B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	1	25

STATE OF MAINE

STATE HIGHWAY COMMISSION

COOK ROAD BRIDGE

OVER

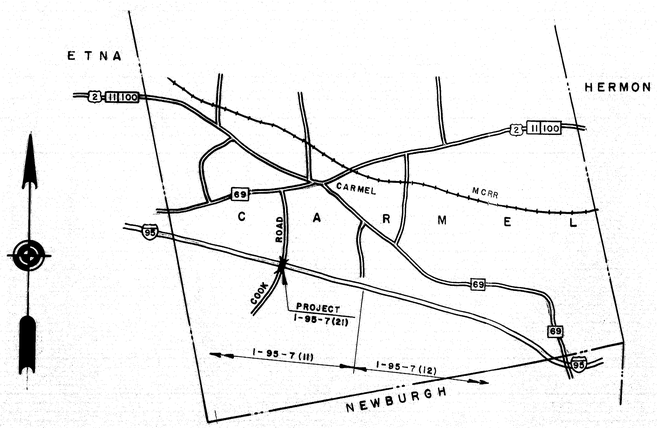
INTERSTATE HIGHWAY NO. 95

IN THE TOWN OF

CARMEL

PENOBSCOT COUNTY

FEDERAL AID PROJECT NO. I-95-7(21)163



LOCATION MAP

APPROX. SCALE - 1" = 1 MILE

INDEX OF SHEETS

1	TITLE
2,3	FOUNDATION SURVEY
4,5	SURVEY
6	TYPICAL SECTIONS
7-10	CROSS SECTIONS
11	SURVEY & CROSS SECTIONS
12	GENERAL PLAN , ESTIMATE OF QUANTITIES
13	ABUTMENT NO. 1
14	ABUTMENT NO. 2
15	ABUTMENT DETAILS (ESTIMATE OF BRIDGE QUANTITIES)
16	PIERS
17	SLOPE PAVING
18	STRUCTURAL STEEL
19,20	STRUCTURAL STEEL DETAILS
21	SUPERSTRUCTURE
22	RAIL & DRAIN DETAILS
23	SUPERSTRUCTURE DETAILS & BLOCKING TABLES
24	REINFORCING STEEL
25	STANDARD DETAILS

TRAFFIC

A.D.T. 1960 60

A.D.T. 1980 85

D.H.V. 10

T 11 %

D 60 %

V 40 M.P.H.

APPROVED:
MAINE STATE HIGHWAY COMMISSION

CHAIRMAN

CHIEF ENGINEER

April 25, 1962
DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
REGION 1

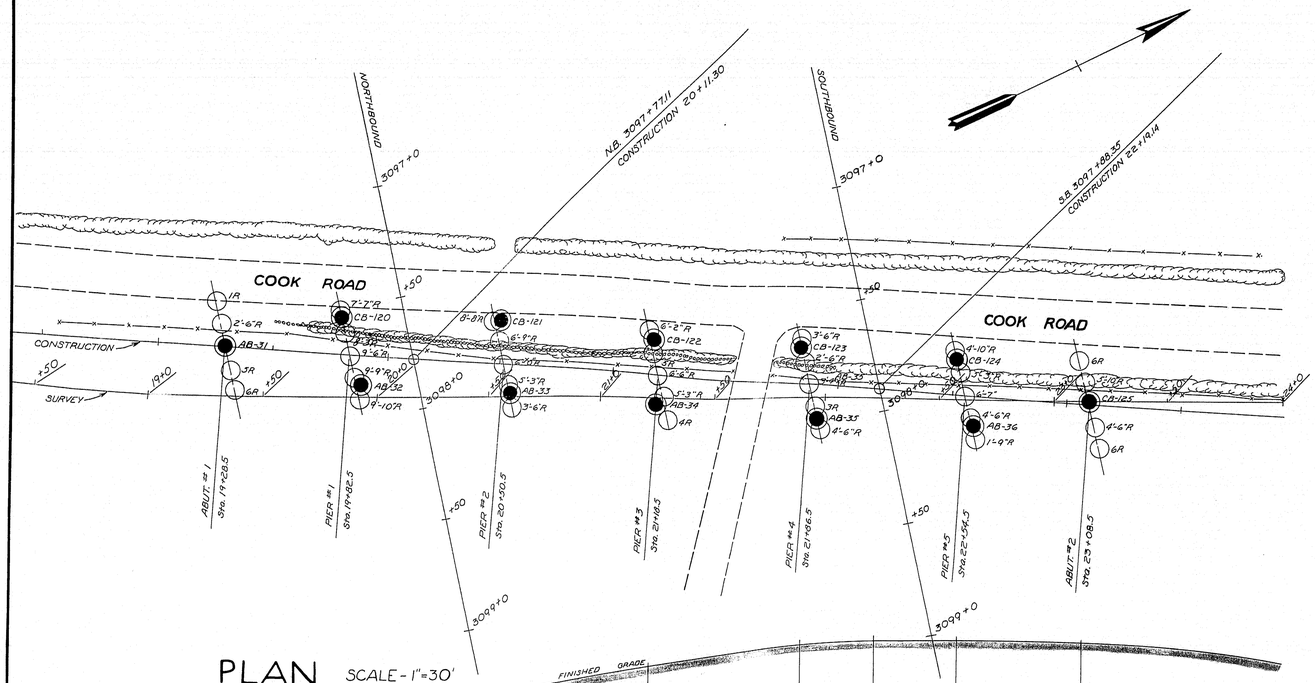
APPROVED:

DIVISION ENGINEER DATE

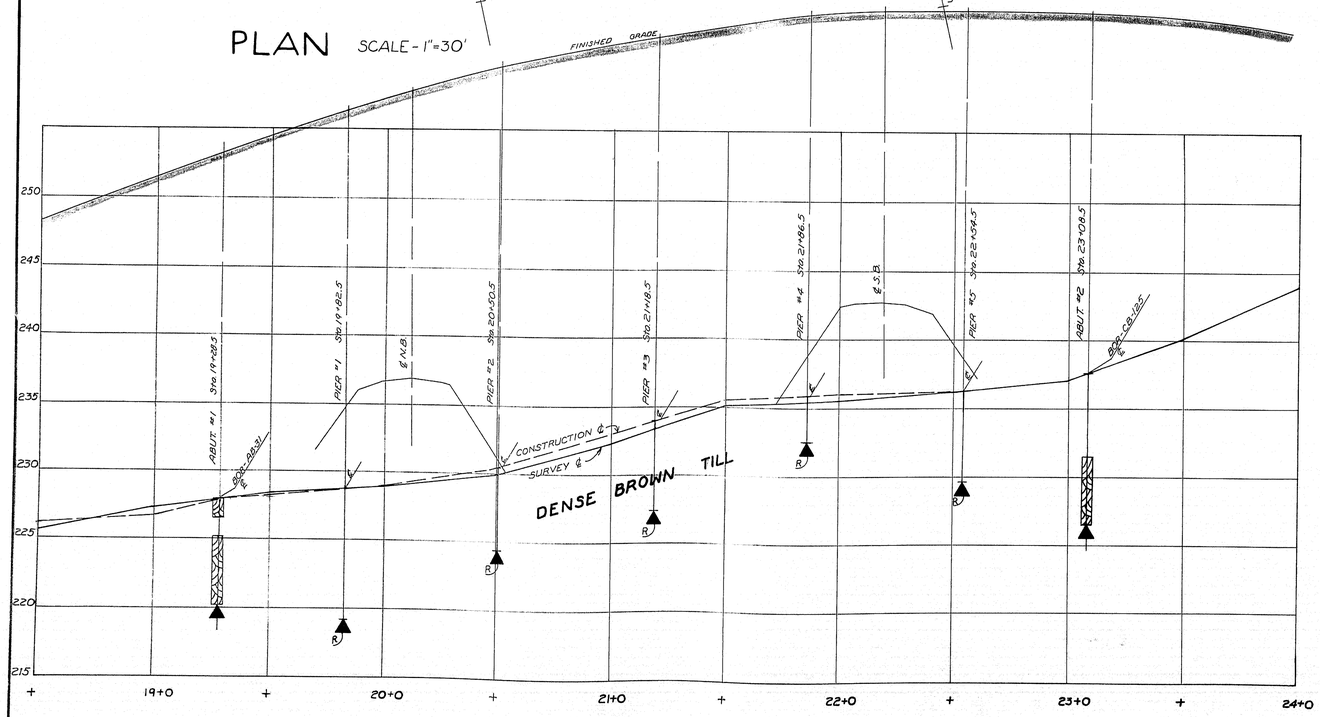
85-1101

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7 (21)	2	25



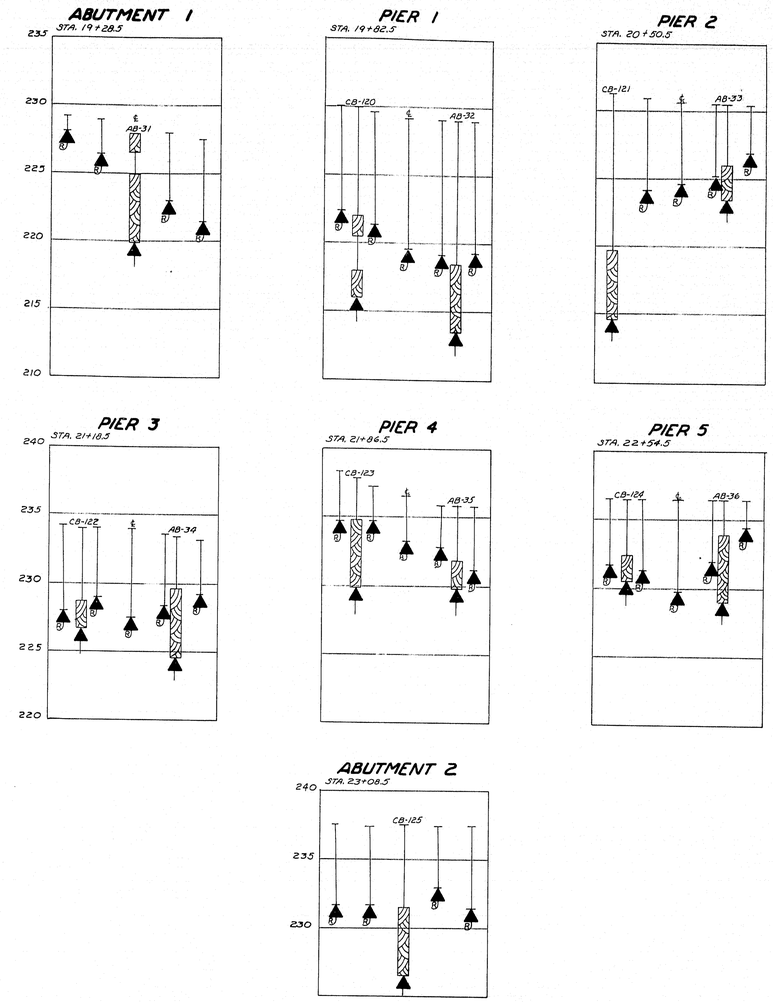
PLAN SCALE - 1" = 30'



PROFILE SCALE - HORIZONTAL 1" = 30'
VERTICAL - 1" = 5'

C. H. CO., NO. 3798

TRANSVERSE SECTIONS



DESIGN— TRACE— CHECK—	BRIDGE NO. SURVEY— PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

FOUNDATION SURVEY

SHEET 2 OF 25 AUGUSTA, MAINE APRIL 1962

65-1102

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	3	25

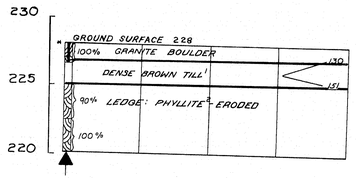
DRIVING RESISTANCE

BLOWS / FOOT

ELEVATION

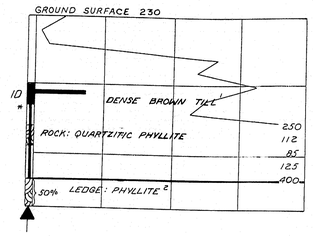
BORING AB 31

STATION 19+33 22'Lt. SURVEY ℄



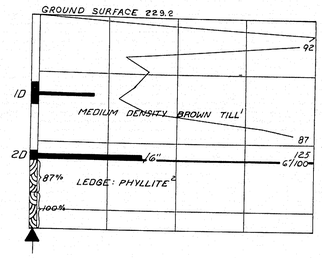
BORING CB 120

STATION 19+85 35'Lt. SURVEY ℄



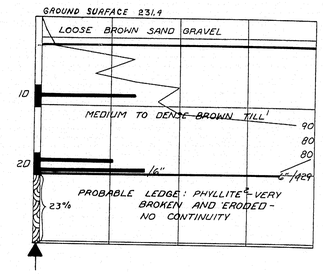
BORING AB 32

STATION 19+92 5'Lt. SURVEY ℄



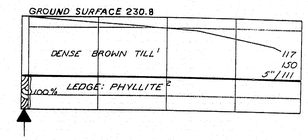
BORING CB 121

STATION 20+56 33'Lt. SURVEY ℄



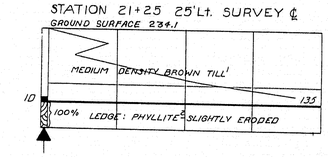
BORING AB 33

STATION 20+60 2'Lt. SURVEY ℄



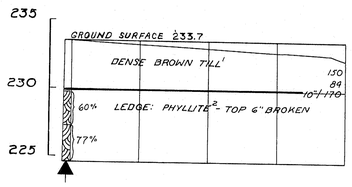
BORING CB 122

STATION 21+25 25'Lt. SURVEY ℄



BORING AB 34

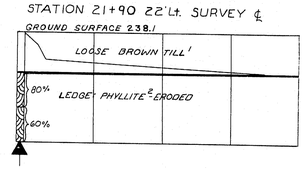
STATION 21+24 3'Rt. SURVEY ℄



* USED ROCK BUSTER

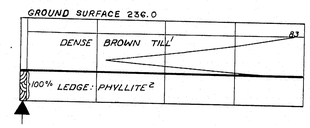
BORING CB 123

STATION 21+90 22'Lt. SURVEY ℄



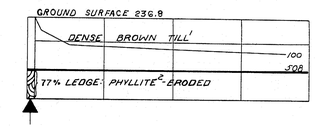
BORING AB 35

STATION 21+97 8'Rt. SURVEY ℄



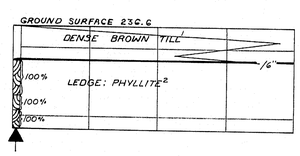
BORING CB 124

STATION 22+58 17'Lt. SURVEY ℄



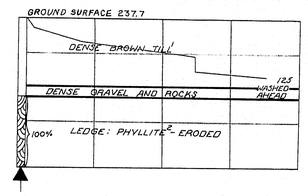
BORING AB 36

STATION 22+65 12'Rt. SURVEY ℄



BORING CB 125

STATION 23+16 1'Rt. SURVEY ℄



NOTE:
1 TILL IS A MIXTURE OF SAND, GRAVEL, BOULDERS, SILT AND CLAY
2 PHYLLITE IS HIGHLY FOLIATED AND CONTAINS QUARTZ AND CALCITE VEINS

BORING NOTES

ALL SAMPLES AND VANES ARE MADE AHEAD OF CASING

NUMBER OF BLOWS REQUIRED TO DRIVE EXTRA HEAVY CASING ONE FOOT WITH 400 ft. lbs. OF ENERGY PER BLOW

LOCATION OF SAMPLE OR SAMPLE ATTEMPT

NUMBER AND TYPE OF DRY SAMPLE

1D S&H SAMPLER #1290'S

NUMBER OF BLOWS REQUIRED TO DRIVE SPOON OR TUBING ONE FOOT WITH 350 ft. lbs. OF ENERGY PER BLOW

BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)

77% LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK

DESIGN— TRACE— CHECK—	BRIDGE NO. SURVEY— PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

FOUNDATION SURVEY

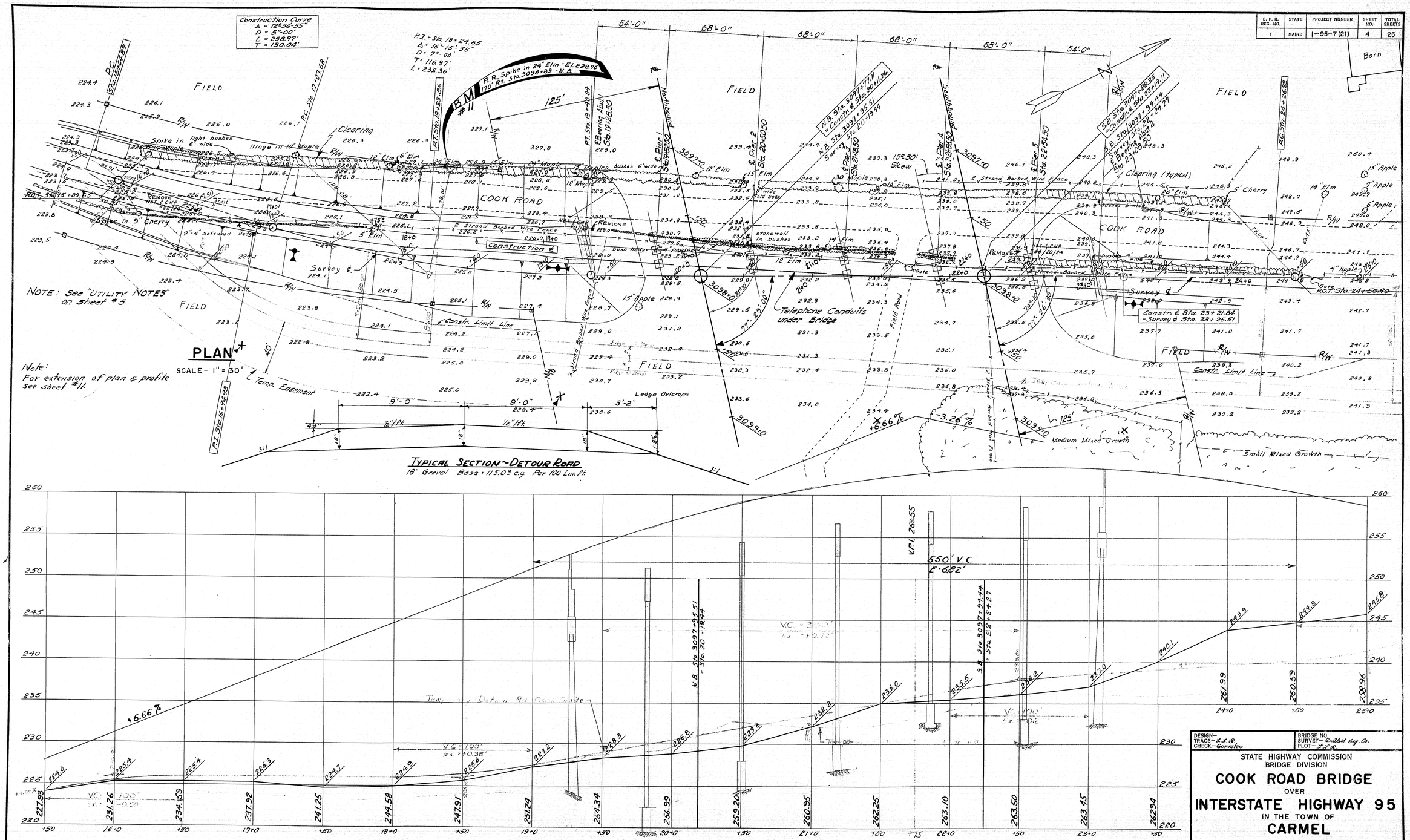
SHEET 3 OF 25 AUGUSTA, MAINE APRIL 1962

BE-103

C. H. CO., NO. 2793 25767

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	4	25



DESIGN-
TRACE- L.L.R.
CHECK- Gormley

BRIDGE NO.
SURVEY- Bartlett Eng. Co.
PLOT- L.L.R.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
SURVEY

SHEET 4 OF 25 AUGUSTA, MAINE APRIL 1962

K+E 108 IMPERIAL TRACING CLOTH T.M. D. L. M. INC. 67871

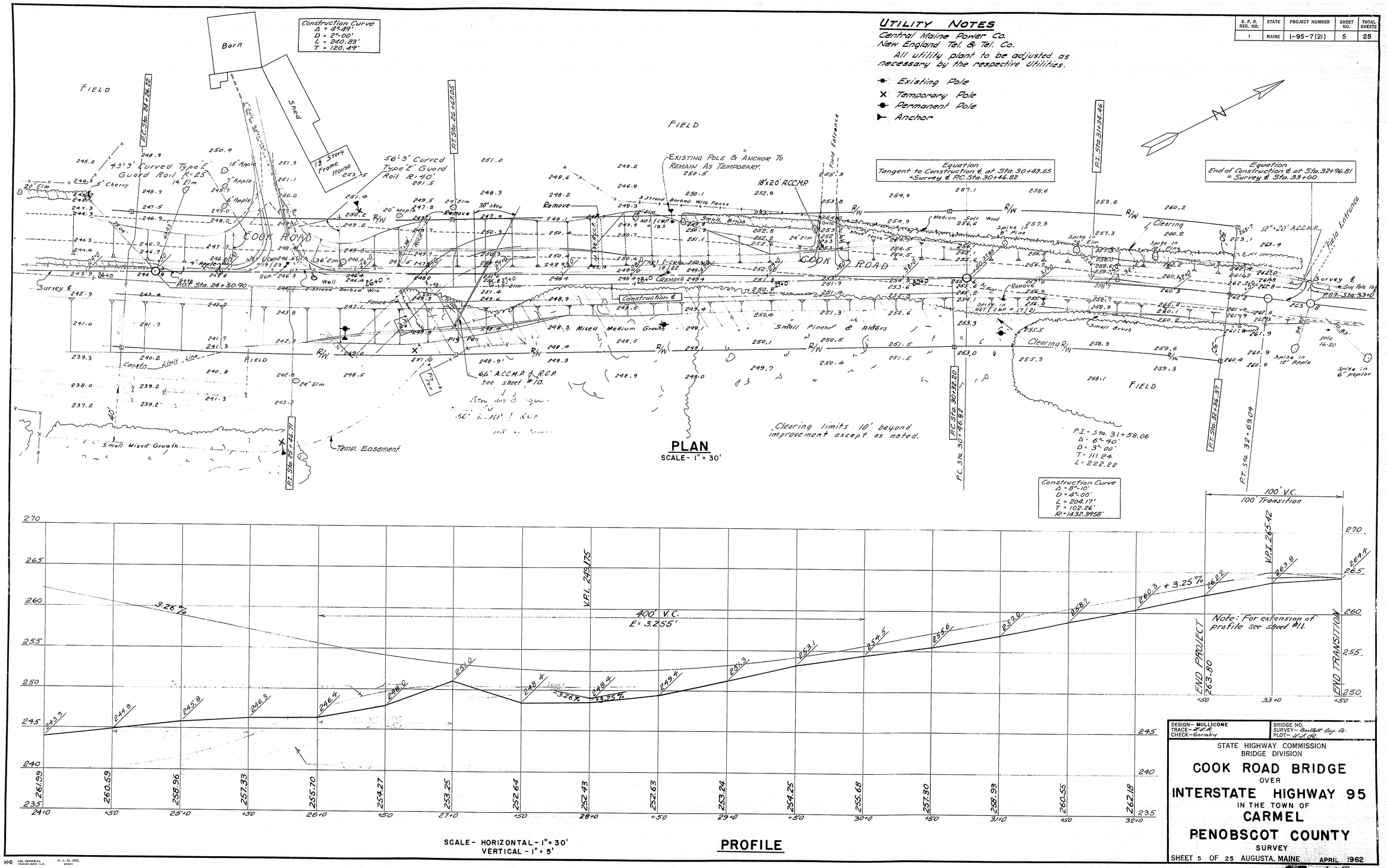
0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	5	25

UTILITY NOTES

Central Maine Power Co.
New England Tel. & Tel. Co.
All utility plant to be adjusted as necessary by the respective Utilities.

- Existing Pole
- Temporary Pole
- Permanent Pole
- Anchor



PLAN
SCALE - 1" = 30'

SCALE - HORIZONTAL - 1" = 30'
VERTICAL - 1" = 5'

PROFILE

DESIGN - MOLLICONE
TRACE - L.L.R.
CHECK - Gormley
BRIDGE NO.
SURVEY - Bartlett Eng. Co.
PLOT - L.L.R.

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
SURVEY

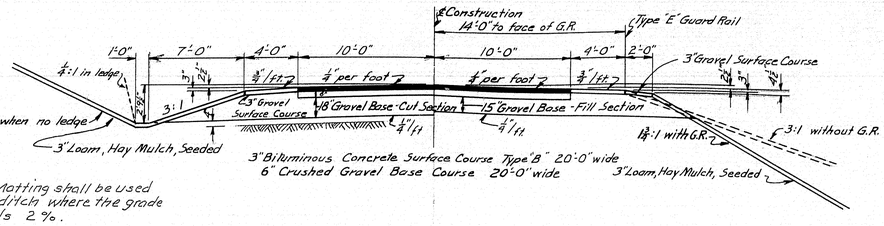
SHEET 5 OF 25 AUGUSTA, MAINE APRIL 1962

65-105

0 1 2 3 4 5 INCHES

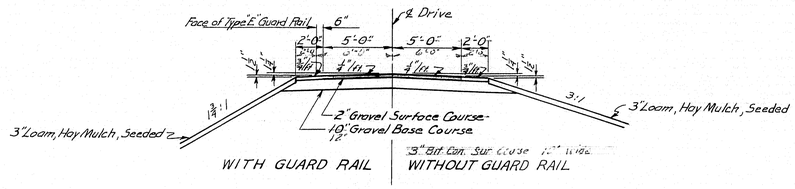
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	6	25

NOTE:
Type E Guard Rail ends shall be as follows:
End Wings at Abutments
Terminal Sections elsewhere.

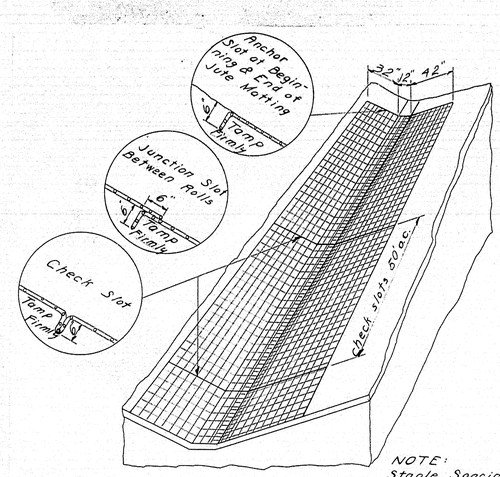


NOTE:
Jute Matting shall be used in the ditch where the grade exceeds 2%.

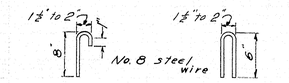
TYPICAL NORMAL SECTION



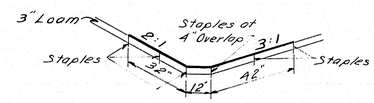
TYPICAL DRIVEWAY SECTION



NOTE:
Staple Spacing at 3' o.c. along Matting except at 4" overlap which shall be at 1 1/2' o.c.



