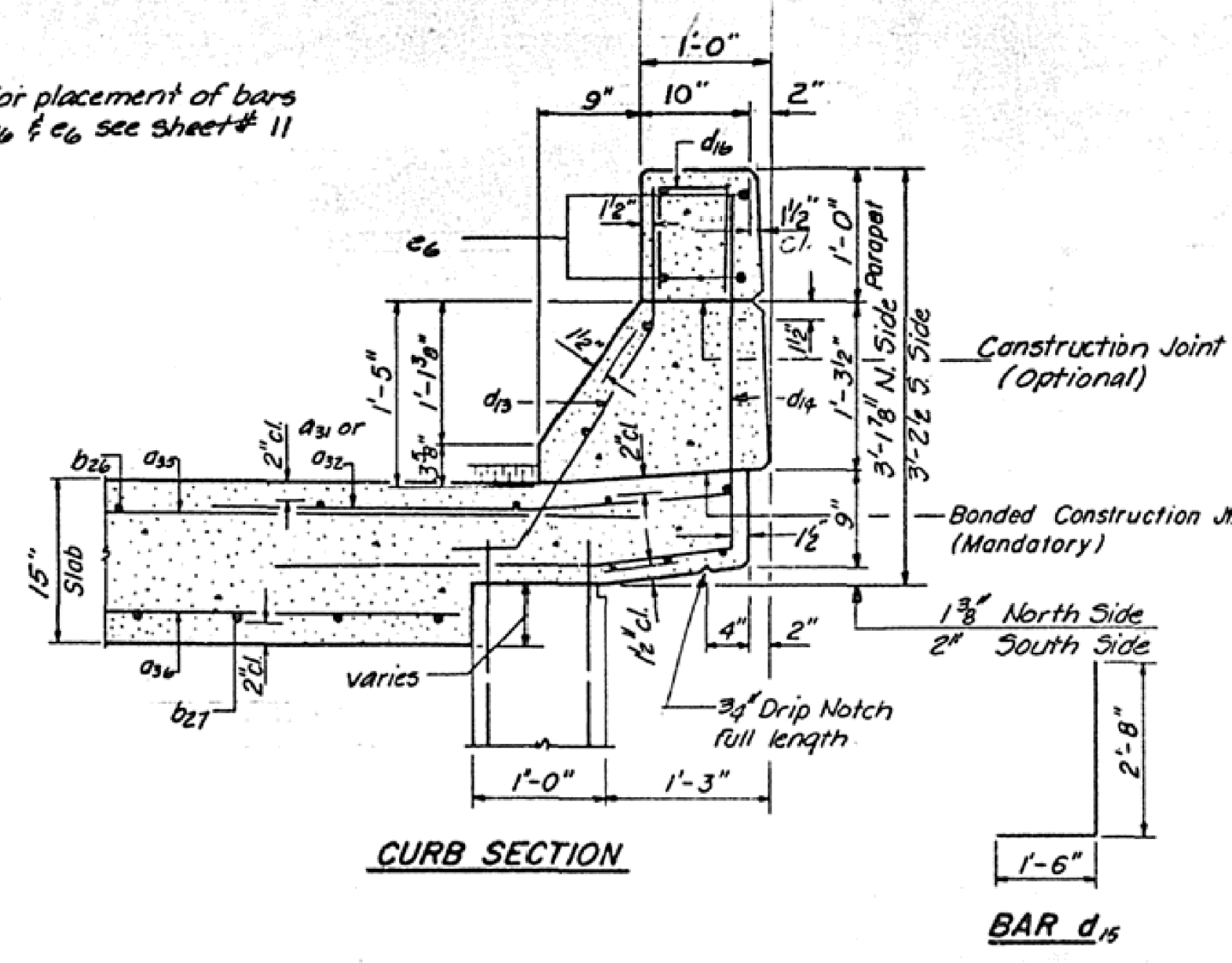
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Note: See superstructure span #1 WB (sh #7) for details & location of electrical conduit and section D-D



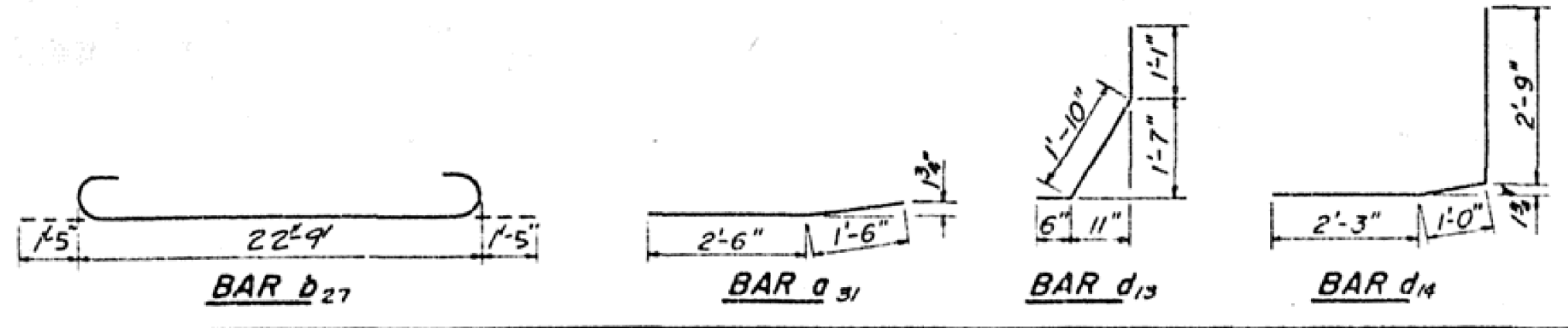
Note: For placement of bars d14 & e6 see sheet # 11



ONE APPR. SLAB
BILL OF MATERIAL

Bar	No.	Size	Length	Shops
a31	24	#6	4'-0"	
a35	32	#5	27'-8"	
a36	50	#6	26'-7"	
a32	24	#6	4'-0"	
b26	49	#5	22'-9"	
b27	88	#10	25'-7"	
b28	4	#8	22'-9"	
d13	42	#5	3'-5"	J
d14	48	#4	6'-0"	J
d15	6	#5	4'-2"	J
* Reinforcement Bars			Lbs	14,670
* Class X Concrete			Cu Yds	6.17

* Parapet Reinforcement and Class X Concrete are billed on sheet # 11



SUPERSTRUCTURE - SPAN 4 WB

REVISIONS	DATE	BY	REASON
1	11/11/2018	JMB	ISSUED FOR PERMIT

EB SPUR & WB SPUR OVER FA 412
FAI 72 SEC 5B-62 HB-2 PROJ.
STA. 589+28.50 (EB SPUR) MACON CO.
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

24

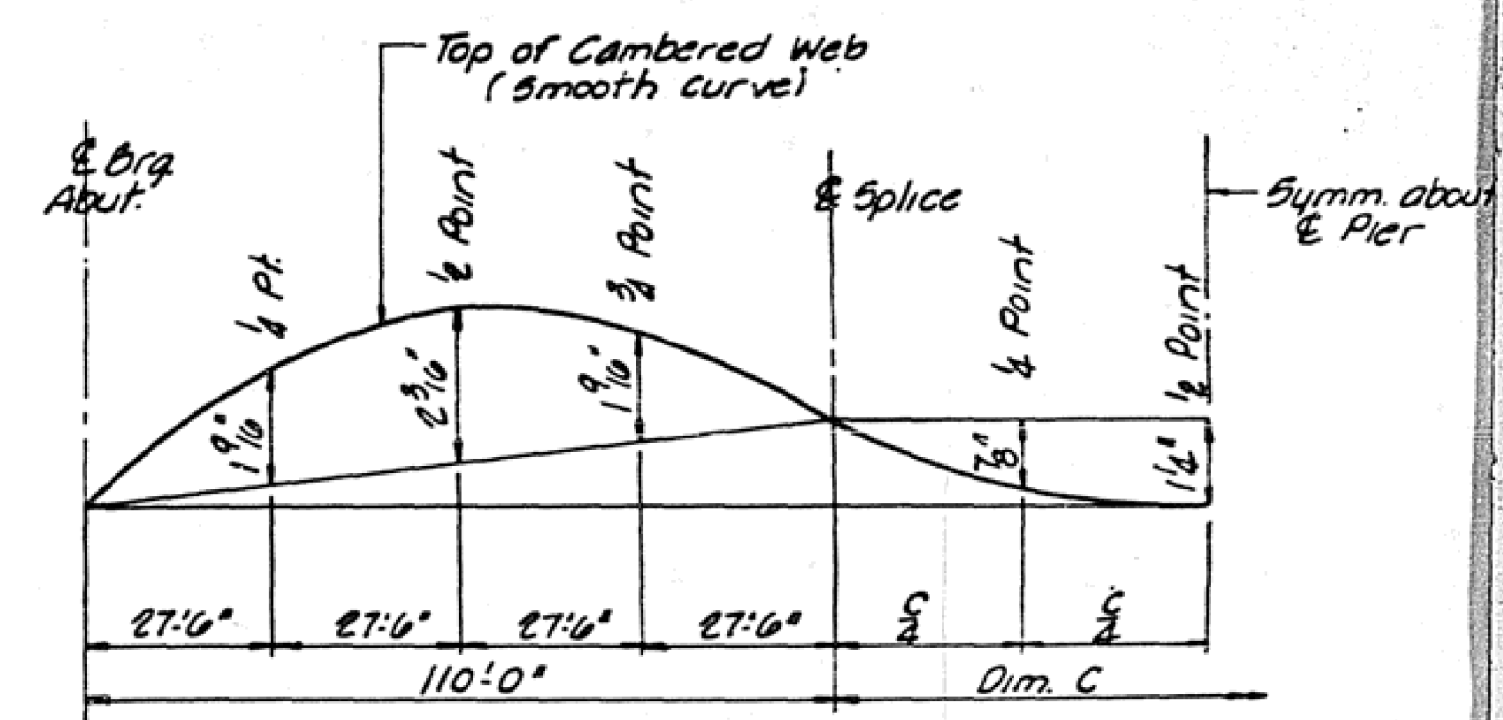
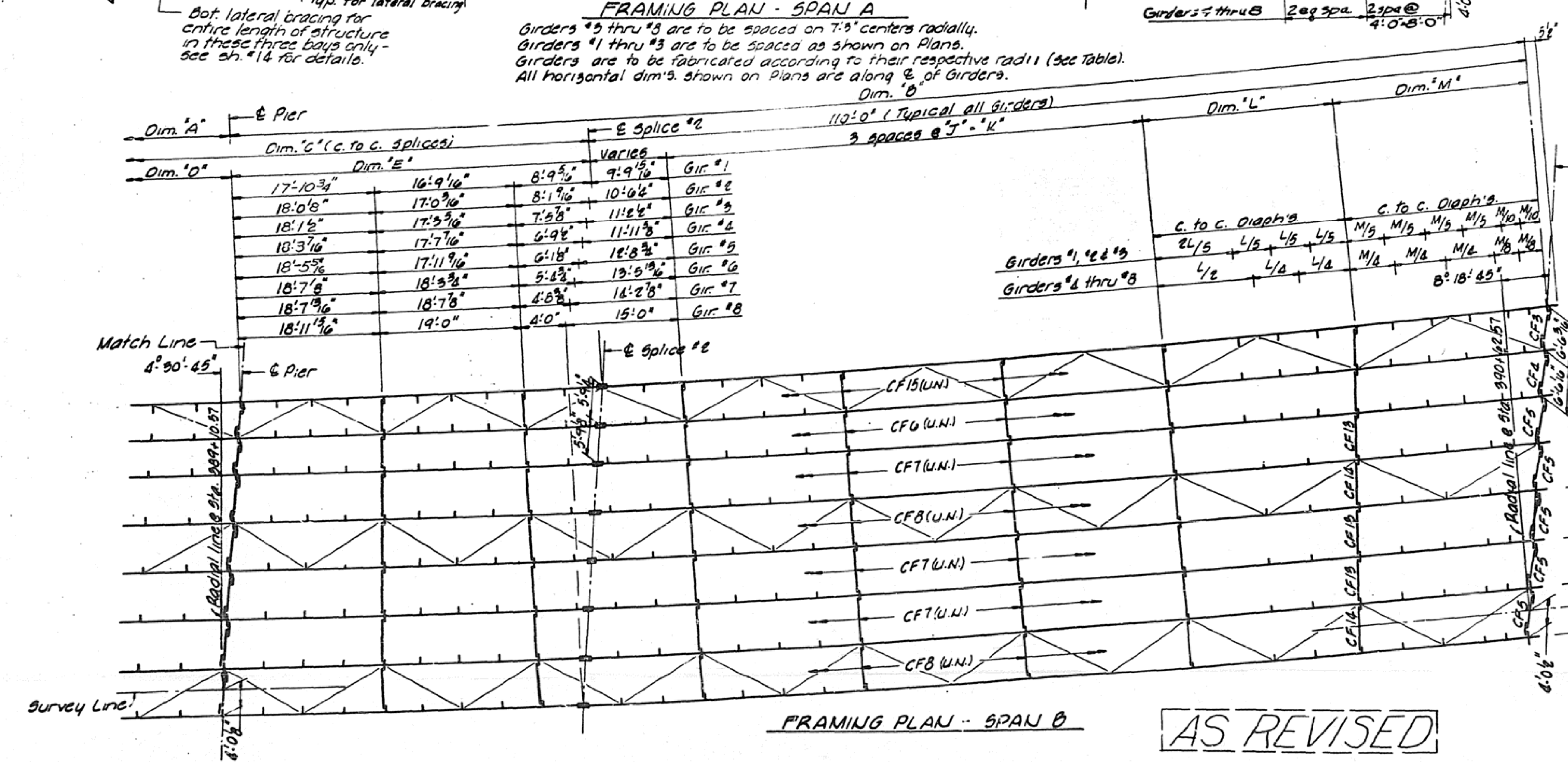
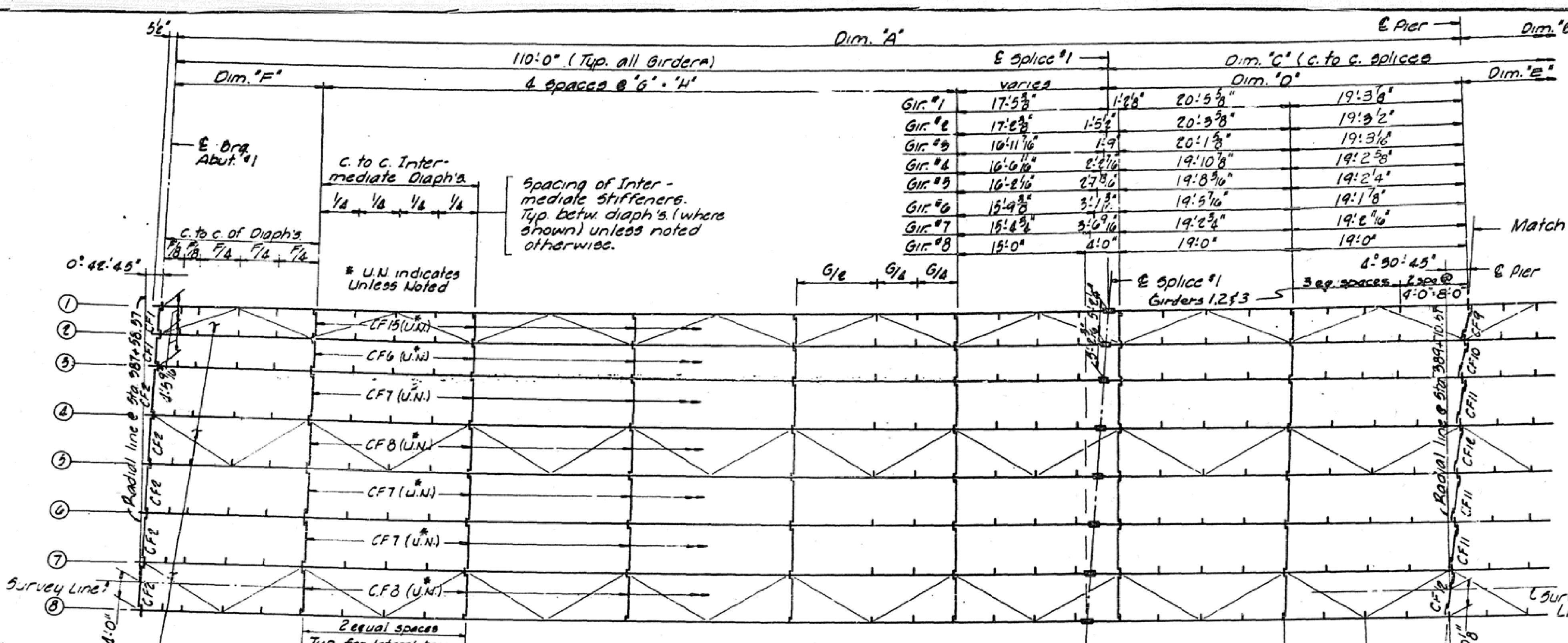
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TABLE OF DIMENSIONS

Girder Dimension	#1	#2	#3	#4	#5	#6	#7	#8
Radius (6 Gir)	2250.13'	2254.91'	2259.58'	2264.85'	2274.08'	2281.33'	2288.58'	2295.83'
Overall Length	305'3 3/4"	305'1 1/2"	304'11 7/8"	304'11 5/8"	304'11 1/8"	304'11 1/8"	304'11 1/8"	304'10 1/2"
A	150'11 5/8"	151'0 5/8"	151'1 1/8"	151'3 5/8"	151'6 1/4"	151'8 1/2"	152'0"	152'0"
b	153'5 5/8"	153'17 1/8"	152'40 1/8"	152'8 3/8"	152'6"	152'3 3/8"	152'0 1/2"	151'11 7/8"
C	84'4 3/4"	84'2 1/2"	84'0 3/8"	84'0 5/8"	84'0 3/8"	84'0 3/8"	84'0 1/2"	83'11 1/8"
D	40'11 5/8"	41'0 5/8"	41'1 1/8"	41'3 1/8"	41'6 1/4"	41'8 1/2"	42'0"	42'0"
E	43'5 5/8"	43'1 3/8"	42'10 1/8"	42'8 3/8"	42'6"	42'3 3/8"	42'0 1/2"	41'11 1/8"
F	18'0 7/8"	18'1 3/8"	18'3 1/8"	18'4 13/16"	18'5 1/2"	18'6 1/8"	18'7 1/4"	18'8 1/4"
G	18'7 1/2"	18'7 1/2"	18'8 3/8"	18'9 1/8"	18'9 1/2"	18'10 1/8"	18'11 1/4"	19'0"
H	74'5 3/4"	74'7 3/8"	74'9 1/2"	75'0 1/2"	75'3 1/4"	75'6 1/4"	75'9"	76'0"
J	18'7 1/2"	18'7 3/8"	18'8 3/8"	18'9 1/8"	18'9 1/2"	18'10 1/8"	18'11 1/4"	19'0"
K	55'9 3/4"	55'11 1/8"	56'1 1/8"	56'3 3/8"	56'5 3/8"	56'7 1/2"	56'9 3/4"	57'0"
L	22'2 1/2"	21'4 1/2"	21'4 3/8"	20'10 3/8"	20'5"	19'11 3/8"	19'5 3/8"	19'0"
M	22'2 1/2"	21'9 1/8"	21'4"	20'10 3/8"	20'6 1/2"	19'11 3/8"	19'5 3/8"	19'0"

TOP OF WEB ELEVATIONS (For fabrication only)

Girder Location	#1	#2	#3	#4	#5	#6	#7	#8
E Brq- Abut #1	694.84	695.09	695.34	695.75	696.15	696.56	696.96	697.37
E Splice #1	694.48	694.77	695.08	695.49	695.89	696.30	696.70	697.11
E Brq- Pier	694.15	694.46	694.77	695.18	695.58	695.99	696.40	696.81
E Splice #2	694.08	694.35	694.69	695.10	695.50	695.91	696.31	696.72
E Brq- Abut #2	693.18	693.55	693.92	694.33	694.73	695.14	695.54	695.95



W. BND. SPUR
STRUCTURAL STEEL

REVISIONS	DATE	INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

FAI-72 SEC. 58-62 HB-2 PROJ. STA. 504+28.50 (E.B. SPUR) MACON CO.

HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS

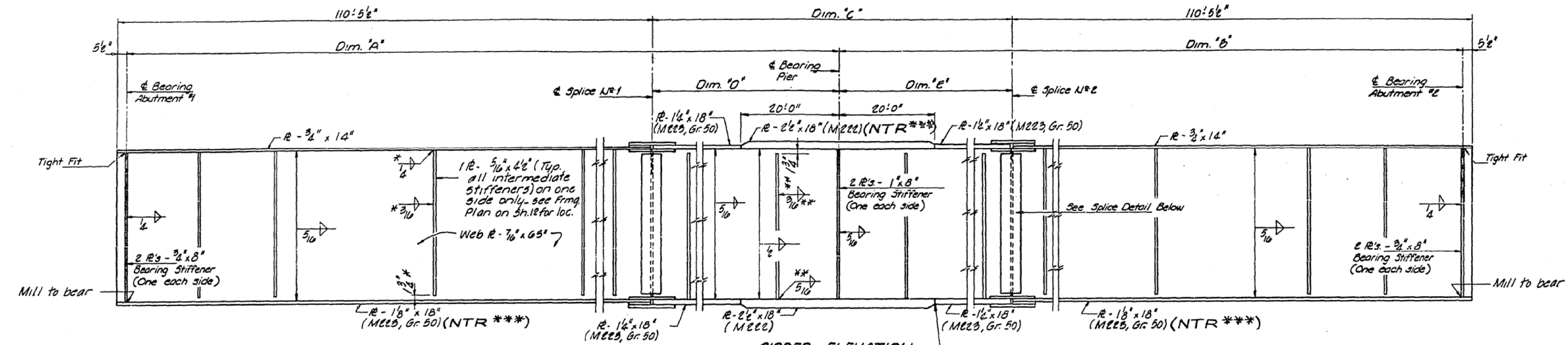
26

AS REVISED

As Revised 5-10-76 S.Y.K.

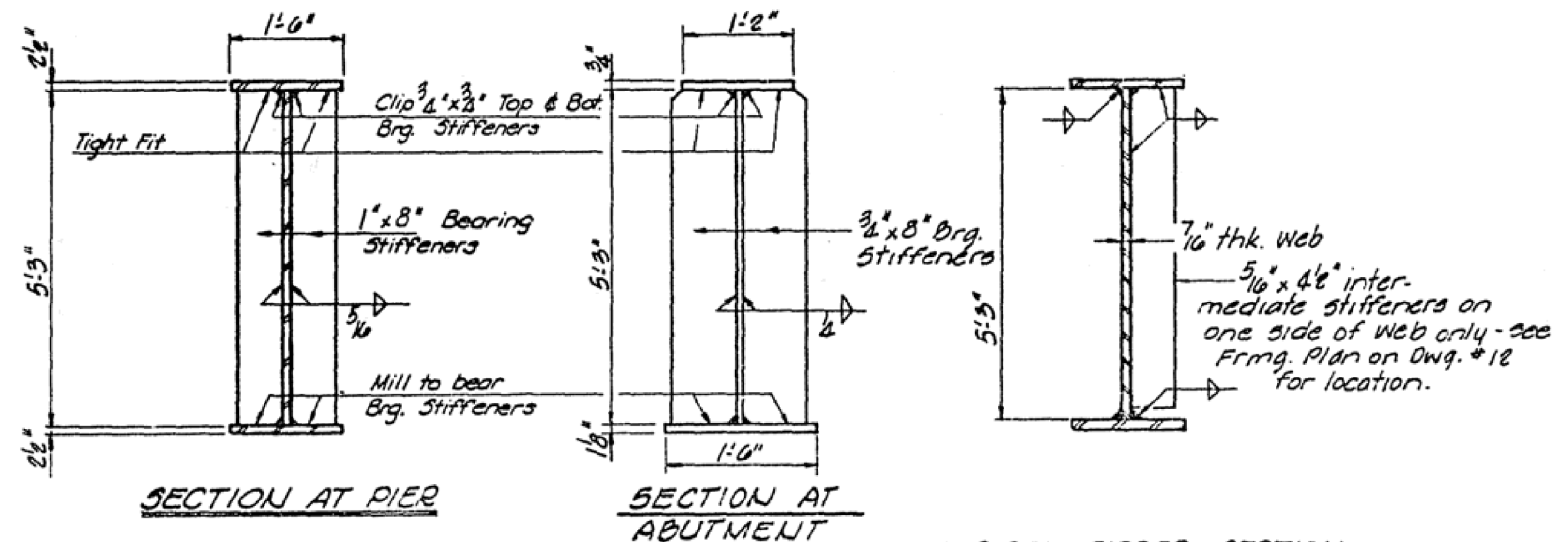
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62	MACON	65	27
FED. ROAD DIST. NO.		ILLINOIS	PROJECT	

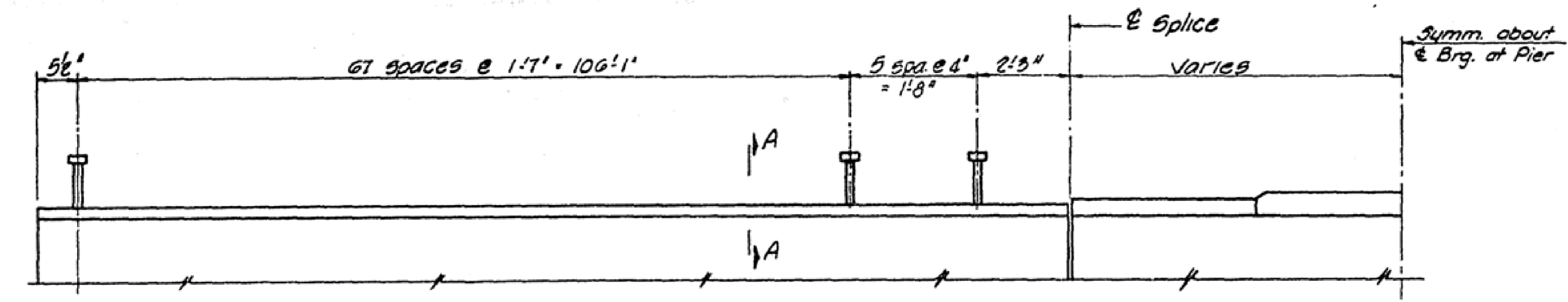


- * - Typical for all intermediate stiffeners between end brg. & splice.
- ** - Typical for all intermediate stiffeners between splices.
- *** - Notch Toughness Requirement

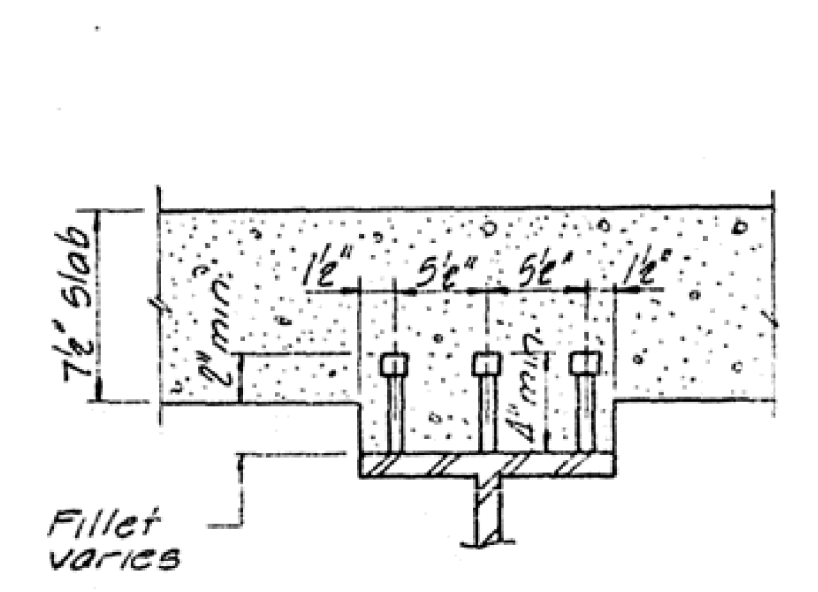
GIRDER ELEVATION
Note: Unless otherwise noted, all structural steel shall be AASHTO M183.



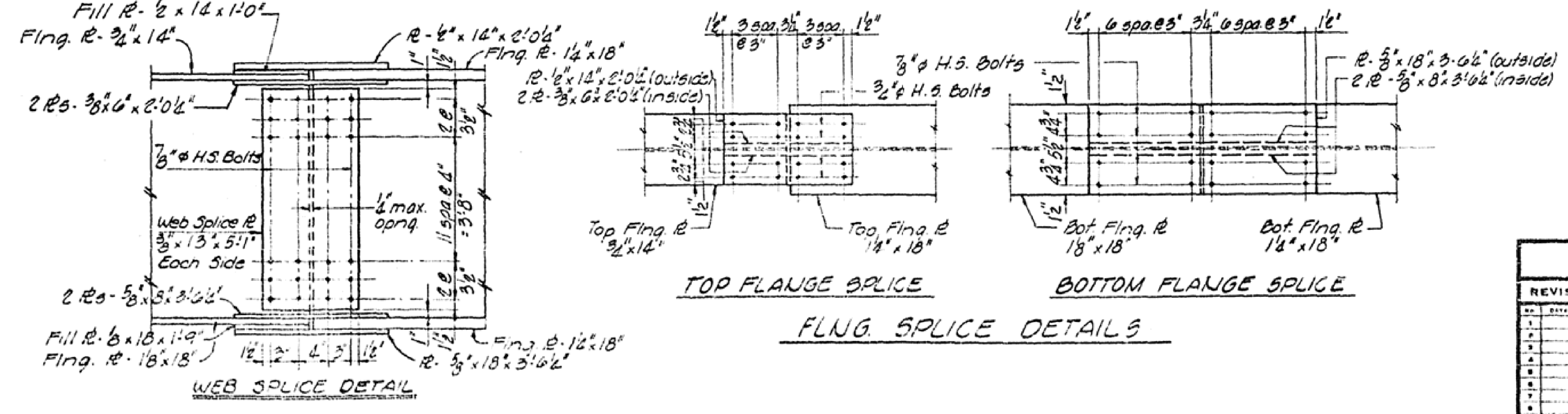
TYPICAL GIRDER SECTION
See Elev. of Girder for Flng. R and weld sizes.



