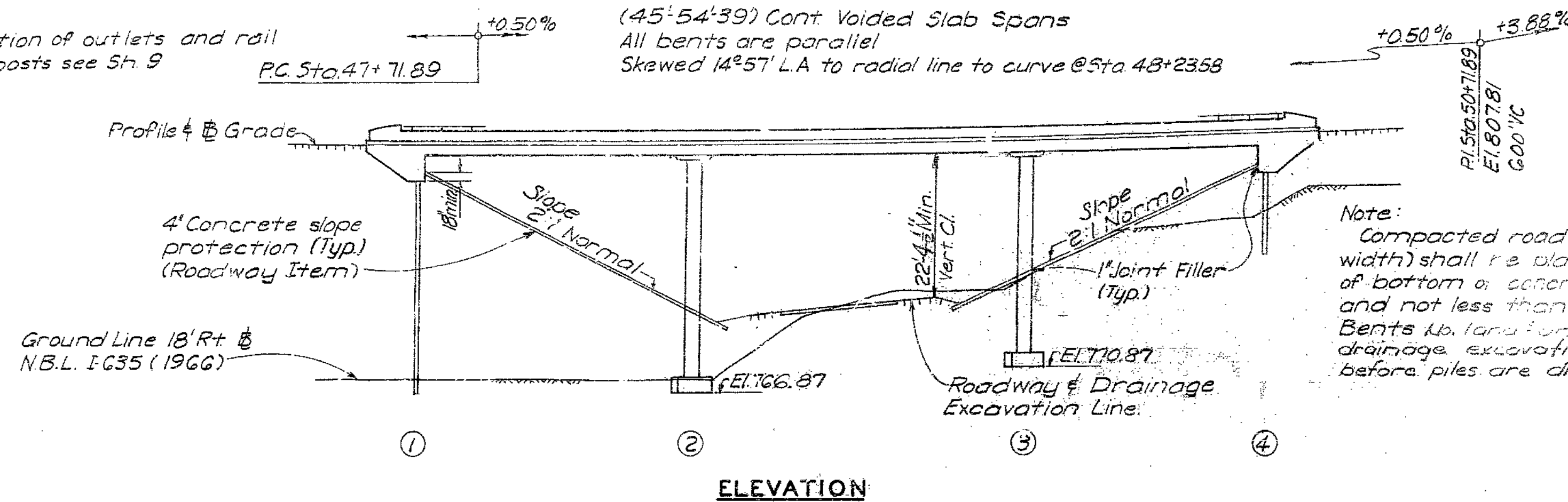


MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	11	

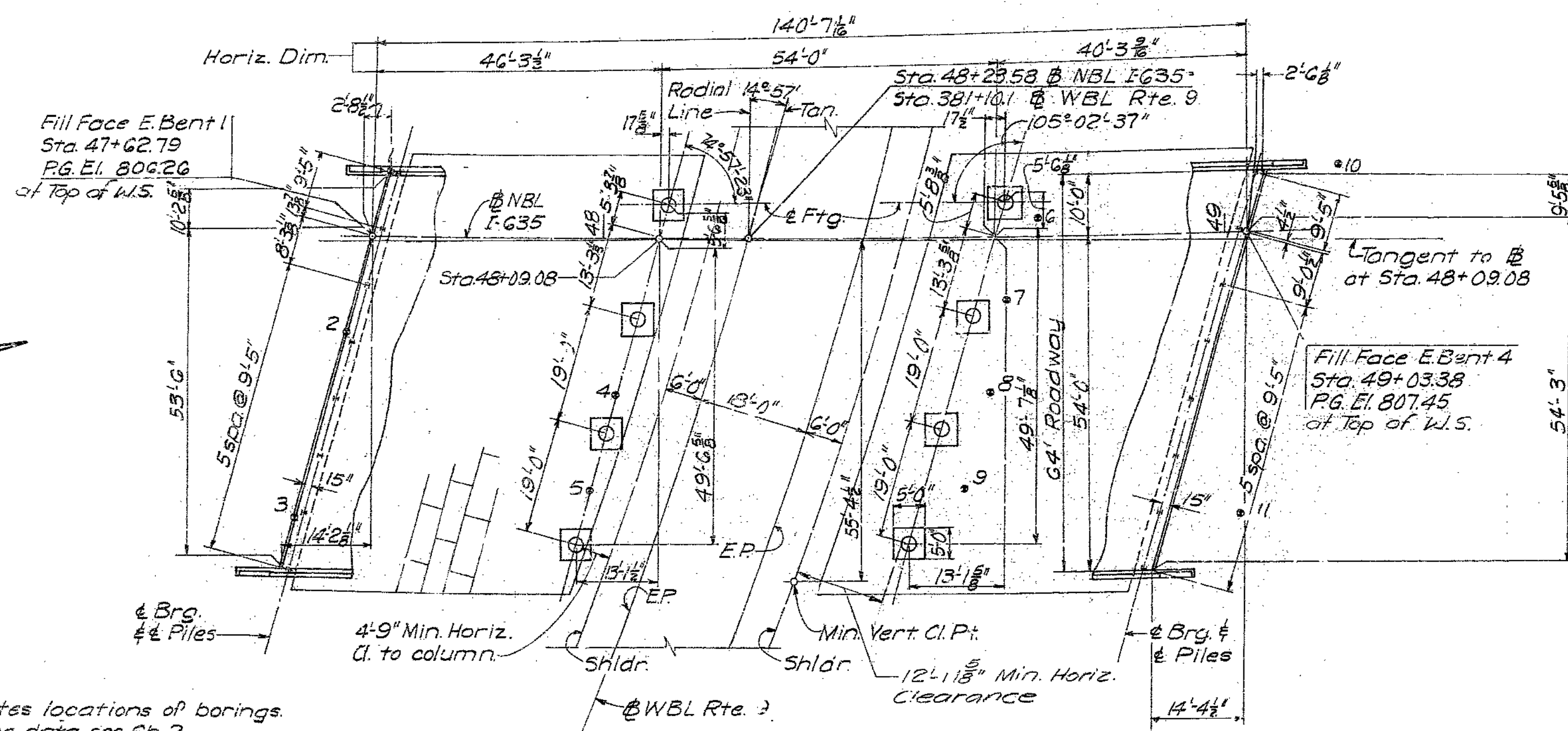
Note:
For location of outlets and rail expansion posts see Sh. 9



PILE AND FOOTING DATA				
Bent No.	1	2	3	4
Pile Type and Size	10 BP 42			10 BP 42
Number	8			8
Approximate Length Ft.	35			12 R+ 19 Lt
Design Bearing Tons	36			36
Hammer Energy Req'd Ft.Lbs.	8,100			8,100
Spread Foundation Material		Rock	Rock	
Footings Design Bearing Tons/Sq. Ft.		8.7	8.4	

Minimum energy requirement of hammer based on plan length and design bearing values of piles.

All pile shall be driven to practical refusal.



GENERAL NOTES

Design Specifications: A.A.S.H.O.-1969

Design Loading:
HS20-44
Modified 24,000* Tandem Axle

Earth 120* Equivalent Fluid Pressure 30*

Design Unit Stresses:

Class B Concrete (substructure) $f_c = 1,200$ psi
Class B1 Concrete (superstructure) $f_c = 1,600$ psi
Reinforcing Steel $f_s = 20,000$ psi
Steel Pile $f_b = 9,000$ psi

Minimum clearance to reinforcing steel shall be 1/2" unless otherwise shown.
Profile grade elevations are taken at top of wearing surface.

Note:
• indicates locations of borings.
For boring data see Sh. 2.
All bents are parallel.
Bents cannot be accurately located from the reference point on the tangent by conventional survey methods based on 100' chords.

PLAN

ESTIMATED QUANTITIES			
Items	Substr.	Superstr.	Totals
Class I Excavation	Cu. Yd. 275		275
Structural Steel Pile (10")	Lin. Ft. 404		404
Class B Concrete	Cu. Yd. 18.6		18.6
Class B1 Concrete	Cu. Yd.	635.5	635.5
Reinforcing Steel	Lb. 680	161,370	162,050
Bridge Rail (one tube)	Lin. Ft.	286	286
Coal Tar Interlayer Protective Coat.	Sq. Yd.	1000	1000
Special Type "D" Mixture (Asphaltic Concrete) Ton		69	69

All concrete and reinforcing above footings is included in Superstructure concrete.

Bench Marks

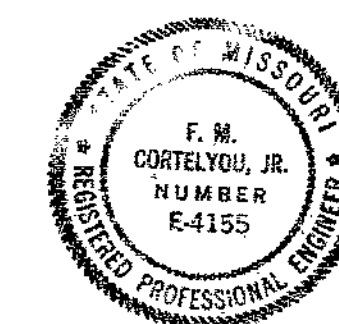
BM #12 Elev. 750.96 Chisled on N.W. corner culvert headwall 25' Lt. Sta. 45+45 N.B. I-635.
BM #13 Elev. 810.25 100d nail in 24" Oak 50' Rt. Sta. 49+50 N.B. I-635.

Curve Data: NBL I-635
P.I. 47+57.18
 Δ 14°-15' Lt
D 10°-45'
T 954.93
L 1900.00
R 7639.44
S.E. .025%

Note:
Transverse and longitudinal dimensions for coordinating substructure are measured respectively normal to and parallel to tangent to θ at Sta. 48+09.08.

DESIGNED Sept. 1969 BY HFC
DETAILED Sept. 1969 BY KKD
CHECKED Jan. 1970 BY FJD

Note: This drawing is not to scale. Follow dimensions.



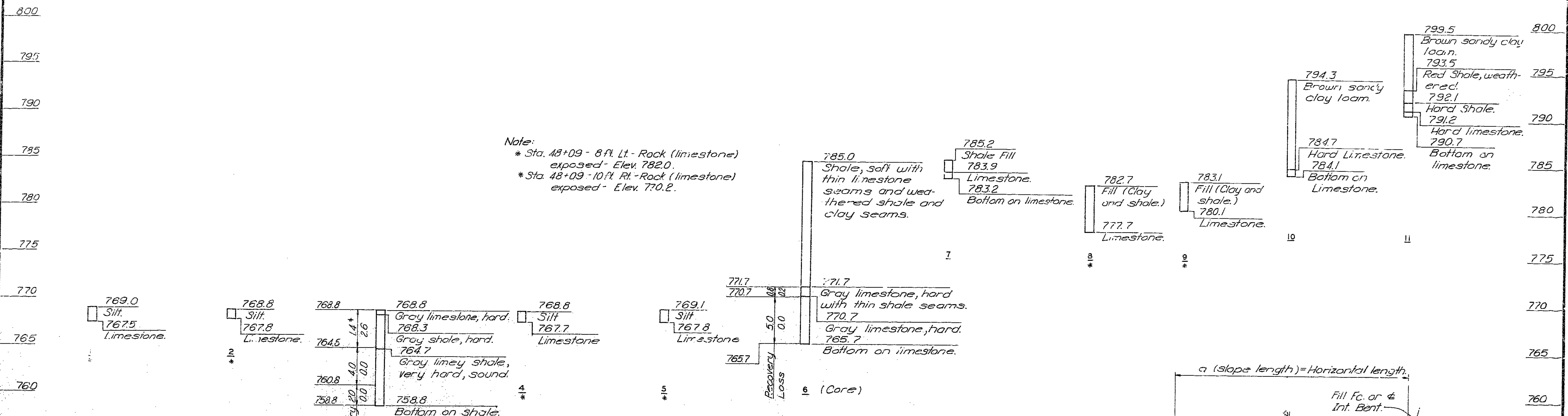
BRIDGE: N.B.L. I-635 OVER ROUTE 9 W.B.L.
STATE ROAD-INTERSTATE ROUTE 635
IN RIVERSIDE
PROJECT NO. I-IG-635-1(K75) (RTE. I-635) STA. 47+62.79
PLATTE COUNTY

SUBMITTED BY: *W.A. Carney* DATE 1-24-72
BRIDGE ENGINEER
APPROVED BY: *Robert N. Hunter* DATE 1-24-72
CHIEF ENGINEER
HARRINGTON AND CORTELYOU
CONSULTING ENGINEERS KANSAS CITY, MO.

DWG. 611.00
DWG. 706.30A
A-2437

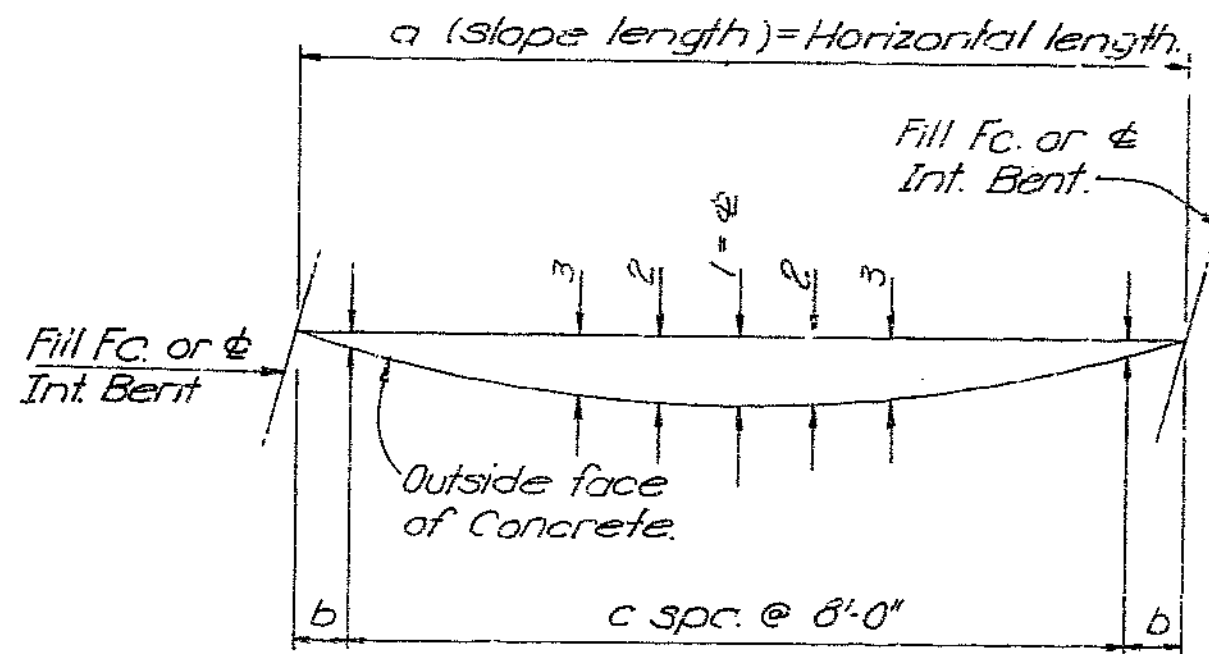
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	119	



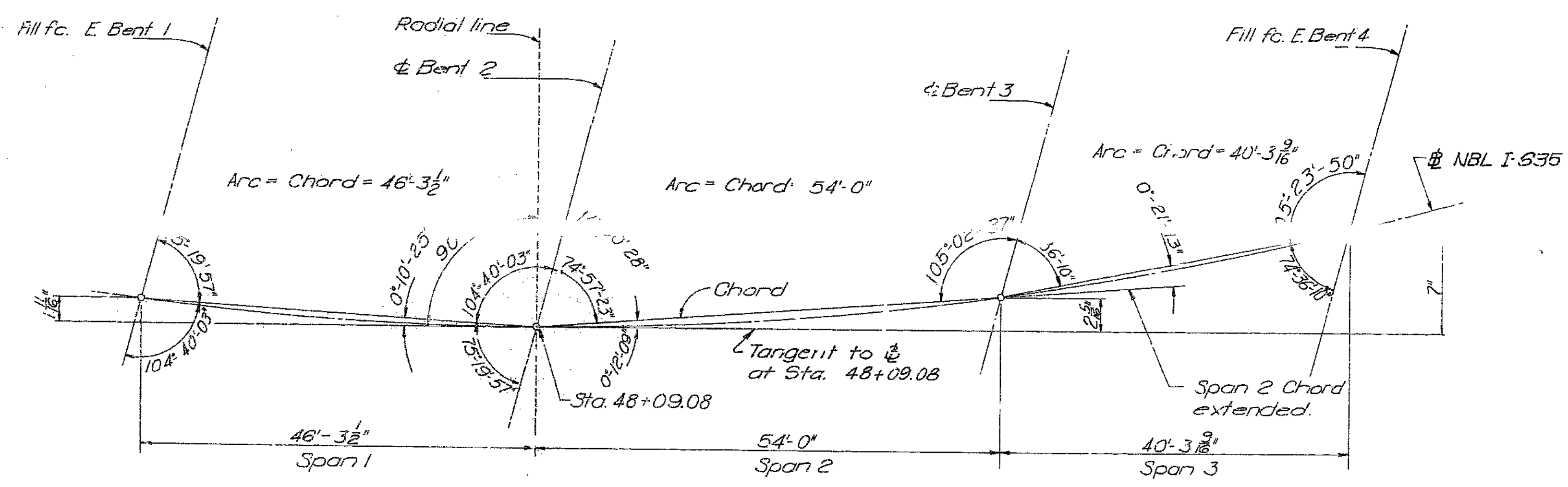
BORINGS

Note: *All of these soundings taken with hammer and bar. For location of borings see Sheet 1.



Span	Left Outside Face of Concrete			Right Outside Face of Concrete		
	1	2	3	1	2	3
a	46'-3 1/2"	54'-0"	40'-3 1/2"	46'-3 1/2"	53'-11 1/2"	40'-3 1/2"
b	7'-1 1/2"	3'-0"	4'-1 1/2"	7'-1 1/2"	2'-11 1/2"	4'-1 1/2"
c	4"	6"	4"	4"	6"	4"
1 = ϕ	7"	7"	5"	7"	7"	5"
2	3"	3"	4"	3"	3"	2"
3	3"	3"	3"	3"	3"	3"
4	-	2"	-	-	2"	-

CURVE ORDINATES



SUBSTRUCTURE LAYOUT

245

DETAILED Oct. 19 69 BY BS
 CHECKED Jan. 19 70 BY FJD

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 9

PLATTE COUNTY

HARRINGTON AND CORTELYOU
 CONSULTING ENGINEERS KANSAS CITY, MO.

