F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	1	64

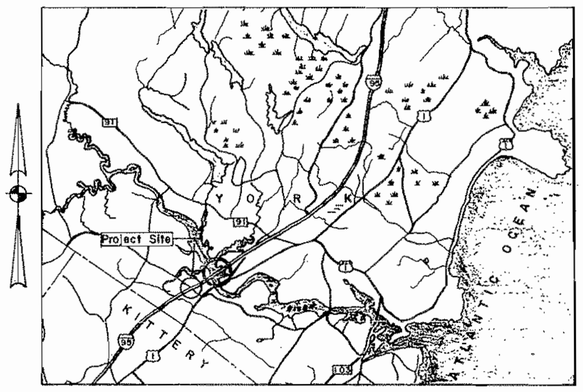
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
MAINE FEDERAL AID
PROJECT NO. I-95-1 (27)4
TOTAL LENGTH 0.284 MILES

CONVENTIONAL SIGNS

COUNTY LINES
TOWN LINES
PROPERTY LINES
R/W LINES - EXISTING
R/W LINES - NEW - ACCESS CONTROL
R/W LINES - NEW - NO ACCESS CONTROL
CULVERT - EXISTING
CULVERT - PROPOSED
CURBING - EXISTING
CURBING - PROPOSED
TRAVELLED WAY - EXISTING
TRAVELLED WAY - PROPOSED
UNDERGROUND UTILITIES - EXISTING
UNDERGROUND UTILITIES - PROPOSED
RAILROAD - SINGLE TRACK
RAILROAD - DOUBLE TRACK
UTILITY POLE - EXISTING
UTILITY POLE - JOINT OCCUPANCY
PROPOSED UTILITY POLE - TEMPORARY
PROPOSED UTILITY POLE - PERMANENT
TREES — hardwood, softwood
WOODS



LOCATION MAP

1 0 1 2
Scale in Miles

INDEX OF SHEETS

1. . . . . TITLE SHEET
2 . . . . . ESTIMATED QUANTITIES
3 . . . . . GENERAL PLAN
4 . . . . . LAYOUT OF GUARD RAIL
5 . . . . . SURVEY
6-8. . . . . FOUNDATION SURVEY
9-13 . . . . BORING DETAILS
14. . . . . ABUTMENTS
15. . . . . ABUTMENTS
16. . . . . PIERS
17-19 . . . . STRUCTURAL STEEL - FRAMING PLAN
20 . . . . . STRUCTURAL STEEL - BEAM ELEVATIONS
21. . . . . STRUCTURAL STEEL - DIAPHRAGMS
22-24 . . . . SUPERSTRUCTURE - SOUTHBOUND
25-27. . . . SUPERSTRUCTURE - NORTHBOUND
28. . . . . REINFORCING STEEL SCHEDULE
29-30. . . . CONSTRUCTION SIGNING AND TEMP. BRIDGE RAILING
31-33. . . . RIGHT OF WAY PLANS
34. . . . . END POSTS

···BRIDGE STANDARD DETAILS···

35. . . . . BD 100-71 . . . BEARING PEDESTALS
36. . . . . BD 103-64. . . BEAM SPLICES Rev 2-66
37. . . . . BD 104-73. . . ARMORED JOINT, DRAIN, SHEAR CONNECTORS, MISC. STRUCTURAL DETAILS
38. . . . . BD 105-74. . . EXPANSION DAMS
39. . . . . BD 113-72. . . DIAPHRAGMS AND CROSSFRAMES
40. . . . . BD 114-73. . . ALUMINUM BRIDGE RAILING-2 BAR

···HIGHWAY PLANS···

41. . . . . ORIENTATION PLAN
42-47 . . . . PLANS SECTION 1
48-54 . . . . PLANS SECTION 2

···HIGHWAY STANDARD DETAILS··· Rev. date

55. . (1) . . CATCH BASINS AND MANHOLES 4-21-71
56. . (4) . . CULVERT INLETS AND OUTLETS 6-18-74
57. . (5) . . GUARD RAIL, MUCK EXCAVATION, CONCRETE STEPS AND SIDEWALK, GUYING TREES AND TREE WELLS 10-22-74
58. . (6) . . GUARD RAILS, ANCHOR ASSEMBLIES, PLATE WASHERS AND STANDARD FITTINGS 10-22-74
59. . (9) . . BEAM GUARD RAIL END TREATMENT 10-22-74
60. . (10) . . FENCING 7-10-72
61. . . (11) . . BARRICADES, WARNING SIGNS, MONUMENTS AND PROJECT MARKERS 10-12-72
62. . (12) . . DRIVEWAY DETAILS, FIELD OFFICES AND TESTING LABORATORY 3-16-73
63 (2) METAL SLUICE-UNDERDRAIN-CULVERT PIPE DATA CULVERT INLET GRATE 12-20-71
64 (3) CURB, DITCHES AND SLOPES, AND CATCH BASINS TYPE "E" 8-28-73

NOTE:
All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of June 1968) and Supplements thereto, except as modified on the Plans and in the Special Provisions.

COAST GUARD PERMIT REQUIRED

TRAFFIC DATA

A.D.T.	1976	22,040
A.D.T.	1996	32,790
D.H.V.		5574
T. (%)		11
D. (%)		17
V.	m.p.h.	70
18 KIP EQUIV.	P 2 5	1239

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
COMMISSIONER — DATE Dec. 16, 1975

BUREAU DIRECTOR AND CHIEF ENGINEER — DATE Dec. 16, 1975

Project Completed 1978
H. Brooks Yoke W. Hindley 2-22-79

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ENGINEER — DATE

159-5

F. A. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	2	64

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.11	Clearing	2.2	Acre
202.10	Rem. of Exist. Superstructure (Prop. of Contractor)	1	L.S.
202.12	Rem. of Exist. Structural Concrete	160	C.Y.
203.20	Common Excavation	10,800	C.Y.
203.25	Granular Borrow	12,000	C.Y.
203.26	Gravel Borrow	935	C.Y.
203.29	Selected Granular Material	5330	C.Y.
206.06	Str. Earth Excav. - Drainage & Minor Structures	65	C.Y.
206.08	Str. Earth Excav. - Abutments & Retaining Walls	370	C.Y.
			C.Y.
301.09	Plant Mix Bituminous Base Course, Grading B	1465	Ton
304.10	Aggregate Subbase Course - Gravel	4,860	C.Y.
403.07	Hot Bituminous Pavement, Grading B	1695	Ton
403.03	Hot Bituminous Pavement, Grading C	650	Ton
403.121	Hot Bituminous Pavement, Grading E (Shimming)	75	Ton
410.15	Emulsified Asphalt Applied	700	Gal
410.161	Cover Coat Material Sand (Leveling)	70	C.Y.
501.212	Steel H-Beam Piles 42 lbs./Foot	3,200	L.F.
501.216	Steel H-Beam Piles 73 lbs./Foot	8,400	L.F.
502.21	Structural Concrete, Abutments and Retaining Walls	310	C.Y.
502.23	Structural Concrete, Piers	335	C.Y.
502.26	Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges	1	L.S.
502.29	Structural Concrete, Wearing Surface on Bridges	1	L.S.
502.31	Structural Concrete, Approach Slabs	1	L.S.
502.35	Structural Concrete - Pile Casings	1900	L.F.
503.12	Reinforcing Steel, Fabricated and Delivered	654,000	Lb.
503.13	Reinforcing Steel, Placing	654,000	Lb.
504.70	Structural Steel, Fabricated and Delivered	1	L.S.
504.71	Structural Steel, Erection	1	L.S.
505.08	Shear Connectors	1	L.S.
506.14	Field Painting, Structural Steel	1	L.S.
506.13	Field Cleaning and Painting, Existing Structural Steel	1	L.S.
507.141	Aluminum Bridge Railing, Type "A"	2423	L.F.
512.06	French Drains	140	C.Y.
513.20	Aggregate for Slope Protection	320	S.Y.
513.21	Bituminous Material for Slope Protection	640	Gal
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	7850	S.Y.
603.153	12 Inch Reinforced Conc. Pipe Class III	192	L.F.
603.285	24 Inch Reinforced Conc. Pipe Class III	64	L.F.
604.18	Adjusting Manholes & Catch Basins to Grade	8	Each
604.90	Catch Basin Type "S"	3	Each
606.26	Terminal Ends - Single Rail	6	Each
606.35	Guard Rail Delineator Posts	8	Each
606.53	Guard Rail Type 3 - Single Rail	2350	L.F.
606.56	Guard Rail Type 3 - Double Rail	450	L.F.
606.62	Twisted End Section, Guard Rail Type 3	6	Each
609.13	Vertical Bridge Curb - Type 1	2349	L.F.
610.08	Plain Riprap	1230	C.Y.
615.07	Loam	635	C.Y.
616.08	Seeding	1195	S.Y.
617.09	Erosion Control Mesh	475	S.Y.
618.14	Seeding, Method Number 2	177	Unit
619.12	Mulch	255	Unit

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
629.05	Labor, Straight Time	80	Man Hr.
	Traffic Officers	60	Man Hr.
631.10	Air Compressor (including operator)	45	Hour
631.11	Air Tool (including operator)	50	Hour
631.12	All Purpose Excavator (including Op.)	10	Hour
631.13	Bulldozer (including operator)	10	Hour
631.171	Truck-Small (including operator)	20	Hour
631.18	Chain Saw Rental (inc. op.)	5	Hour
631.22	Front End Loader (including operator)	10	Hour
636.08	Warning Lights	4	Group
637.07	Sprinkling	100	M.G.
637.08	Calcium Chloride	10	Ton
639.08	Field Office, Type A	1	Each
639.11	Testing Facilities, Soils	1	L.S.
639.12	Testing Facilities, Bit. Mixes	1	L.S.
652.23	Maintenance of Traffic	1	L.S.
656.50	Baled Hay, in Place	12	Each
656.51	Sand Bags, in Place	12	Each
657.201	Seed and Application, Method A	11	Unit
658.20	Acrylic Latex Color Finish, Green	670	S.Y.
659.10	Mobilization	1	L.S.
660.21	On-the-Job Training (Bid)	2,000	M. Hr.
	ESTIMATED QUANTITIES FOR LUMP SUM ITEMS		
202.10	Removal of Existing Superstructure (Property of Contractor) (Scrap Metal 150 Ton, Alum Rail 2330 L.F., Concrete 1020 C.Y.)		
502.26	Struct. Conc., Roadway & Sidewalk Slabs on Steel Bridges	2512	C.Y.
502.29	Structural Concrete, Wearing Surface on Bridges	619	C.Y.
502.31	Structural Concrete, Approach Slabs	93	C.Y.
504.70	Structural Steel, Fabricated and Delivered	746,500	Lb.
504.71	Structural Steel, Erection	746,500	Lb.
505.08	Shear Connectors (19200 lbs.)	19,12	Each
506.14	Field Painting, Structural Steel	746,500	Lb.
506.13	Field Cleaning and Painting, Structural Steel	810,962	Lb.

SPECIFICATIONS

DESIGN: AASHO, Standard Specifications for Highway Bridges 1973

CONTRACT: State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revision of June 1968.

DESIGN LOADING

LIVE LOAD: HS 20-44 Modified for Interstate Highways

MATERIALS

CONCRETE: Structural Concrete Pile Casings - Class "Y" (Modified to 7 sacks cement per cubic yard). All other - Class "A" except Pier Cap shall be Class "Y"

REINFORCING STEEL: ASTM A615 Grade 60

STRUCTURAL STEEL:

High Strength Bolts	ASTM	A325
Hanger Plates	ASTM	A276, Type XM-21
Pins	ASTM	A320, Type 303
Expansion Dams	ASTM	A588
Pier Pipe Shells	ASTM	A252 Grade 1, 2 or 3
All other	ASTM	A36

BASIC ALLOWABLE STRESSES

CONCRETE: f'_c = 1200 psi n = 10

REINFORCING STEEL: f_s = 24,000 psi

STRUCTURAL STEEL:

ASTM A36	f_s	= 20,000 psi
ASTM A276	f_s	= 27,000 psi
ASTM A320	f_s	= 20,000 psi
ASTM A588	f_s	= 27,000 psi
ASTM A252	f_s	= 20,000 psi
ASTM A325	f_s	= 13,500 psi

PILE END BEARING: ASTM A36 f_a = 9,000 psi on Pile Section. f_a = 6,000 psi on Pile Tip

HYDROLOGIC DATA

DRAINAGE AREA	30.5 Square Miles
TIDAL AREA	0.34± Square Miles
Q50	2100 C.F.S.
TIDAL FLOW	3750 C.F.S. (Normal Range)
MEAN VELOCITY	2 ft/sec ± for Q50 plus Tidal Flow

COAST GUARD PERMIT NUMBER 27-76

SUMMARY OF EXCAVATION AND BORROW

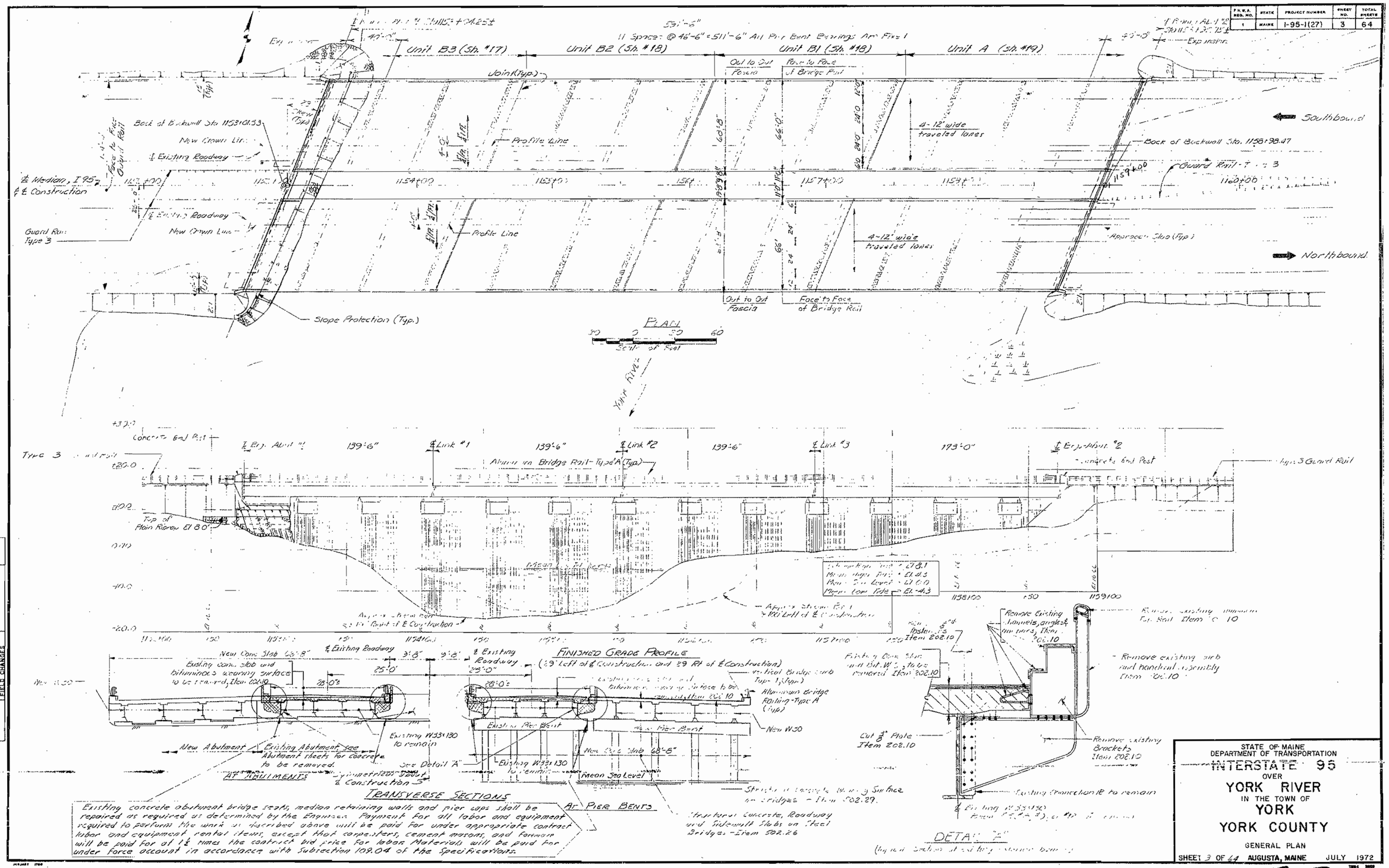
SEE SHEET NO. 41

Project Design Engineer: CDH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
ESTIMATED QUANTITIES
SHEET 2 OF 64 AUGUSTA, MAINE Sept. 1974

1596

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	3	64



Existing concrete abutment bridge seats, median retaining walls and pier caps shall be repaired as required as determined by the Engineer. Payment for all labor and equipment required to perform the work as described above will be paid for under appropriate contract labor and equipment rental items, except that carpenters, cement masons, and foreman will be paid for at 1½ times the contract bid price for labor. Materials will be paid for under Force Account in accordance with Subsection 109.04 of the Specifications.

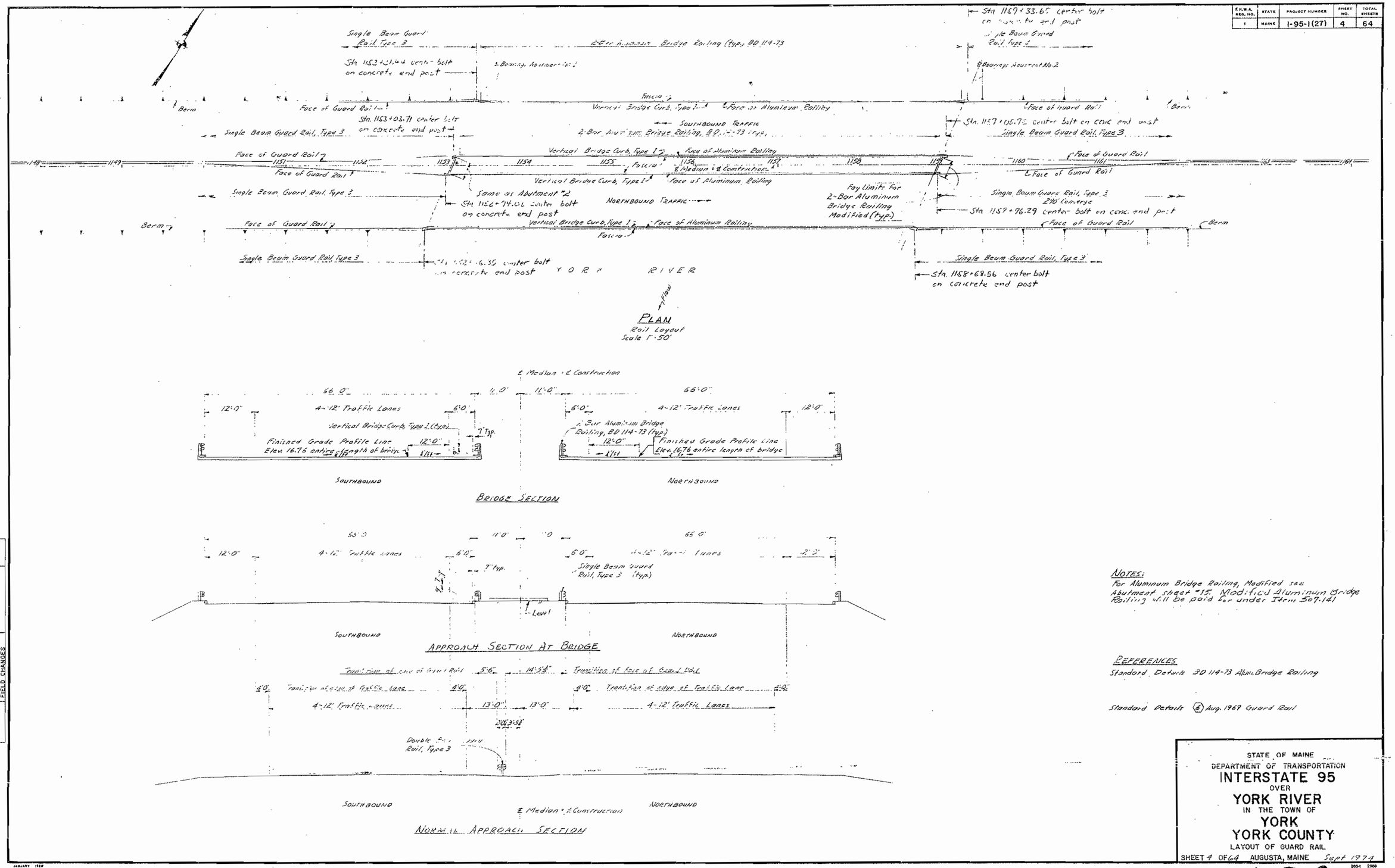
PLANS	BY	DATE
DESIGN - DETAILED	CDH	1-74
CHECKED	KLL	11-75
REVISIONS		
FIELD CHANGES		

Checked Preliminary Plan

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
GENERAL PLAN
SHEET 3 OF 64 AUGUSTA, MAINE JULY 1972

159-7

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	4	64



PLAN
Rail Layout
Scale 1"=50'

BRIDGE SECTION

APPROACH SECTION AT BRIDGE

NORMAL APPROACH SECTION

NOTES:
For Aluminum Bridge Railing, Modified see Abutment sheet #15. Modified Aluminum Bridge Railing will be paid for under Item 507.141

REFERENCES
Standard Details BD 114-73 Alum. Bridge Railing

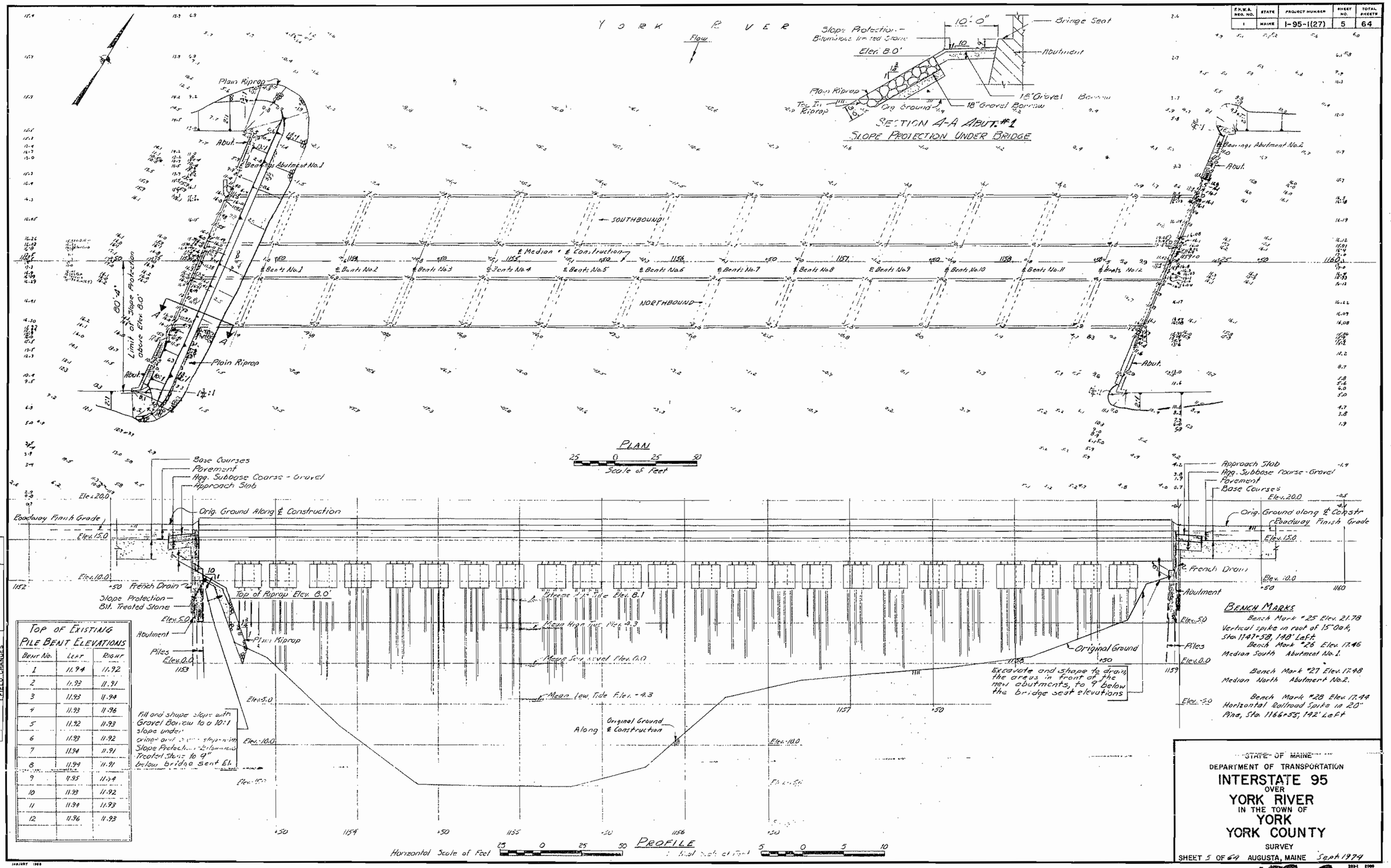
Standard Details ⓔ Aug. 1969 Guard Rail

PLANS	BY	DATE
DESIGN-DETAILED	CPH	12-73
CHECKED	RTA	11-73
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
LAYOUT OF GUARD RAIL
SHEET 4 OF 64 AUGUSTA, MAINE Sept 1974

159-B

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	5	64



Plotted Dec. 1973 by R.T.A.
Survey Books: 95/3893, 95/3897, 95/3898, 95/3896

	BY	DATE
DESIGN - DETAILED	C.P.H.	1-74
CHECKED	R.T.A.	
REVISIONS		11-74
FIELD CHANGES	A.L.E.	

PLANS

TOP OF EXISTING PILE BENT ELEVATIONS

BENT No.	LEFT	RIGHT
1	11.94	11.92
2	11.92	11.91
3	11.93	11.94
4	11.93	11.96
5	11.92	11.93
6	11.93	11.92
7	11.94	11.91
8	11.94	11.91
9	11.95	11.94
10	11.93	11.92
11	11.94	11.93
12	11.96	11.93

BENCH MARKS

Bench Mark #25 Elev. 21.78
Vertical spike in root of 15" Oak, Sta. 1147+58, 148' Left.
Bench Mark #26 Elev. 17.46
Median South Abutment No. 1.

Bench Mark #27 Elev. 17.48
Median North Abutment No. 2.

Bench Mark #28 Elev. 17.44
Horizontal Railroad Spike in 20" Pine, Sta. 1166+55, 192' Left

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

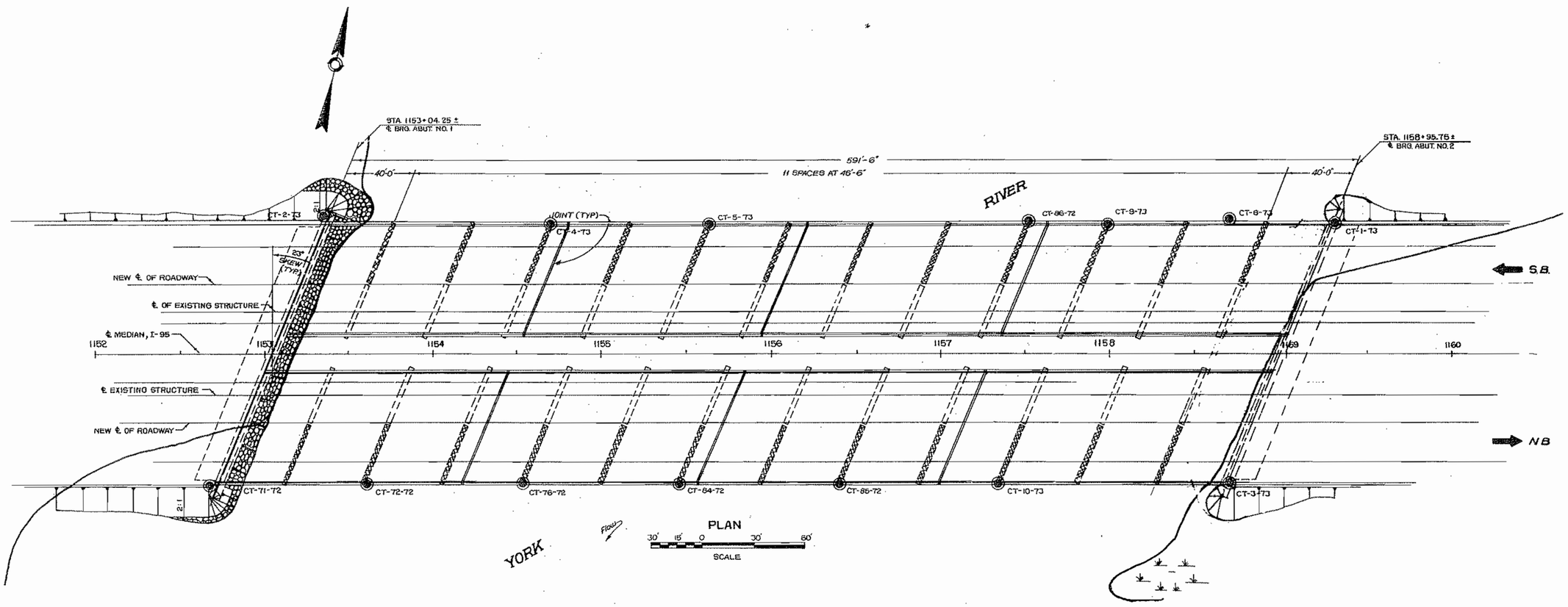
INTERSTATE 95 OVER YORK RIVER IN THE TOWN OF YORK YORK COUNTY

SURVEY

SHEET 5 OF 64 AUGUSTA, MAINE Sept. 1974

159-9

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	6	64



NOTE: EXTREME HIGH TIDE ELEV. +8.1'±
LOW TIDE ELEV. -4.3'±

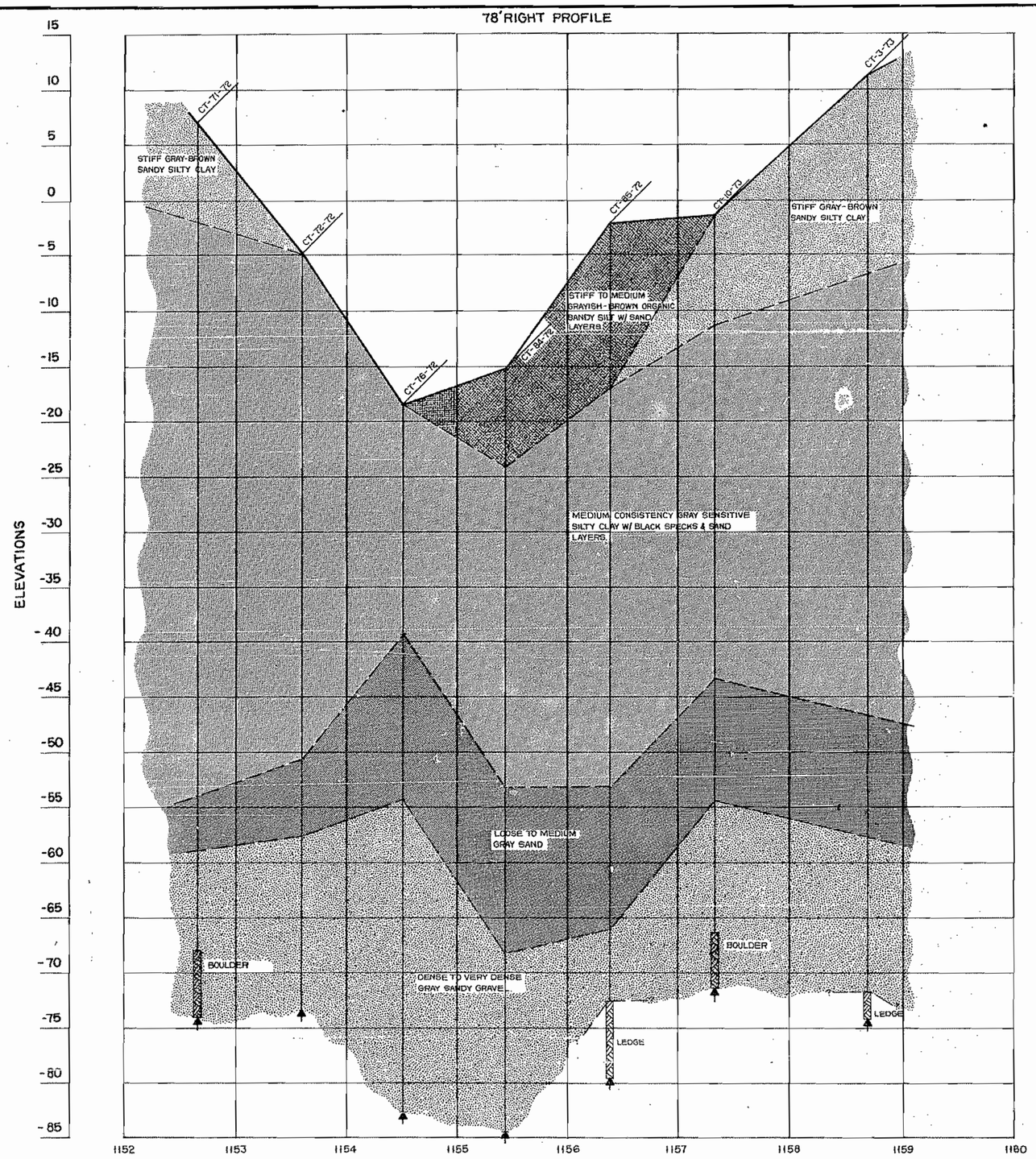
PLANS		BY	DATE
	DESIGN - DETAILED	S.D.L.S.	8-73
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

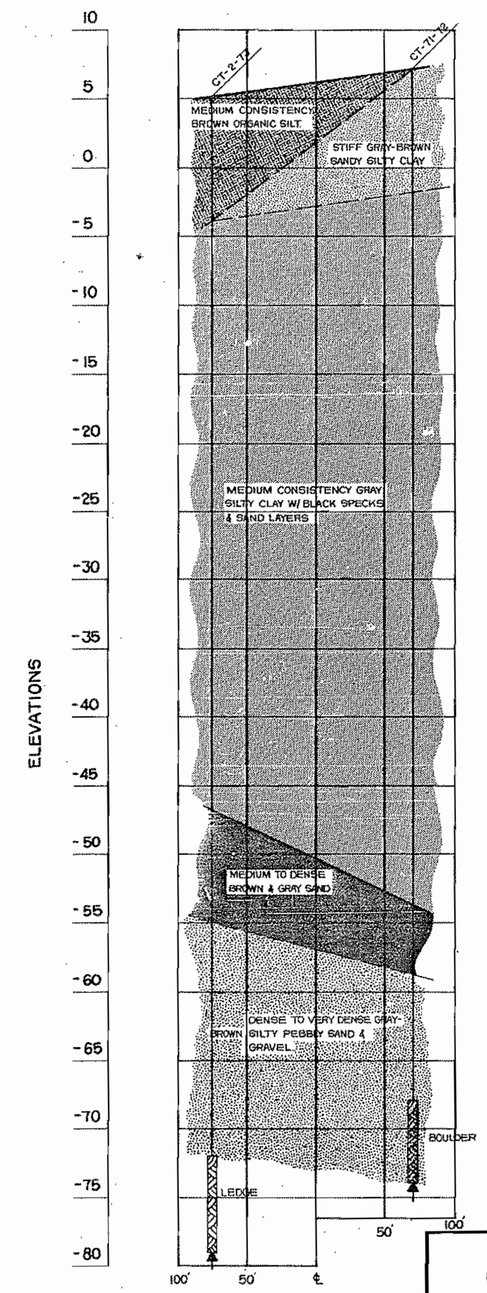
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
FOUNDATION SURVEY
SHEET 6 OF 64 AUGUSTA, MAINE AUG. 1973

159-10

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	7	64

78' RIGHT PROFILE





STA. 1153 + 04.25 ABUT. NO. 1
SKEWED 23°

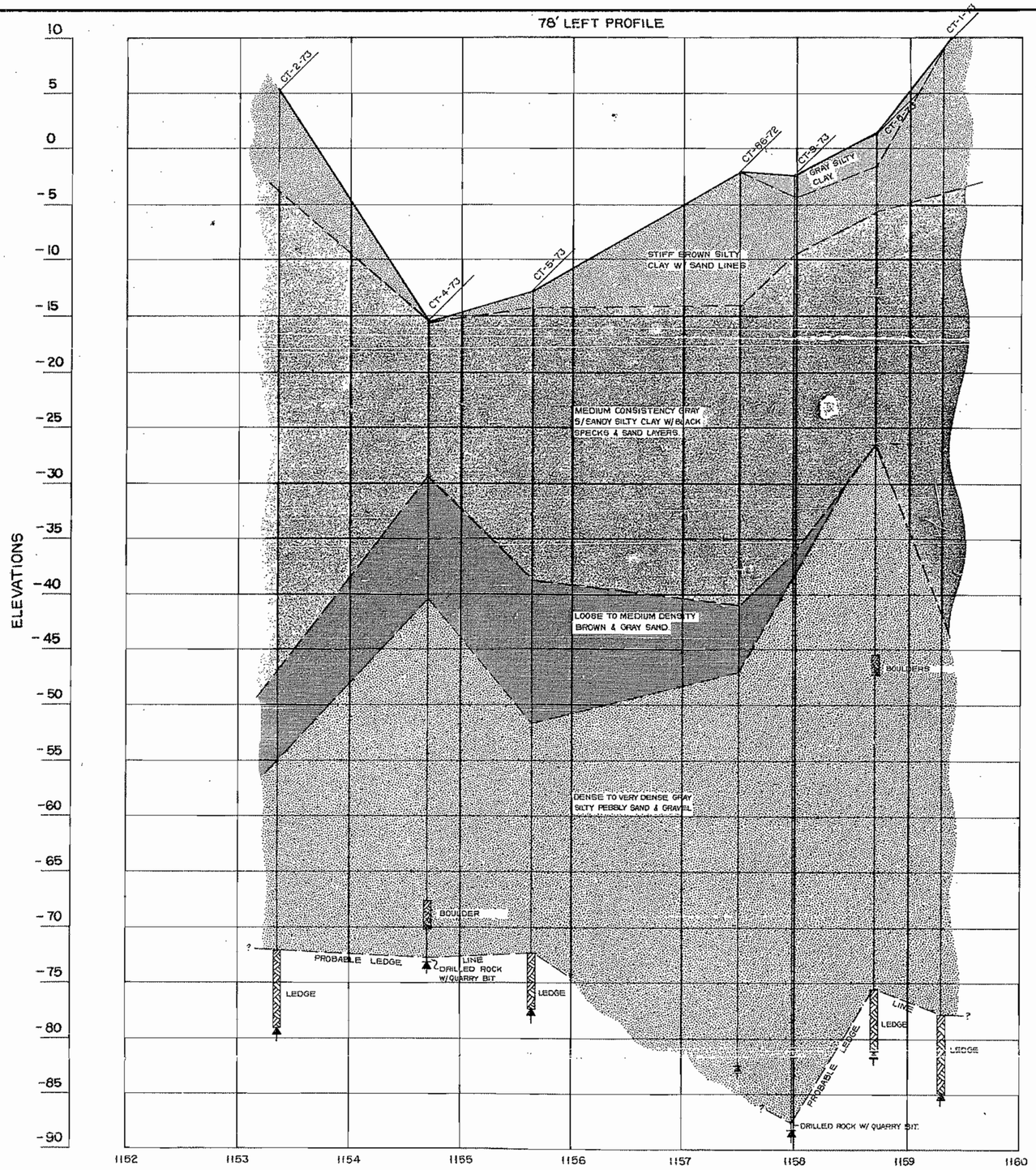
SCALE:
50' 20' 0 50' 100'

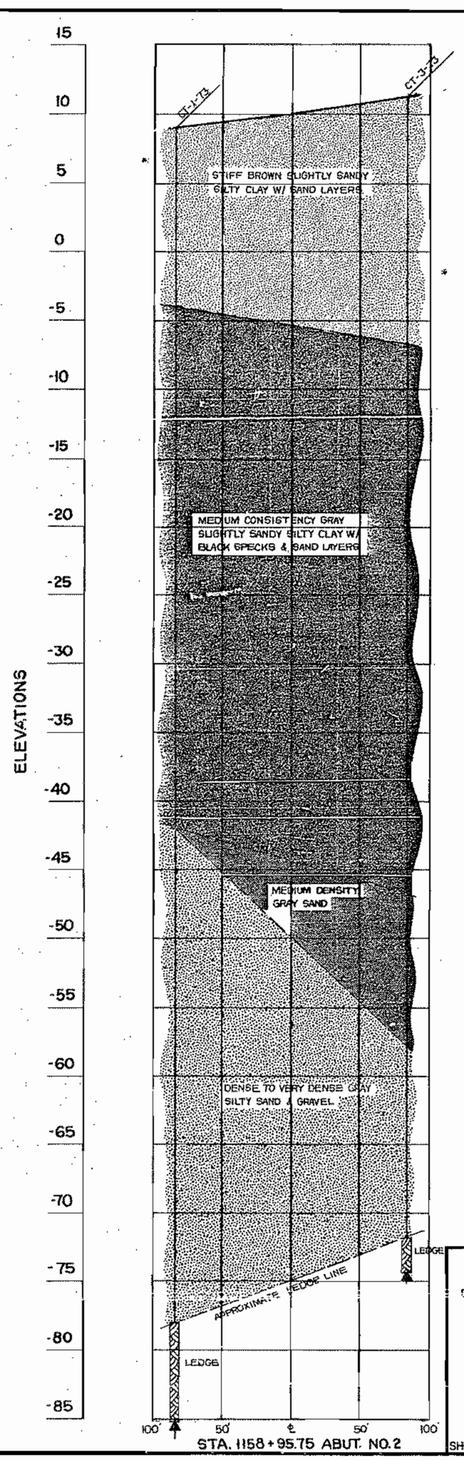
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
FOUNDATION SURVEY
SHEET 7 OF 64 AUGUSTA, MAINE AUG. 1973

PLANS		BY	DATE
	DESIGN - DETAILED	SOILS	8-72
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

159-11

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	8	64





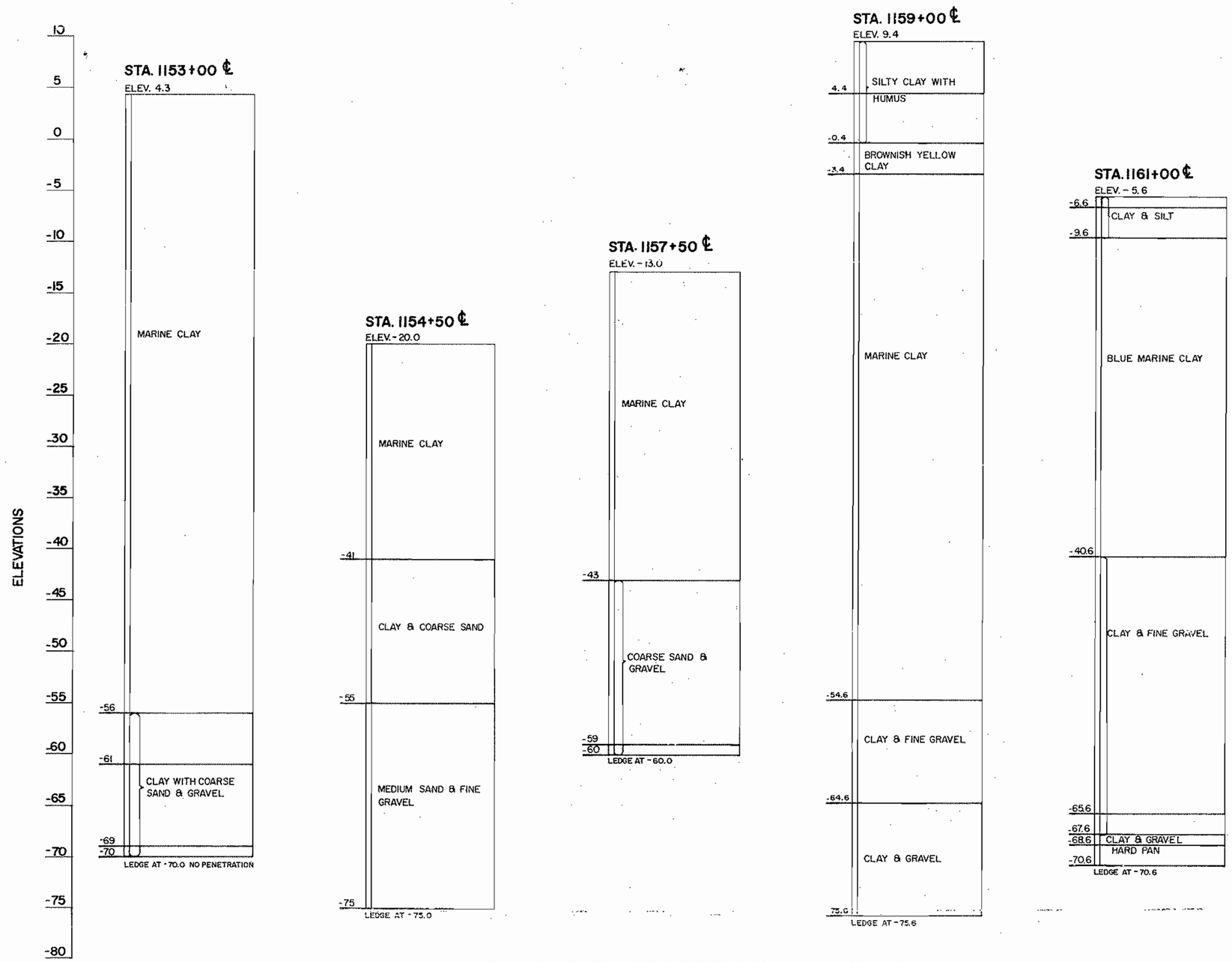
SCALE:
50' 20' 0 80' 100'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
FOUNDATION SURVEY
SHEET 8 OF 64 AUGUSTA, MAINE AUG. 1973

PLANS		BY	DATE
	DESIGN-DETAILED	SOILS	8-73
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

159-12

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	9	64



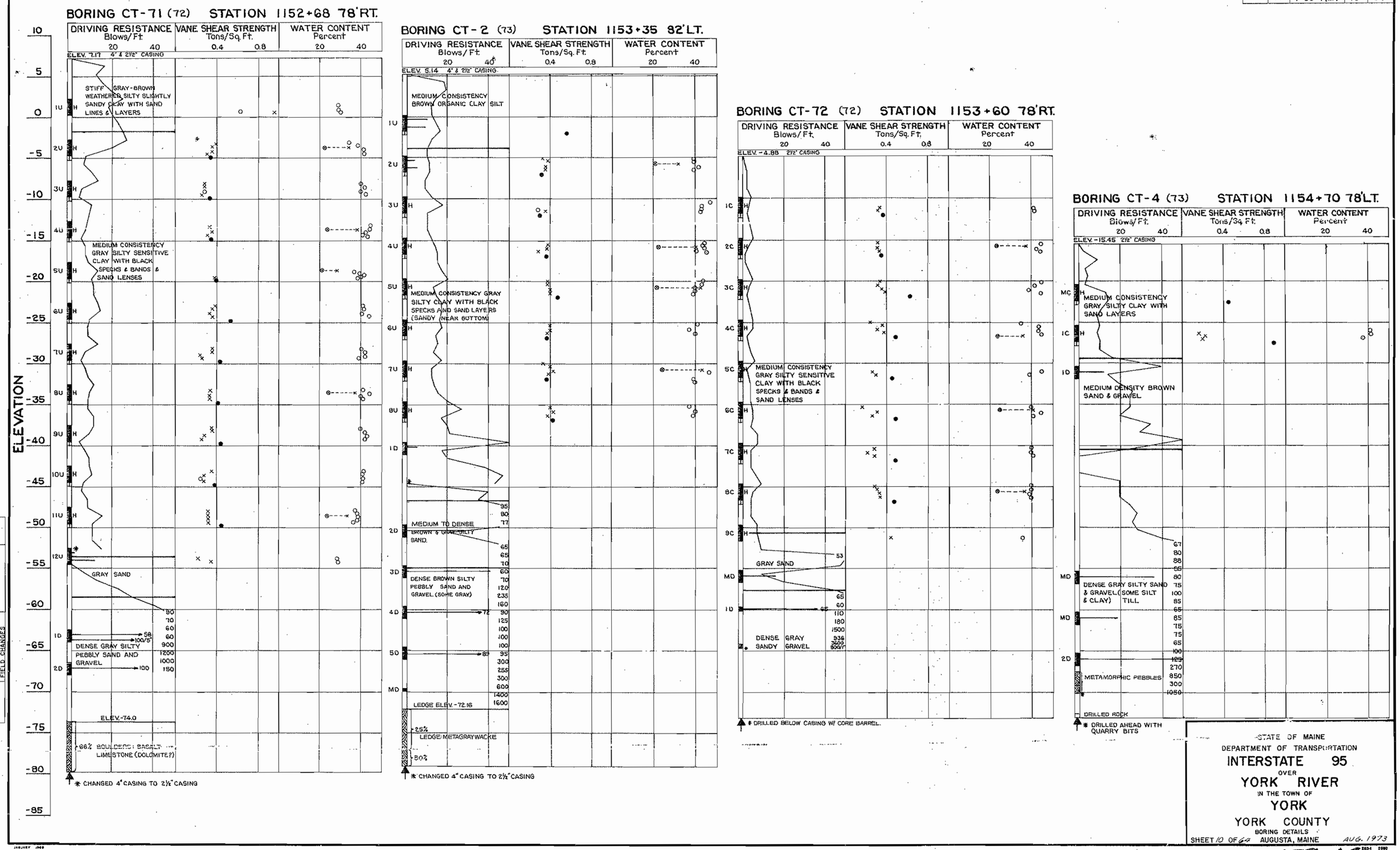
NOTE: ALL INFORMATION TAKEN FROM YORK RIVER BRIDGE GENERAL PLAN & ELEVATION SHEET DATED 1946

PLANS		BY	DATE
	DESIGN-DETAILED	SOILS	8-73
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
BORING DETAILS
SHEET 9 OF 64 AUGUSTA, MAINE AUG. 1973

159-13

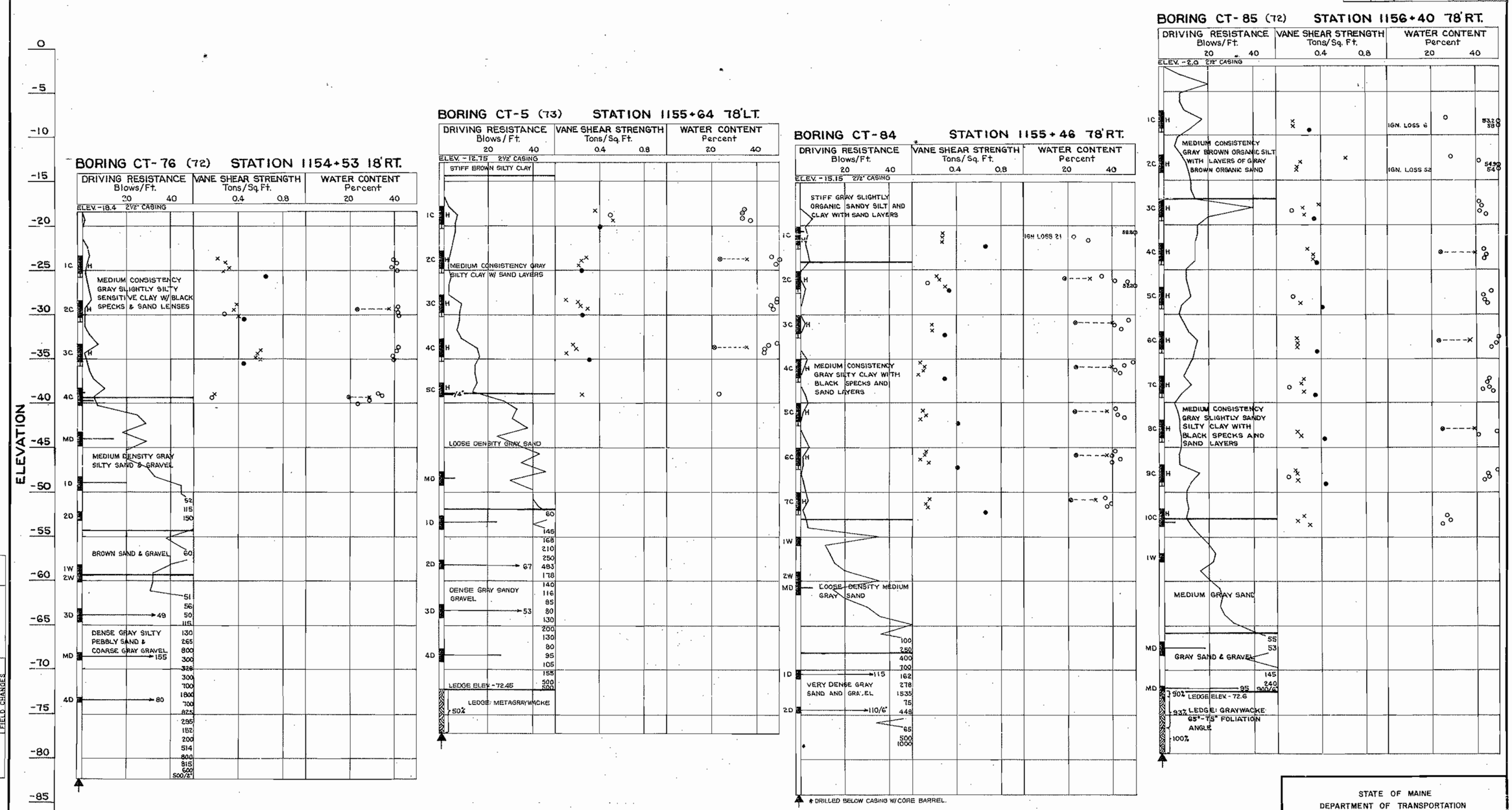
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	10	64



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
BORING DETAILS
SHEET 10 OF 64 AUGUSTA, MAINE AUG. 1973

159-14

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	11	64



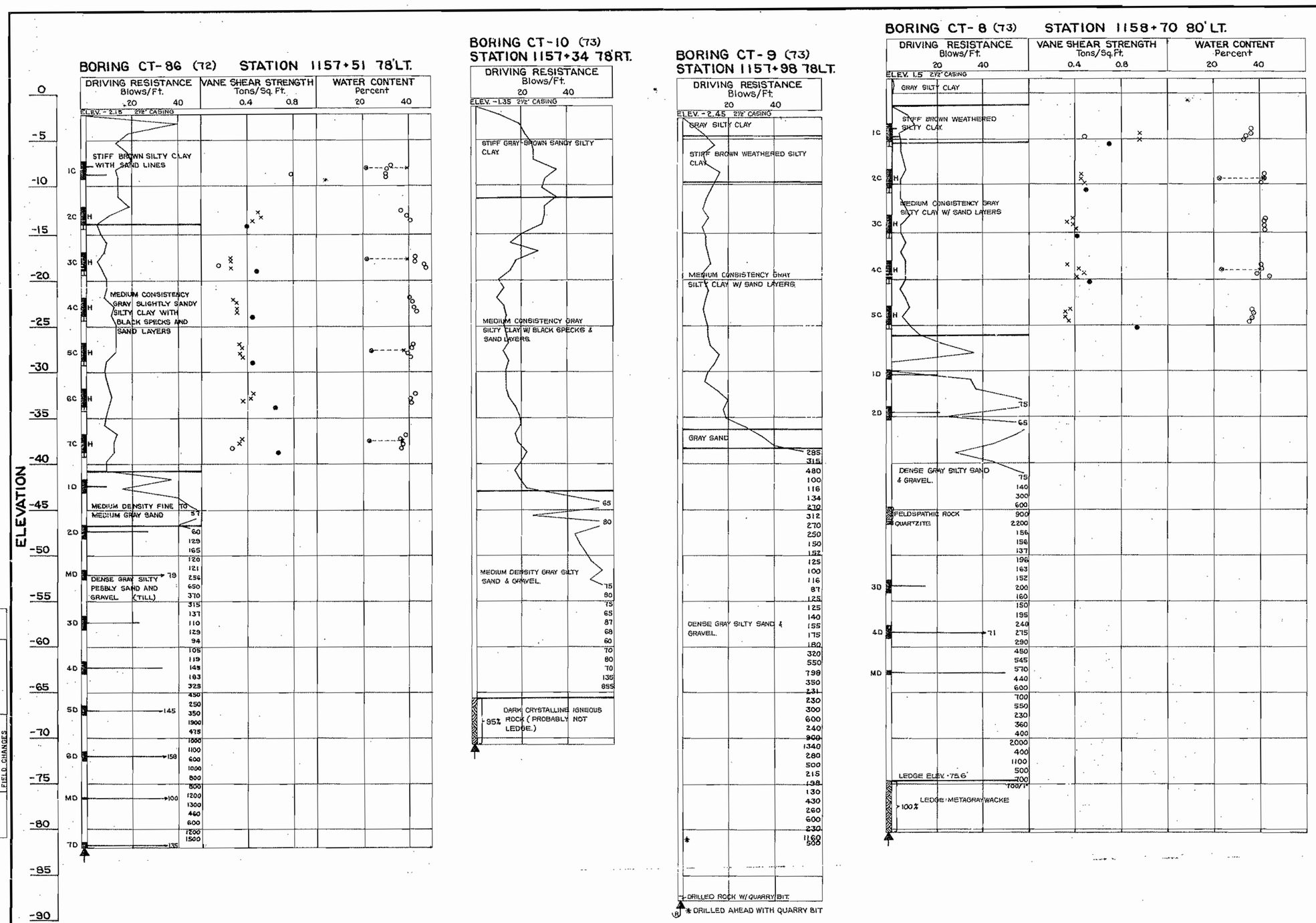
PLANS		BY	DATE
	DESIGN-DETAILED	SOILS	8-23
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
BORING DETAILS
SHEET 11 OF 64 AUGUSTA, MAINE AUG. 1973

159-15

JANUARY 1968

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	12	64



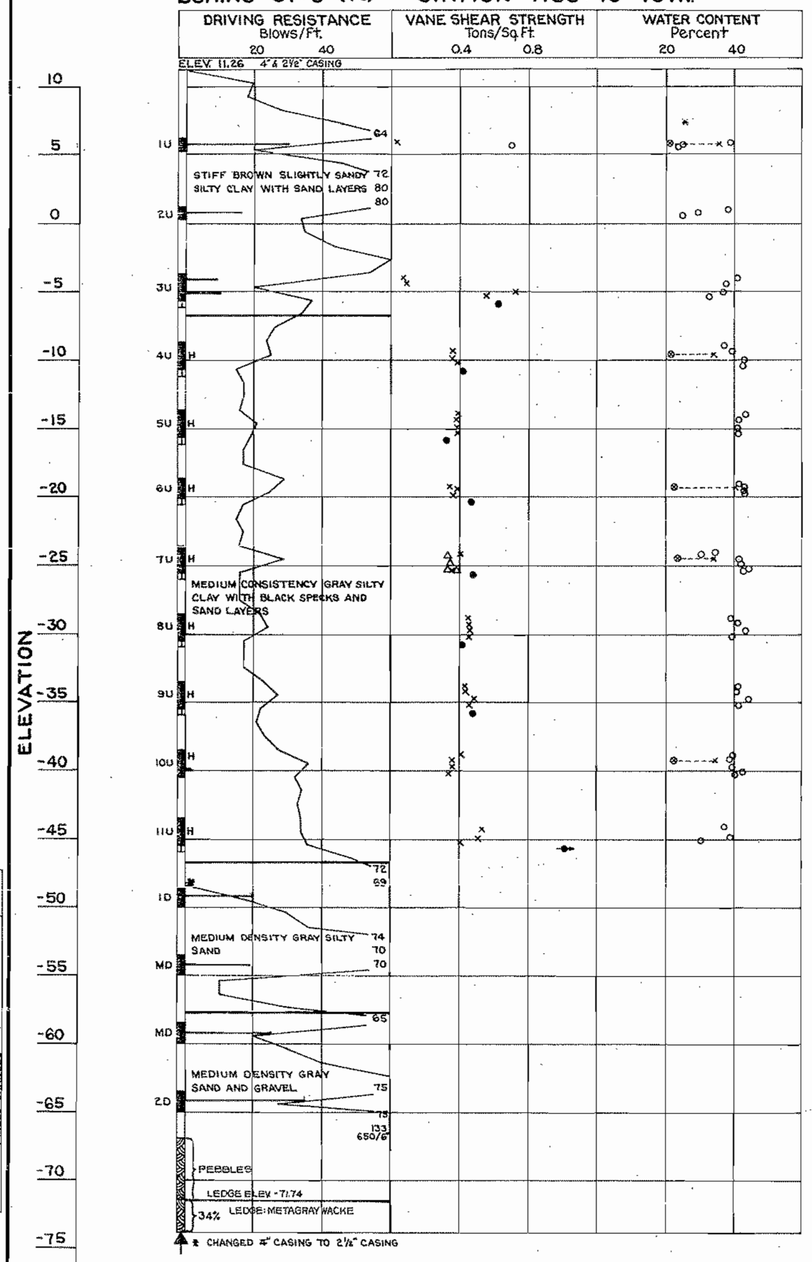
PLANS	BY	DATE
DESIGN - DETAILED	SOILS	8-73
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
BORING DETAILS
SHEET 12 OF 64 AUGUSTA, MAINE AUG. 1973

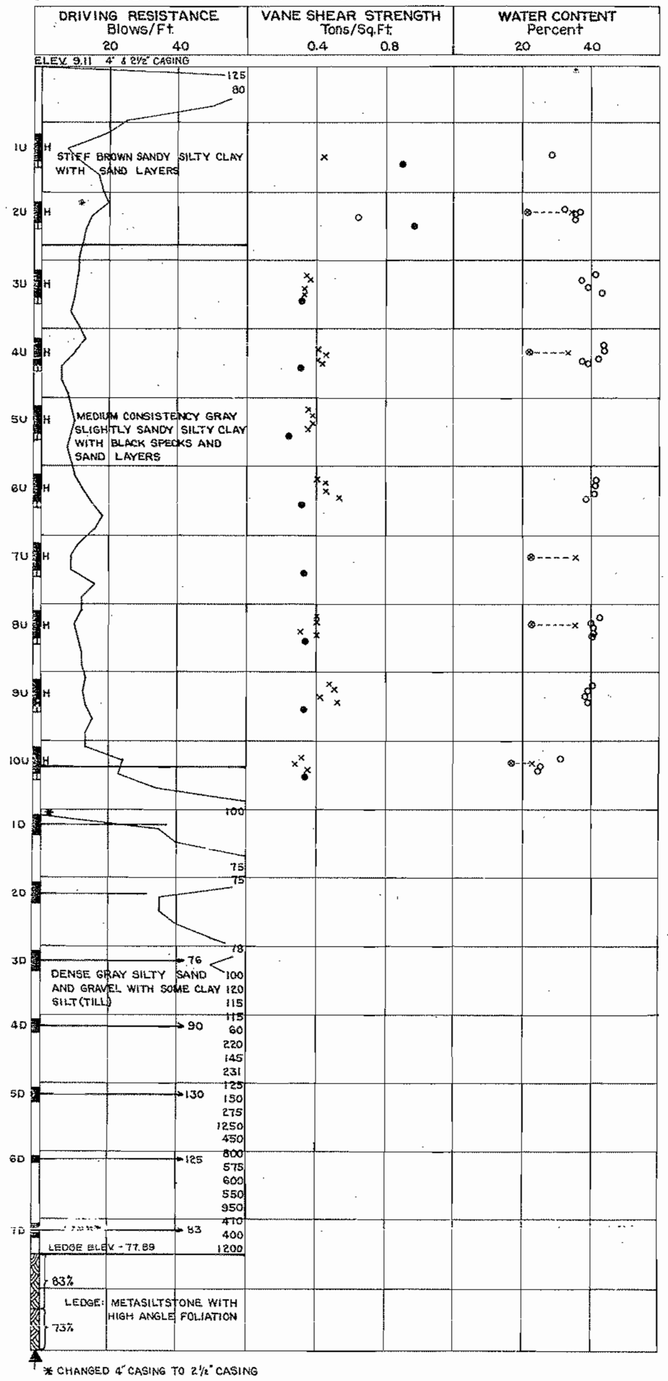
159-16

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	13	64

BORING CT-3 (73) STATION 1158+70 78' RT.



BORING CT-1 (73) STATION 1159+30 78' LT.



BORING NOTES

- ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING
- WATER ELEVATION
- N — 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
  - 1C — 2" O.D. 16 GA. SEAMLESS TUBING
  - 1U — 3 1/2" O.D. 16 GA. SEAMLESS TUBING
  - 1W — WASH SAMPLE AND NUMBER
  - 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
- H — SAMPLING SPOON OR SEAMLESS TUBING DRIVEN BY STATIC WEIGHT OF DRILL RODS AND HAMMER
- P — PISTON SAMPLER
- FIELD VANE TEST
- BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)
- REFUSAL OF DRILL RODS OR CASING (MAY NOT BE LEDGE)
- 77% — LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

SHEAR NOTES

- ● FIELD VANE SHEAR STRENGTHS
- X LABORATORY VANE SHEAR STRENGTHS
- → SHEAR STRENGTHS IN EXCESS OF CAPACITY OF EQUIPMENT
- O ONE HALF UNCONFINED COMPRESSIVE STRENGTHS

WATER CONTENT NOTES

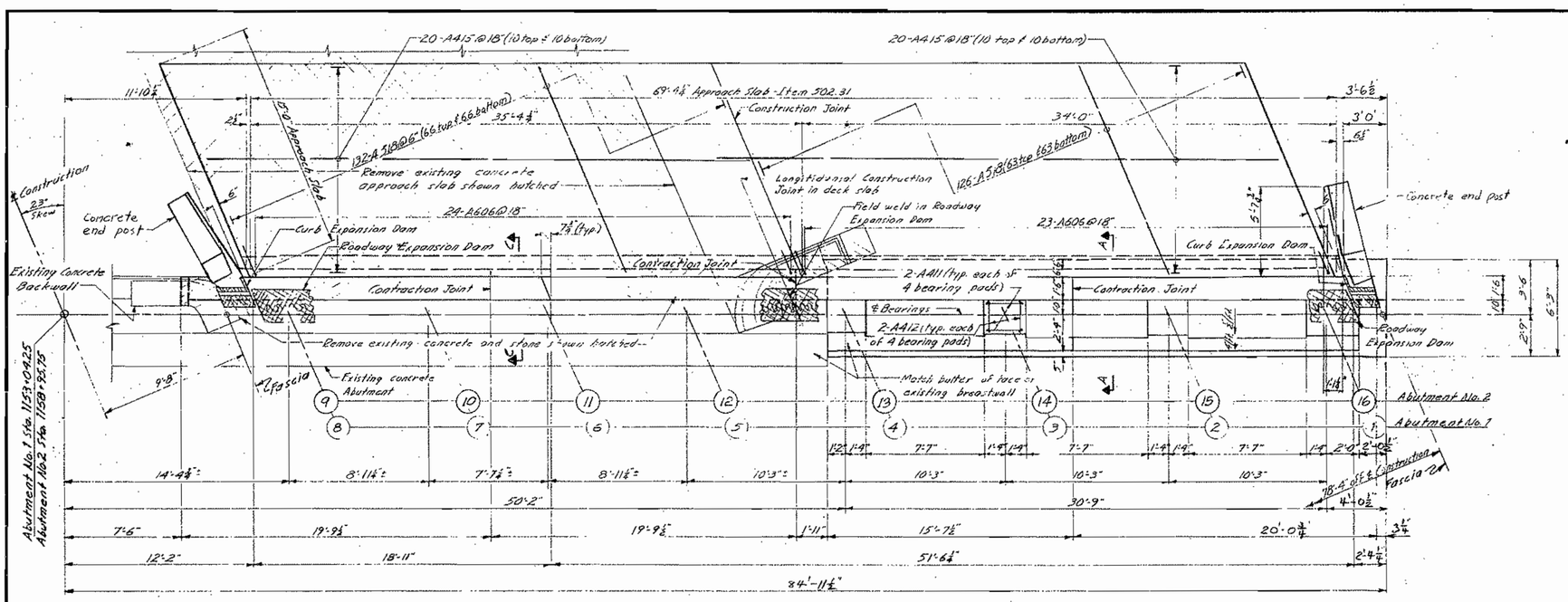
- O NATURAL WATER CONTENTS, GIVEN AS PER CENT OF DRY WEIGHT
- ⊗---X PLASTIC AND LIQUID LIMITS
- IGNITION LOSSES ARE GIVEN AS PER CENT OF DRY WEIGHT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
BORING DETAILS
SHEET 13 OF 64 AUGUSTA, MAINE AUG. 1973

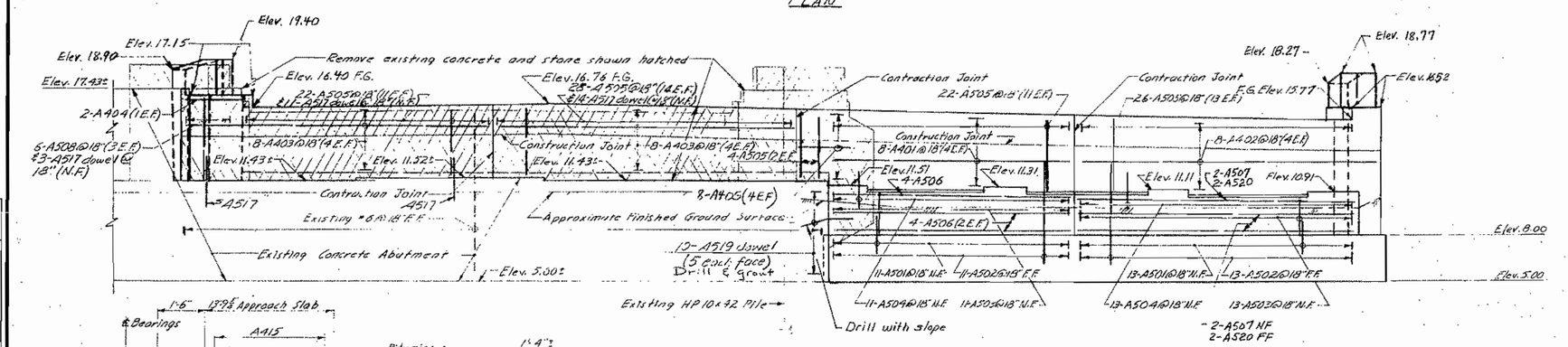
PLANS	BY	DATE
DESIGN - DETAILED	SO/LS	8-23
CHECKED		
REVISIONS		
FIELD CHANGES		

159-17

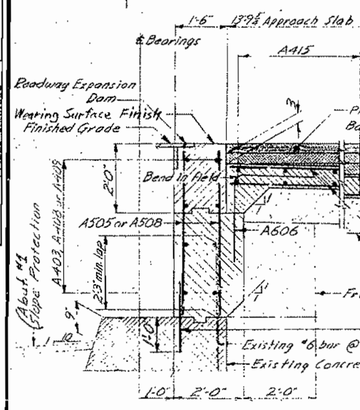
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	14	64



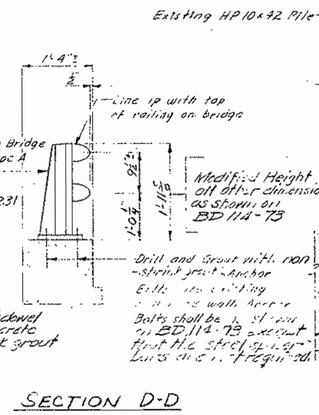
PLAN



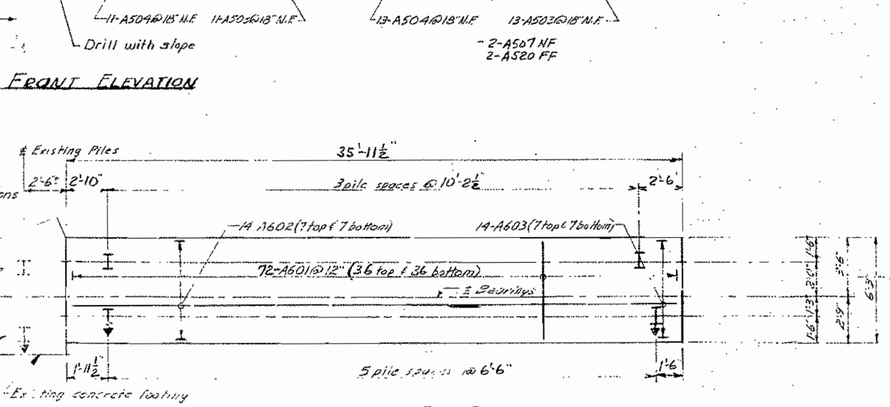
FRONT ELEVATION



SECTION C-C



SECTION D-D



FOOTING AND PILE PLAN

H-BEAM PILE NOTES

1. Piles shall be driven to ledge or practical refusal.
2. All piles shall have pointed reinforced pile tips.
3. Alternate types of pointed reinforced pile tips may be used if they have at least the cross-sectional area of the pointed reinforced pile tip shown on the plans and are approved by the Engineer.
4. Estimated driven lengths of piles are determined from available soils information with no allowance for pile cut-offs and no allowance for uncertain pile penetration.
5. Piles marked thus, ⊢▶, shall be battered 2 inches per foot in the direction of the arrow.
6. Maximum pile load equals 55.5 tons, (including 15 tons allowed for negative skin friction).
7. Following are pile locations, number of piles required, size of piles and estimated driven lengths:
   Abutment No. 1 Left Extension 10-HP 10x42 @ 80' to 85'
   Right Extension 10-HP 10x42 @ 70' to 80'
   Abutment No. 2 Left Extension 10-HP 10x42 @ 80' to 90'
   Right Extension 10-HP 10x42 @ 75' to 80'

ABUTMENT NOTES

1. Chamfer all exposed edges of concrete ¾ inch unless otherwise indicated.
2. All reinforcing steel splices and embedments shall be a minimum of 36 bar diameters unless otherwise indicated.
3. Place reinforcing steel in bridge seats to clear anchor bolts.
4. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
5. Break bond at vertical contraction joints by a method approved by the Engineer.
6. Polyvinylchloride waterstops shall be placed in all vertical contraction joints.
7. Waterstops are not required in horizontal construction joints.
8. Protective Coating for Concrete Surfaces shall be applied to all new and old concrete exposed in the final structure.
9. Place 4 inch diameter drains in breastwall and wings at 10 feet maximum spacing. Exact location to be determined by the Engineer in the field.
10. See note on Transverse Section on General Plan sheet #3 relative to concrete repair work.
11. Removal of existing concrete and stone (including approach slabs) will be paid for under Item 202.12.
12. Payment for removal of existing metal railing on abutment backwalls will be made under Item 202.10.
13. Joint between existing concrete and new work shall be left rough and covered on the back with two layers of heavy roofing 10 inches wide. Cover the concrete with back of each layer as applied with asphalt flashing cement.
14. Non-shrink grout shall be used for grouting reinforcing steel dowels.
15. Replaced old Bearing Pedestals with new ones.

REFERENCES:

1. For Construction and Contraction Joints details, Pointed Reinforced Pile Tip details, Polyvinylchloride Waterstop details, see Standard Details sheet BD 104-73.
2. For Expansion Dams see Standard Details sheet BD 105-74 and sheets #18 & #19 for modifications.
3. For Aluminum Bridge Railing see Standard Details sheet BD 114-73 and Section D-D this sheet.
4. For Bearing Pedestals see Standard Details sheet BD-100-71 and sheets #17, #18 & #19 for types.
5. For Sections A-A, B-B see sheet #15.
6. For concrete end posts see sheet #34.

LEGEND

N.F.	Near Face
F.F.	Far Face
E.F.	Each Face
cl.	clear
F.G.	Finished Grade i.e. top of Roadway Expansion Dam.

Revised As Builts 3/1/79 Hrubiak 2-22-79

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
ABUTMENTS
SHEET 14 OF 64 AUGUSTA, MAINE Sept 1974

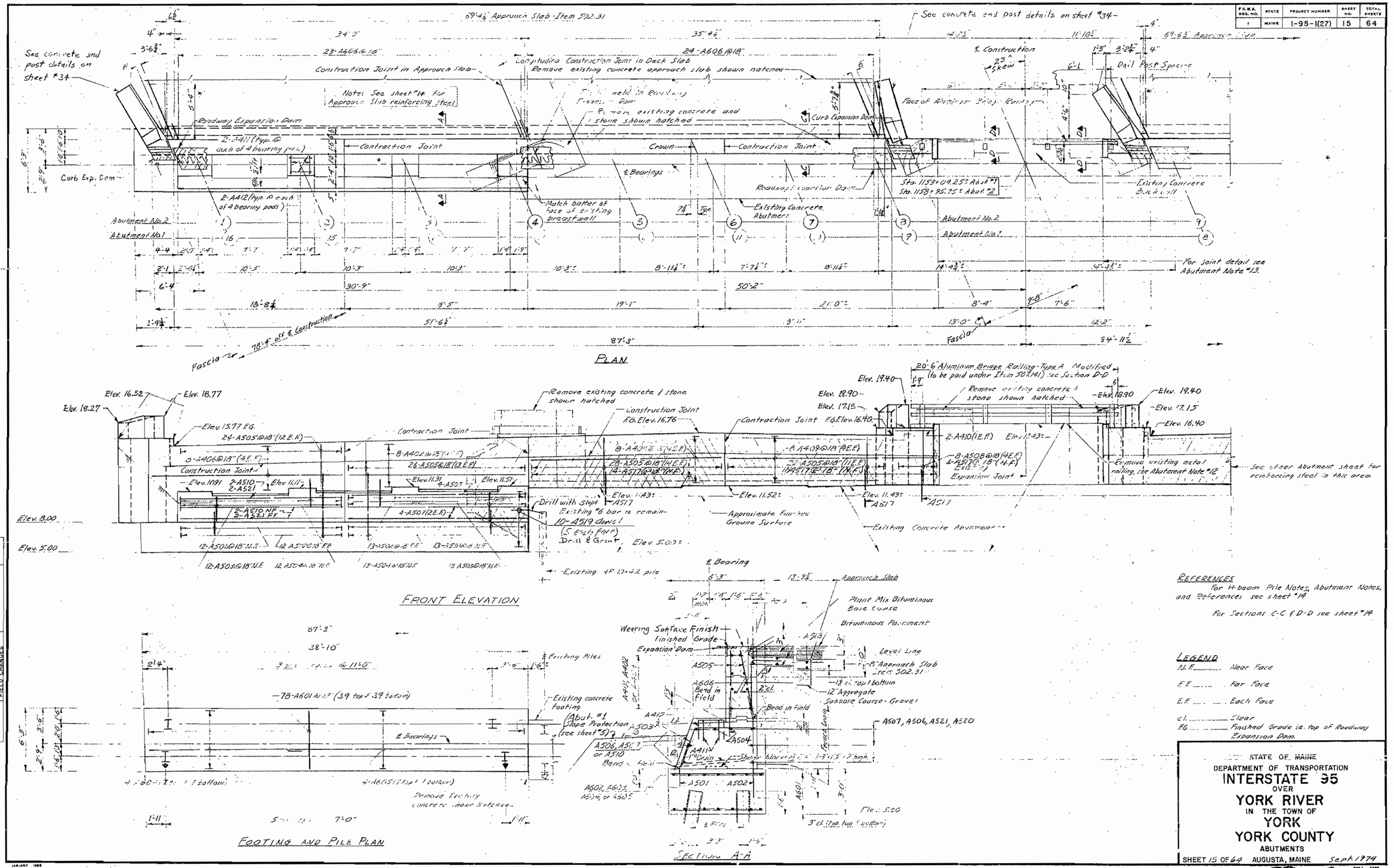
159-18

PLANS		BY	DATE
Reviewed & Filed			
DESIGN-DETAILED	CDH	CDH	1-74
CHECKED	ALL		11-74
REVISIONS			
FIELD CHANGES			

Reinforcing Steel by J.E.T. 1-74
Drawn by R.T.A. 1-74

JANUARY 1969

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	15	64



REFERENCES

For H-beam Pile Notes, Abutment Notes, and References see sheet #14

For Sections C-C & D-D see sheet #14

LEGEND

N.F. ..... Near Face

F.F. ..... Far Face

E.F. ..... Each Face

cl. ..... Clear

F.G. ..... Finished Grade i.e. top of Roadway Expansion Dam.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
ABUTMENTS

SHEET 15 OF 64 AUGUSTA, MAINE Sept. 1974

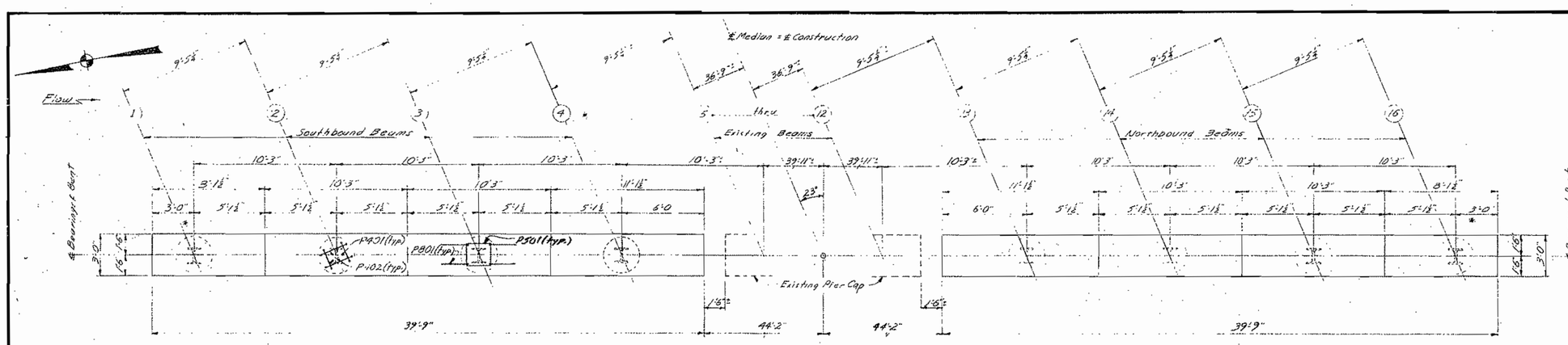
PLANS

	BY	DATE
DESIGN - DETAILED	CDH	1-74
CHECKED	ALL	11-75
REVISIONS		
FIELD CHANGES		

Reinforcing Steel by J.E.T. Drawn by R.T.A.

159-12

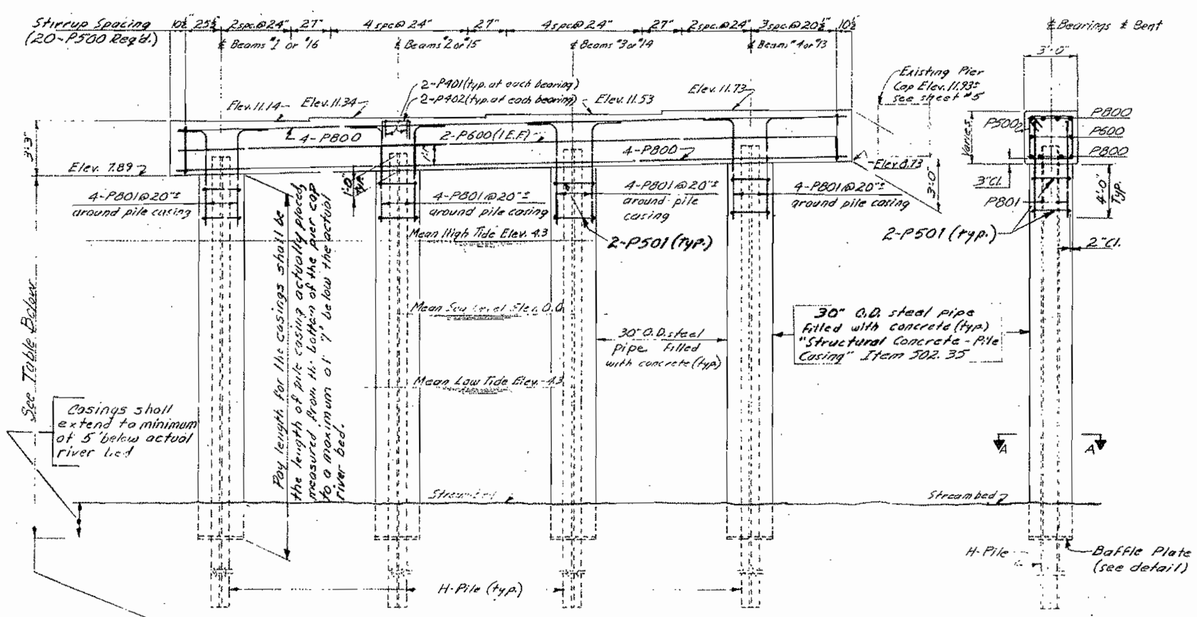
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	16	64



SOUTHBOUND

NORTHBOUND

PLAN - PIERS 1 THRU 12

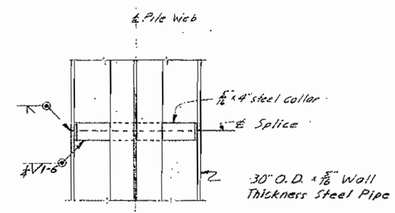


SIDE ELEVATION

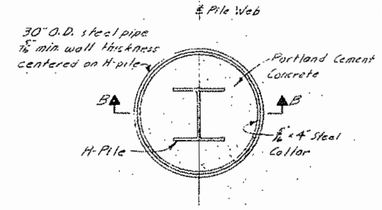
END ELEVATION

ESTIMATED LENGTH OF STRUCTURAL CONCRETE PILE CASING			
# Bent Number	Casing Length	# Bent Number	Casing Length
1	15'	7	17'
2	20'	8	15'
3	30'	9	15'
4	30'	10	15'
5	30'	11	13'
6	27'	12	10'

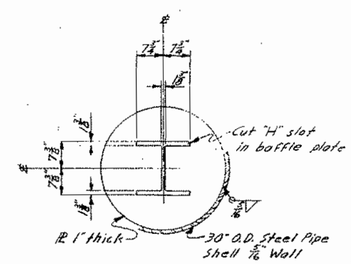
* See sheet #5 for location of Bents



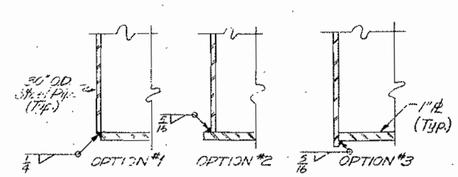
SECTION B-B
CASING SPLICE



SECTION A-A



BAFFLE PLATE
(1 Required per pile)



BAFFLE PLATE
WELD OPTIONS

PILE NOTES

1. Piles shall be driven to ledge or practical refusal.

2. All piles shall have painted reinforced pile tips.

3. Alternate types of painted reinforced pile tips may be used if they have at least the cross-sectional area of the painted reinforced pile tip shown on the plans and are approved by the Engineer.

4. Estimated driven lengths of piles are determined from available soils information with no allowance for pile cut-offs and no allowance for uncertain pile penetration.

5. Maximum pile load equals 96.5 tons, (including 0 tons allowed for negative skin friction).

6. Following are pile locations, number of piles required, size of piles and estimated driven lengths:

NUMBER & LENGTH OF HP 14x73

	SOUTHBOUND		NORTHBOUND	
Bent No.	No. of Piles	Estimated Pile Length Range	No. of Piles	Estimated Pile Length Range
1	4	80' to 85'	4	80 to 90'
2	4	80' to 85'	4	80' to 90'
3	4	80' to 85'	4	85' to 95'
4	4	80' to 85'	4	95' to 100'
5	4	80' to 85'	4	90' to 100'
6	4	80' to 90'	4	90' to 100'
7	4	85' to 95'	4	80' to 90'
8	4	90' to 100'	4	80' to 85'
9	4	90' to 100'	4	80' to 90'
10	4	90' to 100'	4	80' to 90'
11	4	85' to 95'	4	80' to 90'
12	4	80' to 85'	4	80' to 90'

PIER NOTES

1. Chamfer all exposed edges of concrete ¾ inch unless otherwise indicated.

2. Reinforcing steel shall have 3 inches minimum cover unless otherwise indicated.

3. Place reinforcing steel in bridge seats to clear anchor bolts.

4. All reinforcing steel splices and embedments shall be a minimum of 36 bar diameters unless otherwise indicated.

DESIGN CRITERIA

1. Critical AASHO Loading - Group I

2. Buoyancy - Water level assumed at Elev. 8.0

3. Stream flow - Velocity of 2 ft. per second skewed at 10° to longitudinal centerline of pier.

4. Wind - 100 miles per hour

5. Ice - ½ inch thick, producing 400 psi. Ice pressure skewed at 10° to longitudinal centerline of pier, with water level at Elev. 8.0.

REFERENCES

For Bearing Pedestals see Standard Details, sheet BD 100-71, Bearing Pedestals & Structural Steel Framing sheets for type.

For Reinforced Pile Tips see Standard Details, sheet BD 104-73, Armored Joint, Drain, Shear Connectors and Misc. Structural Details.

LEGEND

Cl. = Clear

E.F. = Each Face

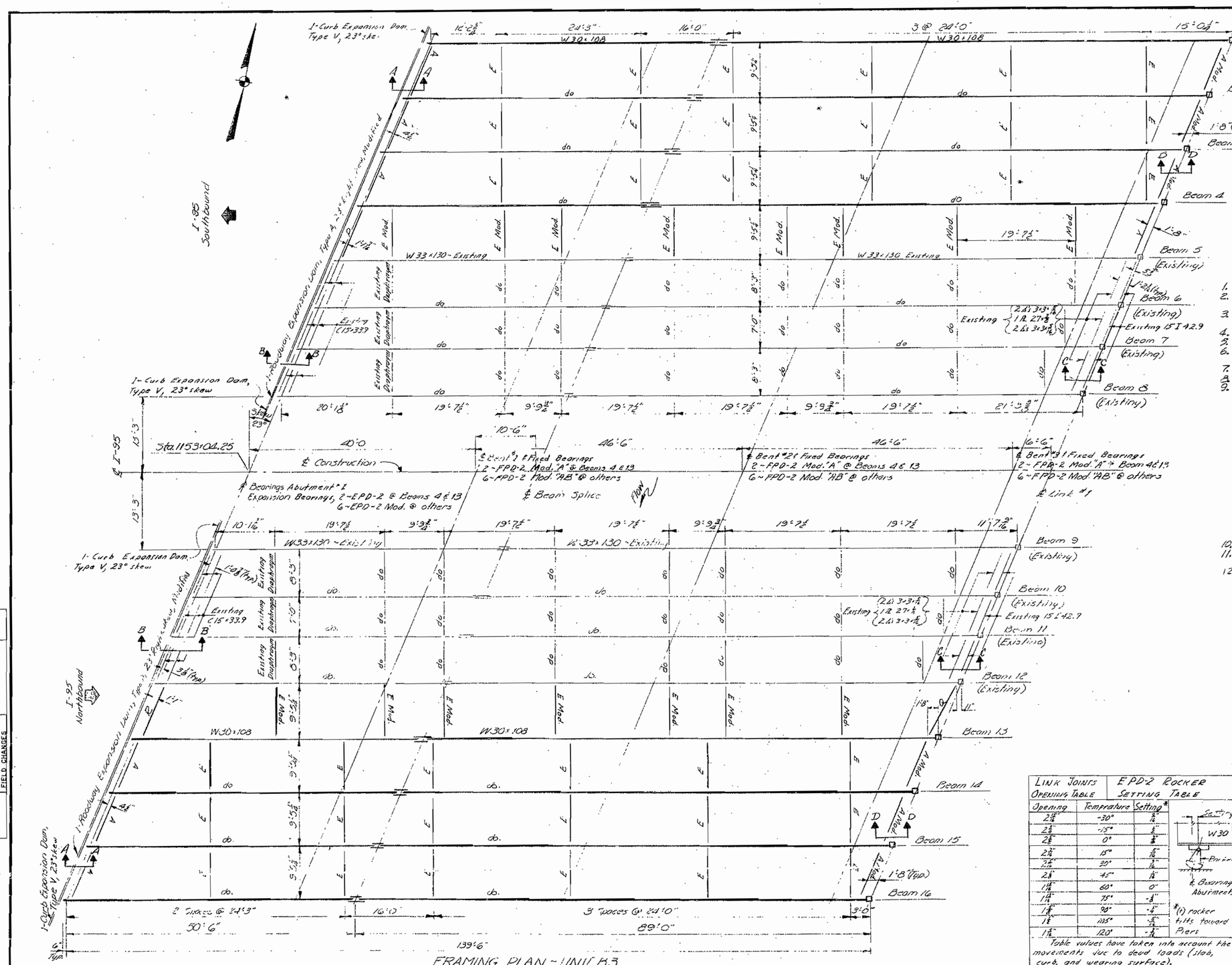
Spc. = Spaces

PLANS		BY	DATE
Des. Engr.			
DESIGN - DETAILED		C.D.H.	12-73
CHECKED		R.T.A.	12-73
REVISIONS		A.L.L.	11-74
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
PIERS
SHEET 16 OF 64 AUGUSTA, MAINE Sept. 1974

159-20

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27	17	64



FRAMING PLAN - UNIT B3

STRUCTURAL STEEL NOTES

1. All dimensions are horizontal or vertical.
2. Bearing stiffeners shall be detailed to be plumb after erection and dead loading of Beam.
3. Diaphragm connection plates shall be either plumb or normal to the top flange.
4. No camber required. Place all natural camber up.
5. Beams shall be ASTM A36.
6. New and existing beams shall be fitted with shear connectors.
7. All beams are parallel and level longitudinally.
8. Existing diaphragms are 4-∠s 3x3x7/16 and Web PL's 27x3/8.
9. Bearing Pedestals are modified as follows:

Modified Dimensions

	C	D	H
FPD-2 Mod. "A"	12 1/2"	1'-10 1/2"	9"
FPD-2 Mod. "AB"	12 1/2"	1'-10 1/2"	9"

The 3/8" dimensions shown in Detail "A" of the Standard Details (BD 100-71) shall be altered to be 7/16" for bearing pedestals FPD-2 Mod. "AB" and EPD-2 Mod. to accommodate transverse expansion and contraction.
The sole plate of FPD-2 Mod. "A" and FPD-2 Mod. "AB" will project outside of the beam flange. Therefore, the beam to sole plate 3/8" fillet weld shall be made on top of and across the sole plate along the edges of the beam flanges. The weld shall be returned 3/4" transversely onto the beam flange to the weld termini.
All other dimensions shall be as shown on BD100-71.
Set sole plates centered transversely on pins at 45°F.

10. See superstructure Note #8 sheet #22.
11. Existing bracing angles at existing rail brackets are not shown on Framing Plans.
12. Remove, Clean & Reset Link Joints.

REFERENCES

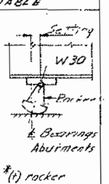
	Standard Details
Bearing Pedestals	# BD 100-71 & notes above.
Beam Splices	# BD 103-64
Expansion Dams	# BD 105-74 & sheets #18 & #19.
Shear Connectors	# BD 104-73 & sheet #20
Drains (Item 502.26)	# BD 104-73
Diaphragms	# BD 113-72 & sheet #21
Link Joint Detail	see sheet #20

NOTE:
Structural Steel Shop Drawings of Existing Steel: American Bridge Co. Order No. J3065 (approx. 50 sheets). Prints are available, upon request, at the Maine Department of Transportation, Augusta, Maine.

For Section A-A & B-B see sheet #23
For Section C-C & D-D see sheet #24

For composite Layout of Units A, B1, B2 & B3 see Sh. #3, General Plan.

LINK JOINTS OPENING TABLE	EPD-2 ROCKER SETTING TABLE	
Opening	Temperature	Setting*
2 3/4"	-30°	3/16"
2 5/8"	-15°	1/8"
2 1/2"	0°	1/16"
2 3/8"	15°	1/16"
2 1/4"	30°	1/8"
2 1/8"	45°	1/4"
1 7/8"	60°	0"
1 3/4"	75°	-1/8"
1 5/8"	90°	-1/4"
1 1/2"	105°	-3/8"
1 1/4"	120°	-1/2"



*(-) rocker tilts toward Piers

Table values have taken into account the movements due to dead loads (slab, curb, and wearing surface).

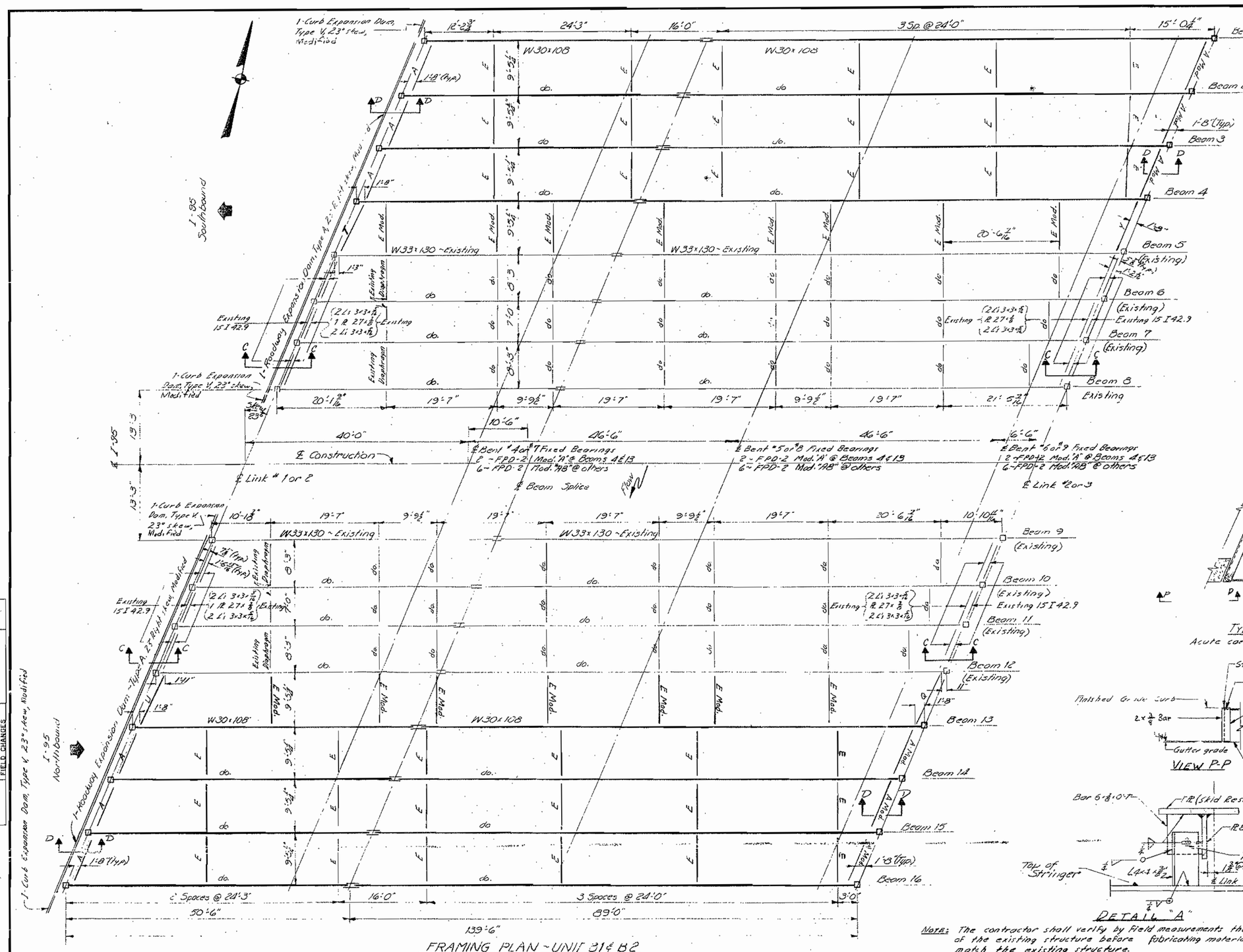
Richard A. Gaudette, W. Hartley 2-22-79

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
STRUCTURAL STEEL- FRAMING PLAN
SHEET 17 OF 64 AUGUSTA, MAINE Sept. 1974

159-21

PLANS	BY	DATE
DESIGN - DETAILED	CAH JET	11-73
CHECKED	ALL	11-73
REVISIONS		
FIELD CHANGES		

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	18	64



FRAMING PLAN ~ UNIT B1 & B2

EXPANSION DAM NOTES

1. Roadway Expansion Dams, Type A, 23° Right Skew, Modified shall be as shown on Standard Details BD 105-74 with the following modifications:

ABUTMENT No. 1 & 2 AT EXISTING STEEL
Anchor bar B1 on 3:12 slope to be 2" x 1/8" x 1'-0". Adjustment bar B3 to be attached to top of stringers.

ABUTMENT No. 1 & 2 AT NEW STEEL
No Modifications

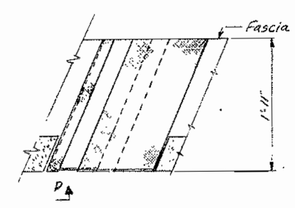
AT LINKS AT EXISTING STEEL
Provide Adjustment Devices on both sides. Anchor bars shall be B1 on both sides. Bar B1 on 3:12 slope to be 2" x 1/8" x 1'-0".

AT LINKS AT NEW STEEL
Provide Adjustment Devices on both sides. Anchor bars shall be B1 on both sides. Bar B1 on 3:12 slope on West side shall be 2" x 1/8" x 1'-0". Adjustment Devices on West side shall attach to each W30x108.

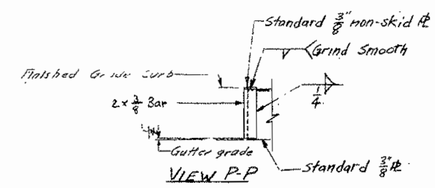
AT ALL LOCATIONS
A) Provide for field weld at the longitudinal construction joint and at the crown line.
For Section C-C and D-D see sheet # 24

2. Curb Expansion Dams, Type V, shall be as shown on Standard Details BD 105-74. Curb Expansion Dams, Type V, Modified shall be as shown on BD 105-74 with modifications as shown in Detail "B" below.

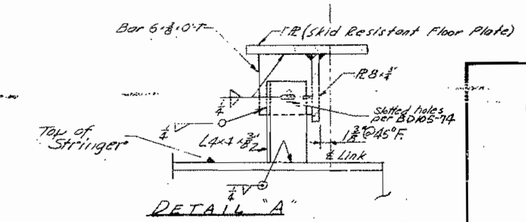
3. Material: ASTM A588, or A242 (Weldable)
Anchor bars and adjustment devices may be A36



DETAIL "B"
TYPE V MODIFIED
Acute corners shown, Obtuse corners similar



VIEW P-P



DETAIL "A"

NOTE: The contractor shall verify by field measurements the dimensions of the existing structure before fabricating materials to match the existing structure.