WIRE STAPLE – Use either Type



JUTE MATTING - DITCH SECTION

DESIGN - MOLLICONE TRACE - [illegible] CHECK - Gormley	BRIDGE NO. SURVEY PLOT

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

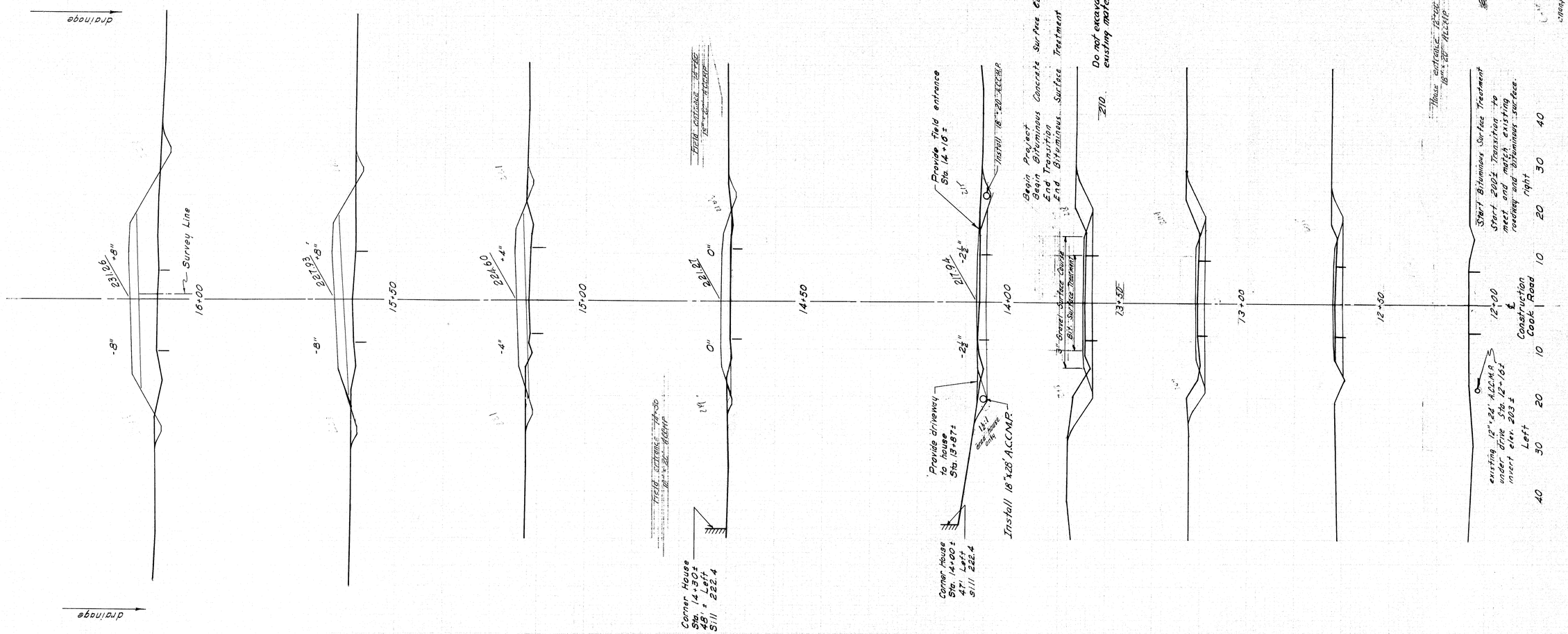
COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

TYPICAL SECTIONS

SHEET 6 OF 25 AUGUSTA, MAINE APRIL 1962

0 1 2 3 4 5 INCHES

U. P. H. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	7	25



DESIGN	MOLLICONE	BRIDGE NO.
TRACE	BARNARD	SURVEY
CHECK	Gormley	PLOT

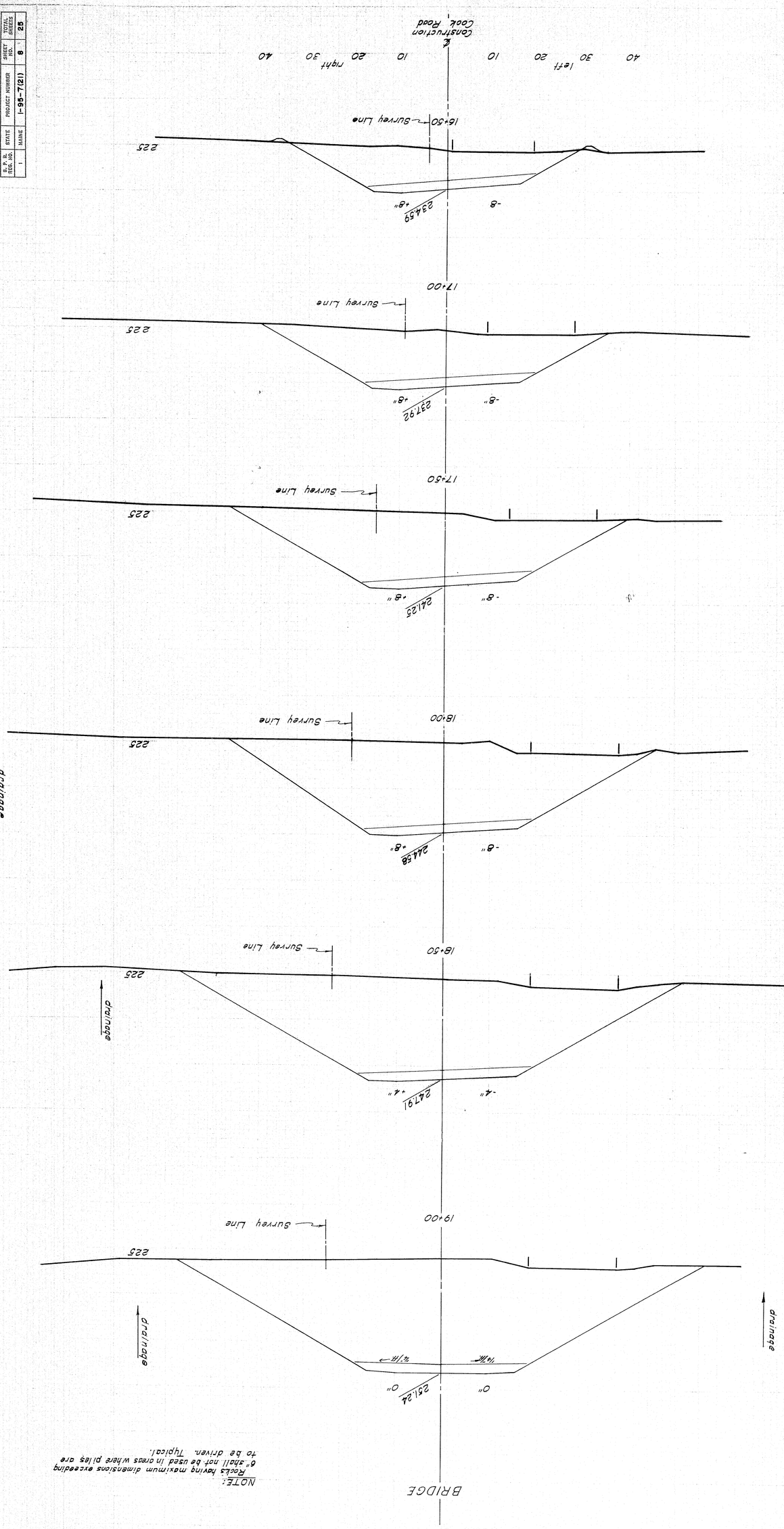
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

CROSS SECTIONS

SHEET 7 OF 25 AUGUSTA, MAINE APRIL 1962

U.P. No. FED. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	8	25



DESIGN MOLLICONE
TRACE BARNARD
CHECK Gurnicy

BRIDGE NO.
SURVEY
PLOT

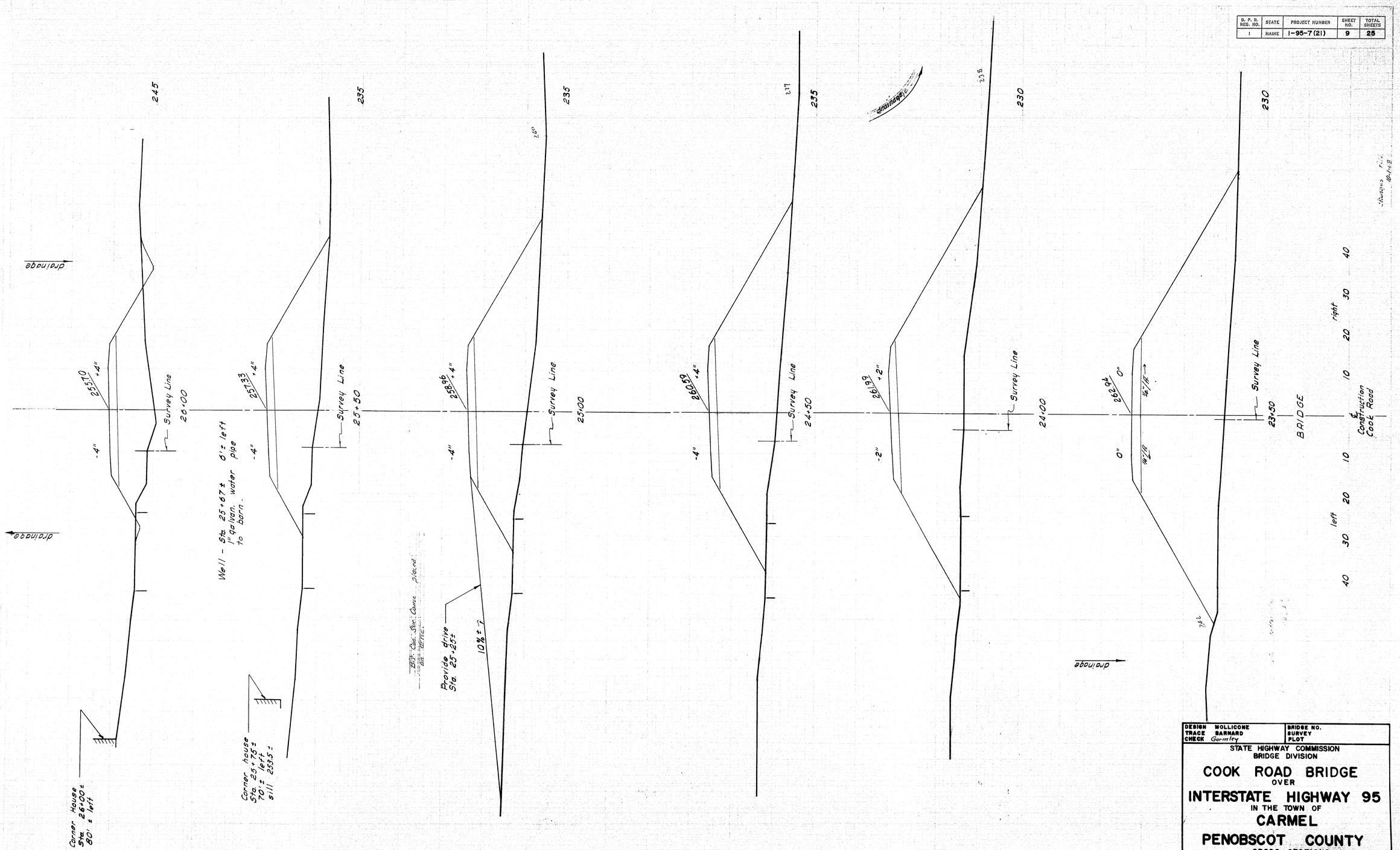
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
CROSS SECTIONS

SHEET 8 OF 25 AUGUSTA, MAINE APRIL 1962

1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	9	25



DESIGN	MOLLICONE	BRIDGE NO.
TRACE	BARNARD	SURVEY
CHECK	Gormley	PLOT

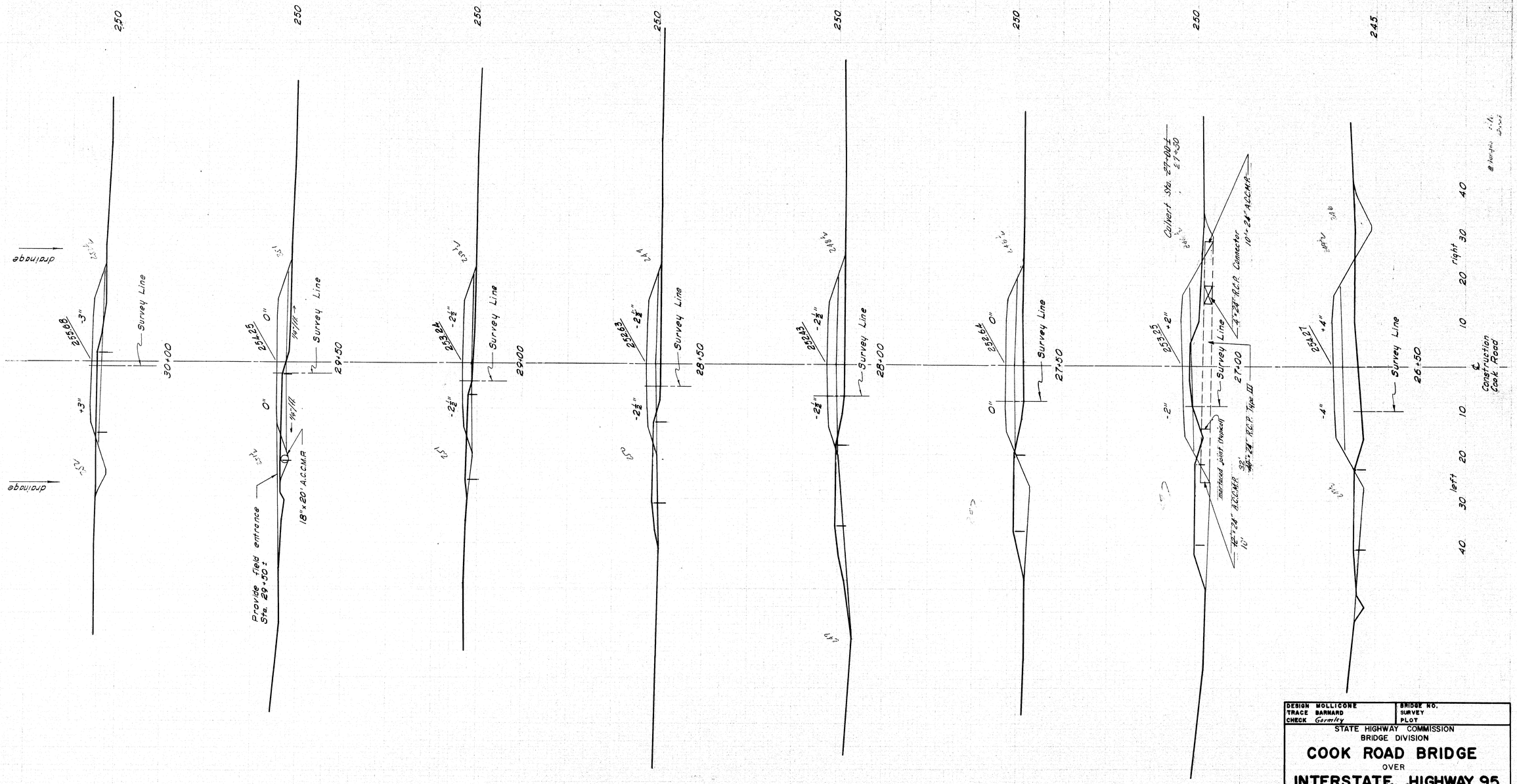
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
CROSS SECTIONS

SHEET 9 OF 25 AUGUSTA, MAINE APRIL 1962

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7 (21)	10	25



DESIGN MOLLICONE	BRIDGE NO.
TRACE BARNARD	SURVEY
CHECK Gormley	PLOT

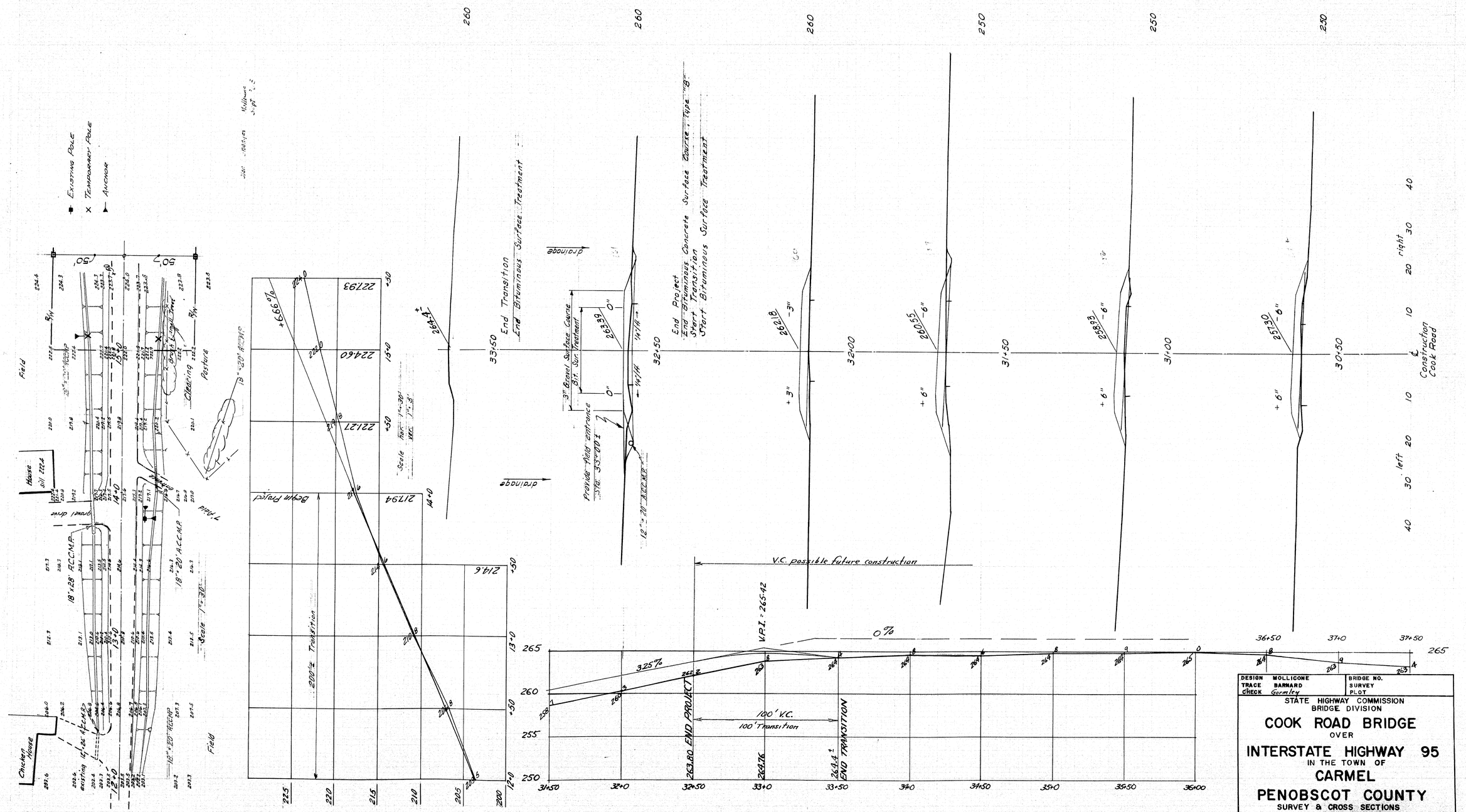
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
CROSS SECTIONS

SHEET 10 OF 25 AUGUSTA, MAINE APRIL 1962

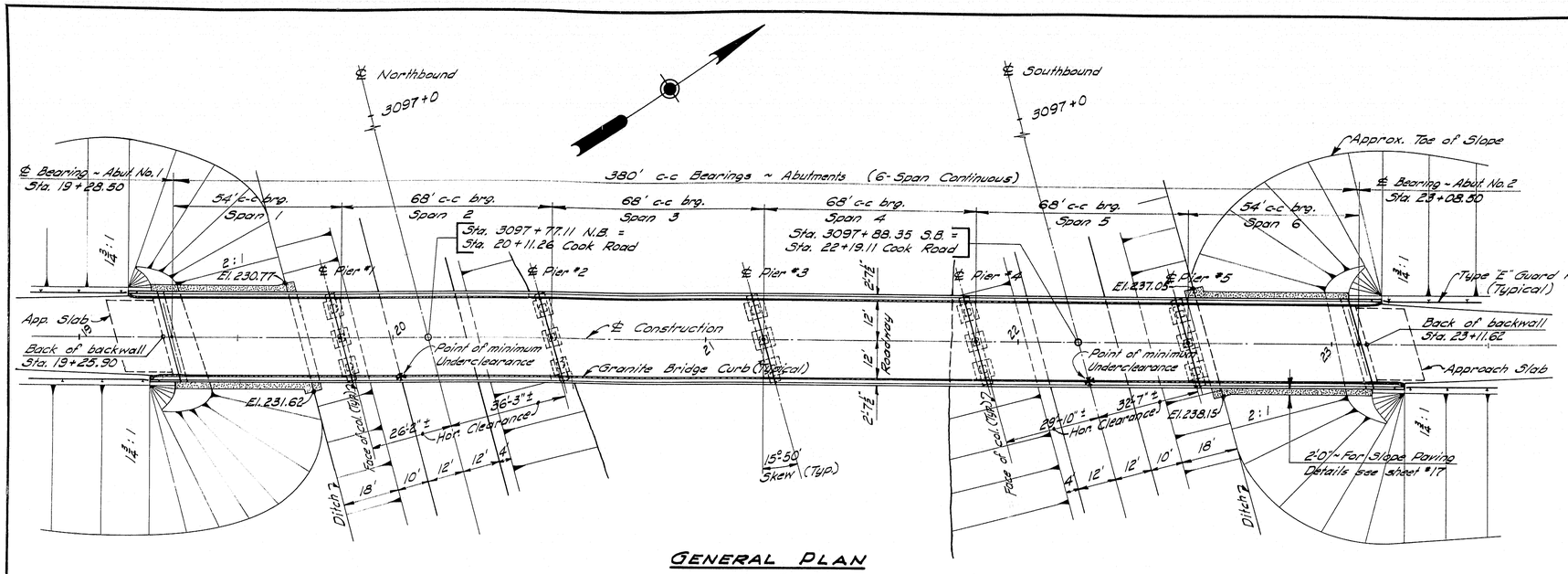
0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	11	25



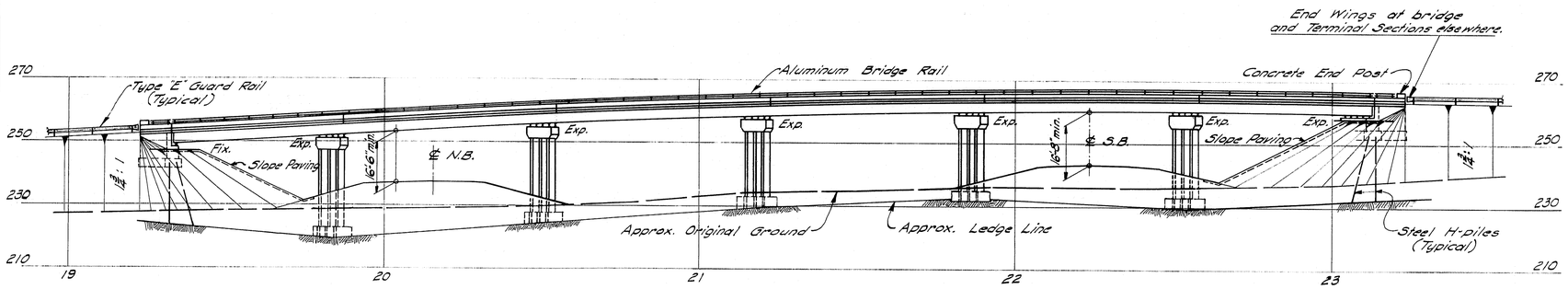
0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7 (21)	12	25



GENERAL PLAN

Scale: 1" = 20'



ELEVATION

Scale: 1" = 20'

DESIGN SPECIFICATIONS

A.A.S.H.O. 1961, Standard Specifications for Highway Bridges.

Loading H20-44

f_s = 20,000 p.s.i.
f_c = 1200 p.s.i. } Concrete
n = 10

f_s = 20,000 p.s.i. ~ Structural Steel

CONCRETE CLASSIFICATION

All concrete _____ Class "A"

CONTRACT SPECIFICATIONS

State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revision of January 1956.

TOTAL QUANTITIES ~ ENGINEERS ESTIMATE

Clearing	0.5	Acres
Removing Trees (9"-24")	1	Each
Removing Trees (over 24")	1	Each
Earth Excavation	1,500	C.Y.
Structural Earth Excavation - Drainage	110	C.Y.
Structural Earth Excavation - Piers	300	C.Y.
Structural Rock Excavation - Piers	10	C.Y.
Common Borrow	22,500	C.Y.
Granular Borrow	6,500	C.Y.
Gravel Base Course - In Place Measurement	3,100	C.Y.
Crushed Gravel Base Course - In Place Measurement	540	C.Y.
Gravel Surface Course	225	C.Y.
Bituminous Concrete Surface Course, Type "B"	650	Tons
Road Tar	430	Gals.
12 In. Asphalt Coated Corr. Metal Pipe	20	Lin. Ft.
18 In. Asphalt Coated Corr. Metal Pipe	68	Lin. Ft.
24 In. Asphalt Coated Corr. Metal Pipe	22	Lin. Ft.
24 In. Reinforced Concrete Pipe, Class III	48	Lin. Ft.
Portland Cement Concrete, Abutments & Ret. Walls	130	C.Y.
Portland Cement Concrete, Piers	265	C.Y.
Portland Cement Concrete Roadway & Sidewalk Slabs on Steel Bridges.	380	C.Y.
Portland Cement	1,160	bbls.
Structural Steel, Fabricated & Delivered	281,800	lbs.
Structural Steel, Erection	281,800	lbs.
Structural Steel, Field Painting	281,800	lbs.
Reinforcing Steel, Delivered	128,400	lbs.
Reinforcing Steel, Placing	128,400	lbs.
Steel H-beam Piles 42 lbs. per foot	580	Lin. Ft.
Aluminum Rail	790	Lin. Ft.
Membrane Waterproofing	1,010	S.Y.
Epoxy Resin Surface Sealant	30	S.Y.
Slope Paving	380	S.Y.
Granite Bridge Curb	800	Lin. Ft.
Guard Rail - Type "E"	1400	Lin. Ft.
End Wings	4	Each
Guard Rail - Type "E", Terminal Section	6	Each
Guard Rail - Type "E", Curved	100	Lin. Ft.
Loam Borrow	690	C.Y.
Jute Matting - Weave "H"	900	S.Y.
Seeding, Method No. 2	74	Units
Hay Mulch	5	Tons
Asphalt Mulch Binder	450	Gals.

DESIGN- A.H.R. DET.- G.W.C.
TRACE- G.W.C.
CHECK- G.W.C.
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

GENERAL PLAN & ELEVATION
ESTIMATE OF QUANTITIES

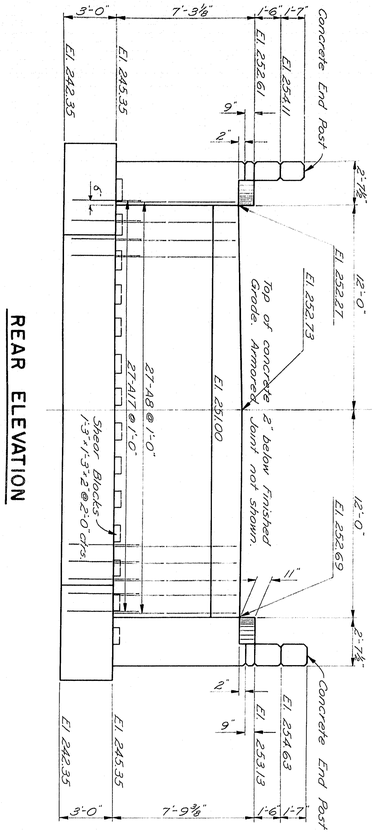
SHEET 12 OF 25 AUGUSTA, MAINE APRIL 1962

85-112

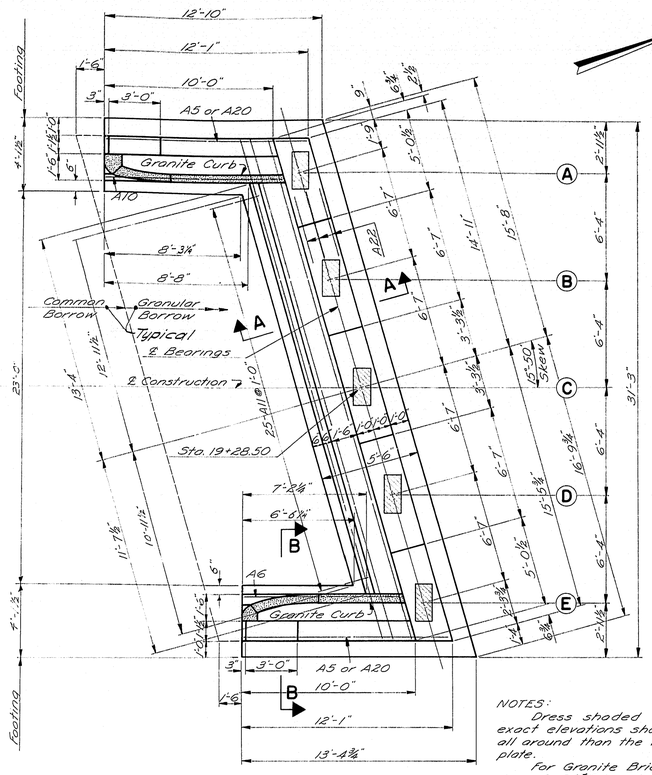
H-E 150 IMPERIAL BLUE LINE PRINTS U. L. M. INC. 87071

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	13	25

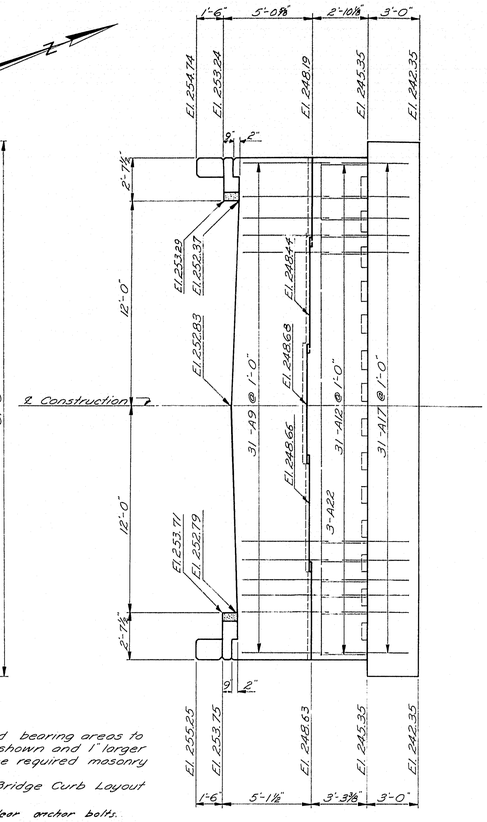


REAR ELEVATION

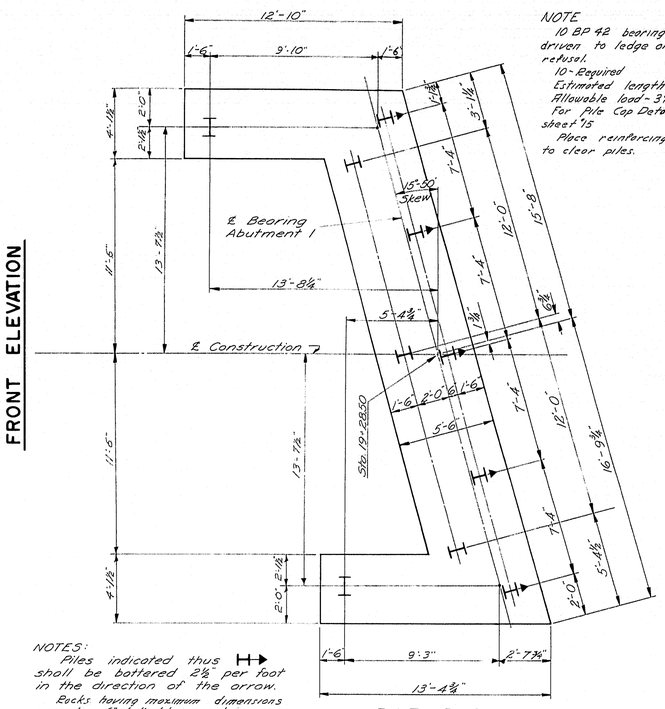


PLAN

NOTES:
Dress shaded bearing areas to exact elevations shown and 1" larger all around than the required masonry plate.
For Granite Bridge Curb Layout see sheet "15
Reinforcement to clear anchor bolts.
Caulk around edges of masonry plates with an approved caulking material. Payment for this work shall be incidental to the contract items. Typical for abutments and piers.



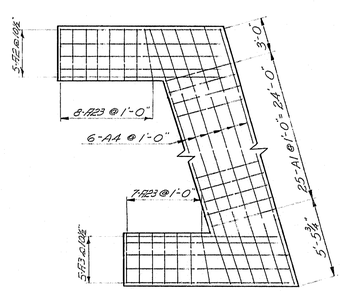
FRONT ELEVATION



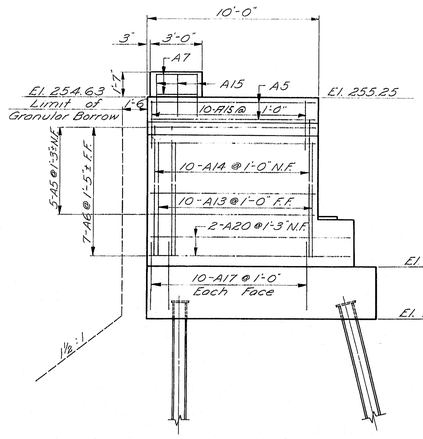
NOTE
10 BP 42 bearing piles driven to ledge or practical refusal.
10-Required
Estimated length - 25'
Allowable load - 37 tons/pile
For Pile Cap Detail see sheet 15
Place reinforcing steel to clear piles.

NOTES:
Piles indicated thus ⊢⊣ shall be battered 2½" per foot in the direction of the arrow.
Rocks having maximum dimensions exceeding 6" shall not be used in areas where piles are to be driven.

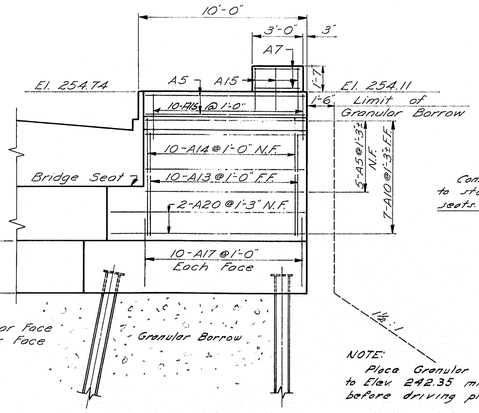
PILE PLAN



REINFORCING - FOOTING

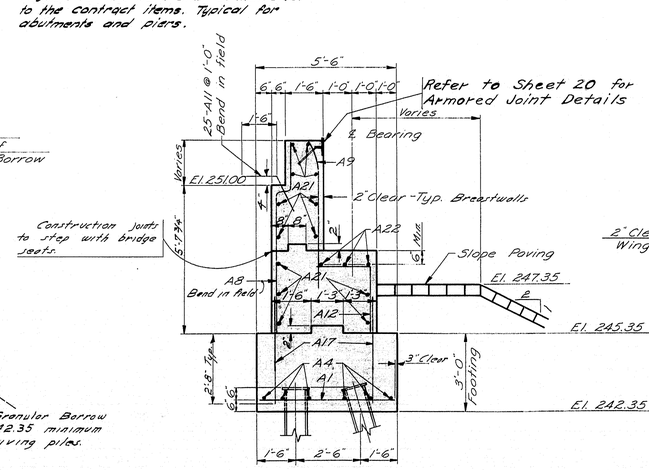


SIDE ELEVATION - RIGHT WING

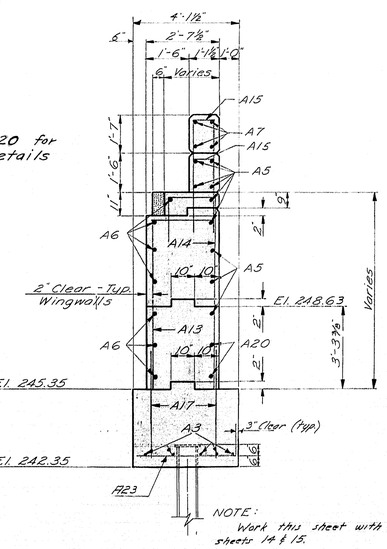


NOTE:
Place Granular Borrow to Elev. 242.35 minimum before driving piles.

