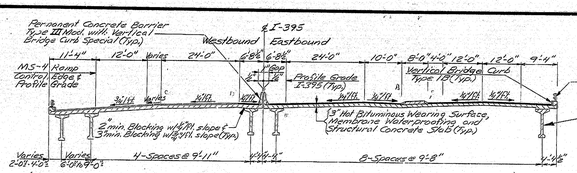
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-2(83)	47	216



TYPICAL SECTION

DESIGN LOADING

LIVE LOAD: HS 25 as modified for Interstate
STRESS CYCLES: 500,000 Truck 100,000 Lane

MATERIALS

CONCRETE: Cast-in-Place - Footings & Breastwalls	Class B
All Others	Class A
Precast	Class A Modified
REINFORCING STEEL: ASTM A615 Grade 60	
STRUCTRAL STEEL: Flanges	ASTM A572
All Other (unless otherwise noted)	ASTM A36
High Strength Bolts	ASTM A325

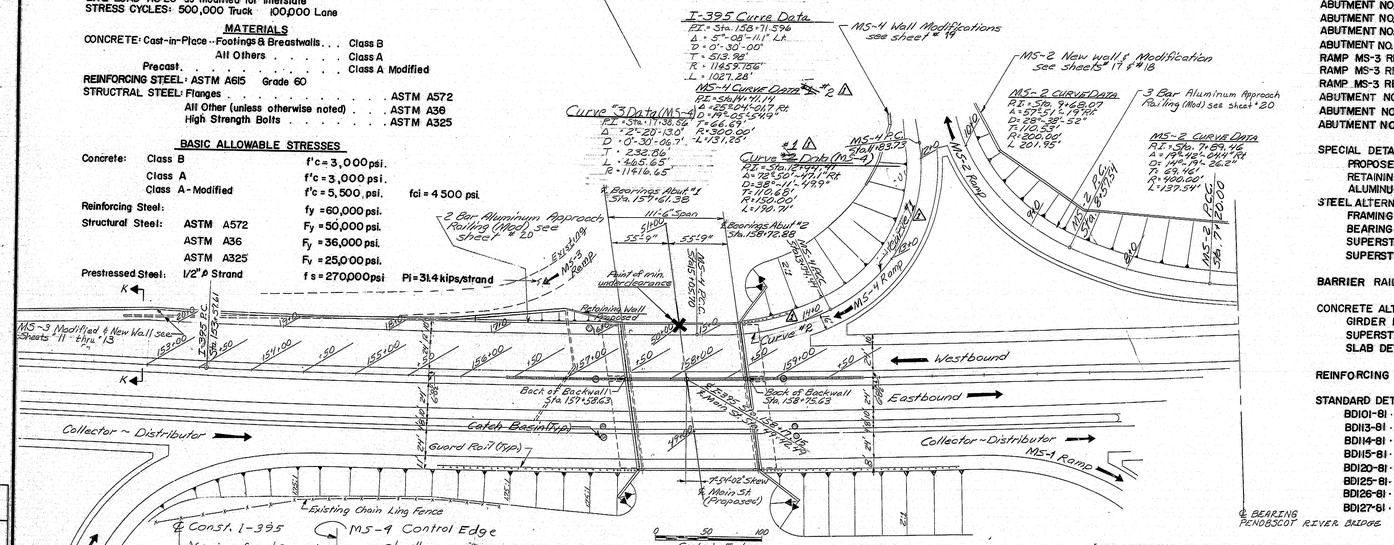
BASIC ALLOWABLE STRESSES

Concrete:	Class B	f'c = 3,000 psi.	
	Class A	f'c = 3,000 psi.	
	Class A - Modified	f'c = 5,500 psi.	fci = 4 500 psi
Reinforcing Steel:		fy = 60,000 psi.	
Structural Steel:	ASTM A572	Fy = 50,000 psi.	
	ASTM A36	Fy = 36,000 psi.	
	ASTM A325	Fv = 25,000 psi.	
Prestressed Steel:	1/2" ϕ Strand	f s = 270,000psi	Pi = 31.4 kips/strand

SPECIFICATIONS

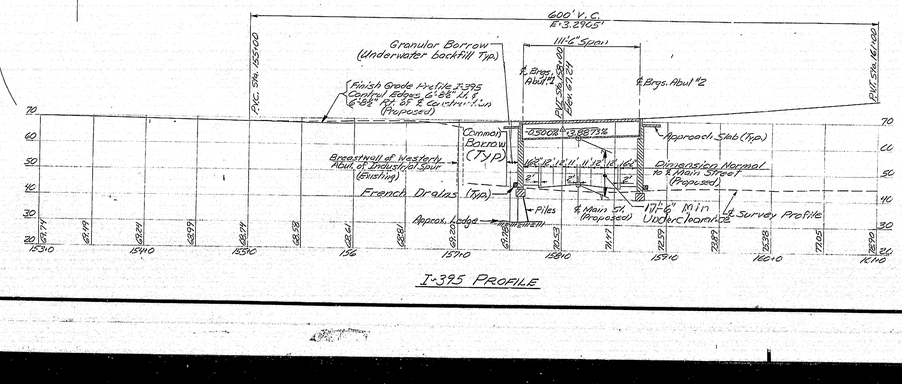
DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1977 and Interim Specifications 1978 thru 1983.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of January 1984.

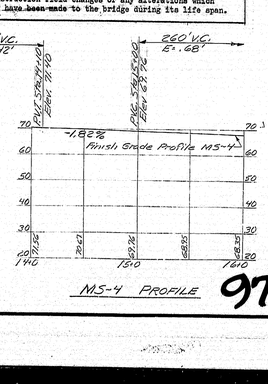


PLAN

SECTION K-K



I-395 PROFILE



MS-4 PROFILE

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.

REVISIONS

⚠ R-06-86 Changed MS-4 Curve Data

TRAFFIC DATA

EASTBOUND			WESTBOUND
13,025	(1983)	A.D.T.	4,195
18,035	(2003)	A.D.T.	5,810
1,698		D.H.V.	388
7		T. (%)	7
55		D. (%)	55
60 MPH		V.	60 MPH
N/A		P.S.D. (%)	N/A
527		18 KIPS	527

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℄ BEARING PENOBSCOT RIVER BRIDGE

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN DETAILED	C.J.M.	1/1977
CHECKED		
REVISIONS		
FIELD CHANGES		

DRAWING 44-132-43700-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

GENERAL PLAN

SHEET 1 OF 43 AUGUSTA, MAINE Oct., 1984

97-231

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY		UNIT
		STEEL ALTERNATE	CONCRETE ALTERNATE	
202.12	Removing Existing Structural Concrete	40	40	C.Y.
202.13	Removing Existing Railings (Retained by Dept.)	1474	1474	L.F.
202.19	Removing Existing Bridge	1	1	L.S.
203.25	Granular Borrow	8000	8000	C.Y.
203.26	Gravel Borrow	130	130	C.Y.
206.081	Structural Earth Exc. (Abutments, Ret. Walls, etc.)	4300	4300	C.Y.
403.08	Hot Bituminous Pavement, Grading C	260	260	Ton
501.217	Steel H-Beam Piles (89 lbs./ft.)	580	580	L.F.
502.21	Structural Concrete, Abutments & Retaining Walls	4150	4150	C.Y.
502.25	Structural Concrete Superstructure Slabs		1	L.S.
502.260	Structural Concrete Roadway & Sidewalk Slabs on Steel Bridges	1		L.S.
502.310	Structural Concrete Approach Slabs	1	1	L.S.
503.12	Reinforcing Steel, Fabricated & Delivered	280,500	306,700	LBS.
503.13	Reinforcing Steel, Placing	280,500	306,700	LBS.
504.700	Structural Steel, Fabricated and Delivered	1		L.S.
504.710	Structural Steel, Erection	1		L.S.
505.080	Shear Connectors	1		L.S.
506.141	Field Painting New Structural Steel	1		L.S.
507.092	Aluminum Bridge Railing, 2 bar	865	865	L.F.
507.093	Aluminum Bridge Railing, 3 bar	612	612	L.F.
508.13	Membrane Waterproofing	1	1	L.S.
512.08	French Drain	820	820	L.F.
514.06	Curing Box for Concrete Cylinders	1	1	Each
515.21	Protective Coating for Concrete Surfaces	1	1	L.S.
518.21	Rehabilitation of Structural Concrete Substructure	500	500	S.F.
520.22	Expansion Device - Compression Seal	2	2	Each
523.0801	Elastomeric Bridge Bearing - Laminated (Type A)		16	Each
523.0802	Elastomeric Bridge Bearings - Laminated (Type B)		7	Each
523.0803	Elastomeric Bridge Bearing - Laminated (Type F)		7	Each
526.32	Permanent Concrete Barrier Type III	226	226	L.F.
535.61	Prestressed Structural Concrete I-Girders		1	L.S.
609.11	Vertical Curb Type 1	131	131	
609.132	Vertical Bridge Curb-Type 1B	843	843	L.F.
609.133	Vertical Bridge Curb - Special	226	226	L.F.
609.17	Sloped Bridge Curb - Type 1	226	226	L.F.

PROJECT DESIGN ENGINEER — PLANS — DESIGN - DETAILED — CHECKED — REVISIONS — FIELD CHANGES

BY	DATE
HMG	

JANUARY 1966

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY		UNIT
		STEEL ALTERNATE	CONCRETE ALTERNATE	
620.30	Filter Fabric - Woven	100	100	S.F.
633.18	Field Office Type A	1	1	Each
652.311	Type II Barricade	15	15	Each
652.33	Drum	5	5	Each
652.34	Cone	10	10	Each
652.35	Construction Signs	200	200	S.F.
652.361	Maintainance of Traffic Control Devices	1	1	L.S.
659.10	Mobilization	1	1	L.S.
660.21	On-the-Job Training (Bid)	1,000	1,000	M.H.

Estimate of Lump Sum Quantities

502.25	Structural Concrete Superstructure Slabs		523	C.Y.
502.260	Structural Concrete Roadway & Sidewalk Slabs on Steel Bridges	517		C.Y.
502.310	Structural Concrete Approach Slabs	104	104	C.Y.
504.700	Structural Steel, Fabricated and Delivered	436,950		Lbs.
504.710	Structural Steel, Erection	436,950		LBS.
505.080	Shear Connectors	3,330		Each
506.141	Field Painting New Structural Steel	436,950		Lbs.
535.61	Prestressed Structural Concrete I-Girders		471	C.Y.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	48	216

GENERAL BRIDGE NOTES

1.~ The 4"ø drains in the existing walls shall be extended through the new concrete jacket.

2.~ Where the new concrete wall sections are to be placed, 4"ø drains will be set at a maximum spacing of 20'-0" the exact locations of the drains will be as determined by the Engineer.

3.~ Protective Coating for Concrete Surfaces shall be applied to the top of curbs. Payment will be made under Item 515.21.

4.~ Where portions of the top of the existing walls are to be removed to a designated elevation the exposed face will be saw cut to a minimum of one half inch depth. Where new concrete caps or jackets are to be placed against existing concrete, the concrete surfaces shall be cleaned, or shall be removed to a sound substrate as directed by the Engineer. Payment for the concrete removed will be made under Item 202.12.

5.~ Where directed by the Engineer, exposed spalled or cracked concrete in the faces of existing walls to remain will be rehabilitated as provided for under Special Provision Section 518 except "Blister" Type Patches will not be allowed. Cracks extending beyond 2" from the existing face will be allowed to remain.

6.~ Drilling and grout will be considered incidental to contract items. Grout shall contain an approved non-shrink additive.

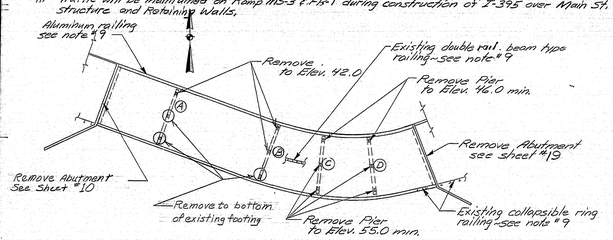
7.~ The front face (curb side) of the portions of the Concrete Caps from I-395 Sta. 153+57.61 ℘ Sta. 156+20± may be constructed on a chord line between contraction or expansion joints.

8.~ The Contractor shall remove the concrete bridge deck and portions of the existing piers and abutments to the limits shown. The concrete shall become the property of the Contractor. The existing structural steel shall be removed and become the property of the Department.

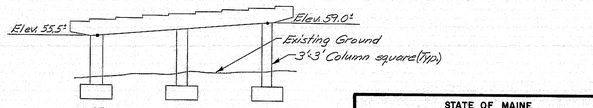
9.~ The existing aluminum, collapsible ring and double rail beam type railing on "Industrial Spur Bridge", M5-2 Retaining Wall and Approaches shall be removed and become the property of the Department. Payment will be made under Item 202.13.

10.~ All Granular Borrow shall meet the requirements of subsection 703.19 Underwater Backfill.

11.~ Traffic will be maintained on Ramp M5-3 & FR-1 during construction of I-395 over Main St. structure and Retaining Walls.



PLAN (Existing)



ELEVATION PIERS A, B, C & D

REMOVAL OF EXISTING BRIDGE "Industrial Spur Bridge"

97-232

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

ESTIMATED QUANTITIES

SHEET 2 OF 43 AUGUSTA, MAINE Oct., 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	375-8(88)	49	216

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	KDJ	9/80
CHECKED	EJC	9/80
REVISIONS	RAS	11/82
FIELD CHANGES		

PLOTTED VIA KDJ

BRUNING 44-132-45710

I-395 CURVE DATA

P.I. = Sta. 158+71.596
Δ = 5°-08'-11.1" Lt.
D = 0°-30'-00"
T = 573.98'
R = 11459.156'
L = 1027.28'

CURVE #3 DATA (MS-4)

P.I. = Sta. 17+38.56
Δ = 2°-20'-13.0" Rt.
D = 0°-30'-00.0"
T = 232.86'
L = 465.65'
R = 11416.448'

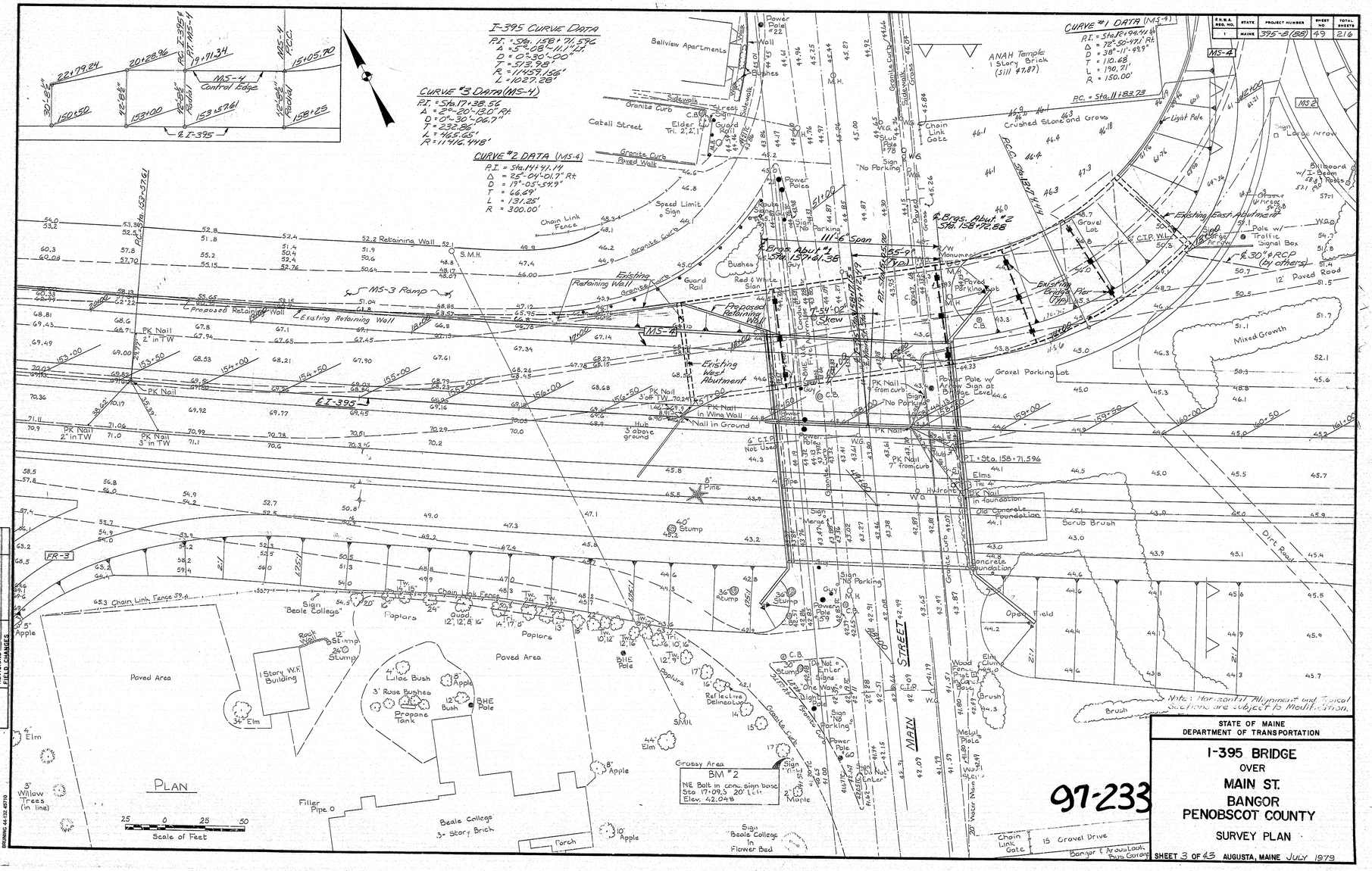
CURVE #2 DATA (MS-4)

P.I. = Sta. 14+41.14
Δ = 25°-04'-01.7" Rt.
D = 19°-05'-54.9"
T = 66.69'
L = 131.25'
R = 300.00'

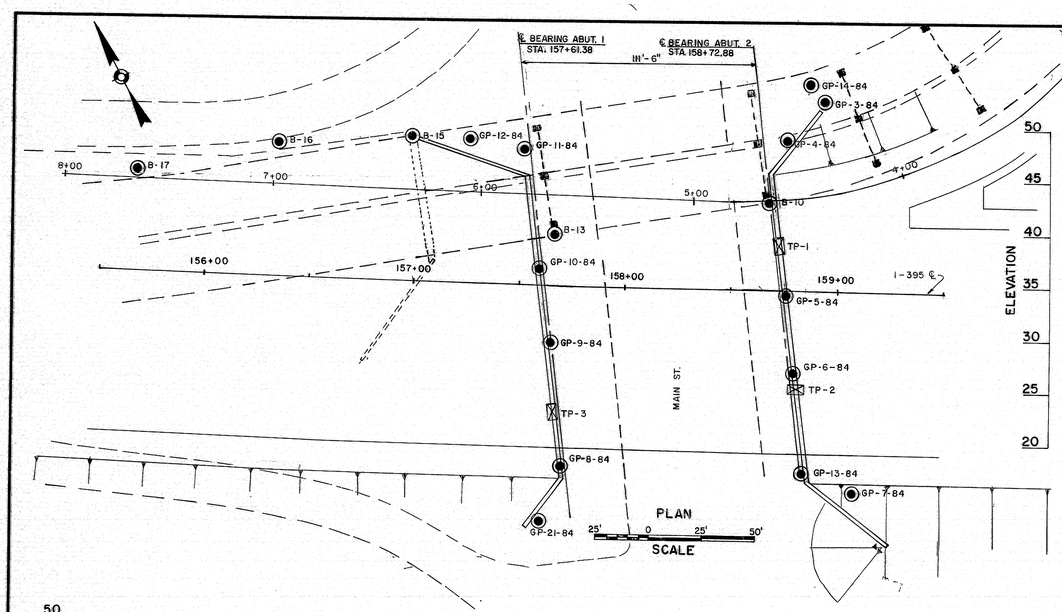
CURVE #1 DATA (MS-4)

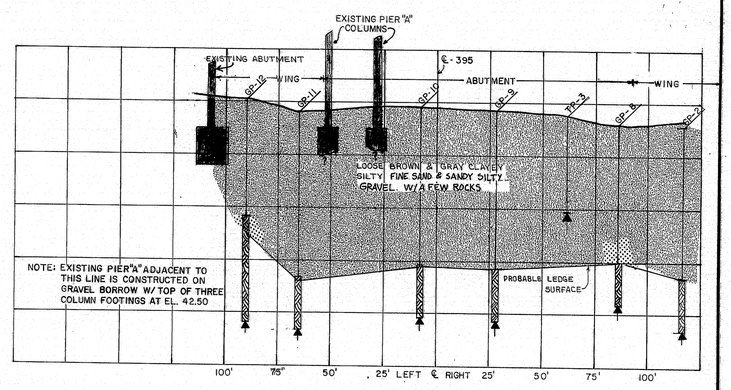
P.I. = Sta. 10+94.44
Δ = 78°-50'-17.1" Rt.
D = 38°-11'-49.9"
T = 110.68'
L = 190.71'
R = 150.00'

PC. = Sta. 11+83.78


Bellview Apartments
Power Pole #22
Wall
Bushes
Sidewalk
Granite Curb
Catell Street
Elder Tri. 2, 2, 1
Guard Rail
Granite Curb
Paved Walk
Speed Limit Sign
Chain Link Fence
Retaining Wall
S.M.H.
Guard Rail
Existing Retaining Wall
Existing Granite Curb
MS-3 Ramp
Proposed Retaining Wall
Existing Retaining Wall
MS-4
Existing West Abutment
℄ I-395
PK Nail 2" in TW
PK Nail 2" in TW
PK Nail 3" in TW
PK Nail 3 off TW 70.24
PK Nail in Wing Wall
Nail in Ground
Hub 3' above ground
Power Pole
Guy
C.B.
Not Used
Sign "No Parking"
Sign "Merge"
Granite Curb
Sidewalk
Grass
Chain Link Gate
Crushed Stone and Grass
ANAH Temple 1 Story Brick (511) 47.87
Light Pole
P.C. = Sta. 11+83.78
Sign Large Arrow
Billboard w/ I-Beam
Pole w/ Traffic Signal Box
Existing East Abutment
Gravel Lot
Gravel Parking Lot
Paved Parking
Monument
M.H.
Abut. #2 Sta. 158+72.66
Abut. #1 Sta. 157+61.36
111'-6" Span
155'-9" (typ.)
Existing Bridge Pier (typ.)
Power Pole w/ Sign at Bridge Level
PT. = Sta. 158+71.596
Elms 3 Tw. 4'
PK Nail in Foundation
Old Concrete Foundation
Concrete Foundation
Scrub Brush
Mixed Growth
Dirt Road
Open Field
Wood Fence
Elm Clump
Brush
Note: Horizontal Alignment and Typical Sections are subject to Modification.
℄ C.T.P. W.L.
30" RCP (by others)
12' Paved Road
Drainage Inlet
Pole w/ Traffic Signal Box
Sign
Guard Rail
Paved Area
1 Story W.F. Building
Rock Maple
12" Stump
24" Stump
Lilac Bush
3' Rose Bushes
Propane Tank
8" Apple
12" Bush
BHE Pole
Poplars
Chain Link Fence
Sign "Beale College"
5" Apple
34" Elm
4" Elm
3" Willow Trees (in line)
Filler Pipe
Beale College 3+ Story Brick
Porch
10" Apple
8" Apple
2" Maple
Sign Beale College in Flower Bed
Grassy Area
BM #2
NE Bolt in conc. sign base
Sta. 17+09.5 20' Lt.
Elev. 42.048
Reflective Delineator
Sign "No Parking"
Power Pole
Sign "One Way"
Sign "No Parking"
Sign "No Enter"
Sign "No Enter"
Metal Pole
Water Valve
Chain Link Gate
15' Gravel Drive
Banger & Aroostook Ry. Crossing
Tw.
Fir
Pine
Stump
Maple
Elm
Apple
Willow
Poplar
Guard 12, 12, 8, 16'
14, 17, 6'
Tw. 10, 12
Tw. 12, 16
Tw. 12, 16
Tw. 10, 16
Tw. 12, 16
Tw. 16
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Tw. 12, 16
Tw. 12, 16

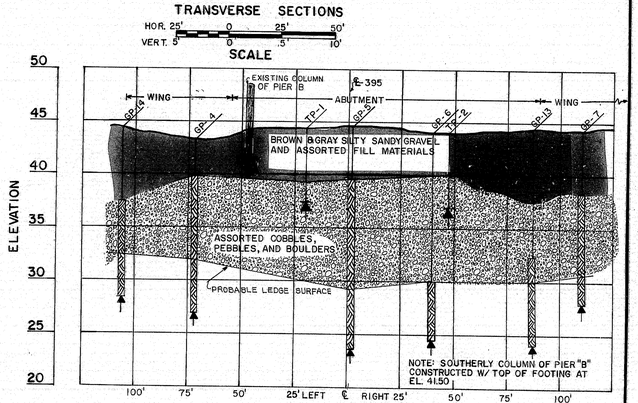
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	8	216





ABUTMENT NO. 1

TRANSVERSE SECTIONS



ABUTMENT NO. 2

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	
	CHECKED	
	REVISIONS	
	FIELD CHANGES	

BRUNING 44-132-43710

97-234

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395
OVER
MAIN STREET
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY
FOUNDATION SURVEY

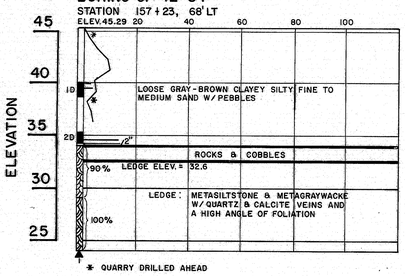
SHEET 4 OF 43 AUGUSTA, MAINE Oct, 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	51	216

BORING DETAILS

BORING GP-12-84

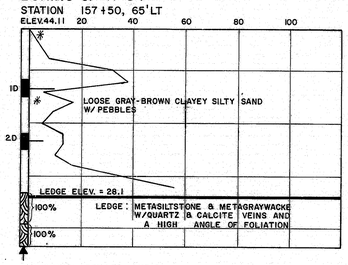
STATION 157 + 23, 68' LT



* QUARRY DRILLED AHEAD

BORING GP-11-84

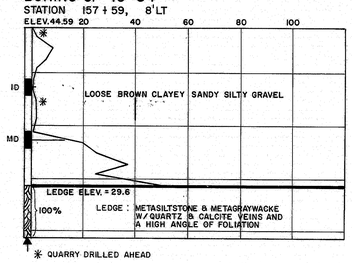
STATION 157 + 50, 65' LT



* QUARRY DRILLED AHEAD

BORING GP-10-84

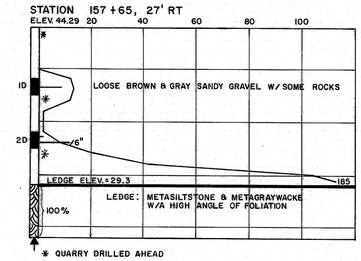
STATION 157 + 59, 8' LT



* QUARRY DRILLED AHEAD

BORING GP-9-84

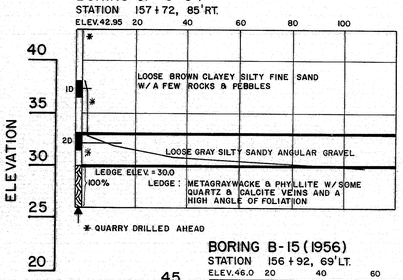
STATION 157 + 65, 27' RT



* QUARRY DRILLED AHEAD

BORING GP-8-84

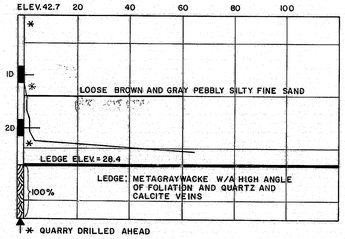
STATION 157 + 72, 85' RT.



* QUARRY DRILLED AHEAD

BORING GP-21-84

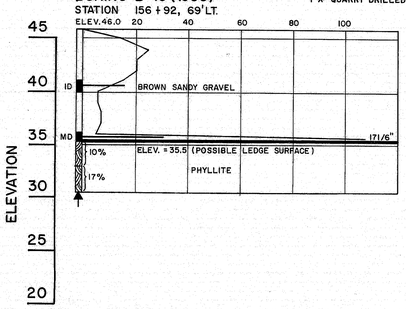
STATION 157 + 60, 112' RT.



* QUARRY DRILLED AHEAD

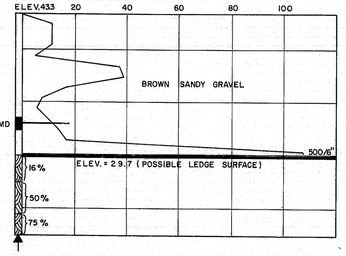
BORING B-15 (1956)

STATION 156 + 92, 69' LT.



BORING B-13 (1956)

STATION 157 + 66, 25' LT.



BORING NOTES

All samples and vanes are made ahead of casing

Number of blows required to drive extra heavy casing one foot with 400 ft.lbs. of energy per blow

Location of sample or sample attempt

Number and type of dry sample

1D S & H Sampler #1290's

MD Unsuccessful sample attempt and type of sampler

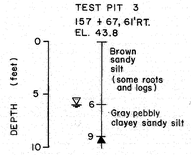
Number of blows required to drive spoon or tubing one foot with 350 ft.lbs. of energy per blow

Bottom of boring (may not be bottom of soil strata)

71% Locations cored by diamond bit and percent recovery of rock

TEST PIT 3

157 + 67, 61' RT.
EL. 43.8



PROJECT DESIGN ENGINEER

PLANS

DESIGNED / DETAILED / CHECKED / REVISIONS / FIELD CHANGES

BY | DATE

BRIDGING A4-102, 4710

97-235

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

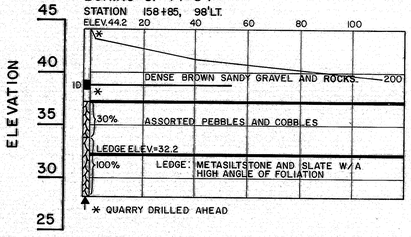
I-395
OVER
MAIN STREET
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY
BORING DETAILS

SHEET 5 OF 43 AUGUSTA, MAINE Oct., 1984

F.A.N.H. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-2(88)	52	216

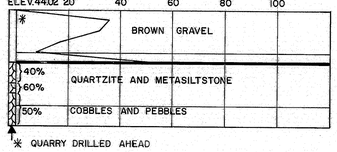
BORING GP-14-84

STATION 158+85, 98'LT.
ELEV.44.2



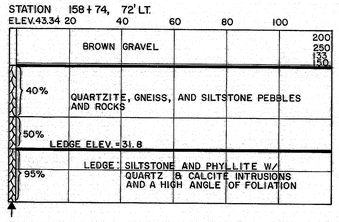
BORING GP-3-84

STATION 158+91, 91'LT.
ELEV.44.02



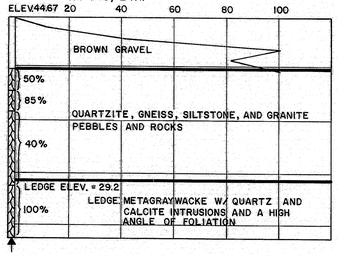
BORING GP-4-84

STATION 158+74, 72'LT.
ELEV.43.34



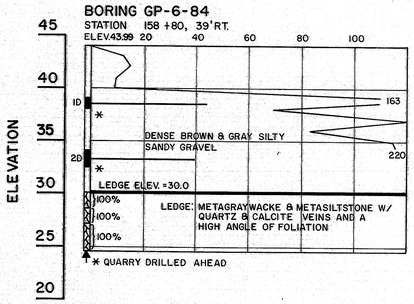
BORING GP-5-84

STATION 158+75, 2'RT.
ELEV.44.67



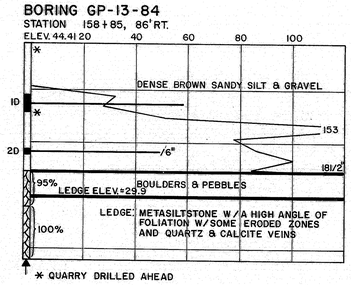
BORING GP-6-84

STATION 158+80, 39'RT.
ELEV.43.99



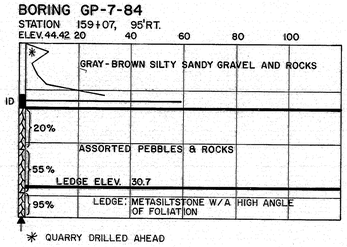
BORING GP-13-84

STATION 158+85, 86'RT.
ELEV. 44.41



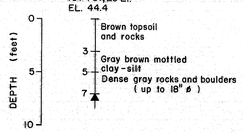
BORING GP-7-84

STATION 159+07, 95'RT.
ELEV.44.42



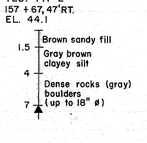
TEST PIT 1

157+67, 20'LT.
EL. 44.4



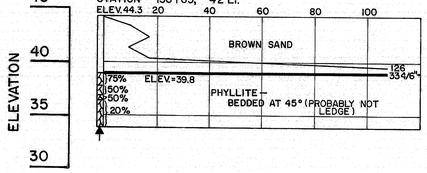
TEST PIT 2

157+67, 47'RT.
EL. 44.1



BORING B-10 (1956)

STATION 158+65, 42'LT.
ELEV.44.3



PROJECT DESIGN ENGINEER
PLANS
DESIGN - DETAILED
INSPECTION
REVISIONS
FIELD CHANGES

BY	DATE

BRUNING 44-132-4570

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395
OVER
MAIN STREET
IN THE CITY OF
BANGOR
PENOBSCOT COUNTY
BORING DETAILS

97-236

SHEET 6 OF 43 AUGUSTA, MAINE Oct., 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(28)	53	216

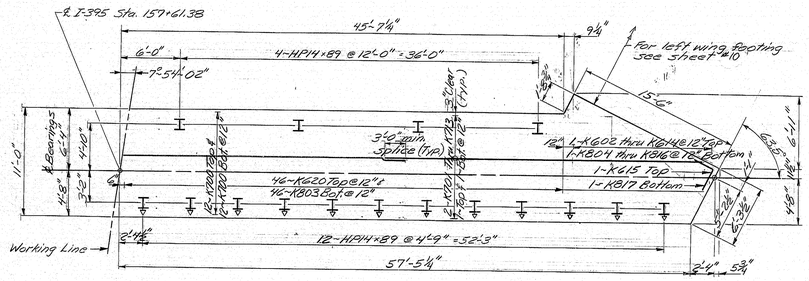
PILE NOTES

1- Piles marked thus H^{P}, shall be battered 3½ inches per foot in the direction of the arrow.

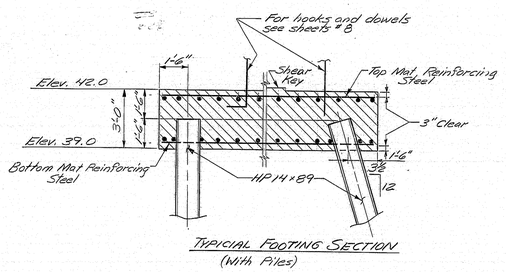
2- Maximum calculated pile loads: 120 tons.

3- Estimate of piles required:
Abutment Number 1 50-HP14 x 89 @ 10 feet

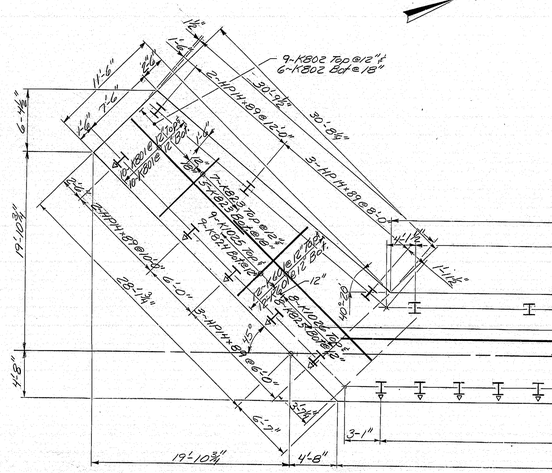
4- HP13x87 bearing piles may be substituted for HP14x89 bearing piles at the option of the Contractor.



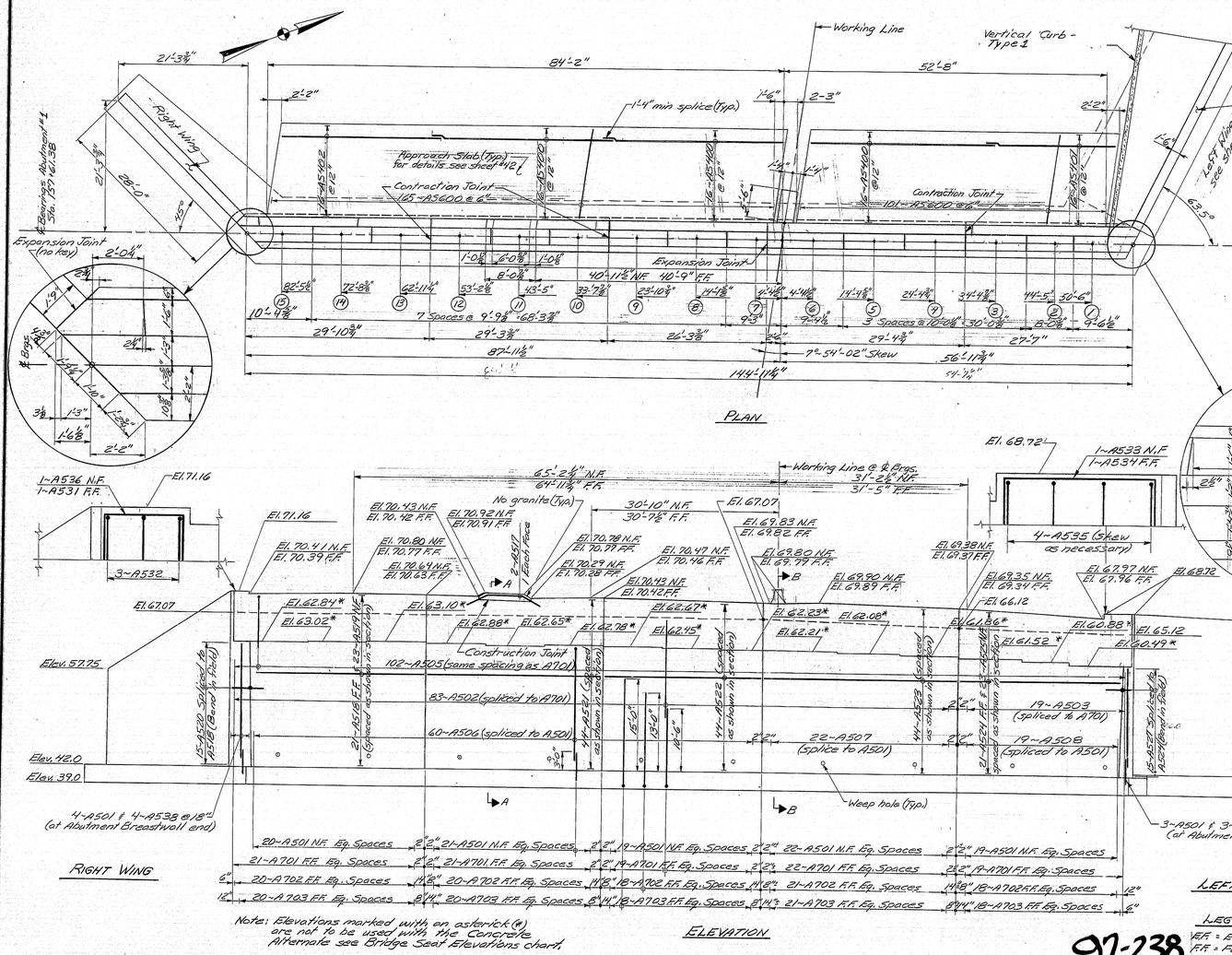
LEFT SIDE FOOTING PLAN



TYPICAL FOOTING SECTION
(With Piles)


1½"
1'-6"
9-K802 Top @ 12" ℄
6-K802 Bot @ 18"
2-HP14x89 @ 12'-0"
30'-2½"
30'-6¾"
3-HP14x89 @ 8'-0"
6'-4"
6'-7"
11'-6"
7'-6"
6-K803 Top @ 12" ℄
Thru K614 @ 12"
6-K803 Bot @ 12"
Thru K614 @ 12"
7-K803 Top @ 12" ℄
3-K615 Bottom
9-K615 Top
3-K615 Bottom
2-K804 Thru K816 @ 18"
2-K804 Thru K816 @ 18"
1½"
1'-6"
12"
3'-0"
3'-0"
3'-0

F.A.N.H. RRR. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	54	216



Note: Elevations marked with an asterick (*) are not to be used with the Concrete Alternate see Bridge Seat Elevations chart.