STATE OF MAINE
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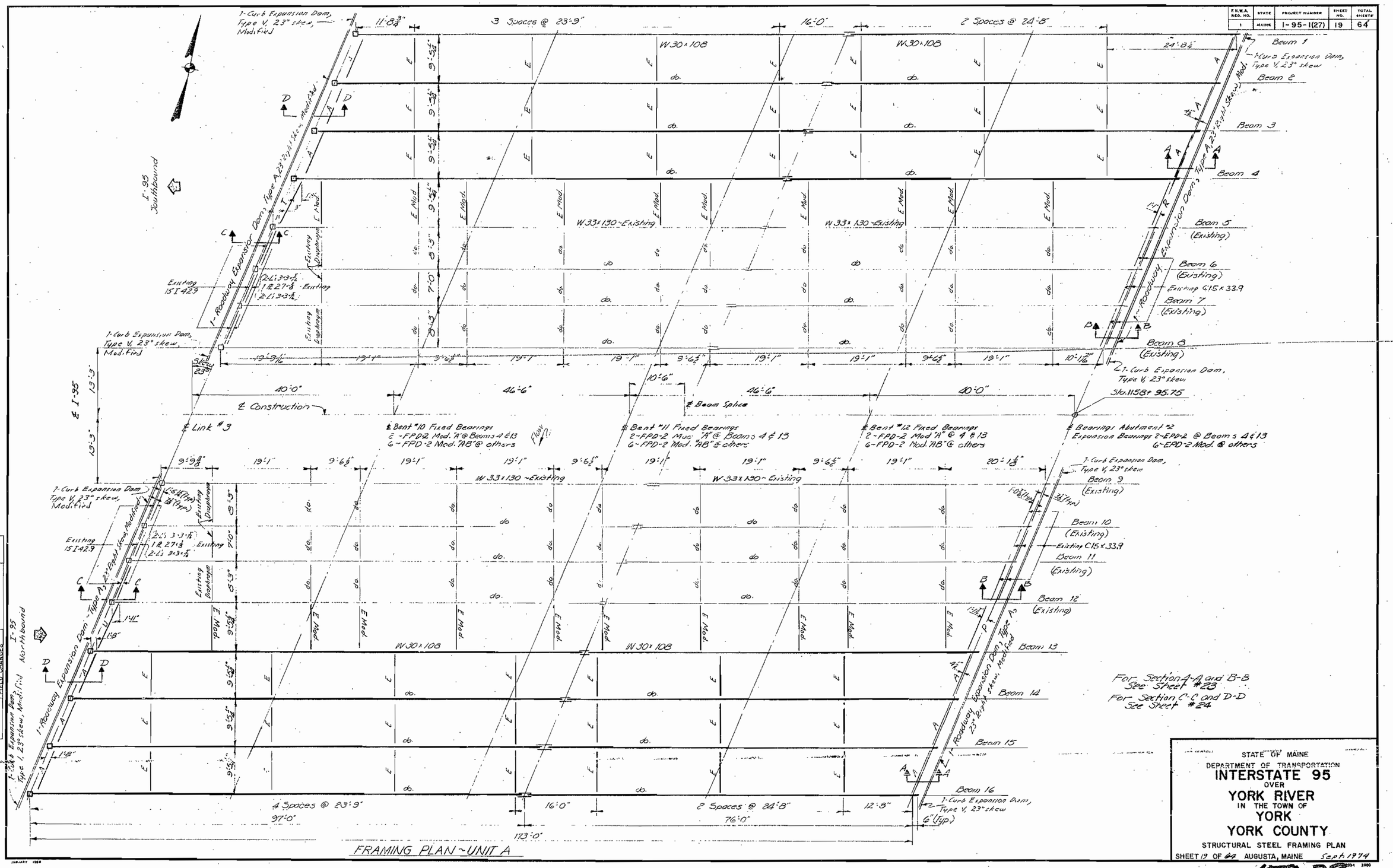
YORK COUNTY
STRUCTURAL STEEL-FRAMING PLAN
SHEET 18 OF 64 AUGUSTA, MAINE Sept. 1974

PLANS

	BY	DATE
DESIGN-DETAILED	CDH	11-73
CHECKED	JET	11-73
REVISIONS	ALL	11-73
FIELD CHANGES		

159-22

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	19	64



FRAMING PLAN ~ UNIT A

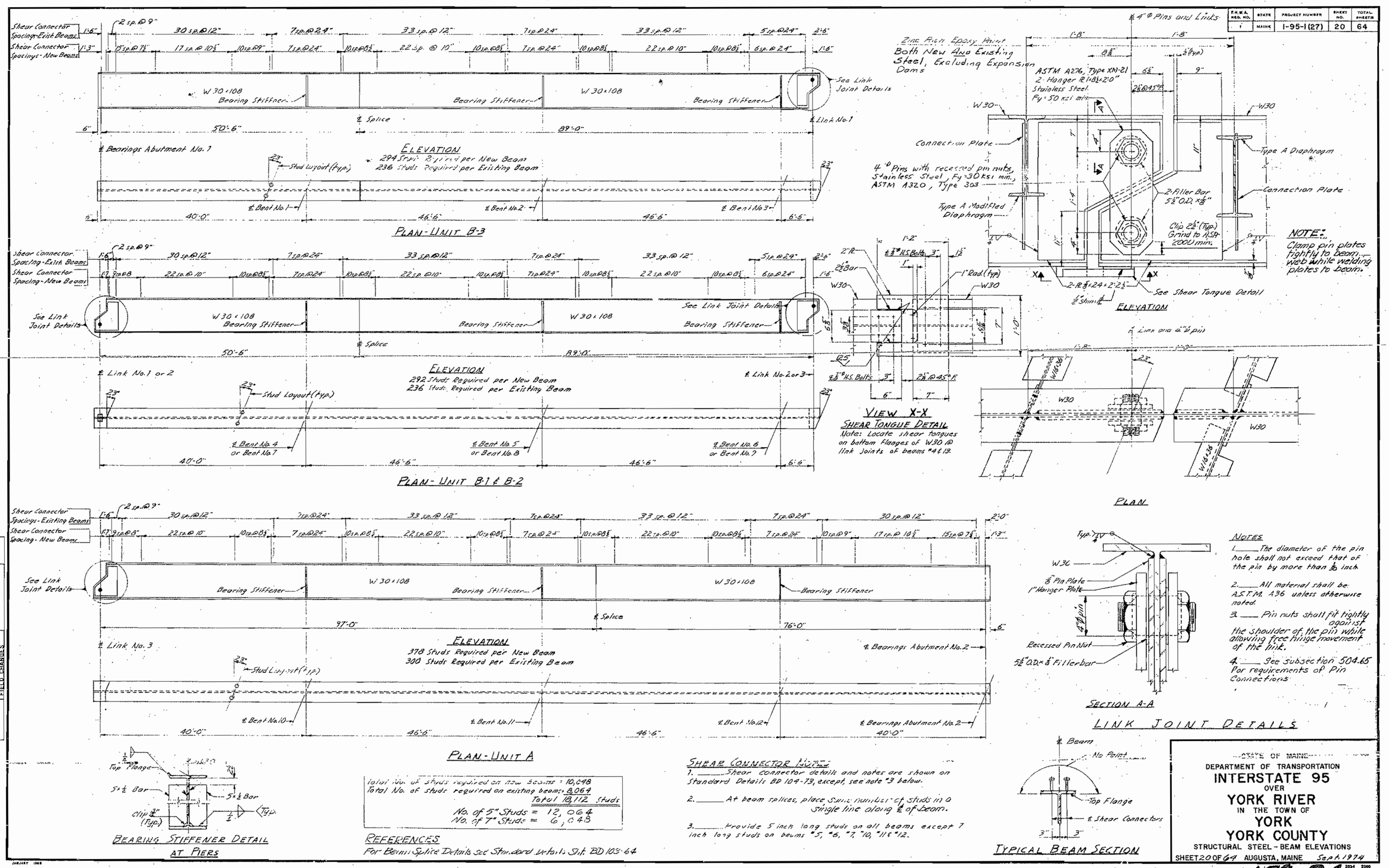
	BY	DATE
DESIGN - DETAILED	CDH	11-72
CHECKED	JET	11-72
REVISIONS	ALL	
FIELD CHANGES		

PLANS

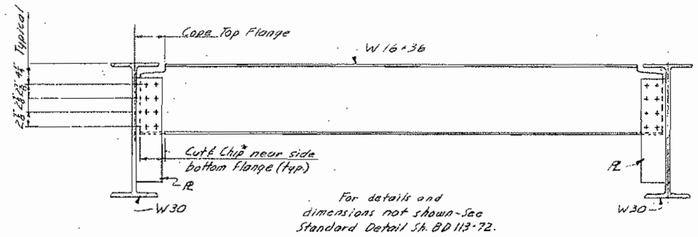
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
STRUCTURAL STEEL FRAMING PLAN
SHEET 19 OF 64 AUGUSTA, MAINE Sept. 1974

159-23

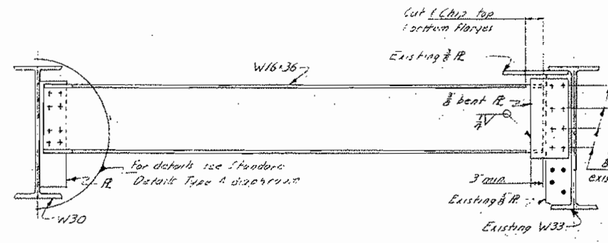
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	20	64



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	21	64



DIAPHRAGM TYPE A MODIFIED



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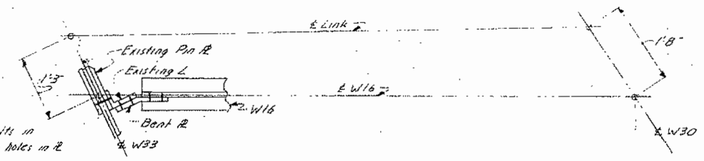
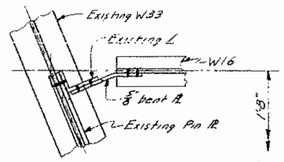
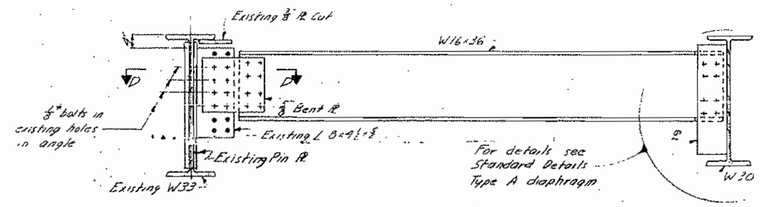


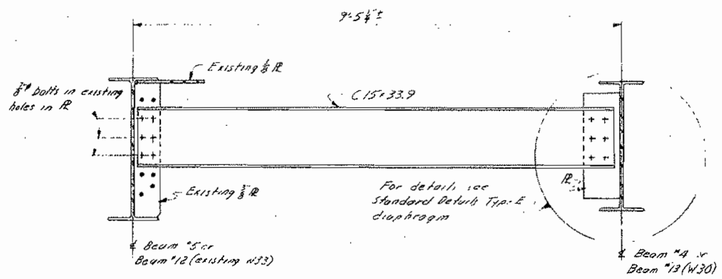
SECTION D-D



SECTION B-B



DIAPHRAGM TYPE T



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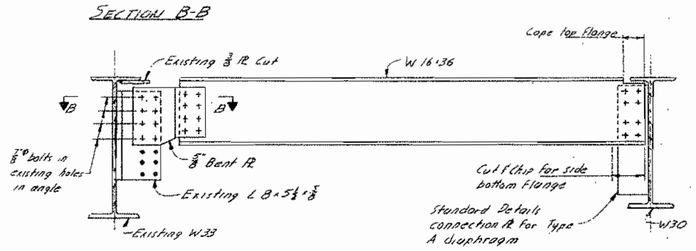
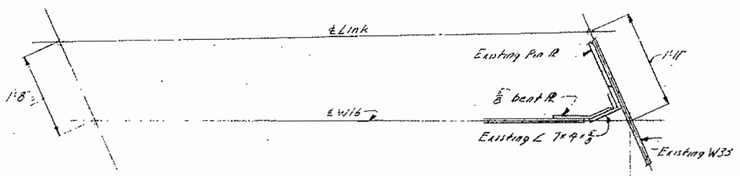
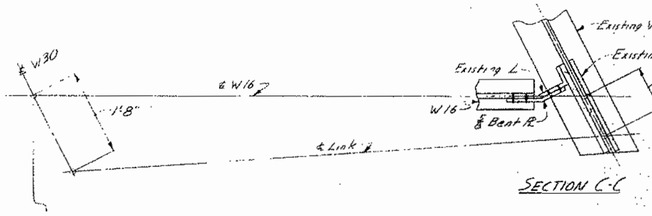


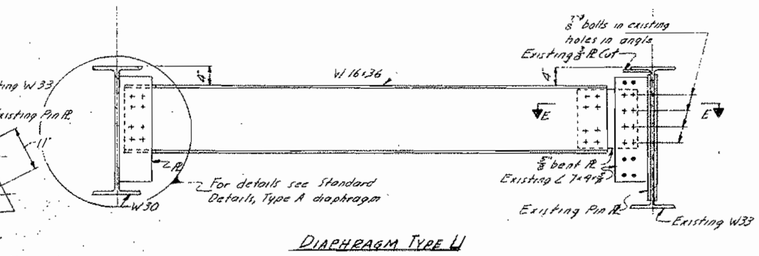
DIAPHRAGM TYPE Y



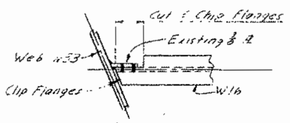
SECTION E-E



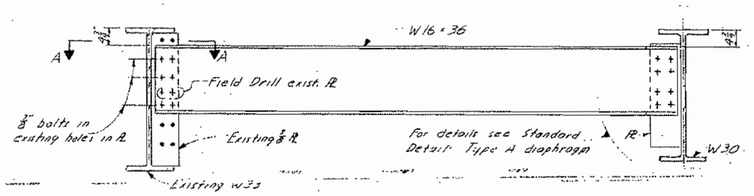
SECTION C-C



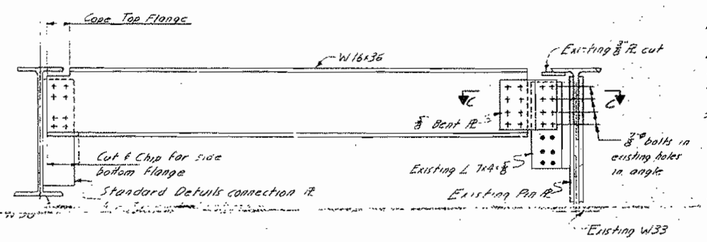
DIAPHRAGM TYPE U



SECTION A-A



DIAPHRAGM TYPE P



DIAPHRAGM TYPE Q

REFERENCES

1. See Structural Steel Notes on sheet #17.
2. See Standard Details sheet BD 112-72 for standard diaphragms A & E and for Fabrication Notes applicable for all diaphragms.
3. For Framing Plan see sheets #17, #18 & #19.

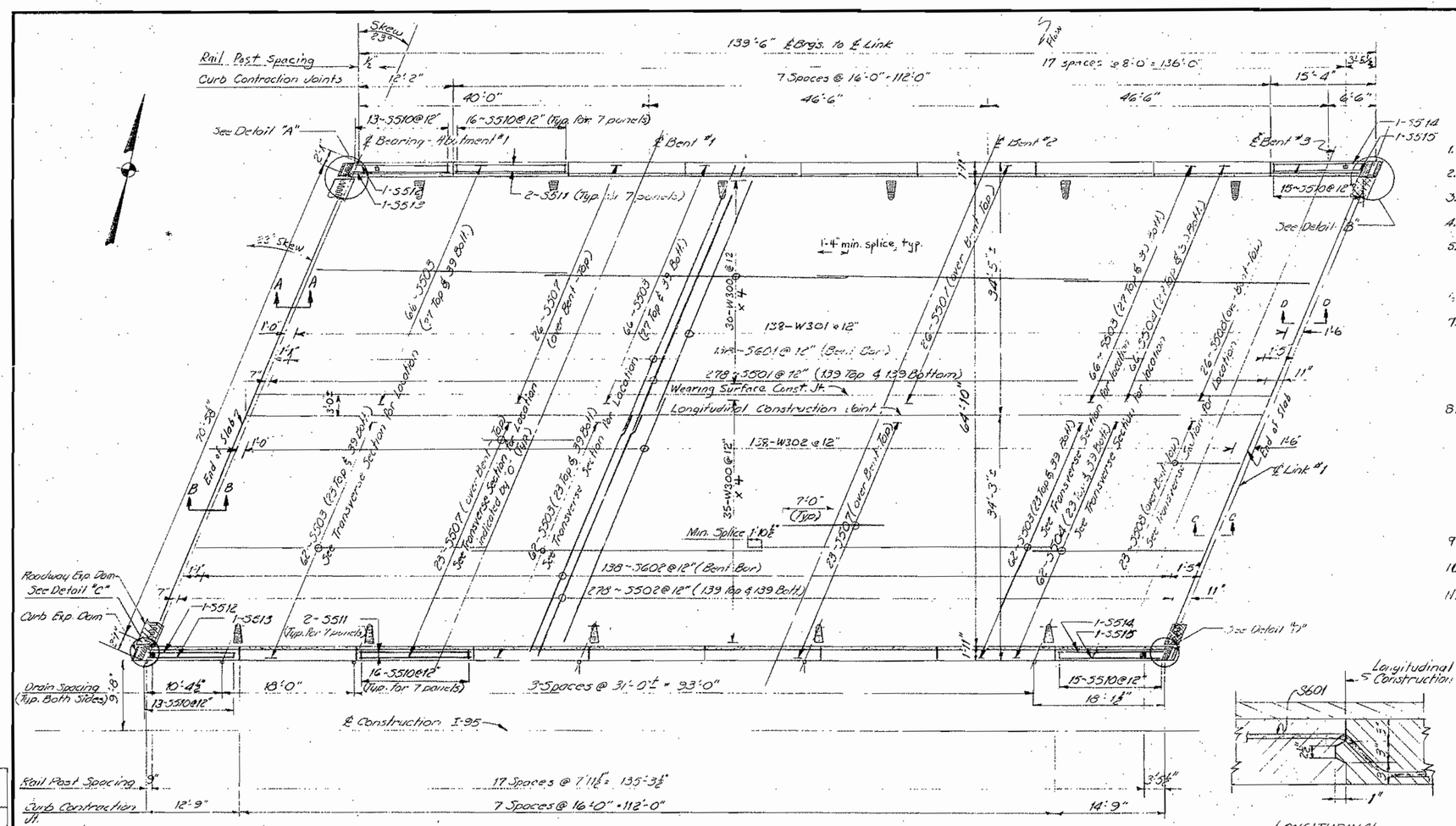
PLANS	BY	DATE
Designed By		
Drawn By		
Checked By		
DESIGN-DETAILED	CDH	12-73
CHECKED	CDS	12-73
REVISIONS	ALL	11-74
FIELD CHANGES		

Revised RTA 12-73

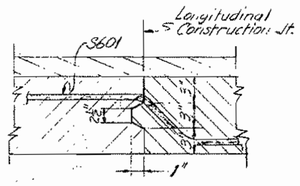
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
STRUCTURAL STEEL-DIAPHRAGMS
SHEET 21 OF 64 AUGUSTA, MAINE Sept. 1974

159-25

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	22	64



SB-SUPERSTRUCTURE SLAB-UNIT #3



LONGITUDINAL CONSTRUCTION JOINT

SUPERSTRUCTURE NOTES

1. Chamfer all exposed edges of concrete ½ inch unless otherwise indicated.
2. Form a 1" V-Groove on the outside faces of each contraction joint in the curbs and at the joint between the curb and slab.
3. Break the bond in contraction joints in the concrete curbs by a method approved by the Engineer. Do not break bond in slab joints.
4. Provide joints in the Vertical Bridge Curb, Type 1 at each contraction joint in the concrete curb.
5. Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.

7. "Protective Coating for Concrete Surfaces" shall be applied to the following areas: Top of concrete curb, fascias, and under to the drip notch. Also coat all exposed concrete under slab to the diaphragms of the Roadway Expansion Dams. Also coat concrete wearing surface.

8. The concrete shall be kept plastic 1 complete span back of the span being placed.

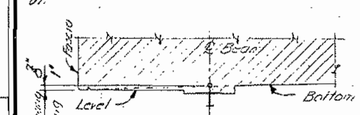
   The superstructure slab may be placed either continuously or by units as follows:
   (a.) Continuous Placement - The contractors placement procedure shall be approved by the Engineer.
   (b.) Unit Placement - A unit is a section between two Roadway Expansion Dams. Any unit may be placed first. A minimum of 5 days shall elapse between placements of any two adjacent units, however if units are placed successively from N.E. to S.W. no waiting will be necessary.
9. Mortar for bedding and for joints in the granite curb shall contain a non-shrink additive.
10. Provide 2½" expansion joint opening @ 45°F in the Aluminum Bridge Railing rails in panels of Roadway Expansion Dams.
11. Aluminum Bridge Railing rails shall extend beyond ℄ of last posts on the bridge @ Abutment #1-SB = 2'-3"; #1-SB Median side = 2'-4½"
    #1-NB Median side = 2'-3"; #1-NB = 2'-4½"
    #2-SB Median side = 2'-3"; #2-SB = 2'-4½"
    #2-NB = 2'-3"; #2-NB Median side = 2'-4½"

REFERENCES

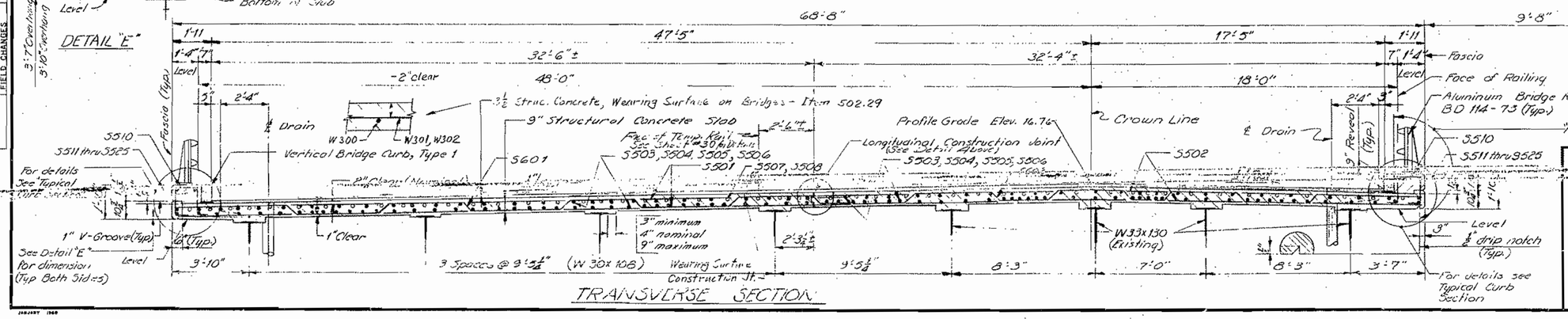
Typical Curb Section, Vertical Bridge Curb, Drains	BD 104-73
Expansion Dams	BD 105-64 & Sheets #18 & #19
Aluminum Bridge Railing	BD 114-73
Reinforcing Steel Schedule	Sheet #28
Bottom of Slab Elevations	Sheet #25
Construction Joint in conc wearing surface	BD 104-73

NOTES

For Sections A-A & B-B, and Details A, B, C & D see sheet #23
For Sections C-C & D-D see sheet #24.



DETAIL "E"



TRANSVERSE SECTION

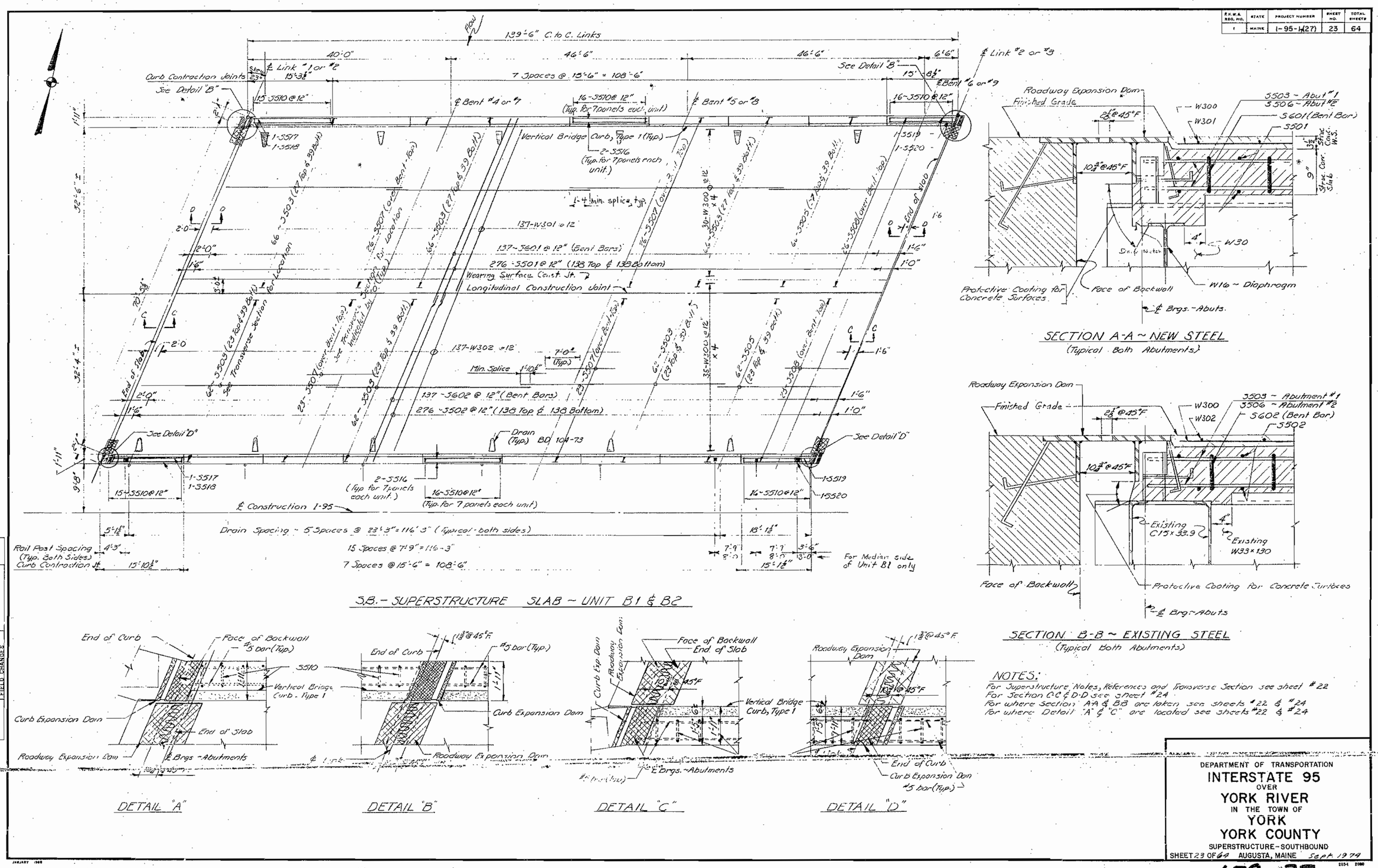
	BY	DATE
Reg. Res. Eng.		
DESIGN-DETAILED	CDH	12-30-73
CHECKED	KL Leach	12-30-73
REVISIONS	MLL	
FIELD CHANGES		

PLANS

DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
SUPERSTRUCTURE- SOUTHBOUND
SHEET 22 OF 64 AUGUSTA, MAINE Sept. 1974

159-26

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	23	64



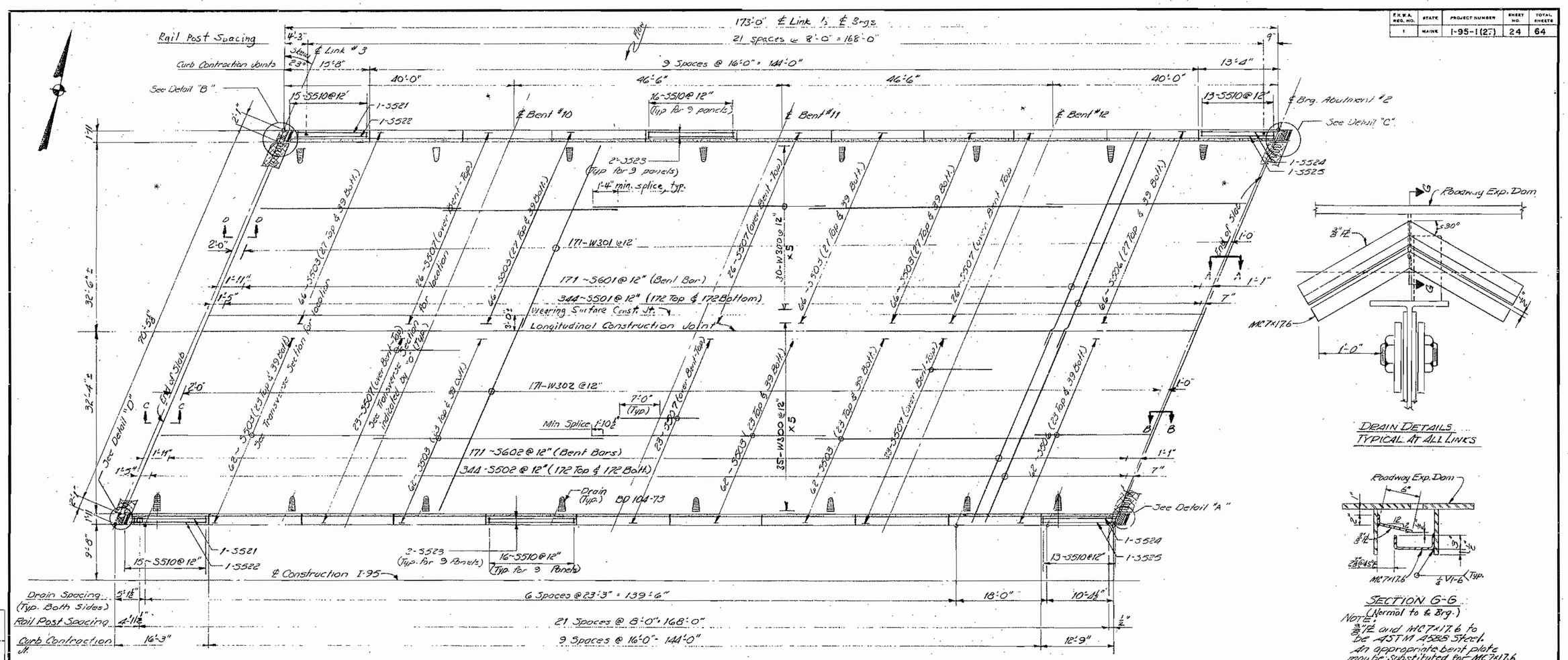
NOTES:
For Superstructure Notes, References and Transverse Section see sheet #22
For Section C-C & D-D see sheet #24
For where Section A-A & B-B are taken see sheets #22 & #24
For where Detail "A" & "C" are located see sheets #22 & #24

PLANS
DESIGN - DETAILED
CHECKED
REVISIONS
FIELD CHANGES
BY
DATE

DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
SUPERSTRUCTURE - SOUTHBOUND
SHEET 23 OF 64 AUGUSTA, MAINE Sept. 1974

159-27

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	24	64

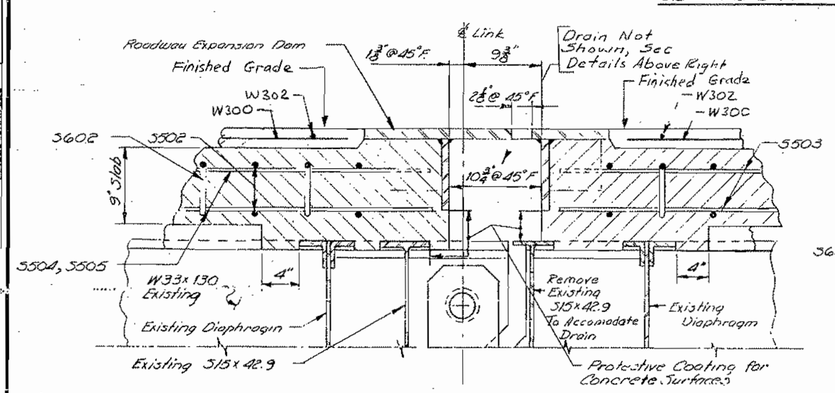


SB - SUPERSTRUCTURE SLAB ~ UNIT A

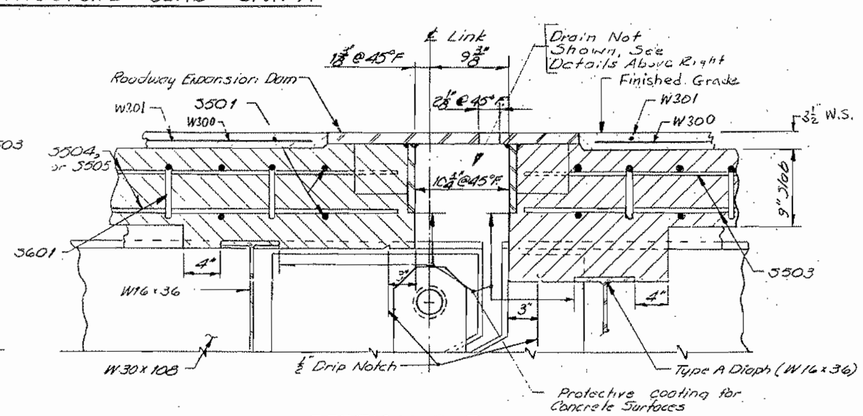
DRAIN DETAILS TYPICAL AT ALL LINKS

SECTION G-G
(Normal to ℄ Brg.)

NOTE:
3/8"PL and MC7x17.6 to be ASTM A588 Steel. An appropriate bent plate may be substituted for MC7x17.6. Drain shall be painted. (1st Coat Shall Be Zinc Rich Paint)



SECTION C-C
(Typ. Existing Link Joint)



SECTION D-D
(Typ. New Link Joint)

NOTES:

For Superstructure Notes, References, and Transverse Section see sheet #22
For Sections A-A & B-B see sheet #23
For Details "A", "B", "C" and "D" see sheet #23

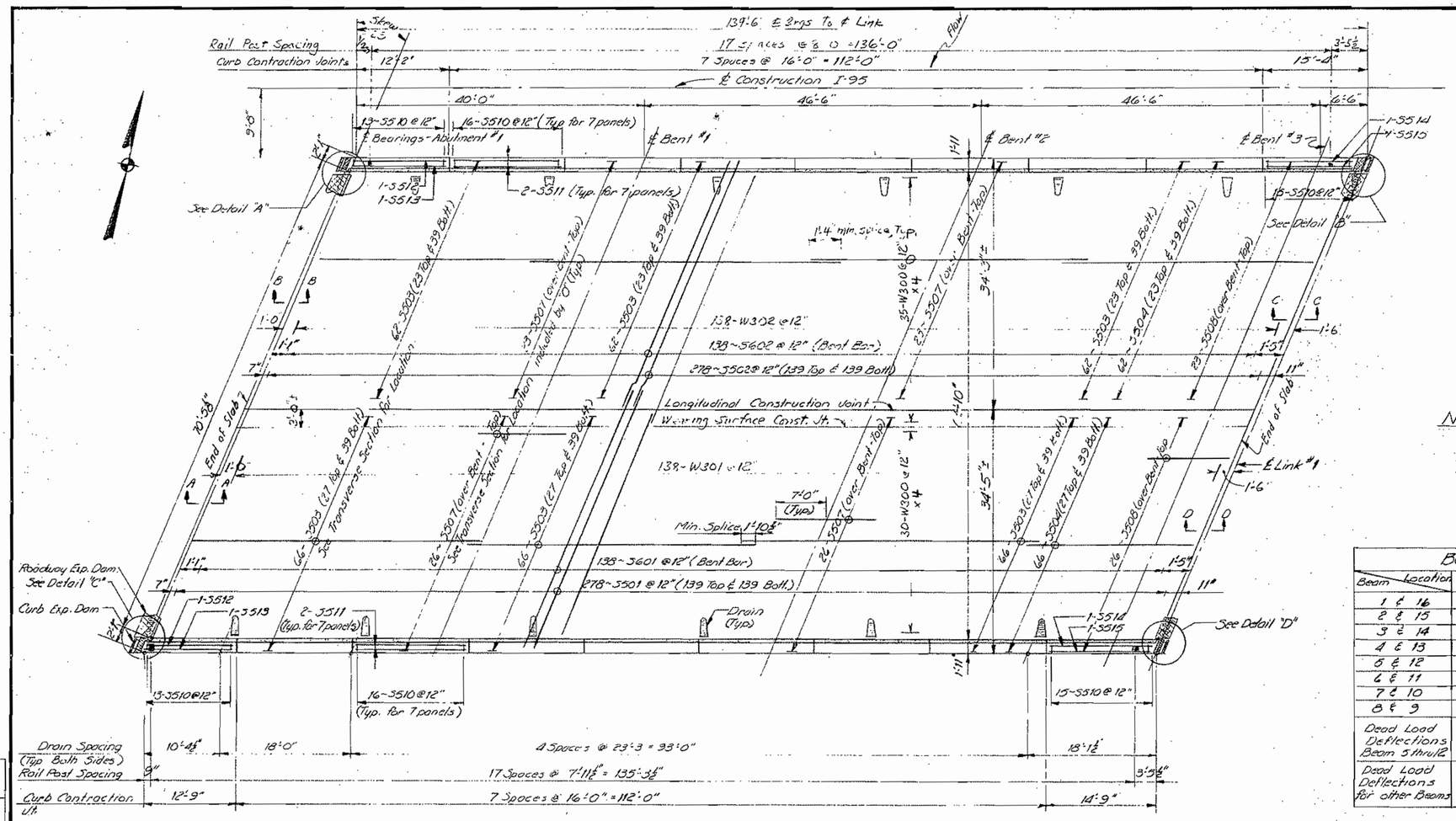
PLANS

	BY	DATE
DESIGN-DETAILED	CDH	12-27-73
CHECKED	K.L. Leach	12-27-73
REVISIONS	ALL	11-21-
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
SUPERSTRUCTURE - SOUTHBOUND
SHEET 24 OF 64 AUGUSTA, MAINE Sept. 1974

159-28

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	25	64



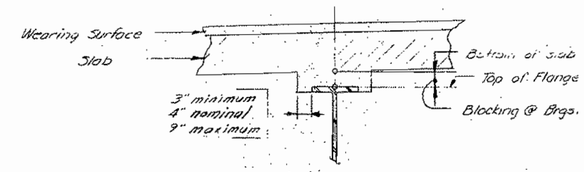
NB - SUPERSTRUCTURE SLAB · UNIT B3

NOTES:
For Superstructure Notes, References, and Transverse Section see sheet #22
For Sections A-A and B-B see sheet #23
For Sections C-C and D-D see sheet #24
For Details "A", "B", "C", and "D" see sheet #23

BOTTOM OF SLAB ELEVATIONS *

Beam \ Location	℄ Brg.~ Abuts	℄ 40' Spans	℄ Pier Bents	℄ 46'-6 Spans
1 & 16	14.78	14.80	14.78	14.79
2 & 15	14.97	14.99	14.97	14.99
3 & 14	15.17	15.19	15.17	15.18
4 & 13	15.37	15.39	15.37	15.38
5 & 12	15.56	15.57	15.56	15.57
6 & 11	15.71	15.72	15.71	15.72
7 & 10	15.57	15.58	15.57	15.58
8 & 9	15.39	15.40	15.39	15.40
Dead Load Deflections Beam 5 thru 12	0	.013 ft.	0	.010 ft.
Dead Load Deflections for other Beams	0	.020 ft	0	.015 ft.

* NOTE: Bottom of Slab Elevations are adjusted to compensate for dead load deflections.



BLOCKING DETAIL

Blocking @ Brgs. and Links	
1-4	1¾"
13-16	1¾"
5 & 12	3¾" ±
6 & 11	4¾" ±
7 & 10	2¾" ±
8 & 9	1¾" ±

(Do not use for setting forms.)

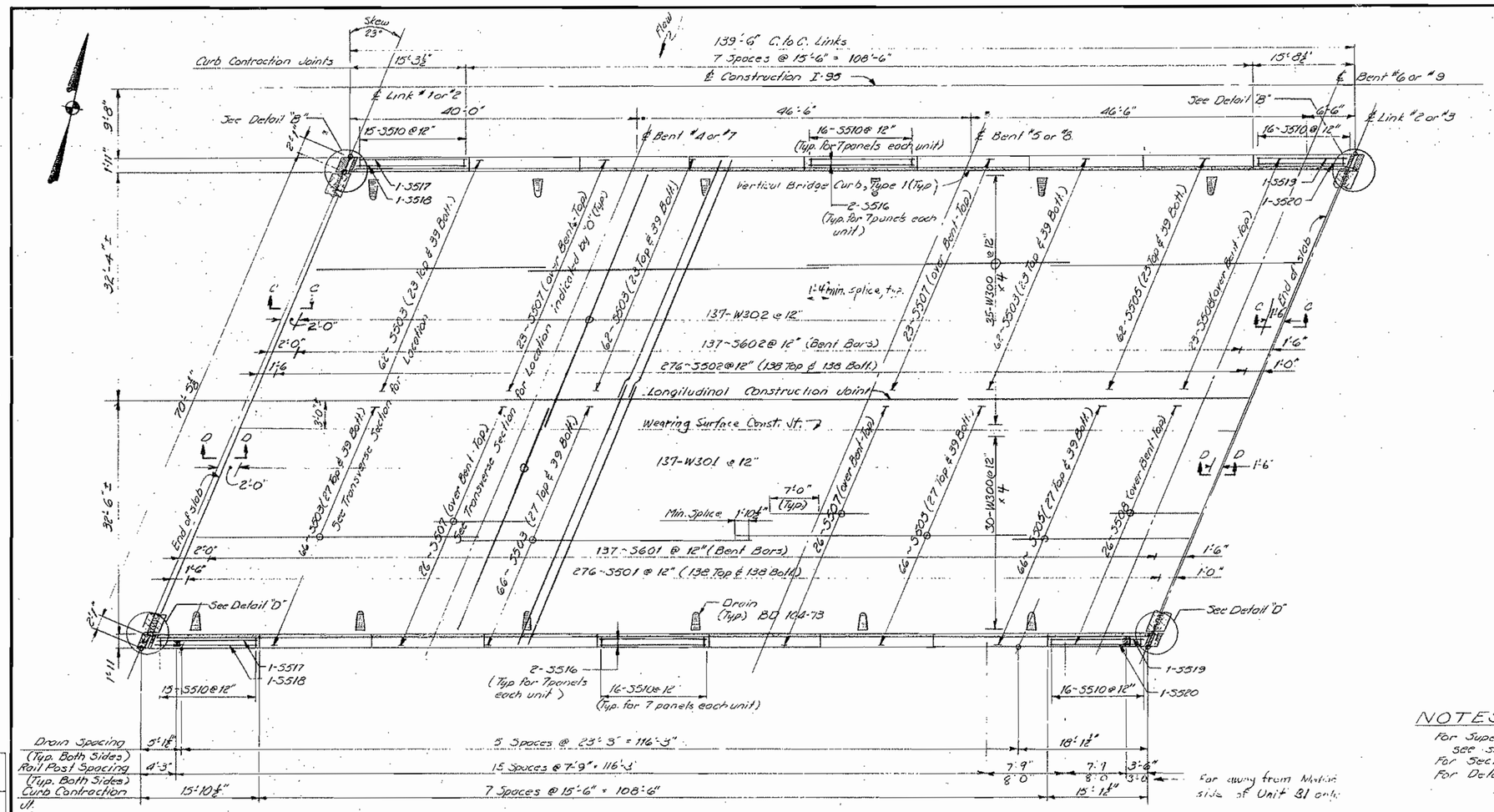
PLANS

	BY	DATE
DESIGN-DETAILED	CDH	1-3-74
CHECKED	KLLeach	1-3-74
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
SUPERSTRUCTURE-NORTHBOUND
SHEET 25 OF 64 AUGUSTA, MAINE Sept. 1974

159-29

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	26	64



N.B. - SUPERSTRUCTURE SLAB ~ UNIT B1 & B2

NOTES:

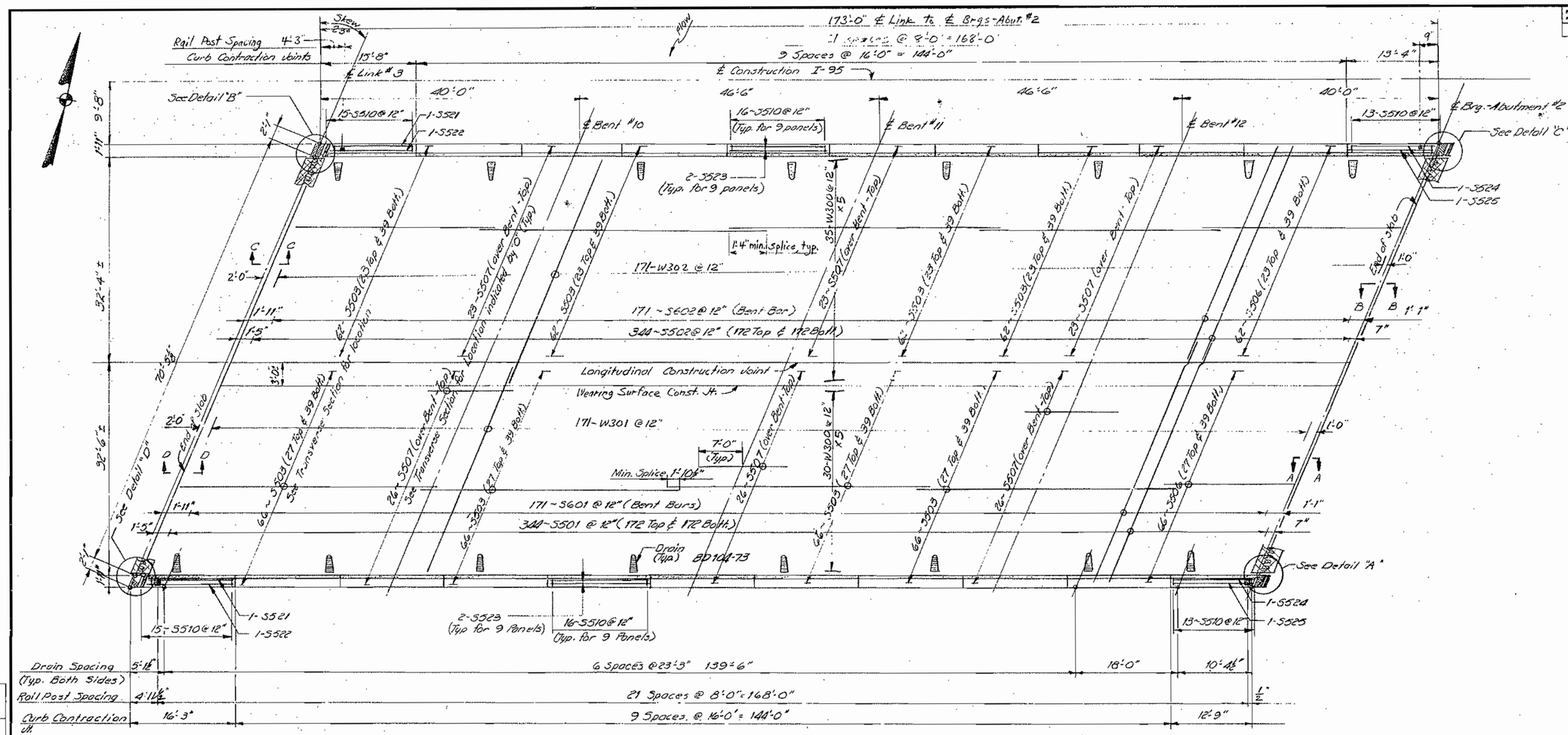
For Superstructure Notes, References and Transverse Section see sheet #22
For Sections C-C and D-D see sheet #24
For Details "B" and "D" see sheet #23

PLANS	BY	DATE
Reg. Dist. Eng. Atty.		
DESIGN - DETAILED	CDH	1-4-74
CHECKED	ALL	11-75
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
SUPERSTRUCTURE - NORTHBOUND
SHEET 26 OF 64 AUGUSTA, MAINE Sept. 1974

159-30

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	27	64



N.B. - SUPERSTRUCTURE SLAB - UNIT A

NOTES:

For Superstructure Notes, References, and Transverse Section See sheet #22
For Sections A-A and B-B see sheet #23
For Sections C-C and D-D see sheet #24
For Details "A", "B", "C" and "D" see sheet #23

PLANS	BY	DATE
DESIGN-DETAILED	CDH	1-7-73
CHECKED	K.L. Leach	1-7-73
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
SUPERSTRUCTURE - NORTHBOUND
SHEET 27 OF 64 AUGUSTA, MAINE Sept. 1974

159-31

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	28	64

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
ABUTMENTS			
A401	16	15'-3"	Backwall
A402	32	19'-1"	↕
A403	32	19'-5"	
A404	4	3'-9"	
A405	16	3'-5"	
A406	↕	18'-4"	
A408	↕	18'-9"	
A409	16	20'-8"	↕
A410	4	4'-4"	Backwall
A415	160	35'-2"	Approach Slab
A501	106	3'-1	Footing-Dowel
A502	98	7'-4"	Footing-Dowel
A504	98	2'-9"	Breastwall
A505	404	4'-5"	Backwall
A506	16	15'-3"	Breastwall
A507	24	17'-11"	Breastwall
A508	28	5'-5"	Backwall
A509	24	8'-2	Wings & End Posts
A510	8	15'-9"	Breastwall
A511	16	5'-4	End Posts
A513	24	8'-2	Wings & End Posts
A515	16	5'-4	End Posts
A517	114	2'-0"	Dowels
A518	1,032	14'-6"	Approach Slab
A519	40	2'-0	Dowels into old
A520	8	19'-1	Breastwall and bridge seat
A601	300	5'-9"	Footing
A602	28	18'-3"	↕
A603	↕	20'-0"	↕
A604	↕	20'-0"	↕
A605	28	21'-1"	Footing
A606	188	4'-6"	Backwall to Approach Slab
A521	8	18'-4"	Breastwall and bridge seat
EP500	16	3'-1	End Posts
EP501	16	3'-2	↕
EP502	16	3'-4	↕
EP503	16	3'-5	↕
EP504	48	3'-7	↕

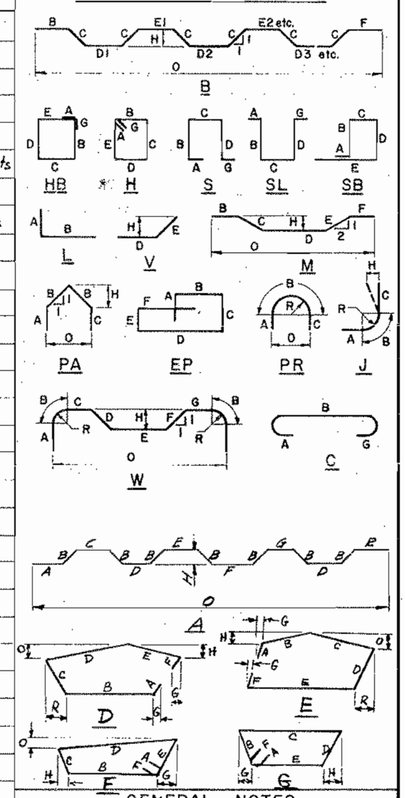
MARK	NO.	LENGTH	LOCATION
PIERS			
P600	48	39'-3"	Pier Cap
P800	192	39'-3"	Pier Cap
SUPERSTRUCTURE			
S501	2,348	39'-1"	Transverse-Slab
S502	2,348	37'-0"	Transverse-Slab
S503	3,328	40'-0"	Longitudinal-Slab
S504	256	24'-9"	↕
S505	256	23'-10"	↕
S506	256	19'-5"	Longitudinal-Slab
S507	882	14'-0"	Over Bents
S508	294	13'-1"	Over Bents
S511	56	15'-8"	Longitudinal-Curb
S512	4	12'-8"	↕
S513	↕	13'-1"	↕
S514	↕	15'-4"	↕
S515	4	15'-0"	↕
S516	112	15'-2"	↕
S517	8	14'-3"	↕
S518	↕	14'-8"	↕
S519	↕	15'-10"	↕
S520	8	15'-4"	↕
S521	4	14'-7"	↕
S522	4	15'-0"	↕
S523	72	15'-8"	↕
S524	4	13'-9"	↕
S525	4	13'-3"	Longitudinal-Curb
W300	2210	35'-6"	Wearing Surface
W301	1166	32'-6	do
W302	1166	38'-2	do

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
ABUTMENTS														
A411	32	5'-4"	S	0"	1'-6"	2'-4"	1'-6"	—	—	0"	—	—	—	Bearing Pad
A412	32	4'-6"	S	0"	1'-6"	1'-6"	1'-6"	—	—	0"	—	—	—	Bearing Pad
A503	98	6'-5"	V	—	—	—	3'-10"	2'-7"	—	—	2'-5"	—	—	Breastwall
A512	20	16'-8	E	6"	1'-11"	5'-2"	1'-2"	7'-5	6"	1¾"	2¼"	7"	1½"	Wings & End Posts
A514	20	16'-3	D	6"	6'-6"	1'-2	6'-0"	1'-7	6"	3"	2"	5½"	1	do
EP505	12	14'-7	F	5½"	5'-8"	1'-0	5'-11"	1'-0½"	5½"	1⅜"	⅞"	½"	—	End Posts - Obtuse
EP506	12	15'-2	G	5½"	1'-0"	6'-2¾"	1'-0"	6'-0¼"	5½"	1⅛"	1⅛"	—	—	End Posts - Acute
PIERS														
P401	192	4'-10"	S	0"	1'-6"	1'-10"	1'-6"	—	—	0"	—	—	—	Bearing Areas
P402	192	5'-4"	S	0"	1'-6"	2'-4"	1'-6"	—	—	0"	—	—	—	Bearing Areas
P500	480	[illegible]'-11"	H	5⅞"	2'-6"	2'-6"	2'-6"	2'-6"	—	5⅞"	—	—	—	Pier Cap
P501	192	6'-11"	HB	6"	1'-5⅞"	1'-5⅞"	1'-5⅞"	1'-5⅞"	—	6"	—	—	—	Pier Column
P801	384	8'-11"	L	6'-7"	1'-4"	—	—	—	—	—	—	—	—	Pier Column
SUPERSTRUCTURE														
S510	2,392	4'-11"	S	6"	1'-5"	1'-1"	1'-5"	—	—	6"	—	—	—	Curb Stirrups
S601	1,166	42'-0"	A	2'-10"	8⅝"	4'-10⅝"	4'-4⅝"	4'-10⅝"	4'-4⅝"	4'-10⅝"	6"	40'-6⅞"	6'-5⅝"	Transverse-Slab
S602	1,166	38'-0"	A	4'-4"	8⅝"	4'-7⅝"	3'-8⅝"	3'-11⅝"	3'-0"	3'-11⅝"	6"	36'-6⅞"	5'-10⅝"	Transverse-Slab

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

TYPE-BENDING DIAGRAMS



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. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.
3. All dimensions are out to out of reinf. bar.
4. Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.
5. Reinforcing Bar: ASTM A615 Grade 60.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY

REINFORCING STEEL SCHEDULE

SHEET 28 OF 64 AUGUSTA, MAINE Sept. 1979

159-32

PLANS	BY	DATE
DESIGN-DETAIL	CDH	12-25
CHECKED	A.L.L.	
REVISIONS		
FIELD CHANGES		

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(27)	29	64

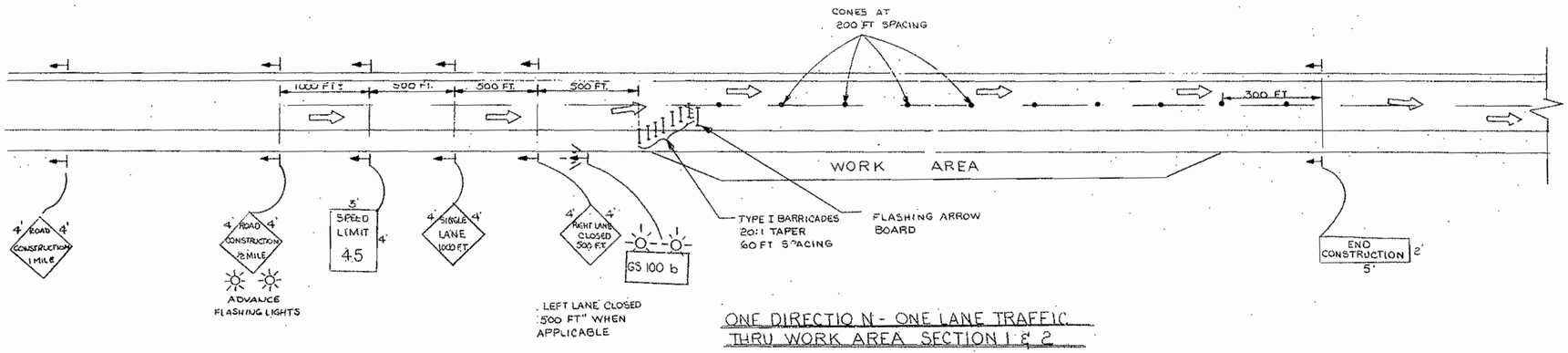
Notes:

① REFLECTORIZED 55 GAL. DRUMS SHALL BE PLACED PERMANENTLY AT A DISTANCE OF 12 FT± FROM THE 2ND TRAVEL LANE TO PROVIDE FOR 2 LANES OF TRAFFIC AND A SHOULDER IN EACH DIRECTION WHEN CONSTRUCTION IS ESSENTIALLY COMPLETE. THE SPACING SHALL BE 100 FT± BETWEEN STATIONS 1148+00 AND 1164+00.

② REFLECTORIZED 55 GAL. DRUMS AND TEMPORARY STRIPING TAPE SHALL BE CONSIDERED INCIDENTAL TO ITEM 652.25 MAINTENANCE OF TRAFFIC.

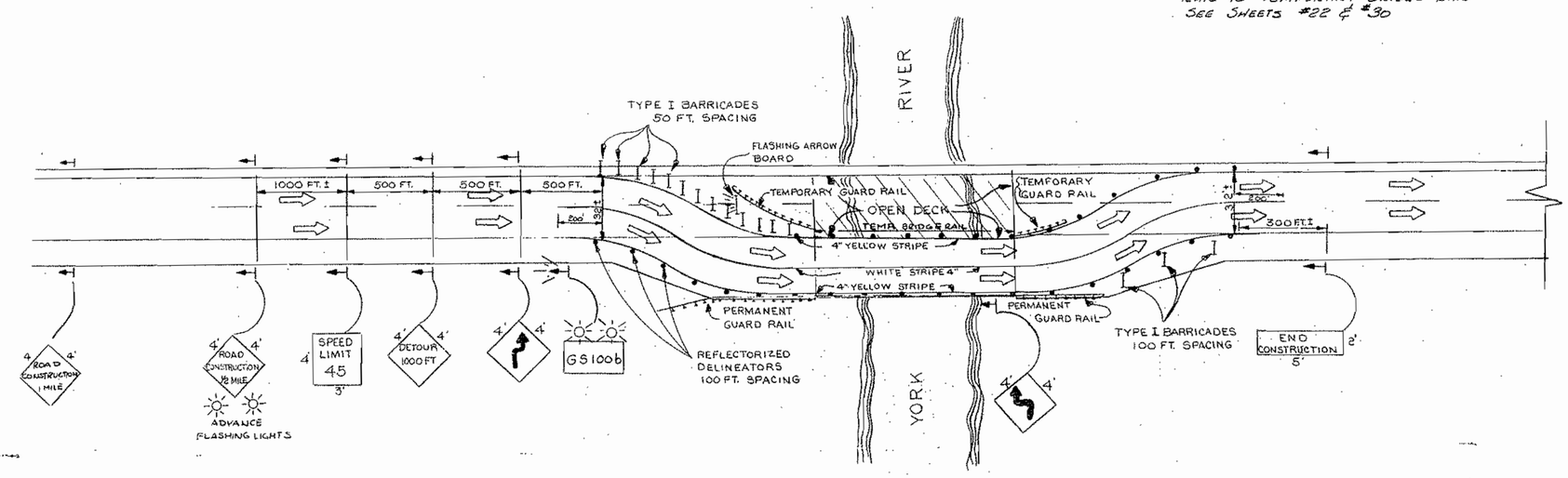
③ IF SIGNING ARRAYS ARE REQUIRED FOR WORK ON SECTION #1 AT THE SAME TIME AS SECTION #2 THE WARNING LIGHTS AND FLASHING ARROW BOARDS SHALL BE PLACED AT BOTH LOCATIONS. THE MAXIMUM NUMBER OF WARNING LIGHTS WOULD BE 4 GROUPS.

④ WHEN SECTION #1 SIGNING IS IN USE TO CLOSE A LANE TO TRAFFIC THE "END CONSTRUCTION" SIGN SHOWN ON THE DETAIL MAY OR MAY NOT BE USED AS DIRECTED BY THE ENGINEER.



ONE DIRECTION - ONE LANE TRAFFIC THRU WORK AREA SECTION 1 & 2

NOTE: FOR TEMPORARY BRIDGE RAIL & CONNECTION OF TEMPORARY APPROACH RAIL TO TEMPORARY BRIDGE RAIL SEE SHEETS #22 & #30



TWO LANE DETOUR SIGNING SECTION 2

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	RWM	12-75
CHECKED		
REVISIONS		
FIELD CHANGES		

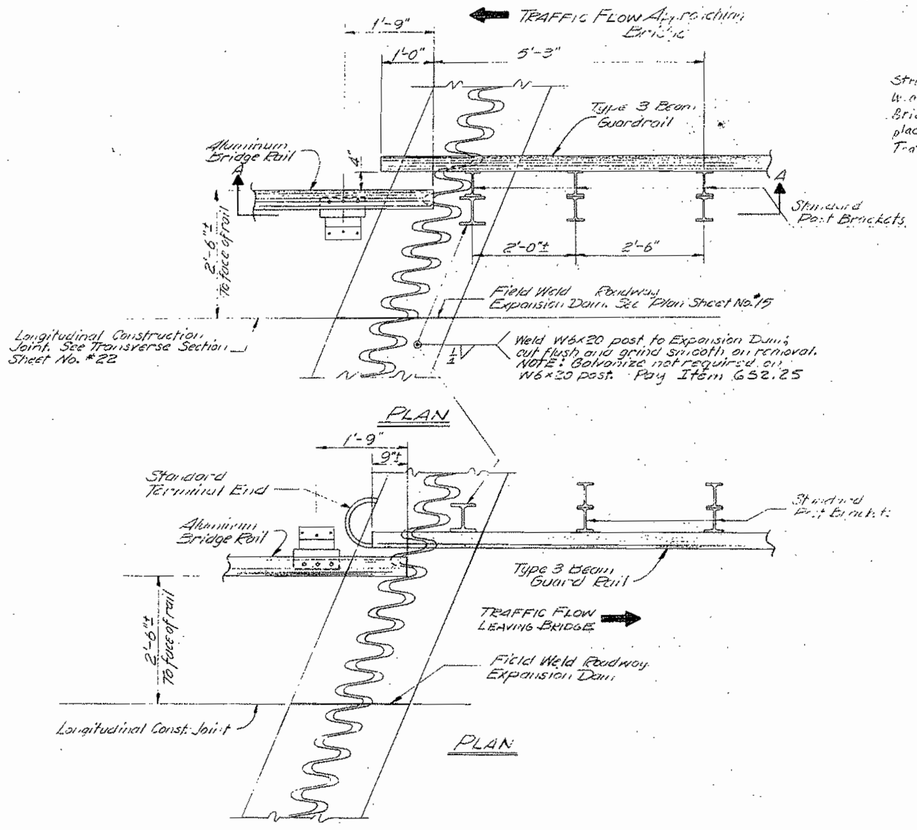
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

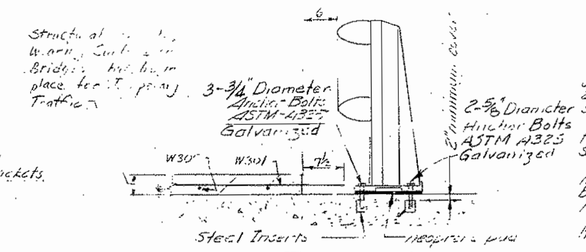
CONSTRUCTION SIGNING

SHEET 29 OF 64 AUGUSTA, MAINE

I-95-1(27) KITTERY, YORK 159-33

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	30	64





TEMPORARY RAIL DETAILS

See Superstructure - South bound Sheet #22 and Signing Layout below for location of rail.

TEMPORARY BRIDGE RAILING NOTES

1. Steel inserts shall have the following ultimate strengths:
   (a) 3/4" diameter -- 12,000 lbs.
   (b) 5/8" diameter -- 9,000 lbs.

Ultimate strengths shall be based on embedment in concrete with 28 day strength of 3000 psi. Inserts shall be made of steel and shall be of a design suitable for impact loading.

2. The concrete surface under the post base shall receive the same surface treatment as the surrounding structural slab surface.

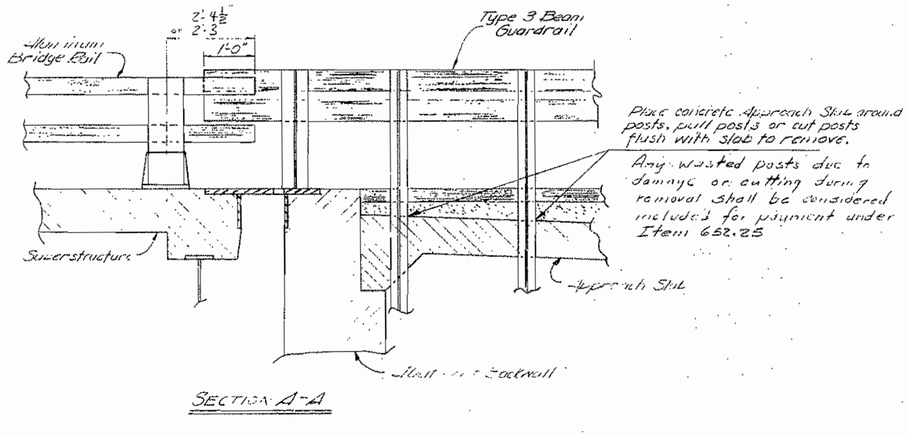
3. Post spacings may be altered provided the spacing does not exceed 8'-0". The Temporary Bridge Rail shall extend from bearing line of Abutment #1 to bearing line of Abutment #2. 1183 linear feet of Temporary Bridge Rail is required.

4. When the Temporary Bridge Railing is removed anchor bolt holes shall be free of deleterious material before filling with mortar.

5. The Temporary Bridge Rail shall be Type "A" Aluminum Bridge Railing. After removal the Temporary Rail, not damaged, shall be installed as permanent Type "A". Any rail which is damaged while in use as Temporary Bridge Rail, by causes other than the fault of the contractor, shall be replaced and will be paid for as additional rail under Item 507.141. Rail damaged by the Contractor shall be replaced at Contractors expense.

6. Payment will be made as follows: The furnishing of Type "A" Aluminum Bridge Railing will be included for payment under Item 507.141 as measured in its final permanent position on the finished structure.

The installation, maintenance, and removal of the rail and the furnishing and installing of metal inserts and the furnishing, installing and removal of temporary anchor bolts and mortaring of anchor holes shall be considered included for payment under Item 652.25 "Maintenance of Traffic". The temporary anchor bolts shall become the property of the Contractor upon removal.



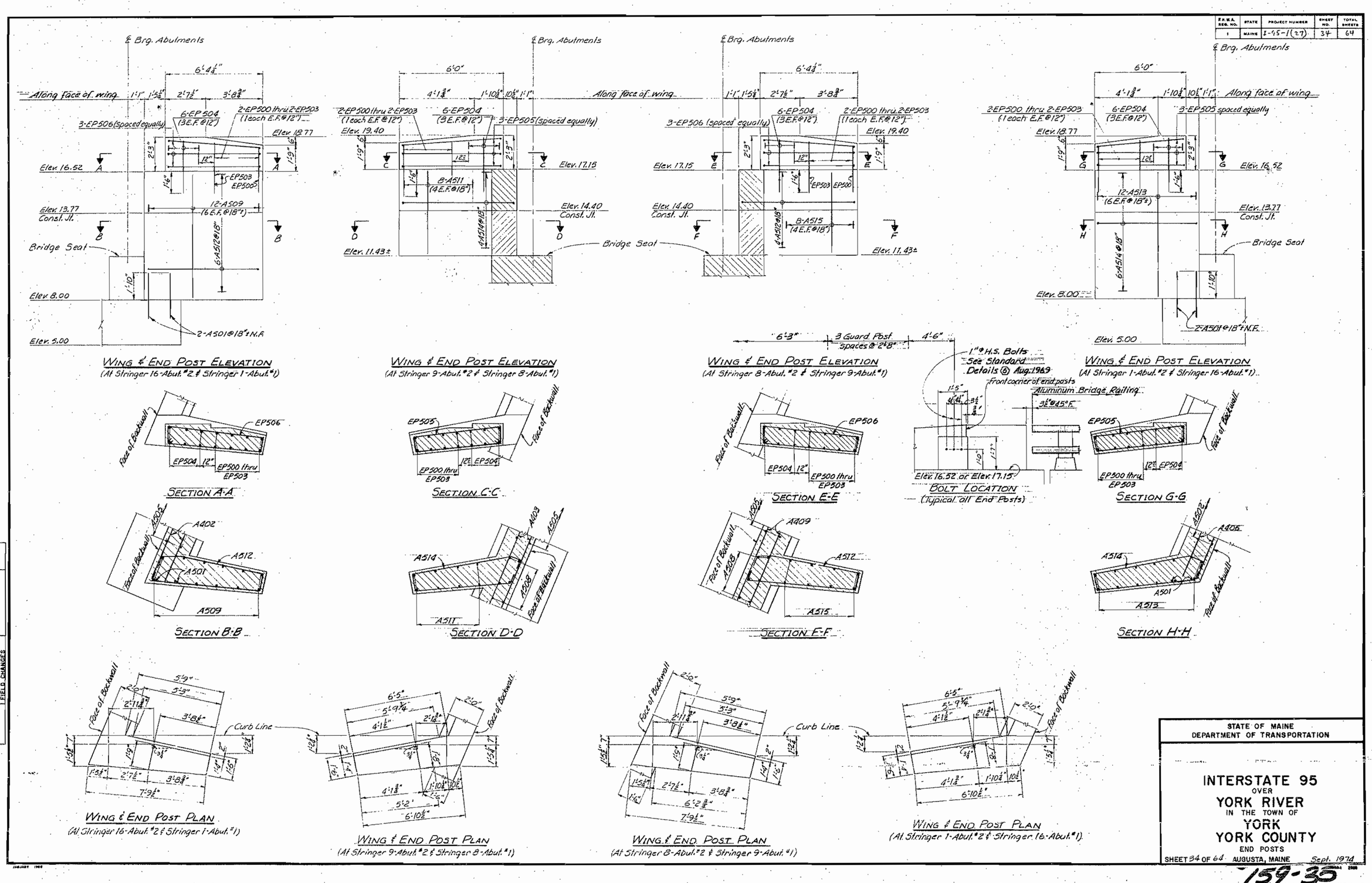
SECTION A-A

PLANS		BY	DATE
DESIGN - DETAILED		TRAFFIC	1-14-74
CHECKED		F. Leach	
REVISIONS			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY
TEMORARY BRIDGE RAILING
SHEET 30 OF 64 AUGUSTA, MAINE Sept. 1974

159-34

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	34	64



PROJECT DESIGN ENGINEER CDH	BY	DATE
PLANS — DESIGN - DETAILED	C.D.H.	R.C.B.	6-76
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

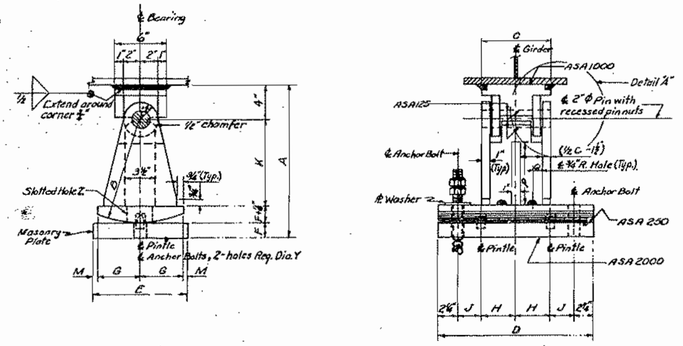
INTERSTATE 95
OVER
YORK RIVER
IN THE TOWN OF
YORK
YORK COUNTY

END POSTS

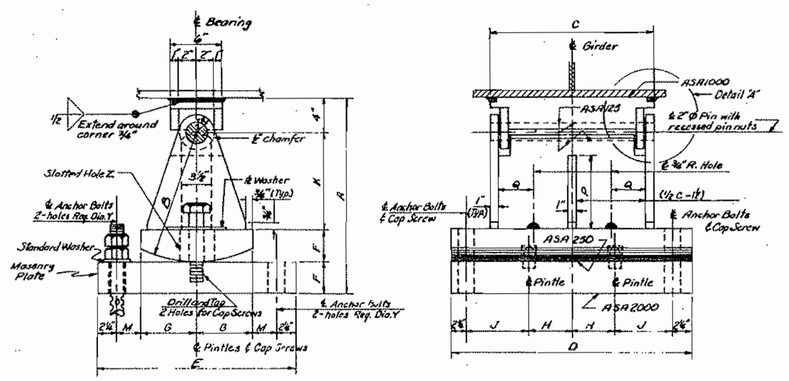
SHEET 34 OF 64 AUGUSTA, MAINE Sept. 1974

159-35

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	35	64

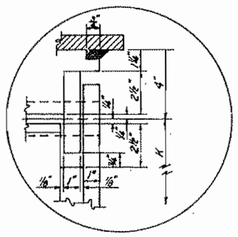


EXPANSION PEDESTAL — EPD

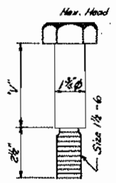


EXPANSION PEDESTAL — EPE

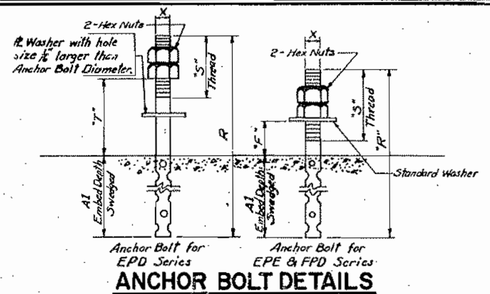
MARK	LOAD	A	B	C	D	E	F	G	H	J	K	M	P	Q	R	S	T		V	X-Anchor Bolt Diameter	Y-Masonry Plate Hole Size	Number Anchor Bolts Required	Z-Slotted Hole for Anchor Bolts or Cap Screws	℄ Washer Size for Anchor Bolts or Cap Screws	A1 Embedment Depth	MARK
EPD-1	100K	1'-2¾"	9"	8"	1'-6"	8"	1¾"	3½"	4"	2¾"	7"	½"	–	3"	1'-4¾"	3"	4½"		–	1"	1⅛"	2	3"×1⅛"	3"×5"×¼"	10"	EPD-1
EPD-2	100K	1'-2¾"	9"	8"	1'-6"	9"	1¾"	4"	4"	2¾"	7"	½"	–	3"	1'-4¾"	3"	4½"		–	1"	1⅛"	2	3"×1⅛"	3"×5"×¼"	10"	EPD-2
EPD-3	100K	1'-2¾"	9"	8"	1'-6"	10"	1¾"	4½"	4"	2¾"	7"	½"	–	3"	1'-4¾"	3"	4½"		–	1"	1⅛"	2	3"×1⅛"	3"×5"×¼"	10"	EPD-3
EPD-4	100K	1'-3⅜"	1'-0"	8"	1'-6"	11"	1¾"	5"	4"	2¾"	10"	½"	–	3"	1'-5"	3"	4½"		–	1"	1⅛"	2	3"×1⅛"	3"×5"×¼"	10"	EPD-4
EPD-5	200K	1'-9⅜"	1'-3"	10"	1'-8"	1'-0"	2½"	5½"	4"	3¾"	1'-0¾"	½"	–	4"	2'-0¾"	4"	6½"		–	1½"	1⅞"	2	4"×1⅞"	4"×7"×½"	1'-3"	EPD-5
EPD-6	200K	1'-9⅜"	1'-3"	10"	1'-8"	1'-1"	2½"	6"	4"	3¾"	1'-0¾"	½"	–	4"	2'-1"	4"	6½"		–	1½"	1⅞"	2	4"×1⅞"	4"×7"×½"	1'-3"	EPD-6
EPD-7	200K	1'-9⅜"	1'-3"	10"	1'-8"	1'-2"	2½"	6½"	4"	3¾"	1'-0¾"	½"	–	4"	2'-1"	4"	6½"		–	1½"	1⅞"	2	4"×1⅞"	4"×7"×½"	1'-3"	EPD-7
EPD-8	200K	1'-9⅜"	1'-3"	10"	1'-8"	1'-3"	2½"	7"	4"	3¾"	1'-0¾"	½"	–	4"	2'-1"	4"	6⅝"		–	1½"	1⅞"	2	4"×1⅞"	4"×7"×½"	1'-3"	EPD-8
EPD-9	300K	1'-10"	1'-3"	1'-2"	2'-0"	1'-4"	3"	7½"	5"	4¾"	11¾"	½"	–	6"	2'-2½"	4"	8"		–	1½"	1⅞"	2	5"×1⅞"	4"×8"×½"	1'-3"	EPD-9
EPD-10	400K	1'-10¾"	1'-3"	1'-6"	2'-4"	1'-6"	3½"	8½"	6"	5¾"	11¾"	½"	8¾"	3¾"	2'-3"	4"	8⅝"		–	1½"	1⅞"	2	5"×1⅞"	4"×8"×½"	1'-3"	EPD-10
EPE-1	200K	1'-10"	1'-3"	10"	1'-7"	1'-6"	3"	4"	4"	3¼"	1'-0"	2¾"	–	4"	1'-10"	4½"	–		4"	1½"	1⅞"	4	3½"×1⅞"	3½"×4½"×½"	1'-3"	EPE-1
EPE-2	200K	1'-10"	1'-3"	11"	1'-8"	1'-9"	3"	5½"	4½"	3¼"	1'-0"	2¾"	–	4½"	1'-10"	4½"	–		4"	1½"	1⅞"	4	4"×1⅞"	3½"×5½"×½"	1'-3"	EPE-2
EPE-3	200K	1'-10"	1'-3"	11"	1'-8"	1'-10"	3"	6"	4½"	3¼"	1'-0"	2¾"	–	4½"	1'-10"	4½"	–		4½"	1½"	1⅞"	4	4"×1⅞"	3½"×5½"×½"	1'-3"	EPE-3
EPE-4	200K	1'-10"	1'-3"	11"	1'-8"	1'-10"	3"	6½"	4½"	3¼"	1'-0"	2¾"	–	4½"	1'-10"	4½"	–		4½"	1½"	1⅞"	4	4½"×1⅞"	3½"×6"×½"	1'-3"	EPE-4
EPE-5	200K	1'-10"	1'-3"	11"	1'-8"	2'-0"	3"	7"	4½"	3¼"	1'-0"	2¾"	–	4½"	1'-10"	4½"	–		4½"	1½"	1⅞"	4	4½"×1⅞"	3½"×6"×½"	1'-3"	EPE-5
EPE-6	300K	1'-10"	1'-3"	1'-2"	1'-11"	1'-6"	3"	4"	5"	4¼"	1'-0"	2¾"	–	6"	1'-10"	4½"	–		4"	1½"	1⅞"	4	2½"×1⅞"	3½"×4½"×½"	1'-3"	EPE-6
EPE-7	300K	1'-10¾"	1'-3"	1'-2"	1'-11"	1'-8"	3½"	5"	5"	4¼"	11¾"	2¾"	–	6"	1'-10"	4½"	–		4"	1½"	1⅞"	4	3"×1⅞"	3½"×5"×½"	1'-3"	EPE-7
EPE-8	300K	1'-10¾"	1'-3"	1'-2"	1'-11"	1'-10"	3½"	6"	5"	4¼"	11¾"	2¾"	–	6"	1'-10½"	4½"	–		4½"	1½"	1⅞"	4	4½"×1⅞"	3½"×6"×½"	1'-3"	EPE-8
EPE-9	300K	1'-10¾"	1'-3"	1'-2"	1'-11"	2'-0"	3½"	7"	5"	4¼"	11¾"	2¾"	–	6"	1'-10½"	4½"	–		4½"	1½"	1⅞"	4	5"×1⅞"	3½"×6½"×½"	1'-3"	EPE-9
EPE-10	300K	1'-10¾"	1'-3"	1'-2"	1'-11"	2'-3"	3½"	8"	5"	4¼"	11½"	3¼"	–	6"	1'-10½"	4½"	–		5½"	1½"	1⅞"	4	5"×1⅞"	3½"×7"×½"	1'-3"	EPE-10
EPE-11	400K	1'-10¾"	1'-3"	1'-7"	2'-4"	1'-6"	3½"	4½"	5"	6¾"	11¾"	2¾"	9"	4"	1'-10"	4½"	–		4"	1½"	1⅞"	4	4"×1⅞"	3½"×5"×½"	1'-3"	EPE-11
EPE-12	400K	1'-10¾"	1'-3"	1'-7"	2'-4"	1'-11"	3½"	6½"	5"	6¾"	11¾"	2¾"	8½"	4"	1'-10½"	4½"	–		5"	1½"	1⅞"	4	5"×1⅞"	3½"×6"×½"	1'-3"	EPE-12
EPE-13	400K	1'-11"	1'-3"	1'-7"	2'-4"	2'-4"	4"	8½"	5"	6¾"	11"	3¼"	8¼"	4"	1'-11"	4½"	–		6⅛"	1½"	1⅞"	4	6½"×1⅞"	3½"×8"×½"	1'-3"	EPE-13
EPE-14	600K	2'-1¾"	1'-6"	1'-11"	3'-0"	1'-10"	3¾"	6"	7"	8¾"	1'-2¾"	2¾"	11½"	5"	1'-10½"	4½"	–		4⅞"	1½"	1⅞"	4	4½"×1⅞"	4"×5½"×½"	1'-3"	EPE-14
EPE-15	600K	2'-2½"	1'-6"	1'-11"	3'-0"	2'-3"	4½"	9"	7"	8¾"	1'-1¾"	3¼"	11"	5"	1'-11"	4½"	–		6½"	1½"	1⅞"	4	6½"×1⅞"	4"×8"×½"	1'-3"	EPE-15
EPE-16	800K	2'-2"	1'-6"	2'-6"	3'-10"	1'-11"	4"	6½"	10"	10¾"	1'-2"	2¾"	11½"	6¾"	1'-11"	4½"	–		5"	1½"	1⅞"	4	4½"×1⅞"	4"×6"×½"	1'-3"	EPE-16
EPE-17	800K	2'-2½"	1'-6"	2'-6"	3'-10"	2'-3"	4½"	9"	10"	10¾"	1'-1½"	3¼"	10¾"	6¾"	1'-11½"	4½"	–		6⅞"	1½"	1⅞"	4	6½"×1⅞"	4"×8½"×½"	1'-3"	EPE-17
FPD-1	100K	1'-0"	–	8"	1'-6"	9"	2"	2½"	6¾"	–	6"	–	–	–	1'-3"	3½"	–		–	1"	1⅛"	4	–	Standard	10"	FPD-1
FPD-2	200K	1'-0"	–	10"	1'-8"	1'-2"	2"	4¾"	7¾"	–	6"	–	–	–	1'-8"	4"	–		–	1½"	1⅞"	4	–	Standard	1'-3"	FPD-2
FPD-3	300K	1'-0"	–	1'-2"	2'-0"	1'-4"	2"	5¾"	9¾"	–	6"	–	–	–	1'-8"	4"	–		–	1½"	1⅞"	4	–	Standard	1'-3"	FPD-3
FPD-4	400K	1'-3"	–	1'-6"	2'-4"	1'-6"	2"	6¾"	11¾"	–	9"	–	6¾"	–	1'-8"	4"	–		–	1½"	1⅞"	4	–	Standard	1'-3"	FPD-4
FPD-5	600K	1'-3"	–	1'-11"	3'-0"	1'-10"	3"	8¾"	1'-3¾"	–	8"	–	5¾"	–	1'-9"	4"	–		–	1½"	1⅞"	4	–	Standard	1'-3"	FPD-5
FPD-6	800K	1'-3"	–	2'-6"	3'-10"	1'-11"	3"	9¾"	1'-8¾"	–	8"	–	5¾"	–	1'-9"	4"	–		–	1½"	1⅞"	4	–	Standard	1'-3"	FPD-6



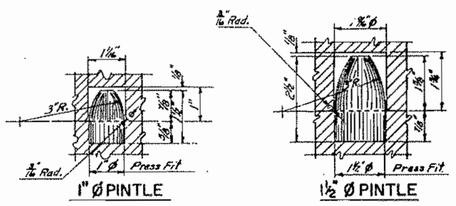
DETAIL "A"



CAP SCREW DETAIL



ANCHOR BOLT DETAILS

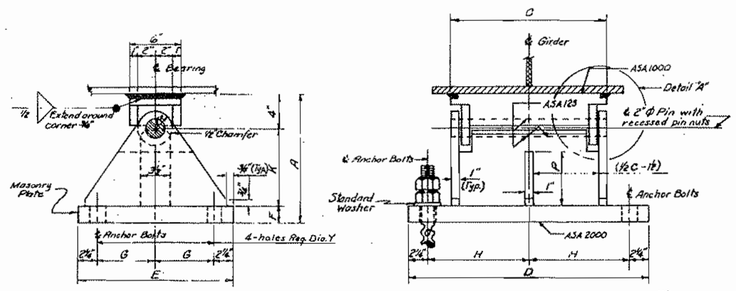


1" Ø PINTLE

1½" Ø PINTLE

PINTLE DETAILS

NOTE:
Use 1" Ø Pintles with 1" Ø Anchor Bolts & 1½" Ø Pintles with 1½" Ø Anchor Bolts.



FIXED PEDESTAL — FPD

GENERAL NOTES:

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 a 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.

Fabricate pedestals with ¼" fillet welds.

The diameter of the pin hole shall not exceed that of the pin by more than ⅛ inch.

Pedestals EPD-1 thru EPD-9 and EPE-1 thru EPE-10 have no center stiffeners and have only one drainage hole.

Pedestals EPD-10 and EPE-11 thru EPE-17 have a center stiffener and have two drainage holes.

Pedestals FPD-1 thru FPD-3 have no center stiffeners and have no drainage holes.

Pedestals FPD-4 thru FPD-6 have a center stiffener and no drainage holes.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1969

A.S.T.M. STEEL CLASSIFICATION

All structural steel shall be -A36 except the following:
2" Ø Pin - A36; A235, Class E or A108, Grade 1016 - 1030 inclusive.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

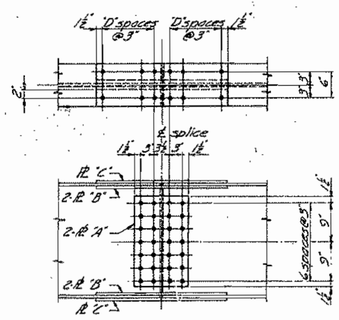
STANDARD DETAILS
(BD 100-71)

BEARING PEDESTALS

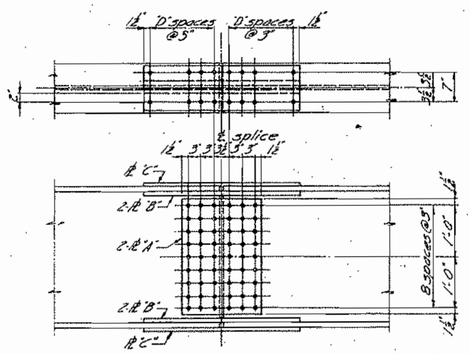
SHEET 35 OF 64 AUGUSTA, MAINE JULY 1971

159-36

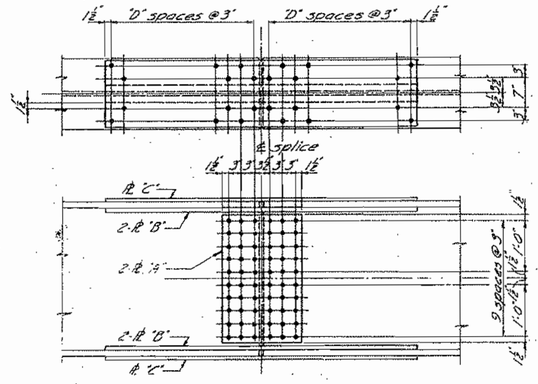
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
1	MAINE	I-95-1(27	36	64



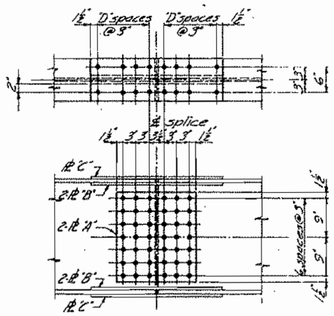
27 WF 84



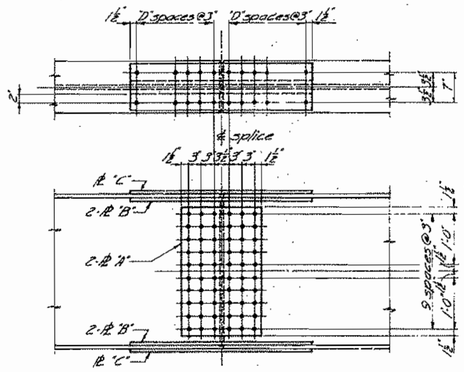
33 WF 118, 130, 141, 152



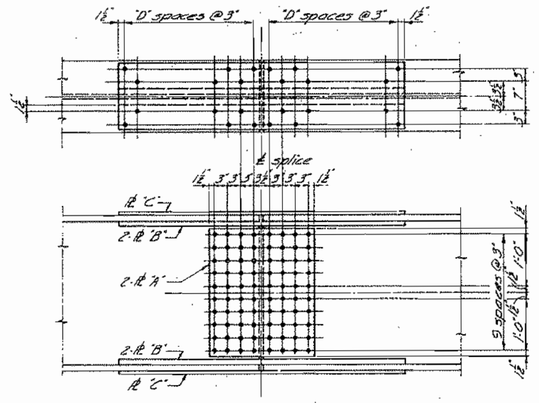
36 WF 245, 280



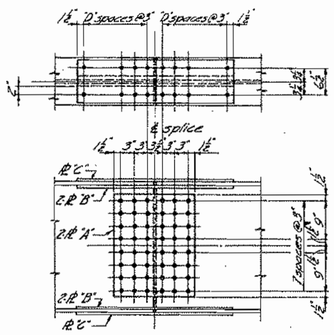
27 WF 94, 102, 114



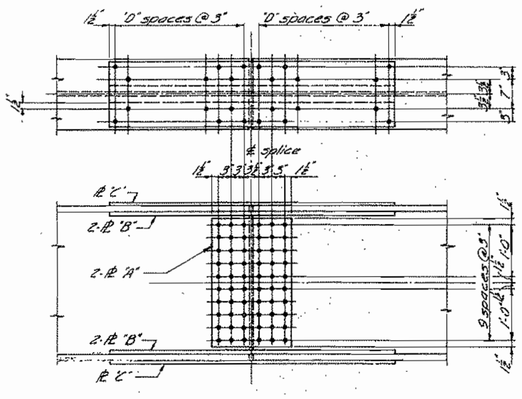
36 WF 135, 150, 160, 170, 182, 194



36 WF 300



30 WF 99, 108, 116, 124, 132



36 WF 230, 260

SPLICE DESIGN, PLATES AND FLANGE HOLES

BEAM	BEND. M.	SHEAR	PLATE "A"	PLATE "B"	PLATE "C"	"D"
27 WF 84	3070'-K	111-K	12½ x ⅜	4 x 11/16	10 x 9/16	3
27 WF 94	3520'-K	119-K	18½ x ⅜	4 x ½	10 x ⅜	3
27 WF 102	3862'-K	126-K	18½ x 9/16	4 x ½	10 x 11/16	4
27 WF 114	4341'-K	140-K	18½ x ⅝	4 x ⅝	10 x ½	4
30 WF 99	3921'-K	139-K	18½ x ½	4 x ⅝	10 x ⅜	3
30 WF 108	4360'-K	147-K	18½ x 11/16	4 x 11/16	10 x 11/16	4
30 WF 116	4780'-K	152-K	18½ x 9/16	4 x ⅝	10 x 11/16	4
30 WF 124	5170'-K	159-K	18½ x 9/16	4 x 11/16	10 x ½	4
30 WF 132	5530'-K	168-K	18½ x ⅝	4 x ⅝	10 x 9/16	5
33 WF 118	5287'-K	164-K	18½ x ½	4 x 11/16	11 x 11/16	4
33 WF 130	5978'-K	173-K	18½ x ½	4 x ⅝	11 x 11/16	5
33 WF 141	6604'-K	181-K	18½ x 9/16	4 x 13/16	11 x ½	5
33 WF 152	7193'-K	191-K	18½ x 9/16	4 x ⅝	11 x 11/16	6
36 WF 135	6473'-K	191-K	18½ x ½	4 x 11/16	11 x 11/16	4
36 WF 150	7436'-K	200-K	18½ x ½	4 x 13/16	11 x ½	5
36 WF 160	8005'-K	212-K	18½ x 9/16	4 x ⅝	11 x 9/16	6
36 WF 170	8574'-K	221-K	18½ x 11/16	4 x 15/16	11 x ⅝	6
36 WF 182	9204'-K	237-K	18½ x 11/16	4 x 15/16	11 x 11/16	7
36 WF 194	9838'-K	253-K	18½ x ⅝	4 x 1	11 x ¾	8
36 WF 230	12574'-K	247-K	18½ x 9/16	6 x 1	16 x ⅝	10
36 WF 245	13441'-K	260-K	18½ x 9/16	6 x 1	16 x 11/16	11
36 WF 260	14330'-K	276-K	18½ x ⅝	6 x 1 1/16	16 x ¾	12
36 WF 280	15551'-K	291-K	18½ x ⅝	6 x 1 1/16	16 x 13/16	13
36 WF 300	16676'-K	312-K	28½ x 11/16	6 x 1 1/16	16 x ⅞	14

GENERAL NOTES

1. Splice connections to be made with ⅞" ϕ high tensile strength bolts. Holes to be 15/16" ϕ.

2. The design bending moment is 90% of the net resisting moment of the beam with an allowable stress of 20,000 p.s.i. The design shear is 75% of the shear strength of the gross section of the web with an allowable stress of 12,000 p.s.i.

3. If beams of different sizes are to be spliced, use splice details shown for the smaller of the beams being spliced unless otherwise directed by design details. See design
Δ details for filler plate dimensions.

4. See design details for slopes of beams in order to correctly fabricate bevels at the splices.

A.S.T.M. STEEL CLASSIFICATION

High Tensile Strength Bolts A-325
Splice Plates A-36

DESIGN SPECIFICATIONS

AASHO Standard Specifications for Highway Bridges, 1961 with Interim Specifications, 1961 & 1962

Δ Revised Feb. 1966

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

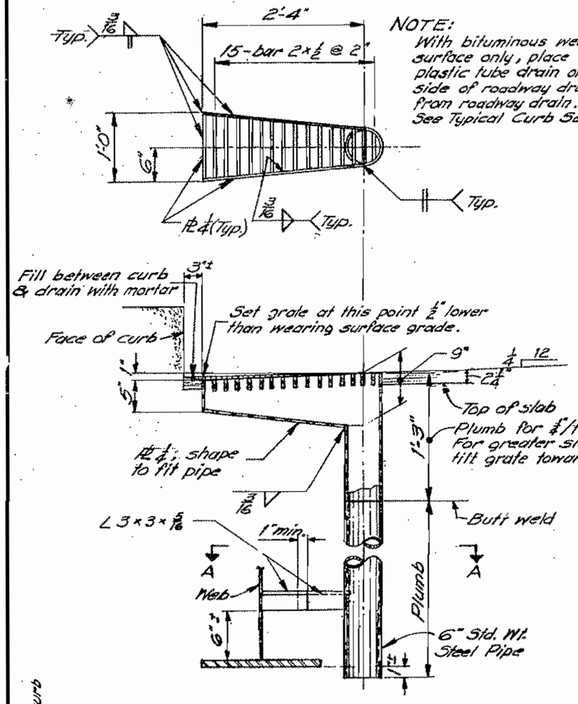
STANDARD DETAILS
(BD 103-64)

BEAM SPLICES

SHEET 36 OF 64 AUGUSTA, MAINE JANUARY 1964

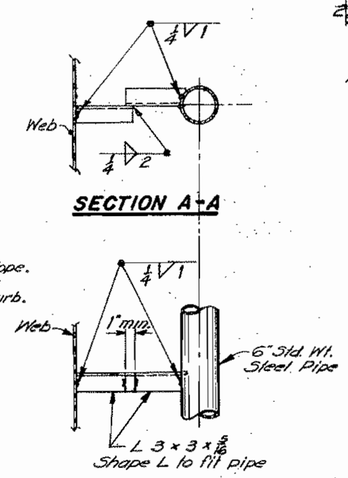
159-37

B.R.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1 (27)	37	64

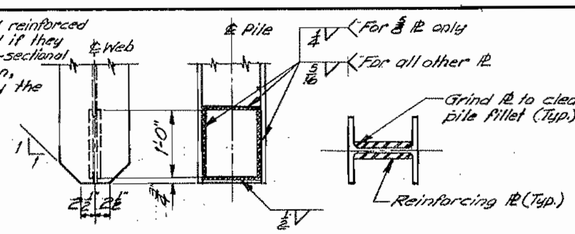


DRAIN

NOTE: With bituminous wearing surface only, place 1"Φ plastic tube drain on upgrade side of roadway drain, 3"± from roadway drain. See Typical Curb Section.



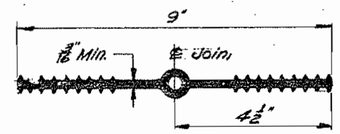
NOTE: Alternate pointed reinforced pile tips may be used if they have at least the cross-sectional area of the tip shown, and are approved by the Engineer.



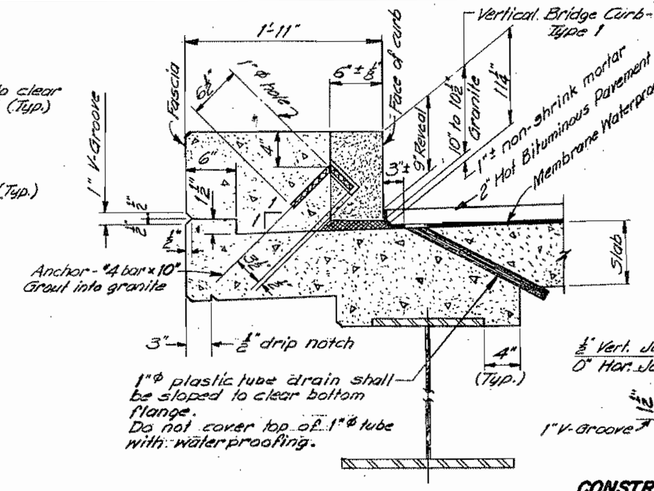
POINTED REINFORCED PILE TIP

NOTE-Plates may be shop or field welded.

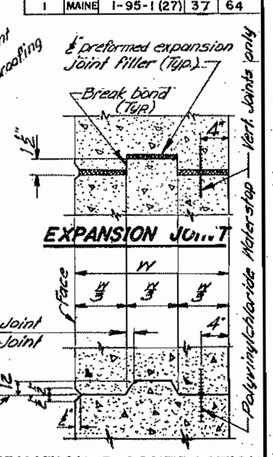
STEEL HP BEARING PILES	
PILE SIZE	REINF. ℞ SIZE
HP 10 × 42	8¾ × ⅜ × 1'-0"
HP 10 × 57	8¾ × ⅞ × 1'-0"
HP 12 × 53	10¾ × ⅝ × 1'-0"
HP 12 × 74	10¾ × ⅞ × 1'-0"
HP 14 × 73	12½ × ⅞ × 1'-0"
HP 14 × 89	12½ × 1 × 1'-0"



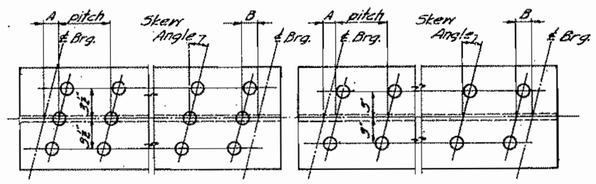
POLYVINYLCHLORIDE WATERSTOP



TYPICAL CURB SECTION

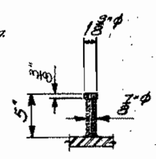


CONSTRUCTION & CONTRACTION JOINTS



TRIPLE STUDS

DOUBLE STUDS

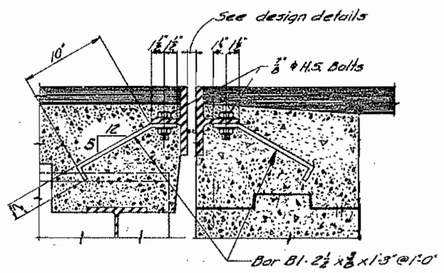


STUD DETAIL

NOTE

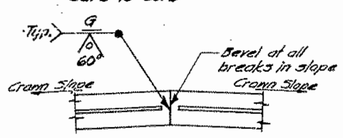
1. Studs shall be granular or solid flux filled and automatically end welded to top flange in the shop or field.
2. See the design details for Dimensions "A" & "B", stud pitch and skew angle for studs.

SHEAR CONNECTORS



ARMORED JOINT UNIT TYPE A — ARMORED JOINT UNIT TYPE B

SECTION D-D

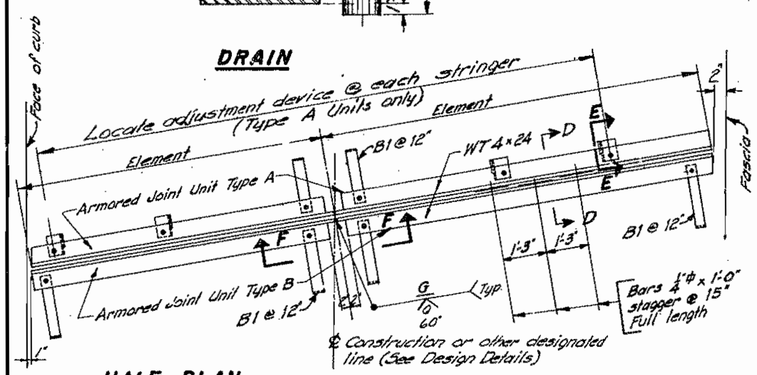


SECTION F-F

Note: See design details for Constr. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

HALF PLAN

Curb to curb



HALF PLAN

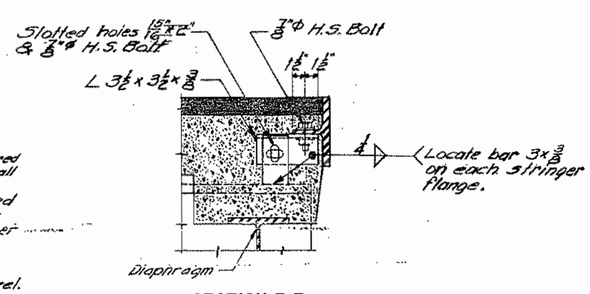
Fascia to Fascia

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. When more elements than two (2) are required by the design details, the elements of both units shall be shop welded together in the same manner as shown in Section F-F
3. Armored Joints to be paid for as Structural Steel.

ARMORED JOINT

An armored joint consists of two armored joint units. See note 1.



SECTION E-E

Showing Adjustment Device Armored Joint Unit Type A only After Unit is in final position weld ⅜ bar to angle with ¼" fillet.

NOTE Use only those items called for on design details. In case of conflict between these Standard Details and design details, the requirements of the design details shall be followed. Drains to be incidental, see subsection 502.20

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

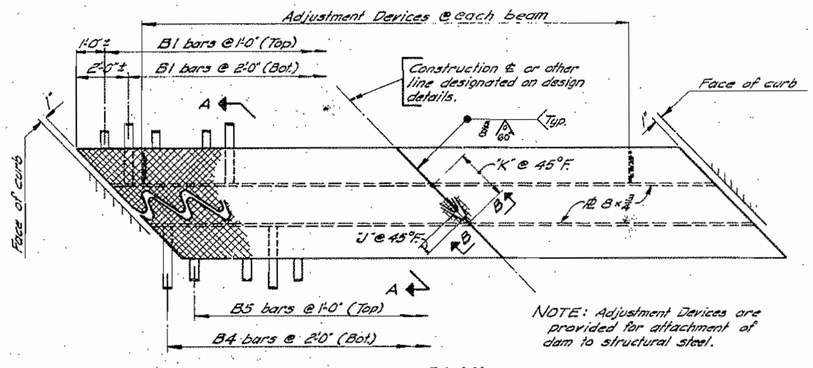
(BD 104-73)

ARMORED JOINT, DRAIN
SHEAR CONNECTORS
MISC. STRUCTURAL DETAILS

SHEET 37 OF 64 AUGUSTA, ME. JULY 1973

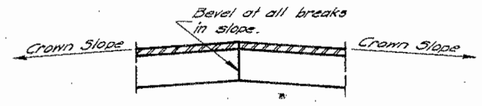
159-38

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	38	64



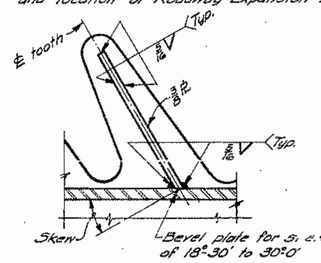
PLAN

Right skew indicated



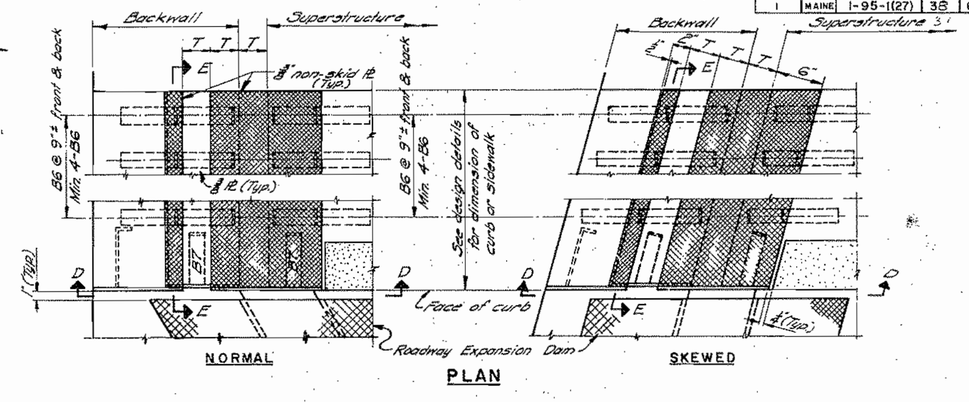
SECTION B-B

See design details for construction ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.

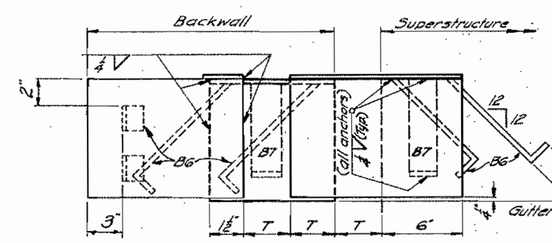


SECTION C-C

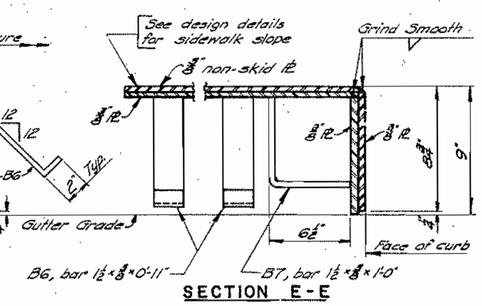
Skew ~0° to 30°0'



PLAN



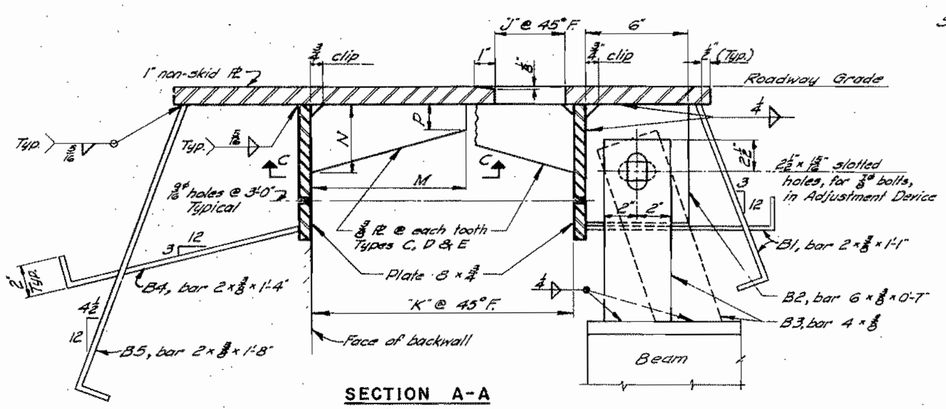
VIEW D-D



SECTION E-E

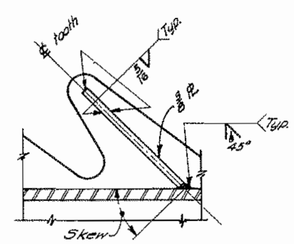
TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-440'	440'-600'	600'-760'	760'-920'
T	3"	4"	5"	6"	7"

CURB AND SIDEWALK EXPANSION DAM – DETAILS



SECTION A-A

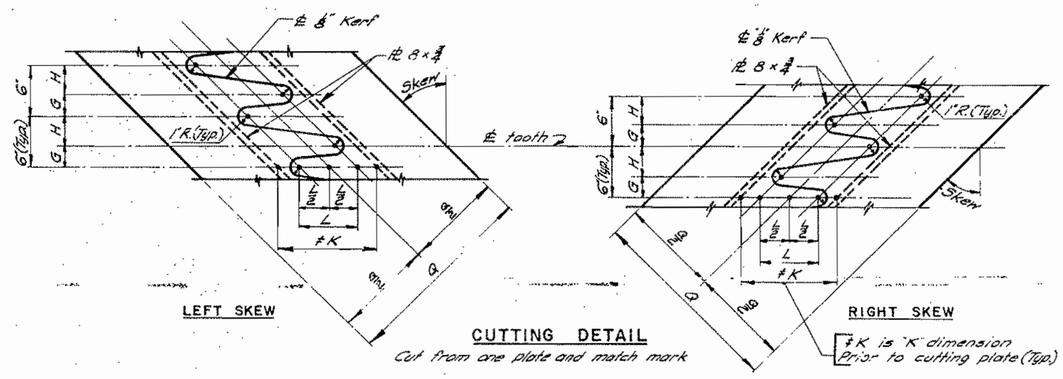
Bar B3 may be vertical or inclined as indicated, depending on design conditions.
After Adjustment Device is in final position weld bars B2 to B3 with ¼" fillet weld.