SIDE ELEVATION - LEFT WING



SECTION A-A



NOTE:
Work this sheet with sheets 14 & 15.

SECTION B-B

DESIGN - A.H.R. DETAIL - P.J.M.
TRACE - E.E.L.
CHECK - [illegible]
BRIDGE NO.
SURVEY -
PLOT -

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

ABUTMENT No. 1

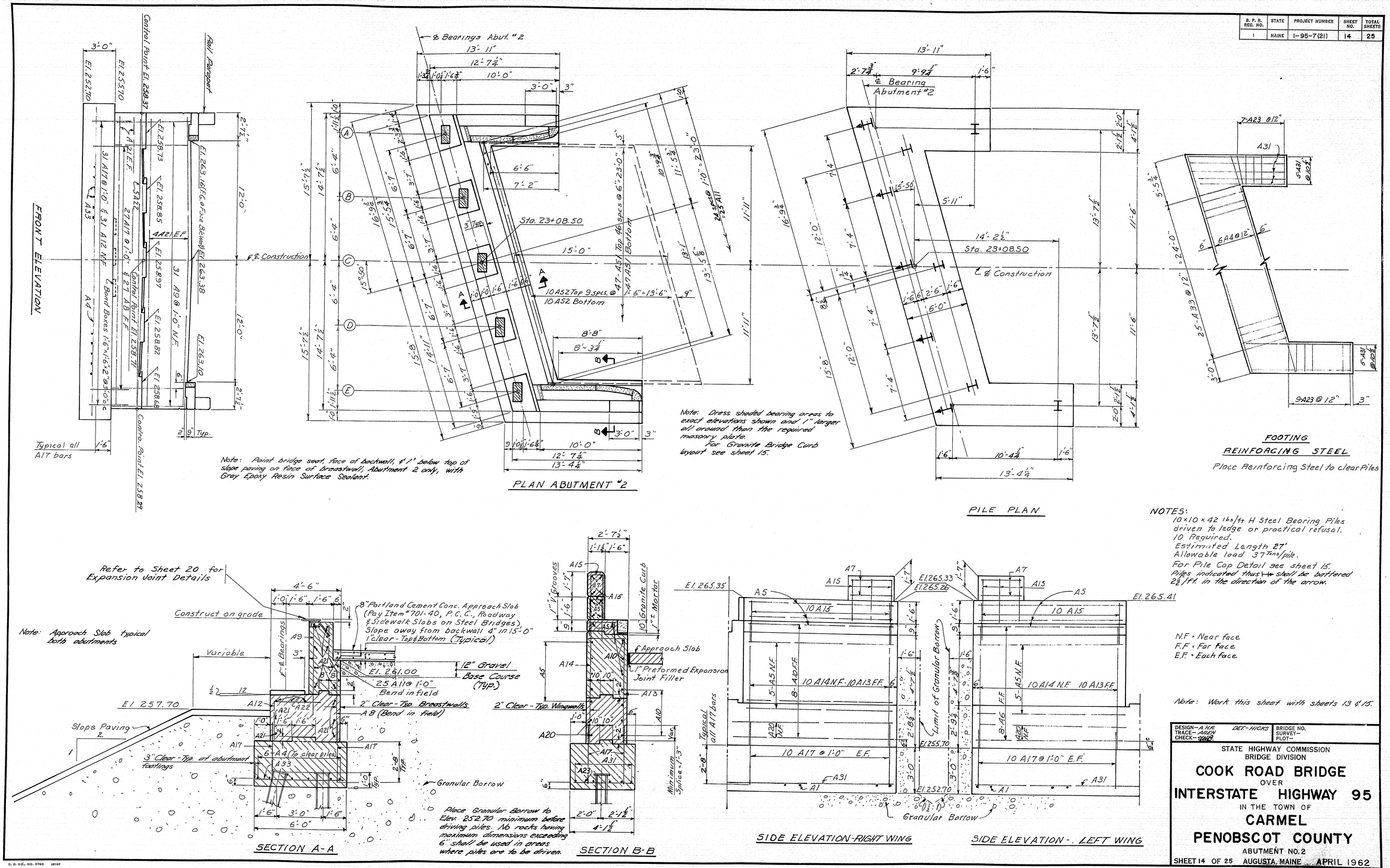
SHEET 13 OF 25 AUGUSTA, MAINE APRIL 1962

85-113

C. B. CO., NO. 3755 25757

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	14	25



NOTES:
10×10×42 lbs/ft H Steel Bearing Piles driven to ledge or practical refusal.
10 Required.
Estimated Length 27'
Allowable load 37 Tons/pile.
For Pile Cap Detail see sheet 15.
Piles indicated thus ⊢⊣ shall be battered 2½/ft. in the direction of the arrow.

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

Note: Work this sheet with sheets 13 & 15.

DESIGN—A.H.R. DET.-HICKS
TRACE—AHEN
CHECK—[illegible]
BRIDGE NO.
SURVEY—
PLOT—

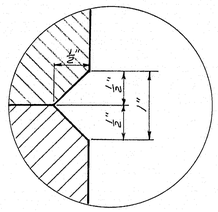
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
ABUTMENT NO. 2

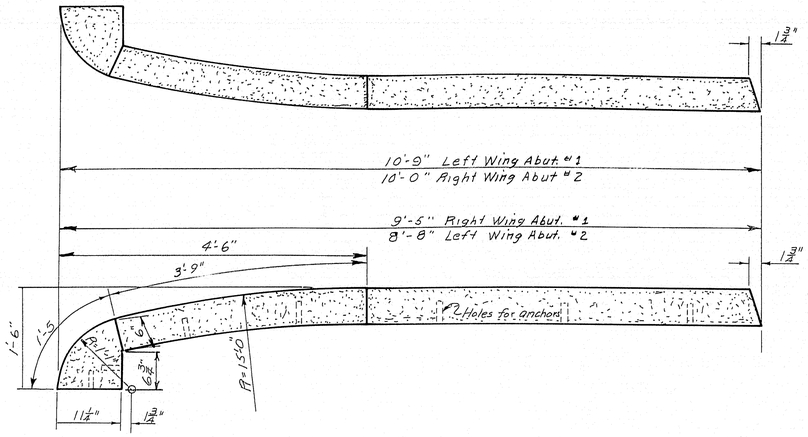
SHEET 14 OF 25 AUGUSTA, MAINE APRIL 1962

85-114

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	15	25

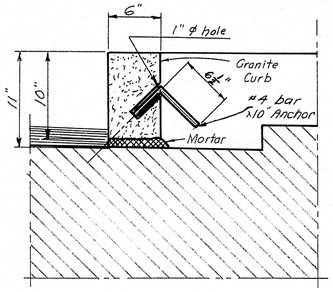


"V" GROOVE DETAIL (Typical)

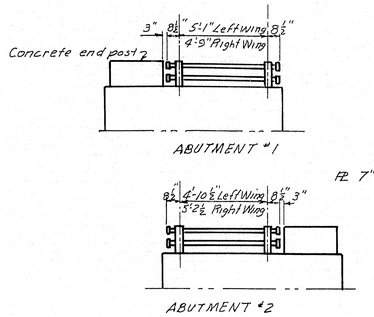


GRANITE BRIDGE CURB DETAILS

All dimensions - Typical
Curb dimensions along front arris line of curb.

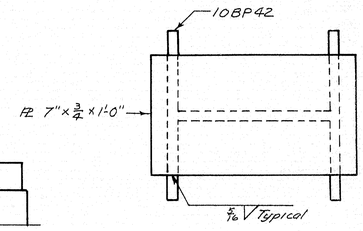


TYPICAL SECTION



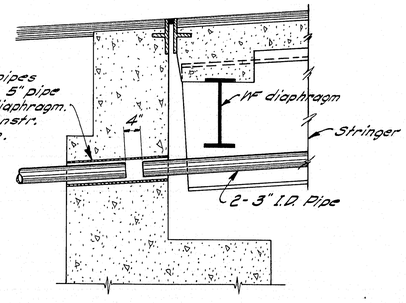
ALUMINUM RAIL

Aluminum rail details shown on sheet # 22.



PILE CAP DETAIL

BRIDGE QUANTITIES ~ ENGINEERS ESTIMATE	
Structural Earth Excavation, Piers	300 C.Y.
Structural Rock Excavation, Piers	10 C.Y.
Granular Borrow	4,800 C.Y.
Bituminous Concrete Surface Course, Type "B"	112 Tons
Portland Cement Concrete Abutments & Retaining Walls	130 C.Y.
Portland Cement Concrete - Piers	265 C.Y.
Portland Cement Concrete Roadway & Sidewalk Slabs on Steel Bridges.	380 C.Y.
Portland Cement	1,160 bbls.
Structural Steel, Fabricated & Delivered	281,800 lbs.
Structural Steel, Erection	281,800 lbs.
Structural Steel, Field Painting	281,800 lbs.
Reinforcing Steel, Delivered	128,400 lbs.
Reinforcing Steel, Placing	128,400 lbs.
Steel H-beam Piles 42 lbs. per foot	580 Lin. Ft.
Aluminum Rail	790 Lin. Ft.
Membrane Waterproofing	1010 S.Y.
Epoxy Resin Surface Sealant	30 S.Y.
Slope Paving	380 S.Y.
Granite Bridge Curb	800 Lin. Ft.



SLEEVE DETAIL

Abut. #1 Shown, Abut. #2 Similar

Note: Work this sheet with sheets 13 & 14.

DESIGN- A.H.R. Detail- P.J.W. BRIDGE NO.
TRACE- G.E.A. SURVEY-
CHECK- [illegible] PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
ABUTMENT DETAILS

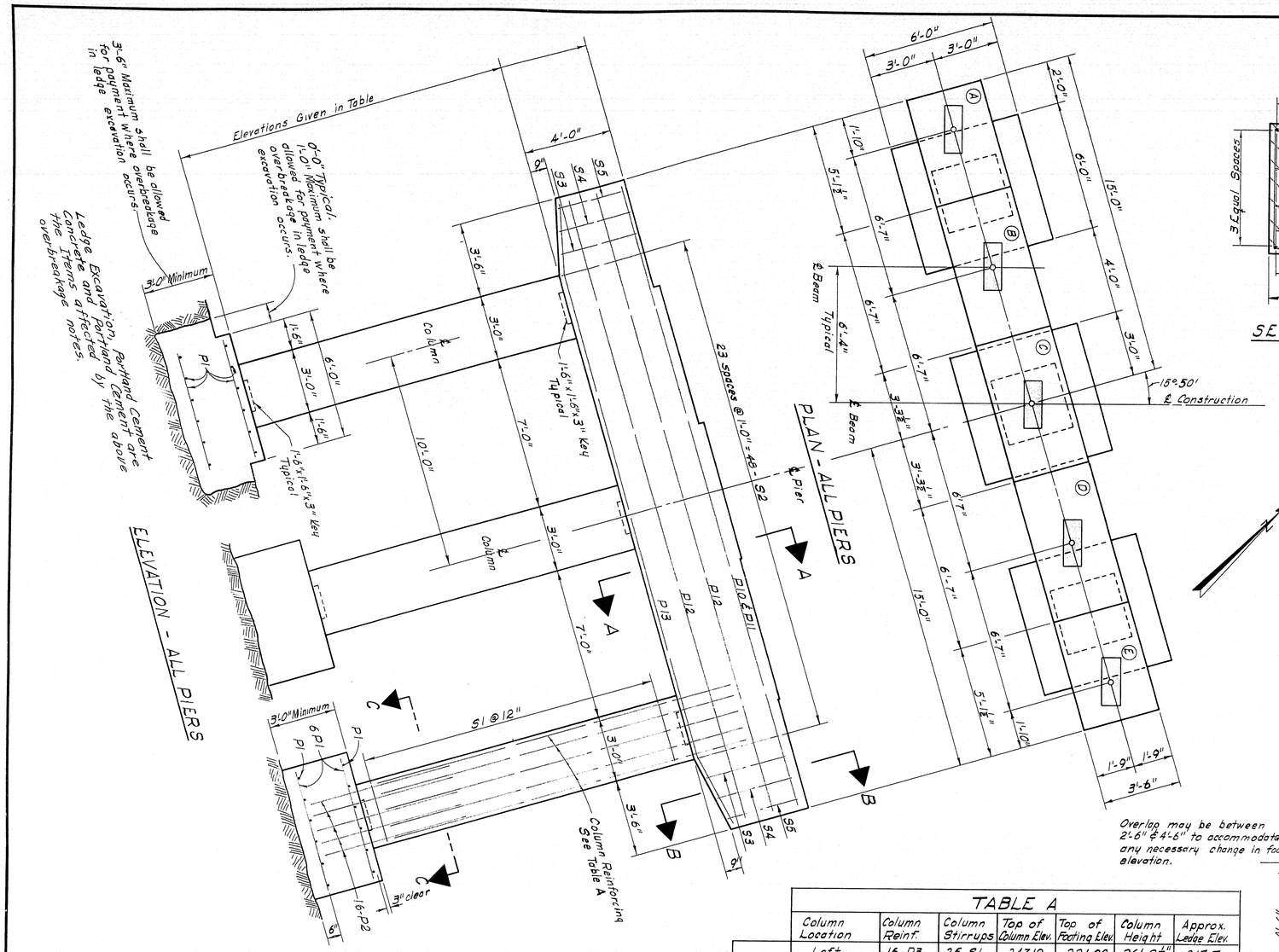
SHEET 15 OF 25 AUGUSTA, MAINE APRIL 1962

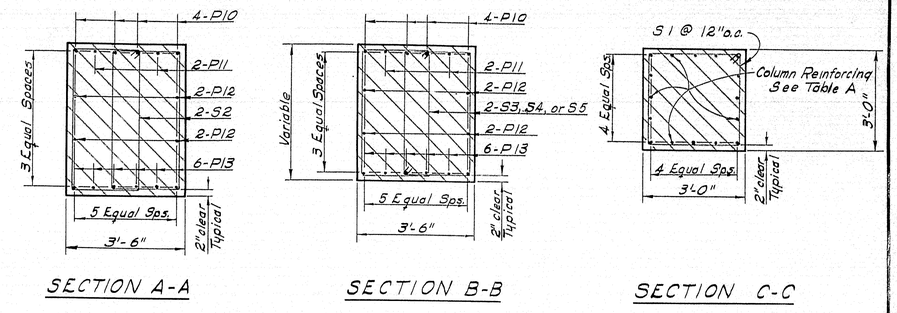
85-115

C. B. CO., NO. 3798 28767

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	16	25





NOTES:

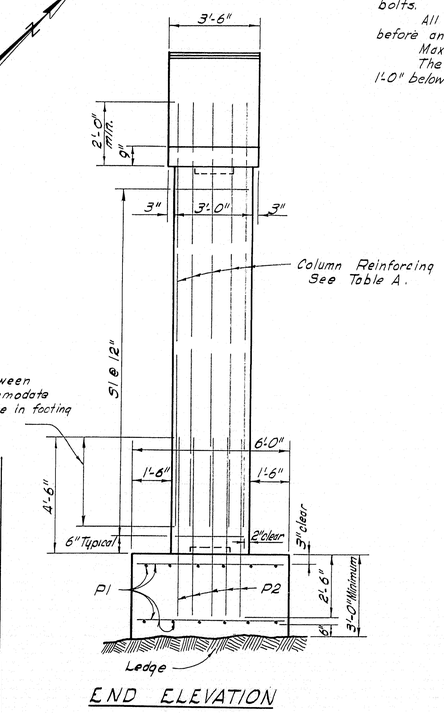
Dress shaded bearing areas to exact elevations shown and 1" larger all around than the required masonry plate.

Reinforcing steel in top of cap to clear anchor bolts.

All weathered or broken ledge shall be removed before any footing concrete is placed.

Maximum footing Pressure = 8 Tons/Ft²

The Top of any footing shall not be less than 1'-0" below the surface of the final ground elevation.



	Bearing Area Elevations				
	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5
A	251.19	254.33	256.64	258.12	258.76
B	251.42	254.53	256.82	258.27	258.90
C	251.64	254.74	257.00	258.43	259.04
D	251.60	254.67	256.92	258.33	258.91
E	251.56	254.61	256.83	258.22	258.78

TABLE A

	Column Location	Column Reinf.	Column Stirrups	Top of Column Elev.	Top of Footing Elev.	Column Height	Approx. Ledge Elev.
Pier 1	Left	16-P3	26-S1	247.19	221.00	26'-2½"	217.5
	Center	16-P4	25-S1	247.19	222.00	25'-2½"	218.5
	Right	16-P4	25-S1	247.19	222.00	25'-2½"	218.5
Pier 2	Left	16-P5	23-S1	250.33	227.00	23'-4"	223.5
	Center	16-P5	23-S1	250.33	227.00	23'-4"	224.0
	Right	16-P6	22-S1	250.33	228.00	22'-4"	224.5
Pier 3	Left	16-P7	21-S1	252.64	232.00	20'-7½"	228.5
	Center	16-P5	23-S1	252.64	230.00	22'-7½"	227.0
	Right	16-P8	22-S1	252.64	231.00	21'-7½"	228.0
Pier 4	Left	16-P9	19-S1	254.12	235.00	19'-1½"	234.0
	Center	16-P9	19-S1	254.12	235.00	19'-1½"	233.0
	Right	16-P9	19-S1	254.12	235.00	19'-1½"	232.5
Pier 5	Left	16-P7	21-S1	254.76	234.00	20'-9"	231.0
	Center	16-P5	23-S1	254.76	232.00	22'-9"	229.0
	Right	16-P9	20-S1	254.76	235.00	19'-9"	231.5

DESIGN– A.H.R. Det.– R.W.S., E.E.L.
TRACE– E. Bernard
CHECK– T.H.K.
BRIDGE NO.
SURVEY–
PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

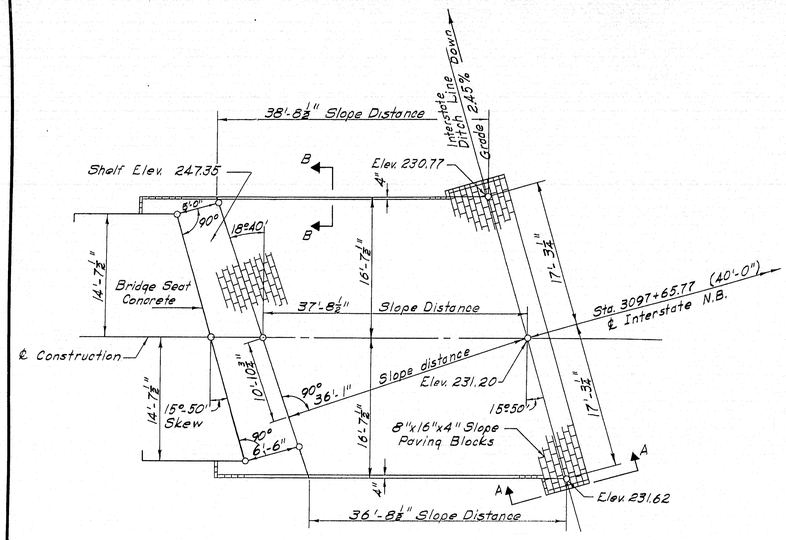
PIERS

SHEET 16 OF 25 AUGUSTA, MAINE APRIL 1962

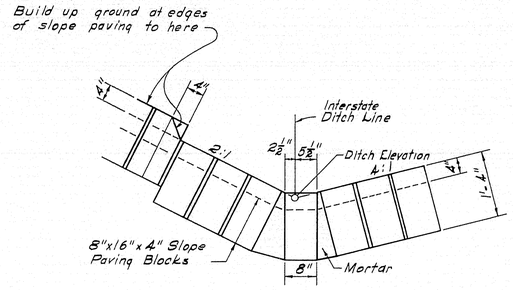
C. S. CO., NO. 27915 25797

0 1 2 3 4 5 INCHES

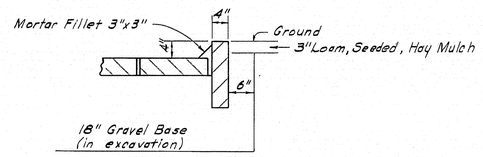
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	17	25



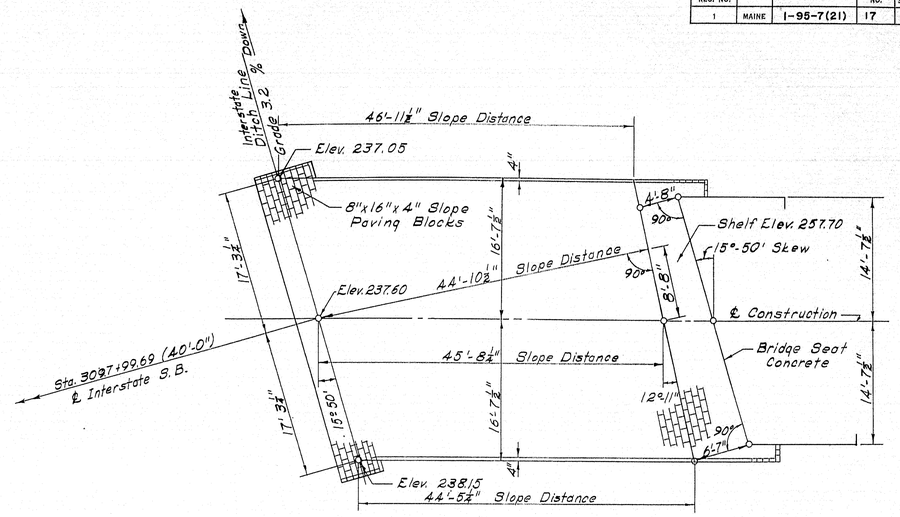
PLAN - ABUTMENT 1



SECTION A-A
TYPICAL



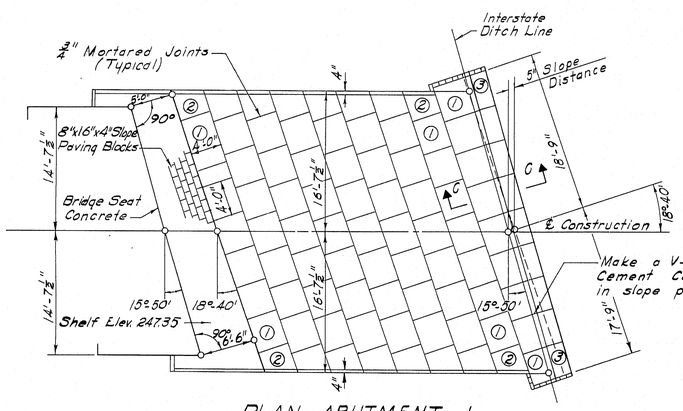
SECTION B-B
TYPICAL



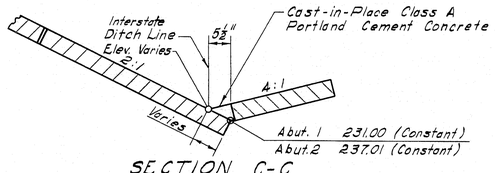
PLAN - ABUTMENT 2

NOTES:
Excavation for 18" Gravel Base (in excavated areas) under Slope Paving to be paid for under Item 203-9 "Earth Excavation".
Depth of Gravel Base under slope paving may be reduced or omitted if in the opinion of the Engineer in the field existing material is suitable.

ALTERNATE METHOD

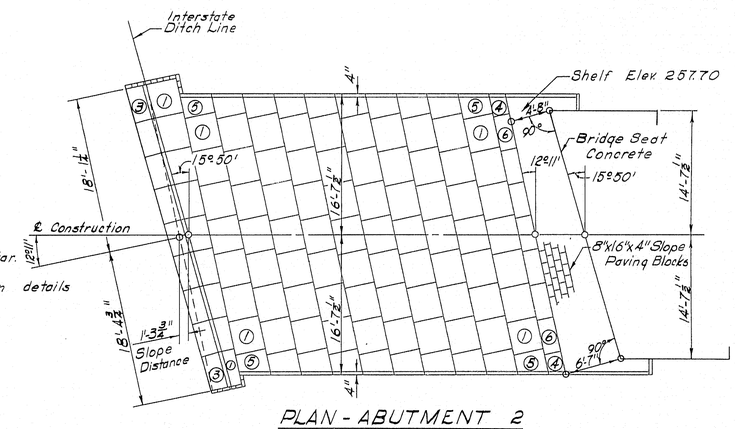


PLAN - ABUTMENT 1

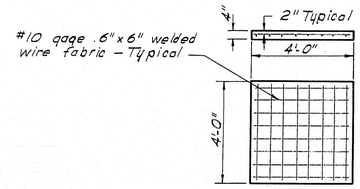


SECTION C-C
TYPICAL

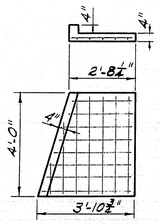
NOTES
All exposed lifting holes shall be filled with mortar.
Block sizes are suggestive.
Contractor shall submit any changes from plan details to the Engineer for approval.
Block arrangement on shelf is suggestive.



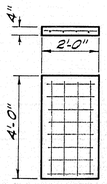
PLAN - ABUTMENT 2



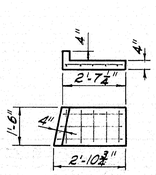
BLOCK 1
65 Required - Abut. 1
79 Required - Abut. 2



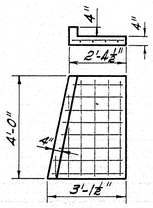
BLOCK 2
16 Required - Abut. 1



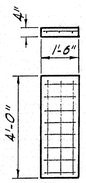
BLOCK 3
9 Required - Abut. 1
9 Required - Abut. 2



BLOCK 4
2 Required - Abut. 2



BLOCK 5
20 Required - Abut. 2



BLOCK 6
7 Required - Abut. 2

DESIGN- A.H.R.
TRACE- E. Barnard
CHECK- Malkasian
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

SLOPE PAVING

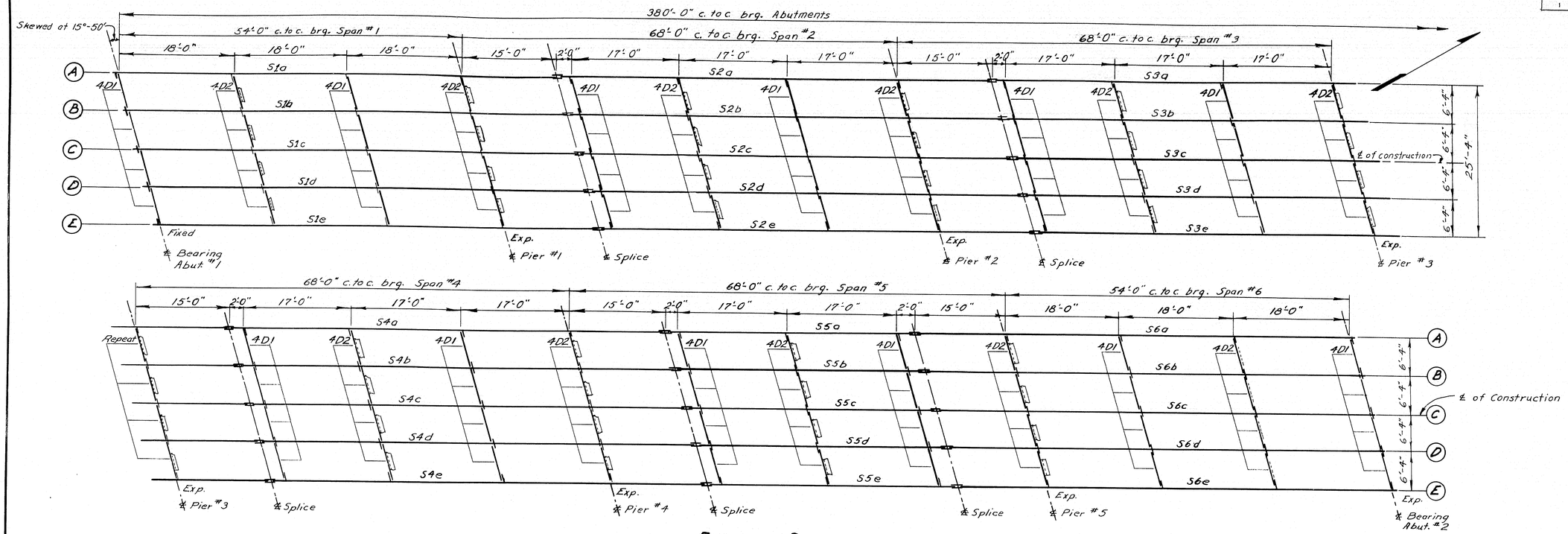
SHEET 17 OF 25 AUGUSTA, MAINE APRIL 1962

85-1107

C. H. CO., NO. 3788 25787

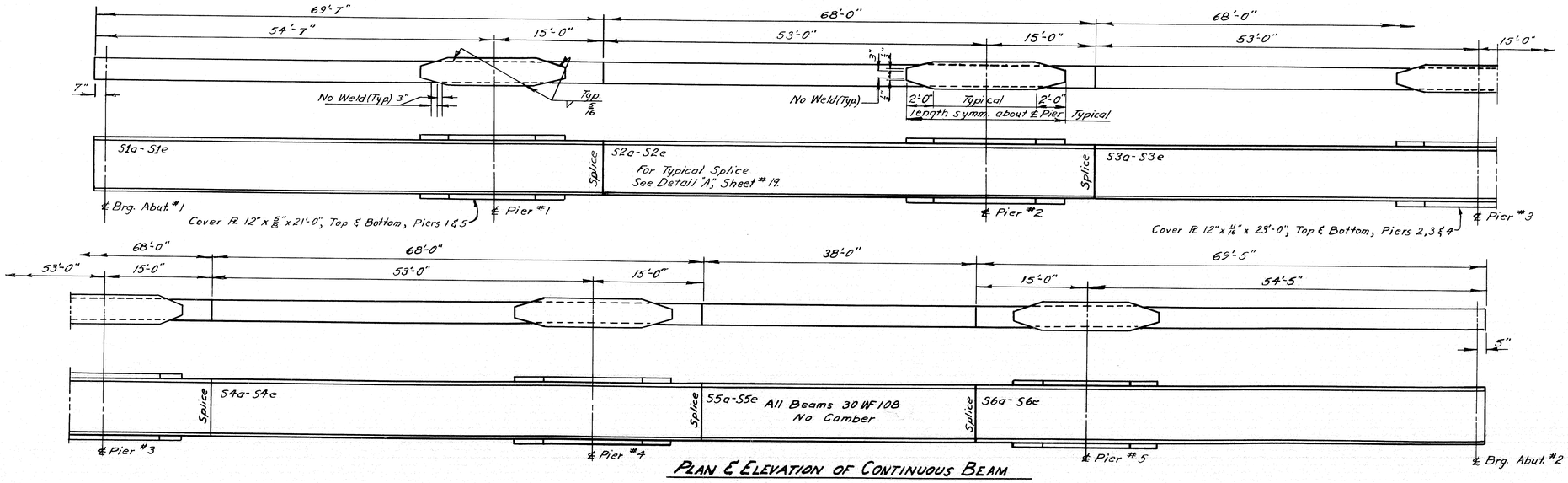
0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	18	25



ERECTION DIAGRAM

D1-16 WF 36 Dimensions to ℄ Beam - 48 Req'd
D2-15 [33.9 Dimensions to back of channel - 44 Req'd



PLAN & ELEVATION OF CONTINUOUS BEAM

All dimensions are horizontal and are detailed to working points 2½" below bottom of bottom flange.

