

- 1.....General Plan
- 2.....Estimated Bridge Quantities
 & Construction Notes
- 3.....I-95 SB over MCRR @ Perry Road
- 4.....I-95 SB over Interstate 395
- 5&6.....I-95 SB over Broadway
- 7&8.....I-95 SB over Stillwater Avenue
- 9,10, &11.....I-95 NB& SB over Kenduskeag
 Stream
- 12.....Miscellaneous Details
- 13.....Reinforcing Steel Schedule
- 14.....Reinforcing Steel Schedule
 (Kenduskeag)

BRIDGE STANDARDS

- 15.....BD 114-B1 Aluminum Bridge
 Railing
- 16.....BD 120-B1 Concrete End Posts
- 17.....BD 127-B1 Temporary Concrete
 Barrier

SPECIFICATIONS

DESIGN: AASHTO Standard Specifications for Highway
Bridges 1977 and Interim Specifications 1978 thru 1982
CONTRACT: State of Maine, Department of Transportation,
Standard Specifications, Highways and Bridges
Revision of June 1981.

MATERIALS

CONCRETE:.....Pier Repairs-Class AA; all other - Class A
REINFORCING STEEL:.....ASTM A615 Grade 60

Br.#'s 1429, 1428, 5789, 1427, 5789

Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

I-95 OVER KENDUSKEAG STREAM **BOO 7**

M **R90-7**

— IR-95-8(124) TQ1-IR-95-8(113)

ESTIMATED BRIDGE QUANTITIES

			Interstate 95 Southbound (over 95-8 (124) Projects					Interstate 95 (over) Northbound & Southbound 95-8 (113)	Total Bridge Quantities
Item	Description	Unit	M.C.R.R. & Perry Road	I-395	Broadway	Stillwater	Total	Kenduskeag Stream	
202.12	Removing Existing Structural Concrete	Cu. Yds.	71	44	10	65	190	98	288
202.13	Removing Existing Railings (Retained by Department)	L.F.	486	356	155	516	1513	860	2373
202.201	Removing Bituminous Concrete Pavement (Waterproof Membrane)	Sq. Yds.	54	800	707	861	2422	2860	5282
403.08	Hot Bituminous Pavement, Grading C	Ton	—	125	115	149	389	422	811
403.101	Hot Bituminous Pavement, Grading D (Sidewalks, Shims, Drives, etc.)	Ton	10	—	—	—	10	—	-10
421.30	Joint Sealing Compound	Lump S.	—	—	0.5	—	0.5	0.5	1
502.42	Structural Concrete Roadway & Sidewalk Slabs on Steel Bridges	Cu. Yds.	29	23	13	32	97	49	146
502.60	Structural Concrete Pier Repairs	Sq. Ft.	—	1350	950	1050	3350	—	3350
503.12	Reinforcing Steel Fab & Delivered	Lbs.	2800	2150	1100	3340	9390	5350	14740
503.13	Reinforcing Steel Placing	Lbs.	2800	2150	1100	3340	9390	5350	14740
506.142	Field Painting Existing Structural Steel	Lump S.	—	0.4	0.3	0.3	1	—	1
506.16	Surface Preparation of Existing Structural Steel	Man Hr.	—	600	450	450	1500	—	1500
507.092	Aluminum Bridge Railing, 2 Bar	L.F.	465	338	195	491	1439	839	2278
508.10	Membrane Waterproofing	Sq. Yds.	63	828	696	900	2487	2922	5409
514.06	Curing Box for Concrete Cylinders	Each	0.2	0.2	0.2	0.2	0.8	0.2	1
515.20	Protective Coating for Concrete Surface	Sq. Yds.	153	117	53	160	483	253	736
520.2401	Expansion Device Modification (Perry Road Southbound)	Each	3	—	—	—	3	—	3
520.2402	Expansion Device Modification (I-395 Southbound)	Each	—	3	—	—	3	—	3
520.2403	Expansion Device Modification (Broadway Southbound)	Each	—	—	2	—	2	—	2
520.2404	Expansion Device Modification (Stillwater Avenue, Pier 1, Southbound)	Each	—	—	—	1	1	—	1
520.2405	Expansion Device Modification (Stillwater Avenue, Pier 2, Southbound)	Each	—	—	—	1	1	—	1
520.2406	Expansion Device Modification (Kenduskeag Avenue Abutment 1, SB & NB)	Each	—	—	—	—	—	2	2
520.2407	Expansion Device Modification (Kenduskeag Avenue Abutment 2, SB & NB)	Each	—	—	—	—	—	2	2
526.30	Temporary Concrete Barrier, Type I	L.F.	470	406	381	481	1738	1308	3046
526.40	Resetting Temporary Concrete Barrier, Type I	L.F.	470	406	381	481	1738	1308	3046
606.364	Guard Rail, Remove, Modify and Reset, Type 3b	L.F.	50	—	—	—	50	50	100
606.367	Replace Unusable Existing Guard Rail Posts	Each	2	—	—	—	2	2	4
609.13	Vertical Bridge Curb Type I	L.F.	455	330	141	485	1411	843	2254
609.38	Reset Curb Type I	L.F.	80	80	80	80	320	100	420
627.61	4 inch Solid White Pavement Marking Line	L.F.	—	—	—	—	—	1000	1000
627.62	4 inch Broken White Pavement Marking Line	L.F.	—	—	—	—	—	3640	3640
627.63	4 inch Solid Yellow Pavement Marking Line	L.F.	—	—	—	—	—	1000	1000
627.67	REMOVING PAVEMENT MARKINGS	S.F.	—	—	—	—	—	82	82
627.69	Temporary 4 inch Plastic Pavement Marking Line, Yellow or White	L.F.	—	—	—	—	—	1320	1320
629.05	Hand Labor, Straight Time	Man Hr.	20	20	20	20	80	60	140
631.10	Air Compressor (including operator)	Hr.	20	20	20	20	80	60	140
631.11	Air Tool (including operator)	Hr.	20	20	20	20	80	60	140
652.30	FLASHING ARROW BOARD	Each	—	—	—	—	—	1	1
652.31	TYPE I BARRICADES	Each	—	—	—	—	—	64	64
652.33	DRUMS	Each	—	—	—	—	—	5	5
652.34	CONES	Each	—	—	—	—	—	50	50
652.35	CONSTRUCTION SIGNS	S.F.	—	—	—	—	—	400	400
652.36	MAINTENANCE OF TRAFFIC	C.D.	—	—	—	—	—	50	50
652.38	FLAGGER	M.H.	—	—	—	—	—	220	220
659.10	MOBILIZATION	L.S.	0.04	0.09	0.08	0.10	0.31	0.16	0.47
660.21	ON THE JOB TRAINING	M.H.	40	90	80	100	310	160	470

CONSTRUCTION NOTES

1. Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{2}$ to $\frac{3}{4}$ inches inclusive.

2. Reinforcing steel shall have 2 inches cover unless otherwise indicated.

3. Protective coating for concrete surfaces shall be applied to all exposed surfaces of new concrete curbs, fascia and end posts.

4. At all structures the existing granite curbs on the approaches adjacent to bridge curbs shall be reset for a length of about 20 feet each, as determined by the Engineer to provide a transition to the new bridge curbs. Payment will be made under Item 609.38 Reset Curb-Type I.

5. Holes for grouting curb reinforcing shall be $1\frac{1}{2}$ to 2 inches in diameter, inclusive. Holes shall be filled with water for a minimum of 2 hours immediately prior to grouting, at which time all excess water shall be removed. The grouted area around the reinforcing bar shall be kept wet from the time of initial set for a minimum of 12 hours with burlap or other suitable means. The grout shall be used in accordance with the manufacturer's recommendations and be on the Department's List of Approved Non-Shrink Grouts. No separate payment will be made for drilling and grouting and all such work will be considered incidental to Item 503.13, Reinforcing Steel, Placing.

6. The exact location and details of the construction joint for the Expansion Device Modifications, where required for stage construction, shall be approved by the Engineer.

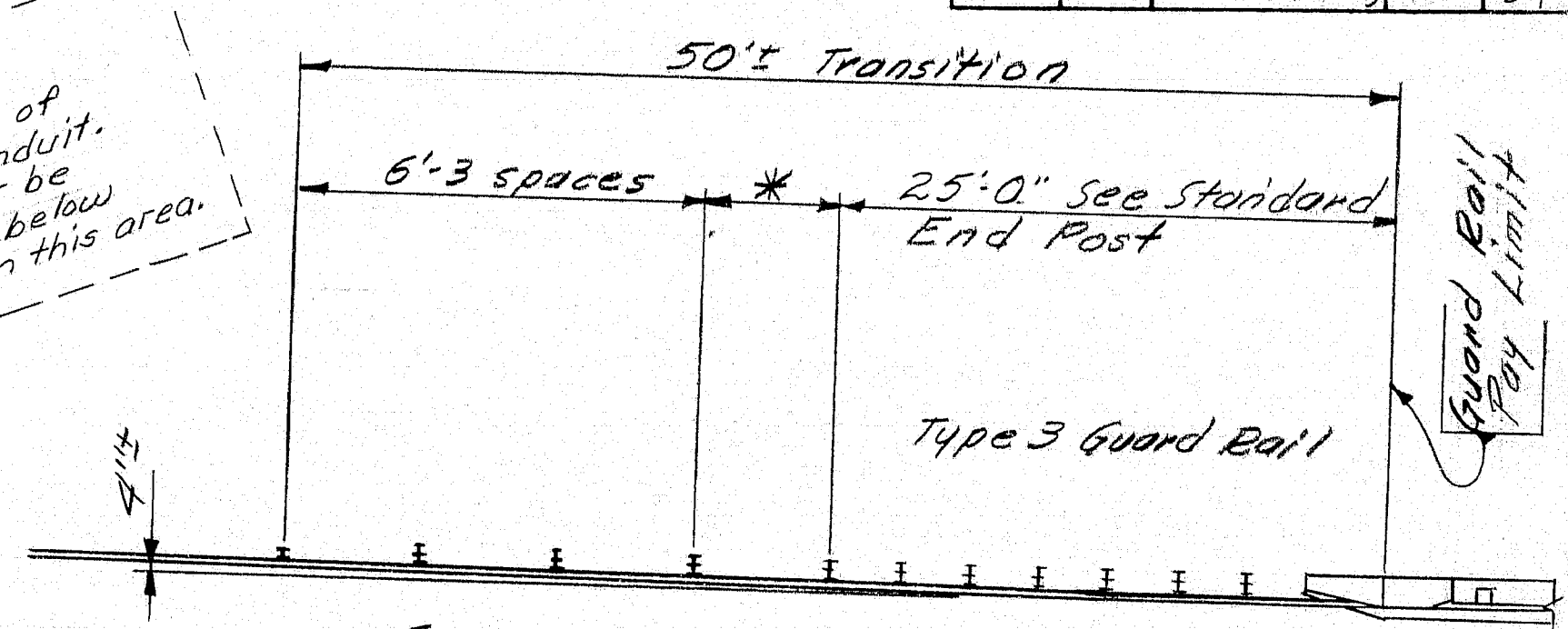
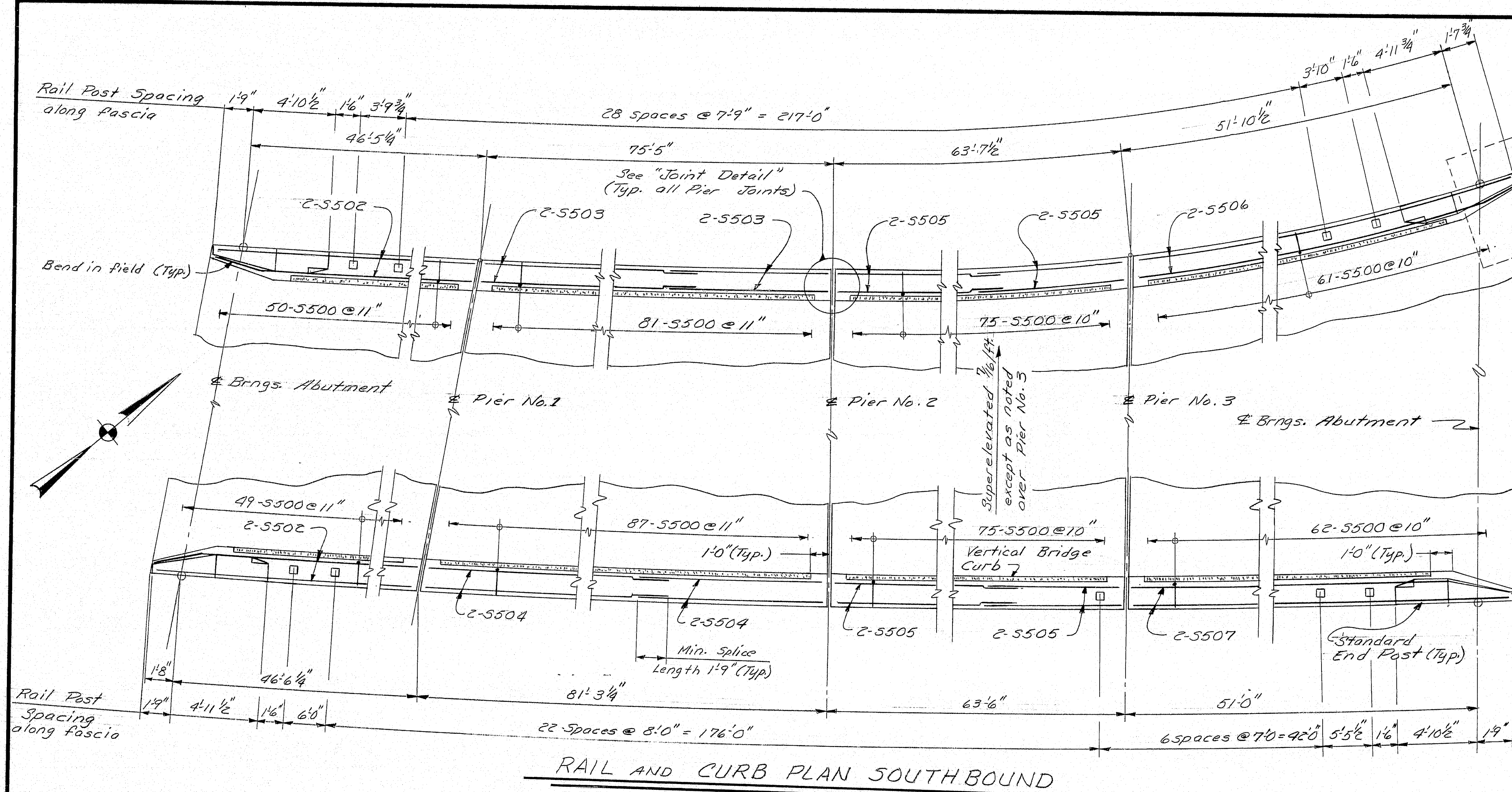
7. The existing sign supports on I-95 S.B. over I-395 shall be modified as shown on the plans. All work for modifying the sign supports will be considered incidental to Item 502.42.