SECTION C-C

Skew over 30°

TABLE OF DIMENSIONS												
Type	Exp. Length	Skew	≠K	L	G	H	K@45°	J@45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	2⅛"	—	—	—	21"
		5°-10°	7¼"	4¼"	2⅞"	3⅛"	9¼"	2⅛"	—	—	—	22"
		10°-20°	8"	4⅞"	2⅞"	3⅛"	10"	2⅛"	—	—	—	22"
		20°-30°	8¾"	5¼"	2⅞"	3¼"	10¾"	2⅛"	—	—	—	23"
		30°-40°	9¾"	5¾"	2⅞"	3⅜"	11¾"	2⅛"	—	—	—	23"
		40°-50° incl.	11¼"	6⅝"	2⅞"	3½"	13⅜"	2⅛"	—	—	—	23"
B	280'-440'	0°-5° incl.	9"	6"	3"	3"	12"	3⅛"	—	—	—	23"
		5°-10°	9¾"	6¼"	2⅞"	3⅛"	12¼"	3⅛"	—	—	—	24"
		10°-20°	10"	6⅞"	2⅞"	3⅛"	13"	3⅛"	—	—	—	24"
		20°-30°	10¾"	7¼"	2⅞"	3¼"	13⅜"	3⅛"	—	—	—	25"
		30°-40°	12"	8"	2⅞"	3¼"	15"	3⅛"	—	—	—	25"
		40°-50° incl.	13⅜"	8⅞"	2⅞"	3⅜"	16⅝"	3⅛"	—	—	—	25"
C	440'-600'	0°-10° incl.	11¼"	8¼"	3"	3"	15⅜"	4⅛"	9"	4"	1⅝"	26"
		10°-20°	12"	8⅞"	2⅞"	3⅛"	16"	4⅛"	10"	4"	1⅝"	26"
		20°-30°	12¾"	9¼"	2⅞"	3⅛"	16⅜"	4⅛"	11"	4"	1⅝"	26"
		30°-40°	14"	10"	2⅞"	3¼"	18"	4⅛"	11"	4"	1⅝"	26"
		40°-50° incl.	15⅜"	10⅞"	2⅞"	3½"	19⅝"	4⅛"	12"	4"	1⅝"	26"
D	600'-760'	0°-10° incl.	13¼"	10¼"	3"	3"	18⅜"	5⅛"	11"	5"	2"	30"
		10°-20°	14"	10⅞"	2⅞"	3⅛"	19"	5⅛"	12"	5"	2"	30"
		20°-30°	14¾"	11¼"	2⅞"	3⅛"	19⅜"	5⅛"	13"	5"	2"	30"
		30°-40°	16"	12"	2⅞"	3⅛"	21"	5⅛"	13"	5"	2"	30"
		40°-50° incl.	17⅜"	13"	2⅞"	3¼"	22⅜"	5⅛"	15"	5"	2"	30"
E	760'-920'	0°-10° incl.	15¼"	12¼"	3"	3"	21⅜"	6⅛"	13"	6"	2⅛"	36"
		10°-20°	16"	12⅞"	2⅞"	3⅛"	22"	6⅛"	14"	6"	2⅛"	36"
		20°-30°	16¾"	13¼"	2⅞"	3⅛"	22⅜"	6⅛"	15"	6"	2⅛"	36"
		30°-40°	18"	14"	2⅞"	3⅛"	24"	6⅛"	15"	6"	2⅛"	36"
		40°-50° incl.	19⅜"	15"	2⅞"	3¼"	25⅜"	6⅛"	17"	6"	2⅛"	36"



CUTTING DETAIL

Cut from one plate and match mark

ROADWAY EXPANSION DAM – DETAILS

GENERAL NOTES

Expansion Dams to be paid for as Structural Steel.

If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.

Steel Classification: A.S.T.M. A36

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 105 – 74)

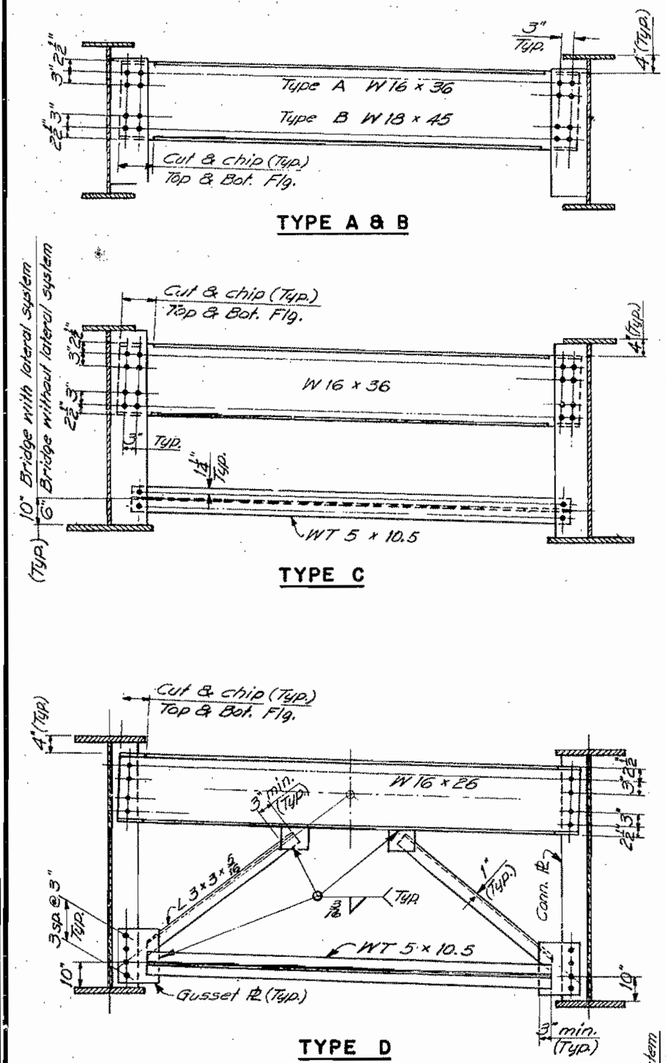
EXPANSION DAMS

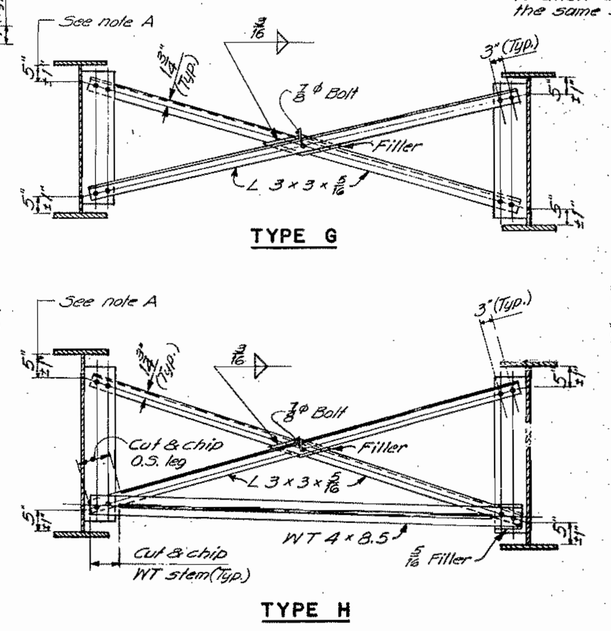
SHEET 38 OF 64 AUGUSTA, MAINE MAY 1974

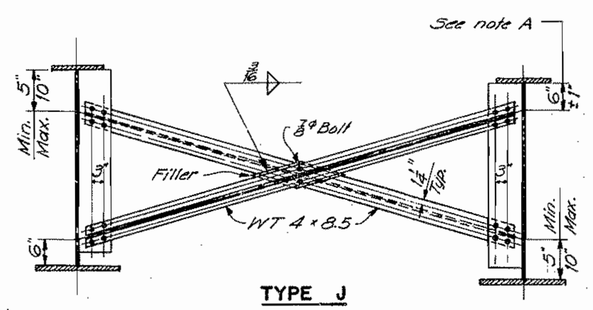
159-39

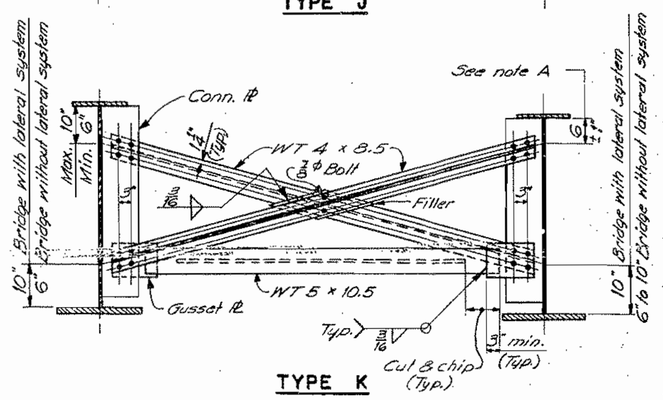
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	39	64

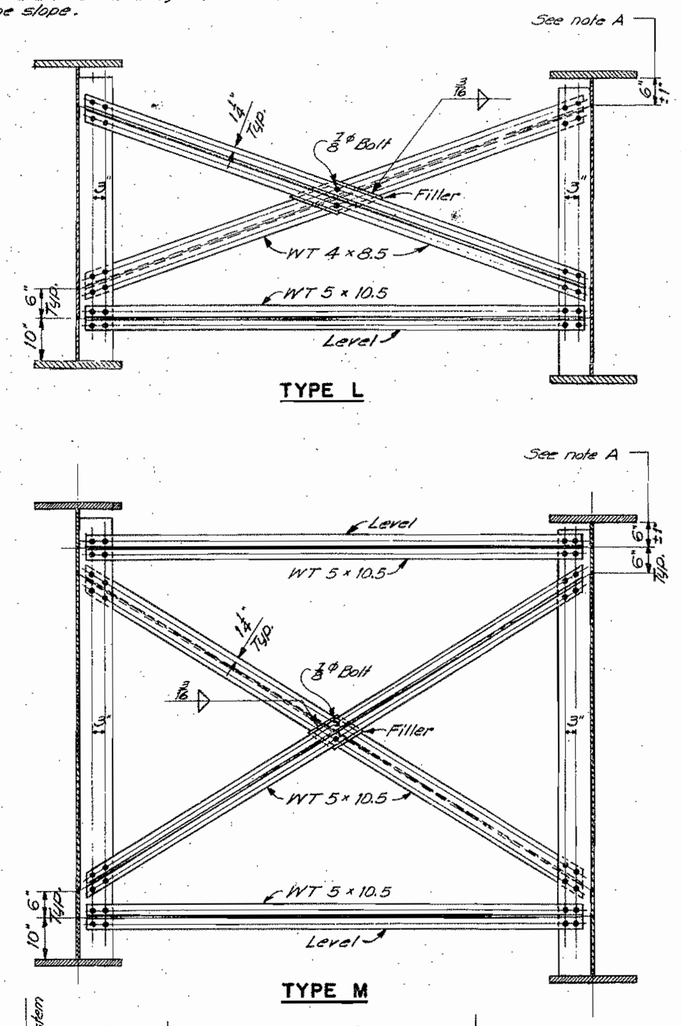
NOTE A This dimension may be varied (±1") to allow a series of diagonals to have the same slope.

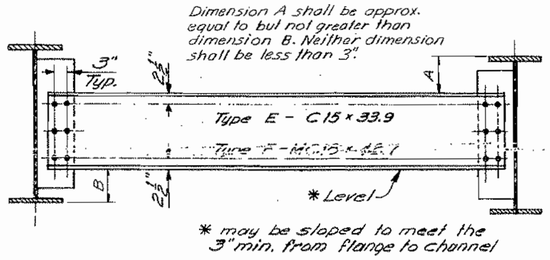


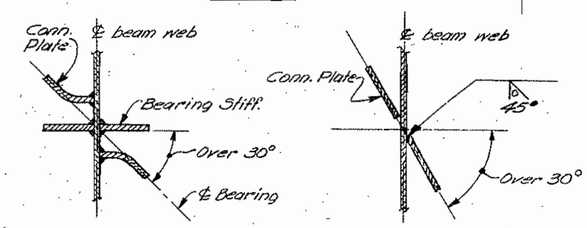












MATERIALS

Diaphragms, Crossframes and All Plates (Filler, gusset, and connection). ASTM A 36

High Strength Bolts 7/8" diameter — — — ASTM A 325

FABRICATION NOTES

1. For location and type of diaphragm or crossframe see design details.
2. Holes for 7/8" diameter bolts shall be 15/16" dia. and Edge distances shall be 1 1/4" minimum unless otherwise shown.
3. Connection plates and gusset plates shall have a minimum thickness of 3/8" and shall have sufficient width to provide erection clearances. When bearing stiffeners or intermediate stiffeners are used as connection plates, the plate size will be given on the design details.
4. Connection plates shall be fastened to beam and girder webs as follows:
   - 0° to 30° skew — fillet weld both sides.
   - Over 30° skew — full penetration groove weld (see Detail B) except as indicated in Note 5
   - Over 45° skew — weld prequalification will be required.

   The skew angle is the angle between the connection plate and a line normal to the beam.
5. Bearing stiffeners shall be used as connection plates when the skew is not over 30°. When the skew is over 30° a bent connection plate shall be attached to the web adjacent to the bearing stiff. as shown in Detail A.
6. All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
7. Connection plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression or when used as a bearing stiffener or intermediate stiff.
8. Connection plates shall extend to the bottom flange when used as a bearing stiffener, at points where lateral bracing is attached & on welded beams and girders in areas where the bottom flange is always in compression.
9. When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
10. Conn. plates shall be 2 1/2" clear from flanges, except as indicated by Notes 7 & 8.
11. Use only those items called for on the design details. In case of conflict between these standard details and the design details, the design details shall be followed.

PLANS	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 113 - 72)

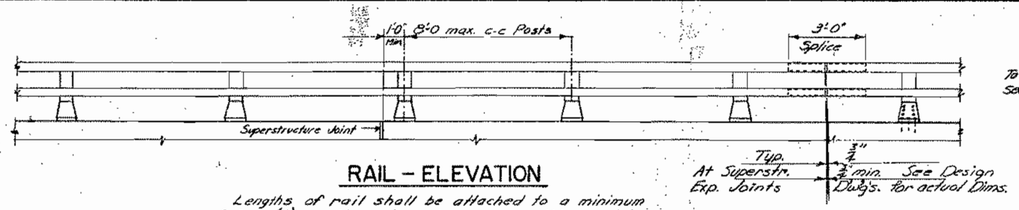
DIAPHRAGMS & CROSSFRAMES

SHEET 39 OF 64 AUGUSTA, MAINE SEPT. 1972

159-40

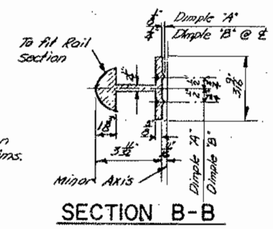
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	40	64

DESIGN SPECIFICATIONS
A.A.S.H.O. Standard Specifications for Highway Bridges 1969 and Interim Specifications.

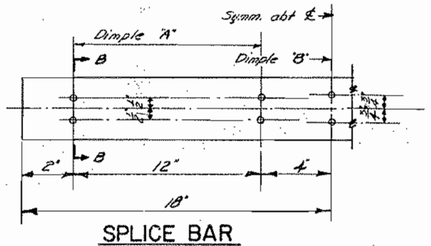


RAIL - ELEVATION

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.

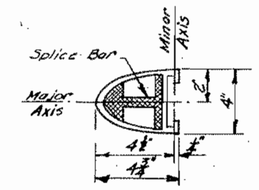


SECTION B-B



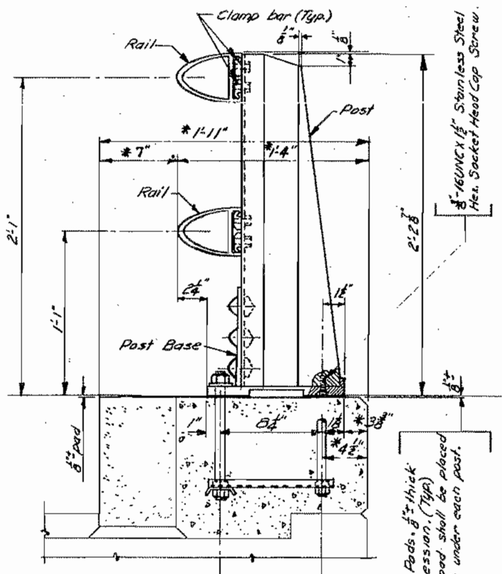
SPLICE BAR

Note - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.



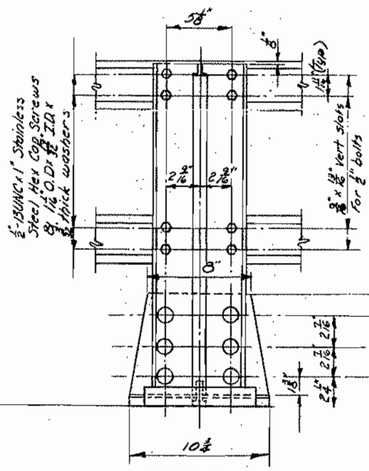
RAIL SECTION

See "Rail Detail"

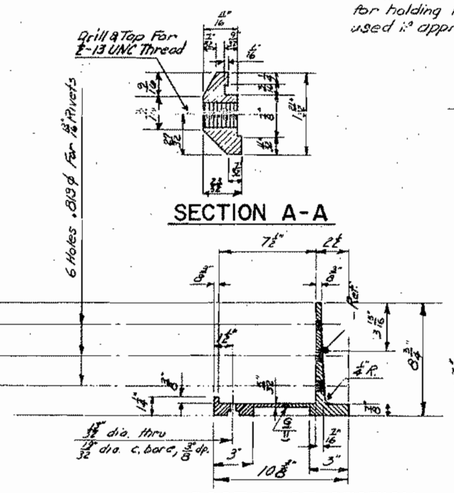


BRIDGE RAIL
(Assembly)

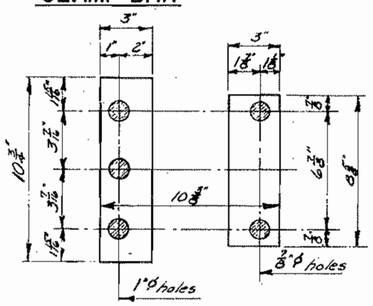
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



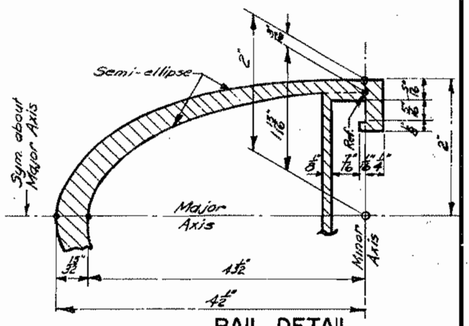
REAR ELEV.



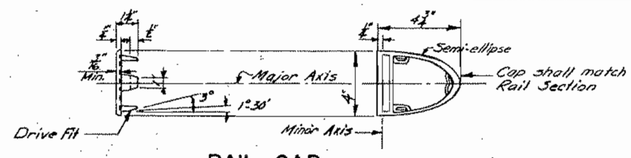
POST BASE SECTION



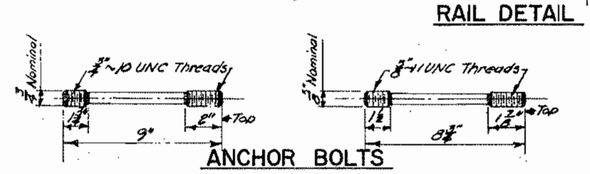
PREFORMED PADS



RAIL DETAIL

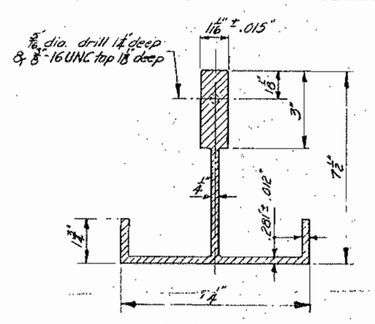


RAIL CAP

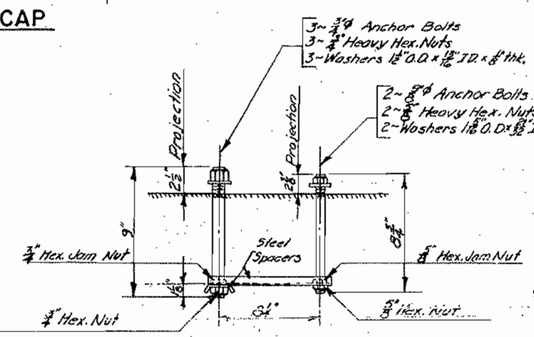


ANCHOR BOLTS

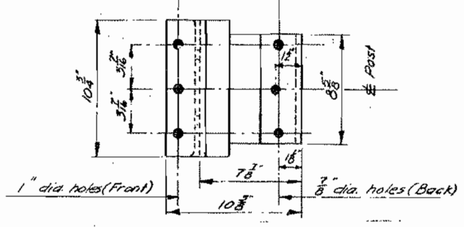
If cut threads are used, body diameter shall be not less than nominal diameter.
If rolled threads are used, body diameter shall be not less than root diameter of the threads.



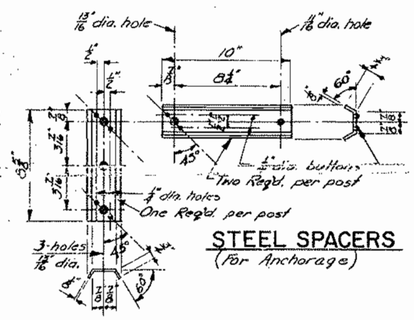
POST SECTION



RAIL POST ANCHORAGE
(Assembly)



POST BASE
(Bottom View)



STEEL SPACERS
(For Anchorage)

PLANS	BY	DATE
DESIGN - DETAILED	K. Jacobs / K. Lasch	Jan. 1973
CHECKED		
REVISIONS		
FIELD CHANGES		

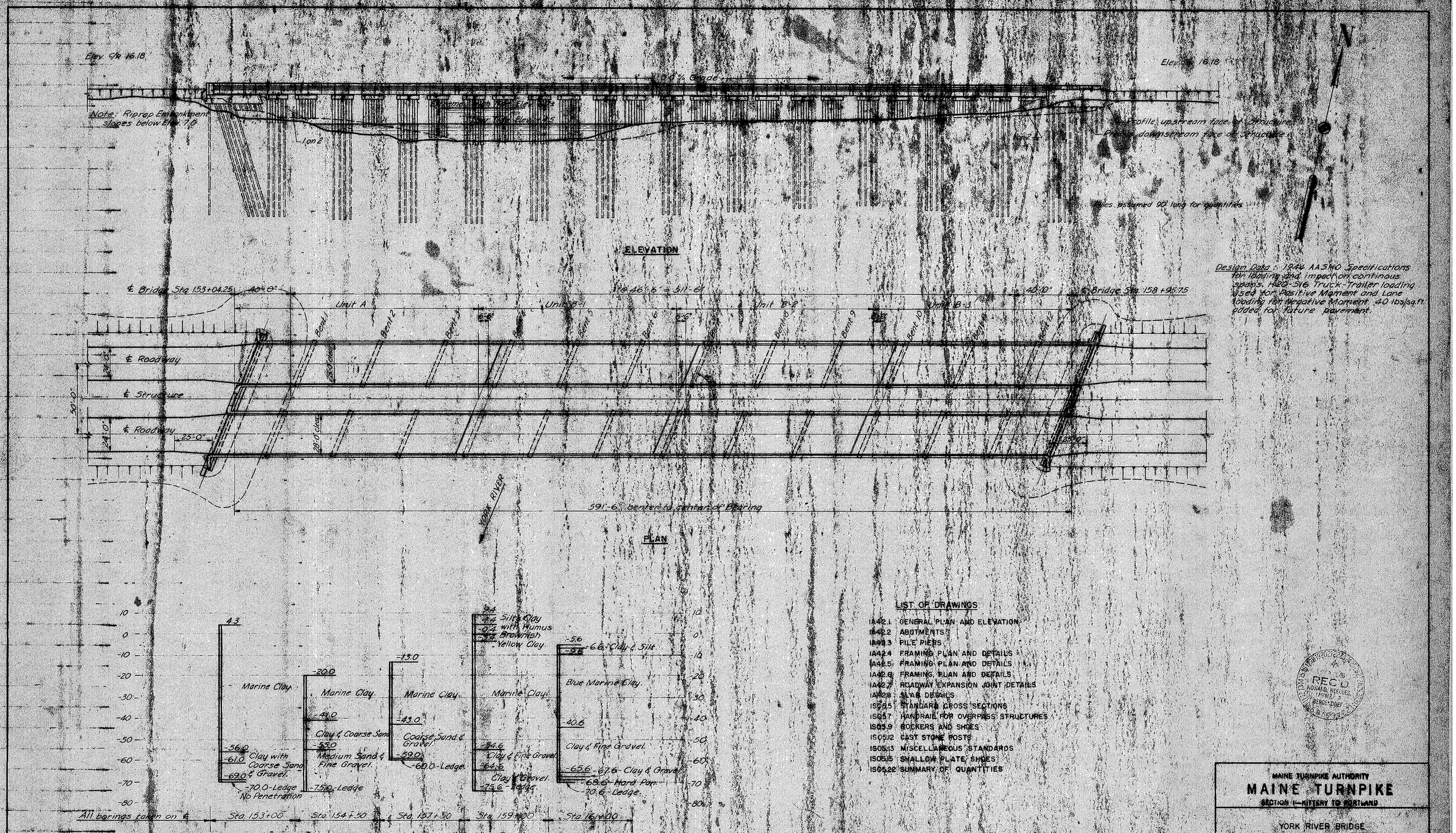
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 114-73)

ALUMINUM RAILING
2 - BAR (SEMI-ELLIPSE)
EXTRUDED POST

SHEET 40 OF 64 AUGUSTA, MAINE FEBRUARY 1973

159-41



Design Data: 1944 AASHO Specifications for loading and impact on continous spans. H20-S16 Truck-Trailer loading used for Positive Moment and Lane loading for Negative Moment. 40 lbs/sq.ft. added for future pavement.

LIST OF DRAWINGS

1A42.1	GENERAL PLAN AND ELEVATION
1A42.2	ABUTMENTS
1A42.3	PILE PIERS
1A42.4	FRAMING PLAN AND DETAILS
1A42.5	FRAMING PLAN AND DETAILS
1A42.6	FRAMING PLAN AND DETAILS
1A42.7	ROADWAY EXPANSION JOINT DETAILS
1A42.8	SLAB DETAILS
1S05.5	STANDARD CROSS SECTIONS
1S05.7	HANDRAIL FOR OVERPASS STRUCTURES
1S05.9	ROCKERS AND SHOES
1S05.12	CAST STONE POSTS
1S05.13	MISCELLANEOUS STANDARDS
1S05.15	SHALLOW PLATE SHOES
1S05.22	SUMMARY OF QUANTITIES

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

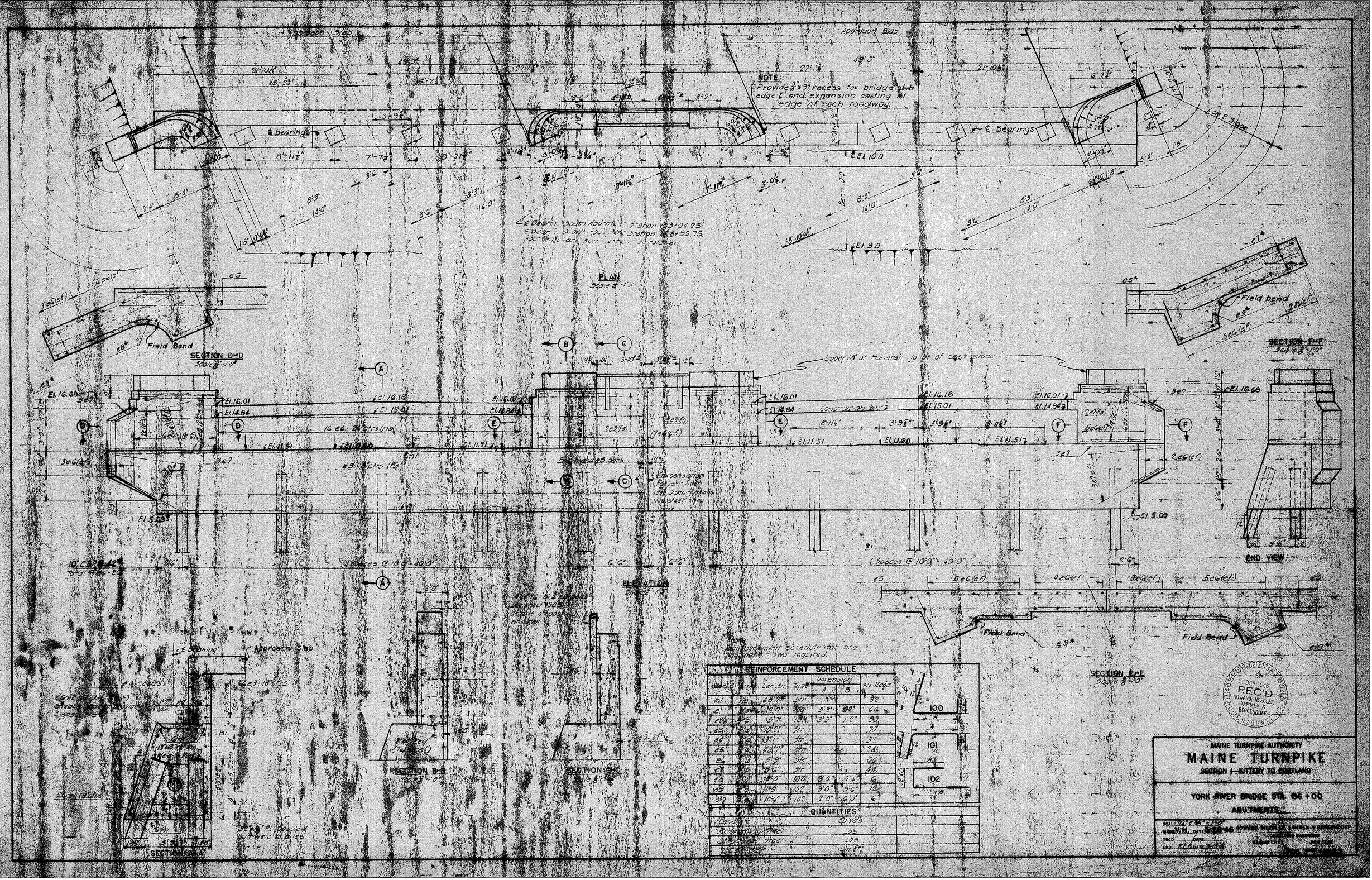
SECTION 1—KITTERY TO PORTLAND

YORK RIVER BRIDGE
GENERAL PLAN AND ELEVATION

SCALE 1" = 30'-0"
MADE E.J.D. DATE 6-13-46
TRCD D.L.S. DATE 6-13-46
CKD. F.G.B. DATE 9-13-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

705 SHEET 1A42.1



REINFORCEMENT SCHEDULE

Mark	Size	Length	Type	Dimension A	Dimension B	No. Reqd
h1	[illegible]	68'-7"	Str			32
e1	[illegible]	12'-7"	100	5'-3"	6'-2"	64
e2	[illegible]	5'-7"	101	3'-3"	1'-2"	90
e3	[illegible]	10'-2"	Str			70
e4	[illegible]	33'-1"	Str			32
e5	[illegible]	68'-7"	Str			28
e6	[illegible]	5'-9"	Str			66
e7	[illegible]	8'-6"	Str			44
e8	[illegible]	18'-0"	102	2'-0"	5'-6"	6
e9	[illegible]	11'-0"	102	3'-0"	5'-6"	12
e10	[illegible]	10'-6"	102	2'-0"	6'-0"	6

QUANTITIES

Concrete	Cu. Yds.
Reinforcing Steel	Lbs.
Structural Steel	Lbs.
[illegible]	Lin. Ft.

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

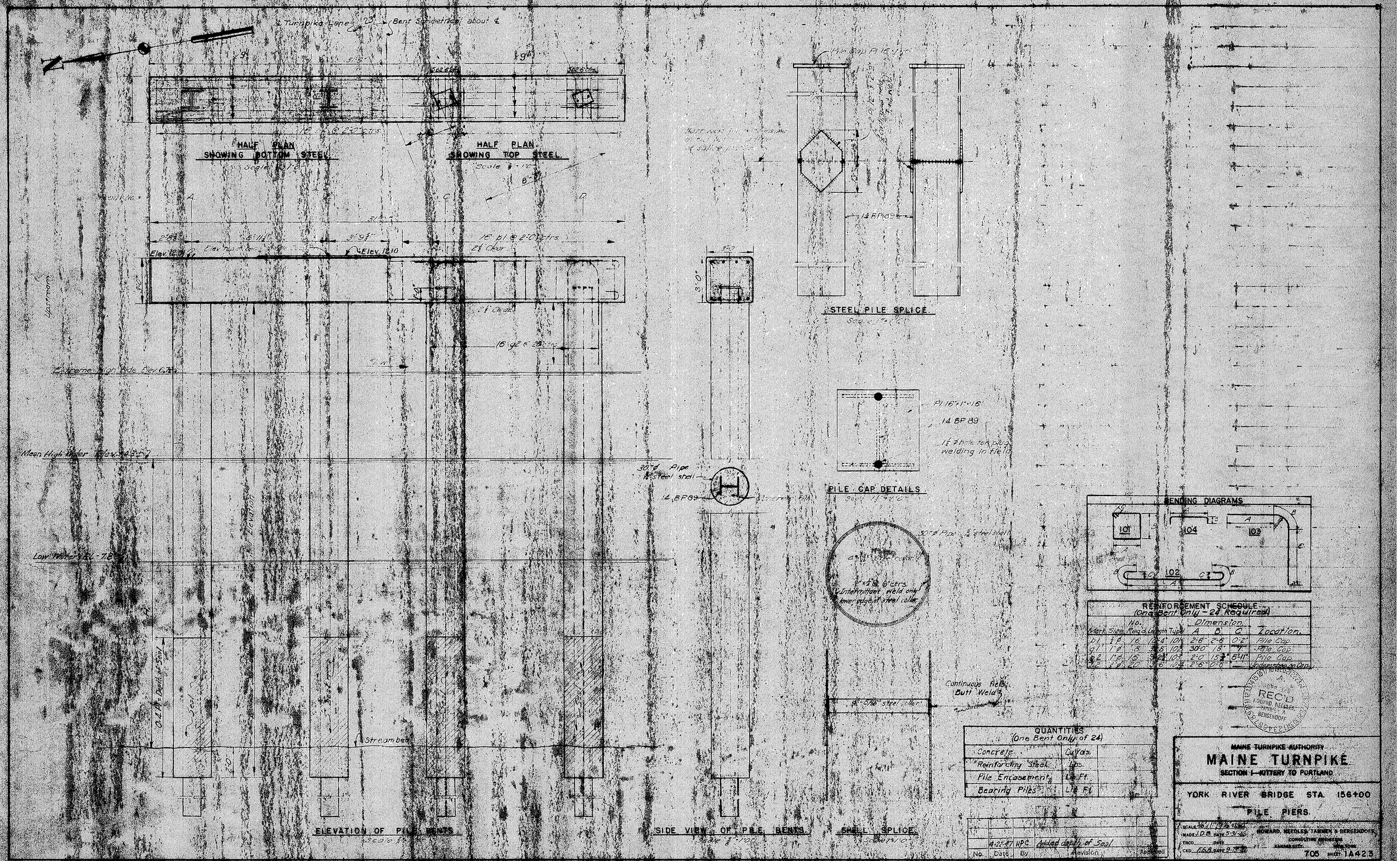
SECTION 1—KITTERY TO PORTLAND

YORK RIVER BRIDGE STA. 156+00

ABUTMENTS

SCALE 1/4" = 1'-0"
MADE V.H. DATE 5-28-46
TRCD. DATE
CKD. F.E.A. DATE 9-13-46

HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK



REINFORCEMENT SCHEDULE
(One Bent Only - 24 Required)

Mark	Size	No. Req'd	Length	Type	Dimension A	Dimension B	Dimension C	Location
b1	½"ø	16	10'-4"	101	2'-6"	2'-6"	0'-2"	Pile Cap
g1	1"ø	8	3'-8"	102	30'-0"	16"	7"	Pile Cap
g2	1"ø	16	9'-2¾"	103	2'-0"	15¾"	5'-11"	Pile Cap
h2	½"ø	20	3'-6"	104	2'-6"	0'-6"	—	Underside on Cap

QUANTITIES
(One Bent Only of 24)

Concrete	Cu. Yds.
Reinforcing Steel	Lbs.
Pile Encasement	Lin. Ft.
Bearing Piles	Lin. Ft.

No.	Date	By	Revision	Approved
	4-22-47	HPC	Added depth of Seal	

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION I—KITTERY TO PORTLAND

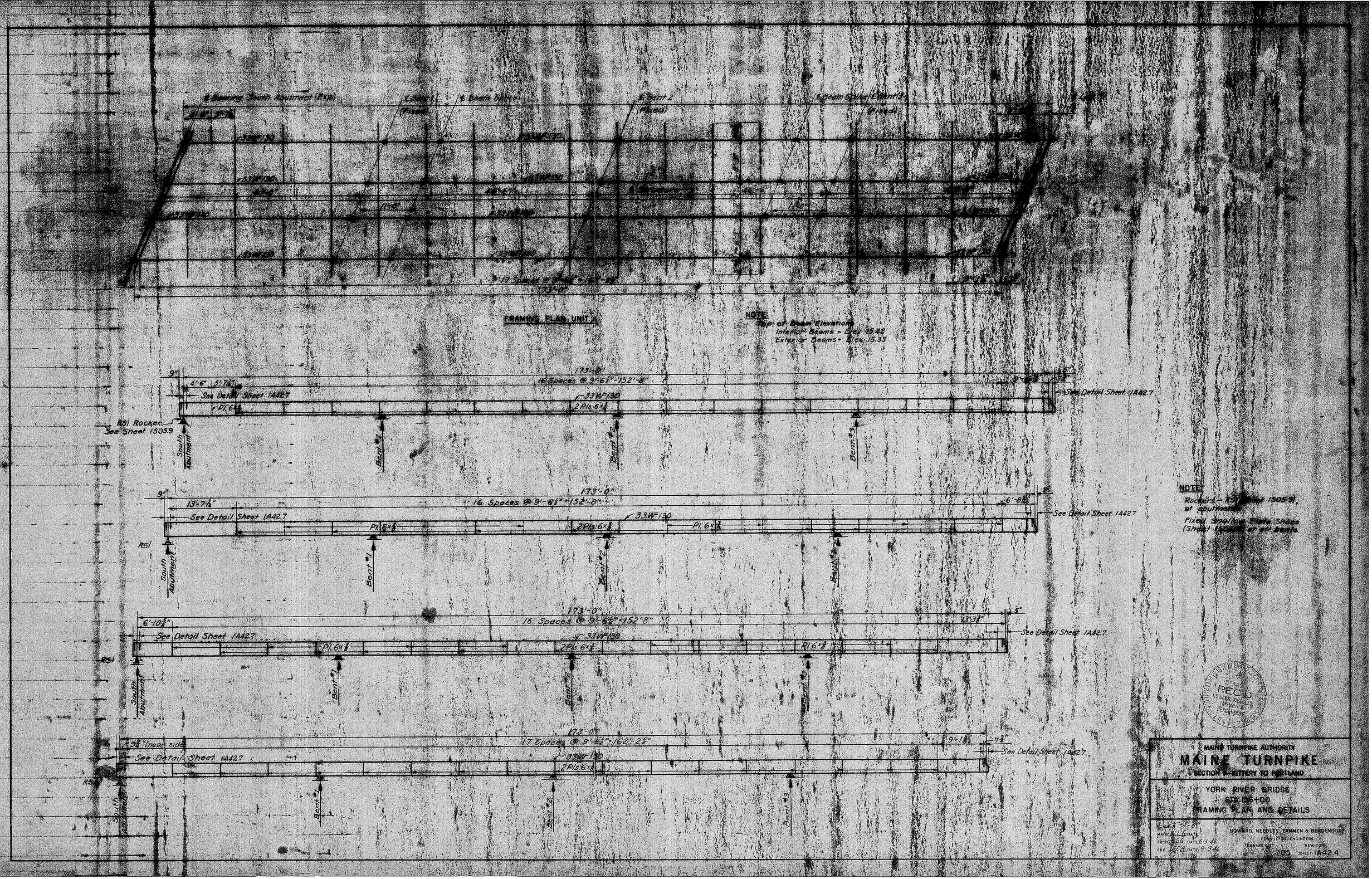
YORK RIVER BRIDGE STA. 156+00

PILE PIERS.

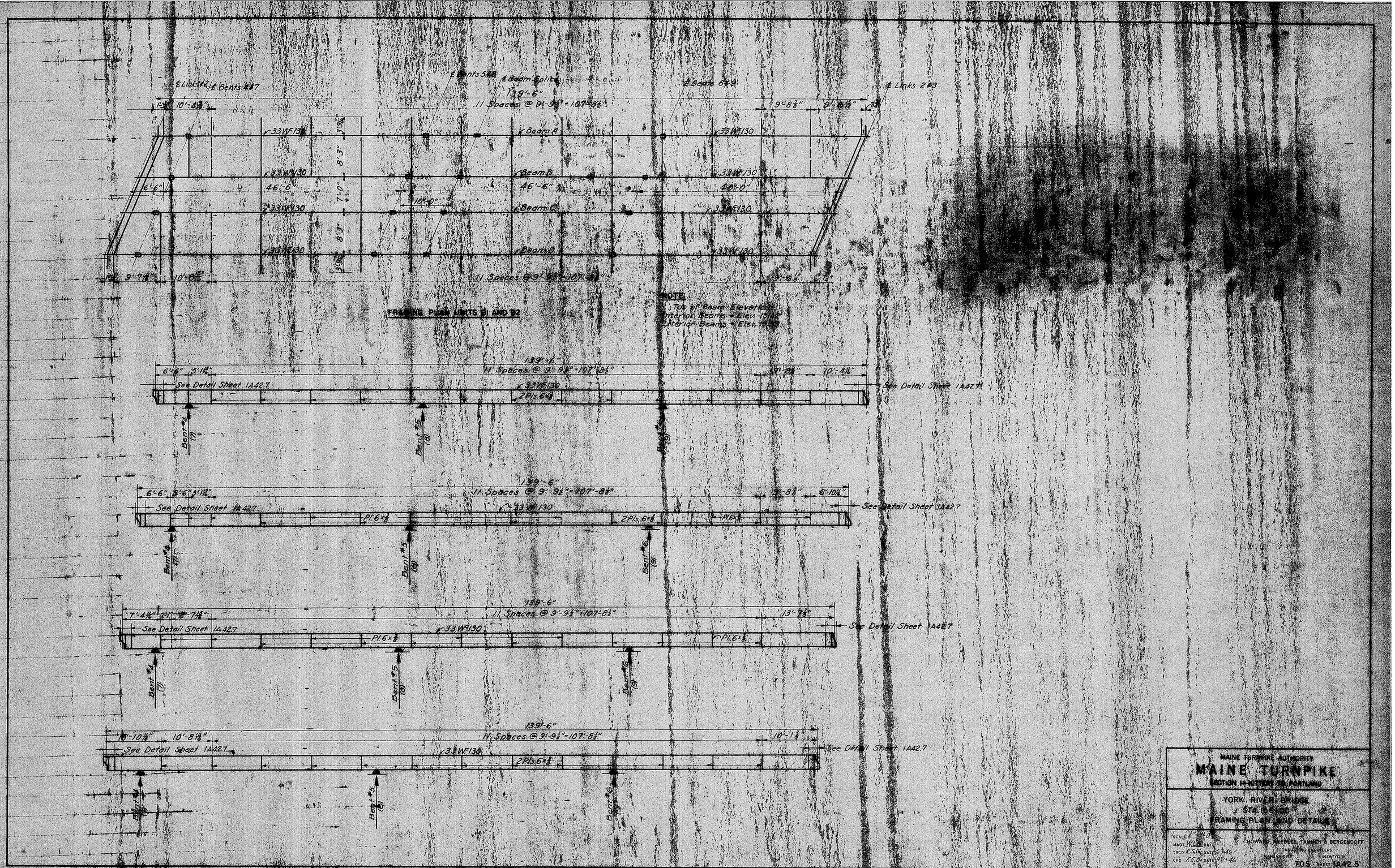
SCALE 3/8"=1'-0", 3/16"=1'-0"
MADE J.D.B. DATE 5-31-46
TRCD. DATE
CKD. F.E.B. DATE 9-19-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY, MISS. YORK

705 SHEET 1A42.3



℄ Bearing South Abutment (Exp)
℄ Bent 1 (Fixed)
℄ Beam Splice
℄ Bent 2 (Fixed)
℄ Beam Splice
℄ Bent 3 (Fixed)
17 Spaces @ 9'-6½" = 162'-2½"
173'-0"
FRAMING PLAN UNIT A
NOTE:
Top of Beam Elevations
Interior Beams - Elev. 15.42
Exterior Beams - Elev. 15.33
173'-0"
16 Spaces @ 9'-6½" = 152'-8"
See Detail Sheet 1A42.7
33WF130
2 Pls. 6x⅜
Pl. 6x⅜
R51 Rocker
See Sheet 1S05.9
South Abutment
Bent #1
Bent #2
Bent #3
13'-7½"
6'-8½"
6'-10⅝"
13'-3⅜"
9'-1⅝"
7⅞"
9¾" (near side)
NOTE:
Rockers - R51 (Sheet 1S05.9) at abutments
Fixed Shallow Plate Shoes (Sheet 1S05.9) at all bents
RECD
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 1 - KITTERY TO PORTLAND
YORK RIVER BRIDGE
STA. 156+00
FRAMING PLAN AND DETAILS
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK
SHEET 1A42.4



MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 14-KITTERY TO PORTLAND

YORK RIVER BRIDGE

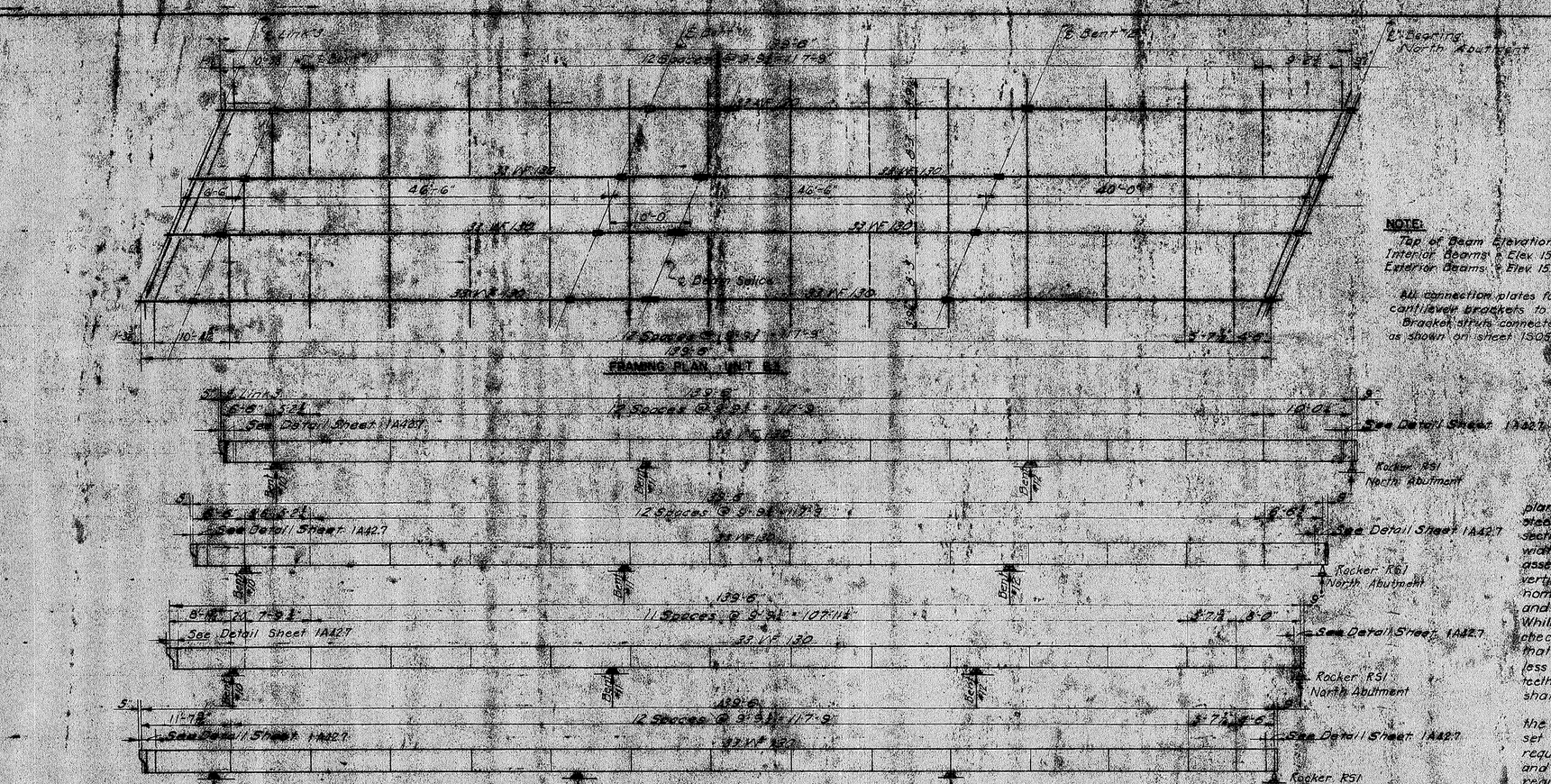
STA. 65+00

FRAMING PLAN AND DETAILS

SCALE 8" = 1'-0"
MADE W.L.S. DATE
TRCD R.S.G. DATE 6-3-46
CKD F.E.B. DATE 9-23-46

HOWARD NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

705 SHEET 1A42.5



NOTE:

Top of Beam Elevations:
Interior Beams = Elev. 15.42
Exterior Beams = Elev. 15.33

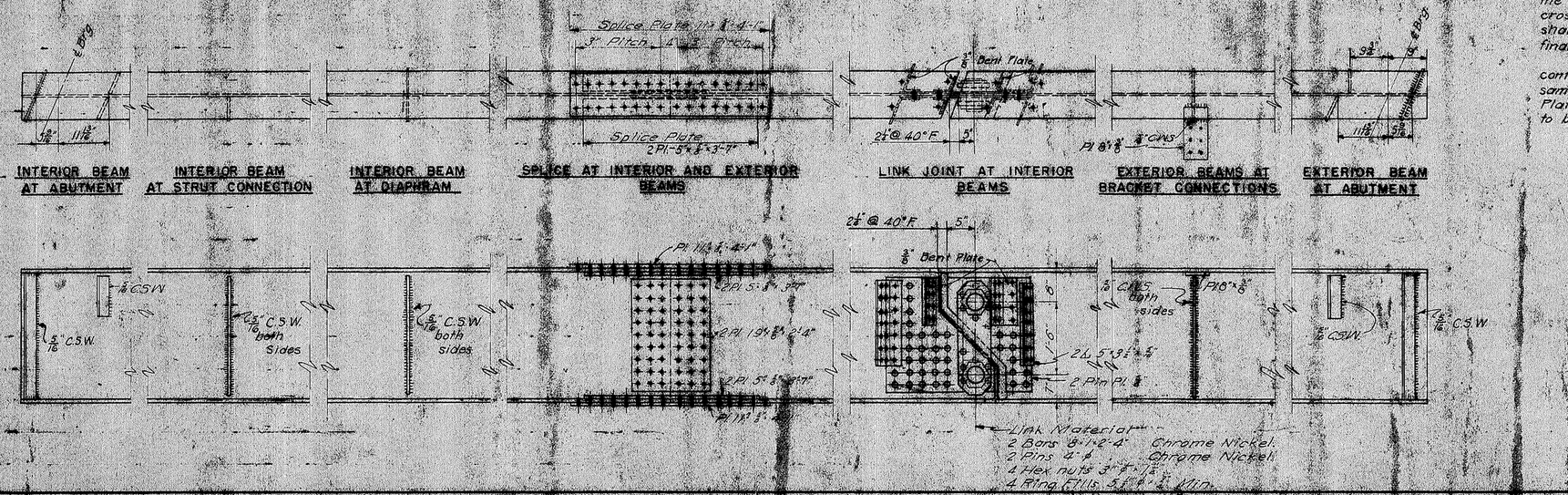
All connection plates for diaphrams and cantilever brackets to be 6" × ⅜".
Bracket struts connected with ⅜" plates as shown on sheet 1S05.5.

DECK EXPANSION JOINTS

Expansion joint castings shall be machined to plane surfaces on top, on surfaces in contact with steel, and at joints between castings. All casting sections for both sides of each joint for the full width of the roadway shall be simultaneously assembled in the shop on suitable supports in proper vertical and transverse positions so as to give a nominal clearance of ¾ inch between ends of teeth and castings on opposite sides of expansion joints. While thus assembled, the castings shall be carefully checked and then corrected as necessary, to insure that there are no side clearances between teeth less than ⅛ inch and no clearance beyond ends of teeth less than ⅝ inch. Before disassembly, the castings shall be match-marked.

The castings shall be erected according to the match-marking diagram, the castings being set so as to give the longitudinal clearance required for the temperature at the time of setting, and so that the top surfaces will conform to the required grade and to the crown of the roadway. Care shall be taken in setting the castings to insure that at the extreme position of the castings, the side and end clearances for the teeth shall not be less than specified for the shop assembly. If the difference in elevation of mating teeth exceeds ⅛ inch, the high surface shall be ground down. For the connection of castings to their supporting cross-beams, the holes in the supporting members shall be drilled in the field after castings are in final position.

Casting "A" shall be erected and aligned by the contractor who pours roadway slab, by attaching same temporarily to opposite casting as shown. Plates and bolts for temporary connection are to be furnished by the structural steel contractor.



REC'D
HOWARD, NEEDLES, TAMMEN & BERGENDOFF

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 1—KITTERY TO PORTLAND

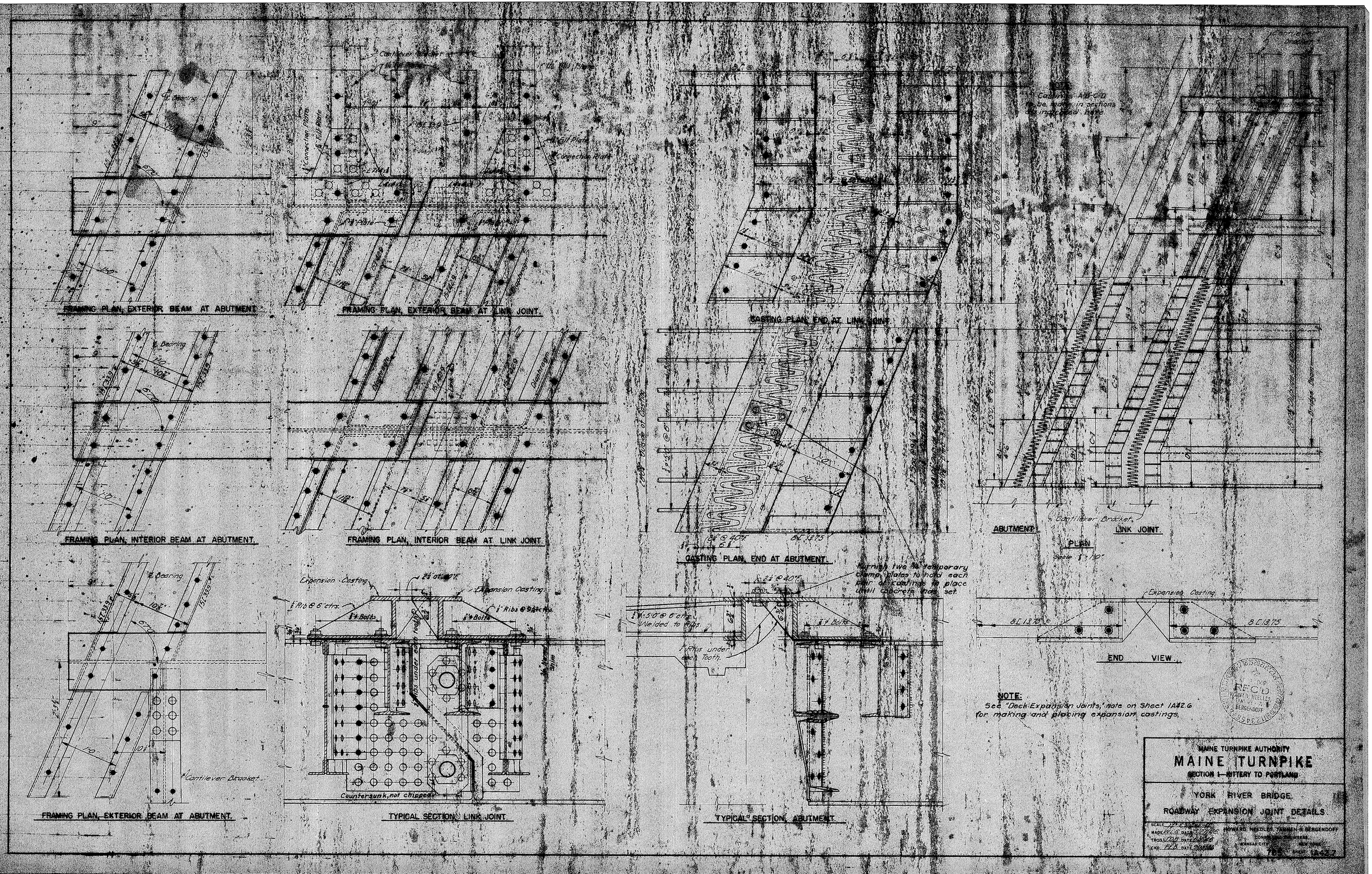
YORK RIVER BRIDGE STA. 156+00

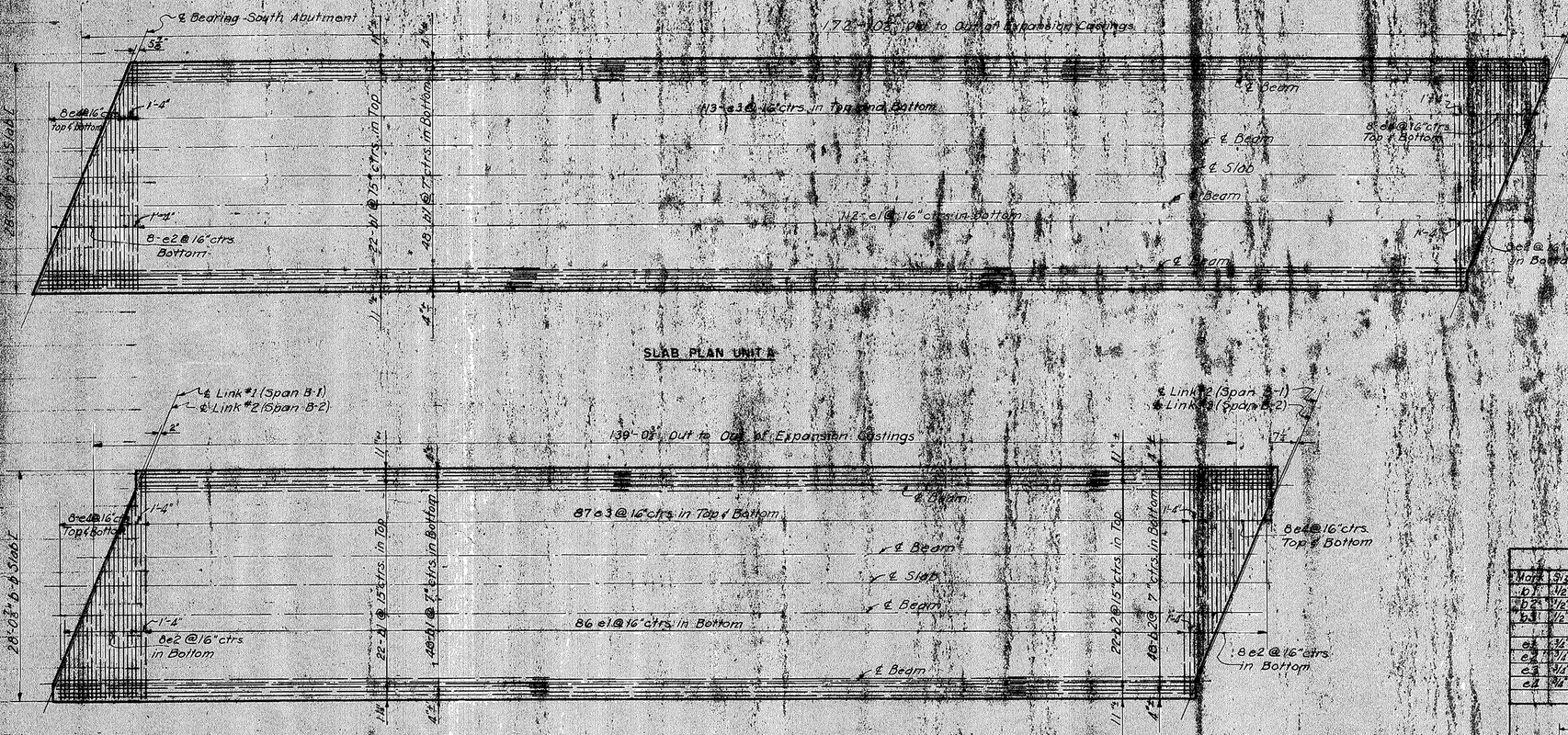
FRAMING PLAN AND DETAILS.

SCALE 1/8" = 1'-0"
MADE W.L.G. DATE 6/3/46
TRCD. J.D.B. DATE 6/3/46
CKD. F.E.B. DATE 9/13/46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

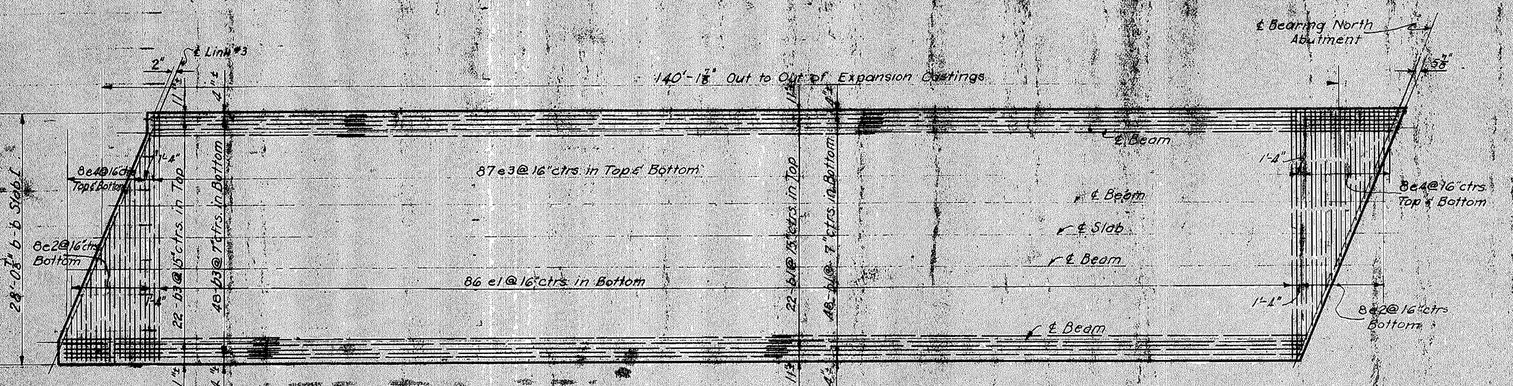
705 SHEET 1A42.6


FRAMING PLAN, EXTERIOR BEAM AT ABUTMENT.
FRAMING PLAN, EXTERIOR BEAM AT LINK JOINT.
CASTING PLAN, END AT LINK JOINT.
FRAMING PLAN, INTERIOR BEAM AT ABUTMENT.
FRAMING PLAN, INTERIOR BEAM AT LINK JOINT.
CASTING PLAN, END AT ABUTMENT.
ABUTMENT
LINK JOINT.
PLAN
Cantilever Bracket
END VIEW.
FRAMING PLAN, EXTERIOR BEAM AT ABUTMENT.
TYPICAL SECTION, LINK JOINT.
TYPICAL SECTION, ABUTMENT.
Expansion Casting
Countersunk, not chipped
Cantilever Bracket
NOTE:
See "Deck Expansion Joints," note on Sheet 1A42.6 for making and placing expansion castings.
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 1—KITTERY TO PORTLAND
YORK RIVER BRIDGE
ROADWAY EXPANSION JOINT DETAILS
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY
NEW YORK
765
1A42.7



SLAB PLAN UNIT A

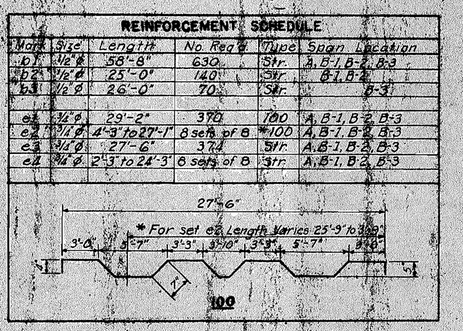
SLAB PLAN UNITS B1-B2



SLAB PLAN UNIT B3

REINFORCEMENT SCHEDULE

Mark	Size	Length	No. Req'd	Type	Span Location
b1	½" ø	58'-8"	630	Str.	A, B-1, B-2, B-3
b2	½" ø	25'-0"	140	Str.	B-1, B-2
b3	½" ø	26'-0"	70	Str.	B-3
e1	½" ø	29'-2"	370	100	A, B-1, B-2, B-3
e2	½" ø	4'-9" to 27'-1"	8 sets of 8	*100	A, B-1, B-2, B-3
e3	½" ø	27'-6"	374	Str.	A, B-1, B-2, B-3
e4	½" ø	2'-5" to 24'-3"	8 sets of 8	Str.	A, B-1, B-2, B-3



REC'D HOWARD, NEEDLES, TAMMEN & BERGENDOFF

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

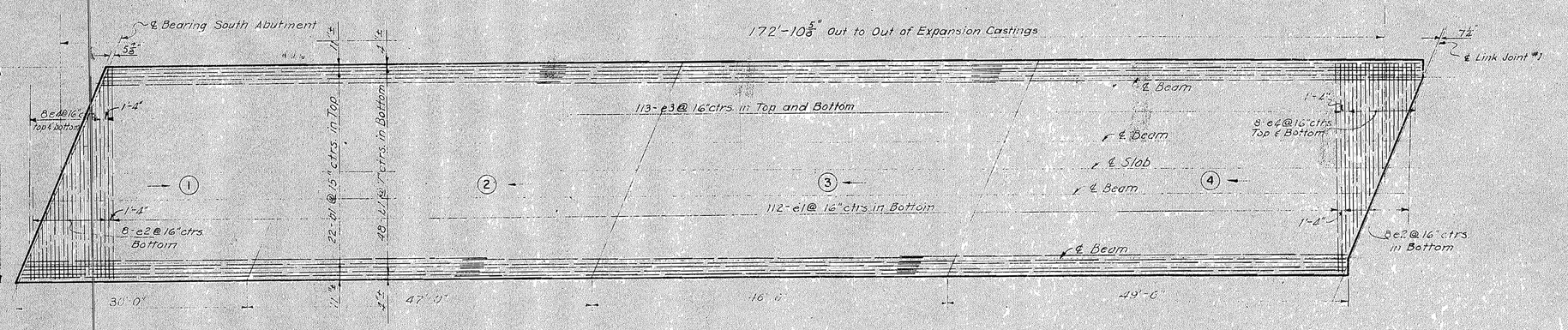
SECTION 1 — KITTERY TO PORTLAND

YORK RIVER BRIDGE
SLAB DETAILS

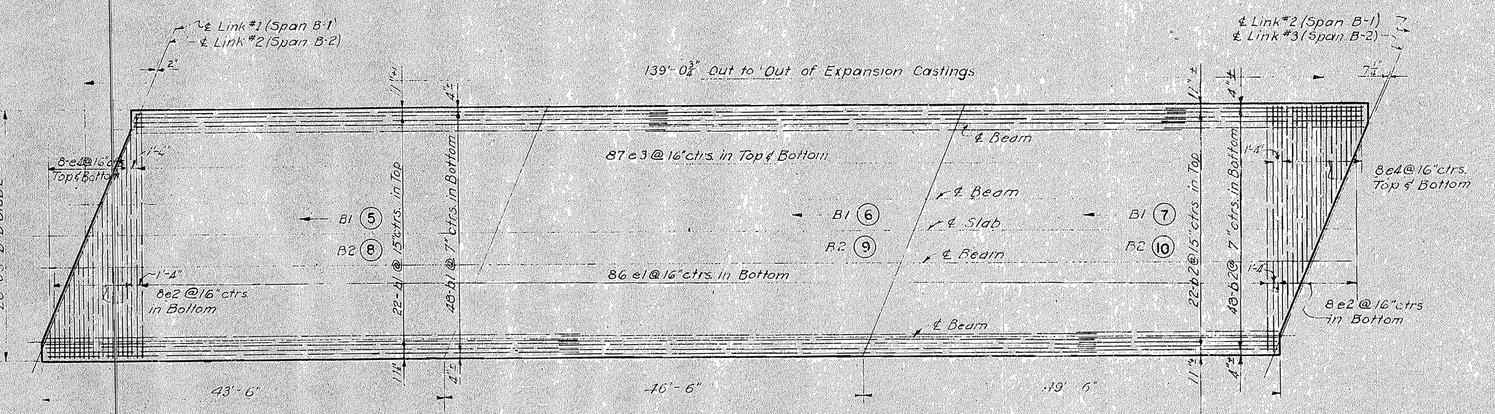
SCALE 1/4" = 1'-0"
DES. N.O. DATE 3-2-56
TRCD. R.G. DATE 3-2-56
CKD. F.D. DATE 3-2-56

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY, MO.

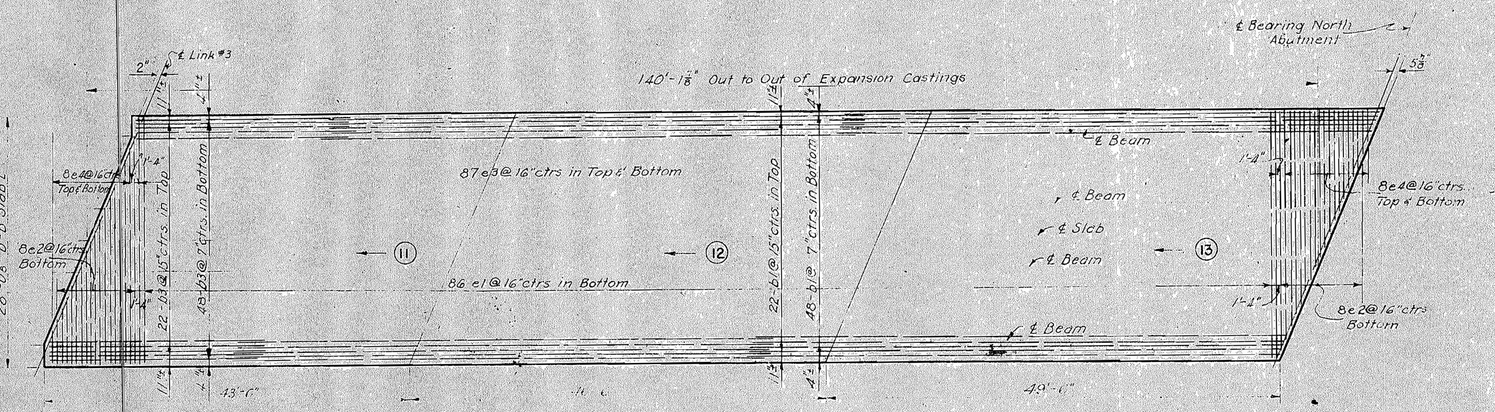
705 Sheet 1442.8



SLAB PLAN UNIT A



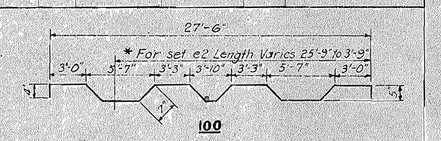
SLAB PLAN UNITS B1-B2



SLAB PLAN UNIT B3

REINFORCEMENT SCHEDULE

Mark	Size	Length	No Req'd	Type	Span Location
b1	1/2"ø	58'-8"	630	Str.	A, B-1, B-2, B-3
b2	1/2"ø	25'-0"	140	Str	B-1, B-2
b3	1/2"ø	26'-0"	70	Str.	B-3
e1	3/4"ø	29'-2"	370	100	A, B-1, B-2, B-3
e2	3/4"ø	4'-3" to 27'-1"	8 sets of 8	*100	A, B-1, B-2, B-3
e3	3/4"ø	27'-6"	148	Str	A, B-1, B-2, B-3
e4	3/4"ø	2'-3 to 24'-3"	8 sets of 8	Str	A, B-1, B-2, B-3



Slab Pouring Sequence.
Roadway slabs are to be poured in sections in the order of the numbers shown, with the pouring sequence in any section extending in the direction of the arrows.

NO.	DATE	BY	REVISIONS	APPR'VED

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

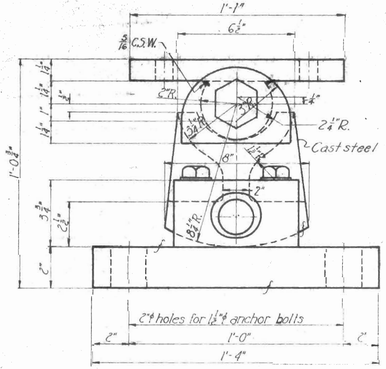
SECTION I—KITTERY TO PORTLAND

YORK RIVER BRIDGE
SLAB DETAILS

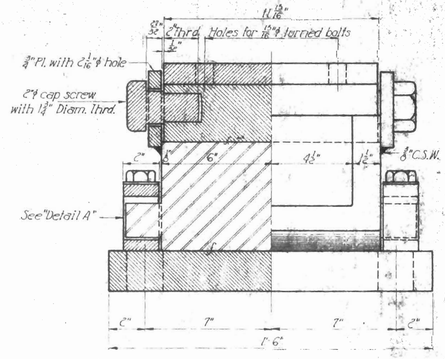
SCALE 1/8"=1'-0"
MADE W.G. DATE 7-24-46
TR'D R.G. DATE 5-31-46
CK'D F.E.B. DATE 9-5-46

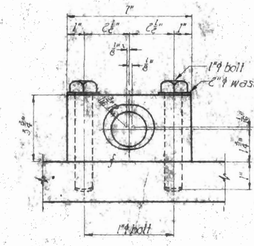
HOWARD NEEDLES TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

705 SHEET 1A42.8

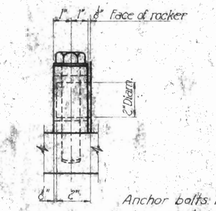


RS1
Design Capacity 90 Kips

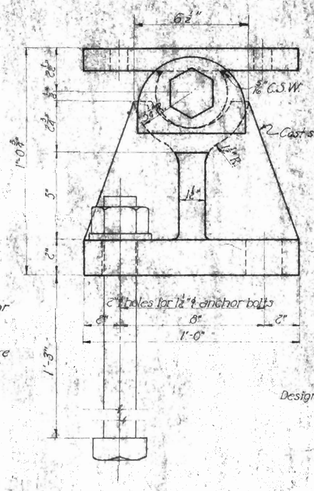


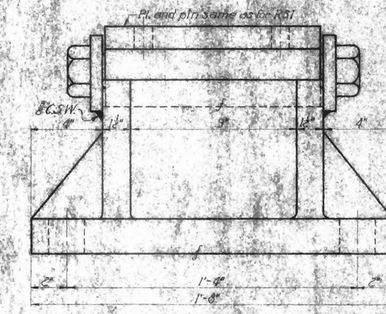


DETAIL A

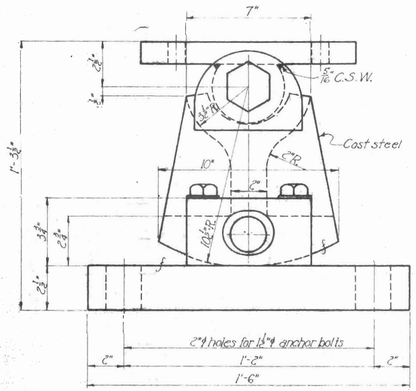


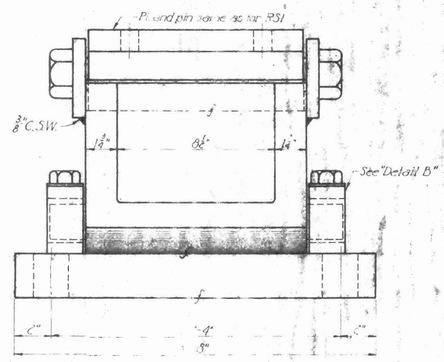
Anchor bolts for all shoes on this drawing:
Bolt 1½" ϕ, square head, hex nut, and 3½" d x ½" washer.



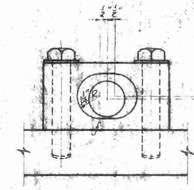


FS1
Design Capacity 150 Kips





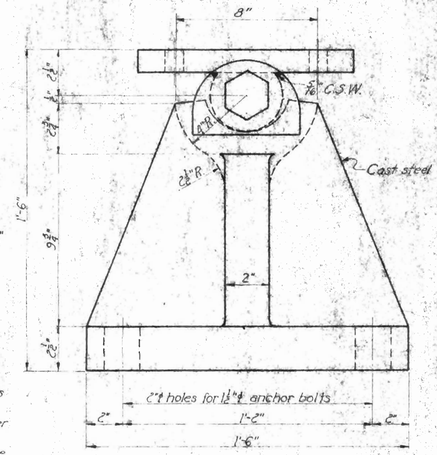
RS2
Design Capacity 150 Kips

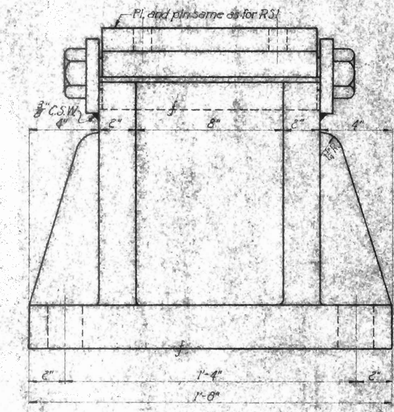


DETAIL B

Notes:
Other dimensions and details same as in "Detail A."

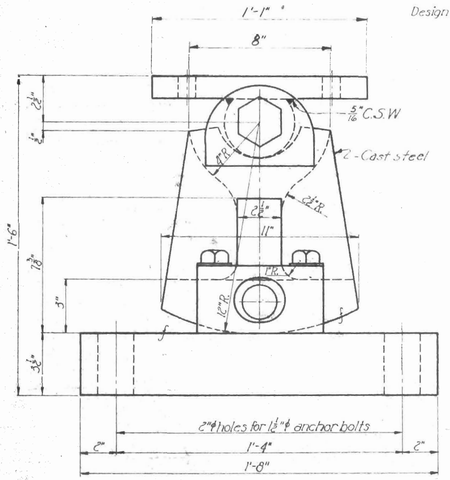
Notes:
All material carbon steel unless otherwise noted.
All fillets ⅜" radius except as noted.
Shoes shall be attached to girders with ⅞" rivets or with 7/16" tight fit turned bolts. Bolts to have hex head and two hex nuts each with ⅜" washer under head and nuts.
All contact surfaces between moving parts to be Finished.

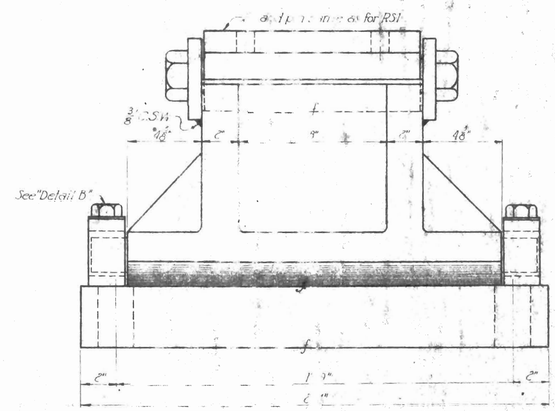




FS2
Design Capacity 300 Kips

FIXED SHOES





RS3
Design Capacity 300 Kip

ROCKER SHOES

RECD

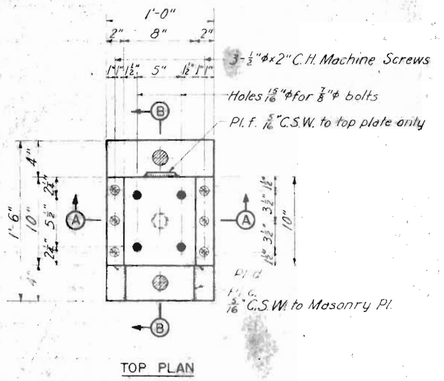
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 1—KITTERY TO PORTLAND

ROCKERS AND SHOES

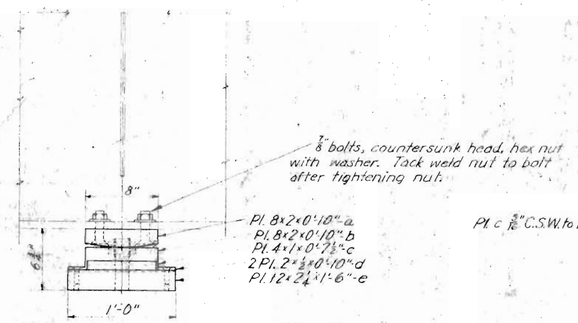
SCALE 3/8" = 1'-0"
MADE B.A.N. DATE 5-1-46
TRACED F.A. DATE 5-9-46
CHK. E.J.B. DATE 8-7-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

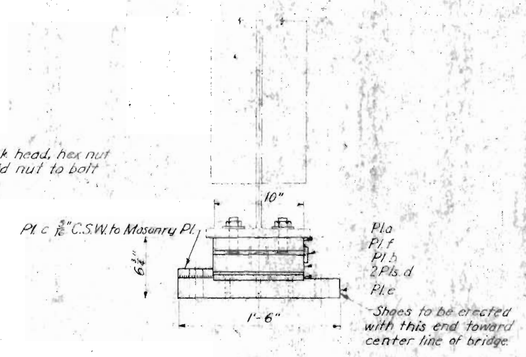
705 SHEET 1905.9



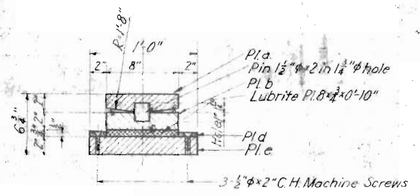
TOP PLAN



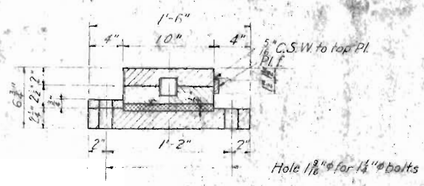
SIDE VIEW



END VIEW

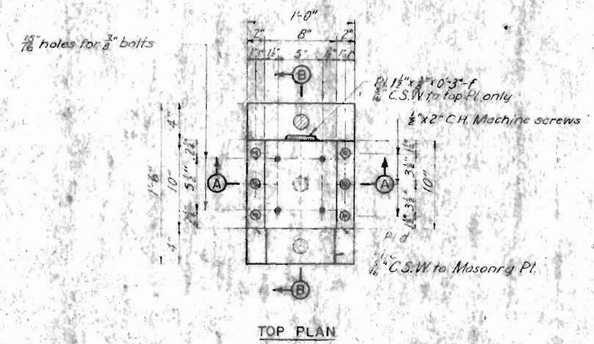


SECTION A-A

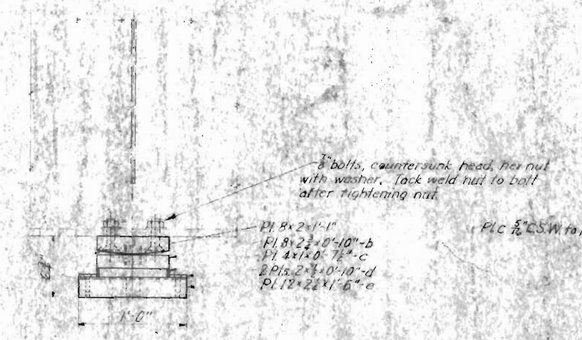


SECTION B-B

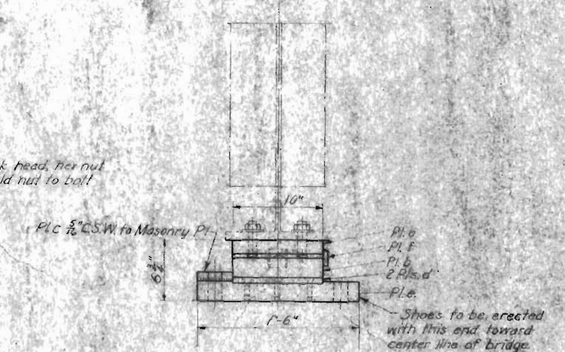
EXPANSION SHOE DETAILS



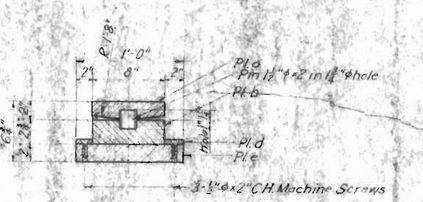
TOP PLAN



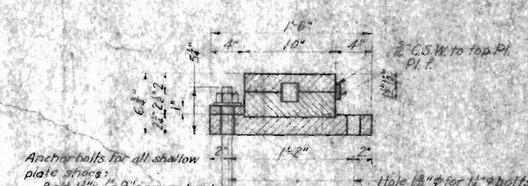
SIDE VIEW



END VIEW



SECTION A-A



Anchor bolts for all shallow plate shoes: Bolt 1¼"×1'-9" square head, hex nut, 3"φ washer

SECTION B-B

FIXED SHOE DETAILS

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

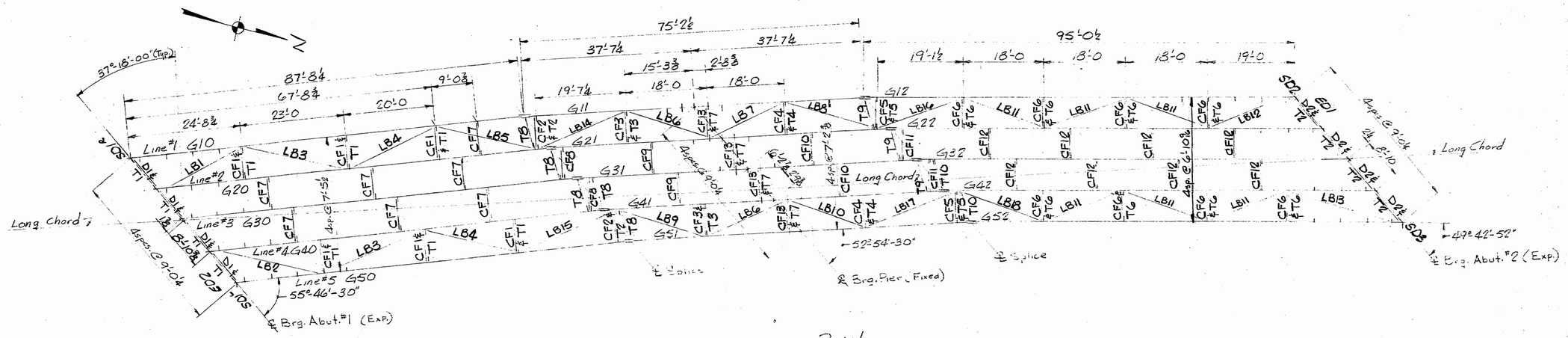
SECTION 1—KITTERY TO PORTLAND

SHALLOW PLATE SHOES

SCALE 1½"=1'-0"
MADE BY L. G. Baker 5-1-46
TRACED B. G. Baker 6-1-46
CK'D D. M. Dunn 6-2-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

705 DWG. 1505.15



FRAMING PLAN

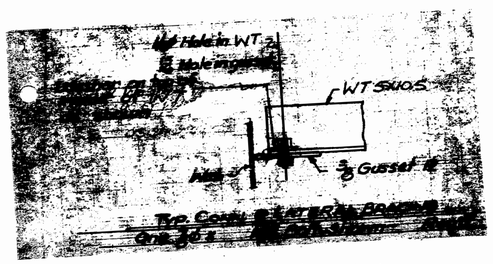
NOTES:
All dimensions are horizontal.
Bolts are to be ⅞ϕ A325-Type1.

SPLICE NOTE

In order to maintain the 0-1/4" gap shown, the webs and flanges are to be cut (with the use of mechanical guide) at the time of shop assembly of the field splices. Holes are to be drilled full size from the solid with all material in exact relative field position.

No welding on filler plates or splice plates is allowed; except that web splice plates and fillers may be tack welded for drilling as follows: tack weld closer to flange than 1/6 of web width, or longer than 3", or spaced less than approximately 12" on center. All tack welds will be removed and web surface ground flush. Bolt for shipment.

ITEM No. 504.7002
PROJECT No. 1-95-1(29)3

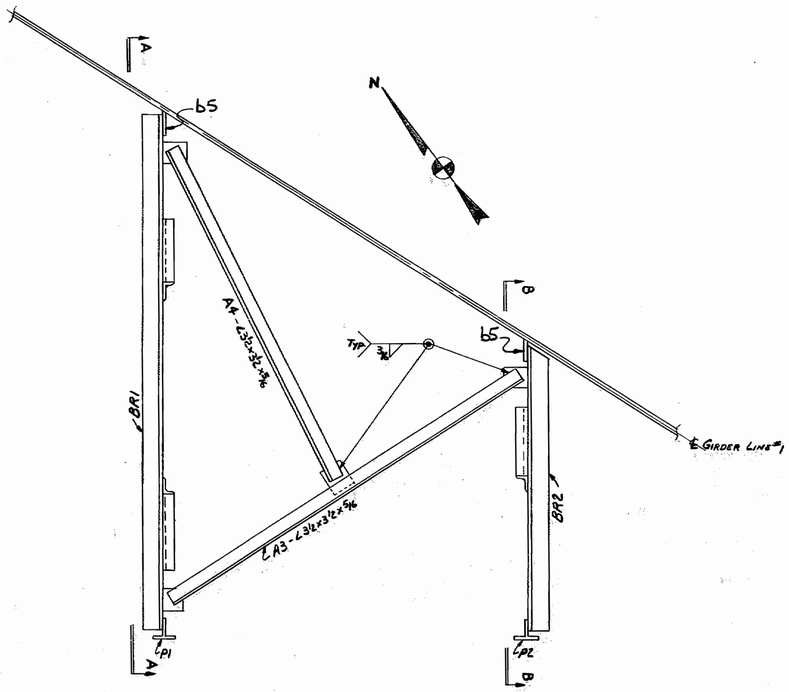


APP. 4/20/78

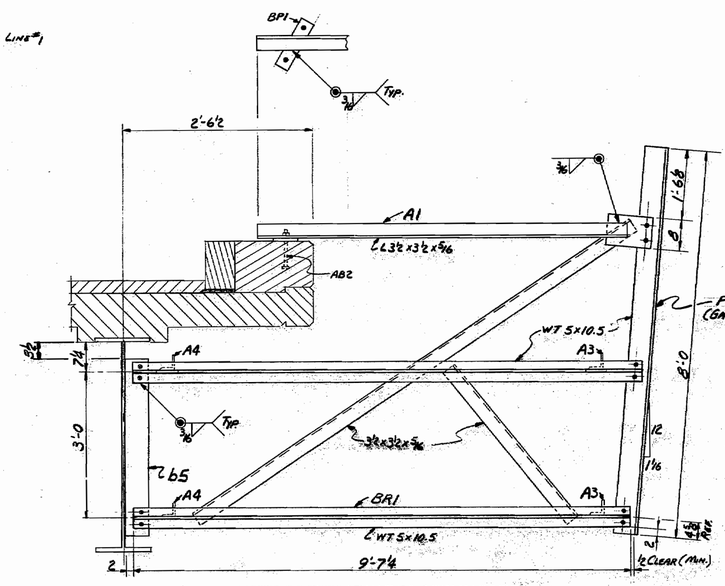
FRAMING PLAN			
PRINT DIST.			Bancroft & Martin Inc.
1p	3/30/78	Shoals	South Portland, Maine 04106
1p	3/30/78	State	
3p	5/4/78	Shoals	JOB: CUTTS ROAD OVER I-95
2s	5/4/78	State	KITTERY, MAINE
2s	6/13/78	State	
4p	6/13/78	C&F	CUSTOMER: SHOALS INC.
4p	7-27-78	F&F	DESIGNER: MAINE DEPT. of TRANS.
REV.			ORDER NO.: / JOB NO.: BS78-9 / DRAWING NO.: E-1
CHECKED	5-3-78	RGM	
DRAWN	3/14/78	BB	

159-153A

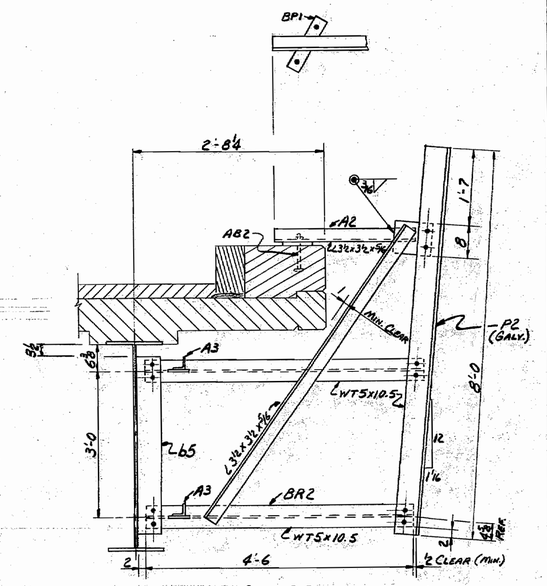
Proj No. 1-95-1 (29) 3
Item No 504.7002



PLAN VIEW



SECT. A-A



SECT. B-B

NOTE:
5/8" H.S. BOLTS A325, TYPE 1
FOR ERECTION

SHOP NOTE:
FOR DETAILS SEE DWG NO. 61-1

APP:

SIGN SUPPORT FRAMING PLAN

PRINT DIST.		
2P	3/23/78	APP
1P	3/23/78	APP
3P	5/4/78	SHOP
2S	-	F.C.A.
2P	7-27-78	F&F
REV.		
CHECKED	4/6/78	BB
DRAWN	3/14/78	SHOP

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I 95
KITTERY MAINE

CUSTOMER: SHOALS CORP.

DESIGNER: MAINE DEPT. OF TRANSPORTATION

ORDER NO.	JOB NO.	DRAWING NO.
	BS78-9	E2

159-153B

FIELD BOLTS	JOB: BS78-9
	DWG: 62-1

SPECIFICATION: 7/8φ A325, Type 1

CONNECTING	LENGTHS 2	2¼	2½	2¾	4¼
D1 & D2		160			
CF7 thru CF12	368		23		
CF1 thru CF16 & T1 thru T6	176		198		
CF13 & T7			96	4	
T8 thru T10		80			
All Lateral Bracing		208			
Fig. Splice					
Web Splice				840	720

LENGTHS	2	2¼	2½	2¾	4¼
SUB TOTAL +2%	544	448	317	844	720
TOTAL:	555	460	325	866	735

WASHERS	PLAIN	CLIPPED	BEVELED
TOTAL WEIGHT	2941		

FIELD BOLTS

PRINT DIST.		SHOP
2p	7-27-78	F+F
1p	3/30/78	Shop/s
2p	3/30/78	State
3p	5-4-78	Shop
2s	5-4-78	State
REV.		
CHECKED		
DRAWN	3/30/78	BB

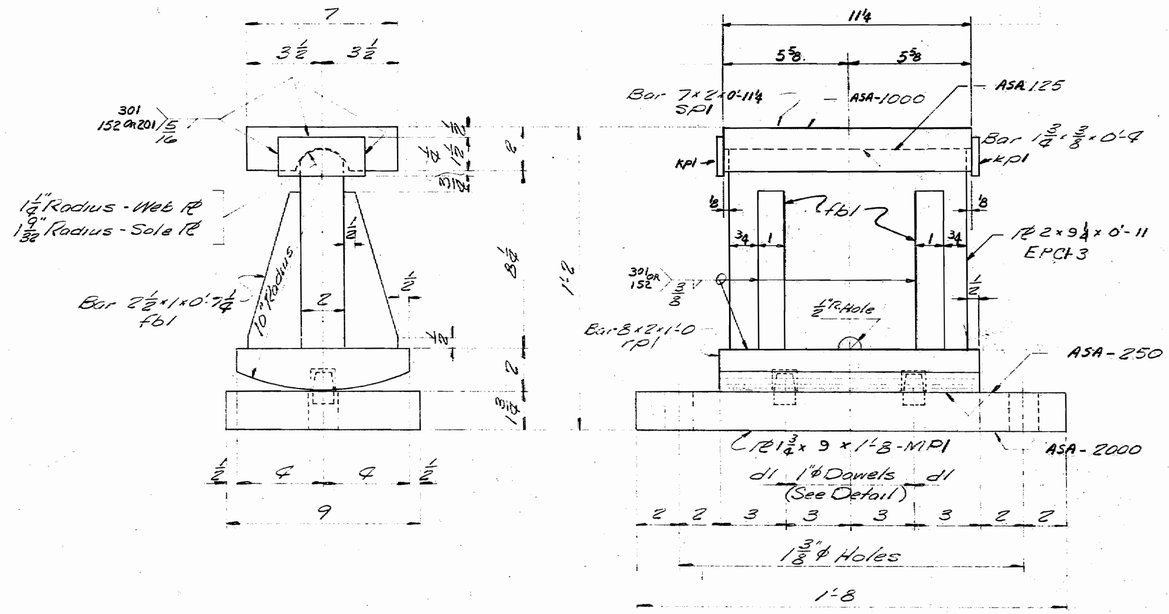
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.

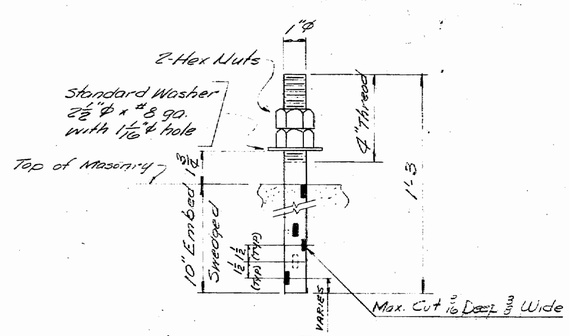
DESIGNER: MAINE DEPT. of TRANS.

ORDER NO.	JOB NO.	DRAWING NO.
	BS78-9	62-1



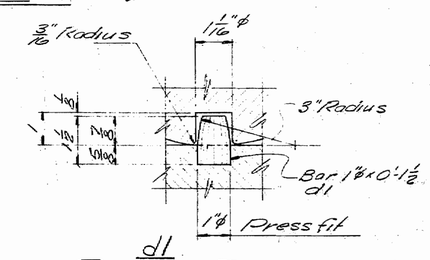
EXPANSION PEDESTAL EPC1-3

5 - REQ'D. (@ ABUT #1)



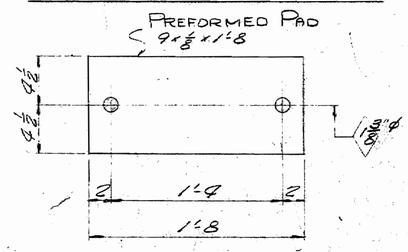
ANCHOR BOLT AB1

10 - REQ'D.



d1

DOWEL DETAIL



PREFORMED PAD

FP1 - 5 - REQ'D.

PAINT NOTE:

No paint on top of sole plates "SP1" and 1" down from top on sides, coat with boiled linseed oil.

No paint on surface with ASA-125 finish, coat with mixture of white lead and tallow.

No paint on Anchor Bolts - Oil thds.

Masonry Pl's & bearing surfaces of expansion bearing rockers shall receive 2 coats of shop paint.

SHIP	BILL OF MATERIAL BS78-9 JOB NO.						DWG. NO. 51-1	
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
EPC1-3	5		Pl 2×9¼	0	11		5/C	Mill From Pl 2×9½×11
MP1	5		Pl 1¾×9	1	8		5/A	
	5	rpl	Bar 8×2	1	0		5/B	
SP1	5		Bar 7×2	0	11¼		5/D	
	20	fbl	Bar 2½×1	0	7¼		5/I	
	10	d1	Bar 1"φ	0	1½		5/K	
	10	kpl	Bar 1¾×⅜	0	4		5/J	
AB1	10		Bar 1"φ	1	3		5/L	SWEDGE
	20	shop	1"φ Hex. Nut				5/M	A307
Field	10		1"φ Sq. Washer				5/N	A307
FP1	5		Pad 9×⅛	1	8		5/X	Preformed Pad REQ# 7804

ITEM 504.7002

PROJECT NO. I-95-1(29)3

Sole plates "SP1" to be field welded to GIRDERS

Bearing material to be ASTM-A36, Anchor bolts to be-A36

SHOP CONNECTIONS: SEE WELDING PROCEDURES

FIELD CONNECTIONS:

HOLES: As noted

PAINT: INORGANIC ZINC (PER ME SPEC.) AS NOTED

BLAST CLEAN: (SSPC-SP10)

APPROVED:

2P	3/23/78	[illegible]
1P	3/23/78	[illegible]
3P	4/25/78	SHOP
2S	5-4-78	F.A.
2P	7-27-78	F&F
CHK'D	4/5/78	BB
DRAWN	3/2/78	SILVA
REVISION		
REVISION		
REVISION		

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

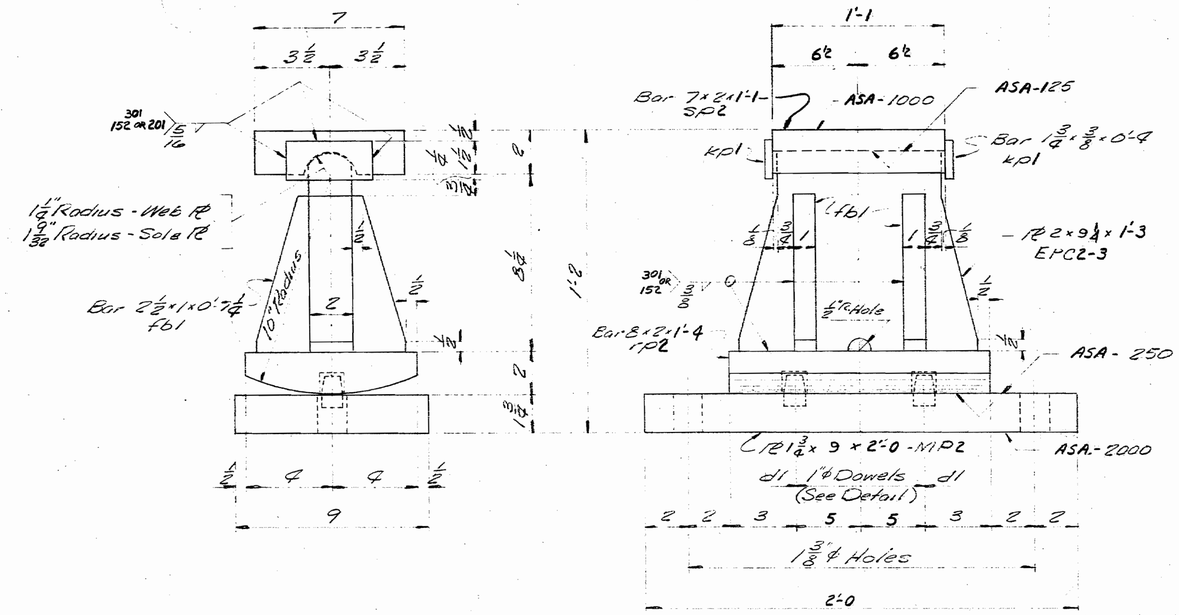
CUTTS ROAD OVER I-95
KITTERY MAINE

CUSTOMER SHOALS CORP.

DESIGNER MAINE DEPT. OF TRANS.

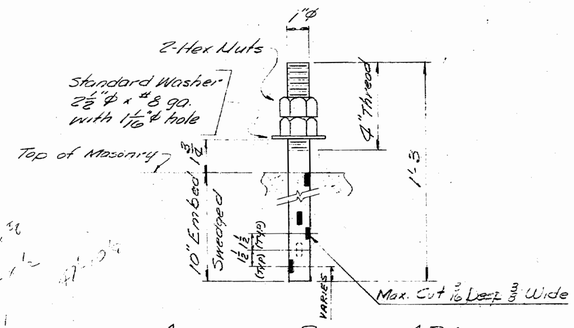
JOB NO. ORDER NO. BS 78-9 DWG. NO. 51-1

159-153C



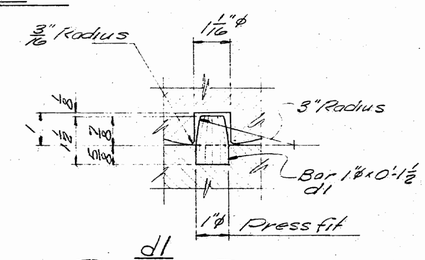
EXPANSION PEDESTAL EPC2-3

5 - REQ'D. @ ABUT #2

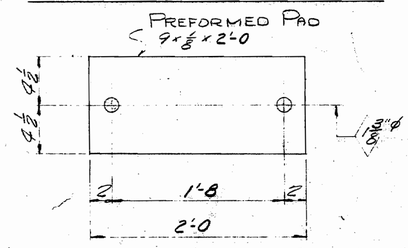


ANCHOR BOLT AB1

10 - REQ'D.



dl DOWEL DETAIL



PREFORMED PAD

FP2 - 5 - REQ'D.