ABUTMENT NOTES

1.- Reinforcing steel shall have two inches cover unless otherwise indicated.

2.- Cover expansion joints on the back with two layers of heavy roofing. See BD 127 for detail.

3.- Protective coating for concrete surfaces shall be applied to the following areas:
Top of concrete curbs.
Top of abutment backwalls and 1' below top of backwalls on the back side.
All exposed surfaces of Concrete Barrier Rail Transitions.

4.- Place 4" diameter drains in breastwall and wings at twenty feet maximum spacing. Exact location to be determined by the Engineer in the field.

5.- Maximum calculated footing pressure is 4.9 tons/square foot

6.- Limit backfill below the bridge seat elevation until the superstructure concrete is placed.

7.- If the Concrete Alternate is selected the top of the backwall shall be placed after the superstructure concrete is placed. The 12" dimension on bars marked A506, A507, A508 in Abutment #1, shall be lengthened by 3" and A550, A552, A553, A554 & A555 in Abutment #2 shall be lengthened by 8".

CONCRETE ALTERNATE BRIDGE SEAT ELEVATIONS

Girder #	Abutment #1	Abutment #2
1	60.74	62.53
2	61.13	63.10
3	61.91	63.52
4	62.34	63.98
5	62.56	64.22
6	62.54	64.54
7	62.36	64.39
8	62.18	64.82
9	63.15	64.84
10	63.26	64.96
11	63.13	64.84
12	63.36	65.07
13	63.43	65.52
14	63.35	65.44
15	63.17	65.27

LEGEND
E.F. = Each Face
F.F. = Far Face
N.F. = Near Face

REFERENCE:
Abutment sections shown on sheet #9
For Joint Details see sheet #43

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	1/2007
	CHECKED	
	REVISIONS	
	FIELD CHANGES	

BRUNING 44-133 4010-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

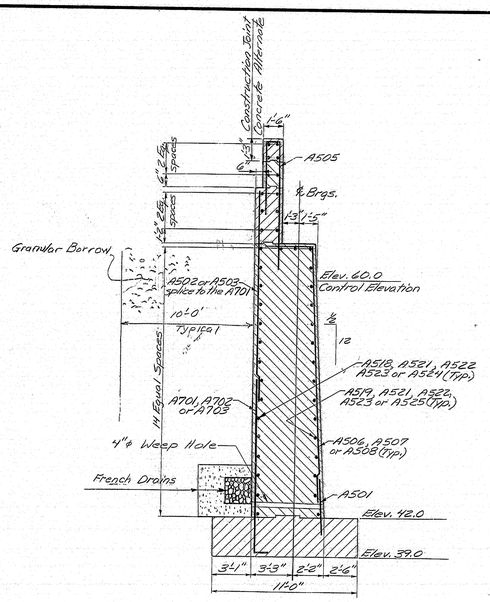
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

ABUTMENT #1

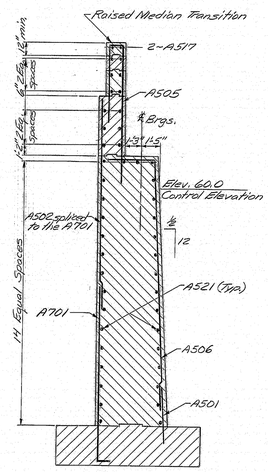
97-238

SHEET 8 OF 43 AUGUSTA, MAINE Oct. 1984

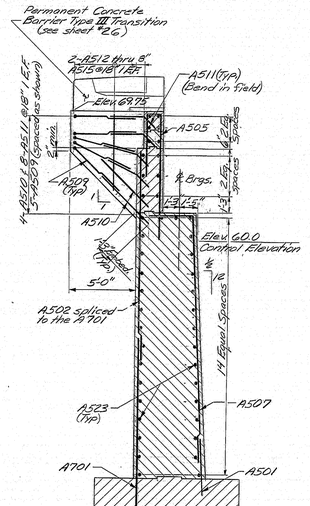
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	55	216



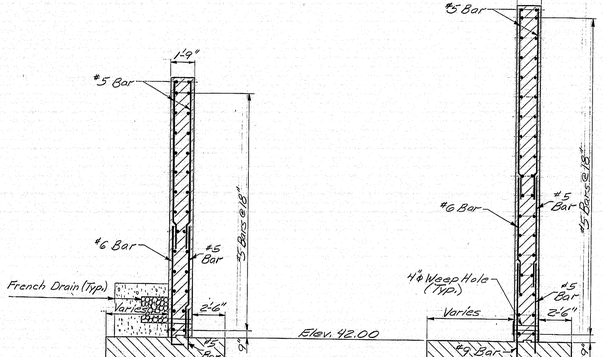
TYPICAL SECTION



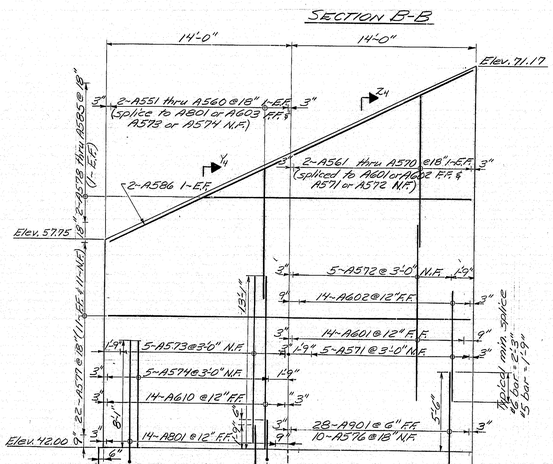
SECTION A-A



SECTION B-B



SECTION Y_4-Y_4 SECTION Z_4-Z_4



RIGHT WING

97-239

PROJECT DESIGN ENGINEER: BY
PLANS: DESIGN DETAILED — DATE 10/84; CHECKED — DATE 10/84; REVISIONS; FIELD CHANGES

DRAWING # 4.132.49100-1

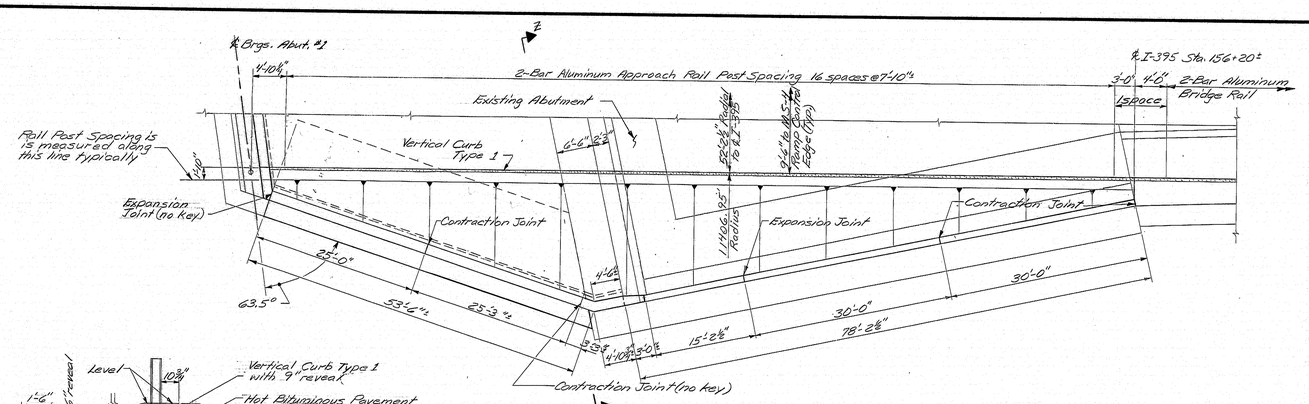
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

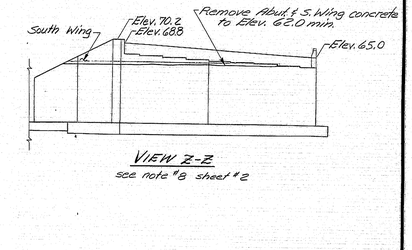
ABUTMENT #1
DETAILS

SHEET 9 OF 43 AUGUSTA, MAINE Oct., 1984

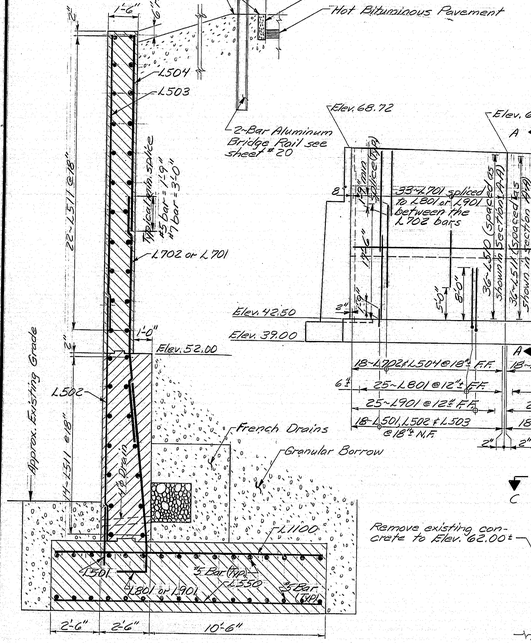
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	56	216



PLAN

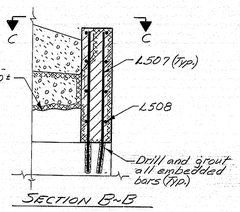


VIEW Z-Z
see note "8 sheet #2

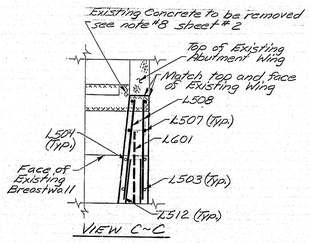


ELEVATION

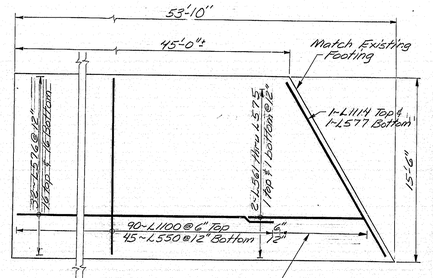
SECTION A-A



SECTION B-B



VIEW C-C



FOOTING DETAIL

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	C.H.P.	9/54
CHECKED	A.M.M.	10/54
REVISIONS	B.A.S.	
FIELD CHANGES		

BRUNING 44-132 42710-1

REFERENCE:
BD-114-B1 sheet #38
For Joint details see sheet #43

97-240

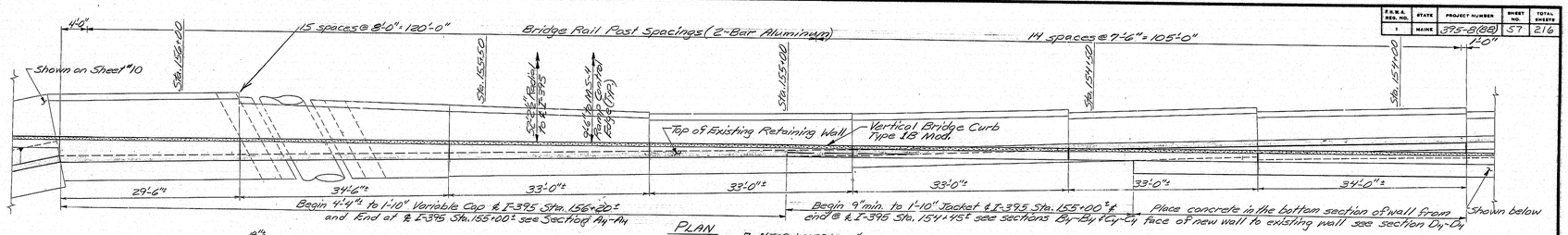
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

ABUTMENT #1
LEFT WING DETAILS

SHEET 10 OF 43 AUGUSTA, MAINE Oct, 1954

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	57	216



PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	PLM	9/84
CHECKED	RHS	9/84
REVISIONS		
FINAL CHANGES		

BRUNING 44-132 457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

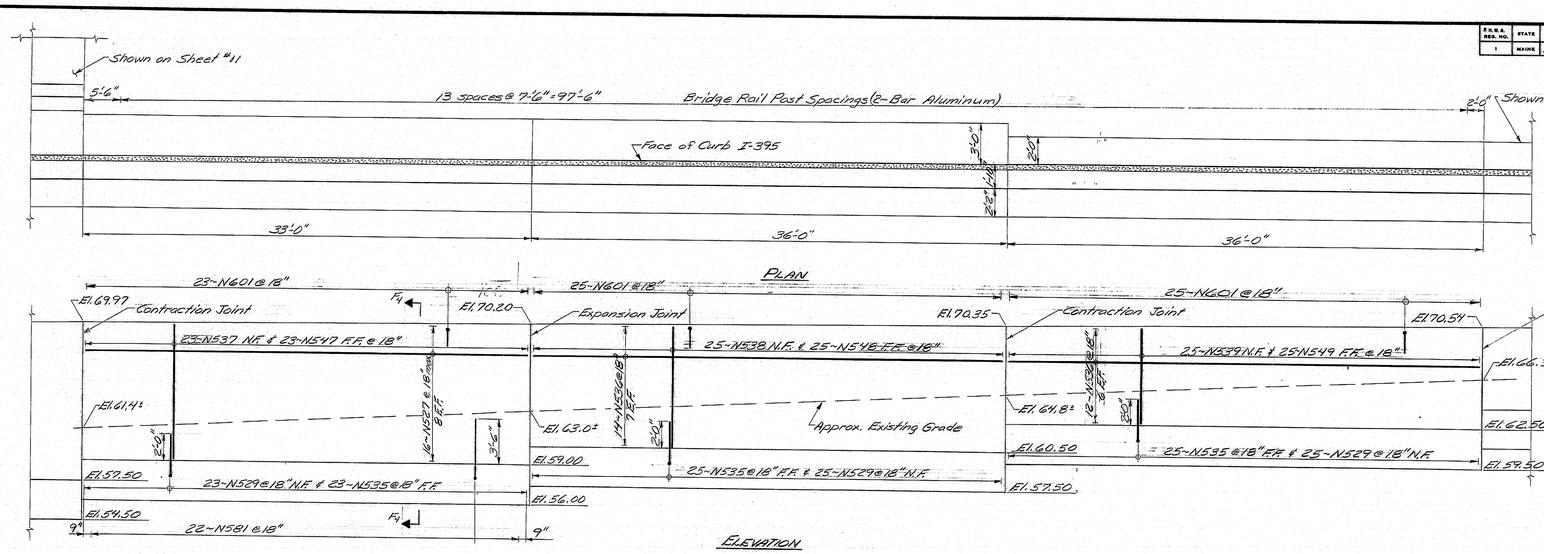
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

RAMP MS-3
RETAINING WALL MODIFICATION

SHEET 11 OF 43 AUGUSTA, MAINE Oct., 1984

91-241

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	58	216



REFERENCE

Bridge Rail see BD 114-81 sheet #38
Joint Details see BD 127-81 sheet #43
Curb Details see BD 126-81 sheet #42

PROJECT SERIES ENGINEER	BY	DATE
PLANS	DESIGN + DETAILED	RJM 12/20
	CHECKED	B.A.C. JM.M. 12/20/84
	REVISIONS	
	FIELD CHANGES	

BRUNING 44-132-457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

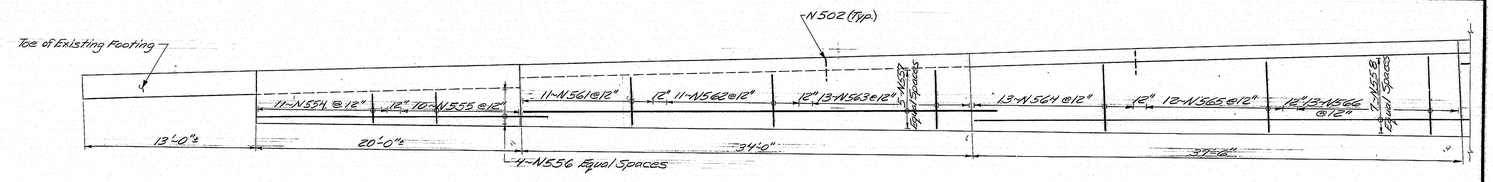
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

RAMP MS-3
RETAINING WALL EXTENSION

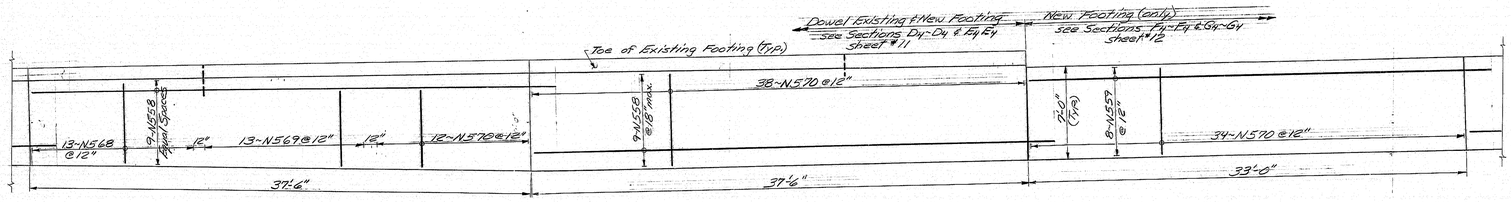
SHEET 12 OF 43 AUGUSTA, MAINE Oct., 1984

97-242

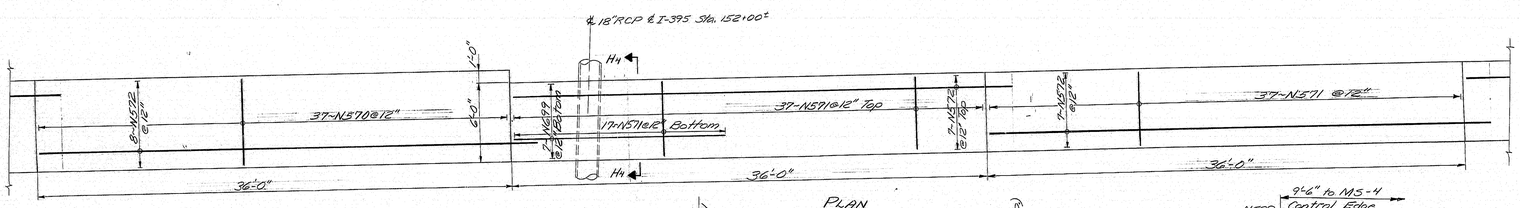
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(68)	59	210



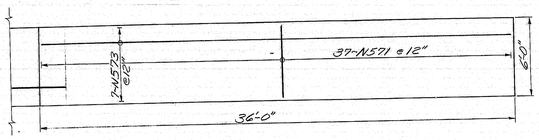
PLAN



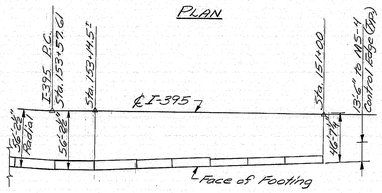
PLAN



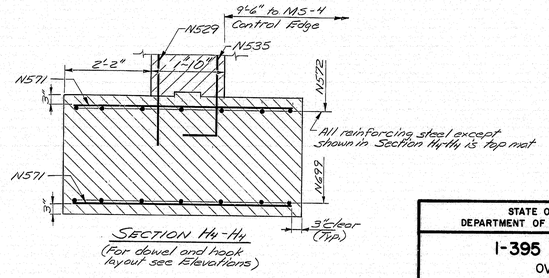
PLAN



PLAN



FOOTING LAYOUT



SECTION H1-H1
(For dowel and hook layout see Elevations)

REFERENCE
For Footing Elevations & Sections not shown see sheets # 11 & # 12

97-243

PROJECT	DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	DJM	10/83
	CHECKED	BAS	JAN. 84
	REVISIONS		
	FIELD CHANGES		

BEHRING 44-132-6570-1

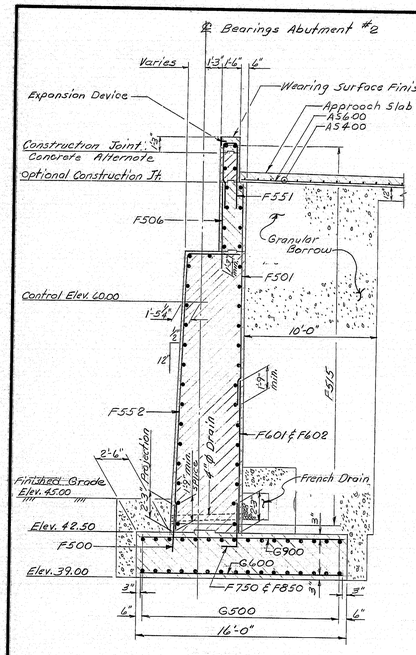
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

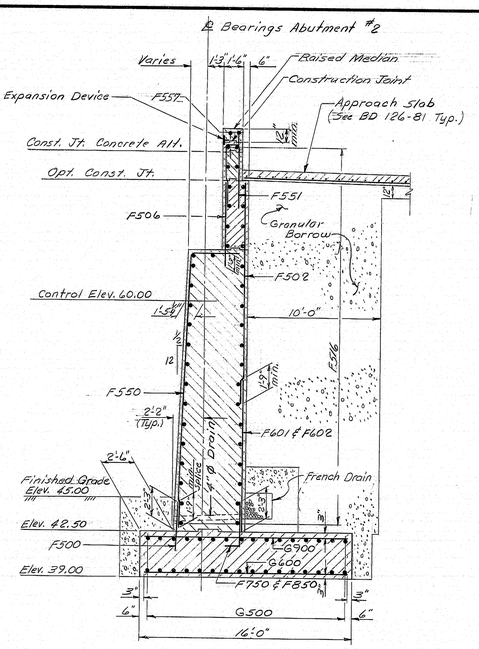
RAMP MS-3
RETAINING WALL FOOTING

SHEET 13 OF 43 AUGUSTA, MAINE Oct., 1984

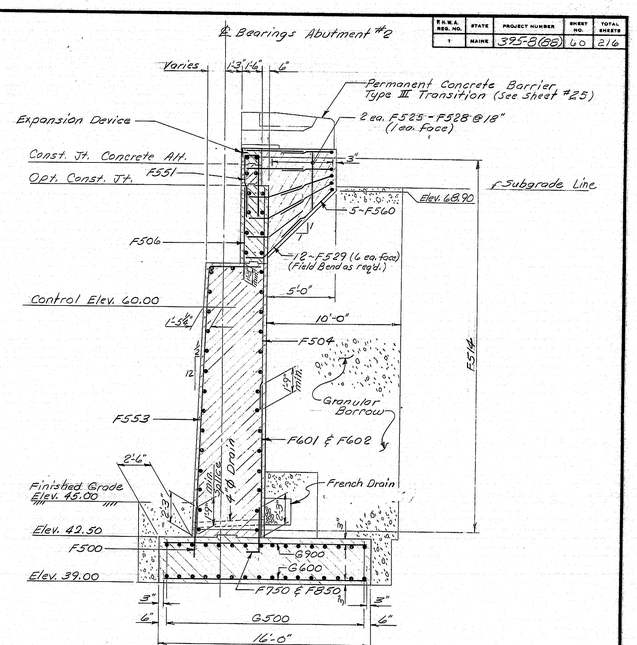
R.N.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(68)	60	216



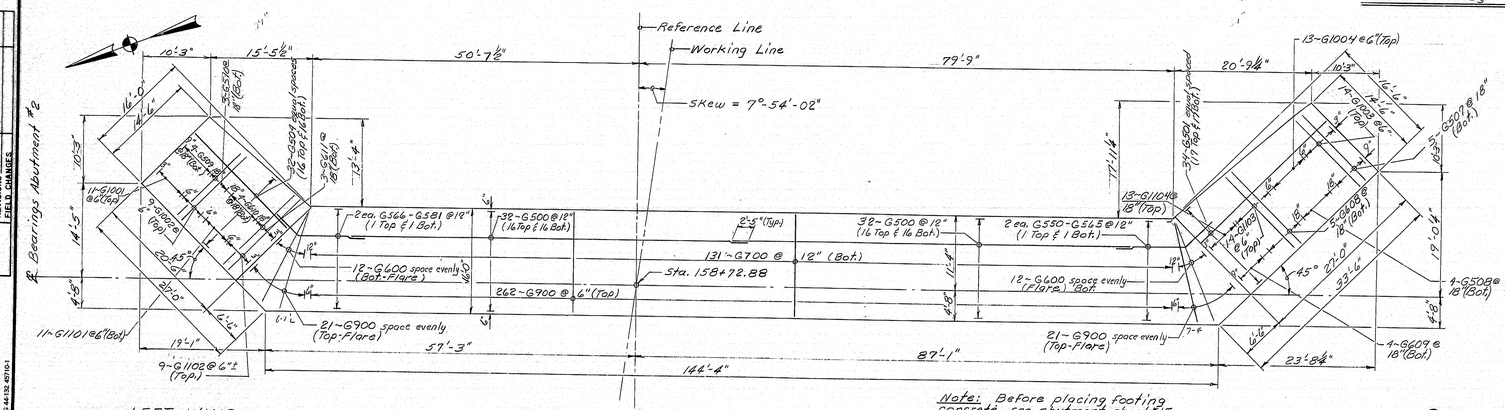
SECTION C_3-C_3



SECTION A_3-A_3



SECTION B_3-B_3



Note: Before placing footing concrete, see abutment sheet #15 for footing dowel layout.

97-244

PROJECT	DESIGN ENGINEER	BY	DATE
PLANS	DESIGN + DETAILED	Hufford Lyons Bass	12/1984
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

BRIDGING 44-132-45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

ABUT. #2 SECTIONS & FOOTING PLAN

SHEET 14 OF 43 AUGUSTA, MAINE Oct., 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(68)	41	216

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	M.M.A.	7/84
CHECKED	B.B.C.	10/84
REVISIONS		
ELEV. CHANGES	J.M.M.	10/84

BRIDGING 44-132, 45T10-1

Bearings Abutment #2

Working Line
Reference Line
Skew = 7°-54'-02"

1'-0¾" 24'-6¾" 59'-0" 88'-10" 29'-0" 1'-0¾"

57'-3¾" N.F.
57'-3¾" F.F.
54'-11½"
55'-7"
86'-11¾" N.F.
87'-2" F.F.
86'-11½"
82'-7"

Footing
Construction Joint (No Key)
Approach Slab (Typ.) (See BD126-81)
Contraction Joint
Sta. 13+72.88
Expansion Joint
Raised Median (No Granite)
Contraction Joint
Top of Wing
Top of Backwall
2¼" Ff. Batter
Footing
Top of Wing
Top of Backwall

112 - #5@12" c-c
165 - #5@12" c-c
45°
36'-10¾"
39'-11⅛"
20'-6½"
28'-3"
4 Spaces @ 10'-0⅛"
3 Spaces @ 10'-0⅛"
56'-2½"
8 Spaces @ 9'-9⅛"
7 Spaces @ 9'-9⅛"
86'-0½"
26'-9¾"
29'-4¾"
26'-3¾"
29'-3⅛"
27'-1¾"
32'-10¼"
30'-8½"
27'-0"
22'-0"
14'-0"

LEFT WING — PLAN — RIGHT WING

Working Line
Reference Line
57'-3¾" N.F.
57'-3¾" F.F.
64'-1⅜" N.F.
87'-0" F.F.
34'-6"
41'-0"
30'-7¾" (For Face)
30'-9¾" (Near Face)
49'-6¼" (For Face)
49'-9¾" (Near Face)
41'-5½" (For Face)
41'-3" (N.F.)
8'-1"
Construction Joint
Concrete Alternate
Construction Joint
Expansion Device
Contraction Joint (No Key)
Contraction Jt. (No Key)
Finished Grade Line
Field Bend

Elev. 70.20
Elev. 70.51 (N.F.)
Elev. 70.21 (F.F.)
Elev. 64.00 (A.S. Seat)
Elev. 69.76 (N.F.)
Elev. 69.75 (F.F.)
Elev. 71.40 (N.F.)
Elev. 71.43 (F.F.)
Elev. 71.97 (N.F.)
Elev. 73.00 (F.F.)
Elev. 71.43 (N.F.)
Elev. 71.46 (F.F.)
Elev. 72.01 (N.F.)
Elev. 72.04 (F.F.)
Elev. 72.40 (N.F.)
Elev. 73.44 (F.F.)
Elev. 72.58 (N.F.)
Elev. 72.61 (F.F.)
Elev. 71.90 (N.F.)
Elev. 71.93 (F.F.)
Elev. 73.05 (N.F.)
Elev. 73.08 (F.F.)
Elev. 72.56 (N.F.)
Elev. 72.60 (F.F.)
Elev. 72.55 (N.F.)
Elev. 72.58 (F.F.)
Elev. 72.93 (N.F.)
Elev. 72.91 (F.F.)
Elev. 72.95 (N.F.)
Elev. 72.78 (F.F.)
Elev. 73.12
Elev. 63.84 (A.S. Seat)
Elev. 61.73
Elev. 62.30
Elev. 62.93
Elev. 63.31
Elev. 63.35
Elev. 63.68
Elev. 63.71
Elev. 63.94
Elev. 64.17
Elev. 64.29
Elev. 64.17
Elev. 64.10
Elev. 64.09
Elev. 64.36
Elev. 64.39
Elev. 59.50
Elev. 58.00
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Elev. 42.50
Elev. 45.00

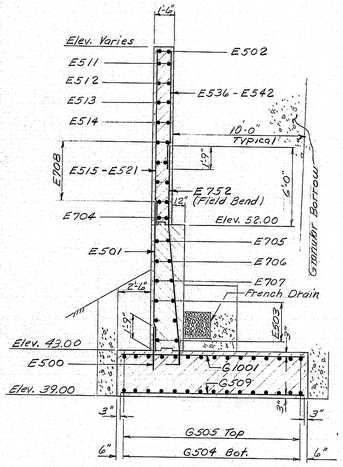
1 ea. E529 - E535 @ 18" (F.F.)
2 ea. E508 - E514 @ 18" (1 E.F.)
1 - E515 - E528 @ 18" (N.F.)
14 ea. E500 & E501 @ 18" (N.F.)
1 ea. E536 - E542 @ 18" (FF)
8 - E708 @ 18" (4 E.F.)
2 ea. E543 - E551 @ 18" (1 E.F.)
2 - E502 (1 E.F.)
2 - E540 (1 E.F.)
2 ea. E704 - E707 (1 E.F.) @ 18"
4 - E503 @ 18" (3 ea. face)
4 ea. E851 & E711 @ 18" (F.F.)
3 - E752 @ 3'-0" (F.F.)
4 ea. E710 & E851 @ 3'-0" (F.F.)
7 - E754 @ 18" (F.F.)
Set "B" bars: 13 - E708 & 13 - dowels
Set "A" bars @ 18": 7 - E708 & 13 - dowels

2 ea. D510 - D516 @ 18" (1 E.F.)
1 - D526 - D543 (N.F.)
1 - D544 - D561 (1 F.F.)
14 - D509 @ 18" (7 E.F.)
14 - D800 @ 18" (7 ea. face)
2 ea. D517 - D525 @ 18" (1 E.F.)
2 - D504 (1 E.F.)
8 - D801
2 - D802
9 ea. @ 18" (D300 & D301)
12 - D503 @ 18" (6 ea. face)
9 - D500 & 9 - D502 @ 18"
Set "A" bars @ 18": 9 - D701 & 9 - dowels (F.F.)
Set "B" bars: 18 - D702 & 18 - dowels (F.F.)
Dowels: 13 - D853 & D751 - alternate @ 6".

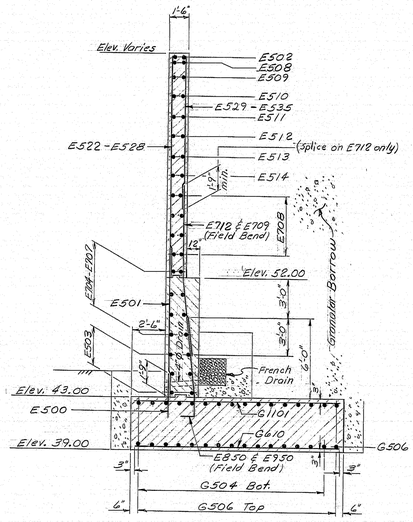
4 ea. F509 @ 18" (N.F.)
30 - FB506 & 29 F750 (alternate @ 6") (F.F.)
20 ea. FG01 & F506 @ 18" (F.F.)
39 - FG02 @ 6" between FG01 bars (F.F.)
32 ea. FB50 & F750 (alternate @ 6") (F.F.)
21 ea. FG01 & F504 @ 18" (F.F.)
43 - FG02 @ 6" between FG01 bars (F.F.)
26 - FB50 & 26 - F750 (alternate @ 6") (F.F.)
20 ea. FG01 & F505 @ 18" (F.F.)
34 - FG02 @ 6" between FG01 bars (F.F.)
29 ea. FB50 & F750 (alternate @ 6") (F.F.)
18 ea. FG01 & F502 @ 18" (F.F.)
40 - FG02 @ 6" between FG01 bars (F.F.)
31 - FB50 & 30 F750 (F.F.) (alternate @ 6")
21 ea. FG01 & F503 @ 18" (F.F.)
40 - FG02 @ 6" between FG01 bars (F.F.)
4 ea. F500 & F508 @ 18" (N.F.)
Set "A" bars @ 18": 9 - D700 & 9 - dowels (F.F.)
Set "B" bars: 18 - D704 & 18 - dowels (F.F.)