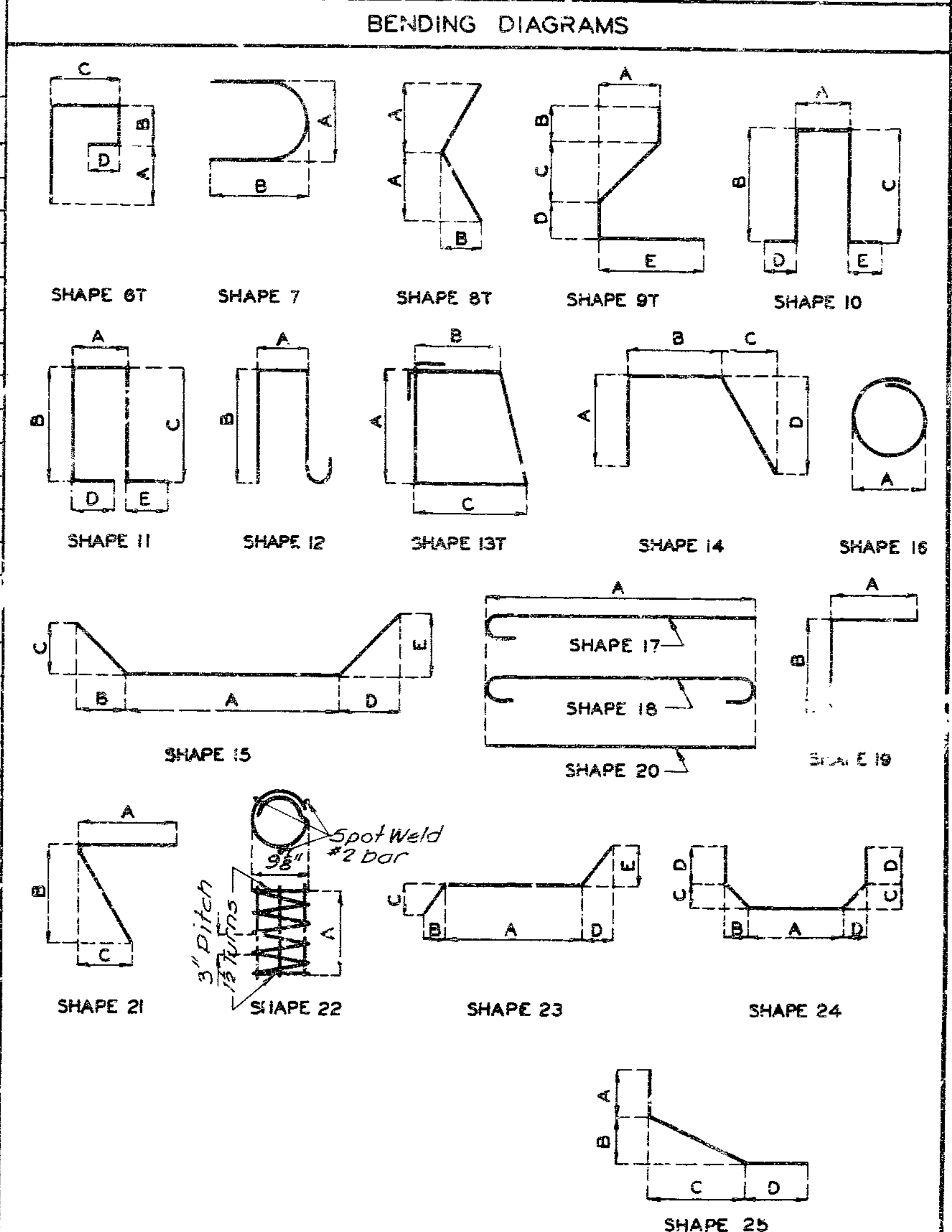
A-2437

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	20	

NO. REQD.	MARK NO.	LOCATION	SHAPE NO.	TIE OR STIR. SUBSTR. VARIES	NO. EA.	DIMENSIONS					LENGTH	WEIGHT
						A	B	C	D	E		
SIZE	MARK					FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.
END BENTS 1 & 4												
16	6H1	Beam	20			35'-3"					35'-3"	
8	6H2	"	17			32'-1"					32'-9"	
16	6H3	"	20			35'-1"					35'-1"	
8	6H4	"	17			38'-7"					39'-3"	
178	6H5	Beam	19			3-11 $\frac{1}{2}$	3-2				7-0	
32	6H6	Wing	20	V 8		8-2					8-2	
		Increment = 18 inches				3-8					3-8	
8	6H7	Wing	20			8-6					8-6	
260	5U1	Beam	10 T			2-3 $\frac{1}{2}$	3-2	3-2			8-5	
8	4V1	Wing	20			5-2					5-2	
24	4V2	Wing End Bt. 1	20	V 4		4-9					4-9	
		Increment = 8 $\frac{1}{2}$ inches				1-2					1-2	
4	6V3	Wing - End Bt. 1	25			1-5	4-3	6-1 $\frac{1}{2}$	2-2		10-11	
24	4V4	Wing - End Bt. 4	20	V 4		4-9					4-9	
		Increment = 8 $\frac{1}{2}$ inches				1-4 $\frac{1}{2}$					1-4 $\frac{1}{2}$	
4	6V5	Wing - End Bt. 4	25			1-7 $\frac{1}{2}$	4-3	6-1 $\frac{1}{2}$	2-2		11-1	
INT. BENTS 2 & 3												
24	11H20	Beam	17			40-6					41-6	
24	11H21	"	17			32-2					33-4	
16	9H22	"	20			13-0					13-0	
24	10H23	"	20			39-0					39-0	
24	10H24	Beam	20			32-0					32-0	
416	5U20	Beam	10 T			3-8 $\frac{1}{2}$	1-5	1-9	0-6	0-6	7-10	
144	3P20	Column, Bent 2	16			2-3					7-11	
12	7P21	"	20			36-7					36-7	
12	7P22	"	20			37-0					37-0	
12	7P23	"	20			37-5					37-5	
12	7P24	Column, Bent 2	20			37-10					37-10	
130	3P20	Column, Bent 3	16			2-3					7-11	
12	7P30	"	20			33-1					33-1	
12	7P31	"	20			33-6					33-6	
12	7P32	"	20			33-11					33-11	
12	7P33	Column, Bent 3	20			34-3					34-3	
96	5D20	Dowels, Footing	20	S		2-6					2-6	
40	5D21	Footing	18	S		4-6					5-8	
40	5D22	Footing	20	S		4-6					4-6	

NO. REQD.	MARK NO.	LOCATION	SHAPE NO.	TIE OR STIR. SUBSTR. VARIES	NO. EA.	DIMENSIONS					LENGTH	WEIGHT
						A	B	C	D	E		
SIZE	MARK					FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.
SUPERSTRUCTURE												
292	5C1	Curb	10 T			1-1 $\frac{1}{2}$	1-8	1-8			4-3	
24	5C2	Curb of End Post	10 T			1-0	1-11	1-11			4-8	
2	6C3	Left Curb	20			53-0					53-0	
2	5C4	Right Curb	20			53-0					53-0	
4	5C5	Left and Right Curb	20			53-8					53-8	
2	6C6	Left Curb	20			46-10					46-10	
2	5C7	Right Curb	20			46-10					46-10	
8	5R1	End Post	20			4-9					4-9	
4	5R2	"	12 T			0-9	2-1 $\frac{3}{8}$				5-4	
4	5R3	"	12 T			0-9	2-4 $\frac{1}{2}$				5-9	
4	5R4	"	12 T			0-9	2-6 $\frac{1}{2}$				6-1	
4	5R5	"	12 T			0-9	2-7 $\frac{1}{2}$				6-3	
4	5R6	"	12 T			0-9	2-8				6-5	
4	5R7	"	12 T			0-9	2-8 $\frac{5}{8}$				6-6	
4	5R8	"	12 T			0-9	2-9 $\frac{1}{8}$				6-8	
8	5R9	"	12 T			0-9	2-9 $\frac{1}{2}$				6-9	
16	5R10	End Post	10 T			0-7 $\frac{3}{4}$	4-9	4-9			9-11	
292	5R11	Parapet	12 T			0-8 $\frac{1}{2}$	2-0 $\frac{3}{8}$				5-1	
13	5R12	"	10 T			0-8 $\frac{1}{2}$	1-7 $\frac{1}{2}$	1-7 $\frac{1}{2}$	0-6		4-2	
32	5R13	"	20			9-2					9-2	
8	5R14	"	20			39-4					39-4	
8	5R15	"	20			34-8					34-8	
8	5R16	Parapet	20			33-4					33-4	
330	5S1	Slab	20			38-0					38-0	
330	5S2	"	20			32-3					32-3	
47	10S3	"	20			39-6					39-6	
94	9S4	"	20			52-9					52-9	
43	10S5	"	20			36-0					36-0	
88	10S6	"	20			27-3					27-3	
43	9S7	"	20			34-0					34-0	
43	9S8	"	20			31-0					31-0	
44	9S9	"	20			23-3					23-3	
89	5S10	"	20			30-0					30-0	
89	5S11	"	20			24-0					24-0	
89	5S12	"	20			24-8					24-8	
44	11S13	"	20			16-0					16-0	
43	11S14	"	20			28-0					28-0	
47	11S15	"	20			35-0					35-0	
44	11S16	"	20			16-6					16-6	
43	10S17	"	20			25-6					25-6	
47	10S18	Slab	20			32-0					32-0	



Note: All bending dimensions are out to out. Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for detailing reinforced concrete structures.

T - tie or stirrup
S - bar is included in substructure quantities.
Length - Total lengths are measured along centerline bar to the nearest inch.

V - bar dimensions vary in equal increments between dimensions shown on this line and the following line.
No. Ea. Number of bars of each length.

246

REVISED
JULY 1969
SEPT. 1969

Drawn Nov. 1969 by BS
Checked Jan. 1970 by FJD

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 9.

PLATTE COUNTY

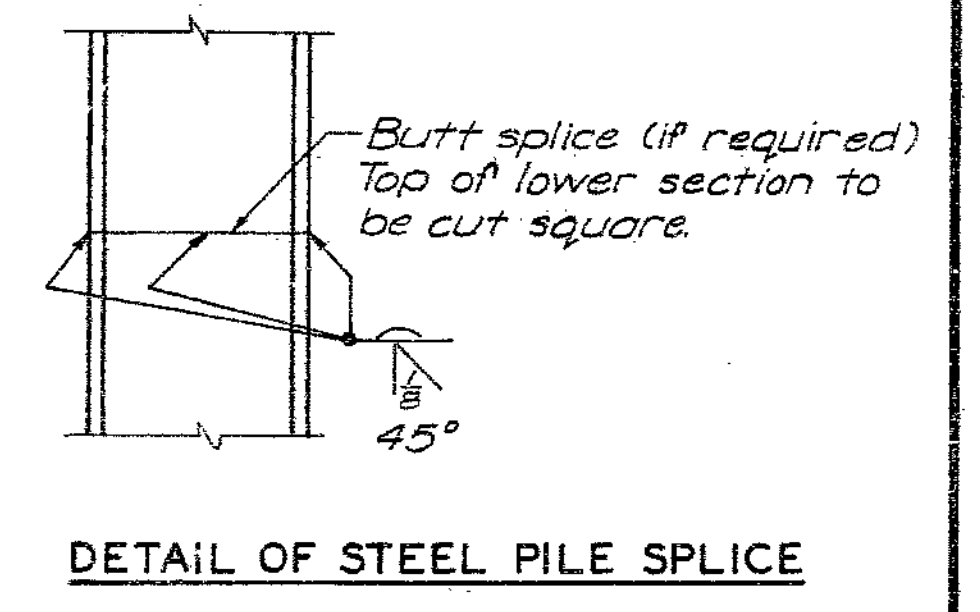
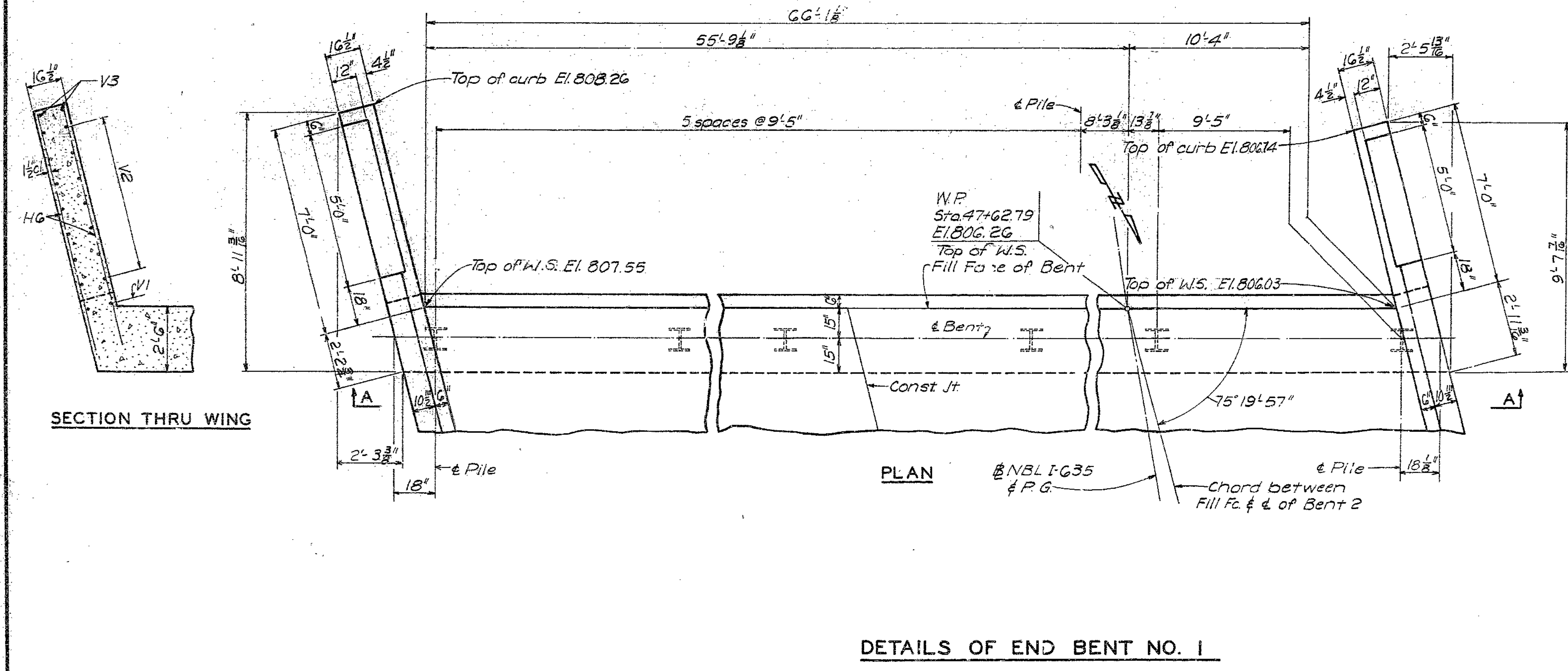
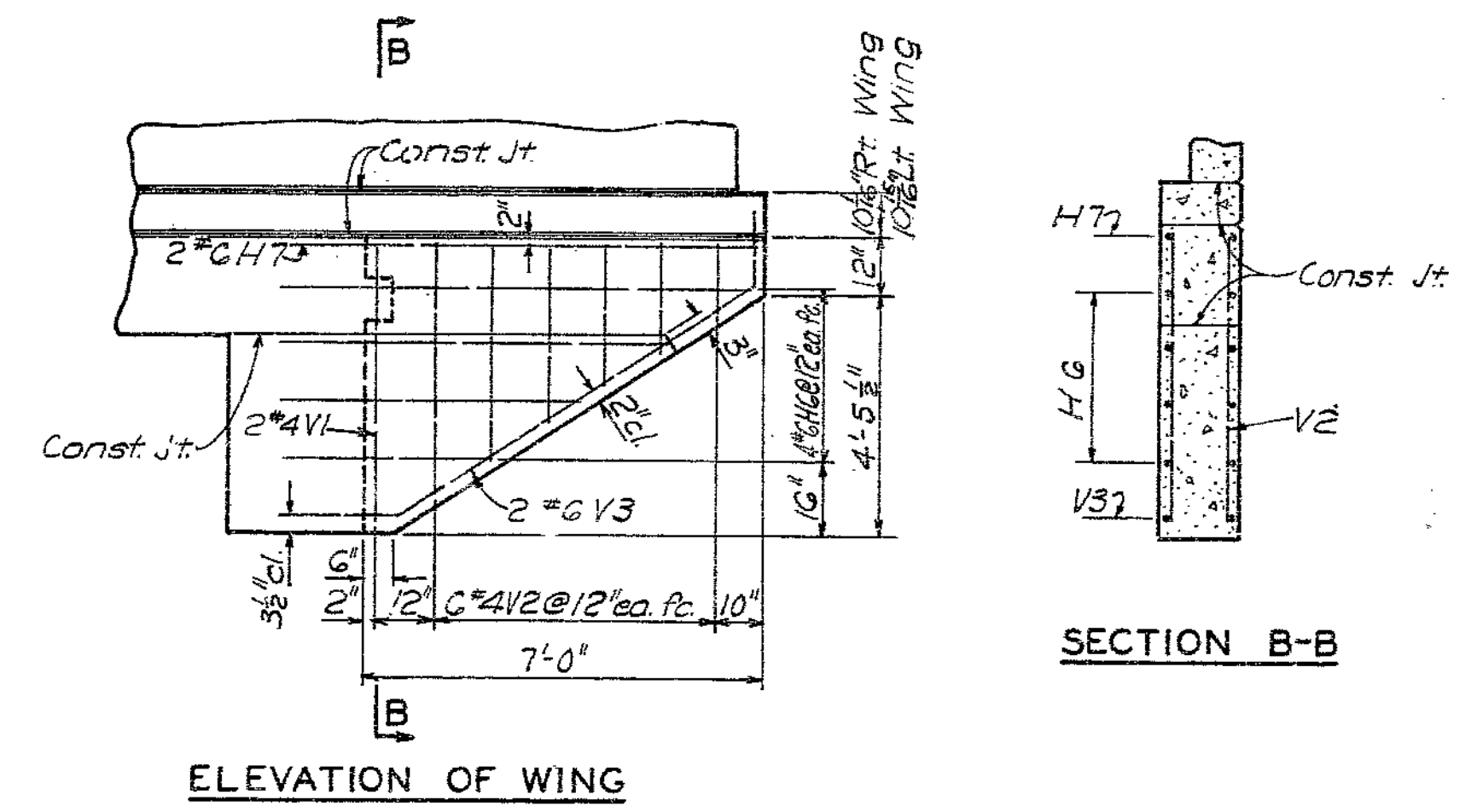
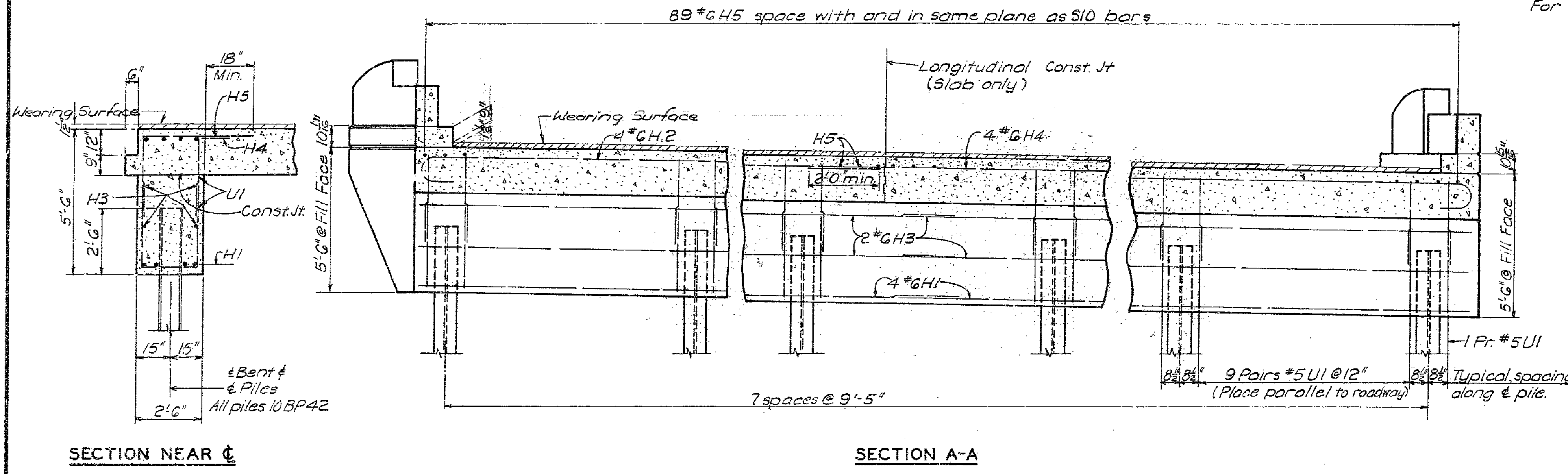
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CONSULTING ENGINEERS
KANSAS CITY, MO.