PAINT NOTE:

No paint on top of sole plates "sp2" and 1" down from top on sides, coat with boiled linseed oil.
No paint on surface with ASA-125 finish, coat with mixture of white lead and tallow.
No paint on Anchor Bolts-Oil thd's.
Masonry Pl's & bearing surfaces of expansion bearing rockers shall receive 2 coats of shop paint.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
EPC2-3	5		Pl 2×9¼	1	3		5/G	CUT FROM Pl 2×9¼×1'-3
MP2	5		Pl 1¾×9	2	0		5/E	
	5	rp2	Bar 8×2	1	4		5/F	
SP2	5		Bar 7×2	1	1		5/H	
	20	fbl	Bar 2½×1	0	7¼		5/I	
	10	dl	Bar 1"φ	0	1½		5/K	
	10	kpl	Bar 1¾×⅜	0	4		5/J	
AB1	10		Bar 1"φ	1	3		5/L	SWEDGE
	20	shop	1"φ Hex Nut				5/M	A307
Field	10		1"φ Sq. washer				5/N	A307
FP2	5		Pad 9×⅝	2	0		5/N	Preformed Pad REQ# 7804

ITEM	504.7002		
PROJECT NO. I-95-1(29)3			
Sole plates "sp2" to be field welded to GIRDERS			

Bearing material to be ASTM-A36, Anchor bolts to be-A36

SHOP CONNECTIONS: SEE WELDING PROCEDURES
FIELD CONNECTIONS:
HOLES: As noted
PAINT: INORGANIC ZINC (PER MFG. SPEC.) AS NOTED
BLAST CLEAN (SSPC-SP10)

APPROVED:

2P	3/23/78	AJP
1P	3/23/78	AJP
3P	4/25/78	Shop
2s	5-4-78	FA.
2p	7-27-78	F&F
CHK'D	4/5/78	BB
DRAWN	3/2/78	SILVA
REVISION		
REVISION		
REVISION		

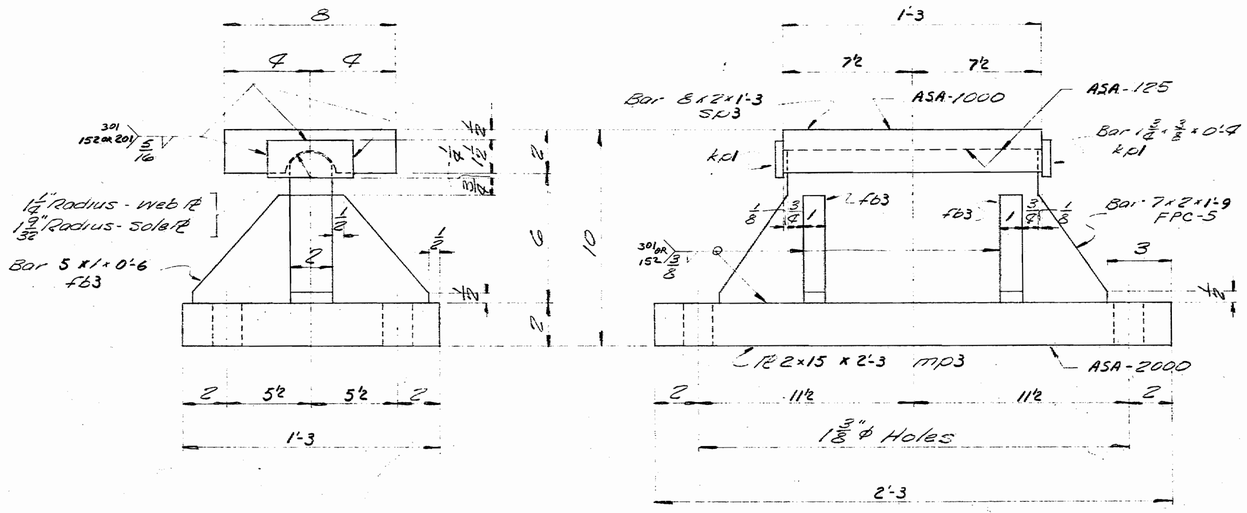
BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.
South Portland 7, Maine

CUTTS ROAD OVER I-95
KITTERY MAINE

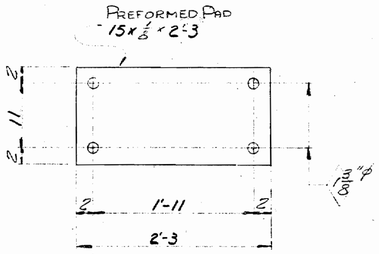
CUSTOMER: SWOALS CORP.
DESIGNER: MAINE DEPT. OF TRANS.
JOB No. ~~ORDER NO.~~ BS78-9 DWG. NO. 51-2

159-153 D



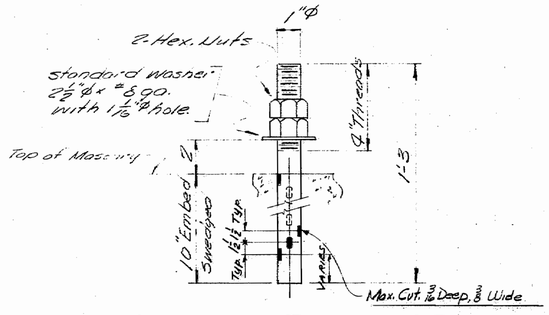
FIXED PEDESTAL FPC-5

5 - REQ'D. @ BRGS. PIER



PREFORMED PAD

FP3 5 - REQ'D.



ANCHOR BOLT AB1

20 - REQ'D.

PAINT NOTE:

No paint on top of sole plates "sp3" and 1" down from top on sides, coat with boiled linseed oil.

No paint on surface with ASA-125 finish. coat with mixture of white lead and tallow.

No paint on Anchor bolts - Oil thds.

Masonry PLs to receive 2 coats of shop paint.

SHIP	BILL OF MATERIAL Job No. 8578-9 DWG. NO. 51-3							
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
	5	mp3	PL 2 x 15	2	3		5/O	
FPC-5	5		Bar 7 x 2	1	9		5/P	Cut From 7 1/4 x 2 x 1'-9
SP3	5		Bar 8 x 2	1	3		5/Q	
	10	kp1	Bar 1 3/4 x 3/8	0	4		5/S	
	20	fb3	Bar 5 x 1	0	6		5/R	
AB1	20		Bar 1" φ	1	3		5/L	SWEDGE
	40	shop	1" φ Hex Nut				5/M	A307
Field	20		1" φ Std. washer				5/N	A307
FP3	5		Pad 15 x 1/8	2	3		5/2	PREFORMED PAD REQ. 7804

ITEM 504.7002

PROJECT NO. 1-95-1(29)3

Sole plates "sp3" to be field welded to GIRDERS.

Bearing material to be ASTM A36, Anchor bolts to be A36.

BLAST CLEAN (SSPC-SP10)

SHOP CONNECTIONS: See Welding Procedures

FIELD CONNECTIONS:

HOLES: As noted

PAINT: INORGANIC ZINC (PER ME SPEC.) As Noted

APPROVED:

2P	3/23/78	App
1P	3/23/78	App
3P	4/25/78	Shop
2s	5-4-78	F.A.
2p	7-27-78	P&F
CHK'D	4/5/78	BB
DRAWN	3/2/78	SILVA
REVISION		
REVISION		
REVISION		

BEARING PEDESTAL DETAIL

Bancroft & Martin Inc.

South Portland 7, Maine

CUTTS ROAD OVER I-95

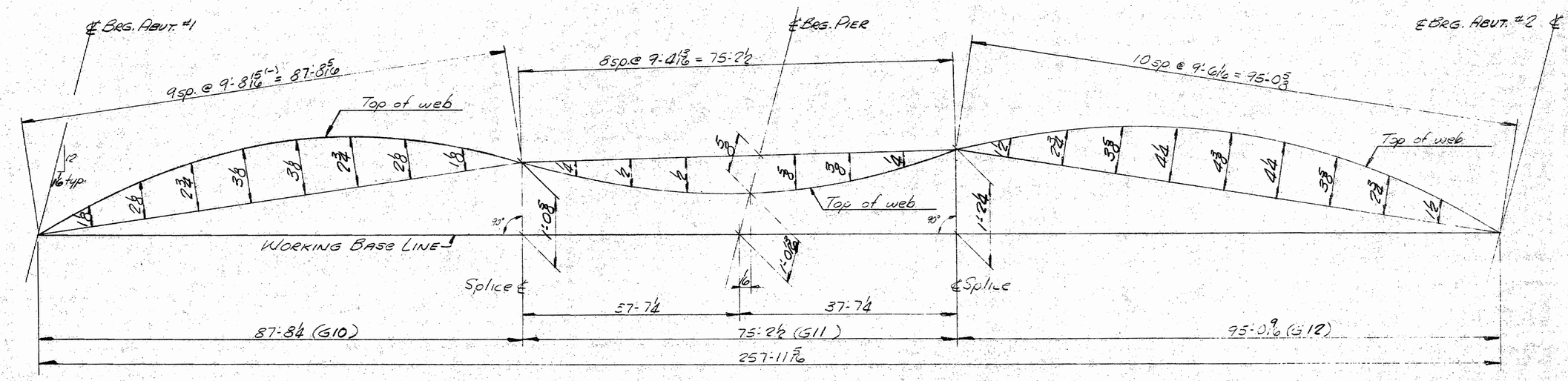
KITTERY MAINE

CUSTOMER SHOALS CORP.

DESIGNER MAINE D.O.T., BUREAU OF HWYS

Job No ~~ORDER NO.~~ 8578-9 DWG. NO. 51-3

159-153



Item No 504.7002
Project No. I-95-1(29)3

Camber Diagram - Line #1

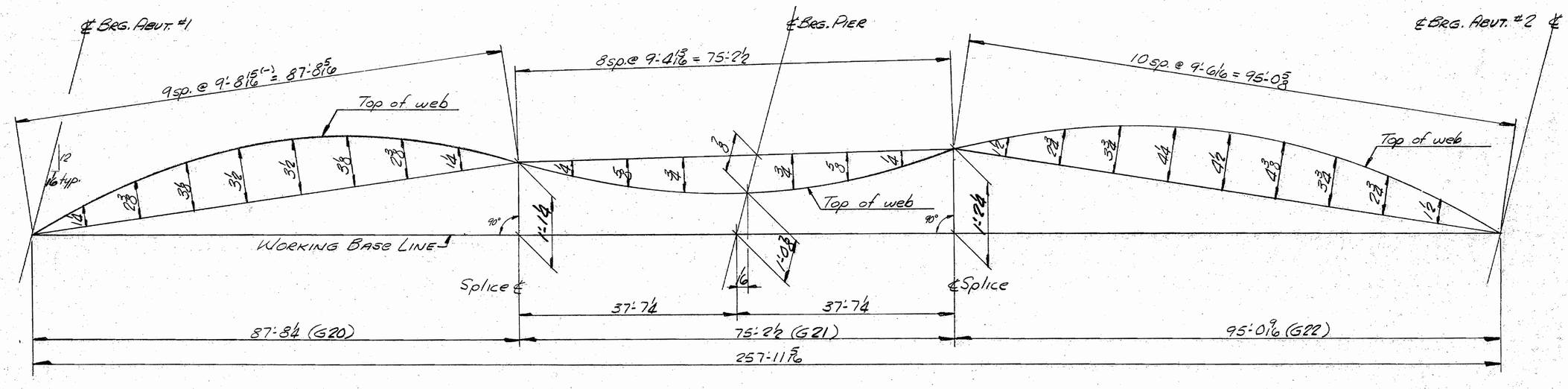
Approved: 4/20/78

Camber Diagram - Line #1

	PRINT DIST.		
1p	3/30/78	Shoals	Bancroft & Martin Inc.
2p	3/30/78	Rep.	South Portland, Maine 04106
3p	5-4-78	Shop	
2s	5-4-78	State	JOB: Cutts Road over I-95
2p	7-27-78	F&F	Kittery, Maine
			CUSTOMER: Shoals Inc
			DESIGNER: Maine Dept. of Trans.
REV			ORDER NO. / JOB NO. 85-78-9 / DRAWING NO. 52-1
CHECKED		RWM	
DRAWN	3/20/78	MGP	

Note: The working base line is a straight line connecting the ℄ brg. Abut. #1 to the ℄ brg. Abut. #2. (Shown on girders)

169-153 F



Item No. 504.7002
Project No. I-95-1(29)3

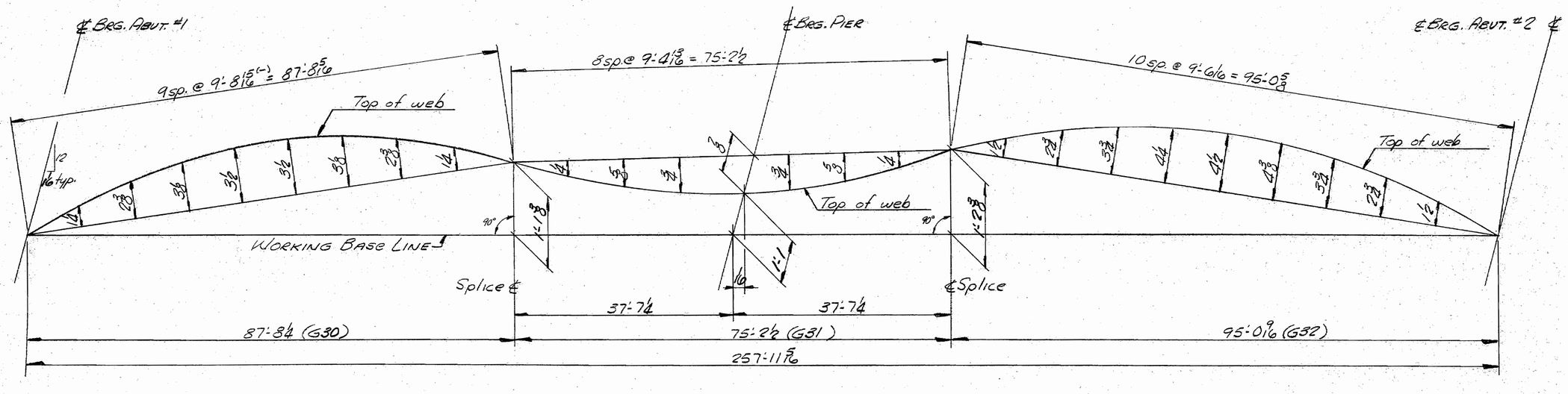
Camber Diagram - Line #2

Note: The working base line is a straight line connecting the ℄ brg. Abut. #1 to the ℄ brg. Abut. #2. (Shown on girders)

Approved: 4/20/78

Camber Diagram - Line #2			
PRINT DIST.			Bancroft & Martin Inc. South Portland, Maine 04106
1p	3/20/78	Shoals	
2p	3/30/78	Shop	
2c	5-4-78	State	
3p	5-4-78	Shop	JOB: Cutts Road over I-95 Kittery, Maine
2p	7-27-78	F&F	
			CUSTOMER: Shoals Inc
			DESIGNER: Maine Dept. of Trans.
REV.			ORDER NO. / JOB NO. BS-78-9 / DRAWING NO. 52-2
CHECKED		RAM	
DRAWN	3/20/78	MAP	

159-153G



Item No. 504.7002
Project No. I-95-1(29)3

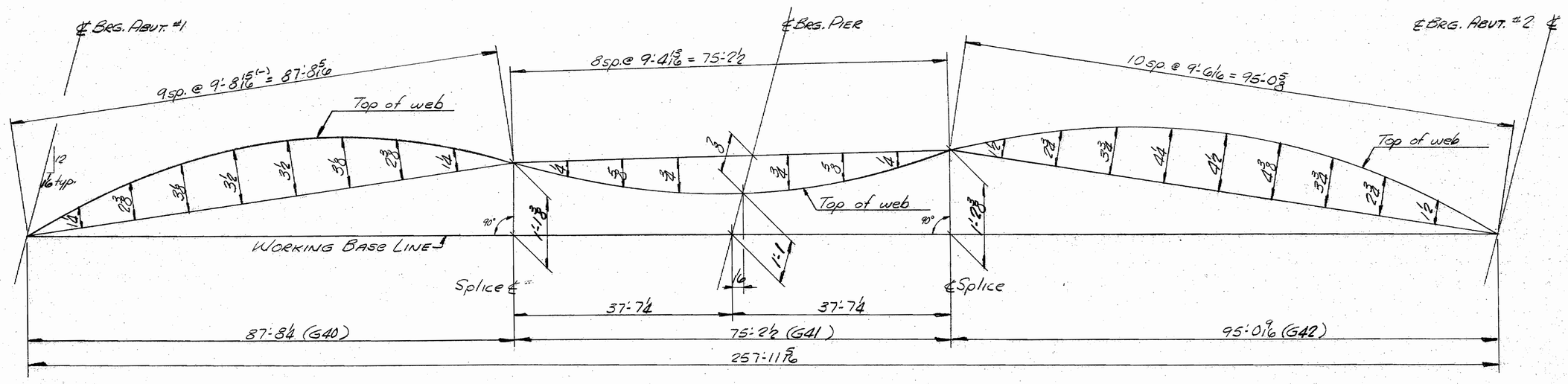
Camber Diagram - Line #3

Note: The working base line is a straight line connecting the ℄ brg. Abut. #1 to the ℄ brg. Abut. #2. (Shown on girders)

Approved: 4/20/78

Camber Diagram - Line #3			
Print Dist.			Bancroft & Martin Inc. South Portland, Maine 04106
1p	3/30/78	Shop	
2p	3/30/78	Shop	
3p	5-4-78	Shop	
2s	5-4-78	State	JOB: Cutts Road over I-95 Kittery, Maine
2p	7-27-78	F&P	
			CUSTOMER: Shoals Inc
			DESIGNER: Maine Dept. of Trans.
REV.			ORDER NO. / JOB NO. 85-78-9 / DRAWING NO. 52-3
CHECKED		RGM	
DRAWN	3/20/78	MGP	

159-153 H



Item No. 504.7002
Project No. I-95-1(29)3

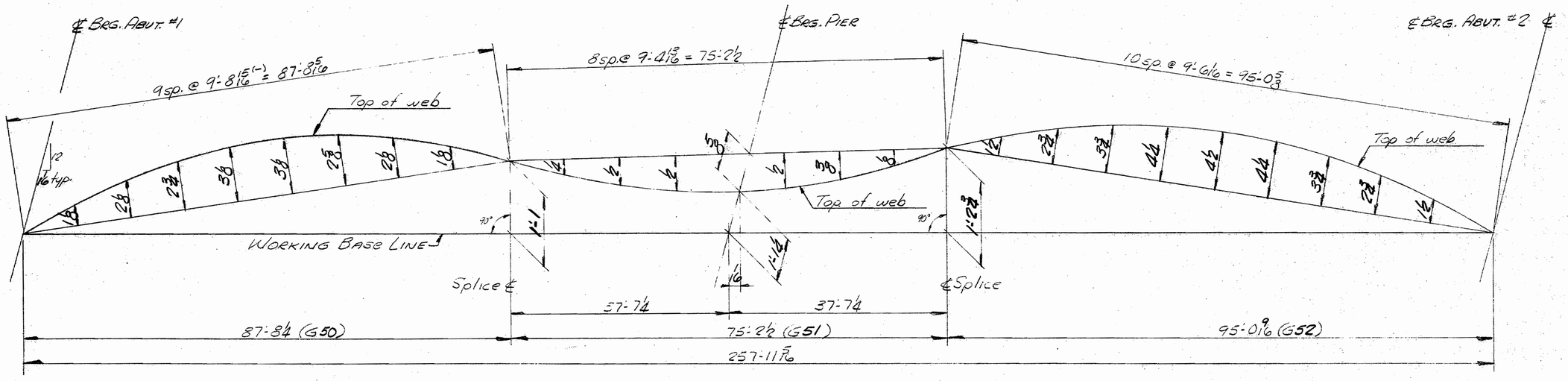
Camber Diagram - Line #4

Approved: 4/20/78

NOTE: The working base line is a straight line connecting the ℄ brg. Abut. #1 to the ℄ brg. Abut. #2. (Shown on girders)

Camber Diagram - Line #4			
Print Dist.			Bancroft & Martin Inc. South Portland, Maine 04106
1p	3/30/78	Shoals	
2p	3/30/78	App.	
3p	5-4-78	shop	
2s	5-4-78	state	JOB: Cutts Road over I-95 Kittery, Maine
2p	7-27-78	P&F	
			CUSTOMER: Shoals Inc
			DESIGNER: Maine Dept. of Trans.
REV.			ORDER NO. / JOB NO. BS-78-9 / DRAWING NO. 52-4
CHECKED		RGM	
DRAWN	3/20/78	MKP	

159-153 J



Item No. 504.7002
Project No. I-95-1(29)3

Camber Diagram - Line #5

Note: The working base line is a straight line connecting the ℄ brg. Abut. #1 to the ℄ brg. Abut. #2. (Shown on girders)

Approved: 4/20/78

Camber Diagram - Line #5

Print Dist.		
1p	3/30/78	Shoals
2p	3/30/78	Ap.
3p	5-4-78	Shop
2s	5-4-78	State
2p	7-27-78	F&F
REV.		
CHECKED		RGM
DRAWN	3/20/78	MGP

Bancroft & Martin Inc.
South Portland, Maine 04106

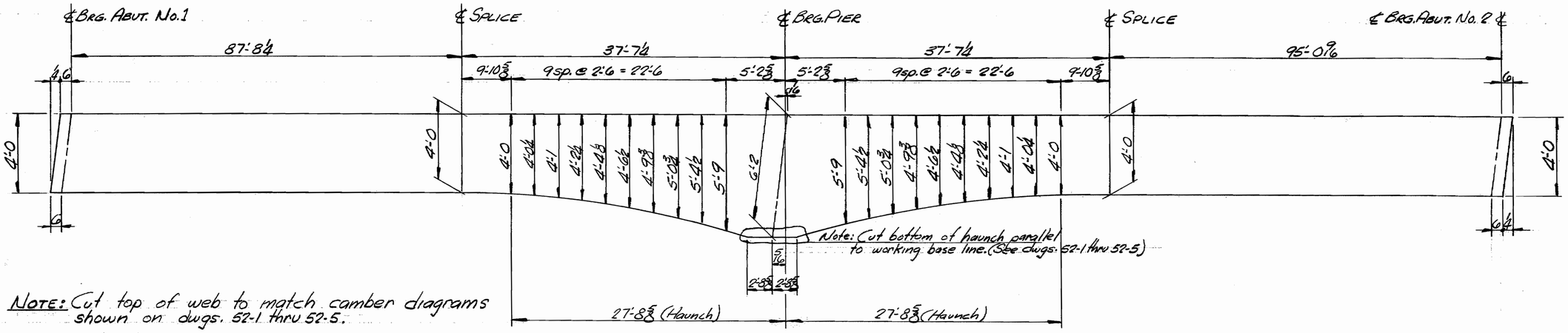
JOB: Cutts Road over I-95
Kittery, Maine

CUSTOMER: Shoals Inc

DESIGNER: Maine Dept. of Trans.

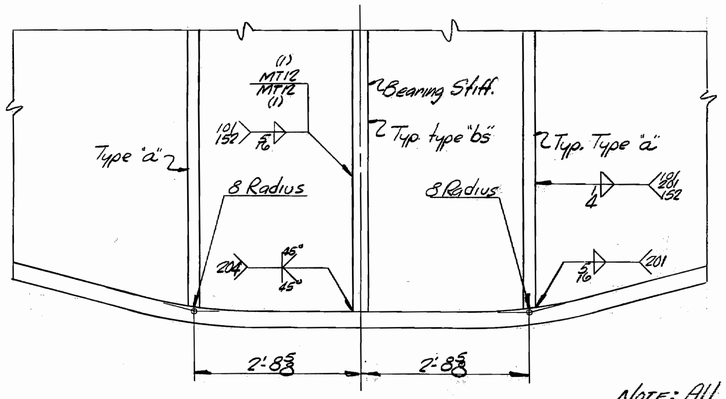
ORDER NO.	JOB NO.	DRAWING NO.
	85-78-9	52-5

159-153 K



NOTE: Cut top of web to match camber diagrams shown on dwgs. 52-1 thru 52-5.

WEB CUTTING DETAIL



NOTE: All stiffeners type "a" at haunch to be welded parallel to bearing stiffeners.

HAUNCH DETAIL

ITEM No. 504.7002
PROJECT No. I-95-1(29)3

APPROVED: 4/20/78

WEB CUTTING DET. & HAUNCH DET.

PRINT DIST.		
1p	3/30/78	Shoals
2p	3/30/78	App.
3p	5/9/78	Shop
4s	5/4/78	State
2p	7-27-78	F&F

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95 KITTERY, MAINE

CUSTOMER: SHOALS INC.

DESIGNER: MAINE DEPT. OF TRANS.

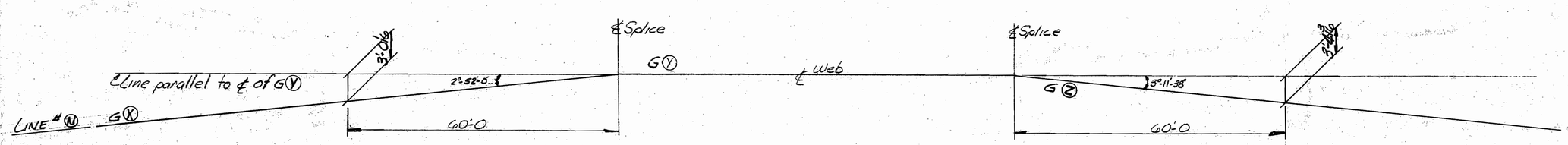
REV.		
CHECKED		RFM
DRAWN	3/20/78	MGF

ORDER NO.	JOB NO.	DRAWING NO.
	B578-9	52-6

159-153 L

NOTE: Section below taken looking down at top of webs.

Line #N	G X	G Y	G Z
Line #1	G10	G11	G12
Line #2	G20	G21	G22
Line #3	G30	G31	G32
Line #4	G40	G41	G42
Line #5	G50	G51	G52



SPLICE PLATE DRILLING LAYOUT

NOTE: This dwg. to be used for drilling of splice plates only.

ITEM No. 504.7002
PROJ. No. I-95-1(29)3

APPROVED: 4/20/78

SPLICE PLATE DRILLING LAYOUT

PRINT DIST.		
1p	5/30/78	Shop
2p	5/30/78	Shop
3p	5-4-78	Shop
2s	5-4-78	State
2p	7-27-78	F&E

Bancroft & Martin Inc.
South Portland, Maine 04106

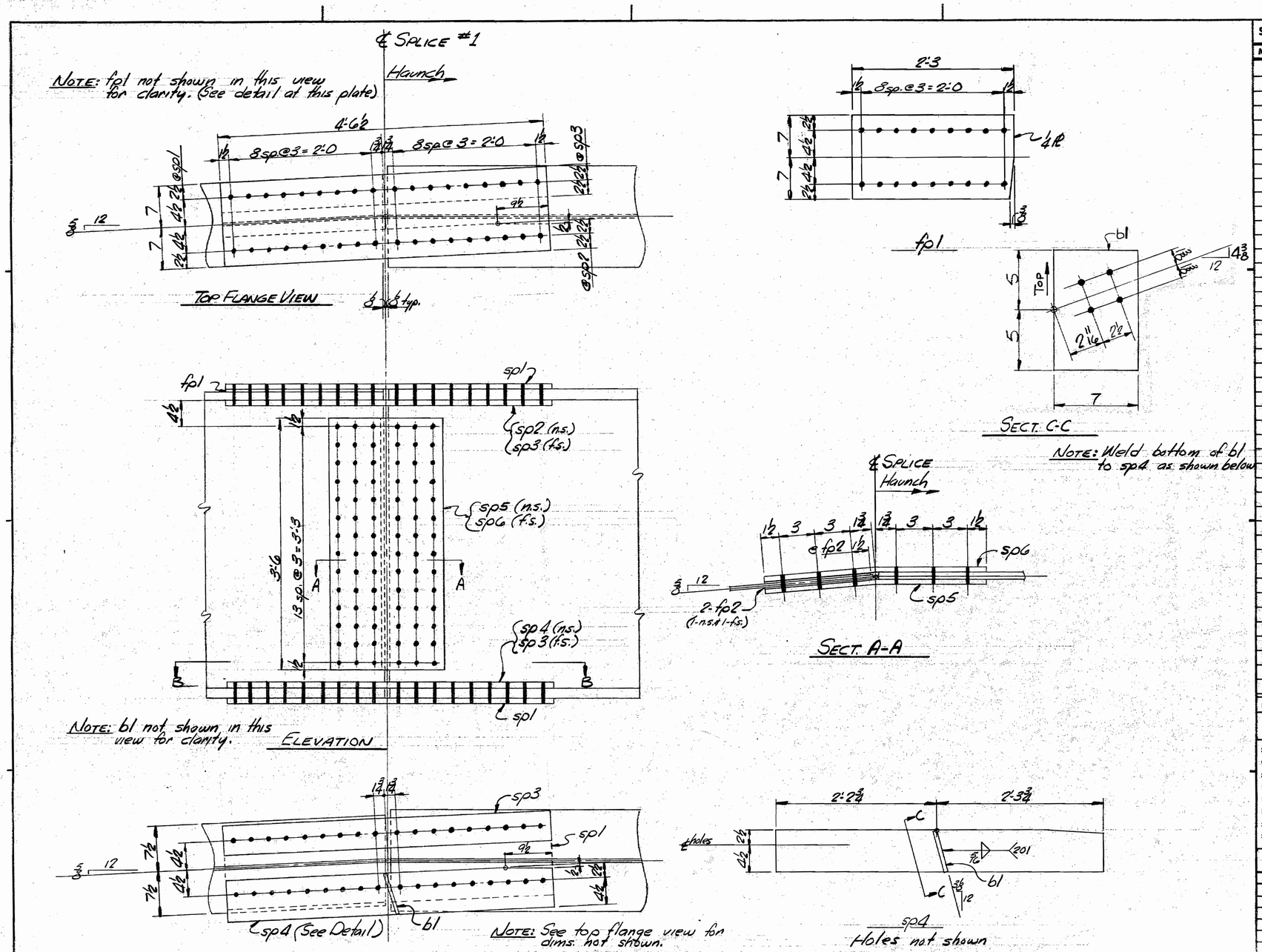
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.

DESIGNER: MAINE DEPT. OF TRANS.

REV.			ORDER NO.	JOB NO.	DRAWING NO.
CHECKED		DWM			
DRAWN	3/21/78	MGP		8378-9	52-7

159-153M



SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
	6	sp1	PL 5/8 x 14	4	6½		1/M	CVN
	3	sp2	Bar 5 x 1	4	6½		1/N	L.O. CVN
	6	sp3	Bar 5 x 1	4	6½		1/N	CVN
	3	sp4	Bar 7 x 1	4	6½		1/L	L.O. CVN
	3	sp5	PL 5/16 x 18½	3	6		1/O	Bent CVN
	3	sp6	PL 5/16 x 18½	3	6		1/O	Bent CVN
	3	fpl	PL ¼ x 14	2	3		1/P	Fillet R
	6	fp2	PL ½ x 9	3	6		1/Q	Fillet R
	3	bl	Bar 7 x ½	0	10		2/M	

NOTE: All splice plates to be bolted to girders for shipment.

HOLES ARE FOR HIGH TENSILE BOLTS THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [✓] A36 [ ] A572 [GR] [ ] A588 [GR] [ ] Unless Noted
WELDING ELECTRODE: [ ] E70 [✓] See Welding Proc. [ ] None
SHOP CONN: [✓] Bolted [ ] Welded [ ] None
FIELD CONN: [✓] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [✓] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [✓] As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: [✓] Blast Clean [ ] None SSPC-SP-6-63

SPLICE #1

APPROVED:

PRINT DIST		
2s	5-4-78	APP. Fin
3p	5-4-78	FAB.
2p	7-27-71	F&F.
1p	3/30/78	Shoals
2p	3/30/78	App.

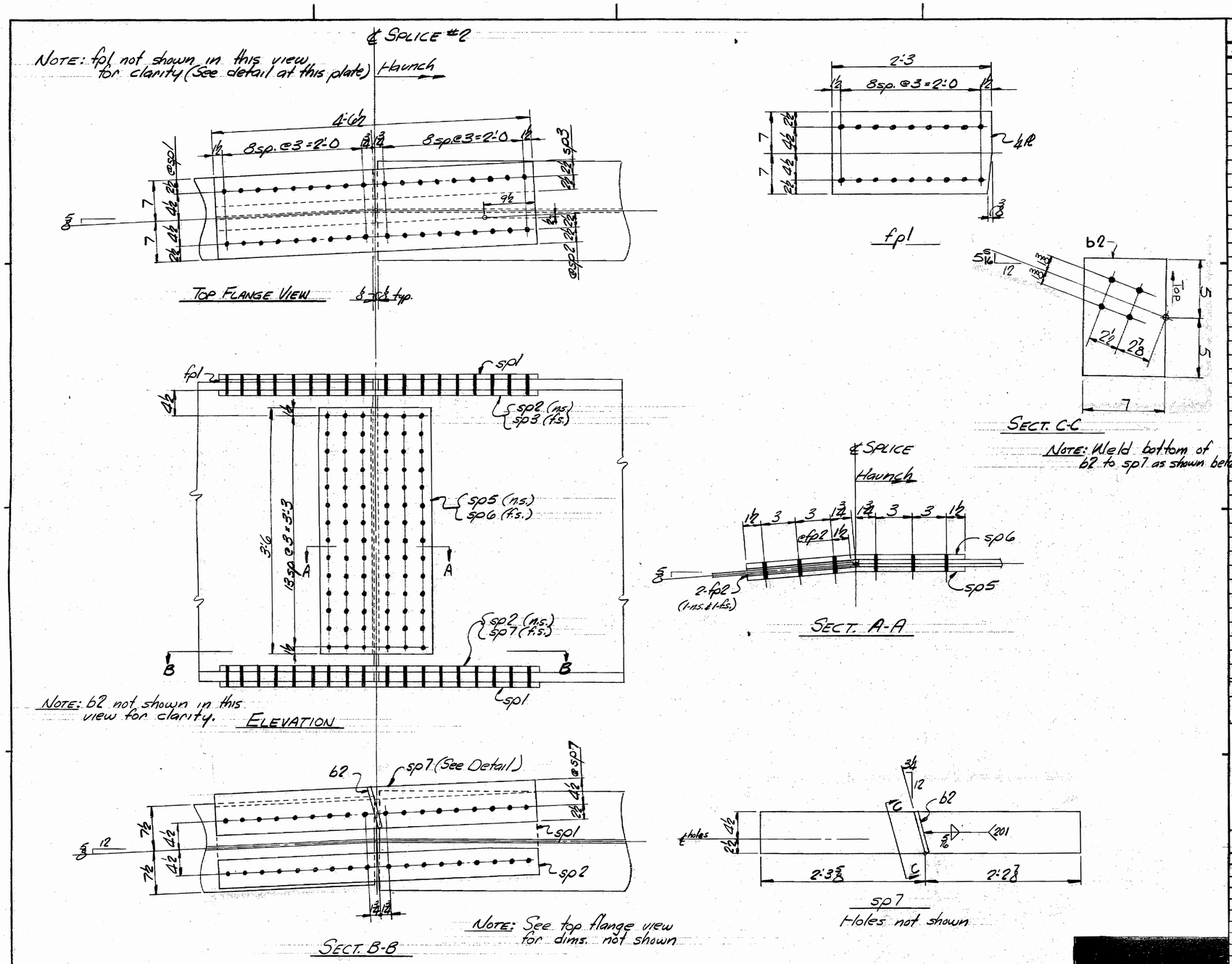
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. OF TRANS.

REV. △			ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED		RAM		8978-9	52-8	△
DRAWN	3/23/78	MGP				

159-153N



SHIP	BILL OF MATERIAL					JOB NO. BS78-9	DRAWING NO. 52-9	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
	4	sp1	PL 5/8 x 14	4	6½		1/M	CVN
	4	sp2	Bar 5 x 1	4	6½		1/N	L.O. CVN
	2	sp3	Bar 5 x 1	4	6½		1/N	CVN
	2	sp5	PL 5/16 x 18½	3	6		1/O	Bent CVN
	2	sp6	PL 5/16 x 18½	3	6		1/O	Bent CVN
	2	sp7	Bar 7 x 1	4	6½		1/L	CVN
	2	fp1	PL 1/4 x 14	2	3		1/P	Filler PL (L.O.)
	4	fp2	PL 1/8 x 9	3	6		1/Q	Filler PL
	2	b2	Bar 7 x ½	0	10		2/M	

NOTE: All splice plates to be bolted to girders for shipment.

HOLES ARE FOR HIGH TENSILE BOLTS THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES

IT. NO. 504 7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [✓] A36 | A572 GR | A588 GR | Unless Noted
WELDING ELECTRODE: E70 | [✓] See Welding Proc. | None
SHOP CONN: [✓] Bolted | Welded | None
FIELD CONN: [✓] Bolted | Welded | None
HOLES: 13/16 | [✓] 15/16 | Unless Noted | None
PAINT: None | Shopcoat | Galv. After Fab. | [✓] As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: [✓] Blast Clean | None | SSPC-SP-6-65

SPLICE #2

APPROVED:		
PRINT DIST.		
2s	5/4/78	APP. FIN
3p	do	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoals
2p	3/30/78	App
REV. △		
CHECKED		RGM
DRAWN	3/23/78	MGP

Bancroft & Martin Inc.
South Portland, Maine 04106

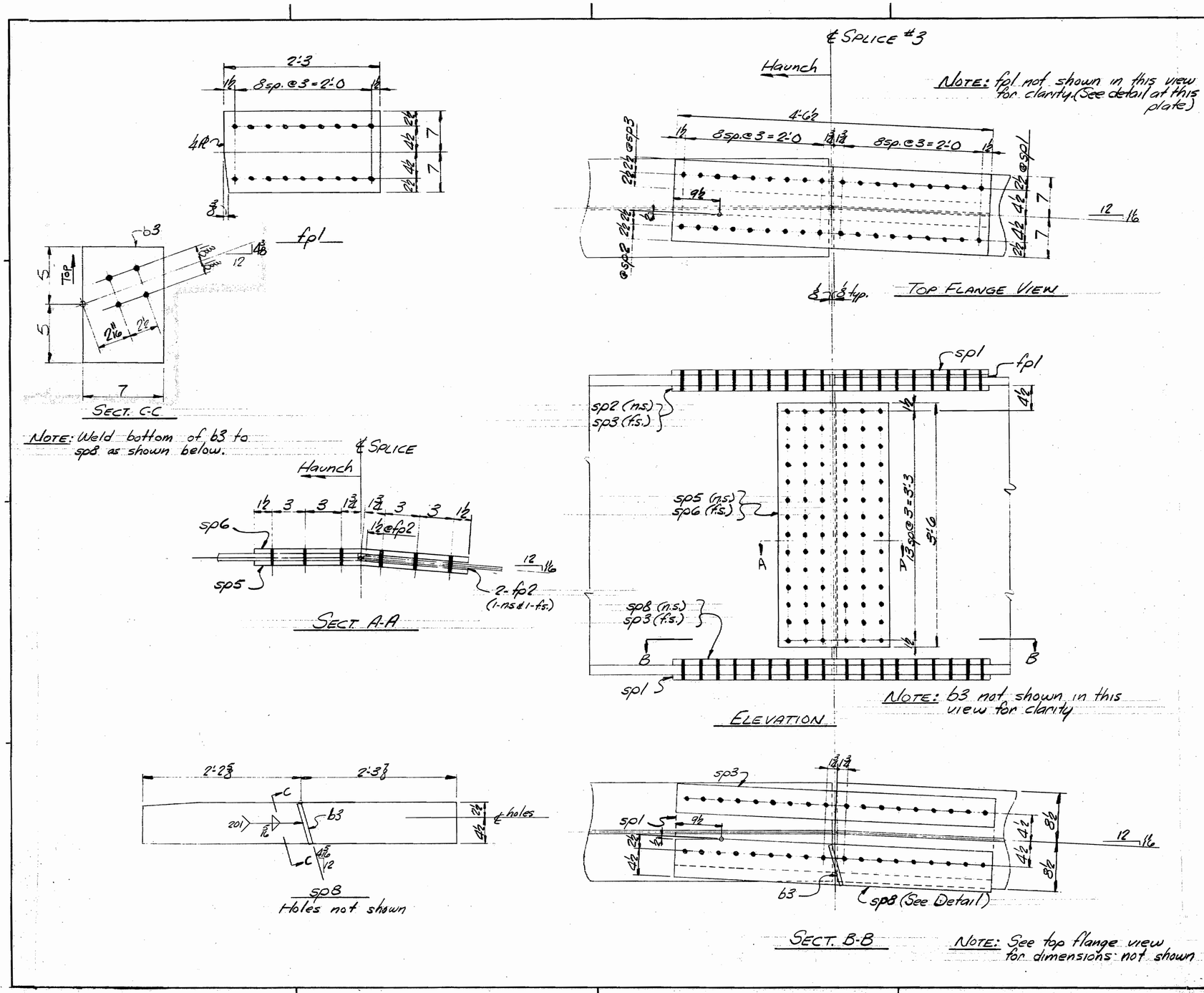
JOB: CUTTS ROAD OVER I-95 KITTERY, MAINE

CUSTOMER: SHOALS INC.

DESIGNER: MAINE DEPT. OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	52-9	△

159-153 P



SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
	6	sp1	PL 3/8 x 14	4	6½		1/M	CVN
	3	sp2	Bar 5x1	4	6½		1/N	L.O. CVN
	6	sp3	Bar 5x1	4	6½		1/N	CVN
	3	sp5	PL 7/16 x 18½	3	6		1/O	Bent CVN
	3	sp6	PL 7/16 x 18½	3	6		1/O	Bent CVN
	3	sp8	Bar 7x1	4	6½		1/L	L.O CVN
	3	fp1	PL ¼ x 14	2	3		1/P	Fillen PL L.O.
	6	fp2	PL ⅜ x 9	3	6		1/Q	Fillen PL
	3	b3	Bar 7x½	0	10		2/M	

Note: All splice plates to be bolted to girders for shipment.

HOLES ARE FOR HIGH TENSILE BOLTS THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES

SHIP BILL OF MATERIAL — JOB NO. BS78-9 — DRAWING NO. 52-10 — REV. △

IT. NO. 504.7002 — BR. NO. — PROJ. NO. I-95-1(29)3

FOR APPROVAL X **FOR FILES & FIELD** X

STEEL: ASTM. ✓ A36 | A572 GR. | A588 GR. | Unless Noted
WELDING ELECTRODE: E70 | ✓ See Welding Proc. | None
SHOP CONN: ✓ Bolted | Welded | None
FIELD CONN: ✓ Bolted | Welded | None
HOLES: 13/16 | ✓ 15/16 | Unless Noted | None
PAINT: None | Shopcoat | Galv. After Fab. | ✓ As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: ✓ Blast Clean | None | SSPC-SP-6-63

SPLICE #3

APPROVED:

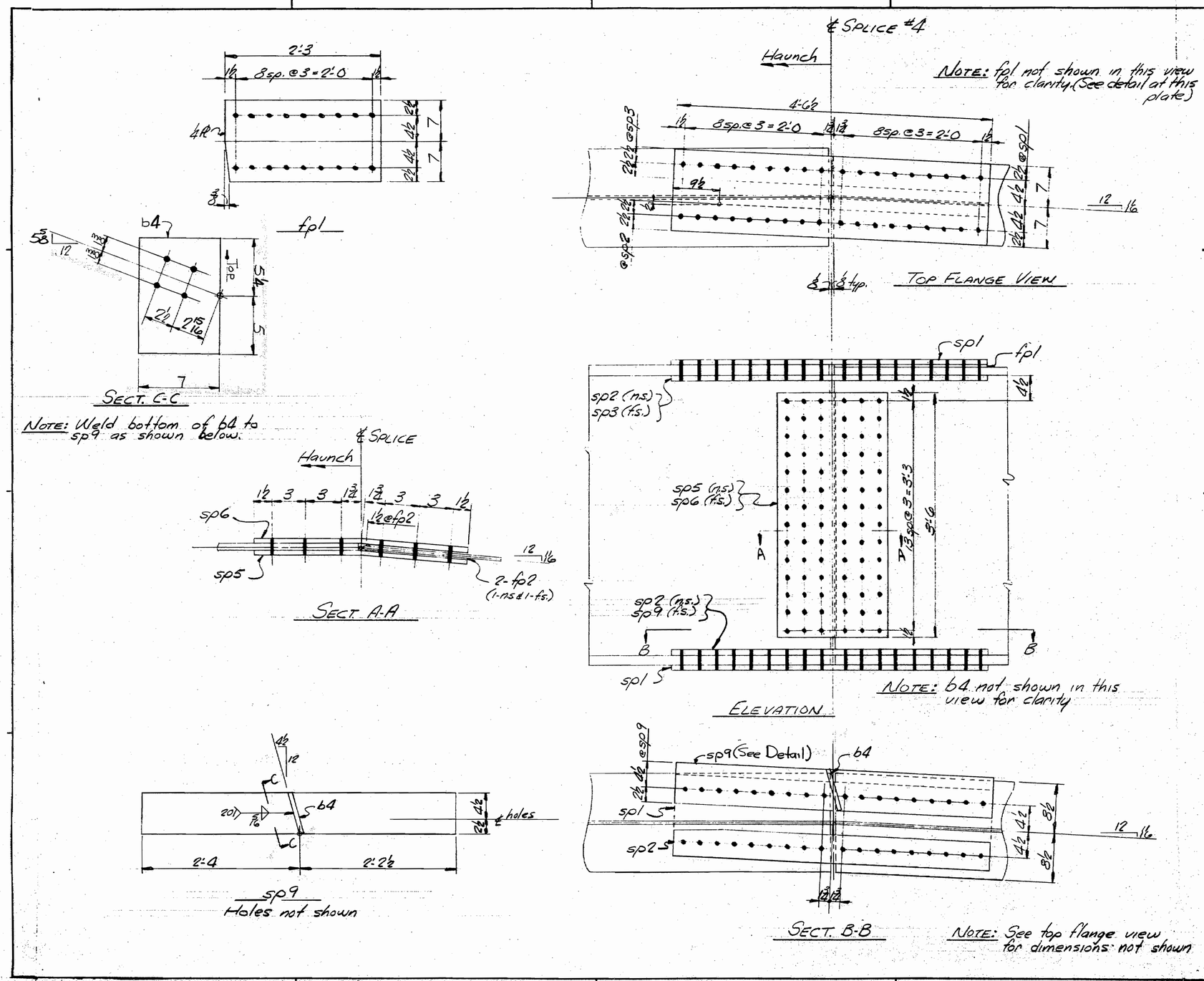
PRINT DIST.		
2c	5-4-78	APP. File
3g	5-4-78	F.A.B.
2g	7-27-78	F&F.
1p	3/30/78	Shoals
2p	3/30/78	App.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95 KITTERY, MAINE
CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. OF TRANS.

REV. △	ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED				
DRAWN 3/23/78 MGP		BS78-9	52-10	△

159-153K



SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
	4	sp1	PL 3/8 x 14	4	6½		1/M		CVN
	4	sp2	Bar 5x1	4	6½		1/N		L.O. CVN
	2	sp3	Bar 5x1	4	6½		1/N		CVN
	2	sp5	PL 7/16 x 18½	3	6		1/O		Bent CVN
	2	sp6	PL 7/16 x 18½	3	6		1/O		Bent CVN
	2	sp9	Bar 7x1	4	6½		1/L		CVN
	2	fp1	PL ½ x 14	2	3		1/P		Fillet PL (L.O.)
	4	fp2	PL ½ x 9	3	6		1/Q		Fillet PL
	2	b4	Bar 7 x ½	0	10½		2/M		

NOTE: All splice plates to be bolted to girders for shipment

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM [✓] A36 [ ] A572 Gr. [ ] A588 Gr. [ ] Unless Noted [ ]
WELDING ELECTRODE [ ] E70 [✓] See Welding Proc. [ ] None [ ]
SHOP CONN. [✓] Bolted [ ] Welded [ ] None
FIELD CONN. [✓] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [✓] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [✓] As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: [✓] Blast Clean [ ] None SSPC-SP6-63

SPLICE #4

APPROVED:

PRINT DIST.		
2s	5-4-78	APP'FIN
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoals
2p	3/30/78	App

REV. △
CHECKED
DRAWN 3/03/78

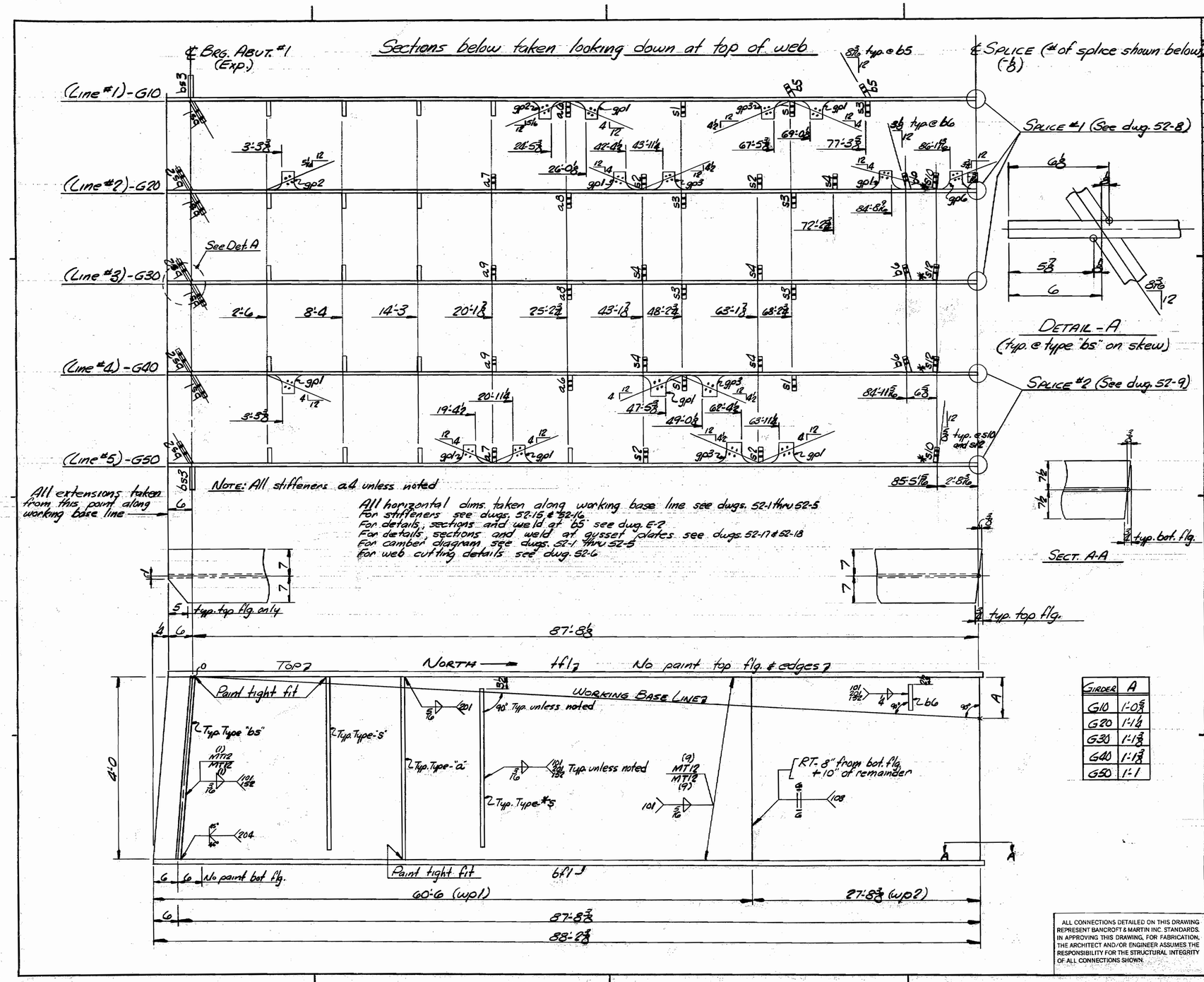
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.

DESIGNER: MAINE DEPT. OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	52-11	△



Girder	A
G10	1'-0 5/8
G20	1'-1 1/4
G30	1'-1 3/8
G40	1'-1 3/8
G50	1'-1

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.

SHIP

BILL OF MATERIAL

JOB NO. BS78-9 | DRAWING NO. 52-12 | REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G10	1		Girder	88	2 3/8	—			
G20	1		Do	88	2 3/8	—			
G30	1		Do	88	2 3/8	—			
G40	1		Do	88	2 3/8	—			
G50	1		Girder	88	2 3/8	—			
	5	tfl	Pl 1 x 14	88	2 7/16		1/F		A572 Gr. 50 CVN
	5	bfl	Pl 1 1/4 x 15	88	2 11/16		1/G		A572 Gr. 50 CVN
	5	wp1	Pl 3/8 x 48	60	6		1/A		Cut from Pl. 3/8 x 60 x 9
	5	wp2	Pl 3/8 x 48	27	8 3/8		1/B		Cut from Pl. 3/8 x 51 x 28.6
	4	bs1	Bar 8 x 1/2	4	0		2/0		
	4	bs2	Bar 8 x 1/2	4	0		2/0		
	2	bs3	Bar 8 x 1/2	4	0		2/0		
	17	a4	Bar 7 x 3/8	4	0		2/R		
	2	a6	Bar 8 x 3/8	4	0		2/S		
	2	a7	Do	4	0				
	2	a8	Do	4	0				
	2	a9	Do	4	0				
	4	s1	Do	3	8 1/2				
	4	s2	Do	3	8 1/2				
	5	s3	Do	3	8 1/2				
	5	s4	Do	3	8 1/2				
	2	s10	Do	3	5				
	2	s12	Bar 8 x 3/8	3	5		2/S		
	2	b5	Bar 6 x 1/2	3	5 3/4		3/L		
	3	b6	Bar 8 x 1/2	0	8 1/2		2/M		
	9	gp1	Pl 3/8 x 9	1	10 1/2		1/2		
	2	gp2	Pl 3/8 x 10	1	9				
	4	gp3	Pl 3/8 x 9	1	8				
	1	gp6	Pl 3/8 x 9	1	8		1/2		

HOLES ARE FOR HIGH TENSILE BOLTS THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES.

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL | **FOR FILES & FIELD**

STEEL: ASTM. ✓ A36 | A572 Gr. | A588 Gr. | ✓ Unless Noted
WELDING ELECTRODE: E70 | ✓ See Welding Proc. | None
SHOP CONN: Bolted | ✓ Welded | None
FIELD CONN: ✓ Bolted | Welded | None
HOLES: 13/16 | ✓ 15/16 | ✓ Unless Noted | None — See b5 dwg. 52-16
PAINT: None | Shopcoat | Galv. After Fab. | ✓ As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: ✓ Blast Clean | None — SP-6-63

GIRDERS

APPROVED:

PRINT DIST.		
2c	5-4-78	APP. Fab.
3p	do	FAB.
2p	7-27-78	F&F.
1p	8/30/78	Shoals
2p	5/30/78	App.

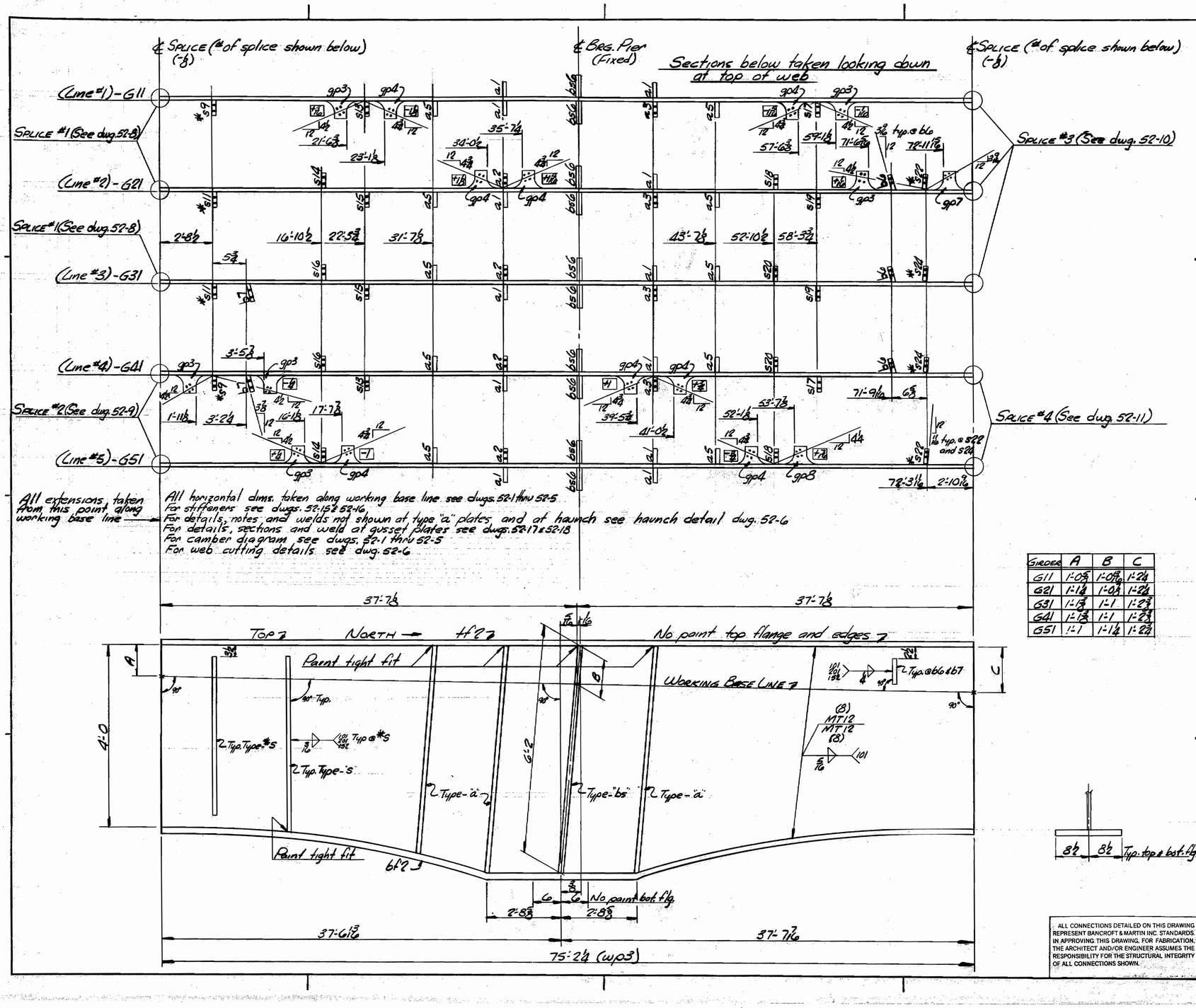
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: Cutts Road over I-95
Kittery, Maine

CUSTOMER: Shoals Inc.
DESIGNER: Maine Dept. of Trans.

	ORDER NO.	JOB NO.	DRAWING NO.	REV.
REV. △				
CHECKED				
DRAWN	3/27/78	BS78-9	52-12	△

[redacted]



Girder	A	B	C
G11	1'-0 5/8	1'-0 11/16	1'-2 1/4
G21	1'-1 1/8	1'-0 7/8	1'-2 1/4
G31	1'-1 3/8	1'-1	1'-2 3/4
G41	1'-1 3/8	1'-1	1'-2 3/4
G51	1'-1	1'-1 1/4	1'-2 3/4

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.

SHIP	BILL OF MATERIAL								JOB NO. BS78-9	DRAWING NO. 52-13	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS		
G11	1		GIRDER	75	2 1/4	—					
G21	1		Do	75	2 1/4	—					
G31	1		Do	75	2 1/4	—					
G41	1		Do	75	2 1/4	—					
G51	1		GIRDER	75	2 1/4	—					
	5	wp3	PL 3/4 x 74	75	2 1/4		1/0		Cut from PL 3/4 x 77 x 756	EPN	
	5	tf2	PL 1/2 x 17	75	2 1/4		1/1		A572 Gr. 50	EPN	
	5	bf2	PL 1/2 x 17	75	3 3/8		1/k		A572 Gr. 50	EPN	
	10	b56	Bar 3 x 1/2	6	2		2/q				
	12	a1	Bar 3 x 3/4	6	2		2/p				
	4	a2	Do	6	2		2/p				
	4	a3	Bar 3 x 3/4	6	2		2/p				
	10	a5	Bar 7 x 3/8	5	7 5/8		2/u				
	2	s13	Bar 8 x 3/8	4	2 15/16		2/t				
	2	s14	Do	3	10 9/16						
	2	s15	Do	4	2 15/16						
	2	s16	Do	3	10 9/16						
	2	s17	Do	3	10 9/16						
	2	s18	Do	4	2 15/16						
	2	s19	Do	3	10 9/16						
	2	s20	Do	4	2 15/16		2/t				
	2	s9	Do	3	5		2/s				
	2	s11	Do	3	5						
	2	s22	Do	3	5						
	2	s24	Bar 8 x 3/8	3	5		2/s				
	3	b6	Bar 8 x 1/2	0	8 1/2		2/m				
	2	b7	Bar 8 x 1/2	0	9		2/m				
	6	gp3	PL 3/4 x 9	1	8		1/z				
	8	gp4	PL 3/4 x 9 1/2	1	8						
	1	gp8	PL 3/4 x 9	1	9						
	1	gp7	PL 3/4 x 10	1	8 1/2		1/z				

HOLES ARE FOR HIGH TENSILE S. T. B. THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES.

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)5

FOR APPROVAL X **FOR FILES & FIELD** X

STEEL: ASTM. ✓ A36 | A572 GR | A588 GR | ✓ Unless Noted
WELDING ELECTRODE: E70 | ✓ See Welding Proc. | None
SHOP CONN: Bolted | ✓ Welded | None
FIELD CONN: ✓ Bolted | Welded | None
HOLES: 13/16 | ✓ 15/16 | Unless Noted | None
PAINT: None | Shopcoat | Galv. After Fab. | ✓ As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: ✓ Blast Clean | None | SP6-63

GIRDERS

APPROVED:		
PRINT DIST.		
2a	5-4-78	APP. F&I
3a	do	FAB.
2b	7-27-78	F&F.
1a	3/20/78	Sheals
1a	3/30/78	Hpp.
REV. △		
CHECKED		
DRAWN	3/28/78	MGP

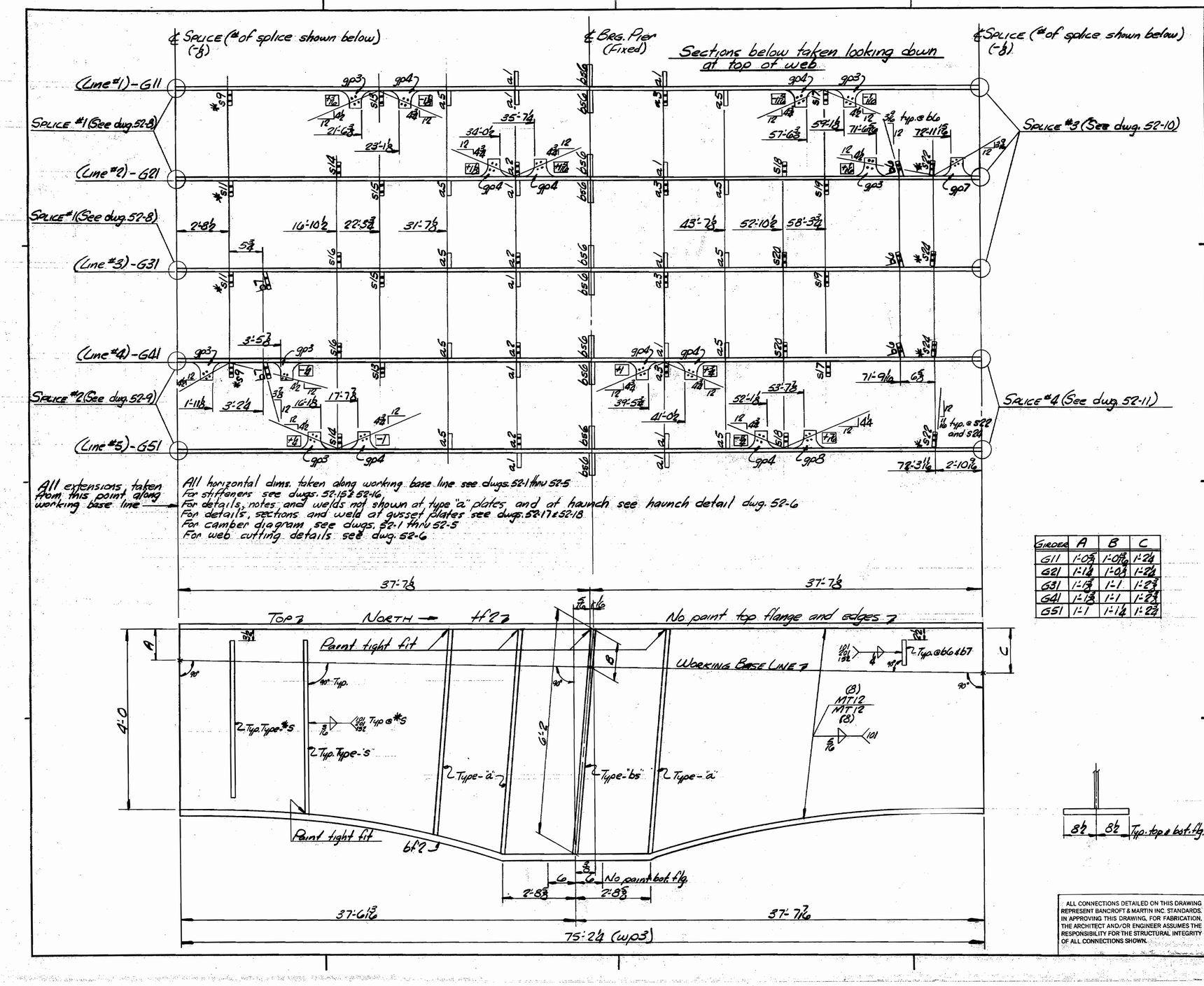
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.

DESIGNER: MAINE DEPT. OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	52-13	△



Girder	A	B	C
G11	1'-0 5/8	1'-0 13/16	1'-2 1/4
G21	1'-1 1/4	1'-0 3/4	1'-2 1/4
G31	1'-1 3/8	1'-1	1'-2 3/8
G41	1'-1 3/8	1'-1	1'-2 3/8
G51	1'-1	1'-1 1/4	1'-2 3/8

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.

SHIP MARK | JOB NO. BS78-9 | DRAWING NO. 52-13 | REV. △

BILL OF MATERIAL

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G11	1		GIRDER	75	2 1/4	—			
G21	1		Do	75	2 1/4	—			
G31	1		Do	75	2 1/4	—			
G41	1		Do	75	2 1/4	—			
G51	1		GIRDER	75	2 1/4	—			
	5	wp3	PL 3/8 x 72	75	2 1/4		1/D		Cut from PL 3/8 x 77 x 756 ASTM A572 Gr. 50
	5	hf2	PL 1 1/2 x 17	75	2 1/4		1/J		
	5	bf2	PL 1 1/2 x 17	75	3 3/8		1/K		ASTM A572 Gr. 50
	10	bs6	Bar 8 x 1/2	6	2		2/Q		
	12	a1	Bar 8 x 3/4	6	2		2/P		
	4	a2	Do	6	2		2/P		
	4	a3	Bar 8 x 3/4	6	2		2/P		
	10	a5	Bar 7 x 3/8	5	7 3/8		2/U		
	2	s13	Bar 8 x 3/8	4	2 7/16		2/T		
	2	s14	Do	3	10 9/16				
	2	s15	Do	4	2 7/16				
	2	s16	Do	3	10 9/16				
	2	s17	Do	3	10 9/16				
	2	s18	Do	4	2 7/16				
	2	s19	Do	3	10 9/16				
	2	s20	Do	4	2 7/16		2/T		
	2	s9	Do	3	5		2/S		
	2	s11	Do	3	5				
	2	s22	Do	3	5				
	2	s24	Bar 8 x 3/8	3	5		2/S		
	3	b6	Bar 8 x 1/2	0	8 1/2		2/M		
	2	b7	Bar 8 x 1/2	0	9		2/M		
	6	gp3	PL 3/8 x 9	1	8		1/Z		
	8	gp4	PL 3/8 x 9 1/2	1	8				
	1	gp8	PL 3/8 x 9	1	9				
	1	gp7	PL 3/8 x 10	1	8 1/2		1/Z		

HOLES ARE FOR HIGH TENSILE S-13 THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 3" OF SUCH OPEN HOLES.

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)5

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [✓] A36 [ ] A572 GR. [ ] A588 GR. [✓] Unless Noted
WELDING ELECTRODE: [ ] E70 [✓] See Welding Proc. [ ] None
SHOP CONN: [ ] Bolted [✓] Welded [ ] None
FIELD CONN: [✓] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [✓] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [✓] As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: [✓] Blast Clean [ ] None SP6-63

GIRDERS

APPROVED:

PRINT DIST.		
2c	5-4-78	APP. FW
3p	do	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoals Appr.
1p	3/30/78	

REV. △
CHECKED
DRAWN 3/28/78 MGP

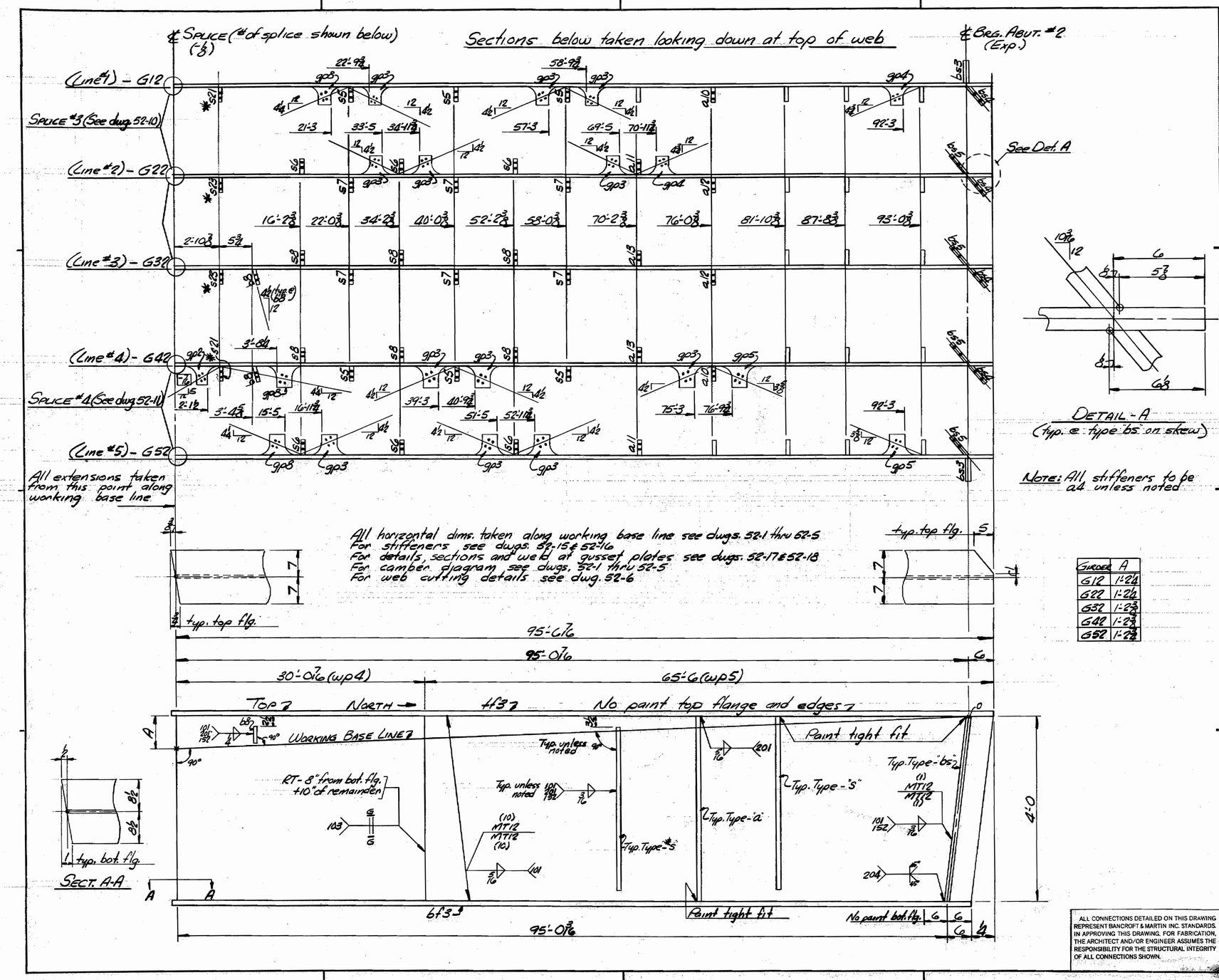
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: Cutts Road over I-95
Kittery, Maine

CUSTOMER: Shoals Inc.

DESIGNER: Maine Dept. of Trans.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	52-13	△



Note: All stiffeners to be a4 unless noted

Girder	A
G12	1:24
G22	1:24
G32	1:23
G42	1:23
G52	1:22

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.

SHIP | BILL OF MATERIAL | JOB NO. BS78-9 | DRAWING NO. 52-14 | REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
G12	1		GIRDERS	95	6 1/16	—			
G22	1		Do	95	6 1/16	—			
G32	1		Do	95	6 1/16	—			
G42	1		Do	95	6 1/16	—			
G52	1		GIRDERS	95	6 1/16	—			
	5	wp4	PL 3/8 x 48	30	0 1/16		1/E		Cut from PL 3/8 x 52 1/2 x 4
	5	wp5	PL 3/8 x 48	66	6		1/C		Cut from PL 3/8 x 52 1/2 x 6 1/4
	5	ft3	PL 1 x 14	95	6 3/8		1/H		A572 Gr. 50
	5	bt3	PL 1 1/2 x 17	95	6 3/8		1/I		A572 Gr. 50
	2	bs3	Bar 8 x 1/2	4	0		2/0		
	4	bs4	Do	4	0		2/4		
	4	bs5	Bar 8 x 1/2	4	0		2/0		
	17	a4	Bar 7 x 3/8	4	0		2/R		
	2	a10	Bar 8 x 3/8	4	0		2/6		
	2	a11	Do	4	0				
	2	a12	Do	4	0				
	2	a13	Bar 8 x 3/8	4	0				
	6	s5	Do	3	8 1/2				
	6	s6	Do	3	8 1/2				
	6	s7	Do	3	8 1/2				
	6	s8	Do	3	8 1/2				
	2	s21	Do	3	5				
	2	s23	Bar 8 x 3/8	3	5		2/S		
	2	b8	Bar 8 x 1/2	0	9 1/2		2/M		
	12	gp3	PL 3/8 x 9	1	8		1/2		
	2	gp4	PL 3/8 x 9 1/2	1	8		1/2		
	2	gp5	PL 3/8 x 9	1	11		1/2		
	3	gp8	PL 3/8 x 9	1	9		1/2		
	1	gp9	PL 3/8 x 10	1	10		1/2		

HOLES ARE FOR HIGH TENSILE BOLTS THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I95-1-(29) 3

FOR APPROVAL | **FOR FILES & FIELD** X

STEEL: ASTM. ✓ A36 | A572 GR. | A588 GR. | ✓ Unless Noted
WELDING ELECTRODE: E70 | ✓ See Welding Proc. | None
SHOP CONN: Bolted | ✓ Welded | None
FIELD CONN: ✓ Bolted | Welded | None
HOLES: 13/16 | ✓ 15/16 | Unless Noted | None
PAINT: None | Shopcoat | Galv. After Fab. | ✓ As Noted
SPECIAL PAINT: Inorganic Zinc per Maine Specs.
SPECIAL CLEANING: ✓ Blast Clean | None | SP-6-63

GIRDERS

APPROVED:		
PRINT DIST.		
2s	5-4-78	APP. FIN
3p	do	FAB.
2s	7-27-78	F&F.
1p	3/30/78	Seals
4p	3/30/78	App
REV. △		
CHECKED		
DRAWN	3/29/78	MGF

Bancroft & Martin Inc.
South Portland, Maine 04106

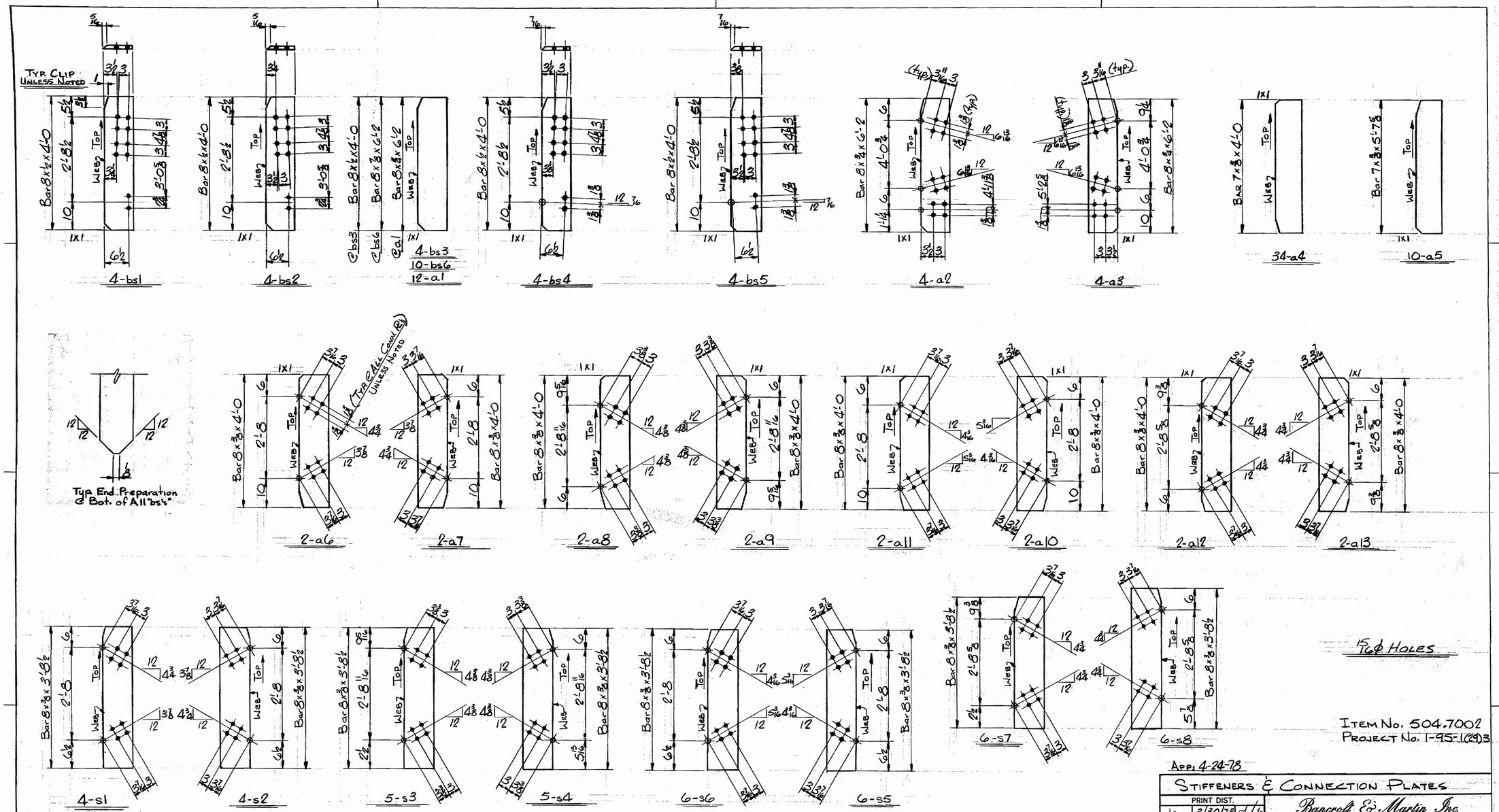
JOB: Cutts Road over I-95 Kittery, Maine

CUSTOMER: Shoals Inc.

DESIGNER: Maine Dept. of Trans.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	52-14	△

[redacted]

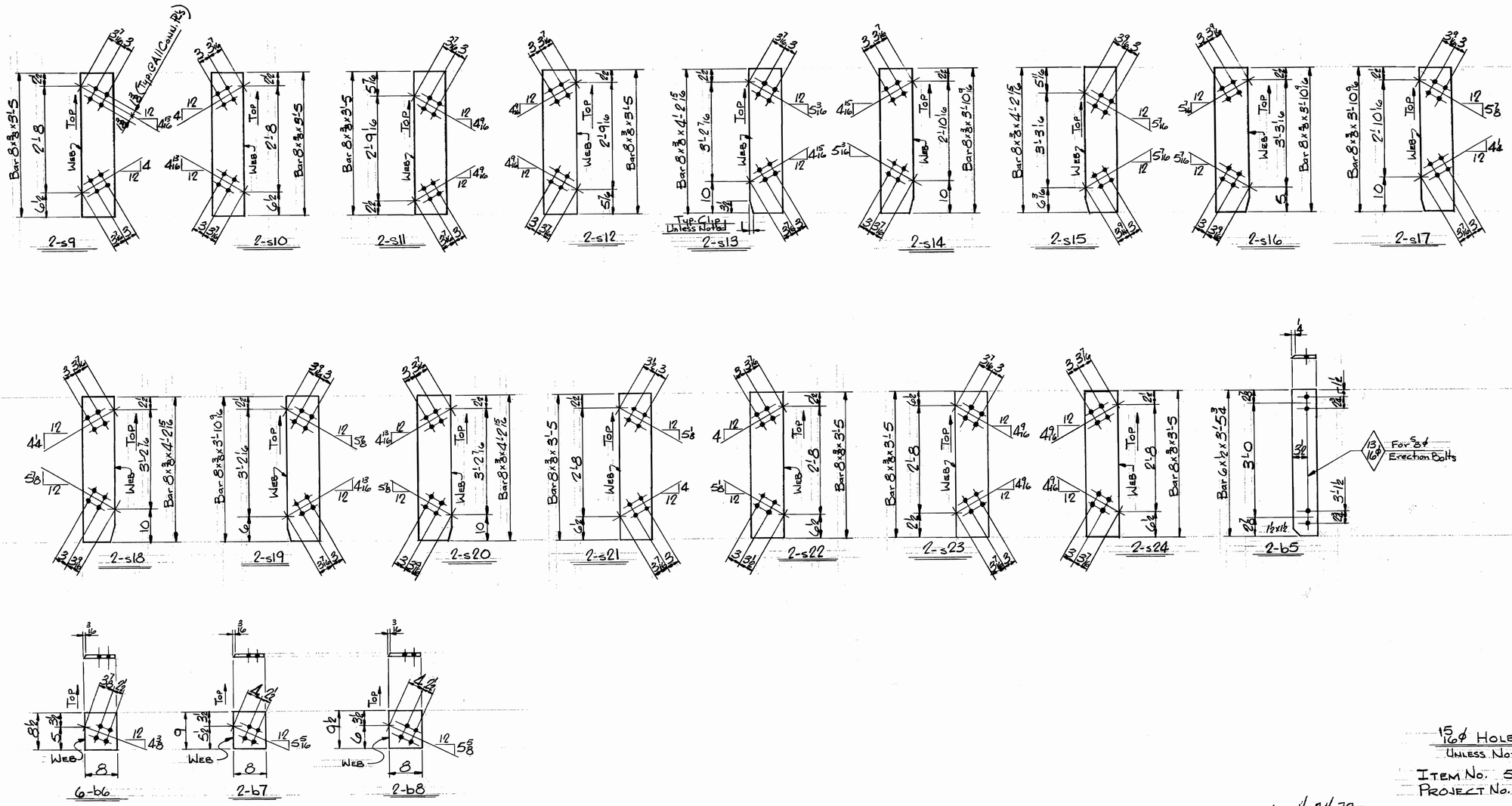


ITEM No. 504.7002
PROJECT No. I-95-1(29)3

APP: 4-24-78

STIFFENERS & CONNECTION PLATES			
PRINT DIST.			Bancroft & Martin Inc. South Portland, Maine 04106
1p	3/30/78	Shoals	
7p	do	State	
2p	5-4-78	State	
5p	do	Shop	JOB: CUTTS ROAD OVER I-95 KITTERY, MAINE
2p	7-27-78	F&F	
			CUSTOMER: SHOALS INC.
			DESIGNER: MAINE DEPT. of TRANS.
REV.			ORDER NO. / JOB NO. BS78-9 / DRAWING NO. 52-15
CHECKED	5-1-78	RGM	
DRAWN	3/24/78	BB	

159-154



15/16 ϕ HOLES
UNLESS NOTED

ITEM No. 504.7002
PROJECT No. I-95-1(29)3

APP. 4-24-78

CONNECTION PLATES

PRINT DIST.		
2p	3/30/78	Staff
1e	do	Shoals
2s	5-4-78	FA
3p	do	Shop
2f	7-27-78	FA/F
REV.		
CHECKED	5-1-78	KGM
DRAWN	3/25/78	BB

Bancroft & Martin Inc.
South Portland, Maine 04106

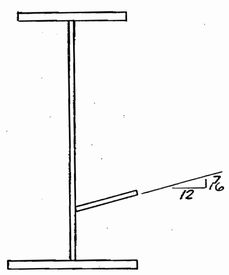
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.

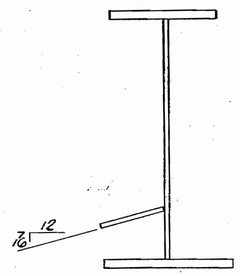
DESIGNER: MAINE DEPT. of TRANS.

ORDER NO.	JOB NO.	DRAWING NO.
	BS78-9	52-16

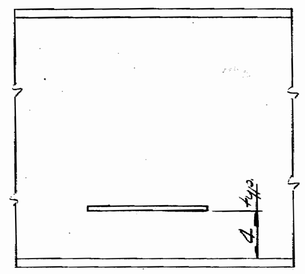
159-155



Typ. 9p" bevel @ Lines #2 & #5

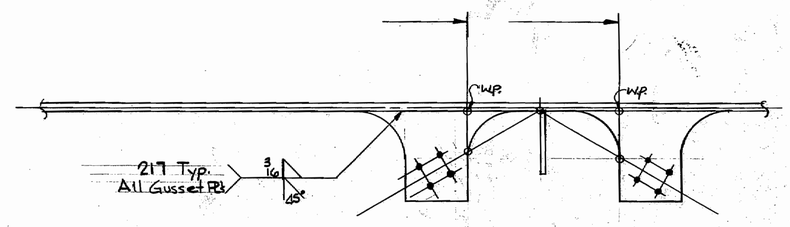


Typ. 9p" bevel @ Lines #1 & #4

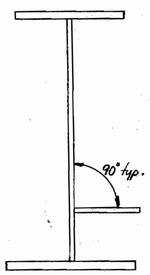


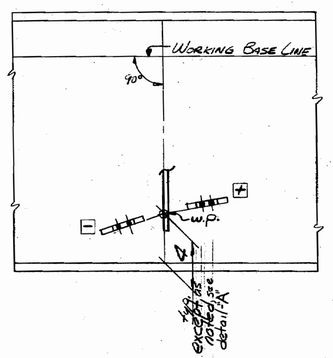
Typical Details & Sects. @ Gusset Pl's Not Marked ⊞ or ⊟

NOTE: Gusset Pl's will be located by extensions to w.p.'s as shown below.



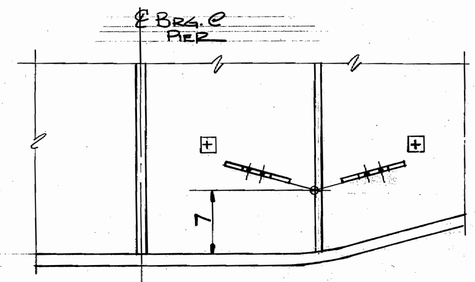
LOCATION & WELD DETAIL @ ALL GUSSET PL'S





Typ. Details & Sects. @ Gusset Pl's Marked ⊞ or ⊟

NOTE: Bevel ⊞ or ⊟ at gusset plates indicates amount of bevel above or below working base line from w.p.



DETAIL "A"
(DETAIL of GUSSET PL'S @ PIER)

ITEM No. 504.7002
PROJ. No. I-95-1(29)3

APPROVED: 4-24-78

GUSSET PL DETAILS & SECTS.

PRINT DIST.		
2p	3/30/78	[illegible]
1p	3/30/78	[illegible]
3p	5-4-78	[illegible]
2s	do	F.A.
2p	7-27-78	F&F
REV.		
CHECKED	5-3-78	KGM
DRAWN	3/17/78	BB

Bancroft & Martin Inc.
South Portland, Maine 04106

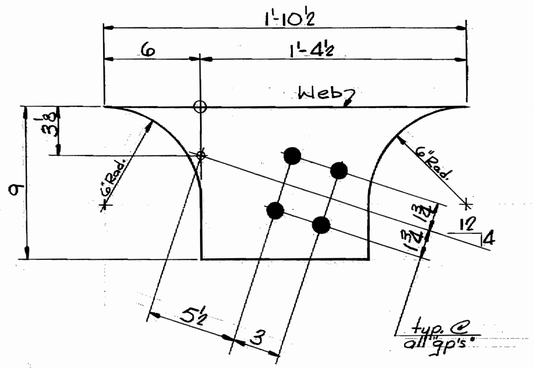
JOB: CUTTS ROAD OVER I-95, KITTERY, MAINE

CUSTOMER: SHOALS INC.

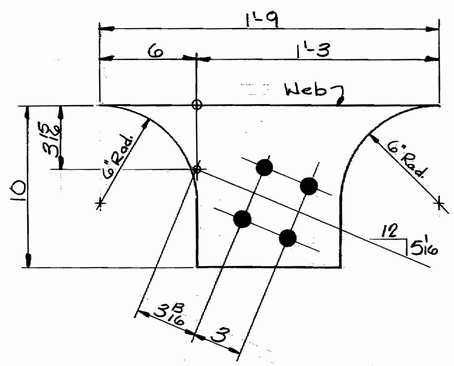
DESIGNER: MAINE DEPT. OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.
	BS78-9	52-17

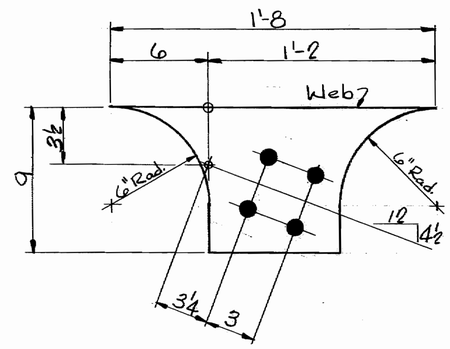
152-156



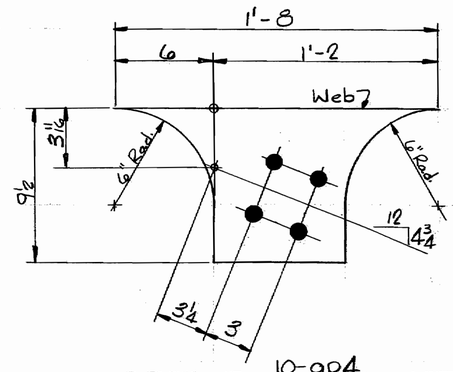
9-gp1
PL ⅜ x 9 x 1'-10½



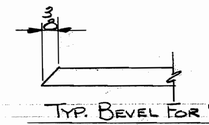
3-gp2
PL ⅜ x 10 x 1'-9



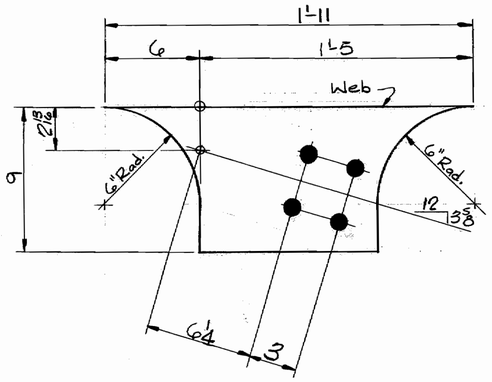
22-gp3
PL ⅜ x 9 x 1'-8



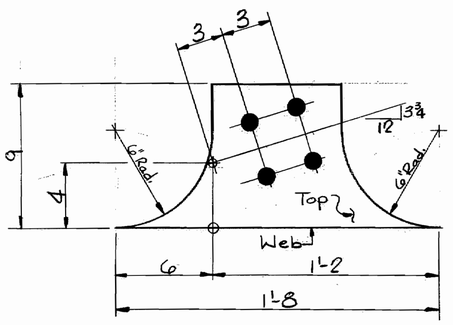
10-gp4
PL ⅜ x 9½ x 1'-8



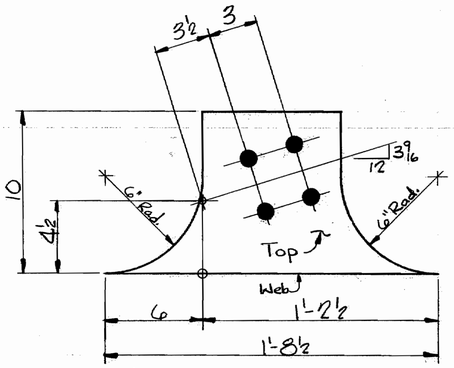
TYP. BEVEL FOR WELD



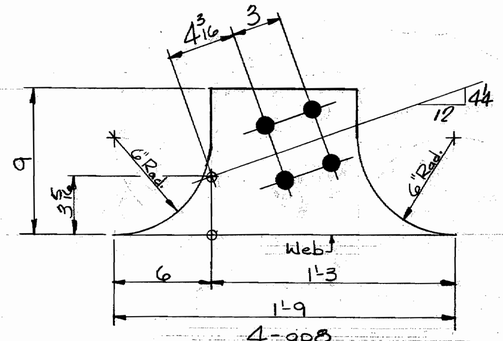
2-gp5
PL ⅜ x 9 x 1'-11



One-gp6
PL ⅜ x 9 x 1'-8



One-gp7
PL ⅜ x 10 x 1'-8½



4-gp8
PL ⅜ x 9 x 1'-9

15/16 HOLES

APPROVED: 4-24-78

ITEM No. 504.7002
PROJECT No. 1-95-1(29)3

GUSSET PLATES & LATERAL BRACING

PRINT DIST.		
1p	3/30/78	Shoals
2p	3/30/78	Shoals
3p	5-4-78	FFA
3p	do	Shoals
2p	7-27-78	FFA

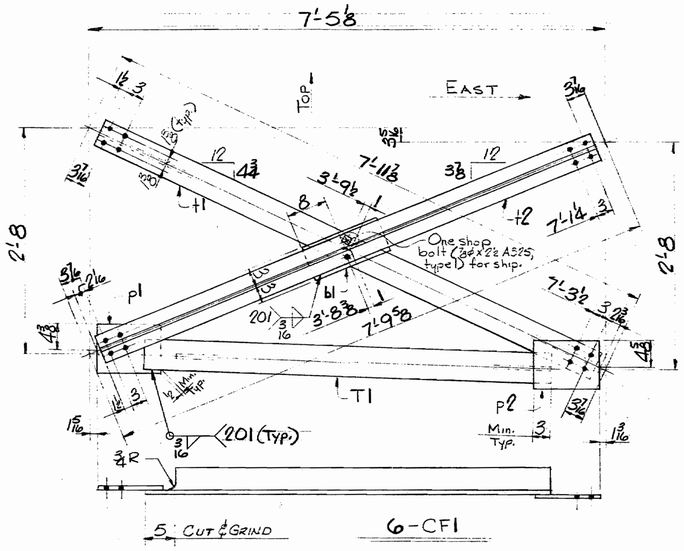
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

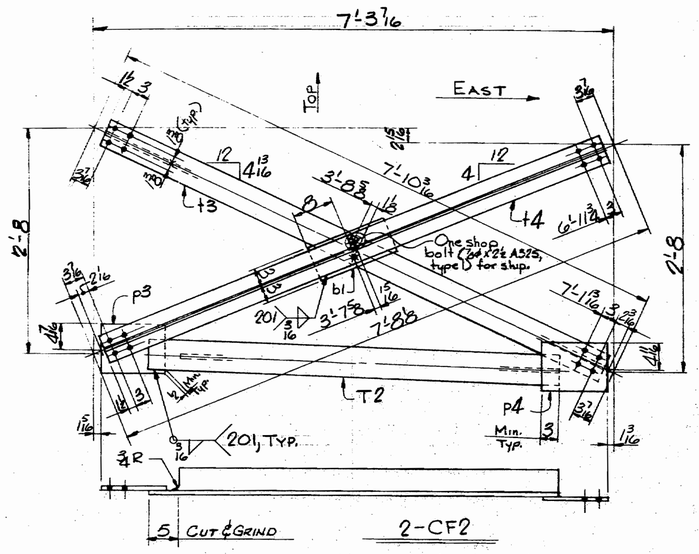
CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. of TRANS.

REV.			ORDER NO.	JOB NO.	DRAWING NO.
CHECKED	5-3-78	REM		BS78-9	52-18
DRAWN	3/30/78	BB			

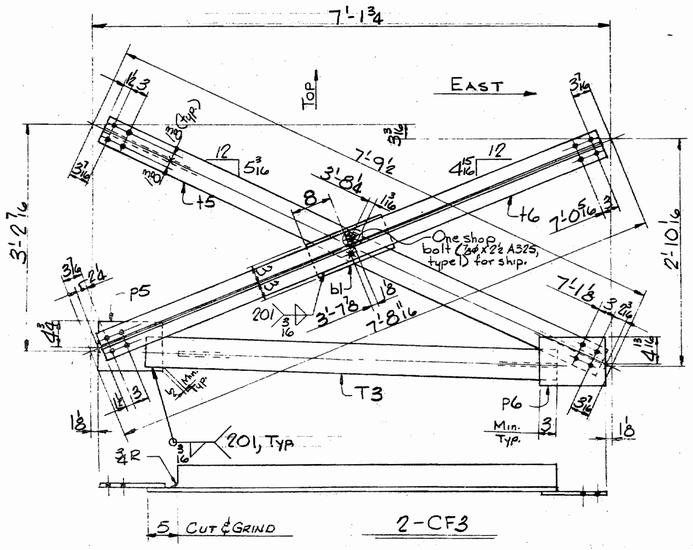
159-157



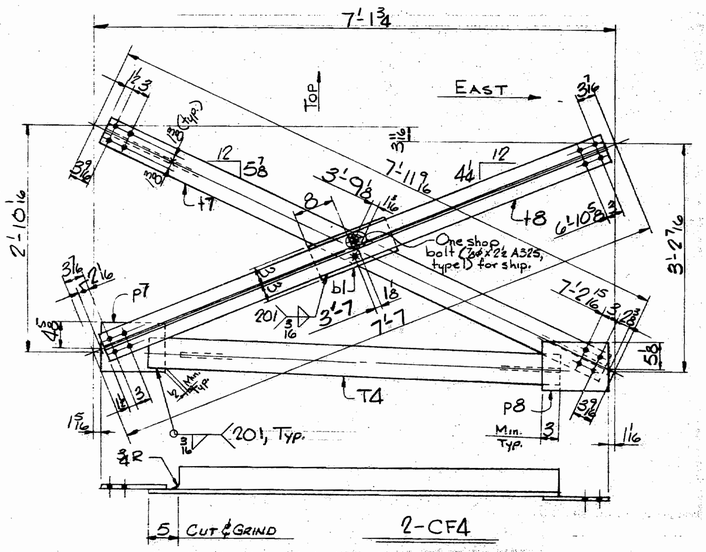
6-CF1



2-CF2



2-CF3



2-CF4

SHIP	BILL OF MATERIAL			JOB NO. BS78-9	DRAWING NO. 53-1	REV. △
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS
CF1	6		SHOP ASSEMBLY	—			
CF2	2		do	—			
CF3	2		do	—			
CF4	2		SHOP ASSEMBLY	—			
	6	+1	WT4x8.5	7 8		2/C	
	6	+2	do	7 5 3/4		2/C	
	2	+3	do	7 6 5/16		2/E	
	2	+4	WT4x8.5	7 4 4			
	2	+5	do	7 5 5/8			
	2	+6	do	7 4 13/16			
	2	+7	do	7 7 1/16			
	2	+8	WT4x8.5	7 3 8		2/E	
	12	b1	Bar 6x3/8	1 4		2/J	Match drill to Cross frame
T1	6		WT5x10.5	5 9		2/D	
T2	2		do	5 7 1/2		2/F	
T3	2		do	5 6		2/F	
T4	2		WT5x10.5	5 6		2/F	
	6	p1	PL 3/8x9	1 0		2/K	L.O.
	6	p2	do	1 0			
	2	p3	do	1 0			
	2	p4	do	1 0			
	2	p5	PL 3/8x9	1 0			
	2	p6	do	1 0			
	2	p7	do	1 0			
	2	p8	PL 3/8x9	1 0		2/K	L.O.
	12	Shop	3/4" H.S. Bolts	0 2 1/2		4/C	A325, Type1
	12	Shop	3/4" Hard Washers	~		4/F	do, do

HOLES ARE FOR HIGH TENSILE BOLTS THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES

JT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [X] A36 [ ] A572 [GR] [ ] A588 [GR] [ ] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None [ ]
SHOP CONN: [X] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: Inorganic Zinc (Per Maine Spec.) As Noted
SPECIAL CLEANING: [X] Blast Clean [ ] None (SP-6-63)

CROSSFRAMES

APPROVED: 4-24-78		
PRINT DIST.		
2p	3/30/78	APP.
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shpd/s.
2s	5-4-78	F.A.
REV. △		
CHECKED	5-1-78	EGM
DRAWN	3/23/78	BB

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

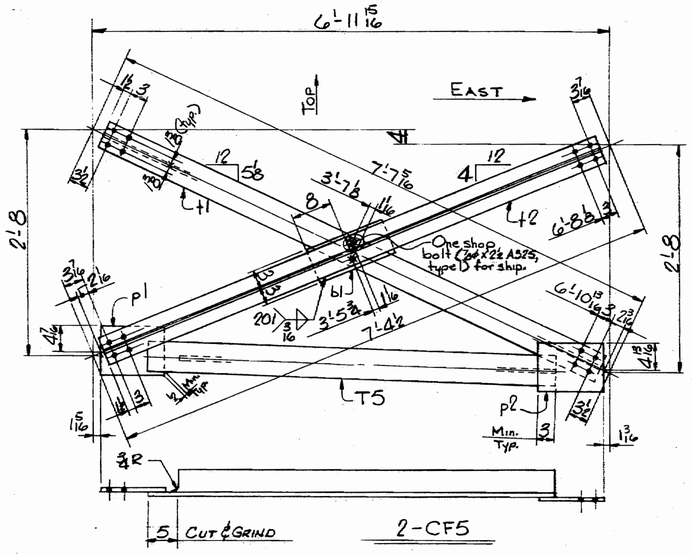
CUSTOMER: SHOALS INC.

DESIGNER: MAINE DEPT. OF TRANS.

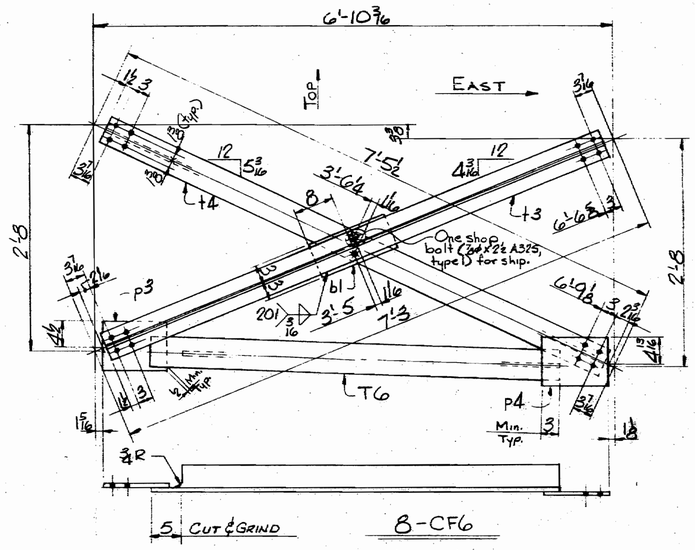
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	53-1	△

159-158

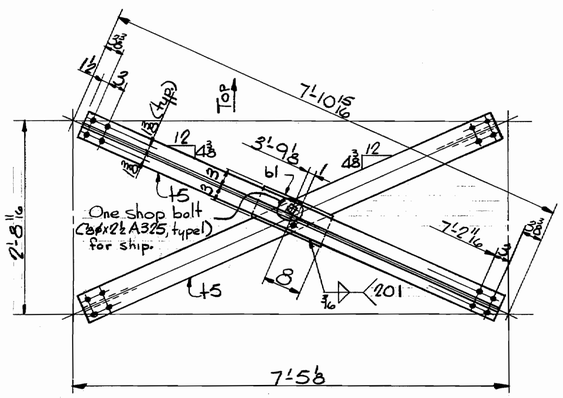
Miller Co., Inc.



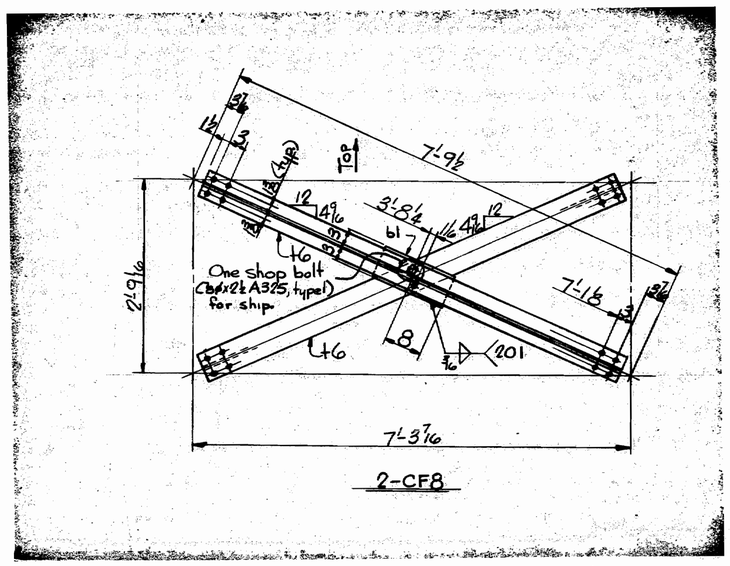
2-CF5



8-CF6



7-CF7



2-CF8

SHIP	BILL OF MATERIAL			JOB NO. BS78-9		DRAWING NO. 53-2	REV. △
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS
CF5	2		Shop Assembly		—		
CF6	8		do		—		
CF7	7		do		—		
CF8	2		Shop Assembly		—		
	2	t1	WT4x8.5	7 3 5/16		2/E	
	2	t2	do	7 0 5/8		2/E	
	8	t3	do	6 11 1/8		2/G	
	8	t4	do	7 1 5/8		2/G	
	14	t5	do	7 7 3/16		2/K	
	4	t6	WT4x8.5	7 5 3/8		2/E	
	19	b1	Bar 6x3/8	1 4		2/J	Match drill to Crossframe
	19	Shop	7/8φ H.S. Bolt	0 2 1/2		4/K	A325, Type 1
	19	Shop	7/8φ Hard Washer	—		4/F	A325, Type 1
T5	2		WT5x10.5	5 4		2/F	
T6	8		WT5x10.5	5 2		2/H	
	2	p1	PL 3/8 x 9	1 0		2/K	L.O.
	2	p2	do	1 0		(	(
	8	p3	do	1 0		(	(
	8	p4	PL 3/8 x 9	1 0		2/K	L.O.