1 ea. F504 & F551
8 - F513 @ 18" (6 N.F.)
2 - F556
2 ea. F506 & F551
8 - F517 @ 18" (6 N.F.)
2 - F556
Set "B" bars: 13 - E708 & 13 - dowels
Set "A" bars @ 18": 7 - E708 & 13 - dowels
F500 & F509 @ 18" (N.F.)
F553 (N.F.)
F552 (N.F.)
F555 (N.F.)
F500 & F550 @ 18" (N.F.)
F500 & F551 @ 18" (N.F.)
F506 & F551
F504 & F551
F505 & F551
F502 & F551
F503 & F551
F517 Bk. Seat
F517 & F551
F506 & F551
F506 & F551
F506

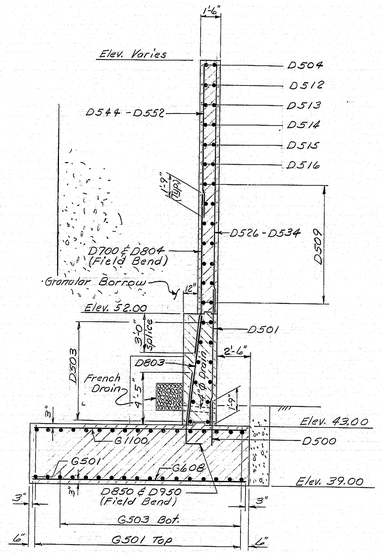
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	42	216



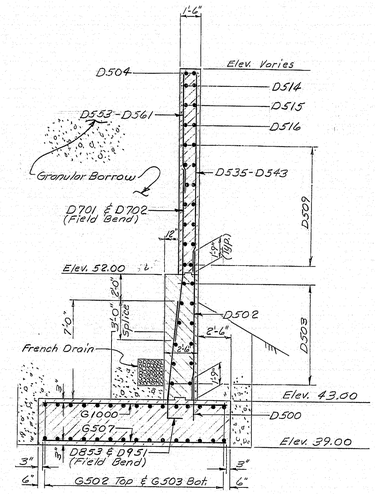
SECTION F_3-F_3



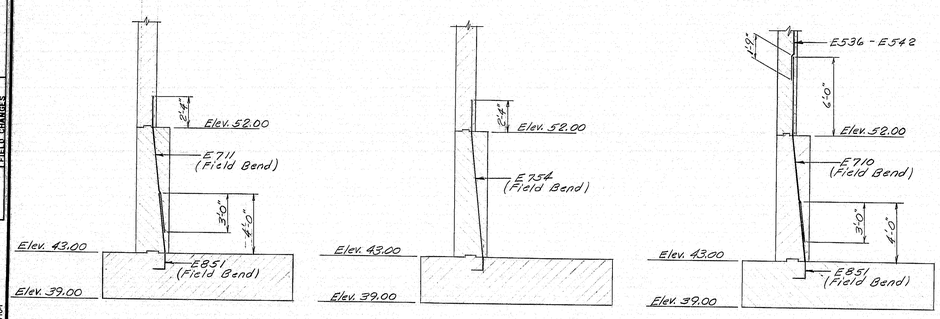
SECTION G_3-G_3



SECTION E_3-E_3



SECTION D_3-D_3



ADDITIONAL DETAILS OF FAR FACE REINFORCING @ SECTION F_3-F_3

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN + DETAILED	Waldo Bl	2/84
CHECKED	B.D.S.	3/84
REVISIONS		
FIELD CHANGES		

PLANS

REVISING 44-123-45710-1

97-246

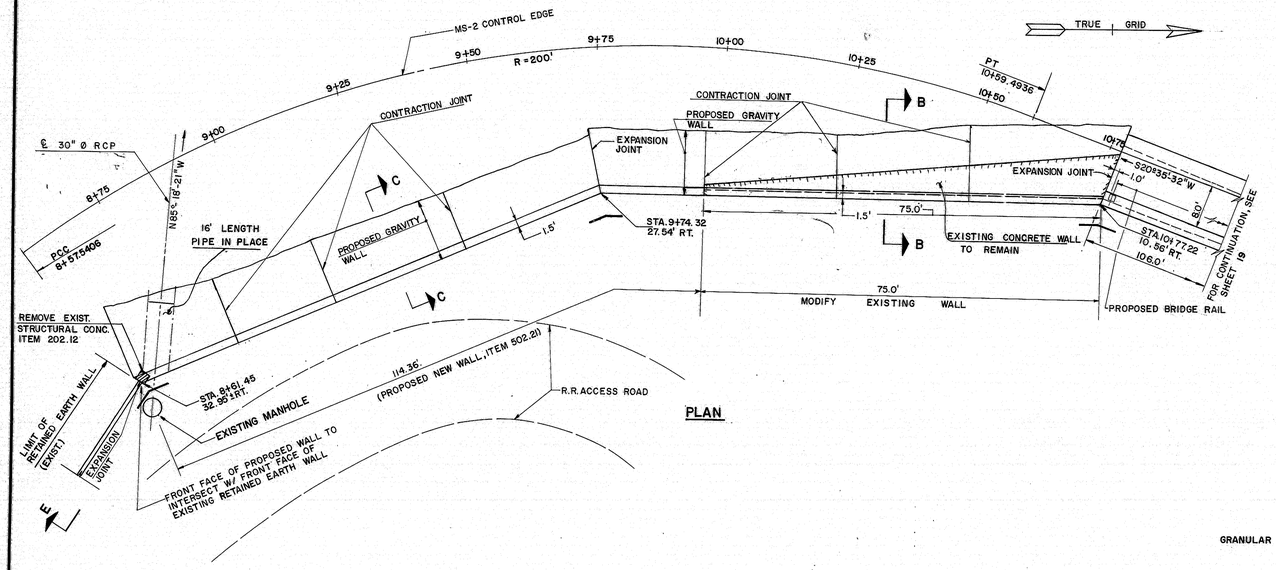
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

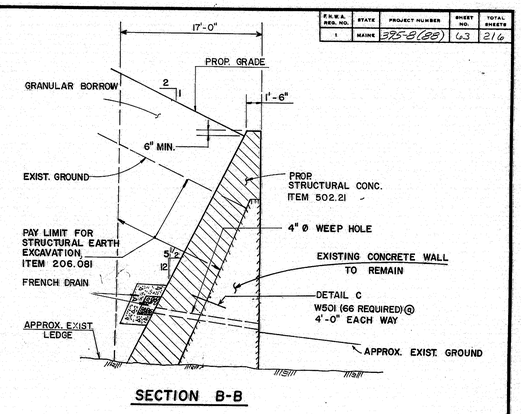
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

ABUTMENT # 2 WING SECTIONS

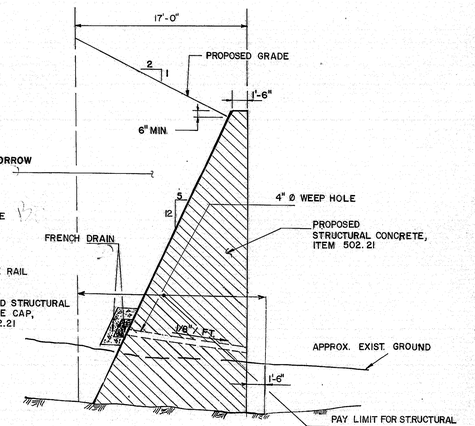
SHEET 16 OF 43 AUGUSTA, MAINE Oct., 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	375-2(68)	43	214

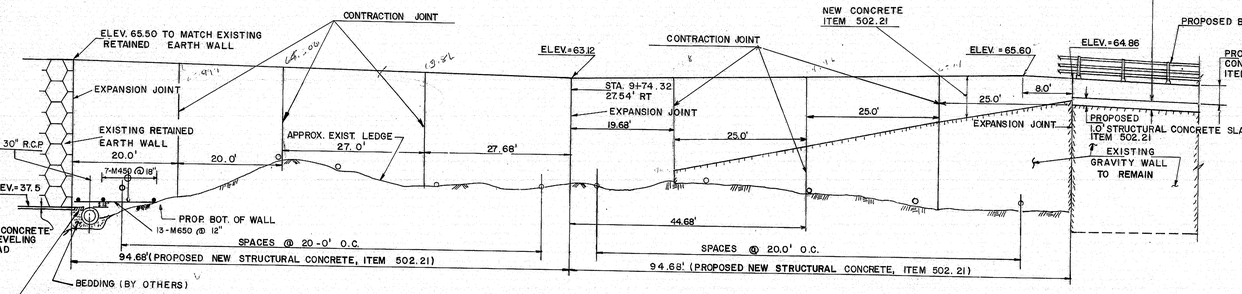




SECTION B-B



SECTION C-C



ELEVATION E-E

REFERENCES

FOR ALUMINUM RAIL DETAILS SEE SHEET *20

FOR EXPANSION, CONSTRUCTION OR CONTRACTION JOINT DETAILS SEE SHEET BD 127-81

FOR DETAIL C SEE SHEET *18

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	RJW
	CHECKED	BAS
	REVISIONS	11/84
	FIELD CHANGES	

BRUNING 44-132-4371D-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

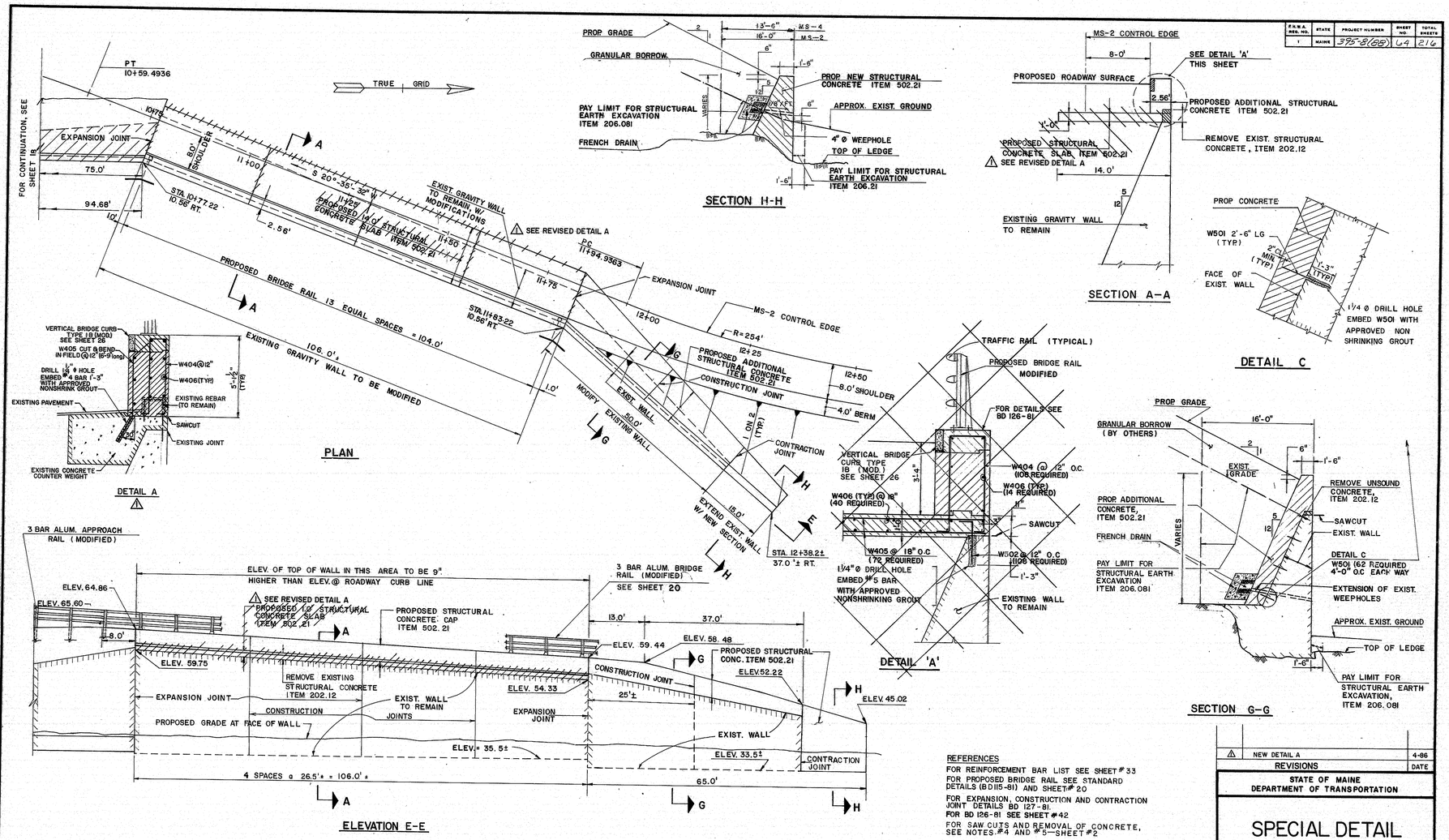
SPECIAL DETAIL
PROPOSED WALLS AT RAMP MS-2

SHEET 17 OF 43 AUGUSTA, MAINE SEPT. 1984

97-247

BANGOR I-395

F.A.N.H. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(68)	64	216



REFERENCES

FOR REINFORCEMENT BAR LIST SEE SHEET #33

FOR PROPOSED BRIDGE RAIL SEE STANDARD DETAILS (BD115-81) AND SHEET #20

FOR EXPANSION, CONSTRUCTION AND CONTRACTION JOINT DETAILS BD 127-81.

FOR BD 126-81 SEE SHEET #42

FOR SAW CUTS AND REMOVAL OF CONCRETE, SEE NOTES #4 AND #5—SHEET #2

PROJECT DESIGN ENGINEER	BY	DATE
PLANS		
DESIGN-DETAILED	PJM	11/84
CHECKED	KAS	
RECOMMENDED		
FIELD CHANGES		

⚠	NEW DETAIL A	4-86
REVISIONS		DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIAL DETAIL
PROPOSED WALLS AT RAMP MS-2

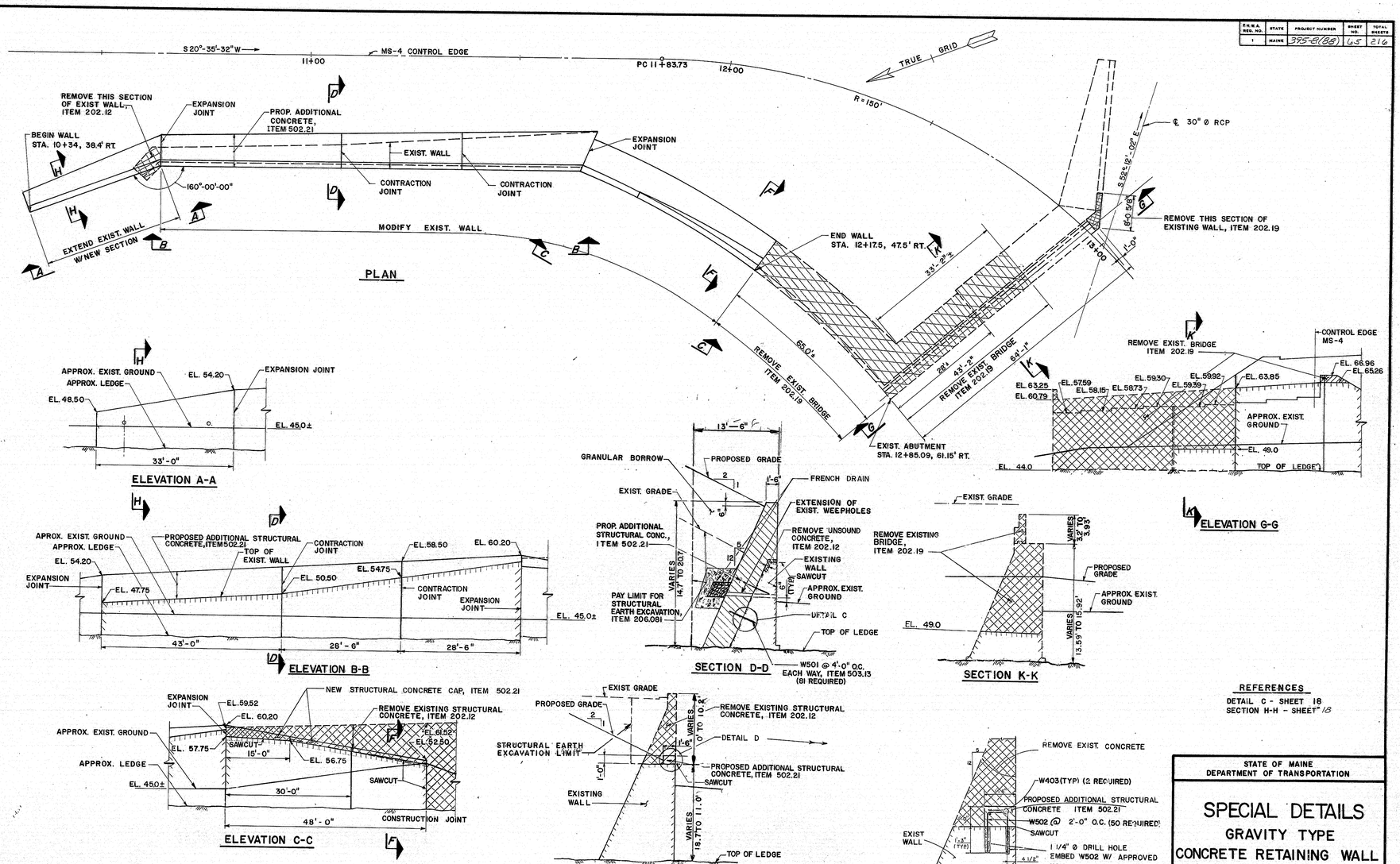
97-248

SHEET 18 OF 43 AUGUSTA, MAINE SEPT. 1984

BANGOR I-395

BRIDGING 44-132, 401-041

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-2(88)	45	216



PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	RJM 12/84
	CHECKED	BJS 11/84
	REVISIONS	
	FIELD CHANGES	

BRIDGING 44-132 457-10-1

REFERENCES
DETAIL C - SHEET 18
SECTION H-H - SHEET 18

97-249

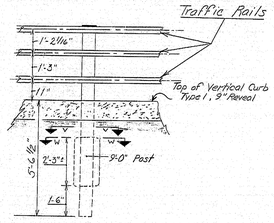
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIAL DETAILS
GRAVITY TYPE CONCRETE RETAINING WALL AT RAMP MS-4

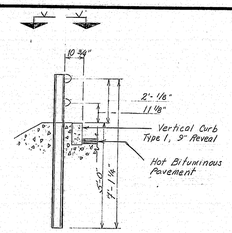
SHEET 90-43 AUGUSTA, MAINE SEPT 1984

BANGOR I-395

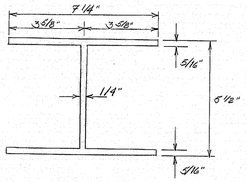
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(08)	66	216



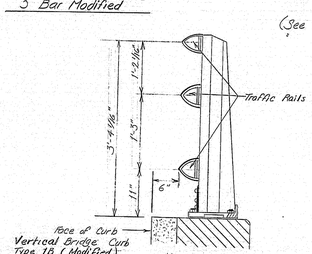
Aluminum Approach Railing
3 Bar Modified



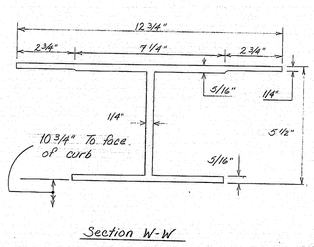
Aluminum Approach Railing
2 Bar
(See sheet #10 for location)



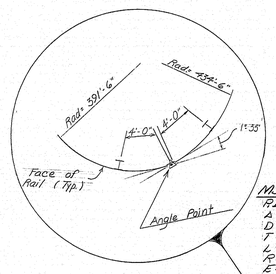
Section V-V



Aluminum Bridge Railing
3 Bar Modified



Section W-W



#1
MS-2 Curve Data
P.I. 3+63.939
Δ = 20°-37'-36.3"
D = 2°-51'-53.2"
T = 363.939'
L = 720.00'
R = 2000.00'
E = 32.843'

#2
MS-2 Curve Data
P.I. 9+89.456
Δ = 19°-42'-04.2"
D = 14°-19'-26.2"
T = 69.456'
L = 137.541'
R = 400.00'
E = 5.985'

#3
MS-2 Curve Data
P.I. 9+68.073
Δ = 57°-51'-18.94"
D = 28°-38'-52.4"
T = 110.532'
L = 201.953'
R = 200.00'
E = 28.511'

#4
MS-2 Curve Data
P.I. 13+01.113
Δ = 45°-22'-11.8"
D = 22°-39'-26.6"
T = 106.177'
L = 201.139'
R = 254.00'
E = 21.299'

PLAN

NOTES

1. The rail post spacings shown are at the back of post.
2. The Aluminum Approach Railing, 2 Bar, and 3 Bar, will be paid for under Items 501.092 and 501.093.
3. For Details not shown, see BD 114-81, BD 115-81, and Sheets 10 & 18

Δ Rail Spacing Revisions, 2-11-86, J.W.M.

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	RWP	1-84
	CHECKED	PAS	
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-132 45710

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

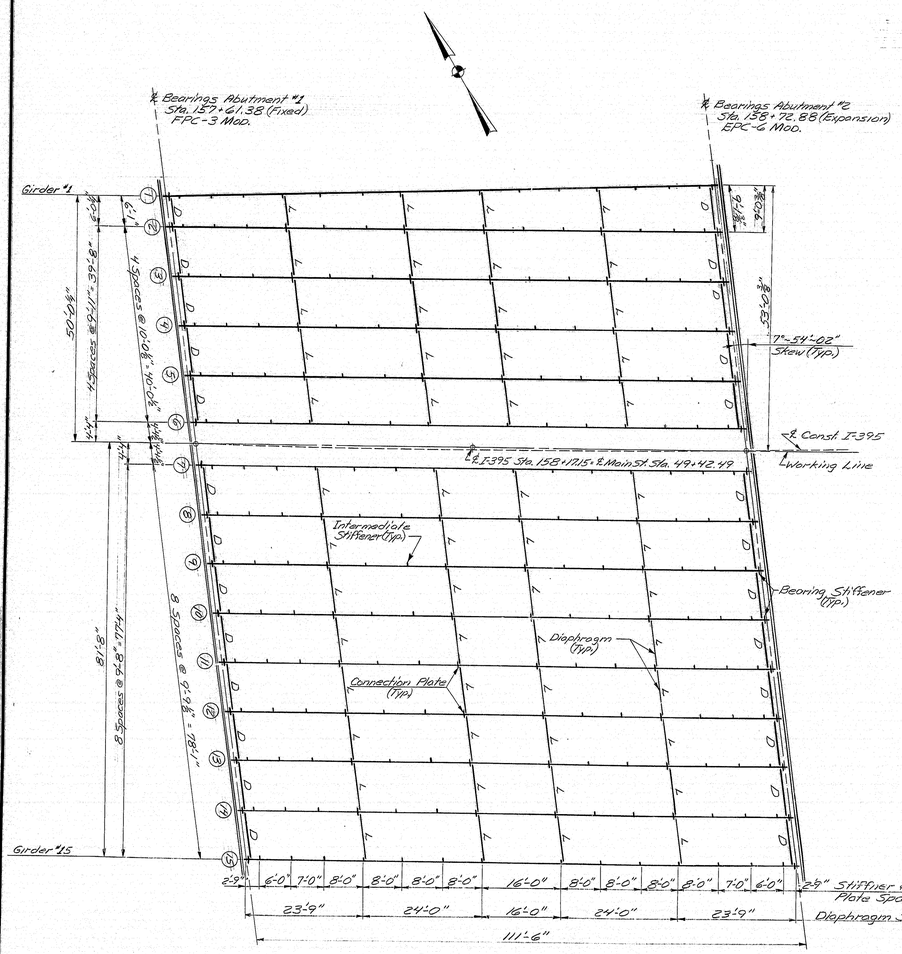
ALUMINUM RAIL DETAILS AT RAMP MS-2

I-395 BANGOR

97-250

SHEET 20 OF 43 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(68)	47	216



FRAMING PLAN

BASIC DESIGN STRESSES

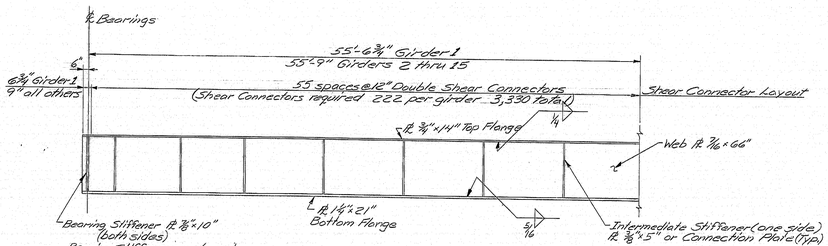
STRUCTURAL STEEL:	A572	Fy = 50,000 psi.
	A36	Fy = 36,000 psi.
	A325	Fv = 25,000 psi

MATERIALS

STRUCTURAL STEEL: Flanges	ASTM A572
All other material (Except as otherwise noted)	ASTM A36
High strength Bolts	ASTM 325

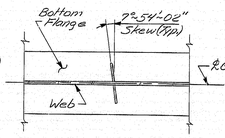
STRUCTURAL STEEL NOTES

1. ~ Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
2. ~ No transverse butt weld splice will be allowed in the flange plates or web plates with in 10' from the point of maximum positive moment.
3. ~ Sections of flange plates or web plates between transverse shop splices shall be not less than 20' in length unless otherwise shown on the plans.
4. ~ Butt weld splices in flanges shall be not less than one foot from transverse welds in the web plates.
5. ~ Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.
6. ~ Cross-frame or diaphragm connection plates may be either plumb or normal to the top flange.
7. ~ The Expansion Pedestal Setting Chart indicates the required final position of the bearings. It is anticipated that the bearings at Abutment 2 will move 5/8" away from the fixed bearings due to the placement of the superstructure concrete. No separate payment will be made for resetting bearings to the final position if an adjustment is required.

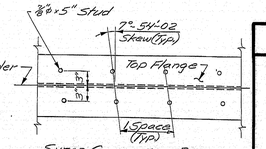


GIRDER ELEVATION
(Symmetrical - for details not shown see BD 113-81)

REFERENCE:
BD 113-81 sheet #37
BD 126-81 sheet #42



STIFFENER OR CONNECTION PLATE DETAIL



SHEAR CONNECTOR DETAIL
For details not shown BD 126-81

97-251

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGNED DETAILED CHECKED	KAH/CAD/CJP	10/84
	JJH	10/84
REVISIONS FIELD CHANGES		

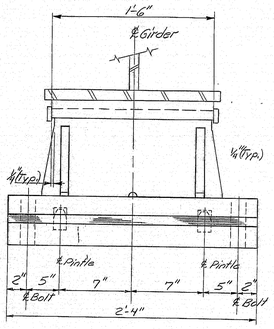
DRAWING 443E 497101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

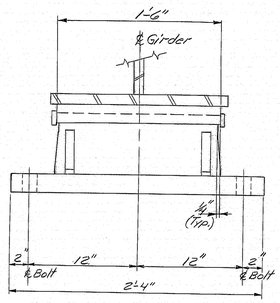
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
FRAMING PLAN
(STEEL ALTERNATE)

SHEET 21 OF 43 AUGUSTA, MAINE Oct., 1984

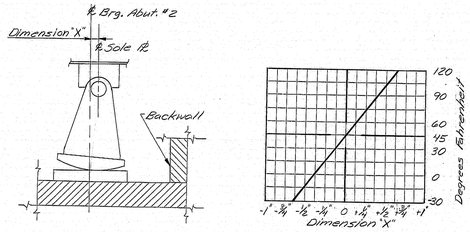
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(62)	68	216



*EPC-6 Modified at Abutment "2"
For details not shown see BD 101-81



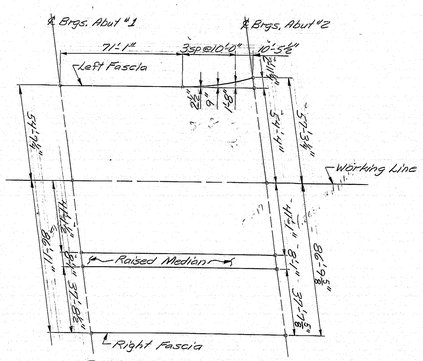
*FPC-3 Modified at Abutment #1
For details not shown see BD 101-81



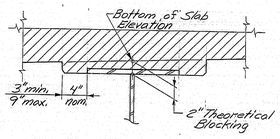
*Expansion Pedestal Setting Chart

Note

Details on this sheet marked with an asterick (*) are for the Steel Alternate. For Concrete Alternate bearings see sheet #26, haunch detail see Sheet #. 2829 and for bottom of slab elevations and camber see sheet #27 note #12.



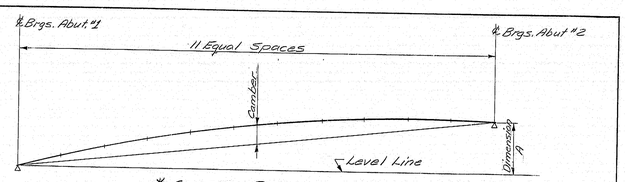
Superstructure Layout
(Right Fascia and Raised Median are to be built on a chord)



*Haunch Detail
See BD 126-81

*Bottom of Slab Elevations

Girder Number	℄ Brgs. Abut "1"	+10	+20	+30	+40	+50	+60	+70	+80	+90	+100	℄ Brgs. Abut "2"
1	67.09	67.29	67.48	67.66	67.84	68.01	68.15	68.29	68.42	68.56	68.71	68.86
2	67.98	67.69	67.90	68.10	68.30	68.48	68.64	68.80	68.95	69.10	69.26	69.43
3	68.12	68.33	68.54	68.74	68.94	69.12	69.29	69.44	69.59	69.73	69.89	70.08
4	68.76	68.68	68.91	69.13	69.34	69.54	69.72	69.89	70.04	70.18	70.31	70.46
5	68.68	68.91	69.14	69.36	69.58	69.77	69.95	70.12	70.27	70.41	70.54	70.70
6	68.81	69.04	69.27	69.50	69.71	69.91	70.09	70.26	70.41	70.55	70.68	70.83
7	68.83	69.06	69.29	69.51	69.73	69.93	70.11	70.28	70.43	70.57	70.71	70.86
8	69.05	69.28	69.51	69.74	69.95	70.15	70.34	70.50	70.66	70.80	70.94	71.09
9	69.27	69.50	69.73	69.96	70.18	70.38	70.56	70.73	70.89	71.03	71.17	71.32
10	69.38	69.62	69.85	70.08	70.30	70.50	70.68	70.85	71.01	71.15	71.29	71.44
11	69.25	69.49	69.72	69.95	70.17	70.37	70.56	70.73	70.88	71.03	71.17	71.32
12	69.98	69.71	69.95	70.17	70.39	70.60	70.78	70.96	71.11	71.26	71.40	71.55
13	69.90	69.98	70.17	70.40	70.62	70.82	71.01	71.18	71.34	71.49	71.63	71.79
14	69.82	69.85	70.09	70.32	70.54	70.75	70.94	71.11	71.27	71.41	71.55	71.71
15	69.74	69.67	69.91	70.15	70.37	70.57	70.76	70.94	71.09	71.24	71.38	71.54



*Camber Diagram

Girder 1	Distance	Abut 1	10.10	20.20	30.31	40.41	50.51	60.61	70.72	80.82	90.92	101.02	Abut 2	Dimension A
	Camber	0"	3/16"	1/2"	1 1/16"	1 7/8"	2 7/8"	4"	5 3/16"	6 1/16"	6 3/4"	7"	0"	1'-9 3/16"
Girders 2-3	Distance	Abut 1	10.11	20.27	30.41	40.55	50.68	60.82	70.95	81.09	91.23	101.36	Abut 2	Dimension A
	Camber	0"	1/16"	1 3/16"	1 5/8"	2"	2 1/16"	2"	1 3/8"	1 3/16"	3/4"	0"	0"	1'-11 3/16"
Girders 4-15	Distance	Abut 1	10.14	20.27	30.41	40.55	50.68	60.82	70.95	81.09	91.23	101.36	Abut 2	Dimension A
	Camber	0"	3/4"	1 5/8"	2 3/8"	2 7/8"	2 7/8"	2 7/8"	2 7/8"	2 5/8"	1 7/8"	3/4"	0"	2'-0 7/16"

Reference:

BD 101-81 sheet # 36
BD 126-81 sheet # 42

PROJECT	DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	Wilbur	9/84
	CHECKED	J.M.	9/84
	REVISED -		
	FIELD CHANGES		

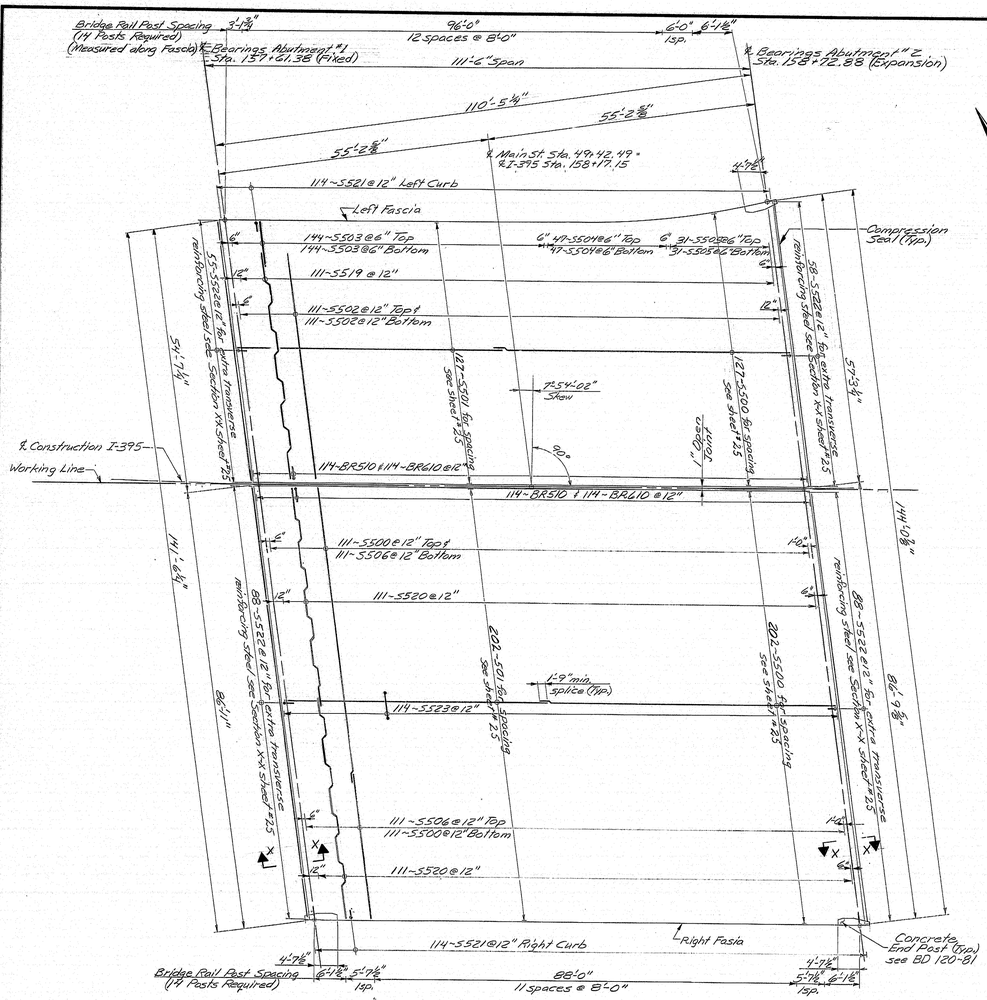
BRIDGING 44-132.45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
BEARING PEDESTALS, BLOCKING & CAMBER DETAILS

SHEET 22 OF 43 AUGUSTA, MAINE Oct., 1984

97-252



PLAN

F.A.P. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	69	216

SUPERSTRUCTURE NOTES

1.~ Form a 1" V-groove on the fascias at the horizontal joint between the curb and slab, and at the horizontal construction joint in the return wing.

2.~ Reinforcing steel shall have a minimum cover of 2" unless otherwise indicated.

3.~ The superstructure slab concrete shall be placed continously and shall be kept plastic until the entire span has been placed.

4.~ Mortar for bedding and joints in the granite curb shall contain an approved non-shrink additive.

5.~ Protective coating for concrete surfaces shall be applied to the following areas:
Top of concrete curb, raised median and ends of the slab.
Fascia down to the drip notch.
All exposed surfaces of concrete end posts and concrete barrier.

6.~ The seals to be furnished shall have a minimum Movement Rating of
Abutment Number 1 = .50"
Abutment Number 2 = 1.375"

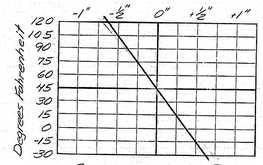
7.~ The seal shall be approved by the Engineer prior to fabrication of the joint armor.

8.~ 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.

9.~ It is anticipated that the slab and backwall concrete will be in place before the final adjustment to the joint is made, and no allowance for movement due to dead load deflections is needed.

10.~ 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.

11.~ The entire compression seal assembly from left fascia to right fascia, for each abutment, will be paid for under Item 520.22



COMPRESSION SEAL ADJUSTMENT CHART @ ABUTMENT "2 ONLY

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	Hayden	7/84
CHECKED	D.D.P.	7/84
REVISIONS		
FIELD CHANGES		

PLANS

BRUNING 44-132 457101

REFERENCE:
BD 120-81 sheet #40
Superstructure Layout Sheet #22

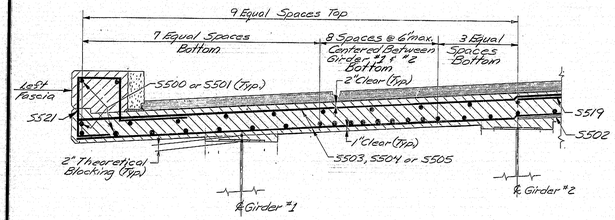
97-253

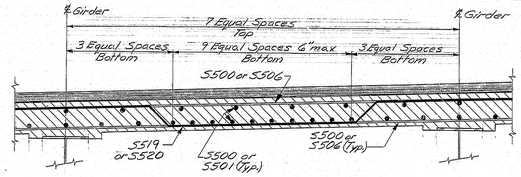
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

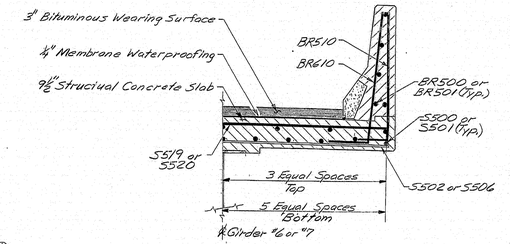
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
SUPERSTRUCTURE SLAB
(STEEL ALTERNATIVE)

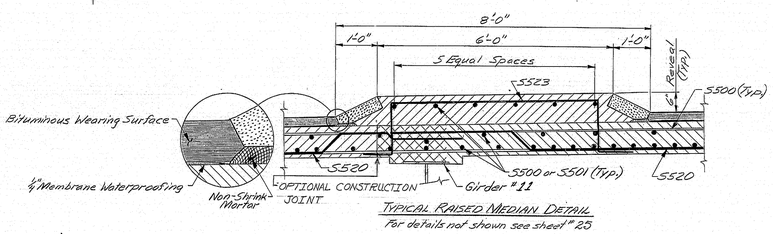
SHEET 23 OF 43 AUGUSTA, MAINE Oct., 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(68)	70	216

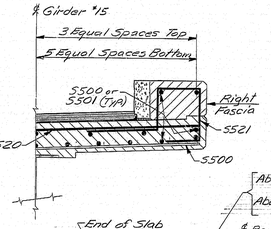


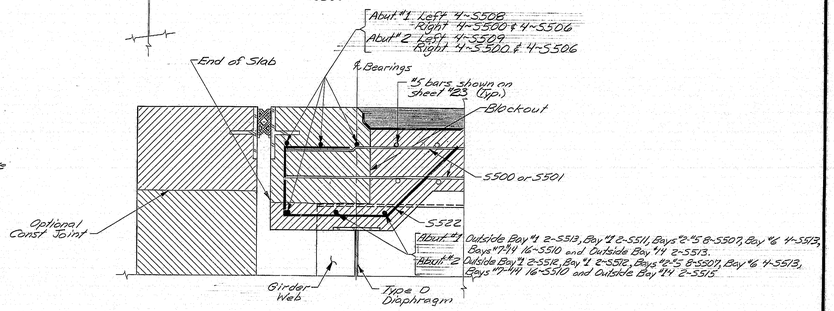




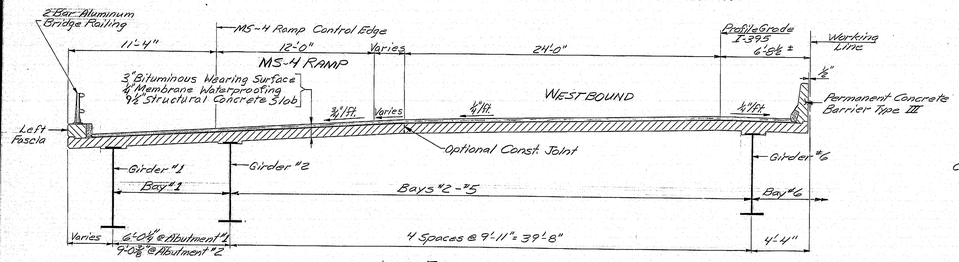


TYPICAL RAISED MEDIAN DETAIL
For details not shown see sheet #25

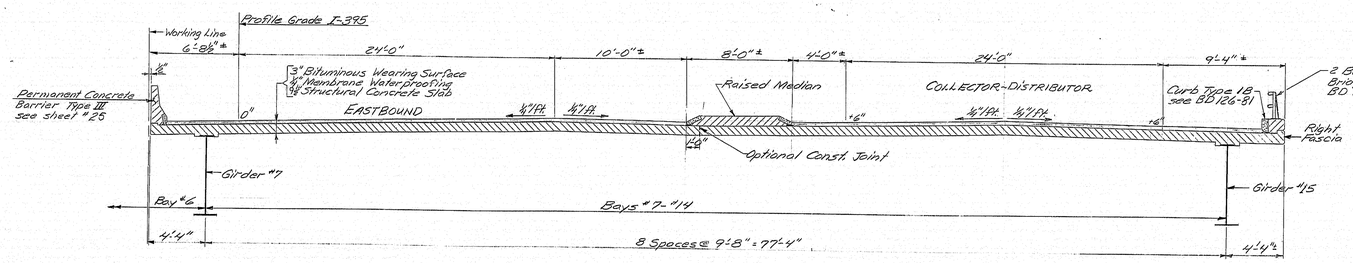




SECTION X-X
For details not shown see BD125-81



LEFT TRANSVERSE SECTION



RIGHT TRANSVERSE SECTION

REFERENCE:
BD 114-81 sheet # 38
BD 125-81 sheet # 41
BD 126-81 sheet # 42

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	CONTRACT	
CHECKED	B.A.S.	1/13/84
REVISIONS		
FIELD CHANGES		

BRUNING 64-132 45710-1

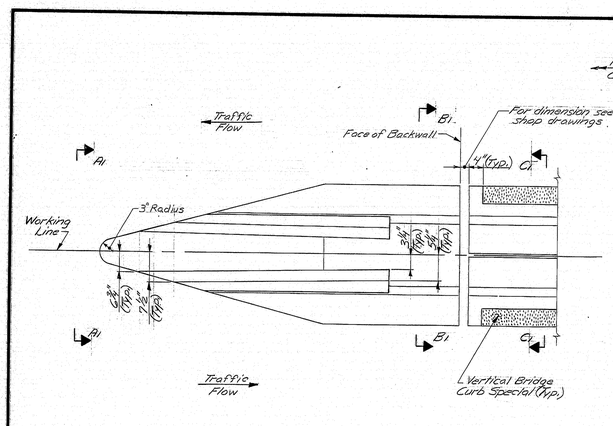
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
SUPERSTRUCTURE DETAILS
(STEEL ALTERNATE)

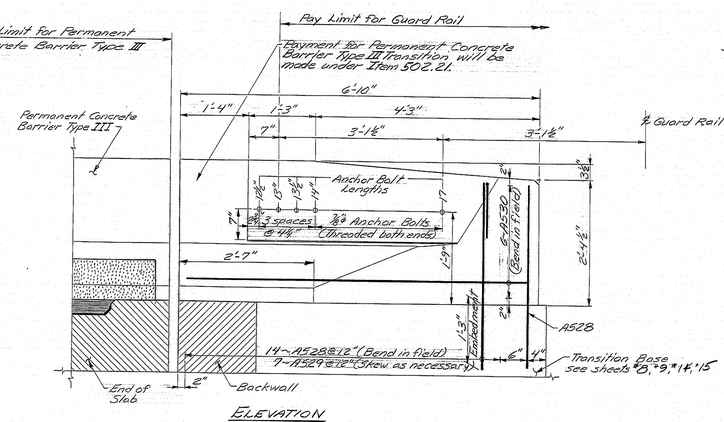
SHEET 24 OF 43 AUGUSTA, MAINE Oct, 1984

97-254

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	71	216

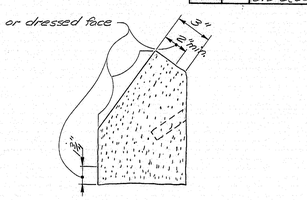


PLAN

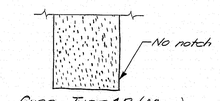


ELEVATION

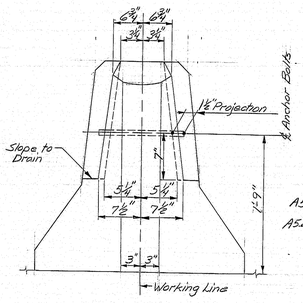
PERMENT CONCRETE BARRIER TYPE III TRANSITION DETAILS



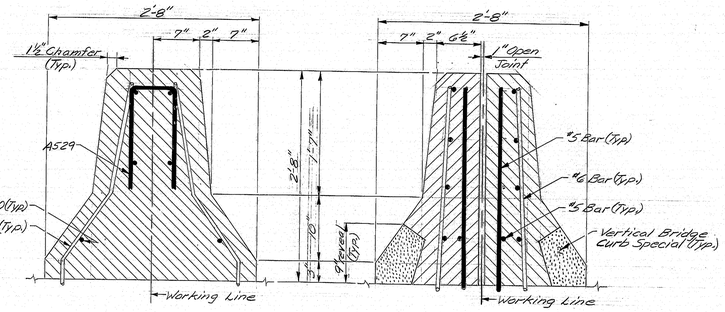
OPTIONAL VERTICAL BRIDGE CURB SPECIAL DETAIL
(For detail not shown see Vertical Bridge Curb Special)



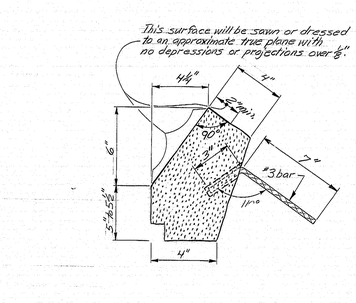
CURB - TYPE 1B (MOD.)
(For details not shown see BD 126-81)



VIEW A1-A1

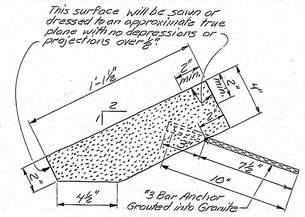


SECTION B1-B1

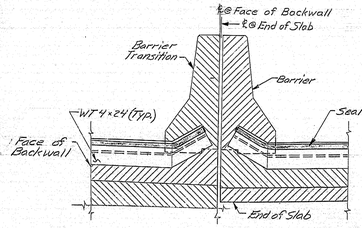


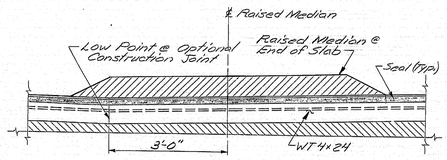
SECTION C1-C1

VERTICAL BRIDGE CURB SPECIAL DETAIL
For details not shown see BD 126-81

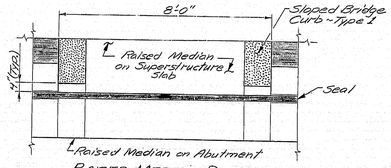


SLOPED BRIDGE CURB - TYPE 1





SEAL DETAILS
For details not shown see BD 125-81



RAISED MEDIAN DETAIL
(Plan View)

NOTE
For layout of Vertical Bridge Curb & Slope Bridge Curb see sheets #22 #24
For Type B (Mod) see sheets #11 & #13.