F.A.R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-8(124)	19	34

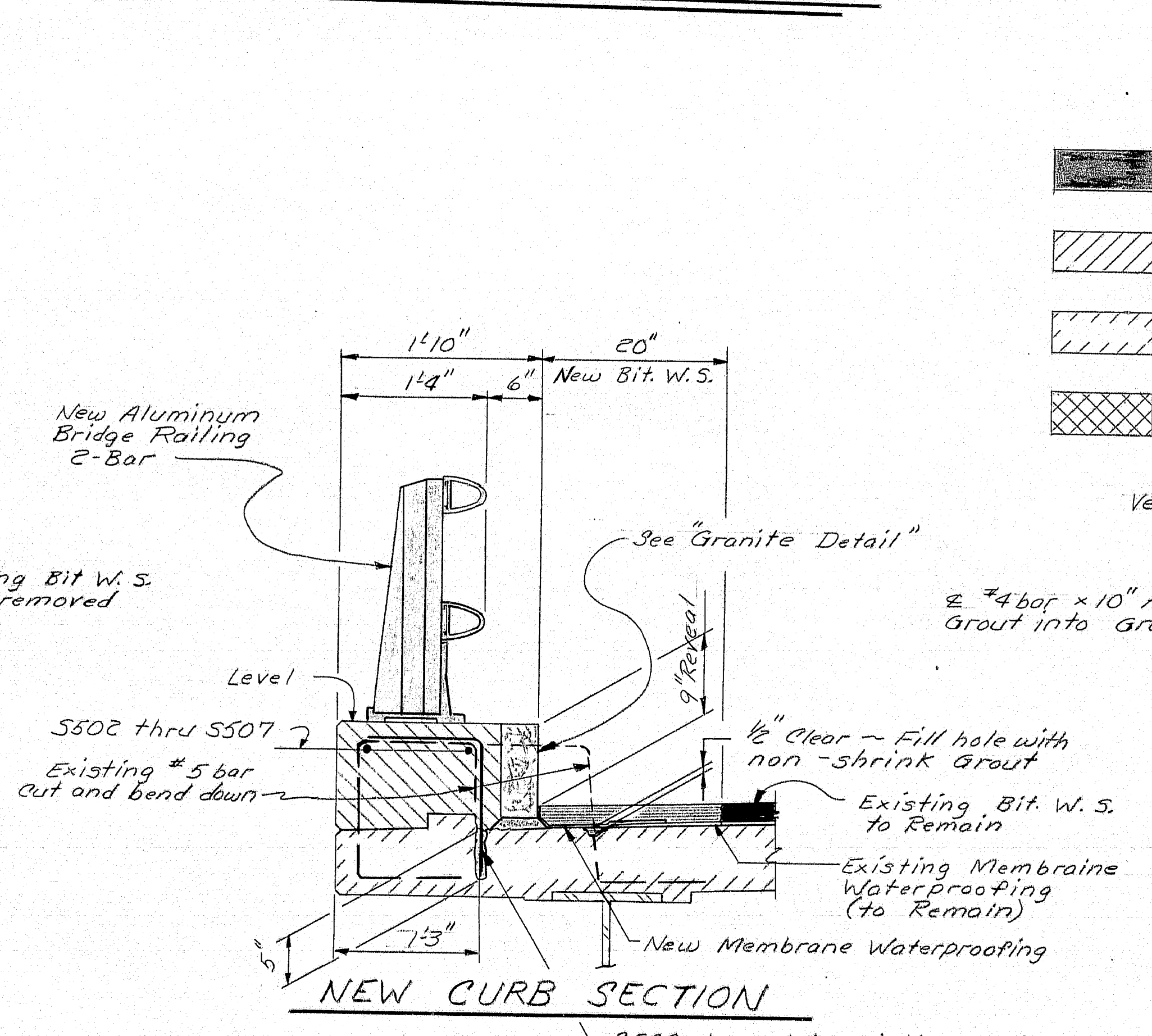
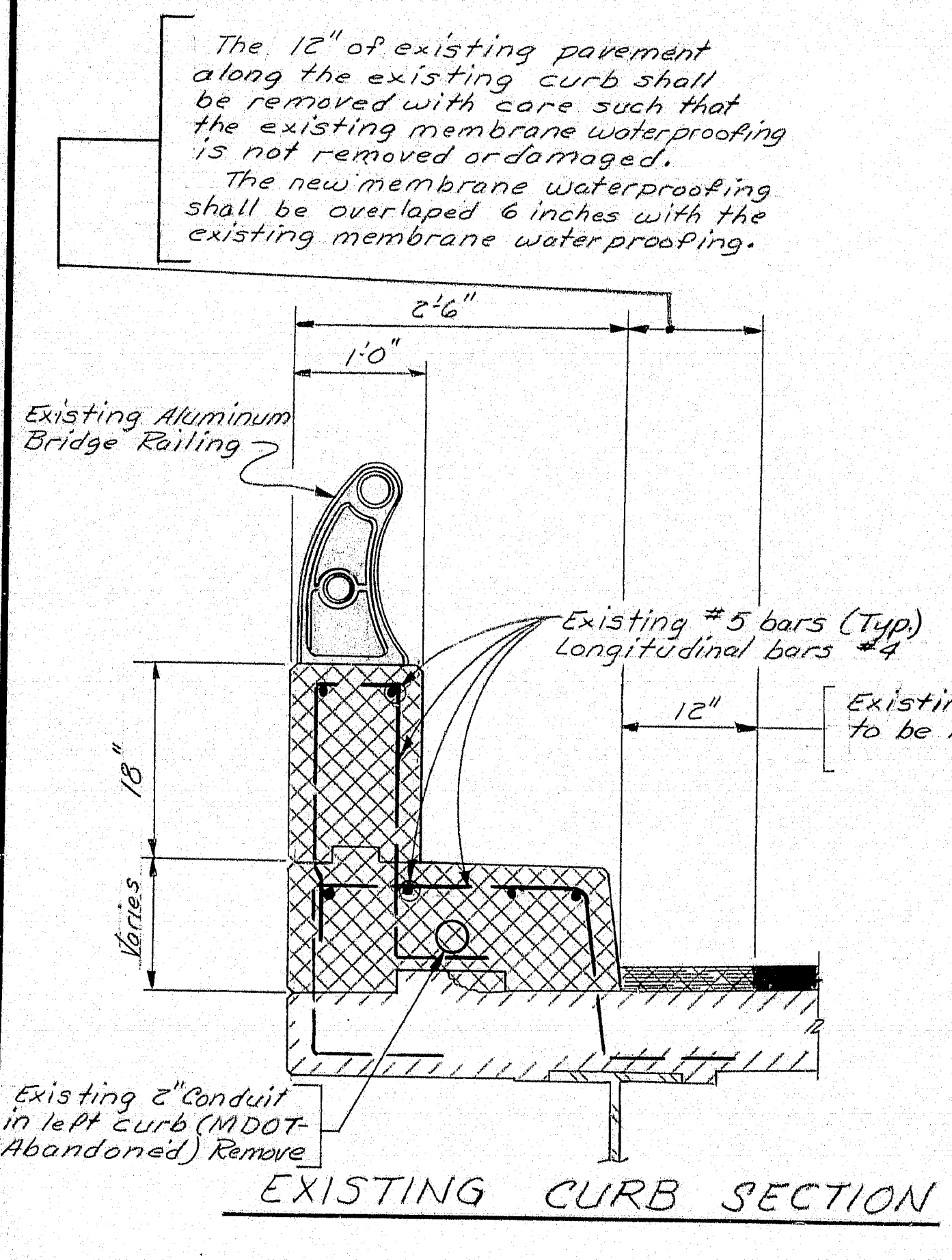
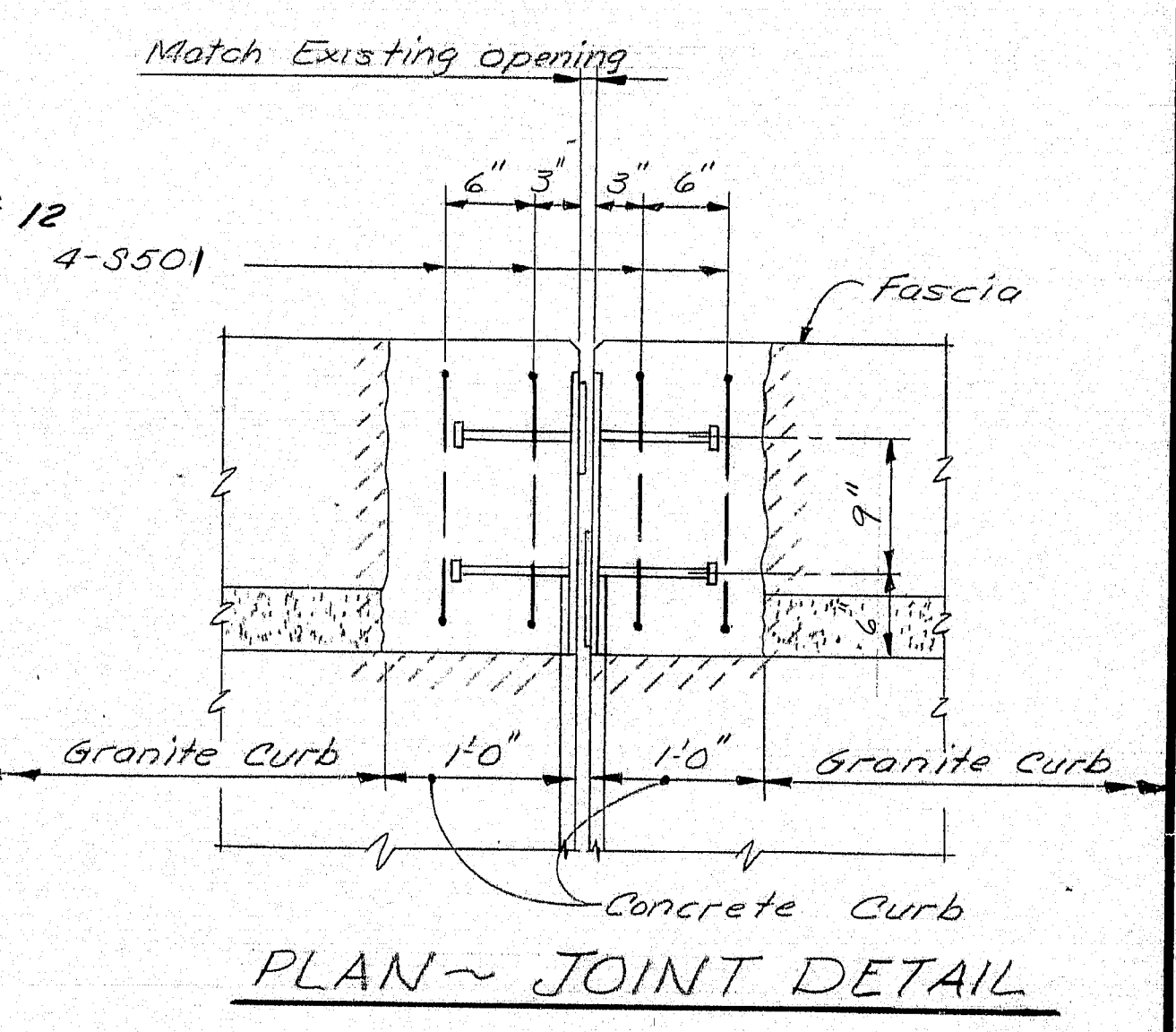
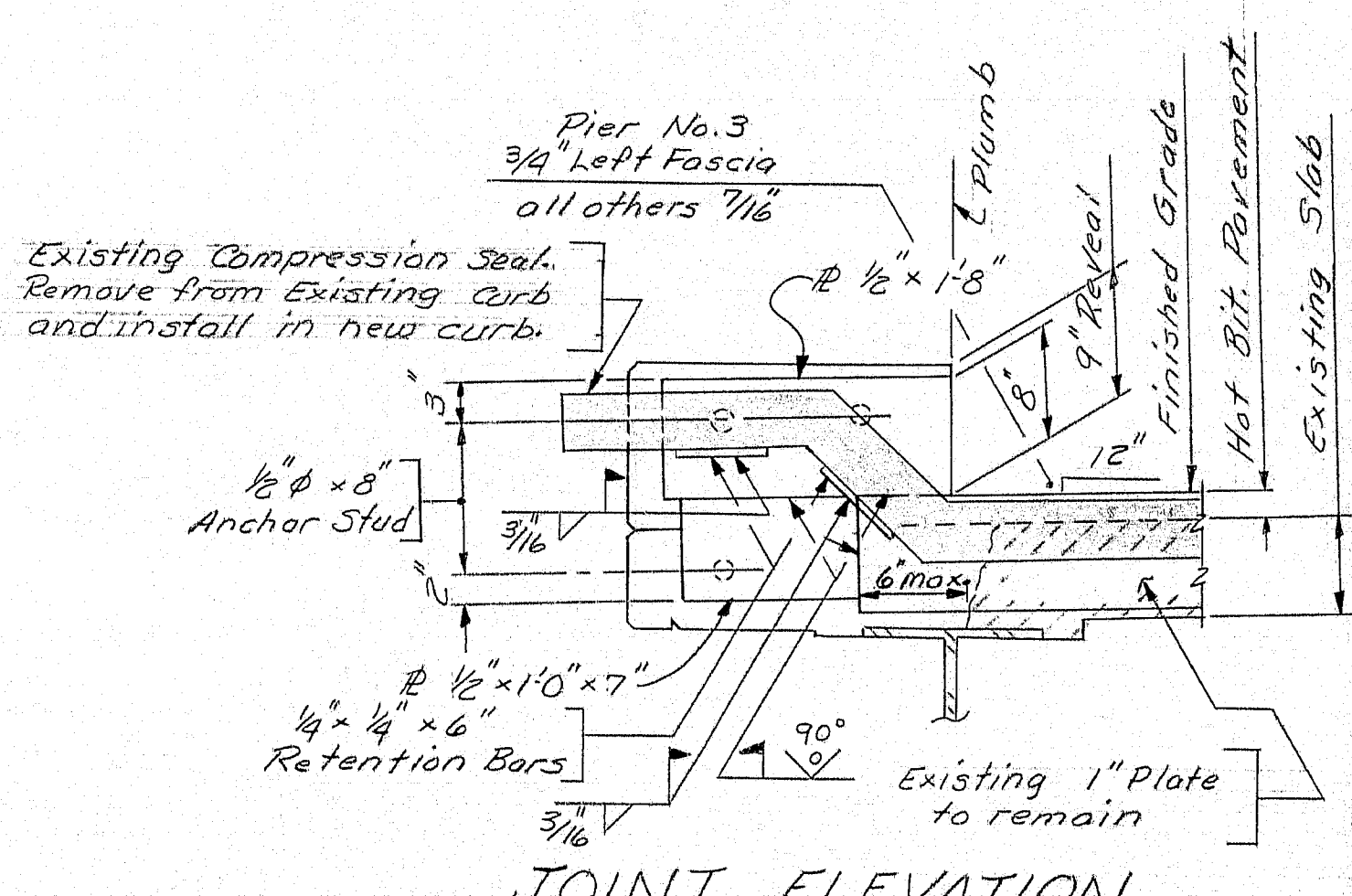
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 SOUTHBOUND
OVER
M.C.R.R. & PERRY ROAD; I-395;
BROADWAY; STILLWATER AVENUE
AND
INTERSTATE 95 N.B. & S.B.
OVER
KENDUSKEAG STREAM
ESTIMATED BRIDGE QUANTITIES
CONSTRUCTION NOTES
SHEET 2 OF 17 AUGUSTA, MAINE Sept. 1982

R90-8

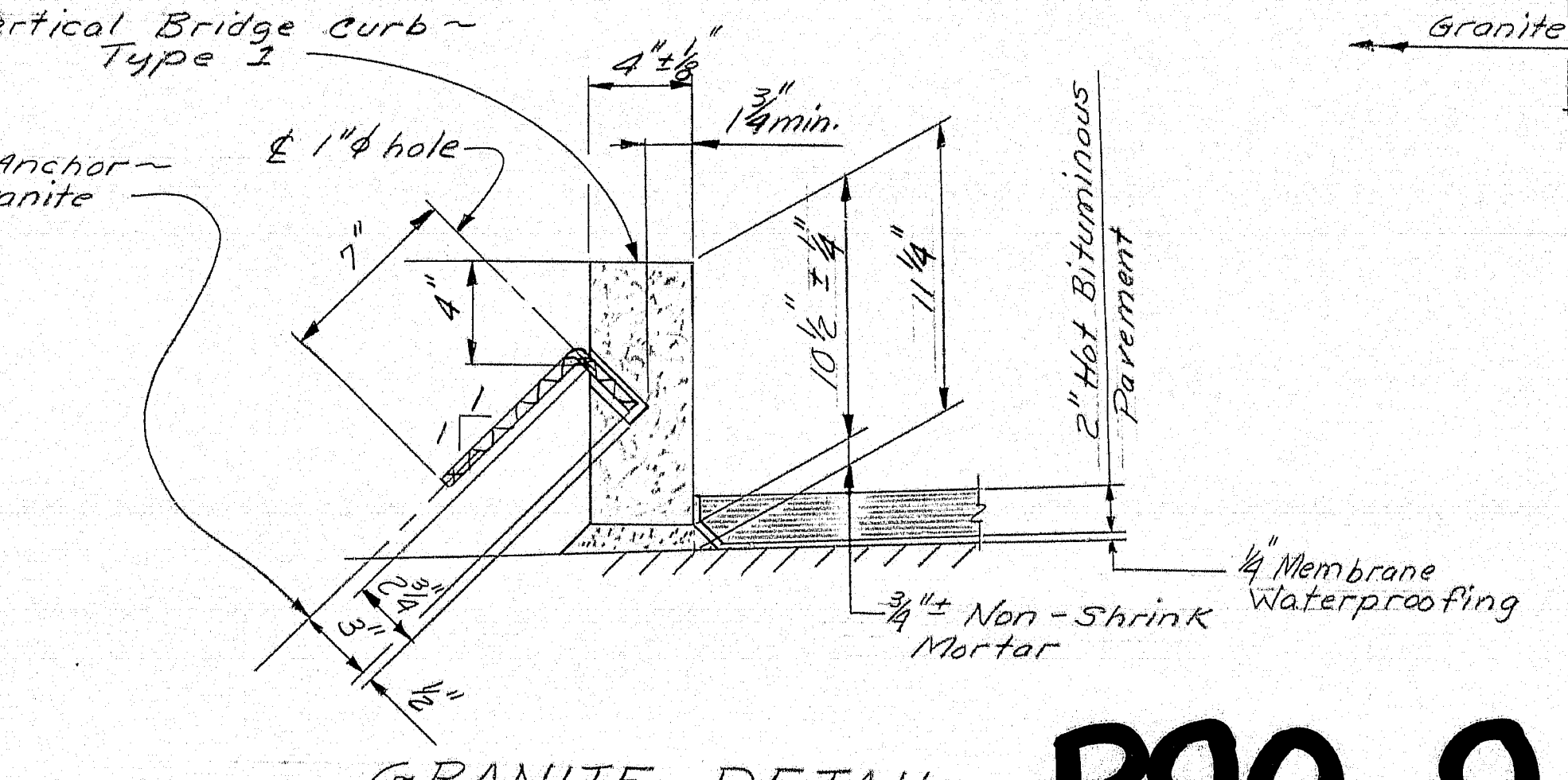
F.R.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-8(124)	20	34



GUARD RAIL TRANSITION
 South approach railing only. (Type both sides)
 * Modify Panel one or two spaces as required to match Rail. 3'-1 1/2" min. to 8'-3" max. each



- SYMBOLS**
- Existing Bit. W. S. (to remain)
 - New Concrete
 - Existing Concrete (to remain)
 - Existing to be removed



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

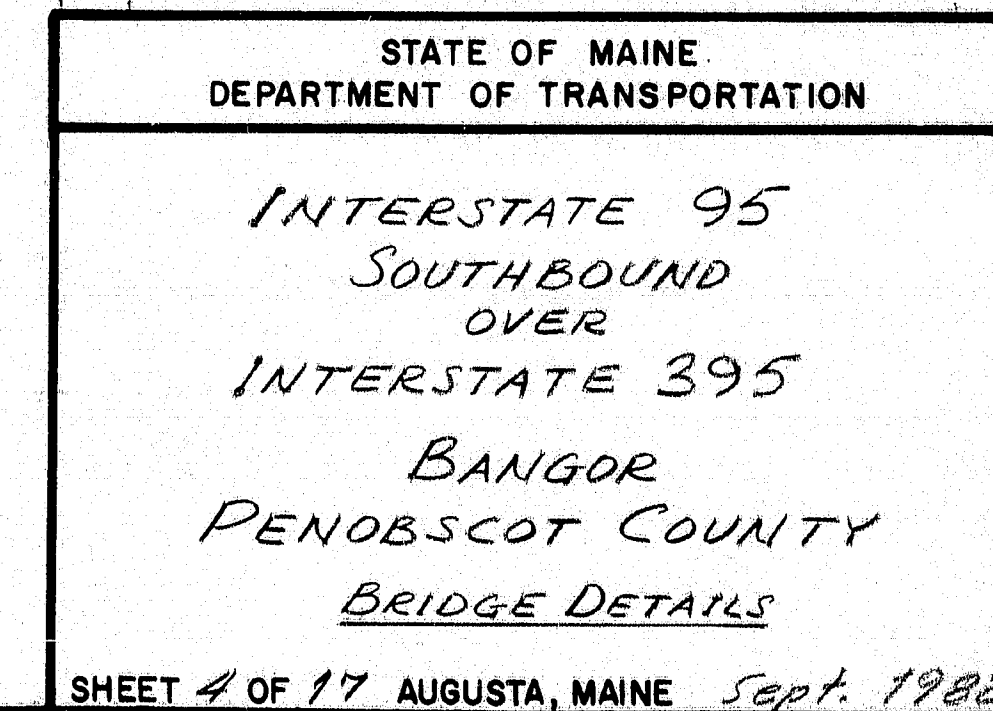
INTERSTATE 95
 SOUTHBOUND
 OVER
 M.C.R.R. & PERRY ROAD
 BANGOR

CURB DETAILS
 JOINT DETAILS

SHEET 3 OF 17 AUGUSTA, MAINE Sept. 1982

R90-9

PLANS	PROJECT DESIGN ENGINEER	BY	DATE
	DESIGN - DETAILED	<i>3mo</i>	<i>July '82</i>
	CHECKED	<i>WSD</i>	<i>Aug '82</i>
	REVISIONS		
	FIELD CHANGES		