HOLES ARE FOR HIGH TENSILE BOLTS
THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 1" OF SUCH OPEN HOLES

IT. NO. 504.7002 | BR. NO. | PROJ. NO. 1-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [X] A36 [ ] A572 GR [ ] A588 GR [ ] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [X] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab [X] As Noted
SPECIAL PAINT: Inorganic Zinc (Per Maine Spec) As Noted
SPECIAL CLEANING: [X] Blast Clean [ ] None (SP-6-63)

CROSSFRAMES

APPROVED: 4-24-78

PRINT DIST.		
2p	3/30/78	APP. Stoke
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoals
2s	5-4-78	FA

Bancroft & Martin Inc.
South Portland, Maine 04106

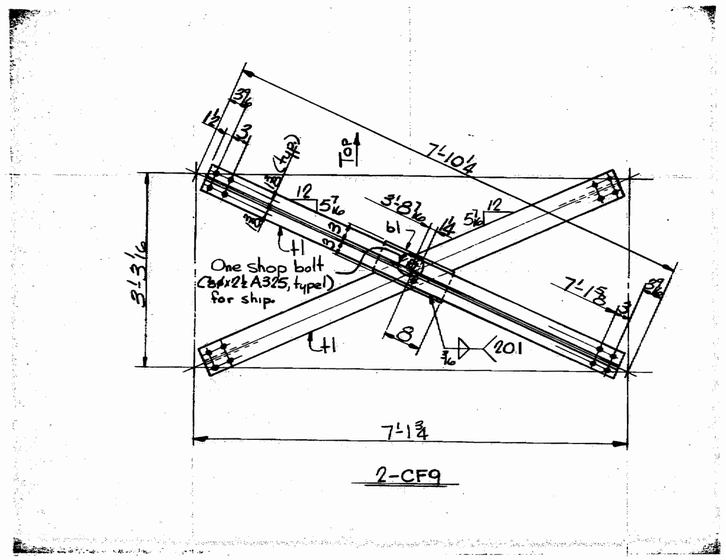
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.

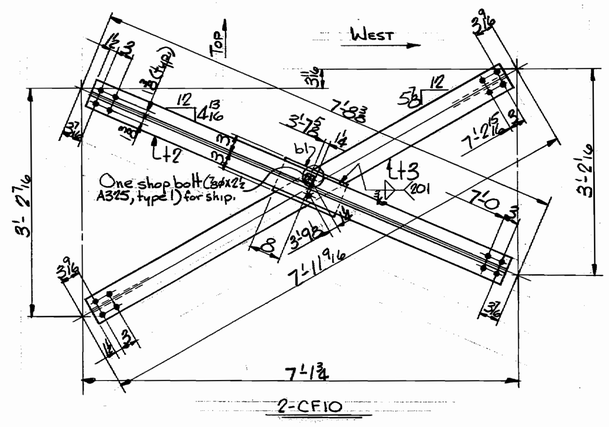
DESIGNER: MAINE DEPT. of TRANS.

REV. △			ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	5-1-78	RGM		BS78-9	53-2	△
DRAWN	3/23/78	BB				

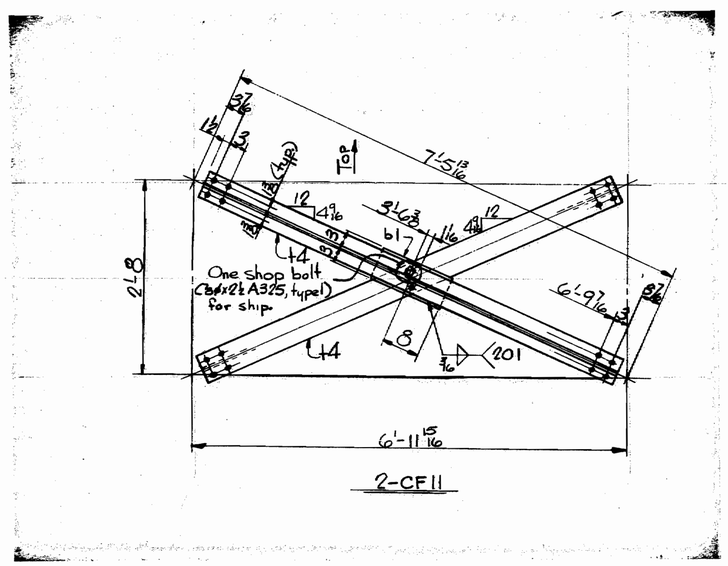
159-159



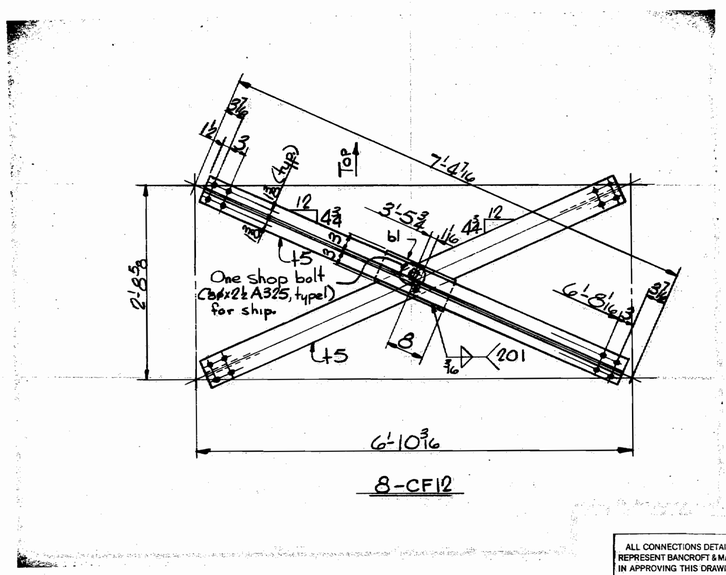
2-CF9



2-CF10



2-CF11



8-CF12

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.

SHIP	BILL OF MATERIAL	JOB NO. BS78-9	DRAWING NO. 53-3	REV. △

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
CF9	2		Shop Assembly			—			
CF10	2		do			—			
CF11	2		do			—			
CF12	8		Shop Assembly			—			
	4	+1	WT4x8.5	7	6 1/8		2/E		
	2	+2	do	7	4 1/2		2/E		
	2	+3	do	7	7 7/16		2/E		
	4	+4	do	7	1 15/16		2/E		
	16	+5	WT4x8.5	7	0 9/16		2/G		
	14	bl	Bar 6 x 3/8	1	4		2/J		Match drill to Crossframe
	14	shop	7/8 ϕ H.S. Bolt	0	2 1/2		4/C		A325, Type 1
	14	shop	7/8 ϕ Hard Washer	—			4/F		do do

HOLES ARE FOR HIGH TENSILE BOLTS. THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN [illegible]

IT. NO. 504.7002 | BR. NO. | PROJ. NO. 1-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [X] A36 [ ] A572 GR [ ] A588 GR [ ] Unless Noted
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None
SHOP CONN: [X] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: Inorganic Zinc (Per Maine Spec) As Noted
SPECIAL CLEANING: [X] Blast Clean [ ] None (SP-6-63)

CROSSFRAMES

APPROVED: 4-24-78

PRINT DIST.		
2p	3/30/78	APP.
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoots
2s	5-4-78	F.A.

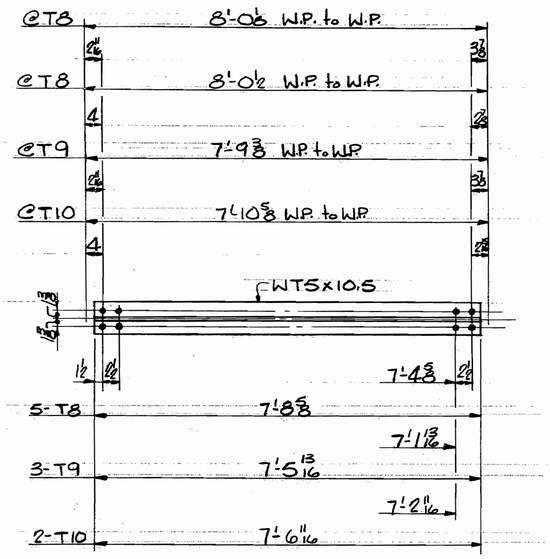
Bancroft & Martin Inc.
South Portland, Maine 04106

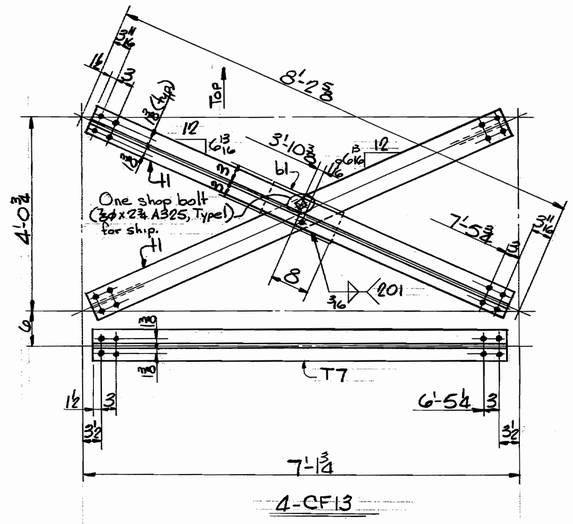
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOAL INC.
DESIGNER: MAINE DEPT. of TRANS.

REV. △		
CHECKED	5-1-78	RGM
DRAWN	3/24/78	BB

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	53-3	△





SHIP	BILL OF MATERIAL				JOB NO. BS78-9	DRAWING NO. 53-4	REV. △
MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS
CF13	4		Shop Assembly		—		
	8	t1	WT4x8.5	7 10¼		2/G	
	4	bl	Bar6x¾	1 4		2/N	
	4	Shop	¾φ H.S. Bolt	0 2¾		4/D	
	4	shop	¾φ Hard Washer	—		4/F	
T7	4		WT5x10.5	6 9¾		2/L	
T8	5		do	7 8⅜		2/L	
T9	3		do	7 5 11/16		2/L	
T10	2		WT5x10.5	7 6 11/16		2/L	

HOLES ARE FOR HIGH TENSILE BOLTS WASHERS ARE TO BE FREE FROM [illegible]

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL X **FOR FILES & FIELD** X

STEEL: ASTM. [X] A36 [ ] A572 GR [ ] A588 GR [ ] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [X] See Welding Proc. [ ] None [ ]
SHOP CONN: [X] Bolted [X] Welded [ ] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: Inorganic Zinc (Per Maine Spec), As Noted
SPECIAL CLEANING: [X] Blast Clean [ ] None (SP-6-63)

CROSSFRAME & SPLICE BRACE

APPROVED: 4-24-78

PRINT DIST.		
2p	3/30/78	~~APP-S~~
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	~~Shoals~~
1s	5-4-78	F.A.

REV. △
CHECKED 5-1-78 KGM
DRAWN ~~3-27-78~~

Bancroft & Martin Inc.
South Portland, Maine 04106

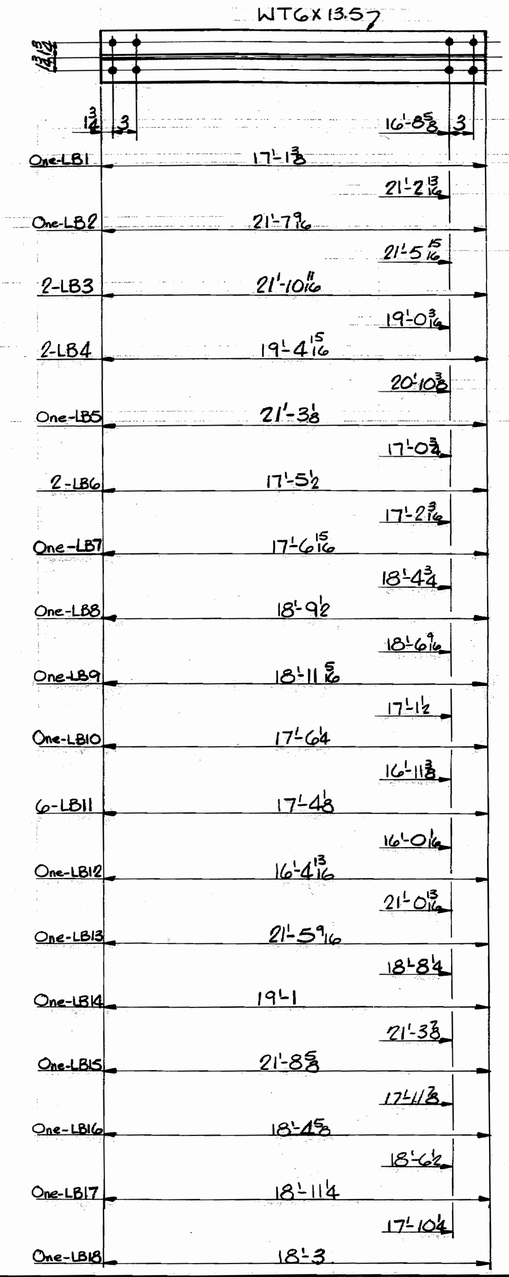
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. of TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	53-4	△

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.

[redacted]



SHIP	BILL OF MATERIAL	JOB NO.	DRAWING NO.	REV.
		BS78-9	54-1	△

MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.	REMARKS
LB1	1		WT6x13.5	17	1 3/8		1/S	
LB2	1			21	7 9/16		1/X	
LB3	2			21	10 11/16		1/Y	
LB4	2			19	4 15/16		1/V	
LB5	1			21	3 1/8		1/W	
LB6	2			17	5 1/2		1/S	
LB7	1			17	6 15/16		1/S	
LB8	1			18	9 1/2		1/U	
LB9	1			18	11 5/16		1/U	
LB10	1			17	6 1/4		1/S	
LB11	6			17	4 1/8		1/S	
LB12	1			16	4 13/16		1/R	
LB13	1			21	5 9/16		1/X	
LB14	1			19	1		1/U	
LB15	1			21	8 5/8		1/X	
LB16	1			18	4 5/8		1/T	
LB17	1			18	11 1/4		1/U	
LB18	1		WT6x13.5	18	3		1/T	

[redacted]

IT. NO. 504.7002 | BR. NO. | PROJ. NO. 1-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [X] A36 | A572 GR | A588 GR | Unless Noted
WELDING ELECTRODE: E70 | See Welding Proc. | [X] None
SHOP CONN: Bolted | Welded | [X] None
FIELD CONN: [X] Bolted | Welded | None
HOLES: 13/16 | 15/16 | [X] 1 1/16 | Unless Noted | None
PAINT: None | Shopcoat | Galv. After Fab. | [X] As Noted
SPECIAL PAINT: Inorganic Zinc (Per Maine Spec.) As Noted
SPECIAL CLEANING: [X] Blast Clean | None (SP-6-63)

LATERAL BRACING

APPROVED: 4-24-78

PRINT DIST.		
2p	3/30/78	APP.
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoals
2's	5-4-78	F.A

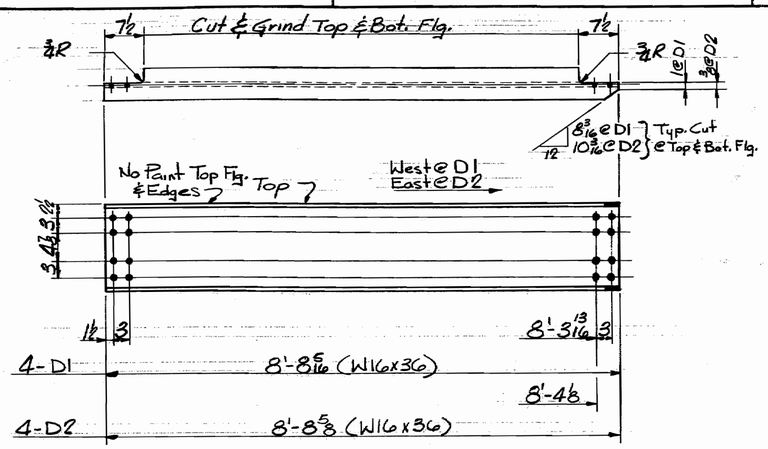
Bancroft & Martin Inc.
South Portland, Maine 04106

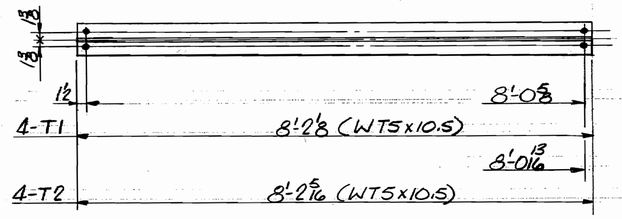
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. of TRANS.

REV. △			ORDER NO.	JOB NO.	DRAWING NO.	REV.
CHECKED	5-3-78	KGM		BS78-9	54-1	△
DRAWN	3/28/78	BB				

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.





SHIP	BILL OF MATERIAL	JOB NO. BS78-9	DRAWING NO. 56-1	REV. △

MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.	REMARKS
D1	4		W16x36	8 8 5/16		2/A	A572
D2	4		W16x36	8 8⅝		2/A	A572
T1	4		WT5x10.5	8 2⅛		2/B	
T2	4		WT5x10.5	8 2 5/16		2/B	

HOLES ARE FOR HIGH TENSILE BOLTS. THEY ARE TO BE FREE FROM BURRS AND SHALL NOT BE PAINTED ON ANY SURFACE WITHIN 5" OF SUCH OPEN HOLES.

IT. NO. 504.7002 | BR. NO. | PROJ. NO. 1-95-1(29)3

FOR APPROVAL [X] **FOR FILES & FIELD** [X]

STEEL: ASTM. [X] A36 [ ] A572 GR. [ ] A588 GR. [X] Unless Noted [ ]
WELDING ELECTRODE: [ ] E70 [ ] See Welding Proc. [X] None [ ]
SHOP CONN: [ ] Bolted [ ] Welded [X] None
FIELD CONN: [X] Bolted [ ] Welded [ ] None
HOLES: [ ] 13/16 [X] 15/16 [ ] Unless Noted [ ] None
PAINT: [ ] None [ ] Shopcoat [ ] Galv. After Fab. [X] As Noted
SPECIAL PAINT: Inorganic Zinc, (Per Maine Spec.) As Noted (SP-6-65)
SPECIAL CLEANING: [X] Blast Clean [ ] None

DIAPHRAGMS

APPROVED: 4-24-78

PRINT DIST.		
2p	3/30/78	~~APP. shoals~~
3p	5-4-78	FAB.
2p	7-27-78	F&F.
1p	3/30/78	Shoals
2s	5-4-78	FA.

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

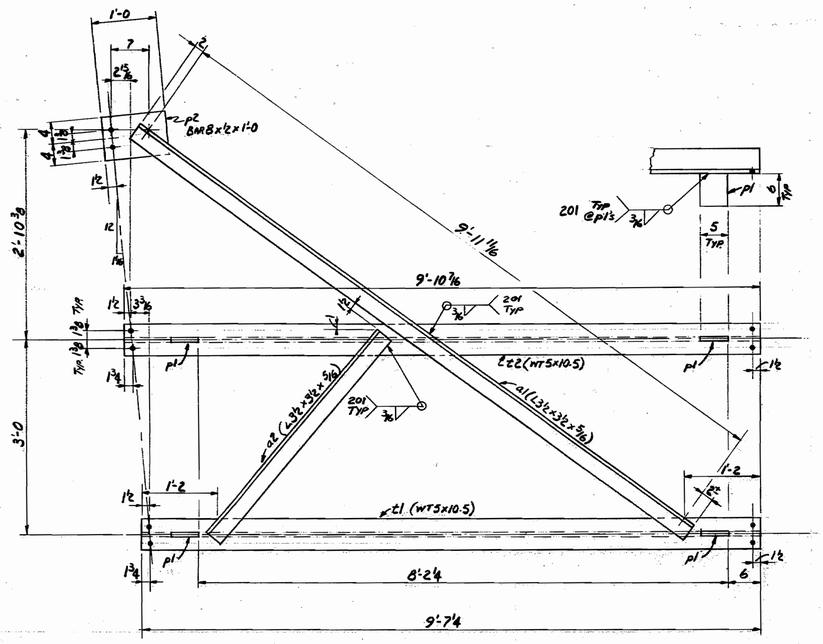
CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. of TRANS.

REV. △		
CHECKED	5-1-78	RGM
DRAWN	3/18/78	BB

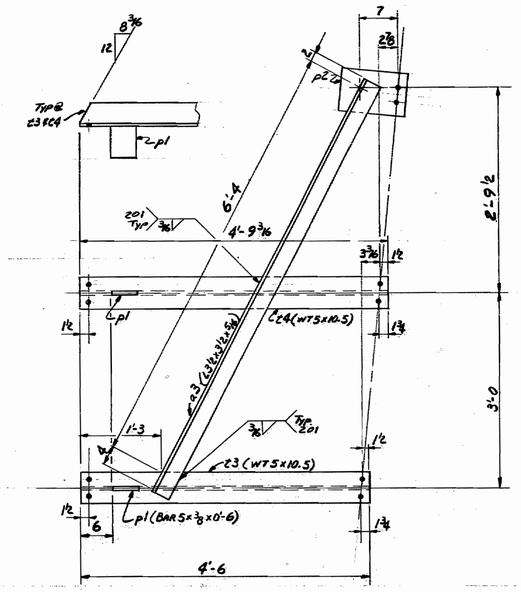
ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS78-9	56-1	△

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.

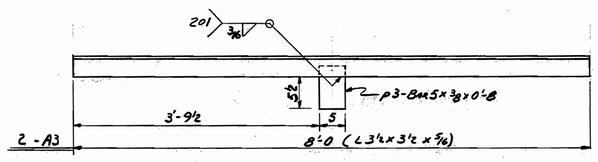
Morton F. Spitzer Co., Inc.

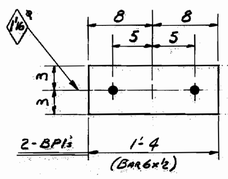


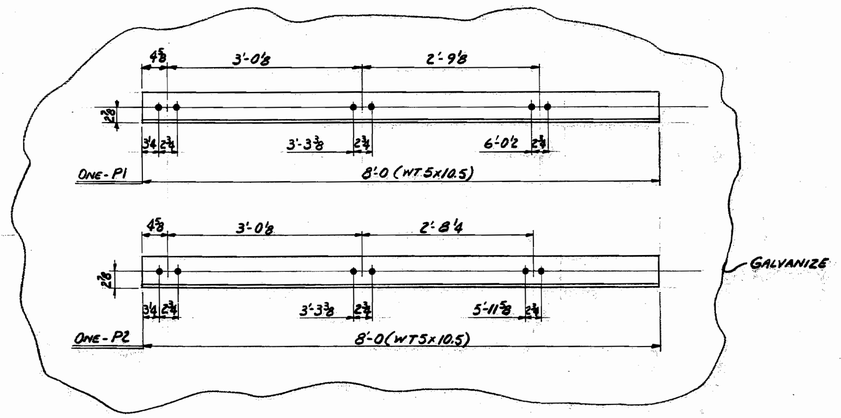
ONE - BR1



ONE - BR2







SHIP	BILL OF MATERIAL					JOB NO. BS 78-9		DRAWING NO. 61-1	REV. △
MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
BR1	1		SHOP ASSY			—			
	1	t1	WT5x10.5	9	7 1/4		3/B		
	1	t2	WT5x10.5	9	10 7/16		3/C		
	1	a1	L3 1/2 x 3 1/2 x 5/16	10	9 9/16		3/G		
	1	a2	L3 1/2 x 3 1/2 x 5/16	3	11		3/H		
	6	p1	BAR 5 x 3/8	0	6		3/O		
	2	p2	BAR 8 x 1/2	1	0		3/N		
BR2	1		SHOP ASSY			—			
	1	t3	WT5x10.5	4	6		3/D		
	1	t4	WT5x10.5	4	9 3/16		3/E		
	1	a3	L3 1/2 x 3 1/2 x 5/16	6	10		3/J		
A1	1		L3 1/2 x 3 1/2 x 5/16	8	6		3/F		NO FAB
A2	1		L3 1/2 x 3 1/2 x 5/16	3	0		3/I		NO FAB
A3	2		L3 1/2 x 3 1/2 x 5/16	8	0		3/K		
A4	2		L3 1/2 x 3 1/2 x 5/16	7	6		3/K		NO FAB
P1	1		WT5x10.5	8	0		3/A		GALV.
P2	1		WT5x10.5	8	0		3/A		GALV.
	2	p3	BAR 5 x 3/8	0	8		3/O		
BP1	2		BAR 6 x 1/2	1	4		3/M		
AB2	4		3/4 @ H.S. BOLT A325 TYP. 1	0	10		3/P		GALV.
	4	SHOP	3/4 @ HEX NUT A325 T1				3/Q		GALV. FOR AB2
	4	SHOP	3/4 @ HARD A325 WASHERS T1				3/R		GALV. FOR AB2
FIELD	8		5/8 @ H.S. BOLTS	0	1 3/4		3/S,T		BRIE BR2 TO P1 & P2 @ WT5
FIELD	12		5/8 @ H.S. BOLTS	0	2		3/N,T		
FIELD	20		5/8 @ HARD WASHERS				3/U		

IT. NO. 504.7002 | BR. NO. | PROJ. NO. I-95-1(29)3

FOR APPROVAL | **FOR FILES & FIELD** X

STEEL: ASTM. ☑ A36 | A572 GR. | A588 GR. | Unless Noted
WELDING ELECTRODE: E70 | ☑ See Welding Proc. | None
SHOP CONN: Bolted | ☑ Welded | None
FIELD CONN: ☑ Bolted | ☑ Welded | None
HOLES: 13/16 | 15/16 | ☑ 13/16 | ☑ Unless Noted | None
PAINT: None | Shopcoat | Galv. After Fab. | ☑ As Noted
SPECIAL PAINT: INORGANIC ZINC (PER ME SPEC) OR GALV AS NOTED
SPECIAL CLEANING: ☑ Blast Clean | None (SSPC-SP10)

SIGN SUPPORT DETAILS

APPROVED:		
PRINT DIST.		
2P	3/23/78	APP.
3P	5/4/78	FAB.
2P	7-27-78	F&F.
1P	3/23/78	APP
2P	5/4/78	F.A.
REV. △		
CHECKED	4/6/78	BB
DRAWN	3/20/78	SILVA

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER INTERSTATE 95
KITTERY, YORK COUNTY, MAINE

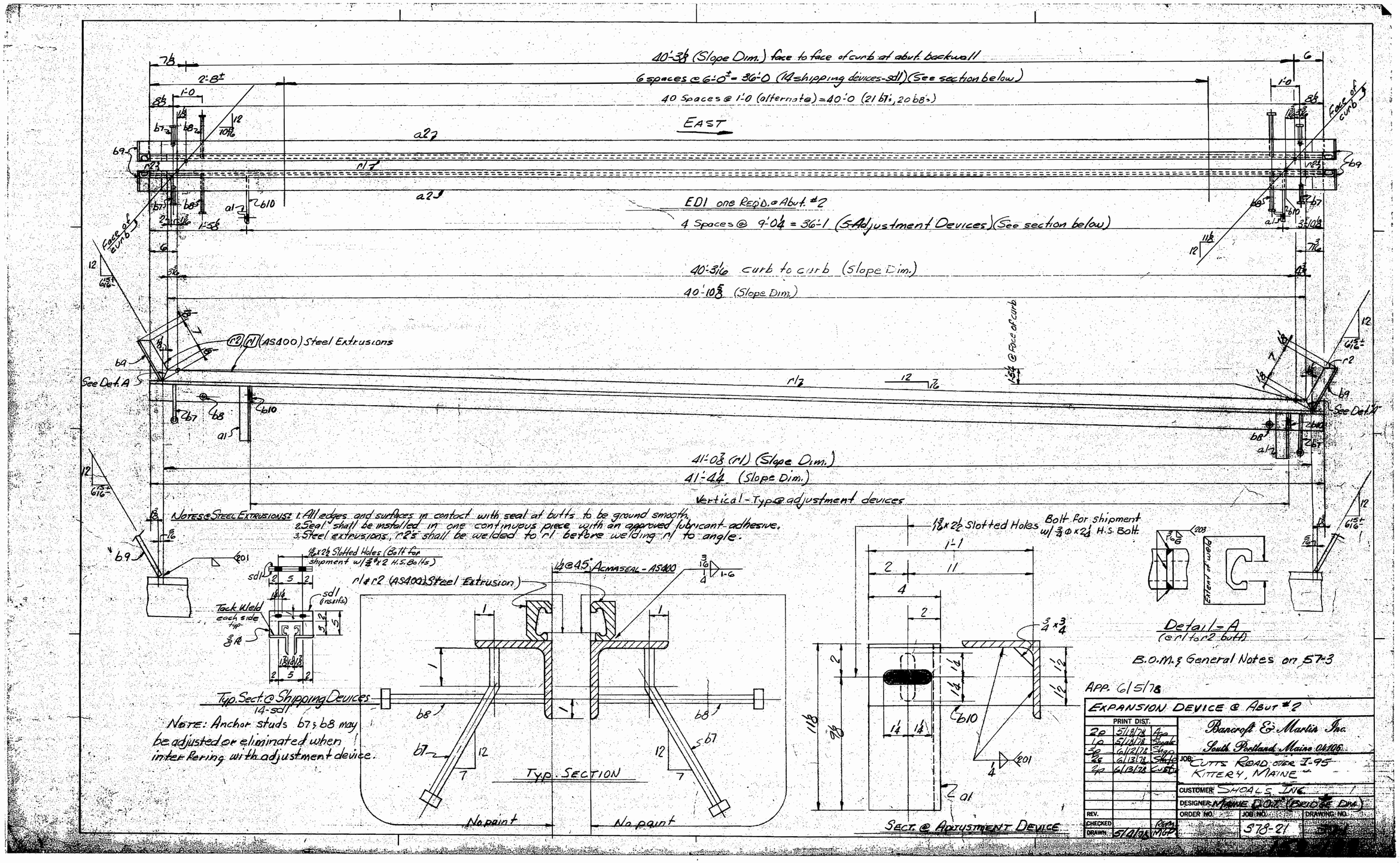
CUSTOMER: SHOALS INC.

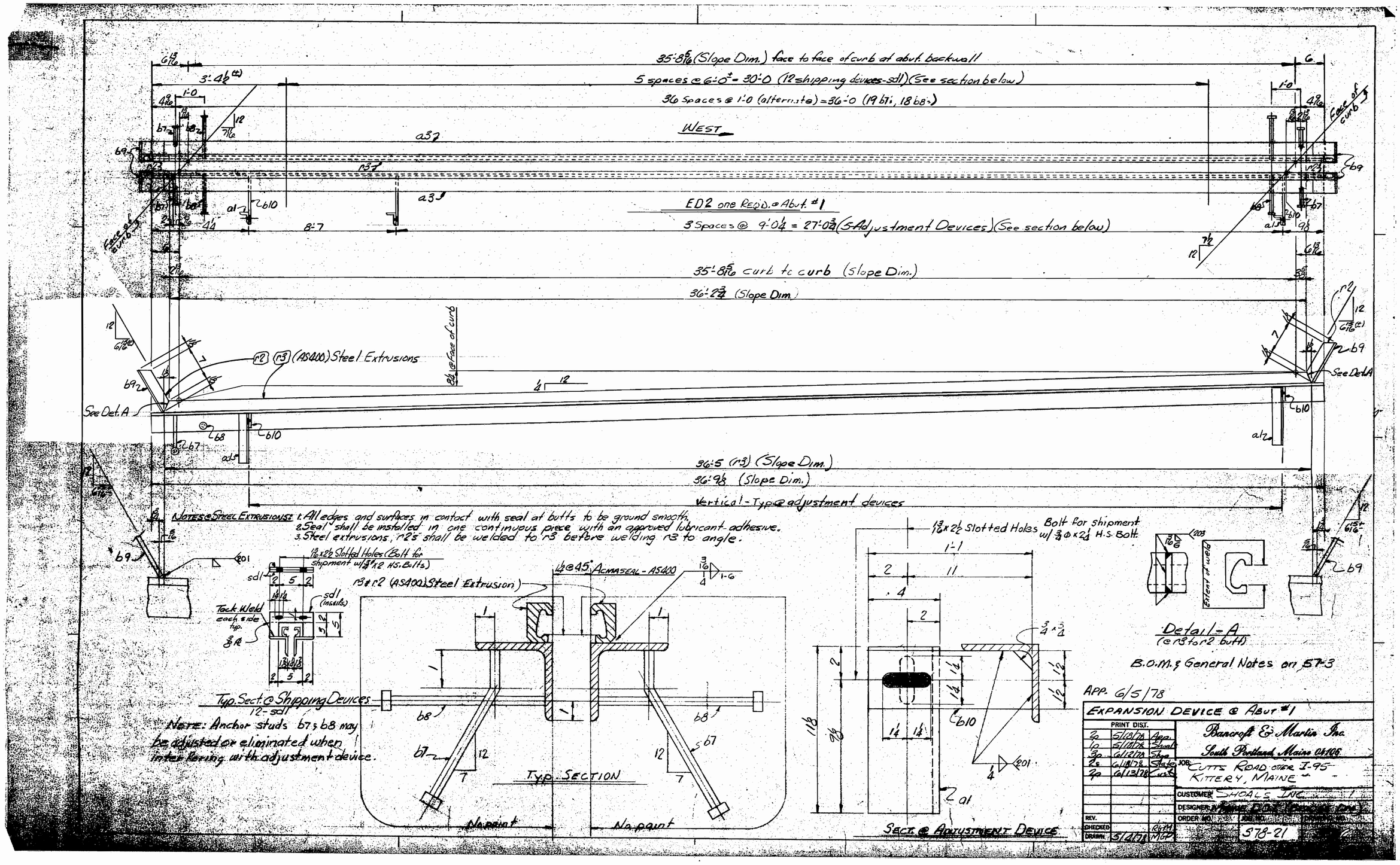
DESIGNER: MAINE DEPT OF TRANSPORTATION

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	BS 78-9	61-1	△

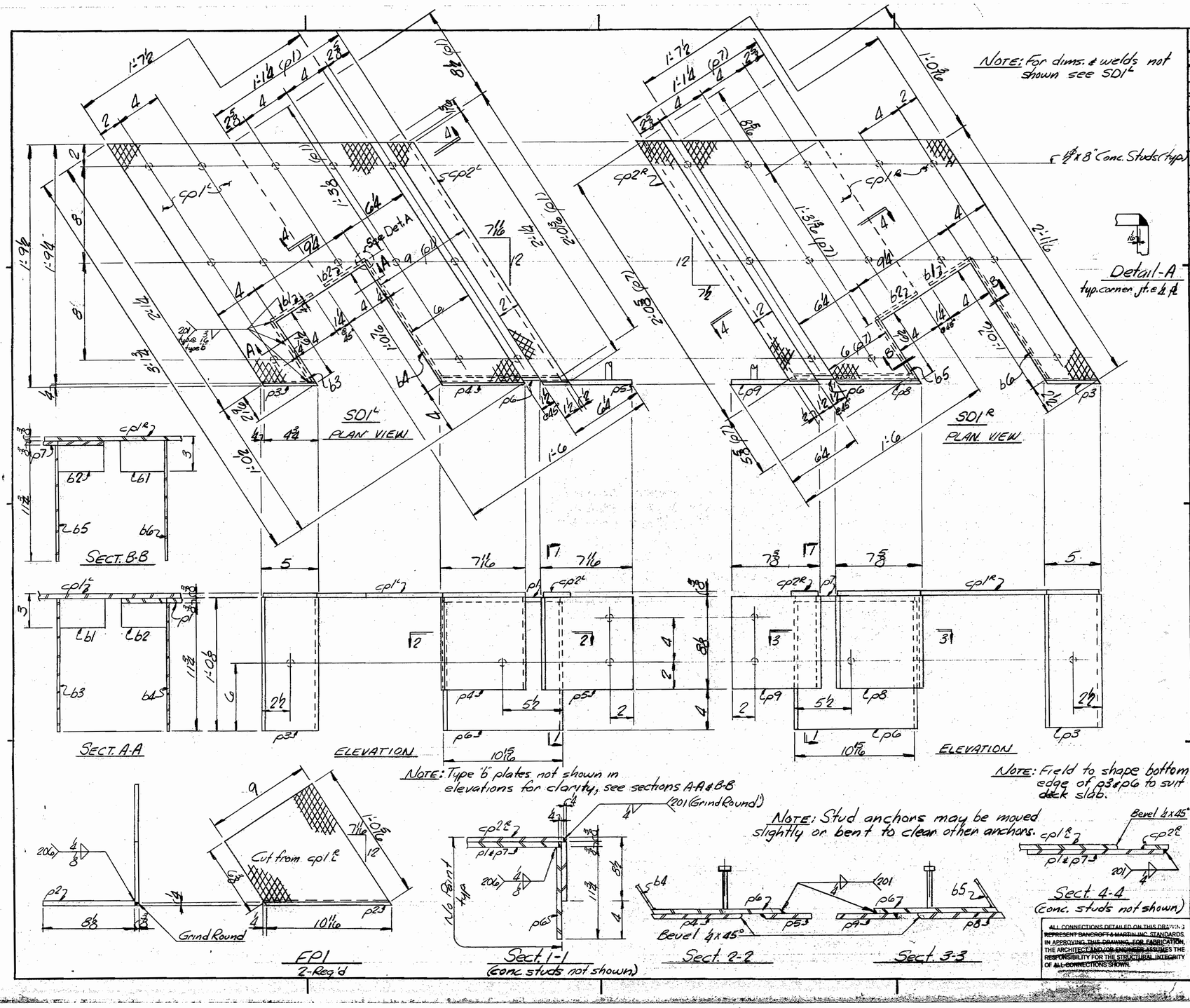
[redacted]

[redacted]


40'-3 3/8 (Slope Dim.) face to face of curb at abut. backwall
6 spaces @ 6'-0" = 36'-0 (14=shipping devices-sd1) (See section below)
40 Spaces @ 1'-0 (alternate) = 40'-0 (21 b7's, 20 b8's)
EAST
EDI one Req'd. @ Abut. #2
4 Spaces @ 9'-0 1/4 = 36'-1 (5-Adjustment Devices) (See section below)
40'-3 1/16 curb to curb (Slope Dim.)
40'-10 5/8 (Slope Dim.)
r2, r1 (AS400) Steel Extrusions
See Det. A
41'-0 3/8 (r1) (Slope Dim.)
41'-4 1/4 (Slope Dim.)
Vertical - Typ @ adjustment devices
Face of curb
Notes @ Steel Extrusions: 1. All edges and surfaces in contact with seal at butts to be ground smooth.
2. Seal shall be installed in one continuous piece with an approved lubricant-adhesive.
3. Steel extrusions, r2's shall be welded to r1 before welding r1 to angle.
Tack Weld each side typ.
Typ. Sect. @ Shipping Devices 14-sd1
Note: Anchor studs b7, b8 may be adjusted or eliminated when interfering with adjustment device.
r1 & r2 (AS400) Steel Extrusion
Acmaseal - AS400
Typ. Section
No paint
No paint
Bolt for shipment w/ 3/4 Φ x 2 1/4 H.S. Bolt
Slotted Holes
Sect. @ Adjustment Device
Extent of weld
Detail - A (r1 to r2 butt)
B.O.M. & General Notes on 57-3
APP. 6/5/78
EXPANSION DEVICE @ ABUT #2
PRINT DIST.
Bancroft & Martin Inc.
South Portland, Maine 04106
JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE
CUSTOMER: SHOALS INC.
DESIGNER: MAINE DOT (BRIDGE DIV.)
ORDER NO.
JOB NO. 578-21
DRAWING NO.
REV.
CHECKED
DRAWN



35'-8 5/16 (Slope Dim.) face to face of curb at abut. backwall
5 spaces @ 6'-0± = 30'-0 (12 shipping devices-sd1) (See section below)
36 Spaces @ 1'-0 (alternate) = 36'-0 (19 b7's, 18 b8's)
WEST
ED2 one REQ'D. @ Abut. #1
3 Spaces @ 9'-0 1/4 = 27'-0 3/4 (5 Adjustment Devices) (See section below)
35'-8 5/16 curb to curb (Slope Dim.)
36'-2 3/4 (Slope Dim.)
r2 r3 (AS400) Steel Extrusions
See Det. A
36'-5 (r3) (Slope Dim.)
36'-9 1/8 (Slope Dim.)
Vertical - Typ @ adjustment devices
Notes @ Steel Extrusions: 1. All edges and surfaces in contact with seal at butts to be ground smooth.
2. Seal shall be installed in one continuous piece with an approved lubricant-adhesive.
3. Steel extrusions, r2's shall be welded to r3 before welding r3 to angle.
1 3/16 x 2 1/2 Slotted Holes (Bolt for shipment w/ 3/4 ⌀ x 2 1/4 H.S. Bolts)
Tack Weld each side typ.
Typ. Sect. @ Shipping Devices 12-sd1
Note: Anchor studs b7 & b8 may be adjusted or eliminated when interfering with adjustment device.
1/4 @ 45° Acmaseal - AS400
r3 & r2 (AS400) Steel Extrusion
Typ. SECTION
No paint
1 3/16 x 2 1/2 Slotted Holes
Bolt for shipment w/ 3/4 ⌀ x 2 1/4 H.S. Bolt
Sect. @ Adjustment Device
Detail - A
(@ r3 to r2 butt)
B.O.M. & General Notes on S7-3
APP. 6/5/78
EXPANSION DEVICE @ ABUT #1
PRINT DIST.
Bancroft & Martin Inc.
South Portland, Maine 04106
JOB: CUTTS ROAD OTTER I-95 KITTERY, MAINE
CUSTOMER: SHOALS INC.
DESIGNER
ORDER NO.
JOB NO.
DRAWING NO.
S78-21
CHECKED
DRAWN 5/4/78 MGP



SHIP MARK	NO.	MARK	SHAPE	LENGTH	WT.	ITEM NO.		REMARKS
SD1L	1		Shop Assy		—			
SD1R	1		Shop Assy		—			
FP1	1		PL 3/8 x 9	1 0 5/16		1/M		Chkd R (Cut from cpl2L)
	1	cpl2L	PL 3/8 x 19 1/2	3 1 3/8		1/M		Chkd R
	1	cp2L	Bar 2x3/8	2 2 7/16		1/N		Chkd R
	1	p1	PL 3/8 x 13 1/4	2 9 7/16		1/O		
	2	p2	PL 3/8 x 8 1/2	0 10 5/16		1/V		
	2	p3	Bar 5x3/8	1 0 1/2		1/R		
	1	p4	Bar 7 1/16x3/8	0 8 1/2		1/P		
	1	p5	Bar 7 1/16x3/8	0 8 1/2		1/S		
	2	p6	PL 3/8 x 10 5/16	0 11 1/2		1/Q		
	1	p7	PL 3/8 x 13 1/4	2 6 1/4		1/O		
	1	p8	Bar 7 5/8x3/8	0 8 1/2		1/S		
	1	p9	Bar 7 3/8x3/8	0 8 1/2		1/P		
	2	b1	Bar 2 3/4x1/4	0 4 5/16		1/U		
	2	b2	Bar 2 1/4x1/4	0 4 5/16		1/U		
	1	b3	Bar 6x1/4	1 0 1/2		1/T		
	1	b4	PL 1/4x11 1/2	1 0 1/2		1/T		
	1	b5	Bar 6x1/4	0 11 1/2		1/T		
	1	b6	PL 1/4x12 1/2	1 0 15/16		1/T		
	34	shop	3/4 Conc. Studs	0 8		1/Z		
B.O.M. for dwgs. 57-1 & 57-2								
ED1	1		Shop Assy		—			
ED2	1		Shop Assy		—			
	10	a1	L4x4x3/8	0 11 1/2		1/F		
	2	a2	Do	41 4 1/4		1/C		
	2	a3	L4x4x3/8	36 9 1/2		1/B		
	80	b7	3/4 Conc. Stud	0 8		1/D		Bent
	76	b8	3/4 Conc. Studs	0 8		1/D		
	8	b9	Bar 4x3/8	0 9 1/2		1/E		
	10	b10	Bar 3x1/2	1 1		1/G		
	2	n1	Steel Extrusion	41 0 1/8				
	8	n2	Do	0 9 1/4				
	2	n3	Steel Extrusion	36 5		1/H		Req# 7836
	1	shop	AS 400 Adhesive	41 0 t		1/L		@ ED1
	1	shop	AS 400 Adhesive	40 0 t				@ ED2
	26	sd1	Bar 5x3/8	0 9		1/L		
	26	shop	3/4" H.S.B.H	0 2				A325 Type 1
	10	shop	3/4" H.S.B.H	0 2 1/2		1/N		Do
	36	shop	3/4" H.S. Washer			1/K		A325 Type 1
	1	cpl1R	PL 3/8 x 19 1/2	3 1 1/4		1/M		Chkd R
	1	cp2R	Bar 2x3/8	2 2 5/16		1/N		Chkd R

IT. NO. 520.20 | BR. NO. | PROJ. NO. I-95-1(29)

FOR APPROVAL | X **FOR FILES & FIELD** X

STEEL: ASTM. ✓ A36 | A572 GR | A588 GR | ✓ Unless Noted
WELDING ELECTRODE: E70 | ✓ See Welding Proc. | None
SHOP CONN: ✓ Bolted | ✓ Welded | None
FIELD CONN: ✓ Bolted | ✓ Welded | None
HOLES: 13/16 | 15/16 | Unless Noted | None | As Noted
PAINT: None | Shopcoat | Galv. After Fab. | ✓ As Noted
SPECIAL PAINT: Basic Lead Silico Chromate (Orange)
SPECIAL CLEANING: ✓ Blast Clean | None | SSPC-SP6

SIDEWALK DAMS @ ABUT. NO. 1

APPROVED: 6/15/78
PRINT DIST.

2p	5/18/78	APP.
3p	6/12/78	FAB.
4p	6/12/78	F&F.
1p	5/18/78	Shoals
2s	6/12/78	Shop

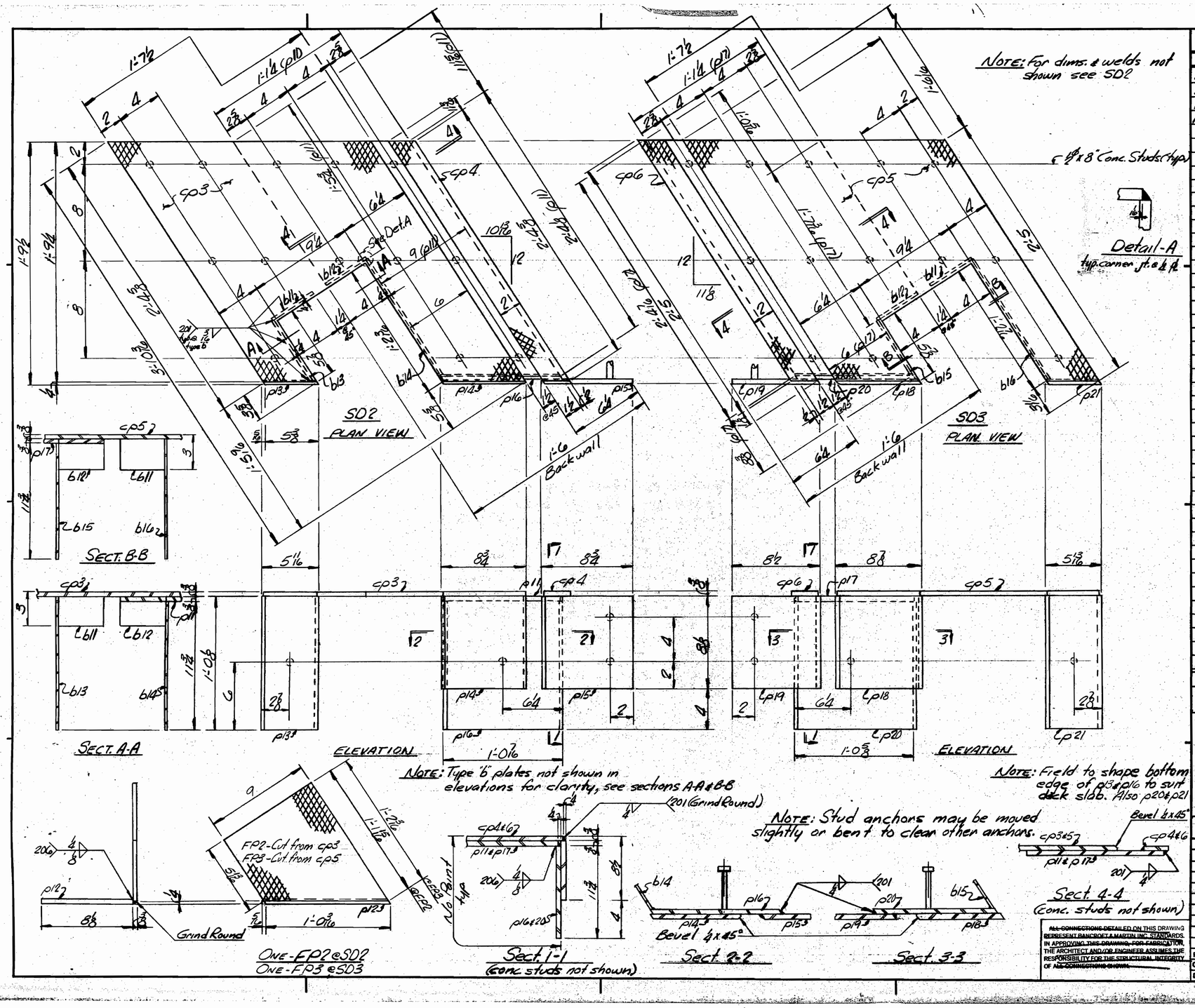
Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. OF TRANS.

			ORDER NO.	JOB NO.	DRAWING NO.	REV.
REV. △				S 78-21	57-3	△
CHECKED		RJM				
DRAWN	5/17/78	MGP				

160-1



NOTE: For dims. & welds not shown see SD2

NOTE: Type "b" plates not shown in elevations for clarity, see sections A-A & B-B

NOTE: Stud anchors may be moved slightly or bent to clear other anchors.

NOTE: Field to shape bottom edge of p13 & p16 to suit deck slab. Also p20 & p21

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.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	ITEM NO.		REMARKS
SD2	1		Shop Assy			—			
SD3	1		Shop Assy			—			
FP2	1		PL 3/8 x 9	1	1 3/16		1/W		Ch'ld PL Cut from cp3
FP3	1		PL 3/8 x 9	1	2 7/16		1/W		Ch'ld PL Cut from cp5
	1	cp3	PL 3/8 x 19 1/2	3	10 7/16		1/W		Ch'ld PL
	1	cp4	Bar 2 x 3/8	2	6 1/16		1/X		Do
	1	cp5	PL 3/8 x 19 1/2	3	11 1/16		1/W		Do
	1	cp6	Bar 2 x 3/8	2	6 3/8		1/X		Ch'ld PL
	1	p11	PL 3/8 x 13 1/4	3	4 1/16		1/Y		
	2	p12	PL 3/8 x 8 3/8	1	0 3/8		1/V		
	1	p13	Bar 5 1/2 x 3/8	1	0 3/8		1/R		
	1	p14	PL 3/8 x 8 3/8	0	8 3/8		1/P		
	1	p15	PL 3/8 x 8 3/8	0	8 3/8		1/P		
	1	p16	PL 3/8 x 11 3/4	1	0 1/16		1/Q		
	1	p17	PL 3/8 x 13 1/4	3	0 13/16		1/Y		
	1	p18	PL 3/8 x 8 3/8	0	8 3/8		1/S		
	1	p19	PL 3/8 x 8 3/8	0	8 3/8		1/S		
	1	p20	PL 3/8 x 11 3/4	1	0 3/8		1/Q		
	1	p21	Bar 5 1/2 x 3/8	1	0 3/8		1/R		
	2	b11	Bar 2 3/4 x 1/4	0	4 7/16		1/U		
	2	b12	Bar 2 1/4 x 1/4	0	4 7/16		1/U		
	1	b13	Bar 5 1/2 x 1/4	1	0 1/8		1/T		
	1	b14	PL 1/4 x 11 3/4	1	2 1/4		1/T		
	1	b15	Bar 5 1/2 x 1/4	0	11 3/4		1/T		
	1	b16	PL 1/4 x 12 1/8	1	3		1/T		
	34	shop	1/2 Conc. Studs	0	8		1/2		

JOB NO. S78-21 | DRAWING NO. 57-4 | REV. △

IT. NO. 520.20 | BR. NO. | PROJ. NO. I-95-1(29)

FOR APPROVAL | X **FOR FILES & FIELD** X

STEEL: ASTM. ☑ A36 | A572 GR | A588 GR | Unless Noted
WELDING ELECTRODE: E70 ☑ See Welding Proc. | None
SHOP CONN: Bolted | ☑ Welded | None
FIELD CONN: Bolted | Welded | ☑ None
HOLES: 13/16 | 15/16 | Unless Noted | ☑ None
PAINT: None | Shopcoat | Galv. After Fab. | ☑ As Noted
SPECIAL PAINT: Basic Lead Silico Chromate (Orange)
SPECIAL CLEANING: ☑ Blast Clean | None SSPC-SP6

SIDEWALK DAMS @ ABUT. No. 2

APPROVED: 6/5/78

PRINT DIST.		
2p	5/18/78	APP.
3p	6/12/78	FAB.
2p	6/13/78	F&F.
1p	5/18/78	Shop
2s	6/13/78	Stats
REV. △		
CHECKED		RGM
DRAWN	5/18/78	MAF

Bancroft & Martin Inc.
South Portland, Maine 04106

JOB: CUTTS ROAD OVER I-95
KITTERY, MAINE

CUSTOMER: SHOALS INC.
DESIGNER: MAINE DEPT. OF TRANS.

ORDER NO.	JOB NO.	DRAWING NO.	REV.
	S78-21	57-4	△

160-2

F.H.W.A. REGN. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)3	1	2

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

CUTTS ROAD BRIDGE
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

PROJECT NO. I-95-1(29)3
LENGTH OF PROJECT
CUTTS ROAD 0.603 MILES
I-95 0.000 MILES
CONTRACT III

CONVENTIONAL SIGNS

COUNTY LINES
TOWN LINES
PROPERTY LINES
R/W LINES - EXISTING
R/W LINES - NEW - ACCESS CONTROL
R/W LINES - NEW - NO ACCESS CONTROL
CULVERT - EXISTING
CULVERT - PROPOSED
CURBING - EXISTING
CURBING - PROPOSED
TRAVELLED WAY - EXISTING
TRAVELLED WAY - PROPOSED
UNDERGROUND UTILITIES - EXISTING
UNDERGROUND UTILITIES - PROPOSED
RAILROAD - SINGLE TRACK
RAILROAD - DOUBLE TRACK
UTILITY POLE - EXISTING
UTILITY POLE - JOINT OCCUPANCY
PROPOSED UTILITY POLE - TEMPORARY
PROPOSED UTILITY POLE - PERMANENT
TREES (hardwood, softwood)
WOODS

SPECIFICATIONS

DESIGN ___ AASHTO Standard Specifications for Highway Bridges 1973 and interim Specifications 1974 1975, 1976, and 1977.

CONTRACT __ State of Maine, State Highway Commission Standard Specifications, Highways and Bridges Revision of June 1968.

DESIGN LOADING

LIVE LOADING _____ HS 20-44

MATERIALS

CONCRETE ___ Wearing Surface, End Posts and Curbs Class AA; All other Class A
REINFORCING STEEL _____ ASTM A615 __ Grade 60
STRUCTURAL STEEL _____ ASTM A572; ASTM A36
HIGH STRENGTH BOLTS _____ ASTM A325

BASIC ALLOWABLE STRESSES

CONCRETE _____ f_c = 1,200 psi _____ n=10
REINFORCING STEEL _____ f_s = 24,000 psi
STRUCTURAL STEEL __ ASTM A572 f_s = 27,000 psi
ASTM A36 f_s = 20,000 psi
HIGH STRENGTH BOLTS __ ASTM A325 f_v = 13,500 psi

INDEX OF SHEETS

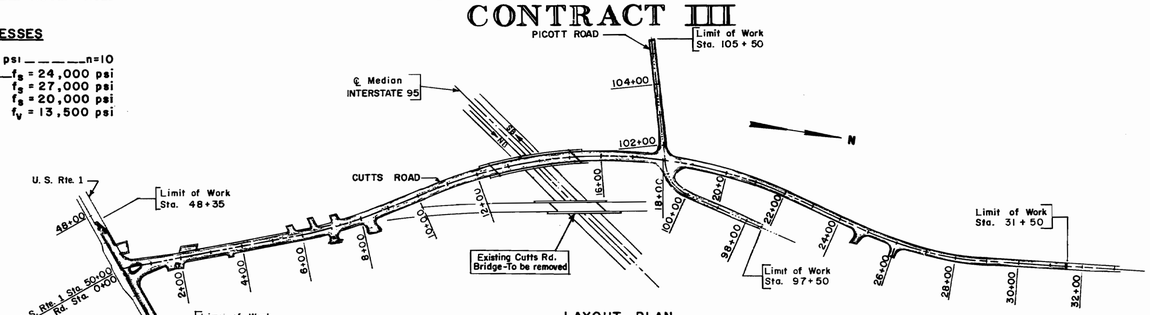
TITLE SHEET - 1
TOTAL ESTIMATED QUANTITIES - - - - - - - - - - - - - - - - - - 2
CUTTS ROAD BRIDGE PLANS - - - - - - - - - - - - - - - - - - 3-29
CUTTS ROAD HIGHWAY PLANS AND CONSTRUCTION SIGNING - - - 30-64
HIGHWAY STANDARDS - 65-73
BRIDGE STANDARDS - 74-77
RIGHT OF WAY MAPS - 78-82

HIGHWAY STARDARDS

CATCH BASINS AND MANHOLES - - - - - - - - AUG.1969 (1)
UNDERDRAIN AND INLET GRATE - - - - - - - AUG.1969 (2)
CURB - AUG.1969 (3)
CULVERT INLETS AND OUTLETS - - - - - - - AUG.1969 (4)
GUARD RAIL - - - - - - - - - - - - - - - - AUG.1969 (5)
GUARD RAIL - - - - - - - - - - - - - - - - AUG.1969 (6)
GUARD RAIL - - - - - - - - - - - - - - - - AUG.1969 (9)
BARRICADES AND MONUMENTS - - - - - - - AUG.1969 (11)
FIELD OFFICES - - - - - - - - - - - - - - AUG.1969 (12)

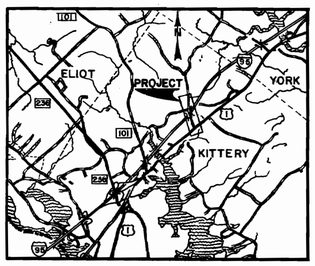
BRIDGE STANDARDS

BEARING PEDESTALS - - - - - - - APRIL 1974 BD101-74
DRAINS AND SHEAR CONNECTORS - - - FEB. 1977 BD104-77
DIAPHRAGMS AND CROSSFRAMES - - - SEPT. 1972 BD113-72
ALUMINUM BRIDGE RAILING - - - - - DEC. 1977 BD114-77



LAYOUT PLAN

100 0 100 200 300
Scale of Feet



LOCATION MAP

1 0 1 2
Scale of Miles

TRAFFIC DATA

A.D.T.	1976	630
A.D.T.	1996	1230
D.H.V.		148
T. (%)		5
D. (%)		60
V.		40
P.S.D. (%)		
18 KIPS		16

NOTE:
ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (REVISION OF JUNE 1968) AND SUPPLEMENTS THERETO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISSIONER — DATE FEB.24,1978

CHIEF ENGINEER AND BUREAU DIRECTOR — FEB.24,1978

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR — DATE

164-81

S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)	2	82

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.13	Removing Single Trees, 9" to 24", Tops Only	28	Each
201.14	Removing Single Trees, over 24" to 48" Tops Only	11	Each
201.19	Removing Stumps, 9" to 24"	6	Each
201.20	Removing Stumps, over 24" to 48"	2	Each
202.19	Removal of Existing Bridge	1	L.S.
203.20	Common Excavation	17500	C.Y.
203.24	Common Borrow	3300	C.Y.
203.25	Granular Borrow	3380	C.Y.
206.061	Str. Earth Excavation - Drainage & Minor Strs. (Below grade)	200	C.Y.
206.08	Str. Earth Excavation - Abutments & Retaining Walls	125	C.Y.
206.10	Str. Earth Excavation - Piers	125	C.Y.
304.10	Aggregate Subbase Course - Gravel	11,600	C.Y.
403.10	Hot Bituminous Pavement, Grading D	360	Ton
403.07	Hot Bituminous Pavement, Grading B	1,625	Ton
403.08	Hot Bituminous Pavement, Grading C	885	Ton
403.101	Hot Bituminous Pavement, Grading D (Sidewalks, Drs. Etc.)	145	Ton
410.161	Cover Coat Material, Sand (Leveling)	130	C.Y.
501.214	Steel H-beam Piles 53 lbs./ft.	1180	L.F.
502.21	Structural Concrete, Abutments & Retaining Walls	496	C.Y.
502.23	Structural Concrete, Piers	137	C.Y.
502.26	Str. Conc., Roadway & Sidewalk Slabs on Steel Bridges	1	L.S.
502.29	Str. Conc., Wearing Surface on Bridges	1	L.S.
502.31	Structural Concrete, Approach Slabs	1	L.S.
503.12	Reinforcing Steel, Fab. & Delivered	96,210	Lbs.
503.13	Reinforcing Steel, Placing	96,210	Lbs.
504.71	Structural Steel, Erection	1	L.S.
505.08	Shear Connectors	1	L.S.
506.14	Field Painting, Structural Steel	1	L.S.
507.141	Aluminum Bridge Railing, Type "A"	634	L.F.
512.07	French Drains (Stones Only)	25	C.Y.
513.11	Slope Protection - Granite Block	454	S.Y.
514.06	Curing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	1120	S.Y.
520.20	Expansion Device	1	L.S.
603.152	12 Inch Bit. Coated Corr. Metal Pipe	52	L.F.
603.159	12 Inch Culvert Pipe, Option III	130	L.F.
603.168	15 Inch Culvert Pipe, Option II	66	L.F.
603.169	15 Inch Culvert Pipe, Option III	240	L.F.
603.175	18 Inch Reinforced Concrete Pipe Class III	156	L.F.
603.1752	18 Inch Reinforced Concrete Pipe Class IV	96	L.F.
603.178	18 Inch Culvert Pipe, Option II	40	L.F.
603.185	24 Inch Reinforced Concrete Pipe Class III	56	L.F.
604.092	Catch Basins, Type B1-C	8	Each
604.241	Catch Basin, Type F-C	1	Each
605.09	6 Inch Underdrain Type "B"	850	L.F.
605.11	12 Inch Underdrain Type "C"	340	L.F.
605.12	15 Inch Underdrain Type "C"	374	L.F.
606.26	Terminal Ends - Single Rail	6	Each
606.28	Single Posts - Type Ia	2	Each
606.35	Guard Rail Delineator Posts	10	Each
606.55	Guard Rail Type 3 - Single Rail	1713	L.F.
606.60	Guard Rail Type 3 Circular - Greater than 10 foot Radius	340	L.F.
609.13	Vertical Bridge Curb - Type 1	644	L.F.
609.31	Curb Type 3	2,450	L.F.
609.34	Curb Type 5	160	L.F.
609.35	Curb - Circular - Type 5	20	L.F.
610.09	Hand Laid Riprap	3	C.Y.
612.06	Bituminous Hand Sealing - Black	295	S.Y.
615.07	Loam	1000	C.Y.
616.08	Sodding	550	S.Y.
617.09	Erosion Control Mesh	150	S.Y.
618.13	Seeding, Method Number 1	32	Unit
618.14	Seeding, Method Number 2	110	Unit

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
618.15	Temporary Seeding	47	Lb.
618.16	Crown Vetch Seed	6	Lb.
619.12	Mulch	248	Unit
623.06	Right-of-Way Monuments	20	Each
623.07	Survey Monuments	3	Each
624.06	Project Markers	2	Each
629.05	Labor, Straight Time	50	M.Hr.
	Traffic Officers	160	M.Hr.
631.10	Air Compressor (including operator)	5	Hour
631.11	Air Tool (including operator)	10	Hour
631.12	All Purpose Excavator (including operator)	10	Hour
631.13	Bulldozer (including operator)	10	Hour
631.14	Grader (including operator)	5	Hour
631.171	Truck - small (including operator)	5	Hour
631.18	Chain Saw Rental (including operator)	5	Hour
631.22	Front End Loader including operator	5	Hour
632.08	Warning Lights	4	Grp.
637.07	Sprinkling	160	M.G.
637.08	Calcium Chloride	16	Ton
639.08	Field Office, Type A	1	Each
639.11	Testing Facilities, Soils	1	L.S.
639.12	Testing Facilities, Bituminous Mixes	1	L.S.
652.25	Maintenance of Traffic	1	L.S.
656.50	Baled Hay, in place	9	Each
656.51	Sandbags, in place	9	Each
656.55	Dumped Stone	50	C.Y.
656.60	Temporary Berms	6,300	L.F.
656.62	Temporary Slope Drains	100	L.F.
657.201	Seed and Application, Method A	106	Unit
658.20	Acrylic Latex Color Finish, Green	145	S.Y.
659.10	Mobilization	1	L.S.
660.21	On-The-Job Training (Bid)	1000	M.H.

SUMMARY OF EXCAVATION AND BORROW

NOTE: Estimate of Lump Sum Items is on Sheet # 3 of 27

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

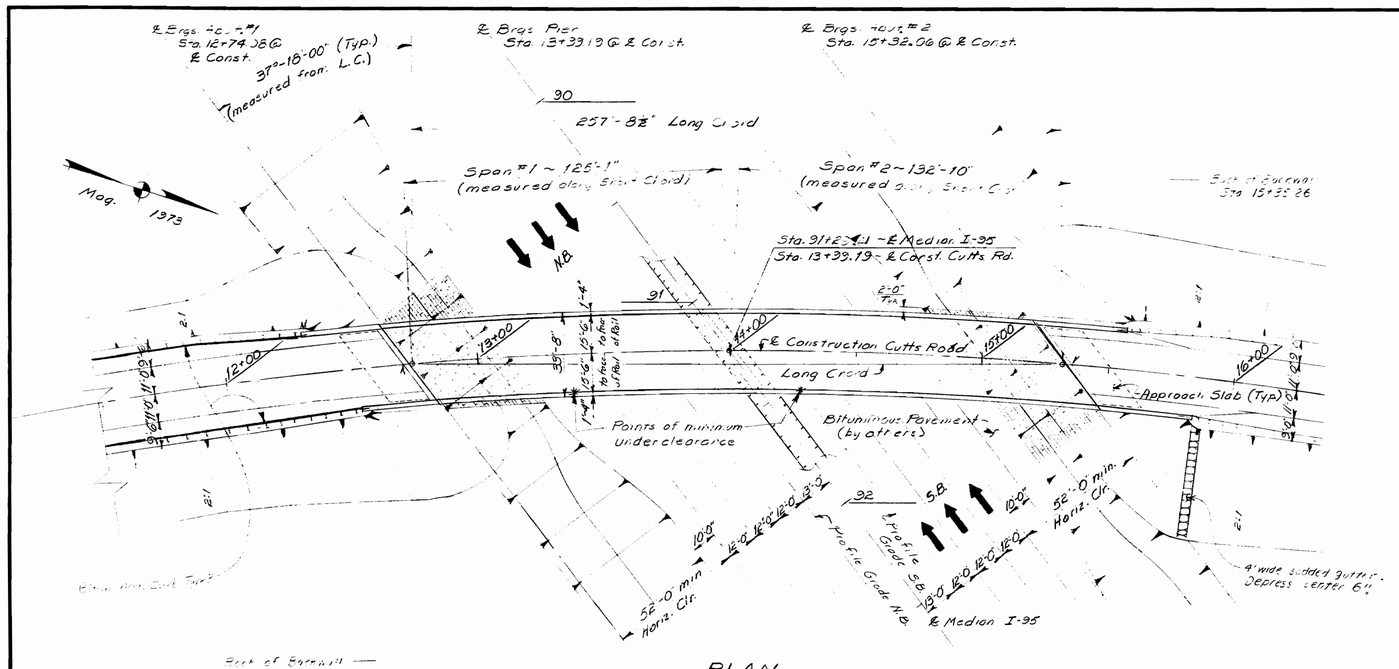
CUTTS ROAD BRIDGE
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

TOTAL ESTIMATED QUANTITIES

AUGUSTA, MAINE Feb. 1978

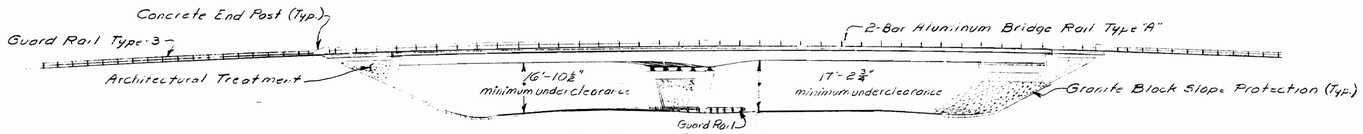
164-82

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	[illegible]	3	32



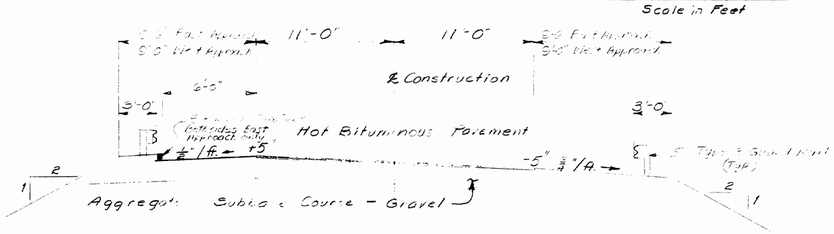
PLAN

25 0 25 50
Scale in Feet

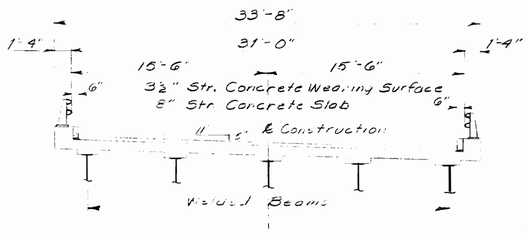


ELEVATION

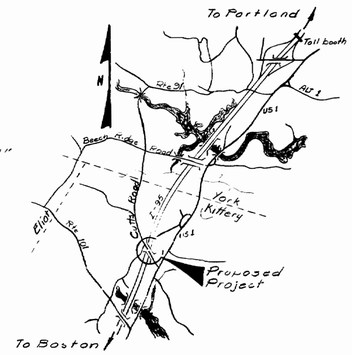
25 0 25 50
Scale in Feet



TYPICAL APPROACH SECTION



TYPICAL BRIDGE SECTION



LOCATION MAP

1 0 1 2
Scale in Miles

INDEX TO BRIDGE PLANS

Description	Sheet Number (Refer to right of this sheet)
General Plan	1
Index, etc.	2
Plan and Bridge Estimate Summary	3
Footing and Pile Details	4
Footings – Reinforcing Steel	5
Footing Sections	6
Abutment #1	7
Abutment #1 – Wing Details	8
Abutment #2	9
Abutment #2 – Wing Details	10
End Bent	11
Pier #1	12
Slab Reinforcing	13
Architectural Treatment	14
Slab	15
Parapet Slab	16
Guard Rail and Slope Details	17
Expansion Detail and Curbing Section	18
Sign Support Details	19
Staging	20
Superstructure	21
Superstructure Details	22
Reinforcing Steel	23, 24
Foundation Survey	25
Boring Details	26, 27

SPECIFICATIONS

DESIGN: AASHTO Specifications for Highway Bridges 1973 and Interims 1974, 1975, 1976 and 1977.

CONSTRUCTION: State of Maine, State Highway Commission Standard Specifications, Highways and Bridges, Revisions of June 1966.

Design Loading

Live Load HS 20-44

Materials

CONCRETE — Wearing Surface, Curbs, Footings and Pedestals, Abutments, Wings, Pier, Pedestals, Superstructure — Class A1; Parapet — Class A

REINFORCING STEEL — ASTM A615, Grade 60

STRUCTURAL STEEL — ASTM A572, Grade 50; ASTM A36

HIGH STRENGTH BOLTS — ASTM A325, Type 1

Basic Allowable Stresses

CONCRETE — fc = 1,200 psi — ASTM

REINFORCING STEEL — fs = 24,000 psi

STRUCTURAL STEEL — ASTM A572 — fs = 27,000 psi; ASTM A36 — fs = 20,000 psi

HIGH STRENGTH BOLTS — ASTM A325 — fv = 12,500 psi

Traffic Data

	Cutts Road
1976 AADT	= 620
1996 AADT	= 220
DHV	= 148
18 Kip	= 16

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN-DETAILED	[illegible]	9-77
CHECKED	JCF	11-77
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

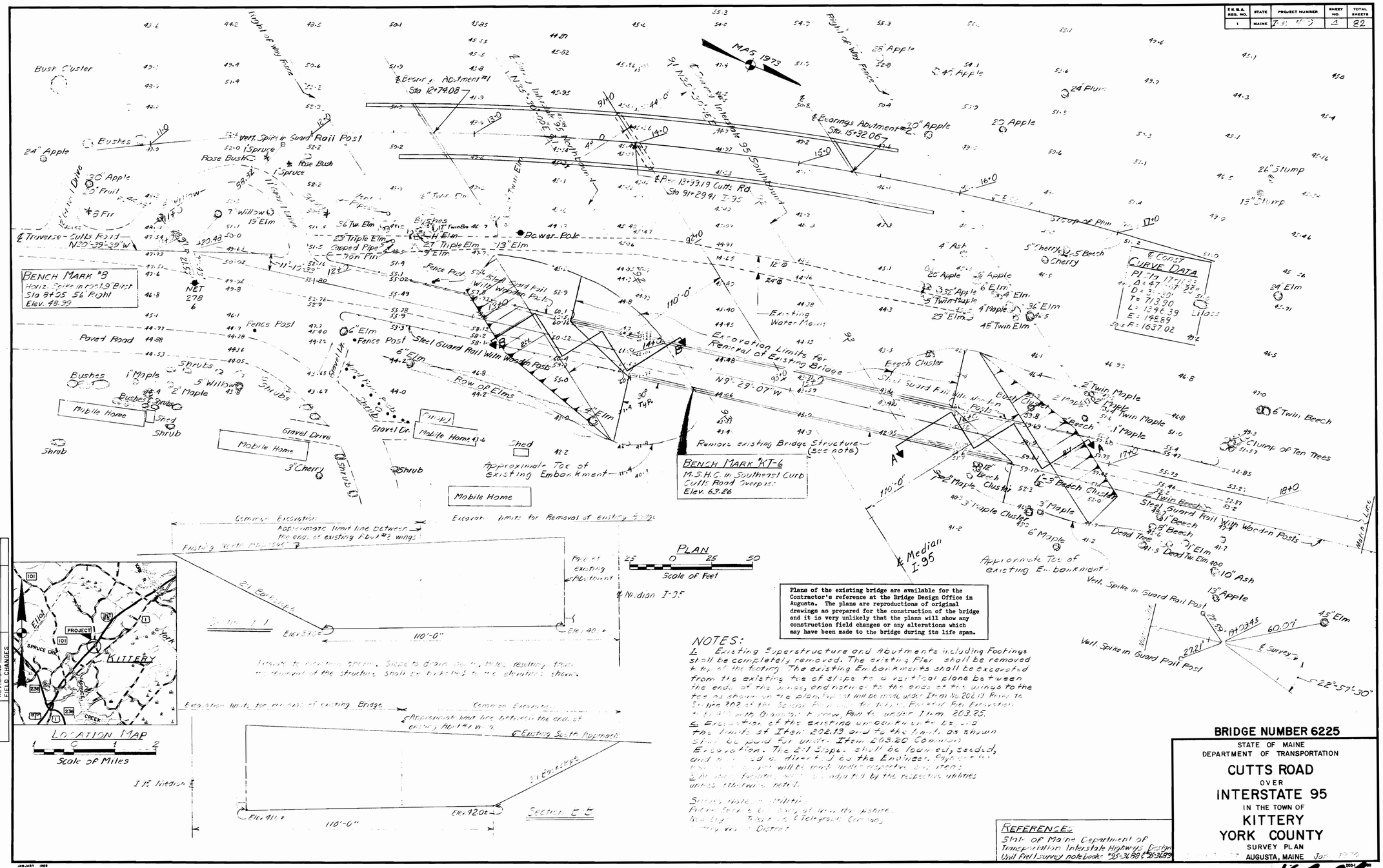
CUTTS ROAD OVER INTERSTATE 95 IN THE TOWN OF KITTERY YORK COUNTY

GENERAL PLAN

SHEET 1 OF 2 AUGUSTA, MAINE FEB. 1978

164-83

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	[illegible]	4	82



NOTES:

1. Existing Superstructure and Abutments including Footings shall be completely removed. The existing Pier shall be removed to top of the footing. The existing Embankments shall be excavated from the existing toe of slope to a vertical plane between the ends of the wings, and normal to the ends of the wings to the toe as shown on the plan. Payment will be made under Item No. 202.13 Removal of Structure 202 of the Special Provisions. The holes, Backfill, Pier Excavation and all work, including trench, Paid for under Item 203.25.
2. Excavation of the existing embankment to be done to the limits of Item 202.13 and to the limits as shown shall be paid for under Item 203.20 Common Excavation. The 2:1 Slopes shall be loam and seeded, and maintained as directed by the Engineer. Payment for loam and seed will be made under respective pay items.
3. Existing Utilities shall be adjusted by the respective utilities unless otherwise noted.

Survey Notes on Utilities
Interior Telephone Co. Div. of New Hampshire.
Kittery Water Dept. Kittery Electric & Telegraph Company
Kittery Water District

BRIDGE NUMBER 6225

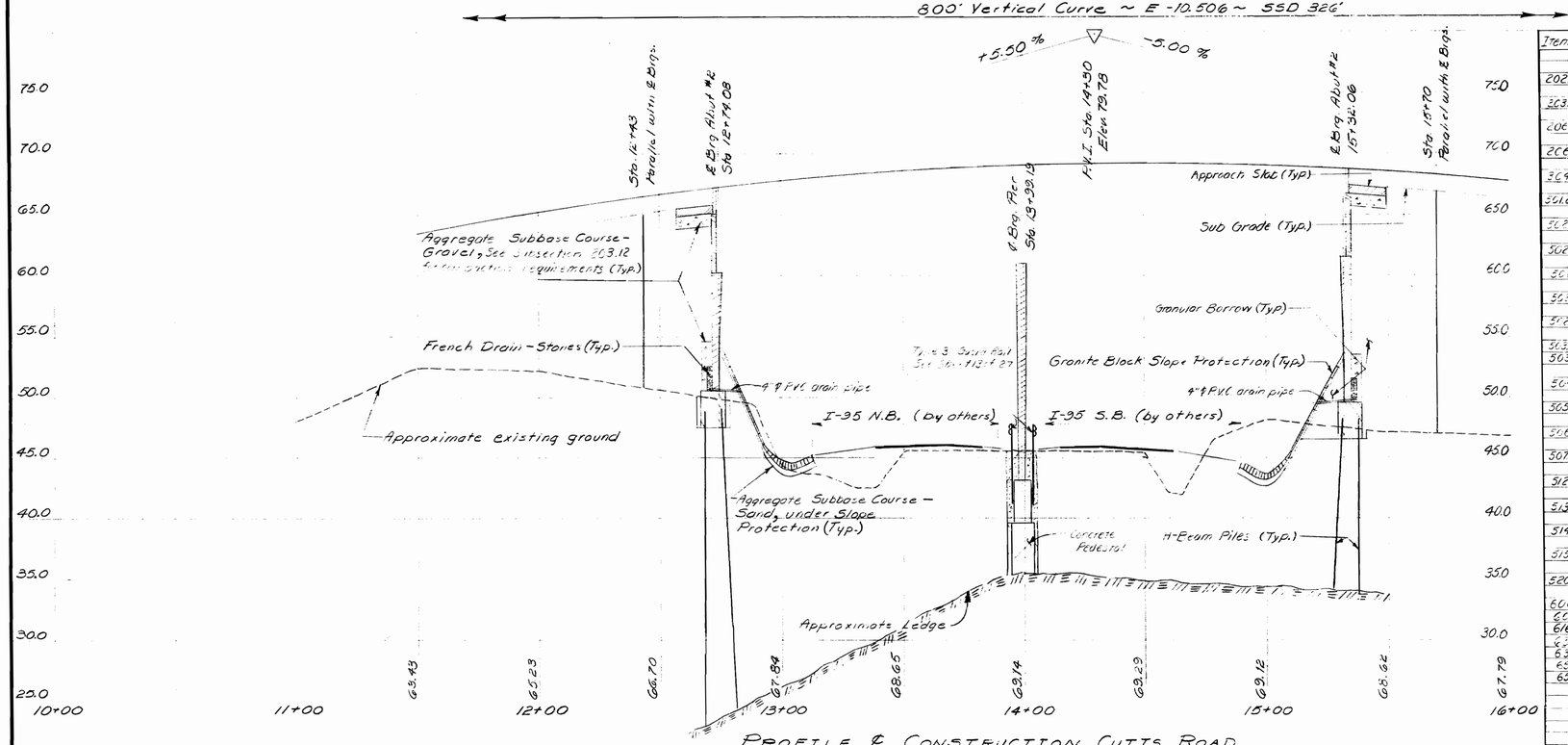
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD OVER INTERSTATE 95

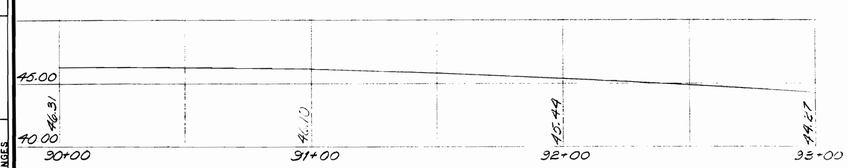
IN THE TOWN OF
KITTERY
YORK COUNTY
SURVEY PLAN
AUGUSTA, MAINE JAN. 1976

164-84

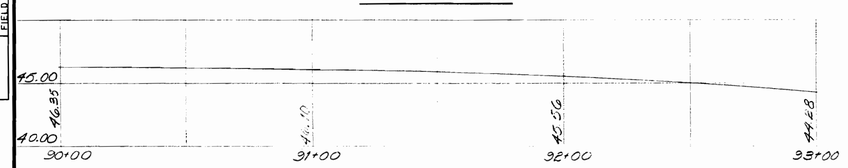
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	[illegible]	5	82



PROFILE & CONSTRUCTION CUTTS ROAD



SOUTHBOUND



NORTHBOUND

PROFILES I-95

BRIDGE ESTIMATED QUANTITIES

Item No	Description	Quantity	Unit
202.19	Removal of Existing Bridge	1	L.S.
203.25	Granular Borrow	2,380	C.Y.
206.08	Str. Earth Excav. - Abuts. and Ret. Walls	125	C.Y.
206.10	Str. Earth Excav. - Piers	150	C.Y.
309.10	Aggregate Subbase Course - Gravel	100	C.Y.
501.2.4	Steel H-Beam Piles, 53 lbs./ft.	1180	L.F.
502.21	Structural Concrete, Abuts. and Ret. Walls	496	C.Y.
502.23	Structural Concrete, Piers	137	C.Y.
502.26	Structural Concrete, Roadway and Sidewalk Slabs on Steel Bridges	1	L.S.
502.29	Structural Concrete - Wearing Surface on Bridges	1	L.S.
502.31	Structural Concrete - Approach Slabs	1	L.S.
503.12	Reinforcing Steel, Fab. and Delivered	96,210	lbs.
503.13	Reinforcing Steel, Erection	96,210	lbs.
504.71	Structural Steel, Erection	1	L.S.
505.08	Shear Connectors	1	L.S.
506.14	Field Painting, Structural Steel	1	L.S.
507.141	Aluminum Bridge Railing, Type "A"	634	L.F.
512.07	French Drains (Stones Only)	25	C.Y.
513.11	Slope Protection - Granite Block	454	S.Y.
514.06	Casing Box for Concrete Cylinders	1	Each
515.20	Protective Coating for Concrete Surfaces	1,120	S.Y.
520.20	Expansion Device	1	L.S.
606.55	Guard Rail Type 3 - Single Rail	63	L.F.
609.13	Vertical Bridge Curb, Type 1	644	L.F.
616.08	Sodding	20	S.Y.
631.2	Front End Loader, including operator	5	Hour
634.06	Field Office Type A	0.5	Month
652.55	Maintenance of Traffic	1	L.S.
659.10	Mobilization	0.5	L.S.

ESTIMATE OF LUMP SUM ITEMS

ITEM 502.26 Structural Concrete, Roadway & Sidewalk Slabs on Steel Bridges 261 c.y.

ITEM 502.29 Structural Concrete, Wearing Surface on Bridges 85 c.y.

ITEM 502.31 Structural Concrete, Approach Slabs 23 c.y.

ITEM 504.71 Structural Steel, Erection 308,000 lbs.

ITEM 505.08 Shear Connectors 2,130 each ($\frac{7}{8}$" ϕ x 5" long)

ITEM 506.14 Field Painting, Structural Steel 308,000 lbs.

ITEM 520.20 Expansion Device 20 lf.

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	MMS	9-77
CHECKED	LAW	11-77
REVISIONS	JET	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD OVER INTERSTATE 95 IN THE TOWN OF KITTERY YORK COUNTY

PROFILE AND BRIDGE ESTIMATED QUANTITIES

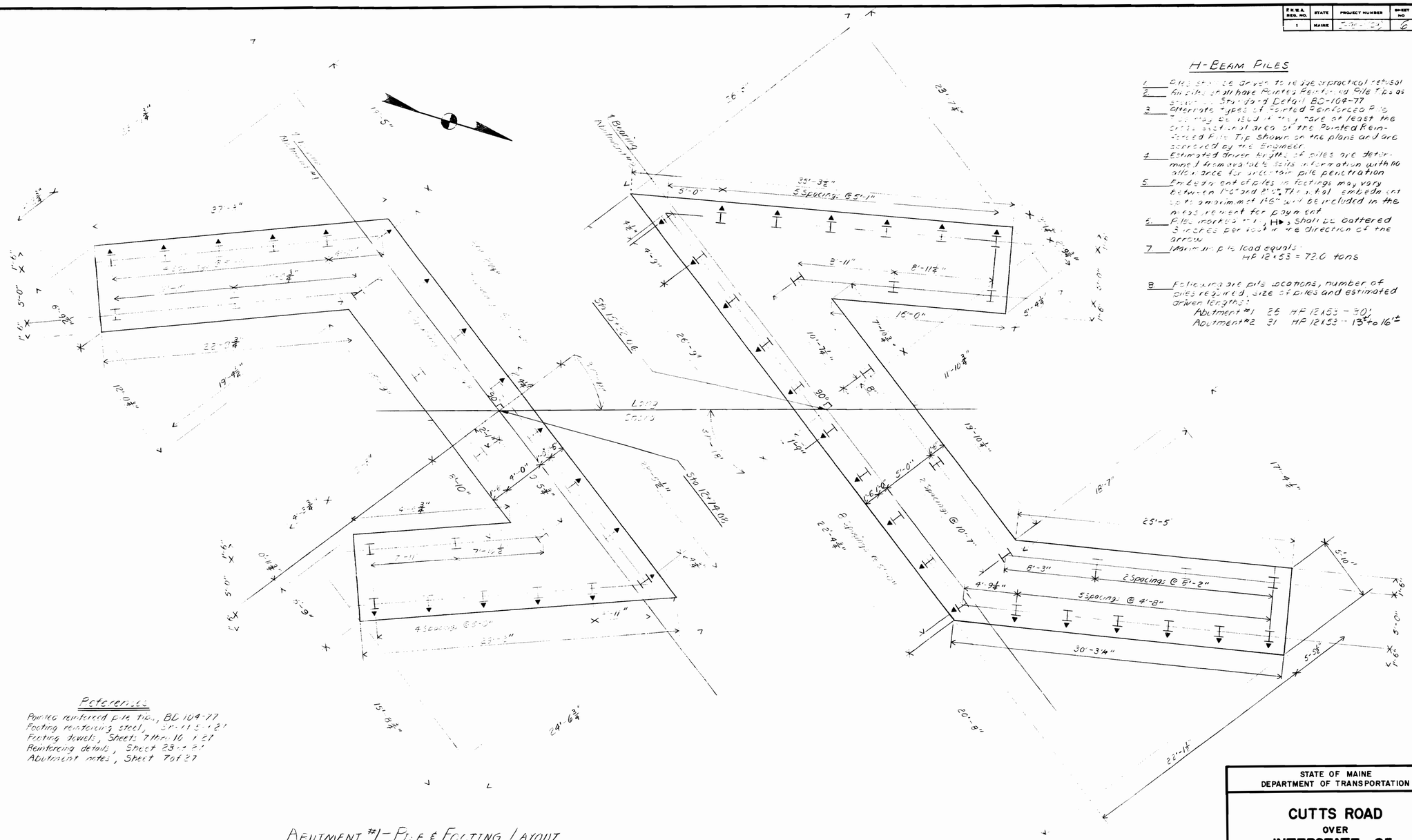
SHEET 3 OF 27 AUGUSTA, MAINE Feb 1978

164-85

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	[illegible]	6	82

H-BEAM PILES

1. Piles shall be driven to refuse or practical refusal
2. All piles shall have Pointed Reinforced Pile Tips as shown on Standard Detail BD-104-77
3. Alternate types of Pointed Reinforced Pile Tips may be used if they have at least the cross sectional area of the Pointed Reinforced Pile Tip shown on the plans and are approved by the Engineer.
4. Estimated driven lengths of piles are determined from available soils information with no allowance for uncertain pile penetration
5. Embedment of piles in footings may vary between 1'-6" and 2'-6". Thermal embedment up to a maximum of 1'-6" will be included in the measurement for payment
6. Piles marked thus, H▶, shall be battered 3 inches per foot in the direction of the arrow
7. Maximum pile load equals:
   HP 12x53 = 72.0 tons
8. Following are pile locations, number of piles required, size of piles and estimated driven lengths:
   Abutment #1 26 HP 12x53 - 30'
   Abutment #2 31 HP 12x53 - 13'± to 16'±



References

Pointed reinforced pile tips, BD 104-77
Footing reinforcing steel, Sheet 5 of 27
Footing dowels, Sheets 7 thru 16 of 27
Reinforcing details, Sheet 23 of 27
Abutment notes, Sheet 7 of 27

ABUTMENT #1 - PILE & FOOTING LAYOUT
USE HP 12X53 FOR PILES

ABUTMENT #2 - PILE & FOOTING LAYOUT
USE HP 12X53 FOR PILES

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	DEW	2-78
CHECKED		
REVISIONS		
FIELD CHANGES		

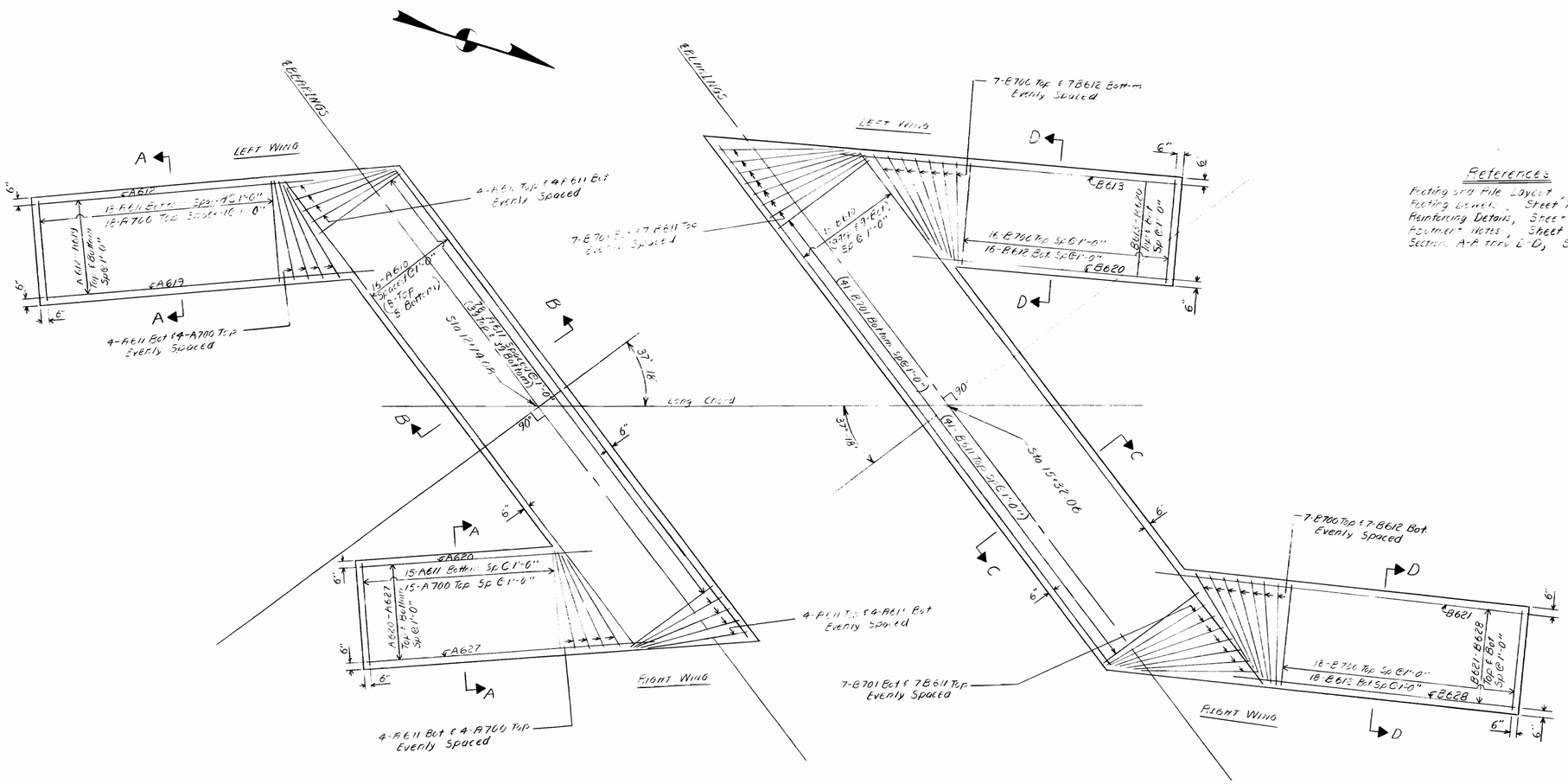
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
FOOTING AND PILE DETAILS

SHEET 4 OF 27 AUGUSTA, MAINE Feb. 1978

164-86

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	[illegible]	7	82



References

Footing and Pile Layout, Sheet 4 of 27
Footing Details, Sheet 7 thru 10 of 27
Reinforcing Details, Sheet 23 of 27
Footing Notes, Sheet 7 of 27
Sections A-A thru D-D, Sheet 6 of 27

ABUTMENT #1 FOOTING
REINFORCING STEEL LAYOUT

ABUTMENT #2 FOOTING
REINFORCING STEEL LAYOUT

PROJECT DESIGN ENGINEER Wilbur	BY	DATE
PLANS — DESIGN DETAILED	JWM	1-78
CHECKED	DEW	2-78
REVISIONS	JWM	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

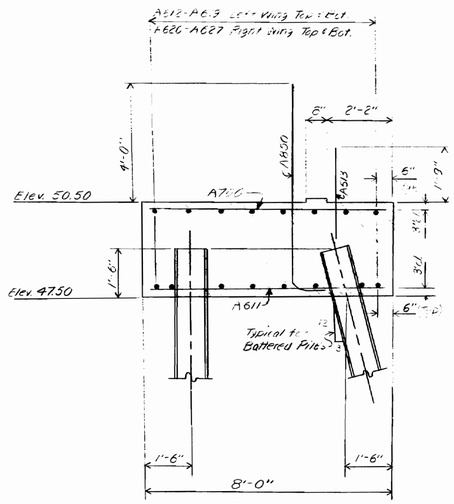
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

FOOTINGS - REINFORCING STEEL

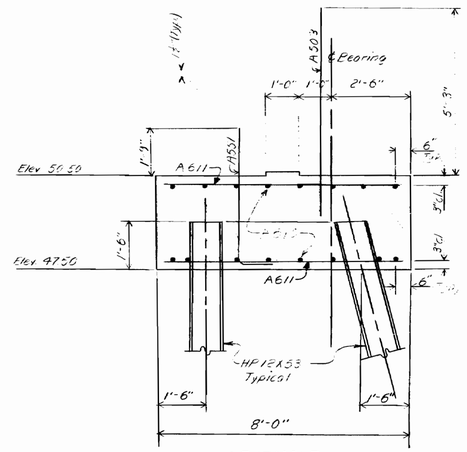
SHEET 5 OF 27 AUGUSTA, MAINE FEB. 1978

164-87

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	[illegible] 29)	8	82

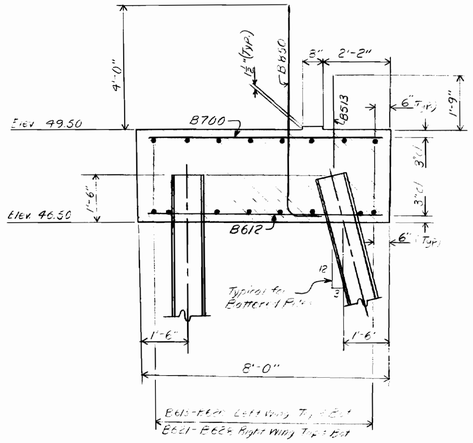


WING
SECTION A-A

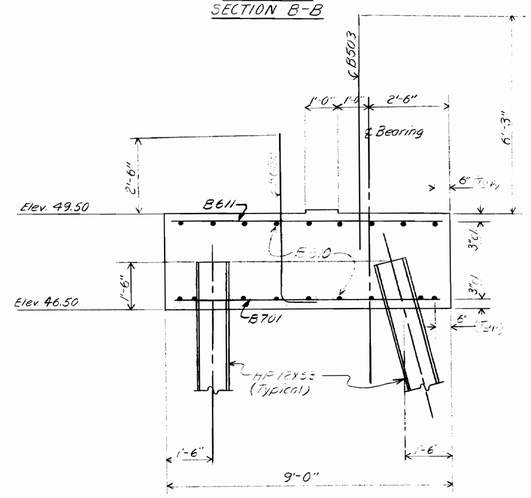


ABUTMENT
SECTION B-B

FOOTING SECTIONS
ABUTMENT #1
Referenced to Sheet 5 of 27



WING
SECTION D-D



ABUTMENT
SECTION C-C

FOOTING SECTIONS
ABUTMENT #2
Referenced to Sheet 5 of 27

References
Abutment Notes, Sheet 7 of 27
Reinforcing Steel Details, Sheet 23 of 27

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN-DETAILED	J.W.W.	1-2-78
CHECKED	DEW	2-78
REVISIONS		
FIELD CHANGES		

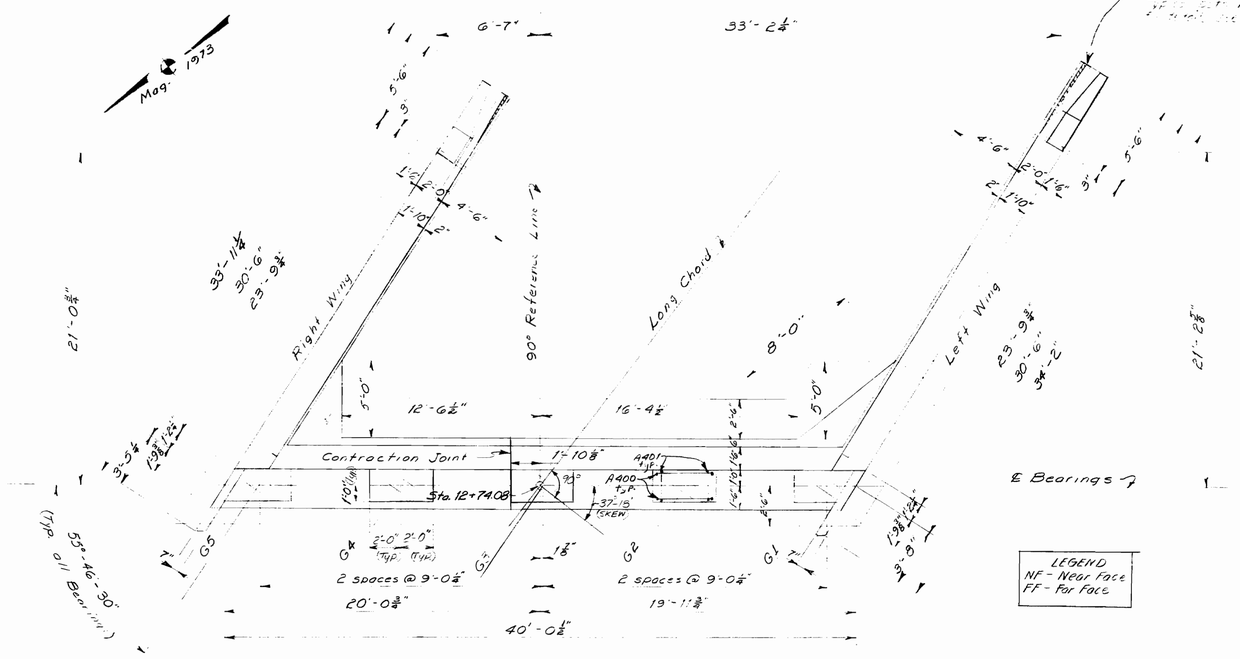
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
FOOTING SECTIONS

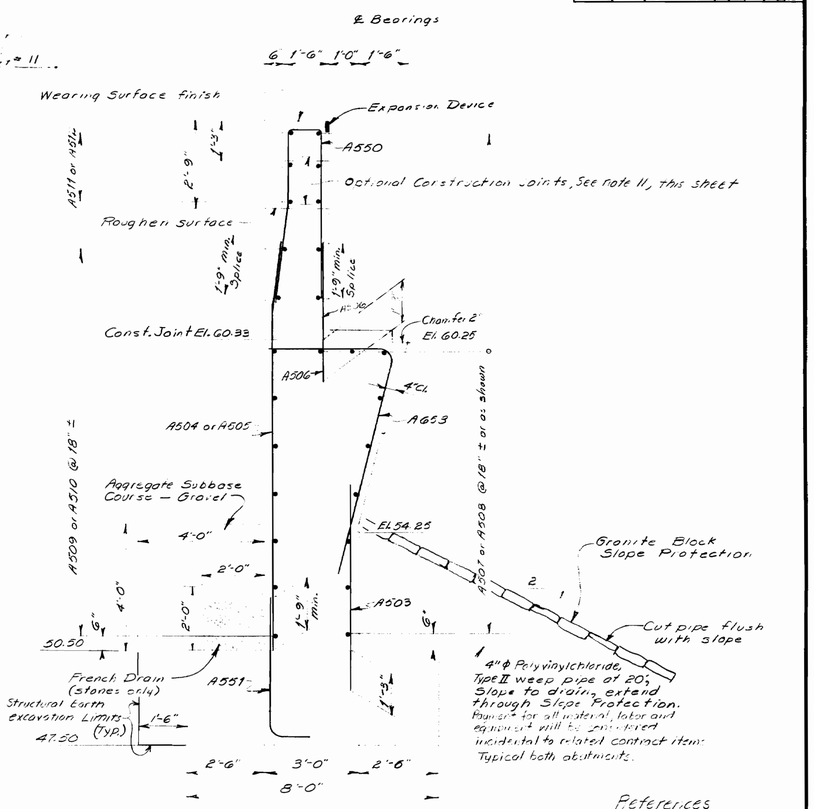
SHEET 6 OF 27 AUGUSTA, MAINE Feb. 1978

164-88

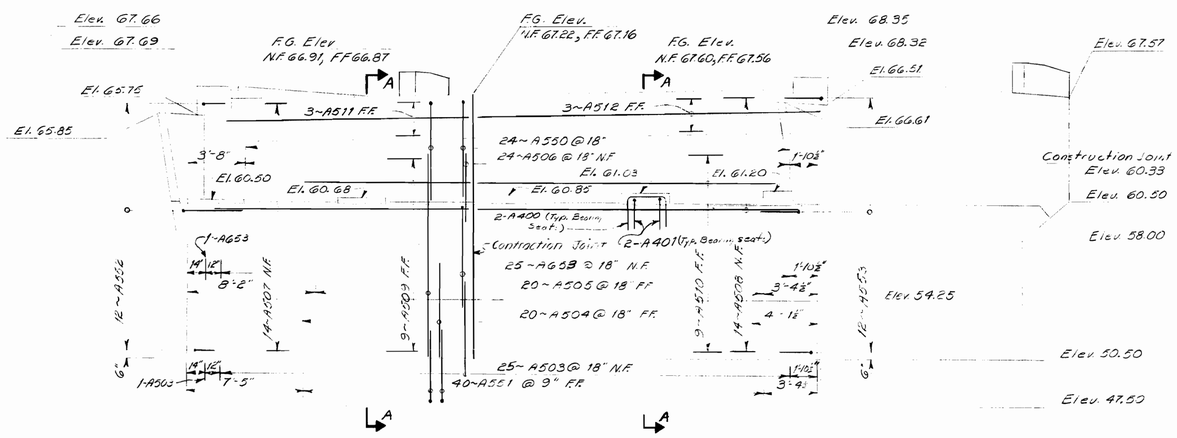
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-75-(27)	9	82



PLAN



SECTION "A" ~ "A"
(Piles & footing Reinforcing not shown)



ELEVATION

ABUTMENT NO. 1

Note: Architectural Treatment Not Shown, See Sheet 14 of 27

Abutment Notes ~

1. Chamfer all exposed edges of concrete a consistent dimension between ½" and ¾" inclusive, unless otherwise indicated.
2. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
3. Place reinforcing steel in bridge seats to clear anchor bolts.
4. Break bond at vertical contraction joints by a method approved by the engineer.
5. Polyvinylchloride waterstops as shown on Standard Details BD-104-77 shall be placed in all vertical contraction and construction joints.
6. Waterstops are required in horizontal construction joints.
7. Protective coating for concrete surfaces shall be applied to the following areas: ~ 1'-0" below finish along back of backwall and wings, top of the backwall, top of concrete curb, and all exposed surfaces of end posts.
8. Place 4" diameter drains in breastwall and wings at 20 foot maximum spacing. Exact location to be determined by the Engineer in the field.
9. Welding of reinforcing steel will be allowed in the top 2' of the abutment backwall.
10. All reinforcing steel splices not shown on the plans shall have a minimum splice as follows: ~ #5 bars - 1'-9", #6 bars - 2'-3", #7 bars - 3'-0".
11. To allow for the adjustment for movement due to dead load deflections of the superstructure, and to aid in the proper alignment of the joint armor, the concrete which anchors the portion of the joint armor in the top of the abutment backwall shall be placed after all superstructure structural slab concrete is in place, unless other methods, which will provide the proper alignment of the joint armor, are approved by the Engineer.

References

Footing & Pile Layout, Sheet 4 of 27
Footing Reinforcing Steel, Sheet 5 of 27
Wing Details, Sheet 8 of 27
Reinforcing Details, Sheet 23 of 27
Expansion Device, Sheet 21 of 27, note #9
End Post Details, Sheet 11 of 27
Slope Protection, Sheet 13 of 27
Contraction & Construction Joint Details see BD 104-77.