STRUCTURAL STEEL NOTES:

Steel stringers & cover plates shall be structural steel A.S.T.M. Designation A36. All other structural steel shall be A.S.T.M. Designations A7 or A36.
Design: A.A.S.H.O. Standard Specifications and revisions. (1961)
Fabrication & Erection: State of Maine Standard Specifications, Highway & Bridges, Revision of Jan. 1956 with Supplemental Specifications 1960

NOTE:

No paint on stringers where contact is made with Concrete.

DESIGN- A·H·R· DETAIL- Chace
TRACE- P.J.M.
CHECK- [illegible]
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

STRUCTURAL STEEL

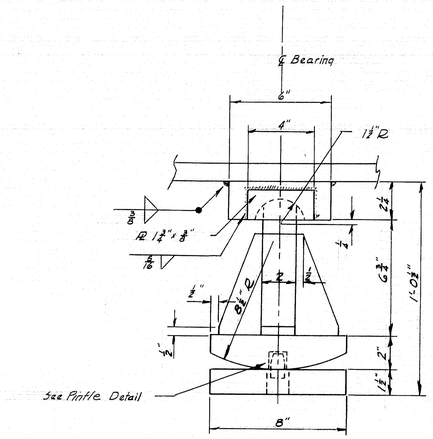
SHEET 18 OF 25 AUGUSTA, MAINE APRIL 1962

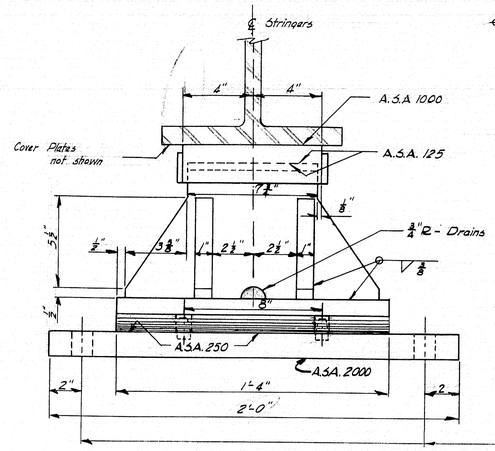
85-118

K+E 186 IMPERIAL D. L. M. INC. 93071

0 1 2 3 4 5 INCHES

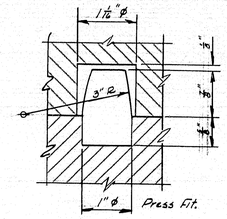
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	19	25





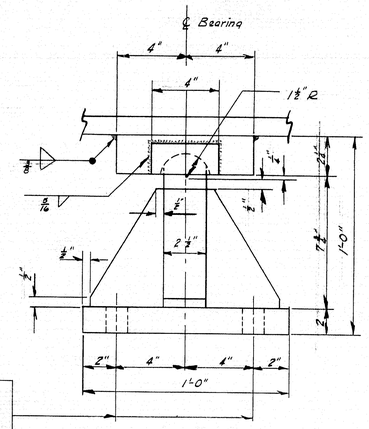
EXPANSION BEARING
30 Required

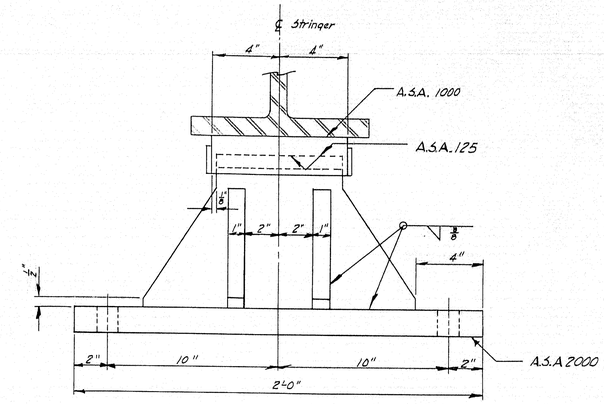
NOTE: Rockers to be Vertical @ 45°F.



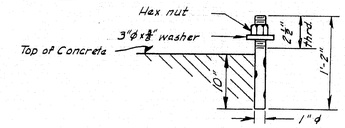
PINTLE DETAIL

1⅛"ϕ holes for 1"ϕ Swedge anchor bolts with hex nuts and 3"ϕ x ⅜" washers.



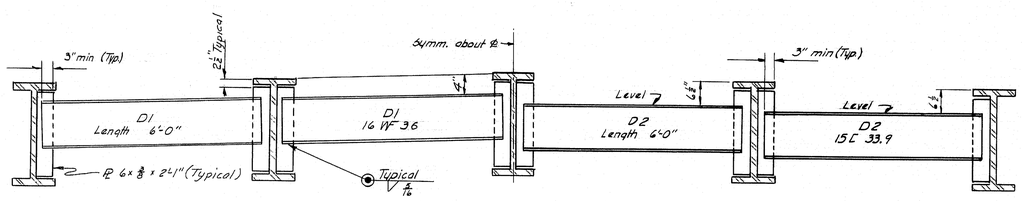


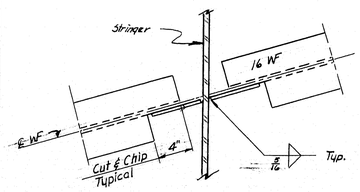
FIXED BEARING
5 Required

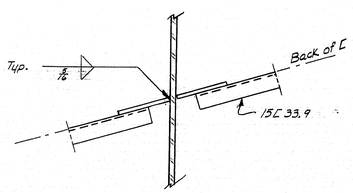


SWEDGE ANCHOR BOLT
80 Required

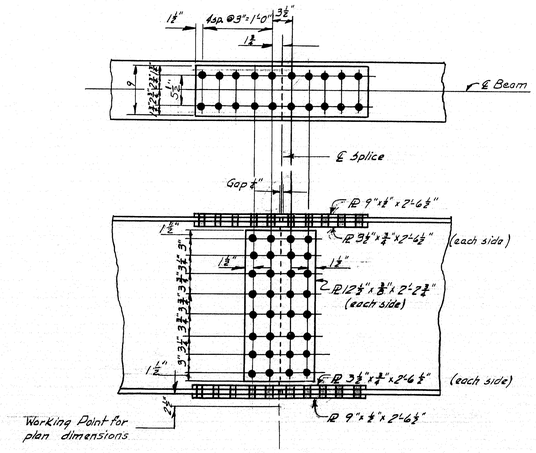
STRINGER GRADES IN %						
LINE	S1	S2	S3	S4	S5	S6
A	+5.7239	+4.3121	+3.1381	+2.1500	+1.2555	-0.1561
B	+5.6915	+4.2798	+3.1055	+2.1176	+1.2232	-0.1885
C	+5.6591	+4.2472	+3.0734	+2.0853	+1.1906	-0.2207
D	+5.6267	+4.2149	+3.0409	+2.0526	+1.1585	-0.2533
E	+5.5941	+4.1826	+3.0085	+2.0203	+1.1259	-0.2855



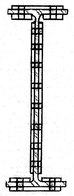




DIAPHRAGM DETAILS
48 D1, 44 D2 6'-0" length required



DETAIL "A"
For Splice Spacings See Sheet # 18.



SPLICE NOTES

Field connections shall be either ¾"ϕ Rivets or ¾"ϕ High Strength Bolts. (A.S.T.M.A 325). Holes 13/16" ϕ

The axes of the spliced beams shall meet at a point at the ℄ of splice. At the ℄ of splice, the end of the beam nearer an abutment shall be cut square and the end of the connected beam shall be cut to match. Each row of bolts (or rivets) in the web splice shall be normal to the axis of the beam cut square.

DESIGN- A.H.R. DETAIL- L.M.C.
TRACE- J.E.M. & G.E.A.
CHECK- [illegible] & R.L.N.
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

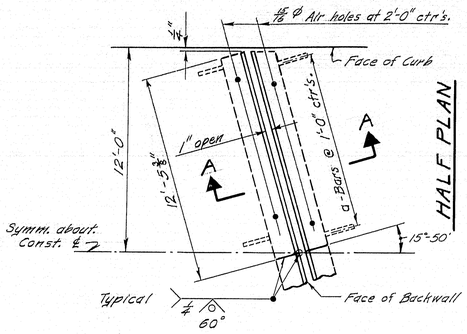
STRUCTURAL STEEL DETAILS

SHEET 19 OF 25 AUGUSTA, MAINE APRIL 1962

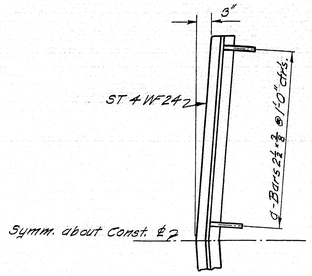
C. B. CO., NO. 3700 23767

0 1 2 3 4 5 INCHES

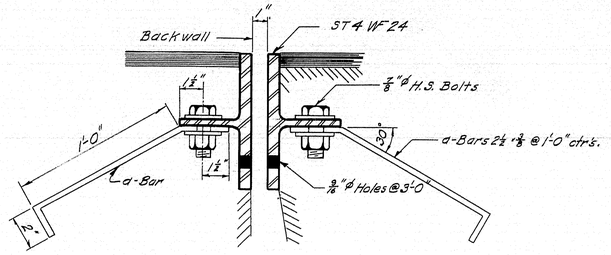
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	20	25



HALF PLAN



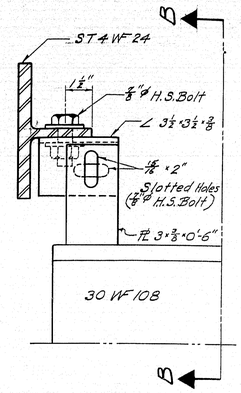
ELEVATION



SECTION A-A

ARMORED JOINT DETAILS

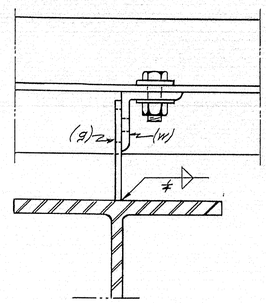
1 Required at Abut. #1



ADJUSTMENT DEVICE

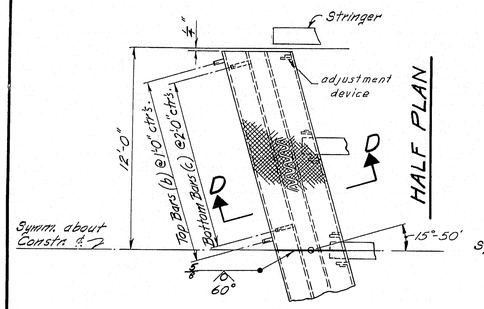
(Armored Joint)

3 Required

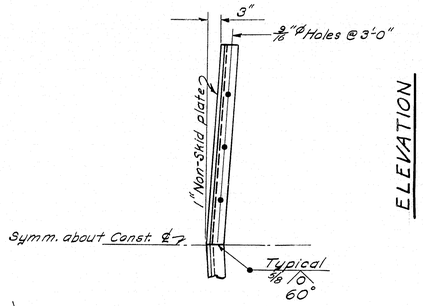


SECTION B-B

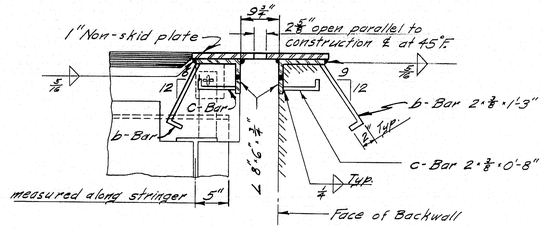
Note: After armored joint is in its final position, weld the plates (g) to the angle (w) with a 1/4 fillet weld.



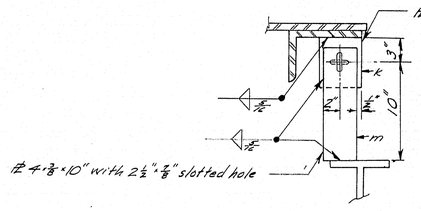
HALF PLAN



ELEVATION



SECTION D-D

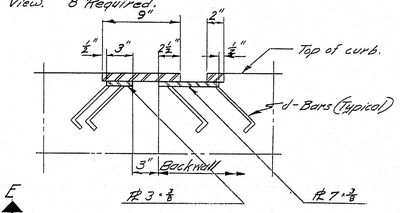


Note: After expansion dam is in its final position, weld plate (m) to plate (R).

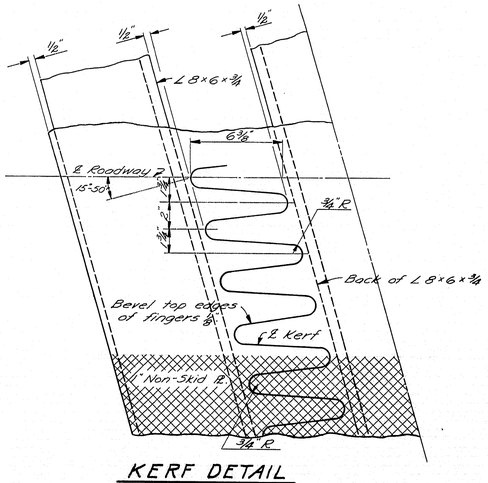
ADJUSTMENT DEVICE

(Expansion Dam)

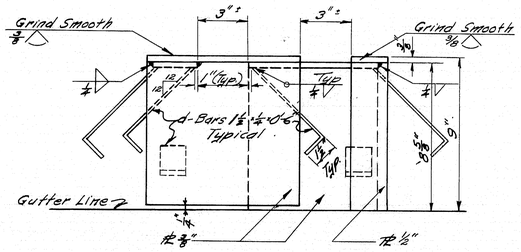
For placement see Plan View. 8 Required.



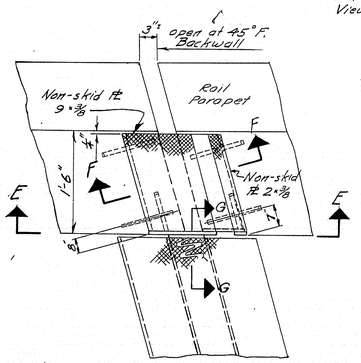
SECTION F-F



KERF DETAIL

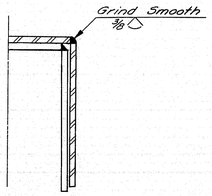


SECTION E-E



PLAN - CURB DAM

West Curb shown
East Curb similar



PART SECTION G-G

EXPANSION JOINT DETAILS

DESIGN- A.H.R. DET.- CHACE TRACE- R.W.L. CHECK- F.H.B. & R.I.N.	BRIDGE NO. SURVEY- PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

STRUCTURAL STEEL DETAILS

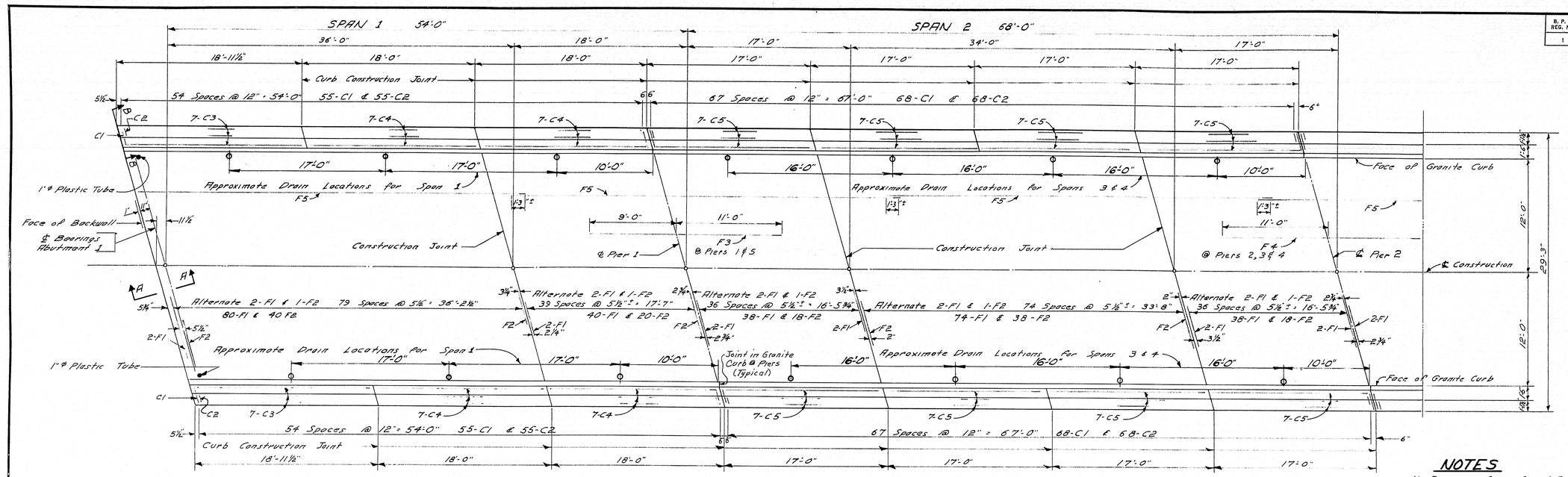
SHEET 20 OF 25 AUGUSTA, MAINE APRIL 1962

85-120

C. D. CO., NO. 3798 25767

0 1 2 3 4 5 INCHES

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	21	25



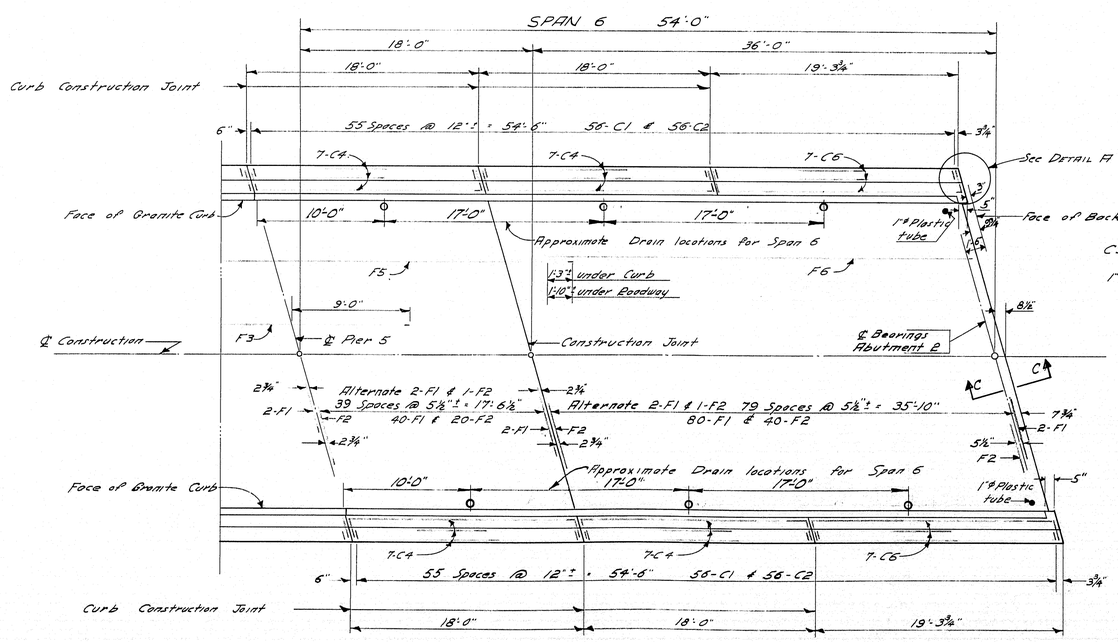
PLAN - SPAN 1

Aluminum Rail not shown.

PLAN - SPAN 2 except for Drains - see NOTE

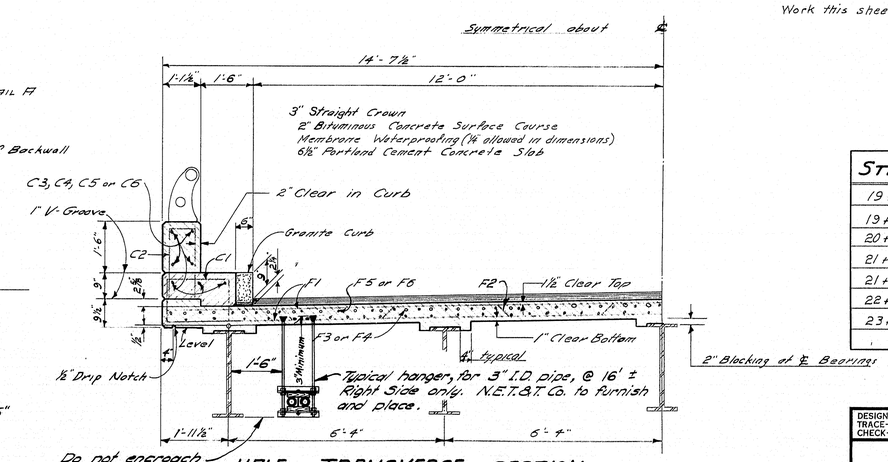
PLAN - SPANS 3, 4 & 5 are identical except for Drains.

Aluminum Rail not shown.

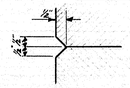


PLAN - SPAN 6

Aluminum Rail not shown

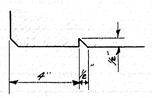


HALF TRANSVERSE SECTION



1" V-GROOVE

Form "V" grooves on outside face of curb and slab at each joint.



½" DRIP NOTCH

NOTES

No Drains in Spans 2 and 5. Drains as shown in "PLAN-SPAN 2" to be placed in Spans 3 & 4 only.

• At points indicated (exact location to be determined by the Engineer in the field) place a 1" ϕ plastic tube through slab for drainage. Do not cover with waterproofing. This work to be incidental to contract items. 4 Required.

At joints in concrete and granite curbs over piers use ¼" preformed expansion joint filler. At all other joints, break the bond between concrete surfaces with a coat of asphalt paint.

Work this sheet with sheets 22 & 23.

STATION	POINT ON BRIDGE
19+28.50	℄ Bearings, Abutment 1
19+82.50	℄ Pier 1
20+50.50	℄ Pier 2
21+18.50	℄ Pier 3
21+86.50	℄ Pier 4
22+54.50	℄ Pier 5
23+08.50	℄ Bearings, Abutment 2

DESIGN— C. Harris DETAIL A.H.R. BRIDGE NO.
TRACE— R.T.A. SURVEY—
CHECK— FHB PLOT—

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

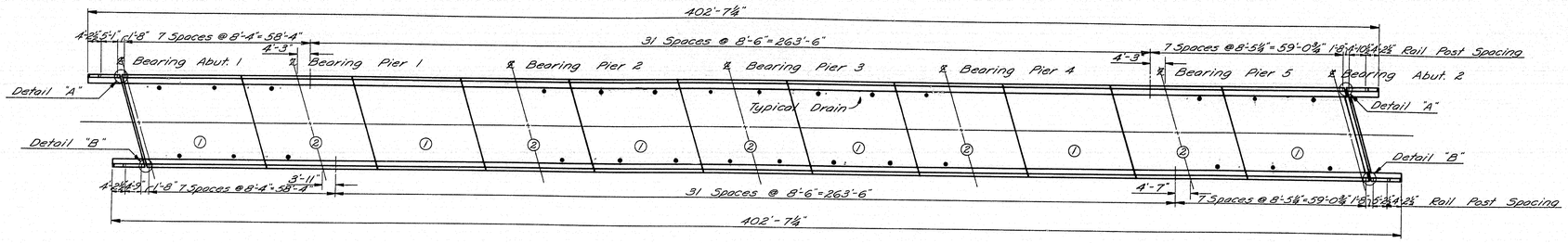
COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY
SUPERSTRUCTURE

SHEET 21 OF 25 AUGUSTA, MAINE APRIL 1962

C. B. CO., NO. 3798 28767

0 1 2 3 4 5 INCHES

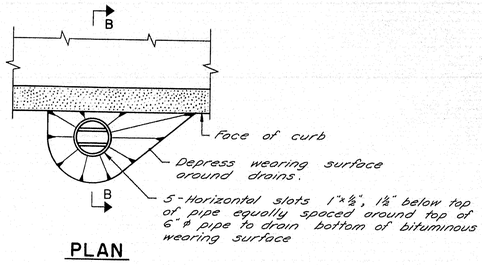
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	22	25



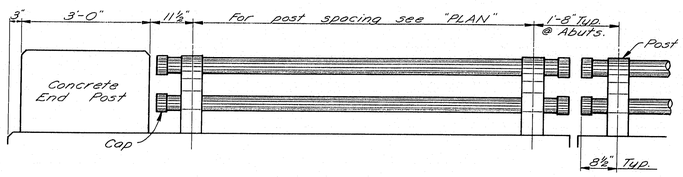
PLAN

Concrete Placing Sequence ~ All panels 1 must be placed before starting panels 2.

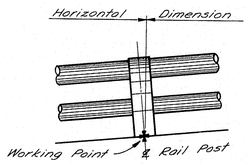
All dimensions are horizontal.



PLAN

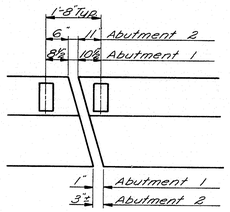


ELEVATION

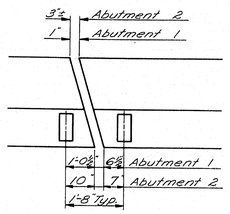


TYPICAL RAIL POST

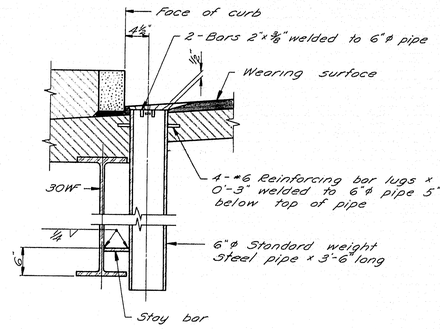
Erect rail posts normal to grade.



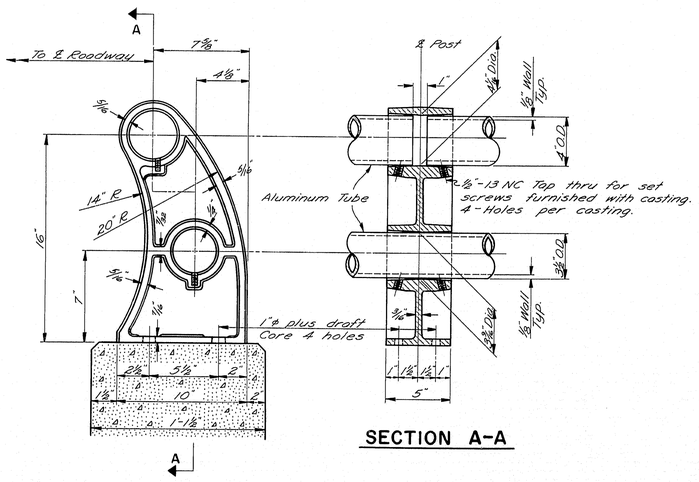
DETAIL "A"



DETAIL "B"

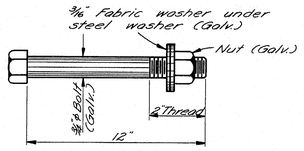


SECTION B-B



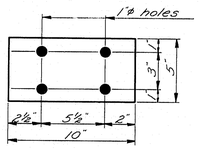
POST

SECTION A-A



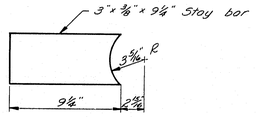
ANCHOR BOLT

Structural steel galvanized bolts to project 2" out of concrete. 4 Bolts per post.

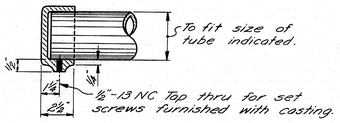


SHIM

Aluminum alloy shims 5"×⅛"×0'-10". Furnish in the amount of 50% of number of rail posts. Cut as necessary.



STAY BAR



CAP

ALUMINUM RAIL DETAILS

Note

To the extent possible, aluminum tubes to be continuous for two panels with joints in top and bottom rails staggered. For rails two panels long, set screws at center post to be tight, set screws at ends to bear. For rails one panel long, set screws at one end to be tight, the others to bear.

Note

1. Payment for steel pipe drains to be made under Items 702-103, 702-104, & 702-105, Structural Steel.
2. For locations of drains see Superstructure Sheet.