SHEAR CONNECTOR ELEVATION
(458 stud shear connectors req'd. ea girder)



SECTION A-A
3/8 CR 1020 steel, granular or solid, flux-filled, headed studs. Automatically end welded. 3504 studs required.



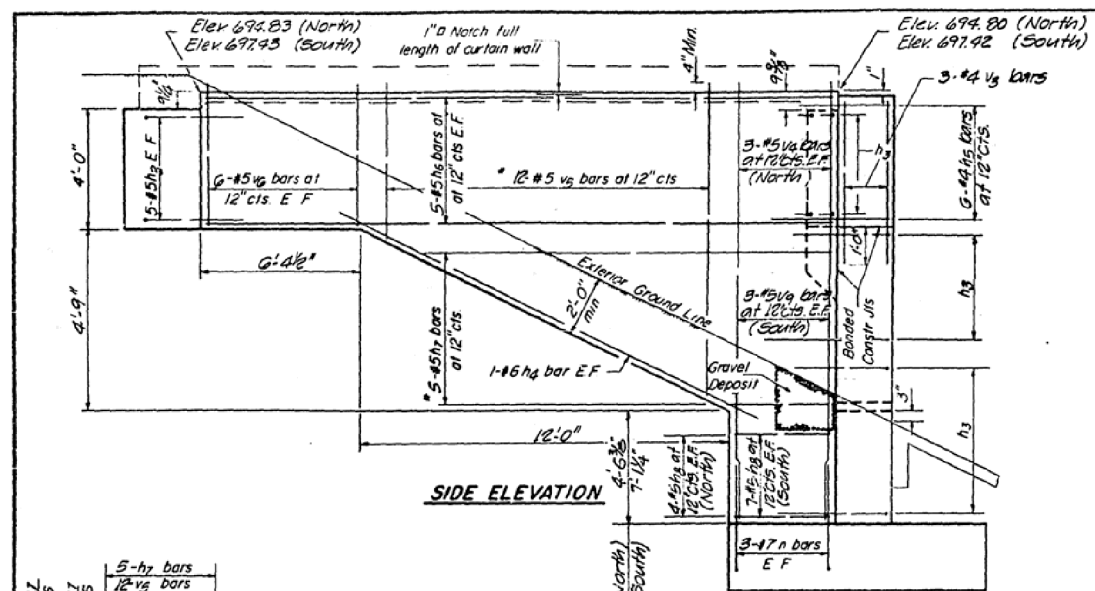
REVISIONS		DATE	INITIALS
1		10/26	JWC
2		11/75	JWC
3			
4			
5			
6			
7			
8			
9			
10			

W. BND SQR
STRUCTURAL STEEL

DESIGNED BY: REG 10/26
CHECKED BY: JWC 11/75
PROJECT NO: 2004.3
DATE: 11/75

E.B. SQR & W.B. SQR OVER FAI 72
FAI 72 SEC. 58-62-2 PROJ.
STA. 530+00 TO 530+00
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

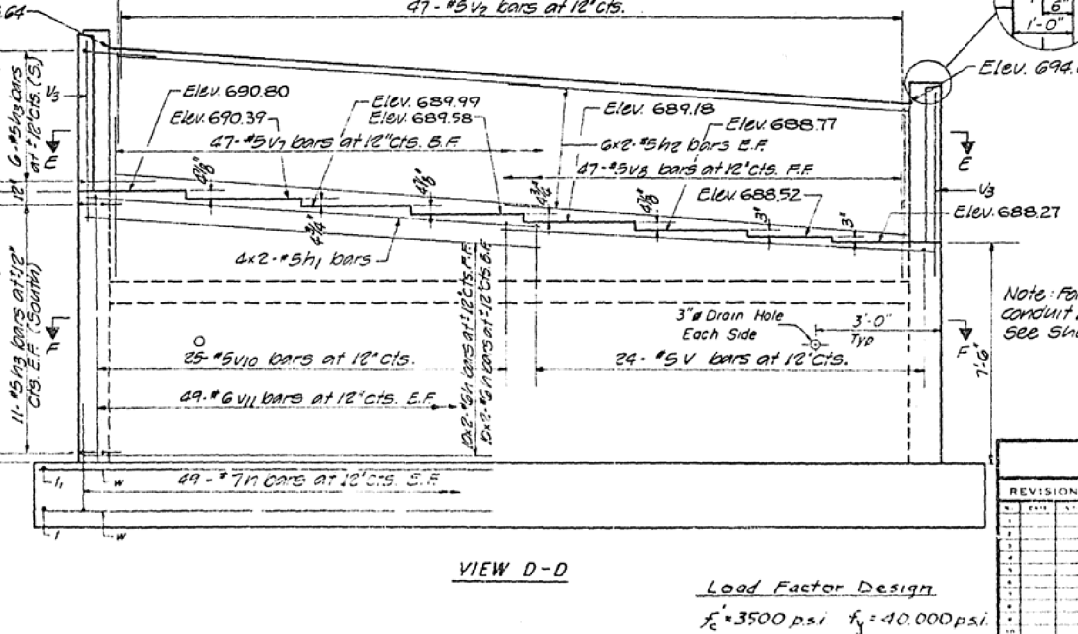
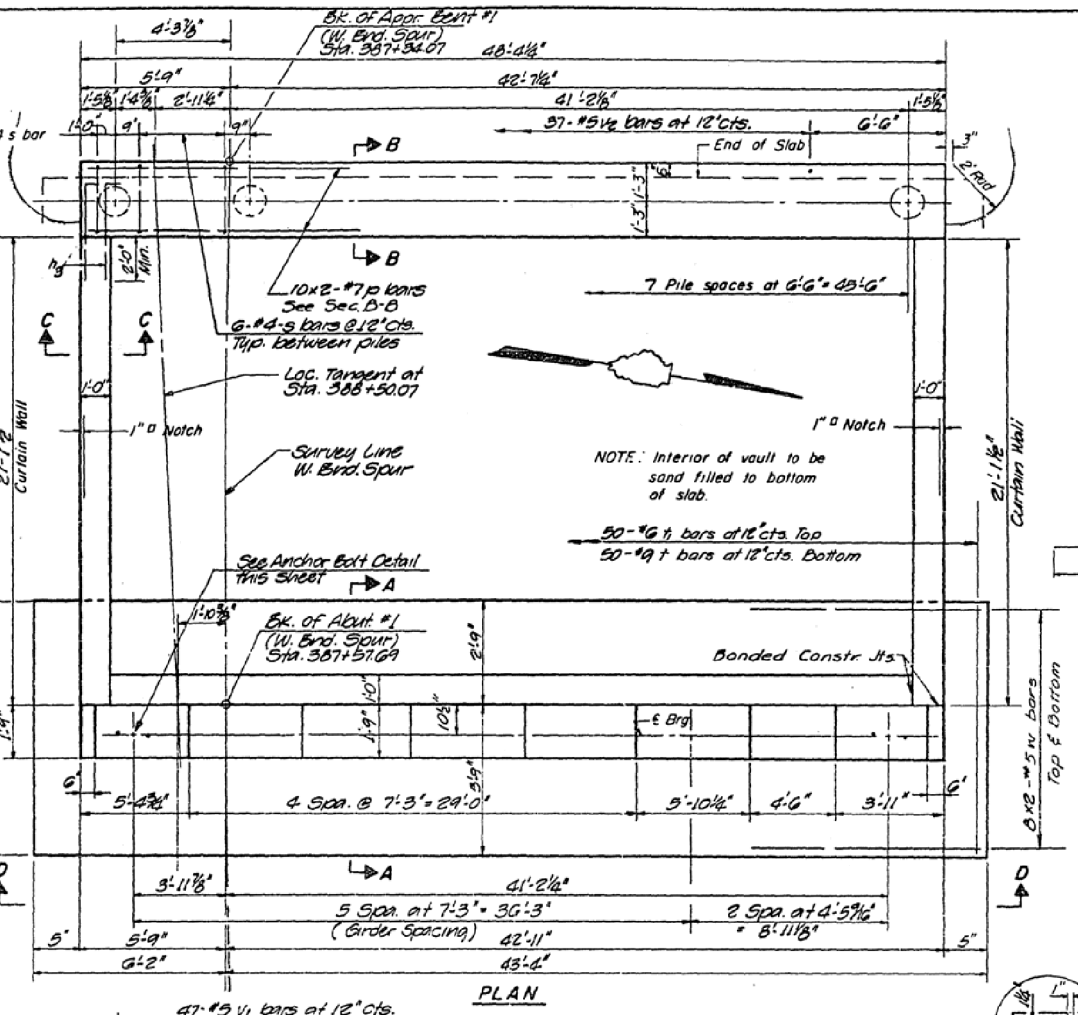
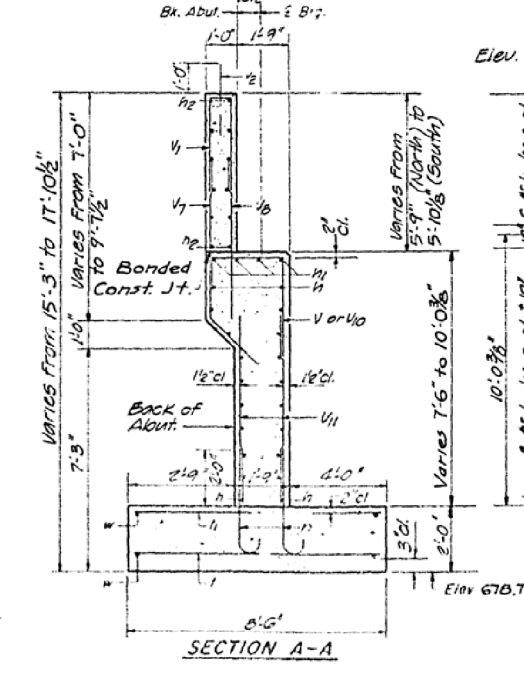
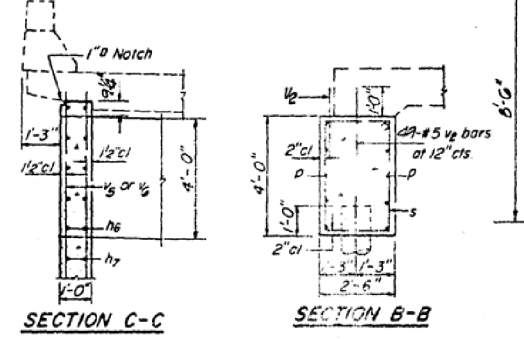
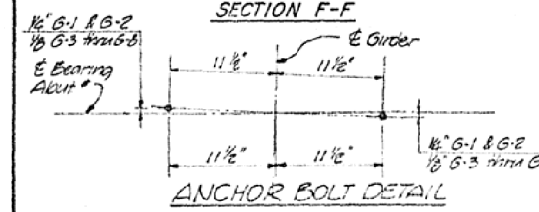
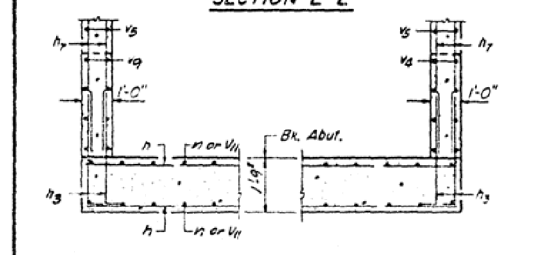
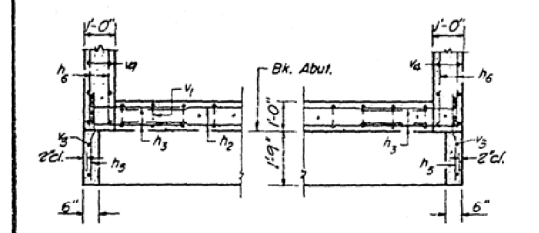
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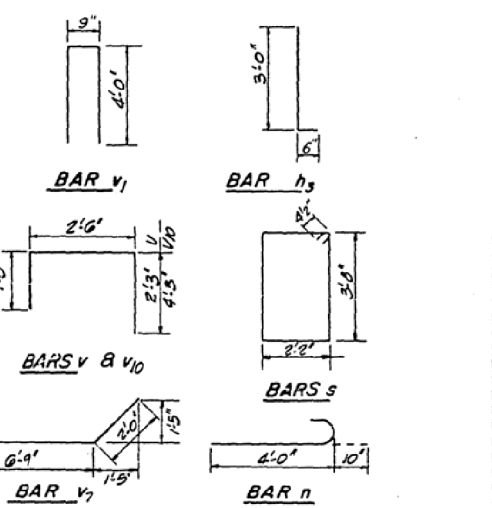
ABUT. SOIL DATA
 Max. Ftg. Pressure: 3.9 ksf

APPR. BENT-PILE DATA
 Type - Concrete
 Capacity - 25 TONS
 Est Length - 30 Feet
 No. Req'd. - 7+1 Test Pile

FIELD CUTTING DIAGRAM
 Order h7, h8, h9 bars full length cut to fit as shown and use remainder of bars in other face.



SHEET NO. 15 of 35 SHEETS	ROUTE NO. 58-62	SECTION 15B-2	COUNTY MACON	TOTAL SHEETS 65	SHEET NO. 29
---------------------------	-----------------	---------------	--------------	-----------------	--------------



BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	40	#6	25'-3"	—
h1	8	#5	25'-3"	—
h2	24	#5	24'-6"	—
h3	22	#5	3'-6"	L
h4	4	#6	16'-0"	—
h5	12	#4	2'-9"	—
h6	20	#5	20'-9"	—
h7	10	#5	16'-0"	—
h8	22	#5	2'-6"	—
h	110	#7	4'-10"	—
p	20	#7	25'-0"	—
s	24	#4	12'-5"	□
f	30	#9	8'-3"	—
h	30	#6	8'-3"	—
v	24	#5	5'-9"	┘
v1	47	#5	8'-9"	┘
v2	133	#5	2'-6"	—
v3	6	#3	7'-0"	—
v4	6	#5	14'-6"	—
v5	24	#5	14'-6"	—
v6	24	#5	5'-0"	—
v7	47	#5	8'-9"	—
v8	47	#5	6'-9"	—
v9	6	#5	17'-0"	—
v10	25	#5	7'-9"	┘
v11	98	#6	7'-0"	—
w	32	#5	25'-3"	—
Reinforcement Bars	Los		12,370	
Class X Concrete	Cu Yds		102.8	
Concrete Piles	Lin. Ft.		210	
Test Piles (Concrete)	Each		1	

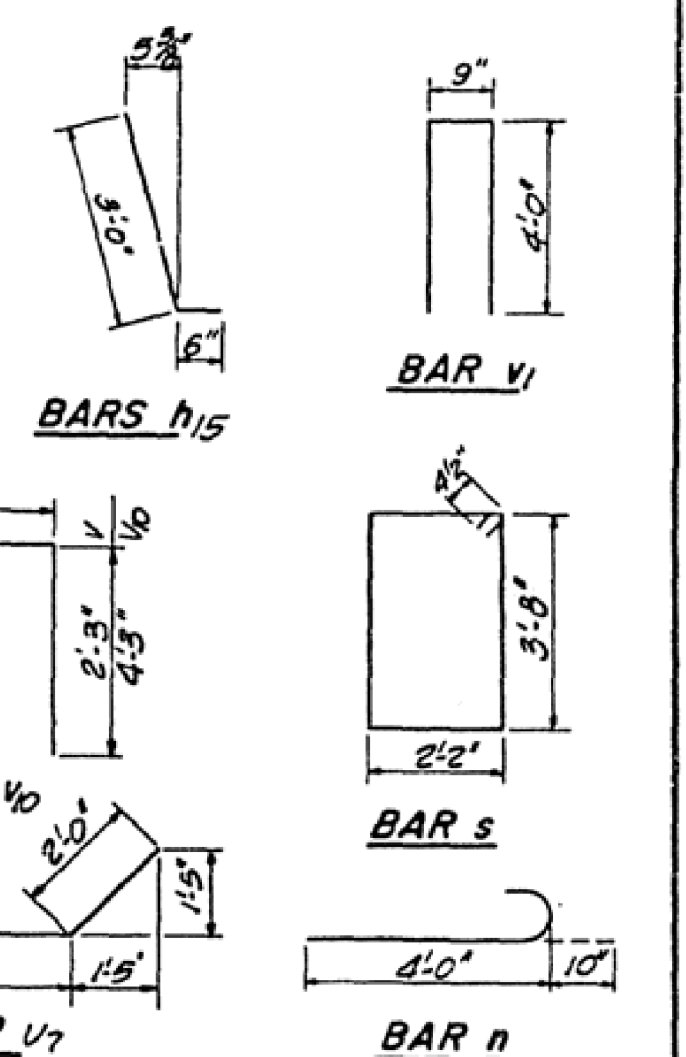
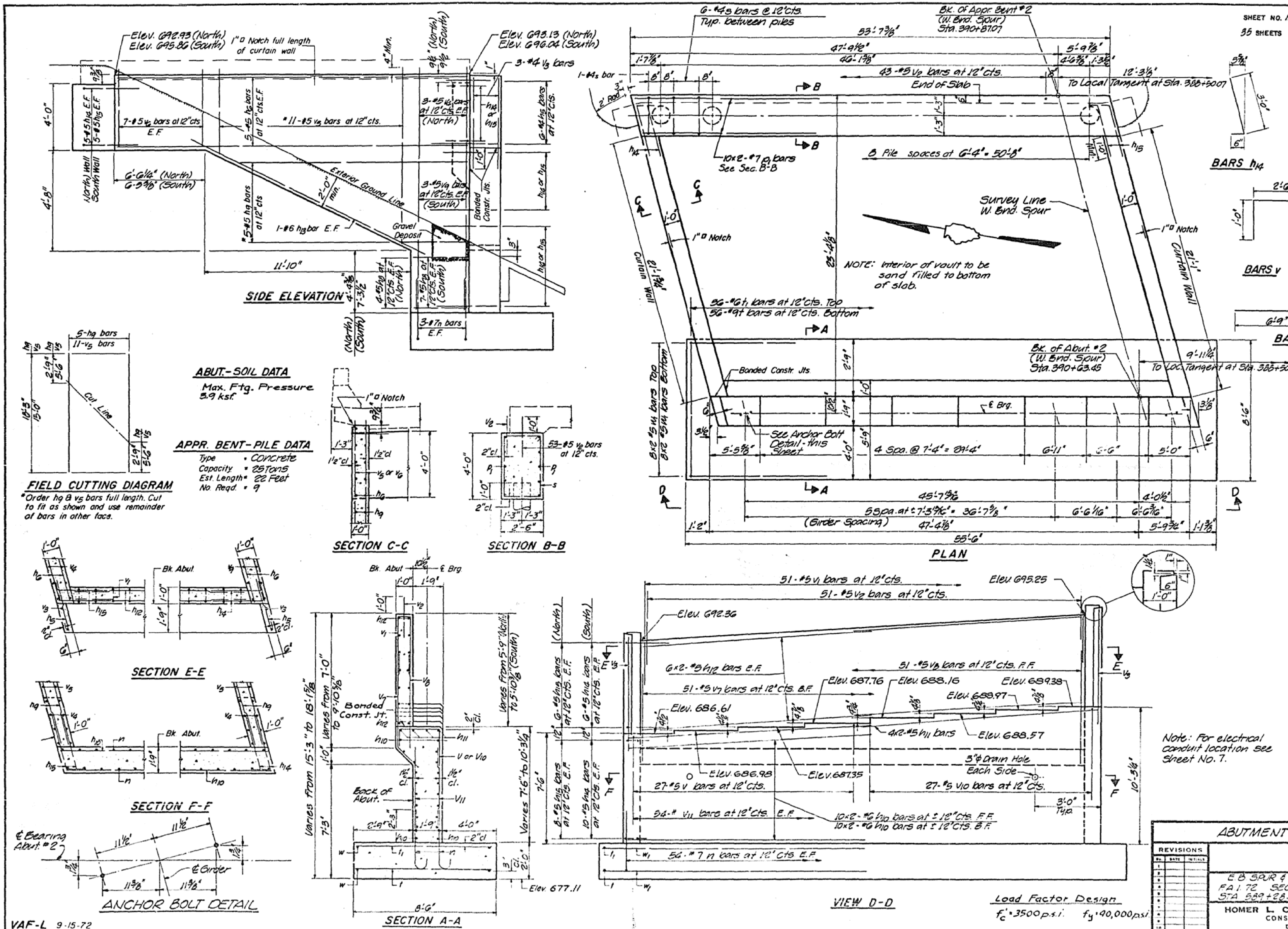
ABUTMENT NO. 1 - W. BND. SPUR

REVISIONS	DATE	BY	DESCRIPTION

E.B. SPUR & W.B. SPUR OVER FA. 412
 FA. 172 SEC. 5A-62 HB-2 PROJ.
 STA. 368+62.00 (E.B. SPUR) MACON CO.
 HOMER L. CHASTAIN & ASSOCIATES
 CONSULTING ENGINEERS
 DECATUR, ILLINOIS

FILE NAME = I:\DOT\6088 - 07 Ver-Work Order - Rte 36 Bridge Plans\CADD_Structural\existplans.dgn

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62	MACON	65	30
FED. ROAD DIST. NO.	ILLINOIS PROJECT			



BILL OF MATERIAL

Bar No.	Size	Length	Shape
h5	#4	21.9'	—
h6	#5	20.4'	—
h7	#5	21.6'	—
h8	#5	15.6'	—
h9	#6	27.3'	—
h10	#6	27.3'	—
h11	#5	27.3'	—
h12	#5	20.3'	—
h13	#6	15.9'	—
h14	#5	31.6'	—
h15	#5	31.6'	—
n	#7	4.10'	—
p	#7	27.6'	—
s	#4	12.5'	—
t	#9	8.3'	—
u	#6	8.3'	—
v	#5	5.9'	—
v1	#5	8.9'	—
v2	#5	21.6'	—
v3	#4	7.0'	—
v4	#5	14.6'	—
v5	#5	15.0'	—
v6	#5	5.0'	—
v7	#5	8.9'	—
v8	#5	6.9'	—
v9	#5	17.0'	—
v10	#5	7.9'	—
v11	#6	7.0'	—
w	#5	28.6'	—
Reinforcement Bars	Lbs	15,430	
Class X Concrete	Cu Yds	113.1	
Concrete Piles	Lin. Ft.	195	

ABUTMENT NO. 2 - W. END. SPUR

REVISIONS	DATE	INITIALS
1		
2		
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7		
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9		
10		

DESIGNED BY DATE: JCH 11-72
CHECKED BY DATE: JMC 1-75
PROJECT NO: 2469-3
SHEET NO: 30

E B SPUR & W B SPUR OVER FA 612
FAI 72 SEC 58-62 HB-2 PROJ.
STA 569+28.50 (E B SPUR) MACON CO.

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

FILE NAME = I:\DOT\6008 - D7 Ver. Work\Order 6 - Rte 36 Bridge Plans\CADD_Structural\existplans.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jbuening
PLOT TIME = 10:59:13 AM
PLOT SCALE = 1:10000 1/4" = 1'-0"
PLOT DATE = 1/11/2018

DESIGNED - JMB
CHECKED - ACB
DRAWN - RLK
CHECKED - JMB

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

SHEET NO. 50 OF 63 SHEETS

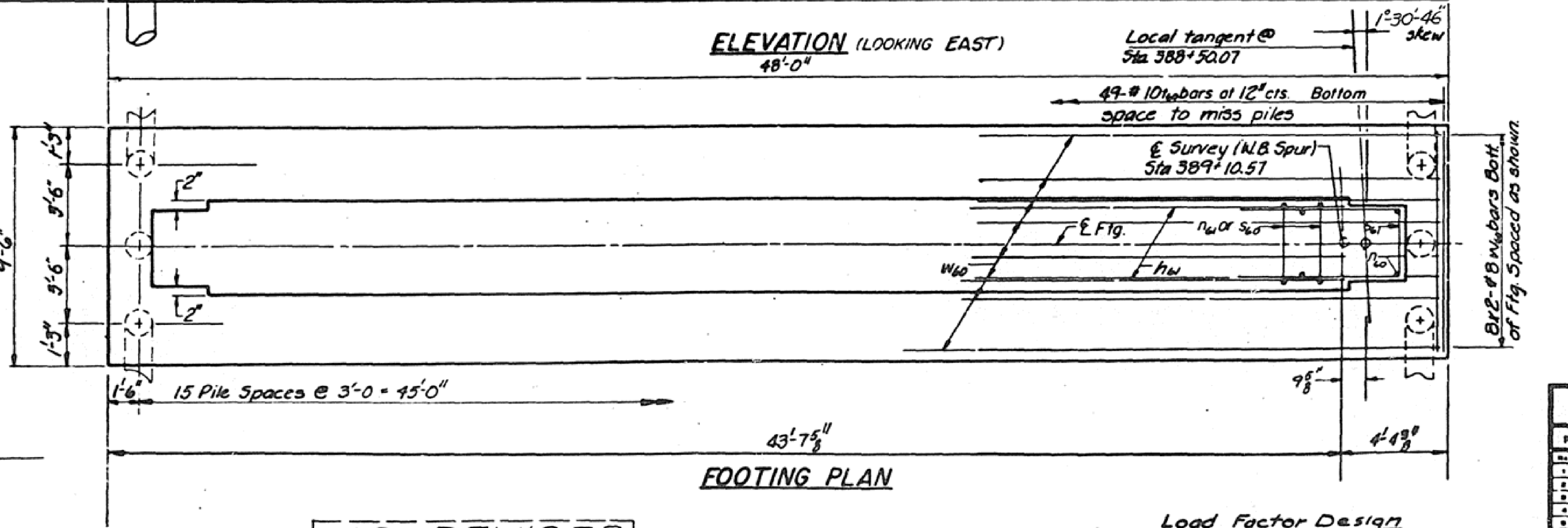
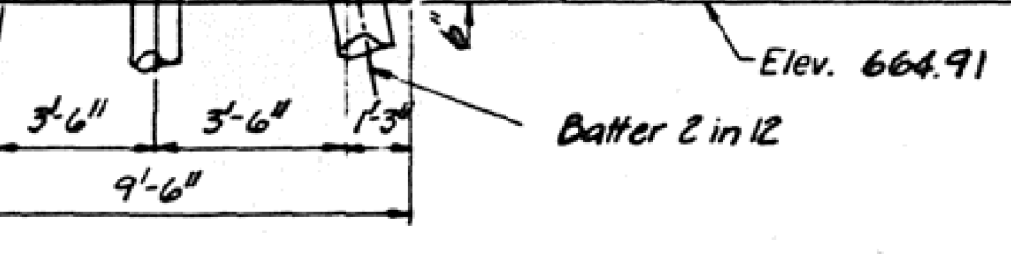
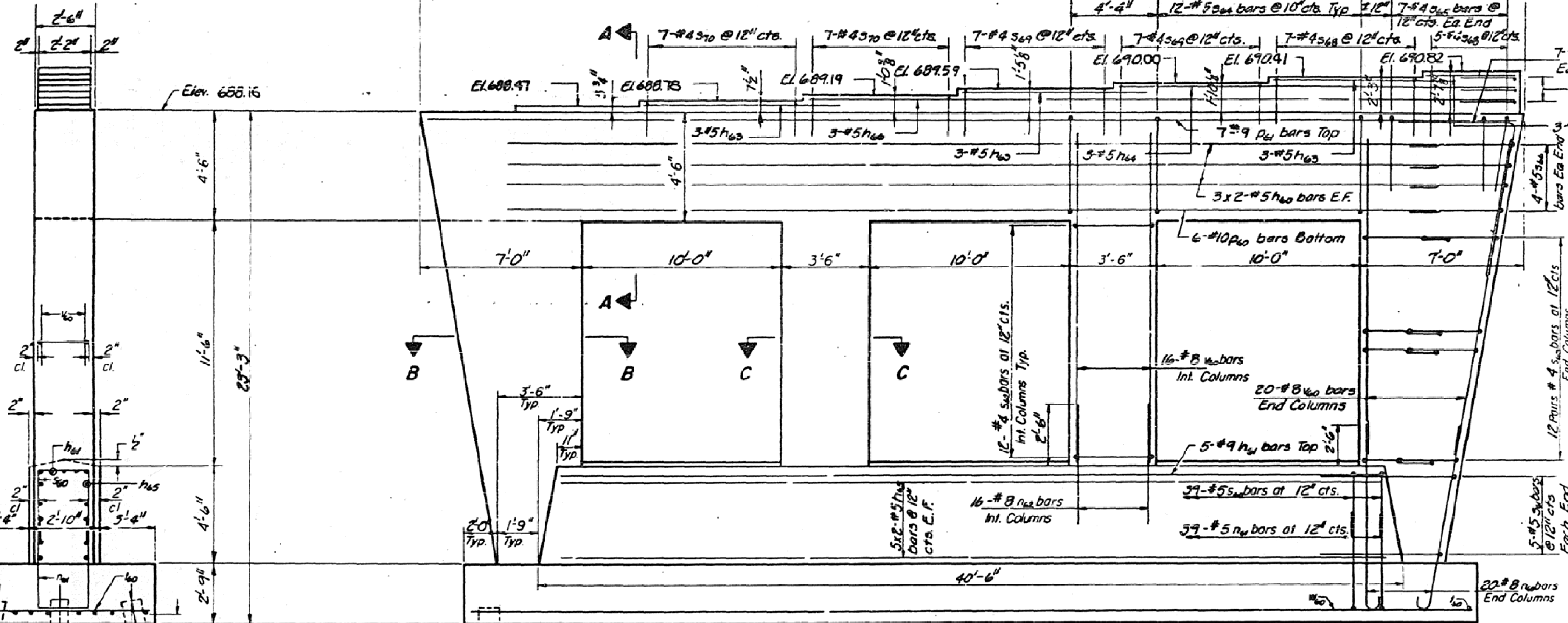
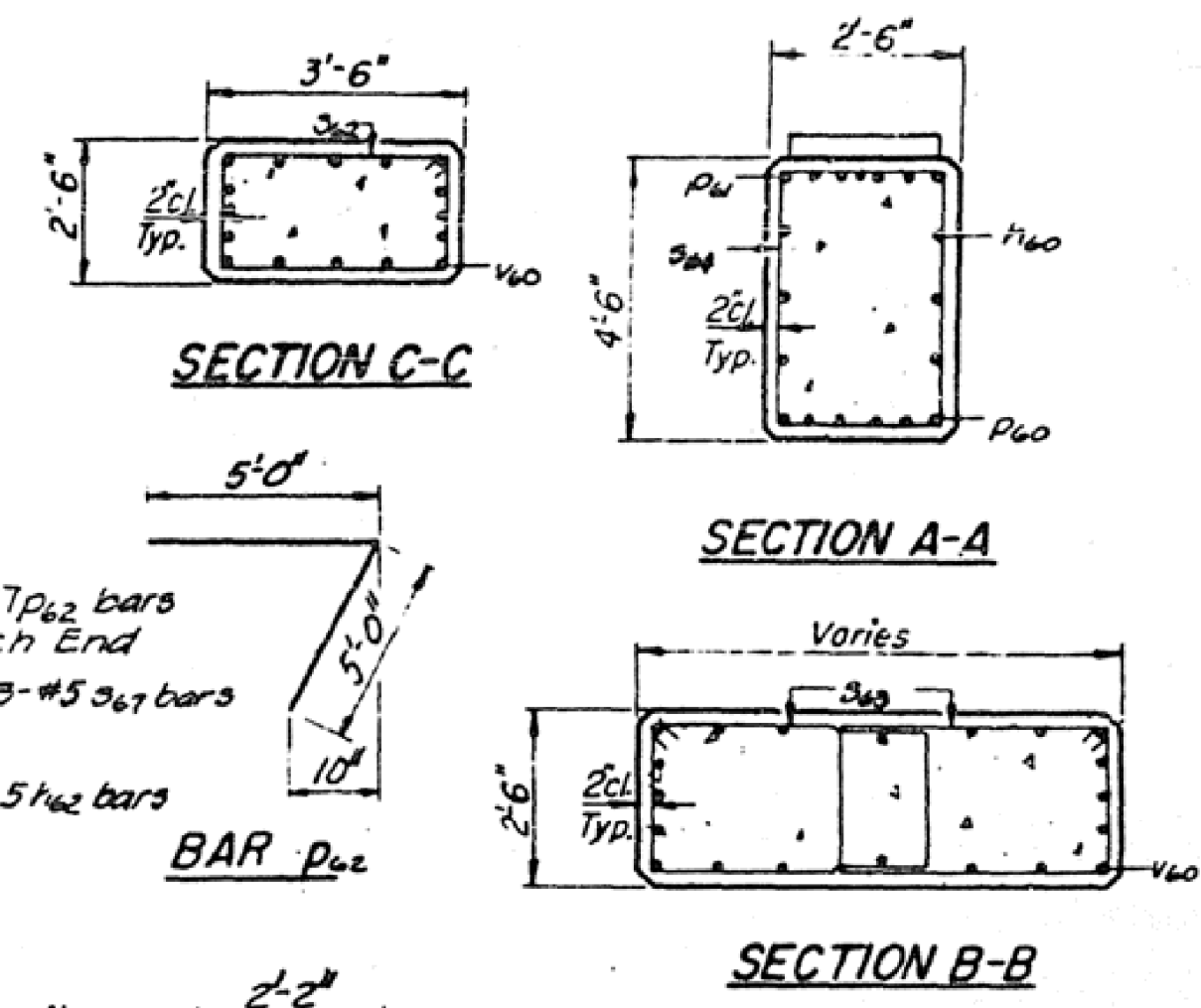
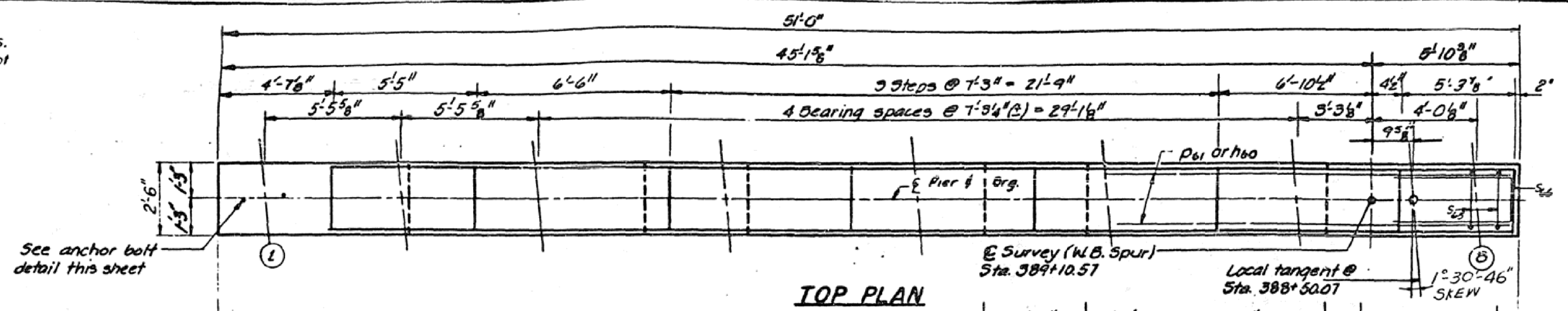
F.A.P. RTE. 323 SECTION (58-62-HB-2) BR MACON COUNTY TOTAL SHEETS 82 SHEET NO. 69
SN. 058-0106 (WB) & 0107 (EB) CONTRACT NO. 74605
STA. ILLINOIS FED. AID PROJECT