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	LAW	Nov 77
CHECKED	DEW	2-78
REVISIONS	LAW	
FIELD CHANGES		

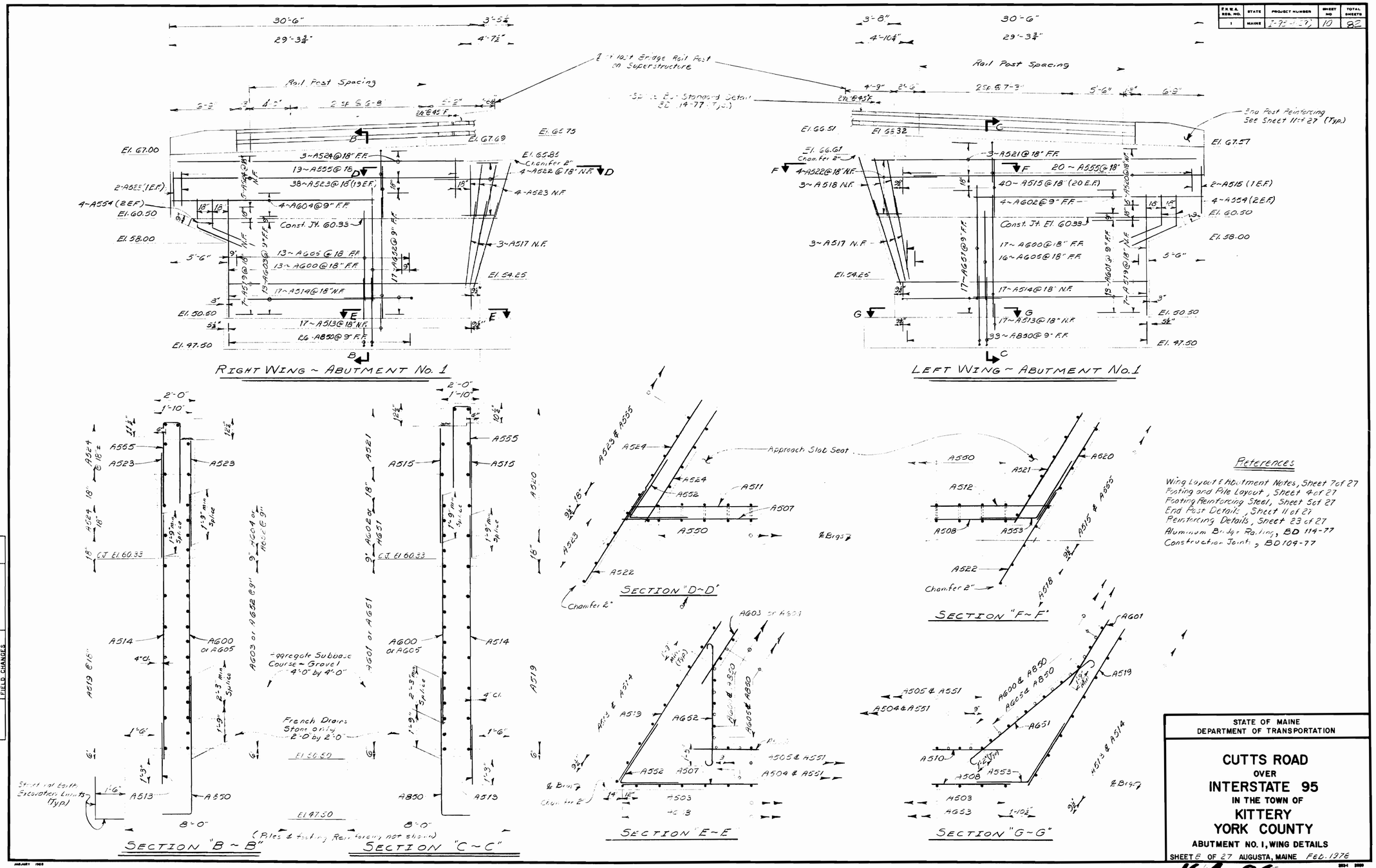
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
ABUTMENT NO. 1

SHEET 7 OF 27 AUGUSTA, MAINE Feb 1978

164-89

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1-27	10	82



References

Wing Layout & Abutment Notes, Sheet 7 of 27
Footing and Pile Layout, Sheet 4 of 27
Footing Reinforcing Steel, Sheet 5 of 27
End Post Details, Sheet 11 of 27
Reinforcing Details, Sheet 23 of 27
Aluminum Bridge Railing, BD 114-77
Construction Joints, BD 104-77

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	LAW	Dec. 77
CHECKED	DEW	2-78
REVISIONS	LAW	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

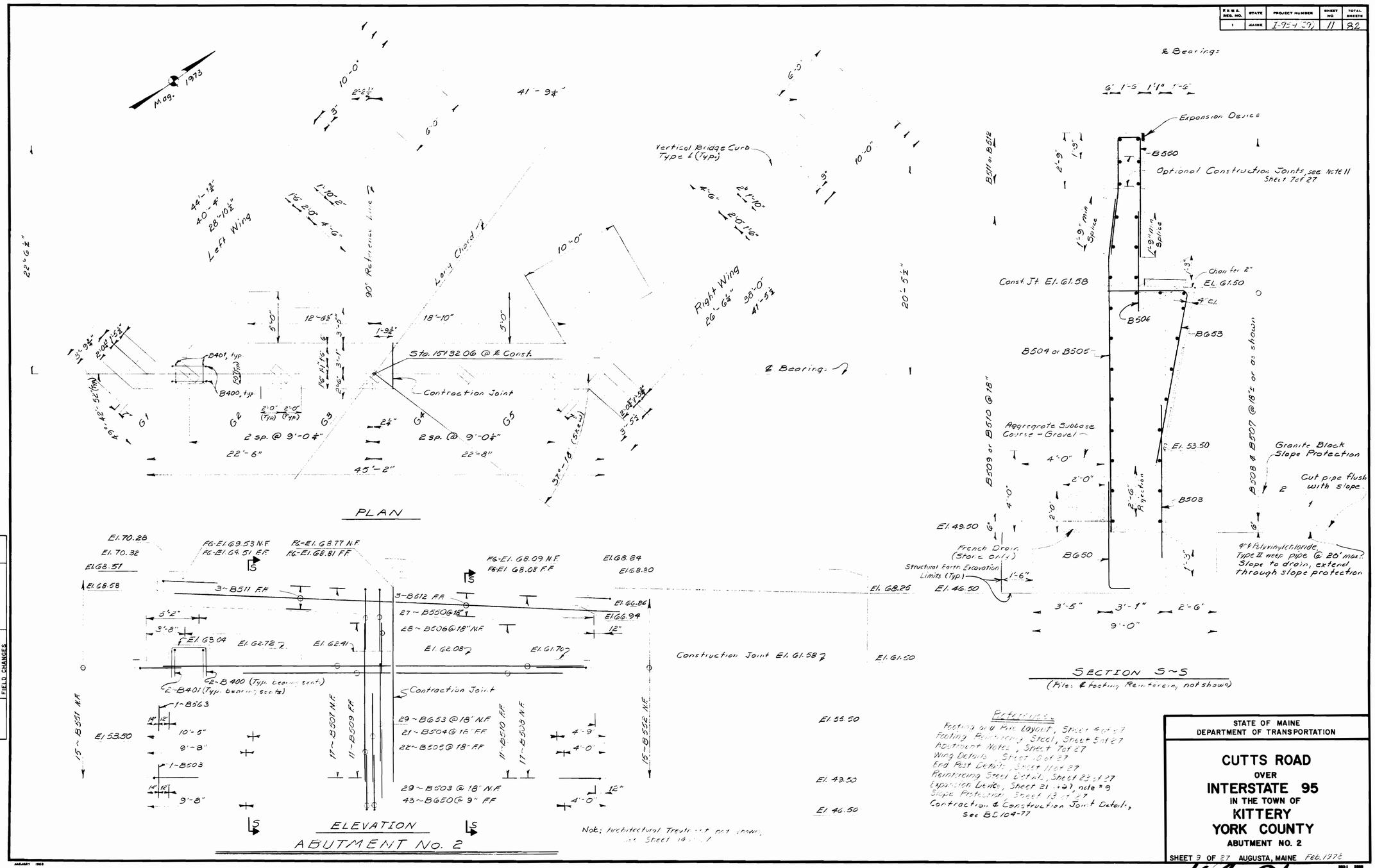
CUTTS ROAD OVER INTERSTATE 95 IN THE TOWN OF KITTERY YORK COUNTY

ABUTMENT NO. 1, WING DETAILS

SHEET 8 OF 27 AUGUSTA, MAINE Feb. 1978

164-90

F.A.H.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1 (9)	11	82



Note: Architectural Treatment not shown, see Sheet 14 of 27

References:
Footing in U Pile Layout, Sheet 4 of 27
Footing Reinforcing Steel, Sheet 5 of 27
Abutment Notes, Sheet 7 of 27
Wing Details, Sheet 10 of 27
End Post Details, Sheet 11 of 27
Reinforcing Steel Details, Sheet 23 of 27
Expansion Device, Sheet 21 of 27, note #9
Slope Protection, Sheet 13 of 27
Contraction & Construction Joint Details, See BC 104-77

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	L.A.W.	1-78
CHECKED	D.C.W.	2-78
REVISIONS	L.A.W.	
FIELD CHANGES		

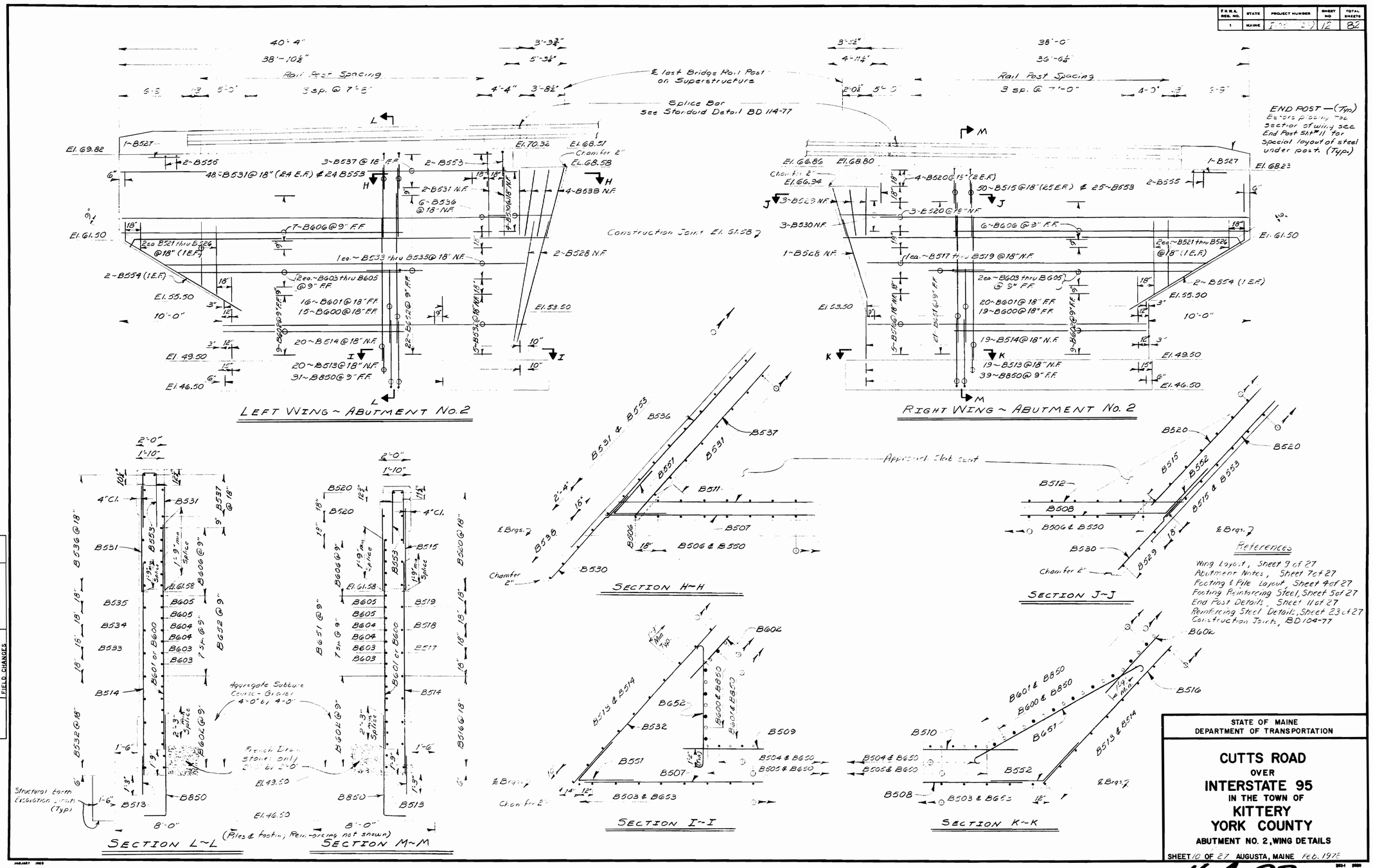
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
ABUTMENT NO. 2

SHEET 3 OF 27 AUGUSTA, MAINE Feb. 1978

164-91

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	[illegible]	12	82



References

Wing Layout, Sheet 9 of 27
Abutment Notes, Sheet 7 of 27
Footing & Pile Layout, Sheet 4 of 27
Footing Reinforcing Steel, Sheet 5 of 27
End Post Details, Sheet 11 of 27
Reinforcing Steel Details, Sheet 23 of 27
Construction Joints, BD 104-77

PROJECT DESIGN ENGINEER MWG	BY	DATE
PLANS DESIGN - DETAILED	LAW	1-78
CHECKED	DEW	2-78
REVISIONS	LAW	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

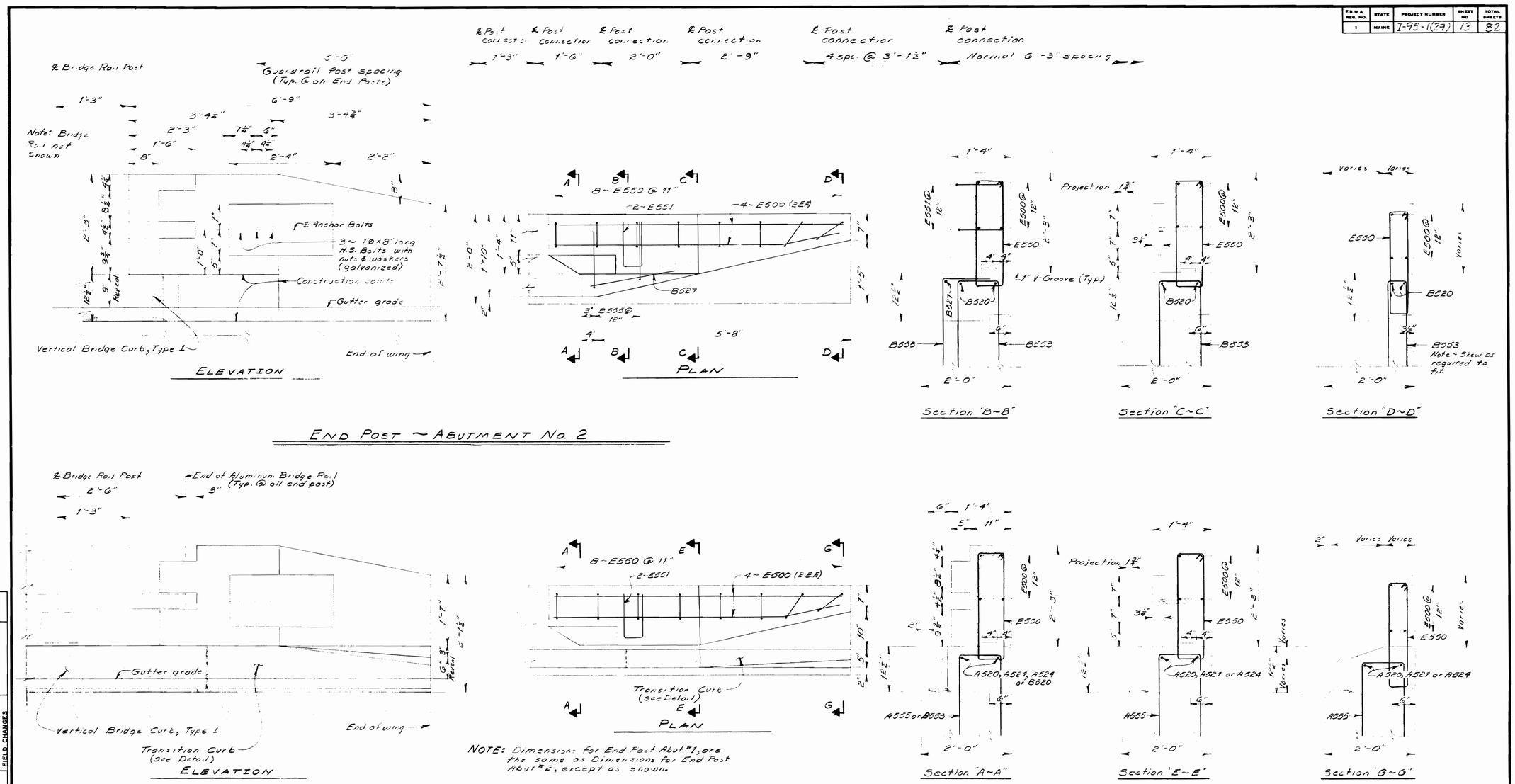
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

ABUTMENT NO. 2, WING DETAILS

SHEET 10 OF 27 AUGUSTA, MAINE Feb. 1978

164-92

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	1-95-1(29)	13	82



END POST NOTES

1.- End post concrete will be paid for under Item 502.21 Structural Concrete, Abutments and Retaining Walls.
2.- Payment for the H.S. bolts, nuts and washers shall be considered incidental to Item 502.21.
3.- The transition curb sections will be paid for under Item 609.13, Vertical Bridge Curb-Type 1. Payment for all labor and equipment required to cut the transition curb sections shall be considered incidental to Item 609.13. The transition curb sections shall conform to section 609.07 and 710.04 (f) except as shown.
4.- Chamfer all exposed edges a consistent dimension.

REFERENCES:
Location of End Post ~ shts. 7 thru 10 of 27
Reinforcing Steel schedule ~ sht. 29 of 27
Abutment Notes ~ sht. 7 of 27

PROJECT DESIGN ENGINEER MMG	BY	DATE
PLANS DESIGN-DETAILED	L.Rus	2/78
CHECKED	J.E.T.	
REVISIONS		
FIELD CHANGES		

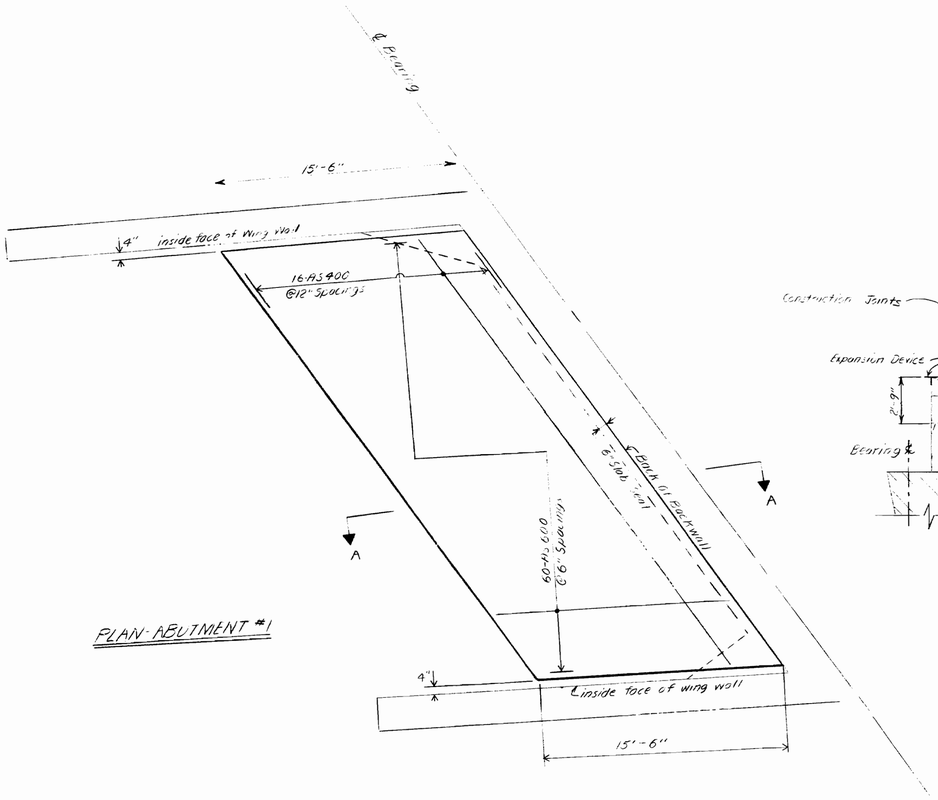
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
END POSTS

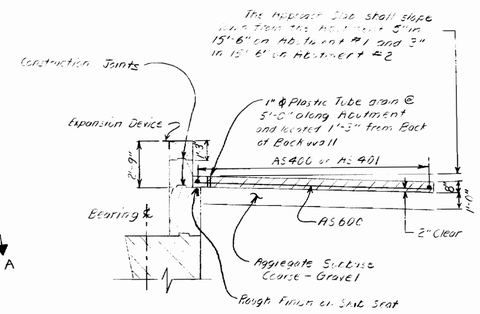
SHEET 11 OF 27 AUGUSTA, MAINE Feb. 1978

164-93

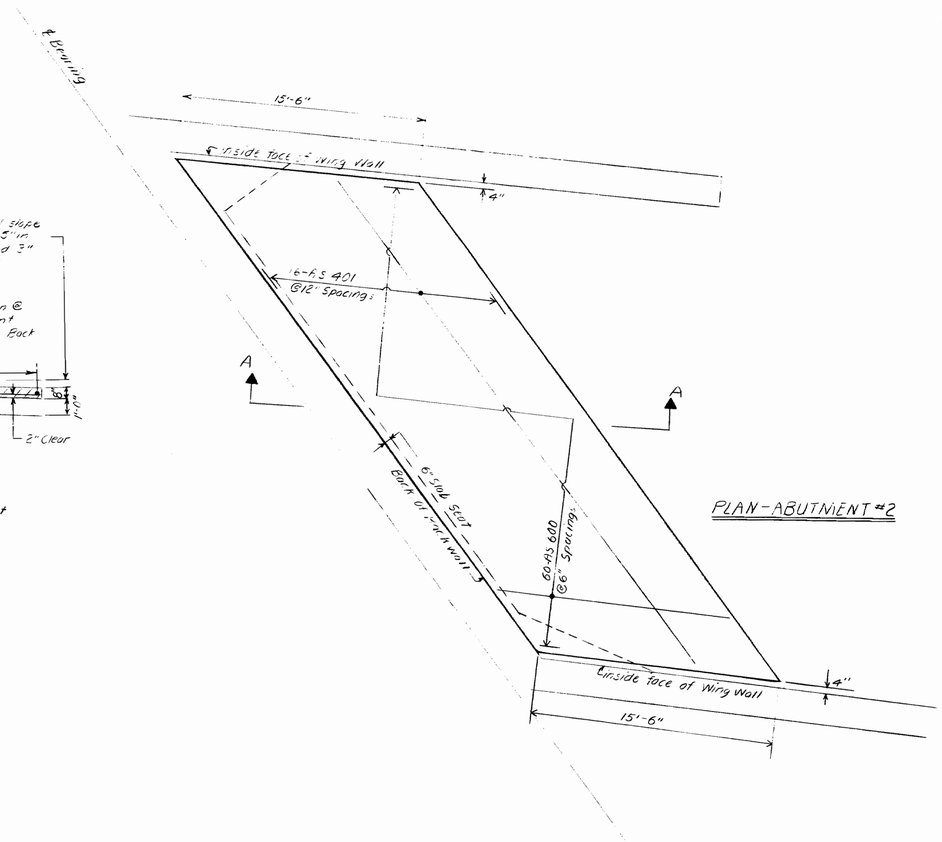
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(27)	14	82



PLAN-ABUTMENT #1



SECTION A-A



PLAN-ABUTMENT #2

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN-DETAILED	JWM	12/77
CHECKED	JEF	2/78
REVISIONS		
FIELD CHANGES		

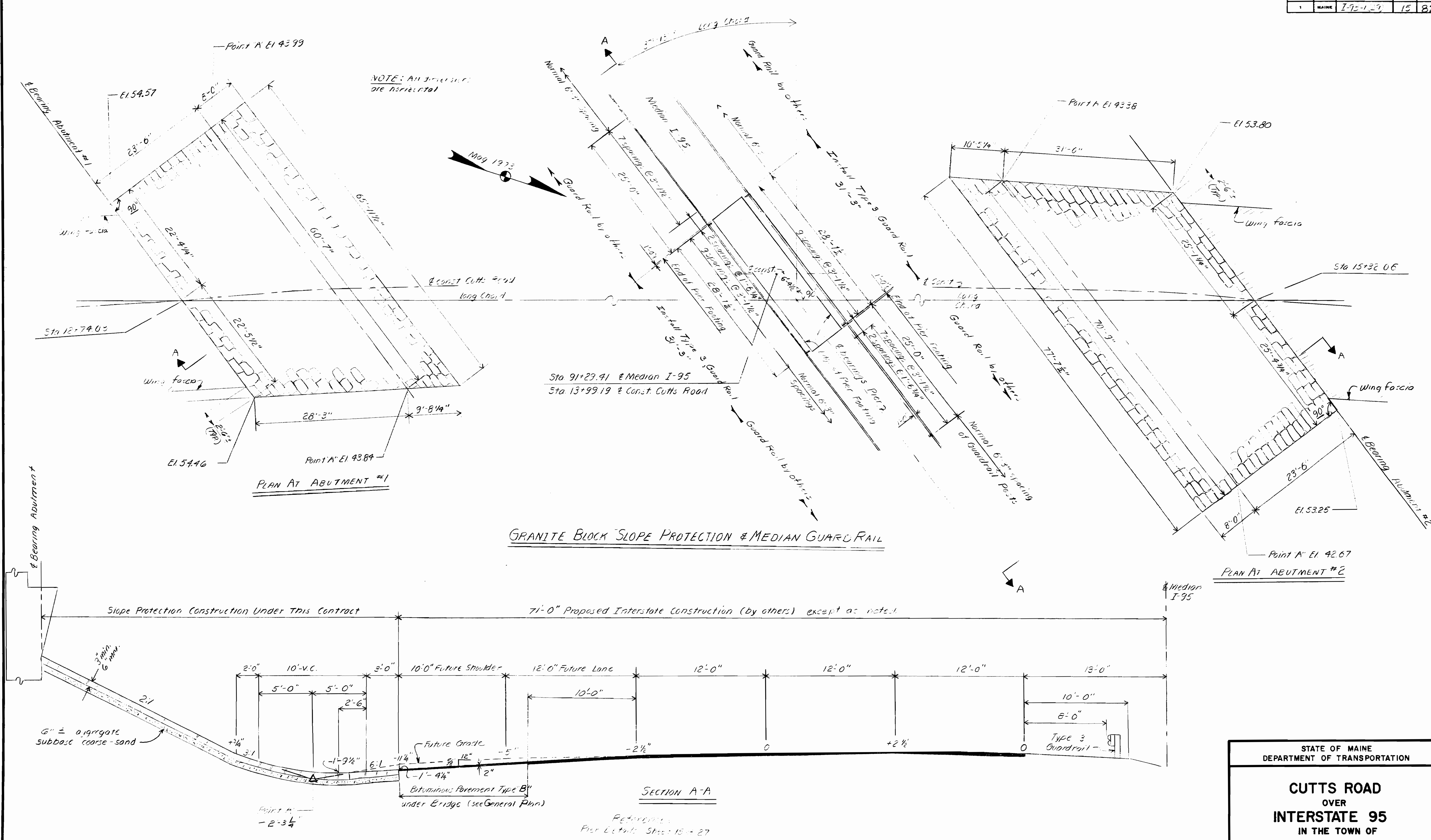
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
APPROACH SLAB

SHEET 12 OF 27 AUGUSTA, MAINE Feb. 1978

#64-94

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)	15	82



PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	JWM	12/77
CHECKED	JET	2/78
REVISIONS	JWM	
FIELD CHANGES		

JANUARY 1968

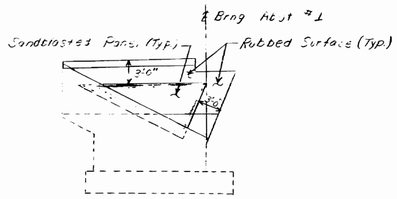
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
SLOPE PROTECTION

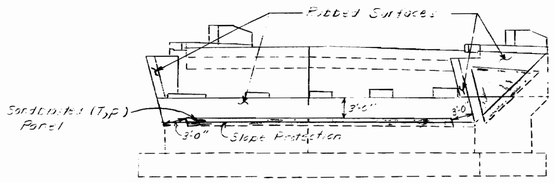
SHEET 13 OF 37 AUGUSTA, MAINE Feb. 1978

164-95

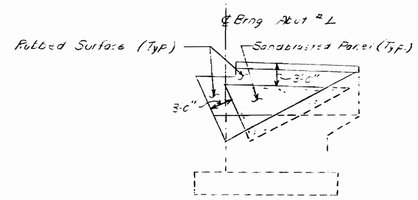
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)	16	82



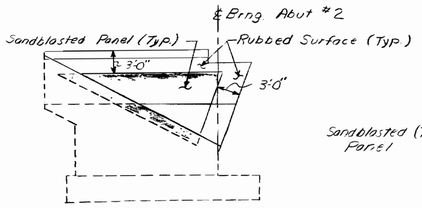
ELEVATION EAST WING



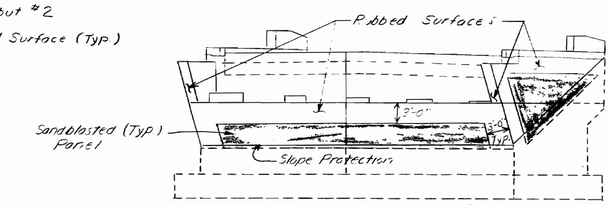
ELEVATION ABUTMENT #1



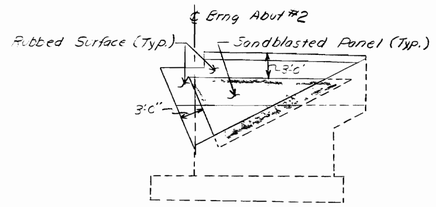
ELEVATION WEST WING



ELEVATION WEST WING



ELEVATION ABUTMENT #2



ELEVATION EAST WING

GENERAL NOTES

All surfaces so designated on the plans shall be sandblasted. These surfaces shall be carried to a minimum depth of 18 inches below finished ground.

Special care shall be exercised so that form Joints at the exposed face of concrete shall be tight

Before sandblasting, all fins and projections in the concrete shall be removed and all holes patched to create a surface of uniform texture.

In order to insure a consistent surface texture for the areas to be architecturally treated, concrete aggregate shall be from the same source and Portland cement shall be from the same manufacture throughout the entire placement of the Abutment wings and breastwalls

At the time the concrete is placed, the contractor shall cast 3 sample slabs (2'x 2'x 4").

Prior to sandblasting, the samples shall be sandblasted, each to a different degree of penetration with a maximum depth of 3/16 inch approximately, and under the direction of the Engineer. The most desirable sample will be chosen by the Engineer, and the designated areas shall be sandblasted to match this sample.

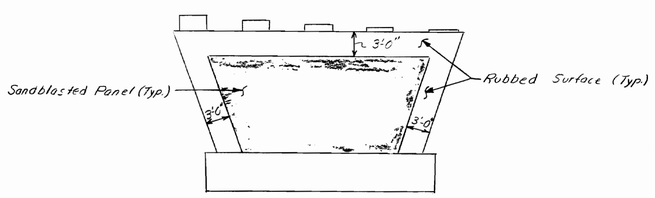
Concrete shall not be sandblasted for at least 28 days after placement.

The contractor shall take the necessary steps to protect the materials and equipment from damage by the sandblasting operation. Personnel shall be properly equiped: sandblast hood for operator, and respirators and goggles for all personnel exposed to dust.

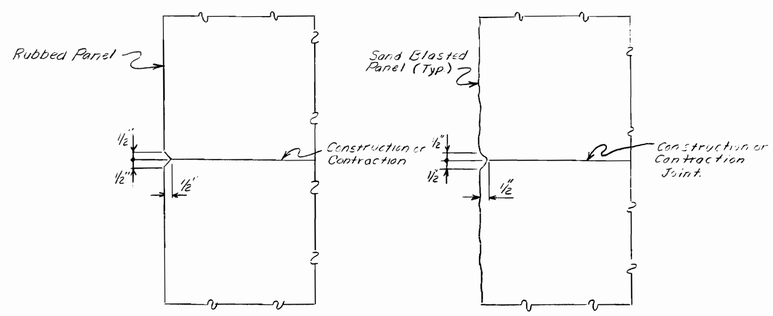
The contractor shall conform to any applicable safety specifications, such as O.S.H.A. in the sandblasting operation.

Payment for Sandblasting and sample slabs shall be included in the Contract Unit Price for Item 502.21 "Structural Concrete-Abutments and Retaining Walls".

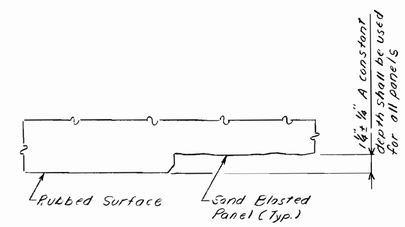
No deduction in the concrete pay volume will be made for the recess in the architectural treatment.



ELEVATION PIER
(Typical both Sides)



TYPICAL SECTIONS



TYPICAL PLAN SECTION

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN-DETAILED	JWM	12/77
CHECKED	JET	2/78
REVISIONS	JWM	
FIELD CHANGES		

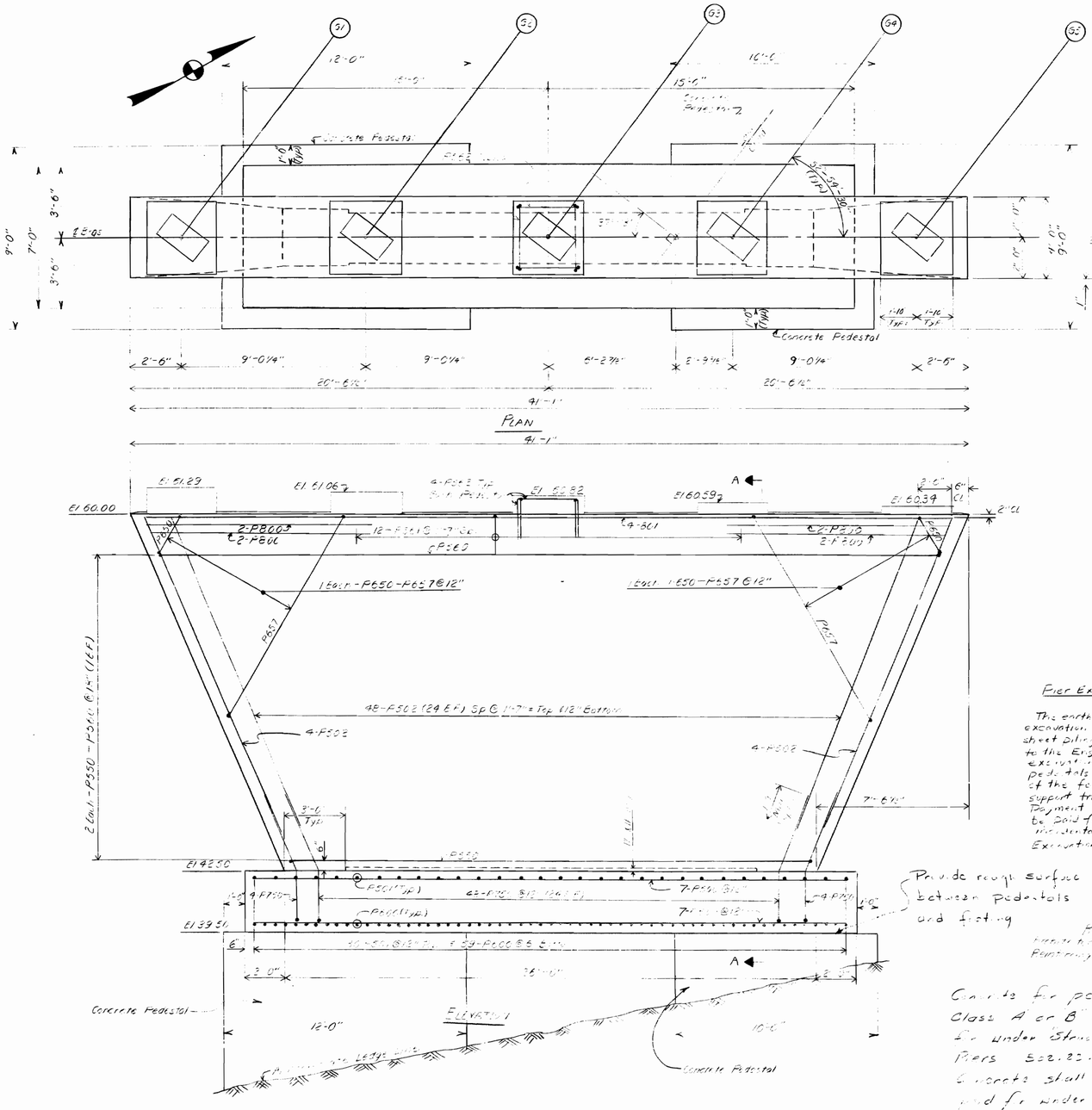
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
ARCHITECTURAL TREATMENT

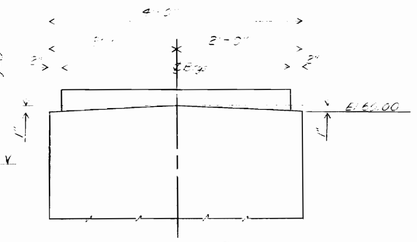
SHEET 14 OF 27 AUGUSTA, MAINE Feb. 1978

164-96

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1 (29)	17	82



PLAN



DETAIL-TOP OF PIER

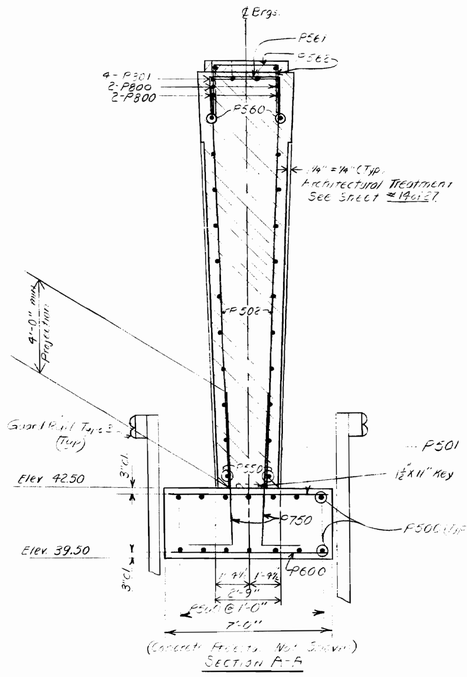
ELEVATION

PIER NOTES

1. Chamfer all exposed edges of concrete a consistent dimension between ½ and ¾" inclusive unless otherwise indicated.
2. Reinforcing steel shall have 2" minimum cover unless otherwise indicated.
3. Place reinforcing steel in bridge seats to clear anchor bolts.
4. All reinforcing steel splices and embedments shall be as detailed on the plans.
5. Maximum calculated footing pressure at bottom of footing equals 6.4 tons per square foot.

DESIGN CRITERIA

1. Critical AASHTO Loading - Group III
2. Wind - 100 MPH



SECTION A-A

Pier Excavation Note:

The earth sidewalls of the structural excavation for piers shall be retained by sheet piling, or other methods acceptable to the Engineer, during the Structural excavation, & the construction of the concrete pedestals and footing, and the backfilling of the footing, in a manner sufficient to support traffic passing nearby on Route I 95. Payment for retaining the sidewalls will not be paid for directly and shall be considered incidental to Item 206.10, Structural Earth Excavation, Piers.

References
Architectural Treatment, Sheet 14 of 27
Reinforcing Steel Details, Sheet 24 of 27

Concrete for pedestals may be Class A or B and will be paid for under Structural Concrete Piers 502.23. All other pier concrete shall be Class A" paid for under Item 502.23

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	J.W. Moore	12-9-77
CHECKED	JCF	2-78
REVISIONS		
FIELD CHANGES		

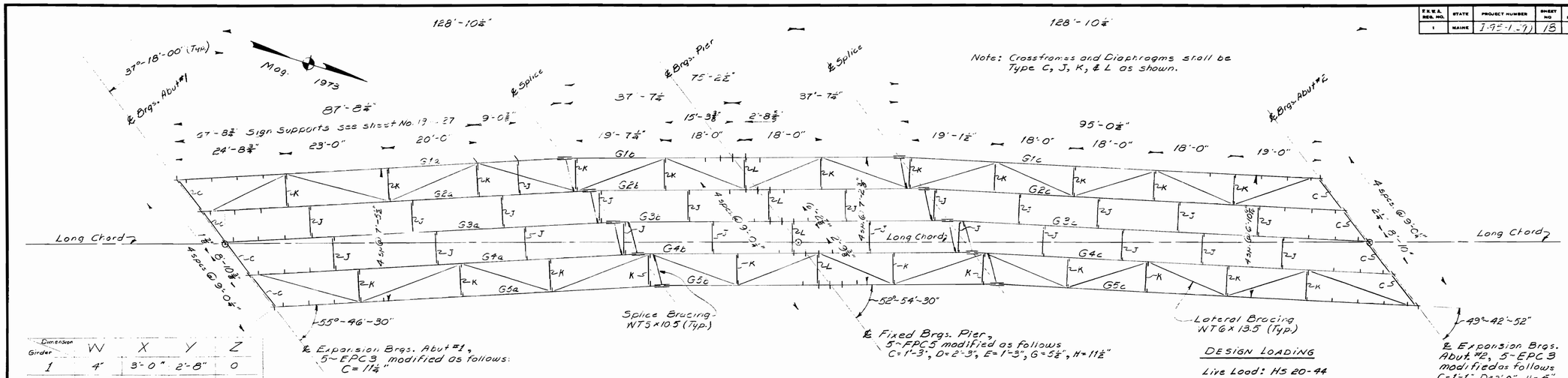
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
PIER

SHEET 15 OF 27 AUGUSTA, MAINE Feb. 1978

164-97

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-1-(1)	18	82



Note: Crossframes and Diaphragms shall be Type C, J, K, & L as shown.

FRAMING PLAN

Girder	W	X	Y	Z
1	4"	3'-0"	2'-8"	0
2	3"	2'-11"	2'-9"	1"
3	2"	2'-10"	2'-10"	2"
4	1"	2'-9"	2'-11"	3"
5	0	2'-8"	3'-0"	4"

Stud Layout Table

DESIGN LOADING

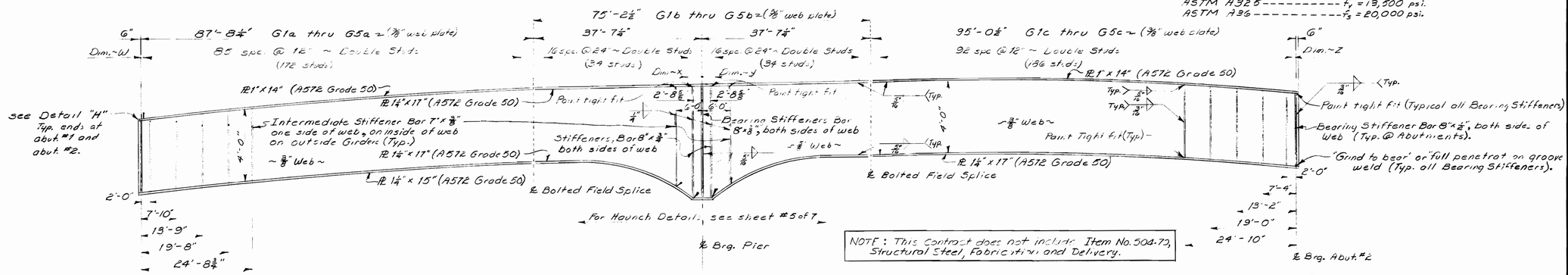
Live Load: HS 20-44

Materials

Structural Steel:
Girder flanges -------- ASTM A572, Grade 50
High Strength Bolts --------- ASTM A325, Type 1
All other ---------- ASTM A36

Basic Allowable Stresses

Structural Steel: ASTM A572, Grade 50 --- f_s = 27,000 psi.
ASTM A325 ---------- f_v = 13,500 psi.
ASTM A36 ---------- f_s = 20,000 psi.



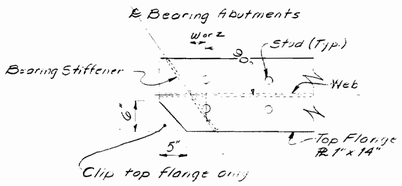
NOTE: This Contract does not include Item No. 504.72, Structural Steel, Fabrication and Delivery.

GIRDER ELEVATION

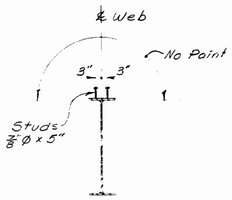
Total number of Studs required ~ 2,130 ~ By others
Weight of Studs = 2,087 lbs.

References:
Shear Connector ------ Standard Detail, BD104-77
Bearing Pedestal ----- Standard Detail, BD101-74
Crossframes & Diaphragm: - Standard Detail, BD113-72

Camber Detail ----- Sheet # 16 of 27
Bolted Field Splice --- Sheet # 17 of 27
Lateral Bracing Details - Sheet # 17 of 27



DETAIL "H"



Typical Girder Section

STRUCTURAL STEEL NOTES

1. Camber ordinates, sh. 18 of 27, are computed to compensate for all dead load deflections and for the curvature of the finish grade profile.
2. No transverse butt weld splices in the flange plates or web plates will be allowed within 10 feet of the points of maximum negative moment or maximum positive moment.
3. Sections of flange plates or web plates shall be not less than 20 feet in length unless otherwise shown on the plans.
4. Butt weld splices in flanges shall be not less than 1 foot from transverse welds in the web plates.
5. Bearing stiffeners and ends of girders at abutments 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 and diaphragm connection plates may be either plumb or normal to the top flange.
7. Mill tests for filler plate material will not be required.
8. Connection Bars for Sign Supports shall be detailed on the shop drawings to be plumb after erection and dead load deflection of the structure.
9. All structural steel shall be ASTM-A36 unless otherwise noted.
10. All bolts shall be ⅞"Ø HS ASTM A325, Type 1. Bolt holes shall be 15/16"Ø.

PROJECT DESIGN ENGINEER: Wilbur Smith	BY	DATE
PLANS — DESIGN - DETAILED	WMS	LAW	11-77
CHECKED	LEZ	11-77
REVISIONS		
FIELD CHANGES		

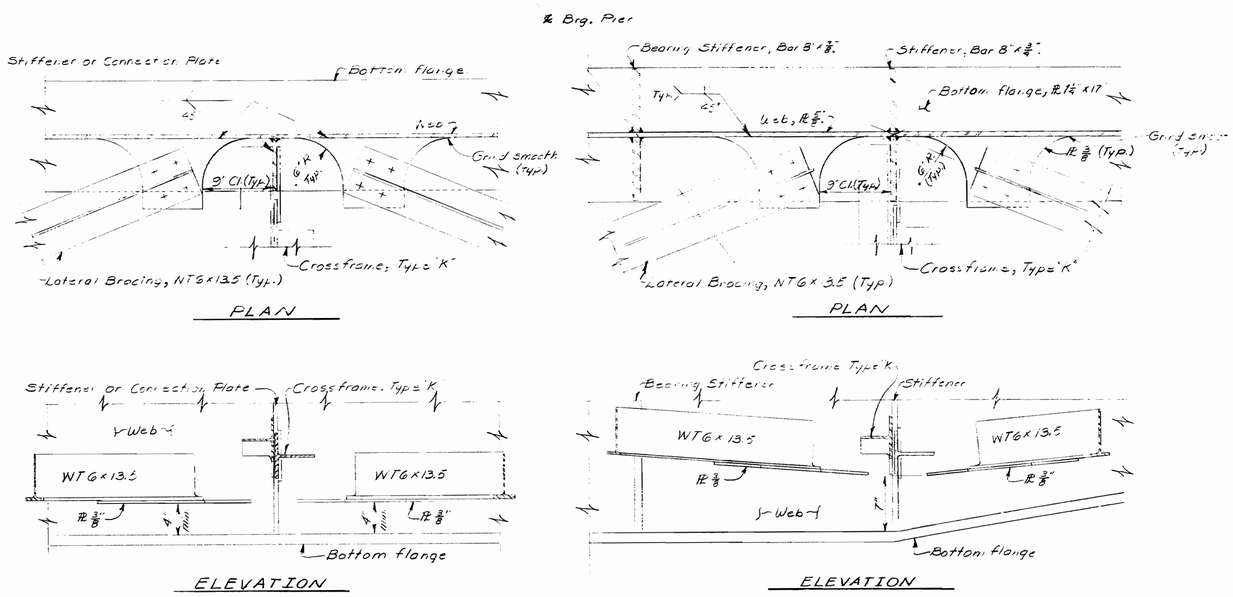
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
FRAMING PLAN

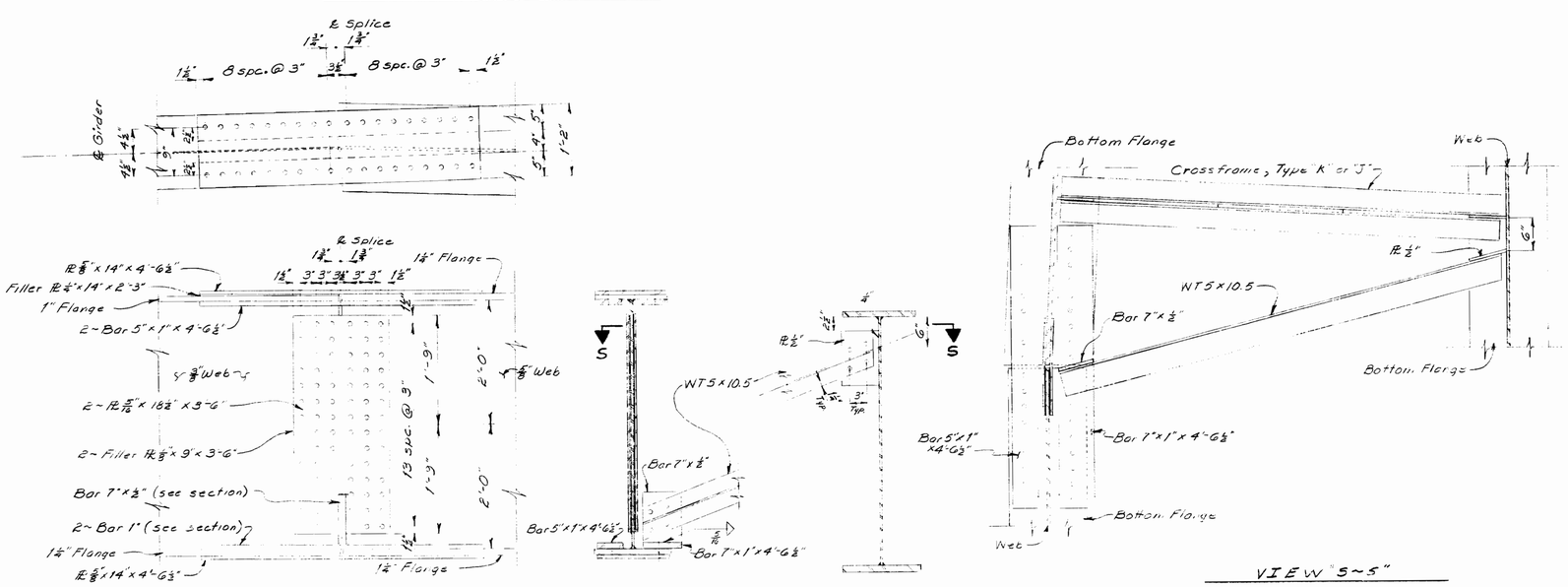
SHEET 16 OF 27 AUGUSTA, MAINE Feb. 1978

164-98

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1-(7)	17	82



LATERAL BRACING DETAILS



References
Framing Plan, Sheet 16 of 27
Camber Diagram, Sheet 18 of 27

SPLICE DETAILS

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	MWS	11-77
CHECKED	LJW	11-77
REVIEWED	JCT	
FIELD CHANGES		

PLANS

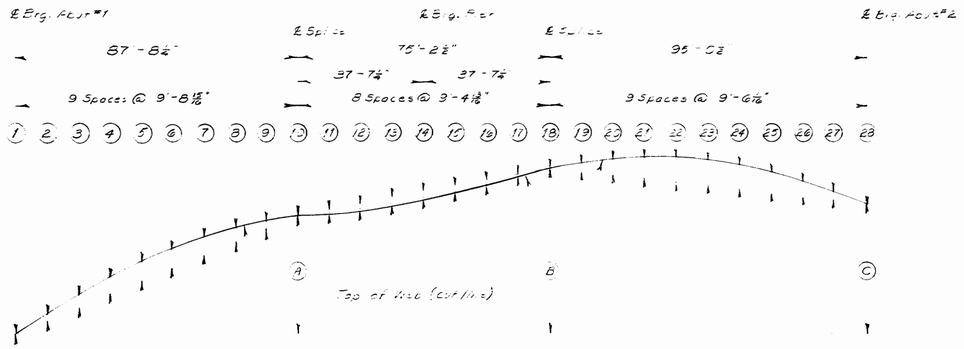
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
LATERAL BRACING AND SPLICE DETAILS

SHEET 17 OF 27 AUGUSTA, MAINE Feb. 1978

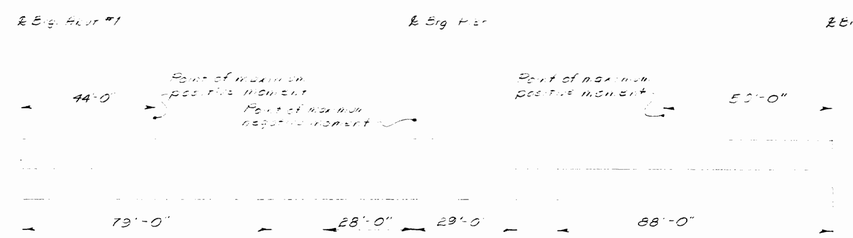
164-99

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1-39)	20	82



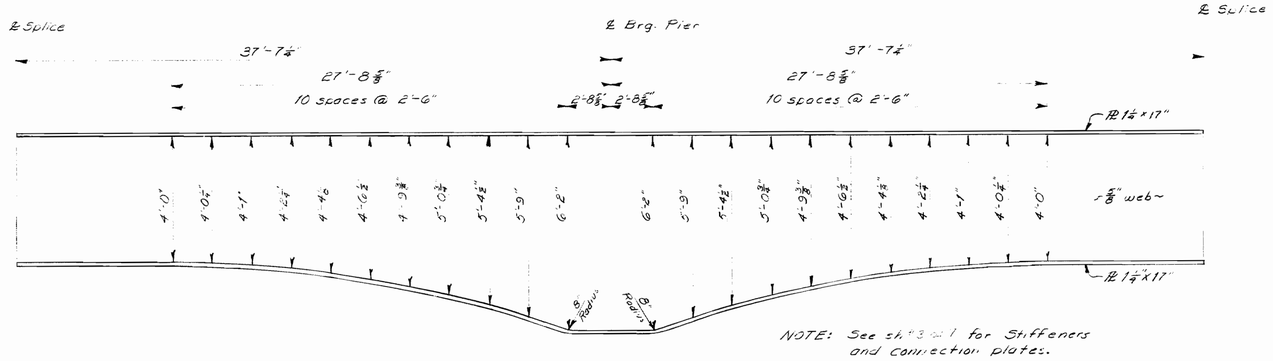
Point / Girder	A	B	C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
G1	20⅛"	28⅛"	22"	0	1⅛"	2⅛"	2⅜"	3⅛"	3⅛"	2¾"	2⅛"	1⅛"	0	-¼"	-½"	-½"	-⅝"	-⅝"	-⅜"	-¼"	0	1½"	2¾"	5⅝"	4⅛"	4⅜"	4¼"	3⅝"	2¾"	1½"	0
G2	20⅛"	27⅛"	20⅜"	0	1¼"	2⅜"	3⅛"	3½"	3½"	3⅛"	2⅜"	1¼"	0	-¼"	-⅝"	-¾"	-⅞"	-¾"	-⅝"	-¼"	0	1½"	2⅜"	3⅜"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0
G3	19⅝"	26⅛"	18⅝"	0	1¼"	2⅜"	3⅛"	3½"	3¼"	3⅛"	2⅜"	1¼"	0	-¼"	-⅝"	-¾"	-⅞"	-¾"	-⅝"	-¼"	0	1½"	2¾"	3¾"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0
G4	19⅛"	25⅛"	16⅞"	0	1¼"	2⅜"	3⅛"	3½"	3⅛"	2⅜"	1¼"	0	-¼"	-⅝"	-¾"	-⅞"	-¾"	-⅝"	-¼"	0	1½"	2¾"	3¾"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0
G5	18⅛"	24¼"	15⅛"	0	1⅛"	2⅛"	2¾"	3⅛"	3⅛"	2⅝"	2⅛"	1⅛"	0	-¼"	-½"	-½"	-⅝"	-½"	-⅜"	-⅛"	0	1½"	2¾"	3¾"	4¼"	4½"	4¼"	3¾"	2¾"	1½"	0

CAMBER DIAGRAM AND TABLE



Shaded areas are areas of Girder which will always be in compression. All other areas will either be in tension, or have stress reversals.

GIRDER STRESS DIAGRAM



NOTE: See sh. #3 of 7 for Stiffeners and Connection plates.

HAUNCH DETAIL

Girders G1b Thru G5b

References
Framing, Sheet 17 of 27

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	MMC	10-71
CHECKED	JET	11-72
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

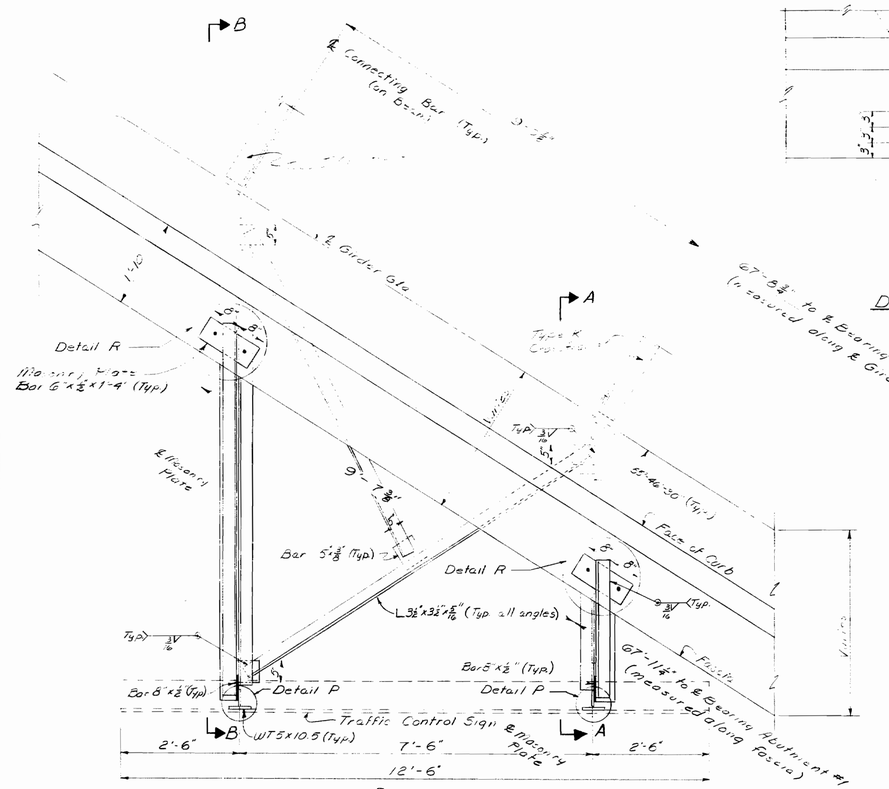
HAUNCH DETAIL AND CAMBER DIAGRAM

SHEET 18 OF 27 AUGUSTA, MAINE Feb. 1972

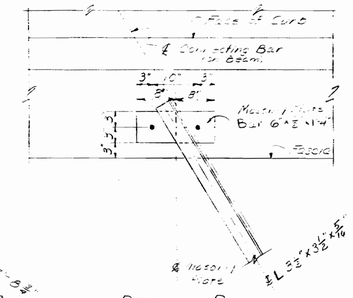
164-100

JANUARY 1968

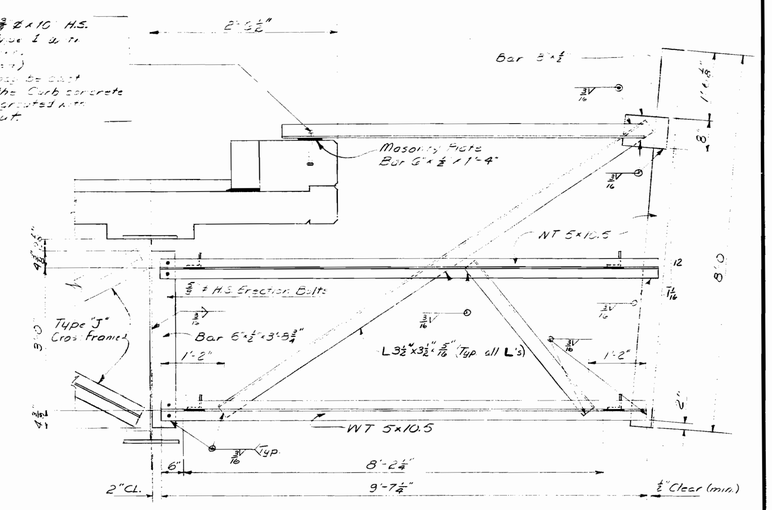
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)	21	22



PLAN



DETAIL R



SECTION B-B

Reference
Framing Plan, Sheet 14 of 27
Superstructure, Sheet 21 of 27

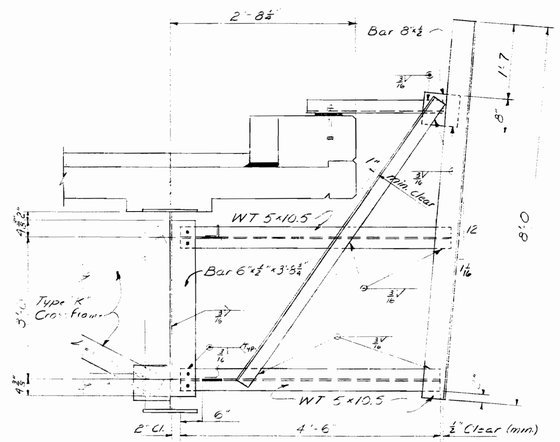
SIGN SUPPORT NOTES

Fabrication Notes: (By Others)

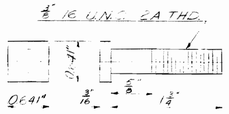
1. All structural steel for sign support members shall conform to ASTM A36.
2. Sign support members shall be fabricated in conformance with section 504 of the Standard Specifications.
3. Structural TEES in contact with the Traffic Control Sign shall be hot dipped galvanized. All other sign support members shall receive a single application of shop coating in accordance with Section 506 of the Special Provisions.
4. Work and materials needed for fabrication of the sign support members shall be [illegible] but not limited to the following: Fabrication and delivery of the sign support members and related hardware.

Construction Notes: (This Contract)

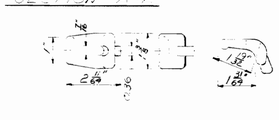
1. Sign support members shall be erected in conformance with section 504 of the Standard Specifications.
2. Material for Post Clips shall be Aluminum alloy 356-T6 conforming to ASTM B108. Clip Bolts and Washers shall be Aluminum alloy 2024-T4 conforming to ASTM B211. Hex Nuts shall be Aluminum alloy 6269-T9 conforming to ASTM B211.
3. Post Clip details shown are for illustration only. Alternate methods of fastening may be used if approved by the Engineer. Existing post clips and bolts may be used if in good condition.
4. Relocation of the sign "REST AREA OFFICIAL INFORMATION NEXT RIGHT" from the existing structure to the sign support on the new structure shall be completed within two consecutive days.
5. All work and materials necessary for the relocation of the sign shall be paid for under Items 504.71 and 506.19, and shall include but not limited to the following: Erection of sign support members. Removal and relocation of the sign. Supplying of fastening hardware as nec[illegible]



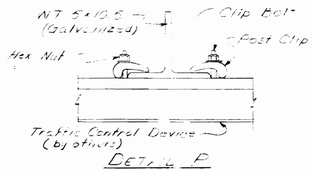
SECTION A-A



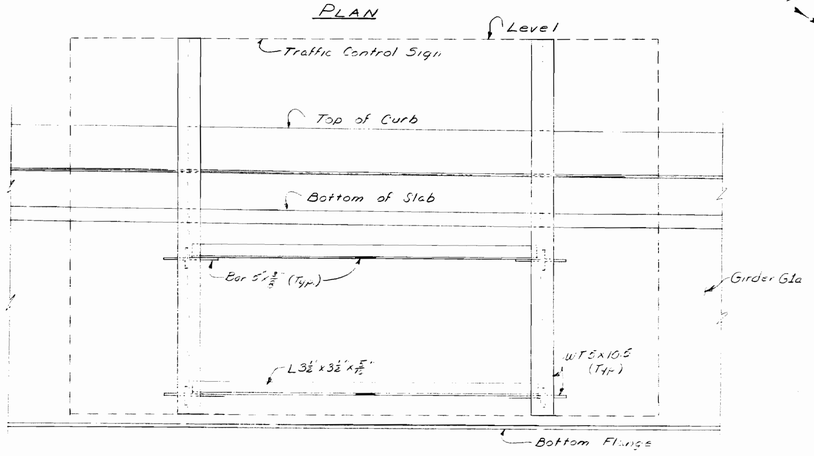
CLIP BOLT
(Aluminum)



POST CLIP DETAILS
(by others)



DETAIL P



ELEVATION

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

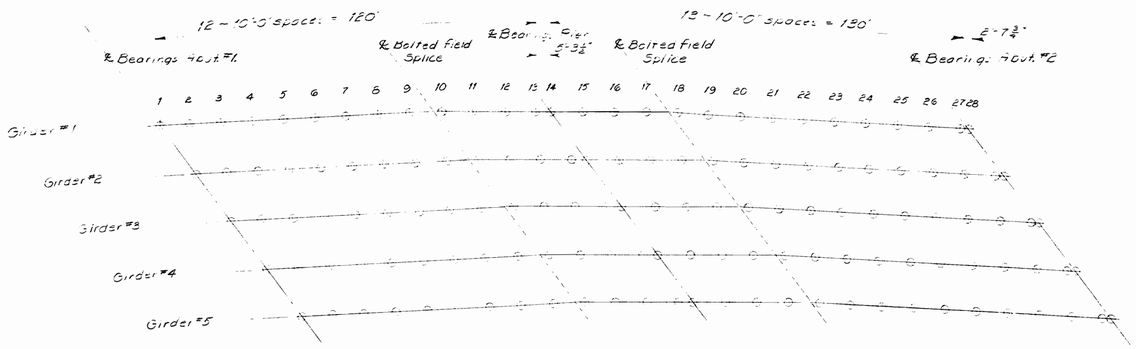
CUTTS ROAD OVER INTERSTATE 95 IN THE TOWN OF KITTERY YORK COUNTY

SIGN SUPPORT DETAILS

Sheet 19 of 27 AUGUSTA, MAINE Feb. 1978

164-101

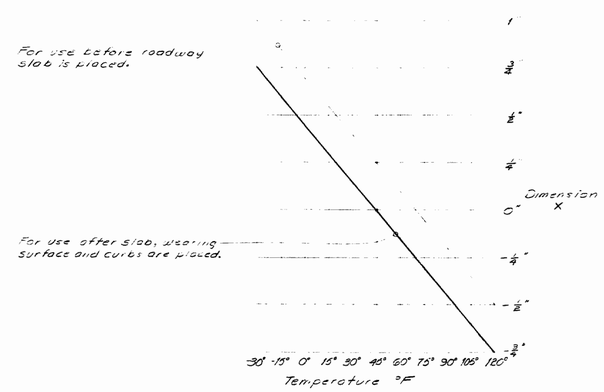
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-9-1(-1)	22	82



BLOCKING LAYOUT

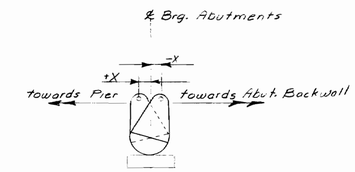
BOTTOM OF SLAB ELEVATIONS

Span	℄ Brg. Abut #1	Span #1												℄ Brg. Pier	Span #2														℄ Brg. Abut #2
Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Girder #1	66.68	66.96	67.22	67.46	67.67	67.86	68.02	68.15	68.27	68.36	68.44	68.51	68.59	68.64	68.73	68.83	68.93	69.02	69.07	69.11	69.13	69.11	69.06	68.98	68.86	68.72	68.56	68.52
Girder #2	66.51	66.80	67.07	67.31	67.53	67.71	67.87	67.99	68.10	68.18	68.24	68.30	68.36	68.41	68.48	68.57	68.67	68.75	68.81	68.84	68.85	68.83	68.77	68.68	68.56	68.42	68.25	68.20
Girder #3	66.33	66.62	66.88	67.13	67.34	67.52	67.67	67.79	67.89	67.96	68.02	68.07	68.13	68.17	68.24	68.33	68.41	68.49	68.54	68.57	68.57	68.54	68.48	68.39	68.26	68.11	67.93	67.89
Girder #4	66.16	66.44	66.70	66.94	67.14	67.32	67.46	67.58	67.67	67.74	67.79	67.84	67.89	67.93	68.00	68.08	68.16	68.23	68.27	68.29	68.29	68.25	68.19	68.08	67.95	67.79	67.61	67.56
Girder #5	65.98	66.24	66.48	66.70	66.89	67.05	67.19	67.31	67.40	67.48	67.54	67.59	67.65	67.69	67.76	67.83	67.91	67.98	68.01	68.02	68.01	67.97	67.89	67.78	67.64	67.47	67.29	67.23

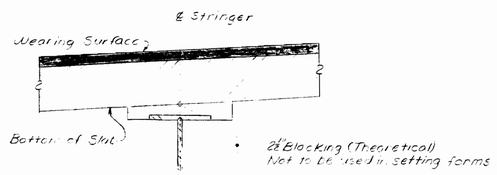


ROCKER BEARING SETTING GRAPH

This table of bearing settings compensates for longitudinal movement due to temperature change and dead load deflection.



References
Superstructure, Sheet 21 of 27
Framing, Sheet 15 of 27



BLOCKING DETAIL

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED		11-71
CHECKED		11-72
REVISIONS		
FIELD CHANGES		

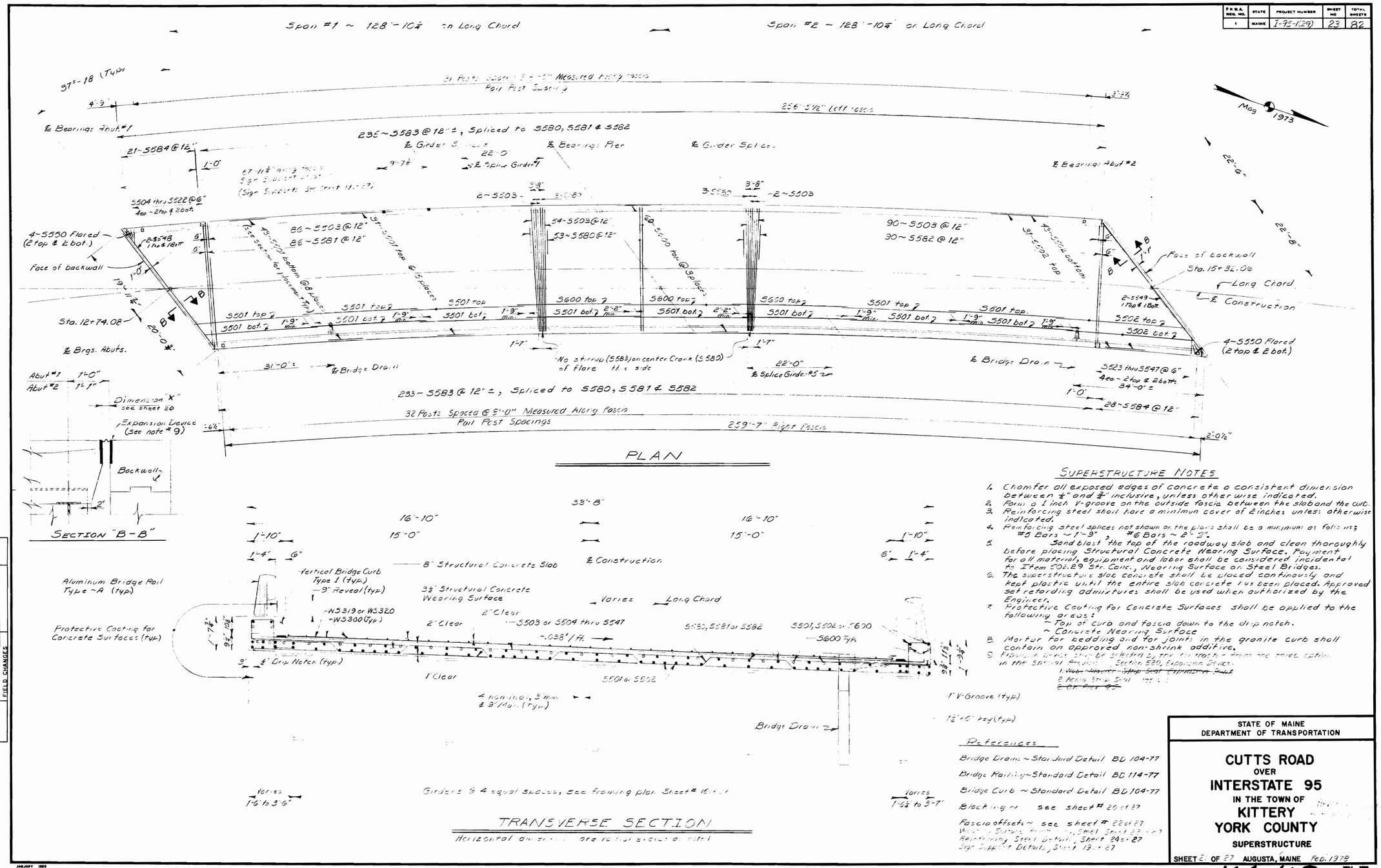
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
BLOCKING

SHEET 20 OF 27 AUGUSTA, MAINE Feb. 1975

164-102

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)	23	82



SUPERSTRUCTURE NOTES

1. Chamfer all exposed edges of concrete a consistent dimension between ¼" and ¾" inclusive, unless otherwise indicated.
2. Form a 1 inch V-groove on the outside fascia between the slab and the curb.
3. Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
4. Reinforcing steel splices not shown on the plans shall be a minimum as follows; #5 Bars ~ 1'-9", #6 Bars ~ 2'-2".
5. Sand blast the top of the roadway slab and clean thoroughly before placing Structural Concrete Wearing Surface. Payment for all material, equipment and labor shall be considered incidental to Item 502.29 Str. Conc., Wearing Surface on Steel Bridges.
6. The superstructure slab concrete shall be placed continuously and kept plastic until the entire slab concrete has been placed. Approved set retarding admixtures shall be used when authorized by the Engineer.
7. Protective Coating for Concrete Surfaces shall be applied to the following areas:
   ~ Top of curb and fascia down to the drip notch.
   ~ Concrete Wearing Surface
8. Mortar for bedding and for joints in the granite curb shall contain an approved non-shrink additive.
9. Expansion Device shall be selected by the contractor from the three options in the Special Provisions, Section 520, Expansion Device:
   1. ~~Wabo Master Strip Seal Expansion Joint~~
   2. Hemo Strip Seal [illegible]
   3. ~~Gr. Pres. 45~~

References

Bridge Drains ~ Standard Detail BD 104-77
Bridge Railing ~ Standard Detail BD 114-77
Bridge Curb ~ Standard Detail BD 104-77
Blocking ~ see sheet # 20 of 27
Fascia offsets ~ see sheet # 22 of 27
Wearing Surface Reinforcing, Steel Sheet 22 of 27
Reinforcing Steel Details, Sheet 24 of 27
Sign Support Details, Sheet 19 of 27

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

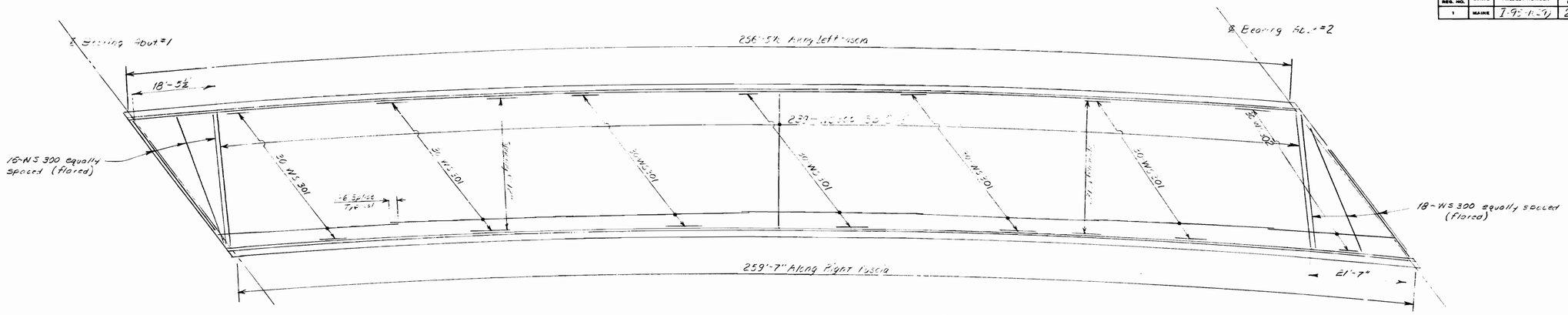
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
SUPERSTRUCTURE

SHEET 21 OF 27 AUGUSTA, MAINE Feb. 1978

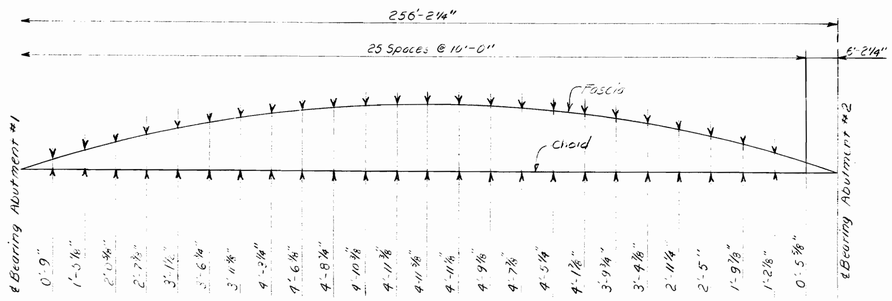
PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN-DETAILED	LAW	Nov 7
CHECKED	DEW	2-78
REVISIONS	LAW	
FIELD CHANGES		

164-103

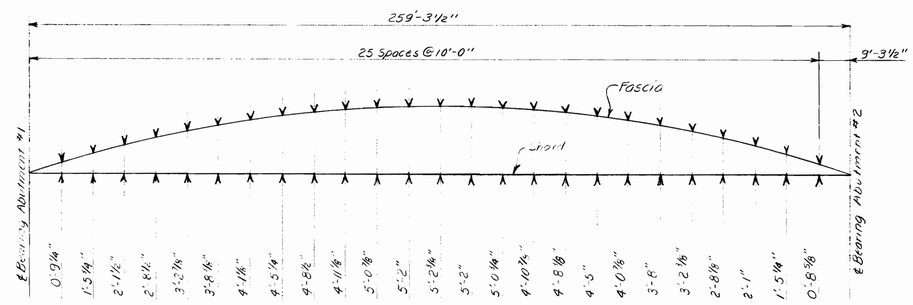
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1-29	24	82



NEARING SURFACE-REINFORCING STEEL



LEFT SIDE FASCIA OFFSETS



RIGHT SIDE FASCIA OFFSETS

Reference
Slab layout Sheet 21 of 27

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN-DETAILED	JWM	1-78
	CHECKED	DEW	2-78
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
SUPERSTRUCTURE DETAILS

SHEET 22 OF 27 AUGUSTA, MAINE Feb. 1978

164-104

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)	25	82

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION
		ABUTMENT #1	
A503	26	6'-6"	Breastwall & Ftg.
A504	20	6'-0"	Breastwall
A505	20	13'-2"	"
A506	24	4'-5"	"
A507	14	16'-9"	"
A508	14	20'-0"	"
A509	9	12'-3"	"
A510	9	19'-6"	"
A511	3	16'-0"	Backwall
A512	3	22'-6"	"
A513	34	3'-0"	Wing & Footing
A514	34	12'-0"	Wings
A515	42	5'-7"	Left Wing - top
A517	6	9'-0"	Curtain Walls
A518	3	6'-0"	Curtain Wall - Left
A519	14	24'-6"	Wings
A520	5	28'-4"	Left Wing - top
A521	3	29'-6"	" "
A522	8	7'-0"	Curtain Walls
A523	44	5'-2"	Right Wing - top
A524	8	27'-4"	" "
A600	30	11'-3"	Wings
A601	13	18'-9"	Left Wing
A602	4	24'-0"	"
A603	13	15'-9"	Right Wing
A604	4	21'-3"	"
A605	29	9'-0"	Wings

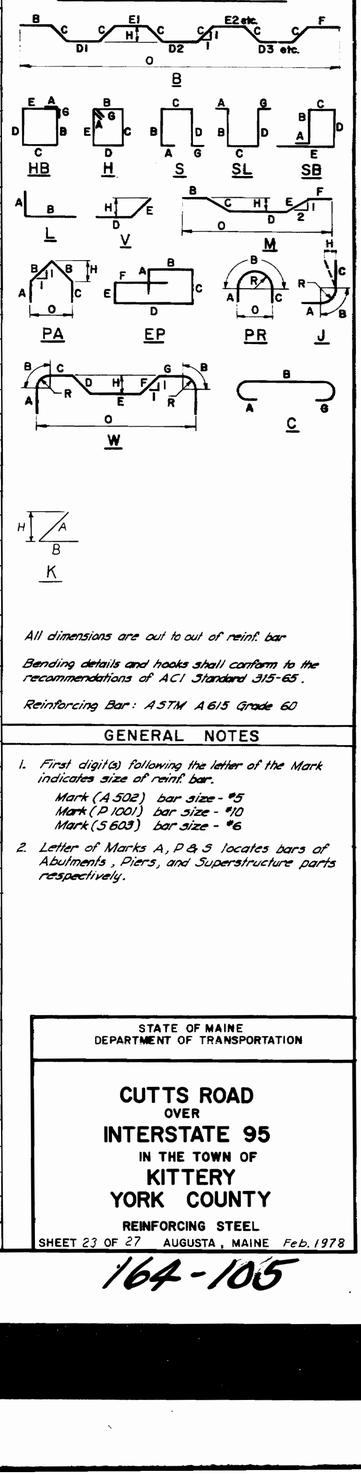
MARK	NO.	LENGTH	LOCATION
		ABUTMENT #2	
B503	30	7'-6"	Footing & Breastwall
B504	21	8'-9"	Breastwall
B505	22	15'-8"	"
B506	28	4'-11"	Backwall
B507	17	22'-6"	Breast. & Backwall
B508	17	19'-0"	"
B509	11	15'-9"	"
B510	11	17'-11"	"
B511	3	21'-6"	Backwall
B512	3	22'-2"	"
B513	39	3'-0"	Wing & Footing
B514	39	14'-0"	Wings
B515	50	5'-5"	Right Wing
B516	5	27'-10"	" "
B517	1	31'-6"	" "
B518	1	34'-0"	" "
B519	1	36'-6"	" "
B520	7	36'-3"	" "
B521	4	7'-6"	Wings
B522	4	6'-7"	"
B523	4	5'-9"	"
B524	4	4'-10"	"
B525	4	3'-11"	"
B526	4	3'-0"	"
B527	2	3'-0"	End Post Curb
B528	3	10'-0"	Wings
B529	3	5'-1"	L. Curtain Wall
B530	7	7'-0"	Curtain Walls
B531	50	7'-0"	Left Wing
B532	5	29'-4"	" "
B533	1	33'-10"	" "
B534	1	35'-4"	" "
B535	1	37'-10"	" "
B536	6	38'-2"	" "
B537	3	36'-10"	" "
B538	4	6'-9"	R. Curtain Wall
B600	34	13'-9"	Wings
B601	36	7'-3"	"
B602	18	20'-6"	"
B603	4	22'-6"	"
B604	4	25'-0"	"
B605	4	28'-0"	"
B606	13	30'-0"	"

MARK	NO.	LENGTH	LOCATION
		ABUTMENT #1 FOOTING	
A610	16	42'-8"	Abutment
A611	135	7'-6"	Abut. & Wings
A612	2	20'-4"	Left-Wing
A613	2	20'-10"	" "
A614	2	21'-5"	" "
A615	2	22'-0"	" "
A616	2	22'-7"	" "
A617	2	23'-1"	" "
A618	2	23'-8"	" "
A619	2	24'-2"	" "
A620	2	17'-1"	Right Wing
A621	2	17'-8"	" "
A622	2	18'-3"	" "
A623	2	18'-10"	" "
A624	2	19'-5"	" "
A625	2	20'-0"	" "
A626	2	20'-7"	" "
A627	2	21'-2"	" "
A700	41	7'-6"	Wings
		ABUTMENT #2 FOOTING	
B610	18	48'-3"	Abutment
B611	55	8'-6"	Abutment Top
B612	48	7'-6"	Wings Bottom
B613	2	24'-11"	Left Wing
B614	2	24'-1"	" "
B615	2	23'-3"	" "
B616	2	22'-4"	" "
B617	2	21'-6"	" "
B618	2	20'-8"	" "
B619	2	19'-9"	" "
B620	2	18'-11"	" "
B621	2	27'-3"	Right Wing
B622	2	26'-4"	" "
B623	2	25'-5"	" "
B624	2	24'-6"	" "
B625	2	23'-6"	" "
B626	2	22'-7"	" "
B627	2	21'-8"	" "
B628	2	20'-9"	" "
B700	48	7'-6"	Wing Top
B701	55	8'-6"	Abutment Bottom

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
		ABUTMENT #1												
A400	10	7'-6"	S	—	2'-0"	3'-0"	2'-0"			—				Bridge Seats
A401	10	5'-6"	S	—	2'-0"	1'-6"	2'-0"			—				Bridge Seats
A550	24	12'-2"	S	—	5'-6"	1'-2"	5'-6"			—				Backwall
A551	40	5'-6"	L	1'-0"	4'-6"									Breastwall & Ftg.
A552	12	8'-3"	K	4'-6"	3'-9"						3'-9"			Corner
A553	12	8'-3"	V				3'-9"	4'-6"			3'-10"			"
A554	8	7'-9"	V				4'-9"	3'-0"			2'-9"			Wings
A555	39	8'-11"	S	—	4'-0"	0'-11"	4'-0"			—				Curb on wings
A651	17	12'-0"	C	7"	10'-10"					7"				Left Wing - Corner
A652	17	9'-2"	C	7"	8'-0"					7"				Right Wing - Corner
A653	26	11'-5"	K	3'-11"	7'-6"						3'-9"			Breastwall
A850	59	7'-9"	L	1'-0"	6'-9"									Wings & Footing
		ABUTMENT #2												
B550	27	13'-0"	S	—	5'-11"	1'-2"	5'-11"			—				Backwall
B551	15	8'-0"	K	4'-0"	4'-0"						3'-0"			Left Corner
B552	15	8'-0"	V				4'-0"	4'-0"			3'-0"			Right Corner
B553	51	7'-11"	S	—	3'-6"	0'-11"	3'-6"			—				Wing Curb
B554	4	15'-0"	V				13'-0"	2'-0"			1'-8"			Wings
B555	4	3'-6"	L	1'-3"	2'-3"									End Post Curb
B650	43	6'-8"	L	1'-5"	5'-3"									Abut. & Footing
B651	21	14'-2"	C	7"	13'-0"					7"				Right Wing
B652	22	9'-2"	C	7"	8'-0"					7"				Left Wing
B653	30	12'-8"	K	3'-11"	8'-9"						3'-10"			Breastwall
B850	70	7'-9"	L	1'-0"	6'-9"									Wings & Footing
B400	10	7'-6"	S		2'-0"	3'-6"	2'-0"							Bridge Seats
B401	10	5'-6"	S		2'-0"	1'-6"	2'-0"							Bridge Seats
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

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. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

PLANS		BY	DATE
	DESIGN-DETAIL	LMW	2-78
	CHECKED	DEW	
	REVISED		
	FIELD CHANGES		

Project Design Engr. MMG

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

REINFORCING STEEL

SHEET 23 OF 27 AUGUSTA, MAINE Feb. 1978

164-105

REINFORCING STEEL SCHEDULE

STRAIGHT BARS

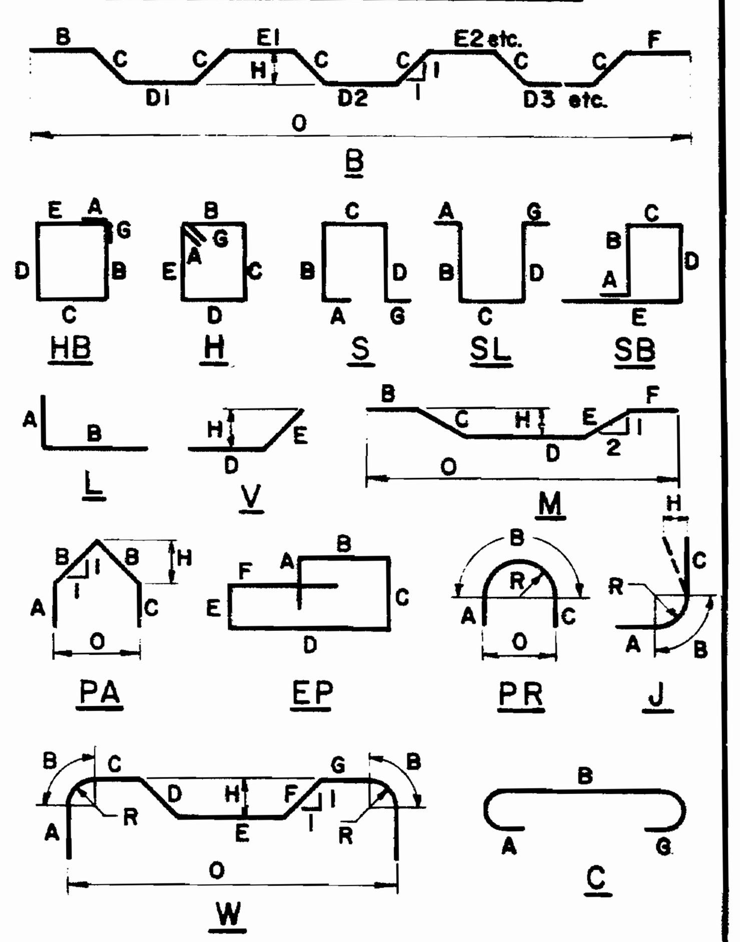
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION
			SUPERSTRUCTURE								PIER
				S547	4	4'-5"	End Slab ~ Abut #2	P500	14	29'-6"	Footing
S501	499	30'-0"	Slab Longitud.	S548	2	39'-8"	End Slab ~ Abut #1	P501	30	6'-6"	Footing
S502	74	35'-0"	Slab Longitud.	S549	2	44'-10"	End Slab ~ Abut #2	P502	56	17'-4"	Shaft Vertical
S503	234	33'-4"	Slab Transverse	S550	8	5'-0"	Slab Ends				
S504	4	4'-0"	End Slab ~ Abut #1								
S505	4	5'-7"	"					P600	59	6'-6"	Footing
S506	4	7'-2"	"								
S507	4	8'-9"	"	S600	180	30'-0"	Slab Longitud.				
S508	4	10'-4"	"					P800	8	11'-0"	Cap
S509	4	11'-11"	"					P801	4	40'-1"	Cap
S510	4	13'-6"	"								
S511	4	15'-1"		APPROACH SLAB							
S512	4	16'-8"	"	AS600	120	15'-0"	A.S. #1 & A.S. #2				
S513	4	18-3"	"								
S514	4	19'-10"	"	AS400	16	34'-1"	A.S. #1				
S515	4	21'-5"	"	AS401	16	38'-9"	A.S. #2				
S516	4	23'-0"	"								
S517	4	24'-7"	"								
S518	4	26'-2"	"								
S519	4	27'-9"	"	WEARING SURFACE							
S520	4	29'-4"	"	WS300	272	29'-6"	Transverse				
S521	4	30'-11"	"	WS301	180	40'-0"	Longitudinal				
S522	4	32'-6"	"	WS302	30	30'-0"	Longitudinal				
S523	4	32'-6"	End Slab ~ Abut #2								
S524	4	31'-4"	"								
S525	4	30'-2"	"								
S526	4	29'-0"	"								
S527	4	27'-10"	"								
S528	4	26'-8"	"								
S529	4	25'-6"	"								
S530	4	24'-4"	"								
S531	4	23'-2"	"								
S532	4	22'-0"	"								
S533	4	20'-10"	"								
S534	4	19'-8"	"								
S535	4	18'-6"	"								
S536	4	17'-4"	"								
S537	4	16'-2"	"								
S538	4	15'-0"	"								
S539	4	13'-10"	"								
S540	4	12'-8"	"								
S541	4	11'-6"	"								
S542	4	10'-4"	"								
S543	4	9'-2"	"								
S544	4	8'-0"	"	END POST							
S545	4	6'-10"	"	E500	16	6'-5"	All Posts				
S546	4	5'-8"	"								

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
				SUPERSTRUCTURE										
S580	59	31'-0"	B		2'-3"	0'-7" x 8	2'-10" x 4	3'-6½" x 3	2'-3"		0'-5"	29'-9"		Slab Transverse
S581	86	32'-[illegible]	B		2'-3"	0'-7" x 8	3'-0¼" x 4	3'-7¼" x 3	2'-3"		0'-5"	30'-8[illegible]"		Slab Transverse
S582	90	30'-0"	B		2'-3"	0'-7" x 8	2'-3¾" x 4	3'-4" x 3	2'-3"		0'-5"	28'-8½"		Slab Transverse
S583	468	8'-11"	SB	1'-0"	1'-4"	1'-0"	1'-1"	4'-6"						Curb & Slab
S584	49	4'-8"	S	0'-6"	1'-4"	1'-0"	1'-4"	—	—	0'-6"				Curb & Slab
				END POST										
E550	32	6'-10"	H	6"	0'-7"	2'-4"	7"	2'-4"		6"				All Posts
E551	8	2'-5"	S	–	1'-0"	5"	1'-0"			–				All Posts
				PIER										
P550	2	30'-4"	S	—	2'-1½"	26'-1"	2'-1½"			—				Shaft Horizontal
P551	2	31'-9"	S	—	2'-2½"	27'-4"	2'-2½"			—				" "
P552	2	33'-4"	S	—	2'-4"	28'-8"	2'-4"			—				" "
P553	2	34'-9"	S	—	2'-5"	29'-11"	2'-5"			—				" "
P554	2	36'-3"	S	—	2'-6"	31'-3"	2'-6"			—				" "
P555	2	37'-8"	S	—	2'-7"	32'-6"	2'-7"			—				" "
P556	2	39'-2"	S	—	2'-8"	33'-10"	2'-8"			—				" "
P557	2	40'-7"	S	—	2'-9"	35-1"	2'-9"			—				" "
P558	2	42'-1"	S	—	2'-10"	36'-5"	2'-10"			—				" "
P559	2	43'-6"	S	—	2'-11"	37'-8"	2'-11"			—				" "
P560	2	45'-0"	S	—	3'-0"	39'-0"	3'-0"			—				" "
P561	12	7'-4"	S	—	2'-1"	3'-2"	2'-1"			—				Cap
P562	20	7'-1"	S	—	2'-0"	3'-1"	2'-0"			—				Bridge Seat
P650	2	12'-1"	H	0'-6"	3'-4"	2'-3½"	3'-2"	2'-3½"		0'-6"				Shaft (Corners)
P651	2	14'-8"	H	0'-6"	3'-4"	3'-7½"	3'-1"	3'-7½"		0'-6"				" "
P652	2	17'-3"	H	0'-6"	3'-4"	4'-11½"	3'-0"	4'-11½"		0'-6"				" "
P653	2	19'-10"	H	0'-6"	3'-4"	6'-3½"	2'-11"	6'-3½"		0'-6"				" "
P654	2	22'-4"	H	0'-6"	3'-4"	7'-7"	2'-10"	7'-7"		0'-6"				" "
P655	2	24'-11"	H	0'-6"	3'-4"	8'-11"	2'-9"	8'-11"		0'-6"				" "
P656	2	27'-6"	H	0'-6"	3'-4"	10'-3"	2'-8"	10'-3"		0'-6"				" "
P657	2	30'-1"	H	0'-6"	3'-4"	11'-7"	2'-7"	11'-7"		0'-6"				" "
P750	56	8'-0"	L	1'-3"	6'-9"									Footing
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)	26	82

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.

Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

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. *Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.*

PLANS	BY	DATE
Proj. Design Engr.	MMG	
DESIGN - DETAIL	LAW	2-78
CHECKED	DEW & JET	
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

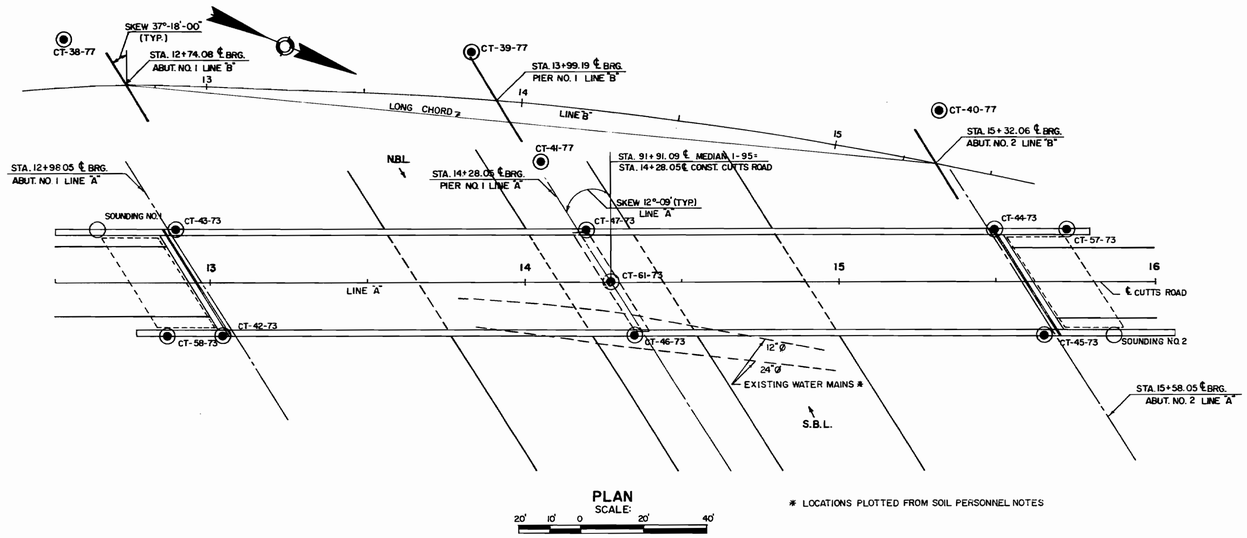
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

REINFORCING STEEL

SHEET 24 OF 27 AUGUSTA, MAINE Feb. 1978

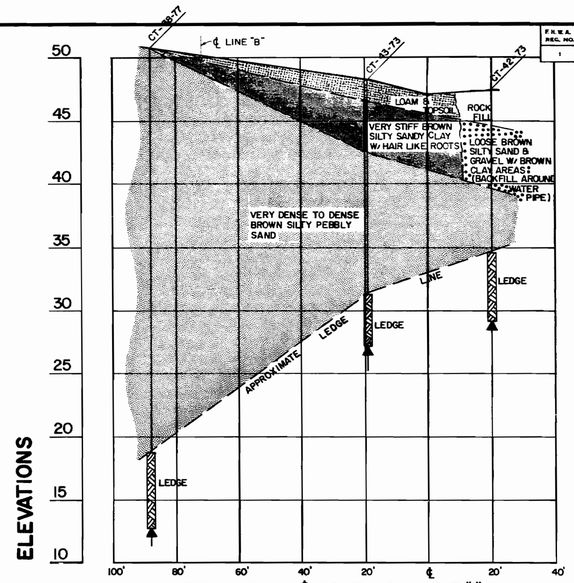
164-106

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	[illegible]	27	82

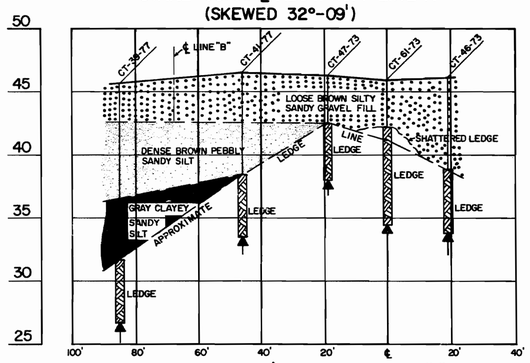


PLAN
SCALE: 20' 10' 0 20' 40'

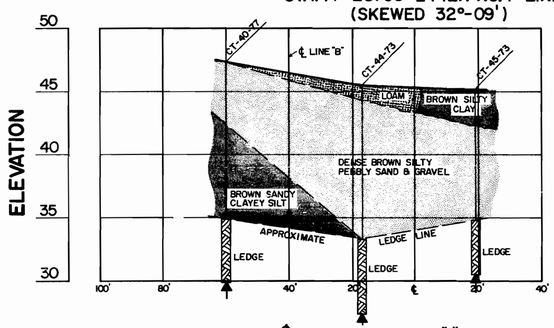
* LOCATIONS PLOTTED FROM SOIL PERSONNEL NOTES



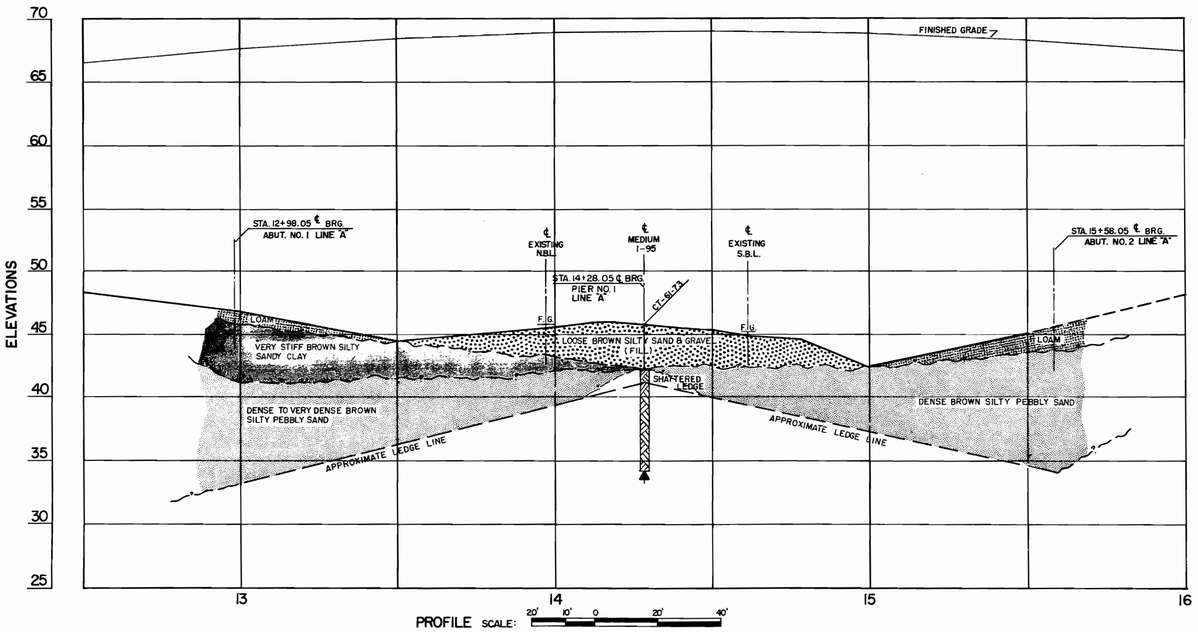
STA. 12+98.05 ℄ ABUT. NO. 1 LINE "A"
(SKEWED 32°-09')



STA. 14+28.05 ℄ PIER NO. 1 LINE "A"
(SKEWED 32°-09')



STA. 15+58.05 ℄ ABUT. NO. 2 LINE "A"
(SKEWED 32°-09')



PROFILE SCALE: 20' 10' 0 20' 40'

TRANSVERSE SECTIONS
SCALE:
HORIZ. 20' 10' 0 20' 40'
VERT. 5' 0 5' 10'

PLANS		BY	DATE
	DESIGN - DETAILED		
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
FOUNDATION SURVEY
AUGUSTA, MAINE Oct. 1977

JANUARY 1969

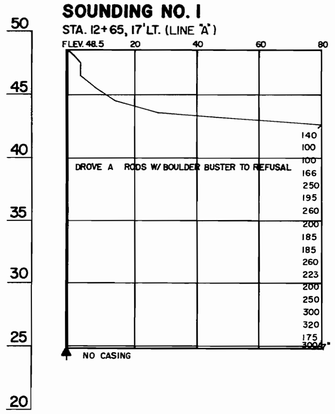
293-1 2000

164-107

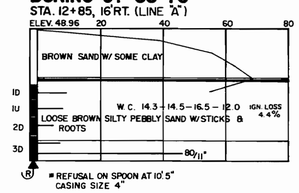
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	[illegible]	28	80

ELEVATIONS

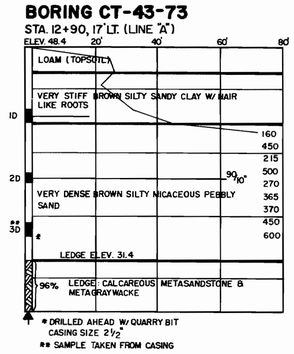
SOUNDING NO. 1
STA. 12+65, 17' LT. (LINE "A")



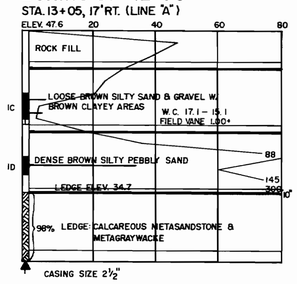
BORING CT-58-73
STA. 12+85, 16' RT. (LINE "A")



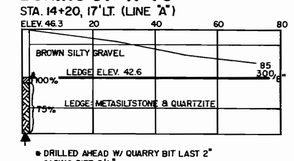
BORING CT-43-73
STA. 12+90, 17' LT. (LINE "A")



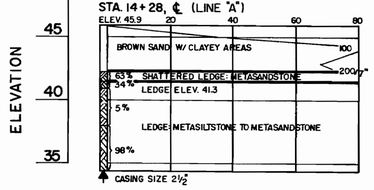
BORING CT-42-73
STA. 13+05, 17' RT. (LINE "A")



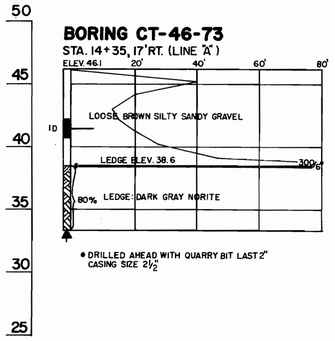
BORING CT-47-73
STA. 14+20, 17' LT. (LINE "A")



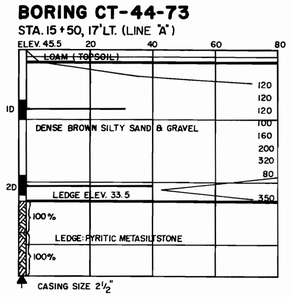
BORING CT-61-73
STA. 14+28, ℄ (LINE "A")



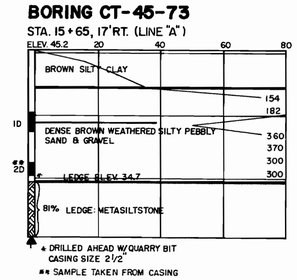
BORING CT-46-73
STA. 14+35, 17' RT. (LINE "A")



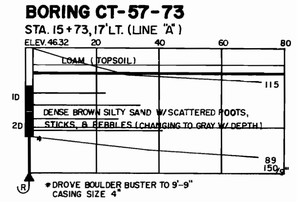
BORING CT-44-73
STA. 15+50, 17' LT. (LINE "A")



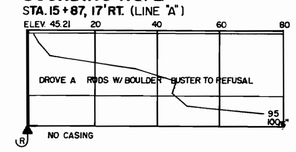
BORING CT-45-73
STA. 15+65, 17' RT. (LINE "A")



BORING CT-57-73
STA. 15+73, 17' LT. (LINE "A")



SOUNDING NO. 2
STA. 15+87, 17' RT. (LINE "A")



BORING NOTES

- ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING
- WATER ELEVATION
- 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
  - ID S.&H. SAMPLER 1290'S
  - IC 2" O.D. 16GA. SEAMLESS TUBING
  - IU 3½" O.D. 16 GA. SEAMLESS TUBING
- NUMBER OF BLOWS REQUIRED TO DRIVE SPOON OR TUBING ONE FOOT WITH 350 FT. LBS. OF ENERGY PER BLOW
- FIELD VANE TEST
- BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)
- (R) REFUSAL OF DRILL RODS OR CASING (MAY NOT BE LEDGE)
- RC LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

SHEAR NOTES

- FIELD VANE SHEAR STRENGTH
- SHEAR STRENGTHS IN EXCESS OF CAPACITY OF EQUIPMENT

WATER CONTENT NOTES

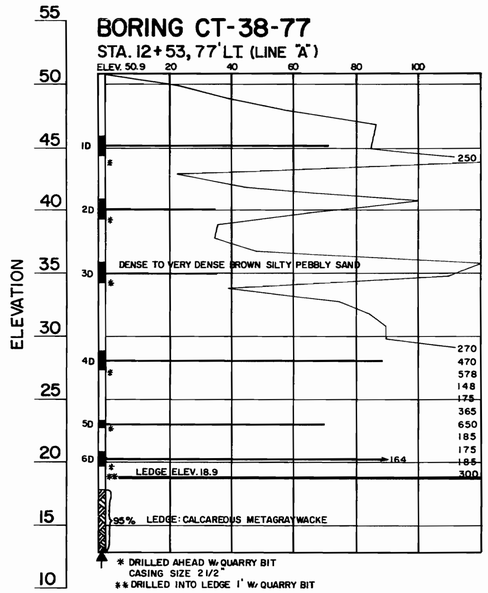
- NATURAL WATER CONTENTS, GIVEN AS PER CENT OF DRY WEIGHT
- IGNITION LOSSES ARE GIVEN AS PER CENT OF DRY WEIGHT

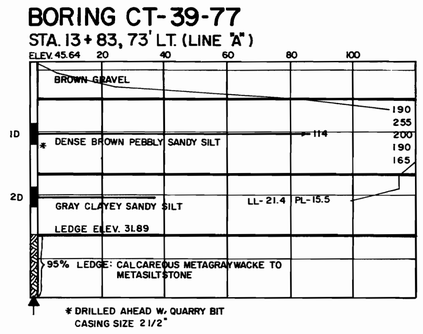
PLANS		BY	DATE
	DESIGN - DETAILED		
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

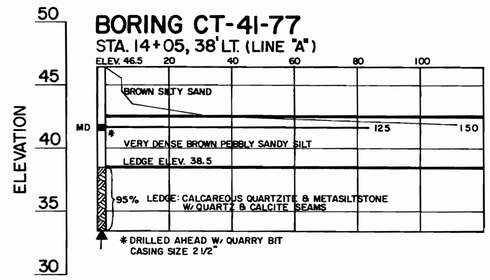
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
BORING DETAILS
AUGUSTA, MAINE Oct 1977

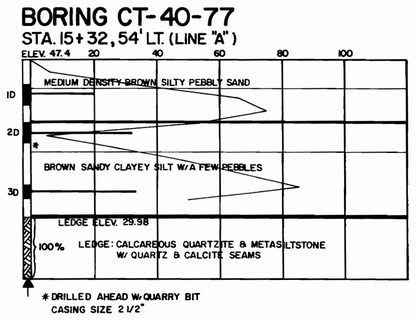
164-108

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)	29	32









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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

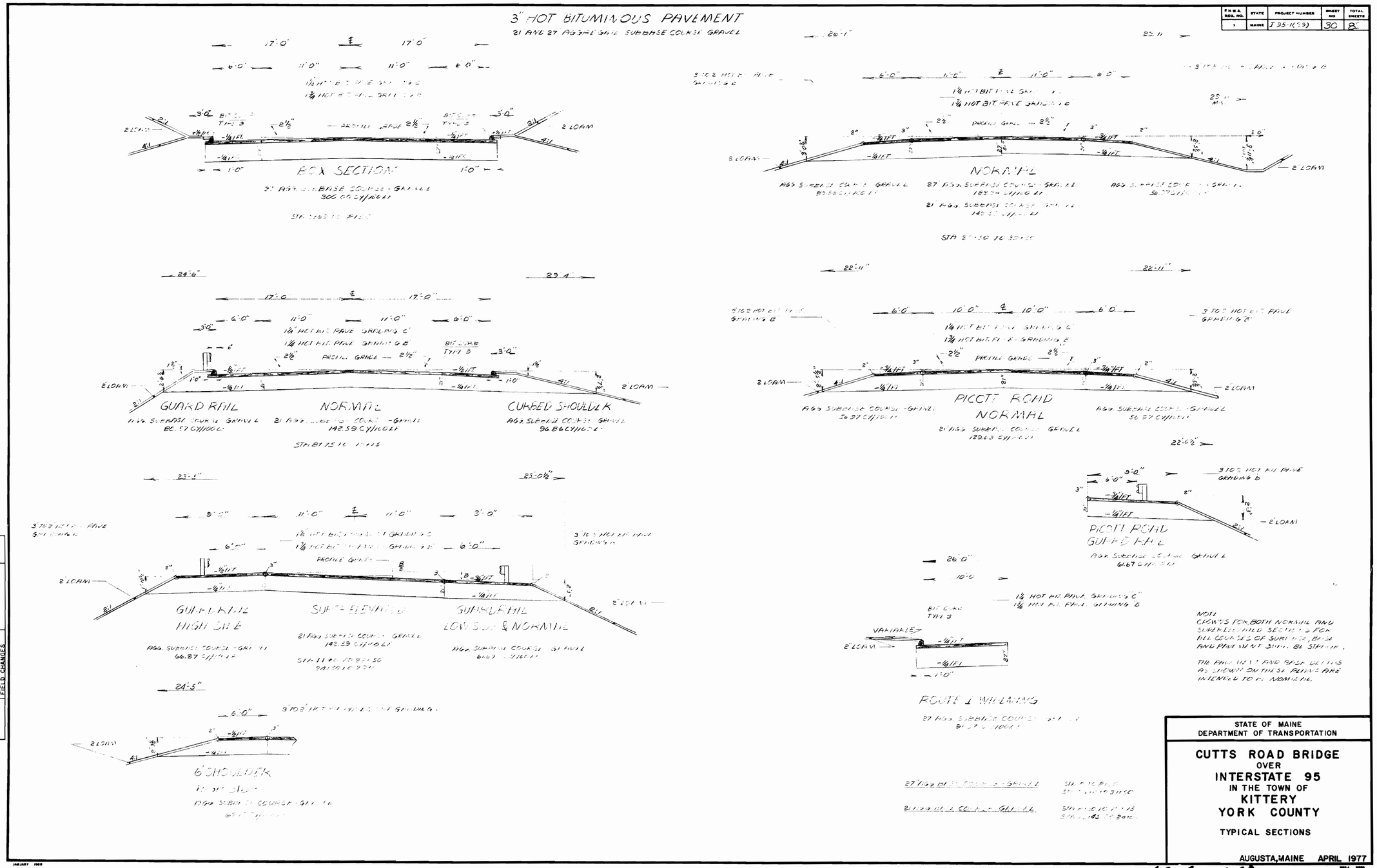
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
BORING DETAILS

SHEET 27 OF 27 AUGUSTA, MAINE Oct. 1977

164-109

JANUARY 1969

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I 95-1(99)	30	82



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD BRIDGE
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

TYPICAL SECTIONS

AUGUSTA, MAINE APRIL 1977

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

164-110

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	[illegible]	31	82

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.13	REMOVING SINGLE TREES 3" TO 24" TOP DIAM.	28	EACH
201.14	REMOVING SINGLE TREES OVER 24" TO 48" TOP DIAM.	11	EACH
201.19	REMOVING STUMPS 3" TO 24"	6	EACH
201.20	REMOVING STUMPS 24" TO 48"	2	EACH
203.01	COMMON EXCAVATION	17500	CY
203.15	COMMON BORROW	33000	CY
203.25	GRANULAR BORROW	1000	CY
* 203.26	SELECTED GRANULAR BORROW BELOW GRADE	200	CY
304.01	FINE AGGREGATE FOR BITUMINOUS PAVEMENT	11500	CY
403.10	HOT BIT. PAVEMENT GRADING D	860	TON
403.06	[illegible]	1685	TON
403.07	[illegible]	885	TON
411.1	[illegible]	145	TON
410.101	COVER COAT MATERIAL, SAND (LEVELING)	130	CY
603.158	12 INCH BIT. COATED CORR. METAL PIPE	58	LF
603.159	12 INCH CULVERT PIPE OPTION III	130	LF
603.168	15 INCH CULVERT PIPE, OPTION II	66	LF
603.169	15 INCH CULVERT PIPE, OPTION III	240	LF
603.175	18 INCH REINFORCED CONC. PIPE CLASS III	156	LF
603.176	18 INCH REINFORCED CONC. PIPE CLASS IV	96	LF
603.178	18 INCH CULVERT PIPE, OPTION II	40	LF
603.195	24 INCH REINFORCED CONC. PIPE CLASS III	56	LF
604.032	CATCH BASINS TYPE B1-C	8	EACH
604.241	CATCH BASIN, TYPE F-C	1	EACH
605.03	6 INCH UNDERDRAIN TYPE B	850	LF
605.11	12 INCH UNDERDRAIN TYPE C	340	LF
605.12	15 INCH UNDERDRAIN TYPE C	374	LF
606.26	TERMINAL ENDS - SINGLE RAIL	6	EACH
* 606.28	SINGLE POST - TYPE 1A	2	EACH
606.35	GUARD RAIL DELINEATOR POSTS	10	EACH
606.55	GUARDRAIL TYPE 3 - SINGLE RAIL	1650	L.F.
606.60	GUARDRAIL TYPE 3 - CIRCULAR - GREATER THAN 15FT. RADIUS	316	L.F.
609.31	CURB TYPE 3	2850	L.F.
609.34	CURB TYPE 5	100	L.F.
609.35	CURB - CIRCULAR - TYPE 5	20	L.F.
610.08	HAND LAID RIP RAP	3	CY
612.06	BITUMINOUS HAND SCALED STONE	895	CY
613.01	LOAM	1600	CY
616.02	SODDING	350	SY
* 617.09	EROSION CONTROL MESH	150	SY
618.13	SEEDING, METHOD NUMBER 1	32	UNIT
618.14	SEEDING, METHOD NUMBER 2	110	UNIT
618.15	TEMPORARY SEEDING	47	LB.
618.16	CROWN VETCH SEED	6	LB.
619.12	MULCH	248	UNIT
623.00	RIGHT-OF-WAY MONUMENTS	20	EACH
623.07	SURVEY MONUMENTS	3	EACH
624.06	PROJECT MARKERS	2	EACH
* 629.05	LABOR, STRAIGHT TIME	50	M. HR.
	TRAFFIC OFFICERS	160	M. HR.
* 631.10	AIR COMPRESSOR (INC. OPERATOR)	5	HOUR
* 631.11	DIP TRUCK (INC. OP.)	10	HOUR
* 631.12	PILE REMOVAL EXTRACTOR (INC. OP.)	10	HOUR
* 631.13	ROLLER (INC. OP.)	10	HOUR
* 631.19	GRADER (INC. OP.)	5	HOUR
* 631.111	TRUCK - SMALL (INC. OP.)	5	HOUR
* 631.112	CHAIN SAW RELATED (INC. OP.)	5	HOUR
* 632.08	WARNING LIGHTS	4	DAY
637.07	SPRINKLING	160	M. G.
637.08	CALCIUM CHLORIDE	16	TON

* UNCLASSIFIED LOCATION

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.03	FIELD OFFICE, TYPE F	2-16	EACH
652.11	TESTING FACILITIES, SOILS	1	LS
652.12	TESTING FACILITIES, BIT. MIXES	1	LS
* 656.30	SANDED PIPE INSULATION	3	EACH
* 656.31	SAND ENDS OF PIPE	3	EACH
* 656.35	DELIVER STONE	50	CY
* 656.66	TEMPORARY BRIDGE	6300	LF
* 656.62	TEMPORARY SCOUR CONTROL	100	LF
657.101	SLED FOUNDATION, ARTIFICIAL	.06	UNIT
658.01	ACRYLIC EMULSION FINISH COAT	185	SY
659.16	MOBILIZATION	5%	L.S.
660.61	On-The-Job Training (Bid)	1000	L.S.

SUMMARY OF EXCAVATION AND BORROW

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	6536
GRUBBING IN FILL SECTION	376
COMMON EXCAVATION (DRAINAGE DITCHES)	866
COMMON EXCAVATION (EXISTING EMBANKMENTS)	9791
TOTAL COMMON EXCAV.	17,563

FILL FOR BORROW CALCULATIONS

FILL FROM CROSS SECTIONS	33000
GRUBBING IN FILL AREAS	376
* (POSSIBLE) FILL BY I-95-1(30) PROJECT	8666
TOTAL FILL	44048

AVAILABLE EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		17,563
GRUBBING IN AREAS	376	
(2) TOTAL DEDUCTIONS	376	
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)		17187
TOTAL AVAILABLE STRUCTURAL EXCAVATION (USUALLY UNCLASSIFIED ONLY)		525
TOTAL AVAILABLE EXCAVATION		17718

COMPUTATION OF BORROW FOR ESTIMATE

TOTAL FILL		44048
TOTAL AVAILABLE EXCAVATION 17718 x 0.85%	15060	
TOTAL AVAILABLE GRUBBING 376 x 100%	376	
TOTAL AVAILABLE EXCAVATION		15436
TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION		28,612
COMMON BORROW 28612 x 115%		32,904

COMPUTATION OF GRANULAR BORROW FOR ESTIMATE

TO MAINTAIN TRAFFIC	1000
TOTAL GRANULAR BORROW	1000

ESTIMATED STRUCTURAL EARTH EXCAVATION 800 CY

* NOTE:
THERE IS THE POSSIBILITY THAT A PORTION OF THE EMBANKMENT ON THE NORTH SIDE OF THE INTERSTATE MAY BE USED BY THE CONTRACTOR OF PROJECT I-95-1(30) FOR WASTE EXCAVATION, IN WHICH CASE THE BORROW FOR PROJECT I-95-1(82) WILL DECREASE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD BRIDGE
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

ESTIMATED HIGHWAY QUANTITIES

AUGUSTA, MAINE APRIL 1977

164-111

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)	32	82

DRAINAGE

STATION	RCP SIZE	RCP LENGTH	RCP CLASS	BCCMP SIZE	BCCMP LENGTH	CMP SIZE	CMP LENGTH	CULVERT PIPE SIZE	CULVERT PIPE LENGTH	CATCH BASINS A1	A2	B-C	B2	C1	C2	F-C	MAN HOLES	UNDERDRAINS 'B' LENGTH	'C' SIZE	'C' LENGTH	'B' OUTLET LENGTH	REMARKS
0+50, 57 RT												1						46	12"	56'		
1+00, 19 LT												1										
11+30, 19 RT								12"	46			1						2:5 1:1				PIPE CULVERT III
2+60, 16 LT												1							12"	156"		
5+50, 16 RT								12"	64'			1½						3:1	12"	3:1		PIPE CULVERT III
6+30, 16 LT								15"	240			1½						2:1				PIPE CULVERT III
7+35, 16 LT																			1"	10'		
11+30, 16 RT				12"	52'											1						
10+50 PICOTT RD	18"	96	IV																			
23+50	18	60	III																			
26+[illegible] LT								18"	[illegible]													PIPE CULVERT
27+07 RT								15"	39'													PIPE
28+43	20"	56	III																			
30+[illegible] RT								15"	32'													PIPE CULVERT

DRAINAGE CONT'D.

STATION	RCP SIZE	RCP LENGTH	RCP CLASS	BCCMP SIZE	BCCMP LENGTH	CMP SIZE	CMP LENGTH	CULVERT PIPE SIZE	CULVERT PIPE LENGTH	CATCH BASINS A1	A2	B1	B2	C1	C2	E	MAN HOLES	UNDERDRAINS 'B' LENGTH	'C' SIZE	'C' LENGTH	'B' OUTLET LENGTH	REMARKS

GENERAL NOTES

1. THE UTILITIES INVOLVED IN THIS CONTRACT ARE:
   KITTERY WATER DISTRICT
   CENTRAL MAINE POWER CO.
   NEW ENGLAND TEL.
2. ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS NOTED.
3. CURB OPENINGS FOR DRIVES SHALL BE 20 FEET UNLESS OTHERWISE NOTED.
4. PAVED DRIVES AND ENTRANCES SHALL BE CONSTRUCTED WITH 18 INCHES OF SUBBASE COURSE GRAVEL AND 2 INCHES HOT BITUMINOUS.
5. DRIVEWAY FILL SLOPES SHALL BE 4:1 UNLESS OTHERWISE NOTED.
6. THE CATCH BASIN GRATE GRADES SHOWN ON THE PLANS ARE FOR THE CURB LINE OF THE RAMP.
7. CURB TYPE 3 TO BE INSTALLED WITH MOLD #2.
8. THE LOAM ON THIS PROJECT SHALL BE OBTAINED FROM STOCKPILES FROM THE I-95-1(30) PROJECT AS DIRECTED BY THE ENGINEER.
9. ALL INSLOPES AND BACKSLOPES SHALL BE LOAMED WITH 2" LOAM UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
10. THE LOAM, SEED, SOD AND MULCH AREAS LISTED BELOW ARE ON THE PLANS ONLY AS A GENERAL GUIDE. IN ALL CASES THE ENGINEER HAS FINAL AUTHORITY AS TO THE PLACEMENT OF THESE ITEMS.
11. ALL SLOPES SHALL BE SEEDED WITH SEEDING METHOD NO. 1 UNLESS OTHERWISE NOTED. ALL LOAMS SHALL BE SEEDED BY METHOD 1.
12. THE SLOPES ON THE RIGHT SIDE FROM STATION 8+00 TO THE BRIDGE STRUCTURE SHALL BE SEEDED BY METHOD 2 WITH THE ADDITION OF CROWN VETCH SEED AT THE RATE OF ONE HALF POUND PER UNIT.
13. MULCH SHALL BE APPLIED IN AREAS SEEDED BY SEEDING METHOD 2 AND AREAS SEEDED BY SEEDING METHOD 1 WHEN DIRECTED BY THE ENGINEER.
14. FINISH SOD SHALL BE ONE FOOT WIDE BENEATH CURBS IN ROW STRIPS.
15. SOD INLETS AND OUTLETS OF ALL ONE WAY CULVERTS UNLESS OTHERWISE DIRECTED.
16. ONE GUARD RAIL DELINEATOR POST SHALL BE INSTALLED AT EACH GUARD RAIL END.
17. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW-UNDERWATER BACKFILL AND WILL BE PAID FOR AS COMMON EXCAVATION (EXCAVATION FROM EXISTING ROADWAY BASE)
18. ALL EXCAVATION BELOW SUBGRADE FOR CULVERTS AND NOTCH KEY TO PLUG SHALL BE PAID FOR UNDER COMMON EXCAVATION. ALL SOFT OR FILL PLUGS SHALL BE AS DIRECTED TO THE ENGINEER.
19. REMOVAL OR REMOVEMENT OF ANY EXISTING DRAINAGE MUST FIRST BE APPROVED BY THE ENGINEER.
20. THE MANHOLES OF THE EXISTING GUARD RAIL LOCATED ON THE RIGHT SIDE OF THE EXISTING CUTTS ROAD STRUCTURE SHALL BE REMOVED AND STOCKPILED FOR PICKUP BY MAINE STATE TRANSPORTATION DIVISION. IF PICKUP NOT MADE BY THE CONTRACTOR THE STOCKPILED RIPRAP IS NOT PICKED UP BY ONE YEAR WITHIN 5 DAYS THE RIPRAP SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

INDEX TO HIGHWAY PLANS

Description	Sheet No.
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Drainage Summary and General Notes	32
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Plan and Profile Picott Road	36
Route 1 Intersection Geometrics-Grades	37
Cross Sections Cutts Road	38-60
Cross Sections Picott Road	61-63
Construction Signing	64

GENERAL NOTES CONT.

21. THE EXISTING PICOTT RD, FROM WILSON RD TO THE END OF NEW CONSTRUCTION ON PICOTT RD, SHALL BE OVERLAYED. THE LENGTH IS APPROXIMATELY 1.08 MI. SEE THE CONTRACT PROPOSAL BOOK FOR PAVEMENT MIX DESIGN AND TIME OF OVERLAY. PAYMENT WILL BE MADE UNDER TEM 404.0 H.E.P. GRAD D. THIS WORK SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITIES COVERED IN SECTION 104.06 OF THE STANDARD SPECIFICATIONS, REVISION OF JUNE 1968.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

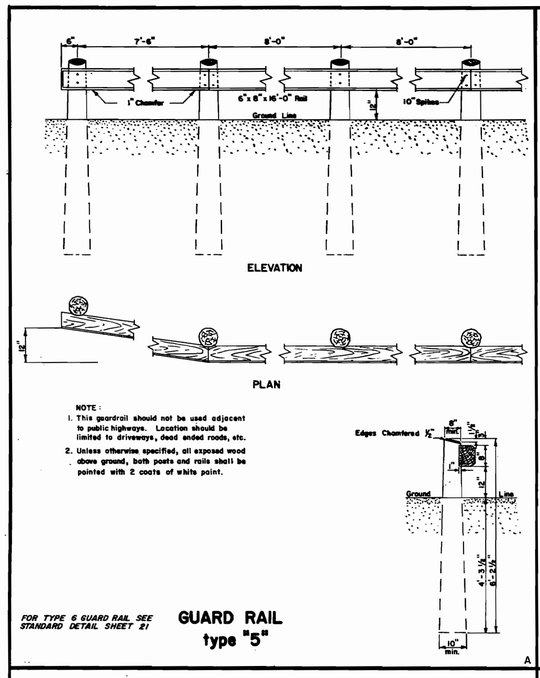
CUTTS ROAD BRIDGE
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

DRAINAGE SUMMARY
AND GENERAL NOTES

AUGUSTA, MAINE APRIL 1977

203-1 2080

464-112

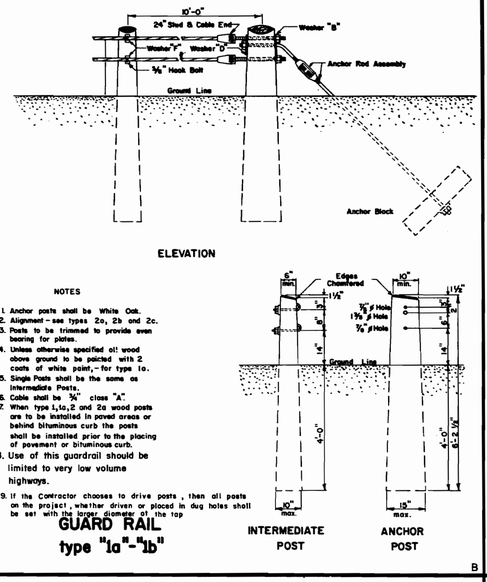


NOTE:
1. This guardrail should not be used adjacent to public highways. Location should be limited to driveways, dead ended roads, etc.
2. Unless otherwise specified, all exposed wood above ground, both posts and rails shall be painted with 2 coats of white paint.

FOR TYPE 6 GUARD RAIL SEE STANDARD DETAIL SHEET 21

GUARD RAIL type "5"

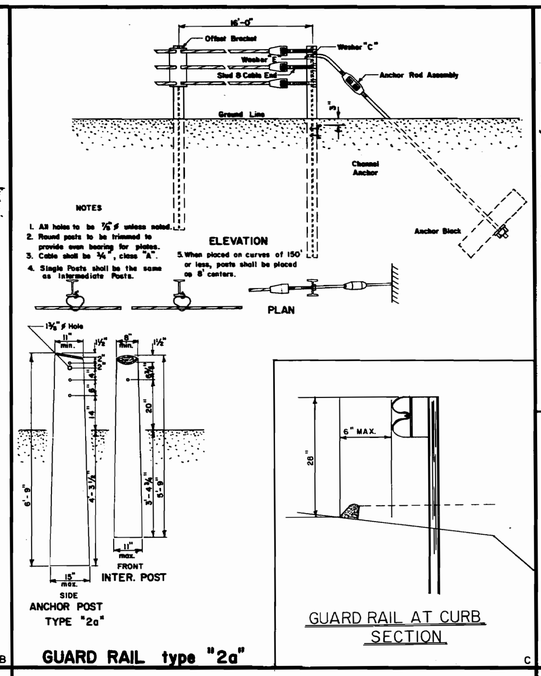
A



NOTES
1. Anchor posts shall be White Oak.
2. Alignment - see types 2a, 2b and 2c.
3. Posts to be trimmed to provide even bearing for plates.
4. Unless otherwise specified all wood above ground to be painted with 2 coats of white paint, - for type 1a.
5. Single Posts shall be the same as Intermediate Posts.
6. Cable shall be ¾" class "A".
7. When type 1, 1a, 2 and 2a wood posts are to be installed in paved areas or behind bituminous curb the posts shall be installed prior to the placing of pavement or bituminous curb.
8. Use of this guardrail should be limited to very low volume highways.
9. If the Contractor chooses to drive posts, then all posts on the project, whether driven or placed in dug holes shall be set with the larger diameter at the top

GUARD RAIL type "1a"-"1b"

B



NOTES
1. All holes to be ⅞" ø unless noted.
2. Round posts to be trimmed to provide even bearing for plates.
3. Cable shall be ¾", class "A".
4. Single Posts shall be the same as Intermediate Posts.
5. When placed on curves of 150' or less, posts shall be placed at 8' centers.

GUARD RAIL type "2a"

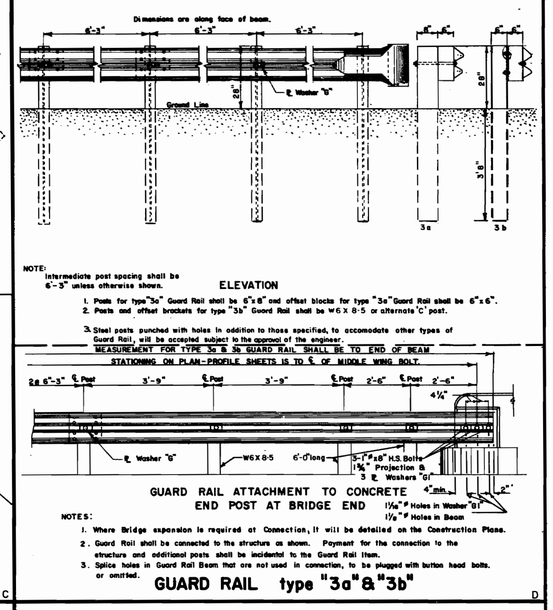
GUARD RAIL AT CURB SECTION

C

FOR BEAM TYPE GUARD RAIL

Beam Type Guard Rail set on radius of 150' or less to be Circular

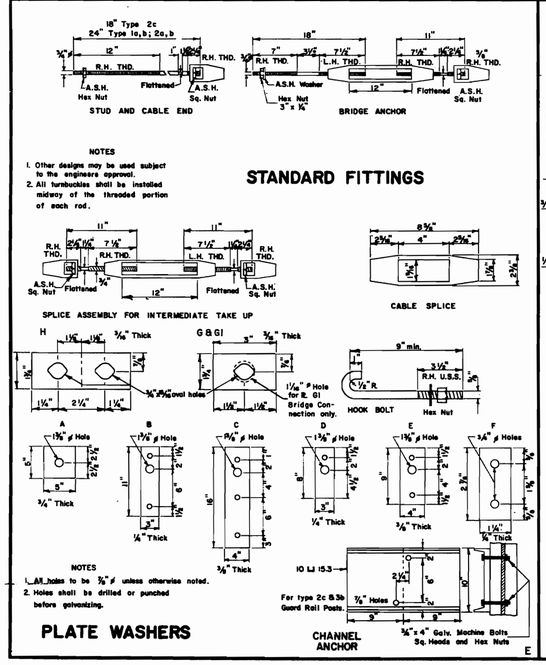
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-95-1(29) 3	70	82



1. Where Bridge expansion is required at Connection, it will be detailed on the Construction Plans.
2. Guard Rail shall be connected to the structure as shown. Payment for the connection to the structure and additional posts shall be incidental to the Guard Rail item.
3. Splice holes in Guard Rail Beam that are not used in connection, to be plugged with button head bolts, or omitted.

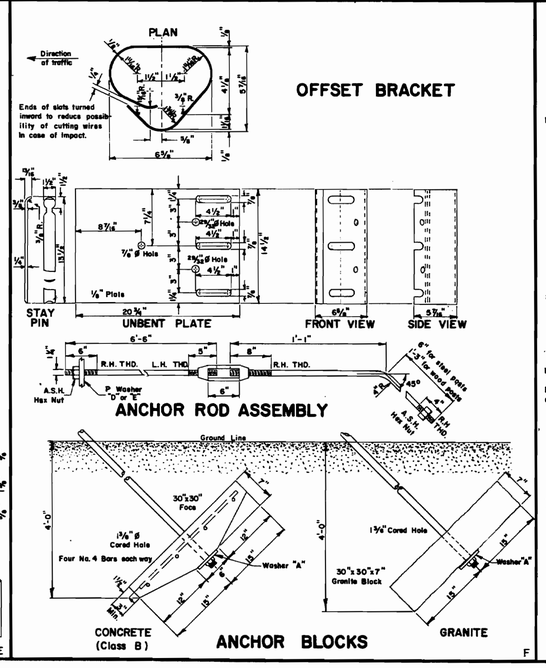
GUARD RAIL type "3a" & "3b"

D



NOTES
1. All holes to be ⅞" ø unless otherwise noted.
2. Holes shall be drilled or punched before galvanizing.

E



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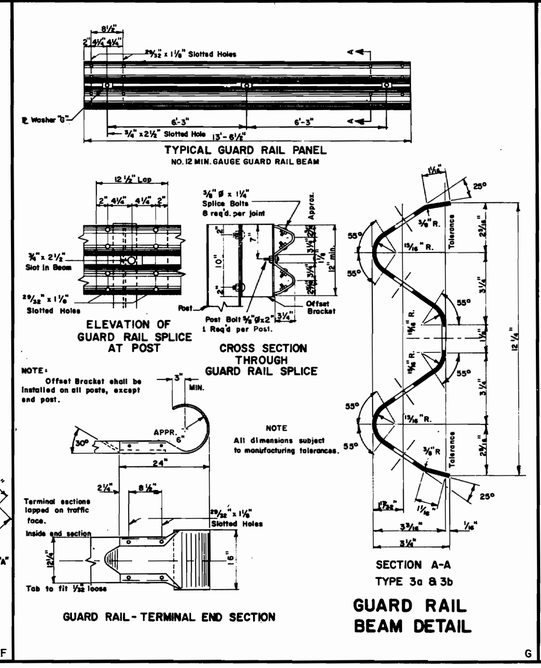

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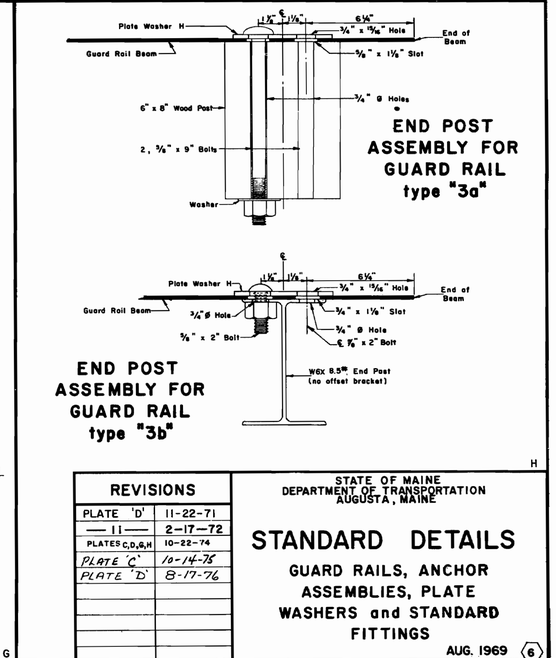


H

REVISIONS	
PLATE 'D'	11-22-71
— 11 —	2-17-72
PLATES C, D, G, H	10-22-74
PLATE 'C'	10-14-75
PLATE 'D'	8-17-76

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

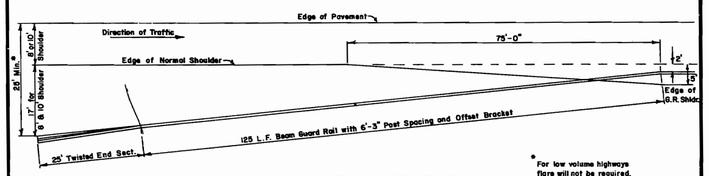
STANDARD DETAILS

GUARD RAILS, ANCHOR ASSEMBLIES, PLATE WASHERS and STANDARD FITTINGS

AUG. 1969 (6)

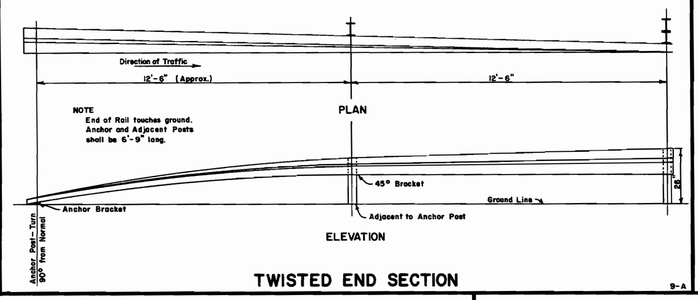
164-113 [illegible] ROAD BRIDGE - KITTERY

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)3	77	82



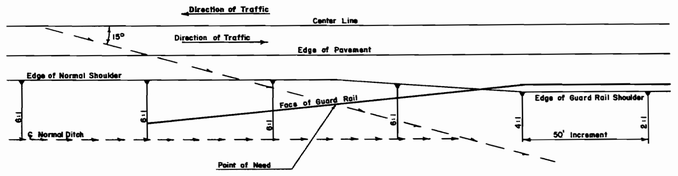
*For low volume highways flare will not be required.

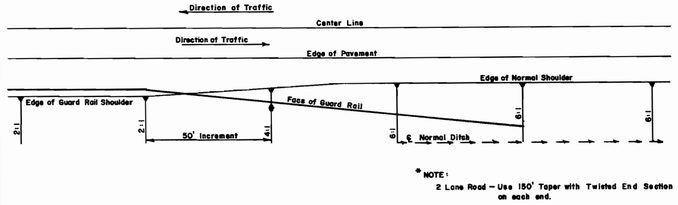
BEAM GUARD RAIL END TREATMENT



TWISTED END SECTION

9-A



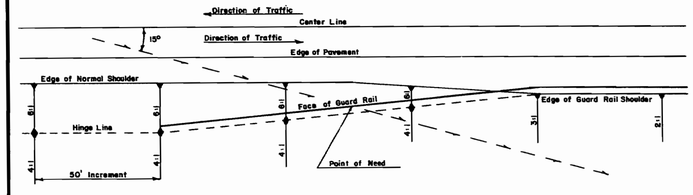


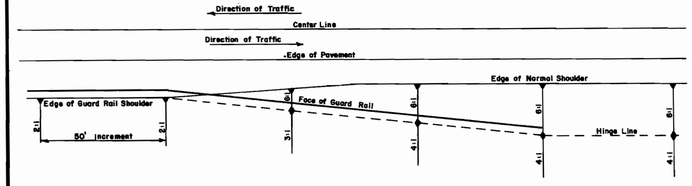
*NOTE:
2 Lane Road – Use 150' Taper with Twisted End Section on each end.

CUT TO FILL*

BEAM GUARD RAIL PLACEMENT AND SLOPE TRANSITION

9-B

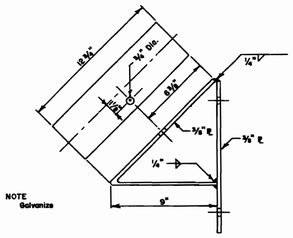


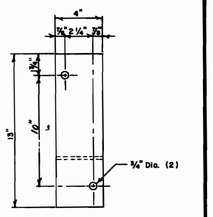


LOW FILL TO HIGH FILL*

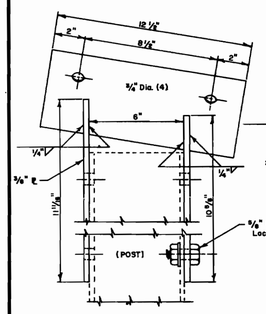
BEAM GUARD RAIL PLACEMENT AND SLOPE TRANSITION

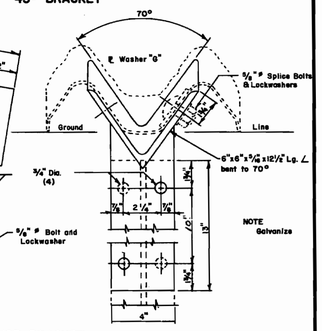
9-C





45° BRACKET

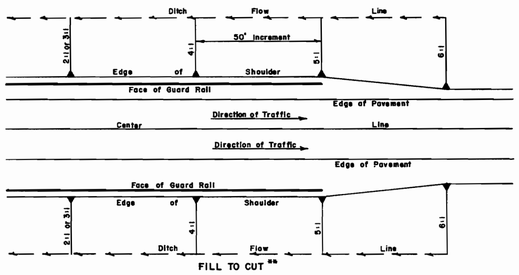




ANCHOR BRACKET

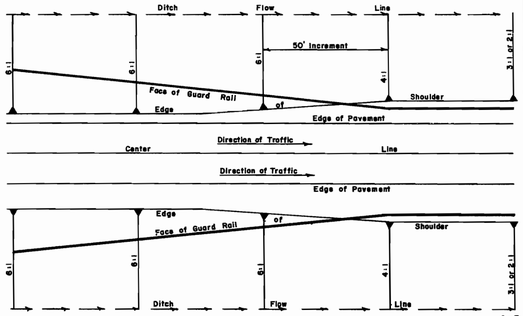
TWISTED END SECTION ANCHOR DETAIL

9-D



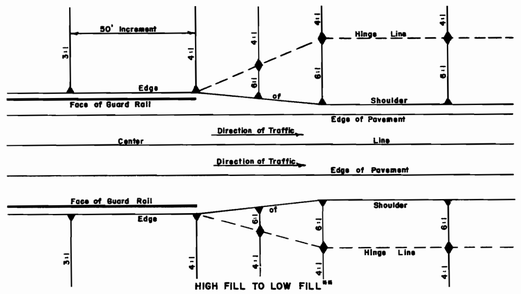
FILL TO CUT**

BEAM GUARD RAIL PLACEMENT AND SLOPE TRANSITION



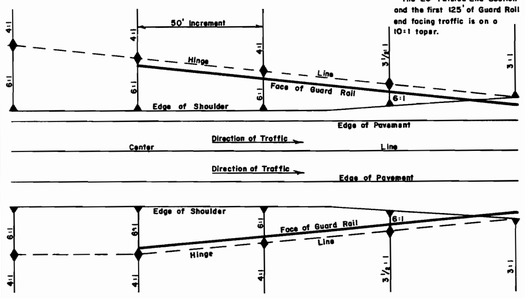
CUT TO FILL**

9-E



HIGH FILL TO LOW FILL**

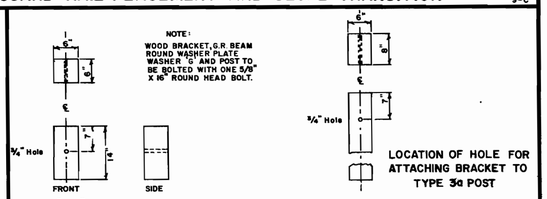
BEAM GUARD RAIL PLACEMENT AND SLOPE TRANSITION



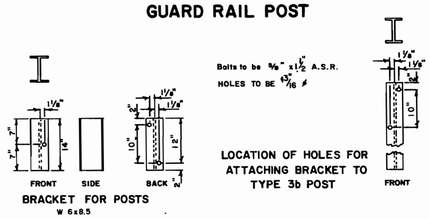
LOW FILL TO HIGH FILL**

**NOTE:
The 25' Twisted End Section and the first 125' of Guard Rail and facing traffic is on a 10:1 taper.

9-F



OFFSET BRACKET FOR TYPE 3a GUARD RAIL POST



OFFSET BRACKET FOR TYPE 3b GUARD RAIL POST

9-G

REVISIONS	
Added Plates 9E & 9F	NOV. 1969
PLATE 9G	12-20-71
PLATE 9G	1-19-72
PLATE 9E	10-22-74
PLATE D	10-14-75

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

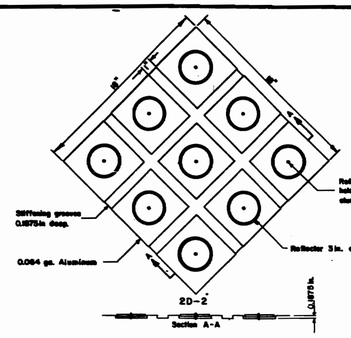
STANDARD DETAILS

BEAM GUARD RAIL END TREATMENT

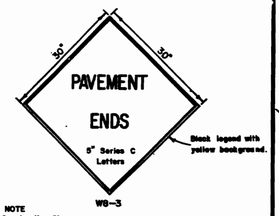
164-114 AUG. 1969 (9)

CUTTS ROAD BRIDGE - KITTERY

F.H.W.A. REGN. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)3	72	82



HAZARD MARKER



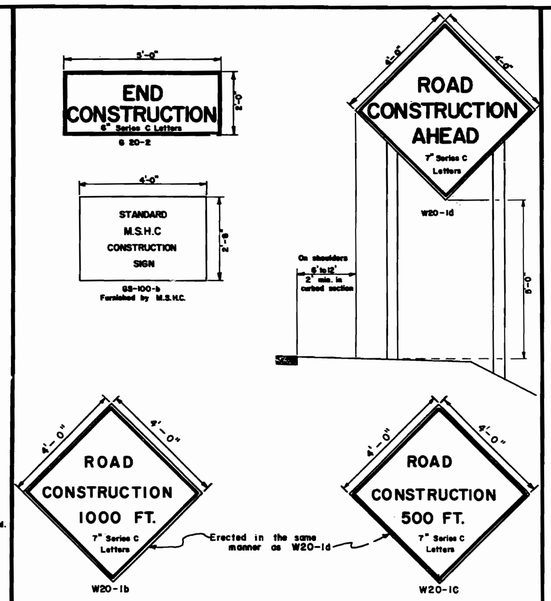
NOTE

SIGNING IN AN AREA WHERE BLASTING IS NECESSARY SHALL BE PLACED AS OUTLINED IN THE "MANUAL", AND THE PRECAUTIONS OF SUBSECTION 107.12 OF THE STANDARD SPECIFICATIONS SHALL BE OBSERVED.

GENERAL NOTE
Construction Signs

1. Sign Borders: All signs shall have borders conforming to the size and spacing as shown below:
   a. 30" x 30" Sign - 3/4" Border, 1/2" Space from sign edge.
   b. 2' x 3' Sign - 3/4" Border, 3/4" Space from sign edge.
   c. 3' x 4' Sign - 3/4" Border, 1/4" Space from sign edge.
   d. 4' x 4' Sign - 1 1/4" Border, 3/4" Space from sign edge.

A



CONSTRUCTION SIGNS

B

GENERAL NOTES - BARRICADES

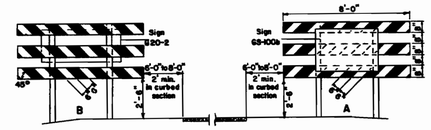
1. Unless otherwise designated, sign designation letters shall refer to the "Manual of Uniform Traffic Control Devices for Street and Highways," published by the U. S. Department of Transportation, Federal Highway Administration, 1971.
2. White stripes shall be of silver reflective sheeting bonded to 0.019 minimum gauge aluminum, 16 minimum gauge galvanized steel, or 1/4" plywood. Individual white sheets may be attached to an orange reflectorized background to form the orange and white stripes. At the Contractor's option the reflective sheeting and backing may extend the full width of the barricade with an opaque film or paint applied to form the stripes.
3. All signs shall be of reflective sheeting on 5/8" thick plywood. The plywood shall conform to subsection 712.25, Standard Specifications, June 1968.
4. Pressure sensitive reflective sheeting will be an acceptable alternate to the reflective sheeting required by Standard Specifications.

NOTES - PORTABLE BARRICADES

1. Lumber sizes for portable barricades shall be 2" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. The detour sign shall be an oversized M4-10 sign with a demountable "DETOUR" message which shall be made of screened reflective sheeting on 1/4" plywood, masonite, sheet steel or sheet aluminum.
3. Hazard markers shall be attached to the barricade with a bolt assembly of steel cadmium plated 5/16" bolt, lock washer and vandal resistant nuts.
4. When two W1-6 signs are required, K11-2, K11-3, or K11-4 signs shall be omitted.
5. Flashing lights housings shall be mounted to permit rotating in a vertical axis to allow for adjustment to face oncoming traffic.
6. Location of electric service and meter to be determined after the power source has been located.

NOTES-WING BARRICADES

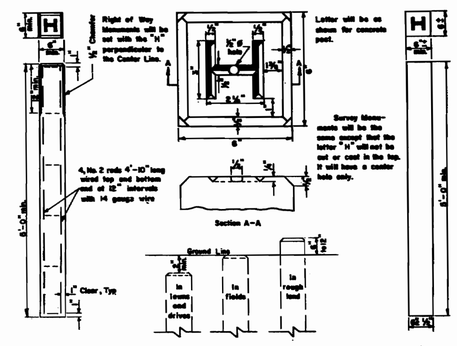
1. Lumber sizes for wing barricades shall be 1" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. Wing barricades will not be required unless specifically called for in the special provisions.
3. Location of signs and barricades will be determined by the Engineer.



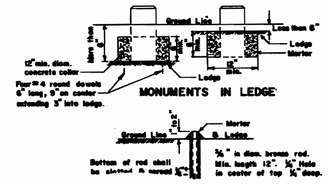
WING BARRICADES

C

RIGHT OF WAY & SURVEY MONUMENTS

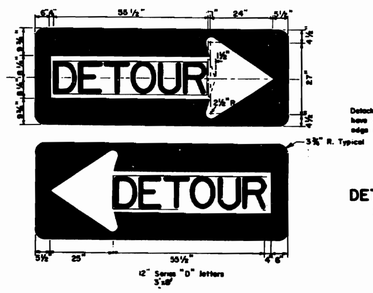


CONCRETE MONUMENT — MONUMENTS IN EARTH — GRANITE MONUMENT

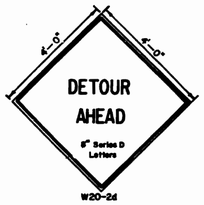


BRONZE PIN MARKERS

D

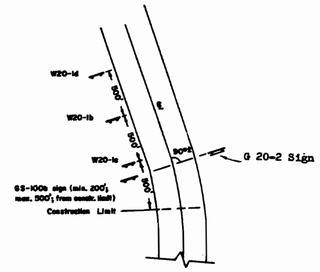


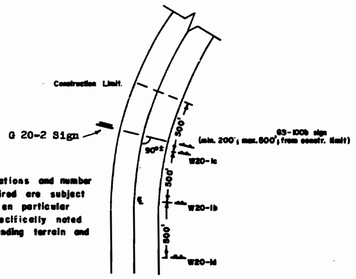
DETOUR SIGN
M 4-(L)



E

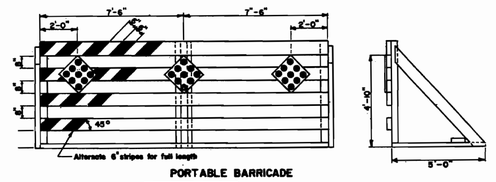
STANDARD SIGN LOCATIONS



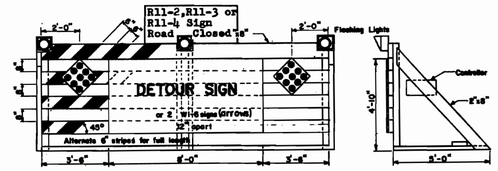


NOTE:
Standard locations and number of signs required are subject to variation on particular projects if specifically noted due to surrounding terrain and land use.

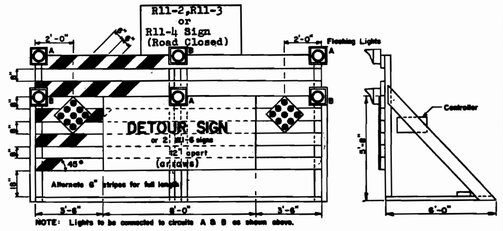
F



PORTABLE BARRICADE



PORTABLE BARRICADE WITH FLASHING LIGHTS (NORMAL SIZE)

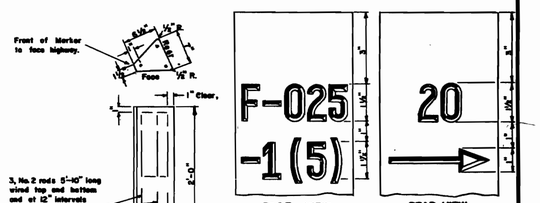


NOTE: Lights to be connected to circuits A & B as shown above.

OVERSIZED PORTABLE BARRICADE WITH FLASHING LIGHTS

BARRICADES

G



NOTES

1. Distance from roadway shall be 30' minimum.
2. When posts cannot be set on the exact station, the front of the post shall be painted black from the top to 3" down, and the offset distance marked on rear with an arrow pointing in direction of beginning or end of project.
3. All markings to be 1/4" deep and 3/8" wide.

PROJECT MARKERS

H

REVISION	
PLATE B	12-21-70
PLATES D, E, F & G	12-15-71
PLATE C	10-12-72
PLATES C/G	3-25-76

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

BARRICADES
WARNING SIGNS
MONUMENTS
PROJECT MARKERS

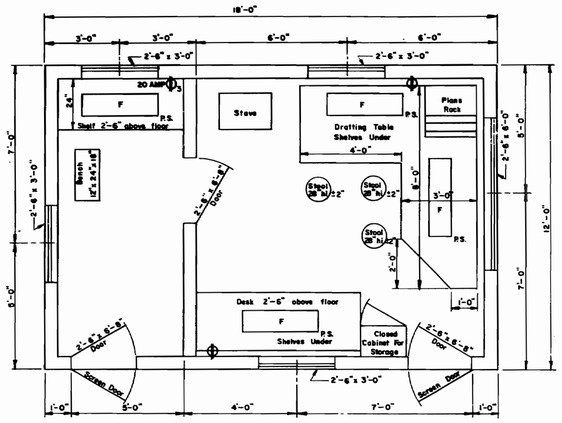
164-115

AUG. 1969

11

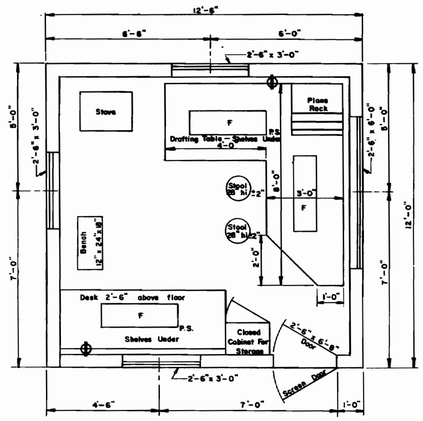
CUTTS ROAD BRIDGE - KITTERY

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	NAME	I-95-1(29)3	73	82



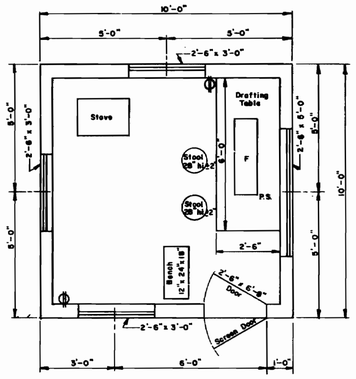
FLOOR PLAN
TYPE "A"

A



FLOOR PLAN
TYPE "B"

B

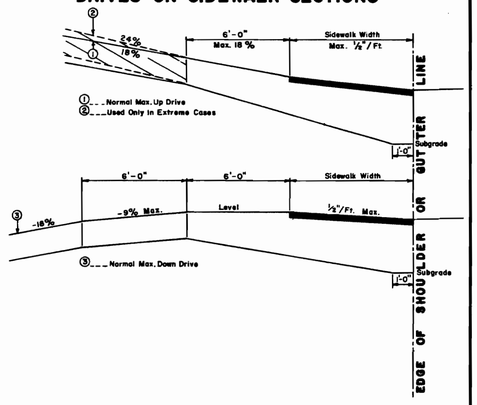


FLOOR PLAN
TYPE "C"

C

GENERAL NOTES

1. Drafting table shall be 3'-6" high at front edge and placed 2" from studs to allow prints to hang down behind table when in use.
2. Shelves under desk shall be constructed to received 11½" x 14" x 25" transfiles.
3. Windows shall be double hung.
4. Stovepipe shall not be in direct contact with combustible material, the pipe shall be surrounded with at least 6" of fireproof material.
5. Continuous 110 volt 60 cycle electric service shall be supplied.
6. The engineer may rearrange the items shown on the plan views during construction of the field office.
7. FURNISHINGS TO BE SUPPLIED :
   - 2 Straight back chairs for types A and B
   - 1 Bench for types A, B & C
   - 3 Stool for type A
   - 2 Stools for types B & C
8. SYMBOLS :
   - F Florescent lights (2 light, rapid start 48" strips and 40 watt bulbs.)
   - P.S. Pull switch
   - Duplex wall outlet — 15 amp unless otherwise noted.
   - $_3$ Triplex Wall Outlet
9. For the Type "A" Field Office one clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furished with water at all times.

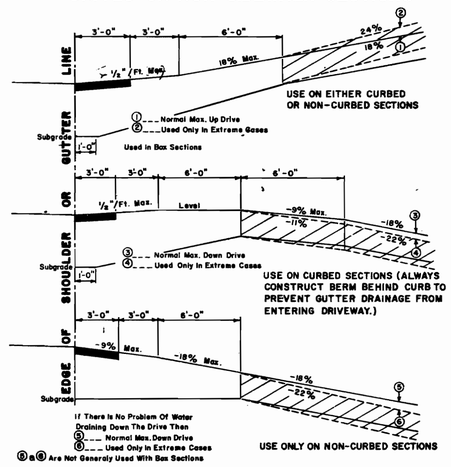


DRIVES ON SIDEWALK SECTIONS

GENERAL NOTES
1. The sidewalk width shall be paved in all cases.
2. All residential or commercial drives 10% and over shall be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles, the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

D

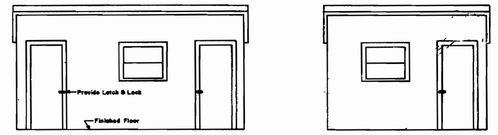


DRIVES ON NON-SIDEWALK SECTIONS

GENERAL NOTES
1. The first 3' shown as pavement shall be paved only when abutting a paved area.
2. All residential or commercial drives 10% and over shall be paved.

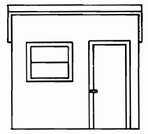
NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

E

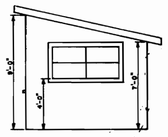


FRONT ELEVATION
TYPE "A"

FRONT ELEVATION
TYPE "B"



FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A" "B" & "C"

F

REVISIONS	
PLATE 'D' & 'E'	3-16-73

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

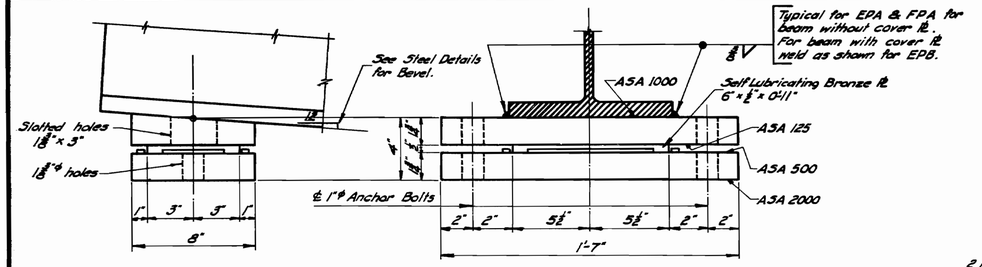
STANDARD DETAILS

DRIVEWAY DETAILS
FIELD OFFICES
TESTING LABORATORY

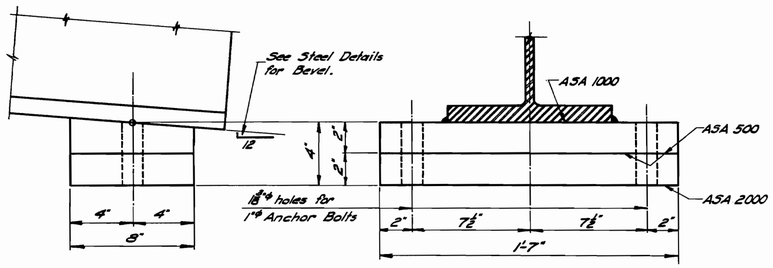
164-116 AUG. 1969 (12)

CUTTS ROAD BRIDGE - KITTERY

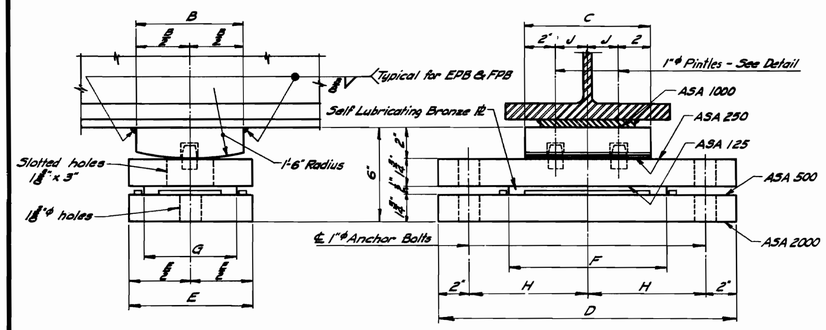
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(21)	74	82



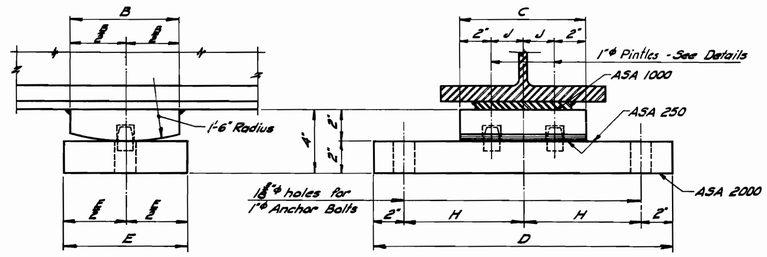
EXPANSION PEDESTAL - EPA



FIXED PEDESTAL - FPA



EXPANSION PEDESTAL - EPB



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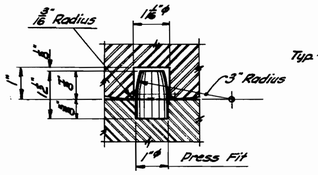
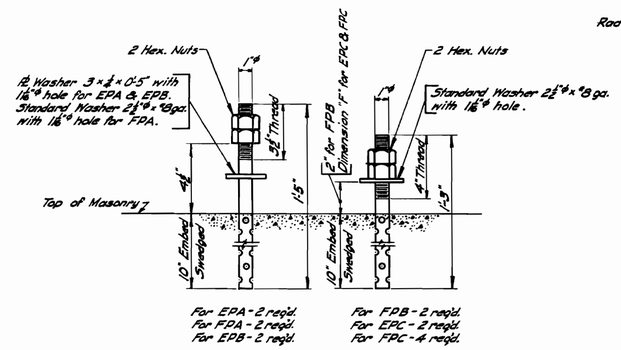
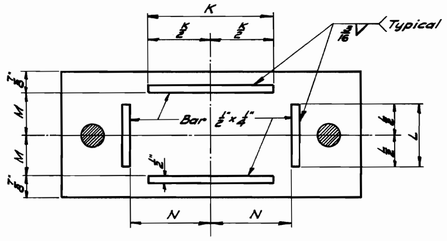


PINTLE DETAIL

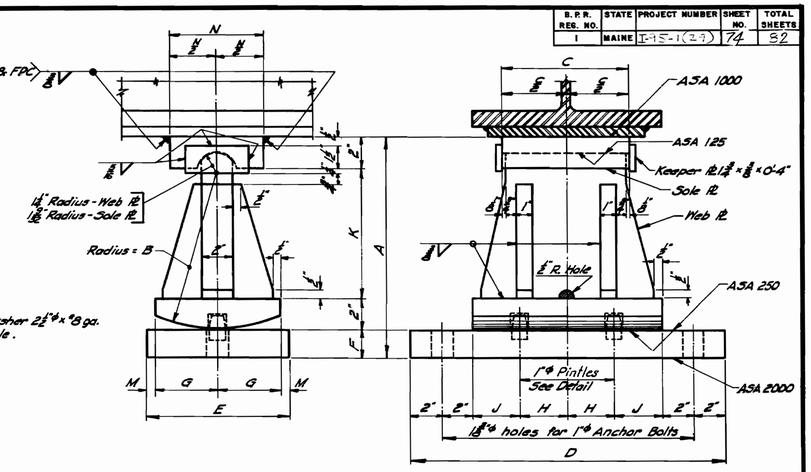


ANCHOR BOLT DETAIL

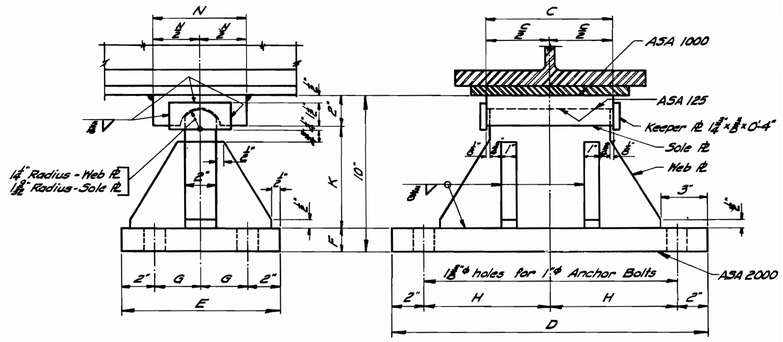


For EPA & EPB

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"	3 1/2"	5 3/8"
FPA	150 K	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120 K	—	6"	8"	1'-7"	8"	10"	6"	7 1/2"	2"	8"	4"	3 1/2"	5 3/8"
EPB-2	165 K	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	3 1/2"	6 3/8"
EPB-3	224 K	—	8"	1'-1"	2'-0"	10"	1'-4"	8"	10"	4 1/2"	1'-2"	5"	4 1/2"	8 3/8"
FPB-1	120 K	—	6"	8"	1'-7"	8"	—	—	7 1/2"	2"	—	—	—	—
FPB-2	165 K	—	7"	10"	1'-8"	9"	—	—	8"	3"	—	—	—	—
FPB-3	224 K	—	8"	1'-2"	2'-0"	10"	—	—	10"	5"	—	—	—	—
EPC-1	70 K	9 1/8"	6"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	4 1/2"	—	1/2"	6"
EPC-2	100 K	11 1/8"	8"	8"	1'-8"	8"	1 1/2"	3 1/2"	3"	3"	6 1/2"	—	1/2"	6"
EPC-3	130 K	1'-2"	10"	8"	1'-8"	9"	1 1/2"	4"	3"	3"	8 1/2"	—	1/2"	7"
EPC-4	160 K	1'-2"	10"	8"	1'-10"	9"	1 1/2"	4"	4"	3"	8 1/2"	—	1/2"	7"
EPC-5	190 K	1'-2 1/2"	10"	9"	2'-0"	10"	2"	4 1/2"	5"	3"	8 1/2"	—	1/2"	8"
EPC-6	220 K	1'-4 1/2"	1'-0"	10"	2'-0"	1'-0"	2 1/2"	5"	5"	3"	10 1/2"	—	1"	8"
EPC-7	250 K	1'-4 1/2"	1'-0"	1'-0"	2'-2"	1'-0"	2 1/2"	5"	5"	4"	10 1/2"	—	1"	8"
FPC-1	100 K	—	—	8"	1'-8"	9"	1 1/2"	2 1/2"	8"	—	6 1/2"	—	—	6"
FPC-2	160 K	—	—	8"	1'-8"	10"	1 1/2"	3"	8"	—	6 1/2"	—	—	7"
FPC-3	190 K	—	—	9"	2'-0"	10"	1 1/2"	3"	10"	—	6 1/2"	—	—	8"
FPC-4	220 K	—	—	10"	2'-0"	1'-0"	1 1/2"	4"	10"	—	6 1/2"	—	—	8"
FPC-5	250 K	—	—	1'-0"	2'-0"	1'-0"	2"	4"	10"	—	6"	—	—	8"

NOTE: 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 1/8 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1973.
Interims 1974, 1975, 1976.

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A36
All other - A36.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 101 -74)

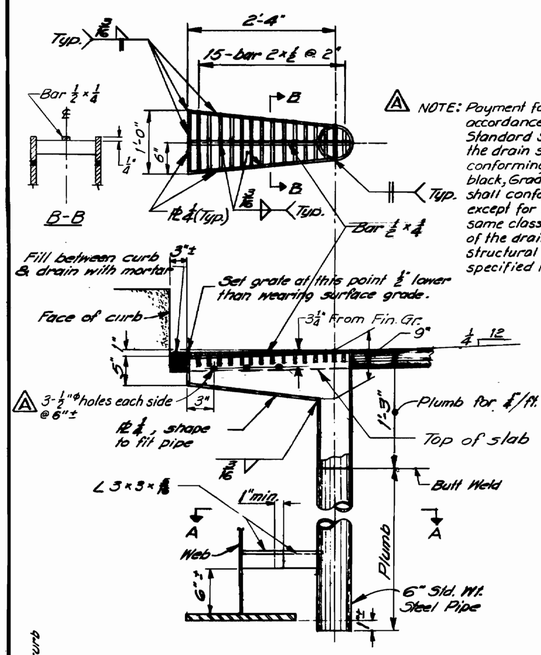
BEARING PEDESTALS

164-117

SHEET OF AUGUSTA, ME. APRIL, 1974

CUTTS ROAD BRIDGE - KITTERY

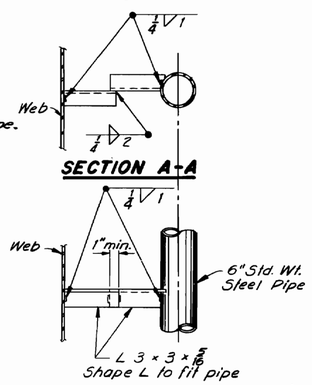
B.R.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(27)	75	82



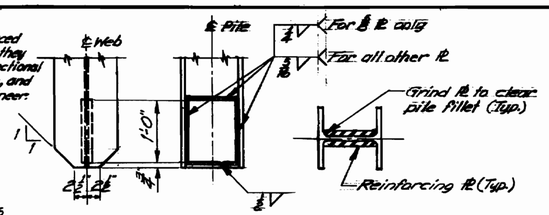
DRAIN

NOTE: 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.

NOTE: Payment for the roadway drains shall be in accordance with subsection 502.20 of the Standard Specifications. The pipe portion of the drain shall be 6" standard weight pipe conforming to the specification for ASTM A53, black, Grade B, Type E or S. All bars and plates shall conform to the specification for ASTM A36 except for the L 3×3×3/16 which shall be of the same classification as the beam web. Painting of the drains will not be required when the structural steel is unpainted, unless otherwise specified in the contract drawings.



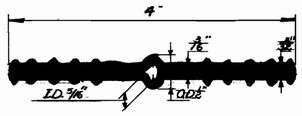
SECTION A-A



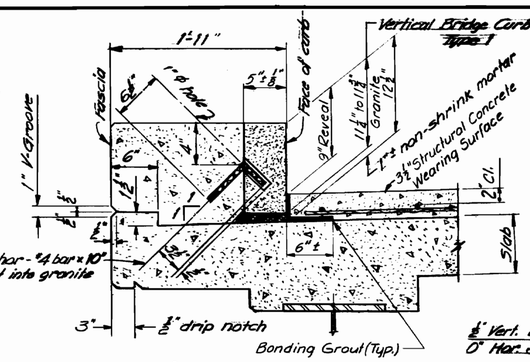
POINTED REINFORCED PILE TIP

NOTE: Plates may be shop or field welded

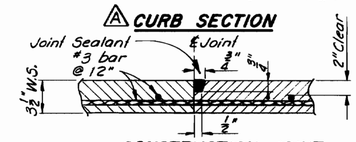
STEEL HP BEARING PILES	
PILE SIZE	REINF. ℞ SIZE
HP 10 × 42	8¾ × ⅜ × 1'-0"
HP 10 × 57	8¾ × ⅜ × 1'-0"
HP 12 × 53	10¾ × ⅜ × 1'-0"
HP 12 × 74	10¾ × ⅜ × 1'-0"
HP 14 × 73	12½ × ⅜ × 1'-0"
HP 14 × 89	12½ × 1 × 1'-0"



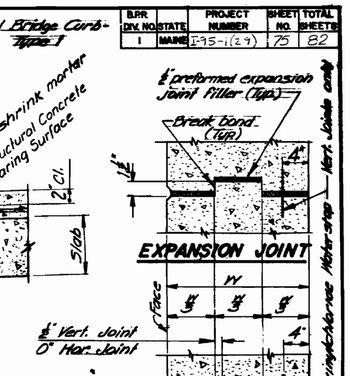
POLYVINYLCHLORIDE WATERSTOP



CURB SECTION

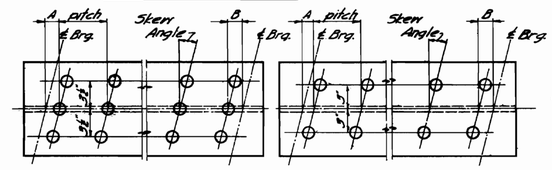


CONSTRUCTION JOINT



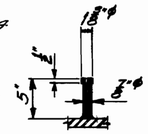
EXPANSION JOINT

CONSTRUCTION & CONTRACTION JOINTS



TRIPLE STUDS

DOUBLE STUDS

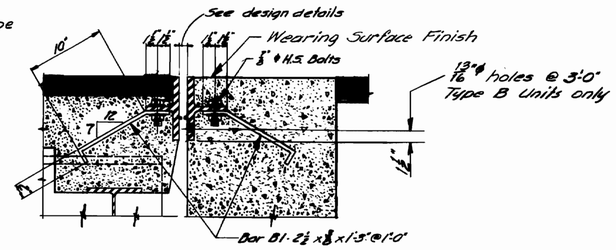


STUD DETAIL

NOTE

1. Studs shall be granular or solid flux filled and automatically and welded to top flange in the shop or field.
2. See the design details for Dimensions "A" & "B", stud pitch and skew angle for studs.

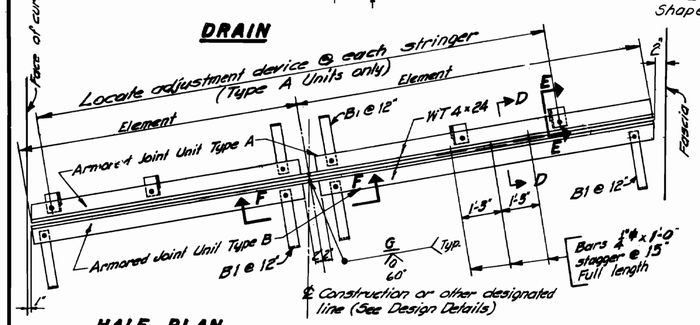
SHEAR CONNECTORS



ARMORED JOINT UNIT TYPE A

ARMORED JOINT UNIT TYPE B

SECTION D-D

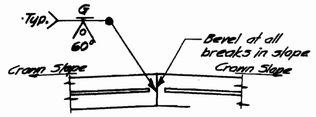


HALF PLAN

Curb to curb

HALF PLAN

Fascia to Fascia



SECTION F-F

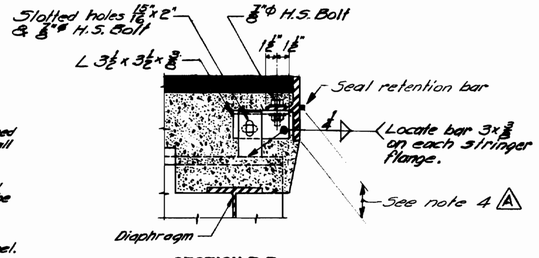
Note: See design details for constr. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. When more elements than two (2) are required by the design details, the elements of both units shall be field welded together in the same manner as shown in Section F-F.
3. Armored Joints to be paid for as Structural Steel.
4. All structural steel shall be A36. When structural steel is specified to be unpainted, the armored joint shall receive three coats of shop paint, on exposed areas of flanges below seal retention bars.

ARMORED JOINT

An armored joint consists of two armored joint units. See note 1.



SECTION E-E

Showing Adjustment Device Armored Joint Unit Type A only. After Unit is in final position weld ⅜ bar to angle with ¼" fillet.

NOTE Use only those items called for on design details. In case of conflict between these Standard Details and design details, the requirements of the design details shall be followed.

REVISIONS	DATE
Added holes and note to roadway drain.	3-1-77
Add Note 4 to Armored Joint notes.	
Eliminate Hot Bit. Pav't.	
Change Granite width and added a concrete wearing surface	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 104-77)

ARMORED JOINT, DRAIN
SHEAR CONNECTORS
MISC. STRUCTURAL DETAILS

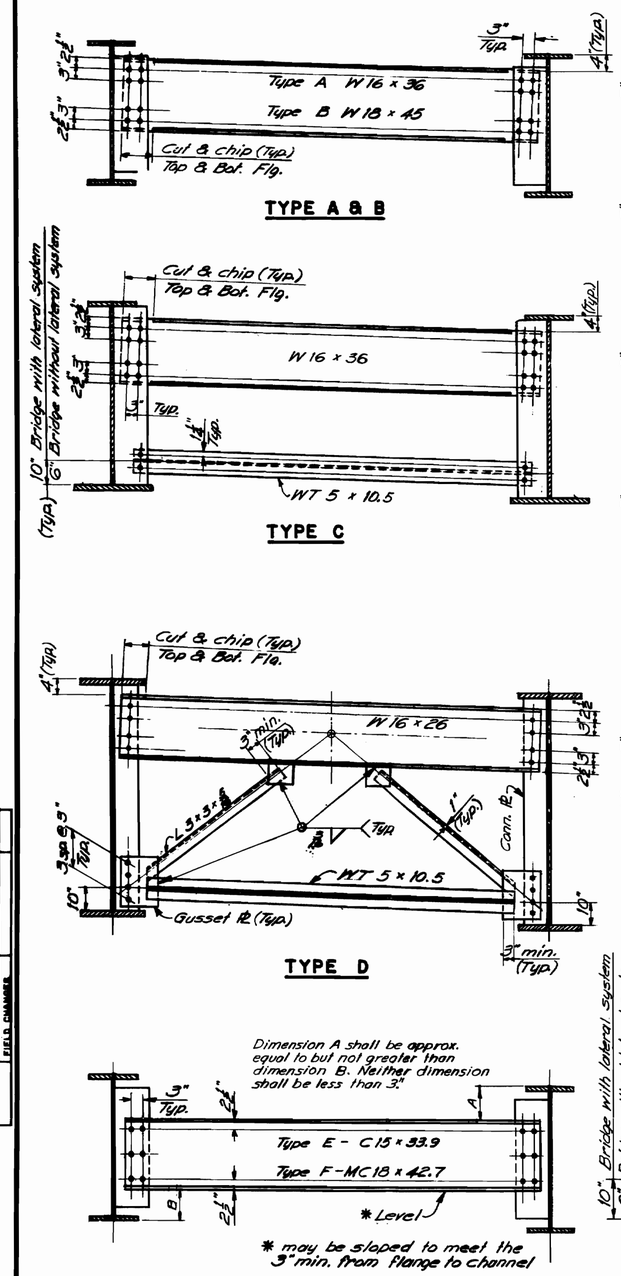
SHEET 164-118 OF

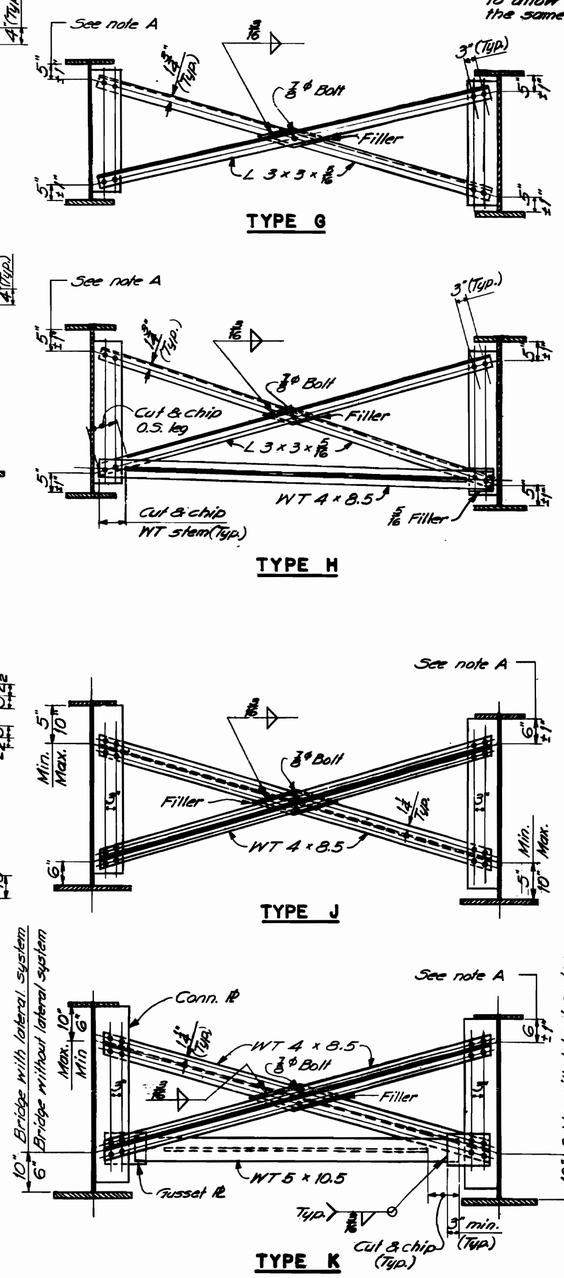
AUGUSTA, ME. FEB. 1977

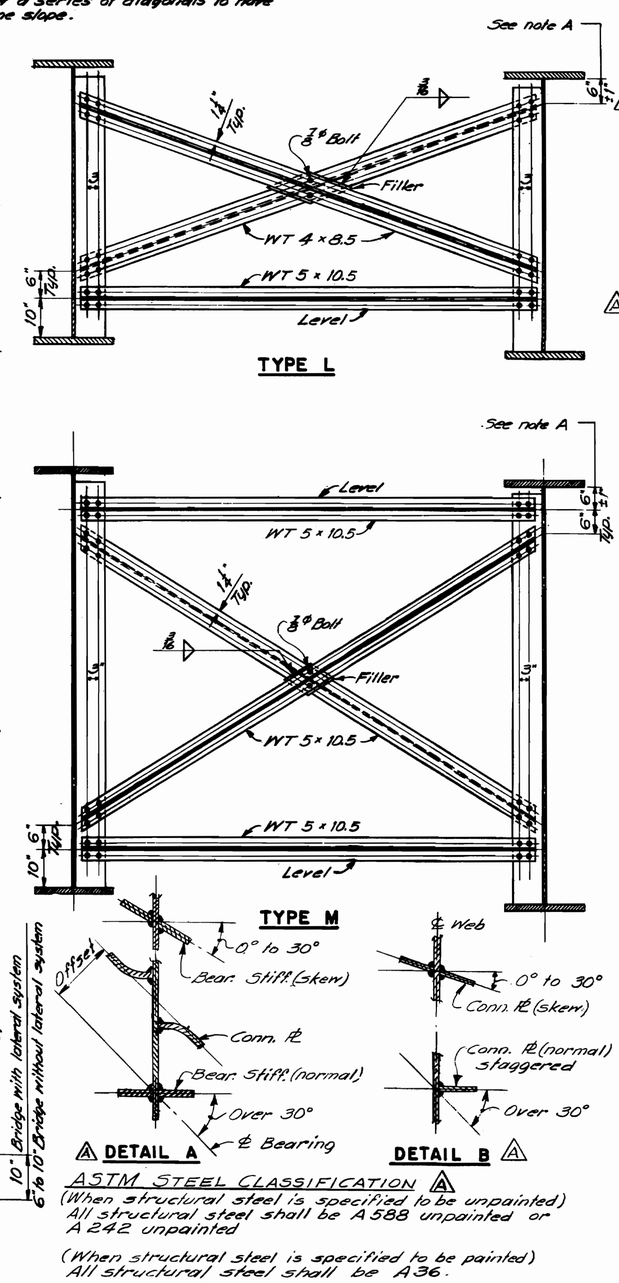
OTTO MEAN BRIDGE-KITTERY

F.A.P. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)	76	82

NOTE A This dimension may be varied (±1") to allow a series of diagonals to have the same slope.







FABRICATION NOTES

1. For location and type of cross-frame or diaphragm see design details.
2. All bolts shall be 7/8" ϕ H.S. bolts.
3. Holes for 7/8" ϕ H.S. bolts shall be 15/16" ϕ and Edge distances shall be 1 1/4" minimum unless otherwise shown.
4. Connection plates and gusset plates shall have a minimum thickness of 3/8" and shall have sufficient width to provide erection clearances. When bearing stiffeners or intermediate stiffeners are used as connection plates, the plate size will be given on the design details.
5. Connection plates shall be fastened to beam and girder webs by fillet weld both sides.
   0° to 30° skew - Skew Conn. Pl.
   Over 30° skew - Conn. Pl. normal (Stagger)
   See Detail B
6. The skew angle is the angle between the connection plate and a line normal to the beam.
7. Bearing Stiffeners shall be used as connection plates when the skew is 30° or less.
   0° to 30° skew - Skew Stiffener
   Over 30° skew - Stiffener normal
   Use bent connection plates.
   See Detail A
8. All fillet weld sizes shall be the minimum for the thickness of metal being joined according to AWS Specifications for Welded Highway & Railway Bridges.
9. Connection plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression or when used as a bearing stiffener or intermediate stiff.
10. Connection plates shall extend to the bottom flange when used as a bearing stiffener, at points where lateral bracing is attached & on welded beams and girders in areas where the bottom flange is always in compression.
11. When a conn. plate is extended to a flange it shall be a paint tight fit except as otherwise indicated on design details.
12. Conn. plates shall be 2 1/2" clear from flanges, except as indicated by Notes 7&8.
13. Use only those items called for on the design details. In case of conflict between these standard details and the design details, the design details shall be followed.

ASTM STEEL CLASSIFICATION

(When structural steel is specified to be unpainted)
All structural steel shall be A588 unpainted or A242 unpainted

(When structural steel is specified to be painted)
All structural steel shall be A36.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 113 - 72)
DIAPHRAGMS & CROSSFRAMES

REVISED MAR. 1, 1977

SHEET OF AUGUSTA, MAINE SEPT. 1972

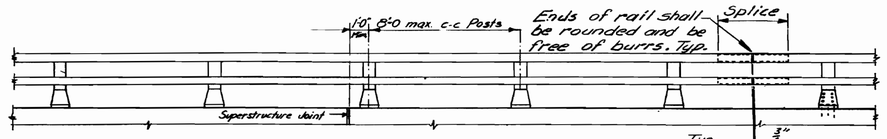
164-119 BRIDGE - KITTERY

PLANS
DESIGN - DETAILED
CHECKED
REVIEWED
FIELD CHANGES
BY
DATE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)	77	82

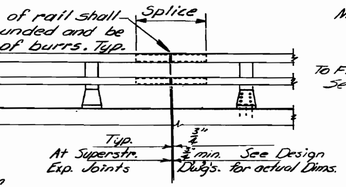
DESIGN SPECIFICATIONS

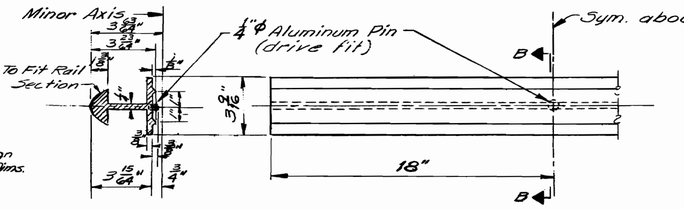
AASHTO Standard Specifications for Highway Bridges 1973, and Interims 1974, '75, '76, '77



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.

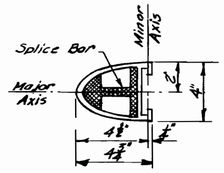




SECTION B-B

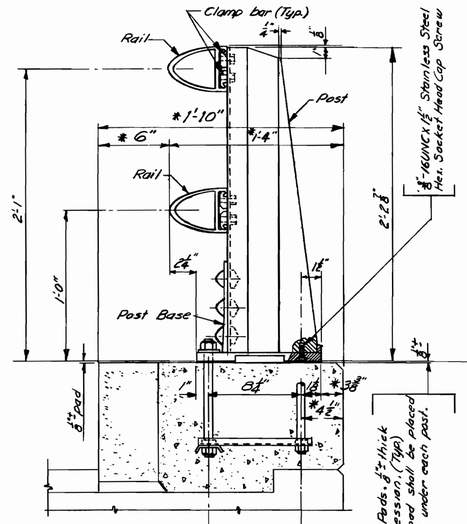
SPLICE BAR

Alternate splice bars may be substituted if approved by the Engineer



RAIL SECTION

See "Rail Detail"

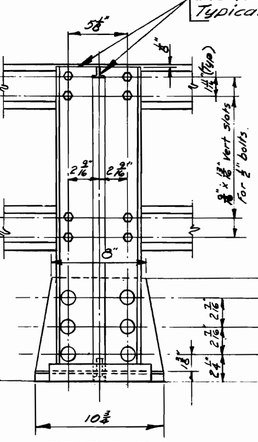


BRIDGE RAILING

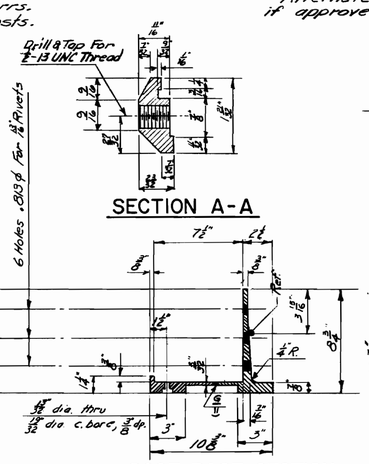
(Assembly)

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

Preformed Pads, 1/8" thick after compression, (Typ) At least one pad shall be placed at front & back under each post.

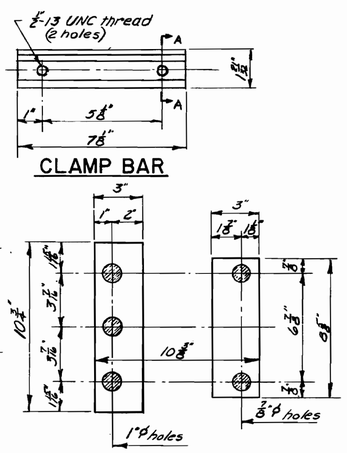


REAR ELEV.



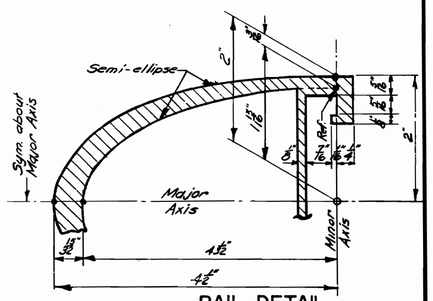
SECTION A-A

POST BASE SECTION

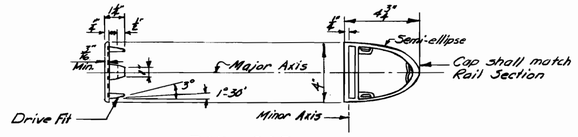


CLAMP BAR

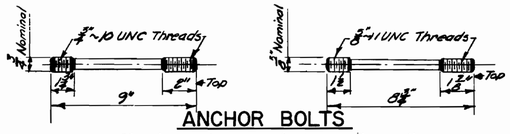
PREFORMED PADS



RAIL DETAIL

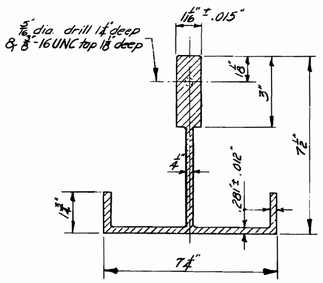


RAIL CAP

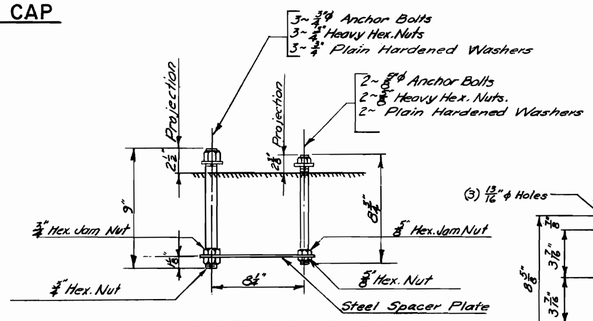


ANCHOR BOLTS

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 root diameter of the threads.

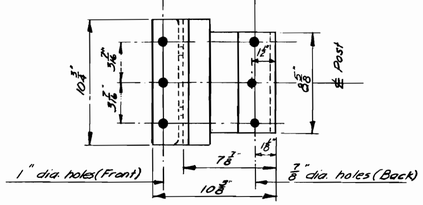


POST SECTION



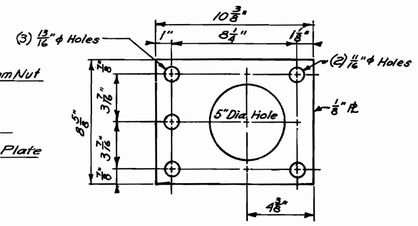
RAIL POST ANCHORAGE

(Assembly)



POST BASE

(Bottom View)



STEEL SPACER PLATE

(For Anchorage)

PLANS	BY	DATE
DESIGN - DETAILED	K. Lewis / K. Lewis	Jan. 1977
CHECKED		
REVISIONS	K. Peterson	Jan. 1978
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

(BD 114 - 77)

ALUMINUM BRIDGE RAILING

2 - BAR (SEMI-ELLIPSE)
TYPE "A"

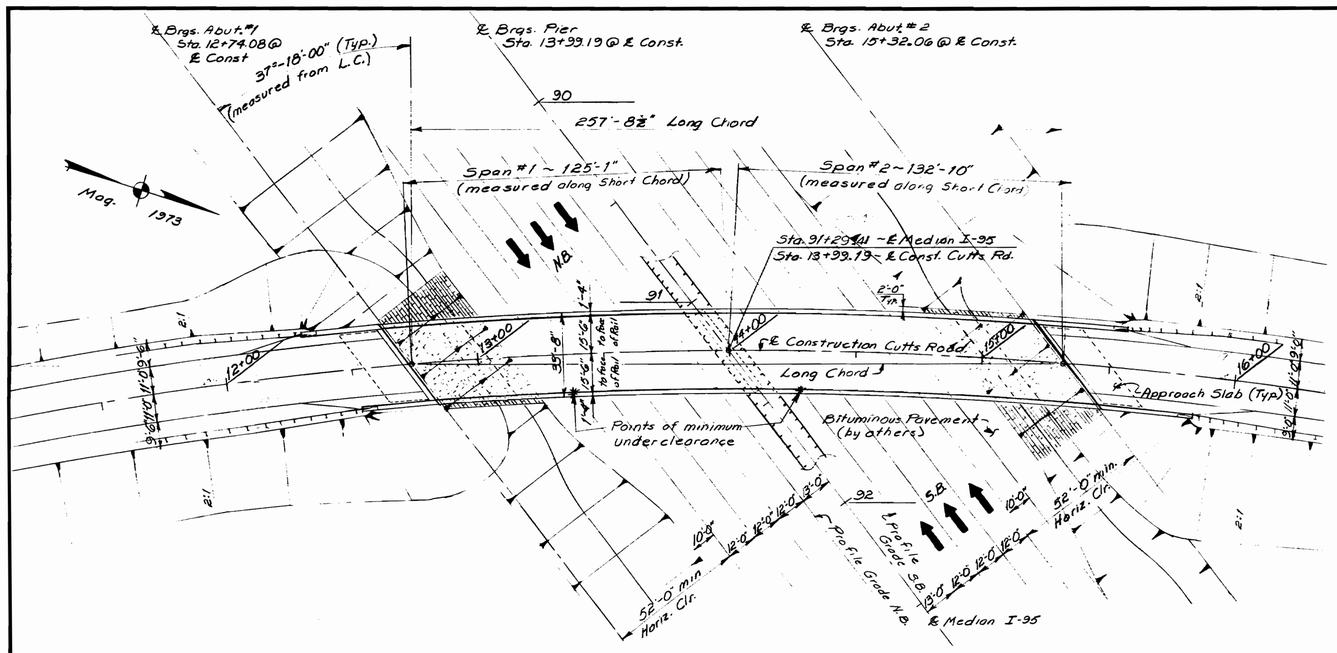
SHEET OF AUGUSTA, MAINE DEC. 1977

164-120

JANUARY 1968

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	1-95-1(29)3	76	82

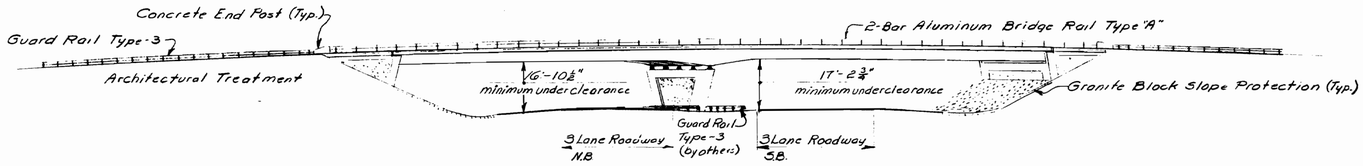
Contract 2



PLAN

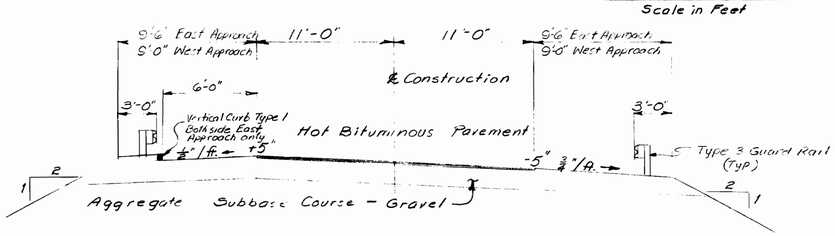
Scale in Feet

NOTE: The contract for Cutts Road is only for Item 504.7002 Structural Steel, Fabrication and Delivered. The construction of the structure is to be by others.

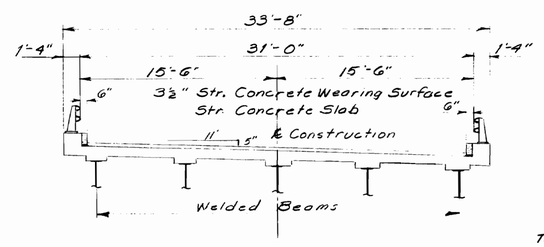


ELEVATION

Scale in Feet



TYPICAL APPROACH SECTION



TYPICAL BRIDGE SECTION

INDEX TO STRUCTURAL STEEL PLANS CUTTS ROAD

Description	Sheet Number
General Plan	1
Profile	2
Framing Plan	3
Lateral Bracing and Splice Details	4
Haunch Detail and Camber Diagram	5
Blocking	6
Sign Support Details	7

ESTIMATED QUANTITIES

Item No.	Description	Quantity	Unit
504.7002	Structural Steel, Fab. & Delivered (estimated quantity 308,000 lbs.)	Nec	L.S.

SPECIFICATIONS

DESIGN: AASHTO Specifications for Highway Bridges 1973 and Interims 1974, 1975, 1976 and 1977.

Contract: State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revisions of June 1968.

DESIGN LOADING

Live Load: HS 20-44

Materials

Structural Steel:

Girder flanges -------- ASTM A572, Grade 50
High Strength Bolts ---------ASTM A325, Type 1
All other----------ASTM A36

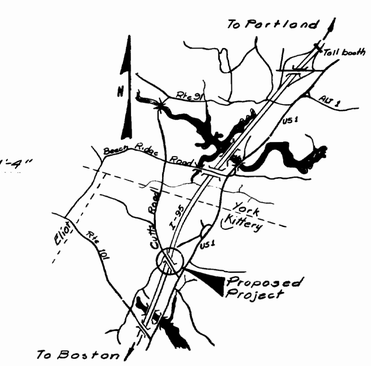
Basic Allowable Stresses

Structural Steel: ASTM A572, Grade 50---f_s = 27,000 psi.
ASTM A325----------f_v = 13,500 psi.
ASTM A36----------f_s = 20,000 psi.

Traffic Data

Cutts Road

1976 AADT	=	630
1996 AADT	=	1230
DHV	=	148
18 Kip	=	16



LOCATION MAP

Scale in Miles

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
GENERAL PLAN

SHEET 1 OF 7 AUGUSTA, MAINE

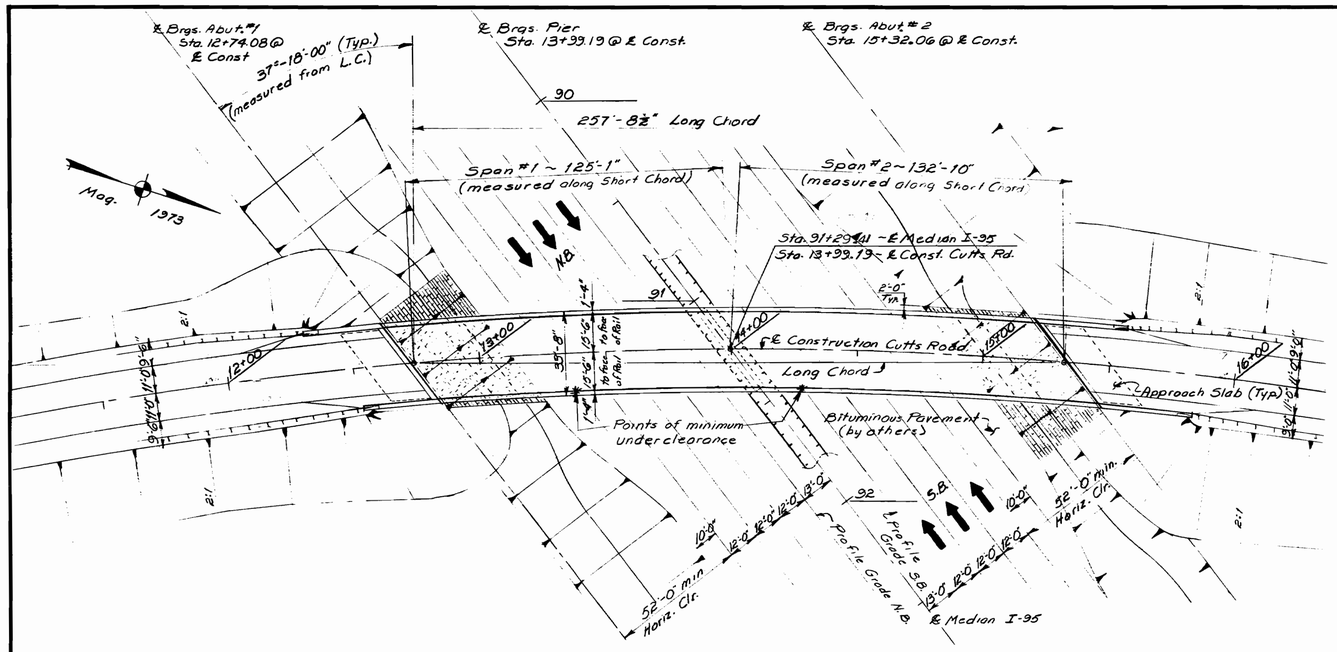
PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MAJ & LAW	9-77
	CHECKED	JET	11-77
	REVISIONS		
	FIELD CHANGES		

JANUARY 1968

1-95-1(29)3 Contract 2 - 164-121 Elder Hill Rd.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	1-95-1(29)3	76	82

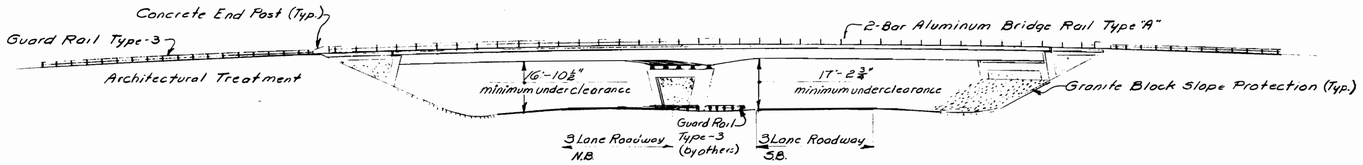
Contract 2



PLAN

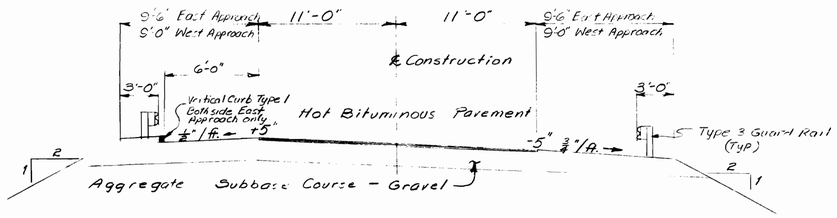
25 0 25 50
Scale in Feet

NOTE: The contract for Cutts Road is only for Item 504.7002 Structural Steel, Fabrication and Delivered. The construction of the structure is to be by others.

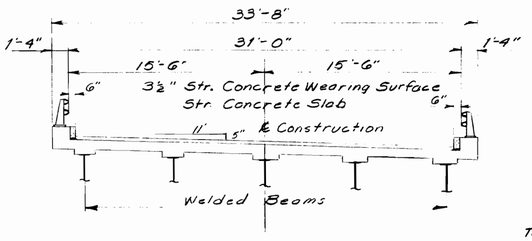


ELEVATION

25 0 25 50
Scale in Feet



TYPICAL APPROACH SECTION



TYPICAL BRIDGE SECTION

INDEX TO STRUCTURAL STEEL PLANS
CUTTS ROAD

Description	Sheet Number
General Plan	1
Profile	2
Framing Plan	3
Lateral Bracing and Splice Details	4
Haunch Detail and Camber Diagram	5
Blocking	6
Sign Support Details	7

ESTIMATED QUANTITIES

Item No.	Description	Quantity	Unit
504.7002	Structural Steel, Fab. & Delivered (estimated quantity 308,000 lbs.)	Nec	L.S.

SPECIFICATIONS

DESIGN: AASHTO Specifications for Highway Bridges 1973 and Interims 1974, 1975, 1976 and 1977.
Contract: State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revisions of June 1968.

DESIGN LOADING

Live Load: HS 20-44

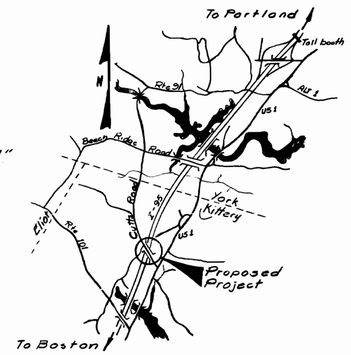
Materials

Structural Steel:
Girder flanges -------- ASTM A572, Grade 50
High Strength Bolts --------- ASTM A325, Type 1
All other ---------- ASTM A36

Basic Allowable Stresses

Structural Steel: ASTM A572, Grade 50 --- f_s = 27,000 psi.
ASTM A325 ---------- f_v = 13,500 psi.
ASTM A36 ---------- f_s = 20,000 psi.