REFERENCE:
BD 125-81 sheet #41
BD 126-81 sheet #42

97-255

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGNED R.M.T.	7-84
	DETAILED R.A.S.	7-84
	CHECKED	
	REVISIONS	
	FIELD CHANGES	

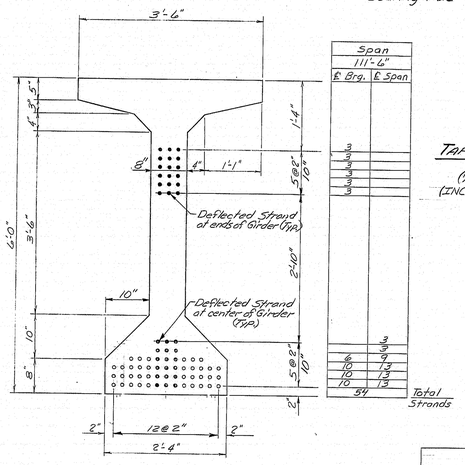
DRAWING 44-132 #27104

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
BARRIER RAIL & DETAILS

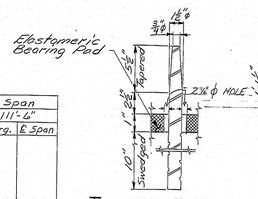
SHEET 25 OF 43 AUGUSTA, MAINE Oct., 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(98)	72	210



TYPICAL SECTION

(See Bulb-Tee Option, Sh. 28)

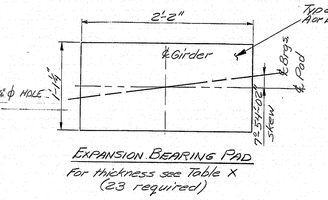


TAPERED DOWEL

A588 steel

(7 Required)

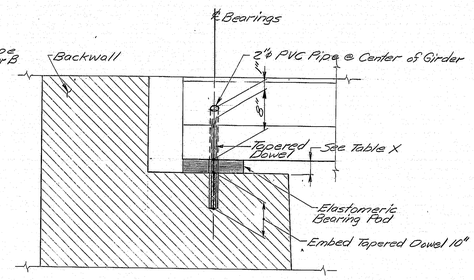
(INCIDENTAL TO ITEM 523.08)



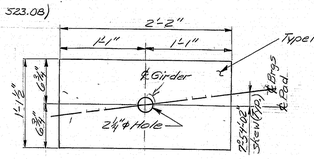
EXPANSION BEARING PAD

For thickness see Table X

(23 required)



DETAIL B



FIXED BEARING PAD

For thickness see Table X

(7 required)

ELASTOMERIC BRIDGE BEARING DETAILS

For location see Table Y.

CONCRETE GIRDER NOTES

1.~ At transfer of prestress the sequence of release shall be: (a) the deflected strands, (b) the hold down devices, and (c) the straight strands. Any alternate procedure shall meet with the approval of the Engineer.

2.~ Should the camber of the Prestressed I-Girder be greater than 2.3" upward at the center of the span, acting under Dead Load of the Girder, the Bridge Seat elevations, and the thickness of the blocking shall be adjusted as directed by the Engineer.

3.~ The girders shall be maintained in an upright position and shall be lifted by suitable devices provided at the ends of the girders. Attention is directed to the increased difficulty of lifting girders without end blocks. The Contractor's proposed lifting details should be given careful consideration before being submitted on shop drawing for approval. The use of holes for lifting purposes will not be permitted.

ELASTOMERIC BEARING NOTES

At the location of the elastomeric bearings the concrete bridge seats shall be dressed 1" larger all around than the bearings. If dressed area is below the surface at 2" min. wide channel with a slope of ¼":1'-0" min. shall be cut to the front edge of the bridge seat. No separate payment will be made for this work.

MATERIALS

CONCRETE: Cast-in-Place: Breastwall & Footing . . Class B
All others . . . . . Class A
Precast. . . . . Class A Mod.

REINFORCING STEEL: ASTM A615 Grade 60

BASIC ALLOWABLE STRESSES

CONCRETE: Class B . . . f'_c = 3000 psi
Class A . . . f'_c = 3500 psi
Class A-Mod. f'_c = 5500 psi f'_{ci} = 4500 psi

REINFORCING STEEL: f_y = 60000 psi

PRESTRESSED STEEL: ½ϕ Strands
f_s = 270000 psi P'_i = 31.4 kip/strand

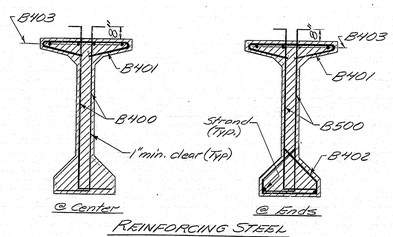
TABLE X

Type	Number of steel ℓ's	Elastomer Ply Thickness Bottom	Elastomer Ply Thickness Top	Bearing Thickness
A	3	5/16"	11/16"	2¾"
B	6	3/8"	11/16"	5¼"
F	1	1¼"	5/8"	1"

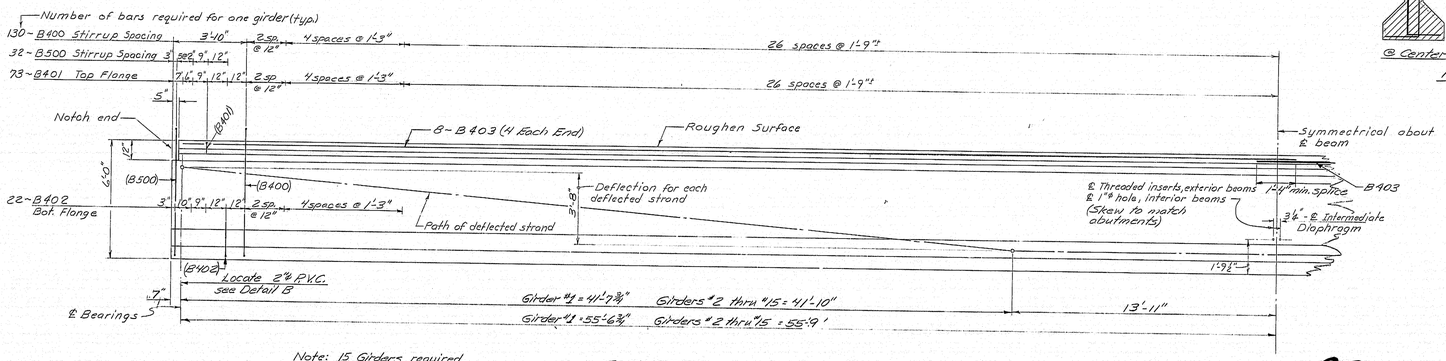
Thickness of steel ℓ's = ⅛" typical. For thickness and bearing type see Detail B and Table Y.

TABLE Y

Girder # / Location	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮
Abutment #1	A	A	A	F	F	F	A	A	A	A	F	F	F	A	A	A
Abutment #2	A	A	B	B	B	B	A	A	A	B	B	B	B	A	A	A



REINFORCING STEEL



Note: 15 Girders required.

ELEVATION

97-256

PROJECT DESIGN ENGINEER

PLANS

	BY	DATE
DESIGN - DETAILED	PJM	10-84
CHECKED	BAS	10-84
REVISIONS	JWM	10-84
FIELD CHANGES		

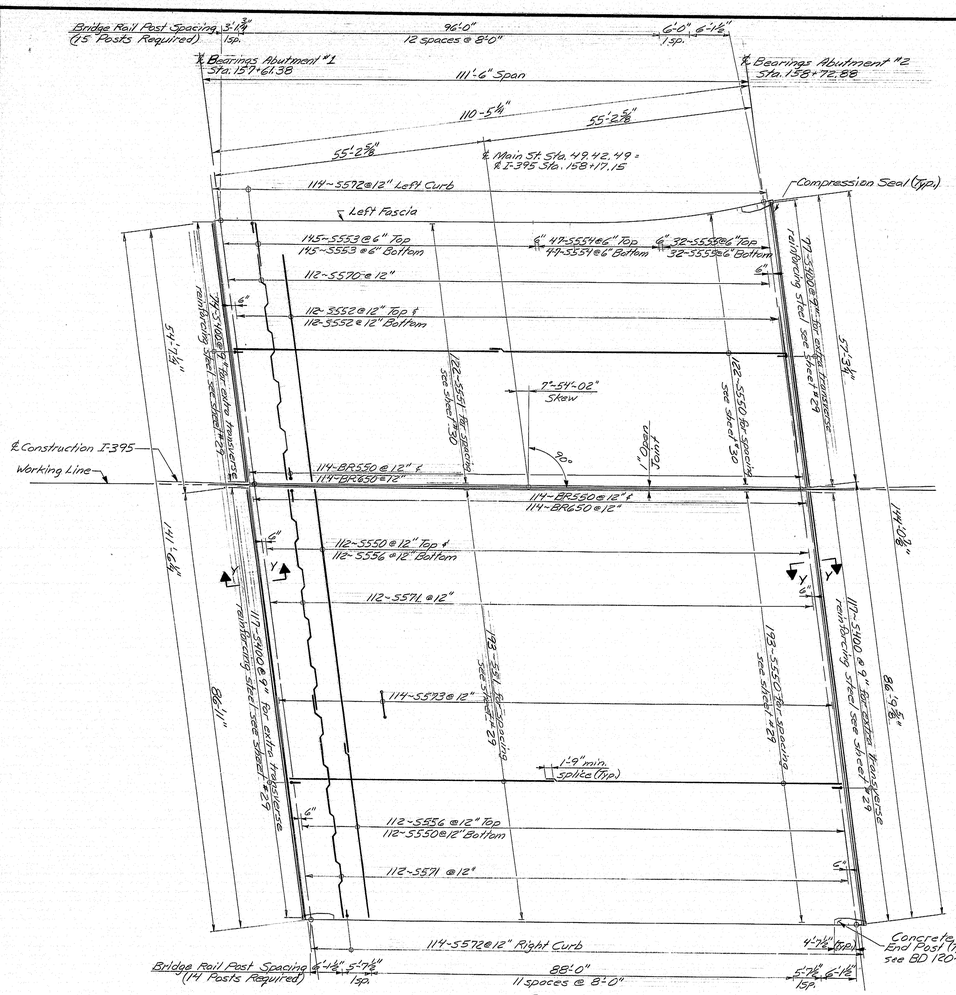
SKILLING 44-132-457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

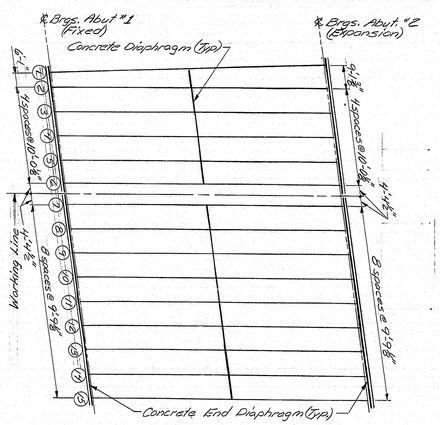
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

GIRDER DETAILS
(CONCRETE ALTERNATE)

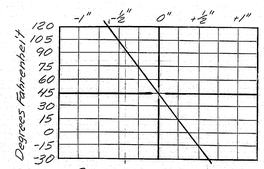
SHEET 26 OF 43 AUGUSTA, MAINE Oct., 1984



PLAN



FRAMING PLAN



COMPRESSION SEAL ADJUSTMENT CHART @ ABUTMENT #2 ONLY

P.R.N. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	73	216

SUPERSTRUCTURE NOTES

1.- Form a 1" V-groove on the fascias at the horizontal joint between the curb and slab, and at the horizontal construction joint in the return wing.

2.- Reinforcing steel shall have a minimum cover of 2" unless otherwise noted.

3.- The superstructure slab concrete shall be placed continuously and shall be kept plastic until the entire span has been placed.

4.- Mortar for bedding and joints in the granite curb shall contain an approved non-shrink additive.

5.- Protective coating for concrete surfaces shall be applied to the following areas.
Top of concrete curb, raised median and end of slab.
Fascia down to the drip notch.
All exposed surfaces of concrete end posts and concrete barrier.

6.- The seals to be furnished shall have a minimum Movement Rating of:
Abutment Number 1 = .50" Abutment Number 2 = 0.64"

7.- The seal shall be approved by the Engineer prior to fabrication of the joint armor.

8.- 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

9.- It is anticipated that the slab and backwall concrete will be in place before the final adjustment to the joint is made and no allowance for movement due to dead load deflection is needed.

10.- 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.

11.- The entire compression seal assembly, from left fascia to right fascia, for each abutment, will be paid for under Item 520.22.

12.- If Concrete Alternate is selected, the Contractor shall provide the "as erected" Camber dimensions, in order to determine Bridge Seat and Bottom of Slab Elevations.

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	RJH/CRP	9-87
CHECKED	BAS	10/88
RECOMMENDED		
FIELD CHANGES		

BRIDGE 44-132 45710-1

REFERENCE:
BD 120-81 sheet #10
Section Y-Y shown on sheet #29
For slab layout see sheet #22

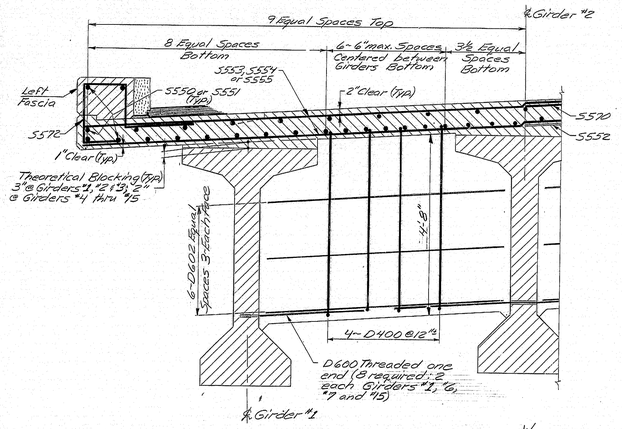
91-257

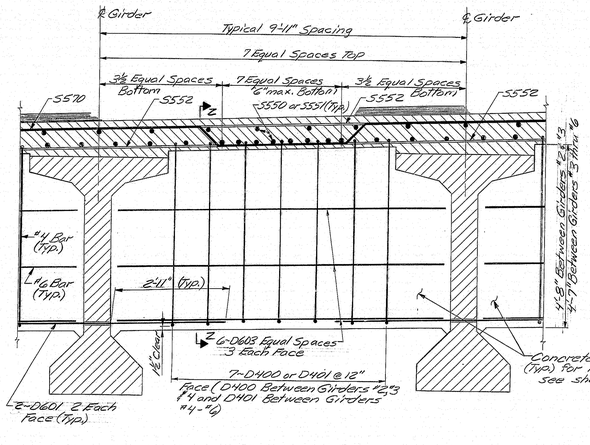
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

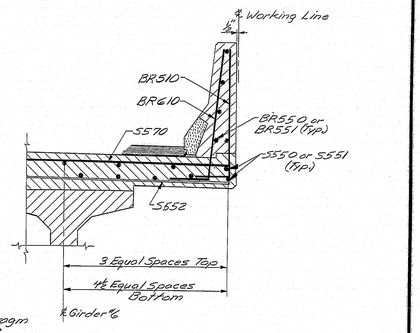
I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
SUPERSTRUCTURE SLAB
(CONCRETE ALTERNATE)

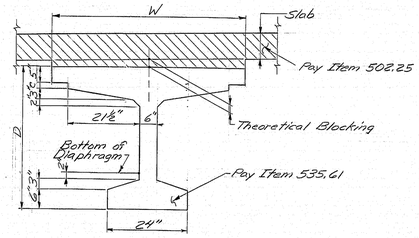
SHEET 27 OF 43 AUGUSTA, MAINE Jan. 1984

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-E(BB)	74	216



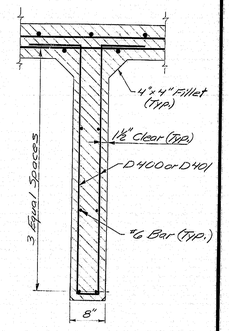






BULB TEE GIRDER OPTION

TRANSVERSE SECTIONS



SECTION Z-Z

PRECAST CONCRETE GIRDER OPTION NOTES

For the Prestressed Concrete Alternate, the Contractor has the option of providing the I-Girder with the typical section as shown on sheet #26, or the Bulb Tee Girder Option shown on this sheet and in the design furnished by the Contractor.

If the Contractor elects to use the Bulb Tee Girder Option, the Girder shall be designed by a Registered Professional Engineer in accordance with AASHTO Standard Specifications for Highway Bridges using an HS25 live loading and the following criteria:

1.- The Girders #1, 6, 7 and 15 shall be located as shown on the framing plan on sheet 27. The spacing and number of the remaining girders shall be as determined by the furnished design, as approved.

2.- The design compressive strength of precast concrete at 28 days (f'_c) shall be either 5000 or 5500 psi, and the design compressive strength of cast in place concrete at 28 days (f'_c) shall be 3000 psi.

3.- The minimum width "W" shall be 42 inches. The maximum depth "D" is limited by the minimum underclearance shown on the plans. The dimension "C" shall be a maximum of 2 inches. The minimum slab thickness shall be 6½ inches.

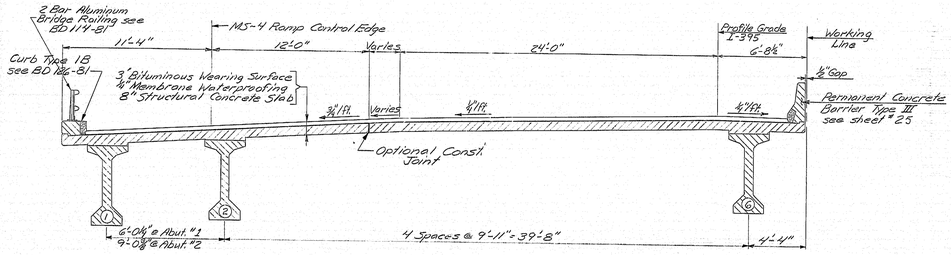
4.- The concrete slab, blocking and diaphragms will be paid for under Item 502.25, and shall be identical to that shown on the plans, except the thickness of the slab and the blocking shall be designed to accomodate the girder size and spacing.

5.- The shear reinforcing steel shall extend into the slab as detailed for the I-Girder.

6.- The construction and materials for the girder shall be as specified under Section 535 of the Special Provisions.

7.- The dead load used for design shall include the weight of a 3½ inch wearing surface, the bridge rails, curb, concrete barriers, slab and girders.

8.- The Contractor shall provide a copy of the Bulb Tee Girder Design and detailed plans as outlined in the Special Provision, Section 535 for approval by the Engineer. The details provided shall include the girder camber, and other information necessary to determine new bridge seat elevations, the size of elastomeric bridge bearings, and the changes to the reinforcing steel schedule.



LEFT TRANSVERSE SECTION

REFERENCE

BD 114-81 sheet #38
BD 126-81 sheet #42
For Slab layout see sheet #22

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	P.M.S.	9/84
	CHECKED	E.A.S.	9/84
	QUANTITIES		
	FIELD CHANGES		

BRUNING 44-132 45710-1

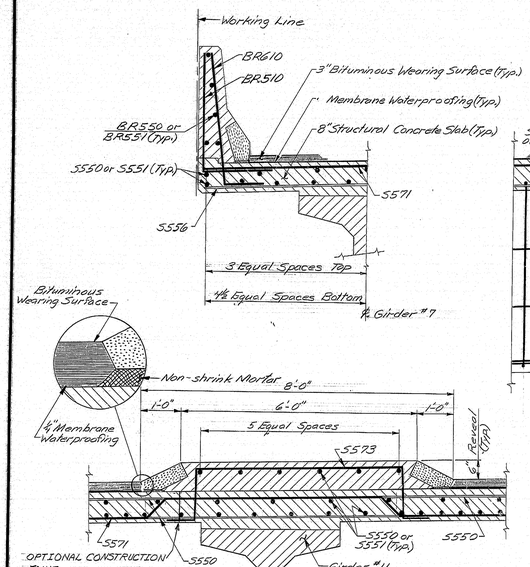
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
LEFT SLAB DETAILS
(CONCRETE ALTERNATE)

SHEET 28 OF 43 AUGUSTA, MAINE Oct., 1984

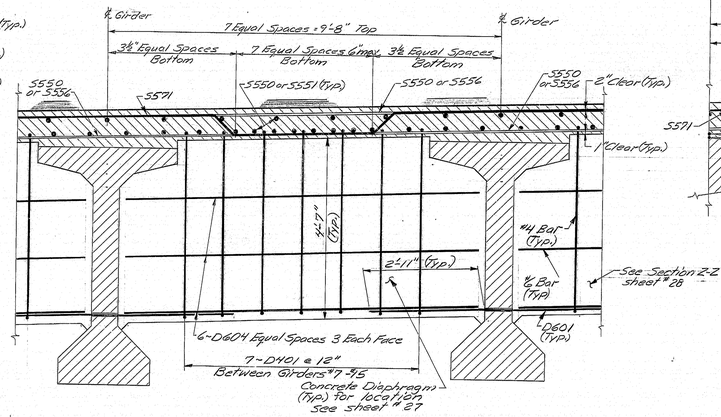
97-258

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	75	216

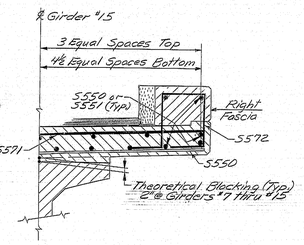


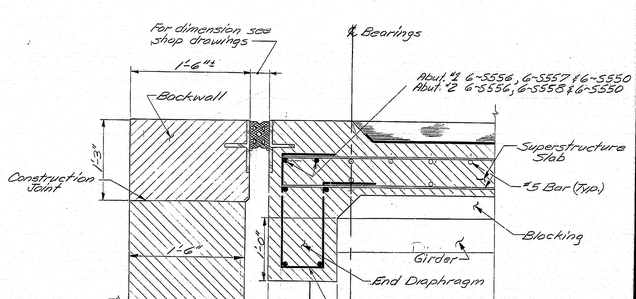
TYPICAL RAISED MEDIAN DETAIL

For details not shown see sheet "25



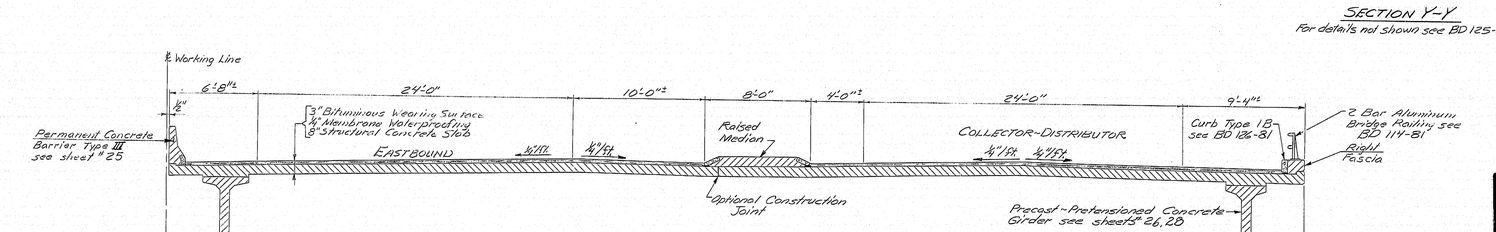
TRANSVERSE SECTIONS





SECTION Y-Y

For details not shown see BD 125-81



RIGHT TRANSVERSE DETAILS

REFERENCE

BD 114-81 sheet "38
BD 125-81 sheet "41
BD 126-81 sheet "42
Section Y-Y location sheet "27
For Slab layout see sheet "22

97-259

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
RIGHT SLAB DETAILS
(CONCRETE ALTERNATE)

SHEET 29 OF 43 AUGUSTA, MAINE Oct., 1984

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	R.J.M.	5/84
CHECKED	B.A.S.	10/84
REVISIONS	J.M.D.	10/84
FIELD CHANGES		

PLANS

BRIDGING 44-132-45710-1

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
ABUTMENT FOOTING			
K602	1	3'-8"	Transverse
K603	1	6'-2"	▲
K604	1	6'-11"	▲
K605	1	7'-5"	▲
K606	1	7'-11"	▲
K607	1	8'-5"	▲
K608	1	8'-11"	▲
K609	1	9'-5"	▲
K610	1	9'-11"	▲
K611	1	10'-5"	▲
K612	1	10'-11"	▲
K613	1	11'-5"	▲
K614	1	11'-11"	▼
K620	136	10'-6"	Transverse
K700	48	60'-0"	Longitudinal
K701	2	17'-4"	▲
K702	2	19'-10"	▲
K703	2	22'-11"	▲
K704	2	25'-11"	▲
K705	2	28'-11"	▲
K706	2	31'-11"	▲
K707	2	33'-7"	▲
K708	2	34'-1"	▲
K709	2	34'-7"	▲
K710	2	33'-6"	▲
K711	2	31'-7"	▼
K712	2	30'-9"	Longitudinal
K803	136	10'-6"	Transverse
K804	1	3'-8"	▲
K805	1	6'-2"	▲
K806	1	6'-11"	▲
K807	1	7'-5"	▲
K808	1	7'-11"	▲
K809	1	8'-5"	▲
K810	1	8'-11"	▲
K811	1	9'-5"	▲
K812	1	9'-11"	▲
K813	1	10'-5"	▲
K814	1	10'-11"	▲
K815	1	11'-5"	▲
K816	1	11'-11"	Transverse
RIGHT WING FOOTING			
K601	24	20'-0"	Longitudinal
K801	20	17'-0"	Longitudinal
K802	15	8'-6"	Transverse
K823	12	9'-1"	Transverse
K824	9	9'-10"	Transverse

MARK	NO.	LENGTH	LOCATION
RIGHT WING FOOTING (CONT.)			
K825	8	10'-4"	Transverse
K1025	9	9'-10"	Transverse
K1026	8	10'-4"	Transverse
ABUTMENT			
A501	108	4'-0"	Dowels
A502	83	16'-2"	Vertical
A503	19	15'-3"	Vertical
A510	4	5'-0"	Barrier Transition Base
A511	8	4'-3"	▲
A512	2	2'-7"	▲
A513	2	4'-1"	▲
A514	2	5'-7"	▼
A515	2	7'-1"	Barrier Transition Base
A518	21	29'-8"	Horizontal
A519	23	27'-4"	Horizontal
A520	15	7'-0"	End of Abut (South)
A521	44	28'-11"	Horizontal
A522	44	25'-11"	▲
A523	44	31'-6"	▲
A524	21	26'-0"	▲
A525	23	26'-3"	▼ Horizontal
A526	3	18'-1"	End of Abut (North)
A527	15	6'-6"	End of Abut. (North)
A538	4	20'-6"	End of Abut. (South)
RIGHT WING			
A551	2	9'-5"	Vertical
A552	2	5'-2"	▲
A553	2	10'-10"	▲
A554	2	6'-7"	▲
A555	2	12'-4"	▲
A556	2	8'-0"	▲
A557	2	13'-9"	▲
A558	2	9'-5"	▲
A559	2	15'-2"	▲
A560	2	10'-10"	▲
A561	2	7'-0"	▲
A562	2	12'-9"	▲
A563	2	8'-5"	▲
A564	2	14'-2"	▲
A565	2	9'-11"	▲
A566	2	15'-7"	▲
A567	2	11'-4"	▲
A568	2	17'-0"	▲
A569	2	12'-9"	Vertical

MARK	NO.	LENGTH	LOCATION
RIGHT WING (CONT.)			
A570	2	18'-5"	Vertical
A571	5	8'-7"	▲
A572	5	13'-7"	▲
A573	5	13'-1"	▲
A574	5	8'-1"	▼ Vertical
A575	10	3'-0"	Dowels
A576	10	6'-9"	Dowels
A577	22	27'-8"	Horizontal
A578	2	24'-4"	▲
A579	2	21'-3"	▲
A580	2	18'-1"	▲
A581	2	14'-11"	▲
A582	2	11'-10"	▲
A583	2	8'-8"	▲
A584	2	5'-6"	▼
A585	2	2'-5"	Horizontal
A586	2	30'-8"	Top of Wing
A601	14	14'-1"	Vertical
A602	14	9'-1"	Vertical
A610	14	13'-1"	Vertical
APPROACH SLAB			
AS400	48	30'-0"	Longitudinal
AS401	16	21'-6"	Longitudinal
AS402	16	25'-0"	Longitudinal
AS600	266	15'-0"	Transverse
BARRIER TRANSITION			
A528	15	3'-8"	Vertical
A530	6	6'-6"	Horizontal

BENT BARS

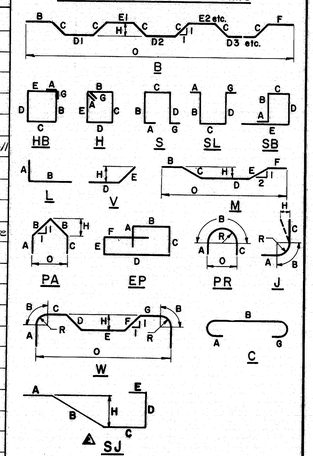
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
ABUTMENT FOOTING														
K615	1	7'-0"	L	3'-6"	3'-6"									Left End Top
K817	1	8'-0'	L	4'-0"	4'-0"									Left End Bottom
ABUTMENT														
A505	102	14'-8"	S	~	4'-3"	1'-2"	9'-3"			~				Top of Backwall
*A506	60	23'-11"	L	3'-11"	20'-0"									Bridge Seat
*A507	22	23'-7"	L	3'-11"	19'-8"									Bridge Seat
*A508	19	22'-3"	L	3'-11"	18'-4"									Bridge Seat
A509	5	10'-10"	S	~	4'-3"	2'-4"	4'-3"			~				Barrier Transition Base
A517	2	11'-8"	M		~	3'-0"	5'-8"	3'-0"			1'-6"			Raised Median
A531	1	5'-6"	S		1'-9"	2'-0"	1'-9"			~				Right Parapet
A532	3	4'-8"	S	~	1'-9"	1'-2"	1'-9"			~				Right Parapet
A533	1	7'-11"	S	~	1'-9"	4'-5"	1'-9"			~				Left Parapet
A534	1	6'-10"	S	~	1'-9"	3'-9"	1'-9"			~				Left Parapet
A535	4	4'-8"	S	~	1'-9"	1'-2"	1'-9"			~				Left Parapet
A536	1	6'-8"	S	~	1'-9"	3'-2"	1'-9"			~				Right Parapet
A701	102	12'-8"	L	1'-2"	11'-6"									Footing hook bars
A702	97	15'-2"	L	1'-2"	14'-0"									Footing hook bars
A703	97	17'-2"	L	1'-2"	16'-0"									Footing hook bars
RIGHT WING														
A603	14	4'-1"	L	1'-0"	3'-1"									Footing hook bars
A801	14	10'-7"	L	1'-4"	9'-3"									Footing hook bars
A901	28	8'-8"	L	1'-7"	7'-1"									Footing hook bars
BARRIER TRANSITION														
A529	7	4'-6"	S	~	2'-0"	6"	2'-0"			~				Top

If the Concrete Alternate is selected bars marked with an asterick(*) shall have the B dimension lengthened by 3 inches.

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

97-260

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar.
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. 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
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

⚠	New Bent Bar Type SJ	9-26-83
⚠	Revised ACI Standard	5-12-83
REVISIONS		DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY

ABUTMENT #1 & RIGHT WING
REINFORING STEEL SCHEDULE

SHEET 30 OF 43 AUGUSTA, MAINE Oct., 1984

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(88)	74	216

PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	RJF	9/82
	RECOMMENDED	JWM	10/2/84
	FIELD CHANGES		

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
			RIGHT WING (ABUT. #2)
D500	18	3'-3"	Dowels
D501	9	10'-9"	Vertical
D502	9	10'-9"	do
D503	12	26'-8"	Horiz.
D504	2	42'-3"	Top of Wing
D509	14	24'-0"	Horiz.
D510	2	2'-2"	
D511	2	7'-7"	
D512	2	12'-10"	
D513	2	18'-1"	
D514	2	23'-4"	
D515	2	28'-8"	Horiz.
D516	2	33'-11"	Horiz.
D517	2	7'-2"	Vert.
D518	2	8'-4"	
D519	2	9'-6"	
D520	2	10'-8"	
D521	2	11'-10"	
D522	2	13'-1"	
D523	2	14'-3"	
D524	2	15'-5"	
D525	2	16'-7"	
D526	1	20'-9"	
D527	1	20'-3"	
D528	1	19'-10"	
D529	1	19'-5"	
D530	1	19'-0"	
D531	1	18'-7"	
D532	1	18'-2"	
D533	1	17'-9"	
D534	1	17'-4"	
D535	1	16'-11"	
D536	1	16'-5"	
D537	1	16'-0"	
D538	1	15'-7"	
D539	1	15'-2"	
D540	1	14'-9"	
D541	1	14'-4"	
D542	1	13'-11"	
D543	1	13'-5"	
D544	1	13'-6"	
D545	1	13'-1"	
D546	1	12'-8"	
D547	1	12'-3"	
D548	1	11'-9"	
D549	1	11'-4"	Vert.

MARK	NO.	LENGTH	LOCATION
D550	1	10'-11"	Vert.
D551	1	10'-6"	
D552	1	10'-1"	
D553	1	10'-8"	
D554	1	10'-3"	
D555	1	9'-10"	
D556	1	9'-4"	
D557	1	9'-0"	
D558	1	8'-6"	
D559	1	8'-1"	
D560	1	7'-8"	
D561	1	7'-2"	Vert.
D700	9	12'-0"	Vertical
D701	9	13'-0"	do
D702	18	9'-4"	do
D800	14	17'-3"	Horiz.
D801	2	9'-6"	do
D802	2	6'-6"	do
D803	9	8'-6"	Vert.
D804	18	14'-10"	Vert.
			LEFT WING (ABUT. #2)
E500	14	3'-3"	Dowels
E501	14	10'-9"	Vert.
E502	2	35'-10"	Top of Wall
E503	6	20'-2"	Horiz.
E508	2	3'-9"	Horiz.
E509	2	8'-10"	Horiz.
E510	2	13'-8"	
E511	2	18'-6"	
E512	2	23'-4"	
E513	2	28'-2"	
E514	2	33'-0"	Horiz.
E515	1	17'-10"	Vert.
E516	1	17'-5"	
E517	1	16'-11"	
E518	1	16'-6"	
E519	1	16'-0"	
E520	1	15'-6"	
E521	1	15'-1"	
E522	1	14'-7"	
E523	1	14'-2"	Vert.