NOTES

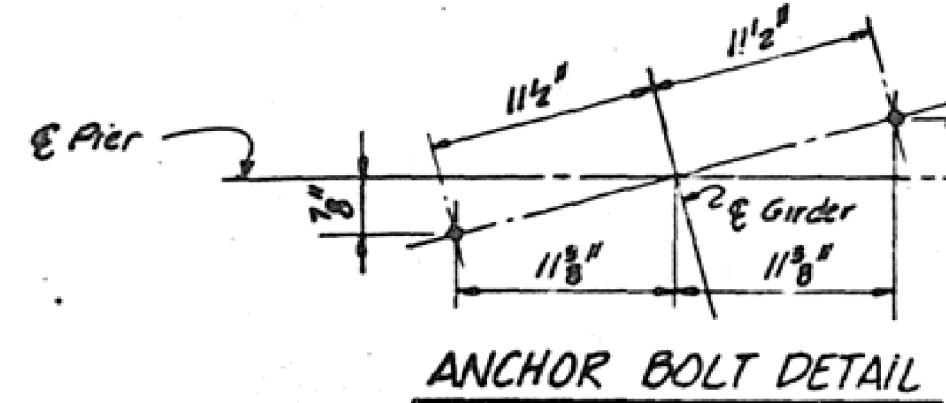
Space reinforcement in cap to miss anchor bolts.
All edges shall have standard chamfers except as noted.
Four steps monolithically with cap.

SHEET NO. 17 OF 33 SHEETS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62 NB-2	MACON	65	31A
FED. ROAD DIST. NO.	ILLINOIS PROJECT			



PILE DATA
Type Concrete
Capacity 58Tons
Est. Length 40'
No. Required 47 plus 1 Test Pile



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h60	12	#5	25'-10"	U
h61	5	#9	38'-7"	U
h62	3	#5	5'-0"	U
h63	9	#5	8'-6"	U
h64	3	#5	19'-8"	U
h65	20	#5	20'-9"	U
h66	3	#5	34'-0"	U
n60	40	#8	10'-2"	U
n61	39	#5	10'-0"	U
n62	32	#8	5'-0"	U
p60	6	#10	46'-6"	U
p61	7	#9	50'-6"	U
p62	16	#7	10'-0"	U
s60	39	#5	11'-2"	U
s61	10	#5	12'-2"	U
s62	24	#4	11'-5"	U
s63	48	#4	12'-11"	U
s64	36	#5	13'-7"	U
s65	14	#4	9'-2"	U
s66	8	#5	8'-10"	U
s67	3	#5	4'-3"	U
s68	12	#4	9'-6"	U
s69	14	#4	8'-0"	U
s70	14	#4	6'-0"	U
t60	49	#10	9'-3"	U
w60	72	#8	13'-9"	U
w61	16	#8	25'-0"	U

A & B DIMENSIONS

Bar	A	B
n61	2'-6"	3'-9"
s60	2'-6"	4'-4"
s61	2'-2"	5'-0"
s62	2'-2"	3'-6"
s63	2'-2"	3'-6"
s67	1'-9"	1'-3"
s68	1'-10"	3'-10"
s69	1'-10"	3'-1"
s70	1'-10"	2'-1"

PIER-W.B. SPUR

REVISIONS	DATE	INITIALS	DRAWN BY	DATE
1			JUN 1-78	
2			JCH 1-78	
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AS REVISED

Load Factor Design
f_c = 3500 p.s.i. f_y = 40,000 p.s.i.

As Revised 5-10-76 S.Y.K.

FILE NAME = I:\DDT\6008 - D7 Ver-Work Order 6 - Res 36 Bridge Plans\CADD_Structural\existplans.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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PLOT SCALE = 1:10000 1/4" = 1'

DESIGNED - JMB
CHECKED - ACB
DRAWN - RLK
CHECKED - JMB

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

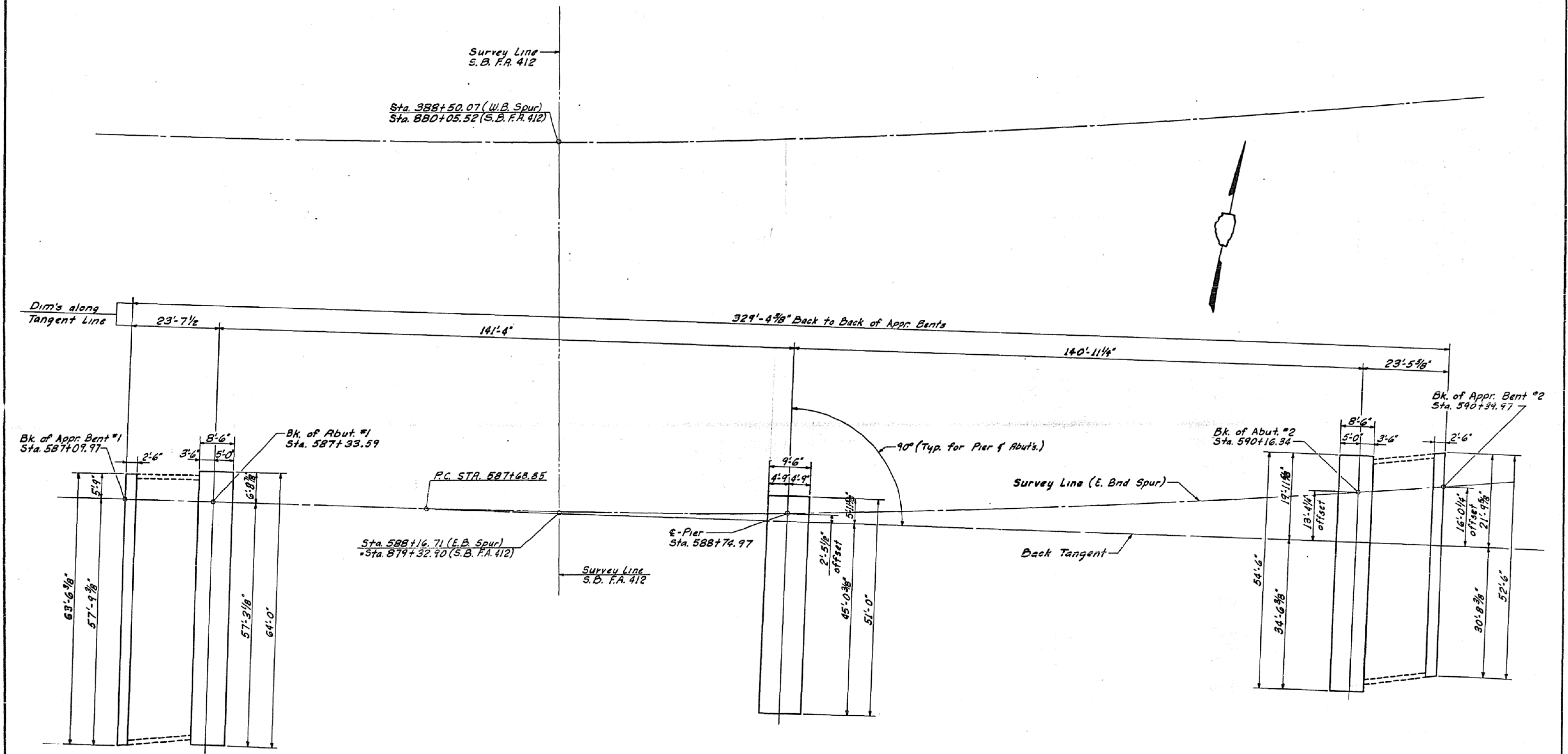
EXISTING PLANS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

SHEET NO. 51 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	70
	SN. 058-0106 (WB) & 0107 (EB)			
	STA.	ILLINOIS FED. AID PROJECT		

Sheet No. 18
of 35 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62 HB-2	MACON	61	32
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



-PLAN-

E BND SPUR
FOOTING LAYOUT

REVISIONS		DESIGNED BY DATE
NO.	DATE	T.J.F. 12/27
1		CHECKED BY DATE
2		J.W.G. 1/75
3		PROJECT NO.
4		2069-B
5		SHEET NO.
6		32
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FILE NAME = I:\1001\6008 - D7 Ver. Work Order - Rte 36 Bridge Plans\CADD_Structural\existplans.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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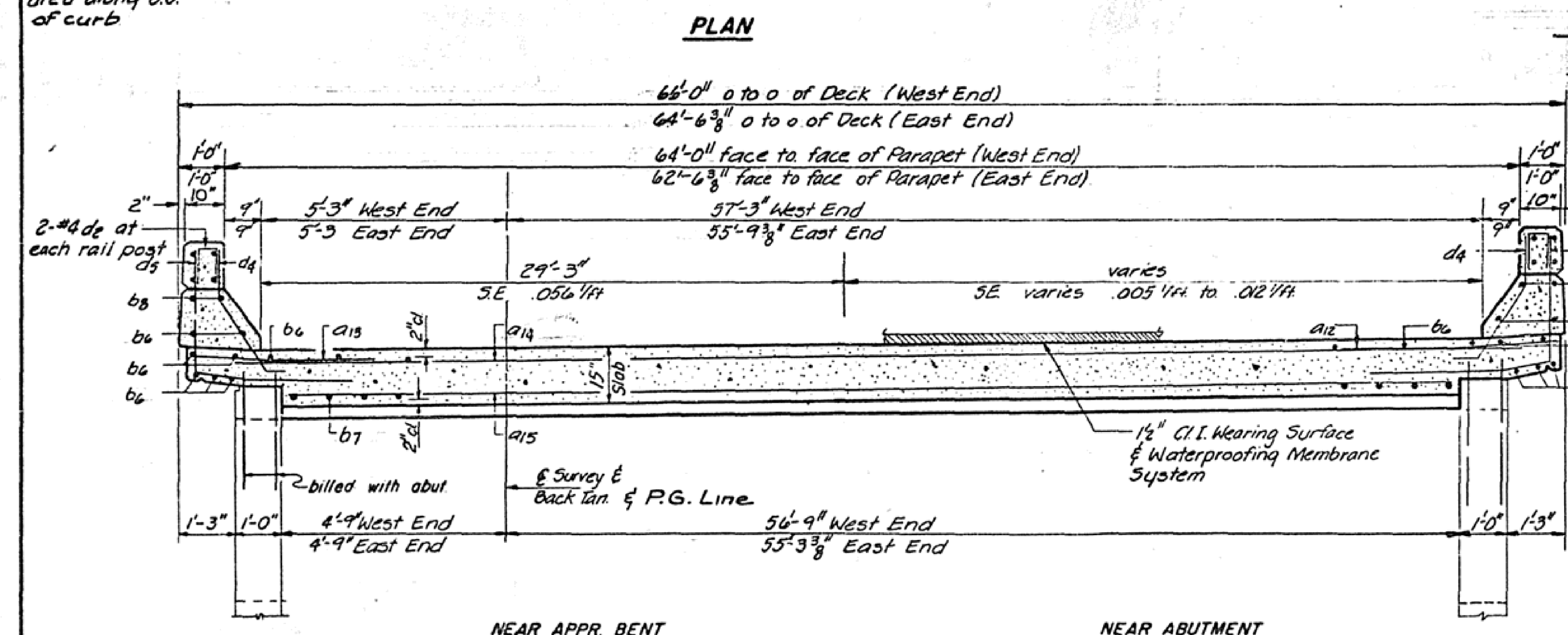
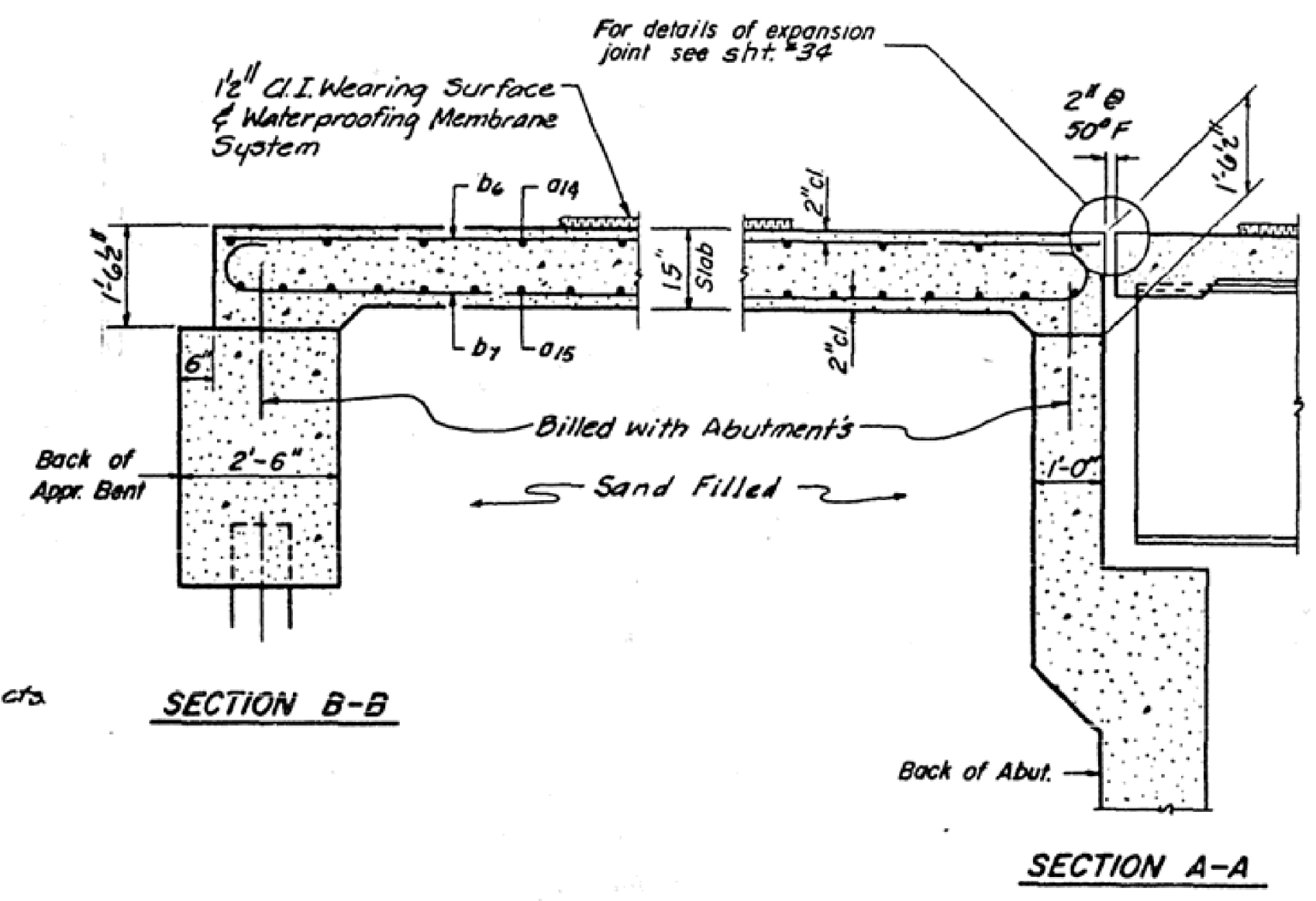
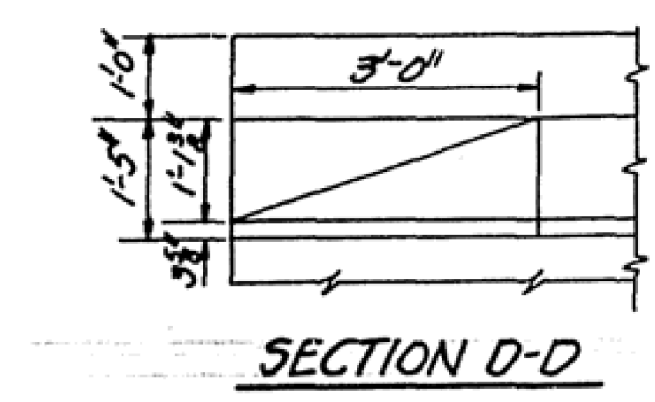
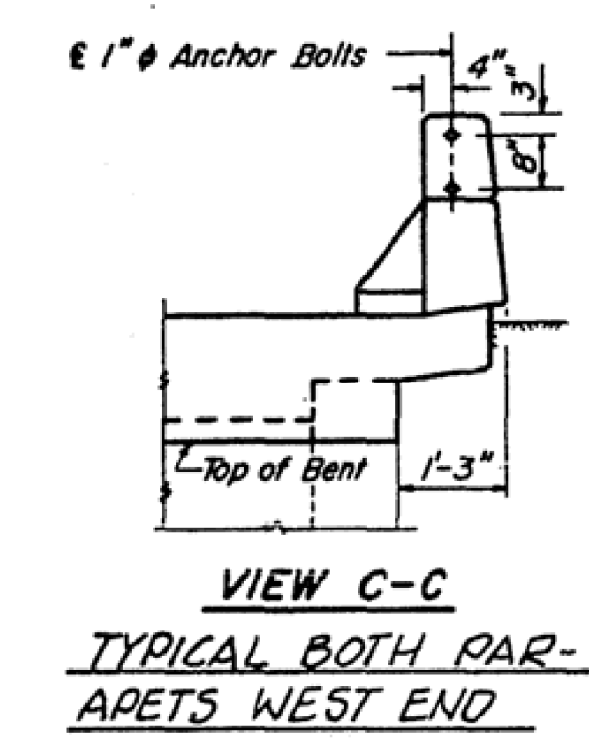
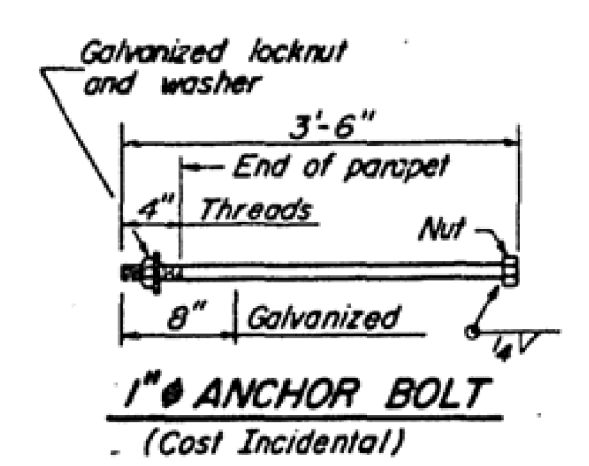
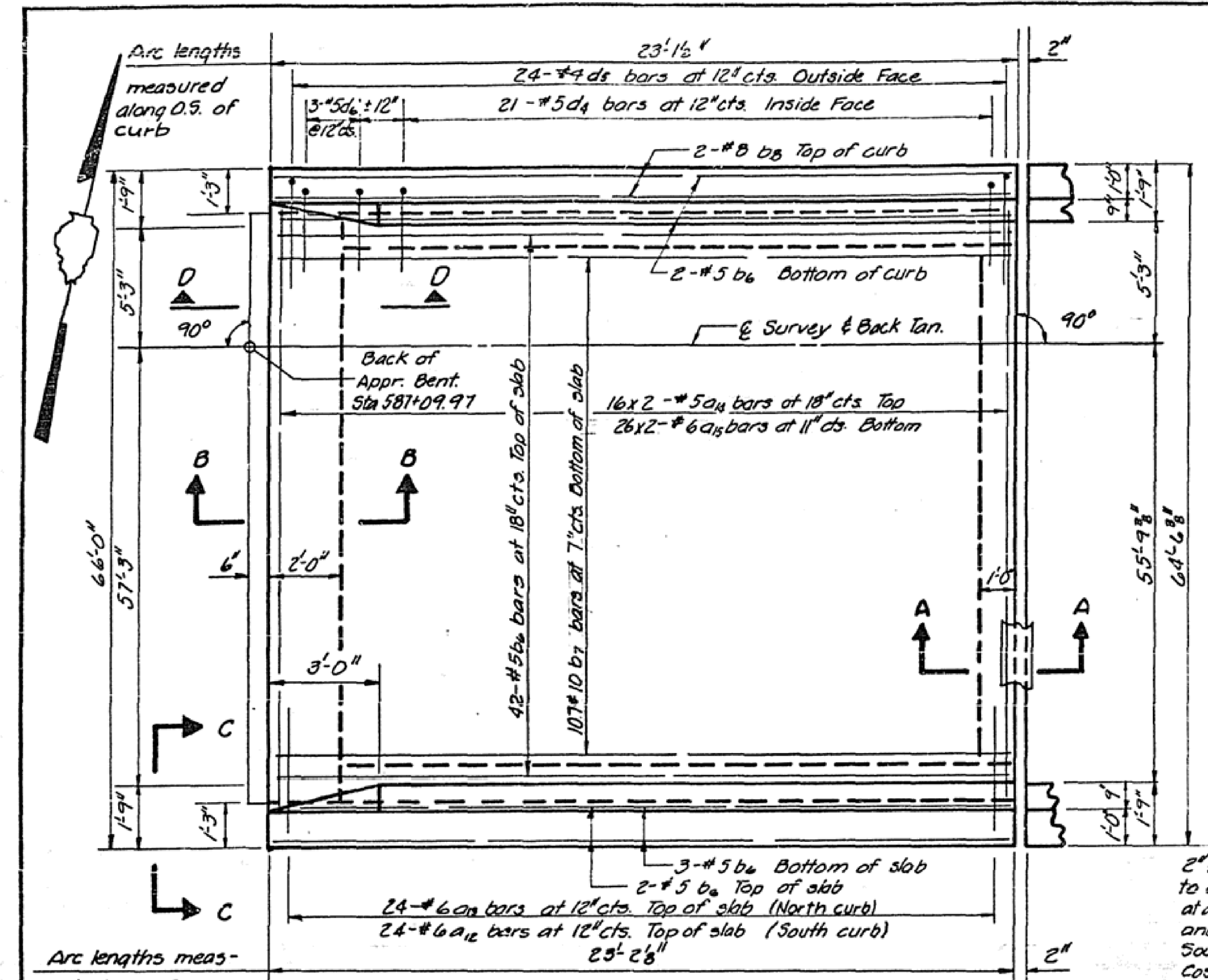
DESIGNED - JMB
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DRAWN - RLK
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

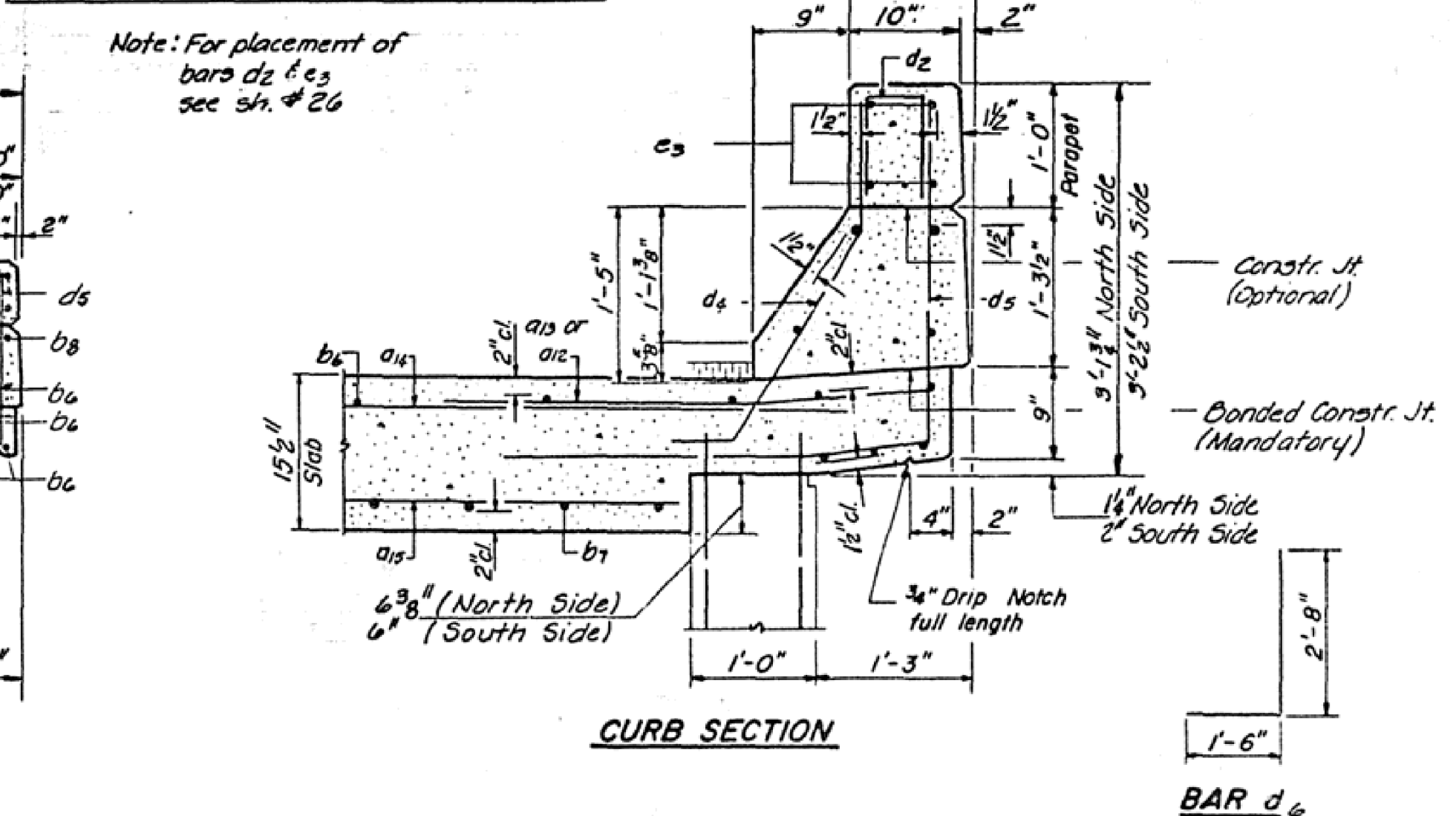
EXISTING PLANS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)
SHEET NO. 52 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	71
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.		ILLINOIS FED. AID PROJECT		



ELECTRICAL CONDUIT LOCATION

Note: For placement of bars d2 & e3 see sh. # 26

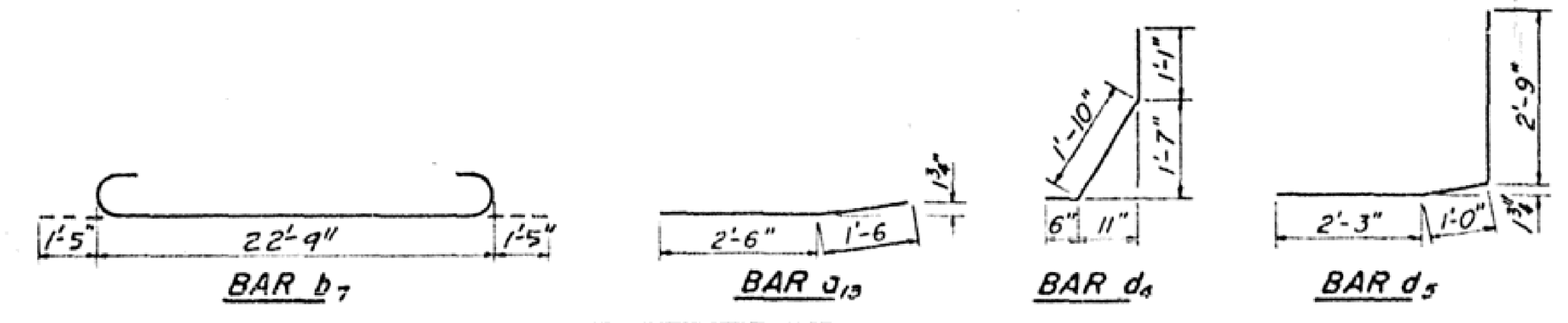


ONE APPR. SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a15	24	#6	4'-0"	—
a14	32	#5	32'-8"	—
a15	52	#6	31'-6"	—
a12	24	#6	4'-0"	—
b6	56	#5	22'-9"	—
b7	107	#10	25'-7"	C
b8	4	#8	22'-9"	—
d4	42	#5	3'-5"	J
d5	48	#4	6'-0"	J
d6	6	#5	4'-2"	J

* Reinforcement Bars Lbs 17,560
* Class X Concrete Cu Yds 72.8

*Parapet Reinforcement and Class X Concrete are billed on sheet # 26



REVISIONS		DATE	BY	REASON
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SUPERSTRUCTURE - SPAN 1 EB

EB SPUR & WB SPUR OVER FA-112
FAI-72 SEC. 58-62 HB-2 PROJ.
STA 589+28.50 (E.S. SPUR) MACON CO.