A-2437

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SH. NO.	TOTAL SHEETS
5	MO.		19	17	

Notes:
 For curb, parapet and end post reinforcing see Sh. 9
 For location of longitudinal construction joint see slab detail Sh. 7 & 8.
 For layout of substructure see Sh. 2.



247

DETAILS OF END BENT NO. 1

PLATTE COUNTY

DETAILED Oct. 1969 BY KKD
 CHECKED Jan. 1970 BY FJD

Note: This drawing is not to scale. Follow dimensions.

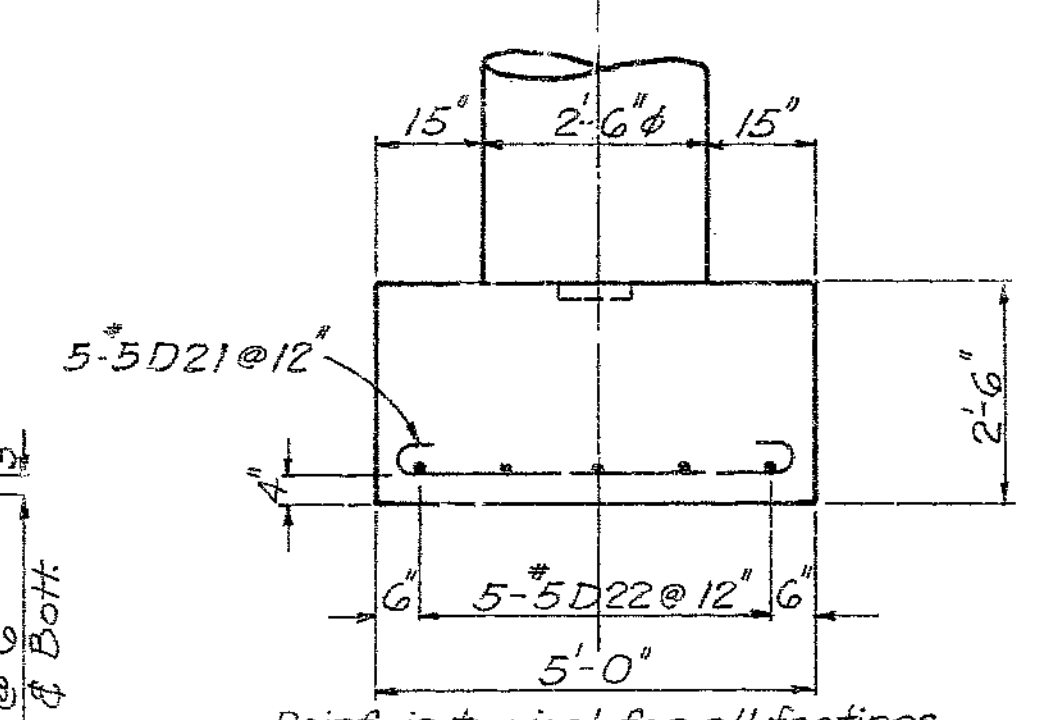
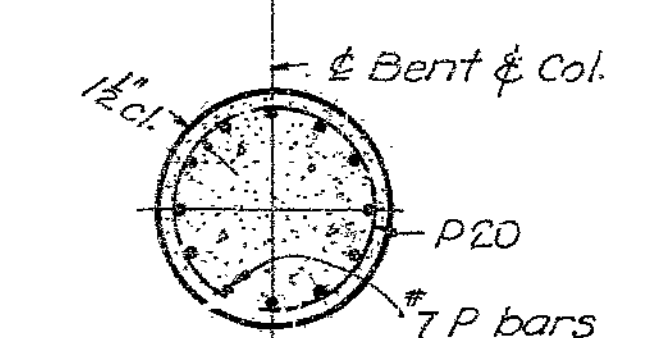
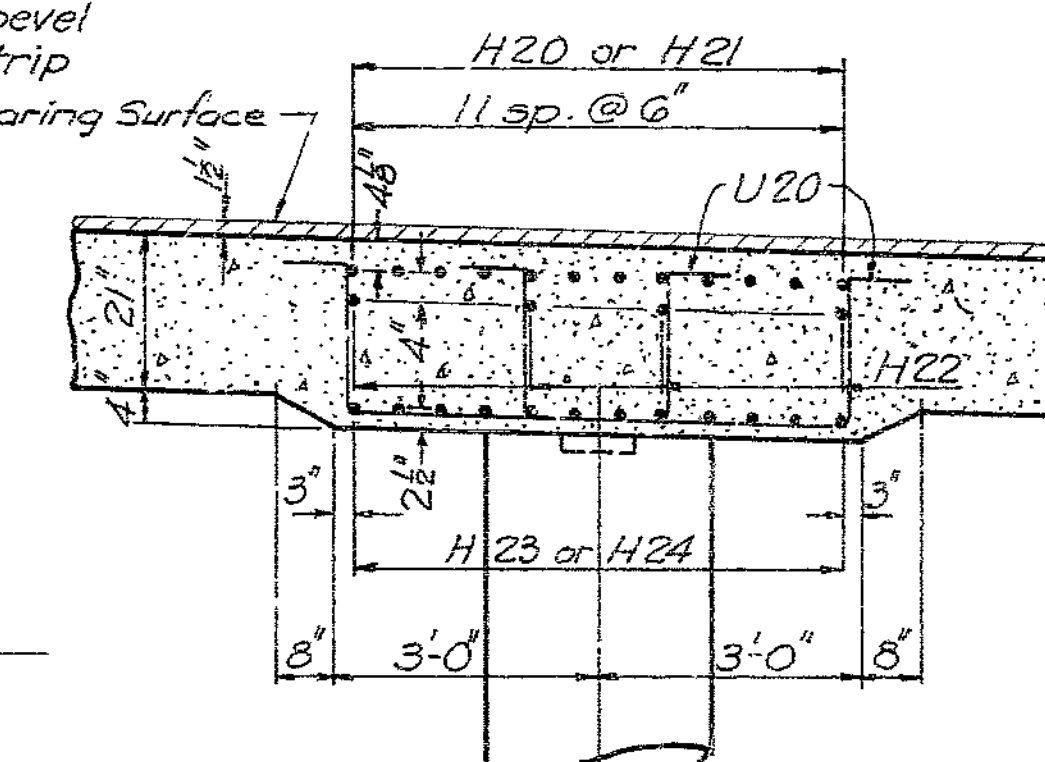
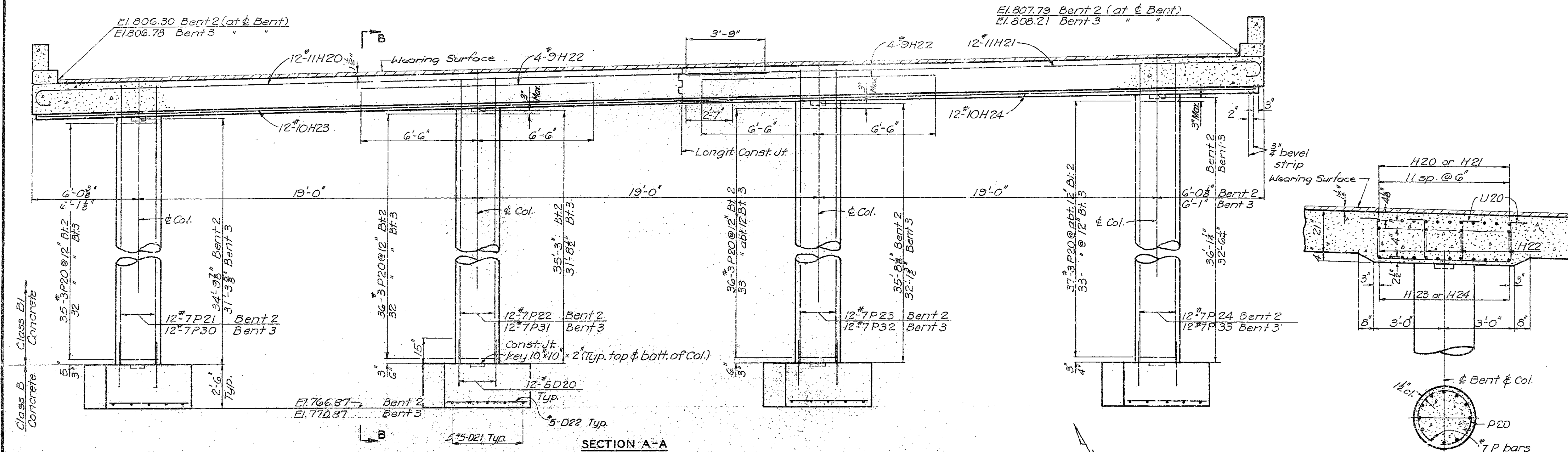
Sheet No. 4 of 9

HARRINGTON AND CORTELYOU
 CONSULTING ENGINEERS
 KANSAS CITY, MO.

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MISSOURI STATE HIGHWAY DEPARTMENT

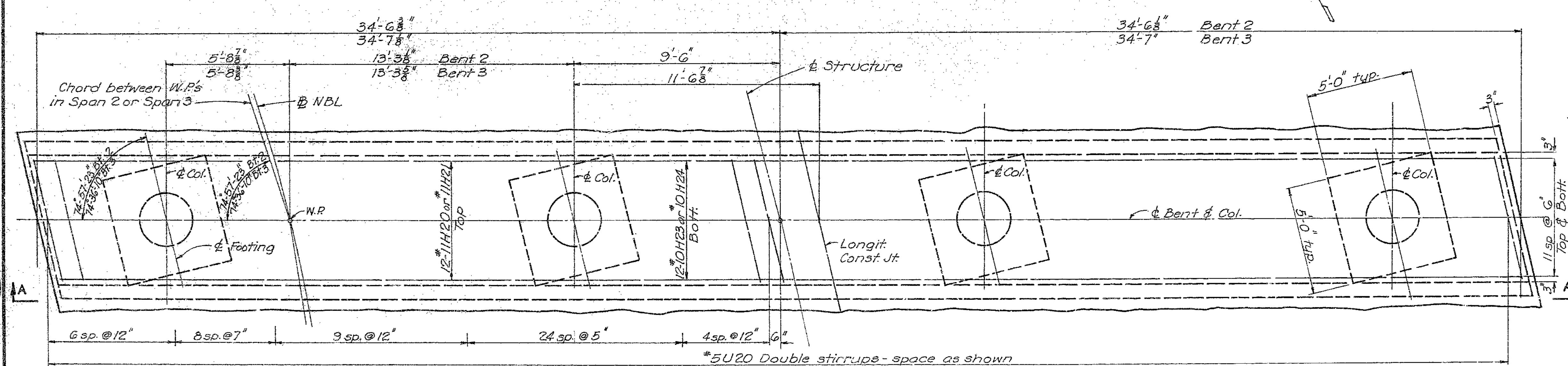
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	10	



Reinf. is typical for all footings.

SECTION B-B

Note: Bottom of drop panel to be built parallel to grade. See Layout of Structure, Sh. 2.



Note: Footings are parallel

PLAN

248

INT. BENTS 2 & 3

PLATTE COUNTY

DETAILED OCT 1969 BY JER
CHECKED Jan. 1970 BY FJD

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 9.