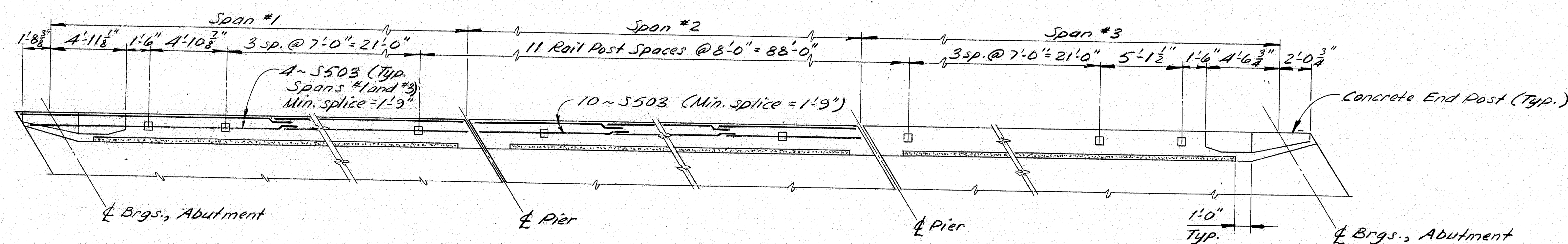


SIGN SUPPORT MODIFICATIONS
2 Supports per Sign x 2 Signs = 4 Supports

~~R90-10~~

IR-95-8(124) BANGOR

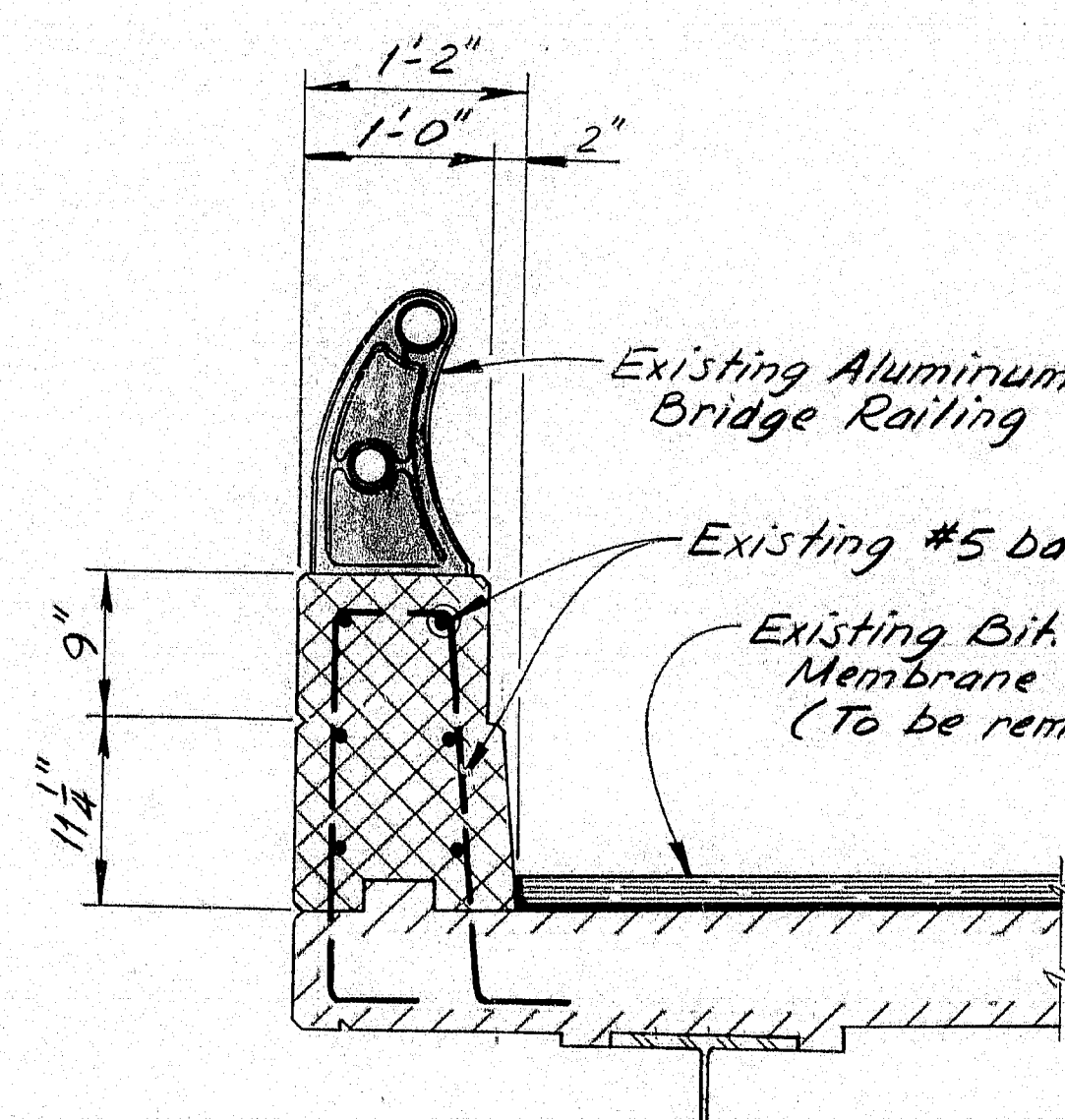
F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-8(124)	22	34



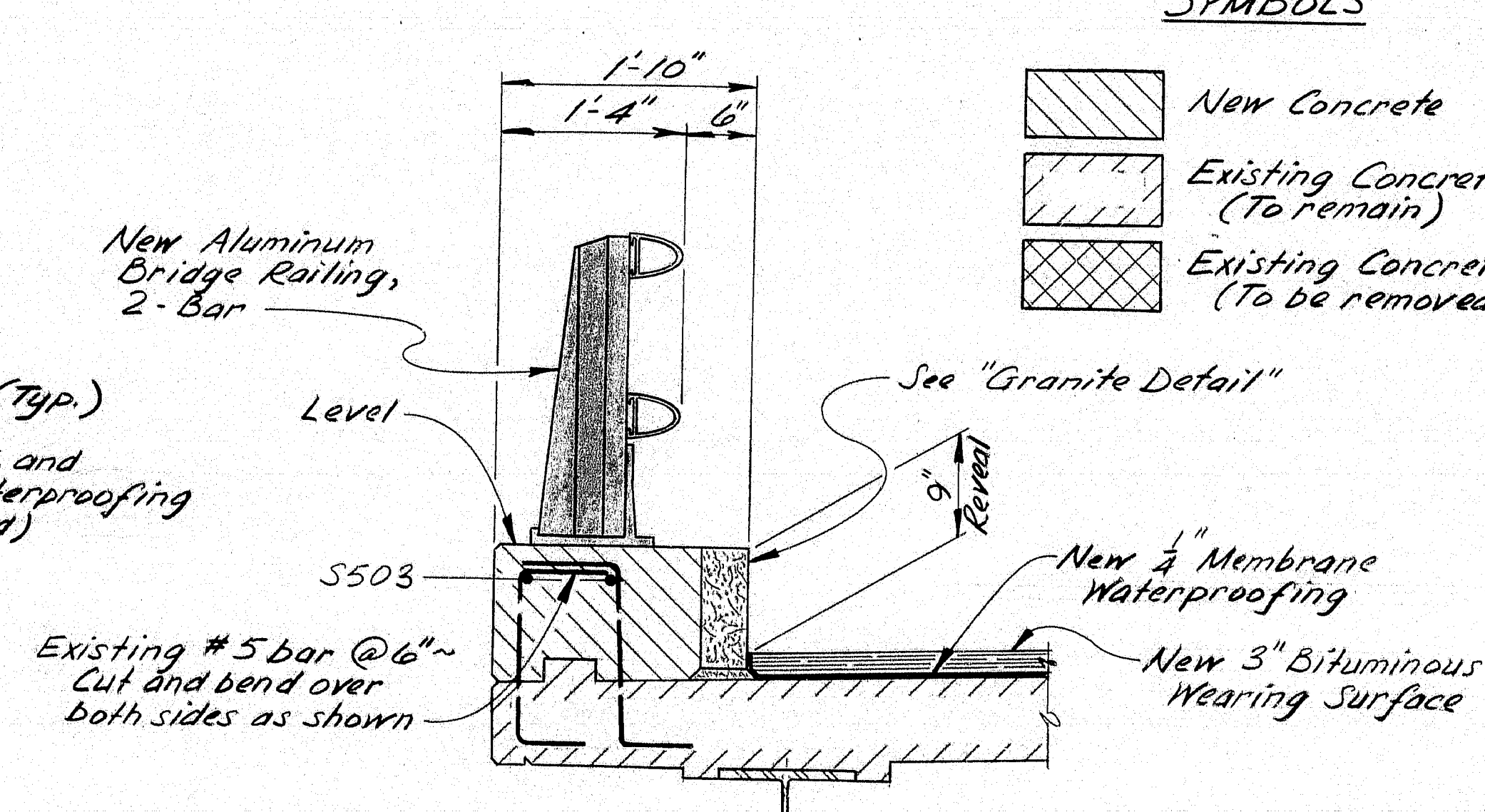
RAIL AND CURB PLAN

SYMBOLS

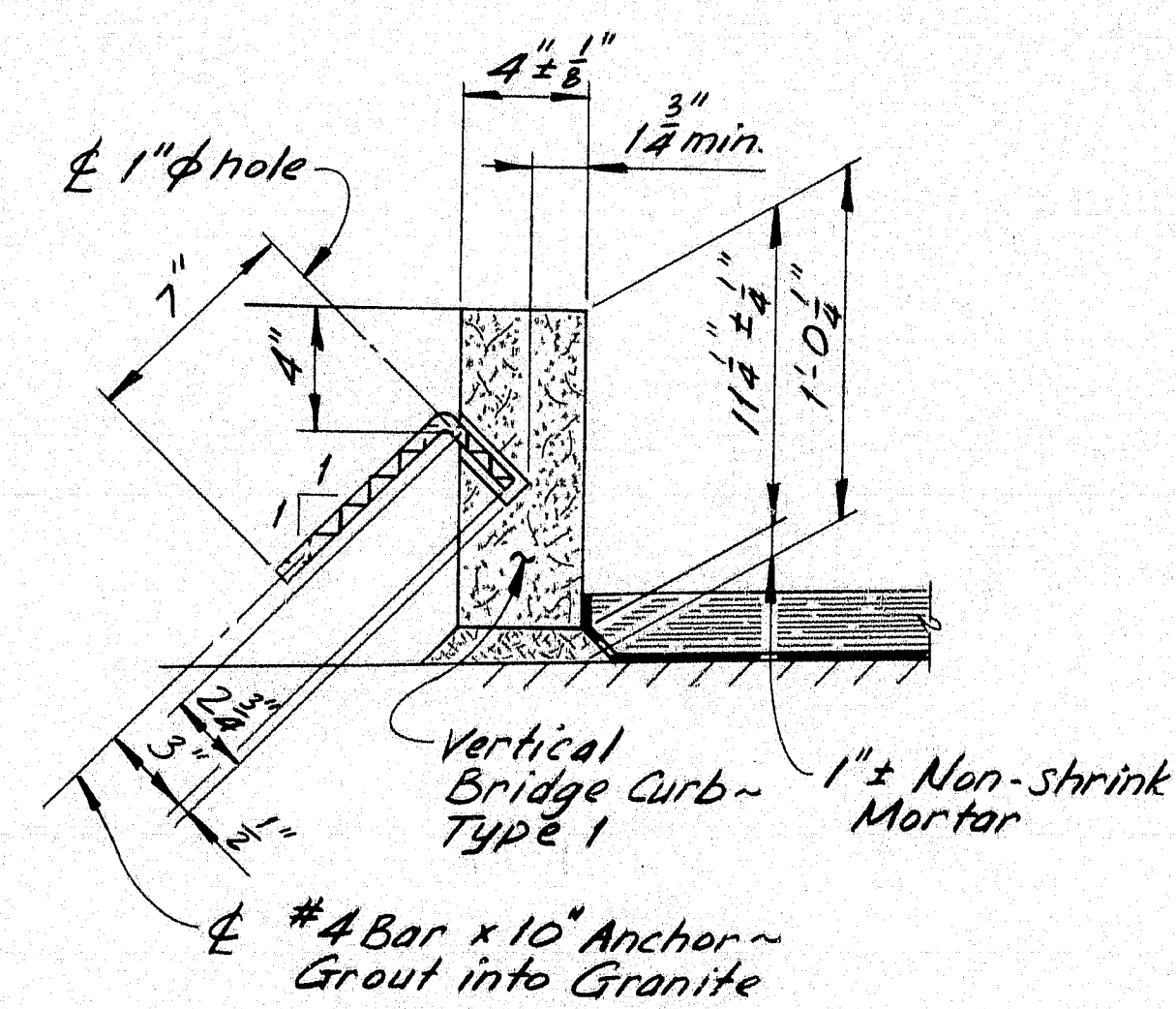
- New Concrete
- Existing Concrete (To remain)
- Existing Concrete (To be removed)



EXISTING CURB SECTION
(Southbound Side only)



NEW CURB SECTION
(Southbound Side only)



GRANITE DETAIL

REFERENCES
- For Removal of existing steel curb plates see sheet #12

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 SOUTHBOUND OVER BROADWAY BANGOR PENOBSCOT COUNTY RAIL AND CURB DETAILS
SHEET 5 OF 17 AUGUSTA, MAINE Sept. 1982