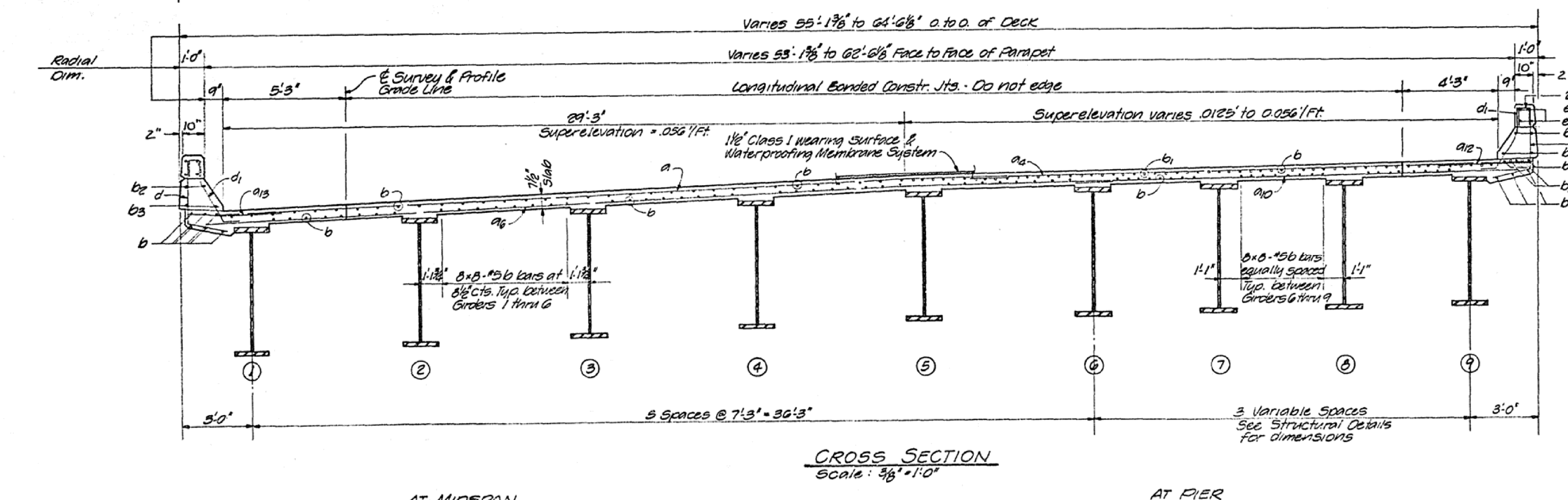
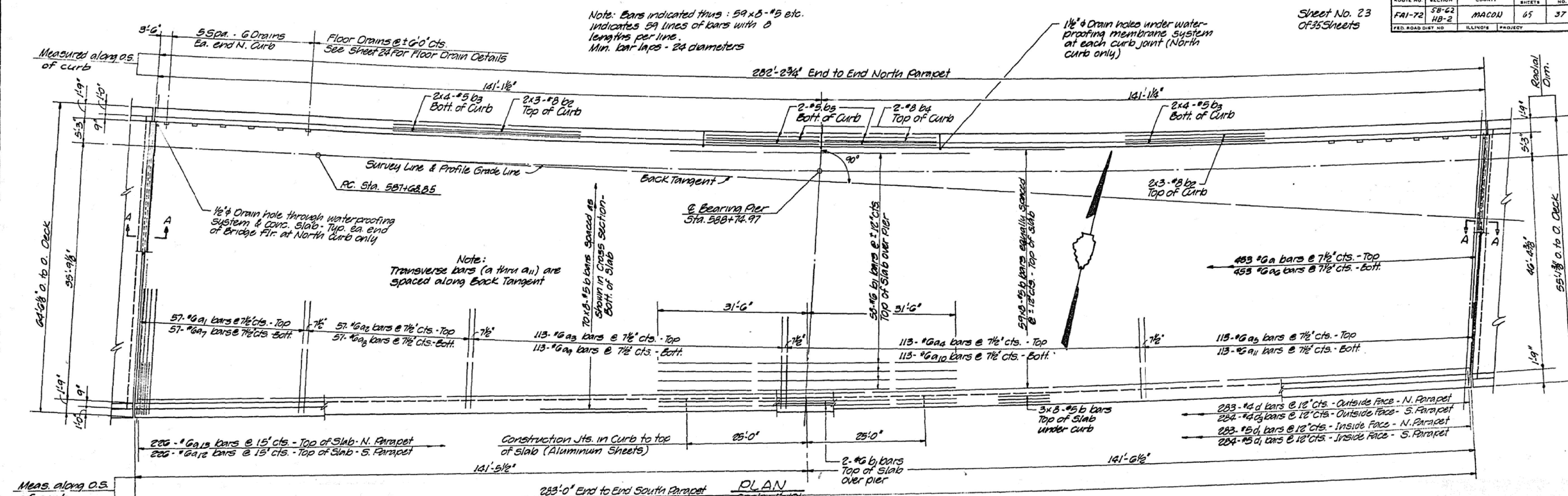
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR ILLINOIS

PROJECT NO. 2469-3
SHEET NO. 36

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Sheet No. 23
Of 35 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62	MACON	65	37
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



Note: For placement of bars d2 & e thru e2 see Sheet No. 26

Note: See Sheet 24 For Section A-A, Details & Bill of Material.

REVISIONS		ISSUED BY	DATE
1		JLH	11-74
2		REB	1-78
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E. B. SPUR #1 W.B. SPUR OVER FA 412
FAI 72 SEC 58-62 HB-2 BR
STA 589+28.50 (E.B. SPUR) MACON CO

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

2409-3

37

FILE NAME = I:\DOT\6008 - D7 Ver. Work Order 6 - Res 36 Bridge Plans\CADD_Structural\existplans.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

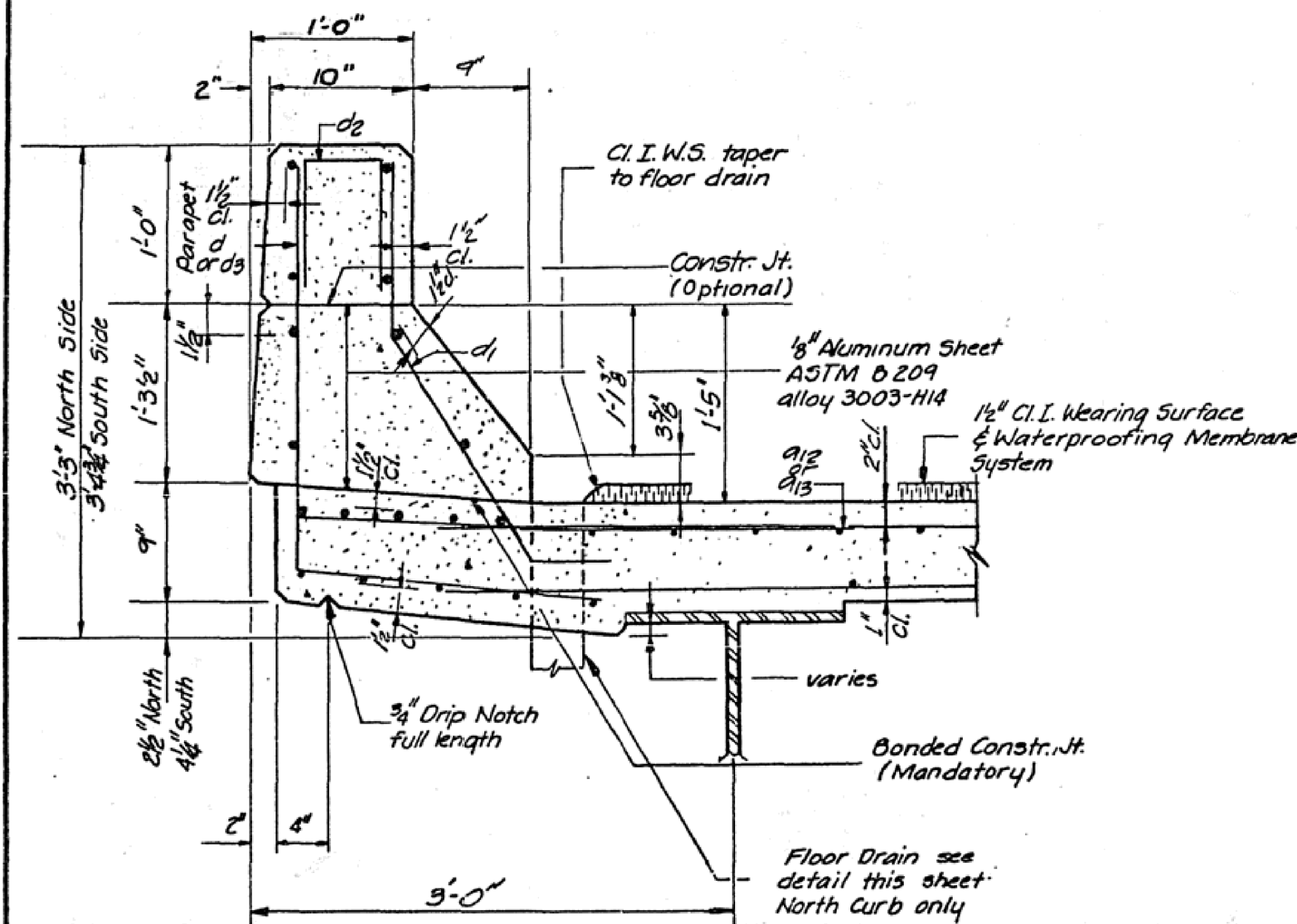
EXISTING PLANS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

SHEET NO. 54 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	73
SN. 058-0106 (WB) & 0107 (EB)				CONTRACT NO. 74605
STA.		ILLINOIS	FED. AID PROJECT	

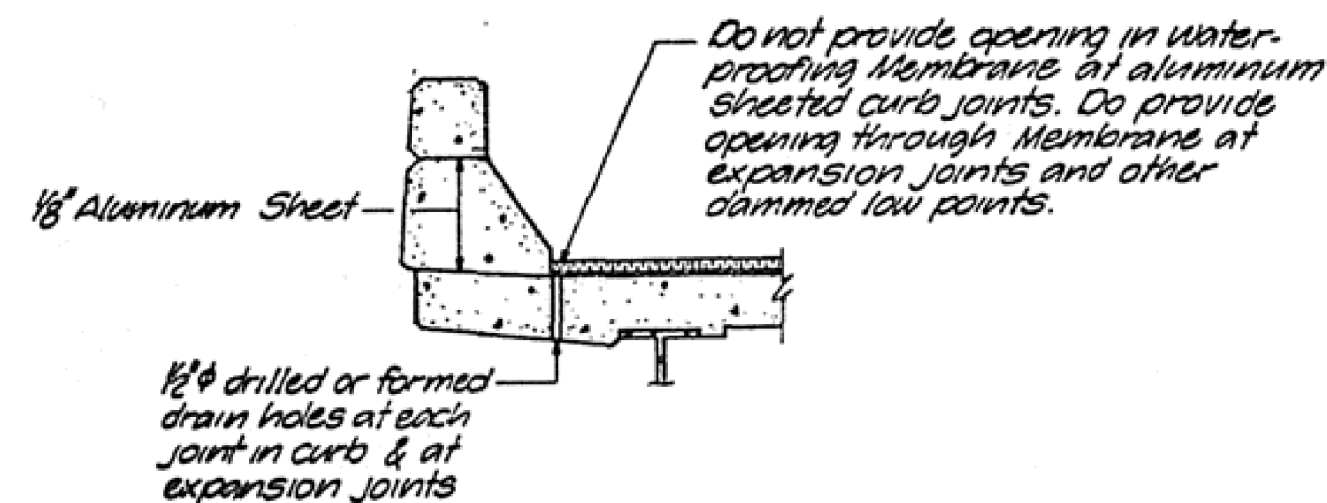
Sheet No. 24
of 35 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62 118-2	MACON	65	38
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

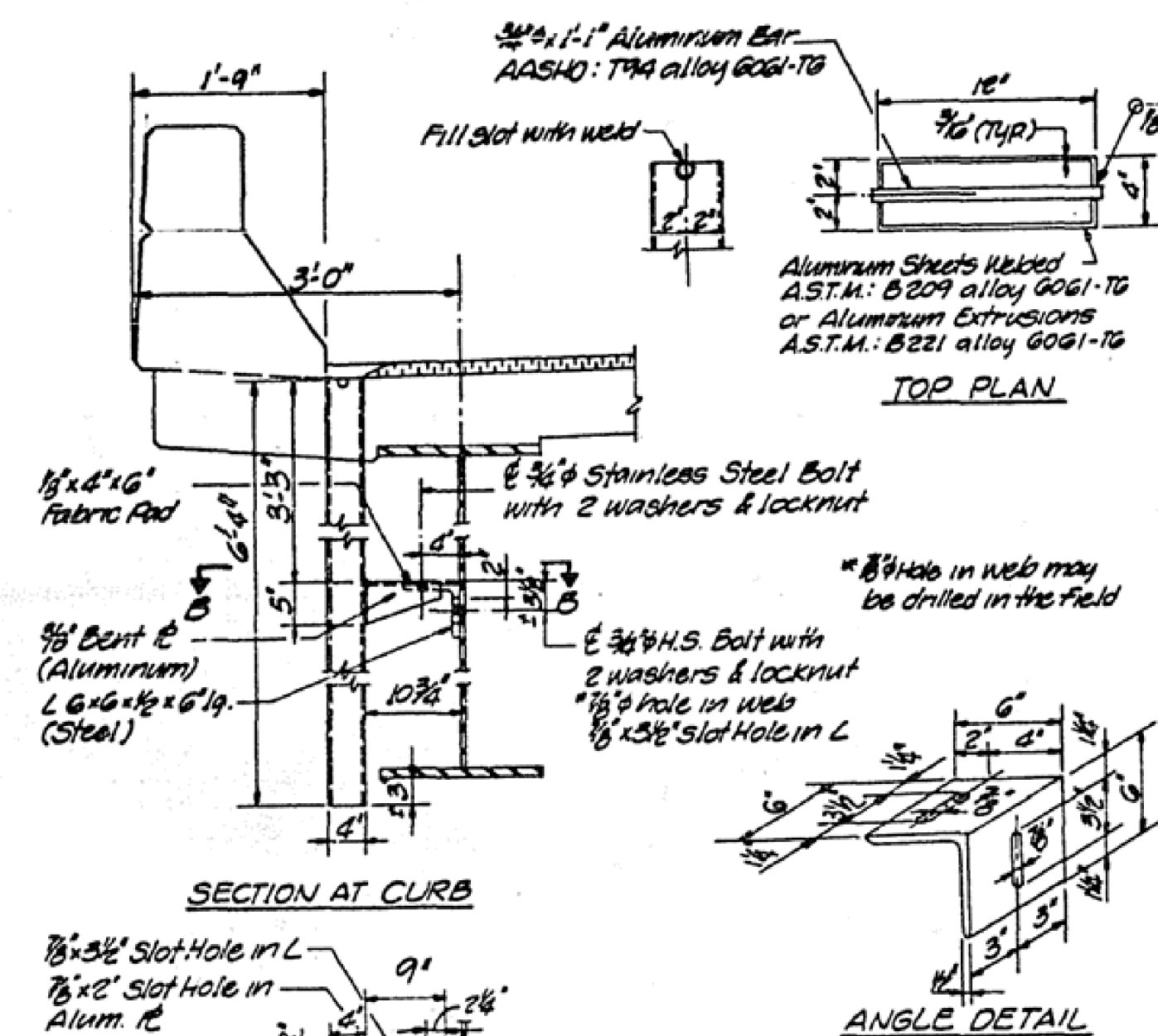


CURB SECTION

Cost of Aluminum sheets shall be incidental to Class X Concrete



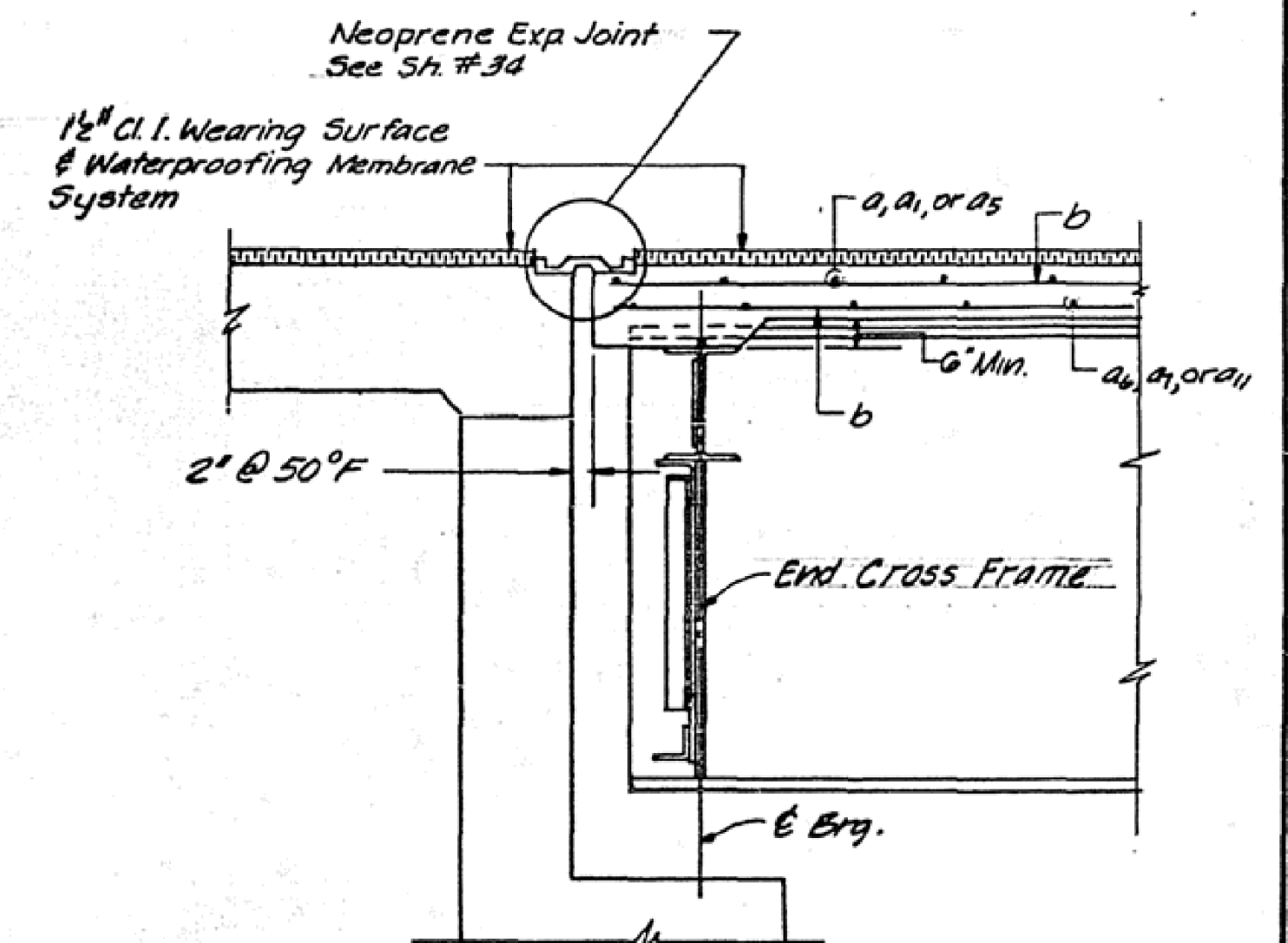
SECTION AT NORTH CURB



DETAILS OF GIRDER DRAIN EXTENSION

Cost of Drains is incidental to Class X concrete

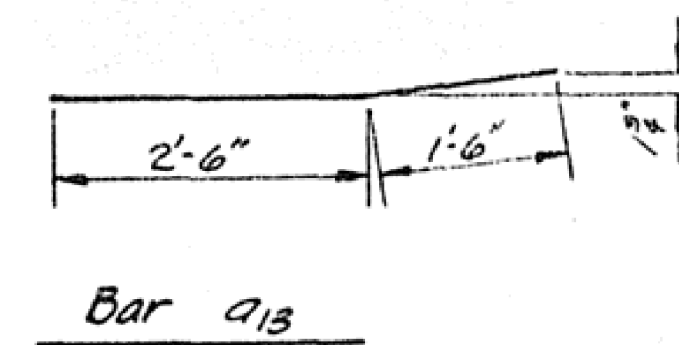
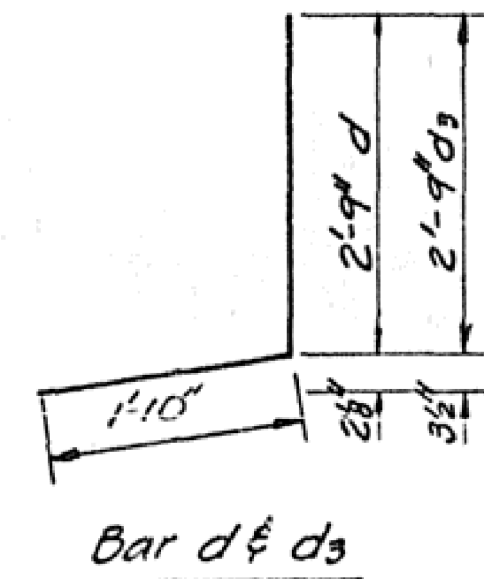
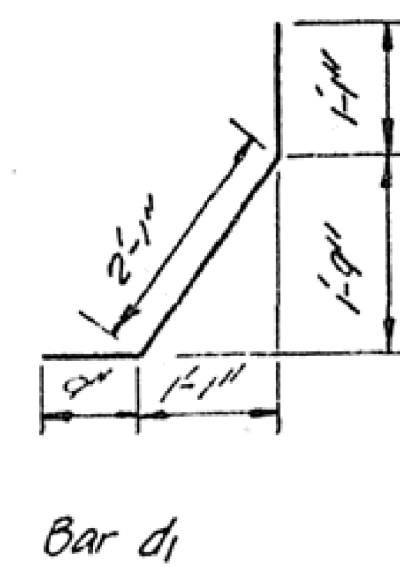
* The lengths and quantities of longitudinal reinf. & CI x concrete in parapets are not included in these quantities See Sh. # 26



SECTION A-A

BILL OF MATERIAL

BAR NO.	SIZE	LENGTH	SHAPE
a	453	36'-0"	---
a1	57	25'-11"	---
a2	57	26'-9"	---
a3	113	21'-6"	---
a4	113	20'-3"	---
a5	113	19'-0"	---
a6	453	39'-6"	---
a7	57	22'-5"	---
a8	57	21'-3"	---
a9	113	18'-0"	---
a10	113	16'-9"	---
a11	113	15'-6"	---
a12	226	4'-0"	---
a13	226	4'-0"	---
b	1080	36'-9"	---
b1	62	63'-0"	---
b2	24	40'-0"	---
b3	32	30'-0"	---
b4	8	24'-8"	---
b5	8	24'-8"	---
d	283	4'-7"	---
d1	507	3'-11"	---
d3	284	4'-7"	---
* Class X Concrete			cu yds. 849.8
* Reinforcement Bars			lbs. 136,620
* Neoprene Exp. Jt. (2")			lin. ft. 117



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JWN	10-18
CHECKED BY DATE	
RES	1-75
PROJECT NO.	
2469-3	
SHEET NO.	
38	

SUPERSTRUCTURE-DETAILS - E.B.