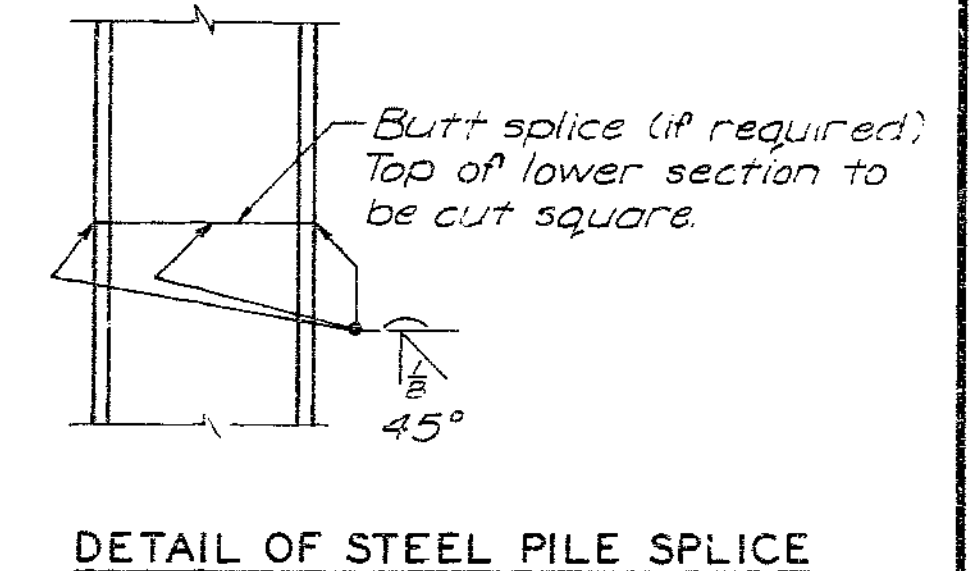
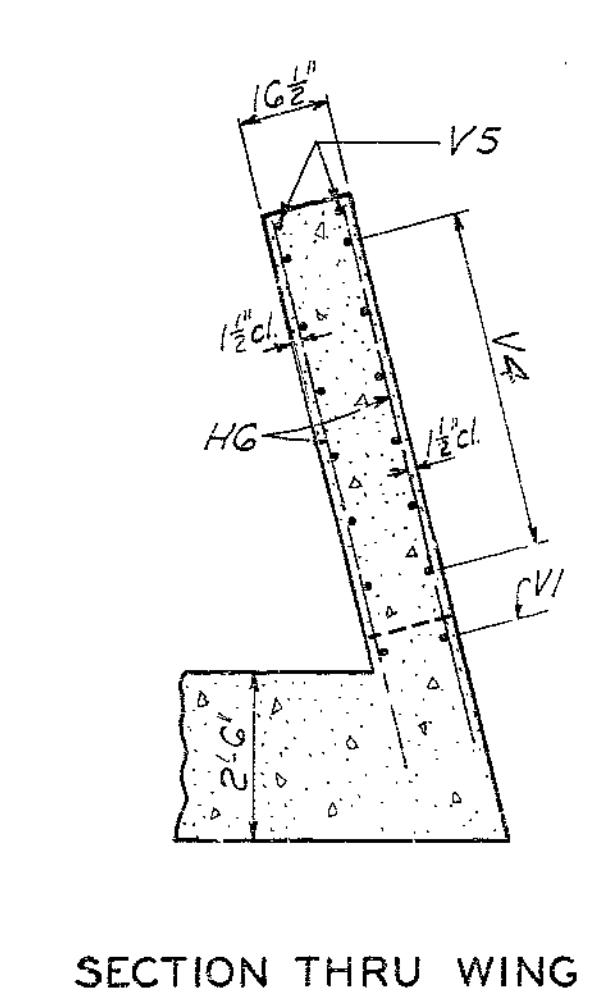
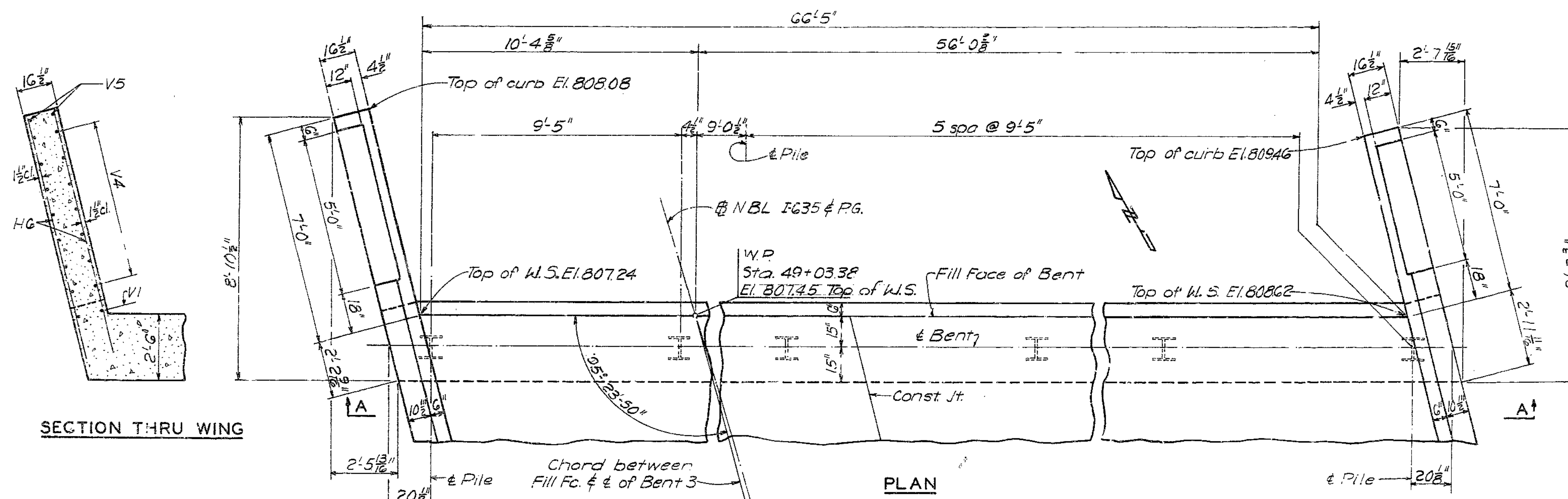
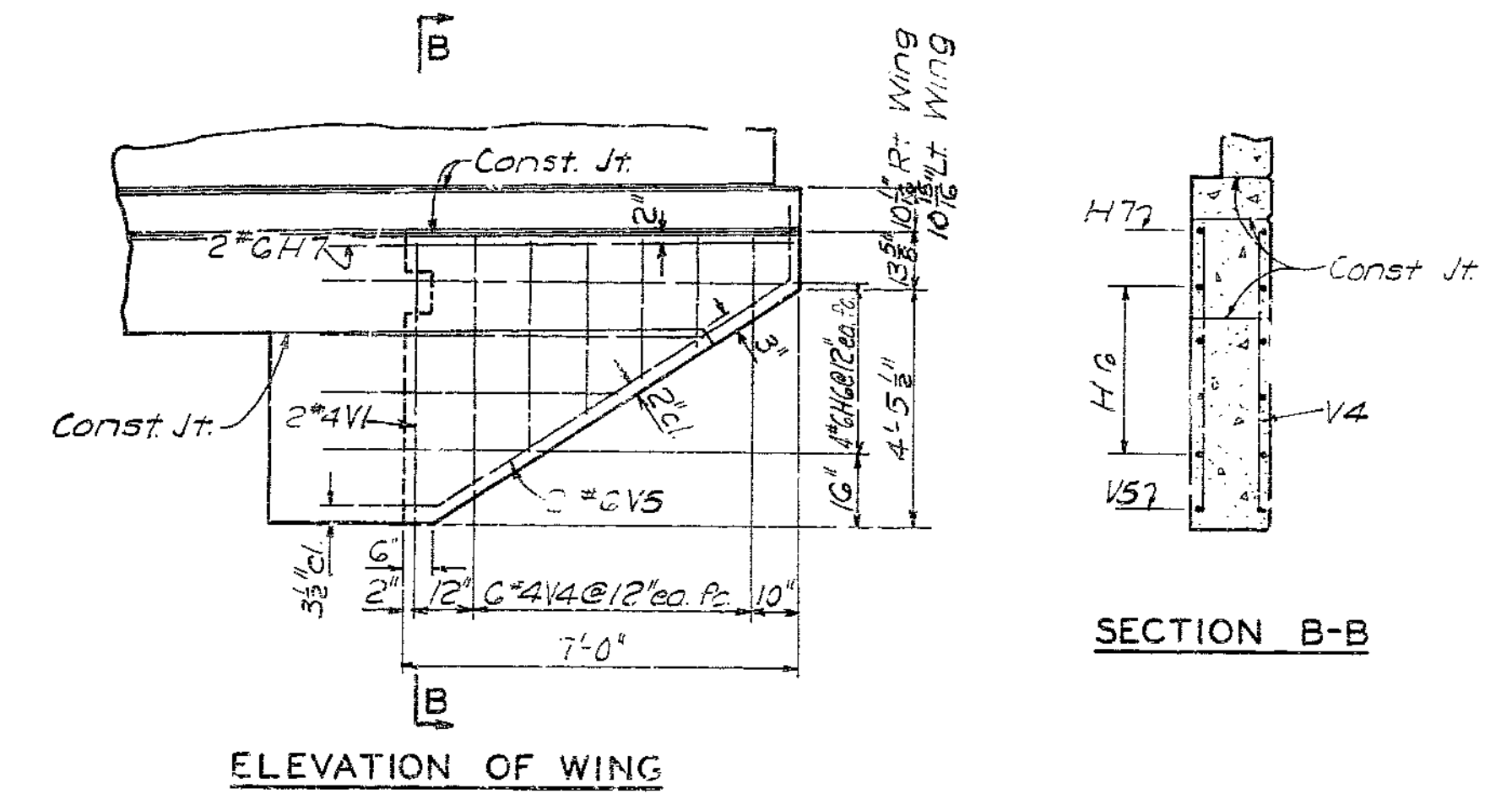
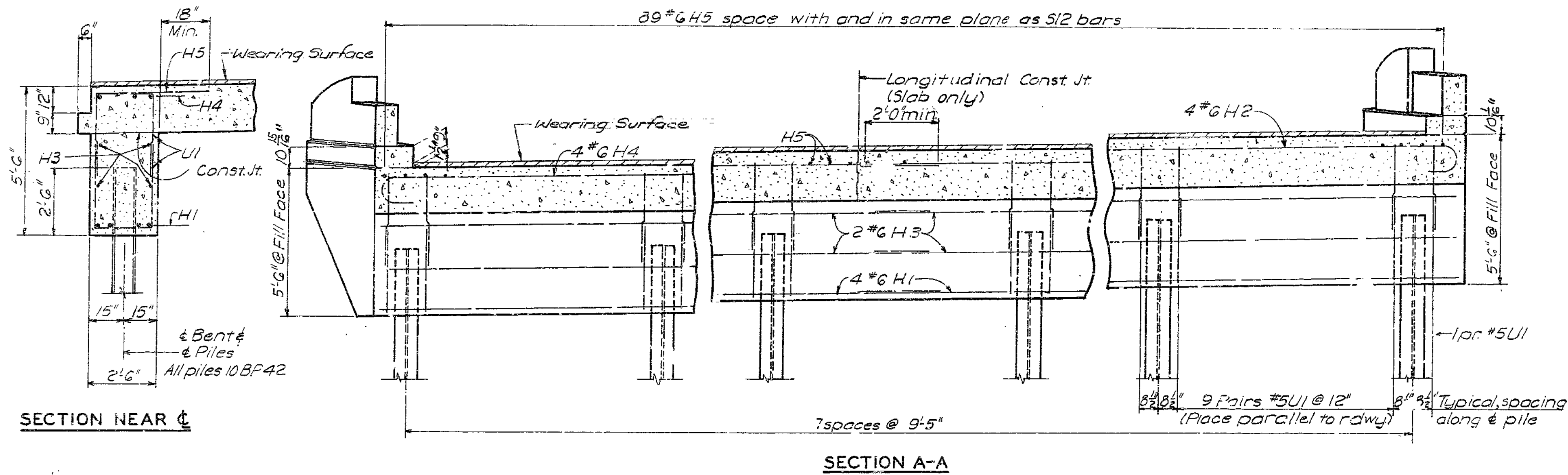
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KANSAS CITY, MO.

A-2437

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT'L SHEETS
5	MO.		19	11	13

Notes:
 For curb, parapet and end post reinforcing see Ch 9
 For location of longitudinal construction joint see slab detail Sh. 7 & 8.
 For layout of substructure see Sh. 2



DETAILS OF END BENT NO. 4

249

DETAILED Oct. 1969 BY KKD
 CHECKED Jan. 1970 BY FJD

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 9.

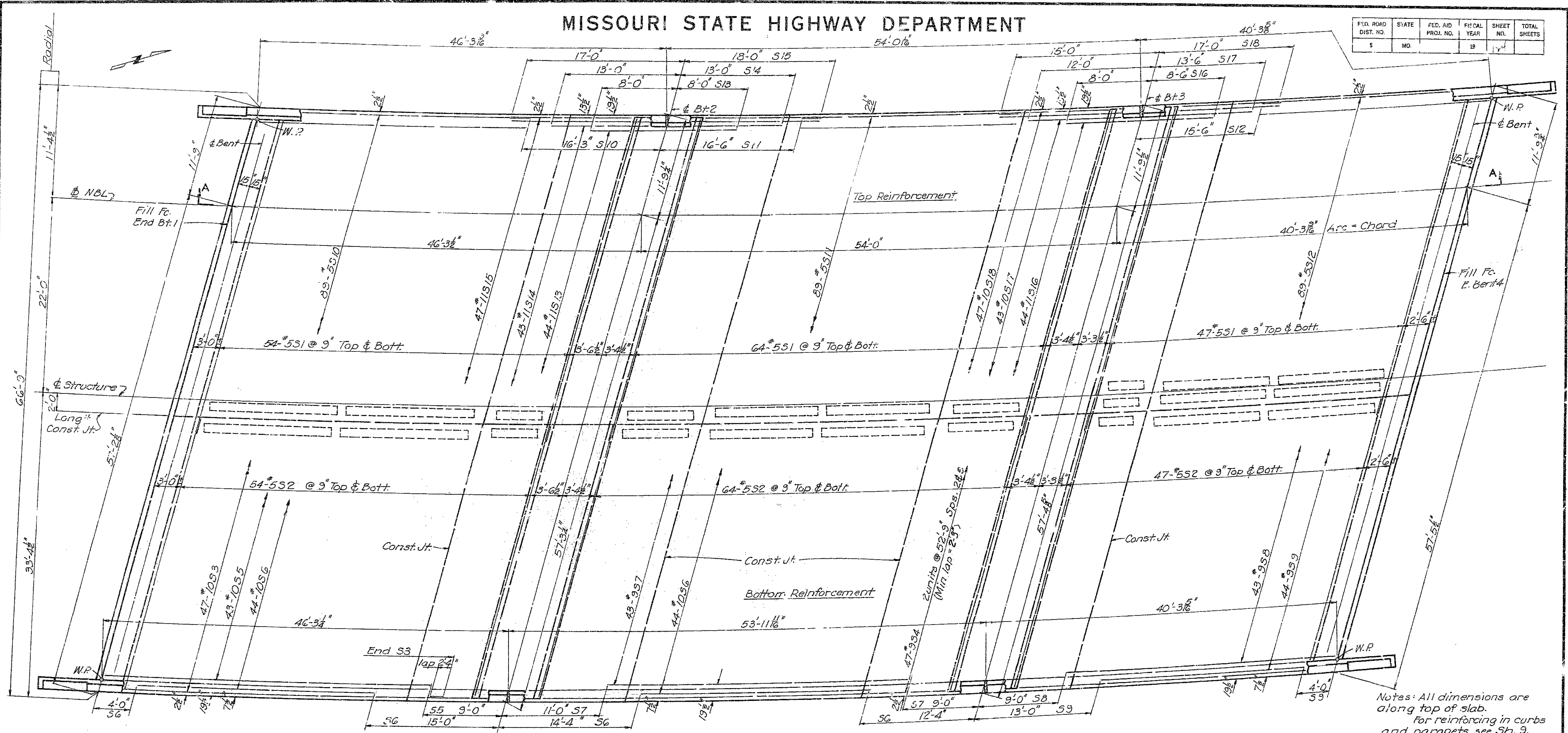
PLATTE COUNTY

HARRINGTON AND CORTELYOU
 CONSULTING ENGINEERS
 KANSAS CITY, MO.

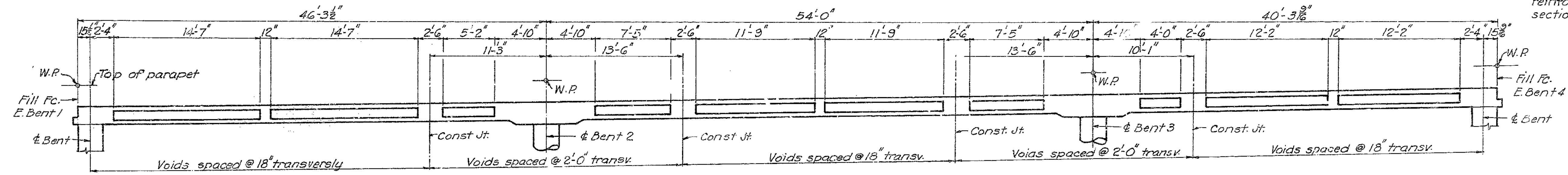
A-2437

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	12	



PLAN OF SLAB



SECTION A-A

250

DETAILED OCT. 1969 BY JER
CHECKED Jan. 1970 BY FJD

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 9.

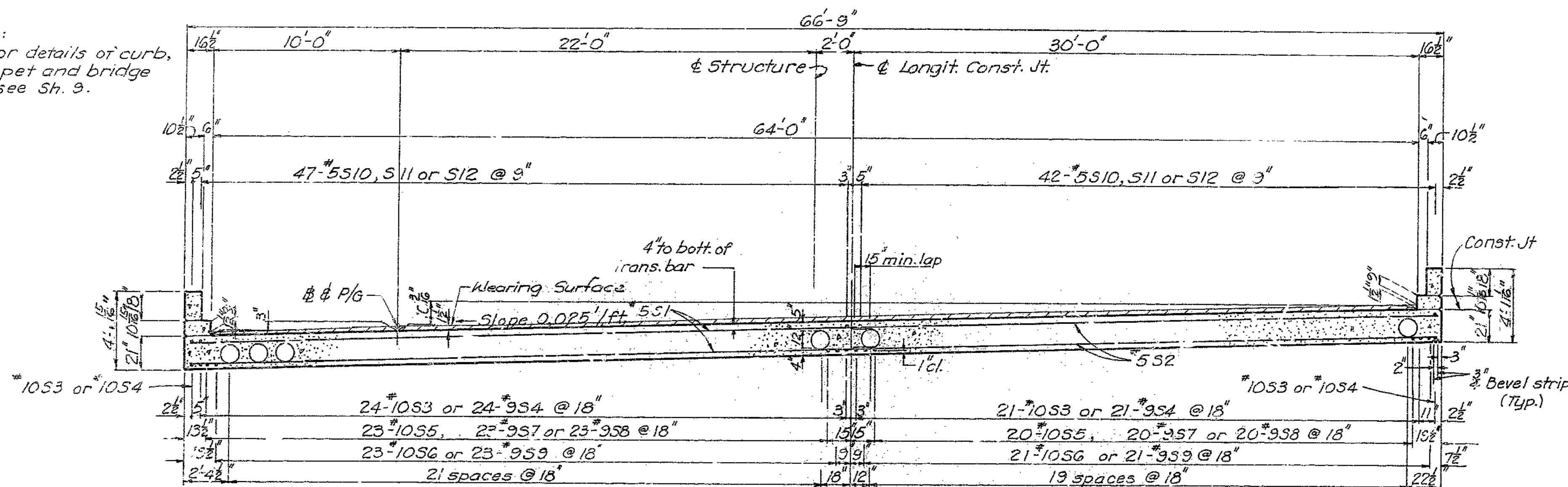
PLATTE COUNTY
HARRINGTON AND CORTELYOU
CONSULTING ENGINEERS KANSAS CITY, MO.

A-2437

MISSOURI STATE HIGHWAY DEPARTMENT

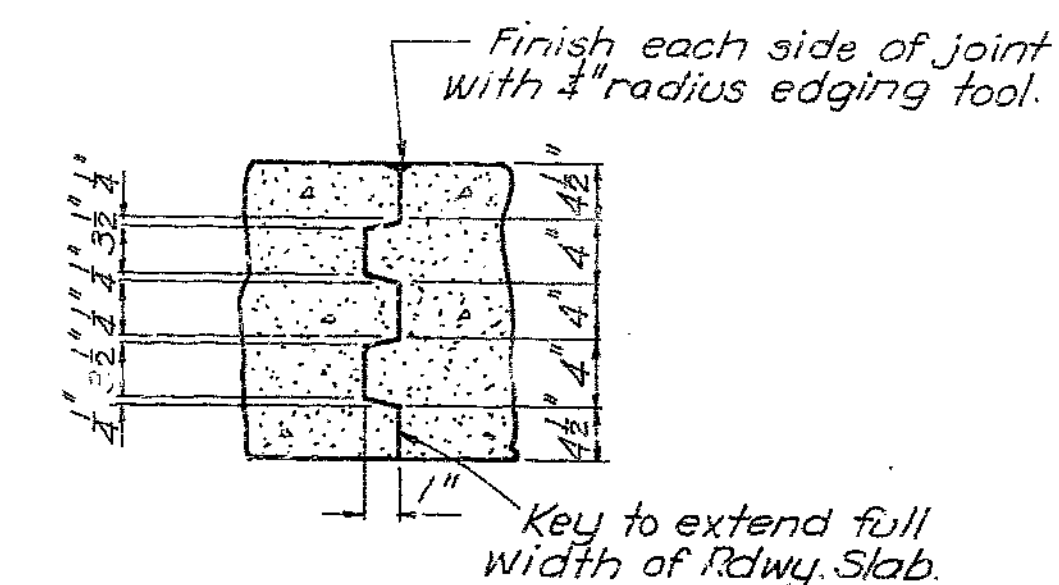
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	13	

Note:
For details of curb, parapet and bridge rail see Sh. 9.