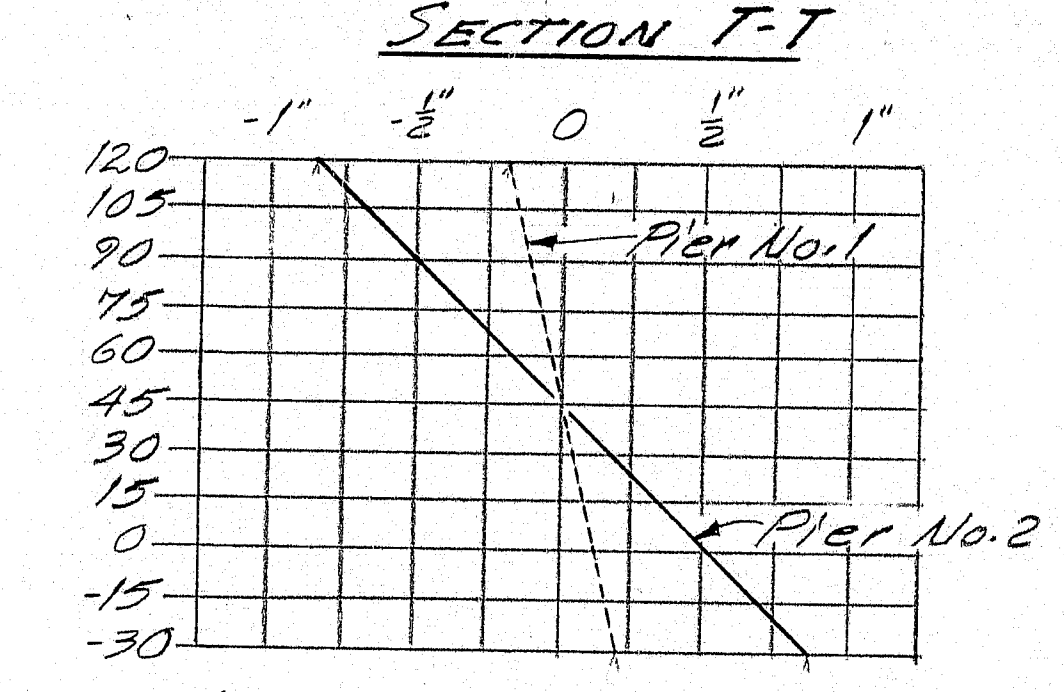
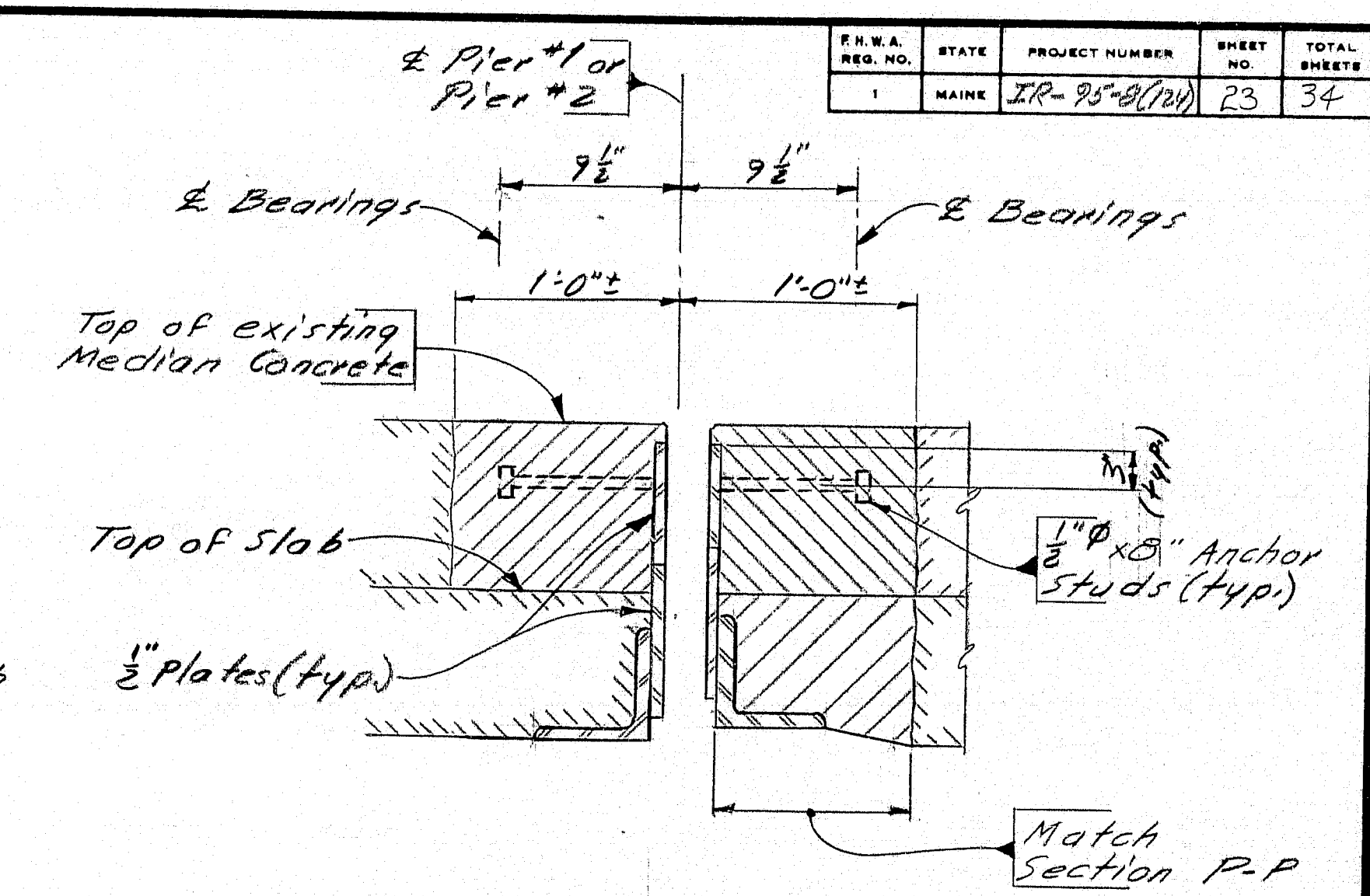
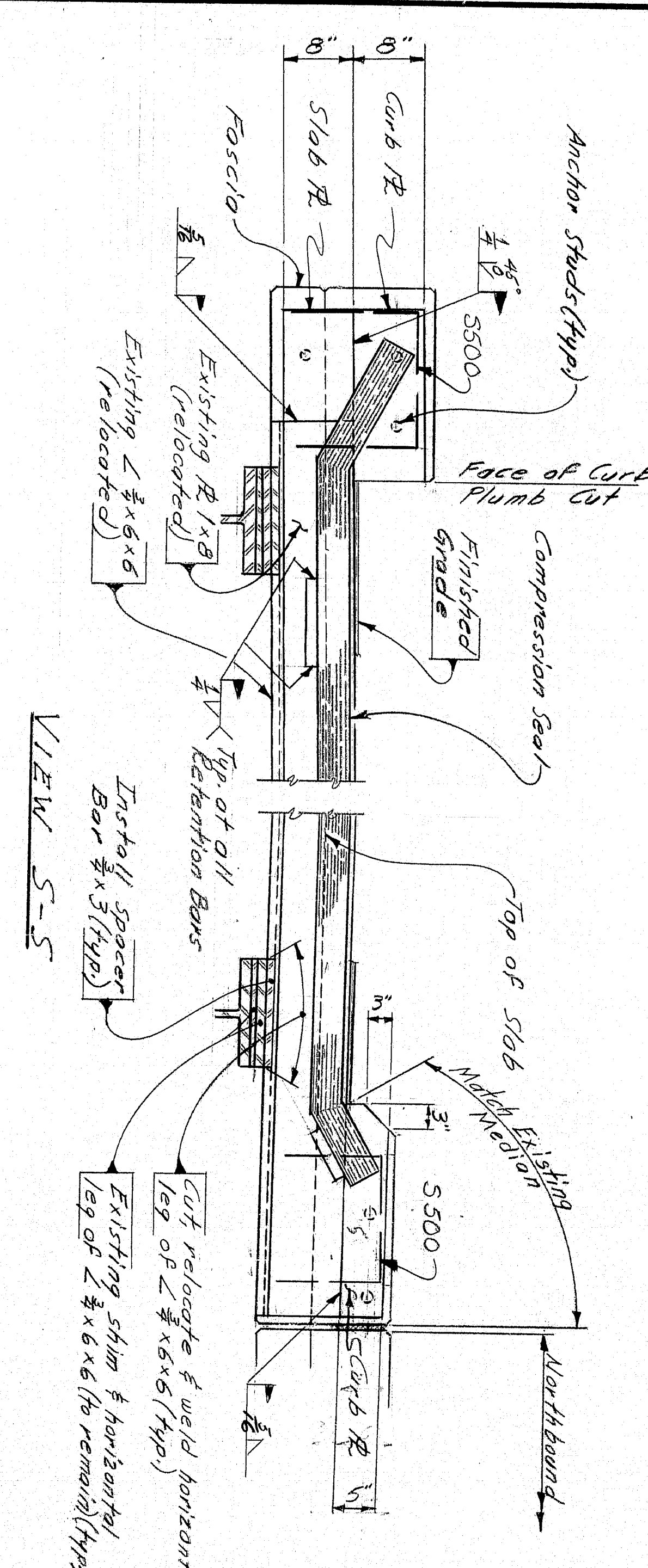
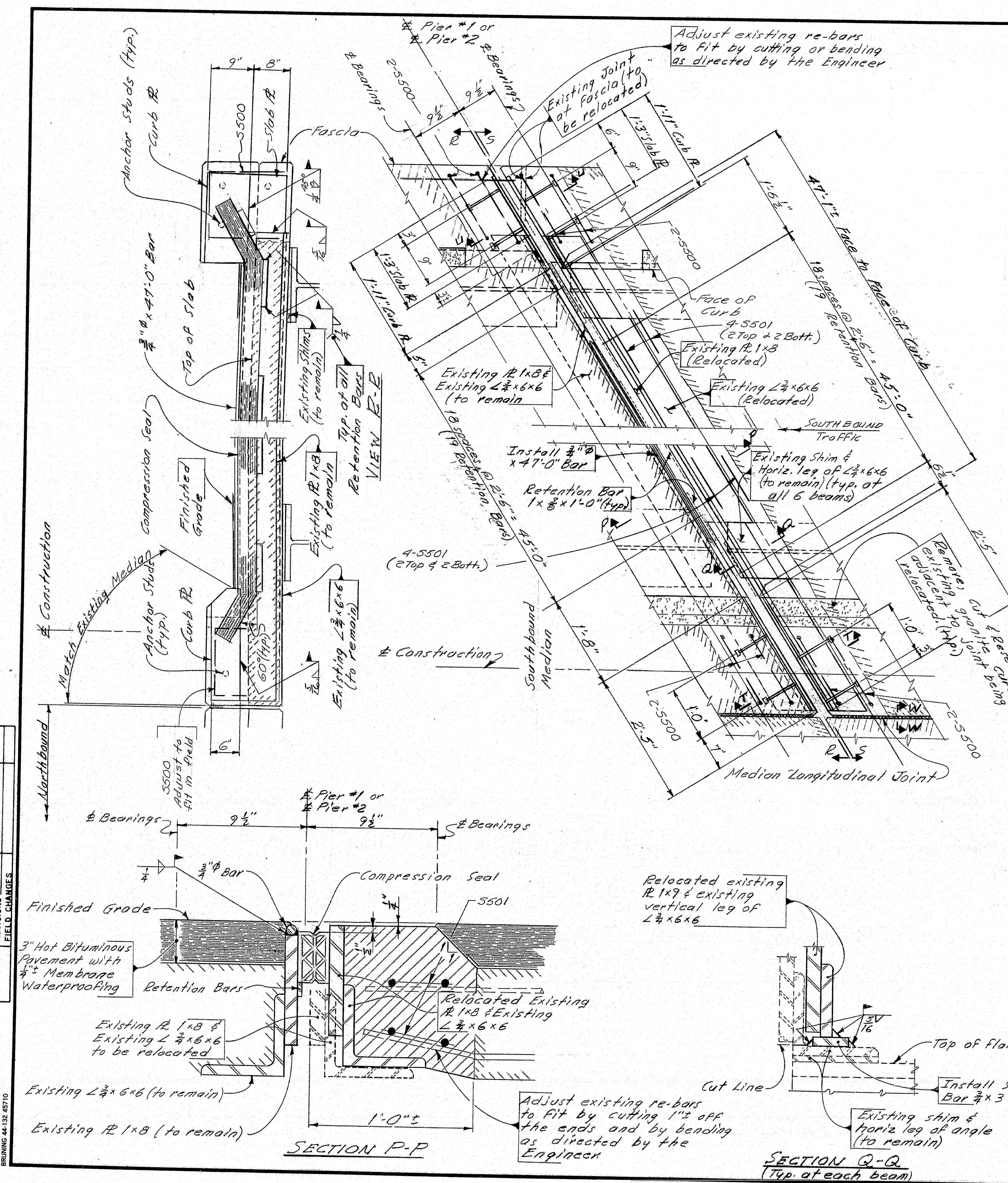
R90-11

IR-95-8(124) BANGOR

PROJECT DESIGN ENGINEER	DATE
BY: [Signature]	10/2/82
DESIGN DETAIL	10/2/82
CHECKED	10/2/82
REVISIONS	
FIELD CHANGES	

BURNING 44132 45710

PLANS	PROJECT DESIGN ENGINEER	BY	DATE
	DESIGN - DETAILED	<i>R.T.A.</i>	<i>8-82</i>
	CHECKED	<i>WBD</i>	<i>8-82</i>
	REVISIONS		
	FIELD CHANGES		

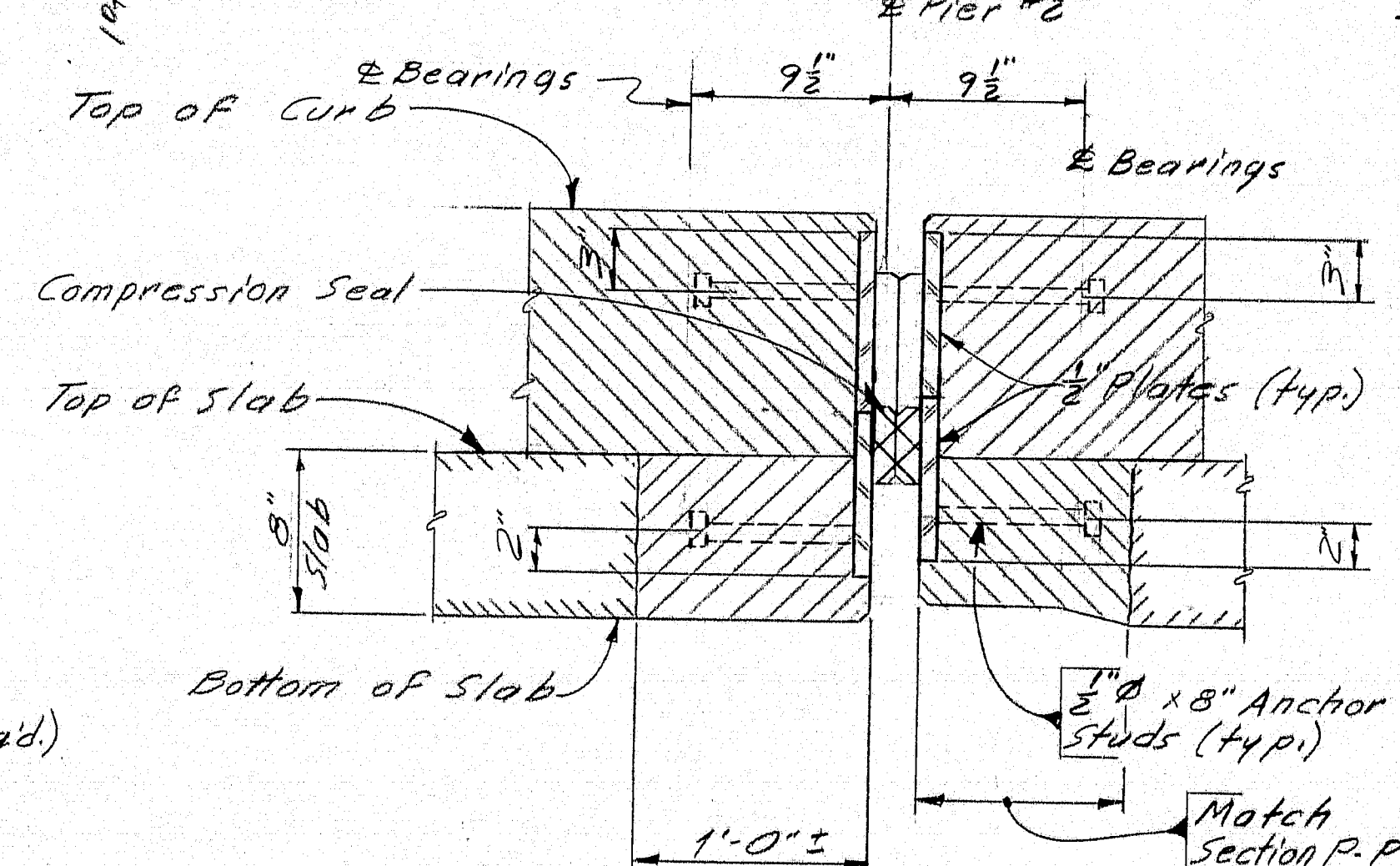


COMPRESSION SEAL ADJUSTMENT CHART

1. _____ The seals to be furnished shall have a minimum Movement Rating of:
Pier No.1 = $\frac{1}{8}$ "
Pier No.2 = $\frac{1}{16}$ "
2. _____ The seal shall be approved by the Engineer prior to installation.
3. _____ The joint opening will vary depending on the dimensions of the seal selected by the Contractor. The joint opening shall be set according to the opening shown on the approved shop detail drawings.
4. _____ The Compression Seal adjustment chart shows the adjustment necessary to adjust the joint opening shown on the shop detail drawings for temperatures other than 45°F. Adjustment is to be measured parallel to the centerline of construction.

REFERENCES

- REFERENCES
- For Removal of existing steel curb plates see sheet #12
 - For Section W-W see sheet #12
 - For Symbols see sheet #12



SECTION LI-L

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95
SOUTHBOUND
OVER
BROADWAY
BANGOR

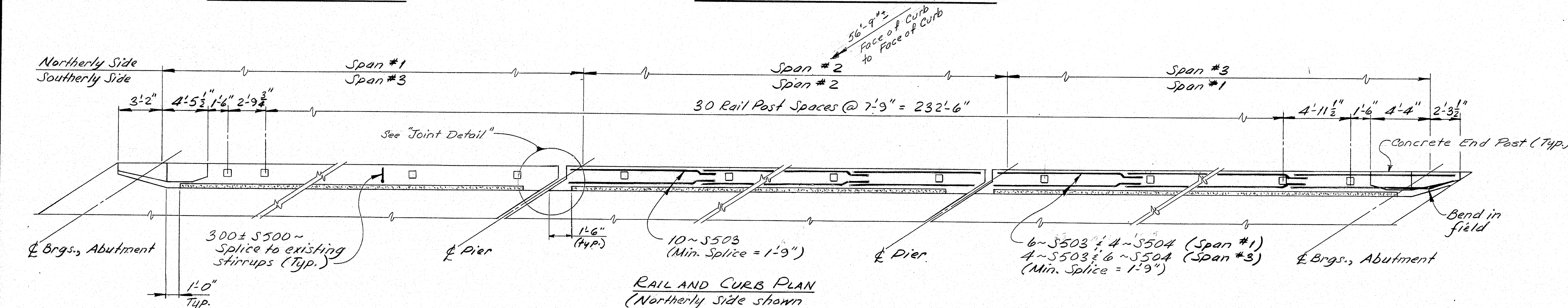
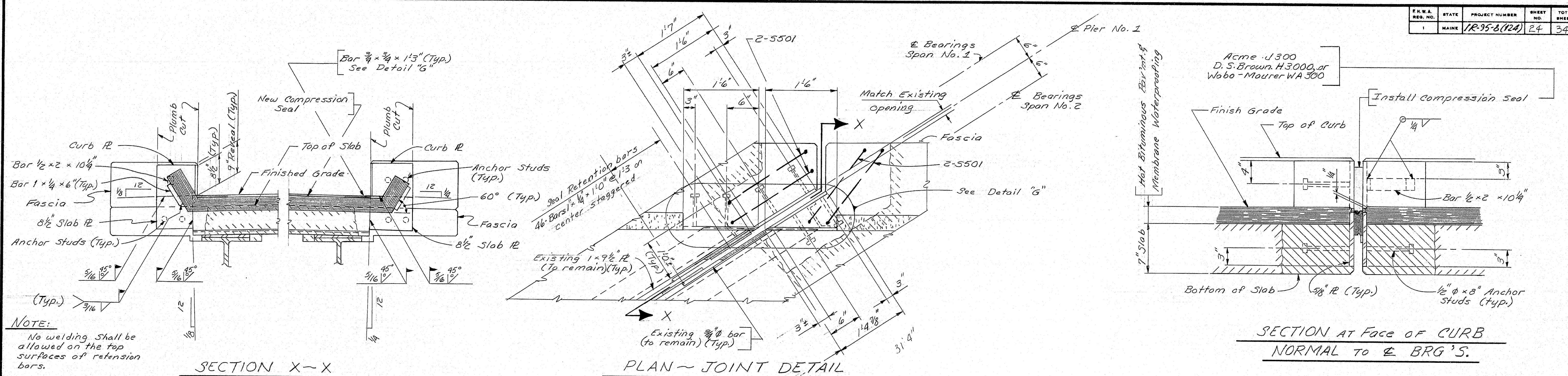
JOINT DETAILS
AT PIERS

SHEET 6 OF 17 AUGUSTA, MAINE Sept. 1982

R90-12

IR-95-8(124) BANGOR

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1R-95-8(124)	24	34



PLANS	PROJECT DESIGN ENGINEER		BY	DATE
	DESIGN - DETAILED		<i>MD & RM</i>	<i>July '82</i>
	CHECKED		<i>WED</i>	<i>Aug '82</i>
	REVISIONS			
	FIELD CHANGES			

REFERENCES
- For Removal of existing
curb plates see sheet # 17.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