E.B. SPUR & W.O. SPUR OVER FAI 412
FAI-72 SEC. 58-62 HB-2 PROJ.
STA. 58+28.50 (E.B. SPUR) MACON, GA

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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PLOT DATE = 1/11/2018

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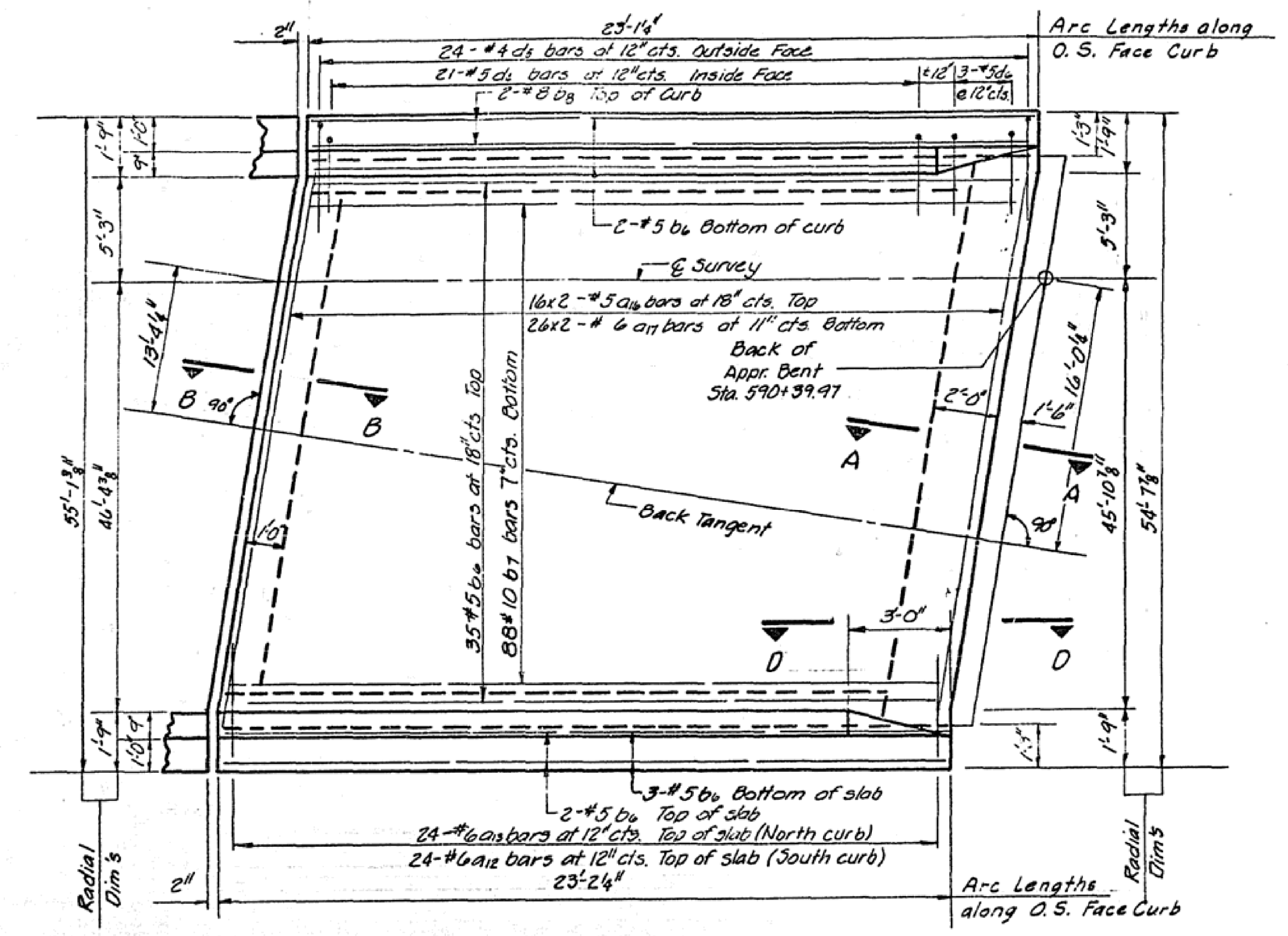
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)

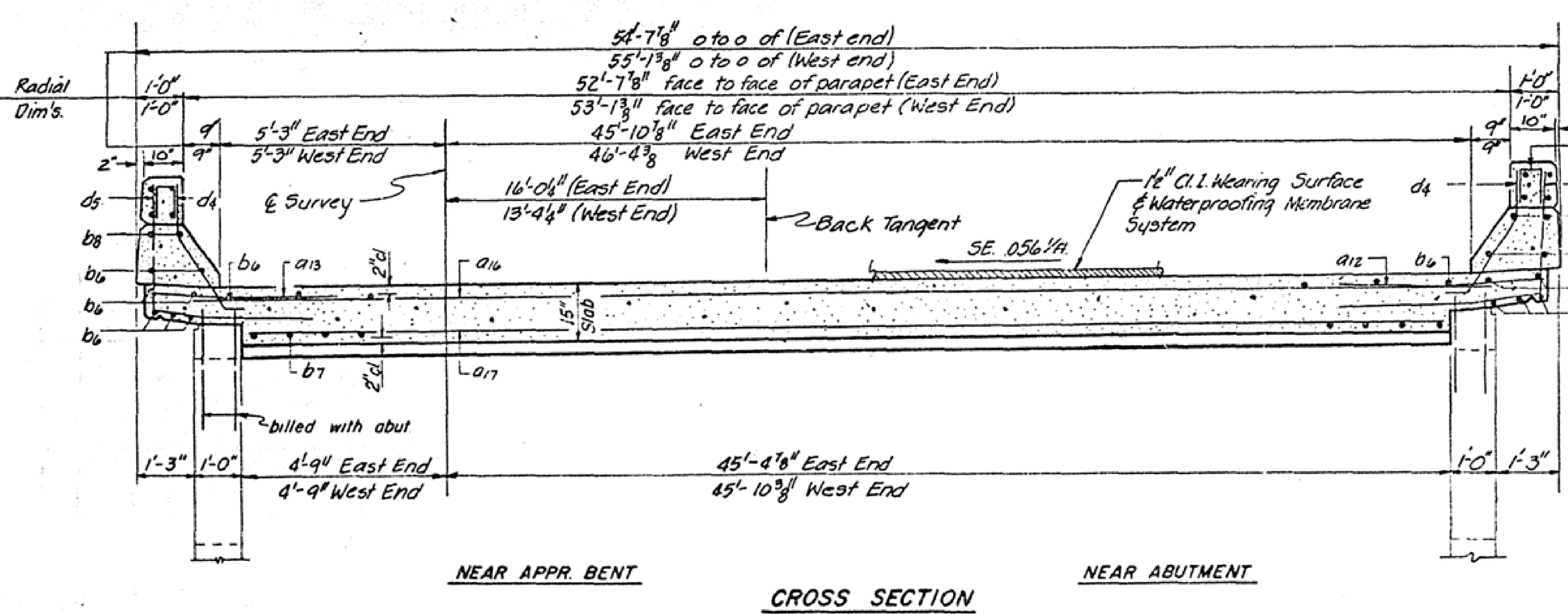
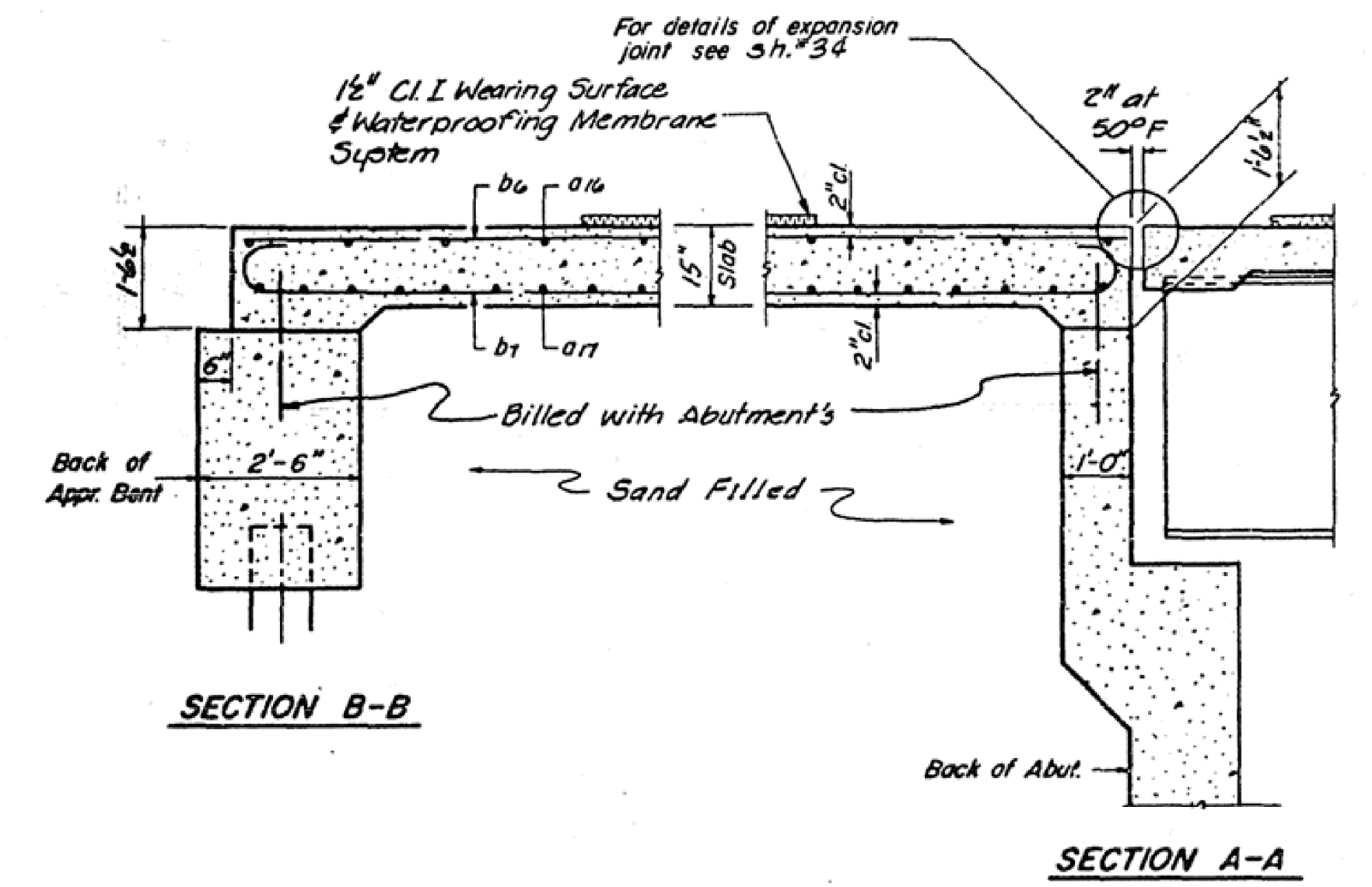
SHEET NO. 55 OF 63 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(58-62-HB-2) BR	MACON	82	74
SN. 058-0106 (WB) & 0107 (EB)			CONTRACT NO. 74605	
STA.		ILLINOIS FED. AID PROJECT		

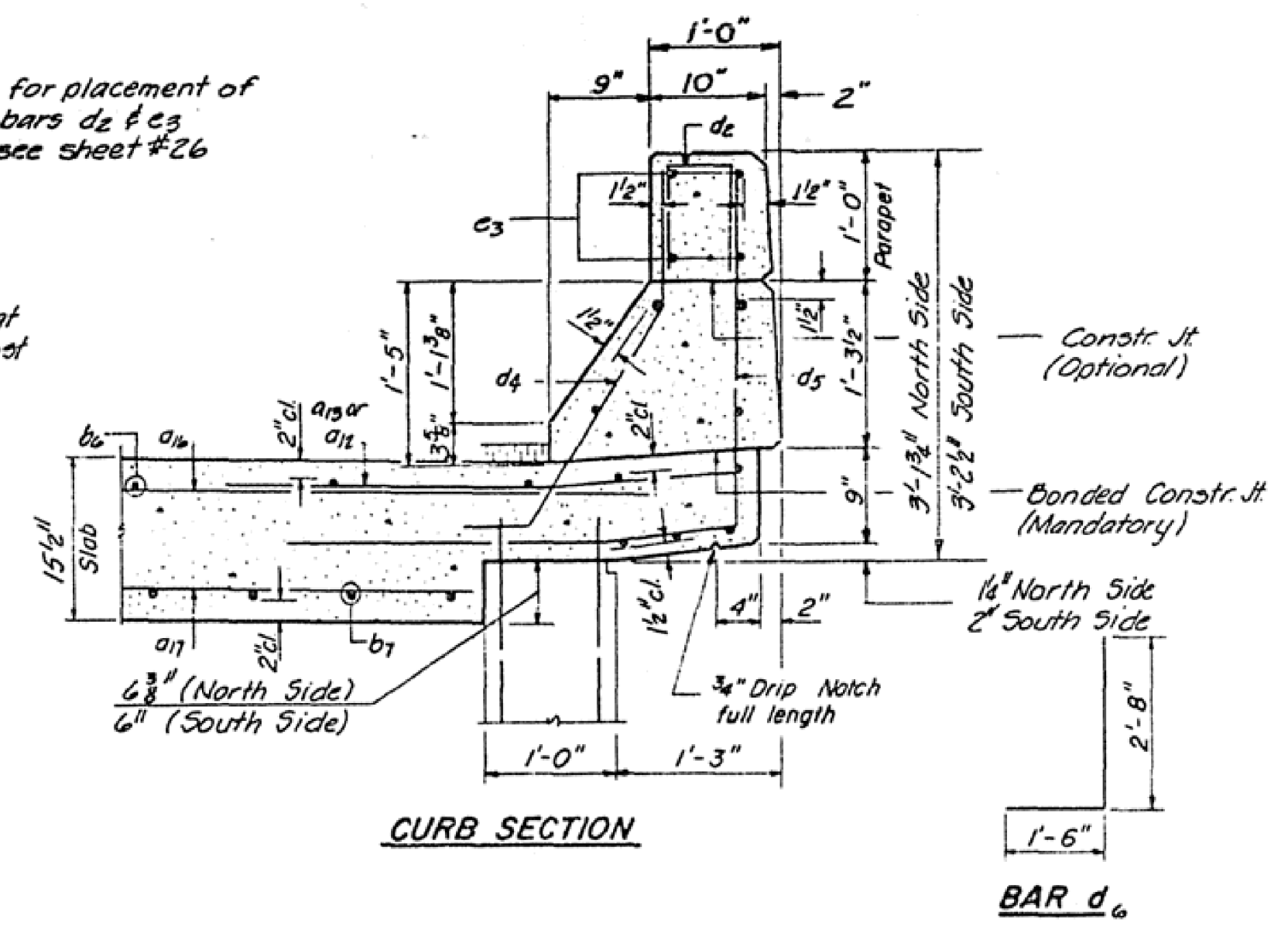
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	5B-62	MACON	65	39
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



Note: See superstructure span I.E.B. for location and details of electrical conduit and section D-D.



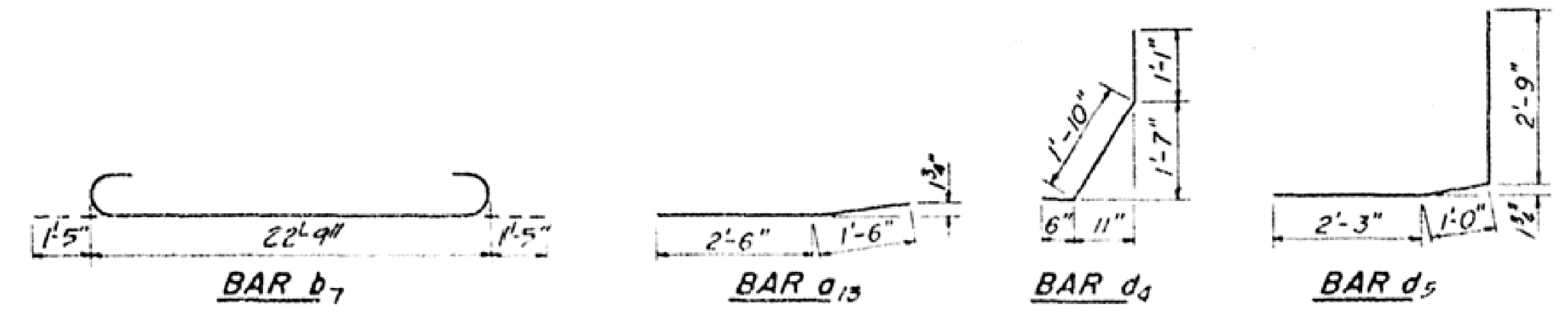
Note: for placement of bars d2 & d3 see sheet #26



ONE APPR. SLAB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a13	24	#6	4'-0"	
a14	32	#5	27'-3"	
a17	52	#6	26'-7"	
a12	24	#6	4'-0"	
b6	49	#5	22'-9"	
b7	88	#10	25'-7"	
b8	4	#8	22'-9"	
d4	42	#5	3'-5"	
d5	48	#4	6'-0"	
d6	6	#5	4'-2"	
* Reinforcement Bars				Lbs 19,690
* Class X Concrete				Cu Yds 61.3

* Parapet Reinforcement and Class X Concrete are billed on sheet # 26

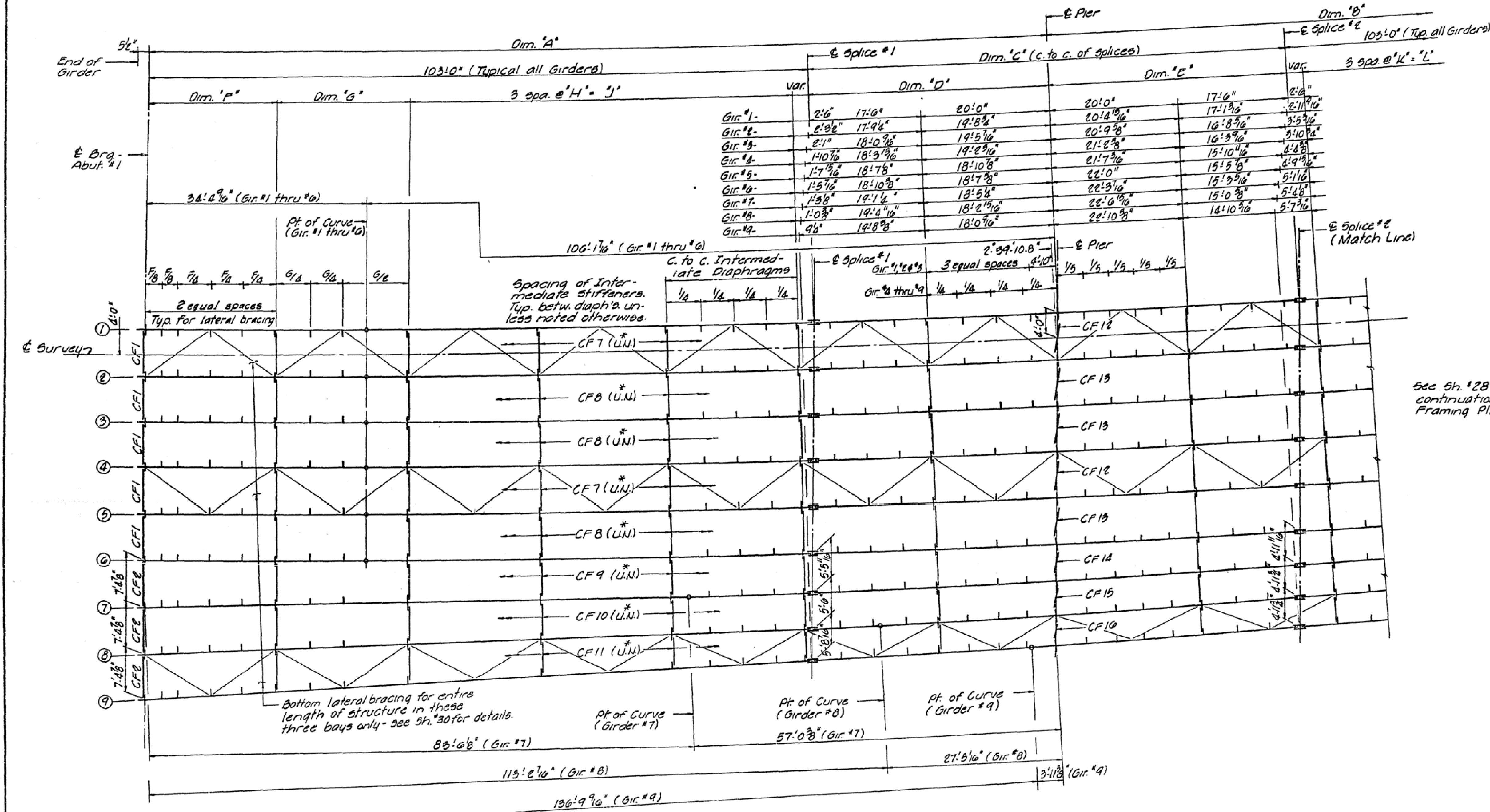


REVISIONS		SUPERSTRUCTURE - SPAN 4 EB	
NO.	DESCRIPTION	DATE	BY
1	AS SHOWN	12-14	JWN
E.B. SOUR & WB. SPUR OVER FA-112		PROJECT NO. 2469-3	
FAI 72 SEC 5B-62 HB-2 PROJ		STATION 589+28.50 (E.B. SOUR) MACON COUNTY	
HOMER L. CHASTAIN & ASSOCIATES		CONSULTING ENGINEERS	
DECATUR, ILLINOIS		SHEET NO. 39	

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62	MACON	65	71
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

Sheet No 27
of 35 Sheets



See Sh. #28 for continuation of Framing Plan.

FRAMING PLAN
Girders #1 thru #6 are to be spaced on 7'-5" cts. radially.
Girders #7, #8 & #9 are to be spaced as shown on Plans.
Girders are to be fabricated according to their respective radii (see Table on Sh. #28).
All longitudinal dim's shown on Plans are along C of Girders.

* U.N. indicates Unless Noted

E. BND. SPUR

STRUCTURAL STEEL

REVISIONS	DATE	BY
1	REB 12-76	JWC
2	JWC 1-77	

E.B. SPUR & W.B. SPUR OVER FA. LIE
FA. LIE BCC. 58-62 HB-2 PROJ.
STA. 589+88.50 (E.B. SPUR) MACON CO.

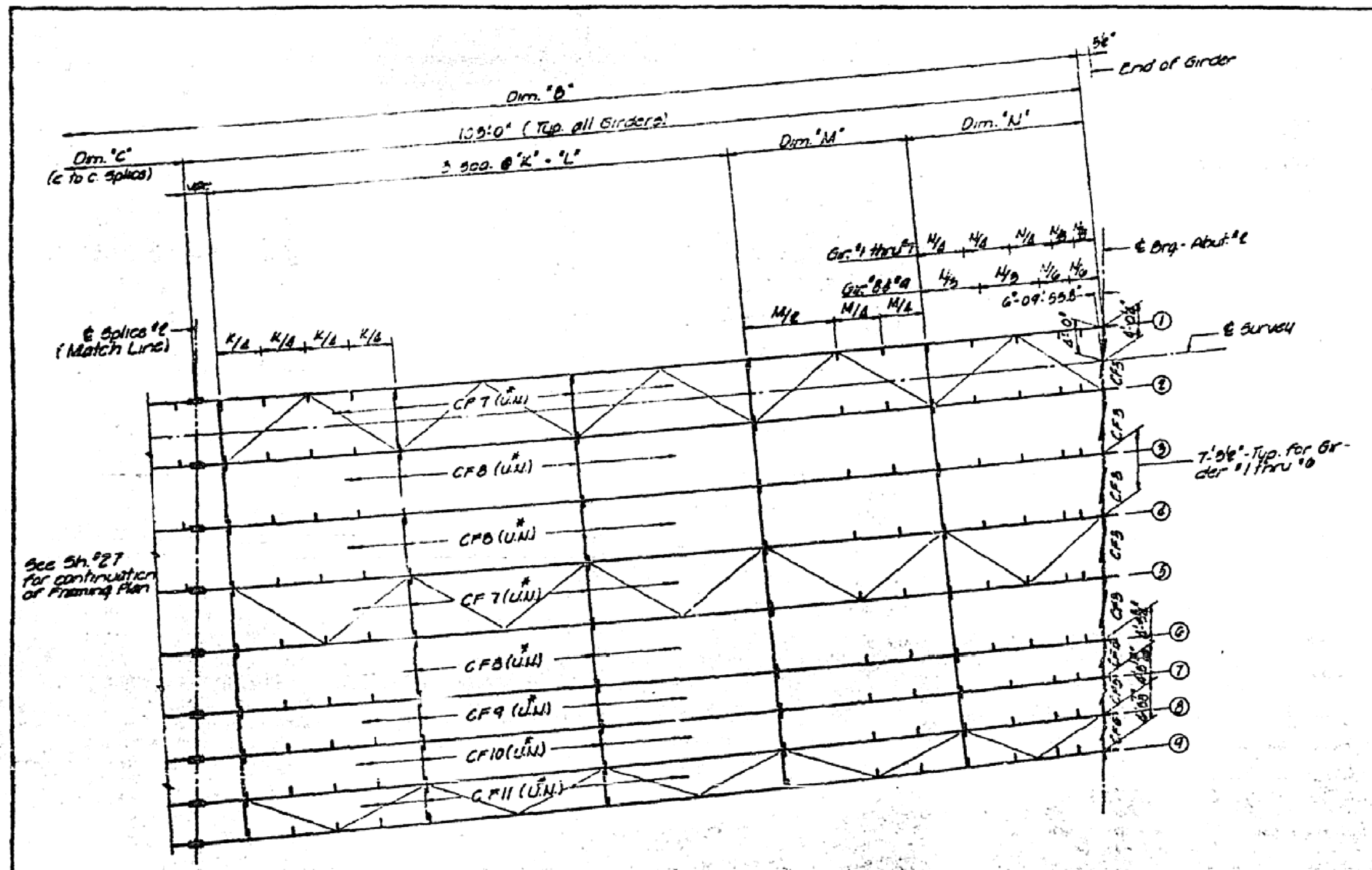
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

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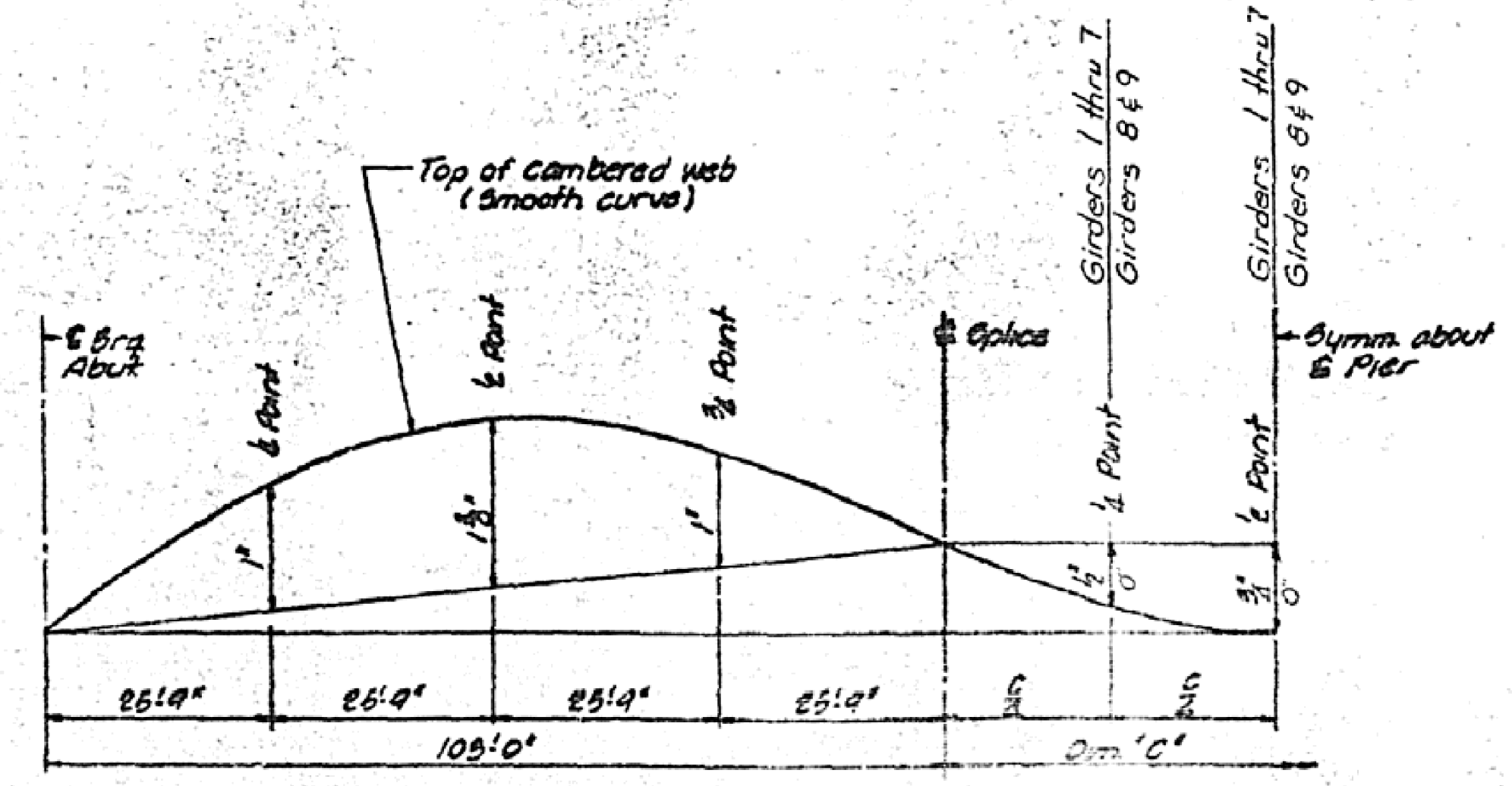
Sheet 44 of 35 Sheets

DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11-23	18-23	MACON	61	421



PART FRAMING PLAN

* U.M. indicates Unless Noted



NO LOAD CAMBER DIAGRAM

AS REVISED

As Revised 9-11-75 L.W.