MARK	NO.	LENGTH	LOCATION
E524	1	13'-8"	Vert.
E525	1	13'-3"	
E526	1	12'-9"	
E527	1	12'-3"	
E528	1	11'-10"	
E529	1	12'-7"	
E530	1	12'-2"	
E531	1	11'-8"	
E532	1	11'-3"	
E533	1	10'-9"	
E534	1	10'-3"	
E535	1	9'-10"	
E536	1	10'-4"	
E537	1	9'-11"	
E538	1	9'-5"	
E539	1	9'-0"	
E540	1	8'-6"	
E541	1	8'-0"	
E542	1	7'-7"	Vert.
E543	2	9'-0"	Horiz.
E544	2	8'-2"	
E545	2	9'-5"	
E546	2	10'-7"	
E547	2	11'-10"	
E548	2	13'-1"	
E549	2	14'-3"	
E550	2	15'-6"	
E551	2	16'-8"	Horiz.
E704	2	32'-6"	Horiz.
E705	2	29'-6"	
E706	2	26'-6"	
E707	2	23'-6"	
E708	8	34'-2"	Horiz.
E709	13	10'-4"	Vert.
E710	4	13'-6"	
E711	6	9'-10"	
E712	7	13'-0"	Vert.

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
								RIGHT WING (ABUT. #2)						
D590	2	21'-6"	V				15'-3"	6'-3"			5'-7"			Butterfly
D850	13	7'-0"	L	1'-4"	5'-8"									Dowels
D853	13	9'-6"	L	1'-4"	8'-2"									Dowels
D950	14	7'-8"	L	1'-7"	6'-1"									Dowels
D951	14	10'-2"	L	1'-7"	8'-7"									Dowels
								LEFT WING (ABUT. #2)						
E560	2	21'-6"	V				15'-4"	6'-2"			5'-6"			Butterfly
E752	3	17'-3"	L	1'-2"	16'-1"									Dowels
E754	7	13'-8"	L	1'-2"	12'-6"									Vert.
E850	10	8'-7"	L	1'-4"	7'-3"									Dowels
E851	10	6'-7"	L	1'-4"	5'-3"									Dowels
E950	10	9'-2"	L	1'-7"	7'-7"									Dowels

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
	ABUTMENT #2		
F500	84	3'-9"	Dowels
F501	18	16'-11"	Vertical
F502	19	17'-2"	
F503	21	17'-5"	
F504	21	16'-8"	
F505	20	16'-3"	Vertical
F506	99	7'-1"	Vertical Backwall
F507	18	4'-6"	Dowels
F508	4	21'-3"	Vertical
F509	4	18'-7"	Vertical
F510	15	26'-6"	Horiz.
F511	29	7'-9"	
F512	18	29'-0"	
F513	8	29'-10"	
F514	42	31'-8"	
F515	42	26'-1"	
F516	42	29'-0"	
F517	16	27'-8"	
F518	18	30'-2"	
F519	8	30'-9"	Horiz.
F601	99	11'-6"	Vertical
F602	196	14'-6"	Vertical
	ABUT. #2		
	APPROACH SLAB		
A5400	48	30'-0"	Long.
A5401	16	27'-3"	do
A5402	16	25'-3"	do
A5600	277	15'-0"	Transverse

MARK	NO.	LENGTH	LOCATION
	FOOTING - ABUT. #2		
G500	64	60'-0"	Longitudinal
G501	34	26'-9"	Longitudinal
G504	32	20'-3"	Longitudinal
G507	5	14'-0"	Transverse
G508	9	14'-6"	
G509	9	14'-0"	
G510	9	14'-4"	Transverse
G608	5	15'-0"	Transverse
G609	4	15'-6"	
G610	4	14'-9"	
G611	3	15'-1"	Transverse
G700	155	15'-6"	Transverse
G900	304	15'-6"	Transverse
G1001	11	14'-0"	Transverse
G1002	9	14'-5"	do
G1003	19	14'-0"	do
G1004	13	14'-7"	Transverse
G1101	11	14'-9"	Transverse
G1102	9	15'-1"	do
G1103	19	15'-0"	do
G1104	13	15'-6"	Transverse

MARK	NO.	LENGTH	LOCATION
	BARRIER TRANSITION		
F525	2	2'-10"	Vertical
F526	2	4'-4"	
F527	2	5'-10"	
F528	2	7'-4"	Vertical
F529	12	4'-6"	Horiz.

If the Concrete Alternate is selected bars marked with an asterick(*) shall have the B dimension lengthened by 8".

ABUT. #2
Concrete Barrier Transition

A528	15	5'-0"	Barrier
A530	6	6'-6"	do

BENT BARS

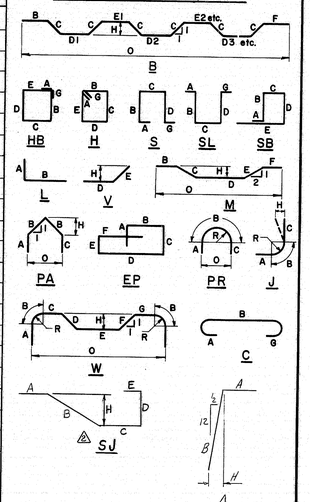
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
					ABUTMENT #2									
*F550	19	25'-6"	A	4'-0"	21'-6"						0'-10'			Breastwall Vert.
*F551	99	10'-8"	S	–	4'-9"	1'-2"	4'-9"			–				Top Backwall
*F552	18	25'-0"	A	4'-0"	21'-0"						0'-10"			Breastwall Vert.
*F553	21	24'-7"	A	4'-0"	20'-7"						0'-10"			
*F554	18	23'-1"	A	4'-0"	19'-1"						0'-9"			
*F555	19	25'-8"	A	4'-0"	21'-8"						0'-10"			Breastwall Vert.
F556	4	12'-0"	S	–	5'-5"	1'-2"	5'-5"			–				Curbs
F557	2	9'-7"	M		–	2'-0"	5'-7"	8'-0"	–		1'-0"			Raised Median
F560	5	11'-4"	S	–	4'-6"	2'-4"	4'-6"			–				Barrier Transition
					FOOTING - ABUT. #2									
G550	2	12'-3"	V			9'-0"	3'-3"				2'-3"			Corner Bars
G551	2	13'-2"	V			9'-6"	3'-8"				2'-7"			
G552	2	14'-0"	V			10'-0"	4'-0"				2'-10"			
G553	2	14'-10"	V			10'-5"	4'-5"				3'-2"			
G554	2	15'-7"	V			10'-10"	4'-9"				3'-4"			
G555	2	16'-6"	V			11'-4"	5'-2"				3'-8"			
G556	2	17'-3"	V			11'-9"	5'-6"				3'-10"			
G557	2	18'-2"	V			12'-3"	5'-11"				4'-2"			
G558	2	19'-1"	V			12'-9"	6'-4"				4'-6"			
G559	2	19'-10"	V			13'-2"	6'-8"				4'-9"			
G560	2	20'-8"	V			13'-8"	7'-0"				5'-0"			
G561	2	21'-6"	V			14'-1"	7'-5"				5'-3"			
G562	2	22'-5"	V			14'-7"	7'-10"				5'-7"			
G563	2	23'-2"	V			15'-0"	8'-2"				5'-9"			
G564	2	24'-1"	V			15'-6"	8'-7"				6'-1"			
G565	2	25'-0"	V			16'-0"	9'-0"				6'-4"			
G566	2	12'-3"	V			9'-7"	2'-8"				1'-11"			
G567	2	13'-1"	V			10'-0"	3'-1"				2'-2"			
G568	2	13'-9"	V			10'-4"	3'-5"				2'-5"			
G569	2	14'-9"	V			10'-10"	3'-11"				2'-9"			
G570	2	15'-5"	V			11'-2"	4'-3"				3'-0"			
G571	2	16'-3"	V			11'-7"	4'-8"				3'-3"			
G572	2	17'-1"	V			12'-0"	5'-1"				3'-7"			
G573	2	17'-11"	V			12'-5"	5'-6"				3'-11"			
G574	2	18'-9"	V			12'-10"	5'-11"				4'-2"			
G575	2	19'-7"	V			13'-3"	6'-4"				4'-6"			
G576	2	20'-5"	V			13'-8"	6'-9"				4'-9"			
G577	2	21'-3"	V			14'-1"	7'-2"				5'-0"			
G578	2	22'-1"	V			14'-6"	7'-7"				5'-4"			
G579	2	22'-11"	V			14'-11"	8'-0"				5'-8"			
G580	2	23'-9"	V			15'-4"	8'-5"				5'-11"			
G581	2	24'-7"	V			15'-9"	8'-10"				6'-3"			Corner Bars
F750	146	4'-6"	L	1'-2"	3'-4"									Backwall Dowels
F850	148	4'-11"	L	1'-5"	3'-6"									do
					ABUT. #2									
					Concrete Barrier Transition									
A529	7	4'-6"	S	–	2'-0"	0'-6"	2'-0"			–				Barrier
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

DESIGN DETAIL CHECKED	BY	DATE
REVISIONS		
FIELD CHANGES		

PLANS

FHWA SEQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
I	MAINE	395-8(68)	78	216

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
   Mark (A502) bar size - #5
   Mark (P1001) bar size - #10
   Mark (S603) bar size - #6
2. **Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.**

REVISIONS	DATE
⚠ New Bent Bar Type SJ	9-26-83
⚠ Revised ACI Standard	5-12-83

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
REINFORCING STEEL SCHEDULE
ABUT. #2-BREASTWALL & FOOTING

SHEET 32 OF 43 AUGUSTA, MAINE Oct, 1984

97-262

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
	LEFT WING FOOTING		
L550	45	15'-0"	Transverse
L551	1	14'-0"	↑
L552	1	12'-0"	↕
L553	1	10'-0"	↕
L554	1	8'-1"	↕
L555	1	6'-1"	↕
L556	1	4'-2"	↓
L557	1	2'-2"	Transverse
L561	2	3'-0"	Longitudinal
L562	2	3'-8"	↑
L563	2	4'-2"	↕
L564	2	4'-8"	↕
L565	2	5'-2"	↕
L566	2	5'-8"	↕
L567	2	6'-2"	↕
L568	2	6'-8"	↕
L569	2	7'-2"	↕
L570	2	7'-8"	↕
L571	2	8'-2"	↕
L572	2	8'-8"	↕
L573	2	9'-3"	↕
L574	2	9'-9"	↕
L575	2	10'-3"	↓
L576	32	44'-0"	Longitudinal
L577	1	17'-4"	Transverse
L1100	90	15'-0"	↑
L1101	1	14'-0"	↕
L1102	1	13'-0"	↕
L1103	1	12'-0"	↕
L1104	1	11'-0"	↕
L1105	1	10'-0"	↕
L1106	1	9'-0"	↕
L1107	1	8'-1"	↕
L1108	1	7'-1"	↕
L1109	1	6'-1"	↕
L1110	1	5'-2"	↕
L1111	1	4'-2"	↕
L1112	1	3'-2"	↕
L1113	1	2'-2"	↓
L1114	1	17'-4"	Longitudinal

MARK	NO.	LENGTH	LOCATION
	LEFT WING		
L501	42	3'-3"	Dowels
L502	42	12'-6"	Vertical
L503	42	15'-3"	Vertical
L504	41	10'-4"	Vertical
L507	4	6'-11"	Vertical
L508	8	5'-0"	Horizontal
L510	36	24'-8"	↑
L511	36	24'-10"	↕
L512	36	7'-3"	↕
L513	28	3'-6"	Horizontal
L601	20	3'-0"	Dowels
L701	66	8'-9"	Vertical
L702	41	12'-6"	Vertical
L703	13	16'-0"	Vertical
	MS-3 RETAINING WALL		
N501	84	6'-2"	Far Face
N502	532	2'-6"	Dowels & N.F.
N503	1	2'-6"	Near Face
N504	1	2'-7"	↑
N505	13	2'-8"	↕
N506	1	2'-9"	↕
N507	1	2'-10"	↕
N508	1	2'-10"	↕
N509	1	2'-11"	↕
N510	5	3'-0"	↕
N511	1	3'-1"	↕
N512	1	3'-2"	↕
N513	1	3'-3"	↕
N514	1	3'-4"	↕
N515	8	3'-5"	↕
N516	6	2'-2"	↕
N517	40	3'-11"	↕
N518	12	3'-10"	↕
N519	57	4'-8"	↓
N520	46	5'-2"	Near Face
N522	47	3'-8"	Dowels
N524	9	29'-2"	Horizontal
N525	9	22'-0"	Horizontal
N526	10	34'-2"	Horizontal
N527	67	32'-8"	Horizontal
N528	47	7'-6"	Far Face
N529	278	3'-6"	Dowels
N531	26	14'-11"	Vertical
N532	60	37'-2"	Horizontal
N533	26	13'-9"	Vertical
N534	26	12'-0"	Vertical
N536	44	35'-8"	Horizontal
N537	23	10'-9"	Vertical

MARK	NO.	LENGTH	LOCATION
	MS-3 RETAINING WALL		
N538	25	9'-6"	Near Face
N539	25	7'-8"	Near Face
N540	24	33'-8"	Horizontal
N541	25	6'-4"	Near Face
N542	25	5'-7"	Near Face
N543	24	16'-2"	Near Face
N544	26	10'-11"	Far Face
N545	26	12'-8"	↑
N546	26	13'-10"	↕
N547	23	9'-9"	↕
N548	25	8'-5"	↕
N549	25	6'-7"	↕
N551	25	5'-3"	↓
N552	25	4'-6"	Far Face
N580	23	17'-4"	Near Face
N581	7	20'-0"	Near Face
N582	10	9'-8"	Near Face
N583	23	19'-0"	Near Face
	MS-3 RETAINING WALL FOOTING		
N554	11	1'-8"	Transverse
N555	10	2'-1"	Transverse
N556	4	21'-6"	Longitudinal
N557	5	35'-6"	Longitudinal
N558	25	39'-0"	Longitudinal
N559	8	34'-6"	Longitudinal
N561	11	2'-6"	Transverse
N562	11	3'-4"	↑
N563	13	3'-8"	↕
N564	13	3'-10"	↕
N565	12	4'-7"	↕
N566	13	5'-0"	↕
N568	13	5'-5"	↕
N569	13	6'-0"	↕
N570	121	6'-6"	↓
N571	128	5'-6"	Transverse
N572	22	37'-6"	Longitudinal
N573	7	35'-6"	Longitudinal
N699	7	16'-0"	Long. Bot. Mat

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
	LEFT WING													
L801	50	10'-6"	L	1'-4"	9'-2"									Dowels
L901	50	11'-2"	L	1'-7"	9'-7"									Dowels
	MS-3 RETAINING WALL													
N521	6	5'-10"	S	~	1'-3"	3'-4"	1'-3"			~				Section D-D
N535	201	3'-8"	L	10"	2'-10"									Footing
N581	97	5'-2"	L	10"	4'-4"									Footing
N601	362	6'-3"	S	~	2'-7"	1'-1"	2'-7"			~				Top of Wall
	MS-2 RETAINING WALL													
W404	108	11'-7"	S	6"	4'-9"	1'-1"	4'-9"			6"				Embedded
W502	108	2'-10"	L	10	2'-0"									Embedded
	MS-4 RETAINING WALL													
W502	50	2'-10"	L	10"	2'-0"									Embedded

STRAIGHT BARS

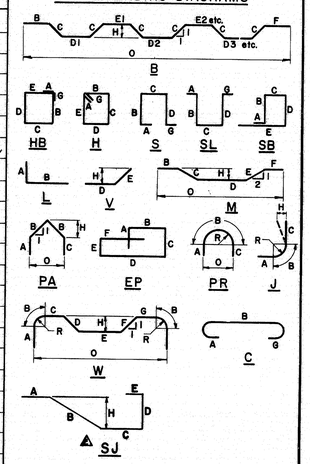
MARK	NO.	LENGTH	LOCATION
	MS-2 RETAINING WALL		
M450	7	12'-0"	Over pipe
M650	13	10'-0"	Over pipe
W405	72	13'-6"	Slab
W406	54	52'-11"	Slab
W501	128	2'-6"	Dowels
	MS-4 RETAINING WALL		
W403	2	32'-6"	Horizontal
W501	81	2'-6"	Dowels

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

97-263

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-B(68)	79	216

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠
Reinforcing Bar : ASTM A615 Grade 60

GENERAL NOTES

1. 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
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

REVISIONS	DATE
⚠ New Bent Bar Type SJ	9-26-83
⚠ Revised ACI Standard	5-12-83

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE

MAIN ST.
BANGOR
PENOBSCOT COUNTY

LEFT WING & RAMPS MS-2, MS-3 & MS-4 RETAINING WALLS

SHEET 33 OF 43 AUGUSTA, MAINE Oct, 1984

PLANS
DESIGN - DETAIL — BY — DATE
CHECKED — BAS — 10/84
REVISIONS — BAS — 11/84
FIELD CHANGES

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
	SUPERSTRCTURE SLAB		
S500	559	60'-0"	Slab & Curbs
S501	329	55'-3"	Longitudinal
S502	222	44'-3"	Transverse
S503	288	11'-9"	Transverse
S504	94	13'-4"	Transverse
S505	62	14'-8"	Transverse
S506	230	28'-4"	Transverse
S507	16	9'-9"	End of Slab
S508	4	5'-4 3/4"	End of Slab
S509	4	56'-11"	End of Slab
S510	32	9'-4"	End of Slab
S511	2	5'-7"	End of Slab
S512	2	8'-7"	End of Slab
S513	12	4'-0"	End of Slab
S514	2	3'-5"	End of Slab
S515	2	3'-9"	End of Slab

MARK	NO.	LENGTH	LOCATION
	END POST		
EP401	18	1'-10"	End Post Dowels
EP405	12	1'-5"	End Post
EP508	12	4'-0"	End Post

MARK	NO.	LENGTH	LOCATION
	BARRIER RAIL		
*BR500	8	60'-0"	Barrier Rail
*BR501	8	55'-3"	Barrier Rail

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
				SUPERSTRUCTURE SLAB										
S519	111	46'-0"	B	–	2'-1"	9'-6"	4'-9" (4 x)	4'-2" (3 x)	6'-3"	–	6 1/2"	44'-2"		Slab
S520	222	45'-11"	B	–	6'-2"	9'-6"	4'-9" (4 x)	3'-6" (3 x)	3'-0"	–	6 1/2"	44'-1"		Slab
S521	228	5'-10"	S	10"	1'-6 11/16"	1'-1"	1'-6 11/16"	–	–	10"				Curb
S522	289	4'-2"	SJ	~	1'-3"	1'-3"	10"	10"			9"			End of Slab
S523	114	9'-6"	SL	10"	1'-3 5/16"	5'-3"	1'-3 5/16"			10"				Raised Median
				END POST										
EP402	12	4'-9"	S	–	2'-1"	7"	2'-1"			–				End Post
EP403	12	4'-8"	H	4"	1'-0"	1'-0"	1'-0"	1'-0"		4"				
EP404	12	3'-1"	S	–	1'-3"	7"	1'-3"			–				
EP408	9	4'-3"	S	–	1'-10"	7"	1'-10"			–				
EP409	6	4'-2"	S	–	1'-10"	6"	1'-10"			–				
EP410	3	4'-6"	S	–	1'-10"	10"	1'-10"			–				
EP501	12	5'-3"	V				3'-0"	2'-3"			4"			End Post
EP502	9	4'-11"	S	–	1'-11"	7"	1'-11"			6"				
EP503	6	4'-10"	S	–	1'-11"	6"	1'-11"			6"				
EP504	3	6'-4"	H	5"	1'-11"	10"	1'-11"	10"		5"				End Post
				BARRIER RAIL										
*BR510	228	4'-3"	L	10"	3'-5"									Barrier Rail
*BR610	228	4'-5"	L	1'-0"	3'-5"									Barrier Rail

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

Reinforcing Bars marked with an asterick (*) shall not be included for payment under Items 502.12 & 502.13. Payment will be considered incidental to Item 526.31.

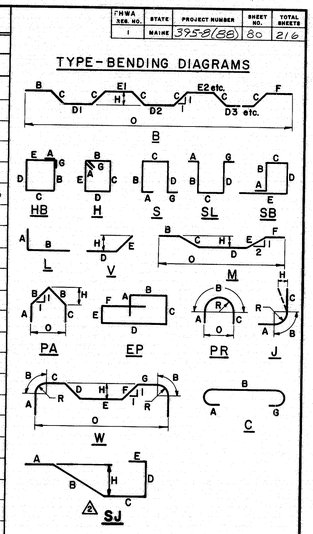
97-264

PLANS

DESIGN - DETAIL	BY	DATE
CHECKED		
REVISIONS	jm	9/96
FIELD CHANGES		

FHWA DES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	80	216

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. 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
2. **Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.**

	DATE
⚠ New Bent Bar Type SJ	9-26-83
⚠ Revised ACI Standard	5-12-83
REVISIONS	DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
REINFORCING STEEL SCHEDULE
(STEEL ALTERNATE)

SHEET 34 OF 43 AUGUSTA, MAINE

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
		PRECAST GIRDER	
B403	120	56'-6"	Girder
SUPERSTRUCTURE SLAB			
S550	551	60'-0"	Slab
S551	315	55'-3"	Longitudinal
S552	224	44'-3"	Transverse
S553	290	11'-9"	"
S554	94	13'-4"	"
S555	64	14'-8"	"
S556	236	28'-4"	"
S557	6	54'-2"	"
S558	6	56'-10"	"
		DIAPHRAGM	
D600	8	3'-0"	Horizontal (Threaded)
D601	22	6'-6"	Horizontal
D602	6	6'-9"	"
D603	24	9'-2"	"
D604	48	8'-11"	"

MARK	NO.	LENGTH	LOCATION
		END POST	
EP401	18	1'-10"	End Post Dowels
EP405	12	1'-5"	End Post
EP508	12	4'-0"	"

MARK	NO.	LENGTH	LOCATION
		BARRIER RAIL	
*BR550	8	60'-0"	Horizontal
*BR551	8	55'-3"	"

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
						PRECAST GIRDER								
B400	1950	8'3"	SL	5"	6'-7"	1'-3"	~			~				Girder
B401	1095	6'-5"	CL	1'-4¼"	5"	2'-10⅝"	1'-4⅝"				7"		1¾"	Girder
B402	330	5'-10"	CS	6¼"	1'-3⅝"	1'-9½"	6¼"	1'-2⅝"						Girder
B500	480	8'-5"	SL	6½"	6'-7"	1'-3⅝"	~			~				Girder
						DIAPHRAGM								
D400	18	11'-7"	SL	10"	4'-9"	5"	4'-9"			10"				Vertical
D401	70	11'-5"	SL	10"	4'-8"	5"	4'-8"			10"				"
						SUPERSTRUCTURE SLAB								
S400	385	4'-8"	S	10"	1'-6	5"	1'-1"			10"				End of Slab
X S570	112	45'-6"	B	~	2'-10"	7"	3'-7" (x4) 5'-9" (x3)	6'-11"			5"	44'-2"		Transverse
S571	224	45'-9"	B	~	6'-10"	7"	3'-6" (x4) 6'-5" (x3)	4'-0"			5"	44'-5"		"
S572	228	5'-7"	S	10"	1'-5"	1'-1"	1'-5"			10"				Curb
S573	114	9'-3"	SL	10"	1'-2"	5'-3"	1'-2"			10"				Raised Median
						END POST								
EP402	12	4'-9"	S	-	2'-1"	7"	2'-1"			-				End Post
EP403	12	4'-8"	H	4"	1'-0"	1'-0"	1'-0"	1'-0"		4"				"
EP404	12	3'-1"	S	-	1'-3"	7"	1'-3"			-				"
EP408	9	4'-3"	S	-	1'-10"	7"	1'-10"			-				"
EP409	6	4'-2"	S	-	1'-10"	6"	1'-10"			-				"
EP410	3	4'-6"	S	-	1'-10"	10"	1'-10"			-				"
EP501	12	5'-3"	V				3'-0"	2'-3"			4"			"
EP502	9	4'-11"	S	-	1'-11"	7"	1'-11"			6"				"
EP503	6	4'-10"	S	-	1'-11"	6"	1'-11"			6"				"
EP504	3	6'-4"	H	5"	1'-11"	10"	1'-11"	10"		5"				"
						BARRIER RAIL								
*BR510	228	5'-0"	L	1'-9"	3'-3"									Barrier Rail
*BR610	228	4'-3"	L	1'-0"	3'-3"									"

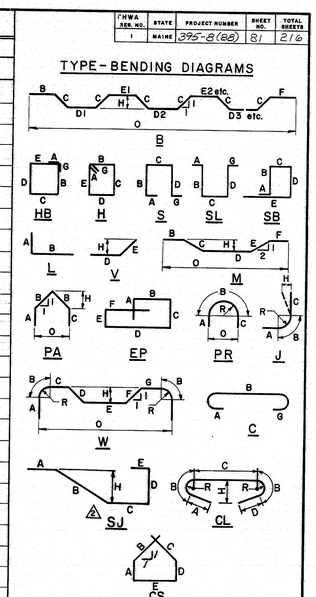
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

Reinforcing Bars marked with an asterick (*) shall not be included for payment under Items 502.12 & 502.13. Payment will be considered Incidental to Item 526.31.

PLANS — DESIGN - DETAIL CHECKED RECOMMEND FIELD CHANGES — BY — DATE 1/82 1/82 1/82 10/84

FHWA REF. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	395-8(88)	81	216

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. ⚠

Reinforcing Bar: ASTM A 615 Grade 60

GENERAL NOTES

1. 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
2. **Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.**

REVISIONS	DATE
⚠ NEW BENT BAR TYPE SJ	9-26-83
⚠ Revised ACI Standard	5-12-83

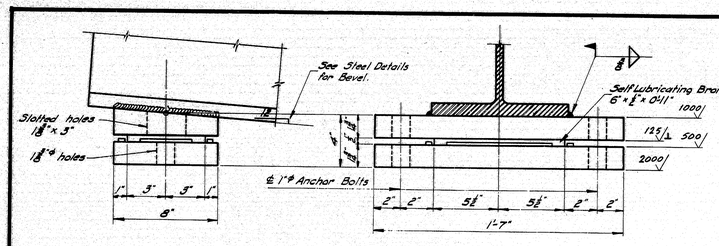
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-395 BRIDGE
OVER
MAIN ST.
BANGOR
PENOBSCOT COUNTY
REINFORCING STEEL SCHEDULE
(CONCRETE ALTERNATE)

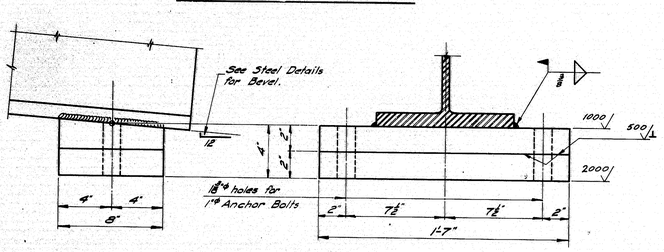
SHEET 35 OF 43 AUGUSTA, MAINE Oct, 1984

99-265

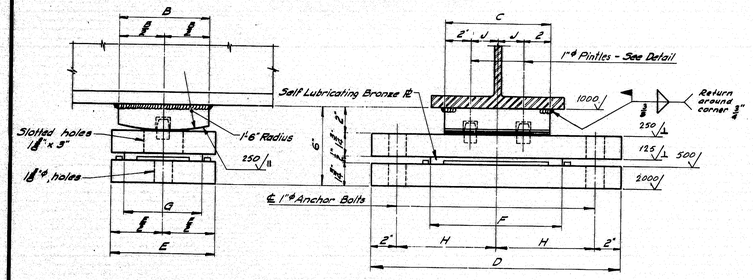
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I	MAINE	I-395-8(88)	82	216



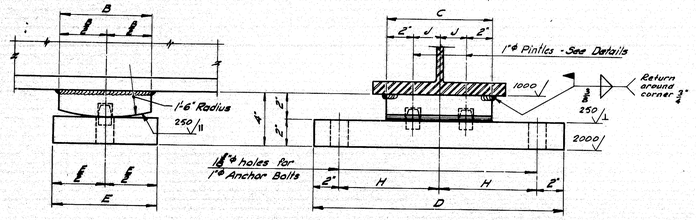
EXPANSION PEDESTAL - EPA



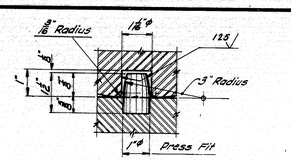
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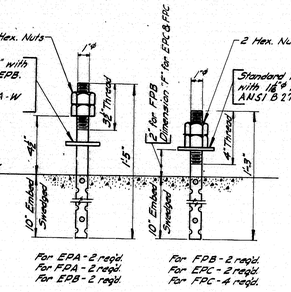
EXPANSION PEDESTAL - EPB



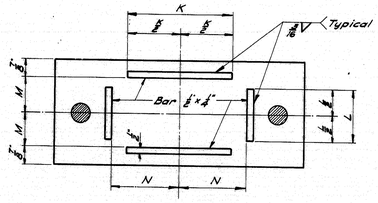
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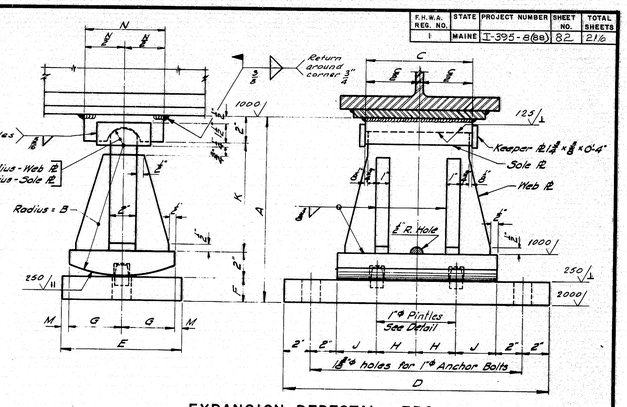
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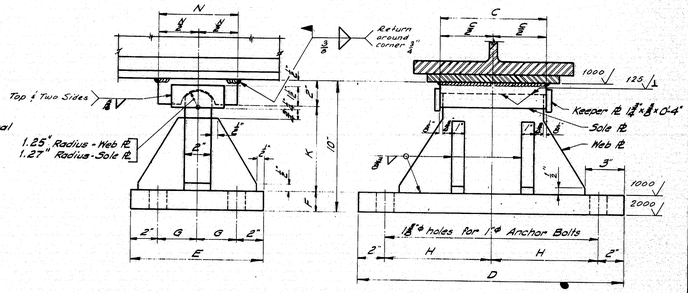
ANCHOR BOLT DETAIL



MASONRY PLATE



EXPANSION PEDESTAL - EPC



FIXED PEDESTAL - FPC

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132 K	–	–	–	–	–	–	–	–	–	8"	4"	3½"	5½"
FPA	130 K	–	–	–	–	–	–	–	–	–	–	–	–	–
EPB-1	120 K	–	6"	8"	1'-7"	8"	10"	6"	7½"	2"	8"	4"	3½"	5½"
EPB-2	165 K	–	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3½"	6½"
EPB-3	224 K	–	8"	1'-1"	2'-0"	10"	1'-4"	8"	10"	4½"	1'-2"	5"	4½"	7½"
FPB-1	120 K	–	6"	8"	1'-7"	8"	–	–	7½"	2"	–	–	–	–
FPB-2	165 K	–	7"	10"	1'-8"	9"	–	–	8"	3"	–	–	–	–
FPB-3	224 K	–	8"	1'-1"	2'-0"	10"	–	–	10"	5"	–	–	–	–
EPC-1	70 K	9½"	6"	8"	1'-8"	8"	1½"	3½"	3"	3"	4½"	–	1"	6"
EPC-2	100 K	1'-1½"	8"	8"	1'-8"	8"	1½"	3½"	3"	3"	6½"	–	1"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1½"	4"	3"	3"	8½"	–	1"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1½"	4"	4"	3"	8½"	–	1"	7"
EPC-5	190 K	1'-2½"	10"	9"	2'-0"	10"	2"	4½"	5"	3"	8½"	–	1"	8"
EPC-6	220 K	1'-4½"	1'-0"	10"	2'-0"	1'-0"	2½"	5"	5"	3"	10½"	–	1"	8"
EPC-7	250 K	1'-4½"	1'-0"	1'-0"	2'-2"	1'-0"	2½"	5"	5"	4"	10½"	–	1"	8"
FPC-1	100 K	–	–	8"	1'-8"	9"	1½"	2½"	8"	–	6½"	–	–	6"
FPC-2	160 K	–	–	8"	1'-8"	10"	1½"	3"	8"	–	6½"	–	–	7"
FPC-3	190 K	–	–	9"	2'-0"	10"	1½"	3"	10"	–	6½"	–	–	8"
FPC-4	220 K	–	–	10"	2'-0"	1'-0"	1½"	4"	10"	–	6½"	–	–	8"
FPC-5	250 K	–	–	1'-0"	2'-0"	1'-0"	2"	4"	10"	–	6"	–	–	8"

NOTE:

1. At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of ¼ inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

△2. If there is a conflict between this Standard Detail and the Design Drawings the requirements of the Design Drawings shall be followed.

A.S.T.M. STEEL CLASSIFICATION

1. Charpy V-Notch tests are not required for steel used in bearing pedestals.
2. When structural steel is specified to be unpainted, all steel including anchor bolts shall be A588 unpainted.
3. When structural steel is specified to be painted, all steel including anchor bolts shall be A36.

97-266

REVISIONS	DATE
△1 Added Note to 2.	12-84

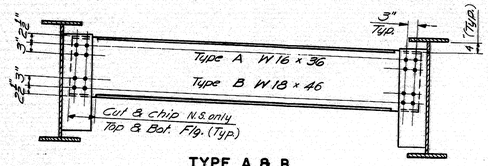
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 101 - 81)

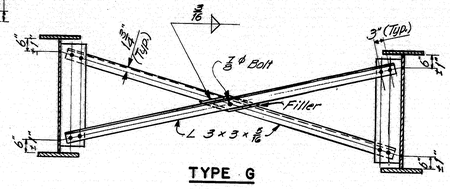
BEARING PEDESTALS

SHEET 36 OF 43 AUGUSTA, MAINE JUNE 1981

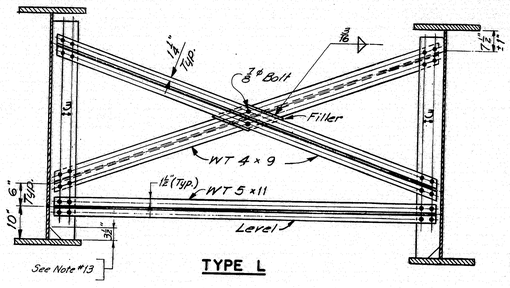
F.A.P.# BRR. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-395-8(68)	83	216



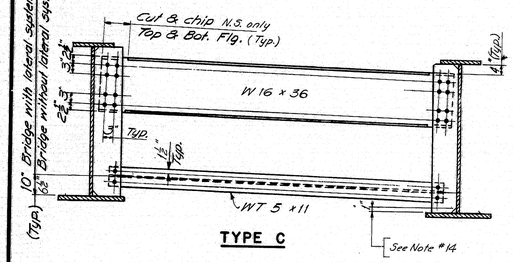
TYPE A & B



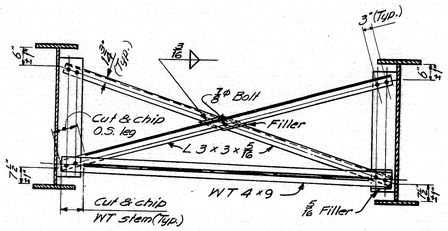
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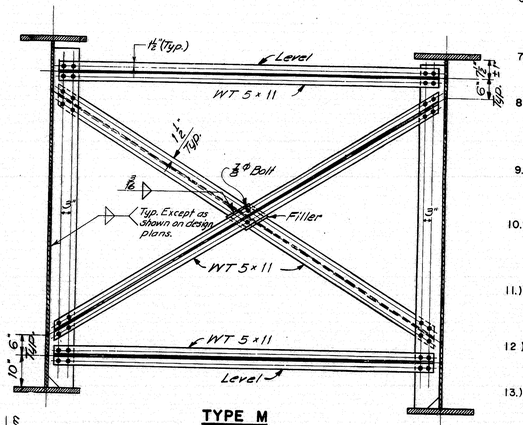
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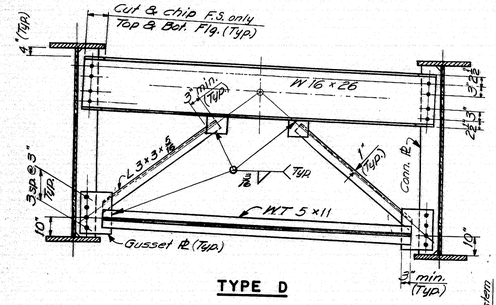
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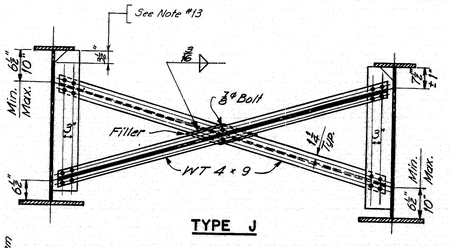
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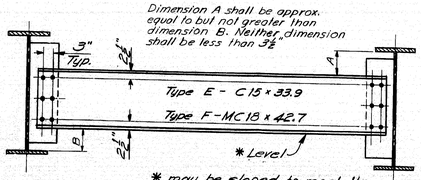
TYPE M



TYPE D

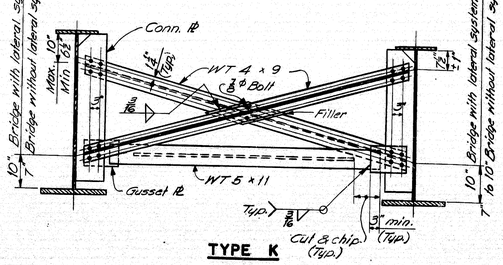


TYPE J



* may be sloped to meet the 3½" min. from flange to channel

TYPE E & F



TYPE K

FABRICATION NOTES ⚠

1.) All bolts shall be 7/8" ϕ H.S. Bolts. Hole sizes for bolts shall conform to Section 504.23 of the Standard Specifications, and edge-distances shall be 1½" min. unless otherwise shown.

2.) Connection Plates and gusset plates shall have a minimum thickness of 3/8" and shall have sufficient width to provide erection clearances. For bearing stiffeners or intermediate stiffeners and for bent connection plates the plate size will be given on the design drawings.

3.) Connection Plates shall be fastened to web plates by fillet welds as shown. All fillet welds shall be the minimum size as specified in A.A.S.H.T.O. Standard Specifications for Highway Bridges, Art. 1.7.21, unless otherwise shown on design drawings.

4.) Connection Plates shall be 3½" clear from flanges, except as indicated by notes 5 & 6.

5.) Connection Plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression.

6.) Connection Plates shall extend to the bottom flange at points where lateral bracing is attached and on welded beams and girders in areas where the bottom flange is always in compression.

7.) When a connection plate is extended to a flange it shall fit within 1/16" except if the design drawings show it is to be welded.

8.) Bearing Stiffeners at end bearings shall extend to both top and bottom flanges and shall be welded to both flanges. Weld at bottom flange shall be a full penetration weld. Weld at top flange shall be a fillet weld both sides (see Note 3).

9.) Bearing Stiffeners at other than end bearings shall extend to both top and bottom flanges, shall be welded to the bottom flange with a full penetration weld and shall fit within 1/16" at top flange.