DRAIN DETAILS

28 Required

DESIGN– A.H.R. DETAIL–E.E.L. TRACE– E.E.L. CHECK– J.H.B. | BRIDGE NO. SURVEY– PLOT–

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

RAIL & DRAIN DETAILS

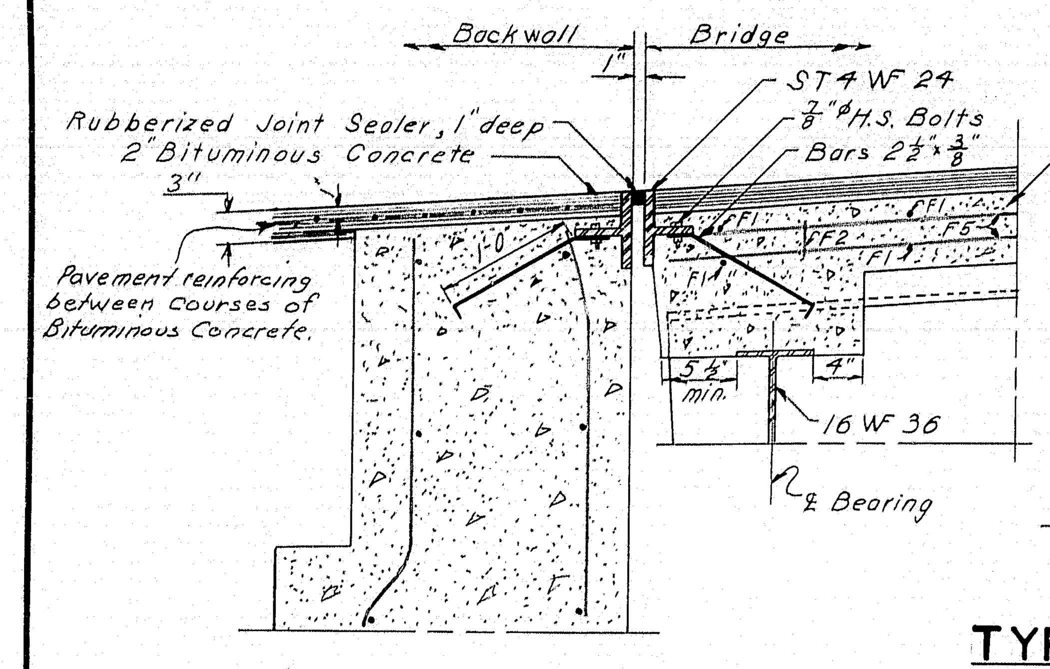
SHEET 22 OF 25 AUGUSTA, MAINE APRIL 1962

95-1/22

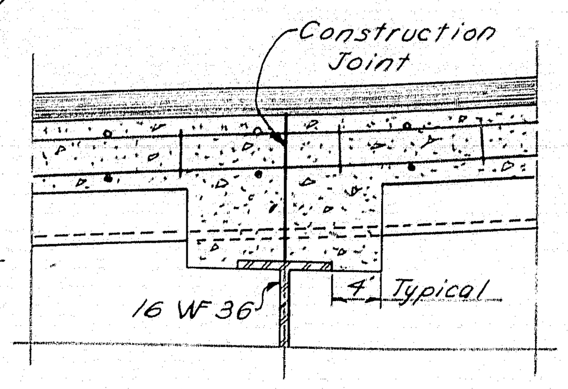
C. B. CO., NO. 3798 28767

0 1 2 3 4 5 INCHES

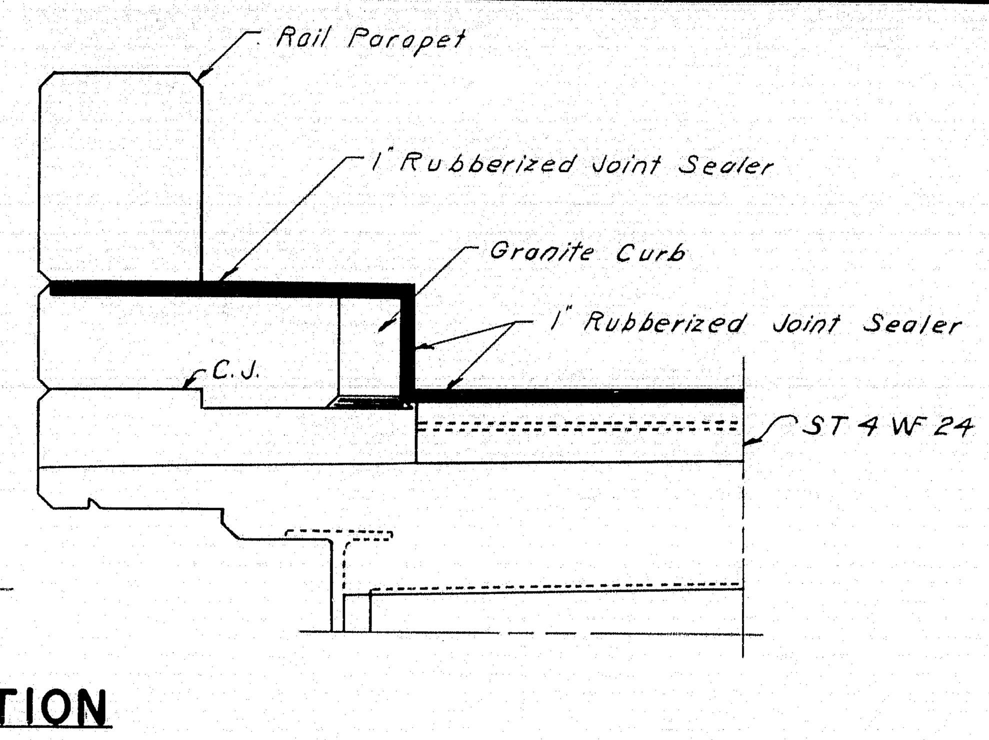
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	23	25



SECTION A-A

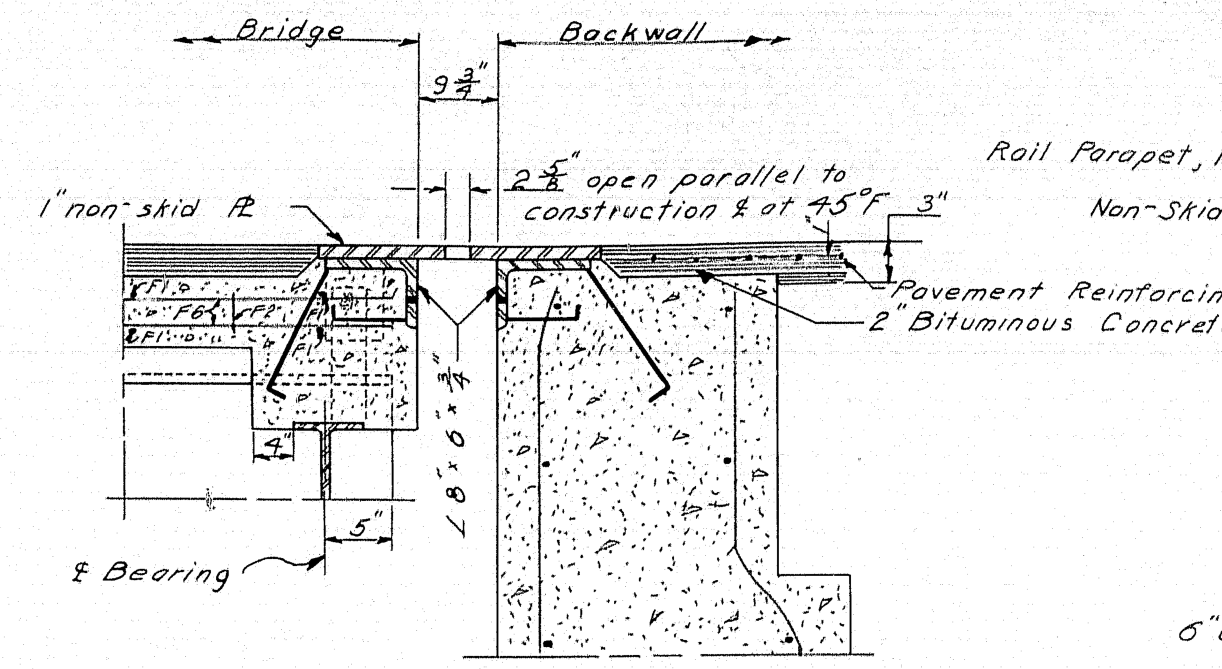


TYPICAL CONSTRUCTION JOINT

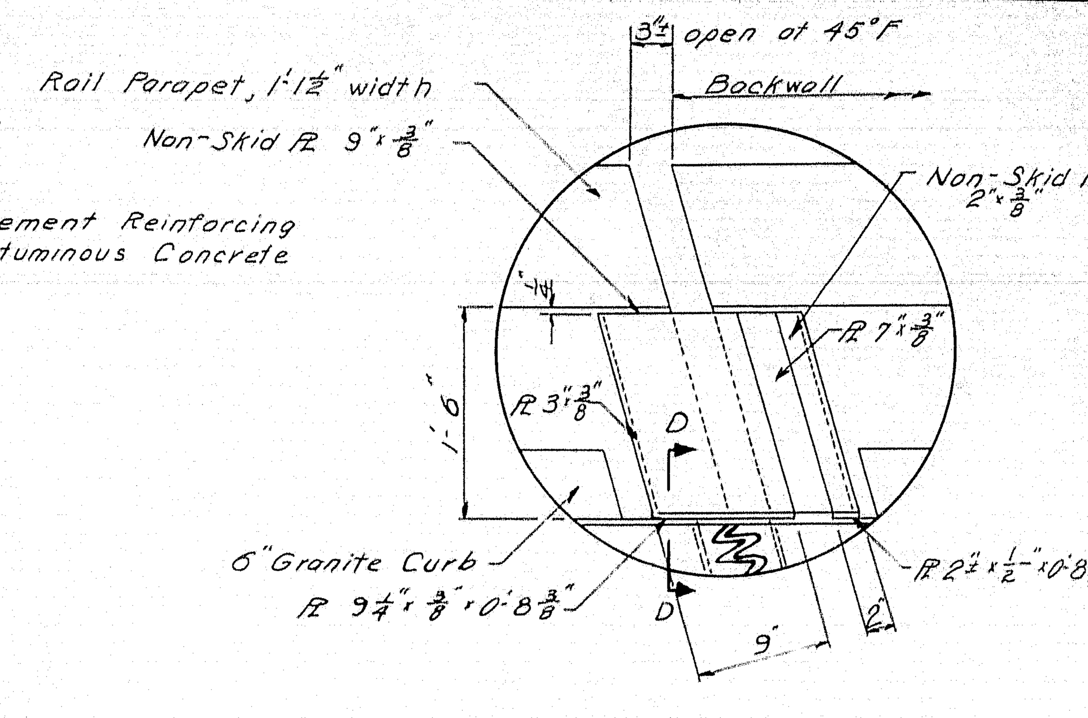


VIEW B-B

Curb Joint Treatment



SECTION C-C



DETAIL "A"

NOTE: Pavement Reinforcing Details - 36" minimum width x 24'-0" long, 4"x4"-10 gage galvanized welded wire mesh. (An equivalent, satisfactory to the Engineer, may be substituted if 44-10/10 is not readily available.)

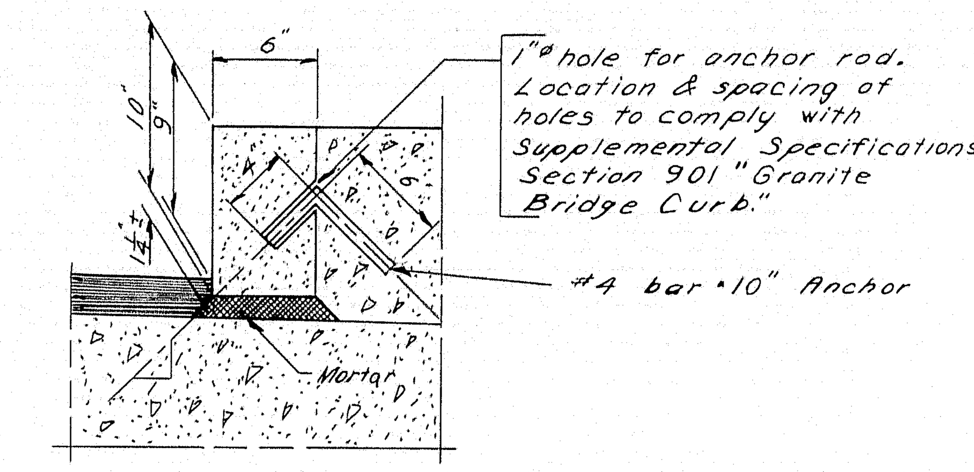
Arrangement similar @ either abutment. Payment for furnishing & placing welded wire mesh shall be considered incidental to the contract unit price for Item 404-29 Bituminous Concrete Surface Course-Type "B."

NOTE: Opening between slab and backwall at Abutment #1 is to be sealed along the top of the safety curb, along the roadway face of the Granite Curb, and along the roadway with Rubberized Joint Sealer.

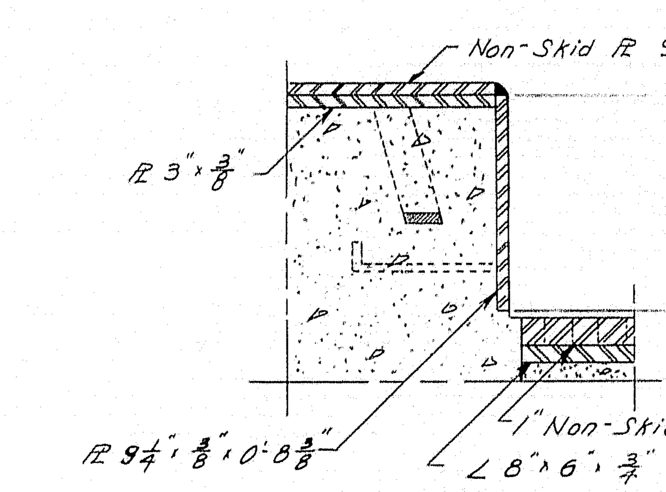
Rubberized Joint Sealer shall be supported on non-bituminous material. At the Contractors option, the supporting material may be left in place or removed.

If the supporting material is left in place, it shall be compressible in accordance with specification AASHO: M 153-54.

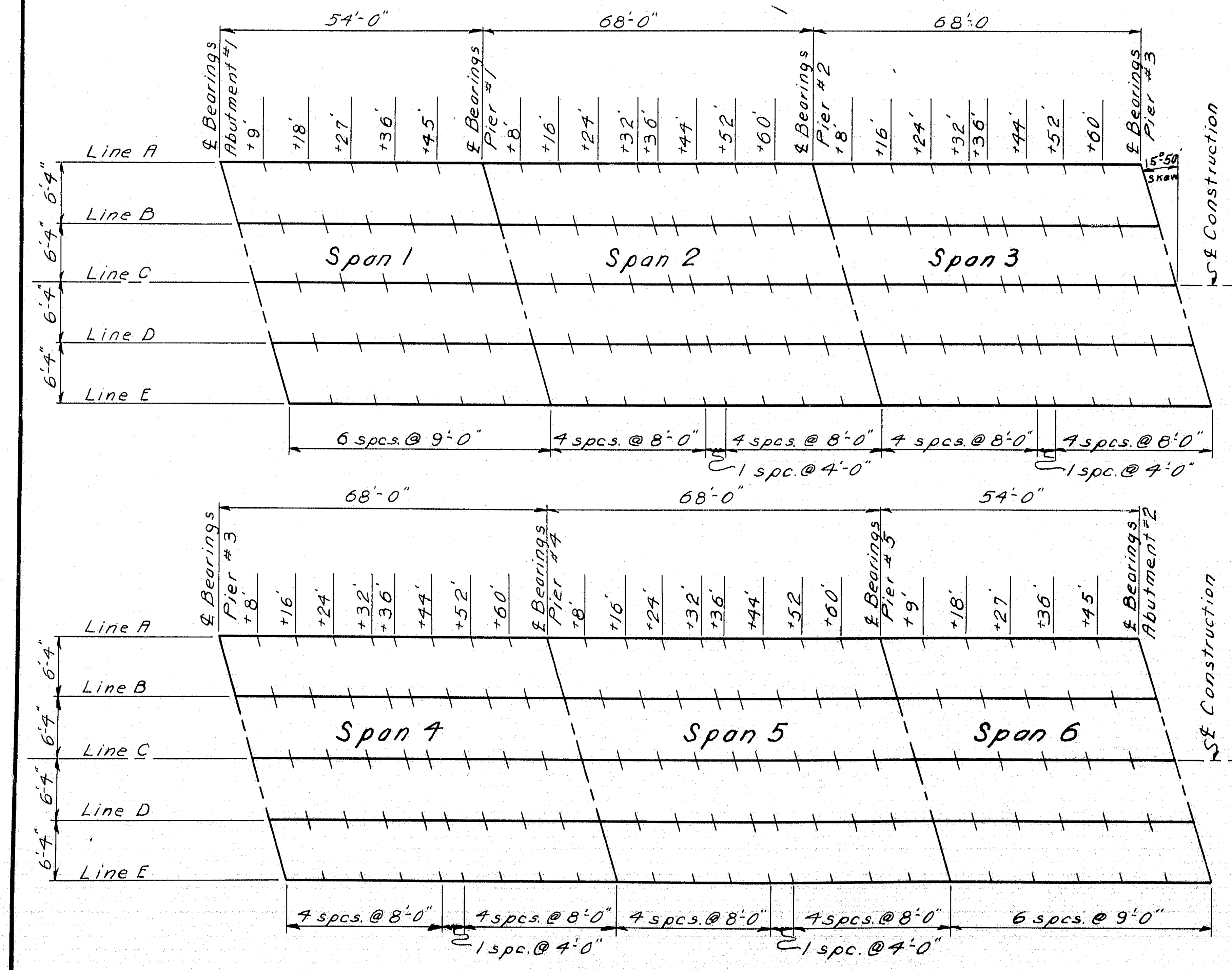
If the supporting material is to be removed, bonding with the Rubberized Joint Sealer shall be prevented by a method that is satisfactory to the Engineer (layer of fine sand, wax paper, etc.).



TYPICAL SECTION



SECTION D-D



BLOCKING SCHEME

NOTE:
Sections, View, & Detail located on Sheet #21.

SUPERSTRUCTURE ELEVATIONS

	Abut. #1 ℄ Bearings	Span 1 (54'-0", 6 Spaces @ 9'-0") +9'	+18'	+27'	+36'	+45'	Pier #1 ℄ Bearings
Left – Top of Fascia *	253.30	253.86	254.39	254.92	255.43	255.92	256.40
Left – Top of Curb *	253.35	253.90	254.44	254.96	255.47	255.96	256.44
Bottom of Slab Elevations – Line A	251.84	252.42	252.97	253.49	253.99	254.46	254.94
Bottom of Slab Elevations – Line B	252.09	252.66	253.21	253.73	254.22	254.69	255.16
Bottom of Slab Elevations – Line C	252.33	252.90	253.45	253.96	254.45	254.92	255.39
Bottom of Slab Elevations – Line D	252.31	252.88	253.42	253.93	254.42	254.89	255.35
Bottom of Slab Elevations – Line E	252.29	252.85	253.39	253.90	254.38	254.85	255.31
Right – Top of Curb *	253.77	254.31	254.83	255.34	255.84	256.32	256.79
Right – Top of Fascia *	253.81	254.35	254.88	255.39	255.88	256.36	256.83

	Span 2 (68'-0"; 4 Spa. @ 8'-0", 1 Spa. @ 4'-0", 4 Spa. @ 8'-0") +8'	+16'	+24'	+32'	+36'	+44'	+52'	+60'	Pier #2 ℄ Bearings
Left – Top of Fascia *	256.81	257.22	257.61	257.99	258.17	258.53	258.88	259.22	259.55
Left – Top of Curb *	256.85	257.25	257.64	258.02	258.21	258.57	258.92	259.25	259.58
Line A	255.36	255.78	256.18	256.57	256.75	257.11	257.44	257.76	258.08
Line B	255.58	256.00	256.40	256.79	256.97	257.32	257.65	257.97	258.28
Line C	255.80	256.22	256.62	257.00	257.18	257.53	257.86	258.17	258.49
Line D	255.76	256.17	256.57	256.95	257.13	257.48	257.80	258.11	258.43
Line E	255.72	256.13	256.52	256.90	257.08	257.42	257.75	258.05	258.36
Right – Top of Curb *	257.19	257.59	257.97	258.33	258.51	258.86	259.20	259.53	259.85
Right – Top of Fascia *	257.23	257.62	258.00	258.37	258.55	258.90	259.24	259.56	259.88

	Span 3 (68'-0"; 4 Spa. @ 8'-0", 1 Spa. @ 4'-0", 4 Spa. @ 8'-0") +8'	+16'	+24'	+32'	+36'	+44'	+52'	+60'	Pier #3 ℄ Bearings
Left – Top of Fascia *	259.87	260.17	260.46	260.74	260.88	261.14	261.40	261.64	261.87
Left – Top of Curb *	259.90	260.20	260.49	260.77	260.91	261.17	261.42	261.66	261.89
Line A	258.40	258.72	259.03	259.32	259.46	259.71	259.95	260.17	260.39
Line B	258.60	258.92	259.23	259.51	259.65	259.90	260.13	260.35	260.57
Line C	258.80	259.12	259.42	259.71	259.84	260.09	260.32	260.54	260.75
Line D	258.74	259.05	259.35	259.63	259.77	260.01	260.24	260.46	260.67
Line E	258.68	258.99	259.28	259.56	259.69	259.94	260.16	260.37	260.58
Right – Top of Curb *	260.15	260.45	260.73	261.00	261.13	261.38	261.62	261.85	262.07
Right – Top of Fascia *	260.18	260.47	260.75	261.02	261.15	261.41	261.65	261.88	262.09

	Span 4 (68'-0"; 4 Spa. @ 8'-0", 1 Spa. @ 4'-0", 4 Spa. @ 8'-0") +8'	+16'	+24'	+32'	+36'	+44'	+52'	+60'	Pier #4 ℄ Bearings
Left – Top of Fascia *	262.08	262.29	262.49	262.67	262.76	262.92	263.08	263.22	263.35
Left – Top of Curb *	262.10	262.31	262.50	262.69	262.77	262.94	263.09	263.23	263.36
Line A	260.61	260.84	261.05	261.24	261.32	261.48	261.62	261.74	261.87
Line B	260.79	261.01	261.22	261.41	261.49	261.65	261.78	261.91	262.03
Line C	260.97	261.19	261.39	261.58	261.66	261.82	261.95	262.07	262.18
Line D	260.89	261.10	261.30	261.49	261.57	261.72	261.85	261.96	262.08
Line E	260.80	261.01	261.21	261.39	261.47	261.62	261.75	261.86	261.97
Right – Top of Curb *	262.28	262.48	262.66	262.83	262.91	263.07	263.21	263.34	263.46
Right – Top of Fascia *	262.30	262.49	262.68	262.85	262.93	263.08	263.22	263.35	263.47

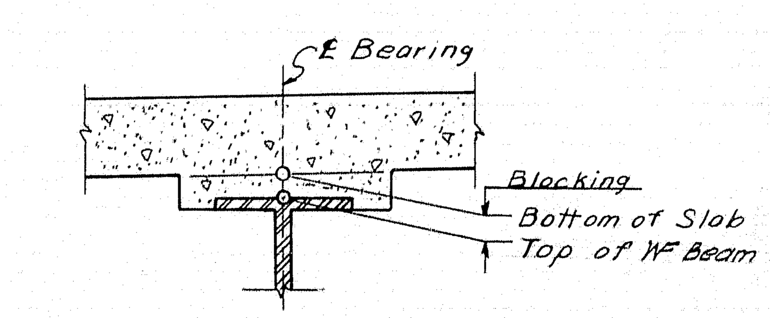
	Span 5 (68'-0"; 4 Spa. @ 8'-0", 1 Spa. @ 4'-0", 4 Spa. @ 8'-0") +8'	+16'	+24'	+32'	+36'	+44'	+52'	+60'	Pier #5 ℄ Bearings
Left – Top of Fascia *	263.47	263.58	263.67	263.76	263.80	263.87	263.92	263.97	264.00
Left – Top of Curb *	263.48	263.59	263.68	263.77	263.80	263.87	263.93	263.97	264.00
Line A	261.99	262.12	262.23	262.32	262.36	262.42	262.46	262.48	262.51
Line B	262.15	262.27	262.38	262.47	262.51	262.56	262.60	262.62	262.65
Line C	262.31	262.43	262.53	262.62	262.66	262.71	262.74	262.76	262.78
Line D	262.20	262.32	262.42	262.50	262.54	262.59	262.62	262.64	262.65
Line E	262.09	262.20	262.31	262.39	262.42	262.47	262.50	262.51	262.53
Right – Top of Curb *	263.57	263.67	263.75	263.83	263.86	263.92	263.96	264.00	264.02
Right – Top of Fascia *	263.58	263.68	263.76	263.84	263.87	263.92	263.97	264.00	264.02

	Span 6 (54'-0", 6 Spaces @ 9'-0") +9'	+18'	+27'	+36'	+45'	Abut. #2 ℄ Bearings
Left – Top of Fascia *	264.02	264.03	264.03	264.00	263.97	263.92
Left – Top of Curb *	264.02	264.03	264.02	264.00	263.97	263.92
Line A	262.54	262.56	262.57	262.55	262.50	262.42
Line B	262.67	262.70	262.70	262.67	262.62	262.54
Line C	262.81	262.85	262.83	262.80	262.74	262.66
Line D	262.68	262.69	262.69	262.66	262.60	262.52
Line E	262.55	262.56	262.55	262.52	262.46	262.37
Right – Top of Curb *	264.03	264.03	264.01	263.98	263.93	263.87
Right – Top of Fascia *	264.03	264.03	264.01	263.97	263.92	263.86

* Points for Top of Curb and Top of Fascia are located on the skew line.

BLOCKING CHECKED:- PJL.

NOTE: To compensate for dead load deflections, as well as possible irregularities in rolling of steel, set the bottom of slab elevations at the points indicated before any of the slab forms are started.



Blocking 2" at ℄ Bearing

DESIGN- C. Harris DETAIL - JJR
TRACE- JJR & J. Mays
CHECK- HHB. (except Blocking)
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

SUPERSTRUCTURE DETAILS & BLOCKING TABLES
SHEET 23 OF 25 AUGUSTA, MAINE APRIL 1962

K+E 186 IMPERIAL TRACING CLOTH T.H. B.L.M. INC. 07071

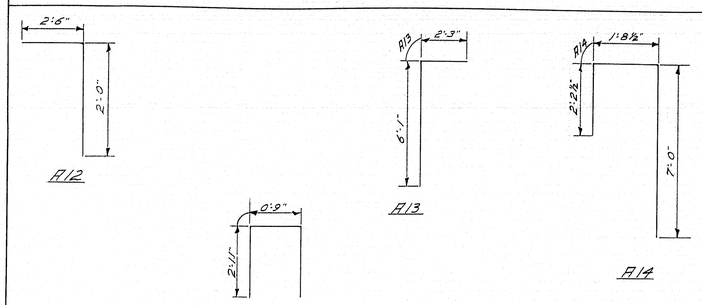
35-123

0 1 2 3 4 5 INCHES

REINFORCING STEEL SCHEDULE

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	24	25

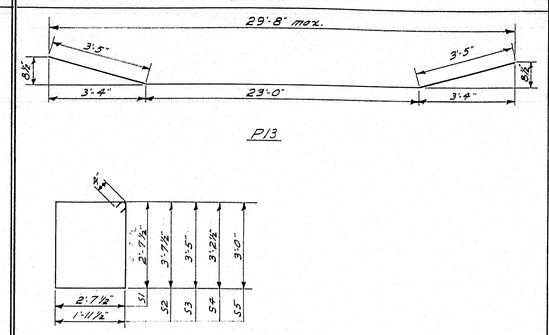
~ ABUTMENTS ~



NOTE: Dimensions to ℄ bars. All reinforcing steel to be Intermediate Grade.

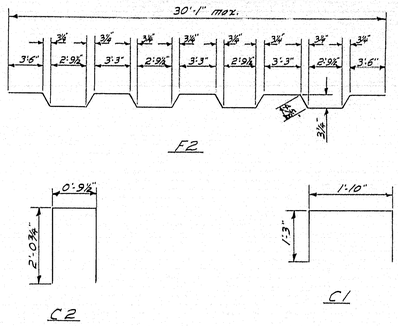
Mark	Size	Number	Length	Location
STRAIGHT BARS				
A1	#6	25	5'-0"	Footing - Abut. 1 & 2
A2	#6	5	12'-4"	Footing - Abut. 1
A3	#6	5	12'-0"	Footing - Abut. 1
A4	#6	12	32'-0"	Footing - Abut. 1 & 2
A5	#5	38	9'-6"	Wings - Abut 1 & 2
A6	#5	15	8'-9"	Wings - Abut 1 & 2
A7	#4	16	2'-6"	End Posts - Abut. 1 & 2
A8	#5	54	7'-3"	Backwall - Abut. 1 & 2
A9	#5	62	5'-7"	Backwall - Abut. 1 & 2
A10	#5	15	10'-5"	Wings - Abut. 1 & 2
A11	#6	50	3'-0"	Approach Slab & Backwall-Abut. 1 & 2
A17	#5	196	4'-8"	Dowels - Abut. 1 & 2
A20	#5	8	11'-6"	Wings - Abut. 1 & 2
A21	#4	26	29'-10"	Breastwall & Backwall-Abut. 1 & 2
A22	#5	6	29'-10"	Bridge Seat-Abut. 1 & 2
A23	#6	31	3'-7"	Footing - Abut. 1 & 2
A31	#6	10	13'-0"	Footing - Abut. 2
A33	#6	25	5'-6"	Footing - Abut. 2
BENT BARS				
A12	#5	62	4'-6"	Bridge Seat - Abut. 1 & 2
A13	#5	40	8'-4"	Wings - Abut. 1 & 2
A14	#5	40	10'-11"	Wings - Abut. 1 & 2
A15	#4	52	6'-7"	End Posts - Abut. 1 & 2

~ PIERS ~



Mark	Size	Number	Length	Location
BENT BARS				
S1	#4	331	11'-2"	Columns
S2	#4	240	11'-10"	Pier Caps
S3	#4	20	11'-5"	Pier Caps
S4	#4	20	11'-0"	Pier Caps
S5	#4	20	10'-7"	Pier Caps
P13	#7	30	29'-10"	Pier Caps
STRAIGHT BARS				
P1	#6	360	5'-6"	Pier Footings
P2	#8	240	7'-0"	Pier Footing - Dowels
P3	#8	16	27'-8"	Pier #1 Columns
P4	#8	32	25'-8"	Pier #1 Columns
P5	#8	64	24'-6"	Pier #2, #3 & #5 Columns
P6	#8	16	23'-10"	Pier #2 Columns
P7	#8	32	22'-2"	Pier #3 & #5 Columns
P8	#8	16	23'-6"	Pier #3 Columns
P9	#8	64	21'-0"	Pier #4 & #5 Columns
P10	#9	20	29'-8"	Pier Caps
P11	#8	10	29'-8"	Pier Caps
P12	#8	20	29'-8"	Pier Caps

~ SUPERSTRUCTURE ~



Mark	Size	Number	Length	Location
BENT BARS				
C1	#4	766	4'-4"	Curb & Slab
C2	#4	766	4'-11"	Curb & Slab
F2	#5	416	31'-0"	Slab
STRAIGHT BARS				
C3	#4	14	18'-9"	Curb & Slab
C4	#4	56	17'-10"	Curb & Slab
C5	#4	224	16'-10"	Curb & Slab
C6	#4	14	19'-0"	Curb & Slab
F1	#5	840	30'-1"	Slab
F3	#5	72	20'-0"	Slab
F4	#5	108	22'-0"	Slab
F5	#5	729	40'-0"	Slab
F6	#5	81	33'-2"	Slab

~ APPROACH SLABS ~

Mark	Size	Number	Length	Location
AS1	#6	188	14'-6"	Approach Slabs - Straight Bars
AS2	#4	40	24'-3"	Approach Slabs - Straight Bars

* Abuts, Superstr, Appro. Slabs : ~~T.H.K.~~ A.H.R.
Piers : T. H. K.