TABLE OF DIMENSIONS

Girder Dimension	#1	#2	#3	#4	#5	#6	#7	#8	#9
Radius (E Gir)	2287.85'	2295.08'	2302.25'	2309.25'	2316.05'	2322.08'	2327.95'	2333.60'	2339.78'
Overall Length	281'11"	281'11"	281'0 3/4"	281'10 3/4"	281'10 3/4"	281'10 3/4"	282'0 1/2"	282'2 1/4"	282'2 3/4"
A	140'6"	140'6"	140'6"	140'6"	140'6"	140'6"	140'6 1/2"	140'7 1/2"	140'8 1/2"
B	140'6"	140'6"	140'5 1/2"	140'5 1/2"	140'5 1/2"	140'5 1/2"	140'5 1/2"	140'7 1/2"	140'8 1/2"
C	75'0"	75'0"	74'11 1/2"	74'11 1/2"	74'11 1/2"	74'11 1/2"	75'1 1/4"	75'0 3/4"	75'0 3/4"
D	97'6"	97'6"	97'6"	97'6"	97'6"	97'6"	97'6 1/2"	97'7 1/2"	97'8 1/2"
E	97'6"	97'6"	97'5 1/2"	97'5 1/2"	97'5 1/2"	97'5 1/2"	97'6 1/2"	97'7 1/2"	97'8 1/2"
F	20'5"	20'5"	20'5"	20'5"	20'5"	20'5"	20'5 1/2"	20'5 1/2"	20'5 1/2"
G	20'5"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"
H	20'0"	20'0 1/2"	20'0 1/2"	20'0 1/2"	20'0 1/2"	20'0 1/2"	20'0 1/2"	20'0 1/2"	20'0"
J	60'0"	60'2 1/4"	60'2 1/4"	60'2 1/4"	60'2 1/4"	60'2 1/4"	61'1 1/2"	61'5 1/2"	61'6"
K	20'0"	20'0 1/2"	20'1 1/4"	20'2 1/4"	20'3 1/4"	20'4 1/4"	20'5 1/4"	20'6 1/4"	20'5 1/2"
L	50'0"	50'2 1/4"	50'2 1/4"	50'2 1/4"	50'2 1/4"	50'2 1/4"	51'0 1/2"	51'2 1/2"	51'5 1/2"
M	20'5"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'5 1/2"	20'7 1/2"	20'7 1/2"	20'8 1/2"
N	20'5"	19'9 1/2"	19'9 1/2"	19'1 1/2"	17'4 1/2"	16'7 1/2"	16'2 1/2"	15'9 1/2"	15'4 1/2"

TOP OF WEB ELEVATIONS (For fabrication only)

Girder Location	#1	#2	#3	#4	#5	#6	#7	#8	#9
E Brg. Abut #1	649.21	649.62	649.02	648.23	648.74	648.83	648.98	649.07	649.17
E Splice #1	649.05	649.45	649.85	648.87	648.60	649.05	649.31	649.52	649.21
E Brg. Pier	649.40	649.91	649.71	648.12	648.53	648.95	649.29	649.52	649.81
E Splice #2	649.88	649.29	649.70	649.10	648.52	648.95	649.27	649.52	649.81
E Brg. Abut #2	649.59	649.00	649.41	649.81	649.22	648.63	648.07	649.11	649.55

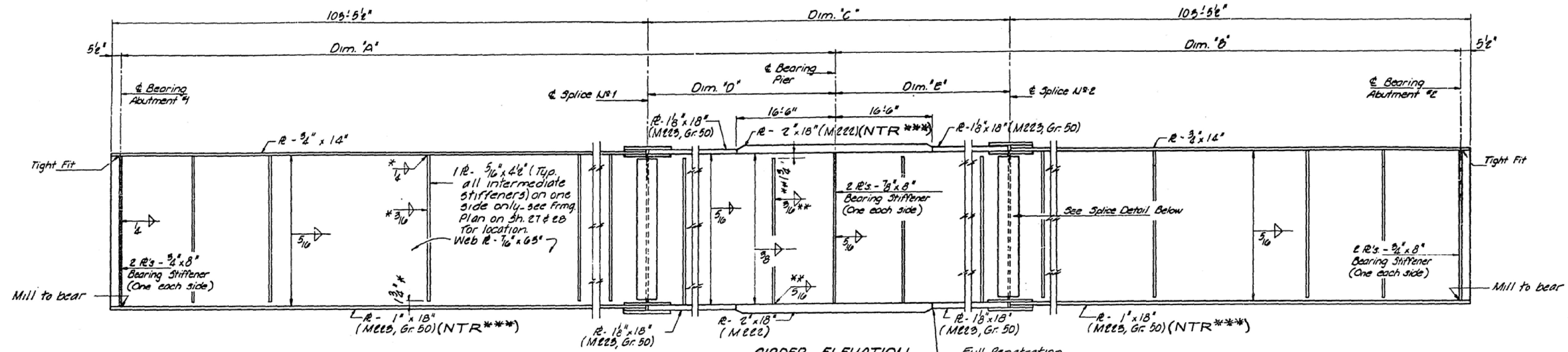
F.A.U.D. SPUR

REVISIONS		DATE	BY
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CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

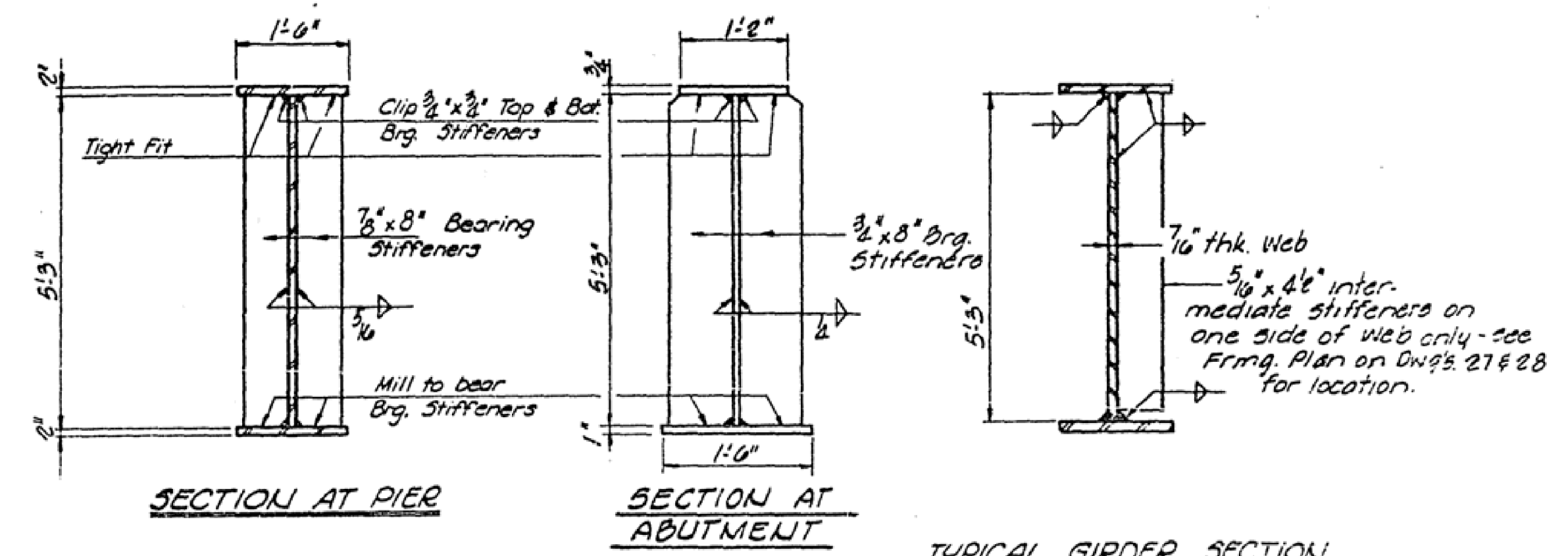
FILE NAME = I:\DOT\6008 - D7 Ver. Work Order 6 - Res 36 Bridge Plans\CADD_Structural\exstplans.dgn

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-72	58-62	MACON	69	43
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

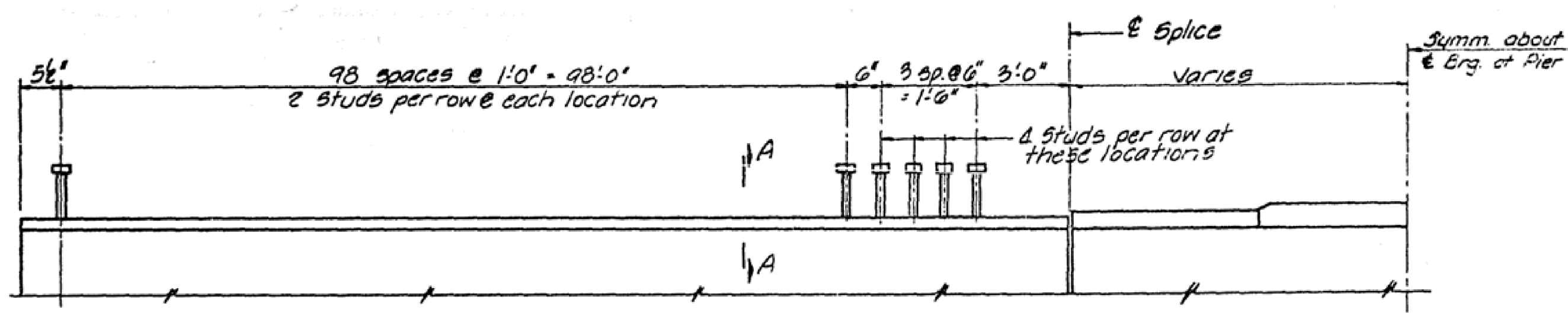


* - Typical for all intermediate stiffeners between end brg. & splices.
 ** - Typical for all intermediate stiffeners between splices.
 *** - Notch Toughness Requirement

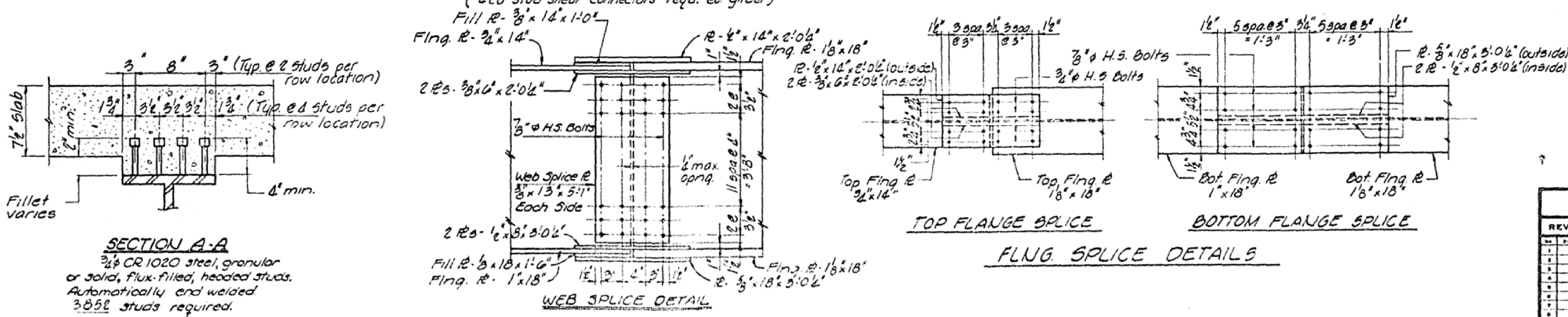
GIRDER ELEVATION
 Note: Unless otherwise noted, all structural steel shall be AASHTO M183.



TYPICAL GIRDER SECTION
 See Elev. of Girder for Flng. R and weld sizes.



SHEAR CONNECTOR ELEVATION



SECTION A-A
 3/8 CR 1020 steel, granular or solid, flux-filled, headed studs. Automatically end welded. 3052 studs required.

REVISIONS		DATE	INITIALS
1		REV 12-72	
2		JWG 1-73	

STRUCTURAL STEEL

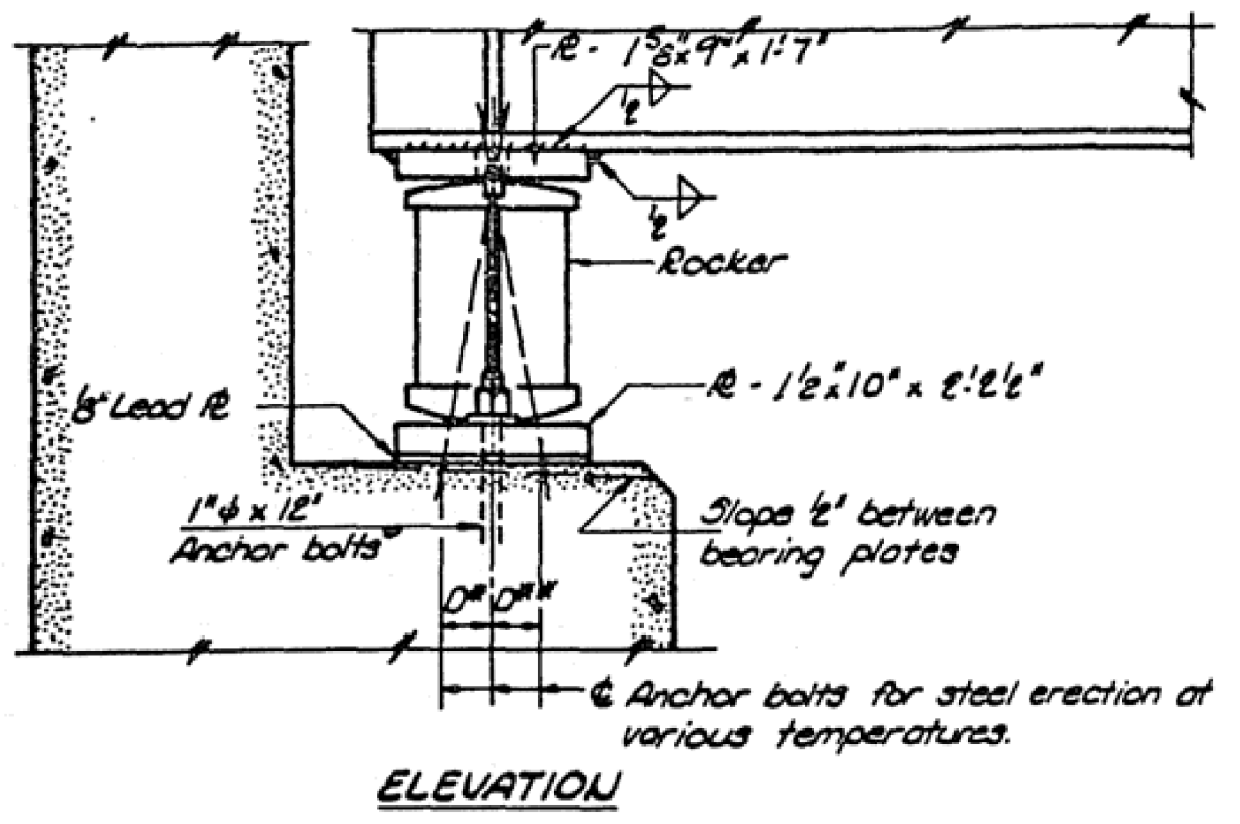
E.B. 50UR & WB 50UR OVER FA 11E
 FAI 72 SEC. 58-62 WB 2 PROJ
 STA. 58+00 TO 58+60 (E.B. 50UR) MACON CO.

HOMER L. CHASTAIN & ASSOCIATES
 CONSULTING ENGINEERS
 DECATUR, ILLINOIS

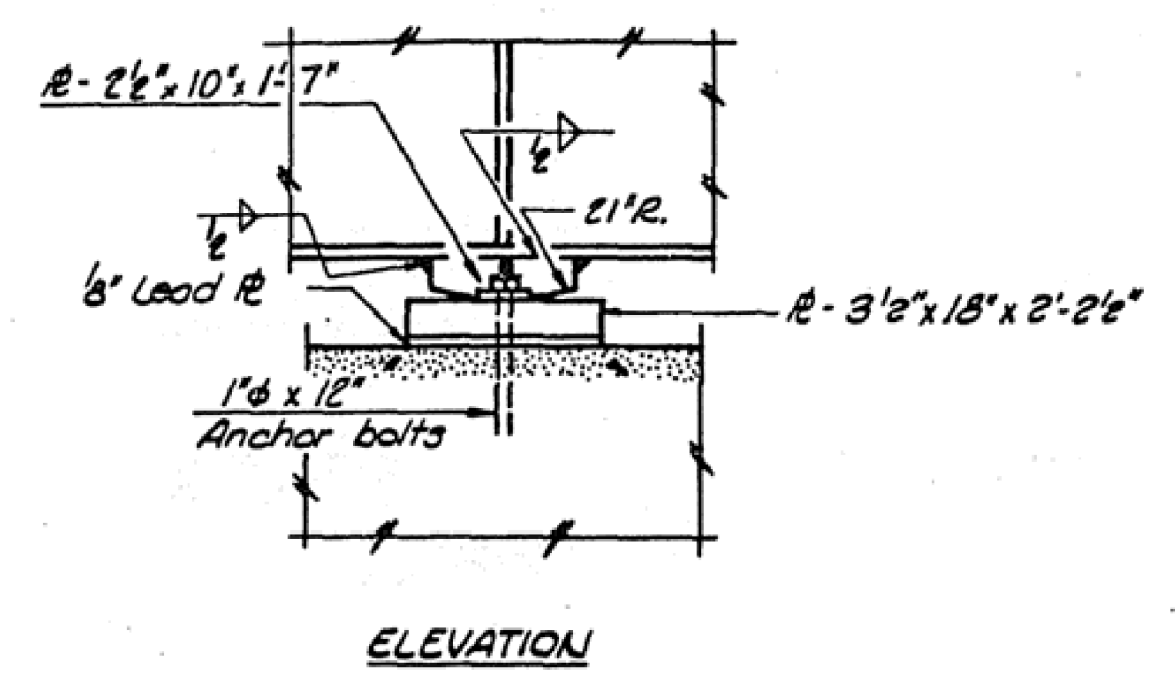
PROJECT NO. 058-0106
 SHEET NO. 43

FILE NAME = I:\DOT\6008 - D7 Ver. Work Order - Rte 36 Bridge Plans\CADD_Structural\existplans.dgn

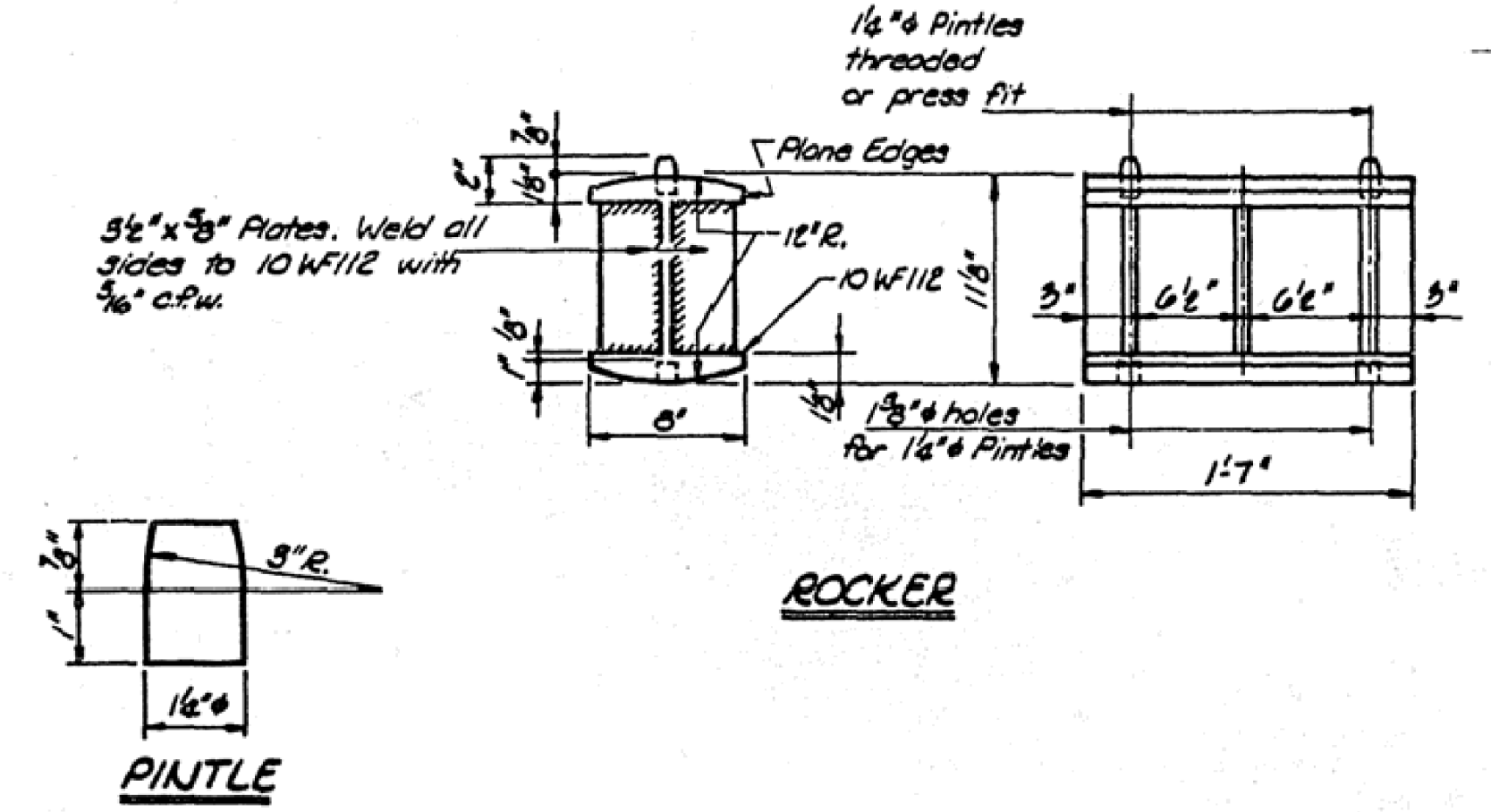
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-72	58-62	MACON	65	44
ROAD DIST NO	ILLINOIS	PROJECT		



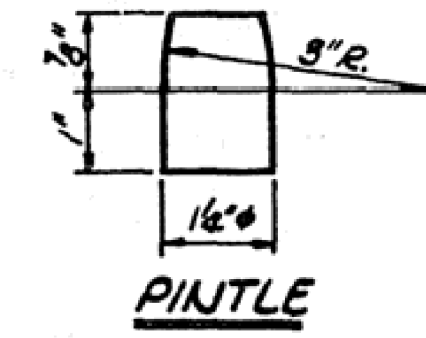
ELEVATION



ELEVATION



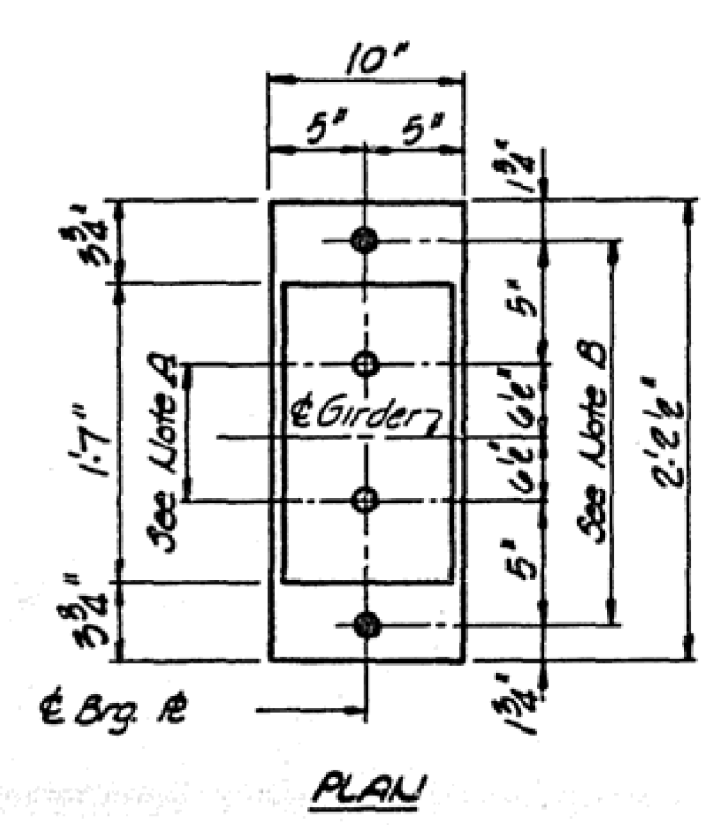
ROCKER



PINLE

NOTE: BEARING SEAT ADJUSTMENT
Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± 3/8". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3/4" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

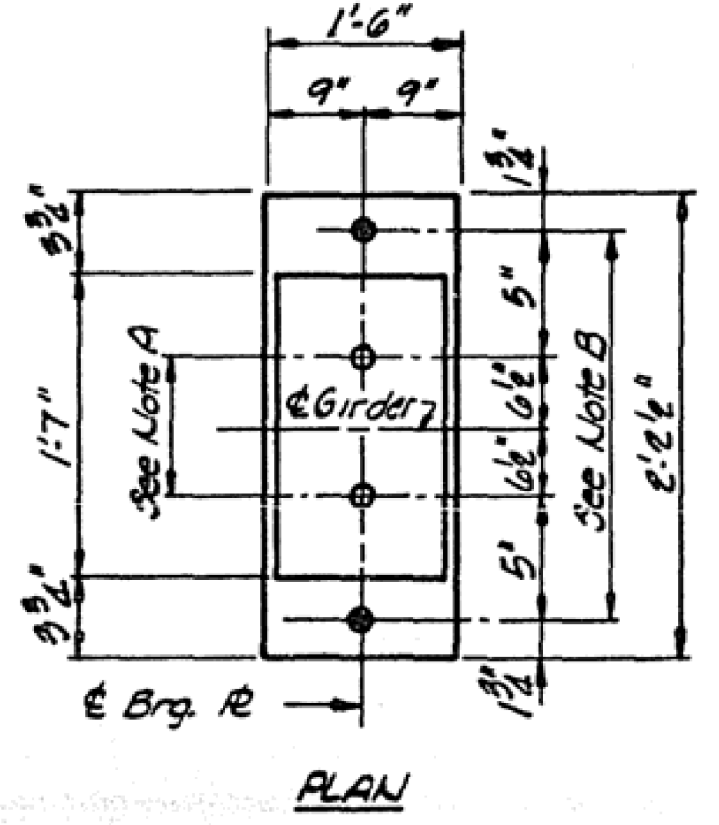
NOTE: The main load carrying member components subject to the supplemental requirements for Notch Toughness are the flanges as designated on the elevation, webs and all splice plates of the steel girders.



PLAN AT ABUTMENT

NOTE A
1 1/2" holes - 1" deep in top R for pinles. Thread or press fit pinles into bottom R.

NOTE B
1 1/2" holes for 1" anchor bolts. 2 1/2" x 2 1/2" x 3/16" R washers under nut.



PLAN AT PIER

NOTES ON SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

- a) D* (Side of brg. away from fixed brg.)
D* = 3/4" per each 100' of expansion for every 15° below the normal temperature of 50°F.
- D** (Side of brg. toward fixed brg.)
D** = 1/4" per each 100' of expansion for every 15° above the normal temperature of 50°F.
- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

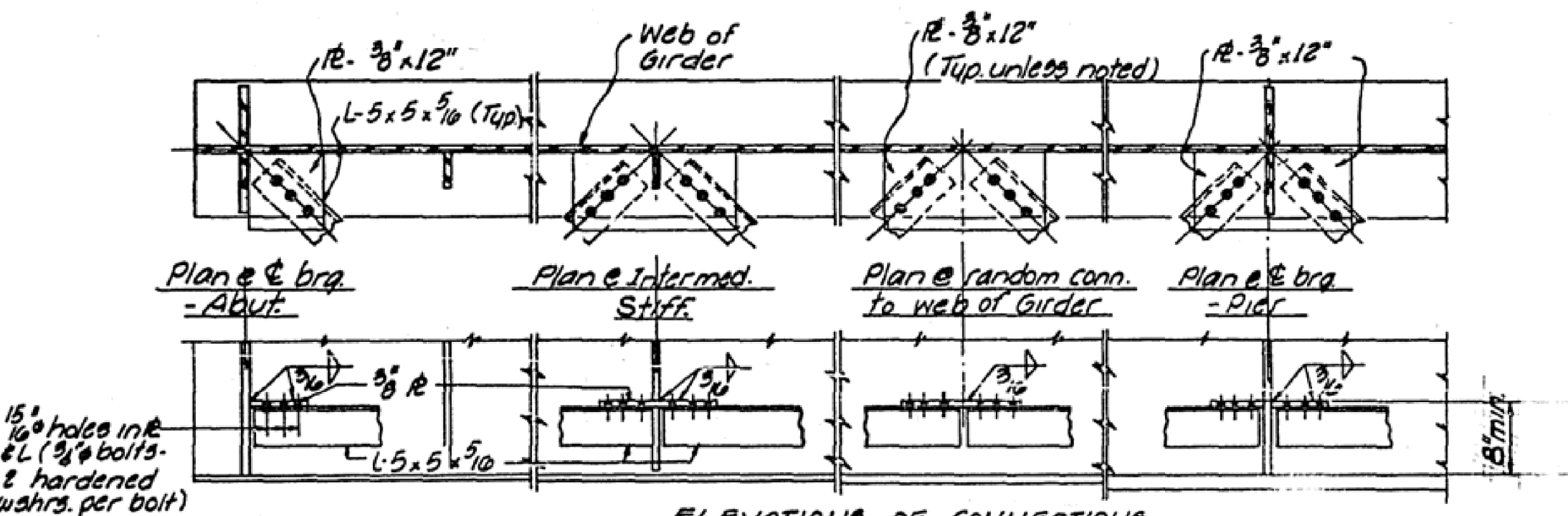
MOMENT TABLE - 5/16" Composite 2 Span (Composite in Positive Moment areas only)

	0.4 Span 1	PIER
I _s (in. ⁴)	37,178	85,166
I _c (in. ⁴)	89,553	
I _{cn} (in. ⁴)	64,339	
S _s (in. ³)	1319	2542
S _b (in. ³)	1772	
S _{pn} (in. ³)	1616	
Q (K/ft)	0.95	0.95
M _R (K)	1127.8	2846.4
f _s (ksi)	10.3	13.4
S _c (K/ft)	0.38	0.38
M _{RC} (K)	555.3	968.9
f _s (ksi)	4.1	4.6
M _E (K)	1230.5	1266.7
M _{imp} (K)	231.3	238.2
TOTAL (K)	1461.8	1504.9
V _s (K)	9.9	7.1
V _s TOTAL (K)	24.3	25.1
V _R (K)	55.8	