10.) Intermediate Stiffeners shall extend to both top and bottom flanges, shall be welded to the compression flange with a fillet weld on both sides (see Note 3) and shall fit within 1/16" at the tension flange.

11.) Use only those items called for on the design drawings. In case of conflict between these standard details and design drawings, the design drawings shall be followed.

12.) All dimensions shown as "--±1" are variable in order to allow a series of crossframes to have the same slopes and/or dimensions.

13.) All connection plates and stiffeners that are extended to a flange shall be clipped 3½", except as indicated by note 14.

14.) Bearing stiffeners at end bearings shall be clipped 1½" at top and bottom. Bearing stiffeners at all other bearings shall be clipped 1½" at the compression flange.

15.) For unpainted applications all steel for diaphragms and crossframes shall be A.S.T.M.-A588. For bridges specified to be painted the steel for diaphragms and connection plates shall be A.S.T.M.-A36, except other steel classifications may be used subject to the approval of the Engineer.

⚠ 16.) If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.

PLANS	DATE	BY
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

97-267

REVISIONS	DATE
⚠ Added Note # 16	12-84
⚠ Revised notes 2, 3, 7, & 11	1-83

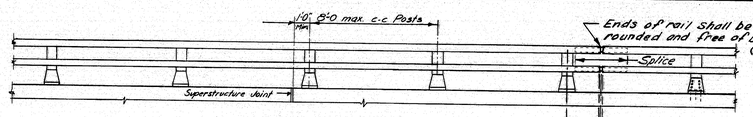
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 113-81)

DIAPHRAGMS & CROSSFRAMES

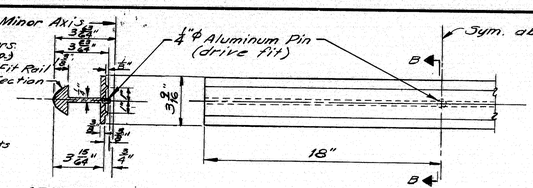
SHEET 37 OF 43 AUGUSTA, MAINE JUNE 1981

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-395-8(88)	84	216



RAILING - ELEVATION

Lengths of rail shall be attached to a minimum of four (4) rail posts wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on the Bridge Plans.

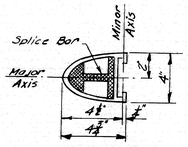


SECTION B-B

SPLICE BAR

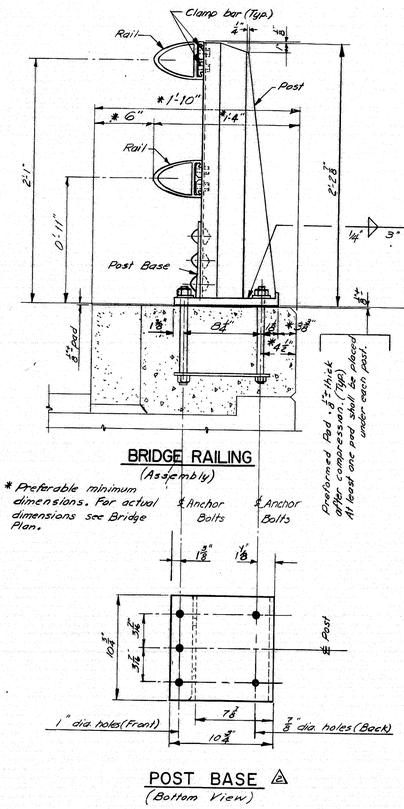
Alternate splice bars may be substituted if approved by the Engineer.

△3 If there is a conflict between this standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.



RAIL SECTION

See "Rail Detail"



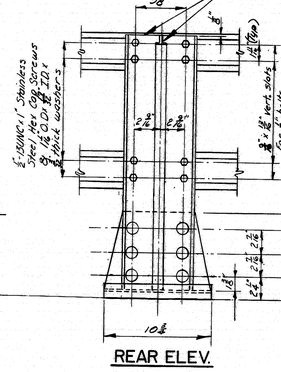
BRIDGE RAILING

(Assembly)

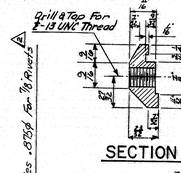
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.

POST BASE △2

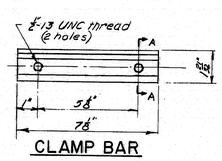
(Bottom View)



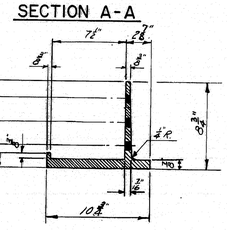
REAR ELEV.



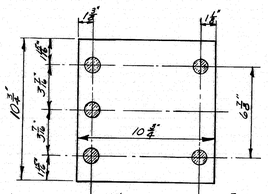
SECTION A-A



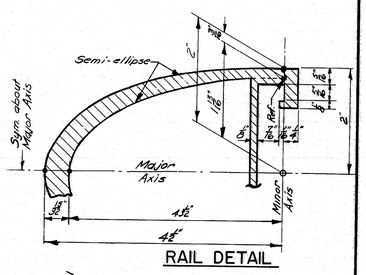
CLAMP BAR



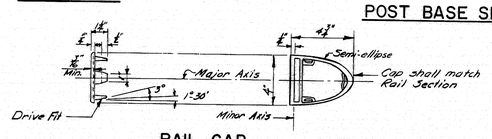
POST BASE SECTION △2



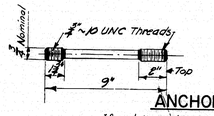
PREFORMED PAD △2



RAIL DETAIL

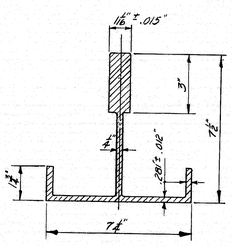


RAIL CAP

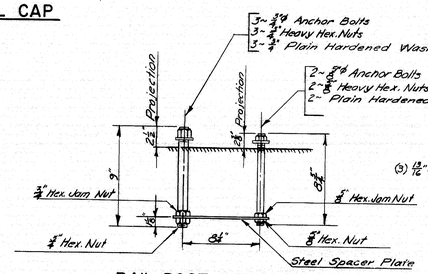


ANCHOR BOLTS

If cut threads are used, body diameter shall be not less than nominal diameter. If rolled threads are used, body diameter shall be not less than pitch diameter of the threads.

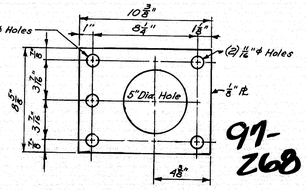


POST SECTION



RAIL POST ANCHORAGE

(Assembly)



STEEL SPACER PLATE

(For Anchorage)

97-268

△3	Added Note	12-84
△2	Revised Post Base	8-84
△1	Altered base dimensions	7-83
	REVISIONS	DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 114 - 81)

ALUMINUM BRIDGE RAILING

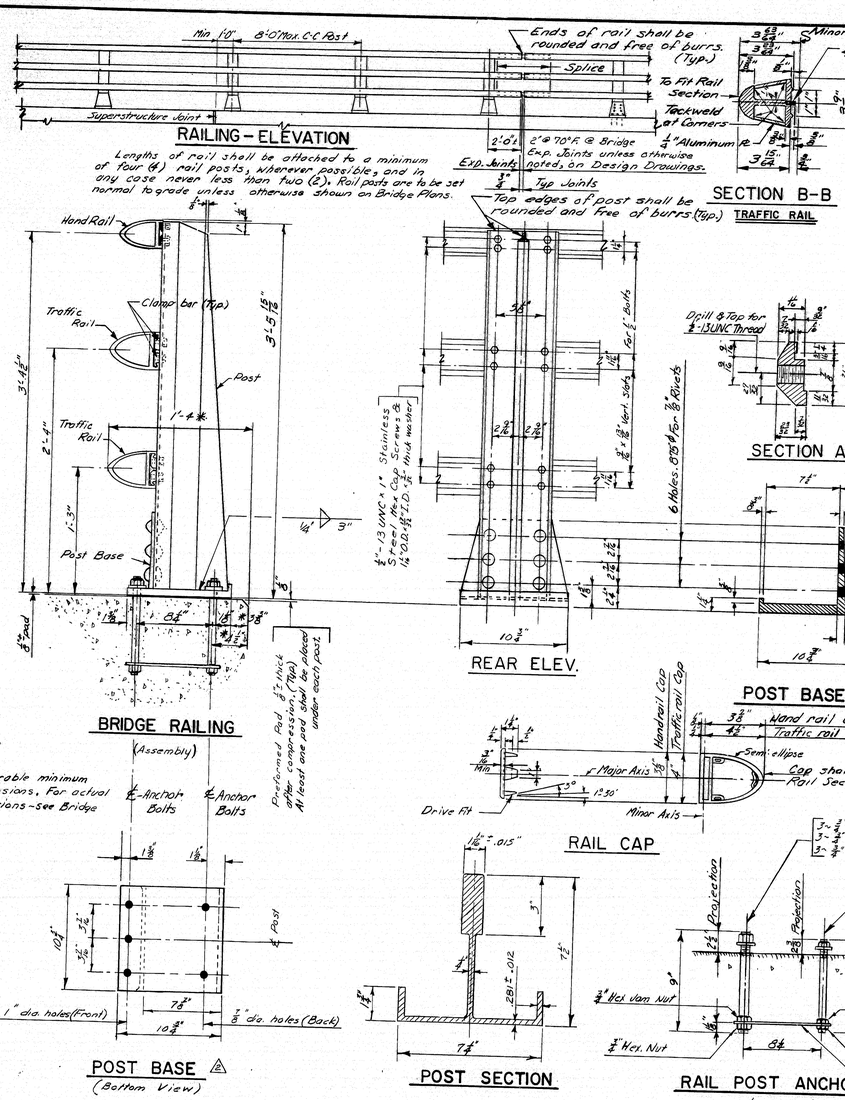
2 - BAR (SEMI-ELLIPSE)

SHEET 38 OF 43 AUGUSTA, MAINE JUNE 1981

PLANS	BY	DATE
DESIGN - DETAILED	K. Woods/K. Lewis	Jan. 1981
DESIGN - CHECKED		
REVISIONS		
FIELD CHANGES		

JANUARY 1989

F.A.H.S. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-395-8(88)	85	216



DESIGN - DETAILED	BY	DATE
CHECKED	K.L. Lewis	Feb. 1983
REVISIONS		
FIELD CHANGES		

PLANS

JANUARY 1988

3	Added Note	12-84
2	Revised Post Base	8-84
1	Altered base dimensions	7-83
REVISIONS		DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

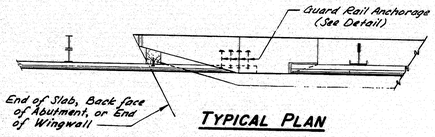
STANDARD DETAILS
(BD 115 - 81)
ALUMINUM BRIDGE RAILING
3 - BAR (SEMI-ELLIPSE)

SHEET 39 OF 43 AUGUSTA, MAINE JUNE 1981

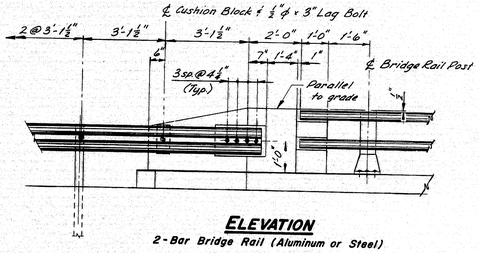
97-269

2034 2060

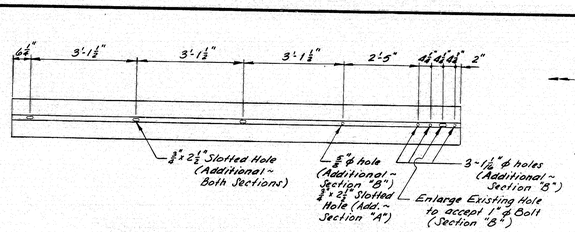
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-395-8(88)	86	216



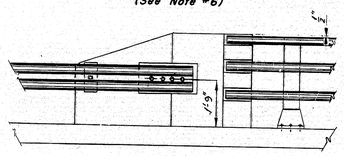
TYPICAL PLAN



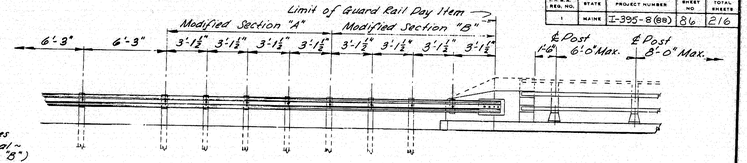
ELEVATION
2-Bar Bridge Rail (Aluminum or Steel)



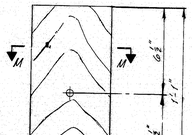
MODIFIED GUARD RAIL SECTIONS
(See Note #6)



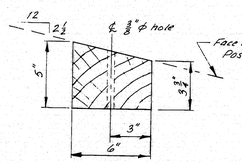
ELEVATION
3-Bar Bridge Rail (Aluminum or Steel)



RAILING - ELEVATION



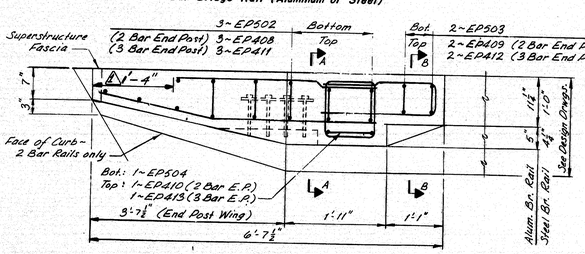
CUSHION BLOCK
(See Note #7)



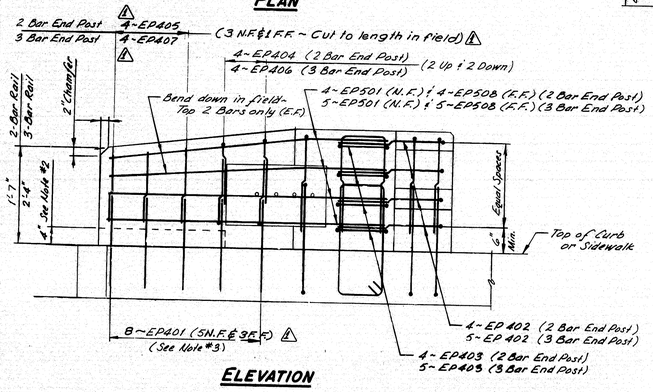
SECTION M-M

NOTES

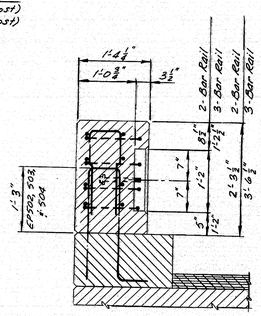
1. For locations of End Posts on the structure, see Design Drawings.
2. At times, an End Post Wing may be cantilevered for all or part of its length. For details, see Design Drwgs.
3. If an End Post Wing is cantilevered, bars EP401 to be omitted as needed.
4. When End Post Wing is cantilevered more than 2'-0", all #5 bars shall be replaced by #7 bars.
5. Nuts for ¾"ϕ anchor bolts shall be incidental to Guard Rail Pay Items. Nuts shall conform to A.S.T.M. A563, Grade DH, galvanized in accordance with A.S.T.M. A153, or Grade C3, plain.
6. Additional holes in the Modified Guard Rail Sections may be made by drilling, punching, or any other method that produces a neat, clean hole of the required size. Burning of holes will not be allowed.
7. Cushion Block material shall be as specified for Wood Posts in Subsection 710.07 (a). Payment for Cushion Blocks and Lag Bolts shall be incidental to the Guard Rail Pay Items.
8. Reinforcing Steel shall have 2" min. concrete cover.
9. After installation of Guard Rail is complete, upset the thread on the anchor bolts in three places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
10. Guard Rail Anchorage shall be incidental to the applicable concrete pay item.
11. End Posts shall be constructed normal to grade unless otherwise shown on Design Drawings.
12. If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.



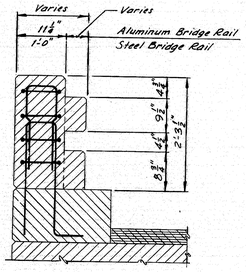
PLAN



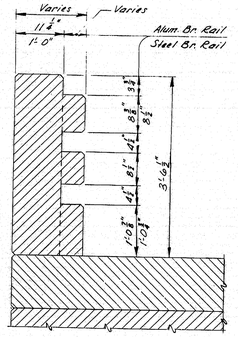
ELEVATION



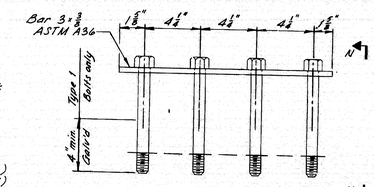
SECTION A-A



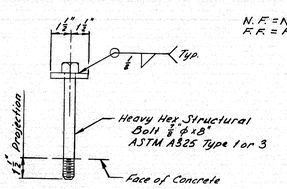
SECTION B-B
2-Bar Bridge Rail (Aluminum or Steel)



SECTION B-B
3-Bar Bridge Rail (Aluminum or Steel)



GUARD RAIL ANCHORAGE



VIEW N-N

LEGEND

N.F. = Near Face E.F. = Each Face
F.F. = Far Face

REVISIONS	DATE
⚠ General Revisions	1-83
⚠ Added Note # 12	1-85

97-270

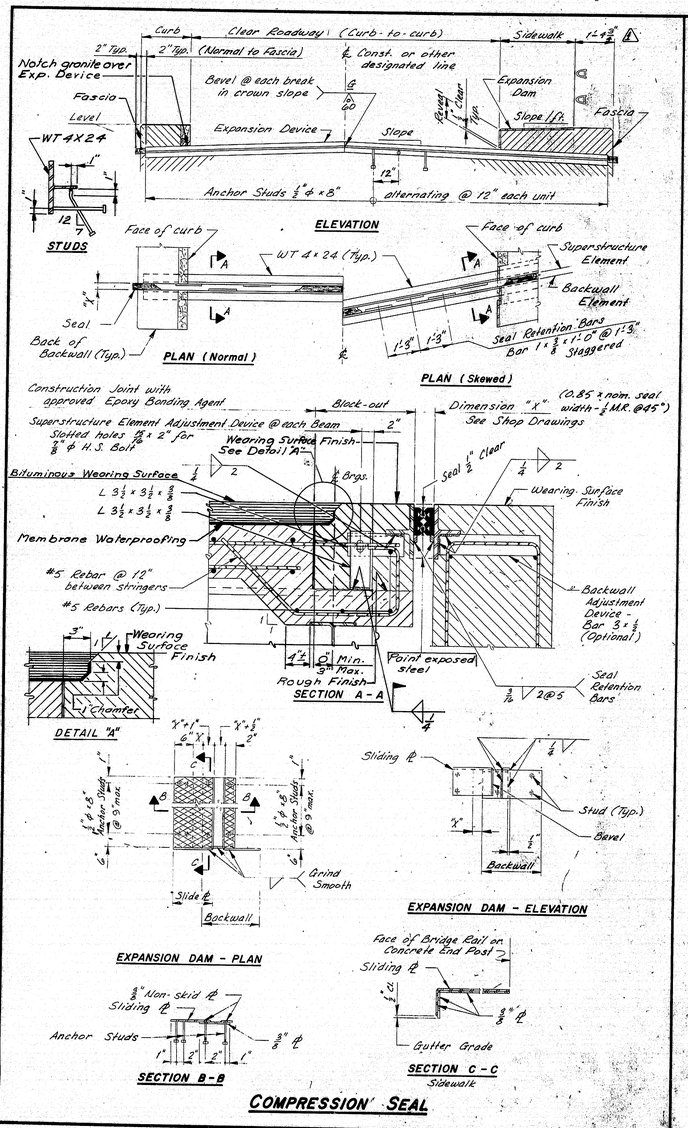
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

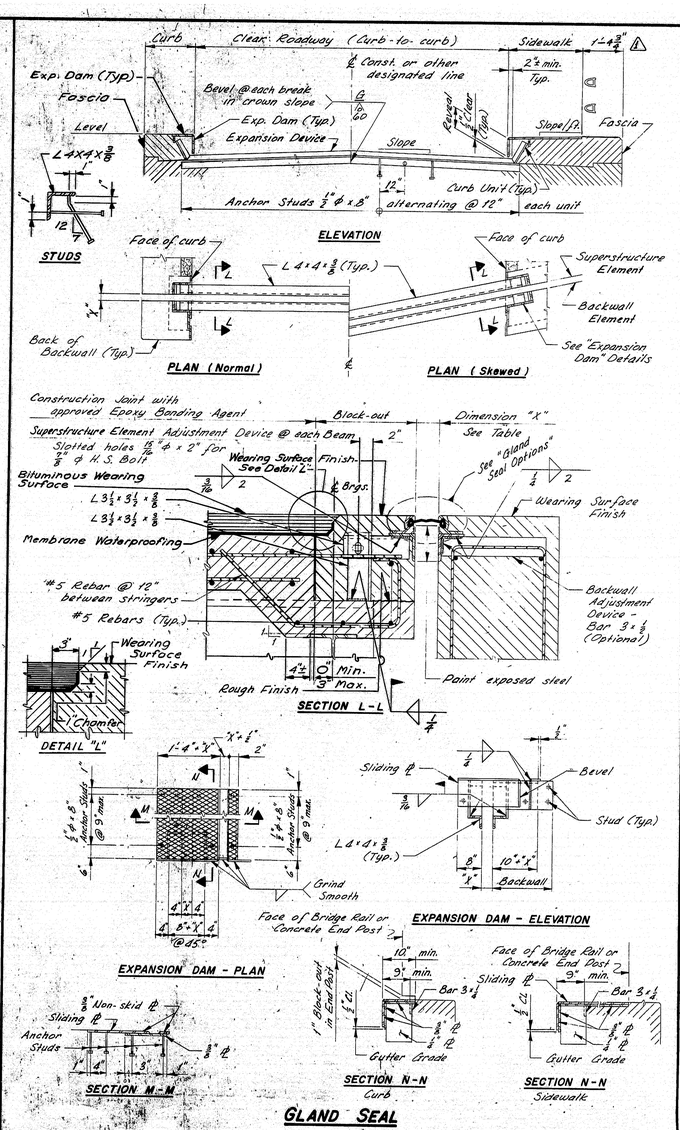
STANDARD DETAILS
(BD 120-81)

CONCRETE END POSTS

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	DESIGN - DETAILED	D. Stevens Mar. 81
	CHECKED	
	REVISIONS	
	FIELD CHANGES	

BRIMING 44-132 45710

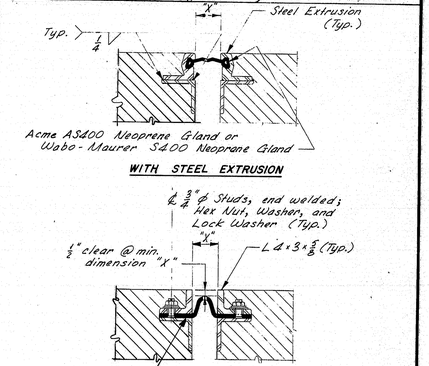




NOTES: ⚠1

1. Each Expansion Device Unit consists of one pair of matching Elements and Expansion Dams as required. At joints over Piers, two Superstructure Elements shall be used.
2. Welding to reinforcing steel will be allowed in the top 1'-6" of the Abutment backwall.
3. See Design Drawings for dimensions, slopes, skew, and all other information necessary to fabricate and install the units. Expansion Devices shall be installed normal to grade.
4. The concrete in the Superstructure Adjustment Device Block-out may be placed with the Sidewalk, and Curb Concrete.
5. ⚠2 If there is a conflict between this Standard Design and the Design Drawings, the requirements of the Design Drawings shall be followed.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-395-8(88)	87	216



GLAND SEAL OPTIONS

GLAND SEAL SETTING TABLE

Total Movement Required *	Dim. "X" (Measured parallel to ℄ of Roadway) TEMPERATURE (°F)								
	120°	105°	90°	75°	60°	45°	30°	15°	0°	-15°	-30°
1 1/2"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	1 5/8"	1 3/4"	2"	2 1/8"	2 1/4"	2 3/8"
2"	1 3/8"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	2"	2 1/8"	2 1/4"	2 3/8"	
2 1/2"	1 3/4"	1 3/8"	1"	1 1/8"	1 1/4"	1 3/8"	2"	2 1/8"	2 1/4"	2 3/8"	3"
3"	2"	1 3/4"	1 3/8"	1"	1 1/8"	1 1/4"	1 3/8"	2"	2 1/8"	2 1/4"	2 3/8"	3"

* Multiply expanding length of Superstructure, in feet, by .0125 in./ft.
Max. Dimension "X" allowed = 3 1/4" @ -30°F

REVISIONS	DATE
⚠1 General Revisions	1-83
⚠2 Added Note	1-85

97-271

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 125 - 82)

(FOR USE WITH BITUMINOUS WEARING SURFACE)

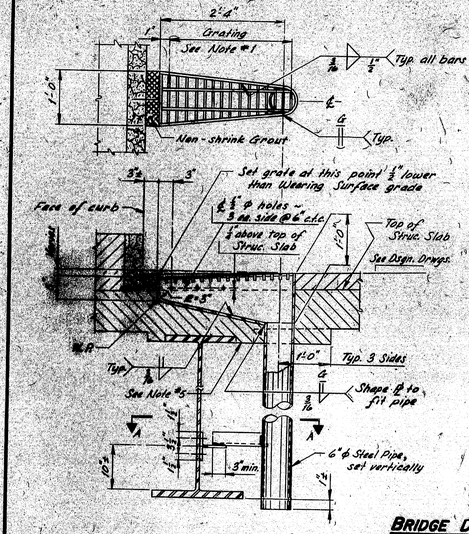
EXPANSION DEVICE

COMPRESSION SEAL
GLAND SEAL

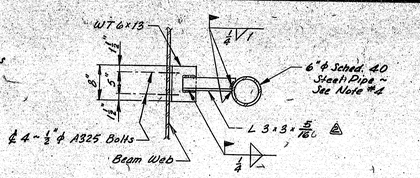
SHEET 41 OF 43 AUGUSTA, MAINE AUGUST 1982

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	D. Dimmick	Aug. 82
CHECKED		
REVISED		
FIELD CHANGES		

BRUNING 44-132 45710



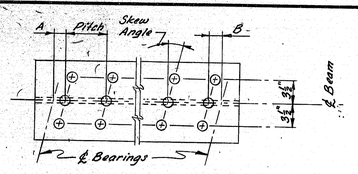
BRIDGE DRAIN



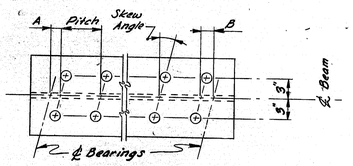
SECTION A-A

NOTES:

1. Grating shall be a commercial heavy-duty grating with 1¼"x⅛" bearing bars spaced at 2 3/16" c.t.c., and ⅜" ϕ cross bars spaced at 4" c.t.c.
2. Plates shall be A.S.T.M. A36, ¼" thick.
3. WT 6x13 shall be of the same material as the beam web.
4. At the option of the Contractor, the Bridge Drain may be modified to allow the use of TS 6x6x¼ conforming to A.S.T.M. A501 or A.S.T.M. A500, Gr. "A", in place of the 6" ϕ steel pipe.
5. If the minimum thickness of concrete below the Drain is 2" or less, the haunch shall be extended as shown.
6. Painting will not be required when the structural steel is specified to be unpainted.
7. Payment for Bridge Drain shall be as specified under subsection 502.19 of the Standard Specifications.



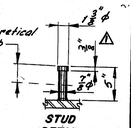
TRIPLE STUDS



DOUBLE STUDS

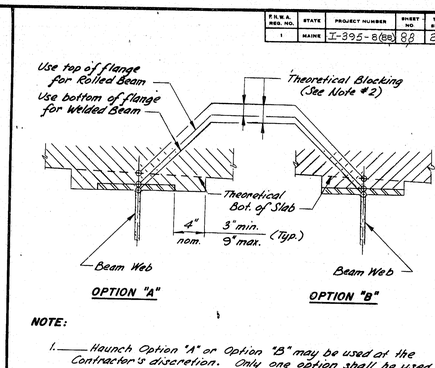
NOTE:

1. See Design Drawings for Dim's. "A", "B", stud pitch, and skew angle.



STUD DETAIL

SHEAR CONNECTORS

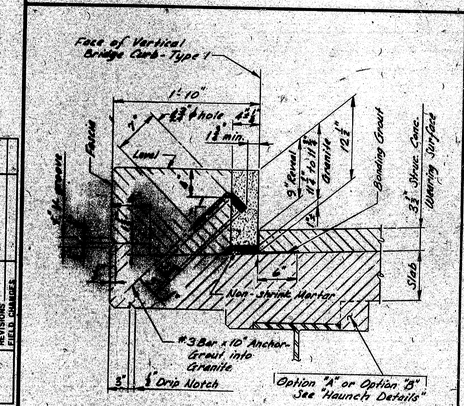


OPTION "A" OPTION "B"

NOTE:

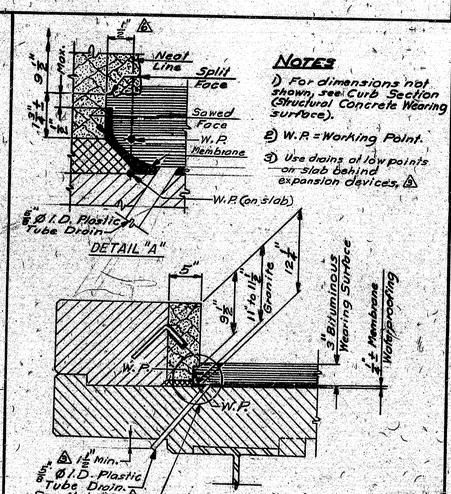
1. Haunch Option "A" or Option "B" may be used at the Contractor's discretion. Only one option shall be used on each structure, except that Option "A" must always be used on the Fascia side of all Fascia beams and on beams designed without shear connectors.
2. Theoretical Blocking shall be as indicated on Design Drawings.
3. Do not use Theoretical Blocking for setting of formwork.

HAUNCH DETAILS



CURB SECTION TYPE 1A △△

(STRUCTURAL CONCRETE WEARING SURFACE)



NOTES

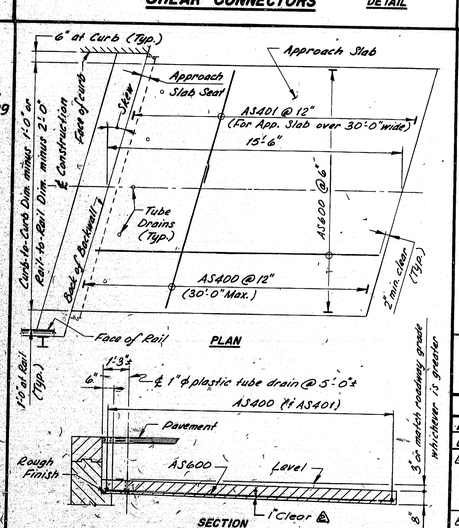
1) For dimensions not shown, see Curb Section (Structural Concrete Wearing Surface).

2) W.P. = Working Point.

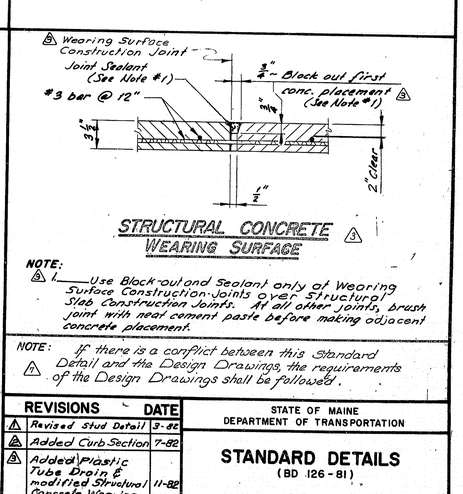
3) Use drains at low points on slab behind expansion devices. △

CURB SECTION TYPE 1B △△△

(BITUMINOUS WEARING SURFACE)



APPROACH SLAB 97-272



STRUCTURAL CONCRETE WEARING SURFACE △

NOTE:

△ 1. Use Block-out and Sealant only at Wearing Surface Construction Joints over Structural Slab Construction Joints. At all other joints, brush joint with neat cement paste before making adjacent concrete placement.

NOTE: If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.

F.E.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-395-6(88)	88	216

REVISIONS	DATE
△ Revised Stud Detail	3-82
△ Added Curb Section	7-82
△ Added Plastic Tube Drain & modified Structural Concrete Wearing Surface.	11-82
△ Revise Curb Anchorage	2-83
△ Revise Curb Title	6-83
△ Revise Curb Type 1B	11-85
△ Added Note	1-85

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

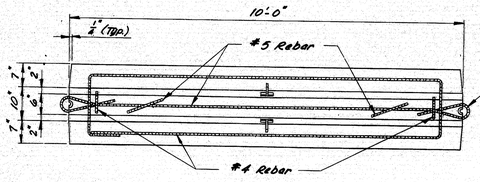
STANDARD DETAILS
(BD 126-81)

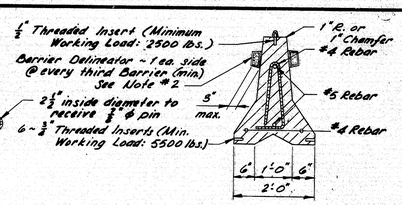
MISCELLANEOUS DETAILS

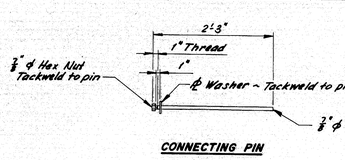
BRIDGE DRAIN - SHEAR CONNECTORS
STRUC. CONC. WEAR. SURFACE
CURB SECTION - APPROACH SLAB
HAUNCH DETAILS

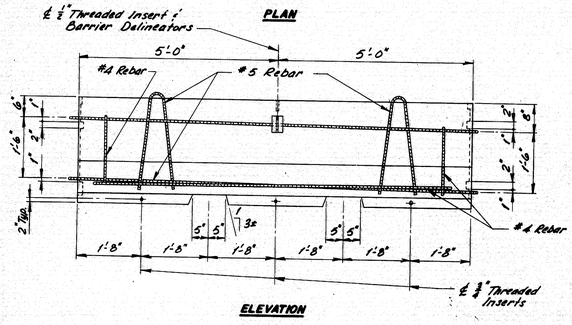
SHEET 42 OF 43 AUGUSTA, MAINE JUNE 1981

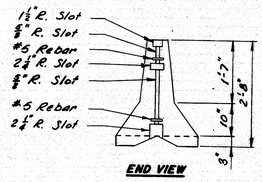
PROJECT ISSUE REVISIONS	BY	DATE
PLANS	DESIGNED: M. Reed	12-81
	DETAILED:	
	CHECKED:	
	REVISIONS:	
	FIELD CHANGES:	







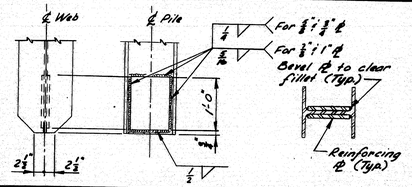




NOTES:

1. The reinforcing steel, end connections, lifting arrangement, and sizes and locations of hold-down inserts are advisory only. It shall be the Contractor's responsibility to provide adequate reinforcing, and connections, lifting points, and hold-down arrangements.
2. Barrier Delineators shall be bi-directional with a minimum effective reflex area of 8.0 square inches as approved by the Engineer. The Reflector shall preferably be of Methyl Methacrylate, and the Housing of Acrylonitrile Butadiene Styrene.

TEMPORARY CONCRETE BARRIER - TYPE 1

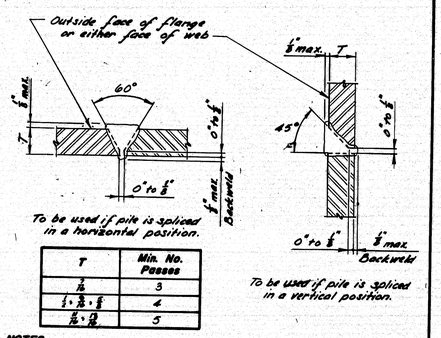


Pile Size	Reinf. ℄ Size	Pile Size	Reinf. ℄ Size
HP 10x42	8 3/4" x 5/8" x 1'-0"	HP 13x60 △	11 1/2" x 3/4" x 1'-0"
HP 10x57	8 3/4" x 7/8" x 1'-0"	HP 13x73 △	11 1/2" x 7/8" x 1'-0"
HP 12x53	10 3/4" x 5/8" x 1'-0"	HP 13x87 △	11 1/2" x 1" x 1'-0"
HP 12x63	10 3/4" x 3/4" x 1'-0"	HP 14x73	12 1/2" x 7/8" x 1'-0"
HP 12x74	10 3/4" x 7/8" x 1'-0"	HP 14x89	12 1/2" x 1" x 1'-0"

NOTES:

1. Alternate Pointed Reinforced Pile Tips may be used if they have at least the cross-sectional area of the pile tip shown and are approved by the Engineer.
2. Plates may be shop or field welded.
3. Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.
4. Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D1.1, as amended by AASHTO.

POINTED REINFORCED PILE TIP

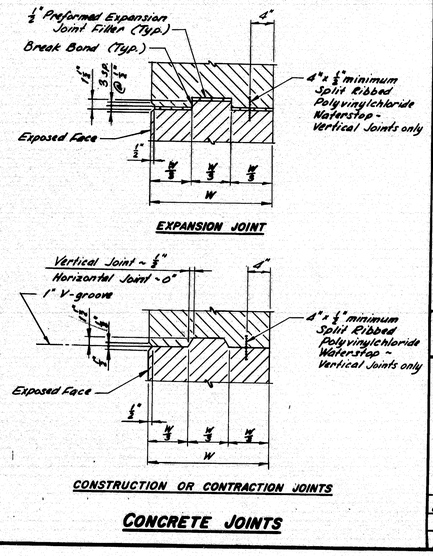


T	Min. No. Passes
1/2	3
1 - 1/2 - 1	4
1 1/2 - 2	5

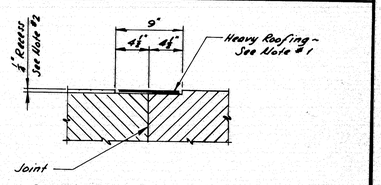
NOTES:

1. All cutting shall be done with the use of a mechanical guide.
2. Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.
3. Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D1.1, as amended by AASHTO.
4. Gouge root before welding second side.

PILE SPLICE



CONCRETE JOINTS



NOTES:

CONCRETE JOINT COVER

1. Where called for, cover horizontal and vertical construction, contraction, or expansion joints with two (2) 9" wide layers of heavy roofing felt. Coat the concrete and back of each layer as applied with plastic roofing cement.
2. Recess the covered area 1/2" unless otherwise indicated on Design Drawings.