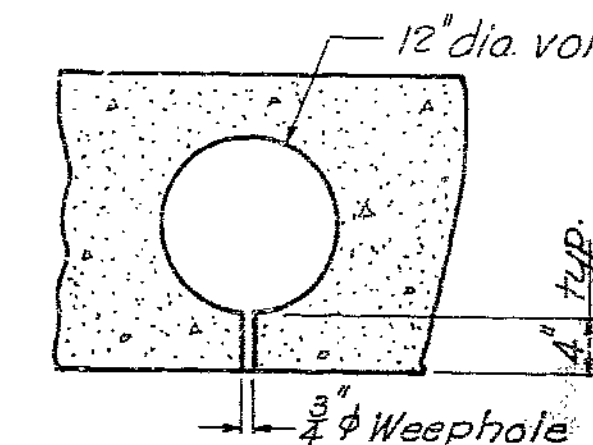


SECTION NEAR CENTER OF SPANS

(Radial)

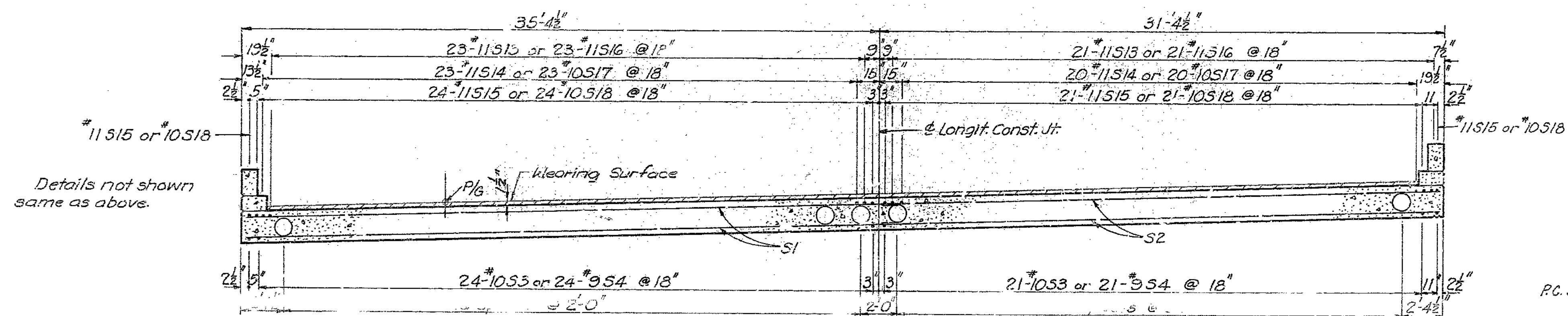


DETAIL OF SLAB CONST. JOINT KEY



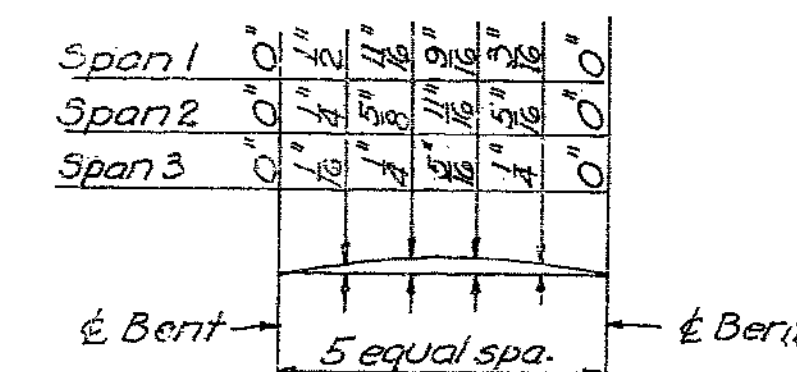
DETAIL OF WEEPHOLE IN VOIDS

Note: The contractor shall pour and satisfactorily finish the roadway slab at a rate of not less than 38 cubic yards per hour. He shall observe the transverse construction joints shown on the plans unless he can demonstrate to the satisfaction of the engineer that he is equipped to pour and satisfactorily finish the roadway slab at a rate which will permit a continuous pouring through some or all of these joints.



SECTION NEAR INT. BENTS

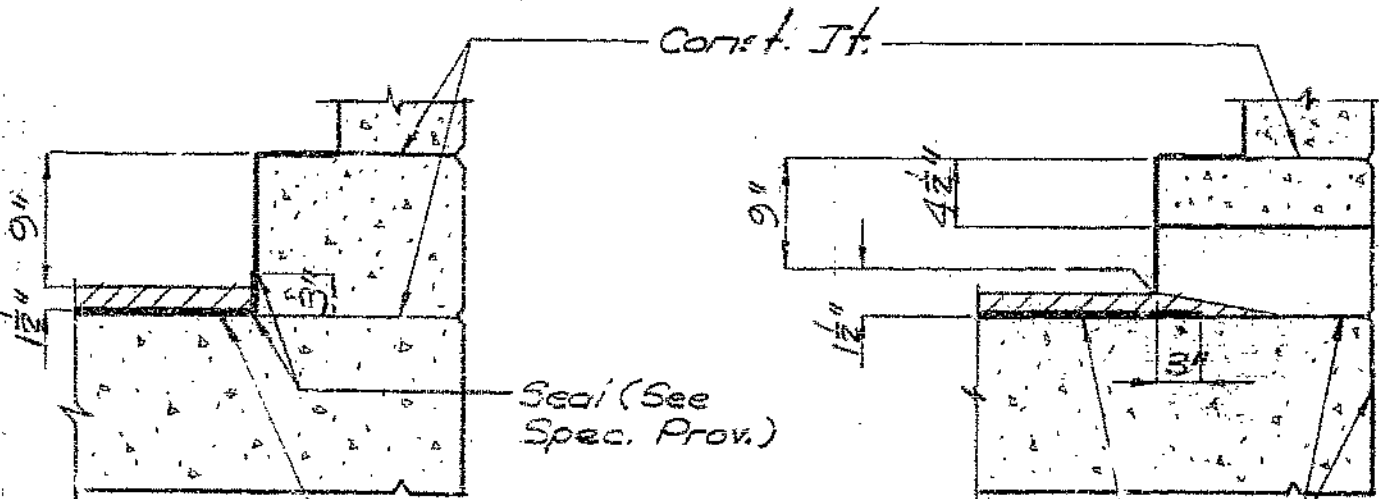
(Radial)



CAMBER DIAGRAM

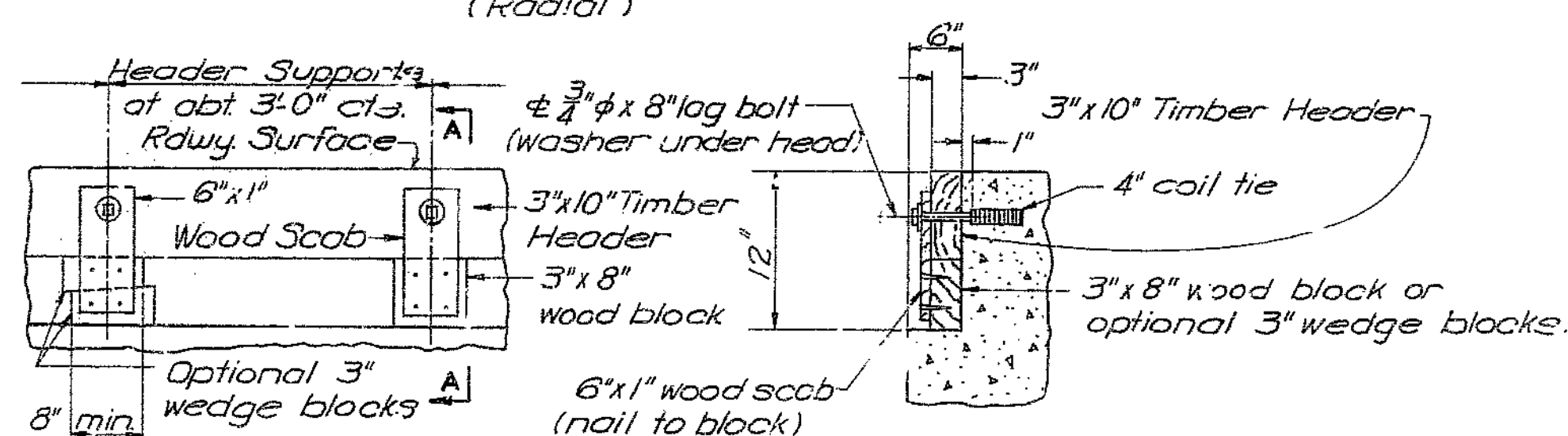
(For total dead load)

251
Tubes for producing voids shall have an outside diameter of 12.0" and shall be anchored at not more than 4'-0" centers. Fiber tubes shall have a wall thickness of not less than .225.



PART SECTION THRU CURB

PART SECTION THRU CURB AT OUTLET



PART ELEVATION

SECTION A-A

Note: Cost of timber headers complete in place to be included in price bid for concrete.

DETAILS OF TIMBER HEADER



Profile Grade	Elevation
Sta. 47+50.7	6.23
Sta. 47+55.7	6.28
Sta. 47+60.7	6.30
Sta. 47+65.7	6.33
Sta. 47+70.7	6.35
Sta. 47+75.7	6.38
Sta. 47+80.7	6.41
Sta. 47+85.7	6.44
Sta. 47+90.7	6.47
Sta. 47+95.7	6.51
Sta. 48+00.7	6.54
Sta. 48+05.7	6.58
Sta. 48+10.7	6.62
Sta. 48+15.7	6.66
Sta. 48+20.7	6.70
Sta. 48+25.7	6.74
Sta. 48+30.7	6.78
Sta. 48+35.7	6.83
Sta. 48+40.7	6.87
Sta. 48+45.7	6.92
Sta. 48+50.7	6.97
Sta. 48+55.7	7.02
Sta. 48+60.7	7.07
Sta. 48+65.7	7.13
Sta. 48+70.7	7.18
Sta. 48+75.7	7.24
Sta. 48+80.7	7.29
Sta. 48+85.7	7.35
Sta. 48+90.7	7.41
Sta. 48+95.7	7.47
Sta. 49+00.7	7.54
Sta. 49+05.7	7.60
Sta. 49+10.7	7.67
Sta. 49+15.7	7.74
Sta. 49+20.0	8.07

PROFILE GRADE ELEVATIONS

(At 5' intervals along NBL I-635)

Note: Profile grade elevations are taken at top of wearing surface.

DESIGNED OCT. 1969 BY JER
CHECKED Jan. 1970 BY F.I.D

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 8 of 9.

PLATTE COUNTY

HARRINGTON AND CORTELYOU
CONSULTING ENGINEERS KANSAS CITY, MO.

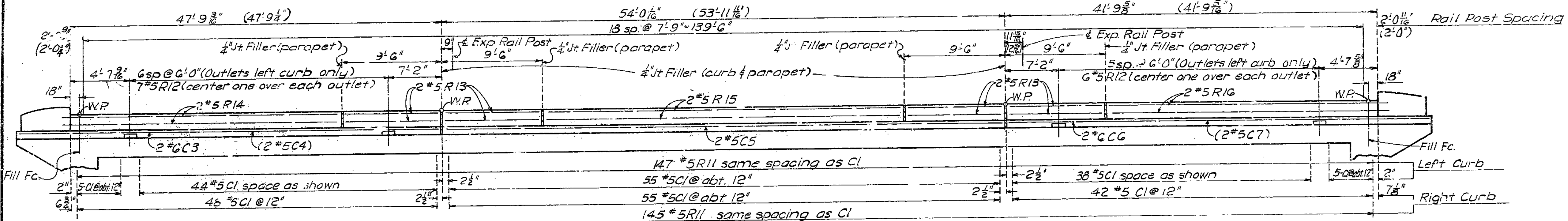
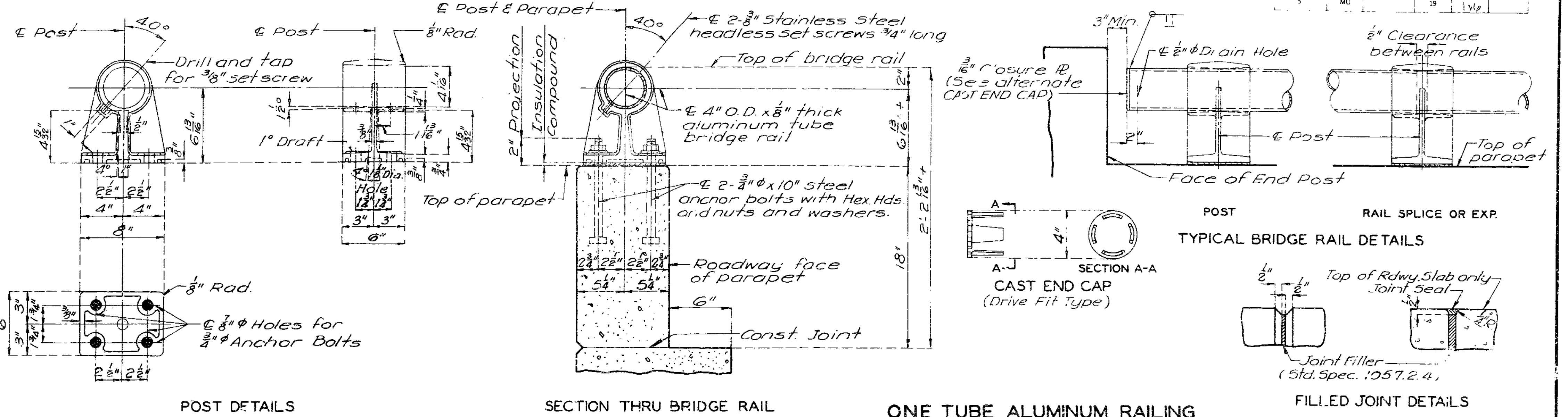
A-2437

MISSOURI STATE HIGHWAY DEPARTMENT

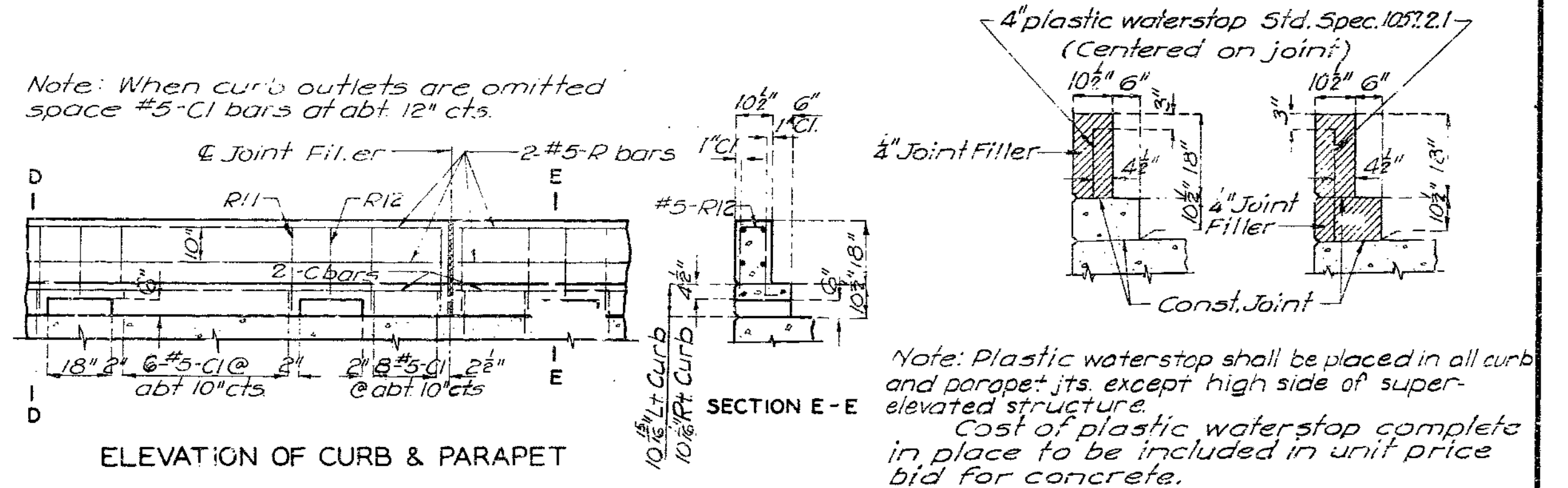
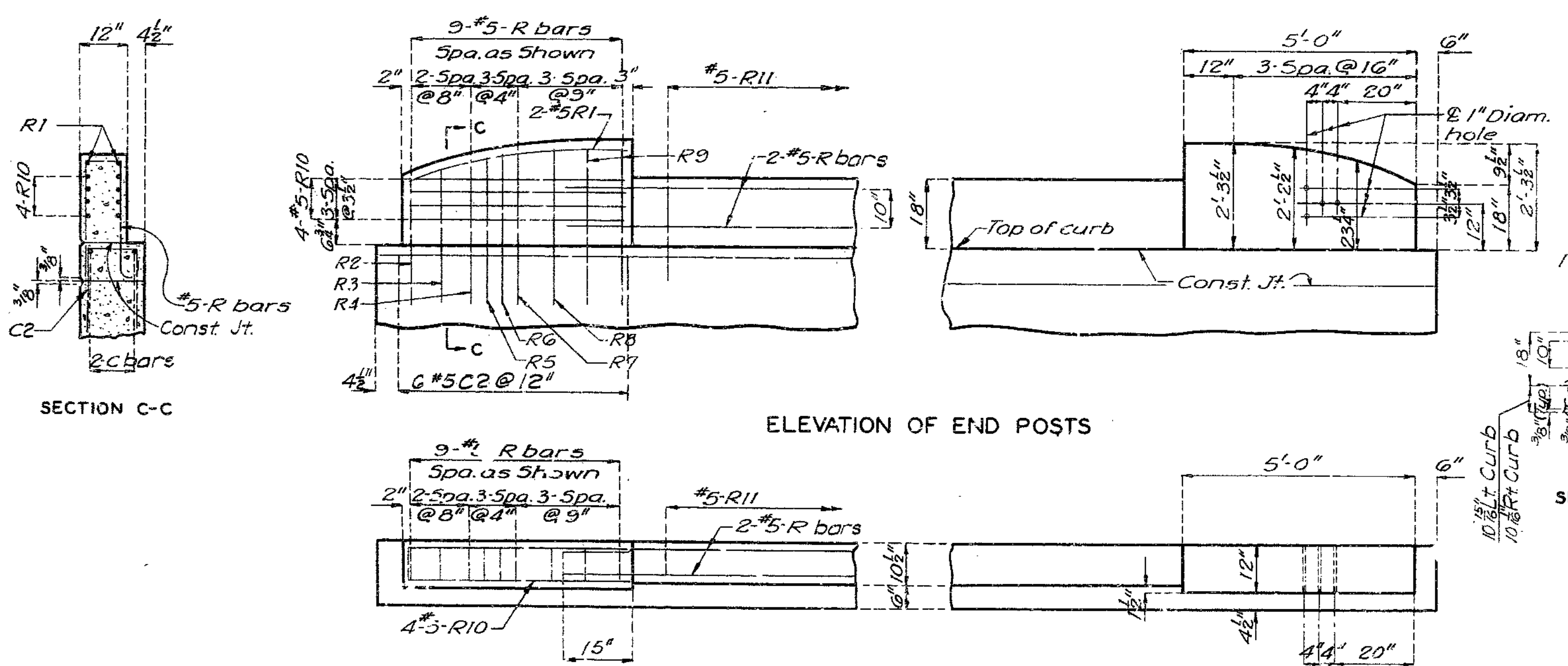
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	14	