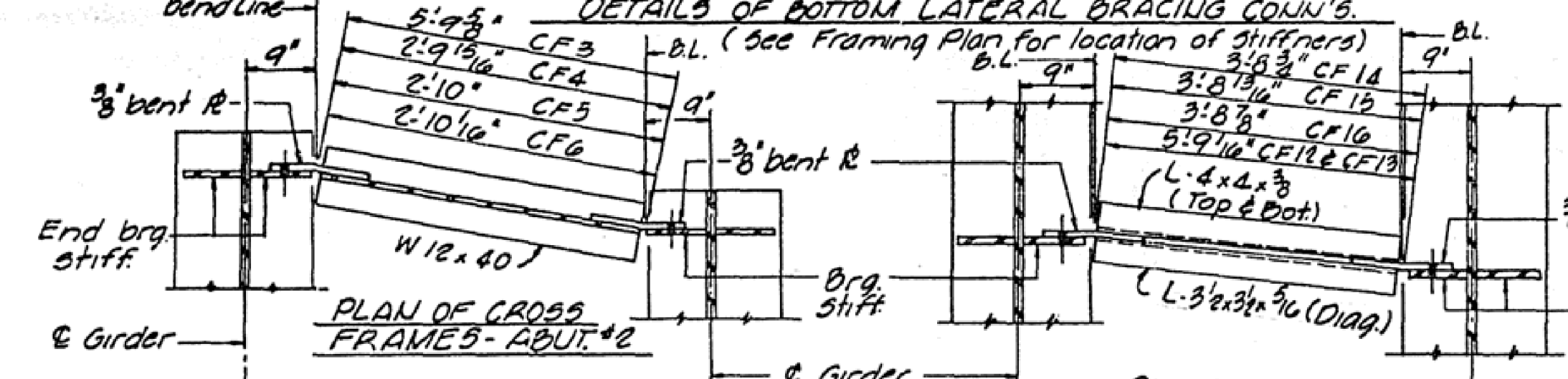
REACTION TABLE

	ABUTMENT	PIER
R _E (K)	46.7	180.6
R _E +S _E (K)	69.0	161.7
R _{imp} (K)	9.1	17.7
R _{TOTAL} (K)	124.8	360.0

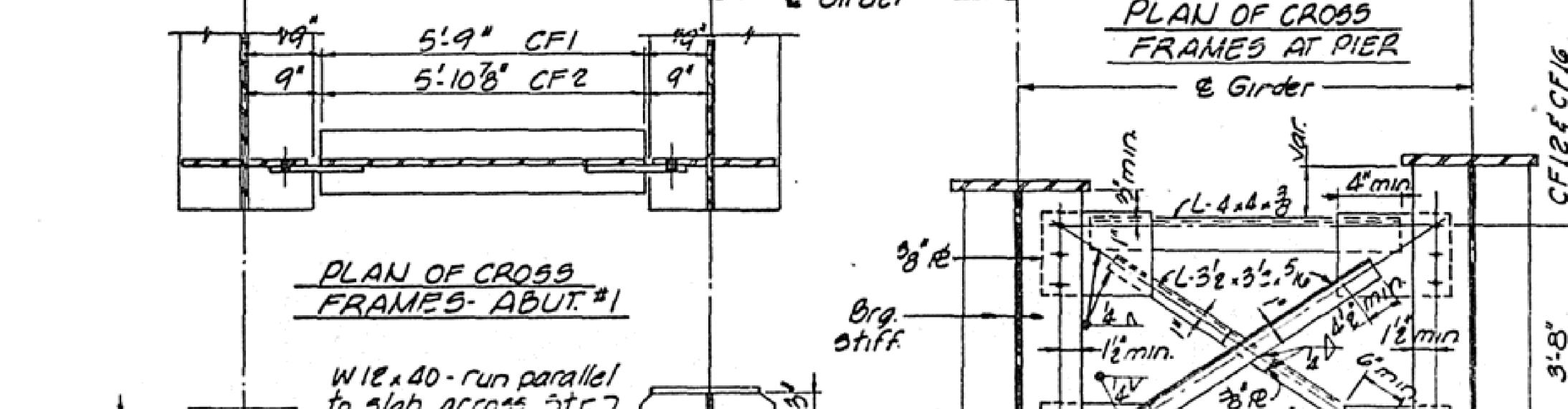
I_s and S_s are the moment of inertia and section modulus of the steel section.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s.
V_R is the maximum + Impact shear range.
I_{cn} & S_{pn} are the moment of inertia and section modulus of the composite section used in computing f_s for n=20



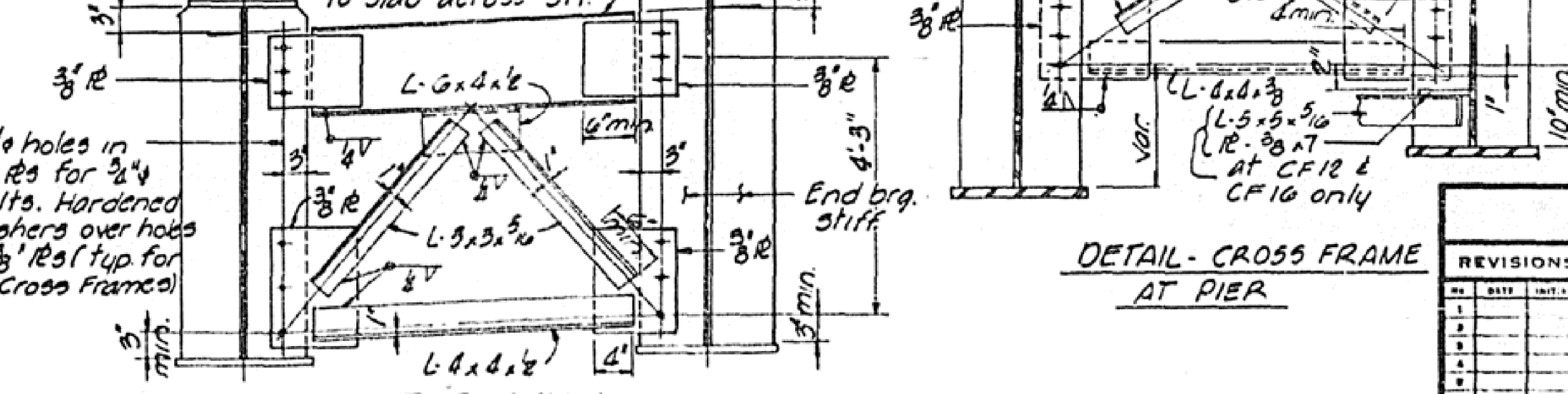
ELEVATIONS OF CONNECTIONS



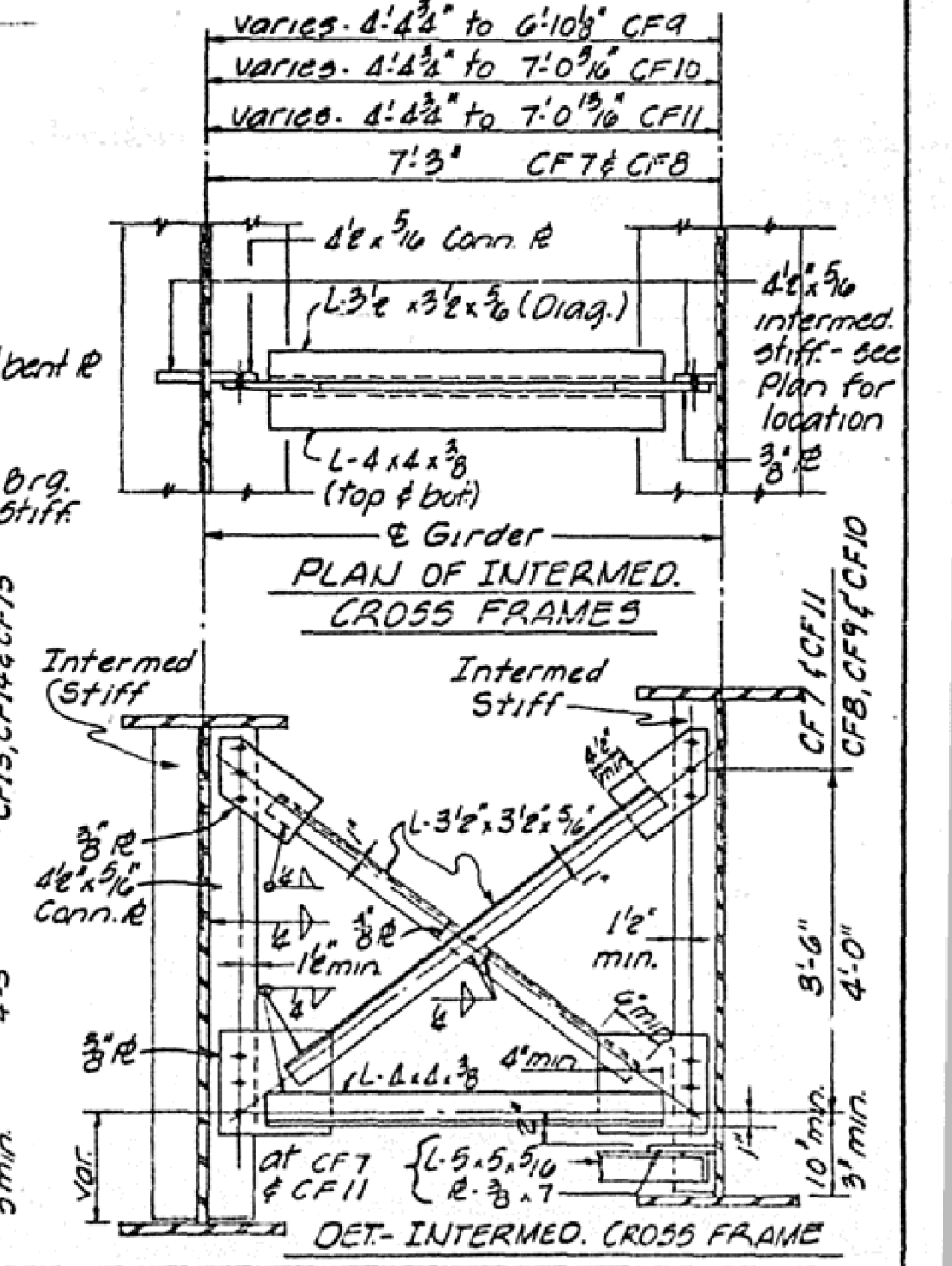
PLAN OF CROSS FRAMES - ABUT.#2



PLAN OF CROSS FRAMES - ABUT.#1



ELEVATION DETAIL OF END CROSS FRAMES

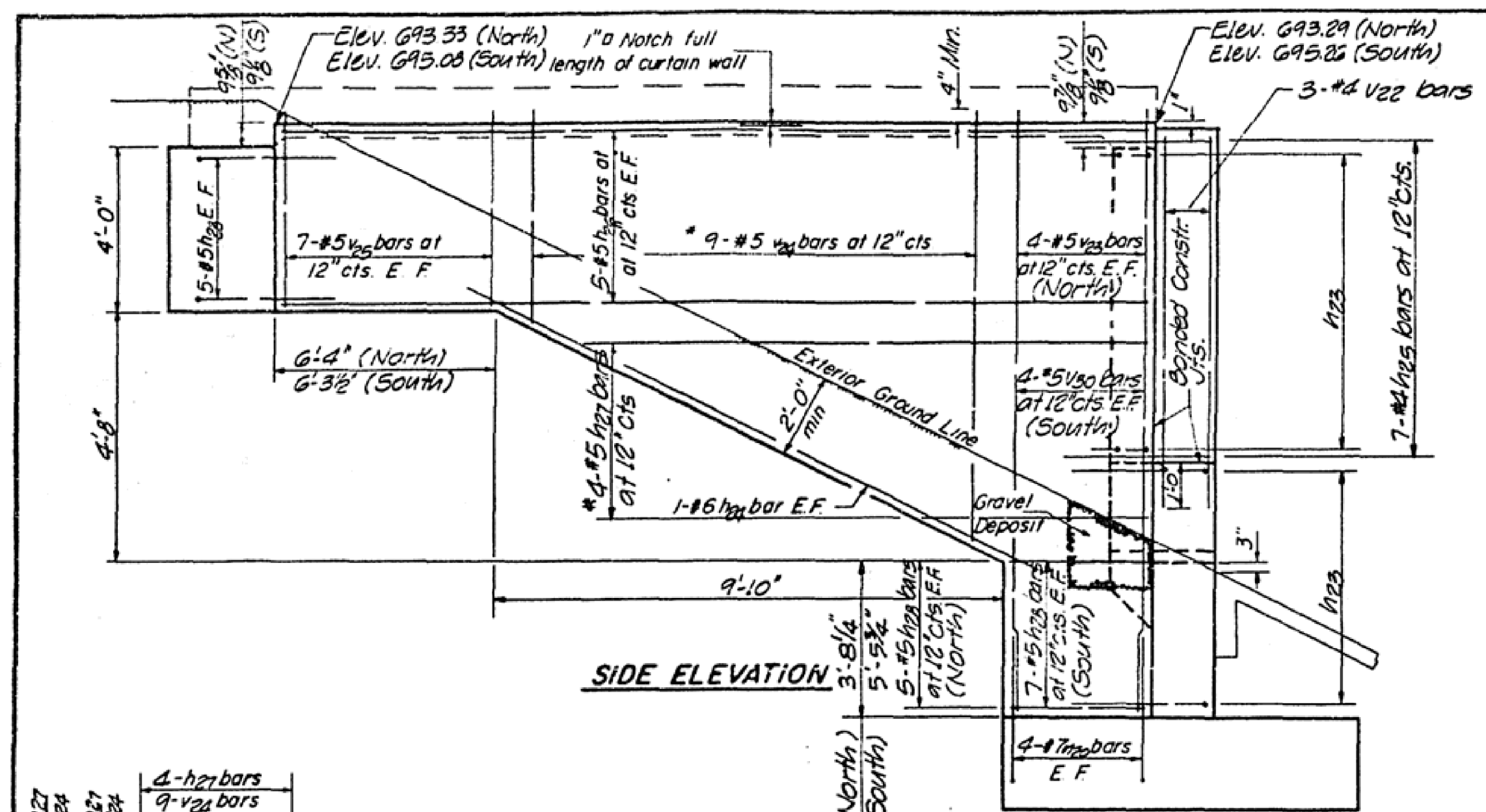


BEARING DETAILS

NO.	DATE	INITIALS	REVISIONS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY DATE: RES 11.74
CHECKED BY DATE: JNC 1.75
PROJECT NO: 2469.3
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

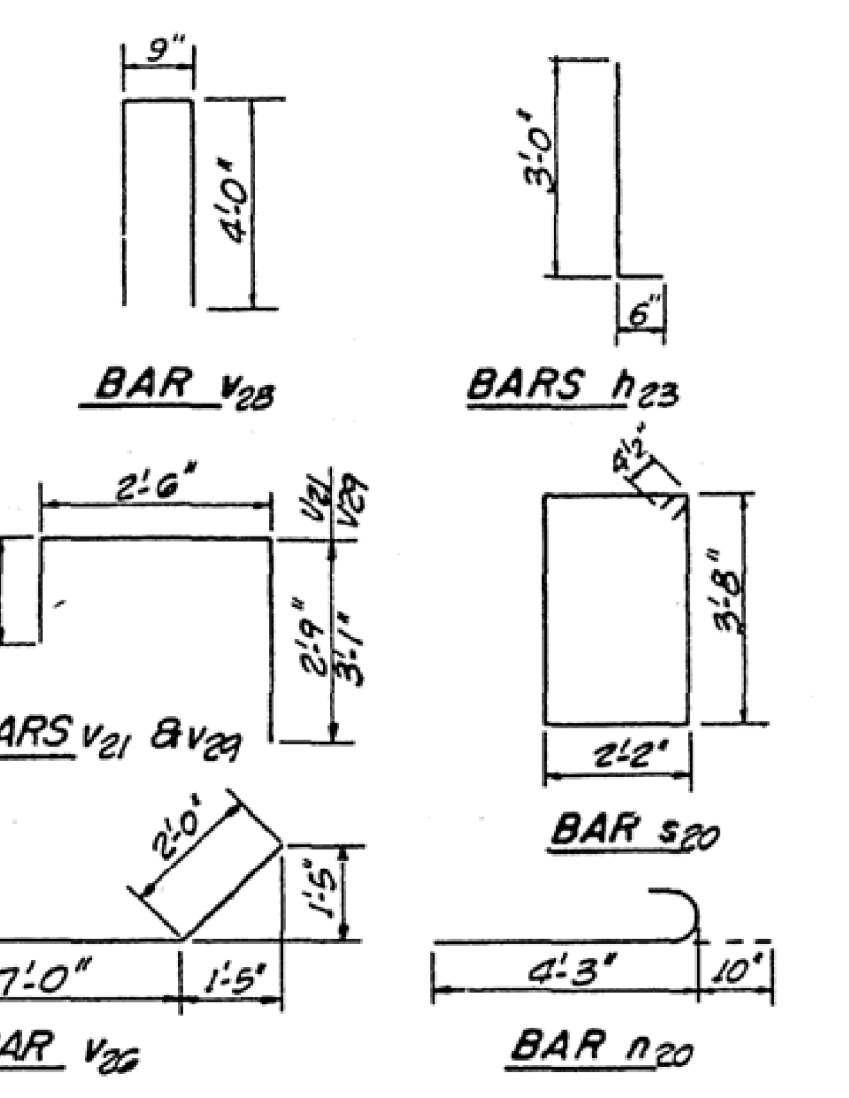
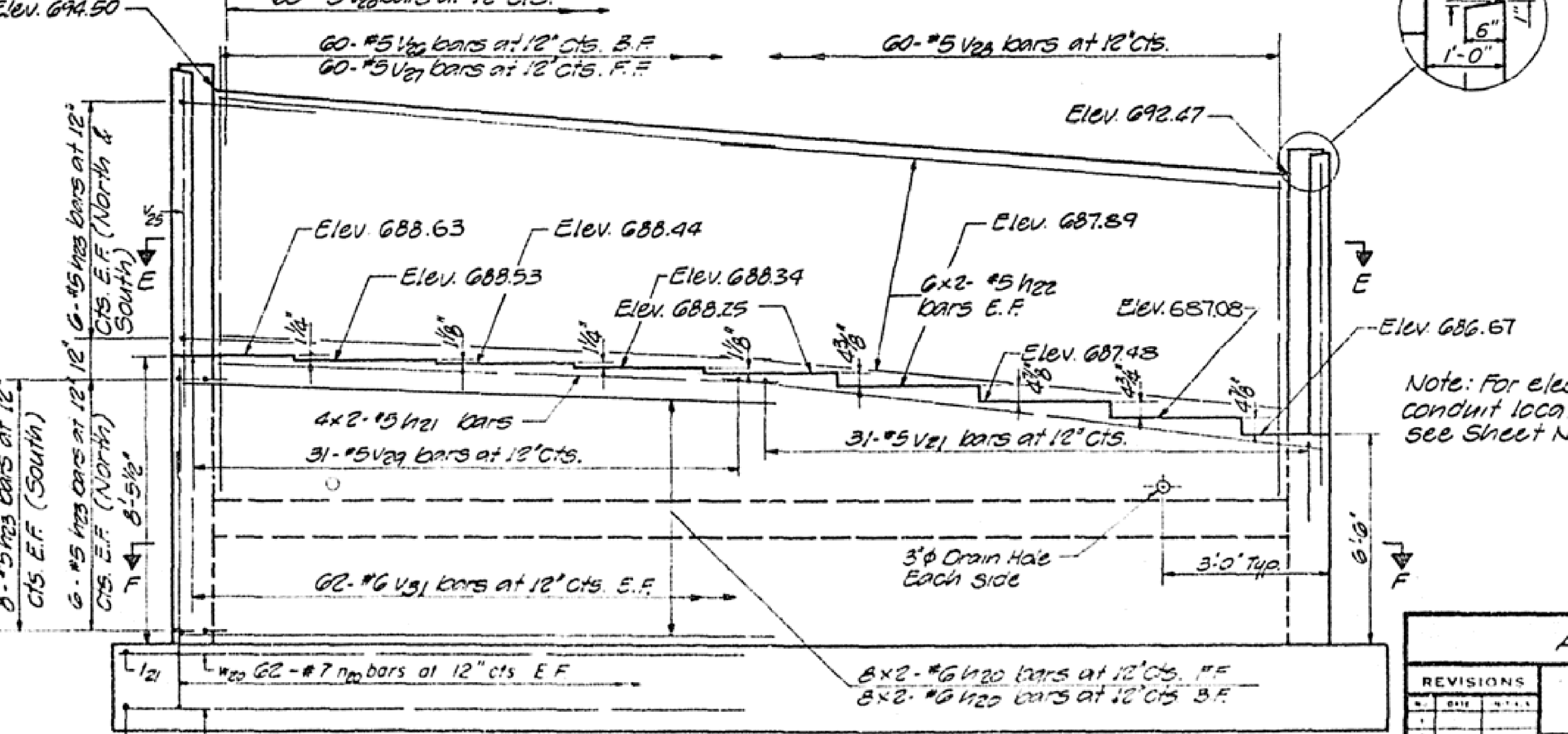
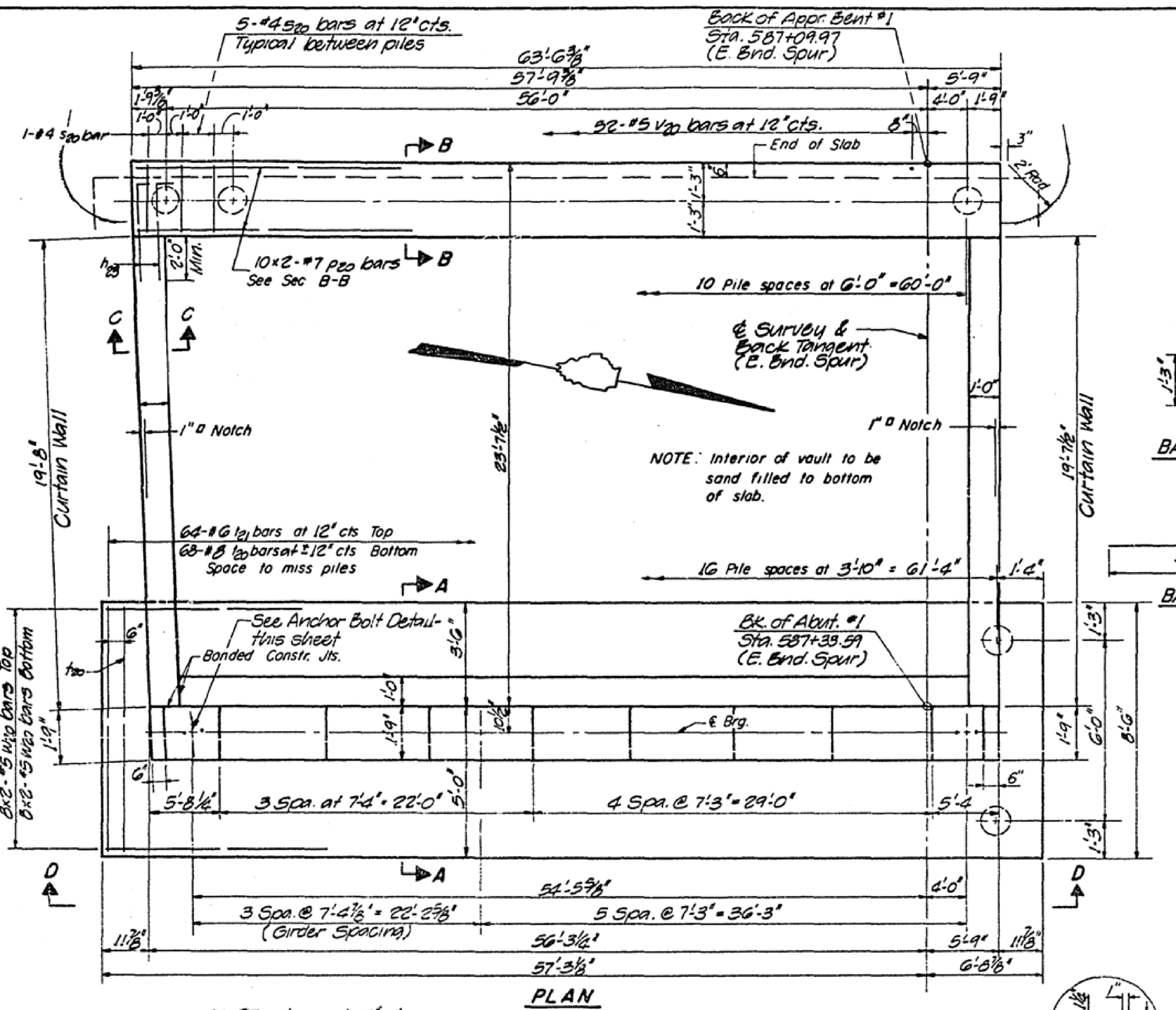
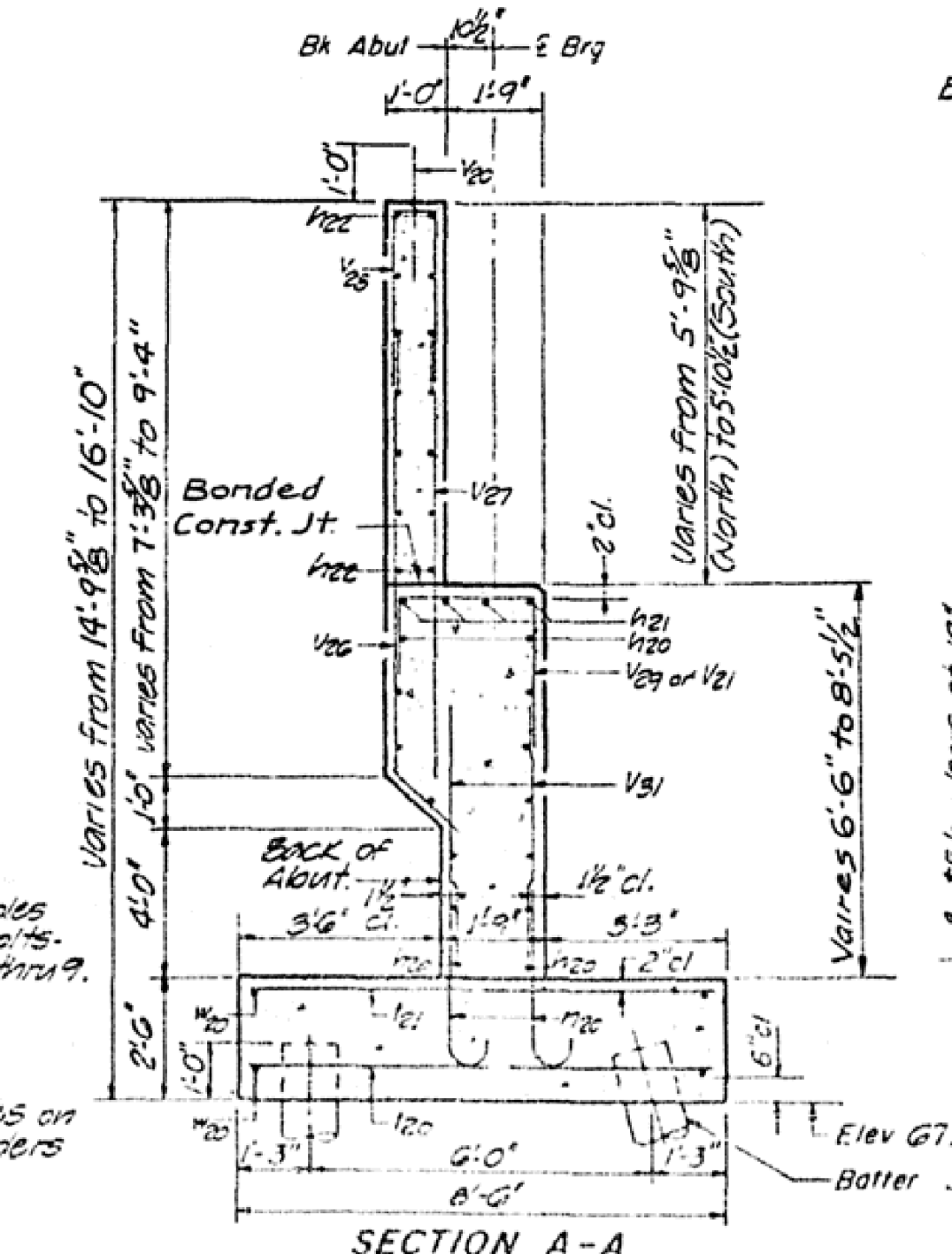
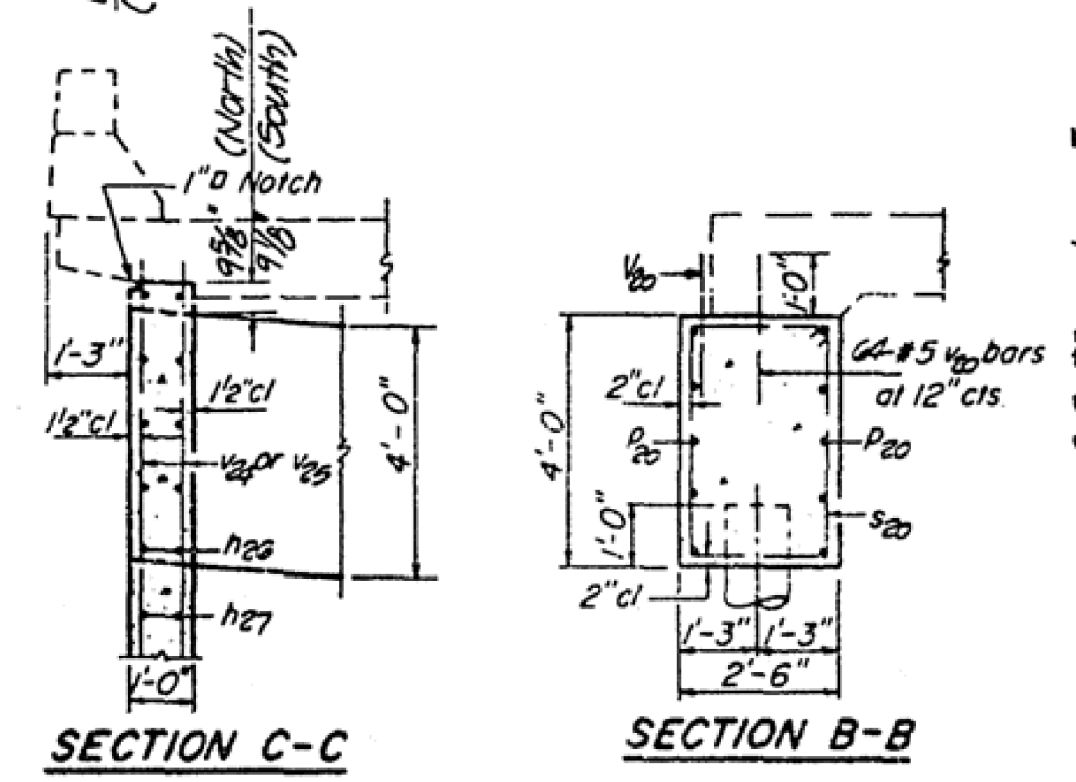
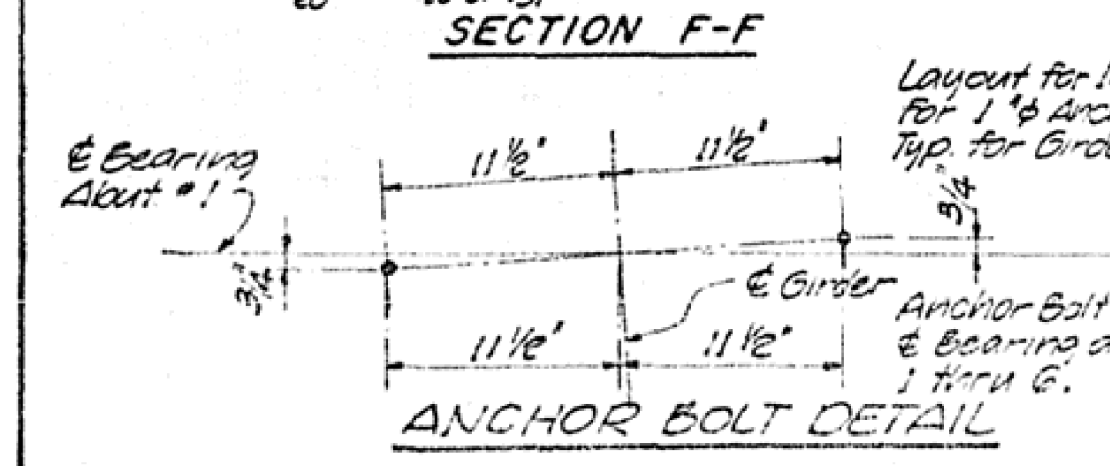
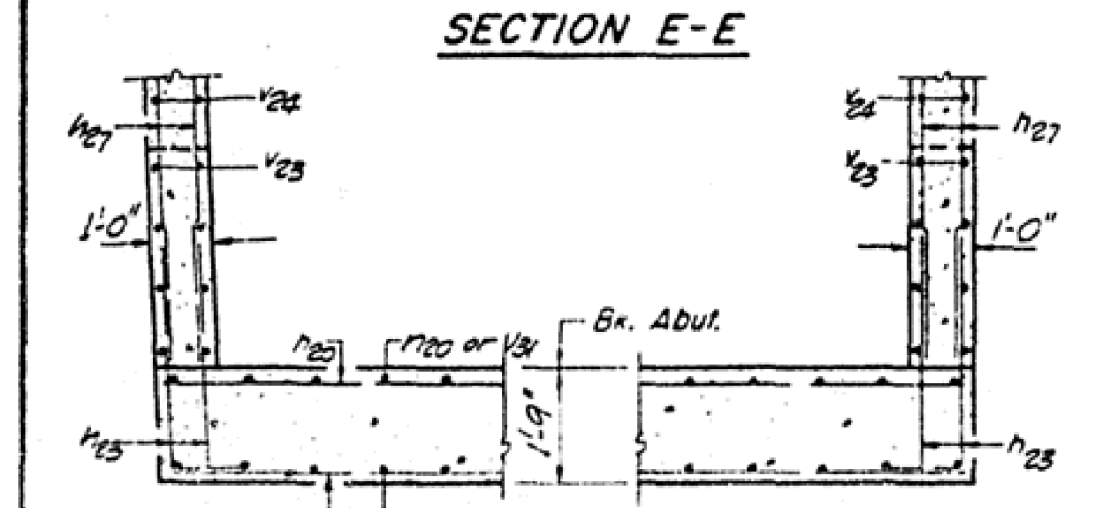
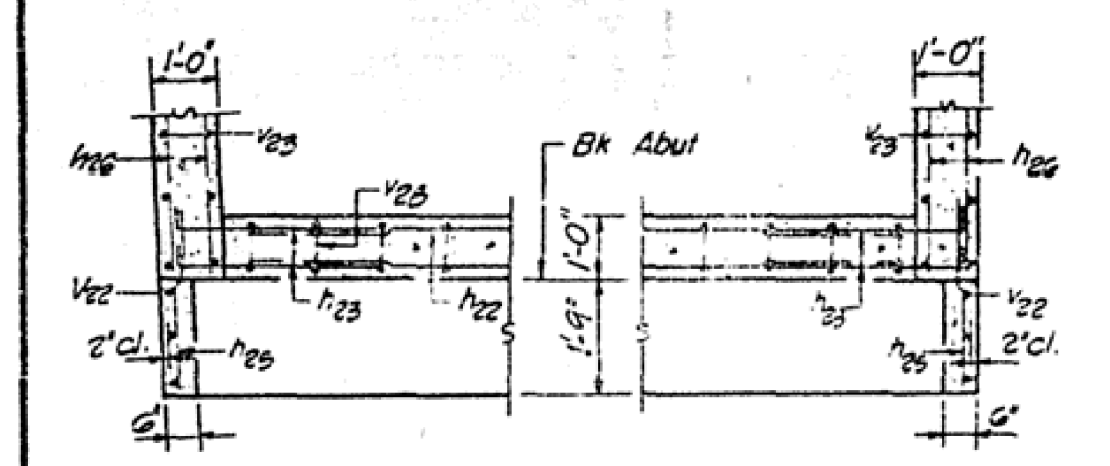
SHEET NO. 31
35 SHEETS