NOTE: If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-395-8(88)	89	216

97-273

△ ADDED NOTE	1-85
△ Added 13 HP's	7-83
REVISIONS	Date

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 127-81)

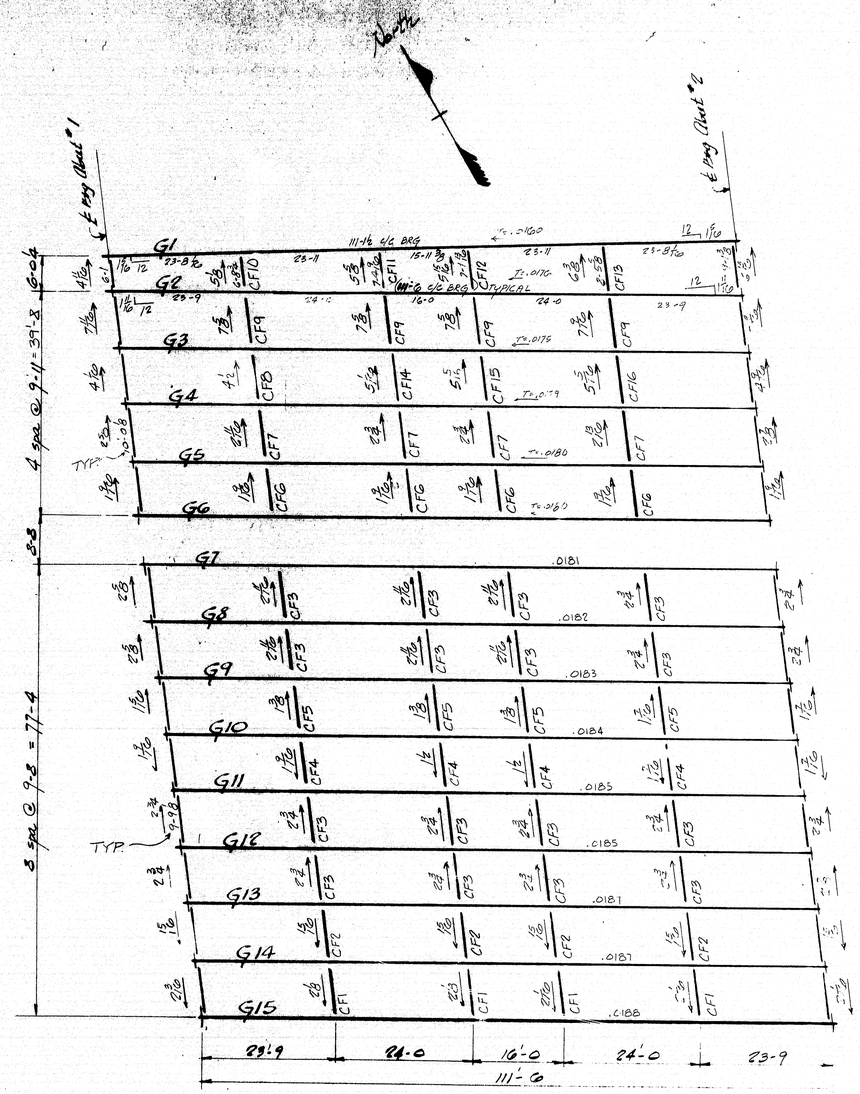
MISCELLANEOUS DETAILS

TEMP. CONC. BARRIER - TYPE 1
POINTED REINF. PILE TIP
PILE SPLICE - CONC. JOINTS
CONCRETE JOINT COVER

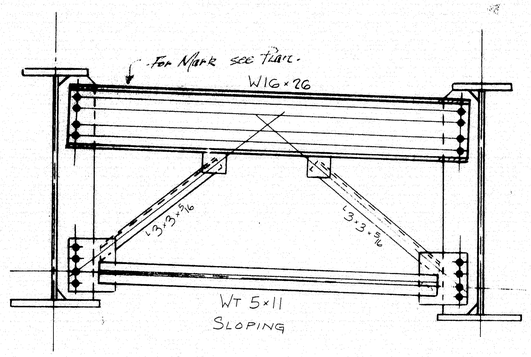
SHEET 43 OF 43 AUGUSTA, MAINE JUNE 1981

PROJECT REGION ENGINEER | DATE
PLANS | DESIGN - DETAILED | BY
CHECKED
RECOMMENDED
FIELD CHANGES

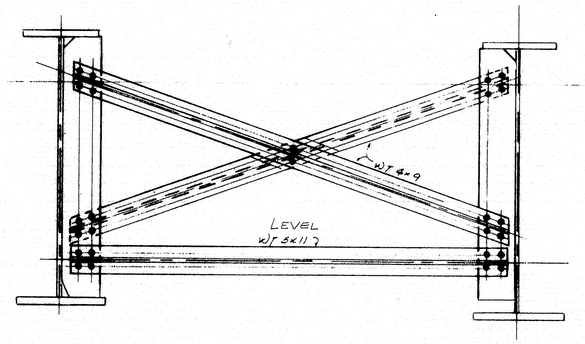
DRAWING 64-132 REV10



Work sheet



Typical End Detail



Typical Intermediate Crossframe

Notes!
1. All dimensions shown are horizontal
2. All field connections are to be made with ¾" A325 bolts.
3. Ends of Bays are vertical in final position.
4. Intermediate crossframes are normal.
5. Work this only when shown ⊥ to ℄.

IT. NO.	BR. NO.	PROJ. NO. 395-8 (58)
FOR APPROVAL	**FOR FILES & FIELD**	

Work sheet

APPROVED 11-15-85

PRINT DIST.		
3	10-23-85	APP.
8	1-14-86	FAB.
25	11-23-85	F&F
25	12-11-85	F&F

REV. △
CHECKED R 10/85
DRAWN Progressive 10/85

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: I-395
over Main Street
Bangor, Maine.

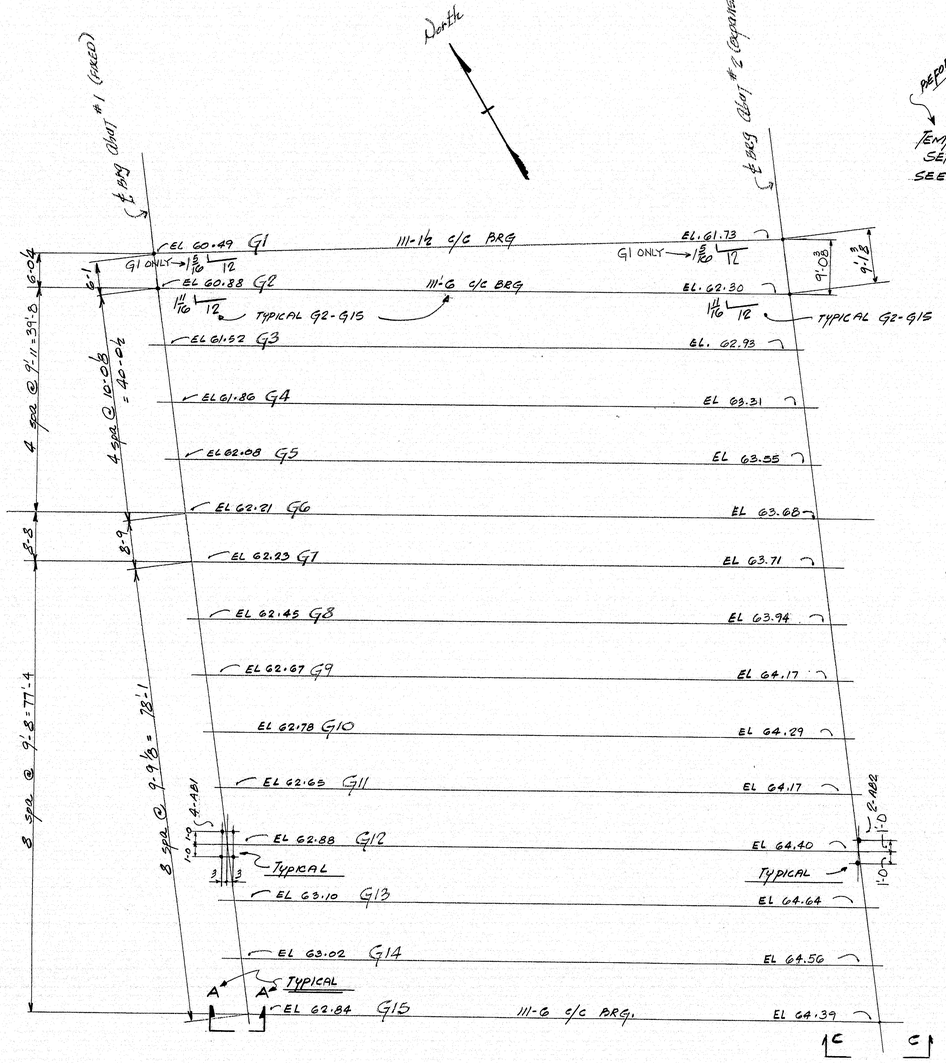
CUSTOMER: Reed & Reed Construction Co.

DESIGNER: State of Maine - D.O.T.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	F-31	W51	△

R94-468

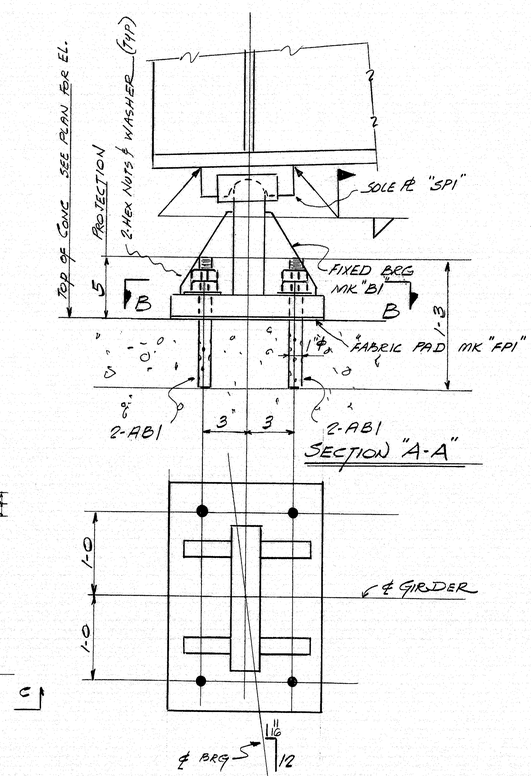
HARLAN F. SPILLER CO

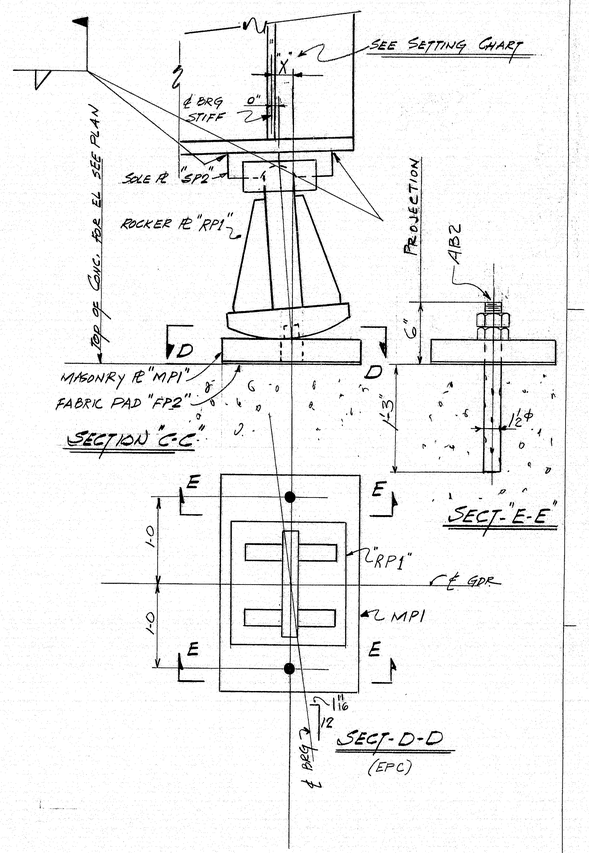


Anchor Bolt Setting Plan

BEFORE CONC. IS POURED, TEMPERATURE SETTING CHART SEE SECT. C-C

DIM "X"	TEMP.
1/16"	105°
3/16"	95°
1/4	85°
3/8	75°
7/16	65°
9/16	55°
5/8	45°
11/16"	35°
13/16"	25°
15/16"	15°
1"	5°
1 1/16	-5°





Notes:
1. All dimensions shown are horizontal
2. Work this sheet with sheet # E2

IT. NO.	BR. NO.	PROJ. NO. 395-B (88)
FOR APPROVAL	FOR FILES & FIELD	

Anchor Bolt Setting Plan

APPROVED: 11-15-85

PRINT DIST.		
3	10-23-85	APP.
8	1-14-86	FAB.
25	12-3-85	F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: I 395 over Main Street Bangor Maine

CUSTOMER: Bridge Construction Co.

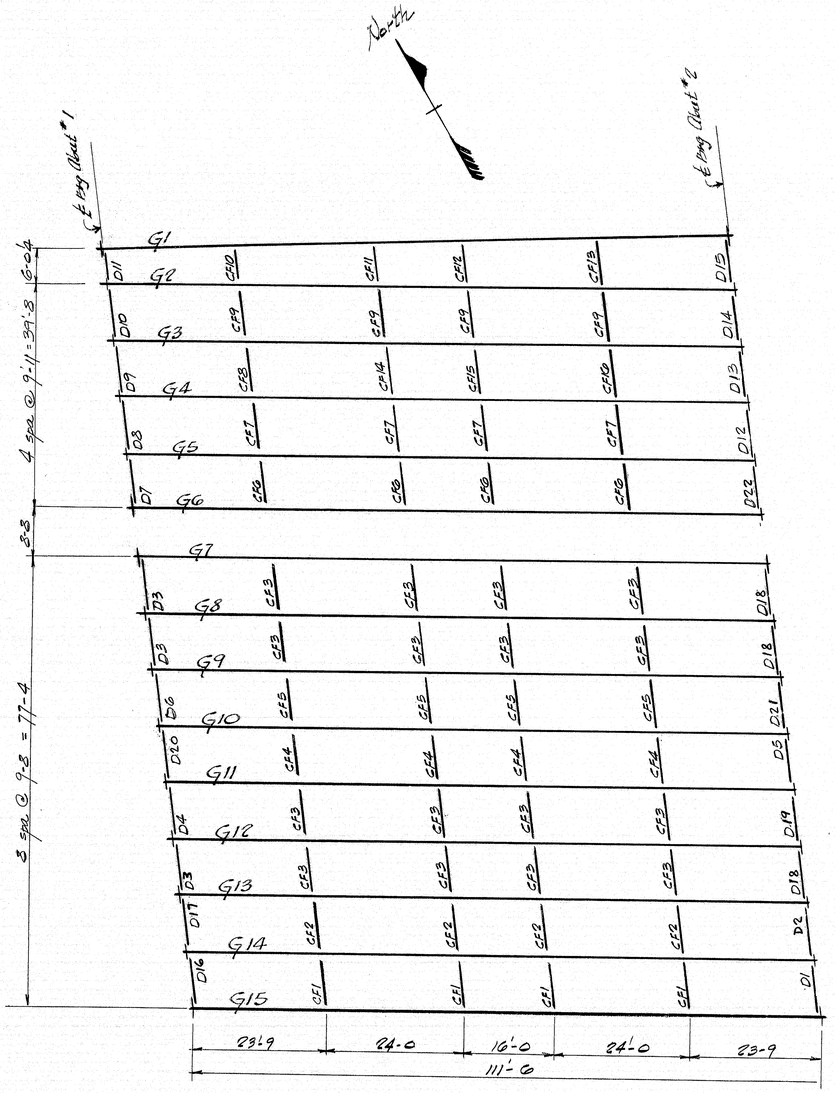
DESIGNER: State of Maine D.O.T.

REV. △		
CHECKED	R	10/85
DRAWN	Progressive	10/85

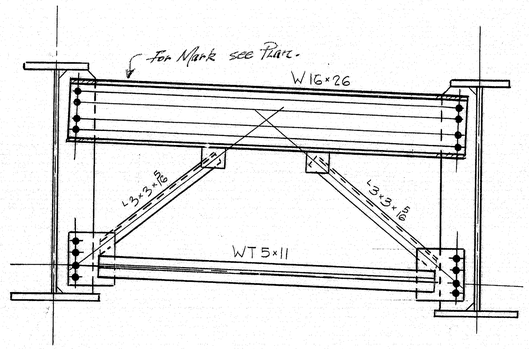
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	5-31	E1	△

R94-469

HARLAN F. SPILLER CO



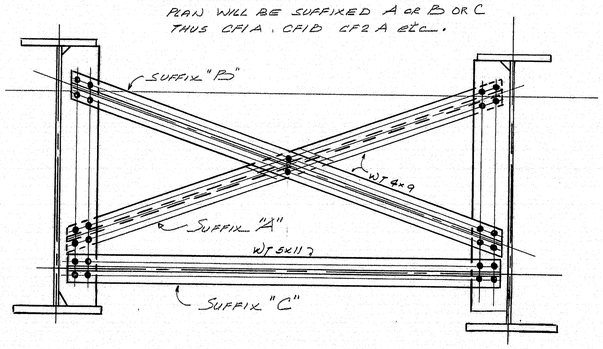
Erection Plan



Typical End Diaph.

Notes!
1. All Dimensions shown are Horizontal
2. All Field Connections are to be made with 7/8" A325 bolts.
3. Ends of Brgs are Vertical in final position.
4. Intermediate crossframes are normal.
5. Work this dwg with Sheet # E1.

ERECTOR NOTE! MARKS SHOWN ON PLAN WILL BE SUFFIXED A or B or C THUS CF1A, CF1B CF2A etc.

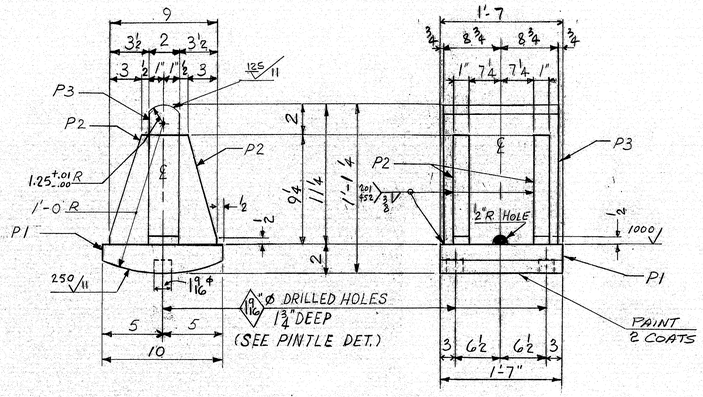


Typical Intermediate Crossframe

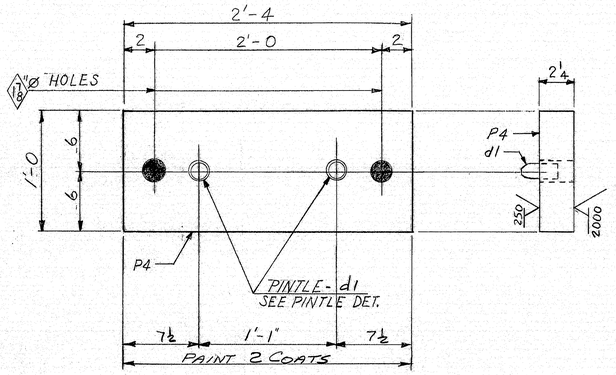
IT. NO.	BR. NO.	PROJ. NO. 395-3 (88)	
FOR APPROVAL	FOR FILES & FIELD		
Erection Plan			
APPROVED: 11-15-85	Bancroft & Martin Inc.		
PRINT DIST.	South Portland, Maine 04106		
3 10-23-85 APP.			
8 11-4-85 FAB.			
25 11-5-85 F&F.	JOB: I395 over Main Street Bangor Maine		
23 12-11-85 F&F			
CUSTOMER: Bridge Construction Co.			
DESIGNER: State of Maine D.O.T.			
REV. △	ORDER NO.	JOB NO.	DRAWING NO. / REV.
CHECKED JR 10/85		5-31	E2 △
DRAWN Progressive 10/85			

R94-470

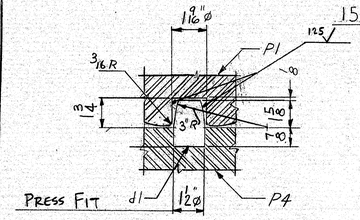
HARLAN F. SPILLER CO



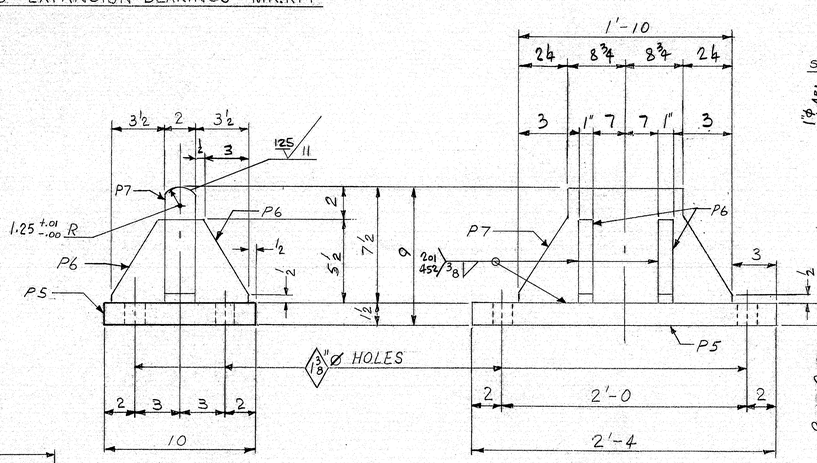
15~ EXPANSION BEARINGS - MK.RPI

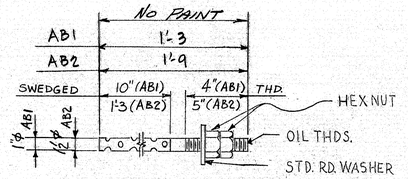


15~ MASONRY PLATE - MK.MP1

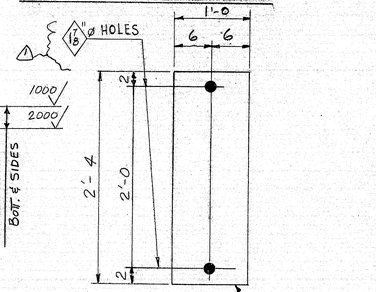


PINTLE DETAIL

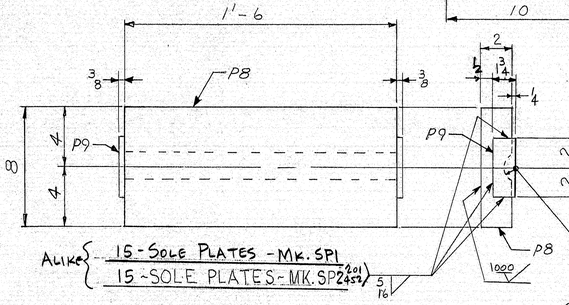




60 - ANCHOR BOLTS MK. ABI
30 - ANCHOR BOLTS MK. AB2

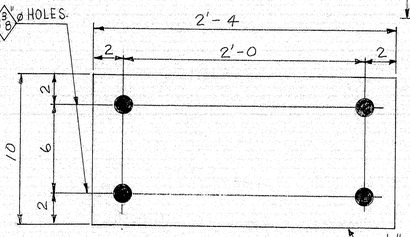


15~ FABRIC PADS - MK.FP2



ALIKE { 15 - SOLE PLATES - MK. SP1
15 - SOLE PLATES - MK. SP2 201 452 }

15~ FIXED BEARINGS - MK.BI



15~ FABRIC PADS - MK.FP1

PAINT NOTE ~
MASONRY PLATES AND BEARING SURFACES OF ROCKERS TO HAVE 2 COATS OF SHOP PAINT. SURFACES WITH 125 FINISH TO BE COATED WITH NEVER-SEEZ.
ANCHOR BOLTS - NO PAINT ~ OIL THREADS.
SOLE PLATES NO PAINT AT TOP AND ½" DOWN ON SIDES.
REMAINDER 1 COAT OF SHOP PAINT.

R94-471

△ HLS IN FP2

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

HARLAN P. SPILLER CO. INC. 34505

SHIP | **BILL OF MATERIAL** | JOB NO. 5-31 | DRAWING NO. 51-1 | REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	WT	REMARKS
RPI	15		EXPANSION BEARINGS						
	15	P1	PL 2x10	1	7	1@15/11 1@19/14	6/B	1616	P.O. 31983
	60	P2	PL 1x3½	0	9¼	WP39396 12@2'0 P.O. 31983	6/E	551	CUT FROM SE.
	15	P3	PL 2x11¼	1	5½	10@8'0	6/D	1615	CUT FROM SA
						REF. 10@7'0 EXCESS 3@2'0			ALSO CUTS 50 @ 6E
BI	15		FIXED BEARINGS						
	15	P5	PL 1½x10	2	4	1@15/11 1@19/14	5/C	1784	P.O. 31983
	60	P6	PL 1x3½	0	5½	See E Above	5/E	328	
	15	P7	PL 2x7½	1	10	See 4B Above	5/B	1404	C/F SA
MPI	15		MASONRY PLATES						
	15	P4	PL 24x12	2	4	1@11/11 1@15/14	6/A	3216	P.O. 31983
	30	d1	ROD 1½" ø	0	2½	WP39396 1@4'0	6/6	38	
SPI	15		SOLE PLATES						
	15	P8	PL 2x8	1	6	See 6D Above	5/A	1225	
	30	P9	PL ⅜x13¼	0	4	Cops	5/F	22	
SP2	15		SOLE PLATES						
	15	P8	PL 2x8	1	6	C/F SA See 6D	6/C	1225	
	30	P9	PL ⅜x13¼	0	4	Cops	6/F	22	
			ANCHOR BOLTS						
ABI	60		ROD 1" ø	1	3	WP39396 2@20'0	5/G	200	
	60	SHOP	1" STD. ROUND WASH.				5/H	11	A307
	120	SHOP	1" HEX NUT			STK. RES.	5/I	34	A307
			FABRIC PADS						
FP1	15		PAD ⅛x10	2	4	MIL-C-882 Type II P.O. 32879	5/D		
FP2	15		PAD ⅛x12	2	4		6/K		
			ANCHOR BOLTS						
AB2	30		ROD 1½" ø	1	9	WP40176 1@20'0	6/H	316	
	30	SHOP	1½ø STD. ROUND WASH.			STK. RES.	6/J	12	A307
	60	SHOP	1½ø HEX NUT			WP40266 K.L. INCH	6/J	57	A307
								13738	#

IT. NO. | BR. NO. | PROJ. NO. 395-8(88)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [X] A36 [ ] A572 GR.I [ ] A588 GR.I [ ] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [ ] Bolted [X] Welded [ ] None
HOLES: [ ] 13/16 [ ] 15/16 [X] NOTED [ ] Unless Noted [ ] None
PAINT: [ ] None [X] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: LEAD SILICO CHROMATE - ORANGE 4 MIL WFT
SPECIAL CLEANING: [X] Blast Clean SSPC-SP6 [ ] None

BRIDGE SHOES

APPROVED: 11-15-85

PRINT DIST.		
3	10-23-85	APP.
8	1-14-86	FAB.
25	12-3-85	F&F.
25	12-11-85	F&F
8	1-16-86	FAB

Bancroft & Martin Inc.
South Portland, Maine 04106

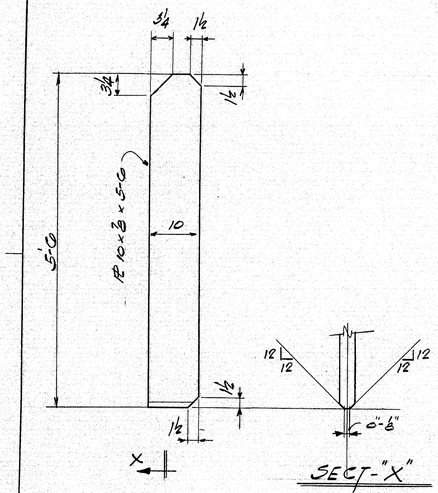
JOB: I 395 OVER MAIN STREET BANGOR MAINE

CUSTOMER: BRIDGE CONSTRUCTION CO.

DESIGNER: STATE OF MAINE D.O.T.

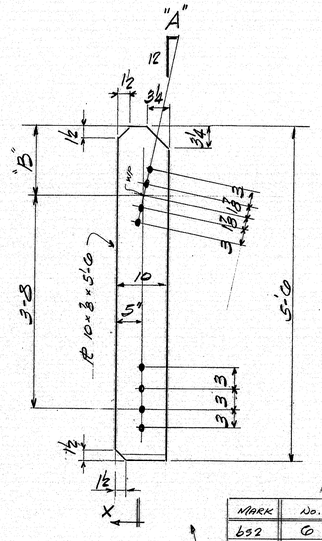
REV.	DATE	BY
△	1-16-86	JCM
CHECKED	JR	10/85
DRAWN	RF	10/85

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	5-31	51-1	△



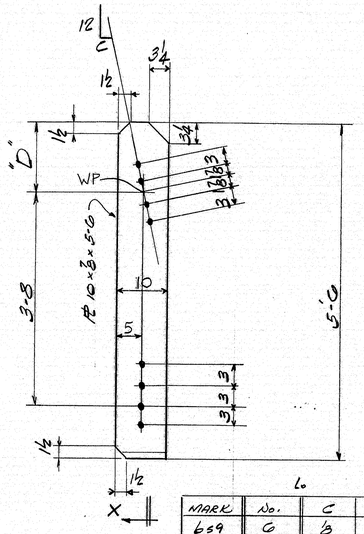
8-bs1

SECT-"X"



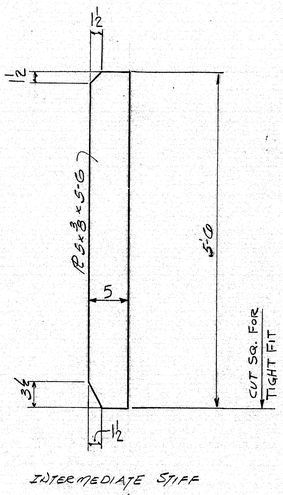
Hc

MARK	No.	A	B
bs2	6	1/8"	1'-0 1/16
bs3	2	1/16"	1'-0 1/16
bs4	9	1/4	1'-0 1/8
bs5	3	5/16	1'-0 1/8
bs6	1	3/8	1'-0 3/16
bs7	1	1/16	1'-0 3/16
bs8	4	3/4	1'-0 5/16

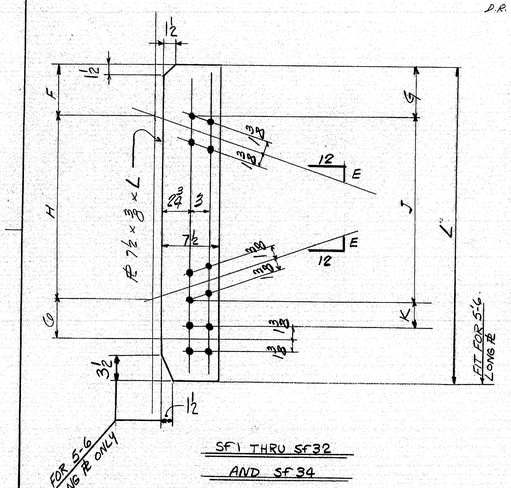


Lc

MARK	No.	C	D
bs9	6	1/8	11 1/16
bs10	2	3/16	11 1/16
bs11	9	1/4	11 3/8
bs12	3	5/16	11 3/8
bs13	1	3/8	11 13/16
bs14	1	1/16	11 13/16
bs19	4	3/4	11 11/16



INTERMEDIATE STIFF
bs9 - sf33



SF1 THRU SF32
AND SF34

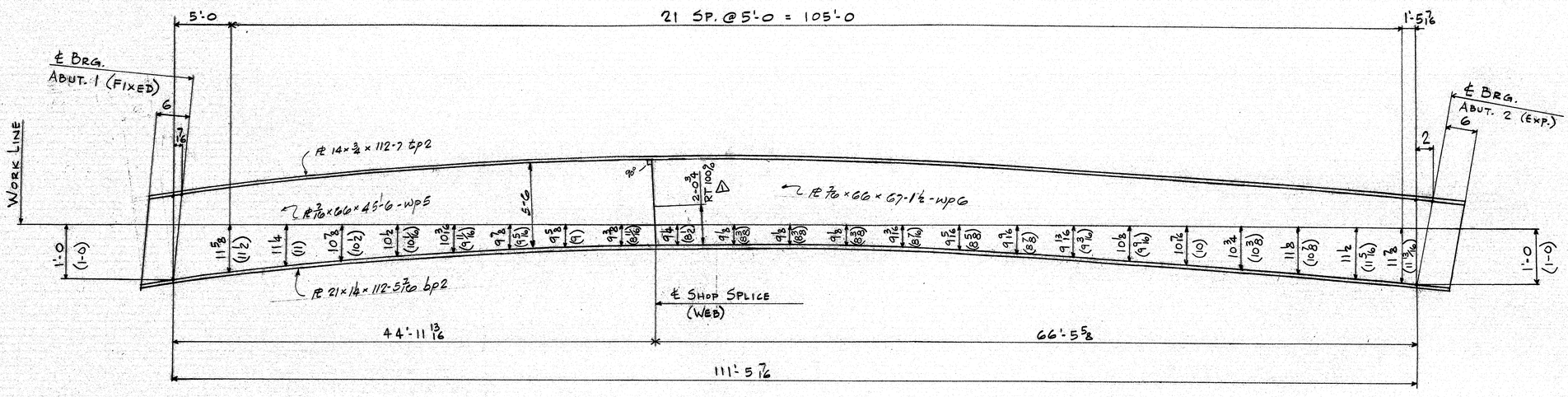
D.R. REF. | NO. | LOW SIDE | NO. | HIGH SIDE

CROSS FRAME	MARK		E	F	G	H	J	K	L	MARK		E	F	G	H	J	K	L
CF1	sf1	4	4 1/8	7/8	7 1/16	3-4 3/8	3-5 1/4	4 3/16	5-6	sf2	4	4 1/8	9 5/8	9 3/16	3-4 3/8	3-5 1/4	4 3/16	5-2 1/2
CF2	sf3	4	4 1/4		7 1/8	3-5 5/16	3-6 1/16	4 1/4	5-6	sf4	4	4 1/4	8 7/16	8 1/16	3-5 9/16	3-6 5/16	4 1/4	5-2 1/2
CF3	sf5	4	4 1/16		7 1/16	3-3 3/4	3-4 5/8	4 3/16	5-6	sf6	16	4 1/16	10 1/4	9 1/16	3-3 3/4	3-4 5/8	4 3/16	5-6
CF4	sf7	4	4 3/16		7 1/8	3-4 15/16	3-5 11/16	4 1/4	5-6	sf8	4	4 3/16	9 1/16	8 11/16	3-4 15/16	3-5 11/16	4 1/4	5-2 1/2
CF5	sf9	4	4 3/16		7 1/8	3-5 1/8	3-5 7/8	4 1/4	5-2 1/2	sf10	4	4 3/16	8 5/8	8 1/2	3-5 1/8	3-5 7/8	4 1/4	5-6
CF6	sf11	4	4 1/16		7 1/16	3-4 15/16	3-5 13/16	4 3/16	5-2 1/2	sf12	4	4 1/16	9 1/16	8 5/8	3-4 15/16	3-5 13/16	4 3/16	5-6
CF7	sf13	4	4		7 1/16	3-3 13/16	3-4 11/16	4 3/16	5-2 1/2	sf14	4	4	10 3/16	9 3/4	3-3 13/16	3-4 11/16	4 3/16	5-6
CF8	sf15	1	3 13/16		7	3-1 15/16	3-2 15/16	4 1/8	5-2 1/2	sf16	1	3 13/16	1'-0 1/16	11 3/16	3-1 15/16	3-2 15/16	4 1/8	5-6
CF9	sf17	4	3 1/2		6 15/16	2-10 3/8	3-0	4 1/16	5-2 1/2	sf18	4	3 1/2	1-3 3/8	1-2 7/16	2-10 3/8	3-0	4 1/16	5-6
CF10	sf19	1	5 1/16		7 3/8	3-1 3/8	3-1 5/8	4 1/2	5-6	sf20	1	5 3/16	1-0 3/8	1-0 1/2	3-1 3/8	3-1 5/8	4 1/2	5-6
CF11	sf21	1	5		7 1/4	3-0 3/8	3-1 3/8	4 3/8	5-6	sf22	1	5	1-1 3/8	1-0 7/8	3-0 3/8	3-1 3/8	4 3/8	5-6
CF12	sf23	1	4 1/16		7 3/16	3-0 7/16	3-1 7/16	4 5/16	5-6	sf24	1	4 1/16	1-1 7/16	1-1 1/8	3-0 7/16	3-1 7/16	4 5/16	5-6
CF13	sf25	1	4 1/4		7 1/8	3-0 1/8	3-0 7/8	4 1/4	5-6	sf26	1	4 1/4	1-1 1/8	1-1 1/8	3-0 1/8	3-0 7/8	4 1/4	5-6
CF14	sf27	1	3 3/4		7	3-1 1/16	3-2 1/16	4 1/8	5-2 1/2	sf28	1	3 3/4	1-0 1/16	1-0 1/16	3-1 1/16	3-2 1/16	4 1/8	5-6
CF15	sf29	1	3 3/4		7	3-1/4	3-2 1/4	4 1/8	5-2 1/2	sf30	1	3 3/4	1-0 3/8	1-0 1/4	3-1/4	3-2 1/4	4 1/8	5-6
CF16	sf31	1	3 11/16		7	3-1/4	3-2 1/4	4 1/8	5-2 1/2	sf32	1	3 11/16	1-0 13/16	1-0 5/16	3-1/4	3-2 1/4	4 1/8	5-6
CF3	SF34	12	4 1/16	7/8	7 1/16	3-3 3/4	3-4 5/8	4 3/16	5-2 1/2									

R94-472

IT. NO.			BR. NO.		PROJ. NO. 395-8-(38)
FOR APPROVAL			FOR FILES & FIELD		
Girder Components					
APPROVED: 11-15-85			Bancroft & Martin Inc.		
PRINT DIST.			South Portland, Maine 04106		
3	10-23-85	APP.			
8	1-14-86	FAB.			
25	12-3-85	F&F.	JOB: I-395 over Main Street Bangor Maine		
25	12-11-85	F&F			
			CUSTOMER: Bridge Construction Co.		
			DESIGNER: State of Maine, D.O.T.		
REV. △			ORDER NO.	JOB NO.	DRAWING NO. REV.
CHECKED	JR	10/85		5-31	52-1 △
DRAWN	PROGRESSIVE	10/85			

HARLAN F. SPILLER CO.