GENERAL BRIDGE RAIL NOTES:

All bridge rail posts shall be set normal to grade. Aluminum tube bridge rail shall be bent to conform to vertical and horizontal alignment of parapet.
 Aluminum washer shims between top of parapet and post base may be used for adjusting bridge rail alignment. Maximum thickness of shims to be 3/8". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.
 All parts of bridge rail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.
 All fillets 3/8" except as noted.
 All drafts 3° except as noted.
 Omit set screw in side of rail posts adjacent to filled joints in curb and parapet at rail expansion points. Omit set screw in each side of rail post on end bents except where a gap is shown in rail over an expansion device.
 Top of curbs and parapet to be built parallel to grade with curb and parapet joints (except at end bents) normal to grade.
 Concrete end posts to be vertical.
 All exposed edges of end posts shall have 1/4" bevel. All exposed edges of curbs and parapets shall have 1/8" radius or 3/8" bevel unless otherwise noted.



Notes:
 Rail post spacing is slope distance along top of parapet. See Sec. A-A on Sh. 7 for location of W.P.'s.
 Dimensions and reinforcing shown thus () or so noted refer to right curb.



Note: For horizontal curb and parapet bars use a minimum lap of 15" for #5 and 18" for #6.

DETAILS OF PLASTIC WATERSTOP PLATTE COUNTY

252

REVISED OCT 1968
 MAR 1964
 DETAILED Oct. 1969 BY KKD
 CHECKED Jan. 1970 BY FJD

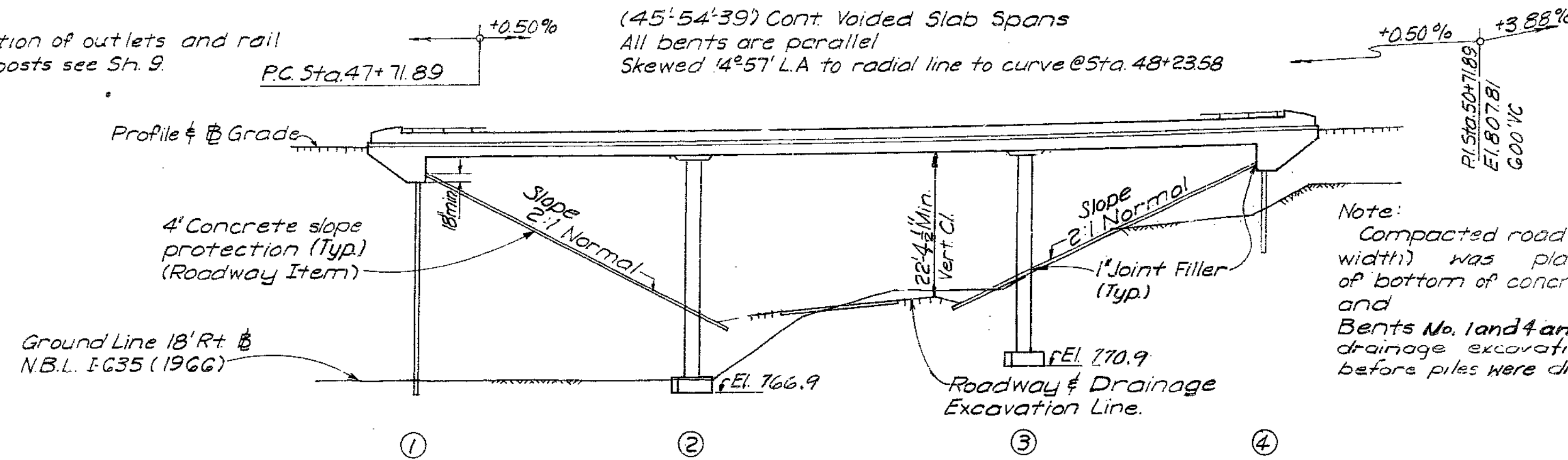
PLAN OF END POSTS
 Note: This drawing is not to scale. Follow dimensions.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	11	

FINAL PLANS

Note:
For location of outlets and rail expansion posts see Sh. 9.



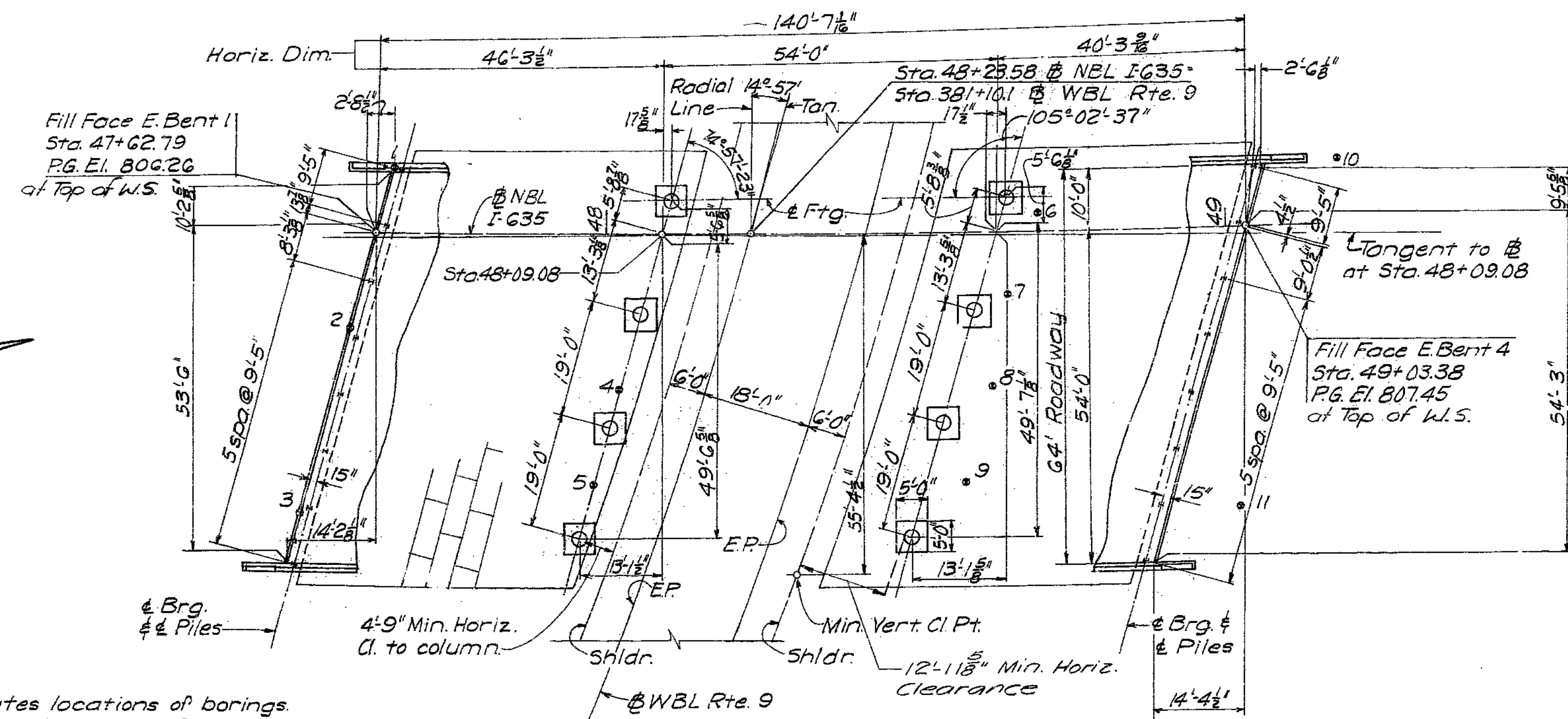
ELEVATION

Note:
Compacted roadway fill (full roadway width) was placed up to elevation of bottom of concrete beam in front and 25' in back of End Bents No. 1 and 4 and up to roadway and drainage excavation line at Bent No. 2 before piles were driven.

PILE AND FOOTING DATA					
Bent No.		1	2	3	4
Bearing Pile	Pile Type and Size	10BP42			10BP42
	Number	8			8
	Final Length Ft.	37-39			12-27
	Design Bearing Tons	36			36
Hammer Energy Req'd Ft. Lbs		8,100			8,100
Spread Foundation Material			Rock	Rock	
Footings Design Bearing Tons/Sq. Ft.			8.7	8.4	

Minimum energy requirement of hammer based on plan length and design bearing values of piles.

All piles were driven to practical refusal.



PLAN

Note:
• Indicates locations of borings.
For boring data see Sh. 2.
All bents are parallel.
Bents cannot be accurately located from the reference point on the tangent by conventional survey methods based on 100' chords.

Curve Data: NBL I-635
P.I. 47+57.18
Δ 14°15' Lt.
D 0°45'
T 954.93
L 1900.00
R 7639.44
S.E. .025%

Note:
Transverse and longitudinal dimensions for coordinating substructure are measured respectively normal to and parallel to tangent to @ at Sta. 48+09.08.

Items	QUANTITIES		
	Substr.	Superstr.	Totals
Class I Excavation	Cu. Yd.	335.5	335.5
Structural Steel Pile (10")	Lin. Ft.	428	428
Class B Concrete	Cu. Yd.	18.6	18.6
Class B1 Concrete	Cu. Yd.	635.5	635.5
Reinforcing Steel	Lb.	680	161370
Bridge Rail (one tube)	Lin. Ft.		286
Coal Tar Interlayer Protective Coat	Sq. Yd.		1000
Special Type "D" Mixture (Asphaltic Concrete) Ton			69
Contingent Items			
Drilled Test Holes		32	32

All concrete and reinforcing above footings is included in Superstructure concrete.

GENERAL NOTES

Design Specifications: AASHTO-1969

Design Loading:
HS20-44
Modified 24,000* Tandem Axle

Earth 120* Equivalent Fluid Pressure 30*

Design Unit Stresses:
Class B Concrete (substructure) $f_c = 1,200$ psi
Class B1 Concrete (superstructure) $f_c = 1,600$ psi
Reinforcing Steel $f_s = 20,000$ psi
Steel Pile $f_b = 9,000$ psi

Minimum clearance to reinforcing steel 1 1/2" unless otherwise shown.
Profile grade elevations are taken at top of wearing surface.

Bench Marks
BM- Bolt head in curb at SW corner Br. A-2437
Elev. 806.71
BM- Bolt head in curb at NE corner Br A-2437
Elev. 809.49

BRIDGE: N.B.L. I-635 OVER ROUTE 9 W.B.L.
STATE ROAD-INTERSTATE ROUTE 635
IN RIVERSIDE
PROJECT NO. I-IG-635-K75 (RTE. I-635) STA. 47+62.79

PLATTE COUNTY



FINAL PLAN

Sheet No. 1A of 9

SUBMITTED BY: W. A. Carney DATE: 1-24-72

APPROVED BY: Robert N. Hunter DATE: 1-24-72

HARRINGTON AND CORTELYOU
CONSULTING ENGINEERS
KANSAS CITY, MO.