ABUT.-PILE DATA
 Type = Concrete
 Capacity = 35 TONS
 Est. Length = 49 Feet
 No. Req'd. = 34

APPR. BENT-PILE DATA
 Type = Concrete
 Capacity = 25 TONS
 Est. Length = 35 Feet
 No. Req'd. = 11

FIELD CUTTING DIAGRAM
 Order 1/2" x 1/2" bars full length cut to fit as shown and use remainder of bars in other face.



BILL OF MATERIAL

Bar	No	Size	Length	Shape
#28	32	#5	31'6"	
#21	8	#5	31'6"	
#22	24	#5	31'6"	
#23	72	#5	31'6"	
#24	4	#6	18'0"	
#25	14	#4	3'0"	
#26	20	#5	19'3"	
#27	3	#5	17'3"	
#28	24	#5	3'0"	
#29	100	#7	5'1"	
#20	20	#7	32'9"	
#20	52	#4	12'5"	
#20	68	#8	8'3"	
#21	84	#6	8'3"	
#22	176	#5	2'6"	
#23	31	#5	6'6"	
#24	6	#5	7'8"	
#25	3	#5	13'6"	
#26	13	#5	14'0"	
#27	23	#5	4'11"	
#28	60	#5	9'0"	
#29	60	#5	7'0"	
#30	31	#5	6'9"	
#31	3	#5	15'6"	
#31	124	#6	6'3"	
#32	32	#5	32'6"	

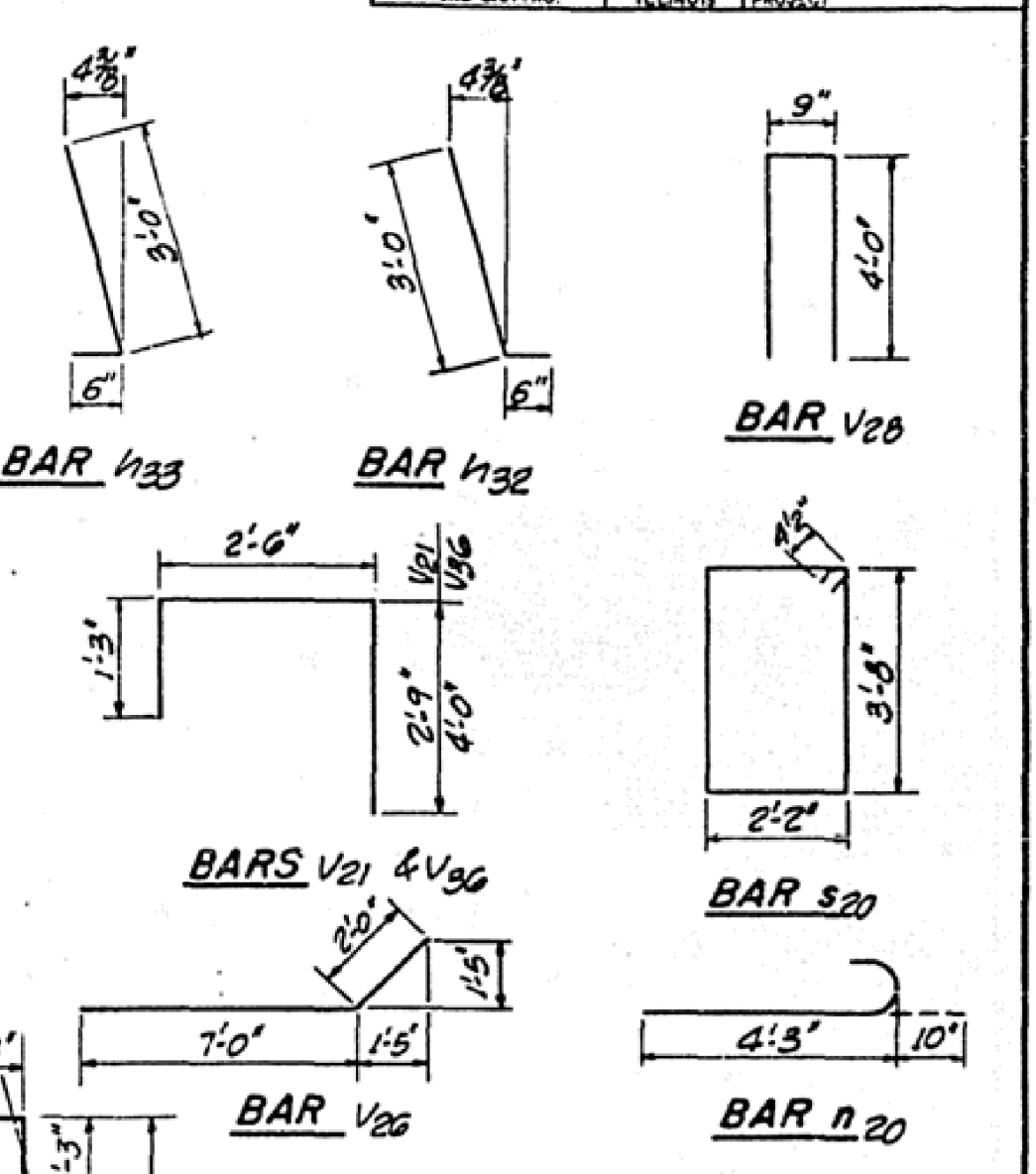
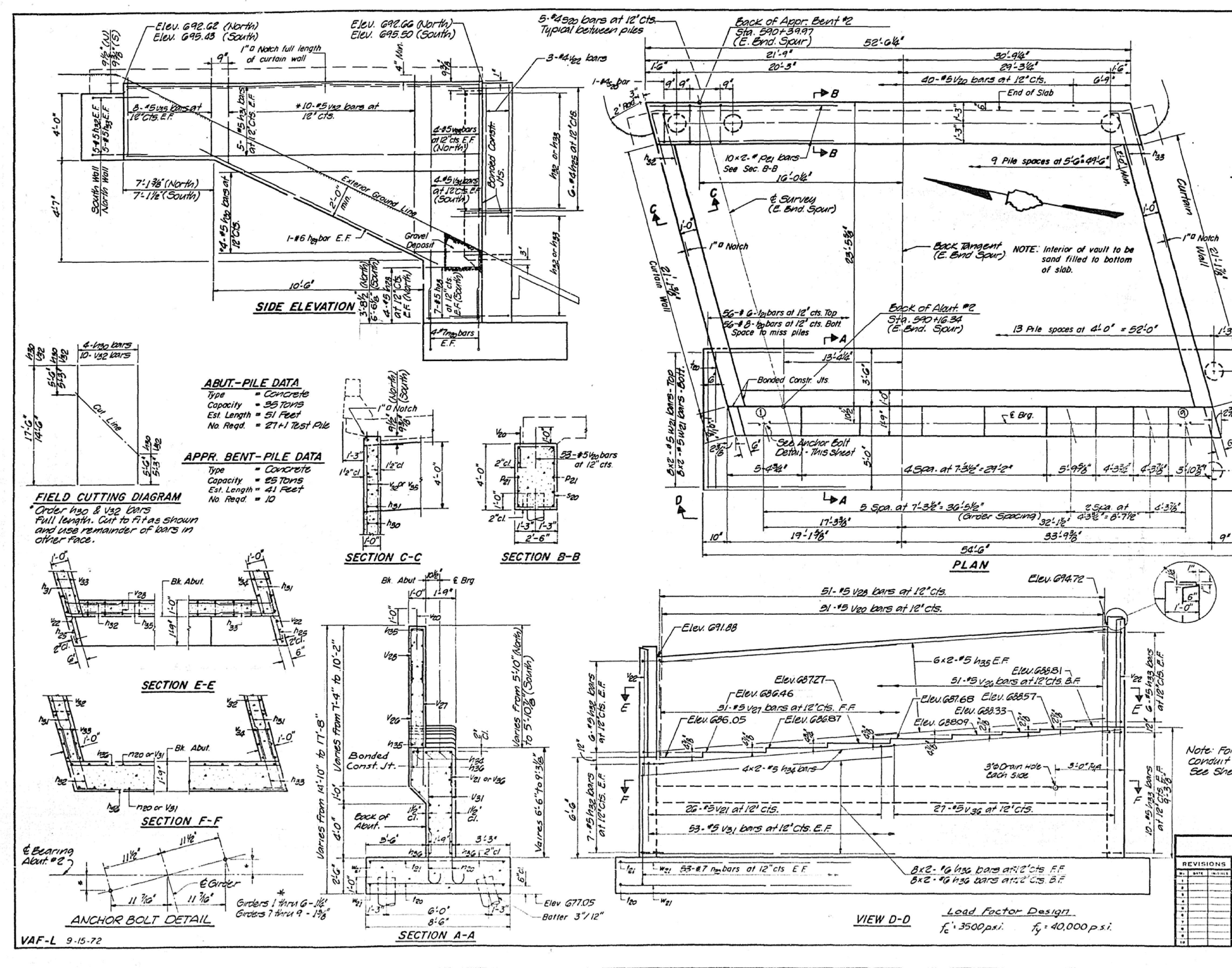
Reinforcement Bars Lbs 16,680
 Class X Concrete Cu Yds 132.3
 Concrete Piles Lin. Ft. 2081

ABUTMENT NO. 1 - E. END SPUR

REVISIONS

E. B. SPUR & W. B. SPUR OVER FA 172
 FA 172 SEC. 58-62 HB-2 PROJ.
 STA. 589+28.50 (E. B. SPUR) MACON CO

HOMER L. CHASTAIN & ASSOCIATES
 CONSULTING ENGINEERS
 DECATUR, ILLINOIS



BILL OF MATERIAL

Bar	No	Size	Length	Shape
h20	12	#4	3'-0"	—
h22	22	#5	3'-0"	—
h24	4	#6	14'-6"	—
h26	8	#5	17'-6"	—
h28	20	#5	20'-9"	—
h30	36	#5	3'-6"	L
h32	42	#5	3'-6"	L
h34	8	#5	27'-3"	—
h36	24	#5	27'-9"	—
h38	32	#6	27'-3"	—
h40	122	#7	51'-1"	—
h42	20	#7	27'-3"	—
h44	41	#7	12'-5"	□
h46	56	#6	8'-3"	—
h48	56	#6	8'-3"	—
h50	144	#5	2'-6"	—
h52	22	#5	6'-6"	—
h54	6	#5	7'-8"	—
h56	51	#5	9'-0"	—
h58	51	#5	7'-0"	—
h60	51	#5	8'-9"	—
h62	106	#6	6'-3"	—
h64	20	#5	14'-5"	—
h66	8	#5	13'-3"	—
h68	8	#5	10'-3"	—
h70	32	#5	5'-0"	—
h72	27	#5	7'-9"	—
h74	32	#5	25'-0"	—
W1	32	#5	25'-0"	—
Reinforcement Bars		Los	13,560	
Class X Concrete		Cu Yds	116.5	
Concrete Piles		Ln. Ft	1787	
Test Piles		Each	1	

ABUTMENT NO. 2 - E. END SPUR

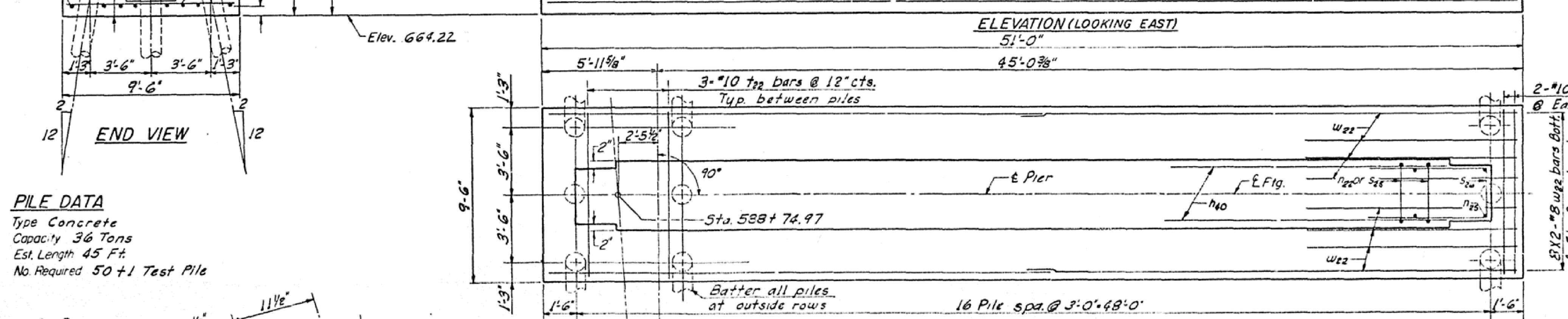
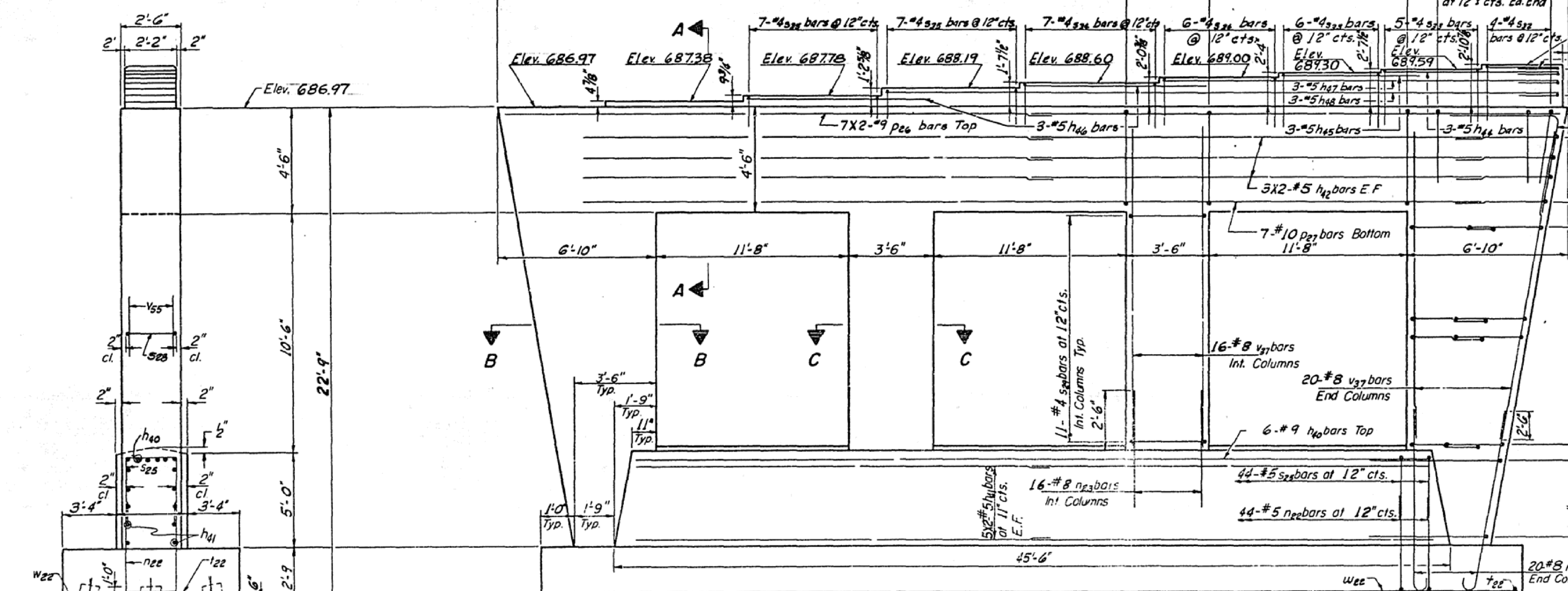
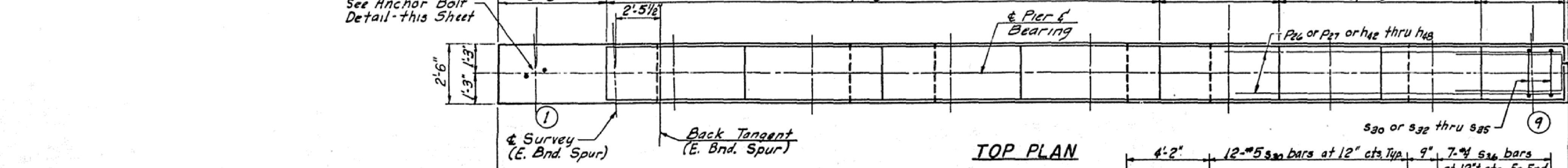
REVISIONS	DATE	INITIALS	DESCRIPTION
1			
2			
3			
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10			

DRAWN BY DATE: JLM 12/76
 CHECKED BY DATE: VJG 1/77
 BOOK NUMBER: _____
 PROJECT NO: 2409-3
 SHEET NO: 46
 HOMER L. CHASTAIN & ASSOCIATES
 CONSULTING ENGINEERS
 DECATUR, ILLINOIS

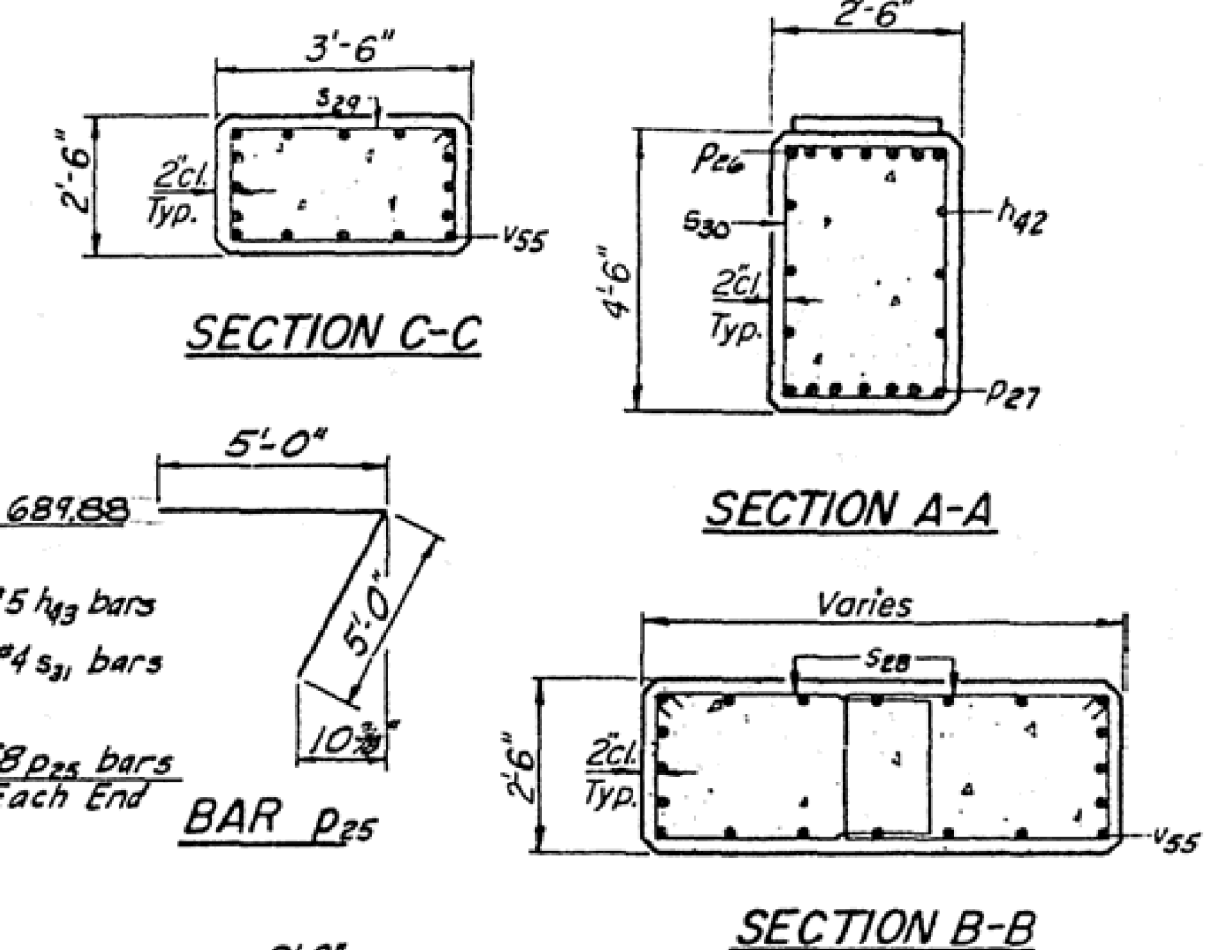
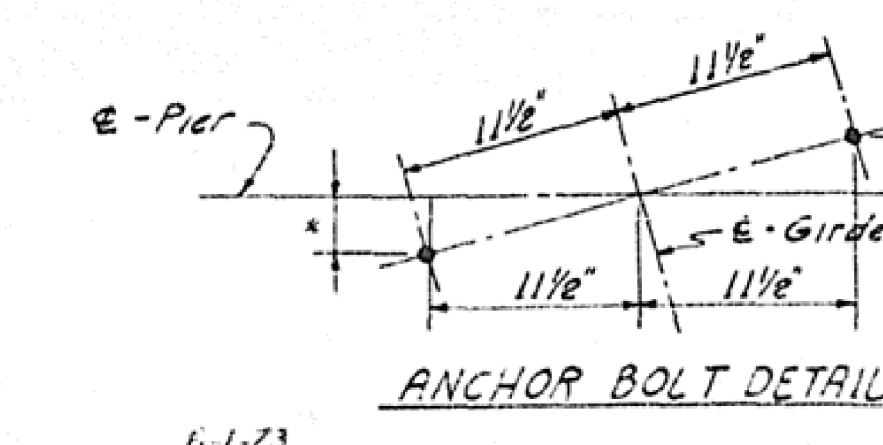
FILE NAME = I:\DOT\6008 - D7 Ver-Work Order 6 - Rte 36 Bridge Plans\CADD_Structural\externalplans.dgn
 184-001397

NOTES
 Space reinforcement in cap to miss anchor bolts.
 All edges shall have standard 3/4 chamfers except as noted.
 Pour steps monolithically with cap.

SHEET NO. 33	ROUTE NO. 58-62	SECTION 58-62	COUNTY MACON	TOTAL SHEETS 63	SHEET NO. 33
35 SHEETS	FAI-72	HB-2	ILLINOIS PROJECT		



PILE DATA
 Type Concrete
 Capacity 36 Tons
 Est. Length 45 Ft.
 No. Required 50 + 1 Test Pile



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h40	6	#9	43'-6"	
h41	20	#5	22'-6"	
h42	12	#5	25'-0"	
h43	3	#5	3'-9"	
h44	3	#5	9'-0"	
h45	3	#5	6'-3"	
h46	6	#5	8'-6"	
h47	3	#5	20'-6"	
h48	3	#5	35'-0"	
n21	40	#8	10'-9"	
n22	44	#5	9'-8"	
n23	32	#8	5'-0"	
p25	14	#8	10'-0"	7
p26	7	#9	55'-0"	
p27	7	#10	48'-6"	
s22	44	#5	12'-0"	
s20	12	#5	12'-2"	
s27	8	#5	11'-6"	
s28	44	#4	11'-9"	
s29	22	#4	11'-5"	
s30	36	#5	13'-7"	
s31	4	#4	3'-9"	
s32	4	#4	10'-4"	
s33	11	#4	9'-10"	
s34	13	#4	8'-10"	
s35	14	#4	7'-4"	
s36	14	#4	9'-6"	
t22	52	#10	9'-2"	
v37	72	#8	12'-9"	
w22	16	#8	23'-6"	

A & B DIMENSIONS

Bar	A	B
n22	2'-2"	3'-9"
s25	2'-6"	4'-9"
s26	2'-2"	5'-0"
s27	2'-2"	4'-8"
s31	1'-9"	1'-0"
s32	1'-10"	4'-3"
s33	1'-10"	4'-0"
s34	1'-10"	3'-6"
s35	1'-10"	2'-9"
s36	2'-2"	3'-8"

PIER DETAILS-E. BND SPUR

REVISIONS	DATE	BY	REASON
1	1-1-75	JWG	INITIALS

CLASS X CONCRETE CU. YDS. 120.5
 REINFORCEMENT BARS LBS. 13,925
 CONCRETE PILES LIN. FT. 2250
 TEST PILES EA. 1

HOMER L. CHASTAIN & ASSOCIATES
 CONSULTING ENGINEERS
 DECATUR, ILLINOIS

FILE NAME = I:\DOT\6008 - D7 Ver-Work\Order 6 - Rte 36 Bridge Plans\CADD_Structural\existplans.dgn

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

USER NAME = jbenning	DESIGNED - JMB	REVISED -
PLOT TIME = 11:04:15 AM	CHECKED - ACB	REVISED -
PLOT SCALE = 1:10000 1/4" = 1'	DRAWN - RLK	REVISED -
PLOT DATE = 1/11/2018	CHECKED - JMB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
 STRUCTURE NO. 058-0106 (WB) & 058-0107 (EB)
 SHEET NO. 63 OF 63 SHEETS

F.A.P. RTE. 323	SECTION (58-62-HB-2) BR	COUNTY MACON	TOTAL SHEETS 82	SHEET NO. 82
SN. 058-0106 (WB) & 0107 (EB)		CONTRACT NO. 74605		
STA.		ILLINOIS FED. AID PROJECT		