Traffic Data
Cutts Road
1976 AADT = 630
1996 AADT = 1230
DHV = 148
18 Kip = 16



LOCATION MAP

1 0 1 2
Scale in Miles

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
GENERAL PLAN

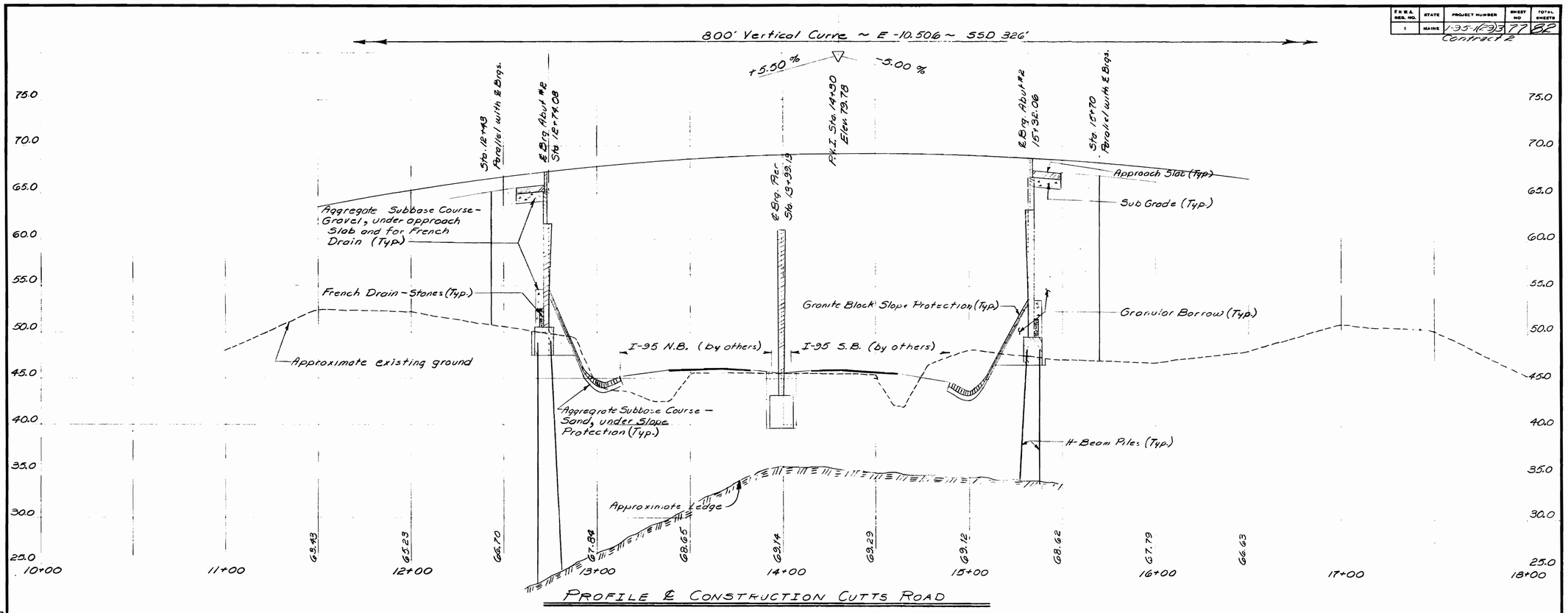
SHEET 1 OF 7 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MAS LAW	9-77
	CHECKED	JET	11-77
	REVISIONS		
	FIELD CHANGES		

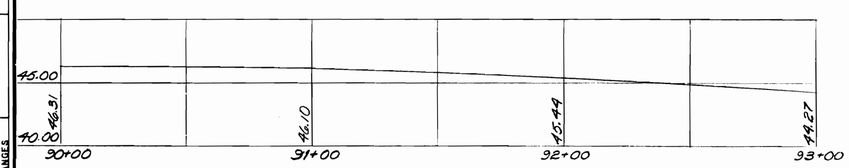
JANUARY 1968

1-95-1(29)3 Contract 2 - 164-121 der Hill Rd.

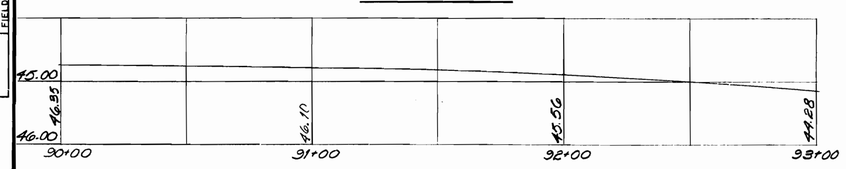
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)3 Contract 2	77	82



PROFILE ℄ CONSTRUCTION CUTTS ROAD



SOUTHBOUND



NORTHBOUND

PROFILES I-95

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MMK/LAW	9-77
	CHECKED	JET	11-77
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

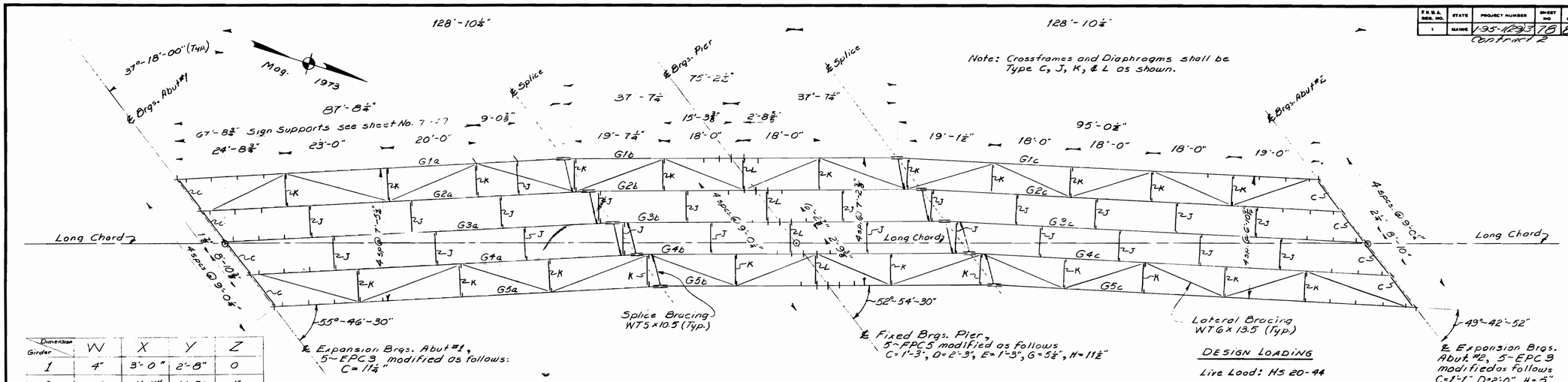
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
PROFILE

SHEET 2 OF 7 AUGUSTA, MAINE

I-95-1(29)3 Contract 2- York- 164-122 Rd.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	1-95-1(29)3	78	82

Contract 2



FRAMING PLAN

Girder \ Dimension	W	X	Y	Z
1	4"	3'-0"	2'-8"	0
2	3"	2'-11"	2'-9"	1"
3	2"	2'-10"	2'-10"	2"
4	1"	2'-9"	2'-11"	3"
5	0	2'-8"	3'-0"	4"

Stud Layout Table

DESIGN LOADING

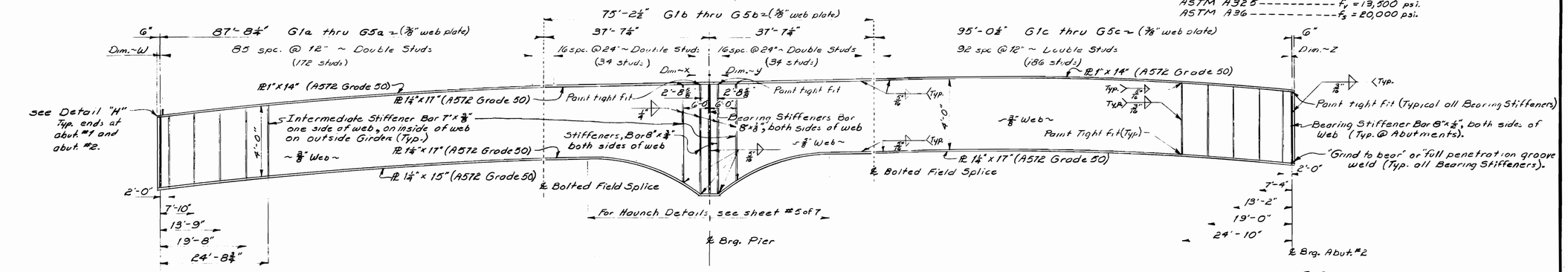
Live Load: HS 20-44

Materials

Structural Steel:
Girder flanges -------- ASTM A572, Grade 50
High Strength Bolts --------- ASTM A325, Type 1
All other ---------- ASTM A36

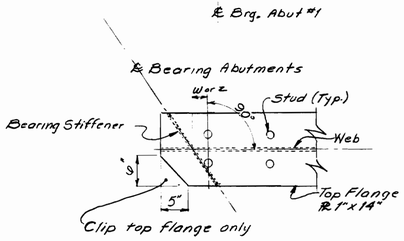
Basic Allowable Stresses

Structural Steel: ASTM A572, Grade 50 --- f_s = 27,000 psi.
ASTM A325 ---------- f_v = 13,500 psi.
ASTM A36 ---------- f_s = 20,000 psi.

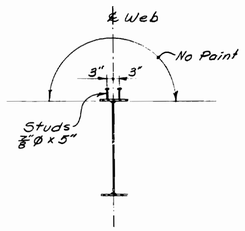


GIRDER ELEVATION

Total number of Studs required ~ 2,130 ~ By others
Weight of Studs = 2,087 lbs.



DETAIL "H"



Typical Girder Section

STRUCTURAL STEEL NOTES

1. Camber ordinates, Sh #5 of 7, are computed to compensate for all dead load deflections and for the curvature of the finish grade profile.
2. No transverse butt weld splices in the flange plates or web plates will be allowed within 10 feet of the points of maximum negative moment or maximum positive moment.
3. Sections of flange plates or web plates shall be not less than 20 feet in length unless otherwise shown on the plans.
4. Butt weld splices in flanges shall be not less than 1 foot from transverse welds in the web plates.
5. Bearing stiffeners and ends of girders at abutments 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 and diaphragm connection plates may be either plumb or normal to the top flange.
7. Mill tests for filler plate material will not be required.
8. Connection Bars for Sign Supports shall be detailed on the shop drawings to be plumb after erection and dead load deflection of the structure.
9. All structural steel shall be ASTM-A36 unless otherwise noted.
10. All bolts shall be ⅞"Ø H.S. ASTM A325, Type 1. Bolt holes shall be 15/16"Ø.

References:
Shear Connectors ------ Standard Detail, BD104-77
Bearing Pedestals ---- Standard Detail, BD101-74
Crossframes & Diaphragms - Standard Detail, BD113-72

Camber Detail ---- Sheet # 5 of 7
Bolted field Splice --- Sheet # 4 of 7
Lateral Bracing Details - Sheet # 4 of 7

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	MMS	11-77
CHECKED	LAW	11-77
REVISIONS	WET	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

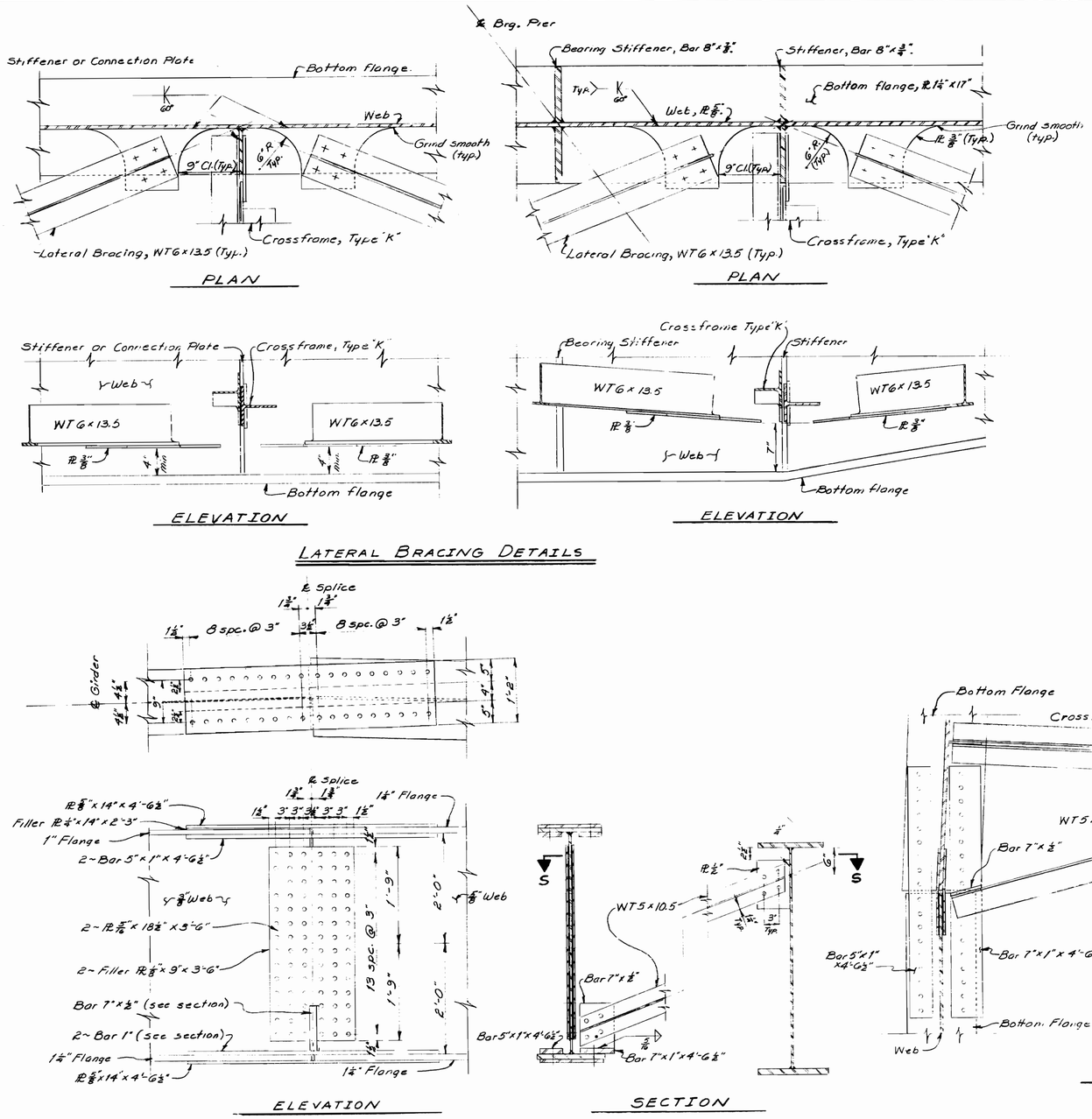
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
FRAMING PLAN

SHEET 3 OF 7 AUGUSTA, MAINE

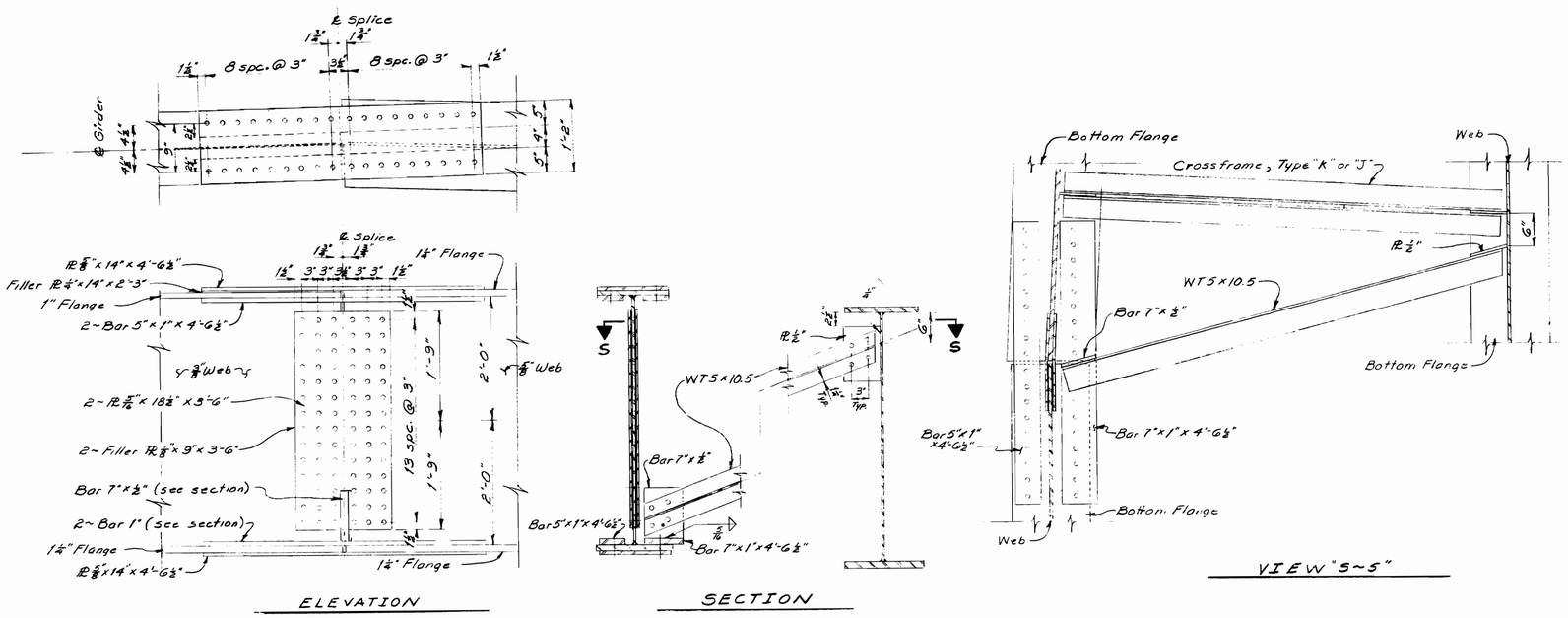
JANUARY 1990

1-95-1(29)3 Contract 2 - York - 164-123 2028

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(29)3 Contract 2	79	82



LATERAL BRACING DETAILS



SPLICE DETAILS

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MMS	11-77
	CHECKED	LAW	11-77
	REVISIONS	JCF	11-77
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

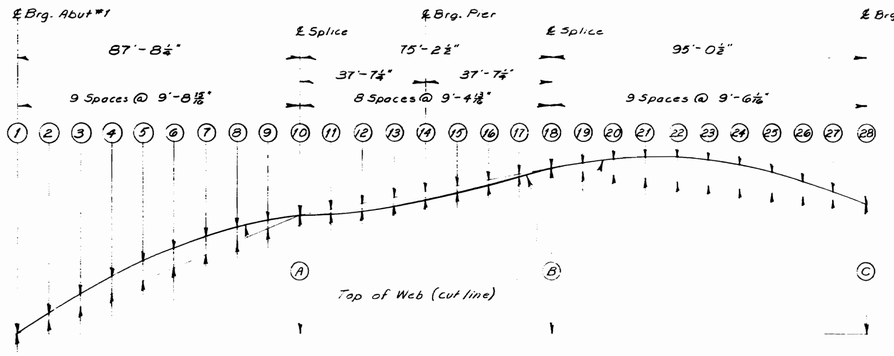
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
LATERAL BRACING AND SPLICE DETAILS

SHEET 4 OF 7 AUGUSTA, MAINE

JANUARY 1960

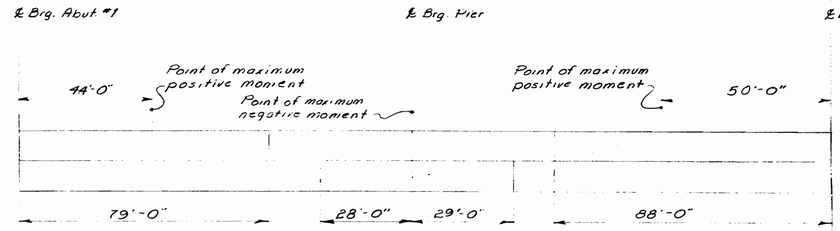
I-95-1(29)3 Contract 2-York 124 Rd.

F.A.P. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)3 Contract 2	80	82



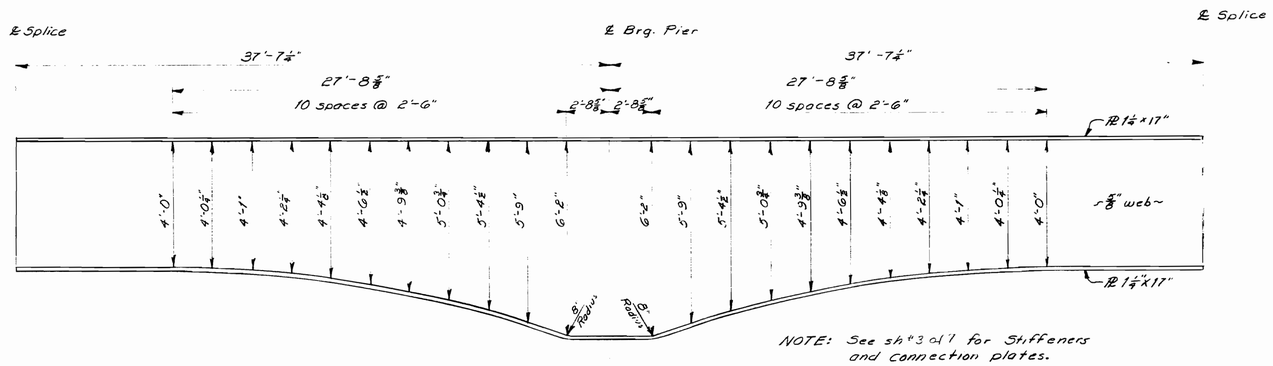
Point / Girder	A	B	C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
G1	20⅝"	28⅝"	22"	0	1⅞"	2⅞"	2¾"	3⅝"	3⅝"	2¾"	2⅛"	1⅞"	0	-¼"	-½"	-½"	-⅝"	-⅝"	-⅜"	-¼"	0	1½"	2¾"	3⅝"	4¼"	4⅜"	4¼"	3⅞"	2¾"	1½"	0
G2	20⅛"	27⅞"	20⅜"	0	1¼"	2⅜"	3⅛"	3½"	3½"	3⅛"	2⅜"	1¼"	0	-¼"	-⅝"	-¾"	-⅞"	-¾"	-⅝"	-¼"	0	1½"	2¾"	3¾"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0
G3	19⅝"	26⅝"	18⅝"	0	1¼"	2⅜"	3⅛"	3½"	3½"	3⅛"	2⅜"	1¼"	0	-¼"	-⅝"	-¾"	-⅞"	-¾"	-⅝"	-¼"	0	1½"	2¾"	3¾"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0
G4	19⅛"	25⅞"	16⅞"	0	1¼"	2⅜"	3⅛"	3½"	3½"	3⅛"	2⅜"	1¼"	0	-¼"	-⅝"	-¾"	-⅞"	-¾"	-⅝"	-¼"	0	1½"	2¾"	3¾"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0
G5	18⅞"	24¼"	15⅞"	0	1⅛"	2⅛"	2¾"	3⅛"	3⅛"	2⅝"	2⅛"	1⅛"	0	-¼"	-½"	-½"	-⅝"	-½"	-⅜"	-⅛"	0	1½"	2¾"	3¼"	4¼"	4½"	4⅜"	3¾"	2¾"	1½"	0

CAMBER DIAGRAM AND TABLE



Shaded areas are areas of Girder which will always be in compression. All other areas will either be in tension, or have stress reversals.

GIRDER STRESS DIAGRAM



NOTE: See sh #3 of 7 for Stiffeners and connection plates.

HAUNCH DETAIL

Girders G1b Thru G5b

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	MMG	10-77
CHECKED	LAW	11-77
REVISIONS	JET	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY

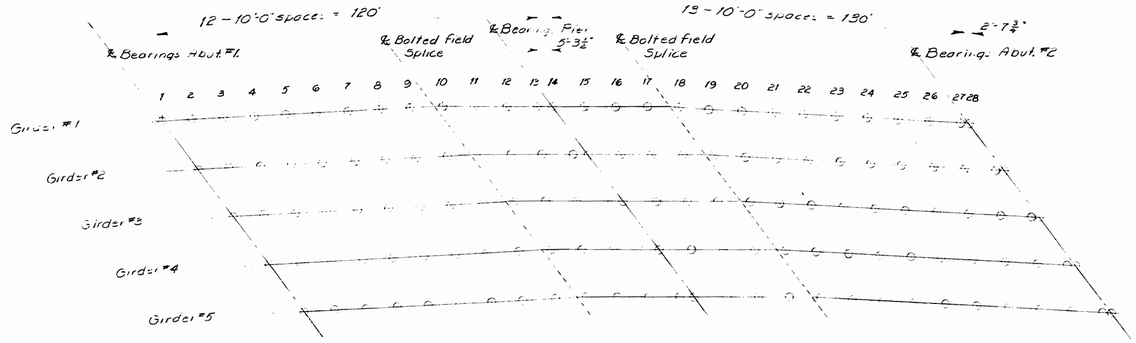
HAUNCH DETAIL AND CAMBER DIAGRAM

SHEET 5 OF 7 AUGUSTA, MAINE

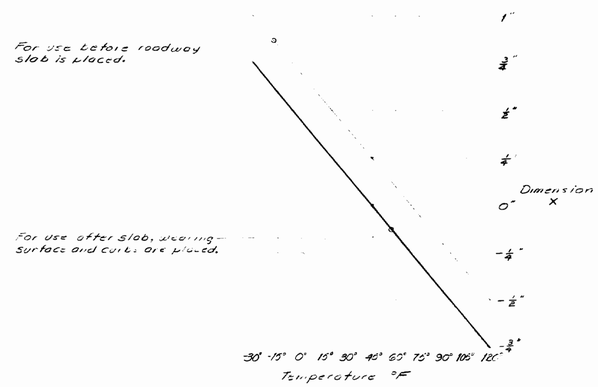
JANUARY 1969

1-95-1(29)3 Contract 2-York- C164-128d.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(23)3 Contract 2	51	82

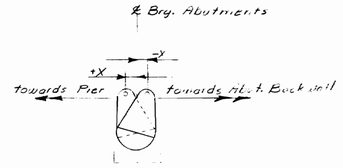


BLOCKING LAYOUT



ROCKER BEARING SETTING GRAPH

This table of bearing settings compensates for longitudinal movement due to temperature change and dead load deflection.



BOTTOM OF SLAB ELEVATIONS

Span	℄ Brg. Abut #1					Span #1								℄ Brg. Pier							Span #2								℄ Brg. Abut #2
Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Girder #1	66.68	66.96	67.22	67.46	67.67	67.86	68.02	68.15	68.27	68.36	68.44	68.51	68.59	68.64	68.73	68.83	68.93	69.02	69.07	69.11	69.13	69.11	69.06	68.98	68.86	68.72	68.56	68.52
Girder #2	66.51	66.80	67.07	67.31	67.53	67.71	67.87	67.99	68.10	68.18	68.24	68.30	68.36	68.41	68.48	68.57	68.67	68.75	68.81	68.84	68.85	68.83	68.77	68.68	68.56	68.42	68.25	68.20
Girder #3	66.33	66.62	66.88	67.13	67.34	67.52	67.67	67.79	67.89	67.96	68.02	68.07	68.13	68.17	68.24	68.33	68.41	68.49	68.54	68.57	68.57	68.54	68.48	68.39	68.26	68.11	67.93	67.89
Girder #4	66.16	66.44	66.70	66.94	67.14	67.32	67.46	67.58	67.67	67.74	67.79	67.84	67.89	67.93	68.00	68.08	68.16	68.23	68.27	68.29	68.29	68.25	68.19	68.08	67.95	67.79	67.61	67.56
Girder #5	65.98	66.24	66.48	66.70	66.89	67.05	67.19	67.31	67.40	67.48	67.54	67.59	67.65	67.69	67.76	67.83	67.91	67.98	68.01	68.02	68.01	67.97	67.89	67.78	67.64	67.47	67.29	67.23

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	MRS	12-77
	CHECKED	LAW	12-77
	REVISIONS	JET	11-79
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

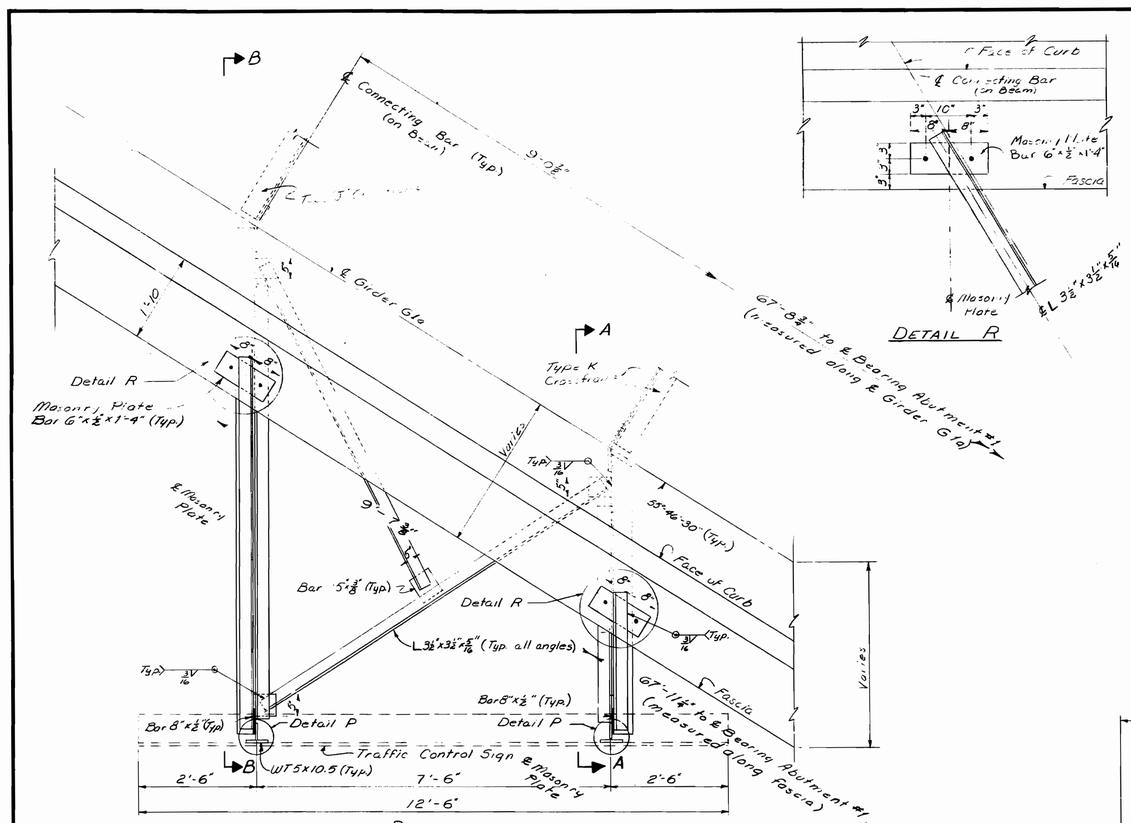
CUTTS ROAD
OVER
INTERSTATE 95
IN THE TOWN OF
KITTERY
YORK COUNTY
BLOCKING

SHEET 6 OF 7 AUGUSTA, MAINE

JANUARY 1969

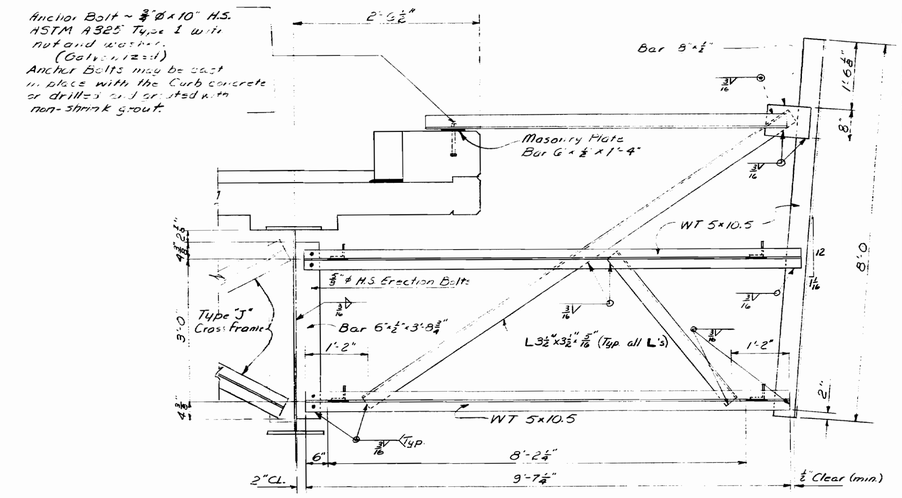
I-95-1(23)3 Contract 2-York-164-426

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	I-95-1(29)3 Contract 2	57	62



PLAN

DETAIL R



SECTION B-B

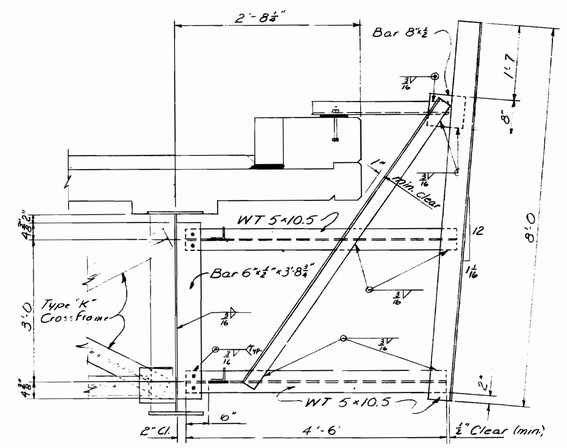
SIGN SUPPORT NOTES

Fabrication Notes: (This Contract)

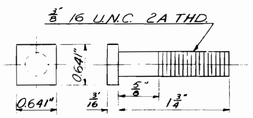
1. All structural steel for sign support members shall conform to ASTM A36.
2. Sign support members shall be fabricated in conformance with section 504 of the Standard Specifications.
3. Structural TEE's in contact with the Traffic Control Sign shall be hot dipped galvanized. All other sign support members shall receive a single application of shop coating in accordance with Section 506 of the Special Provisions.
4. Work and materials needed for fabrication of the sign support members shall be included but not limited to the following: Fabrication and delivery of the sign support members and related hardware.

Construction Notes: (by others)

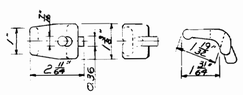
1. Sign support members shall be erected in conformance with section 504 of the Standard Specifications.
2. Material for Post Clips shall be Aluminum alloy 356-T6 conforming to ASTM B108. Clip Bolts and Washers shall be Aluminum alloy 2024-T4 conforming to ASTM B211. Hex Nuts shall be Aluminum alloy 6263-T9 conforming to ASTM B211.
3. Post Clip details shown are for illustration only. Alternate methods of fastening may be used if approved by the Engineer. Existing post clips and bolts may be used if in good condition.
4. Relocation of the sign "REST AREA OFFICIAL INFORMATION NEXT RIGHT" from the existing structure to the sign support on the new structure shall be completed within two consecutive days.
5. All work and materials necessary for the relocation of the sign shall be paid for under Items 504.71, and 506.14, and shall include but not limited to the following: Erection of sign support members. Removal and relocation of the sign. Supplying of fastening hardware as necessary.



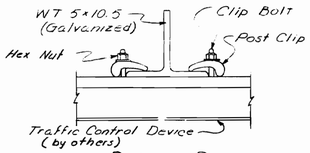
SECTION A-A



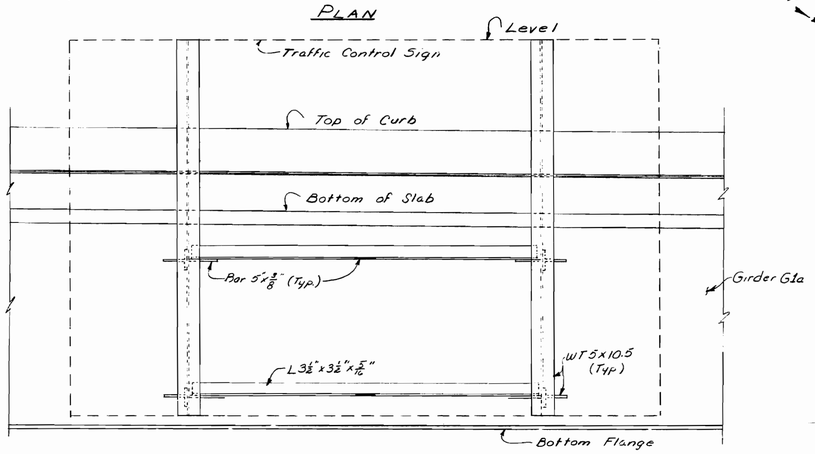
CLIP BOLT (Aluminum)



POST CLIP DETAILS (by others)



DETAIL P



ELEVATION

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN-DETAILED	MAS	11-77
CHECKED	LAW	11-77
REVISIONS	JET	11-77
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

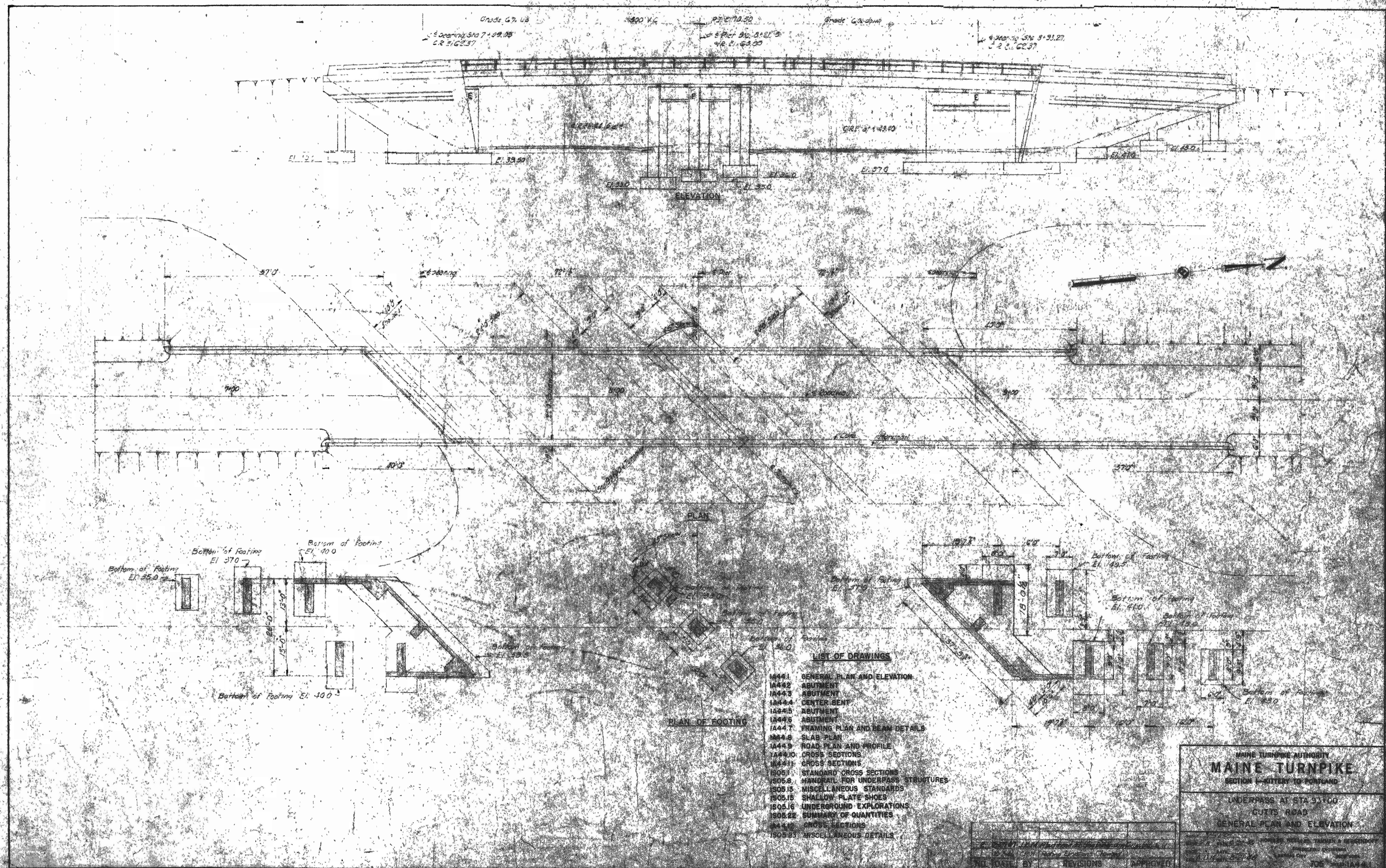
CUTTS ROAD OVER INTERSTATE 95 IN THE TOWN OF KITTERY YORK COUNTY

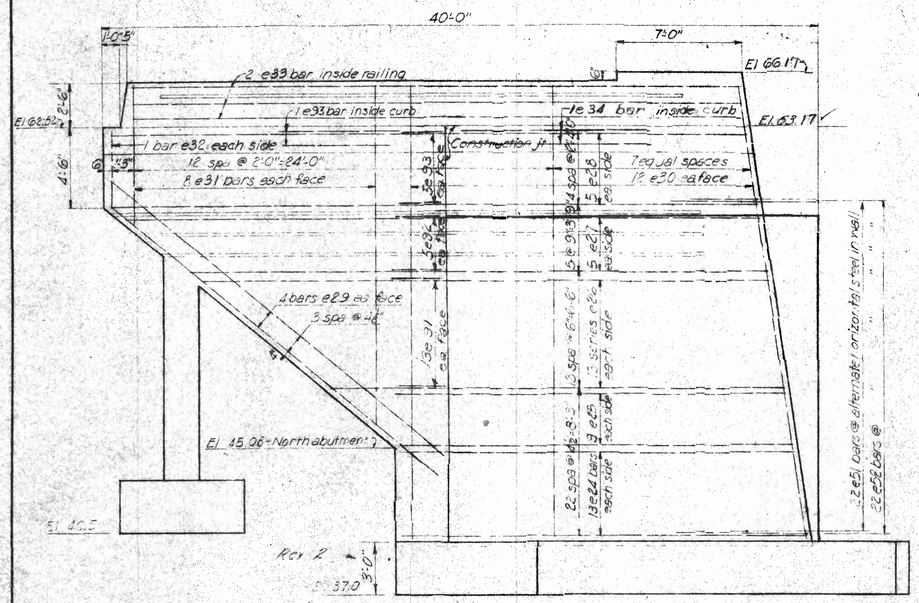
SIGN SUPPORT DETAILS

SHEET 7 OF 7 AUGUSTA, MAINE APRIL 1977

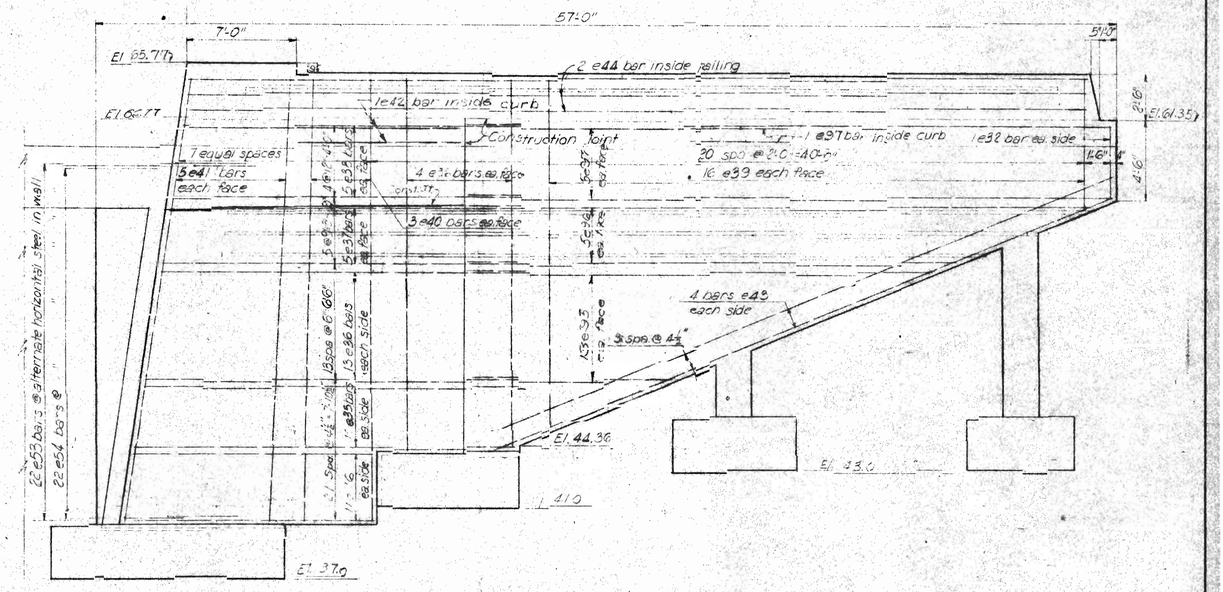
JANUARY 1965

I-95-1(29)3 Contract 2-Vol 164 of 127 Rd.

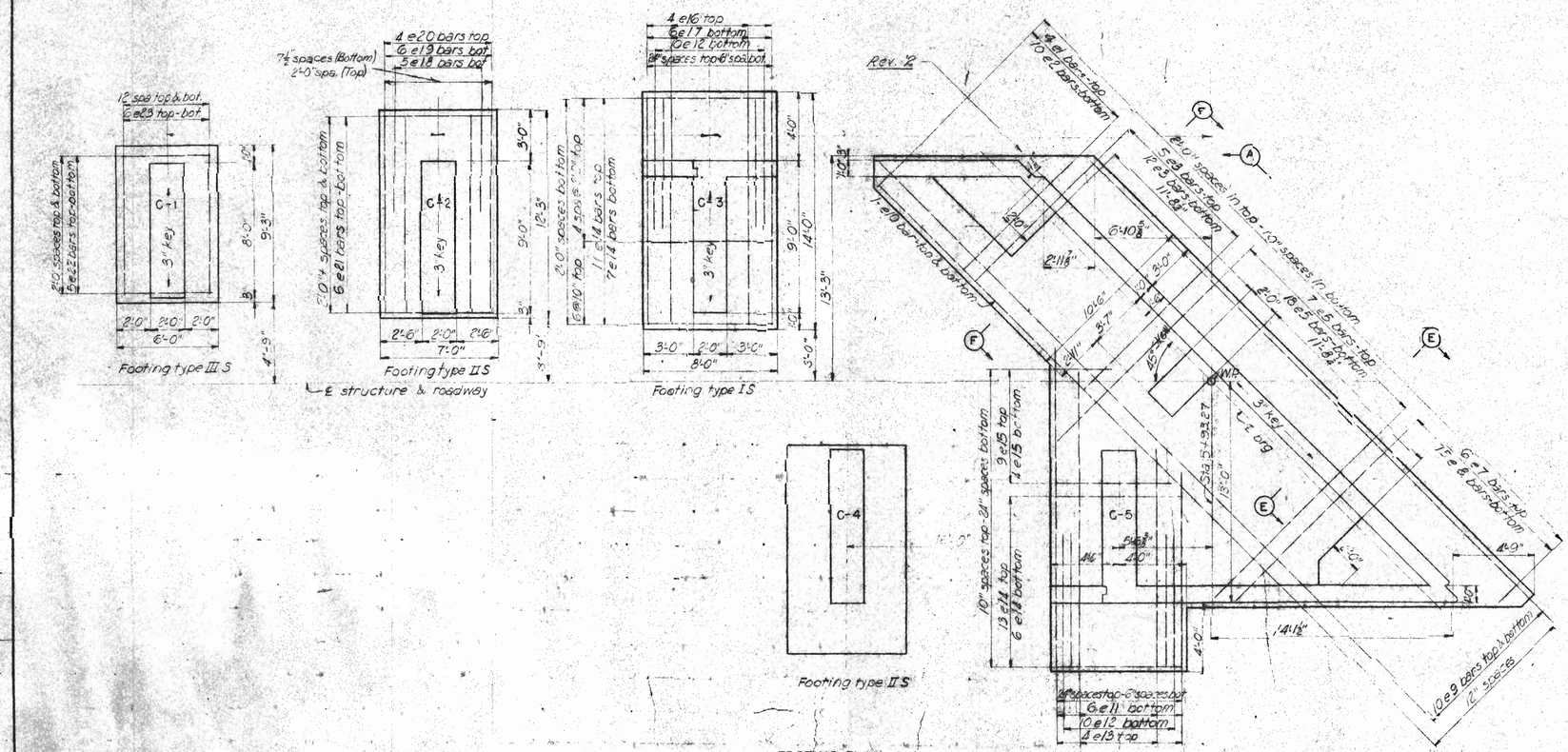

ELEVATION
PLAN
PLAN OF FOOTING
Bottom of Footing El. 40.0
Bottom of Footing El. 35.0
Bottom of Footing El. 37.0
Bottom of Footing El. 49.5
Bottom of Footing El. 41.0
Bottom of Footing El. 42.0
LIST OF DRAWINGS
IA44.1 GENERAL PLAN AND ELEVATION
IA44.2 ABUTMENT
IA44.3 ABUTMENT
IA44.4 CENTER BENT
IA44.5 ABUTMENT
IA44.6 ABUTMENT
IA44.7 FRAMING PLAN AND BEAM DETAILS
IA44.8 SLAB PLAN
IA44.9 ROAD PLAN AND PROFILE
IA44.10 CROSS SECTIONS
IA44.11 CROSS SECTIONS
IS05.1 STANDARD CROSS SECTIONS
IS05.8 HANDRAIL FOR UNDERPASS STRUCTURES
IS05.15 MISCELLANEOUS STANDARDS
IS05.15 SHALLOW PLATE SHOES
IS05.16 UNDERGROUND EXPLORATIONS
IS05.22 SUMMARY OF QUANTITIES
IA44.12 CROSS SECTIONS
IS05.23 MISCELLANEOUS DETAILS
NO. DATE BY REVISIONS APPROVED
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION I—KITTERY TO PORTLAND
UNDERPASS AT STA 93+00
CUTTS ROAD
GENERAL PLAN AND ELEVATION
IA44.1

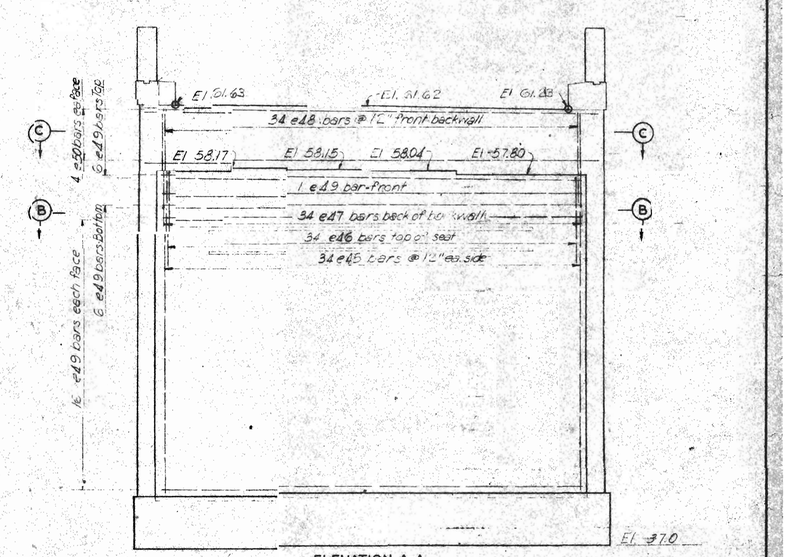


WEST WING NORTH ABUTMENT



EAST WING NORTH ABUTMENT





ELEVATION A-A

NO.	DATE	BY	REVISIONS	APPROVED
3	2-20-47	JDR	Added Top of Curb Elev.	
2	11-4-46	RJD	Corrected as noted	
1	10-2-46	CKH	Footing Elevation Changed	

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION I—KITTERY TO PORTLAND

UNDERPASS AT STA. 93 + 00

CUTTS ROAD

NORTH ABUTMENT

SCALE 1/4" = 1'-0"

MADE B.H.N. DATE 7-11-46

TRCD. DATE

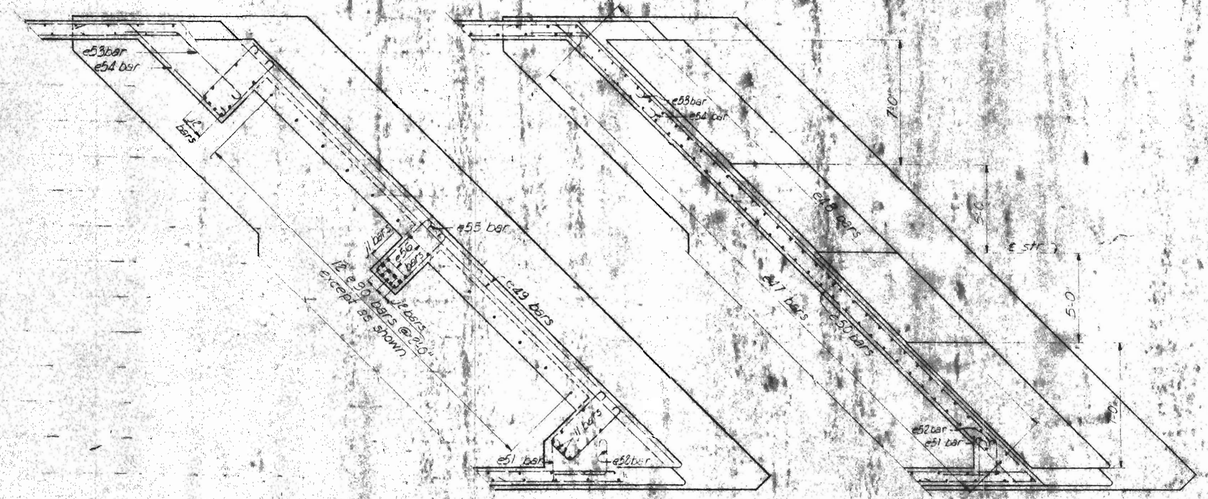
CKD. A.D.H. DATE 8-21-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

CONSULTING ENGINEERS

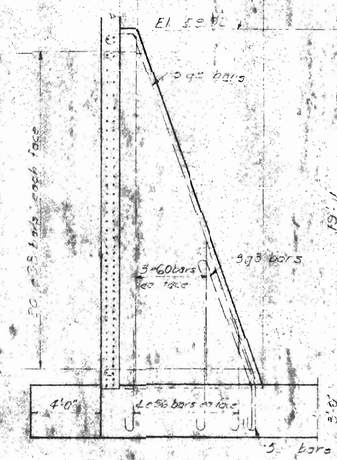
KANSAS CITY NEW YORK

705 SHEET IA44.2

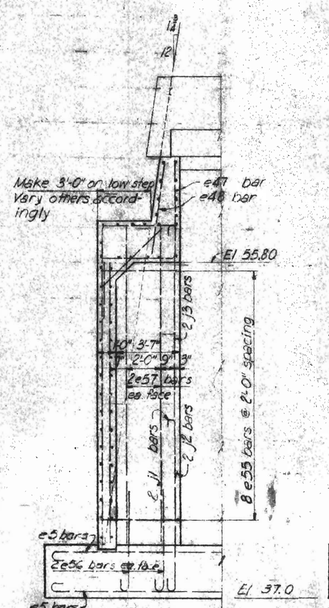


SECTION B-B

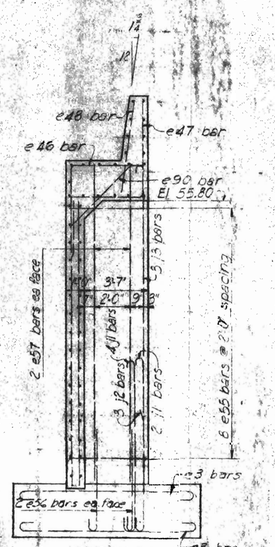
SECTION C-C



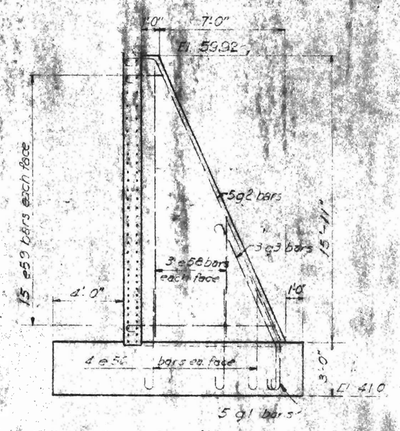
COUNTERFORT G-5



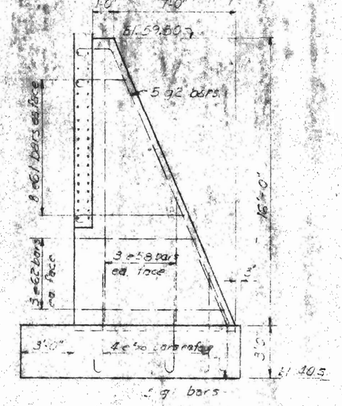
SECTION E-E



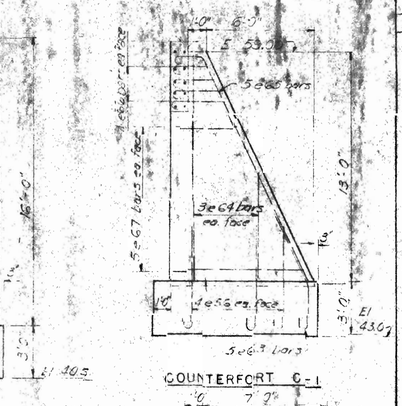
SECTION F-F



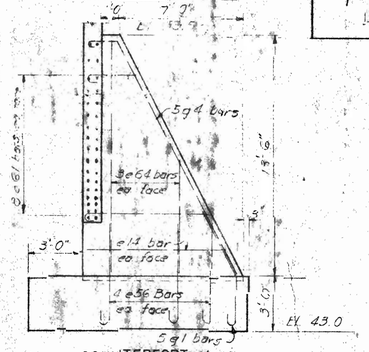
COUNTERFORT C-3



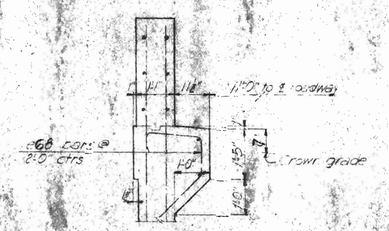
COUNTERFORT C-4



COUNTERFORT C-1



COUNTERFORT C-2

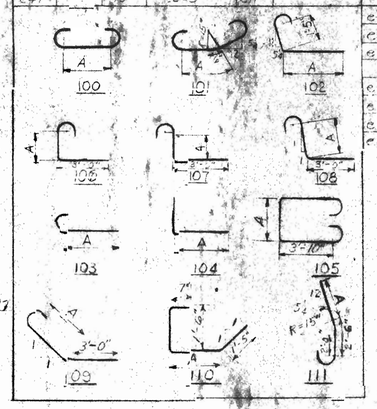


SECTION THRU RAILING
Scale: 1/4" = 1'-0"

REINFORCEMENT SCHEDULE

Mark	Size	No.	Length	Diagram	A
e1	1/2"	1 set of 4	3'-0" to 5'-0"	Str	
e2		1 set of 10	2'-0" to 9'-6"	Str	
e3		17	11'-8"	100	9'-8"
e4		25	14'-0"	103	8'-0"
e7		1 set of 6	3'-6" to 12'-10"	100	4'-8" to 11'-10"
e8		1 set of 15	3'-4" to 14'-1"	100	4'-4" to 12'-1"
e9	"	20	32'-9"	Str	
e10	"	2	34'-9"	Str	
e11		1 set of 6	12'-3" to 19'-7"	103	7'-3" to 13'-7"
e12	"	20	8'-9"	103	7'-9"
e13	"	1 set of 4	11'-5" to 18'-9"	Str	
e14	"	40	7'-5"	Str	
e15	"	1 set of 6 1 set of 4	3'-4" to 8'-10"	Str	
e16	"	26	15'-6"	Str	
e17	"	2	15'-2"	100	13'-2"
e19	"	10	7'-0"	100	6'-0"
e12	"	12	13'-5"	100	11'-5"
e20	"	9	11'-9"	Str	
e21	"	24	10'-6"	Str	
e22	"	10	5'-6"	Str	
e23	"	12	8'-9"	Str	
e24		2 sets of 19	22'-1" to 22'-8"	Str	
e25		18	22'-0"	Str	
e26	"	22	21'-8"	Str	
e27	"	10	20'-6"	Str	
e28	"	10	20'-1"	Str	
e29	"	8	24'-2"	Str	
e30	"	24	25'-10"	Str	
e31	"	2 sets of 9	7'-10" to 10'-0"	Str	
e32	"	4	4'-3"	Str	
e33	"	40	34'-4"	Str	
e34	"	6	20'-0"	Str	
e35	"	20	21'-3"	Str	
e36	"	134	25'-9"	Str	
e37	"	12	21'-3"	Str	
e38	"	10	13'-1"	Str	
e39		2 sets of 10	7'-5" to 19'-7"	Str	
e40	"	2	24'-9"	Str	
e41	"	2	25'-5"	Str	

Mark	Size	No.	Length	Diagram	A
e42	1/2"	2	18'-7"	Str	
e43	"	8	37'-6"	Str	
e44	"	8	32'-3"	Str	
e45	"	8	32'-0"	Str	
e46	"	34	18'-0"	104	5'-0"
e47	"	32	9'-6"	104	5'-6"
e48	"	34	43'-3"	Str	
e49	"	45	13'-3"	Str	
e50	"	8	38'-0"	Str	
e51	"	24	5'-11"	107	1'-11"
e52	"	28	5'-5"	106	1'-5"
e53	"	32	3'-10"	109	4'-10"
e54	"	22	12'-0"	108	7'-0"
e55	"	24	11'-2"	105	1'-6"
e56	"	52	9'-6"	105	5'-6"
e57	"	12	7'-3"	Str	
e58	"	4 sets of 3	7'-0" to 16'-0"	Str	
e59	"	4 sets of 15	2'-10" to 9'-3"	103	1'-10" to 8'-3"
e60	"	2 sets of 3	3'-0" to 13'-8"	Str	
e61	"	4 sets of 10	3'-3" to 6'-5"	105	2'-3" to 5'-3"
e62	"	2 sets of 3	6'-6" to 8'-2"	Str	
e63	"	2	6'-4"	111	3'-0"
e64	"	4 sets of 3	6'-0" to 13'-0"	Str	
e65	"	5	16'-2"	102	13'-9"
e66	"	2 sets of 4	8'-8" to 13'-8"	103	1'-8" to 2'-9"
e67	"	2 sets of 5	3'-6" to 7'-2"	Str	
e68	"	44	4'-2"	110	1'-0"
e90	"	12	5'-0"	Str	
e14	1/4"	5	7'-6"	102	14'-9"
e91	"	20	4'-9"	111	4'-0"
e92	"	10	19'-9"	102	17'-0"
e93	"	6	12'-3"	101	7'-1"
e94	"	5	19'-6"	102	20'-9"
e95	"	10	17'-3"	100	8'-3"
e96	"	7	8'-3"	103	6'-9"
e97	"	7	17'-2"	103	17'-5"
e31	3/4"	2 sets of 13	6'-0" to 11'-0"	Str	
e32	"	2 sets of 5	14'-2" to 18'-0"	Str	
e33	"	12	[illegible]	Str	
e95	3/4"	2 sets of 8	8'-3" to 26'-2"	Str	
e96	"	2 sets of 5	27'-6" to 35'-2"	Str	
e97	"	12	36'-2"	Str	
e98		2 sets of 20	3'-3" to 9'-2"	103	1'-9" to 8'-2"



NO.	DATE	BY	REVISIONS	APPROVED
11	10-2-46	CRH	Footing Elevations Changed	

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 1—KITTERY TO PORTLAND

UNDERPASS AT STA 93+00

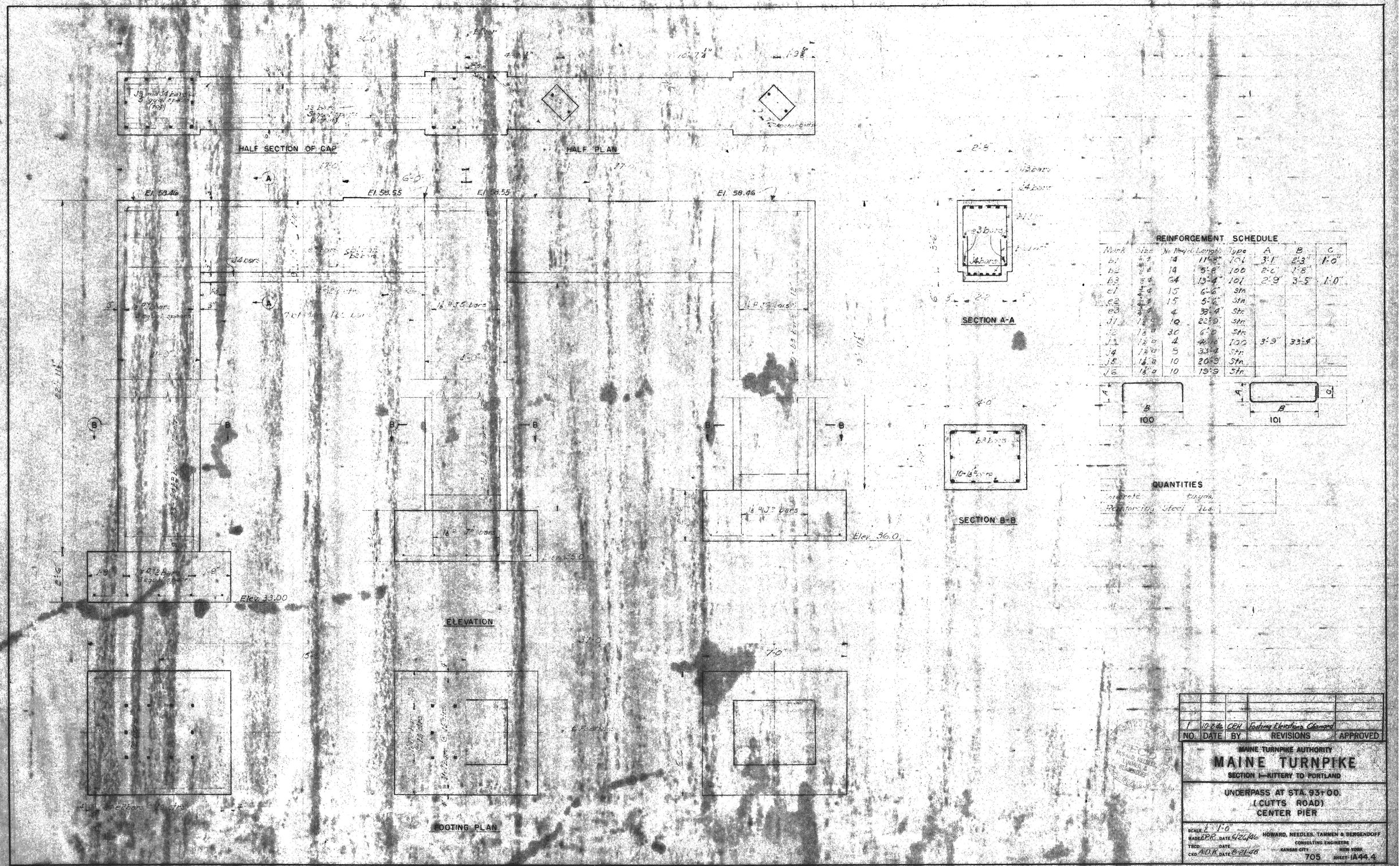
CUTTS ROAD

NORTH ABUTMENT

SCALE 1/4" = 1'-0"
MADE D.H.N. DATE 7-23-46
TRCD. DATE
CKD. A.D.K. DATE 8-21-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

705 SHEET 1A-4-3

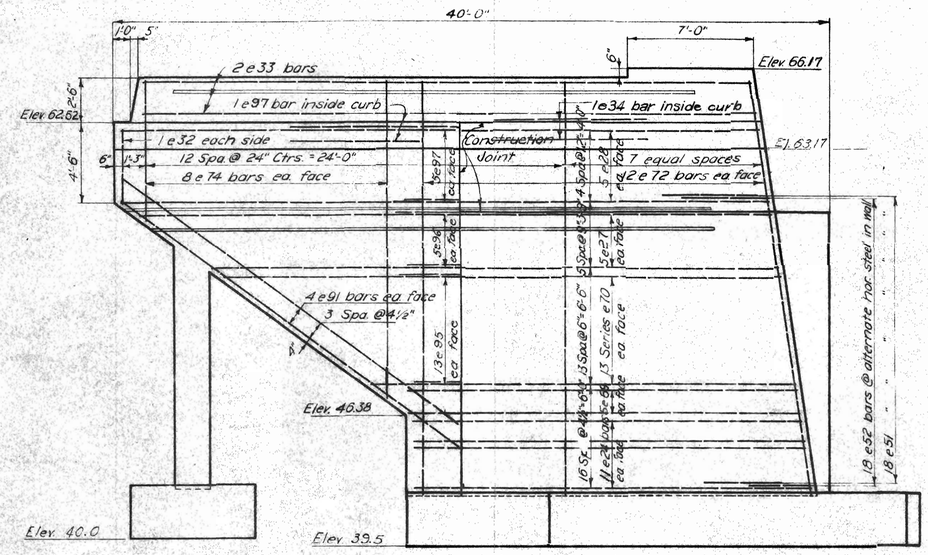


REINFORCEMENT SCHEDULE

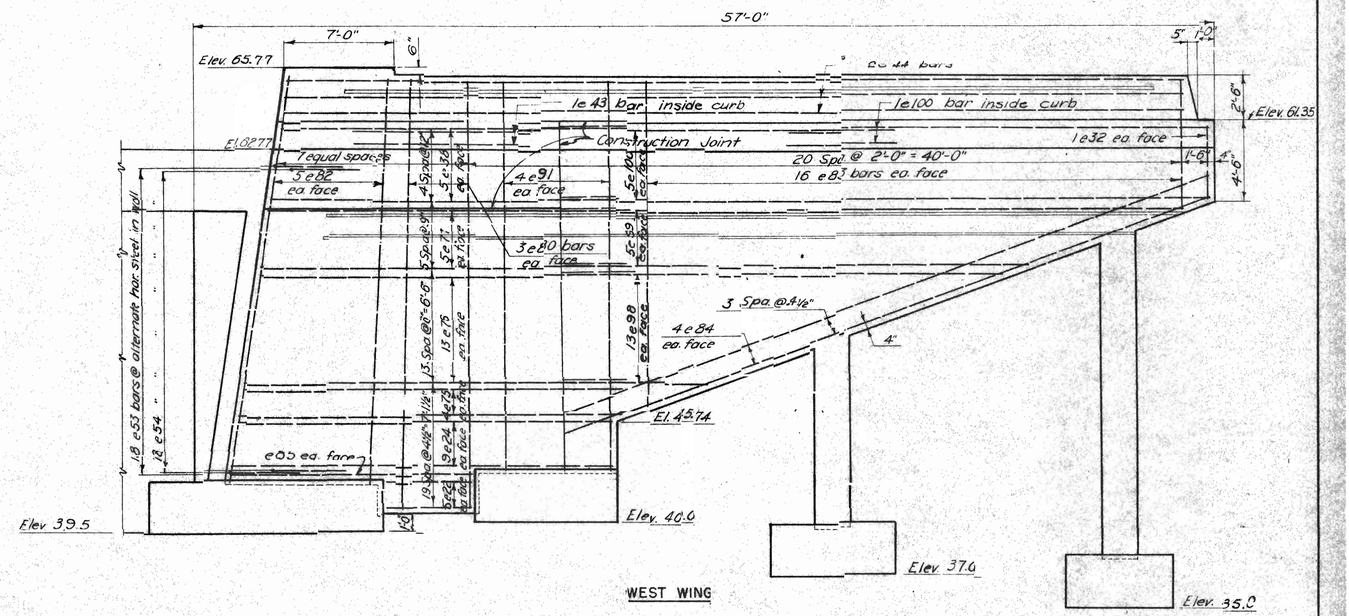
Mark	Size	No. Req'd.	Length	Type	A	B	C
b1	1 1/4	14	11'-8"	101	3'-1"	2'-3"	1'-0"
b2	1 1/4	14	5'-6"	100	2'-0"	1'-8"	
b3	1 1/4	64	13'-4"	101	2'-9"	3'-5"	1'-0"
c1	1 1/4	15	6'-6"	Str.			
c2	1 1/4	15	5'-6"	Str.			
e3	1 1/4	4	33'-4"	Str.			
J1	1 1/8	10	22'-9"	Str.			
J2	1 1/8	30	6'-0"	Str.			
J3	1 1/8	4	4'-6"	100	3'-9"	33'-4"	
J4	1 1/8	5	33'-4"	Str.			
J5	1 1/8	10	20'-9"	Str.			
J6	1 1/8	10	19'-9"	Str.			

NO.	DATE	BY	REVISIONS	APPROVED
1	10 2 46	CEH	Footing Elevations Changed	

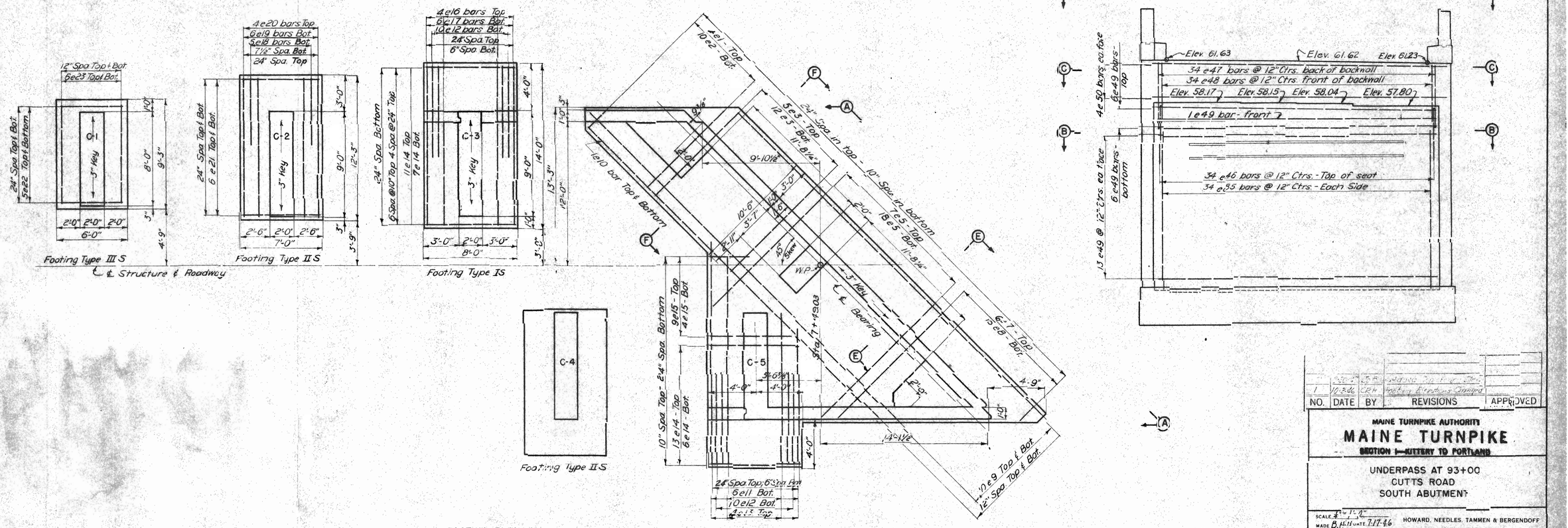
SCALE 1/2" = 1'-0"
MADE EPR DATE 6/20/46
TRCD. DATE
CKD. A.D.H. DATE 8-21-46



EAST WING



WEST WING



FOOTING PLAN

NO.	DATE	BY	REVISIONS	APPROVED
1	11-3-46	CRH	Added Top of Slab, Notes & Details Changed	

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

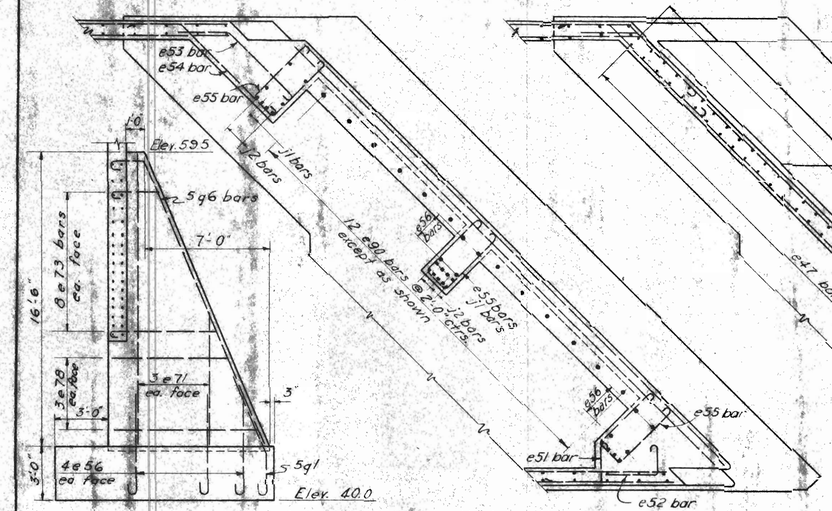
SECTION 1—KITTERY TO PORTLAND

UNDERPASS AT 93+00
CUTTS ROAD
SOUTH ABUTMENT

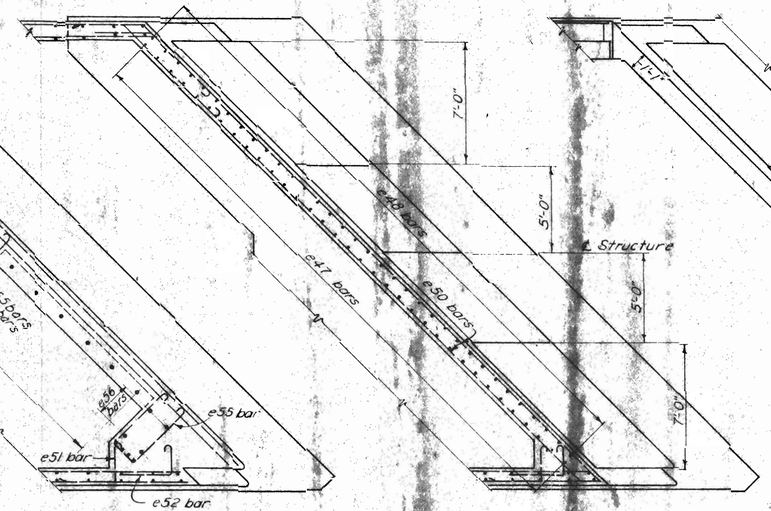
SCALE 1/4" = 1'-0"
MADE B.H.H. DATE 7-17-46
TRC DR. DATE 7-29-46
CKD A.D.M. DATE 8-21-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

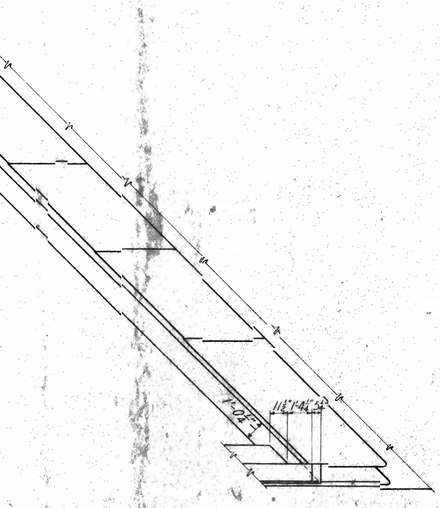
705 SHEET 1A44.5



COUNTERFORT C-4

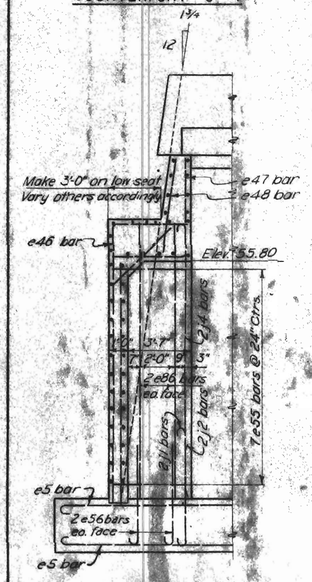


SECTION B-B

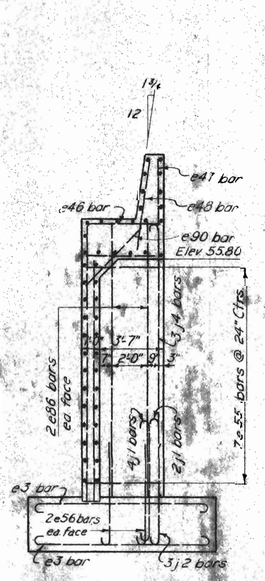


SECTION C-C

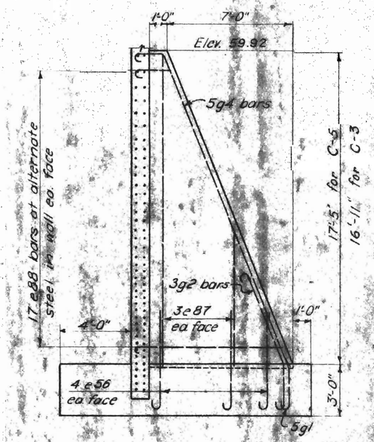
PART PLAN D-D



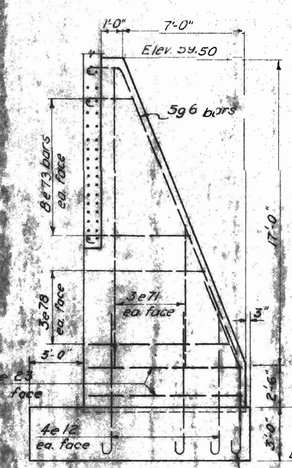
SECTION E-E



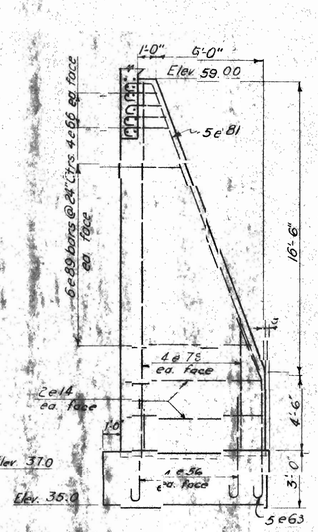
SECTION F-F



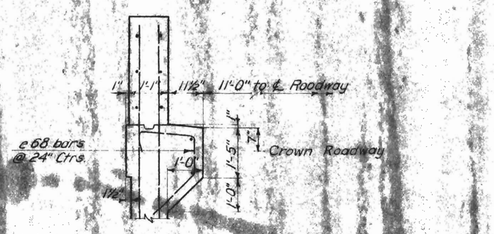
COUNTERFORT C-5
(C-3 AS NOTED)



COUNTERFORT C-2



COUNTERFORT C-

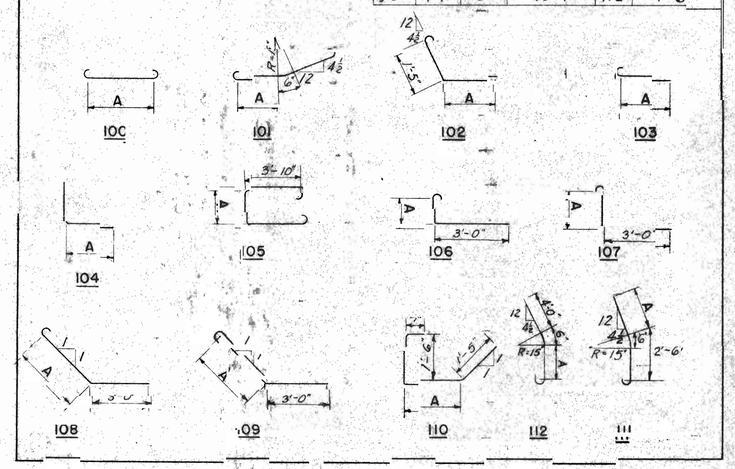


SECTION THRU RAILING
Scale 1/2" = 1'-0"

REINFORCEMENT SCHEDULE

Mark	Size	No.	Length	Diagram	A
e1	¾"φ	1 set of 4	3'-0" to 9'-0"	Str.	
e2	¾"φ	1 set of 10	2'0" to 9'3"	Str.	
e3	¾"φ	17	11'-8"	100	9'-6"
e5	¾"φ	25	14'-0"	103	13'-0"
e7	¾"φ	1 set of 6	3'-6" to 13'-10"	100	1'-6" to 11'-10"
e8	¾"φ	1 set of 15	3'-4" to 14'-1"	100	1'-4" to 12'-1"
e9	¾"φ	20	36'-9"	Str.	
e10	¾"φ	2	33'-11"	Str.	
e11	¾"φ	1 set of 8	12'-3" to 19'-7"	103	11'-3" to 18'-7"
e12	¾"φ	28	8'-9"	103	7'-9"
e13	¾"φ	1 set of 4	11'-5 to 18'-9"	Str.	
e14	¾"φ	41	7'-6"	Str.	
e15	¾"φ	1 set of 9, 1 set of 4	3'-4" to 6'-10"	Str.	
e16	¾"φ	4	13'-6"	Str.	
e17	¾"φ	6	15'-2"	100	13'-2"
e18	¾"φ	10	6'-8"	103	5'-8"
e19	¾"φ	12	13'-5"	100	11'-5"
e20	¾"φ	8	11'-9"	Str.	
e21	¾"φ	24	6'-6"	Str.	
e22	¾"φ	20	5'-6"	Str.	
e23	¾"φ	10	8'-9"	Str.	
e24	¾"φ	1 sets of 9, 1 sets of 11	21'-7" to 22'-3"	Str.	
e27	¾"φ	10	20'-7"	Str.	
e28	¾"φ	10	20'-1"	Str.	
e32	¾"φ	4	4'-3"	Str.	
e33	¾"φ	6	34'-1"	Str.	
e34	¾"φ	2	16'-10"	Str.	
e38	¾"φ	10	19'-1"	Str.	
e43	¾"φ	2	18'-6"	Str.	
e44	¾"φ	6	50'-2"	Str.	
e46	¾"φ	34	9'-0"	104	5'-0
e47	¾"φ	34	9'-6"	104	5'-6"
e48	¾"φ	34	5'-3"	Str.	
e49	¾"φ	39	3'-3"	Str.	
e50	¾"φ	8	3'-0"	Str.	
e51	¾"φ	18	5'-11"	107	1'-11"
e52	¾"φ	18	5'-5"	106	1'-5"
e53	¾"φ	18	8'-10"	109	4'-10"
e54	¾"φ	18	11'-0"	108	7'-0"
e55	¾"φ	21	11'-2"	105	1'-6"

Mark	Size	No.	Length	Diagram	A
e56	¾"φ	41	6'-6"	103	5'-6"
e63	¾"φ	5	12'-6"	112	7'-0"
e66	¾"φ	2 sets of 4	2'-8" to 3'-3"	103	1'-0" to 2'-3"
e68	¾"φ	44	4'-6"	110	1'-0"
e69	¾"φ	10	21'-9"	Str.	
e70	¾"φ	26	21'-6"	Str.	
e71	¾"φ	4 sets of 3	8'-0" to 16'-6"	Str.	
e72	¾"φ	24	23'-2"	Str.	
e73	¾"φ	4 sets of 8	3'-6" to 6'-5"	103	2'-6" to 5'-5"
e74	¾"φ	2 sets of 8	7'-10" to 17'-6"	Str.	
e75	¾"φ	8	21'-6"	Str.	
e76	¾"φ	26	20'-7"	Str.	
e77	¾"φ	10	19'-7"	Str.	
e78	¾"φ	4 sets of 3	6'-5" to 7'-11"	Str.	
e79	¾"φ	2 sets of 4	7'-6" to 20'-9"	Str.	
e80	¾"φ	6	24'-3"	Str.	
e81	¾"φ	5	19'-8"	102	17'-4"
e82	¾"φ	10	22'-8"	Str.	
e83	¾"φ	2 sets of 6	7'-2" to 18'-3"	Str.	
e84	¾"φ	8	38'-6"	Str.	
e85	¾"φ	70	13'-6"	Str.	
e86	¾"φ	12	15'-0"	Str.	
e87	¾"φ	4 sets of 3	7'-6" to 17'-0"	Str.	
e88	¾"φ	4 sets of 17	2'-9" to 9'-1"	103	1'-9" to 8'-1"
e89	¾"φ	2 sets of 6	3'-0" to 7'-2"	Str.	
e90	¾"φ	12	5'-0"	Str.	
e91	¾"φ	8	22'-0"	Str.	
e95	¾"φ	2 sets of 13	5'-0" to 13'-3"	Str.	
e96	¾"φ	2 sets of 5	14'-0" to 18'-0"	Str.	
g1	1"φ	15	8'-2"	111	4'-6"
g2	1"φ	6	12'-3"	101	7'-1"
g4	1"φ	10	21'-1"	102	18'-4"
g6	1"φ	10	20'-3"	102	17'-6"
e97	¾"φ	12	19'-0"	Str.	
j1	1⅛"□	10	11'-3"	100	8'-5"
j2	1⅛"□	7	8'-3"	103	6'-9"
j4	1⅛"□	7	16'-5"	103	14'-11"
e98	¾"φ	2 sets of 13	8'-3" to 24'-7"	Str.	
e99	¾"φ	2 sets of 5	26'-1" to 34'-7"	Str.	
e100	¾"φ	12	33'-7"	Str.	
g3	1"φ	5	10'-4"	112	4'-6"



NO.	DATE	BY	REVISIONS	APPROVED

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION I—KITTERY TO PORTLAND

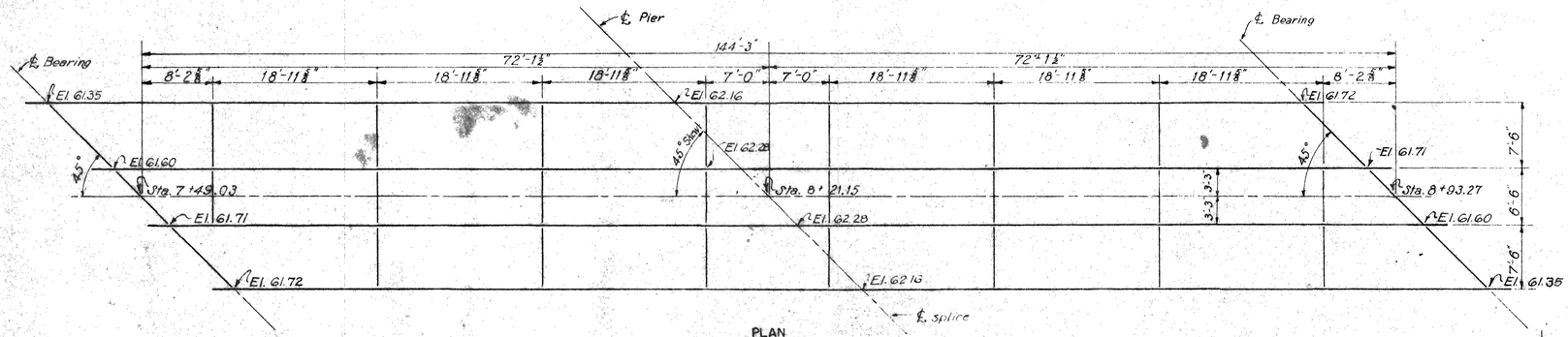
UNDERPASS AT 93+00
CUTTS ROAD
SOUTH ABUTMENT

1" = 1/2" = 1'-0"

MADE D.C.K. DATE 7-11-46
TRCD. J.W.G. DATE 7-29-46
CKD. H.D.H. DATE 8-21-46

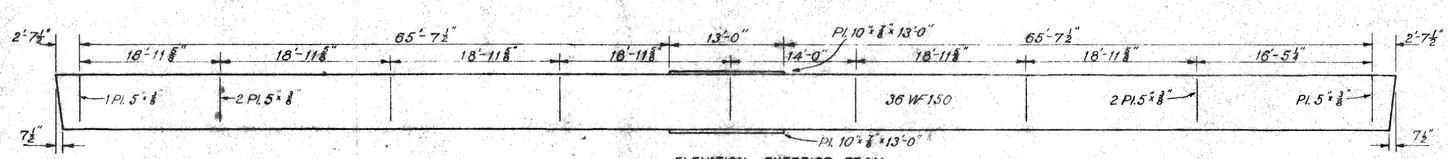
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK
KANSAS CITY

705 SHEET 1A44.6

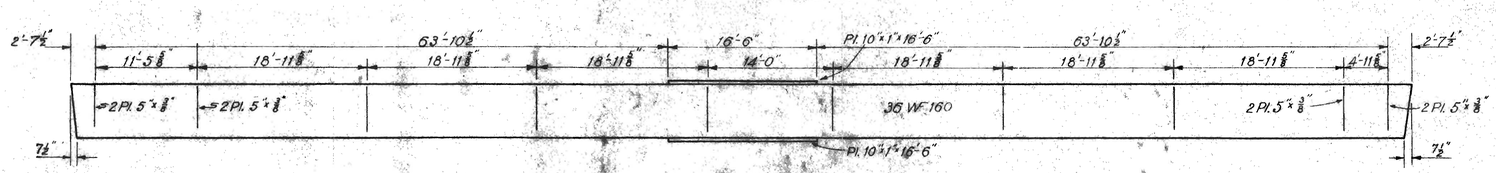


PLAN

Scale: ⅛" = 1'-0"

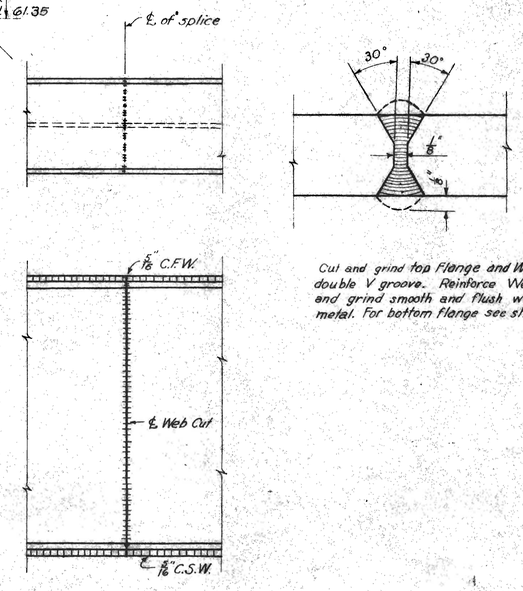


ELEVATION, EXTERIOR BEAM



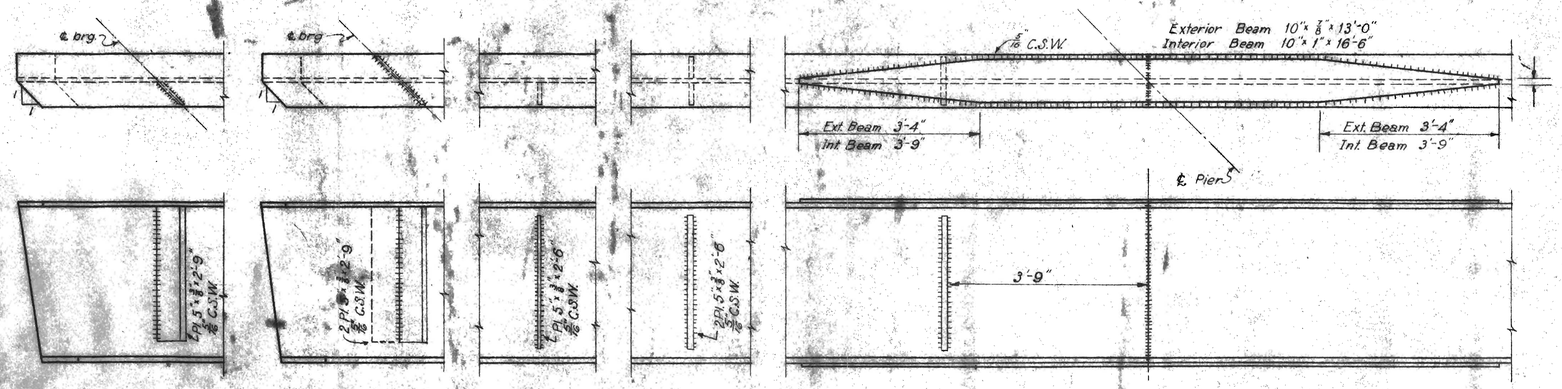
ELEVATION, INTERIOR BEAM

Scale: ⅛" = 1'-0"



Cut and grind top flange and web to 60° double V groove. Reinforce weld to ⅛" and grind smooth and flush with base metal. For bottom flange see sheet 1505.13.

DETAILS OF BUTT WELD BEAM SPLICE



END DIAPHRAGM CONNECTION EXTERIOR BEAM

END DIAPHRAGM CONNECTION INTERIOR BEAM

INTERMEDIATE DIAPHRAGM CONNECTION EXTERIOR BEAM

INTERMEDIATE DIAPHRAGM CONNECTION INTERIOR BEAM

DETAILS AT PIER

Scale: ¼" = 1'-0"

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION I—KITTERY TO PORTLAND

UNDERPASS AT STA. 93 + 00

CUTTS ROAD

FRAMING PLAN AND BEAM DETAILS

SCALE

MADE CKV DATE 6-26-46

TRCD CKV DATE 6-27-46

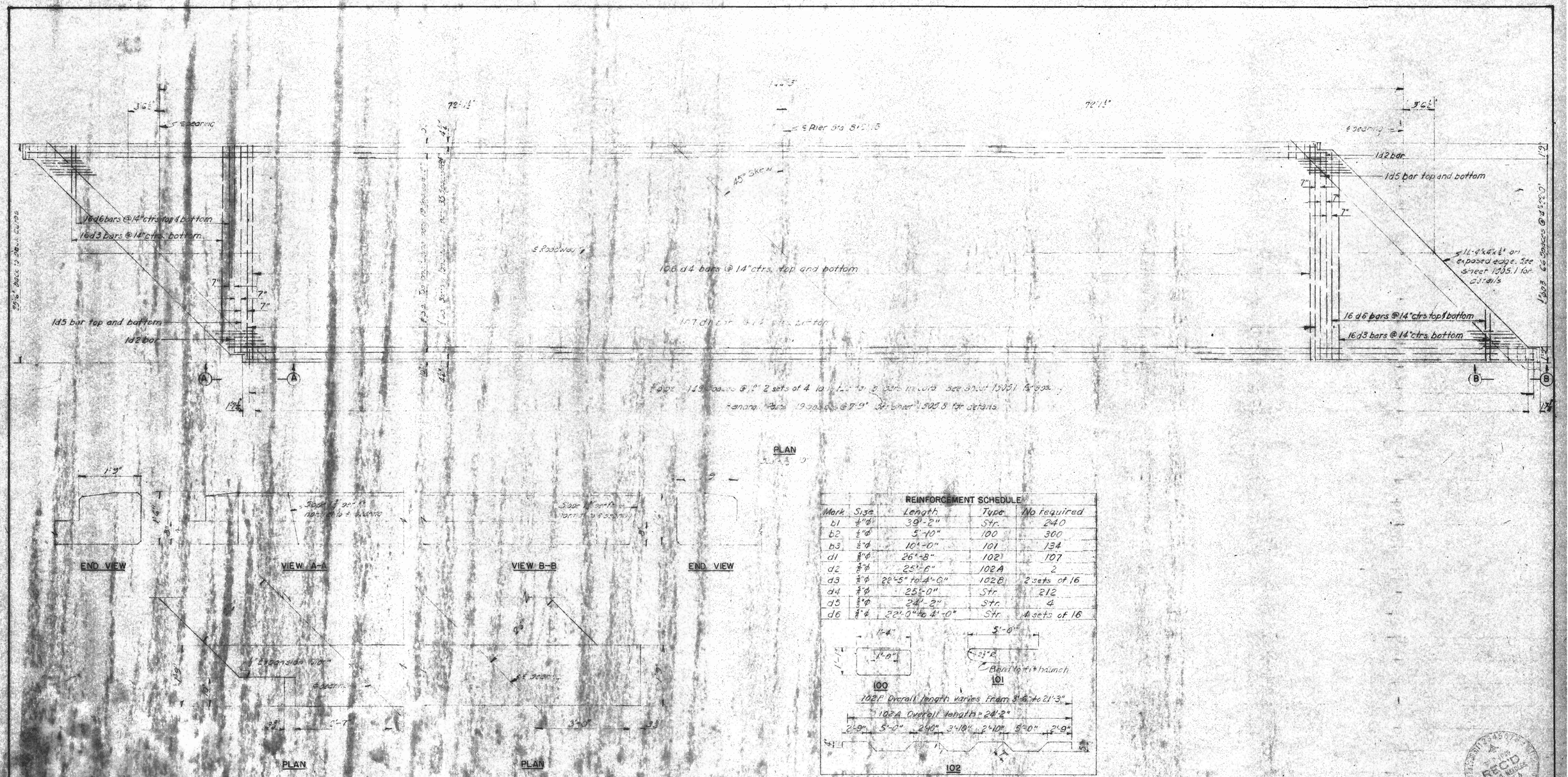
CKD A.D.K. DATE 8-21-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

CONSULTING ENGINEERS

KANSAS CITY NEW YORK

705 SHEET 1A44.7



REINFORCEMENT SCHEDULE				
Mark	Size	Length	Type	No required
b1	½"φ	39'-2"	Str.	240
b2	½"φ	5'-10"	100	300
b3	½"φ	10'-0"	101	134
d1	⅝"φ	26'-8"	102	107
d2	⅝"φ	25'-6"	102A	2
d3	⅝"φ	22'-5" to 4'-0"	102B	2 sets of 16
d4	⅝"φ	25'-0"	Str.	212
d5	⅝"φ	24'-2"	Str.	4
d6	⅝"φ	22'-0" to 4'-0"	Str.	4 sets of 16

QUANTITIES	
Concrete	Cu. Yds.
Reinforcing	Lbs.

REC'D
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
STRUCTURE

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

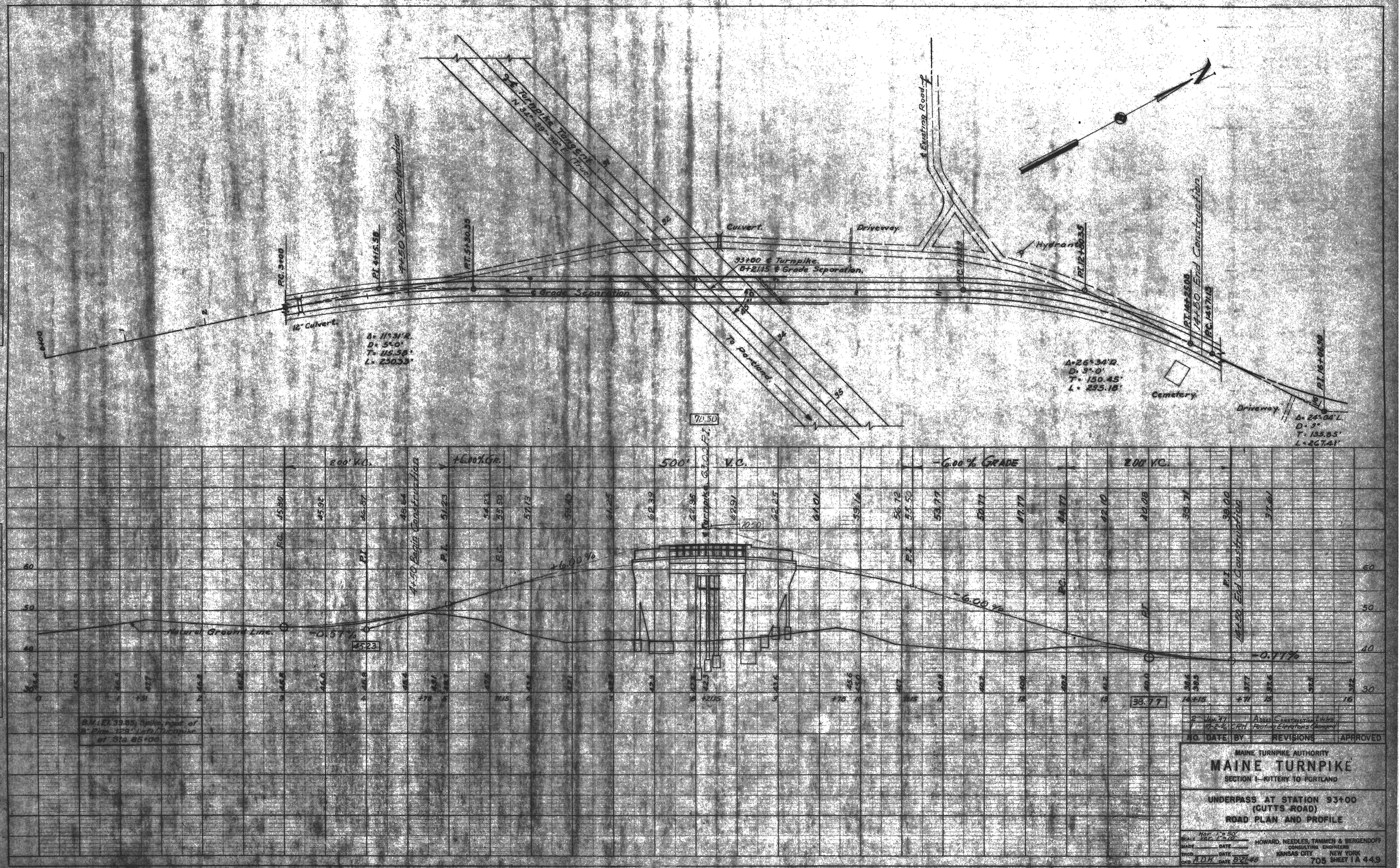
SECTION I—KITTERY TO PORTLAND

UNDERPASS AT STA. 93+00
CUTTS ROAD
SLAB DETAILS

SCALE As Shown
MADE V.H. DATE 6-27-46
TRCD. DATE
CKD. A.D.H. DATE 8-21-46

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK

705 SHEET 1A44.8


PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
DR. OF WAY CHECKED
DATE
PROFILE
NOTE BOOK
NO.
PLOTTED
GRADES CHECKED
B. M. NOTED
STRUCTURE NOTES CHECKED
DATE
94.50
Δ= 11°31'12"
D= 5°0'
T= 115.38'
L= 230.53'
PC. 3+00
PT. 4+15.38
94.50 Begin Construction
PT. 5+30.33
12" Culvert
Culvert
Driveway
93+00 ℄ Turnpike
6+21.15 ℄ Grade Separation
℄ Grade Separation
℄ Existing Road
Hydrant
PC. 11+18
PT. 12+80.36
PT. 14+28.08
94.50 End Construction
PC. 14+77.18
PT. 16+26.08
Δ= 26°34'12"
D= 3°0'
T= 150.45'
L= 295.18'
Cemetery
Driveway
Δ= 24°04'L
D= 7°
T= 135.85'
L= 267.41'
To Portland
200' V.C.
+6.00% Gr.
500' V.C.
-6.00% GRADE
200' V.C.
94.50 Begin Construction
+6.00%
-6.00%
-6.00%
-0.37%
-0.77%
Natural Ground Line
45.23
38.77
94.50 End Construction
B.M. El. 39.85, Spike, east of 8" Pine, 123' left of Turnpike at Sta. 85+00
2 Mar 47 Added Construction Limits
1 Mar 6 & 6 47 Revised Elevations & Grades
NO. DATE BY REVISIONS APPROVED
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 1 KITTERY TO PORTLAND
UNDERPASS AT STATION 93+00
(CUTTS ROAD)
ROAD PLAN AND PROFILE
SCALE Hor. 1"=50' Vert. 1"=10'
DRAWN DATE
TRCD. DATE
CKD. A.D.H. DATE 8-26-46
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK
705 SHEET 1A 449
PLATE 1A PLAN-PROFILE G.F. A.A.N.E.
BARNES BRUNING COMPANY, INC.