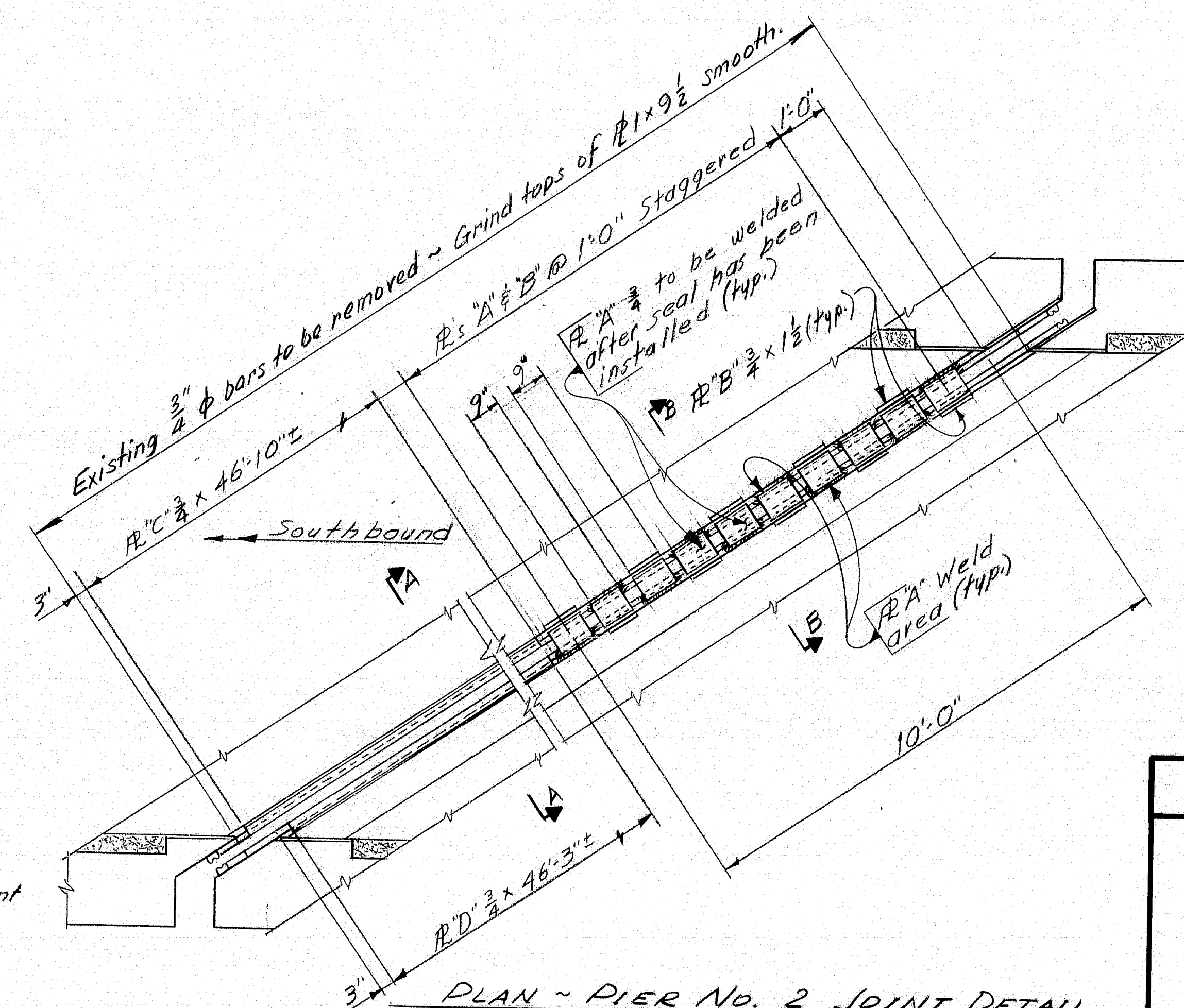
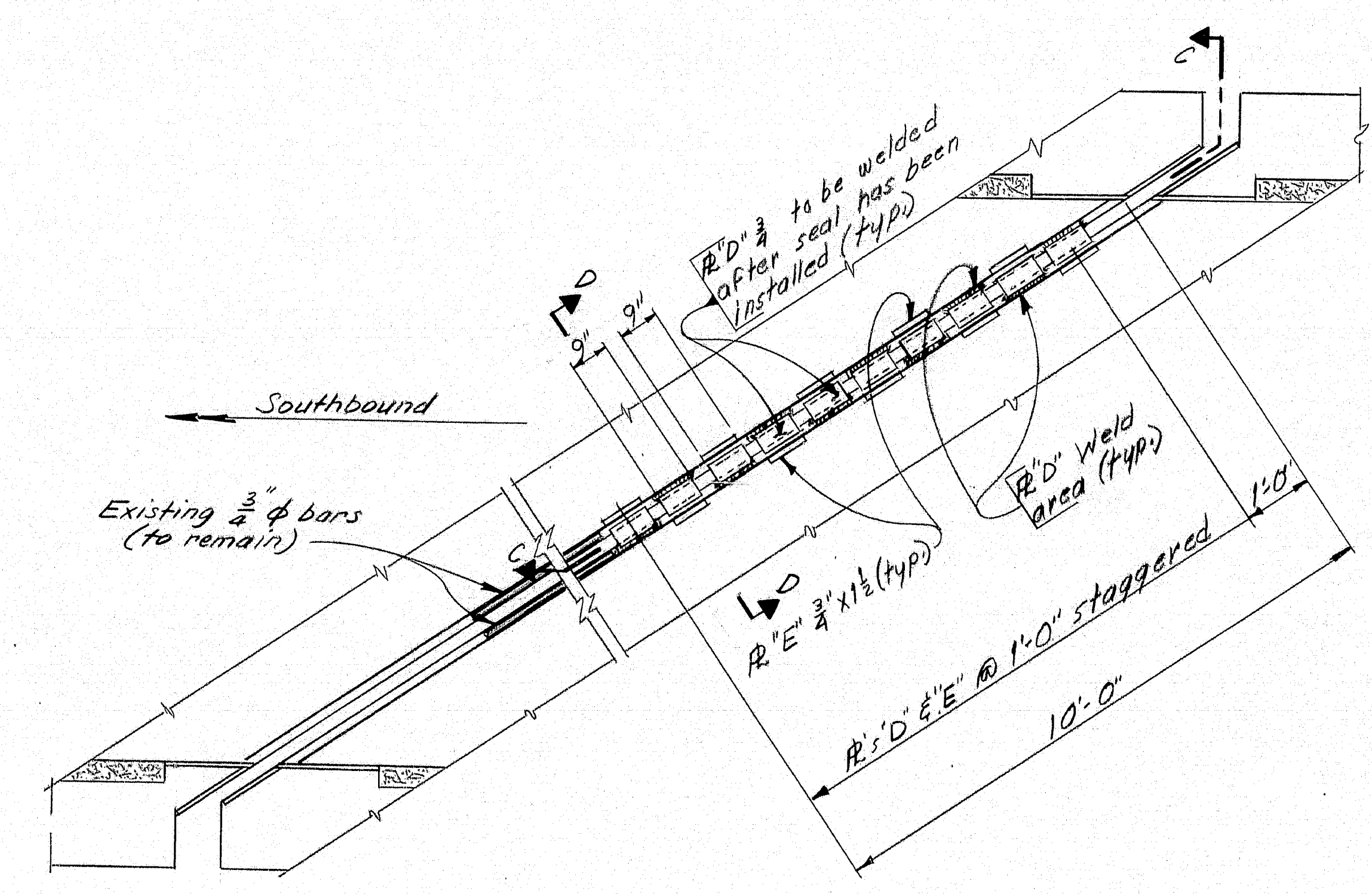
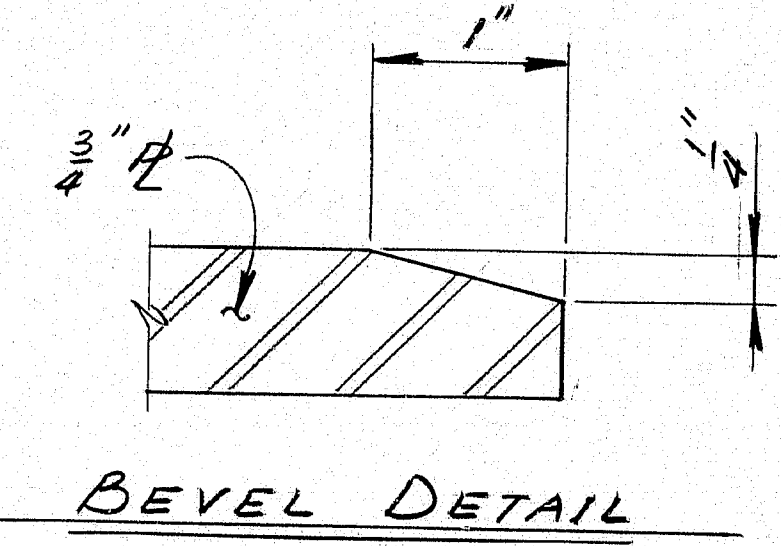
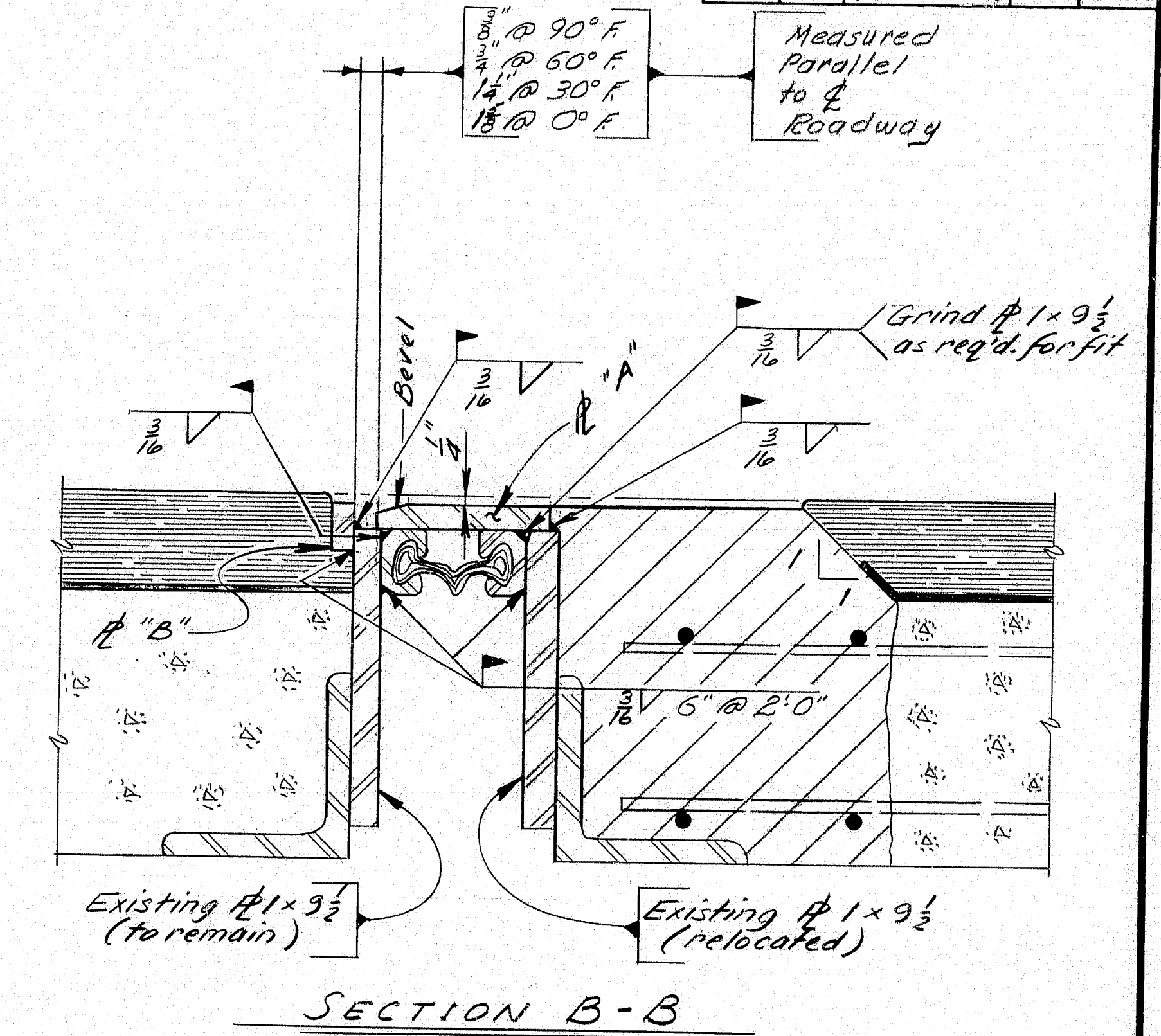
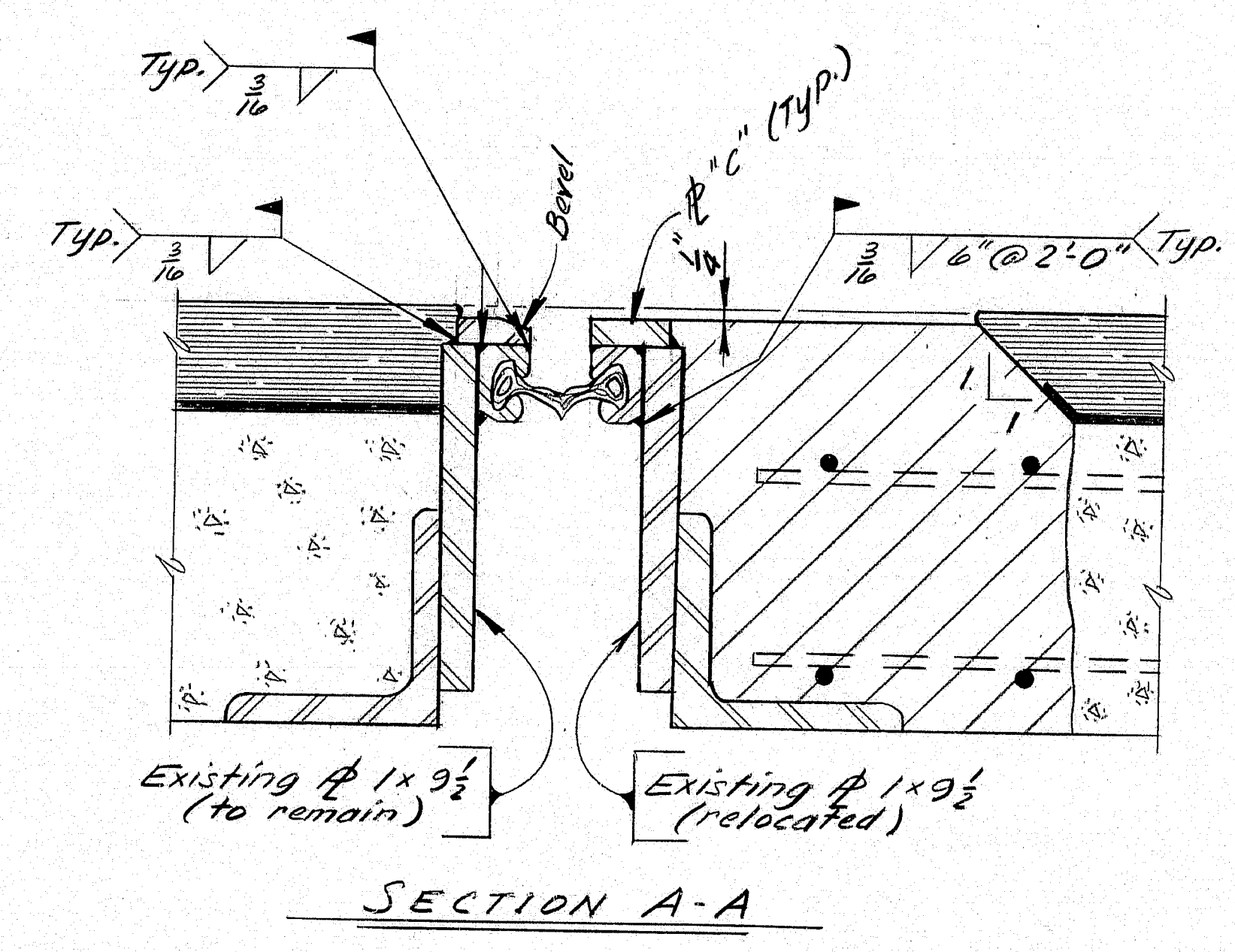
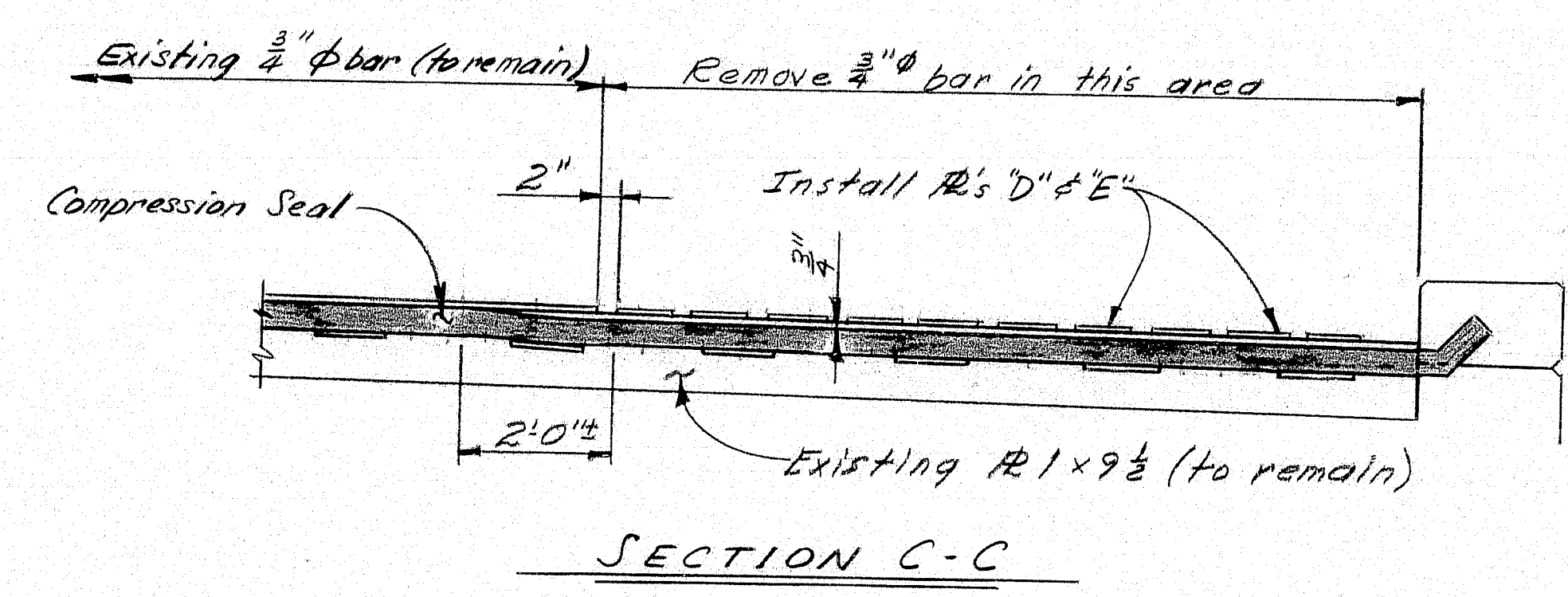
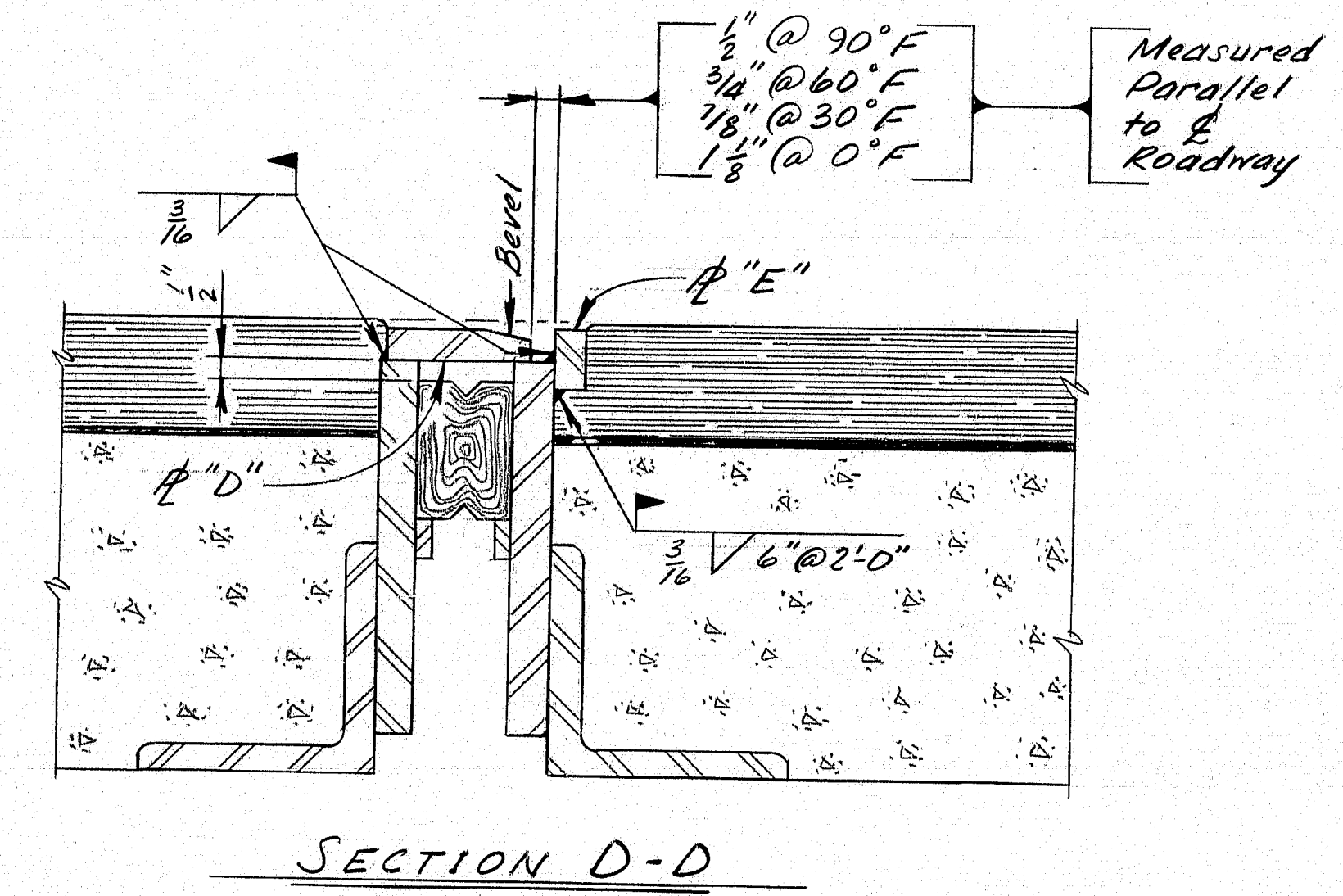
INTERSTATE 95
SOUTHBOUND
OVER
STILLWATER AVENUE
BANGOR
PENOBSCOT COUNTY
BRIDGE DETAILS