DESIGN-C. HARRIS & A.H.R.
TRACE-R. T. A.
CHECK- #
BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

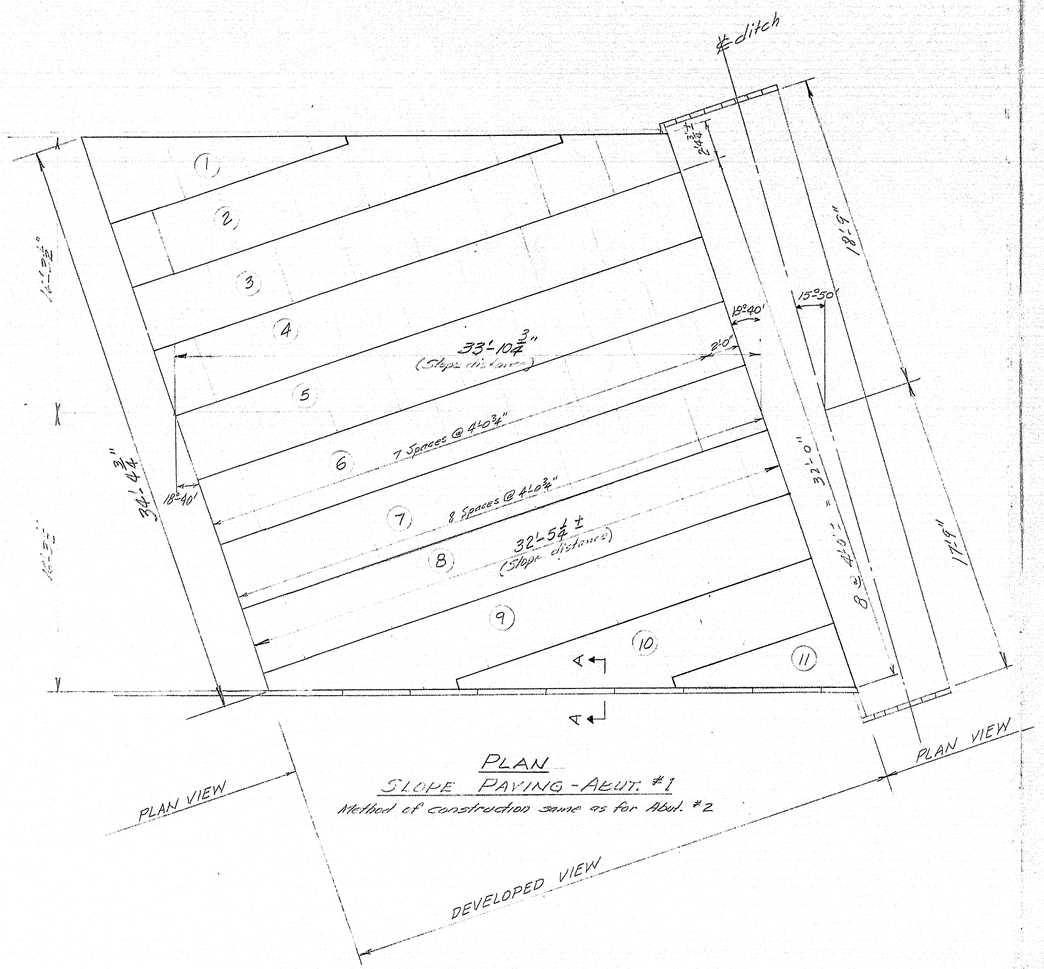
REINFORCING STEEL

SHEET 24 OF 25 AUGUSTA, MAINE APRIL 1962

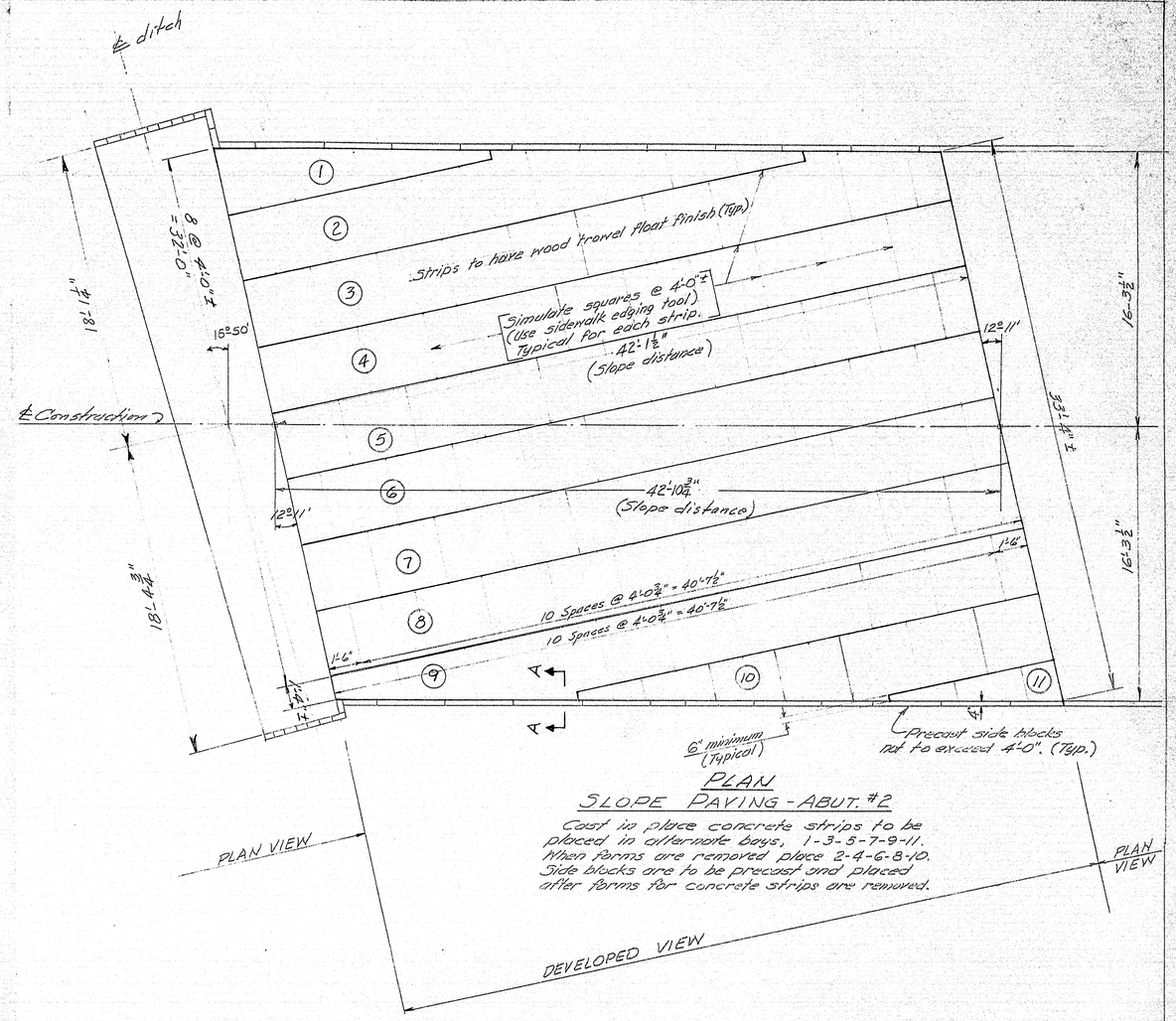
85-124

C. H. CO., NO. 3798 25797

0 1 2 3 4 5 INCHES

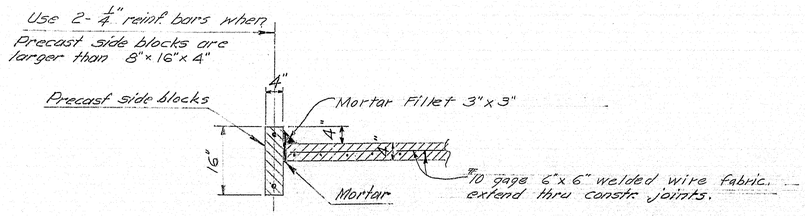


PLAN
SLOPE PAVING - ABUT. #1
Method of construction same as for Abut. #2

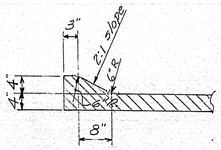


PLAN
SLOPE PAVING - ABUT. #2

Cast in place concrete strips to be placed in alternate bays, 1-3-5-7-9-11. When forms are removed place 2-4-6-8-10. Side blocks are to be precast and placed after forms for concrete strips are removed.



SECTION A-A



ALTERNATE EDGE
FOR SLOPE PAVING

NOTE: Welded Wire Fabric to extend thru joints.
Break bond at joints with a coat of asphalt paint.

PLAN - G.W.C.	
CHECK - AHR	

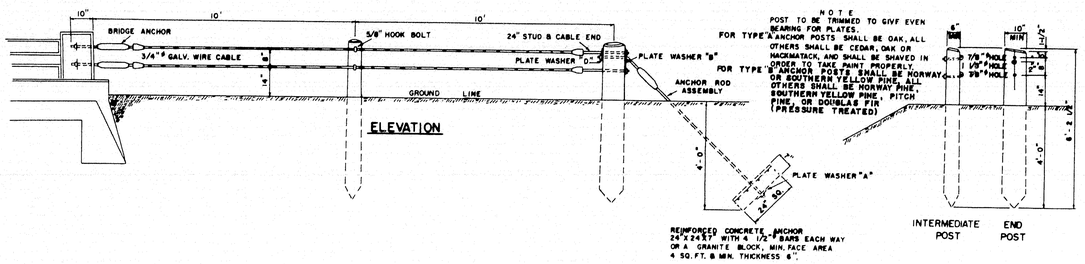
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

COOK ROAD BRIDGE
OVER
INTERSTATE HIGHWAY 95
IN THE TOWN OF
CARMEL
PENOBSCOT COUNTY

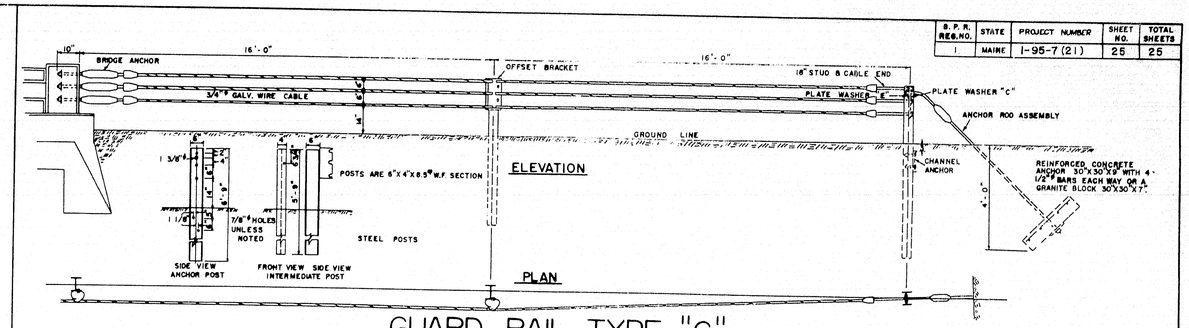
SLOPE PAVING - AT CONTRACTORS REQUEST

AUGUSTA, MAINE AUG. 1962
[redacted]

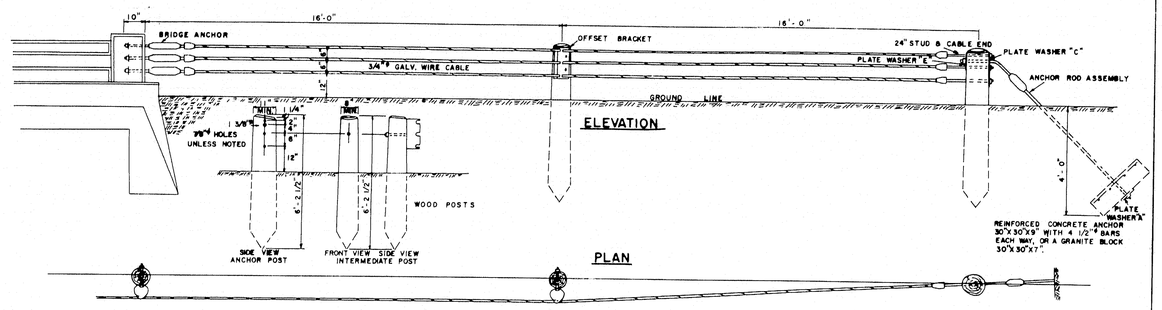
B.P.R. REG.NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-7(21)	25	25



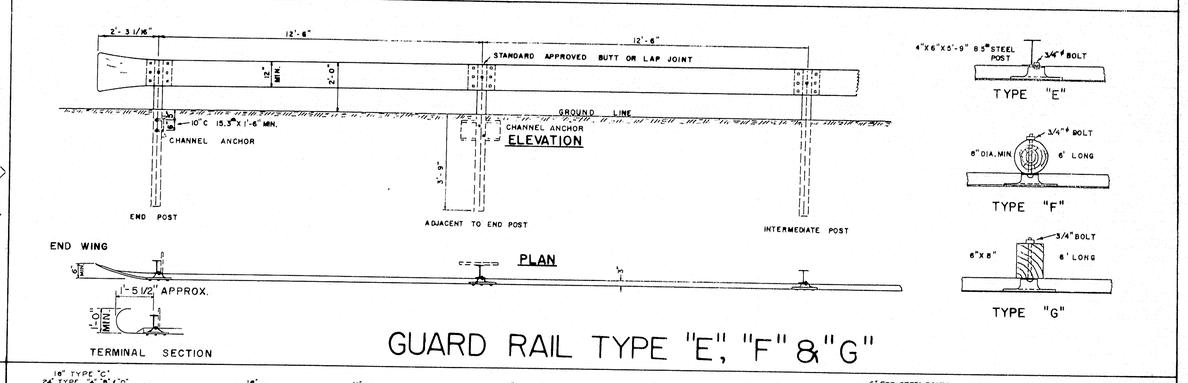
GUARD RAIL TYPE "A" & "B"



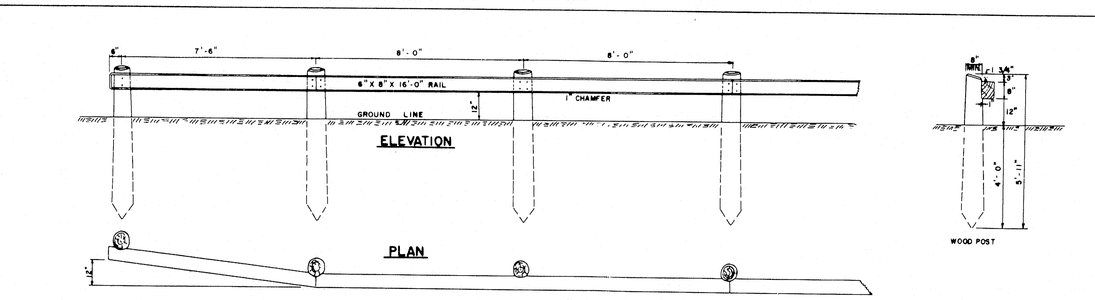
GUARD RAIL TYPE "C"



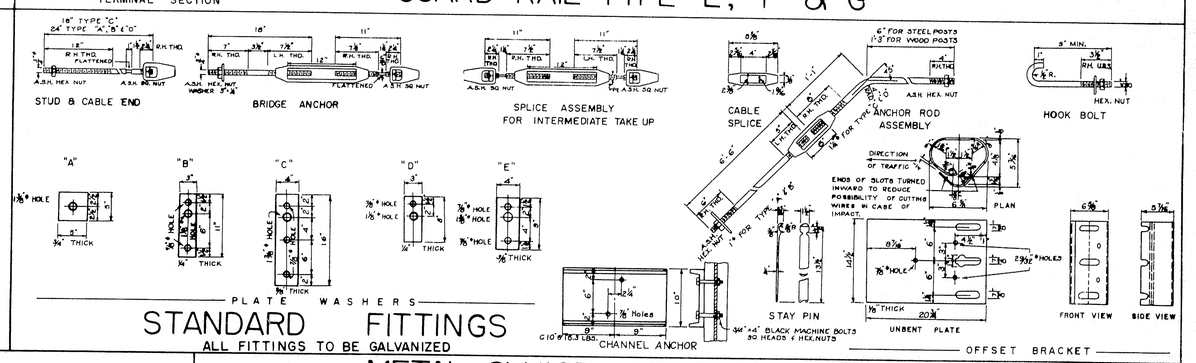
GUARD RAIL TYPE "D"



GUARD RAIL TYPE "E", "F" & "G"

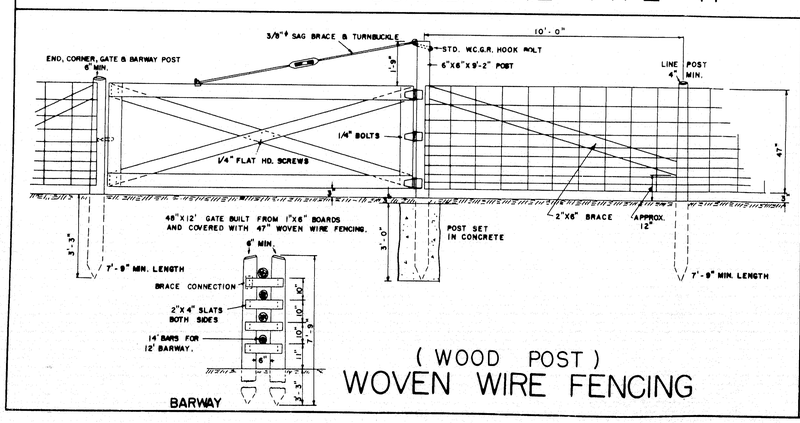


GUARD RAIL TYPE "H"

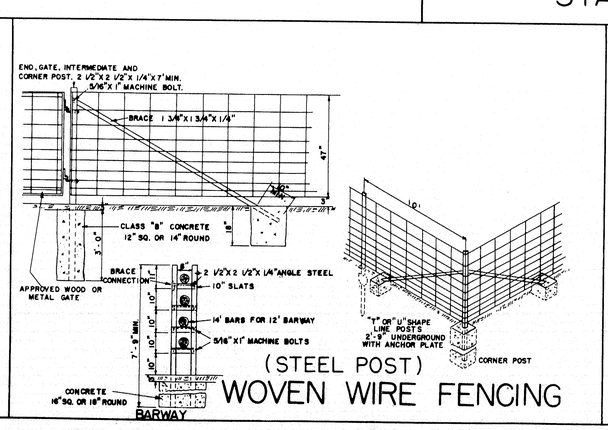


STANDARD FITTINGS

ALL FITTINGS TO BE GALVANIZED

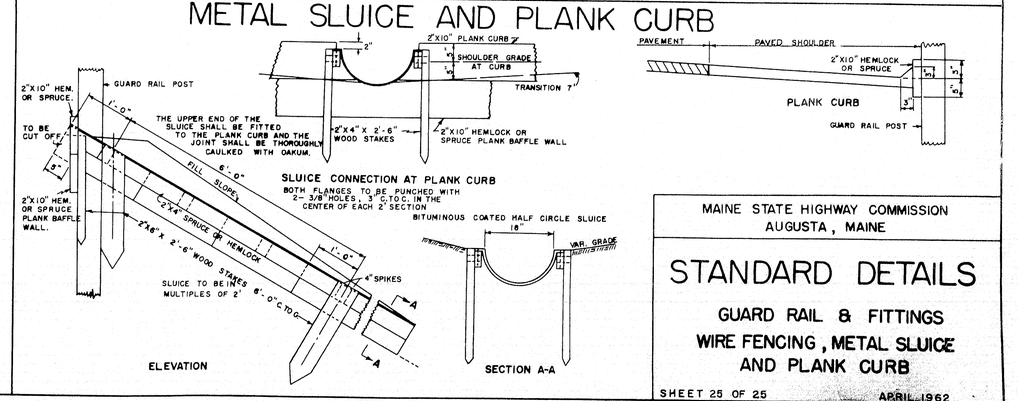


(WOOD POST) WOVEN WIRE FENCING



(STEEL POST) WOVEN WIRE FENCING

METAL SLUICE AND PLANK CURB



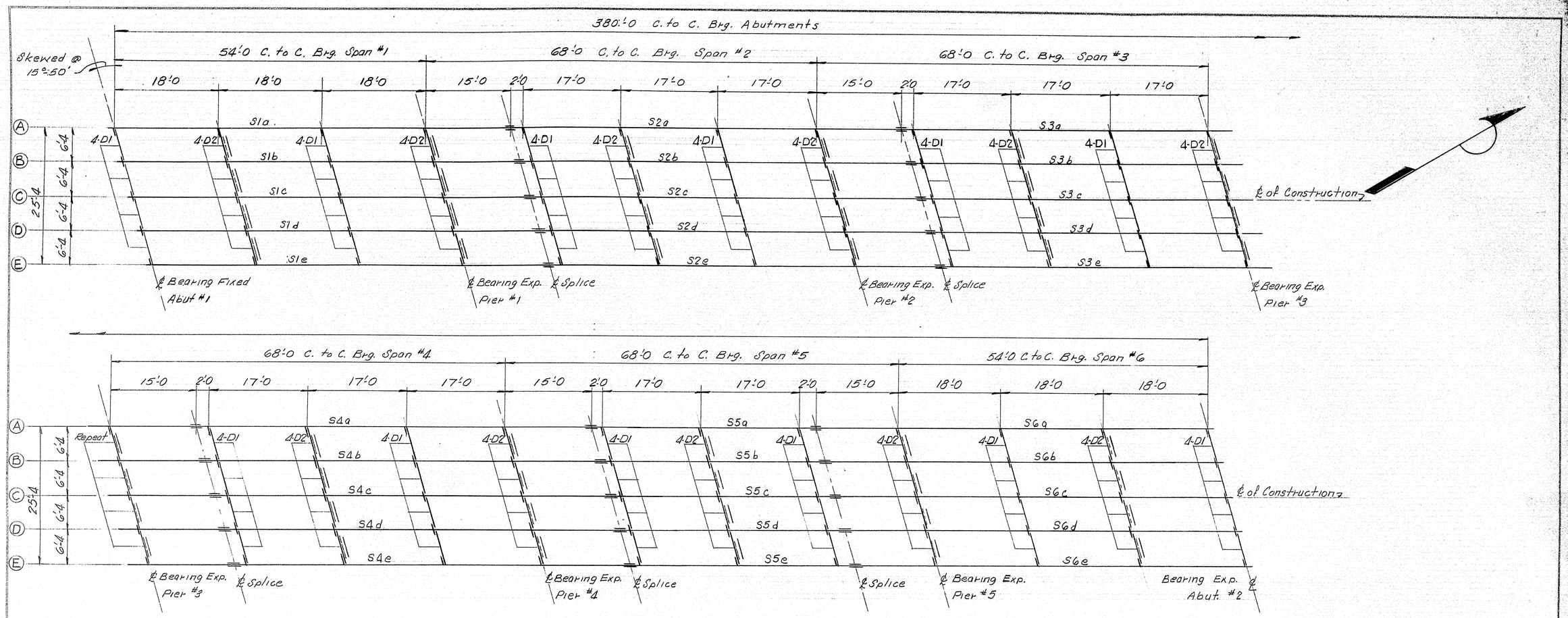
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

GUARD RAIL & FITTINGS
WIRE FENCING, METAL SLUICE AND PLANK CURB

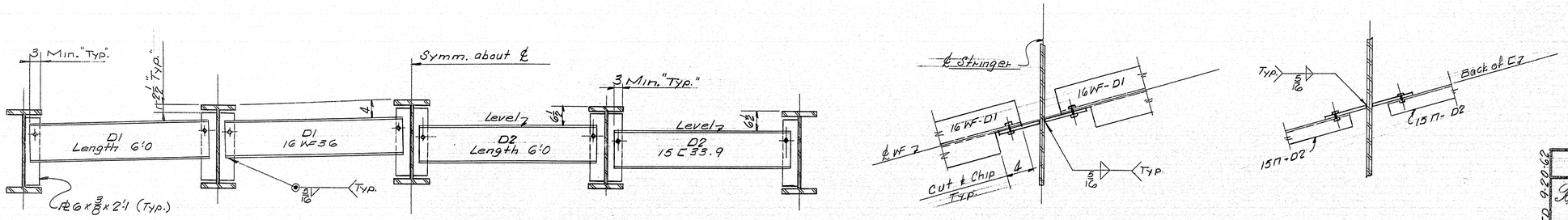
SHEET 25 OF 25

APRIL 1962



ERECTION DIAGRAM

D1-16WF36 Dimensions to ℄ Beam 48 Req'd
D2-15C33.9 Dimensions to back of Channel 44 Req'd.
All Beams 30WF108 (No Camber)



DIAPHRAGM DETAILS

ERECTION BOLTS 3/8 x 0'-1 1/4 M. Bolts

DRAWN	8-16-62	EGM
REVISION		
REVISION		
REVISION		

APPROVED 9-20-62

ERECTION DIAGRAM

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

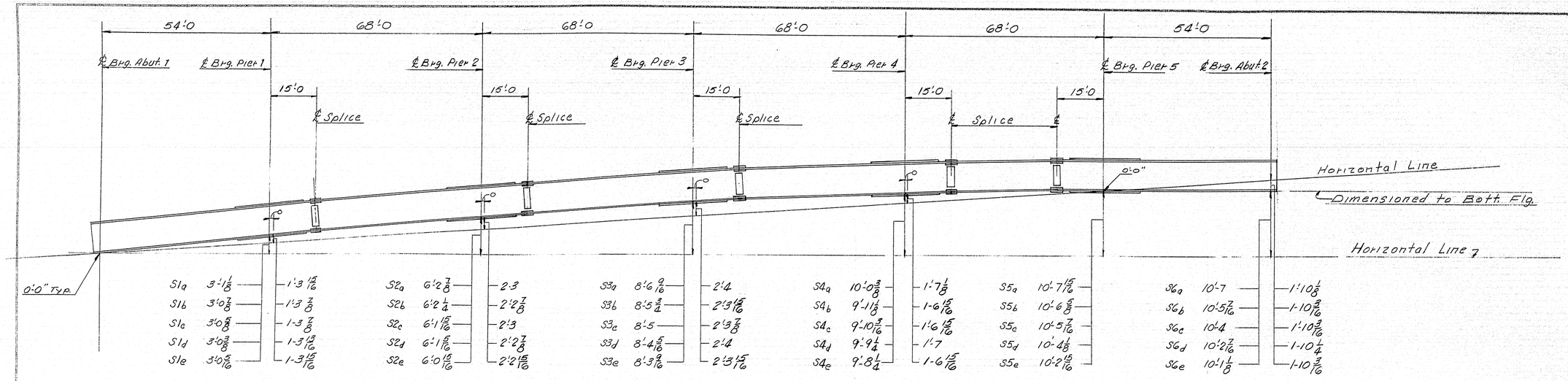
COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

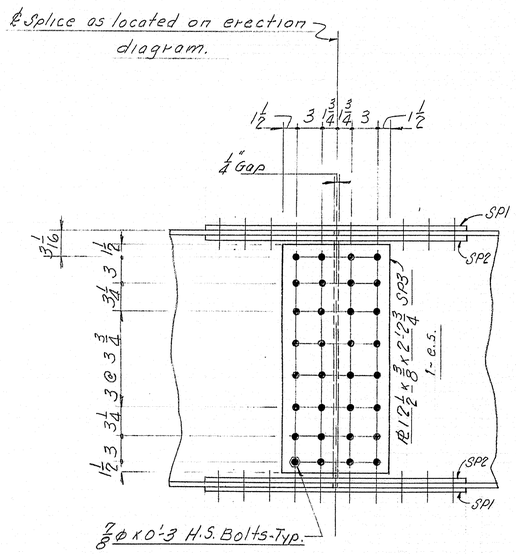
ORDER NO. VERBAL DWG. NO. 62-225-E1

[redacted]

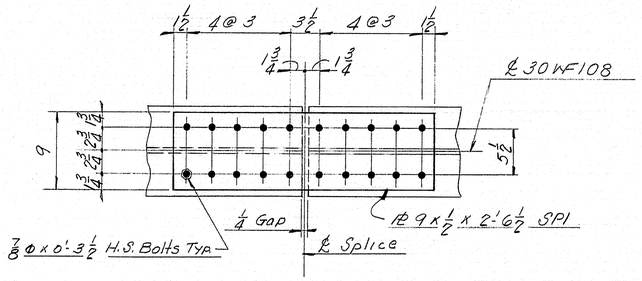
ALDEN BLUE POINT CO.



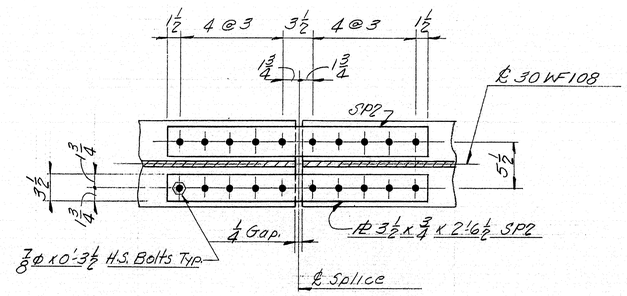
SHOP ERECTION PLAN



SPLICE DETAIL



TOP & BOTT. FLANGE VIEW



TOP & BOTT. INSIDE FLANGE VIEW

NOTE:

The axes of the spliced beams shall meet at a point at the ℄ of splice. Each row of bolts in the web splice shall be normal to the axis of the beam cut square.

Splice plates to be bolted to square end of stringers for shipment.

1 Coat of Boiled Linseed Oil on splice plates and unpainted areas.

15/16 Φ 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.

For Bill of Material See Dwg. S3

APPROVED 8-20-62

SHOP ERECTION PLAN and SPLICE PLATE DETAILS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

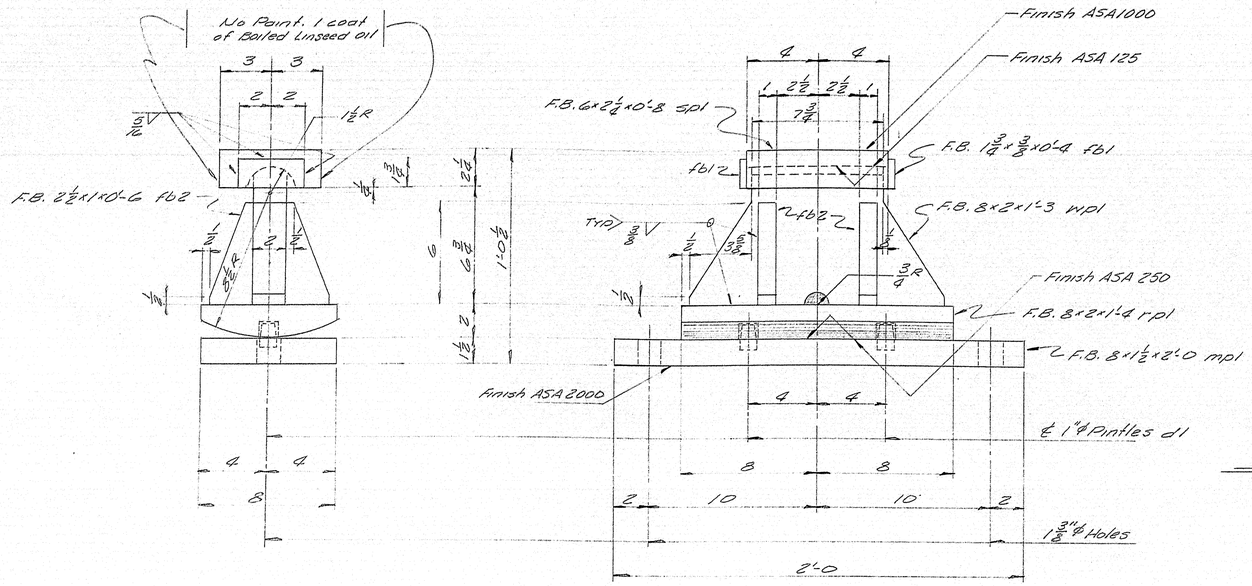
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

DRAWN	8-16-62	RGM
REVISION		
REVISION		
REVISION		

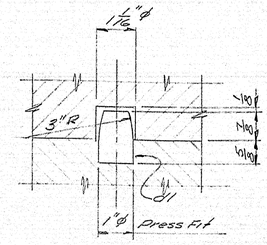
ORDER NO. VERBAL DWG. NO. 62-225-E2

MODERN BLUE PRINT CO.

Vguy

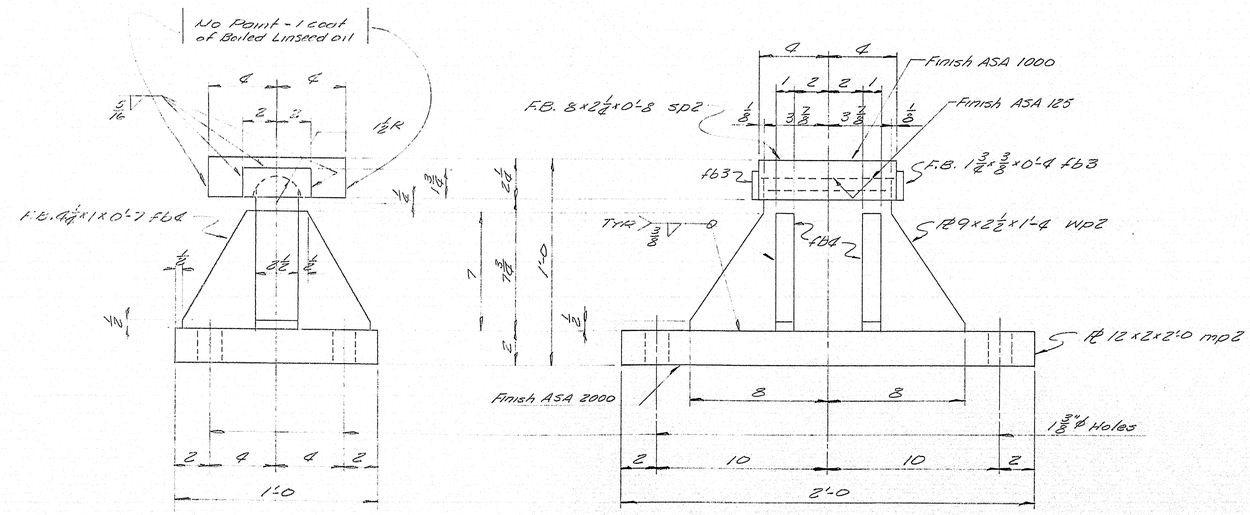


EXPANSION BEARING
30 Req'd.

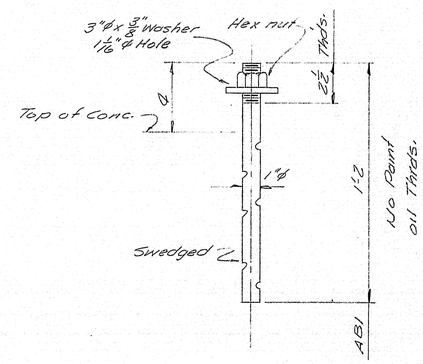


PINTLE DETAIL

PAINT NOTE:
Do not paint areas finished ASA125
Coat above areas with white lead and tallow.



FIXED BEARING
5 Req'd.