DWG. 611.60

DWG. 70630A

A-2437

DESIGNED Sept. 1969 BY HFC
DETAILED Sept. 1969 BY KKD
CHECKED Jan. 1970 BY FJD

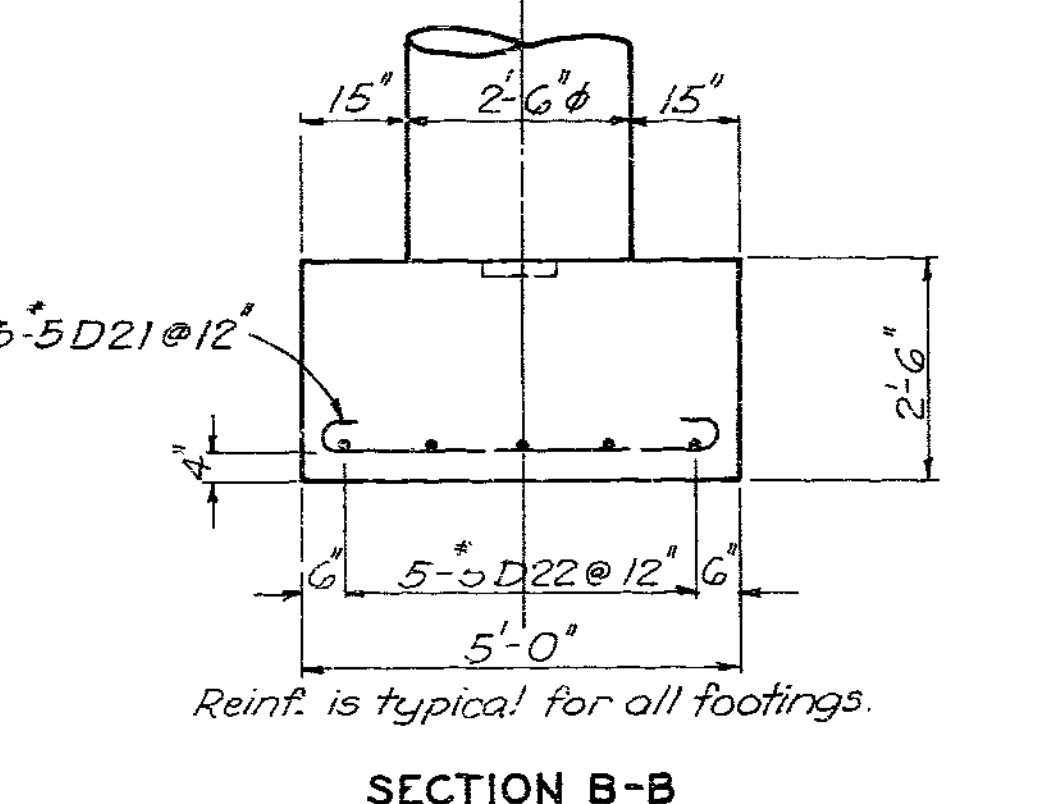
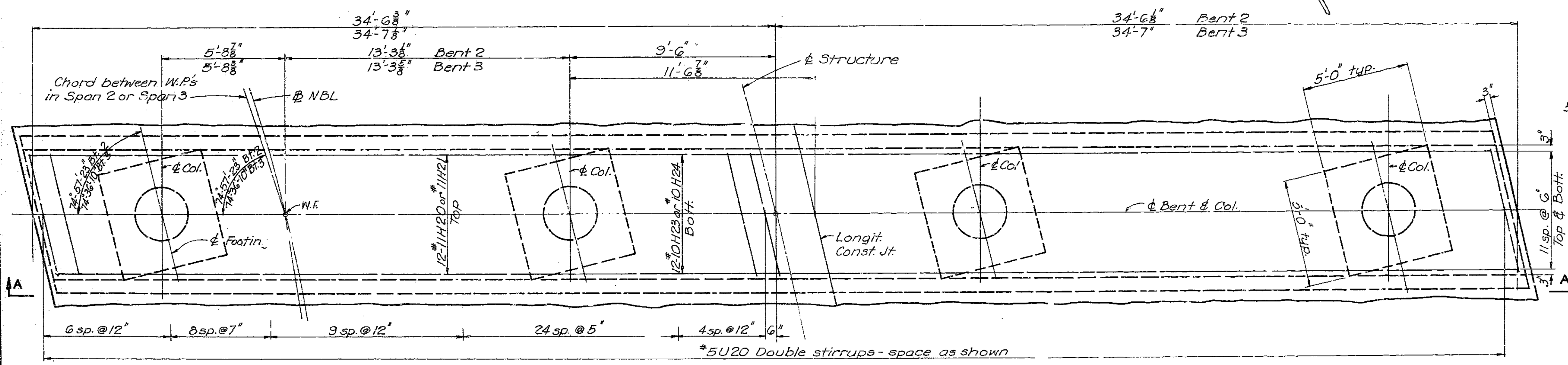
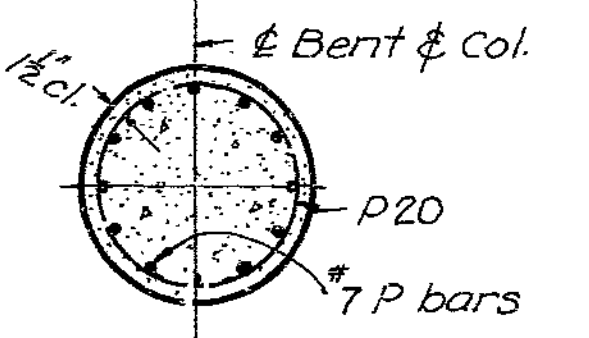
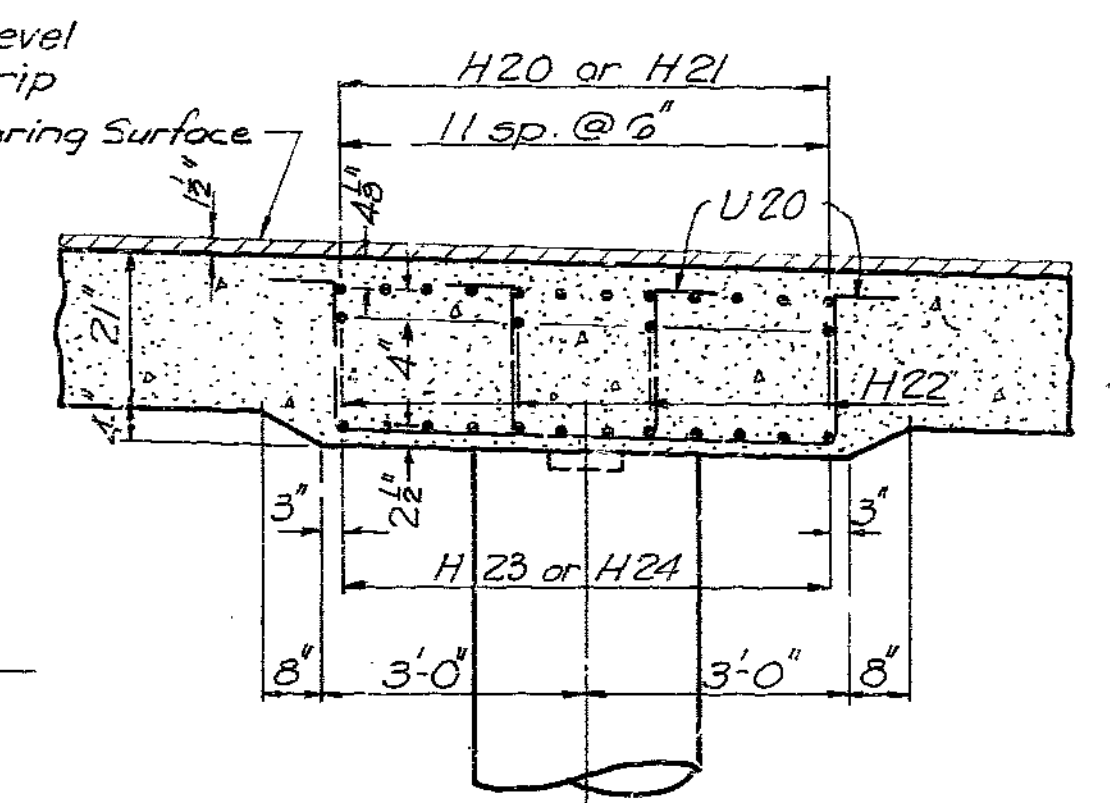
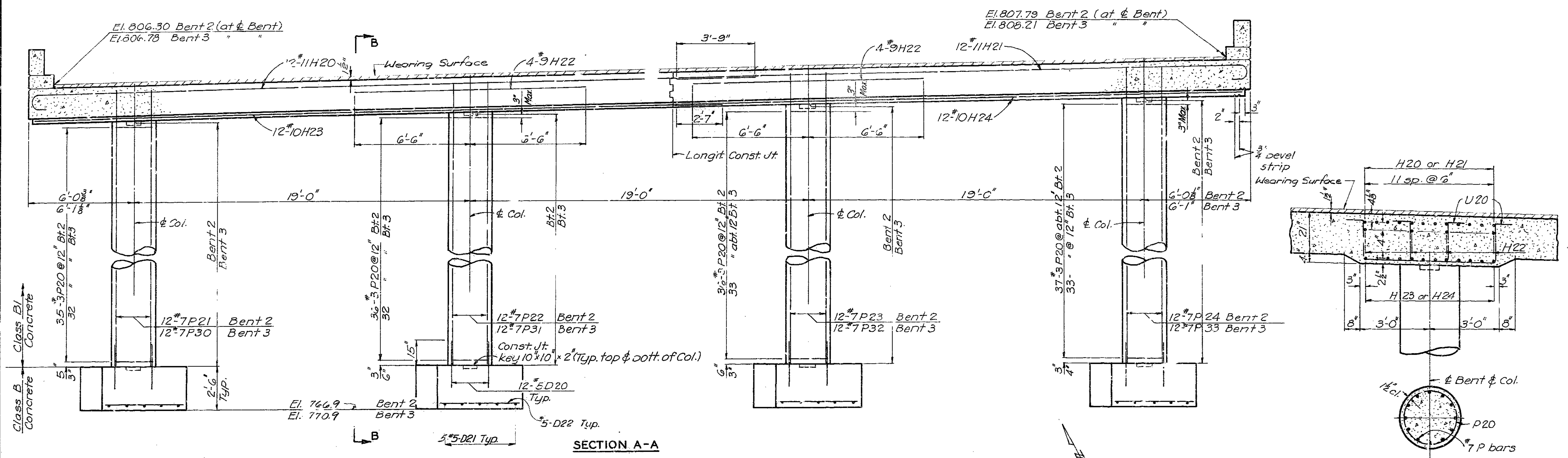
Note: This drawing is not to scale. Follow dimensions.

253

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PRGJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	17	

FINAL PLANS



Note: Bottom of drop panel built parallel to grade. See Layout of Structure, Sht. 2.

PLAN

Note: Footings are parallel

254

DETAILED OCT 1969 BY JER
CHECKED Jan. 1970 BY FJD

Note: This drawing is not to scale. Follow dimensions.

INT. BENTS 2 & 3

PLATTE COUNTY

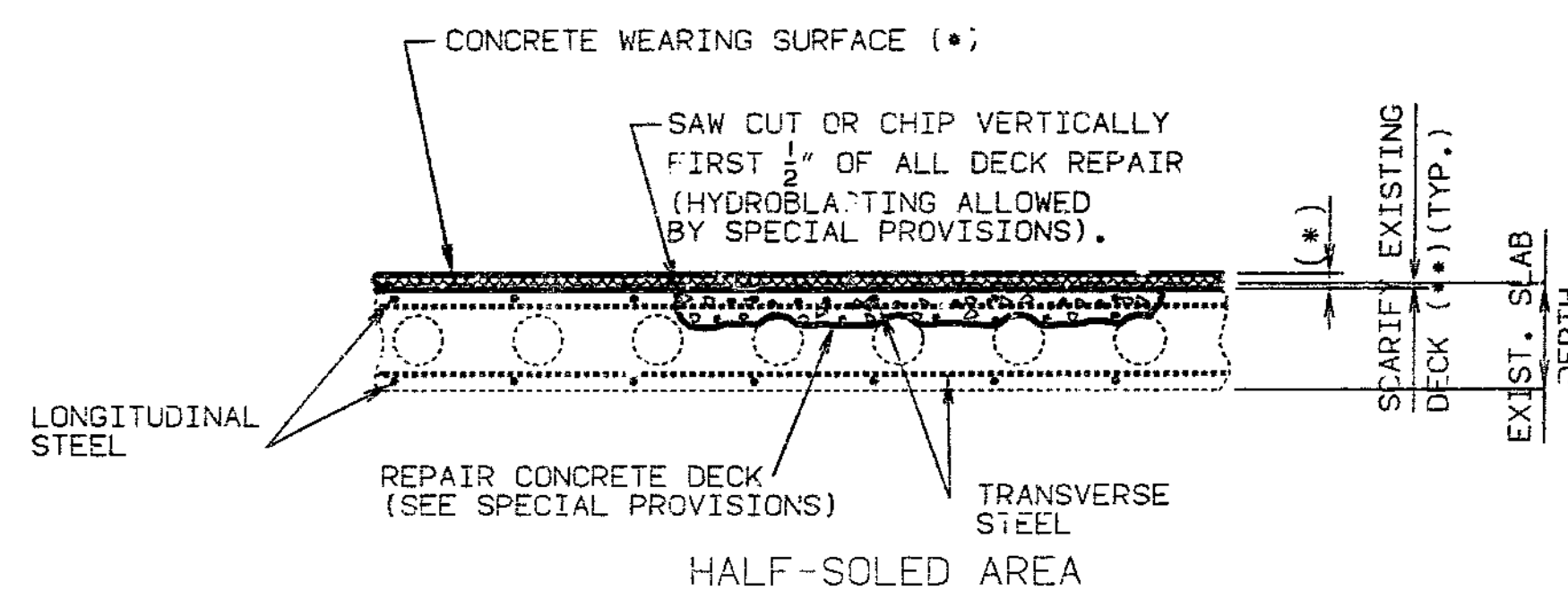
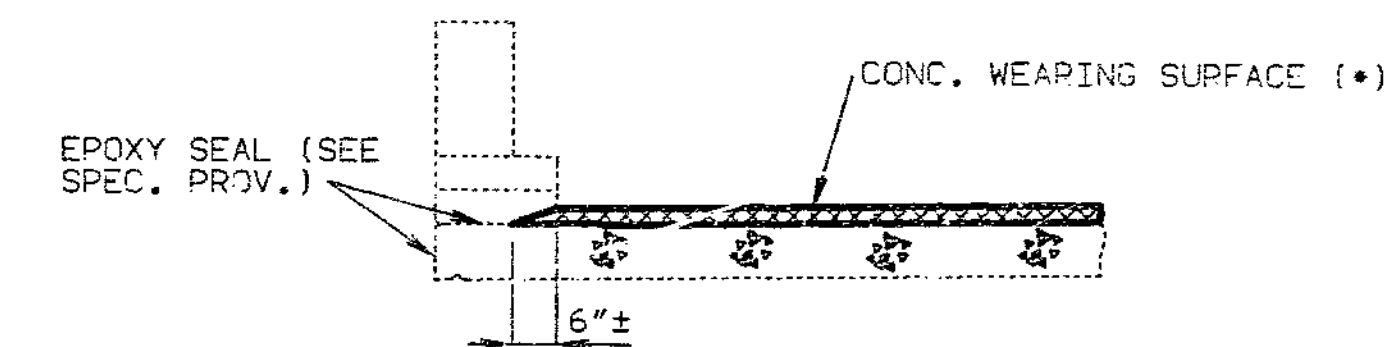
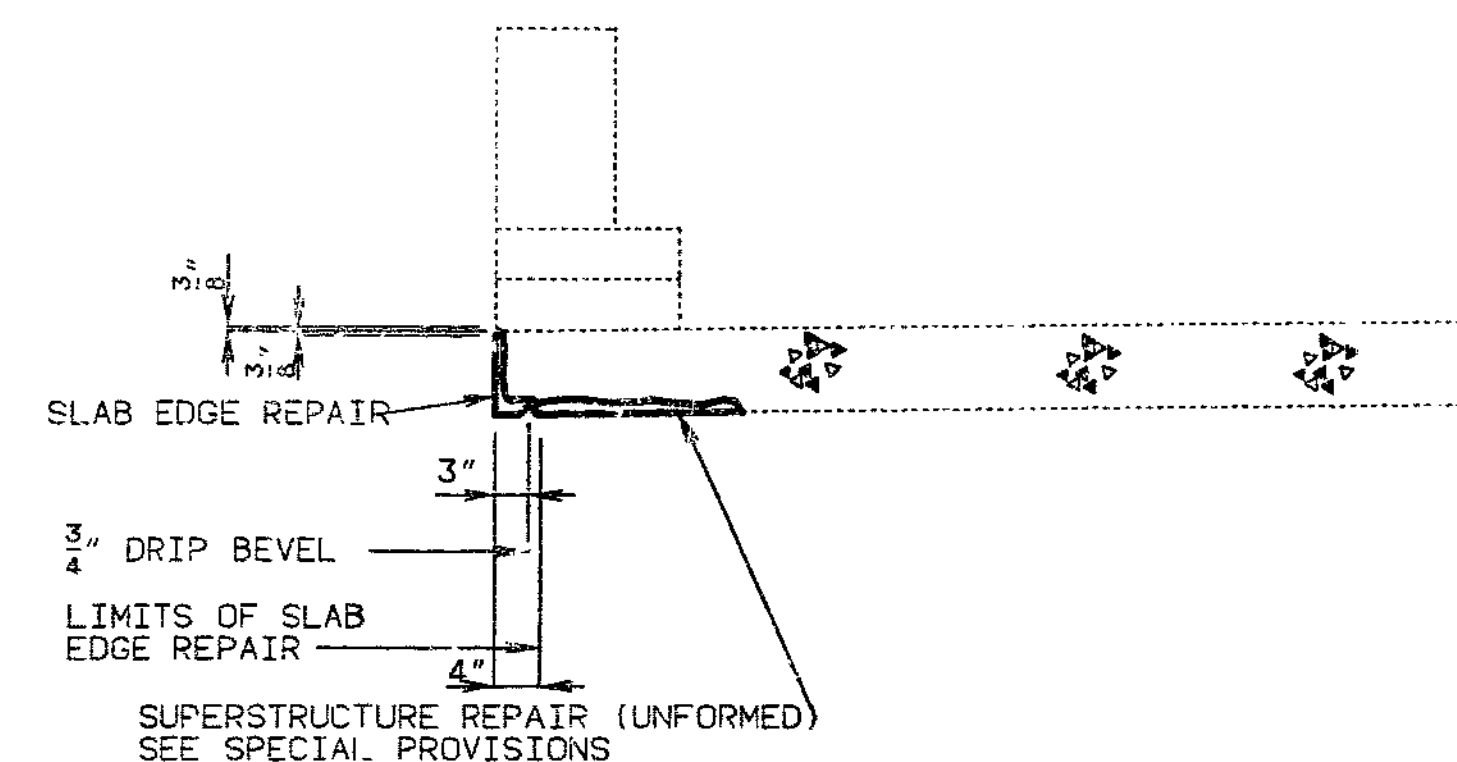
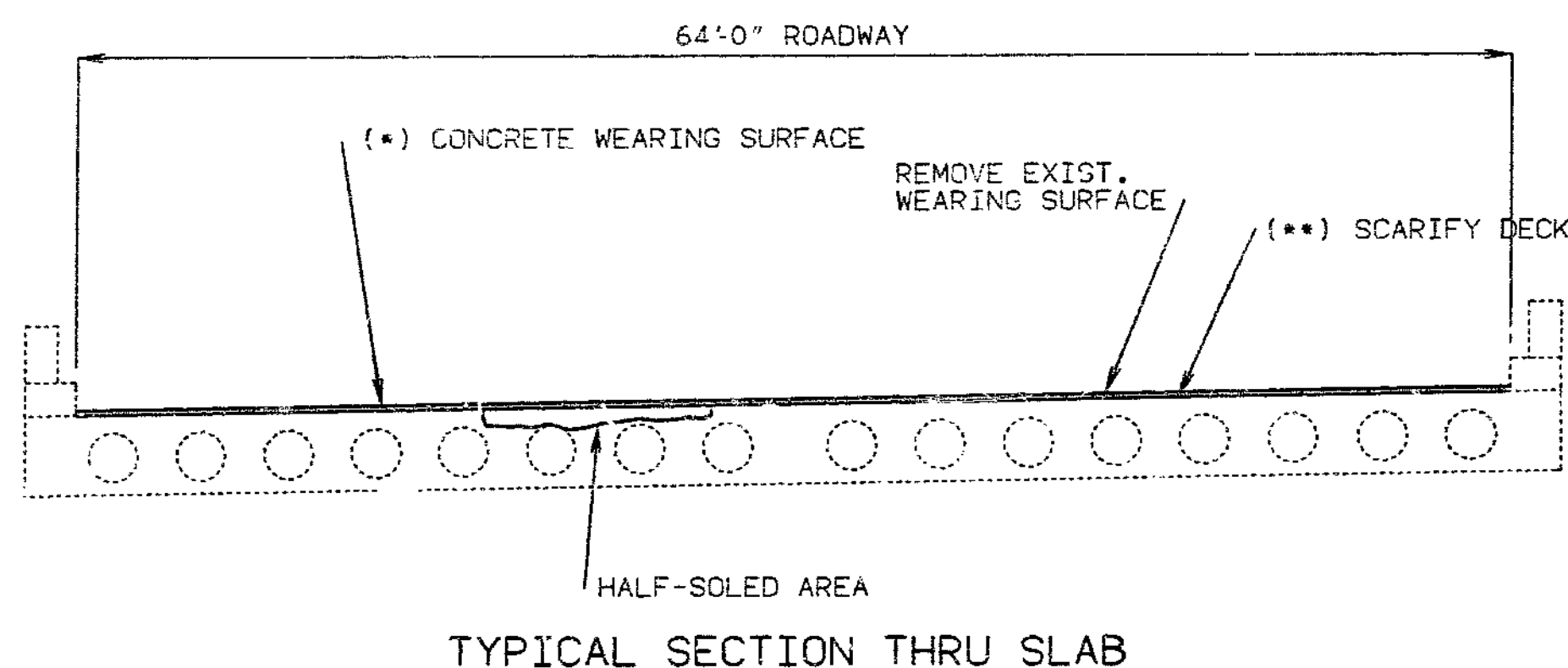
Sheet No. 5A of 9. FINAU PLAN

HARRINGTON AND CORTELYOU CONSULTING ENGINEERS KANSAS CITY, MO.