SHEET 7 OF 17 AUGUSTA, MAINE Sept. 1982

~~R90-13~~

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	BY
REVISIONS	SET
FIELD CHANGES	NO.
PLANS	

F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	95-B(124)		



- SYMBOLS
- New Concrete (Section)
 - Existing Concrete (to remain)
 - Bituminous Pavement
 - Steel Plates

PLAN - PIER NO. 1 JOINT DETAIL
For dimensions and details not shown, see Sh. # 7

PLAN - PIER NO. 2 JOINT DETAIL
For dimensions and details not shown, see Sh. # 8

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

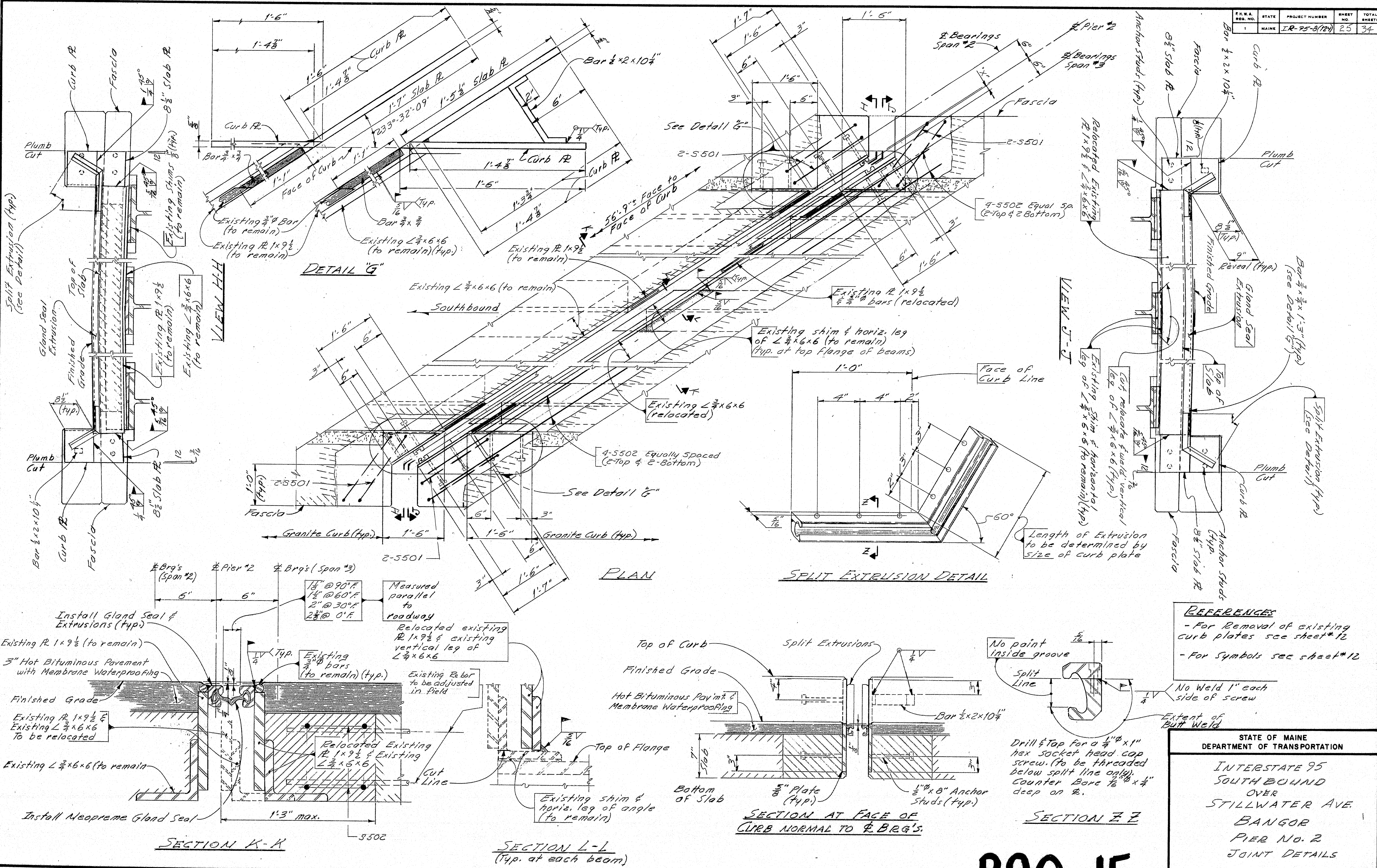
INTERSTATE 95
SOUTHBOUND
OVER
STILLWATER AVENUE
BANGOR

Revisions to Sheet No. 5 7 & 8

SHEET 8A OF AUGUSTA, MAINE April 1983

R90-14

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	IR-95-3(124)	25	34



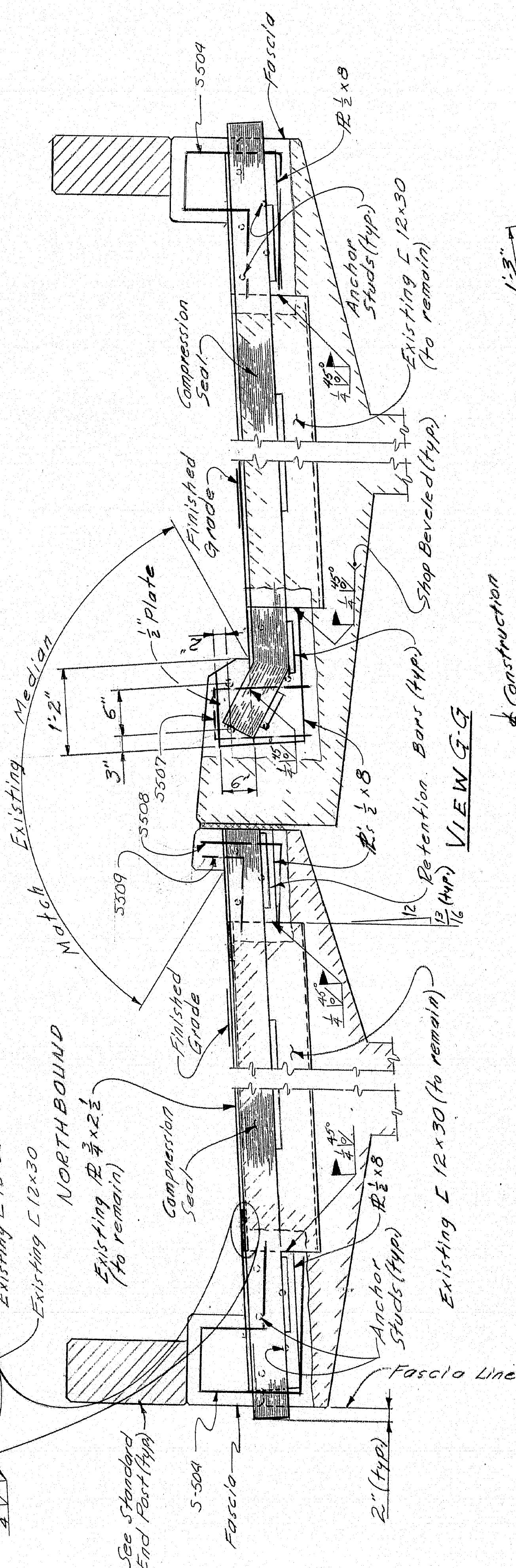
R90-15

PROJECT REVIEW ENGINEER	DATE
DESIGN - DETAIL	7-22
REVISIONS	1/22
FIELD CHANGES	Aug 22

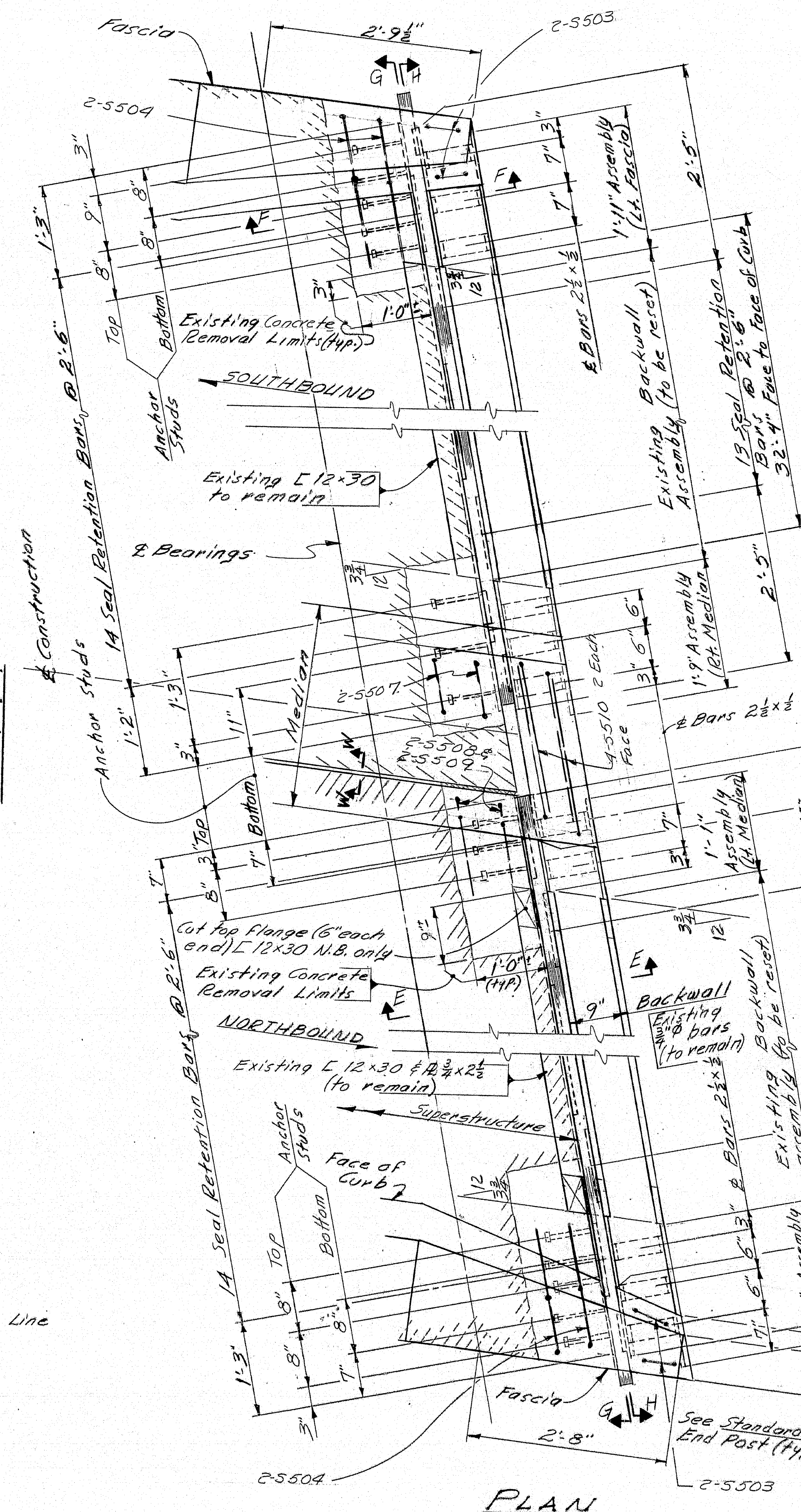
BRUNING 44132 02710

Bar $\frac{1}{2} \times \frac{3}{8} \times 16'$
Typ. of each end of abutment
Existing L 12x30 Northbound only
Existing L 12x30 Southbound only
Cut (6" each end) Top Flange
Existing L 12x30 Northbound only
Existing L 12x30 Southbound only

SOUTHBOUND

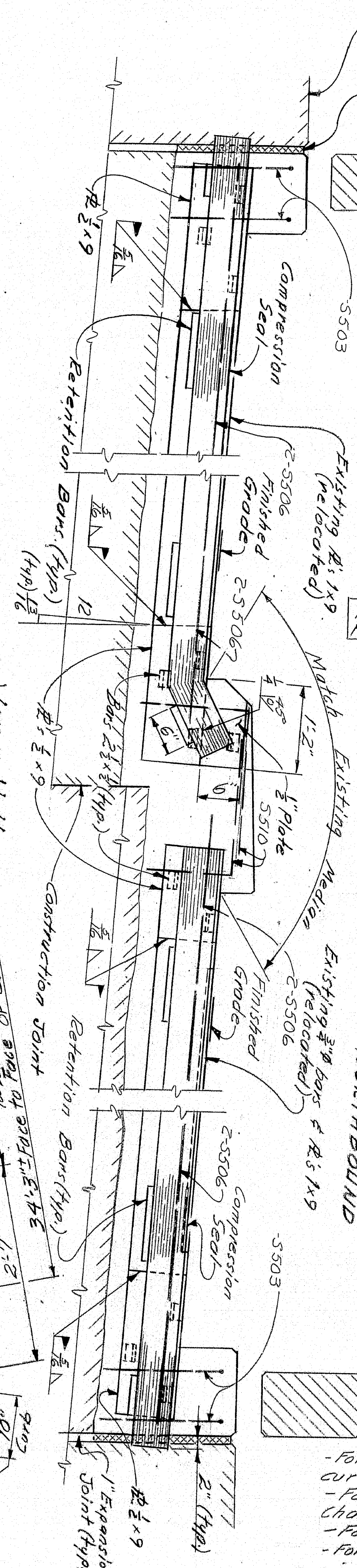


VIEW G-G



PLAN

VIEW H-H



NORTHBOUND

Existing Parapet (Typ.)
Existing 1" Prefabricated Expansion Joint Filler (replace top portion (typ.))