ANCHOR BOLT
80 Req'd.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	REMARKS
			ITEM 702-103				
SHIP	30		EXPANSION BEARINGS				
	30	mp1	F.B. 8×1½	2	0		
	30	rp1	F.B. 8×2	1	4		
	30	wp1	F.B. 8×2	1	3		
	30	sp1	F.B. 6×2¼	0	8		
	60	fb1	F.B. 1¾×⅜	0	4		
	120	fb2	F.B. 2½×1	0	6		
	60	d1	1"φ bar	0	1½		
SHIP	5		FIXED BEARING -				
	5	mp2	PL 12×2	2	0		
	5	wp2	PL 9×2½	1	4		
	5	sp2	F.B. 8×2¼	0	8		
	10	fb3	F.B. 1¾×⅜	0	4		
	20	fb4	F.B. 4¼×1	0	7		
ABI	80		1"φ bar	1	2		swedged
	80	shop	1" Nut				Hex. nut
	80	shop	Washer 3" O.D. × 3/8				1 1/16"φ Hole

NOTE.
Allowance to be made for machining when cutting above plates.

SCALE WEIGH

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded, Bolted
HOLES: As Noted
PAINT: Red lead per M.S.H.C. Specs. Unless Noted.

Approved 8-30-62

BEARINGS & ANCHOR BOLTS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

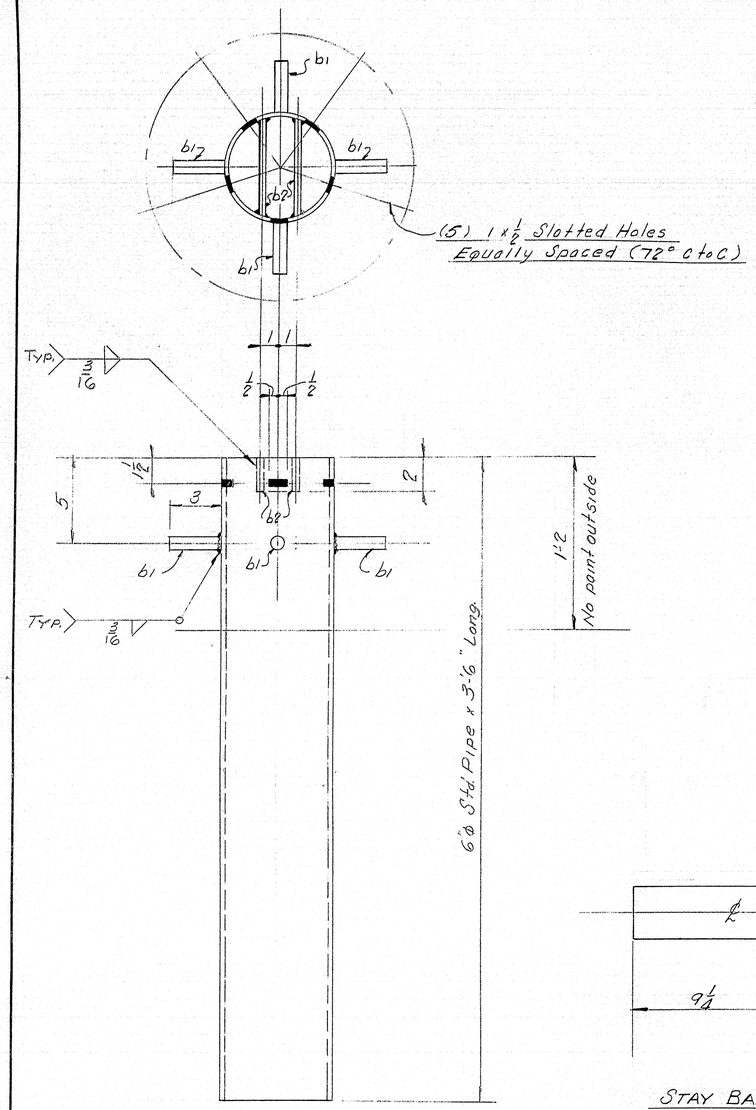
COOK ROAD BRIDGE
OVER INTERSTATE HIGHWAY 95
CARMEL, MAINE.

CUSTOMER CALLAHAN BROS.
DESIGNER M.S.H.C. BRIDGE DIV.

DRAWN	8-8-62	H.L.
REVISION		
REVISION		
REVISION		

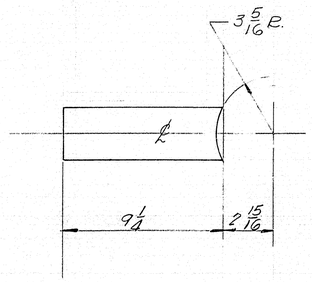
ORDER NO. Verbal
DWG. NO. 62-225-S1

85-125 C



DRAIN - DR1

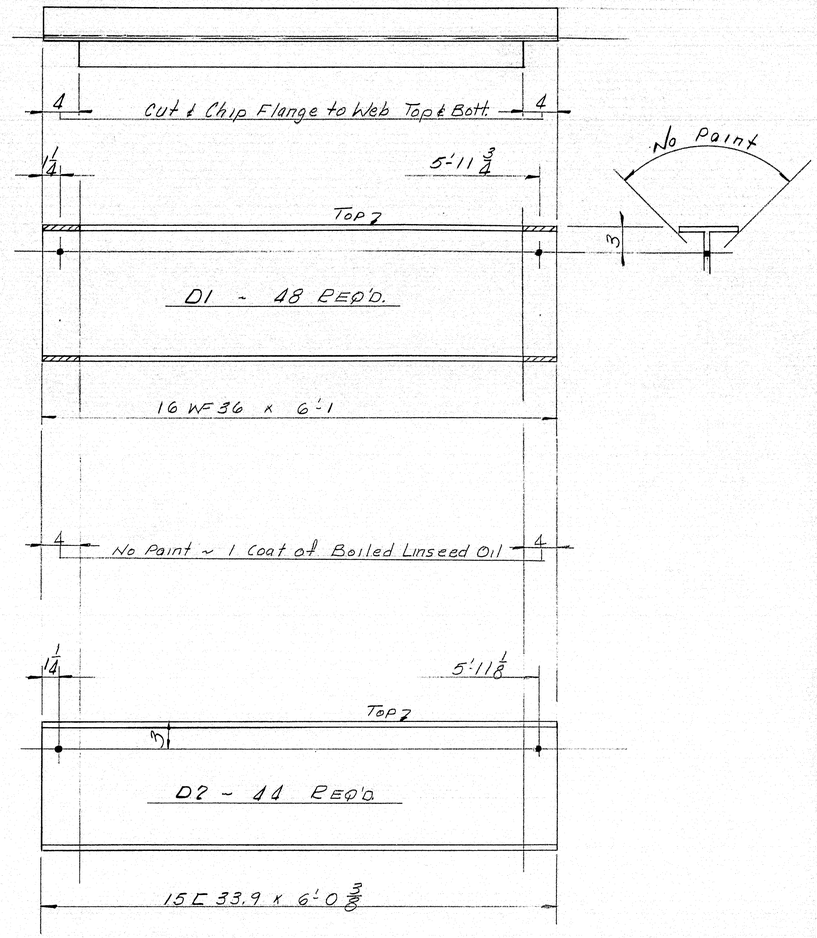
28 REQ'D



STAY BAR SB1

28 REQ'D.

"Field weld to Drain DR and Stringers."



SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT.	WT. OVER	REMARKS
			BILL OF MATERIAL						DWG. NO. 62-225-S2
DR1	28		6" ϕ Std. Pipe	3	6				
	112	b1	1/2 Rein. Bar	0	3				
	56	b2	FB 2 x 3/8	0	5 3/4				*2.25%
SB1	28		FB 3 x 3/8	0	9 1/4				*2.25%
D1	48		16 WF 36	6	1		318*		
D2	44		15 [33.9	6	0 3/8				
Field	184		5/8 ϕ M. Bolts	0	1 3/4	—			Erection Bolts

"Wt. Over" Indicates Allowable Overweight of Pls. & Bars

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Bolted & Welded
HOLES: 13/16 ϕ except as noted.
PAINT: Per State of Maine Spec's. and as noted.

APPROVED 9-20-62

DRAIN & DIAPHRAGM DETAILS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

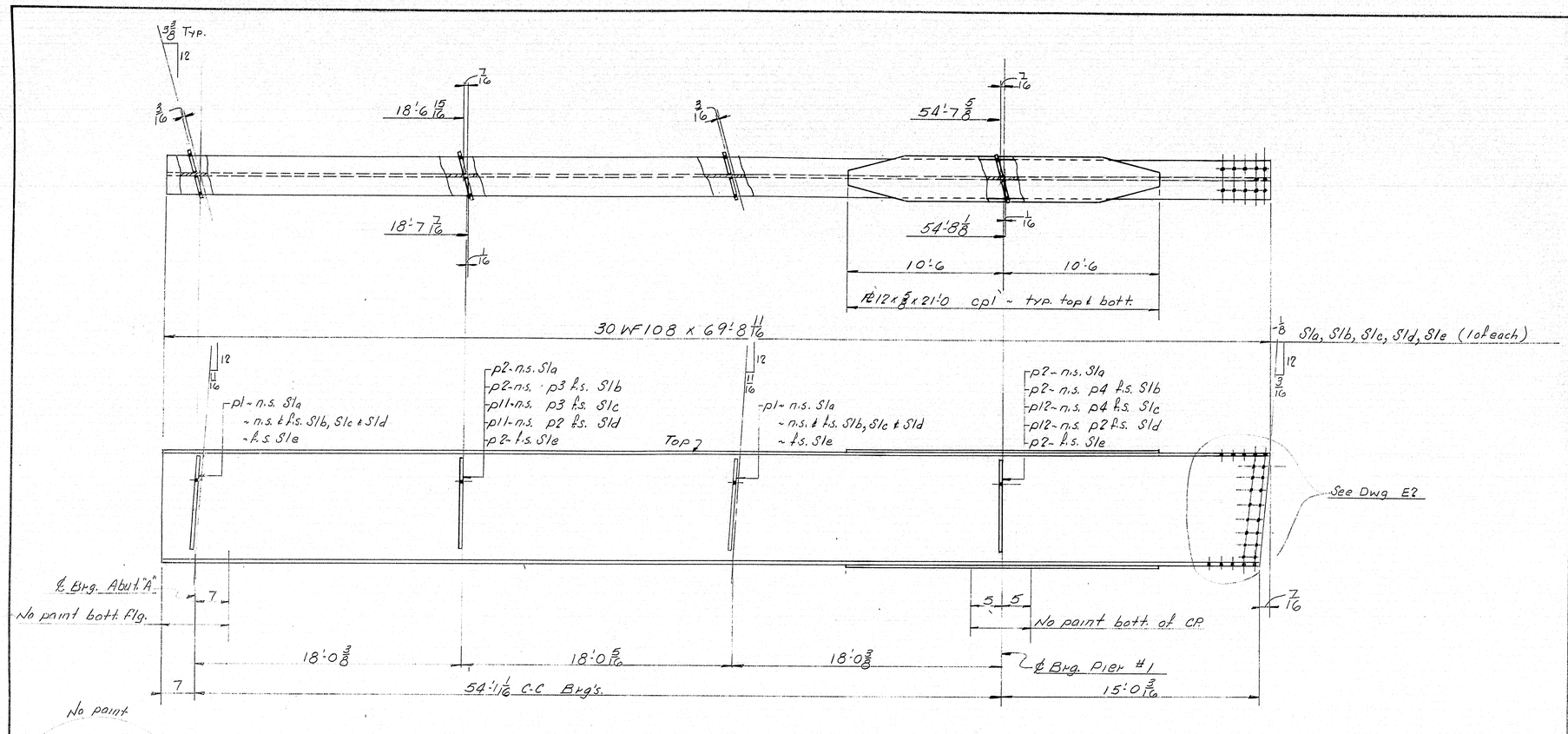
COOK ROAD BRIDGE
OVER INTERSTATE 95
OAKMEL, MAINE

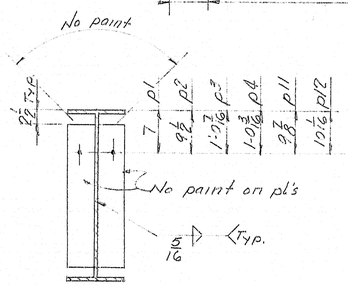
CUSTOMER Callahan Brothers
DESIGNER M.S.H.C. ~ BRIDGE DIV.

ORDER NO. VERBAL DWG. NO. 62-225-S2

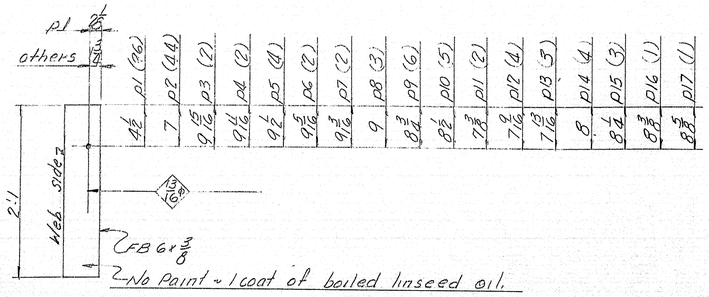
DRAWN	8-20-62	RGM
REVISION		
REVISION		
REVISION		

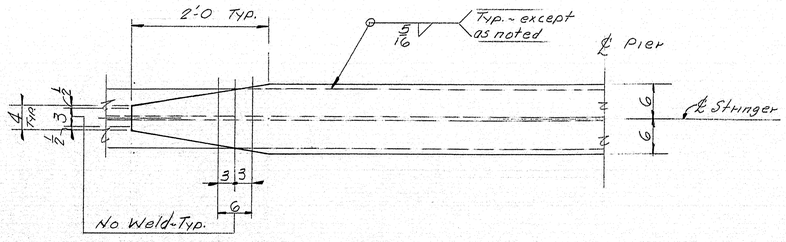
85-125 D





TYP. SECTION





COVER PLATE DETAIL
Symm. about ℄ Piers.

SHIP MARK	NO.	MARK	SHAPE	LENGTH	WT.	WT. OUT.	WT. OVER	REMARKS	Detailed on Dwg.
S1 a/b	2		30 WF 108	69' 8 11/16"		4#		A-36	S3
S1 c/d	2			69' 8 11/16"		4#			S3
S1e	1			69' 8 11/16"		2#			S3
S2 a/b	2			68' 0 3/4"		3#			S4
S2 c/d	2			68' 0 3/4"		3#			S4
S2e	1			68' 0 3/4"		1#			S4
S3 a/b	2			68' 0 7/16"		3#			S5
S3 c/d	2			68' 0 7/16"		3#			S5
S3e	1			68' 0 7/16"		1#		DO	S5
S4 a/b	2		DO	68' 0 1/4"		3#			S6
S4c	1			68' 0 1/4"		1#			S6
S4 d/e	2			68' 0		2#			S7
S5 a/b	2			57' 11 3/4"					S8
S5 c/d	2			57' 11 3/4"					S8
S5e	1			57' 11 3/4"					S8
S6 a/b	2			69' 5 3/16"		3#			S9
S6 c/d	2			69' 5 3/16"		3#			S9
S6e	1		30 WF 108	69' 5 3/16"		1#		A-36	S9
	50	sp1	PL 9 x 1/2	2' 6 1/2"				2.00%	E2
	100	sp2	FB 3 1/2 x 3/4	2' 6 1/2"				1.75%	E2
	50	sp3	PL 12 1/2 x 3/8	2' 2 3/4"				2.25%	E2
	140	p1/2	FB 6 x 1 3/8	2' 1"				2.25%	
	4	p3/4		2' 1"					
	6	p5/6		2' 1"					
	5	p7/8		2' 1"					
	11	p9/10	DO	2' 1"					
	6	p11/12		2' 1"				DO	
	7	p13/14		2' 1"					
	4	p15/16		2' 1"					
	1	p17	FB 6 x 3/8	2' 1"				2.25%	
	20	cp1	PL 12 x 5/8	21' 0"		680#		2.00% A36	
	30	cp2	PL 12 x 1/16	23' 0"		1,122#		2.00% A36	
Field	800		7/8 φ H.S. Bolts	0' 3"	288#				
DO	1000		7/8 φ H.S. Bolts	0' 3 1/2"	360#				
DO	3600		7/8 φ Hard Washers		—				
	1	Shop	5/16 Weld	2900' 0"					.166#/lf

"Wt. Over" Indicates Allowable Overweight of Plates & Bar

Above Steel Not Noted to be A-7 or A-36

SHOP CONNECTIONS: Welded
FIELD CONNECTIONS: Welded & Bolted
HOLES: 15/16 φ except as noted
PAINT: Per State of Maine Specs. and as noted.
1 coat of boiled Linseed oil on unpainted areas.

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.

APPROVED 9-24-62

STRINGER DETAILS SPAN #1

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

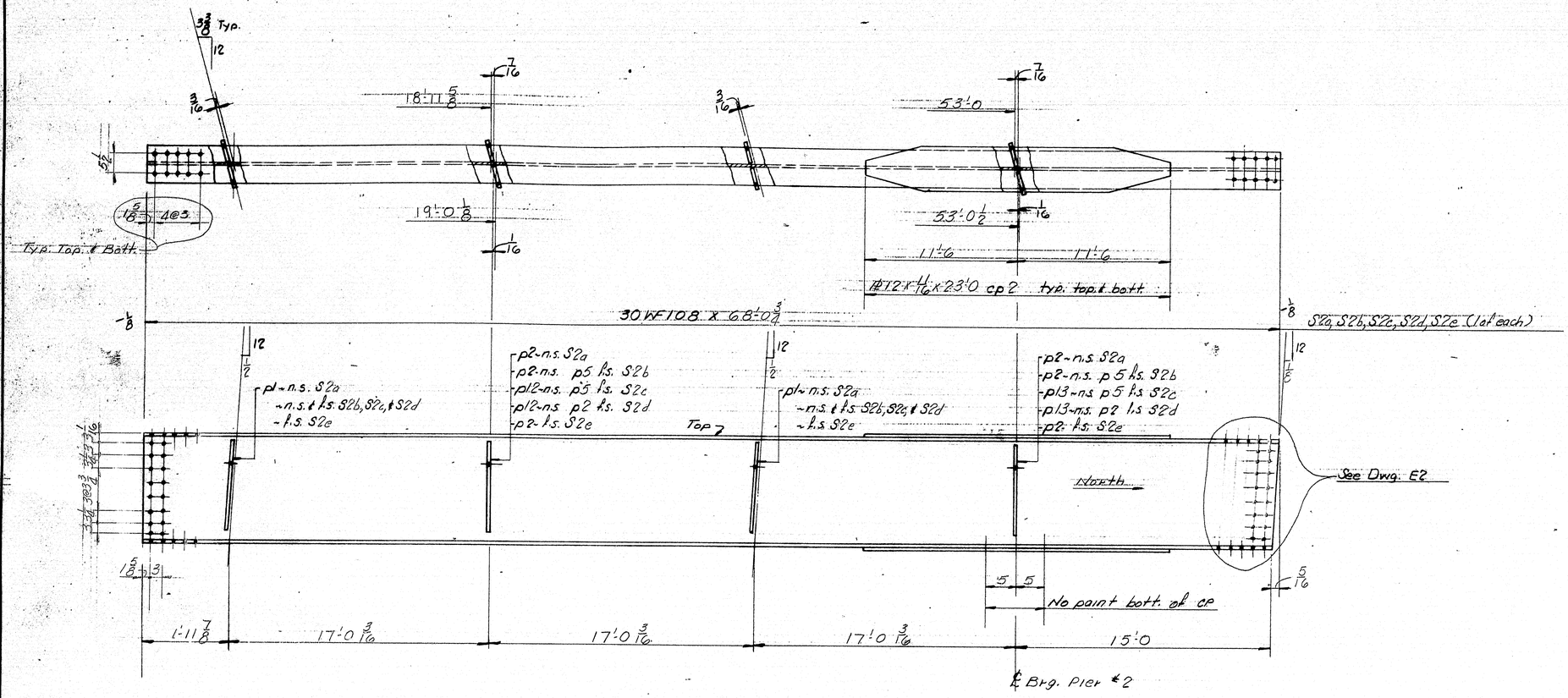
DRAWN	8-21-62	RGM
REVISION		
REVISION		
REVISION		

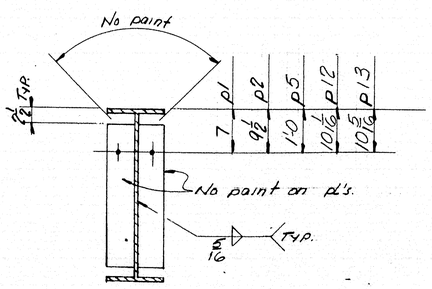
ORDER NO. VERBAL
DWG. NO. 62-225-S3

PRINTED BY SPAULDING-MOSS CO., BOSTON, MASS.

85-125 E

Guy





TYP. SECTION

NOTE: For General Notes, Bill of material & Details see Dwg. 83.

DRAWN	8-21-62	RGM
REVISION		
REVISION		
REVISION		

APPROVED 9-20-62

STRINGER DETAILS SPAN #2

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

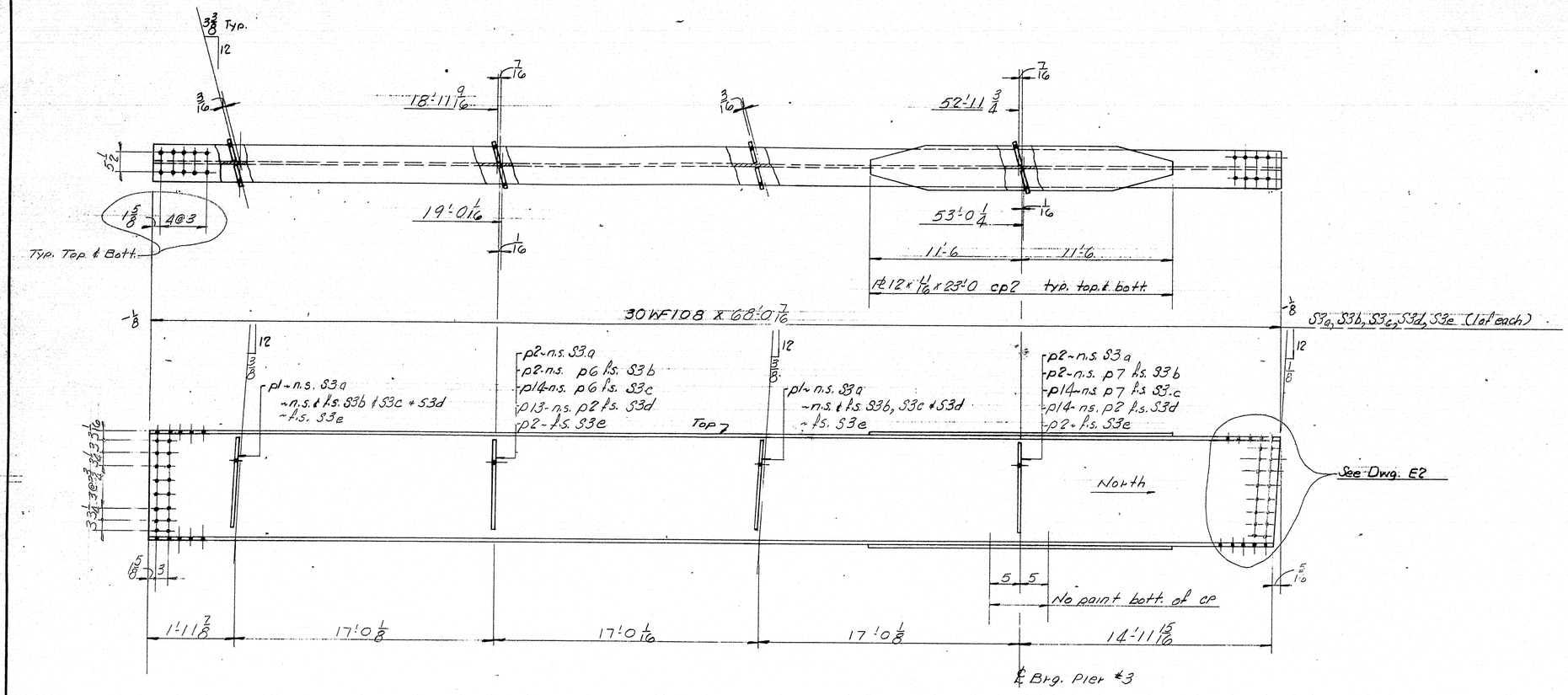
COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL MAINE

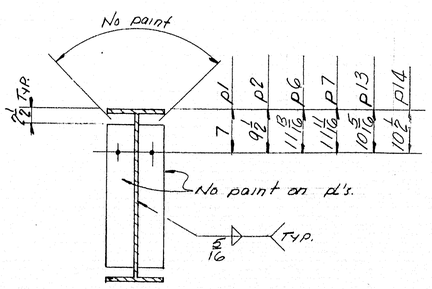
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

ORDER NO VERBAL | DWG. NO 62-225-S

MODERN BLUE PRINT CO.

85-125 F





TYP. SECTION

NOTE: For General Notes, Bill of material & Details see Dwg. 33

DRAWN	3-14-62	RGM
REVISION		
REVISION		
REVISION		

APPROVED 4-20-62

STRINGER DETAILS SPAN #3

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL MAINE

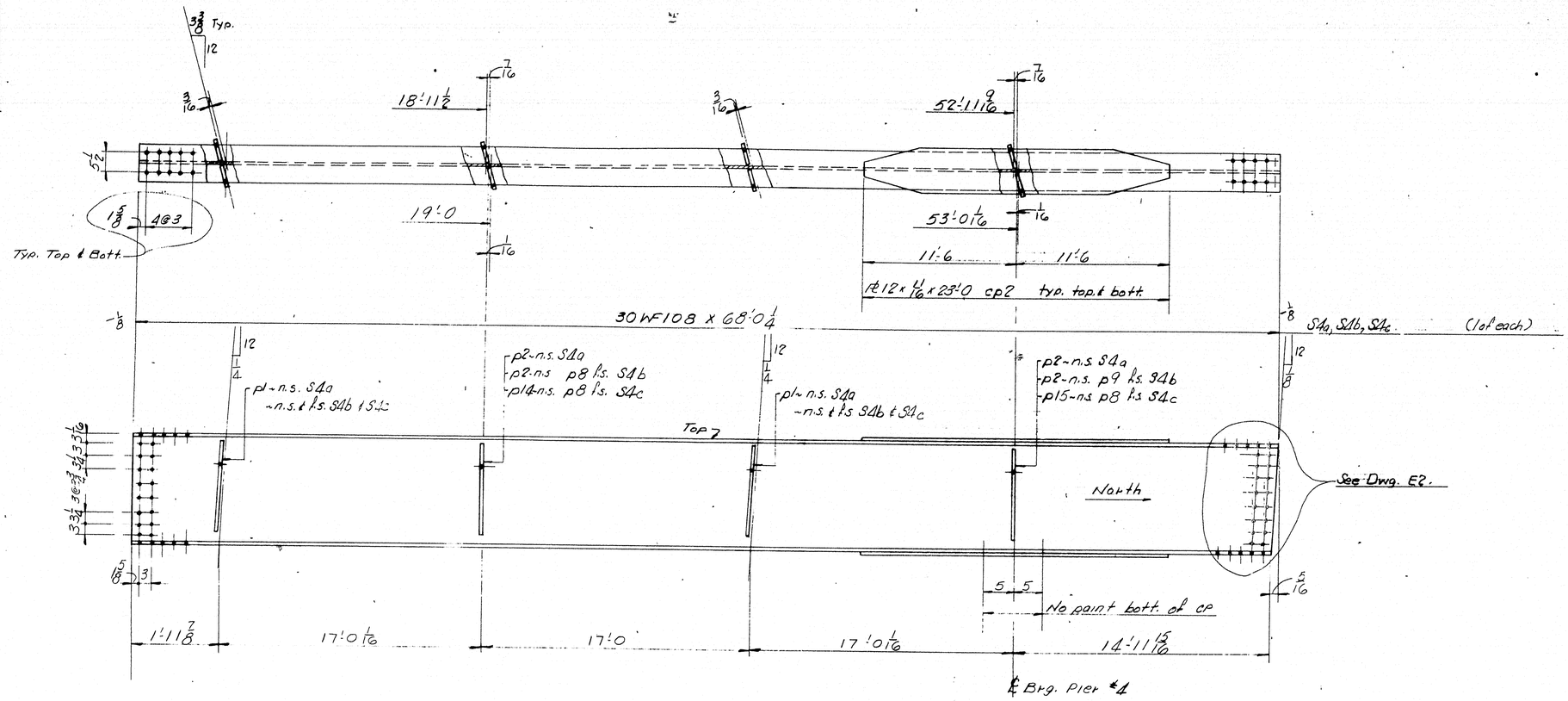
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

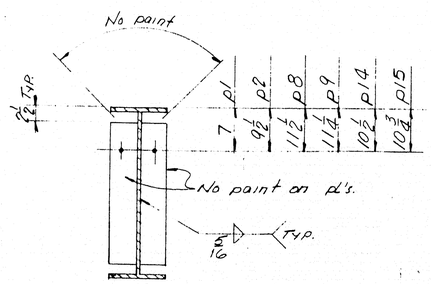
ORDER NO VERBAL DWG. NO 62-225-S5

MODERN BLUE PRINT CO.

85-125-G

√GUY





TYP. SECTION

NOTE: For General Notes, Bill of material & Details see Dwg. S3

DRAWN	8-14-62	PGM
REVISION		
REVISION		
REVISION		

APPROVED 9-20-62

STRINGER DETAILS SPAN #4

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL MAINE

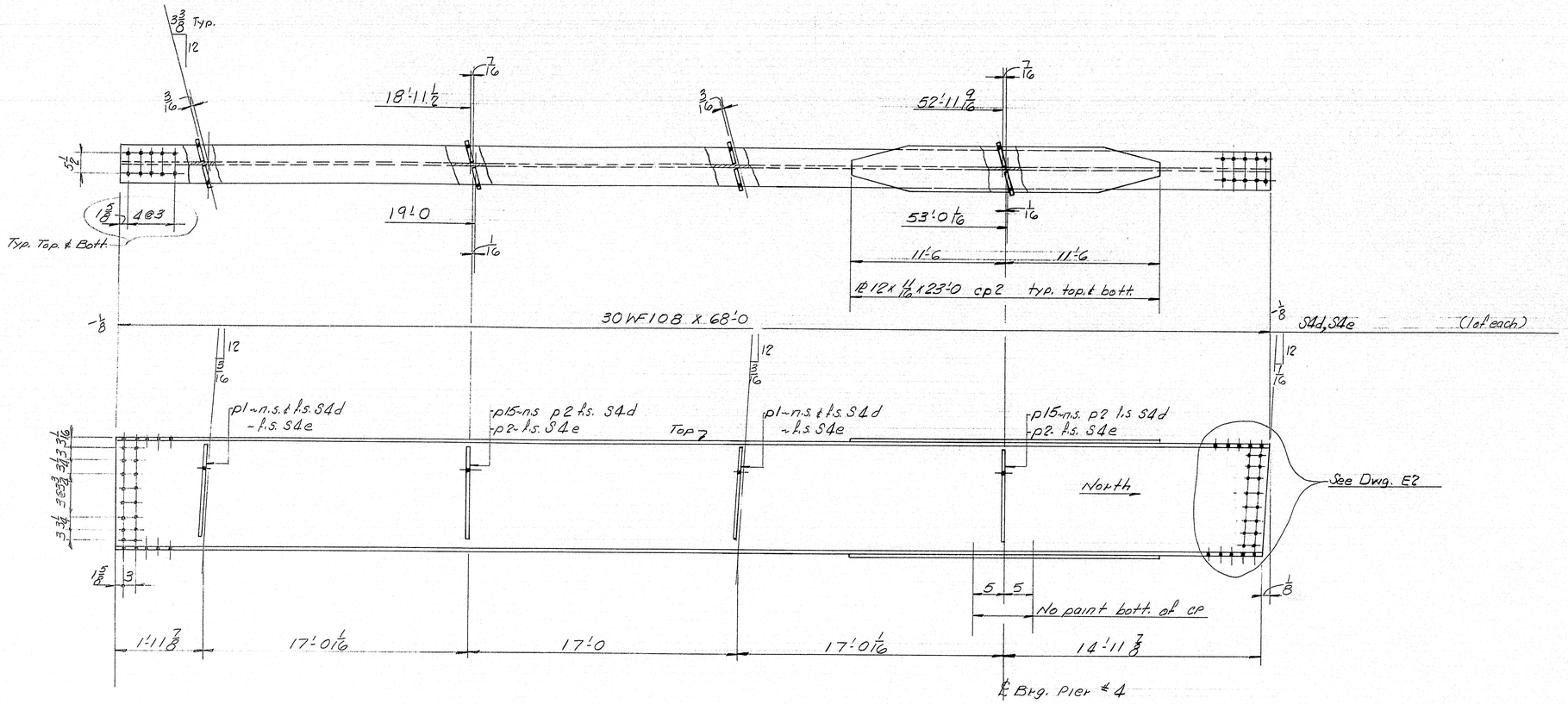
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

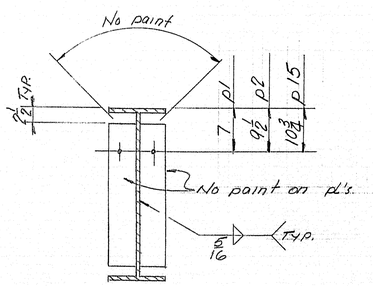
ORDER NO. VERBAL DWG. NO. 62-225-S6

(Guy)

MODERN BLUE PRINT CO.