A-2437

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STATE	PROJ. NO.	SHEET NO.
MO.		180
SEC./SUR. 5	TWP. 50N RGE. 33W	



GENERAL NOTES:

DESIGN SPECIFICATIONS: A.A.S.H.T.O. -1989

OUTLINE OF OLD WORK IS INDICATED BY LIGHT DASHED LINES. HEAVY LINES INDICATES NEW WORK.
 MAINTAIN TRAFFIC ON STRUCTURE DURING CONSTRUCTION. (SEE ROADWAY PLANS.)
 ROADWAY SURFACING ADJACENT TO BRIDGE ENDS TO MATCH EXISTING CONCRETE DECK PLUS 1/2"±.

ESTIMATED QUANTITIES

ITEM	UNIT	TOTAL
ASPHALT REMOVAL (BRIDGES)	SG. FT.	8,998
SUPERSTRUCTURE REPAIR (UNFORMED) SEE SPEC. PROV.	SG. FT.	60
REPAIRING CONCRETE DECK (HALF-SOLING)	SG. FT.	200
CONCRETE WEARING SURFACE(*) ()	SG. YD.	1000
SLAB EDGE REPAIR (BRIDGES)	LIN. FT.	60

* SEE JOB SPECIAL PROVISIONS FOR ALTERNATE USE OF CONCRETE WEARING SURFACE. 1 3/4" (MIN.) LATEX MODIFIED CONCRETE. 2" (MIN.) LOW SLUMP CONCRETE WEARING.

** SCARIFY EXIST. DECK 1/2" (MIN.) IF LATEX MODIFIED CONCRETE IS USED, OR 1/2" (MIN.) IF LOW SLUMP CONCRETE IS USED.

B.M.

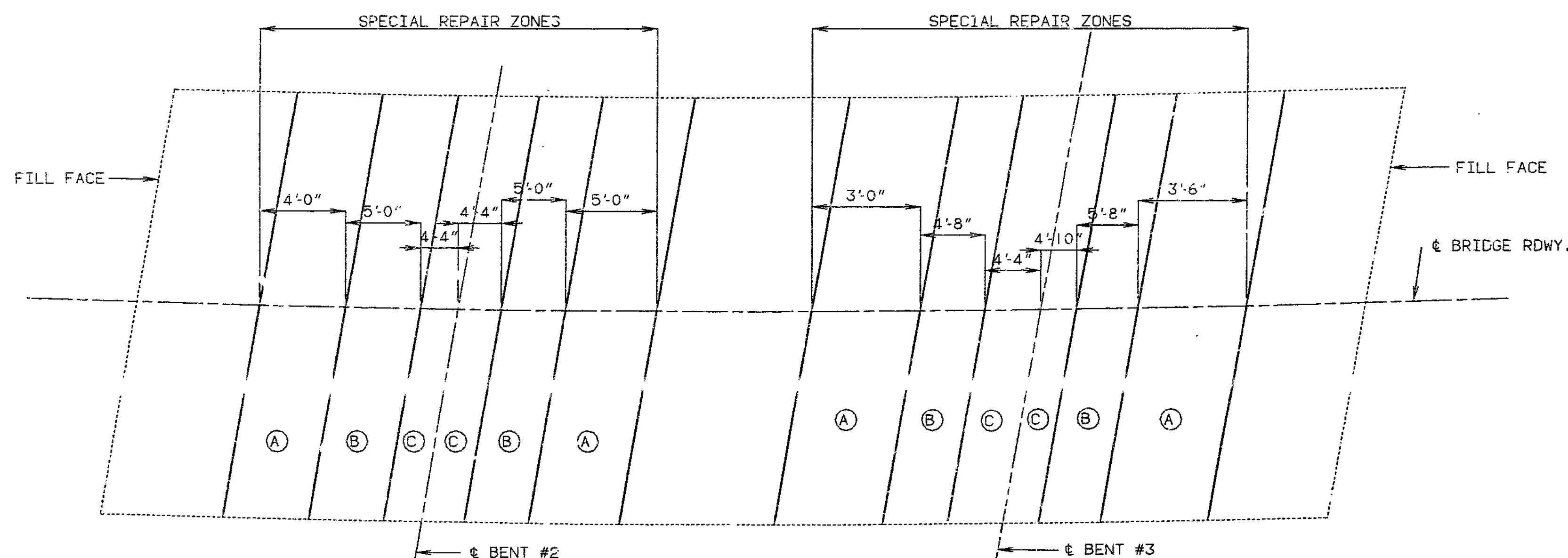
REPAIRS TO BRIDGE:
 N.B.L. I-635 OVER ROUTE 9 W.B.L.

STATE ROAD FROM STATE LINE TO RTE. I-29
 IN RIVERSIDE

PROJECT NO. FA-635-1 (247) STA. 47+62.79±
 JOB NO. 4I 990 635 RTE. I-635

PLATTE COUNTY

STD.
STD.
A-2437R



NOTE: ZONES WITH THE SAME LETTER DESIGNATION MAY BE REPAIRED AT THE SAME TIME. ANY REPAIR IN THE REMAINDER OF THE BRIDGE THAT IS WITHIN 3'-8" OF ZONE A SHALL BE COMPLETED BEFORE REMOVING OLD CONCRETE IN ZONE A.

DESIGNED AUG. 1990
 DETAILED AUG. 1990
 CHECKED AUG. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 1 OF 1.

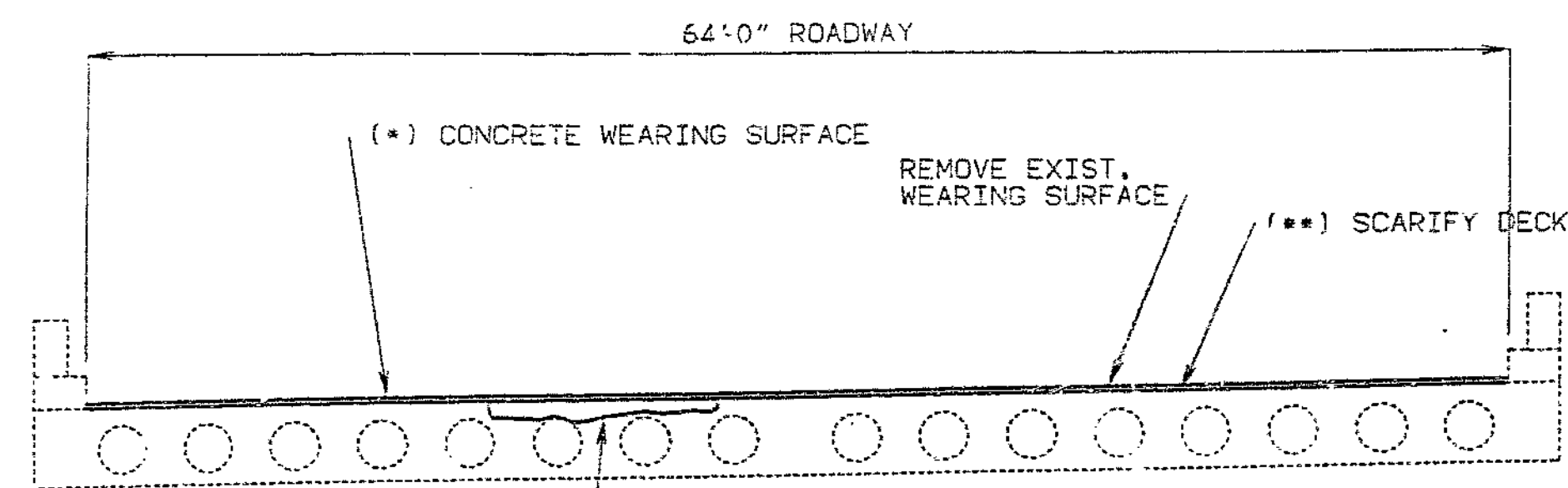
DATE 2/4/91

421785

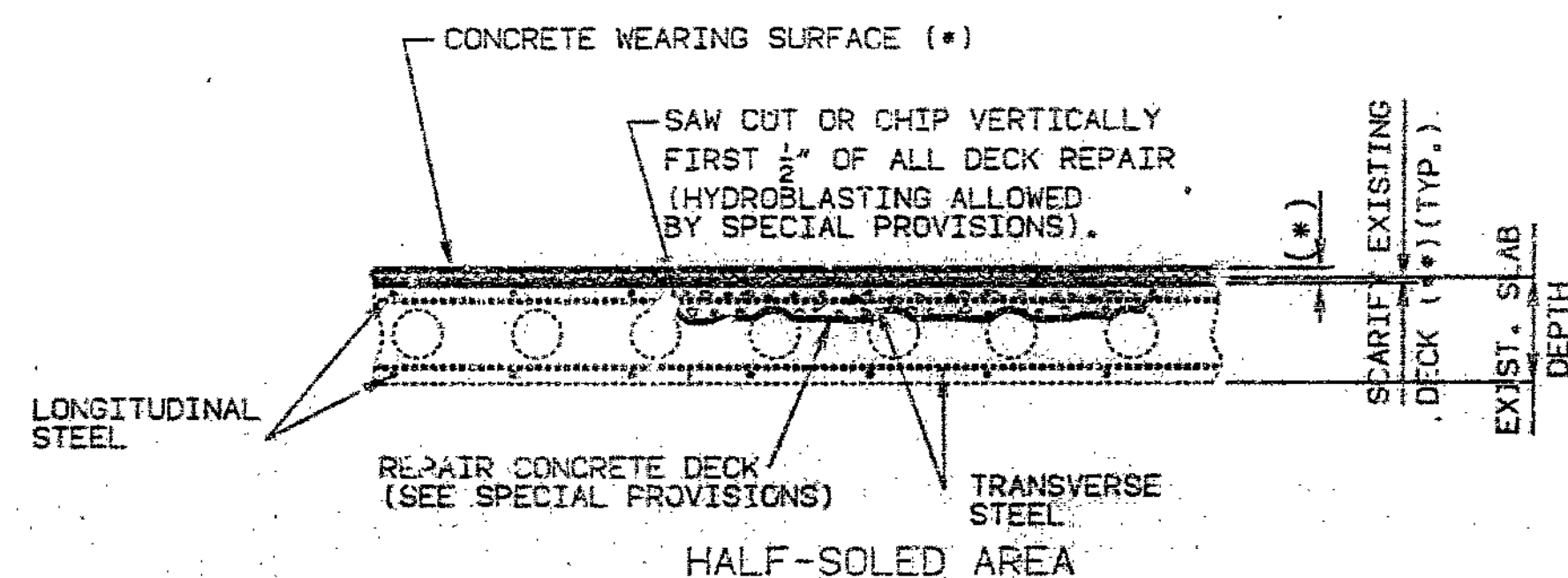
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

36

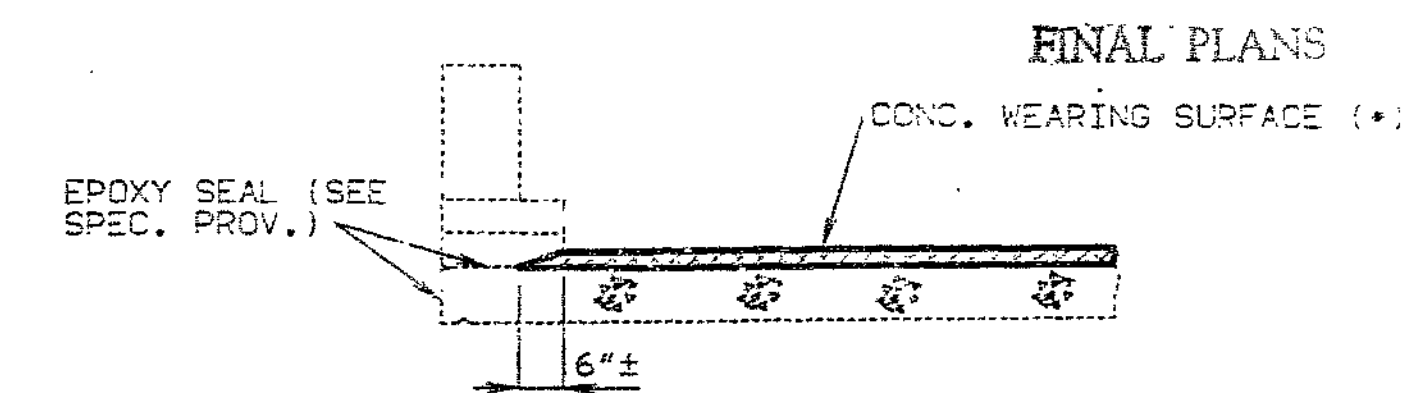
STATE	PROJ. NO.	SHEET NO.
MO.	FA-635-1(247)	36
SEC./SUR. 5	TWP. 50N	R3E. 33W



TYPICAL SECTION THRU SLAB



PART SECTION THRU SLAB



DETAIL THRU CURB OUTLET

GENERAL NOTES:

DESIGN SPECIFICATIONS: A.A.S.H.T.O. -1989

OUTLINE OF OLD WORK IS INDICATED BY LIGHT DASHED LINES. HEAVY LINES INDICATES NEW WORK.
 MAINTAIN TRAFFIC ON STRUCTURE DURING CONSTRUCTION. (SEE ROADWAY PLANS.)
 ROADWAY SURFACING ADJACENT TO BRIDGE ENDS TO MATCH EXISTING CONCRETE DECK PLUS 1/2"±.

FINAL QUANTITIES		
ITEM	QUANTITIES	TOTAL
ASPHALT REMOVAL (BRIDGES)	SQ. FT.	8,998
SUPERSTRUCTURE REPAIR (UNFORMED) SEE SPEC. PROV.	SQ. FT.	156
REPAIRING CONCRETE DECK (HALF-SOLING)	SQ. FT.	113
CONCRETE WEARING SURFACE(*) (LOW SLUMP)	SQ. YD.	1000
SLAB EDGE REPAIR (BRIDGES)	LIN. FT.	171

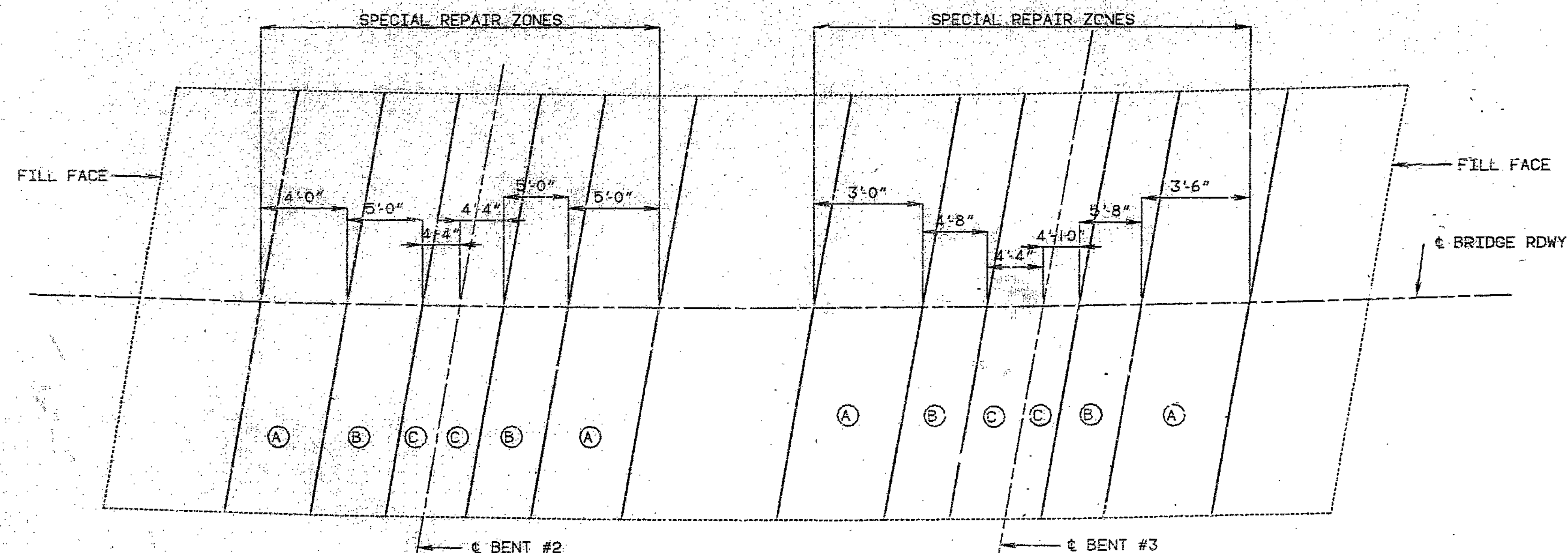
- * SEE JOB SPECIAL PROVISIONS FOR
- 2" (MIN.) LOW SLUMP CONCRETE WEARING.
- ** SCARIFY EXIST. DECK 1/2" (MIN.) FOR LOW SLUMP CONCRETE

B.M.
 REPAIRS TO BRIDGE:
 N.B.L. I-635 OVER ROUTE 9 W.B.L.

STATE ROAD FROM STATE LINE TO RTE. I-29
 IN RIVERSIDE
 PROJECT NO. FA-635-1(247) STA. 47+62.79±
 JOB NO. 4I 990 635 RTE. I-635

PLATTE COUNTY

STD.
STD.
A-2437R



PLAN OF SLAB SHOWING SPECIAL REPAIR ZONES

NOTE: ZONES WITH THE SAME LETTER DESIGNATION MAY BE REPAIRED AT THE SAME TIME. ANY REPAIR IN THE REMAINDER OF THE BRIDGE THAT IS WITHIN 3'-6" OF ZONE A SHALL BE COMPLETED BEFORE REMOVING OLD CONCRETE IN ZONE A.

DESIGNED AUG. 1990
 DETAILED AUG. 1990
 CHECKED AUG. 1990

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 1A OF 1.

DATE 2/4/91