SOUTHBOUND

Hot Bituminous Pavement

Membrane Waterproofing

Bottom of Slab

See Standard End Post (Typ.)

See Standard End Post (Typ.)

Top of Slab

Top of Slab

Top of Slab

Top of Slab

Top of Slab

Top of Slab

SECTION F-F

SECTION E-E

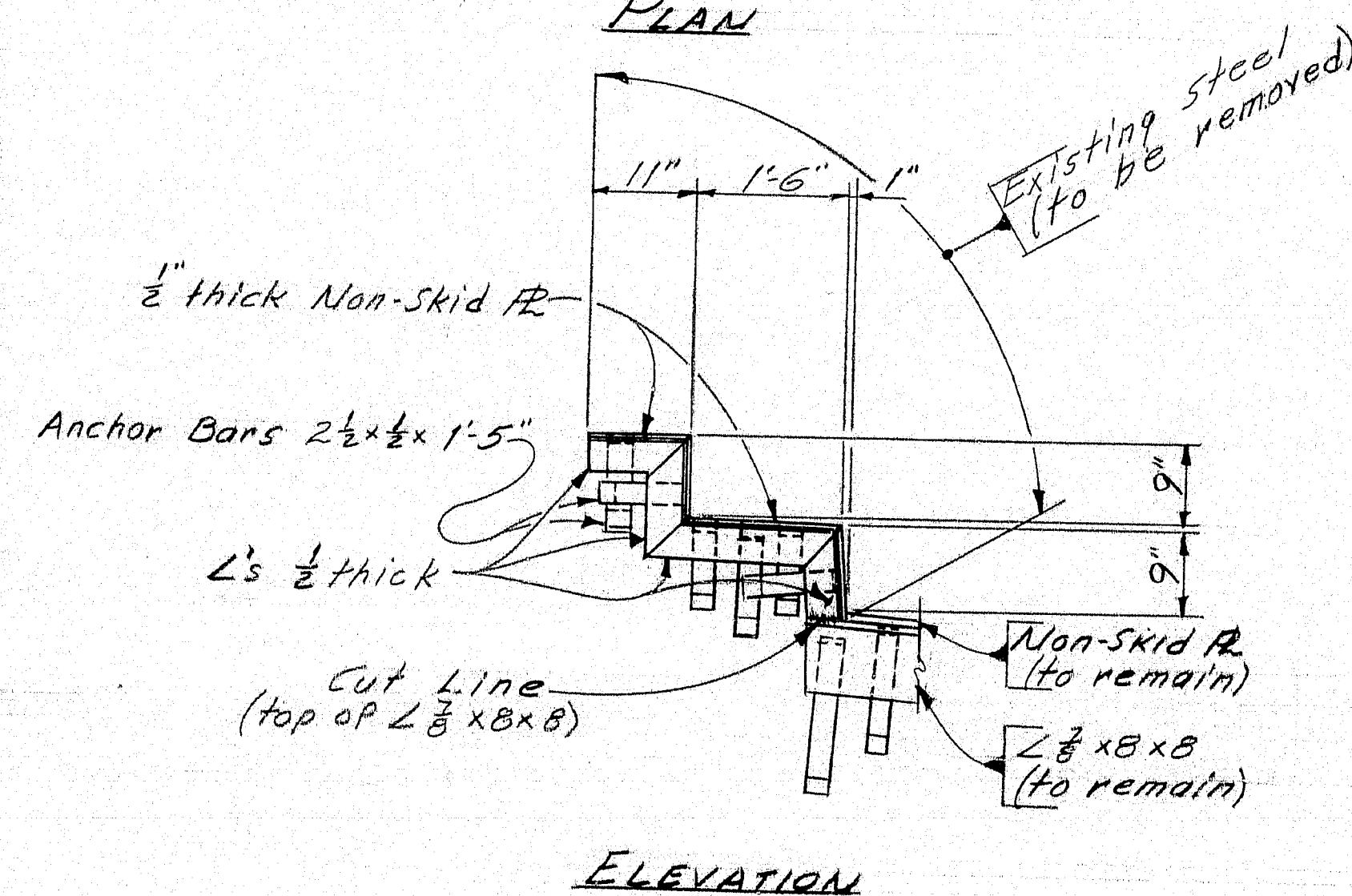
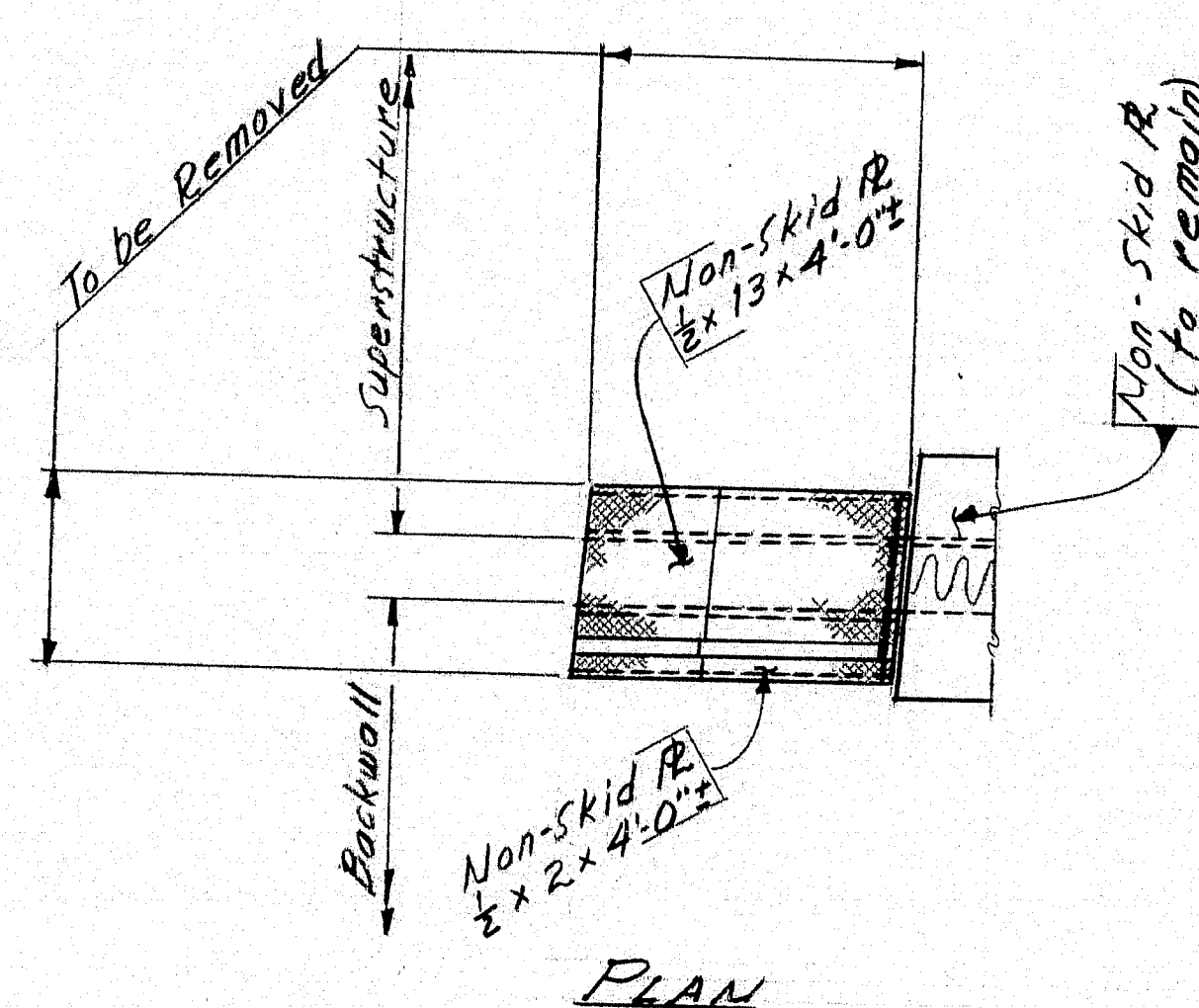
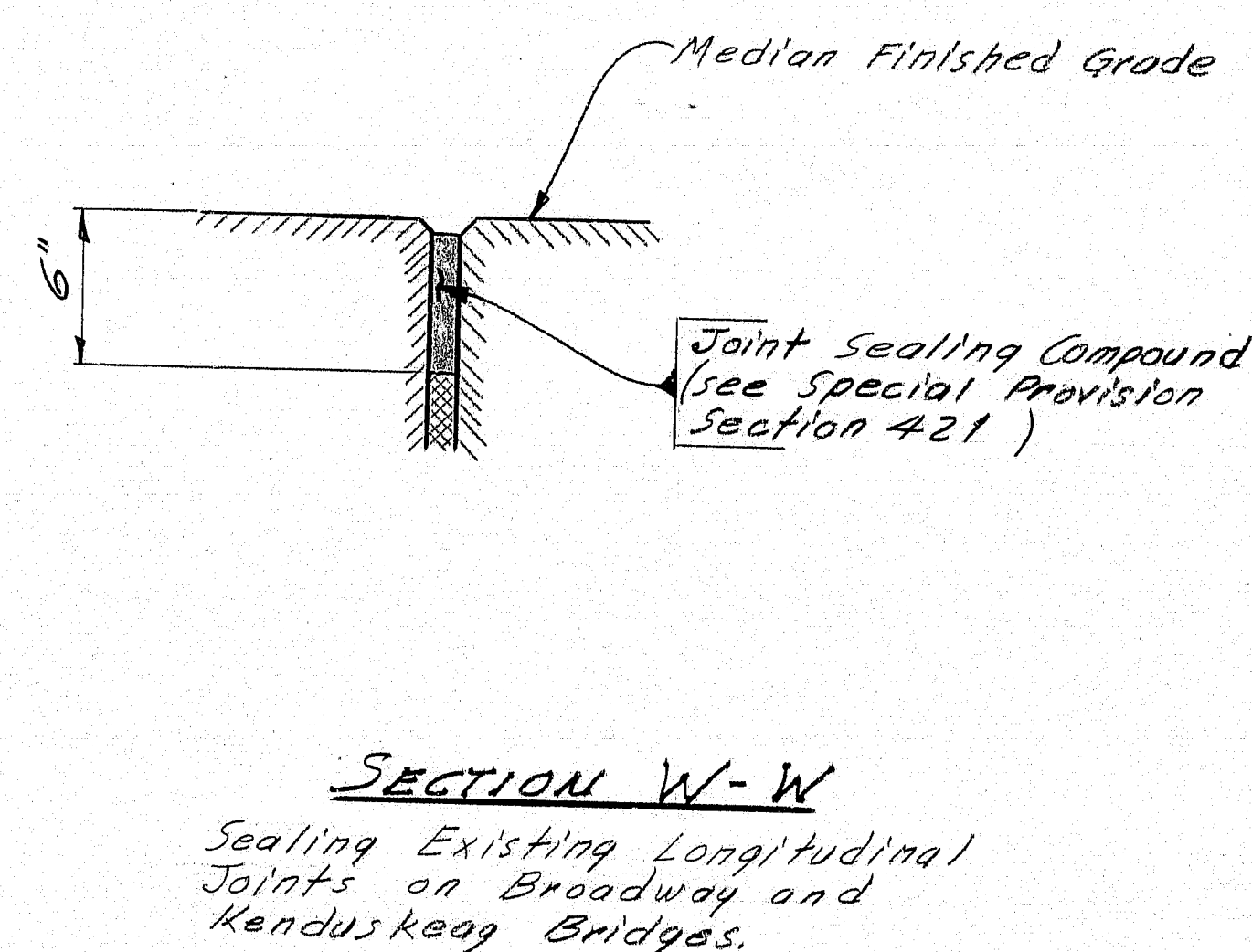
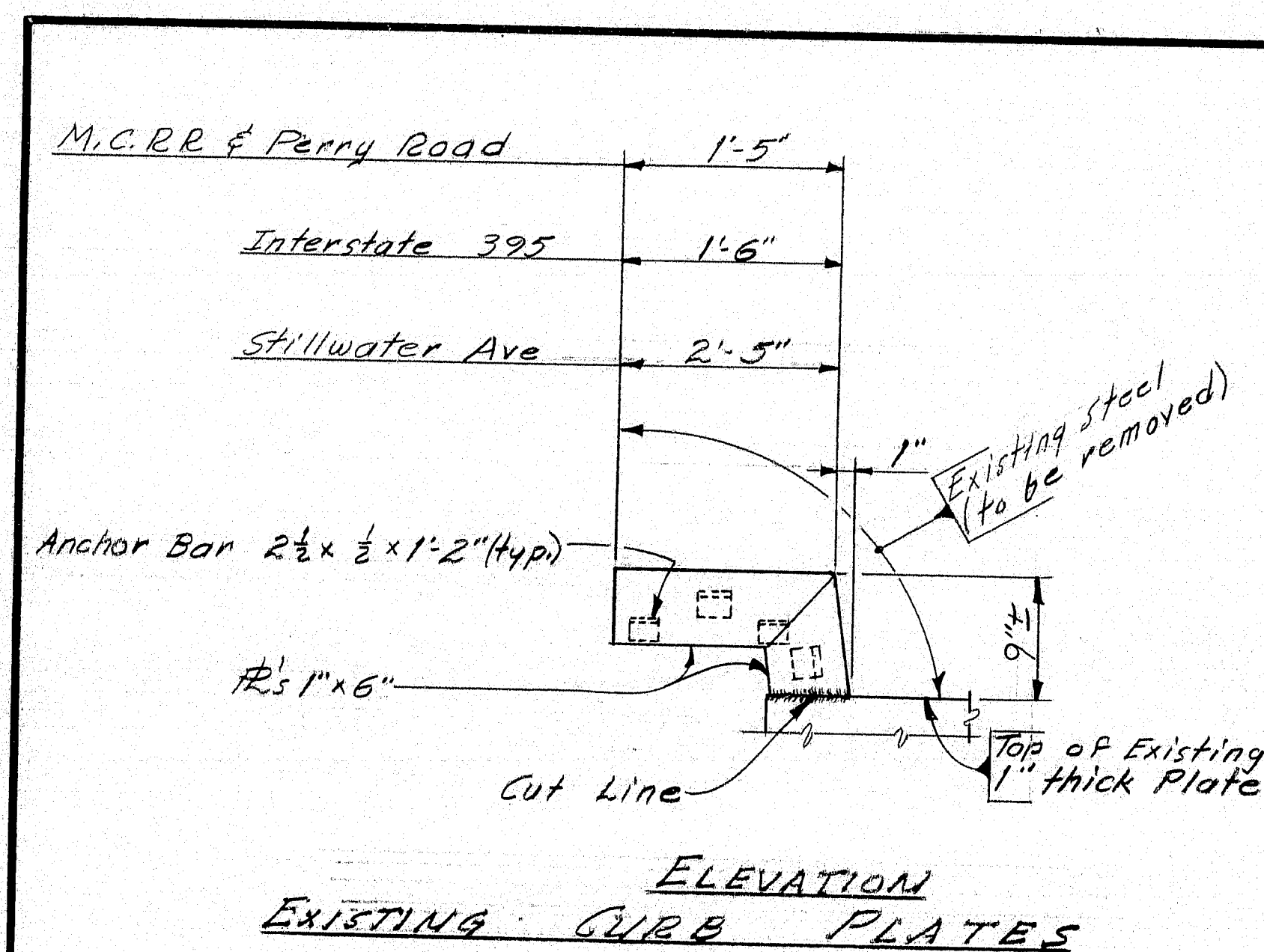
ASSEMBLY DETAIL "D"
Left Fascia (1 Assembly Reg'd), Right Fascia (1 Assembly Reg'd)

REFERENCES
- For Removal of existing steel curb plates see sheet #12
- For Compression Seal Adjustment Chart see sheet #9
- For Section W-W see sheet #12
- For Symbols see sheet #12