85-125 H





TYP. SECTION

NOTE: For General Notes, Bill of material & Details see Dwg. S3

DRAWN	8-14-62	VGM
REVISION		
REVISION		
REVISION		

APPROVED 9-20-62

STRINGER DETAILS SPAN #4

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL MAINE

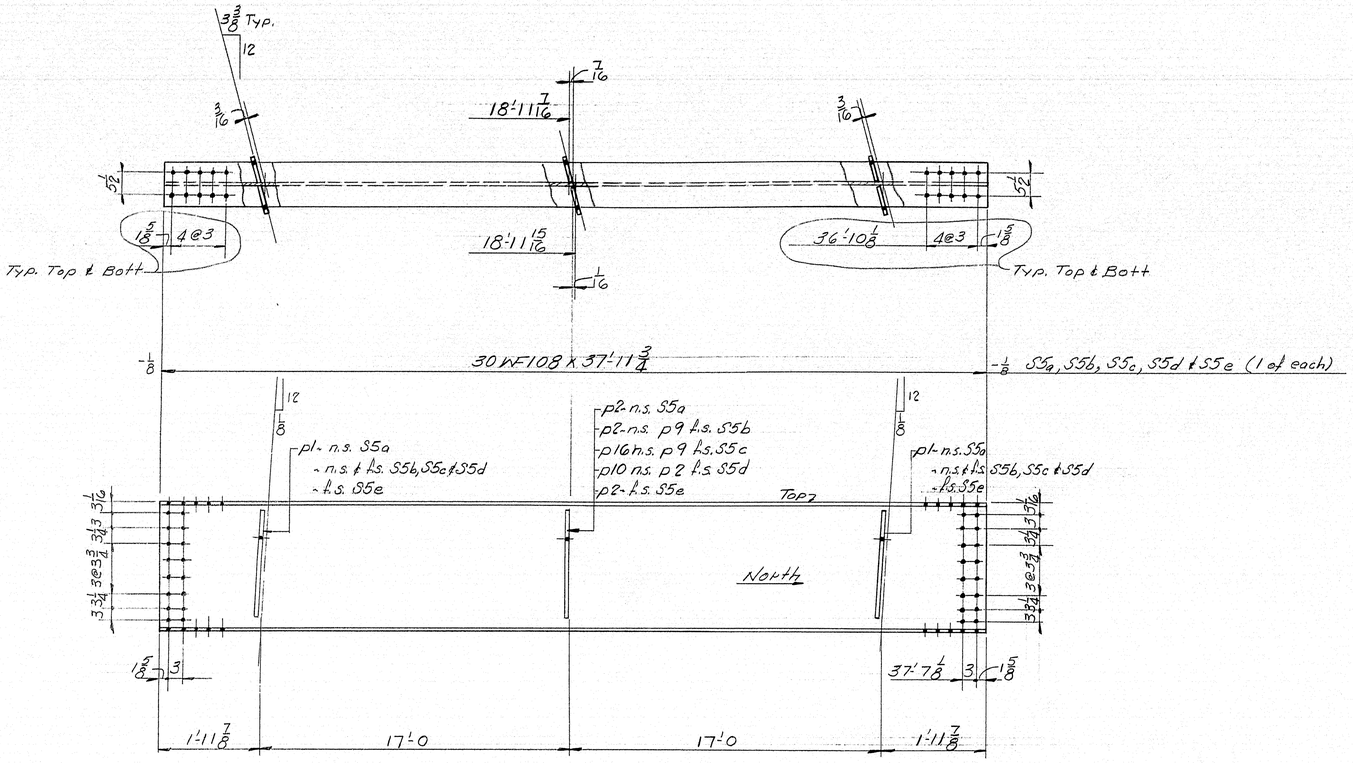
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

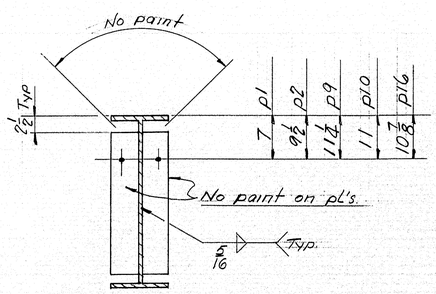
ORDER NO. VERBAL DWG. NO. 62-225-S7

MODERN BLUE PRINT CO.

85-125-1

VGM





TYP SECTION

NOTE: For General Notes, Bill of material & Details see Dwg. S3

DRAWN	8-22-62	RGM
REVISION		
REVISION		
REVISION		

APPROVED 8-20-62

STRINGER DETAILS SPAN #5

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

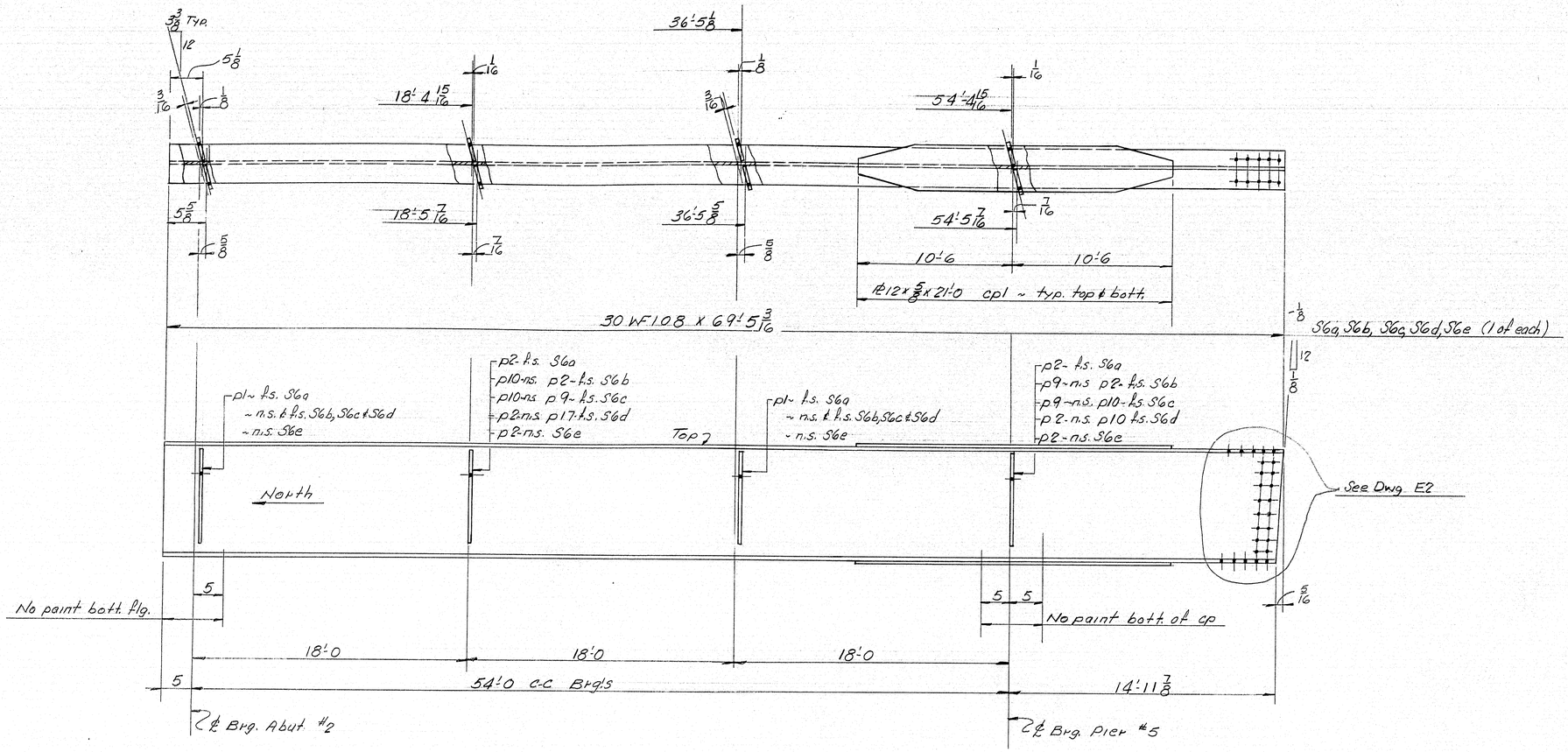
COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

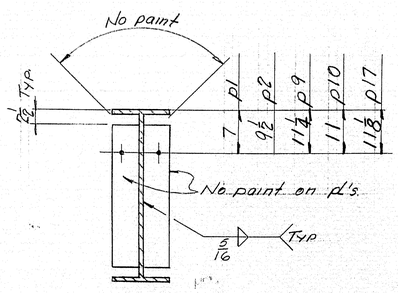
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

ORDER NO. VERBAL | DWG. NO. 62-225-S8

MODERN BLUE PRINT CO.

85-125m 3





TYP. SECTION

NOTE: For General Notes, Bill of material & Details see Dwg. S3

DRAWN	8-22-62	RGM
REVISION		
REVISION		
REVISION		

Approved 9-20-62

STRINGER DETAILS SPAN #6

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

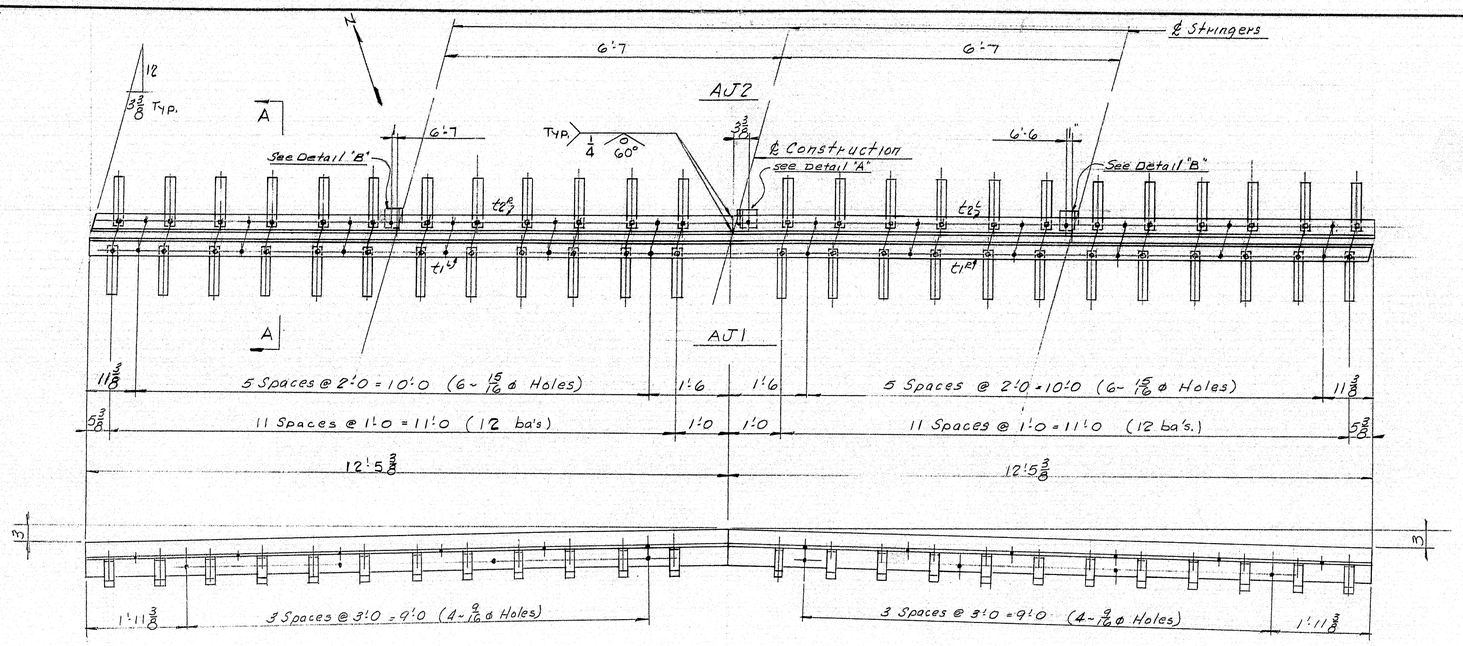
COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

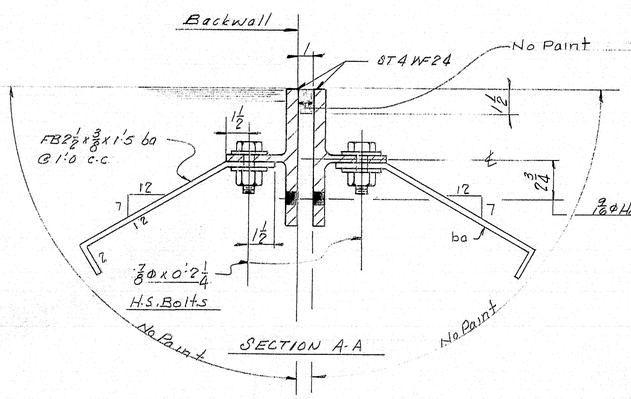
ORDER NO. VERBAL | DWG. NO. 62-225-S9

MODERN BLUE PRINT CO.

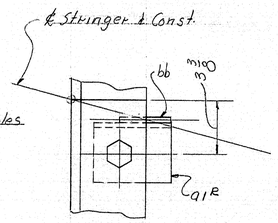
85-125 K



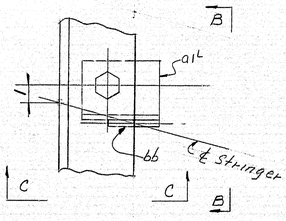
ARMORED JOINT
AJ1 ~ 1 REQ'D.
AJ2 ~ 1 REQ'D.



SECTION A-A



DETAIL "A"



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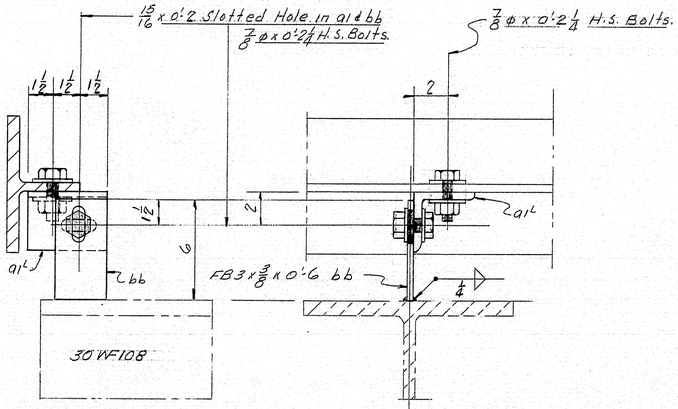


SECTION C-C
Similar @ Detail "A"

SECTION B-B
Similar @ Detail "A"

FIELD NOTE: After armored joint is in its final position, weld bb to a1L with a 1/4 fillet weld as shown.

SHIP MARK	NO.	MARK	SHAPE	LENGTH		WT.	WT. OUT	WT. OVER	REMARKS
			BILL OF MATERIAL						DWG. NO. 62-225-S10
AJ1	1		Shop Assy						
AJ2	1		Shop Assy						
	1	t1L	ST4WF24	12	5 3/8				
	1	t1R	oo	12	5 3/8				
	1	t2L	oo	12	5 3/8				
	1	t2R	ST4WF24	12	5 3/8				
	48	ba	FB2 1/2 x 3/8	1	5				2.25%
	3	bb	FB3 x 3/8	0	6				2.25%
	3	a1	L3 1/2 x 3 1/2 x 3/8	0	4 1/2				
	54	Shop	7/8 ø H.S. Bolts	0	2 1/4	19#			
	108	oo	7/8 Hard Washers			—			
FD1L	1		Shop Assy						
FD1R	1		Shop Assy						
	2	cp1	PL24 1/4 x 1	13	0 1/4		46#		Chkd. PL
	2	a1L	L8 x 6 x 3/4	12	7 11/16		6#		
	2	a1R	L8 x 6 x 3/4	12	7 11/16		6#		
	48	bc	FB2 x 3/8	1	3				2.25%
	24	bd	FB2 x 3/8	0	8				2.25%
AD1	8		FB5 x 3/8	0	6				2.25%
AD2	8		FB4 x 3/8	1	0				2.25%
CD1L	1		Shop Assy						
CD1R	1		Shop Assy						
	20	be	FB1 1/2 x 1/4	0	6				3.00%
	2	bf	PL9 x 3/8	1	8 11/16		5#		Chkd. PL
	2	bg	PL2 x 3/8	1	6 11/16				
	2	bh	FB2 x 1/2	0	8 3/8		-		2.00%
	2	bm	FB7 1/4 x 3/8	0	8 1/4		-		2.25%
	2	bn	FB7 x 3/8	1	7 1/2		3#		2.25%
	2	bp	PL9 3/8 x 3/8	0'	8 3/8		-		2.25%
	2	bk	FB3 x 3/8	1	7		-		2.25%
Field	8		7/8 ø H.S. Bolts	0	2 1/4	3#			
Field	16		7/8 Hard Washers			—			
		Shop	5/16 Weld	100	—				.1666 #/Ft.
		oo	1/4 Weld	39	—				.1065 #/Ft.

Above Bill of Material Covers Dwg. S11 & S12 also.
"Wt. Over" Indicates Allowable Overweight of PL's & Bars.

SHOP CONNECTIONS: Bolted
FIELD CONNECTIONS: Bolted & Welded
HOLES: 15/16 ø except as noted
PAINT: Per State of Maine Spec's. and as noted.

ARMORED JOINT DETAILS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

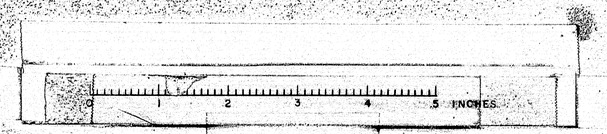
CUSTOMER: CALLAHAN BROTHERS
DESIGNER: M.S.H.C. BRIDGE DIV.

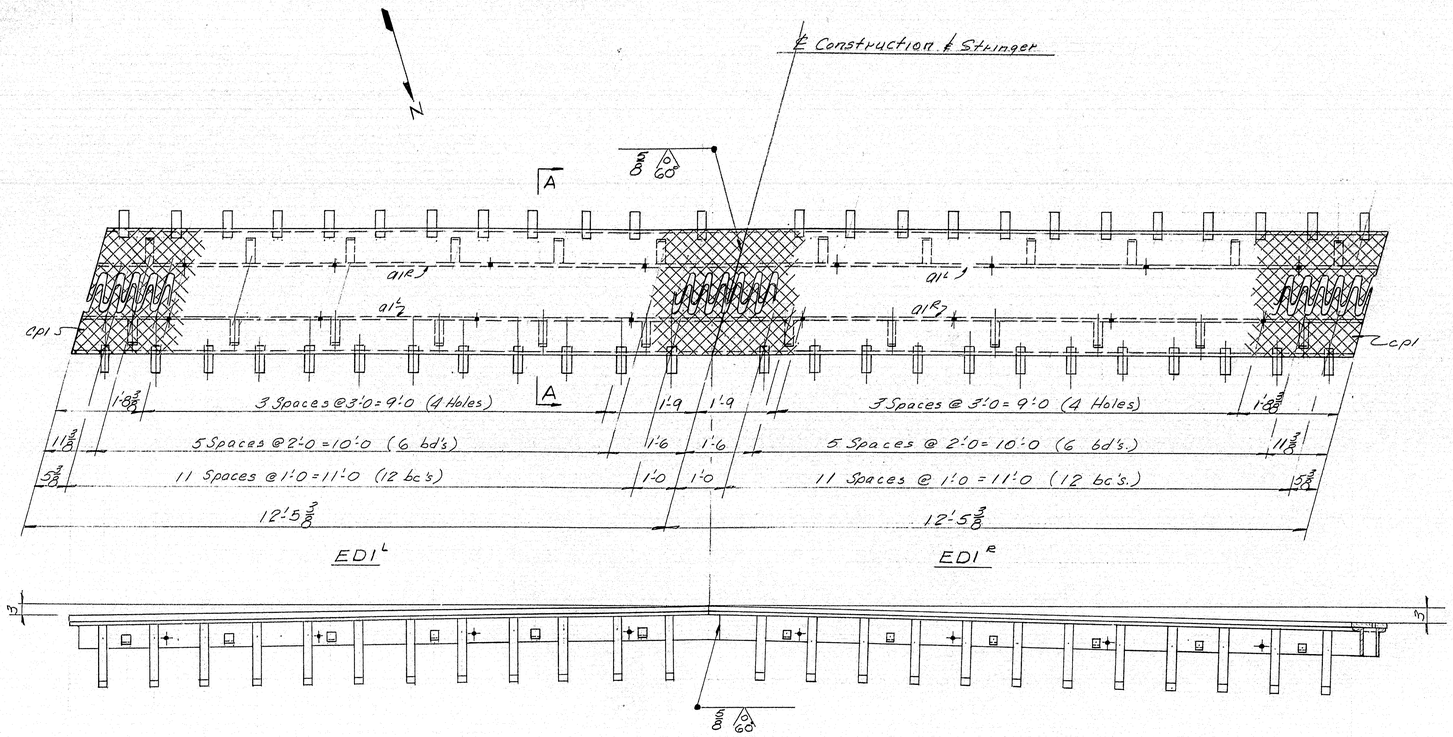
ORDER NO.: VERBAL | DWG. NO. 62-225-S10

DRAWN	9-5-62	RGM
REVISION		
REVISION		
REVISION		

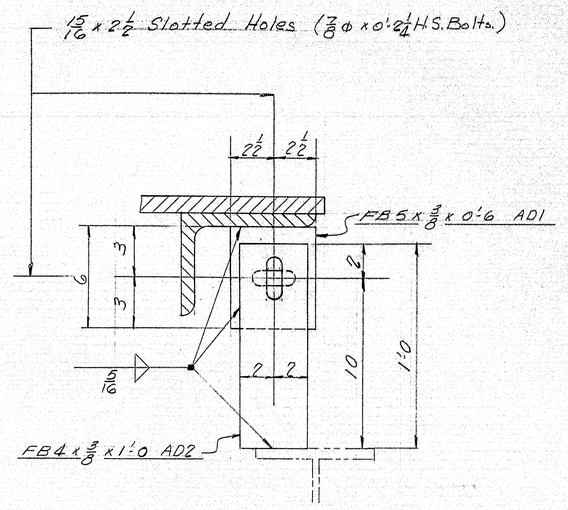
APPROVED 9-20-62

85-125 L



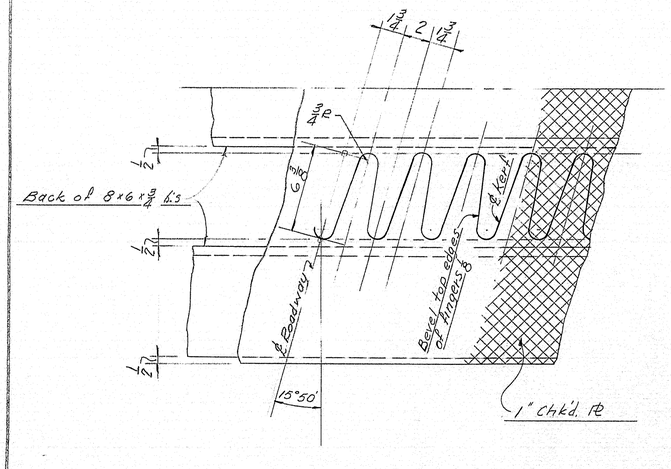


EXPANSION DAM
1 REQ'D.

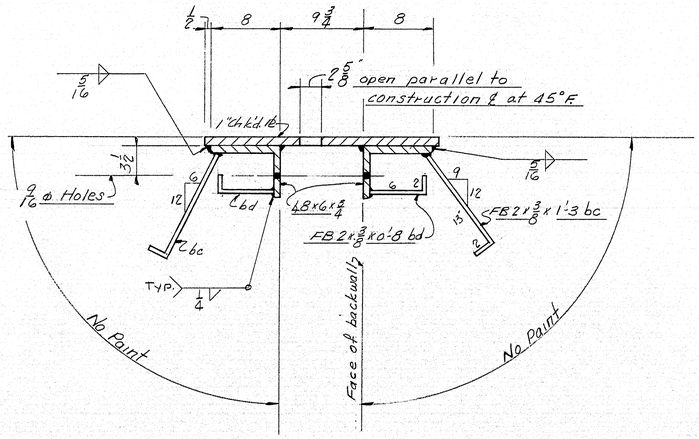


ADJUSTMENT DEVICE (See State Dwg. Sheet 20)
8 REQ'D.

FIELD NOTE: After expansion dam is in its final position, Weld AD1 to AD2.



KERF DETAIL



SECTION A-A

Bill of material on Dwg. 510

PAINT: Per State of Maine Specs. & as noted.

DRAWN	9-6-62	RGM
REVISION		
REVISION		
REVISION		

APPROVED 9-20-62

EXPANSION DAM DETAILS

Bancroft & Martin Rolling Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL, MAINE

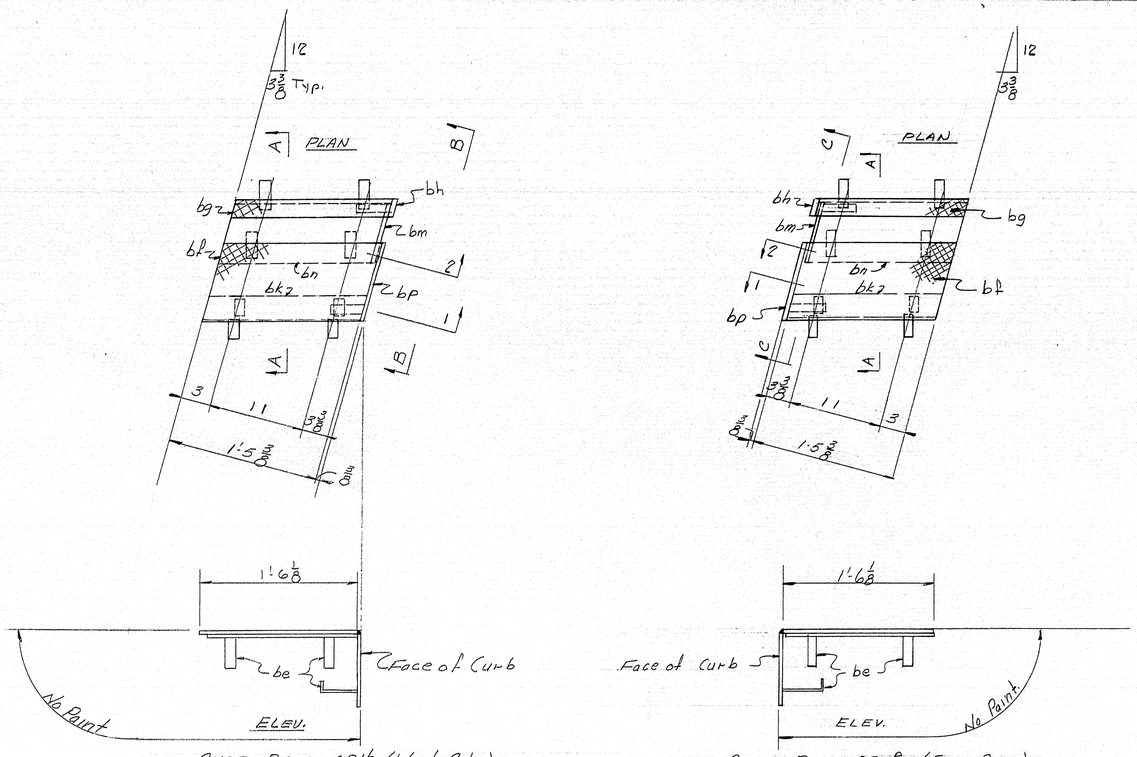
CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.

ORDER NO. VERBAL DWG. NO. 62-225-511

MODERN BLUE PRINT CO.

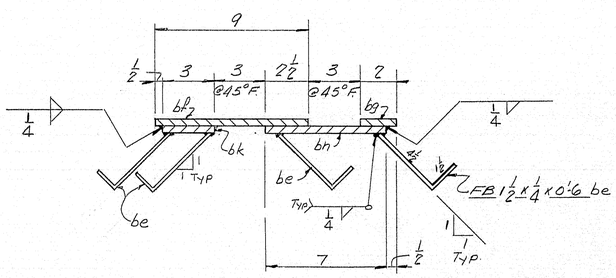
√64

85-125 M

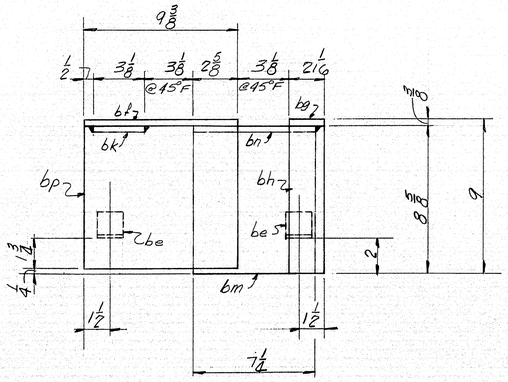


CURB DAM CDI^L (West Side)
ONE REQ'D.

CURB DAM CDI^R (EAST SIDE)
ONE REQ'D.



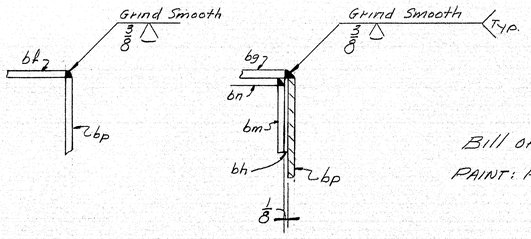
SECTION A-A



VIEW B-B

Horizontal Dim. are Skewed Dim.

VIEW C-C (Similar to B-B)



Weld Detail 1

Weld Detail 2

Bill of material on Dwg. S10

PAINT: Per State of Maine Spec's. & as noted.

APPROVED 9.20.62

CURB DAM DETAILS

Bancroft & Martin Rollings Mills Company
South Portland 7, Maine

COOK ROAD BRIDGE
OVER INTERSTATE 95
CARMEL MAINE

DRAWN	9-6-62	RGM.
REVISION		
REVISION		
REVISION		

CUSTOMER CALLAHAN BROTHERS
DESIGNER M.S.H.C. BRIDGE DIV.
ORDER NO. VERBAL
DWG. NO. 62-225-S12

MODERN BLUE PRINT CO.

85-125-N