CAMBER DIAGRAM - GIRDERS G4 THRU G15

1 SHOP NOTE

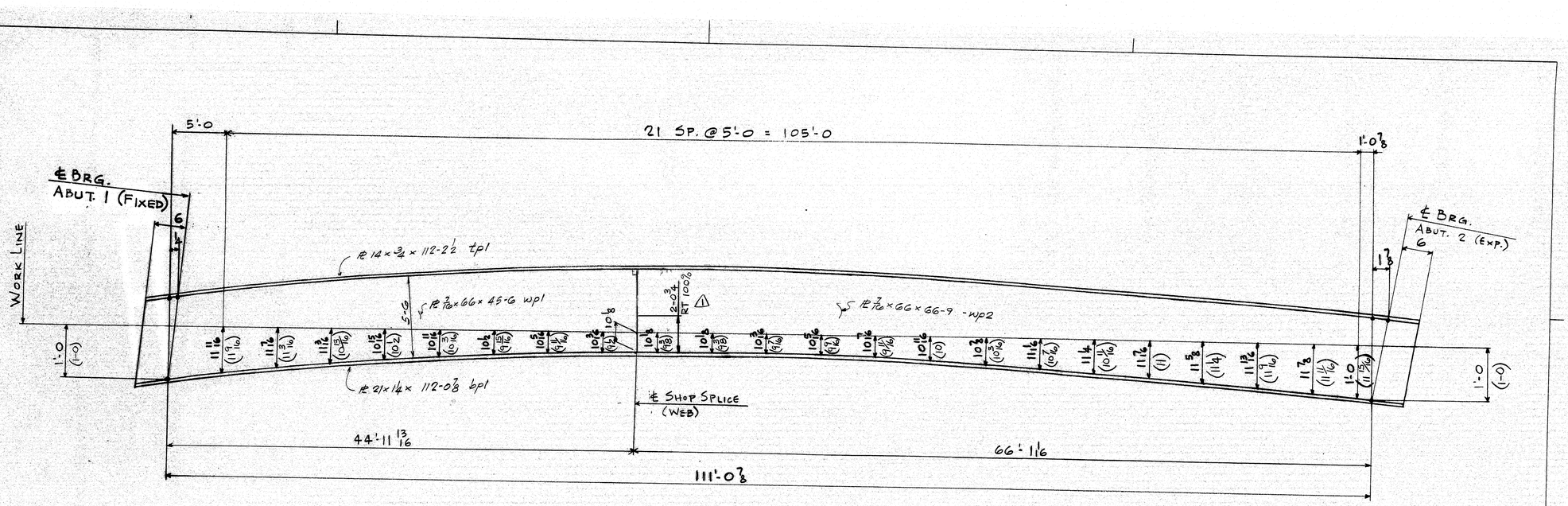
( ) DENOTES SHOP CAMBER

R94-473

1 ADD SHOP CAMBER ERT

IT. NO.		BR. NO.		PROJ. NO. 395-8-(88)	
FOR APPROVAL		FOR FILES & FIELD			
CAMBER DIAGRAM		GIRDERS G4 THRU G15			
APPROVED: 11-15-85		Bancroft & Martin Inc.			
PRINT DIST.		South Portland, Maine 04106			
3	10-23-85 APP.	JOB: I395 OVER MAIN STREET			
8	1-14-86 FAB.	BANGOR, MAINE			
25	12-3-85 F&F.	CUSTOMER: BRIDGE CONSTRUCTION Co.			
8	3-4-86 FND	DESIGNER: STATE OF MAINE D.O.T.			
REV. 1	3-3-86 JCM	ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	JH 10-85		5-31	52-2	1
DRAWN	PDC/JR 10-85				

HARLAN F. SPILLER CO.



CAMBER DIAGRAM - GIRDER G1

△ SHOP NOTE

( ) DENOTES SHOP CAMBER

R94-474

△ ADD SHOP CAMBER & RT

IT. NO.	BR. NO.	PROJ. NO. 395-8-(88)
FOR APPROVAL		FOR FILES & FIELD

CAMBER DIAGRAM — GIRDER G1

APPROVED: 11-15-85

PRINT DIST.		
3	10-23-85	APP.
8	1-14-86	FAB.
25	12-3-85	F&F.
8	3-4-86	FAB.

REV. △	3-4-86	M.S.
CHECKED	JH	10-85
DRAWN	PDC/R	10-85

Bancroft & Martin Inc.
South Portland, Maine 04106

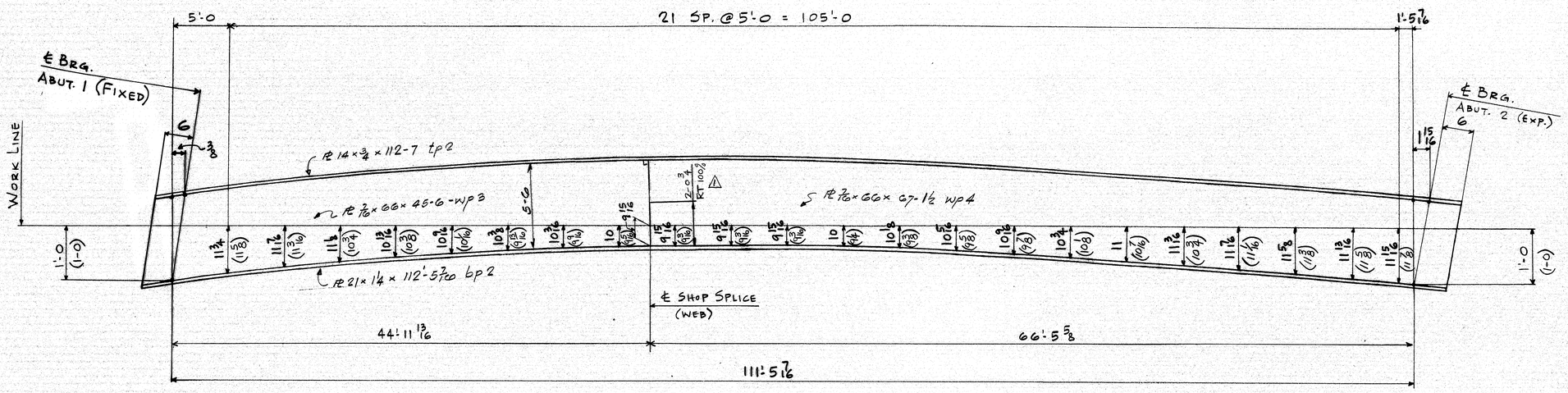
JOB: I395 OVER MAIN STREET
BANGOR, MAINE

CUSTOMER: BRIDGE CONSTRUCTION CO.

DESIGNER: STATE OF MAINE D.O.T.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	5-31	52-3	△

HARLAN F. SPELLER CO.



CAMBER DIAGRAM - GIRDERS G2 & G3

△ SHOP NOTE

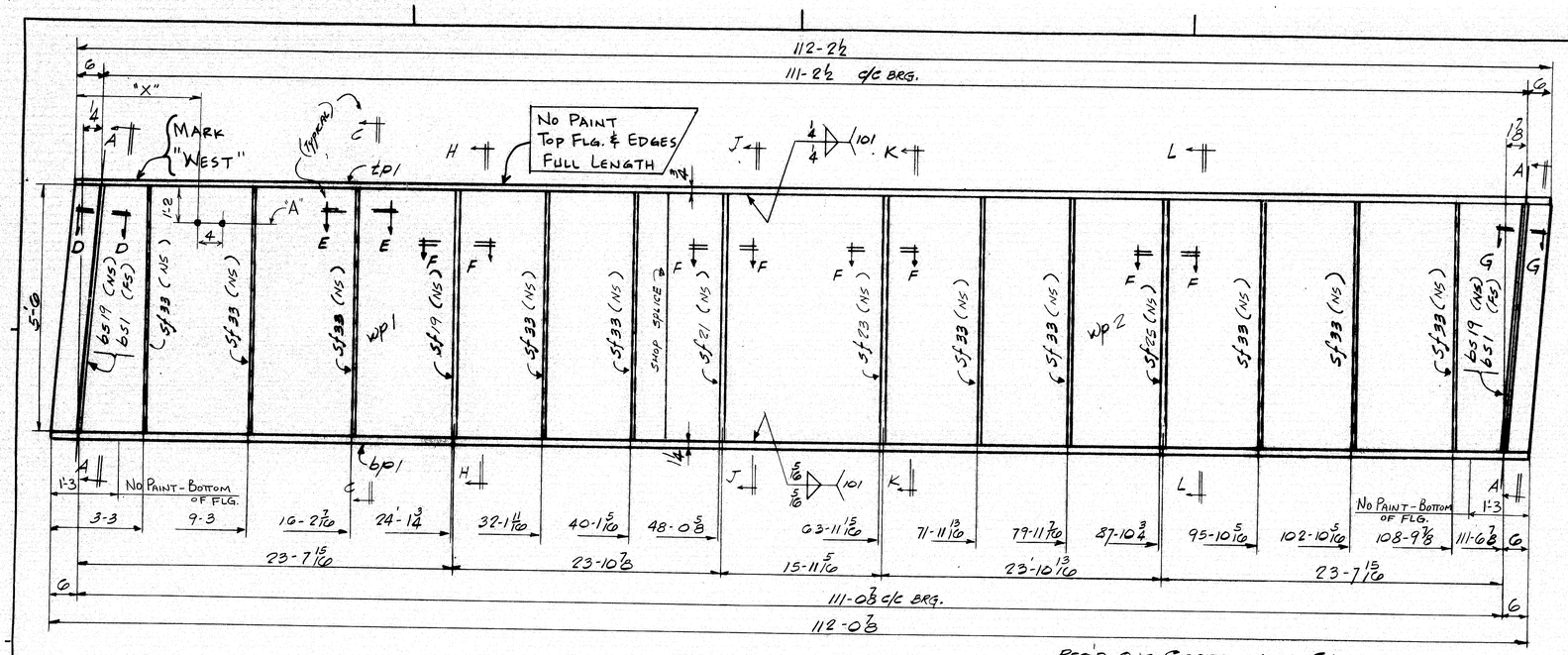
( ) DENOTES SHOP CAMBER

R94-475

△ ADD SHOP CAMBER & RT

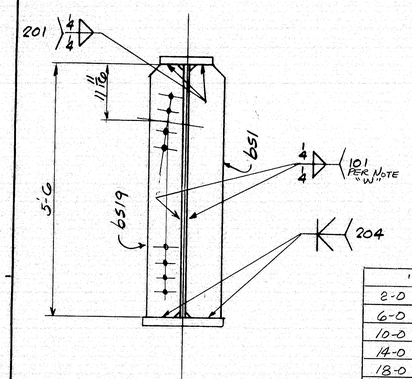
IT. NO.			BR. NO.		PROJ. NO. 395-8-(88)
FOR APPROVAL			**FOR FILES & FIELD**		
CAMBER DIAGRAM			GIRDERS G2 & G3		
APPROVED: 11-15-85			Bancroft & Martin Inc.		
PRINT DIST.			South Portland, Maine 04106		
3	10-23-85	APP.			
8	1-19-86	FAB.	JOB: I395 OVER MAIN STREET		
25	12-2-85	F&F.	BANGOR, MAINE		
8	3-4-86	FAB.			
			CUSTOMER: BRIDGE CONSTRUCTION CO.		
			DESIGNER: STATE OF MAINE D.O.T.		
REV. △	3-4-86	M.S.	ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	JH	10-85		5-31	52-4	△
DRAWN	PDC/R	10-85				

HARLAN F. SPILLER CO.



REQ'D ONE GIRDER MARK G1

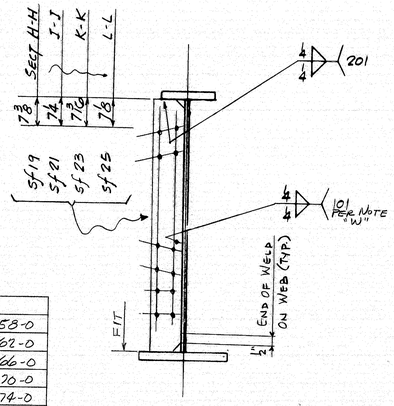
FOR GIRDER STANDARD DETAILS SEE DWG# 52-1
FOR WEB & FLG # CUTTING & ASSEMBLY SEE DWG 52-3



"X"	
2-0	58-0
6-0	62-0
10-0	66-0
14-0	70-0
18-0	74-0
22-0	78-0
26-0	82-0
30-0	86-0
34-0	90-0
38-0	94-0
42-0	98-0
46-0	102-0
50-0	106-0
54-0	110-0

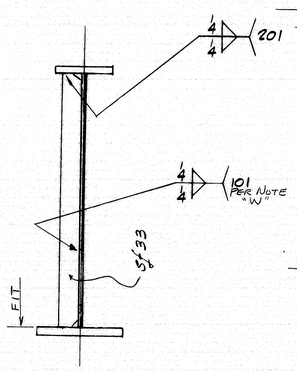
SECT A-A

SECT. D-D & G-G

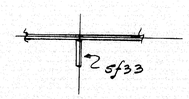


SECT H-H, J-J, K-K, L-L

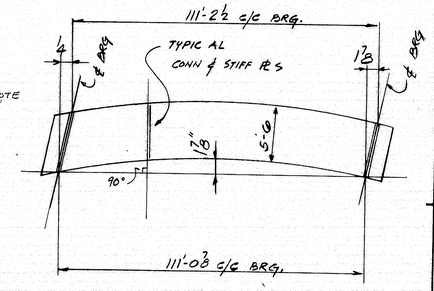
SECT. F-F



SECT C-C



SECT E-E



CAMBER DIAGRAM

NOTE "W"

LEG SIZE OF FILLET TO BE INCREASED BY SIZE OF GAP.

HOLES ARE FOR A325-F BOLTS - NO PAINT WITHIN 3" OF HOLES UNLESS NTD. "A"

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

R94-476

HARLAN F. SPILLER CO. INC. 34991

SHIP | BILL OF MATERIAL | JOB NO. 5-31 | DRAWING NO. 52-5 | REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	UT.	REMARKS
G1			Girder						
	1	wp1	PL ½ × 66	45	6	68.94 × 112'9	1/A	X	CVN
	1	wp2	PL ½ × 66	66	9	69 × 67'5	1/B	11018	CVN
									P.O. 31983
	1	tp1	PL ¾ × 14	112	2½	10 112'11	3/B	4009	A572 Gr 50 CVN
	1	bp1	PL 1¼ × 21	112	0⅞	10 112'9	3/A	10011	A572 Gr 50 CVN
	2	bs1	PL ⅜ × 10	5	6	11 31983	1/C	328	
	2	bs19	PL ⅜ × 10	5	6	11 31983	1/C	328	
	1	sf19	PL ⅜ × 7½	5	6	11 39.96	1/D	53	
	1	sf21	PL ⅜ × 7½	5	6	90	1/D	53	
	1	sf23	PL ⅜ × 7½	5	6	96 X	1/D	53	
	1	sf25	PL ⅜ × 7½	5	6	12'0	1/D	53	
	10	sf33	PL ⅜ × 5	5	00		1/E	351	
								26257	#

IT. NO | BR. NO. | PROJ. NO 395-8-(88)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL ASTM. [X] A36 [ ] A572 [GR] [ ] A588 [GR] [X] Unless Noted [ ]
WELDING ELECTRODE [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN. [ ] Bolted [X] Welded [ ] None
FIELD CONN. [X] Bolted [ ] Welded [ ] None
HOLES [ ] 3/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT. [ ] None [X] Shop-Inst [ ] Galv. After Fab [X] As Noted
SPECIAL PAINT. LEAD SILICO CHROMATE - ORANGE 4 MIL WFT
SPECIAL CLEANING: [X] Blast Clean SSPC-SP6 [ ] None

Girder Detail G1

APPROVED: 11-15-85

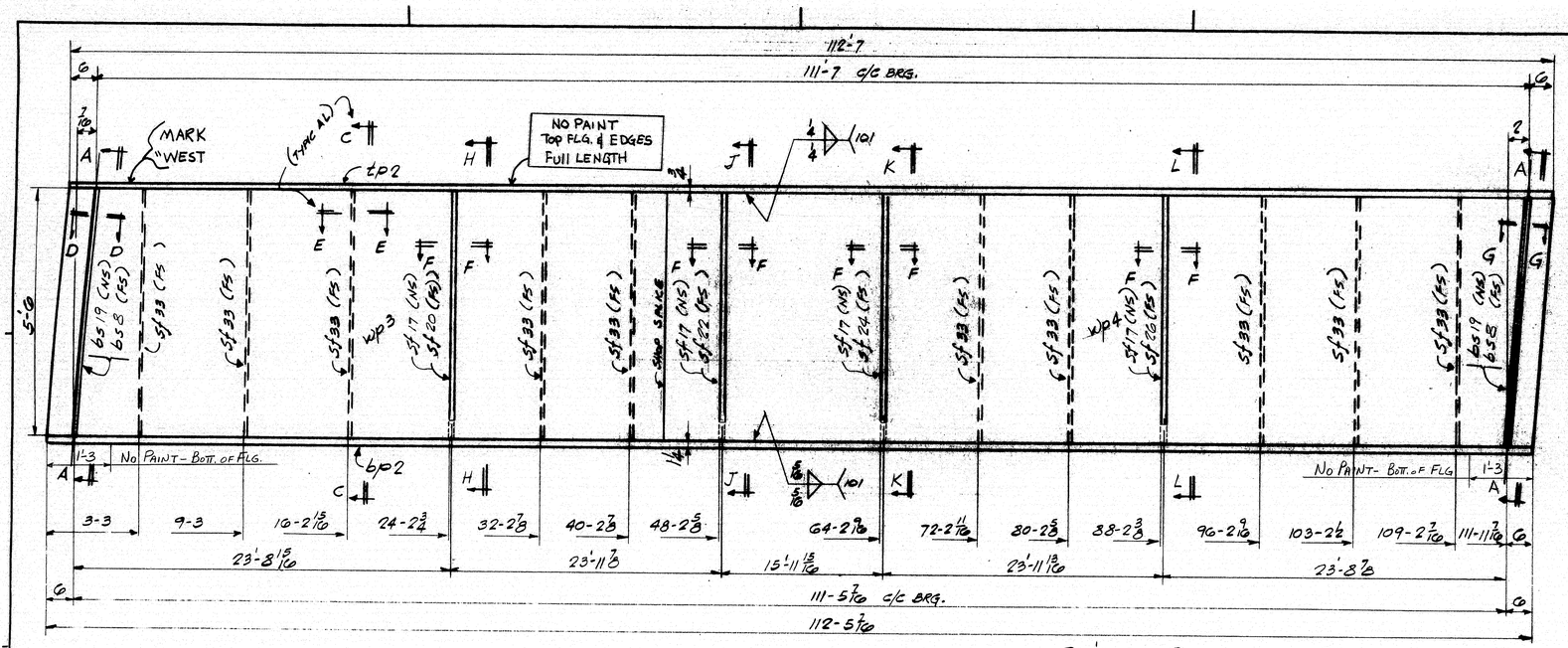
PRINT DIST.		
3	10-23-85	APP.
8	1-19-86	FAB.
25	12-3-85	F&F.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: I395 over Main Street Bangor Maine

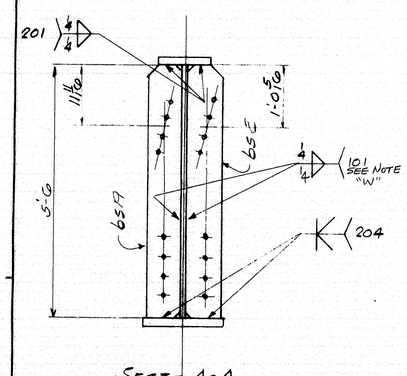
CUSTOMER: Bridge Construction Co.
DESIGNER: State of Maine D.O.T.

REV. △			ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	JR	10/85		5-31	52-5	△
DRAWN	JH	10/85				

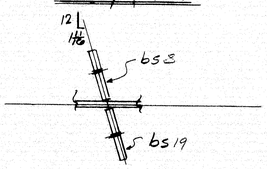


REQ'D ONE GIRDER MARK G2

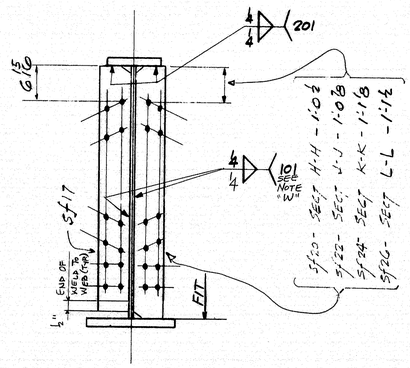
FOR GIRDER STANDARD DETAILS SEE DWG# 52-1
FOR WEB & FLG PL CUTTING & ASSEMBLY SEE DWG 52-4



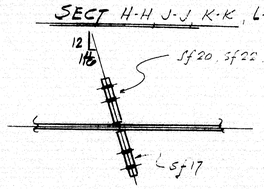
SECT - A-A



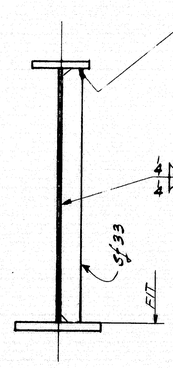
SECT. D-D & G-G



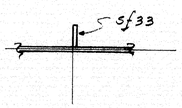
SECT H-H J-J K-K, L-L



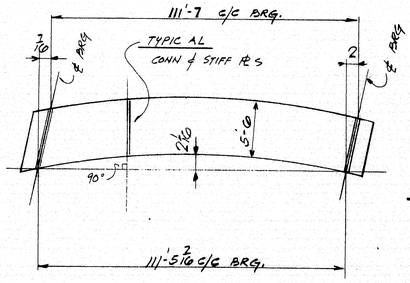
SECT. F-F



SECT C-C



SECT E-E



CAMBER DIAGRAM

NOTE "W"
LEG SIZE OF FILLET TO BE INCREASED BY SIZE OF GAP

HOLES ARE FOR A325-F BOLTS - NO PAINT WITHIN 1" OF HOLES UNLESS NTD.

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS. IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN.

R94-477

HARLAN P. SPILLER CO. INC. 34595

SHIP

BILL OF MATERIAL

JOB NO. 5-31 | DRAWING NO. 52-6 | REV.

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	WT.	REMARKS
G2			Girder						
	1	wp3	PL ½ × 66	45	6	68#/ft x 45/12	1/A		CVN
	1	wp4	PL ½ × 66	67	½	69# x 67.5	1/B	1056	CVN
									Ap. 9/1983
	1	bp2	PL ¾ × 14	112	7	40#/ft x 112'-11	3/2	4023	A572 Gr 50 CVN
	1	bp2	PL ¼ × 21	112	5 7/16	10#/ft x 112'-9	3/A	10095	A572 Gr 50 CVN
	2	bs3	PL ⅜ × 10	5	0	PO: 31983	1/C	328	
	2	bs19	PL ⅜ × 10	5	0	PO: 32214	1/C	328	
	4	Sf17	PL ⅜ × 7½	5	2½	11#	1/D	199	
	1	Sf20	PL ⅜ × 7½	5	6	39.39#	1/D	53	
	1	Sf22	PL ⅜ × 7½	5	6	9#	↓	53	
	1	Sf24	PL ⅜ × 7½	5	6	9.6#	↓	53	
	1	Sf26	PL ⅜ × 7½	5	6	10#/ft	1/D	53	
	10	Sf33	PL ⅜ × 5	5	0		1/E	351	
								26542	#

IT. NO. | BR. NO. | PROJ. NO. 395-8-(88)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [X] A36 [ ] A572 [GR] [ ] A588 [GR] [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [X] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: LEAD SILICO CHROMATE-ORANGE 4 MIL WFT
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC-SP6

Girder Detail G2

APPROVED: 11-15-85

PRINT DIST.		
3	10-23-85	APP.
0	1-14-86	FAB.
25	11-3-85	F&F.
25	12-11-85	F&F
REV. △		
CHECKED	JR	10/85
DRAWN	JH	10/85

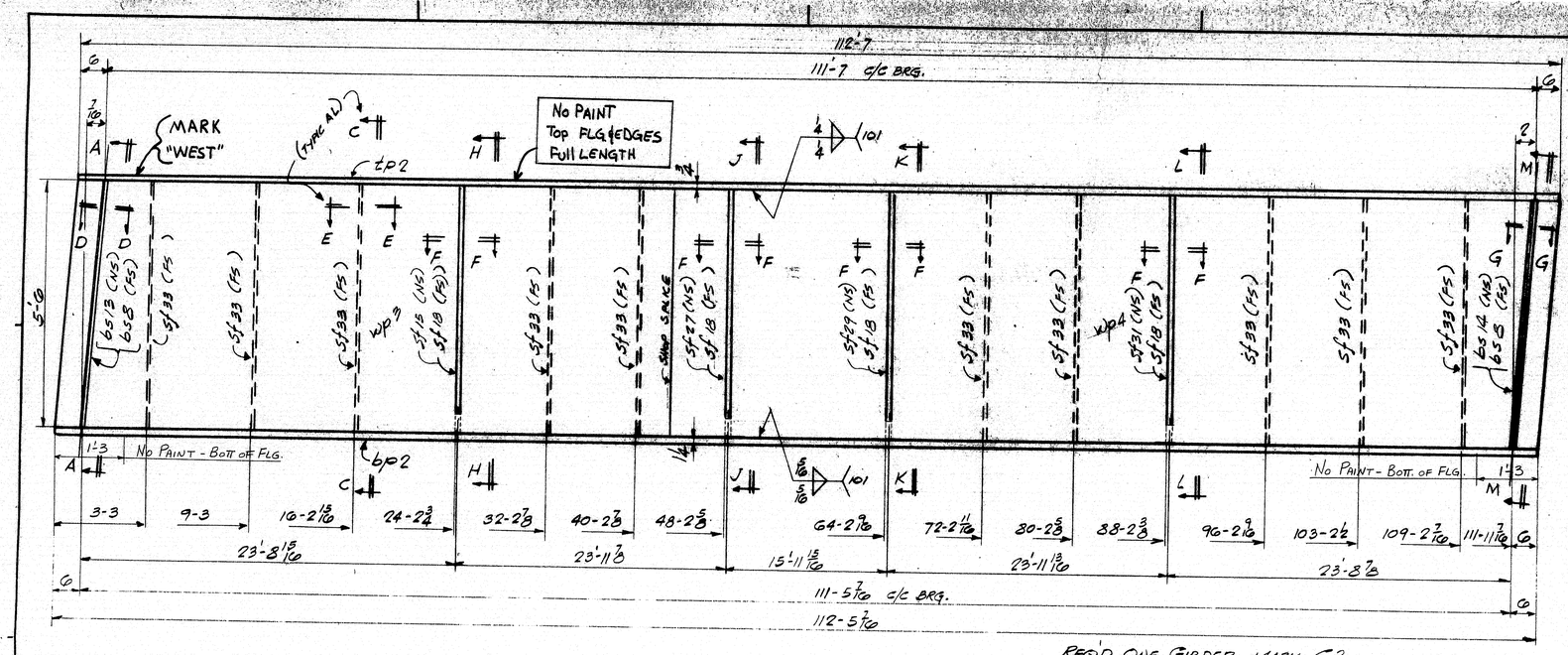
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: I395 over Main Street Bangor Maine

CUSTOMER: Bridge Construction Co.

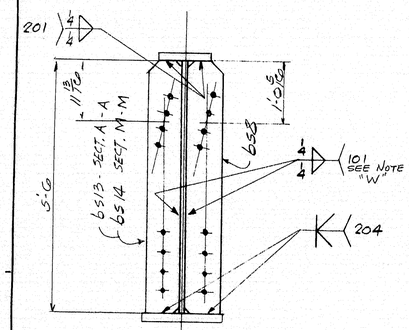
DESIGNER: State of Maine D.O.T.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	5-31	52-6	△

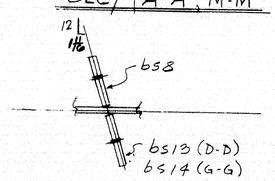


REQ'D ONE GIRDER MARK G3

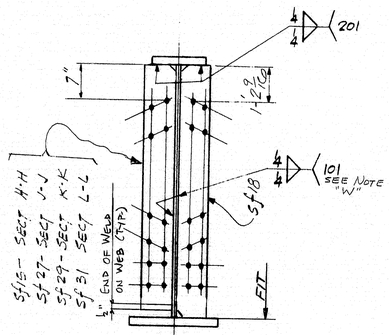
FOR GIRDER STANDARD DETAILS SEE DWG# 52-1
FOR WEB & FLG PL CUTTING & ASSEMBLY SEE DWG 52-4



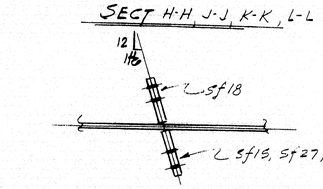
SECT A-A, M-M



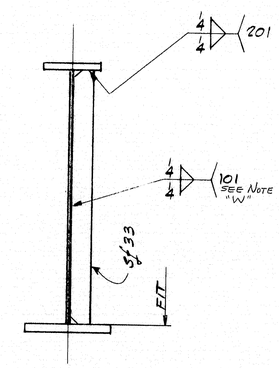
SECT. D-D & G-G



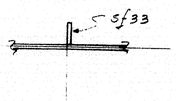
SECT H-H, J-J, K-K, L-L



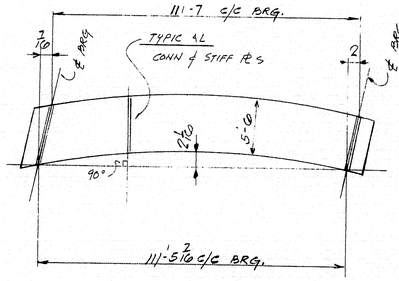
SECT. F-F



SECT C-C



SECT E-E



CAMBER DIAGRAM

NOTE "W"
LEG SIZE OF FILLET TO BE INCREASED BY SIZE OF GAP.

A325-F

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC STANDARDS IN APPROVING THIS DRAWING FOR FABRICATION, THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN

R94-478

SHIP	BILL OF MATERIAL					JOB NO. 5-31		DRAWING NO. 52-7	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		MAT.		WT.	REMARKS
G3			Girder						
	1	wp3	PL 7/16 x GG	45	6	CVN 16 x 8.5 67'5	1/A		CVN
	1	wp4	PL 1/16 x GG	67	1/2		1/D	1056	CVN
									P.O. 31983
	1	tp2	PL 3/4 x 14	112	7	1@112'11	3/D	4023	A572 GR 50 CVN
	1	bp2	PL 1/4 x 21	112	5 7/16	1@112'9	3/A	1094	A572 GR 50 CVN
	2	bs8	PL 3/8 x 10	5	6	5@983	1/C	328	
	1	bs13	PL 3/8 x 10	5	6	1@	1/C	164	
	1	bs14	PL 3/8 x 10	5	6	12'4	1/C	164	
	4	Sf18	PL 3/8 x 7 1/2	5	6	NP	1/D	211	
	1	Sf15	PL 3/8 x 7 1/2	5	2 1/2	39'6	1/D	50	
	1	Sf27	PL 3/8 x 7 1/2	5	2 1/2	9 @	↓	50	
	1	Sf29	PL 3/8 x 7 1/2	5	2 1/2	96 X	↓	50	
	1	Sf31	PL 3/8 x 7 1/2	5	2 1/2	12'0	1/D	50	
	10	Sf33	PL 3/8 x 5	5	6		1/E	351	
								26542#	

IT. NO. | BR. NO. | PROJ. NO. 395-8-(88)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [X] A36 [ ] A572 GR.I [ ] A588 GR.I [X] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES. [ ] 13/16 [X] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [X] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: LEAD SILICO CHROMATE-ORANGE 4 MIL WFT
SPECIAL CLEANING: [X] Blast Clean SSPC-SP6 [ ] None

Girder Detail G3

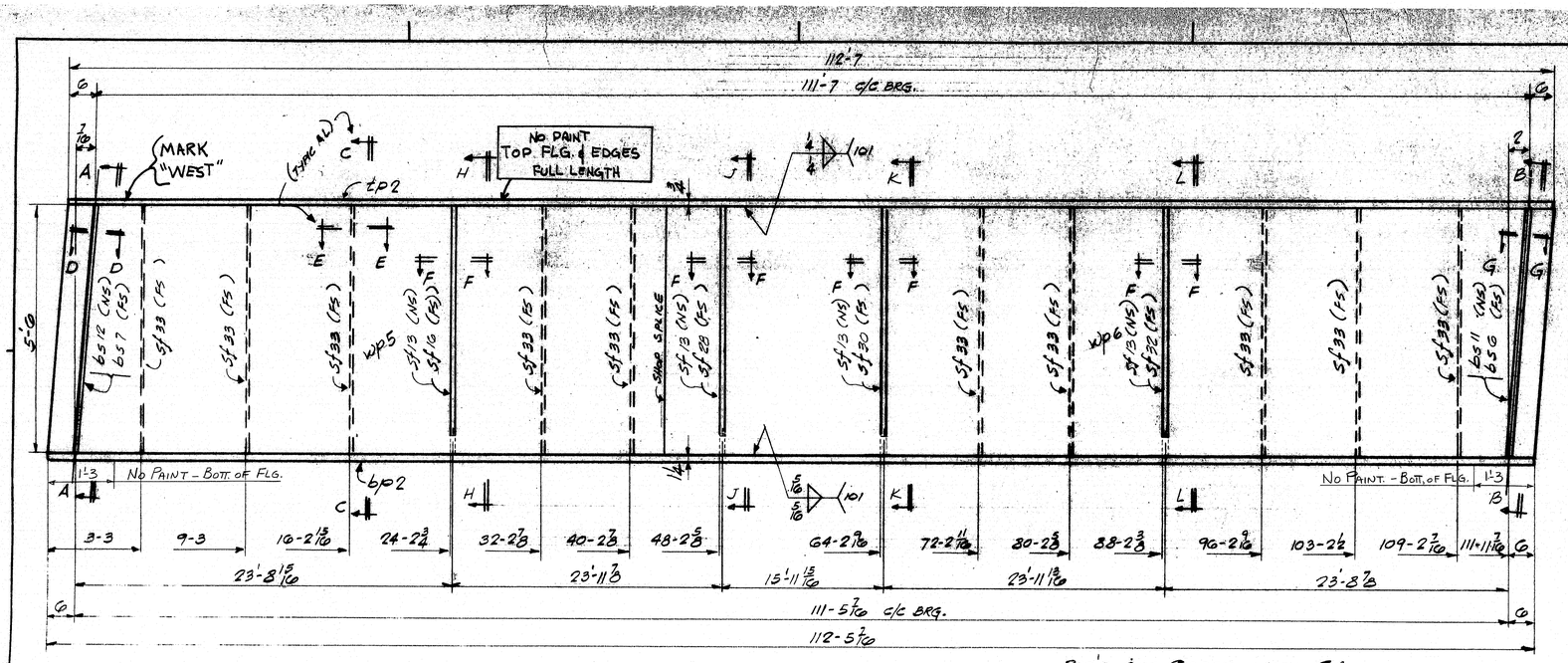
APPROVED: 11-15-85		
PRINT DIST.		
3	10-23-85	APP.
8	1-14-86	FAB.
25	12-3-85	F&F.
25	12-11-85	F&F
REV. △		
CHECKED	JR	10/85
DRAWN	JH	10/85

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: I395 over Main Street Bangor Maine

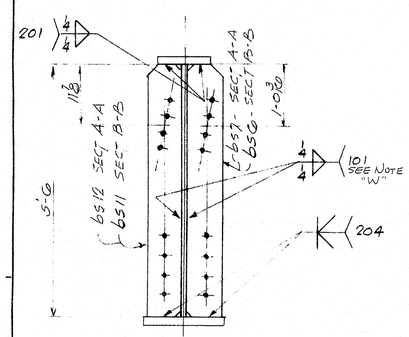
CUSTOMER: Bridge Construction Co.
DESIGNER: State of Maine D.O.T.

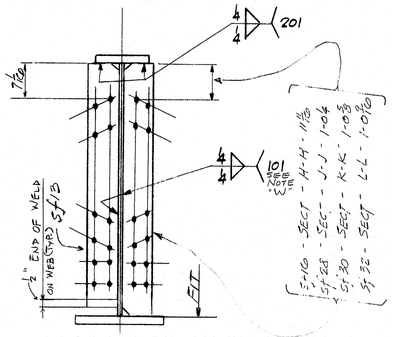
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	5-31	52-7	△

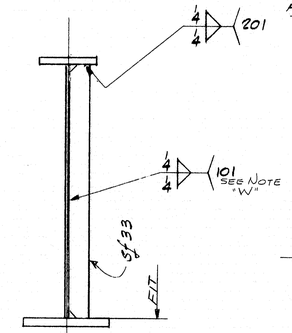


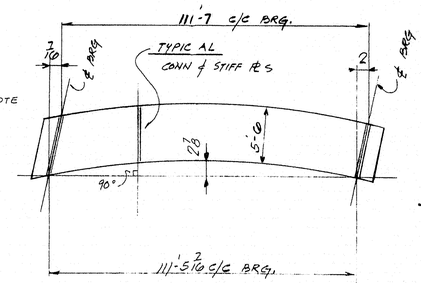
REQ'D ONE GIRDER MARK G4

FOR GIRDER STANDARD DETAILS SEE DWG# 52-1
FOR WEB & FLG PL CUTTING & ASSEMBLY SEE DWG 52-2



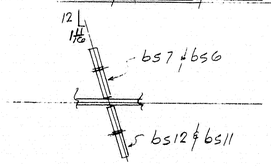


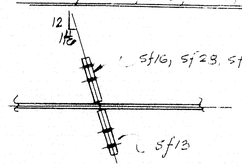


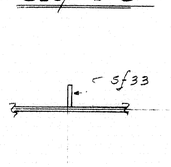


CAMBER DIAGRAM

NOTE "W"
LEG SIZE OF FILLET TO BE INCREASED BY SIZE OF GAP.







SHIP	BILL OF MATERIAL					JOB NO. 5-31		DRAWING NO. 52-8	REV.
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	U.T.	REMARKS
G4			Girder						
	1	WEB	PL 7/16 × 66	45	6	69 11/16 × 45'-9	1/A	X	C.V.N.
	1	WPG	PL 1/2 × 66	67	1 3/4	69 × 67'-5	1/D	11056	C.V.N.
									P.O. 31973
	1	FP2	PL 3/4 × 14	112	7	1@ 112'-11	3/D	4023	A572 GR 50 C.V.N.
	1	FP2	PL 1 1/4 × 21	112	5 7/16	1@ 112'-9	3/A	10049	A572 GR 50 C.V.N.
	1	bs C	PL 3/8 × 10	5	6	PL 31973	1/C	164	
	1	bs 7	PL 7/8 × 10	5	6		1/C	164	
	1	bs 11	PL 3/8 × 10	5	6	15@	1/C	164	
	1	bs 12	PL 3/8 × 10	5	6	22'-4	1/C	164	
	4	sf 13	PL 3/8 × 7 1/2	5	2 1/2	NP	1/D	199	
	1	sf 16	PL 3/8 × 7 1/2	5	6	31396	1/D	53	
	1	sf 28	↓	5	6	9@	↓	53	
	1	sf 30	↓	5	6	9 1/8 X	↓	53	
	1	sf 32	PL 3/8 × 7 1/2	5	6	12'-0	1/D	53	
	10	sf 33	PL 3/8 × 5	5	00		1/E	351	
								26542 #	

IT. NO. | BR. NO. | PROJ. NO. 395-8-(88)

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. [X] A36 [ ] A572 GR.[ ] [ ] A588 GR.[ ] [X] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc [ ] None
SHOP CONN: [ ] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [ ] None [X] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: LEAD SILICO CHROMATE-ORANGE 4 MIL WFT
SPECIAL CLEANING: [X] Blast Clean [ ] None SSPC-SP6

Girder Detail G4

PRINT DIST		
3	10-23-85	APP.
8	11-14-85	FAB.
25	12-3-85	F&F.
25	12-11-85	F&F

APPROVED: 11-15-85

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: 1395 over Main Street Bangor Maine

CUSTOMER: Bridge Construction Co.

DESIGNER: State of Maine D.O.T.

REV.	ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED JR 10/85		5-31	52-8	△
DRAWN JH 10/85				

ALL CONNECTIONS DETAILED ON THIS DRAWING REPRESENT BANCROFT & MARTIN INC. STANDARDS IN APPROVING THIS DRAWING FOR FABRICATION THE ARCHITECT AND/OR ENGINEER ASSUMES THE RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF ALL CONNECTIONS SHOWN

A325-F

R94-479