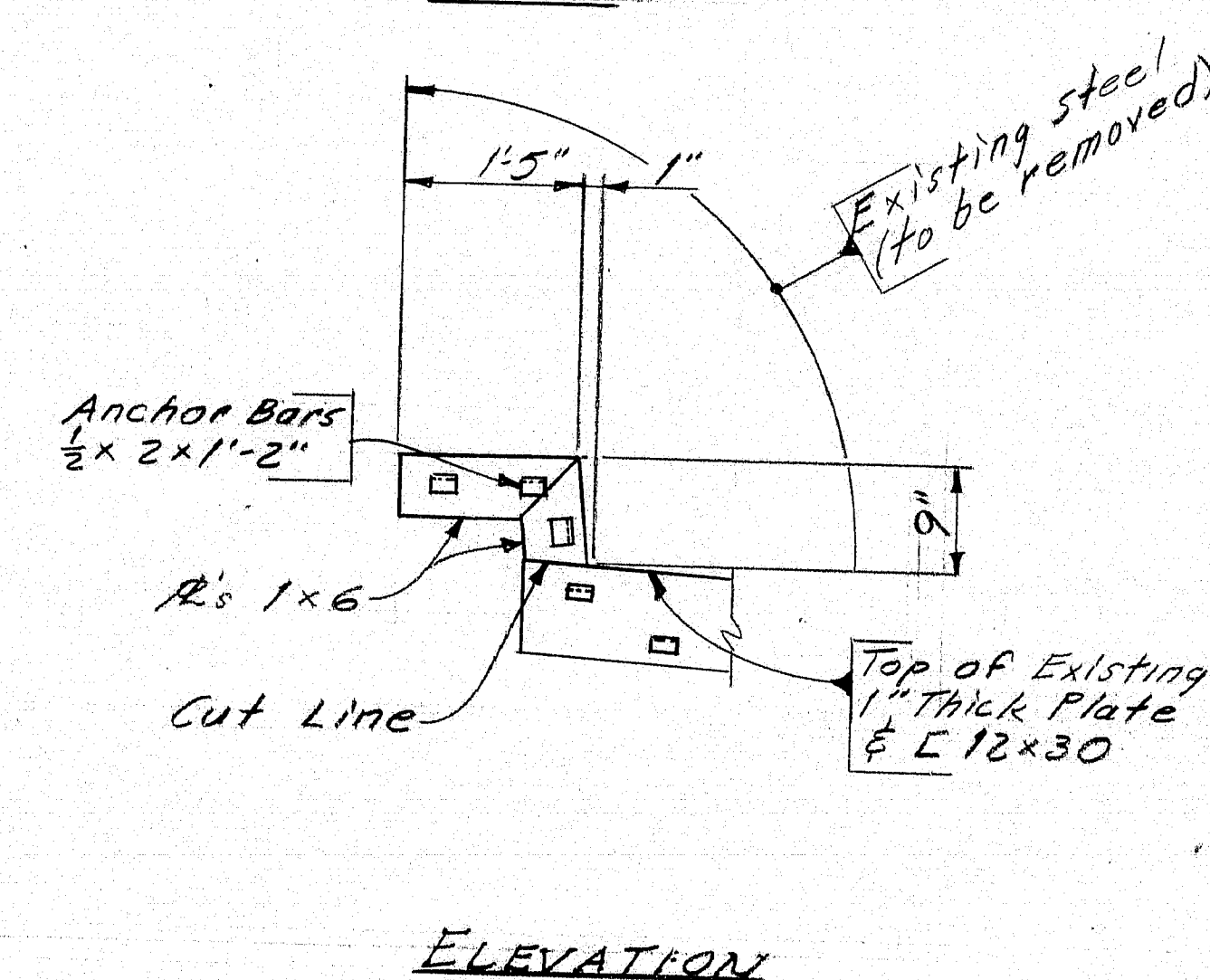
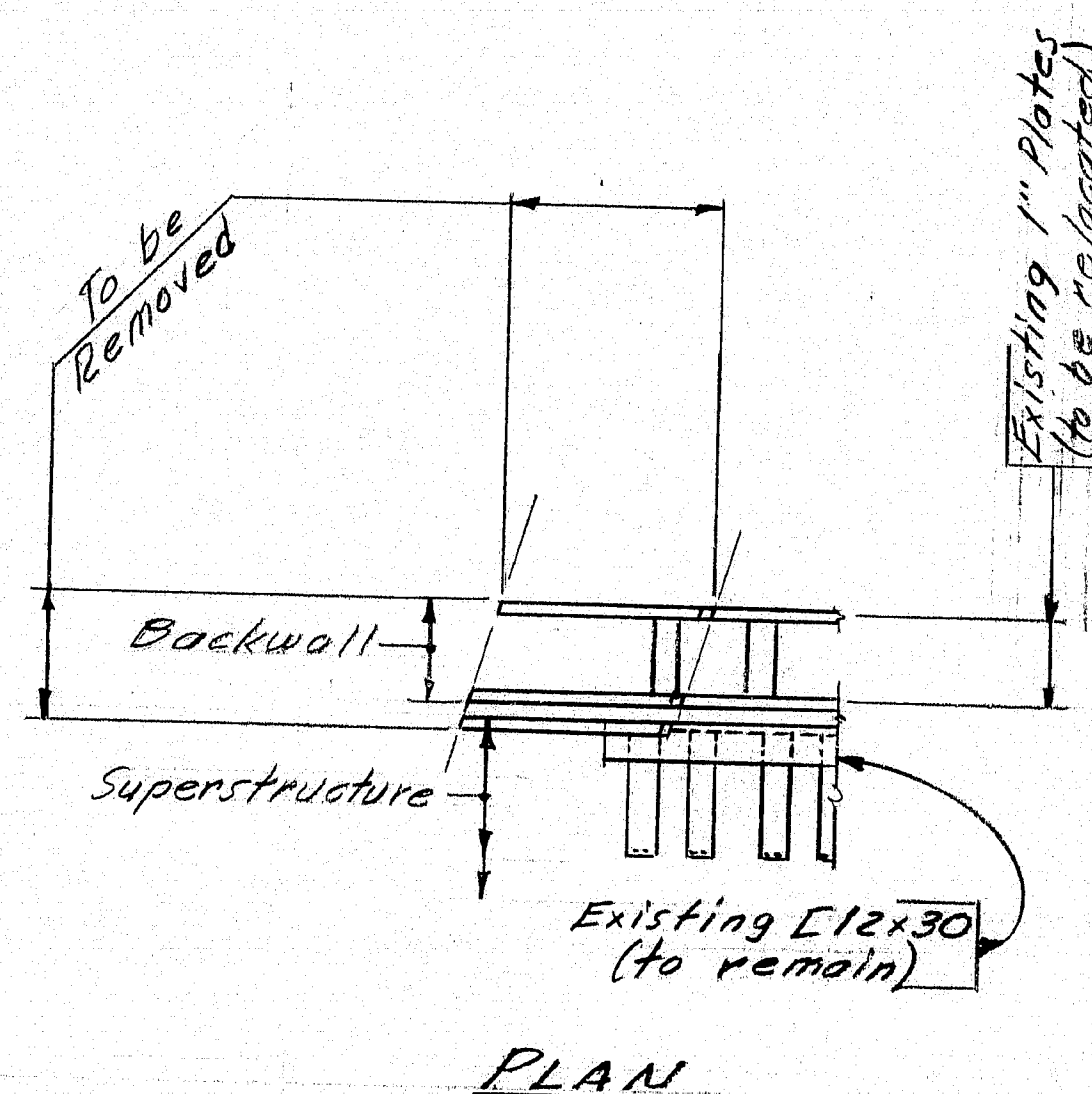
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
NORTHBOUND & SOUTHBOUND
OVER
KENDUSKEAG STREAM
BANGOR
ABUTMENT NO. 2
JOINT DETAILS
SHEET 11 OF 17 AUGUSTA, MAINE Sept. 1982

R90-18

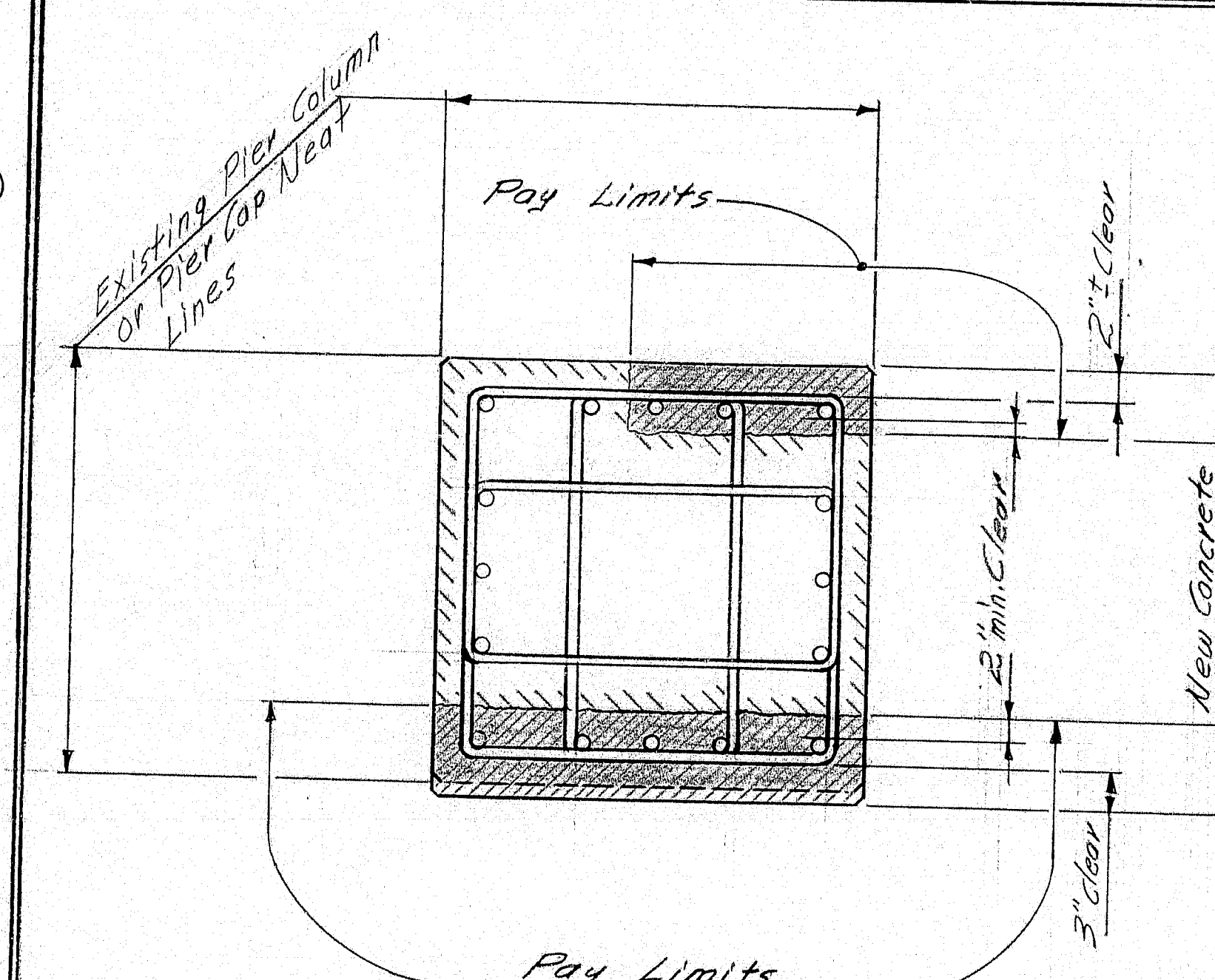
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	IR-95-B(124)	29	34
T&E-IR-95-B(113)			



**ABUTMENT NO. 1
EXISTING CURB PLATES
KENDUSKEAG STREAM
NORTHBOUND AND SOUTHBOUND**



ABUTMENT NO. 2



Existing Concrete (to be removed)
New Concrete
Existing Concrete (to remain)

NOTE: See Special Provision Section 502 Structural Concrete Pier Repairs.

SYMBOLS

- Existing Concrete (to remain)
- New Concrete (section)
- Hot Bituminous Pavement

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 SOUTHBOUND
OVER
M.C.R.R. & PERRY ROAD; I-395;
BROADWAY; STILLWATER AVE.
AND
INTERSTATE 95 N.B. & S.B.
OVER
KENDUSKEAG STREAM
MISCELLANEOUS DETAILS
SHEET 12 OF 17 AUGUSTA, MAINE Sept. 1992

R90-19

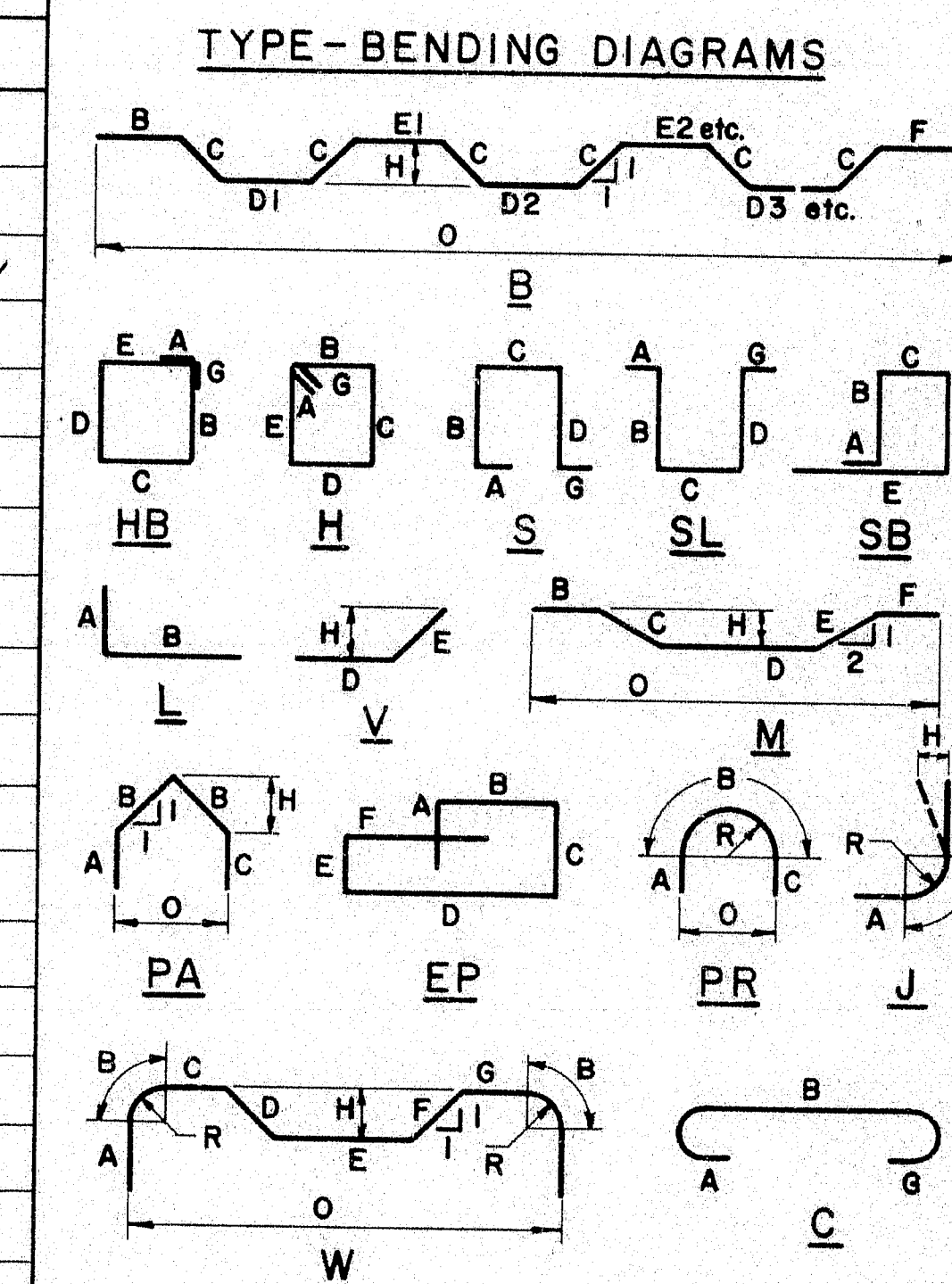
REINFORCING STEEL SCHEDULE

STRAIGHT BARS				BENT BARS			
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION
~ MCRR & PERRY ROAD ~				~ BROADWAY ~			
5502	4	47'10"	Curb	5501	16	27'0"	Slab
5503	4	38'3"	do	5502	2	10'0"	Curb
5504	4	41'3"	do	5503	16	20'0"	do
5505	8	32'3"	do				
5506	2	53'0"	do				
5507	2	52'0"	do				
				~ MCRR & PERRY ROAD ~			
				5500	540	2'2"	L
				5501	24	3'10"	S
				~ I-95 OVER I-395 ~			
				5500	340	2'4"	L
				5501	24	3'10"	S
				~ BROADWAY ~			
				5500	16	4'2"	S
				~ STILLWATER AVE. ~			
5503	32	20'0"	Curb	5502	8	30'0"	Slab Pier No 2
5504	8	15'0"	do	5503	40	20'0"	Curb
				5504	20	15'0"	do
				4 end posts Perry Road			
				4 end posts Interstate 395			
				2 end posts Broadway			
				4 end posts Stillwater Ave.			
				14 end posts required			
				Broadway Ave 8 bars			
				All other 16 bars each Bridge			
				Broadway Ave 8 bars			
				All other 16 bars each Bridge			
				Broadway Ave 8 bars			
				All other 16 bars each Bridge			
				Broadway Ave 6 bars			
				All other 12 bars each Bridge			
				Broadway Ave 4 bars			
				All other 8 bars each Bridge			
				Broadway Ave 2 bars			
				All other 4 bars each Bridge			
				~ END POST ~			
				(Straight Bars)			
				Broadway Ave 20 bars			
				All other 40 bars each Bridge			
				Broadway Ave 12 bars			
				All other 24 bars each Bridge			
				Broadway Ave 8 bars			
				All other 16 bars each Bridge			
				Broadway Ave 6 bars			
				All other 12 bars each Bridge			
				Broadway Ave 4 bars			
				All other 8 bars each Bridge			
				Broadway Ave 2 bars			
				All other 4 bars each Bridge			
				~ END POST ~			
				(Bent Bars)			
				Broadway Ave 56			
				All other 16 bars each Bridge			
				Broadway Ave 56			
				All other 16 bars each Bridge			
				Broadway Ave 56			
				All other 16 bars each Bridge			
				Broadway Ave 42			
				All other 12 bars each Bridge			
				Broadway Ave 28			
				All other 8 bars each Bridge			
				Broadway Ave 14			
				All other 4 bars each Bridge			
				~ END POST ~			
				(Bent Bars)			
				Broadway Ave 56			
				All other 16 bars each Bridge			
				Broadway Ave 42			
				All other 12 bars each Bridge			
				Broadway Ave 28			
				All other 8 bars each Bridge			
				Broadway Ave 14			
				All other 4 bars each Bridge			
				~ END POST ~			
				(Straight Bars)			
				Broadway Ave 140			
				All other 40 bars each Bridge			
				Broadway Ave 84			
				All other 24 bars each Bridge			
				Broadway Ave 56			
				All other 16 bars each Bridge			

PLANS	DESIGN - DETAIL	DATE
	CHECKED	BY
	REVISIONS	BY
	FIELD CHANGES	BY

REINFORCING STEEL SCHEDULE																											
STRAIGHT BARS													BENT BARS														
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
~ SUPERSTRUCTURE ~													~ SUPERSTRUCTURE ~														
5501	68	30'0"	Curb									5500	860	2'4"	L	1'1"	1'3"	—	—								Curb
5502	4	10'0"	do									5503	4	3'2"	S	—	1'4"	6"	1'4"								Abut. Backwall
5505	8	40'0"	do									5504	12	5'9"	SB	1'0"	0'10"	0'10"	1'3"	1'10"							Curb
5506	8	18'0"	Abut. Backwall									5507	2	3'2"	S	—	1'3"	0'8"	1'3"								Median
												5508	10	2'0"	L	1'0"	1'0"										do
												5509	10	1'6"	L	0'6"	1'0"										do
												5510	4	3'0"	L	1'0"	2'0"										do

FHWA	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	MAINE	IR-95-0113	31	34



All dimensions are out to out of reinf. bar
 Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.
 Reinforcing Bar: ASTM A615 Grade 60

- GENERAL NOTES
- First digit(s) following the letter of the Mark indicates size of reinf. bar.
 Mark (A 502) bar size - #5
 Mark (P 1001) bar size - #10
 Mark (S 603) bar size - #6
 - Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

INTERSTATE 95
 NORTHBOUND & SOUTHBOUND
 OVER
 KENDUSKEAG STREAM
 BANGOR

REINFORCING STEEL SCHEDULE

SHEET 14 OF 17 AUGUSTA, MAINE Sept. 1992

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